



**AMENDMENT REQUEST FORM
FOR A WETLANDS APPLICATION OR PERMIT
Water Division/Land Resources Management
Wetlands Bureau**



RSA/Rule: RSA 482-A:3, XIV(e)/ Env-Wt 311.13; Env-Wt 314.07

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

Any request for an amendment to a wetlands application or permit must be submitted to the Department on this form. An applicant may request an amendment to a pending permit application or an existing permit, provided the proposed change does not constitute a **“significant amendment.”** A **“significant amendment”** means an amendment which changes the proposed or previously approved acreage of the permitted fill or dredge area by 20 percent or more, includes a prime wetland, or elevates the project’s impact classification. This meaning of "significant amendment" shall not apply to an application amendment that is in response to a request from the Department (RSA 482-A:3, XIV(e)).

SECTION 1 - REQUESTED AMENDMENT TYPE AND AMENDMENT CRITERIA

Does the proposed change constitute a “significant amendment” as provided in RSA 482-A:3, XIV(e) and described above? Yes No

If you answered “yes” to the previous question, then you cannot request an amendment using this form and must file a new permit application.

AMENDMENT TO PENDING PERMIT APPLICATION, NHDES FILE NUMBER: 2023-00122 (proceed to Section 2)

AMENDMENT TO EXISTING PERMIT NUMBER: [] (proceed to Section 3)

SECTION 2 - AMENDMENT TO A PENDING PERMIT APPLICATION

Not applicable

To request an amendment to a pending permit application, the applicant must:

- Submit the information required by Env-Wt 311.03, showing the changes prior to the Department’s issuance of a final decision on the application, including but not limited to, a revised set of plans and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, I(b) or (c) as applicable, and
- Provide notice to each person to whom notice of the original application was sent prior to filing the amended application with the Department (Env-Wt 311.13).

By checking this box, you confirm that you have provided all information required pursuant to Env-Wt 311.03 to the Department and provided the required notice(s) as described above.

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

NHDES Wetlands Bureau, PO Box 95, Concord, NH 03303-0095

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SECTION 3 - AMENDMENT TO AN EXISTING PERMIT

Not applicable

To request an amendment to an existing permit, the permittee must:

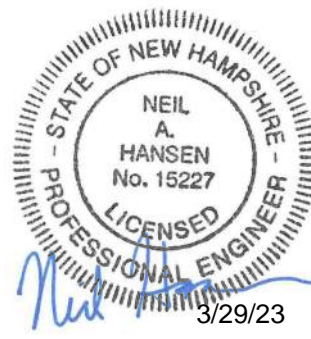
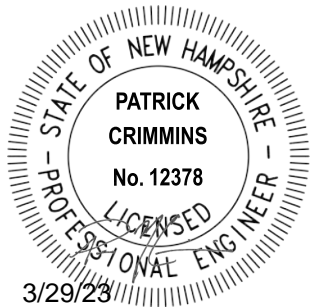
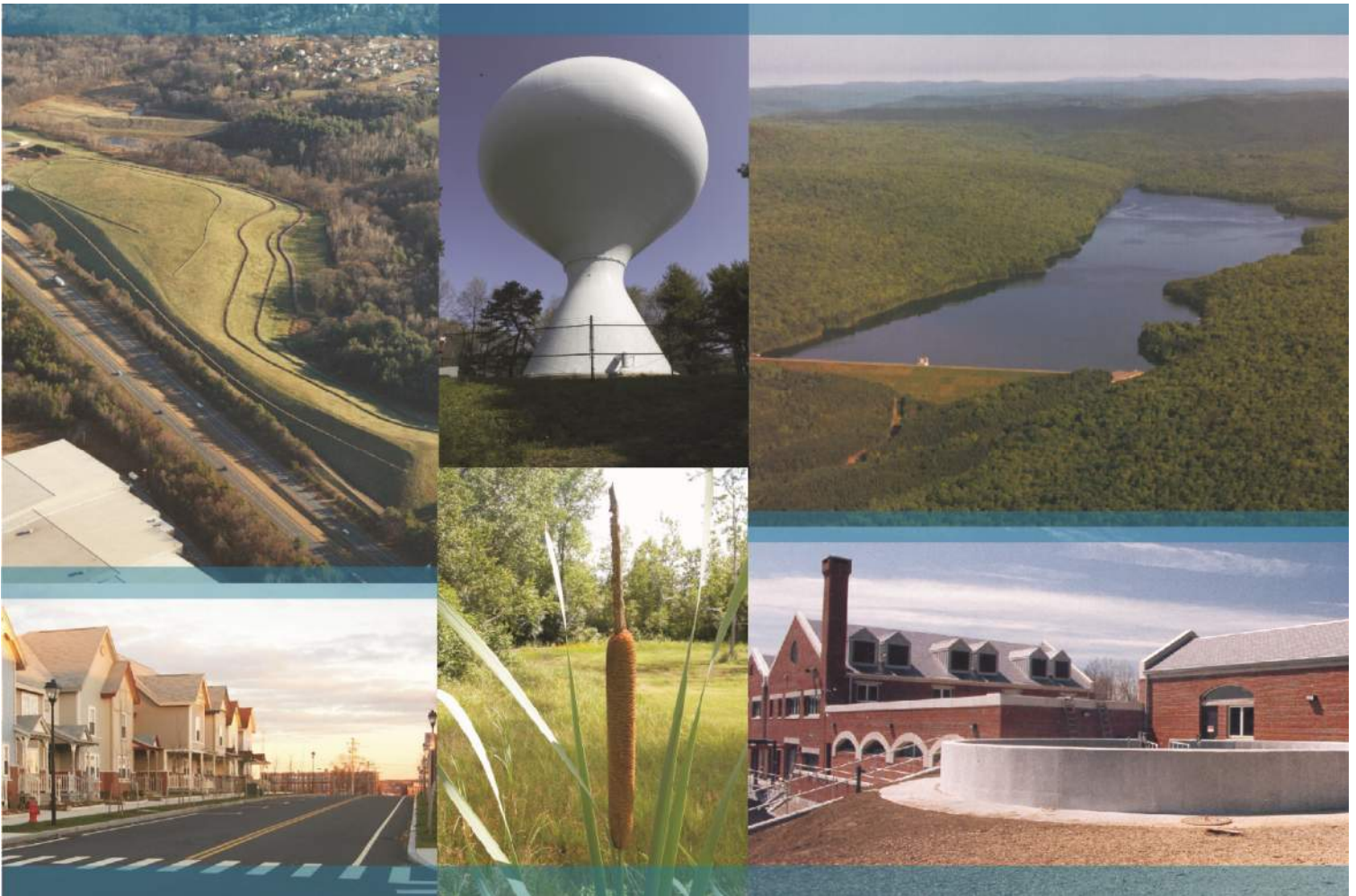
- Submit the information required and filed with the original permit application, including but not limited to a revised set of plans, and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, l(b) or (c) as applicable, and
- Provide notice to all who received notice of the original application prior to filing the amended application with the Department (Env-Wt 314.07).

By checking this box, you confirm that you have provided all necessary information to the Department and provided the required notice(s) as described above.

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Tighe & Bond

Iron Horse Properties, LLC
105 Bartlett Street
Portsmouth, New Hampshire

Standard Dredge and Fill Wetlands Permit Application

Prepared For:
Iron Horse Properties, LLC

January 10, 2023
Last Revised March 29, 2023

C0960-006
March 29, 2023

NHDES Wetlands Bureau
Attn: Kristin Duclos
29 Hazen Dr, PO Box 95
Concord, NH 03302-0095

Re: **Wetland Application – Standard Major Impact
Iron Horse Properties, LLC, Portsmouth, NH
105 Bartlett Street
NHDES File Number 2023-00122**

Dear Ms. Duclos:

Tighe & Bond is pleased to submit this amendment to a pending permit application on behalf of Iron Horse Properties, LLC (owner/applicant) for impacts associated with the redevelopment of a commercial parcel in the previously developed upland buffer at 105 Bartlett Street in Portsmouth.

Changes to the plans from the original submission include adjusting the locations of Headwall #2 and Headwall #3 to the locations they were approved by the local Planning Board. There are no changes in proposed wetland or wetland buffer impacts from the originally submitted plans.

Project Description

The proposed project is located at 105 Bartlett Street and is comprised of a five (5) parcels that are bounded by Bartlett Street to the west and south, North Mill Pond to the north, and the Boston and Maine (B&M) railroad to the east. The existing parcels are listed below.

Tax Map/Lot No.	Area (ac)
157 / 1	1.42
157 / 2	2.34
164 / 1	1.19
164 / 4-2	5.73
R.O.W.	1.60

Lot 157-1 is currently occupied by a 20,000-square-foot, 2-story, concrete block/steel frame building and associated parking lot. Lot 157-2 contains another 20,000-square foot wood frame structure with a variety of outbuildings, such as sheds, to support an impervious lumber yard. Lot 164-1 also contains an approximately 20,000-square foot wood frame structure that hosts a variety of smaller businesses and associated parking. Lot 164-4-2 is currently occupied by a former B&M railroad turntable, a dilapidated former brick roundhouse, and an approximately 3,600-square-foot machine shop. Several shipping containers are also present throughout the lot. The northern end of the lot is comprised



mostly of abandoned rail lines that run down the shoreline between North Mill Pond and the active railroad past the northern limits of the project site

The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2, These buildings will be replaced with three (3) multi-family apartment buildings depicted as Building A, B and C on the Site Plan. The three (3) buildings will include a total of 152 dwelling units with parking below Buildings A and B. The project includes associated site improvements that consist of the private road cul-de-sac adjacent to Building C, surface parking, pedestrian access, utilities, dark-sky friendly lighting, landscaping and stormwater management systems that provide treatment for runoff.

Jurisdictional Wetlands

On October 29 and December 2, 2019, Tighe & Bond reviewed and assessed 2,000+/- linear feet of tidal wetlands and buffers along the North Mill Pond. The review was limited to the vicinity of a proposed multi-family development, extending from Bartlett Street to an area opposite Cornwall Street, which runs roughly perpendicular to the parcel.

The wetland delineation review was based on criteria specified in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). The Highest Observable Tide Line was reviewed based on the definition found in NH Department of Environmental Services Wetland Rules, Env-Wt 101.49/Env-Wt 602.23. Wetlands were classified based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

The Highest Observable Tide Line (HOTL) had been previously delineated by another consulting firm in 2017. This line was reviewed by exporting the 2017 surveyed line into ArcGIS to overlay on an aerial photographic base map. This base map was then uploaded to an iPad and paired with a Trimble R1 submeter GPS for in-field verification. Using the iPad and GPS as a guide, the line was then evaluated in the field. The HOTL was deemed accurate and the previous 2017 delineation was accepted by Tighe & Bond. A previously unidentified freshwater wetland was also found within a six-foot +/- deep abandoned railroad turntable. Tighe & Bond delineated this area with sequentially numbered flagging and located the wetland boundary using the GPS technology described above.

Functions and values were assessed in the vicinity of the proposed project. Assessment methodologies were adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997) and *The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach*, NAEPP-360-1-30a, US Army Corps of Engineers, New England Division, September 1999.

Tidal Buffer

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities. The fill includes coal, coal ash, and possible slag.

Waiver Request

The attached permit application includes a request for a waiver from Env-Wt 603.08(a) and (b), which require location and documentation of three tidal events by a licensed land surveyor. We have proposed, instead, to use the NOAA predicted tidal datums from nearby Seavey Island as conservative estimates of tidal heights. These heights are conservative because tides flow through two moderate restrictions between Seavey Island and the project site, which should dampen tidal extremes. From this analysis, the proposed project was determined to have a medium risk tolerance and is not at risk of flooding under a predicted sea level rise (SLR) of 5.0 feet by 2122.

Summary of Agency Coordination

- A wetland preapplication teleconference was held with NHDES staff on April 15, 2020 and February 23, 2021.
- A mitigation preapplication teleconference was held with NHDES staff on March 18, 2021.
- A mitigation preapplication teleconference was held with NHDES staff on March 22, 2022.
- A DataCheck request was completed through the NH Natural Heritage Bureau February 22, 2021 & April 11, 2022 with a finding of no recorded occurrences for sensitive species near the project area.
- A NHDES Alteration of Terrain Permit was issued for this project on September 29, 2021. Permit: AoT-2026.
- This project has received comments from Portsmouth Conservation Commission. These comments were incorporated into plans that have received local approvals, including a Wetland Conditional Use Permit, Shared Parking Conditional Use Permit, Lot line Relocation, and Site Plan Review approved April 20, 2021.

Appendices

The following supporting documents are included as part of this submittal:

- Appendix A – Forms
 - Standard Major Impact Application
 - Owners List
 - Attachment A
 - Avoidance & Minimization Checklist
 - Copy of the Fee Payment
 - Wetlands Rule Waiver Request
 - Coastal Resource Worksheet and Attachments
 - Project Narrative with Construction Sequencing and Project Monitoring
 - Sea Level Rise Table
 - NOAA Tidal Datums
- Appendix B – Federal and State Coordination
 - US Army Corps of Engineers Appendix B Checklist

- IPAC Review Species List
- Section 106 NH Department of Historical Resources Response Letter
- Appendix C – Maps & Other Attachments
 - Tax Map
 - Abutters List
 - Abutters Notification
 - Abutters Certified Mailing List
 - Photograph Log
 - Site Location Map
 - Recorded Deed
 - Owner’s Letter of Authorization
 - Agent Letter of Authorization
 - Natural Heritage Bureau Results Letter
 - NHFG Correspondence Email
- Appendix D – Functional Assessment
- Appendix E – Figures
 - Figure 1 – Predicted Salt Marsh Migration
 - Figure 2 – Eelgrass Beds and Documented Shellfish Sites
 - Figure 3 – Projected Sea Level Rise
 - Figure 4 – Elevation View
 - Figure 5 - Priority Resource Map
 - Figure 6 – Essential Fish Habitat Map Results
 - Figure 7 – FEMA Flood Map
- Appendix F – Compensatory Mitigation Proposal & In-Lieu Fee
- Appendix G – Engineering Plans

Should you have any questions or require any additional information, please contact me at 603-294-9213 or NAHansen@TigheBond.com.

Sincerely,

TIGHE & BOND, INC.



Neil A. Hansen, PE
Project Manager



Patrick M. Crimmins, PE
Vice President

Enclosures

Copy: Portsmouth City Clerk
Portsmouth Conservation Commission
Portsmouth Planning Board
Portsmouth City Council
Iron Horse Properties, LLC, c/o Rob Simmons



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



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

APPLICANT'S NAME: Iron Horse Properties, LLC, Rob Simmons **TOWN NAME:** Portsmouth, NH

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

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))	
Please use the Wetland Permit Planning Tool (WPPT) , the Natural Heritage Bureau (NHB) DataCheck Tool , the Aquatic Restoration Mapper , or other sources to assist in identifying key features such as: priority resource areas (PRAs) , protected species or habitats , coastal areas, designated rivers, or designated prime wetlands.	
Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> • Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04. 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • Protected species or habitat? <ul style="list-style-type: none"> ○ If yes, species or habitat name(s): <input style="width: 100px;" type="text"/> ○ NHB Project ID #: <input style="width: 100px;" type="text" value="NHB22-1202"/> 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Bog?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
• Designated prime wetland or duly-established 100-foot buffer?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • Name of Local River Management Advisory Committee (LAC): <input style="width: 100px;" type="text"/> • A copy of the application was sent to the LAC on Month: <input style="width: 50px;" type="text"/> Day: <input style="width: 50px;" type="text"/> Year: <input style="width: 50px;" type="text"/> 	

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For dredging projects, is the subject property contaminated? • If yes, list contaminant: 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	<input type="checkbox"/> Yes <input type="checkbox"/> No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): 	
SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i)) Provide a brief description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.	
The proposed project consists of constructing two (2) multi-family apartment buildings with basement level parking, one (1) mixed used building with first floor office and amenity space, and upper story apartments. The project will include a total of 152 dwelling units. The project will include associated site improvements that consist of a private road with cul-de-sac, parking, utilities, stormwater management, landscaping and lighting. The project will also include community space along the North Mill Pond. The land from North Mill Pond's mean high water (MHW) line to the 50ft wetland buffer will be designated as community space for the City's North Mill Pond Trail project which will be permitted separately as part of a future projet. The proposed wetland impacts from this project will be permanent impacts.	
SECTION 3 - PROJECT LOCATION Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.	
ADDRESS: 105 Bartlett Street	
TOWN/CITY: Portsmouth	
TAX MAP/BLOCK/LOT/UNIT: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: North Mill Pond <input type="checkbox"/> N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):	
	43.07201° North 70.75781° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))		
If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: Iron Horse Properties, LLC, Rob Simmons		
MAILING ADDRESS: 6 Liberty Square, PMB 90767		
TOWN/CITY: Boston	STATE: MA	ZIP CODE: 02109
EMAIL ADDRESS: robs@cathartes.com		
FAX: [REDACTED]	PHONE: 617-893-9354	
ELECTRONIC COMMUNICATION: By initialing here: JJ, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))		
<input type="checkbox"/> N/A		
LAST NAME, FIRST NAME, M.I.: Hansen, Neil A		
COMPANY NAME: Tighe & Bond, Inc.		
MAILING ADDRESS: 177 Corporate Drive		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: NAHansen@tighebond.com		
FAX: [REDACTED]	PHONE: 603-433-8818	
ELECTRONIC COMMUNICATION: By initialing here NAH, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))		
If the owner is a trust or a company, then complete with the trust or company information.		
<input type="checkbox"/> Same as applicant		
NAME: SEE LIST OF OWNERS INCLUDED		
MAILING ADDRESS: [REDACTED]		
TOWN/CITY: [REDACTED]	STATE: [REDACTED]	ZIP CODE: [REDACTED]
EMAIL ADDRESS: [REDACTED]		
FAX: [REDACTED]	PHONE: [REDACTED]	
ELECTRONIC COMMUNICATION: By initialing here NAH, I hereby authorize NHDES to communicate all matters relative to this application electronically.		

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

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

Env-Wt 400: The jurisdictional wetland and 100-foot tidal buffer were reviewed and accepted by Tighe & Bond on October 29 and December 2, 2019. The proposed project preserves the existing wetland resource while reducing permanent buffer impacts.

Env-Wt 500: Not applicable, does not apply to coastal project, per Env-Wt 509.02(b).

Env-Wt 600: This project is classified as a Major Impact project because it will result in greater than 10,000 sf of temporary and permanent impacts within the tidal buffer zone. The existing 100-foot tidal buffer is highly developed and consists primarily of commercial buildings, paved parking lots, and abandoned buildings. There are patches of vegetation and trees near the central portion of the project's wetland delineation. The vegetated permeable surfaces within the buffer does little to enhance and protect the downgradient tidal wetland. The proposed project will involve regrading of the wooded vegetation and include the addition of native planting and grasses to enhance the buffer area from the existing condition. The project will include permanent stormwater treatment BMPs that will protect the downgradient waters. A Coastal Resource worksheet is attached. Wetlands on this site are classified as Estuarine, Unconsolidated Shore, Mud, and regularly flooded (E2US3N). Wetland functions in this portion of North Mill Pond include ecological integrity, W F & S habitat, recreational and commercial potential, aesthetic quality, educational potential, and noteworthnes, which will be enhanced with the proposed project.

Env-Wt 700: Not applicable, no prime wetland impacts.

Env-Wt 900: Not applicable, no stream crossings proposed.

SECTION 8 - AVOIDANCE AND MINIMIZATION

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

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

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

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

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

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

N/A - Mitigation is not required

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

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

N/A – Compensatory mitigation is not required

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

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

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

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

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

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

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland	1,528		<input type="checkbox"/>			<input type="checkbox"/>
	Scrub-shrub Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Emergent Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Wet Meadow			<input type="checkbox"/>			<input type="checkbox"/>
	Vernal Pool			<input type="checkbox"/>			<input type="checkbox"/>
	Designated Prime Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer			<input type="checkbox"/>			<input type="checkbox"/>
Surface Water	Intermittent / Ephemeral Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Perennial Stream or River			<input type="checkbox"/>			<input type="checkbox"/>
	Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - River			<input type="checkbox"/>			<input type="checkbox"/>
Banks	Bank - Intermittent Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Bank - Perennial Stream / River			<input type="checkbox"/>			<input type="checkbox"/>
	Bank / Shoreline - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
Tidal	Tidal Waters			<input type="checkbox"/>			<input type="checkbox"/>
	Tidal Marsh	209		<input type="checkbox"/>			<input type="checkbox"/>
	Sand Dune			<input type="checkbox"/>			<input type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input type="checkbox"/>			<input type="checkbox"/>
	Previously-developed TBZ	34,639		<input type="checkbox"/>	10,182		<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
TOTAL		36,376			10,182		

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

MINIMUM IMPACT FEE: Flat fee of \$400.

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

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

Permanent and temporary (non-docking):	46,558 SF	× \$0.40 =	\$ 18,623.2
Seasonal docking structure:	SF	× \$2.00 =	\$
Permanent docking structure:	SF	× \$4.00 =	\$
Projects proposing shoreline structures (including docks) add \$400 =			\$

	\$
Total =	18,623.
	2

The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 18,623.
2

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)
Indicate the project classification.

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

Initial each box below to certify:


Initials: <input type="text"/> <input type="text"/> NAH	To the best of the signer's knowledge and belief, all required notifications have been provided.
--	--

Initials: <input type="text"/> <input type="text"/> NAH	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
--	--

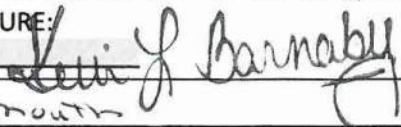
Initials: <input type="text"/> <input type="text"/> NAH	The signer understands that: <ul style="list-style-type: none"> • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: <ol style="list-style-type: none"> 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
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Initials: <input type="text"/> <input type="text"/> NAH	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.
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SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER): <u>See Owner's/Agent Letter of Authorization</u>	PRINT NAME LEGIBLY: <input type="text"/>	DATE: <input type="text"/>
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER): <input type="text"/>	PRINT NAME LEGIBLY: <input type="text"/>	DATE: <input type="text"/>
SIGNATURE (AGENT, IF APPLICABLE): 	PRINT NAME LEGIBLY: Neil Hansen	DATE: 3/29/23

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

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE: 	PRINT NAME LEGIBLY: Kelli L. Barnaby
TOWN/CITY: Portsmouth	DATE: March 29, 2023

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to "Treasurer – State of NH".

Owners List
Proposed Multi-Family Development
105 Bartlett Street
Portsmouth, New Hampshire

<u>OWNERS</u>	<u>MAP #</u>	<u>LOT #</u>
Clipper Traders LLC 105 Bartlett Street Portsmouth, NH 03801	157	1
Portsmouth Hardware & Lumber LLC 105 Bartlett Street Portsmouth, NH 03801	157 164	2 1
Iron Horse Properties LLC 105 Bartlett Street Portsmouth, NH 03801	164	4-2



STANDARD DREDGE AND FILL
WETLANDS PERMIT APPLICATION
ATTACHMENT A: MINOR AND MAJOR PROJECTS



Water Division/Land Resources Management
Wetlands Bureau

[Check the Status of your Application](#)

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT'S NAME: Iron Horse Properties, LLC, c/o Rob Simmons **TOWN NAME:** Portsmouth

Attachment A is required for *all minor and major projects*, and must be completed *in addition* to the [Avoidance and Minimization Narrative](#) or [Checklist](#) that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the [Wetlands Best Management Practice Techniques For Avoidance and Minimization](#).

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

ALTHOUGH THE PROPOSED PROJECT IMPACTS JURISDICTIONAL WETLANDS, THE PROPOSED IMPACTS ARE LIMITED TO SMALL AREAS IN THE TIDAL WETLAND FOR DISCHARGE OF TREATED STORMWATER. THE PROJECT PROPOSES ENHANCED STORMWATER TREATMENT, DECREASED IMPERVIOUS SURFACES, AND INCREASED RECREATION USE OF THE BUFFER AREA IN COORDINATION WITH THE CITY. IMPACTS FROM THE PROJECT HAVE BEEN AVOIDED AND MINIMIZED BY PULLING THE NEW BUILDINGS AND PARKING LOT FURTHER BACK FROM THE COASTAL WETLAND AND UTILIZING UNDERGROUND PARKING, THUS FREEING UP SIGNIFICANT AREAS OF IMPERVIOUS SURFACES TO BE RESTORED (SEE APPENDIX F FOR THE MITIGATION PROPOSAL AND WETLAND IMPACT PLAN). ALL WORK IS BEING DONE WITHIN THE PREVIOUSLY DEVELOPED TIDAL BUFFER.

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SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

No marshes are located within the project limits.

SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed project does not change existing hydrologic connections.

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

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

Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The proposed project results in 209 SF of permanent impacts to the tidal wetland to construct two of the three stormwater outfall plunge pools. The proposed project also results in 1,528 SF of permanent impacts to a small forested wetland located inside the abandoned railroad turntable.

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

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

The proposed project increases public recreation and does not affect commerce or navigation.

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

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

The proposed project has been designed to maintain the existing flood storage capacity within the floodplain.

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

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

The project does not impact these systems.

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

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

The proposed project enhances stormwater runoff treatment from the existing condition which will improve the surrounding water conditions. Furthermore, this is an urban area adjacent to brackish waters with no potential to supply public drinking water.

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

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

N/A - no stream channels.

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

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

N/A - no shoreline structures proposed.

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

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

N/A - no shoreline structures proposed.

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

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

N/A - no shoreline structures proposed.

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

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

N/A - no shoreline structures proposed.

SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

N/A - no shoreline structures proposed.

SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

N/A - no shoreline structures proposed.

PART II: FUNCTIONAL ASSESSMENT	
REQUIREMENTS	Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED:	The assessment was based on the Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes (Maine Audubon, 1997); Method for Inventorying and Evaluating Wetlands In New Hampshire, University of New Hampshire Cooperative Extension, 2015; and The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach, NAEPP-360-1-30a, US Army Corps of Engineers, New England Division, (September 1999).
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT:	LEONARD A LORD, PHD, NHCWS#14
DATE OF ASSESSMENT:	OCT. 29 AND DEC. 2, 2019
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT:	<input checked="" type="checkbox"/>
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable:	<input type="checkbox"/>
Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.	



AVOIDANCE AND MINIMIZATION CHECKLIST

Water Division/Land Resources Management Wetlands Bureau



[Check the Status of your Application](#)

RSA/Rule: RSA 482-A/ Env-Wt 311.07(c)

This checklist can be used in lieu of the written narrative required by Env-Wt 311.07(a) to demonstrate compliance with requirements for Avoidance and Minimization (A/M), pursuant to RSA 482-A:1 and Env-Wt 311.07(c).

For the construction or modification of non-tidal shoreline structures over areas of surface waters without wetland vegetation, complete only Sections 1, 2, and 4 (or the applicable sections in [Attachment A: Minor and Major Projects \(NHDES-W-06-013\)](#)).

The following definitions and abbreviations apply to this worksheet:

- “A/M BMPs” stands for [Wetlands Best Management Practice Techniques for Avoidance and Minimization](#) dated 2019, published by the New England Interstate Water Pollution Control Commission (Env-Wt 102.18).
- “Practicable” means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (Env-Wt 103.62).

SECTION 1 - CONTACT/LOCATION INFORMATION		
APPLICANT LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, c/o Rob Simmons		
PROJECT STREET ADDRESS: 105 Bartlett Street	PROJECT TOWN: Portsmouth	
TAX MAP/LOT NUMBER: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2		
SECTION 2 - PRIMARY PURPOSE OF THE PROJECT		
Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If you answered “no” to this question, describe the purpose of the “non-access” project type you have proposed:</p> <p>The purpose of the project is to redevelop a parcel adjacent to a tidal wetland. The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2, These buildings will be replaced with three (3) multi-family apartment buildings depicted as Building A, B and C on the Site Plan. The three (3) buildings will include a total of 152 dwelling units with parking below Buildings A and B. The project includes associated site improvements that consist of the private road cul-de-sac adjacent to Building C, surface parking, pedestrian access, utilities, dark-sky friendly lighting, landscaping and stormwater management systems that provide treatment for runoff. The project will include temporary and permanent impacts within the Tidal Buffer Zone. The project will result in a net reduction of impervious surface within the Tidal Buffer Zone. This project will also include the construction of a portion of the City of Portsmouth's North Mill Pond Greenway project. This is a 10 ft wide porous asphalt pathway within the 50 ft buffer of North Mill Pond for public recreational use. These improvements will be both temporary and permanent.</p>		

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SECTION 3 - A/M PROJECT DESIGN TECHNIQUES		
Check the appropriate boxes below in order to demonstrate that these items have been considered in the planning of the project. Use N/A (not applicable) for each technique that is not applicable to your project.		
Env-Wt 311.07(b)(2)	For any project that proposes new permanent impacts of more than one acre or that proposes new permanent impacts to a Priority Resource Area (PRA), or both, whether any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 311.07(b)(3)	Whether alternative designs or techniques, such as different layouts, construction sequencing, or alternative technologies could be used to avoid impacts to jurisdictional areas or their functions and values.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(1) Env-Wt 311.10(c)(2)	The results of the functional assessment required by Env-Wt 311.03(b)(10) were used to select the location and design for the proposed project that has the least impact to wetland functions.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(3)	Where impacts to wetland functions are unavoidable, the proposed impacts are limited to the wetlands with the least valuable functions on the site while avoiding and minimizing impacts to the wetlands with the highest and most valuable functions.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 313.01(c)(1) Env-Wt 313.01(c)(2) Env-Wt 313.03(b)(1)	No practicable alternative would reduce adverse impact on the area and environments under the department's jurisdiction and the project will not cause random or unnecessary destruction of wetlands.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 313.01(c)(3)	The project would not cause or contribute to the significant degradation of waters of the state or the loss of any PRAs.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 313.03(b)(3) Env-Wt 904.07(c)(8)	The project maintains hydrologic connectivity between adjacent wetlands or stream systems.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 311.10 A/M BMPs	Buildings and/or access are positioned away from high function wetlands or surface waters to avoid impact.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
Env-Wt 311.10 A/M BMPs	The project clusters structures to avoid wetland impacts.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 311.10 A/M BMPs	The placement of roads and utility corridors avoids wetlands and their associated streams.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
A/M BMPs	The width of access roads or driveways is reduced to avoid and minimize impacts. Pullouts are incorporated in the design as needed.	<input checked="" type="checkbox"/> Check <input type="checkbox"/> N/A
A/M BMPs	The project proposes bridges or spans instead of roads/driveways/trails with culverts.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A

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A/M BMPs	The project is designed to minimize the number and size of crossings, and crossings cross wetlands and/or streams at the narrowest point.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 500 Env-Wt 600 Env-Wt 900	Wetland and stream crossings include features that accommodate aquatic organism and wildlife passage.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 900	Stream crossings are sized to address hydraulic capacity and geomorphic compatibility.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
A/M BMPs	Disturbed areas are used for crossings wherever practicable, including existing roadways, paths, or trails upgraded with new culverts or bridges.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
SECTION 4 - NON-TIDAL SHORELINE STRUCTURES		
Env-Wt 313.03(c)(1)	The non-tidal shoreline structure has been designed to use the minimum construction surface area over surfaces waters necessary to meet the stated purpose of the structure.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 313.03(c)(2)	The type of construction proposed for the non-tidal shoreline structure is the least intrusive upon the public trust that will ensure safe navigation and docking on the frontage.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 313.03(c)(3)	The non-tidal shoreline structure has been designed to avoid and minimize impacts on the ability of abutting owners to use and enjoy their properties.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 313.03(c)(4)	The non-tidal shoreline structure has been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 313.03(c)(5)	The non-tidal shoreline structure has been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A
Env-Wt 313.03(c)(6)	The non-tidal shoreline structure has been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.	<input type="checkbox"/> Check <input checked="" type="checkbox"/> N/A



**WETLANDS RULE WAIVER OR
DWELLING OVER WATER WAIVER
REQUEST FORM**
WATER DIVISION/LAND RESOURCES MANAGEMENT
WETLANDS BUREAU



RSA/Rule: RSA 482-A/ Env-Wt 204

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

A person may request a waiver to requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interests of the public or the environment. A person may also request a waiver of standard for existing dwellings over water pursuant to RSA 482-A:26, III (b).

SECTION 1 - PROJECT LOCATION INFORMATION (Env-Wt 204.03(c))			
ADDRESS: 105 Bartlett Street	TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
TAX MAP/LOT NUMBER: Map 157 Lot 1, 2 & Map 164 Lot 1, 4-2 2			
SECTION 2 - WAIVER REQUESTOR INFORMATION (Env-Wt 204.03(a))			
LAST NAME, FIRST NAME, M.I.: Hansen, Neil A.			
MAILING ADDRESS: 177 Corporate Drive			
TOWN/CITY: Portsmouth		STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS (if available): nhansen@tighebond.com or if not FAX NUMBER: [REDACTED]		DAYTIME TELEPHONE NUMBER: (603) 433-8818	
SECTION 3 - APPLICANT INFORMATION (Env-Wt 204.03(b))			
If request is being made on behalf of someone else, include the following information regarding the person being represented. If requestor is the applicant, check the following box and proceed to Section 4.			
<input type="checkbox"/> Requestor is the applicant.			
LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, Rob Simmons			
MAILING ADDRESS: 6 Liberty Square, PMB 90767			
TOWN/CITY: Boston		STATE: MA	ZIP CODE: 02110
EMAIL ADDRESS (if available): robs@cathartes.com or if not FAX NUMBER: [REDACTED]		DAYTIME PHONE NUMBER: 617-893-9354	

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SECTION 4 - WAIVER INFORMATION
SECTION 4A - WAIVER TO RULE Env-Wt 100-900
<input type="checkbox"/> N/A - If you are not requesting a rule waiver, check this box and proceed to Section 4b
Provide the number of the specific section of each rule for which a waiver is sought (Env-Wt 204.03(d)): Env-Wt 603.08(a)&(b)
Provide a complete explanation of why a waiver is being requested, including an explanation of the operational and economic consequences of complying with the requirement and, if the requested waiver would extend the duration of a permit, the reason(s) why the permit holder was not able to complete the project within the specified time (Env-Wt 204.03(f)(1)): The provisions referenced in the rule section referenced above state that field observations of at least 3 tide events to be conducted by a licensed land surveyor. A waiver is being requested because the project location is within 1.5 miles of a NOAA Tide and Current station at Seavey Island which provides data that can conservatively used for this project location. This data is conservative because tides flow through two moderate restrictions between Seavey Island and the project site, which should dampen tidal extremes. The expense incurred to have a licensed professional is excessive for redundant information which is readily available from the Seavey Island station.
If applicable, provide a complete explanation of the alternative that is proposed to be substituted for the requirement in Env-Wt, including written documentation or data, or both, to support the alternative (Env-Wt 204.03(g)): As previously stated, the project's design has incorporated the tide and current information provided by the Seavey Island tide and current station. This information has been provided as an attachment to the Coastal Resources Worksheet within this applicaton package.
SECTION 4B – DWELLING OVER WATERS WAIVER UNDER RSA 482-A:26, III(b).
<input checked="" type="checkbox"/> N/A - If you are not requesting a standard waiver, check this box and proceed to Section 5)
Identify the specific standard to which a waiver is being requested (Env-Wt 204.03(e)): RSA 482-A: [REDACTED]

Provide a complete explanation of why a waiver is being requested, including a complete explanation of how the statutory criteria of RSA 482-A:26, III(b) will be met (Env-Wt 204.03(f)(2)):

[Redacted]

SECTION 5 - ADDITIONAL WAIVER INFORMATION (Env-Wt 204.03(h); Env-Wt 204.03(i))
 (applicable to Waivers of Rules *and* Standards under RSA 482-A:26, III(b))

Indicate whether the waiver is needed for a limited duration and, if so, an estimate of when the waiver will no longer be needed (Env-Wt 204.03(h)):

The waiver is needed for permit approval only.

Provide a complete explanation of why the applicant believes that having the waiver granted will meet the criteria in Env-Wt 204.05 or 204.06, as applicable (Env-Wt 204.03(i)):

Env-Wt 204.05

(a1) The waiver will not result in an adverse impact to the environment or public safety. (a2) It will not interfere with public waters. (a3) It will not result in an advance impact on abutting properties. NH RSA 482-A:26 (Dwellings Over Water) is not applicable.

SECTION 6 - REQUIRED CERTIFICATIONS (Env-Wt 204.04)

Initial each box and sign below to certify:

Initials: NAH	The information provided is true, complete, and not misleading to the knowledge and belief of the signer.
Initials: NAH	The signer understands that: <ul style="list-style-type: none"> Any waiver granted based on false, incomplete, or misleading information shall be subject to revocation; and

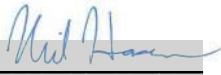
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	<ul style="list-style-type: none"> • He or she is subject to the penalties for falsification in official matters, currently established in RSA 641.
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SECTION 7 - REQUESTOR SIGNATURE (Env-Wt 204.04)

SIGNATURE (APPLICANT): *	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (REQUESTOR): 	PRINT NAME LEGIBLY: Tighe & Bond, Inc., c/o Neil Hansen	DATE: 3/29/23

*In lieu of an applicant signature, you may include a separate signed and dated authorization for the requestor to act on the person's behalf in connection with the request.



WETLANDS RULE WAIVER OR DWELLING OVER WATER WAIVER REQUEST FORM CRITERIA/DECISION



WATER DIVISION/LAND RESOURCES MANAGEMENT WETLANDS BUREAU

(Keep this sheet for your reference; do not submit it with your application)

RSA/Rule: RSA 482-A/ Env-Wt 204

SECTION 1 - WAIVER CRITERIA

SECTION 1A - CRITERIA FOR WAIVERS TO RULES (Env-Wt 204.05)

- (a) The Department shall grant a waiver to a requirement established in subtitle Env-Wt that will not extend the duration of a wetlands permit only if:
(1) Granting a waiver will not result in:
a. An avoidable adverse impact on:
1. The environment or natural resources of the state, including but not limited to jurisdictional areas and protected species or habitat; or
2. Public health or public safety;
b. An impact on abutting properties that is more significant than that which would result from complying with the rule; or
c. A statutory requirement being waived; and
(2) Any benefit to the public or the environment from complying with the rule is outweighed by the operational or economic costs to the applicant.
(b) The Department shall grant a waiver that has the effect of extending the duration of a wetlands permit that does not qualify for the statutory extension under RSA 482-A:3, XIV-a only if:
(1) The permit holder:
a. Was precluded from proceeding under the permit due to actions taken by persons opposed to the project; or
b. Rationally refrained from proceeding under the permit due to reasonable uncertainties surrounding the project's legal viability, which shall not include uncertainties regarding the project's financial viability;
(2) If other permits are required for the project, at least one other permit already has a duration that extends beyond the expiration of the wetlands permit or, if the other permit expires concurrently or prior to the wetlands permit, the permit holder reasonably anticipates that an extension will be obtained; and
(3) Extending the permit will not result in:
a. Adverse impacts on public health or safety, or the environment or natural resources of the state, that would be greater than those accounted for in the permit that was issued; or
b. Adverse impacts on abutting properties that is more significant than that which would have resulted if the project had been initiated in time to be completed during the permit term.

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SECTION 1B - CRITERIA FOR WAIVERS UNDER RSA 482-A:26, III(b) (Env-Wt 204.06)

The Department shall grant a waiver under RSA 482-A:26, III(b) if:

- (a) The waiver will not result in:
 - (1) An avoidable adverse impact on the environment or natural resources of the state, public health or public safety;
 - (2) Any interference with the public trust in waters held by the state; or
 - (3) An adverse impact on abutting properties that is more significant than that which would result from complying with the rule; and
- (b) The following criteria from RSA 482-A:26, III(b) are met:
 - (1) The effect of the requested repair or reconstruction represents greater protection of public water or the environment;
 - (2) Such repair or reconstruction does not change a recreational, water-based activity to a land-based, residential or commercial activity;
 - (3) There will be no expansion of the existing footprint, outside dimensions, or square footage of floor space; and
 - (4) There will be a net reduction in the total square footage of kitchen, bathroom, shower, and toilet facilities.

SECTION 2 – DECISION (Env-Wt 204.07)

- (a) The Department shall notify the requestor of the decision in writing. If the request is denied, the Department shall identify the specific reason(s) for the denial.
- (b) If a waiver is granted, the Department shall impose such conditions, including time limitations, as the Department deems necessary to ensure that the activities conducted pursuant to the waiver will be consistent with the applicable criteria.



COASTAL RESOURCE WORKSHEET
Water Division/Land Resources Management
Wetlands Bureau



[Check the Status of your Application](#)

RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: Iron Horse Properties, LLC, Rob Simmons

This worksheet may be used to present the information required for projects in coastal areas, in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose consisting of a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The proposed project will include demolition of the existing building on lot 157-1 and the existing buildings on Lot 164-4-2. The proposed project consists of constructing two (2) multi-family apartment buildings with basement level parking, one (1) mixed used building with first floor office and amenity space, and upper story apartments. The project will include a total of 152 dwelling units. The project will include associated site improvements that consist of a private road with cul-de-sac, parking, utilities, stormwater management, landscaping and lighting. The project will include permanent impacts, though will result in a net reduction of impervious surface within the Tidal Buffer Zone. This project will also include the construction of a portion of the City of Portsmouth's North Mill Pond Greenway project. This is a 10 ft wide porous asphalt pathway within the 50 ft buffer of North Mill Pond for public recreational use.

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For standard permit projects, provide:

- A Coastal Functional Assessment (CFA) report in accordance with Env-Wt 603.04 (refer to Section 3).
- A vulnerability assessment in accordance with Env-Wt 603.05 (refer to Section 4).

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 311.07, Env-Wt 313, and Env-Wt 603.04.

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area and all the paved and unpaved impervious surfaces associated with the buildings; 2) the disturbed forest area around the old railroad turntable,; and 3) the shrub ticket extending along the narrow portion of the parcel.

The proposed project will result in a net reduction in impervious surfaces. Restoring impervious surfaces restores vegetation, reduces runoff to the tidal wetland, provides improved water quality treatment of runoff, allows for increased wetland screening for wildlife, and restores available wildlife habitat. Installation of the North Mill Pond trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will also be reduced from the trail and greenway improvements through the removal and restoration of impervious surfaces.

The result of the proposed mitigation will be 22,384 SF of restored previously disturbed tidal buffer area and 47,189 SF of previously disturbed tidal buffer enhancement area.

The 100-foot tidal buffer impact limits will be marked and erosion controls in place prior to project construction and monitoring will occur during and following construction to assure impacts are minimized and proposed restoration activities are properly carried out.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

Surface waters will not be impacted by the project. All work will employ proper erosion and sediment control BMPs. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing below. No work will be done within 10 feet of a property line without an abutter's prior written consent.

Provide a project design narrative that includes the following:

- A discussion of how the proposed project:
 - Uses best management practices and standard conditions in Env-Wt 307;
 - Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
 - Meets approval criteria in Env-Wt 313.01;
 - Meets evaluation criteria in Env-Wt 313.01(c);
 - Meets CFA requirements in Env-Wt 603.04; and
 - Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;
- A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and
- A discussion of how the completed project will be maintained and managed.

A project design narrative, including monitoring, is attached.

- Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);
- Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and
- For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors (DP&H) chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

N/A

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

- Existing salt marsh and salt marsh migration pathways;
- Eelgrass beds;
- Documented shellfish sites;
- Projected sea-level rise; and
- 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

- [National Oceanic and Atmospheric Administration \(NOAA\) Tides & Currents](#); and
- [NOAA Essential Fish Habitat Mapper](#).
- Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

- Not impair the navigation, recreation, or commerce of the general public; and
- Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

- Adverse impacts to beach or tidal flat sediment replenishment;
- Adverse impacts to the movement of sediments along a shore;
- Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and
- Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

- Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:
 - Performed by a qualified coastal professional; and
 - Completed using one of the following methods:
 - a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or
 - b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands, tidal waters, or associated sand dunes, the applicant shall:

- Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- Design the proposed project to have the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and
- Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

- Minimize adverse impacts to finfish, shellfish, crustacean, and wildlife;
- Minimize disturbances to groundwater and surface water flow;
- Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
- Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

Determine the time period over which the project is designed to serve.

The project useful life is expected to be 100 years. There are expected to be significant upgrades over that time period, which will include technologies to deal with rising sea levels as needed.

Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas.

NH Coastal Flood Risk Summary Part II, Step 2 Table: Medium Risk Tolerance

Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss.

NH Coastal Flood Risk Summary Part II, Step 3 Table A: Sea level rise for Medium Risk Tolerance is 5.0 feet (13.00 feet NGVD88) by 2122.

Identify areas of the proposed project site subject to flooding from SLR.

The current 100 -year floodplain (Zone AE) base flood elevation is 8.0 feet NAVD88. The threshold for the parking garage is elevation 7.00 feet and the finished floor elevation of the first floor is 17.50 feet NGVD88. The below grade parking elevation is 7.00 feet. The 100-year floodplain is expected to be above the parking garage threshold within 36 years with a 2.0 foot sea level rise (elevation 10.76 feet) by 2058.

Identify areas currently located within the 100-year floodplain and subject to coastal flood risk.

Portions of the existing lawn on the northwest side of the property are currently within the 100-year floodplain.

Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans.

The proposed project consists of a 5-story residential use building with one level of below grade parking and one level of parking at grade and beneath the building. The threshold for the parking garage door is 10.75 feet and the finished floor elevation of the first floor is 14.75 feet NGVD29, nearly one foot above the predicted 2122 100-year floodplain .

Two forms of waterproofing are being employed to protect the basement parking garage from water seepage. The slab will be protected with a blind-side waterproofing membrane. The foundation walls will be protected by a waterproofing sheet membrane. These two membranes will connect below the footings along the building perimeter.

Flood proofing technologies will be deployed to relieve potential flooding in the parking garage by 2058, when the 100-year floodplain is expected to exceed the garage threshold.

Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

Pre-application meeting date held: **Waived by S. Giallongo via email to N Hansen July 19, 2021**

SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements.

The plan view shall depict the following:

- The engineering scale used, which shall be no larger than one inch equals 50 feet;
- The location of tidal datum lines depicted as lines with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.
- An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
- The location of all special aquatic sites at or within 100 feet of the subject property;
- Existing bank contours;
- The name and license number, if applicable, of each individual responsible for the plan, including:
 - a. The agent for tidal docking structures who determined elevations represented on plans; and
 - b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan;
- The location and dimensions of all existing and proposed structures and landscape features on the property;
- Tidal datum(s) with associated elevations noted, based on NAVD 88; and
- Location of all special aquatic sites within 100-feet of the property.

The elevation view shall depict the following:

- The nature and slope of the shoreline;
- The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and
- Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

See specific design and plan requirements for certain types of coastal projects:

- Overwater structures (Env-Wt 606).
- Tidal shoreline stabilization (Env-Wt 609).
- Dredging activities (Env-Wt 607).
- Protected tidal zone (Env-Wt 610).

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- Tidal beach maintenance (Env-Wt 608).
- Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least three tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

- Mean lower low water;
- Mean low water;
- Mean high water;
- Mean tide level;
- Mean higher high water;
- Highest observable tide line; and
- Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined:

- The date, time of day, and weather conditions when water depths were recorded; and
- The name and license number of the licensed land surveyor who conducted the field measurements.

For tidal stream crossing projects, provide:

- Water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d).

For repair, rehabilitation or replacement of tier 4 stream crossings:

- Demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on:

- The standard conditions in Env-Wt 307;
- The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- The approval criteria in Env-Wt 313.01;
- The evaluation criteria in Env-Wt 313.05;
- The project specific criteria in Env-Wt 600;
- The CFA required by Env-Wt 603.04; and
- The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

- To protect public safety; and
- Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

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- Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and
- Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

- The standard conditions in Env-Wt 307;
- The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- The approval criteria in Env-Wt 313.01;
- The evaluation criteria in Env-Wt 313.05;
- The project specific criteria in Env-Wt 600;
- The CFA required by Env-Wt 603.04; and
- The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

- Provide habitat values;
- Protect tidal environments from potential sources of pollution;
- Provide stability of the coastal shoreline; and
- Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

- The standard conditions in Env-Wt 307;
- The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- The approval criteria in Env-Wt 313.01;
- The evaluation criteria in Env-Wt 313.05;
- The project specific criteria in Env-Wt 600;
- The CFA required by Env-Wt 603.04; and
- The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

- Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;
- Be designed with a preference for living shorelines over hardened stabilization practices; and

Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

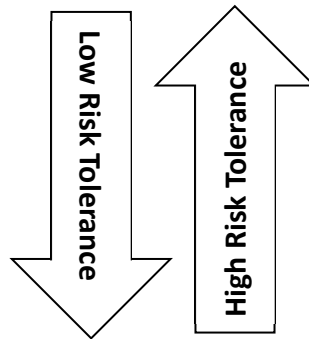
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission’s Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design, and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project’s willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

Project Design Narrative

Project Discussion

Env-Wt 307. Surface waters will not be impacted by the project. All work will employ proper erosion and sediment control BMPs. No equipment will be used within surface waters or wetlands and no invasive species will be used to stabilize the site. The NH Natural Heritage Bureau DataCheck has determined that no rare species or critical habitats will be impacted. All work on this project is within previously developed and landscaped areas and will be consistent with the Shoreland Water Quality Protection Act. No work will be adjacent to designated prime wetlands. The project does not involve dredging or filling of wetlands. Areas of temporary soil disturbance will be stabilized within three days of final grading as described in the construction sequencing below. No work will be done within 10 feet of a property line without an abutter's prior written consent.

Env-Wt 311.07 & 313.03. Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The only direct wetland impact from the project is for the construction of three outfall pipe plunge pools.

Env-Wt 313.01. As described throughout this application, the project will meet all permit approval criteria.

Env-Wt 313.01(c). Impacts from the project have been avoided and minimized by pulling portions of the new buildings and parking lot further back from the coastal wetland and utilizing underground parking, thus freeing up significant areas of impervious surfaces to be restored (see Appendix F for the mitigation proposal and wetland impact plan). All work is being done within the previously developed tidal buffer. The only direct wetland impact from the project is for the construction of three outfall pipe plunge pools.

Env-Wt 603.04. A Coastal Functional Assessment is provided in Appendix D

Env-Wt 603.05. A Vulnerability Assessment is included on the Coastal Worksheet and includes consideration of sea level rise and flooding. Design plans are attached that include water depth information. The project has a medium risk tolerance. The threshold of the underground parking will be below the elevation of the predicted 100 year floodplain by 2058, however, flood proofing technologies will be installed to relieve flooding in that area before that time. The first floor finish elevation will be approximately one foot above the predicted 100-year floodplain in 2122.

Construction Sequencing

1. Prior written consent will be obtained from abutters prior to any soil disturbance less than 10 feet from property lines.
2. Cut and clear trees as required.
3. Construct temporary and permanent sediment, erosion and detention control facilities. Erosion, sediment, and detention measures shall be installed prior to any earth moving operations.
4. Establish a properly constructed dewatering area as needed. Wherever possible, the discharge from the dewatering structure shall drain to a well-vegetated buffer by sheet

flow while maximizing the distance to the nearest water resource and minimizing the slope of the buffer area.

5. All permanent ditches, swales, detention, retention, and sedimentation basins to be stabilized using the vegetative and non-structural BMPs prior to directing runoff to them.
6. Clear and dispose of debris.
7. Construct temporary culverts and diversion channels as required.
8. Grade and gravel roadways and parking areas – all roads and parking areas shall be stabilized within 72 hours of achieving finishing grade.
9. Begin permanent and temporary seeding and mulching. All cut and fill slopes shall be seeded and mulched within 72 hours of achieving finished grade daily, or as required.
10. Finish paving all roadways and parking lots.
11. Inspect and maintain all erosion and sediment control measures.
12. Complete permanent seeding and landscaping.
13. Remove trapped sediments from collector devices as appropriate and then remove temporary erosion control measures.

Project Monitoring, Maintenance, and Management

The project will be monitored during and following construction by a NH Certified Wetland Scientist or other qualified professional to be sure the site is stabilized, and all components have been properly installed. The restoration areas will be followed up with annual monitoring by a NH Certified Wetland Scientist or other qualified professional. Monitoring will continue until the site is fully stabilized and there is at least 75% survivorship of restoration plantings.

The public greenway trail that runs through the area is expected to be monitored by the conservation commission or other City entity.

The project building and grounds will be maintained by the owners as needed. The grounds will be maintained by contracted landscapers.

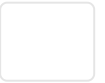
STEP 3 TABLE A. RECOMMENDED DECADAL RSLR ESTIMATES (IN FEET ABOVE 2000 LEVELS) BASED ON RCP 4.5, PROJECT TIMEFRAME, AND TOLERANCE FOR FLOOD RISK.

TIMEFRAME	HIGH TOLERANCE FOR FLOOD RISK	MEDIUM TOLERANCE FOR FLOOD RISK	LOW TOLERANCE FOR FLOOD RISK	VERY LOW TOLERANCE FOR FLOOD RISK
	Plan for the following RSLR estimate (ft)* compared to sea level in the year 2000			
	Lower magnitude, Higher probability	←————→		Higher magnitude, Lower probability
2030	0.7	0.9	1.0	1.1
2040	1.0	1.2	1.5	1.6
2050	1.3	1.6	2.0	2.3
2060	1.6	2.1	2.6	3.0
2070	2.0	2.5	3.3	3.7
2080	2.3	3.0	3.9	4.5
2090	2.6	3.4	4.6	5.3
2100	2.9	3.8	5.3	6.2
2110	3.3	4.4	6.1	7.3
2120	3.6	4.9	7.0	8.3
2130	3.9	5.4	7.9	9.3
2140	4.3	5.9	8.9	10.5
2150	4.6	6.4	9.9	11.7

2058 (36 yr) = 2.0 ft

2122 (100 yr) = 5.0 ft

*The colors (blue, red, purple, green) in Step 3 Table A correspond with the colors of the graph depicted in Figure 2 (see also Figure 4.5 in *Part I: Science*¹⁷). The RSLR estimates for High tolerance for flood risk projects correspond with K14, upper end of “likely” estimates for RCP4.5 (83% chance RSLR will not exceed this value). The RSLR estimates for Medium tolerance for flood risk projects correspond with K14, 1-in-20 chance estimates for RCP 4.5. The RSLR estimates for Low tolerance for flood risk projects correspond with K14, 1-in-100 chance estimates for RCP 4.5. The RSLR estimates for Very Low tolerance for flood risk projects correspond with K14, 1-in-200 chance estimates for RCP4.5. For K14, 1-in-1000 chance estimates, see Table 4.2 in *Part I: Science*.¹⁷ Note that while the Bayesian probabilities associated with RSLR projections are useful, they have some limitations as described in Box 4.3 in *Part I: Science*.¹⁷



Home (/) / Products ([products.html](#)) / Datums ([stations.html?type=Datums](#)) /
8419870 Seavey Island, ME Favorite Stations

Station Info

Tides/Water Levels

Meteorological Obs. ([/met.html?id=8419870](#))

Phys. Oceanography ([/physocean.html?id=8419870](#))

PORTS® ([/ports/ports.html?id=8419870](#))

OFS ([/ofs/ofs_station.html?stname=Seavey Island&ofs=gom&stnid=8419870&subdomain=0](#))

Datums for 8419870, Seavey Island ME

NOTICE: All data values are relative to the NAVD88.

Elevations on NAVD88

Station: 8419870, Seavey Island, ME

Status: Accepted (Dec 6 2021)

Units: Feet

Control Station: 8418150 Portland, ME

T.M.: 0

Epoch: ([/datum_options.html#NTDE](#)) 1983-2001

Datum: NAVD88

Datum	Value	Description
MHHW (/datum_options.html#MHHW)	4.18	Mean Higher-High Water
MHW (/datum_options.html#MHW)	3.76	Mean High Water
MTL (/datum_options.html#MTL)	-0.32	Mean Tide Level
MSL (/datum_options.html#MSL)	-0.25	Mean Sea Level
DTL (/datum_options.html#DTL)	-0.26	Mean Diurnal Tide Level
MLW (/datum_options.html#MLW)	-4.39	Mean Low Water
MLLW (/datum_options.html#MLLW)	-4.71	Mean Lower-Low Water
NAVD88 (/datum_options.html)	0.00	North American Vertical Datum of 1988
STND (/datum_options.html#STND)	-6.98	Station Datum
GT (/datum_options.html#GT)	8.89	Great Diurnal Range
MN (/datum_options.html#MN)	8.16	Mean Range of Tide

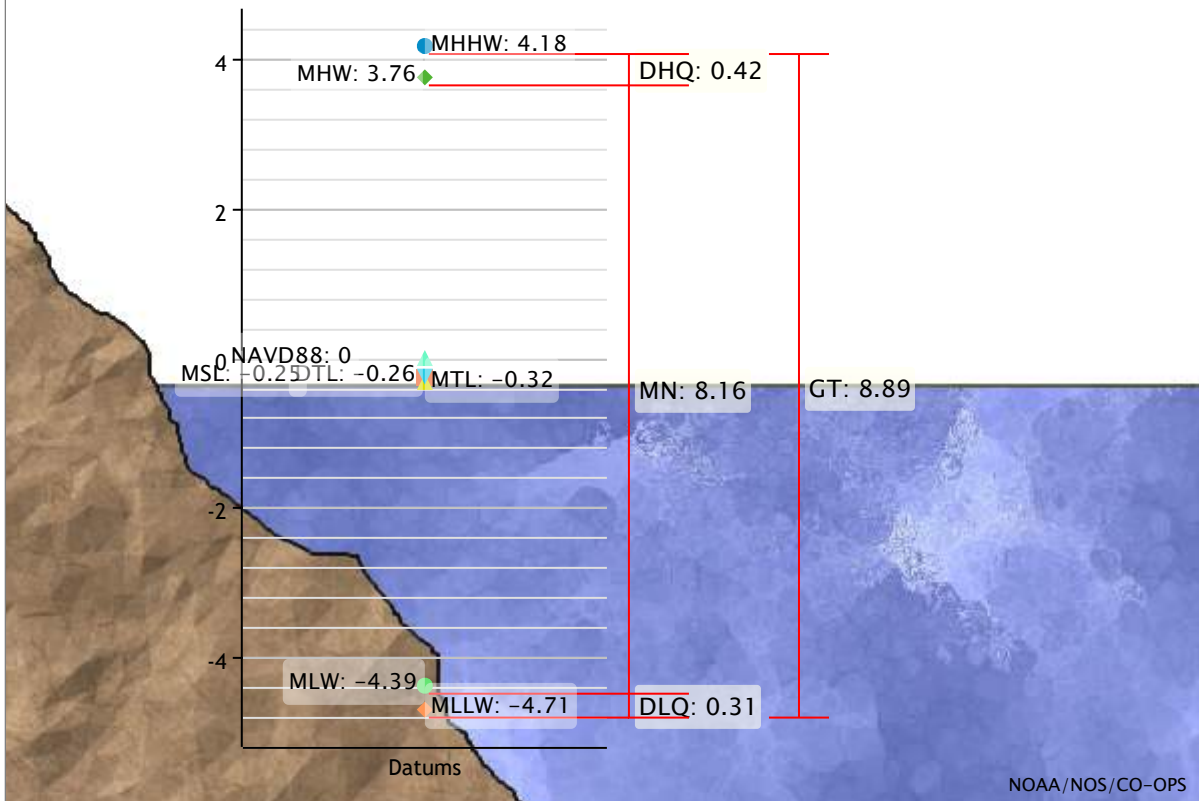
Datum	Value	Description
DHQ (/datum_options.html#DHQ)	0.42	Mean Diurnal High Water Inequality
DLQ (/datum_options.html#DLQ)	0.31	Mean Diurnal Low Water Inequality
HWI (/datum_options.html#HWI)	3.92	Greenwich High Water Interval (in hours)
LWI (/datum_options.html#LWI)	10.04	Greenwich Low Water Interval (in hours)
Max Tide (/datum_options.html#MAXTIDE)	7.89	Highest Observed Tide
Max Tide Date & Time (/datum_options.html#MAXTIDEDT)	02/07/1978 10:42	Highest Observed Tide Date & Time
Min Tide (/datum_options.html#MINTIDE)	-7.98	Lowest Observed Tide
Min Tide Date & Time (/datum_options.html#MINTIDEDT)	11/30/1955 00:00	Lowest Observed Tide Date & Time
HAT (/datum_options.html#HAT)	5.87	Highest Astronomical Tide
HAT Date & Time	11/15/2016 16:18	HAT Date and Time
LAT (/datum_options.html#LAT)	-6.51	Lowest Astronomical Tide
LAT Date & Time	01/14/2036 23:00	LAT Date and Time

Tidal Datum Analysis Periods

07/01/2020 - 06/30/2021

Datums for 8419870, Seavey Island, ME

All figures in feet relative to NAVD88



Showing datums for

8419870 Seavey Island, ME

Datum

NAVD88

Data Units Feet

Meters

Epoch Present (1983-2001)

Superseded (1960-1978)

Submit

Show nearby stations

Products available at 8419870 Seavey Island, ME

TIDES/WATER LEVELS

[Water Levels \(/waterlevels.html?id=8419870\)](/waterlevels.html?id=8419870)
[NOAA Tide Predictions \(/noaatidepredictions.html?id=8419870\)](/noaatidepredictions.html?id=8419870)
[Harmonic Constituents \(/harcon.html?id=8419870\)](/harcon.html?id=8419870)
[Sea Level Trends \(/sltrends/sltrends_station.shtml?id=8419870\)](/sltrends/sltrends_station.shtml?id=8419870)
[Datums \(/datums.html?id=8419870\)](/datums.html?id=8419870)
[Bench Mark Sheets \(/benchmarks.html?id=8419870\)](/benchmarks.html?id=8419870)
[Extreme Water Levels \(/est/est_station.shtml?stnid=8419870\)](/est/est_station.shtml?stnid=8419870)
[Reports \(/reports.html?id=8419870\)](/reports.html?id=8419870)

METEOROLOGICAL/OTHER

[Meteorological Observations \(/met.html?id=8419870\)](/met.html?id=8419870)
[Water Temp/Conductivity](#)

PORTS®

[Portsmouth PORTS® \(/ports/index.html?port=pm\)](/ports/index.html?port=pm)
[PORTS® product page for Seavey Island \(/ports/ports.html?id=8419870\)](/ports/ports.html?id=8419870)

OPERATIONAL FORECAST SYSTEMS

[Gulf of Maine \(/ofs/gomofs/gomofs.html\)](/ofs/gomofs/gomofs.html)
[OFS product page for Seavey Island](#)

INFORMATION

[Station Home Page \(/stationhome.html?id=8419870\)](/stationhome.html?id=8419870)
[Data Inventory \(/inventory.html?id=8419870\)](/inventory.html?id=8419870)
[Measurement Specifications \(/measure.html\)](/measure.html)

Website Owner: Center for Operational Oceanographic Products and Services

[National Oceanic and Atmospheric Administration \(http://www.noaa.gov\)](http://www.noaa.gov)
[National Ocean Service \(http://oceanservice.noaa.gov\)](http://oceanservice.noaa.gov)
[Privacy Policy \(/privacy.html\)](/privacy.html)
[Disclaimer \(/disclaimers.html\)](/disclaimers.html)
[Take Our Survey \(/survey.html\)](/survey.html)
[Freedom of Information Act \(https://www.noaa.gov/foia-freedom-of-information-act\)](https://www.noaa.gov/foia-freedom-of-information-act)
[Contact Us \(/contact.html\)](/contact.html)



**US Army Corps
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New England District

Appendix B

New Hampshire General Permits (GPs) Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to <https://www.nae.usace.army.mil/Missions/Regulatory/> “Useful Documents, Forms and Publications” and then “Corps Application Form and Guidance.” Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- New Hampshire Department of Environmental Services (DES) Wetlands Permit Application.
- Request for Project Review Form by the New Hampshire Division of Historical Resources (DHR).
<https://www.nh.gov/nhdhr/review/rpr.htm>.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible plans no larger than 11”x17” with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
 - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
 - Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
 - Project limits with existing and proposed conditions.
 - Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
 - Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the OHW in inland waters and below the HTL in coastal waters.
 - Delineation of all waterways and wetlands on the project site,;
- Use Federal delineation methods and include Corps wetland delineation data sheets (GC 2).
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.



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New England District

**New Hampshire General Permits (GPs)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		X
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/ . The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	N/A	N/A
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	N/A	
2.7 What is the area of the proposed fill in wetlands?		
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	N/A	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index		X

3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html. 			X
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?			X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?	X		
3.5 Are stream crossings designed in accordance with the GC 21?	N/A		N/A
4. Flooding/Floodplain Values	Yes		No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	X		
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?			X
5. Historic/Archaeological Resources			
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**			INCLUDED

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

February 16, 2022

Project Code: 2022-0008667

Project Name: 105 Bartlett Street - Proposed Multi-Family Development

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Project Summary

Project Code: 2022-0008667
Event Code: None
Project Name: 105 Bartlett Street - Proposed Multi-Family Development
Project Type: Commercial Development
Project Description: Construction of two (2) multi-family buildings and one (1) mixed-used building including 152 residential units, commercial space, and garage parking.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.07287705,-70.77045978831826,14z>



Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>

In Reply Refer To:

February 16, 2022

Project code: 2022-0008667

Project Name: 105 Bartlett Street - Proposed Multi-Family Development

Subject: Consistency letter for the '105 Bartlett Street - Proposed Multi-Family Development' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Colter Krzcuik:

The U.S. Fish and Wildlife Service (Service) received on February 16, 2022 your effects determination for the '105 Bartlett Street - Proposed Multi-Family Development' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause “take”^[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action’s effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

105 Bartlett Street - Proposed Multi-Family Development

2. Description

The following description was provided for the project '105 Bartlett Street - Proposed Multi-Family Development':

Construction of two (2) multi-family buildings and one (1) mixed-used building including 152 residential units, commercial space, and garage parking.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.07287705,-70.77045978831826,14z>



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

No

2. Will your activity purposefully **Take** northern long-eared bats?

No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered

No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

Yes

7. Will the action only remove hazardous trees for the protection of human life or property?

No

8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

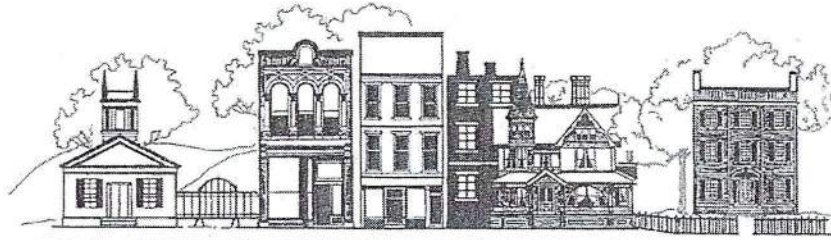
9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0



NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES

State of New Hampshire, Department of Natural and Cultural Resources 603-271-3483
19 Pillsbury Street, Concord, NH 03301-3570 603-271-3558
TDD Access Relay NH 1-800-735-2964 FAX 603-271-3433
www.nh.gov/nhdhr preservation@dncr.nh.gov

January 11, 2019

Steven D. Riker
Ambit Engineering, Inc.
200 Griffin Road, Unit 3
Portsmouth, NH 03801

Re: 105 Bartlett Street Site Improvements, Portsmouth, NH (RPR #10228)
EPA

Dear Mr. Riker:

In accordance with Section 106 of the National Historic Preservation Act (16 U.S. C. 470), and with federal Advisory Council on Historic Preservation regulations, *Protection of Historic Properties* (36 CFR Part 800), the New Hampshire Division of Historical Resources/State Historic Preservation Office has reviewed the EPA undertaking referenced above, with respect to potential effects on properties listed, or potentially eligible for listing, in the National Register of Historic Places. The project includes infrastructure improvements and demolition of remnants of the National Register eligible Eastern Railroad Linear District (including turntable and roundhouse ruins).

David Trubey, New Hampshire Division of Historical Resources Historical Archaeologist and Review and Compliance Coordinator, has reviewed the materials submitted and made observations at a site visit of January 4, 2019. The DHR has determined that the project impact area lacks archaeological sensitivity through previous construction activities and no further archaeological studies are required.

For purposes of compliance with the federal Advisory Council on Historic Preservation regulations, *Protection of Historic Properties* (36 CFR Part 800), implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470), this determination may be construed as a finding of "***No Historic Properties Affected***" if the work is done as described in the following stipulations:

Stipulations: (1) All storm water features must be located outside the area in which the turntable and roundhouse ruins are located; (2) A written history to include narrative, historic photographs, and photographs taken after site clearing but before demolition of the turntable and roundhouse will be prepared by an Architectural Historian qualified under 36 CFR 61 and submitted for review to the New Hampshire Division of Historical Resources (DHR). Document will be utilized by the City of Portsmouth for future interpretive signage at the site if a walking trail is constructed. The Applicant will provide final copies (digital and archival hard copy) to the DHR, Portsmouth Public Library, and Portsmouth Athenaeum within 9 months of receipt of this correspondence.



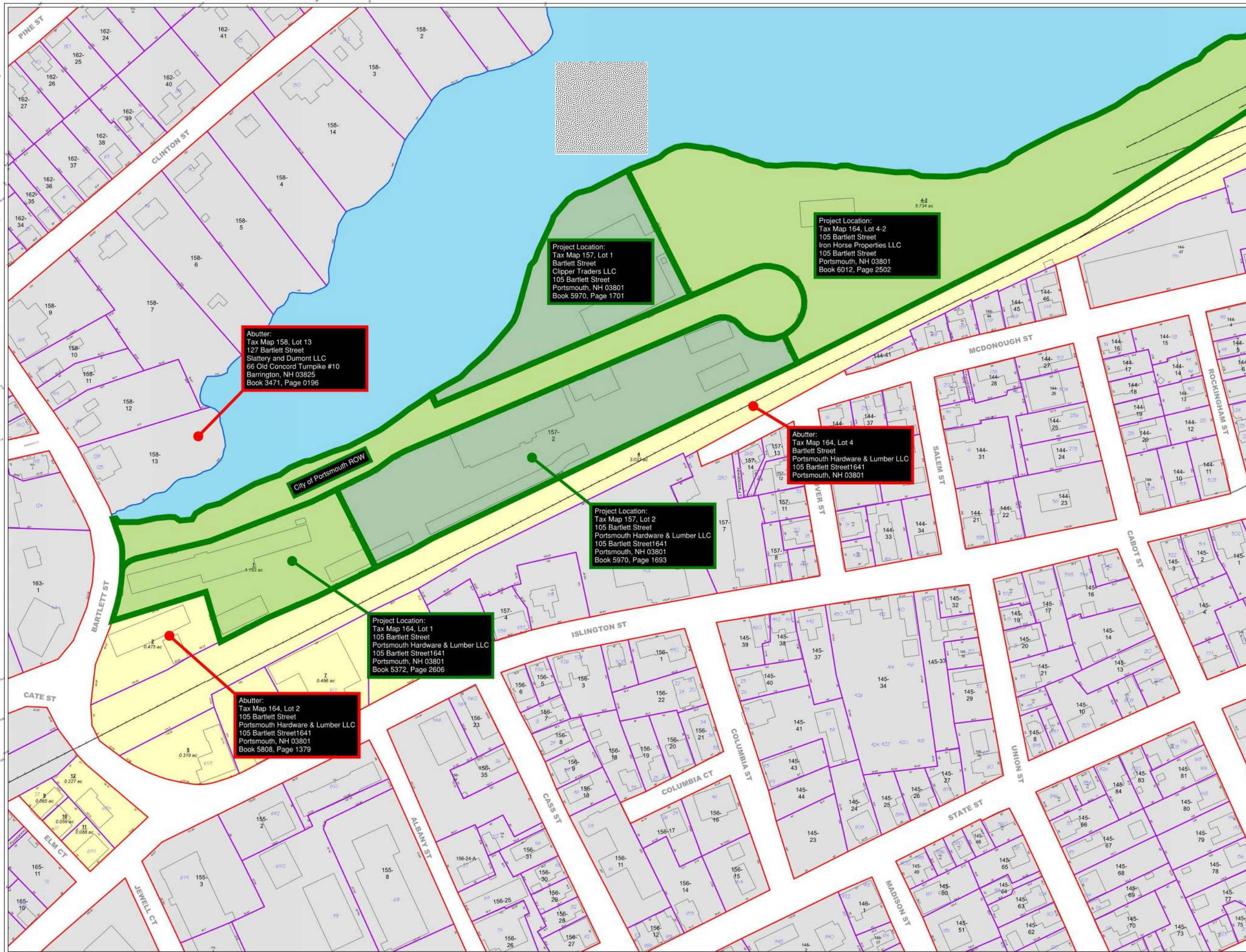
This fulfills the project sponsor's duties for "Section 106" historic preservation review under EPA's Construction General Permit, unless any additional impacts are identified or if follow-up actions as noted above should be necessary. As the federal regulatory agency for this project, the EPA is responsible for completion of any "Section 106" historic preservation review procedures which pertain to its involvement.

Sincerely,

A handwritten signature in cursive script, appearing to read "Nadine Miller".

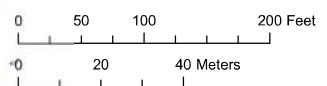
Nadine Miller
Deputy State Historic Preservation Officer

cc: EPA
City of Portsmouth

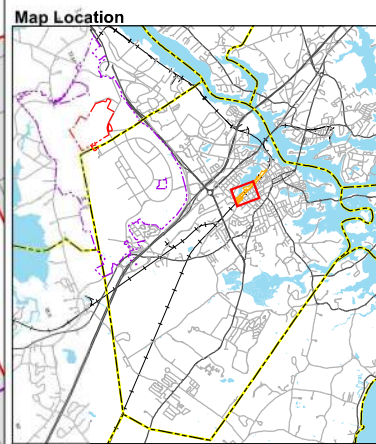
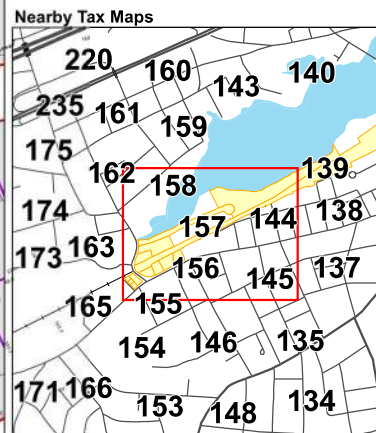


Partial Legend
See the cover sheet for the complete legend.

- 7-5A** Lot or lot-unit number
- 2.56 ac Parcel area in acres (ac) or square feet (sf)
- 25 Address number
- 233-137 Parcel number from a neighboring map
- 68 Parcel line dimension
- SIMS AVE** Street name
- Parcel/Parcel boundary
- Parcel/ROW boundary
- Water boundary
- Structure (1994 data)
- Parcel covered by this map
- Parcel from a neighboring map (see other map for current status)



This map is for assessment purposes only. It is not intended for legal description or conveyance. Parcels are mapped as of April 1. Building footprints are 2006 data and may not represent current structures. Streets appearing on this map may be paper (unbuilt) streets. Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.



Portsmouth, New Hampshire
2020
Tax Map 164

Abutter:
Tax Map 158, Lot 13
127 Bartlett Street
Slattery and Dumont LLC
66 Old Concord Turnpike #10
Barrington, NH 03825
Book 3471, Page 0196

Project Location:
Tax Map 157, Lot 1
Bartlett Street
Clipper Traders LLC
105 Bartlett Street
Portsmouth, NH 03801
Book 5970, Page 1701

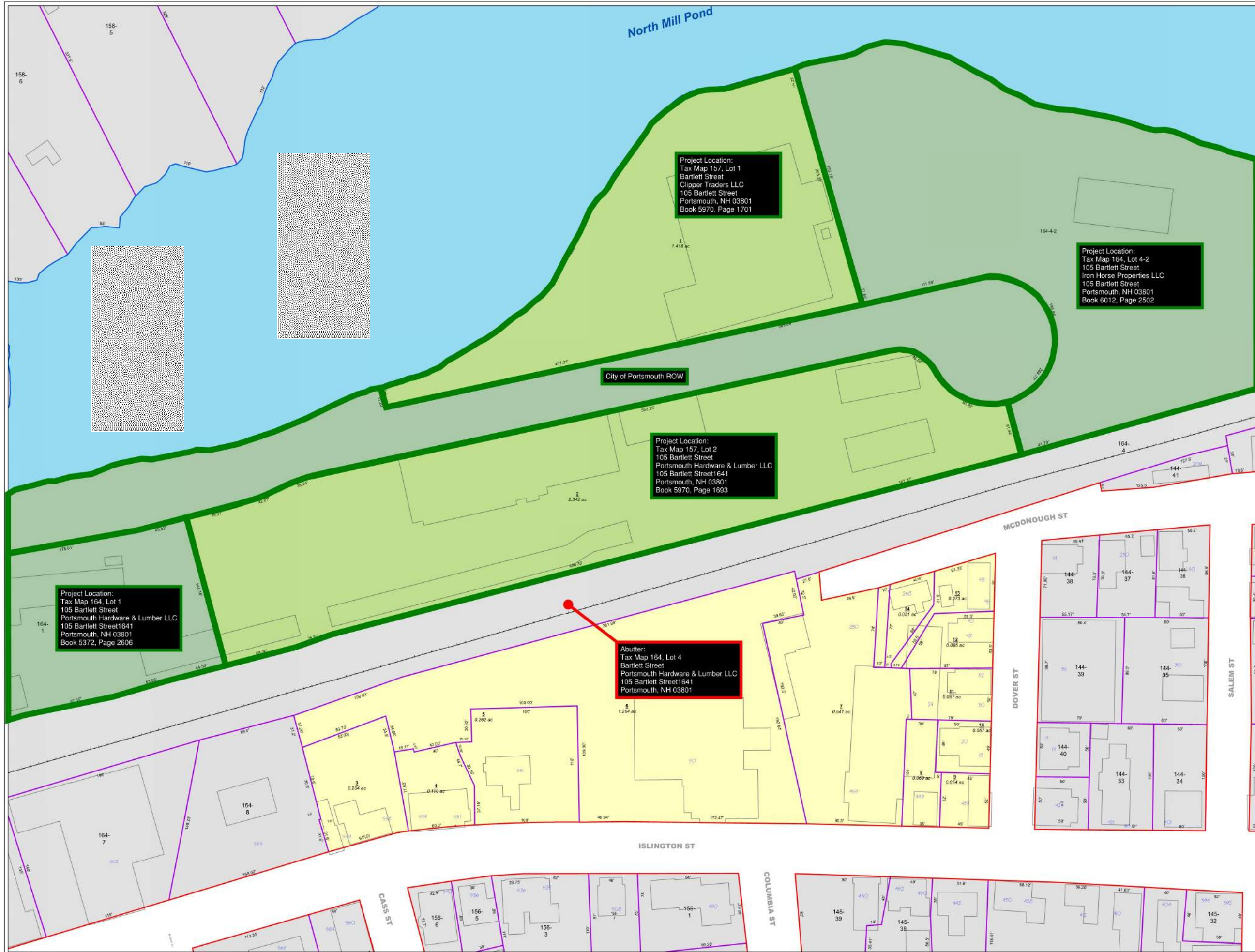
Project Location:
Tax Map 164, Lot 4-2
105 Bartlett Street
Iron Horse Properties LLC
105 Bartlett Street
Portsmouth, NH 03801
Book 6012, Page 2502

Abutter:
Tax Map 164, Lot 4
Bartlett Street
Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801

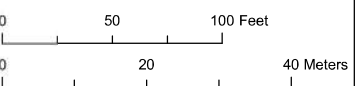
Project Location:
Tax Map 157, Lot 2
105 Bartlett Street
Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801
Book 5970, Page 1693

Project Location:
Tax Map 164, Lot 1
105 Bartlett Street
Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801
Book 5372, Page 2606

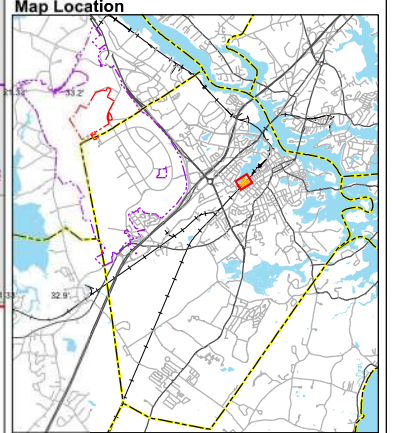
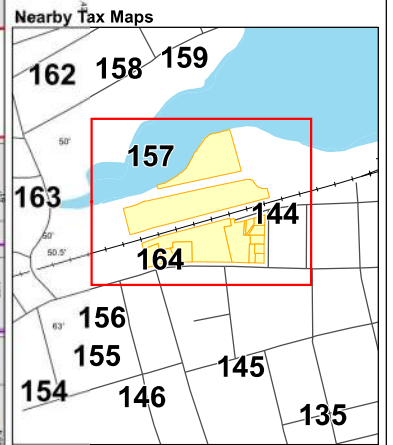
Abutter:
Tax Map 164, Lot 2
105 Bartlett Street
Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801
Book 5808, Page 1379



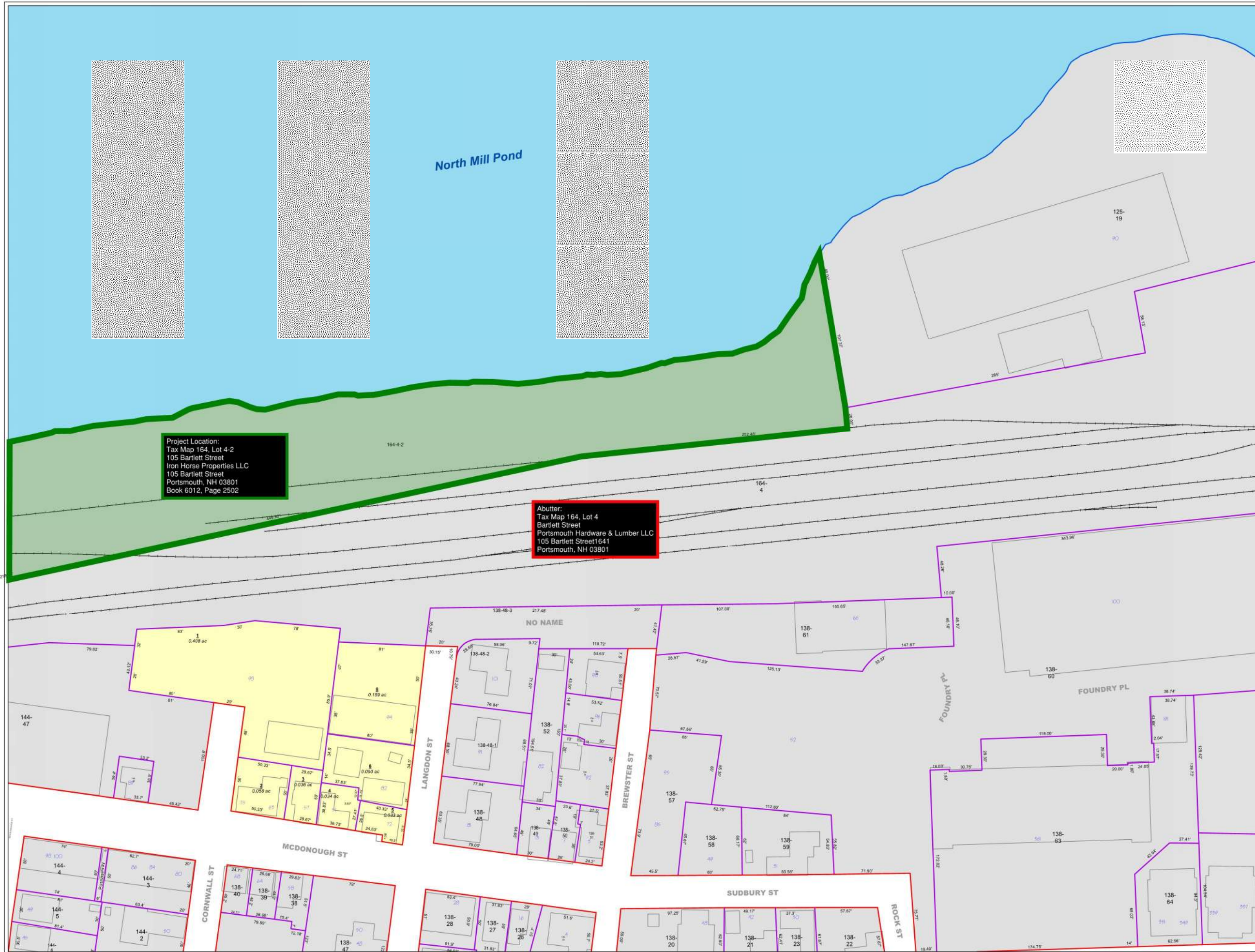
- Partial Legend**
 See the cover sheet for the complete legend.
- 7-5A** Lot or lot-unit number
 - 2.56 ac Parcel area in acres (ac) or square feet (sf)
 - 25 Address number
 - 233-137 Parcel number from a neighboring map
 - 68 Parcel line dimension
 - SIMS AVE** Street name
 - Parcel/Parcel boundary
 - Parcel/ROW boundary
 - Water boundary
 - Structure (1994 data)
 - Parcel covered by this map
 - Parcel from a neighboring map (see other map for current status)



This map is for assessment purposes only. It is not intended for legal description or conveyance. Parcels are mapped as of April 1. Building footprints are 2006 data and may not represent current structures. Streets appearing on this map may be paper (unbuilt) streets. Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.



Portsmouth, New Hampshire
 2020
Tax Map 157



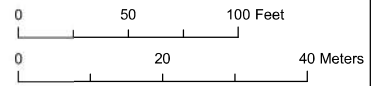
Project Location:
 Tax Map 164, Lot 4-2
 105 Bartlett Street
 Iron Horse Properties LLC
 105 Bartlett Street
 Portsmouth, NH 03801
 Book 6012, Page 2502

Abutter:
 Tax Map 164, Lot 4
 Bartlett Street
 Portsmouth Hardware & Lumber LLC
 105 Bartlett Street
 Portsmouth, NH 03801

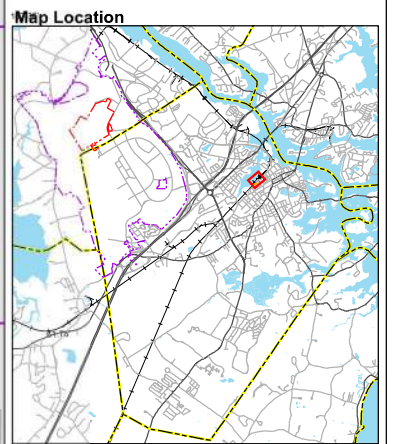
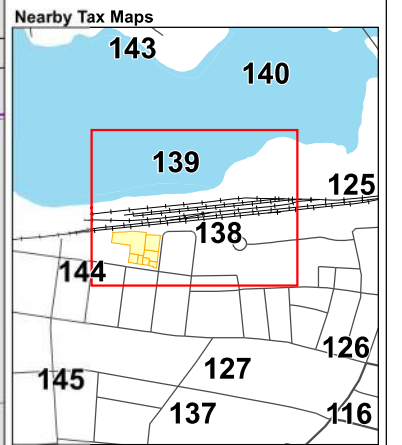
Partial Legend

See the cover sheet for the complete legend.

- 7-5A** Lot or lot-unit number
- 2.56 ac Parcel area in acres (ac) or square feet (sf)
- 25 Address number
- 233-137 Parcel number from a neighboring map
- 68 Parcel line dimension
- SIMS AVE** Street name
- Parcel/Parcel boundary
- Parcel/ROW boundary
- Water boundary
- Structure (1994 data)
- Parcel covered by this map
- Parcel from a neighboring map (see other map for current status)



This map is for assessment purposes only. It is not intended for legal description or conveyance. Parcels are mapped as of April 1. Building footprints are 2006 data and may not represent current structures. Streets appearing on this map may be paper (unbuilt) streets. Lot numbers take precedence over address numbers. Address numbers shown on this map may not represent posted or legal addresses.



Portsmouth, New Hampshire
 2020
Tax Map 139

Abutters List
Proposed Multi-Family Development
105 Bartlett Street
Portsmouth, New Hampshire

<u>ABUTTERS</u>	<u>MAP #</u>	<u>LOT #</u>
------------------------	---------------------	---------------------

Slattery and Dumont LLC
66 Old Concord Turnpike #10
Barrington, NH 03825

158 13

Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801

164 2

164 4

*Since this abutter is one of the property owners, notification has been deemed unnecessary.

OWNERS

Clipper Traders LLC
105 Bartlett Street
Portsmouth, NH 03801

157 1

Portsmouth Hardware & Lumber LLC
105 Bartlett Street
Portsmouth, NH 03801

157 2

164 1

Iron Horse Properties LLC
105 Bartlett Street
Portsmouth, NH 03801

164 4-2

APPLICANTS

Iron Horse Properties LLC
105 Bartlett Street
Portsmouth, NH 03801

MUNICIPALITY

City of Portsmouth
Planning Department
1 Junkins Ave
Portsmouth, NH 03801

ENGINEER

Tighe & Bond, Inc.
177 Corporate Drive
Portsmouth, NH 03801

PUBLIC NOTICE
NOTICE OF INTENT TO FILE

Please take notice that Iron Horse Properties, LLC, applicant, is intending to file an Amendment to a Pending Wetland Permit Application (NHDES File No. 2023-00122) with the New Hampshire Department of Environmental Services for proposed site improvements at 105 Bartlett Street in Portsmouth, New Hampshire.

The proposed development consists of three (3) multi-family apartment buildings including a total of 152 dwelling units. The project includes associated site improvements that consist of the private road cul-de-sac, surface parking, pedestrian access, utilities, lighting, landscaping and stormwater management systems. An Alteration of Terrain Permit (AoT-2026) was issued by NHDES on September 29, 2021.

The proposed project will result in 1,528 SF of permanent impacts to a small forested wetland, 209 SF of permanent impacts to the tidal wetland, and 34,639 SF of permanent impacts to the previously developed tidal buffer zone. Additionally, the project will result in 10,182 SF of temporary impacts to the previously developed tidal buffer zone.

Plans and details of this application are on file, for your review, at the City of Portsmouth Clerk's Office, 1 Junkins Avenue, Portsmouth, New Hampshire (8:00am - 4:30pm) or at the NHDES Wetlands Bureau, 29 Hazen Drive, Concord, New Hampshire (8:00am - 4:00pm).



Firm Mailing Book For Accountable Mail

Name and Address of Sender

Check type of mail or service

Adult Signature Required Priority Mail Express

Adult Signature Restricted Delivery Registered Mail

Certified Mail Return Receipt for Merchandise

Certified Mail Restricted Delivery Signature Confirmation

Collect on Delivery (COD) Signature Confirmation Restricted Delivery

Insured Mail

Priority Mail

\$1.85 0

US POSTAGE
FIRST-CLASS
062S0006911843
FROM 03801

receipt.
ceipt.

USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee		
1.	<p style="text-align: center;">158-13 Slattery and Dumont LLC 66 Old Concord Turnpike #10 Barrington, NH 03825</p>			Handling Charge - if Registered and over \$50,000 in value												
2.																
3.																
4.																
5.																
6.																
7.																
8.																
Total Number of Pieces Listed by Sender Total Number of Pieces Received at Post Office		Postmaster, Per (Name of receiving employee)														

Handling Charge - if Registered and over \$50,000 in value

C-0960-006

E. OMMUNDSEN ON BEHALF OF C. KRZCOIK

1 TOTAL

1 x \$0.60 = \$0.60

1 x \$1.85 = \$1.85

TOTAL: \$ 2.45

Adult Signature Required
 Adult Signature Restricted Delivery
 Restricted Delivery
 Return Receipt
 Signature Confirmation
 Signature Confirmation Restricted Delivery
 Special Handling

Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 1	Date: 3/25/2022	Direction Taken: South
Description: Entrance to the site along Bartlett Street.		
		

The photograph shows the storefront of Ricci Kitchens, a two-story building with a large glass entrance. The building has a gabled roof and a mix of tan and green siding. A paved parking lot with yellow markings is in the foreground, and a road with a crosswalk is visible. The sky is clear and blue.

Photograph No.: 2	Date: 3/25/2022	Direction Taken: Northeast
Description: Paved buffer and eroding banks along North Mill Pond at low tide along the commercial area in southwest portion of the site.		
		

The photograph shows a wide view of a paved road along a body of water (North Mill Pond) at low tide. The road has a white shoulder line and yellow lane markings. In the background, there are several commercial buildings, including one with a sign that says "RICCI'S HARDWARE". The sky is blue with scattered white clouds.

Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 3	Date: 3/25/2022	Direction Taken: Southeast
Description: Lumber yard between Design Center and Ricci Lumber.		



Photograph No.: 4	Date: 3/25/2022	Direction Taken: Northeast
Description: Paved buffer along North Mill Pond along the commercial area in southwest portion of the site.		




Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 5	Date: 3/25/2022	Direction Taken: Northeast
Description: Paved parking area in wetland buffer at Great Rhythm Brewing Company.		
		

Photograph No.: 6	Date: 3/25/2022	Direction Taken: East
Description: Remains of the railroad roundhouse and disturbed forest buffer northeast of the Great Rhythm Brewing Company.		
		

Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 7	Date: 3/25/2022	Direction Taken: East
Description: Wetland dominated by Norway maple and red osier dogwood within the old railroad turntable approximately six feet below grade.		
		


Photograph No.: 8	Date: 3/25/2022	Direction Taken: South
Description: Inside the remains of the railroad turntable.		
		


Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 9	Date: 3/25/2022	Direction Taken: West
Description: Outside wall and foundations of remains of railroad roundhouse.		
		


Photograph No.: 10	Date: 3/25/2022	Direction Taken: North
Description: Inside the remains of the railroad roundhouse.		
		

Photographic Log

Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 11	Date: 3/25/2022	Direction Taken: Northeast
Description: Compacted gravel are around the rear of existing 2 story brick building.		
		

Photograph No.: 12	Date: 3/25/2022	Direction Taken: Southwest
Description: Compacted gravel area around the rear of the existing 2 story brick building.		
		

Photographic Log

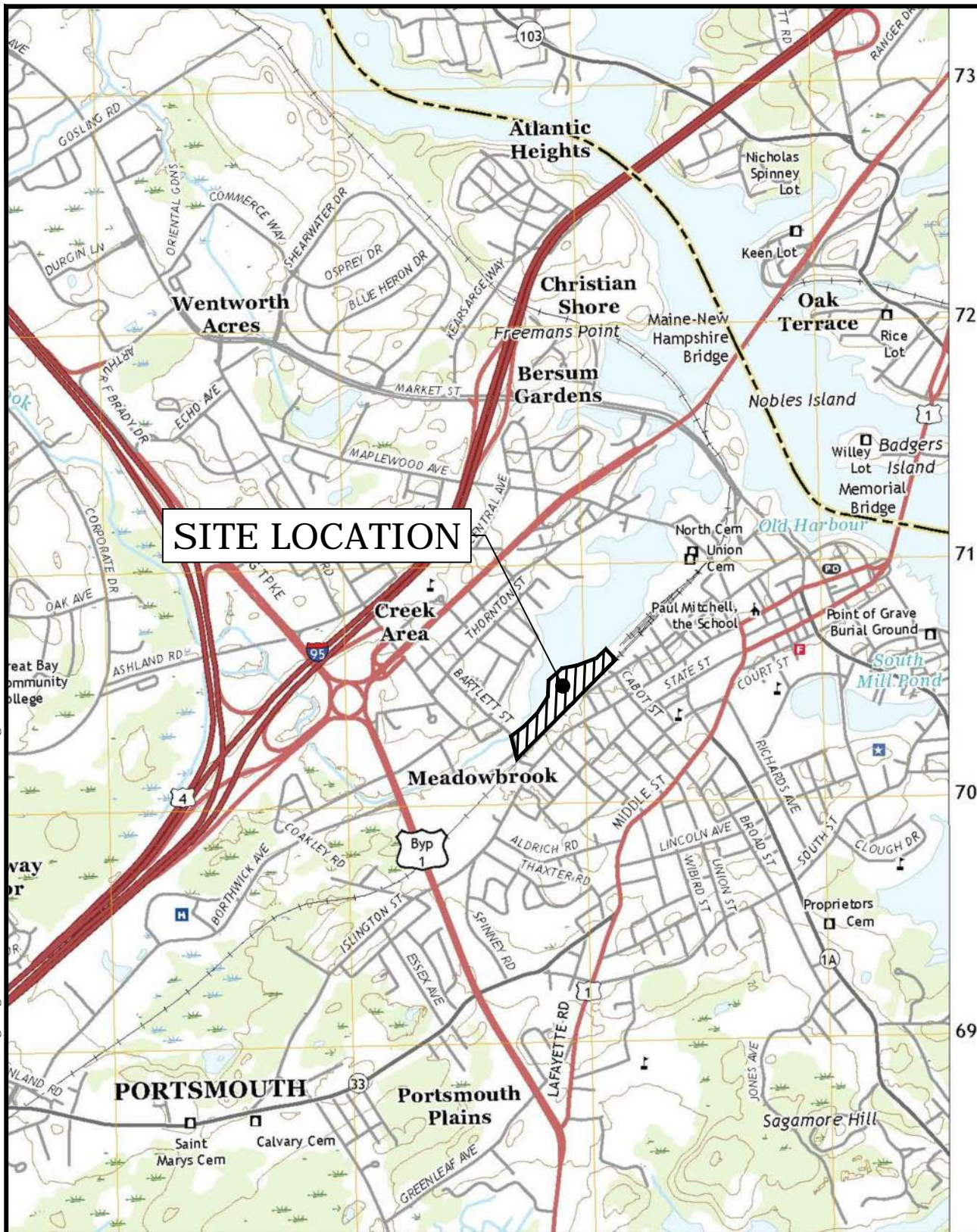
Client: Iron Horse Properties, LLC

Job Number: C-0960-006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 13	Date: 3/25/2022	Direction Taken: South
Description: Compacted gravel area around the side of the existing 2 story brick building.		
		

Photograph No.: 14	Date: 3/25/2022	Direction Taken: Southwest
Description: Compacted gravel area in front of existing 2 story brick building, former contractor storage yard.		
		



NOTE:

1. BASED ON USGS TOPOGRAPHIC MAP FOR PORTSMOUTH, NH, ME (2018).



PROPOSED MULTI-FAMILY DEVELOPMENT
PORTSMOUTH, NH

105 BARTLETT STREET

USGS LOCUS MAP

DATE: 12/05/2019

SCALE: 1" = 2000'

FIGURE: 1

Tighe & Bond
Engineers | Environmental Specialists



M
HOFFER ATTORNEY CORNELL & ROBERTS

18051906 12/21/2018 02:19:25 PM
Book 5970 Page 1701 Page 1 of 7
Register of Deeds, Rockingham County

Cathy Ann Seacy

LCHIP	ROA434150	25.00
TRANSFER TAX	RO085122	576.00
RECORDING		34.00
SURCHARGE		2.00

RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Thirty-Eight Thousand Three Hundred Eighty-One and 00/100 Dollars (\$38,381.00) paid to it by **CLIPPER TRADERS, LLC**, with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801 (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County of Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.
2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other equipment and property of any description necessary or useful for the same~~

~~(the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

~~3. The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.~~

~~4. The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

~~5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.~~

~~6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waive, give up and renounce any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted, threatened, instituted or requested by any person and/or governmental~~

agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~

11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said BOSTON AND MAINE CORPORATION has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 17th day of December, 2018.

GRANTOR:
BOSTON AND MAINE CORPORATION


Witness

By: 
David A. Fink, President



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

Dec. 17, 2018

On this 17th day of December, 2018, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.




Notary Public
My Commission Expires:

GRANTEE:
CLIPPER TRADERS, LLC

Kevin B
Witness

By: Edward R. Hayes
Edward R. Hayes, Manager

STATE OF NEW HAMPSHIRE

Rockingham, ss.

December 21, 2018

The foregoing instrument was acknowledged before me on this 21st day of December, 2018, by Edward R. Hayes, as Manager of Clipper Traders, LLC, duly authorized.

Kevin B
Justice of the Peace/Notary Public
My Commission Expires: _____



EXHIBIT "A"

To be transferred from Boston and Maine Corporation to
Clipper Traders, LLC
Portsmouth, NH

Beginning at a spike at the base of a bent iron pipe at the northeasterly corner of land now or formerly of Clipper Traders, LLC; thence running across land now or formerly of the Boston and Maine Corporation the following five (5) courses: S 46°54'17" E a distance of 11.80 feet to a point; thence S 46°49'03" W a distance of 457.31 feet; thence N 46°49'43" W a distance of 11.20 feet; thence continuing on the last bearing 12 feet, more or less, to the mean high water line of North Mill Pond, so called, thence turning and running in a northeasterly direction along the mean high water line said North Mill Pond 41 feet more or less to land now or formerly of Clipper Traders, LLC; thence turning and running along land of Clipper traders a distance of 74 feet, more or less, to an iron rod; thence continuing along the land now or formerly of said Clipper Traders, LLC the following two (2) courses, N 52°50'28" E a distance of 170.00 feet to an iron rod; thence N 43°16'48" E a distance of 175.00 feet to a spike at the base of a bent iron pipe and the point of beginning. The above described parcel of land containing 5,483 square feet, more or less, is shown on a plan prepared by Ambit Engineering, Inc., dated DECEMBER 2018, recorded with the Rockingham County Registry of Deeds in Plan Book ~~_____~~ Plan D 41242.

(M)
HOEFNE PHOENIX GORMLEY + ROBERTS.

18051905 12/21/2018 02:19:24 PM
Book 5970 Page 1693 Page 1 of 8
Register of Deeds, Rockingham County

Cathy Ann Seacy

LCHIP	ROA434149	25.00
TRANSFER TAX	RO085121	11,600.00
RECORDING		38.00
SURCHARGE		2.00



RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Seven Hundred Seventy-Three Thousand Three Hundred Thirty-Nine and 00/100 Dollars (\$773,339.00) paid to it by **PORTSMOUTH LUMBER & HARDWARE, LLC**, with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801 (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County of Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.
2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other~~

~~equipment and property of any description necessary or useful for the same (the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

~~3. The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.~~

~~4. The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

~~5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.~~

~~6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waive, give up and renounce any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted,~~

threatened, instituted or requested by any person and/or governmental agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations~~

~~and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~

11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

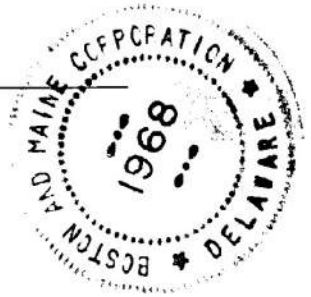
12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said BOSTON AND MAINE CORPORATION has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 17th day of December, 2018.

GRANTOR:
BOSTON AND MAINE CORPORATION


Witness

By: 
David A. Fink, President



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

DEC. 17, 2018

On this 17th day of December, 2018, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.




Notary Public
My Commission Expires:

**GRANTEES:
PORTSMOUTH LUMBER & HARDWARE, LLC**

[Signature]
Witness

By: [Signature]
Edward R. Hayes, Manager

STATE OF NEW HAMPSHIRE

Rockingham, ss.

December 21, 2018

The foregoing instrument was acknowledged before me on this 21st day of December, 2018, by Edward R. Hayes, as Manager of Portsmouth Lumber & Hardware, LLC, duly authorized.

[Signature]
Justice of the Peace/Notary Public
My Commission Expires: _____



EXHIBIT "A"

To be transferred from Boston and Maine Corporation to
Portsmouth Lumber and Hardware, LLC
Portsmouth, NH

Beginning at a point on the northeasterly side of Bartlett Street, so called, said point being located 39.83 feet left of Station 2970+18.15 on the Boston and Maine Corporation Centerline of Location; thence running along the northeasterly side of said Bartlett Street N 13°40'31" W a distance of 66.68 feet to a point; thence turning and running along land now or formerly of Portsmouth Lumber and Hardware, LLC the following ten (12) courses, on a curve turning to the left with an arc length of 111.58 feet, with a radius of 993.54 feet, said curve having a chord bearing of N 46°41'16" E, with a chord length of 111.52 feet; thence on a curve turning to the left with an arc length of 40.77 feet, with a radius of 993.54 feet, said curve having a chord bearing of N 42°17'42" E, with a chord length of 40.77 feet; thence on a curve turning to the left with an arc length of 47.40 feet, with a radius of 1101.05 feet, said curve having a chord bearing of N 39°52'54" E, with a chord length of 47.40 feet; thence on a curve turning to the right with an arc length of 12.23 feet, with a radius of 1370.56 feet, said curve having a chord bearing of N 38°54'14" E, with a chord length of 12.23 feet; thence on a curve turning to the right with an arc length of 56.34 feet, with a radius of 1370.56 feet, said curve having a chord bearing of N 40°20'14" E, with a chord length of 56.34 feet; thence N 41°30'53" E a distance of 170.76 feet; thence N 48°29'11" W a distance of 42.16 feet; S 53°33'53" W a distance of 121.62 feet; N 38°21'53" W a distance of 11.17 feet; thence on a curve turning to the right with an arc length of 42.05 feet, with a radius of 816.13 feet, said curve having a chord bearing of S 62°52'35" W, with a chord length of 42.04 feet; thence turning and running over and across land now or formerly of said Boston and Maine Corporation the following eighteen (18) courses, N 48°38'22" E a distance of 160.53 feet; thence N 44°10'56" E a distance of 45.82 feet; thence N 44°29'34" E a distance of 49.31 feet; thence on a curve turning to the left with an arc length of 42.87 feet, with a radius of 200.00 feet, said curve having a chord bearing of N 38°21'07" E, with a chord length of 42.79 feet; thence on a curve turning to the right with an arc length of 38.24 feet, with a radius of 150.00 feet, said curve having a chord bearing of N 39°30'52" E, with a chord length of 38.14 feet; thence N 46°49'03" E a distance of 552.23 feet; thence on a curve turning to the right with an arc length of 45.66 feet, with a radius of 35.00 feet, said curve having a chord bearing of N 84°11'20" E, with a chord length of 42.49 feet; thence on a curve turning to the left with an arc length of 80.92 feet, with a radius of 60.00 feet, said curve having a chord bearing of N 82°55'23" E, with a chord length of 74.93 feet; thence S 45°30'58" E a distance of 51.44 feet; thence S 44°29'02" W a distance of 182.37 feet; thence S 44°19'01" W a distance of 486.35 feet; thence S 40°03'53" W a distance of 35.57 feet; thence S 44°17'25" W a distance of 112.65 feet (being 68.06 feet and 44.59 feet); thence S 43°15'05" W a distance of 63.86 feet; thence S 46°55'09" W a distance of 87.10 feet; thence S 43°22'17" W a distance of 147.08 feet (being 86.86 feet and 60.22 feet); thence S 39°31'55" W a distance of 38.45 feet; thence S 45°20'50" W a distance of 138.59 feet to the northeasterly side of said Bartlett Street and the point of beginning. The

above described parcel of land containing 110,477 square feet, more or less, is shown on a plan prepared by Ambit Engineering, Inc., dated DECEMBER 2018, recorded with the Rockingham County Registry of Deeds in Plan ~~Book _____~~ Plan D41242 and excludes any property previously conveyed to the Grantee by deed from Ricci Supply Company, Inc. dated October 30, 2012 and recorded in the Rockingham County Registry of Deeds at Book 5372, Page 2606, being Parcels 2 and 3 of said deed.

Return to:



After recording return to:
Bosen & Associates, PLLC
96 Chestnut Street
Portsmouth, NH 03801



WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That, **Ricci Supply Company, Inc.**, a New Hampshire corporation of 105 Bartlett Street, Portsmouth, NH 03801, for consideration paid grant(s) to **Portsmouth Lumber & Hardware, LLC**, a New Hampshire limited liability Company, of with an address of c/o Bosen & Associates, PLLC 96 Chestnut Street, Portsmouth, NH 03801, with **WARRANTY COVENANTS**:

Parcel 1:

A certain piece or parcel of land situated in Portsmouth, County of Rockingham and State of New Hampshire located on the Easterly side of Bartlett Street, so called, in Portsmouth, and being 3 parcels of land as shown on a plan entitled "Subdivision of Land, Portsmouth, New Hampshire, for George and Pauline J. Frisbee" dated December, 1976, John W. Durgin, Civil Engineers, said plan being recorded in the Rockingham County Registry of Deeds as Plan #C-6587, and said parcels being bounded and described as follows:

Beginning in the Northwesterly corner of said parcel at land now or formerly of the Boston & Maine Railroad; thence running North 53° 52' 15" East, 55.91 feet to a point; thence running by a curve to the right having a radius of 448.97 feet a distance of 94.55 feet, more or less, to a point; thence running by a curve to the left having a radius of 816.11 feet a distance of 58.22 feet, more or less to a set iron pin; thence turning and running South 35° 58' 45" East a distance of 13.19 feet to a set iron pin; thence turning and running North 54° 01' 15" East a distance of 121.62 feet, more or less, to land of the Boston & Maine Railroad; thence turning and running South 48° 01' 45" East a distance of 42.16 feet to a set iron pin at land of the Boston & Maine Railroad; thence turning and running South 41° 58' 15" West, by and along land of the Boston & Maine Railroad a distance of 132 feet, more or less, to a set iron pin; thence continuing South 41° 58' 15" West a distance of 38.76 feet to a point; thence turning and running by a curve to the left having a radius of 1,370.60 feet a distance of 56.34 feet to a set iron pin at land now or formerly of Ricci Construction Company a distance of 27 feet to a set drill hole; thence turning and running South 45° 56' 05" West a distance of 102.50 feet to a point ; thence turning and running North 41° 10' 40" West a distance of 10 feet to a point; thence turning and running South 49° 15' 25" West by and along said land of Frisbee a distance of 65.69 feet to a point on the Southerly sideline of Bartlett Street; thence turning and running by a curve to the left having a radius of 288.61 feet by and along the Easterly sideline of Bartlett Street a distance of 116.21 feet to a set iron pin.

055827

2012 OCT 31 PM 2:09

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

This deed is given subject to and together with the right to use in common with others the 15 foot right of way as shown on said plan.

Meaning and intending to describe and convey all of the premises described in Deed from George E. Frisbee dated November 15, 1984 and recorded in the Rockingham County Registry of Deeds in Book 2520, Page 1564.

The above description is a re-draft of the same description set forth in the deed recorded at Book 2520, Page 1564. That description inadvertently included Parcel #2 on the aforesaid plan which parcel had previously been conveyed to Arthur W. and Carol J. Frisbee, by deed dated January 21, 1977 and recorded in the Rockingham County Registry of Deeds at Book 2274, Page 1241.

Parcel 2:

A certain piece or parcel of land situated in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at remaining land of the Boston and Maine Railroad at a point 124.02 feet North 43° 03' 05" West from Station 2975 + 36.23 on the center line of location of the main line "East Route", so called, of the Portland Division of said railroad; thence running by said remaining land of said Railroad on six (6) courses as follows: North 43° 03' 05" West 52.60 feet, North 46° 56' 55" East 308.00 feet, South 43° 03' 05" East 65.02 feet, South 43° 30' 15" West 40.29 feet, Southwesterly on a curve to the right having a radius of 383.07 feet, 99.58 feet and South 58° 23' 55" West 70.28 feet to the point of beginning, be all of said measurement more or less, said parcel containing about 20,949 square feet and being shown upon plan marked "Land in Portsmouth, NH Boston and Maine Railroad-to-Erminio A. Ricci J. F. Kerwin Eng'r. of Design May, 1957", recorded in the Rockingham County Registry of Deeds.

Together with a right of way to Bartlett Street as set forth in deeds recorded at Book 1435, Page 485 and Book 1436, Page 371.

And this conveyance is made subject to such other restrictions, conditions and covenants as described in Deed of Boston and Maine Railroad to Erminio A. Ricci dated June 21, 1957 and recorded in the Rockingham County Registry of Deeds at Book 1435, Page 485.

Meaning and intending to describe and convey the same premises from Erminio A. Ricci dated June 28, 1957 and recorded in the Rockingham County Registry of Deeds at Book 1436, Page 371.

Parcel 3:

A certain piece or parcel of land located off Bartlett Street, Portsmouth, County of Rockingham and State of New Hampshire, and being further bounded and described as follows:

Beginning at land of the Boston and Maine Railroad at a point 43° 03' 05" West, ninety three and six hundredths (93.06) feet from Station 2978 plus 44.79 on the center line of location of Portland Main Line (East) Boston Division of said Railroad; thence running North 43° 03' 05" West by land of Erminio A. Ricci, sixty five and two hundredths (65.02) feet to a point eight

(8.00) feet Southeasterly from the Easterly track of a side track of said Railroad; thence turning and running North 46° 56' 55" East one hundred and thirty two (132.00) feet to a point; thence turning and running South 43° 03' 05" East forty-nine (49.00) feet to a point; thence turning and running South 40° 01' 49" West one hundred thirty- two and ninety-six hundredths (132.96) feet to the point of beginning, the last three (3) courses all being by remaining land of said Railroad, be all of said measurements more or less, and containing about seven thousand five hundred and twenty five (7525) square feet of land as shown on a plan entitled A Land of Portsmouth, NH Boston and Maine Railroad – to – Erminio A. Ricci, J.F. Kewin Asst. Chief Engineer, Apr. 1960", which has been recorded in the Rockingham County Registry of Deeds at Plan #02612.

Subject to the conditions and exceptions as set forth in the deed from Boston and Maine Railroad to Erminio A. Ricci dated June 30, 1961 and recorded in the Rockingham County Registry of Deeds at Book 1595, Page 87.

Meaning and intending to describe and convey the same premises conveyed to the Grantor herein by Deed from Joanne Grasso, Robert A. Ricci, Sr., Alice E. Hayes and Margaret Gagne dated February 12, 1999 and recorded in the Rockingham County Registry of Deeds in Book 3368, Page 2165.

Reference is made to a Deed from Henry M. Tidgwell and Lynn B. Tidgwell dated May 15, 2012 and recorded in the Cumberland County Registry of Deeds in Book 25942, Page 298.

Executed this 30 day of October, 2012.

Ricci Supply Company, Inc.

ER Hayes, President
By: Edward R. Hayes, President

STATE of NEW HAMPSHIRE
COUNTY of ROCKINGHAM

The foregoing instrument was acknowledged before me this 30 day of October, 2012 by Edward R. Hayes, President of Ricci Supply Company, Inc. a New Hampshire corporation on behalf of the corporation.

CHRISTOPHER P. MULLIGAN
Justice of the Peace - New Hampshire
My Commission Expires January 30, 2013

[Signature]
Notary Public/Justice of the Peace
Commission expiration:



(M)
Hette Phoenix Gamley + Roberts
PO Box 4480
Portsmouth NH 03802-04480

Cathy Ann Seacy

LCHIP	ROA452140	25.00
TRANSFER TAX	RO089141	5,969.00
RECORDING		34.00
SURCHARGE		2.00

RELEASE DEED

The **BOSTON AND MAINE CORPORATION**, a corporation duly organized and existing under the laws of the State of Delaware, with offices at Iron Horse Park, North Billerica, Middlesex County, Massachusetts (the "Grantor") in consideration of Three Hundred Ninety-Seven Thousand Eight Hundred Fifty-Three and 50/100 Dollars (\$397,853.50) paid to it by **IRON HORSE PROPERTIES, LLC** with a mailing address of 105 Bartlett Street, Portsmouth, New Hampshire 03801, (the "Grantee") hereby grants to the Grantee all the Grantor's right, title and interest, without any warranties or covenants of title whatsoever, in a certain parcel of land, and the buildings, bridges, structures, crossings, fixtures and improvements thereon, if any, situated in Portsmouth, County Rockingham, State of New Hampshire (the "Premises") described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND
MADE A PART HEREOF BY THIS REFERENCE.

This conveyance is subject to the following reservations, conditions, covenants and agreements:

1. This conveyance is made without granting any right of way, either by necessity or otherwise, over any remaining land or location of the Grantor.
2. ~~The Grantor hereby reserves a permanent, exclusive right of way and easement in, on, over, under, across and through the Premises for the purpose of accessing, constructing, installing, operating, maintaining, modifying, repairing, replacing, relocating and removing a telecommunications system or other system for transmission of intelligence or information by any means, whether now existing or hereafter devised, including such poles, pipes, wires, fibers, fiber optic cables, repeater stations, attachments, appurtenances, structures or other equipment and property of any description necessary or useful for the same~~

~~(the "Telecommunications Easement"). The Grantor further reserves the right to freely lease, license, mortgage, assign, pledge and otherwise alienate the Telecommunications Easement. The Grantee hereby covenants with the Grantor to recognize the Telecommunications Easement and, without the payment of any further consideration, to execute, acknowledge and deliver such instruments suitable for recording with the registry of deeds as the Grantor may reasonably require to acknowledge title to the Telecommunications Easement in the Grantor. The Grantor covenants to reasonably repair and restore the surface of the easement area after any work.~~

3. The Grantor excepts from this conveyance any and all railroad tracks, railroad track materials (including, but not limited to, ties, connections, switches and ballast) and/or related equipment of any description located in whole or in part within the Premises (the "Trackage") and this conveyance is subject to the right of the Grantor to enter the Premises from time to time and at any and all times within the ninety (90) day period commencing with and subsequent to the date of delivery of this deed, with such men, equipment and materials as, in the reasonable opinion of the Principal Engineering Officer of the Grantor, are necessary for the removal of the Trackage. Days during the months of December, January, February and March shall not be included in the aforesaid ninety (90) day period. If the Trackage is not removed from the Premises by the expiration of said ninety (90) day period, the Trackage shall be deemed abandoned by the Grantor and shall then become the property of the Grantee.

~~4. The Grantor excepts from this conveyance any and all advertising signs and/or billboards located upon the Premises which are not owned by the Grantor. Furthermore, this conveyance is subject to the right of the owners of said signs and/or billboards to go upon the Premises and remove them within ninety (90) days from the date of delivery of this deed.~~

5. By the acceptance of this deed and as part consideration therefor, the Grantee hereby assumes any and all agreements, covenants, obligations and liabilities of the Grantor in respect to any underground facilities, drainage culverts, walls, crossings and/or other structures of any nature and description located in whole or in part within the Premises.

6. By the acceptance of this deed and as part consideration therefor, the Grantee agrees to irrevocably waive, give up and renounce any and all claims or causes of action against the Grantor in respect of claims, suits and/or enforcement actions (including any administrative or judicial proceedings and any remedial, removal or response actions) ever asserted, threatened, instituted or requested by any person and/or governmental

agency on account of: (a) any release of oil or hazardous materials or substances of any description on, upon or into the Premises in contravention of any ordinance, law or statute (including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601, et seq., as amended); and (b) any and all damage to real or personal property, natural resources and/or harm or injury to persons alleged to have resulted from such release of oil or hazardous materials or substances.

7. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to build and forever maintain fences (together with any necessary gates), suitable to the Principal Engineering Officer of the Grantor, along the boundaries of the Premises which are common to remaining land or location of the Grantor (the "Fences"), if Fences are ever required in the sole and reasonable opinion of said Principal Engineering Officer; provided, however, that such requirement shall be subject to Grantee's receipt of all necessary, final and unappealable, municipal permits and approvals to erect such fence on or immediately adjacent (within 2 feet) to the common property boundary.

8. This conveyance is subject to the following restriction for the benefit of other land or location of the Grantor, to wit: that from the date of delivery of this deed, the Grantor shall not be liable to the Grantee or any lessee or user of the Premises (or any part thereof) for any damage to any buildings or property upon them caused by fire, whether communicated directly or indirectly by or from locomotive engines of any description upon the railroad operated by the Grantor, or otherwise.

9. By the acceptance of this deed and as part consideration therefor, the Grantee hereby agrees to make no use of the Premises which, in the sole and reasonable opinion of the Principal Engineering Officer of the Grantor, adversely affects, increases or decreases drainage to, from, upon or in any remaining land or location of the Grantor. The Grantee agrees to indemnify and save the Grantor harmless from and against any and all loss, cost, damage or expense including, but not limited to, the cost of defending all claims and/or suits for property damage, personal injury or death arising out of or in any way attributable to any breach of the foregoing covenant.

10. ~~The Grantor excepts from this conveyance any and all overhead, surface or underground signal and communication line facilities of the Grantor located within the limits of the Premises and this conveyance is subject to the Grantor's use of any such facilities in their present locations and entry upon the Premises from time to time to maintain, repair, replace, renew, relay or remove such facilities.~~


11. Whenever used in this deed, the term "Grantor" shall not only refer to the **BOSTON AND MAINE CORPORATION**, but also its successors, assigns and affiliates and the term "Grantee" shall not only refer to the above-named Grantee, but also the Grantee's successors, assigns and grantees, as the case maybe.

12. The several exceptions, reservations, conditions, covenants and agreements contained in this deed shall be deemed to run with the land and be binding upon the Grantee forever. In addition to the acceptance and recording of this deed, the Grantee hereby signifies assent to the said several exceptions, reservations, conditions, covenants and agreements, by joining in its execution.

IN WITNESS WHEREOF, the said BOSTON AND MAINE CORPORATION has caused this release deed to be executed in its name and its corporate seal to be hereto affixed by David A. Fink, its President, thereunto duly authorized this 25TH day of June, 2019.

GRANTOR:
BOSTON AND MAINE CORPORATION


Witness

By: 
David A. Fink, President



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

6/25, 2019

On this 25TH day of JUNE, 2019, before me, the undersigned notary public, personally appeared David A. Fink, President as aforesaid, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.




Notary Public
My Commission Expires: 8-10-23

GRANTEE:
IRON HORSE PROPERTIES, LLC

Kevin B
Witness

By: E.R. Hayes

STATE OF NEW HAMPSHIRE

Rockingham, ss.

June 28, 2019

On this 28th day of June, 2019, before me, the undersigned notary public, personally appeared Edward R. Hayes, Manager as aforesaid, proved to me through satisfactory evidence of identification, which was a New Hampshire driver's license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Kevin B
Notary Public
My Commission Expires:



EXHIBIT "A"

Boston and Maine Corporation
to
Iron Horse Properties, LLC

Conveyance of Land
in
Portsmouth, NH

Beginning at a point located 84.90 feet left of Station 2997+56.71 on the Boston and Maine Corporation Centerline of Location; thence turning and running over and across land now or formerly of said Boston and Maine Corporation the following three (2) courses, S 43°02'53" W a distance of 252.48 feet to a point; thence S 36°51'07" W a distance of 449.80 feet to a point at land of Iron Horse Properties, LLC, said point being 36.35 feet left of Station 2990+57.06 on the Boston and Maine Corporation Centerline of Location; thence turning and running along land of Iron Horse Properties, LLC N 48°48'48" W a distance of 105.59 feet to an iron rod, and continuing along the same course 34 feet +/- to the mean high water line of the North Mill Pond; thence turning and running 787 feet more or less along the mean high water line of said North Mill Pond to a point at land of the David F. Mahoney Marital QTIP Trust of 1999 at the mean high water line; thence turning and running along land of the Mahoney Trust S 50°34'45" E a distance of 40 feet more or less to an iron rod set; thence continuing along land of the Mahoney Trust S 50°34'45" E a distance of 107.37 feet to a point at land of the Boston and Maine Corporation; thence running across land of the Boston and Maine Corporation S 46°57'07" E a distance of 20.00 feet to the point of beginning. The above described parcel of land having an area of 72,337 square feet, more or less, as shown on plan entitled "Lot Line Relocation Plan Tax Map 164 – Lots 4 & 4-2" dated April 2019, prepared by Ambit Engineering, Inc. and recorded with Rockingham County Registry of Deeds as plan number D-41570.

Owner's Letter of Authorization

This letter is to authorize Iron Horse Properties, LLC (Applicant/Owner) to represent the interest of Clipper Traders, LLC (owner) in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 157 Lot 1. This authorization shall include any required signatures for local, state and federal permit applications.

E.R. Hayer
Signature

Edward Hayer, member
Print Name *C.T.*

15 Apr 20
Date

[Signature]
Witness

Jan Lichtner
Print Name

4/15/20
Date

Owner's Letter of Authorization

This letter is to authorize Iron Horse Properties, LLC (Applicant/Owner) to represent the interest of Portsmouth Lumber & Hardware, LLC (owner) in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 164 Lot 1 and Tax Map 157 Lot 2. This authorization shall include any required signatures for local, state and federal permit applications.

E.H. Hayer
Signature

Edward Hayer, Mgr.
Print Name P.L.H.

15 APR 20
Date

[Signature]
Witness

Jan Lichtenstein
Print Name

4/15/20
Date

Agent Letter of Authorization

I, Edward Hayes, Member, of Iron Horse Properties, LLC (Applicant/Owner) hereby give Tighe & Bond (site/civil Engineer) permission to be my agent in all site design and permitting matters for the proposed development project located at 105 Bartlett Street in Portsmouth, New Hampshire on parcels of land identified as Tax Map 164 Lot 1 & Lot 4-2 and Tax Map 157 Lot 1 & Lot 2. This authorization shall include any required signatures for local, state and federal permit applications.

E.P. Hayes
Signature

Edward Hayes,
Print Name *member*
I.H.P.

15 APR 20
Date

[Signature]
Witness

Jan Lichtenstein
Print Name

15 APR 20
Date

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Colter Krzcuik, Tighe and Bond
177 Corporate Drive

Portsmouth, NH 03801

From: NH Natural Heritage Bureau

Date: 4/11/2022 (valid until 4/11/2023)

Re: Review by NH Natural Heritage Bureau of request submitted 3/29/2022

Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill
- Major

NHB ID: NHB22-1202

Applicant: Iron Horse Properties, LLC,
Rob Simmons

Location: Portsmouth
105 Bartlett Street

Project

Description: The re-development of an existing property into a multi-use and multi-family residential complex.

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

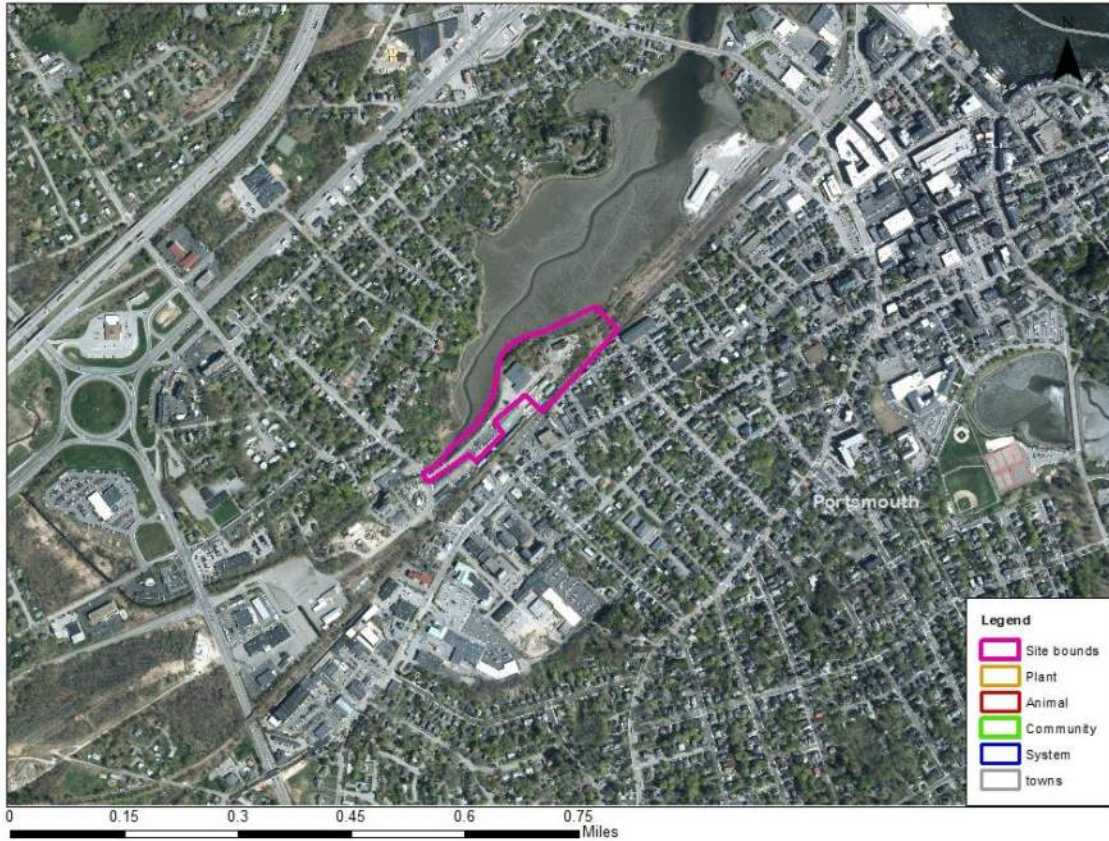
It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 2022-03-29 10:56:56 AM, and cannot be used for any other project.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1202**

NHB22-1202



Neil A. Hansen

From: Jeremy Degler
Sent: Tuesday, June 1, 2021 12:42 PM
To: Neil A. Hansen; Patrick M. Crimmins
Cc: Leonard Lord
Subject: FW: NHFG TEWHA Review: NHB21-0540_Multi-Family Dev Portsmouth_AoT 210405-047

Good afternoon –

Please see below for the Fish & Game comments for the project at 105 Bartlett Street. They've requested that their conditions be incorporated into the sheet plans and provided for final review.

Let me know if you have any questions,

Jeremy Degler, PWS, CWS | Project Environmental Scientist

Tighe & Bond | 177 Corporate Drive | Portsmouth, NH 03801

Direct: 603.294.9211 | Cell: 603.732.7906

www.tighebond.com | Follow us on: [Twitter](#) [Facebook](#) [LinkedIn](#)

Tighe&Bond

From: Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Sent: Monday, May 31, 2021 9:44 PM
To: Jeremy Degler <JDegler@TigheBond.com>
Cc: McCarthy, Bethann <Bethann.M.McCarthy@des.nh.gov>; Price, David <DAVID.A.PRICE@des.nh.gov>; Giallongo, Stefanie <Stefanie.M.Giallongo@des.nh.gov>
Subject: NHFG TEWHA Review: NHB21-0540_Multi-Family Dev Portsmouth_AoT 210405-047

[Caution - External Sender]

Jeremy,

The New Hampshire Fish and Game has completed our review of the threatened and endangered wildlife and habitat assessment (TEWHA) report dated March 2021 and prepared by Tighe & Bond, for the removal of all existing structures and the subsequent development of two (2) multi-family apartment buildings with basement level parking and one (1) mixed-use building with first floor office and amenity space and upper story apartments on +/- 12 acres located at 105 Bartlett Street on five properties identified on tax maps as Map 157, Lots 1 and 2 (1.42 and 2.34 acres, respectively), Map 164, Lots 1 and 4-2 (1.19 and 5.73 acres, respectively), and a private roadway lot (1.60 acres) in Portsmouth, New Hampshire (Site).

NHFG provided comments on the wetlands application for this proposed project that included the applicant's proposed conservation measures below:

Due to the presence of shrub thicket habitat and food sources, sweeps for protected species should be conducted prior to work commencement if conducted during the nesting periods for the species identified as potentially utilizing the site for feeding or breeding. If any erosion control blankets are used, they should be made of biodegradable, wildlife friendly netting to help avoid wildlife from becoming entangled in the materials. There should be no sumps in detention basin outlets and catch basins adjacent to wetlands and tidal areas to avoid entrapment and mortality to wildlife. The use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting should be avoided, if needed. The use of erosion control berm, white

Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

NHFG commented in addition to the above on the following (email comm. 04/01/2021):

Kim Tuttle, NHFG Biologist:

- Where sumps have been removed from detention basin outlets and catch basins adjacent to wetlands and tidal areas, they should be immediately daylighted to enable entrapped wildlife to escape.
- Because of the high density development, a natural slow release fertilizer such as Pro Gro 5-3-4 or similar should be specified in the plans to protect water quality where fertilizer is needed. Please confirm that this has been included in the plans. Natural fertilizers should be specified for the long-term lawn care program for the development and the use of chemical pesticides, fungicides, and herbicides should be prohibited to reduce indirect impacts to tidal waters.

Based on the NHB datacheck results letter and the information provided in the assessment and associated plans, NHFG agrees with the TEWHA that if all conservation measures are incorporated as described, the project design will not jeopardize the continued existence of state or federally threatened and endangered. **We request the following recommended permit conditions be incorporated into the sheet plans as requested and provided to NHDES cc NHFG for final review. Please update highlighted text below.**

New Hampshire Fish and Game AoT Permit Conditions Related to Threatened and Endangered Species:

- The shrub thicket habitat shall be surveyed for protected species prior to work commencement by an experienced wildlife biologist if conducted during the nesting periods for the species identified as potentially utilizing the site for feeding or breeding.
- No sumps shall be included in catch basins for the protection of wildlife.
- Due to the proximity of the site to North Mill Pond, the use of fertilizers shall be avoided to extent possible. If fertilizer is necessary, a natural slow release nitrogen fertilizer shall be used.
- All manufactured erosion and sediment control products, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, and inlet protection, check dams, sediment traps, and silt fence installed in accordance with Env-Wq 1506.04, shall not contain welded plastic, plastic, or multi-filament or monofilament polypropylene netting or mesh.
- All observations of threatened or endangered species shall be reported immediately to the New Hampshire Fish and Game Department Nongame and Endangered Wildlife Environmental Review Program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov. Email subject line: **NHBXX-XXXX, PROJECT NAME, Wildlife Species Observation**. Photographs shall be provided for verification as feasible; and
- The New Hampshire Fish and Game Department shall have access to the property during the term of the permit.

NHFG has completed its project review consistent with the requirements of RSA 212-A and Env-Wq 1503.19(h). No further coordination with NHFG is requested if the above recommended permit conditions are incorporated into the project plan set/project design, and there are no additional plan/design modifications.

Please let me know if you have any questions.

Thank you,
Melissa

Melissa Doperalski

Certified Wildlife Biologist®
Nongame and Endangered Wildlife Program
New Hampshire Fish and Game Department
11 Hazen Drive
Concord, New Hampshire 03301

Melissa.doperalski@wildlife.nh.gov

Phone: 603-271-1738

<http://www.wildlife.state.nh.us/nongame/index.html>



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<http://www.wildlife.state.nh.us/nongame/reptiles-amphibians.html>

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1) Email details of observation or completed form to RAARP@wildlife.nh.gov

2) Enter your observation online at <http://nhwildlifesightings.unh.edu>.

3) Mail your reporting slip <http://www.wildlife.state.nh.us/nongame/documents/raarp-report-form.pdf>



WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management
Wetlands Bureau



[Check the Status of your Application](#)

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

APPLICANT LAST NAME, FIRST NAME, M.I.: **Iron Horse Properties, LLC**

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

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

SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)	
ADJACENT LAND USE: Roads, commercial buildings with lawns and parking lots, abandoned buildings, railroad	
CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): 0 ft	
SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: Leonard Lord, PhD, CWS	
DATE(S) OF SITE VISIT(S): 10/29/19, 12/2/2019	DELINEATION PER ENV-WT 406 COMPLETED? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
CONFIRM THAT THE EVALUATION IS BASED ON: <input checked="" type="checkbox"/> Office and <input checked="" type="checkbox"/> Field examination.	
METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"): <input checked="" type="checkbox"/> USACE Highway Methodology. <input checked="" type="checkbox"/> Other scientifically supported method (enter name/ title): Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes (Bryan et al., 1997)	

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SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID: [REDACTED]	LOCATION: (LAT/ LONG) 43°04'23.7"N / 70°46'13.6"W [REDACTED]
WETLAND AREA: N/A	DOMINANT WETLAND SYSTEMS PRESENT: Mudflats, Rocky Shore, High Salt Marsh along the site
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? N/A	COWARDIN CLASS: E2US3N, E2RS2N, EEM1N
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No if not, where does the wetland lie in the drainage basin? Bottom	IS THE WETLAND PART OF: <input type="checkbox"/> A wildlife corridor or <input type="checkbox"/> A habitat island? IS THE WETLAND HUMAN-MADE? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ARE VERNAL POOLS PRESENT? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/ DOWNGRADIANT? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
PROPOSED WETLAND IMPACT TYPE: Redevelopment of upland buffer	PROPOSED WETLAND IMPACT AREA: 245 sf

SECTION 4 - WETLANDS FUNCTIONS AND VALUES (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

The following table can be used to compile data on wetlands functions and values. The reference numbers indicated in the "Functions/ Values" column refer to the following functions and values:

1. Ecological Integrity (from RSA 482-A:2, XI)
2. Educational Potential (from USACE Highway Methodology: Educational/Scientific Value)
3. Fish & Aquatic Life Habitat (from USACE Highway Methodology: Fish & Shellfish Habitat)
4. Flood Storage (from USACE Highway Methodology: Floodflow Alteration)
5. Groundwater Recharge (from USACE Highway Methodology: Groundwater Recharge/Discharge)
6. Noteworthiness (from USACE Highway Methodology: Threatened or Endangered Species Habitat)
7. Nutrient Trapping/Retention & Transformation (from USACE Highway Methodology: Nutrient Removal)
8. Production Export (Nutrient) (from USACE Highway Methodology)
9. Scenic Quality (from USACE Highway Methodology: Visual Quality/Aesthetics)
10. Sediment Trapping (from USACE Highway Methodology: Sediment /Toxicant Retention)
11. Shoreline Anchoring (from USACE Highway Methodology: Sediment/Shoreline Stabilization)
12. Uniqueness/Heritage (from USACE Highway Methodology)
13. Wetland-based Recreation (from USACE Highway Methodology: Recreation)
14. Wetland-dependent Wildlife Habitat (from USACE Highway Methodology: Wildlife Habitat)

First, determine if a wetland is suitable for a particular function and value ("Suitability" column) and indicate the rationale behind your determination ("Rationale" column). Please use the rationale reference numbers listed in Appendix A of USACE *The Highway Methodology Workbook Supplement*. Second, indicate which functions and values are principal ("Principal Function/value?" column). As described in *The Highway Methodology Workbook Supplement*, "functions and values can be principal if they are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective".

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“Important Notes” are to include characteristics the evaluator used to determine the principal function and value of the wetland.

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Ecological Integrity: Rationale not included in Highway Methodology	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Highly developed buffer, filling, impaired water quality
2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Education Potential: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No access
3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Fish & Aquatic Life: 1, 4	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mudflat supports fish, shellfish, waterfowl but impaired water quality and no shellfish harvesting
4	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Flood Storage: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Groundwater Recharge (only): N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
6	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Noteworthiness (RTE):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No rare species at site
7	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Nutrient Trapping/Retention: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
8	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Production Export: 1,4,5,6,10	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Export of nutrients as food and in sediments but low ecological integrity
9	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Scenic Quality: 2,6,8,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Scenic vistas surrounded by highly developed areas.
10	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sediment Trapping: N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
11	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Shoreline Anchoring: 2,3,10,12	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Shoreline is fill with bricks and rocks that provide anchoring
12	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Uniqueness/Heritage: 1,3,14,17,19,22, 27	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Contributes to the character of the area. Scenic views in urban setting. Low ecological integrity.
13	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wetland Based Recreation: 2,5,7,8,9,10,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Provides boating and fishing opportunities. Somewhat offset by low ecological integrity.

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14	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Dependent Wildlife: 8,12,18,21,	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mudflats are important for wildlife habitat. Somewhat offset by low ecological integrity
----	--	---------------------------------------	--	--

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

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

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

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

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

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

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

SECTION 6 - STREAM RESOURCES SUMMARY

DESCRIPTION OF STREAM: [REDACTED]	STREAM TYPE (ROSGEN): [REDACTED]
HAVE FISHERIES BEEN DOCUMENTED? <input type="checkbox"/> Yes <input type="checkbox"/> No	DOES THE STREAM SYSTEM APPEAR STABLE? <input type="checkbox"/> Yes <input type="checkbox"/> No
OTHER KEY ON-SITE FUNCTIONS OF NOTE: [REDACTED]	

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

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

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

- Wildlife and vegetation diversity/abundance list.
- Photograph of wetland.
- Wetland delineation plans showing wetlands, vernal pools, and streams in relation to the impact area and surrounding landscape. Wetland IDs, vernal pool IDs, and stream IDs must be indicated on the plans.

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For projects in tidal areas only: additional information required by Env-Wt 603.03/603.04. Please refer to the [Coastal Area Worksheet \(NHDES-W-06-079\)](#) for more information.

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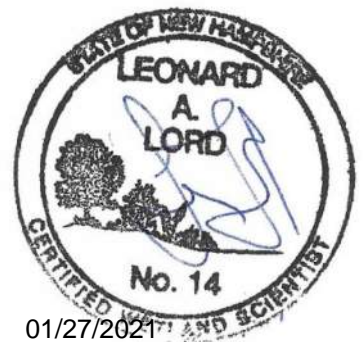
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Cathartes
105 Bartlett Street Project
Portsmouth, NH

WETLAND DELINEATION AND ASSESSMENT OF FUNCTIONS AND VALUES

April 2020
Last Revised: January 2021



Tighe&Bond
Engineers | Environmental Specialists

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1.0 Introduction

The purpose of this report is to characterize wetlands and buffers in the vicinity of a proposed multi-family development at 105 Bartlett Street in Portsmouth, NH. The site is long and narrow and is located between an active railroad and North Mill Pond. It includes commercial buildings with paved and gravel parking areas, abandoned railroad structures, disturbed forest, and a dense shrub thicket. The area is highly disturbed, being originally filled by the railroad in the late 1800s.

2.0 Methods

On October 29 and December 2, 2019, Tighe & Bond reviewed and assessed 2,000+/- linear feet of tidal wetlands and buffers along the North Mill Pond. The review was limited to the vicinity of a proposed multi-family development, extending from Bartlett Street to an area opposite Cornwall Street, which runs roughly perpendicular to the parcel.

The wetland delineation review was based on criteria specified in the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (January 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). The Highest Observable Tide Line was reviewed based on the definition found in NH Department of Environmental Services Wetland Rules, Env-Wt 101.49/Env-Wt 602.23. Wetlands were classified based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

The Highest Observable Tide Line (HOTL) had been previously delineated by another consulting firm in 2017. This line was reviewed by exporting the 2017 surveyed line into ArcGIS to overlay on an aerial photographic base map. This base map was then uploaded to an iPad and paired with a Trimble R1 submeter GPS for in-field verification. Using the iPad and GPS as a guide, the line was then evaluated in the field. The HOTL was deemed accurate and the previous 2017 delineation was accepted by Tighe & Bond. A previously unidentified freshwater wetland was also found within a six-foot +/- deep abandoned railroad turntable. Tighe & Bond delineated this area with sequentially numbered flagging and located the wetland boundary using the GPS technology described above.

Functions and values were assessed in the vicinity of the proposed project. Assessment methodologies were adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997) and *The Highway Methodology Workbook Supplement—Wetland Functions and Values: A Descriptive Approach*, NAEPP-360-1-30a, US Army Corps of Engineers, New England Division, September 1999.

Photographs of the wetlands and buffers are provided in Appendix A.

3.0 North Mill Pond

North Mill Pond is a 79+/- acre tidal pond at the outlet of Hodgson Brook. It receives tidal flows under Maplewood Avenue at the northeast end of the pond. The pond consists predominantly of exposed mudflats at low tide, and is classified as Estuarine, Intertidal, Unconsolidated Shore, Mud, Regularly Flooded (E2US3N). A narrow band of salt marsh reaching up to 35+/- feet wide was identified between the mudflats and upland (Photo 1). The marsh is dominated by smooth cordgrass (*Spartina alterniflora*), with species such as

saltmeadow cordgrass (*Spartina patens*), sea lavender (*Limonium carolinianum*), and seaside goldenrod (*Solidago sempervirens*) more dominant toward the upland edge. This marsh area was classified as Estuarine, Intertidal, Emergent, Persistent, Regularly Flooded (E2EM1N).

North Mill Pond provides several important wetland functions and values, though many have been degraded by development and human activity. The following functions and values were assessed for the wetland in the vicinity of the proposed project.

3.1 Ecological Integrity

Ecological Integrity relates to how much the wetland has retained its native biotic and abiotic features and how these may have been degraded by human influences.

The Ecological Integrity of North Mill Pond has been compromised due to the presence of a tidal restriction, development of the upland buffer, water quality degradation, and filling along the project site. Efforts have been made in recent years to improve water quality entering the pond, improve tidal flushing, and restore some of the salt marshes. The peripheral salt marsh appears to be healthy and is comprised of native species along the project area.

3.2 Wildlife, Finfish, and Shellfish Habitat

The Wildlife, Finfish, and Shellfish Habitat function is the suitability of the habitat to support wildlife.

North Mill Pond contains extensive mudflats and a healthy but narrow peripheral salt marsh that contribute to wildlife habitat value. However, this value has been compromised by all the factors affecting Ecological Integrity described above. The area is likely to support a variety of wildlife, including migratory birds, finfish, and shellfish. Wildlife Action Plan mapping (Appendix B) depicts several small areas of the highest ranked wildlife value habitat around the pond. These high value habitats include two salt marsh areas in the vicinity of the proposed project; one directly across from the project and another just to the northeast of it.

3.3 Recreational and Commercial Potential

Recreational and Commercial Potential is the suitability of the wetland to support activities such as hiking, boating, hunting, bird watching, and shellfish harvesting.

North Mill Pond has the potential for use by small boats during high tide, though access appears to be limited to a boat launch on Marsh Lane, north of Maplewood Avenue. Shellfish harvesting is not allowed within the mudflats. Bird watching is a potential activity but public access is limited. There is an informal trail that runs through the proposed project area between Bartlett Street and Maplewood Avenue across private property that could be used for bird watching, but public access is not currently guaranteed. There is no visitor center, formally maintained trails, or access for disabled persons that would make this a more valuable area for recreation.

3.4 Aesthetic Quality

Aesthetic Quality refers to the ability of the wetland to provide interesting views and natural vistas.

The areas surrounding North Mill Pond are highly developed commercial and residential areas. There are few public viewing areas, but in locations where the pond can be seen it generally offers wide vistas and aesthetically pleasing views.

3.5 Educational Potential

Educational Potential consists of the ability of the wetland to serve as an outdoor classroom.

There is no safe public access to North Mill Pond near the project site. In addition to being private property, the project site has dangerous construction debris and steep banks to the pond, further diminishing the educational potential of this wetland.

3.6 Noteworthiness

Noteworthiness includes important qualities of the wetland not identified in previous functions, such as historic sites or unique natural features.

This area of North Mill Pond is noteworthy as it contains a salt marsh in a developed setting, which adds to its importance aesthetically and as part of the character of the area. In addition, the adjacent uplands have been proposed as part of the North Mill Pond Greenways project, which was presented to stakeholders in January 2019. (<https://www.cityofportsmouth.com/planportsmouth/north-mill-pond-trail-and-greenway>).

The wetland itself is not known for having any important historical features in the vicinity of the project area, though there have been historic structures and activities along its banks. The project area has some significance as the site of an old railroad yard with a turntable and roundhouse.

4.0 North Mill Pond Tidal Buffer

The North Mill Pond 100-foot tidal buffer can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities. The fill includes coal, coal ash, and possible slag.

4.1 Commercial Area Buffer

The commercial area (Photos 1-3) is comprised almost completely of impervious surfaces. These include buildings, paved and compact gravel parking lots, and a narrow strip of vegetation 10-20 feet wide extending down a steep bank to the tidal wetland. The vegetation includes lawn and species associated with disturbed sites such as staghorn sumac (*Rhus typhina*), autumn olive (*Elaeagnus umbellata*), black cherry (*Prunus serotina*), and Asiatic bittersweet (*Celastrus orbiculatus*). This area has little to offer in the way of functions and values other than contributing to stabilization of steep eroding

banks along the wetland. Runoff from this area likely contributes to the degraded water quality in North Mill Pond.

4.2 Disturbed Forest Buffer

The disturbed forested area northeast and southwest of Great Rhythm Brewery (Photos 4-6) is dominated by Norway Maple (*Acer platanoides*), black cherry, and staghorn sumac. The area includes significant rubble and debris as well as the railroad turntable and roundhouse remains. This area provides some screening for wildlife using the North Mill Pond and provides cover and food for small mammals and birds. However, it is dominated by invasive vegetation, and is highly disturbed by human activity.

4.3 Shrub Thicket Buffer

The shrub thicket northeast of the commercial area (Photos 7-8) is dominated by autumn olive with lesser amounts of staghorn sumac and other shrub species. This area provides wildlife habitat for small mammals and birds as well as screening for wildlife using North Mill Pond. Though invasive, the autumn olive provides prolific fruits utilized by birds and other frugivores. Bedding, clothing, campfire remains, trash, and other evidence suggests that this densely vegetated area has been used as camp sites by homeless individuals.

4.4 Buffer Impacts and Mitigation

The proposed project will not include any work within the 25-foot buffer to North Mill Pond. In addition, a 50-foot easement from the mean high water will be granted to the City of Portsmouth by the developer to build the North Mill Pond Trail and Greenway, which will provide improvements to the buffer, including invasive species management and revegetation with native species. Installation of the trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will be reduced from the trail and greenway improvements through the removal and restoration of impervious surfaces.

Table 4.1

105 Bartlett Street Multi-Family Development Buffer Impact Reductions

Overall Buffer Impact Area		
Wetland Buffer Setback	Existing Impact	Proposed Impact
0 - 25 FT	12,788 SF	6,788 SF
25 - 50 FT	30,479 SF	22,089 SF
50 - 100 FT	66,844 SF	52,443 SF
Total Impact	110,111 SF	81,320 SF
NET BUFFER IMPROVEMENT		28,792 SF

5.0 Excavated Palustrine Forested Wetland

A small wetland was delineated by Tighe & Bond within the base of the six-foot +/- deep, concrete walled railroad roundtable (Photos 9-10) within the disturbed forested area. The soils in this wetland are poorly drained marine silts and clays. The vegetation is dominated

by Norway maple and red osier dogwood (*Cornus sericea*). Nearby test pits identified approximately two to four feet of fill in the vicinity of the structure. Therefore, it is likely this wetland was at least partly excavated into native marine sediments during construction of the turntable. It is unclear if this area was originally a wetland or if the wetland was created by the excavation. This wetland was classified as Palustrine, Forested, Deciduous, Saturated (PFO1B). The small size of the wetland and its location within a man-made structure in a highly disturbed landscape has resulted in this system providing negligible wetland functions and values.

6.0 Summary

Two wetlands were delineated and evaluated on the site:

North Mill Pond is a 79+/- acre tidal wetland with expansive mud flats (E2US3N) and a narrow fringe of salt marsh (E2EM1N). Wetland functions and values are primarily Wildlife, Finfish, and Shellfish Habitat, as well as Aesthetic Quality and Noteworthiness. It is noteworthy as an important aesthetic component of the area and as an important potential site for a greenways trail project. It also has compromised but improving Ecological Integrity and some Recreation Potential. Upland buffers to the wetland have been compromised by development and invasive species, but limited vegetation does provide some screening for wildlife in the wetland.

A small excavated forested wetland (PFO1B) was identified within the old railroad turntable, approximately six feet below existing grade within a concrete wall. The small size of the wetland and its location within a man-made structure in a highly disturbed landscape has resulted in this system providing negligible wetland functions and values.

Tighe&Bond

APPENDIX A

Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 1	Date: 10/29/19	Direction Taken: Northeast
Description: Salt marsh fringe along North Mill Pond at low tide opposite a commercial area in southwest portion of the site.		


Photograph No.: 2	Date: 10/29/19	Direction Taken: Northeast
Description: Paved buffer and eroding banks along North Mill Pond at low tide along the commercial area in southwest portion of the site.		

Appendix A- Photographic Log


Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 3	Date: 10/29/19	Direction Taken: Northeast
Description: Compact gravel drive and old railroad repair shop at the northern end of the commercial area with impervious surfaces.		
		

The photograph shows a gravel drive on the right side of the frame, leading towards a large, multi-story brick building. To the left of the drive is a chain-link fence, and beyond that, a body of water is visible under a cloudy sky. The trees in the background have some autumn-colored leaves.

Photograph No.: 4	Date: 10/29/19	Direction Taken: Northeast
Description: Buffer fill slope with rubble adjacent to a narrow salt marsh along the disturbed forest just northwest of the Great Rhythm Brewing Company.		
		

The photograph shows a steep, rocky slope covered with rubble, including large stones, bricks, and pieces of weathered wood. The slope is adjacent to a narrow salt marsh with tall grasses on the left. The background shows a forest with trees in autumn colors under a cloudy sky.

Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 5	Date: 10/29/19	Direction Taken: Southwest
--------------------------	-----------------------	-----------------------------------

Description: Lawn and disturbed forest buffer northwest of the Great Rhythm Brewing Company.



Photograph No.: 6	Date: 10/29/19	Direction Taken: East
--------------------------	-----------------------	------------------------------

Description: Remains of the railroad roundhouse and disturbed forest buffer northeast of the Great Rhythm Brewing Company.



Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 7	Date: 10/29/19	Direction Taken: Northeast
--------------------------	-----------------------	-----------------------------------

Description: Shrub thicket and existing informal trail at the northeast end of the proposed project area.



Photograph No.: 8	Date: 10/29/19	Direction Taken: Northeast
--------------------------	-----------------------	-----------------------------------

Description: Evidence of use as camp sites by homeless individuals within the shrub thicket at the northeast end of the project area.



Appendix A- Photographic Log

Client: Cathartes

Job Number: C-0960006

Site: 105 Bartlett St., Portsmouth, NH

Photograph No.: 9	Date: 12/2/19	Direction Taken: South
--------------------------	----------------------	-------------------------------

Description: Wetland dominated by Norway maple and red osier dogwood within the old railroad turntable approximately six feet below grade.



Photograph No.: 10	Date: 12/2/19	Direction Taken: n/a
---------------------------	----------------------	-----------------------------

Description: Poorly drained marine silts and clays observed in the bottom of the old railroad turntable.



Tighe&Bond

APPENDIX B

2015 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITION

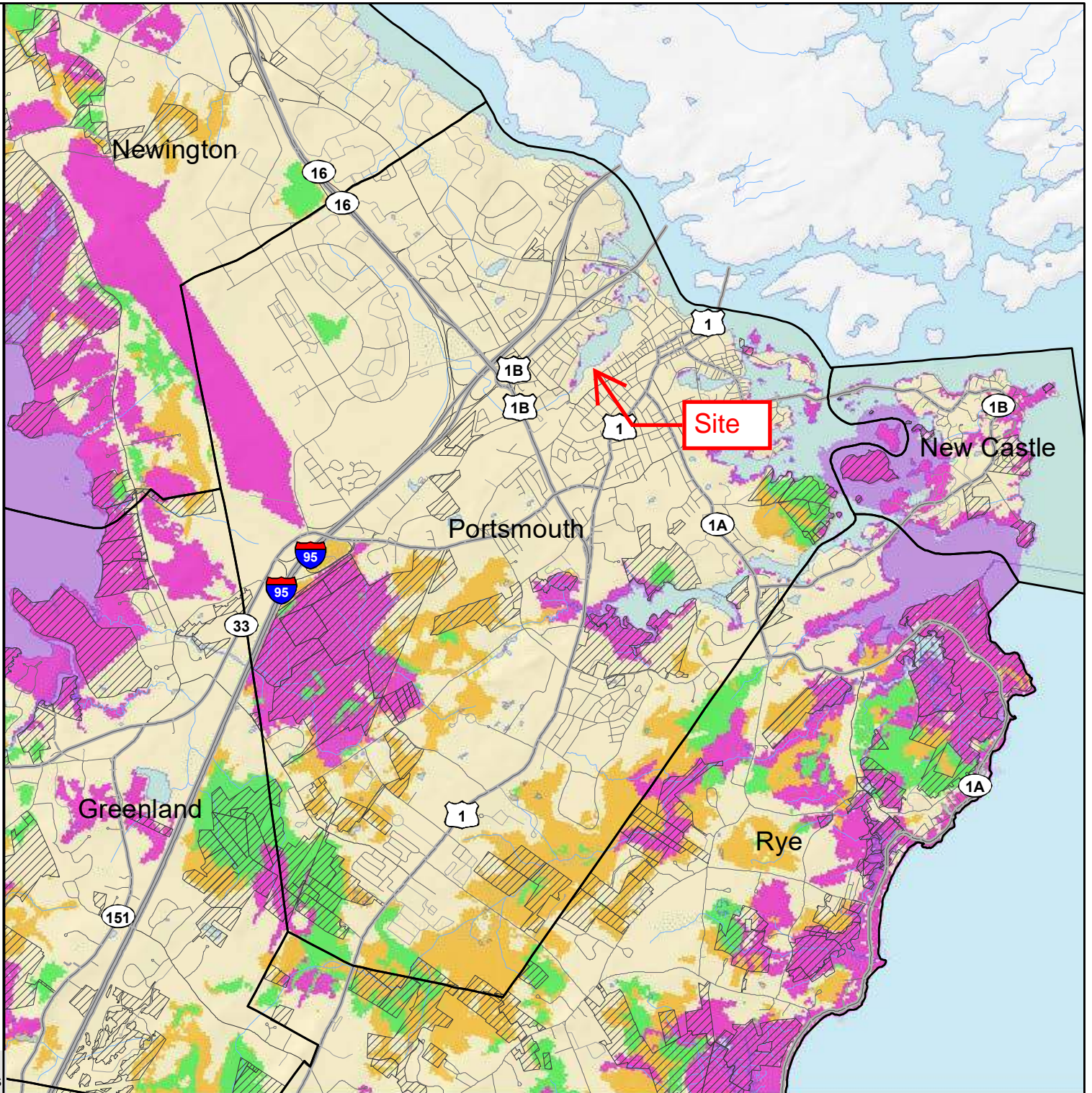
 Highest Ranked Habitat in New Hampshire

 Highest Ranked Habitat in the Biological Region

Biological region = TNC ecoregional subsection for terrestrial habitats or Aquatic Resource Mitigation region for wetlands and floodplain forest.

 Supporting Landscapes

 Conservation or public



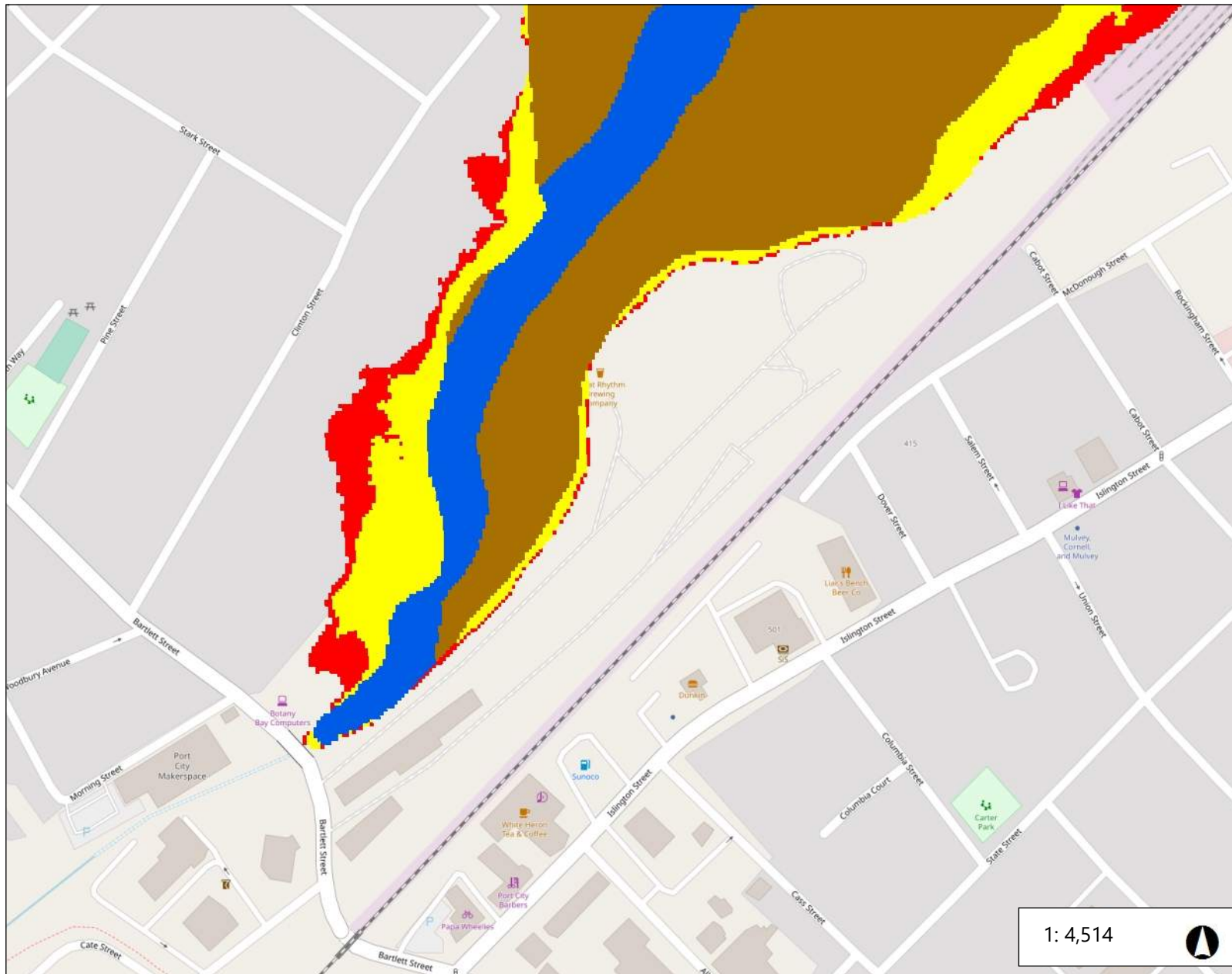
Base map data provided by NH GRANIT at UNH September 2019. Intended for planning use only.



0 1 2 Kilometers

0 1 2 Miles





Legend

Predicted Marsh Migration 205

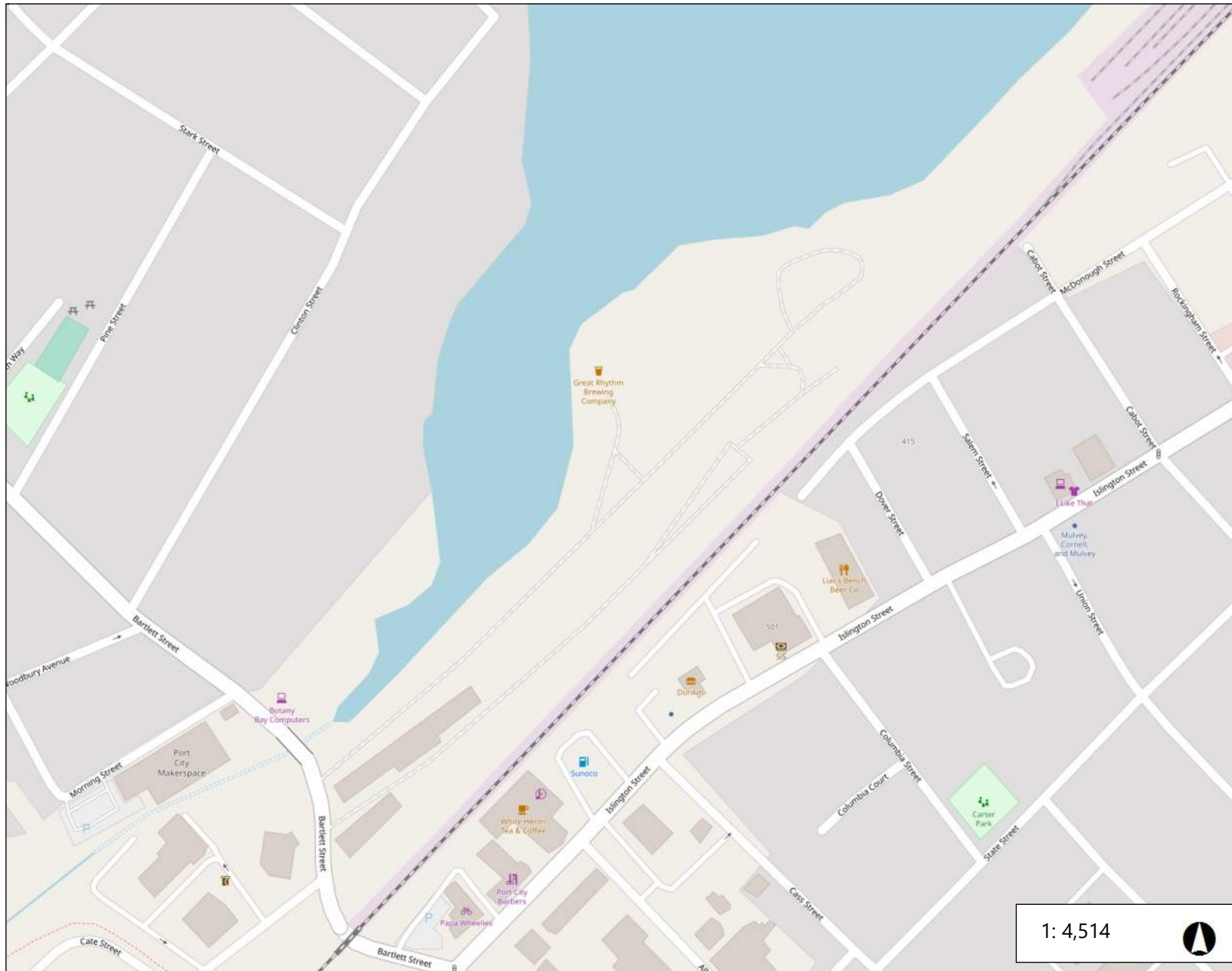
- Freshwater wetland
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Inland open water
- Tidal water

1: 4,514



0.1 0 0.07 0.1 Miles

Notes



Legend

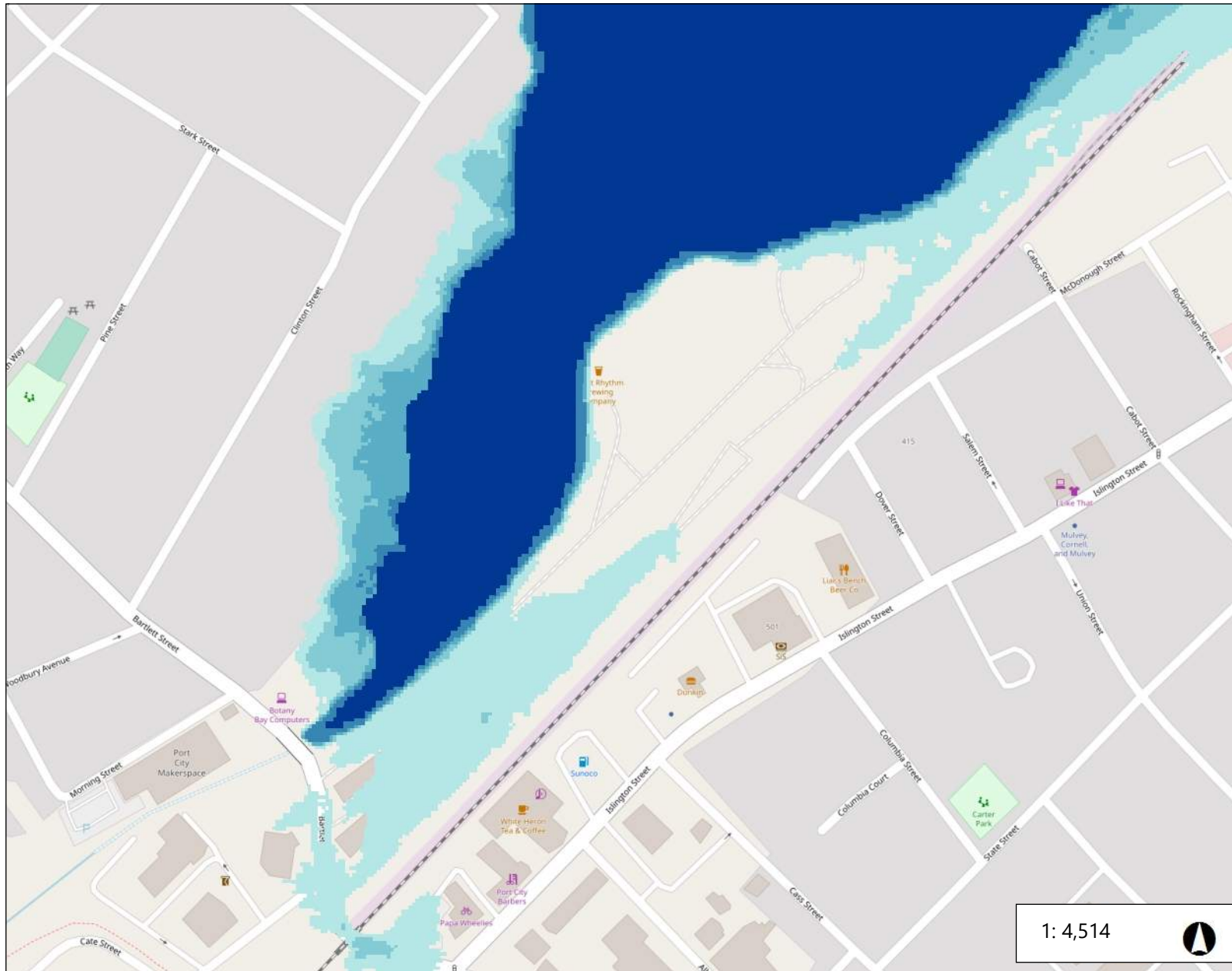
-  Oyster Restoration Sites
-  Aquaculture Sites - 2015
-  Eelgrass 2017
-  Eelgrass 2016
-  Eelgrass 2006
-  Eelgrass 1996
-  Eelgrass 1986

1:4,514



0.1 0 0.07 0.1 Miles

Notes



Legend

MHW + 6-ft SLR

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

1: 4,514

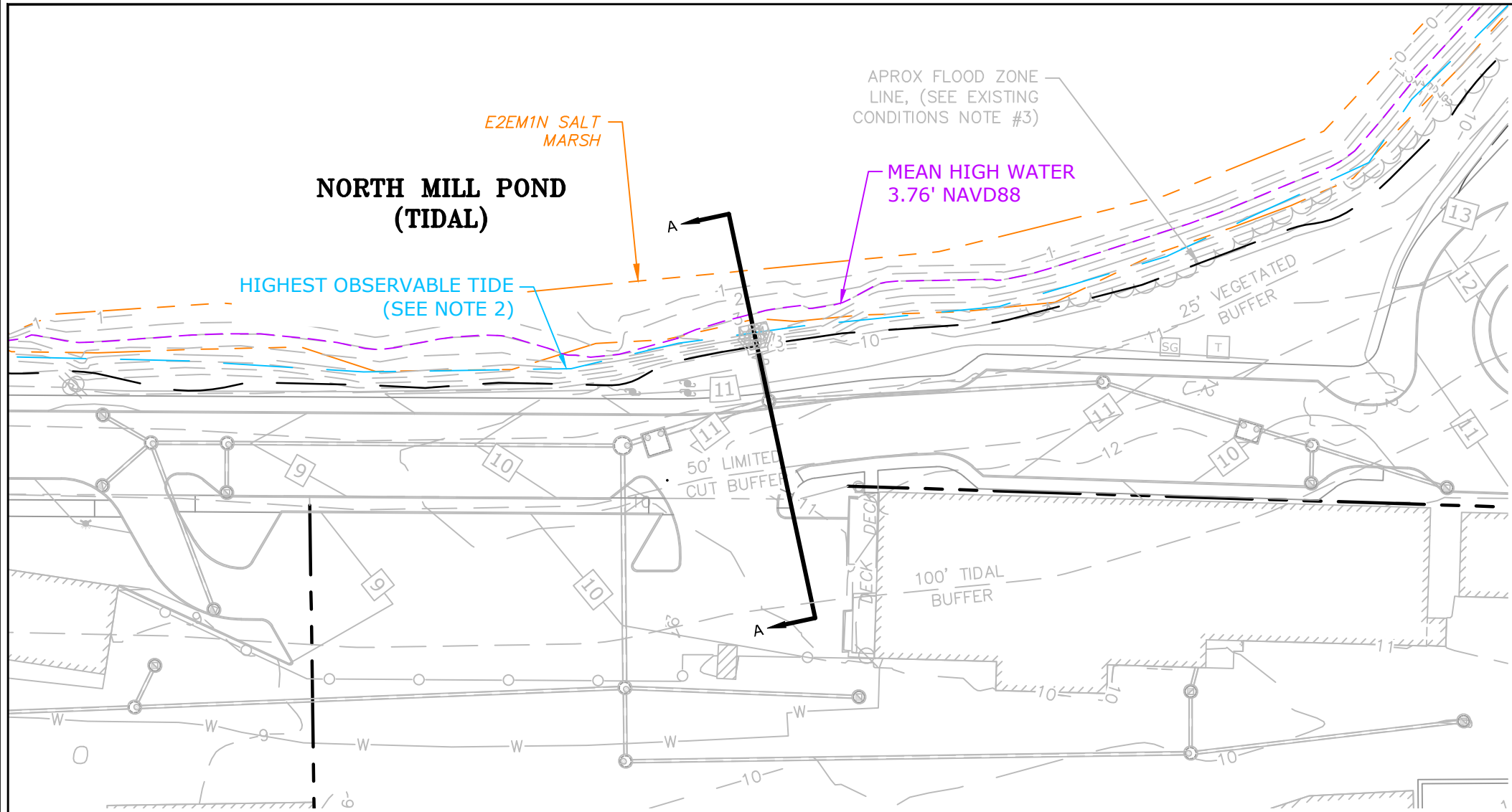


0.1 0 0.07 0.1 Miles

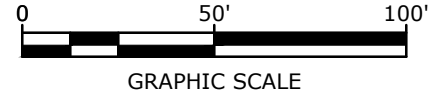
Notes

**PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE**

OUTFALL 1 - ELEVATION VIEW



PLAN VIEW
50 SCALE



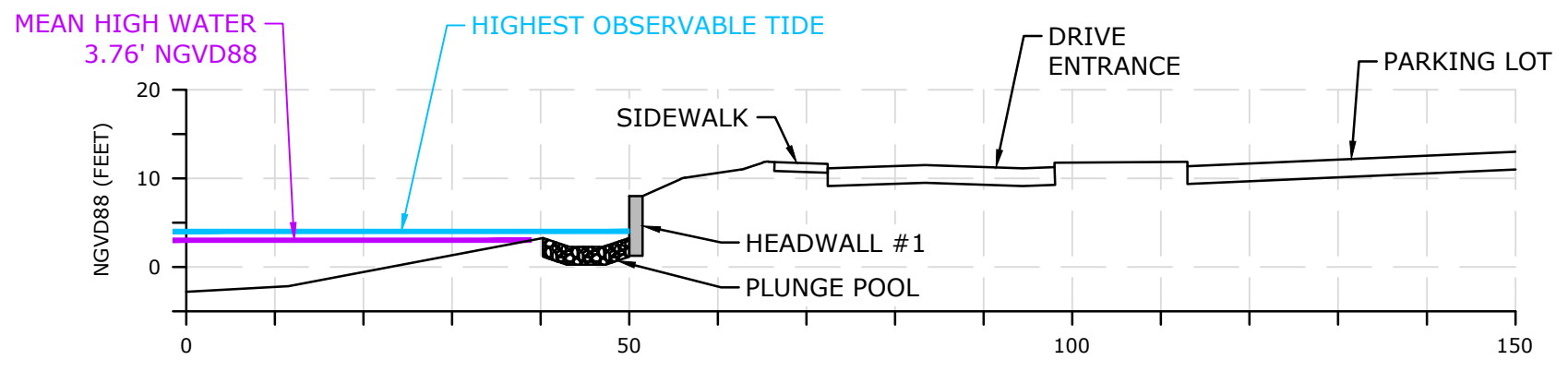
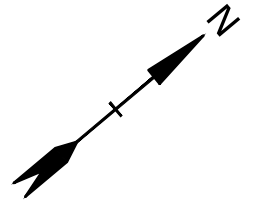
TIDAL DATUMS (FEET)

	NAVD88
HOTL:	7.89
MHHW:	4.18
MHW:	3.76
MTL:	-0.32
MLW:	-4.39
MLLW:	-4.71

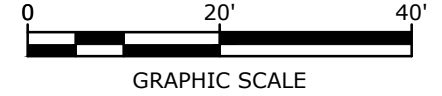
PREDICTED SLR 2122: 5.0 FT

NOTES:

- UNLESS OTHERWISE NOTED, DATUMS ARE FROM NOAA FOR SEAVEY ISLAND
- HIGHEST OBSERVABLE TIDE LINE WAS FIELD DELINEATED AND IS APPROXIMATE.



SECTION A-A
20 SCALE



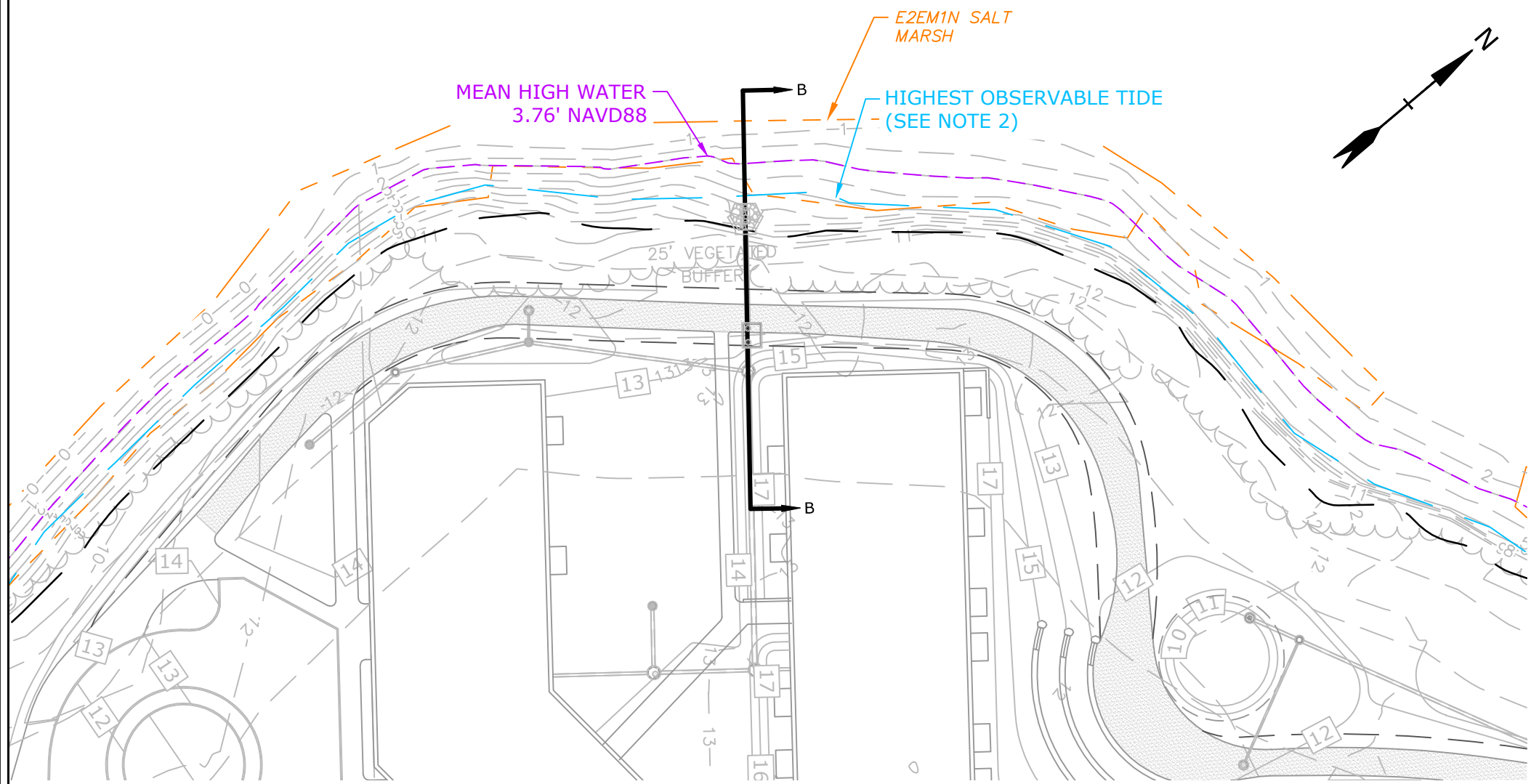
Last Save Date: March 29, 2023 9:01 AM By: NWILCOX
 Plot Date: Wednesday, March 29, 2023 Plotted By: Noah Wilcox
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March 29, 2023
C-0960-006_C-SITE.dwg

**PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE**

OUTFALL 2 - ELEVATION VIEW



PLAN VIEW
50 SCALE

GRAPHIC SCALE

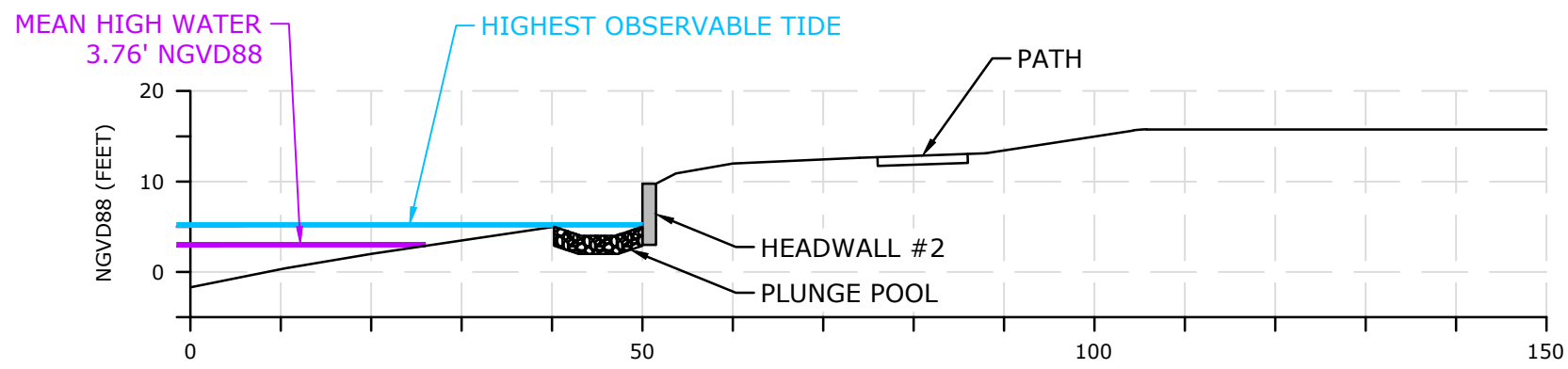
TIDAL DATUMS (FEET)

	NAVD88
HOTL:	7.89
MHHW:	4.18
MHW:	3.76
MTL:	-0.32
MLW:	-4.39
MLLW:	-4.71

PREDICTED SLR 2122: 5.0 FT

NOTES:

1. UNLESS OTHERWISE NOTED, DATUMS ARE FROM NOAA FOR SEAVEY ISLAND
2. HIGHEST OBSERVABLE TIDE LINE WAS FIELD DELINEATED AND IS APPROXIMATE.



SECTION B-B
20 SCALE

GRAPHIC SCALE

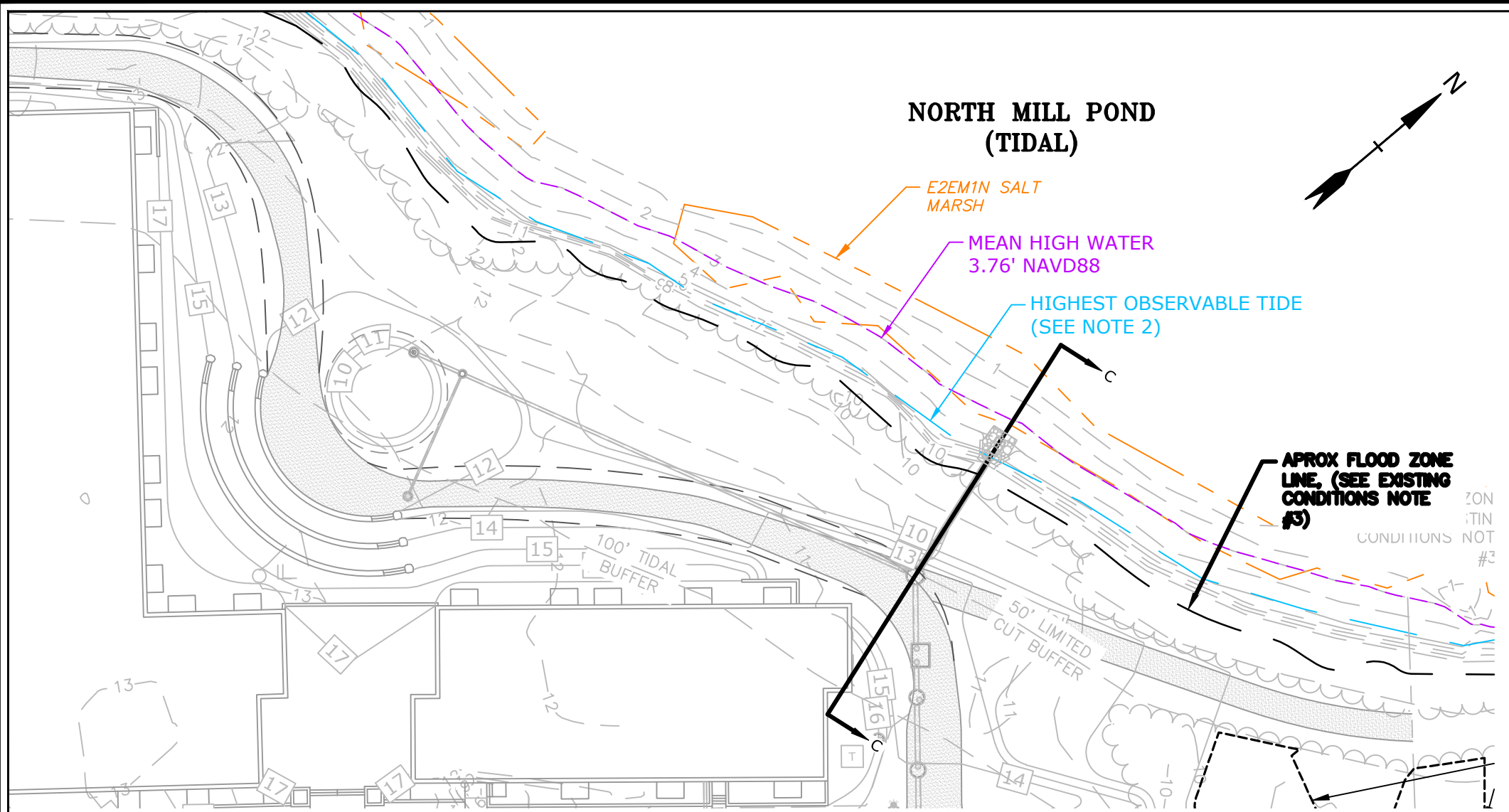


March 29, 2023
C-0960-006_C-SITE.dwg

Last Save Date: March 29, 2023 9:01 AM By: NWILCOX
 Plot Date: Wednesday, March 29, 2023 Plotted By: Noah Wilcox
 TSS File Location: J:\C0960\006_105 Bartlett Street\Drawings - Figures\AutoCAD Sheet\C-0960-006_C-SITE.dwg Layout: Tab: ELEV 2

**PROPOSED MULTI-FAMILY DEVELOPMENT
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE**

OUTFALL 3 - ELEVATION VIEW



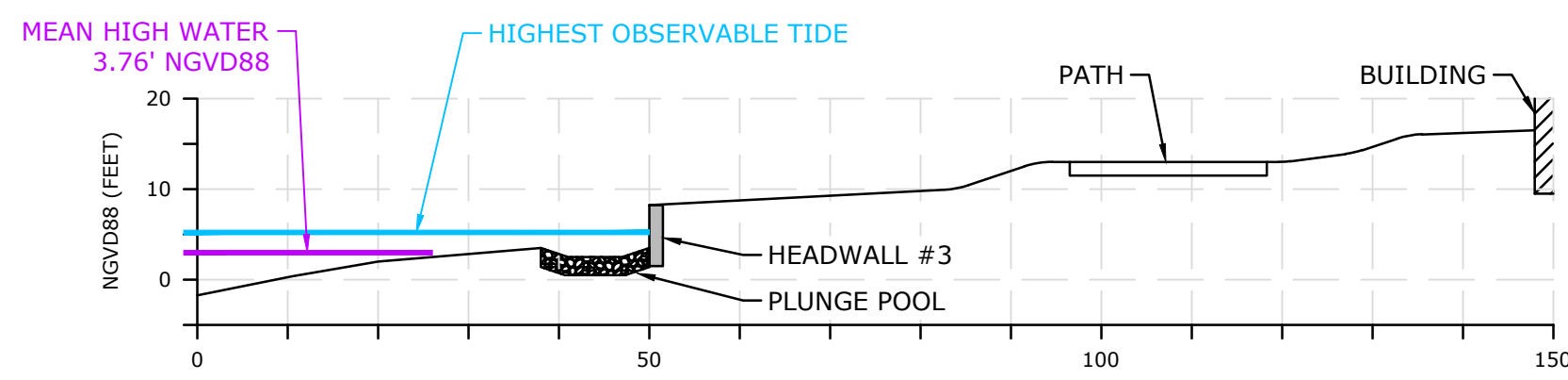
PLAN VIEW
50 SCALE

GRAPHIC SCALE

TIDAL DATUMS (FEET)

	NAVD88
HOTL:	7.89
MHHW:	4.18
MHW:	3.76
MTL:	-0.32
MLW:	-4.39
MLLW:	-4.71

- PREDICTED SLR 2122: 5.0 FT
- NOTES:
- UNLESS OTHERWISE NOTED, DATUMS ARE FROM NOAA FOR SEAVEY ISLAND
 - HIGHEST OBSERVABLE TIDE LINE WAS FIELD DELINEATED AND IS APPROXIMATE.

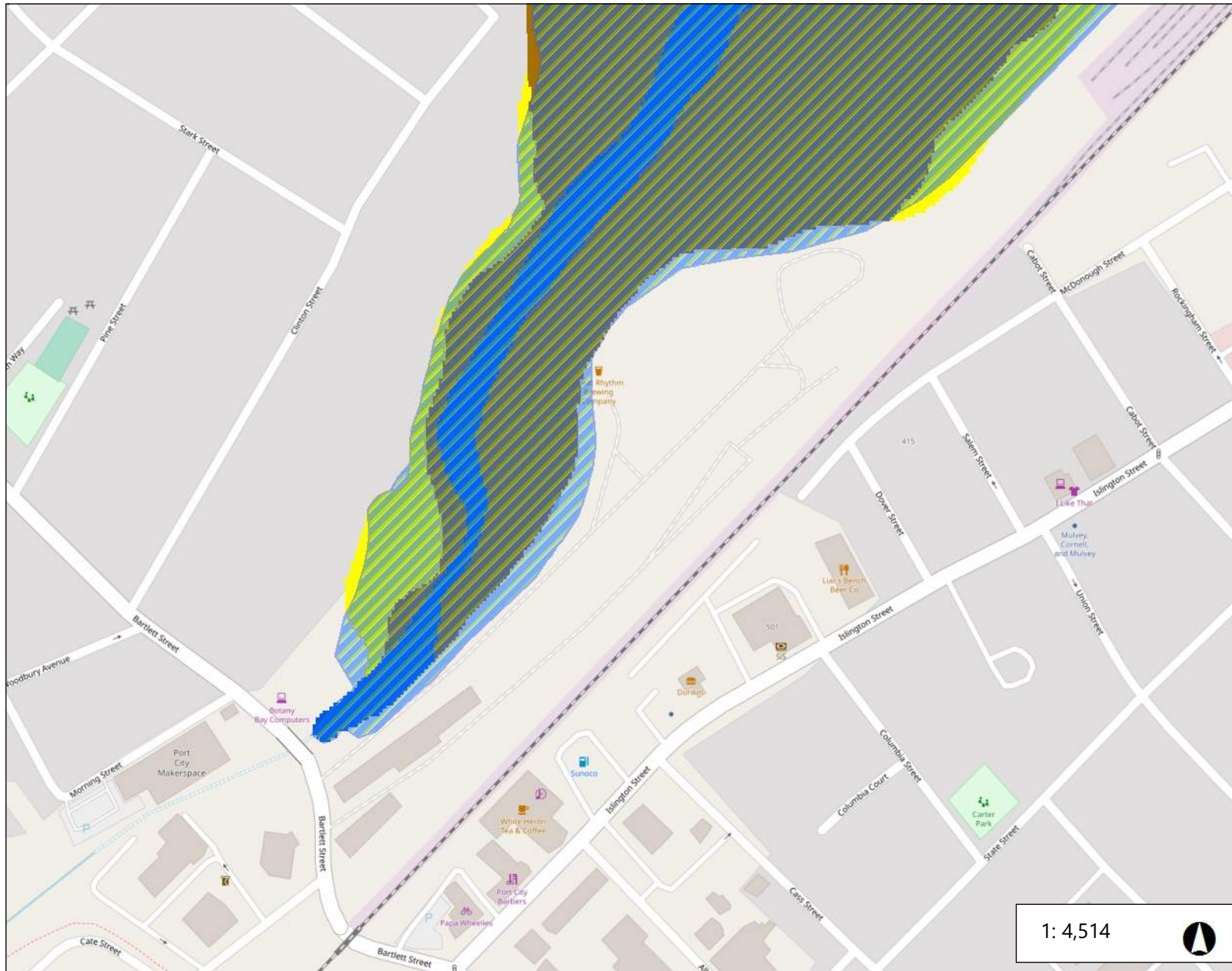


SECTION C-C
20 SCALE

GRAPHIC SCALE



Last Save Date: March 29, 2023 9:01 AM By: NWILCOX
 Plot Date: Wednesday, March 29, 2023 Plotted By: Noah Wilcox
 TSS File Location: J:\C0960\Cabarrus\C0960-006_105 Bartlett Street\Drawings\Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg Layout: Tab: ELEV 3



Legend

- Flood Plain Wetlands Adjacent
- Prime Wetlands with 100 ft Bul
- Prime Wetlands
- Sand Dunes**
 - backdune
 - foredune
 - interdune
 - other
- Tidal Waters / Tidal Wetlands**
 - Tidal wetland
 - Transitional salt marsh
 - Salt marsh
 - Mud flat
 - Tidal water

1:4,514



0.1 0 0.07 0.1 Miles

Notes

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Greater Atlantic Regional Office](#)
[Atlantic Highly Migratory Species Management Division](#)

Query Results


Degrees, Minutes, Seconds: Latitude = 43° 4' 25" N, Longitude = 71° 13' 48" W
 Decimal Degrees: Latitude = 43.074, Longitude = -70.770





















The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

*** WARNING ***

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Sea Scallop	ALL	New England	Amendment 14 to the Atlantic Sea Scallop FMP
		Atlantic Wolffish	ALL	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Flounder	Eggs Juvenile Larvae/Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Little Skate	Juvenile Adult	New England	Amendment 2 to the Northeast Skate Complex FMP
		Atlantic Herring	Juvenile Adult Larvae	New England	Amendment 3 to the Atlantic Herring FMP
		Atlantic Cod	Larvae Adult Eggs	New England	Amendment 14 to the Northeast Multispecies FMP

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Pollock	Juvenile Eggs Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Red Hake	Adult Eggs/Larvae/Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Windowpane Flounder	Adult Larvae Eggs Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Smooth Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		White Hake	Adult Eggs Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Thorny Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Atlantic Mackerel	Eggs Larvae Juvenile	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Bluefish	Adult Juvenile	Mid-Atlantic	Bluefish
		Atlantic Butterfish	Adult	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11

Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

All spatial data is currently available for the Mid-Atlantic and New England councils,

Secretarial EFH,

Bigeye Sand Tiger Shark,

Bigeye Sixgill Shark,

Caribbean Sharpnose Shark,

Galapagos Shark,

Narrowtooth Shark,

Sevengill Shark,

Sixgill Shark,

Smooth Hammerhead Shark,

Smalltail Shark

C-0960-006
March 29, 2023

Ms. Lori Sommer, Wetland Mitigation Coordinator
New Hampshire DES Wetlands Bureau
29 Hazen Drive
PO Box 95
Concord, New Hampshire 03302

Re: **NHDES Wetland Impact Permit – Preliminary Mitigation Proposal
Iron Horse Properties, LLC, 105 Bartlett Street Portsmouth, NH**

Dear Ms. Sommer:

On behalf of Iron Horse Properties, LLC, we are pleased to provide the following information relative to a Mitigation Proposal associated with the Wetland Impact Permit Application for the above reference project:

- Summary of Wetland and Buffer Functions and Mitigation Memo, dated March 30, 2021;
- Wetland Buffer Impact and Mitigation Plan, dated March 29, 2023;
- ARM Fund Calculator Form;

As per our pre-application meetings on March 18, 2021, and March 22, 2022, the proposed Multi-Family Development project at 105 Bartlett Street in Portsmouth will require a Wetland Impact Permit. The project is proposing to impact 209 SF of tidal wetland, 34,639 SF of tidal buffer, and 1,528 SF of forested wetland which will require mitigation for a total mitigation area of 36,376 SF. As described in the Wetland Permit Application, the 100-foot tidal buffer on these parcels can be divided into three zones within the project area: 1) a commercial area, including the Ricci Supply and Ace Hardware complex, the Great Rhythm Brewery building, a former railroad machine shop, and all the paved and unpaved impervious surfaces associated with those buildings; 2) the disturbed forest directly northeast and northwest of Great Rhythm Brewery, including the area around the old railroad turntable and roundhouse remains; and 3) the shrub thicket extending along the narrow portion of the parcel to the northeast. These areas all include historic filling 2-16 feet deep associated with railroad activities.

The proposed project will provide improvements to the buffer, including invasive species management and revegetation with native species. Installation of the North Mill Pond trail and greenway would result in improved functions and values of the wetland and buffer including: Ecological Integrity, Recreation Potential, Aesthetic Quality, and possibly Educational Potential. Existing impacts to the 100-foot buffer will be reduced by the trail and greenway improvements through the removal and restoration of impervious surfaces. A detailed description of the proposed restoration and enhancement of the buffer and be found in the enclosed Summary of Wetland and Buffer Functions and Mitigation Memo.

The result of the proposed mitigation will be 22,384 SF of restored previously disturbed tidal buffer area and 47,157 SF of previously disturbed tidal buffer enhancement area. The previously disturbed tidal buffer enhancement area will count towards mitigation at a 10:1 ratio. As such, the applicant respectfully proposes the following mitigation for the 36,376 SF of impact:



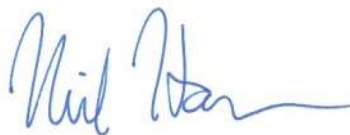
- 22,384 SF of restored previously disturbed tidal buffer area be counted toward the mitigation of the wetland buffer impact counted at a 1:1 ratio.
- 47,157 SF of previously disturbed tidal buffer enhancement area be counted towards mitigation at a 10:1 ratio, for an effective mitigation area of 4,716 SF.
- The balance of the previously disturbed tidal buffer and forested impacts, 9,276 SF, will be mitigated through a contribution to the ARM fund in the amount of \$59,688.93.

We look forward to working with you on this Mitigation Proposal. If you have any questions or need any additional information, please contact Neil Hansen by phone at (603) 294-9213 or by email at nahansen@tighebond.com.

Sincerely,
TIGHE & BOND, INC.



Patrick M. Crimmins, PE
Vice President



Neil A. Hansen, PE
Project Manager

Enclosures

Cc: Iron Horse Properties, LLC (via e-mail)

J:\C\C0960 Cathartes\C-0960-006 105 Bartlett Street\Report_Evaluation\Applications\NHDES\Wetlands\Mitigation\C-0960-006 Mitigation Proposal.docx

105 Bartlett Street, Portsmouth – Summary of Wetland and Buffer Functions and Mitigation

To: Lori Sommer, NHDES
Stefanie Giallongo, NHDES
David Price, NHDES

FROM: Leonard A. Lord, PhD, CSS, CWS

DATE: March 30, 2021

North Mill Pond is a 79+/- acre tidal wetland that includes expansive mud flats (E2US3N) with a narrow fringe of salt marsh (E2EM1N) along the project area. The upland buffer to this wetland has been highly degraded by development, impervious areas, trash, and rundown buildings. Below is a summary of the wetland and buffer functions and impact mitigation. Evaluation of these functions was primarily based on criteria adapted from the *Maine Citizens Guide to Evaluating, Restoring, and Managing Tidal Marshes* (Bryan et al., 1997).

For more information and photographs, please refer to the Tighe & Bond Wetland Delineation and Assessment of Functions and Values report included with the Wetland Impact Permit Application packet. For quantification of wetland and buffer impacts as well as quantification of proposed mitigation, please refer to the Wetland Buffer Impact Plan.

Ecological Integrity

- Existing Function at North Mill Pond: Compromised due to tidal restriction, development of the upland buffer, water quality degradation, and filling.
- Existing Function at Project Upland Buffer: Compromised due to development, rundown buildings, compaction and impervious surfaces, trash, invasive species, and filling/grading.
- Proposed Function Enhancement: The upland buffer will be enhanced by removing rundown buildings, upgrading the development, removal of trash, and removal of invasive species. Native plantings will be installed as part of the landscape plan and much of the area within 50 feet of the mean high water line will be seeded with a conservation/wildlife seed mix, with mowing occurring annually to discourage reestablishment of invasive species.
- Proposed Function Restoration: The project will result in a net reduction in impervious surfaces. Restoring impervious surfaces restores vegetation, reduces runoff to the tidal wetland, provides improved water quality treatment of runoff, allows for increased wetland screening for wildlife, and restores available wildlife habitat.

Wildlife, Finfish, and Shellfish Habitat

- Existing Function at North Mill Pond: Despite having compromised Ecological Integrity, North Mill Pond likely supports a variety of wildlife, including migratory birds, finfish, and shellfish. Salt marshes are among the Wildlife Action Plan highest ranked wildlife value habitats. There is a narrow band of salt marsh along the project area and larger salt marsh areas to the northeast and across the pond.
- Existing Function at Project Upland Buffer: The upland buffer in the project area has highly degraded Ecological Integrity. The vegetated portions of the buffer currently help support the wildlife habitat functions at North Mill Pond by providing screening and providing some water quality renovation of runoff. In addition, the pockets of

dense forest and shrubland vegetation are likely to provide habitat for small mammals and songbirds. Though limited in area and compromised by invasive species, the site does include a variety (four) of identified vegetation types, which would increase the potential to support a diversity of species. The vegetation types include a narrow Mixed Sapling/Shrub Thicket, a Norway Maple Grove, a Quaking Aspen Gray Birch Grove, and an Autumn Olive Thicket.

- Proposed Function Enhancement: Enhancement of Wildlife, Finfish, and Shellfish Habitat will be achieved through the methods and reasons described for enhancing Ecological Integrity.
- Proposed Function Restoration: Restoration of Wildlife, Finfish, and Shellfish Habitat associated with the upland buffer will be achieved through the methods and reasons described for restoring Ecological Integrity. This involves the restoration and revegetation of impermeable surfaces.

Recreational and Commercial Potential

- Existing Function at North Mill Pond: North Mill Pond has potential for use by small boats during high tides, is not suitable for shellfish harvesting, and is not suitable for hunting. There is potential for birdwatching, but there is currently no public access at the project site except in the commercial parking lot at the southwest end of the project. However, views of North Mill Pond and potential bird habitat from the parking lot are very limited and compromised by vehicular traffic, noise, and activity as compared to the northeastern end of the site.
- Existing Function at Project Upland Buffer: There is no Recreational or Commercial Potential associated with the upland buffer other than an informal walking trail used by local residents.
- Proposed Function Enhancement: Since there will be no attempt to enhance the existing bird watching or other recreational activities from the commercial parking lot, there will be no enhancement of this function.
- Proposed Function Restoration: The project will create and restore recreational opportunities by providing a public greenway trail that will allow for birdwatching and recreational enjoyment of the North Mill Pond and upland buffer. Expansive views of the North Mill Pond and associated bird habitat from the northern portion of the site will be made open to the public.

Aesthetic Quality

- Existing Function at North Mill Pond: The areas surrounding North Mill Pond are highly developed commercial and residential areas. There are few public viewing areas, but in locations where the pond can be seen it generally offers wide vistas and aesthetically pleasing views. There are no public viewing areas at the project site other than at the commercial parking lot at the southwest end of the project. However, views of North Mill Pond from the parking lot are very limited and compromised by vehicular traffic, noise, and human activity as compared to the northeastern end of the site.
- Existing Function at Project Upland Buffer: The upland buffer is highly degraded aesthetically. It is full of trash and rundown buildings at its northern end and is a highly developed commercial area at its southern end. There is essentially no aesthetic quality to the buffer.
- Proposed Function Enhancement: Since there will be no attempt to enhance existing aesthetics associated the public viewing or North Mill Pond from the commercial parking lot, there will be no enhancement of this function for the pond.

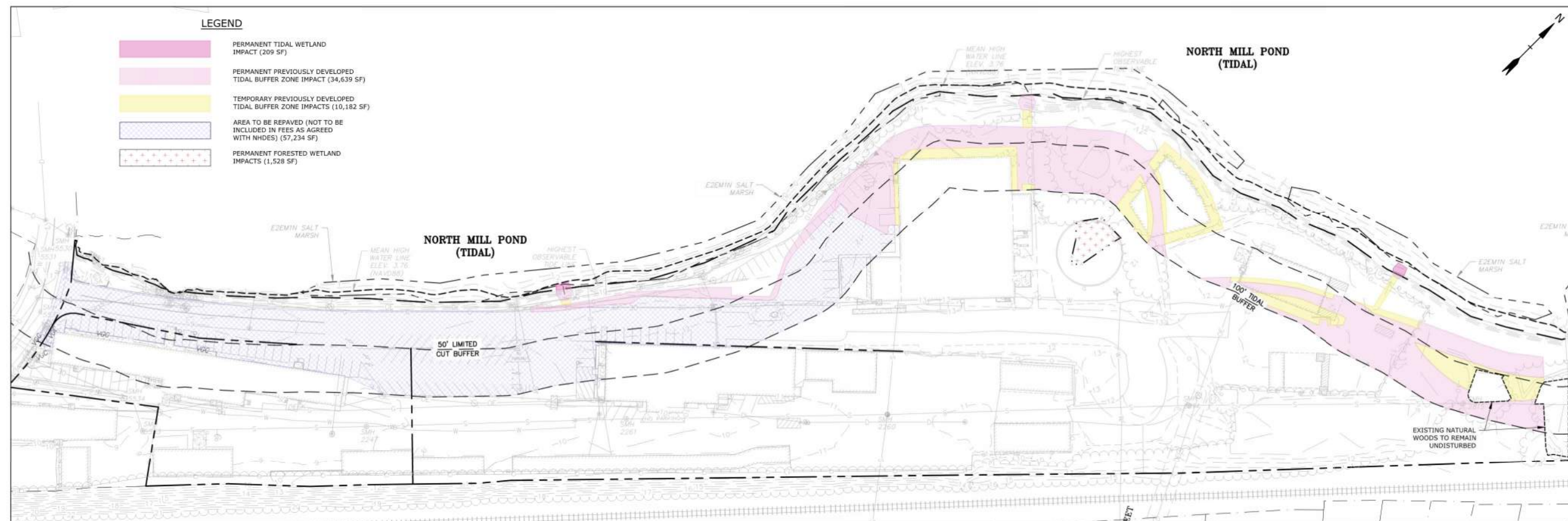
- **Proposed Function Restoration:** The project will create and restore aesthetic enjoyment of North Mill Pond through all the ways the Ecological Integrity will be restored and enhanced. The upland buffer will be cleaned up, rundown buildings will be removed, and a public greenway trail will be created that will allow for strolling and multiple viewing opportunities along the North Mill Pond and upland buffer. Expansive views of the North Mill Pond visible from the northern portion of the site that are not currently available will be made open to the public.

Educational Potential

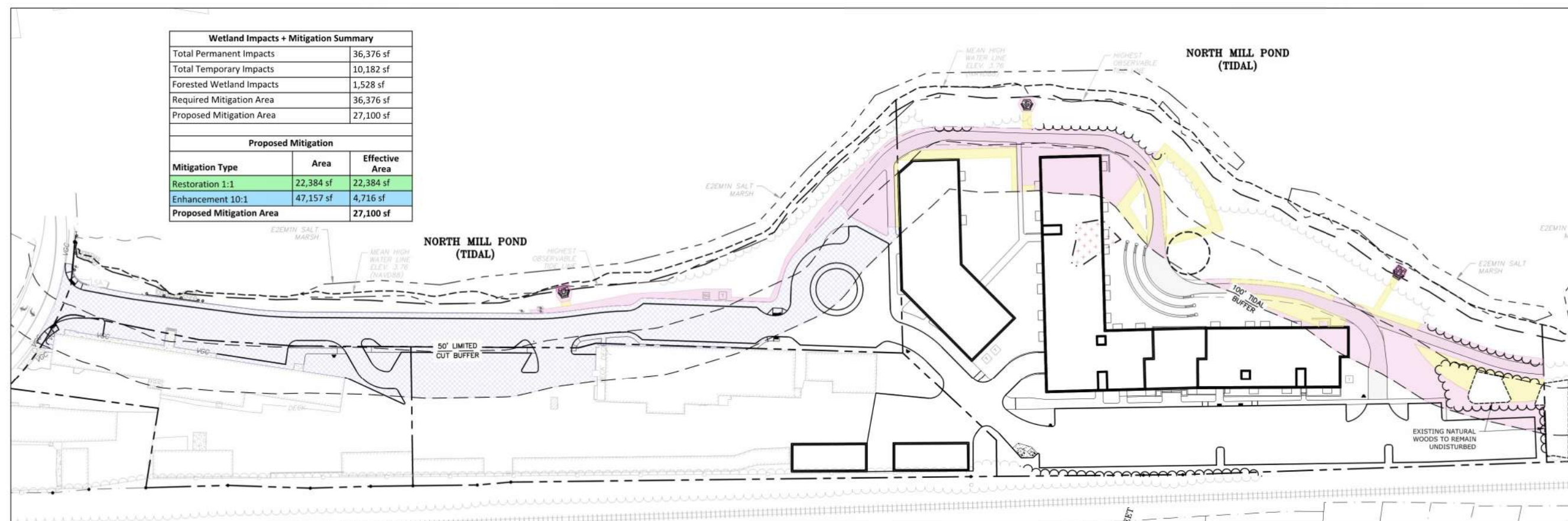
- **Existing Function at North Mill Pond:** There is no safe public access to North Mill Pond near the project site. In addition to being private property, the southern portion of the site is a commercial parking lot, and the northern portion of the project site has dangerous trash and building debris. Access to the North Mill Pond is also limited by steep banks, further diminishing the educational potential of this wetland.
- **Existing Function at Project Upland Buffer:** Same as for North Mill Pond.
- **Proposed Function Enhancement:** Since there is currently no access for Educational Potential, this function does not exist and cannot be enhanced.
- **Proposed Function Restoration:** By restoring the upland buffer and providing access along a greenway trail, some educational potential will be achieved. Although there will be no direct access to the North Mill Pond provided from the trail, there will be multiple viewing points, including views of the pond, salt marsh, and mudflats from the project site. The trail will also connect to other nearby habitats including more extensive salt marsh, shrublands, and native grassland (little bluestem, *Schizachyrium scoparium*).

Noteworthiness

- **Existing Function at North Mill Pond:** This area of North Mill Pond does not include any rare species, though the larger salt marsh to the northeast and across the pond are considered as highly ranked wildlife habitat, which is noteworthy. In addition, the pond provides for some open vistas in a developed setting, which adds to its importance aesthetically and as part of the character of the area.
- **Existing Function at Project Upland Buffer:** The upland buffer is somewhat noteworthy as an old railroad yard, but it has been so degraded that this diminishes its noteworthiness.
- **Proposed Function Enhancement:** Restoring and enhancing the upland buffer while providing a greenway trail will enhance the character of the area and provide recreational, educational, and aesthetic opportunities to the public that would not otherwise be readily available.
- **Proposed Function Restoration:** Since noteworthiness is an existing function, it will be enhanced by the project, rather than restored.



PROPOSED IMPACT TO PREVIOUSLY DISTURBED TIDAL BUFFER, EXISTING CONDITIONS



PROPOSED IMPACT TO PREVIOUSLY DISTURBED TIDAL BUFFER, PROPOSED CONDITIONS

Wetland Impacts + Mitigation Summary		
Total Permanent Impacts	36,376 sf	
Total Temporary Impacts	10,182 sf	
Forested Wetland Impacts	1,528 sf	
Required Mitigation Area	36,376 sf	
Proposed Mitigation Area	27,100 sf	
Proposed Mitigation		
Mitigation Type	Area	Effective Area
Restoration 1:1	22,384 sf	22,384 sf
Enhancement 10:1	47,157 sf	4,716 sf
Proposed Mitigation Area	27,100 sf	

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised Aot Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

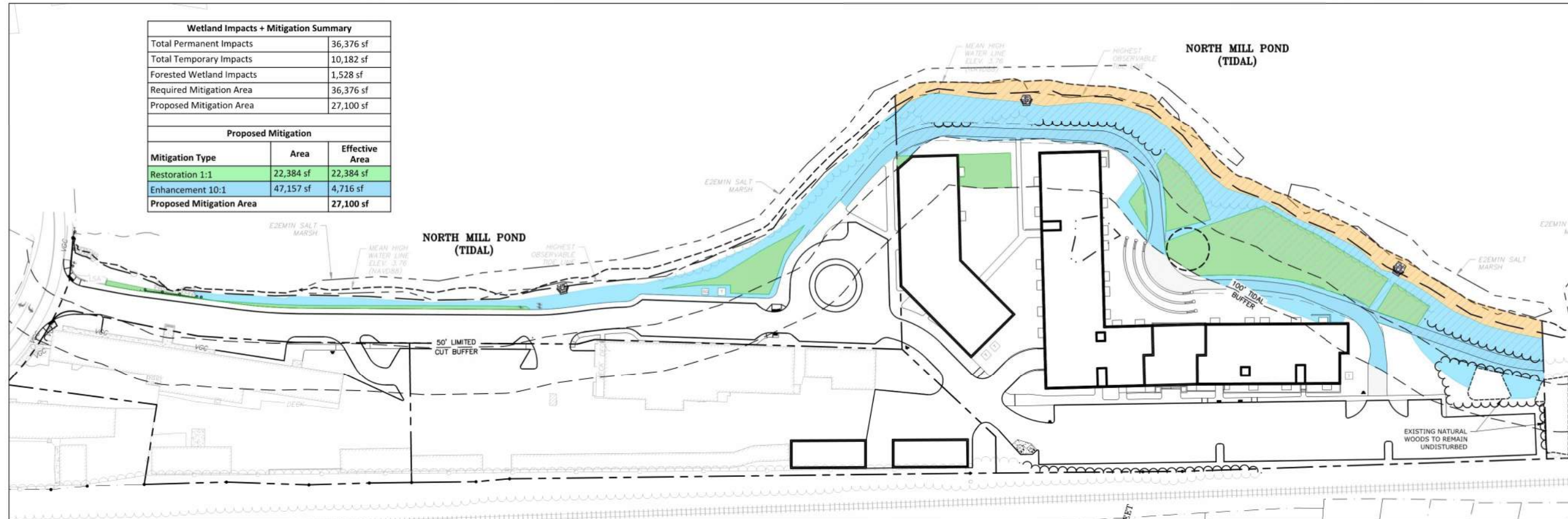
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

WETLANDS BUFFER IMPACT PLAN

SCALE: AS SHOWN



PROPOSED MITIGATION OF PREVIOUSLY DISTURBED TIDAL BUFFER, EXISTING CONDITIONS



PROPOSED MITIGATION OF PREVIOUSLY DISTURBED TIDAL BUFFER, PROPOSED CONDITIONS

Wetland Impacts + Mitigation Summary		
Total Permanent Impacts	36,376 sf	
Total Temporary Impacts	10,182 sf	
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E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

WETLANDS BUFFER MITIGATION PLAN

SCALE: AS SHOWN

2022 VALUES

TOWN	LAND VALUE	NHDES AQUATIC RESOURCE MITIGATION FUND WETLAND PAYMENT CALCULATION ***INSERT AMOUNTS IN YELLOW CELLS***	
Plainfield	3154		
Plaistow	53267		
Plymouth	7923		
Portsmouth	53267		
		1 Convert square feet of impact to acres:	
Randolph	954	INSERT SQ FT OF IMPACT	Square feet of impact 9276.00
Raymond	23309		43560.00
Richmond	1456		Acres of impact = 0.2129
Rindge	10261		
Rochester	29642		
Rollinsford	32458		2 Determine acreage of wetland construction:
Roxbury	761		Forested wetlands: 0.3194
Rumney	4204		Tidal wetlands: 0.6388
Rye	53267		All other areas: 0.3194
Salem	53267		
Salisbury	2413		
Sanbornton	11075		3 Wetland construction cost:
Sandown	37557		Forested wetlands: \$32,726.15
Sandwich	5002		
Sargent's			Tidal Wetlands: \$65,452.30
Purchase	494		All other areas: \$32,726.15
Seabrook	53267		
Second College			
Grant	494		4 Land acquisition cost (See land value table):
Sharon	1729	INSERT LAND VALUE FROM TABLE WHICH APPEARS TO THE LEFT. (Insert the amount do not copy and paste.)	Town land value: 53267
Shelburne	583		Forested wetlands: \$17,014.62
Somersworth	43798		Tidal wetlands: \$34,029.25
South Hampton	15895		All other areas: \$17,014.62
Springfield	3452		5 Construction + land costs:
Stark	789		Forested wetland: \$49,740.77
Stewartstown	1242		Tidal wetlands: \$99,481.55
Stoddard	4934		All other areas: \$49,740.77
Strafford	8396		
Stratford	494		6 NHDES Administrative cost:
Stratham	53267		Forested wetlands: \$9,948.15
Success	494		Tidal wetlands: \$19,896.31
Sugar Hill	8401		All other areas: \$9,948.15
Sullivan	1665		
Sunapee	53267		***** TOTAL ARM PAYMENT*****
Surry	3226		Forested wetlands: \$59,688.93
Sutton	7136		
Swanzey	8224		Tidal wetlands: \$119,377.86
Tamworth	4771		All other areas: \$59,688.93
Temple	4371		
Thompson & Meserve's			
Purchase	494		
Thornton	5115		
Tilton	35234		
Troy	3430		
Tuftsboro	30222		
Unity	3136		
Wakefield	27165		
Walpole	8528		
Warner	3312		
Warren	852		
Washington	5420		
Waterville			
Valley	1737		
Weare	11359		
Webster	6440		
Wentworth	1477		
Wentworth's Location	494		
Westmoreland	2753		
Whitefield	2975		
Wilmot	4608		
Wilton	11438		
Winchester	3171		
Windham	53267		
Windsor	2522		
Wolfeboro	41723		
Woodstock	2321		



PROPOSED MULTI-FAMILY DEVELOPMENT

105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE

JANUARY 2, 2020

LAST REVISED: MARCH 29, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	3/29/2023
1 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
2 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
3 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
4 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
5 OF 5	LOT LINE RELOCATION PLAN	01/19/2021
C-101	OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-101.1	EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-101.2	EXISTING CONDITIONS AND DEMOLITION PLAN	12/28/2022
C-102	OVERALL SITE PLAN	3/29/2023
C-102.1	SITE PLAN	3/29/2023
C-102.2	SITE PLAN	3/29/2023
C-102.3	BASEMENT LEVEL SITE PLAN	12/28/2022
C-103.1	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	3/29/2023
C-103.2	GRADING, DRAINAGE, AND EROSION CONTROL PLAN	3/29/2023
C-104.1	UTILITIES PLAN	3/29/2023
C-104.2	UTILITIES PLAN	3/29/2023
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	12/28/2022
C-502	DETAILS SHEET	12/28/2022
C-503	DETAILS SHEET	12/28/2022
C-504	DETAILS SHEET	12/28/2022
C-505	DETAILS SHEET	12/28/2022
C-506	DETAILS SHEET	12/28/2022
C-507	DETAILS SHEET	12/28/2022
C-508	DETAILS SHEET	12/28/2022
C-509	DETAILS SHEET	12/28/2022
L-1	SITE LANDSCAPE PLAN	3/28/2023
L-2	FOUNDATION PLANTING PLAN	3/28/2023



LOCATION MAP
SCALE: 1" = 2000'

PREPARED BY:

Tighe & Bond

177 CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801
603-433-8818

APPLICANT:

IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

OWNERS:

TAX MAP 157, LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STREET
PORTSMOUTH, NEW HAMPSHIRE 03801

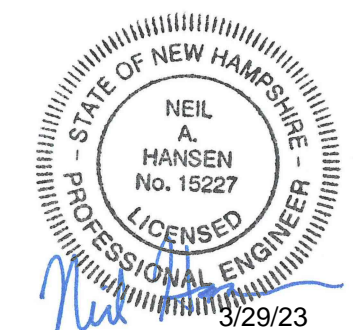
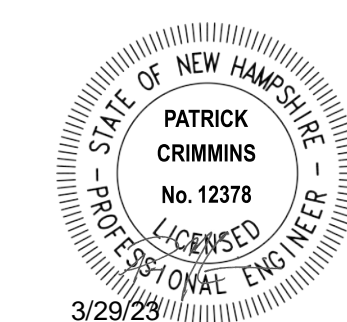
TAX MAP 164, LOT 4-2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801

TAX MAP 157 LOT 2
TAX MAP 164, LOT 1
PORTSMOUTH HARDWARE & LUMBER, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801

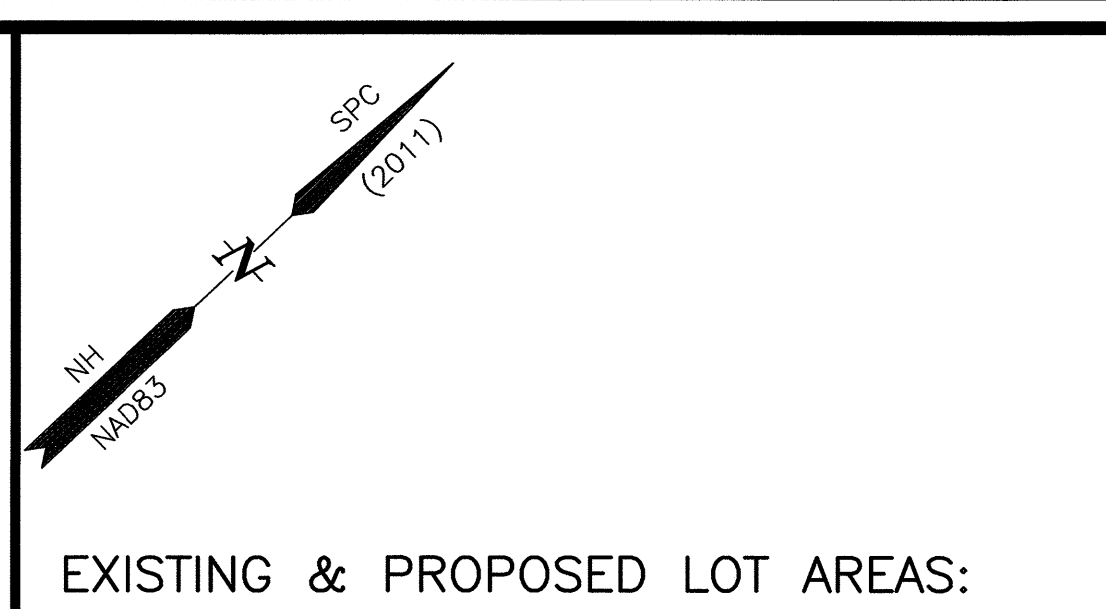
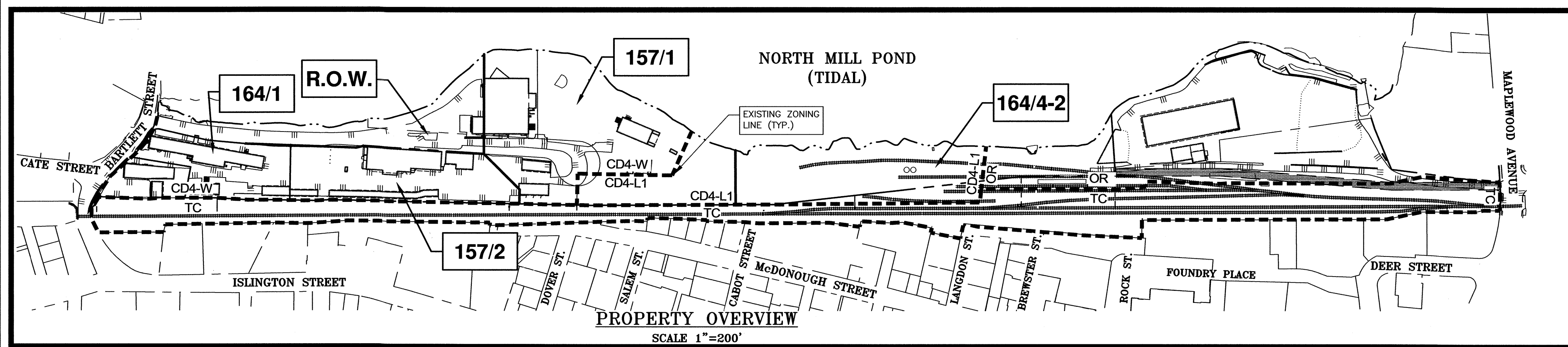
SURVEYOR:

AMBIT ENGINEERING, INC.
200 GRIFFIN ROAD - UNIT 3
PORTSMOUTH, NEW HAMPSHIRE 03801

LIST OF PERMITS		
LOCAL	STATUS	DATE
SITE PLAN REVIEW PERMIT	APPROVED	4/15/2021
LOT LINE REVISION PERMIT	APPROVED	4/15/2021
CONDITIONAL USE PERMIT - SHARED PARKING	APPROVED	4/15/2021
CONDITIONAL USE PERMIT - WETLAND BUFFER	APPROVED	4/15/2021
STATE		
NHDES - ALTERATION OF TERRAIN PERMIT	APPROVED	9/29/2021
NHDES - WETLAND PERMIT	PENDING	
NHDES - SHORELAND PERMIT	PENDING	
NHDES - SEWER CONNECTION PERMIT	PENDING	
FEDERAL		
EPA - NPDES CGP	PENDING	



**NHDES WETLAND & SHORELAND
UPDATED SUBMISSION
COMPLETE SET 28 SHEETS**



EXISTING	PROPOSED
MAP 157 LOT 1 61,781± S.F. 1.4183± ACRES	205,804± S.F. 4.7246± ACRES
MAP 157 LOT 2 102,003 S.F. 2.3417 ACRES	81,645 S.F. 1.8743 ACRES
MAP 164 LOT 1 51,952 S.F. 1.1927 ACRES	52,289 S.F. 1.2004 ACRES
MAP 164 LOT 4-2 249,771± S.F. 5.7340± ACRES	119,519± S.F. 2.7454± ACRES
RIGHT-OF-WAY EXISTING 69,624± S.F. 1.5980± ACRES	PROPOSED 75,792± S.F. 1.7399± ACRES

PLAN REFERENCES:

- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO ERMINIO A.RICCI, SCALE : 1" = 40', APRIL 1960 RCRD 1595/091.
- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO ERMINIO A.RICCI, SCALE : 1" = 40', MAY 1957 RCRD 02612.
- EASEMENT OF LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO UNITED STATES OF AMERICA, SCALE 1" = 20', MAY 1957, RCRD 02633.
- LAND IN PORTSMOUTH, N.H. VITO P. MASSARO TO PORT CITY BEVERAGE CO, SCALE 1" = 40', APRIL 1949, RCRD 01448.
- LAND IN PORTSMOUTH, N.H. MARY E. MORAN TO BOSTON AND MAINE RAILROAD, SCALE 1" = 40', MARCH 1920, RCRD 00540.
- PLAN OF LAND OF MARY E. MORAN ON BARTLETT AND ISLINGTON STREETS PORTSMOUTH, N.H., PREPARED BY JOHN W. DURGIN, SCALE 1" = 20', MAY 1920, RCRD 08.
- DRAINAGE EASEMENT GEORGE E. FRISBEE TO THE CITY OF PORTSMOUTH, N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE : 1" = 20', JUNE 1981, RCRD B-10456.
- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO PORTSMOUTH FACTORY BUILDING ASSOCIATION, SCALE 1" = 20' OCTOBER 1923, RCRD 00356.
- NH ELECTRIC CO. PLAN SHOWING AREA RESERVED FOR TRANSFORMER SUBSTATION ON PROPERTY OF CONTINENTAL SHOE CORP. PORTSMOUTH, N.H., SCALE 1" = 30', 11-27-53, RCRD 1303/378.
- BOSTON AND MAINE RAILROAD PLAN TO ACCOMPANY AGREEMENT BETWEEN BOSTON AND MAINE RAILROAD AND CONCORD AND PORTSMOUTH RAILROAD COVERING RELOCATION OF TRACKS OF CONCORD AND PORTSMOUTH RAILROAD IN PORTSMOUTH, N.H. OCCASIONED BY CONSTRUCTION OF NEW HIGHWAY AND BRIDGE BY MAINE - NEW HAMPSHIRE INTERSTATE BRIDGE AUTHORITY, SCALE 1" = 500', DECEMBER 1936, RCRD 0934.
- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO CITY CONCRETE CO., INC., SCALE 1" = 80', JANUARY 1955, RCRD 02897.
- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO ALL STATE REALTY CORPORATION, SCALE 1" = 50', FEBRUARY 1961, RCRD 160.
- LAND IN PORTSMOUTH, N.H. BOSTON AND MAINE RAILROAD TO VITO P. MASSARO, SCALE 1" = 40', APRIL 1949, RCRD 01450.
- DRAINAGE EASEMENT STUART AND PAULA BOXER AND ARANOSIAN OIL COMPANY TO THE CITY OF PORTSMOUTH, N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE: 1" = 20', JUNE 1981, RCRD B-10455.
- CONDOMINIUM PLAN ISLINGTON PLACE PREPARED FOR ANCHOR BUILDING ASSOCIATES, PREPARED BY KIMBALL CHASE COMPANY, INC., SCALE 1" = 20', 12-10-86, RCRD D-15826.
- PLAN OF LOT 565-581 ISLINGTON STREET PORTSMOUTH, N.H., PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS, SCALE 1" = 10', DECEMBER 1949 REVISED JANUARY 1963, RCRD B28.
- SUBDIVISION OF LAND PORTSMOUTH, N.H. FOR GEORGE AND PAULINE J. FRISBEE, PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS PROFESSIONAL ASSOCIATION, SCALE" 1" = 30', DECEMBER 1976, RCRD C-6587.
- RIGHT OF WAY AND TRACK MAP BOSTON AND MAINE R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 2966+20 TO STATION 3019+0, SCALE 1" = 100', JUNE 30, 1914, VAL V3NH 55.
- PLAN OF LAND FOR DEER STREET ASSOCIATES DEER AND BRIDGE STREETS AND MAPLEWOOD AVENUE PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM, PREPARED BY AMBIT SURVEY, SCALE: 1" = 30', SEPTEMBER 1993.
- PROPOSED EASEMENTS-- BARTLETT STREET BARTLETT SEWER SEPERATION PROJECT OVER LAND OF PAN AM RAILWAYS PORTSMOUTH, NEW HAMPSHIRE FOR CITY OF PORTSMOUTH, PREPARED BY JAMES VERRA AND ASSOCIATES, INC., SCALE : 1" = 20', DATED 10-01-2007 RCRD D-35477.

- SEWER AND STORM DRAIN EASEMENT PLAN 105 BARTLETT STREET PORTSMOUTH, NEW HAMPSHIRE ASSESSOR'S PARCEL 164-001 & 164-003 EASEMENT OWNER CITY OF PORTSMOUTH, PREPARED BY JAMES VERRA AND ASSOCIATES, INC., SCALE 1" = 20', DATED 01/05/2012, RCRD D-37763.
- EASEMENT PLAN TAX MAP 164 - LOT 4 BOSTON & MAINE CORPORATION TO THE CITY OF PORTSMOUTH OFF BREWSTER STREET CITY OF PORTSMOUTH COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE, PREPARED BY AMBIT ENGINEERING, INC. SCALE: 1" = 30', DATED SEPTEMBER 2012, RCRD D-37720.
- STANDARD BOUNDARY SURVEY TAX MAP 157 - LOTS 7,8,10,11,12,13,14 AND 15 WASHBURN REALTY, INC. AND WASHBURN PLUMBING AND HEATING SUPPLY COMPANY, INC. FOR JAY McSHARRY 449 & 459 ISLINGTON STREET AND 18, 30, 40, & 46 DOVER STREET AND 268 & 280 MCDONOUGH STREET CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE, PREPARED BY AMBIT ENGINEERING, INC., SCALE 1" = 20', DATED JANUARY 2012, NOT RECORDED.
- SITE REDEVELOPMENT NED & BILL PROPERTIES 621-627 ISLINGTON STREET PORTSMOUTH, N.H., PREPARED BY AMBIT ENGINEERING, INC., SCALE 1" = 10', DATED MARCH 2006, NOT RECORDED.
- PLAN OF LAND FOR SAGAMORE ENTERPRISES 653 ISLINGTON STREET COUNTY OF ROCKINGHAM PORTSMOUTH N.H., PREPARED BY RICHARD P. MILLETTE AND ASSOCIATES, SCALE 1" = 10', DATED SEPTEMBER 21, 1988, RCRD D-18742.
- STATION MAP - LANDS BOSTON AND MAINE R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 2966+20 TO STATION 3019+0, OFFICE OF VALUATION ENGINEER. BOSTON, MASS, SCALE 1" = 100', JUNE 30, 1914 VAL V3NH SL55.
- STATION MAP - LANDS CONCORD AND PORTSMOUTH R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 0+0 TO STATION 33+0, OFFICE OF VALUATION ENGINEER. BOSTON, MASS, SCALE 1" = 100', JUNE 30, 1914 VAL V3NH SL55A.
- SUBDIVISION PLAN TAX MAP 157 - LOTS 1 & 2 TAX MAP 164 - LOTS 1, 2, 3, & 4 OWNER OF RECORD TAX MAP 157, LOT 2 & TAX MAP 164, LOTS 1, 2, & 3: PORTSMOUTH LUMBER AND HARDWARE, LLC OWNER OF RECORD TAX MAP 157, LOT 1: CLIPPER TRADERS, LLC OWNER OF RECORD TAX MAP 164, LOT 4: BOSTON AND MAINE CORPORATION PROPERTY LOCATED AT: 105 BARTLETT STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED FEBRUARY 2018, FINAL REVISION DATE 2018. R.C.R.D. PLAN D-41241.
- LAND TRANSFER PLAN TAX MAP 164 - LOT 4 LAND OF: BOSTON AND MAINE CORPORATION TO BE CONVEYED TO: PORTSMOUTH LUMBER AND HARDWARE, LLC & CLIPPER TRADERS, LLC PROPERTY LOCATED AT 105 BARTLETT STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED DECEMBER 2018, FINAL REVISION DATE DECEMBER 13, 2018. R.C.R.D. PLAN D-41242.
- WATERLINE EASEMENT PLAN OVER TAX MAP 164 - LOT 4 LAND OF BOSTON AND MAINE CORPORATION FOR BENEFIT OF PORTSMOUTH LUMBER AND HARDWARE, LLC & CLIPPER TRADERS, LLC OFF MCDONOUGH STREET, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED DECEMBER 2018, FINAL REVISION DATE DECEMBER 19, 2018. R.C.R.D. PLAN B-41243.
- LOT LINE RELOCATION PLAN TAX MAP 164 - LOTS 4 & 4-2 OWNERS OF RECORD TAX MAP 164 LOT 4: BOSTON AND MAINE CORPORATION, OWNER OF RECORD TAX MAP 164 LOT 4-2: IRON HORSE PROPERTIES, LLC, PROPERTY LOCATED BETWEEN BARTLETT STREET & MAPLEWOOD AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED APRIL 2019, FINAL REVISION DATE MAY 30, 2019. R.C.R.D. PLAN D-41570.
- PROPOSED EASEMENT PLAN TAX MAP 164 - LOT 4 OWNER OF RECORD BOSTON AND MAINE CORPORATION TO BENEFIT IRON HORSE PROPERTIES, LLC, PROPERTY LOCATED BETWEEN BARTLETT STREET & MAPLEWOOD AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED JUNE 2019, FINAL REVISION DATE JUNE 27, 2019. R.C.R.D. PLAN D-41578.

ZONING DISTRICT DIMENSIONAL REQUIREMENTS:

- OFFICE RESEARCH (OR)*:
*PARCELS ARE SUBJECT TO EXCEPTIONS TO DIMENSIONAL STANDARDS AS OUTLINED IN CITY OF PORTSMOUTH ZONING ORDINANCE SECTION 10.532.10 & 10.532.20, MODIFIED DIMENSIONS LISTED BELOW
- MIN. LOT AREA: 2 ACRES
FRONTAGE: 200 FEET
SETBACKS: FRONT 70 FEET, SIDE 50 FEET, REAR 50 FEET
MAXIMUM STRUCTURE HEIGHT: 70 FEET (45 FEET WITHIN 200 FEET OF NORTH MILL POND)
MAXIMUM STRUCTURE COVERAGE: 50%
MINIMUM OPEN SPACE: 20%
- CHARACTER DISTRICT CD4-L1:
MIN. LOT AREA: 3,000 S.F.
FRONTAGE: NO REQUIREMENT
SETBACKS: FRONT (MAX.) 15 FEET (PRIMARY), FRONT (MAX.) 12 FEET (SECONDARY), SIDE 5-20 FEET, REAR 5 FEET
MAXIMUM STRUCTURE HEIGHT: 20-30 FEET
MAXIMUM STRUCTURE COVERAGE: 60%
MAXIMUM BUILDING FOOTPRINT: 2,500-3,500 S.F.
MINIMUM OPEN SPACE: 25%
MAXIMUM BLOCK LENGTH: 80-100 FEET
BUILDING SEPARATION: 15-30 FEET
VIEW CORRIDORS: SEE ZONING ORDINANCE
- CHARACTER DISTRICT CD4-W:
MIN. LOT AREA: 5,000 S.F.
FRONTAGE: NO REQUIREMENT
SETBACKS: FRONT (MAX.) 10 FEET (PRIMARY), FRONT (MAX.) 15 FEET (SECONDARY), SIDE NO REQUIREMENT, REAR 5 FEET
MAXIMUM STRUCTURE HEIGHT: 45 FEET
MAXIMUM STRUCTURE COVERAGE: 60%
MAXIMUM BUILDING FOOTPRINT: 15,000-20,000 S.F.
MINIMUM OPEN SPACE: 15%
MINIMUM FRONT LOT LINE BUILDOUT: 50%
- TRANSPORTATION CORRIDOR (TC):
NO DIMENSIONAL OR USE REQUIREMENTS DEFINED IN ORDINANCE

NOTES:

- PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4-2, AND A RIGHT-OF-WAY WITH NO ASSESSOR'S MAP DESIGNATION.
- OWNERS OF RECORD:
MAP 157 LOT 1
CLIPPER TRADERS, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5598/2725 & 5970/1701

MAP 157 LOT 2 & MAP 164 LOT 1
PORTSMOUTH LUMBER & HARDWARE, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5372/2606, 5808/1379, 5540/2567, & 5970/1693

MAP 164 LOT 4-2
IRON HORSE PROPERTIES, LLC
105 BARTLETT STREET
PORTSMOUTH, NH 03801
5970/1686 & 6012/2502

RIGHT-OF-WAY
CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
5970/1708
- PORTIONS OF THE SUBJECT PARCELS ARE IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.9) AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE MAY 17, 2005.
- PARCELS ARE LOCATED IN CHARACTER DISTRICT 4W (CD4-W), CHARACTER DISTRICT 4-L1 (CD4-L1), AND OFFICE RESEARCH (OR) ZONING DISTRICTS.
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NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

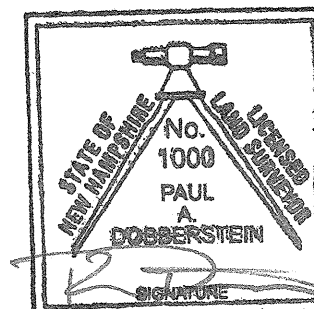
**LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2**

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
OWNER OF RECORD

TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
OWNER OF RECORD

TAX MAP 164 LOT 4-2:
IRON HORSE PROPERTIES, LLC
OWNER OF RECORD

RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
**IRON HORSE PROPERTIES, LLC,
PORTSMOUTH LUMBER & HARDWARE, LLC,
& CLIPPER TRADERS, LLC**
PROPERTY LOCATED BETWEEN:
**BARTLETT STREET & MAPLEWOOD AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE**



"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."
PAUL A. DOBBERSTEIN, LLS
DATE: 1/20/2021

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

NOTES:

- 1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4-2, AND A RIGHT-OF-WAY WITH NO ASSESSOR'S MAP DESIGNATION.
- 2) OWNERS OF RECORD:
 MAP 157 LOT 1
 CLIPPER TRADERS, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5598/2725 & 5970/1701

 MAP 157 LOT 2 & MAP 164 LOT 1
 PORTSMOUTH LUMBER & HARDWARE, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5372/2606, 5808/1379, 5540/2567, & 5970/1693

 MAP 164 LOT 4-2
 IRON HORSE PROPERTIES, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5970/1686 & 6012/2502

 RIGHT-OF-WAY
 CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
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- 8) SEE SHEET 1 OF 5 FOR OVERALL PROPERTY VIEW, EXISTING AND PROPOSED LOT AREAS, PLAN REFERENCES, AND DIMENSIONAL REQUIREMENTS.

NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
 OWNER OF RECORD

TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
 OWNER OF RECORD

TAX MAP 164 LOT 4-2:
IRON HORSE PROPERTIES, LLC
 OWNER OF RECORD

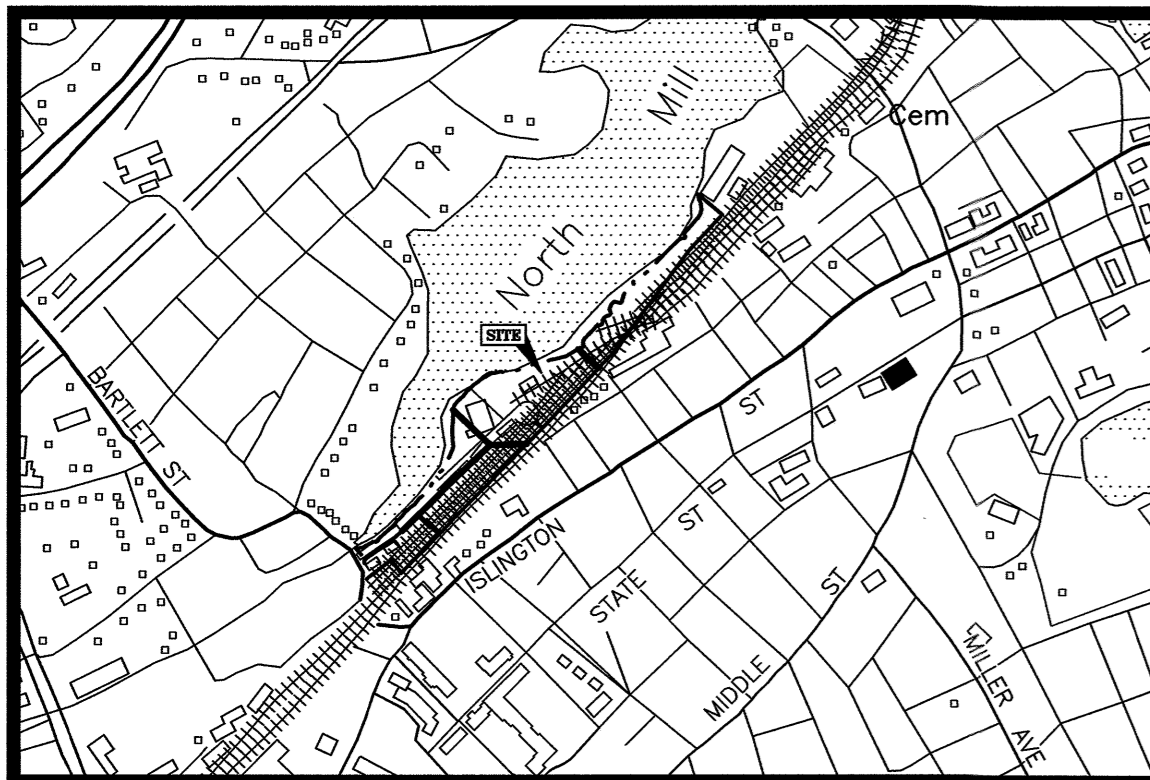
RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC,
PORTSMOUTH LUMBER & HARDWARE, LLC,
& CLIPPER TRADERS, LLC
 PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
 CITY OF PORTSMOUTH
 COUNTY OF ROCKINGHAM
 STATE OF NEW HAMPSHIRE

LENGTH TABLE

LINE	BEARING	DISTANCE
L3	N59°39'51"E	2'±

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C5	150.00'	38.24'	38.14'	S39°30'52"W	14°36'24"
C6	200.00'	42.87'	42.79'	S38°21'07"W	12°16'55"
C7	25.00'	31.80'	29.70'	S19°56'09"W	72°52'42"
C8	288.61'	48.94'	48.88'	N21°21'40"W	9°42'56"
C10	288.61'	80.91'	80.65'	N08°28'19"W	16°03'46"



LOCATION MAP SCALE 1"=1,000'

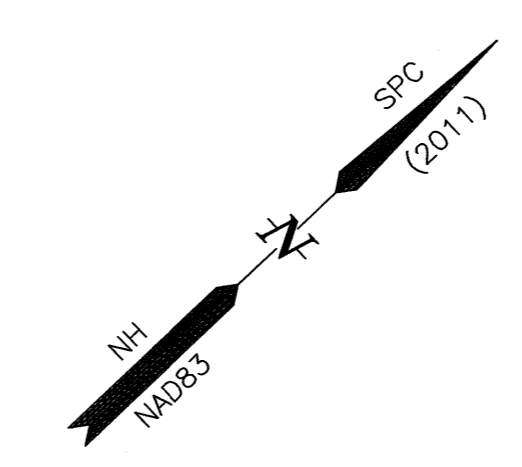
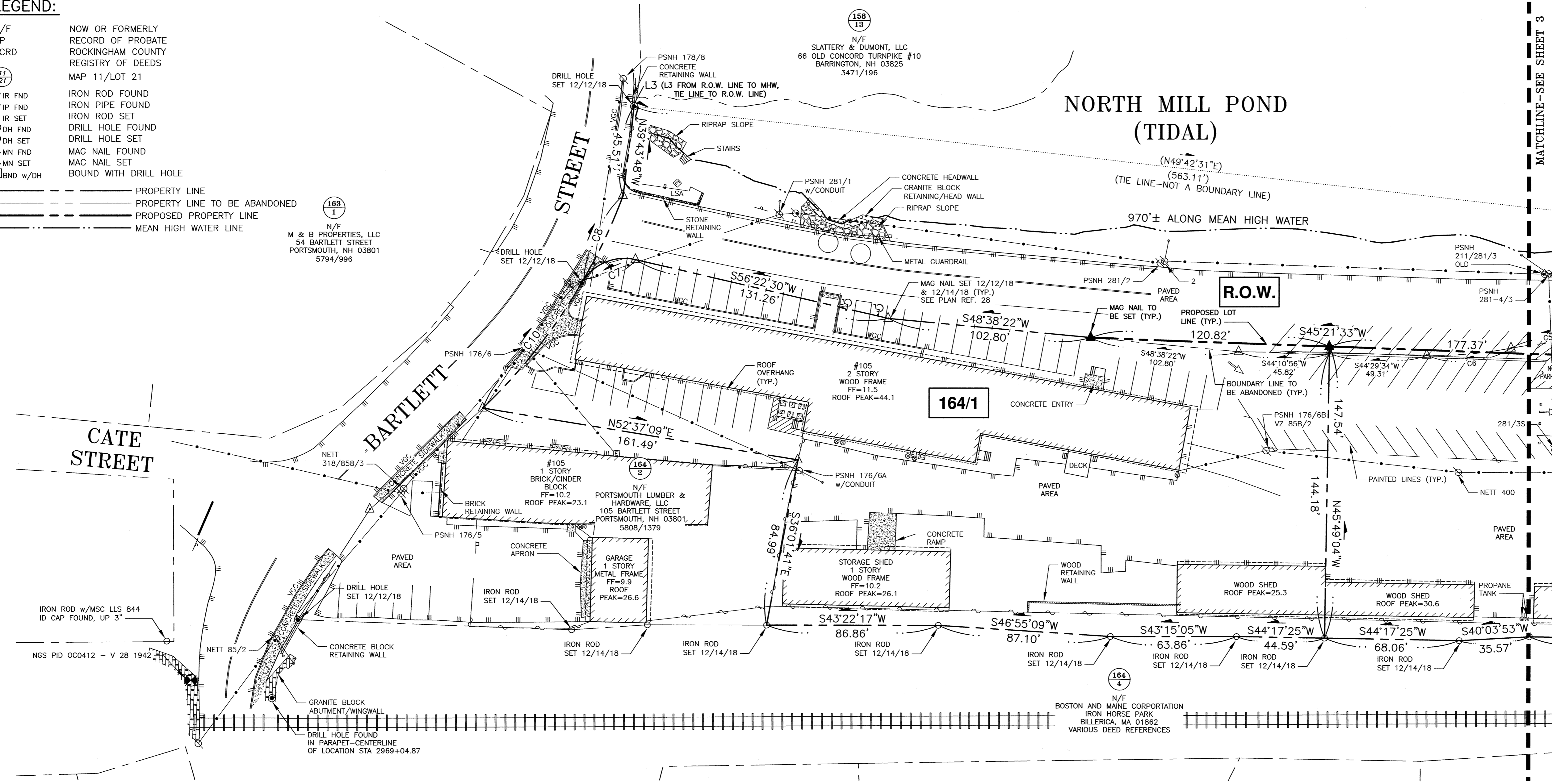
LEGEND:

- N/F NOW OR FORMERLY
- RP RECORD OF PROBATE
- RCRD ROCKINGHAM COUNTY
- REGISTRY OF DEEDS
- (11/21) MAP 11/LOT 21
- IR FND IRON ROD FOUND
- IP FND IRON PIPE FOUND
- IR SET IRON ROD SET
- DH FND DRILL HOLE FOUND
- DH SET DRILL HOLE SET
- △ MN FND MAG NAIL FOUND
- ▲ MN SET MAG NAIL SET
- BND w/DH BOUND WITH DRILL HOLE
- PROPERTY LINE
- - - PROPERTY LINE TO BE ABANDONED
- · - · - PROPOSED PROPERTY LINE
- - - - - MEAN HIGH WATER LINE

N/F
 M & B PROPERTIES, LLC
 54 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5794/996

N/F
 SLATTERY & DUMONT, LLC
 66 OLD CONCORD TURNPIKE #10
 BARRINGTON, NH 03825
 3471/196

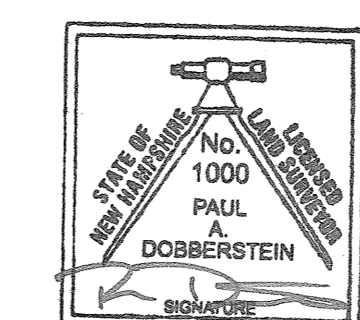
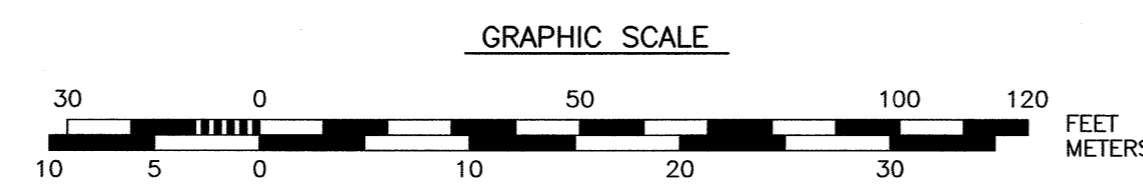
NORTH MILL POND (TIDAL)



MATCHLINE - SEE SHEET 3

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

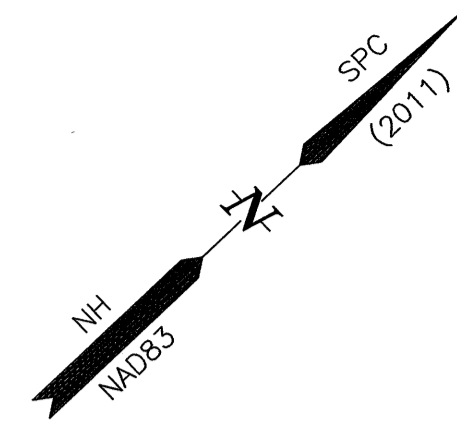


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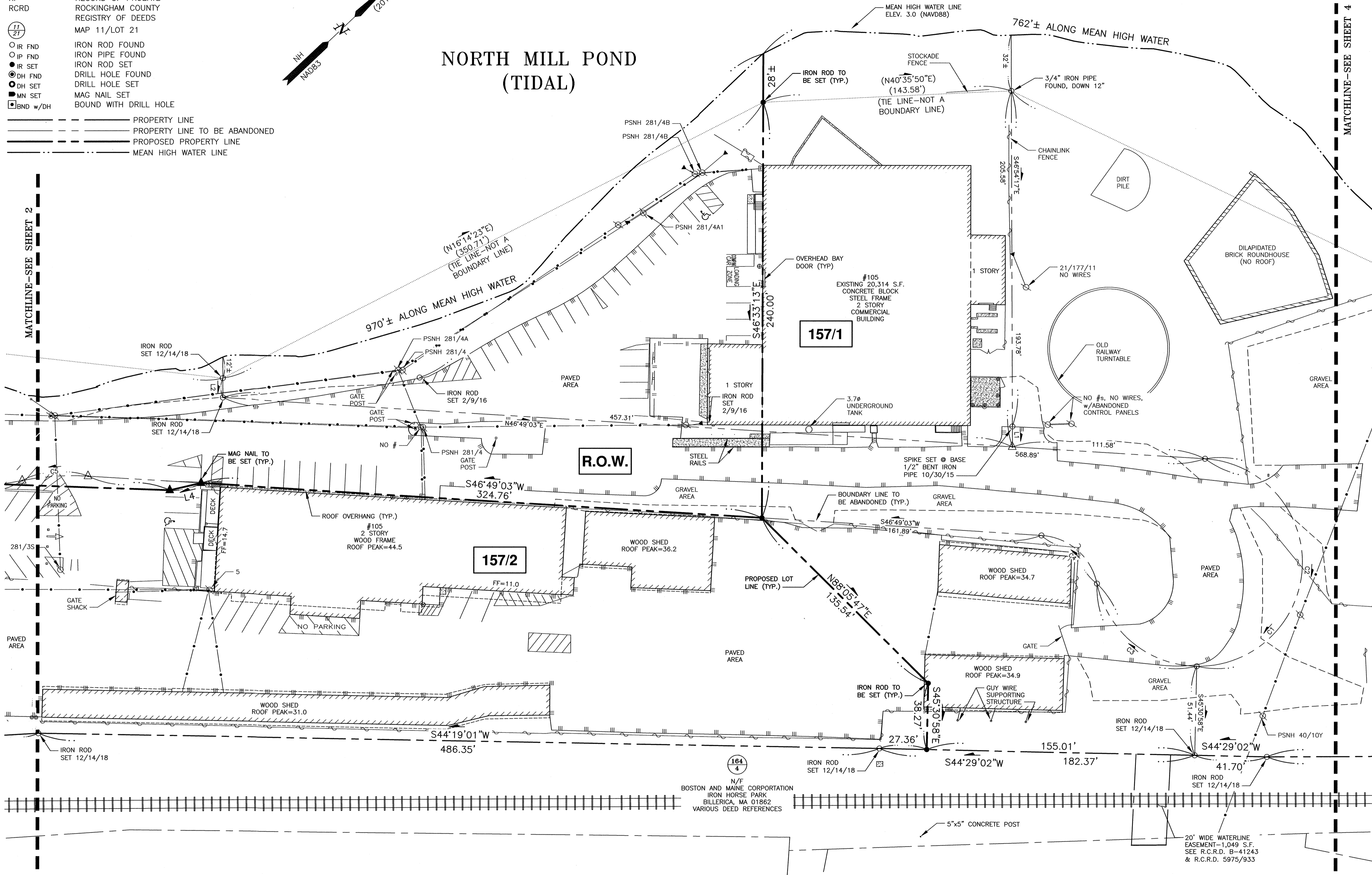
PAUL A. DOBBERSTEIN, LLS
 DATE 1/20/2021

LEGEND:

- N/F NOW OR FORMERLY
- RP RECORD OF PROBATE
- RCRD ROCKINGHAM COUNTY
- REGISTRY OF DEEDS
- MAP 11/LOT 21
- IR FND IRON ROD FOUND
- IP FND IRON PIPE FOUND
- IR SET IRON ROD SET
- DH FND DRILL HOLE FOUND
- DH SET DRILL HOLE SET
- MN SET MAG NAIL SET
- BND w/DH BOUND WITH DRILL HOLE
- PROPERTY LINE
- PROPERTY LINE TO BE ABANDONED
- PROPOSED PROPERTY LINE
- MEAN HIGH WATER LINE



NORTH MILL POND (TIDAL)



AMBIT ENGINEERING, INC.
 Civil Engineers & Land Surveyors
 200 Griffin Road - Unit 3
 Portsmouth, N.H. 03801-7114
 Tel (603) 430-9282
 Fax (603) 436-2815

- NOTES:**
- 1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 157 LOTS 1 & 2, MAP 164 AS LOTS 1 & 4-2, AND A RIGHT-OF-WAY WITH NO ASSESSOR'S MAP DESIGNATION.
 - 2) OWNERS OF RECORD:
 MAP 157 LOT 1
 CLIPPER TRADERS, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5598/2725 & 5970/1701

 MAP 157 LOT 2 & MAP 164 LOT 1
 PORTSMOUTH LUMBER & HARDWARE, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5372/2606, 5808/1379, 5540/2567, & 5970/1693

 MAP 164 LOT 4-2
 IRON HORSE PROPERTIES, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5970/1686 & 6012/2502

 RIGHT-OF-WAY
 CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
 5970/1708
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NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2

TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
 OWNER OF RECORD

TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
 OWNER OF RECORD

TAX MAP 164 LOT 4-2:
IRON HORSE PROPERTIES, LLC
 OWNER OF RECORD

RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC,
PORTSMOUTH LUMBER & HARDWARE, LLC,
& CLIPPER TRADERS, LLC

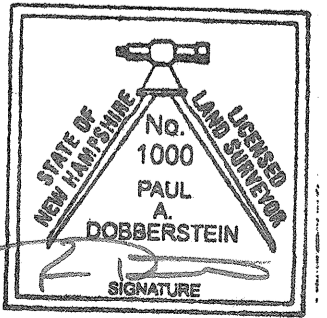
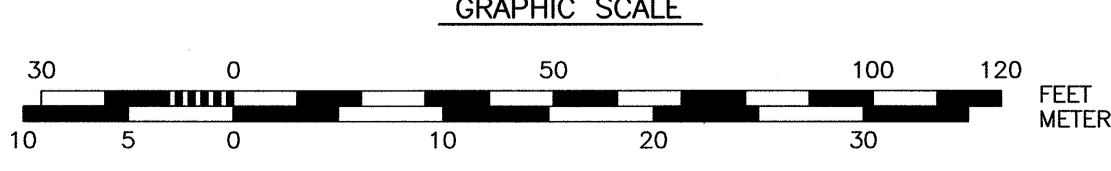
PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
 CITY OF PORTSMOUTH
 COUNTY OF ROCKINGHAM
 STATE OF NEW HAMPSHIRE

LENGTH TABLE

LINE	BEARING	DISTANCE
L1	S46°54'17"E	11.80'
L2	S46°49'43"E	11.20'
L3	N59°39'51"E	2'±
L4	S30°20'37"W	18.60'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	60.00'	266.77'	95.37'	S05°48'40"E	254°44'33"
C2	60.00'	185.84'	119.97'	S44°26'53"E	177°28'07"
C3	60.00'	80.92'	74.93'	S82°55'23"W	77°16'26"



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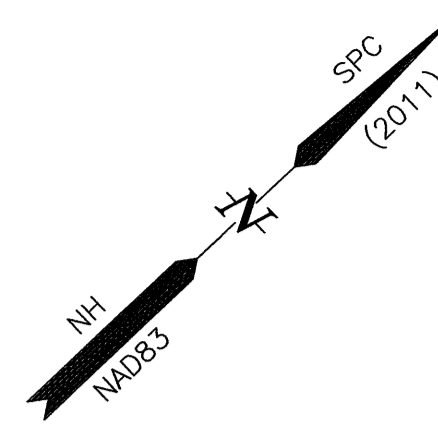
PAUL A. DOBBERSTEIN, LLS
 DATE 1/20/2021

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

LEGEND:

- | | |
|------|--|
| N/F | NOW OR FORMERLY |
| RP | RECORD OF PROBATE |
| RCRD | ROCKINGHAM COUNTY
REGISTRY OF DEEDS |
| | MAP 11/LOT 21 |
| | IRON ROD FOUND |
| | IRON PIPE FOUND |
| | IRON ROD SET |
| | DRILL HOLE FOUND |
| | DRILL HOLE SET |
| | MAG NAIL FOUND |
| | MAG NAIL SET |
| | BOUND WITH DRILL HOLE |
| | PROPERTY LINE |
| | PROPERTY LINE TO BE ABANDONED |
| | PROPOSED PROPERTY LINE |
| | MEAN HIGH WATER LINE |



NOTES:

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 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5598/2725 & 5970/1701

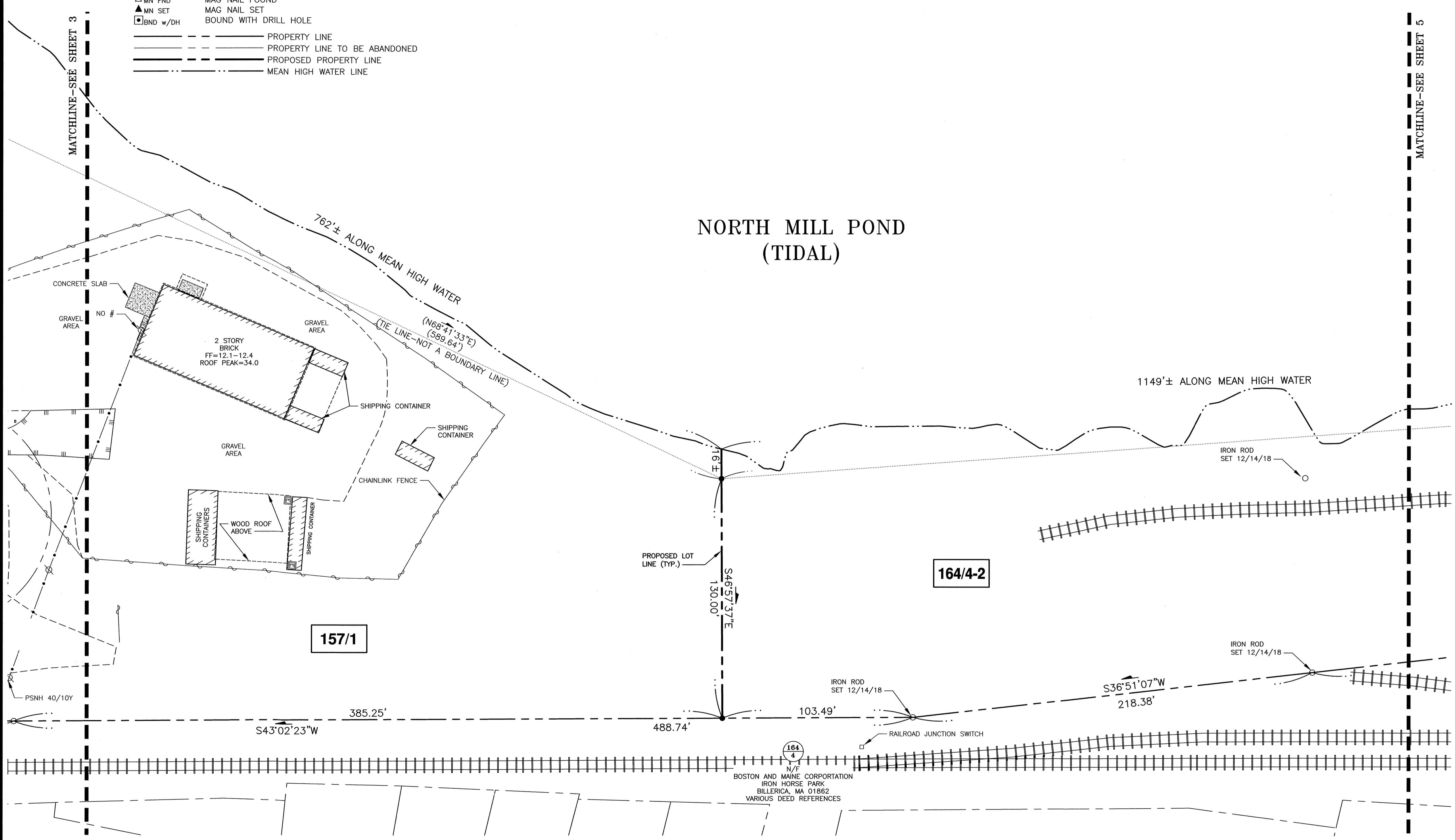
 MAP 157 LOT 2 & MAP 164 LOT 1
 PORTSMOUTH LUMBER & HARDWARE, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5372/2606, 5808/1379, 5540/2567, & 5970/1693

 MAP 164 LOT 4-2
 IRON HORSE PROPERTIES, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5970/1686 & 6012/2502

 RIGHT-OF-WAY
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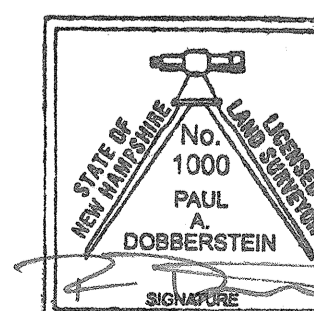
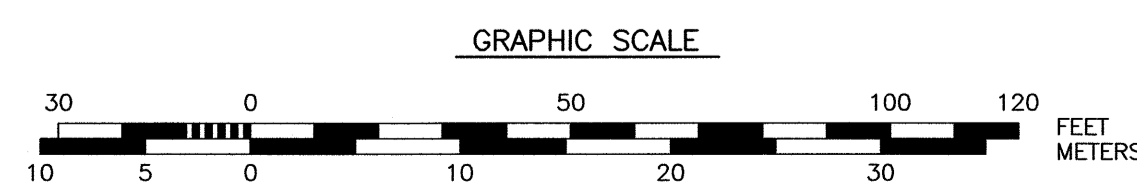
NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20

LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2
 TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
 OWNER OF RECORD
 TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
 OWNER OF RECORD
 TAX MAP 164 LOT 4-2:
IRON HORSE PROPERTIES, LLC
 OWNER OF RECORD
 RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC,
PORTSMOUTH LUMBER & HARDWARE, LLC,
& CLIPPER TRADERS, LLC
 PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
 CITY OF PORTSMOUTH
 COUNTY OF ROCKINGHAM
 STATE OF NEW HAMPSHIRE



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



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PAUL A. DOBBERSTEIN, LLS DATE 1/20/2021

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 PORTSMOUTH, NH 03801
 5598/2725 & 5970/1701

 MAP 157 LOT 2 & MAP 164 LOT 1
 PORTSMOUTH LUMBER & HARDWARE, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5372/2606, 5808/1379, 5540/2567, & 5970/1693

 MAP 164 LOT 4-2
 IRON HORSE PROPERTIES, LLC
 105 BARTLETT STREET
 PORTSMOUTH, NH 03801
 5970/1686 & 6012/2502

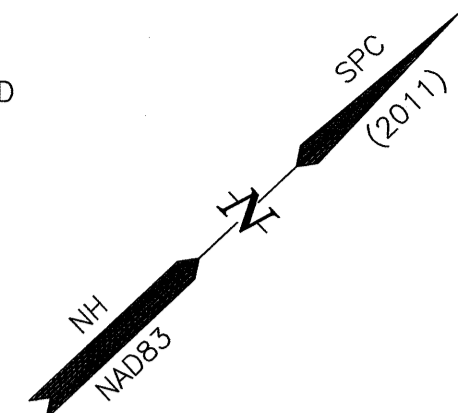
 RIGHT-OF-WAY
 CLIPPER TRADERS, LLC, PORTSMOUTH LUMBER & HARDWARE, LLC, & IRON HORSE PROPERTIES, LLC
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NO.	DESCRIPTION	DATE
1	REVISE PROPOSED LOT LINE	1/19/21
0	ISSUED FOR COMMENT	6/22/20
REVISIONS		

LOT LINE RELOCATION PLAN
TAX MAP 157 - LOTS 1 & 2
TAX MAP 164 - LOTS 1 & 4-2
 TAX MAP 157 LOT 1:
CLIPPER TRADERS, LLC
 OWNER OF RECORD
 TAX MAP 157 LOT 2 & TAX MAP 164 LOT 1:
PORTSMOUTH LUMBER & HARDWARE, LLC
 OWNER OF RECORD
 TAX MAP 164 LOT 4-2:
IRON HORSE PROPERTIES, LLC
 OWNER OF RECORD
 RIGHT-OF-WAY (NO TAX MAP DESIGNATION):
IRON HORSE PROPERTIES, LLC,
PORTSMOUTH LUMBER & HARDWARE, LLC,
& CLIPPER TRADERS, LLC
 PROPERTY LOCATED BETWEEN:
BARTLETT STREET & MAPLEWOOD AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

LEGEND:

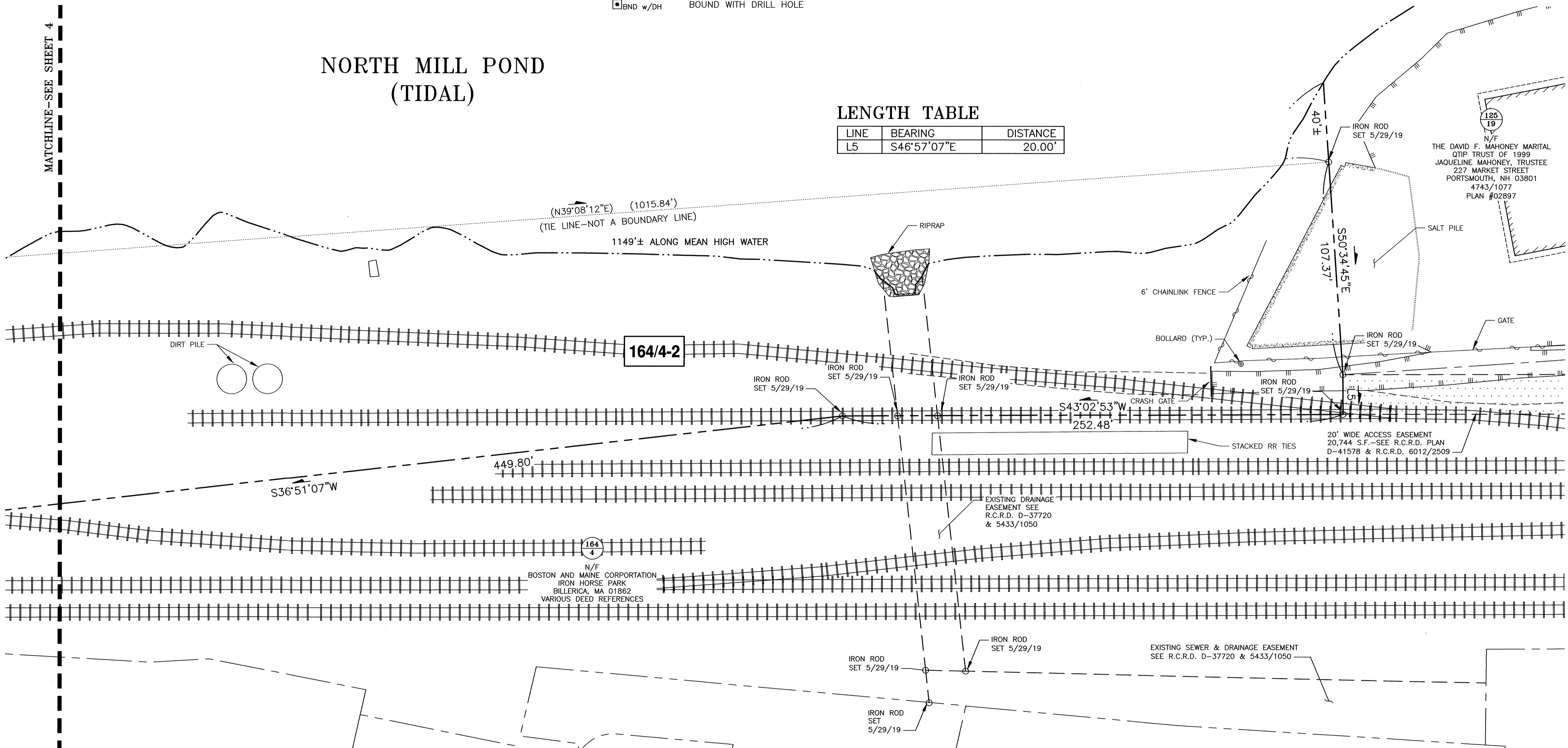
- | | | | |
|------------|-----------------------|-----|-------------------------------|
| N/F | NOW OR FORMERLY | --- | PROPERTY LINE |
| RP | RECORD OF PROBATE | --- | PROPERTY LINE TO BE ABANDONED |
| RCD | ROCKINGHAM COUNTY | --- | PROPOSED PROPERTY LINE |
| | REGISTRY OF DEEDS | --- | MEAN HIGH WATER LINE |
| (11/21) | MAP 11/LOT 21 | | |
| ○ IR FND | IRON ROD FOUND | | |
| ○ IP FND | IRON PIPE FOUND | | |
| ● IR SET | IRON ROD SET | | |
| ⊙ DH FND | DRILL HOLE FOUND | | |
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| □ BND w/DH | BOUND WITH DRILL HOLE | | |



NORTH MILL POND (TIDAL)

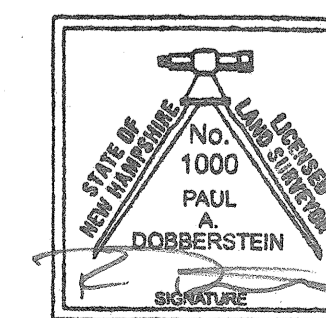
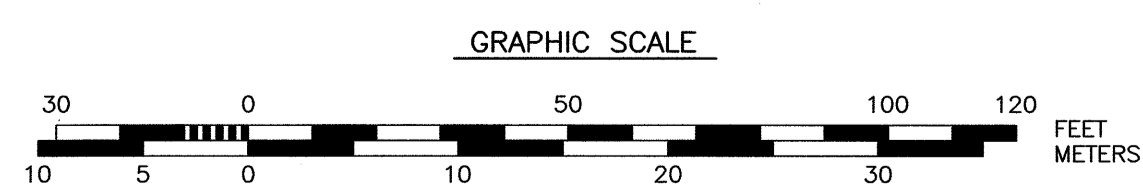
LENGTH TABLE

LINE	BEARING	DISTANCE
L5	S46°57'07"E	20.00'

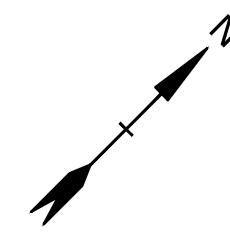


APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____



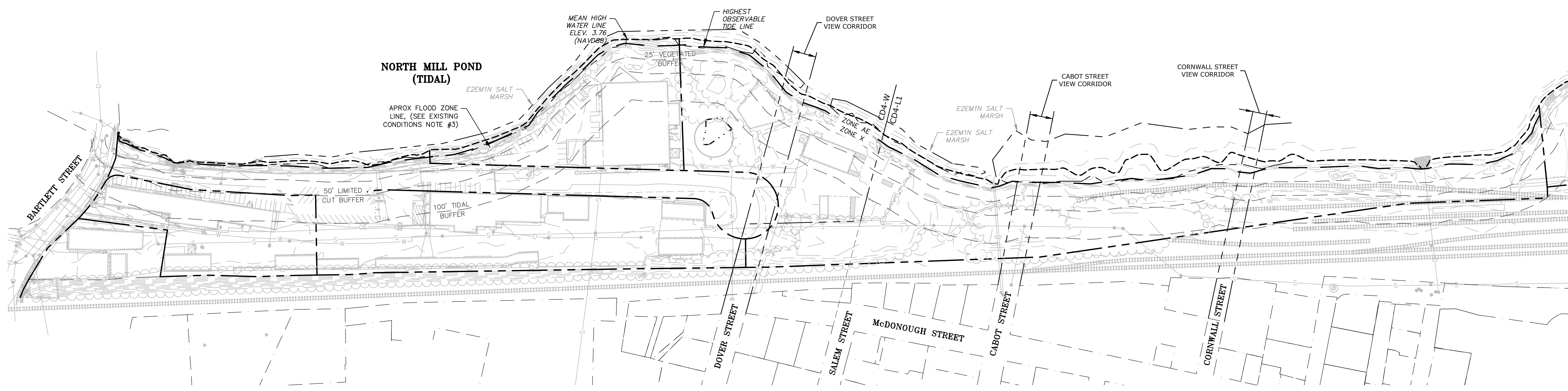
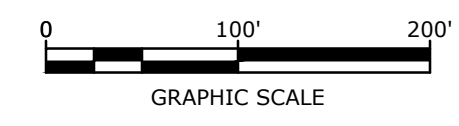
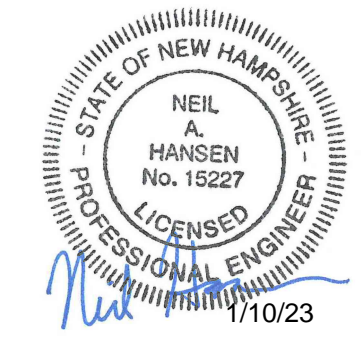
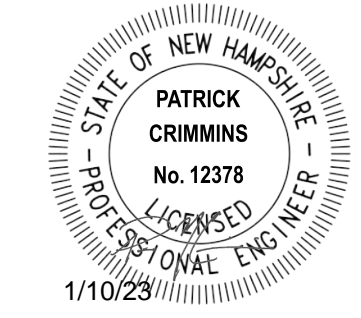
I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."
 PAUL A DOBBERSTEIN, LLS
 DATE 1/20/2021



LEGEND

- BUILDING
- BUILDING OVERHANG
- BUILDING HATCH/TEXT
- CURB
- EDGE OF PAVEMENT
- RETAINING WALL
- STONE WALL
- CHAIN LINK FENCE
- FENCE LINE
- TREELINE
- PAVEMENT MARKING
- TRAFFIC SIGN
- MAJOR CONTOURS
- MINOR CONTOURS
- STORM DRAIN LINE
- SANITARY SEWER LINE
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND GAS LINE
- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- HYDRANT
- WATER GATE VALVE
- UTILITY POLE
- TELEPHONE STRUCTURE
- GAS GATE VALVE
- BOLLARD
- GAS SHUTOFF
- WATER SHUTOFF

- EXISTING CONDITIONS PLAN NOTES:**
1. EXISTING CONDITIONS ARE BASED ON A FIELD SURVEY BY AMBIT ENGINEERING, INC., DATED 3/5/2018.
 2. HIGHEST OBSERVABLE TIDE LINE (HOTL) DELINEATION ORIGINALLY PREFORMED BY STEVEN D. RIKER, CWS, ON 8/8/2017, AND FIELD LOCATED BY AMBIT ENGINEERING, INC. ON 8/9/2017. ON OCTOBER 29 AND DECEMBER 2, 2019, LEONARD LORD, PHD, CSS, CWS OF TIGHE & BOND REVIEWED AND ASSESSED 2,000+/- LINEAR FEET OF TIDAL WETLANDS AND BUFFERS ALONG THE NORTH MILL POND. THE WETLAND DELINEATION REVIEW WAS BASED ON CRITERIA SPECIFIED IN THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JANUARY 1987), AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (JANUARY 2012). THE HIGHEST OBSERVABLE TIDE LINE WAS REVIEWED BASED ON THE DEFINITION FOUND IN NH DEPARTMENT OF ENVIRONMENTAL SERVICES WETLAND RULES, ENV-WT 101.49/ENV-WT 602.23. THE HOTL WAS DEEMED ACCURATE AND THE PREVIOUS 2017 DELINEATION WAS ACCEPTED BY TIGHE & BOND. WETLANDS WERE CLASSIFIED BASED ON CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES (COWARDIN ET AL., 1979).
 3. FLOOD HAZARD ZONES: "AE ELEV. 9" (SPECIAL FLOOD HAZARD AREA) AND "X" (NOT A SPECIAL FLOOD HAZARD AREA), PER FIRM MAP #33015C0259E, DATED 5/17/05.



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

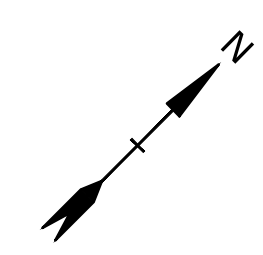
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C	4/20/2020	TAC Submission
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A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

OVERALL EXISTING CONDITIONS PLAN

SCALE: AS SHOWN

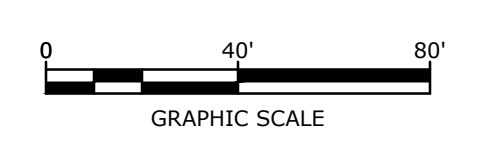
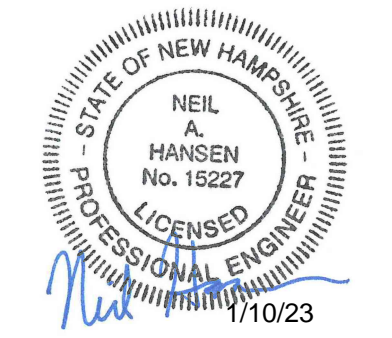
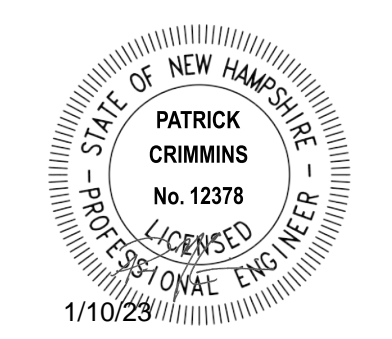
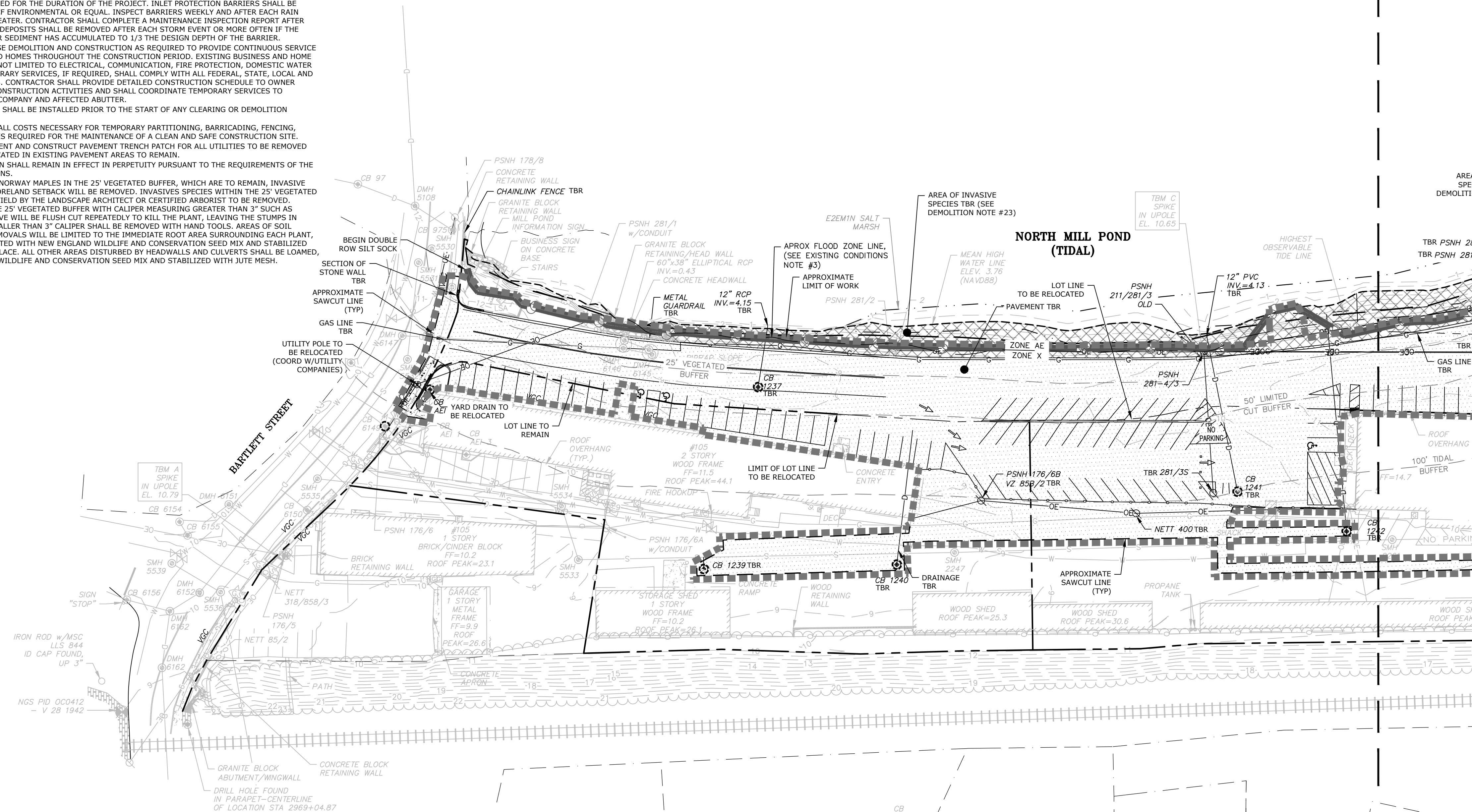
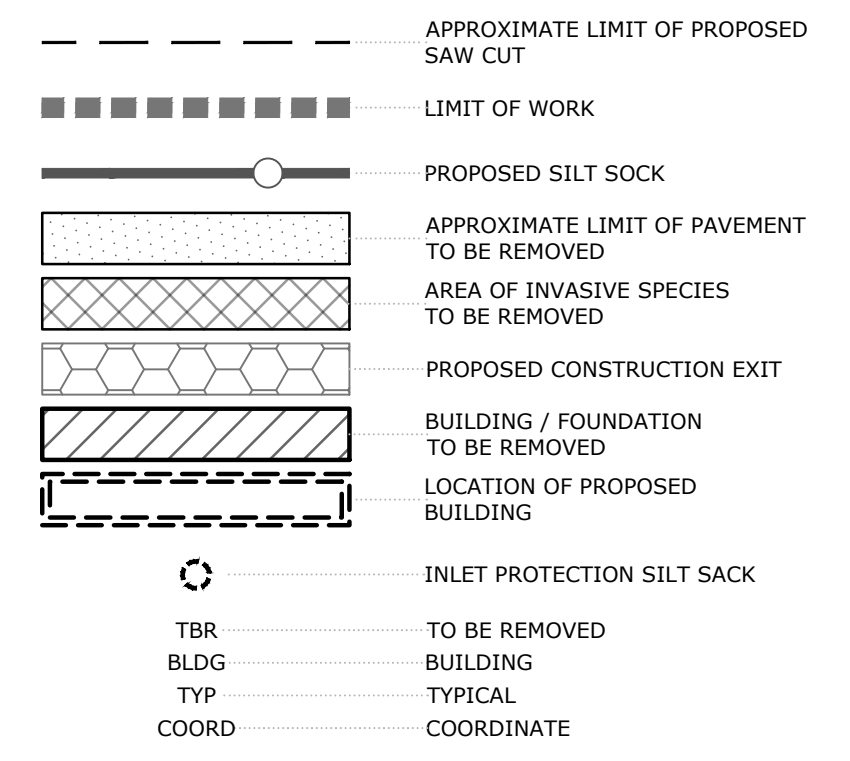
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DEMOLITION NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
3. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
5. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
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21. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
22. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
23. WITH THE EXCEPTION OF THE NORWAY MAPLES IN THE 25' VEGETATED BUFFER, WHICH ARE TO REMAIN, INVASIVE SPECIES WITHIN THE 100' SHORELAND SETBACK WILL BE REMOVED. INVASIVE SPECIES WITHIN THE 25' VEGETATED BUFFER WILL BE FLAGGED IN FIELD BY THE LANDSCAPE ARCHITECT OR CERTIFIED ARBORIST TO BE REMOVED. INVASIVE SHRUBS WITHIN THE 25' VEGETATED BUFFER WITH CALIPER MEASURING GREATER THAN 3" SUCH AS BUCKTHORN AND AUTUMN OLIVE WILL BE FLUSH CUT REPEATEDLY TO KILL THE PLANT, LEAVING THE STUMPS IN PLACE. WOODY INVASIVES SMALLER THAN 3" CALIPER SHALL BE REMOVED WITH HAND TOOLS. AREAS OF SOIL DISTURBANCE FROM SUCH REMOVALS WILL BE LIMITED TO THE IMMEDIATE ROOT AREA SURROUNDING EACH PLANT, DRESSED WITH LOAM, REPLANTED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH STAKED IN PLACE. ALL OTHER AREAS DISTURBED BY HEADWALLS AND CULVERTS SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

LEGEND



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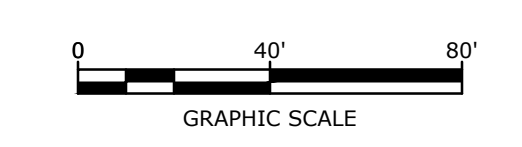
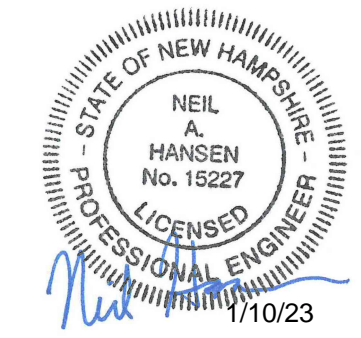
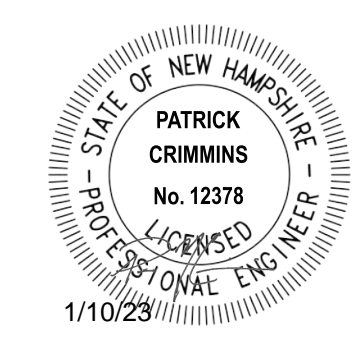
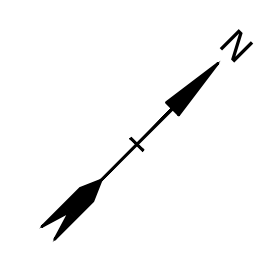
PROJECT NO:	C-0960-006
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FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CKJ
CHECKED:	NAH
APPROVED:	PMC

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: AS SHOWN

C-101.1

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Plotted On: Dec 28, 2022 11:23am
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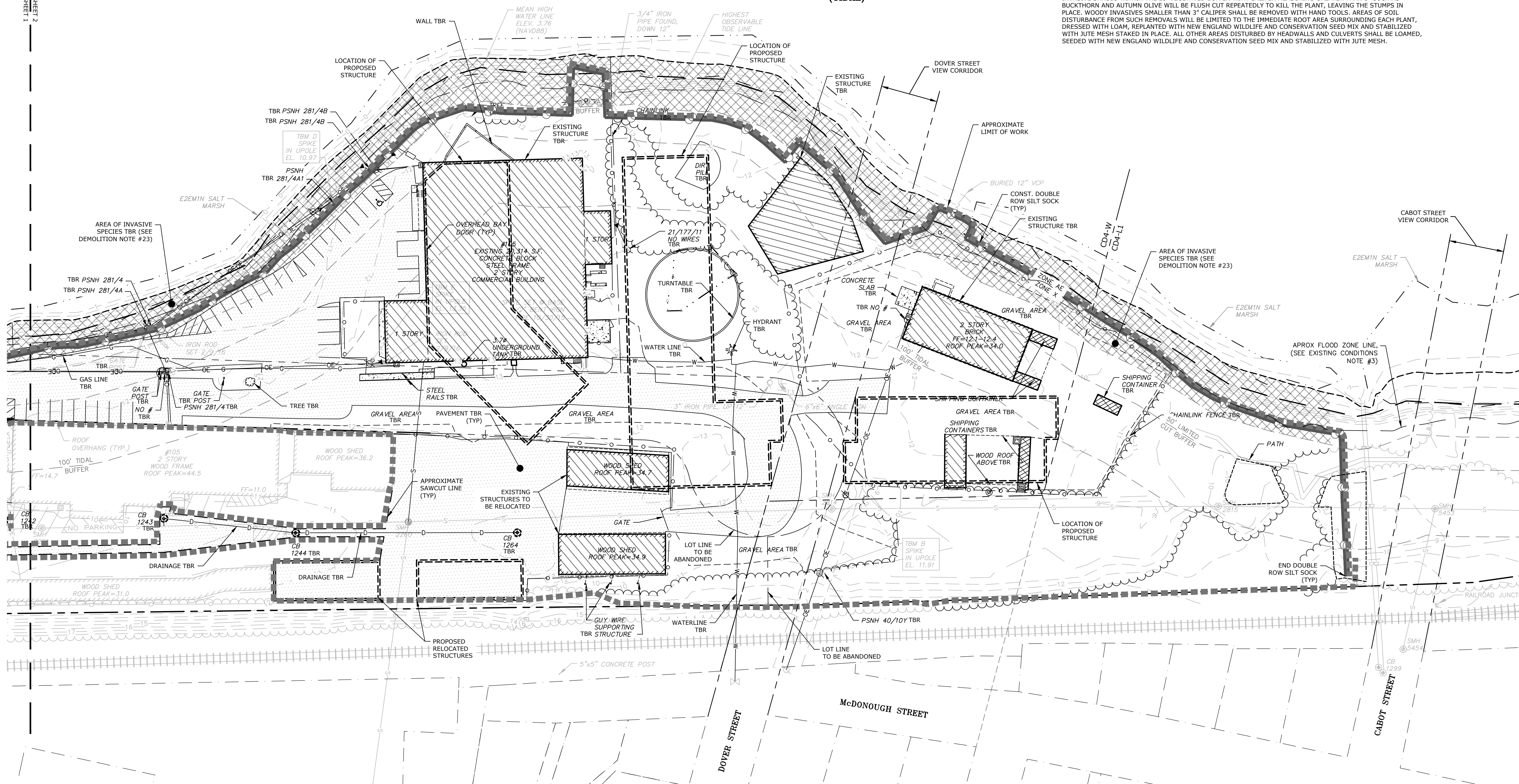
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C-101.2

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NORTH MILL POND (TIDAL)



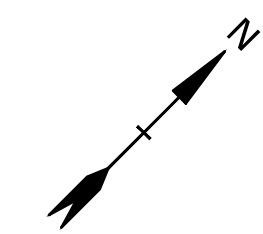
LEGEND

- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- LIMIT OF WORK
- PROPOSED SILT SOCK
- APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
- AREA OF INVASIVE SPECIES TO BE REMOVED
- PROPOSED CONSTRUCTION EXIT
- BUILDING / FOUNDATION TO BE REMOVED
- LOCATION OF PROPOSED BUILDING
- INLET PROTECTION SILT SACK
- TBR TO BE REMOVED
- BLDG BUILDING
- TYP TYPICAL
- COORD COORDINATE

MATCH LINE SHEET 1

MATCH LINE SHEET 2

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SITE DATA:
 PROJECT LOCATION: TAX MAP 157, LOT 1
 TAX MAP 157, LOT 2
 TAX MAP 164, LOT 1
 TAX MAP 164, LOT 4-2

SITE ZONING DISTRICT: 105 BARTLETT STREET
 PORTSMOUTH, NEW HAMPSHIRE
 CHARACTER DISTRICT 4 (CD4-W)
 CHARACTER DISTRICT 4 (CD4-L1)
 WEST END INCENTIVE OVERLAY DISTRICT

ALLOWED USE ON SITE: PROFESSIONAL OFFICE, BUSINESS OFFICE, MULTIFAMILY DWELLING

PROPOSED GROUND FLOOR USES:
 BUILDING A & B: RESIDENTIAL
 BUILDING C: RESIDENTIAL & AMENITY SPACE

DEVELOPMENT STANDARDS

BUILDING PLACEMENT (PRINCIPAL BUILDING):	REQUIRED (CD4-W)	PROPOSED (CD4-W)
MAX PRINCIPAL FRONT YARD:	10 FT	0 FT
MINIMUM SIDE YARD:	15 FT ⁽¹⁾	<6 FT ⁽²⁾
MINIMUM REAR YARD:	5 FT	214.54 FT
FRONT LOT LINE BUILDOUT:	50% MIN	54%

BUILDING AND LOT OCCUPATION:	REQUIRED (CD4-W)	PROPOSED (CD4-W)
MAXIMUM BUILDING BLOCK LENGTH:	200 FT	185 FT
MAXIMUM FAÇADE MODULATION LENGTH:	80 FT	<80 FT
MAXIMUM ENTRANCE SPACING:	50 FT	<50 FT
MAXIMUM BUILDING COVERAGE:	80% ⁽³⁾	±20.9%
MAXIMUM BUILDING FOOTPRINT:	20,000 SF ⁽⁴⁾	19,214 SF
MINIMUM LOT AREA:	5,000 SF	205,804 SF
MINIMUM LOT AREA PER DWELLING UNIT:	NR ⁽⁵⁾	58.1%
MINIMUM OPEN SPACE:	15%	14,300 SF
MAXIMUM GROUND FLOOR GFA PER USE:	15,000 SF	14,300 SF

- (1) - PER 10.516.20, MINIMUM SIDE YARD SETBACK ADJOINING A RAILROAD ADJOINING A RAILROAD RIGHT OF WAY SHALL BE 15FT
- (2) - VARIANCE GRANTED BY ZONING BOARD OF ADJUSTMENT ON JANUARY 22, 2020
- (3) - MAXIMUM BUILDING COVERAGE ALLOWED IN THE WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
- (4) - ADDITIONAL 5,000 SF OF GFA (INCREASED FROM 15,000 SF) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
- (5) - NO MINIMUM LOT AREA PER DWELLING UNIT REQUIRED IN THE WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.

BUILDING FORM (PRINCIPAL BUILDING):	REQUIRED (CD4-W)	PROPOSED (CD4-W)
BUILDING HEIGHT:	4 STORIES ⁽¹⁾ 50' MAX ⁽²⁾	4 STORIES, 49'-2"
MAXIMUM FINISHED FLOOR SURFACE OF GROUND FLOOR ABOVE SIDEWALK GRADE:	36 IN	<36 IN
MINIMUM GROUND STORY HEIGHT:	9 FT ⁽³⁾	12 FT
MINIMUM SECOND STORY HEIGHT:	N/A	
FAÇADE GLAZING:		
SHOPFRONT FAÇADE:	70% MIN	>70%
OTHER FAÇADE TYPES:	20% TO 50%	
ALLOWED ROOF TYPES:	FLAT, GABLE, HIP, GAMBREL, OR MANSARD	FLAT
ROOF PITCH, IF ANY:		
GABLE:	6:12 - 12:12	
HIP:	3:12 MIN	
MANSARD/GAMBREL:	6:12 - 30:12	
ALLOWED BUILDING TYPES:	APARTMENT BUILDING	APARTMENT BUILDING

- (1) - ADDITIONAL 1 STORY (INCREASED FROM 1 AND 3 RESPECTIVELY) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
- (2) - ADDITIONAL 10' OF BUILDING HEIGHT (INCREASED FROM 20' AND 40' RESPECTIVELY) ALLOWED FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.
- (3) - MINIMUM GROUND STORY HEIGHT ALLOWED IN WEST END INCENTIVE OVERLAY DISTRICT FOR PROVIDING AT LEAST 20% OF THE SITE TO BE ASSIGNED AS COMMUNITY SPACE.

COMMUNITY SPACE:	REQUIRED (CD4-W)	PROPOSED (CD4-W)
	44,154 SF 20%	47,703 SF 23%

ZONING VARIANCES:

REQUIREMENT:	SECTION:	GRANTED:
(1) - MINIMUM SIDE YARD SETBACK FROM RAILROAD:	10.516.20	1/22/2020

OFF-STREET PARKING REQUIREMENTS:

PARKING SPACES REQUIRED:

DWELLING UNITS: 500 SF TO 750 SF 1.0 SPACES PER UNIT	BUILDING A, 16 UNITS BUILDING B, 31 UNITS BUILDING C, 17 UNITS	16 SPACES 31 SPACES 17 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED = 64 SPACES		
OVER 750 SF 1.3 SPACES PER UNIT	BUILDING A, 20 UNITS BUILDING B, 39 UNITS BUILDING C, 29 UNITS	26.0 SPACES 50.7 SPACES 37.7 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED = 114.4 SPACES		
VISITORS: 1 SPACE FOR EVERY 5 DWELLING UNITS	152 UNITS	31 SPACES
TOTAL MINIMUM PARKING SPACES REQUIRED = 210 SPACES		

TOTAL PARKING SPACES PROVIDED:

TOTAL PARKING SPACES PROVIDED = 95 SPACES (SURFACE PARKING)
 53 SPACES (BUILDING A, UNDERGROUND)
 42 SPACES (BUILDING B, UNDERGROUND)
 20 SPACES (PRIVATE ROADWAY)⁽¹⁾
 210 SPACES

ADA SPACES REQUIRED = 9 SPACES
 ADA SPACES PROVIDED = 9 SPACES (4 SPACES INCLUDED IN SURFACE PARKING COUNT OF 95, 4 SPACES INCLUDED IN BASEMENT PARKING COUNT OF 95, 1 SPACE INCLUDED IN PRIVATE ROADWAY COUNT OF 20)

(1) - CONDITIONAL USE PERMIT REQUIRED FOR SHARED PARKING ON SEPARATE LOT

PARKING STALL LAYOUT:	REQUIRED	PROPOSED
DRIVE AISLE WIDTH:	8.5' X 19' 24 FT	8.5' X 19' 24 FT

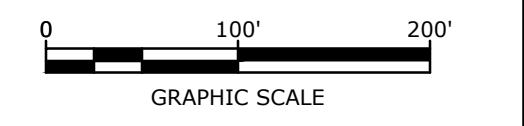
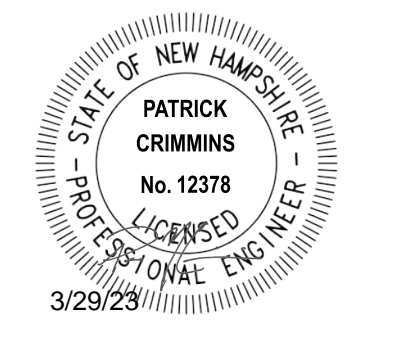
BIKE SPACES REQUIRED:
 1 BIKE SPACE / 5 DWELLING UNITS,
 MAXIMUM OF 30 SPACES

30 SPACES 30 SPACES*

*INDOOR BIKE STORAGE WILL BE PROVIDED THAT MEETS OR EXCEEDS THE REQUIREMENT.

LEGEND

	PROPERTY LINE
	PROPOSED PROPERTY LINE
	PROPOSED EDGE OF PAVEMENT
	PROPOSED CURB
	PROPOSED BUILDING
	PROPOSED PAVEMENT SECTION
	PROPOSED POROUS PAVEMENT SECTION
	PROPOSED CONCRETE SIDEWALK
	PROPOSED BOLLARD
	BUILDING TYP
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	PROPOSED VERTICAL GRANITE CURB
	PROPOSED SLOPED GRANITE CURB
	PROPOSED MOUNTABLE VERTICAL GRANITE CURB



Proposed Multi-Family Development

Iron Horse Properties, LLC

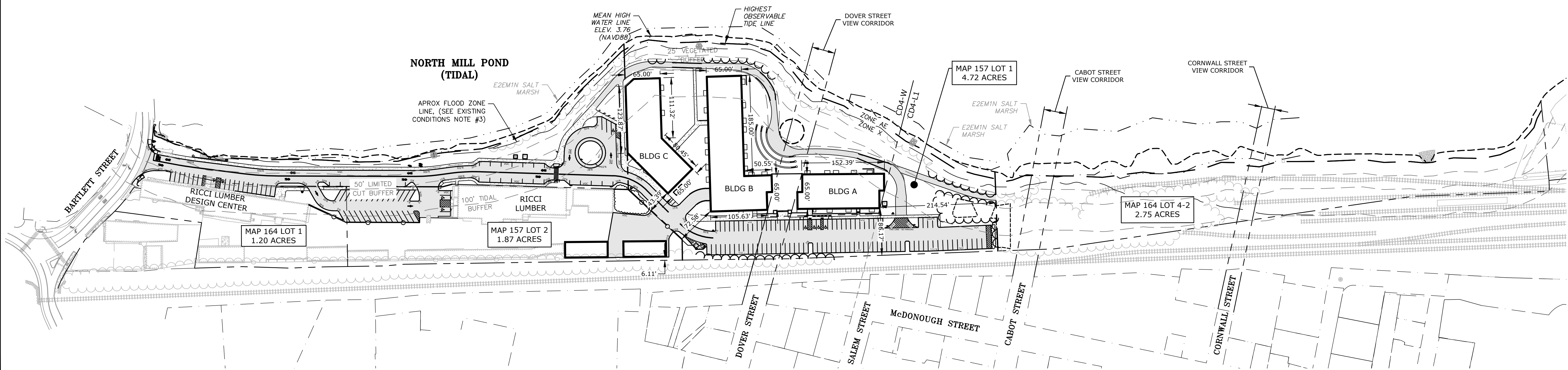
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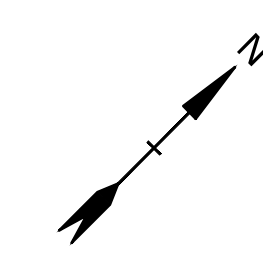
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MARK	DATE	DESCRIPTION
PROJECT NO:	C-0960-006	
DATE:	April 20, 2020	
FILE:	C-0960-006_C-SITE.DWG	
DRAWN BY:	CJK	
CHECKED:	NAH	
APPROVED:	PMC	

OVERALL SITE PLAN

SCALE: AS SHOWN

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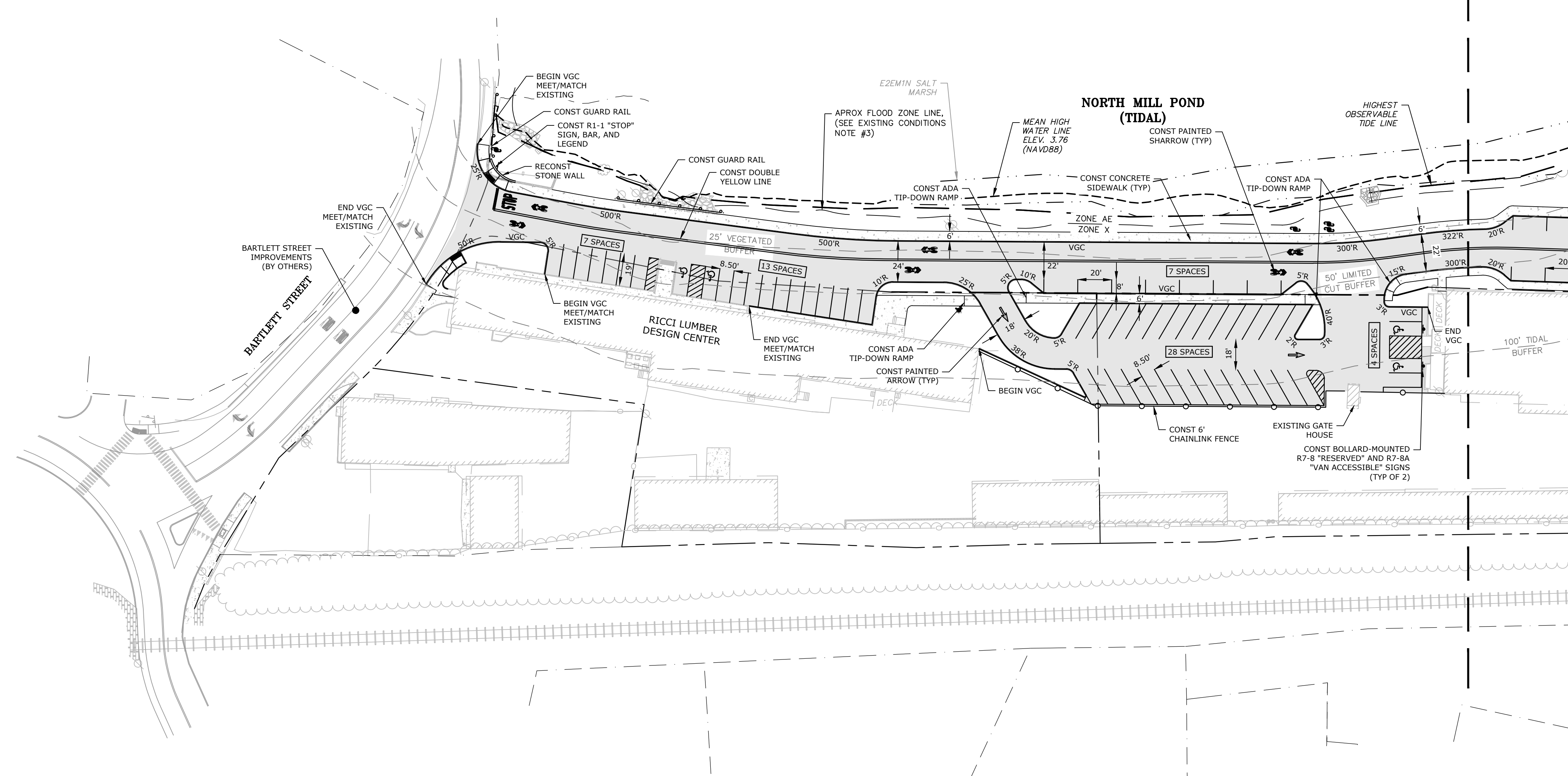
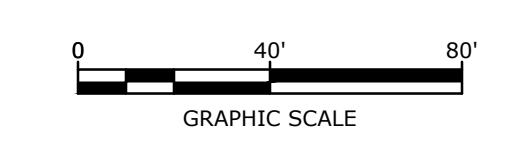
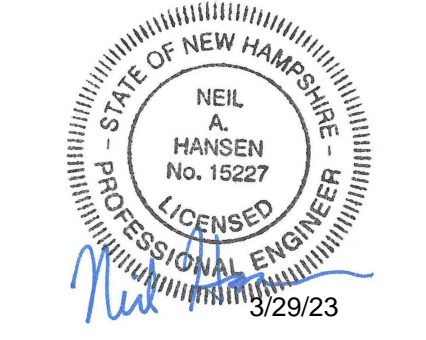
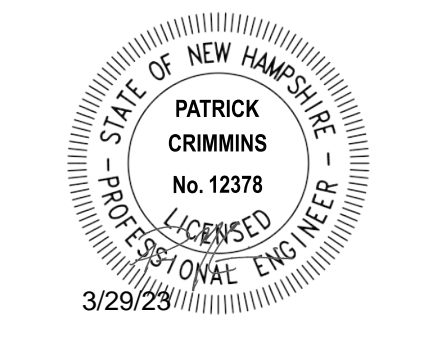




- SITE NOTES:**
1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES SHALL BE THERMOPLASTIC MATERIAL. THERMOPLASTIC MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M249. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
 2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
 3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
 4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
 5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
 6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
 7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
 8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES & SPECIFICATIONS.
 9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH.
 10. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
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 14. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
 15. THE PROPERTY MANAGER WILL BE RESPONSIBLE FOR TIMELY SNOW REMOVAL FROM ALL PRIVATE SIDEWALKS, DRIVEWAYS, AND PARKING AREAS. SNOW REMOVAL WILL BE HAULED OFF-SITE AND LEGALLY DISPOSED OF WHEN SNOW BANKS EXCEED 3 FEET IN HEIGHT.
 16. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 17. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
 18. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
 19. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES THAT IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
 20. ALL TREES TO BE PLANTED ARE TO BE INSTALLED UNDER THE SUPERVISION OF THE CITY OF PORTSMOUTH DPW USING STANDARD INSTALLATION METHODS.
 21. THE APPLICATION SHALL PREPARE A CONSTRUCTION MITIGATION AND MANAGEMENT PLAN (CMMP) FOR REVIEW AND APPROVAL BY THE CITY'S LEGAL AND PLANNING DEPARTMENTS.

LEGEND

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	PROPOSED PAVEMENT SECTION
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	PROPOSED BOLLARD
	BUILDING
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	PROPOSED VERTICAL GRANITE CURB
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Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

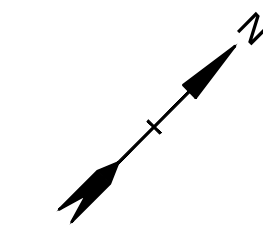
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PROJECT NO:	C-0960-006
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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-102.1

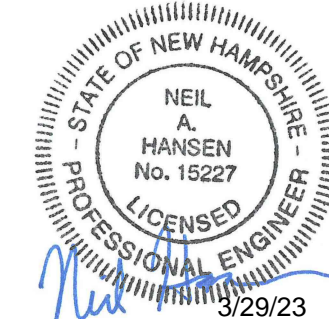
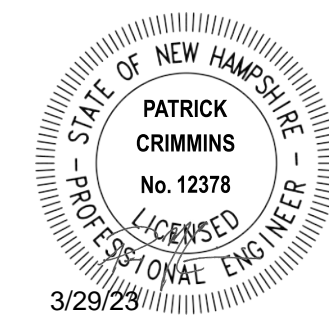


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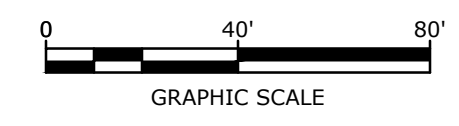
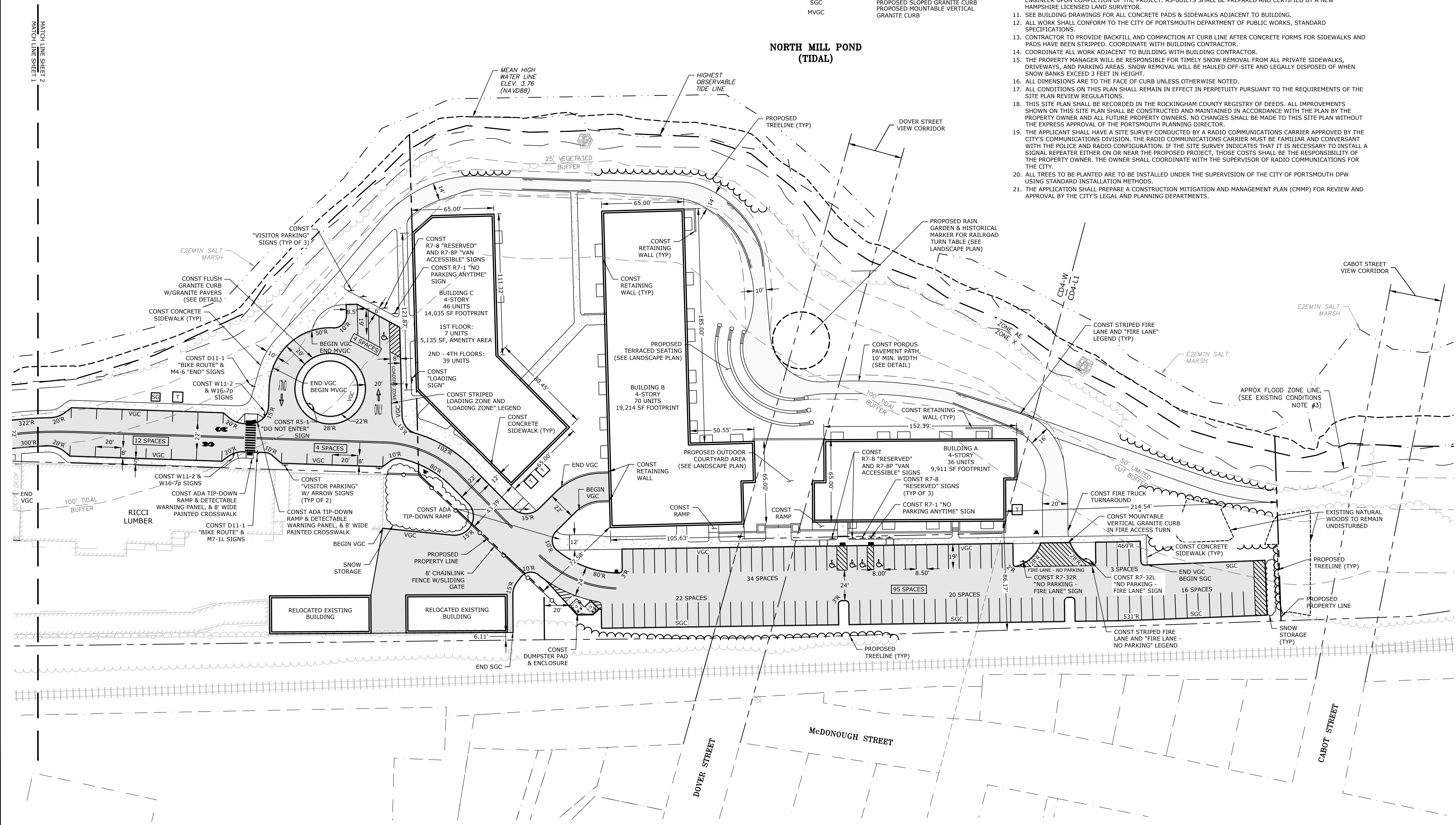
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- - - PROPOSED PROPERTY LINE
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NORTH MILL POND (TIDAL)



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
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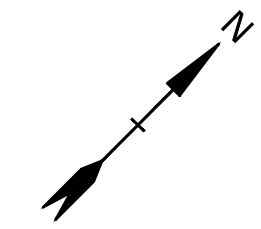
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DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-102.2

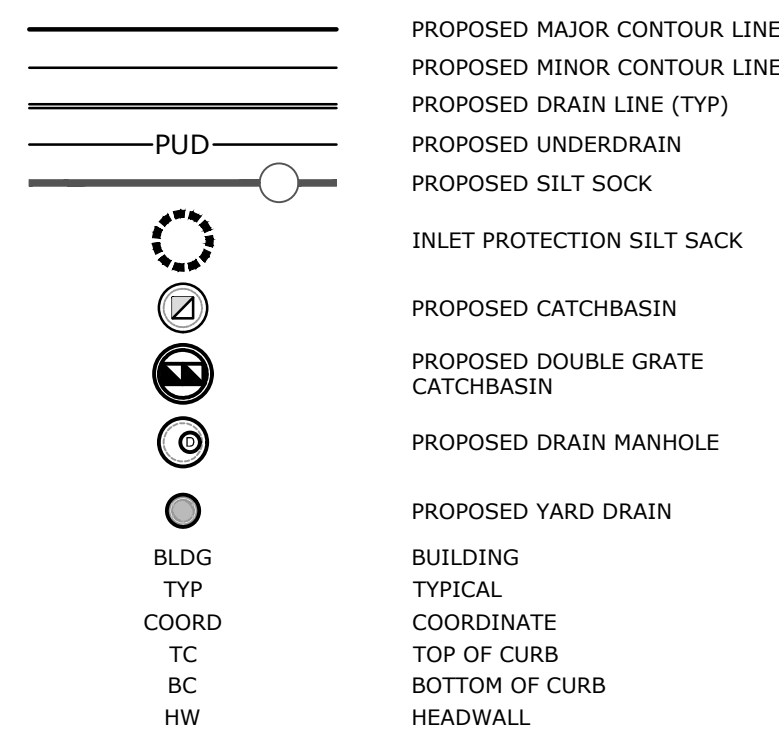
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GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:
BELOW PAVED OR CONCRETE AREAS 95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95%
BELOW LOAM AND SEED AREAS 90%
- * ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL), UNLESS OTHERWISE SPECIFIED.
3. SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
4. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
10. ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
11. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
12. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
13. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.
14. AREAS DISTURBED WITHIN THE 25' VEGETATED BUFFER BY HEADWALLS AND CULVERT CONSTRUCTION SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

LEGEND

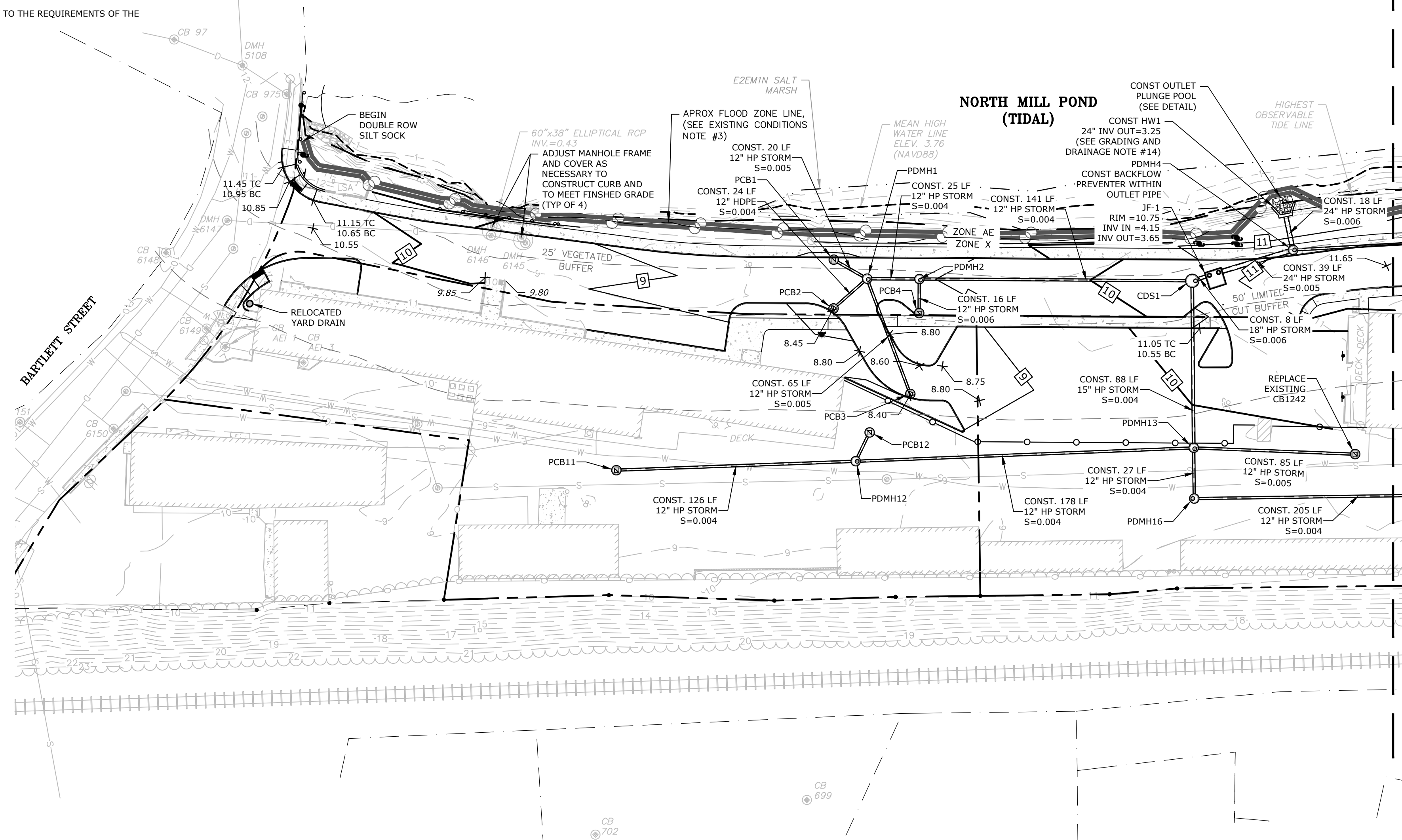


DRAINAGE STRUCTURE TABLE

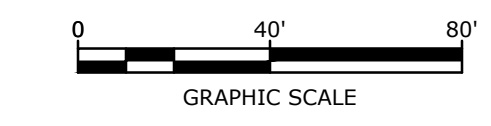
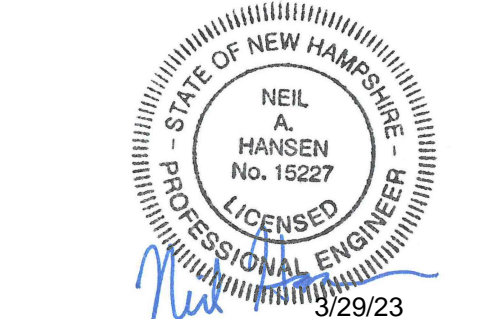
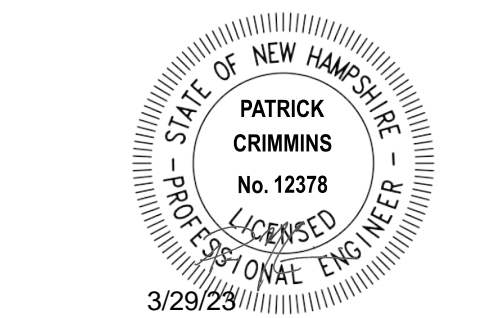
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CB1243 RIM=9.55 INV.IN=6.65 NW INV.OUT=6.55 SE	PCB1 RIM=8.50 INV.OUT=5.30 E	PCB7 RIM=10.00 INV.OUT=7.00 NE	PDMH1 RIM=8.75 INV.IN=5.20 W INV.IN=5.20 S INV.IN=5.20 SE INV.OUT=5.10 NE	PDMH9 RIM=14.05 INV.IN=4.60 SE INV.OUT=4.60 NW	PDMH16 RIM=9.70 INV.IN=5.60 NE INV.OUT=5.50 NW	PYD1 RIM=12.50 INV.OUT=7.70 N
CB1244 RIM=10.00 INV.OUT=6.85 SW	PCB2 RIM=8.45 INV.OUT=5.30 N	PCB8 RIM=10.75 INV.OUT=7.50 NW	PDMH2 RIM=8.90 INV.IN=5.00 SW INV.IN=5.00 SE INV.IN=4.90 NE	PDMH10 RIM=13.35 INV.IN=6.10 E INV.IN=5.00 W INV.IN=3.80 SE INV.OUT=3.70 N	PDMH17 RIM=15.50 INV.IN=10.10 SW INV.IN=11.50 NE INV.OUT=10.00 NW	PYD2 RIM=12.30 INV.IN=7.50 S INV.OUT=7.40 NE
CB1264 RIM=9.50 INV.OUT=6.50 NE	PCB3 RIM=8.40 INV.OUT=5.50 NW	PCB9 RIM=12.65 INV.OUT=8.65 NW	PDMH4 RIM=11.70 INV.IN=3.45 SW INV.IN=4.30 NE INV.OUT=3.35 NW	PDMH11 RIM=8.75 INV.IN=5.35 SW INV.IN=5.35 N INV.OUT=5.35 NE	PDMH18 RIM=16.30 INV.IN=9.00 SE INV.IN=6.00 SW INV.OUT=5.80 NW	PYD3 RIM=11.00 INV.IN=7.10 SW INV.IN=8.00 NW INV.OUT=7.00 NE
CDS1 RIM=10.65 INV.IN=4.30 SE INV.IN=4.30 SW INV.OUT=4.20 NE	PCB4 RIM=8.55 INV.OUT=5.10 NW	PCB10 RIM=12.15 INV.OUT=8.60 NW	PCB11 RIM=8.60 INV.OUT=5.80 NE	PDMH5 RIM=11.30 INV.IN=5.05 NE INV.OUT=4.95 SW	PDMH12 RIM=8.75 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=4.65 NW	PYD4 RIM=13.00 INV.OUT=10.70 SE
CDS2 RIM=9.85 INV.IN=6.00 NE INV.IN=6.00 SE INV.OUT=5.90 SW	PCB5 RIM=9.60 INV.OUT=6.10 NW	PCB11 RIM=8.60 INV.OUT=5.80 NE	PDMH7 RIM=11.95 INV.IN=6.60 NW INV.IN=6.60 SW INV.IN=6.60 W INV.OUT=6.50 SE	PDMH13 RIM=9.60 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=4.65 NW	PDMH19 RIM=11.80 INV.OUT=8.88 SE	PYD5 RIM=11.50 INV.IN=7.00 W INV.IN=7.15 S INV.OUT=7.05 E
				PDMH14 RIM=10.00 INV.IN=6.45 NE INV.IN=6.45 NW INV.OUT=6.35 SW	PDMH20 RIM=11.90 INV.OUT=8.88 N	

EROSION CONTROL NOTES:

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON "EROSION CONTROL NOTES & DETAILS SHEET".
3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. MAINTAIN FOR THE DURATION OF THE PROJECT.
4. INSTALL STABILIZED CONSTRUCTION EXIT(S).
5. INSPECT INLET PROTECTION AND PERIMETER EROSION CONTROL MEASURES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EROSION CONTROL BLANKET ON ALL SLOPES STEEPER THAN 3:1.
8. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
11. ALL CATCH BASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN FULLY PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED WITH PERIMETER CONTROLS AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLANDS.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOTS ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.
15. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.



MATCH LINE SHEET 2



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

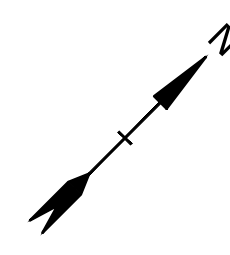
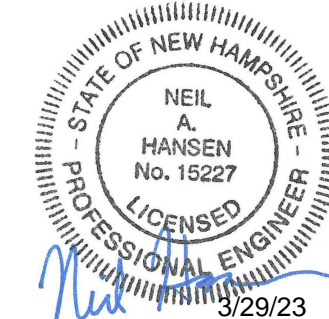
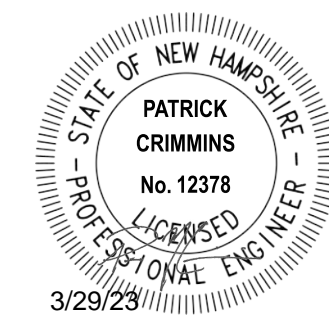
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised Aot Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.1



LEGEND

- PROPOSED MAJOR CONTOUR LINE
- PROPOSED MINOR CONTOUR LINE
- PROPOSED DRAIN LINE (TYP)
- PROPOSED UNDERDRAIN
- PROPOSED SILT SOCK
- INLET PROTECTION SILT SACK
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED YARD DRAIN
- BUILDING
- TYPICAL COORDINATE
- TOP OF CURB
- BOTTOM OF CURB
- HEADWALL

DRAINAGE STRUCTURE TABLE

CB1242 RIM=9.30 INV.OUT=5.80 SW	CDS3 RIM=13.75 INV.IN=4.50 SE INV.OUT=4.50 NW	PCB6 RIM=9.80 INV.OUT=6.30 SW	PCB12 RIM=8.60 INV.OUT=5.45 S	PDMH8 RIM=11.35 INV.IN=6.25 NW INV.IN=6.25 SE INV.IN=6.10 SW INV.OUT=6.00 NE	PDMH15 RIM=13.50 INV.IN=10.50 SW INV.IN=10.50 NW INV.OUT=10.40 NE	POS1 RIM=10.15 INV.OUT=7.15 E
CB1243 RIM=9.55 INV.IN=6.65 NW INV.OUT=6.55 SE	PCB1 RIM=8.50 INV.OUT=5.30 E	PCB7 RIM=10.00 INV.OUT=7.00 NE	PDMH1 RIM=8.75 INV.IN=5.20 W INV.IN=5.20 SE INV.IN=5.20 SE INV.OUT=5.10 NE	PDMH9 RIM=14.05 INV.IN=4.60 SE INV.OUT=4.60 NW	PDMH16 RIM=9.70 INV.IN=5.60 NE INV.OUT=5.50 NW	PYD1 RIM=12.50 INV.OUT=7.70 N
CB1244 RIM=10.00 INV.OUT=6.85 SW	PCB2 RIM=8.45 INV.OUT=5.30 N	PCB8 RIM=10.75 INV.OUT=7.50 NW	PDMH2 RIM=8.90 INV.IN=5.00 SW INV.IN=5.00 SE INV.IN=5.00 W INV.OUT=4.90 NE	PDMH10 RIM=13.35 INV.IN=6.10 E INV.IN=5.00 W INV.IN=3.80 SE INV.OUT=3.70 N	PDMH17 RIM=15.50 INV.IN=10.10 SW INV.IN=11.50 NE INV.IN=5.00 W INV.IN=8.00 NW INV.OUT=7.00 NE	PYD2 RIM=12.30 INV.IN=7.50 S INV.OUT=7.40 NE
CB1264 RIM=9.50 INV.OUT=6.50 NE	PCB3 RIM=8.40 INV.OUT=5.50 NW	PCB9 RIM=12.65 INV.OUT=8.65 NW	PDMH3 RIM=11.70 INV.IN=3.45 SW INV.IN=4.30 NE INV.OUT=3.35 NW	PDMH11 RIM=8.75 INV.IN=5.35 SW INV.IN=5.35 N INV.IN=5.35 NE INV.OUT=5.35 SE	PDMH18 RIM=16.30 INV.IN=9.00 SE INV.IN=6.00 SW INV.OUT=5.80 NW	PYD3 RIM=11.00 INV.IN=7.10 SW INV.IN=8.00 NW INV.OUT=7.00 NE
CDS1 RIM=10.65 INV.IN=4.30 SE INV.IN=4.30 SW INV.OUT=4.20 NE	PCB4 RIM=8.55 INV.OUT=5.10 NW	PCB10 RIM=12.15 INV.OUT=8.60 NW	PDMH4 RIM=11.30 INV.IN=5.05 NE INV.OUT=4.95 SW	PDMH12 RIM=8.75 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=4.65 NW	PDMH19 RIM=11.80 INV.IN=7.00 W INV.IN=7.15 S INV.OUT=7.05 E	PYD4 RIM=13.00 INV.OUT=10.70 SE
CDS2 RIM=9.85 INV.IN=6.00 NE INV.IN=6.00 SE INV.OUT=5.90 SW	PCB5 RIM=9.60 INV.OUT=6.10 NW	PCB11 RIM=8.60 INV.OUT=5.80 NE	PDMH5 RIM=11.30 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=6.50 SE	PDMH13 RIM=9.60 INV.IN=5.40 SE INV.IN=5.40 NE INV.IN=4.70 SW INV.OUT=6.35 SW	PDMH20 RIM=11.90 INV.OUT=8.88 N	PYD5 RIM=11.50 INV.IN=7.00 W INV.IN=7.15 S INV.OUT=7.05 E

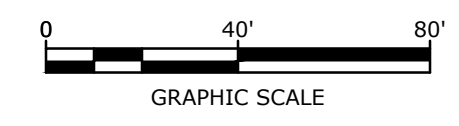
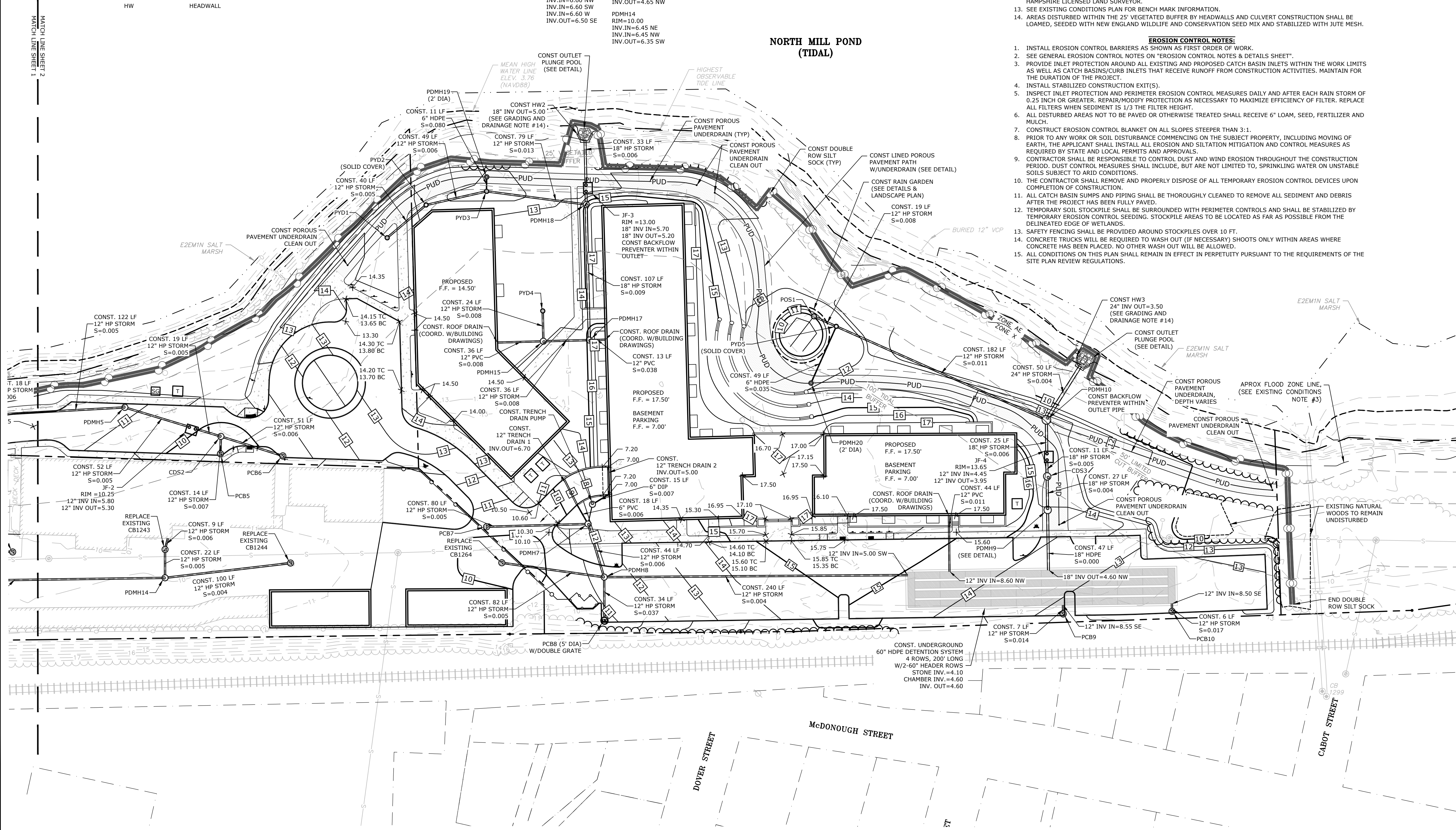
GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:
BELOW PAVED OR CONCRETE AREAS 95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 90%
2. BELOW LOAM AND SEED AREAS 90%
* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.
3. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR EQUAL), UNLESS OTHERWISE SPECIFIED.
4. SEE UTILITY PLAN FOR ALL SITE UTILITY INFORMATION.
5. ADJUST ALL MANHOLES, CATCH BASINS, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
6. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
7. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCH BASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
9. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
10. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
11. ALL PROPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4" SUMPS.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
13. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
14. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.
15. AREAS DISTURBED WITHIN THE 25' VEGETATED BUFFER BY HEADWALLS AND CULVERT CONSTRUCTION SHALL BE LOAMED, SEEDED WITH NEW ENGLAND WILDLIFE AND CONSERVATION SEED MIX AND STABILIZED WITH JUTE MESH.

EROSION CONTROL NOTES:

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON "EROSION CONTROL NOTES & DETAILS SHEET".
3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. MAINTAIN FOR THE DURATION OF THE PROJECT.
4. INSTALL STABILIZED CONSTRUCTION EXIT(S).
5. INSPECT INLET PROTECTION AND PERIMETER EROSION CONTROL MEASURES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EROSION CONTROL BLANKET ON ALL SLOPES STEEPER THAN 3:1.
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9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
11. ALL CATCH BASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN FULLY PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED WITH PERIMETER CONTROLS AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLANDS.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. ALL CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOT ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.
15. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.

NORTH MILL POND (TIDAL)



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised Aot Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

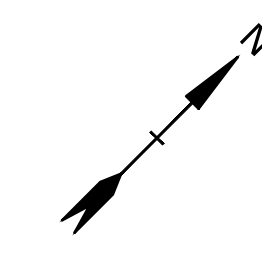
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

GRADING, DRAINAGE, AND EROSION CONTROL PLAN

SCALE: AS SHOWN

C-103.2

Last Saved: 3/29/2023 10:53:53am By: Ckzouk
 Plotted On: Mar 29 2023 9:53am By: Ckzouk
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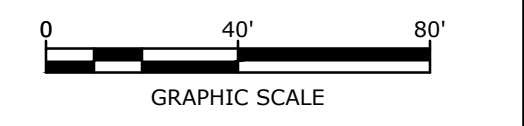
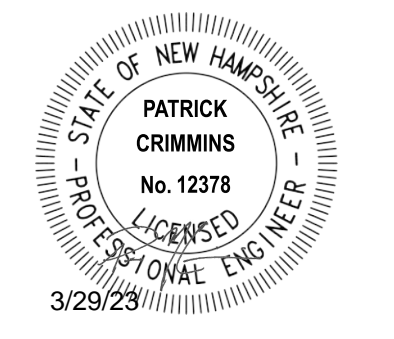
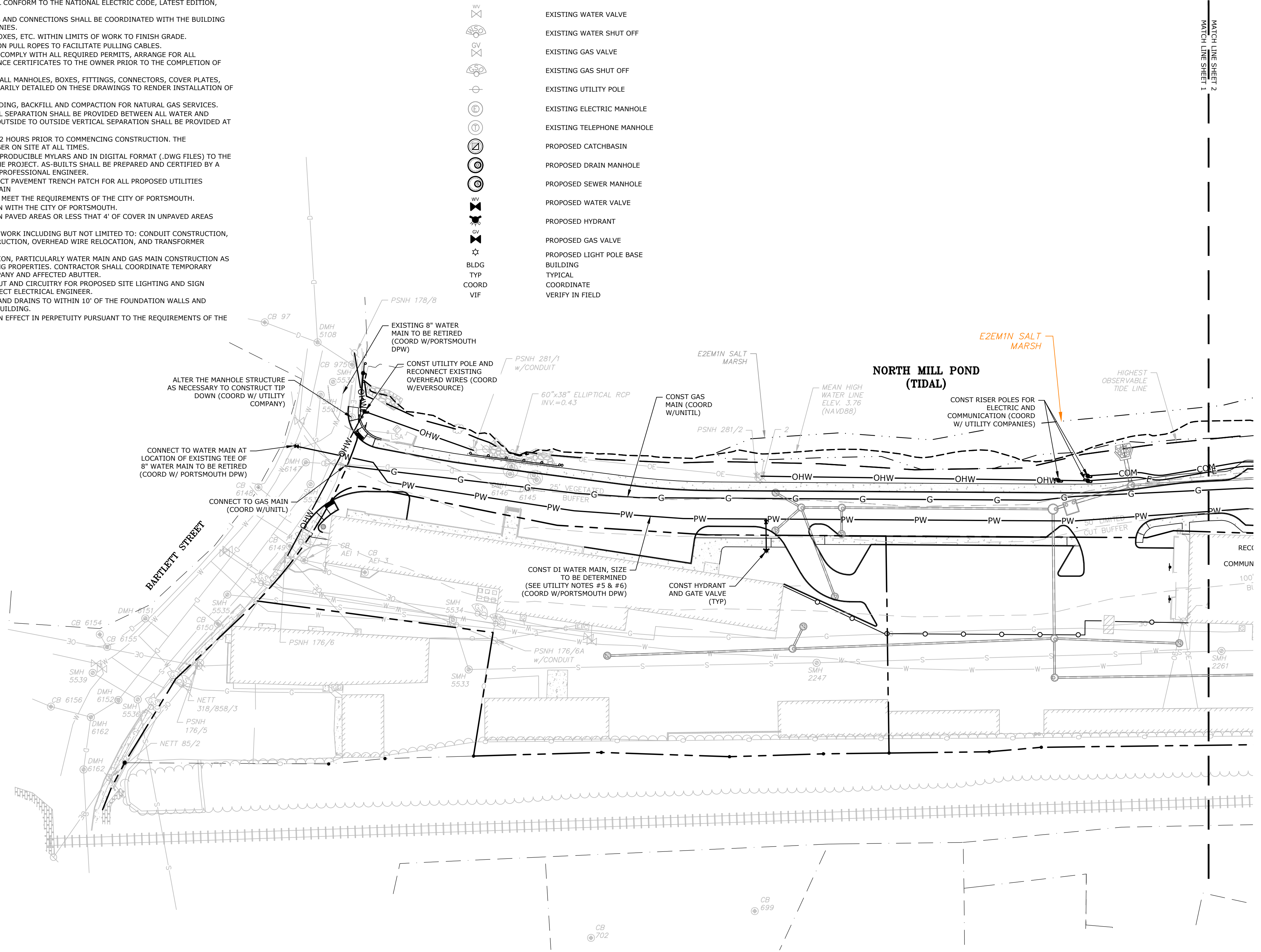


UTILITY NOTES:

- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
 - NATURAL GAS - UNITIL
 - WATER/SEWER - CITY OF PORTSMOUTH
 - ELECTRIC - EVERSOURCE
 - COMMUNICATIONS - CONSOLIDATED COMMUNICATIONS & COMCAST
- SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
- SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
- THE APPLICANT SHALL COORDINATE WITH THE CITY'S CONSULTANT TO COMPLETE A WATER CAPACITY ANALYSIS USING THE CITY'S CAPACITY MODELING AND SHALL MODIFY THE WATER SERVICE DESIGN AS REQUIRED. THE PRIVATE WATER LINE THAT CURRENTLY FEEDS THE DEVELOPMENT LOT SHALL BE EITHER REPLACED OR ABANDONED DEPENDING ON THE OUTCOME OF THE STUDY. ALL MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE DPW AND THE FIRE DEPARTMENT.
- PROPOSED WATER MAIN WILL REMAIN PRIVATE AND A PRIVATE WATER MAIN MAINTENANCE AGREEMENT WITH THE CITY IS REQUIRED.
- ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
- ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
- ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
- COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
- CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
- CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
- EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
- ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
- THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
- THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
- CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
- A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
- THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
- CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
- SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
- HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
- COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
- ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAN 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
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LEGEND

- EXISTING STORM DRAIN
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD UTILITY
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND TELECOMMUNICATION
- EXISTING CATCHBASIN
- EXISTING DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER SHUT OFF
- EXISTING GAS VALVE
- EXISTING GAS SHUT OFF
- EXISTING UTILITY POLE
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED WATER VALVE
- PROPOSED HYDRANT
- PROPOSED GAS VALVE
- PROPOSED LIGHT POLE BASE
- BUILDING
- TYPICAL
- COORDINATE
- VERIFY IN FIELD



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
L	3/29/2023	NHDES Wetland & Shoreland Resubmission
K	1/10/2023	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-SITE.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

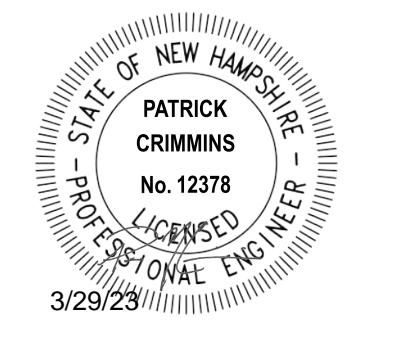
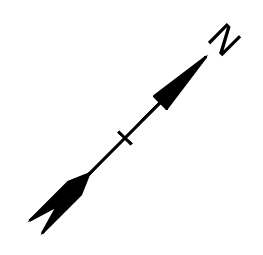
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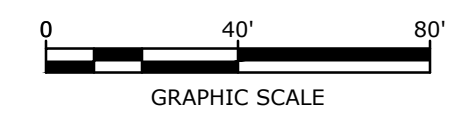
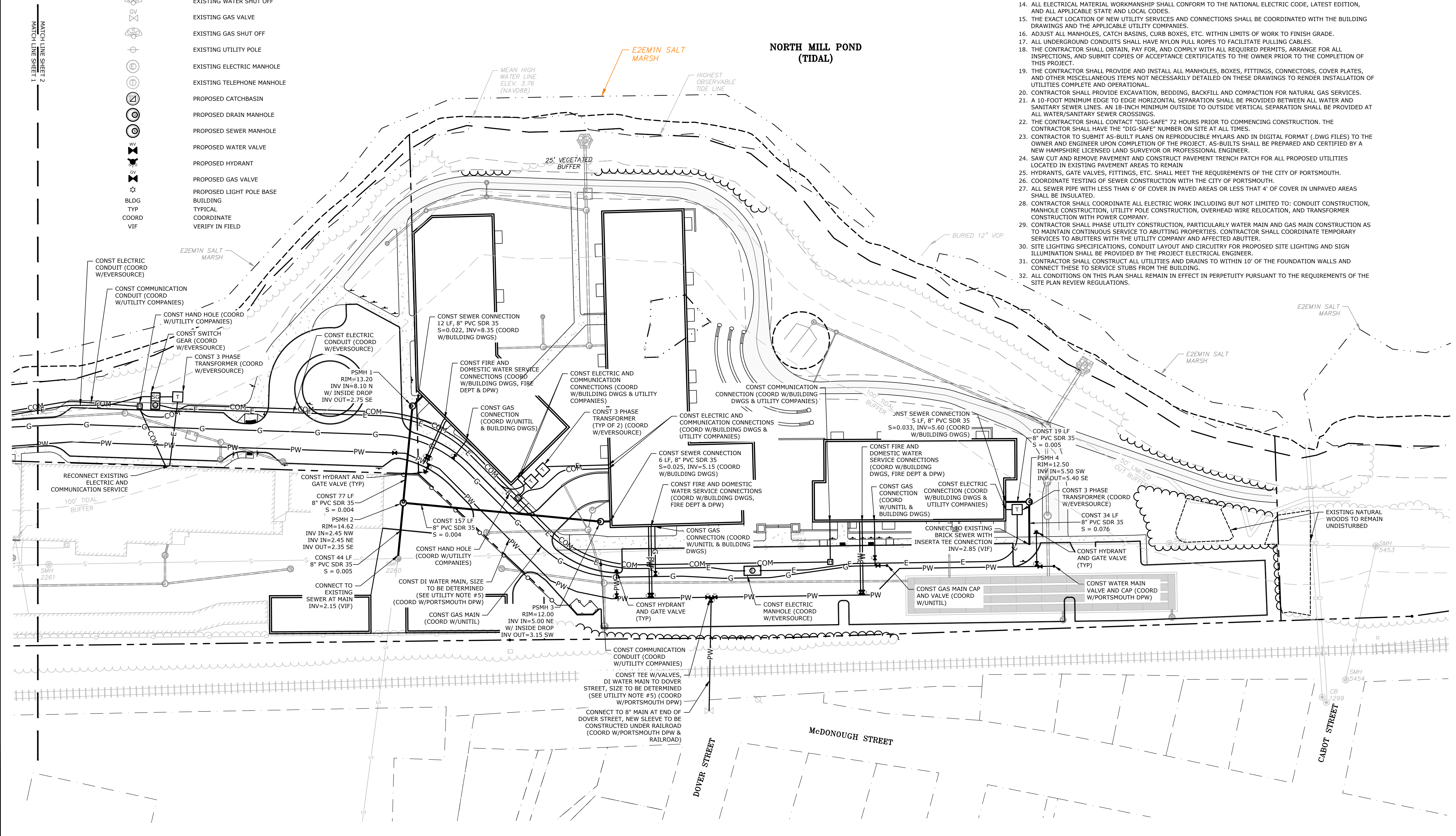
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- PROPOSED GAS VALVE
- PROPOSED LIGHT POLE BASE
- BLDG
- TYP
- COORD
- VIF

- UTILITY NOTES:**
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
 - COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
 - NATURAL GAS - UNITIL
 - WATER/SEWER - CITY OF PORTSMOUTH
 - ELECTRIC - EVERSOURCE
 - COMMUNICATIONS - CONSOLIDATED COMMUNICATIONS & COMCAST
 - SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
 - THE APPLICANT SHALL COORDINATE WITH THE CITY'S CONSULTANT TO COMPLETE A WATER CAPACITY ANALYSIS USING THE CITY'S CAPACITY MODELING AND SHALL MODIFY THE WATER SERVICE DESIGN AS REQUIRED. THE PRIVATE WATER LINE THAT CURRENTLY FEEDS THE DEVELOPMENT LOT SHALL BE EITHER REPLACED OR ABANDONED DEPENDING ON THE OUTCOME OF THE STUDY. ALL MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE DPW AND THE FIRE DEPARTMENT.
 - PROPOSED WATER MAIN WILL REMAIN PRIVATE AND A PRIVATE WATER MAIN MAINTENANCE AGREEMENT WITH THE CITY IS REQUIRED.
 - ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
 - ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
 - ALL SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE STATED.
 - COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
 - CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
 - CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
 - EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
 - ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
 - THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
 - ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 - ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
 - THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
 - THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
 - CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
 - A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
 - THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
 - CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
 - SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
 - HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
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NORTH MILL POND (TIDAL)



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
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DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

SCALE: AS SHOWN

C-104.2

Last Saved: 3/29/2023
 Plotted On: Mar 29, 2023 9:56am By: Ckczouk
 Tighe & Bond: J:\C\0960-006_105 Bartlett Street Drawings - Figures\AutoCAD\Sheet\C-0960-006_C-SITE.dwg

GENERAL PROJECT INFORMATION

PROJECT APPLICANT: IRON HORSE PROPERTIES, LLC
PROJECT MAP/LOT: MAP 157 / LOT 1
PROJECT NAME: PROPOSED MULTI-FAMILY DEVELOPMENT
PROJECT ADDRESS: 105 BARTLETT STREET
PROJECT LATITUDE/LONGITUDE: 43°-04'-20" N / 70°-46'-15" W

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF CONSTRUCTING THREE (3) MULTI-FAMILY APARTMENT BUILDINGS WITH TWO (2) OF THE BUILDINGS CONTAINING BASEMENT LEVEL PARKING.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 6.5 ACRES.

SOIL CHARACTERISTICS

BASED ON THE SITE SPECIFIC SOIL SURVEY CONDUCTED BY LEONARD LORD, PHD, CSS, CSW ON OCTOBER 29 AND DECEMBER 2, 2019, THE SOILS ON SITE CONSIST OF URBAN FILLS WITH A HYDROLOGIC SOIL GROUP RATING OF A TO D.

NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA SUBSURFACE DRAINAGE WHICH ULTIMATELY FLOWS TO NORTH MILL POND.

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

- 1. CUT AND CLEAR TREES.
2. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES.
3. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
4. CLEAR AND DISPOSE OF DEBRIS.
5. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
6. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
7. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING.
8. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
9. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
10. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

SPECIAL CONSTRUCTION NOTES:

- 1. THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
2. THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

EROSION CONTROL NOTES:

- 1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
2. PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
3. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
4. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
5. PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
6. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
8. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER.
9. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION:

- 1. AN AREA SHALL BE CONSIDERED STABLE WHEN 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 RIPRAP HAS BEEN INSTALLED;
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.;
E. IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
2. WINTER STABILIZATION PRACTICES:
A. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE.
3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA.
4. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
5. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT.
6. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE.
7. STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

DUST CONTROL:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

STOCKPILES:

- 1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING:

- 1. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

- 1. TEMPORARY GRASS COVER:
A. SEEDBED PREPARATION:
a. SEE LANDSCAPE PLAN FOR SEEDBED PREPARATION REQUIREMENTS;
B. SEEDING:
a. SEE LANDSCAPE PLAN FOR SEEDING REQUIREMENTS;
C. MAINTENANCE:
a. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED.
2. VEGETATIVE PRACTICE:
A. SEE LANDSCAPE PLAN FOR PERMANENT MEASURES AND PLANTINGS:
a. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
b. IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT.
3. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
A. FOLLOW PERMANENT MEASURES REQUIREMENTS.
B. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE.
C. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

CONCRETE WASHOUT AREA:

- 1. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES:

- 1. FIRE-FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
11. UNCONTAMINATED EXCAVATION DEWATERING;
12. LANDSCAPE IRRIGATION.

WASTE DISPOSAL:

- 1. WASTE MATERIAL:
A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE:
A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE:
A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

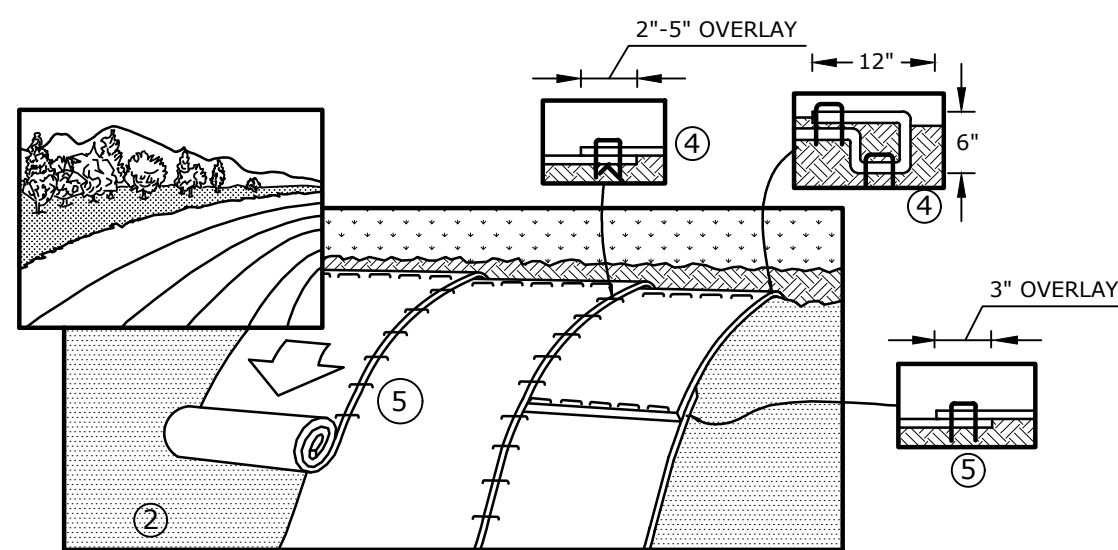
SPILL PREVENTION:

- 1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
A. GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
a. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
b. ALL REGULATED MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE, ON AN IMPERVIOUS SURFACE;
c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
d. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
f. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
g. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
B. HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
a. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
b. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
c. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
C. PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
a. PETROLEUM PRODUCTS:
i. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
ii. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE

- CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
iii. SECURE FUEL STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
iv. INSPECT FUEL STORAGE AREAS WEEKLY;
v. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS;
vi. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
vii. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
viii. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
(1) EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
(2) PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
(3) HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
(4) USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES;
(5) PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
ix. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT SHALL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT, OR ITS SUCCESSOR DOCUMENT.
https://www.des.nh.gov/organization/commissioners/pir/factsheets/dwgb/documents/dwgb-22-6.pdf
b. FERTILIZERS:
i. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
ii. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
iii. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
c. PAINTS:
i. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
ii. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
iii. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
D. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
c. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
d. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
f. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
a. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
b. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
c. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
d. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
e. CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
f. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

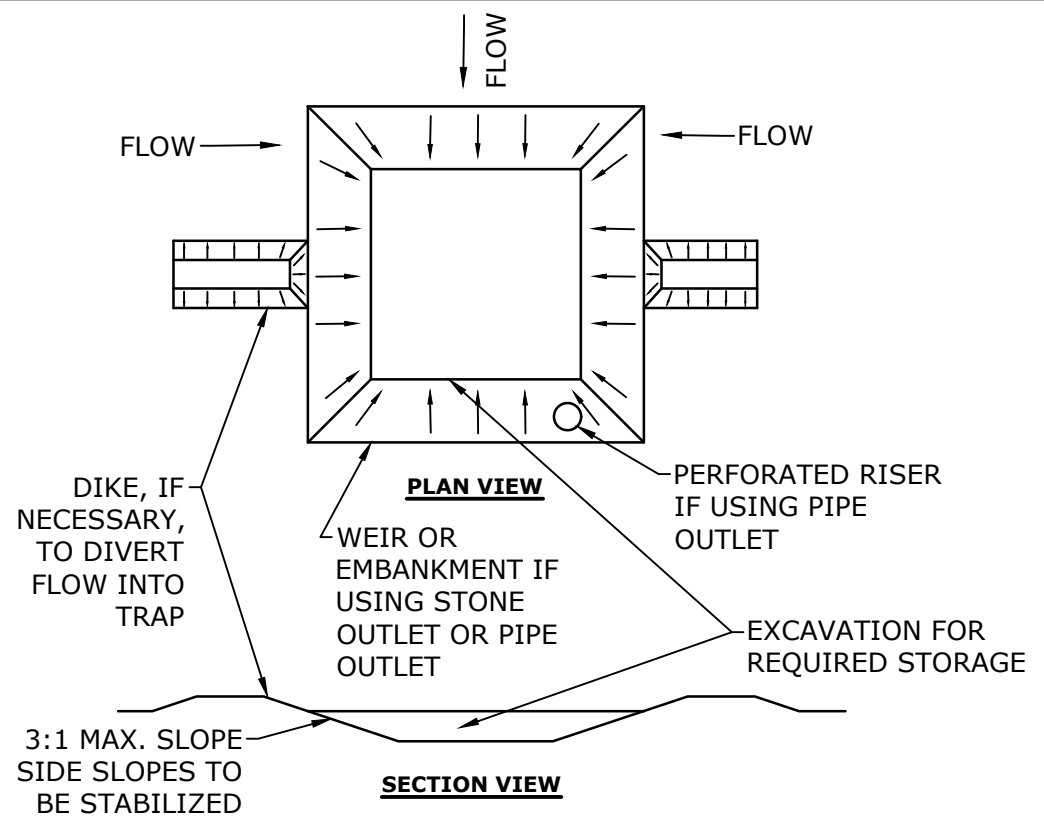
- 1. THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THIS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ON SITE AT ALL TIMES.
2. THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:
A. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
B. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
C. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
D. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.



- NOTES:
1. EROSION CONTROL BLANKET SHALL BE AN ALL NATURAL PRODUCT WITH NO PHOTO DEGRADABLE COMPONENTS, NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL.
2. STAKES SHALL BE BIODEGRADABLE BIOSTAKES OR ALL NATURAL WOOD ECOSTAKES OR APPROVED EQUAL. THE LENGTH OF STAKES SHALL BE BASED OFF OF THE MANUFACTURERS RECOMMENDATION.
3. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, COMPOST AND SEED.
4. BEGIN AT THE TOP OF THE SLOPE, 36" OVER THE GRADE BREAK, BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAKES IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAKES ACROSS THE WIDTH OF THE BLANKET.
5. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SOIL SURFACE BY PLACING STAKES IN APPROPRIATE LOCATIONS AS SHOWN ON THE MANUFACTURERS PATTERN GUIDE.

EROSION CONTROL BLANKET

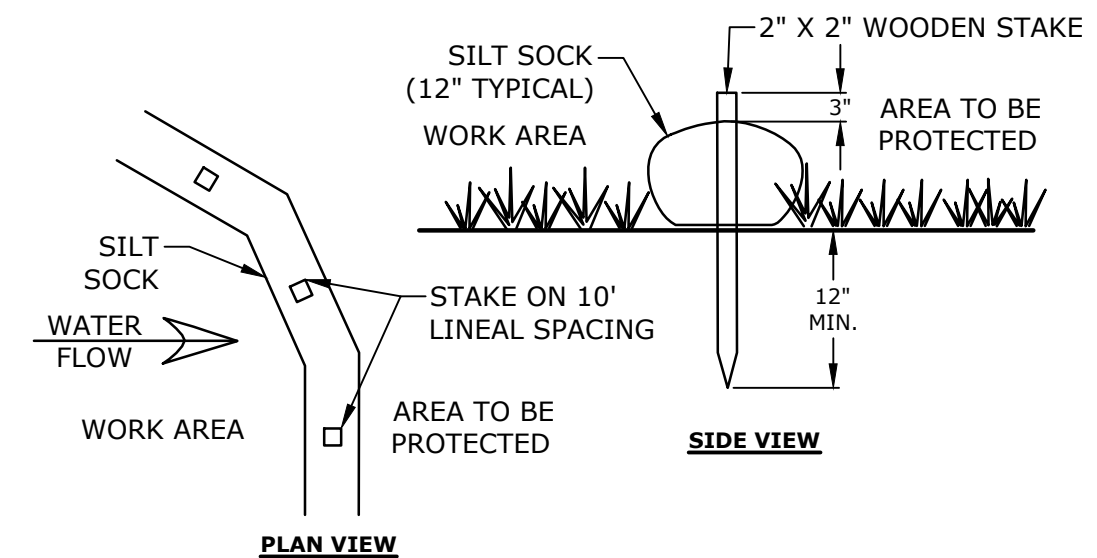
NO SCALE



- NOTES:
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING AREA TO A SINGLE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. TRAP OUTLET SHALL BE MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP.
5. TRAP SHALL DISCHARGE TO A STABILIZED AREA.
6. TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. SEDIMENT TRAPS MUST BE USED AS NEEDED TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.

SEDIMENT TRAP

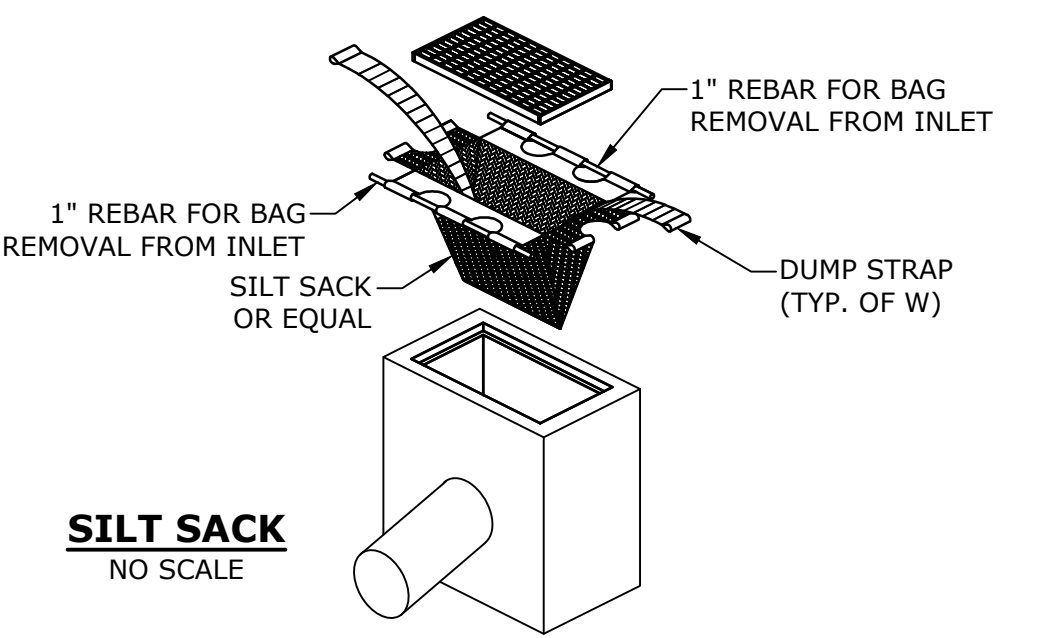
NO SCALE



- NOTES:
1. SILT SOCK SHALL BE SILT SOXX BY FILTREXX OR APPROVED EQUAL
2. INSTALL SILT SOCK IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

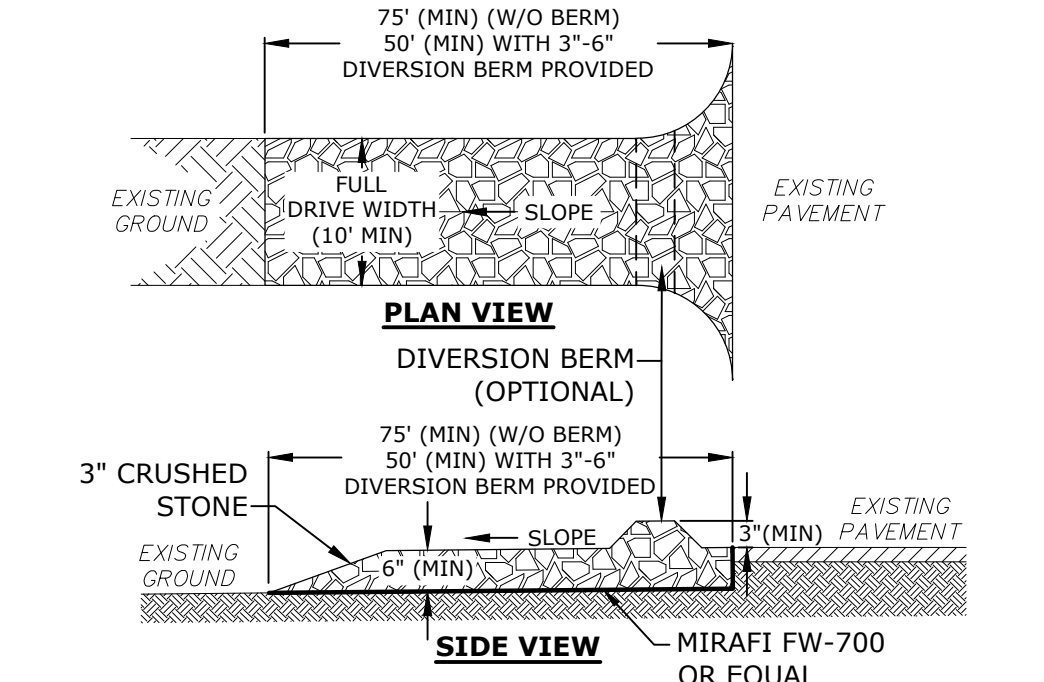
SILT SOCK

NO SCALE



SILT SACK

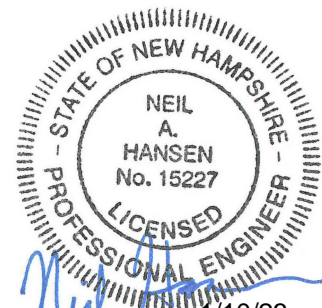
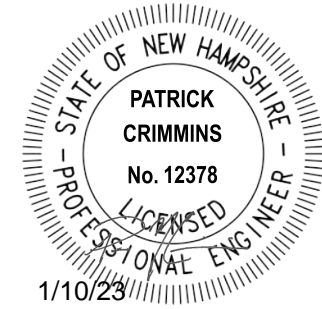
NO SCALE



STABILIZED CONSTRUCTION EXIT

NO SCALE

- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street Portsmouth, New Hampshire

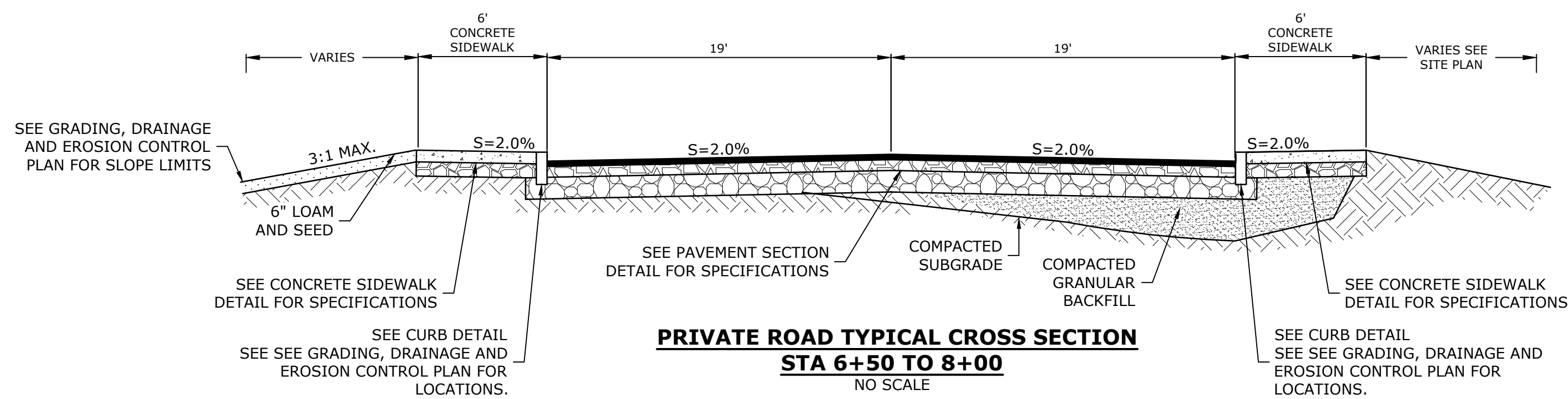
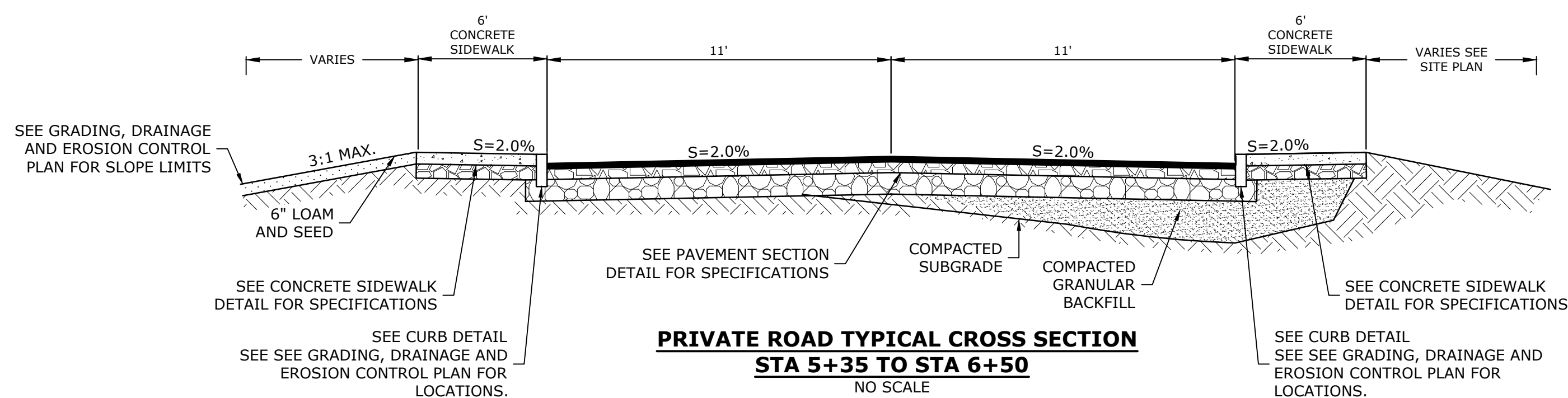
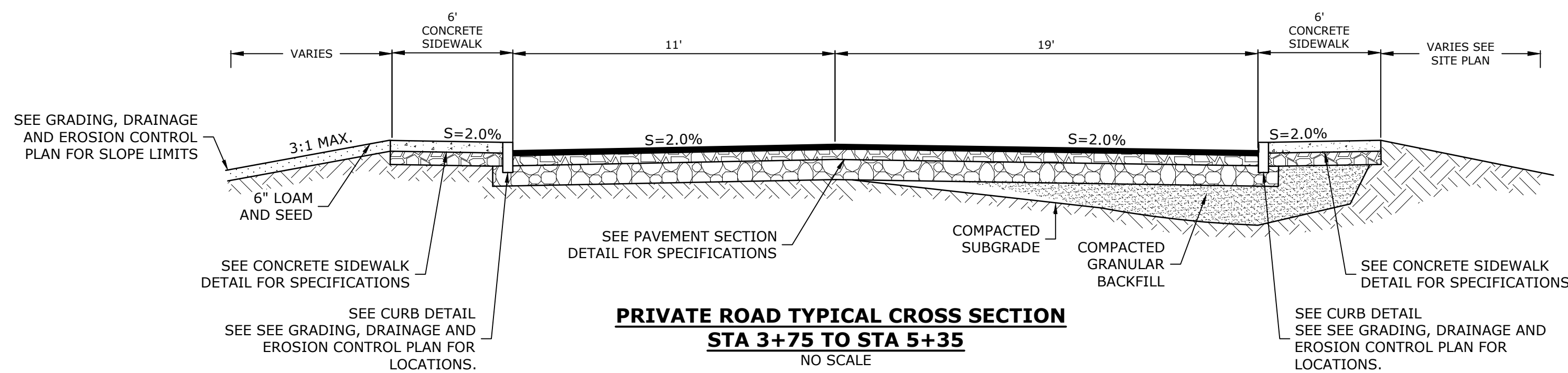
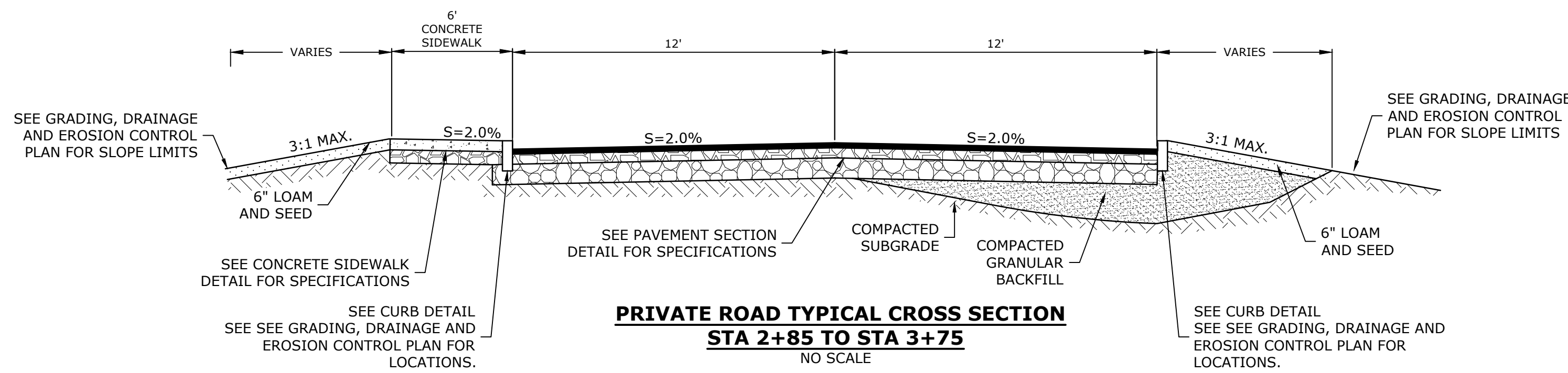
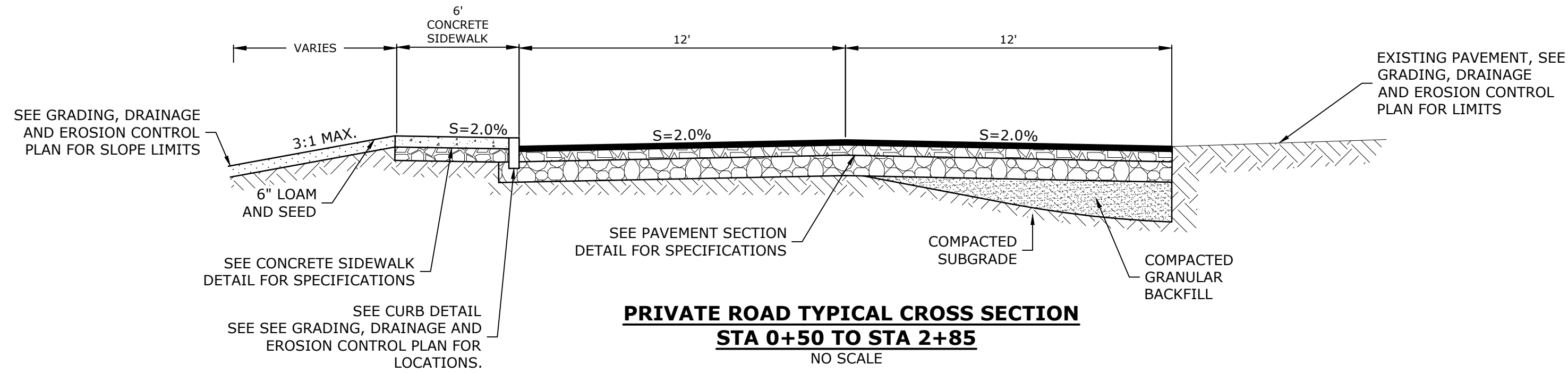
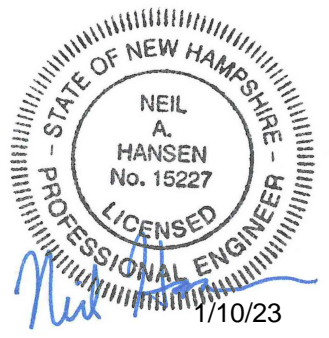
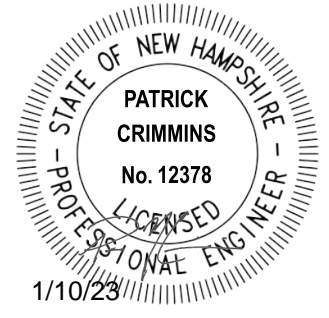
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Table with 2 columns: FIELD and VALUE. It lists project details like PROJECT NO. (C-0960-006), DATE (April 20, 2020), FILE (C-0960-006_C-DTLS.DWG), DRAWN BY (CIK), CHECKED BY (NAH), and APPROVED BY (PMC).

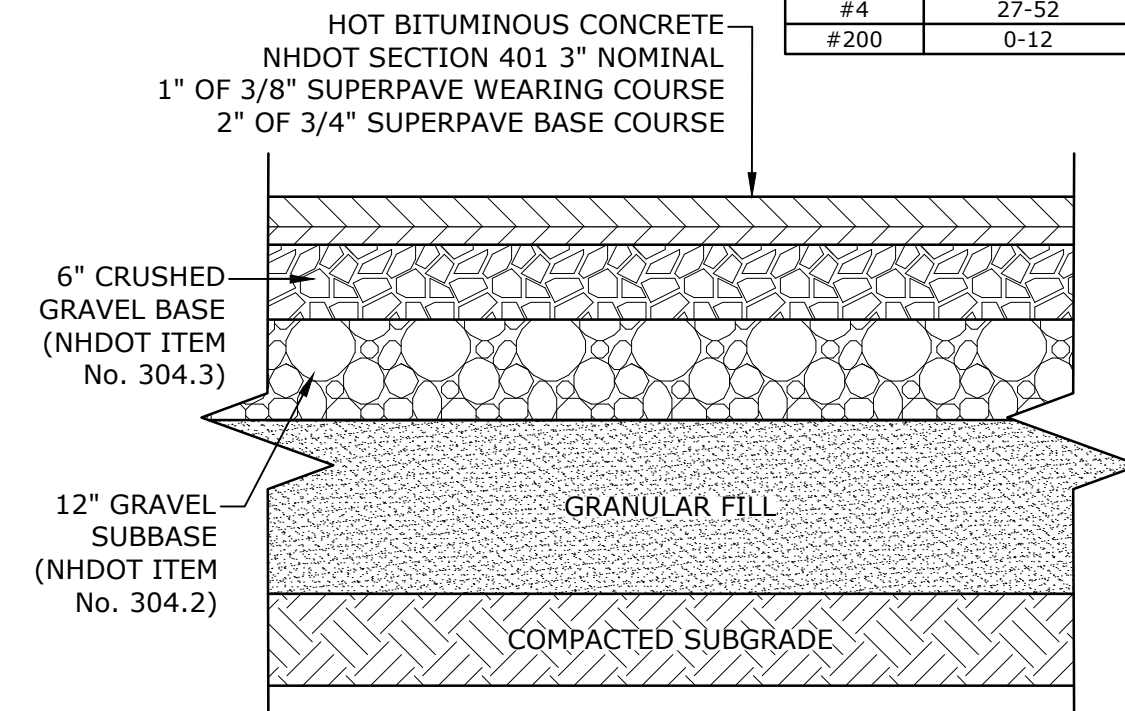
DETAILS SHEET

SCALE: AS SHOWN

C-501

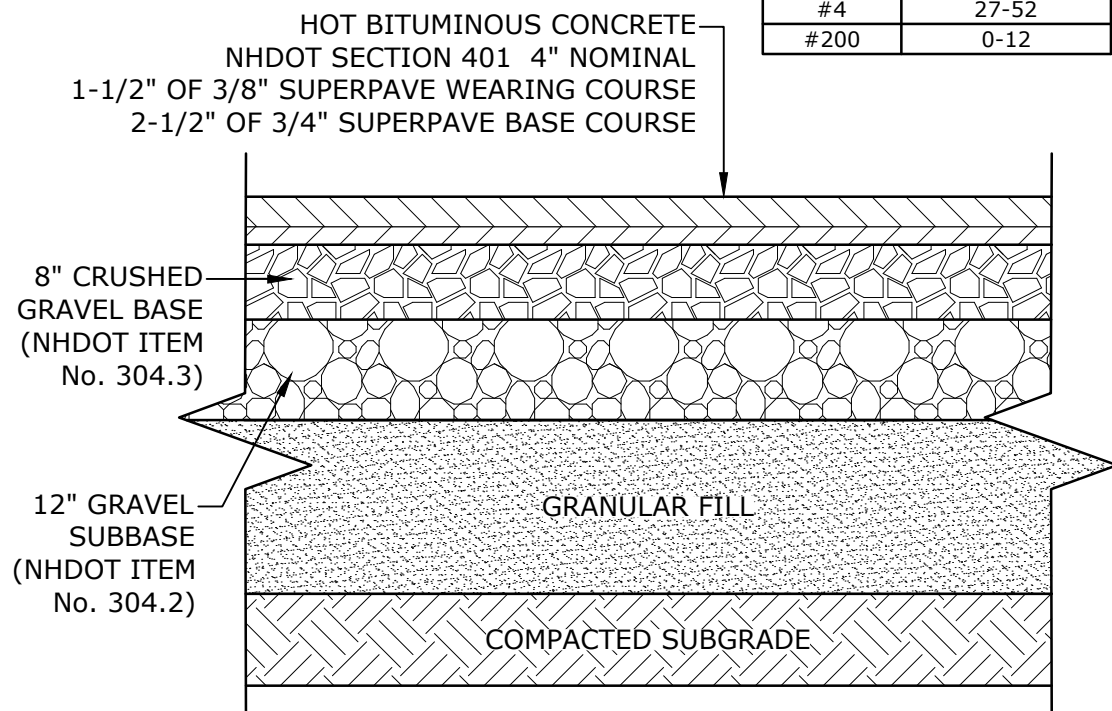


NHDOT ITEM No. 304.2 (GRAVEL)		NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING
6"	100	3"	100
#4	25-70	2"	95-100
#200	0-12	1"	55-85
		#4	27-52
		#200	0-12

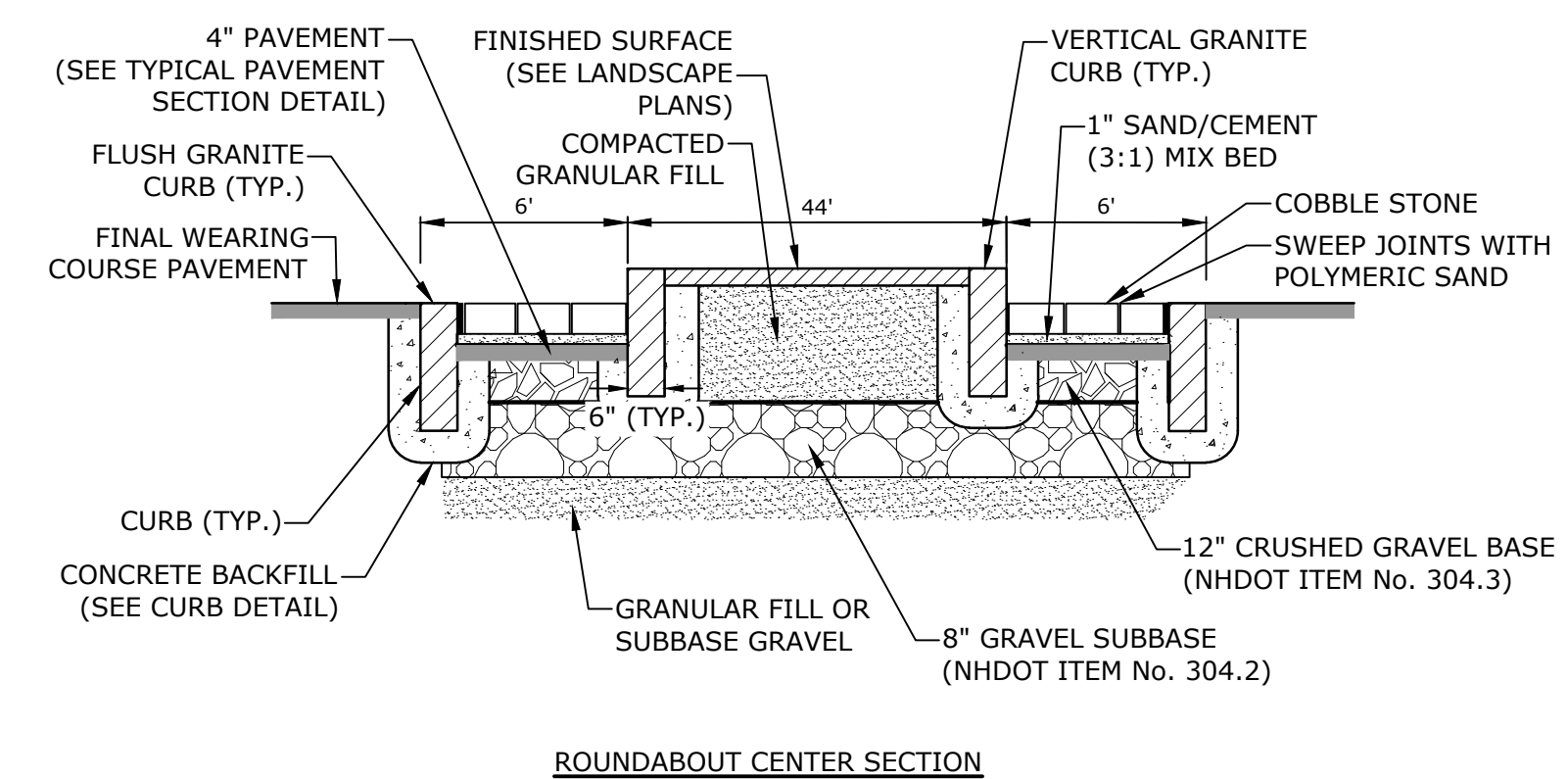
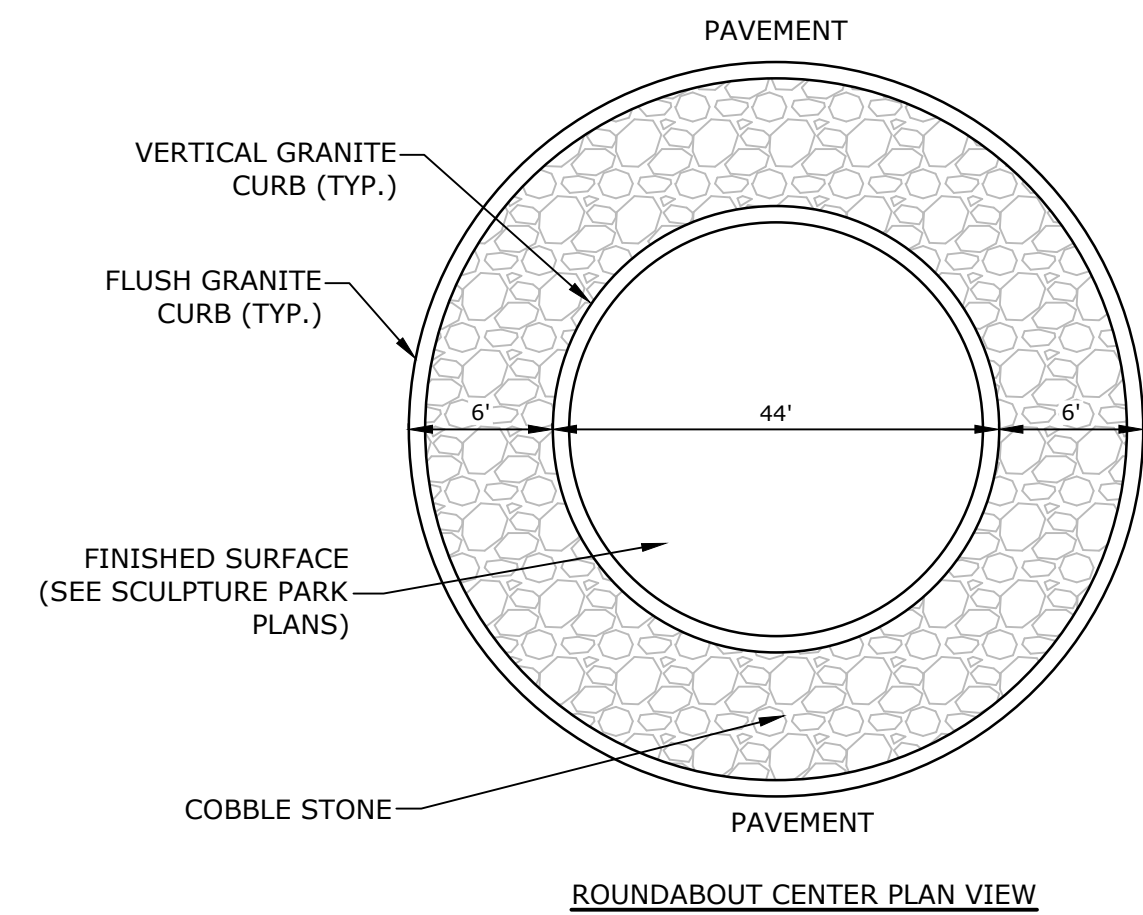


- NOTES:
- COORDINATE FINAL DESIGN SECTION WITH GEOTECHNICAL ENGINEER.
 - SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 - SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
 - REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

NHDOT ITEM No. 304.2 (GRAVEL)		NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING
6"	100	3"	100
#4	25-70	2"	95-100
#200	0-12	1"	55-85
		#4	27-52
		#200	0-12



- NOTES:
- COORDINATE FINAL DESIGN SECTION WITH GEOTECHNICAL ENGINEER.
 - SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
 - SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
 - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
 - REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.



- NOTES:
- BEDDING MATERIAL SHALL BE A SAND/CEMENT MIX THAT IS 3 PARTS SAND AND 1 PART CEMENT. SAND SHALL CONFORM WITH ASTM C33 AND CEMENT SHALL BE PORTLAND CEMENT TYPE I/TYPE II.

ROUNDAABOUT CENTER
NO SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

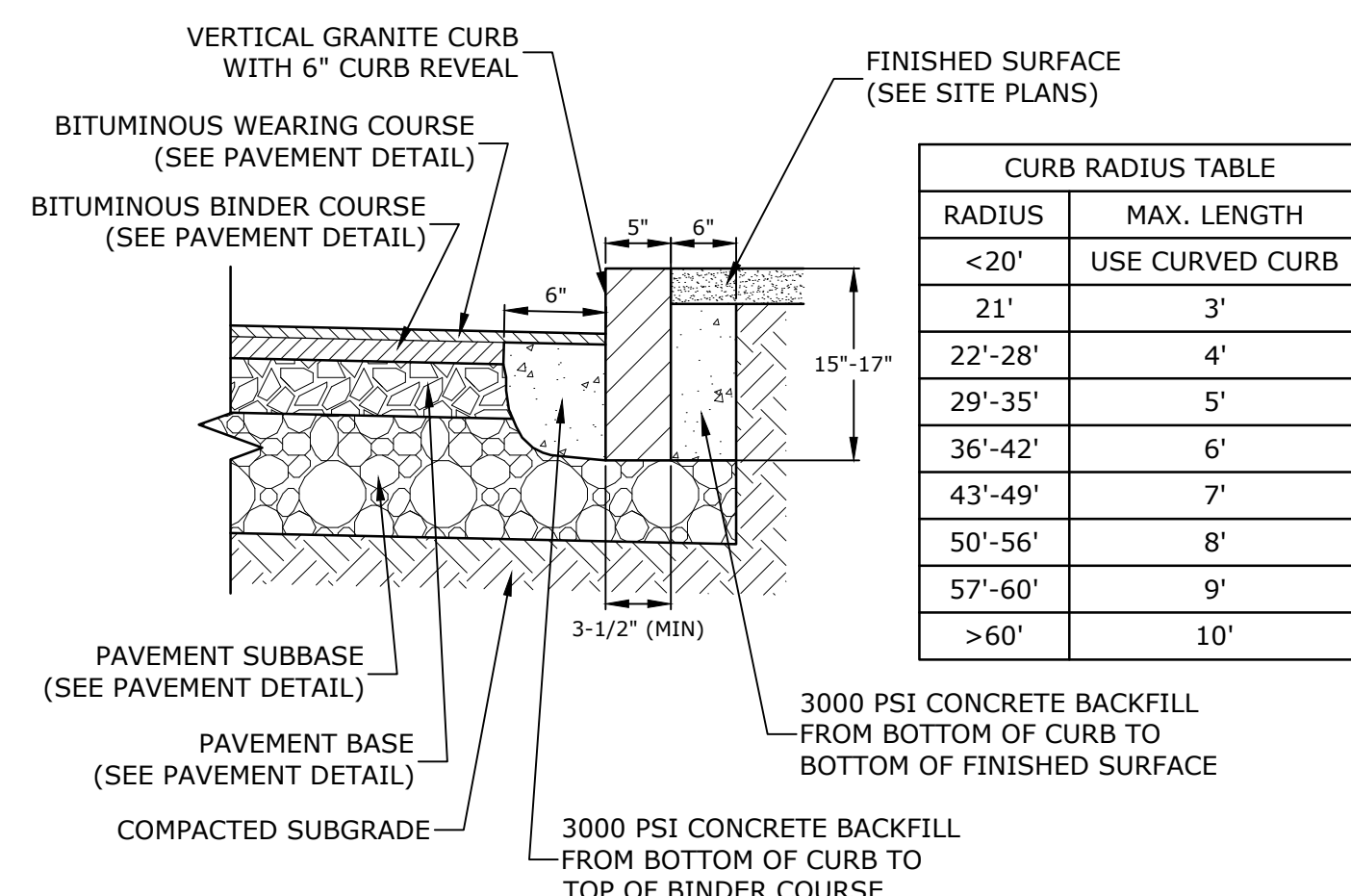
MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

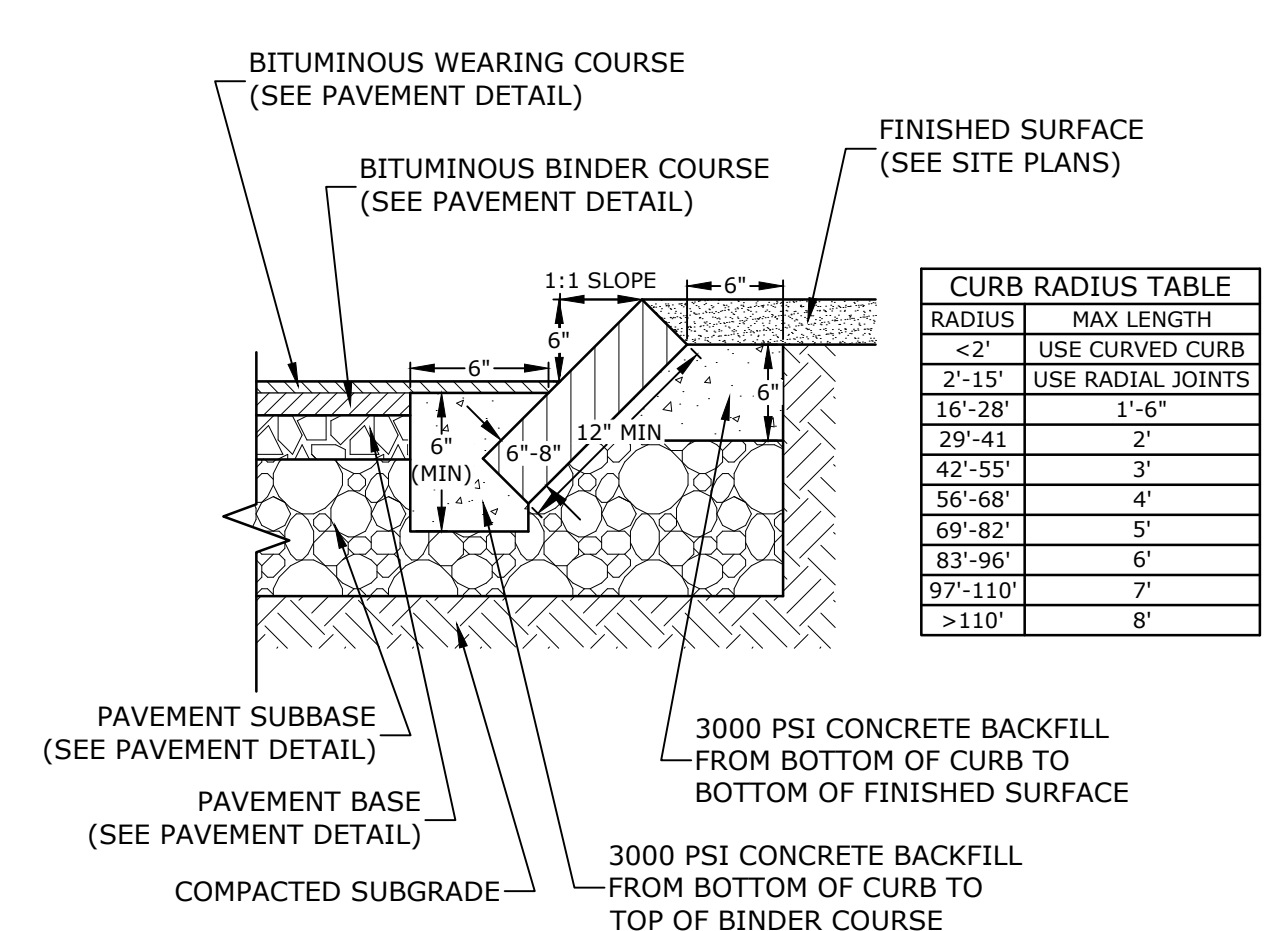
DETAILS SHEET

SCALE: AS SHOWN

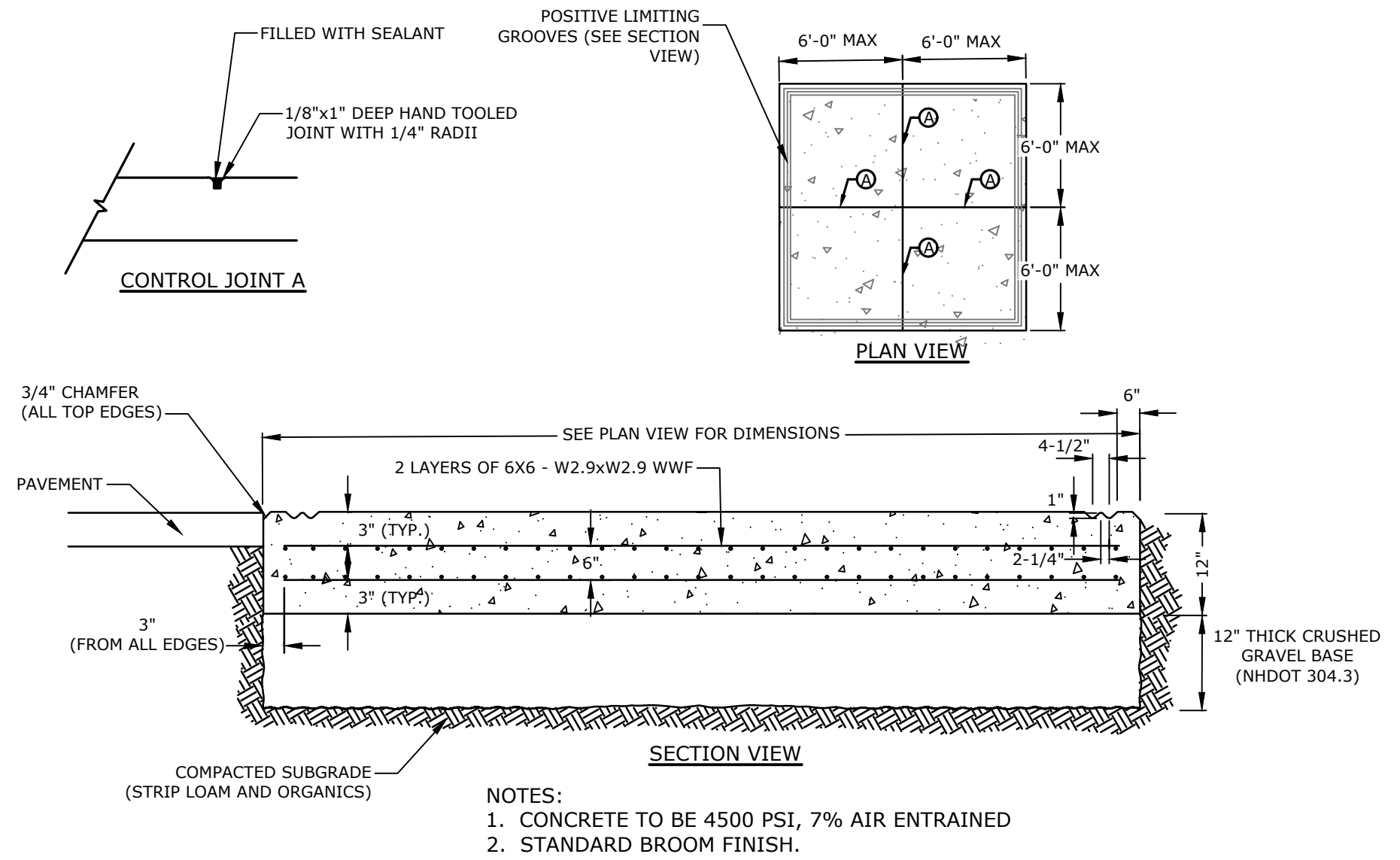
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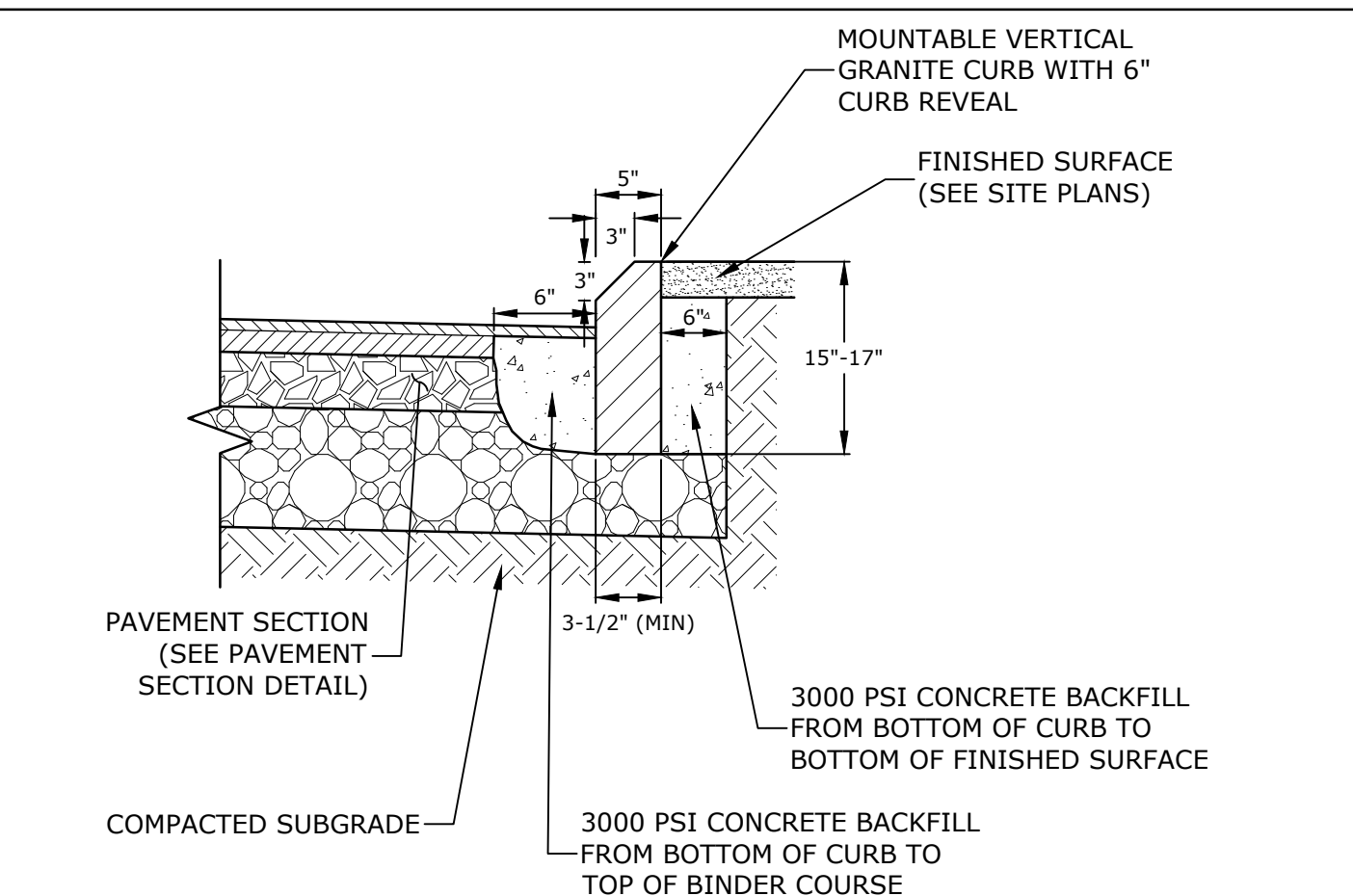
VERTICAL GRANITE CURB
NO SCALE



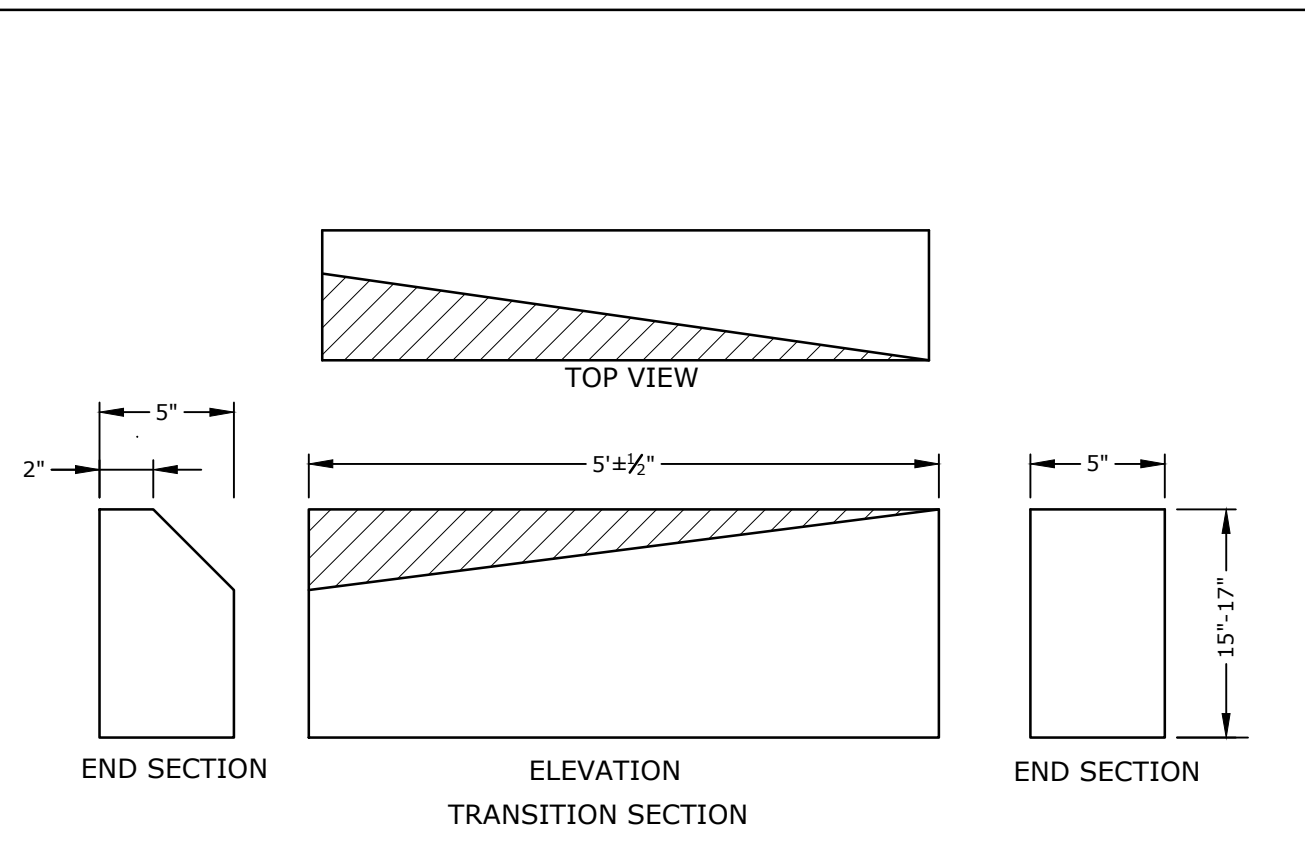
SLOPED GRANITE CURB
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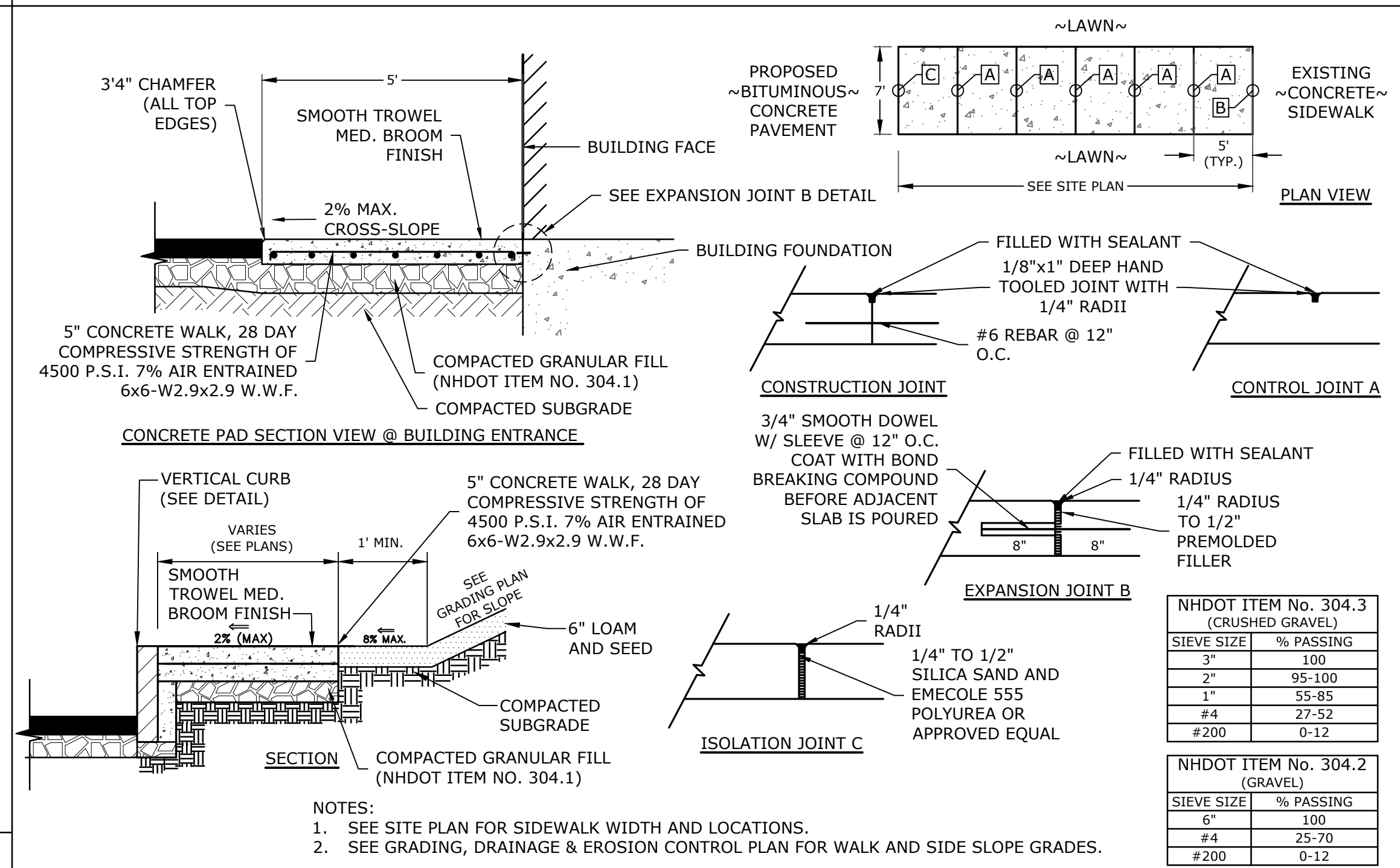
DUMPSTER PAD
NO SCALE



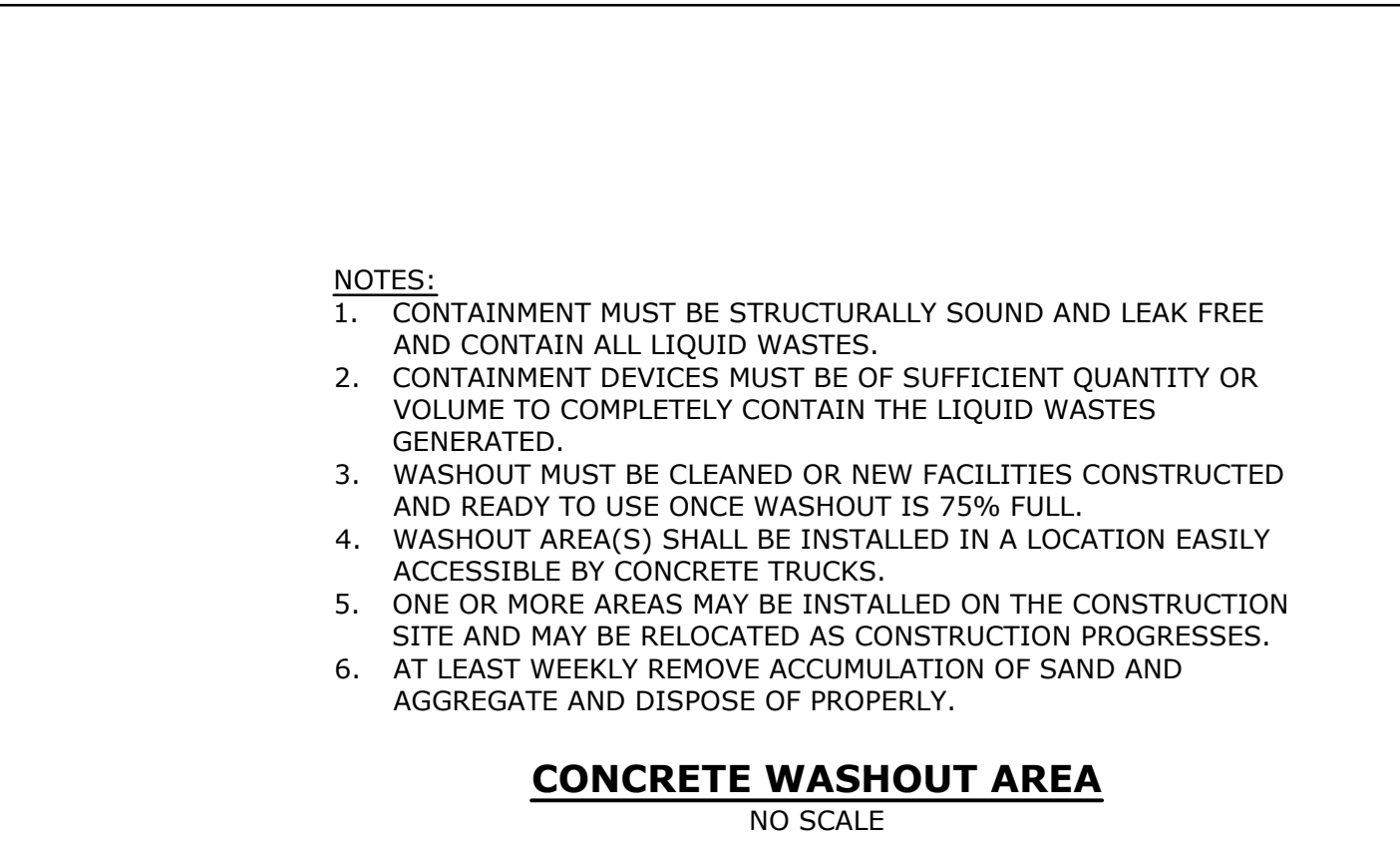
MOUNTABLE VERTICAL GRANITE CURB
NO SCALE



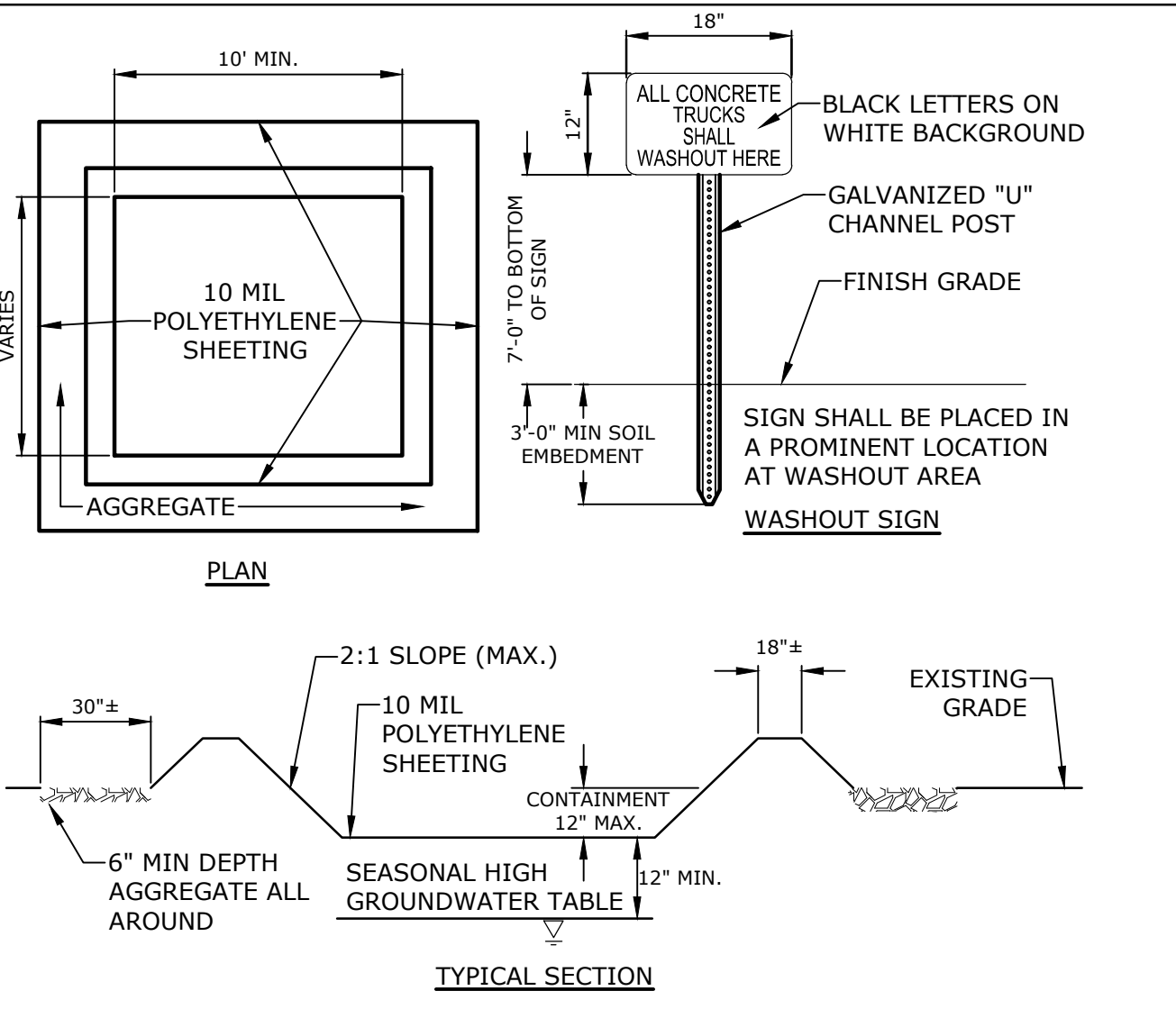
CURB TRANSITION
NO SCALE



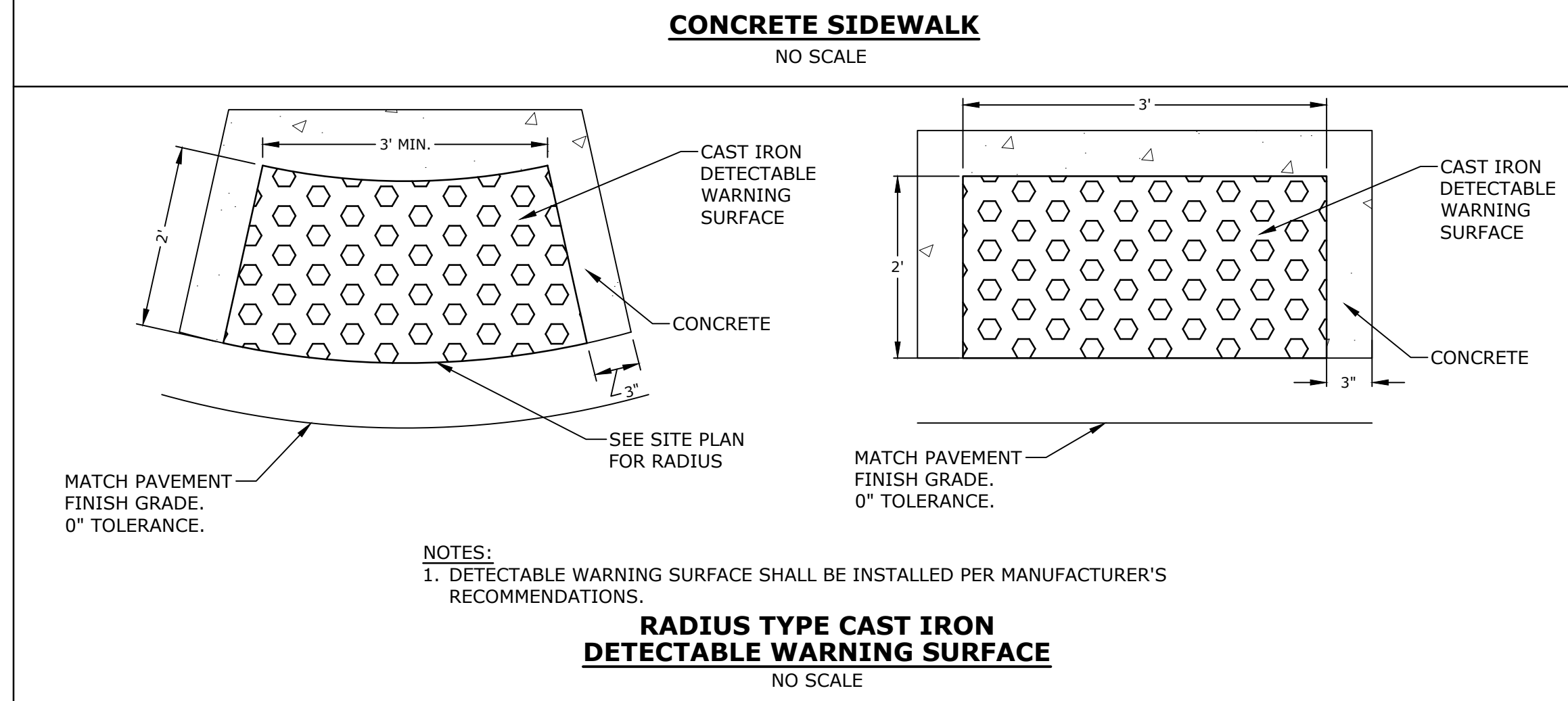
CONCRETE PAD SECTION VIEW @ BUILDING ENTRANCE
NO SCALE



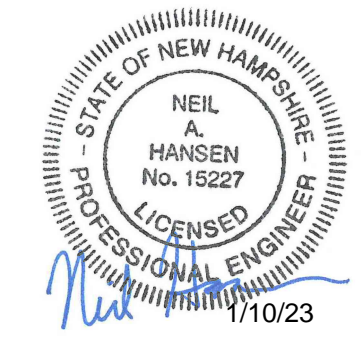
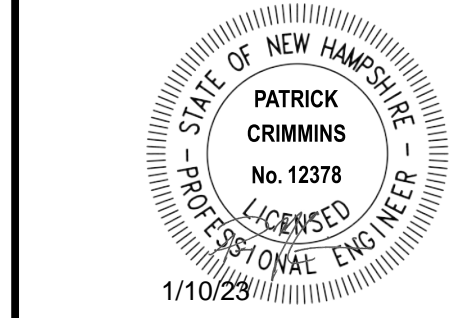
CONCRETE WASHOUT AREA
NO SCALE



RADIUS TYPE CAST IRON DETECTABLE WARNING SURFACE
NO SCALE



CONCRETE SIDEWALK
NO SCALE



Proposed Multi-Family Development

Iron Horse Properties, LLC

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Portsmouth,
New Hampshire

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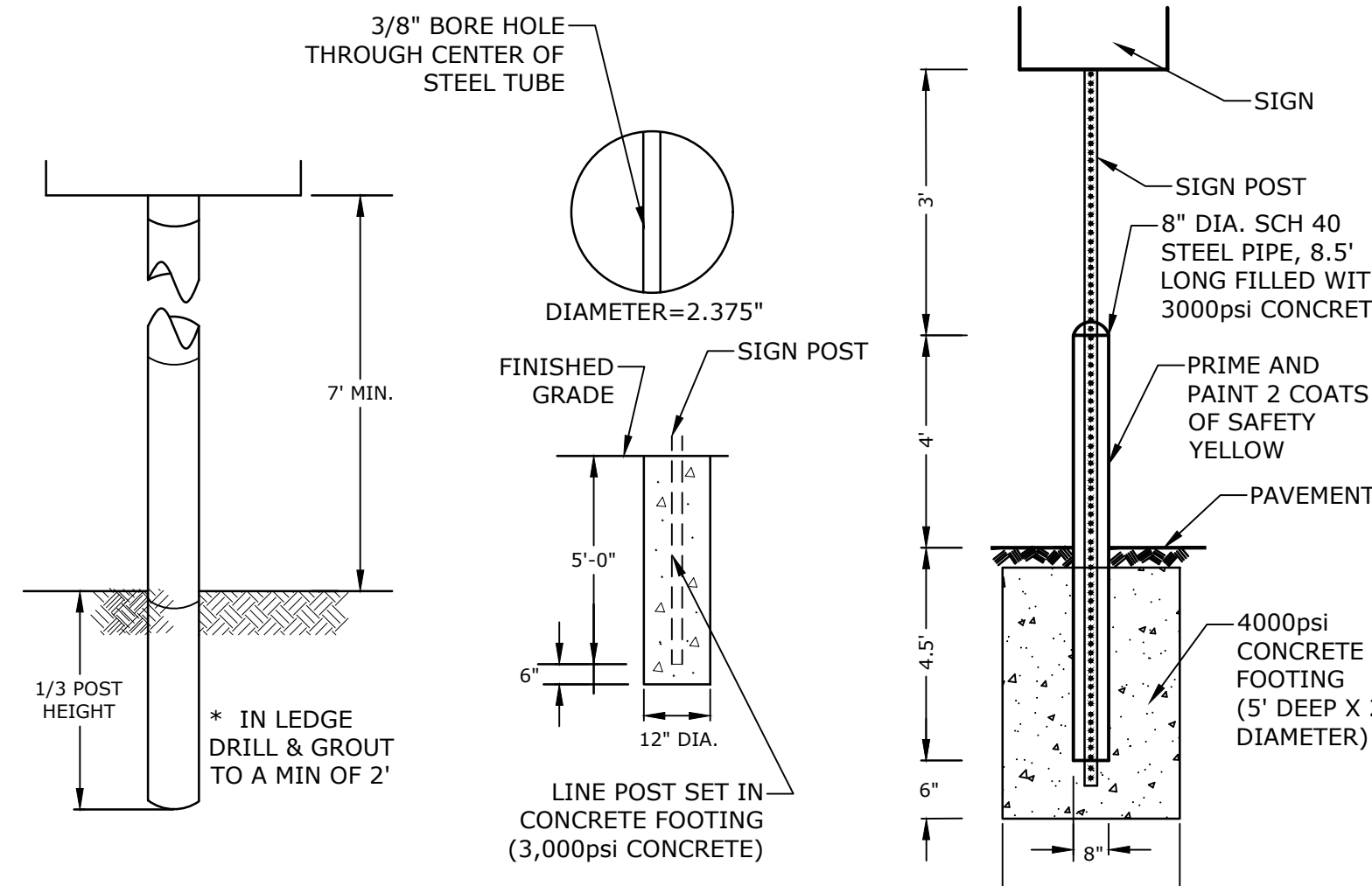
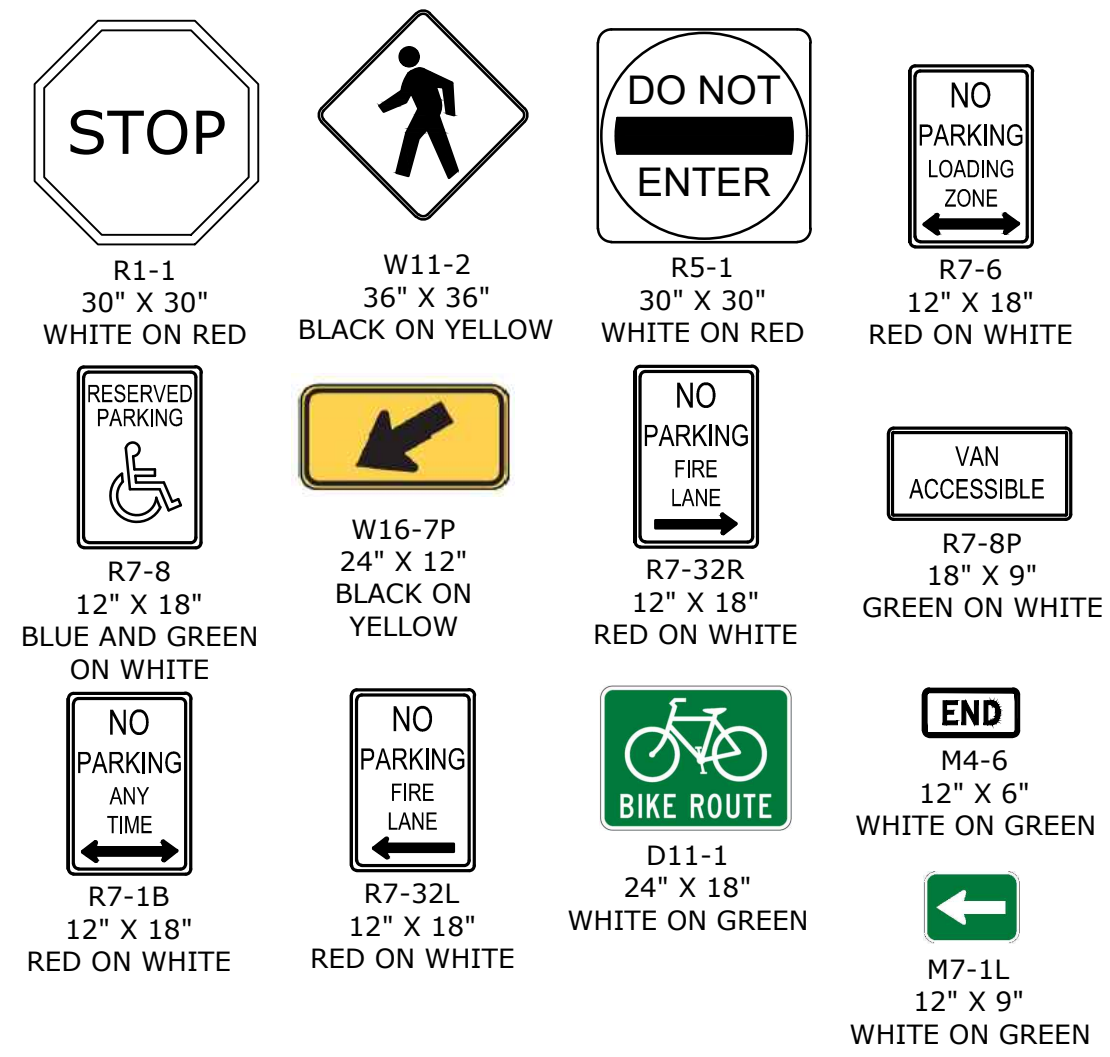
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CHK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-503

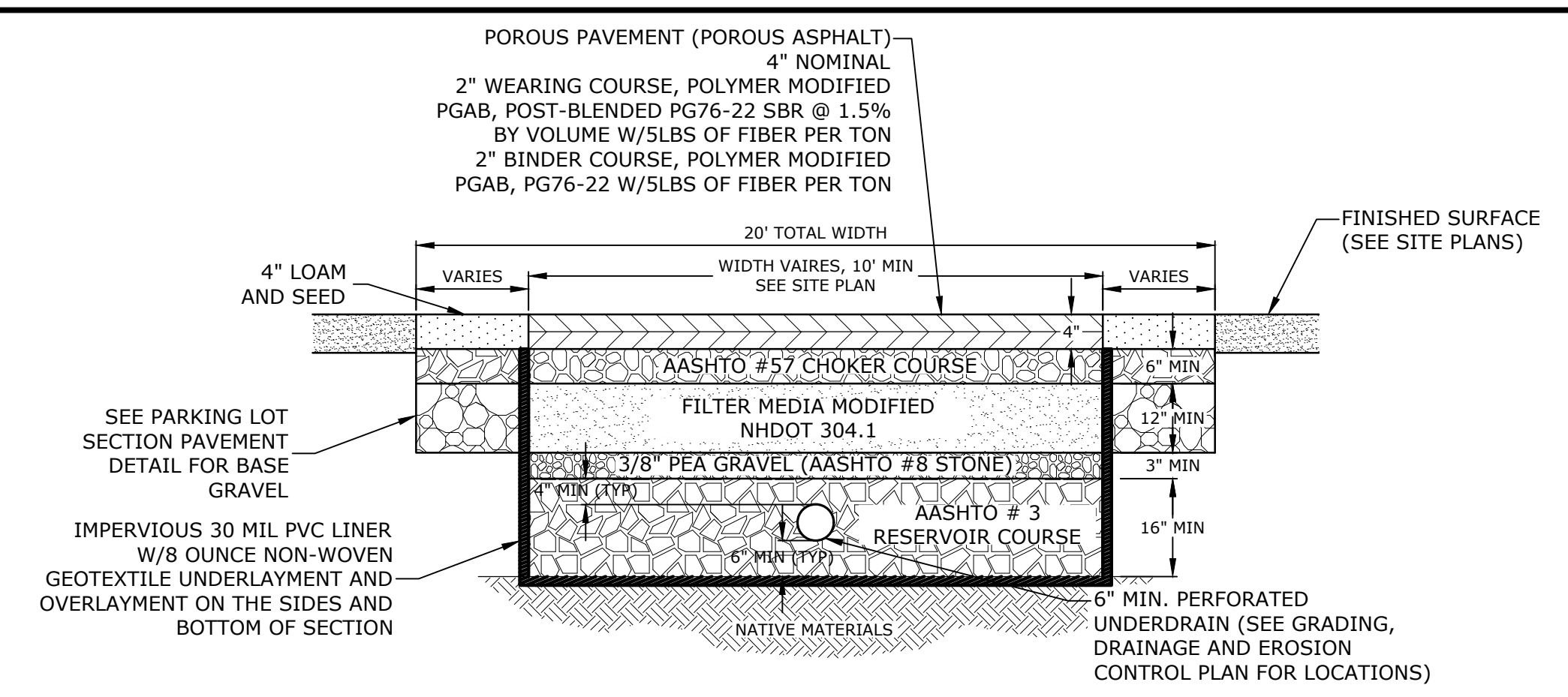
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 Plotted On: Dec 28, 2022 11:04am
 Tighe & Bond 1125 Cabot Street, Portsmouth, NH 03801
 Figures AutoCAD Sheet: C-0960-006_C-DTLS.dwg



SIGN LEGEND & SIGN POST
NO SCALE

BOLLARD MOUNTED SIGN DETAIL
NO SCALE

NOTES:
ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
POST: SCHEDULE 40 GALVANIZED STEEL PIPE (OUTSIDE DIA. = 2.375").
FINISH: POST TO BE POWDER COATED GLOSS BLACK
LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER (AS REQUIRED)
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080)



AASHTO #57 STONE (CHOKER COURSE)		MODIFIED NHDOT 304.1		AASHTO #8 STONE (PEA GRAVEL)		AASHTO #3 STONE (RESERVOIR COURSE)	
	% PASSING		% PASSING		% PASSING		% PASSING
1 1/2"	100	6"	100	1/2"	100	2 1/2"	100
1"	95-100	#4	70-100	3/8"	85-100	2"	90-100
3/4"	25-60	#200	0-6*	#4	10-30	1 1/2"	35-70
#4	0-10			#8	0-10	1"	0-15
#8	0-5			#16	0-5	3/4"	0-5

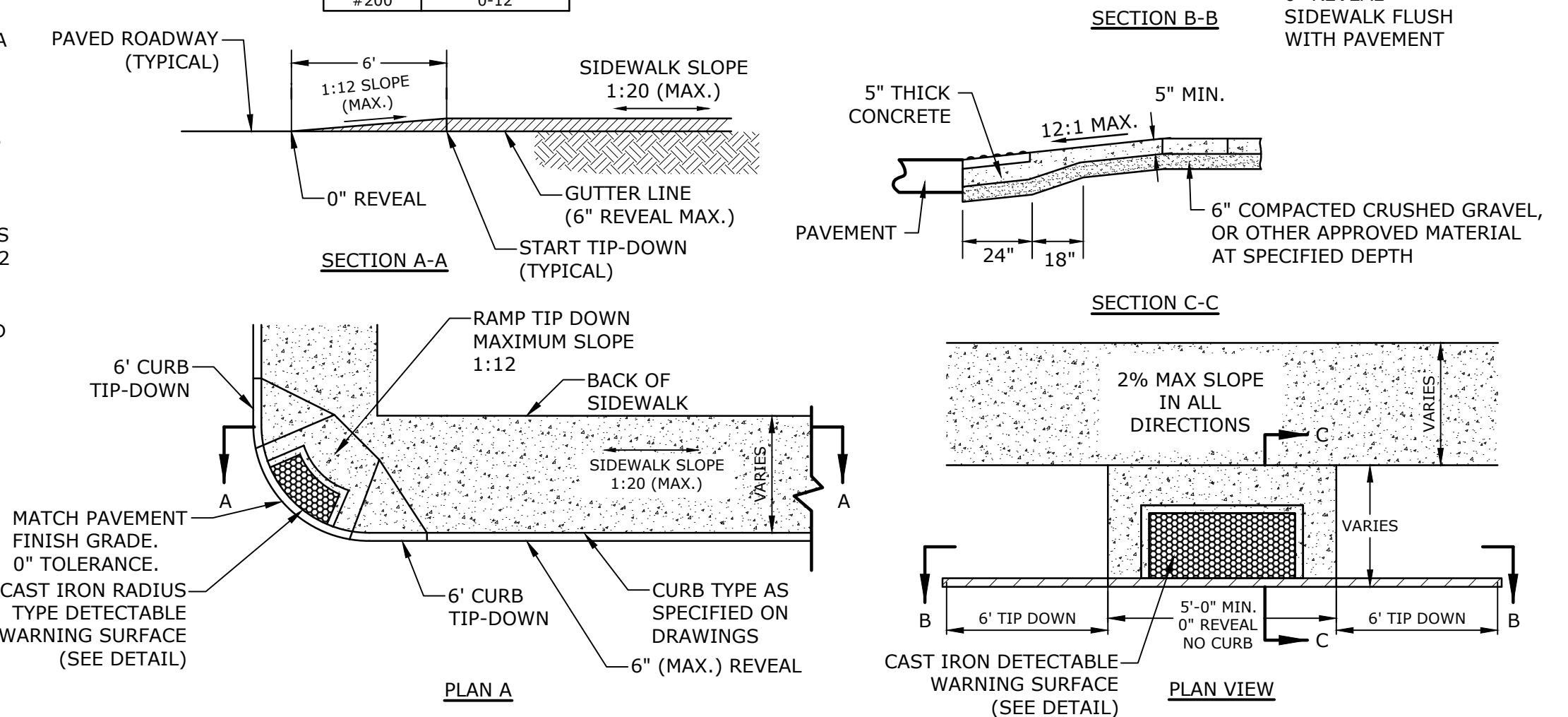
*PREFERABLY <4%

- NOTES:
1. SEE GRADING, DRAINAGE, UTILITIES AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
2. POROUS ASPHALT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS FROM THE UNH STORMWATER CENTER FOR POROUS ASPHALT.
3. POROUS ASPHALT MIX SPECIFIED IS RECOMMENDED BY THE UNH STORMWATER CENTER FOR SITES ANTICIPATING H-20 LOADING.
4. FILTER COURSE TO BE INCREASED AS NECESSARY TO MEET PROPOSED GRADES.
5. INSTALL FILTER COURSE AGGREGATE IN 8-INCH MAXIMUM LIFTS TO A MAXIMUM OF 95% STANDARD PROCTOR COMPACTION (ASTM D698 / AASHTO T99). INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.
6. INSTALL CHOKER, GRAVEL, AND STONE BASE COURSE AGGREGATE TO A MAXIMUM OF 95% COMPACTION STANDARD PROCTOR (ASTM D698 / AASHTO T99). CHOKER SHOULD BE PLACED EVENLY OVER SURFACE OF FILTER COURSE BED, SUFFICIENT TO ALLOW PLACEMENT OF PAVEMENT, AND NOTIFY ENGINEER FOR APPROVAL. CHOKER BASE COURSE THICKNESS SHALL BE SUFFICIENT TO ALLOW FOR EVEN PLACEMENT OF THE POROUS ASPHALT BUT NO LESS THAN 6-INCHES IN DEPTH.
7. THE DENSITY OF SUBBASE COURSES SHALL BE DETERMINED BY AASHTO T 191 (SAND-CONE METHOD), AASHTO T 204 (DRIVE CYLINDER METHOD), OR AASHTO T 238 (NUCLEAR METHODS), OR OTHER APPROVED METHODS AT THE DISCRETION OF THE SUPERVISING ENGINEER.

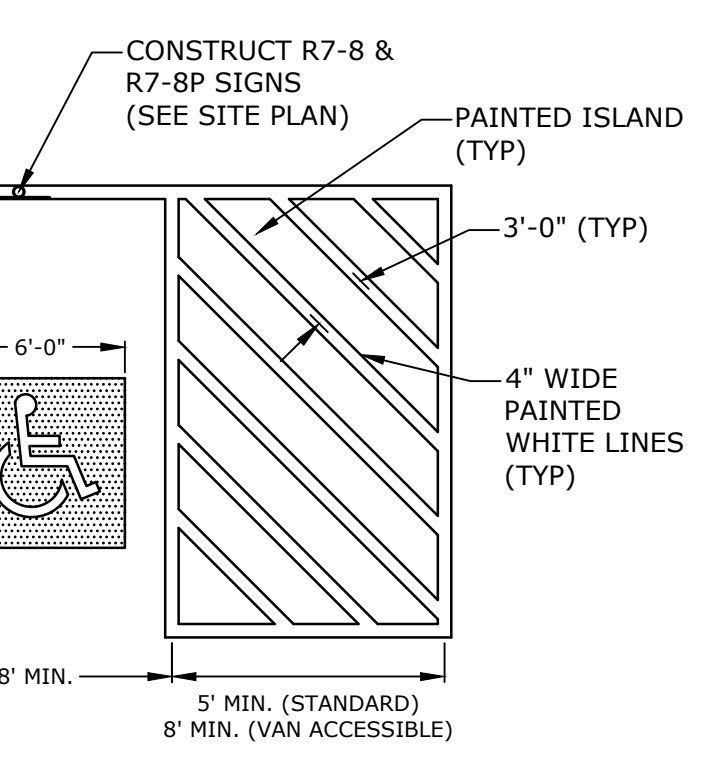
POROUS ASPHALT SECTION
NO SCALE

- NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
2. A 6" COMPACTED CRUSHED GRAVEL BASE (NHDOT ITEM No. 304.3) SHALL BE PROVIDED BENEATH RAMPS.
3. DETECTABLE WARNING PANEL SHALL BE CAST IRON SET IN CONCRETE (SEE DETAIL.)
4. PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP, BLENDED TRANSITION, OR LANDING CONNECTS TO A STREET.
5. LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB ALONG THE EDGE OF THE LANDING.
6. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 1:2.1. THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.
7. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FT. FROM THE ROADWAY CURBLINE.
8. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
9. DETECTABLE WARNING PANELS SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
10. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST VISUALLY WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT).

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEM SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12

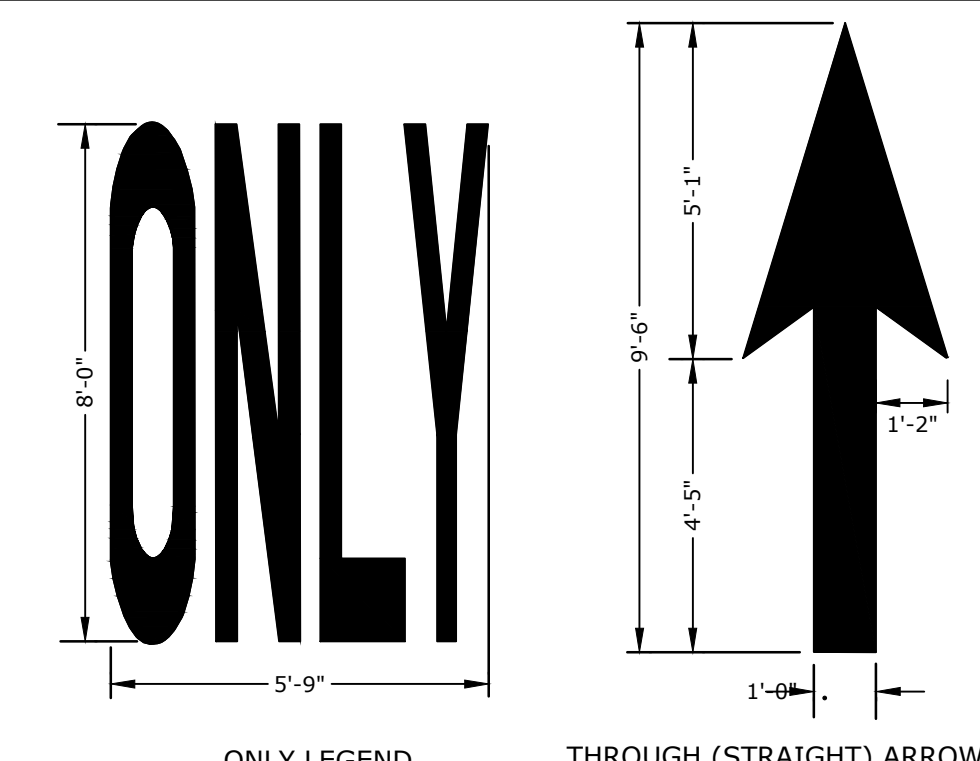


CONCRETE WHEELCHAIR ACCESSIBLE RAMP
NO SCALE



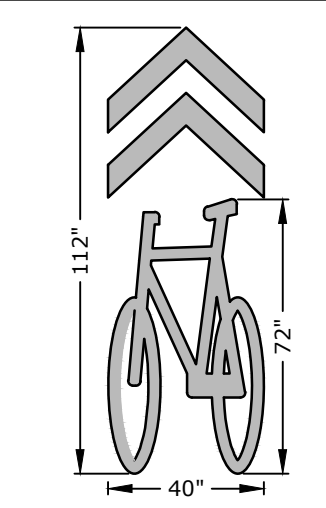
- NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN W/DISABILITIES ACT.

ACCESSIBLE PARKING STALL
NO SCALE



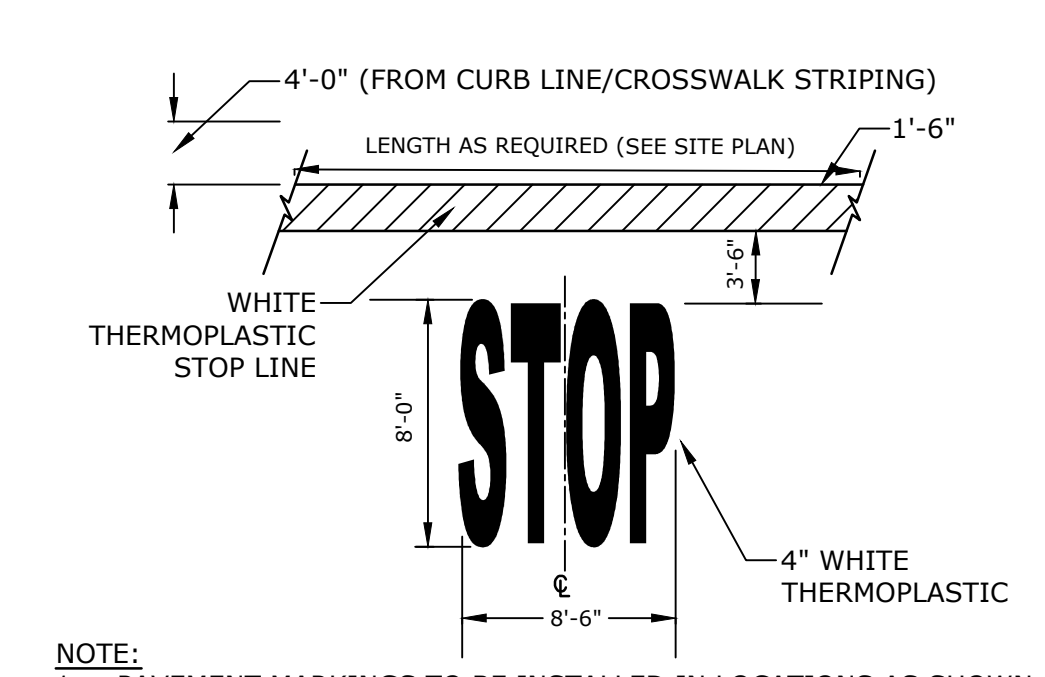
- NOTES:
1. ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE LATEST VERSION OF THE MUTCD.
2. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

DIRECTIONAL PAVEMENT MARKING DETAILS
NO SCALE



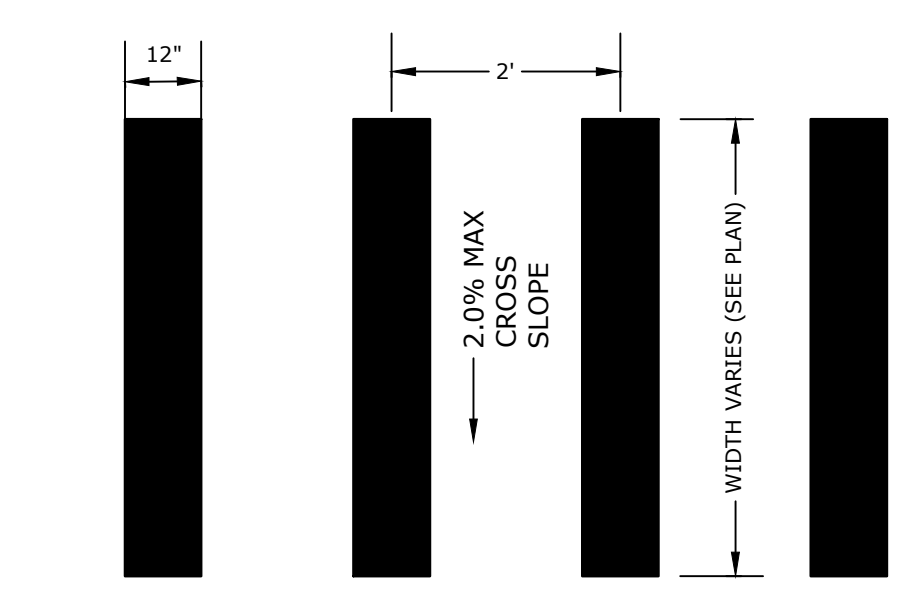
- NOTES:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. MARKINGS SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

"SHARROW" SHARED LANE MARKING
NO SCALE



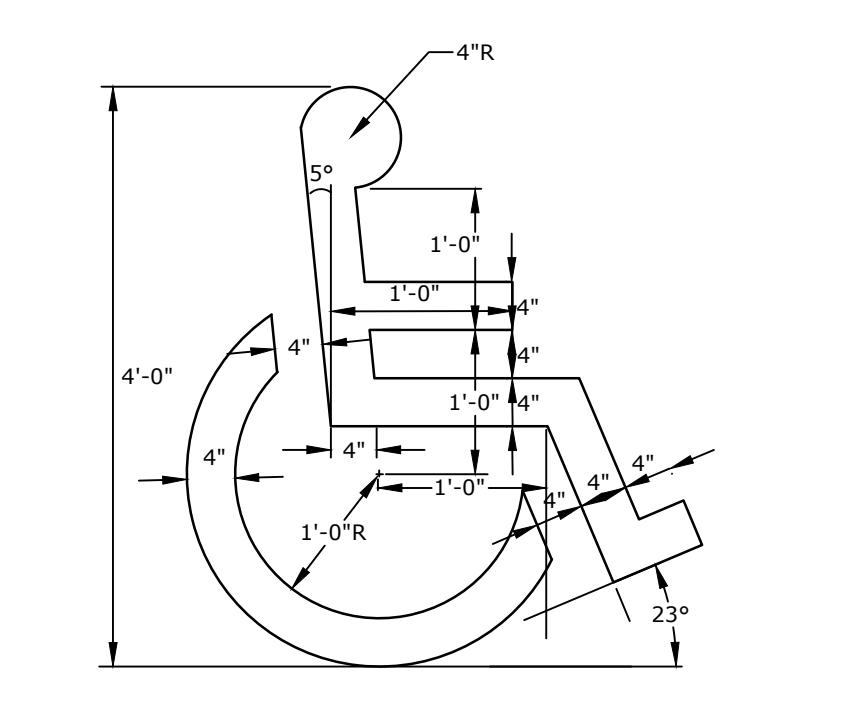
- NOTE:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

STOP BAR AND LEGEND
NO SCALE



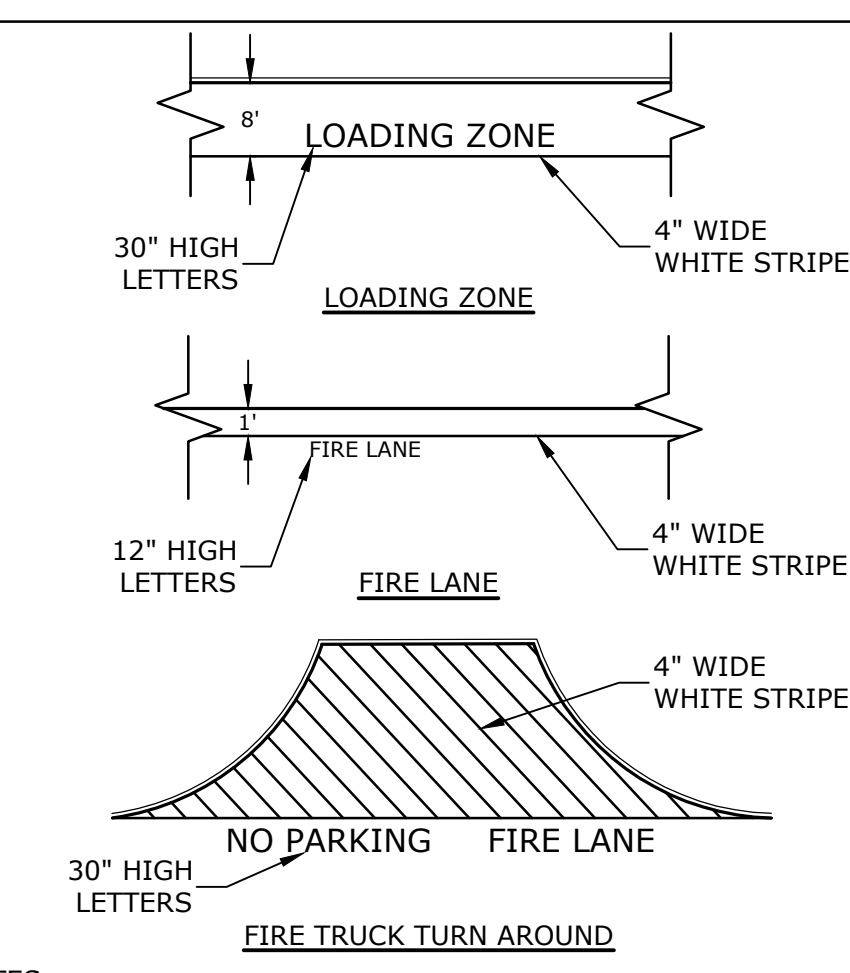
- NOTE:
STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTORIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

CROSSWALK STRIPING
NO SCALE



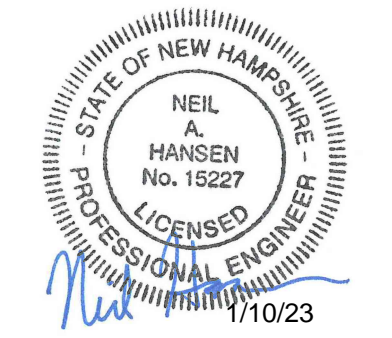
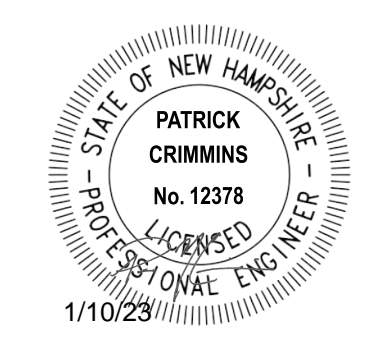
- NOTES:
1. SYMBOL SHALL BE CONSTRUCTED IN ALL ACCESSIBLE SPACES USING WHITE THERMOPLASTIC, REFLECTORIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505.
2. SYMBOL SHALL BE CONSTRUCTED TO THE LATEST ADA, STATE AND LOCAL REQUIREMENTS.

ACCESSIBLE SYMBOL
NO SCALE



- NOTES:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

PAVEMENT MARKING DETAILS
NO SCALE



Proposed Multi-Family Development

Iron Horse Properties, LLC

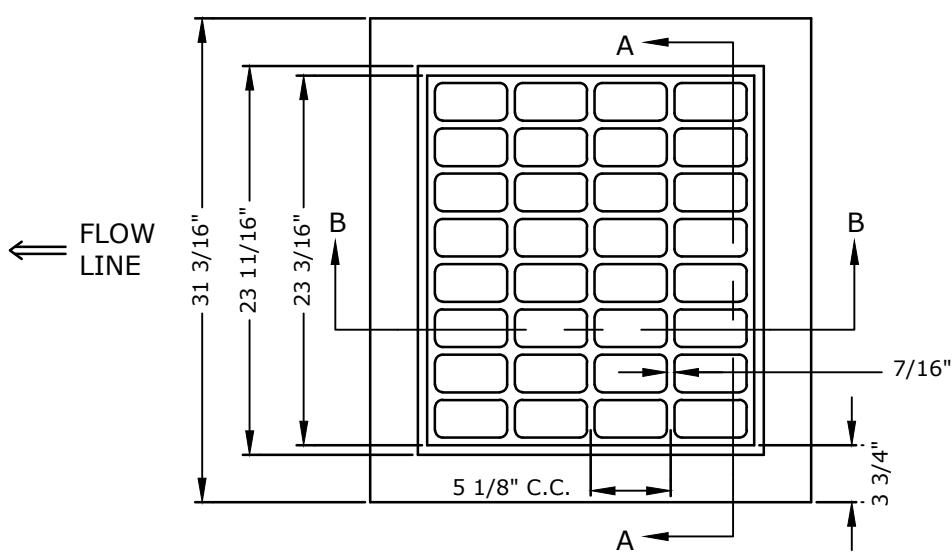
105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

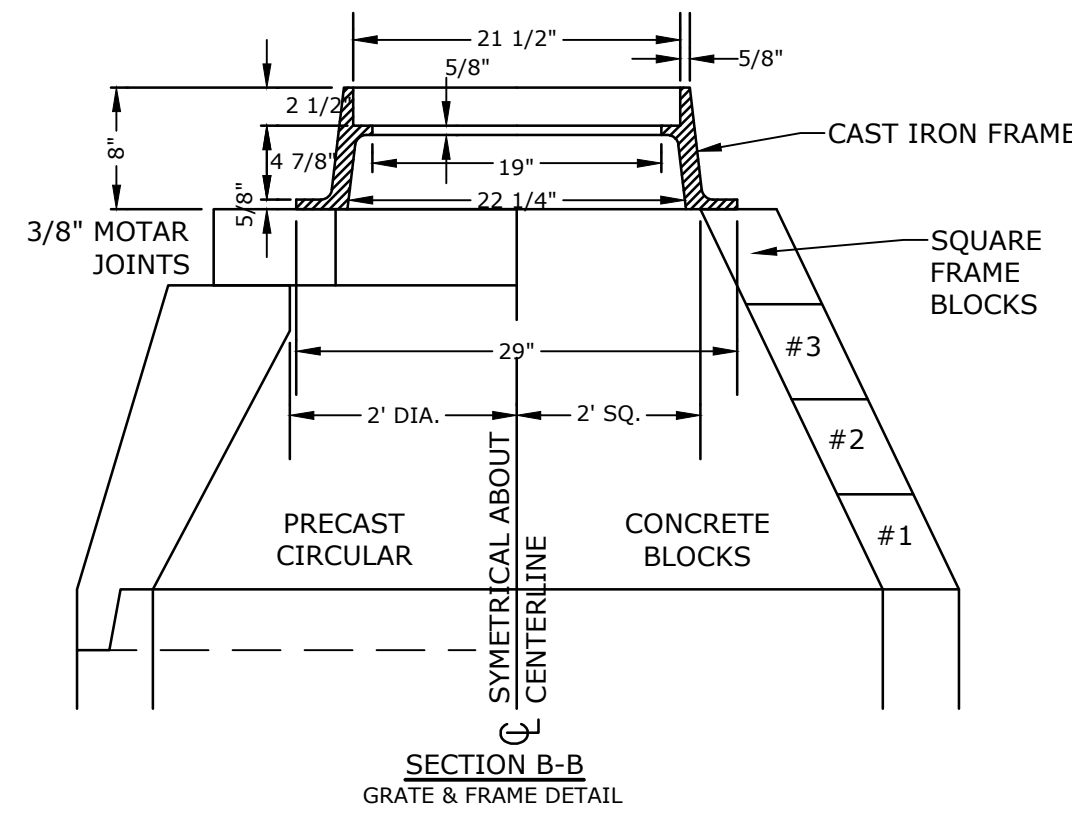
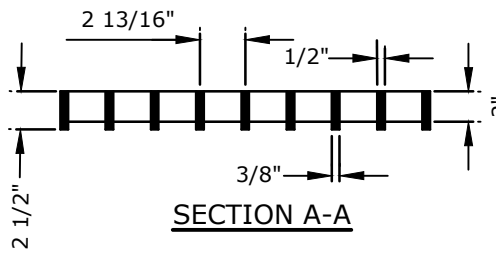
PROJECT NO: C-0960-006
DATE: April 20, 2020
FILE: C-0960-006_C-DTLS.DWG
DRAWN BY: CLK
CHECKED: NAH
APPROVED: PMC

DETAILS SHEET

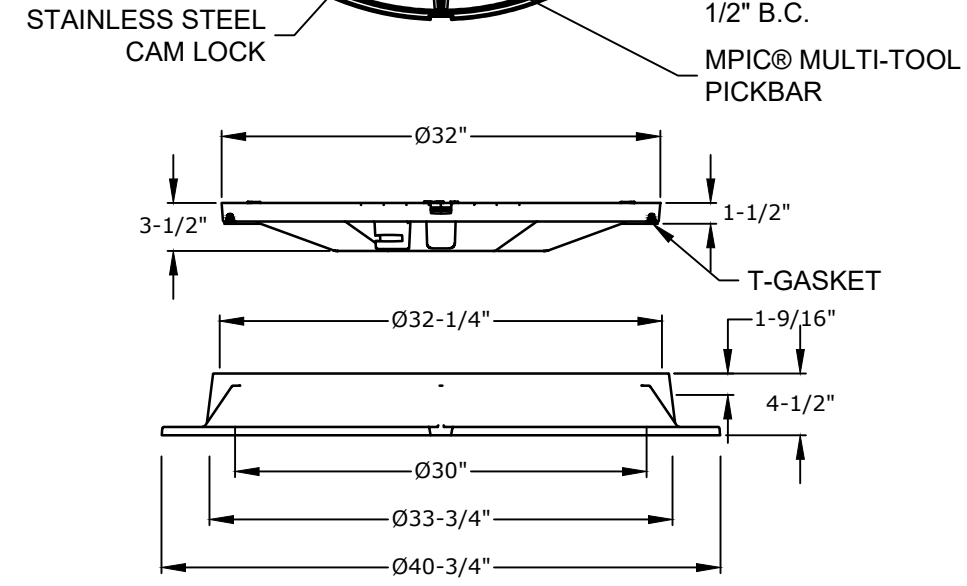
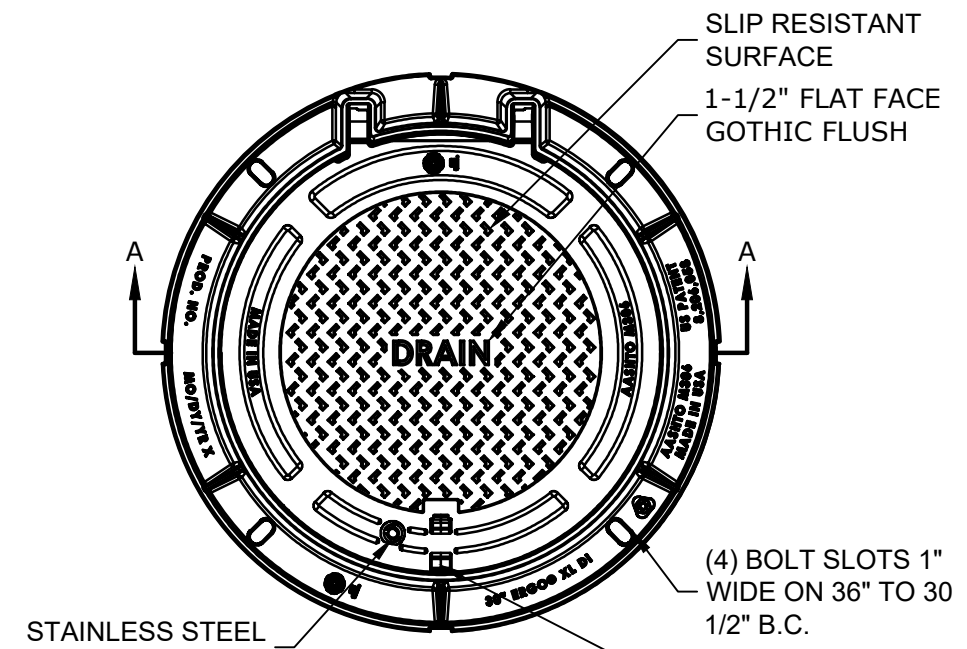
SCALE: AS SHOWN



- NOTE:
1. GRATE TO BE CAST IRON (NHDOT TYPE B)
 2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

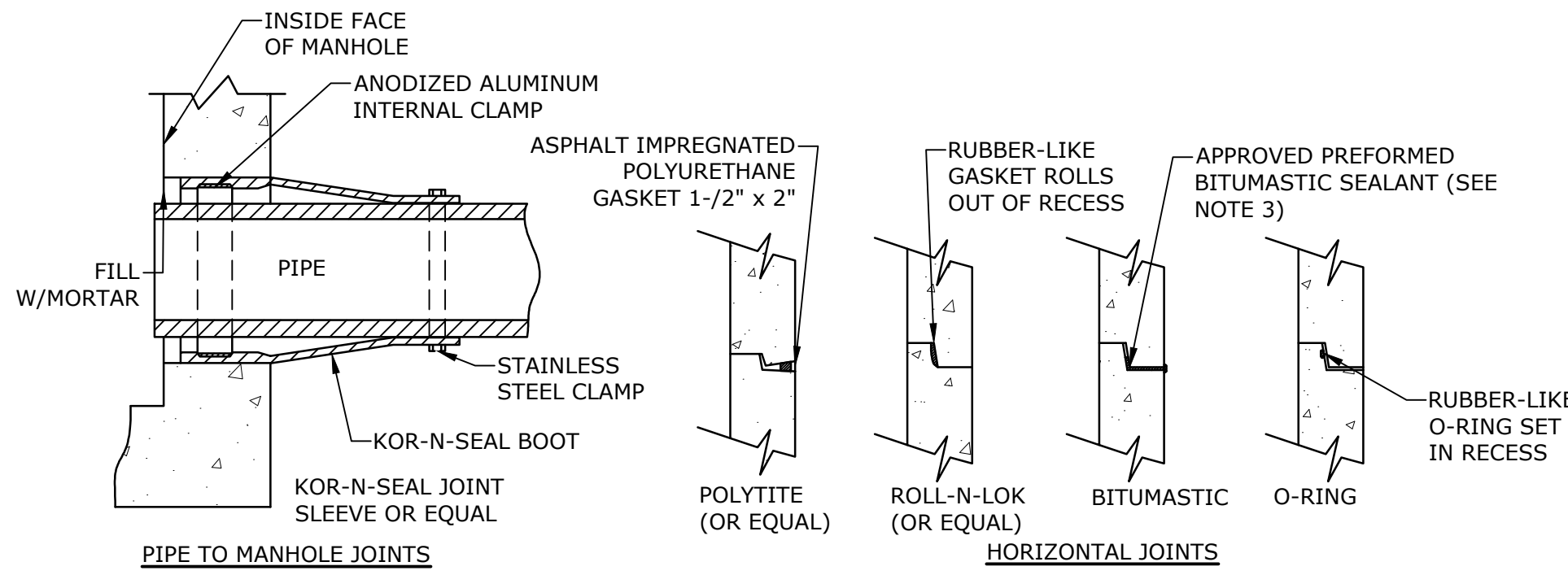


CATCH BASIN FRAME & GRATE
NO SCALE



- NOTES:
1. MANHOLE FRAME AND COVER SHALL BE 32\"/>
 - 2. ALL DIMENSIONS ARE NOMINAL.
 - 3. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
 - A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
 - B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
 - C. ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
 - 4. LABEL TYPE OF MANHOLE WITH 3\"/>

DRAIN MANHOLE FRAME & COVER
NO SCALE

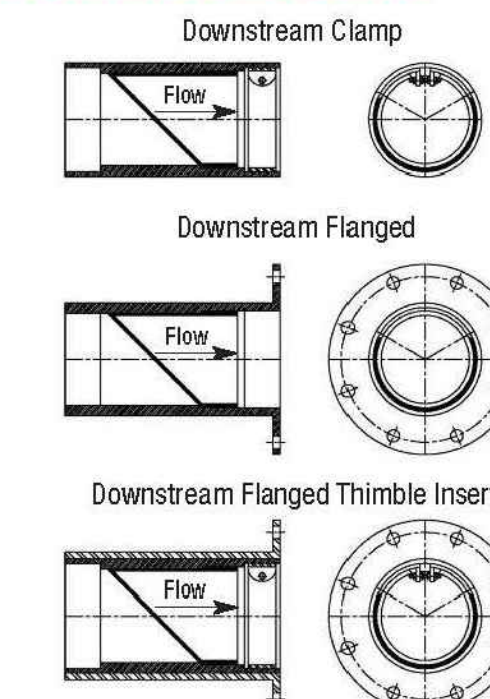


- NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
 2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
 3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

MANHOLE JOINTS
NO SCALE

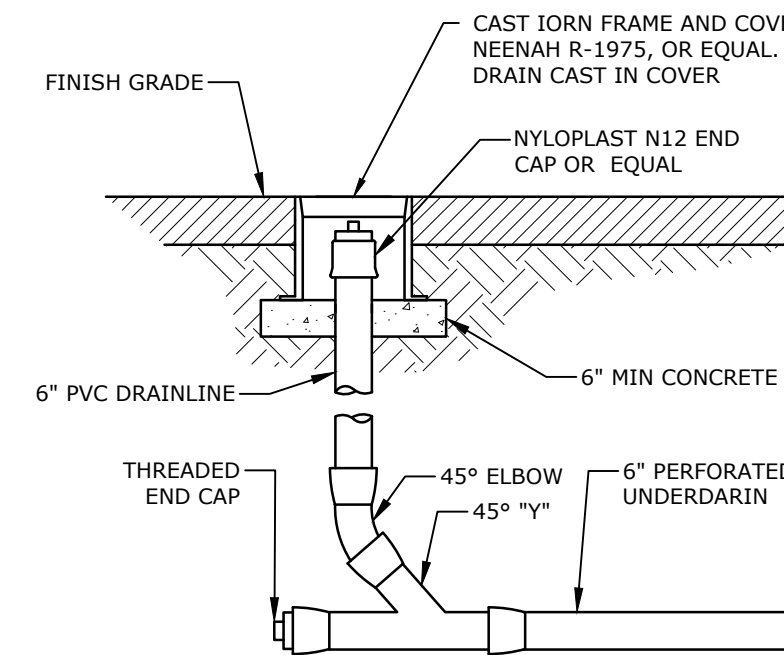
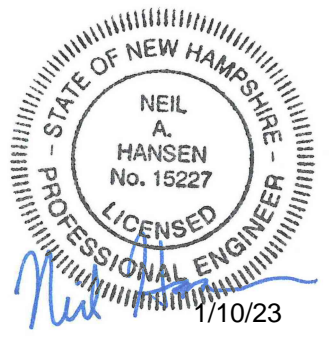
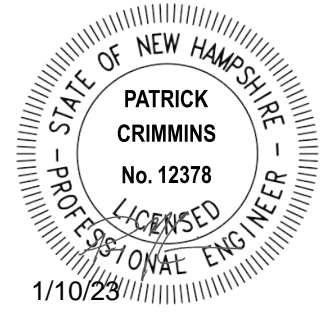
NOMINAL PIPE SIZE I.D.*	OVERALL LENGTH**		NUMBER OF CLAMPS	CUFF DEPTH		BACK PRESSURE RATING	
	Inches	Millimeters		Inches	Millimeters	Feet	Meters
12	300	23	584	1	2	51	40
18	450	31	787	1	4	102	20
24	600	47.5	1207	2	8	203	20

Mounting Styles and Configurations

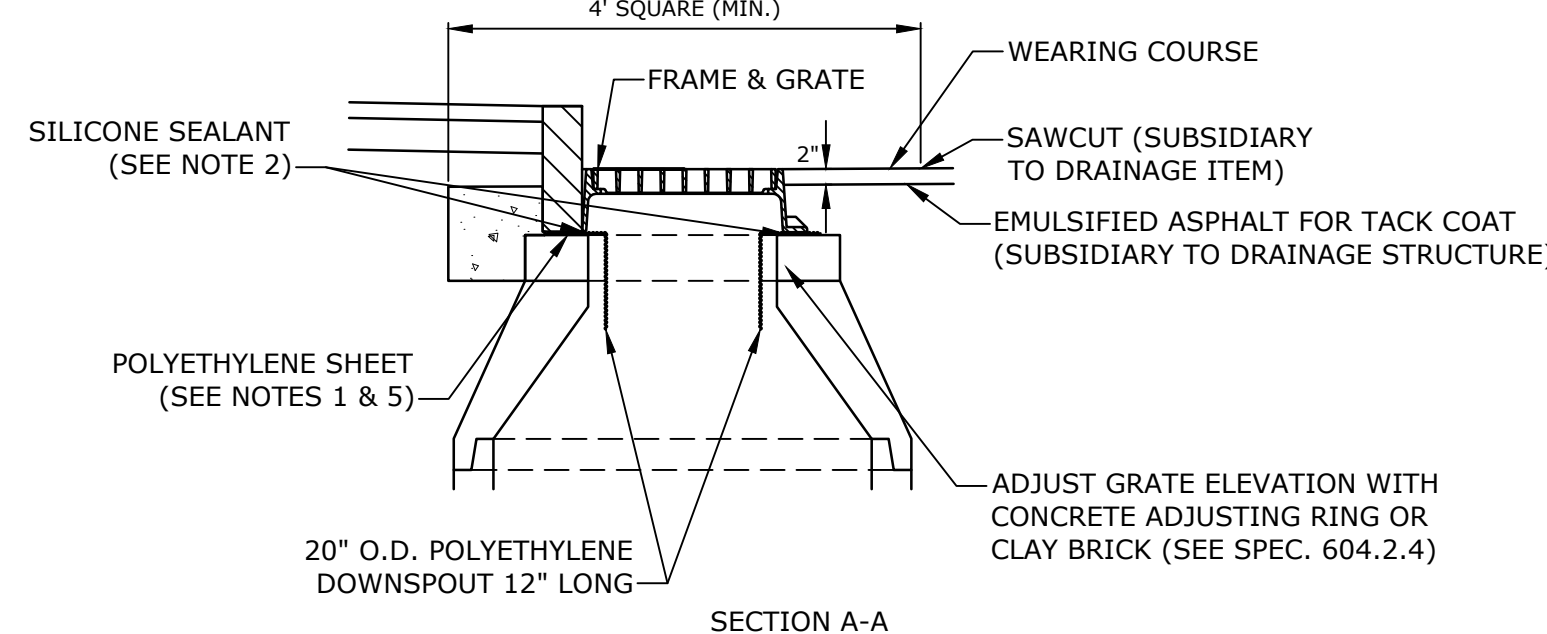
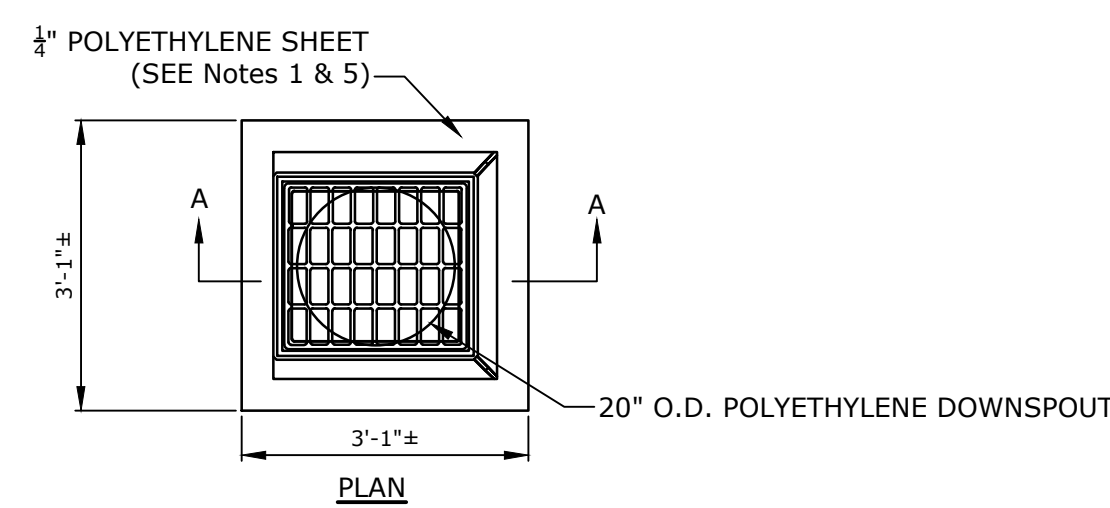


Flange shape and bolt pattern can be customized. Flangeless thimble inserts are available.

TYPICAL BACK FLOW PREVENTER
NO SCALE

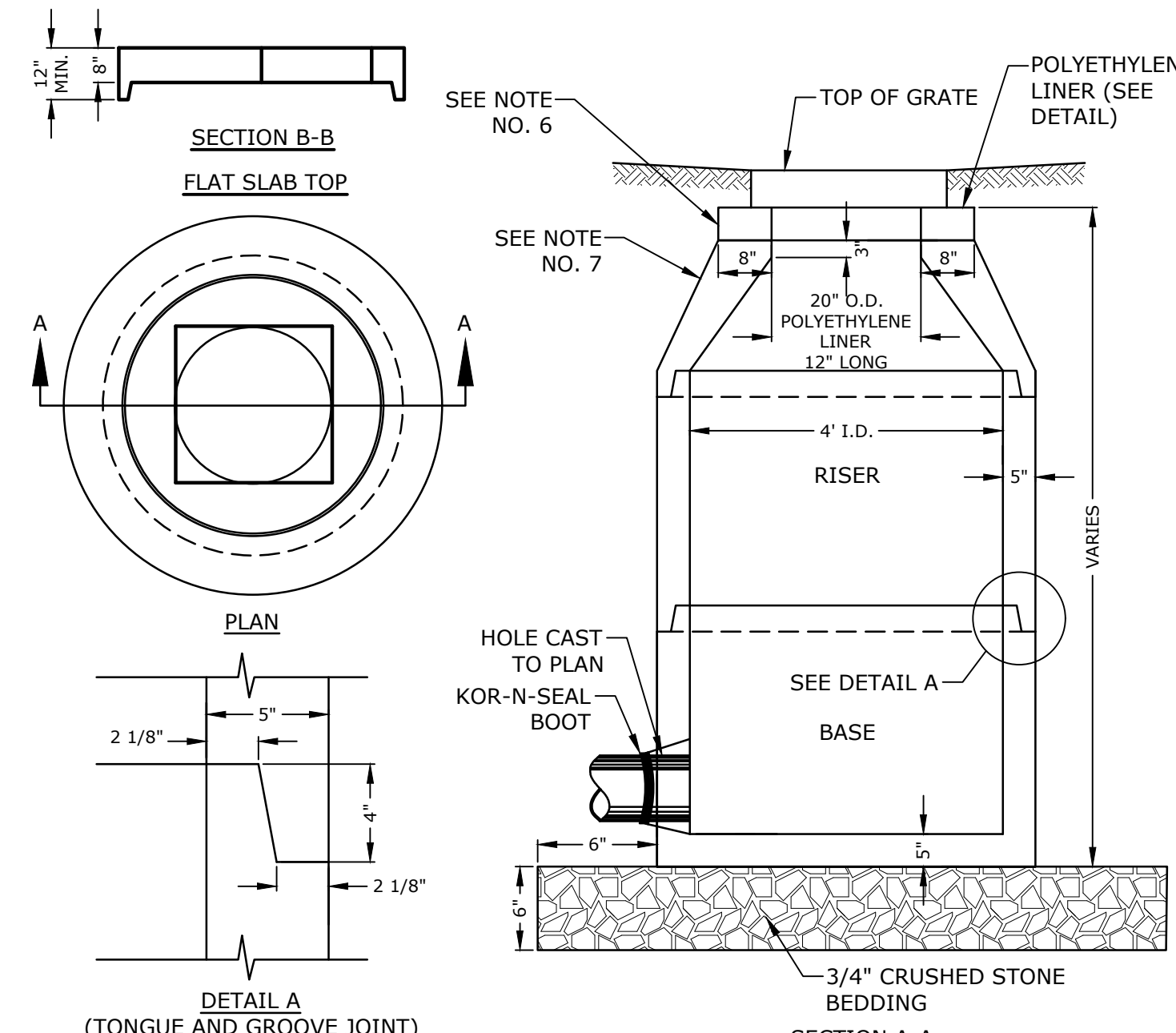


DRAIN CLEAN-OUT
NO SCALE



- NOTES:
1. POLYETHYLENE LINER (ITEM 604.0007) SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
 2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT (SUBSIDIARY TO ITEM 604.0007) BETWEEN FRAME AND POLYETHYLENE SHEET.
 3. PLACE CLASS AA CONCRETE TO 2\"/>
 - 4. USE ON DRAINAGE STRUCTURES 4\"/>
 - 5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4\"/>
 - 6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6\"/>
 - 7. PLACED ONLY IN DRAINAGE STRUCTURES IN PAVEMENT.
 - 8. SEE NHDOT DR-04, "DI-DB, UNDERDRAIN FLUSHING BASIN AND POLYETHYLENE LINER DETAILS", FOR ADDITIONAL INFORMATION.
 - 9. CATCHBASINS WITHIN CITY RIGHT OF WAY SHALL HAVE A POLYETHYLENE LINER

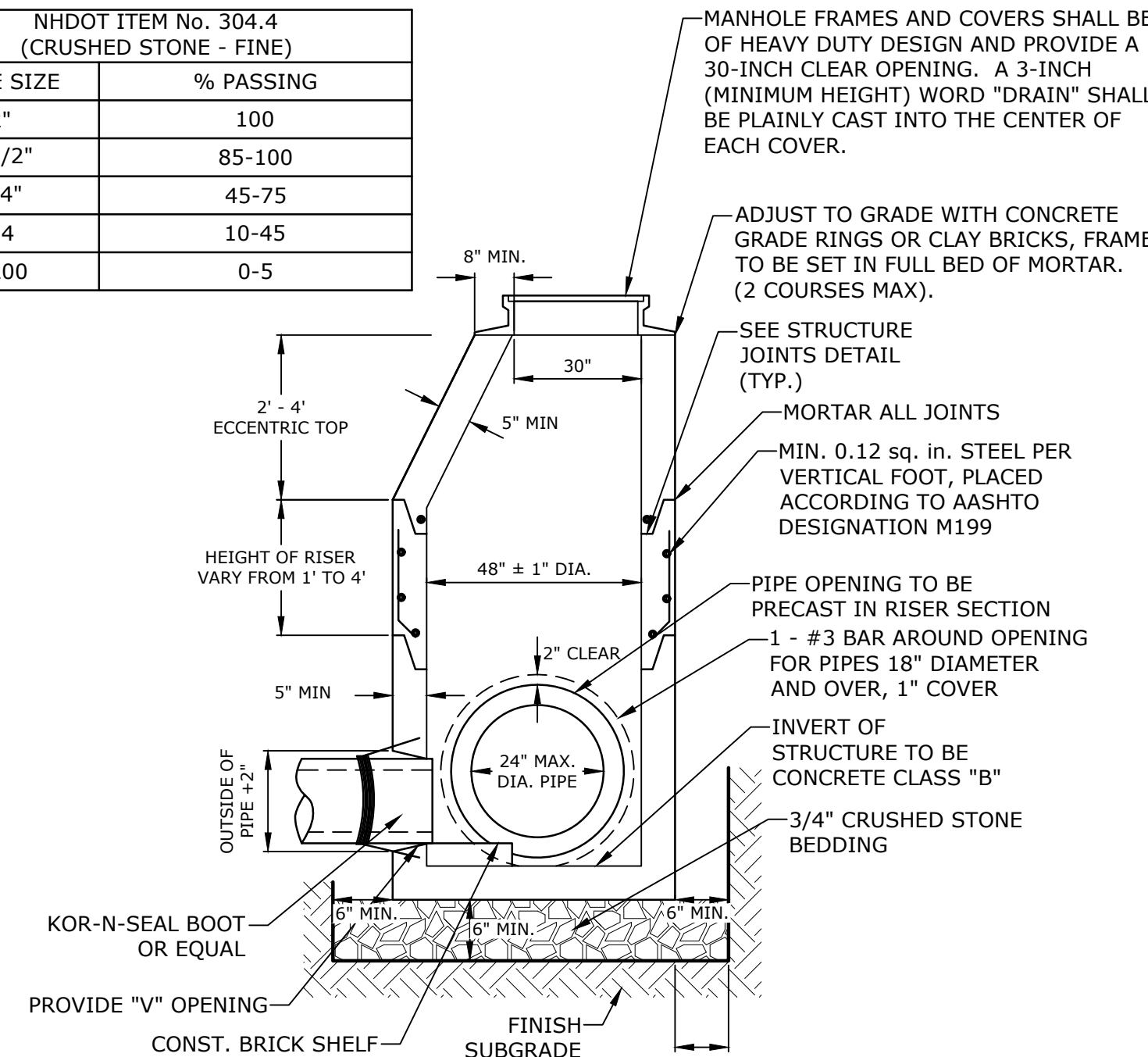
POLYETHYLENE LINER
NO SCALE



- NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
 4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 5. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
 6. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
 7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
 8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3\"/>
 - 10. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4\"/>
 - 11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.

4\"/>

NHDOT ITEM No. 304.4 (CRUSHED STONE - FINE)	
SIETVE SIZE	% PASSING
2"	100
1-1/2"	85-100
3/4"	45-75
#4	10-45
#200	0-5



- NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
 4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
 5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6\"/>
 - 6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
 - 7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
 - 8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3\"/>
 - 9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4\"/>
 - 10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12\"/>

4\"/>

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
J	9/15/2021	Revised AoT Submission
I	3/10/2021	PB Submission
H	1/20/2021	TAC Resubmission
G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

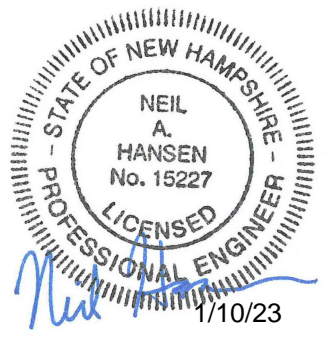
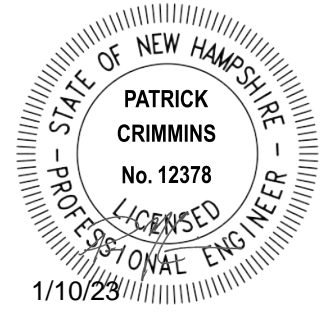
PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CIK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-505

Last Saved: 12/23/2022 11:07am By: Ckrzouk
 Plotted On: Dec 28, 2022 - 11:07am By: Ckrzouk
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JELLYFISH JFPD0808 - DESIGN NOTES

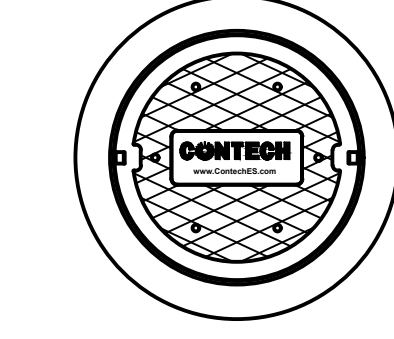
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION	54"	40"	27"	15"
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	2.94	2.21	1.47	0.81
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

JELLYFISH JFPD0806 - DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION	54"	40"	27"	15"
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	1.96	1.47	0.98	0.54
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00



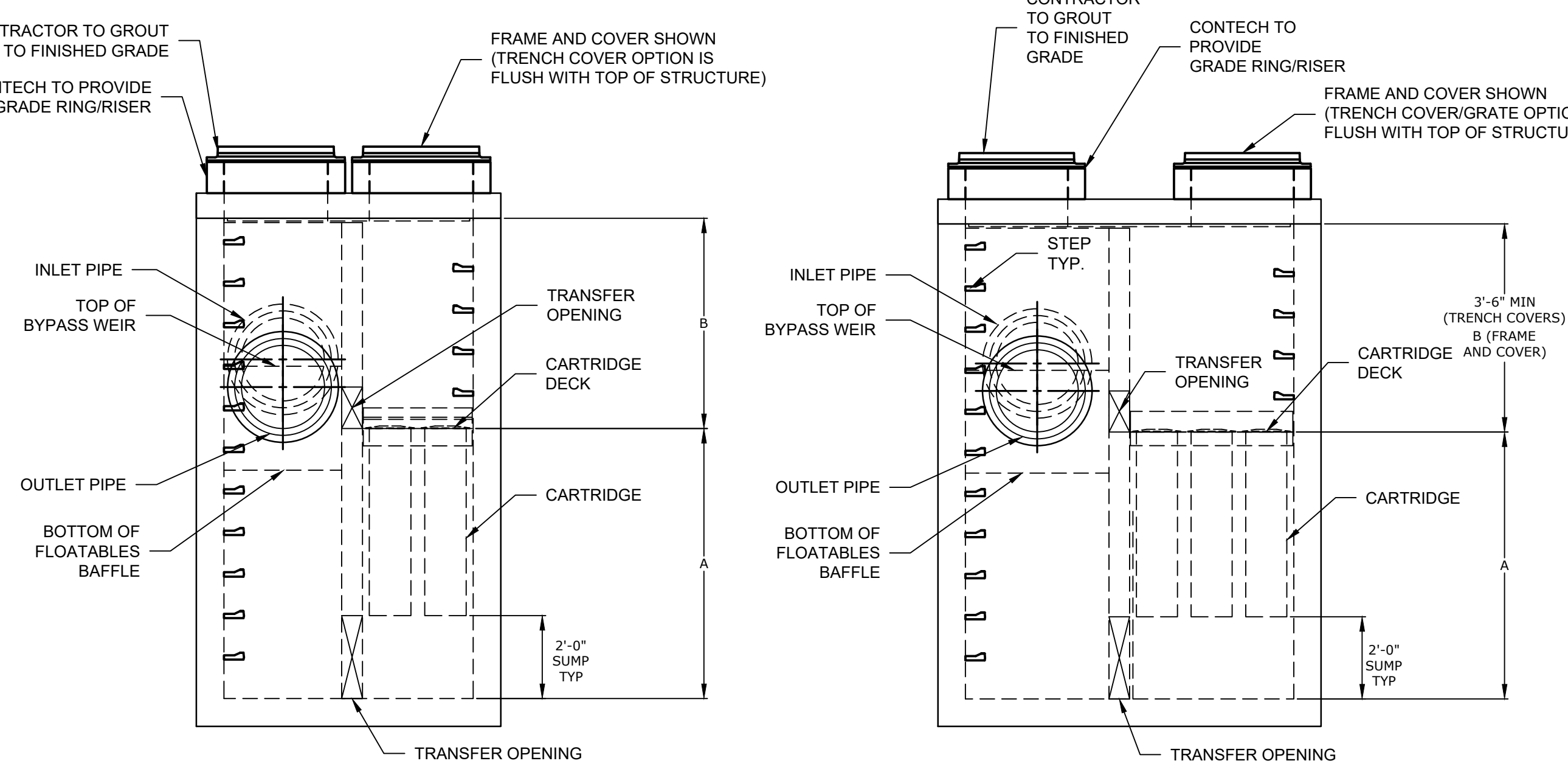
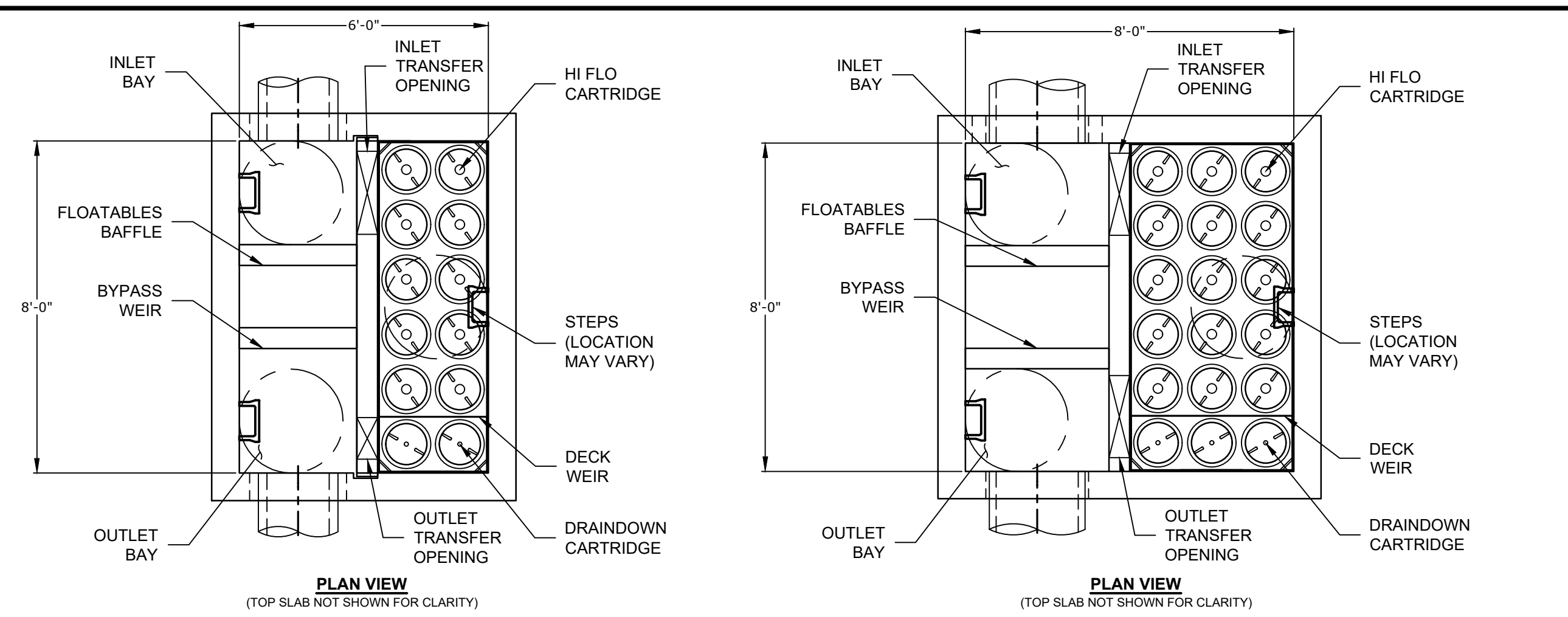
SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	JF-1	JF-2	JF-3	JF-4
MODEL SIZE	JFPD0808	JFPD0806	JFPD0806	JFPD0806
WATER QUALITY FLOW RATE (cfs)	2.85	0.63	0.89	1.48
PEAK FLOW RATE (cfs)	26.54	5.13	7.62	8.19
RETURN PERIOD OF PEAK FLOW (yrs)	25	25	25	25
# OF CARTRIDGES REQUIRED (HF / DD)	15/3	5/1	5/1	8/2
CARTRIDGE SIZE	54"	40"	54"	54"

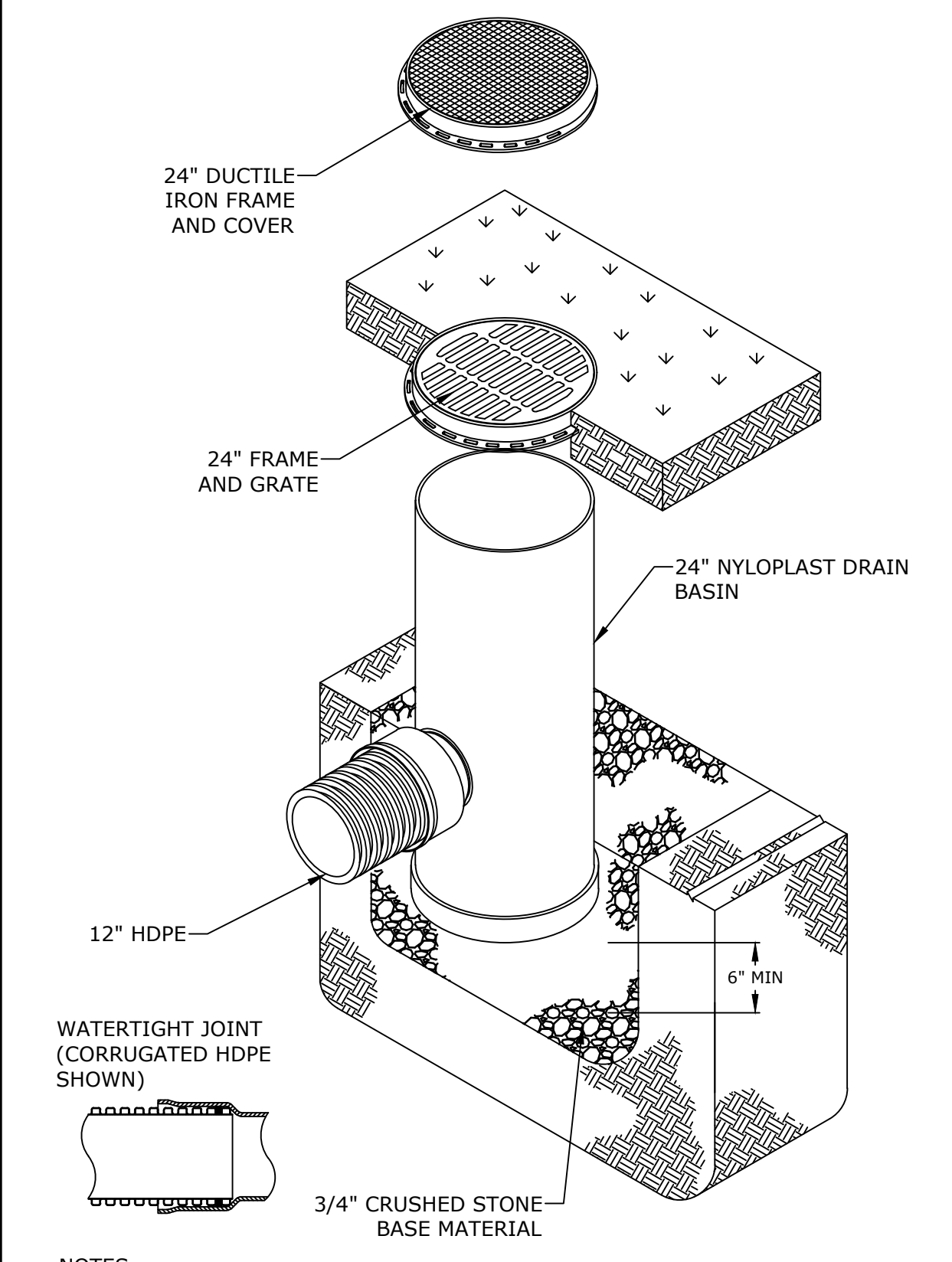
- GENERAL NOTES:**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.contechES.com
 - JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 - STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M88 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
 - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
 - OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
 - THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
 - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

- INSTALLATION NOTES**
- ANY SUBBASE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
 - CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 740-3318.

Jellyfish Filter
 CONTECH ENGINEERED SOLUTIONS LLC
 www.contechES.com
 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
 800-338-1122 513-645-7000 513-645-7993 FAX

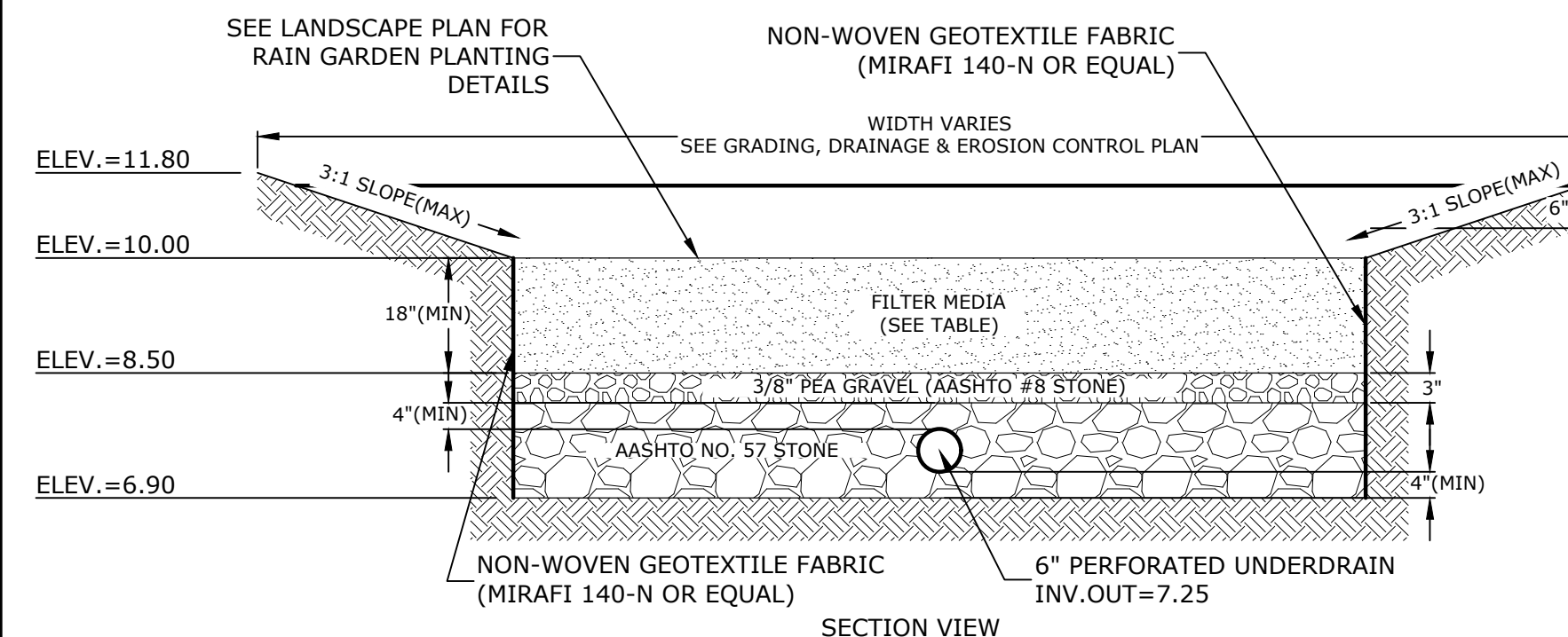


ELEVATION VIEW
JELLYFISH JFPD0806
CONTECH JELLYFISH STORMWATER FILTER
 NO SCALE



YARD DRAIN
 NO SCALE

- NOTES:**
- GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
 - SEE GRADING, DRAINAGE, AND EROSION CONTROL PLAN FOR LOCATIONS.



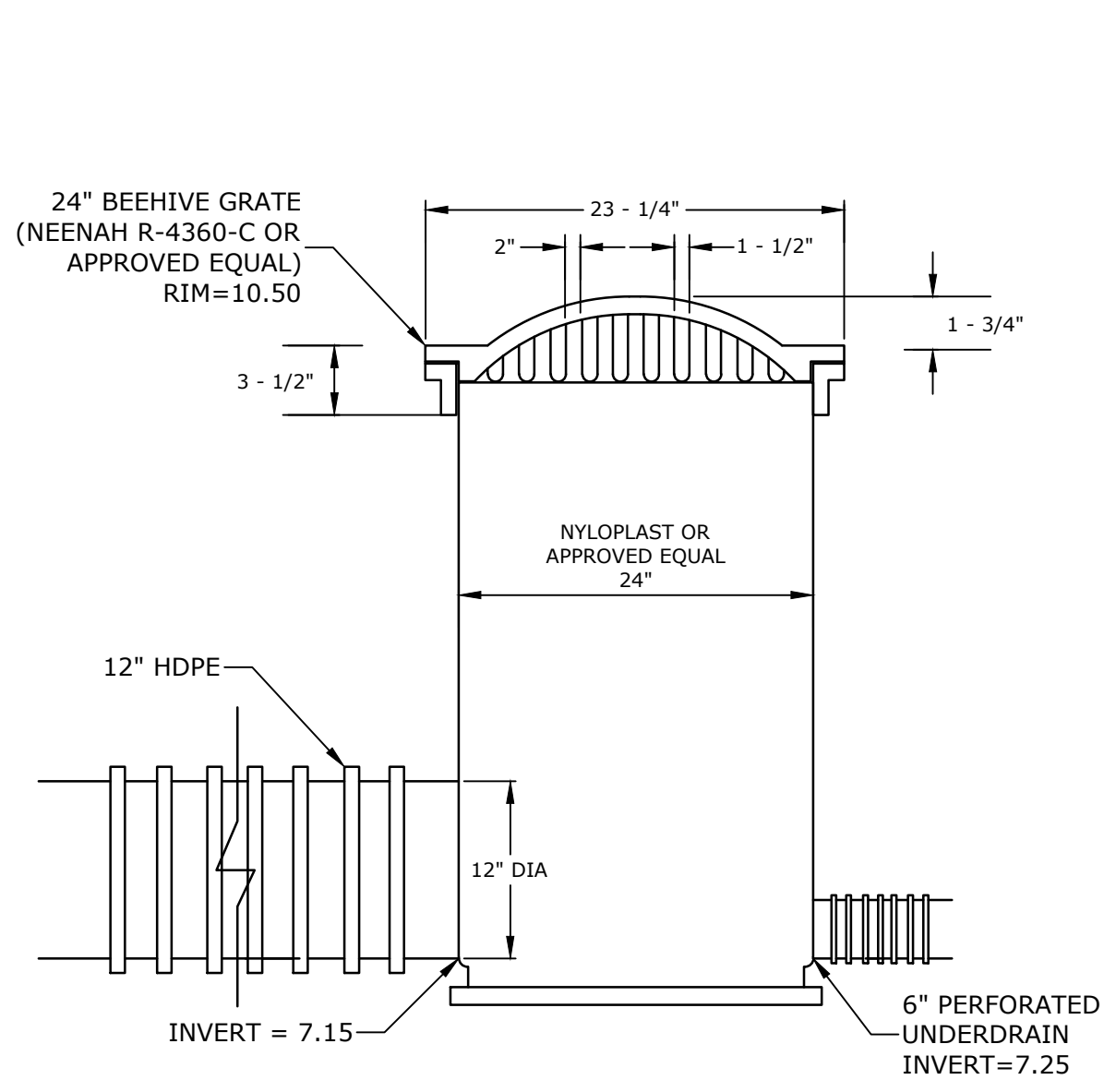
- NOTES:**
- RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
 - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
 - THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

FILTER MEDIA COMPOSITION:

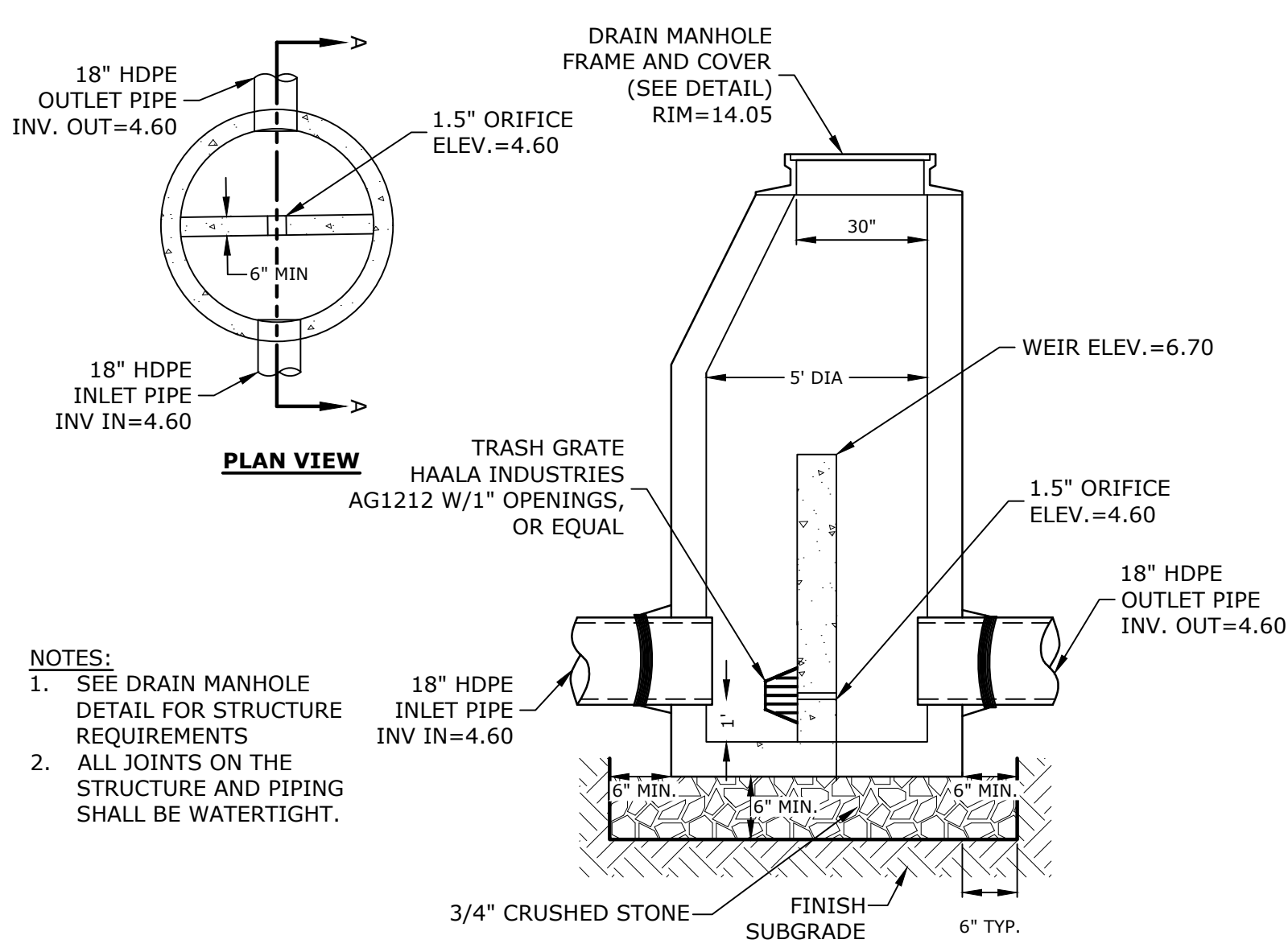
COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5	
LOAMY SAND TOPSOIL	20-30	200	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX

AASHTO #8 STONE (#8 to 3/8")		AASHTO #57 STONE (#4 to 1")	
SIEVE SIZE	% PASSING	SIEVE SIZE	% PASSING
1/2"	100	1-1/2"	100
3/8"	85-100	1"	95-100
#4	10-30	1/2"	25-60
#8	0-10	#4	0-10
#16	0-5	#8	0-5

RAIN GARDEN
 NO SCALE



OUTLET STRUCTURE (POS1) DETAIL
 NO SCALE



PDMH9 (5' DIA)
 NO SCALE

- NOTES:**
- SEE DRAIN MANHOLE DETAIL FOR STRUCTURE REQUIREMENTS
 - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
 Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
K	12/28/2022	NHDES Wetland & Shoreland Submission
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A	1/2/2020	ZBA Submission

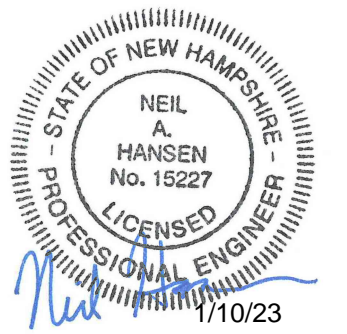
PROJECT NO: C-0960-006
 DATE: April 20, 2020
 FILE: C-0960-006_C-DTLS.DWG
 DRAWN BY: CJK
 CHECKED: NAH
 APPROVED: PMC

DETAILS SHEET

SCALE: AS SHOWN

C-506

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 Tighe & Bond 2100 Cabot Street, Portsmouth, NH 03801



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

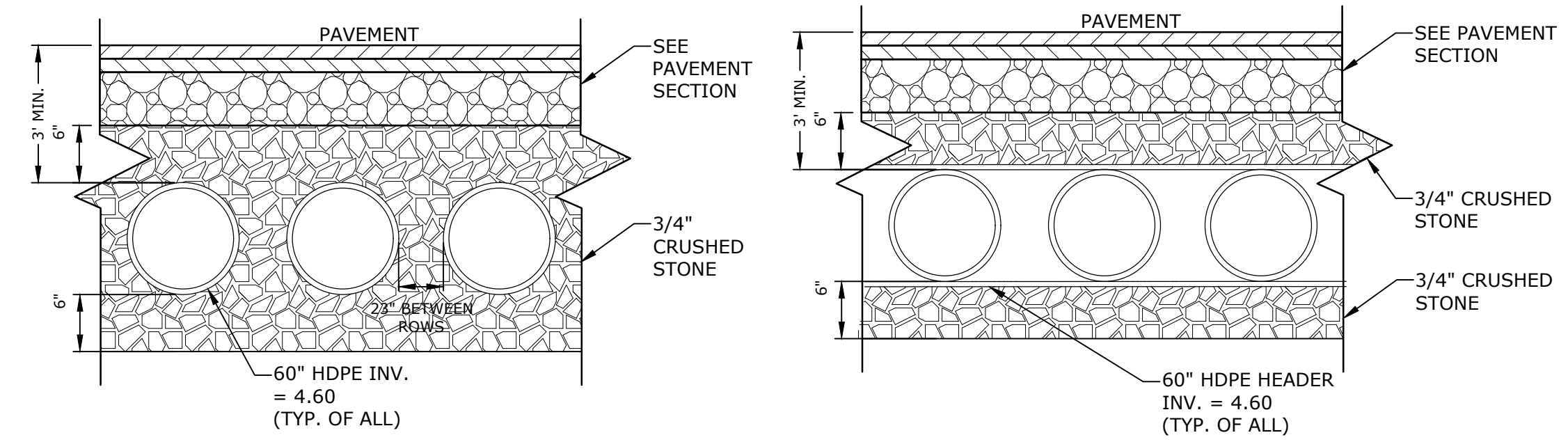
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DRAWN BY:	CKJ
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

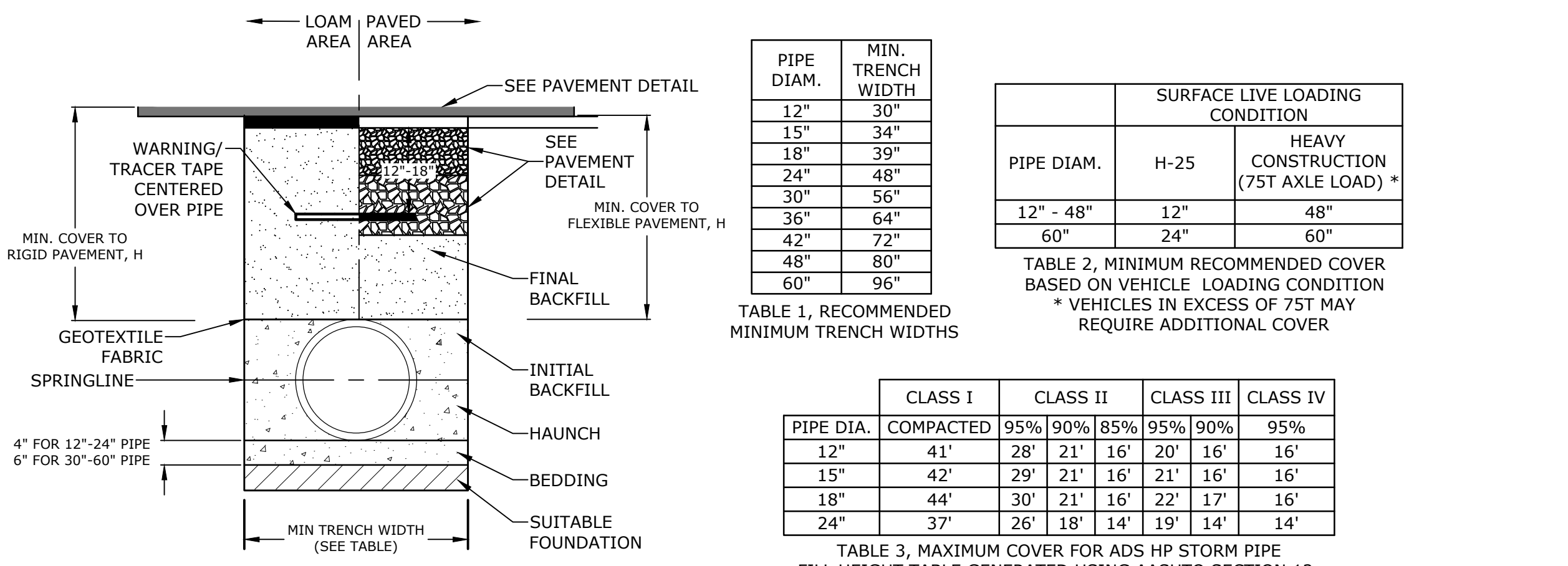
SCALE: AS SHOWN

C-507



- NOTES:**
- UNDERGROUND DETENTION SYSTEM TO BE 60" HDPE PIPE DESIGNED FOR H-20 LOADING. CONTRACTOR TO SUBMIT PIPE SPECIFICATIONS AND FINAL MANUFACTURERS DESIGN TO ENGINEER FOR APPROVAL.
 - MANUFACTURER TO SUBMIT PLANS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE.
 - THE DESIGN ENGINEER SHALL PROVIDE SUFFICIENT INSPECTION TO CERTIFY THAT THE SYSTEM HAS BEEN INSTALLED PER THE APPROVED DESIGN PLAN.
 - REFER TO STANDARD DUTY PAVEMENT SECTION DETAIL FOR PAVEMENT SECTION.

UNDERGROUND DETENTION SYSTEM DETAIL
NO SCALE



PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
60"	96"

TABLE 1, RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
60"	24"	60"

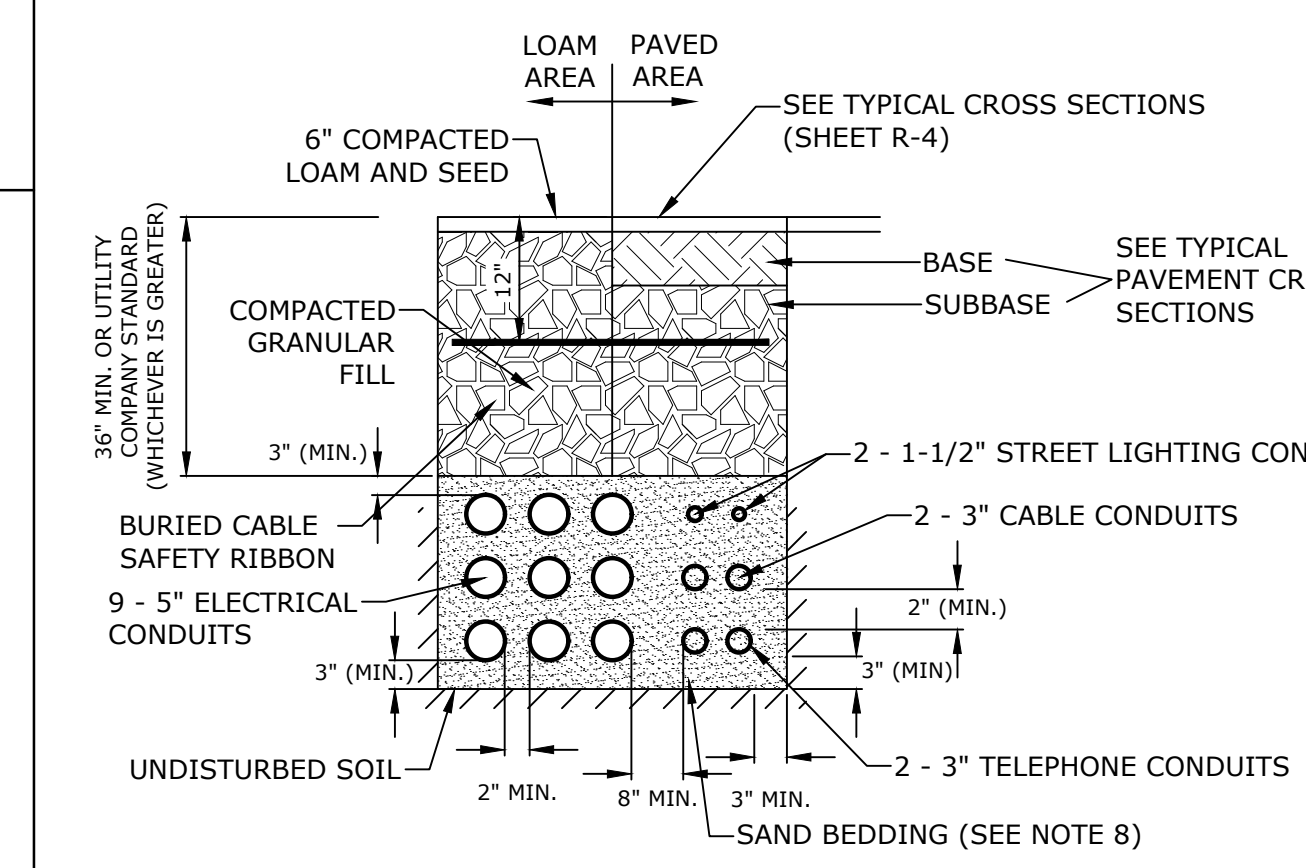
TABLE 2, MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITION * VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

PIPE DIA.	CLASS I COMPACTED	CLASS II			CLASS III		CLASS IV	
		95%	90%	85%	95%	90%	95%	
12"	41'	28'	21'	16'	20'	16'	16'	
15"	42'	29'	21'	16'	21'	16'	16'	
18"	44'	30'	21'	16'	22'	17'	16'	
24"	37'	26'	18'	14'	19'	14'	14'	

TABLE 3, MAXIMUM COVER FOR ADS HP STORM PIPE FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE
UNIT WEIGHT OF SOIL (γs) = 120 PCF

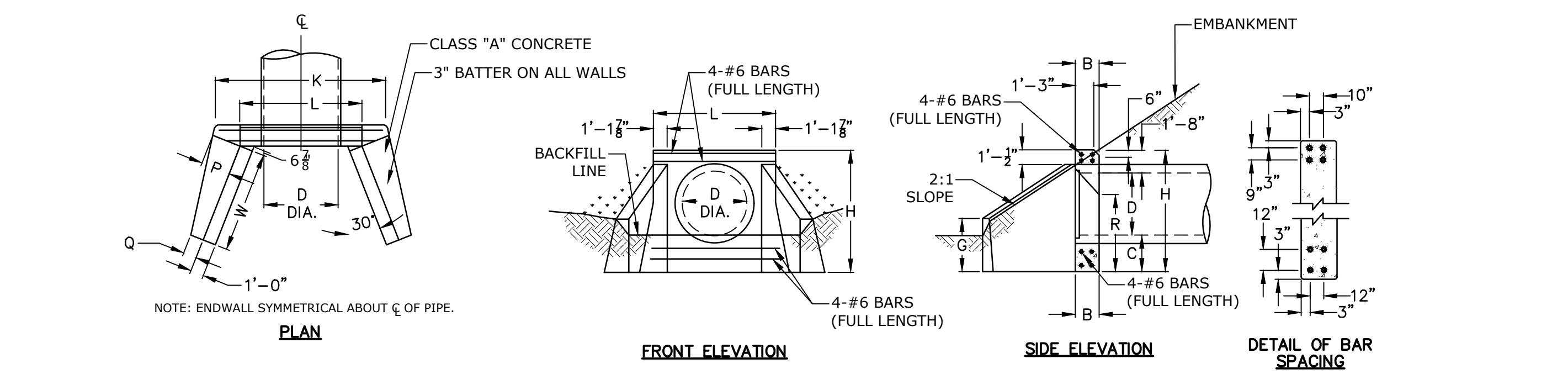
- NOTES:**
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION, WITH THE EXCEPTION THAT THE INITIAL BACKFILL MAY EXTEND TO THE CROWN OF THE PIPE. SOIL CLASSIFICATIONS ARE PER THE LATEST VERSION OF ASTM D2321. CLASS I/IV MATERIALS (MH, CH) AS DEFINED IN PREVIOUS VERSIONS OF ASTM D2321 ARE NOT APPROPRIATE BACKFILL MATERIALS.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE AS JUDGED BY THE ENGINEER, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL. REFER TO SPECIFICATION 310000 EARTHWORK - SITE.
 - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm) DIAMETER PIPE; 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
 - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II, III, OR IV IN THE PIPE ZONE EXTENDING TO THE CROWN OF THE PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. COMPACTION SHALL BE SPECIFIED BY THE ENGINEER IN ACCORDANCE WITH TABLE 3 FOR THE APPLICABLE FILL HEIGHTS LISTED. PLEASE NOTE, CLASS IV MATERIAL HAS LIMITED APPLICATION AND CAN BE DIFFICULT TO PLACE AND COMPACT; USE ONLY WITH THE APPROVAL OF THE GEOTECHNICAL ENGINEER.
 - MINIMUM COVER: FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" (300mm) UP TO 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
 - FOR ADDITIONAL INFORMATION SEE TECHNICAL NOTE 2.04.

HP STORM TRENCH INSTALLATION DETAIL
NO SCALE



- NOTES:**
- NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON ELECTRICAL DRAWINGS. CONTRACTOR TO PROVIDE ONE SPARE CONDUIT FOR EACH UTILITY TO BUILDING.
 - DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
 - NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
 - A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
 - UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
 - ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL SWEEPS WITH A 36 TO 48 INCH RADIUS.
 - SAND BEDDING TO BE REPLACED WITH CONCRETE ENCASEMENT WHERE COVER IS LESS THAN 3 FEET, WHEN LOCATED BELOW PAVEMENT, OR WHERE SHOWN ON THE UTILITIES PLAN.

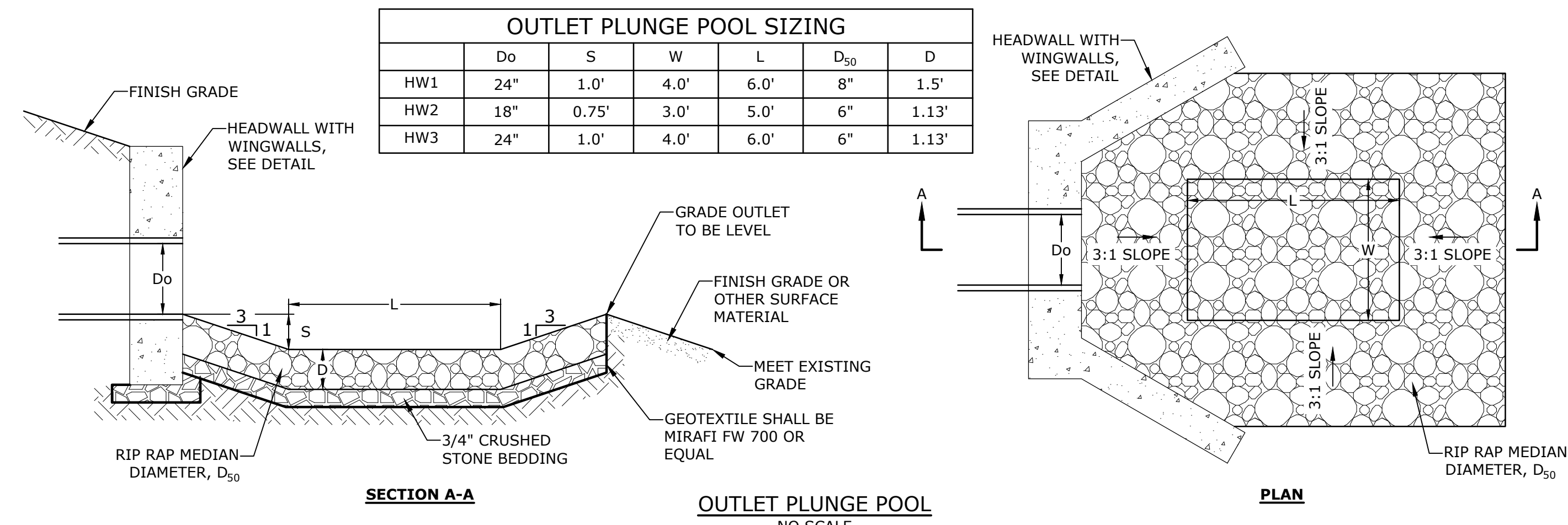
ELECTRICAL AND COMMUNICATION CONDUIT
NO SCALE



DIMENSIONS AND QUANTITIES FOR ONE WING TYPE ENDWALL												
D	B	C	G	H	K	L	P	Q	R	W	WOL	
IN.*	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN	CY
24	1'-6"	2'-0"	3'-3"	6'-9"	9'-1 1/2"	7'-3 3/4"	1'-4 1/2"	0'-9 1/2"	3'-4 1/2"	5'-5 3/4"	5.87	
36	1'-6"	2'-0"	3'-3"	6'-8"	9'-1 1/2"	7'-3 3/4"	1'-4 1/2"	0'-9 1/2"	3'-4 1/2"	5'-5 3/4"	5.87	
42	1'-6"	2'-0"	3'-3"	7'-2"	9'-10 1/4"	7'-9 3/4"	1'-6 1/2"	0'-9 1/2"	3'-10 1/4"	6'-7 3/4"	6.67	

* FOR D<36" USE DIMENSIONS LISTED FOR D=36"

HEADWALL WITH WINGWALLS
NO SCALE

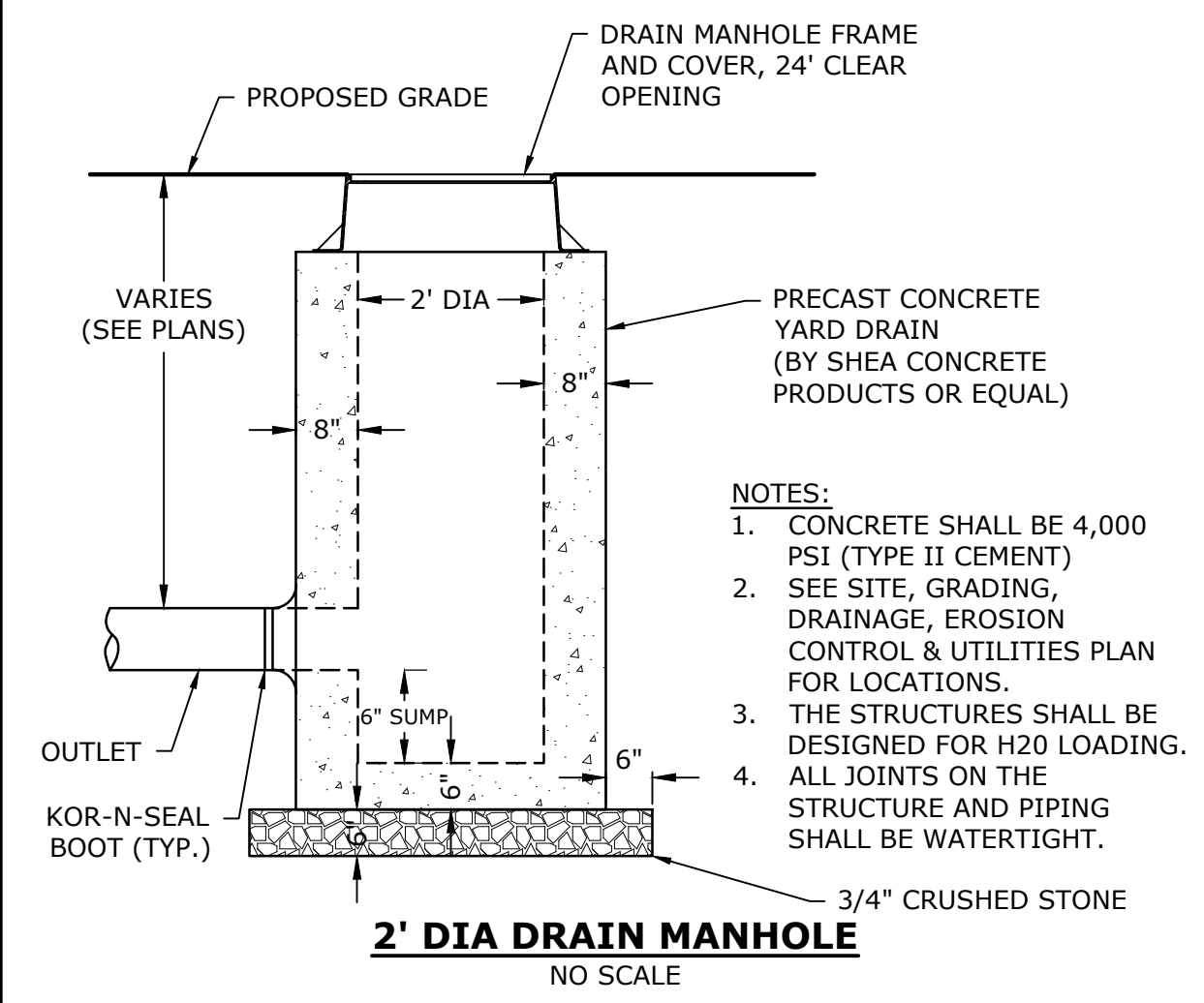
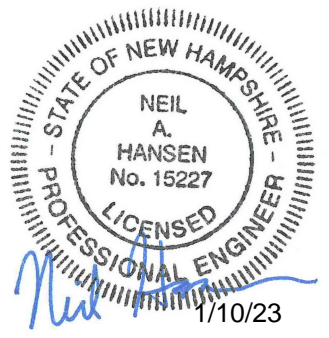
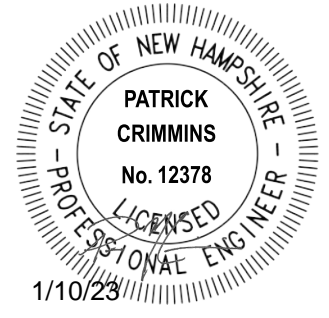


OUTLET PLUNGE POOL SIZING						
HW1	Do	S	W	L	D50	D
HW1	24"	1.0'	4.0'	6.0'	8"	1.5'
HW2	18"	0.75'	3.0'	5.0'	6"	1.13'
HW3	24"	1.0'	4.0'	6.0'	6"	1.13'

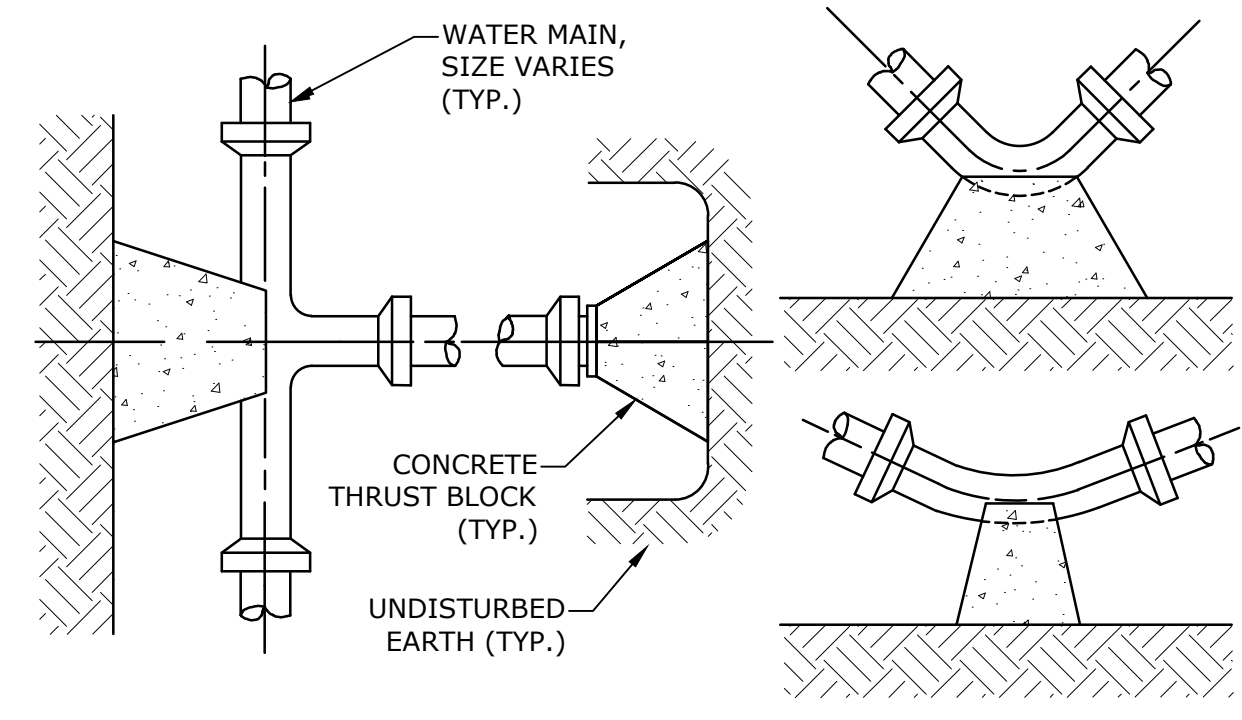
OUTLET PLUNGE POOL
NO SCALE

SECTION A-A
PLAN

Last Saved: 12/23/2022 11:07am By: Ckrzouk Plotted On: Dec 28, 2022 11:07am By: Ckrzouk Tighe & Bond 11:07am By: Ckrzouk Figures AutoCAD Sheet: C-0960-006_C-DTLS.dwg



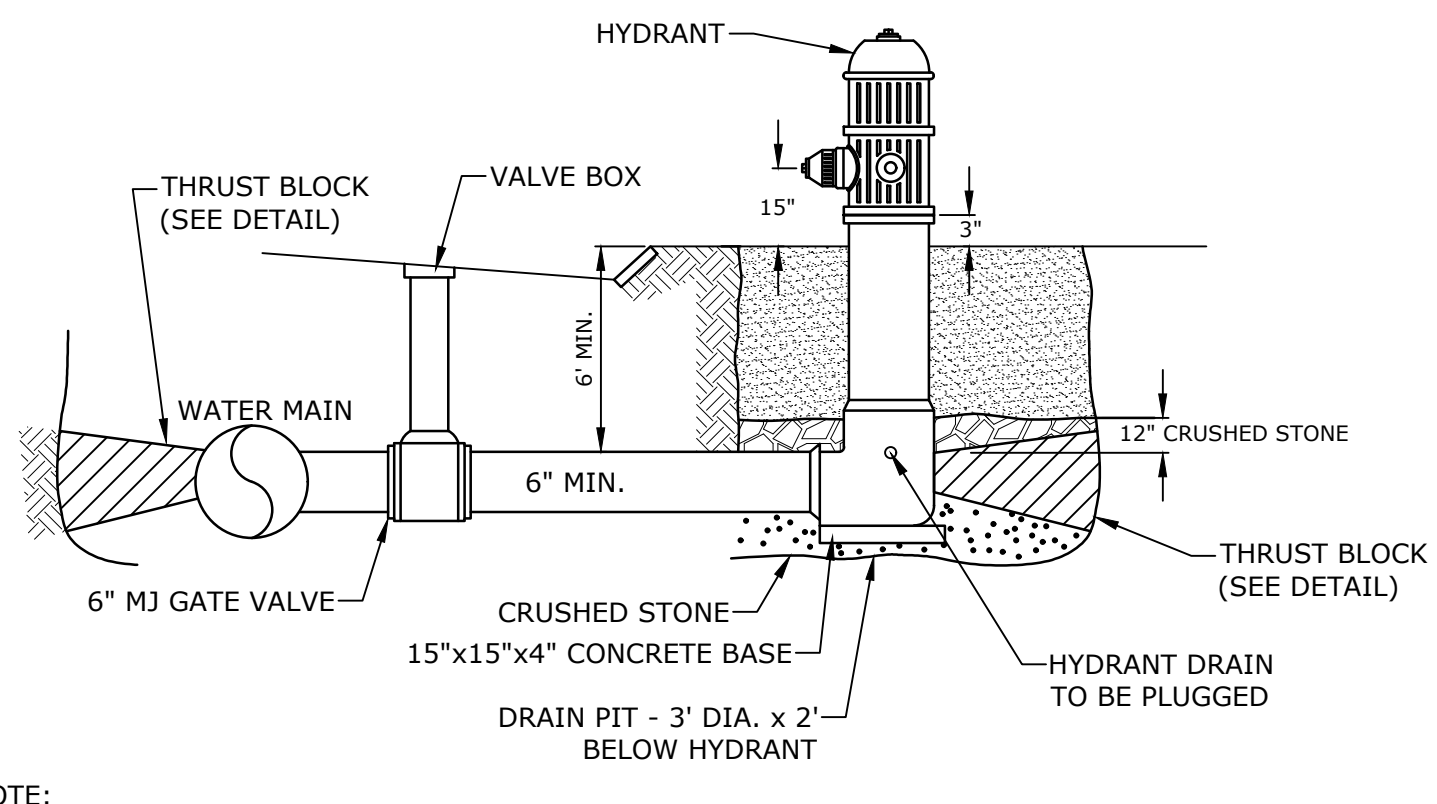
- NOTES:**
1. CONCRETE SHALL BE 4,000 PSI (TYPE II CEMENT)
 2. SEE SITE, GRADING, DRAINAGE, EROSION CONTROL & UTILITIES PLAN FOR LOCATIONS.
 3. THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
 4. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.



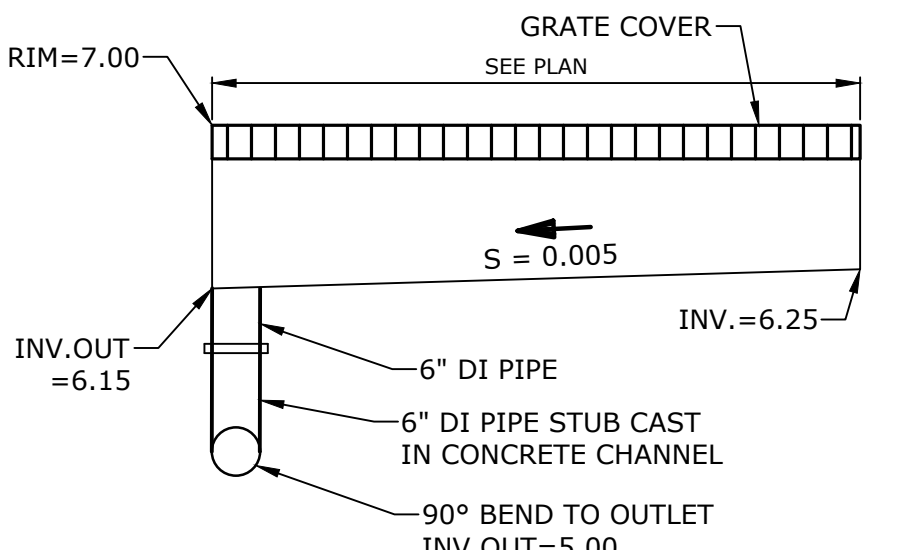
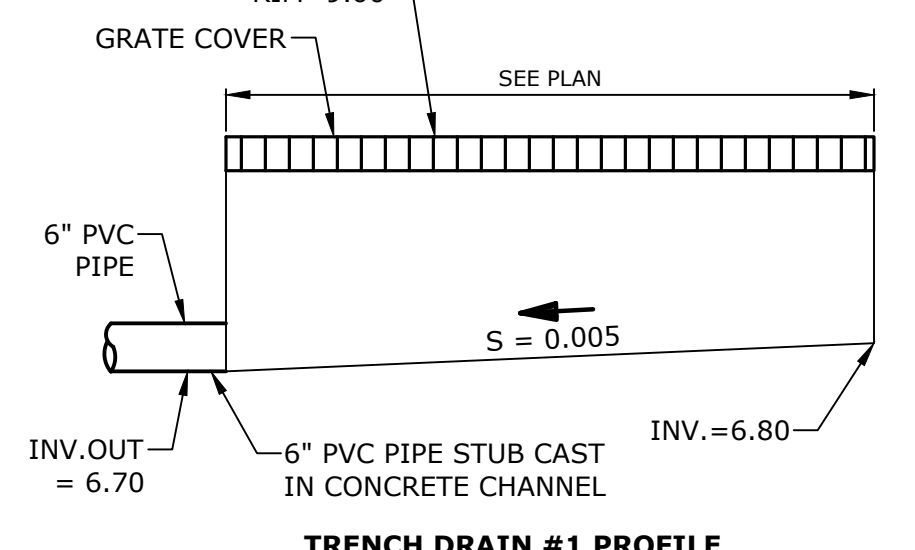
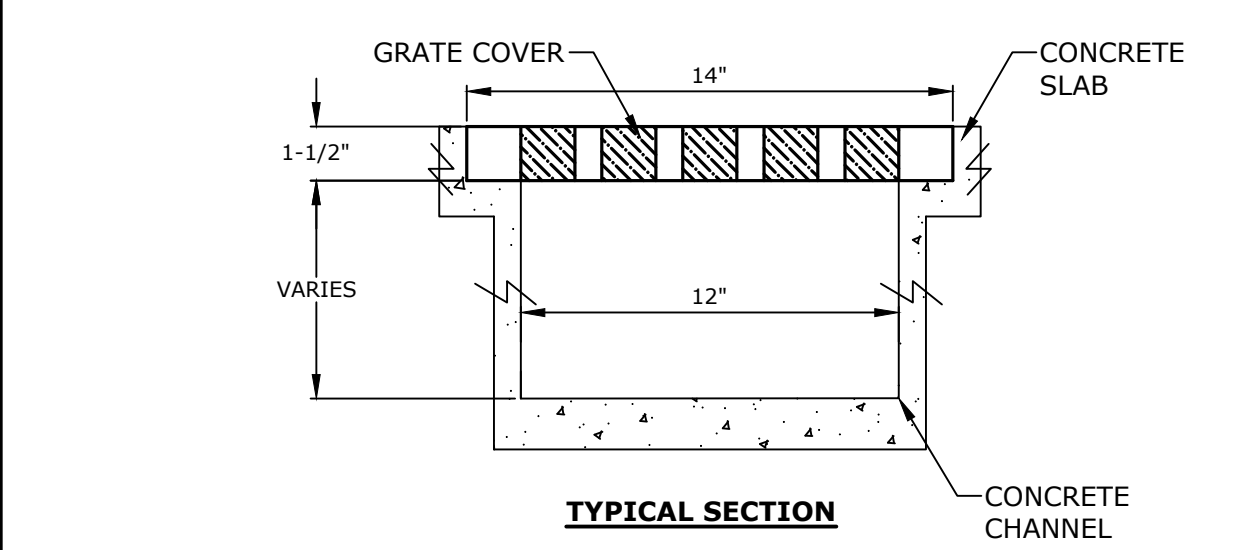
REACTION TYPE	PIPE SIZE				
	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.78	8.38	12.00
C 45°	0.48	1.19	2.12	6.02	9.32
D 22-1/2°	0.25	0.60	1.06	3.08	4.74
E 11-1/4°	0.13	0.30	0.54	1.54	2.38

TEST PRESSURE = 200psi

- NOTES:**
1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
 4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
 5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.

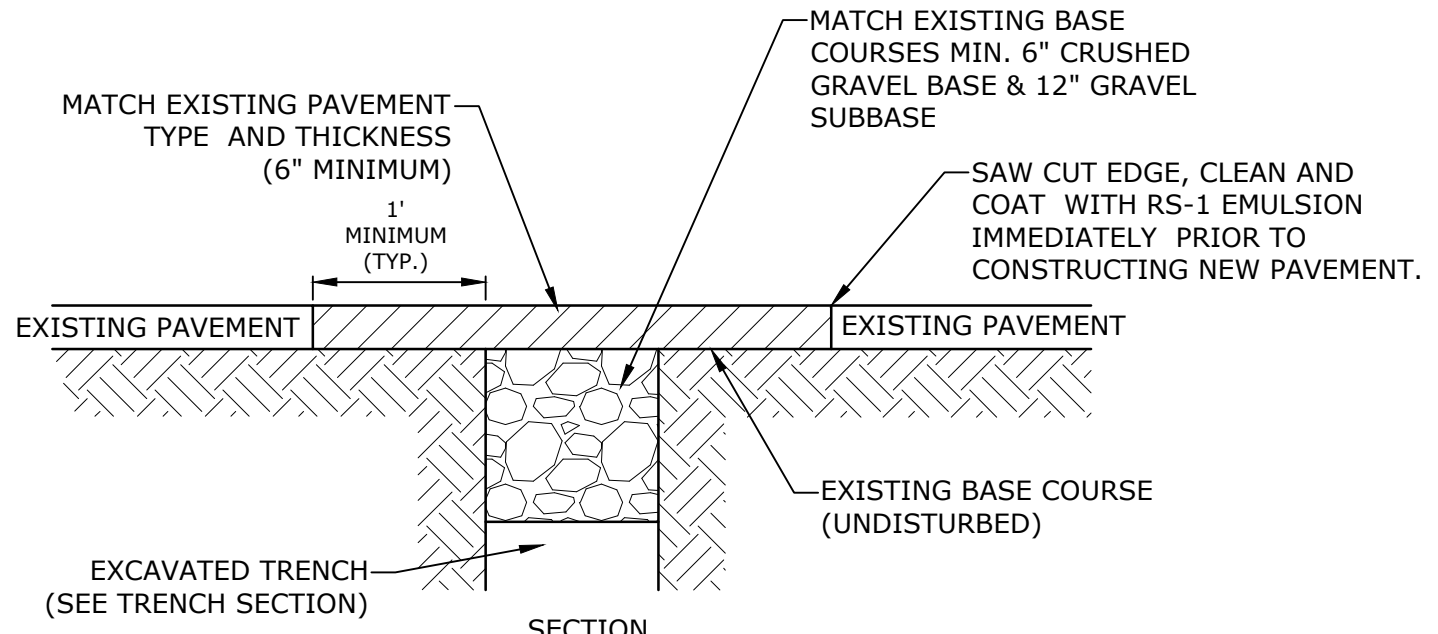


- NOTE:**
1. HYDRANT TO BE KENNEDY TYPE K-81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER DEPARTMENT AND CITY OF PORTSMOUTH FIRE DEPARTMENT.
 2. PAINT HYDRANT IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AFTER INSTALLATION AND TESTING.



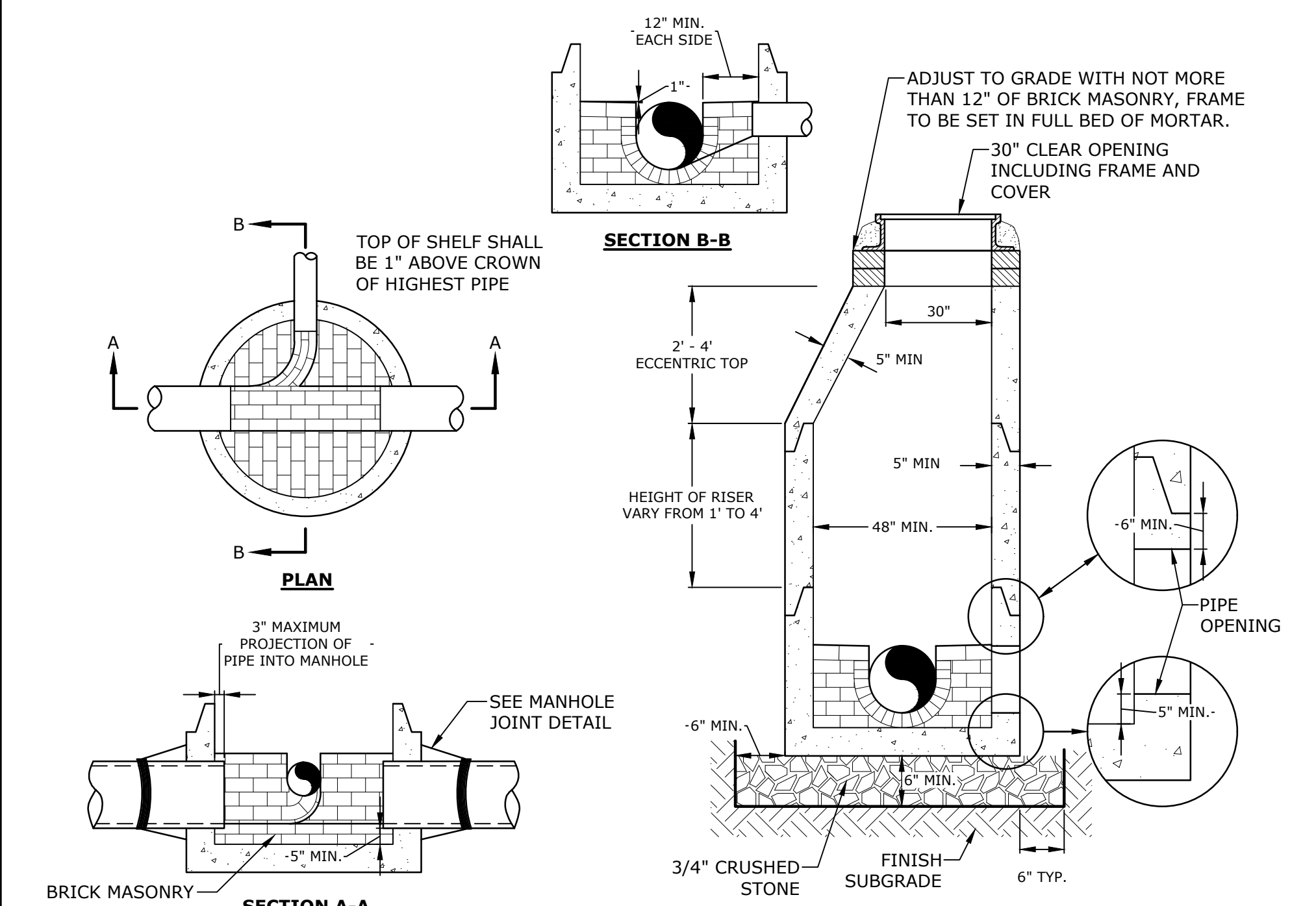
- NOTES:**
1. TRENCH DRAIN FRAME AND GRATE SHALL BE MULTIDRAIN ECONODRAIN SERIES #12 OR EQUAL.

TRENCH DRAIN DETAIL
NO SCALE



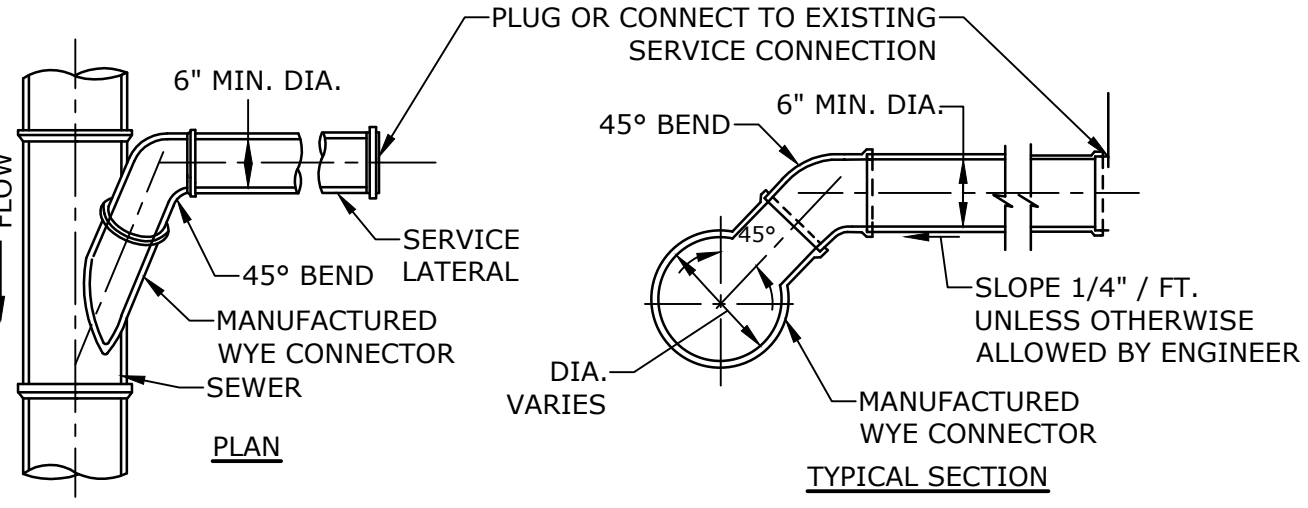
- NOTE:**
- COORDINATE AND OBTAIN APPROVAL FOR ALL TRENCHING AND PATCHING WITHIN CITY RIGHT OF WAY WITH CITY OF PORTSMOUTH DPW PRIOR TO COMMENCING WORK.

ROADWAY TRENCH PATCH
NO SCALE

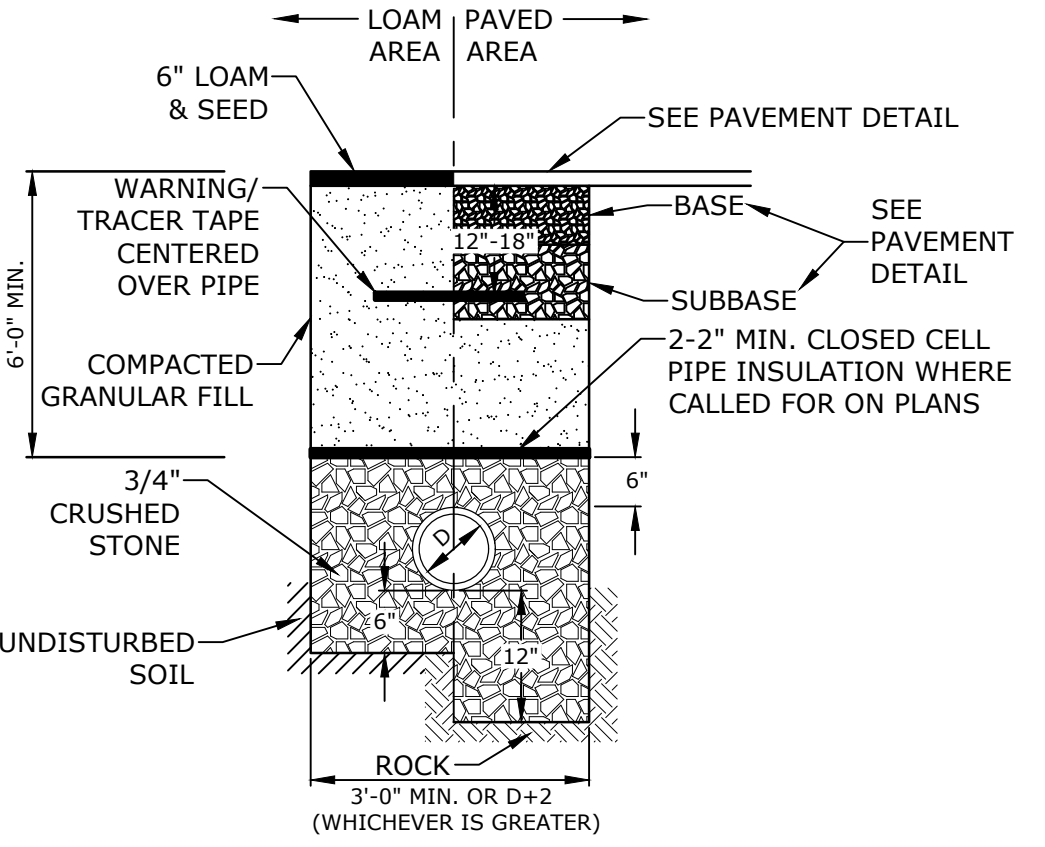


- NOTES:**
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
 2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
 3. INVERT BRICKS SHALL BE LAID ON EDGE.
 4. BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
 5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY E. FRAMES AND COVERS WILL BE PURCHASED FROM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS. ALL OTHER MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
 6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
 7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H2O LOADING, AND CONFORMING TO ASTM C478-06.

SEWER MANHOLE
NO SCALE

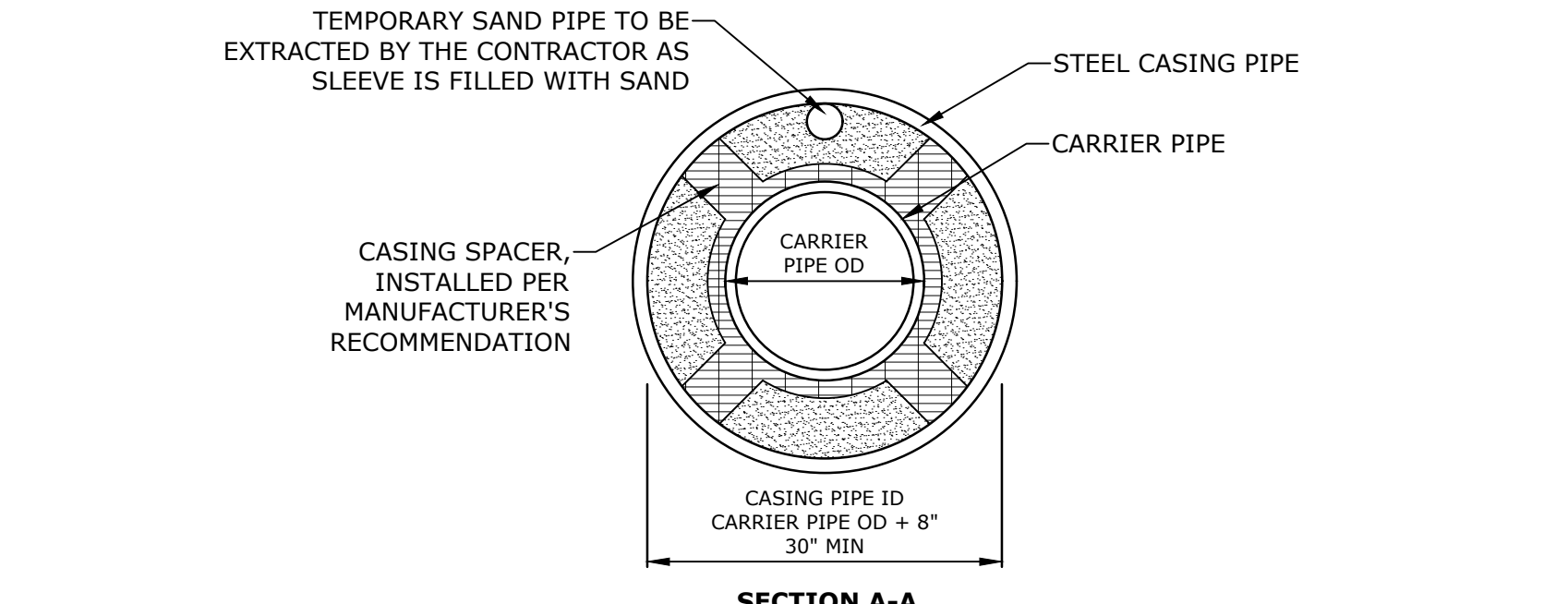
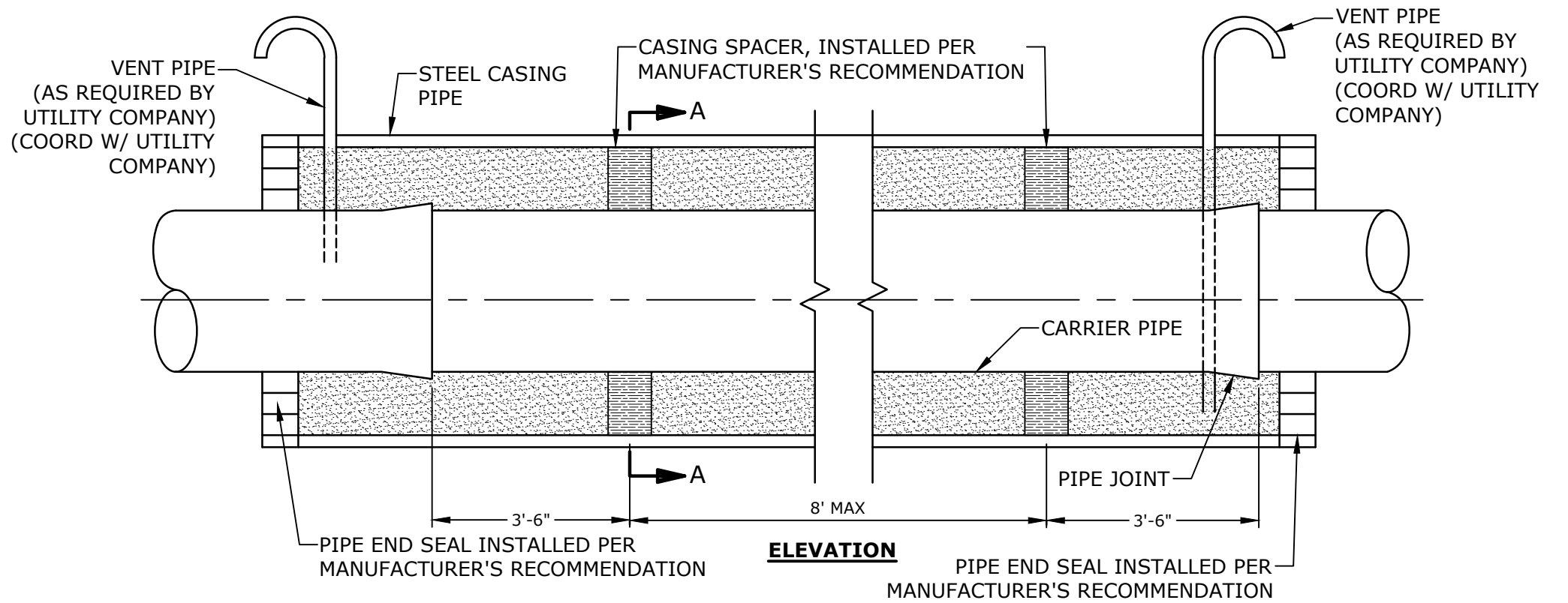


STANDARD SERVICE LATERAL CONNECTION
NO SCALE



- NOTE:**
1. CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK. CRUSHED STONE SHALL ALSO COMPLETELY ENCASE THE PIPE AND COVER THE PIPE TO A GRADE 6" OVER THE TOP OF THE PIPE FOR THE ENTIRE WIDTH OF THE TRENCH.
 2. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

SEWER SERVICE TRENCH
NO SCALE



- NOTES:**
1. SEAL ENDS OF SLEEVE TO PREVENT MIGRATION OF MATERIAL AND WATER THROUGH ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE
 2. STEEL CASING PIPE SHALL MEET COOPERS E-80 RAILROAD LOADING WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI AND SHALL CONFORM TO THE LATEST REVISIONS OF THE REQUIREMENTS OF A.W.A. STANDARDS FOR FABRICATING ELECTRICALLY WELDED STEEL WATER PIPES OR ITS EQUIVALENT.
 3. STEEL CASING PIPE JOINTS SHALL BE FULLY WELDED AROUND THE COMPLETE CIRCUMFERENCE OF THE PIPE.
 4. CONTRACTOR SHALL COORDINATE ALL UTILITY AND CARRIER PIPE WORK WITHIN THE RAIL ROAD RIGHT OF WAY WITH PAN-AM & THE CITY PORTSMOUTH DPW PRIOR TO CONSTRUCTION.

WATER PIPELINE SLEEVE DETAIL (CARRIER PIPE)
NO SCALE

Proposed Multi-Family Development

Iron Horse Properties, LLC

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New Hampshire

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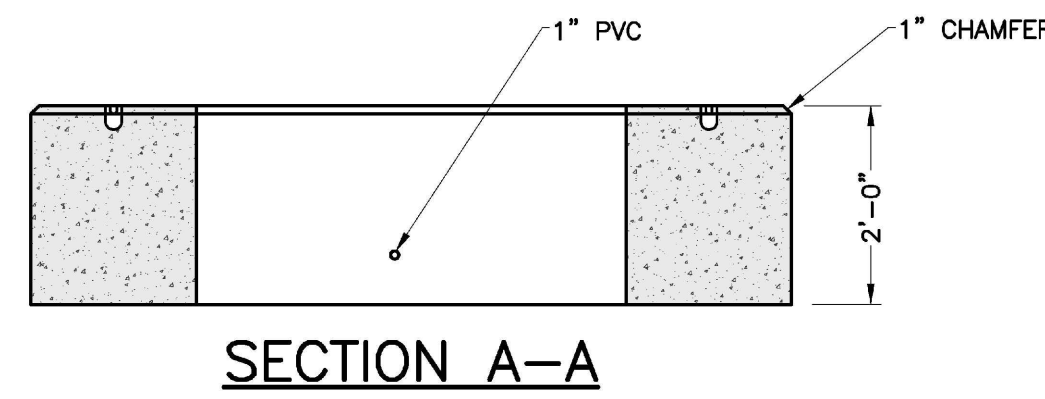
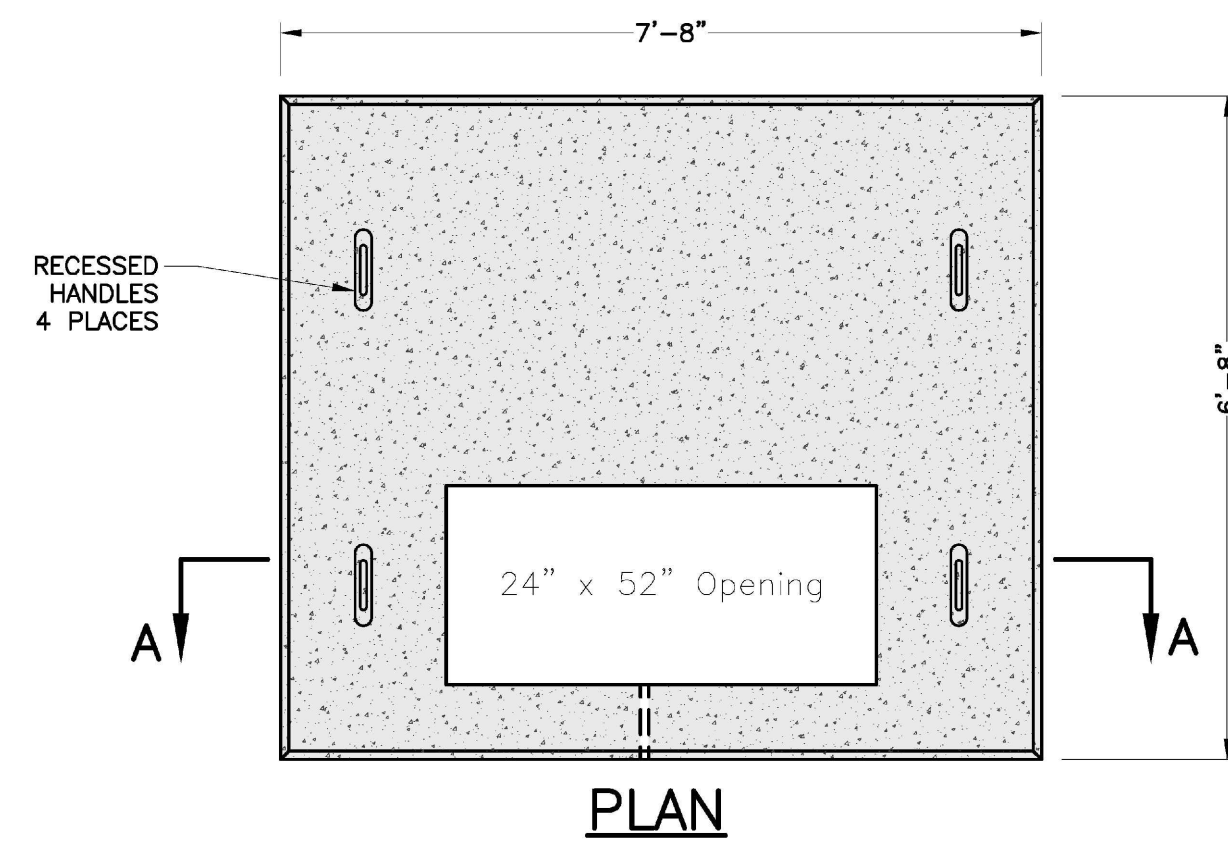
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DATE: April 20, 2020
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DRAWN BY: CLK
CHECKED: NAH
APPROVED: PMC

DETAILS SHEET

SCALE: AS SHOWN

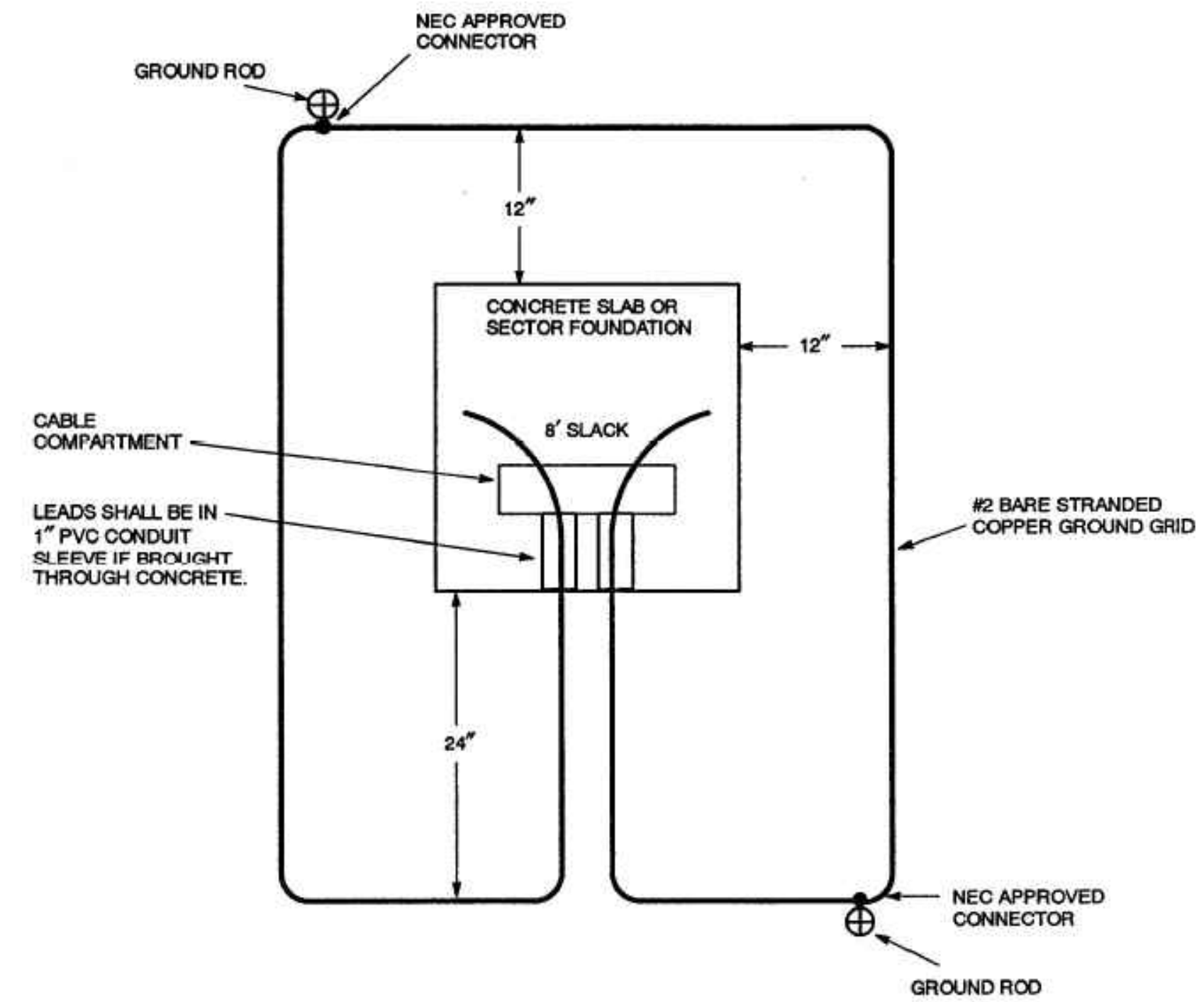
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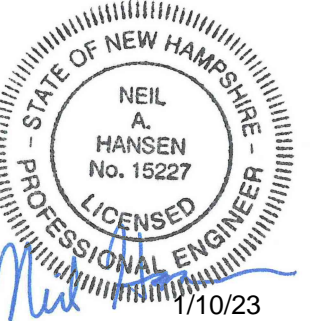
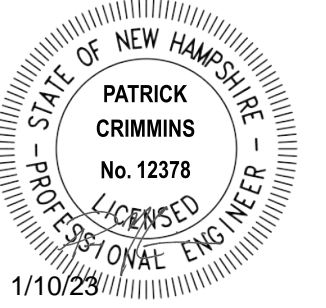
3-PHASE TRANSFORMER PAD
NO SCALE

- NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION.
 2. CONCRETE MINIMUM STRENGTH - 4,000 PSI @ 28 DAYS
 3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
 4. PAD MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS



- NOTES:
- THE GROUND GRID SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AND IS TO BE BURIED AT LEAST 12 INCHES BELOW GRADE. EIGHT FEET OF EXTRA WIRE FOR EACH GROUND GRID LEG SHALL BE LEFT EXPOSED IN THE CABLE COMPARTMENT TO ALLOW FOR THE CONNECTION TO THE TRANSFORMER. THE TWO 8-FOOT GROUND RODS MAY BE EITHER GALVANIZED STEEL OR COPPERWELD AND THEY SHALL BE CONNECTED TO THE GRID WITH NEC APPROVED CONNECTORS.

PAD-MOUNTED EQUIPMENT GROUNDING GRID DETAIL
NO SCALE



Proposed Multi-Family Development

Iron Horse Properties, LLC

105 Bartlett Street
Portsmouth,
New Hampshire

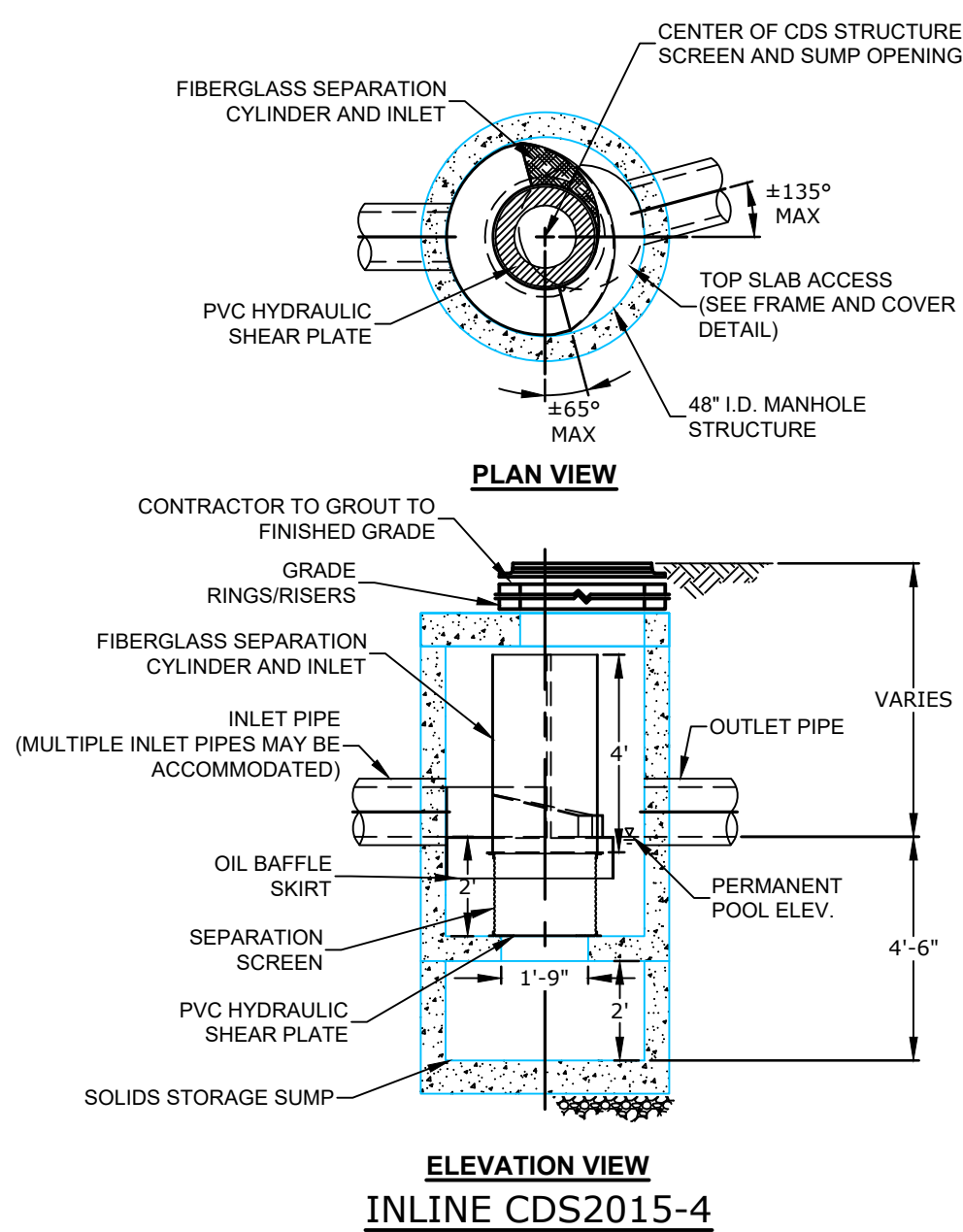
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G	11/18/2020	TAC Resubmission
F	10/28/2020	Wetland CUP Resubmission
E	5/20/2020	TAC Resubmission
D	4/29/2020	Wetland CUP Submission
C	4/20/2020	TAC Submission
B	2/6/2020	Design Review Submission
A	1/2/2020	ZBA Submission

PROJECT NO:	C-0960-006
DATE:	April 20, 2020
FILE:	C-0960-006_C-DTLS.DWG
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

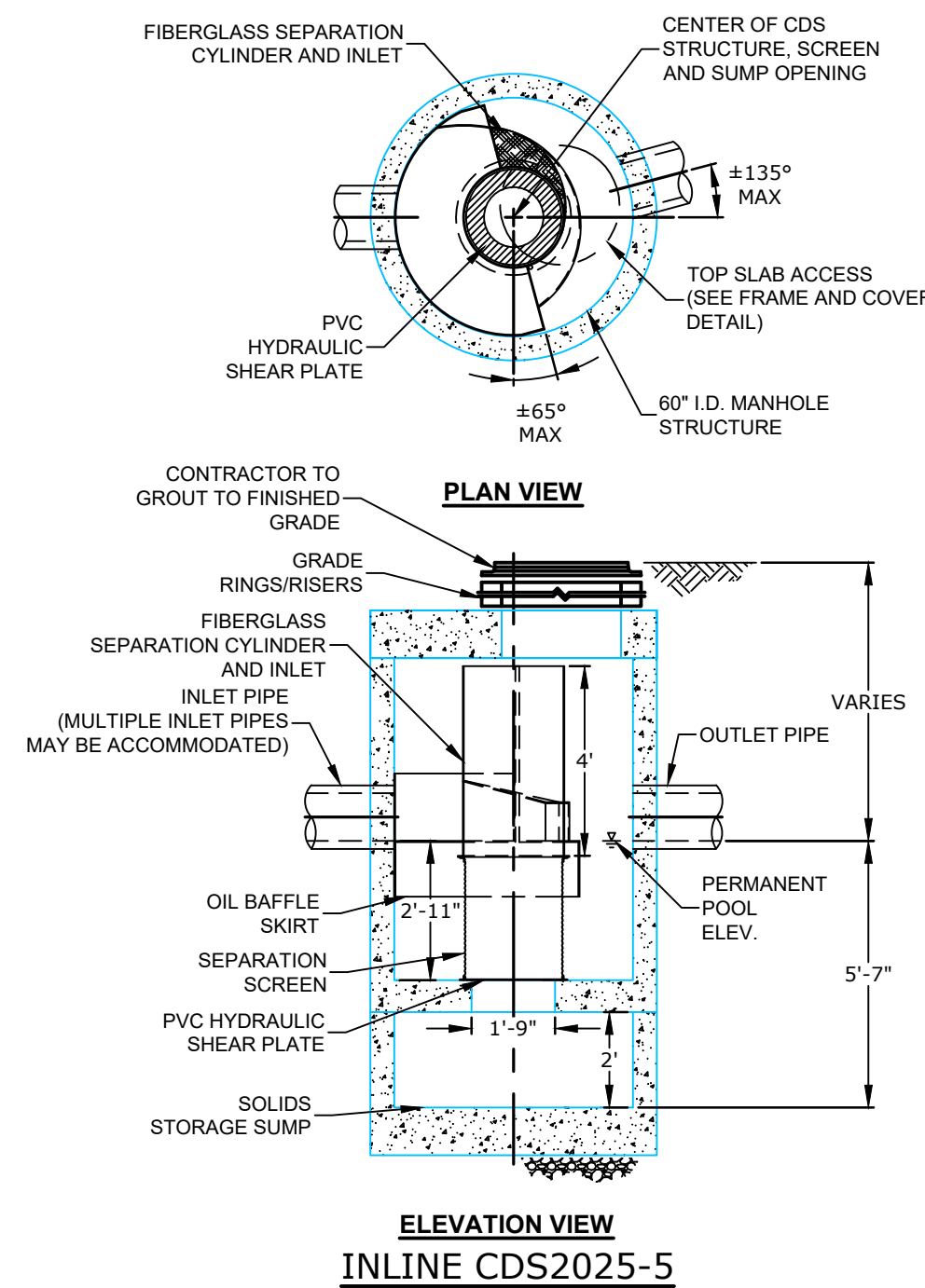
DETAILS SHEET

SCALE: AS SHOWN

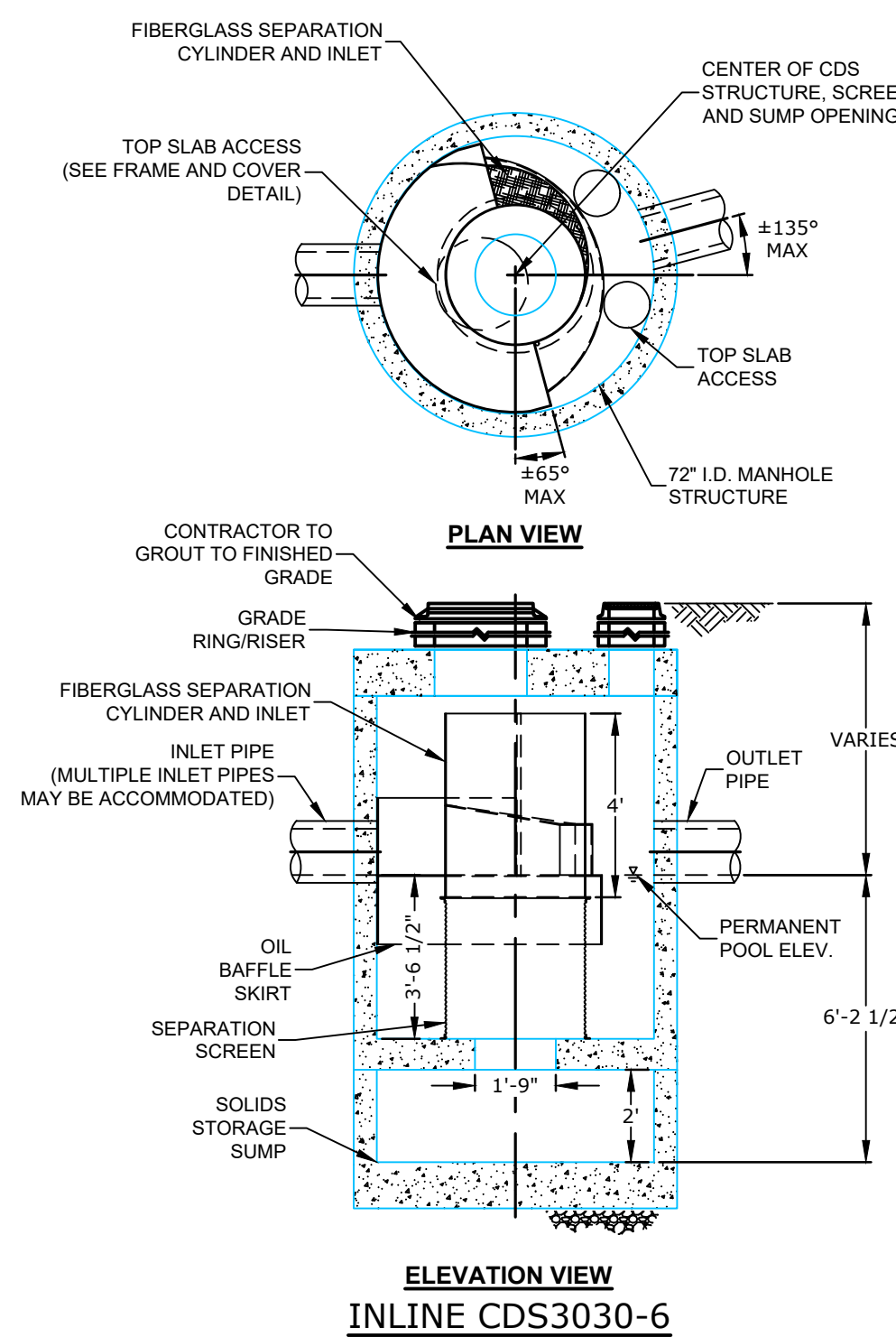
C-509



ELEVATION VIEW
INLINE CDS2015-4



ELEVATION VIEW
INLINE CDS2025-5



ELEVATION VIEW
INLINE CDS3030-6

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID	CDS-1	CDS-2	CDS-3
MODEL SIZE	CDS3030-6	CDS2015-4	CDS2025-5
WATER QUALITY FLOW RATE (cfs)	2.85	0.63	1.48
PEAK FLOW RATE (cfs)	26.54	5.13	8.19
RETURN PERIOD OF PEAK FLOW (yrs)	25	25	25

- GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE.
 4. www.contechES.com
 5. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 6. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
 7. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES:
- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
 - D. CONTRACTOR TO PROVIDE RIFTLINERS AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
 - E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH CDS PRETREATMENT UNITS
NO SCALE

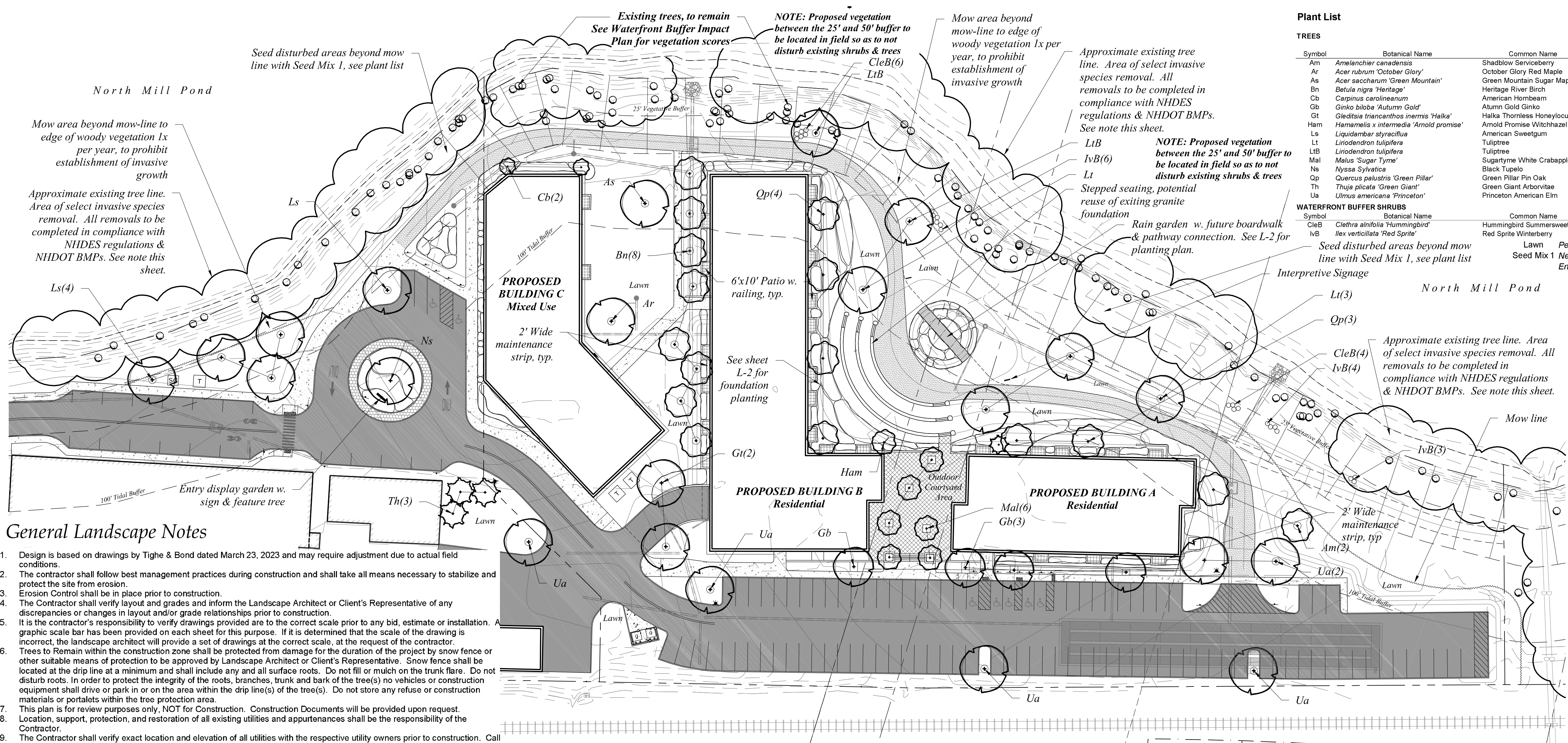
Plant List

TREES

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Am	<i>Amelanchier canadensis</i>	Shadblow Serviceberry	2	2.5-3" Cal	B&B
Ar	<i>Acer rubrum</i> 'October Glory'	October Glory Red Maple	1	2.5-3" Cal	B&B
As	<i>Acer saccharum</i> 'Green Mountain'	Green Mountain Sugar Maple	1	2.5-3" Cal	B&B
Bn	<i>Betula nigra</i> 'Heritage'	Heritage River Birch	8	8-10' Ht	Multi-stem, B&B
Cb	<i>Carpinus carolinianum</i>	American Hornbeam	2	2.5-3" Cal	B&B
Gt	<i>Ginkgo biloba</i> 'Autumn Gold'	Autumn Gold Ginkgo	4	2.5-3" Cal	B&B
Gb	<i>Gleditsia triacanthos inermis</i> 'Halika'	Halika Thornless Honeylocust	2	2.5-3" Cal	B&B
Ham	<i>Hamamelis x intermedia</i> 'Arnold promise'	Arnold Promise Witchhazel	1	8-10' Ht	Multi-stem, B&B
Ls	<i>Liquidambar styraciflua</i>	American Sweetgum	5	2.5-3" Cal	B&B
Ll	<i>Liriodendron tulipifera</i>	Tuliptree	5	2.5-3" Cal	B&B
LtB	<i>Liriodendron tulipifera</i>	Tuliptree	1	3.5" Cal	B&B (5 pts)
Mal	<i>Malus</i> 'Sugar Tyme'	Sugartyme White Crabapple	6	1.5-2" Cal	B&B
Ns	<i>Nyssa sylvatica</i>	Black Tupelo	1	4" Cal	B&B
Qp	<i>Quercus palustris</i> 'Green Pillar'	Green Pillar Pin Oak	7	2.5-3" Cal	B&B
Th	<i>Thuja plicata</i> 'Green Giant'	Green Giant Arborvitae	3	2.5-3" Cal	B&B
Ua	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	6	2.5-3" Cal	B&B

WATERFRONT BUFFER SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
CleB	<i>Clethra alnifolia</i> 'Hummingbird'	Hummingbird Summersweet	10	10 gal	(1.75 pts)
lVB	<i>Ilex verticillata</i> 'Red Sprite'	Red Sprite Winterberry	13	3-4"	(1.75 pts)
		Lawn			Pennintion Smartseed Tall Fescue Blend
		Seed Mix 1			New England Wetland Plants, Inc. New England Conservation/Wildlife Mix



General Landscape Notes

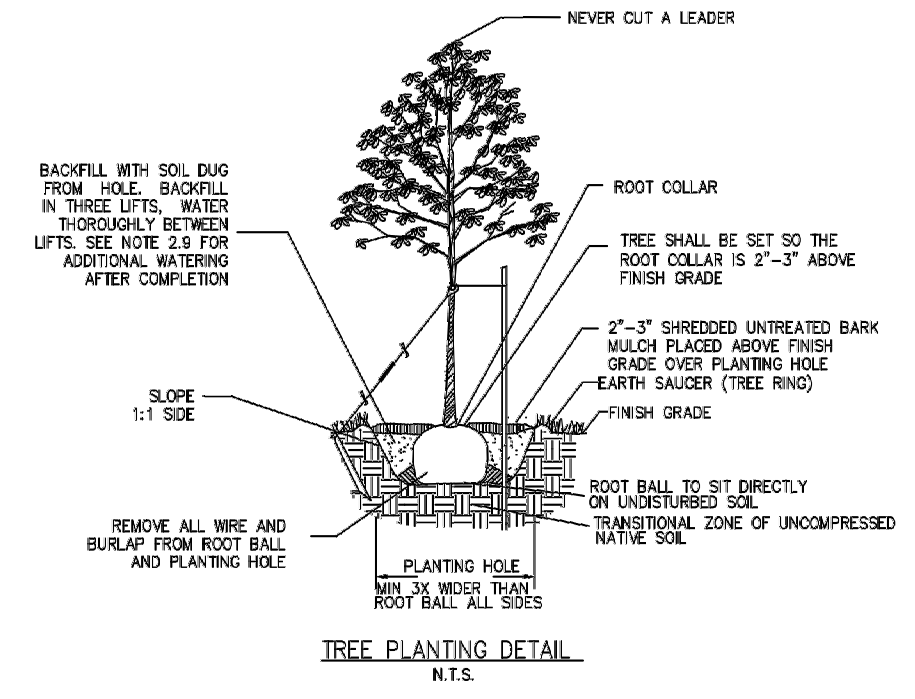
- Design is based on drawings by Tighe & Bond dated March 23, 2023 and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
- This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly tagged with proper botanical name.
- The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
 - Outside hose attachments spaced a maximum of 150 feet apart, and
 - An underground irrigation system, or
 - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the contractor.

City of Portsmouth Landscape Notes

- The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials.
- All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required fences and walls shall be maintained in good repair.
- The property owner shall be responsible to remove and replace dead or diseased plant materials immediately with the same type, size and quantity of plant materials as originally installed, unless alternative plantings are requested, justified and approved by the Planning Board or Planning Director.

INVASIVES REMOVAL AND DISTURBANCES WITHIN THE BUFFER ZONE

With the exception of the Norway Maples in the 25' vegetated buffer, which are to remain, invasive species within the 100' shoreland setback will be removed. Invasive species within the 25' vegetated buffer will be flagged in field by the landscape architect or certified arborist to be removed. Invasive shrubs within the 25' vegetated buffer with caliper measuring greater than 3" such as Buckthorn and Autumn Olive will be flush cut repeatedly to kill the plant, leaving the stumps in place. Woody invasives smaller than 3" caliper shall be removed with hand tools. Areas of soil disturbance from such removals will be limited to the immediate root area surrounding each plant, dressed with loam, replanted with New England Wildlife and Conservation Seed Mix and stabilized with jute mesh staked in place. All other areas disturbed by headwalls and culverts shall be loamed, seeded with New England Wildlife and Conservation Seed Mix and stabilized with jute mesh.



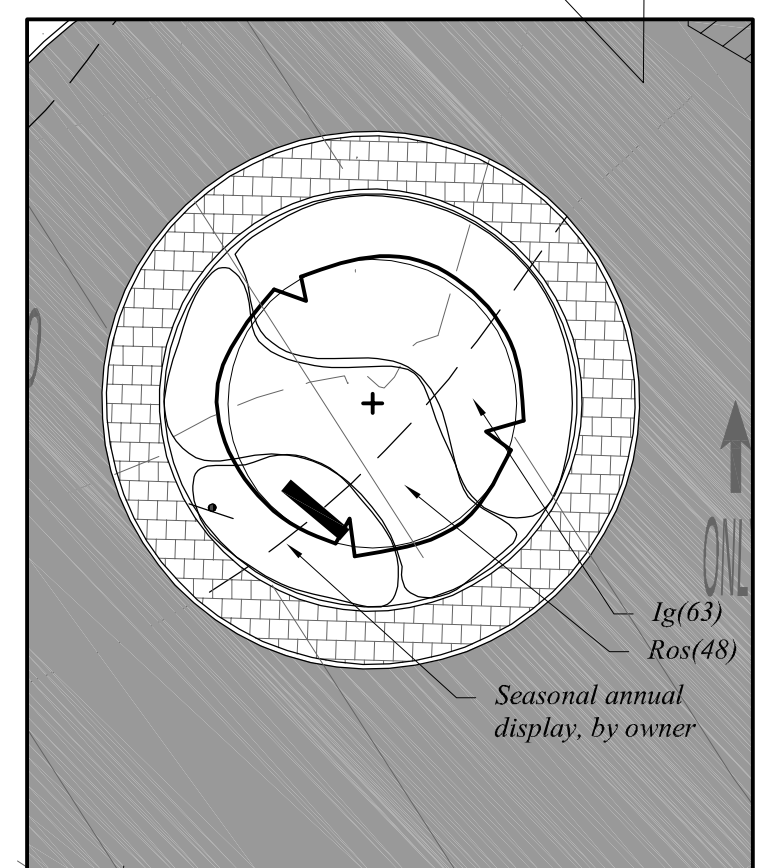
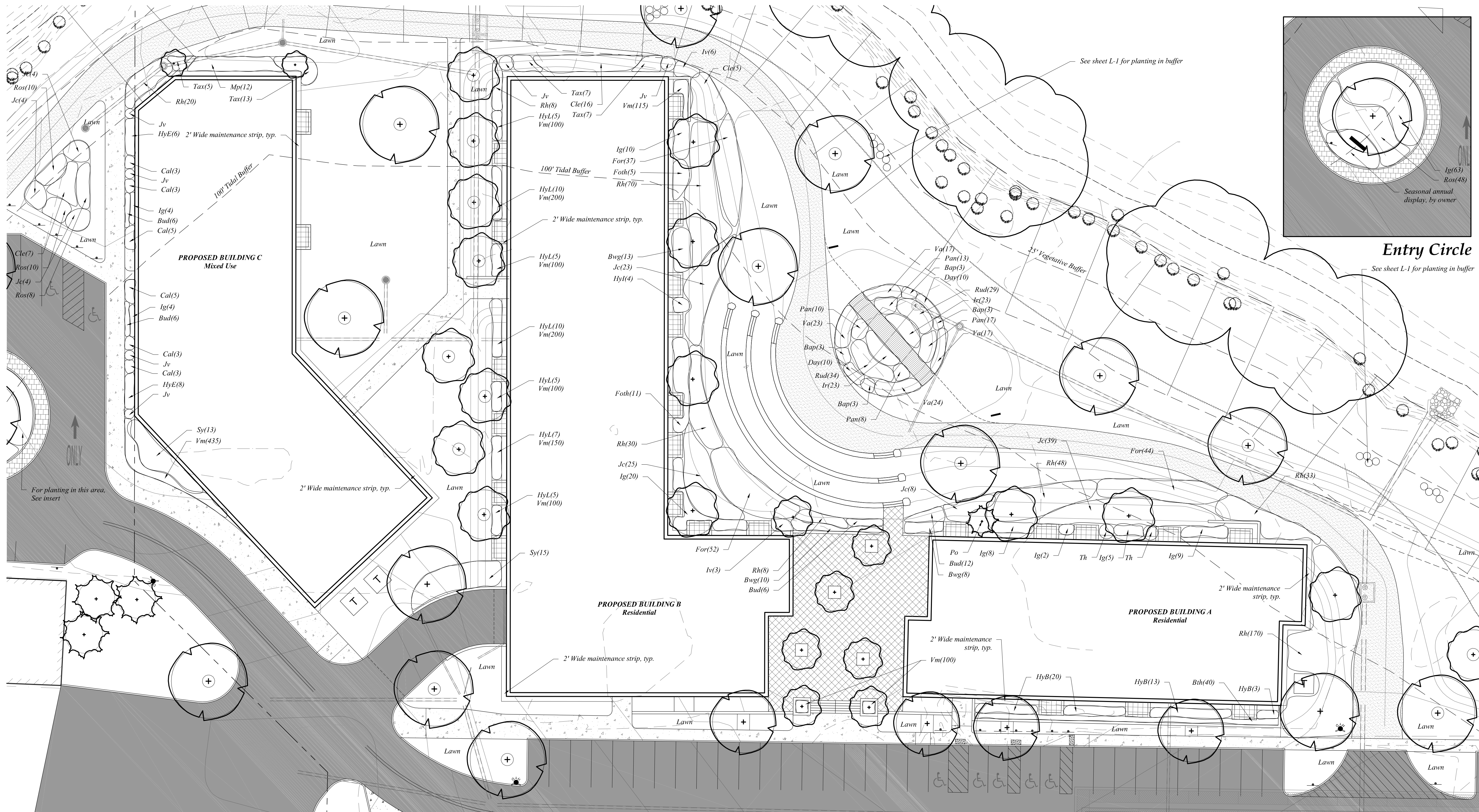
City of Portsmouth Tree Planting Detail

PART 1 - GENERAL

1.1 THE BASIS OF THE CITY OF PORTSMOUTH TREE PLANTING REQUIREMENTS IS THE ANS1 A300 PART 8 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTING. ANS1 A300 PART 8 LAYS OUT TERMS AND BASIC STANDARDS AS SET FORTH BY INDUSTRY BUT IT IS NOT THE "END ALL" FOR THE CITY OF PORTSMOUTH. THE FOLLOWING ARE THE CITY OF PORTSMOUTH, NH TREE PLANTING REQUIREMENTS THAT ARE IN ADDITION TO OR THAT GO BEYOND THE ANS1 A300 PART 6.

PART 2 - EXECUTION

- ALL PLANTING HOLES SHALL BE DUG BY HAND - NO MACHINES. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE NEW PLANTING PITS, PLANTING BEDS WITH GRANITE CURBING, AND PLANTING SITES WITH SILVA CELLS ARE BEING CREATED. IF A MACHINE IS USED TO DIG IN ANY OF THESE SITUATIONS AND PLANTING DEPTH NEEDS TO BE RAISED THE MATERIAL IN THE BOTTOM OF THE PLANTING HOLE MUST BE FIRMED WITH MACHINE TO PREVENT SINKING OF THE ROOT BALL.
- ALL WIRE AND BURLAP SHALL BE REMOVED FROM THE ROOT BALL AND PLANTING HOLE.
- THE ROOT BALL OF THE TREE SHALL BE WORKED SO THAT THE ROOT COLLAR OF THE TREE IS VISIBLE AND NO GRIDLING ROOTS ARE PRESENT.
- THE ROOT COLLAR OF THE TREE SHALL BE 2"-3" ABOVE GRADE OF PLANTING HOLE FOR FINISHING DEPTH.
- ALL PLANTINGS SHALL BE BACKFILLED WITH SOIL FROM THE SITE AND AMENDED NO MORE THAN 20% WITH ORGANIC COMPOST. THE ONLY EXCEPTIONS ARE NEW CONSTRUCTION WHERE ENGINEERED SOIL IS BEING USED IN CONJUNCTION WITH SILVA CELLS AND WHERE NEW PLANTING BEDS ARE BEING CREATED.
- ALL PLANTINGS SHALL BE BACKFILLED IN THREE LIFTS AND ALL LIFTS SHALL BE WATERED SO THE PLANTING WILL BE SET AND FREE OF AIR POCKETS - NO EXCEPTIONS.
- AN EARTH BEEM SHALL BE PLACED AROUND THE PERIMETER OF THE PLANTING HOLE EXCEPT WHERE CURBED PLANTING BEDS OR PITS ARE BEING USED.
- 2"-3" OF MULCH SHALL BE PLACED OVER THE PLANTING AREA.
- AT THE TIME OF PLANTING IS COMPLETE THE PLANTING SHALL RECEIVE ADDITIONAL WATER TO ENSURE COMPLETE HYDRATION OF THE ROOTS, BACKFILL MATERIAL AND MULCH LAYER.
- STAKES AND GUY Wires SHALL BE USED WHERE APPROPRIATE AND/OR NECESSARY. GUY MATERIAL SHALL BE NON-DAMAGING TO THE TREE.
- ALL PLANTING STOCK SHALL BE SPECIMEN QUALITY, FREE OF DEFECTS, AND DISEASE OR INJURY. THE CITY OF PORTSMOUTH, NH RESERVES THE RIGHT TO REFUSE/REJECT ANY PLANT MATERIAL OR PLANTING ACTION THAT FAILS TO MEET THE STANDARDS SET FORTH IN THE ANS1 A300 PART 6 STANDARD PRACTICES FOR PLANTING AND TRANSPLANTATION AND/OR THE CITY OF PORTSMOUTH, NH PLANTING REQUIREMENTS.



Proposed Multi-Family Development
FOUNDATION PLANTING PLAN
 105 Bartlett Street, Portsmouth, New Hampshire

NOTE: For tree planting plan, see L-1

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Bth	Buxus 'Tide Hill'	Tide Hill Boxwood	40	2' Ht	
Bud	Buddleia 'Lo and Behold'	Lo and Behold Butterflybush	30	3 gal	B&B
Bvg	Buxus 'Winter Gem'	Winter Gem Boxwood	31	2' Ht	B&B
Cle	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	28	5 gal	
CleB	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	9	10 gal	(1.75 pts)
For	Forsythia 'Gold Tide'	Gold Tide Forsythia	177	3 gal	
Foth	Fothergilla gardenii	Dwarf Fothergilla	16	5 gal	
HyB	Hydrangea paniculata 'Bobo'	Bobo Hydrangea	36	3 gal	
HyE	Hydrangea macrophylla 'Endless Summer'	Endless Summer Hydrangea	14	5 gal	
Hyl	Hydrangea arborescens 'Incrediball'	Incrediball Hydrangea	4	5 gal	
HylL	Hydrangea paniculata 'Little Lime'	Little Lime Hydrangea	47	3 gal	
Ig	Ilex glabra 'Shamrock'	Shamrock Inkberry	125	5 gal	full to ground
Iv	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	9	3 gal	
IvB	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	9	3-4'	B&B (1.75 pts)
Jc	Juniperus chinensis 'Sargentii'	Sargent Juniper	107	5 gal	
Jv	Juniperus virginiana 'Emerald Sentinel'	Emerald Sentinel Red Cedar	6	7-8' Ht	B&B
Mp	Myrica pensylvanica	Northern Bayberry	12	5 gal	
Po	Picea orientalis 'Gowdy'	Gowdy Oriental Spruce	1	8-10' Ht	B&B
Rh	Rhus aromatica 'Grow-Low'	Grow Low Sumac	387	3 gal	
Ros	Rosa 'Blush Knockout'	Blush Knockout Rose	76	3 gal	
Sy	Syringa meyeri 'Palibin'	Dwarf Korean Lilac	28	3-4' Ht	B&B
Tax	Taxus media 'Ever-Low'	Ever-Low Yew	32	3 gal	
Th	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	2	7-8' Ht	B&B

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Bap	Baptisia australis	False Blue Indigo	12	1 gal	
Cal	Calamagrostis acutifolia 'Karl Foerster'	Feather Reed Grass	22	1 gal	
Day	Hemerocallis 'Big Time Happy'	Big Time Happy Daylily	20	1 gal	
Ir	Iris versicolor	Blue Flag Iris	46	1 gal	
Pan	Panicum virgatum 'Heavy Metal'	Heavy Metal Switch Grass	48	1 gal	
Rud	Rudbeckia fulgida 'Goldsturm'	Black-Eyed Susan	63	1 gal	
Vm	Vinca minor 'Bowles'	Bowles Periwinkle	1600	2.5" pots	



Drawn By: VM
 Checked By: RW
 Scale: 1" = 20' - 0"
 Date: November 4, 2020
 Revisions:
 November 18, 2020
 January 20, 2021
 January 9, 2023
 NHDES Wetland & Shoreland Submission
 March 28, 2023