Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: November 21, 2024
Property Address: 913 Sagamore Avenue
Application #: LU-24-141
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval, the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** (Meets Criteria for Approval)	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	Given that the existing lot currently contains a residential structure and provides residential use, and the proposed structure is not located in the Special Flood Hazard Area, the land is reasonably suited to the use, activity, or alteration.
2	2. *There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	Due to the configuration of the lot, the location of nearby wetlands and buffers, and the presence of exposed or shallow depth to bedrock, there does not exist an area to propose the building location and achieve reasonable use while avoiding the 100' City of Portsmouth Wetland Buffer.
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	We believe the proposal will not significantly impact the existing wetland resource located adjacent to the site, and the resource functions and values. The proposed project removes impervious surfaces within the wetland buffer, provides pervious technology for the proposed patio, proposes stone drip aprons which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	The proposed project does not include alteration of any naturally vegetated area to accommodate the construction of the new home.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property. The proposal avoids the wetland buffer to the greatest extent practicable, and avoids bedrock removal to accommodate construction while providing a reasonable use for the property owner.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	There are no areas within the 25-foot vegetated buffer strip that will be impacted or altered by this project, other than areas being planted.
7	**<u>Other Board Findings:</u>**		

29 October 2024

Rick Chellman, Chair
City of Portsmouth Planning Board
1 Junkins Avenue
Portsmouth, NH 03801

Re: City of Portsmouth Wetland Conditional Use Permit Request for Hogswave, LLC, Tax Map 223, Lot 27, 913 Sagamore Avenue, Portsmouth, New Hampshire

Dear Mr. Chellman:

On behalf of Hogswave LLC, we hereby submit a City of Portsmouth Wetland Conditional Use Permit request for 9,574 square feet (2,719 Temporary – 6,855 Permanent) of disturbance within the 100' City of Portsmouth Wetland Buffer for residential re-development at the property. The property currently contains a single-family residential structure, a detached garage, a detached boat house / workshop, a tidal docking structure and associated site improvements. The proposal includes demolition of the existing residential structure, construction of a new residential structure, re-configuration of the existing gravel driveway, new patio and deck, new walkways, the removal of impervious surfaces, and the associated grading, utility connections and landscaping, including new buffer plantings. The proposed construction is detailed on the attached plan set.

The stormwater technology being used for the construction of the proposed site improvements include a pervious patio, stone drip aprons, impervious surface removal, riprap diversion swale, and proposed buffer plantings. Those improvements will allow for collection and infiltration of stormwater providing a stormwater treatment component that does not exist under current conditions. It is also worth noting that the project does not increase the impervious surface within the 100' wetland buffer.

Per the City of Portsmouth Zoning Ordinance **Article 10.1017.22 (3)**, approximately 18% (3,579 sq. ft.) of the 20,255 sq. ft. wetland buffer area that occurs on the subject lot is vegetated and occurs in a natural state. The plan Impervious Surface Area Table (within the 100-foot TBZ) on Sheet C 102 details the surfaces in the buffer area. The 100-foot Sagamore Creek wetland buffer in this area is generally characterized as maintained lawn, slope protection, structures, pavement, ledge, and gravel drive. Along the river and behind the garage, trees were identified including green ash (Fraxinus pennsylvanica) red oak (Quercus rubra) and black locust (Robinia pseudoacacia). Honeysuckle (Lonicera sp.) was also identified along the shore. Many species of honeysuckle are noted as invasive throughout New England, but only fly honeysuckle (Lonicera xylosteum) is noted on the NH Invasive Species Watch List. Black locust is also noted on the NH Invasive Species Watch List. We do not anticipate that this project will provide opportunities for the spread of these invasive trees. In the proposed condition a significant amount of the 50-foot buffer will be returned to buffer plantings.

200 GRIFFIN RD. UNIT 14, PORTSMOUTH, NH 03802 603.430.9282 | HALEYWARD.COM

Also, per the City of Portsmouth Zoning Ordinance **Article 10.1017.24** the application shall include removal of impervious surfaces at least equal in area to the area of impervious surface impact. The proposed project proposes a slight 15 sq. ft. decrease of impervious surface within the City wetland buffer. Although not required under Article 10.1017.24, the project also includes 2,737 sq. ft. as well as 586 sq. ft. wetland buffer enhancement areas, located directly adjacent to Sagamore Creek which includes the planting of native shrubs and trees to provide a naturally vegetated buffer where one does not currently exist. Please refer to the Buffer Planting Area and Buffer Planting Schedule on Permit Plan-Sheet C104. In addition to the Buffer Planting Area, the plan also provides for a stabilization component to areas where impervious surfaces will be removed.

Per the City of Portsmouth Zoning Ordinance, **Article 10.1017.25 (2)**, where the vegetated buffer strip contains grass or non-native plantings, or is otherwise not intact, the priority of the **wetland buffer** enhancement plan shall include revegetation of the vegetated buffer strip with native, low-maintenance shrubs and other woody vegetation. A portion of the existing vegetated buffer strip currently **does not** exist in a natural vegetated state (see attached photo log). The proposed 460 sq. ft. buffer planting area is located in an area that is currently maintained lawn, directly adjacent to Sagamore Creek.

According to the City of Portsmouth Zoning Ordinance **Article 10.1017.50 Criteria for Approval**, the proposal shall comply with the following criteria:

1. **The land is reasonably suited to the use, activity or alteration.**

The proposal is to construct a new home on the existing lot where a residential structure currently exists. Site improvements include re-configuration of the existing gravel driveway, new patio and deck, new walkways, the removal of impervious surfaces, and the associated grading, utility connections and landscaping, including new buffer plantings. Only a portion of the proposed structure and landscape components are located within the 100' City of Portsmouth Wetland Buffer. The NHDES Impact Plan shows the area in the City of Portsmouth Buffer (State Tidal Buffer Zone) and the area in the NHDES Shoreland Protection Zone. Given that the existing lot currently contains a residential structure and provides residential use, and the proposed structure is not located in the Special Flood Hazard Area, the land is reasonably suited to the use, activity, or alteration.

2. **There is no alternative location outside of the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.**

Due to the configuration of the lot, the location of nearby wetlands and buffers, and the presence of exposed or shallow depth to bedrock, there does not exist an area to propose the building addition and achieve reasonable use while avoiding the 100' City of Portsmouth Wetland Buffer. Locating the proposed home further north on the lot would require significant removal of bedrock to accommodate construction. In general, the lot slopes from north to south and contains a "bluff" approximately at elevation 20. However,

this bluff exists as exposed and/or shallow depth to bedrock, and the existing home was placed in accordance with the most suitable location. We believe the most reasonable use is to construct the proposed home in a location where it fits best into the existing landscape while using a portion of the bluff and utilizing the existing foundation hole for most of the proposed home. The application material includes a "Ledge Exhibit" which highlights the presence of ledge in the vicinity of the proposed home. The proposed home, if expanded further away from the wetland resource would require the removal of existing ledge and result in a cumulative impact associated with additional disturbance that would be detrimental to the wetland buffer. We believe that the proposed new home, in the proposed location, provides reasonable use and minimizes cumulative impacts to the wetland buffer and the overall property.

3. **There will be no adverse impact on the wetland functional values of the site or surrounding properties.**

We believe the proposal will not significantly impact the existing wetland resource located adjacent to the site, and the resource functions and values. The proposed project removes impervious surfaces within the wetland buffer, provides pervious technology for the proposed patio, proposes stone drip aprons which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel. Lastly, the project also provides a buffer planting area and additional tree plantings which will increase function the wetland buffer on the lot providing additional protections that do not currently exist on the site. With the above measures being taken, it is our belief that the above project will improve water quality entering the nearby resource, and therefore have no adverse impact on the functional values of the resource or the surrounding properties.

4. **Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.**

The proposed project does not include alteration of any naturally vegetated area to accommodate the construction of the new home.

5. **The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section.**

The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property. The proposal avoids the wetland buffer to the greatest extent practicable, and avoids bedrock removal to accommodate construction while providing a reasonable use for the property owner. The project also provides numerous components which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel.

6. **Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.**

There are no areas within the 25-foot vegetated buffer strip that will be impacted or altered by this project, other than areas being planted.

The project was unanimously recommended for approval at the October 9, 2024, Conservation Commission meeting. The recommended approval included the following stipulations that the applicant has considered and submit the following comments with the stipulation repeated and a response in **bold** text:

1. The proposed Northern Red Oaks should be at least of 2" caliper sizing. **This has been noted in the Buffer Planting Schedule on Sheet C 104.**
2. The Conservation Commission recommends that the applicant follow NOFA standards on the site: https://nofaolc.wpenginepowered.com/wp-content/uploads/2019/10/nofa_organic_land_care_standards_6thedition_2017_opt.pdf **This has been noted in the Vegetative Practice Section on Sheet C 501.**
3. Wetland boundary markers shall be permanently installed prior to the start of construction in locations noted on plan set. **The marker locations have been noted on Sheets C 101 & C 104.**

Please find included in this submission: Conservation Commission Recommendation, a Functions and Values Assessment of the property, Wildlife Habitat Research, Natural Heritage Breau review, Stormwater Inspection and Maintenance Plan, Photo Log, Ledge Impact Plan, and the Buffer Zone Impact Plan.

We look forward to an in-person presentation at your next Planning Board meeting. Please contact me if you have any questions or concerns regarding this submission. Approval of the CUP Application is hereby requested.

Respectfully submitted,

John Chagnon, PE
Project Manager

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CITY OF PORTSMOUTH

Planning Department
1 Junkins Avenue
Portsmouth, New
Hampshire 03801

(603) 610-7216

CONSERVATION COMMISSION

October 11, 2024

Hogswave LLC.
912 Sagamore Avenue
Portsmouth, New Hampshire 03801

RE: Wetland Conditional Use Permit application for property located at 913 Sagamore Avenue, Portsmouth, NH. (LU-23-141)

Dear Property Owner:

The Conservation Commission, at its regularly scheduled meeting of **Wednesday, October 9, 2024**, considered your application for a Wetland Conditional Use Permit for the demolition of an existing residential structure and the construction of a new home, reconfiguration of the existing gravel driveway, the addition of a pervious paver patio, deck, removal of impervious surfaces, reconstruction of a retaining wall, grading, utility connections and landscaping. The existing conditions within the 100' wetland buffer include a one-story residential structure with 1,110 s.f. of impact and approximately 900 s.f. of impervious pavement. This application proposes the removal of the 1,110 s.f. of building impact within the buffer and the removal of 900 s.f. of pavement. The applicant is proposing to permanently impact approximately 7,727 s.f. of the 100' wetland buffer, compared to the existing condition of 7,743 s.f. of permanent impact.. Said property is shown on Assessor Assessor Map 223 Lot 27 and lies within the Waterfront Business (WB). As a result of said consideration, the Commission voted to **recommend approval** of this application to the Planning Board with the following stipulations:.

1. The proposed Northern Red Oaks should be at least of 2" caliper sizing.
2. The Conservation Commission recommends that the applicant follow NOFA standards on the site: https://nofaolc.wpenginepowered.com/wp-content/uploads/2019/10/nofa_organic_land_care_standards_6thedition_2017_opt.pdf
3. Wetland boundary markers shall be permanently installed prior the start of construction in locations noted on plan set.

This matter will be placed on the agenda for the Planning Board meeting scheduled for **Thursday, December 19, 2024**. One (1) hard copy of any revised plans and/or exhibits as well as an updated electronic file (in a PDF format) must be filed in the Planning Department and uploaded to the online permit system no later than Wednesday, November 27, 2024.

The minutes and audio recording of this meeting are available by contacting the Planning Department.

Very truly yours,

Barbara McMillan

Barbara McMillan, Vice-Chair
Conservation Commission

cc:

John Chagnon, Project Manager, Haley Ward

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

WETLAND FUNCTIONS AND VALUES ASSESSMENT

FOR HOGSWAVE, LLC
Map 223, Lot 27 | Portsmouth, NH

Applicant:
HOGSWAVE, LLC
912 Sagamore Avenue | Portsmouth, NH 03801

July 30, 2024
JN: 5010372

Prepared By:
Haley Ward, Inc.
200 Griffin Rd., Unit 14 | Portsmouth, New Hampshire 03801

Corporate Office
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INTRODUCTION

The applicant is proposing residential re-development including demolition of the existing residential structure, construction of a new home, re-configuration of the existing gravel driveway, pervious paver patio, deck, removal of impervious surfaces, grading, utility connections and associated landscaping. The project site is identified on Portsmouth Tax Map 223 as Lot 27 and is approximately 3.1 acres in size. As currently designed, the proposed project would require impacts to the 100' previously developed Tidal Buffer Zone (TBZ).

The purpose of this report is to present the existing functions and values of the tidal wetlands and to assess any impacts the proposed project may have on their ability to continue to perform these functions and values. The tidal wetlands being impacted were assessed with consideration to their association with Sagamore Creek and the larger marine ecosystem and was not limited to the tidal wetlands immediately on-site.

METHODS

DATA COLLECTION

The tidal wetlands associated with this project area were identified and characterized through field surveys and review of existing information. Haley Ward conducted site visits in July of 2024 to characterize the tidal wetlands and collect the necessary information to complete a functions and values assessment. In addition, Haley Ward contacted the New Hampshire Natural Heritage Bureau (NHB) regarding existing information of documented rare species or natural communities within the vicinity of the project site.

WETLAND FUNCTIONS AND VALUES ASSESSMENT

Haley Ward assessed the ability of the tidal wetlands to provide certain functions and values and analyzed the potential effects the proposed project may have on their ability to continue to provide those functions and values. Wetland functions and values were assessed using the *Highway Methodology Workbook, Wetland Functions and Values: A Descriptive Approach*. This method bases function and value determinations on the presence or absence of specific criteria for each of the 13 wetland functions and values (see definitions below). These criteria are assessed through direct field observations and a review of existing resource maps and databases. As part of the evaluation, the most important functions and values associated with the on-site wetlands are identified. In addition, the ecological integrity of the wetlands is evaluated based on the existing levels of disturbance and the overall significance of the wetlands within the local watershed.

- **Groundwater Interchange (Recharge/Discharge)**

This function considers the potential for the project area wetlands to serve as groundwater recharge and/or discharge areas. It refers to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

° **Floodwater Alteration (Storage and Desynchronization)**
This function considers the effectiveness of the wetlands in reducing flood damage by attenuating floodwaters for prolonged periods following precipitation and snow melt events.

° **Fish and Shellfish Habitat**
This function considers the effectiveness of seasonally or permanently flooded areas within the subject wetlands for their ability to provide fish and shellfish habitat.

° **Sediment/Toxicant Retention**
This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland to function as a trap for sediments, toxicants, or pathogens, and is generally related to factors such as the type of soils, the density of vegetation, and the position in the landscape.

° **Nutrient Removal/Retention/Transformation**
This wetland function relates to the effectiveness of the wetland to prevent or reduce the adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

° **Production Export (Nutrient)**
This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

° **Sediment/Shoreline Stabilization**
This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion, primarily through the presence of persistent, well-rooted vegetation.

° **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.

° **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.

° **Educational/Scientific Value**
This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

° **Uniqueness/Heritage**
This value relates to the effectiveness of the wetland or its associated water bodies to provide certain special values such as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

° **Visual Quality/Aesthetics**
This value relates to the visual and aesthetic qualities of the wetland.

° **Endangered Species Habitat**
This value considers the suitability of the wetland to support threatened or endangered species.

FUNCTIONS AND VALUES ASSESSMENT

Results of the wetland functions and values assessment are presented below. This assessment includes a discussion of potential changes to existing wetland functions and values that may occur as a result of the proposed project:

Groundwater Interchange (Recharge/Discharge)
Because there is no identified sand and gravel aquifer underlying the project area, and the wetlands are not underlain by sands or gravel, it is unlikely that significant groundwater recharge is occurring within the tidal wetlands.

Floodwater Alteration (Storage and Desynchronization)
The tidal wetland and Sagamore Creek receive floodwaters from the surrounding watershed and connected waterways; therefore, is considered a principal function considering the large size of the combined waterways.

Fish and Shellfish Habitat
The tidal wetland does provide fish and shellfish habitat, is associated with Sagamore Creek and the Atlantic Ocean; therefore, is considered a principal function.

Sediment/Toxicant Retention
The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Nutrient Removal/Retention/Transformation
The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Production Export (Nutrient)
Production export is a wetland function that typically occurs in the form of nutrient or biomass transport via watercourses, foraging by wildlife species, and removal of timber and other natural products. Because the tidal wetland provides fish and wildlife habitat, commercial and recreational fisheries opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.

Sediment/Shoreline Stabilization
Due to the tidal nature of this wetland; sediment/shoreline stabilization is considered a principal function.

Wildlife Habitat
The greater tidal wetland and Sagamore Creek provide a variety of coastal and marine habitat, therefore would be considered a principal function.

Recreation (Consumptive and Non-Consumptive)
The greater tidal wetland and Sagamore Creek provide a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.

Education/Scientific Value
The tidal wetland and Sagamore Creek are part of a larger marine ecosystem with multiple areas of public access making this a principal value.

Uniqueness/Heritage
The tidal wetland and Sagamore Creek are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with Sagamore Creek and the surrounding areas making this a principal value.

Visual Quality/Aesthetics
Sagamore Creek provides aesthetically pleasing coastal views that are viewable from surrounding uplands as well as from the water, making this a principal value.

Endangered Species Habitat
An online inquiry with the NH Natural Heritage Bureau resulted in occurrences of sensitive species near the project area although NHB determined that impacts to these sensitive species are not expected as a result of the project. Given the above factors in regards to threatened or endangered species, this is not considered a capable function.

PROPOSED IMPACTS

This report is accompanying a New Hampshire Department of Environmental Services (NHDES) Minor Impact Wetland Permit Application request to permit 2,719 sq. ft. of permanent impact and 5,269 sq. ft. of temporary construction impact to the previously developed 100' Tidal Buffer Zone for residential re-development.

SUMMARY AND CONCLUSIONS

The jurisdictional tidal wetland associated with the project site is part of a large marine system and provides eleven principal functions and values when evaluated as a whole. These functions and values include: floodflow alteration, fish and shellfish habitat, production export, sediment/shoreline stabilization, nutrient removal/retention, sediment/toxicant retention, wildlife habitat, recreation, education/scientific value, uniqueness/heritage, and visual quality aesthetics. While the entire marine system provides these principal functions and values, the proposed impacts associated with the site re-development will not have any effect on its ability to continue to provide them. As the proposed project will reduce impervious surface on the lot and the area within the previously developed 100' Tidal Buffer Zone, provides for the installation of stone drip aprons to collect and treat stormwater from the roof of the home, includes the installation of a buffer planting plan and the use of pervious technology for the proposed patio, stormwater quality leaving the site will be improved and there are no anticipated impacts to the current functions and values.

The proposed impacts have been minimized to the greatest extent practicable, while allowing reasonable use of the property. The project will not contribute to additional storm water or pollution. It is anticipated that there will be no effect on any fish or wildlife species that currently use the site for food, cover, and/or habitat. The project will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement.

The proposed project removes a significant amount of impervious surfaces within the wetland buffer, provides a pervious technology for the proposed patio, proposes stone drip aprons which will serve to improve stormwater quality, treatment, and infiltration on the subject parcel. Lastly, the project also provides a buffer planting area and additional tree plantings which will increase function within the wetland buffer on the lot and provides additional protections that do not currently exist on the site. With the above measures being taken, we believe that the above project will improve water quality entering the nearby wetland resource, and therefore have no adverse impact on the wetland functional values and the surrounding properties.

APPENDIX A

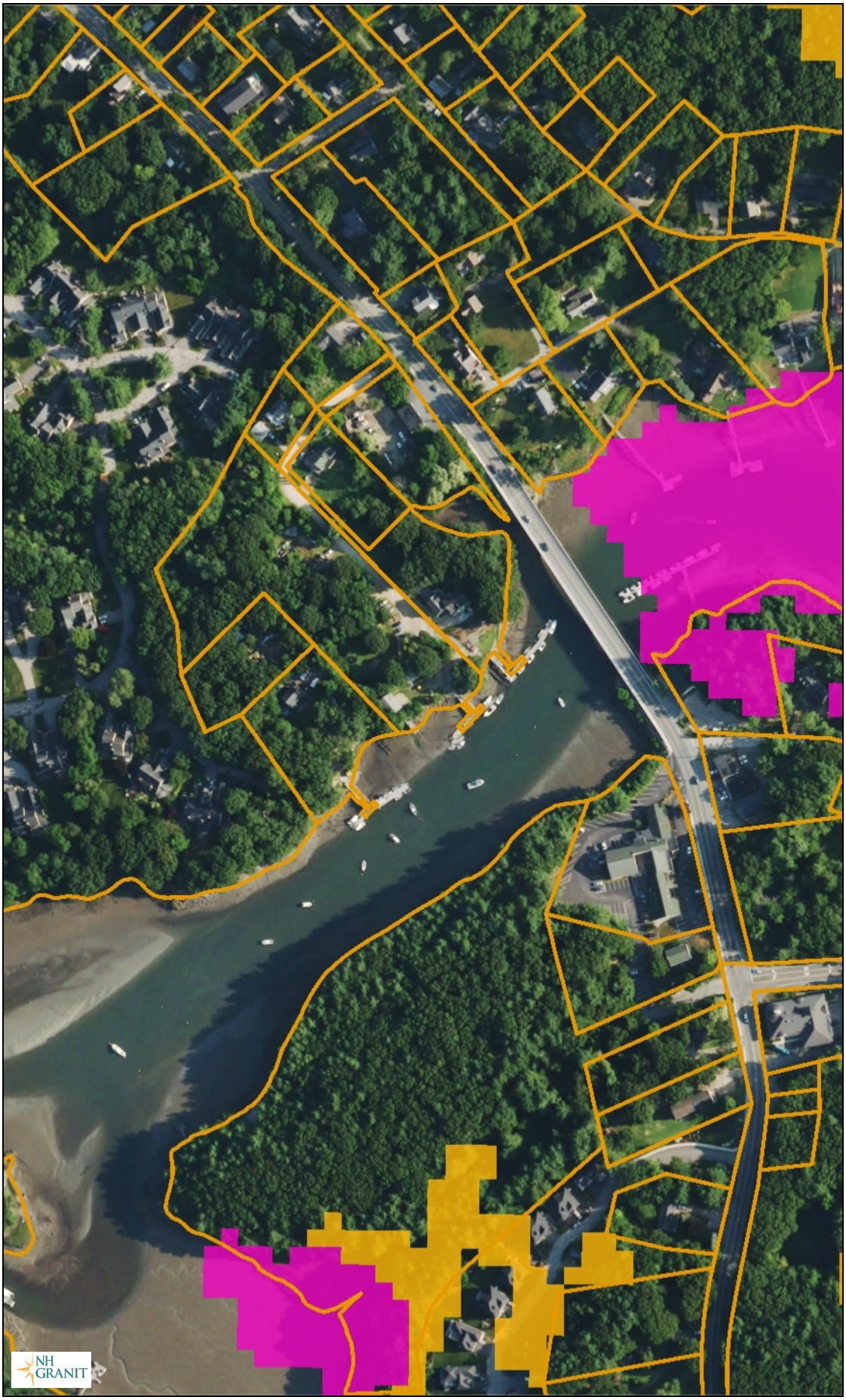
WETLAND FUNCTION - VALUE EVALUATION FORM

Wetland Function – Value Evaluation Form

Wetland Description: Wetland A is an un-named tidal wetland hydrologically connected to Sagamore Creek.	**File number**: 5010372
	Wetland identifier: Wetland A
	Latitude:X:1,229,314.04 Longitude:Y:203,350
	Preparer(s): Ambit Engineering, Inc.
	200 Griffin Road
	Date: July 26, 2024

Function/Value	Capability Y	Capability N	Summary	Principal Yes/No
Groundwater Recharge/Discharge		X	This wetland does not possess the characteristics needed to provide this function as there are no identified underlying sand or gravel aquifers.	—
Floodwater Alteration	X		The tidal wetland and Sagamore Creek do receive floodwater from the surrounding watershed and connected waterways; therefore, this would be considered a principal function.	Y
Fish and Shellfish Habitat	X		The tidal wetland and Sagamore Creek are part of a larger coastal marine system and provide both fish and shellfish habitat. This is considered a Principal Function.	Y
Sediment/Toxicant Retention	X		The immediate tidal wetland contains dense vegetation and a source of sediments and toxicants, therefore a principal function.	Y
Nutrient Removal	X		The immediate tidal wetland contains dense vegetation and a source of nutrients, therefore a principal function.	Y
Production Export	X		Because the tidal wetland provides fish and wildlife habitat, commercial and recreational fishing opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.	Y
Sediment/Shoreline Stabilization	X		Due to the tidal nature of this wetland; sediment/shoreline stabilization is considered a principal function. The project proposes to stabilize the shoreline with a more structurally stable design.	Y
Wildlife Habitat	X		The greater tidal wetland and Sagamore Creek provides a variety of coastal and marine habitat, therefore would be considered a principal function.	Y
Recreation	X		The adjacent tidal wetland provides a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.	Y
Education/Scientific Value	X		The tidal wetland and Sagamore Creek are part of a larger marine ecosystem with multiple areas of public access making this a principal value.	Y
Uniqueness/Heritage	X		The tidal wetland and Sagamore Creek are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with Sagamore Creek and the surrounding areas making this a principal value.	Y
Visual Quality/Aesthetics	X		Sagamore Creek provides aesthetically pleasing coastal views that are seeable from surrounding uplands as well as from the water, making this a principal function.	Y
ES Endangered Species Habitat		X	An online inquiry with the NH Natural Heritage Bureau has been performed and NHB determined that although there was a sensitive species located near the project, impacts as a result of the project are not anticipated.	—
Other				

Map by NH GRANIT



Legend

- Parcels
- State
- County
- City/Town

WAP 2020: Highest Ranked Wildlife Habitat

- 1 Highest Ranked Habitat in NH
- 2 Highest Ranked Habitat in Regior
- 3 Supporting Landscape

Coastal 2019 1-foot RGB

Map Scale

1: 3,247

Map Generated: 7/26/2024

Notes

Highest Ranked Wildlife Habitat

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: John Chagnon, Ambit Engineering, Inc.
200 Griffin Road
Unit 3
Portsmouth, NH 03801

From: NH Natural Heritage Bureau
Date: 7/3/2024 (valid until 7/3/2025)
Re: Review by NH Natural Heritage Bureau of request submitted 6/26/2024
Permits: NHDES - Standard Dredge & Fill - Minor

NHB ID: **NHB24-2017** **Applicant:** Steven Riker

Location: Portsmouth
913 Sagamore Avenue

Project Description: The project proposes re-development of the property including the demolition of the existing residential structure, construction of a new home with attached garage and deck, associated driveway, removal of existing impervious (pavement & compacted gravel), installation of pervious paver patio, construction of a retaining wall, utility connections, grading and associated landscaping.

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

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 6/26/2024 9:36:21 AM, and cannot be used for any other project.

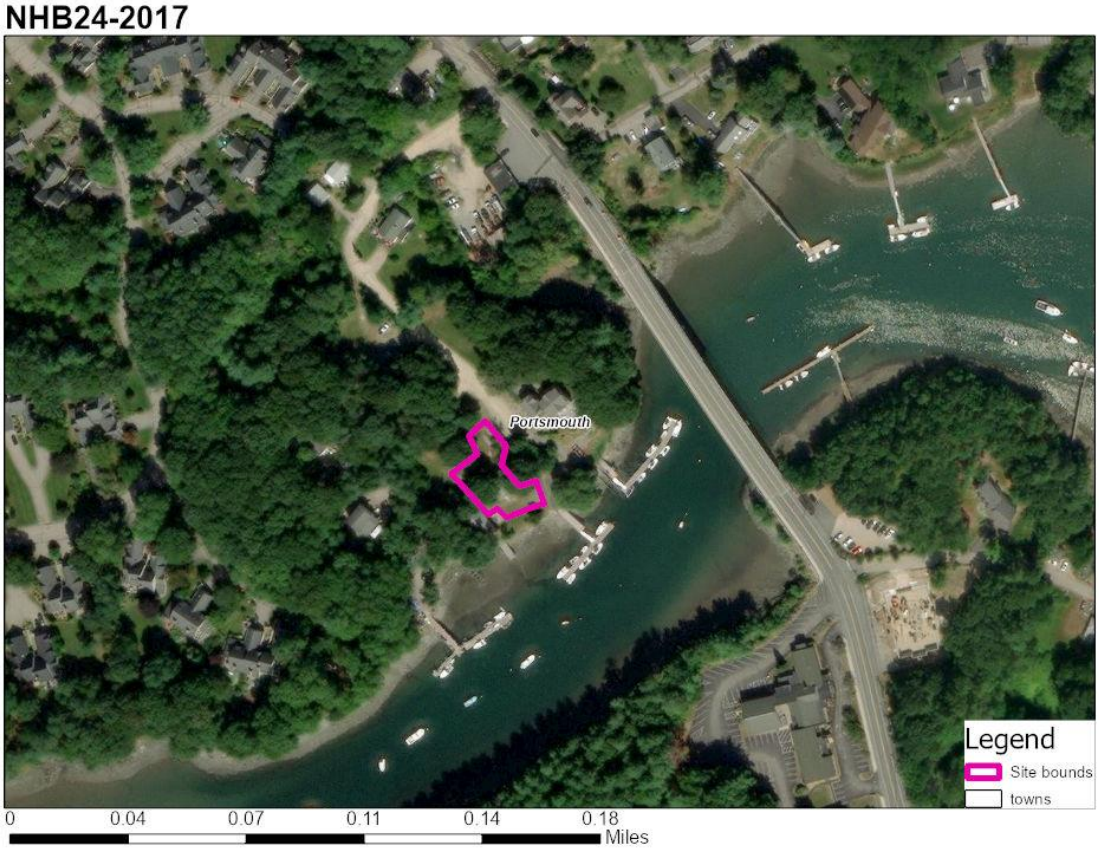
Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

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

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB24-2017**



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

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

STORMWATER MANAGEMENT
INSPECTION & MAINTENANCE PLAN
FOR
Hogswave LLC
PROPERTY LOCATED AT
913 Sagamore Avenue, Portsmouth, NH
October 8, 2024

Introduction

The intent of this plan is to provide Hogswave LLC, owner of property located at 913 Sagamore Avenue, Portsmouth, NH, with a list of procedures that cover the inspection and maintenance requirements of the stormwater management components for the proposed construction at the site.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly. These measures will also help minimize potential environmental impacts. By following the enclosed procedures, Hogswave LLC will be able to maintain the functional design of the stormwater management components and maximize their ability to remove sediment and other contaminants from site generated stormwater runoff.

Stormwater Management System Components

The Stormwater Management System design components are Stone Drip Aprons, Pervious Paver Patio and Buffer Planting Areas.

The project proposes residential re-development including demolition of the existing residential structure, construction of a new home, re-configuration of the existing gravel driveway, pervious paver patio, deck, removal of impervious surfaces, grading, utility connections and associated landscaping. Since a portion of the construction is within the City of Portsmouth's 100-foot wetland buffer, the proposed stormwater structures will provide treatment for the proposed improvements under this application.

The Stone Drip Aprons will capture runoff from the proposed residential structure. The Pervious Paver Patio will capture runoff and provide percolation into the soil, and the Buffer Planting Area will serve as a natural vegetative filtration component that will improve stormwater quality leaving the site and entering the adjacent wetland resource.

Inspection & Maintenance Checklist/Log

The following pages contain maintenance specifications, a Stormwater Management System Inspection & Maintenance Checklist, and a blank copy of the Stormwater Management System Inspection & Maintenance Log. The forms are provided to

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Hogswave LLC and should be transferred to future homeowners and will serve as a guideline for performing the inspection and maintenance of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

Stone Drip Apron Design

The intent of the Stone Drip Apron is to provide for storage and percolation of roof runoff from the proposed residential structure. Stone Drip Aprons are meant to provide a porous medium (stone, 12" depth) that can withstand water velocity from the roof above, eliminating erosion at the point of contact. The base (24"-36" depth) of the drip edge is backfilled with coarse sand or gravel which allows the stormwater to quickly infiltrate into the ground where it is stored and slowly percolated into the surrounding subsoil. Stone Drip Aprons typically extend 2 feet from the edge of the building foundation to effectively capture runoff from the roof edge above.

Stone Drip Apron Maintenance

In order to keep the Stone Drip Aprons functioning properly, it is important to keep the filter surface porous and unplugged by debris.

Remove any debris that may clog the stone surface.

After leaf fall (i.e. in November), remove large accumulations of leaves. It is not necessary to remove every leaf but at the same time it is not desirable to have the stone surface completely covered with leaves to the point of plugging the stone surface.

Replace the stone surface with new stone as needed. Ponding water on the surface of the drip apron would indicate that the stone needs to be replaced.

Pervious Paver Patio Maintenance

In order to keep the pervious paver surface functioning properly, it is important to keep the surface porous and unplugged by debris. After installation of the pervious pavers, perform the following inspections on a semi-annual basis:

Monitor for excessive or concentrated accumulations of debris, or excessive erosion. Remove debris as required.

Remove debris from the paver void space twice annually. This will remove organic buildup within the void space and restore/maintain permeability. Replace void space aggregate as needed.

Buffer Planting Area Design

The intent of the buffer planting area is to provide a vegetative matrix that will aid in the filtering of nutrients, sediments, and toxicants before they enter an adjacent wetland

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resource. Root structures of the native plants not only provide excellent stabilization for the surrounding soils, but also provide a natural filtration mechanism for stormwater as it passes through the buffer planting area. The buffer planting area will be planted with native salt tolerant shrubs.

Buffer Planting Area Maintenance

All planting and landscaping shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and make adjustments to the conditions that caused the dead or dying vegetation. Make the necessary adjustments to ensure long-term health of the vegetation covers, i.e. provide more permanent vegetative matting or other means of protection. Also monitor the planting areas for signs of invasive species growth. If caught early enough, their eradication is much easier. The most likely places where invasions start are in wetter, disturbed soil. Species such as phragmites and purple loose strife are common invaders in the wetter areas. Keep an eye out for invasive tree species. Young shoots of invasive species can physically be pulled by hand as a method of control. The planting areas should be inspected monthly during the growing season for the presence of invasive species. The planting areas should not be mowed and allowed to grow naturally, increasing their function.

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Stormwater Management System
Hogswave, LLC

Inspection & Maintenance Checklist

BMP/System Component	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance/Cleanout Threshold
Stone Drip Aprons	Twice Yearly	*Remove leaves / debris from surface*	*Clean and/or replace stone as needed*
Planting Areas	Bi-Monthly during first growing season (Apr-Oct). Routinely after heavy rain	*Inspect for damage and erosion.* *Inspect for viability and growth.* *Inspect for invasive species, pull young shoots by hand and dispose in household trash bags.*	Replace topsoil and vegetative matting as needed. Replace dead or dying plants with new stock. Make adjustments to conditions to promote plant growth.
Pervious Paver Patio/Walkways	Twice annually	Monitor for excessive accumulation of debris and remove as needed.	Replace void space aggregate as needed.

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BMP/System Component	Date Inspected	Inspector	Cleaning/Repair Needed *(List Items/Comments)*	Date of Cleaning/Repair	Performed By

200 GRIFFIN RD. UNIT 14, PORTSMOUTH, NH 03802 603.430.9282 | HALEYWARD.COM

913 Sagamore Avenue
Portsmouth, NH

Photo No. 1 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing southerly along existing gravel driveway toward existing home. **Photo By:** SDR	

Photo No. 2 **Photo Date:7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing southwesterly toward existing home. **Photo By:** SDR	

Photo No. 3 **Photo Date: 7/26/24** 4/19/2024 **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing southerly down existing paved area toward Sagamore Creek. **Photo By:** SDR	

Photo No. 4 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing westerly toward existing home. **Photo By:** SDR	

Photo No. 5 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing southerly toward existing tidal docking structure and Sagamore Creek. **Photo By:** SDR	

Photo No. 6 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing westerly toward existing home and detached garage. **Photo By:** SDR	

Photo No. 7 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing southwesterly toward existing detached garage and Sagamore Creek. **Photo By:** SDR	

Photo No. 8 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing northwesterly toward existing home and detached garage. **Photo By:** SDR	

Photo No. 9 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing northerly toward existing home and detached garage. **Photo By:** SDR	

Photo No. 10 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing northerly toward tree to be removed and exposed bedrock. **Photo By:** SDR	

Photo No. 11 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing northeasterly toward existing gravel driveway. **Photo By:** SDR	

Photo No. 12 **Photo Date: 7/26/24** **Site Location:** 913 Sagamore Avenue, Portsmouth, NH **Description:** Facing easterly toward existing home. **Photo By:** SDR	

LEGEND	
SYMBOL	**DESCRIPTION**
L11	LEDGE AT ELEVATION 11
L12	LEDGE AT ELEVATION 12
L18	LEDGE AT ELEVATION 18
L20	LEDGE AT ELEVATION 20
L22	LEDGE AT ELEVATION 22
L25	LEDGE AT ELEVATION 25
L27	LEDGE AT ELEVATION 27

TP #	DEPTH TO LEDGE
1	5'
2	4'
3	2'
4	9'
5	7'

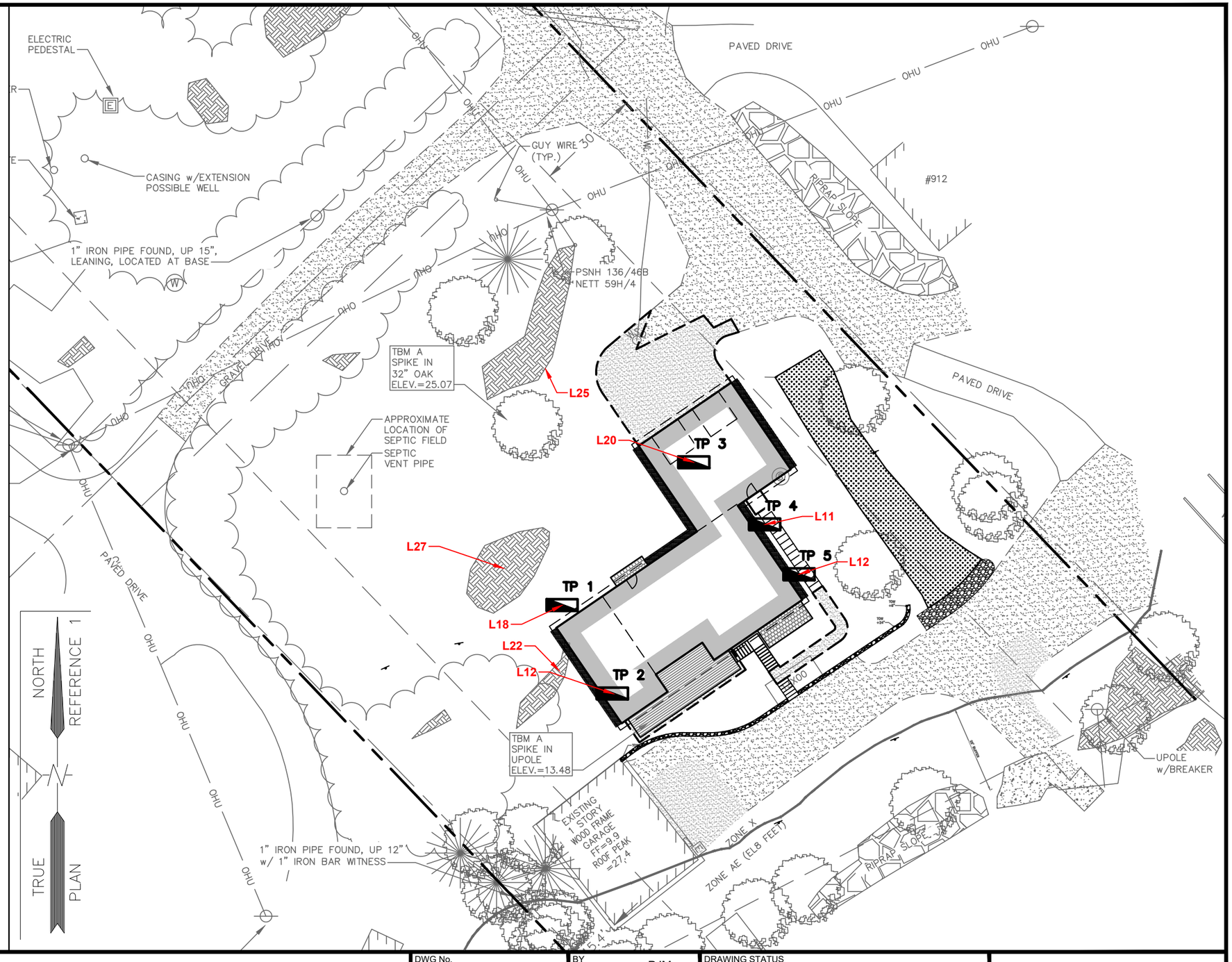
OWNERS OF RECORD:

HOGSWAVE, LLC
912 SAGAMORE AVENUE
PORTSMOUTH, NH 03801
6053/421

GRAPHIC SCALE

10 0 5 10 20 30

(IN FEET)
1 inch = 10 ft.



PROJECT: **HOGSWAVE, LLC REDEVELOPMENT** 913 SAGAMORE AVENUE, PORTSMOUTH, NH	DWG No. 1	BY PJM	DRAWING STATUS: **PERMIT EXHIBIT**
		DATE 10/01/24	
TITLE: **LEDGE EXHIBIT**	JN 5010372.3116	REV.	
	SCALE N.T.S.	REV. DATE	

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

P:\NH\5010372-HOGSWAVE\3116-913 SAGAMORE AVE., PORTSMOUTH-SDR\02-CAD_FILES\CIVIL\5010372.3116-913-C-SP.DWG

NHDES IMPACT AREAS
IN S.F.

	IMPACT TYPES	IMPACT AREAS
100' PREVIOUSLY DEVELOPED TIDAL BUFFER ZONE	PERMANENT	2719
100' PREVIOUSLY DEVELOPED TIDAL BUFFER ZONE	TEMPORARY	6855
250' PROTECTED SHORELAND ZONE	PERMANENT	2274
250' PROTECTED SHORELAND ZONE	TEMPORARY	3172
	TOTAL:	15020

OWNERS OF RECORD:
HOGSWAVE, LLC
912 SAGAMORE AVENUE
PORTSMOUTH, NH 03801
6053/421

GRAPHIC SCALE

30 0 15 30 60 90

(IN FEET)
1 inch = 30 ft.

PROJECT
HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE
NHDES IMPACT EXHIBIT

DWG No. 1	BY PJM	DATE 2024.07.29	DRAWING STATUS: PERMIT PLAN
JN 5010372.3116	REV. 1		
SCALE 1"=30'	REV. DATE 10/29/24		

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

PROPOSED STRUCTURE REPLACEMENT

912 SAGAMORE AVENUE, PORTSMOUTH, NEW HAMPSHIRE

SITE PLAN

OWNER/APPLICANT:
HOGSWAVE, LLC
912 SAGAMORE AVENUE
PORTSMOUTH, N.H. 03801
TEL: (603) 234-9932

CIVIL ENGINEER & LAND SURVEYOR:
HALEY WARD, INC.
200 GRIFFIN ROAD, UNIT 14
PORTSMOUTH, N.H. 03801
TEL. (603) 430-9282
FAX (603) 436-2315

SCALE: NTS

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11/LOT 21
IR FND	IRON ROD FOUND
IP FND	IRON PIPE FOUND
IR SET	IRON ROD SET
DH FND	DRILL HOLE FOUND
DH SET	DRILL HOLE SET
	GRANITE BOUND w/IRON ROD FOUND

EXISTING	PROPOSED	
FM	FM	FORCE MAIN
S	S	SEWER PIPE
SL	SL	SEWER LATERAL
G	PG	GAS LINE
D	D	STORM DRAIN
FD	FD	FOUNDATION DRAIN
W	W	WATER LINE
FS	FS	FIRE SERVICE LINE
UE	UGE	UNDERGROUND ELECTRIC SUPPLY
		UNDERGROUND ELECTRIC SERVICE
OHW	OHW	OVERHEAD ELECTRIC/WIRES
		RETAINING WALL
		EDGE OF PAVEMENT (EP)
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		UTILITY POLE
E	E	ELECTRIC METER
		TRANSFORMER ON CONCRETE PAD
WSO	WSO	WATER SHUT OFF/CURB STOP
C.O.	C.O.	PIPE CLEANOUT
	GV	GATE VALVE
	HYD	HYDRANT
CB	CB	CATCH BASIN
	SMH	SEWER MANHOLE
	DMH	DRAIN MANHOLE
	WMH	WATER METER MANHOLE
#5		TEST BORING
TP 1		TEST PIT
LA		LANDSCAPED AREA
CI	CI	CAST IRON PIPE
COP	COP	COPPER PIPE
CMP	CMP	CORRUGATED METAL PIPE
DI	DI	DUCTILE IRON PIPE
PVC	PVC	POLYVINYL CHLORIDE PIPE
RCP	RCP	REINFORCED CONCRETE PIPE
HYD	HYD	HYDRANT
℄	℄	CENTERLINE
EP	EP	EDGE OF PAVEMENT
EL.	EL.	ELEVATION
FF	FF	FINISHED FLOOR
INV	INV	INVERT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL
TBR	TBR	TO BE REMOVED

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INDEX OF SHEETS

UTILITY CONTACTS

ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: MICHAEL BUSBY, P.E. (MANAGER)

NATURAL GAS:
UNITIL
325 WEST ROAD
PORTSMOUTH, N.H. 03801
TEL. (603) 294-5144
ATTN: DAVE BEAULIEU

CABLE:
XFINITY BY COMCAST
180 GREENLEAF AVE.
PORTSMOUTH, N.H. 03801
Tel. (603) 266-2278
ATTN: MIKE COLLINS

SEWER & WATER:
PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, N.H. 03801
TEL. (603) 427-1530
ATTN: JIM TOW

COMMUNICATIONS:
CONSOLIDATED COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, N.H. 03840
Tel. (603) 427-5525
ATTN: JOE CONSIDINE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN ________________ DATE ________

PROPOSED STRUCTURE REPLACEMENT
912 SAGAMORE AVENUE
PORTSMOUTH, N.H.
SITE PLAN

HALEYWARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
WWW.HALEYWARD.COM
200 Griffin Rd. Unit 14
Portsmouth, New Hampshire 03801
603.430.9282

PLAN SET SUBMITTAL DATE: 29 OCTOBER 2024

5010372 3116

WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE & WETLAND LINE DELINEATED BY STEVEN D. RIKER, CWS ON 7/26/24 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
   - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987), AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
   - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).
   - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
   - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
   - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD LOCATED BY HALEY WARD, INC.

PLAN REFERENCES:

1) DIVISION OF LAND, PORTSMOUTH, N.H. FOR HARRISON H. & FRANCIS E. WORKMAN. PREPARED BY JOHN W. DURGIN ASSOCIATES. DATED DECEMBER 1953, REVISED MARCH 1979. NOT RECORDED.

2) PLAN OF LOTS, PORTSMOUTH, N.H. FOR GARLAND W. PATCH, JR. PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS. DATED MAY 1963. NOT RECORDED.

3) BOUNDARY SURVEY LOCATED IN PORTSMOUTH, NH PREPARED FOR TIDEWATCH ASSOCIATES INC. PREPARED BY KIMBALL CHASE COMPANY, INC. DATED MARCH 13, 1986. R.C.R.D. PLAN D-14771.

4) SUBDIVISION PLAN FOR HARRISON & FRANCES WORKMAN PORTSMOUTH, N.H. PREPARED BY BARRY W. KIMBALL, LAND SURVEYOR. DATED SEPTEMBER 1979. R.C.R.D. PLAN C-9014.

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 223 AS LOT 27.

2) OWNERS OF RECORD:
   HOGSWAVE, LLC
   912 SAGAMORE AVENUE
   PORTSMOUTH, NH 03801
   6053/421

3) PORTIONS OF THE PARCEL ARE IN A SPECIAL FLOOD HAZARD AREA, ZONE AE(EL. 9) AS SHOWN ON FIRM PANEL 33015C0270E. EFFECTIVE DATE MAY 17, 2005.

4) EXISTING LOT AREA:
   135,427± S.F. TO MEAN HIGH WATER
   3.1090± ACRES TO MEAN HIGH WATER

5) PARCEL IS LOCATED IN THE WATERFRONT BUSINESS (WB) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:		20,000 S.F.
FRONTAGE:		100 FEET
DEPTH:		100 FEET
SETBACKS:	FRONT	30 FEET
	SIDE	30 FEET
	REAR	20 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		30%
MINIMUM OPEN SPACE:		20%

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF A STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY OF ASSESSOR'S MAP 223 LOT 27 IN THE CITY OF PORTSMOUTH AND THE PROPOSED DEMOLITION ASSOCIATED WITH THE REPLACEMENT OF THE RESIDENTIAL STRUCTURE..

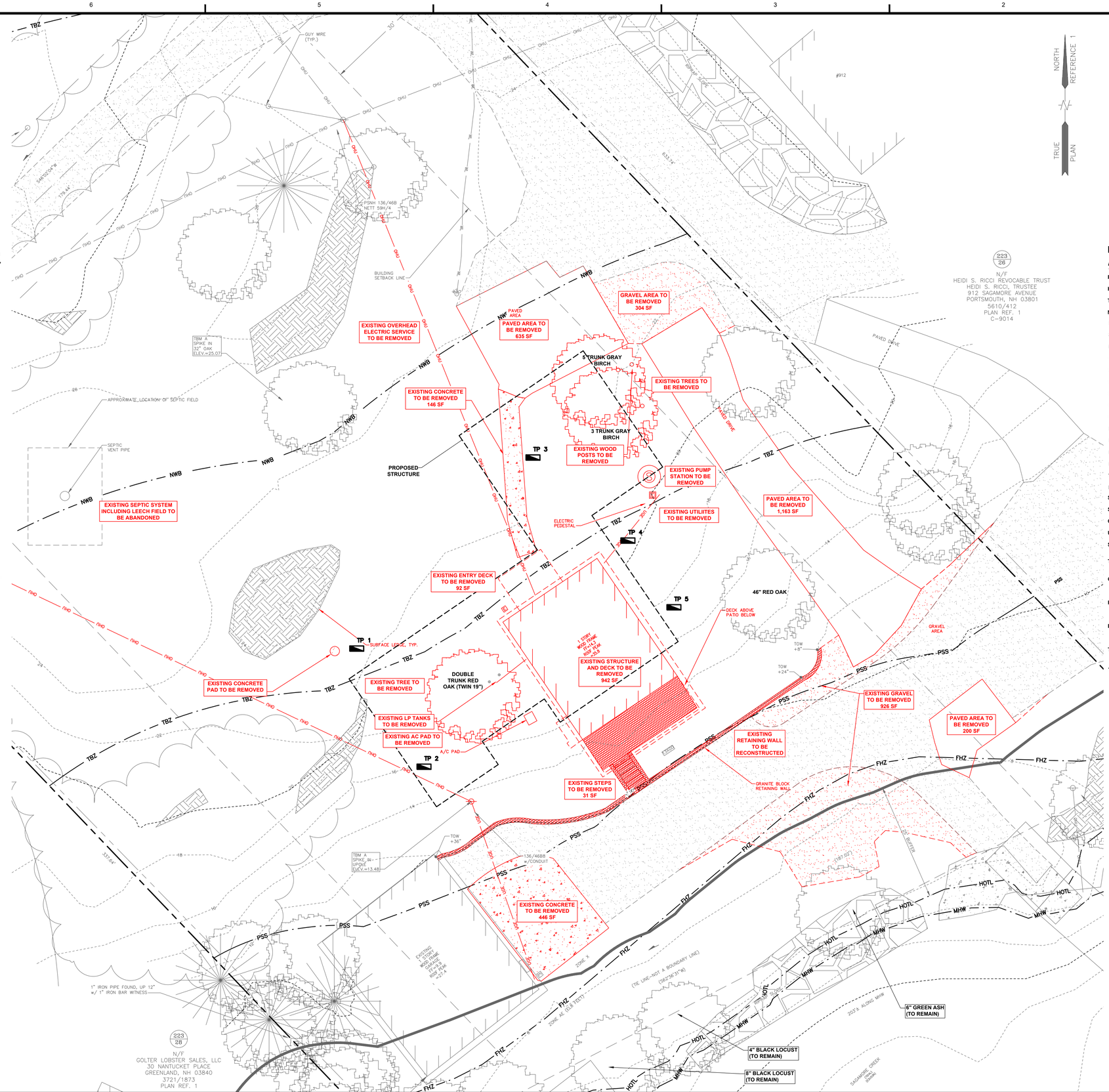
8) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATIONS (±0.2').

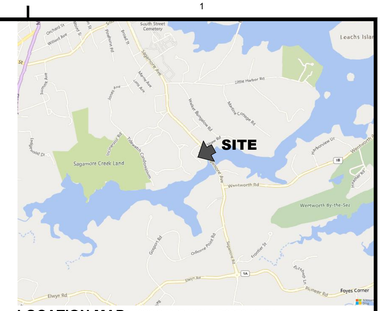
9) MEAN HIGH WATER LINE SHOWN AT ELEVATION 3.81 PER NOAA STATION 8419870 SEAVEY ISLAND, PORTSMOUTH HARBOR.

10) PROPERTY IS SUBJECT TO AND BENEFITS FROM A 25 FOOT WIDE RIGHT-OF-WAY IN COMMON WITH OTHERS FROM SAGAMORE AVENUE.

11) PROPERTY IS SUBJECT TO A 25 FOOT WIDE RIGHT-OF-WAY FOR THE BENEFIT OF ASSESSOR'S MAP 223 LOTS 28 & 29.

TP #	DEPTH TO LEDGE
1	5'
2	4'
3	2'
4	9'
5	7'





LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
SCALE: 1"=2000'
MAPTECH® USGS TOPOGRAPHIC SERIES™,
©MAPTECH®, INC. 978-933-3000
WWW.MAPTECH.COM/TOPO

LEGEND:

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
HIGHEST OVBSERVABLE TIDE	HOTL	
TIDAL BUFFER ZONE	TBZ	
NATURAL WOODLAND BUFFER	NWB	
BENCHMARK		
SURVEY STATION		
MANHOLE	S	S
UTILITY POLE		
WELL	W	W
WATER VALVE	WV	
SIGN		
CATCH BASIN		
HYDRANT		
EDGE OF GRAVEL		
EDGE OF PAVEMENT		
MAJOR FOOT CONTOUR	100	100
MINOR FOOT CONTOUR	98	98
WATERLINE	W	W
FORCE MAIN	FM	FM
STORM DRAIN	SD	SD
SANITARY SEWER	SS	SS
OVERHEAD UTILITIES	OHU	OHU
UNDERGROUND UTILITIES	UGE	UGU
SILTSOXX FENCE		X
TREE LINE		
GRAVEL SURFACE		
PAVED SURFACE		
BUILDING		
TREE		
TEST PIT/ LEDGE PROBE		

GRAPHIC SCALE

10 0 5 10 20 30

(IN FEET)
1 inch = 10 ft.

REV.	DATE	DESCRIPTION	BY	CHK.
2	10/01/24	PER CONSERVATION COMMITEEE COMMENTS	PJM	JRC
1	08/27/24	ADD TEST PIT/ LEDGE PROBES	SJR	SDR

DRAWING ISSUE STATUS

PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
WWW.HALEYWARD.COM
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282

PROJECT

HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE

EXISTING CONDITIONS AND DEMOLITION PLAN

STATE OF NEW HAMPSHIRE — No. 738 JOHN R. CHAGNON — LICENSED LAND SURVEYOR

DATE	SCALE
2024.07.31	1"=10'
DRAWN BY: PJM	DESIGNED BY: PJM
CHECKED BY: SDR	
PROJECT No.: 5010372.3116	
DRAWING No.: C100	REV.: 2

FILE LOCATION: P:\HW\5010372\HOGSWAVE\3116\113 SAGAMORE AVE - PORTSMOUTH-5GR\02-CAD_FILES\CIVIL\5010372.3116-113-C-SP.DWG, 2024.10.01, 4:58 PM

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 223 AS LOT 27.

2) OWNERS OF RECORD:
HOGSWAVE, LLC
912 SAGAMORE AVENUE
PORTSMOUTH, NH 03801
6053/421

3) PORTIONS OF THE PARCEL ARE IN A SPECIAL FLOOD HAZARD AREA, ZONE AE(EL. 9) AS SHOWN ON FIRM PANEL 33015C0270E. EFFECTIVE DATE MAY 17, 2005.

4) EXISTING LOT AREA:
135,427± S.F. TO MEAN HIGH WATER
3.1090± ACRES TO MEAN HIGH WATER

5) PARCEL IS LOCATED IN THE WATERFRONT BUSINESS (WB) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:		20,000 S.F.
FRONTAGE:		100 FEET
DEPTH:		100 FEET
SETBACKS:	FRONT	30 FEET
	SIDE	30 FEET
	REAR	20 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		30%
MINIMUM OPEN SPACE:		20%

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED RE-DEVELOPMENT OF ASSESSOR'S MAP 223 LOT 27 IN THE CITY OF PORTSMOUTH AND SITE IMPROVEMENTS.

8) VERTICAL DATUM IS MEAN SEA LEVEL NAVD88. BASIS OF VERTICAL DATUM IS REDUNDANT RTN GPS OBSERVATION (± 0.2').

9) MEAN HIGH WATER LINE SHOWN AT ELEVATION 3.81 PER NOAA STATION 8419870 SEAVEY ISLAND, PORTSMOUTH HARBOR.

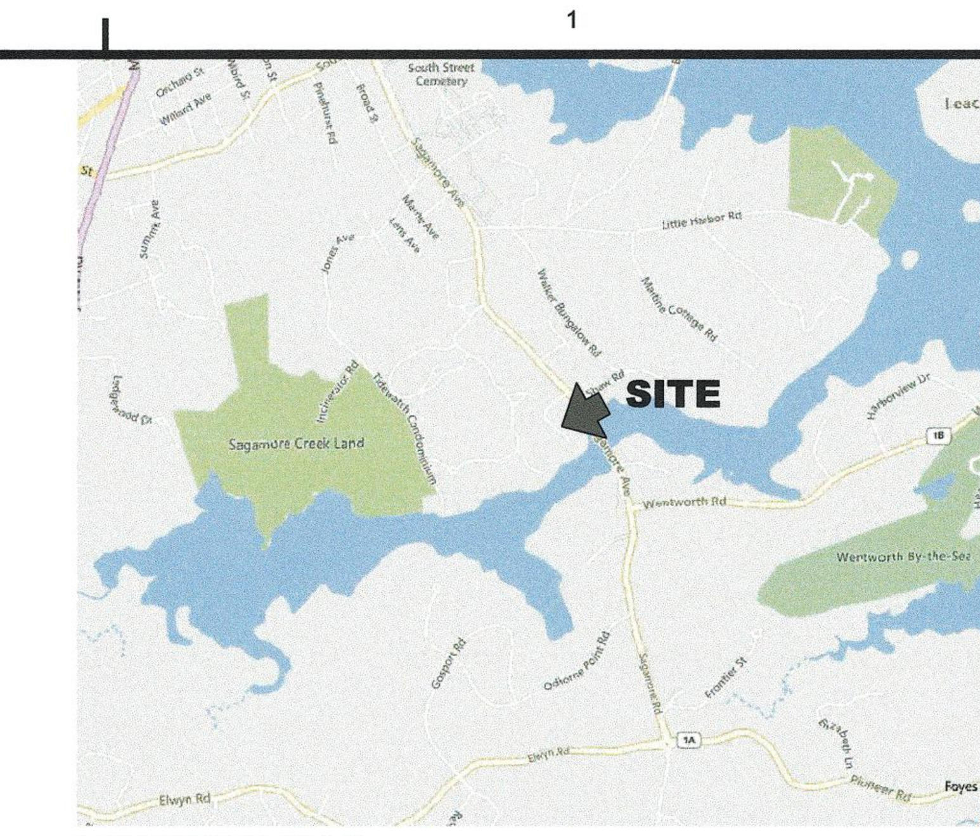
10) PROPERTY IS SUBJECT TO AND BENEFITS FROM A 25 FOOT WIDE RIGHT-OF-WAY IN COMMON WITH OTHERS FROM SAGAMORE AVENUE.

11) PROPERTY IS SUBJECT TO A 25 FOOT WIDE RIGHT-OF-WAY FOR THE BENEFIT OF ASSESSOR'S MAP 223 LOTS 28 & 29.

12) PROPOSED RESIDENTIAL STRUCTURE DESIGN FROM PLAN BY ABRIGO HOME DATED JUNE 7, 2024.

CONDITIONS OF APPROVAL:

1. IN ACCORDANCE WITH SECTION 10.1018.40 OF THE ZONING ORDINANCE, APPLICANT SHALL INSTALL AT LEAST 3 PERMANENT WETLAND BOUNDARY MARKERS DURING PROJECT CONSTRUCTION IN THE LOCATIONS DISCUSSED WITH THE CONSERVATION COMMISSION. THESE CAN BE PURCHASED THROUGH THE CITY OF PORTSMOUTH PLANNING AND SUSTAINABILITY DEPARTMENT.
2. APPLICANT AND PROPERTY OWNERS SHALL FOLLOW NOFA STANDARDS FOR ORGANIC LAND CARE FOR LAWN MAINTENANCE. PLEAS VISIT https://nofa.organiclandcare.net/homeowner-resources/ FOR DETAILS.



LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
SCALE: 1"=2000'
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WWW.MAPTECH.COM/TOPO

LEGEND:

DESCRIPTION | EXISTING | PROPOSED

PROPERTY LINE
HIGHEST OVBSERVABLE TIDE
TIDAL BUFFER ZONE
NATURAL WOODLAND BUFFER
BENCHMARK
SURVEY STATION
MANHOLE
UTILITY POLE
WELL
WATER VALVE
SIGN
CATCH BASIN
HYDRANT
EDGE OF GRAVEL
EDGE OF PAVEMENT
MAJOR FOOT CONTOUR
MINOR FOOT CONTOUR
WATERLINE
FORCE MAIN
STORM DRAIN
SANITARY SEWER
OVERHEAD UTILITIES
UNDERGROUND UTILITIES
SILTSOXX FENCE
TREE LINE
GRAVEL SURFACE
PAVED SURFACE
BUILDING
TREE

GRAPHIC SCALE
30 0 15 30 60 90
(IN FEET)
1 inch = 30 ft.

REV.	DATE	DESCRIPTION	BY	CHK.
2	10/01/24	PER CONSERVATION COMMITEEE COMMENTS	PJM	JRC
1	08/27/24	ADD TEST PIT/ LEDGE PROBES	SJR	SDR

DRAWING ISSUE STATUS
PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
WWW.HALEYWARD.COM
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282

PROJECT
HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE
OVERALL SITE PLAN

DATE	SCALE	
2024.07.31	1"=30'	
DRAWN BY	DESIGNED BY	CHECKED BY
PJM	PJM	SDR

PROJECT No. 5010372.3116
DRAWING No. **C101** REV. **2**

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

JOHN R CHAGNON, LLS 738 — DATE 10.1.24

STATE OF NEW HAMPSHIRE — JOHN R. CHAGNON No. 738 — LICENSED LAND SURVEYOR

STATE OF NEW HAMPSHIRE — STEVEN D. RIKER No. 219 — CERTIFIED WETLAND SCIENTIST — 7/31/24

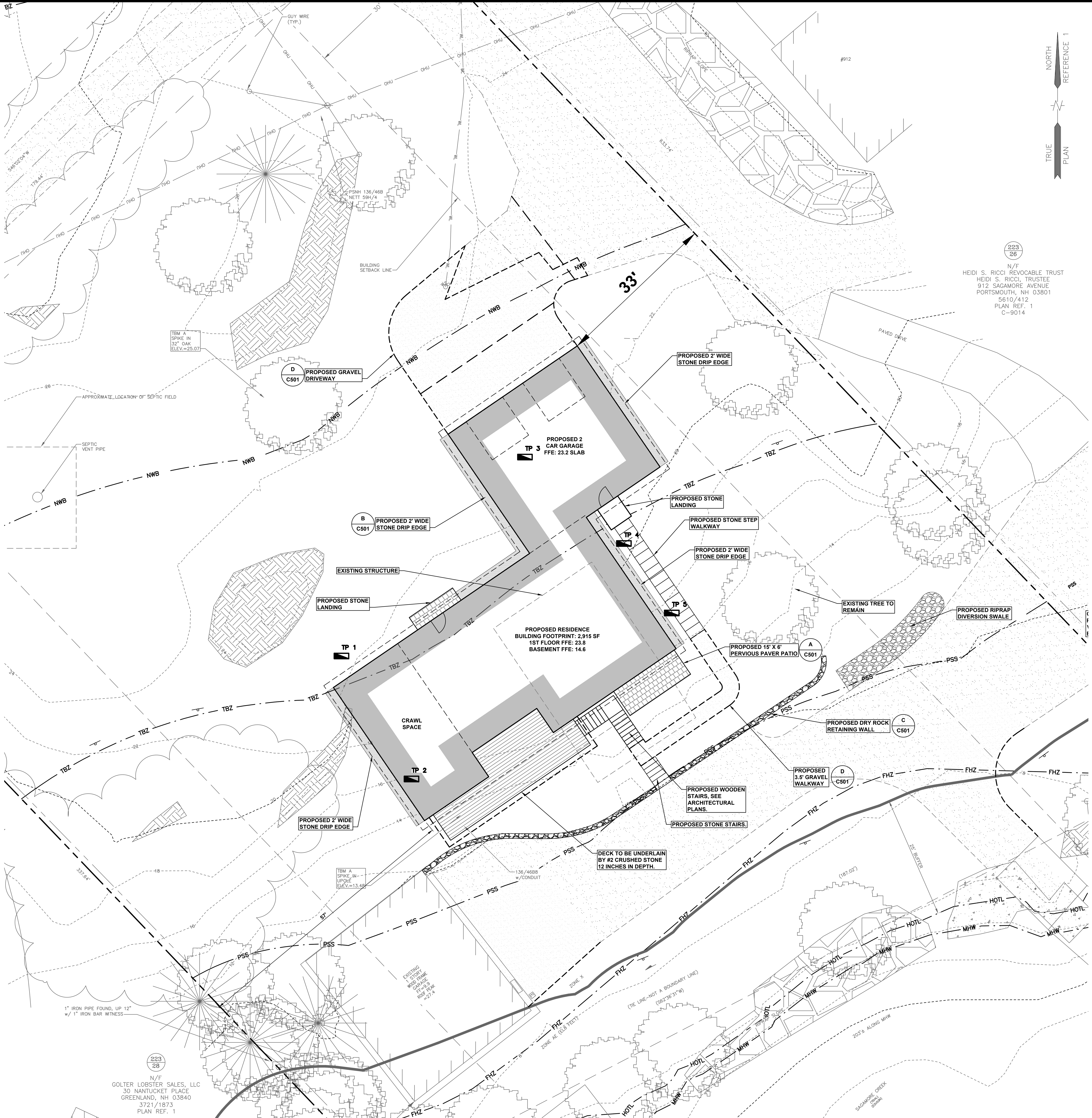
IMPERVIOUS SURFACE AREAS
(WITHIN THE 250' SWQPA ZONE)

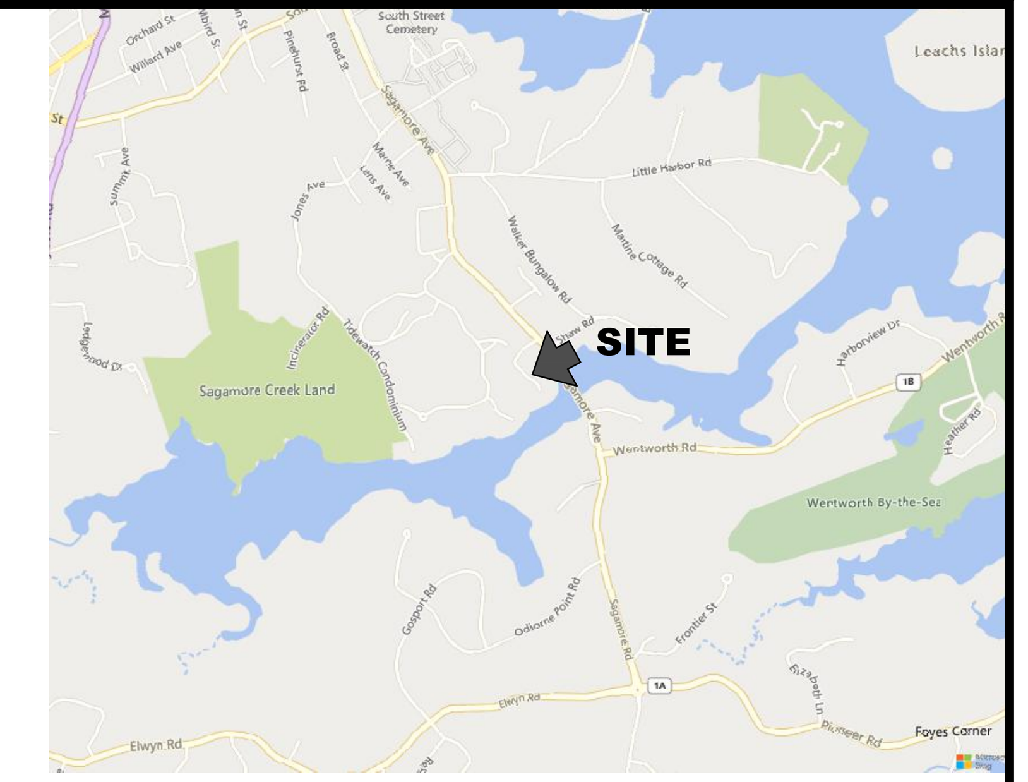
STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	942	2915
GARAGE	1,098	1098
DECK	92	439
STEPS	48	154
PAVEMENT	2,332	334
GRAVEL	7,817	8330
CONCRETE/PADS/LIDS	698	252
WALKWAY	146	134
RETAINING WALLS	93	93
WOOD STAIRWAY	0	59
TOTAL	13,266	13749
AREA WITHIN 250' SWQPA	48,844	48844
% LOT COVERAGE	27.2%	28.1%

IMPERVIOUS SURFACE AREAS
(WITHIN THE 100' TIDAL BUFFER ZONE)

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	942	1729
GARAGE	1,098	1,098
DECK	53	316
STEPS	48	154
PAVEMENT	914	0
GRAVEL	3,780	3,767
CONCRETE/PADS/LIDS	698	262
RETAINING WALLS	94	93
PIER	116	116
WALKWAY	0	134
WOOD STAIRWAY	0	59
TOTAL	7,743	7728
AREA WITHIN 100' TBZ	20,255	20255
% LOT COVERAGE	38.2%	38.2%

TP #	DEPTH TO LEDGE
1	5'
2	4'
3	2'
4	9'
5	7'





LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
MAPTECH® USGS TOPOGRAPHIC SERIES™,
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WWW.MAPTECH.COM/TOPO
SCALE: 1"=2000'

LEGEND:

DESCRIPTION — EXISTING — PROPOSED

- PROPERTY LINE
- HIGHEST OBSERVABLE TIDE
- TIDAL BUFFER ZONE
- NATURAL WOODLAND BUFFER
- BENCHMARK
- SURVEY STATION
- MANHOLE
- UTILITY POLE
- WELL
- WATER VALVE
- SIGN
- CATCH BASIN
- HYDRANT
- EDGE OF GRAVEL
- EDGE OF PAVEMENT
- MAJOR FOOT CONTOUR
- MINOR FOOT CONTOUR
- WATERLINE
- FORCE MAIN
- STORM DRAIN
- SANITARY SEWER
- OVERHEAD UTILITIES
- UNDERGROUND UTILITIES
- SILTSOXX FENCE
- TREE LINE
- GRAVEL SURFACE
- PAVED SURFACE
- BUILDING
- TREE

GRAPHIC SCALE

10 0 5 10 20 30

(IN FEET)
1 inch = 10 ft.

REV.	DATE	DESCRIPTION	BY	CHK.
3	2024.10.09	STAFF REVIEW CHANGES	PJM	JRC
2	10/01/24	PER CONSERVATION COMMITEEE COMMENTS	PJM	JRC
1	08/27/24	ADD TEST PIT/ LEDGE PROBES	SJR	SDR

DRAWING ISSUE STATUS

PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
WWW.HALEYWARD.COM
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282

PROJECT

HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

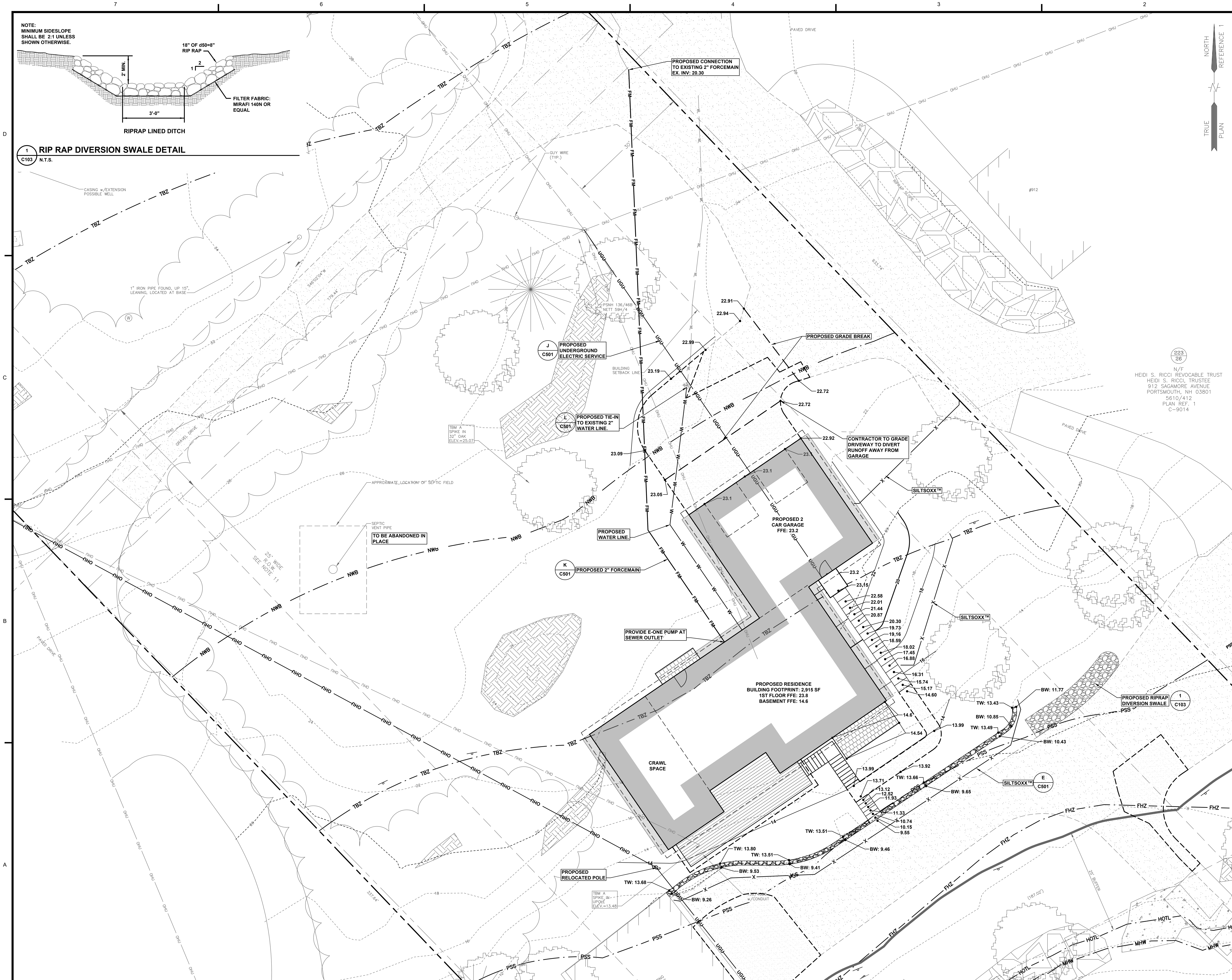
TITLE

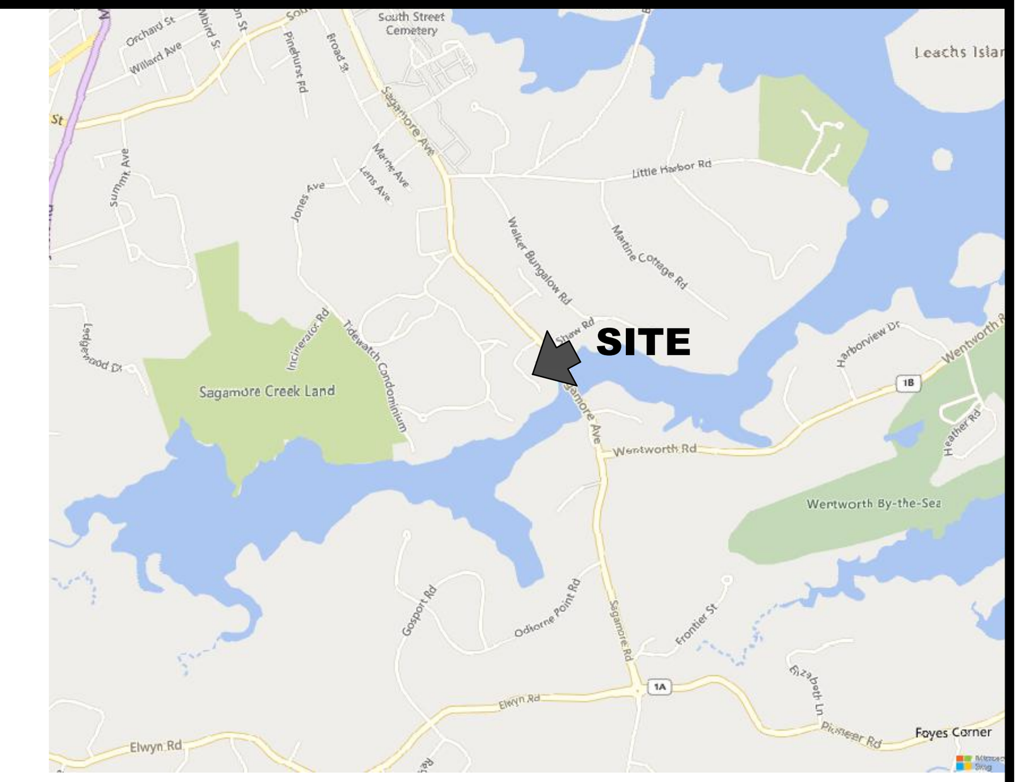
DETAILED SITE PLAN

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7651 LICENSED PROFESSIONAL ENGINEER

DATE	SCALE	
2024.07.31	1"=10'	
DRAWN BY	DESIGNED BY	CHECKED BY
PJM	PJM	SDR
PROJECT No.		
5010372.3116		
DRAWING No.	REV.	
C102	3	

STATE OF NEW HAMPSHIRE No. 738 JOHN R. CHAGNON LICENSED LAND SURVEYOR





LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
SCALE: 1"=2000'
MAPTECH® USGS TOPOGRAPHIC SERIES™,
©MAPTECH®, INC. 978-933-3000
WWW.MAPTECH.COM/TOPO

LEGEND:

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
HIGHEST OVBSERVABLE TIDE	HOTL	
TIDAL BUFFER ZONE	TBZ	
NATURAL WOODLAND BUFFER	NWB	
BENCHMARK		
SURVEY STATION		
MANHOLE		
UTILITY POLE		
WELL		
WATER VALVE	WV	
SIGN		
CATCH BASIN		
HYDRANT		
EDGE OF GRAVEL		
EDGE OF PAVEMENT		
MAJOR FOOT CONTOUR	100	100
MINOR FOOT CONTOUR	98	98
WATERLINE	W	W
FORCE MAIN	FM	FM
STORM DRAIN	SD	SD
SANITARY SEWER	SS	SS
OVERHEAD UTILITIES	OHU	OHU
UNDERGROUND UTILITIES	UGE	UGU
SILT SOXX FENCE		X
TREE LINE		
GRAVEL SURFACE		
PAVED SURFACE		
BUILDING		
TREE		

GRAPHIC SCALE
10 0 5 10 20 30
(IN FEET)
1 inch = 10 ft.

REV.	DATE	DESCRIPTION	BY	CHK.
2	10/01/24	PER CONSERVATION COMMITEEE COMMENTS	PJM	JRC
1	08/27/24	ADD TEST PIT/ LEDGE PROBES	SJR	SDR

DRAWING ISSUE STATUS
PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282
WWW.HALEYWARD.COM

PROJECT
HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE
GRADING AND UTILITY PLAN

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7651 LICENSED PROFESSIONAL ENGINEER

DATE	SCALE
2024.07.31	1"=10'

DRAWN BY	DESIGNED BY	CHECKED BY
PJM	PJM	SDR

PROJECT No. 5010372.3116

DRAWING No. **C103** REV. **2**

BUFFER PLANTING SCHEDULE

SYMBOL	ITEM	SIZE	QTY
	CREEPING JUNIPER JUNIPERUS HORIZONTALIS	1 GALLON	10
	LOW BUSH BLUEBERRY VACCINIUM ANGUSTIFOLIUM	1 GALLON	14
	NORTHERN BAYBERRY MYRICA PENNSYLVANIA	2 GALLON	7
	NORTHERN RED OAK QUERCUS RUBRA	2"	8
	WITCH HAZEL HAHAMELIS VIRGINIANA	3 GALLON	13
	SERVICEBERRY AMALANCHIER SPP.	3 GALLON	16

NOTES:

1. PLANT SPECIES CAN ONLY BE SUBSTITUTED WITH APPROVAL FROM THE CITY OF PORTSMOUTH.

2. BUFFER PLANTING MATRIX PROVIDES A GENERAL SPATIAL REPRESENTATION OF A WELL DISTURBED BUFFER AREA, EXACT LOCATION OF PLANTINGS CAN BE ADJUSTED AT TIME OF INSTALLATION.

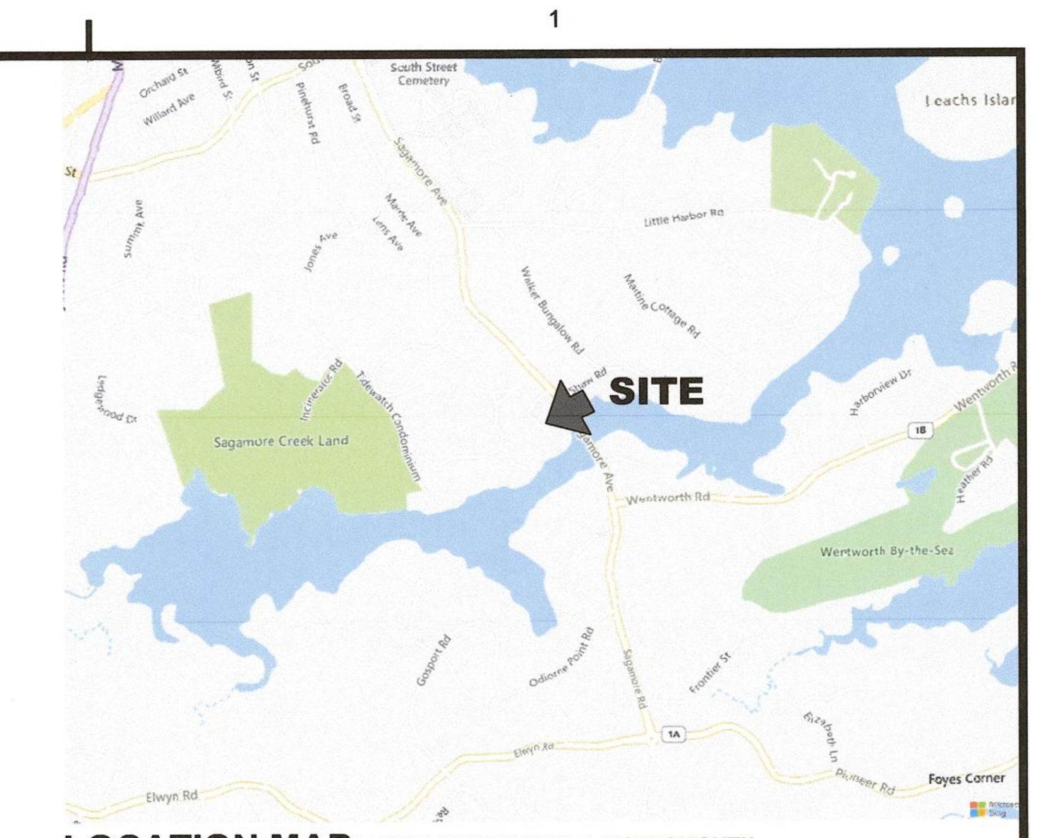
3. EROSION CONTROL MATTING SHALL BE USED IN BUFFER PLANTING AREA TO PREVENT EROSION UNTIL PLANTS AND VEGETATION BECOME ESTABLISHED. DURING CONSTRUCTION, INSPECT BUFFER PLANTING AREA EVERY TWO WEEKS AND AFTER SIGNIFICANT RAIN EVENTS.

4. PROPOSED BUFFER PLANTING AREAS TO BE SEEDED WITH RIPARIAN BUFFER MIX (OR EQUIVALENT) SPACED THROUGHOUT. SEED MIX CAN BE OBTAINED FROM PIERSON NURSERIES, INC., 24 BUZZELL ROAD, BIDDEFORD, ME 04005. 207-499-2994. WWW.PIERSONNURSERIES.COM.

5. IMPERVIOUS SURFACE AREA TO BE REMOVED AS SHOWN WILL BE LOAMED AND SEEDED UNLESS OTHERWISE NOTED.

6. COMPLIANCE WITH PORTSMOUTH ZONING
   6.1. 10.1018.24 & 10.1018.25 IS REQUIRED

7. APPLICANT SHALL PROVIDE A REPORT BACK TO THE PLANNING AND SUSTAINABILITY DEPARTMENT ONE YEAR AFTER THE PROPOSED LANDSCAPING AREA HAS BEEN PLANTED, DEMONSTRATING AT LEAST AN 80% SURVIVAL RATE OF NEW PLANTINGS WITHIN THE PLANTING AREAS.



LOCATION MAP: USGS QUADRANGLE: PORTSMOUTH
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WWW.MAPTECH.COM/TOPO
SCALE: 1"=2000'

LEGEND:

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
HIGHEST OVBSERVABLE TIDE	HOTL	
TIDAL BUFFER ZONE	TBZ	
NATURAL WOODLAND BUFFER	NWB	
BENCHMARK		
SURVEY STATION		
MANHOLE		
UTILITY POLE		
WELL		
WATER VALVE	WV	
SIGN		
CATCH BASIN		
HYDRANT		
EDGE OF GRAVEL		
EDGE OF PAVEMENT		
MAJOR FOOT CONTOUR	100	100
MINOR FOOT CONTOUR	98	98
WATERLINE	W	W
FORCE MAIN	FM	FM
STORM DRAIN	SD	SD
SANITARY SEWER	SS	SS
OVERHEAD UTILITIES	OHU	OHU
UNDERGROUND UTILITIES	UGE	UGU
SILTSOXX FENCE		X
TREE LINE		
GRAVEL SURFACE		
PAVED SURFACE		
BUILDING		
TREE		

GRAPHIC SCALE

10 0 5 10 20 30

(IN FEET)
1 inch = 10 ft.

REV.	DATE	DESCRIPTION	BY	CHK.
4	2024.10.29	RED OAK CALIPER	EDS	JRC
3	2024.10.09	STAFF REVIEW CHANGES	PJM	JRC
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DRAWING ISSUE STATUS

PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282
WWW.HALEYWARD.COM

PROJECT

HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE

LANDSCAPE PLAN

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 738 JOHN R. CHAGNON SIGNATURE

DATE	SCALE	
2024.07.31	1"=10'	
DRAWN BY	DESIGNED BY	CHECKED BY
PJM	PJM	SDR
PROJECT No.	5010372.3116	
DRAWING No.	C104	REV. 4

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.

IF REQUIRED THE CONTRACTOR SHALL OBTAIN AN NPDES PHASE II STORMWATER PERMIT AND SUBMIT A NOTICE OF INTENT (N.O.I) BEFORE BEGINNING CONSTRUCTION AND SHALL HAVE ON SITE A STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) AVAILABLE FOR INSPECTION BY THE PERMITTING AUTHORITY DURING THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE S.W.P.P.P. AND INSPECTING AND MAINTAINING ALL BMP'S CALLED FOR BY THE PLAN. THE CONTRACTOR SHALL SUBMIT A NOTICE OF TERMINATION (N.O.T.) FORM TO THE REGIONAL EPA OFFICE WITHIN 30 DAYS OF FINAL STABILIZATION OF THE ENTIRE SITE OR TURNING OVER CONTROL OF THE SITE TO ANOTHER OPERATOR.

INSTALL PERIMETER CONTROLS, i.e., SILTSOXX AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATIONS. THE USE OF HAYBALES IS NOT ALLOWED.

CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.

CUT AND GRUB ALL TREES, SHRUBS, SAPLINGS, BRUSH, VINES AND REMOVE OTHER DEBRIS AND RUBBISH AS REQUIRED.

PERFORM DEMOLITION.

BULLDOZE TOPSOIL INTO STOCKPILES, AND CIRCLE WITH SILT FENCING OR SILTSOXX. IF EROSION IS EXCESSIVE, THEN COVER WITH MULCH.

INSTALL FOUNDATION

LAYOUT AND INSTALL ALL BURIED UTILITIES AND SERVICES UP TO 10' OF THE PROPOSED BUILDING FOUNDATIONS. CAP AND MARK TERMINATIONS OR LOG SWING TIES.

CONSTRUCT SITE IMPROVEMENTS

AFTER BUILDING IS COMPLETED, FINISH ALL REMAINING LANDSCAPED WORK.

REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

GENERAL CONSTRUCTION NOTES

THE EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" OF THE NHDOT, AND "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE". THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED FOR MORE THAN 45 DAYS.

ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION.

DUST CONTROL: IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

SILT FENCES AND SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILT FENCES AND SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURED LOCATION.

AVOID THE USE OF FUTURE OPEN SPACES (LOAM AND SEED AREAS) WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL USE THE ROADBEDS OF FUTURE ACCESS DRIVES AND PARKING AREAS.

ADDITIONAL TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS--CONSTRUCT SILT FENCE OR SILTSOXX AROUND TOPSOIL STOCKPILE.

AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. STUMPS SHALL BE DISPOSED OF IN AN APPROVED FACILITY.

ALL FILLS SHALL BE PLACED AND COMPACTED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.

ALL NON-STRUCTURAL, SITE-FILL SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED.

FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIAL, TRASH, WOODY DEBRIS, LEAVES, BRUSH OR ANY DELETERIOUS MATTER SHALL NOT BE INCORPORATED INTO FILLS.

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

DURING CONSTRUCTION AND UNTIL ALL DEVELOPED AREAS ARE FULLY STABILIZED, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH ONE HALF INCH OF RAINFALL.

THE CONTRACTOR SHALL MODIFY OR ADD EROSION CONTROL MEASURES AS NECESSARY TO ACCOMMODATE PROJECT CONSTRUCTION.

ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
- EROSION CONTROL BLANKETS HAVE BEEN INSTALLED

VEGETATIVE PRACTICE

FOR PERMANENT MEASURES AND PLANTINGS:
APPLY NOFA STANDARDS

SEED SHALL BE SOWN AT THE RATES SHOWN IN THE TABLE BELOW. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO
THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE, AND SHALL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.

THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.

A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE:

SEED WITH BUFFER PLANTING FROM PIERSON NURSERIES (207) 499-2994

FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:
PERENNIAL RYE: 0.7 LBS/1,000 S.F.
MULCH: 1.5 TONS/ACRE

MAINTENANCE AND PROTECTION

THE CONTRACTOR SHALL MAINTAIN ALL LOAM & SEED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE CONTRACT. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REMOVAL OF STONES AND OTHER FOREIGN OBJECTS OVER 1/2 INCHES IN DIAMETER WHICH MAY APPEAR AND THE FIRST TWO (2) CUTTINGS OF GRASS NO CLOSER THEN TEN (10) DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2 1/2 TO 3 INCHES HIGH. ALL BARE AND DEAD SPOTS WHICH BECOME APPARENT SHALL BE PROPERLY PREPARED, LIMED AND FERTILIZED, AND RESEEDED BY THE CONTRACTOR AT HIS EXPENSE AS MANY TIMES AS NECESSARY TO SECURE GOOD GROWTH. THE ENTIRE AREA SHALL BE MAINTAINED, WATERED AND CUT UNTIL ACCEPTANCE OF THE LAWN BY THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS DEVELOPING.

TO BE ACCEPTABLE, SEEDED AREAS SHALL CONSIST OF A UNIFORM STAND OF AT LEAST 90 PERCENT ESTABLISHED PERMANENT GRASS SPECIES, WITH UNIFORM COUNT OF AT LEAST 100 PLANTS PER SQUARE FOOT.

SEEDED AREAS WILL BE FERTILIZED AND RESEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.

THE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATION IS ESTABLISHED.

THE SILT FENCE OR SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

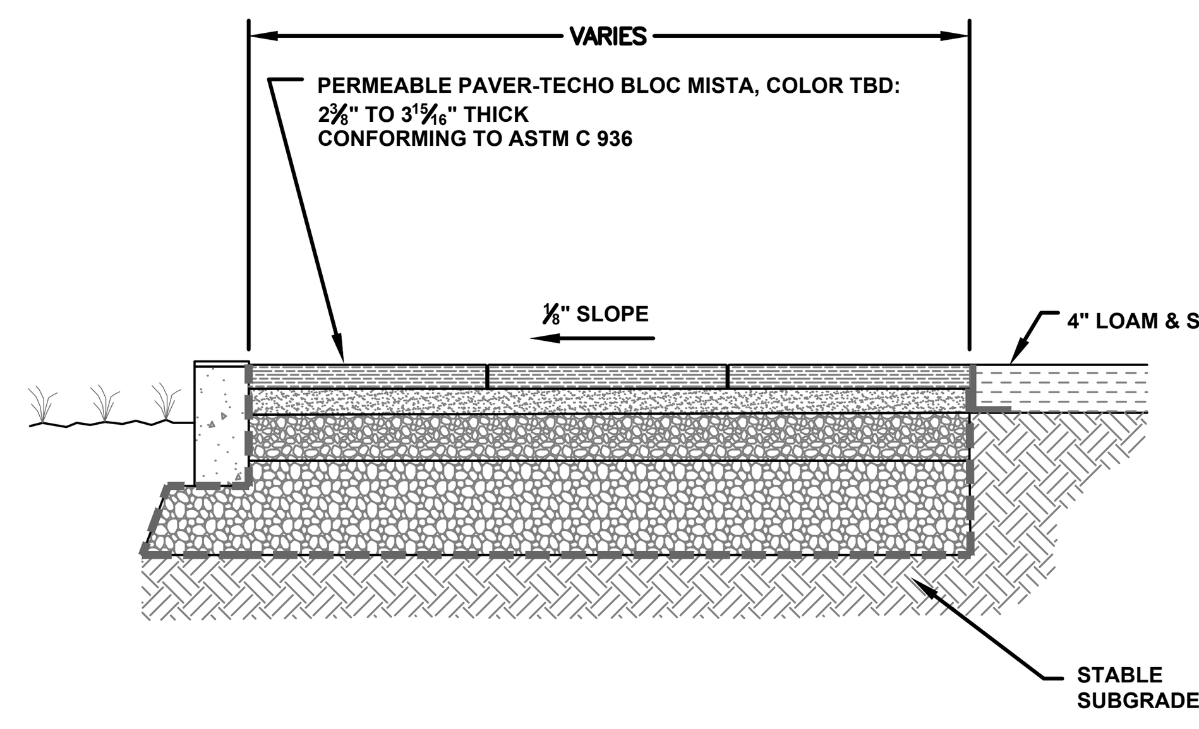
SILT FENCING AND SILTSOXX SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED, AND DISTURBED AREAS RESULTING FROM SILT FENCE AND SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, 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.

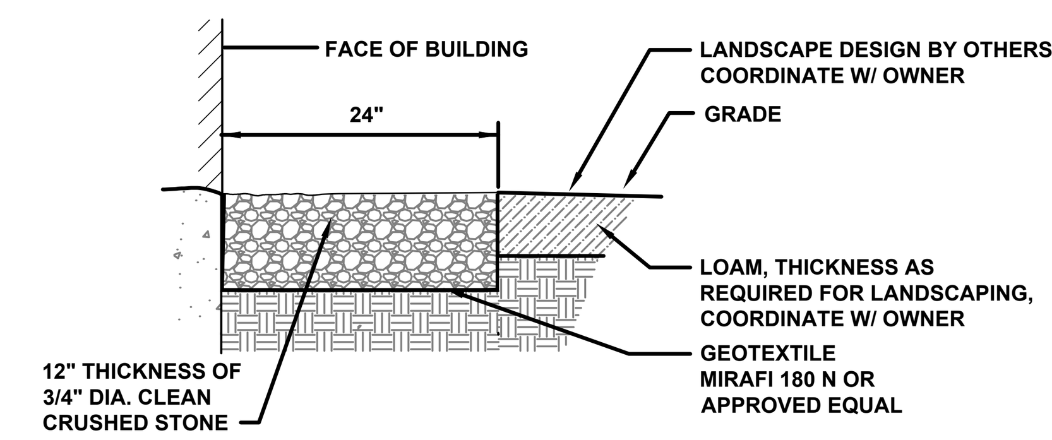
ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER NOVEMBER 15TH, 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.

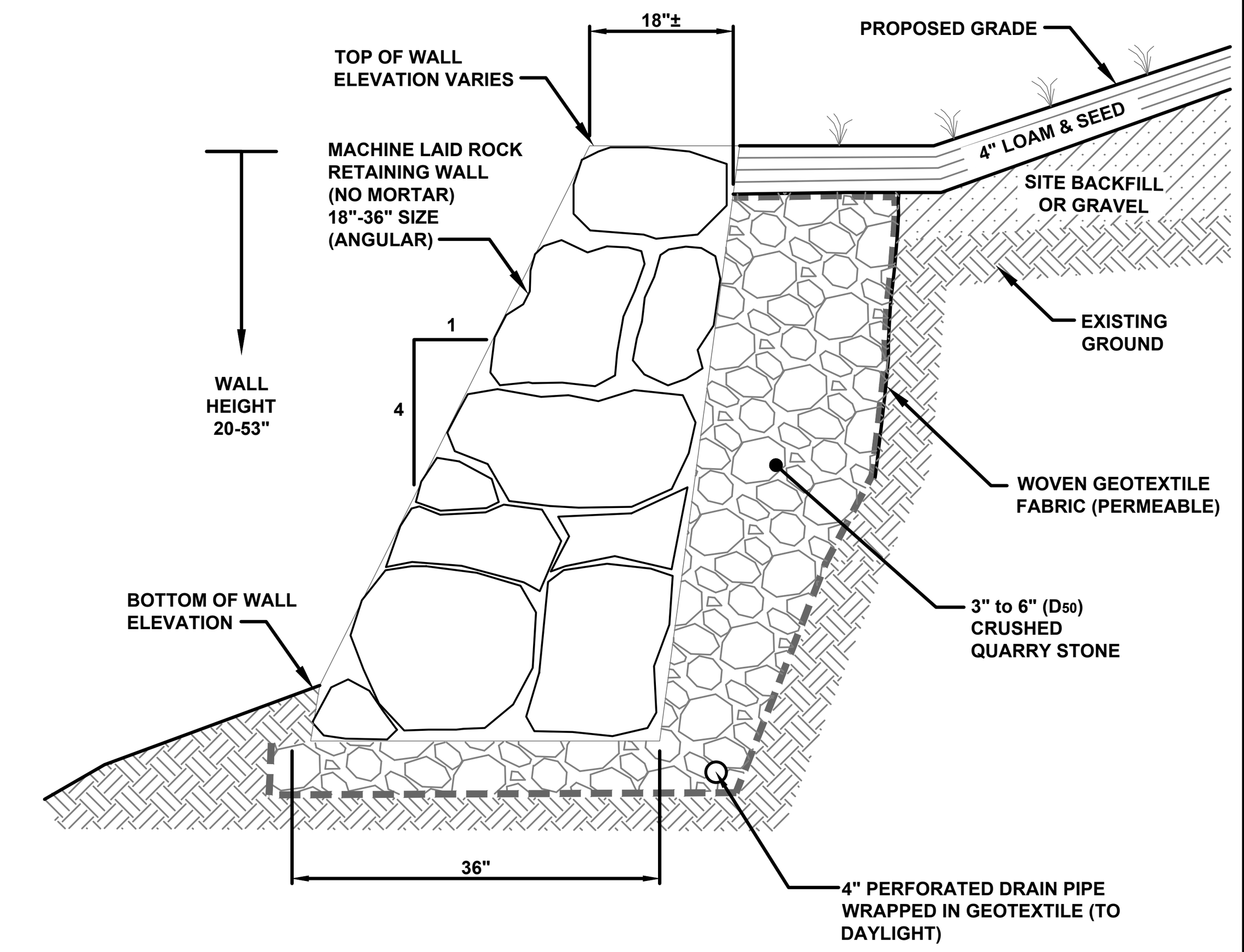


NOTES:
1) TECHO-BLOC (OR APPROVED EQUAL).
2) INSTALLED PER MANUFACTURERS INSTRUCTIONS.
3) PEDESTRIAN TRAFFIC ONLY.

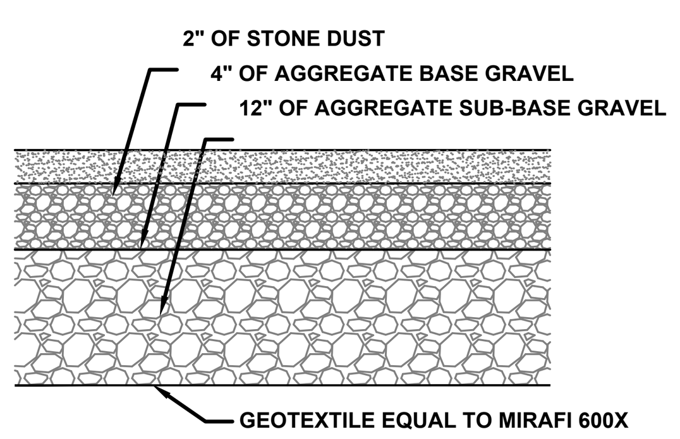
A / C102 TECHO-BLOC® POROUS PATIO/WALKWAY
NTS
HARDSCAPE DESIGN & INSTALLATION
1-410-969-9260



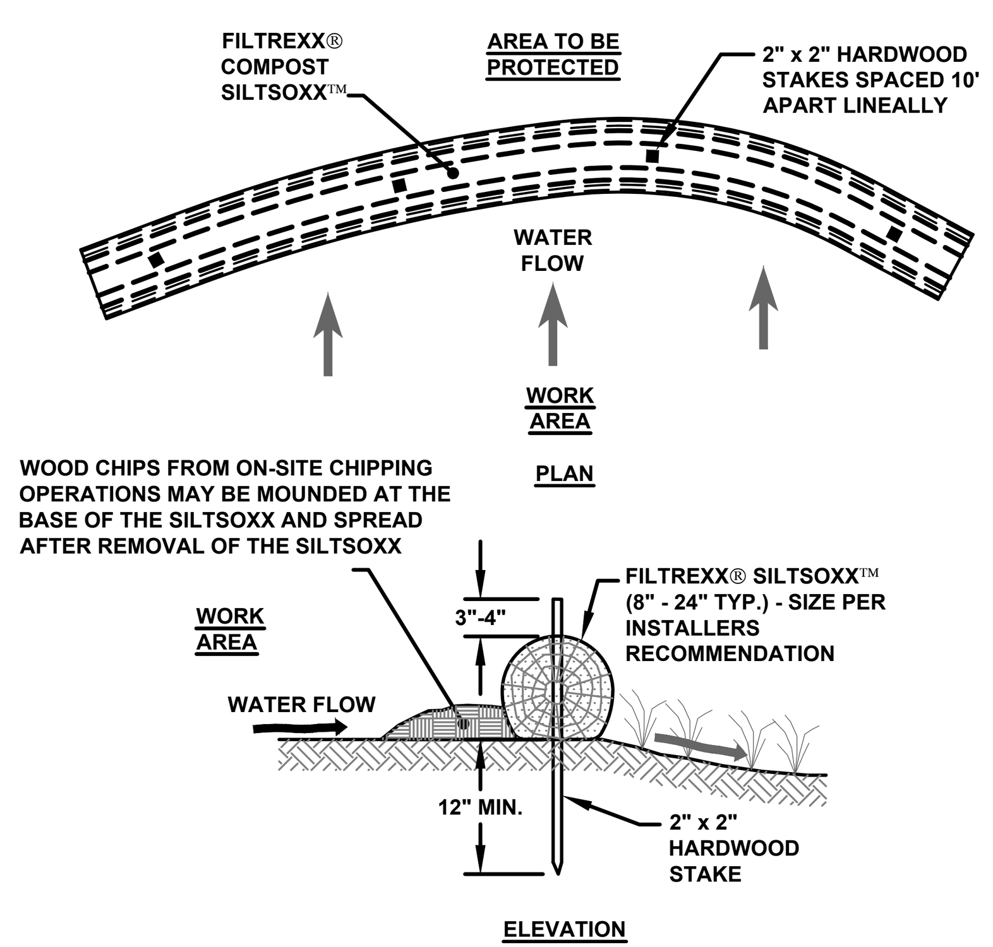
B / C102 DRIP EDGE DETAIL
NTS



C / C102 DRY ROCK RETAINING WALL DETAIL
NTS

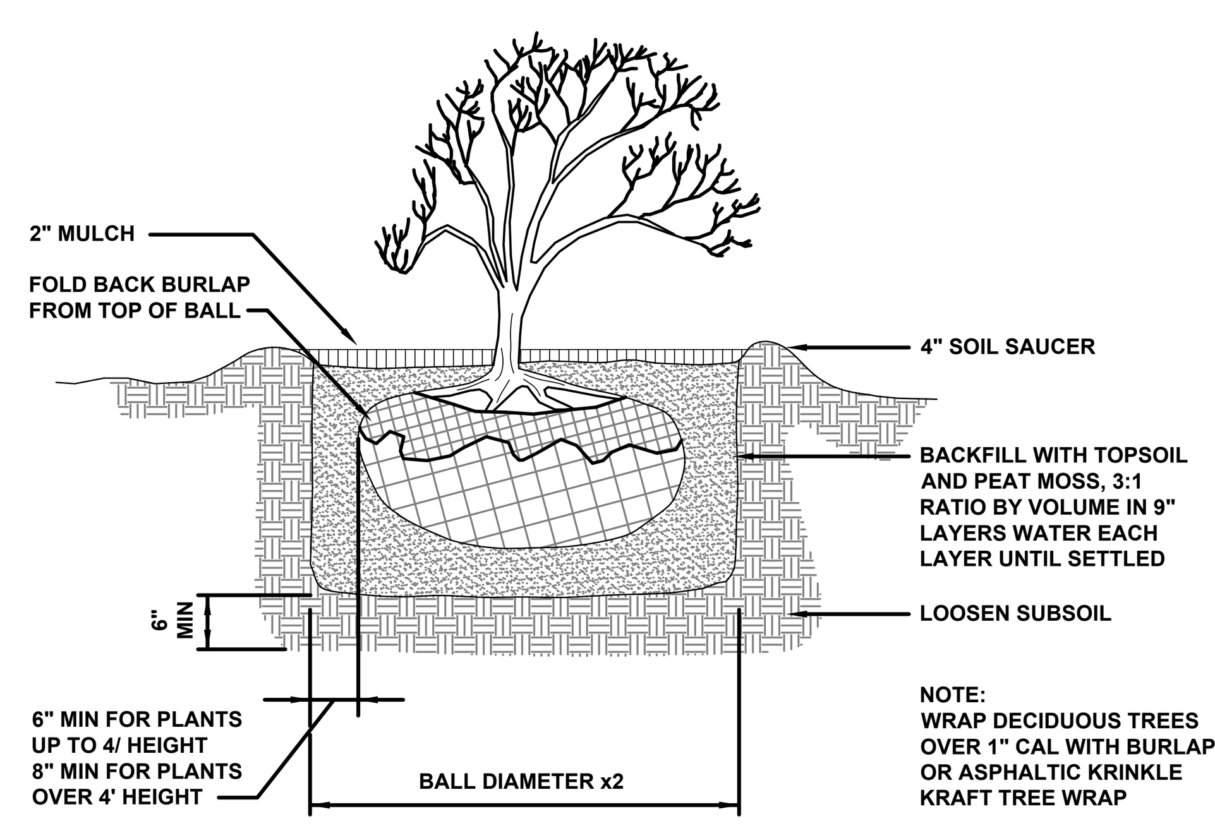


D / C102 TYPICAL GRAVEL BUILDUP DETAIL
N.T.S.



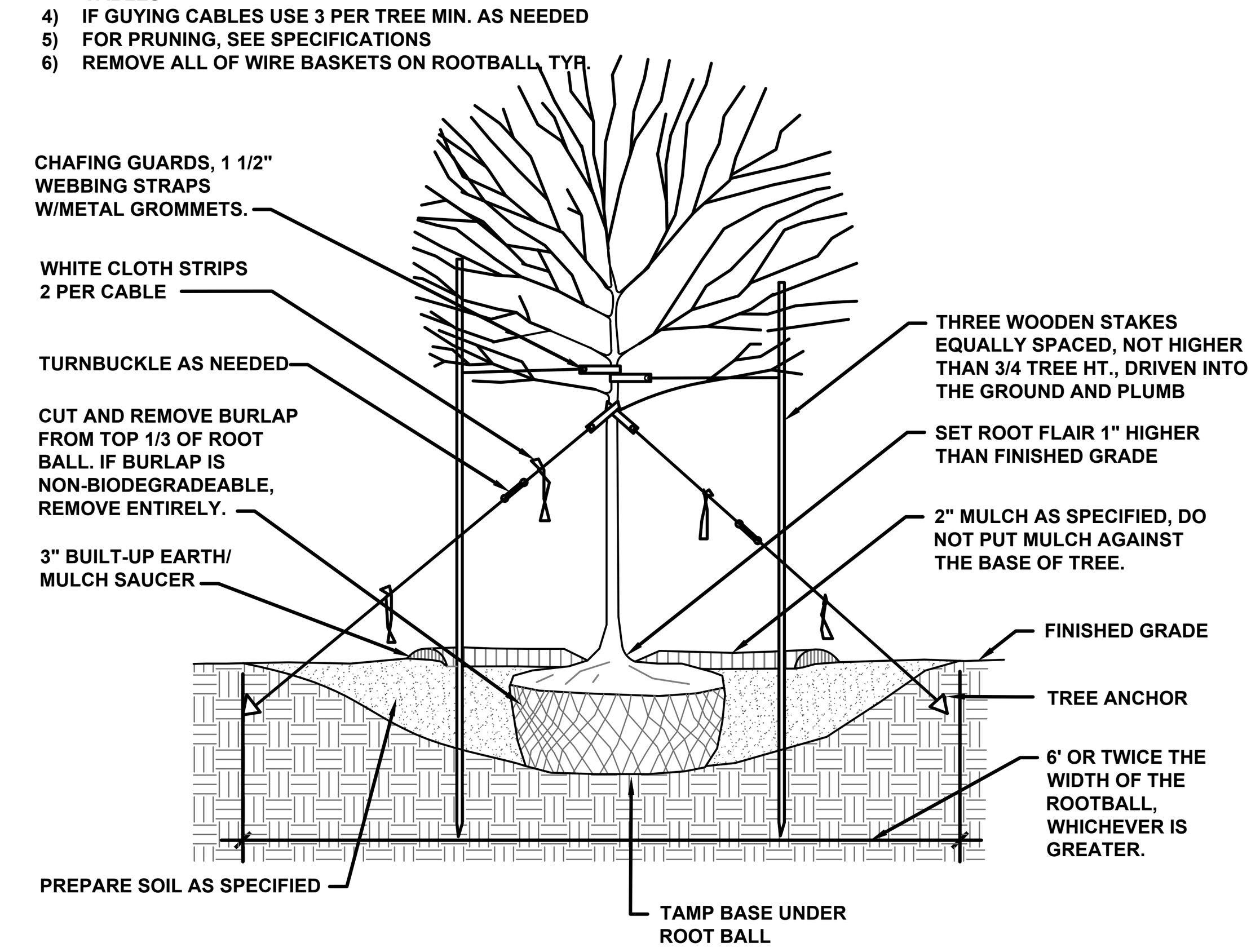
NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILLTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

E / C103 FILTREXX® SILTSOXX™ DETAIL
N.T.S.

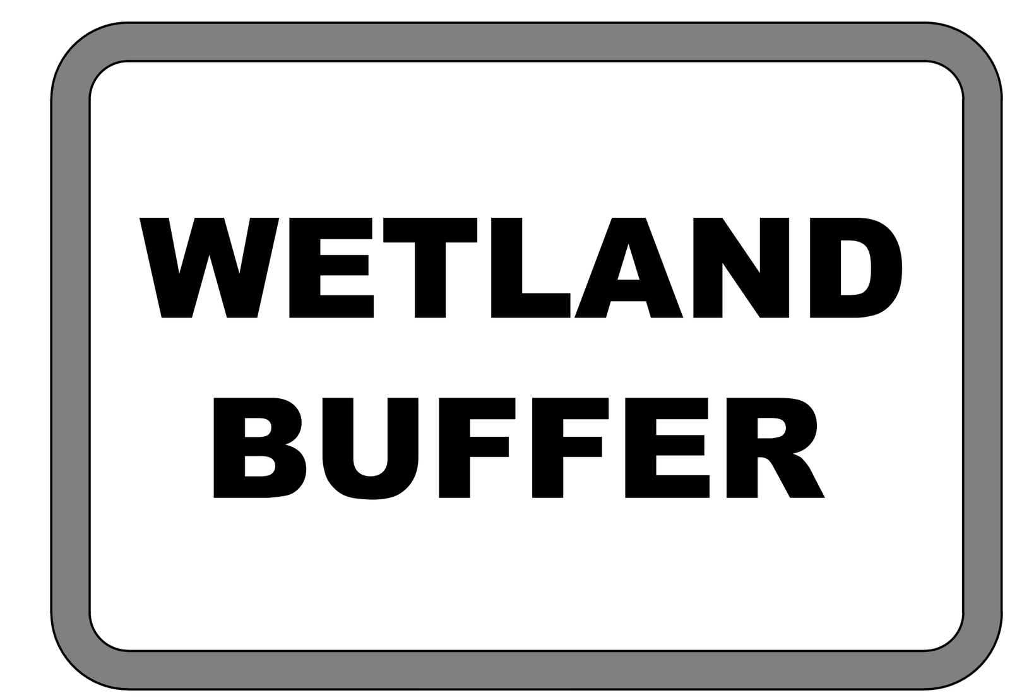


F / C102 SHRUB PLANTING DETAIL
NTS

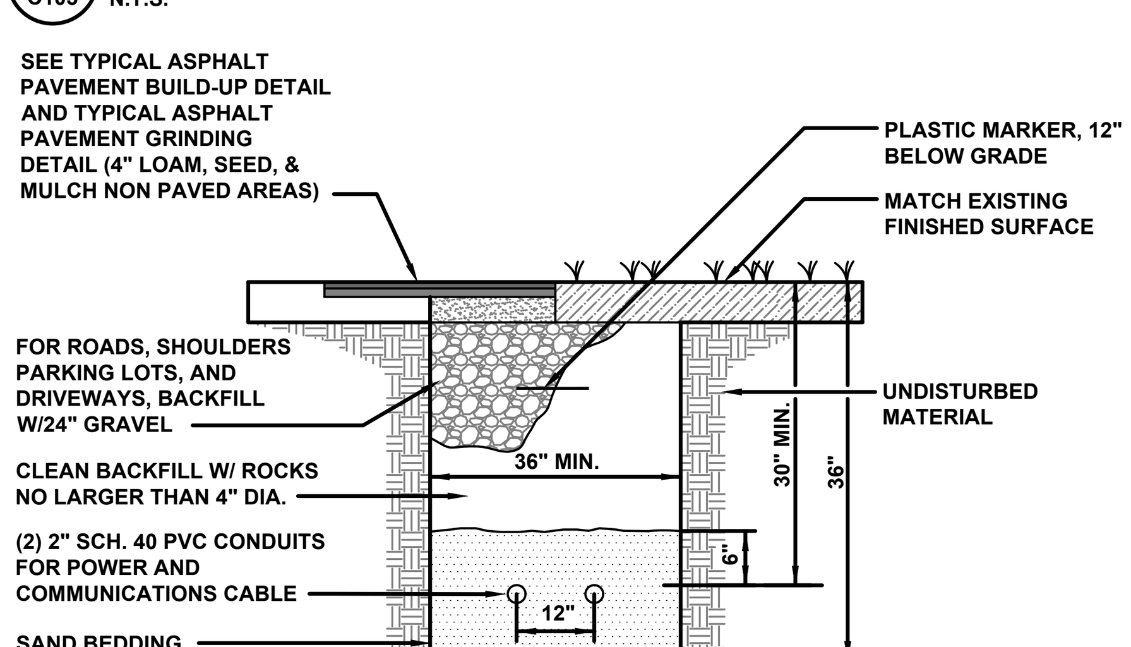
NOTES:
1) STAKING AT CONTRACTOR'S DISCRETION
2) ON TREES BELOW 3" CAL. USE WOOD STAKES
3) ON TREES 4" CAL. OR GREATER USE GUYING CABLES
4) IF GUYING CABLES USE 3 PER TREE MIN. AS NEEDED
5) FOR PRUNING, SEE SPECIFICATIONS
6) REMOVE ALL OF WIRE BASKETS ON ROOTBALL, TYP.



G / C102 TREE PLANTING DETAIL
SCALE: NTS

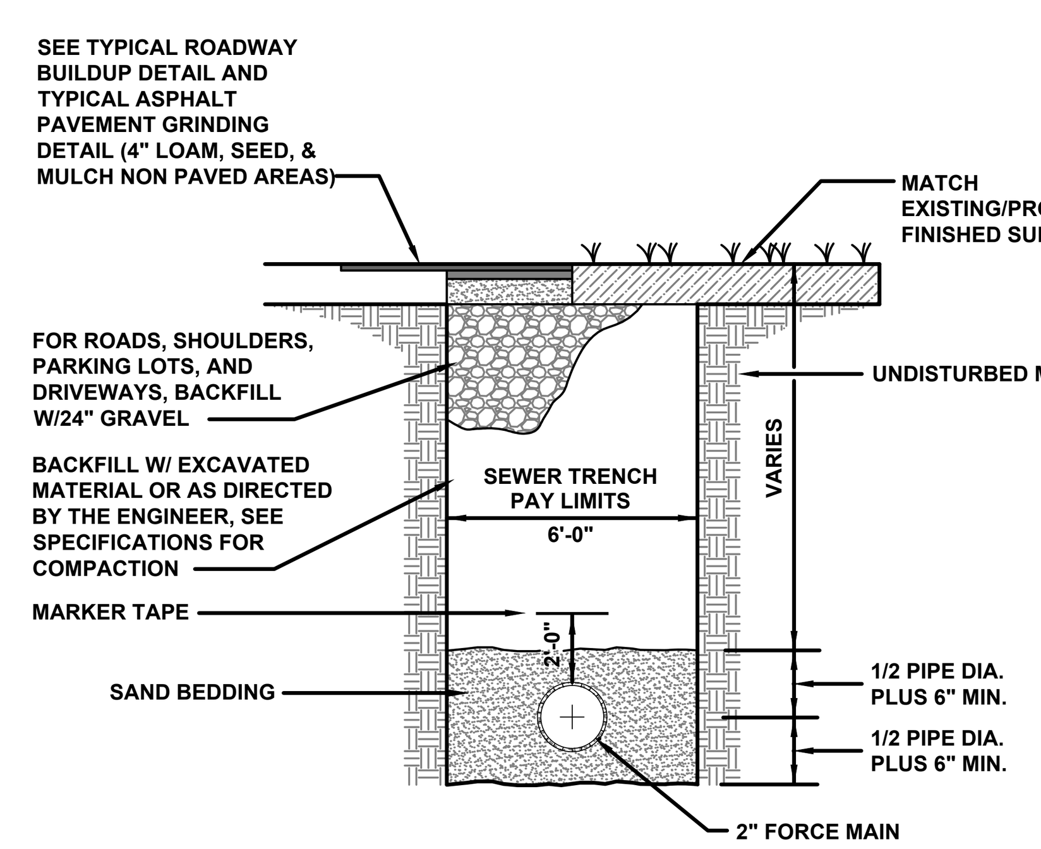


H / C101 WETLAND BUFFER SIGN
NTS



NOTES:
1. SIZE, NUMBER, MATERIAL, AND ARRANGEMENT OF CONDUIT SHALL BE COORDINATED WITH INDIVIDUAL UTILITIES.
2. ALL ELECTRICAL CONDUIT AND STRUCTURES SHALL BE WATER TIGHT.
3. CONDUITS SHALL EXCLUSIVELY SERVE EITHER POWER OR COMMUNICATIONS.

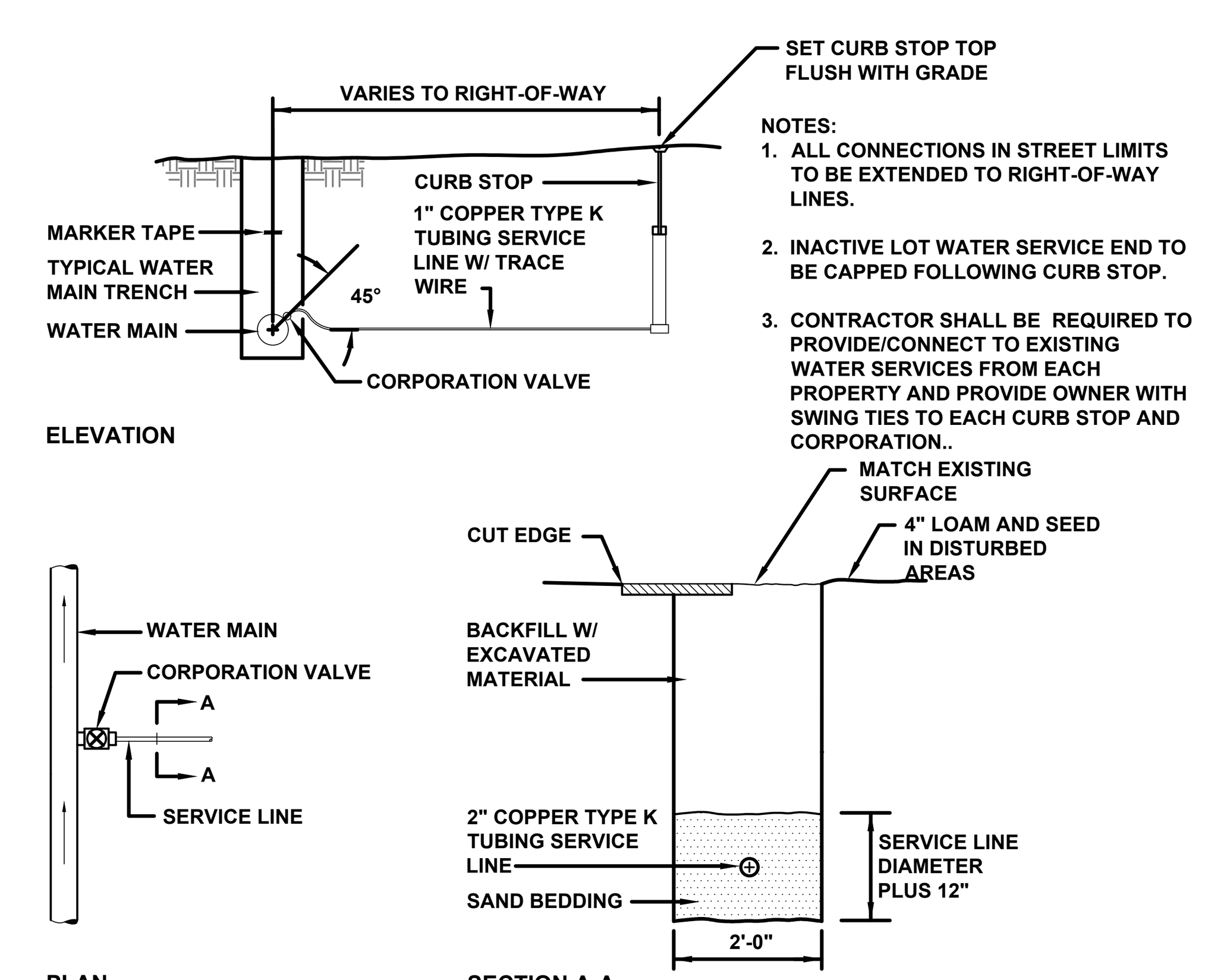
J / C103 TYPICAL UNDERGROUND UTILITY TRENCH DETAIL
N.T.S.



NOTE:

1. MATCH EXISTING SURFACE FINISH, EXCEPT WHERE NOTED. IN LAWN AREAS INSTALL 4" OF LOAM AND SEED AND MULCH.

K / C103 TYPICAL FORCE MAIN TRENCH DETAIL
SCALE: NTS



NOTES:
1. ALL CONNECTIONS IN STREET LIMITS TO BE EXTENDED TO RIGHT-OF-WAY LINES.
2. INACTIVE LOT WATER SERVICE END TO BE CAPPED FOLLOWING CURB STOP.
3. CONTRACTOR SHALL BE REQUIRED TO PROVIDE/CONNECT TO EXISTING WATER SERVICES FROM EACH PROPERTY AND PROVIDE OWNER WITH SWING TIES TO EACH CURB STOP AND CORPORATION..

L / C103 TYPICAL WATER SERVICE DETAIL
NTS

REV.	DATE	DESCRIPTION	BY	CHK.
2	10/01/24	PER CONSERVATION COMMITEEE COMMENTS	PJM	JRC
1	08/27/24	ADD TEST PIT/ LEDGE PROBES	SJR	SDR

DRAWING ISSUE STATUS
PERMIT PLAN

HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Road, Unit 3
Portsmouth, NH 03801
603.430.9282
WWW.HALEYWARD.COM

PROJECT
HOGSWAVE, LLC REDEVELOPMENT
913 SAGAMORE AVENUE, PORTSMOUTH, NH

TITLE
SITE DETAILS

STATE OF NEW HAMPSHIRE · JOHN R. CHAGNON No. 7651 · LICENSED · PROFESSIONAL ENGINEER

DATE	SCALE	
2024.07.31	NTS	
DRAWN BY	DESIGNED BY	CHECKED BY
PJM	PJM	SDR
PROJECT No.	5010372.3116	
DRAWING No.	C501	REV. 2