

CITY OF PORTSMOUTH

FEBRUARY 2021

New Hampshire Department of Environmental Services
Wetland Permit Application

Sagamore Avenue Sewer Extension

Portsmouth, NH

February 12, 2021
W-P Project No. 11304C

Stefanie Giallongo
Wetlands Bureau, Land Resources Management
Water Division, NHDES
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

Subject: NHDES Wetlands Permit Application
Sagamore Sewer Extension
City of Portsmouth, NH

Dear Ms. Giallongo,

On behalf of the City of Portsmouth, please find enclosed a Wetlands Permit Application and attachments related to proposed impact to jurisdictional areas necessary for extension of municipal sewer to a portion of Sagamore Avenue and the surrounding area. Completion of this project is required by a Consent Decree with US Environmental Protection Agency and New Hampshire Department of Environmental Services.

It has been a pleasure to coordinate with you on this project to date. Please feel free to contact me if you have any questions or need any additional information during your review.

Sincerely,
WRIGHT-PIERCE



Britt Eckstrom, PE
Project Engineer
Britt.eckstrom@wright-pierce.com

Enclosures

cc: Terry Desmarais, Zach Cronin – City of Portsmouth, NH DPW

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

WETLAND PERMIT APPLICATION

Sagamore Avenue Sewer Extension

Portsmouth, NH

FEBRUARY 2021

PREPARED FOR:

CITY OF PORTSMOUTH
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801

PREPARED BY:

WRIGHT-PIERCE
230 Commerce Way, Suite 302
Portsmouth, NH 03801
Phone: 603.430.3728 | Fax:
603.430.4083

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Application and Fee



**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: City of Portsmouth

TOWN NAME: Portsmouth

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

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))	
Please use the Wetland Permit Planning Tool (WPPT) , the Natural Heritage Bureau (NHB) DataCheck Tool , the Aquatic Restoration Mapper , or other sources to assist in identifying key features such as: priority resource areas (PRAs) , protected species or habitats , coastal areas, designated rivers, or designated prime wetlands.	
Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • 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. • Protected species or habitat? <ul style="list-style-type: none"> ○ If yes, species or habitat name(s): <input type="text"/> ○ NHB Project ID #: <input type="text"/> • Bog? • Floodplain wetland contiguous to a tier 3 or higher watercourse? • Designated prime wetland or duly-established 100-foot buffer? • Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> • Name of Local River Management Advisory Committee (LAC): <input type="text"/> • A copy of the application was sent to the LAC on Month: <input type="text"/> Day: <input type="text"/> Year: <input type="text"/> 	

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

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

www.des.nh.gov

For dredging projects, is the subject property contaminated? • If yes, list contaminant: [REDACTED]	<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 checked="" type="checkbox"/> No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	
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.	
<p>The City of Portsmouth intends to extend public sewer services to Sagamore Avenue, Sagamore Grove, Wentworth House Road, Shaw Road, Walker Bungalow Road, and Cliff Road. In 2016, the United States Environmental Protection Agency (EPA) and NHDES updated a Consent Decree to the City requiring construction of the new sewer extension. The City has recently requested and extension to the project date to begin no later than June 2021 and be substantially completed on or before December 2022. It is anticipated that construction will begin in the spring of 2021.</p> <p>Sagamore Creek, a tidal estuary within the Great Bay watershed, is surrounded by residential neighborhoods with some commercial properties. Many of these residences have aging and/or failing septic systems, which contribute to the impaired water quality in the Little Harbor.</p> <p>The proposed project includes installation of low pressure sewer mains within the roadway rights of way and installation of sewer services connecting the existing residences and commercial buildings to the new sewer system. A grinder pump will be installed adjacent to each building if the owner elects to connect to the system.</p> <p>The proposed impact area for the low-pressure sewer system and service connections includes 17,980 SF of temporary impact to the previously disturbed tidal buffer zone for trench work to install sewer and test pits to locate existing utilities. 56 SF of permanent impact will occur where grinder pump station covers are proposed within the TBZ.</p>	
SECTION 3 - PROJECT LOCATION	
Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.	
ADDRESS: Sagamore Ave, Sagamore Grove, Wentworth House Road, Cliff Road, Walker Bungalow Road, and Shaw Road	
TOWN/CITY: Portsmouth	
TAX MAP/BLOCK/LOT/UNIT: Multiple	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Sagamore Creek <input type="checkbox"/> N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): [REDACTED] ° North [REDACTED] ° 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: City of Portsmouth (Terry Desmarais, PE - City Engineer)		
MAILING ADDRESS: 680 Peaverly Hill Road		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: tldesmarais@cityofportsmouth.com		
FAX: [REDACTED]	PHONE: 603-427-1530	
ELECTRONIC COMMUNICATION: By initialing here: [REDACTED], 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.: Eckstrom, Britt - PE		
COMPANY NAME: Wright-Pierce		
MAILING ADDRESS: 230 Commerce Way - Suite 302		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: britt.eckstrom@wright-pierce.com		
FAX: 603-427-1539	PHONE: 603-570-7126	
ELECTRONIC COMMUNICATION: By initialing here [REDACTED], 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 Section 7 (attached)		
MAILING ADDRESS: [REDACTED]		
TOWN/CITY: [REDACTED]	STATE: [REDACTED]	ZIP CODE: [REDACTED]
EMAIL ADDRESS: [REDACTED]		
FAX: [REDACTED]	PHONE: [REDACTED]	
ELECTRONIC COMMUNICATION: By initialing here [REDACTED], 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):

The wetland impacts that occur due to the proposed project are located entirely in a previously developed Tidal Buffer Zone (TBZ). The proposed impacts will be for trench installation of a new sewer system. The majority of impacts will be temporary. Impacted areas will be restored to match existing ground cover condition (pavement, lawn, or landscaping). Standard erosion control practices will be used through construction to prevent impacts to Sagamore Creek and non-tidal wetlands. The TBZ was offset 100'. The proposed project will not permanently impact the ability for of the buffer area to provide habitat value and provide stability of the coastal shoreline. The proposed project will reduce the potential for pollution into Sagamore Creek by allowing property owners to connect to a City sewer service and eliminate the potential for pollution associated with their failed and underperforming septic systems. The proposed project does not include any impacts to non-tidal wetlands.

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			<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			<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	56		<input type="checkbox"/>	17,980		<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
TOTAL							

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):	18,036 SF	× \$0.40 =	\$ 7214.40
Seasonal docking structure:	SF	× \$2.00 =	\$
Permanent docking structure:	SF	× \$4.00 =	\$
Projects proposing shoreline structures (including docks) add \$400 =			\$
Total =			\$ 7214.40

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

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

www.des.nh.gov

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

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: <div style="border: 1px solid black; width: 20px; height: 15px; margin: 2px;"></div> TD PE	To the best of the signer's knowledge and belief, all required notifications have been provided.
--	--

Initials: <div style="border: 1px solid black; width: 20px; height: 15px; margin: 2px;"></div> TD PE	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: <div style="border: 1px solid black; width: 20px; height: 15px; margin: 2px;"></div> TD PE	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.
--	--

Initials: <div style="border: 1px solid black; width: 20px; height: 15px; margin: 2px;"></div> TD PE	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.
--	---

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

SIGNATURE (OWNER):	PRINT NAME LEGIBLY: Terry Desmarais, City Engineer	DATE: 2/12/21
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY: Britt Eckstrom	DATE: 2.11.2021

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: <u>PORTSMOUTH</u>	DATE: <u>2-12-2021</u>
------------------------------	------------------------

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".

VENDOR 28555 TREASURER STATE OF NH

ACCOUNT	PURCH. ORDER	INVOICE NUMBER	AMOUNT	DESCRIPTION
3112093000100001 073092		020921	7,214.40	SAGAMORE AVE. WETLAND
			*****7,214.40*	

THE FACE OF THIS CHECK IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK



**CITY OF PORTSMOUTH
NEW HAMPSHIRE
ACCOUNTS PAYABLE**

CITIZENS BANK
NEW HAMPSHIRE

54-153
114

CHECK DATE
02/12/21

CHECK NO.
199274

AMOUNT
\$*****7,214.40*

PAY THE SUM OF ***7214* DOLLARS AND *40* CENTS**

TO THE ORDER OF
TREASURER STATE OF NH
ENVIRONMENTAL SERVICES PO BOX 95
29 HAZEN DRIVE
CONCORD NH 03302

Justin Balogh
AUTHORIZED SIGNATURE

Void after 180 Days

⑈ 199274⑈ ⑆ 01401533⑆ 3303010600⑈



2

US Army Corps of Engineers



**US Army Corps
of Engineers**®
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	
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?	N/A	
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	
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?	N/A	
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**	X	

*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.

National Flood Hazard Layer FIRMMette



70°45'11"W 43°3'31"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- | | | |
|------------------------------------|--|--|
| SPECIAL FLOOD HAZARD AREAS | | Without Base Flood Elevation (BFE)
<i>Zone A, V, A99</i> |
| | | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> |
| | | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
| | | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i> |
| | | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i> |
| | | Area with Flood Risk due to Levee <i>Zone D</i> |
| OTHER AREAS | | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i> |
| | | Effective LOMRs |
| | | Area of Undetermined Flood Hazard <i>Zone D</i> |
| GENERAL STRUCTURES | | Channel, Culvert, or Storm Sewer |
| | | Levee, Dike, or Floodwall |
| OTHER FEATURES | | 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation |
| | | Coastal Transect |
| | | Base Flood Elevation Line (BFE) |
| | | Limit of Study |
| | | Jurisdiction Boundary |
| | | Coastal Transect Baseline |
| | | Profile Baseline |
| | | Hydrographic Feature |
| MAP PANELS | | Digital Data Available |
| | | No Digital Data Available |
| | | Unmapped |
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/18/2021 at 10:18 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

70°44'33"W 43°3'5"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

RECEIVED
MAR 28 2019

DHR Use Only	
R&C #	10590
Log In Date	___/___/___
Response Date	___/___/___
Sent Date	___/___/___

Request for Project Review by the New Hampshire Division of Historical Resources

- This is a new submittal
 This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title Sagamore Avenue Sewer Extension Project

Project Location Sagamore Avenue and Walker Bungalow Road

City/Town Portsmouth Tax Map 201, 223 Lot # Multiple

NH State Plane - Feet Geographic Coordinates: Easting 1229430.092086 Northing 203591.306926
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable)
(Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference #

State Agency and Contact (if applicable) NH Dept of Environmental Services Wastewater Bureau

Permit Type and Permit or Job Reference # TBD

APPLICANT INFORMATION

Applicant Name City of Portsmouth, NH (contact: Terry L. Desmarais, Jr., City Engineer)

Mailing Address 680 Peeverly Hill Road Phone Number 603-766-1421

City Portsmouth State NH Zip 03801 Email tldesmarais@cityofportsmouth.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Rebecca Saucier, Lead Project Engineer, Wright-Pierce

Mailing Address 230 Commerce Way, Suite 302 Phone Number (603) 570-7112

City Portsmouth State NH Zip 03801 Email rebecca.saucier@wright-pierce.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at christina.st.louis@nh.gov or 603.271.3558.

Project Boundaries and Description

- Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) **indicating the defined project boundary.** (See RPR Instructions and R&C FAQs for guidance.)
- Attach a detailed narrative description of the proposed project.
- Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.)
- A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in **Table 1** or within project narrative description. (Blank table forms are available on the DHR website.)
File review conducted on 02 / 26 / 2019.

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? Yes No
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s):

- Photographs of **each** resource or streetscape located within the project area, with captions, along with a photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? Yes No
If yes, submit all of the following information:

- Description of current and previous land use and disturbances.
- Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation *This Space for Division of Historical Resources Use Only*

- Insufficient information to initiate review. Additional information is needed in order to complete review.
- No Potential to cause Effects No Historic Properties Affected No Adverse Effect Adverse Effect

Comments: SOUTHWEST EXTENSION ON NORTH SIDE OF SAGAMORE CREEK IS CONSIDERED ARCHAEOLOGICALLY SENSITIVE. PHASE 1-A SURVEY NECESSARY TO DETERMINE LEVEL OF PRIOR IMPACT BEFORE INFORMED COMMENT CAN BE MADE. PLEASE CONTACT DNR FOR SURVEY PARAMETERS.

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature:

David Dwyer

Date:

4-10-19



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:

January 22, 2021

Consultation Code: 05E1NE00-2021-SLI-1092

Event Code: 05E1NE00-2021-E-03445

Project Name: Sagamore Ave Sewer Extension

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>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

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 Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

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

Consultation Code: 05E1NE00-2021-SLI-1092

Event Code: 05E1NE00-2021-E-03445

Project Name: Sagamore Ave Sewer Extension

Project Type: WASTEWATER PIPELINE

Project Description: The City of Portsmouth, NH, intends to extend public sewer services to the southern portions of Sagamore Avenue and the surrounding area. This action is prompted in part by several properties in the area having one or more of the following issues: failed septic systems, difficult soil conditions, and lack of space to address wastewater flows with on-site systems. In addition, the New Hampshire Department of Environmental Services (NHDES) completed a Total Maximum Daily Load (TMDL) study for bacteria of Little Harbor and identified Sagamore Creek (adjacent to the project area) as a potential contributor to impaired water quality in Little Harbor. In 2016, the EPA and NHDES updated a Consent Decree to the City requiring construction of the new sewer extension begin no later than June 2021 and be substantially completed on or before December 2022.

To meet the requirements of the Consent Decree, installation of a low pressure sewer system is recommended due to the shallow ledge located during field inspections. This type of system reduces construction costs by using small diameter pipes that can be installed at shallower depths than conventional sewer system mains. This system requires that each property has a grinder pump that discharges the sewerage into the small diameter main located in the roadway.

The City and its residents have been in discussion regarding the Sagamore Avenue Sewer extension project since September 2019. In this time there have been eight public meetings discussing project details.

This project will provide an outlet for existing failed septic systems in area with shallow ledge, poor soils, and is adjacent to an impaired water body. Sending the wastewater to the Pierce Island Wastewater Treatment Facility (WWTF) will result in a higher level of treatment than any on-site option.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.0564243,-70.74848019886838,14z>



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

Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

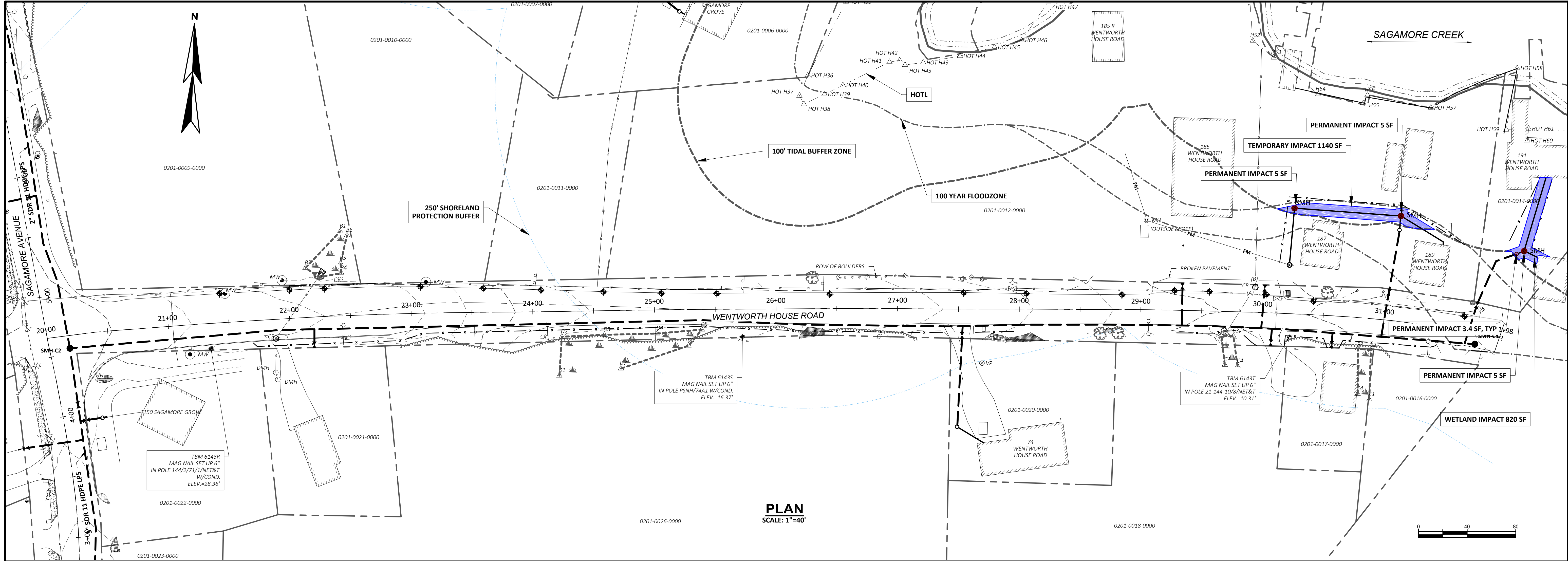
Critical habitats

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



3

Project Plans



PLAN
SCALE: 1"=40'

LEGEND:

TEMPORARY IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERMANENT IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERIMETER CONTROL	
EDGE OF WETLANDS	
100 YEAR FLOODPLAIN	
HOTL	
100' TIDAL BUFFER	

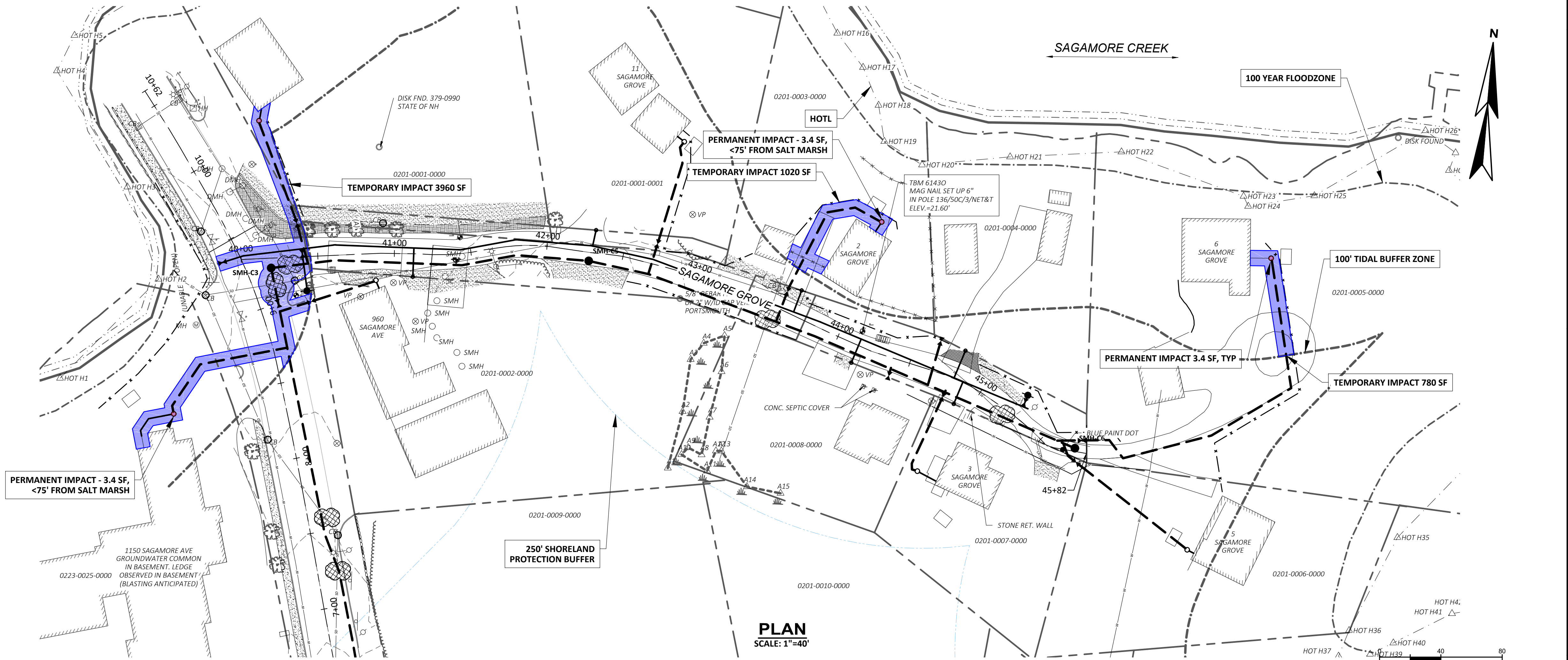
NOTE:
 TEMPORARY IMPACTS TO PREVIOUSLY DISTURBED TBZ: 7720 SF
 PERMANENT IMPACTS TO PREVIOUSLY DISTURBED TBZ: 32 SF

JURISDICTIONAL WETLANDS DEPICTED WERE DELINEATED IN WINTER 2020/2021 BY MARC JACOBS, CERTIFIED WETLANDS SCIENTIST NUMBER 090. A DELINEATION REPORT AND FUNCTIONAL ASSESSMENT ARE ATTACHED FOR REFERENCE. SURVEY OF THE PROJECT AREA WAS COMPLETED BY DOUCET SURVEY INC.

HORIZONTAL DATUM: NEW HAMPSHIRE STATE NAD83
 VERTICAL DATUM: NAVD88 PER NHDOT DISK 379-0990
 UNITS: US SURVEY FEET

PROPOSED IMPACTS OUTSIDE OF THE TIDAL BUFFER ZONE AND WITHIN 250 FT OF THE HOTL WILL BE ADDRESS IN AN NHDES SHORELAND PERMIT APPLICATION

GRINDER PUMPS ARE NOT DRAWN TO SCALE. GRINDER PUMP COVERS ARE 24.9" DIAMETER AND CONSIDERED A PERMANENT IMPACT.



PLAN
SCALE: 1"=40'

NO	REVISIONS	APPD	DATE








PROJECT NO: 1304C	DESIGNED: J.SHA	CAD COORD: J.MIC	CHECKED: J.MIC	DATE: 01-21	APPROVED: J.MIC	DATE: 01-21	SUBMISSION: PERMITTING
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WRIGHT-PIERCE
 888.621.8156 | www.wright-pierce.com

**CITY OF PORTSMOUTH, NH
 SAGAMORE AVENUE SEWER EXTENSION
 PROJECT**

WETLAND FIGURE I

LEGEND:

TEMPORARY IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERMANENT IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERIMETER CONTROL	
EDGE OF WETLANDS	
100 YEAR FLOODPLAIN	
HOTL	
100' TIDAL BUFFER	

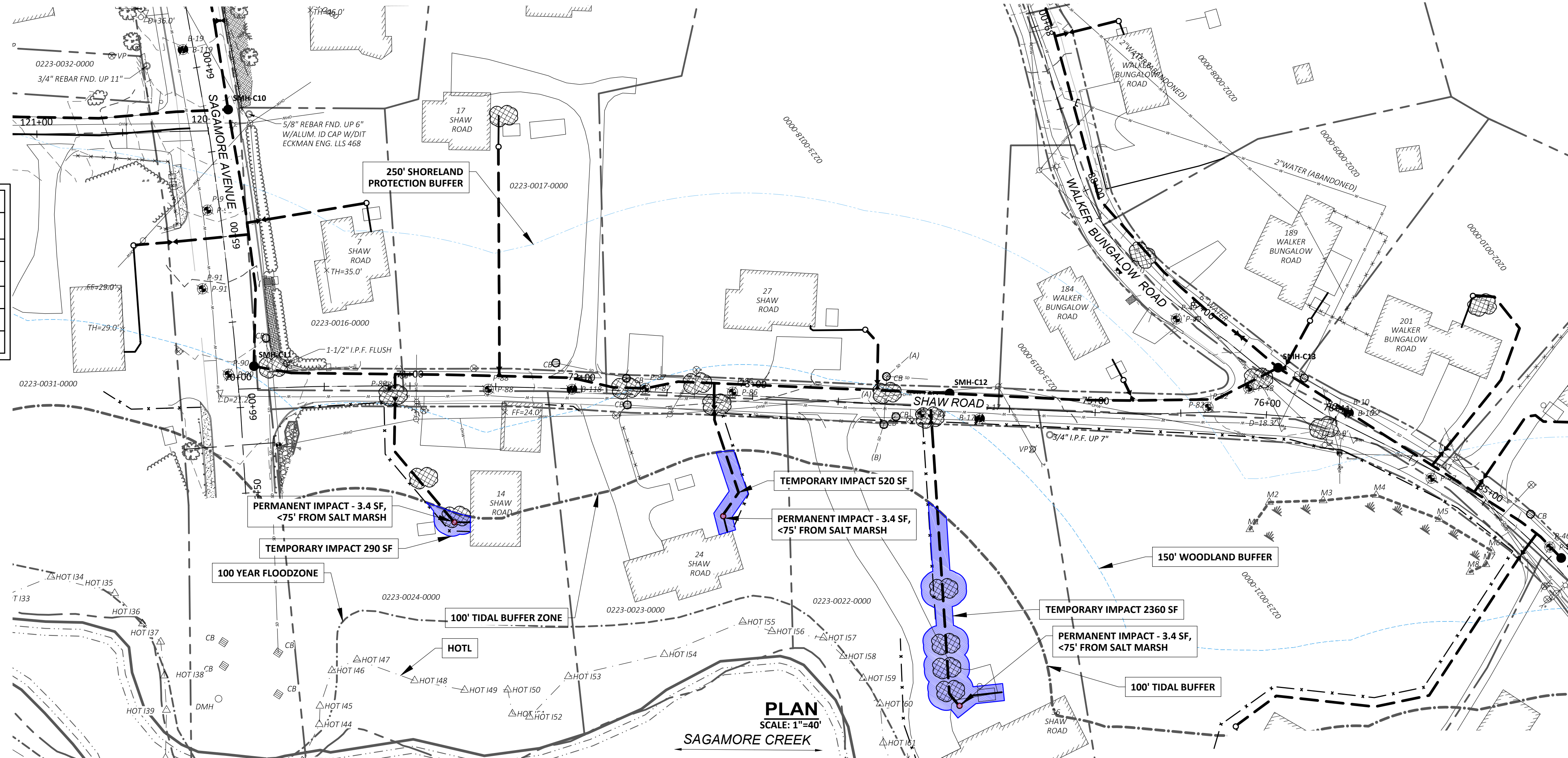
NOTE:
 TEMPORARY IMPACTS TO PREVIOUSLY DISTURBED TBZ: 6930 SF
 PERMANENT IMPACTS TO PREVIOUSLY DISTURBED TBZ: 17 SF

JURISDICTIONAL WETLANDS DEPICTED WERE DELINEATED IN WINTER 2020/2021 BY MARC JACOBS, CERTIFIED WETLANDS SCIENTIST NUMBER 090. A DELINEATION REPORT AND FUNCTIONAL ASSESSMENT ARE ATTACHED FOR REFERENCE. SURVEY OF THE PROJECT AREA WAS COMPLETED BY DOUCET SURVEY INC.

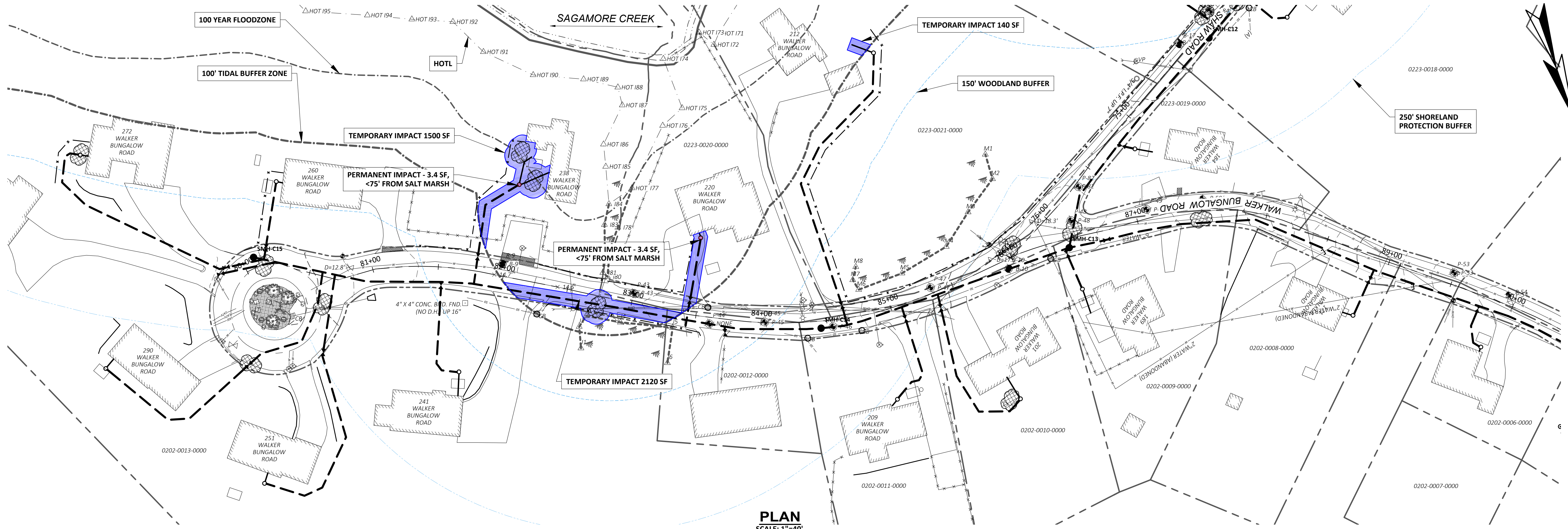
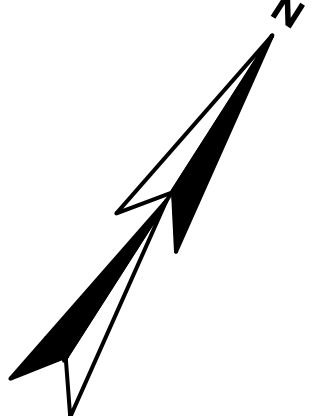
HORIZONTAL DATUM: NEW HAMPSHIRE STATE NAD83
 VERTICAL DATUM: NAVD88 PER NHDOT DISK 379-0990
 UNITS: US SURVEY FEET

PROPOSED IMPACTS OUTSIDE OF THE TIDAL BUFFER ZONE AND WITHIN 250 FT OF THE HOTL WILL BE ADDRESS IN AN NHDES SHORELAND PERMIT APPLICATION

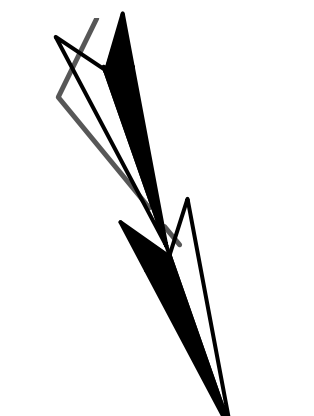
GRINDER PUMPS ARE NOT DRAWN TO SCALE. GRINDER PUMP COVERS ARE 24.9" DIAMETER AND CONSIDERED A PERMANENT IMPACT.



PLAN
 SCALE: 1"=40'
 SAGAMORE CREEK



PLAN
 SCALE: 1"=40'



NO	REVISIONS	APPD	DATE

PROJECT NO: 11304C	DESIGNED: J.SHA	CAD COORD: J.MIC	CHECKED: J.MIC	DATE: 01-21	APPROVED: J.MIC	DATE: 01-21	SUBMISSION: PERMITTING
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WRIGHT-PIERCE
 888.621.8156 | www.wright-pierce.com

CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT

WETLAND FIGURE II

DRAWING **FIG 2**

LEGEND:

TEMPORARY IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERMANENT IMPACT TO PREVIOUSLY DISTURBED TBZ	
PERIMETER CONTROL	
EDGE OF WETLANDS	
100 YEAR FLOODPLAIN	
HOTL	
100' TIDAL BUFFER	

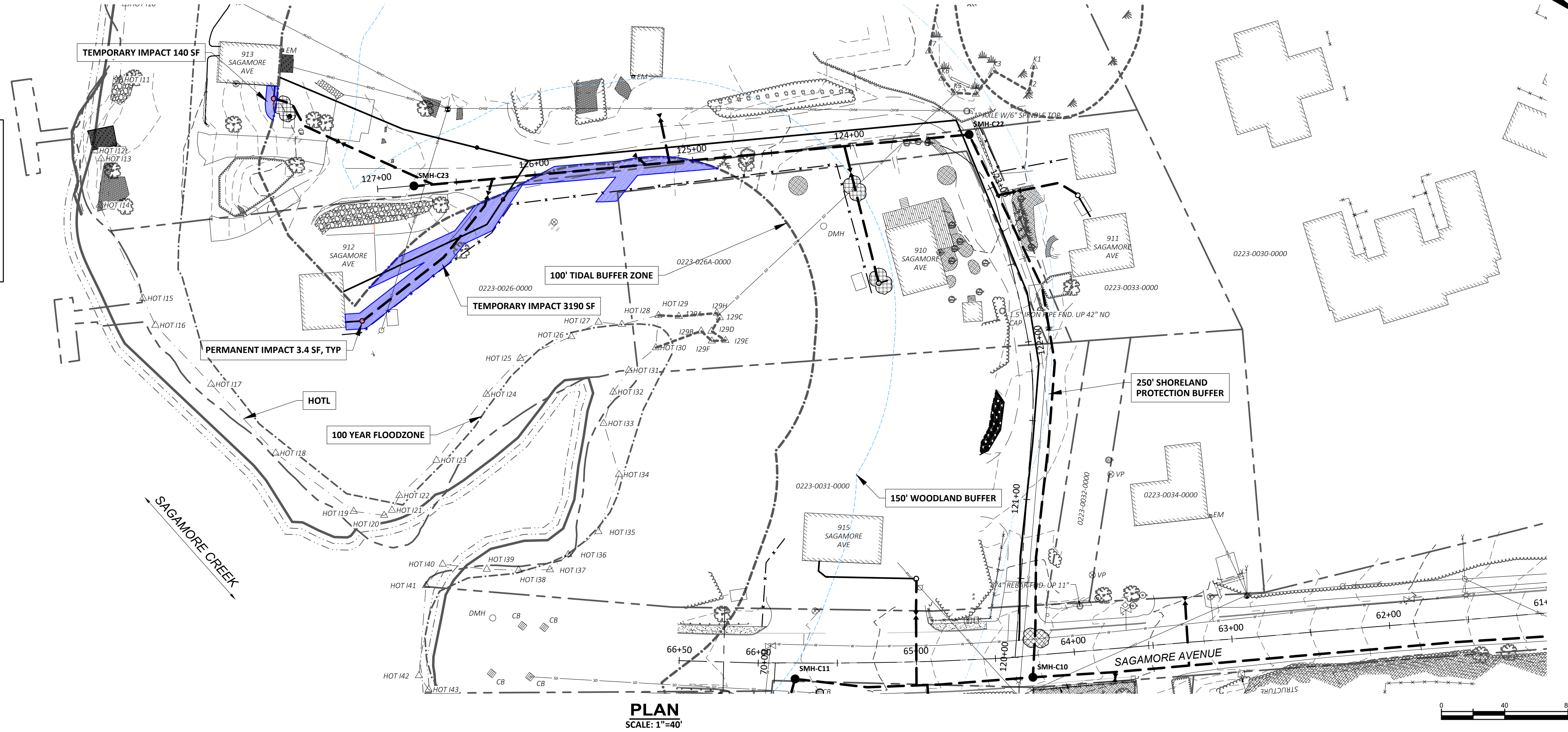
NOTE:
 TEMPORARY IMPACTS TO PREVIOUSLY DISTURBED TBZ: 3330 SF
 PERMANENT IMPACTS TO PREVIOUSLY DISTURBED TBZ: 7 SF

JURISDICTIONAL WETLANDS DEPICTED WERE DELINEATED IN WINTER 2020/2021 BY MARC JACOBS, CERTIFIED WETLANDS SCIENTIST NUMBER 090. A DELINEATION REPORT AND FUNCTIONAL ASSESSMENT ARE ATTACHED FOR REFERENCE. SURVEY OF THE PROJECT AREA WAS COMPLETED BY DOUCET SURVEY INC.

HORIZONTAL DATUM: NEW HAMPSHIRE STATE NAD83
 VERTICAL DATUM: NAVD88 PER NHDOT DISK 379-0990
 UNITS: US SURVEY FEET

PROPOSED IMPACTS OUTSIDE OF THE TIDAL BUFFER ZONE AND WITHIN 250 FT OF THE HOTL WILL BE ADDRESS IN AN NHDES SHORELAND PERMIT APPLICATION

GRINDER PUMPS ARE NOT DRAWN TO SCALE. GRINDER PUMP COVERS ARE 24.9" DIAMETER AND CONSIDERED A PERMANENT IMPACT.



NO	REVISIONS	APPD	DATE

PROJECT NO: 11304C
 DESIGNED: J.SHA
 CAD COORD: J.MIC
 CAD: J.MIC
 CHECKED: J.MIC
 DATE: 01-21
 APPROVED: J.MIC
 DATE: 01-21
 SUBMISSION: PERMITTING



888.621.8156 | www.wright-pierce.com

CITY OF PORTSMOUTH, NH
 SAGAMORE AVENUE SEWER EXTENSION
 PROJECT

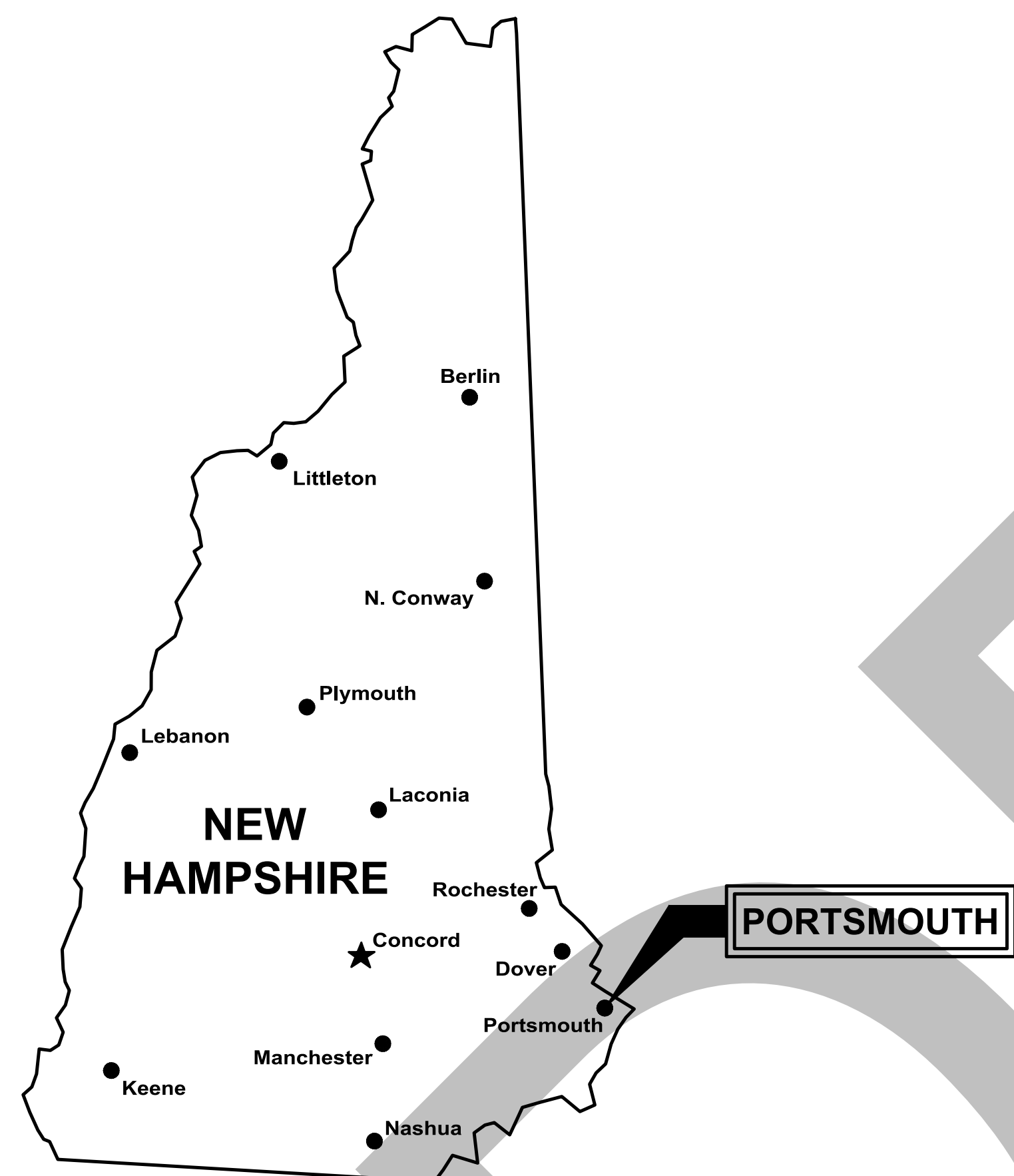
WETLAND III

CITY OF PORTSMOUTH, NEW HAMPSHIRE

DEPARTMENT OF PUBLIC WORKS

SAGAMORE AVENUE SEWER EXTENSION PROJECT

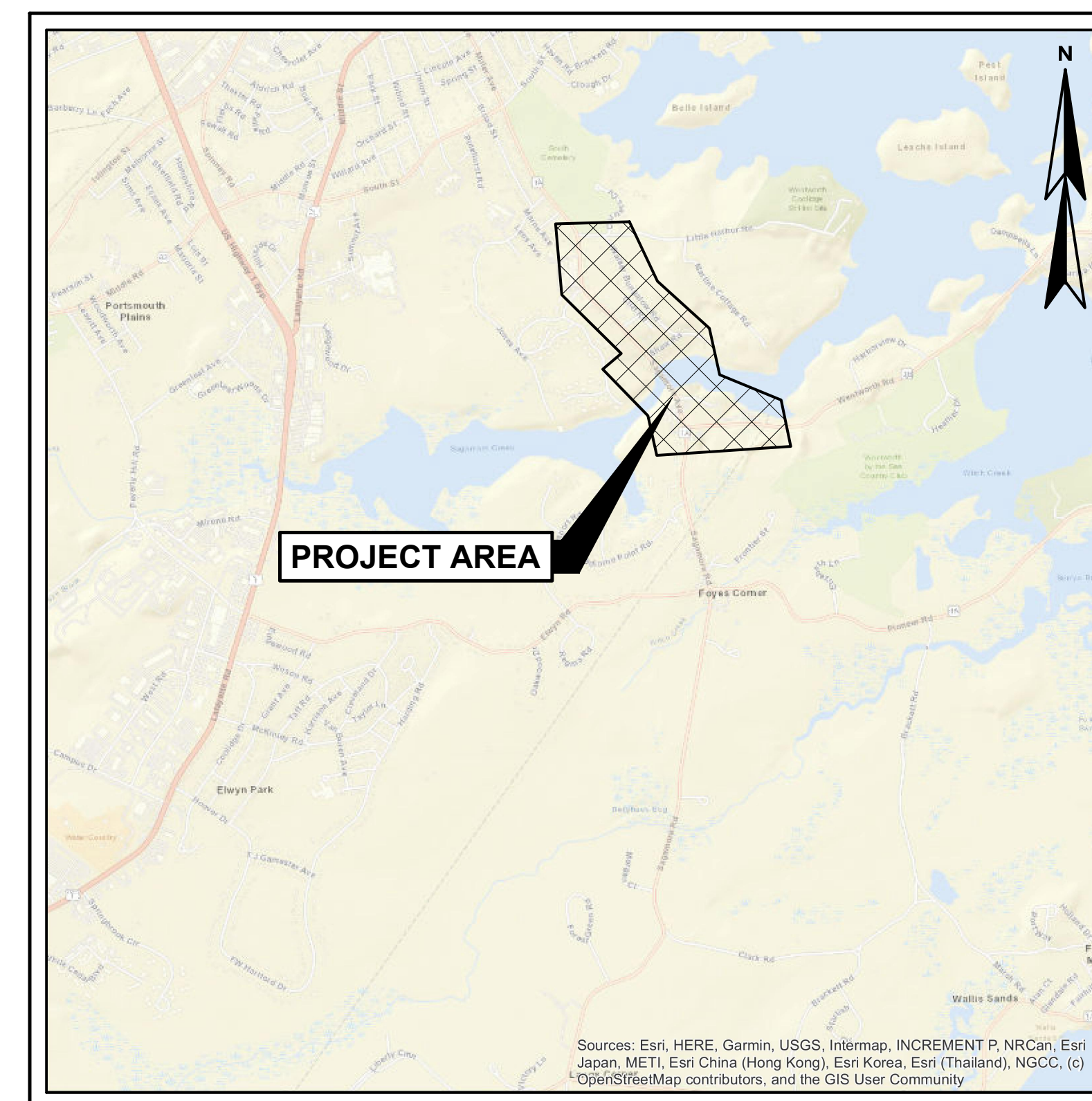
FEBRUARY, 2021
CONTRACT NO. XXXXXX
CWSRF #CS-330106-17



DRAWING INDEX

GENERAL	COVER SHEET

CIVIL	GENERAL NOTES, LEGEND, AND ABBREVIATIONS
C-1	SITE INDEX PLAN
C-2	SAGAMORE AVE (SOUTH)
C-3	WENTWORTH HOUSE RD
C-4	SAGAMORE GROVE
C-5	SAGAMORE AVE DOWNSTREAM (NORTH)
C-6	SAGAMORE AVE UPSTREAM (NORTH)
C-7	SHAW RD
C-8	WALKER BUNGALOW SOUTH
C-9	WALKER BUNGALOW NORTH
C-10	WALKER BUNGALOW NORTH (2)
C-11	CLIFF RD
C-12	SAGAMORE AVE (WEST)
C-13	DETAILS I
C-14	DETAILS II
C-15	DETAILS III
C-16	EROSION CONTROL NOTES AND DETAILS
C-17	



LOCATION PLAN
SCALE: 1"=2,000'



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FOR REVIEW _____

FOR BIDDING _____

WP PROJECT No. 11304A

GENERAL NOTES

- 1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHTS OF WAY AND EASEMENTS. THE CONTRACTOR SHALL VERIFY THAT ALL NECESSARY EASEMENTS HAVE BEEN SECURED BY THE OWNER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH EASEMENT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL RIGHTS_OF_WAY AND EASEMENTS ARE AVAILABLE FOR REVIEW FROM THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.
4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
5. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.
6. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
7. ALL EXISTING SEWER, STORM DRAIN LINES, AND WATER MAINS LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES, CULVERTS, OR WATER MAINS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW SEWER OR WHEN NOT SHOWN OR INDICATED.
8. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
10. NEW HAMPSHIRE STATE HIGHWAYS: THE FOLLOWING ROADWAYS FALL WITHIN THE JURISDICTION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION. ALL WORK CONDUCTED WITHIN THESE ROADWAYS SHALL CONFORM TO NHDOT STANDARDS AND ROAD OPENING PERMIT REQUIREMENTS. NEW HAMPSHIRE STATE HIGHWAYS WITHIN THE PROJECT AREA ARE AS FOLLOWS:
ROUTE 1A (SAGAMORE AVENUE)
ROUTE 1B (WENTWORTH ROAD)
11. ALL TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION LAYOUT AND RESULTS REPORTED TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE PLANS. TESTS PITS ARE REQUIRED WHERE SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. TEST PITS WILL BE DUG PRIOR TO CONNECTING PROPOSED SEWERS TO EXISTING SEWERS. THE RESULTS OF TEST PITS DUG TO DETERMINE EXISTING SEWER ELEVATIONS AND LOCATIONS WILL BE REPORTED TO THE ENGINEER. ADJUSTMENTS TO INVERTS, LENGTHS, AND SLOPES OF PROPOSED SEWER MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED LINES AND STRUCTURES AS SHOWN ON THE DRAWINGS. THE LAYOUT PLAN SHALL BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE HORIZONTAL ALIGNMENT OF THE NEW SEWERS AND FORCE MAINS WILL BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR APPROVAL OF THE ENGINEER. ALL ELEVATIONS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATION REFERENCE INFORMATION PRIOR TO USE IN CONSTRUCTION.
12. LOW PRESSURE SEWER SERVICE CONNECTIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. THE ACTUAL NUMBER, LENGTH, AND LOCATION SHALL BE AS FIELD DETERMINED AT THE TIME OF CONSTRUCTION. FOR EVERY PROPERTY, A NEW LOW PRESSURE SEWER SERVICE WITH THE LATERAL ASSEMBLY SHALL BE INSTALLED FROM THE NEW LOW PRESSURE SEWER MAIN LINE BACK TO THE PROPERTY LINE OR THE EDGE OF THE PERMANENT EASEMENT BUT NO CLOSER THAN 5-FEET TO EXISTING BUILDINGS. THE NEW LOW PRESSURE SEWER SERVICES SHALL BE 1.5-INCH DIAMETER UNLESS OTHERWISE INDICATED. FOR EACH PROPERTY THAT CHOSE TO CONNECT TO THE NEW LOW PRESSURE SEWER SYSTEM, A NEW LOW PRESSURE SEWER SERVICE SHALL BE INSTALLED FROM THE LATERAL ASSEMBLY TO THE NEW GRINDER PUMP STATION, WHICH SHALL NOT BE CLOSER THAN 5-FEET TO THE EXISTING BUILDINGS.
13. GRAVITY SEWER SERVICE CONNECTIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. THE ACTUAL NUMBER, LENGTH, AND LOCATION SHALL BE AS FIELD DETERMINED AT THE TIME OF CONSTRUCTION. FOR EACH PROPERTY THAT CHOSE TO CONNECT TO THE LOW PRESSURE SEWER SYSTEM, A GRAVITY SEWER SERVICE SHALL BE INSTALLED FROM THE NEW GRINDER PUMP STATION TO THE EXISTING GRAVITY SEWER SERVICE, WHICH MAY BE OUTSIDE OF THE BUILDING OR INSIDE THE FOUNDATION. THE NEW GRAVITY SEWER SERVICES SHALL MATCH EXISTING DIAMETER UNLESS OTHERWISE INDICATED. THE MINIMUM GRAVITY SEWER SERVICE SHALL BE A 4-INCH DIAMETER.
14.
15. INSULATE OVER ANY GRAVITY SEWER OR FORCE MAIN PIPE WHEN COVER IS LESS THAN 5-FEET, OR THERE IS LESS THAN 2-FEET BETWEEN THE SEWER OR FORCE MAIN AND A CULVERT.
16. INITIAL PAVING SHALL BE CONDUCTED WITHIN TWO WEEKS OF COMPLETION OF PLACEMENT OF FINAL BACKFILL UNLESS OTHERWISE AUTHORIZED BY ENGINEER. INITIAL PAVEMENT SHALL BE INSTALLED AND MAINTAINED BY CONTRACTOR FOR A MINIMUM PERIOD OF TWO MONTHS BEFORE FINAL PAVEMENT IS PLACED. FINAL PAVEMENT MAY BE PLACED OVER THE INITIAL PAVING PROVIDED INITIAL PAVING COURSE IS IN GOOD REPAIR. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND SHIMMING THE INITIAL PAVEMENT AS NECESSARY TO ACCEPT THE FINAL PAVING COURSE. IF CONDITIONS WARRANT, THE CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE INITIAL PAVING PRIOR TO FINAL PAVING.
17. FORCE MAINS SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS IN NEW PIPING WILL BE PERMITTED UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL BENDS SHALL BE SUITABLY RESTRAINED BY CAST-IN-PLACE CONCRETE THRUST BLOCKS.

EXISTING SITE CONDITIONS

- 1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.
2. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

Table with utility contact information including EVERSOURCE, MANCHESTER, NH 03105-0330, TEL. (800) 362-7764; WATER/SEWER/DRAIN: CITY OF PORTSMOUTH, 680 PEVERLY HILL ROAD, PORTSMOUTH, NH 03801, TEL. (603) 427-1530; GAS: UNTIL-GAS, 325 WEST ROAD, PORTSMOUTH, NH 03801.

Table with TELEPHONE/CABLE: FAIRPOINT COMMUNICATIONS, 521 E. MOREHEAD STREET, SUITE 230, BOX 29, CHARLOTTE, NH 28202, TEL. (800) 430-2222; DIG SAFE: TEL. (800) DIG-SAFE; NHDOT DISTRICT 6: 271 MAIN STREET, DURHAM, NH 03824, TEL. (603) 868-1133, TEL. (603) 294-5035.

SITE DEMOLITION

- 1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING FACILITIES. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK.
2. REFER TO SPECIFICATION SECTION 01010A WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
3. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED, AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH CONCRETE.
4. ALL EXISTING PIPING AND UTILITIES WHICH ARE BENEATH PROPOSED STRUCTURES, AND ARE TO BE ABANDONED, SHALL BE REMOVED TO A MINIMUM OF 5-FEET OUTSIDE OF THE STRUCTURE. PIPE AND UTILITIES BENEATH PROPOSED STRUCTURES THAT ARE TO REMAIN SHALL BE CONCRETE ENCASED, UNLESS OTHERWISE INDICATED.
5. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
7. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS.

SITE CLEARING, GRUBBING AND GRADING

- 1. STRIPPING OF TOPSOIL (LOAM) SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115.
2. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
3. THE CONTRACTOR SHALL FOLLOW ALL ENDANGERED SPECIES ACT 4(D) RULES REGARDING THE NORTHERN LONG EARED BAT. THIS INCLUDES AVOIDANCE OF TREE REMOVAL DURING THE MONTHS OF JUNE AND JULY. CONTRACTOR SHALL PLAN ACCORDINGLY.
4. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OR EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.
6. THE GEOTECHNICAL DATA REPORT FOR THE PROJECT SITE IS INCLUDED IN APPENDIX A AND IS DESCRIBED IN SPECIFICATION SECTION 00800 (SUPPLEMENTAL CONDITIONS).
7. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
8. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
9. ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
10. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
11. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
12. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
13. ALL ROAD AND DRIVE CROSS SLOPES SHALL PITCH 1/4-INCH PER FOOT MINIMUM. ALL PAVED SURFACES SHALL PITCH 1% UNLESS OTHERWISE NOTED. REFER TO THE CIVIL DETAIL DRAWINGS.
14. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE TOPSOILED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4-INCHES OF SOIL SHALL BE TOPSOIL. REFER TO SPECIFICATION SECTION 02480, LANDSCAPING.

CIVIL SITE LAYOUT

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. REFER TO THE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL LAYOUT INFORMATION.
3. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF NEW HAMPSHIRE, AT NO ADDITIONAL COST TO THE OWNER.
5. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6. ALL ELEVATIONS REFER TO THE NAVD83 DATUM. ORIENTATION IS GRID NORTH ON THE NEW HAMPSHIRE STATE PLANE (2800) NAD83 (2011) COORDINATE SYSTEM. PROJECT BENCH MARK IS SHOWN ON THE DRAWINGS AND IS DERIVED FROM ON-THE-GROUND INSTRUMENT SURVEY. CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
7. EXISTING CONDITIONS SITE PLAN DEVELOPED FROM SURVEY DRAWING PREPARED BY DOUCET SURVEYING, DATED 11/14/2019, AND EXISTING RECORD DRAWING INFORMATION.
8. WETLAND BOUNDARIES DELINEATED BY MARC JACOBS IN WINTER 2021.

CIVIL SITE PIPING

- 1. ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4-FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE).
2. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE WATERSTOPS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND LINK-TYPE SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES. SEE DETAIL DRAWINGS.
3. MANHOLES ARE 4- FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. SEWER MANHOLE INVERTS SHOWN ON THE DRAWINGS ARE TO THE INSIDE FACE OF THE MANHOLE.
4. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
5. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
6. COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE-YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
7. OPEN TRENCHES IN THE ROADWAY MUST BE BACKFILLED AT THE END OF THE WORKDAY. OPEN TRENCHES OUTSIDE OF THE WAY MAY BE LEFT OPEN IF THE CONTRACTOR PROVIDES ADEQUATELY SAFE BARRICADING AND LIGHTS
8. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
9. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. WHERE POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18-INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER OR SLUDGE LINE SHALL BE MAINTAINED, IF POSSIBLE. WHERE 18-INCHES OF VERTICAL SEPARATION IS NOT POSSIBLE, THE CONTRACTOR SHALL OBTAIN A SEPARATION REQUIREMENT WAIVER FROM NHDES. WHERE A WATER LINE CROSSES UNDER A WASTEWATER LINE, A FULL LENGTH OF PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.

WATER MAIN GENERAL NOTES

- 1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE NEW WATER MAIN. LAYOUT SHALL BE REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER. THE NEW WATER MAIN MUST BE LOCATED WITHIN THE RIGHTS-OF-WAY SHOWN ON THE DRAWINGS.
3. MINIMUM DEPTH OF COVER SHALL BE 5'-0" [NTS - VERIFY DEPTH.] AND MAXIMUM DEPTH OF COVER SHALL BE 7'-0" [NTS - VERIFY DEPTH.] UNLESS SHOWN OTHERWISE ON THE DRAWINGS. THE NEW MAIN SHALL GENERALLY FOLLOW THE GROUND CONTOUR, HOWEVER, ABRUPT CHANGES IN GRADE SHALL BE AVOIDED. AT LOCAL HIGH POINTS OR WHERE AIR RELEASE VALVES ARE SHOWN, THE CONTRACTOR SHALL SLOPE NEW MAIN AS NEEDED TO MAINTAIN HIGH POINT AT AIR RELEASE VALVE. IF LEDGE IS ENCOUNTERED THE MINIMUM DEPTH OF COVER SHALL BE 5'-0".
4. IF MINIMUM COVER CANNOT BE ATTAINED DUE TO UTILITY CONFLICTS, THE DEPTH OF COVER SHALL NOT BE LESS THAN 4'-0" AND PRE-INSULATED WATER MAIN PIPING AND FITTINGS SHALL BE USED AS DETAILED.
5. ALL BENDS, TEES, REDUCERS, AND PLUGS SHALL BE RESTRAINED BY USING CONCRETE THRUST BLOCKS AND GRIP-RINGS OR OTHER METHOD AS SHOWN ON THE DRAWINGS.
6. TEST PRESSURES FOR THE COMBINATION PRESSURE AND LEAKAGE TESTS SHALL BE 150 PSI. TEST DURATION SHALL BE TWO HOURS.
7. CONNECTIONS TO EXISTING WATER MAIN SHALL BE COORDINATED WITH THE OWNER.
8. ALL WATER MAINS THAT ARE DISCONNECTED FROM THE WATER SYSTEM AND ARE TO BE LEFT IN PLACE SHALL BE CAPPED WITH A M.J. CAP OR PLUG.
9. ALL EXISTING WATER SERVICES ARE TO BE CONNECTED TO THE NEW MAIN. EXISTING SERVICES, AS SHOWN ON THE DRAWINGS, ARE FOR THE CONTRACTOR'S REFERENCE. THE CONTRACTOR SHALL VERIFY LOCATION, SIZE AND TYPE OF ALL SERVICES. IF NOT LABELED ON THE PLAN, THE SERVICE SHALL BE ASSUMED TO BE A MINIMUM SERVICE SIZE OF 1-INCH.
10. SEWER VALVES SHALL OPEN LEFT, WATER VALVES SHALL OPEN RIGHT.

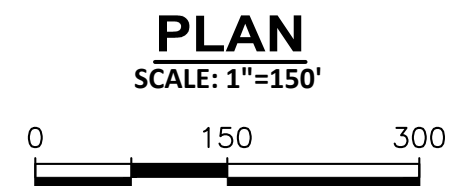
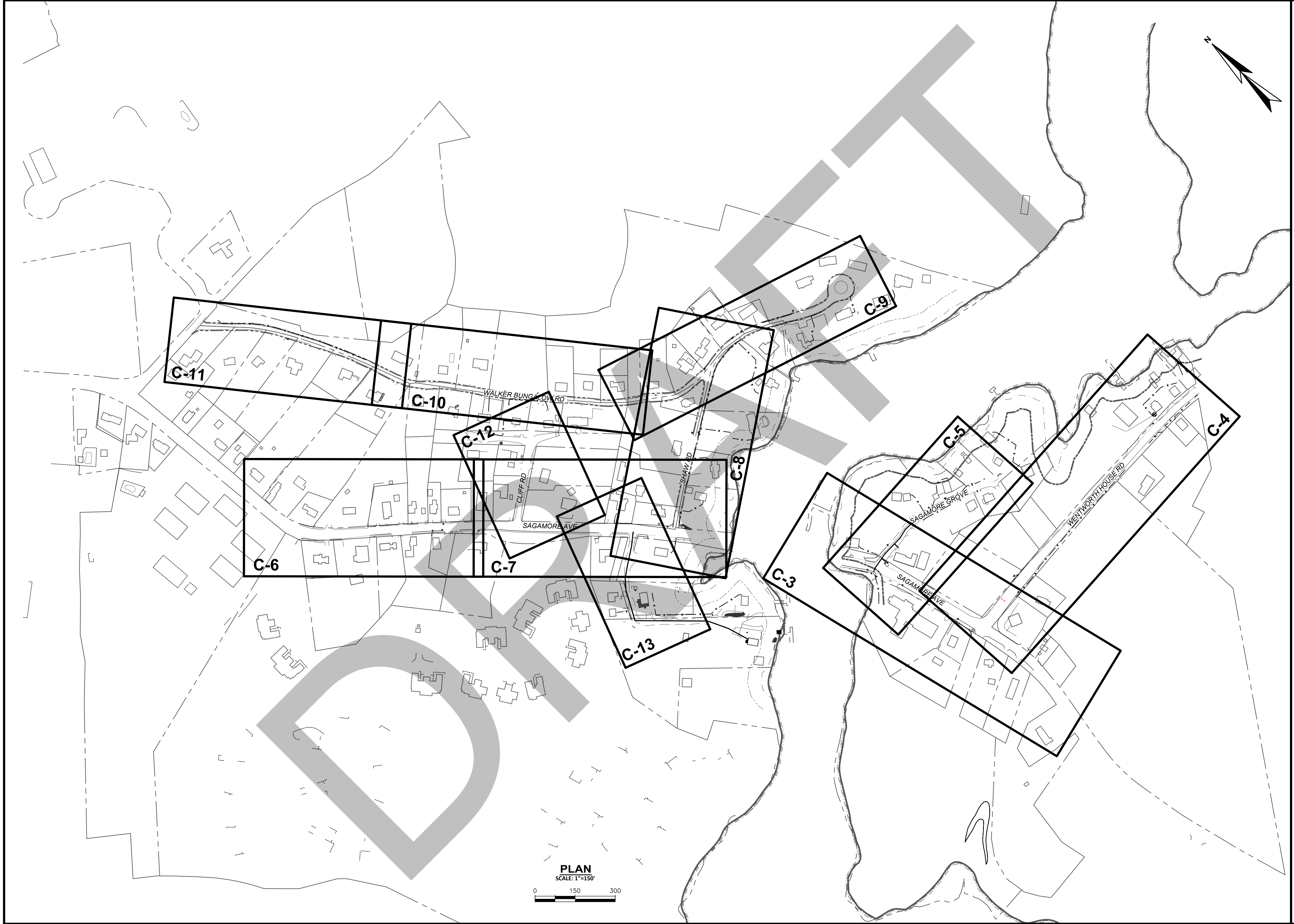
CIVIL ABBREVIATIONS

Table mapping symbols to abbreviations: & DIA, #, NO APP'D, BLDG, CB, CEN, CFS, CI, CL, CMP, CO, CONC, COR, CY, DEMO, DMH, DI, DR, DWG, EL, EMH, FM, FT, G, HYD, IN, INF, INV, LBS, MAX, MH, MIN, MW, N/A, N, OD, PC, PSF, PSI, PS, PT, PVC, RCP, RD, REQ'D, S, SD, SF, SMH, SQ, STA, T, XFMR, TBM, THK, TOS, TYP, UD, UG, UGE, VC, W/, W. Includes AND DIAMETER, NUMBER APPROVED, BUILDING, CATCH BASIN, CENTER, CUBIC FEET PER SECOND CAST, IRON, CENTERLINE, CORRUGATED METAL PIPE, CLEANOUT, CONCRETE, CORNER, CUBIC YARD, DEMOLITION, DRAIN MANHOLE, DUCTILE IRON, DRAIN, DRAWING, ELEVATION, ELECTRIC MANHOLE, FORCE MAIN, FEET, GAS, HYDRANT, INCH, INFLUENT, INVERT, POUNDS, MAXIMUM, MANHOLE, MINIMUM, MONITORING WELL, NORTH, NATIONAL GEODETIC, VERTICAL DATUM, UNDERGROUND ELECTRIC, UNDERGROUND TELEPHONE, UNDERGROUND CABLE TV, IRON PIPE/REBAR, NOT TO SCALE, OUTSIDE DIAMETER, MONUMENT, SURVEY CONTROL POINT, SPOT ELEVATION, SEWER MANHOLE, DRAINAGE MANHOLE, CATCH BASIN, ELECTRIC MANHOLE, TELEPHONE MANHOLE, SHUTOFF VALVE, WATER SERVICE SHUTOFF, YARD HYDRANT, HYDRANT, GAS SERVICE SHUTOFF, GAS GATE VALVE, UTILITY POLE, UTILITY POLE W/ GUY, UTILITY POLE W/ LIGHT, LIGHT POLE, BOLLARD, FLAGPOLE, CONIFEROUS TREE, DECIDUOUS TREE, SHRUB, WETLAND FLAG, EDGE OF WATER, STREAM, EDGE OF WETLANDS, FLOODPLAIN, WETLANDS, DRAINAGE FLOW, DRAINAGE SWALE, PAVEMENT MARKINGS, SIGN, MAILBOX, TEMPORARY BENCH MARK, TEST PIT, TEST BORING, TEST PROBE, MONITORING WELL, LIMIT OF WORK, SILT FENCE, RIPRAP, RAILROAD, MATCHLINE, ROCK OUTCROP.

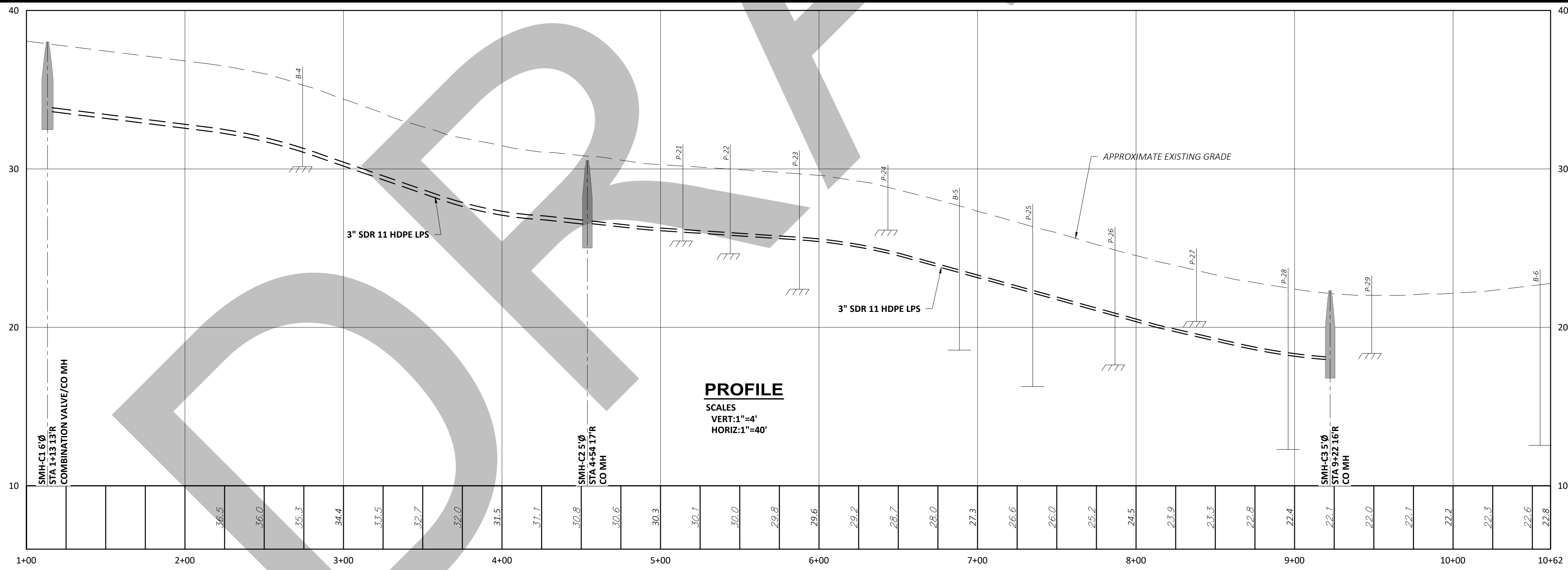
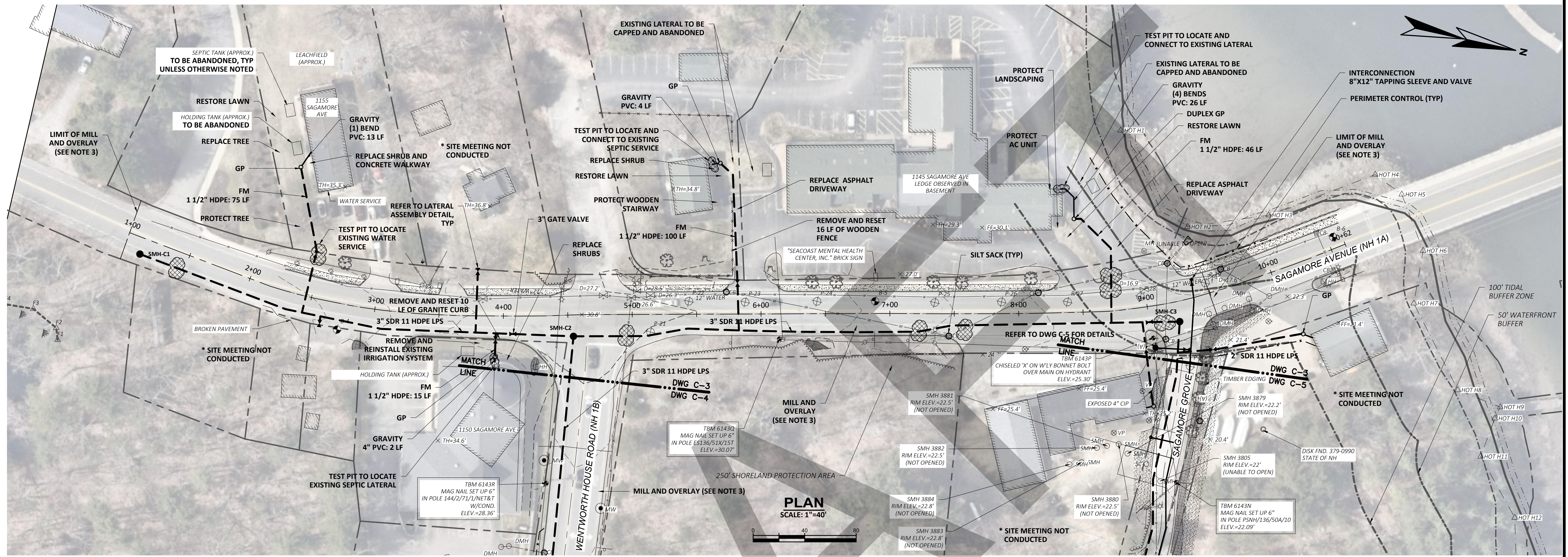
LEGEND

Legend table with columns for EXISTING and PROPOSED symbols and descriptions: PROPERTY/ROW LINE, SETBACK LINE, EASEMENT LINE, CENTERLINE, EDGE OF PAVEMENT, CURBING, EDGE OF GRAVEL, EDGE OF CONCRETE, CONTOUR, BUILDING, STONEWALL, TREELINE, CHAIN LINK FENCE, STOCKADE FENCE, BARB WIRE FENCE, RETAINING WALL, GUARDRAIL, SEWER, SEWER FORCE MAIN, GAS, WATER, STORM DRAIN, UNDERDRAIN, CULVERT, UNDERGROUND ELECTRIC, OVERHEAD ELECTRIC, UNDERGROUND TELEPHONE, UNDERGROUND CABLE TV, IRON PIPE/REBAR, DRILLHOLE, MONUMENT, SURVEY CONTROL POINT, SPOT ELEVATION, SEWER MANHOLE, DRAINAGE MANHOLE, CATCH BASIN, ELECTRIC MANHOLE, TELEPHONE MANHOLE, SHUTOFF VALVE, WATER SERVICE SHUTOFF, YARD HYDRANT, HYDRANT, GAS SERVICE SHUTOFF, GAS GATE VALVE, UTILITY POLE, UTILITY POLE W/ GUY, UTILITY POLE W/ LIGHT, LIGHT POLE, BOLLARD, FLAGPOLE, CONIFEROUS TREE, DECIDUOUS TREE, SHRUB, WETLAND FLAG, EDGE OF WATER, STREAM, EDGE OF WETLANDS, FLOODPLAIN, WETLANDS, DRAINAGE FLOW, DRAINAGE SWALE, PAVEMENT MARKINGS, SIGN, MAILBOX, TEMPORARY BENCH MARK, TEST PIT, TEST BORING, TEST PROBE, MONITORING WELL, LIMIT OF WORK, SILT FENCE, RIPRAP, RAILROAD, MATCHLINE, ROCK OUTCROP.

Project information block including: CITY OF PORTSMOUTH, NH; SAGAMORE AVENUE SEWER EXTENSION PROJECT; DRAWING C-1; WRIGHT-PIERCE Engineering a Better Environment; 888.621.8156 | www.wright-pierce.com; SUBMISSIONS/REVISIONS table; PERMITTING table; NO table; DESIGNED BY: J.L.O.C.; CAD CORP.: J.M.C.; CDR.: D.F.U.D.; CHECKED BY: K.LOBE; DATE: 02-21; APPROVED BY: K.GAR; DATE: 02-21; PROJECT NO.: 13304C.



WRIGHT-PIERCE Engineering a Better Environment 888.621.8156 www.wright-pierce.com	
CITY OF PORTSMOUTH, NH SAGAMORE AVENUE SEWER EXTENSION PROJECT	SITE INDEX PLAN
DRAWING C-2	
DESIGNED BY: J.L.O.C. CAD CORP.: J.M.I.C. C.D.: D.F.U.D. CHECKED BY: K.L.O.B.E. DATE: 02-21	NO. PERMITTING A A A
APPROVED BY: K.G.A.R. DATE: 02-21 PROJECT NO.: 11304C	SUBMISSIONS/REVISIONS APP'D DATE K.G.A.R. 02-21



NOTES:

1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	DESIGNED BY: J.LOC	APP'D DATE
1		CHD: D.FUD	K.GAR 01-21
2		CHECKED BY: K.LOBE	
3		DATE: 02-21	
4		APPROVED BY: K.GAR	
5		DATE: 02-21	
6		PROJECT NO: 1304C	

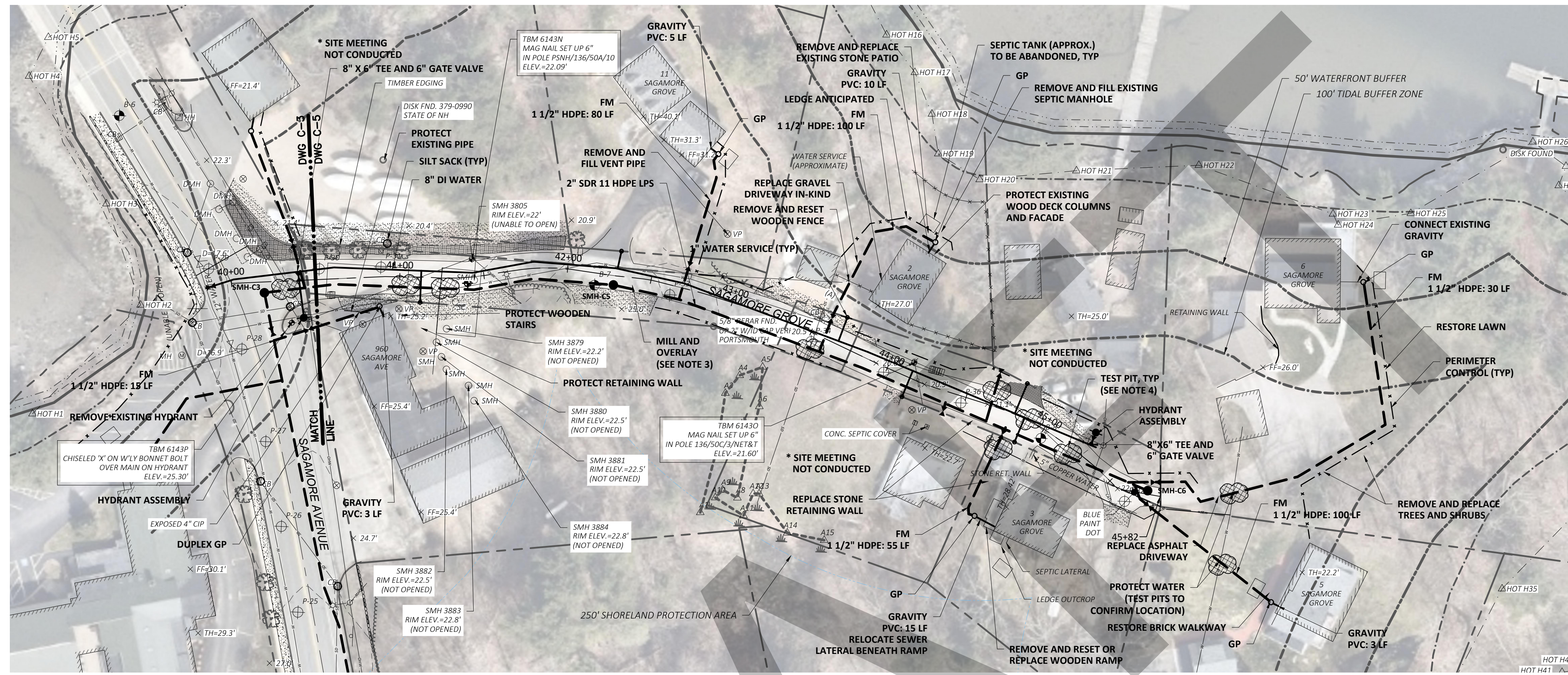
NO	REVISIONS	DATE

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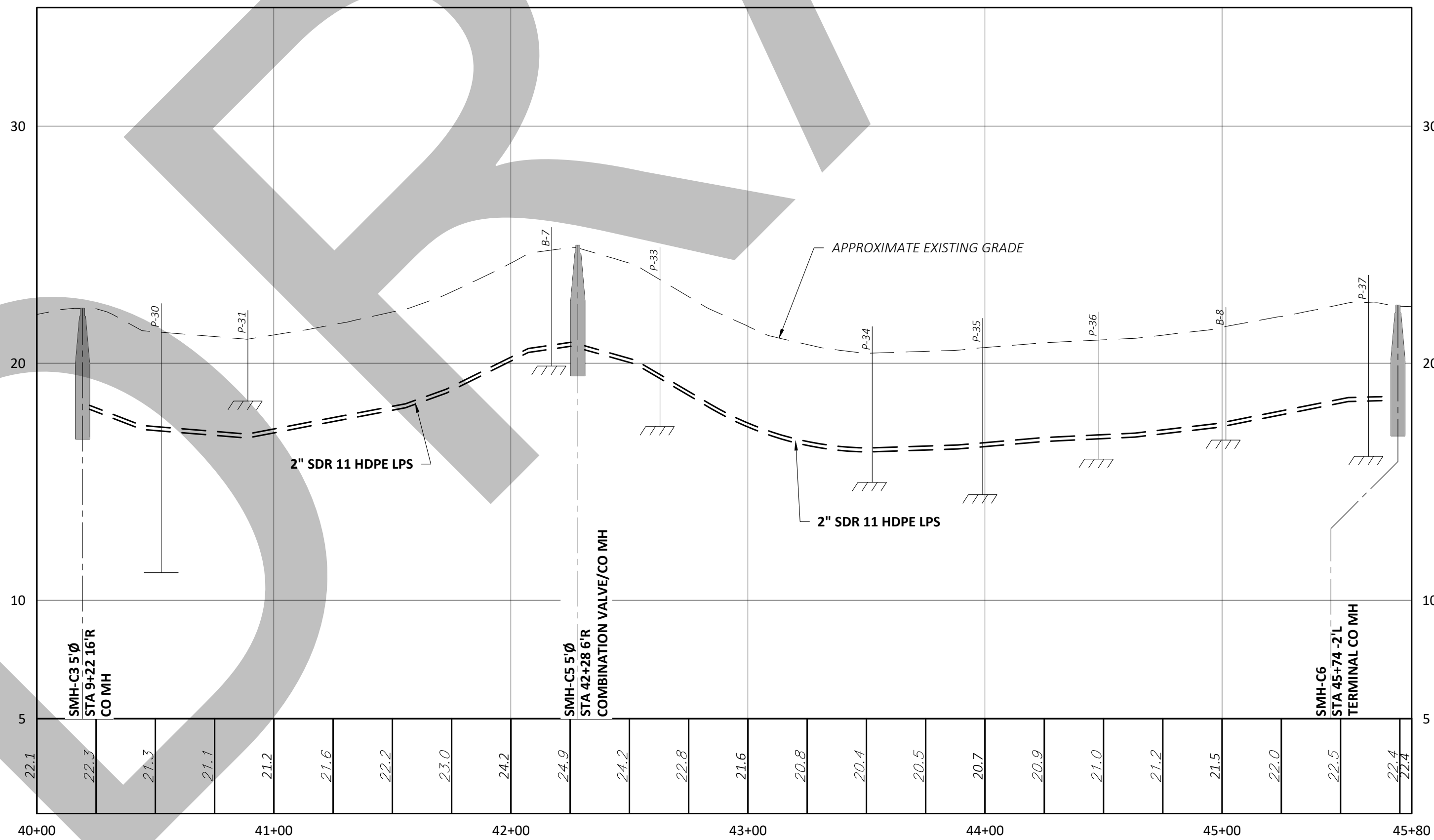
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE AVE
STA 1+00 TO STA 10+37

DRAWING
C-3



PLAN
SCALE: 1"=40'



PROFILE
SCALE: VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
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NO.	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CD: D.F.U.D.	K.G.A.R. 03-21
2		CHECKED BY: K.L.O.B.E.	
3		DATE: 03-21	
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5		DATE: 03-21	
6		PROJECT NO.: 11304C	

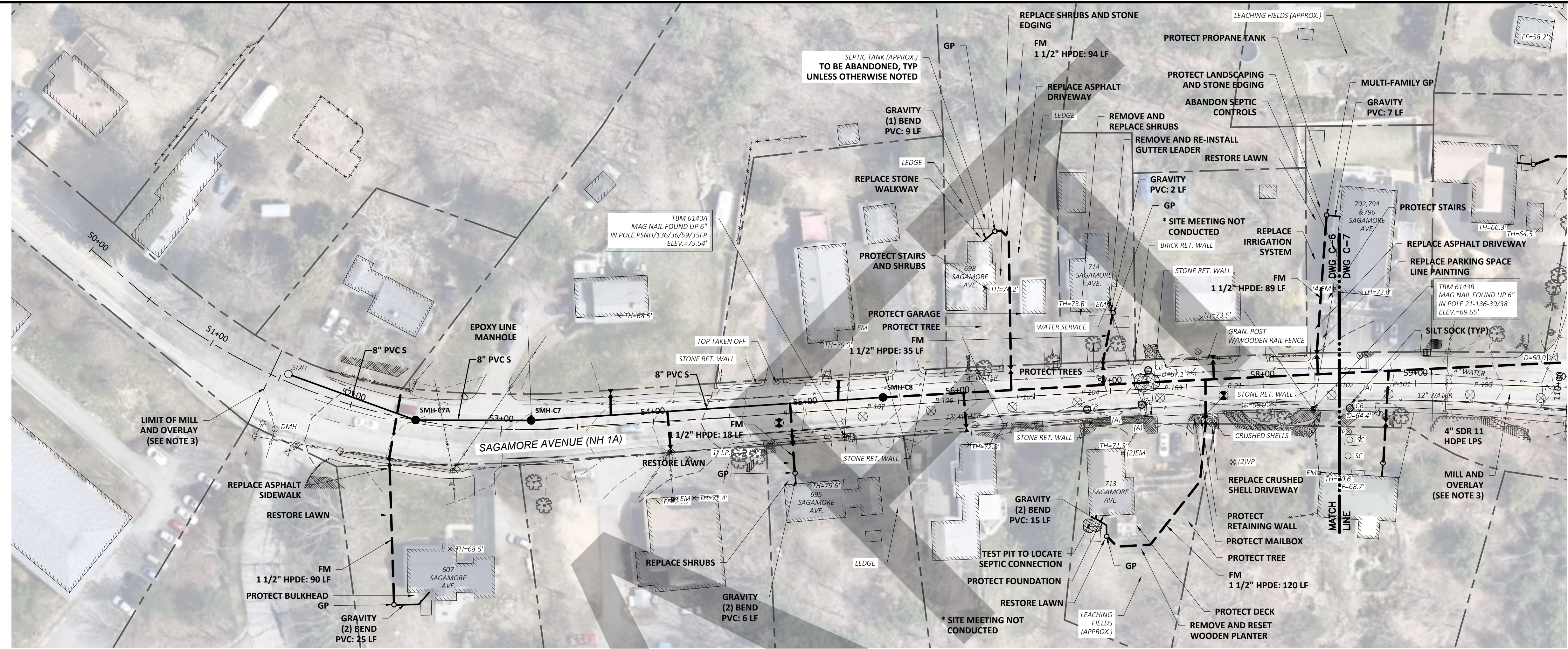
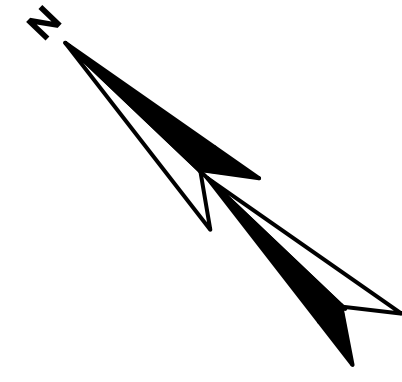
NO.	REVISIONS

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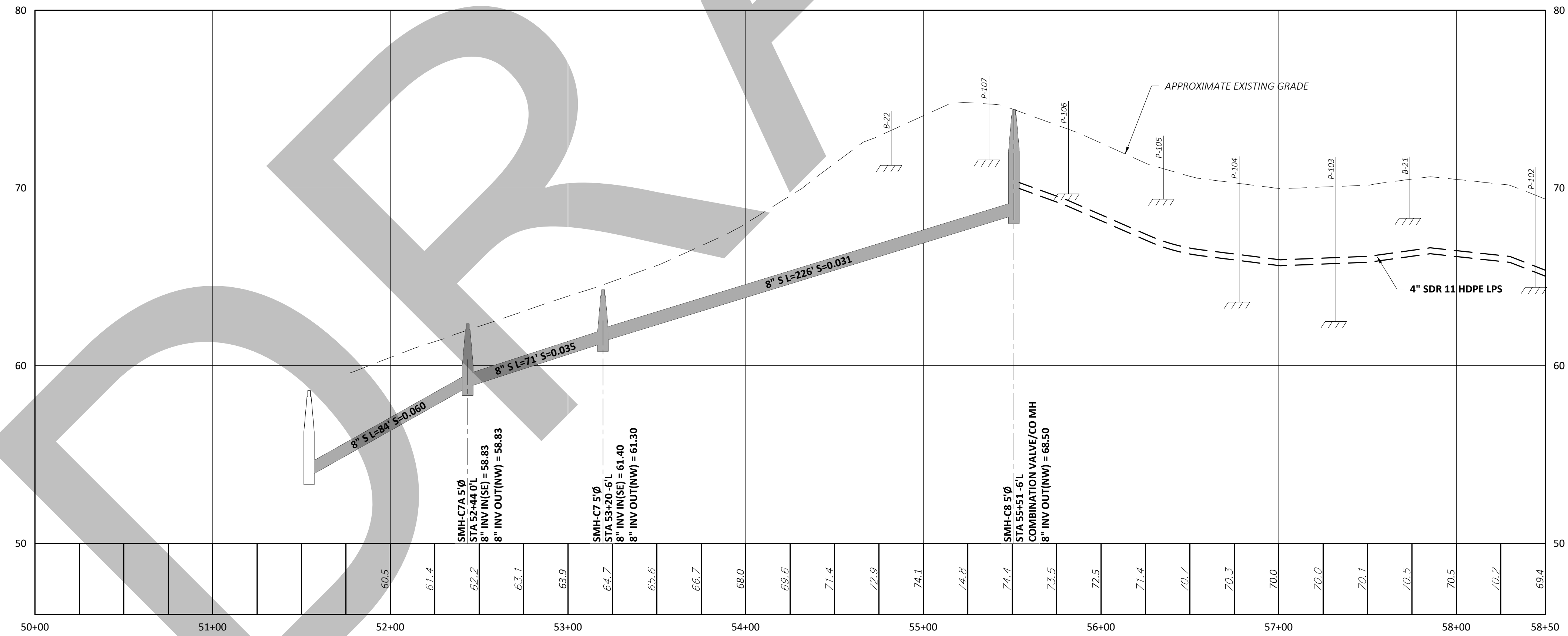
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE GROVE
STA 40+00 TO STA 45+56

DRAWING
C-5



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	DESIGNED BY: J.LLOC	CAD CORP: J.MIC
1		CHD: D.FUD	CHECKED BY: K.LOBE
2		DATE: 02-21	DATE: 02-21
3		APPROVED BY: K.GAR	DATE: 02-21
4		PROJECT NO: 11304C	

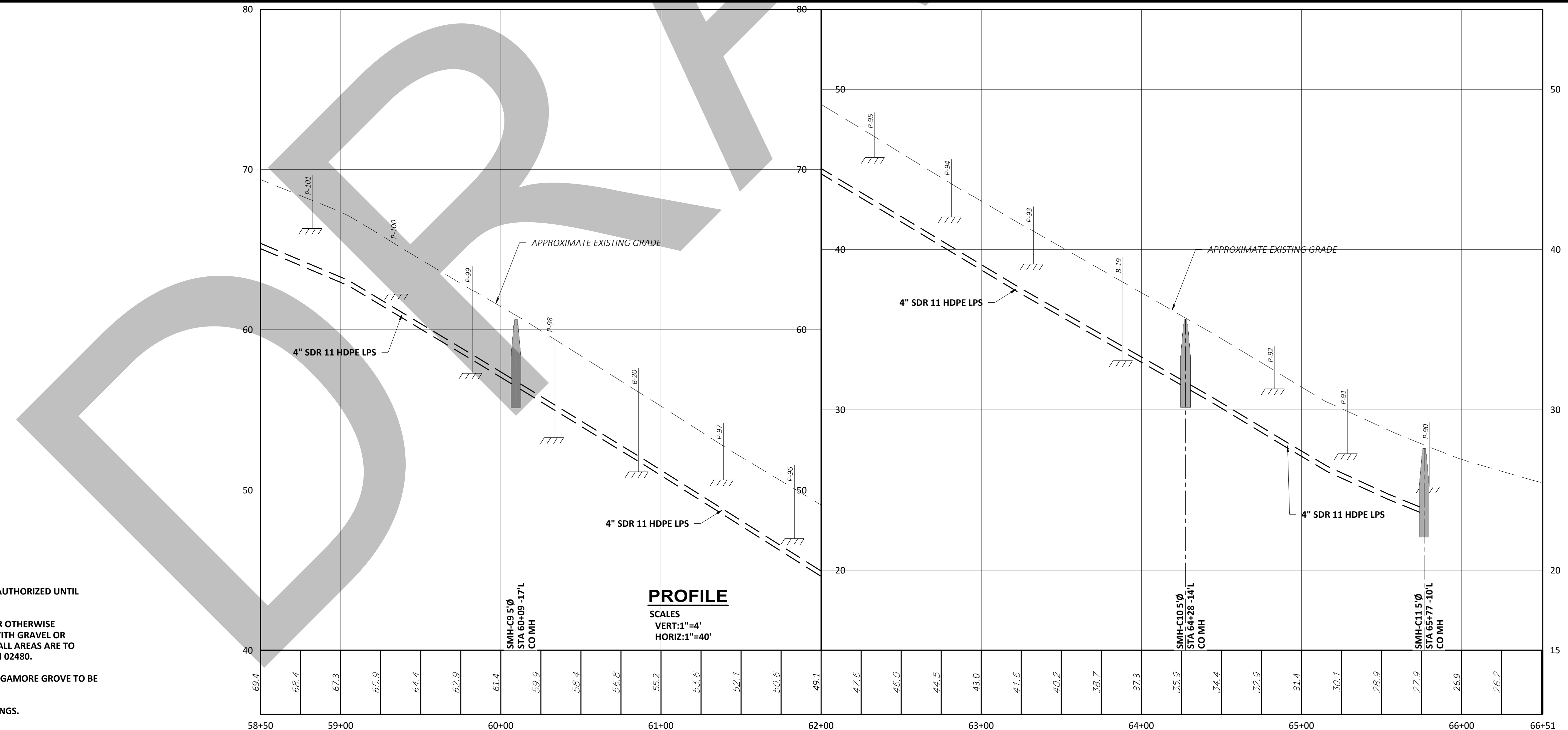
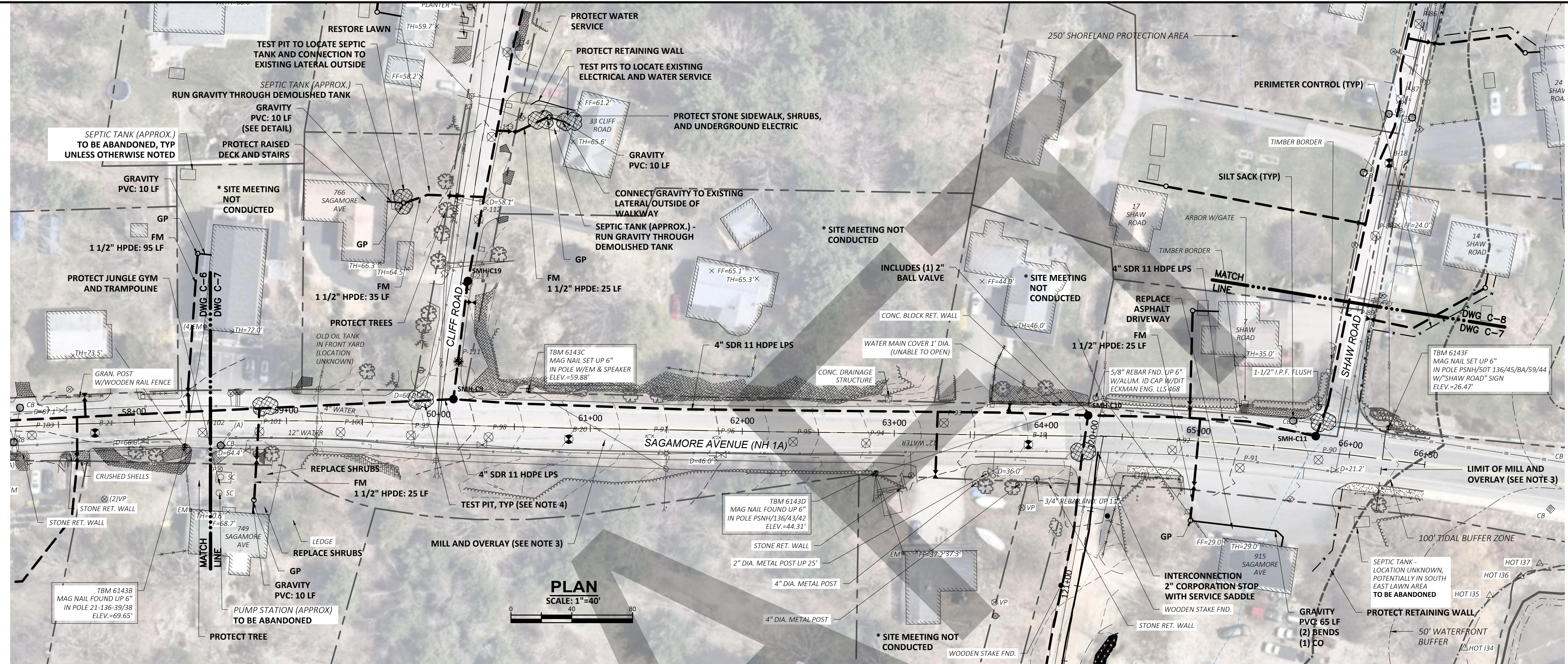
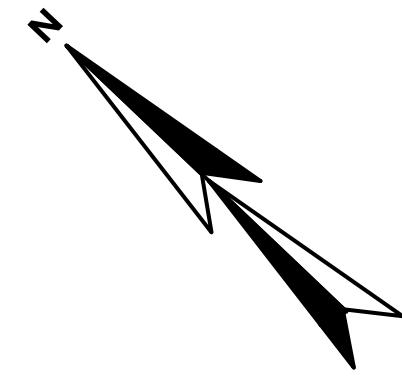
APPD	DATE
K.GAR	01-21

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE AVE
STA 50+00 TO STA 58+50

DRAWING
C-6



- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CAD CORP: J.M.C. <td>K.G.A.R. 01-21</td>	K.G.A.R. 01-21
2		CHECKED BY: K.LOBE <td></td>	
3		DATE: 02-21 <td></td>	
4		APPROVED BY: K.G.A.R. <td></td>	
5		DATE: 02-21 <td></td>	
6		PROJECT NO.: 11304C <td></td>	

LIMIT OF MILL AND OVERLAY (SEE NOTE 3)

100' TIDAL BUFFER ZONE

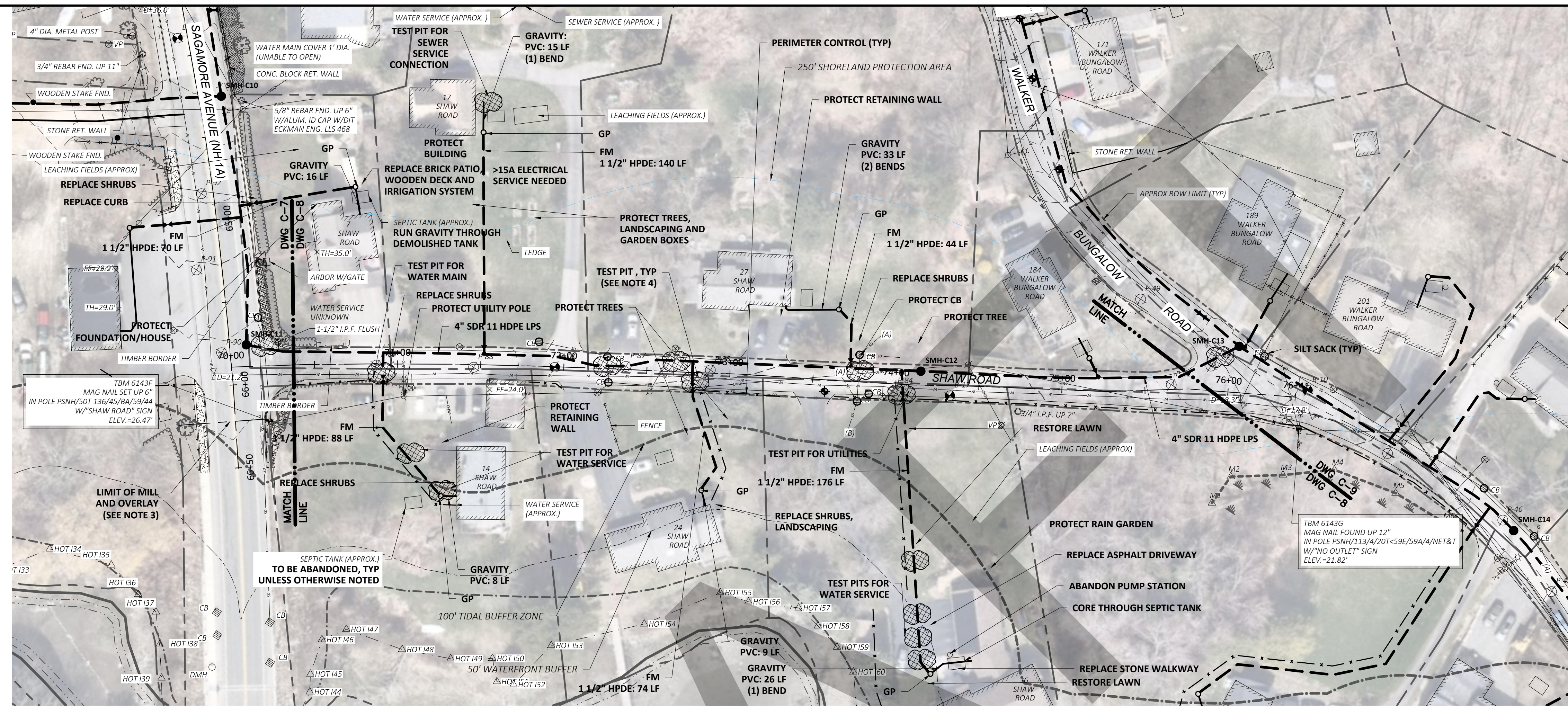
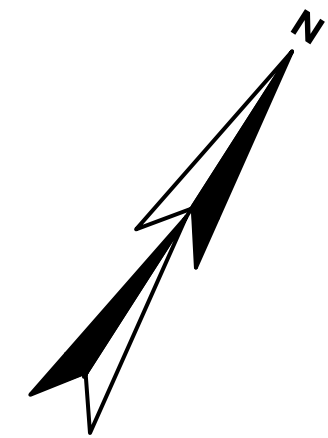
50' WATERFRONT BUFFER

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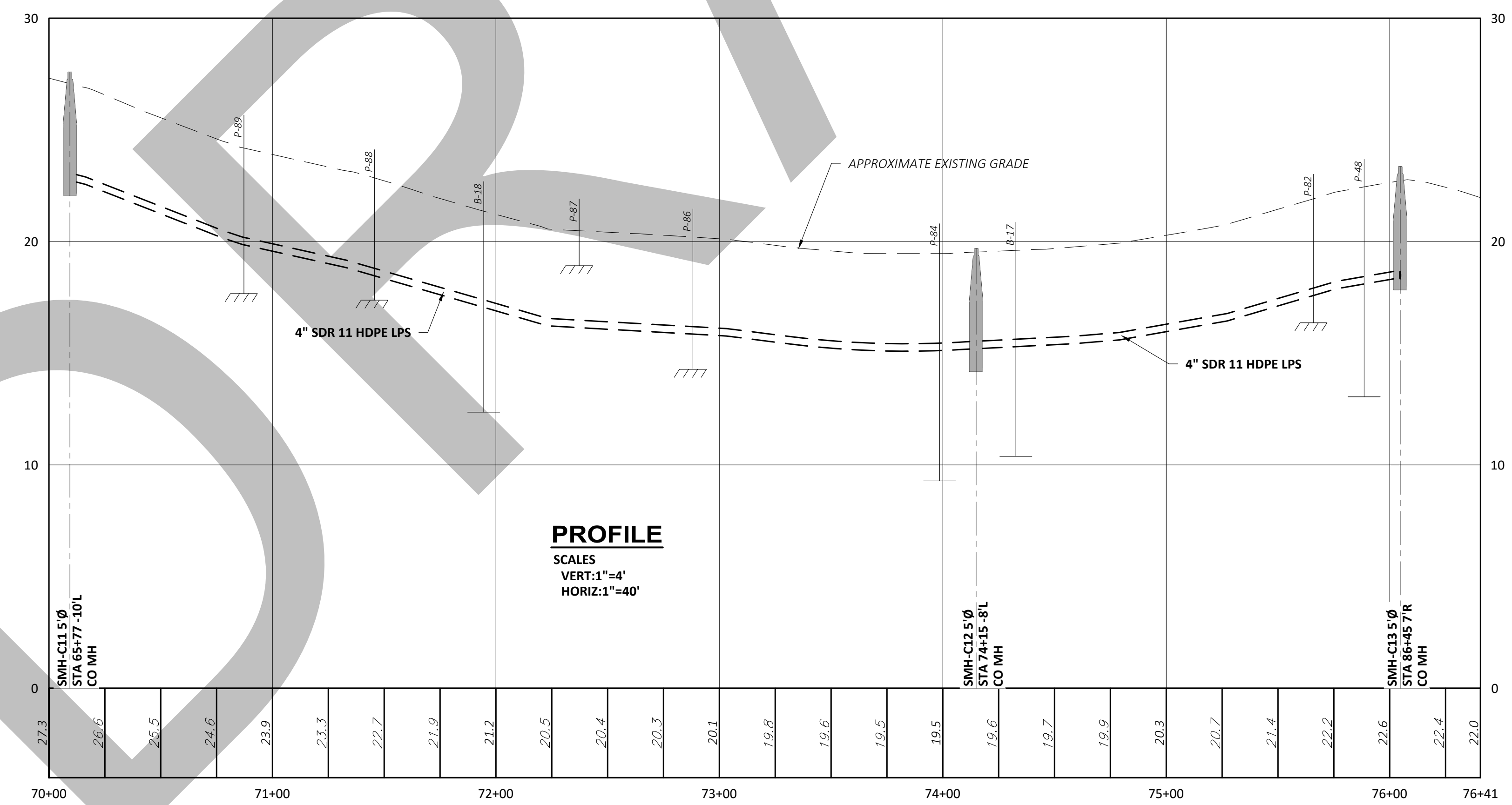
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE AVE
STA 58+50 TO STA 66+50

DRAWING
C-7



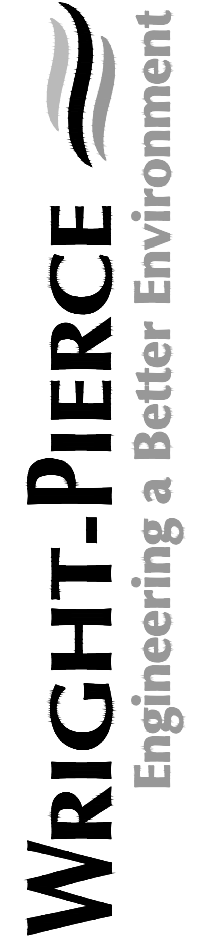
PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	DESIGNED BY: J.LLOC	DATE
1	DESIGNED BY: J.LLOC	DATE: 01-21	
2	CAD CORP: J.MIC	DATE: 01-21	
3	CHD: D.FUD	DATE: 01-21	
4	CHECKED BY: K.LOBE	DATE: 01-21	
5	APPROVED BY: K.GAR	DATE: 01-21	
6	PROJECT NO: 11304C		

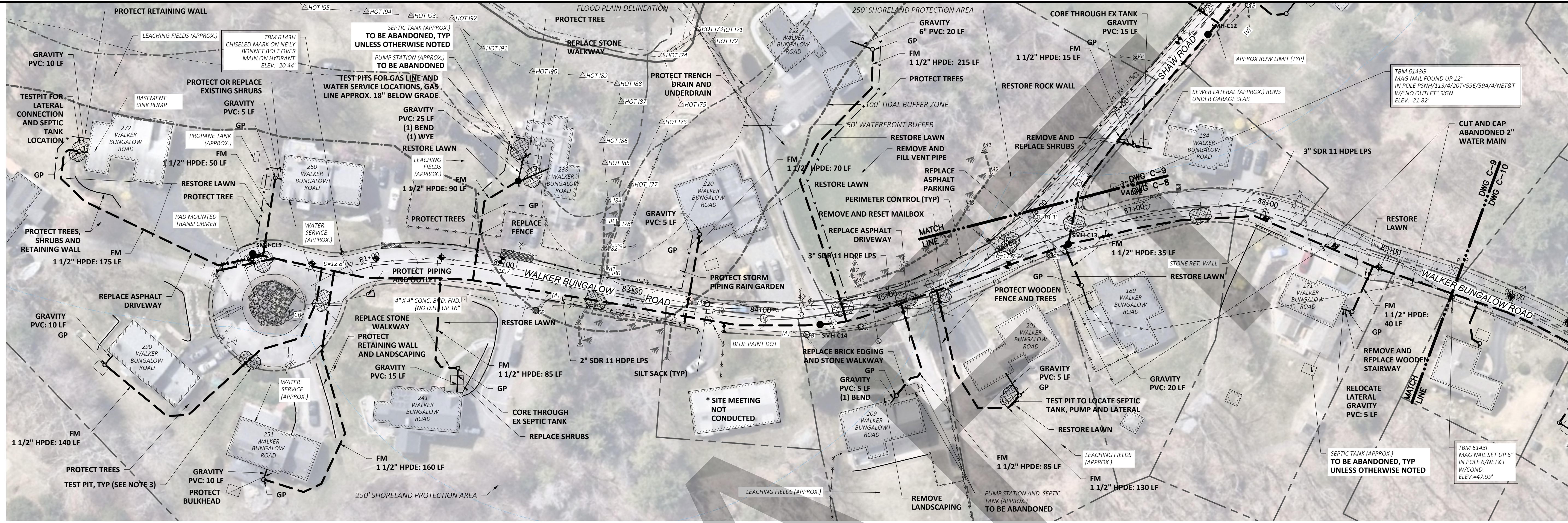


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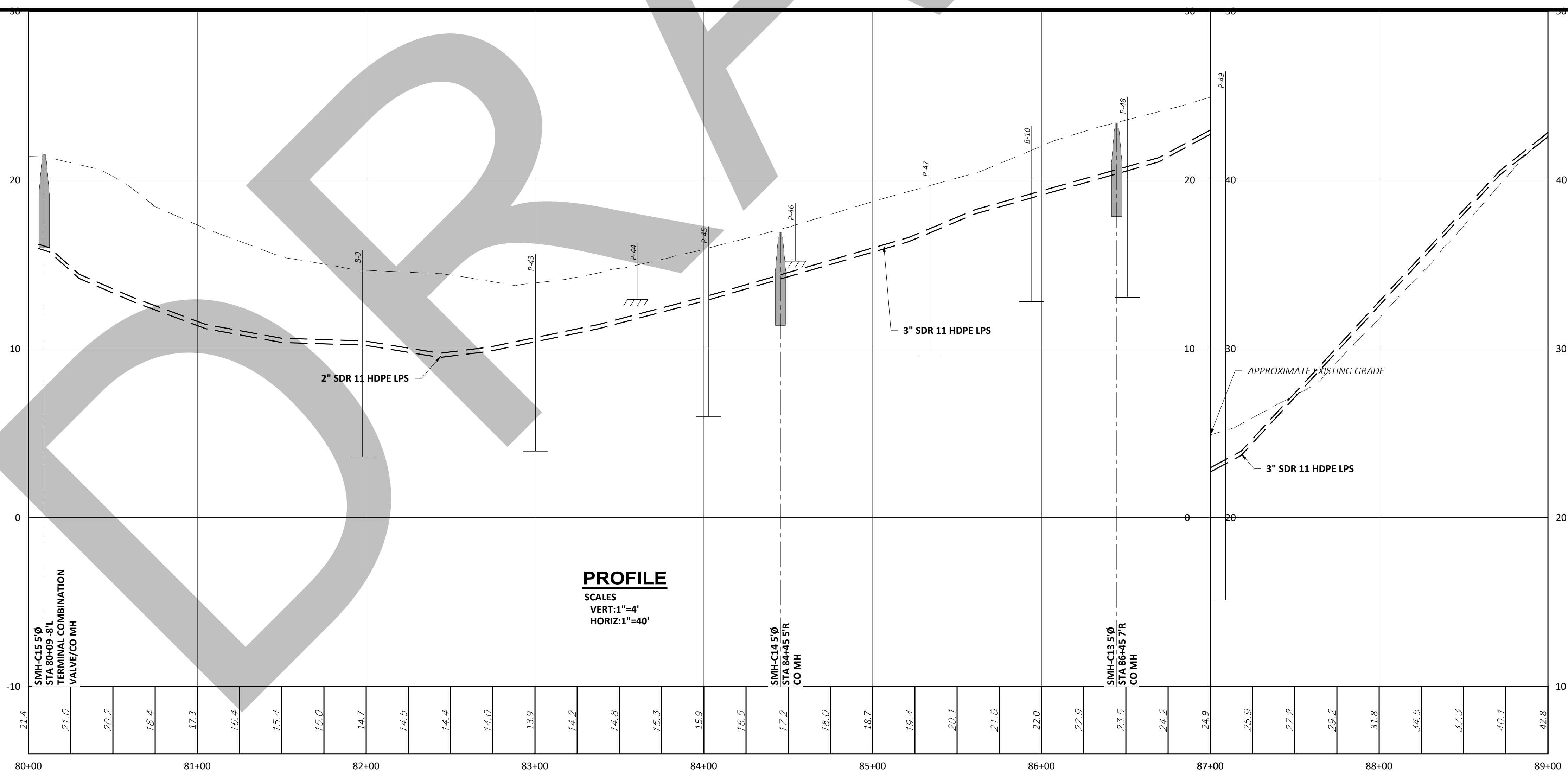
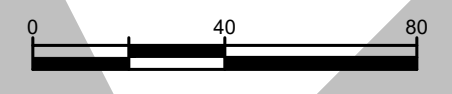
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SHAW RD
STA 70+00 TO STA 76+41

DRAWING
C-8



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
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 3. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	DESIGNED BY: J.LOC	APPD DATE
1		CD CORP: J.MIC	K.GAR 01-21
2		CHKD BY: D.FUD	
3		CRKED BY: K.LOBE	
4		DATE: 01-21	
5		APPROVED BY: K.GAR	
6		DATE: 01-21	
7		PROJECT NO: 1304C	

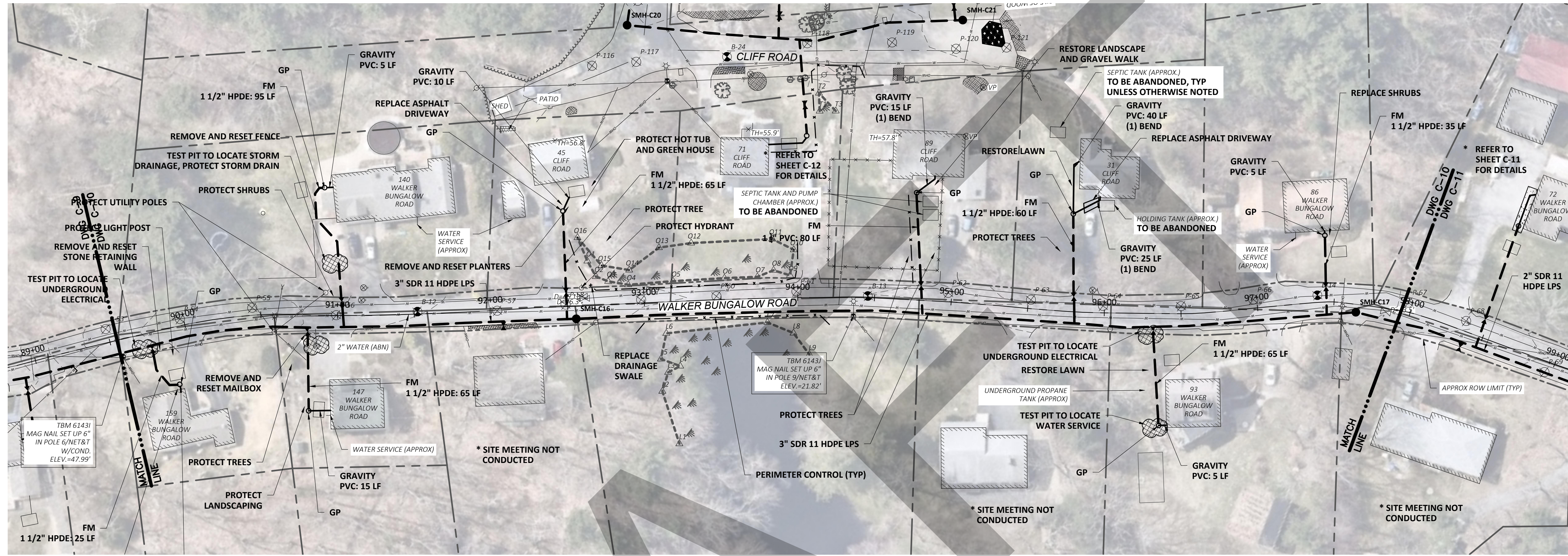
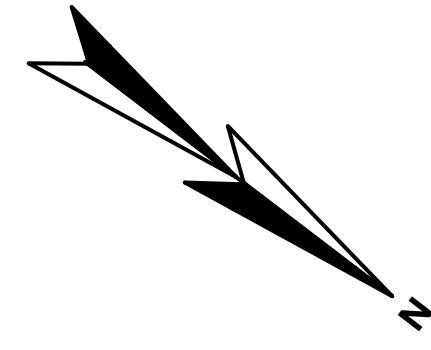
RELOCATE LATERAL GRAVITY PVC: 5 LF

SEPTIC TANK (APPROX.) TO BE ABANDONED, TYP UNLESS OTHERWISE NOTED

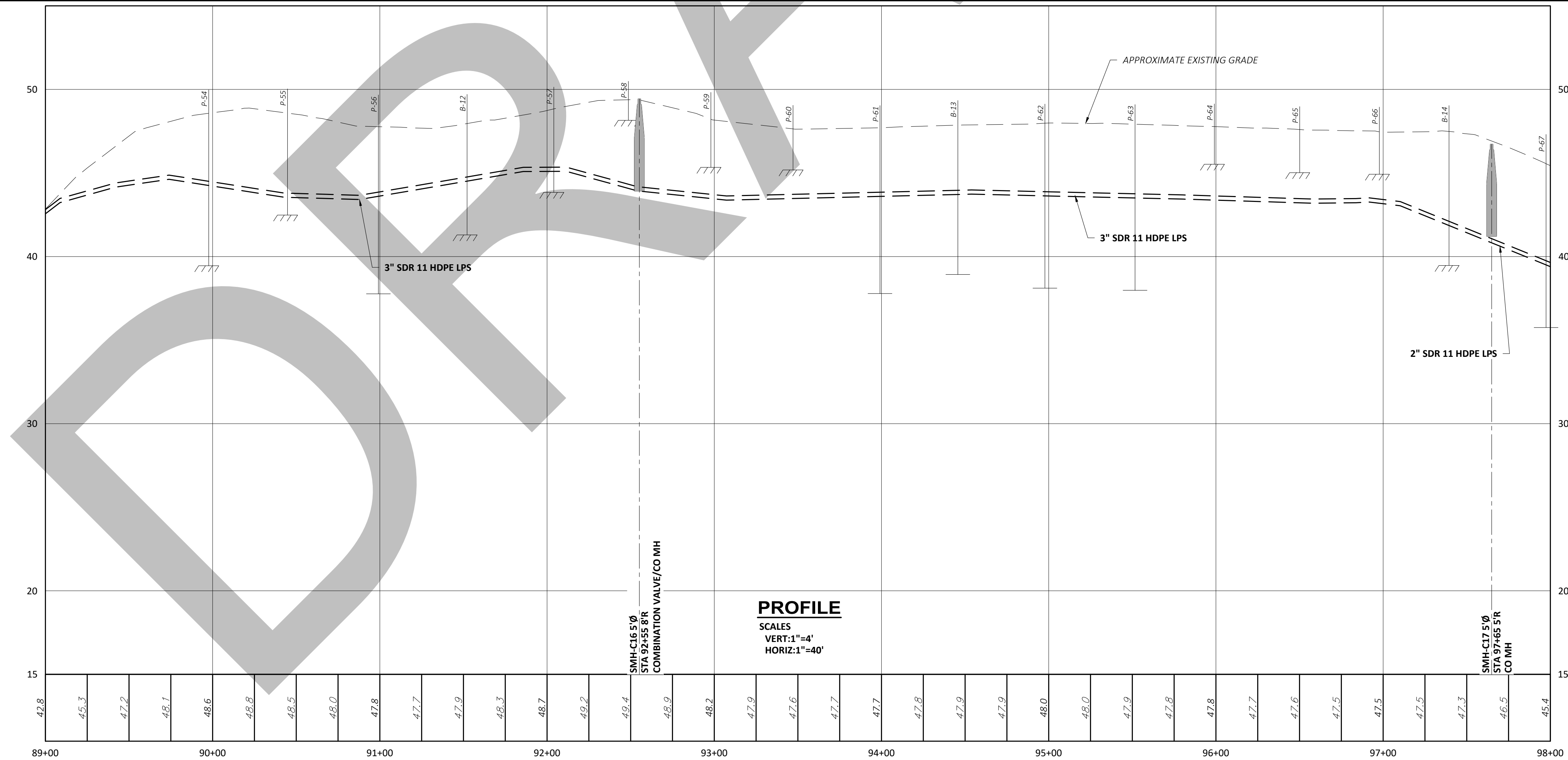
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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT
PLAN AND PROFILE: WALKER BUNGALOW RD
STA 80+00 TO STA 89+00

DRAWING
C-9



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NOTES:

1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
3. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

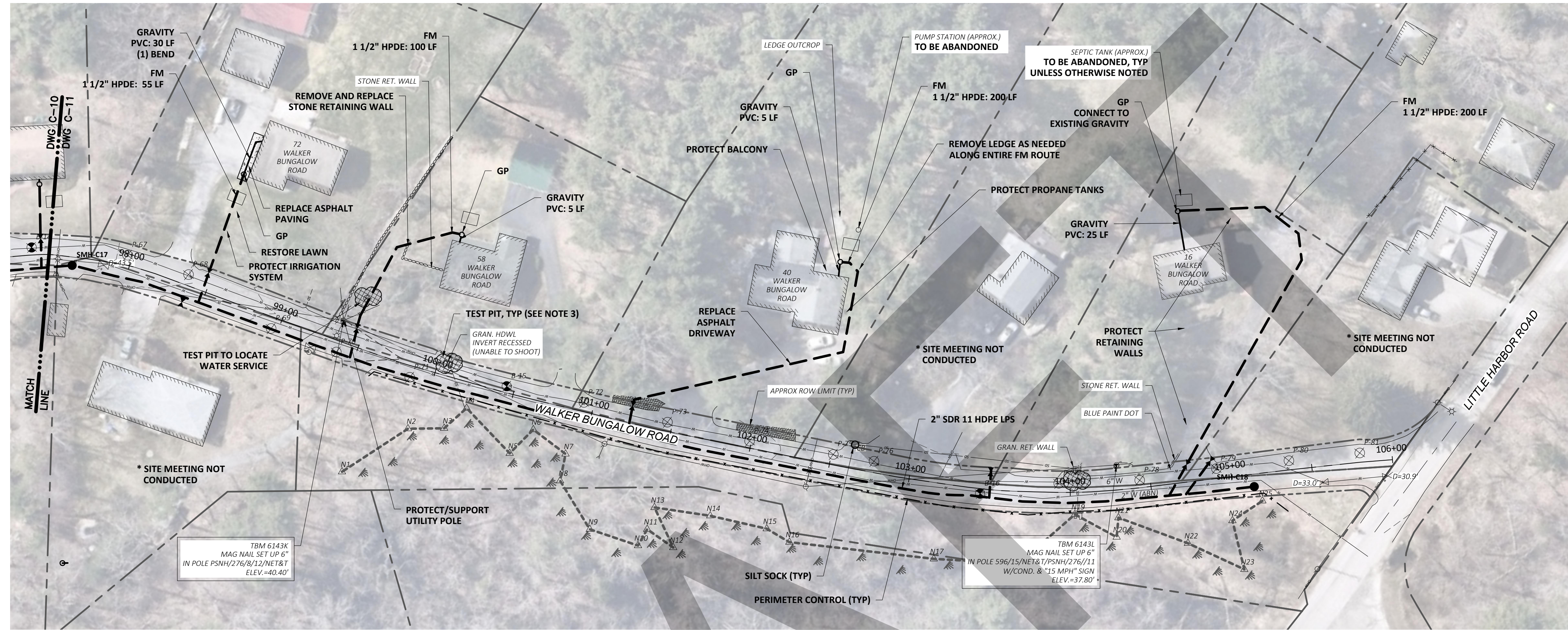
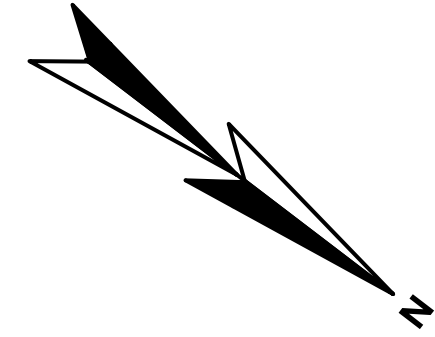
NO	PERMITTING	SUBMISSIONS/REVISIONS	APP'D	DATE
1			K.GAR	03-21

DESIGNED BY: J.LOC
 CAD CORP: J.MIC
 CD: D.FUD
 CHECKED BY: K.LOBE
 DATE: 02-21
 APPROVED BY: K.GAR
 DATE: 02-21
 PROJECT NO.: 1304C

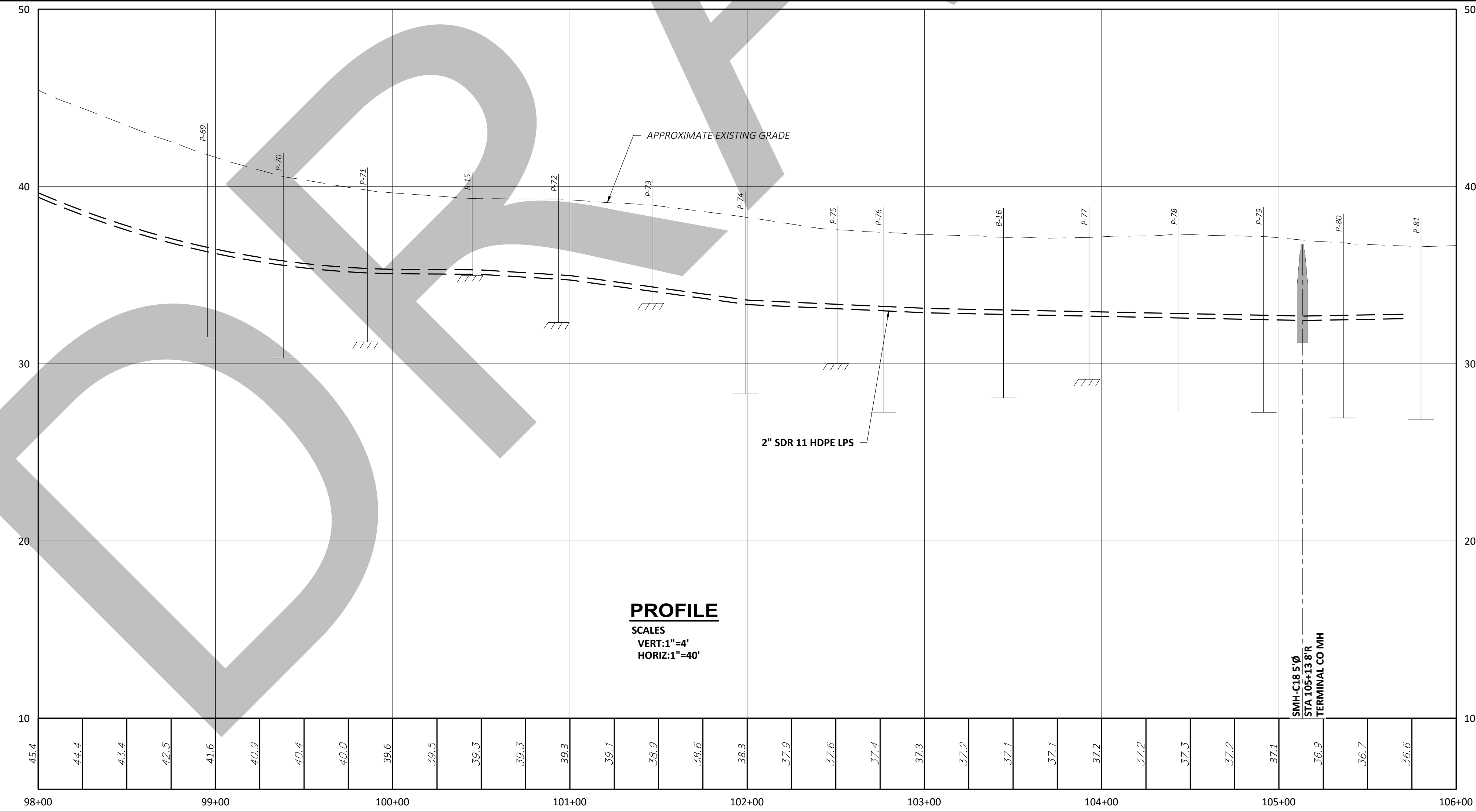
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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT
 PLAN AND PROFILE: WALKER BUNGALOW RD
 STA 89+00 TO STA 98+00

DRAWING
C-10



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

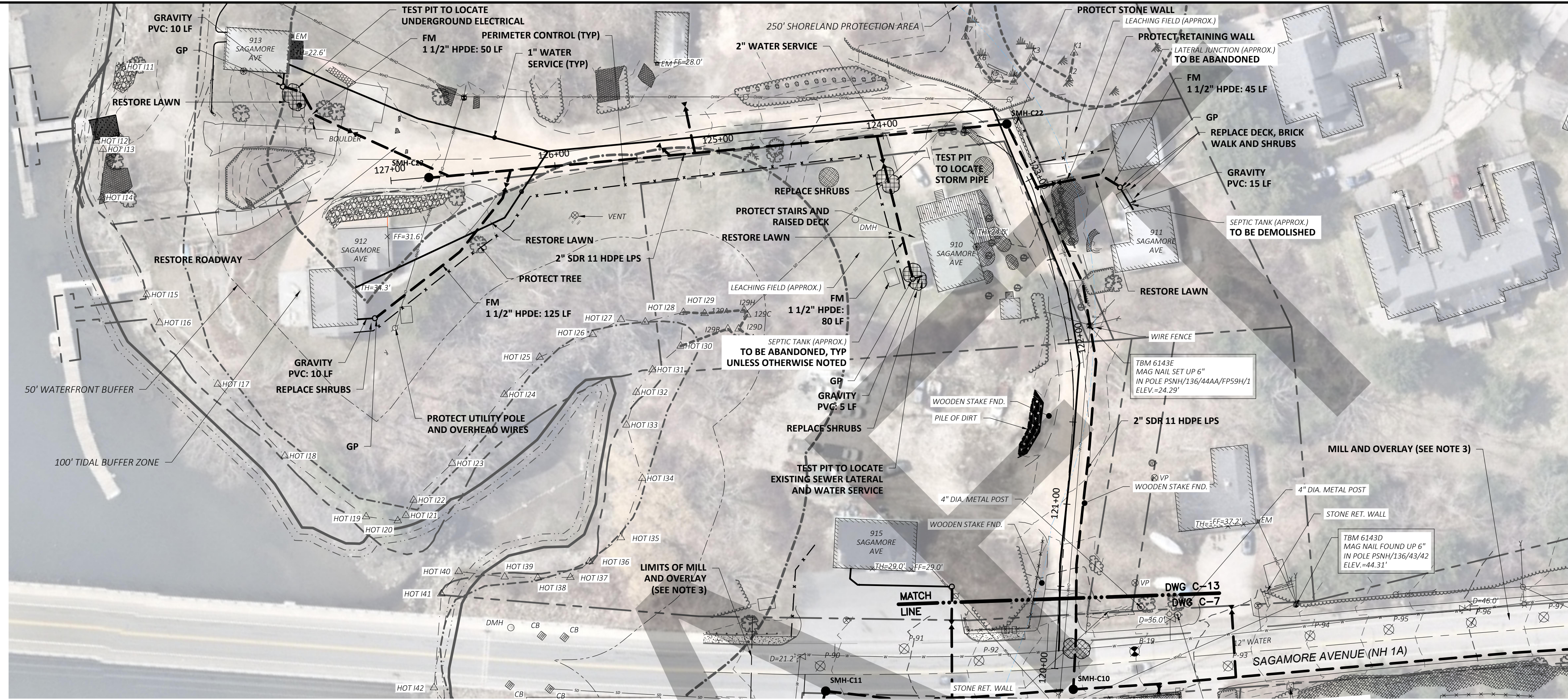
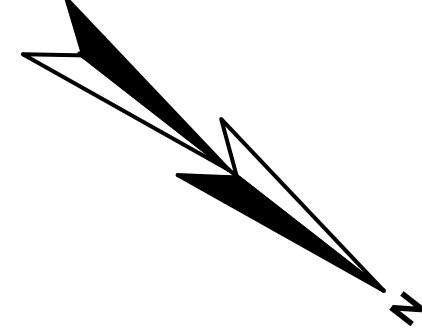
NOTES:

1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
3. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

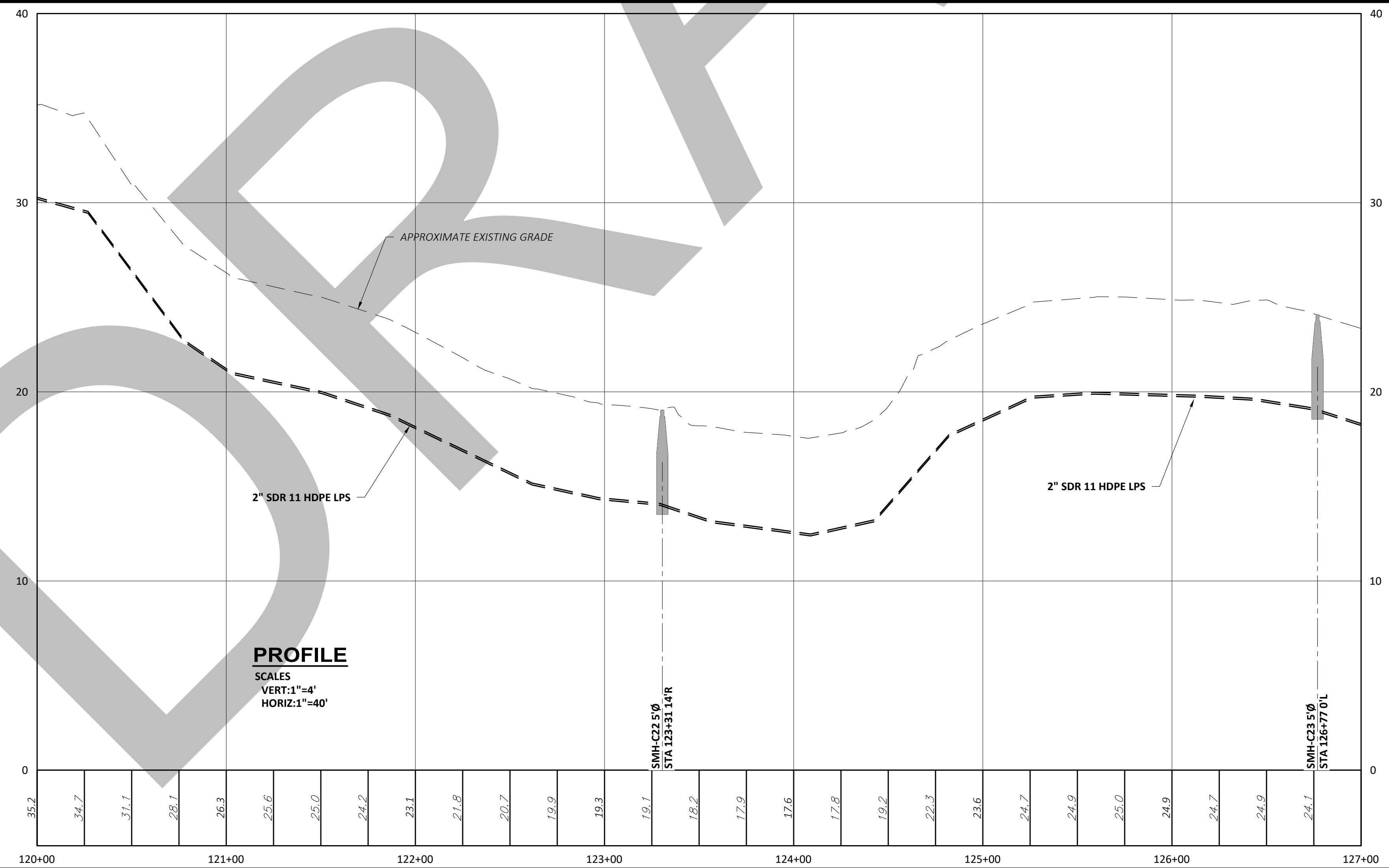
NO	PERMITTING	NO	DESIGNED BY: J.LOC	APP'D DATE
1			J.MIC	K.GAR 01-21
2			D.FUD	
3			K.LOBE	
4			B.21	
5			K.GAR	
6			K.GAR	
7			PROJECT NO: 11304C	

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT
PLAN AND PROFILE: WALKER BUNGALOW RD
STA 98+00 TO STA 106+00



PLAN
SCALE: 1"=40'



PROFILE
SCALE
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 18) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO	PERMITTING	NO	DATE
1			01-21
2			01-21
3			01-21
4			01-21

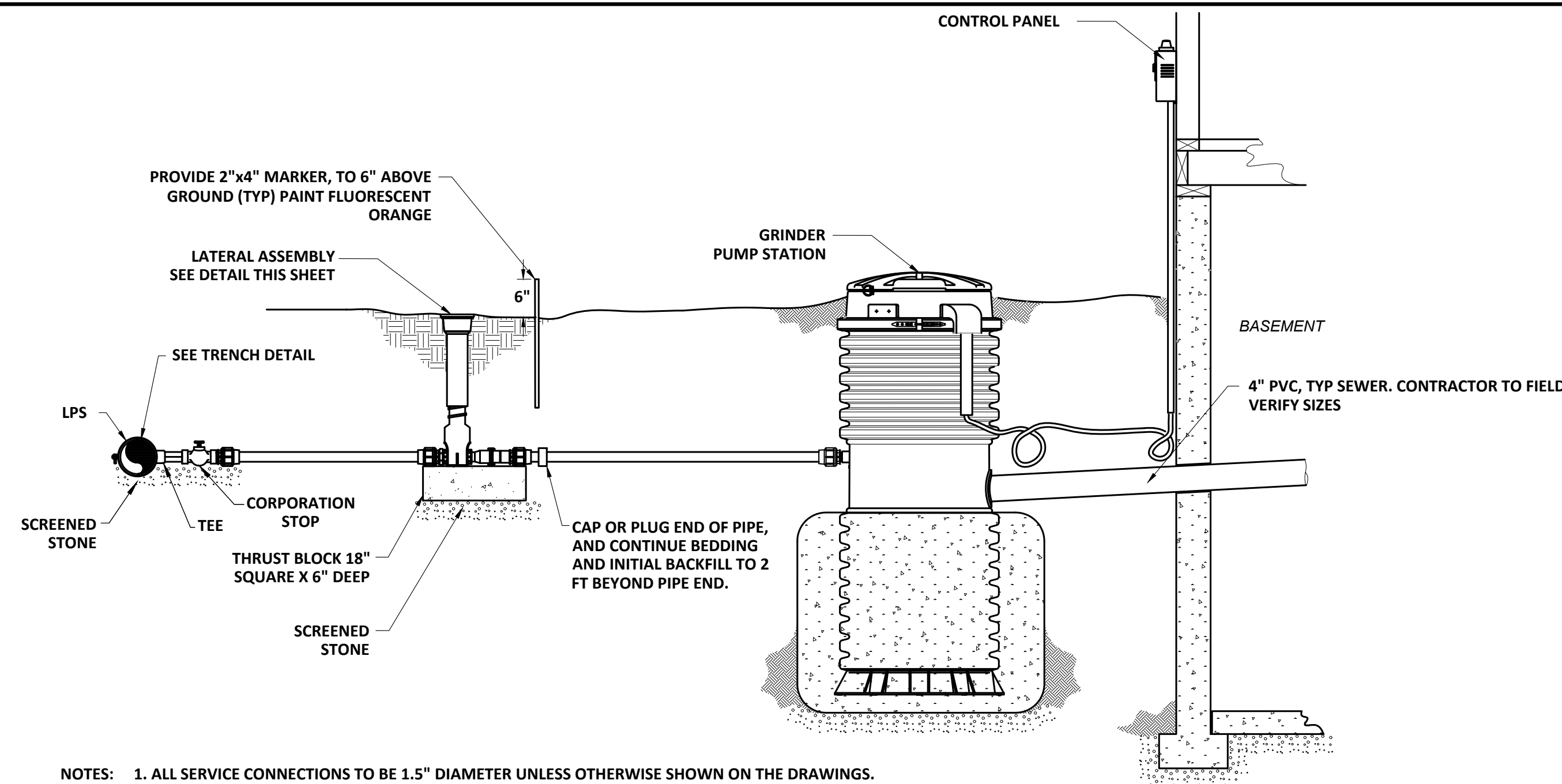
DESIGNED BY: JLMIC
 CAD CORP: JLMICHAUD
 CHECKED BY: JLMICHAUD
 DATE: 02-21
 APPROVED BY: JLMICHAUD
 DATE: 02-21
 PROJECT NO.: 11304C

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

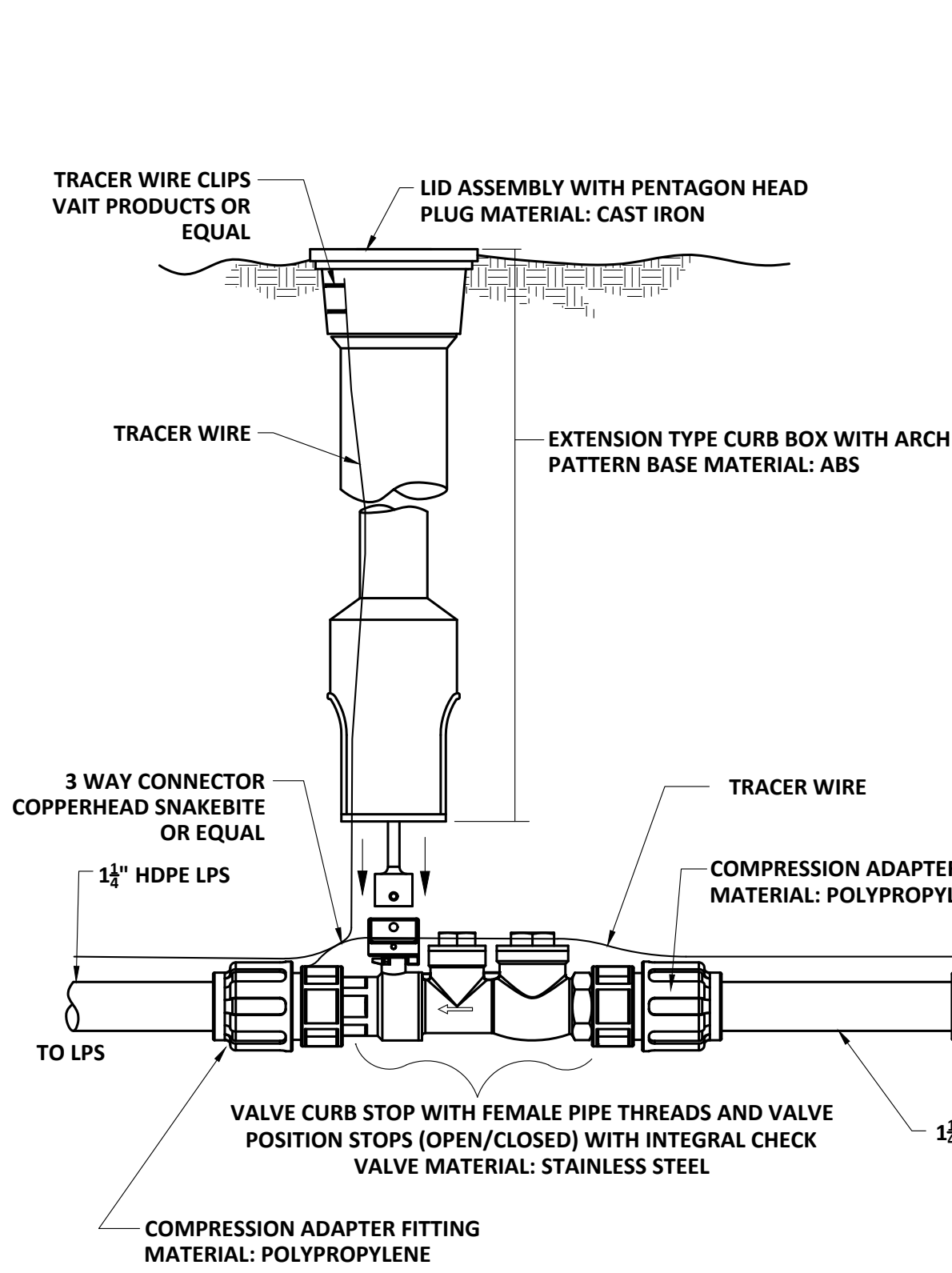
PLAN AND PROFILE: SAGAMORE AVE (WEST)
 STA 120+00 TO STA 125+60

DRAWING
 C-13

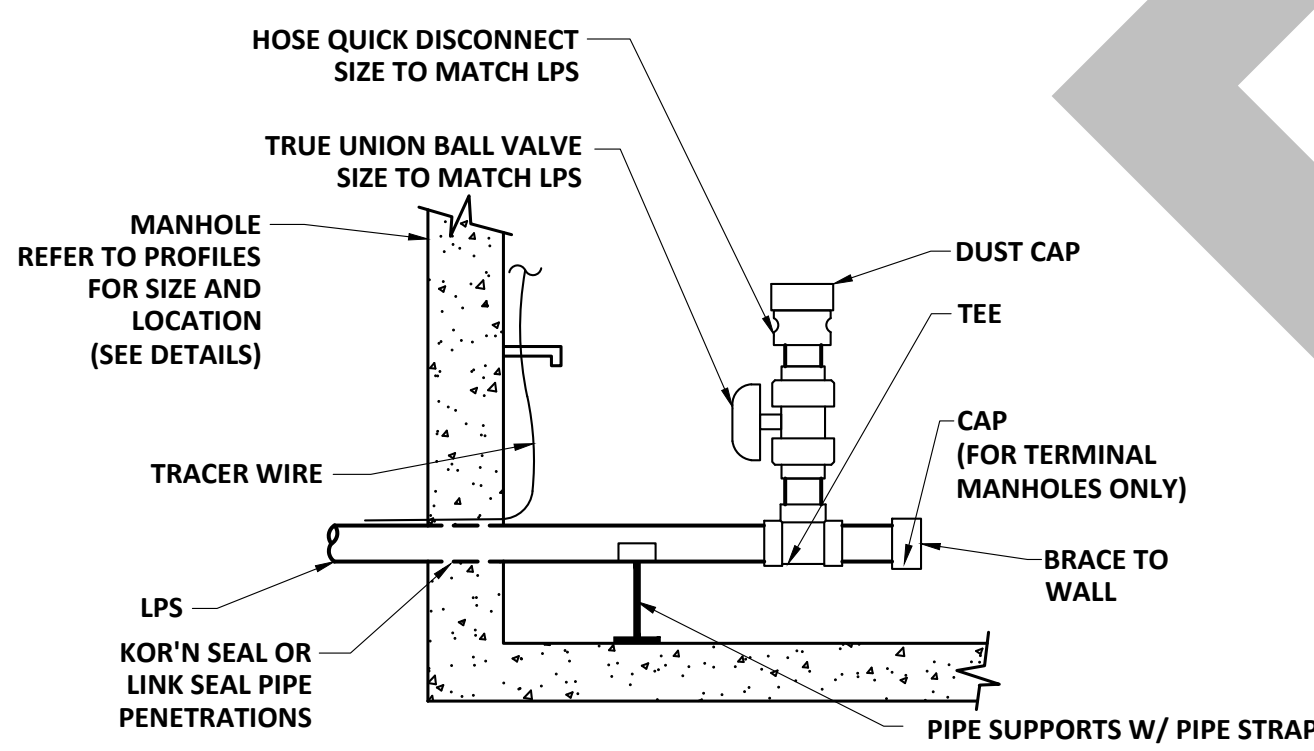


NOTES: 1. ALL SERVICE CONNECTIONS TO BE 1.5" DIAMETER UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
2. EXTEND SERVICE TO EDGE OF ROW.

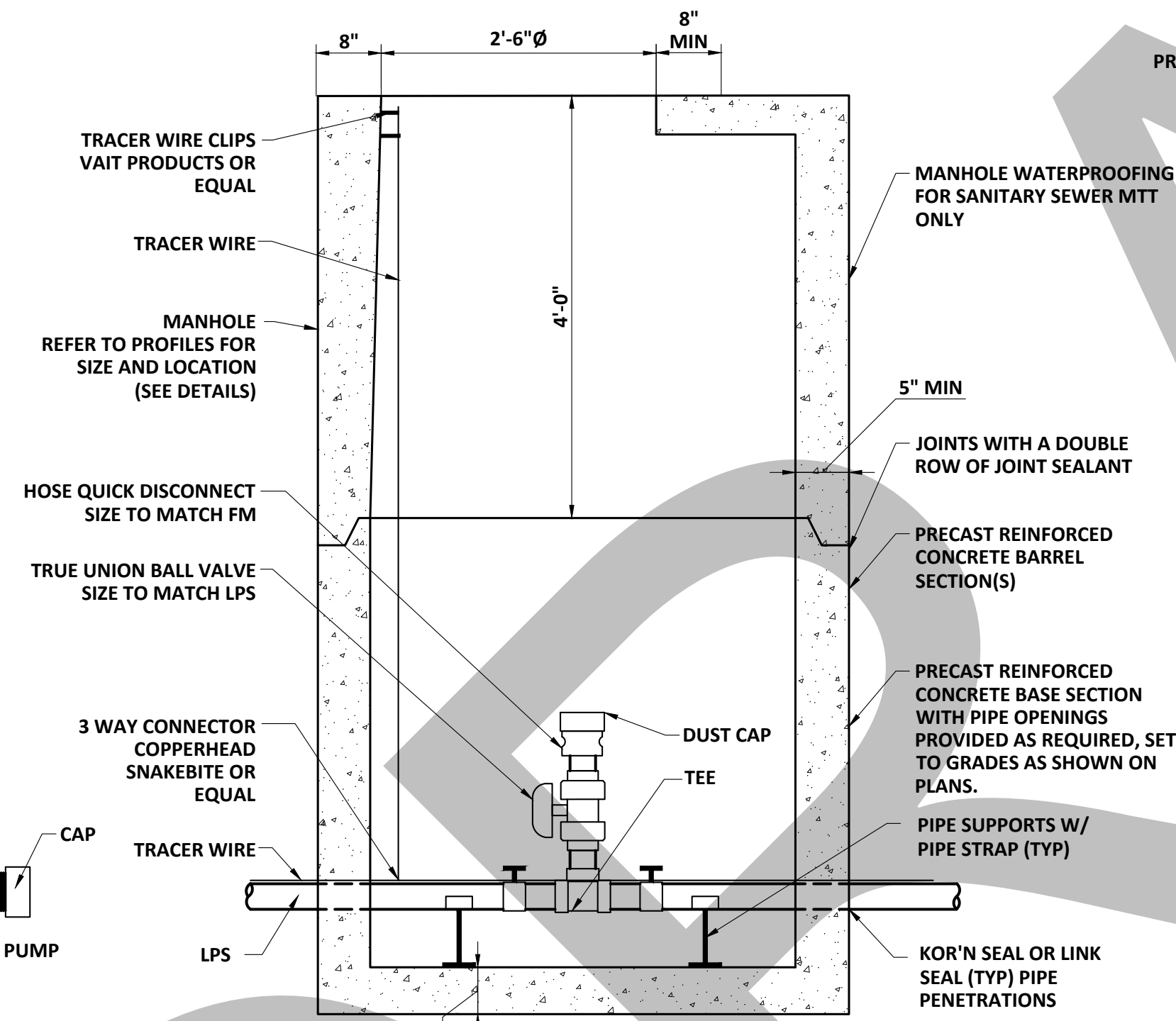
LPS SERVICE CONNECTION DETAIL
SCALE: NTS



LATERAL ASSEMBLY DETAIL
SCALE: NTS

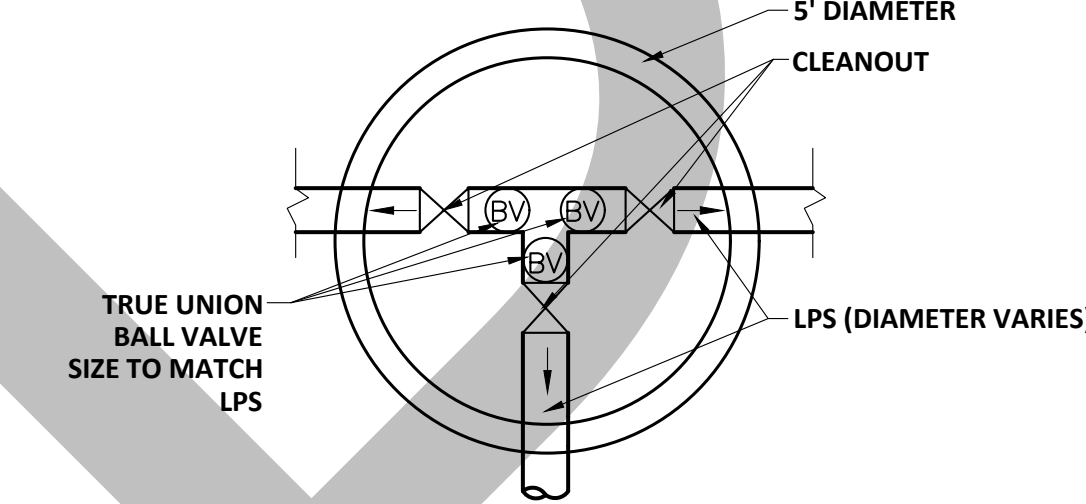


TYPICAL LPS TERMINAL CLEANOUT MANHOLE
SCALE: NTS

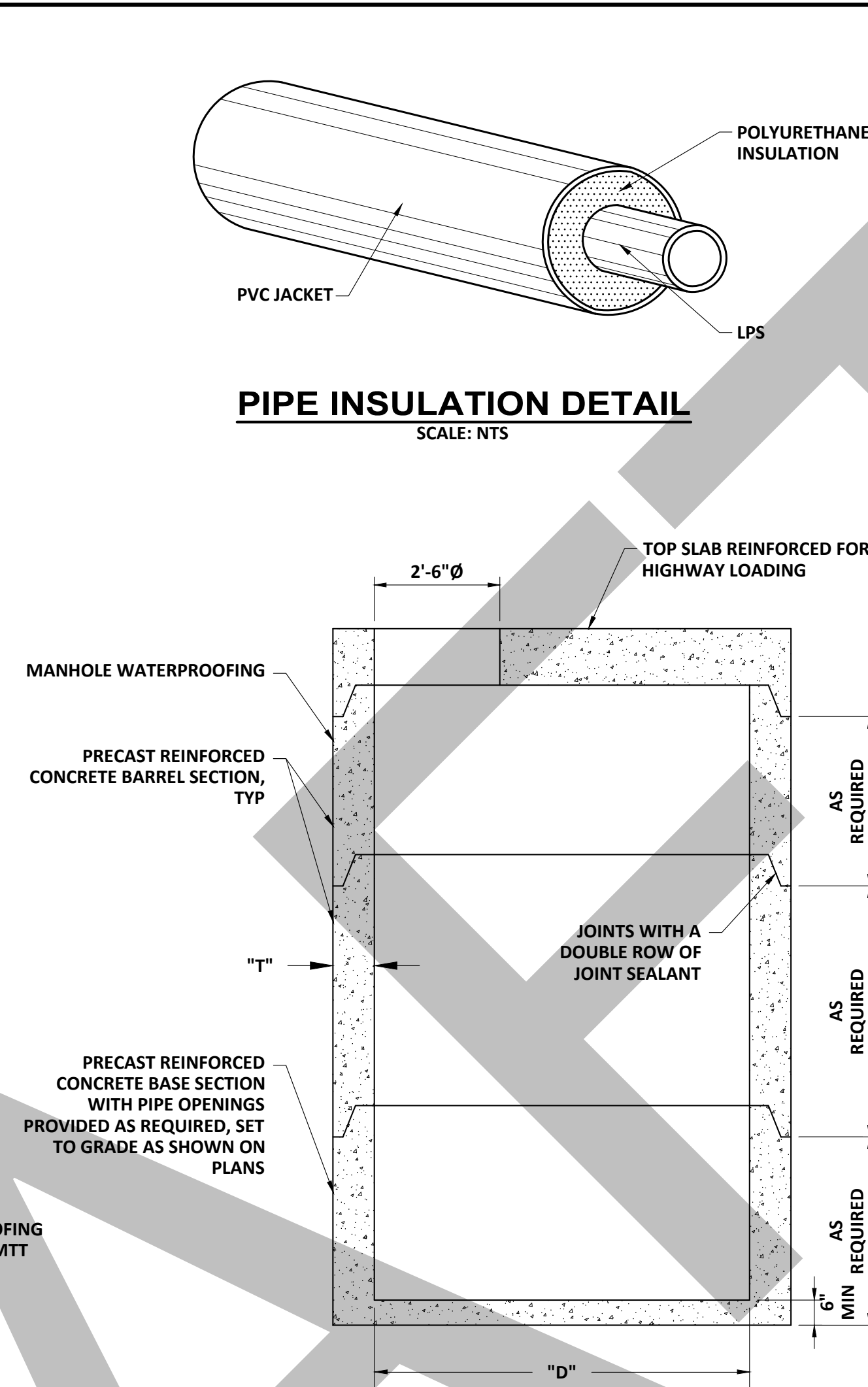


NOTES: 1. PRATT STREET CLEANOUT MANHOLES WILL HAVE TWO CLEANOUTS (ONE FOR EACH PIPE)
2. USE A FLAT SLAB TOP MANHOLE WHEN THE HEIGHT DIFFERENCE BETWEEN THE HIGHEST INVERT AND RIM IS LESS THAN 6'-0" AND WHEN MANHOLE DIAMETER IS GREATER THAN 4'-0".

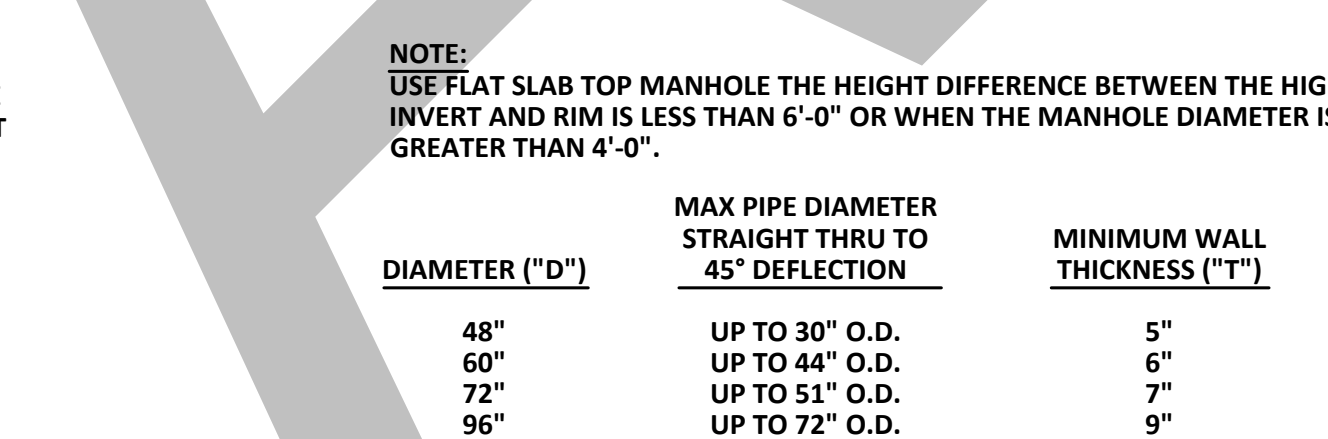
TYPICAL LPS INLINE CLEANOUT MANHOLE
SCALE: NTS



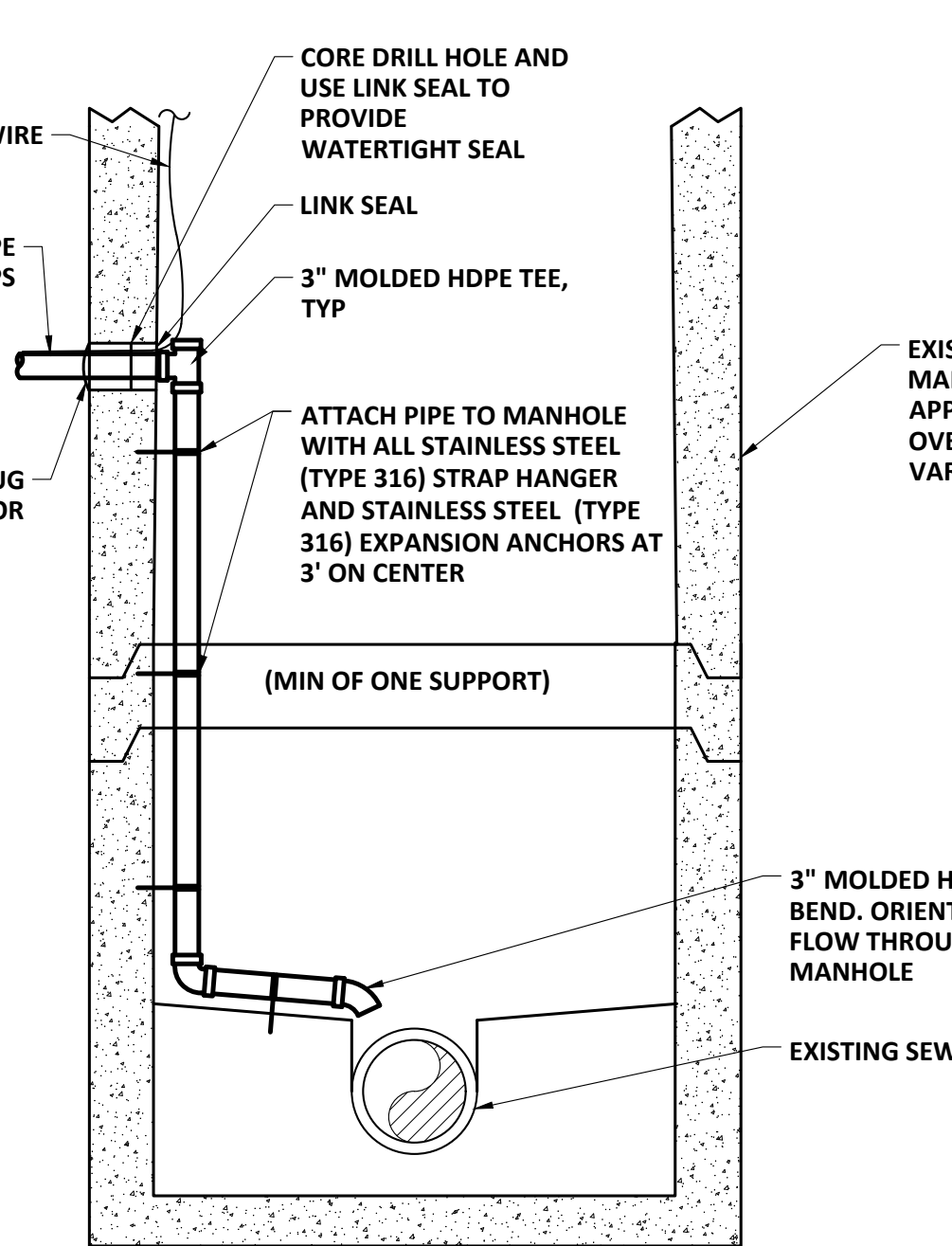
PLAN VIEW FOR TYPICAL 3-WAY LPS INLINE CLEANOUT MANHOLE
SCALE: NTS



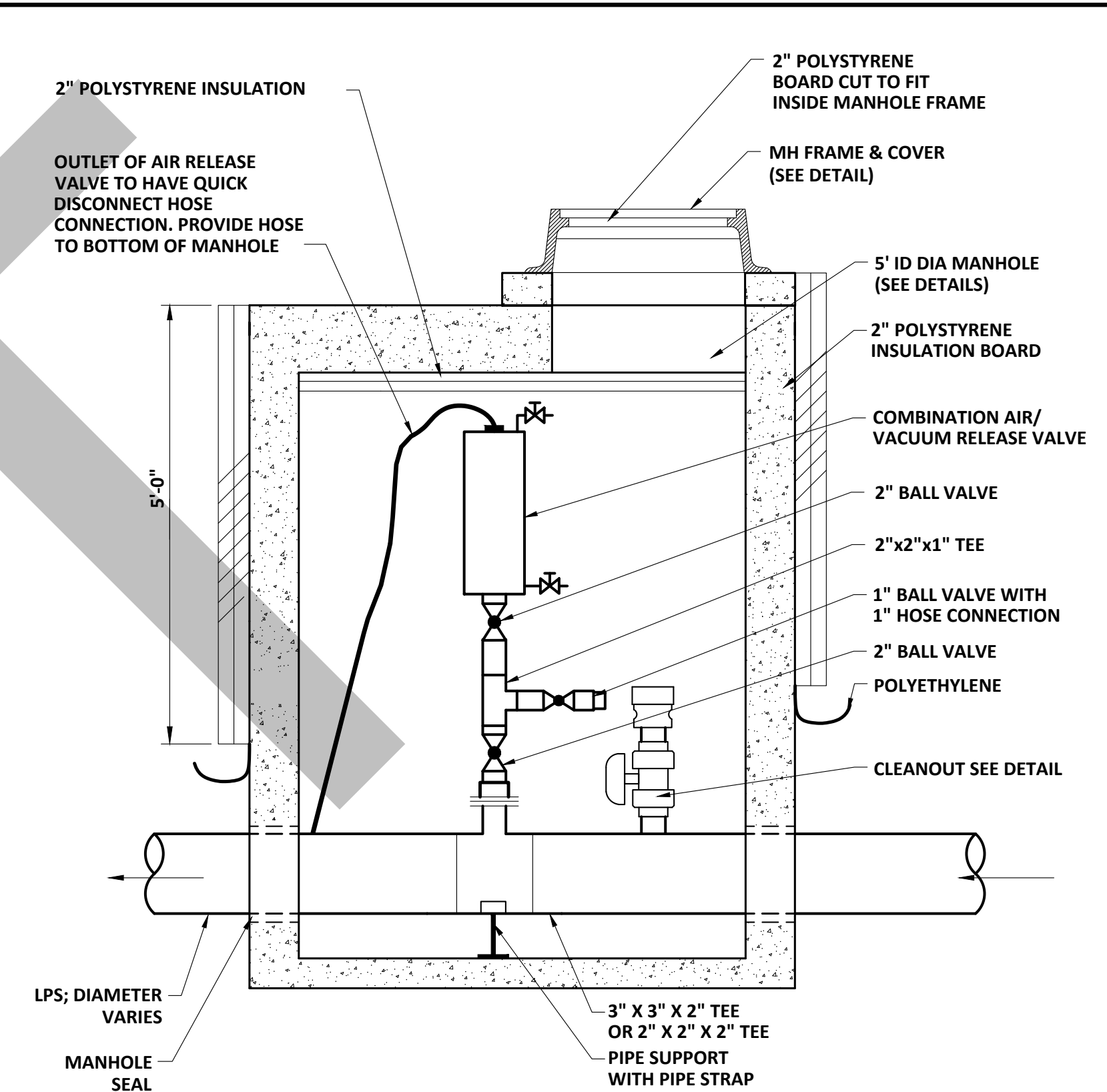
PIPE INSULATION DETAIL
SCALE: NTS



FLAT SLAB TOP LPS CLEANOUT MANHOLE
SCALE: NTS

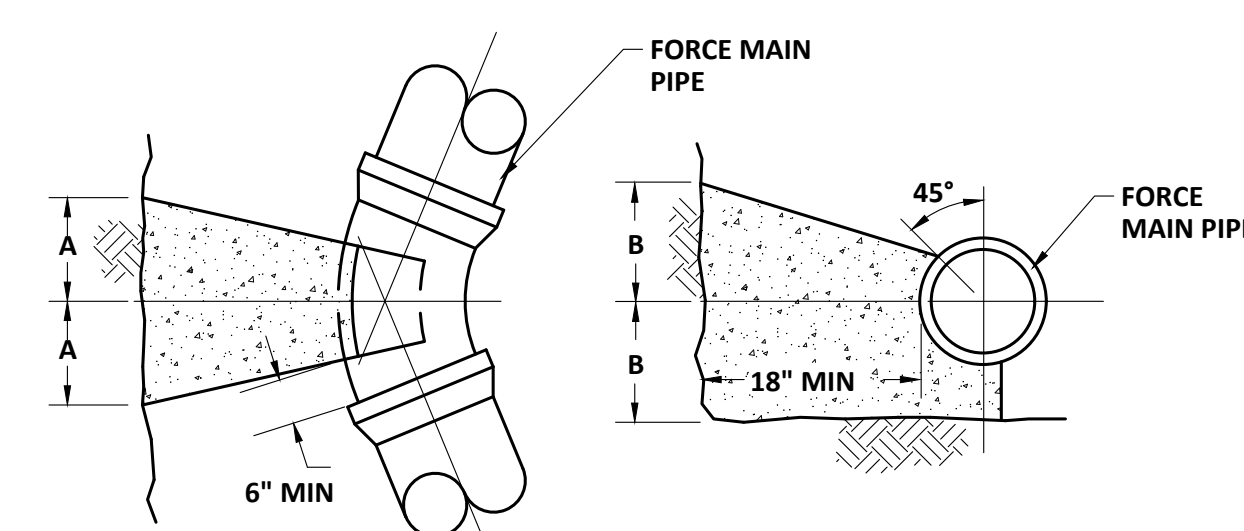


LPS DISCHARGE INTO EXISTING MH
SCALE: NTS



NOTE: PROVIDE SS TYPE 316 PIPE SUPPORTS FOR 3" LPS AND AIR/VACUUM RELEASE VALVE AS REQUIRED.

5' DIAMETER COMBINATION VALVE CLEANOUT MANHOLE
SCALE: NTS



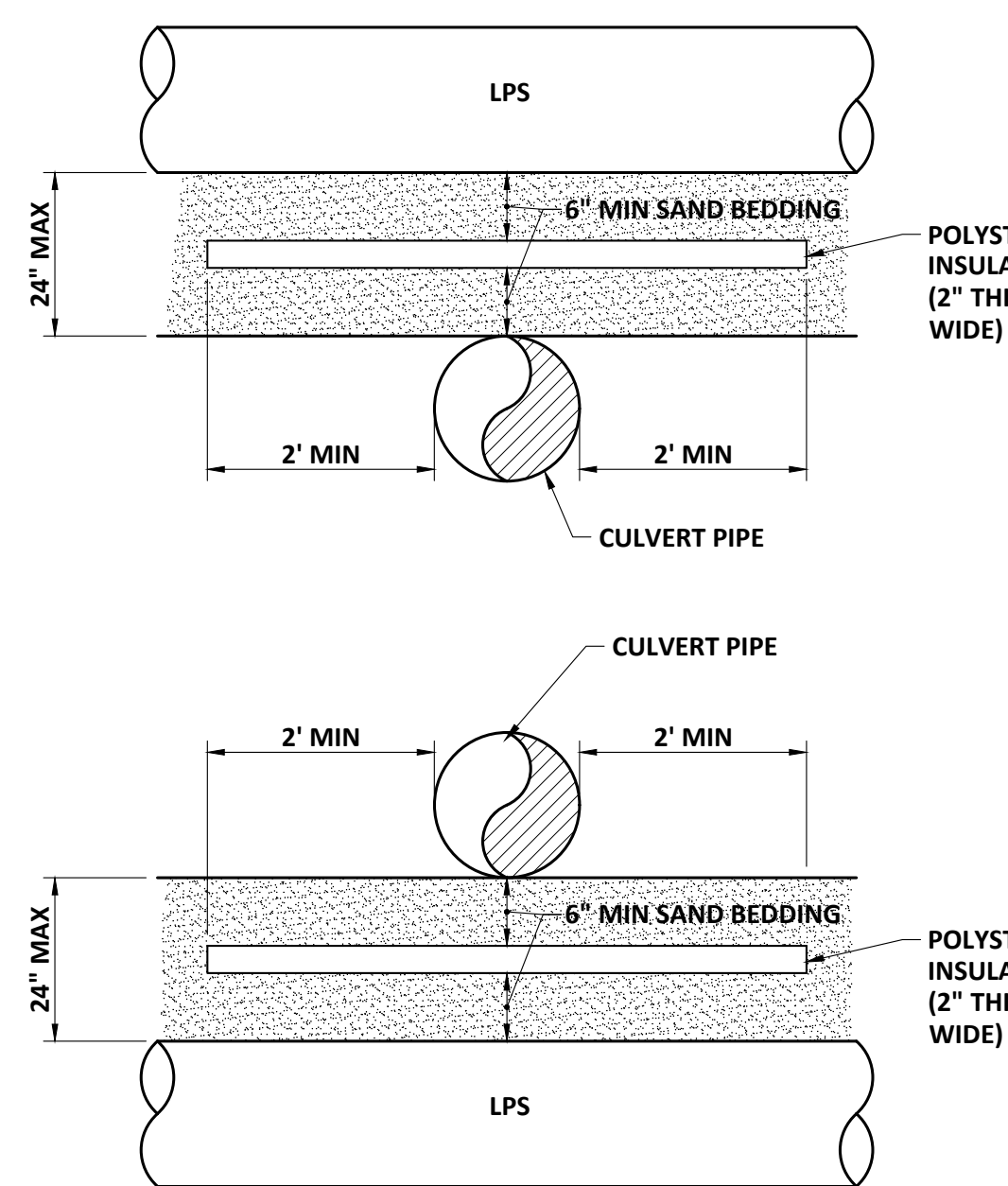
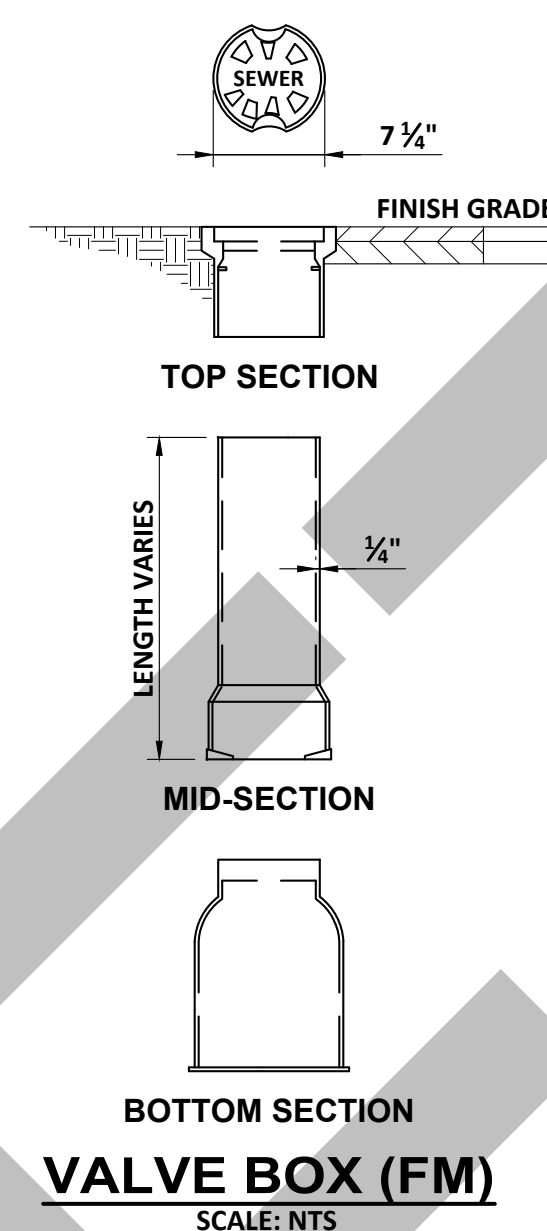
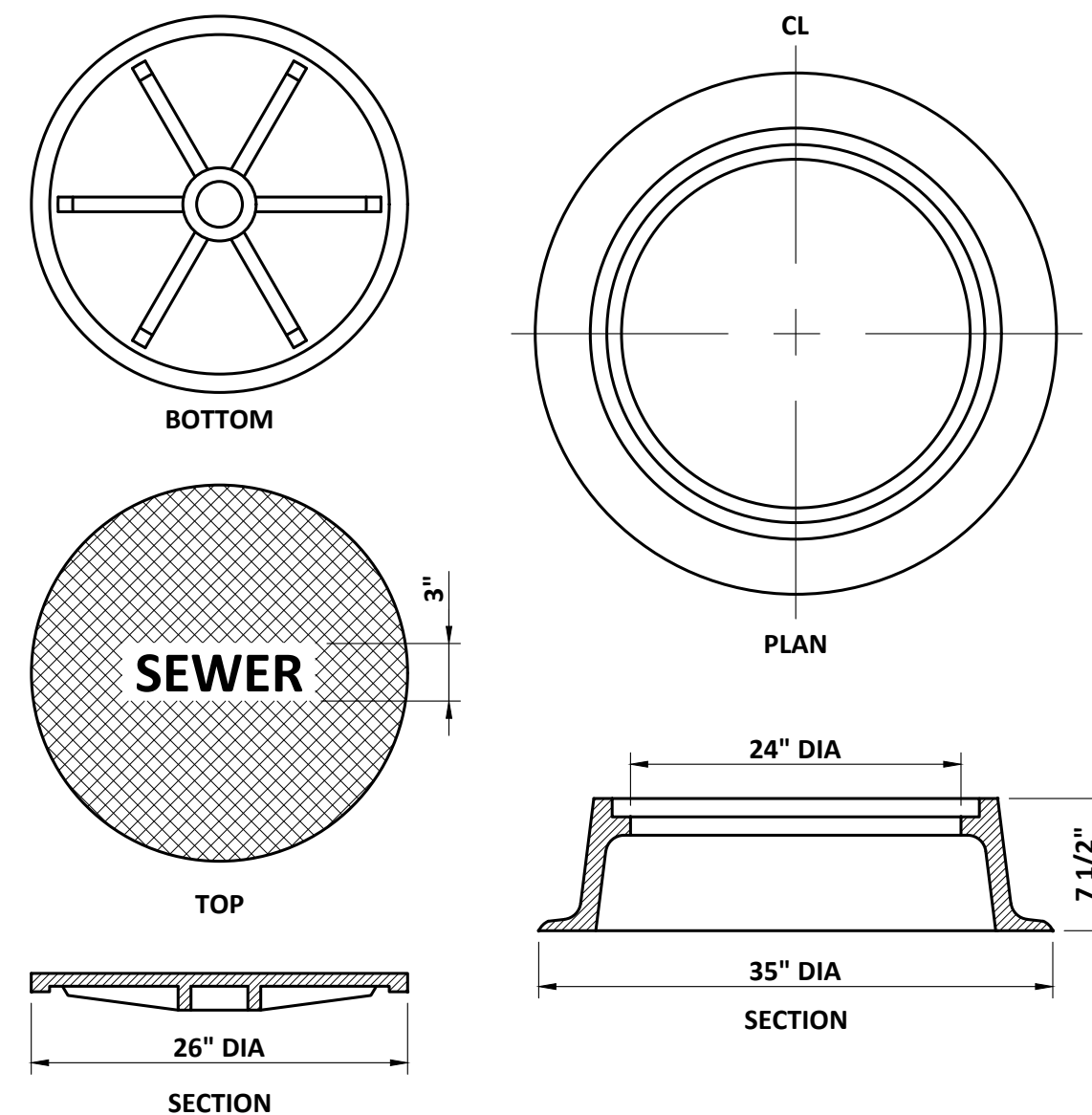
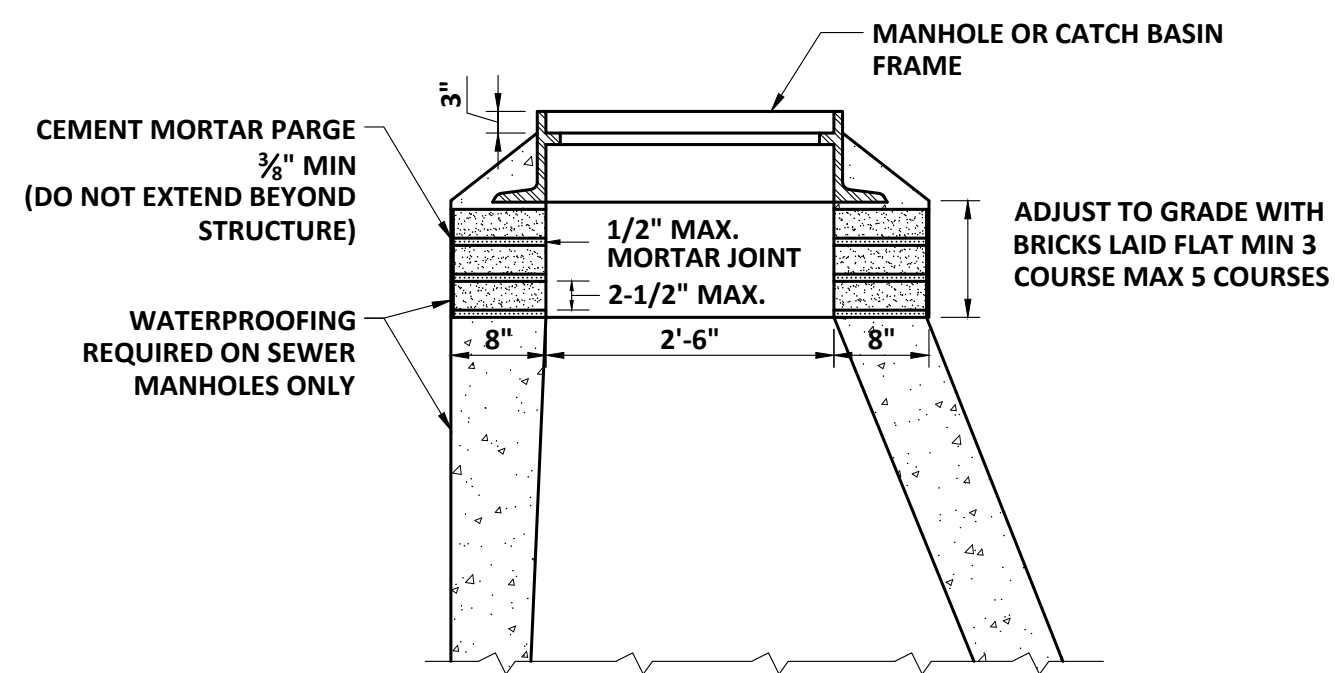
LPS THRUST BLOCK
SCALE: NTS

NOTES: 1. THRUST BLOCK SIZES ABOVE ARE BASED ON A SOIL BEARING CAPACITY OF 1000 PSF AND TEST PRESSURES OF 100 PSI. CONTRACTOR SHALL NOTIFY THE ENGINEER IF LOW BEARING STRENGTH SOILS ARE ENCOUNTERED.

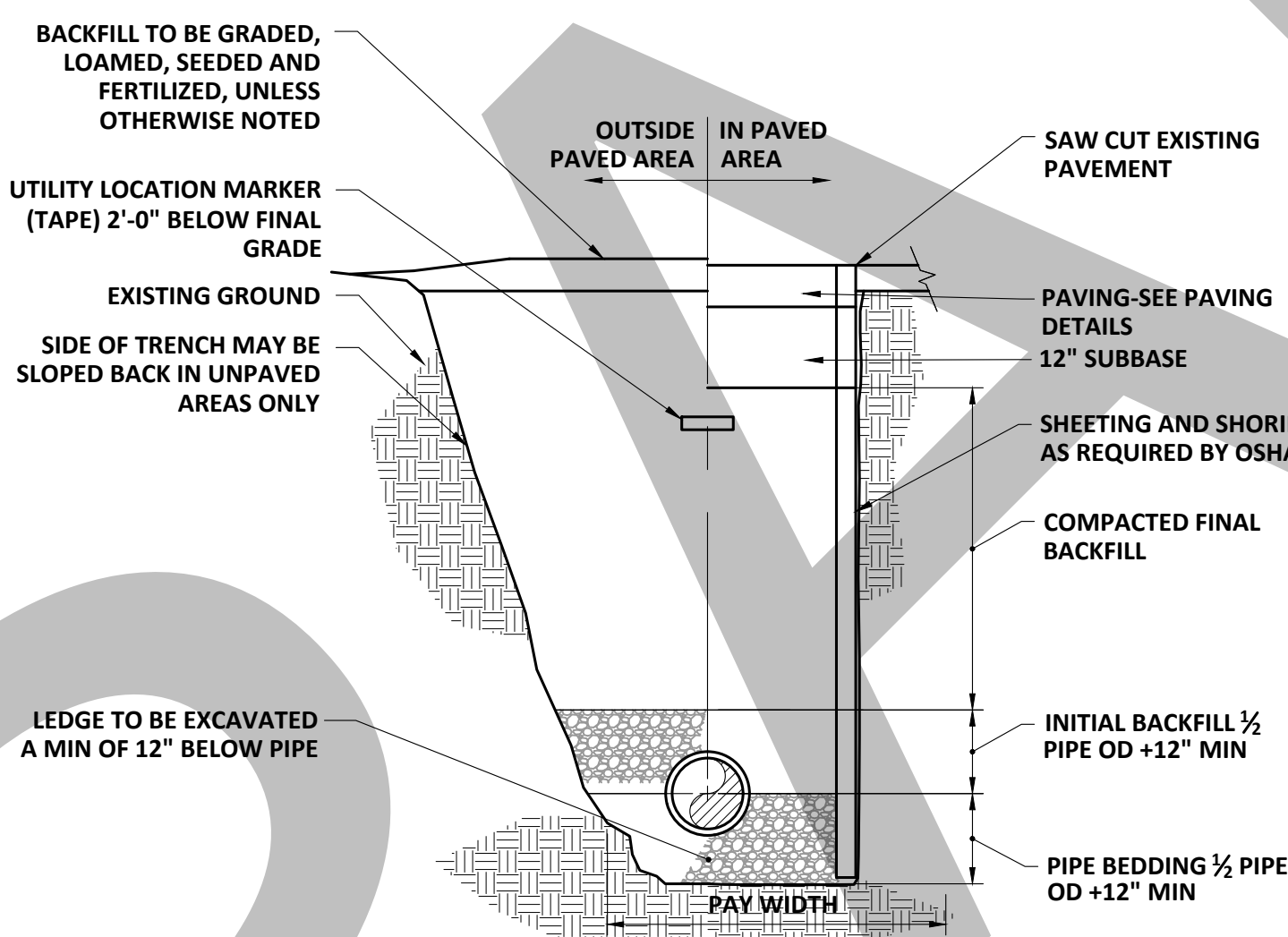
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND	
	A	B	A	B	A	B
2"	9"	9"	9"	9"	6"	6"
4"	18"	12"	12"	9"	9"	9"
6"	18"	12"	12"	9"	9"	9"
8"	24"	15"	15"	12"	12"	12"
10"	24"	20"	15"	15"	12"	12"
12"	24"	24"	18"	18"	15"	12"
14"	27"	27"	21"	21"	15"	15"
16"	30"	30"	24"	24"	18"	18"

NO.	DATE	DESCRIPTION
1	03-21	ISSUED FOR PERMITTING
2	03-21	REVISIONS

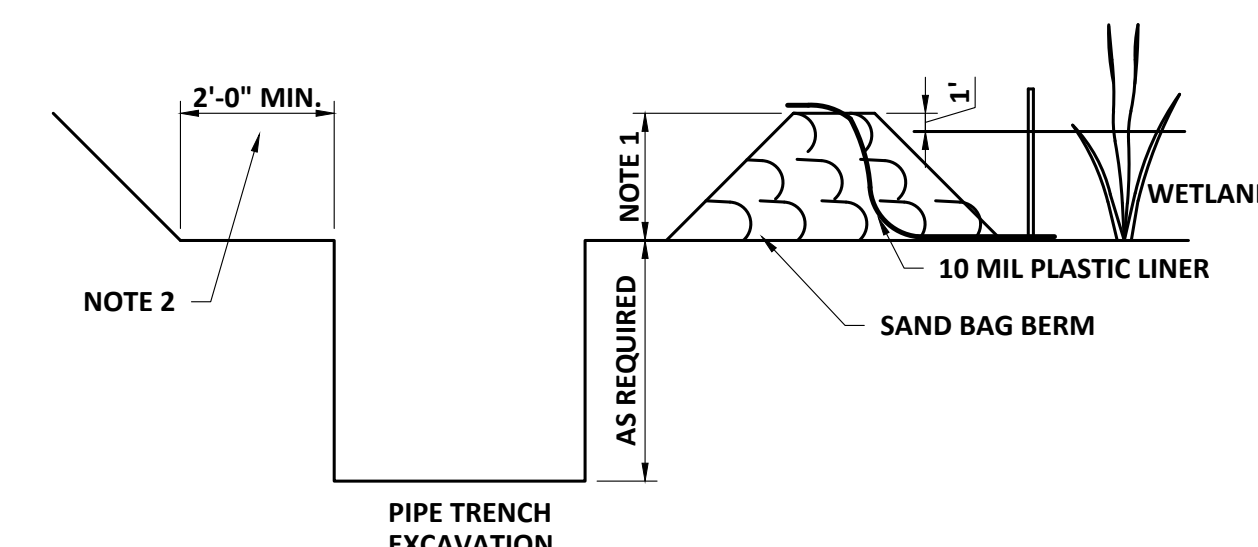
DESIGNED BY: J.LLOC
 CAD CORP: J.MIC
 CHECKED BY: K.LOBE
 DATE: 03-21
 APPROVED BY: K.GAR
 DATE: 03-21
 PROJECT NO.: 11304C



NOTE:
INSULATION TO BE USED WHERE PIPE SEPARATION IS 24" OR LESS.

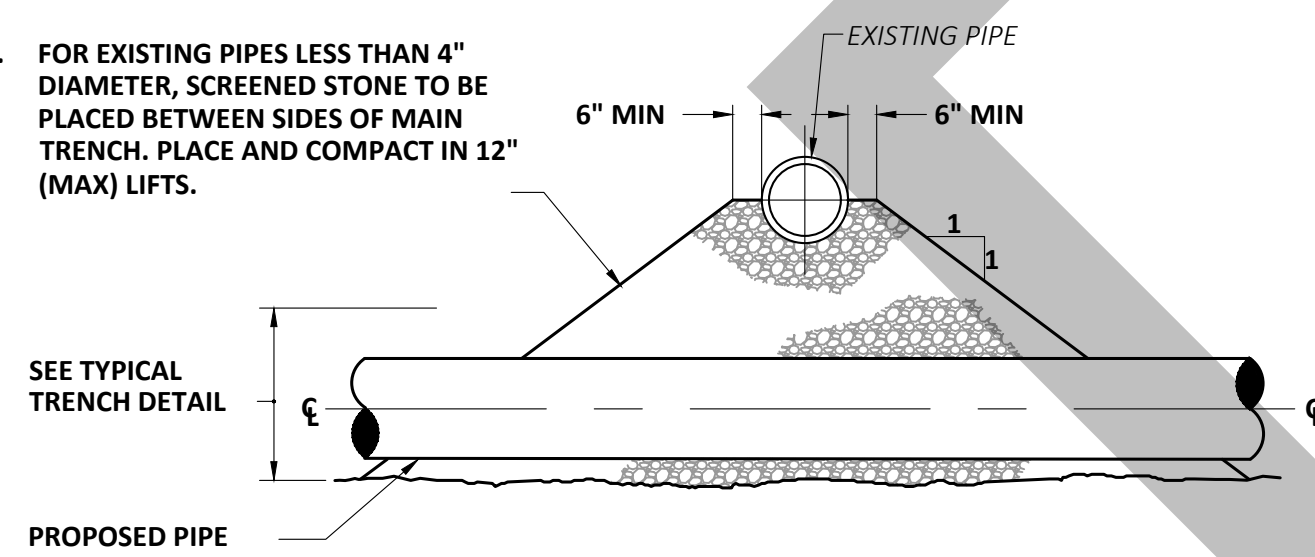


- NOTES:
- ALL EXCAVATION MUST MEET OSHA STANDARDS.
 - INSTALL 3 FOOT LONG IMPERVIOUS MATERIAL DAM IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100' TO PREVENT TRENCH GROUNDWATER FROM BEING CHANNELLED ALONG BEDDING/INITIAL BACKFILL.
 - SEE SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.

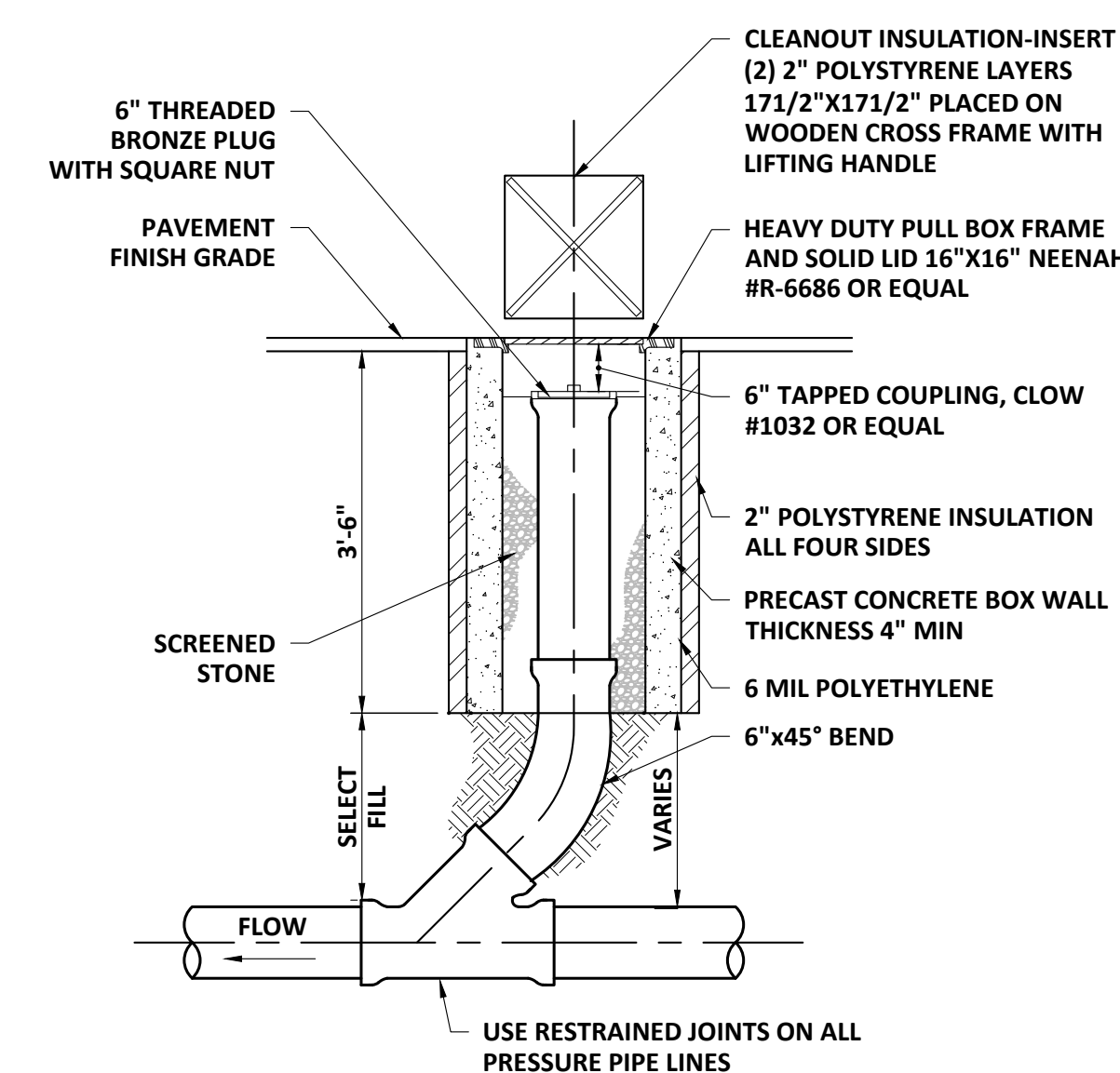
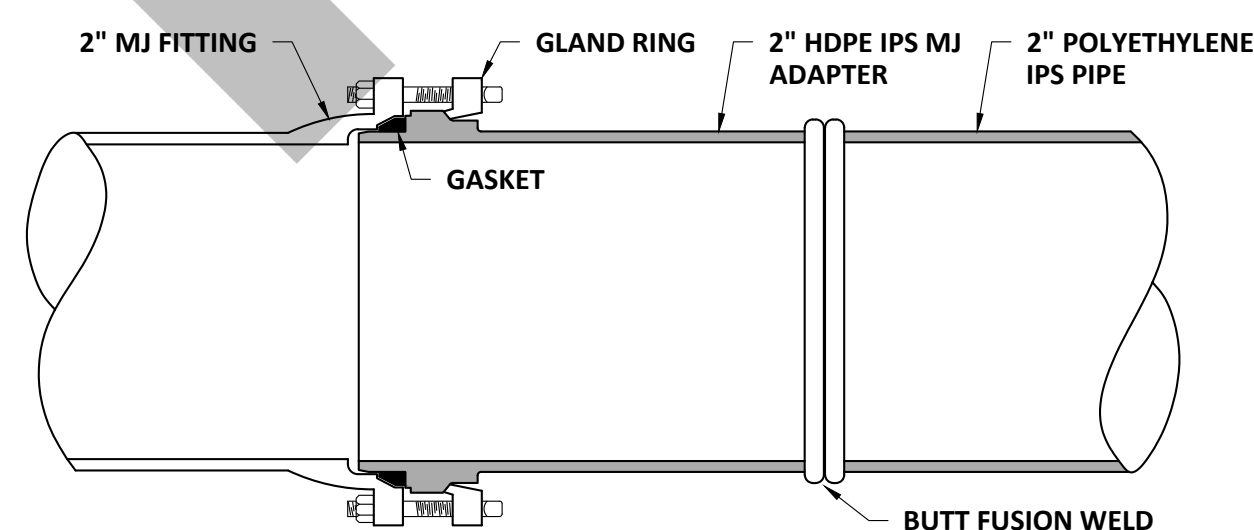


- NOTE:
- HEIGHT OF BERM TO BE CONSTRUCTED BASED ON DEPTH OF WATER SO AS TO MAINTAIN 1' MINIMUM FREE BOARD.
 - SPOIL FROM TRENCH EXCAVATION AND SAND BAG BERM TO BE KEPT BACK AT A MINIMUM OF 2 FEET FROM EDGE OF TRENCH AS PER OSHA REGULATIONS.

- FOR EXISTING PIPES 4" DIAMETER AND GREATER, FLOWABLE FILL SHALL BE PLACED BETWEEN SIDES OF MAIN TRENCH, UNLESS AS DIRECTED BY ENGINEER TO INSTALL SCREENED STONE.
- FOR EXISTING PIPES LESS THAN 4" DIAMETER, SCREENED STONE TO BE PLACED BETWEEN SIDES OF MAIN TRENCH. PLACE AND COMPACT IN 12" (MAX) LIFTS.



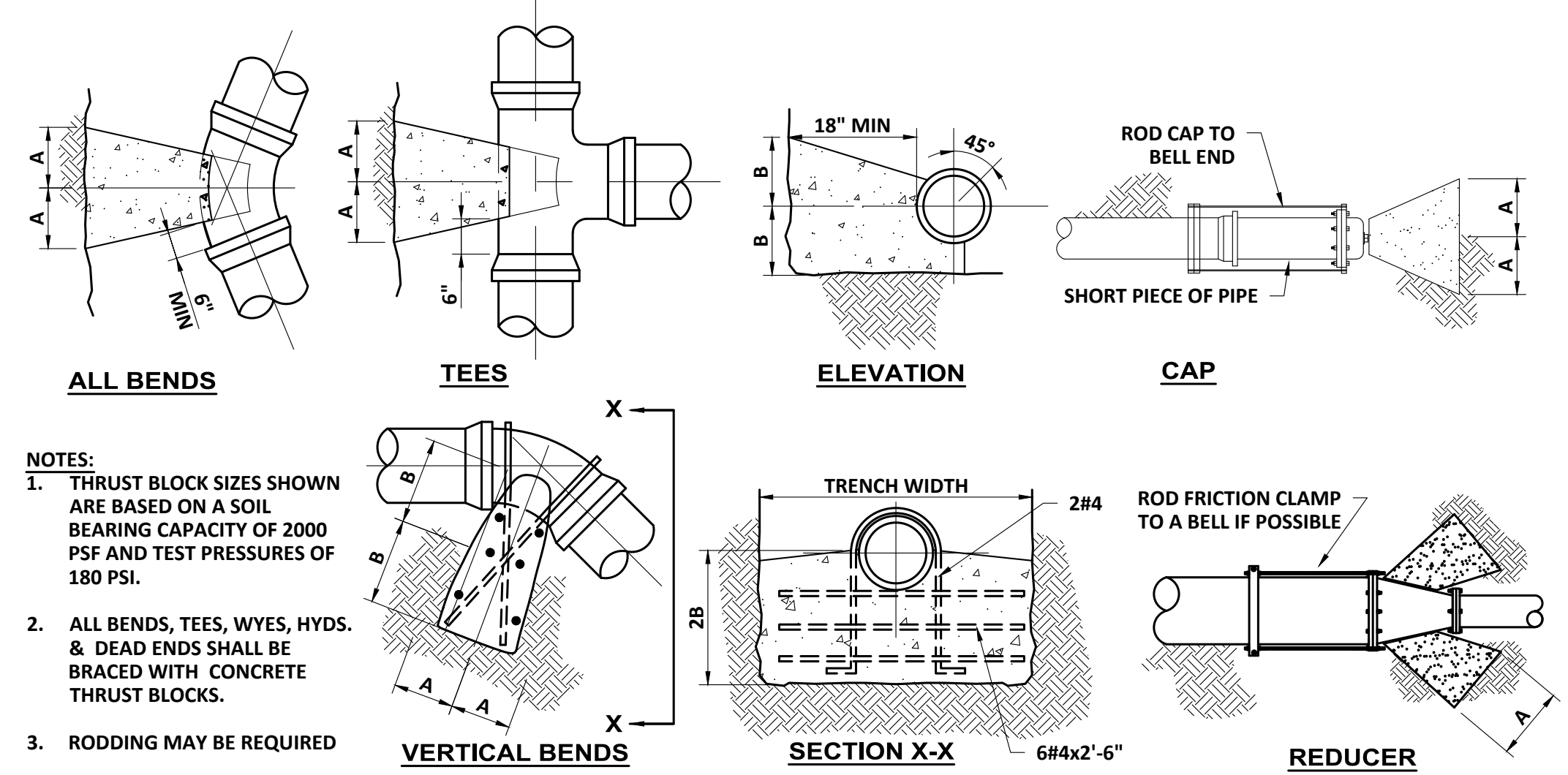
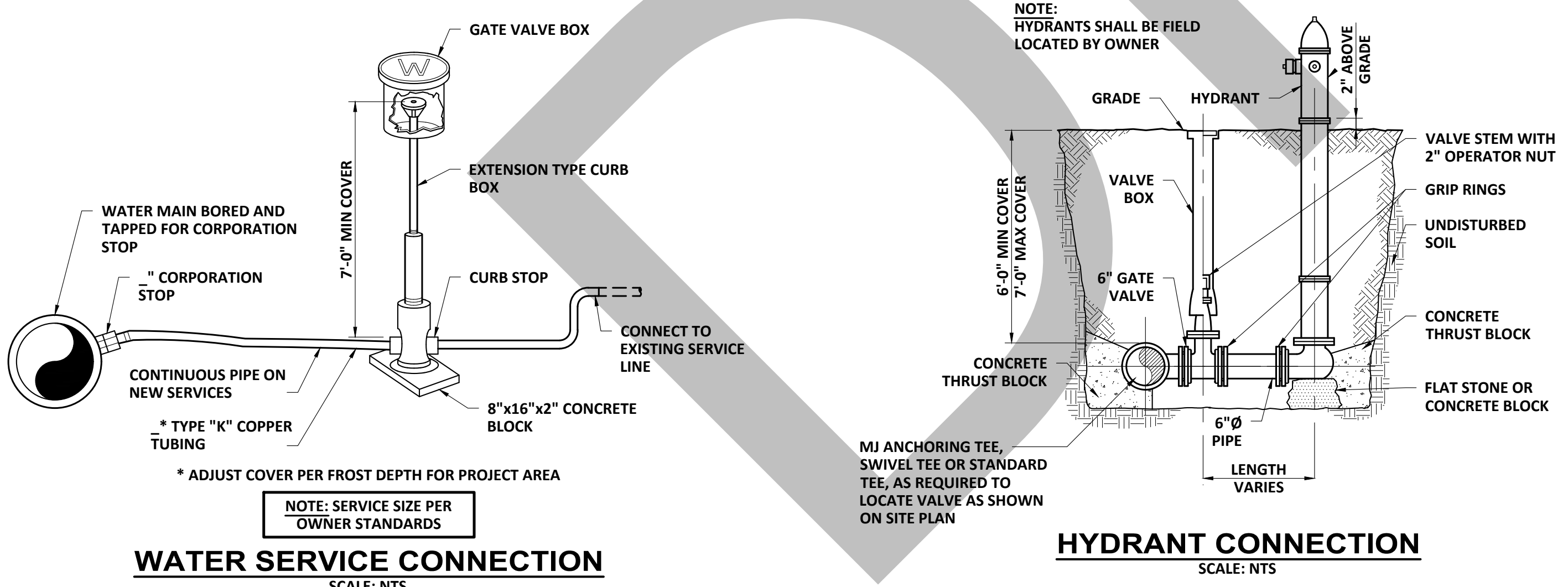
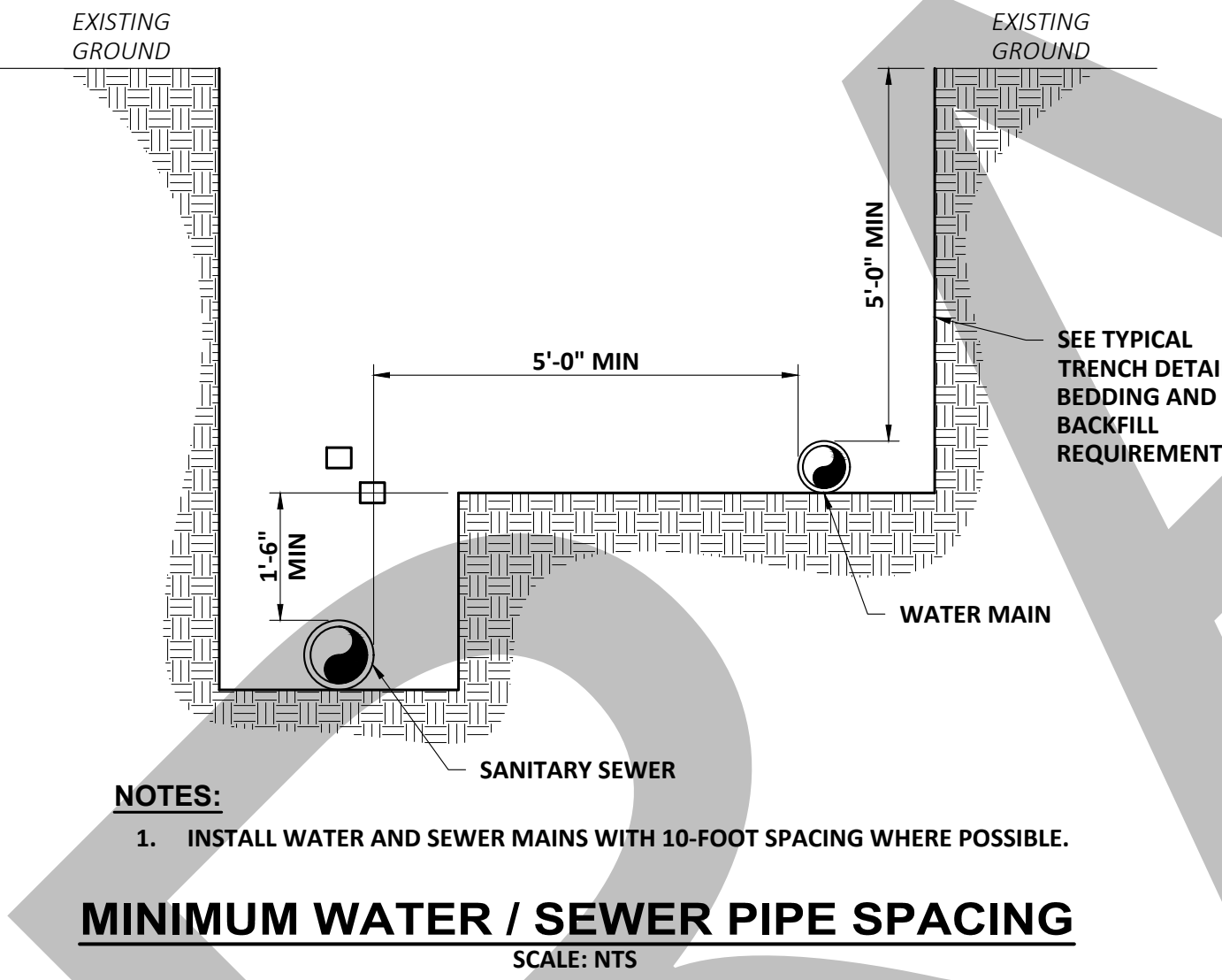
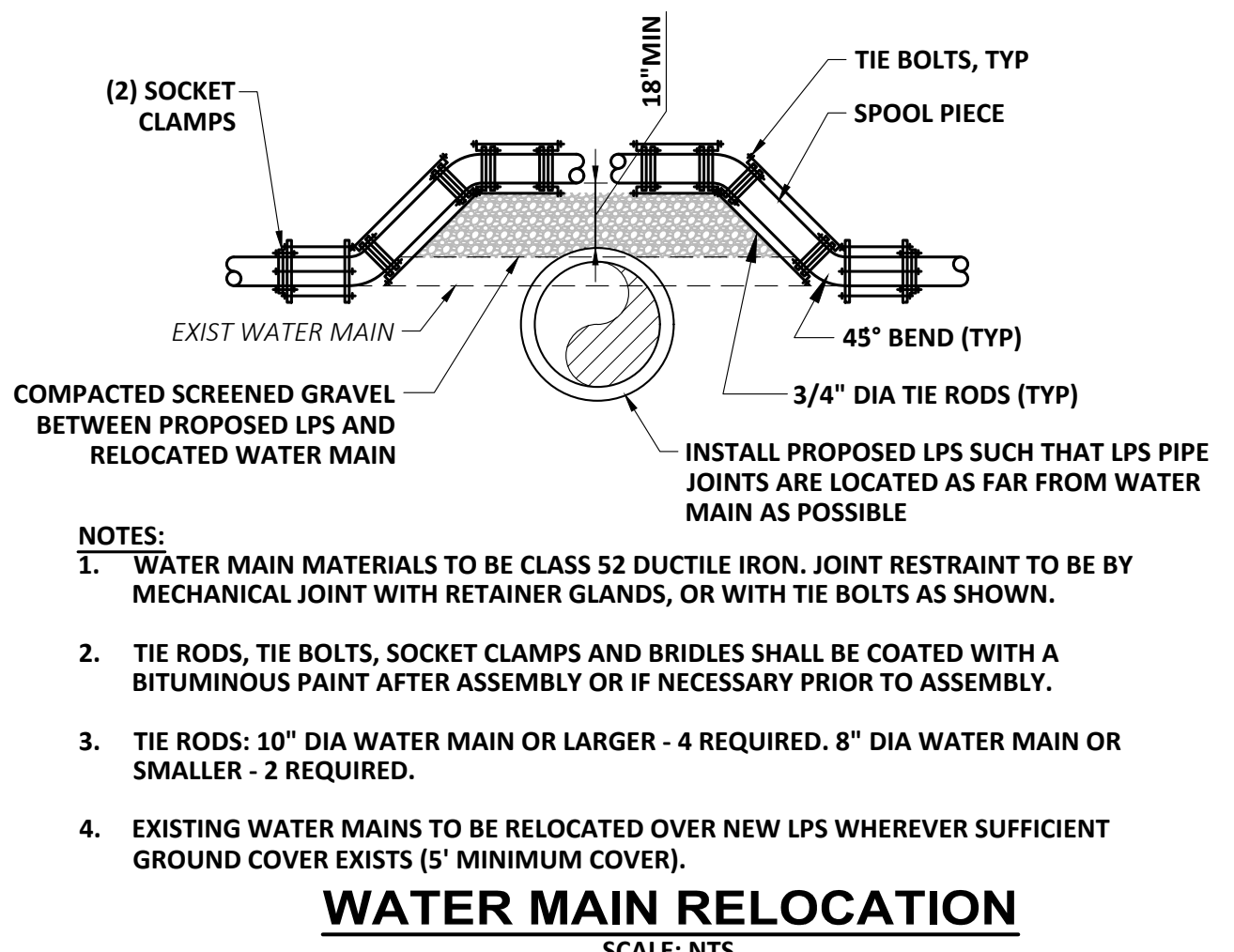
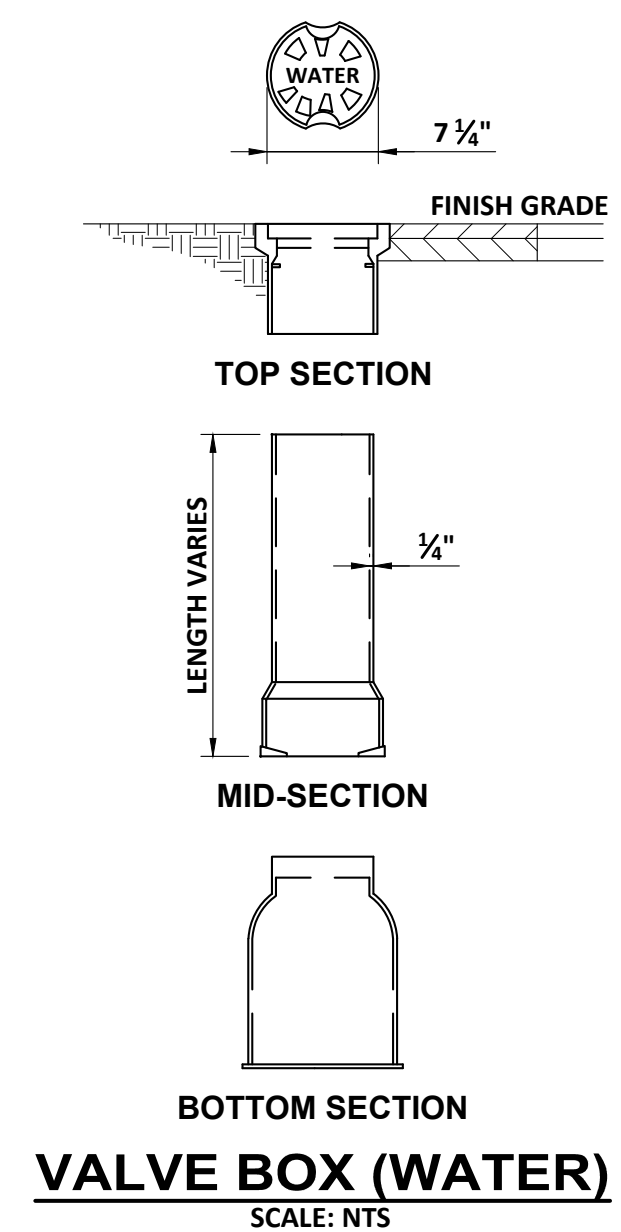
NOTE:
JOINTS ON EACH PIPE TO BE AS FAR FROM INTERSECTION AS POSSIBLE.



NO	PERMITTING	DESIGNED BY: J.LOC	APP'D DATE
		CAD CORP: J.MIC	K.GAR 01-21
		CHK'D BY: D.FUD	
		CRK'D BY: K.LOBE	
		DATE: 02-21	
		APPROVED BY: K.GAR	
		DATE: 02-21	
		PROJECT NO: 11304C	

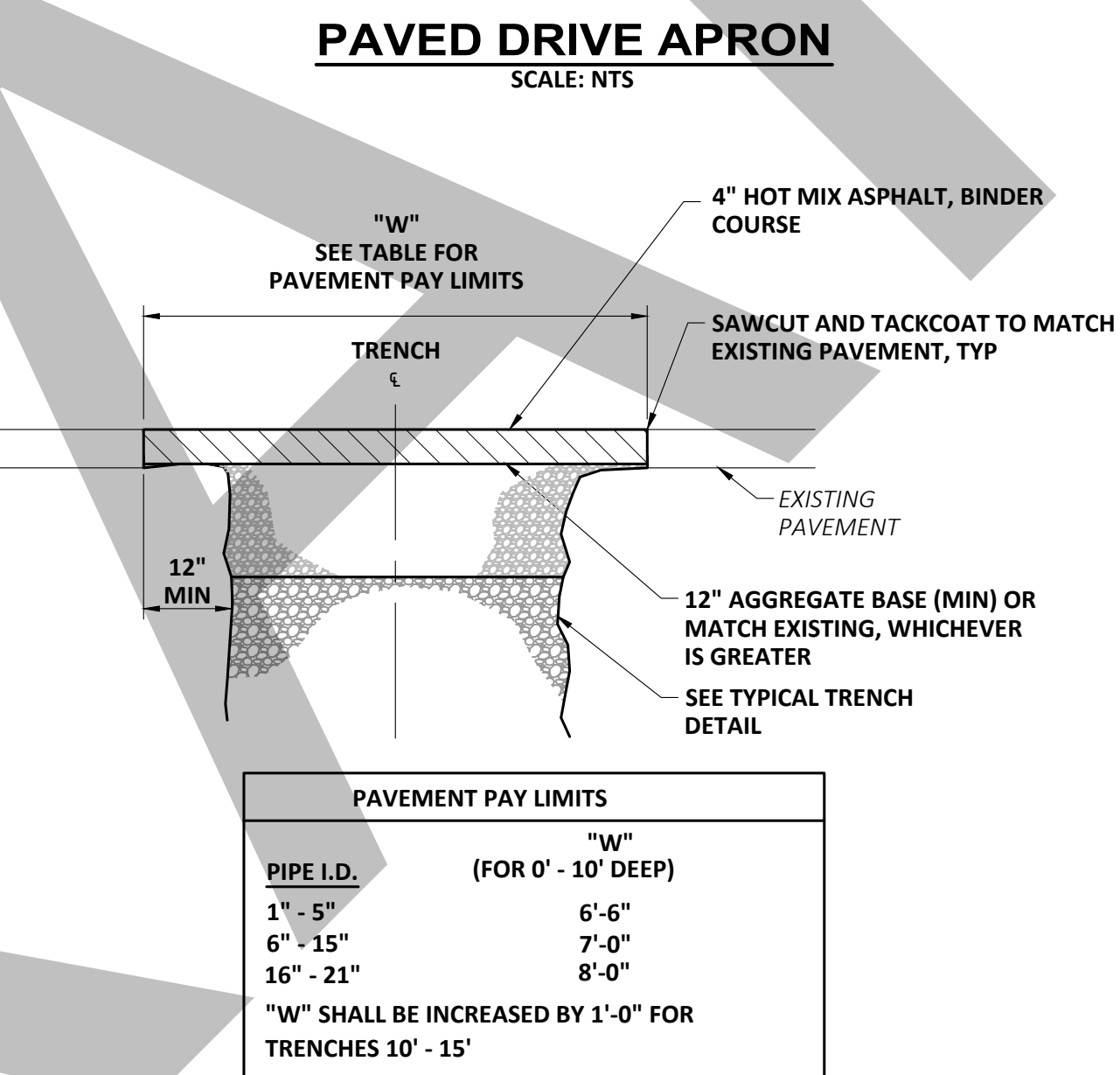
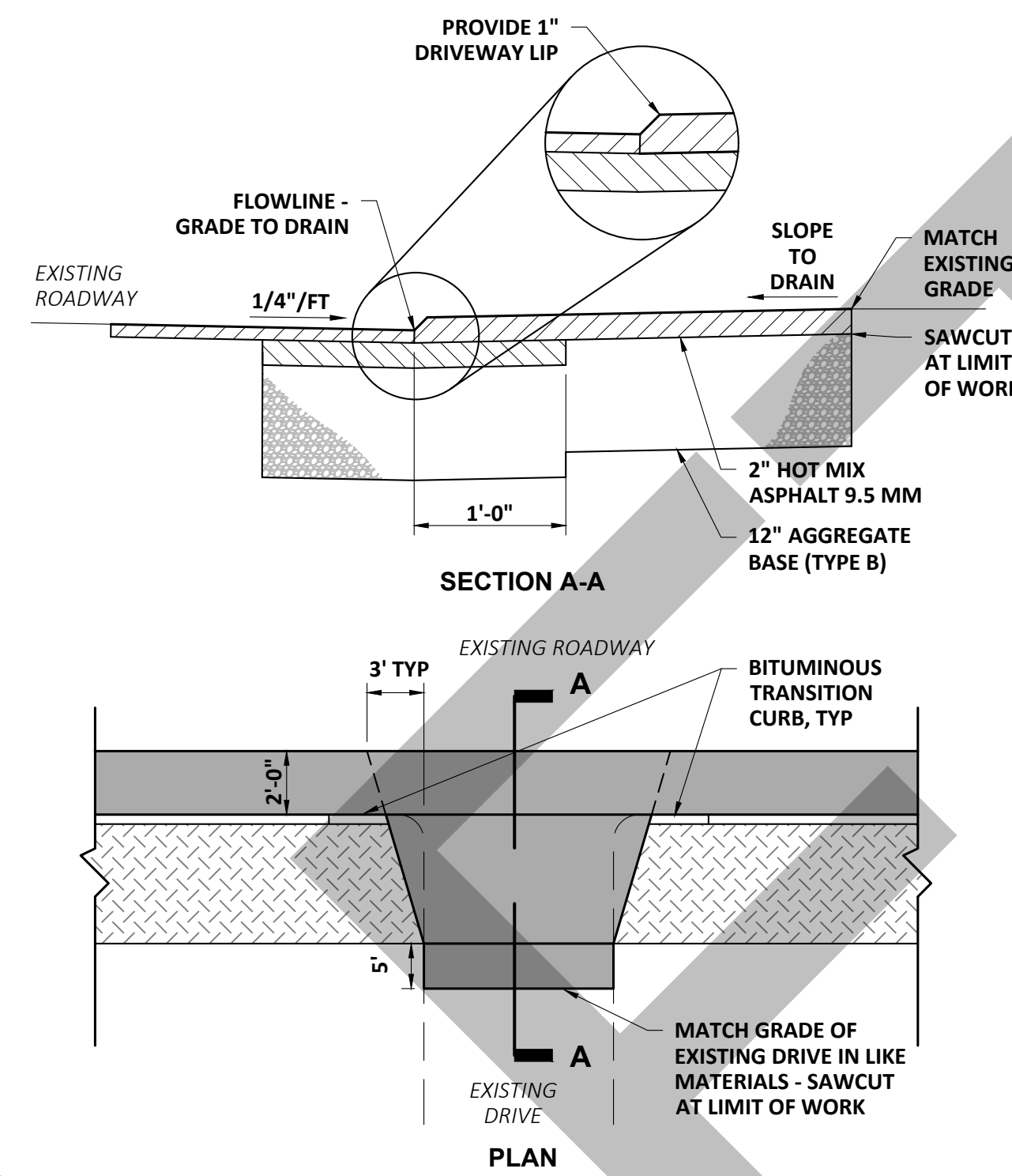
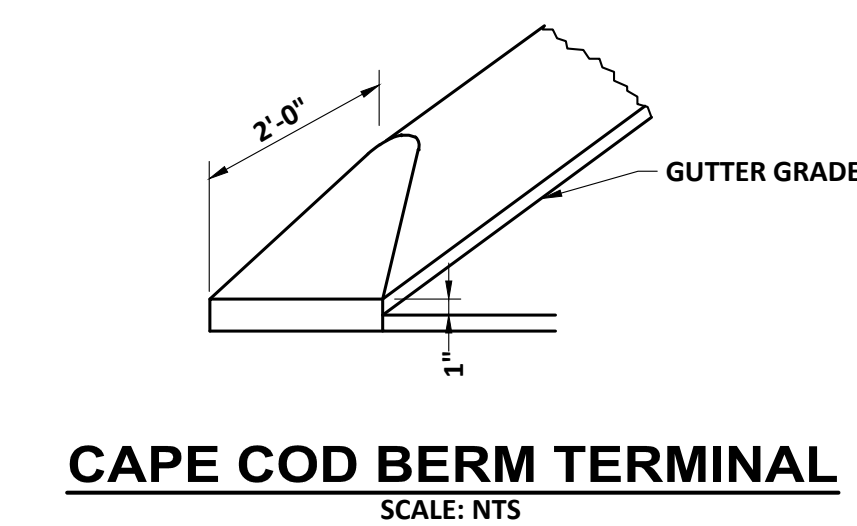
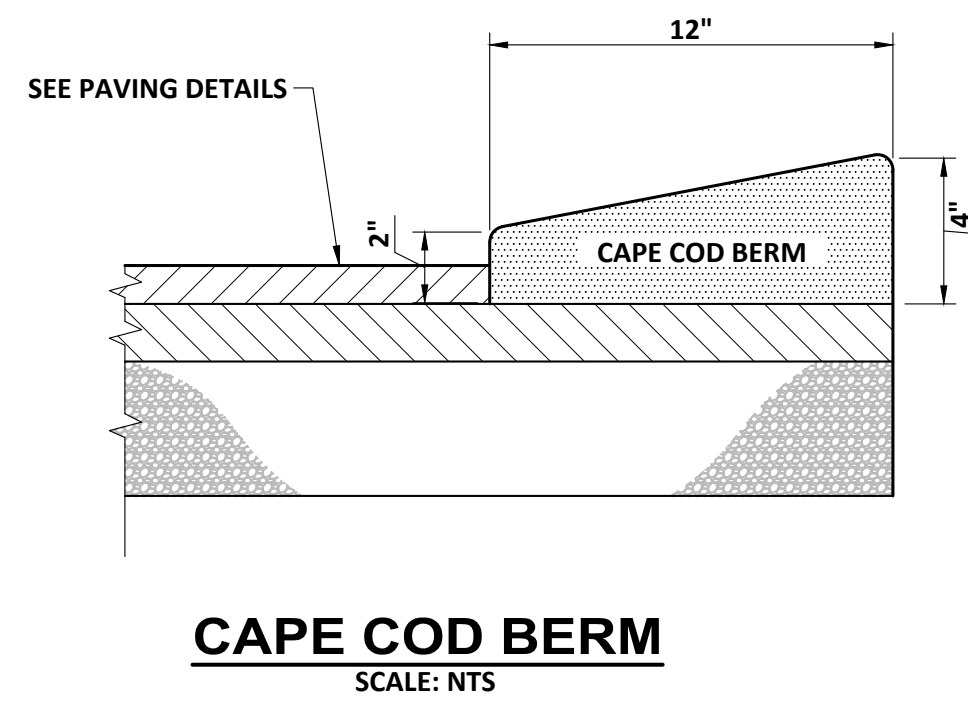
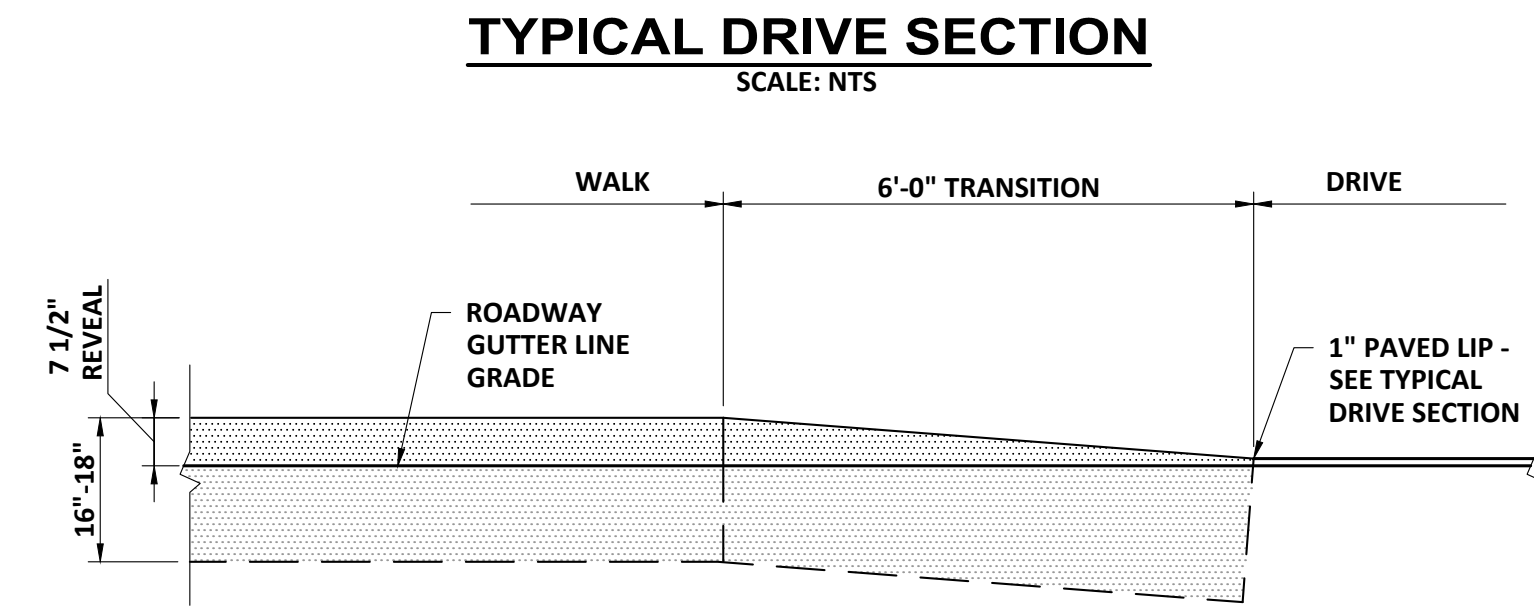
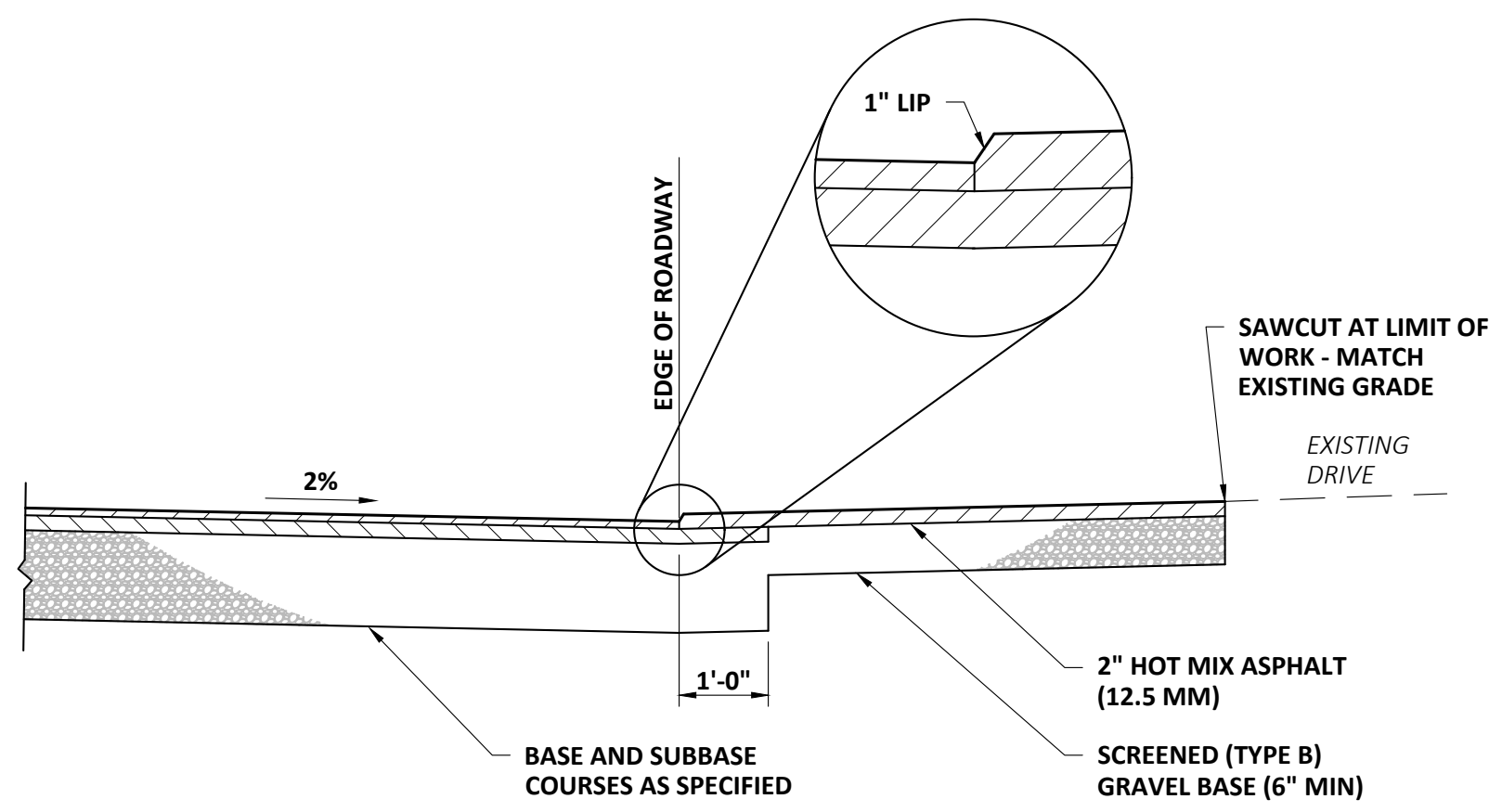
NO	REVISIONS	DATE

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<p>CITY OF PORTSMOUTH, NH SAGAMORE AVENUE SEWER EXTENSION PROJECT</p>	<p>DETAILS II</p>
<p>DRAWING C-15</p>	



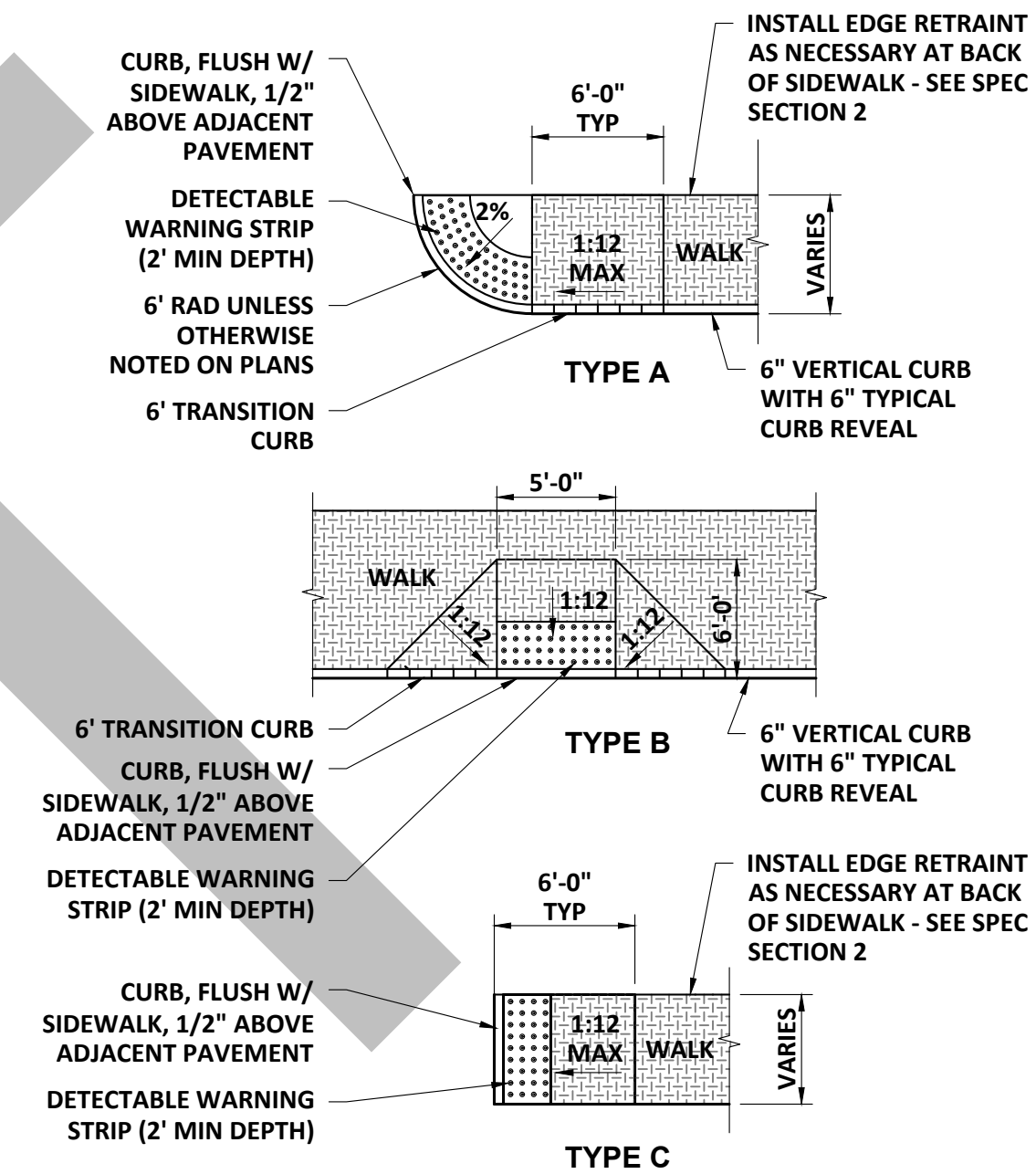
PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		VERTICAL BEND (DOWN)		PLUG		REDUCER	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
4"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
6"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
8"	20"	15"	14"	12"	9"	9"	9"	6"	18"	12"	33"	24"	14"	14"	18"	12"
10"	21"	21"	18"	15"	15"	9"	9"	9"	20"	18"	40"	27"	16"	16"	20"	18"
12"	27"	24"	23"	15"	15"	12"	12"	9"	25"	18"	48"	30"	18"	18"	25"	18"
16"	37"	30"	30"	21"	21"	15"	13"	12"	32"	24"	57"	36"	22"	22"	32"	24"

SUBMISSIONS/REVISIONS	APP'D	DATE
PERMITTING	K.GAR	03-21
NO	NO	NO
DESIGNED BY: J.LOC	CHECKED BY: K.LOBE	DATE: 03-21
CADD CORP: J.MIC	DATE: 03-21	DATE: 03-21
CADD: D.FUD	APPROVED BY: K.GAR	PROJECT NO: 1304C
CITY OF PORTSMOUTH, NH	WRIGHT-PIERCE Engineering a Better Environment	
SAGAMORE AVENUE SEWER EXTENSION PROJECT	888.621.8156 www.wright-pierce.com	
DRAWING	DETAILS III	
C-16		



PIPE I.D.	"W" (FOR 0' - 10' DEEP)
1" - 5"	6'-6"
6" - 15"	7'-0"
16" - 21"	8'-0"

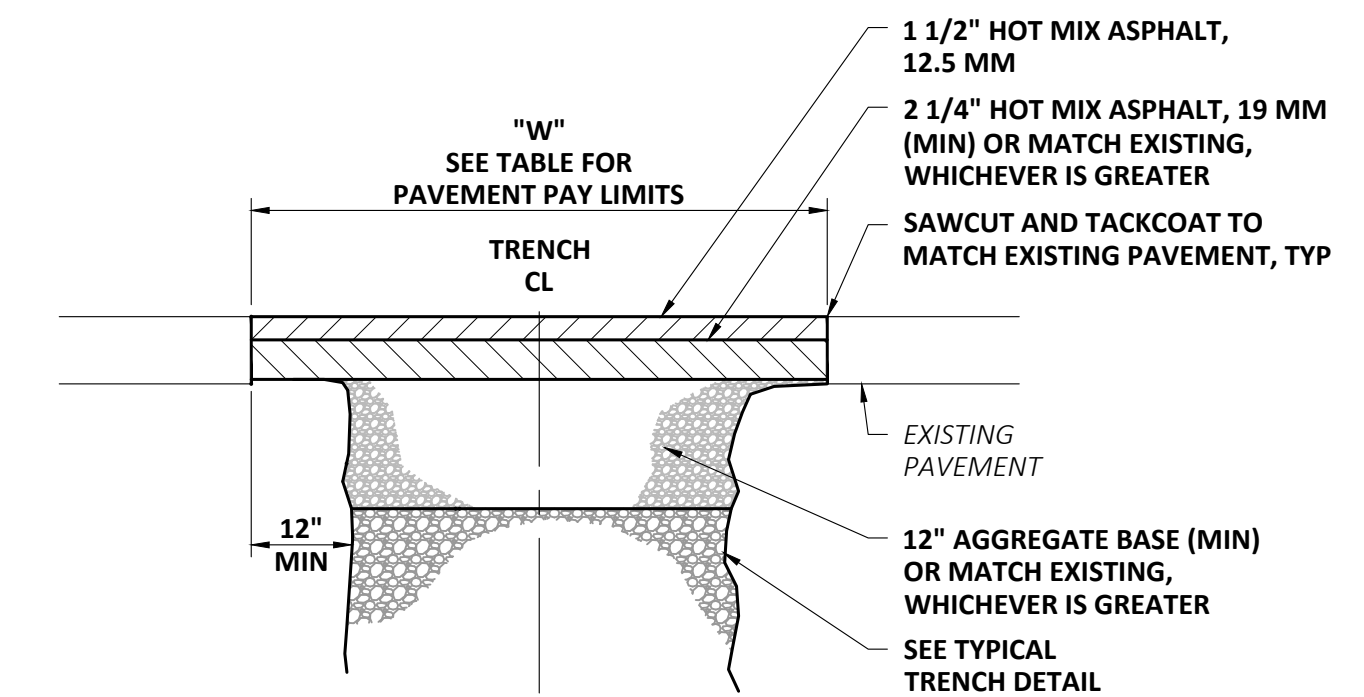
"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15'



- NOTES:
 1. RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
 2. DETECTABLE WARNING STRIPS REQUIRED ON ALL RAMPS INDICATED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.

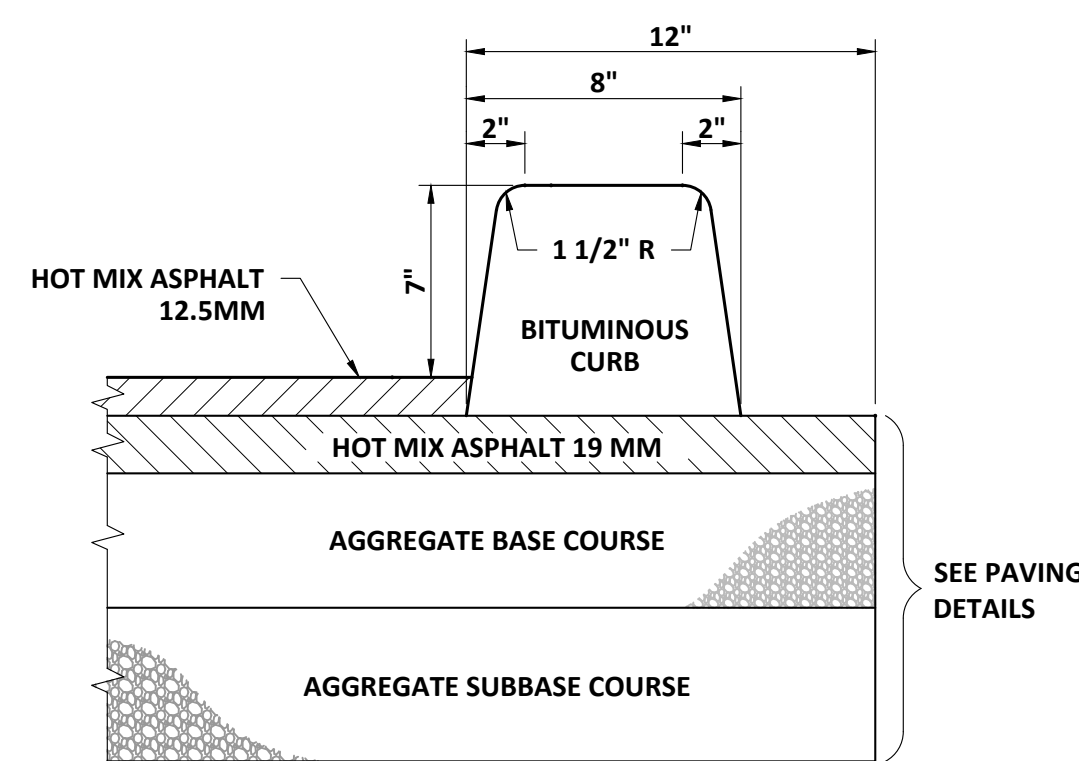
PIPE I.D.	"W" (FOR 0' - 10' DEEP)
6" - 15"	7'-0"
16" - 21"	8'-0"

"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15', AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.

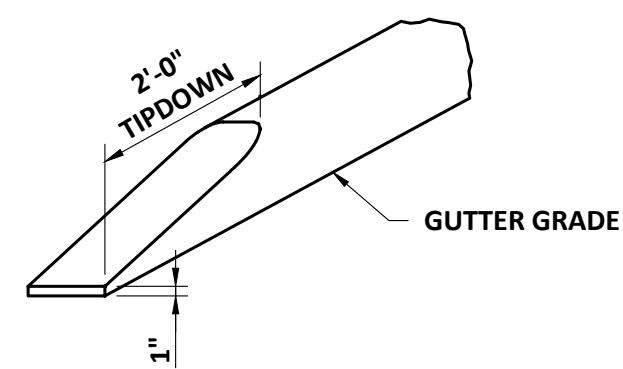


NOTE:
 INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

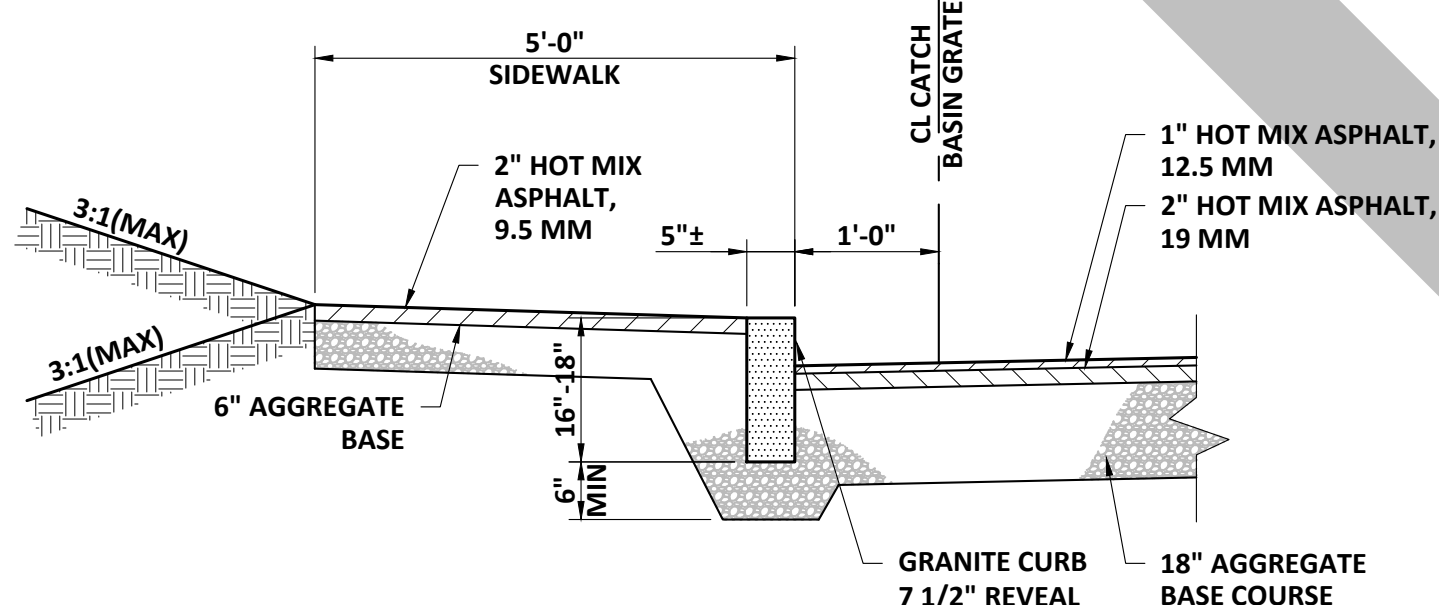
GRANITE CURB TRANSITION
SCALE: NTS



BITUMINOUS CURB
SCALE: NTS



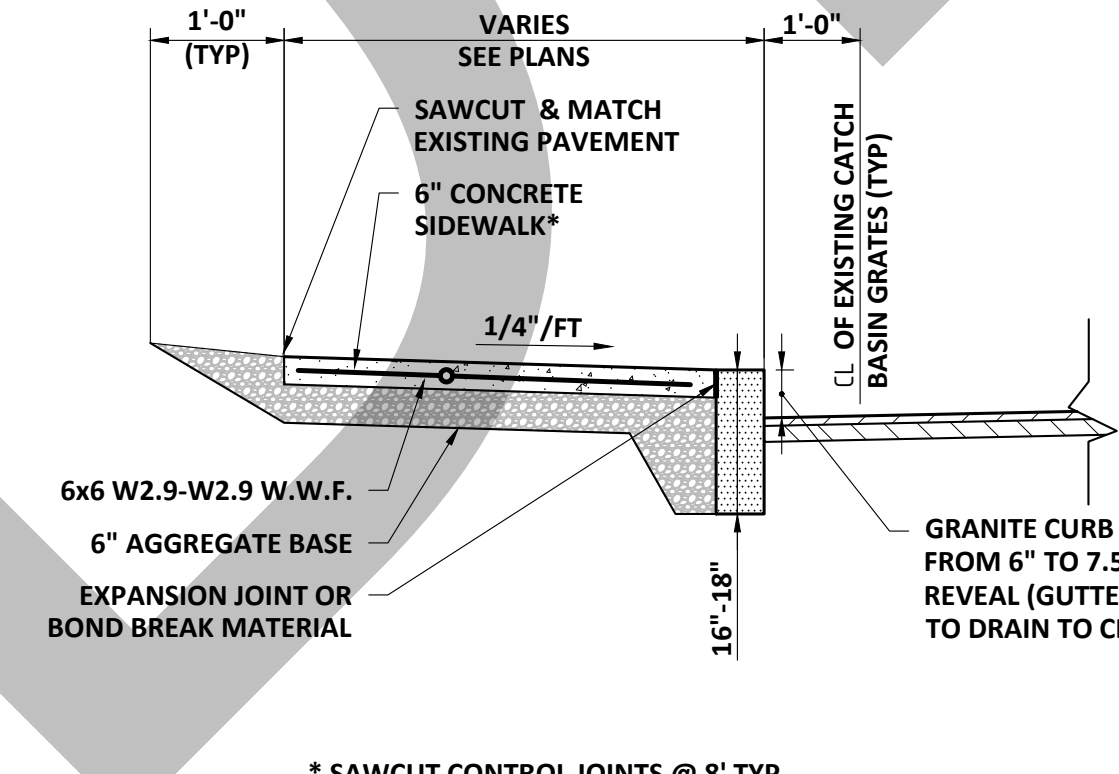
BITUMINOUS TERMINAL CURB
SCALE: NTS



SIDEWALK WITH GRANITE CURB
SCALE: NTS

NOTE:
 PROVIDE HANDICAP RAMPS AT SITE ENTRANCE.

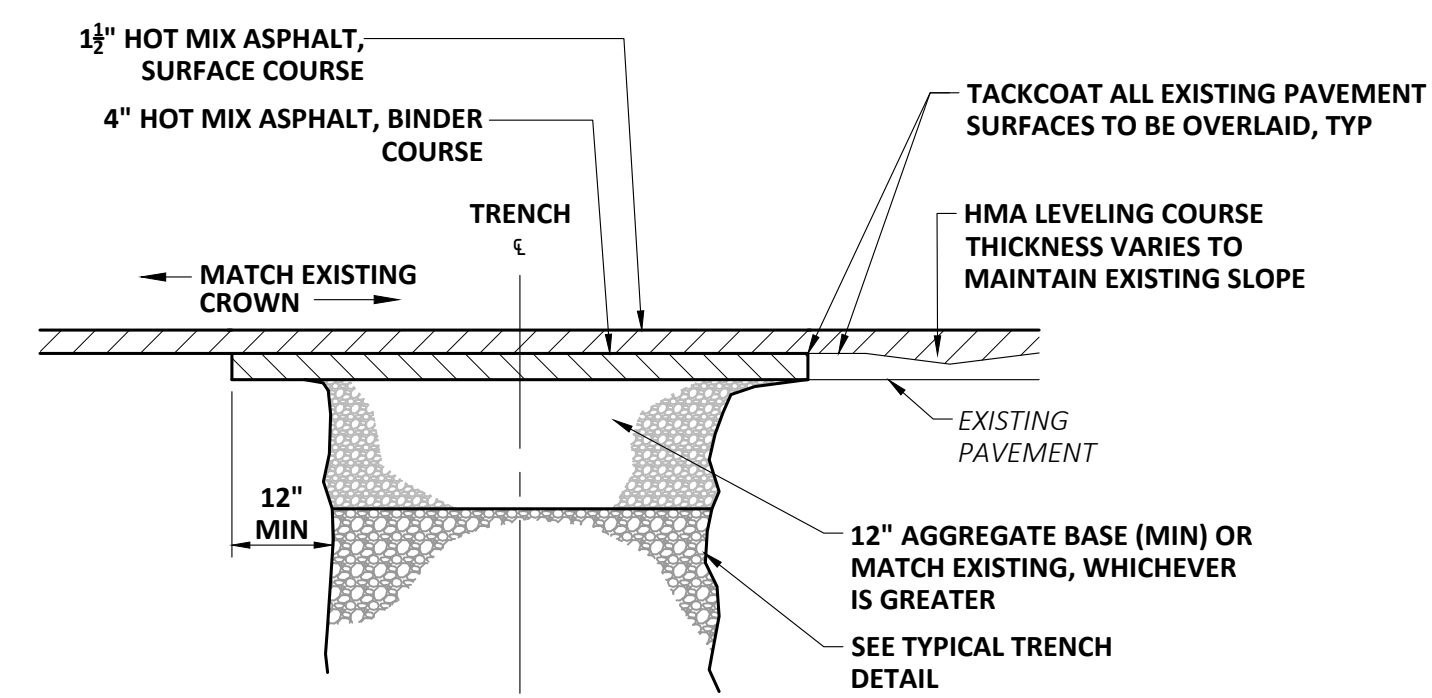
HANDICAP DETECTABLE WARNING STRIP
SCALE: NTS



CONCRETE SIDEWALK WITH GRANITE CURB
SCALE: NTS

* SAWCUT CONTROL JOINTS @ 8' TYP

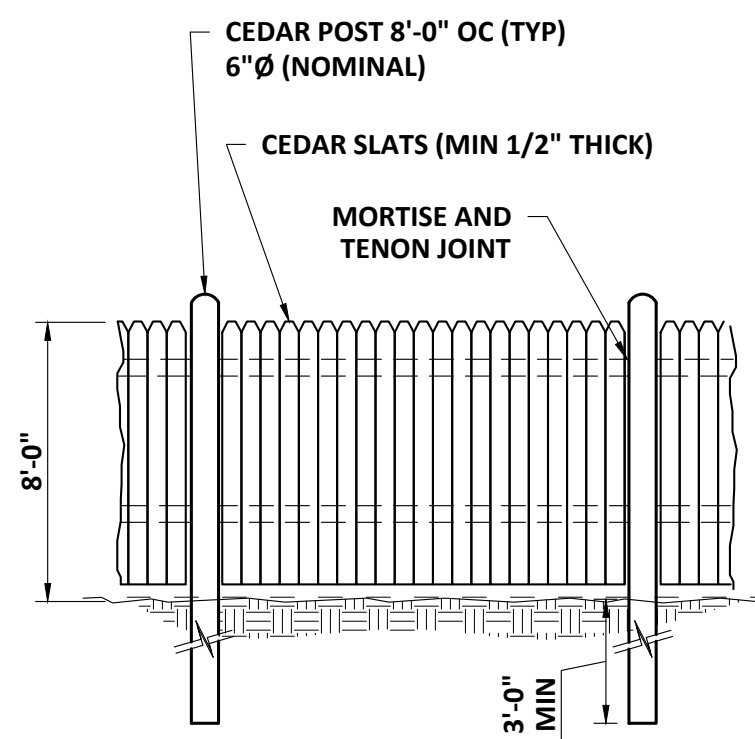
INITIAL TRENCH PAVING (WITH OVERLAY)
SCALE: NTS



NOTE: INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

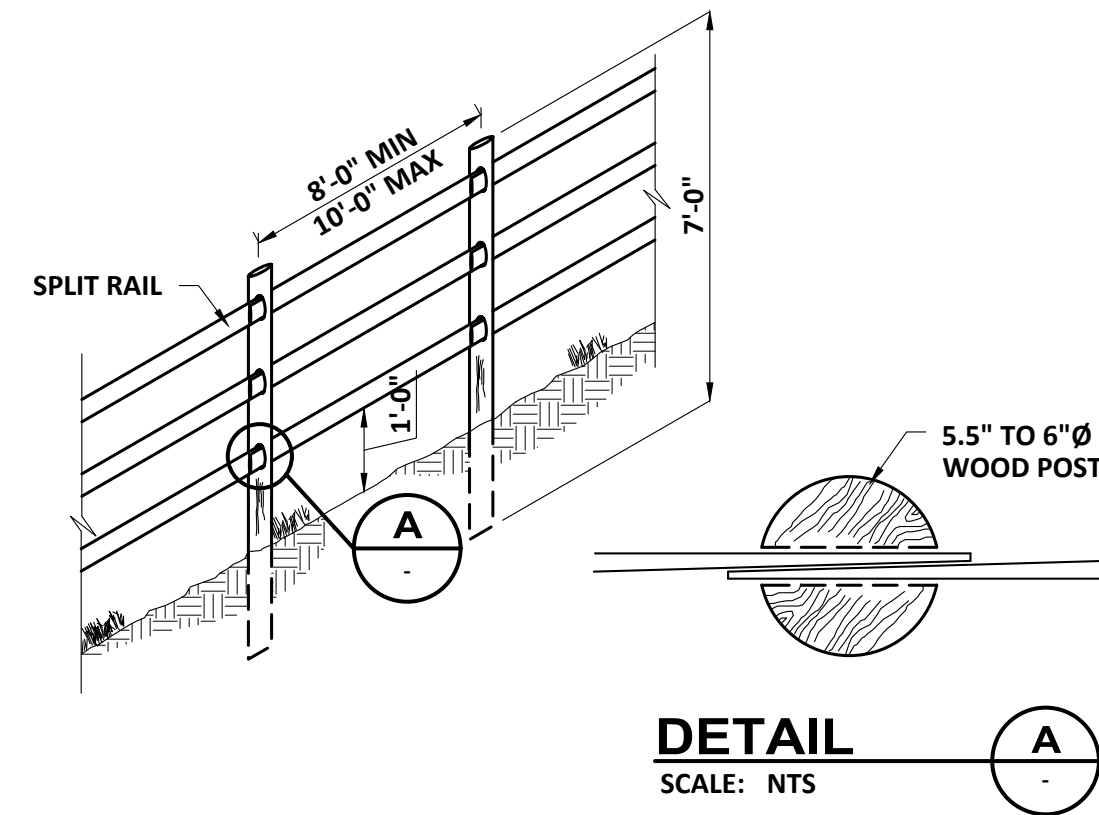
FINAL TRENCH PAVING (WITH OVERLAY)
SCALE: NTS

NO	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
		CHK'D BY: J.M.C. <td>K.G.A.R. 01-21</td>	K.G.A.R. 01-21
		CHK'D BY: D.F.U.D. <td></td>	
		CHK'D BY: K.L.O.B.E. <td></td>	
		DATE: 02-21 <td></td>	
		APPROVED BY: K.G.A.R. <td></td>	
		DATE: 02-21 <td></td>	
		PROJECT NO.: 11304C <td></td>	

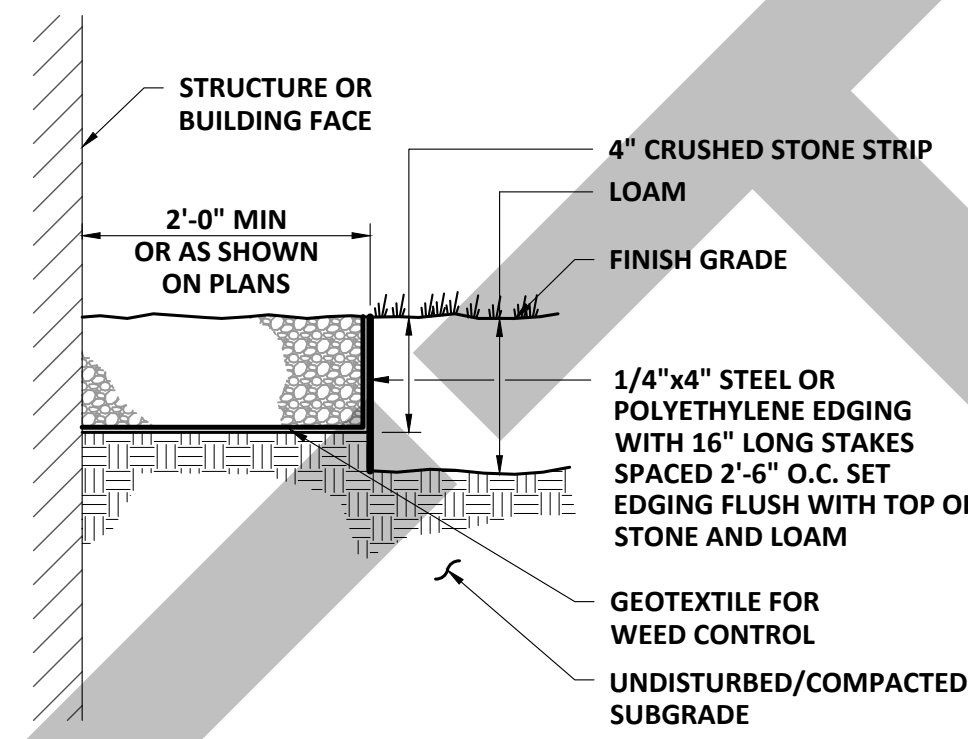


- NOTES:**
1. ALL METAL FASTENINGS TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
 2. SUBMIT DETAILS FOR GATE FRAMING AND HARDWARE FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION.
 3. CONTRACTOR TO APPLY SEMI-TRANSPARENT PRESERVATIVE STAIN, COLOR TO BE COORDINATED WITH OWNER.

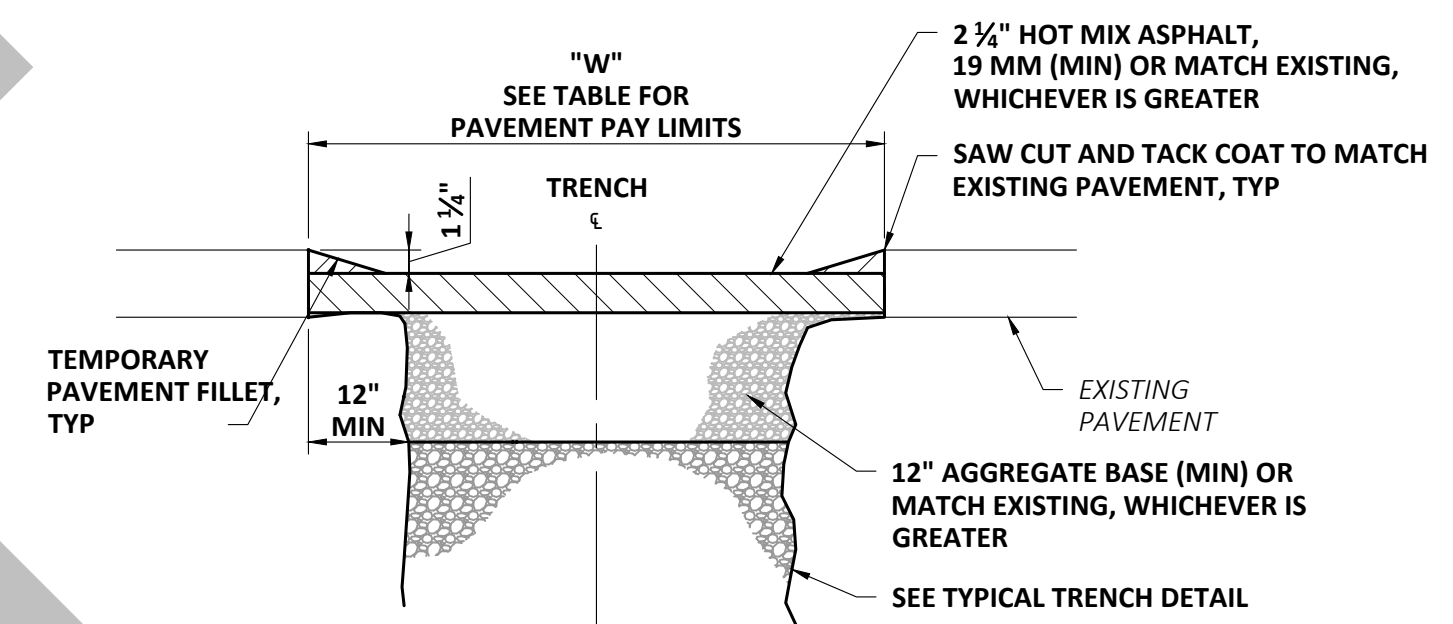
STOCKADE FENCE
SCALE: NTS



SPLIT RAIL FENCE
SCALE: NTS

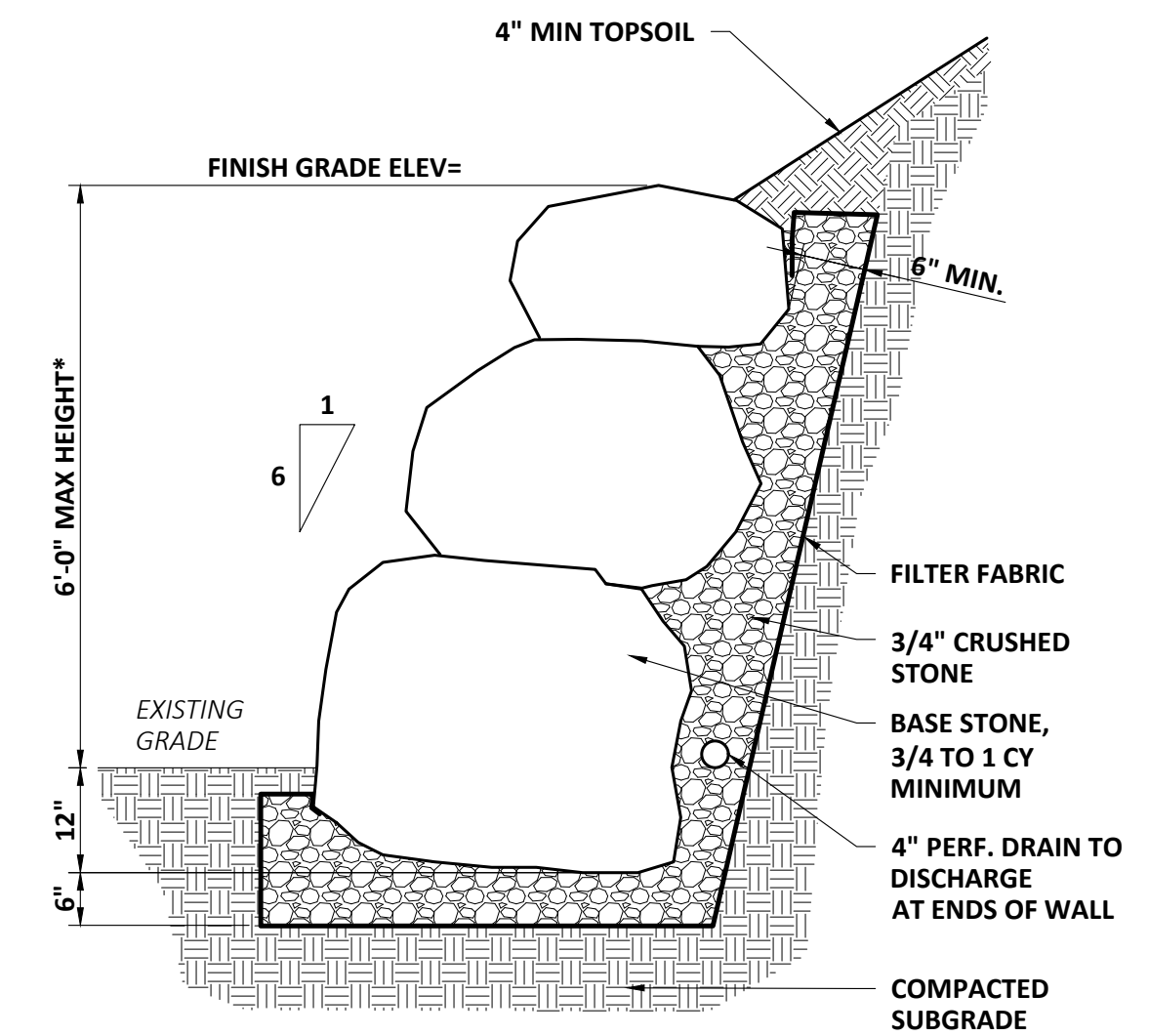


CRUSHED STONE MOWING STRIP
SCALE: "NTS"

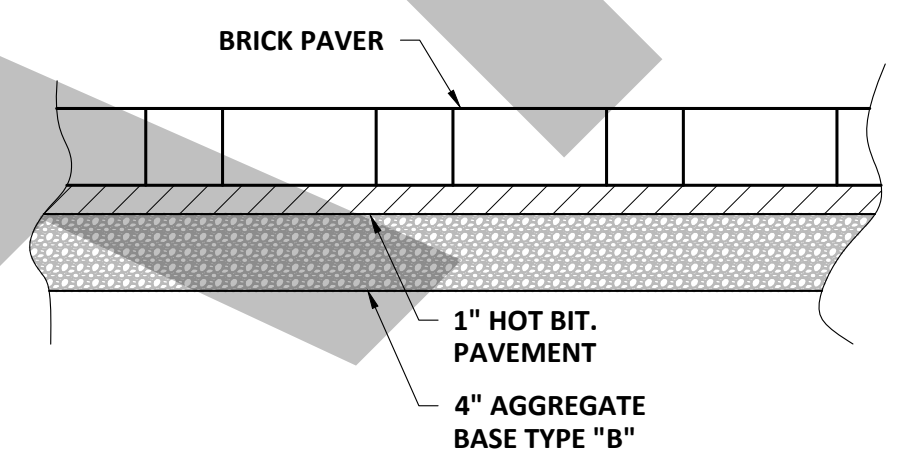


PAVEMENT PAY LIMITS	
PIPE I.D.	"W" (FOR 0'-10' DEEP)
6" - 15"	7'-0"
16" - 21"	8'-0"
"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15', AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.	

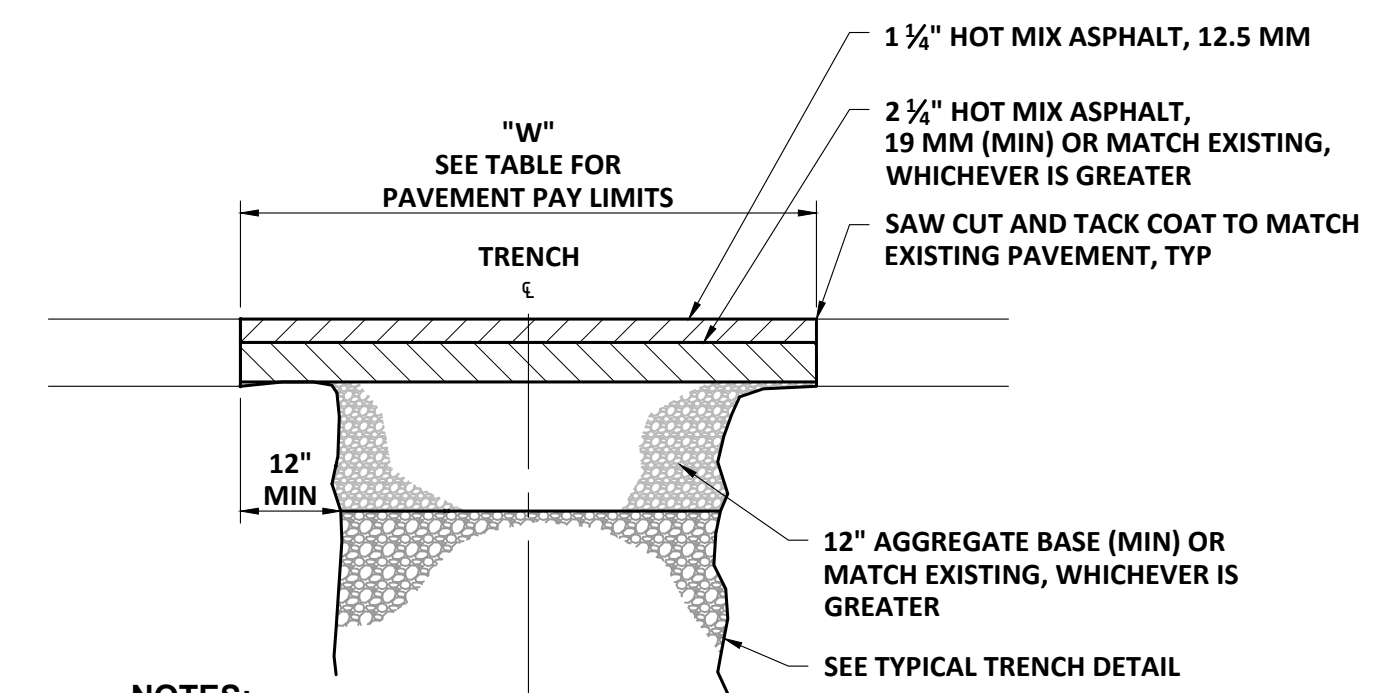
INITIAL TRENCH PAVING (FOR STATE HIGHWAYS)
SCALE: NTS



*ADJUST HEIGHT TO MATCH FIELD CONDITIONS
SLOPED STONE RETAINING WALL DETAIL
SCALE: NTS

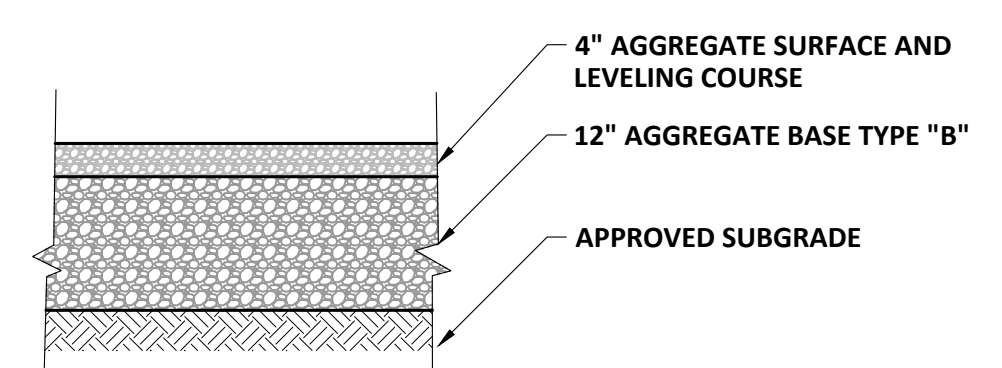


BRICK PAVER WALKWAY
SCALE: NTS

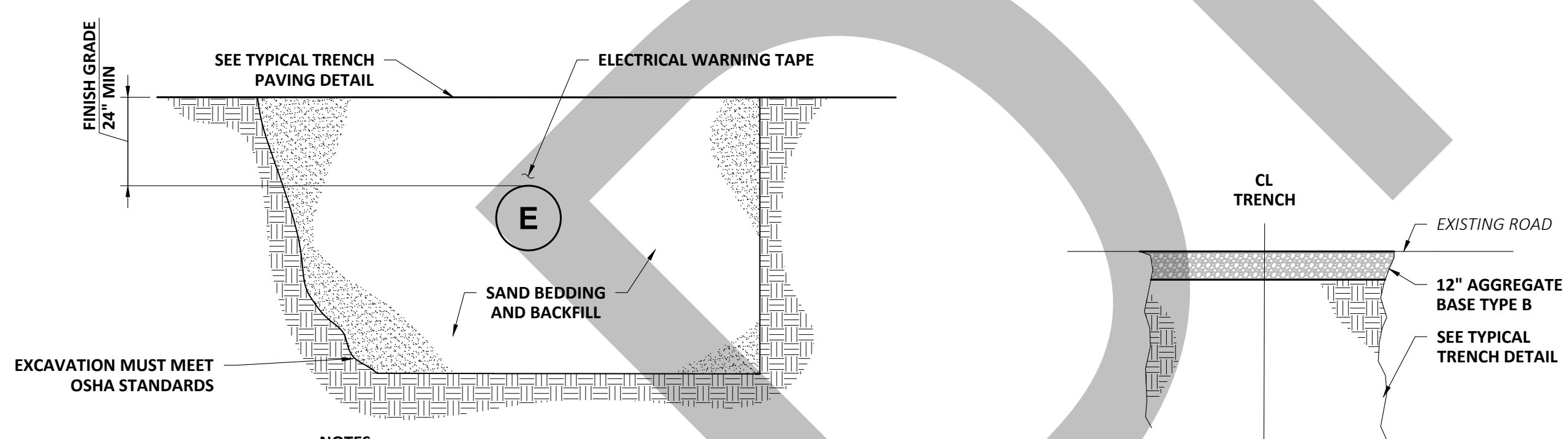


- NOTES:**
1. INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR AND IF THE MINIMUM REQUIRED THICKNESS (MIN 2" OR MATCH EXISTING PAVEMENT, WHICHEVER IS GREATER).

FINAL TRENCH PAVING (FOR STATE HIGHWAYS)
SCALE: NTS



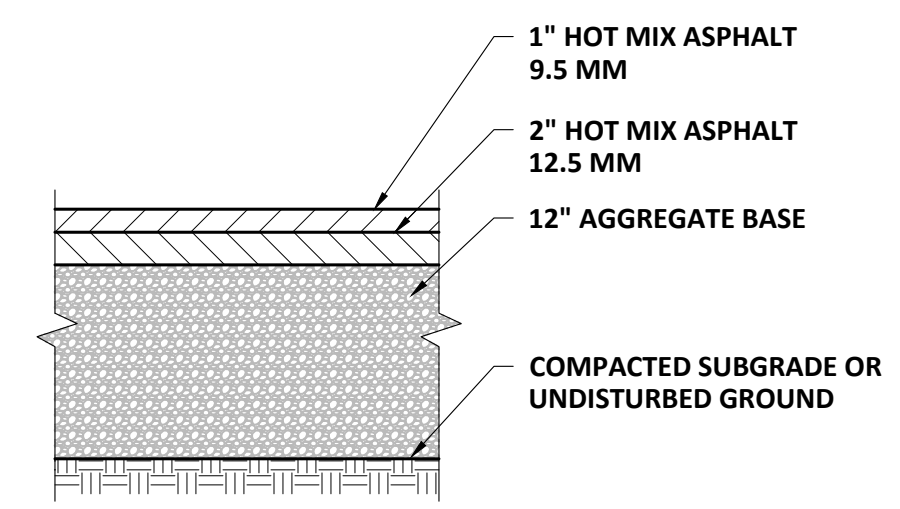
TYPICAL SECTION OF GRAVEL AREAS
SCALE: NTS



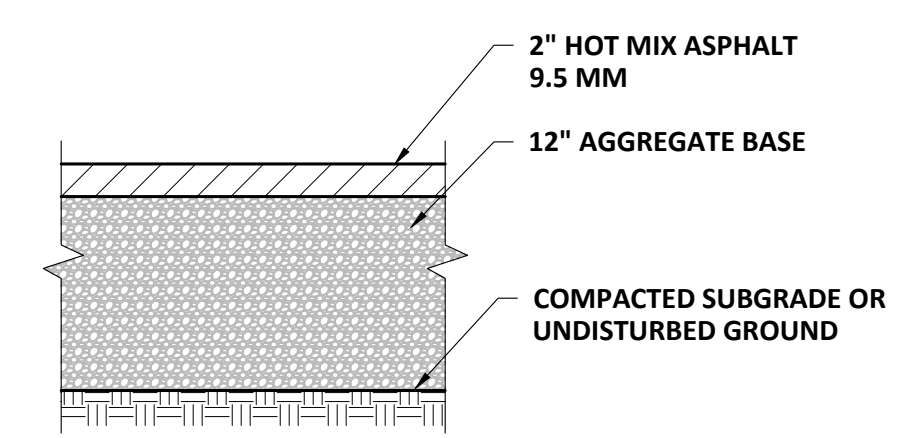
- NOTES:**
1. ALL CONDUITS TO BE 1 1/2" Ø PVC OR STEEL MEETING THE REQUIREMENTS OF THE NEC.
 2. CONCRETE ENCASE CONDUITS UNDER STREETS AND WHERE REQUIRED AS NOTED IN THE SPECIFICATIONS.

SINGLE ELECTRICAL CONDUIT TRENCH SECTION
SCALE: NTS

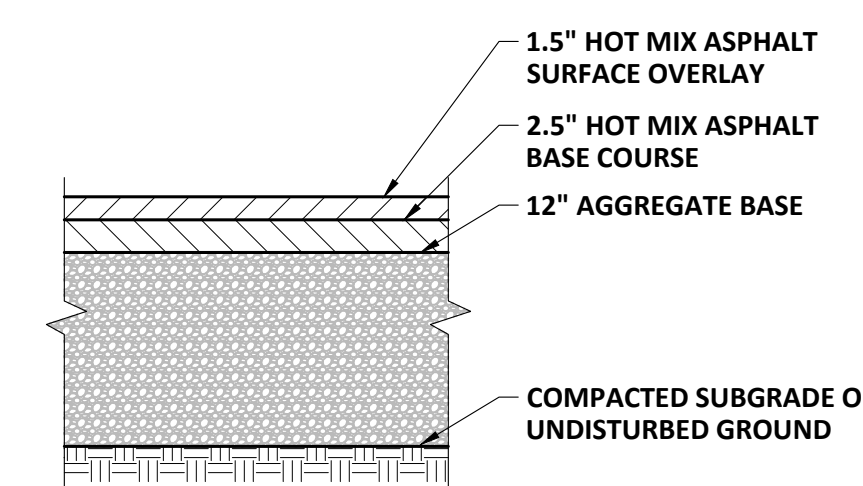
TRENCH - GRAVEL ROAD
SCALE: NTS



PARKING LOT PAVEMENT
SCALE: "NTS"



WALKWAY PAVEMENT
SCALE: "NTS"



DRIVEWAY PAVEMENT
SCALE: "NTS"

NO	PERMITTING	DESIGNED BY: J.LLOC	CAD CORP: J.LLOC	CHKD BY: D.FUD	CREATED BY: K.LOBE	DATE: 02-21	APPROVED BY: K.GAR	DATE: 02-21	PROJECT NO: 11304C

NO	REVISIONS	DATE

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT
DETAILS V

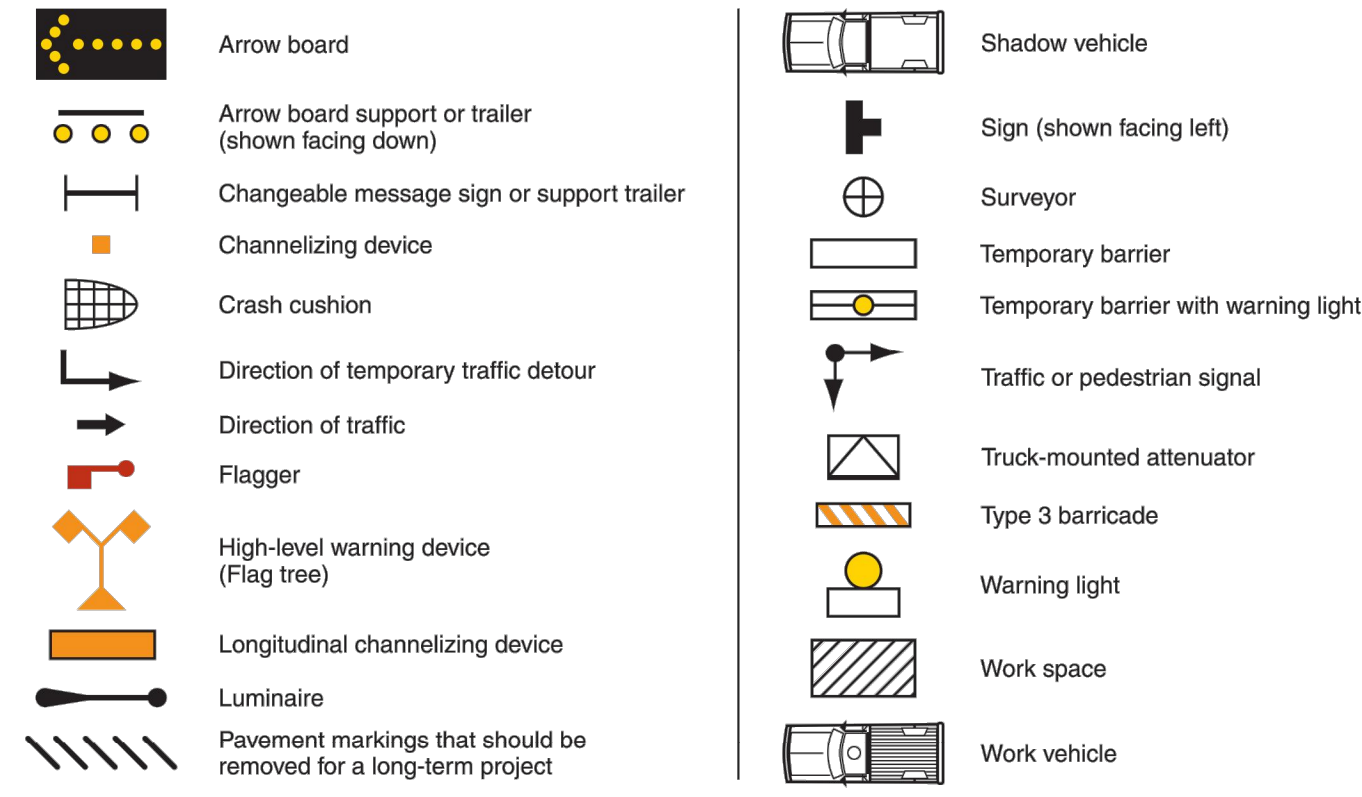


TABLE 6H-2 MEANING OF SYMBOLS

SCALE: NTS

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed category to be determined by highway agency

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-6. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

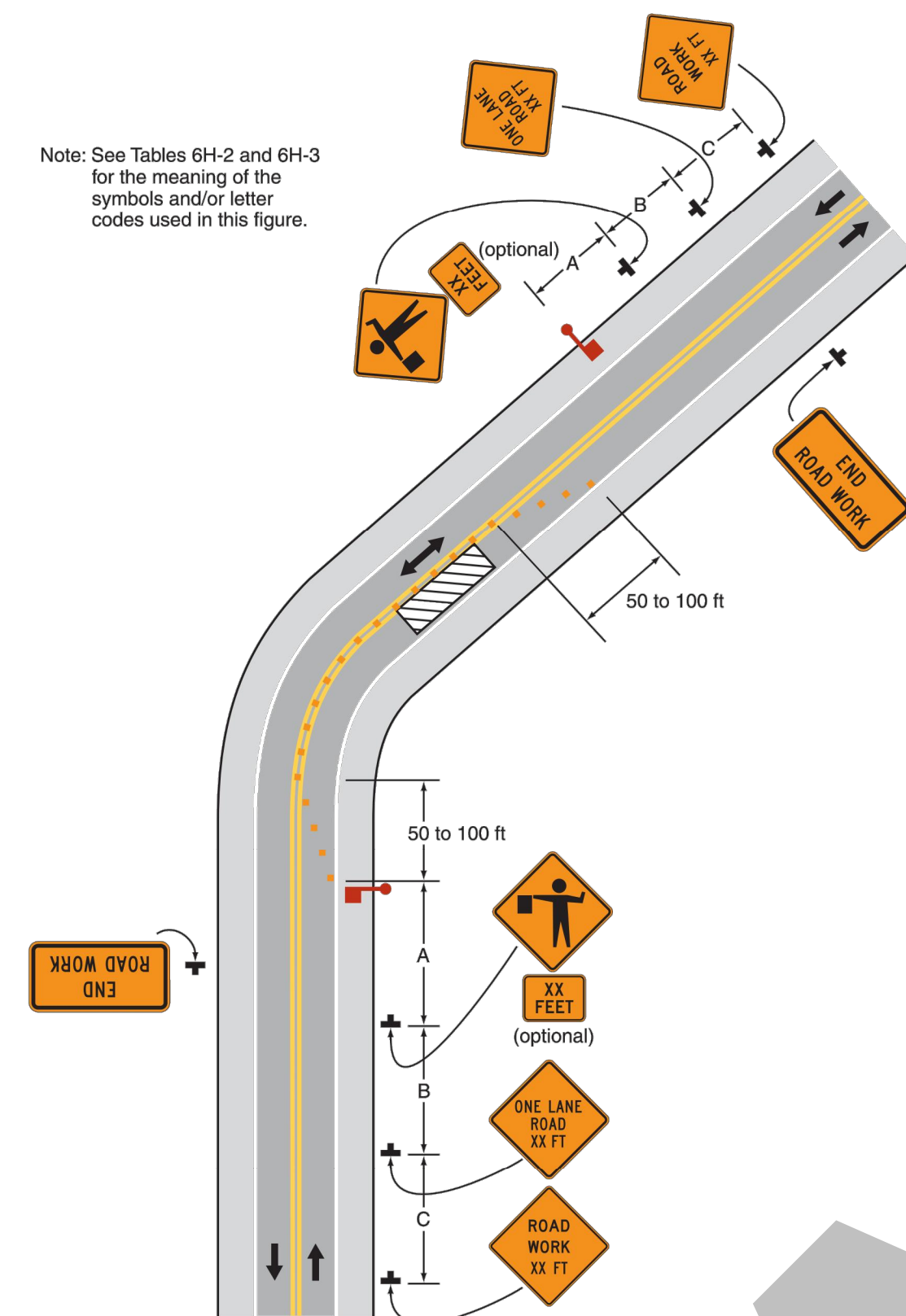
TABLE 6H-3 MEANING OF LETTER CODES

SCALE: NTS

Speed (S)	Taper Length (L) in feet
40 mph or less	L = $\frac{WS^2}{60}$
45 mph or more	L = WS

Where: L = taper length in feet
 W = width of offset in feet
 S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

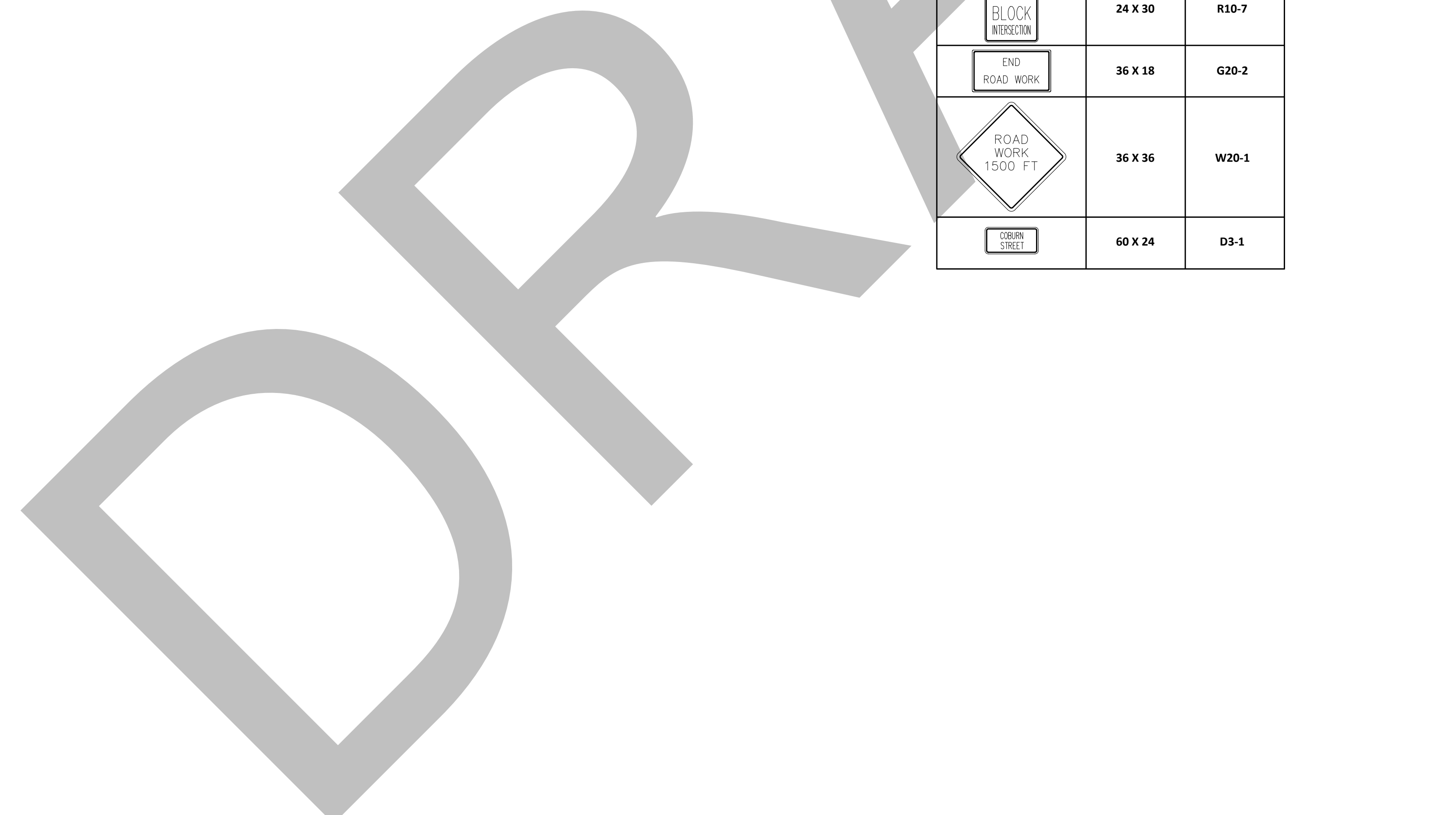
Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.



TYPICAL TRAFFIC CONTROL PLAN

SCALE: NTS

CONSTRUCTION SIGN		
TEXT	SIZE OF SIGN	M.U.T.C.D. NO.
	36 X 36	W20-1
	36 X 36	W3-5
	24 X 30	R2-10a
	36 X 36	W20-4
	24 X 24	W13-1
	36 X 36	W3-4
	36 X 36	W3-3
	24 X 36	R10-6L
	24 X 30	R10-7
	36 X 18	G20-2
	36 X 36	W20-1
	60 X 24	D3-1



APP'D	DATE
K.GAR	03-21
SUBMISSIONS/REVISIONS	
NO	PERMITTING
DESIGNED BY: J.L.O.C.	CAD CORP.: J.M.C.
CD: D.F.U.D.	CHECKED BY: K.L.O.B.E.
DATE: 03-21	APPROVED BY: K.GAR
DATE: 03-21	PROJECT NO.: 11304C
WRIGHT-PIERCE Engineering a Better Environment 888.621.8156 www.wright-pierce.com	
CITY OF PORTSMOUTH, NH SAGAMORE AVENUE SEWER EXTENSION PROJECT	
DRAWING C-20	

EROSION AND SEDIMENTATION CONTROL NOTES

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THE PROPOSED LOCATION OF EROSION AND SEDIMENT CONTROLS ARE DEPICTED IN THE PLANS WHERE WORK ABUTS ENVIRONMENTALLY SENSITIVE LOCATIONS. ADDITIONAL CONTROLS MAY BE NEEDED TO MEET THE REQUIREMENTS OF THE BELOW REFERENCED DOCUMENTS. THIS PLAN IS BASED ON THE NEW HAMPSHIRE STORMWATER MANUAL BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.

PROVIDE SILT FENCE, STONE CHECK DAMS AND OTHER EROSION CONTROL MEASURES AS REQUIRED TO ADEQUATELY PREVENT SEDIMENT TRANSPORT. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSIONS OF THE NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, ENV-Wq 1500: ALTERATION OF TERRAIN.

- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION, IN NO CASE AT MORE THAN 5 ACRES AT A TIME, WILL BE MAINTAINED IN AN UNTREATED OR UN-VEGETATED CONDITION FOR THE MINIMUM TIME REQUIRED. IN GENERAL, AREAS TO BE VEGETATED SHALL BE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE OF THE SOIL.
- TEMPORARY STORAGE OF STOCKPILED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION.
- EROSION CONTROL MEASURES SUCH AS SEDIMENT BARRIERS (SILT FENCE, STONE CHECK DAMS, ETC.) AND OUTLET PROTECTION (WHERE APPLICABLE) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OR EARTH MOVING OPERATIONS OF UPGRADIENT DRAINAGE AREAS.
- FUGITIVE DUST MUST BE CONTROLLED IN ACCORDANCE WITH NEW HAMPSHIRE STANDARDS.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED AND/OR WILL NOT ERODE UNDER THE CONDITIONS OF A 10-YEAR STORM. STABILIZATION SHALL BE DEFINED AS ONE OF THE FOLLOWING:
 - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - B. A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
 - C. A MINIMUM OF 3" OF NON-EROSIVE MATERIALS SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL NOT BE STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3 TO 1) UNLESS STABILIZED WITH PERMANENT EROSION CONTROL MEASURES. IF MOWING IS TO OCCUR, MAXIMUM SLOPE ANGLE SHALL BE THREE HORIZONTAL TO ONE VERTICAL (3 TO 1). ON SLOPES FOUR HORIZONTAL TO ONE VERTICAL (4 TO 1), FINAL PREPARATION SHOULD INCLUDE SURFACE ROUGHING.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND RE-GRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY, WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER. AT NO TIME SHALL THE INTEGRITY OF THE EROSION CONTROL FENCE BE IN DANGER DUE TO BUILD UP OF SEDIMENT.
- RE-VEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND RE-VEGETATED.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 2 BALES (70-90 LBS) PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE.
- DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- SEED MIX SELECTION AND APPLICATION RATES WILL BE CONSISTENT WITH THE FOLLOWING TABLES AS REFERENCED FROM MINNICK, E.L. AND H.T. MARSHALL, STORMWATER MANAGEMENT AND EROSION CONTROL FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, ROCKINGHAM COUNTY CONSERVATION DISTRICT, AUGUST 1992, AND TABLES 4-1 THROUGH 4-3 OF SECTION 3 IN THE NEW HAMPSHIRE STORMWATER MANUAL. NOTE: REED CANARY GRASS SHALL NOT BE USED.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE WORK AREA IS STABILIZED.
- WETLANDS (EXCEPT THOSE WHICH ARE TO BE FILLED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS) WILL BE PROTECTED WITH SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- IN GENERAL, AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS SHALL HAVE A MAXIMUM PERIOD OF EXPOSURE OF NOT MORE THAN 15 DAYS.
- FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IN ALL AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS.

EROSION CONTROL DURING WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD DEFINED: NOVEMBER 1 THROUGH MAY 1
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREAS SHOULD BE LIMITED TO WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY PRECIPITATION EVENT.
- 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. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3

LIME AND FERTILIZER SCHEDULE

SEEDING TYPE	SEED DATES	LIME RATE (TONE/ACRE)	FERTILIZER RATE/RATIO (TYPE) [LBS/1,000 SQ. FT.]
PERMANENT AND/OR TEMPORARY	MAY. 1 - SEPT. 15	3	600/ENGINEER APPROVED (N-P205-K20)

NOTES:

- USE LOW PHOSPHATE FERTILIZER AT ALL TIMES AND SLOW RELEASE NITROGEN FERTILIZER WHEN BETWEEN 25 AND 250 FEET OF A SURFACE WATER BODY.
- NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER.
- APPLY LIMESTONE AT 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE.

TEMPORARY VEGETATION (TABLE 4-1)

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS)

DATES	SEED	RATE
PRIOR TO MAY 15	OATS	80 LBS/ACRE
AUG. 15 - SEP. 15	ANNUAL RYE GRASS	40 LBS/ACRE
AUG. 15 - SEP. 15	WINTER RYE GRASS	112 LBS/ACRE
APR. 1 - JUN. 1 (AUG. 15 - SEP. 15)	PERENNIAL RYE GRASS	40 LBS/ACRE

PERMANENT VEGETATION (TABLE 4-2)

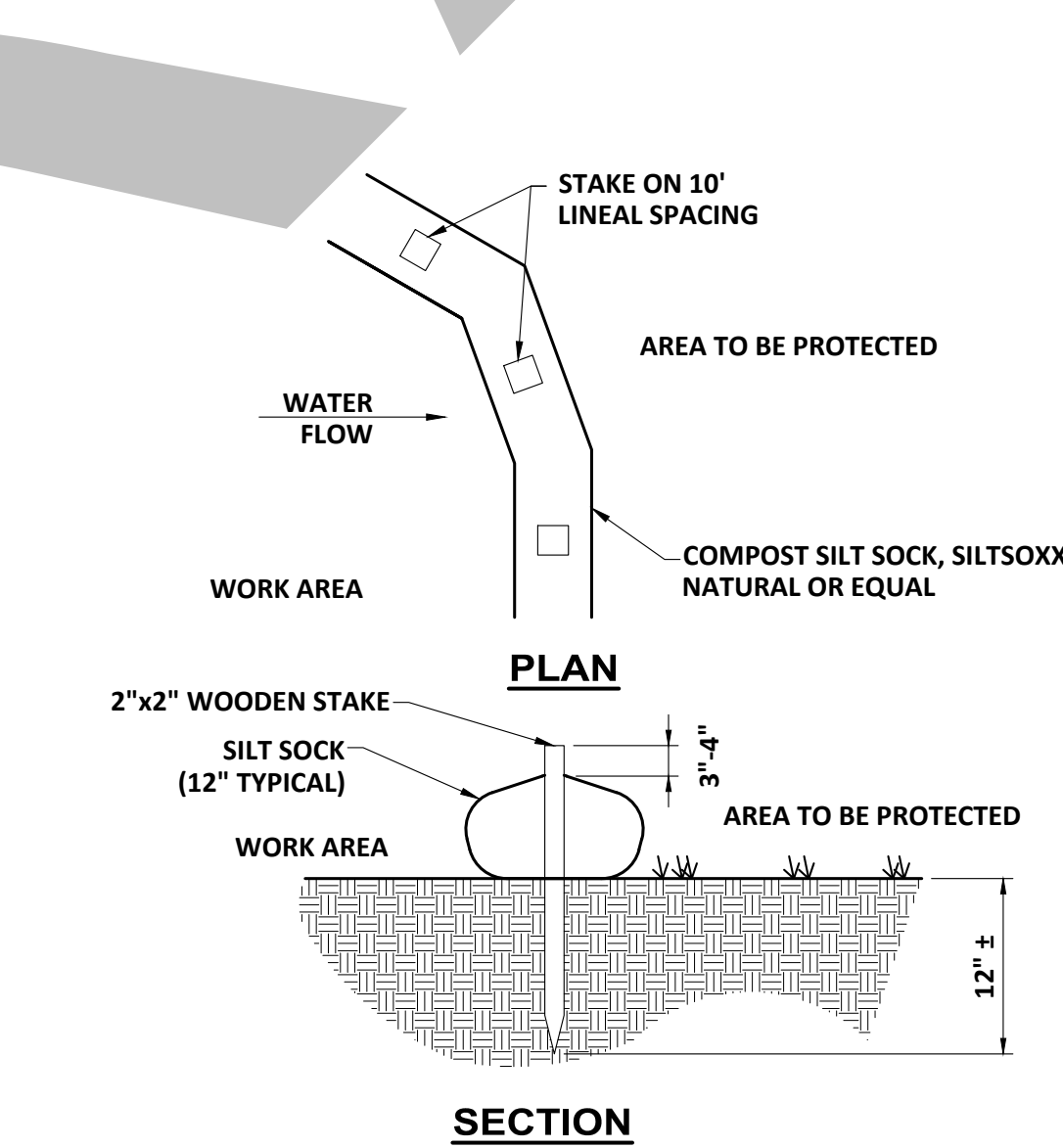
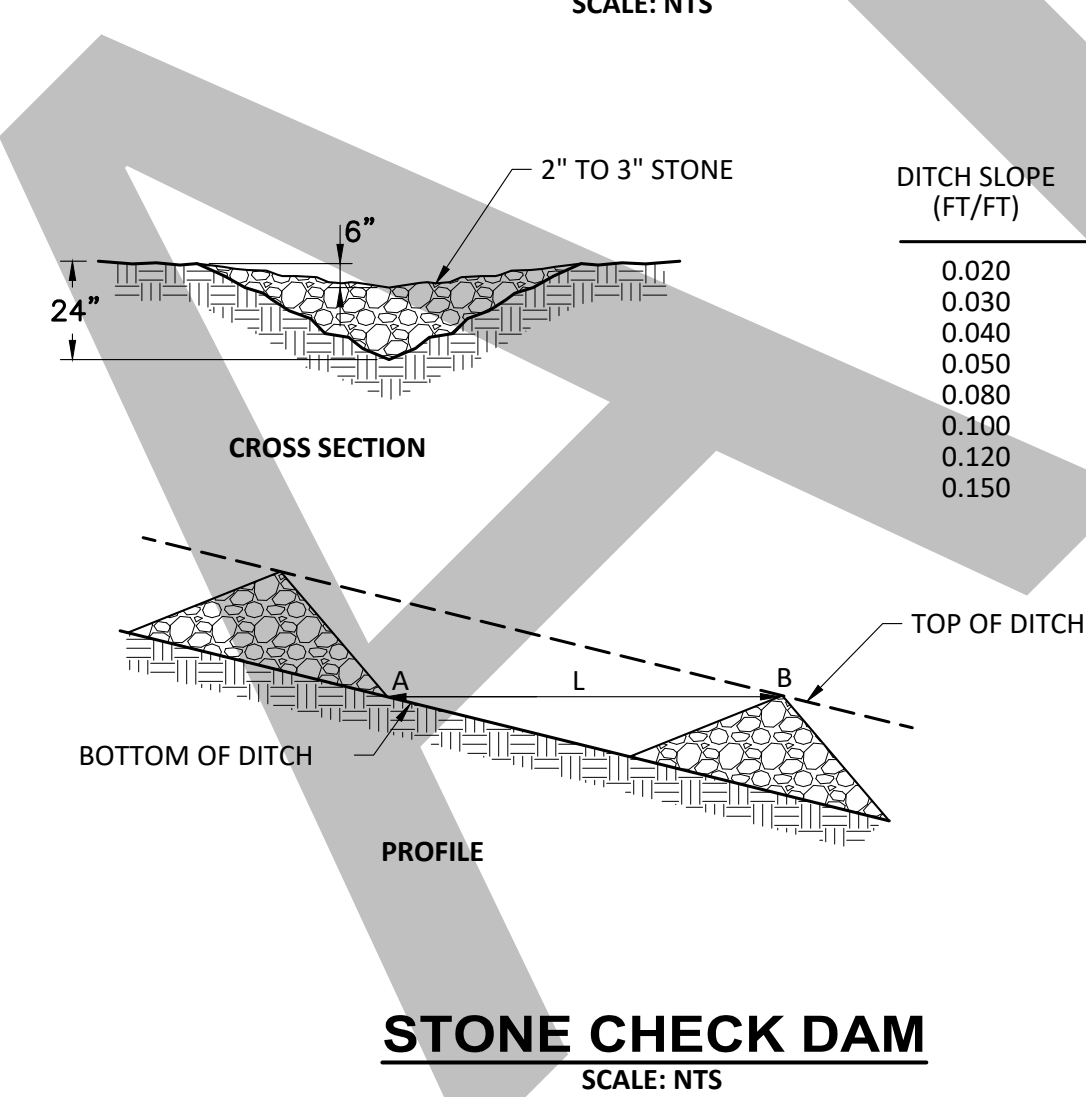
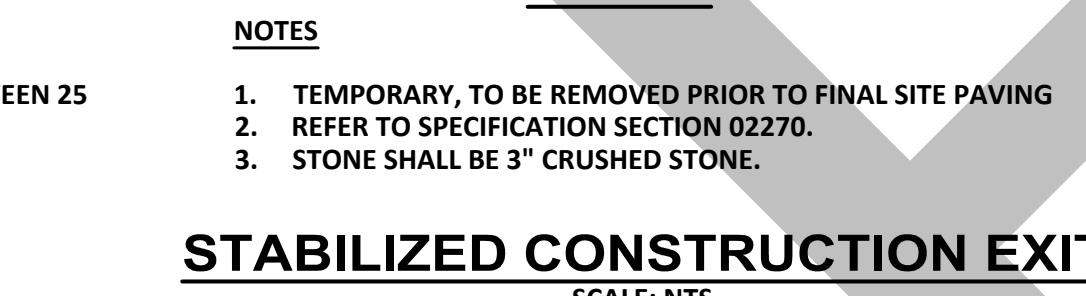
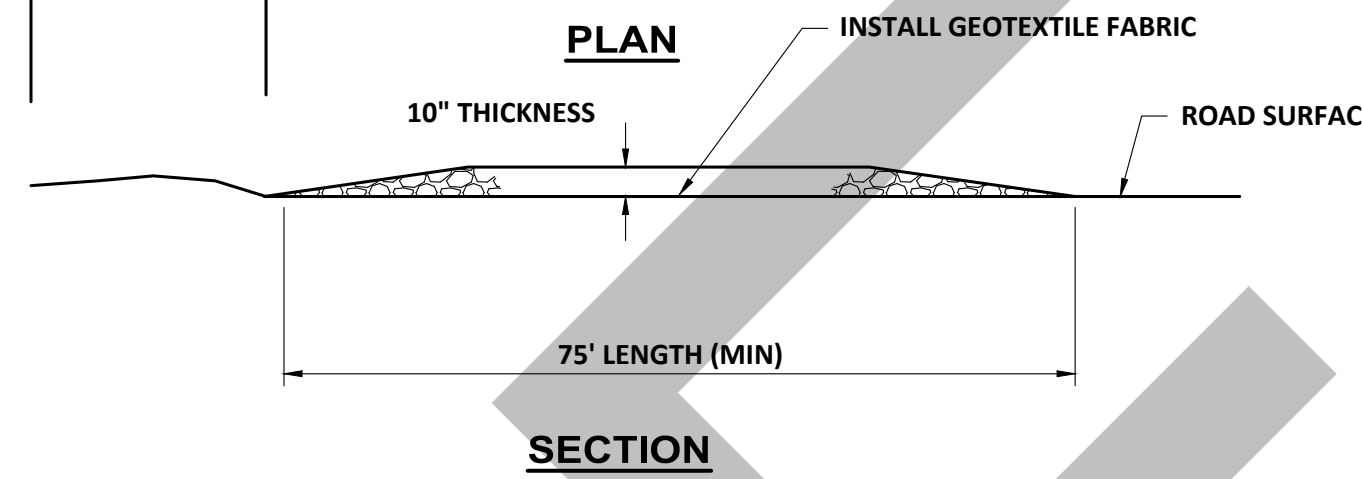
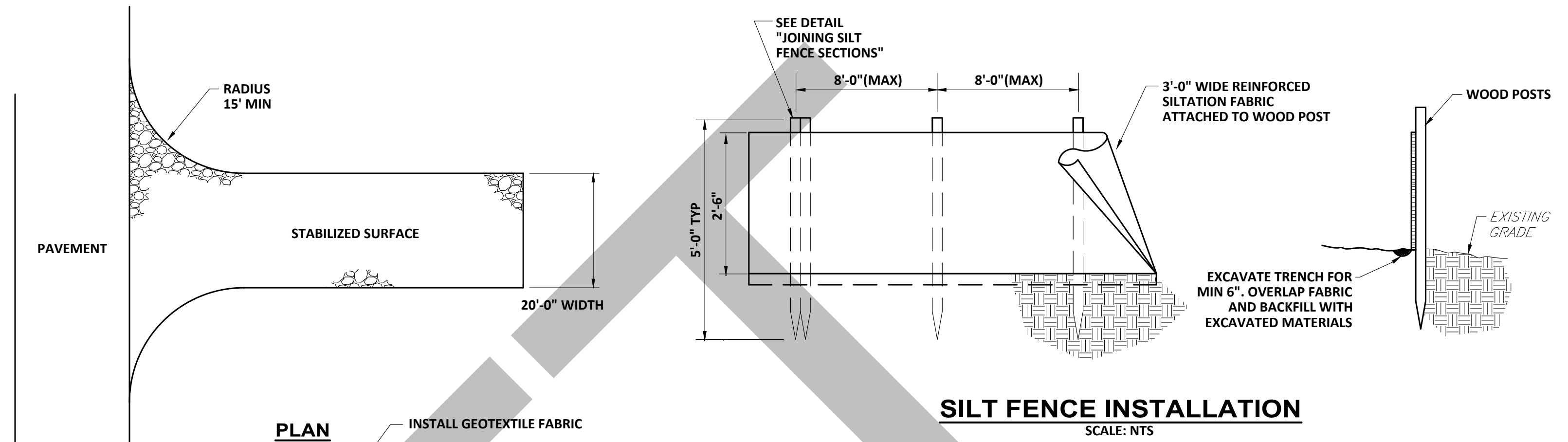
USE	MIXTURE TABLES	SOIL DRAINAGE			
		I.	II.	III.	IV.
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXC.	GOOD
	E	FAIR	EXC.	EXC.	POOR
WATERWAYS, EMERGENCY SPILLWAYS AND OTHER CHANNELS WITH FLOWING WATER	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXC.	EXC.	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXC.	EXC.	FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF)	F	FAIR	EXC.	EXC.	
	G	FAIR	EXC.	EXC.	

NOTES:

- I. DROUGHTY
II. WELL DRAINED
III. MODERATELY WELL DRAINED
IV. POORLY DRAINED
- EXC. = EXCELLENT
- REFER TO TABLE 4-3 FOR SEED MIXTURE AND APPLICATION RATES

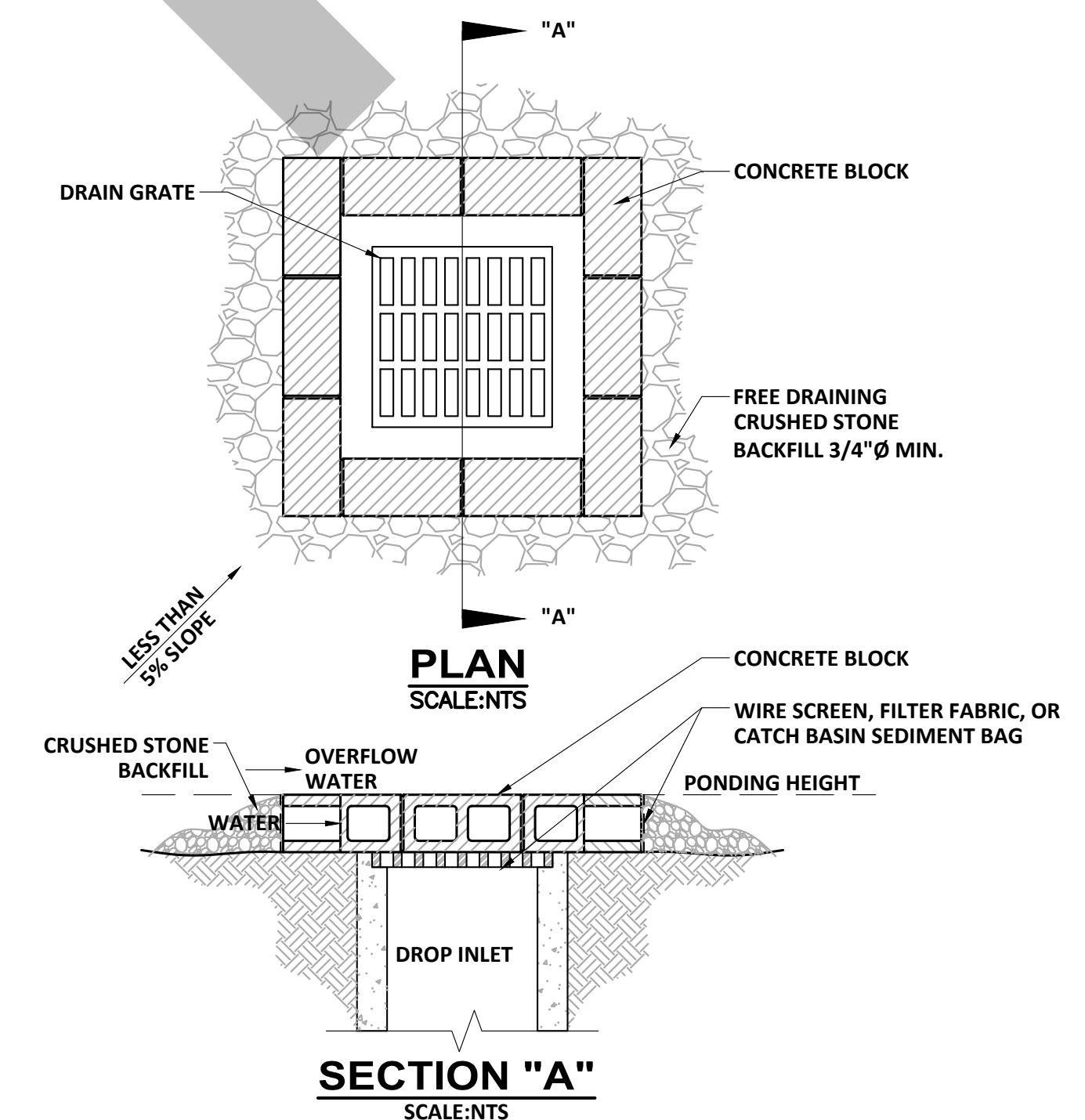
PERMANENT VEGETATION (TABLE 4-3)

MIXTURE	SPECIES	RATE-POUNDS PER 1,000 SQ. FT.	
A	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	REDTOP	2	0.05
	TOTAL	42	0.95
B	TALL FESCUE	15	0.35
	CREeping RED FESCUE	10	0.25
	CROWN VETCH/OR FLATPEA	15	0.35
	TOTAL	40 OR 55	0.95 OR 1.35
C	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	BIRDSFOOT TREFLOIL	8	0.2
	TOTAL	48	1.10
E	CREeping RED FESCUE	50	1.15
	KENTUCKY BLUEGRASS	50	1.15
	TOTAL	100	2.30
	F	TALL FESCUE	150



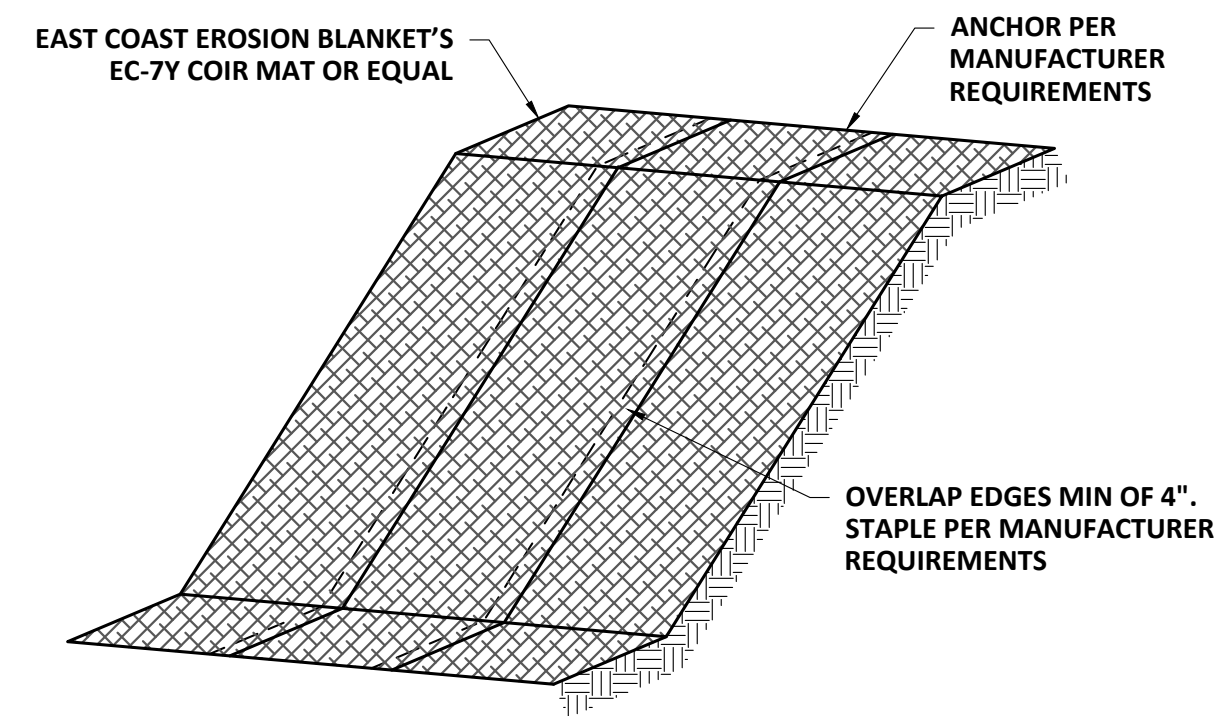
- NOTES:**
- ALL MATERIAL TO MEET SPECIFICATIONS
 - SILT SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS
 - SILT SOCK DEPICTED IS FOR MINIMUM SLOPES. GREATER SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER
 - COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

COMPOST SILT SOCK DETAIL
SCALE: NTS



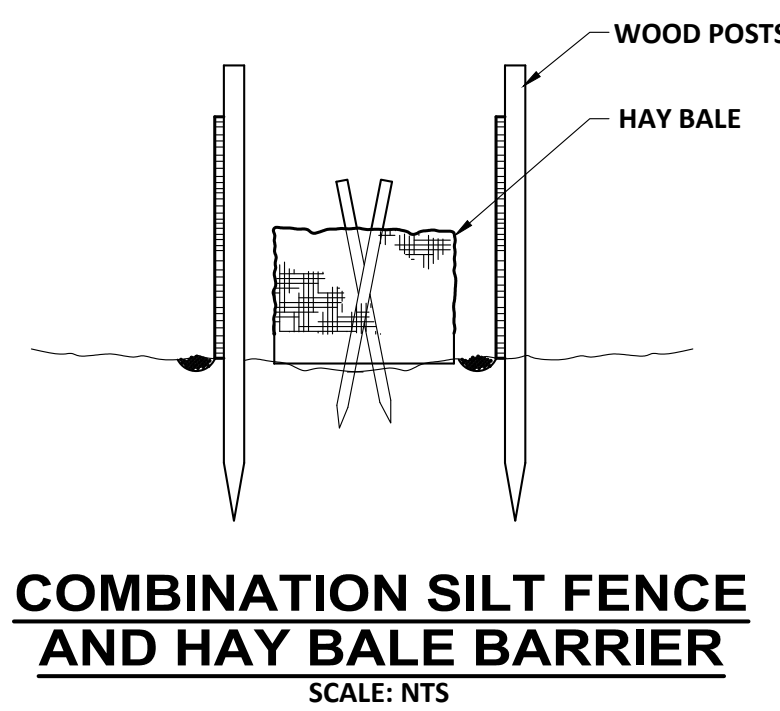
- NOTES:**
- DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS(LESS THAN 3%).
 - EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
 - THE TOP OF THE STRUCTURE, PONDING HEIGHT, MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
 - SILT BAGS MAY ALSO BE USED FOR CB GRATE INLET PROTECTION.

DROP INLET SEDIMENT BARRIER DETAIL
SCALE: NTS



EROSION CONTROL MATTING - SLOPES
SCALE: NTS

NOTE: INSTALL ON SLOPES 3:1 OR GREATER



COMBINATION SILT FENCE AND HAY BALE BARRIER
SCALE: NTS

NO	PERMITTING	NO	DESIGNED BY: J.L.O.C.	APP'D DATE
1		1	CAD CORP.: J.M.I.C. <td>K.G.A.R. 01-21</td>	K.G.A.R. 01-21
2		2	CHK'D BY: D.F.U.D. <td></td>	
3		3	CHECKED BY: K.L.O.B.E. <td></td>	
4		4	DATE: 02-21 <td></td>	
5		5	APPROVED BY: K.G.A.R. <td></td>	
6		6	DATE: 02-21 <td></td>	
7		7	PROJECT NO.: 11304C <td></td>	

NO	PERMITTING	NO	DESIGNED BY: J.L.O.C.
1		1	CAD CORP.: J.M.I.C.
2		2	CHK'D BY: D.F.U.D.
3		3	CHECKED BY: K.L.O.B.E.
4		4	DATE: 02-21
5		5	APPROVED BY: K.G.A.R.
6		6	DATE: 02-21
7		7	PROJECT NO.: 11304C

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT
DETAILS VIII



4

Project Narrative

Project Introduction

The City of Portsmouth, NH, intends to extend public sewer services to the southern portions of Sagamore Avenue and the surrounding area. This action is prompted in part by several properties in the area having one or more of the following issues: failed septic systems, difficult soil conditions, and lack of space to address wastewater flows with on-site systems. In addition, the New Hampshire Department of Environmental Services (NHDES) completed a Total Maximum Daily Load (TMDL) study for bacteria of Little Harbor and identified Sagamore Creek (adjacent to the project area) as a potential contributor to impaired water quality in Little Harbor. In 2016, the EPA and NHDES updated a Consent Decree (Section 15) to the City requiring construction of the new sewer extension. The City has recently requested an extension. The City has recently requested an extension to the project date to begin no later than June 2021 and be substantially completed on or before December 2022.

To meet the requirements of the Consent Decree, installation of a low pressure sewer system (LPSS) is recommended due to the shallow ledge located during field inspections. This type of system reduces construction costs by using small diameter pipes that can be installed at shallower depths than conventional sewer system mains. This system requires that each property has a grinder pump that discharges the sewerage into the small diameter main located in the roadway.

The City and its residents have been in discussion regarding the Sagamore Avenue Sewer extension project since September 2019. In this time there have been eight public meetings discussing project details.

Installation of the proposed sewer system in the project area will provide an opportunity for property owners to discontinue using failed and underperforming septic systems. Sending the wastewater to the Pierce Island Wastewater Treatment Facility (WWTF) will result in a higher level of treatment than any on-site option.

Natural Resources

Wetlands

The project area is located along a tidal estuary known as Sagamore Creek. Sagamore outlets to Little Harbor to the east of the project area.

Wetlands and resource areas were delineated at each site by Marc Jacobs, CWS in December 2020. Resource areas within the project area include the Tidal Buffer Zone (TBZ) and upland freshwater wetlands. Refer to wetland delineation report included as Attachment G within the Function Assessment Report prepared by Marc Jacobs included in Section 6.

Marc Jacobs identified areas of salt marsh within Sagamore Creek. The limit of salt marsh is coincident with the Highest Observable Tide Line (HOTL) in most locations.

Rare, Endangered and Threatened Species

A New Hampshire Natural Heritage Bureau Datacheck report determined that they do not expect impact to any rare wildlife, plant, and/or natural community despite record within the vicinity of the project area. The determination was made on February 1, 2020. The NHB report and correspondence with NHB and NHFG is included in Section 13.

Proposed Project

The proposed project includes installing a 2-4-inch HDPE low pressure sewer (LPS) force main throughout the roadway within the project area. 1.5-inch PVC service connections will be provided for all properties ending at the

ROW with a curb stop. Property owners that choose to connect to the LPS will each have a grinder pump located adjacent to the house which is fed by a 4-inch or 6-inch PVC gravity pipe.

Proposed Wetland Impacts

The proposed impact area for the low-pressure sewer system includes 17,890 sq ft of temporary impact (trench work to install sewer) and 56 sq ft of permanent impact as grinder pumps have a 25-inch diameter plastic cover. SMH's within the TBZ and outside of the ROW were considered permanent impacts and have a diameter of 24-inch. Trench impacts are shown as 10 ft wide impact areas in the Wetland Impact Figures (Section 3).

The project proposes temporary impacts to jurisdictional areas as follows:

Activity	Tidal Buffer Zone (sq ft)
Trench Excavation and Test Pits	17,890
Total	17,890

The project proposes permanent impacts to jurisdictional areas as follows:

Activity	Tidal Buffer Zone (sq ft)
Grinder Pump Covers and SMHs	56
Total	56

Env-Wt 605.03 indicates permanent impacts within previously developed buffer zone are exempt from compensatory mitigation if they are located more than 75 ft from salt marsh. A majority of the proposed permanent impacts will be located more than 75 ft from salt marsh. However, four of the proposed grinder pump covers, equivalent to 14 sq ft of permanent impact, will be located within 75 ft of salt marsh. The design evaluated ways to move these pumps further from the salt marsh but the existing site conditions made this impractical. Given the small quantity of impact and the overall water quality benefit of installing a municipal sewer and discontinuing use of septic systems in the project areas, its requested that these impacts be considered self-mitigating.

Proposed Construction BMPs

In general, proposed construction will be completed in accordance with the Best Management Practices Manual: Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire.

The following sections describe how the proposed project will meet standard permit conditions required in Env-Wt 307.

Env-Wt 307.03 Protection of Water Quality

- a. Best management practices (BMPs) will be used to protect water quality during construction.
- b. Soil stockpiles will be managed to minimize risk of erosion and sedimentation to tidal waters.

- c. All water quality measures will be designed to provide maximum protection during storm events during construction and will be removed when construction is complete and vegetated areas are stable. Wildlife friendly erosion control shall be used.
- d. During construction, erosion and sedimentation controls will be inspected, replaced, and/or repaired every 7 days and immediately following any significant rainfall or snowmelt. Any accumulated sediments will be removed and disposed of to a stable and suitable site.
- e. Areas disturbed outside of the roadway during construction will be permanently stabilized with 3 days of completion of final grades.
- f. Impacts to surface waters are not proposed.
- g. The contractor will be required to inspect equipment daily for leaking fuel, oil and hydraulic fluid prior to initiating work. All leaks shall be contained and repaired to prevent fluids from reaching groundwater, surface water or wetlands.
- h. Equipment will be staged and refueled in accordance with Env-Wt 307.15.

Env-Wt 307.04 Protection of Fisheries and Breeding Areas Required

The proposed project is not anticipated to have any impacts to fish and shellfish. No work will be conducted within the waterway. Erosion and sedimentation BMPs will be utilized to prevent discharge of sediment with stormwater runoff.

Env-Wt 307.05 Protection Against Invasive Species

- a. Not applicable.
- b. Equipment will be inspected prior to use to ensure that it is free of all aquatic and terrestrial invasive plants and all exotic aquatic species of wildlife.
- c. Not applicable.
- d. Not applicable.
- e. To prevent the use of soil or seed stock contain nuisance or invasive species, the Contractor will be required to follow the Invasive Plant BMPs.

During delineation of wetlands and other resource areas, Marc Jacobs observed the presence of multiflora rose, Common reed, Japanese barberry, Japanese knotweed, glossy buckthorn, common buckthorn, honeysuckle, Asian bittersweet, privet, Autumn olive, and purple loosestrife. The Contractor will be required to complete the project such that the project will not cause the spread of invasive species. Any impacted invasive species will be removed and disposed of properly.

Env-Wt 307.06 Protection of Rare, Threatened or Endangered Species or Critical Habitat

a-c. All proposed activities will be conducted so as to minimize impacts to threatened and endangered species. See Section 13 for concurrence with NHB and NHFG that not impacts are anticipated as a result of the proposed project

Env-Wt 307.07 Consistency with Shoreland Water Quality Protection Act

All project activities will be conducted in compliance with the applicable requirements of RSA 483-B and Env-Wq 1400 during and after construction. A Shoreland Permit has been submitted in concurrence for impacts outside of the TBZ and within 250 ft of the HOTL.

Env-Wt 307.08 Protection of Designated Prime Wetlands and Duly-Established 100-foot Buffers

The City of Portsmouth does have designated prime wetlands, but none exist within the project area.

Env-Wt 307.09 Shoreline Structures

The proposed project does not involve the construction of any structures over public waters.

Env-Wt 307.10 Dredging Activity Conditions

Not applicable.

Env-Wt 307.11 Filling Activities

- a. It is anticipated that the existing soils will be used to restore the impacted areas. If fill needs to be brought from an offsite location it will not contain any material that could contaminate the surface, groundwater or tidal waters.
- b. Limits of permitted impacts will be identified prior to commencement of work to ensure that fill does not spill over or erode into areas where filling is not authorized.
- c. Slopes shall be immediately stabilized by methods specified in Env-Wq 1506 and in accordance with the NHDES Stormwater Manual to prevent erosion into adjacent wetlands and surface waters.
- d. Not applicable.
- e. The proposed project will restore existing grades and will not change the direction of surface water runoff.
- f. Not applicable.
- g. Authorized temporary fill will be placed on geotextile fabric within jurisdictional areas.
- h. Not applicable.
- i. The use of corduroy is not proposed.
- j. Impacted jurisdictional areas will be restored to pre-construction conditions and elevations.
- k. Not applicable.
- l. Not applicable.

Env-Wt 307.12 Restoring Temporary Impacts; Site Stabilization

- a. Within 3 days of final grading or temporary suspension of work in an area that is in or adjacent to surface waters, all exposed soil areas shall be stabilized by seeding and mulching, if during the growing season or mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1 if not within the growing season.
- b. Impacts to the tidal buffer zone will be restored to match current conditions. Restored lawn areas will be stabilized with a lawn seed mix free of weeds and invasive species.
- c. Any seed mix used shall not contain plant species that are exotic aquatic weeds.
- d. Mulch used within an area being restored shall be natural straw or equivalent non-toxic, non-seedbearing organic material.
- e. Wetland soils from areas vegetated with invasive plant species shall not be used in the area being restored.
- f. If any temporary impact area that is stabilized with seeding or plantings does not have at least 75% successful establishment of wetlands vegetation after 2 growing seasons, the area shall be replanted or reseeded, as applicable.
- g. If a temporary impact area is restored by seeding or plantings, then:
 - (1) The work shall not be deemed successful if the area is invaded by invasive species during the first full growing season following the completion of construction; and
 - (2) The person responsible for the work shall submit a remediation plan to the department that proposes measures to be taken to eradicate nuisance species during this same period.
- h. Unless otherwise authorized, any trees cut in an area of authorized temporary impacts shall be cut at ground level with the shrub and tree roots left intact, to prevent disruption to the wetland soil structure and to allow

stump sprouts to revegetate the work area. This permit application requests authorization to remove trees and roots from the TBZ where trench excavation is proposed in order to install the new sewer and water utilities.

- i. Unless otherwise authorized, wetland areas where permanent impacts are not authorized shall be restored to their pre-impact conditions and elevation by replacing the removed soil and vegetation in their pre-construction location and elevation such that vegetation schemes areas close as practicable to pre-construction conditions.

Env-Wt 307.13 Property Line Setbacks

The proposed project includes impacts both in the City ROW and on private property. Authorizations will be acquired prior to any work on private property.

Env-Wt 307.14 Rock Removal

The proposed project does not involve removing any rocks from surface waters.

Env-Wt 307.15 Use of Heavy Equipment in Wetlands

- a. This permit application is requesting authorization to use heavy equipment within wetlands as shown on plans.
- b. Mobile heavy equipment will be prohibited from being stored, maintained, or repaired in wetlands, except where repairing or refueling cannot practicably be complete and secondary containment is provided.
- c. The proposed project does not require operation of equipment over wetlands.
- d. Timber mats are not anticipated, but if necessary, shall be in good condition prior to installation, use and removal and thoroughly cleaned before re-use.
- e. Timbers mats shall be placed in the wetland from the upland or from equipment positioned on timber mats; be installed, used and removed so as to minimize impacts to wetland areas; and be installed with adequate erosion and sediment controls as approaches to the mats to promote a smooth transition to and minimize sediment tracking onto, the mats.

Env-Wt 307.16 Adherence to Approved Plans Required

Construction documents will require that the contractor complete all work in accordance with the approved plans. A qualified professional will periodically inspect the construction site to confirm work is being performed in accordance with the approved permit conditions.

Env-Wt 307.18 Reports

All required reporting will be completed in accordance with the approved permit conditions.

Env-Wt 313.01 Criteria for Approving Standard Permit Applications

- a. Functional assessment was completed by Marc Jacobs (Section 6). Avoidance and minimization checklist is included in Section 16. No compensatory mitigation is anticipated. Resource and project specific criteria is included in Section 5 and 6 respectively. The proposed project will occur within the ROW and where authorization is granted by the owner to complete the private property service connection.
- b. Not applicable.
- c. The proposed project has been designed to minimize adverse impact to jurisdictional areas. Completion of the project is intended to improve the water quality of Sagamore Creek and the surrounding watershed.

Resource Specific Information



Applicable resource specific information required by Env-Wt 311.09 is presented as follows:

- a. *Project in tidal areas – Applicant shall submit information required by Env-Wt 600 – Refer to Section 6*
- b. *Project affecting non-tidal shoreline – Not applicable*
- c. *Projects within the protected shoreland:*
 - 1. *Reference line – HOTL, shown on Project Plans in Section 3*
 - 2. *Location of existing structures – shown on Project Plans in Section 3*
 - 3. *Location of proposed structure – Not applicable*
 - 4. *Projects adjacent to tidal water, landward limit of the TBZ – shown on Project Plans in Section 3*
 - 5. *Total disturbed area within the protected shoreland: 75,500 sq ft*
- d. *Stream crossing projects – Not applicable*

6

Project Specific Information



The information provided below indicates how the proposed project meets the requirements of Env-Wt 600. The following Sections 1 through 8 correspond to the sections specified on the Coastal Resource Worksheet. Refer to Section 17 for the completed worksheet.

Section 1. Required Information (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

Refer to Project Narrative in Section 4 for a description of the proposed project and natural resources present at the project site.

Section 2 Data Screening

The Wetland Permit Planning Tool and NH GRANIT was used to determine the presence of the following resource areas near the project site:

- Salt marsh – No salt marsh was found in mapping. Salt marsh was observed by Marc Jacobs CWS. Refer to the Wetland Report in Section 6.
- Eel grass beds – Not present within the project area.
- Shellfish site – Not present within the project area.
- Projected sea-level rise (SLR) – The project area is subject to SLR.
- 100-year flood plain – The project is partially located with the 100-year flood plain.

Refer to Wetland Permit Planning Tool map attached to the Coastal Resources Worksheet in Section 17.

Section 3 Coastal Functional Assessment

A Functional Assessment was completed by Marc Jacobs. Refer to Section 6.

Section 4 Vulnerability Assessment

A site-specific vulnerability assessment was completed for the project area. Refer to Section 17.

Section 5 Design Plans

Design plans are included in Section 3.

Section 6 Water Depth Supporting Information

There is no work proposed below the HOTL.

Section 7 General Criteria for Tidal Beaches, Tidal Shoreline, and Sand Dunes

The proposed project only involves impacts to previously disturbed tidal buffer zone and does not involve impacts to tidal areas.

Section 8 How Project meets Relevant Standard Conditions and Approval Criteria

Refer to the Project Narrative included in Section 4 which describes how the proposed project will meet the general criteria for projects in the tidal buffer zone.

Coastal Wetland Functional Assessment

Of

Sagamore Creek Low Pressure Sewer Portsmouth, NH

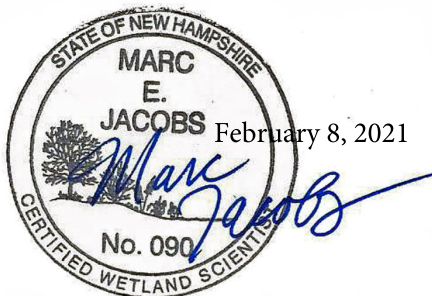
Prepared for

Wright-Pierce
230 Commerce Way, Suite 302
Portsmouth, NH 03801

By

Marc E. Jacobs
Certified Wetland & Soil Scientist
609 Portsmouth Avenue
P.O. Box 417
Greenland, NH 03840-0417

February 8, 2021



Sagamore Sewer Project

Coastal Resource Worksheet

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

INTRODUCTION

This report is intended as an integral part, and in support of, a wetlands permit application (prepared by others) for the Sagamore Low Pressure Sewer project on behalf of the City of Portsmouth, NH and addresses the requirements of Section 2 of the Coastal Resource Worksheet. This includes data screening and field work for:

- 100-year floodplain;
- Essential Fish Habitat;
- Tides and currents;
- Existing salt marsh and salt marsh migration pathways;
- Eelgrass beds;
- Documented shellfish sites;
- Projected sea-level rise; and
- An on-site assessment of the project area;
- Coastal Functional Assessment and;
- Wetland field delineation.

For a more detailed discussion of tides, currents, salt marsh migration pathways and projected sea level rise see the Vulnerability Assessment in the permit application. The permit application and Vulnerability Assessment are being prepared by others. A brief discussion of the existing conditions within the 100 foot Tidal Buffer Zone (TBZ) is also included herein.

Env-Wt 603.03 - METHODS

A review of the Wetland Permit Planning Tool (WPPT) was completed to identify any documented shellfish sites and eel grass beds that may be present within the project area. Salt marsh migration pathways and projected sea level rise data layers were also queried. Federal Emergency Management Administration flood maps were reviewed to identify the 100 year floodplain. National Oceanic and Atmospheric Administration (NOAA) data was screened for essential fish habitat and tides and currents. Wetland boundary field delineations were completed as required by Env-Wt 406. Projected sea level rise is discussed in the Vulnerability Assessment and has been developed by others in accordance with Env- Wt 603.05.

RESULTS

The results of the WPPT review are shown in Attachment A. No eelgrass beds or shellfish areas are present in Sagamore Creek according to the data provided in the WPPT or other sources used and, none were noted during field observations. Salt marsh areas are present in some locations along the field delineated Highest Observable Tide Line (HOTL) as shown on the site plans by the presence of the 75 foot setback. The site plans were prepared by Wright – Pierce and are included herein by reference.

Salt marsh migration pathways were not present in the project area WPPT data layers. This is likely due to the fact that the mapped data does not show salt marsh present along the portion of Sagamore Creek that is within the project area. Although, based on field observations, there is salt marsh present in some areas along Sagamore Creek, migration pathways are limited due to the steep adjacent slopes. Further, the project does not propose any work that will permanently change the topography in any areas within 75 feet of salt marsh or 100 feet of the HOTL. Therefore, if salt marsh migration were to result from sea level rise, the proposed project would not have any impact on the ability for migration of the marshes. The same is true for sea level rise. The sea level rise scenarios are discussed in the Vulnerability Assessment; however, the steep slopes adjacent to the tidal areas would result in a vertical rather than a horizontal rise in water levels. Importantly, no work is proposed that will permanently change the topography; therefore, the proposed project will not result in a change to any sea level rise scenario.

NOAA Tides & Currents closest data point is Seavey Island, ME and does not provide tidal or current data for Sagamore Creek. Sagamore Creek is tidal throughout and tidal currents are present but not extreme as indicated by the presence of salt marsh and extensive mudflats.

The NOAA Essential Fish Habitat Mapper showed no data available for Sagamore Creek. Mapping for the greater Atlantic (Attachment B) shows migration corridors along coastal tributaries for Atlantic salmon (*Salmo salar*) but Sagamore Creek is not among these tributaries. All other species indicated by the NOAA EFH mapper query results are offshore species that would not be found in Sagamore Creek. The New Hampshire Natural Heritage Bureau (NH NHB) data query indicates that Atlantic Sturgeon (*Acipenser oxyrinchus*) and Shortnose Sturgeon (*Acipenser brevirostrum*) may be present in Sagamore Creek. These two sturgeon species are not EFH species but are rare species. Given the shallow nature of the main channel of Sagamore Creek at lower tides EFH is not present and any fish that are present are non-EFH resident species or come and go with the tide, including the sturgeon. Additionally, the creek would only serve as feeding habitat for the sturgeon as sturgeon spawn in freshwater. Regardless, the project does not propose any work within Sagamore Creek so no impacts to tides, currents or fisheries habitat will occur as a result of this project.

The 100 year flood zone for Sagamore Creek is shown in Attachment C. Sagamore Creek and portions of properties along the creek are within Flood Zone AE (elevation 9 feet). The 100 year flood boundary is shown on the site plans. Work within the 100 year flood zone is limited to piping to 238 Walker Bungalow Road and, piping and two sewer manholes at 187 and 189 Wentworth House Road. However, no permanent changes in topography are proposed so no fill in the floodplain will occur as a result of this project.

603.04 Env-Wt - METHODS

A Coastal Functional Assessment (CFA) was completed for Sagamore Creek and associated tidal wetlands which include salt marsh and mudflat. The CFA was completed by New Hampshire Certified Wetland Scientists Marc E. Jacobs (# 090) and Adele F. Mattson (# 064). The CFA was completed utilizing The United States Army Corps of Engineers(US ACE) Highway Methodology Workbook (1993), the US ACE New England District Highway Methodology Workbook Supplement (1999) for all functions and values except Ecological Integrity. Ecological Integrity was assessed using the Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire (June 1993).

RESULTS

The completed Wetland Function - Value Evaluation Form and list of considerations and qualifiers are provided in Attachment D. Functions and values are summarized below and Table 1 provides a summary of principal functions and values for Sagamore Creek and associated salt marsh and mudflats.

1 - Ecological Integrity

In general, the function of Ecological Integrity focuses on components of the unit such as invasive plant species, extent of tidal flow, level of human disturbance and buffer characteristics. All considerations and calculations are included in Attachment D. Sagamore Creek and associated marshes and mudflats scored moderate for Ecological Integrity. The maximum score is 1.00 and the minimum score is 0.10. The Ecological Integrity for Sagamore Creek and associated salt marsh and mudflats is 5.4.

2 - Educational/Scientific Value

This value considers the ability of the wetlands to provide educational opportunities. This site is not known to currently provide these values but the opportunity exists.

3 - Fish and Shellfish Habitat (Marine)

This function considers the wetlands ability to support marine resources. A significant number of qualifiers were identified for this function due to the presence of Sagamore Creek. The estuarine wetland includes salt marshes and tidal flats that are exposed at low tide. The salt marshes and tidal flats are considered "special aquatic sites" and the creek provides suitable spawning habitat for small resident fish such as mummichogs (*Fundulus heteroclitus*). However, desktop data indicates that Sagamore Creek is not mapped as Essential Fish Habitat. There is no eelgrass mapped in Sagamore Creek (Attachment A) and, although shellfish areas are not mapped (Attachment E), the creek does provide the potential for shellfish habitat within the mudflats.

Fish and shellfish habitat are a principal function of Sagamore Creek and associated wetlands. While the project proposes work within the 100 foot TBZ and portions of the project area also propose work within 75 feet of salt marsh, there are no direct or indirect impacts to these areas.

4 - Floodflow Alteration

This function considers the wetland effectiveness in reducing flood damage. There were many qualifiers identified that relate to the tidal areas that can offer protection against tidal surges and storm events. The tidal wetlands provide some storage capacity but the adjacent sloping landscape provides little flood storage. This is a principal function of Sagamore Creek and associated wetlands but the proposed project does not propose any work in the creek or wetlands. Increases in elevation are not proposed for work on the TBZ and thus will not have an impact on flood flow function.

5 - Groundwater Recharge/Discharge

This function considers the potential for the wetlands to interact with groundwater. The primary source of surface water is from incoming tides. The wetlands associated with Sagamore Creek do not support groundwater recharge/discharge as they are predominately tidal.

6 - Threatened or Endangered Species Habitat

This value considers the suitability of the wetlands to provide habitat for rare species. The NH NHB has identified the potential for the presence of rare species (See NHB – 21-0107 and correspondence between Wright – Pierce, NH Fish and game and NH NHB in the permit application and as referenced herein). The report listed four natural communities (high salt marsh, intertidal flat, low salt marsh, salt marsh system). The report also listed two plant species (dwarf glasswort, *Salicornia bigelovii* and marsh elder, *Iva frutescens*) and two vertebrate fish species (Atlantic Sturgeon, *Acipenser oxyrinchus* and Shortnose Sturgeon, *Acipenser brevirostrum*). Salt marshes and tidal creeks are known to provide habitat for a number of rare species as documented by the NH NHB report. As such Threatened and Endangered species is a principal function. However, the project does not propose any work within the habitat of any rare species and therefore will not result in any “taking” of rare species.

7 - Nutrient Removal/Retention/Transformation

This function considers the wetlands ability to trap, retain or transform excess nutrients from adjacent uplands. The tidal marsh vegetation represents the majority of the capability to perform this function here but, the salt marshes within the project area are narrow fringes between upland and mudflats or the creek and; therefore, they are not significant enough for this to be a principal function. The proposed project may protect Sagamore Creek and associated wetlands from upland nutrient sources by eliminating some or all of the existing septic systems as a result of the installation of the proposed sewer line.

8 - Production Export

This function considers the ability of the wetland to export resources to other areas. The high productivity of the tidal marsh and the presence of food resources within it and the creek, together with the tidal flushing of the creek make production export a principal function. The proposed project will not have any impact on the ability of the wetland complex to provide production export functions.

9 - Visual Quality/Aesthetics

This value considers the quality of the wetland from a visual perspective. Sagamore Creek and associated wetlands are visually and aesthetically exceptional and the proposed project will not detract from this value.

10 - Sediment/Toxicant/Pathogen Retention

This function considers the wetlands ability to trap sediments, toxicants and pathogens. The major source of sediments come from the incoming tides and any sedimentation that occurs within the tidal wetland is natural. The tidal flushing limits the retention of toxicants and pathogens. The proposed project may protect Sagamore Creek and associated wetlands from upland toxicants or pathogen sources by eliminating some or all of the septic systems as a result of the installation of the proposed sewer line.

11 - Sediment/Shoreline Stabilization

This function considers the ability of the wetland to maintain shoreline stability. Sagamore Creek is a relatively low energy area as indicated by the presence of mudflats and salt marshes. These areas provide for the deposition of sediments carried in by the tide making it a principal function. However, the proposed project will not result in any changes to this function. Appropriate Best Management Practices (BMPs) will be employed during all construction activities to avoid sedimentation and erosion in resource areas.

12 - Uniqueness/Heritage

This value considers the wetlands with respect to local and/or geographical significance as well as the functions it provides. Sagamore Creek provides a significant number of principal functions and values to the community and the public making this a principal value. The proposed project will not impact the uniqueness or heritage of the area.

13 - Recreation

This value considers the ability of the wetlands to provide recreational opportunities. Sagamore Creek is frequently used by boaters and offers many other recreational opportunities making recreation a principal value. The project will not create barriers to the recreational uses of the creek.

14 - Wildlife Habitat

This function considers the effectiveness of the wetland to provide habitat to species particularly adapted to wetland environments. Sagamore Creek and the tidal marsh is mapped as Highest Ranked Habitat in the Wildlife Action Plan (see Attachment F). Wildlife particularly suited to wetlands are associated with the tidal areas. A list of observed and potential wildlife is provided with the Wetland Function - Value Evaluation Form in Attachment D. Wildlife habitat is a principal function of the tidal area. The proposed project will not impact any significant wildlife or rare species habitat as all work is proposed within existing roadways, driveways or maintained yards.

Env-Wt 306.05 - METHODS

All wetlands in proximity to the project were delineated in November and December, 2020 and classified by New Hampshire Certified Wetland Scientists Marc E. Jacobs and Adele F. Mattson. The delineation of the HOTL was completed in accordance with the definition provided in Env-Wt 602.23 (the farthest landward limit of tidal flow, not including storm events, that can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt-tolerant vegetation, or a physical barrier that blocks inland flow of the tide).

Freshwater wetlands were also delineated. Refer to the report dated January 19, 2021, a copy of which is attached (Attachment G). Subsequently, additional field inspections and manual subsurface soil investigations were conducted in January 2021 to review suspected freshwater wetlands O, P, Q, R and S along Walker Bungalow Road.

Table 1. Summary of Principal Functions and Values

Wetland ID	Cowardin Class	Ecological Integrity	Groundwater Recharge/Discharge	Floodflow Alteration	Fish/Shellfish Habitat	Sediment/Toxicant Retention	Nutrient Removal	Production Export	Sediment/Shoreline Stabilization	Wildlife Habitat	Recreation	Educate/Scientific Value	Uniqueness/Heritage	Visual Quality/Aesthetics	Endangered/Threatened Species Habitat	Wetland Description
Wetlands H and I depicted as HOT on the site plans	E1UBL E2US3M	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Tidal creek complex with mudflats and salt marsh. The invasive common reed (<i>Phragmites australis</i>) is present in some locations.

The NH NHB database was queried for rare species and the resulting report (NHB – 21-0107) and correspondence between Wright – Pierce, NH Fish and game and NH NHB is included in the permit application and as referenced herein.

The Rivers and Management Protection Program website was reviewed to determine the status of Sagamore Creek relative to the jurisdiction of a Local Advisory Committee (LAC) under this program and New Hampshire mapping of Outstanding Resource Waters (ORWs) was also reviewed.

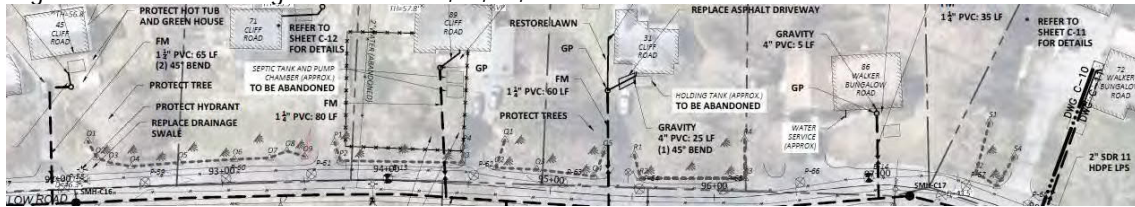
RESULTS

Freshwater Wetlands

Wetland ‘O’, which involves properties with addresses at 45 and 71 Cliff Road, has been the subject of multiple fill events, especially at 71 Cliff Road, but it was our opinion that wetland hydrology has returned to some areas of the fill therefore the delineation was extended and wet flags O10 through O16 were added. Flag O10 connects to flag O9. Flag O16 ends at a culvert. No additional investigation of wetland ‘T’ at 71 Cliff Road was undertaken.

After additional review of suspected wetlands P, Q and R at 31, 71 and 89 Cliff Road, as well as wetland ‘S’ at 72 Walker Bungalow Road, it was concluded that these areas lack hydric soils as needed to be considered jurisdictional wetlands, therefore wetland flags identifying the suspected wetland-upland boundary in the field were removed. These areas have experienced some historic surface alterations, but the alterations appear to be minor based upon soil observations. The soil observations indicate some wetness features close to the soil surface, which are consistent with the short-term saturation and flooding issues caused by shallow bedrock in the area, but this hydrology is apparently not of sufficient frequency or duration to result in the development of hydric soil morphology. Refer to Figure 1. below.

Figure 1. Walker Bungalow Areas O, P, Q, R and S



The delineation of jurisdictional resources between the HOTL and a culvert located on property at 910 Sagamore Avenue was undertaken. Wet flags I29a through I29h were added and generally identify the top-of-bank associated with a stream. Wet flag I29a connects to wet flag I29. Wet flag I29h connects to wet flag I30.

No impacts to freshwater wetlands are proposed for this project.

Tidal Wetlands

The results of the HOTL delineation are shown on the site plans as HOT lines I and H. The boundaries were delineated according to Env-Wt 602.23 to establish the jurisdictional areas with the 100 foot TBZ and 75 foot salt marsh setbacks within the project footprint. The classification of the dominant resource type for Sagamore Creek is estuarine, subtidal, unconsolidated bottom, subtidal (E1UBL). The edges of Sagamore Creek, adjacent to the HOTL are generally classified as estuarine, intertidal, unconsolidated shore, mud, irregularly exposed (E2US3M) according to the National Wetland Inventory and Cowardin system.

Wetland flags series 'H' identifies the HOTL along the south side of Sagamore Creek closest to Sagamore Grove and Wentworth Road. The HOTL is rather distinct in most locations due to steep topography and tidal wetlands, commonly referred to as saltmarsh, exist adjacent to the HOTL in many locations. Tidal wetlands such as saltmarsh are considered to have very poorly drained soils. The classification of the dominant resource type for Sagamore Creek is estuarine, subtidal, unconsolidated bottom, subtidal (E1UBL).

Wetland flags series 'I' identifies the HOTL along the north side of Sagamore Creek, closest to Shaw and Walker Bungalow Roads, with one notable exception. Wet flags I77-I84± generally identify the top-of-bank of a freshwater stream ('J'). The stream is likely intermittent. The HOTL is rather distinct in most locations due to steep topography. Tidal wetlands, commonly referred to as saltmarsh, exist adjacent to the HOTL in many locations but are not very wide and quickly transition to mud flats in most locations.

Proposed work is within the previously developed TBZ and portions of the proposed work are also within 75 feet of salt marsh (see Table 2). These impact areas are confined to areas of existing roadway, driveways and maintained yards as shown in the Photo Log provided in Attachment H.

Table 2. Summary of Proposed work with the 75 foot salt marsh setback

Location	Sheet Number	Proposed Structure	*Impact Type	Flag Sequence
1150 Sagamore Ave	C-3	Piping	T	HOT H1- H2
		GP	P	
2 Sagamore Grove	C-5	Piping	T	HOT H17-H19
24 Shaw Road	C-8	Piping	T	HOT I44-I61
		GP	P	
36 Shaw Road		Piping	T	
		GP	P	
238 Walker Bungalow	C-9	Piping	T	HOT I76- I86
		GP	P	

*T = Temporary
P = Permanent
GP = Grinder Pump

The NH NHB report listed four natural communities (high salt marsh, intertidal flat, low salt marsh, salt marsh system). None of these communities will be impacted by the proposed project. The report also listed two plant species (dwarf glasswort, *Salicornia bigelovii* and marsh elder, *Iva frutescens*) and two vertebrate fish species (Atlantic Sturgeon, *Acipenser oxyrinchus* and Shortnose Sturgeon, *Acipenser brevirostrum*). No work is proposed within the habitat of the plant or fish vertebrate species and correspondence with NH Fish and game and NH NHB indicate no concerns for impacts to these rare species (See NHB – 21-0107 and correspondence between Wright – Pierce, NH Fish and game and NH NHB in the permit application and as reference herein).

Sagamore Creek is not within the jurisdiction of a LAC under the Rivers Management and Protection Act and is not listed as an ORW by the State.

THE TIDAL BUFFER ZONE

The TBZ within which work is proposed, under existing conditions, includes primarily paved roads, driveways, houses and maintained yards. Outside of the work area the TBZ slopes up from the HOTL along either vegetated slopes or exposed ledge. In some areas the vegetated slopes include trees such as white pine (*Pinus Strobus*), gray birch (*Betula populifolia*), red maple (*Acer rubrum*) and hemlock (*Tsuga canadensis*). Shrubs present are predominately horticultural species. Turf grass species dominate throughout. All vegetation within the work area will be either avoided or replaced in kind following installation of the sewer line. All surfaces such as roadways and driveways will be restored in kind and at original grade. The only permanent impacts in the TBZ are the grinder pumps, grinder pump covers and sewer manholes. The grinder pump covers and sewer manholes will be set to match existing grades. Refer to the Photo Log, Attachment H for a visual depiction of the TBZ in areas that are proposed for work within 75-feet of salt marsh.

SUMMARY

The proposed Sagamore Low Pressure Sewer Project proposes work within the previously developed 100 foot TBZ and, in a few locations, within 75 feet of salt marsh. Data screening results indicate that 100 year floodplain is present but no work is proposed that will permanently alter topography and therefore the project will not alter floodplain. There is no EFH, mapped shellfish areas or eelgrass present within the project area. Sagamore creek is tidal but currents are slow and not erosive. Salt marsh areas are present and were field delineated. Any proposed work areas with 75 feet of salt marsh are shown on the site plans and in Table 2. Salt marsh migration pathways are limited due to the steep topography immediately adjacent to the salt marsh areas. Projected sea level rise, due to the steep topography, is most likely to be vertical rather than horizontal. The NH NHB and NH Fish and game have determined that the rare species listed in the NH NHB report will not be impacted by the proposed project. A CFA was completed and the result indicates principal functions and values include:

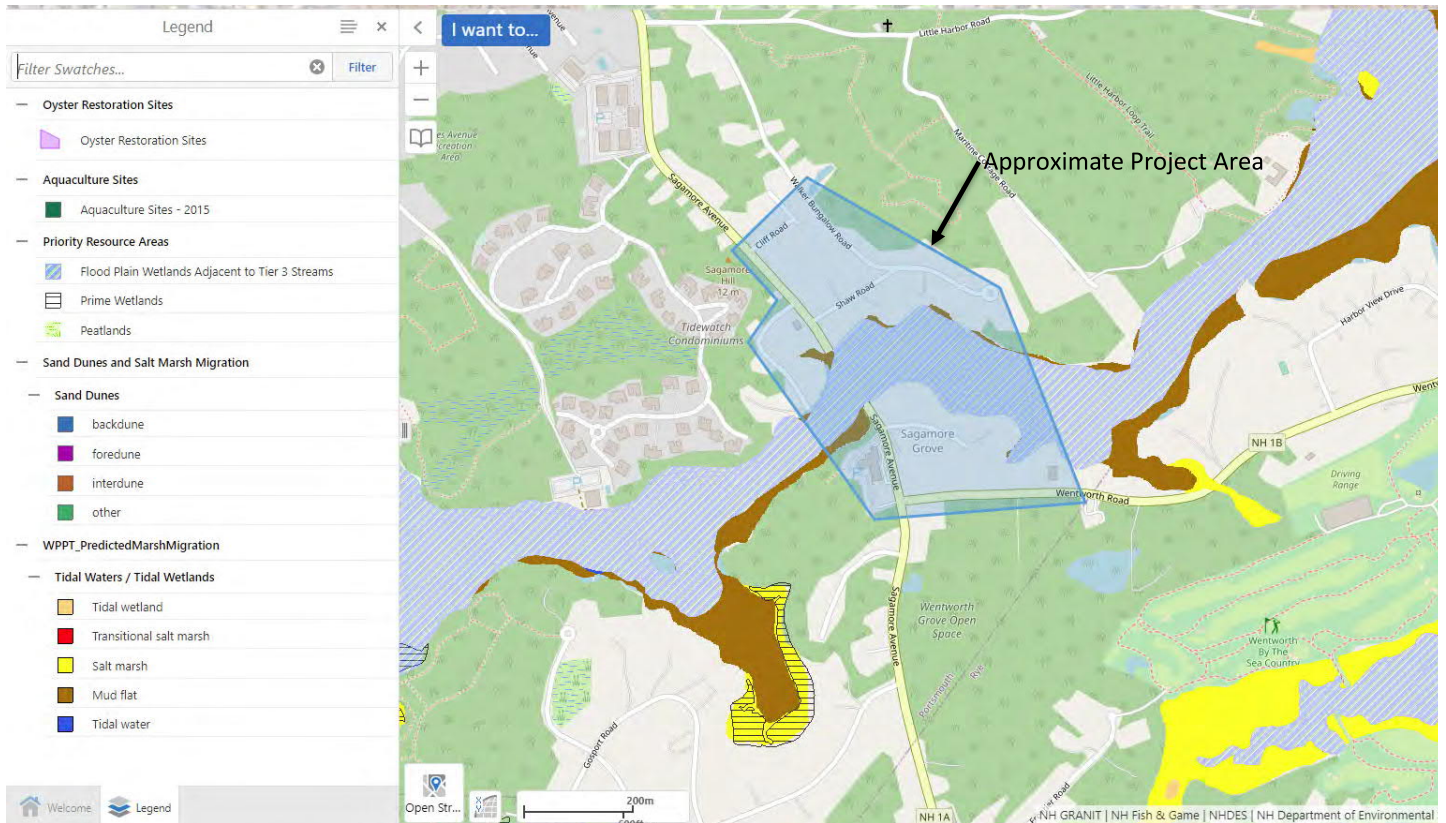
- Ecological Integrity;
- Floodflow Alteration;
- Fish and Shellfish Habitat;
- Sediment/Shoreline Stabilization;
- Production Export;
- Wildlife Habitat;
- Recreation;
- Education/Scientific Value;
- Uniqueness/Heritage;
- Visual Quality/Aesthetics and;
- Endangered/Threatened Species Habitat.

The TBZ is within which work is proposed is currently paved roads, driveways, houses and maintained yards In summary, the permanent impacts for this proposed sewer project are limited to grinder pumps, grinder pump covers and sewer manholes installed within the 100 foot TBZ. All other proposed impacts are temporary and will be restored in place following sewer line installation.

ATTACHMENTS

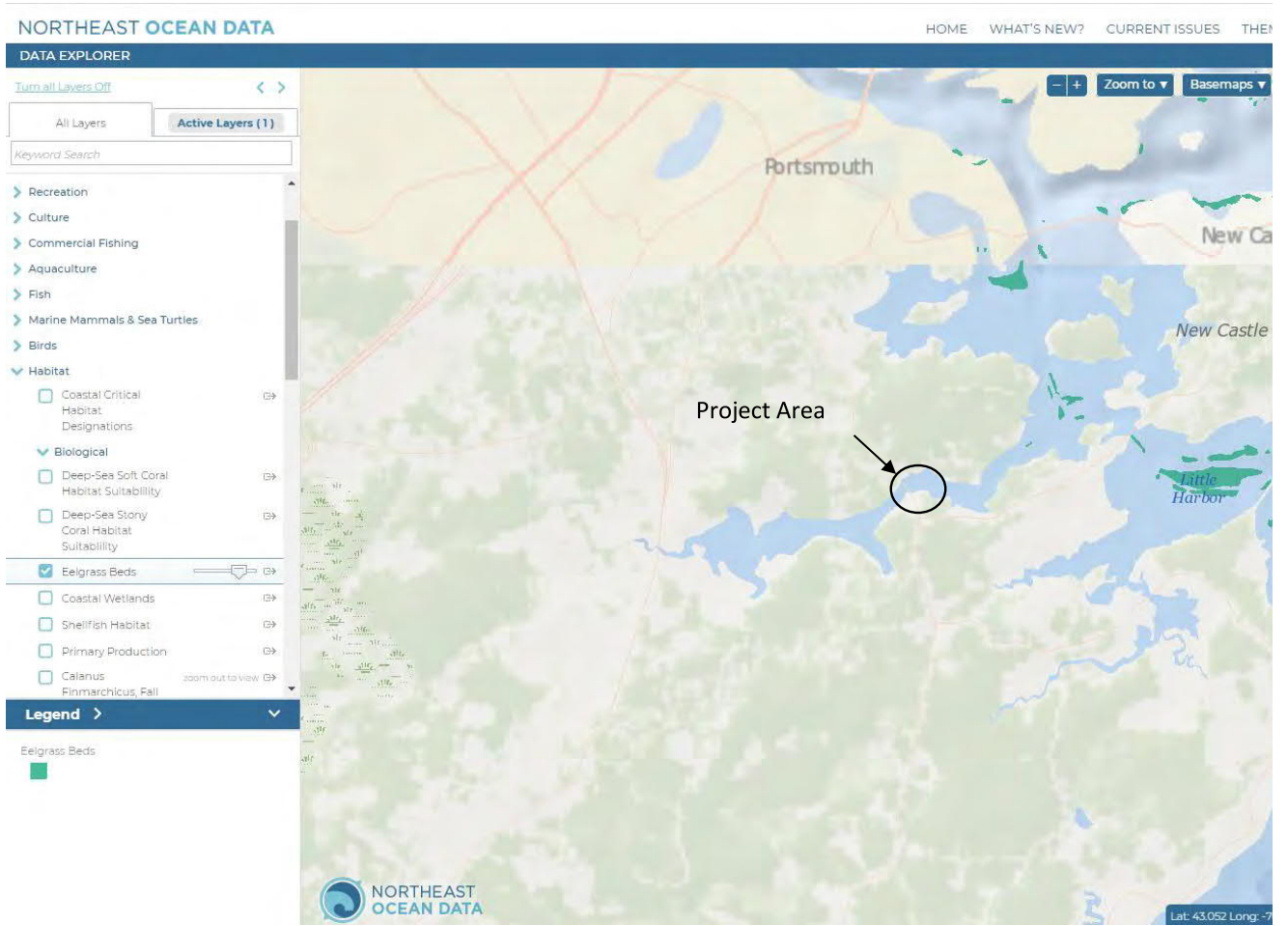
ATTACHMENT A

Sagamore Sewer Project

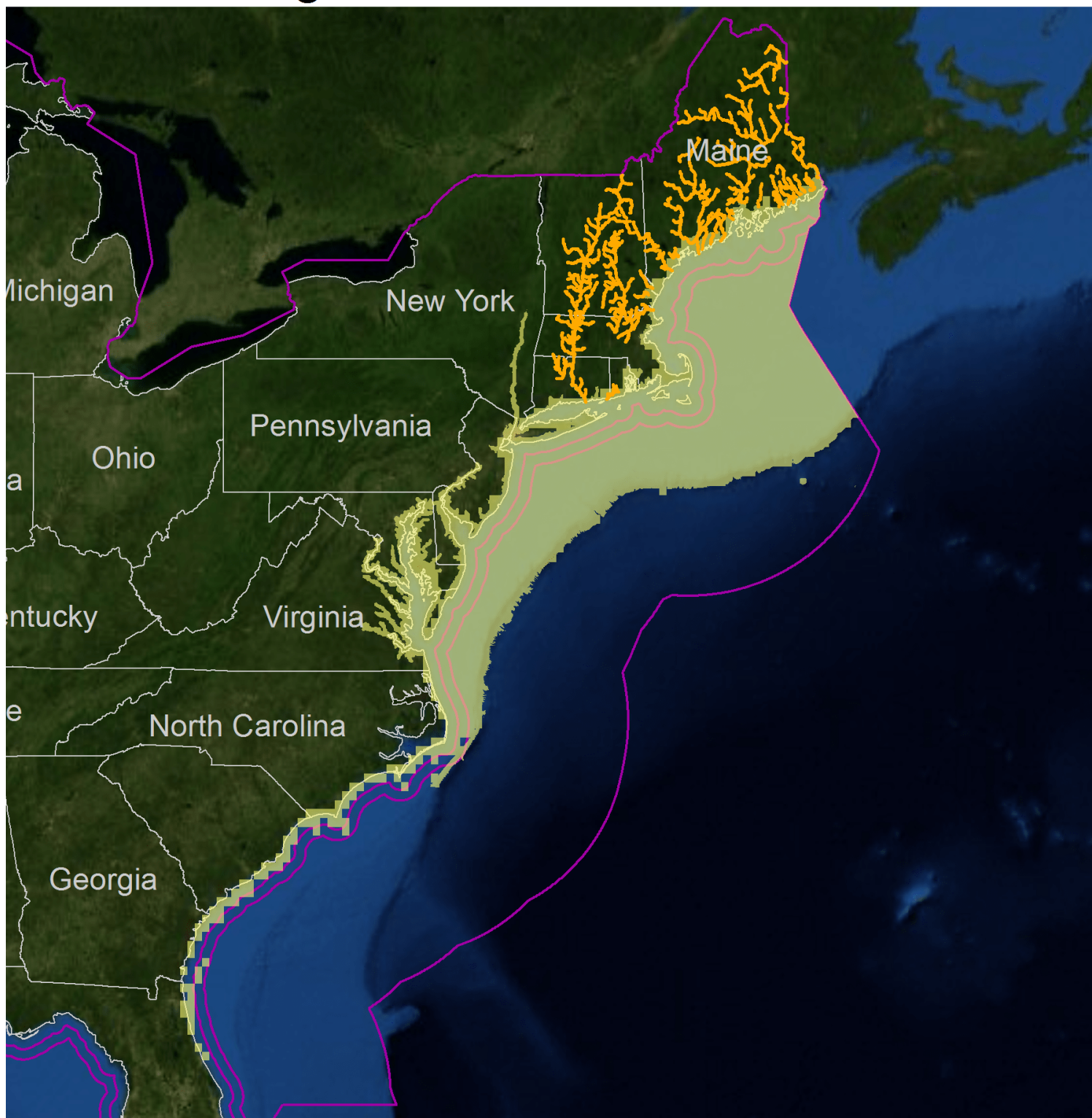


Data from the Wetland Permitting Planning Tool.

Mapped Eelgrass Beds



New England Essential Fish Habitat



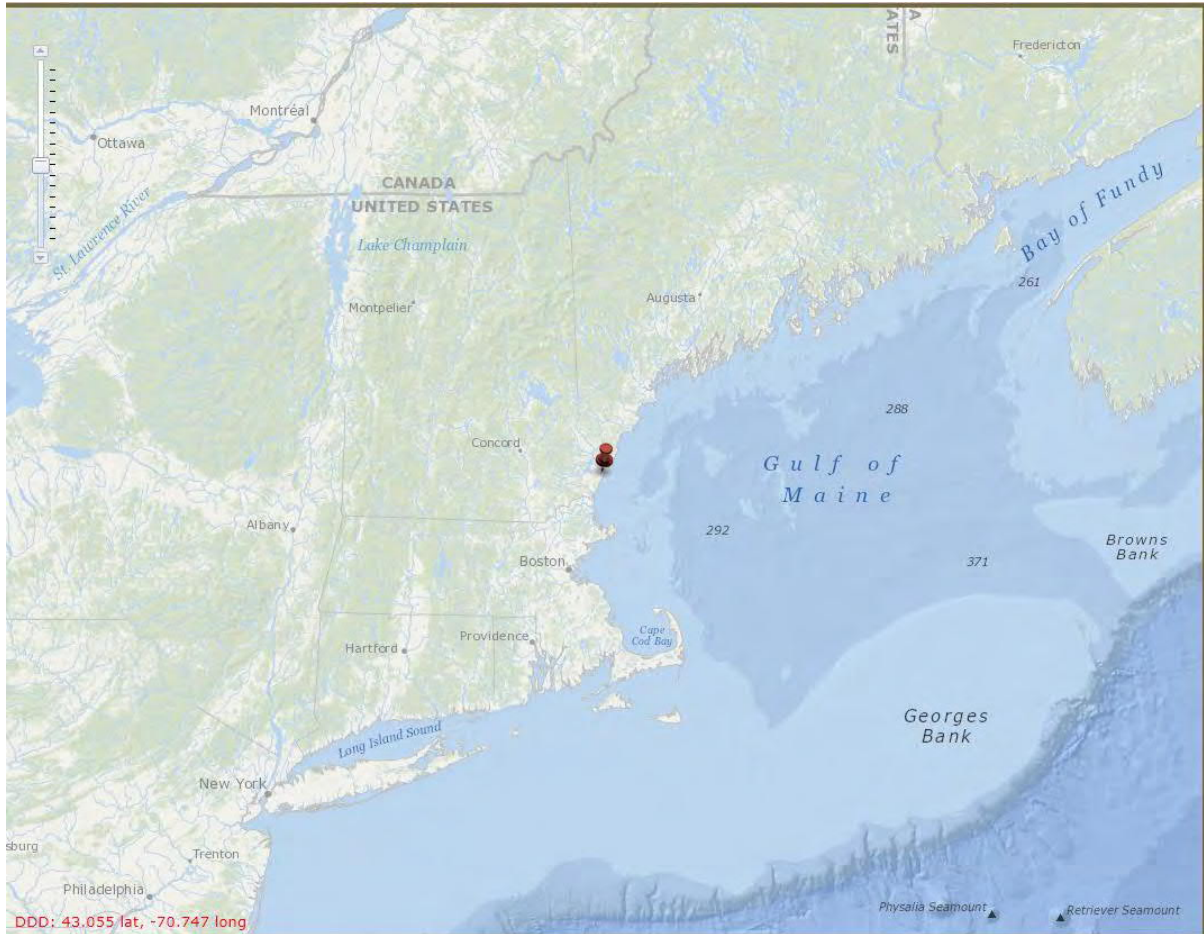
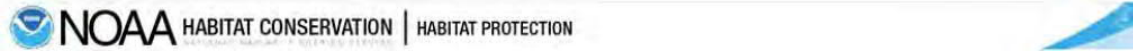
ows EFH data currently displayed in the EFH Mapper for this region.

- EFH
- Atlantic Salmon
- U.S. Exclusive Economic Zone (EEZ)

0 510 680 Miles

Ma
NO
Ser
ES

Essential Fish Habitat Mapping



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°5'9" N, Longitude = 71°14'26" W
 Decimal Degrees: Latitude = 43.09, Longitude = -70.76




























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

Show	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

Show	Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	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
			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

Show	Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
			Bluefin Tuna	Adult	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
			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

HAPCs

Show	Link	Data Caveats	HAPC Name	Management Council
			Inshore 20m Juvenile Cod	NEFMC

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 -->](#)
 Mid-Atlantic Council HAPCs,
 No spatial data for summer flounder SAV HAPC.

National Flood Hazard Layer FIRMette



ATTACHMENT C

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

70°44'58"W 43°3'30"N



SPECIAL FLOOD HAZARD AREAS	<ul style="list-style-type: none"> Without Base Flood Elevation (BFE) Zone A, W, AB9 With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	<ul style="list-style-type: none"> 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X Future Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee, See Notes, Zone X Area with Flood Risk due to Levee Zone D
OTHER AREAS	<ul style="list-style-type: none"> NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES	<ul style="list-style-type: none"> Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
OTHER FEATURES	<ul style="list-style-type: none"> Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
MAP PANELS	<ul style="list-style-type: none"> Digital Data Available No Digital Data Available Unmapped <p>The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.</p>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/28/2021 at 6:35 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000 70°44'21"W 43°3'3"N
 Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

ATTACHMENT D

NH METHOD FOR THE EVALUATION OF FRESHWATER WETLANDS (revised December, 2015)

Wetland Name/Code: H and I Evaluation Date: 28 Jan 2021 Evaluator: AFM/ MEJ

1 – ECOLOGICAL INTEGRITY

Evaluation Questions	Observations & Notes	Answers	Score
1. Are there land uses in the wetland's watershed that could degrade water quality in the wetland?	Residential properties on septic systems may result in water quality degradation. Approximately 50% of the watershed above the project area is developed.	a. Less than 5% of the watershed has land uses that could degrade water quality. b. 5-10% of the watershed has land uses that could degrade water quality. c. > 10% of the watershed has land uses that could degrade water quality.	10 5 1
2. Is there evidence of fill in the wetland?	Minor fill, with yard debris in the wetland, was observed.	a. Less than 1 % b. From 1-3 % c. More than 3 %	10 5 1
3. What percentage of the wetland has been altered by agricultural activities?	No agricultural activities	a. Less than 5 % b. From 5 to 25 % c. More than 25 %	10 5 1
4. What percentage of the wetland has been adversely impacted by logging activity within the last 10 years?	No logging in the past 10 years	a. Less than 1% b. From 1 to 10 % c. More than 10 %	10 5 1
5. How much human activity is taking place in the wetland (e.g. ATV use, trails, cars, dumping of brush and garbage, etc.)?	A few properties show deposits of landscape debris in or adjacent to the marsh	a. Low: Few trails in use, little or no traffic, and little or no litter. b. Moderate: Some used trails, roads, litter c. High: Many trails, roads, and/or litter	10 5 1
6. What percentage of the wetland is occupied by invasive plant species?	<i>Phragmites australis</i> present in some locations	a. None b. 1-5% of the wetland has invasive species c. > 5% of the wetland has invasive species	10 5 1
7. Are there roads, driveways and/or railroads crossing or adjacent to the wetland or come within 500 ft. of the wetland?	The area is bordered by roads, bridges, marinas, residential properties and docking facilities	a. No roads, driveways or railroads. within 500 ft. of, or in the wetland b. Roads, driveways, railroads are within 500 ft of the wetland c. Roads, driveways, railroads cross, or are adjacent to, the wetland	10 5 1
8. How much human activity is taking place in the upland within 500 feet of the wetland edge?	This area is residential and portions are also commercial	a. Less than 5% or no activity b. Human activity evident in up to 25% of the 500 ft zone c. Human activity evident in more than 25% of the 500 ft zone	10 5 1
9. What is the percent of impervious surface within 500 feet of the wetland edge?	Houses, driveways, roadways are all adjacent to the wetland	a. Less than 3% impervious area within 500 ft of the wetland edge b. 3-10% impervious area within 500 ft of the wetland edge c. Greater than 10% impervious area within 500 ft of the wetland edge	10 5 1
10. Is there a human-made structure that regulates the flow of water through the wetland?	Sagamore Avenue bridge crosses the creek but is wide enough to not limit the tidal flow significantly	a. No human made structures present upstream of, or in the wetland. b. One or more human made structures present upstream of, or in the wetland but hydrologic modification is slight c. One or more human made structures present upstream of, or in the wetland that severely block or alter surface water hydrology	10 5 1

AVERAGE SCORE FOR ECOLOGICAL INTEGRITY

(Add scores for each question and divide by 10)

54/10 = 5.4

STREAMSTATS WATERSHED MAP

The screenshot displays the StreamStats Watershed Map interface. The browser address bar shows the URL streamstats.usgs.gov/ss/. The page header includes the USGS logo and navigation links for Report, About, and Help. The main content area features a map of a watershed in New Hampshire, highlighted in yellow. The left sidebar contains the following sections:

- SELECT A STATE / REGION:** New Hampshire
- IDENTIFY A STUDY AREA:** Basin Delineated
- SELECT SCENARIOS:**
 - Regression Based Scenarios:** Peak-Flow Statistics, Low-Flow Statistics, Flow-Duration Statistics, Seasonal Flow Statistics, Recharge Statistics
 - Basin Characteristics:** A message box indicates that a scenario or one or more basin characteristics must be selected to continue.

The map shows a yellow-shaded watershed area with a red dot indicating a specific location. The map includes labels for various locations such as Portsmouth, South Community, Leach's Island, and others. The bottom of the browser window shows the Windows taskbar with the time 2:41 PM on 2/5/2021.

Wetland Function-Value Evaluation Form

Total area of wetland 18 Ac. Human made? N Is wetland part of a wildlife corridor? Y or a "habitat island"? N













Adjacent land use Residential Distance to nearest roadway or other development Adjacent

Dominant wetland systems present E1UBL/E2US3M Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? Lower

How many tributaries contribute to the wetland? 5 tidal creeks Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. H and I
 Latitude 43°03'.01.84 Longitude 70°46'.12.56
 Prepared by: AFM Date 28 Jan 2021
 Wetland Impact:
 Type TBZ Area _____
 Evaluation based on:
 Office X Field X
 Corps manual wetland delineation completed? Y X N _____

Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge	N	5, 15	N	This is a tidal creek and tidal wetland complex so major source of hydrology is surface water.
 Floodflow Alteration	Y	1,2,5,6,7,8,9,10,11,13	Y	Sagamore Creek and associated tidal wetlands provide good flood storage. Proposed work is not within these areas and no floodplain fill will occur.
 Fish and Shellfish Habitat	Y	1,4	Y	Although EFH and shellfish beds are not present there is still opportunity for fish in the creek and shellfish in the flats.
 Sediment/Toxicant Retention	N	4,5,7,8,12,13,14	N	Tidal flows dominate so retention of sediments and toxicants does not occur due to frequent flushing.
 Nutrient Removal	N	1,2,34,5,6,7,14	N	Nutrient uptake is limited to areas of salt marsh but overall not significant .
 Production Export	Y	1,2,4,10	Y	Salt marsh productivity could be considered an export of nutrients through tidal flushing.
 Sediment/Shoreline Stabilization	Y	1,10,11,15	Y	This is a low energy area as evidenced by salt marsh and mudflat. These areas provide for sedimentation of suspended materials carried in by the tide.
 Wildlife Habitat	Y	1,7,8,11,12,18,19,21	Y	Sagamore Creek and associated marsh and flats provide excellent wildlife habitat.
 Recreation	Y	2,5,7,8,9	Y	Sagamore Creek is frequently used by boaters.
 Educational/Scientific Value	Y	1,5	Y	It is not known if this area is currently used for education or science research but does provide opportunities for providing this value.
 Uniqueness/Heritage	Y	3,4,12,13,14,17,19,24,27	Y	Sagamore Creek and associated wetlands provide a significant number of principal functions and many values to the community and the public.
 Visual Quality/Aesthetics	Y	1,2,8,12	Y	This area is very visually and aesthetically pleasing.
ES Endangered Species Habitat	Y	1,2	Y	See NHB report for list of rare species known to occur in the area.
Other				

Notes: See attached wildlife and vegetation list

* Refer to backup list of numbered considerations.

Wildlife

Observed:

Canada Goose - visual (*Branta canadensis*)

White-tailed Deer – tracks (*Odocoileus virginianus*)

Potential:

American Black Duck (*Anas rubripes*)

Common Tern (*Sterna hirundo*)

Sora (*Porzana carolina*)

Bald Eagle (*Haliaeetus leucocephalus*)

Red-tailed hawk (*Buteo jamaicensis*)

Sharp-shinned Hawk (*Accipiter striatus*)

Coopers Hawk (*Accipiter cooperii*)

Marsh Wren (*Cistothorus palustris*)

Mummichogs (*Fundulus heteroclitus*)

River herring (*Alosa* sp.)

Softshell clams (*Mya arenaria*)

American Oyster (*Crassostrea virginica*)

Blue Mussel (*Mytilus edulis*)

Razor Clam (*Ensis directus*)

Water fowl (var.)

Dominant Vegetation in Tidal Areas

Observed:

Multiflora rose (*Rosa multiflora*)

Common reed (*Phragmites australis*)

Knotweed (*Fallopia japonica*, syn. *Polygonum cuspidatum*)

Olney's three-square sedge (*Schoenoplectus americanus*)

Saltmarsh cordgrass (*Spartina alterniflora*)

Dominant Vegetation in the Tidal Buffer Zone

White pine (*Pinus Strobus*)

Gray birch (*Betula populifolia*)

Red maple (*Acer rubrum*)

Hemlock (*Tsuga canadensis*)

Horticultural shrubs (var.)

Turf Grasses (var.)



Appendix A

Wetland evaluation supporting documentation; Reproducible forms.

Below is an example list of considerations that was used for a New Hampshire highway project. Considerations are flexible, based on best professional judgment and interdisciplinary team consensus. This example provides a comprehensive base, however, and may only need slight modifications for use in other projects.



GROUNDWATER RECHARGE/DISCHARGE— This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It refers to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

CONSIDERATIONS/QUALIFIERS

1. Public or private wells occur downstream of the wetland.
2. Potential exists for public or private wells downstream of the wetland.
3. Wetland is underlain by stratified drift.
4. Gravel or sandy soils present in or adjacent to the wetland.
5. Fragipan does not occur in the wetland.
6. Fragipan, impervious soils, or bedrock does occur in the wetland.
7. Wetland is associated with a perennial or intermittent watercourse.
8. Signs of groundwater recharge are present or piezometer data demonstrates recharge.
9. Wetland is associated with a watercourse but lacks a defined outlet or contains a constricted outlet.
10. Wetland contains only an outlet, no inlet.
11. Groundwater quality of stratified drift aquifer within or downstream of wetland meets drinking water standards.
12. Quality of water associated with the wetland is high.
13. Signs of groundwater discharge are present (e.g., springs).
14. Water temperature suggests it is a discharge site.
15. Wetland shows signs of variable water levels.
16. Piezometer data demonstrates discharge.
17. Other



FLOODFLOW ALTERATION (Storage & Desynchronization) — This function considers the effectiveness of the wetland in reducing flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It adds to the stability of the wetland ecological system or its buffering characteristics and provides social or economic value relative to erosion and/or flood prone areas.

CONSIDERATIONS/QUALIFIERS

1. Area of this wetland is large relative to its watershed.
2. Wetland occurs in the upper portions of its watershed.
3. Effective flood storage is small or non-existent upslope of or above the wetland.
4. Wetland watershed contains a high percent of impervious surfaces.
5. Wetland contains hydric soils which are able to absorb and detain water.
6. Wetland exists in a relatively flat area that has flood storage potential.
7. Wetland has an intermittent outlet, ponded water, or signs are present of variable water level.
8. During flood events, this wetland can retain higher volumes of water than under normal or average rainfall conditions.
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands.
10. In the event of a large storm, this wetland may receive and detain excessive flood water from a nearby watercourse.
11. Valuable properties, structures, or resources are located in or near the floodplain downstream from the wetland.
12. The watershed has a history of economic loss due to flooding.
13. This wetland is associated with one or more watercourses.
14. This wetland watercourse is sinuous or diffuse.
15. This wetland outlet is constricted.
16. Channel flow velocity is affected by this wetland.
17. Land uses downstream are protected by this wetland.
18. This wetland contains a high density of vegetation.
19. Other

FISH AND SHELLFISH HABITAT (FRESHWATER) — This function considers the effectiveness of seasonal or permanent watercourses associated with the wetland in question for fish and shellfish habitat.



CONSIDERATIONS/QUALIFIERS

1. Forest land dominant in the watershed above this wetland.
 2. Abundance of cover objects present.
- STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE**
3. Size of this wetland is able to support large fish/shellfish populations.
 4. Wetland is part of a larger, contiguous watercourse.
 5. Wetland has sufficient size and depth in open water areas so as not to freeze solid and retain some open water during winter.
 6. Stream width (bank to bank) is more than 50 feet.
 7. Quality of the watercourse associated with this wetland is able to support healthy fish/shellfish populations.
 8. Streamside vegetation provides shade for the watercourse.
 9. Spawning areas are present (submerged vegetation or gravel beds).
 10. Food is available to fish/shellfish populations within this wetland.
 11. Barrier(s) to anadromous fish (such as dams, including beaver dams, waterfalls, road crossing) are absent from the stream reach associated with this wetland.
 12. Evidence of fish is present.
 13. Wetland is stocked with fish.
 14. The watercourse is persistent.
 15. Man-made streams are absent.
 16. Water velocities are not too excessive for fish usage.
 17. Defined stream channel is present.
 18. Other

Although the above example refers to freshwater wetlands, it can also be adapted for marine ecosystems. The following is an example provided by the National Marine Fisheries Service (NMFS) of an adaptation for the fish and shellfish function.

FISH AND SHELLFISH HABITAT (MARINE) — This function considers the effectiveness of wetlands, embayments, tidal flats, vegetated shallows, and other environments in supporting marine resources such as fish, shellfish, marine mammals, and sea turtles.

CONSIDERATIONS/QUALIFIERS

1. Special aquatic sites (tidal marsh, mud flats, eelgrass beds) are present.
2. Suitable spawning habitat is present at the site or in the area.
3. Commercially or recreationally important species are present or suitable habitat exists.
4. The wetland/waterway supports prey for higher trophic level marine organisms.
5. The waterway provides migratory habitat for anadromous fish.
6. Essential fish habitat, as defined by the 1996 amendments to the Magnuson-Stevens Fishery & Conservation Act, is present (consultation with NMFS may be necessary).
7. Other



SEDIMENT/TOXICANT/PATHOGEN RETENTION — This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens in runoff water from surrounding uplands or upstream eroding wetland areas.

CONSIDERATIONS/QUALIFIERS

1. Potential sources of excess sediment are in the watershed above the wetland.
2. Potential or known sources of toxicants are in the watershed above the wetland.
3. Opportunity for sediment trapping by slow moving water or deepwater habitat are present in this wetland.
4. Fine grained mineral or organic soils are present.
5. Long duration water retention time is present in this wetland.
6. Public or private water sources occur downstream.
7. The wetland edge is broad and intermittently aerobic.
8. The wetland is known to have existed for more than 50 years.
9. Drainage ditches have not been constructed in the wetland.

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.

10. Wetland is associated with an intermittent or perennial stream or a lake.
11. Channelized flows have visible velocity decreases in the wetland.
12. Effective floodwater storage in wetland is occurring. Areas of impounded open water are present.
13. No indicators of erosive forces are present. No high water velocities are present.
14. Diffuse water flows are present in the wetland.
15. Wetland has a high degree of water and vegetation interspersion.
16. Dense vegetation provides opportunity for sediment trapping and/or signs of sediment accumulation by dense vegetation is present.
17. Other



NUTRIENT REMOVAL/RETENTION/TRANSFORMATION — This function considers the effectiveness of the wetland as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to process these nutrients into other forms or trophic levels. One aspect of this function is to prevent ill effects of nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

CONSIDERATIONS/QUALIFIERS

1. Wetland is large relative to the size of its watershed.
2. Deep water or open water habitat exists.
3. Overall potential for sediment trapping exists in the wetland.

4. Potential sources of excess nutrients are present in the watershed above the wetland.
 5. Wetland saturated for most of the season. Pondered water is present in the wetland.
 6. Deep organic/sediment deposits are present.
 7. Slowly drained fine grained mineral or organic soils are present.
 8. Dense vegetation is present.
 9. Emergent vegetation and/or dense woody stems are dominant.
 10. Opportunity for nutrient attenuation exists.
 11. Vegetation diversity/abundance sufficient to utilize nutrients.
- STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.**
12. Waterflow through this wetland is diffuse.
 13. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.
 14. Water moves slowly through this wetland.
 15. Other

PRODUCTION EXPORT (Nutrient) — This function evaluates the effectiveness of the wetland to produce food or usable products for humans or other living organisms.



CONSIDERATIONS/QUALIFIERS

1. Wildlife food sources grow within this wetland.
2. Detritus development is present within this wetland.
3. Economically or commercially used products found in this wetland.
4. Evidence of wildlife use found within this wetland.
5. Higher trophic level consumers are utilizing this wetland.
6. Fish or shellfish develop or occur in this wetland.
7. High vegetation density is present.
8. Wetland exhibits high degree of plant community structure/species diversity.
9. High aquatic vegetative diversity/abundance is present.
10. Nutrients exported in wetland watercourses (permanent outlet present).
11. “Flushing” of relatively large amounts of organic plant material occurs from this wetland.
12. Wetland contains flowering plants that are used by nectar-gathering insects.
13. Indications of export are present.
14. High production levels occurring, however, no visible signs of export (assumes export is attenuated).
15. Other

SEDIMENT/Shoreline Stabilization — This function considers the effectiveness of a wetland to stabilize streambanks and shorelines against erosion.



CONSIDERATIONS/QUALIFIERS

1. Indications of erosion or siltation are present.
2. Topographical gradient is present in wetland.
3. Potential sediment sources are present up-slope.
4. Potential sediment sources are present upstream.
5. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.
6. A distinct step between the open waterbody or stream and the adjacent land exists (i.e., sharp bank) with dense roots throughout.
7. Wide wetland (>10') borders watercourse, lake, or pond.
8. High flow velocities in the wetland.
9. The watershed is of sufficient size to produce channelized flow.
10. Open water fetch is present.
11. Boating activity is present.
12. Dense vegetation is bordering watercourse, lake, or pond.
13. High percentage of energy-absorbing emergents and/or shrubs border a watercourse, lake, or pond.
14. Vegetation is comprised of large trees and shrubs that withstand major flood events or erosive incidents and stabilize the shoreline on a large scale (feet).
15. Vegetation is comprised of a dense resilient herbaceous layer that stabilizes sediments and the shoreline on a small scale (inches) during minor flood events or potentially erosive events.
16. Other



WILDLIFE HABITAT — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered. Species lists of observed and potential animals should be included in the wetland assessment report.¹

CONSIDERATIONS/QUALIFIERS

1. Wetland is not degraded by human activity.
2. Water quality of the watercourse, pond, or lake associated with this wetland meets or exceeds Class A or B standards.
3. Wetland is not fragmented by development.
4. Upland surrounding this wetland is undeveloped.
5. More than 40% of this wetland edge is bordered by upland wildlife habitat (e.g., brushland, woodland, active farmland, or idle land) at least 500 feet in width.
6. Wetland is contiguous with other wetland systems connected by a watercourse or lake.
7. Wildlife overland access to other wetlands is present.
8. Wildlife food sources are within this wetland or are nearby.
9. Wetland exhibits a high degree of interspersed vegetation classes and/or open water.
10. Two or more islands or inclusions of upland within the wetland are present.
11. Dominant wetland class includes deep or shallow marsh or wooded swamp.
12. More than three acres of shallow permanent open water (less than 6.6 feet deep), including streams in or adjacent to wetland, are present.
13. Density of the wetland vegetation is high.
14. Wetland exhibits a high degree of plant species diversity.
15. Wetland exhibits a high degree of diversity in plant community structure (e.g., tree/shrub/vine/grasses/mosses)
16. Plant/animal indicator species are present. (List species for project)
17. Animal signs observed (tracks, scats, nesting areas, etc.)
18. Seasonal uses vary for wildlife and wetland appears to support varied population diversity/abundance during different seasons.
19. Wetland contains or has potential to contain a high population of insects.
20. Wetland contains or has potential to contain large amphibian populations.
21. Wetland has a high avian utilization or its potential.
22. Indications of less disturbance-tolerant species are present.
23. Signs of wildlife habitat enhancement are present (birdhouses, nesting boxes, food sources, etc.).
24. Other

¹In March 1995, a rapid wildlife habitat assessment method was completed by a University of Massachusetts research team with funding and oversight provided by the New England Transportation Consortium. The method is called WETHings (wetland habitat indicators for non-game species). It produces a list of potential wetland-dependent mammal, reptile, and amphibian species that may be present in the wetland. The output is based on observable habitat characteristics documented on the field data form. This method may be used to generate the wildlife species list recommended as backup information to the wetland evaluation form and to augment the considerations. Use of this method should first be coordinated with the Corps project manager. A computer program is also available to expedite this process.

RECREATION (Consumptive and Non-Consumptive) — This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities such as hiking, canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland. Non-consumptive opportunities do not consume or diminish these resources of the wetland.



CONSIDERATIONS/QUALIFIERS

1. Wetland is part of a recreation area, park, forest, or refuge.
2. Fishing is available within or from the wetland.
3. Hunting is permitted in the wetland.
4. Hiking occurs or has potential to occur within the wetland.
5. Wetland is a valuable wildlife habitat.
6. The watercourse, pond, or lake associated with the wetland is unpolluted.
7. High visual/aesthetic quality of this potential recreation site.
8. Access to water is available at this potential recreation site for boating, canoeing, or fishing.
9. The watercourse associated with this wetland is wide and deep enough to accommodate canoeing and/or non-powered boating.
10. Off-road public parking available at the potential recreation site.
11. Accessibility and travel ease is present at this site.
12. The wetland is within a short drive or safe walk from highly populated public and private areas.
13. Other

EDUCATIONAL/SCIENTIFIC VALUE — This value considers the suitability of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.



CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened, rare, or endangered species.
2. Little or no disturbance is occurring in this wetland.
3. Potential educational site contains a diversity of wetland classes which are accessible or potentially accessible.
4. Potential educational site is undisturbed and natural.
5. Wetland is considered to be a valuable wildlife habitat.
6. Wetland is located within a nature preserve or wildlife management area.
7. Signs of wildlife habitat enhancement present (bird houses, nesting boxes, food sources, etc.).
8. Off-road parking at potential educational site suitable for school bus access in or near wetland.
9. Potential educational site is within safe walking distance or a short drive to schools.
10. Potential educational site is within safe walking distance to other plant communities.
11. Direct access to perennial stream at potential educational site is available.
12. Direct access to pond or lake at potential educational site is available.
13. No known safety hazards exist within the potential educational site.
14. Public access to the potential educational site is controlled.
15. Handicap accessibility is available.
16. Site is currently used for educational or scientific purposes.
17. Other

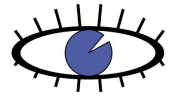


UNIQUENESS/HERITAGE — This value considers the effectiveness of the wetland or its associated waterbodies to provide certain special values. These may include archaeological sites, critical habitat for endangered species, its overall health and appearance, its role in the ecological system of the area, its relative importance as a typical wetland class for this geographic location. These functions are clearly valuable wetland attributes relative to aspects of public health, recreation, and habitat diversity.

CONSIDERATIONS/QUALIFIERS

1. Upland surrounding wetland is primarily urban.
2. Upland surrounding wetland is developing rapidly.
3. More than 3 acres of shallow permanent open water (less than 6.6 feet deep), including streams, occur in wetlands.
4. Three or more wetland classes are present.
5. Deep and/or shallow marsh or wooded swamp dominate.
6. High degree of interspersion of vegetation and/or open water occur in this wetland.
7. Well-vegetated stream corridor (15 feet on each side of the stream) occurs in this wetland.
8. Potential educational site is within a short drive or a safe walk from schools.
9. Off-road parking at potential educational site is suitable for school buses.
10. No known safety hazards exist within this potential educational site.
11. Direct access to perennial stream or lake exists at potential educational site.
12. Two or more wetland classes are visible from primary viewing locations.
13. Low-growing wetlands (marshes, scrub-shrub, bogs, open water) are visible from primary viewing locations.
14. Half an acre of open water or 200 feet of stream is visible from the primary viewing locations.
15. Large area of wetland is dominated by flowering plants or plants that turn vibrant colors in different seasons.
16. General appearance of the wetland visible from primary viewing locations is unpolluted and/or undisturbed.
17. Overall view of the wetland is available from the surrounding upland.
18. Quality of the water associated with the wetland is high.
19. Opportunities for wildlife observations are available.
20. Historical buildings are found within the wetland.
21. Presence of pond or pond site and remains of a dam occur within the wetland.
22. Wetland is within 50 yards of the nearest perennial watercourse.
23. Visible stone or earthen foundations, berms, dams, standing structures, or associated features occur within the wetland.
24. Wetland contains critical habitat for a state- or federally-listed threatened or endangered species.
25. Wetland is known to be a study site for scientific research.
26. Wetland is a natural landmark or recognized by the state natural heritage inventory authority as an exemplary natural community.
27. Wetland has local significance because it serves several functional values.
28. Wetland has local significance because it has biological, geological, or other features that are locally rare or unique.
29. Wetland is known to contain an important archaeological site.
30. Wetland is hydrologically connected to a state or federally designated scenic river.
31. Wetland is located in an area experiencing a high wetland loss rate.
32. Other

VISUAL QUALITY/AESTHETICS — This value considers the visual and aesthetic quality or usefulness of the wetland.



CONSIDERATIONS/QUALIFIERS

1. Multiple wetland classes are visible from primary viewing locations.
2. Emergent marsh and/or open water are visible from primary viewing locations.
3. A diversity of vegetative species is visible from primary viewing locations.
4. Wetland is dominated by flowering plants or plants that turn vibrant colors in different seasons.
5. Land use surrounding the wetland is undeveloped as seen from primary viewing locations.
6. Visible surrounding land use form contrasts with wetland.
7. Wetland views absent of trash, debris, and signs of disturbance.
8. Wetland is considered to be a valuable wildlife habitat.
9. Wetland is easily accessed.
10. Low noise level at primary viewing locations.
11. Unpleasant odors absent at primary viewing locations.
12. Relatively unobstructed sight line exists through wetland.
13. Other

ENDANGERED SPECIES HABITAT — This value considers the suitability of the wetland to support threatened or endangered species.

ES

CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened or endangered species.
2. Wetland contains critical habitat for a state or federally listed threatened or endangered species.

ATTACHMENT E

Shellfish Map



Lower Piscataqua River and Portsmouth Harbor - CLOSED FOR ALL SPECIES

Harvest Area Information

Species Available for Harvest:

Softshell Clam	Closed
American Oyster	Closed*
Blue Mussel	Closed
Razor Clam	Closed
Surf Clam, Mahogany Quahog	Closed

*This species is either scarce or not present in the area indicated.

Most Recent Update: Wednesday, February 3, 2021

Next Scheduled Update: Friday, February 5, 2021

Closure Comments: Permanently closed for the taking of molluscan shellfish.

Other Information:
National Weather Service (current conditions and forecast)
[NOAA Tide Predictions: Fort Point, NH](#)

Shellfish Links [+]

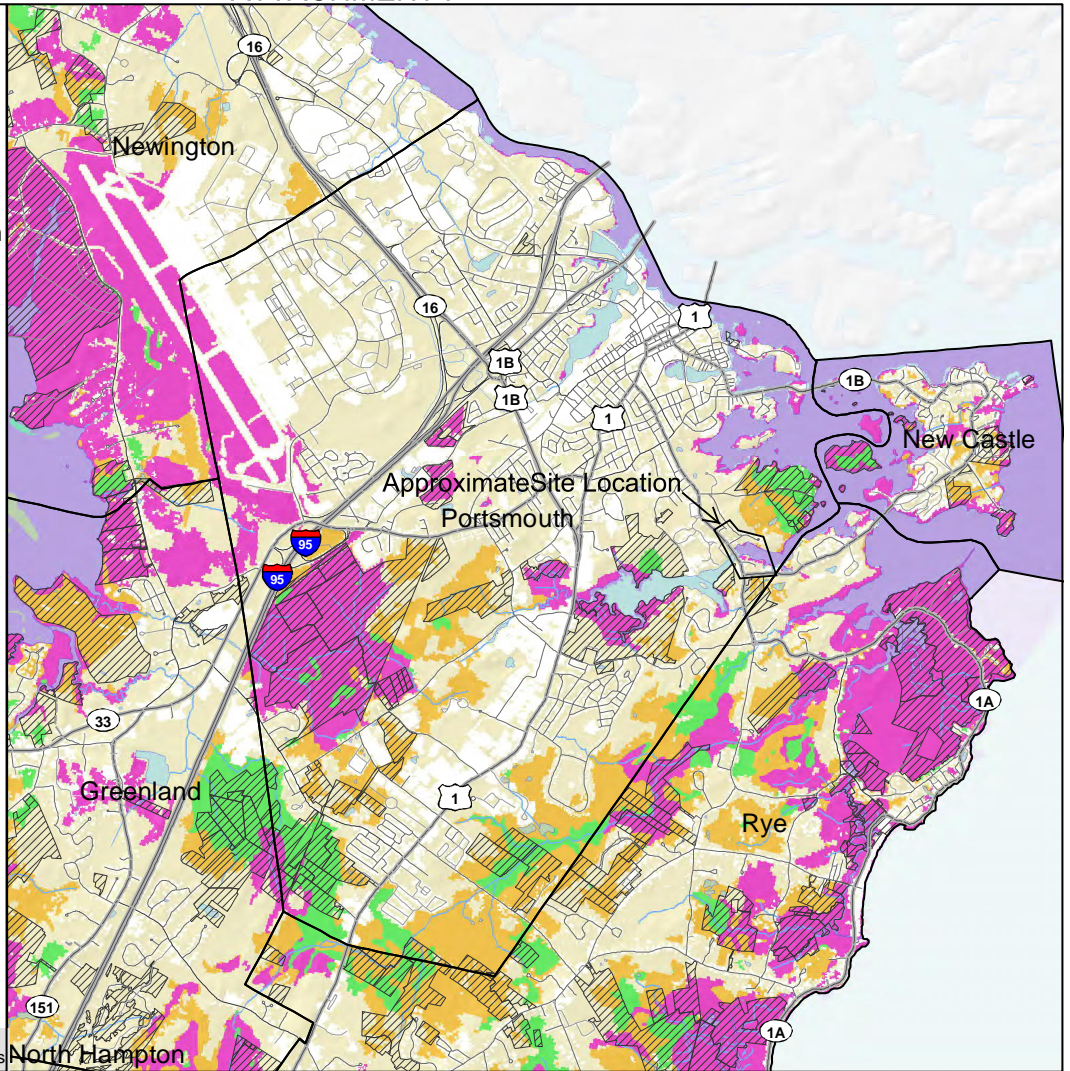
Harvest Area Map

Note: Indicates areas that are open for the taking of shellfish species indicated. **THIS HARVEST AREA IS CLOSED** for the taking of all species until further notice.

ATTACHMENT F

2020 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 May 2020. Intended for planning use only.



NEW HAMPSHIRE
Wildlife Action Plan

Sept. 2015, spatial data Apr. 2020

0 1 2 Kilometers

0 1 2 Miles

ATTACHMENT G



VIA EMAIL to jack@doucetsurvey.com

January 19, 2021

Mr. Jack Kaiser, LLS, Vice-President
Doucet Survey, Inc.
102 Kent Place
Newmarket, NH 03857

Re: Sagamore Creek Low Pressure Sewer
Portsmouth, N.H.
DSI #6143

Dear Mr. Kaiser,

The following preliminary remarks summarize observations made during site inspections at the above-referenced location conducted on November 25 and December 2, 2020 to identify and delineate wetlands and other jurisdictional resources as described below. The approximate area-of-interest (AOI) includes areas along Cliff Road, Sagamore Avenue, Sagamore Creek, Sagamore Grove, Shaw Road, Walker Bungalow Road, and Wentworth Road in Portsmouth, N.H. More specifically, the AOI involved wetlands within 25-feet of the edge-of-pavement.

Certification Note

Jurisdictional wetlands within the AOI were delineated in November and December 2020 by Marc Jacobs, Certified Wetland Scientist number 090, and Adele Mattson, Certified Wetland Scientist number 064, according to the standards of the US Army Corps of Engineers - Wetlands Delineation Manual; the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region; the Code of Administrative Rules, NH Department of Environmental Services - Wetlands Bureau - Env-Wt 100-900 and Article 10 - Environmental Protection Standards of the City of Portsmouth, NH Zoning. Soils were evaluated utilizing the Field Indicators for Identifying Hydric Soils in New England, Version 4, April 2017 and the Field Indicators of Hydric Soils in the United States, Version 8, 2016. The indicator status of dominant vegetation as hydrophytic was determined according to the U.S. Army Corps of Engineers - Northcentral and Northeast 2016 Regional Wetland Plant List. Copies of any site plans which depict the delineation that have been reviewed by the wetland scientist are individually stamped, signed and dated. This note has been customized for this project.

Vernal Pools

No primary or secondary vernal pool indicators were observed during site investigations and, with the possible exception of wetland areas 'G' and 'L' below, preliminary observations suggest that the delineated wetlands do not provide breeding habitat for species customarily associated with vernal pools. However, additional investigations during the spring would be necessary to definitively conclude that no vernal pool habitat exists per Env-Wt 104.44. It is my opinion that the 'G' area has a very low likelihood of providing vernal pool habitat while the 'L' area has a low to moderate likelihood.

Invasive Species

Plant species which were observed in the AOI that are customarily considered invasive include multiflora rose (*Rosa multiflora*), Common reed (*Phragmites australis*), Japanese barberry (*Berberis thunbergii*), Japanese knotweed (*Polygonum cuspidatum*), glossy buckthorn (*Frangula alnus*), common buckthorn (*Rhamnus cathartica*), honeysuckle (*Lonicera* sp.), Asian bittersweet (*Celastrus orbiculatus*), privet (*Ligustrum obtusifolium*), Autumn olive (*Elaeagnus umbellata*) and purple loosestrife (*Lythrum salicaria*). Invasive species are often easily transported and spread within sites and to other sites during earth moving and construction work. This is especially true of knotweed and common reed which, along with purple loosestrife, are considered Type II Priority Invasive Species by the NH Department of Transportation (NHDOT). Where jurisdiction is involved, coordination with NHDOT on this subject may be required during project permitting.

General Methodology

Jurisdictional wetlands were identified and wetland-upland boundaries within the AOI were delineated in the field based upon on-the-ground investigations using the technical guidance above. Solid color pink survey flags were then placed at random intervals to mark wetland-upland boundaries in the field. Each flag bears a unique letter and number to assist in subsequent field location by instrument survey as well as to ascertain exact field position when referencing site plans during any future site visits. The following flag sequences were used: A1-A15, B1-B6, C1-C4, D1-D7, E1-E4, F1-F10, G1-G4, H1-H65, I1-I106, J1-J6, K1-K8, L1-L9, M1-M8, N1-N25, O1-O9, P1-P4, Q1-Q5, R1-R4, S1-S4 and T1-T3. Due to the linear nature of the AOI, most wetland flag series represent partial delineations of larger wetland systems that extend outside the AOI.

Wetland Description

The following section generally describes wetland hydrology, vegetation and soil conditions at each wetland area, organized by wetland flag series or, where appropriate, groups of flag series that generally define a discreet wetland area. The dominant wetland classification according to the National Wetlands Inventory and the Cowardin system is included.

Wetland Flag Series A

Wetland flags series 'A' generally identifies the edge of palustrine forested (PFO) and palustrine emergent (PEM) wetlands having poorly drained hydric soils. In some areas the wetland-upland boundary may be man-made as a result of historic filling or regrading. These alterations do not appear to be recent.¹

¹ For the purposes of this report, recent (filling or other land altering activity) is defined as having occurred within the previous year and is an estimate based upon preliminary observations only. Additional field and office investigations would be necessary to confirm the presence, date of placement and extent of any filled wetlands and man-made wetland-upland boundaries.

Wetland Flag Series B

Wetland flags series 'B' generally identifies the extent of palustrine scrub-shrub (PSS) wetlands having somewhat poorly and poorly drained hydric soils. The wetland or wetland-upland boundary or portions thereof may be man-made by virtue of hydrology that originates as stormwater along Wentworth Road which enters at wet flag B3 through a 15-inch diameter reinforced concrete pipe (RCP) that has a high density polyethylene (HDPE) flared-end section (FES). Knotweed was observed in this wetland area. Knotweed was also observed in uplands along Sagamore Avenue near the junction with Wentworth Road.

Wetland Flag Series C

Wetland flags series 'C' generally identifies the top-of-bank of a stream which flows to a culvert beneath Wentworth Road and ultimately drains to Sagamore Creek. The stream was observed to be flowing during site investigations and is likely perennial.² The stream channel appears to be man-made or man-enhanced by alterations that include excavation. The excavation does not appear to be recent. The channel drains nearby / upstream wetlands (outside the AOI) that are dominated by broad-leaved cattails and multiflora rose bushes and also drains an 8+ acre forested wetland. The general area between the 'C' and 'E' wet flag series appears to be highly altered so best professional judgement was needed to identify the wetland-upland boundary. Additional investigations may therefore be warranted. The classification of the stream is riverine, unknown perennial, unconsolidated bottom, permanently flooded (R5UBH).

Wetland Flag Series D

Wetland flags series 'D' generally identifies an isolated palustrine scrub-shrub wetland with poorly drained soils that is likely man-made or man-enhanced as a result of a minor impoundment created by the construction of Wentworth Road. The dominant shrub vegetation involves glossy buckthorn.

Wetland Flag Series E

Wetland flags series 'E' generally identifies palustrine scrub-shrub and forested wetlands with poorly drained soils that appear to be man-made by alterations that include excavation and/or filling. The alterations do not appear to be recent. The general area between the 'E' and 'C' wetland flag series appears to be highly altered so, in addition to the technical guidance cited above, best professional judgement was employed to identify the wetland-upland boundary. Additional investigations may therefore be warranted.

Wetland Flag Series F

Wetland flags series 'F' generally identifies palustrine emergent wetlands that appear to be man-made, or partially man-made, by alterations that include excavation. The alterations do not appear to be recent. Dominant soil conditions involve very poorly drained mineral soils. The dominant vegetation to the interior of the wetland involves a dense stand of common reed. Knotweed was also observed along the periphery of the wetland. The wetland is approximately 0.25 acres in size and appears to be isolated.

² The status of streams as ephemeral, intermittent or perennial is based upon a single observation only and is therefore preliminary. If the definitive jurisdictional status of any stream described in this report is required for future design or permitting efforts, additional inspections or other investigations will be necessary to confirm the status of any streams.

Wetland Flag Series G

Wetland flags series 'G' generally identifies sparsely vegetated palustrine scrub-shrub wetlands. Portions of the wetland-upland boundary appear to be man-made by a combination of filling and excavation. These activities do not appear to be recent. The area may also be geographically isolated and may not be locally jurisdictional due to its size but additional investigations would be needed to establish local jurisdiction. Similarly, the area does not appear to represent vernal pool habitat based upon our preliminary observations but additional investigations during the early spring of 2021 would be necessary to be certain. It is my opinion that the 'G' area has a very low likelihood of providing vernal pool habitat.

Wetland Flag Series H

Wetland flags series 'H' identifies the highest observable tide line (HOTL) along the south side of Sagamore Creek closest to Sagamore Grove according to Env-Wt 602.23. The HOTL is rather distinct in most locations due to steep topography and tidal wetlands, commonly referred to as saltmarsh, exist adjacent to the HOTL in many locations. Tidal wetlands such as saltmarsh are considered to have very poorly drained soils. The classification of the dominant resource type for Sagamore Creek is estuarine, subtidal, unconsolidated bottom, subtidal (E1UBL). The edges of Sagamore Creek, adjacent to the HOTL is generally classified is estuarine, intertidal, unconsolidated shore, mud, irregularly exposed (E2US3M).

Wetland Flag Series I

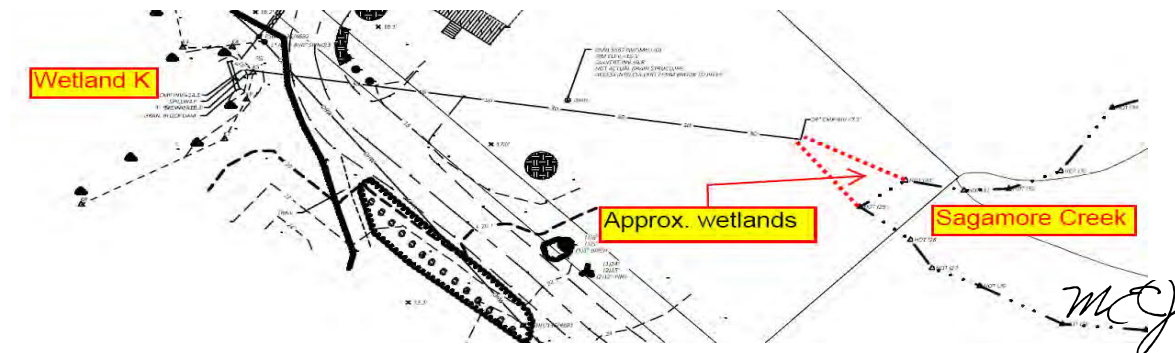
Wetland flags series 'I' identifies the HOTL along the north side of Sagamore Creek, closest to Shaw and Walker Bungalow Roads, with one notable exception. Wet flags I77-I84± generally identify the top-of-bank of a freshwater stream. The stream is likely intermittent. The HOTL is rather distinct in most locations due to steep topography. Tidal wetlands, commonly referred to as saltmarsh, exist adjacent to the HOTL in many locations but are not very wide and quickly transition to mud flats in most locations. The classification of the dominant resource type for Sagamore Creek is estuarine, subtidal, unconsolidated bottom, subtidal (E1UBL). The edges of Sagamore Creek, adjacent to the HOTL are generally classified as estuarine, intertidal, unconsolidated shore, mud, irregularly exposed (E2US3M).

There is a large bedrock outcropping between wet flags I14 and I15, therefore a straight line drawn between these two flags may not accurately portray the HOTL. Similarly, extending the 250-foot line for shoreland jurisdiction from a straight line drawn between these two flags may not accurately portray the shoreland jurisdiction in this area. We briefly considered applying spray paint to the bedrock to identify the HOTL in this area but thought it may not be well received by some and thus opted for this written explanation instead.

Several infestations of knotweed were observed along the 'I' line. We have noted a couple below due to the size of the infestation or proximity to the road and thus the potential to be encountered during future utility construction work. There is a large infestation adjacent to flags I34 - I38± and a small infestation adjacent to Walker Bungalow Road at flag I80. (There is also a significant phragmites infestation in this drainage but further from the road – starting near wet flag I77.) Small infestations also exist at wet flags I42 (beneath the bridge spanning Sagamore Creek) and wet flags I46-I47±.

Wetlands and stream flow were observed entering near HOTL flags I29 and I30. The stream flow discharges from a 24-inch diameter corrugated metal pipe (CMP) and originates upstream from wetlands identified by wet flag series 'K'. Based upon our preliminary observations we anticipate that the stream flow is likely perennial. We did not flag the wetlands above I29/I30 because they are outside the AOI, however, depending upon the eventual location of any improvements proposed in this area, the local 100-foot buffer zone may also be triggered in addition to state jurisdiction. Refer to Figure 1 below.

FIGURE 1



Wetland Flag Series J

Wetland flags series 'J' generally identifies palustrine forested wetlands having poorly drained soils. The tree canopy is generally dense and is dominated by red maple (*Acer rubrum*) while the shrubby understory is dominated by glossy buckthorn, an invasive species. The wetlands confine what appears to be an intermittent stream. The stream was observed to be flowing during site investigations. Wetland flags J3-J5 identify the toe-of-fill associated with Walker Bungalow Road. Wet flags A5-A6 appear to represent the boundary of wetlands that had been converted to mowed turf. These activities do not appear to be recent.

Wetland Flag Series K

Wetland flags series 'K' generally identifies palustrine scrub-shrub wetlands having poorly drained soils. The wetland confines a stream that is likely perennial. Dominant vegetation involves multiflora rose and Japanese barberry, both of which are considered invasive species. Wet flags K3-K8 generally represent the top-of-bank of an altered stream which drains a series of upstream wetlands totaling 5+ acres.

Wetland Flag Series L

Wetland flags series 'L' generally identifies palustrine open water (POW), palustrine forested and palustrine emergent wetlands having poorly drained soils. The open water area is also considered a pond. The open water area may have been created inadvertently by impoundment that resulted from the construction of Walker Bungalow Road. The emergent wetlands generally involve areas along wet flags L7-L9 which have been converted to mowed turf grasses. Wet flags L6-L7 generally represent the toe-of-fill associated with Walker Bungalow Road. The altering activities did not occur recently. Dominant forest vegetation involves red maple trees, which are located to the north, further away from the road. The area has some potential to provide vernal pool habitat per Env-Wt 104.44. Refer to Image 1.

Wetland Flag Series M

Wetland flags series 'M' generally identifies part of a larger palustrine forested wetland dominated by red maple and tupelo (*Nyssa sylvatica*) that has poorly drained soils. The shrubby understory is dominated by northern arrowwood (*Viburnum dentatum*) and winterberry (*Ilex verticillata*). Wet flags M1-M4 identify a natural wetland-upland boundary while wet flags M5-M8± identify a wetland-upland boundary created by filling for a driveway. The filling does not appear to be recent. Wetland hydrology appears to be provided primarily by groundwater with lesser influence from sheet flow off Walker Bungalow Road and surrounding uplands.

Wetland Flag Series N

Wetland flags series 'N' generally identifies part of a larger palustrine forested wetland dominated by red maple trees and poorly drained soils. Culverts discharge to this wetland area at wet flags N4 and N19. The wetland confines intermittent stream flow. The stream channel is located well interior of the wetland-upland boundary. The stream may drain wetlands located north of and adjacent to Little Harbor Road but which are outside the AOI.

Wetland Flag Series O

Wetland flags series 'O' generally identifies a wetland-upland boundary that is man-made by filling for residential development or Walker Bungalow Road. Wet flags O1-O5 generally identify the top-of-bank associated with a stream. The stream is likely intermittent. Wet flags O5-O9 generally identify the toe-of-fill associated with Walker Bungalow Road. Wet flag O9 identifies the toe-of-fill associated with the construction of an asphalt driveway to a nearby residence. We suspended the delineation and flag line at the driveway but the wetland-upland boundary likely continues along the driveway and out of the AOI. The filling does not appear to be recent. We suspended the delineation at wet flag O9 so as to avoid digging holes in the lawn and front yard of the residence at this location. Refer to image 2.

Wetland hydrology for most of the wetlands along Walker Bungalow Road appears to be provided primarily by groundwater with lesser influence from sheet flow off the road and surrounding uplands. The wetland hydrology along Walker Bungalow Road is influenced to a significant degree by shallow bedrock and bedrock outcroppings were observed along the road in this area of the AOI.

Wetland Flag Series P

Wetland flags series 'P' generally identifies a wetland-upland boundary that is man-made by filling for residential development or Walker Bungalow Road. Wet flags P1-P4 generally identify the toe-of-fill associated with Walker Bungalow Road or driveways to nearby residences. The filling does not appear to be recent. Soil saturation and pockets of very shallow ponding were observed in this area. Mature red maple trees, a species customarily associated with wetlands, were observed.

Wetland Flag Series Q

Wetland flags series 'Q' generally identifies a wetland-upland boundary that is man-made by filling for residential development or Walker Bungalow Road. Wet flags Q1-Q5 generally identify the toe-of-fill associated with Walker Bungalow Road or driveways to nearby residences. The filling does not appear to be recent. Soil saturation and pockets of shallow ponding were observed in this area. Large red maple trees, a species customarily associated with wetlands, were observed.

Wetland Flag Series R

Wetland flags series 'R' generally identifies a wetland-upland boundary that is man-made by filling for residential development or Walker Bungalow Road. Wet flags R1-R4 generally identify the toe-of-fill associated with Walker Bungalow Road or driveways to nearby residences. The filling does not appear to be recent. Large red maple trees, a species customarily associated with wetlands, were observed. Flooding to a depth of 6± inches in places was observed in this area. We observed that the driveway stub located adjacent to wet flags R3 and R4 was submerged during our investigations. Additionally, the area identified by the 'R' series flags was discharging flow to Walker Bungalow Road near wet flag R3, which was then flowing in a northerly direction. There was a large rain event in the days before our delineation activities along this part of Walker Bungalow Road. Refer to image 3.

Wetland Flag Series S

Wetland flags series 'S' generally identifies a wetland-upland boundary that is man-made by filling for residential development or Walker Bungalow Road. The filling does not appear to be recent. The area identified by wet flags S1-S4 was saturated during site investigations and was discharging flow from an upgradient swale to Walker Bungalow Road. Due to the high quality of the well maintained turf in this area we did not attempt make subsurface soil observations. Refer to images 4 and 5.

In order to avoid disturbing the lawns and front yards of homes adjacent to wet flag series P, Q, R, and S, minimal subsurface investigations were conducted. We attempted to dig immediately adjacent to the road on numerous occasions in these areas, but were unable to obtain the proper depth needed to make reliable conclusions due to the rocky nature of the soils and soil compaction. While not always ideal or reliable due to previous disturbance, the area adjacent to a (public) road is an area normally available to us for observations of vegetation and soils because of a customary right-of-way (ROW), however it is our understanding, based upon conversations with numerous abutters during site investigations, that Walker Bungalow Road is private and has no ROW. Soil observations needed to make reliable conclusions about the possible presence of wetlands in these areas would have required routine access outside our AOI so as to access areas that are presumably less altered³. Conclusions about wetland-upland boundaries in this area are therefore preliminary; based upon best professional judgment and considerable prior experience as well as observations of apparent hydrology such as saturation and surface ponding. If definitive information regarding the jurisdictional status of the areas identified by flag series P, Q, R, and S is needed, supplemental investigations are recommended after additional communications with the affected abutters to discuss what would be involved.

Wetland Flag Series T

Wetland flags series 'T' generally identifies a wetland-upland boundary that is man-made by filling and excavation for residential development or construction of Cliff Road and is intended to accommodate drainage from a 12-inch diameter CMP which receives stormwater flows from a sump located on the west side of Cliff Road. The filling / excavation does not appear to be recent. These wetlands are likely contiguous to other wetlands along Walker Bungalow Road.

State Jurisdiction

All wetlands and any banks are jurisdictional under NH RSA 482:A and the NH Code of Administrative Rules – Chapter Env-Wt 100-900. With the exception of prime wetlands in certain communities, the NHDES does not require a buffer to freshwater wetlands, to the extent that any work in adjacent uplands does not cause indirect impacts, such as sedimentation, to areas under NHDES jurisdiction.

Shoreland Protection

Tidally influenced areas identified by a HOTL and Sagamore Creek are subject to RSA 483-B, the Shoreland Water Quality Protection Act (SWQPA), which extends to all lands within 250 feet of the HOTL. Similarly, all land within 100-feet of the HOTL is jurisdictional under state regulations as tidal buffer zone (TBZ). The HOTL is the reference line for administration of the SWQPA and the 100-foot tidal buffer zone TBZ.

³ It is generally understood that the presence of hydric soils indicates that areas converted to turf were likely wetlands. It is therefore assumed that if routine mowing of the turf were to cease, a wetland plant community dominated by hydrophytic (wetland) vegetation would eventually redevelop.

Prime Wetlands

The NHDES applies applicable rules and law to all municipally designated prime wetlands (and in certain municipalities all land within 100-feet of municipally designated prime wetlands). Prime wetlands are those wetlands with higher functions and values and receive additional protection under the law. Portsmouth has designated municipal prime wetlands which are recognized by NHDES. Portsmouth prime wetlands receive a 100-foot state buffer. The subject wetlands are not identified as prime wetlands. Refer to Figure 2 below.

FIGURE 2



Priority Resource Areas

Areas that embody bogs, sand dunes, tidal waters, tidal wetlands, undeveloped tidal buffer zone, floodplain wetlands adjacent to a tier 3 or higher watercourse, designated prime wetland or duly established prime wetland buffer zone and/or documented occurrences of protected rare species or habitat are considered Priority Resource Areas (PRA). Projects which propose impacts to jurisdictional areas that involve PRA's are elevated to major project classification for permitting review purposes, with a couple of exceptions. Remote sensing and direct observation confirm that there are PRA's including tidal waters, tidal wetlands and undeveloped tidal buffer zone at a minimum, within the AOI. We have not contacted the Natural Heritage Bureau for information regarding rare species, which we presume will take place during the permitting process for any proposed project going forward.

Local Zoning

Chapter 10 of the Portsmouth Zoning Ordinance, specifically Article 10 – Environmental Protection Standards and Section 10.1010 – Wetland Protection, take jurisdiction over the following areas:

- Any inland wetland area greater than 10,000 SF in size;
- Any vernal pool regardless of size;
- Any non-tidal perennial river or stream; and,
- Any tidal wetlands.

The local zoning requires a buffer of all land within 100–feet of any jurisdictional area. Permitted uses in wetlands and the wetland buffer include any use that does not involve the erection or construction of any structure or impervious surface and will not alter the natural surface configuration by the addition of fill or dredging. Any use or activity not specifically permitted is prohibited unless authorized by the Portsmouth Planning Board through a Conditional Use Permit (CUP) after review by the Portsmouth

Doucet Survey, Inc.
Sagamore Creek Low Pressure Sewer
January 19, 2021

Conservation Commission. Regarding CUP applications, the following specific criteria for approval apply to public and private utilities within rights-of-way in wetlands and wetland buffers:

- The proposed construction is in the public interest;
- Design, construction and maintenance methods will utilize best management practices to minimize impact and will include restoration of sites as nearly as possible to the original grade;
- No alternative feasible route exists; and
- Alteration of natural vegetation will occur only to the extent necessary.

The zoning identifies performance standards for stormwater management and vegetation management, including fertilizer and herbicide application, within local jurisdiction. The zoning requires vegetation buffers within the overall 100-foot buffer.

The above represents a brief summary of the applicable local wetland zoning and state jurisdiction. We recommend that you consult this office, the Portsmouth Planning Department or the NHDES for further guidance before proceeding with any design, permitting or construction at this location.

Please contact the undersigned with any questions regarding the above-referenced information.

Cordially,

Marc Jacobs, GWS, PWS, CSS, CPESC

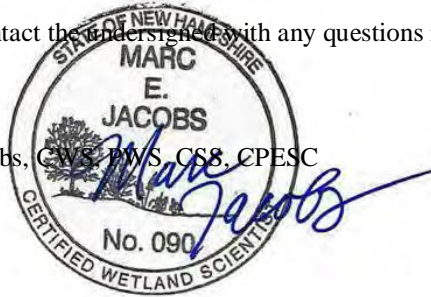




Image 1 – Looking east at the wetland identified by wet flag series ‘L’ from Walker Bungalow Road.



Image 2 – Looking south at the wetland identified by wet flag series ‘O’. Walker Bungalow Road on left.



Image 3 – Looking south at the wetland identified by wet flag series 'R'. Walker Bungalow Road on left. Flooded area in foreground covers an asphalt driveway which drains toward the road at the bottom of the image.



Image 4 – Looking east at the wetland identified by wet flag series 'S' from Walker Bungalow Road. Note swale in background.



Image 5 – Looking south from Walker Bungalow Road at the wetland identified by wet flag series ‘S’. Note bedrock outcrop in background and discharge in foreground.

ATTACHMENT H

Impact Area Photo Log



Photo 1: Facing west at 2 Sagamore Grove. Proposed location within the 100 foot TBZ for grinder pump and sewer tie in where existing septic system is located. Sagamore Creek is seen on the right.



Photo 2: Facing north at 2 Sagamore Grove. Proposed location within the 100' TBZ for piping within existing driveway.



Photo 3: Facing north at 2 Sagamore Grove. Proposed location within the 100' TBZ for piping within existing maintained lawn. Sagamore Creek is seen in the background.



Photo 4: Facing north at 6 Sagamore Grove. Proposed location within the 100' TBZ for piping and grinder pump in existing maintained lawn. Sagamore Creek is seen in the background.



Photo 5: Facing south at the intersection of Sagamore Grove and Sagamore Avenue. Proposed location within the 100" TBZ for piping and sewer manhole cover.



Photo 6: Facing west at 1150 Sagamore Avenue. Proposed location of piping in the 100' TBZ within existing driveway and piping and grinder pump within 75' of salt marsh, also within existing driveway.



Photo 7: Facing east at 187 Wentworth House Road. Proposed location of piping and sewer manhole in the 100' TBZ within existing gravel area.



Photo 8: Facing east at 189 Wentworth House Road. Proposed location of piping and sewer manhole in the 100' TBZ within existing gravel area.



Photo 9: Facing southeast at 14 Shaw Road. Proposed location of piping in maintained lawn within the 100' TBZ but outside of the 75' salt marsh setback. Sagamore Creek is seen in the background. Salt marsh is located at the toe of slope.



Photo 10: Facing southeast at 24 Shaw Road. Proposed location of piping in maintained lawn within the 100' TBZ and within the 75' salt marsh setback. Sagamore Creek is seen in the background. Salt marsh is located at the toe of slope.



Photo 11: Facing southeast at 36 Shaw Road. Proposed location of piping in existing driveway and maintained yard within the 100' TBZ and 75' of salt marsh. Sagamore Creek is seen on the right and salt marsh is at the toe of slope.



Photo 12: Facing east at 36 Shaw Road. Proposed location of piping and grinder pump in existing walkway and maintained yard within the 100' TBZ and 75' of salt marsh.



Photo 13: Facing south at 220 Walker Bungalow Road. Proposed location of piping and grinder pump in existing maintained lawn within the 100' TBZ and 75' salt marsh setback. Sagamore Creek is seen on the left and salt marsh is at the toe of slope.



Photo 14: Facing westerly at 238 Walker Bungalow Road. Proposed location of piping and grinder pump in existing maintained lawn within the 100' TBZ and 75' salt marsh setback. Sagamore Creek is seen on the left and salt marsh is at the toe of slope.



7

Authorizations

Currently, there is no municipal sewer infrastructure within the proposed project area. The proposed project involves installing a new sewer main within roadway rights-of-way and new sewer service stubs to each property, terminating at the right-of-way line. This work will comply with the requirements of the 2016 City of Portsmouth Consent Decree Modification. In an effort to create the best environmental benefit and to quickly connect as many properties to the new municipal sewer to discontinue use of existing septic systems, the City of Portsmouth is working with property owners to facilitate the construction of new sewer services and installation of a grinder pump station on private property as part of the sewer main installation project. This permit application includes proposed impacts to jurisdictional areas for sewer service installation on properties whose owners have expressed possible interest in connecting to the new municipal sewer. Impacts to properties with owners who are not interested in connecting are not included.

The City intends to bid the project for construction prior to executing individual agreements with each property owner regarding the construction of sewer services and pump stations on their property. Once the bid results are received and project pricing has been determined, the City will execute a construction agreement with interested property owners for construction of the services on their property. At that time, the City will obtain authorization to impact jurisdictional areas from the property owners who opt to have work performed on their property as a part of this project. A draft of the letter the City intends property owners execute is included in this section. Authorizations will be obtained prior to work occurring on private properties.

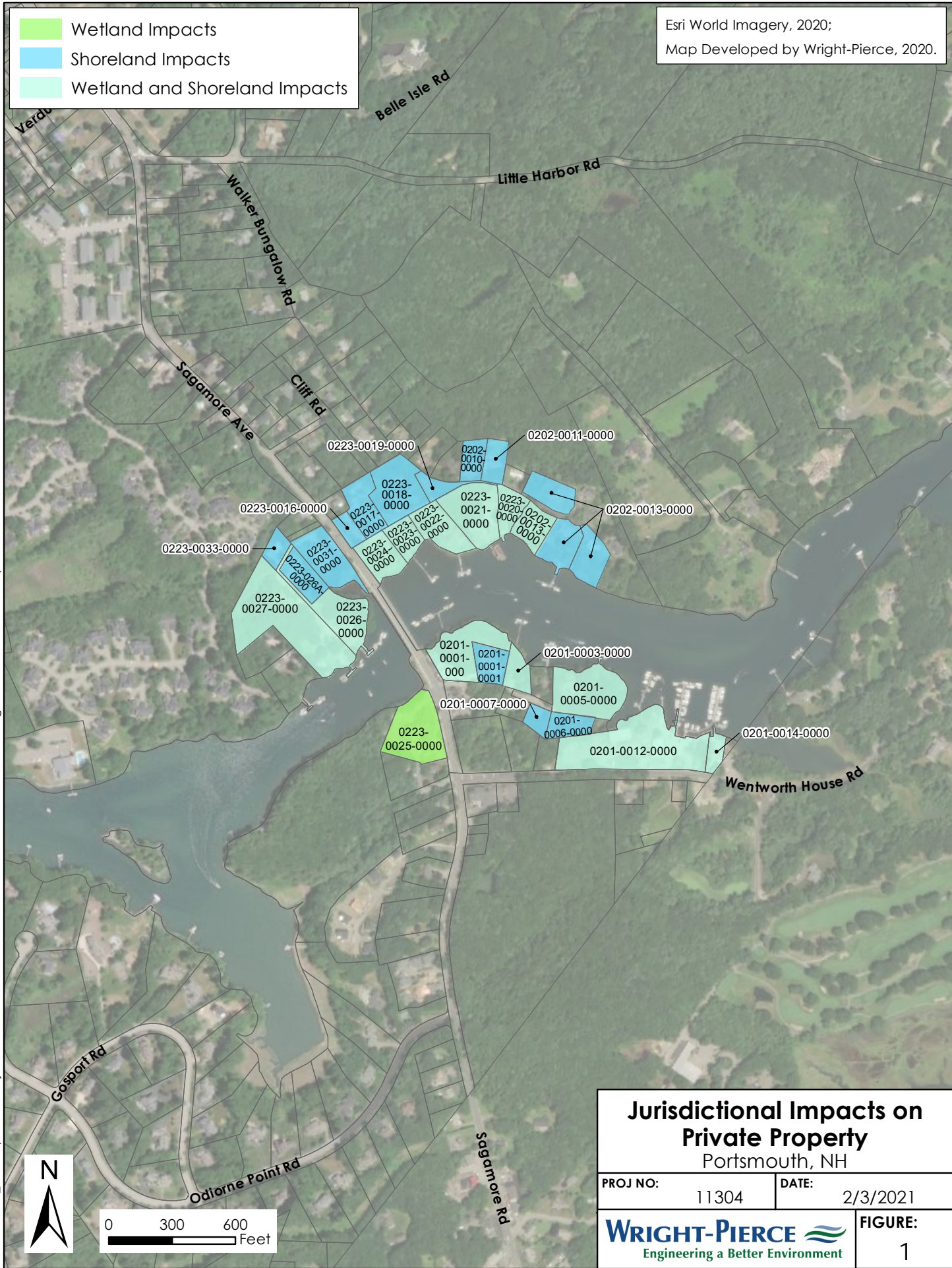
The City requests that a wetland permit be issued prior to providing authorizations from property owners. The attached map, Jurisdiction Impacts to Private Property, shows which properties are anticipated to have jurisdictional impacts. A corresponding list of properties indicates the street address of the properties and the type of jurisdictional impact anticipated.

Abutter notification is not required per Env-Wt 306.06(c)(4), 307.13(c).

- Wetland Impacts
- Shoreland Impacts
- Wetland and Shoreland Impacts

Esri World Imagery, 2020;
Map Developed by Wright-Pierce, 2020.

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Jurisdictional Impacts on Private Property

Portsmouth, NH

PROJ NO: 11304	DATE: 2/3/2021
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WRIGHT-PIERCE
Engineering a Better Environment

FIGURE:
1

WETLAND/SHORELAND IMPACT ON PRIVATE PROPERTIES

Address	Map Lot	Wetland Impact	Shoreland Impact	Book / Page	Owner Name from Deed
910 Sagamore Ave.	0223-0033-0000	NO	YES	6020/0365	Karen Butz Webb
911 Sagamore Ave.	0223-026A-0000	NO	YES	6039/419	Debra M Dupont
912 Sagamore Ave.	0223-0026-0000	YES	YES	5610/0412	Heidi S Ricci
913 Sagamore Ave.	0223-0027-0000	YES	YES	6053/421	Hogswave LLC
915 Sagamore Ave	0223-0031-0000	NO	YES	4061/2312	Nissley, LLC
955 Sagamore Ave	0201-0001-0000	YES	YES	4903/0695	Michael T Goodridge & Jake E. Goodridge
11 Sagamore Grove	0201-0001-0001	NO	YES	6155/537	William L Pingree
1150 Sagamore Ave.	0223-0025-0000	YES	NO	5629/0040	Wentworth-Sagamore LLC
185, 187, 189 Wentworth House Rd.	0201-0012-0000	YES	YES	5743/0352	Sea Level LLC
191 Wentworth House Rd	0201-0014-0000	YES	YES	5134/2635	Dennis J Graves
2 Sagamore Grove	0201-0003-0000	YES	YES	4547/2733	Lucian Szmyd & Siane M Szmyd
3 Sagamore Grove	0201-0007-0000	NO	YES	5222/1547	Brian L Neste & Bradford J Byrd
5 Sagamore Grove	0201-0006-0000	NO	YES	5784/2715	Jason Goulemas
6 Sagamore Grove	0201-0005-0000	YES	YES	5959/1286	Tina D Bosen
7 Shaw Rd.	0223-0016-0000	NO	YES	5865/0680	Stephen J Zdravec & Jennifer Zdravec
24 Shaw Rd.	0223-0023-0000	YES	YES	3642/0776	John C Connors & Diane B Connors
14 Shaw Rd.	0223-0024-0000	YES	YES	6017/1322	James H Oliver & Cynthia W Oliver
17 Shaw Rd.	0223-0017-0000	NO	YES	2546/1320	Russell D Foster & Maureen Sweeney
27 Shaw Rd.	0223-0018-0000	NO	YES	5010/1654	Joseph J Onosko & Jane C Zill
36 Shaw Rd.	0223-0022-0000	YES	YES	5591/0037	Gregory C Desisto & Sandra M Desisto
184 Walker Bungalow Rd.	0223-0019-0000	NO	YES	3960/0629	Brady K Byrd & Brian L Neste
201 Walker Bungalow Rd.	0202-0010-0000	NO	YES	4017/0517	Bryant S Beach & Lisa M Beach
209 Walker Bungalaw Rd.	0202-0011-0000	NO	YES	6128/900	Norman J Rice III & Margaret-Ann H Rice
212 Walker Bungalow Rd.	0223-0021-0000	YES	YES	5858/2367	Martin F Kurowski & Cristina Galli
220 Walker Bungalow Rd.	0223-0020-0000	YES	YES	5866/1780	Jon & Joan Dickinson
238 Walker Bungalow Rd.	0202-0013-0000	YES	YES	5647/1181	David C Witham
241 Walker Bungalow Rd.	0202-0013-0000	NO	YES	5536/1736	Denise A Croteau
260 Walker Bungalow Rd.	0202-0013-0000	NO	YES	3041/2358	Kevin L Eckhart & Marilee A. Eckart
272 Walker Bungalow Rd.	0202-0013-0000	NO	YES	5129/0731	Gary M Epler & MarLiz A Geffert

Homeowner Mailing Address and Info

RE: NHDES Wetland/Shoreland Permit Application – Sagamore Ave Sewer Extension
Letter of Authorization

Homeowner:

The City of Portsmouth is extending the municipal sewer to the Sagamore Avenue area as part of the Sagamore Avenue Sewer Extension Project. This project is part of the City’s Consent Decree Second Modification with the Environmental Protection Agency (EPA) as well as the New Hampshire Department of Environmental Services (NHDES).

The project will involve installation of a sewer service on your property at **Address (Lot-Map-Unit)**. The work may require impacts to wetlands, wetland buffer zones, or shoreland buffer zones. These kind of impacts require the submission of environmental permits to complete.

By signing below you acknowledge that you have been made aware of the project and the NHDES Wetland and Shoreland permit applications and are the legal owner of **Address (Lot-Map-Unit)**. You authorize the City and its authorized contractors to complete work on your property within wetlands, wetland buffer zones, and/or shoreland buffer zones in accordance with the contract documents.

Name of Property Owner _____

Address of Property Owner _____

Signature _____

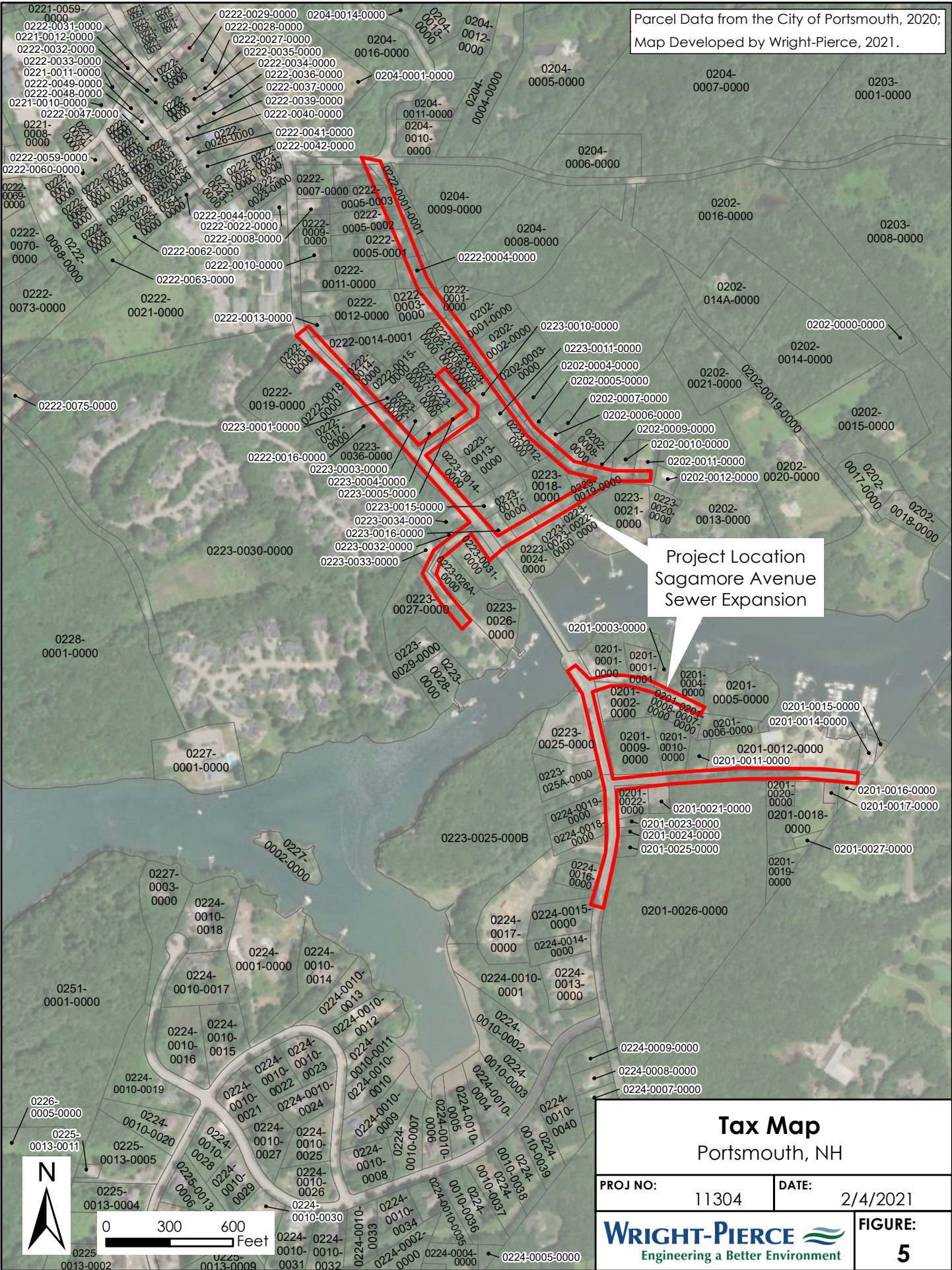
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Tax Map & Deeds

Parcel Data from the City of Portsmouth, 2020;
Map Developed by Wright-Pierce, 2021.

Project Location
Sagamore Avenue
Sewer Expansion

JDM w:\GIS_Development\Projects\NH\Portsmouth\11304-NH-Portsmouth\MXD\NHIDES-Fig5-TaxMap-8x11.mxd



Tax Map Portsmouth, NH	
PROJ NO:	11304
DATE:	2/4/2021
WRIGHT-PIERCE Engineering a Better Environment	
FIGURE:	5

Unofficial Document Unofficial Document Unofficial Document

KNOW ALL MEN BY THESE PRESENTS, That I, MARY BRUCE KENNEDY, of 17 Shaw Road, Portsmouth, County of Rockingham, State of New Hampshire,

for consideration paid, grant to RUSSELL D. FOSTER, JR., of 82 Driftwood Lane, Portsmouth, County of Rockingham, State of New Hampshire, and MAUREEN SWEENEY FOSTER, of 82 Driftwood Lane, Portsmouth, County and State aforesaid, as joint tenants,

with warranty covenants to the said RUSSELL D. FOSTER, JR., and MAUREEN SWEENEY FOSTER the following described premises:

A certain lot or parcel of land with the buildings thereon, situate in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

BEGINNING on the northerly side of a private road at a point 85 feet easterly of Sagamore Avenue, and thence running easterly by said private road, 118 feet to a point; thence turning and running northerly in a straight line, 175 feet to a corner marked by a stake; thence turning at right angles and running easterly 50 feet to a stake; thence turning at right angles and running northerly to a line which is an extension easterly of the northerly boundary of land now or formerly of Sidney Littlefield; thence turning at a right angle and running westerly, 160 feet to the point of the northeasterly corner of said Littlefield land; thence turning at a right angle and running southerly, 92 feet by said Littlefield land to the southeasterly corner thereof; thence turning and running westerly by said Littlefield land, 22 feet to land now or formerly of Leroy B. Terrio; thence turning and running southerly by said Terrio land to said private road at the point of beginning.

Being the same premises conveyed to MARY BRUCE KENNEDY, by Warranty Deed of JOSEPH ARNSTEIN and HELEN ARNSTEIN, dated June 1, 1978 and recorded in the Rockingham County Registry of Deeds, Book 2312, Page 1483.



And I, THOMAS L. KENNEDY, husband ~~xxx~~ of said grantor, release to said grantee all rights of homestead and other interests therein.

Signed this 21 day of MAY, 1985

Mary Bruce Kennedy L.S.
THOMAS L. KENNEDY L.S.

State of New Hampshire

ROCKINGHAM ss.: May 22 A. D. 19 85

Personally appeared MARY BRUCE KENNEDY

known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument and acknowledged that s he executed the same for the purposes therein contained.

1 Before me, Justice of the Peace - Notary Public

21510

MAY 27 9 36 AM '85

Rockingham County Registry of Deeds

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Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document

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BK2546 P1321

STATE OF CONNECTICUT
COUNTY OF Fairfield

May 21, 1985

Personally appeared Thomas L. Kennedy, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

Before me,

Margaret M. Muddy
NOTARY PUBLIC MARGARET M. MUDDY
Notary Public
My Commission Expires April 1, 1988

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BY 3041 P2358

**WARRANTY DEED FOR
SAGAMORE LANDING CONDOMINIUM**

0014219

KNOW ALL MEN BY THESE PRESENTS, that Joseph G. Sawtelle, trustee of Sagamore Landing Trust u/d/t dated July 1, 1993 of 500 Market Street, Portsmouth, Rockingham County, New Hampshire,

FOR CONSIDERATION PAID, grants to Kevin L. Eckhart and Marilee A. Eckhart, Husband and Wife, of 377 Court Street, Portsmouth, Rockingham County, New Hampshire, as Joint Tenants with Rights of Survivorship

WITH WARRANTY COVENANTS

A certain tract of real property situate in Portsmouth, County of Rockingham, State of New Hampshire, and described as follows:

Unit #5 of Sagamore Landing Condominium, a Condominium located in Portsmouth, County of Rockingham and State of New Hampshire, as established by Joseph G. Sawtelle, trustee of Sagamore Landing Trust, pursuant to New Hampshire RSA 356-B by Declaration dated August 20, 1993, and recorded in the Rockingham County Registry of Deeds on August 24, 1993 at Book 3002, Page 251, as may be amended from time to time.

Conveyed also with said Unit is the exclusive right to use certain Limited Common Areas as designated and described in said Declaration as Limited Common Areas and/or shown on the Site Plans for Sagamore Landing Condominium recorded in said Registry as Plan D-22410.

The Limited Common Lot Area designated and reserved to Unit #5 as shown on the aforesaid Site Plan D-22410 is hereby expressly assigned to and reserved for the sole and exclusive use and enjoyment of Unit #5, subject to the easements and restrictions set forth in the Condominium Instruments. No Limited Common Area, including, without limitation, the Limited Common Lot Area, shall be reassigned without the consent of the Unit Owner(s) affected thereby and without complying with RSA 356-B:19 as amended from time to time.

The boundaries of said Unit being shown on the Site Plans by Ambit Survey entitled "Site Plans for Sagamore Landing Condominium for Sagamore Landing Trust, Walker Bungalow Road, Portsmouth, N.H., County of Rockingham," Sheets 1 and 2, which Plan is dated July 1993, rev. August 17, 1993 and August 20, 1993, and is recorded in the Rockingham County Registry of Deeds as Plan D-22410, and Floor Plans showing the residential dwelling and improvements thereon, which Floor Plans shall be recorded by the Grantee in compliance with RSA 356-B.

MAR 14 12 47 PM '94

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

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MAE 4/25

WARRANTY DEED

BY 3041 P2359

PAGE 2

Said Unit is hereby conveyed together with an equal undivided interest in the Common Area and facilities appurtenant to said Unit as provided in the Declaration together with the right to use the same in common with others entitled thereto.

Being a portion of the premises conveyed to Joseph G. Sawtelle, trustee of Sagamore Landing Trust by Quitclaim Deed of Marilyn I. Brody and Donald D. Brody, dated July 1, 1993, recorded in the Rockingham County Registry of Deeds at Book 2993, Page 0029.

Excepting and reserving all utility easements of record.

Said Unit is hereby conveyed subject to the restrictions, conditions, and other provisions of the Site and Floor Plans, Condominium Declaration, Bylaws and Rules and Regulations adopted thereunder for Sagamore Landing Condominium, all as amended or may be amended from time to time. Said Unit is acquired with the benefit of and subject to the provisions of New Hampshire RSA 356-B relating to the unit ownership of real property as the Statute is written as of the date hereof and as it may in the future be amended.

THIS IS NOT HOMESTEAD PROPERTY.

The Grantee(s), by executing this deed, hereinbelow acknowledge(s) that he/she/they have read and understood the Condominium Instruments for Sagamore Landing Condominium and agree(s) to be bound by and comply with the terms, covenants, conditions and restrictions in said Condominium Instruments as amended or as may be amended, the provisions of RSA 356-B and the Rules and Regulations now or hereinafter enacted by said Condominium Association. Grantee(s) further agree(s) that he/she/they shall pay all charges, liens and other such Condominium assessments as may accrue against the within described Condominium Unit promptly when said charges, liens and assessments are due and owing, and agree to record said Floor Plans as required under RSA 356-B.

Signed this 14 day of March, 1994.

SAGAMORE LANDING TRUST, Grantor

By: Joseph G. Sawtelle
Joseph G. Sawtelle, Trustee of Sagamore Landing Trust u/d/t dated 7/1/93



REGISTRATION
PERMITS
ADMINISTRATION

1 3 25 4

KLB

MAE

WARRANTY DEED

PAGE 3

EV 3041 P2360

Signed this 14TH day of MARCH, 1994.


Kevin L. Eckhart, Grantee


Marilee A. Eckhart, Grantee

STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY

On this 14TH day of MARCH, 1994, personally appeared, before me, Joseph G. Sawtelle, Trustee of Sagamore Landing Trust u/d/t dated 7/1/93, known to me or satisfactorily proven to be the person whose name subscribed to the foregoing instrument and acknowledged that he was duly authorized and that he executed the same for the purposes therein contained on behalf of said Trust.


Justice of the Peace/Notary Public

STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY

On this 14TH day of MARCH, 1994, personally appeared, before me, Kevin L. Eckhart and Marilee A. Eckhart, known to me or satisfactorily proven to be the persons whose names subscribed to the foregoing instrument and acknowledged that they executed the same for the purposes therein contained.


Justice of the Peace/Notary Public

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that I, JEANETTE F. DOLAN, Trustee of the Jeanette F. Dolan Revocable Trust u/t/a dated January 22, 1997, and Individually, of 24 Shaw Road, Portsmouth, County of Rockingham, State of New Hampshire, 03801,

For consideration paid, grant to John C. Connors and Diane B. Connors, husband and wife, of 65 Ocean Road, Portsmouth, Rockingham County, New Hampshire, 03801, as joint tenants with rights of survivorship,

with warranty covenants the following described premises situate in Portsmouth, New Hampshire:

A certain tract or parcel of land with the buildings thereon located on Walker Bungalow Road, Portsmouth, County of Rockingham, State of New Hampshire, beginning at a point at the division line between land now or formerly of Chester E. Williams, Jr. and Charlotte Williams and land now or formerly of James Varotsis and Veronica Varotsis, thence:

N 74° 08' 35" E, 140 feet by Walker Bungalow Road to other land now or formerly of James Varotsis and Veronica Varotsis;

S 19° 03' 45" E 145 feet, more or less, to Sagamore Creek;

Westerly by Sagamore Creek 128 feet, more or less, to land now or formerly of Chester F. Williams, Jr. and Charlotte Williams, and,

N 24° 00' 15" W 170 feet, more or less, to the point of beginning.

Meaning and intending to describe and convey the same premises described in Quitclaim Deed of the Charles R. Dolan Revocable Trust to Jeanette F. Dolan dated September 7th, 2001, recorded herewith in the Rockingham County Registry of Deeds, and the same premises described in Quitclaim Deed of Charles R. Dolan and Jeanette F. Dolan to Jeanette F. Dolan, Trustee of the Jeanette F. Dolan Revocable Trust, dated January 22, 1997, recorded in Rockingham County Registry of Deeds, Book 3197, Page 736.

Grantor hereby releases all rights of homestead and other interests therein.

Signed this 7th day of September, 2001

Jeanette F. Dolan, Trustee
JEANETTE F. DOLAN, TRUSTEE

Jeanette F. Dolan Individually
JEANETTE F. DOLAN, INDIVIDUALLY

STATE OF RHODE ISLAND
COUNTY OF Providence

On this the 7th day of September, 2001, then personally appeared Jeanette F. Dolan, Individually and as Trustee, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument and acknowledged that she executed the same for the purposes therein contained.

Before me,

David Vebro
Justice of the Peace
Notary Public

Commission Expires 8/2002



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF REVENUE ADMINISTRATION		REAL ESTATE TRANSFER TAX	
7 THOUSAND	9 HUNDRED AND	54 DOLLARS	
MO	DAY	YR	AMOUNT
09	13	01	508665 \$7954.00
VOID AFTER THIS			

068951

2001 SEP 13 PM 1:15

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

GRIFFIN, PUDLOSKI &
JENKINS, PLLC
ATTORNEYS AT LAW
P.O. BOX 598
PORTSMOUTH, NH
03802-0598

Return to:
THOMAS STUART and BARBARA STUART
 131 CLIFF ROAD, PORTSMOUTH, New Hampshire 03801

File # C021054

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STATE OF NEW HAMPSHIRE			
DEPARTMENT OF REVENUE ADMINISTRATION		REAL ESTATE TRANSFER TAX	
3	THOUSAND	XY	HUNDRED AND XX DOLLARS
010402	543319	\$3000.00	
VOID IF ALTERED			

Warranty Deed

EMERALD W. TURBYNE, UNMARRIED BY NATALIE STONE, POA

of 131 CLIFF ROAD, PORTSMOUTH, New Hampshire 03801

for consideration paid

grant to **THOMAS STUART and BARBARA STUART, HUSBAND AND WIFE**

of 131 CLIFF ROAD, PORTSMOUTH, New Hampshire 03801 , as joint tenants with rights of survivorship,

with **WARRANTY** covenants

A CERTAIN LOT OF LAND WITH THE BUILDINGS THEREON, SITUATED IN PORTSMOUTH, IN THE COUNTY OF ROCKINGHAM AND STATE OF NEW HAMPSHIRE, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CENTER LINE OF THE WALKER BUNGALOW ROAD AT THE NORTHEASTERLY CORNER OF LAND OF THE GRANTOR AT LAND OF MYRTIE C. SEAVEY;

RUNNING SOUTHERLY BY THE CENTER LINE OF SAID ROAD ABOUT ONE HUNDRED TWENTY-SIX (126) FEET TO OTHER LAND OF THE GRANTOR;

TURNING AND RUNNING SOUTH 70° 31' WEST BY OTHER LAND OF THE GRANTOR ABOUT ONE HUNDRED FIFTY (150) FEET TO A PROPOSED STREET;

TURNING AND RUNNING NORTH 25° 44' WEST BY SAID PROPOSED STREET ON HUNDRED TWENTY-TWO AND ONE TENTH (122.1) FEET TO LAND OF SAID SEAVEY;

TURNING AND RUNNING NORTH 69° 04' EAST BY LAND OF SAID SEAVEY ABOUT ONE HUNDRED SIXTY-THREE (163) FEET TO THE POINT OF BEGINNING

TOGETHER WITH A RIGHT OF WAY FOR ALL PURPOSES OVER, THROUGH AND ACROSS SAID PROPOSED STREET OR WAY TO AND FROM SAGAMORE AVENUE AND THE PREMISES HEREIN CONVEYED.

SUBJECT TO THE FOLLOWING CONDITIONS, RESTRICTIONS AND COVENANTS,

1. NO DWELLING HOUSE SHALL BE ERECTED UPON SAID ABOVE DESCRIBED TRACT OF LAND WHICH SHALL BE FOR OCCUPANCY OF MORE THAN ONE FAMILY; AND NO DWELLING ERECTED THEREON SHALL BE SO ALTERED AS TO MAKE IT AVAILABLE FOR OCCUPANCY OF MORE THAN ONE FAMILY.

2. ALL ADDITIONS TO THE DWELLING HOUSE AS NOW EXISTING, AND ALL ELLS OR OUTBUILDINGS HEREAFTER TO BE BUILT APPURTENANT THERETO SHALL BE ATTACHED TO SAID DWELLING HOUSE, AS AN INTEGRAL PART OF THE SAME, AND NOT SEPARATE THERE-FROM.

3. ALL SEPTIC TANKS SHALL BE CONSTRUCTED OF NON-CORROSIVE MATERIALS, AND IT IS EXPRESSLY AGREED THAT NO SEPTIC TANK MADE OF ANY METAL WHATSOEVER SHALL BE BUILT ON SAID PREMISES.

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2002 JUN -4 PM 12:42

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Unofficial Document Unofficial Document

MEANING AND INTENDING TO DESCRIBE AND CONVEY THE SAME PREMISES CONVEYED TO THE WITHIN GRANTOR (S) BY DEED OF ELIZABETH TOMKINSON DATED NOVEMBER 5, 1951 AND RECORDED WITH THE ROCKINGHAM COUNTY REGISTRY IN BOOK 1227 PAGE 462. EMERALD W. TURBYNE IS THE SURVIVING JOINT TENANT OF FRANK W. TURBYNE, DEATH CERTIFICATE RECORDED HEREWITH.

Executed this May 31, 2002.

Emerald W Turbyne by Natalie Stone POA
EMERALD W. TURBYNE BY NATALIE STONE, POA

Unofficial Document Unofficial Document

State of New Hampshire

Hillsborough, ss:

31st day of May, 2002

The foregoing was acknowledged before me this May 31, 2002 by EMERALD W. TURBYNE BY NATALIE STONE, POA.

Thomas M. Walsh
..... (Seal)

My Commission Expires:

THOMAS M. WALSH, Justice of the Peace
My Commission Expires July 5, 2006

TMW

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Heritage Title Services, L.L.C.
402 The Hill, Deer Street
Portsmouth, NH 03801 Box 117
603-431-6233

603-431-5481 fax

file # 4252

STATE OF NEW HAMPSHIRE

DEPARTMENT OF REVENUE ADMINISTRATION  REAL ESTATE TRANSFER TAX

3 THOUSAND XX HUNDRED AND 75 DOLLARS

MO	DAY	YR	AMOUNT
02	25	03	588690 \$3075.00

VOID IF ALTERED

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that I, ROBERT A. KEENE, SUCCESSOR TRUSTEE of the Barbara L. Keene Revocable Trust created under Trust Indenture and Declaration of Trust dated October 10, 2002, of 184 Walker Bungalow Road, Portsmouth, County of Rockingham and State of New Hampshire

FOR CONSIDERATION PAID, grant to BRADY J. BYRD and BRIAN L. NESTE of 66 Range Road, Concord, County of Middlesex and State of Massachusetts, both being single persons as **JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP**

WITH WARRANTY COVENANTS, the following described parcels of land:

TWO CERTAIN LOTS OR PARCELS of land with the buildings bounded and described as follows:

PARCEL 1:

A certain parcel of land with the buildings thereon situated on the northwesterly side of the Old Road which runs in a northeasterly direction from Sagamore Avenue in said Portsmouth, bounded and described as follows: Beginning at the southerly corner of said tract on said Old Road at land of Alice B. Shaw and running thence in a northeasterly direction by said Old Road to the center of the road leading from Walker's Bungalow to Little Harbor Road; thence turning and running in a general northwesterly direction through the center of said Road to an iron pipe in the ground; thence turning and running in a southwesterly direction to an iron pipe in the ground at the northerly corner of land of Alice B. Shaw; thence turning and running in a southeasterly direction by said land of said Alice B. Shaw and by a stone wall separating the premises herein conveyed from said land of said Alice B. Shaw to the point of beginning.

EXCEPTING THEREFROM a parcel of land conveyed to Harold H. Shaw by deed of Arthur W. and Barbara L. Keene dated October 17, 1970 and recorded in Rockingham County Registry of Deeds at Book 2040, Page 252.

020974

2003 FEB 25 PM 12:47

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

PARCEL 2:

ALSO HEREBY CONVEYING a certain triangular piece or parcel of land situate in Portsmouth on a private way running from Sagamore Road, so-called, in said Portsmouth to Walker Bungalow Road, so-called and more particularly bounded and described as follows:

Beginning at a point on the midline of said private way at land of Harold H. Shaw, thence running north 16° 51' 30" west by and along said land of Harold H. Shaw, a distance of 148.72 feet to a point at a stone wall; thence turning and running south 26° 18' 43" east by said stone wall and land of Arthur W. and B. L. Keene, a distance of 152.0 feet to a point at the midline of said private way; thence turning and running south 75° 56' 00" west by and along the midline of said private way, a distance 25 feet to the point of beginning.

Being the same premises conveyed to Barbara L. Keene, Trustee of the Barbara L. Keene Revocable Trust by deed of Barbara L. Keene recorded in the Rockingham County Registry of Deeds in Book 3879, Page 1818 on November 2, 2002.

WITNESS my hand this 24th day of February, 2003.

ROBERT A. KEENE,
SUCCESSOR TRUSTEE of the
Barbara L. Keene Revocable Trust

Robert A. Keene Successor Trustee
Robert A. Keene, Successor Trustee

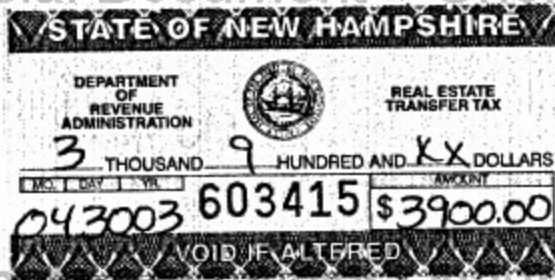
State of New Hampshire
Rockingham, ss

Personally appeared on this 24th day of February, 2003, the above named ROBERT A. KEENE, SUCCESSOR TRUSTEE of the Barbara L. Keene Revocable Trust, known to me or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument and acknowledge that he executed the same for the purposes therein contained.

Justin
Notary Public/Justice of
the Peace

Justin C. Caramagno
Notary Public - Expires: 5/26/2004
Justice of the Peace - Expires: 1/20/2004

RF4631-32



WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that we, **Carl M. Seavey, Trustee of The Carl M. Seavey Irrevocable Trust**, dated December 3, 2001 and **Nancy Seavey, Trustee of The Nancy Seavey Irrevocable Trust**, dated December 3, 2001, jointly and severally, of Portsmouth, County of Rockingham and State of New Hampshire, For Consideration Paid, GRANT TO **Bryant S. Beach and Lisa M. Beach**, husband and wife, of 514 Middle Road, Portsmouth, NH 03801, as joint tenants with rights of survivorship, with **Warranty Covenants**, each of our and all of our right title and interest in the following described land with any buildings or improvements currently thereon:

A certain tract or parcel of land, with the buildings thereon, situate on the northerly side of "Walker Bungalow Road" so-called in said Portsmouth and bounded and described as follows:

Beginning at the southwesterly corner of the premises herein conveyed at an iron pipe in the center of said Walker Bungalow Road at the southeasterly corner of land now or formerly of Mark Fennerty and thence running N 19° 17' E by said Fennerty land 105.4 feet more or less to the northeasterly corner of the Fennerty land at other land of Stickney; thence turning and running S 75° 20' E by said Stickney and 108 feet to the northwesterly corner of land of Clarence W. Frost thence turning and running S 24° 17' W 100 feet more or less by said Frost land to the center line of said Walker Bungalow Road; thence turning and running in a general westerly direction by said center line of said Walker Bungalow Road 100 feet more or less to the point of beginning.

Reserving to the grantor, his heirs and assigns, a right of way over and across a portion of the granted premises lying within the limits of said Walker Bungalow Road, in common with all others entitled to similar rights and grantees from this grantor of other lots. This right of way to include passage by foot or vehicles and for all purposes.

Together with a right of way to and from the above described premises and Little Harbor Road over the road or way now existing.

Also, a certain tract or parcel of land situate in said Portsmouth being bounded and described as follows:

Beginning at the westerly corner of the premises herein conveyed air the northerly corner of other land of the grantors and running thence North 19° 17' East, by land now or formerly of Fennerty, a distance of 87.38 feet to a hub at land now or formerly of Irvine E. Stickney; thence turning and running, southwesterly, by said Stickney land, a distance of 118.9 feet to land now or formerly of Frost; thence turning and running southwesterly, along said Frost land, a distance of 100 feet to a point at land of said Frost and other land of the grantor; thence turning and running North 75° 20' West, by said other land of the grantor, 108 feet to the point of beginning.

The grantors join herein hereby releasing any homestead or other interest therein

Meaning and intending to describe and convey the same premises conveyed, in part, to Carl M. Seavey, Trustee by deed of Carl M. Seavey dated December 3, 2001 and recorded at Rockingham County Registry of Deeds at Book 3691, Page 2113 and, in part, to Nancy Seavey, Trustee by deed of Nancy Seavey dated December 3, 2001 and recorded at Rockingham Registry of Deeds in book 3691 page 2111.

The grantors attest that they are the current Trustees of the Carl M. Seavey Irrevocable Trust, dated December 3, 2001 and The Nancy Seavey Irrevocable Trust, dated December 3, 2001, respectively and further, that as such Trustees they have the power to convey real estate standing in the name of the trusts, and that neither trust has been amended or revoked.


049132

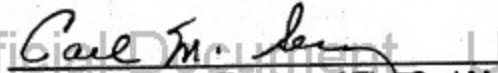
2003 APR 30 PM 3:52

ROCKINGHAM COUNTY
REGISTRY OF DEEDS


Unofficial Document Unofficial Document

IN WITNESS WHEREOF, we hereto set our hands and seals, this 30th day of April, 2003.


Witness


Carl M. Seavey, Trustee of The Carl M. Seavey Irrevocable Trust

Witness


Nancy Seavey, Trustee of The Nancy Seavey Irrevocable Trust

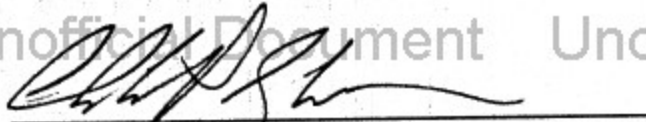
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STATE OF NEW HAMPSHIRE

Rockingham, SS

Date: 4/30/03

Then personally appeared the above named Carl M. Seavey, identified to me as Trustee of the Carl M. Seavey Irrevocable Trust, and Nancy Seavey, identified to me as Trustee of the Nancy Seavey Irrevocable Trust and both acknowledged the foregoing as their free act and deed.



Justice of the Peace/Charles P. Graham
My Commission Expires: 12/06/05

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STATE OF NEW HAMPSHIRE

DEPARTMENT OF REVENUE ADMINISTRATION  REAL ESTATE TRANSFER TAX

XX THOUSAND XX HUNDRED AND 40 DOLLARS

MO. DAY YR. 06 19 03 606930 \$ 40.00

VOID IF ALTERED

071071
ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2003 JUN 19 AM 9:37

QUITCLAIM DEED

Know All Persons By These Presents, That I, **Jay M. Gingrich**, a single person, of 513 Marcy Street, Portsmouth in the County of Rockingham and State of New Hampshire, for consideration paid, grant to **Nissley, LLC**, a New Hampshire limited liability company of 513 Marcy Street, Portsmouth in said County and State, with **quitclaim covenants**, the following described premises:

A certain lot or parcel of land with the buildings thereon situated on the southwesterly side of Sagamore Avenue, Portsmouth, in the County of Rockingham and State of New Hampshire, bounded and described as follows:

BEGINNING at the southeasterly corner of the parcel herein conveyed on the southwest side of Sagamore Avenue at Sagamore Creek; thence running in a general southwesterly direction along the northerly side of Sagamore Creek for One Hundred Forty-five (145) feet, more or less, to a point at land now or formerly of Harrison H. and Frances E. Workman; thence turning and running North 39° 28' West along said land of Harrison H. and Frances E. Workman for Two Hundred Sixty-four (264) feet, more or less, to a point on the southerly side of a right-of-way; thence turning and running North 55° 31' East along the southerly side of said right-of-way for One Hundred Seventy and 76/100 (170.76) feet to a point on the Southwest side of Sagamore Avenue; thence turning and running South 33° 47' East along the Southwest side of Sagamore Avenue for Two Hundred Seventy (270) feet, more or less, to the point of beginning.

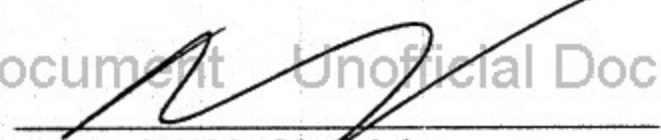
Conveying also the right to use in common with others said right-of-way, which is twenty-five (25) feet wide and extends from said Sagamore Avenue along the northwesterly side of the premises herein described in a southwesterly direction as laid out.

Being the same premises conveyed to Jay M. Gingrich by deed of Anne M. Borden dated May 14, 2002 recorded in the Rockingham County Registry of Deeds at Book 3772, Page 2421.

Unofficial Document Unofficial Document Unofficial Document

THIS IS NOT HOMESTEAD PROPERTY.

Dated this 17 day of June 2003.

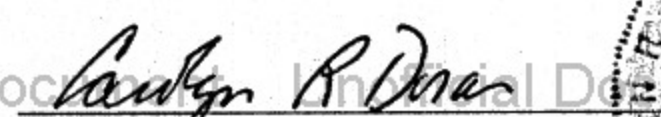

Jay M. Gingrich

The State of New Hampshire
Rockingham, SS.

June 17, 2003

Personally appeared the above named Jay M. Gingrich, known to me or satisfactorily proven to be the person whose name appears in the within document and acknowledged that he executed the same for the purposes contained therein,

Before me,


Notary Public/Justice of the Peace

Print Name:

My Commission Expires:

CAROLYN R. DORAN
Notary Public - New Hampshire
My Commission Expires May 9, 2008



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066885

STATE OF NEW HAMPSHIRE

DEPARTMENT OF REVENUE ADMINISTRATION  REAL ESTATE TRANSFER TAX

10 THOUSAND 4 HUNDRED AND 63 DOLLARS

MO. DAY YR. 741353 AMOUNT \$10463.00

091405

VOID IF ALTERED

Unofficial Document Unofficial Document Unofficial Document

WARRANTY DEED

KNOW EVERYONE BY THESE PRESENTS, That

Ann E. Beattie, a single person, Trustee of the Ann E. Beattie Revocable Trust of 2002, of 2 Sagamore Grove, Portsmouth, NH 03801,

for consideration paid, grant to

Lucian Szmyd and Diane M. Szmyd, husband and wife, of 41 Harborview Drive, Rye, NH 03870

with warranty covenants, Joint Tenants with Rights of Survivorship, the following described property:

A certain tract or parcel of land with the buildings thereon, situated in the City of Portsmouth, County of Rockingham and State of New Hampshire, being more particularly bounded and described as follows:

Beginning on the northeasterly side of a private way leading southeasterly from Sagamore Avenue, in Sagamore Grove, so-called, at the southwest corner of land now or formerly of Leroy B. and Alice R. Terrio; thence N 57° W by said way 144 feet to a hub; thence N 27° E by land now or formerly of the New Hampshire Savings Bank about 180 feet to Sagamore Creek; thence in a general southeasterly direction by said Creek about 141 feet to land now or formerly of said Terrios; thence S 12° 45' W by land now or formerly of said Terrios about 119 feet to the point of beginning.

Being a part of the premises shown on a plan of Sadie P. Gouse to Harry Pike and Ruth Pike, made by John W. Durgin, C. E. , December, 1945, filed in Plan Book 42, Page 2 of the Plan Records of Rockingham County.

Subject to the rights of others to use the water line passing through the subject property, and subject to the conditions as set forth in deed from Tracey E. Tarr and Mildred Tarr to John B. Golter, Jr. and Paula C. Golter dated May 3, 1962 and recorded in the Rockingham County Registry of Deeds at Book 1623, Page 460.

Subject to a drainage easement running in a general Northerly direction across the subject lot from the Southerly side of the "private road" as shown on the said Plan of Gouse to the Southerly sideline of Sagamore Creek.

Subject to a Stormwater Drainage Line Easement in favor of the City of Portsmouth as described in an

2005 SEP 14 AM 10:32

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Instrument dated November 5, 1996 and recorded in the Rockingham County Registry of Deeds at Book 3222, Page 1987.

Meaning and intending to describe and convey the same premises conveyed to the within grantor by deed of Ann E. Beattie, dated July 17, 2002 and recorded in the Rockingham County Registry of Deeds at Book 3803, Page 2663

The grantor herein release to said grantee all rights of homestead and other interests therein.

Signed this Twelfth day of September, 2005.

The Ann E. Beattie Revocable Trust of 2002

Ann E. Beattie, Trustee
Ann E. Beattie, Trustee

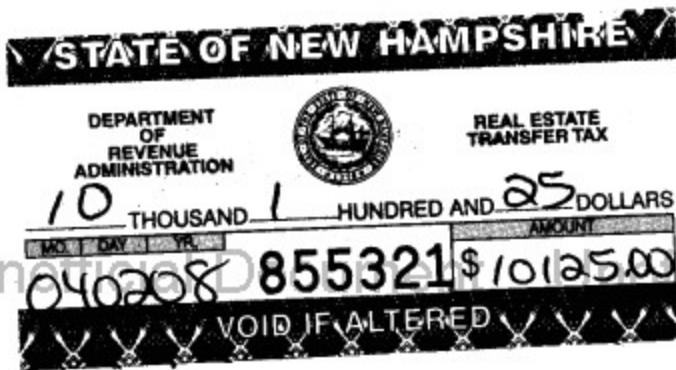
State of New Hampshire
Rockingham, ss: Twelfth day of September, 2005

Personally appeared Ann E. Beattie, Individually and as Trustee, known to me, or satisfactorily proven, to be the person whose name subscribed to the foregoing instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

Jaime C. Rogers
Justice of the Peace/Notary Public

My Commission Expires:





015806

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that I, **Andrew J. Widen**, a single person, of 1677 Ocean Boulevard, Rye, County of Rockingham and State of New Hampshire 03870, for consideration paid, grant to **Michael T. Goodridge and Jake E. Goodridge, Trustees of 955 Sagamore Realty Trust u/d/t dated March 12, 2008**, with an address of 955 Sagamore Avenue, Portsmouth, New Hampshire 03801, with **WARRANTY COVENANTS**, the following described property:

A certain tract of land with the buildings thereon, situate in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

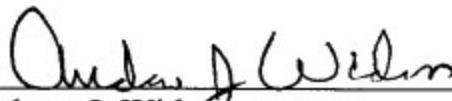
Beginning at a point in the easterly sideline of Sagamore Road, so-called, at the Southwesterly corner of the premises herein conveyed, and thence running northerly by and along Sagamore Road, a distance of 175 feet, more or less, to Sagamore Creek; thence running in a general northerly, easterly, and southeasterly direction by said Sagamore Creek to land now or formerly of Leroy Terrio; thence turning and running S 27° 25' W by said Terrio land, 180 feet, more or less, to a Private Road; thence turning and running N 57° 00' W by said Private Road, a distance of 24.5 feet to a hub; thence continuing N 70° 42' W by said Private Road, a distance of 254.0 feet to Sagamore Road and the point of beginning.

Being the larger of two lots shown on Plan entitled "Land in Portsmouth, N.H., Sadie P. Gouse to Harry E. & Ruth Pike, Scale: 1 in. = 30 ft., Dec. 1945, Revised October 1952, John W. Durgin, Civil Engineer.

Meaning and intending to describe and hereby convey the same premises in the Quitclaim Deed of Andrew J. Widen and Andrea Papoutsy to Andrew J. Widen dated April 11, 2000, and recorded in Book 3468, Page 0860 at the Rockingham County Registry of Deeds.

This is not homestead property of the grantor.

EXECUTED this 13 day of April, 2008.



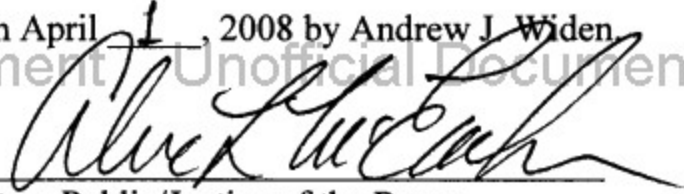
 Andrew J. Widen

2008 APR -2 PM 12:37

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

This instrument was acknowledged before me on April 1, 2008 by Andrew J. Widen



Notary Public/Justice of the Peace

My Commission Expires:



C/H
L-CHIP
ROA031858

MAIL TO

Return to:
Joseph J. Onosko
Jane C. Zill
27 Shaw Road
Portsmouth, New Hampshire 03801

STATE OF NEW HAMPSHIRE

DEPARTMENT OF REVENUE ADMINISTRATION

REAL ESTATE TRANSFER TAX

XX THOUSAND XX HUNDRED AND 40 DOLLARS

MO.	DAY	YR.	AMOUNT
05	14	09	871578 \$40.00

VOID IF ALTERED

Minimum transfer tax required.

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS THAT I, **Jane C. Zill, Trustee of The Jane C. Zill Revocable Trust**, married, of 27 Shaw Road, Portsmouth, County of Rockingham, State of New Hampshire, for no consideration paid, grants to **Joseph J. Onosko and Jane C. Zill**, husband and wife, of 27 Shaw Road, Portsmouth, County of Rockingham, State of New Hampshire, as joint tenants, with **QUITCLAIM COVENANTS**, the following described premises:

A certain parcel of land with buildings thereon situate in Portsmouth, County of Rockingham and State of New Hampshire on a private way running from Sagamore Road, so-called, in said Portsmouth to Walker Bungalow Road, so-called, and more particularly bounded and described as follows:

Beginning at the Southeasterly corner of the land herein conveyed and running Northerly in a straight line two hundred seventy-two (272) feet, more or less, to a stake, which is an extension of the line marking the Northerly boundary of land of Sidney Littlefield; thence turning at a right angle and running Westerly one hundred forty-seven (147) feet, more or less, to a stake marking the Northeasterly corner of land which Ray F. Shaw joined in a deed to Margaret R. Shaw; thence turning and running Southerly eighty-three (83) feet, more or less, to a stake which marks the boundary of said land; thence turning at a right angle and running Westerly fifty (50) feet, more or less, to a stake which marks another corner of said lot; thence turning at a right angle and running Southerly one hundred seventy-five (175) feet, more or less, to said private road; thence turning and running Easterly a total of two hundred fifty-five (255) feet, more or less, to the point of beginning.

Excepting and reserving from this conveyance a certain triangular piece of land which was conveyed by Harold H. Shaw to Arthur W. and B.L. Keene by deed dated October 17, 1970 and recorded at Book 2040, Page 251 in the Rockingham County Registry of Deeds and more

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

particularly described as follows:

Beginning at a point on the midline of a private way running from Sagamore Road, so-called, to Walker Bungalow Road, at land of Harold H. Shaw; thence running North 16°51'30" West by and along said land of Harold H. Shaw, a distance of one hundred forty-eight and seventy-two hundredths (148.72) feet, more or less, to a point at a stone wall; thence turning and running South 26°18'43" East by said stone wall and land of Arthur W. and B.L. Keene, a distance of one hundred fifty-two (152) feet, more or less, to a point at the midline of said private way; thence turning and running South 75°56'00" W by and along the midline of said private way, a distance of twenty-five (25) feet, more or less, to the point of beginning.

Also another piece or parcel of land situate on the Westerly side of a private way known as Walker Bungalow Road, so-called, and more particularly bounded and described as follows:

Beginning at a point at the midline of said Walker Bungalow Road at other land of Arthur B. and B.L. Keene; thence running South 75°56'00" West by said other land of Arthur B. and B.L. Keene, a distance of thirty-eight and twenty-one hundredths (38.21) feet, more or less, to the stone wall at land of Harold H. Shaw; thence turning and running North 25°18'43" West by said stone wall and land of Shaw, a distance of one hundred twenty (120) feet, more or less, to a point at stone wall and land now or formerly of Priscilla P. Hamilton; thence turning and running in a Northeasterly direction by said land now or formerly of Priscilla P. Hamilton, a distance of eighteen (18) feet, more or less, to a drill hole in a rock; thence turning and running South 35°04'50" East by the midline of Walker Bungalow Road, so-called, a distance of one hundred twenty-seven and sixty hundredths (127.60) feet, more or less, to the point of beginning.

The undersigned Trustee, under Declaration of Trust dated October 7, 2002, creating the The Jane C. Zill Revocable Trust, who has full and absolute power in said Trust Agreement to convey and or encumber any interest in real estate and improvements thereon, held in said Trust, and no third party shall be bound to inquire whether the Trustee has said power or is properly exercising said power or to see to the application of any trust assets paid to the Trustee for a conveyance thereof, and the within conveyance is with the assent of the beneficiary.

And we, Joseph J. Onosko and Jane C. Zill, husband and wife, hereby release our homestead rights in the within property.

Meaning and intending to describe and convey the same premises as conveyed to Jane C. Zill, Trustee of The Jane C. Zill Revocable Trust by Deed of Joseph J. Onosko and Jane C. Zill dated 10/7/2002 and recorded with the Rockingham County Registry of Deeds in Book 3856, Page 1691.

EXECUTED this 6th day of May, 2009

The Jane C. Zill Revocable Trust

By: Jane C. Zill, TRUSTEE
Jane C. Zill, Trustee

Jane C. Zill
Jane C. Zill, individually

Joseph J. Onosko
Joseph J. Onosko

State of New Hampshire
County of Rockingham

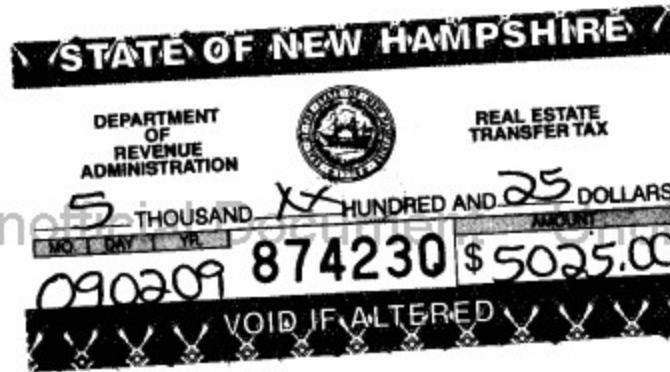
On this 6th day of May, 2009, personally appeared, before me, Jane C. Zill, Trustee of The Jane C. Zill Revocable Trust, duly authorized on behalf of said Trust, and individually, and Joseph J. Onosko, known to me or proven to be the persons whose names are subscribed to the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

[Signature]

Notary Public/Justice of the Peace
Print Name: _____
My Commission Expires: _____



1090358



WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That Stacy Tarazewich, Single, of 89 Cliff Road, Portsmouth NH 03801, for consideration paid grant(s) to Gregory S. Norris and Corinne G. Norris, Husband and Wife, of 312 Miller Avenue, Portsmouth NH 03801, as joint tenants with rights of survivorship, with WARRANTY COVENANTS:

A certain lot or parcel of land, with the buildings thereon, suited on the Northeasterly side of Cliff Road, so-called in the City of Portsmouth, County of Rockingham and State of New Hampshire said parcel being more particularly bounded and described as follows:

Beginning on the Northeasterly side of Cliff Road at a stake in the ground at the Northwesterly corner of land now or formerly of Thomas F. Tomkinson, at the Southwesterly corner of the premises herein conveyed; thence running by said Cliff Road N 25° 44' W one hundred eighteen and five-tenths (118.5) feet to a stake in the ground at land now or formerly of Fran W. Turbyne and Emerald W. Trubynce; thence turning and running by said Turbyne land N 70° 31' E one hundred fifty (150) feet more or less, to the center line of the Walker Bungalow Road, so-called; thence turning and running by the center line of said Walker Bungalow Road in a Southeasterly direction one hundred eighteen (118) feet, more or less, to land now or formerly of Thomas F. Tomkinson; thence turning and running by Tomkinson land S 70° 31' W, one hundred thirty-five (135) feet to a stake in the ground at the point of beginning.

Subject to certain conditions and restrictions as mentioned in the deed from Elizabeth Tomkinson to Benjamin J. Wallace dated December 1953 and recorded in Rockingham County Registry of Deeds at Book 1303, Page 480.

Meaning and intending to describe and convey the same premises conveyed to Stacy Tarazewich by virtue of a deed from Charles E. Kelleher dated 08/25/2003 recorded in Book 4135, Page 632, with the Rockingham County Registry of Deeds.

We, the grantors herein hereby release all rights of homestead in the above described premises.

044377

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

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Executed this 1st day of September, 2009.

Unofficial Document Unofficial Document Unofficial Document

Stacy Tarazewich
Stacy Tarazewich

State of New Hampshire

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Rockingham, ss.

On September 1, 2009, before me, the undersigned notary public, personally appeared the above-named, Stacy Tarazewich and proved to me through satisfactory evidence of identification, which was a driver's license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose.

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Kate Catalano
Notary Public:
My Commission Expires:



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Return to:

Gary M. Epler
MaryLiz A. Geffert

MAIL TO
272 Walker Bungalow Road, Unit 6
Portsmouth NH 03801



031156

WARRANTY DEED

Elizabeth C. Boynton, single, Trustee of the Elizabeth C. Boynton Revocable Trust, of 272 Walker Bungalow Road, Portsmouth NH 03801, for consideration paid grant to Gary M. Epler, and MaryLiz A. Geffert, husband and wife, of 245 Highland Street, Portsmouth NH 03801, as joint tenants with rights of survivorship, with warranty covenants;

A certain condominium unit situate in said Portsmouth, with a street address of 272 Walker Bungalow Road, Portsmouth, County of Rockingham, State of New Hampshire, bounded and described as follows:

Unit No. 6 of Sagamore Landing Condominium, a Condominium located in Portsmouth, County of Rockingham and State of New Hampshire, as established by Joseph G. Sawtelle, trustee of Sagamore Landing Trust, pursuant to New Hampshire RSA 356-B by Declaration dated August 20, 1993, and recorded in the Rockingham County Registry of Deeds on August 24, 1993 at Book 3002, Page 251, as may be amended from time to time.

Conveyed also with said Unit is the exclusive right to use certain Limited Common Areas as designated and described in said Declaration as Limited Common Areas and/or shown on the Site Plans for Sagamore Landing Condominium recorded in said Registry as Plan D-22410.

The Limited Common Lot Area designated and reserved to Unit No. 6 as shown on the aforesaid Site Plan D-22410 is hereby expressly assigned to and reserved for the sole and exclusive use and enjoyment of Unit No. 6, subject to the easements and restrictions set forth in the Condominium Instruments. No Limited Common Area, including, without limitation, the Limited Common Lot Area, shall be reassigned with the consent of the Unit Owner(s) affected thereby and without complying with RSA 356-B:19 as amended from time to time.

The boundaries of said Unit being shown on the Site Plans by Ambit Survey entitled "Site Plans for Sagamore Landing Condominium for Sagamore Landing Trust, Walker Bungalow Road, Portsmouth, N.H., County of Rockingham," Sheets 1 and 2, which Plan is

Buyer Initials:

2010 JUL 28 AM 8:59

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

dated July 1993, rev. August 17, 1993 and August 20, 1993, and is recorded in the Rockingham County Registry of Deeds as Plan D-22410, and the Floor Plan showing the residential dwelling and improvements thereon with respect to Unit #6, which Floor Plan is entitled "Amended Condominium Site Plan Sagamore Landing Condominium Unit 6, Elizabeth C. Boynton & Sagamore Landing Trust, 272 Walker Bungalow Road, Portsmouth, N.H. 03801, County of Rockingham" dated June 1994 and recorded in the Rockingham County Registry of Deeds as Plan C-23711, Book 17, Page 53 on February 6, 1995.

Said Unit is hereby conveyed together with an equal undivided interest in the Common Area and facilities appurtenant to said Unit as provided in the Declaration together with the right to use the same in common with others entitled thereto.

Excepting and reserving all utility easements of Unit No. 7 as shown on the aforesaid Site Plans.

Said Unit is hereby conveyed subject to the restrictions, conditions, and other provisions of the Site and Floor Plan, Condominium Declaration, By-Laws and Rules and Regulations adopted thereunder for Sagamore Landing Condominium, all as amended or may be amended from time to time. Said Unit is acquired with the benefit of and subject to the provisions of New Hampshire RSA 356-B relating to the unit ownership of real property as the Statute is written as of the date hereof and as it may in the future be amended.

Meaning and intending to describe and convey the same premises conveyed to Elizabeth C. Boynton, Trustee of the Elizabeth C. Boynton Revocable Trust by Warranty Deed from Elizabeth C. Boynton, dated September 24, 2001 and recorded in Book 3649, Page 975 of the Rockingham County Registry of Deeds.

I/We, the grantor(s) herein hereby release all rights of homestead in the above described premises.

272 Walker Bungalow Road, Unit 6, Portsmouth, NH 03801

Buyer Initials:

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Executed this 26th day of July, 2010.

Elizabeth C. Boynton

Elizabeth C. Boynton, Trustee of the
Elizabeth C. Boynton Revocable Trust

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STATE OF NEW HAMPSHIRE
County of Rockingham, SS

Then personally appeared before me on this 26th day of July, 2010 the said Elizabeth C. Boynton, Trustee of the Elizabeth C. Boynton Revocable Trust and acknowledged the foregoing to be his/her/their voluntary act and deed.

Donna M. Dufour

Notary Public/Justice of the Peace
My commission expires:

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Buyer Initials:

Unofficial Document Unofficial Document Unofficial Document

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Return to:
Nicholas R. Aeschliman, Esq.
314 Middle Street
Portsmouth, NH 03801

MAIL TO

Unofficial Document Unofficial Document Unofficial Document

034271

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This is a non-contractual transfer.

CORRECTIVE FIDUCIARY DEED

Brian T. Wade, Trustee of the Bruce R. Graves Trust, under a Trust Agreement dated 12/18/2003, of P.O. Box 1464, Portsmouth, NH 03802-1464, by the power granted in said Trust and every other power, for consideration paid, grants to Dennis J. Graves of 4 Annes Lane, Greenland, NH 03840, an undivided 50% interest and Jeffrey D. Graves of 191 Wentworth Road, Portsmouth, NH 03801, an undivided 50% interest, the undivided interests herein conveyed to Dennis J. Graves and Jeffrey D. Graves being conveyed as tenants in common, the following described parcels of property:

Parcel #1

An undivided 50% interest in the following premises:

A certain tract or parcel of land with the buildings and improvements thereon, including without limitation, boat slips, piers, moorings and appurtenances thereto, situate in Portsmouth and Rye, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at a hub on the northerly side of Wentworth Road (sometimes referred to as Wentworth House Road) distant northwesterly 32.85 feet from the stone bound marking the town and city line between Portsmouth and Rye; thence running N 26° 30'E by land now or formerly of Joseph LaCava to Sagamore Creek; thence turning and running easterly by said Creek to said LaCava land; thence turning and running S 28° 40' W by said LaCava land to Wentworth Road; thence turning and running N 61° 20' W by said road 75 feet to the point of beginning. Said premises are the premises north of Wentworth Road which are bounded by a red line as shown on plan showing property of Blanche M. Chartrand surveyed by Moulton Engineering Co.,

2010 AUG 16 PM 12:12

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Unofficial Document Unofficial Document Unofficial Document

September 1953 – June 1955, plan drawn July 7, 1955. Also together with such rights as the Grantors may have in and to Sagamore Creek, subject to control of the New Hampshire Port Authority, U.S. Coast Guard, Army Corps of Engineers, or other authorities. See for reference Agreement between Michael Kuchtey and Dunya Kuchtey and Ronald F. Eagan and Anne M. Eagan, dated June 17, 1965, recorded in the Rockingham County Registry of Deeds, Book 1772, Page 192.

Being a portion of the same premises conveyed to Bruce R. Graves, Trustee of the Bruce R. Graves Trust by deed from Bruce R. Graves, dated December 18, 2003, recorded in Rockingham County Registry of Deeds at Book 4210, Page 0387. The above described parcel is referred to in that deed as Parcel #1. For title reference to Bruce R. Graves and Joanne R. Graves see deed recorded in the Rockingham County Registry of Deeds at Book 2294, Page 1320.

Parcel #2

An undivided 50% interest in the following premises:

A certain tract or parcel of land, with the buildings thereon, situated in Portsmouth and Rye, County of Rockingham and State of New Hampshire, bounded and described as follows, to wit: Beginning at a point in the southerly line of Wentworth Road 84 feet northerly from the point of intersection of said southerly line of Wentworth Road with the Portsmouth-Rye Town Line; thence southeasterly 274.81 feet to a pipe in said southerly line of Wentworth Road at land now or formerly of Helen Mulcahy; thence southwesterly along said Mulcahy land 173.08 feet, more or less, to an iron pipe; thence S 89° 49' W, 72.24 feet to a pipe; thence S 89° 49' W, 160.34 feet to a pipe; thence northwesterly through a proposed 50 foot street to a pipe; thence northeasterly in a straight line along land now or formerly of Chartrand to a point of beginning.

Subject, however, to a right-of-way in common with Chartrand, et. al. along the southerly and easterly sides of the above-described premises, said right-of-way being more particularly described and set forth in deed of Blanche M. Chartrand to Paul F. and Ruth O. Brockway dated June 12, 1956 and recorded in said Registry of Deeds Book 1397, Page 330.

Being a portion of the same premises conveyed to Bruce R. Graves, Trustee of the Bruce R. Graves Trust by deed from Bruce R. Graves, dated December 18, 2003, recorded in Rockingham County Registry of Deeds at Book 4210, Page 0387. The above described parcel is referred to in that deed as Parcel #2. For title to Bruce R. Graves and Joanne R. Graves see deed recorded in the Rockingham County Registry of Deeds at Book 2751, Page 549.

The conveyance of Parcel #1 and Parcel #2 is subject to a mortgage from Bruce R. Graves, Trustee of the Bruce R. and Joanne R. Graves Revocable Trust of 1992 to Granite Bank dated July 12, 2002 recorded in Rockingham County Registry of Deeds, Book 3800, Page 1993, which grantees assume and agree to pay.

Parcel #3

A certain tract or parcel of land situate on the northerly side of Wentworth House Road in Portsmouth and Rye, New Hampshire, more particularly bounded and described as follows:

Beginning at a point on the northerly side of Wentworth House Road at the southwesterly corner of the parcel herein described and the southeasterly corner of land formerly of the Bruce R. Graves and Joanne R. Graves Revocable Trust of 1992; thence running N 28° 40' E, 131 feet +/- to Sagamore Creek; thence turning and running in a generally southeasterly direction by said Creek and a cove on said Creek to the point where the center line of a tidal stream flowing into the Creek intersects Wentworth House Road; thence turning and running along Wentworth House Road in a generally westerly direction, 640 feet +/- to land of Graves and point of beginning.

Being the same premises conveyed to the grantor by deed from Briand T. Wade, Trustee of the Clay Cove Realty Trust dated August 17, 2007, recorded in Rockingham County Registry of Deeds at Book 4838, Page 0777. See also deed of Anthony LaCava recorded in the Rockingham County Registry of Deeds at Book 3604, Page 1530.

The conveyance of this parcel #3 is subject to a mortgage from Bruce R. Graves, Trustee of the Clay Cove Realty Trust to Granite Bank dated July 12, 2002 recorded in Rockingham County Registry of Deeds Book 3800, Page 2007, which grantees assume and agree to pay.

The above Parcels 1, 2 & 3 are conveyed subject to any and all restrictions, covenants, conditions, rights, reservations, servitudes, encumbrances and easements of record or otherwise (if any).

THIS IS NOT HOMESTEAD PROPERTY.

Bruce R. Graves having died on 4/8/2006 (see death certificate recorded in said Registry at Book 4844, Page 1160. Any and all Estate taxes due and payable with respect to the death of Bruce R. Graves have been paid in full.

This is a non-contractual transfer under RSA 78-B:2 XI and a corrective deed under RSA 78-B:2V. This is a Corrective Deed which corrects the title reference for Parcel #1 and the title reference for Parcel #2 to refer to the deed of Bruce R. Graves, Trustee of the Bruce R. Graves Trust from Bruce R. Graves dated December 18, 2003 recorded in Rockingham County Registry of Deeds at Book 4210, page 0387. Previously inadvertently referred to as Joanne R. Graves, Trustee of the Joanne R. Graves Trust from Joanne R. Graves at Book 4210, page 0383.

Signed this 30th day of July, 2010

Bruce R. Graves Trust


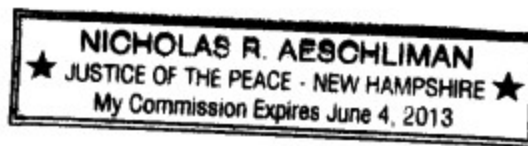


By: Briand T. Wade, Trustee

State of New Hampshire
County of Rockingham

Personally appeared on this 30th day of July, 2010, the above named Briand T. Wade, Trustee of the Bruce R. Graves Trust, known to me or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

Before me,


Notary Public/Justice of the Peace

After recording, return to:

~~MAIL TO BOX
Heritage Title Services, L.L.C.
402 The Hill, Deer Street
Portsmouth, NH 03801
603-431-6233 #7839
603-431-5481 fax~~



QUITCLAIM DEED

HOMESALES, INC. d/b/a HOMESALES, INC. OF DELAWARE, with an address c/o JPMorgan Chase Bank, N.A., 3415 Vision Drive, Columbus, Ohio 43219, for consideration paid, grants to **BRIAN L. NESTE** and **BRADFORD J. BYRD**, of 184 Walker Bungalow, Portsmouth, New Hampshire 03801, as joint tenants with rights of survivorship, with QUITCLAIM COVENANTS, the following property:

A certain tract or parcel of land with the buildings thereon situate in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at a hub in the ground at the northeasterly corner of land of Walsh; thence

Running South 51° 30' East by the westerly sideline of a private road leading to Sagamore Avenue 105.8 feet to land now or formerly of Benson; thence

Turning and running South 29° 49' West by said other land of Benson 134.2 feet to a hub at land now or formerly of William E. Huber; thence

Turning and running North 37° West by other land of said Huber and the Wentworth 130.4 feet more or less, to a hub at the southeasterly corner of land of Walsh; thence

Turning and running North 38° 27' East by said Walsh land 100 feet to the point of beginning.

Also including the pump house and well now situated on the above described premises.

Excepting and reserving herein the right of William Huber, his heirs and assigns to use in common with the grantees, their heirs and assigns, the existing right of way ingress and egress to and from land now or formerly of Huber's, his heirs and assigns, lying in a northerly and southerly directions from the parcel herein conveyed. Said right of way being part of the private

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

roadway from Sagamore Avenue, which passes through the premises hereby granted.

Subject to the water rights contained in the agreement between George D. and Marion B. Mavikis and William F. Huber dated April 11, 1955.

Meaning and intending to describe and convey the same premises conveyed to Homesales, Inc. d/b/a Homesales, Inc. of Delaware by Foreclosure Deed of JPMorgan Chase Bank, N.A. dated May 19, 2011 and recorded in the Rockingham County Registry of Deeds at Book 5218, Page 1172.

Executed this 10 day of June, 2011.



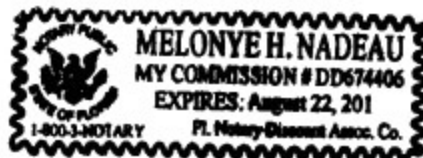
HOMESALES, INC. d/b/a HOMESALES, INC. OF DELAWARE

By: [Signature]
Print Name: April Lyn Savitch
Title: Vice President

STATE OF Florida
COUNTY OF Duval

The foregoing instrument was acknowledged before me this 10 day of June, 2011, by April Lyn Savitch, Vice President, of Homesales, Inc. d/b/a Homesales Inc. of Delaware

[Signature]
Notary Public
Printed Name:
My Commission Expires:



020359



WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS THAT WE, JEFFREY R. CROTEAU AND DENISE A. CROTEAU, husband and wife, of 241 Walker Bungalow Road, Portsmouth, New Hampshire, 03801

For consideration paid, grant to **DENISE A. CROTEAU, TRUSTEE OF THE DENISE A. CROTEAU REVOCABLE TRUST, u/t/d dated June 5, 2014**, of 241 Walker Bungalow Road, Portsmouth, New Hampshire, 03801

With Warranty covenants the following described premises situate in Portsmouth, Rockingham County, New Hampshire:

A certain tract of real property with the buildings thereon situated in Portsmouth, County of Rockingham and State of New Hampshire and described as follows:

Unit #1 of Sagamore Landing Condominium, a Condominium located in Portsmouth, County of Rockingham and State of New Hampshire, as established by Joseph G. Sawtelle, Trustee of Sagamore Landing Trust, pursuant to NH RSA 356-B by Declaration dated August 20, 1993, and recorded in the Rockingham County Registry of Deeds on August 24, 1993, at Book 3002, Page 251, as may be amended from time to time.

Conveyed also with said Unit is the exclusive right to use certain Limited Common Areas as designated and described in said Declaration as Limited Common Areas and/or shown on the Site Plans for Sagamore Landing Condominium recorded in said Registry as Plan D-22410.

The Limited Common Lot Area designated and reserved to Unit #1 as shown on the aforesaid Site Plan D-22410 is hereby expressly assigned to and reserved for the sole and exclusive use and enjoyment of Unit #1, subject to the statements and restrictions set forth in the Condominium Instruments, No Limited Common Area, including without limitation, the Limited Common Area, shall be reassigned without the consent of the Unit Owner(s) affected thereby and without complying with RSA 356-B:19, as amended from time to time.

The boundaries of said Unit being shown on the Site Plan by Ambit Survey entitled "Site Plans for Sagamore Landing Condominium for Sagamore Landing Trust, Walker Bungalow

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ROCKINGHAM COUNTY
 REGISTRY OF DEEDS

Road, Portsmouth, N.H., County of Rockingham,” Sheets 1 and 2, which Plan is dated July 1993, rev. August 17, 1993 and August 20, 1993, and is recorded in the Rockingham County Registry of Deeds as Plan D-22410, and Floor Plans showing the residential dwelling and improvements thereon, which Floor Plans shall be recorded by the Grantee in compliance with RSA 356-B.

Said Unit is hereby conveyed together with an equal undivided interest in the Common Area and facilities appurtenant to said Unit as provided in the Declaration together with the right to use the same in common with others entitled thereto.

Excepting and reserving all utility easements of record.

Said Unit is hereby conveyed subject to the restrictions, conditions and other provisions of the Site and Floor Plans, Condominium Declaration, Bylaws and Rules and Regulations adopted hereunder for Sagamore Landing Condominium, all as amended or may hereunder for Sagamore Landing Condominium, all as amended or may be amended from time to time. Said Unit is acquired with the benefit of and subject to the provisions of NH RSA 356-B relating to the unit ownership of real property as the Statute is written as of the date hereof and as it may in the future be amended.

The Grantee by executing this deed, herein below acknowledge that they have read and understood the Condominium Instruments for Sagamore Landing Condominiums and agree to be bound by and comply with the terms, covenants, conditions and restrictions in said Condominium Instruments as amended or as may be amended, the provisions of RSA 356-B and the Rules and Regulations now or hereinafter enacted by said Condominium Association. Grantee further agrees that it shall pay all charges, liens, and other such Condominium assessments as may accrue against the within described Condominium Unit promptly when said charges, liens and assessments are due and owing, and agrees to record said floor plans as required under RSA 356-B.

Being the same premises described in deed of Paul J. Healy and Joanne H. Healy to Jeffrey R. Croteau and Denise A. Croteau dated May 7, 2007, recorded in Rockingham County Registry of Deeds, Book 4801, Page 348.


Subject to a prior mortgage given to MERS dated August 28, 2012, recorded in Rockingham County Registry of Deeds, Book 5353, Page 80.

Grantors hereby release all rights of homestead and other interests therein.

This is a non-contractual transfer pursuant to NH RSA 78-B:II.

Signed this 5th day of June, 2014.


Jeffrey R. Croteau


Denise A. Croteau

STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY

Personally appeared this 5th day of June, 2014, Jeffrey R. Croteau and Denise A. Croteau, who acknowledged that they executed the foregoing instrument as their free act and deed for the purposes contained herein.

Before me,


Charles A. Griffin Notary Public



My commission expires: 11/20/18



2015 JAN 26 AM 11:48

FIDUCIARY DEED

KNOW ALL PERSONS BY THESE PRESENTS that I, **GARY W. HOLMES, TRUSTEE UNDER THE GERALDINE W. WEBBER REVOCABLE TRUST DATED MAY 2, 2012**, having an address of 47 Winnacunnet Road, Hampton, New Hampshire 03842, by the power conferred by the said trust instrument and by order of the 7th Circuit - Probate Division – Dover, and every other power, for consideration paid, grants to **GREGORY C. DESISTO AND SANDRA M. DESISTO**, husband and wife, as joint tenants with rights of survivorship, of 77 Abigale Lane, New Castle, New Hampshire 03854, the following described premises:

PARCEL I:

A certain tract or parcel of land with the buildings thereon, located on Walker Bungalow Road, (a private way), Easterly of Sagamore Road, Portsmouth, County of Rockingham and State of New Hampshire, more particularly bounded and described in the deed from Harold H. Shaw to James Varotsis and Veronica Varotsis dated May 7, 1973 and recorded in the Rockingham County Registry of Deeds at Book 2204, Page 1024.

PARCEL II:

A certain parcel of land with the buildings thereon, located in Portsmouth, County of Rockingham and State of New Hampshire, lying on the southeasterly side of Walker Bungalow Road (a private right of way) leading in a northeasterly direction from Sagamore Avenue and bounded and described in the deed from Nellie D. Shaw to James Varotisis and Veronica Varotsis dated May 7, 1973 and recorded in Rockingham County Registry of Deeds at Book 2204, Page 1026.

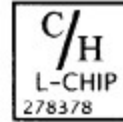
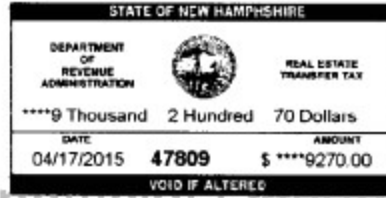
See Plan No. C-6463.

Reserving and excepting from the above described parcels:

A certain tract or parcel of land located on Walker Bungalow Road, Portsmouth, County of Rockingham and State of New Hampshire, as more particularly described in the deed from James Varotisis and Veronica Varotisis to Charles R. Dolan and Jeanette F. Dolan

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS



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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2015 Apr 17 PM 02:02

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS THAT I, HARRISON ALAN WORKMAN, single and not a party to a civil union, of 912 Sagamore Avenue, Portsmouth, Rockingham County, New Hampshire, 03801

For consideration paid, grant to **HEIDI S. RICCI, TRUSTEE OF THE HEIDI S. RICCI REVOCABLE TRUST**, u/t/d dated November 3, 2005, of 19 Taft Road, Portsmouth, New Hampshire, 03801

With Warranty covenants the following described premises situate in Portsmouth, Rockingham County, New Hampshire:

A certain lot or parcel of land, with the buildings and improvements thereon, if any, lying southwesterly, but not adjacent thereto, Sagamore Avenue, in Portsmouth, County of Rockingham and State of New Hampshire, shown as Lot 2 on a plan of land entitled, "Subdivision Plan of Harrison and Frances Workman, Portsmouth, NH" by Barry W. Kimball Land Surveyor Stratham, N.H., dated September, 1979, recorded in the Rockingham County Registry of Deeds as Plan No. C-9014, bounded and described as follows:

Beginning at the northeasterly corner of the within premises at land now or formerly of Robert Simpson, thence running S 39° 28' E, 13.3 feet to a point; thence turning and running S 30° 36' W, 130.0 feet to a point; thence turning and running S 43° 57' E by land now or formerly of Harrison A. Workman and Colleen J. Workman 220.0 feet to a point; thence turning and running N 45° 50' E 105.4 feet to a point on Sagamore Creek; thence turning and running easterly along Sagamore Creek a distance of 457 +/- feet to a point; thence turning N 43° 57' W by land now or formerly Neil Eldredge a distance of 544 +/- feet to a point; thence turning and running N 30° 36' E a distance of 144.0 feet to the point of beginning.

Also, the right to use in common with others a 25 foot right-of-way leading from Sagamore Avenue, the center line of said right-of-way being described as follows:

Beginning at a point on said Sagamore Avenue 160 feet, more or less, southerly from the northeasterly corner of land now or formerly of Garland W. Patch, Jr. and running S 53° 31' W, 172 feet and continuing S 30° 36' W, 144 feet to a point; thence S 43° 57' E, 220 feet, more or less, to the parcel of land described herein. Said premises

are conveyed subject to the use of said right-of-way by others so far as any part of said right-of-way lies on land hereby conveyed.

Also the right to lay, maintain, repair and renew a water pipe as now existing from Sagamore Avenue to the building on said premises.

Said land is shown on a certain unrecorded plan entitled, "Division of Land, Portsmouth, N.H. for Garland W. Patch, Jr.," dated December, 1953, by John W. Durgin.

Being the same premises conveyed by deed of Harrison H. Workman dot Harrison Alan Workman dated May 10, 2006, recorded in the Rockingham County Registry of Deeds, Book 4657, Page 1221.

Signed this 17th day of April, 2015.

Harrison Alan Workman
Harrison Alan Workman

STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY

Personally appeared this 17th day of April, 2015, Harrison Alan Workman, who acknowledged that he executed the foregoing instrument as his free act and deed for the purposes contained herein.

Before me,

Charles A. Griffin
Charles A. Griffin, Notary Public

My commission expires: 11/20/18



E 14185

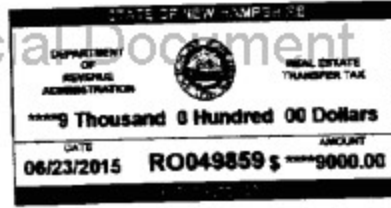
ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Return to:

MAIL TO

Hoefle, Phoenix, Gormley & Roberts, P.A.
Attorneys At Law
127 Parrott Avenue, P.O. Box 4480
Portsmouth, NH 03802-4480

BK 5629 PG 0040



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2015 JUN 23 PM 12:08

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that, **Rye Corner Gas, LLC**, a New Hampshire limited liability company, with a mailing address of 1000 Market Street, Portsmouth, New Hampshire, 03801, (the "Grantor"), for consideration paid, grants to **Wentworth-Sagamore, LLC**, a New Hampshire limited liability company, with a mailing address of 2 International Drive, Suite 301, Portsmouth, New Hampshire, 03801, with Warranty Covenants the following described premises:

A certain lot or parcel of land with the building thereon, situated at the corner of Sagamore Avenue and Wentworth Road in Portsmouth, New Hampshire, bounded and described as follows:

Commencing at a stake in the ground at the Southwest corner of said parcel on Sagamore Avenue at the junction of said Sagamore Avenue and land now or formerly of Charlotte Cooper, and running along said Sagamore Avenue N 0° 19' W a distance of 159.2 feet to Wentworth Road; thence turning and running along said Wentworth Road N 86° 30' E a distance of 157.5 feet to an iron pipe at land now or formerly of Cassius Ireland; thence turning and running by said Ireland land S 3° 30' W a distance of 134.1 feet to a stake in the ground; thence turning and running by land of Charlotte Cooper S 83° 53' W a distance of 149 feet to the point of beginning.

Subject to a perpetual easement to keep and maintain a sign, as more fully set forth in an Easement Deed, recorded in the Rockingham County Registry of Deeds at Book 5625, Page 1745.

Meaning and intending to convey the same premises as conveyed to the within Grantor by Trust's Deed/Quitclaim Deed of John C. Turner, in his capacity as Trustee in bankruptcy for Chris G. Moore, d/b/a Wentworth Mobile Service Center, Inc., recorded on September 18, 2002, at Book 3841, Page 156 of the Rockingham County Registry of Deeds.

This is not homestead property of the Grantor herein.

Return to:

MAIL TO

Hoefle, Phoenix, Gormley & Roberts, P.A.
Attorneys At Law
127 Parrott Avenue, P.O. Box 4480
Portsmouth, NH 03802-4480

BK 5629 PG 0040



025899

Unofficial Document Unofficial Document Unofficial Document

WARRANTY DEED

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Subject to a perpetual easement to keep and maintain a sign, as more fully set forth in an Easement Deed, recorded in the Rockingham County Registry of Deeds at Book 5625, Page 1745.

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This is not homestead property of the Grantor herein.

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

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MAIL TO

Please return to:
David C. Witham
238 Walker Bungalow Road
Portsmouth, NH 03801



Unofficial Document Unofficial Document Unofficial Document

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS That, We, **David C. Witham** and **Margaret S. Witham**, husband and wife, with an address of 238 Walker Bungalow Road, Portsmouth, New Hampshire, for minimum consideration paid, hereby grant to **David C. Witham, Trustee of The David C. Witham Revocable Trust of 2009 u/d/t dated October 27, 2009** with an address of 238 Walker Bungalow Road, Portsmouth, New Hampshire, with Quitclaim Covenants,

A certain tract of real property with the buildings thereon located in the Sagamore Landing Condominium situated in the City of Portsmouth, County of Rockingham, State of New Hampshire, more particularly described as follows:

Unit # 4 of Sagamore Landing Condominium as established by Joseph G. Sawtelle, Trustee of Sagamore Landing Trust, pursuant to NH RSA 356-B by Declaration dated August 20, 1993, and recorded in the Rockingham County Registry of Deeds dated August 24, 1993 in Book 3002, Page 251 and may be amended from time to time.

Conveyed also with said Unit is the exclusive right to use certain Limited Common Areas as designated and described in said Declaration as Limited Common Areas and/or shown on the Site Plans for Sagamore Land for Sagamore Landing Condominium recorded in said Registry as Plan D-22410.

The Limited Common Lot Area designated and reserved to Unit # 4 as shown on the aforesaid Site Plan D-22410 is hereby expressly assigned to and reserved for the sole and exclusive use and enjoyment for Unit 4, subject to easements and restrictions set forth in the Condominium Instruments. No Limited Common Area, including, without limitation, the Limited Common Lot Area, shall be reassigned without the consent of the Unit Owner(s), affected thereby and without complying with RSA 356-B:19 as amended from time to time.

The boundaries of said Unit being shown on the Site Plan by Ambit Survey entitled "Site Plans for Sagamore Landing Condominium for Sagamore Landing Trust, Walker Bungalow Road, Portsmouth, N.H., County of Rockingham". Sheets 1 and 2, which Plan is dated July 1993, rev.

Unofficial Document Unofficial Document Unofficial Document

August 17, 1993 and August 20, 1993, as recorded in the Rockingham County Registry of Deeds as Plan D-22410, also being shown on the Floor Plans by Ambit Survey entitled "Floor Plan, Sagamore Landing Condominium Unit 4, for Sagamore Landing Trust, 238 Walker Bungalow Road, Portsmouth, N.H. County of Rockingham", which is dated August 1993, and recorded in the Rockingham County Registry of Deeds as Plan C-22411.

Meaning and intending to convey the same premises conveyed by deed of David C. and Margaret S. Witham dated March 11, 2009 as recorded in the Rockingham County Registry of Deeds in Book 4994, Page 0090.

The undersigned Grantors hereby release to said Grantee all rights of homestead and other interests therein.

NO TRANSFER STAMPS REQUIRED.


THIS IS A NON-CONTRACTUAL TRANSFER PURSUANT TO NH RSA 78-B:2 IX.

This Deed was prepared for Estate Planning purposes without the benefit of a title exam.

Executed this 18th day of August, 2015.



David C. Witham



Margaret S. Witham

COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

On this 18th day of August, 2015 the above named David C. Witham and Margaret S. Witham personally appeared and acknowledged that the foregoing instrument to be their free act and deed.

Before me,





Notary Public



WARRANTY DEED

KNOW EVERYONE BY THESE PRESENTS that I, J.P. Nadeau, of 507 State Street, Portsmouth, County of Rockingham and State of New Hampshire (hereinafter referred to as "Grantor"), for consideration paid grants to Sea Level LLC, of 185 Wentworth Road, Portsmouth, County of Rockingham and State of New Hampshire (hereinafter referred to as "Grantee"), with **WARRANTY COVENANTS**, all of Grantor's right, title and interest in the following described property, none of which is homestead property.

LEGAL DESCRIPTION

Parcel 1: A certain tract or parcel of land, with buildings located thereon, in Portsmouth, New Hampshire, bounded and described as follows:

Beginning at a point in the Northerly sideline of Wentworth House Road at the Southeasterly corner of land now or formerly of William F. Huber, thence running N 27° 10' E by land of said Huber one hundred fifty-six and six tenths (156.6) feet to a corner; thence turning and running S 79° 08' E by land now or formerly of Philip A. and Anita M. Hayes one hundred forty (140) feet, more or less, to Sagamore Creek; thence turning and running Southeasterly by said creek to land formerly of Michael and Dunya D. Kuchtey; thence turning and running S 15° 38' W by land of said Kuchtey about one hundred sixty (160) feet to Wentworth House Road; thence turning and running N 74° 22' W by said road one hundred eighty-seven and five tenths (187.5) feet to the point of beginning.

Subject to all covenants and conditions contained in deed of Wentworth Hotel, Inc., to Michael Kuchtey and Dunya D. Kuchtey, dated November 10, 1958 and recorded in the Rockingham County Registry of Deeds at Book 1487, Page 419.

Parcel 2: A certain lot or parcel of land together with the buildings located thereon, situate in Portsmouth, County of Rockingham, State of New Hampshire, on the Northerly side of Wentworth House Road, so-called, and more particularly bounded and described as follows:

Beginning at a point at the Southwesterly corner of land now or formerly of one Apostolides at the Southeasterly corner of the premises herein conveyed thence running in a Westerly direction by said Wentworth House Road one hundred eighty-three (183) feet to a point at land now or formerly of Sadie P. Gouse; thence turning and running at right angles in a general Northerly direction by said land of Gouse one hundred forty-four and fifty-eight hundredths (144.58) feet, more or less, to Sagamore Creek; thence turning and running in a general Easterly direction, following the course of said Sagamore Creek, to the Northwesterly corner of land of said Apostolides; thence turning and running in a Southerly direction by said

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Apostolides land one hundred seventy-five (175) feet, more or less, to said Wentworth House Road and the point of beginning.

Parcel 3: A certain parcel of land, with the buildings thereon, situate in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at the Southwesterly corner of the parcel conveyed at a point in the Northerly sideline of Wentworth House Road; thence running North 09° 50' East by other land now or formerly of said Sadie Gouse about 210 feet to Sagamore Creek; thence turning and running in a general Easterly direction by said Creek to a point distant 150 feet Easterly at right angles from the first described course; thence turning and running South 09° 50' West by other land of said Sadie Gouse about 250 feet to Wentworth House Road; thence turning and running Westerly by said road about 150 feet to the point of beginning.

Also another parcel of land with the buildings thereon situated in said Portsmouth, and bounded and described as follows:

Beginning at a point on the Northerly side of Wentworth House Road at the Southeasterly corner of other land of this grantor; thence running North 09° 50' East by other land of this grantor about 185 feet to Sagamore Creek; thence running Easterly by said Creek about 40 feet to land conveyed to Nicholas Pesarik; thence turning and running South 22° 35' West by said land conveyed to said Pesarik passing through a drill hole in a ledge about 180 feet to Wentworth House Road and the point of beginning.

Parcel 4: A certain tract or parcel of land, together with the buildings thereon, situated on the Northerly side of Wentworth House Road in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at a hub in the ground on the Northerly side of said road and at the Southwesterly corner of land now or formerly of Joseph LaCava thence turning and running North 69° 09' West by said Wentworth House Road 119.2 feet to land now or formerly of Peter and Florence Apostolides; thence turning and running North 22° 35' East by other land now or formerly of Sadie P. Gouse and passing through a drill hole in a ledge about 180 feet to Sagamore Creek; thence running in a general Southerly and Easterly direction by said Creek to land of Joseph LaCava; thence turning and running South 23° 26' West by land of said LaCava about 104 feet to Wentworth House Road and the point of beginning.

Parcel 5: A certain tract of land, with the buildings thereon, situate in Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at a hub on the Northerly side of Wentworth House Road at land now or formerly of Sadie P. Gouse; thence running North 23° 26' East by land now or formerly of Gouse to Sagamore Creek; thence turning and running Northeasterly by said creek to land now or formerly of Henry Chartrand; thence turning and running South 26° 30'

West by land now or formerly of said Chartrand to said Wentworth House Road; thence turning and running $66^{\circ} 34'$ West by said road seventy five (75) feet to the point of beginning.

See also boundary agreement between Michael Kuchtey and Dunya D. Kuchtey and Ronald F. Eagan and Anne M. Eagan, dated June 17, 1968 and recorded in the Rockingham County Registry of Deeds at Book 1772, Page 192, as said agreement may affect the above description.

Parcels 1, 2, 3, 4 and 5 are also collectively depicted as one parcel located on the northerly side of Wentworth House Road on a plan entitled, "Plan of Land for Michael Kuchtey Revocable Trust, Wentworth Road, County of Rockingham, Portsmouth/Rye, NH, Scale 1"=50", by Millette, Sprague & Colwell, Inc., dated March 25, 1999 and recorded in the Rockingham County Registry of Deeds on July 20, 1999 as Plan Number D-27320, which parcel is bounded and described as follows"

Beginning at an iron rod on the Northerly sideline of Wentworth House Road at the Southeasterly corner of the within described parcel and the Southwesterly corner of land now or formerly of the B.R. Graves, Jr. Revocable Trust of 1992; thence running along the Northerly sideline of Wentworth House Road the following courses and distances: North $68^{\circ} 01' 00''$ West for a distance of 75.00 feet to a point; North $70^{\circ} 36' 00''$ West for a distance of 119.20 feet to a point; North $75^{\circ} 07' 00''$ West for a distance of 150.97 feet to a point; North $78^{\circ} 31' 34''$ West for a distance 187.01 feet to a point; and North $75^{\circ} 19' 24''$ West for a distance 187.50 feet to an iron rod at the Southeasterly corner of land now or formerly of Michael A. Kuchtey; thence turning and running North $26^{\circ} 12' 36''$ East along land of said Kuchtey for a distance of 156.60 feet to an iron pipe at land now or formerly of Lawrence E. Hayes; thence turning and running South $80^{\circ} 05' 24''$ East along land of said Hayes for a distance of 140.00 feet to a point at the high water mark of Sagamore Creek; thence running in a Southeasterly direction along said high water mark (on a tie course of South $86^{\circ} 48' 59''$ East for a distance of 174.75 feet); thence turning and running on a Northeasterly direction along said high water mark (on a tie course of North $72^{\circ} 48' 54''$ East for a distance of 137.81 feet); thence turning and running in a Southeasterly direction along said high water mark (on tie courses of South $43^{\circ} 01' 00''$ East for a distance of 80.94 feet; South $21^{\circ} 22' 41''$ East for a distance of 80.31 feet; and South $68^{\circ} 07' 25''$ East for a distance of 106.49 feet); thence turning and running in a Northeasterly direction along said high water mark (one a tie course of North $79^{\circ} 28' 21''$ East for a distance of 81.44 feet) to a point at land now or formerly of The B.R. Graves, Jr. Revocable Trust of 1992; thence turning and running South $25^{\circ} 03' 00''$ West along said Graves Trust land for a distance of 198.00 feet to the point of beginning.

Parcel 6: A certain parcel of land, with any buildings thereon, located on Wentworth Road, Portsmouth, County of Rockingham, State of New Hampshire, more particularly described follows:

Beginning at a point in the Southerly sideline of Wentworth Road, said point being two hundred eleven and eighteen hundredths (211.18) feet Easterly of the Northeast corner of

land now or formerly of Herman Odiorne; thence running South 19° 59' West by land of Ronald F. Eagan and Anne M. Eagan one hundred and no-tenths (100.00) feet to a corner; thence turning and running North 69° 09' West by land now or formerly of the Michael Kuchtey Revocable Trust dated July 2, 1996 seventy and no-tenths (70.0) feet to a corner; thence turning and running North 19° 59' East by other land now or formerly of said Kuchtey Trust one hundred and no-tenths (100.) feet to said Wentworth Road; thence turning and running South 69° 09' East by said road seventy and no-tenths (70.0) feet to the point of beginning.

See also boundary agreement between Michael Kuchtey and Dunya D. Kuchtey and Ronald F. Eagan and Anne M. Eagan, dated June 17, 1968 and recorded in Rockingham Registry of Deeds at Book 1772, Page 192 as said agreement may affect the above description.

Parcel 6 is also depicted as one parcel located on the Southerly side of Wentworth House Road on a plan entitled, "Plan of Land for Michael Kuchtey Revocable Trust, Wentworth Road, County of Rockingham, Portsmouth/Rye, NH, Scale 1"=50", by Millette, Sprague & Colwell, Inc. dated March 25, 1999 and recorded in the Rockingham County Registry of Deeds on July 20, 1999 as Plan Number D-27320, which parcel is bounded and described as follows:

Beginning at an iron rod on the Southerly sideline of Wentworth House Road at the Northeasterly corner of the within described parcel and the Northwesterly corner of land now or formerly of The B.R. Graces, Jr. Revocable Trust of 1992; thence running South 19° 59' 00" West along said Graves Trust land for a distance of 100.00 feet to an iron rod; thence turning and running North 69° 09' 00" West along Parcel 2 above-described for a distance of 70.00 feet to an iron rod; thence turning and running North 19° 59' 00" East along Parcel 2 above-described for a distance of 100.00 feet to an iron rod on the Southerly sideline of Wentworth House Road; thence turning and running South 69° 09' 00" East along the Southerly sideline of said Wentworth House Road for a distance of 70.00 feet to the point of beginning.

Parcel 7: Two certain tracts of land together with any buildings thereon, partly in Portsmouth and partly in Rye, County of Rockingham, State of New Hampshire, further described as follows:

TRACT I:

Beginning at a pipe in the Southerly sideline of Wentworth Road at the Northeasterly corner of land now or formerly of Herman Odiorne, said pipe being also one hundred thirty-four (134) feet more or less Easterly of land now or formerly of the Mark Wentworth Home for Chronic Invalids; thence running South 76° 35' East one hundred twenty-six and twenty-three one-hundredths (126.23) feet to an iron pin at land now or formerly of Andrew J. and Kathleen P. DeLisle; thence turning and running South 19° 59' West one hundred (100) feet, more or less, by land of said DeLisle to an iron pin at a corner; thence turning and running South 69° 9' East by land of said DeLisle seventy (70) feet, more or less, to an iron pin at the Southeasterly corner of said land of DeLisle and in the Westerly sideline of land now or formerly of Paul F. and Ruth G. Brockway; thence turning and running South 19° 59' West by land of said Paul F. and Ruth O. Brockway

one hundred thirty-one (131) feet, more or less, to a pipe at a corner; thence turning and running South $89^{\circ} 49'$ West by a proposed street or way two hundred twenty-five (225) feet to a pipe at a corner in said proposed street or way; thence turning and running South $0^{\circ} 11'$ East fifty (50) feet to a pipe in the Southerly line of said proposed street or way; thence turning and running South $89^{\circ} 49'$ West one hundred thirty-six and eighty-four one-hundredths (136.84) feet to a pipe in the Easterly sideline of the said Mark Wentworth Home for Chronic Invalids land; thence turning and running N $16^{\circ} 45'$ East along said Mark Wentworth Home for Chronic Invalids two hundred fifty-five (255) feet to a pipe in the Southerly line of land of said Herman Odiorne; thence running and running South $76^{\circ} 35'$ East along land of said Herman Odiorne one hundred thirty four (134) feet to the Southeasterly corner of land of said Odiorne; thence turning and running North $16^{\circ} 45'$ East along land of said Herman Odiorne one hundred twenty (120) feet to the pipe in the Southerly sideline of Wentworth Road at the point of beginning.

TRACT II:

Beginning at a pipe situated one hundred twenty (120) feet Southerly of the Southerly line of Wentworth Road, said distance being measured along the Easterly sideline of land now or formerly of the Mark Wentworth Home for Chronic Invalids, thence turning and running South $16^{\circ} 45'$ West two hundred fifty-five (255) feet along said land of Mark Wentworth Home for Chronic Invalids to a pipe at a corner in the conveyed premises; thence turning and running North $89^{\circ} 45'$ East along land now or formerly of Helen Mulcahy one hundred thirty-six and eighty-four one hundredths (136.84) feet to a pipe at a corner in the conveyed premises; thence turning and running North $0^{\circ} 11'$ West fifty (50) feet to a pipe at a corner in the conveyed premises; thence turning and running North $89^{\circ} 49'$ East along a proposed street or way seventy-five (75) feet to a pipe at a corner in the conveyed premises; thence turning and running North $0^{\circ} 11'$ West along other land herein conveyed one hundred (100) feet to a pipe at a corner in the conveyed premises; thence turning and running South $89^{\circ} 49'$ West along other land herein conveyed seventy-five (75) feet to a pipe at a corner in the conveyed premises; thence turning and running North $0^{\circ} 11'$ West along other land herein conveyed seventy-eight and eighty-three one hundredths (78.83) feet to a pipe at land now or formerly of Herman Odiorne; thence turning and running North $76^{\circ} 35'$ West along land now or formerly of said Hermand Odiorne sixty-four and thirty-five one hundreds (64.35) feet to the pipe at the place of beginning.

Meaning and intending to convey hereby lots No. 1 and No. 2 on a plan entitled "Plan showing property of Blanche M. Chartrand – Surveyed by Moulton Engineering Co., September 1953 and June 1955."

Also hereby conveying to the grantees, their heirs and assigns, the right to use in common with others a certain right of way as shown on said foregoing plan which runs from Wentworth Road Southerly and Westerly to and from land formerly of Frank Jones and now or formerly of Helen Mulcahy, said right of way adjoining said lots No. 1 and No. 2 in part and running to and from said Wentworth Road, with the right to use such right of way in common with others for all such purposes as may be necessary or useful for the use and occupation of the land hereby conveyed, in common with said Blanche M. Chartrand, her heirs and assigns.

See also boundary agreement between the Michael Kuchtey and Dunya D. Kuchtey and Ronald F. Eagen and Anne M. Eagen, dated June 17, 1968 and recorded in Rockingham Registry of Deeds at Book 1772, Page 192 as said agreement may affect the above description.

Parcel 7 is also depicted as one parcel located on the Southerly side of Wentworth House Road on a plan entitled, "Plan of Land for Michael Kuchtey Revocable Trust, Wentworth Road, County of Rockingham, Portsmouth/Rye, NH, Scale 1"=50", by Millette, Sprague & Colwell, Inc., dated March 25, 1999 as Plan Number D-27320, which parcel is bounded and described as follows:

Beginning at an iron rod on the Southerly sideline of Wentworth House Road at the Northwesterly corner of the within described parcel and the Northeasterly corner of land now or formerly of Gertrude A. Lamont; thence running South 76° 35' 00" East along the Southerly sideline of Wentworth House Road for a distance of 126.33 feet to a point; thence continuing South 69° 09' 00" East along said Wentworth House Road for a distance of 14.95 feet to an iron rod at the Northwesterly corner of land identified as Map R1, Lot 17 on the above-referenced plan; thence turning and running South 19° 59' 00" West along said Map R1, Lot 17 for a distance of 100.00 feet to an iron rod; thence turning and running South 69° 09' 00" East along said Map R1, Lot 17 for a distance of 70.00 feet to an iron rod at land now or formerly of The B.R. Graves, Jr. Revocable Trust of 1992; thence turning and running South 19° 59' 00" West along said Graves Trust land and land now or formerly of Bruce and Joanna Graves, and crossing the Portsmouth/Rye Town Line, for a distance of 131.00 feet to a point; thence turning and running South 89° 49' 00" West along land of said Graves and land now or formerly of Edmund J. and David L. Mulcahy, and crossing the Portsmouth/Rye Town Line for a distance of 225.00 feet to a point; thence turning and running South 00° 11' 00" East along said Mulcahy land for a distance of 50.07 feet to a point; thence turning and running South 89° 45' 15" West along said Mulcahy land for a distance of 136.81 feet to an iron pipe at land now or formerly of the City of Portsmouth Conservation Commission; thence turning and running North 16° 45' 00" East along said Conservation Commission land for a distance of 173.80 feet to an iron pipe; thence continuing North 16° 46' 51" East still along said Conservation Commission land for a distance of 80.99 feet to an iron pipe at land now or formerly of Gertrude A. Lamont; thence turning and running South 76° 40' 24" East along said Lamont land for a distance of 133.97 feet to an iron rod; thence turning and running North 16° 45' 00" East still along said Lamont land for a distance of 120.00 feet to the point of beginning.

Meaning and intending to convey all of the parcels of land with the buildings thereon as bounded and described in the deed from Witch Cove Properties, LLC to William H. Shaheen, et al dated December 17, 2002, recorded in the Rockingham County Registry of Deeds at Book 3922, Page 1165, the Grantor having acquired all right title and interest in said land and buildings by the following Warranty Deeds:

Deed of Priscilla Dalrymple, Trustee of the Walter G. Stanley Revocable Trust of 1994 to J.P. Nadeau dated April 13, 2006, recorded in the Rockingham County Registry of deeds at Book

4648, Page 0685;

Deed of William H. Shaheen to J.P. Nadeau dated April 17, 2006, recorded in the Rockingham County Registry of Deeds at Book 4648, Page 0686; and

Deed of Bruce E. Nadeau to J.P. Nadeau dated April 11, 2006 recorded in the Rockingham County Registry of Deeds at Book 4648, Page 0687;

This Conveyance Is Subject To The Following Conditions, Restrictions And Encumbrances:

- a.) By accepting this Deed, the Grantee is accepting conveyance of the premises in its "as is" condition and without Grantor's warranting compliance with any zoning, land use and other governmental laws, rules and regulations, and particularly those governing the United States Environmental Protection Agency (USEPA) and the State of New Hampshire Department of Environmental Services (NHDES); and
- b.) By accepting this Deed, the Grantee is also accepting the responsibility for completing any and all USEPA and NHDES remediation requirements and will accept any Deed Notice provision they may require; and
- c.) The free use of one boat slip reserved to William H. Shaheen of 140 Washington Street, Second Floor, Dover, New Hampshire, for the duration of his life, for a boat not in excess of thirty (30) feet in length, which use he can assign for the use of others during his life.

Witness my hand this 15 day of August, 2016



Witness




J.P. Nadeau

**STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY**

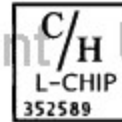
Dated: August 15, 2016

PERSONALLY APPEARED the above named, J.P. Nadeau, and gave oath that the foregoing subscribed to by him is his own free act and deed, Before me;



Notary Public / Justice of the Peace
Commission Expires: 5/9/17
Michelle Lagun

Return to:



E 59269

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2016 Dec 21 PM 01:33

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that Paul W. Cain Investments, LLC, a New Hampshire limited liability company, with an address of 19 Revolutionary Lane, Nottingham NH 03290, for consideration paid grant(s) to Jason Goulemas, Trustee of the Jason Goulemas 2002 Family Trust and Lisa M. Goulemas, Trustee of the Lisa M. Goulemas 2002 Family Trust, with an address of 1 Phillips Cove Road, Cape Neddick, ME 03902, as tenants in common, with WARRANTY COVENANTS:

A certain tract or parcel of land with the buildings thereon situate in Portsmouth, Rockingham County, State of New Hampshire, and further bounded and described as follows:

Beginning at a hub in the ground on the easterly side of a private roadway leading from Sagamore Avenue in said Portsmouth through land now or formerly of William F. Huber known as Sagamore Grove and at a point bearing S 14° 34' W a distance of thirty-one and eight-tenths (31.8) feet from a hub at the southeasterly corner of land of Leroy Terrio; thence running S 65° 10' E by other land now or formerly of said William F. Huber two hundred six and four-tenths (206.4) feet to a hub; thence turning and running S 41° 52' W, a distance of ninety (90) feet to a hub at other land now or formerly of said Huber; thence turning and running N 79° 08' W by other land now or formerly of said Huber one hundred ninety-seven and three-tenths (197.3) feet to a hub at the private roadway aforesaid; thence turning and running N 29° 44' E by said private road one hundred thirty-four and two-tenths (134.2) feet to the point of beginning. Together with the land lying easterly of the above described parcel including between the northerly and southerly sidelines of the parcel projected easterly to the cove, so-called.

Right of way over Private Roadway from Sagamore Avenue to the premises is hereby granted.

See also, Right of Way benefitting the within conveyed premises contained in deed of George D. Mavrikis and Marion B. Mavrikis to John B. Gibbons and Clarissa B. Gibbons, recorded in the Rockingham County Registry of Deeds, Book 1733, Page 8. Containing about 21,300 square feet.

Property address is 5 Sagamore Grove, Portsmouth New Hampshire, 03801

Meaning and intending to describe and convey the same premises conveyed to Paul W. Cain Investments, LLC by deed dated February 19, 2015 and recorded in the Rockingham County Registry of Deeds in Book 5595, Page 2404.

Executed this 21st day of December, 2016.

E 59269

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Paul W. Cain Investments, LLC



Paul W. Cain
Duly authorized Member

State of New Hampshire
County of Rockingham

Then personally appeared before me on this 21st day of December, 2016, the said Paul W. Cain, who acknowledged himself to be the duly authorized Member of Paul W. Cain Investments, LLC and acknowledged the foregoing to be his voluntary act and deed in said capacity.



Notary Public/~~Justice of the Peace~~
Commission expiration:



MAIL TO

Return to:
Martin F. Kurowski
Christina Galli
212 Walker Bungalow Rd.
Portsmouth, NH 03801



WARRANTY DEED AND TRUSTEE'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS, THAT I, **Carl Anthony Young, Trustee of The Carl Anthony Young Trust of 2015** u/d/t dated May 29, 2015, of 357 Macbeth Drive, Charles Town, West Virginia 25414,

for consideration paid, grant to **Martin F. Kurowski and Cristina Galli**, a married couple, of 111 New Castle Avenue, New Castle, New Hampshire, 03854, as joint tenants with rights of survivorship,

with **WARRANTY COVENANTS**, the following described real estate:

A certain parcel of land with the buildings thereon, situate on the Southerly sideline of Walker Bungalow Road, Portsmouth, Rockingham County and State of New Hampshire, being more particularly described as follows:

Beginning at a spike at the Northwesterly corner of the within described parcel at land of Veronica Varotsis and thence running by Walker Bungalow Road in part and in part by a private road by the following five bounds, to wit: North 75° 16' East 150 feet, South 89° 37' East 50 feet, South 75° 54' East 50 feet, South 69° 56' East 34 feet and South 63° 33' East 34 feet to a spike at land of Ciotti; thence turning and running by other land of Ciotti in four bounds as follows: South 10° West 67.85 feet, South 16° 24' West 52.62 feet, South 26° 51' West 24.02 feet and South 06° 21' West 96.31 feet to a drill hole in a rock at the approximate high water line and Sagamore Creek; thence turning and running Southwesterly by said high water line and said Creek to other land of Varotsis and a stone wall; thence turning and running Northwesterly by other land of Varotsis and said wall to large rock (D.M.); and thence running still by Varotsis land and said wall North 25° 50' West 292.32 feet to Walker Bungalow Road and the point of beginning.

Being the same real estate conveyed to C. Anthony Young by Quitclaim Deed of Gordon F. Young and E. Louise Young dated April 26, 1999, and recorded in the Rockingham County Registry of Deeds at Book 3397, Page 849. E. Louise Young died in Portsmouth, New Hampshire, on April 9, 2015. This real estate is more particularly described in "Sketch of Property Gordon F. Young Portsmouth, NH Thomas F. Moran, Inc. CES May 1982" which is recorded in said Registry in Plan Book C-10917.

2017 OCT -2 PM 12: 14

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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Being the same real estate conveyed to the Grantor by deed of C. Anthony Young dated May 29, 2015, and recorded at the Rockingham County Registry of Deeds, Book 5624, Page 1431.

TRUSTEE CERTIFICATE PURSUANT TO NH R.S.A. 564-A:7 II

(1) The undersigned Trustee, Carl Anthony Young, is the current Trustee under The Carl Anthony Young Trust of 2015 u/d/t dated May 29, 2015, created by a certain Declaration of Trust, has full and absolute power in said trust agreement to convey any interest in real estate and improvements thereon held in said trust and no purchaser or third party shall be bound to inquire whether the Trustee has said power or is properly exercising said power or to see to the application of any trust asset paid to the Trustee for a conveyance thereof. (2) The Trustee has received all necessary or desirable direction from the beneficiaries of the trust agreement. (3) The trust agreement is a trust as defined by New Hampshire RSA 564-A:1 I, the trust has not been revoked and is still in full force and effect.

Dated this 29 day of September, 2017.

The Carl Anthony Young Revocable Trust of 2015

U Wald
Witness

By: Carl Anthony Young
Carl Anthony Young, Trustee

State of New Hampshire
Rockingham, SS.

September 29, 2017

Personally appeared the above-named Carl Anthony Young, both personally and as Trustee of The Carl Anthony Young Revocable Trust of 2015, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

Before me,

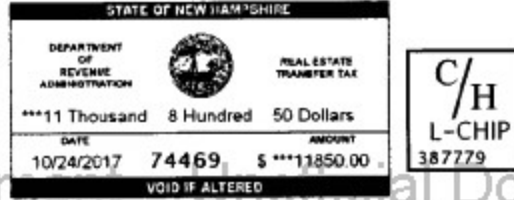
U Wald
Notary Public/Justice of the Peace



Return To: Stephen J. Zdravec and Jennifer Zdravec

7 Shaw Rd
Portsmouth, NH 03801

E 47170



WARRANTY DEED

KNOW ALL MEN BY THESE PRESENT: That John Pallazola and Claudia Pallazola, Husband and Wife, of 7 Shaw Road, Portsmouth, NH 03801, for consideration paid grant to Stephen J. Zdravec and Jennifer Zdravec, Husband and Wife, of 89 Diamond Drive, Portsmouth, NH 03801 , as joint tenants with rights of survivorship, with WARRANTY COVENANTS:

A certain tract or parcel of land with the buildings thereon, situate in Portsmouth, Rockingham County and State of New Hampshire, being known as Tax Map 223, Lot 16 as shown on a plan entitled "Standard Property Survey for property at 920 Sagamore Avenue, Rockingham County, Portsmouth, NH" by Easterly surveying, Inc., dated March 19, 2004, to be recorded with the Rockingham County Registry of Deeds as Plan #D-32504.

Beginning at a point on the Southwesterly corner of the lot to be described herein, said point being in the middle of Shaw Road, co-called; thence running N 25 degrees 27' 54" W along Sagamore Avenue, so-called, a distance of 14.43 feet to a railroad spike found; thence continuing at the same course, along said Avenue a distance of 165.00 feet to a 1/2" rebar found 3" high; thence turning and running N 68 degrees 44' 10" E along land now or formerly of Irene & Archie Greene, a distance of 85.00 feet, to a 1/2" rebar with cap found 12" high; thence turning and running S 25 degrees 27' 54" E along land now or formerly of Russell and Maureen Foster, a distance of 165.00 feet to a 1/2" rebar found 4" high; thence continuing S 25 degrees 27' 54" E, a distance of 10.89 feet to a railroad spike, to be set, in said Shaw Road; thence turning and running S 68 degrees 44' 10" W along said Shaw Road, a distance of 85.00 feet to a railroad spike to be set and being the point of beginning.

Subject to the right of ways as shown on the aforementioned plan.

The description above has been modified pursuant to the terms of the Settlement Agreement in the matter of John Pallazola v. Brian and Loreta Miller, recorded in the Rockingham County Registry of Deeds at Book 5540, Page 2065.

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2017 Oct 24 PM 01:11

7 Shaw Rd
Portsmouth, NH 03801


E 47170

Meaning and intending to describe and convey the same premises conveyed to John Pallazola and Claudia Pallazola by virtue of a Quitclaim deed from John Pallazola dated 02/03/2015 and recorded at the Rockingham County Registry of Deeds in Book 5593, Page 1617.

We, the grantors hereby release all rights of homestead in the above described premises.

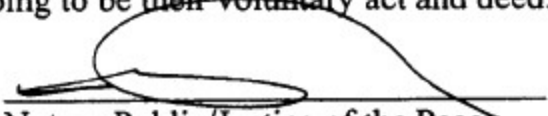
Executed this 23rd day of October, 2017.


John Pallazola


Claudia Pallazola

State of New Hampshire
County of Rockingham

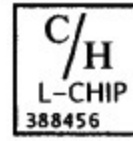
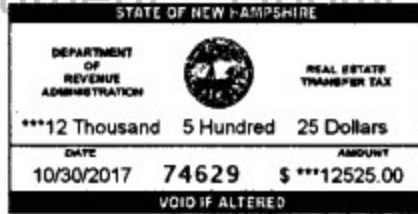
Then personally appeared before me on this 23rd day of October, 2017, the said John Pallazola and Claudia Pallazola and acknowledged the foregoing to be their voluntary act and deed.


Notary Public/Justice of the Peace
Commission expiration: 3/20/18



ROCKINGHAM COUNTY
REGISTRY OF DEEDS

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Unofficial Document Unofficial Document Unofficial Document Unofficial Document

E 48029

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS, That We, **Lawrence N. Ciotti**, a married man, of 12 Amber Trail, Town of Madison, County of New Haven, State of Connecticut and **Robert M. Ciotti**, a married man, of 40 Conifer Commons, City of Dover, County of Strafford, State of New Hampshire, for consideration paid, hereby grant to **Jon and Joan Dickinson**, husband and wife, of 137 Elwyn Avenue, City of Portsmouth, County of Rockingham, State of New Hampshire, as joint tenants with the right of survivorship with **WARRANTY COVENANTS** the following described premises:

A certain parcel of land together with the buildings thereon, and located on the southerly side of a road leading from Sagamore Avenue, in Portsmouth, Rockingham County, New Hampshire, and being more particularly bounded and described as follows:

Beginning at a large rock embedded in the northerly shoreline of Sagamore Creek and being the southwesterly corner of the within granted premises, and also being the southwesterly corner of land, now or formerly of Gordon Young; thence easterly along the shoreline of said Sagamore Creek to the southeasterly corner of land, now or formerly of Irving Stickney; thence northerly by said land of Irving Stickney to other land, now or formerly of said Stickney, and being the center line of a stone bridge over said road leading from Sagamore Avenue; thence westerly by said Stickney land and land now or formerly of Clarence Frost to the northeasterly corner of land now or formerly of Gordon Young; thence southerly by said land of Young to the northerly shore of said Sagamore Creek and the point of beginning. The northerly and westerly boundary of the within described premises are the center lines of private roads. The easterly line is the center line of a ditch or small creek leading northerly from Sagamore Creek. The southerly line of said property is Sagamore Creek.

Also conveying to the grantees, their heirs and assigns, all rights of the grantor in said private roads and in Sagamore Creek.

Meaning and intending to describe and convey the same premises conveyed to Lawrence N. Ciotti and Robert M. Ciotti dated June 1, 2017 and recorded in the Rockingham County Registry of Deeds at Book 5829, Page 1404.

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2017 OCT 30 AM 10:15

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WITNESS our hand and seal this 21st day of September 2017.

Lawrence N. Ciotti
Lawrence N. Ciotti

Robert M. Ciotti
Robert M. Ciotti

E 48029

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

Personally appeared this 21st day of September, 2017, the above named **Lawrence N. Ciotti** known to me or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument and acknowledge that he executed the same for the purposes therein contained.
Before me,



Debra A. Donovan
Notary Public

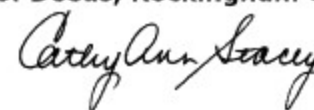
STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

Personally appeared this 21st day of September, 2017, the above named **Robert M. Ciotti** known to me or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument and acknowledge that he executed the same for the purposes therein contained.
Before me,



Debra A. Donovan
Notary Public

Register of Deeds, Rockingham County



LCHIP	ROA429354	25.00
RECORDING		14.00
SURCHARGE		2.00

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS, that we, **John K. Bosen and Tina D. Bosen**, a married couple, of 6 Sagamore Grove, Portsmouth, New Hampshire 03801, grant to **Tina D. Bosen, Trustee of The Tina D. Bosen Revocable Trust dated November 2, 2018**, of 6 Sagamore Grove, Portsmouth, New Hampshire 03801 for no consideration and with QUITCLAIM COVENANTS, the following property:

A certain parcel of land, with the buildings thereon, situated in Portsmouth, County of Rockingham, State of New Hampshire, bounded and described as follows:

Beginning at the southeast corner of land now or formerly of Leroy Terrio; thence running North 12° 45' East by said Terrio land about 166 feet to Sagamore Creek; then running in a general easterly, southerly, and southwesterly direction by said Creek to other land now or formerly of Odiorne; thence running North 65° 10' West by other land of Odiorne about 217 feet to the end of a private road leading to Sagamore Avenue; then running North 14° 34' East by said private road 31.8 feet to the point of beginning.

Said premises are depicted on a certain plan of land entitled "Land in Portsmouth, NH, Sadie Grouse to William P. Huber" drawn by John W. Durgin, civil engineer, dated December 1945 and recorded as Plan Number 01214 with the Rockingham County Registry of Deeds.

Excepting and reserving that portion of the property conveyed by William L. Pingree to Craig and Mollie Sieve by Warranty Deed dated April 15, 2011 recorded at the Rockingham County Registry of Deeds at Book 5212, Page 9990.

Meaning and intending to describe and convey all and the same property conveyed to John K. Bosen and Tina Bosen by Warranty Deed of William L. Pingree dated November 2, 2017, and recorded at the Rockingham County Registry of Deeds at Book 5868, Page 1017.

THIS IS A TRANSFER PURSUANT TO NH RSA 78-B:2(XXII) AND THEREFORE NO NEW HAMPSHIRE REAL ESTATE TRANSFER TAX IS DUE.

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Witness my hand this 2nd day of November 2018.



John K. Bosen



Tina D. Bosen

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

November 2, 2018

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Personally appeared before me, the above named John K. Bosen, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed same for the purposes therein contained. In witness whereof I hereunto set my hand and official seal.



NOTARY PUBLIC
My Commission Expires:

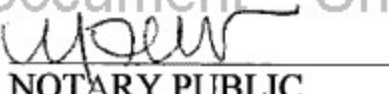


STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

November ~~October~~ 2, 2018

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Personally appeared before me, the above named Tina D. Bosen, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed same for the purposes therein contained. In witness whereof I hereunto set my hand and official seal.

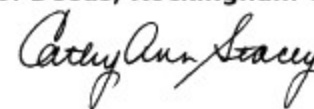


NOTARY PUBLIC
My Commission Expires:



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LCHIP	ROA454102	25.00
RECORDING		14.00
SURCHARGE		2.00

UPON RECORDING, PLEASE RETURN TO:

Forman, Pockell & Associates, P.A.
P.O. Box 1330
Londonderry, New Hampshire 03053

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that we, James H. Oliver (a/k/a James Harrison Oliver) and Cynthia W. Oliver (a/k/a Cynthia Williams Oliver), husband and wife, presently having an address of 14 Shaw Road, Portsmouth, New Hampshire 03801, for consideration paid of \$1.00, **GRANT** James H. Oliver and Cynthia W. Oliver, as Trustees of The James & Cynthia Oliver Family Revocable Trust, a New Hampshire revocable trust established pursuant to a revocable trust agreement dated June 13, 2019, by and between James H. Oliver and Cynthia W. Oliver, as Grantors and James H. Oliver and Cynthia W. Oliver, as Trustees and presently having an address of 14 Shaw Road, Portsmouth, New Hampshire 03801, the following, with Warranty Covenants:

A certain lot of parcel of land, together with the buildings thereon, situated on the Northeasterly side of Sagamore Avenue in Portsmouth, Rockingham County, New Hampshire, being Lots #22 and #23 on a Plan of Lots owned by Fred L. Shaw, recorded in Rockingham County Registry of Deeds, and being bounded and described as follows, viz:

Beginning at the Northeasterly corner of said parcel at a proposed roadway Thirty (30) feet wide and at Lot #24 on said Plan and running thence in a Southwesterly direction along said roadway One Hundred Sixty (160) feet to said Sagamore Avenue; thence turning and running in a Southeasterly direction by said Sagamore Avenue One Hundred Forty (140) feet to Sagamore Creek; thence turning and following the shore line of said Sagamore Creek One Hundred Sixty-Five (165) feet, more or less, in a general Northeasterly direction to said Lot #24 on said Plan; thence turning and running in a general Northwesterly direction One Hundred Seventy (170) feet, more or less, to said roadway at the point of beginning.

Meaning and intending to convey the same premises as conveyed to the within Grantors by Warranty Deed of Chester Elmer Williams, Jr. and Charlotte Miller Williams, said deed dated November 18, 1988 and recorded with the Rockingham County Registry of Deeds at Book 2769, Page 1777.

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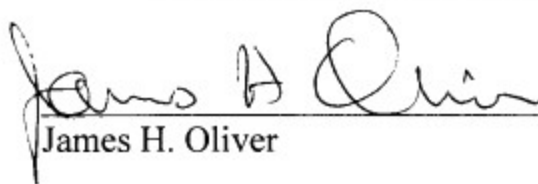
The preparer of this deed makes no representation as to the status of the title to the property described herein. This deed was prepared from the information furnished by the Grantors. A title search was neither requested nor performed.

No Transfer Tax due Per RSA 78-B:2, XXII Exception to Real Estate Transfer Tax: Transfer to estate planning revocable trust.

The Grantors reserve all rights of Homestead.

WITNESS our hands and seals this 13th day of June, 2019.

Unofficial Document Unofficial Document Unofficial D


James H. Oliver


Witness


Cynthia W. Oliver


Witness

Unofficial Document Unofficial Document Unofficial Document

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

Unofficial Document Unofficial Document Unofficial D

Personally appeared the above named James H. Oliver and Cynthia W. Oliver, known to me or satisfactorily proven to be the persons whose names are subscribed to the within instrument and acknowledged the foregoing instrument to be their free act and deed. Before me this 13th day of June, 2019.

Unofficial Document Unofficial Document Unofficial Document

Justice of the Peace/Notary Public
My commission expires:

Unofficial Document Unofficial Document Unofficial D

FRED J. FORMAN, Justice of the Peace
State of New Hampshire
My Commission Expires June 7, 2022



Unofficial Document Unofficial Document Unofficial Document

Return to:
Karen Butz Webb
910 Sagamore Avenue
Portsmouth, NH 03801



LCHIP	ROA455235	25.00
TRANSFER TAX	RO089823	6,525.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that Carolyn B. McCombe, Single, as Trustee of Carolyn McCombe Revocable Trust of 1998, of 330 Willard Ave, Wakefield, RI 02879, for consideration paid grant(s) to Karen Butz Webb, Trustee of Karen Butz Webb Revocable Living Trust, of 38 Willard Avenue, Portsmouth, NH 03801, with WARRANTY COVENANTS:

A certain tract of land, with the buildings thereon, lying westerly of Sagamore Avenue in Portsmouth, County of Rockingham and State of New Hampshire, and bounded and described as follows, viz:

Beginning at the northeasterly corner of the land herein conveyed, at the corner of the so-called right-of-way; thence running South 30° 36' West a distance of one hundred thirty (130) feet to a point; thence running South 43° 57' East a distance of two hundred twenty (220) feet to an iron pipe; thence along land of Harrison Workman and Frances Workman North 45° 50' East a distance of one hundred five and four tenths (105.4) feet, more or less, to a point at Sagamore Creek; thence North 39° 28' West a distance of two hundred fifty-five (255) feet, more or less, along land now or formerly of Albert Yeager, to the point and place of beginning.

Said parcel is also known as Lot No. 1 on a Subdivision Plan for Harrison Workman and Frances Workman, Portsmouth, N.H., prepared by Barry W. Kimball, Land Surveyor, Stratham, N.H., dated September 1979, and recorded in the Rockingham County Registry of Deeds as Plan C-9014.

Also granting to the grantee herein the right to use in common with others a twenty-five (25) foot right of way leading from Sagamore Avenue, as the same may exist.

Reserving unto Harrison W. Workman and Frances E. Workman the right to lay, maintain, repair and renew a water pipe as now existing from Sagamore Avenue to the buildings on said premises.

Subject to all encumbrances, rights, easements and rights of way of record.

Meaning and intending to describe and convey the same premises conveyed to Carolyn B. McCombe, Trustee of the Carolyn McCombe Revocable Trust of 1998 by deed dated January 7, 1998 and recorded in the Rockingham County Registry of Deeds in Book 3262, Page 1576.

I/We, the grantor(s) hereby release all rights of homestead in the above described premises.

The undersigned Carolyn B. McCombe, Trustee of the Carolyn McCombe Revocable Trust of 1998 hereby states pursuant to RSA 564-A:7, that said Trustee has full and absolute power in said Trust Agreement to sell, exchange, purchase, acquire, mortgage, refinance, encumber, discharge mortgages and pledge certain real estate situated at 910 Sagamore Avenue, Portsmouth, NH 03801 and no third party shall be bound to inquire whether the Trustee has said power or is properly exercising said power or to see to the proceeds paid for any conveyance. Carolyn B. McCombe, Trustee of the Carolyn McCombe Revocable Trust of 1998 is duly authorized to execute such documents as may be necessary to complete the closing of said property and certifies that the trust is in full force and effect, that they are empowered to act as sole trustees on the date of this certificate, and that the trust has not been revoked or amended. The Trustee further certifies that the undersigned are the sole Trustees of said Trust; that said Declaration of Trust has not been amended or revoked; that no successor Trustee has been appointed and that the undersigned has received all written authorizations from beneficiaries, if any, required by the terms of said Trust.

Executed this 24th day of July 2019.

Carolyn McCombe Revocable Trust of 1998

By: *Carolyn B. McCombe*
Carolyn B. McCombe, Individually and as Trustee

State of New Hampshire
County of Rockingham

Then personally appeared before me on this 24th day of July 2019, the said Carolyn B. McCombe, Individually and as Trustee of the Carolyn McCombe Revocable Trust of 1998 and acknowledged the foregoing to be his/her/their voluntary act and deed.

Jennifer A Copp
Notary Public

JENNIFER COPP
Notary-Name Printed

My commission expires: 8/23/22
(seal)



Return to:
Debra M. Dupont
911 Sagamore Avenue
Portsmouth, NH 03801

LCHIP	ROA463490	25.00
TRANSFER TAX	RO091558	6,525.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That M. Christina Perri, an unmarried individual, of 911 Sagamore Avenue, Portsmouth, NH 03801, for consideration paid grant(s) to Debra M. Dupont, of 14 Sylvan Circuit, Cape Neddick, ME 03902 with WARRANTY COVENANTS:

A certain tract of land together with a dwelling house thereon lying westerly of Sagamore Avenue in said Portsmouth, County of Rockingham and State of New Hampshire, bounded a described as follows:

Beginning at land now or formerly of Walter W. and Dorothy J. Johnston at the northeasterly corner of the premises hereby conveyed at an iron pin in a ledge approximately 167 feet South 42 degrees West from the westerly side of said Sagamore Avenue and running thence North 39 degrees 28' West 110 feet, more or less, to the center line of the right of way below described ; thence running South 30 degrees 36' 144 feet, more or less, by said center line of said right of way to land now or former of Neil M. Eldredge; thence running South 43 degrees 57' East 100 feet to land or said Johnston's; thence running North 28 degrees 0' East by said Johnston land 155 feet to the point of beginning.

Also, the right to use in common with others a 25-foot right of way leading from Sagamore Avenue, the center line of said right of way being described as follows:

Beginning at a point on said Sagamore Avenue, 160 feet, more or less, southerly from the northeasterly corner of land now or formerly of Garland w. Patch, Jr., and running South 53 degrees 31' West 172 feet and continuing South 30 degrees 36' We

Said premises are conveyed subject to the use of said right of way by others so far as any part of said right of way lies on land hereby conveyed.

Meaning and intending to describe and convey the same premises conveyed to Property currently vested in M. Christina Perri evidenced by Deed from Anna M. Eldredge f/k/a Anna M. Workman dated 01-Oct-1993 recorded with the Rockingham County Registry of Deeds in Book 3009, Page 2528.

Unofficial Document Unofficial Document Unofficial Document

I, the grantor hereby release all rights of homestead in the above described premises.

Executed this 20th day of September, 2019.

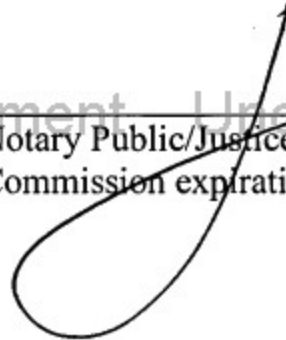

M. Christina Perri

State of New Hampshire
County of Rockingham

September 20, 2019

Then personally appeared before me on this 20th day of September, 2019, the said M. Christina Perri and acknowledged the foregoing to be his/her/their voluntary act and deed.

Notary Public/Justice of the Peace
Commission expiration:


11-11-23

Unofficial Document Unofficial Document Unofficial Document



Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document

Register of Deeds, Rockingham County



Return to:
Hogswave, LLC
912 Sagamore Avenue
Portsmouth, NH 03801

LCHIP	ROA469052	25.00
TRANSFER TAX	RO092625	18,750.00
RECORDING SURCHARGE		14.00
		2.00

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That I, John Hebert, a married person, of 54 Pioneer Road, Rye, NH 03870, for consideration paid grant(s) to Hogswave, LLC, a New Hampshire Limited Liability Company, with an address of 912 Sagamore Avenue, Portsmouth, NH 03801, with WARRANTY COVENANTS:

A certain tract of land lying westerly of Sagamore Avenue in Portsmouth, Rockingham County, New Hampshire, together with the buildings thereon, bounded and described as follows, viz:

Beginning at the northeasterly corner of said tract at a point approximately 322 feet from the westerly side of Sagamore Avenue and at the northwesterly corner of land now or formerly of Harrison H. Workman and Frances E. Workman and running S 43° 57' E, 644 feet, more or less, to a "U"-Bolt in a ledge on the northerly bank of Sagamore Creek; thence in a westerly direction by said Creek 190 feet, more or less; thence turning and running N 44° 17' W, 327.5 feet to the northwesterly corner of land now or formerly of Harrison H. Workman; thence turning at approximately a right angle and running S 45° 43' W, 221.2 feet by said Workman land to a stone wall at land now or formerly of Ralph W. Junkins and Charles H. Walker; thence N 04° 27' W, 97 feet and thence N 21° 14' W, 111.2 feet by said stone wall to a corner in the wall; thence N 37° 48' E by said stone wall, 166.6 feet to the end of said wall and thence N 28° E 140 feet to the point of beginning. Containing 3.08 acres.

Also the right to use in common with others a 25 foot right-of-way leading from Sagamore Avenue to the land herein described, the center line of said right-of-way being described as follows:

Beginning at a point on said Sagamore Avenue 160 feet, more or less, southerly from the northeasterly corner of land now or formerly of Garland W. Patch, Jr. and running S 53° 31' W, 172 feet and thence continuing S 30° 36' W, 144 feet to the easterly sideline of the property hereby conveyed, which point is approximately 100 feet southerly from land of now or formerly of one Johnston; thence S 43° 57' E, 280 feet, more or less, to a corner.

The property hereby conveyed is subject to the use of said right-of-way by other landowners so far as any part of said right-of-way lies on the land conveyed and subject also to a 25 feet right-of-way, the center line of which starts at the terminus of the above-described right-of-way line and runs S 45° 43' W, 180.7 feet to land now or formerly of Garland W. Patch, Jr. and Harrison H. Workman.

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Said land is shown on a certain plan entitled "Division of Land, Portsmouth, N.H. for Garland W. Patch, Jr." dated December, 1953 by John W. Durgin, C.E.

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The above reference property is not the homestead of the Grantor or the Grantor's spouse.

Executed this 1st day of November, 2019.



John Hebert

Unofficial Document Unofficial Document Unofficial Document

State of New Hampshire
County of Rockingham

Then personally appeared before me on this 1st day of November, 2019, the said John Hebert and acknowledged the foregoing to be his voluntary act and deed.

Unofficial Document Unofficial Document Unofficial Document Un


Notary Public/Justice of the Peace
Commission expiration:

Unofficial Document Unofficial Document Unofficial Document



Unofficial Document Unofficial Document Unofficial Document Un

Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document Un

Return to:
Norman J. Rice III and Margaret-Ann H. Rice
209 Walker Bungalow Road
Portsmouth, NH 03801



LCHIP	ROA499397	25.00
TRANSFER TAX	RO097198	14,325.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That **Michael J. DeCristofaro, Trustee of the Michael J. DeCristofaro Revocable Trust of 2015**, Single, of 209 Walker Bungalow Road, Portsmouth, NH 03801, for consideration paid grants to **Norman J. Rice III and Margaret-Ann H. Rice**, A Married Couple, of 75 Spring Hill Road, New Castle, NH 03854, as tenants in common, with WARRANTY COVENANTS:

A certain parcel of land, together with the buildings thereon, situate on the Northeasterly side of Walker Bungalow Road, so-called, in said Portsmouth, County of Rockingham and State of New Hampshire, bounded and described as:

Beginning at a point in the centerline of said Walker Bungalow Road, said point being distant two hundred seventy-nine (279') feet southeasterly measured on the centerline of said road from the southerly corner of land conveyed by Irving E. Stickney to Mark J. Fennerty, et al, which deed is recorded in the Rockingham County Registry of Deeds at Book 966, Page 338; thence

Running North 24° 17' East by other land formerly of said Stickney and now or formerly of one Thornhill in part, and in part by other land of said Stickney, two hundred (200') feet to a corner, thence

Turning and running South 65° 43' East by other land of Stickney one hundred (100') feet to a corner; thence

Turning and running South 24° 17' West by other land now or formerly of said Stickney, two hundred (200') feet to the said centerline of Walker Bungalow Road; thence

Turning and running Northwesterly of the centerline of said road one hundred (100') feet to the point of beginning.

Reserving to Irving E. Stickney, his heirs or assigns, a right-of-way over and across the portion of the granted premises lying within the limits of said Walker Bungalow Road, in common with all others entitled to similar rights, and grantees from said Stickney of other lots. This right-of-way to include passage by foot or vehicle and for all purposes.

Together with a right-of-way to and from the above described premises and Little Harbor Road over the road or way now existing.

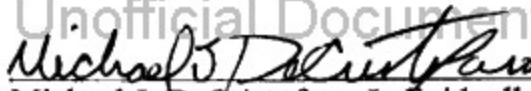
Subject to the reservations and restrictions contained in the deed of Fred L. Shaw to Sam Shapiro and Jacob Brown dated March 17, 1919 and recorded in the Rockingham County Registry of Deeds at Volume 726, Page 412.

Meaning and intending to describe and convey the same premises conveyed to Michael J. DeCristofaro, Trustee of the Michael J. DeCristofaro Revocable Trust of 2015, by virtue of a Deed from Michael J. DeCristofaro, dated May 6, 2015 and recorded at the Rockingham County Registry of Deeds in Book 5616, Page 1404.

The undersigned Trustee is the sole Trustee under **Michael J. DeCristofaro Revocable Trust of 2015**, created under a certain **Declaration of Trust dated March 23, 2015**, and thereto has full and absolute power in said Trust Agreement to convey any interest in real estate and improvements thereon, and pledge said property as security, held in said Trust and no purchaser or third party shall be bound to inquire whether the Trustee has said power or is properly exercising said power or to see to the application of any Trust asset paid to the Trustee as a conveyance thereof.

I, the grantor, hereby release all rights of homestead in the above described premises.

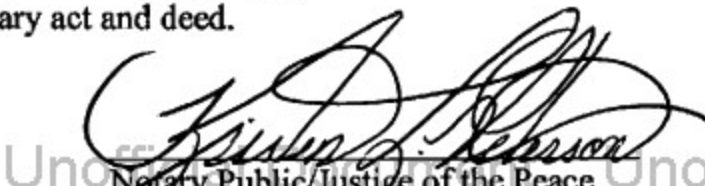
Executed this 17 day of June, 2020.


Michael J. DeCristofaro, Individually and as Trustee of the Michael J. DeCristofaro Revocable Trust of 2015

State of New Hampshire
County of Rockingham

Then personally appeared before me on this 17th day of June, 2020, the said Michael J. DeCristofaro, Trustee of the Michael J. DeCristofaro Revocable Trust of 2015 and acknowledged the foregoing to be his voluntary act and deed.




Notary Public/Justice of the Peace
Commission expiration:

Register of Deeds, Rockingham County



LCHIP	ROA511089	25.00
RECORDING		14.00
SURCHARGE		2.00

Unofficial Document **QUITCLAIM DEED** Unofficial Document Unofficial Document

KNOW ALL MEN BY THESE PRESENTS, that I, **William L. Pingree**, a single person, of 11 Sagamore Grove, Portsmouth, New Hampshire 03801, grant to **William L. Pingree, Trustee of the William L. Pingree 2013 Revocable Trust u/d/t May 9, 2013**, of 11 Sagamore Grove, Portsmouth, New Hampshire 03801, for no consideration and with QUITCLAIM COVENANTS, the following property located in Portsmouth, New Hampshire:

A certain parcel of land, with the buildings thereon, if any, shown as Lot 2 on a plan entitled "Subdivision Plan, Tax Map 201 -- Lot 1; Applicant: William L. Pingree; Owner: 955 Sagamore Realty Trust, 955 Sagamore Avenue, City of Portsmouth, County of Rockingham, State of New Hampshire" dated June 2015 and revised through June 29, 2016, Prepared by Ambit Engineering Inc. and recorded in the Rockingham County Registry of Deeds as Plan D-39767, more particularly bounded and described as follows:

Beginning at an iron rod found along the northeasterly sideline of Sagamore Grove Road at the southernmost point of the herein described Lot 2; thence running along said Sagamore Grove Road N 57° 00' 00" W a distance of 24.49 feet to a point; thence continuing along said Sagamore Grove Road N 70° 42' 00" W a distance of 89.70 feet to a railroad spike set 12/31/15; thence turning and running N 06° 00' 58" E a distance of 196.41 feet to an iron rod with cap set 12/31/15; thence turning and running S 60° 14' 17" E a distance of 184.89 feet to an iron rod found; thence turning and running S 27° 22' 37" W a distance of 165.02 feet to the point of beginning.

Subject to an Easement from the Grantor to the City of Portsmouth dated September 28, 2016 and recorded in the Rockingham County Registry of Deeds at Book 5763, page 0048.

Meaning and intending to convey the property acquired by the Grantor by deed recorded in the Rockingham County Registry of Deeds at Book 5769, Page 1142.

Unofficial Document Unofficial Document Unofficial Document

THIS IS A TRANSFER PURSUANT TO NH RSA 78-B:2(XXII) AND THEREFORE NO NEW HAMPSHIRE REAL ESTATE TRANSFER TAX IS DUE.

Witness my hand this 24 day of August 2020.

William L. Pingree
William L. Pingree

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

August 24, 2020

Personally appeared before me, the above named William L. Pingree, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed same for the purposes therein contained. In witness whereof I hereunto set my hand and official seal.



Samantha Montgomery
NOTARY PUBLIC
My Commission Expires:

Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document

Unofficial Document Unofficial Document Unofficial Document



9

Photographs



Photo 1: View of 1150 Sagamore Avenue (Seacoast Mental Health Center) facing West (Google)



Photo 2: View of Sagamore Avenue towards Sagamore Creek, facing East (Google)



Photo 3: View from 189 Wentworth House Road of 187 Wentworth House Road rear parking lot, facing West



Photo 4: View of 2 Sagamore Grove West side yard facing North



Photo 5: View of 6 Sagamore Grove Southeast yard facing North



Photo 6: View of the South corner of 14 Shaw Road facing Northeast



Photo 7: View of 24 Shaw Road front yard facing East (Google)



Photo 8: View of 36 Shaw Road front yard and rain garden facing East



Photo 9: View of 36 Shaw Road front yard facing North



Photo 10: View of 212 Walker Bungalow Road North Lawn and driveway with adjacent storm drain, facing North



Photo 11: View of 220 Walker Bungalow front yard and holding tank facing South



Photo 12: View of 238 Walker Bungalow Road front yard and garden with stone path facing South



Photo 13: View of 89 Cliff Road Northeast yard and flagged wetland series 'P' abutting Walker Bungalow Road, facing Northeast



Photo 14: View of flagged wetland series 'P' in front of 89 Cliff Road adjacent to Walker Bungalow Road facing Southwest. (Google)



Photo 15: View of flagged wetland series 'Q' on the left side of 131 Cliff Road's driveway joining with Walker Bungalow Road facing West (Google)



Photo 16: View of 912 Sagamore Ave front yard sloping down towards the dirt road, facing West



Photo 17: View of 912 Sagamore Ave front yard left of the driveway, facing East



Photo 18: View of 913 Sagamore Avenue sewer lateral location, facing Southwest



Photo 19: View of the end of Sagamore Avenue gravel road runoff facing Northwest (Google)

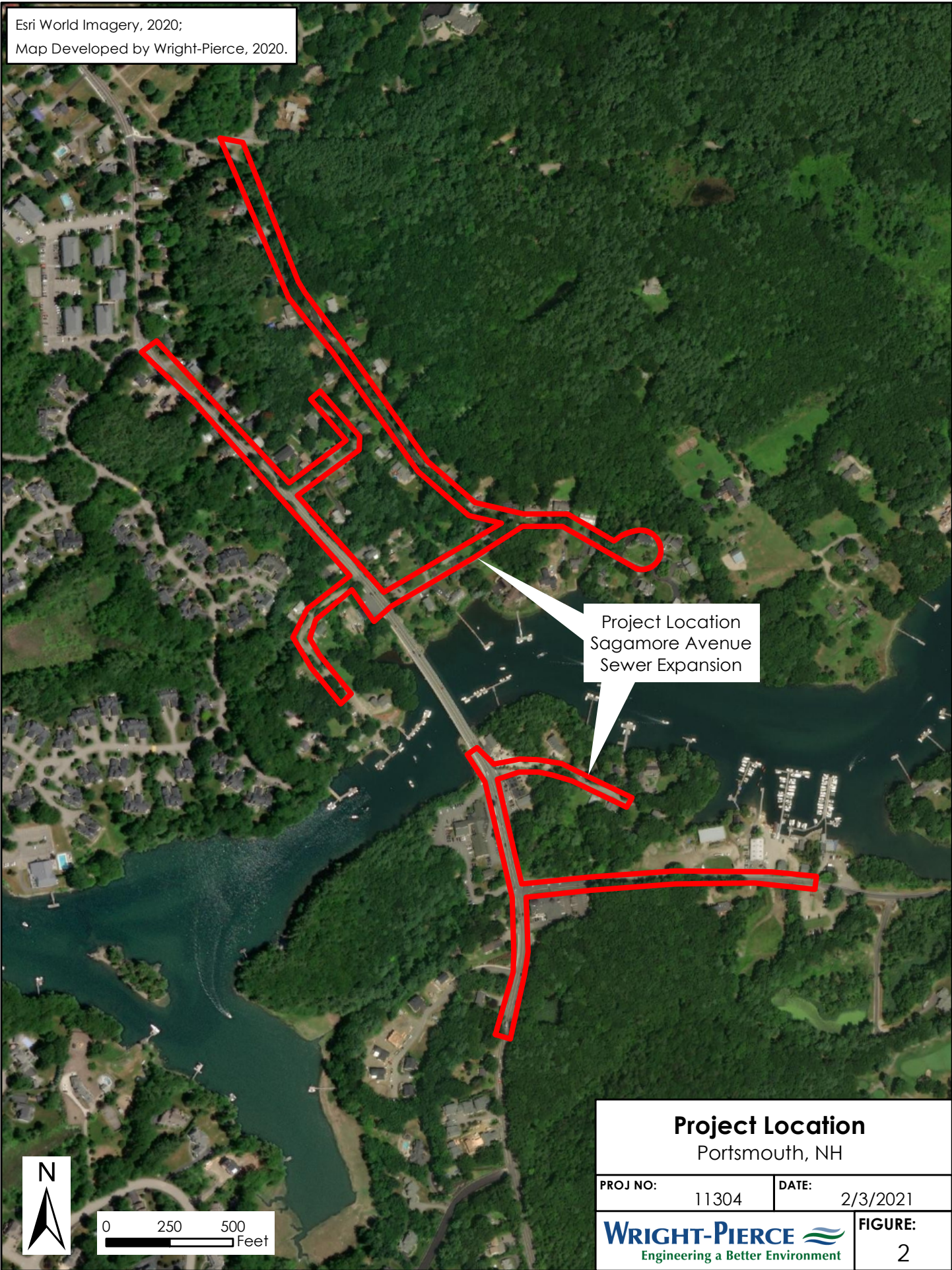


10


Project Maps

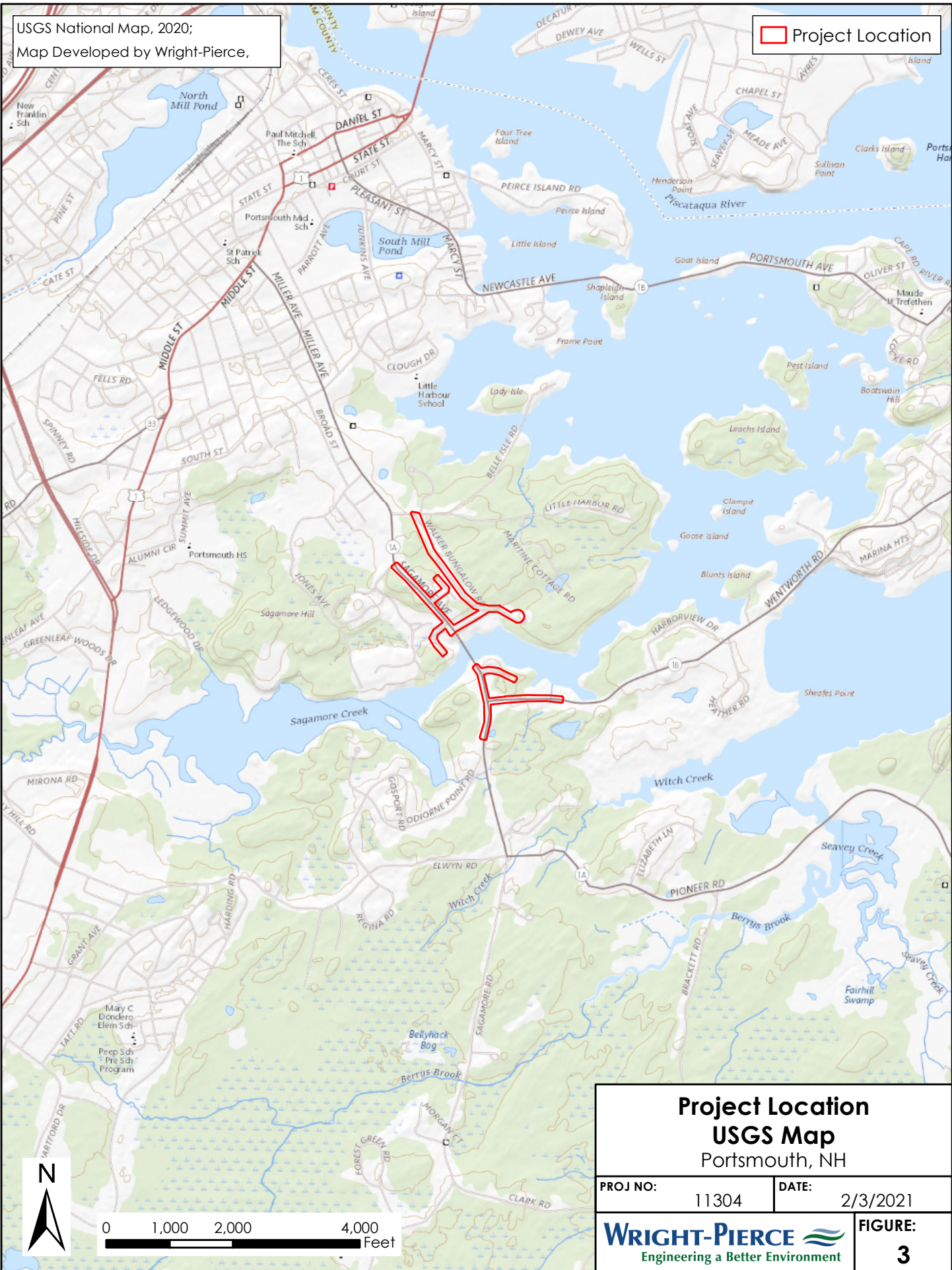
Esri World Imagery, 2020;
Map Developed by Wright-Pierce, 2020.

JDM W:\GIS_Development\Projects\NH\Portsmouth\11304-NH-Portsmouth\MXD\NHIDES\Fig 1-ProjectLocation-8x11.mxd



USGS National Map, 2020;
Map Developed by Wright-Pierce,


 Project Location



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0 1,000 2,000 4,000 Feet

Project Location	
USGS Map	
Portsmouth, NH	
PROJ NO:	DATE:
11304	2/3/2021
WRIGHT-PIERCE Engineering a Better Environment 	FIGURE: 3

Proposed Construction Sequence



The proposed project is anticipated to begin constructed in Summer 2021. A general sequence of construction activities is provided below. The estimated construction duration is eighteen months. The final schedule will be determined by the City and contractor upon receipt of permit approvals.

General Schedule:

1. Contractor mobilizes to project area (Summer 2021).
2. Install perimeter silt fence and other applicable erosion and sedimentation controls practices.
3. Prepare staging area.
4. Remove trees if necessary within limit of work.
5. Commence ROW trench excavation in accordance with approved plans.
6. Install low pressure sewer main throughout ROW.
7. Test low pressure sewer main throughout ROW.
8. Upgrade private property electrical systems as necessary to provide adequate power to the grinder pump.
9. Install private property sewer services and grinder pumps for properties that authorize work to be done.
10. Abandon septic tanks.
11. Stabilize disturbed areas with pavement or loam and seed.
12. Remove accumulated sediment from sediment barriers as necessary.
13. Once the site is permanently stabilized, remove all temporary erosion control measures.
14. Monitor restored areas for two growing seasons to confirm restoration was successful.



12

Easements

The following easements are provided to document the City's right-of-way to portions of the project where right-of-way boundaries are not clearly shown on tax maps.

B3231 P0469

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

In signing this document, the undersigned agrees that the area depicted on the attached Right of Way plan of Sagamore Grove Road, as prepared by Durgin Associates, will be the area that the City claims as the public way. This plan includes both the area to be paved and the remaining non-paved portion. The undersigned agrees that the City will be able to access the entire traveled way including the graveled portion of the traveled way. This access will be used as needed for maintenance purposes. The undersigned further agrees that they waive any claim to damages for such an interest. In doing so, the undersigned understands that they are releasing the City of Portsmouth from any and all claims that may be made for damages as a result of the City Council's decision on October 2, 1995 to treat this traveled way as a public way.

Aug 11 8 16 AM '97

00005551

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0470

ACKNOWLEDGMENT AND RELEASE

Frances and Armand Gosselin, for themselves, their heirs, successors and assigns acknowledge the action of the Portsmouth City Council on October 12, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The area, both paved and non-paved, to be treated as a public way is depicted on a Sagamore Grove Road Right of Way Plan prepared by Durgin Associates. It is understood that the land located under the right of way will not become public property; but will remain the property of Frances and Armand Gosselin, their heirs, successors, and assigns.

Frances and Armand Gosselin, for themselves, their heirs successors, and assigns, agree that the City shall be able to access all areas of the above referenced plan for maintenance purposes.

Frances and Armand Gosselin, for themselves, their heirs, successors and assigns release the City of Portsmouth from any and all claims that may be made for damages as a result of the City Council's decision on October 2, 1995 to treat this traveled way as a public way.

This acknowledgment and release is granted with the understanding that the agreement between the undersigned and the City of Portsmouth dated December 13, 1995 shall remain in full force and effect and that in particular, Frances and Armand Gosselin, their heirs, successors, and assigns shall be able to utilize paragraph three and raise issues concerning the impact of Sagamore Grove Road on the future development of their property.

Dated: 3-17-97 *Frances Gosselin*
 Frances Gosselin G245-005-28-183-0 *FL DL* *exp 2000*

Dated: 3-17-97 *Armand Gosselin*
 Armand Gosselin G245-253-30-903-0 *FL DL* *exp 99*

Florida
STATE OF ~~NEW HAMPSHIRE~~
COUNTY OF ~~ROCKINGHAM~~ *Volusia*

On this 17th day of March, 1997, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.



Linda L. Dolbeare
Justice of the Peace/Notary Public

B3231 P0471

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

In signing this document, the undersigned agrees that the area depicted on the attached Right of Way plan of Sagamore Grove Road, as prepared by Durgin Associates, will be the area that the City claims as the public way. This plan includes both the area to be paved and the remaining non-paved portion. The undersigned agrees that the City will be able to access the entire traveled way including the graveled portion of the traveled way. This access will be used as needed for maintenance purposes. The undersigned further agrees that they waive any claim to damages for such an interest. In doing so, the undersigned understands that they are releasing the City of Portsmouth from any and all claims that may be made for damages as a result of the City Council's decision on October 2, 1995 to treat this traveled way as a public way.

0036352 Aug 11 8 16 AM '97

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0472

Bertrand Odiome
Odiome Bertrand
6 Sagamore Grove Road

Mark C. Bond
Witness
Date: 12/17/96

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 17 of DECEMBER, 1996, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Rich Spear
Justice of the Peace/Notary Public

RICH SPEAR, Notary Public
My Commission Expires September 6, 2000



B3231 P0473

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

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Aug 11 8 16 AM '97

0036353

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0474

Andrew Widen

Andrew Widen
955 Sagamore Avenue
Mailing Address: 190 Locke Road
Rye, NH 03870

Elizabeth Kinnier

Witness
Date: 7/2/97

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 2nd of July, 1997, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Kathleen A. Castle
Justice of the Peace/Notary Public

KATHLEEN A. CASTLE, Notary Public
My Commission Expires December 6, 2000



ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Know Everyone by these Presents,

That We. Armand E. Gosselin and Frances M. Gosselin, husband and wife,
of the Town of Debary, County of Volusia and State of Florida

for consideration paid, grant(s) to Armand E. Gosselin and Frances M. Gosselin, Trustees
of the Gosselin Living Trust, under Declaration of Trust dated February 4, 2000
of the Town of DeBary, County of Volusia and State of Florida

with quitclaim covenants.

A certain lot of land in Portsmouth in the County of Rockingham and State of
New Hampshire, with the buildings thereon, bounded and described as follows:

Beginning at the Southwest corner of land of Harry E. and Ruth Pike thence
running S 70° 42' E 254 feet and S 57° 00' E 87 feet by said Pike land to a corner;
thence turning and running S 38° 27' W across a right-of-way and by land now or
formerly of Douglas M. Sturtevant and Naomi W. Sturtevant 131.9 feet to a hub;
thence turning and running N 80° 34' W by land now or formerly of Gouse 248.4 feet
to a forked elm at Sagamore Avenue; thence turning and running N 4° 15' E by said
Sagamore Avenue 194.4 feet to the point of beginning.

Excepting and reserving a right-of-way approximately 30 feet in width running
Easterly from Sagamore Avenue along the Northerly side of the parcel conveyed for
the use of all persons having a lawful claim thereto.

Excepting therefrom the portion of land conveyed to Sue S. Walsh by deed of
Robert M. Dixon and Kathryn I. Dixon dated May 5, 1954 and recorded in Book 1315,
Page 129 of the Rockingham County Registry of Deeds.

Being the same premises conveyed by Deed of David W. Thibeault and Bette J.
Thibeault to Armand E. Gosselin and Frances M. Gosselin dated October 23, 1982
and recorded in the Rockingham County Registry of Deeds, Book 2489, Page 0292.

2000 APR 26 AM 11:47 021117
NON-CONTRACTUAL TRANSFER
CONSIDERATION OF LESS THAN ONE HUNDRED DOLLARS

BK 3469 PG 2151

wife & husband ~~XXXXXX~~ release to the Grantee(s) all rights of homestead and other interests therein.

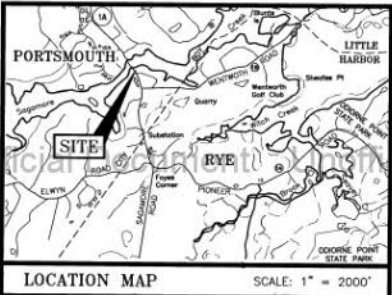
Dated 4-10-2000
Armand E. Gosselin L.S.
Frances M. Gosselin L.S.

State of Florida County of Volusia ss.: April 10, 2000
Personally appeared Armand E. Gosselin and Frances M. Gosselin

known to me, or satisfactorily proven, to be the persons whose names subscribed to the
forgoing instrument and acknowledged that they executed the same for the purposes therein contained.

Randall J. Marshall
Notary Public, State of Florida
Commission No. CC 652079
My Commission Exp. 07/28/2001

Before me, [Signature] Notary Public



LEGEND:

- N/F NEW OR FORMER RECORD OF THIS
- RCRD ROCKINGHAM COUNTY REGISTRY OF DEEDS
- RR SPK RAILROAD SPIKE
- MAP 11/LOT 21
- IR FND IRON ROD FOUND
- IP FND IRON PIPE FOUND
- IR SET IRON ROD SET
- IP FND IRON PIPE FOUND
- DH SET DRILL HOLE SET
- DH SET DRILL HOLE SET
- OVERHEAD WIRE

PLAN REFERENCES:

- 1) LAND IN PORTSMOUTH, N.H. AT SAGAMORE GROVE, CHARLES GOUSE TO LEROY TERRO, SCALE: 1 IN. = 20 FT. DATED JUNE 1943 BY JOHN W DURGIN CIVIL ENGINEER. RCRD PLAN 01254.
- 2) LAND IN PORTSMOUTH, N.H. SADIE P. GOUSE TO HARRY E & RUTH PIKE, SCALE: 1 IN. = 30 FT. DATED DEC. 1945, RCRD PLAN 01211, BY JOHN W DURGIN CIVIL ENGINEER, REVISED OCT. 1952, PLAN NO. 6273 FILE NO. 109.
- 3) PROPOSED DOCK FOR DARRYL KENT & BRUCE SCHLEPER, SAGAMORE GROVE (OFF SAGAMORE AVE.) COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H. SCALE: 1" = 20' DATED JUNE 10, 1989, BY AMBIT SURVEY, NOT RECORDED.
- 4) PARKING LOT REVISION PLAN, BRUCE SCHLEPER & DARRYL KENT, SAGAMORE GROVE ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H. SCALE: 1" = 20' DATED SEPTEMBER 1993, BY AMBIT SURVEY, NOT RECORDED.
- 5) RIGHT OF WAY PLAT, SAGAMORE GROVE, PORTSMOUTH, NEW HAMPSHIRE FOR CITY OF PORTSMOUTH, SCALE: 1" = 20' DATED 4/9/96 BY DURGIN, VERRA AND ASSOCIATES, INC. RCRD PLAN D-25616.
- 6) PLAN OF LAND FOR THE DUNYA KUCHTEY REVOCABLE LIVING TRUST, SAGAMORE GROVE, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H. SCALE: 1" = 20' DATED APRIL 20, 1999 BY BILLETTE, SPRAGUE & COLWELL, INC. RCRD PLAN D-27523.
- 7) LOT LINE REVISION PLAN, 4 & 6 SAGAMORE GROVE, PORTSMOUTH, NEW HAMPSHIRE, ASSESSOR'S PARCELS 201-4 & 201-5 FOR GRAND & MOBILE SIEVE, SCALE: 1" = 20', DATED 12/17/10, BY JAMES VERRA AND ASSOCIATES, INC. RCRD PLAN D-36782.

EASEMENT TABLE

LINE	BEARING	DISTANCE
E1	S70°42'00"E	168.18'
E2	S06°00'58"W	10.27'
E3	N12°39'03"W	11.79'
E4	S70°42'00"E	93.26'
E5	S57°00'00"E	24.71'
E6	S27°22'37"W	10.05'

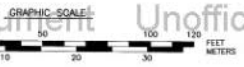
PROPOSED 10' ACCESS AND UTILITY EASEMENT TO BE GRANTED TO THE CITY OF PORTSMOUTH.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN *John* DATE **9-28-16**



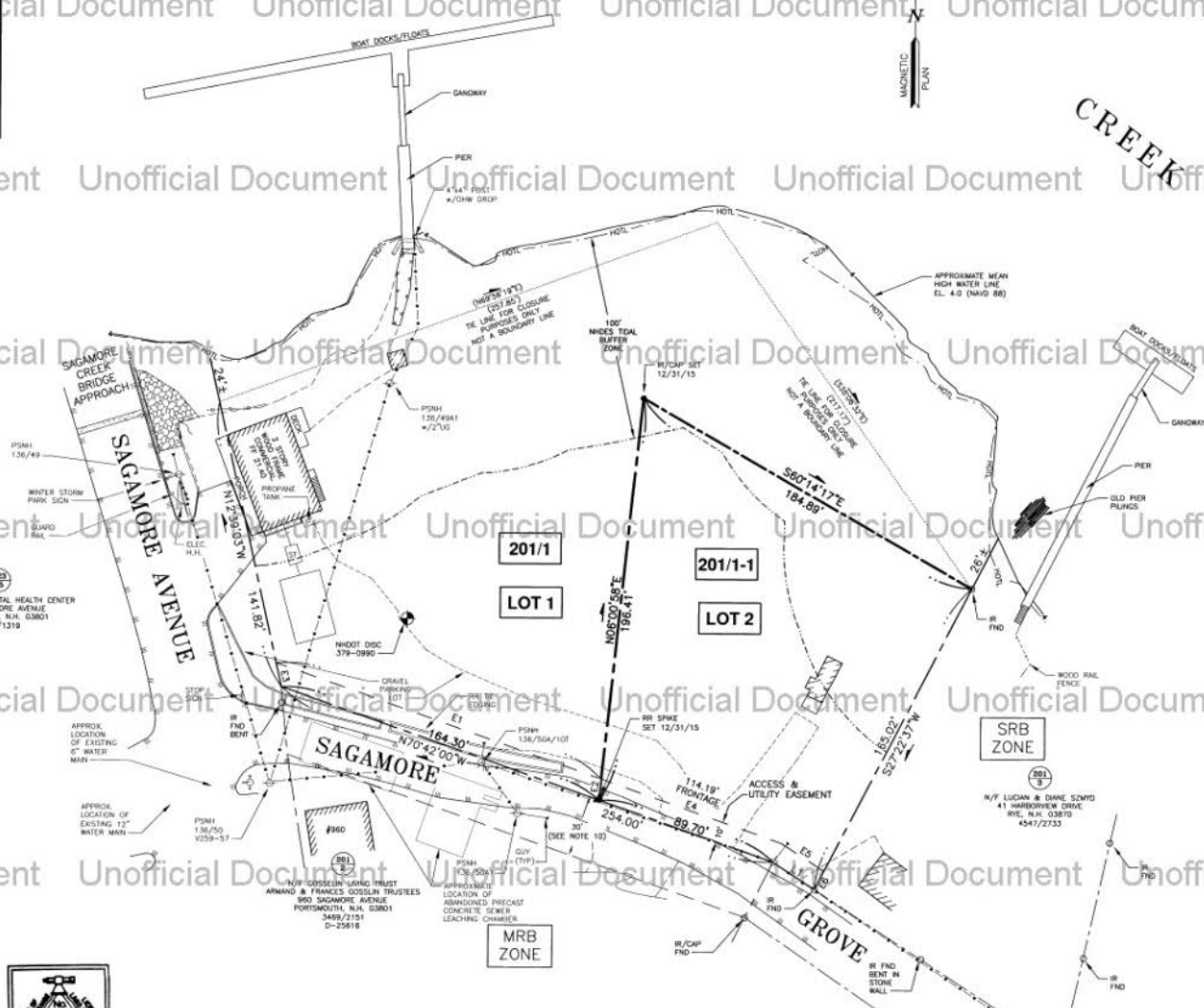
D-39767



LENGTH TABLE

LINE	BEARING	DISTANCE
LT	N57°00'00"W	24.49'

SAGAMORE



1943 REFERENCE 2
MAGNETIC PLAN

CREEK

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
300 Griffin Road, Suite 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 430-3315

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 201, AS LOT 1.
- 2) OWNER OF RECORD:
955 SAGAMORE REALTY TRUST 3/12/2008
MICHAEL T. GOODRIDGE TRUSTEE
39 FERRY ROAD
SALISBURY, MA. 01952
4903/695
APPLICANT:
WILLIAM L. PINGREE
6 SAGAMORE GROVE
PORTSMOUTH, N.H. 03801
- 3) PARCEL IS PARTIALLY IN FLOOD HAZARD ZONE (EL. 3) AS SHOWN ON FIRM PANEL 33015C028ED EFFECTIVE MAY 17, 2005. NO STRUCTURES, OTHER THAN THOSE THAT ARE MARINE RELATED, ARE IN THE FLOOD ZONE.
- 4) EXISTING LOT AREA:
87,100± S.F. TO MEAN HIGH WATER
2.00± AC.
PROPOSED LOT AREAS:
LOT 1 LOT 2
61,402± S.F. 25,698 S.F.
1.41± AC. 0.5899 AC.
- 5) PARCEL IS LOCATED IN WATERFRONT BUSINESS DISTRICT.
- 6) DIMENSIONAL REQUIREMENTS:
MIN. LOT AREA: 20,000 S.F.
DEPTH: 100 FT.
FRONTAGE: 100 FT.
SETBACKS:
FRONT: 30 FT.
SIDE: 30 FT.
REAR: 20 FT.
MAXIMUM STRUCTURE HEIGHT: 35 FT.
MAXIMUM STRUCTURE COVERAGE: 30%
MINIMUM OPEN SPACE: 20%
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE SUBDIVISION OF ONE LOT INTO TWO LOTS.
- 8) SAGAMORE GROVE ROAD TO BE TREATED AS A PUBLIC WAY PER ACTION OF THE PORTSMOUTH CITY COUNCIL ON OCTOBER 2, 1995. SEE ACKNOWLEDGEMENTS AND RELEASES IN FAVOR OF THE CITY OF PORTSMOUTH AT RCRD 3231/473 AND #D-25616 ALONG WITH ABUTTERS (3231/469-483, 3228/680.)
- 9) NHDES SUBDIVISION APPROVAL: 2015 112403
- 10) THE FIRST 254'(±) OF SAGAMORE GROVE IS A PUBLIC STREET (BY EASEMENT) SEE RCRD 3469/2101

NO.	DESCRIPTION	DATE
8	ADDED EASEMENT	6/29/16
5	ADDED MONUMENTS & TAX MAP #	2/9/16
4	REVISED LOT LINES PER DES	11/6/15
3	ADD EX. SEPTIC INFO, NOTE 10	10/29/15
2	PER NHDES REVIEW	10/9/15
1	ISSUED FOR APPROVAL	7/20/15
0	ISSUED FOR COMMENT	6/30/15

SUBDIVISION PLAN
TAX MAP 201 - LOT 1
APPLICANT:
WILLIAM L. PINGREE
OWNER:
955 SAGAMORE REALTY TRUST
955 SAGAMORE AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

B3231 P0475

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

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Aug 11 8 16 AM '97

P 0036354

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0476

Walter J. Allen
Walter J. Allen
1 Sagamore Grove Road

Betty A. Nallick
Witness
Date: December 16, 1996

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 16th of December, 1996, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Kathleen A. Castle
Justice of the Peace/Notary Public
KATHLEEN A. CASTLE, Notary Public
My Commission expires December 6, 2000



B3231 P0477

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property, but will remain the property of the current owner or owners.

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AUG 11 8 18 AM '97

0036355

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0478

Maureen A. Mack
Maureen A. Mack
3 Sagamore Grove Road

[Signature]
Witness
Date: 12/29/96

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 23 of December, 1996, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

[Signature]
Justice of the Peace/Notary Public

DARLENE PENTA, Notary Public
My Commission Expires November 8, 1998



B3231 P0479

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

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Aug 11 8 10 AM '97

0038356

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0480

Joseph E. Golter
Joseph E. Golter
4 Sagamore Grove Road

Thomas P. Coakley
Witness
Date: 12-24-96

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 24 of December, 1996, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Beatrice A. Marconi
Justice of the Peace/Notary Public
BEATRICE A. MARCONI, Notary Public
My Commission Expires September 18, 2000

63231 P0481

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

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AUG 11 8 18 AM '97
00383577

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

Thomas J. Davis
Thomas Davis
4 Sagamore Grove Road

Mark H. Kelleher
Witness
Date: January 7, 1997

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 7 of January, 1997, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Beatrice A. Marcóni
Justice of the Peace/Notary Public
BEATRICE A. MARCONI, Notary Public
My Commission Expires September 18, 2001

B3231 P0483

ACKNOWLEDGMENT AND RELEASE

The undersigned, all property owners of Sagamore Grove Road in Portsmouth, County of Rockingham, State of New Hampshire for themselves, their heirs, successors and assigns do hereby acknowledge the action taken by the Portsmouth City Council on October 2, 1995 to treat a traveled way known as Sagamore Grove Road as a public way. The undersigned acknowledges that the action of the City Council will result in the City paving Sagamore Grove Road and maintaining it in the future in the same fashion as any other public way is maintained. The undersigned further acknowledges that deeming Sagamore Grove Road to be a public way may have implications for their properties, including but not limited to zoning matters, and how the property is to be taxed. It is understood that the land located under the right of way will not become public property; but will remain the property of the current owner or owners.

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APR 11 8 19 AM '97

0038358

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

B3231 P0484

Lawrence Hayes
Lawrence Hayes
5 Sagamore Grove Road

Carolyn A Reynolds
Witness
Date: 12/22/96

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this 22 of December, 1996, personally appeared before me, known to me or satisfactorily proved to be the parties described in the foregoing instrument, and acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

Brent Beavers
Justice of the Peace/Notary Public

BRENT BEAVERS, Notary Public
My Commission Expires October 6, 2000



13

NHB Correspondence

CONFIDENTIAL – NH Dept. of Environmental Services review

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

To: Jacob Shactman, Wright-Pierce
230 Commerce Way
Suite 302
Portsmouth, NH 03801

From: Amy Lamb, NH Natural Heritage Bureau

Date: 1/29/2021 (valid until 01/29/2022)

Re: Review by NH Natural Heritage Bureau

Permits: GRANT APP - CWSRF Loan, NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Major, NHDES - Wetland Standard Dredge & Fill - Minor

NHB ID: NHB21-0107

Town: Portsmouth

Location: Sagamore Ave, Sagamore Grove, Shaw Rd, Walker Bungalow Rd, Wentworth Rd, Cliff Rd

Description: The project will consist of constructing a low pressure sewer system throughout the project area delineated. Service connections will also be constructed for homes within the project area that elect to connect. The project is anticipated to begin construction in the spring of 2021 to meet an EPA/NHDES consent decree requiring substantial completion of the new sewer extension before June 30, 2022.

cc: Kim Tuttle

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

Comments NHB: Please send NHB photos of any tidal wetland impact areas.
F&G: Contact Kim Tuttle at NHFG.

Natural Community	State ¹	Federal	Notes
High salt marsh	--	--	
Intertidal flat	--	--	
Low salt marsh	--	--	
Salt marsh system	--	--	Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.

CONFIDENTIAL – NH Dept. of Environmental Services review

Memo

NH Natural Heritage Bureau
NHB Datacheck Results Letter

Plant species	State ¹	Federal	Notes
dwarf glasswort (<i>Salicornia bigelovii</i>)*	E	--	Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
marsh elder (<i>Iva frutescens</i>)	T	--	Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.

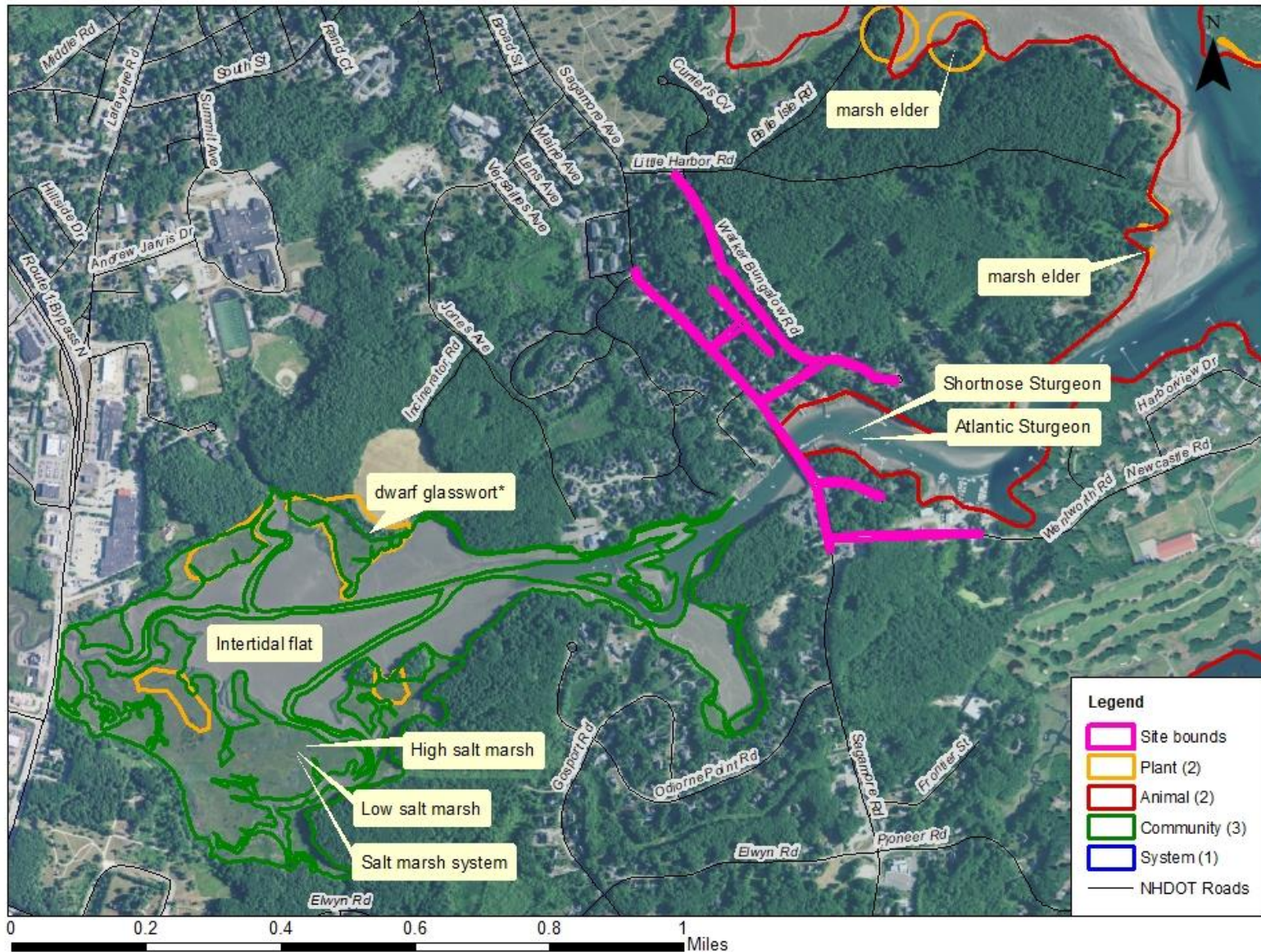
Vertebrate species	State ¹	Federal	Notes
Atlantic Sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>)	T	T	Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below).
Shortnose Sturgeon (<i>Acipenser brevirostrum</i>)	E	E	Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below).

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

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

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

NHB21-0107



Dates documented

First reported: 1997-06-18

Last reported: 2006-05-24

be accessed from the Rte. 1 bridge on the western side.

Dates documented

First reported: 1997-06-18 Last reported: 2006-05-24

New Hampshire Natural Heritage Bureau - Community Record

Low salt marsh

Legal Status

Federal: Not listed
State: Not listed

Conservation Status

Global: Not ranked (need more information)
State: Rare or uncommon

Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2006: Observed and photographed along the edges of tidal creeks and along the lower fringes of the much more dominant **high salt marsh** community. 1997: *Spartina alterniflora* (smooth cord-grass) dominates. The band of *S. alterniflora*, reaching heights of 4-6 feet, generally was restricted to a narrow fringe along ditches, tidal creeks, and margins of Sagamore Creek.

General Area: 1997: The transition between **high** and **low salt marsh** occurred approximately at the mean high water mark; **high salt marsh** stretched landward from mean high water to the upper reaches of spring tides. Sagamore Creek is a relatively diverse, sizable, and significant estuary supporting good quality estuarine habitat. Three small, fair quality **brackish marshes** and a **high salt marsh** occurred landward of the **low salt marsh**. **Tidal creek bottoms**, a **saline/brackish intertidal flat**, and an undifferentiated **saline/brackish subtidal channel/bay bottom** occurred toward the channel. A population of *Puccinellia paupercula* var. *alaskana* (Alaskan goose-grass) was found on the cobbly shore of one of two "salt marsh islands" in the estuary. These islands were covered by **hemlock-beech-oak-pine forest**. Moderate residential and commercial development occurs particularly around the western lobe where Rte. 1 crosses the estuary. Estuarine tidal flow was evaluated as adequate for the salt marsh west of Rte. 1 and unaffected for the remainder of the marsh (USDA Soil Conservation Service 1994).

General Comments: 1997: The **low salt marsh** has more frequent tidal flooding, lower soil oxygen, and reduced soil salinity compared to the **high salt marsh**. *S. alterniflora* dominated the physically stressful low marsh due to its ability to oxygenate its roots and rhizosphere.

Management Comments: --

Location

Survey Site Name: Sagamore Creek
Managed By:

County: Rockingham
Town(s): Portsmouth
Size: 64.4 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Occurs between mean sea level and mean high tide. Park at Urban Forestry Center on Elwyn Road. Trails lead from here down to the southern edge of the salt marsh along Sagamore Creek, and east through adjacent upland forest to more trails leading to the eastern side of the salt marsh. The western side of the marsh can be accessed from the Episcopal Church near the southeast edge along Rte. 1. The Rte. 1 bridge crosses the creek at the western edge of the salt marsh (the marsh continues on the western side of the bridge but it has been heavily ditched there and is not exemplary).

Dates documented

First reported: 1997-06-18 Last reported: 2006-05-24

New Hampshire Natural Heritage Bureau - System Record

Salt marsh system

Legal Status

Federal: Not listed
State: Not listed

Conservation Status

Global: Not ranked (need more information)
State: Rare or uncommon

Description at this Location

Conservation Rank: Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank: --

Detailed Description: A relatively diverse, sizable, and significant estuary supporting good quality estuarine habitat. Three small, fair quality *brackish marshes* and a *high salt marsh* occur landward of the *low salt marsh*.

General Area: 2006: Borders intertidal flats and a subtidal system.

General Comments: --

Management: --

Comments:

Location

Survey Site Name: Sagamore Creek

Managed By: Urban Forestry Center

County: Rockingham

Town(s): Portsmouth

Size: 64.4 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Sagamore Creek east of Rte. 1.

Dates documented

First reported: 1997-06-18

Last reported: 2007-10-17

New Hampshire Natural Heritage Bureau - Plant Record

marsh elder (*Iva frutescens*)

Legal Status

Federal: Not listed
State: Listed Threatened

Conservation Status

Global: Demonstrably widespread, abundant, and secure
State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank: This rank may be for the state rather than relative to others in the region.

Detailed Description: 2020: Tidal Pool: Species observed in flower. 2017: Leachs Island: Several thousand plants spread along 800+ feet of shoreline. 10-20% dieback, 10-15% yellowing, 65-80% normal to vigorous. Aphids observed on 80% of clumps. 2016: Peirce Island: Additional subpopulations located, raising total number of plants to over 600. Plants appear to be in much better health than 2014, with all individuals in fruit and in good vigor. Shaws Hill: Several clumps over an area approximately 30 x 15 feet. Estimated at over 200 individuals. Tidal Pool: Plants in 3 areas along shoreline near tidal pool. 2014 Peirce Island: Over 500 plants were observed, all stunted, with approximately 50-60% dead stems, mostly confined to the upper portions of the plants. 1996: Constant observation since 1953 reported, including all stages of phenology and age structure. 1982: Good clump observed.

General Area: 2017: Leachs Island: Upper edge of brackish marsh/rocky shore. Plants absent from areas with broader expanse of marsh. Rocks present in most areas where the plants are growing. Associated species include black oak (*Quercus velutina*), saltmarsh rush (*Juncus gerardii*), sea-blite (*Suaeda* sp.), hastate-leaved orache (*Atriplex* cf. *prostrata*), smooth cordgrass (*Spartina alterniflora*), Carolina sea-lavender (*Limonium carolinianum*), and seaside plantain (*Plantago maritima* ssp. *juncooides*). 2016: Peirce Island: Population forms a narrow band immediately above the highest observed wrack line along the shore. Associated upland species include staghorn sumac (*Rhus hirta*), autumn-olive (*Elaeagnus umbellata* var. *parvifolia*), Asian bittersweet (*Celastrus orbiculatus*), and speckled alder (*Alnus incana* ssp. *rugosa*). The saline areas downslope of the marsh elder contained over 50% unvegetated substrate, as well as a mixture of cordgrass (*Spartina* sp.) and saltgrass (*Distichlis spicata*). Shaws Hill: Surrounding land use is developed. All plants below highest observable tide line in **high salt marsh**, located among saltmeadow cordgrass (*Spartina patens*), smooth cordgrass (*Spartina alterniflora*), and seaside goldenrod (*Solidago sempervirens*). Tidal Pool: Sagamore Creek/Great Bay shoreline, with smooth cordgrass (*Spartina alterniflora*), saltmarsh rush (*Juncus gerardii*), saltmeadow cordgrass (*Spartina patens*), seaside goldenrod (*Solidago sempervirens*), and sea-blite (*Suaeda* spp.). 1996: On shores of several islands and peninsulas in the more or less enclosed bay system. Associated plant species: *Solidago sempervirens* (seaside goldenrod), *Juncus gerardii* (salt marsh rush), *Spartina patens* (saltmeadow cord-grass), *Triglochin maritimum* (arrow-grass), *Elymus virginicus* (Virginia wild rye), *Atriplex patula* (narrow-leaved orach), and *Artemisia vulgaris* (common mugwort). Substrate: gravel and marsh peat and muck. 1982: On shore at Pleasant Point.

General Comments: 2016: Peirce Island: "The population currently appears to be in good health, although the results of the June 2014 surveys indicated that there may be some intermittent pressure on this population. The propensity of this species to grow in a very narrow band along the tide line does not allow for rapid adaptation to changing sea levels, storm events, or polluted runoff that a larger, robust population may resist. If sea levels gradually rise as expected, the marsh elder will be unable to move inland due to a small but steep cut bank that forms the upland break adjacent to the marsh elder population. The remaining subpopulations may also be getting shaded by the adjacent upland vegetation, which appears to be encroaching on the shoreline. This vegetation is comprised of large shrub species and the invasive Oriental bittersweet that is capable of overtaking the native plants in the area."

Management
Comments: --

Location

Survey Site Name: Little Harbor, back channel
Managed By: Little Harbor Trust

County: Rockingham

Town(s): Portsmouth

Size: 59.9 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2017: Leachs Island: Island in New Castle only accessible by boat. Plants observed on south shore of island 2016: Peirce Island: Along the southern shore of Peirce Island, along the edge of a small cove west of the wastewater treatment facility. Shaws Hill: Take Laurel Lane off New Castle Avenue, bear left onto driveway right-of-way servicing 51A and 51B Laurel Lane. At end of right-of-way, 51B will be located on the right. Tidal Pool: Along Sagamore Creek shoreline on Creek Farm Reservation property in Portsmouth. In the vicinity of Rte. 1B which encircles the Little Harbor back channel from Portsmouth to New Castle and Rye. Many of the sites are visible only by boat.

Dates documented

First reported: 1953

Last reported: 2020-08-02

New Hampshire Natural Heritage Bureau - Animal Record

Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)

Legal Status

Federal: Listed Threatened
State: Listed Threatened

Conservation Status

Global: Rare or uncommon
State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2016: 1 individual, sex unknown, detected in the lower Piscataqua River. 2015: 1 individual, sex unknown, detected in Portsmouth Harbor. 2012: 1 individual, sex unknown, detected in Little Bay.

General Area: 2016: Tidal waters in Portsmouth Harbor, Little Bay, and the Piscataqua River.

General Comments: --

Management: --

Comments:

Location

Survey Site Name: Piscataqua River

Managed By:

County:

Town(s): Out-Of-State

Size: 7749.3 acres

Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 2016: Tidal waters of Portsmouth Harbor, Little Bay, and the Piscataqua River.

Dates documented

First reported: 2012-06-02

Last reported: 2016-05-27

The U.S. Fish & Wildlife Service has jurisdiction over Federally listed species. Please contact them at 70 Commercial Street, Suite 300, Concord NH 03301 or at (603) 223-2541.

Jacob Shactman

From: Lamb, Amy <Amy.E.Lamb@dncr.nh.gov>
Sent: Tuesday, February 2, 2021 9:47 AM
To: Jacob Shactman; Tuttle, Kim
Cc: Britt Eckstrom; Kevin Garvey
Subject: RE: NHB review: NHB21-0107

Hello Jake,

Thank you for clarifying that the project does not involve impacts to tidal wetlands, and that there will be no work over the Sagamore Avenue bridge. Since work will be within the existing roadway and adjacent yards, and appropriate erosion controls will be in place throughout construction, NHB does not expect impacts to the following records included on NHB21-0107:

- Salt marsh system
- High salt marsh
- Low salt marsh
- Intertidal flat
- dwarf glasswort (*Salicornia bigelovii*)
- marsh elder (*Iva frutescens*)

Contact NHB if the project changes to include impacts to tidal wetlands.

Best,
Amy

From: Jacob Shactman <jacob.shactman@wright-pierce.com>
Sent: Monday, February 1, 2021 11:32 AM
To: Lamb, Amy <Amy.E.Lamb@dncr.nh.gov>; Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Britt Eckstrom <britt.eckstrom@wright-pierce.com>; Kevin Garvey <kevin.garvey@wright-pierce.com>
Subject: RE: NHB review: NHB21-0107

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

Hi Amy,

Starting with Sagamore Ave Sewer Extension Portsmouth (NHB21-0107), it appears that natural communities including high salt marsh, intertidal flat, low salt marsh, and salt marsh systems were identified. Also, plant species identified includes dwarf glasswort and marsh elder.

The proposed project will take place within the existing roadways to install the low pressure sewer force main and also 10' wide impact areas from the roadways to private properties for those who elect to connect to the sewer system. All disturbances outside of the roadways will be within previously disturbed areas adjacent to existing buildings, primarily mowed lawn or landscaped areas. Erosion control measures will be installed around the work area abutting Sagamore Creek and freshwater wetlands. See photographs attached of impact areas within the Tidal Buffer Zone.

Kim,

Both Atlantic and Shortnose Sturgeon were listed as part of this review. There will be no work within the waterway. The proposed project is intended to improve water quality in Sagamore Creek as part of a consent decree by the EPA and NHDES due to inadequate septic systems within the project area. The project does not include work over the Sagamore Ave bridge.

Please let me know if there is anything else I can provide to assist your review.

Thanks,
Jake

From: Lamb, Amy <Amy.E.Lamb@dncr.nh.gov>
Sent: Friday, January 29, 2021 6:22 PM
To: Jacob Shactman <jacob.shactman@wright-pierce.com>
Cc: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Subject: NHB review: NHB21-0107

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best,
Amy

Amy Lamb
Ecological Information Specialist

NH Natural Heritage Bureau
DNCR - Forests & Lands
172 Pembroke Rd
Concord, NH 03301
603-271-2834

Jacob Shactman

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Monday, February 1, 2021 1:13 PM
To: Jacob Shactman
Cc: Dionne, Michael
Subject: RE: NHB21-0107 constructing a low pressure sewer system Portsmouth

Hi Jacob,

Thanks for the clarification. The NHFG Nongame and Endangered Species Program does not expect impacts to the Atlantic or shortnose sturgeon as a result of the proposed sewer extension work in Portsmouth.

Avoid the use of welded plastic or 'biodegradable plastic' netting or thread in erosion control matting. There are numerous documented cases of protected snakes, and other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. 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 if erosion control matting is needed.

Thanks,

Kim Tuttle
Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Jacob Shactman <jacob.shactman@wright-pierce.com>
Sent: Monday, February 1, 2021 1:05 PM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Britt Eckstrom <britt.eckstrom@wright-pierce.com>; Kevin Garvey <kevin.garvey@wright-pierce.com>; Dionne, Michael <Michael.A.Dionne@wildlife.nh.gov>
Subject: RE: NHB21-0107 constructing a low pressure sewer system Portsmouth

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

Hi Kim,

There will be no impacts through Sagamore Creek. No directionally drilling will occur. The proposed sewer extension will connect to existing sewer systems on either side of Sagamore Creek.

The project will not require an AOT.

Thanks,
Jake

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Monday, February 1, 2021 12:54 PM
To: Jacob Shactman <jacob.shactman@wright-pierce.com>
Cc: Britt Eckstrom <britt.eckstrom@wright-pierce.com>; Kevin Garvey <kevin.garvey@wright-pierce.com>; Dionne, Michael <Michael.A.Dionne@wildlife.nh.gov>
Subject: NHB21-0107 constructing a low pressure sewer system Portsmouth

Hello Jacob,

Can you give Mike Dionne and me a few more details regarding the directional drill under Sagamore Creek- timing, how far back from the creek it will begin and end so that Marine Division can evaluate for potential impacts to the sturgeon species? Will this project require an AoT?

Please inform NHFG reviewers if your project will require or may require an Alteration of Terrain Permit. Be advised that as of June 2, 2020, DES has adopted a new rule; [Env-Wq 1503.19 intro and \(h\)](#), pertaining to the criteria for issuance of AoT permits specific to RSA 212-A:9, III threatened and endangered wildlife species. The rule results in a change to what information on threatened and endangered wildlife species will need to be submitted in order for the AoT program to make a permit decision: In addition to a NHB datacheck results letter, the rule now also requires an assessment or survey of the project area for the presence of threatened and endangered rare wildlife species or their habitat. Surveys should address all wildlife species identified in the NHB datacheck results letter as well as species that may not yet have been recorded with NHB but may be present in the project area. This work needs to be completed by a qualified wildlife biologist and would need to be coordinated with NHFG.

Thanks,

Kim Tuttle
Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Jacob Shactman <jacob.shactman@wright-pierce.com>
Sent: Monday, February 1, 2021 11:32 AM
To: Lamb, Amy <Amy.E.Lamb@dncr.nh.gov>; Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
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Hi Amy,

Starting with Sagamore Ave Sewer Extension Portsmouth (NHB21-0107), it appears that natural communities including high salt marsh, intertidal flat, low salt marsh, and salt marsh systems were identified. Also, plant species identified includes dwarf glasswort and marsh elder.

The proposed project will take place within the existing roadways to install the low pressure sewer force main and also 10' wide impact areas from the roadways to private properties for those who elect to connect to the sewer system. All disturbances outside of the roadways will be within previously disturbed areas adjacent to existing buildings,

primarily mowed lawn or landscaped areas. Erosion control measures will be installed around the work area abutting Sagamore Creek and freshwater wetlands. See photographs attached of impact areas within the Tidal Buffer Zone.

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Both Atlantic and Shortnose Sturgeon were listed as part of this review. There will be no work within the waterway. The proposed project is intended to improve water quality in Sagamore Creek as part of a consent decree by the EPA and NHDES due to inadequate septic systems within the project area. The project does not include work over the Sagamore Ave bridge.

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Jake

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Cc: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Subject: NHB review: NHB21-0107

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best,
Amy

Amy Lamb
Ecological Information Specialist

NH Natural Heritage Bureau
DNCR - Forests & Lands
172 Pembroke Rd
Concord, NH 03301
603-271-2834

Conservation Commission Correspondence

The Portsmouth Conservation Commission will be sent a copy of this application when it is submitted to the NHDES Wetlands Bureau for project review. A presentation will be planned at the Commission to present the project and receive comments on the application. Comments received from the Conservation Commission will be addressed in the project design and will be forwarded to NHDES Wetlands Bureau.

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Federal Agency Correspondence

The proposed project is being completed to satisfy a consent decree between the City of Portsmouth, the New Hampshire Department of Environmental Services (NHDES), and the US Environmental Protection Agency (USEPA). Due to COVID-19, the City has requested an extension to the Consent Decree deadlines to June 2021 (begin construction) and December 2022 (final completion). The consent decree, as part of Civil Action No. 09-cv-283-PB of the United States District Court District of New Hampshire is attached. See page 8.

UNITED STATES DISTRICT COURT
DISTRICT OF NEW HAMPSHIRE

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
STATE OF NEW HAMPSHIRE,)	
)	CIVIL ACTION
Plaintiff-Intervenor,)	
)	NO. 09-cv-283-PB
CONSERVATION LAW FOUNDATION,)	
)	
Plaintiff-Intervenor)	
)	
v.)	
)	
CITY OF PORTSMOUTH, NEW HAMPSHIRE,)	
)	
Defendant.)	
)	

CONSENT DECREE SECOND MODIFICATION

WHEREAS, Plaintiff, the United States of America ("United States"), on behalf of the United States Environmental Protection Agency ("EPA"), filed a Complaint in this action alleging that Defendant, the City of Portsmouth, New Hampshire ("City") violated Section 301(a) of the Clean Water Act ("CWA"), 33 U.S.C. § 1301(a);

WHEREAS, Plaintiff-Intervenor, the State of New Hampshire ("State"), filed a Complaint-in-Intervention alleging that the City violated the New Hampshire Water Pollution and Waste Disposal Act, NH RSA 485-A ("New Hampshire Act");

WHEREAS, the United States Complaint and State Complaint-in-Intervention allege that the City is violating its April 10, 2007 National Pollutant Discharge Elimination System ("NPDES") permit effluent limitations for discharges from the City's Peirce Island Wastewater

Treatment Facility ("Peirce Island WWTF") and permit conditions applicable to discharges from overflow points in the City's combined wastewater collection system;

WHEREAS, the April 10, 2007 NPDES permit does not contain monitoring or effluent limits for total nitrogen;

WHEREAS, the Court entered the Consent Decree ("Consent Decree") in this matter on September 24, 2009, requiring combined sewer overflow ("CSO") mitigation and achieving secondary treatment limits in accordance with the schedule set forth in the WWTF Work Plan to be submitted to EPA by September 1, 2010;

WHEREAS, the Court granted the motion by Conservation Law Foundation, Inc. ("CLF") to intervene as a plaintiff on October 9, 2012;

WHEREAS, the original Consent Decree was modified by agreement of the United States, State, and City, and approved by Order of this Court on February 15, 2013 ("First Modification");

WHEREAS, the First Modification required the City to complete construction of the secondary treatment facilities by March 1, 2017 and achieve compliance with treatment limits in its NPDES permit by May 1, 2017;

WHEREAS, all parties agree that the City will not complete construction of secondary treatment facilities or achieve compliance with treatment limits by the dates set forth in the First Modification;

WHEREAS, the United States, State, City, and CLF (collectively, the "Parties") participated in settlement negotiations related to City's anticipated failure to complete construction of the Peirce Island WWTF and achieve secondary treatment by the dates set forth in the First Modification, and have agreed to the terms of this Consent Decree Second

Modification (“Second Modification”) that sets forth a revised construction and compliance schedule, mitigation measures related to the failure to comply with the First Modification, and related provisions;

WHEREAS, unless explicitly revised by the terms of this Second Modification, all provisions of the Consent Decree and First Modification, shall remain in effect; and

WHEREAS, the Parties agree, and the Court by entering this Second Modification finds, that this Second Modification is fair, reasonable, and in the public interest.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed that:

I. JURISDICTION

1. The Court has jurisdiction over the subject matter of this action and over the Parties to this Second Modification pursuant to Paragraphs 1 and 65 of the Consent Decree.
2. Pursuant to Paragraph 66 of the Consent Decree material modifications of the Consent Decree may be made by written agreement of the Parties, and shall be effective only upon approval of the Court.

II. OBJECTIVES

3. It is the express purpose of the Parties entering this Second Modification to: effectuate the City’s compliance with the CWA, 33 U.S.C. § 1251, *et seq.*; set forth an expeditious, reasonable, and binding schedule for achieving secondary treatment at the Peirce Island WWTF; and establish mitigation requirements related to City’s failure to achieve secondary treatment in accordance with the schedule set forth in the First Modification.
4. To this end, it is the further objective of the Parties that: the City substantially complete construction of the Biologically Aerated Filters (“BAF”) and all facilities necessary to allow startup by December 1, 2019; and the City achieve compliance with all NPDES permit limits

contained in the permit dated April 10, 2007, or any subsequently issued NPDES permit that is final and in effect after any appeals, by April 1, 2020.

III. MODIFICATION OF EXISTING PROVISIONS

5. Milestones and Schedules. Paragraph 1 of Appendix B.1 to the Consent Decree is hereby modified by revising paragraphs 5 k. through m. of the First Modification, which are hereby replaced with the following:

a. By July 1, 2016, the City shall execute a contract to construct a secondary treatment facilities with a capacity of 6.13 million gallons per day ("MGD") average, and 9.06 MGD maximum day flow (not including recycle flows), including BAF, and issue a Notice to Proceed on such construction.

b. By December 1, 2016, the City shall submit two additional construction milestones to EPA for approval based upon the detailed schedule to be provided to the City by the City's selected contractor. The City shall provide EPA with a copy of its contractor's detailed schedule along with its recommended milestones. Each such milestone shall be the completion of a substantial critical path activity, and neither can be substantial completion of BAF construction. By the dates set forth in each EPA approved milestone, the City shall complete all related construction work to achieve the applicable substantial critical path activity.

c. By December 1, 2019, the City shall substantially complete construction of the secondary treatment facilities, including the BAF, and all facilities necessary to allow startup.

d. By April 1, 2020, the City shall achieve compliance with NPDES permit limits contained in the permit dated April 10, 2007, or any subsequently issued NPDES permit that is final and in effect after any appeals.

6. Reporting. Paragraph 20.a. to the Consent Decree is hereby replaced with the following:

a. Monthly Reports on Compliance. Within 30 days after the end of each month, the City shall submit a written report to EPA, the State, and CLF for the preceding month that shall include a description or reporting of the following:

- i) status of required construction, including major work items completed in the preceding month;
- ii) projected work items to be undertaken in the next month;
- iii) project percent complete based on payments to contractor for work completed;
- iv) project percent complete based on time elapsed;

- v) status of all required permit applications;
- vi) status of Consent Decree milestones including identifying any problems encountered or anticipated, together with the proposed or implemented solutions; and
- vii) the monthly average discharge concentrations of total nitrogen for the preceding month, as required in Paragraph 8.b.ii of the Second Modification.

The Consent Decree, First Modification, and Second Modification along with such Monthly Reports on Compliance shall be posted on the City's internet site, and maintained accessible to the public online until termination of the Consent Decree. In addition to the submission of Reports on Compliance, the Parties will participate in quarterly meetings or conference calls, if scheduled by EPA, to review the City's compliance with the terms of the Consent Decree.

IV. ADDITIONAL PROVISIONS

7. Schedule Recovery Program. If the City fails to achieve any of the construction milestones by the dates set forth in or determined in accordance with Section III (Modification of Existing Provisions), the City shall use its contractual remedies, including without limitation, Part 2.01.F (Recovery Schedule) of Section 01311 (Construction Progress Schedules) of the City's contract for construction of the project, to maintain schedule compliance. At the discretion of the City, the schedule recovery program may include the application of extended shifts, second shifts, work on weekends, extra labor, or other atypical construction efforts and measures to return the project to schedule and meet required milestones. However, if implementing extended shifts, second shifts, work on weekends, or/and extra labor is the only means capable of achieving compliance, the schedule recovery program shall employ one or more of these methods.

8. Mitigation. The City agrees to implement the following initiatives as mitigation for the continued discharges of biochemical oxygen demand ("BOD₅") and total suspended solids ("TSS") resulting from the delayed implementation of secondary treatment.

a. Interim Enhanced Primary Treatment. The City shall engage a qualified engineer to perform an optimization study on the primary clarifiers for the chemically enhanced primary treatment system. The study work plan shall be submitted to the State and CLF for review, and to EPA for review and approval, within 60 days following Court approval of this Second Modification. The study shall be completed according to the work plan and the results shall be submitted to the State and CLF for review, and to EPA for review and approval. The review and approval process shall be in accordance with Paragraphs 14 through 19 of the Consent Decree. If clarifier performance for TSS can be improved by at least 10%, the City shall implement the recommendations of the approved study report within 90 days of EPA's approval and continue such implementation until the secondary treatment is operational. The percentage improvement shall be based upon the reduction in primary effluent average TSS concentration during testing of clarifier performance both with currently utilized chemical dosages and types, and with alternate/enhanced chemical addition, under as similar as possible operational conditions. If the approved study report finds that an increase of at least 10% cannot be achieved, the City will not be required to implement a chemical dosage optimization plan.

b. Nitrogen Removal.

i. For the five year period commencing June 1, 2020, the City shall operate the upgraded Peirce Island WWTF to achieve: (a) a seasonal average total nitrogen effluent concentration level no greater than 8 mg/l from May 1st through October 31st of each year; and (b) a monthly average total nitrogen effluent concentration level no greater than 8 mg/l from June 1st through October 31st of each year. This seasonal and monthly standard shall be referred to as the "8 mg/l TN Effluent Level."

ii. During this period, the City shall monitor and report to EPA, the State, and CLF in its Monthly Reports on Compliance the monthly average discharge

concentrations of total nitrogen for each month of each year. Such monitoring shall be conducted a minimum of twice per week using 24-hour composite samples.

iii. In the event an NPDES permit containing a total nitrogen effluent limit becomes final and takes effect that sets forth a total nitrogen effluent limit that is equal to or more stringent than the 8mg/l TN Effluent Level, the 8 mg/l TN Effluent Level and nitrogen monitoring requirements set forth in this Second Modification shall terminate.

iv. In the event an NPDES permit containing a total nitrogen effluent limit becomes final and takes effect that sets forth a total nitrogen effluent limit that is less stringent than the 8 mg/l TN Effluent Level, the City shall achieve the 8 mg/l TN Effluent Level and monitor as set forth in this Second Modification until June 1, 2025.

v. Nothing herein shall prevent any Party from appealing any part of any future NPDES permit.

vi. CLF reserves its rights to advocate lower total nitrogen limits in future NPDES permit processes.

c. Stormwater Project. The City shall commit funding in the amount of \$500,000 to implement a green infrastructure project(s) using innovative low-impact development approaches to significantly reduce stormwater pollution from one or more existing sites in the City of Portsmouth. The City agrees to coordinate with the other Parties in identifying site(s) and project(s), with an emphasis on retrofitting sites with significant impervious cover and associated pollutant loads, and in developing an overall design. Planning and coordination efforts for the project(s) shall commence no later than 90 days after Court approval of this Second Modification. The project shall be completed no later than three years after Court approval of this Second Modification.

d. Sagamore Avenue Sewer Extension Project. The City shall implement, at an estimated project cost of \$2.5 million, a sewer extension project to provide public sewer service to approximately 83 existing parcels adjacent to or near Sagamore Avenue, as depicted in the February 2011 Wright-Pierce Fig. 2 titled "Town [sic.] of Portsmouth, New Hampshire Sagamore Ave South Sewer Extension Study, Low Pressure Sewer," with the intent to improve water quality in Sagamore Creek. Planning, design and other pre-construction activities for the project shall be completed prior to substantial completion of the Peirce Island WWTF upgrade project. Construction of the sewer extension project shall begin no later than June 30, 2020 and shall be substantially completed on or before June 30, 2022.

e. Water Quality and Ecosystem Health Project. The City shall provide funding in the amount of \$500,000 to support activities that advance the Great Bay 2020 vision as described in Great Bay 2020: A Five-Year Vision for Collective Investment, Action, and a Healthy Watershed dated July 27, 2015. Such activities will be identified and selected collectively by the entities currently comprising the Great Bay 2020 Steering Committee (Piscataqua Region Estuaries Partnership, Great Bay National Estuarine Research Reserve, New Hampshire Department of Environmental Services, The Nature Conservancy, and CLF) with input and concurrence of the City and may include, but not be limited to, restoration, public outreach and education, science and monitoring, strategic land protections, and other projects and activities that advance efforts to improve water quality and/or ecosystem health in the Great Bay estuary with direct or indirect benefits for Portsmouth. Funding shall be provided in five annual installments of \$100,000, paid to an agreed upon fiscal agent and/or, by agreement by the Great Bay 2020 Steering Committee and the City, directly to implementing entities. The first payment shall be made no later than 60 days following Court approval of this Consent Decree Second

Modification, with subsequent annual payments occurring no later than the anniversary date of the prior year's payment due date. The first payment shall be directed in part, or in whole if necessary, to (1) the development and implementation of a water quality sampling plan for Sagamore Creek following QA/QC protocols, and including the participation of the City, the Great Bay-Piscataqua Waterkeeper, and New Hampshire Department of Environmental Services, with public engagement where appropriate, and (2) a regional symposium to educate and engage the public in sustainable lawn care / landscaping practices that reduce water pollution. The City's staff's participation shall not be counted as an offset or match toward the above-stated funding commitment, nor shall the City be reimbursed or otherwise compensated from such funds.

IV. STIPULATED PENALTIES

9. The City shall be liable to the United States and the State for stipulated penalties for failing to complete any requirement of this Second Modification by the dates specified herein.

Such stipulated penalties shall accrue per violation per day as follows:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$500	1 st through 14 th Day
\$750	15 th through 30 th Day
\$1,000	31 st and beyond

10. Stipulated penalties shall be paid in accordance with Section VI of the Consent Decree.

V. PUBLIC PARTICIPATION

11. This Second Modification shall be lodged with the Court for a period of not less than 30 days for public notice and comment in accordance with 28 C.F.R. Section 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Second Modification disclose facts or considerations indicating that the Second Modification is

inappropriate, improper, or inadequate. The City consents to entry of this Second Modification without further notice and agrees not to withdraw from or oppose entry of this Second Modification by the Court or to challenge any provision of the Second Modification, unless the United States has notified the City in writing that it no longer supports entry of this Second Modification.

VI. EFFECTIVE DATE

12. The Effective Date of this Second Modification shall be the date upon which this Second Modification is entered by the Court or a motion to enter the Second Modification is granted, whichever occurs first, as recorded on the Court's docket.

Dated and entered this 28th day of September, 2016.

/s/ Paul Barbadoro
UNITED STATES DISTRICT JUDGE
District of New Hampshire
Paul Barbadoro

FOR PLAINTIFF THE UNITED STATES OF AMERICA

Respectfully submitted,



JOHN T. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice
Washington, D.C. 20530

Date: 4/1/16



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FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

Date: 03/21/2016

Susan Studlien
SUSAN STUDLIEN
Director, Office of Environmental Stewardship
United States Environmental Protection Agency
Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
studlien.susan@epa.gov

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Date: 3.28.16



MARK POLLINS

Director

Water Enforcement Division

Office of Enforcement and Compliance Assurance

United States Environmental Protection Agency

1200 Pennsylvania Avenue, N.W.

Washington, DC 20460

FOR PLAINTIFF-INTERVENOR THE STATE OF NEW HAMPSHIRE

**State of New Hampshire
Department of Environmental Services**

By its attorney,

**JOSEPH A. FOSTER
New Hampshire Attorney General**

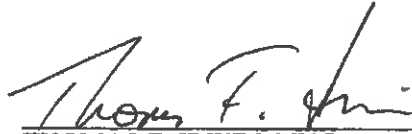
Date: 3/15/16



**K. ALLEN BROOKS, NH Bar No. 16424
Senior Assistant Attorney General
Environmental Protection Bureau 33 Capitol Street
Concord, NH 03301
(603) 271-3679**

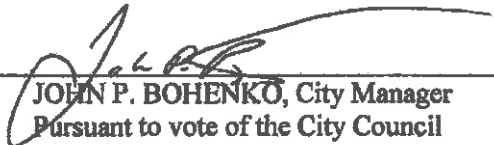
FOR PLAINTIFF-INTERVENOR CONSERVATION LAW FOUNDATION

Date: 3/15/16



THOMAS F. IRWIN, NH Bar No. 11302
Conservation Law Foundation
27 North Main Street
Concord, NH 03301
(603) 225-3060
tirwin@clf.org


FOR THE DEFENDANT, THE CITY OF PORTSMOUTH, NEW HAMPSHIRE

By: 
JOHN P. BOHENKO, City Manager
Pursuant to vote of the City Council

Of March 14, 2016

McLANE MIDDLETON,
PROFESSIONAL ASSOCIATION

Date: March 16, 2016


BRUCE W. FELMLY, NH Bar No. 787
900 Elm Street, P.O. Box 326
Manchester, NH 03105-0326
(603) 625-6464

16

Avoidance and Minimization





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.: City of Portsmouth (Terry Desmarais, PE - City Engineer)		
PROJECT STREET ADDRESS: Sagamore Ave, Sagamore Grove, Wentworth House Road, Shaw Road, Cliff Road, Walker Bungalow Road	PROJECT TOWN: Portsmouth	
TAX MAP/LOT NUMBER: Multiple		
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

If you answered “no” to this question, describe the purpose of the “non-access” project type you have proposed:

The purpose of the project is to extend City sewer services to residents in the Sagamore Creek area to reduce pollutants from existing septic systems into Sagamore Creek.

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 checked="" type="checkbox"/> Check <input 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 checked="" type="checkbox"/> Check <input 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 type="checkbox"/> Check <input checked="" 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 type="checkbox"/> Check <input checked="" 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
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

Coastal Resources Worksheet



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.: City of Portsmouth

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 purpose of the proposed project is to extend the City of Portsmouth's sewer service to Sagamore Avenue and the surrounding neighborhoods along Sagamore Creek. In 2016, the EPA and NHDES updated a Consent Decree to the City requiring construction of the new sewer extension.

A goal of this project is to improve water quality in Sagamore Creek. The intended outcome is to allow residents to utilize the proposed low-pressure sewer throughout the project area. The low pressure sewer will include a grinder pump adjacent to the buildings, which is fed by a gravity service lateral from the building.

Natural resource assets in the area include the Tidal Buffer Zone (TBZ) and Shoreland Protection Area. The impacts within the TBZ and Shoreland Protection Area are all previously developed. Impacts will primarily be temporary, with the exception of the grinder pump stations. Sagamore Creek is also classified as an impaired water.

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

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

www.des.nh.gov

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 proposed low-pressure sewer system was designed to minimize impacts to the natural resource assets to the maximum extent practicable. All trenches will be restored to match the existing conditions. Erosion and sediment control measures will be installed in accordance with the NH Erosion & Sediment Control Handbook. An Avoidance and Minimization Checklist and Coastal Functional Assessment is attached. The results of this were taken into consideration to minimize impacts of the proposed projects. The proposed project is intended to improve the water quality within Sagamore Creek by reducing pollutants due to failing and inadequate septic systems within the project area. Construction impacts will be minimized to the maximum extent practicable and in accordance with the NHDNC Best Management Practices Manual: Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire.

See additional detail in the Project Narrative included as Section 4.

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

A description of how the project will meet standard conditions and approval criteria is provided in the Project Narrative included as Section 4.

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.

The completed project includes infrastructure on private and public property. The LPS main within the ROW will be maintained and managed by the City. The infrastructure within private property is owned by the property owner who will be responsible for maintaining and managing the sewer service. The proposed E/One grinder pump will be required to be constructed in accordance with the manufacturers requirements to ensure a 5-Year manufacturers warranty is granted for each pump.

- 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.



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 proposed sewer project is designed to accommodate flows anticipated for the projected 50-year build-out of the project service area.

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.

The proposed sewer system will have a high risk tolerance to flooding. The sewer system is pressurized and will be fully sealed in order to operate effectively. Infiltration is not anticipated through the sewer system. For grinder pumps located within the 100-year floodplain, a flood proof cover manufactured by the vendor is proposed to minimize the risk of inflow into the pump. This results in relatively low sensitivity to inundation.

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.

The anticipated 2070 sea-level rise (SLR) at this location is approximately 2-feet, based on RCP 4.5, project timeframe, and tolerance for flood risk, per Table 3A in the New Hampshire Coastal Flood Risk Summary Part II: Guidance.

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

Flooding from SLR is not expected to result in flooding of the project area until well past the project design period.

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

The current FEMA flood map for the project shows that a portion of private sewer lateral is located within the floodzone at 238 Walker Bungalow.

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 is not anticipated to be impacted by SLR as the project is located outside of the selected SLR scenario and has a low sensitivity to inundation.

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:

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).
- Dredging activities (Env-Wt 607).
- Tidal beach maintenance (Env-Wt 608).
- Tidal shoreline stabilization (Env-Wt 609).
- Protected tidal zone (Env-Wt 610).
- 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:

- 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.

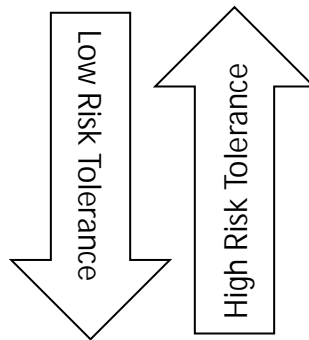
SECTION 10 – GUIDANCE

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:

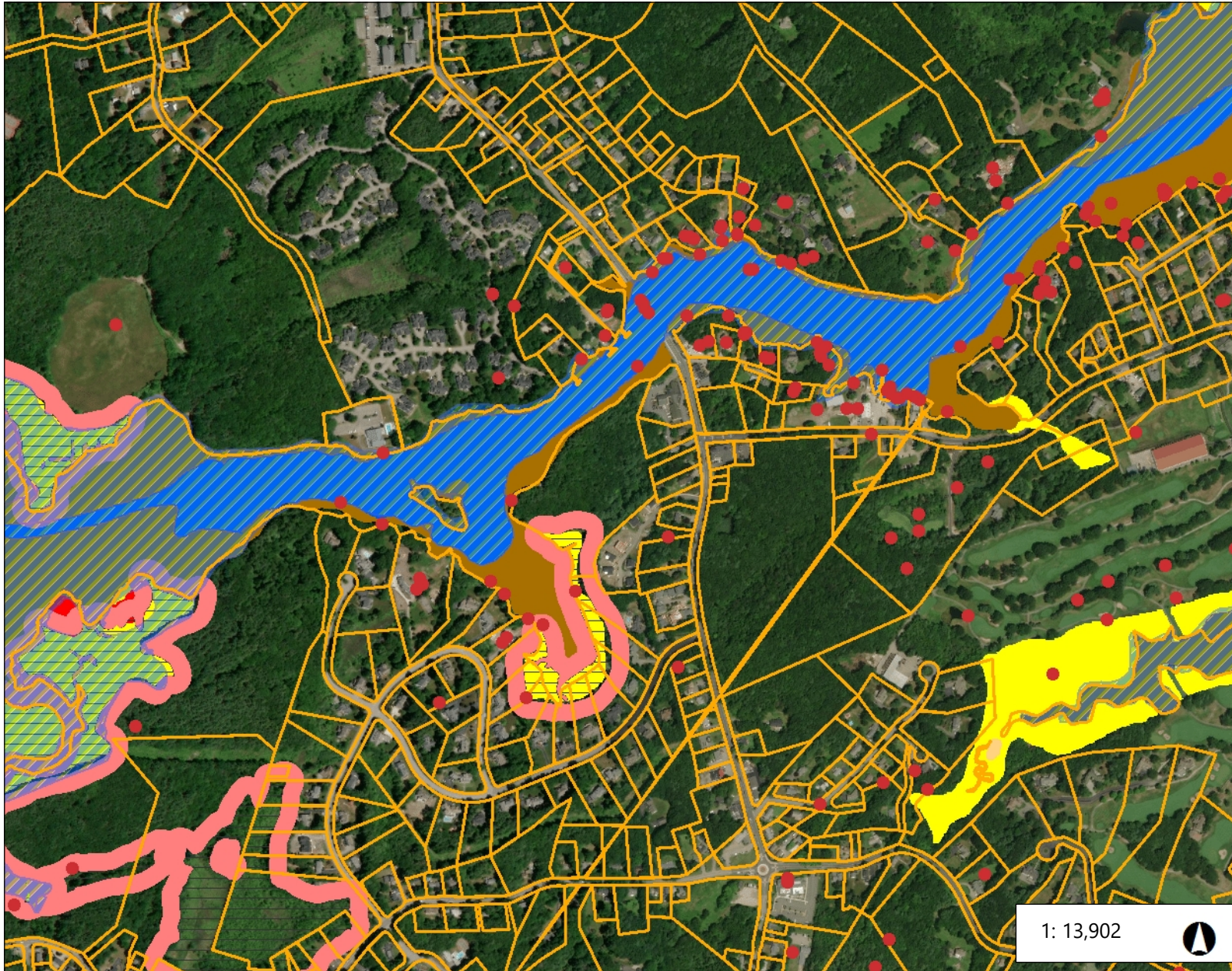
- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design, and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal 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.



Legend

- NHDES Wetland and Shoreland
- NH Parcel Mosaic
- Flood Plain Wetlands Adjacent
- Prime Wetlands with 100 ft Buffer
- Prime Wetlands
- Peatlands
- Sand Dunes**
- backdune
- foredune
- interdune
- other
- Tidal Waters / Tidal Wetlands**
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Tidal water
- World Imagery**
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery
- Citations

1: 13,902



0.4 0 0.22 0.4 Miles

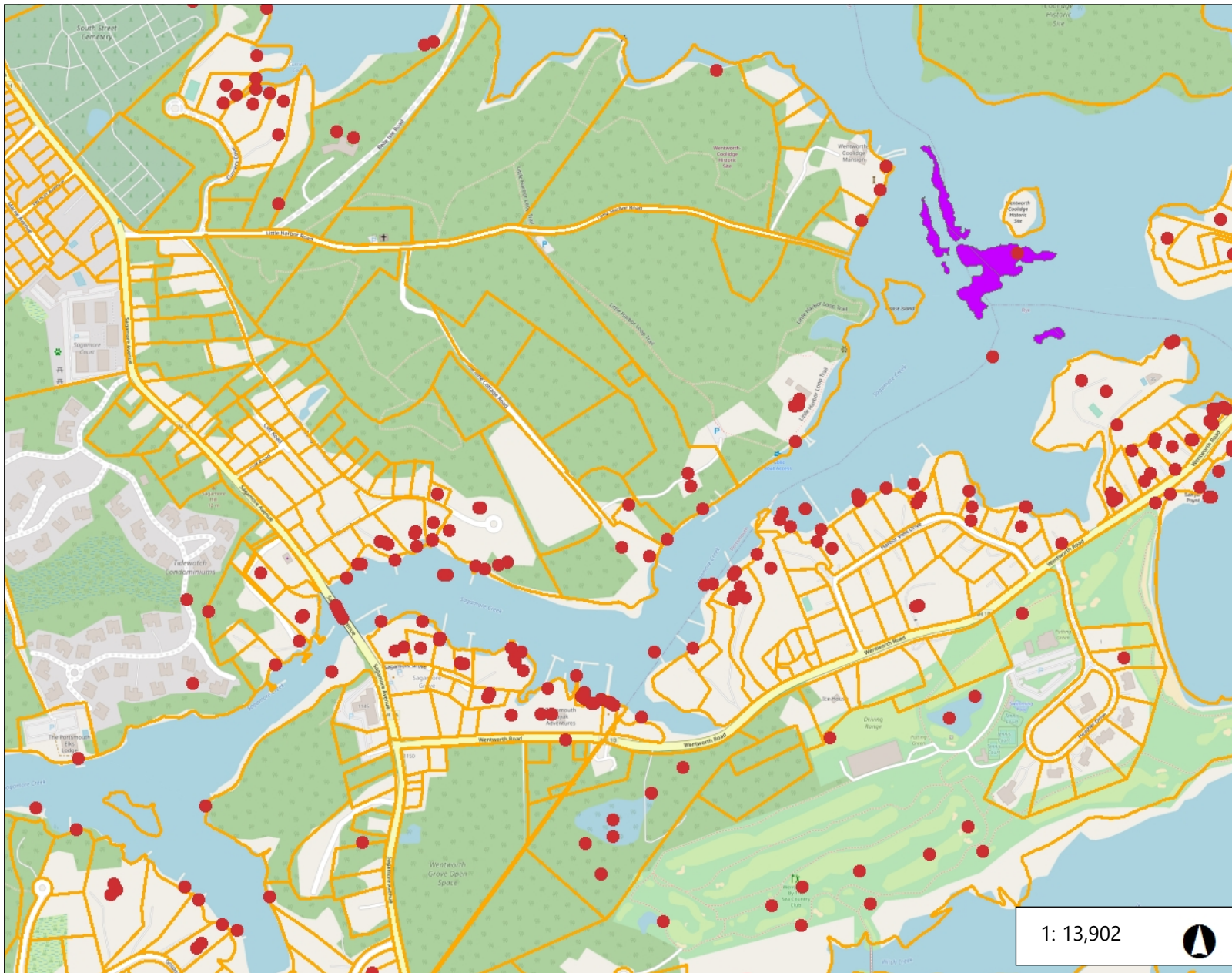
WGS_1984_Web_Mercator_Auxiliary_Sphere
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THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes

Sagamore Ave Sewer Extension



Legend

-  Oyster Restoration Sites
-  Aquaculture Sites - 2015
-  NHDES Wetland and Shoreland
-  NH Parcel Mosaic
-  Eelgrass 2017

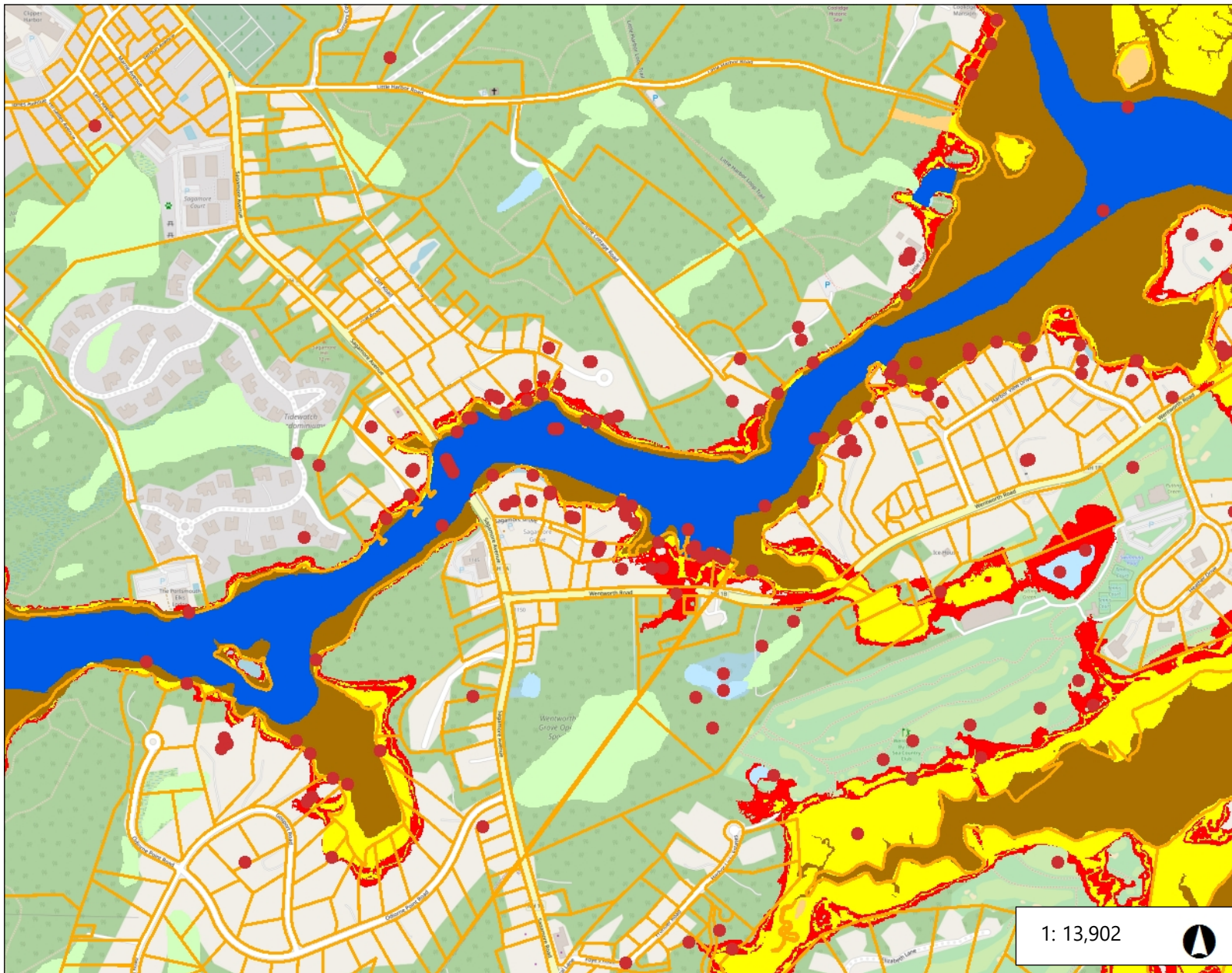
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Legend

- NHDES Wetland and Shoreland
- NH Parcel Mosaic
- Predicted Marsh Migration 202**
- Freshwater wetland
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Inland open water
- Tidal water
- Predicted Marsh Migration 210**
- Freshwater wetland
- Tidal wetland
- Transitional salt marsh
- Salt marsh
- Mud flat
- Inland open water
- Tidal water

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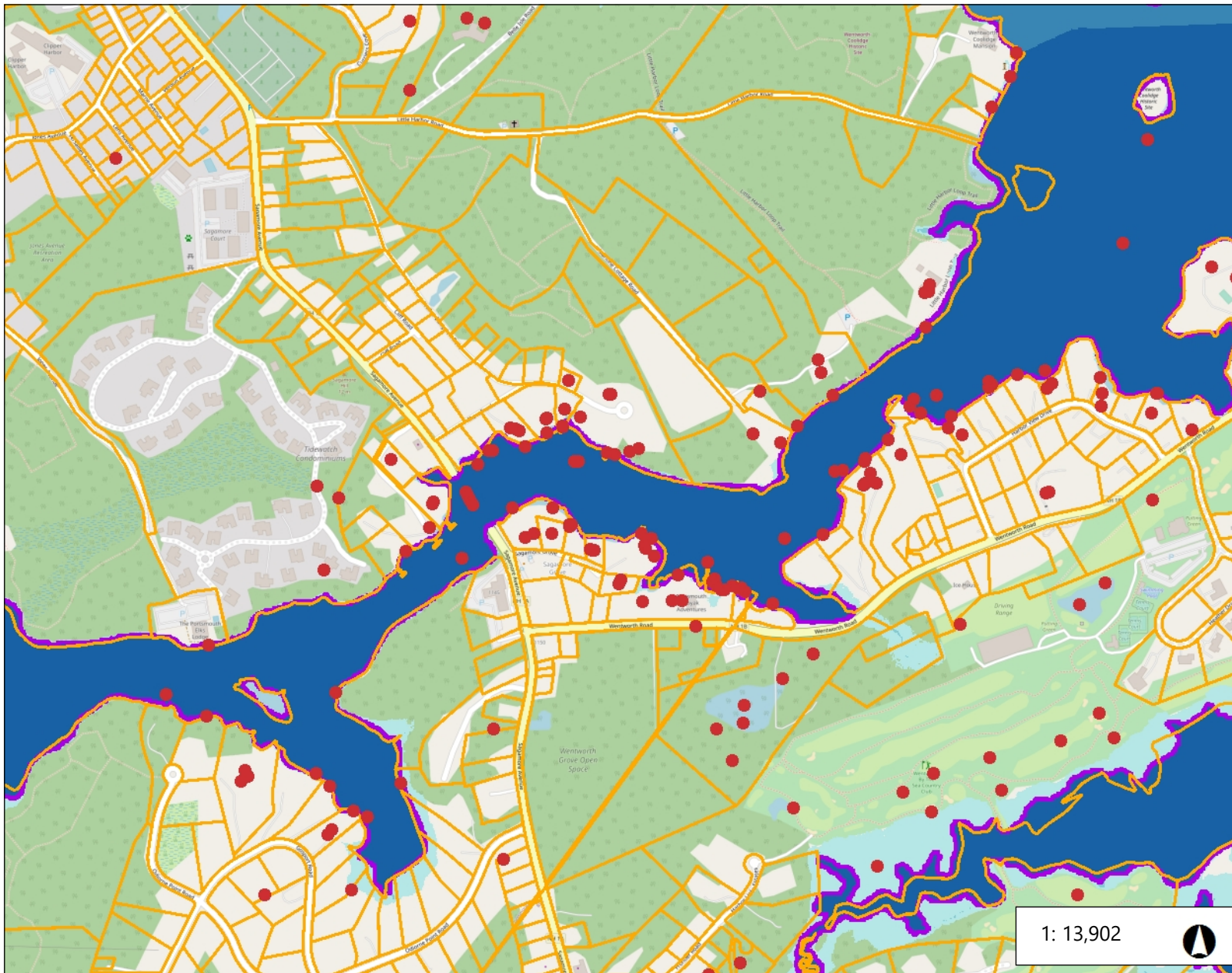
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Notes



Legend

- NHDES Wetland and Shoreland
- NH Parcel Mosaic
- MHHW Baseline
- MHHW + 2-ft SLR
 - 0 - 2
 - 2 - 4
 - 4 - 6
 - 6 - 8
 - 8 - 10
 - 10 +

1: 13,902



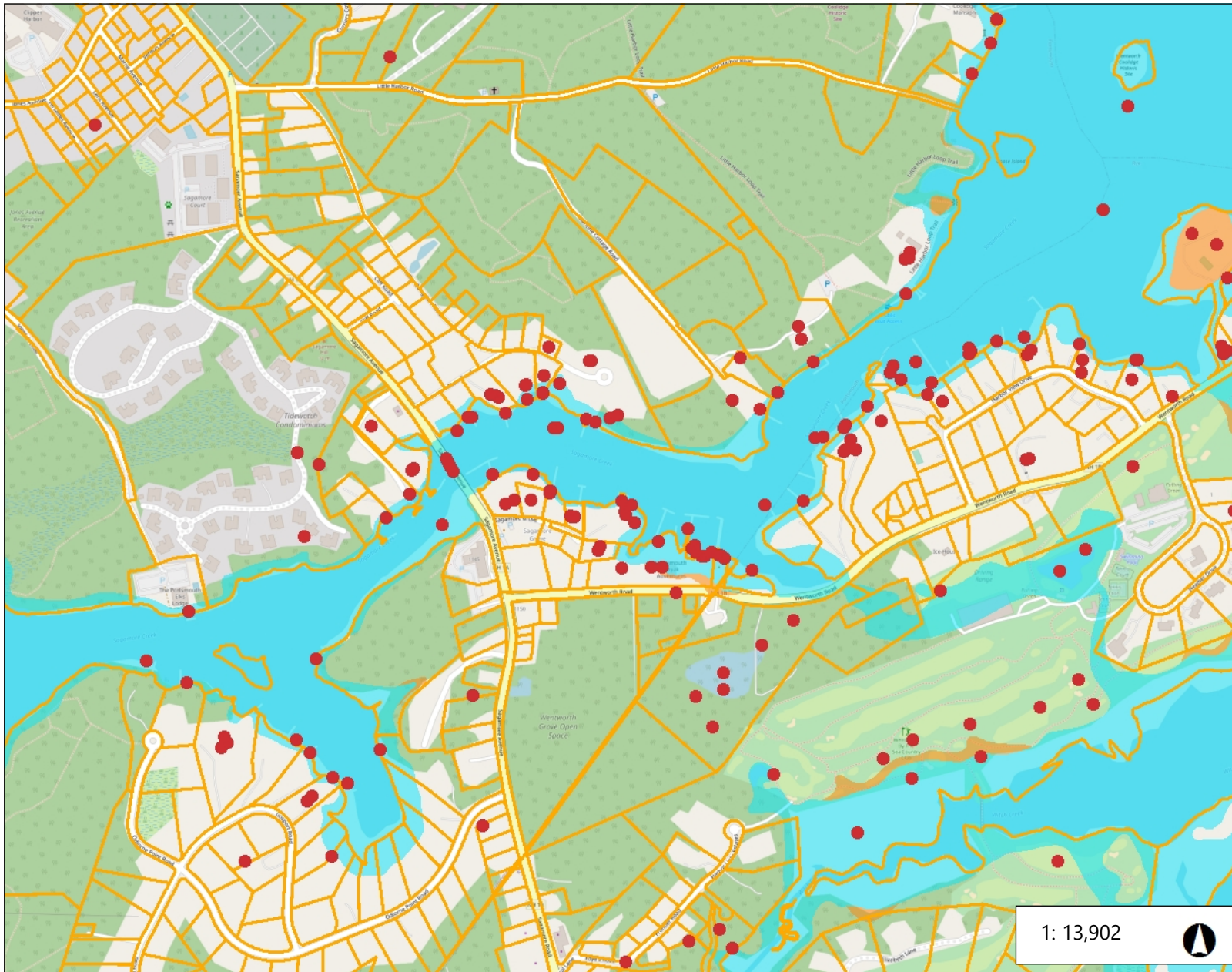
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


Notes



1: 13,902



Legend

-  NHDES Wetland and Shoreland
-  NH Parcel Mosaic
- Designated Rivers**
 -  Subject to SWQPA
 -  Not Subject to SWQPA
- FEMA Floodplains**
 -  1 pct. Annual Chance Flood Hazard
 -  Floodway
 -  0.2 pct. Annual Chance Flood Hazard
 -  Area of Undetermined Flood Hazard
 -  Area Protected by Levee

Notes

0.4 0 0.22 0.4 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
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This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Attachment A – Minor and Major Projects



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: **City of Portsmouth**

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.

THE PROPOSED LOW PRESSURE SEWER HAS BEEN DESIGNED TO MINIMIZE THE FOOTPRINT OF DISTURBANCE TO THE JURISTCTIONAL AREA. THE PROPOSED SEWER SYSTEM WILL BE LOCATED WITHIN A PREVIOUSLY DISTURBED AREA.

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.

There are no proposed direct impacts to tidal or non-tidal marshes. The project will improve overall ecological health by reducing nitrogen discharge to the downstream estuary.

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 will not impact the hydrologic connectivity between adjacent wetland or stream systems.

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.

Proposed impacts within the Tidal Buffer Zone (TBZ) have been minimized to the maximum extent practical. Impacts will be minimized through the use of best management practices during construction.

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

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

The proposed project will not permanently impact public commerce, navigation, or recreation. Temporary disruptions to travel will occur on Sagamore Ave and surrounding streets during construction. Adequate traffic control will be required by the contractor to mitigate disruptions while working within the roadway.

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 does not involve impacts to floodplain wetlands.

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.

There are no natural riverine forested wetland systems or scrub-shrub marsh complexes affected by the proposed project.

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 project is located immediately upstream within a tidal system, thus the project will not impact drinking water supplies or groundwater aquifers within or adjacent to the project area.

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.

The proposed project will not impact stream channels or the ability of such channels to handle runoff.

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.

The proposed project does not involve shoreline structures over surface waters.

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.

The proposed project does not involve shoreline structures over surface waters.

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.

The proposed project does not involve shoreline structures over surface waters.

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.

The proposed project does not involve shoreline structures over surface waters.

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.

The proposed project does not involve shoreline structures over surface waters.

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.

The proposed project does not involve shoreline structures over surface waters.

PART II: FUNCTIONAL ASSESSMENT
<p>REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).</p>
<p>FUNCTIONAL ASSESSMENT METHOD USED: "The CFA was completed utilizing The United States Army Corps of Engineers (US ACE) Highway Methodology Workbook (1993), US ACE New England District Highway Methodology Workbook Supplement (1999) for all functions and values except Ecological Integrity. Ecological Integrity was assessed using the Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire (June 1993)." See Section 6.</p>
<p>NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: MARC JACOBS</p>
<p>DATE OF ASSESSMENT: 2/8/21</p>
<p>Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: <input checked="" type="checkbox"/></p>
<p>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 checked="" type="checkbox"/></p> <p>Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.</p>

19

Pre-Application Notes

PROJECTS:	Sagamore Ave Sewer Extension	PROJ #:	11304C
LOCATION:	Microsoft Team Call	DATE:	1/20/2021
PURPOSE:	NHDES Wetlands Pre-Application	TIME:	9:00 AM

A pre-application meeting was held by video conference on January 20, 2021. The following notes are a summary of the meeting agenda and discussion.

Attendees

Wright-Pierce: Kevin Garvey, Britt Eckstrom, Jake Shactman
City of Portsmouth: Terry Desmarais, Zachary Cronin, Peter Britz
NHDES: Stefanie Giallongo

1. Project Introduction

- a. Project location
 - i. Sagamore Ave and roadways near Sagamore Creek Portsmouth, NH
- b. Need for the project
 - i. Consent decree, poor soils, ledge, costly septic systems
- c. Proposed project
 - i. Low pressure sewer system – grinder pumps at each property
 - ii. City incentivizing residents to connect to sewer system to maximize environmental benefit.
 - iii. 91 potential connections
- d. Schedule
 - i. Bidding May-June .
 - ii. Private property sign-offs are to occur after bidding and costs are presented to property owners.
 - iii. ROW work to commence first.

2. Permitting

- a. Proposed Wetlands impacts
 - i. Jurisdictional areas – previously disturbed TBZ and freshwater wetlands
 - ii. Temporary impacts for utility trenches.
 - iii. Impacts for individual pump station covers .
 1. Stefanie confirmed pump station covers are permanent impact.
- b. Standard Dredge and Fill application since it a new utility
 - i. Stefanie confirmed Standard Dredge and Fill is needed.

3. Confirm Permitting Requirements

- a. Is a functional assessment for freshwater wetland required?
 - i. Stefanie confirmed this is necessary but should be simple. Functional assessment form can be distilled to 1-2 pages.
- b. Is a coastal functional assessment or a vulnerability necessary?
 - i. Stefanie confirmed this is necessary for TBZ impacts.
 - ii. Vulnerability assessment to highlight necessary infrastructure, shallow pipe, incorporating sea level rise, and potential for groundwater rise.
- c. Do we need to provide a copy of all property deeds?
 - i. City confirmed they can help pull together property deeds.
 - ii. Stefanie requested that all deeds be submitted with unsigned authorization templates
- d. Abutter notification required because new utility?
 - i. Stefanie to follow up on whether there is an exemption for new utilities
- e. Abutter authorization required for impacts to TBZ?
 - i. Stefanie confirmed signatures are needed for every connection that will include private property work
 - ii. City/W-P clarified that authorizations would be supplied after bidding as residents will not want to authorize work until costs are established.
 - iii. Drawings will show that no work is to be done until authorizations have been signed.
- f. Request concurrent review with Shoreland permit?
 - i. No clear benefits were defined.
- g. Permitting impacts on private property – can we avoid private property sign off until after bidding?
 - i. Stefanie confirmed precedence for this procedure on Banfield Rd, Portsmouth project.

4. Other Items

- a. Proximity to salt marsh, if within buffer mitigation required for permanent impacts
 - i. W-P to follow up with Marc Jacobs



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Portsmouth, NH 03801
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