

Findings of Fact | Wetland Conditional Use Permit

City of Portsmouth Planning Board

Date: December 21, 2023

Property Address: 60 Pleasant Point Dr.

Application #: LU-23-180

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 the 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	<i>1. The land is reasonably suited to the use activity or alteration.</i>	Meets Does Not Meet	The existing lot has been used for residential use which already had a significant amount of impervious surface within the buffer. This application proposes to remove all impervious within 50' of the wetland resource while pushing much of the home and associated infrastructure farther back and away from the resource. While there is still impervious within the buffer, the applicant is proposing to restabilize the bank with native vegetation, replace all the grass with an eco-friendly micro clover mix, and there is extensive landscaping to help redirect and infiltrate stormwater on the property to reduce erosion, ponding and impacts to abutting properties.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
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	The applicant is proposing to build the home and other structures outside of the 50' buffer, which will be an improvement from the existing site. The grading of this site does not allow for a lot of room to build without needing to bring in fill and regrade the site. While this proposal does include a large amount of impervious within the 100' buffer, the applicants are proposing to increase the health of the buffer with new plantings, stormwater control and bank stabilization.
3	3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.	Meets Does Not Meet	The applicant is proposing to redirect stormwater, revegetate the bank, increase buffer plantings, and replace grass with an eco-friendly micro clover mix. These additions will help mitigate the impacts of proposed impervious within the buffer.
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 applicant will be restoring the natural vegetated state of the bank and buffer, which will increase the vegetative state of the buffer compared to the existing site. The applicant has proposed an extensive land management plan which will address buffer health through invasive species removal and native plantings.
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 applicant is proposing a slight reduction to impervious impacts in the buffer but has implemented a robust landscaping plan which includes an invasive species removal program and revegetation and stabilization of the bank.
6	6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.	Meets Does Not Meet	The applicant is proposing to restore areas previously disturbed in the vegetative buffer with a revegetation of the bank which will help reduce erosion and stormwater sheet flow.
7	<u>Other Board Findings:</u>		



**Civil
Site Planning
Environmental
Engineering**

133 Court Street
Portsmouth, NH
03801-4413

November 28, 2023

Peter Britz, Planning and Sustainability Director
City of Portsmouth Municipal Complex
1 Junkins Avenue
Portsmouth, New Hampshire 03801

**Re: Application for Conditional Use Permit
Assessor's Map 207, Lot 13
60 Pleasant Point Drive
Altus Project No. 5138**

Dear Peter,

On behalf of Michelle and John Morris and 120-0 Wild Rose Lane, LLC, Altus Engineering and the design team is excited to submit an application for a Conditional Use Permit to the Planning Board for consideration at the December 21st hearing. On November 8, 2023, Altus and the design team presented the application to the Conservation Commission. The Commission voted to recommend approval to the Planning Board with two stipulations.

Both stipulations have been added to the Conditional Use Permit Application Plan and are noted below.

1. In accordance with Section 10.1018.40, the applicant shall install permanent wetland boundary markers along the 25-foot no cut buffer during project construction.
2. The applicant shall provide monthly invasive management and planting updates to the Planning and Sustainability Department once removal begins and until the end of the restoration process (see management calendar for treatment and planting). These updates shall be a report summarizing the activities performed, the success rates, any proposed plan changes, and upcoming activities involving the 25-foot vegetative buffer on site. If plants have not achieved an 80% success rate or greater after one year, applicants will replant and report back to the Planning and Sustainability Department one year after planting is complete and each subsequent year until an 80% success rate has been achieved.

The 1950's vintage home was constructed prior to NHDES and City wetland buffer regulations. Portions of the built infrastructure are within the NHDES 50-foot primary tidal wetlands buffer. The existing lawn and maintained areas extend into the 25-foot no cut buffer. In addition to local permitting for work within the 100-foot wetland buffer, the project proponents will need to secure a NHDES Wetlands Bureau Dredge/Fill Permit for sitework activities within 100-feet of the highest observable tide line (HOTL) and a Shoreland Permit for work between 100 and 250-feet of the HOTL. The existing earthen bank is eroding. We intend to stabilize it with coir logs and native vegetation. There are two deteriorated stairs that provide

access to the waterfront that will be replaced. Invasive species dominate the natural landscape. Extensive efforts will be made to eradicate the invasives and restore the waterfront buffer with native species.

The new home and all of the built infrastructure will be greater than 50-feet from the HOTL with the exception of replacing the stairs accessing the waterfront and providing underground utility services to the existing dock.

Enclosed for the Planning Board's consideration please find the following:

- Letter of Authorization
- Conditional Use Permit Narrative
- Stormwater Operation and Maintenance Manual
- Wetland Buffer Function and Values Assessment (Cuomo)
- Parterre Ecological Services Invasive Species Removal Report
- Project Site Plans

Concurrently, both the NHDES Wetlands Dredge/Fill permit application and the NHDES Shoreland Permits are being filed. The Wetlands application is expected to be presented to the Conservation Commission on December 13, 2023.

Please feel free to call or email me directly should you have any questions or need any additional information.

Sincerely,

ALTUS ENGINEERING, LLC



Enclosures

eCopy: Michelle and John Morris
Johanna Cairns, Mathew-Cunningham
Miles Connors, Parterre Ecological Services
Michael Cuomo, Wetlands Scientist
Ben Auger, Auger Building Company

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Letter of Authorization

I, John Morris, of 120-0 Wild Rose Lane, LLC, hereby authorize Altus Engineering, Inc. of Portsmouth, NH to represent me as the Owner and Applicant in all matters concerning the engineering and related permitting of a residential redevelopment on Portsmouth Tax Map 207, Lot 13 located at 60 Pleasant Point Drive, Portsmouth, New Hampshire. This authorization shall include any signatures required for Federal, State and Municipal permit applications.


Signature

John G. Morris
John Morris

2/15/21
Date


Witness

Michelle Morris
Print Name

2/15/21
Date



**Civil
Site Planning
Environmental
Engineering**

133 Court Street
Portsmouth, NH
03801-4413

**CONDITIONAL USE PERMIT APPLICATION
60 PLEASANT POINT DRIVE
NARRATIVE
OCTOBER 25, 2023**

On behalf of the Applicant, 120-0 Wild Rose Lane, LLC and Michelle and John Morris, Altus Engineering, LLC ((Altus) respectfully submits a Wetlands Conditional Use Permit application for the redevelopment of a single-family residence at 60 Pleasant Point Drive. The Morris's propose to raze the 1950's vintage single story ranch style home and replace it with a new energy efficient home.

The house was constructed prior to NHDES and City wetland buffer regulations. The existing pool and appurtenances are within the NHDES 50-foot primary tidal wetlands buffer. The existing lawn and maintained areas extend into the 25-foot no cut buffer. In addition to local permitting for work within the 100-foot wetland buffer, the project proponents will need to secure a NHDES Wetlands Bureau Dredge/Fill Permit for sitework activities within 100-feet of the highest observable tide line (HOTL) and a Shoreland Permit for work between 100 and 250-feet of the HOTL. The entire parcel is within the 250-foot NHDES Shoreland Buffer.

The new home and all of the built infrastructure will be greater than 50-feet from the HOTL with the except of replacing the stairs accessing the waterfront and providing underground utility services to the existing dock.

In accordance with Article 10 Environmental Protection Standards Section 10.1010 Wetland Protect, the redevelopment will require a Conditional Use Permit from the Planning Board. The project does not require any additional relief from the City of Portsmouth Zoning Ordinance.

Per Section 10.1017.50 for criteria for approval of a Conditional Use Permit, Altus offers the following:

- (1) The land is reasonably suited to the use, activity, or alteration.

The property is within the SRB Zoning District, which is a residential zone. All of the abutting properties are residential. The parcel is used as a residence and will continue to do so. The minimum lot size in the zoning district is 15,000 SF. The subject parcel is over 3 times the minimum lot size. The lot fronts on the Piscataqua River. Other than wetlands/tidal waters there are no other wetlands on the property. There is a natural buffer on the property where the existing is located and where the proposed structure will be sited. The tidal waters "wrap"

around the property which puts most of the property within the 100-foot buffer. Using the parcel as a residence is a reasonable and the only viable use.

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

The 46,840 SF parcel is relatively large for the zoning district which allows lots as small as 15,000 SF. Only 12,313 SF of the lot (26.2%) is not within the 100-foot wetland buffer. Taking the front and side yard setbacks into consideration, there is only 9,093 SF of the lot can be built upon without zoning relief or a Conditional Use Permit. It is not reasonable to limit the development to a small portion of the lot where it is low in grade and would create drainage issues if the house were constructed in that location. Additionally, siting the house entirely in the by right building envelope would diminish the value of the property as the existing house in the buffer has tremendous views that would be lost if the house was moved from the high point.

- (3) There will be no adverse impact on the wetland functional values of the site or surrounding properties;

Michael Cuomo, Wetlands Scientist has provided a function and values assessment that demonstrates that the wetland buffer will be enhanced with the development. The invasive species will be removed and more diverse native plantings will be installed in both the buffer and throughout the site. The eroding bank along the shoreline will be stabilized with a living shoreline rather than a hardened barrier.

The proposed landscape reduces the lawn by 14,437 sf (a 53% decrease) and replaces it entirely with Sodco micro-clover lawn or similar brand. The proposed landscape increases the planting by 8,849 sf (a 43% increase) and removes all invasive species on the property. The reduction of lawn and increase in native plant material will further protect the shoreline and the adjacent properties from runoff.

The proposed project will reduce impervious by over 200 square feet with approximately 623 square foot reduction in the 0-50-foot buffer.

Stormwater treatment will be provided where none currently exists. Peak runoff flows will be reduced and treatment provided to improve water quality runoff by way of stone drip edges along the building perimeter, permeable paved surfaces at the pool and in the driveway. The eroding earthen bank along the waterfront will be stabilized with vegetation to minimize the potential for future erosion.

- (4) Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals; and

Although we are removing 1-tree in the buffer that is within the existing landscaped yard, there will be numerous tree and shrub plantings to offset the loss.

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

The proposed project will remove 623 square feet of impervious area in the 50-foot buffer and will have approximately a 30 square foot decrease in the 100-foot buffer. The eroding shoreline will be stabilized. With the removal of the invasives, and new plantings there will be a $\pm 4,500$ square foot increase in naturalized areas on the site. 2 sets of stairs are proposed, which replace 2 sets of stairs to the waterfront. Because there is limited beach area, we believe it is better for the environment and safer for the owners to access each portion of the waterfront rather than walking along the waterfront.

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

The existing sloped buffer along the water currently has a substantial number of invasive species and there is evidence of progressively worsening erosion. Parterre Ecological has prepared a Land Management Plan that will rehabilitate and restore the coastal bank along the property line through the removal of invasive species, erosion control techniques, and planting of native perennials, grasses, and shrubs.

Compliance with Stormwater Facility Maintenance Requirements

RESPONSIBLE PARTIES:

Owner: Michelle and John Morris (617) 283-2294 Jgmorris63@gmail.com
Name Phone Email

Inspection: Qualified personnel to be determined
Name Company Phone

Maintenance: Qualified personnel to be determined
Name Company

Telephone Email

The property owner is the responsible party for ensuring that stormwater facilities installed on their property are properly maintained and that they function as designed. In some cases, this maintenance responsibility may be assigned to others through special agreements. The maintenance responsibility for a stormwater facility may be designated within a maintenance agreement for the property. Property owners shall be aware of their responsibilities regarding stormwater facility maintenance.

Long term inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on the developed property. Routine inspections will ensure permit compliance; will reduce the potential for deterioration of infrastructure and the high cost to repair/replace, and will reduced the degradation of water quality.

Inspection & Maintenance – Annual Reporting

Requirements for the long-term inspection and maintenance of stormwater facilities, as well as reporting requirements are included in this Stormwater Management Facility Operation and Maintenance (O&M) Manual. The attached Long Term Inspection & Maintenance Schedule outlines specific requirements.

Preventative Measures to Reduce Maintenance Costs

The most effective way to maintain the water quality facility is to prevent the pollutants from entering the facility in the first place. Common pollutants include sediment, trash & debris, chemicals, dog wastes, runoff from stored materials, illicit discharges into the storm drainage system and into the resource area. The maintenance program includes measures to address these potential contaminants, and will save money and time in the long run. Key of the maintenance program includes:

- Educate property owners, staff and patrons to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
- Keep the property, driveway, gutters and parking lots free of trash and debris
- Ensure the proper disposal of hazardous wastes and chemicals.
- Lawn care shall be planned to minimize the use of chemicals and pesticides.
- Be aware of automobiles leaking fluids. Use absorbents such as cat litter to soak up drippings – dispose of properly.
- Sweep paved surfaces of sediment and lawn clippings; dispose of offsite or in upland areas at least 100 feet from wetlands. Mulching mowers are encouraged.
- Re-vegetate disturbed and bare areas to maintain vegetative stabilization.
- Clean out all components of the storm drainage system, including inlets, storm sewer and outfalls. Dispose of catch basin cleanings offsite.
- Do not store materials outdoors (including landscaping materials) unless properly protected from runoff and erosion.

Safety

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

Inspecting Stormwater Management Facilities

The quality of stormwater entering the waters of the state relies heavily on the proper operation and maintenance of permanent best management practices. Stormwater management facilities must be periodically inspected to ensure that they function as designed. The inspection will determine the appropriate maintenance that is required for the facility.

A. Inspection Procedures

All stormwater management facilities are required to be inspected by a qualified individual at a minimum of once per year. Inspections should follow the inspection guidance found in O&M manual for the specific type of facility.

B. Inspection Report

The person(s) conducting the inspection activities shall complete the appropriate inspection report for the specific facility.

General Information

This section identifies the facility location, person conducting the inspection, the date and time the facility was inspected, and approximate days since the last rainfall. The reason for the inspection is also identified on the form depending on the nature of the inspection. All facilities should be inspected on an annual basis at a minimum. In addition, all facilities should be inspected after a significant precipitation event to ensure the facility is draining appropriately and to identify any damage that occurred as a result of the increased runoff. For the purpose of this Stormwater Management Program, a significant rainfall event is considered an event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. It is anticipated that a short, intense event is likely to have a higher potential of erosion for this site than a longer, high volume event.

Inspection Scoring

For each inspection item, a score must be given to identify the urgency of required maintenance. The scoring is as follows:

0 = No deficiencies identified.

1 = Monitor – Although maintenance may not be required at this time, a potential problem exists that will most likely need to be addressed in the future. This can include items like minor erosion, concrete cracks/spalling, or minor sediment accumulation. This item should be revisited at the next inspection.

2 = Routine Maintenance Required – Some inspection items can be addressed through the routine maintenance program (See SOP in appendix A). This can include items like vegetation management or debris/trash removal.

3 = Immediate Repair Necessary – This item needs immediate attention because failure is imminent or has already occurred. This could include items such as structural failure of a feature (outlet works, forebay, etc), significant erosion, or significant sediment accumulation. This score should be given to an item that can significantly affect the function of the facility.

Inspection Summary/Additional Comments

Additional explanations to inspection items, and observations about the facility not covered by the form, are recorded in this section.

C. Verification of Inspection and Form Submittal

The *Stormwater Management Facility Inspection Form* provides a record of inspection of the facility. The verification and the inspection form(s) shall be reviewed and maintained by the property owner or property manager. Any transfer in ownership shall be documented in writing to NHDES.

Maintaining Stormwater Management Facilities

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained. Maintenance personnel must be qualified to properly maintain stormwater management facilities. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.

The following provides a list of recommendations and guidelines for managing the stormwater facilities.

STREET/PARKING LOT SWEEPING (DENSE PAVEMENT)

Function – Parking lots/paved areas accumulate sand and debris. Street sweeping removes the sand and debris, which lowers transport of sediment and pollutants the stormwater systems and into the environment.

Maintenance

- A regular periodic cleaning schedule is recommended. The more frequent, the greater the sediment and pollutant removal. Regular cleaning of paved areas reduces the frequency of cleaning catch basins and drainage systems. It is recommended that the parking area and access ways shall be swept at least once a month during winter months.

LANDSCAPE AREAS - LITTER CONTROL

Function – Landscaped areas tend to filter debris and contaminates that may block drainage systems and pollute the surface and ground waters.

Maintenance

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the grounds maintenance program.

DRAINAGE STRUCTURE CLEANING (LEACHING CATCH BASIN)

Function – Catch basins and area drains collect stormwater, catch basins primarily from parking lots and area drains from lawn areas. Stormwater often contains sediment and contaminants.

Catch basin sumps serve to trap sediment, trace metals, nutrients and debris. Hooded catch basins trap hydrocarbons and floating debris.

Maintenance

- Remove leaves and debris from drainage structures on an as-needed basis, especially in the fall when leaves are falling.
- Catch basin sumps shall be cleaned on an annual basis to protect water quality. Debris shall be disposed of at a solid waste disposal facility.
- Remove cover of area drains and drop inlets and inspect pipes for debris.

DE-ICING CHEMICAL USE AND STORAGE

Function – Salt and sand is used for de-icing of walkways and drives. Care shall be taken to prevent the over-application of salt for melting ice.

Maintenance

- Proper storage of salt is critical. Salt is highly water-soluble. Contamination of wetlands and other sensitive areas can occur when salt is stored in open areas. Salt shall be stored in a building at all times
- When parking lots and walkways are free of snow and ice, they shall be swept clean. Disposal of sweepings shall be at a solid waste disposal facility.

CONTROL OF INVASIVE SPECIES

See separate document from Parterre Ecological.

CONTRACTOR'S GENERAL CLEAN UP

Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet basket, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drainpipes that may have accumulated during construction.

Once in operation, all paved areas of the site should be swept at least once annually, preferably at the end of winter prior to significant spring rains.

Michael Cuomo, Soil Scientist
6 York Pond Road, York, Maine 03909
207 363 4532
mcuomosoil@gmail.com

Eric Weinrieb, P.E.
Altus Engineering, Inc.
133 Court Street
Portsmouth, NH 03801-4413

20 October 2023

Dear Mr. Weinrieb;

This letter is in reference to the property at 60 Pleasant Point in Portsmouth, NH. The purpose of this work is to evaluate the existing wetland buffer and compare it to the proposed wetland buffer which will be created for the redevelopment of this single family home site.

The tidal buffer is currently developed with an existing home, lawn, pool, and landscaping. As shown in the graphic prepared by Parterre Ecological Services (dated 14 December 2022) on sheet 6, invasive plants are significant on this property. The invasive species infestation is mostly within 25 feet of the highest observable tide line.

A Land Management Plan has been prepared by Parterre. This plan inventories existing invasive, problematic, and native plants; addresses control of invasive plants with specific techniques; and generally outlines methods to stabilize the eroding coastal bank along the shore. This work will occur along the unstable coastal bank and in the upland landscaped areas. No work is proposed in the coastal wetland and no wetland fill is proposed.

A landscape plan has been prepared by Matthew Cunningham Landscape Design, LLC, dated 11 September 2023. It presents a list of appropriate native plant materials from which the actual plantings can be selected, depending on plant material availability, timing of work, and the owner's preference. It specifies which areas will be planted, with what type (trees, shrubs, seedlings, and/or seed mix), and in what quantities. The density of trees and shrubs in the tidal buffer will increase. The landscape plan indicates 52 new native trees and over 500 new native shrubs over the entire parcel.

After the redevelopment of this site there will be a slight reduction (net 206sf less) of impervious surface, as demonstrated in Altus Engineering's draft sheet C2. This is achieved by the beneficial use of previous pavement, patios, and walkways.

A comprehensive stormwater treatment plan is being developed by Altus Engineering where none currently exists. Peak runoff flows will be reduced and treatment will be provided to improve water quality of runoff entering the tidal wetland and Piscataqua River. Altus Engineering is also preparing a plan to control erosion and sedimentation during construction.

The control of invasive plants, increase in native plants, and stabilizing the eroding tidal bank will be significant environmental gains. The post-redevelopment wetland buffer will be ecologically superior to the existing wetland buffer.

Please call if you have questions regarding this work.

Sincerely,



Michael Cuomo
NH Wetland Scientist #004
NH Soil Scientist #006



LAND MANAGEMENT PLAN: A NARRATIVE FOR INVASIVES REMOVAL AND NATIVE RESTORATION



PROJECT INTRODUCTION

This document outlines a systematic strategy for invasive species management and native restoration planting at 60 Pleasant Point Drive in Portsmouth, New Hampshire. The property is just over an acre with considerable frontage on the Piscataqua River as it nears its delta with the Atlantic Ocean. The environment is a brackish coast.

Happily, the rocky beach margin of the property is colonized primarily by salt march cord grass, glasswort, American beachgrass and sea lavender. However as the slope rises, so does the incidence of invasive plant inhabitation. In some areas, the invasive presence is light, but through much of the site it is quite substantial.

The homeowners are requesting approval to rehabilitate and restore this coastal bank in conjunction with developing an ornamental and programmatic landscape around their home.

The primary goal of this Land Management Plan is to gain approval from the Portsmouth Conservation Commission to both control invasive plant species and diversify the existing native plant community along the maritime coastal bank.

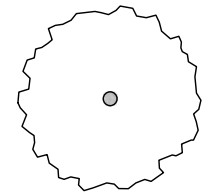
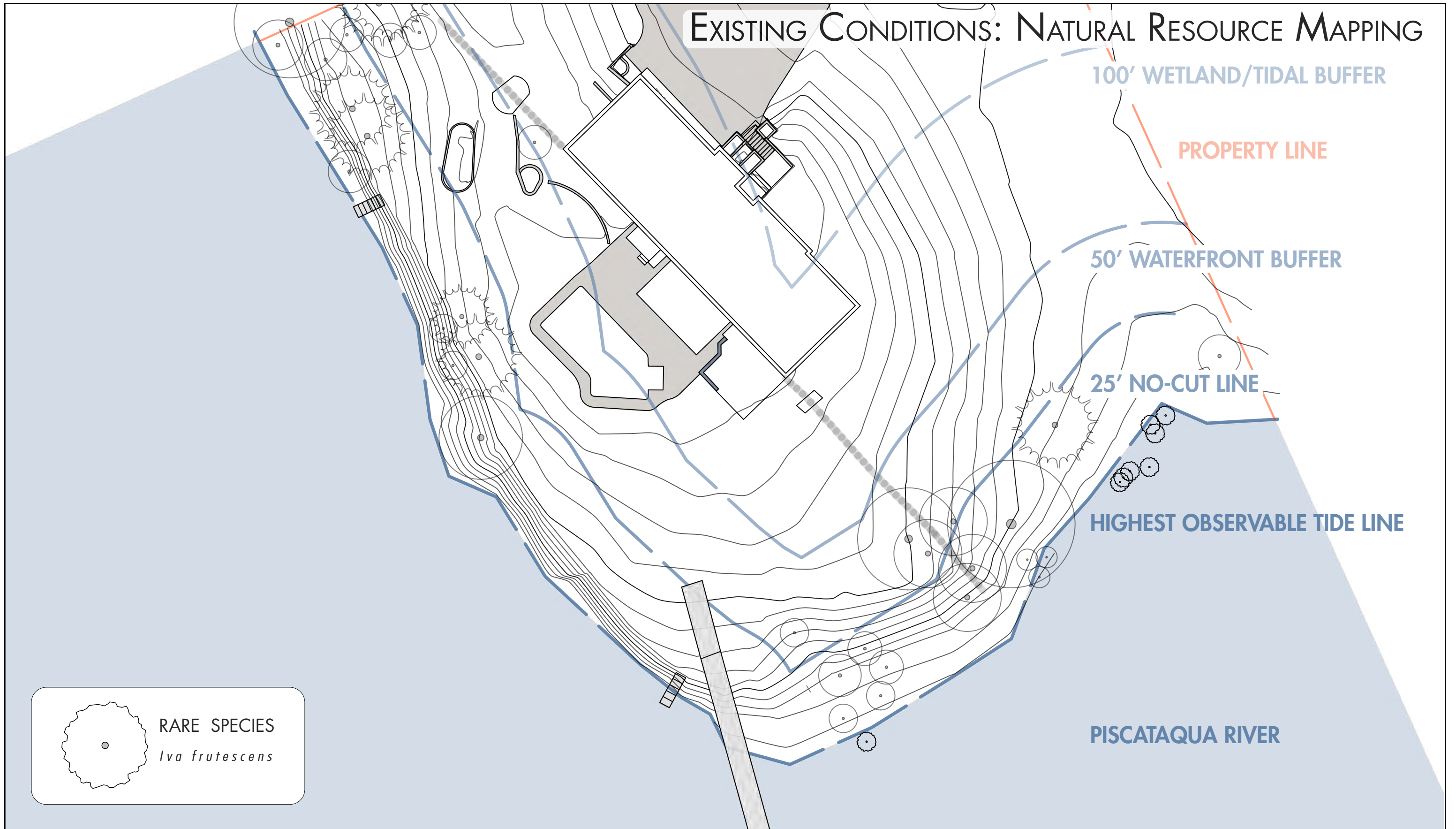
This document inventories the invasives plants we propose to remove, provides a description of each, and details best management practices for control and management. It also includes a narrative for proposed restoration, and provides a planting plan with species and quantities. Finally, it provides a detailed maintenance calendar for all aspects of proposed management and ecological restoration over an extended timeline.

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EXISTING CONDITIONS: NATURAL RESOURCE MAPPING



RARE SPECIES
Iva frutescens



PARTERRE ECOLOGICAL

1" = 25'



NATURAL RESOURCE MAPPING

MORRIS

60 PLEASANT POINT DR,
PORTSMOUTH, NH

SHEET 3 OF 27

12/14/22

EXISTING CONDITIONS: INVENTORY OF INVASIVE + PROBLEMATIC PLANTS

INVASIVE PLANTS

BOTANICAL NAME

Acer platanoides

Celastrus orbiculatus

Frangula alnus

Lonicera morrowii

Rhamnus cathartica

Rosa multiflora

COMMON NAME

Norway Maple

Asiatic Bittersweet

Glossy Buckthorn

Morrow's Honeysuckle

Common Buckthorn

Multiflora Rose



Many invasives have maintain an ecological edge by remaining green - and hence photosynthesizing - later into the season than natives.

At left: the herbaceous basal leaves of crownvetch and celandine.

At right: Multiflora rose keeps blooming through late autumn, each flowering followed by copious red fruit.

Below: Most of the green and all of the red seen below is invasive plant material.



LIKELY INVASIVE PLANTS

BOTANICAL NAME

Berberis vulgaris

Ligustrum obtusifolium

Chelidonium majus

COMMON NAME

European Barberry

Border Privet

Greater Celandine

PROBLEMATIC PLANTS*

BOTANICAL NAME

Arctium Spp.

Malus Spp.

Pyrus calleryana

Rosa rugosa

Solanum dulcamara

Securigera varia

Tanacetum vulgare

Verbascum thapsus

Wisteria sinensis

COMMON NAME

Burdock

Crab Apple

Callery Pear

Rugosa Rose

Bittersweet Nightshade

Crownvetch

Tansy

Common Mullein

Chinese Wisteria



* Denotes plants that, are not technically labeled as invasive in Massachusetts, but are in some way harmful or objectionable within the environment in question.



PARTERRE ECOLOGICAL

MORRIS

60 PLEASANT POINT DR,
PORTSMOUTH, NH

PLAN FOR INVASIVES MANAGEMENT
AND NATIVE RESTORATION

SHEET 4 OF 27

12/14/22



Although bittersweet often invades the forest canopy, it is equally as pernicious on the ground plane, where it outcompetes native vegetation.

Far left: *Celastrus* climbing.

Middle left: *Celastrus* twining.

Near left: The bright red berries of bittersweet are attractive to humans and birds alike, which accounts for the plant's wide range.



Left: This thicket is primarily comprised of intertwined multiflora rose, honeysuckle, and bittersweet.

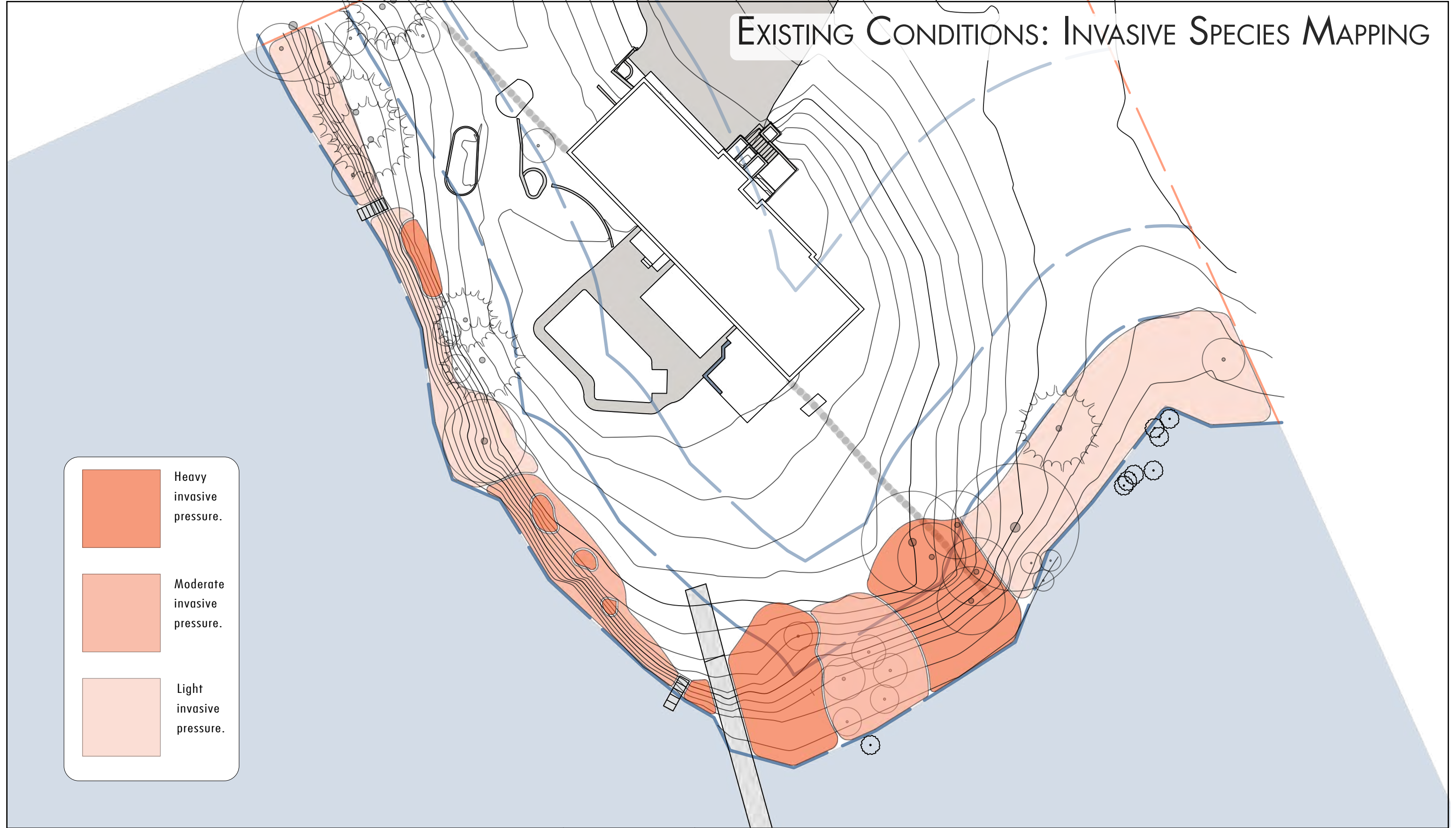
Right: Here bittersweet has supplied scaffolding for a knot of invasives.

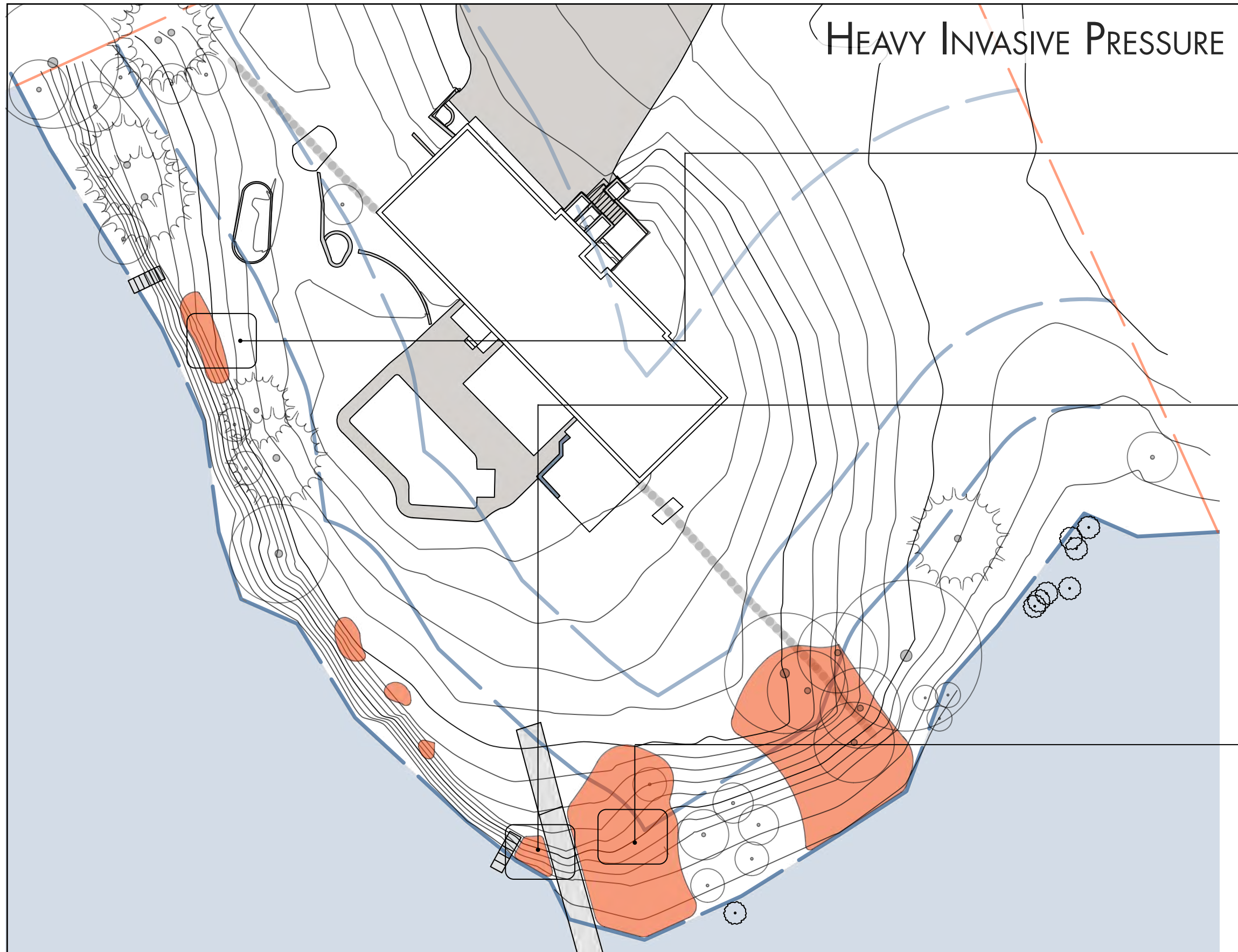


EXISTING CONDITIONS: INVASIVE SPECIES MAPPING

Legend for Invasive Species Pressure:

- Heavy invasive pressure.
- Moderate invasive pressure.
- Light invasive pressure.






Areas experiencing high invasive pressure have little or no native vegetation.



PARTERRE ECOLOGICAL

1" = 25' 

HEAVY INVASIVE PRESSURE

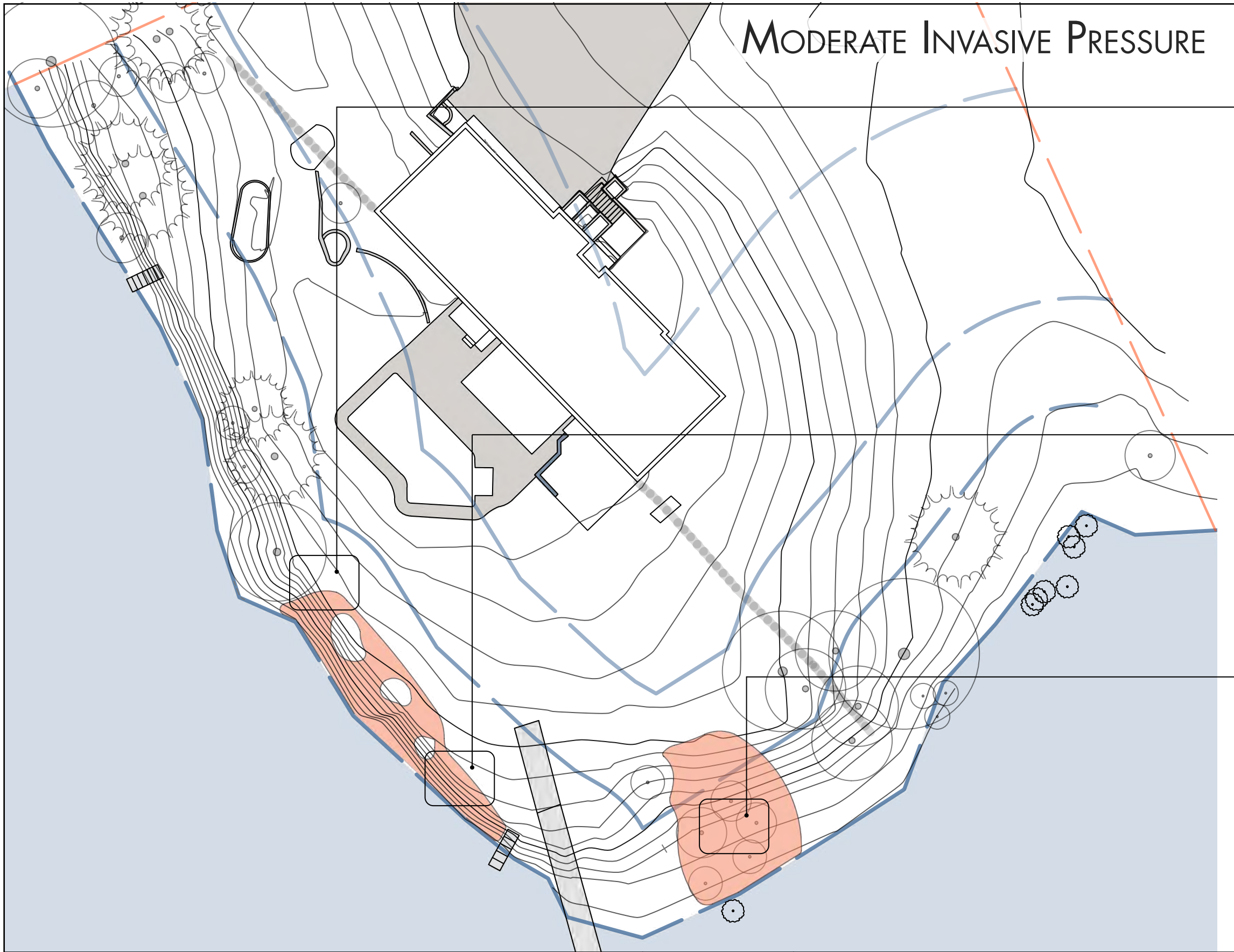
MORRIS

60 PLEASANT POINT DR,
PORTSMOUTH, NH

SHEET 7 OF 27

12/14/22


MODERATE INVASIVE PRESSURE



Areas with moderate invasive pressure usually have native and invasive plants co-mingling.



PARTERRE ECOLOGICAL

1" = 25' 

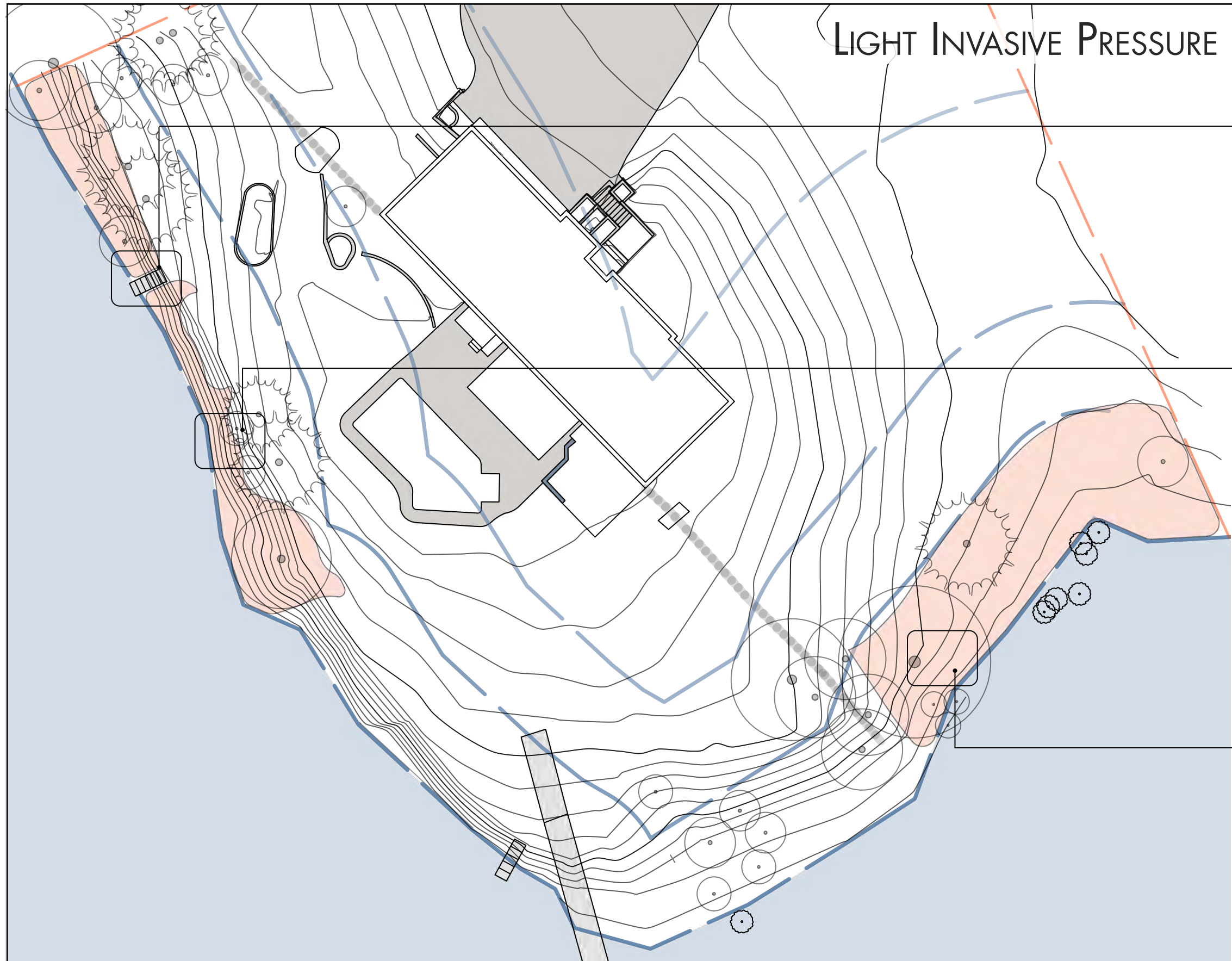
MODERATE INVASIVE PRESSURE

MORRIS

60 PLEASANT POINT DR,
PORTSMOUTH, NH

SHEET 8 OF 27

12/14/22




LIGHT INVASIVE PRESSURE



The areas with lightest invasive pressure have a healthy herbaceous native layer. In the image above, it is a colony of American beachgrass.



PARTERRE ECOLOGICAL

1" = 25' 

LIGHT INVASIVE PRESSURE

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PROPOSED GENERAL INVASIVE MANAGEMENT TECHNIQUES

MANUAL HAND REMOVAL METHODS:

Manual methods of invasive plant management - including hand pulling and cutting - will be prioritized whenever possible. For tenacious woody plants, use of a weed-wrench is recommended. To minimize soil disturbance (which can activate invasive seed banks), only shallow-rooted invasive plants less than 1" in caliper should be hand pulled from the soil. Invasive plant species greater than 1" caliper are best cut and treated.

MECHANICAL MANAGEMENT:

Mechanical methods of invasive control include mowing, string-trimming, and sawing down of single large specimens or extensive stands of a particular plant. In a few cases repeated mowing or cutting is all that is needed to weaken a plant's resources to the point of die-off. With most aggressive invasives however, mowing and cutting are only the first step in a more intensive program plan that involves selective herbicidal treatments.



Hand pulling invasive bittersweet in a meadow restoration.



Mechanical mowing of a dense stand of invasive plant species.



Mature woodies require use of a chainsaw.



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PLAN FOR INVASIVES MANAGEMENT
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PROPOSED GENERAL INVASIVE MANAGEMENT TECHNIQUES

CUT AND DAB HERBICIDE APPLICATION:

All invasive plant species that have a base greater than 1" in caliper are should be addressed with herbicide application. Invasive plants of this size usually have extensive fibrous root systems which provide beneficial soil stabilization and are best left in situ. Unfortunately, they also maintain the ability to resprout, which is why Parterre Ecological utilizes a cut and dab method with a triclopyr-based herbicide (Garlon™) or glyphosate-based herbicide (trade name Rodeo™) on individual cut stumps. Licensed Herbicide Applicators must complete this step in invasives control.



Qualified and licensed applicators with necessary Personal Protective Equipment paint the stems of invasive species after cutting.

FOAM APPLICATION:

Some invasives, particularly persistent herbaceous plants and resprouting woodies, are best managed with a foliar foam application. This technique allows the technician to systematically target the new green growth of a plant, where herbicide is absorbed most effectively. The foam adheres to the foliage and the herbicide is trans-located through the vascular system of the plant. Foliar foam wipes are best performed in late summer to fall when the plant is actively reserving energy in the rootstock.



Highly targeted foliar foam applications adhere to leaf surface.

REMOVAL AND DISPOSAL:

For many species, especially those with prolific seeds and/or berries, proper off-site disposal is critical. Even species that chiefly propagate rhizomatically will be handled with care lest cuttings left on site reroor. However, seedless, fruitless brush piles left on site can provide valuable wildlife habitat, as can the snag that remains after a mature invasive tree is cut down.



Responsible removal of fecund invasives is key to a successful management plan.



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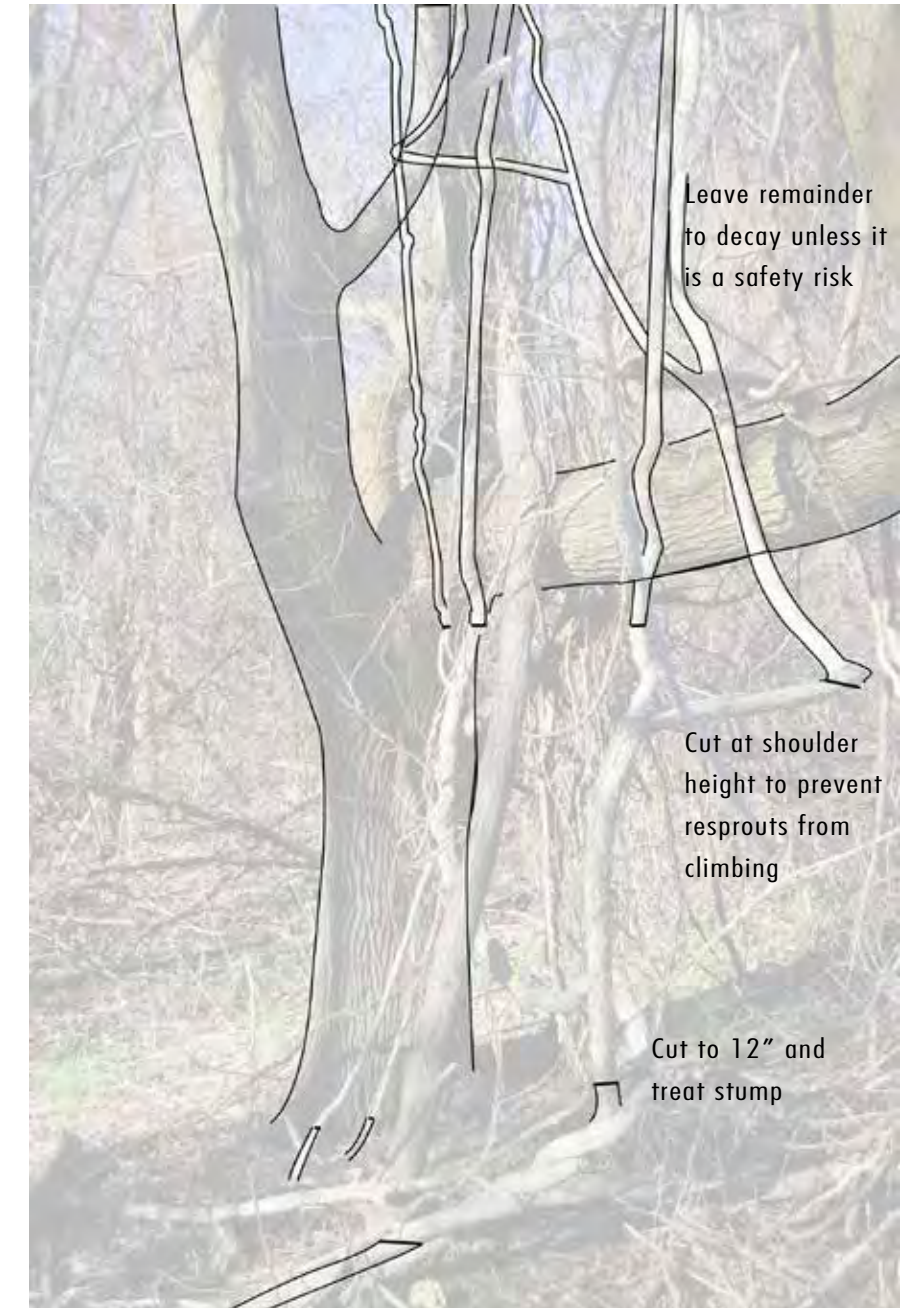
PROPOSED SPECIALIZED INVASIVE MANAGEMENT TECHNIQUES: ORIENTAL BITTERSWEET



Invasive Bittersweet (*Celastrus orbiculatus*) has the capacity to girdle, weaken, and even kill mature canopy trees. Without consistent management, they will eventually open large holes in the canopy while suppressing saplings from filling the gaps. They readily resprout after being cut and can damage the aesthetic and ecological value of meadows and forests alike.



Mature stems produce thousands of bright red berries that mature in late fall and are spread by birds.



Removing the entire vines from trees is often dangerous and unnecessary (unless it poses safety risk). Best management practice involves making cuts at shoulder height followed by a cut at 12" and immediate herbicide treatment. Bittersweet aggressively suckers after cutting so it is important to cut and treat during or after its flowering period (late June to December).



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PLAN FOR INVASIVES MANAGEMENT
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EXISTING CONDITIONS: INVENTORY OF NATIVE PLANTS

PROTECTED NATIVE PLANTS

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<i>Iva frutescens</i>	Bigleaf Marsh-Elder

WOODY NATIVE PLANTS

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Myrica pensylvanica</i>	Bayberry
<i>Prunus maritima</i>	Beach Plum
<i>Prunus serotina</i>	Black Cherry
<i>Rosa virginiana</i>	Virginia Rose
<i>Rubus Spp.</i>	Brambles



The sloped beach front harbors two types of native juniper: *Juniperus virginiana*- the upright Eastern Red Cedar - and *Juniperus horizontalis*, its creeping procumbent cousin.

Bayberry (right) and beach plum (far right) will also thrive in the full sun, harsh winds, and saline conditions found on an exposed coast.



HERBACEOUS NATIVE PLANTS

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<i>Ammophila breviligulata</i>	American Beachgrass
<i>Asclepias Spp.</i>	Milkweed
<i>Limonium carolinianum</i>	Sea Lavender
<i>Salicornia depressa</i>	American Glasswort
<i>Spartina alterniflora</i>	Salt Marsh Cordgrass
<i>Symphotrichum puniceum</i>	Swamp Aster



Glasswort (above) and Sea lavender (middle left) are obligate salt water coastal plants, while swamp aster (middle right) and milkweed (far right), can tolerate saline conditions, but grow elsewhere as well.



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PLAN FOR INVASIVES MANAGEMENT
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PROPOSED PLANTING SCHEDULE

Restoration planting is the essential conclusion to any invasives management plan, and the key to ongoing stewardship. It will be undertaken in three basic strategies: soil stabilization, seeding, and planting. Seeding disturbed sites is most successful in spring or late fall, and can be applied to large swaths of area. Planting allows for more immediate visual impact and for the creation of swaths and drifts of particular species. Soil stabilization can be performed at any time of year, but is best performed in conjunction with one of the vegetation strategies.

The list below indicates the species of plant material to be used in revegetating the coastal bank once invasives have been successfully managed.

SHRUBS		POTS + PLUGS		SEED		
<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>NAME</u>
<i>Aronia arbutifolia</i>	Red Chokecherry	<i>Amorpha canescens</i>	Lead Plant	<i>Andropogon gerardii</i>	Big Bluestem	New England Wetland Plants' 'New England Coastal Salt Tolerant Grass Mix'
<i>Arctostaphylos uva-ursi</i>	Bearberry	<i>Amsonia Spp.</i>	Bluestar	<i>Ammophila breviligulata</i>	American Beachgrass	
<i>Baccharis halmifolia</i>	Salt Bush	<i>Aquilegia canadensis</i>	Eastern Columbine	<i>Bouteloua gracilis</i>	Blue Gramma	
<i>Comptonia peregrina</i>	Sweetfern	<i>Asclepias tuberosa</i>	Butterfly Milkweed	<i>Baptisia australis</i>	Blue False Indigo	
<i>Ilex glabra</i>	Inkberry	<i>Baptisia australis</i>	Blue False Indigo	<i>Eragrostis specatabilis</i>	Purple Lovegrass	
<i>Myrica pennsylvanica</i>	Bayberry	<i>Eurybia spectabilis</i>	Eastern Showy Aster	<i>Festuca rubra</i>	Red Fescue	
<i>Prunus maritima</i>	Beach Plum	<i>Heuchera americana</i>	American Alumroot	<i>Panicum amarum</i>	Atlantic Coastal Panic Grass	
<i>Rhus Spp</i>	Sumac	<i>Penstemon digitalis</i>	Beard-tongue	<i>Panicum virgatum</i>	Switchgrass	
<i>Rosa virginiana</i>	Virginia Rose	<i>Solidago sempervirens</i>	Seaside Goldenrod	<i>Sporobolus heterolepsis</i>	Prairie Dropseed	
<i>Viburnum dentatum</i>	Arrowwood Viburnum	<i>Waldsteinia fragarioides</i>	Barren Strawberry	<i>Sorghastrum nutans</i>	Indian Grass	
				<i>Schizachyrium scoparium</i>	Little Bluestem	



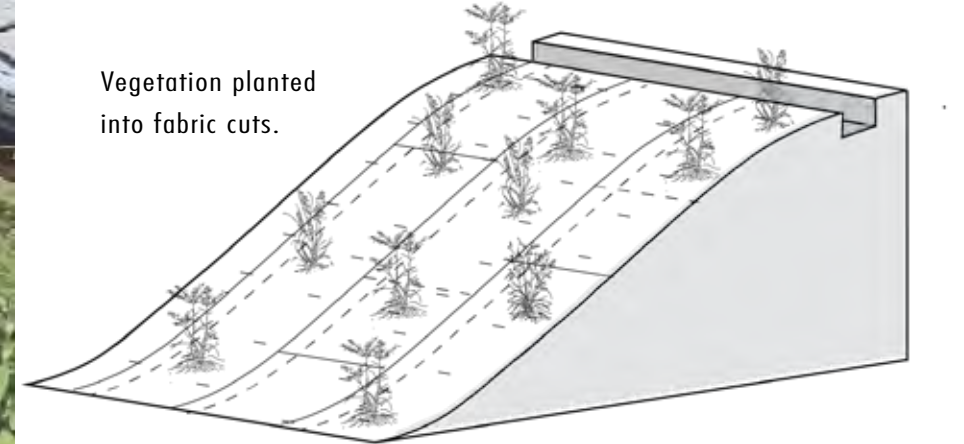
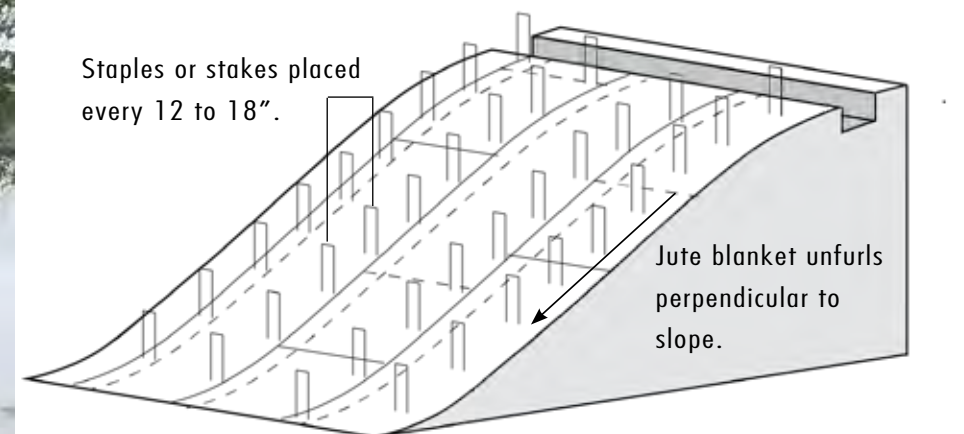
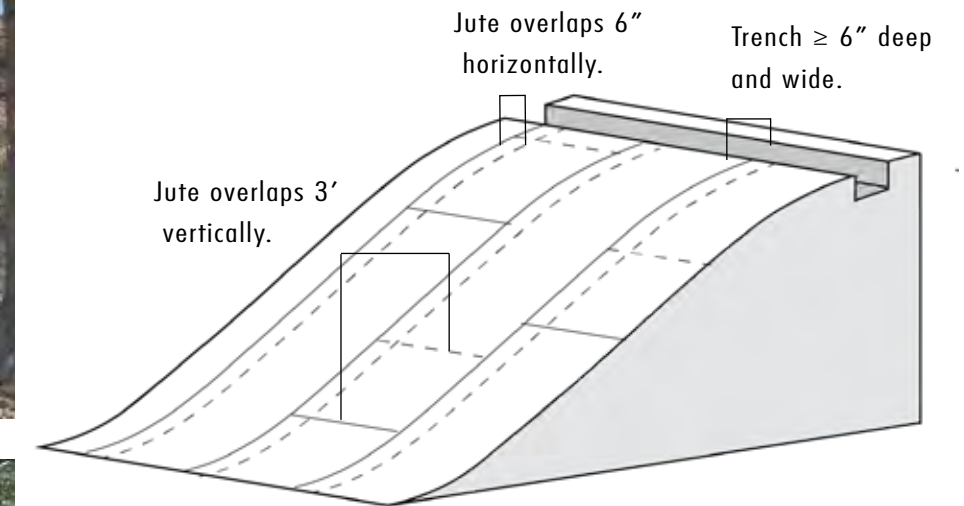
NATIVE RESTORATION TECHNIQUES: EROSION CONTROL PLANTING ON SLOPES

COIR/ JUTE EROSION CONTROL

- » After invasive species have been cut and treated, and debris cleared from the surface, we dig a trench 6" deep and 6" wide along the ridge of the slope to be planted. The ends of the fabric are buried in the trench and the coir blanket unrolls perpendicular to the slope.
- » The flat coir blanket must have full contact with the soil. It will be spliced to go evenly around and places where rocks or vegetation prevent soil contact.
- » Wooden stakes or staples are installed every 12" - 18."
- » The coir blanket overlays horizontally by approximately 6" and 3' vertically.
- » Indicated vegetation is planted by cutting through the coir.
- » The blanket provides a stabilizing pressure on the disturbed soil while the new plantings establish.
- » Over time, the new root systems will hold the bank in place and the coir blanket biodegrades.



JUTE PLANTING DETAIL



RESTORATION PLANTING: SHRUBS

Restoration planting is the essential conclusion to any invasives management plan, and the key to ongoing stewardship. The species shown represent a potential planting palette for 60 Pleasant Point Drive, and are all suitable for a coastal bank planting as they will withstand the saline conditions, periodic inundation and sandy soils prevalent in this habitat. All are highly ornamental shrubs, and as a suite they will provide 4 seasons of interest, from flowers, to berries to brilliant fall colors to showy winter fruit. They are best installed as somewhat mature shrubs for more immediate visual interest and ecological service.



VIRGINIA ROSE
Rosa virginiana



VIRGINIA ROSE
Rosa virginiana



BEACH PLUM
Prunus maritima



BEACH PLUM
Prunus maritima



SALT BUSH
Baccharis halimifolia



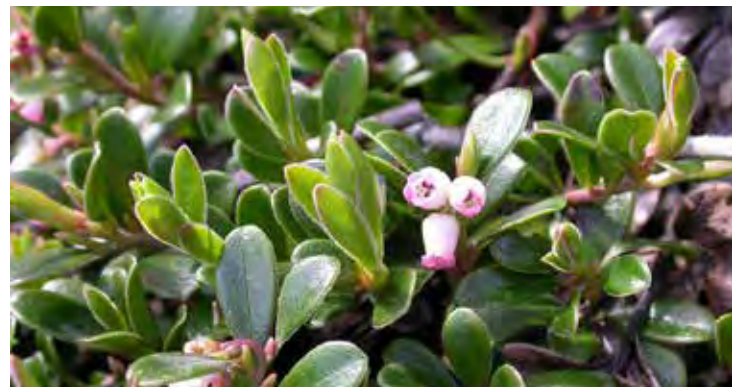
INKBERRY
Ilex glabra



INKBERRY
Ilex glabra



BAYBERRY
Myrica pensylvanica



BEARBERRY
Arctostaphylos uva-ursi



SWEETFERN
Comptonia peregrina



ARROWWOOD VIBURNUM
Viburnum dentatum



ARROWWOOD VIBURNUM
Viburnum dentatum

COASTAL BANK SHRUBS



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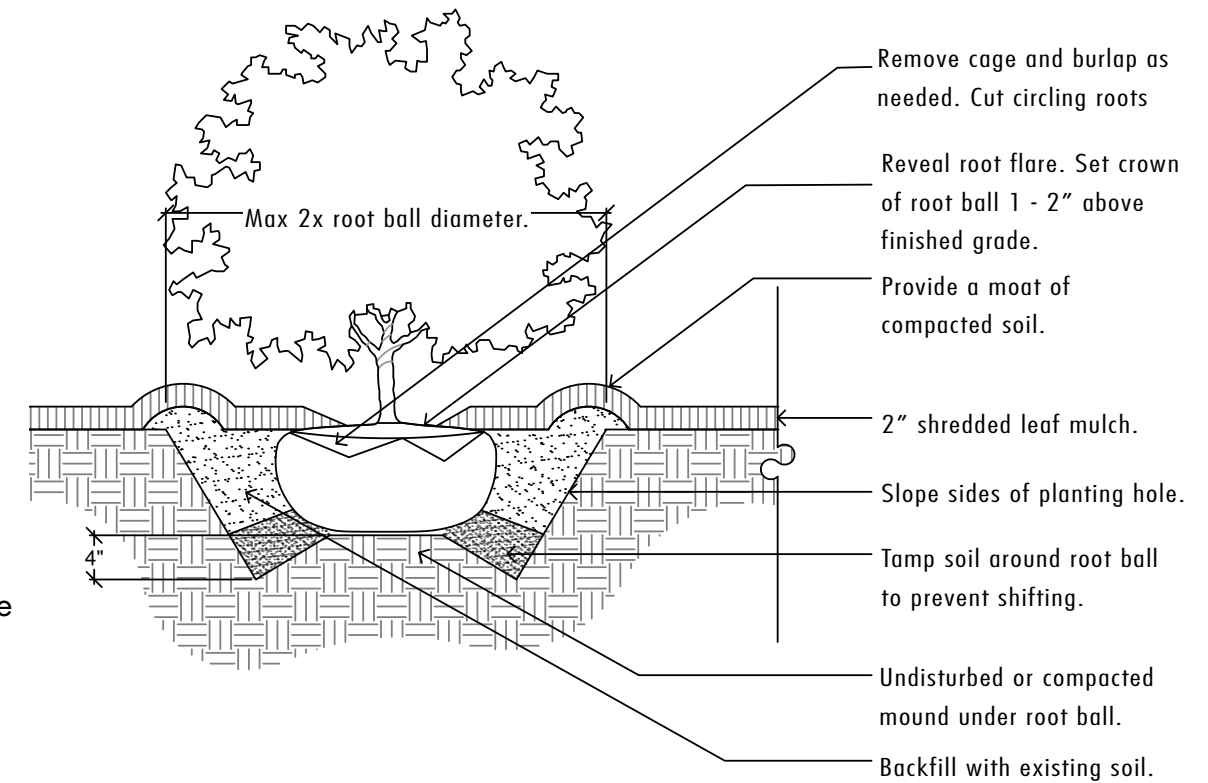
NATIVE RESTORATION TECHNIQUES: PLANTING SHRUBS

SHRUB PLANTING DETAIL



PLANTING SHRUBS

- » Planting shrubs may require the removal of some remnant roots should they hamper planting. If roots systems cannot be moved, locate the shrub around them.
- » Ideally, planting holes should be roughly twice as wide as the root ball, with sloped sides, and exactly as deep. Try to keep a mound of compacted or otherwise undisturbed soil directly beneath the root ball to prevent the shrub from settling.
- » For large B&B shrubs, the burlap and caging should be removed entirely from the root ball so as to allow unimpeded growth into surrounding soil.
- » For container-grown shrubs, any circling roots must be cut, and compacted rootballs should be well scarified before planting.
- » Tamp the soil down repeatedly throughout the planting process.
- » Use excess soil to construct a "well" around the base of the planted shrub, roughly as wide as the rootball.
- » Water in well.



RESTORATION PLANTING: SEEDING

Seeding disturbed soils is often the first step in a restoration planting. The grass species shown below are compatible with a maritime environment, and the final planting palette at 60 Pleasant Point Drive will likely draw from this suite.

GRASSES SUITABLE FOR A COASTAL BANK PLANTING



BIG BLUESTEM
Andropogon gerardii



ATLANTIC COASTAL PANIC GRASS
Panicum amarum



PURPLE LOVEGRASS
Eragrostis spectabilis



SALT MEADOW RUSH
Juncus gerardii



RED FESCUE
Festuca rubra



PATH RUSH
Juncus tenuis



PRAIRIE DROPSEED
Sporobolus heterolepis



AMERICAN BEACHGRASS
Ammophila breviligulata



SWITCH GRASS
Panicum virgatum



INDIAN GRASS
Sorghastrum nutans



LITTLE BLUESTEM
Schizachyrium scoparium



BLUE GRAMMA
Bouteloua gracilis



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NATIVE RESTORATION TECHNIQUES: SEEDING DISTURBED SOILS

RESTORATION SEEDING

- » The first step in seeding is a thorough site evaluation. Environmental factors such as sun exposure, soil type, topography, grade, and existing vegetation must all be considered. These attributes determine the native plant species best suited for the area.
- » The second very crucial task is management of existing invasive species. This can be done through manual and mechanical means, or through the targeted and selective use of herbicides.
- » Prepare the site for sowing and planting. Clear off leaves and debris, pick up twigs and sticks, and scarify the soil surface in preparation for sowing.
- » Hand-broadcasting seed is the preferred method in delicate wetland soils. Plugs and container plants can be installed at the same time or can be planted once the seedlings have emerged.
- » Finally, mulch the area after sowing. Mainly Mulch® protects germinating seeds while providing room for them to emerge.
- » A three-year maintenance plan is recommended to ensure greatest success. If a newly seeded installation is managed intensively and responsibly during its establishment, it will become self-regulating and require very little to no maintenance in the future.



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PLAN FOR INVASIVES MANAGEMENT
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RESTORATION PLANTING: SEEDING

NEW ENGLAND WETLAND PLANTS:

Coastal Salt Tolerant Grass Mix



CANADA WILD RYE
Elymus canadensis



PURPLE LOVEGRASS
Eragrostis spectabilis



SALT MEADOW RUSH
Juncus gerardii



BIG BLUESTEM
Andropogon gerardii



ATLANTIC COASTAL PANIC GRASS
Panicum amarum



PRAIRIE DROPSEED
Sporobolus heterolepis



AMERICAN BEACHGRASS
Ammophila breviligulata



RED FESCUE
Festuca rubra



PATH RUSH
Juncus tenuis



LITTLE BLUESTEM
Schizachyrium scoparium



BLUE GRAMMA
Bouteloua gracilis



SWITCH GRASS
Panicum virgatum



INDIAN GRASS
Sorghastrum nutans

NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX

OTHER SUITABLE GRASSES



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PLAN FOR INVASIVES MANAGEMENT
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RESTORATION PLANTING: PLUGS + CONTAINERS

The perennials shown here all have a high tolerance for saline conditions and poor soils. They also thrive in the open sunny conditions that prevail on an exposed coastal bank.

The herbaceous planting at 60 Pleasant point Drive will be drawn from this list.



LEAD PLANT
Amorpha canescens



BLUE STAR
Amsonia Spp.



EASTERN COLUMBINE
Aquilegia canadensis



BUTTERFLY MILKWEED
Asclepias tuberosa



BLUE FALSE INDIGO
Baptisia australis



EASTERN SHOWY ASTER
Eurybia spectabilis



AMERICAN ALUMROOT
Heuchera americana



BUTTON BLAZING STAR
Liatis aspera



BEARD-TONGUE
Penstemon digitalis



SEASIDE GOLDENROD
Solidago sempervirens



BARREN STRAWBERRY
Waldsteinia fragarioides

SHRUBS SUITABLE FOR SALT MARSH COASTAL BANK PLANTING



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NATIVE RESTORATION TECHNIQUES: PLANTING PLUGS + CONTAINERS

Many native herbaceous perennials and grasses are best installed as plugs, quarts, or even 1 - 3 gallon specimens for the more immediate coverage and impact they provide. They can be used to establish an herbaceous layer entire or overlaid in a matrix on a newly-seeded area. Container plants also allow for the creation of drifts and masses of plants in a way that simple seeding cannot. Planted correctly, their roots can quickly expand into neighboring soil, quickly creating an understory of healthy native vegetation. However, planting requires careful mapping out and placement, so regular so a cohesive strategy is key.

PLANTING PLUGS

- » Plugs and container plants are small, with compact root systems, and must be kept moist at all times. Water thoroughly two to three hours before planting. This also facilitates laying out the plugs, as the roots will not be as liable to desiccate if thoroughly watered ahead of time.
- » Determine the spacing of the plugs. Dependent on species and container size, this could range anywhere from 8" to 3' on center, in a grid formation. If massing species together, take care to put taller varieties towards the "back" of the meadow or plot, with shorter plants in "front".
- » Planting holes can be dug with a variety of tools - trowels, picks, soil knives, shovels, even augers, mechanical or otherwise (especially useful in highly compacted soil). The plug's or plant's crown should sit at soil level and be gently tamped down around its base. Water immediately, and continue to water on a regular basis the first year of establishment.
- » Mulch helps conserve soil moisture and reduces weed pressure. We recommend 2" of shredded leaf mulch immediately after planting. Avoid bark mulch, which is too heavy for small plugs or quarts.
- » Whole plants will fill in more quickly than seeded areas, but weed pressure may still be high. Be vigilant in maintenance.



Plugs and container plants usually have dense root systems that must be kept moist.



Using an auger in compacted clay soil






Laying out plugs ensures even vegetated cover.



MANAGEMENT CALENDAR FOR TREATMENT AND PLANTING

TASK	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Hand removal seedlings, saplings < 1" caliper	Optimal	Optimal	Optimal	Optimal	Optimal	Possible	Possible	Possible	Possible	Possible	Possible	Possible
Hand pull herbaceous invasives	Possible	Possible	Optimal	Optimal	Optimal	Possible	Possible	Optimal	Optimal	Optimal	Possible	Possible
Mechanical management of woody invasives	Optimal	Optimal	Optimal	Optimal	Optimal	Possible	Possible	Possible	Possible	Possible	Possible	Possible
Dab herbicide woody invasive species	Possible	Possible	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal
Dab herbicide bittersweet	Possible	Possible	Possible	Possible	Possible	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal
Invasive vine cut and dab herbicide application	Possible	Possible	Possible	Possible	Possible	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal
Restoration: Seeding	Possible	Possible	Optimal	Optimal	Optimal	Possible	Possible	Possible	Optimal	Optimal	Possible	Possible
Restoration: Planting	Possible	Possible	Possible	Optimal	Optimal	Optimal	Possible	Possible	Optimal	Optimal	Possible	Possible

-  Optimal timing and efficiency
-  Not optimal but mostly effective
-  Possible, but not ideal

The timing of various containment and restoration strategies is critical to their success. Fortunately, the calendar provides ample opportunity for action at any time of the year. Chemical management must only be performed by licensed herbicide applicators. These recommendations for restoration take into consideration the long term health of 60 Pleasant Point Drive. Once invasive plants have been managed in a particular area, the installation of natives can begin.

PROPOSED MANAGEMENT, RESTORATION + MAINTENANCE SCHEDULE

WINTER/SPRING 2023

- » Mechanical and manual management of mature woody invasives. Mowing, chopping and clearing. Hand pull invasive seedlings less than 1" in diameter.
- » Utilize prophylactic control methods of invasive plant management to exhaust seed bank. (Achieved by preventing dispersal of seed heads, fruit of invasive shrubs, etc.)
- » Cover any newly exposed soils with cover crop.

SPRING/SUMMER 2023

- » Manage spring invasives in order to prohibit their contribution to the seed bank.
- » Planting approved shrubs, grasses and perennials.

SUMMER/FALL 2023

- » Follow-up invasive plant management
- » Cut and dab herbicide application to any resprouting invasive tree, shrub, and vine species.
- » Hand pull any invasive seedlings less than 1" in diameter; stem treat invasive perennials and remove seed heads.

ONGOING MAINTENANCE AND MONITORING:

- » After the treatments FALL 2024, the management plan should be evaluated. If treatments have been successful, only monitoring and minimal hand removal need be continued to keep invasive plant species at bay. Native trees, shrubs, and herbaceous forbs should dominate the forest, and a native maritime suite should be self-perpetuating on the coastal bank.
- » Implementation and surveillance of the LMP should be completed by qualified professionals including:
 - Licensed pesticide applicators
 - MA Certified Massachusetts Invasive Species Managers
 - MA Certified Massachusetts Invasive Species Managers
- » Massachusetts Certified Horticulturalists (MCH) Monitoring reports shall be submitted to Conservation Commission at the end of each growing season outlining invasive species management efforts, assessing success, and indicating the establishment of restoration plantings.



APPENDIX A: INVENTORY OF INVASIVE PLANT SPECIES



DESCRIPTION:

Acer platanoides, Norway Maple is a tree occurring in all regions of the state in upland and wetland habitats. It is especially common in urban areas. It grows in full sun to shade. It out-competes native vegetation, including sugar maple, *Acer saccharum* which it is frequently confused with.



HABITAT:

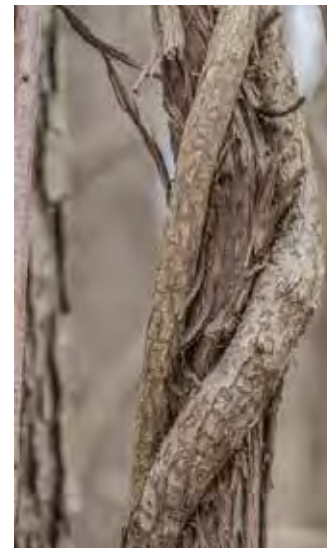
Norway maple is well adapted to various soils, grows in dry conditions, and can tolerate areas of soil pollution. Norway maples were widely planted in the United States as street trees and have escaped to natural habitats. Trees produce large numbers of seeds that are wind dispersed and invade natural areas, displacing native trees. Quickly establishing, they create a canopy of dense shade that prevents regeneration of native seedlings. May be alleopathic

MANAGEMENT:

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Girdling the tree by cutting through the bark (cambium) layer all around the trunk is also an option as is basal bark treatment with a Triclopyr-based herbicide. Girdling is most effective in spring and should include reducing the canopy for safety, but consider leaving trunks for habitat value.



NORWAY MAPLE
Acer platanoides



DESCRIPTION:

Celastrus orbiculatus, Asiatic Bittersweet is a deciduous climbing vine common in areas of disturbance in our New England forests. It has glossy, rounded leaves that are alternate with finely toothed margins. The leaves turn yellow in the fall. The fruiting plants produce small greenish flower clusters from leaf axils that mature in fall to produce high numbers of fruiting seed. The seed are noticeably yellow, globular capsules that split open at maturity to reveal red-orange fruiting seeds. Roots are also distinctly orange.



HABITAT:

Bittersweet spreads easily into forest edges, woodlands, unmanaged meadows and old fields. Most disturbed sites that are not being actively managed that receive full sun are susceptible. The vine can tolerate shade but is often found in more open, sunny areas.

MANAGEMENT:

Small seedlings can be hand pulled, but bittersweet resprouts prolifically from root fragments, so more aggressive measures need be taken on all specimens but the very smallest. For established plants, vines should be cut to ground to reduce mass, but repeat cuttings will promote resprouting roots and should be avoided in most cases. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly.

ASIATIC BITTERSWEET
Celastrus orbiculatus



DESCRIPTION:

Frangula alnus, or Glossy Buckthorn, is a deciduous shrub that grows up to 20 ft. tall. The oblong leaves are up to 2" long, arranged alternately along the stem and are dark green on the surface, glossy above and slightly pubescent beneath. The leaves turn yellow in the fall, and remain on the plant when most other species have already lost their leaves. The yellow-green flowers are arranged in 1-8 flowered sessile, glabrous umbels. This plant flowers after the leaves expand, from May to September. The fruit ripen from red to black July to August.



HABITAT:

Buckthorn thrives in early successional habitat. Buckthorn will also tolerate wetland soils where it can form dense stands that suppress the growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter allows the plant to be dispersed through the entire season.



MANAGEMENT:

Hand cut plant approximately 6" above the ground and apply a triclopyr-based solution or perform a basal-bark painting in late fall. All fruiting plant material should be bagged and disposed of to prevent reestablishment.

GLOSSY BUCKTHORN
Frangula alnus



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MORROW'S HONEYSUCKLE
Lonicera morrowii

DESCRIPTION:

Lonicera morrowii, Morrow's honeysuckles are upright, deciduous shrubs that typically have a multi-stem mounding appearance. Oval leaves are opposite along the stem with smooth edges (no teeth or lobes) and hairy on the underside. Mature stems are often hollow on the interior and peeling on the outer bark. In the spring pairs of fragrant, tubular flowers less than an inch long are borne along the stem in the leaf axils. The fruits are red to orange, and fleshy.



HABITAT:

Honeysuckles are relatively shade-intolerant and usually colonize forest edges, abandoned fields, and other open, upland habitats. Grazed meadows and disturbed woodlands are especially vulnerable. Woodlands and open meadows, especially those that have been grazed or otherwise disturbed and are left unmanaged are also highly susceptible. Morrow's Honeysuckle are highly adaptable and can grow in even challenging environments such as roadsides and wetland edges.



MANAGEMENT:

Honeysuckle management can combine mechanical mowing and manual hand pulling with cut and dab herbicide treatments. Small specimens may be removed manually as honeysuckle root systems are fairly shallow. Root resprouting can persist for a few years and several seasons of management may be required to fully control the population.



COMMON BUCKTHORN
Rhamnus cathartica

DESCRIPTION:

Rhamnus cathartica, Common buckthorn is a small deciduous tree or large shrub that can grow up to 30' tall. It has dull green oval, and finely serrated leaves and is easily identified by the small thorns at the tip of each branch. Branches are tipped with a short thorn; a thorn may also be found in the fork between two branches. Small yellowish-green flowers occur in the axils or along the stem, which give way to small bluish or black berries a dark purplish or black color.



HABITAT:

Common Buckthorn is native to much of Europe and Asia and was imported to the US as a windbreak. It forms dense thickets in lightly shaded areas and is tolerant of many soil conditions from well-drained sand to clay. It is frequently found on roadsides, forest edges and on streambanks.

MANAGEMENT:

Hand cut plant approximately 6" above the ground and apply a triclopyr-based herbicide. Any portions of the root system not removed or killed by herbicide will potentially re-sprout, so follow up applications will be necessary to control population. All fruited or seed-bearing plant material will be bagged and disposed of to prevent reestablishment.



MULTIFLORA ROSE
Rosa multiflora

DESCRIPTION:

Rosa multiflora, Multiflora Rose is a shrub with arching canes with a mounding shape in the landscape. The leaves are divided into five to eleven sharply toothed leaflets. The base of each leaf stalk has a pair of fringed bracts which is a key identifier of the plant from other wild rose. Beginning in early summer, clusters of showy white flowers appear. The flowers are followed by developing red fruit, or hips, during the summer that remain on the plant through the winter.



HABITAT:

Multiflora Rose thrives in early successional habitat. The rose has a wide tolerance for various soil, moisture, and light conditions. It occurs in dense woods, along river banks and roadsides and in open unmanaged fields. It can form a dense understory that suppresses growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter months allows wide spread distribution of the plant.



MANAGEMENT:

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a triclopyr-based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.



APPENDIX B: INVENTORY OF LIKELY INVASIVE SPECIES



GREATER CELANDINE
Chelidonium majus

DESCRIPTION:

Chelidonium majus, Greater Celandine, is an herbaceous perennial native to Europe. The delicate kidney-shaped leaves are pale green with hairy undersides. The stalk is conspicuously fuzzy. Greater celandine flowers copiously from late spring through fall. It can be distinguished by its height and the profusion of yellow buttercup-like flowers that cover the plant, usually consisting of 4 petals and many yellow stamens.



HABITAT:

Celandine prefers slightly to moderately moist conditions. These include stream and riverbanks, but also fertile moist woodlands, thickets, roadsides and disturbed sites. It tolerates all light conditions, from deep shade to sun.

MANAGEMENT:

The seeds of Celandine can remain viable in the soil for many years, so management requires a long term commitment to regular maintenance. The goal should be to prevent seed production until the stored seed in soil is exhausted. Hand removal of plants is possible for light infestations before flowering, removing the plants entire root system (new plants can sprout from root fragments).



BORDER PRIVET
Ligustrum obtusifolium

DESCRIPTION:

Border privet is a multi-stemmed dense shrub with arching branches. Short spur branches sometimes give the appearance of stout thorns. The its opposite leaves are glossy green on top, pubescent on bottom. White tubular flowers bloom in late spring and round purple-black fruit follow.



HABITAT:

They thrive in floodplains, fields, disturbed forests and forest edges. Border privet grows in human-dominated areas such as abandoned fields and roadsides, disturbed forests, and will also invade wood margins, canopy openings in forests, stream edges and floodplains.



MANAGEMENT:

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a triclopyr-based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.



EUROPEAN BARBERRY
Berberis vulgaris

DESCRIPTION:

European Barberry, or *Berberis vulgaris* is an understory shrub in leaf from early spring to late fall. Leaves are simple, emerging red, and remaining green throughout the season. Tiny yellow flowers appear in late spring to early summer, and are followed by numerous fruit. It has three-parted spines at the base of the leaves.



HABITAT:

European Barberry is shade tolerant, drought resistant, and adaptable to a variety of open and forested habitats, and disturbed areas. It prefers to grow in full sun, but will flower and fruit even in heavy shade. There is also strong research to support the surprise benefit of controlling Japanese Barberry in the reduction of black legged (or deer) tick populations.



MANAGEMENT:

European Barberry produces seed prolifically, so removal of fruiting branches is high priority. However, barberry also spreads by rhizome, so underground root fragments should be removed. Manual methods of hand pulling sprouts works well in small populations, but large populations may require chemical applications by applying a solution of glyphosate to foliage, or a triclopyr-based solution to cut stumps.



PARTERRE ECOLOGICAL

MORRIS

60 PLEASANT POINT DR,
PORTSMOUTH, NH

PLAN FOR INVASIVES MANAGEMENT
AND NATIVE RESTORATION

SHEET 27 OF 27

12/14/22

CONDITIONAL USE PERMIT APPLICATION

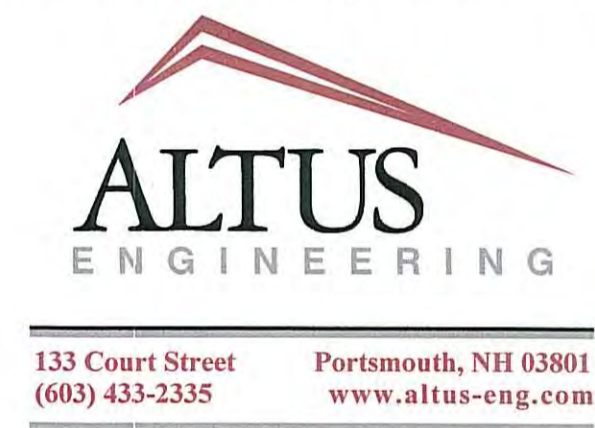
MORRIS RESIDENCE

Owner/Applicant:

120-0 WILD ROSE LANE, LLC

209 Water Street
Newburyport, MA 01950
(617) 283-2294

Civil Engineer:



60 Pleasant Point Drive
Portsmouth, New Hampshire

Assessor's Parcel 207, Lot 13

ISSUED FOR APPROVAL

Plan Issue Date:

NOVEMBER 28, 2023 PLANNING BOARD (CUP)

Landscape Architect:

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC
Attn.: Johanna Cairns

366 Fore Street
Portland, ME 04101
(617) 905-2246

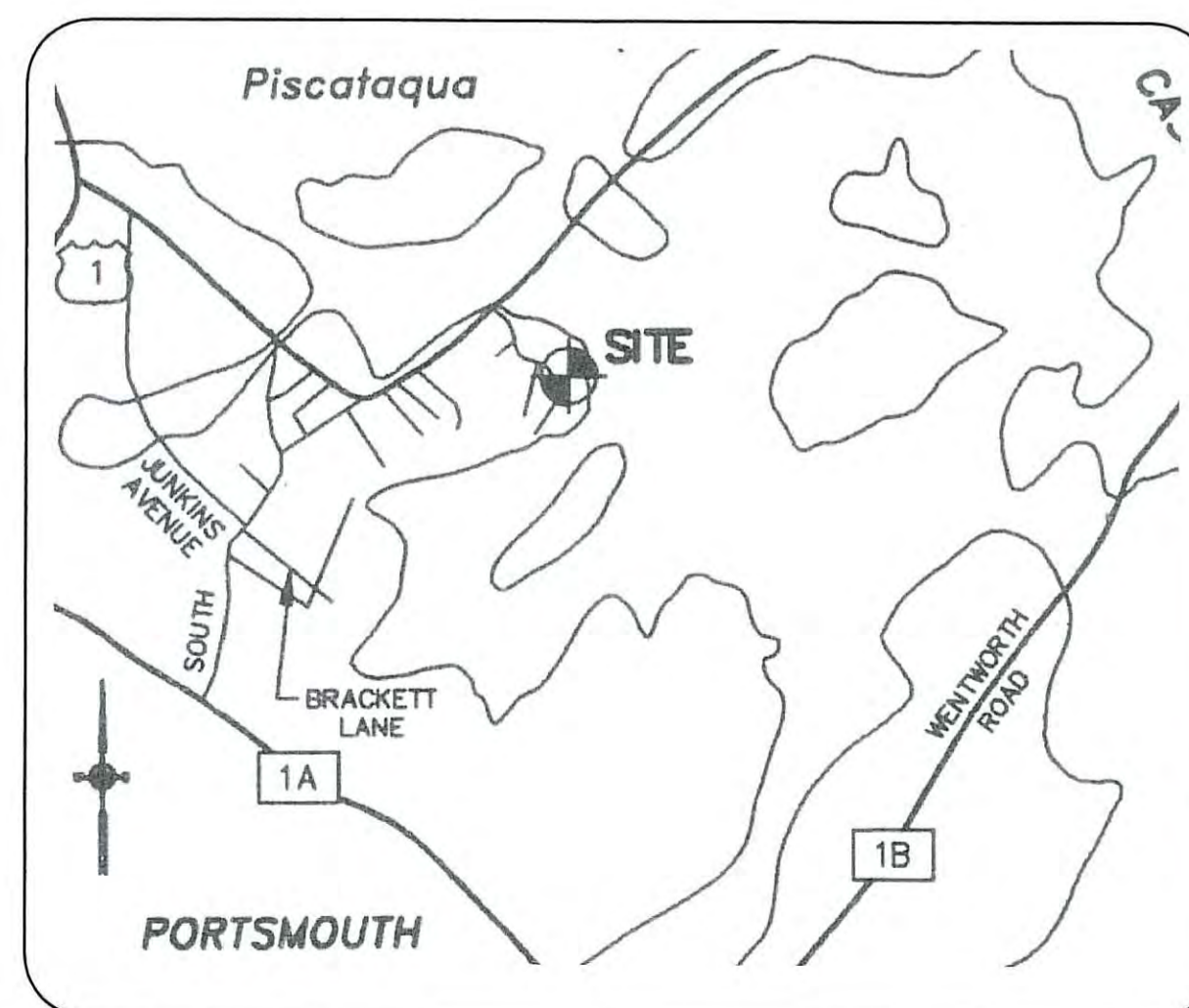
Surveyor:

EASTERLY SURVEYING, INC.
c/o Peter Agrodnia, LLS

1021 Goodwin Road, Suite #1
Eliot, ME 03903
(207) 439-6333

Soil Scientists/Wetland Scientists:

JOSEPH W. NOEL, NH CWS #086 MICHAEL CUOMO, CWS
P.O. Box 174 6 York Pond Road
South Berwick, ME 03908 York, ME 03909
(207) 384-5587 (207) 363-4532



LOCUS NOT TO SCALE

Sheet Index

Sheet Title	Sheet No.:	Rev.	Date
Existing Conditions Plan	1 of 1	A	04/02/21
Demolition Plan	C-1	1	11/28/23
Site Plan	C-2	1	11/28/23
Stormwater Management & Grading Plan	C-3	1	11/28/23
Erosion Control Plan	C-4	0	10/27/23
Utilities Plan	C-5	0	10/27/23
Illustrative Master Plan (by Matthew Cunningham)	L0.0	0	10/25/23
Comparative Plan (by Matthew Cunningham)	L0.1	0	10/25/23
Planting Plan (by Matthew Cunningham)	L0.2	0	10/25/23
Planting Details (by Matthew Cunningham)	L0.3	0	10/25/23
NHDES Wetlands & Shoreland Permit Application Plan	1 of 1	0	11/28/23
Conditional Use Permit Plan	1 of 1	1	11/28/23
Erosion Control Notes & Details	D-1	1	11/28/23
Detail Sheet	D-2	1	11/28/23

Permit Summary:

	Submitted	Received
NHDES Wetlands Permit	To be submitted	-
NHDES Shoreland Permit	To be submitted	-



ZONING DATA PER CITY OF PORTSMOUTH ZONING ORDINANCE (LAST AMENDED DECEMBER 16, 2019):

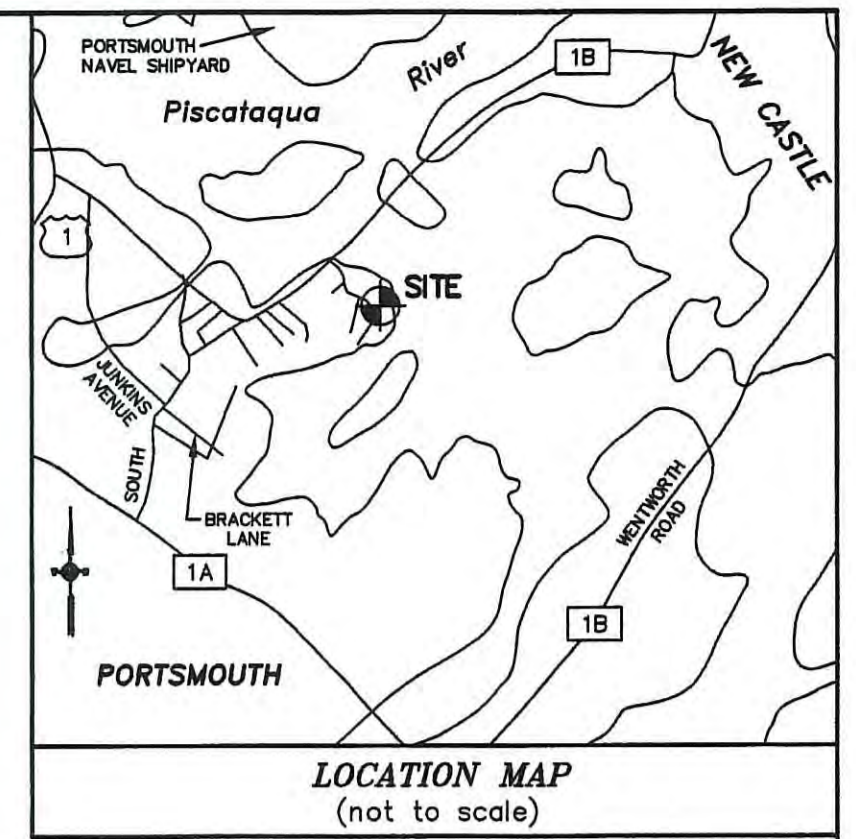
ZONE: Single Residence B (SRB)
 REQUIREMENTS: *
 MINIMUM LOT AREA: 15,000 Square Feet
 MINIMUM STREET FRONTAGE: 100 Ft
 MINIMUM LOT DEPTH: 100 Ft
 MINIMUM FRONT SETBACK: 30 Ft
 MINIMUM SIDE SETBACK: 20 Ft
 MINIMUM REAR SETBACK: 40 Ft
 MAXIMUM BUILDING HEIGHT:
 SLOPED ROOF: 35 Ft
 MAXIMUM BUILDING COVERAGE: 20%
 MINIMUM OPEN SPACE: 40%

BUILDING COVERAGE CALCULATION:

TOTAL LOT AREA TO H.O.T.: 46,840± SQ. FT.
 HOUSE: 2,621 SQ. FT.
 BUILDING COVERAGE: 5.6%

OPEN SPACE CALCULATION:

TOTAL LOT AREA TO H.O.T.: 46,840± SQ. FT.
 DRIVEWAY: 4,910± SQ. FT.
 HOUSE: 2,621± SQ. FT.
 PATIO/POOL: 1,707± SQ. FT.
 DECK: 309± SQ. FT.
 CONCRETE/MISC.: 182± SQ. FT.
 STEPS: 172± SQ. FT.
 RETAINING WALLS: 114± SQ. FT.
 TOTAL COVERAGE: 10,015 SQ. FT.
 OPEN SPACE: 36,825± SQ. FT. (78.6%)



PLAN REFERENCES:

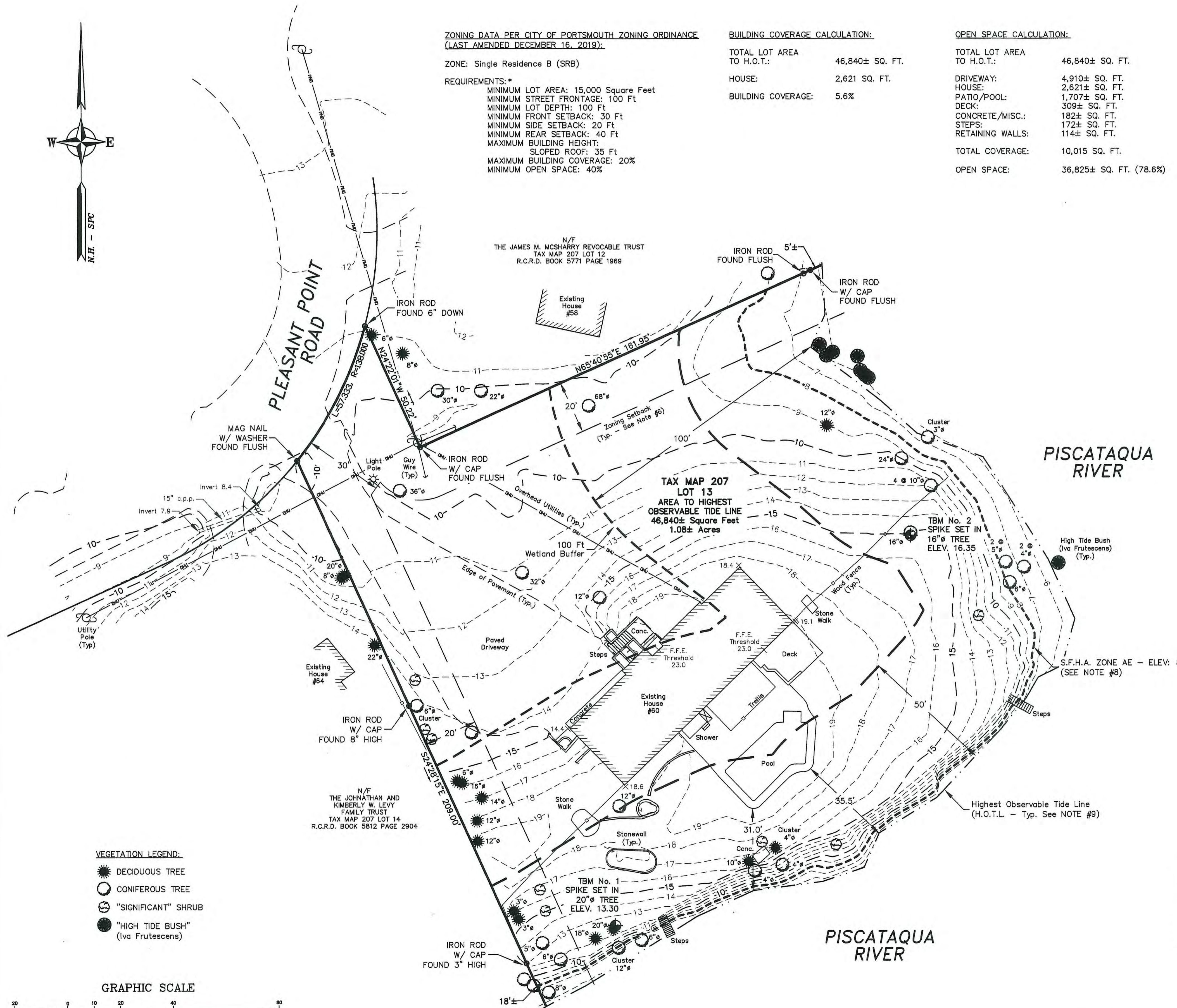
- "EXISTING CONDITIONS PLAN PLEASANT POINT DRIVE ASSESSOR'S PARCEL 207-014 PORTSMOUTH, NEW HAMPSHIRE FOR OWNERS JOAN S. WALDRON KIMBERLY WALDRON LEVY", PREPARED BY JAMES VERRA AND ASSOCIATES, INC., DATED JULY 11, 2005.
- "PLAN OF LOTS NEW CASTLE AVENUE PORTSMOUTH, N.H. FOR ROBERT A. MOEBUS & HENRY C. SIVK", PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS, DATED OCTOBER 1952, AND RECORDED AT THE R.C.R.D. AS PLAN No. 02160-B.
- "LAND IN PORTSMOUTH, N.H. ROBERT A. MOEBUS TO HENRY C. SIVK AND HENRY C. SIVK TO ROBERT A. MOEBUS", PREPARED BY JOHN W. DURGIN CIVIL ENGINEERS, DATED JUNE 1951, REVISED DECEMBER 1953.

NOTES:

- OWNERS OF RECORD:
TAX MAP 207 LOT 13
120-0 WLD ROSE, LLC
R.C.R.D. BOOK 6174 PAGE 1450
DATED OCTOBER 5, 2020
- TOTAL EXISTING PARCEL AREA:
TAX MAP 207 LOT 13
1.08± Acres To H.O.T.L.
- BASIS OF BEARING IS NEW HAMPSHIRE S.P.C.
- APPROXIMATE ABUTTER'S LINES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE RELIED UPON AS BOUNDARY INFORMATION.
- EASEMENTS OR OTHER UNWRITTEN RIGHTS MAY EXIST THAT ENCUMBER OR BENEFIT THE PROPERTY NOT SHOWN HEREON.
- ZONING INFORMATION AND SETBACKS SHOWN HEREON ARE FOR REFERENCE PURPOSES. CONFIRM CURRENT ZONING REQUIREMENTS WITH THE CITY OF PORTSMOUTH PRIOR TO DESIGN OR CONSTRUCTION.
- THE BOUNDARY SHOWN HEREON IS DETERMINED FROM WRITTEN RECORDS, FIELD EVIDENCE AND PAROL TESTIMONY RECOVERED AT THE TIME OF SURVEY AND MAY BE SUBJECT TO CHANGE IF OTHER EVIDENCE BECOMES AVAILABLE.
- A PORTION OF THE LOCUS PARCEL FALLS WITHIN SPECIAL FLOOD HAZARD AREA AE, WITH A BASE FLOOD ELEVATION OF 8 FT. PER FEMA FIRM MAP No. 33015C0278F, REVISED JANUARY 29, 2021.
- THE HIGHEST OBSERVABLE TIDE LINE (HOTL) OF THE PISCATAQUA RIVER, WHICH CORRESPONDS WITH THE COASTAL WETLAND BOUNDARY, WAS DELINEATED BY JOSEPH W. NOEL, NEW HAMPSHIRE CERTIFIED WETLAND SCIENTIST #086 ON DECEMBER 11, 2020. REFER TO LETTER/REPORT DATED DECEMBER 15, 2020 FOR MORE INFORMATION. THE DELINEATION WAS CONDUCTED IN ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS DOCUMENT "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL", (1987), ALONG WITH THE REQUIRED "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION", (VERSION 2, JANUARY 2021).

PURPOSE OF PLAN:

THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR DESIGN PURPOSES. THIS PLAN IS NOT A STANDARD BOUNDARY SURVEY AND IS NOT INTENDED TO BE RECORDED, USED FOR CONVEYANCE, OR ANY OTHER TITLE PURPOSE.



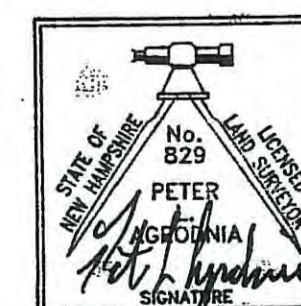
VEGETATION LEGEND:

- DECIDUOUS TREE
- CONIFEROUS TREE
- "SIGNIFICANT" SHRUB
- "HIGH TIDE BUSH" (Iva Frutescens)

GRAPHIC SCALE



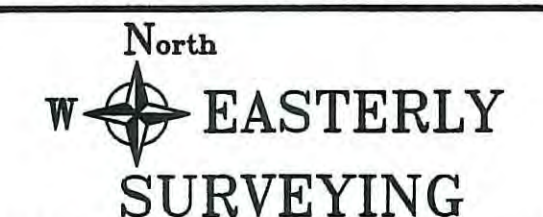
(IN FEET)
1 inch = 20 ft.
VERTICAL DATUM - NGVD29



10/19/2023

EXISTING CONDITIONS PLAN

FOR PROPERTY AT
 60 Pleasant Point Drive
 Portsmouth, Rockingham County, New Hampshire
 OWNED BY
 120-0 Wild Rose Lane, LLC
 c/o Altus Engineering, Att. Erik Saari, V.P.
 133 Court Street, Portsmouth, New Hampshire 03801



SURVEYORS IN N.H. & MAINE 1021 GOODWIN ROAD, UNIT #1
 (207) 439-8333 ELIOT, MAINE 03903

SCALE:	PROJECT NO.:	DATE:	SHEET:	DRAWN BY:	CHECKED BY:
1" = 20'	20770	02/04/21	1 OF 1	A.H.P.	P.L.A.
DRAWING No.:	FIELD BOOK No.:				
20770 EXISTING CONDITIONS	"Portsmouth #17"				
REV.	DATE	STATUS	BY	CHKD	APPD.
A	4/2/21	ADDED ADDITIONAL TREES & ABUTTER BUILDINGS	A.H.P.	P.L.A.	P.L.A.

Tax Map 207 Lot 13

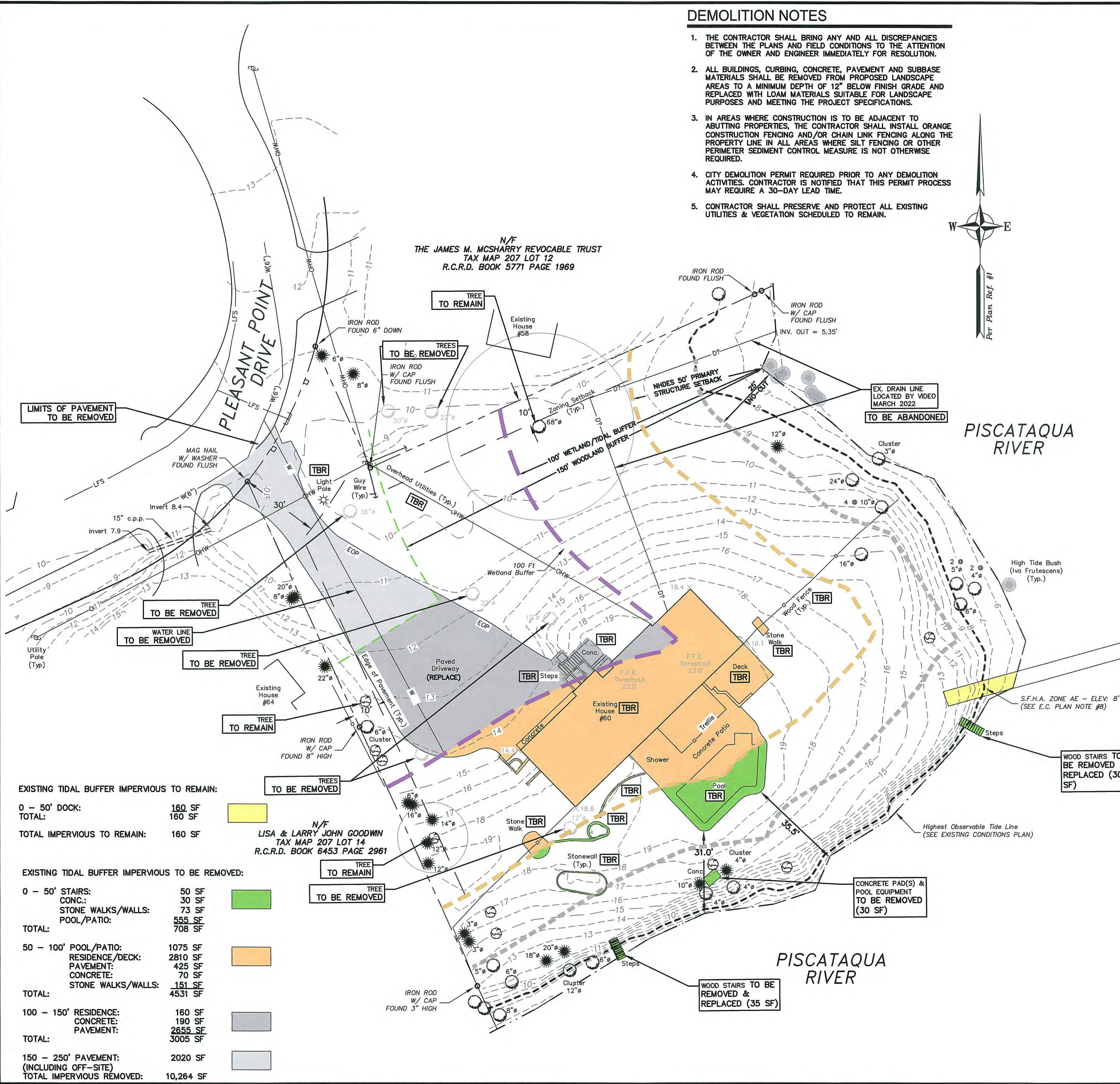
DEMOLITION NOTES

1. THE CONTRACTOR SHALL BRING ANY AND ALL DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS TO THE ATTENTION OF THE OWNER AND ENGINEER IMMEDIATELY FOR RESOLUTION.
2. ALL BUILDINGS, CURBING, CONCRETE, PAVEMENT AND SUBBASE MATERIALS SHALL BE REMOVED FROM PROPOSED LANDSCAPE AREAS TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE AND REPLACED WITH LOAM MATERIALS SUITABLE FOR LANDSCAPE PURPOSES AND MEETING THE PROJECT SPECIFICATIONS.
3. IN AREAS WHERE CONSTRUCTION IS TO BE ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING AND/OR CHAIN LINK FENCING ALONG THE PROPERTY LINE IN ALL AREAS WHERE SILT FENCING OR OTHER PERIMETER SEDIMENT CONTROL MEASURE IS NOT OTHERWISE REQUIRED.
4. CITY DEMOLITION PERMIT REQUIRED PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR IS NOTIFIED THAT THIS PERMIT PROCESS MAY REQUIRE A 30-DAY LEAD TIME.
5. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES & VEGETATION SCHEDULED TO REMAIN.

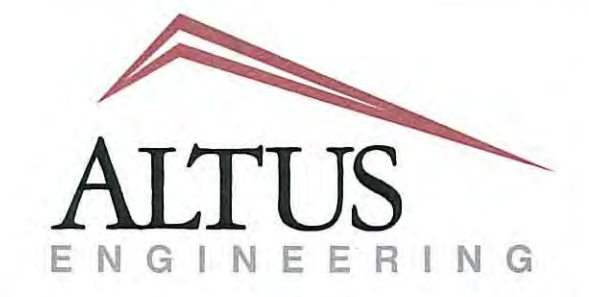


DEMOLITION NOTES - continued

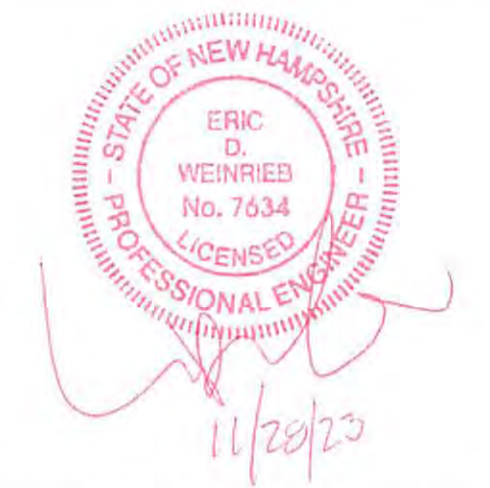
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
7. ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES, PORTSMOUTH DPW AND ABUTTING PROPERTY OWNERS. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
8. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
9. SEE EROSION CONTROL PLANS FOR EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES.
10. ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
11. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
12. WATER: PORTSMOUTH DPW WATER DIVISION, JIM TOW, (603) 427-1530.
13. SEWER: PORTSMOUTH DPW SEWER DIVISION, JIM TOW, (603) 427-1530.
14. TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427-5525.
15. CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
16. ELECTRICAL: EVERSOURCE, MICHAEL BUSBY, (603) 332-4227, EXT. 5555334.
17. GAS: UNITIL, DAVID BEAULIEU, (603) 294-5144.
18. CONTRACTOR TO CONTACT PORTSMOUTH DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY DEMOLITION TO COORDINATE ALL WORK CONCERNING DISCONNECTION/DEMOLITION OF ANY WATER AND SEWER LINE SERVICES.
19. ENTIRE PARCEL LIES WITHIN THE NHDES 250-FOOT SHORELAND PROTECTION AREA.
20. ALL WATER MAIN AND SANITARY SEWER SERVICE DISCONNECTIONS SHALL CONFORM TO PORTSMOUTH DPW STANDARDS.
21. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
22. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
23. AT NO TIME SHALL ANY UTILITY SERVICE OR VEHICULAR ACCESS TO ABUTTING PROPERTIES BE COMPLETELY INTERRUPTED UNLESS A FULL SHUTDOWN IS COORDINATED WITH ALL AFFECTED PARTIES AND UTILITY PROVIDER(S).
24. SHOULD GROUNDWATER BE ENCOUNTERED DURING EXCAVATION, APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO ENSURE SEDIMENT LADEN WATER IS NOT DISCHARGED INTO THE CITY DRAINAGE SYSTEM. A DISCHARGE PERMIT SHALL BE OBTAINED PRIOR TO DISCHARGING GROUNDWATER.
25. EXISTING HOUSE IS SERVICED BY A PROPANE TANK. REMOVAL AND DISPOSAL OF EXISTING TANK & INSTALLATION OF NEW PROPANE TANK, IF DESIRED, SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
26. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDING, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
27. EXISTING SEWER SERVICE LOCATION IS APPROXIMATE BASED ON REFERENCE PLAN. CONTRACTOR SHALL INVESTIGATE THE EXISTING BUILDING DISCHARGE AND PERFORM TEST PITS AND OTHER WORK AS NECESSARY TO LOCATE THE CONNECTION. THE NEW SERVICE SHALL BE CONNECTED PER UTILITY PLAN & IN ACCORDANCE WITH DPW STANDARDS.



EXISTING TIDAL BUFFER IMPERVIOUS TO REMAIN:	
0 - 50' DOCK:	160 SF
TOTAL:	160 SF
TOTAL IMPERVIOUS TO REMAIN: 160 SF	
EXISTING TIDAL BUFFER IMPERVIOUS TO BE REMOVED:	
0 - 50' STAIRS:	50 SF
CONC.:	30 SF
STONE WALKS/WALLS:	73 SF
POOL/PATIO:	555 SF
TOTAL:	708 SF
50 - 100' POOL/PATIO:	1075 SF
RESIDENCE/DECK:	2810 SF
PAVEMENT:	425 SF
CONCRETE:	70 SF
STONE WALKS/WALLS:	151 SF
TOTAL:	4531 SF
100 - 150' RESIDENCE:	160 SF
CONCRETE:	190 SF
PAVEMENT:	2655 SF
TOTAL:	3005 SF
150 - 250' PAVEMENT:	2020 SF
(INCLUDING OFF-SITE)	
TOTAL IMPERVIOUS REMOVED:	10,264 SF



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR: NHDES APPROVAL

ISSUE DATE: NOVEMBER 28, 2023

NO. DESCRIPTION	BY	DATE
0 INITIAL SUBMISSION	EDW	10/27/23
1 NHDES SUBMISSION	EDW	11/28/23

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5138SITE.dwg

SCALE:
(22"x34") 1" = 20'
(11"x17") 1" = 40'

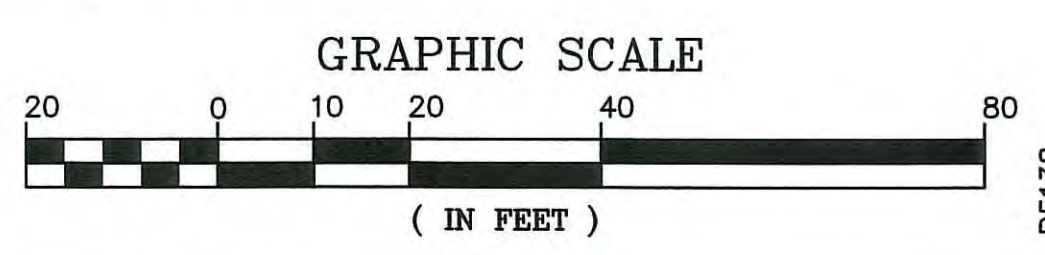
OWNER:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

APPLICANT:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
TAX MAP 207, LOT 13
60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C-1



P5138

CONSERVATION COMMISSION RECOMMENDATIONS:

- IN ACCORDANCE WITH SECTION 10.1018.40 OF THE ZONING ORDINANCE, APPLICANT SHALL INSTALL PERMANENT WETLAND BOUNDARY MARKERS ALONG THE 25' VEGETATIVE BUFFER DURING PROJECT CONSTRUCTION. THESE CAN BE PURCHASED THROUGH THE CITY OF PORTSMOUTH PLANNING AND SUSTAINABILITY DEPARTMENT.
- APPLICANT SHALL PROVIDE MONTHLY INVASIVE MANAGEMENT AND PLANTING UPDATES TO THE PLANNING AND SUSTAINABILITY DEPARTMENT ONCE REMOVAL BEGINS AND UNTIL THE END OF THE RESTORATION PROCESS (SEE MANAGEMENT CALENDAR FOR TREATMENT AND PLANTING). THESE UPDATES SHALL BE A REPORT SUMMARIZING THE ACTIVITIES PERFORMED, THE SUCCESS RATES, ANY PROPOSED PLAN CHANGES, AND ANY UPCOMING ACTIVITIES INVOLVING THE 25' VEGETATIVE BUFFER ON SITE. IF PLANTS HAVE NOT ACHIEVED AN 80% SUCCESS RATE OR GREATER AFTER ONE YEAR, APPLICANTS WILL REPLANT AND REPORT BACK TO THE PLANNING AND SUSTAINABILITY DEPARTMENT ONE YEAR AFTER PLANTING IS COMPLETE AND EACH SUBSEQUENT YEAR UNTIL AN 80% PLANTING SUCCESS RATE HAS BEEN ACHIEVED.

LEGEND

	PROPERTY LINE
	HIGHEST OBSERVABLE TIDE LINE
	25' NO CUT BUFFER
	50' LIMITED CUT BUFFER
	100' WETLAND / TIDAL BUFFER
	EXISTING TREES TO REMAIN
	HOUSE / DECK / POOL TO BE REPLACED

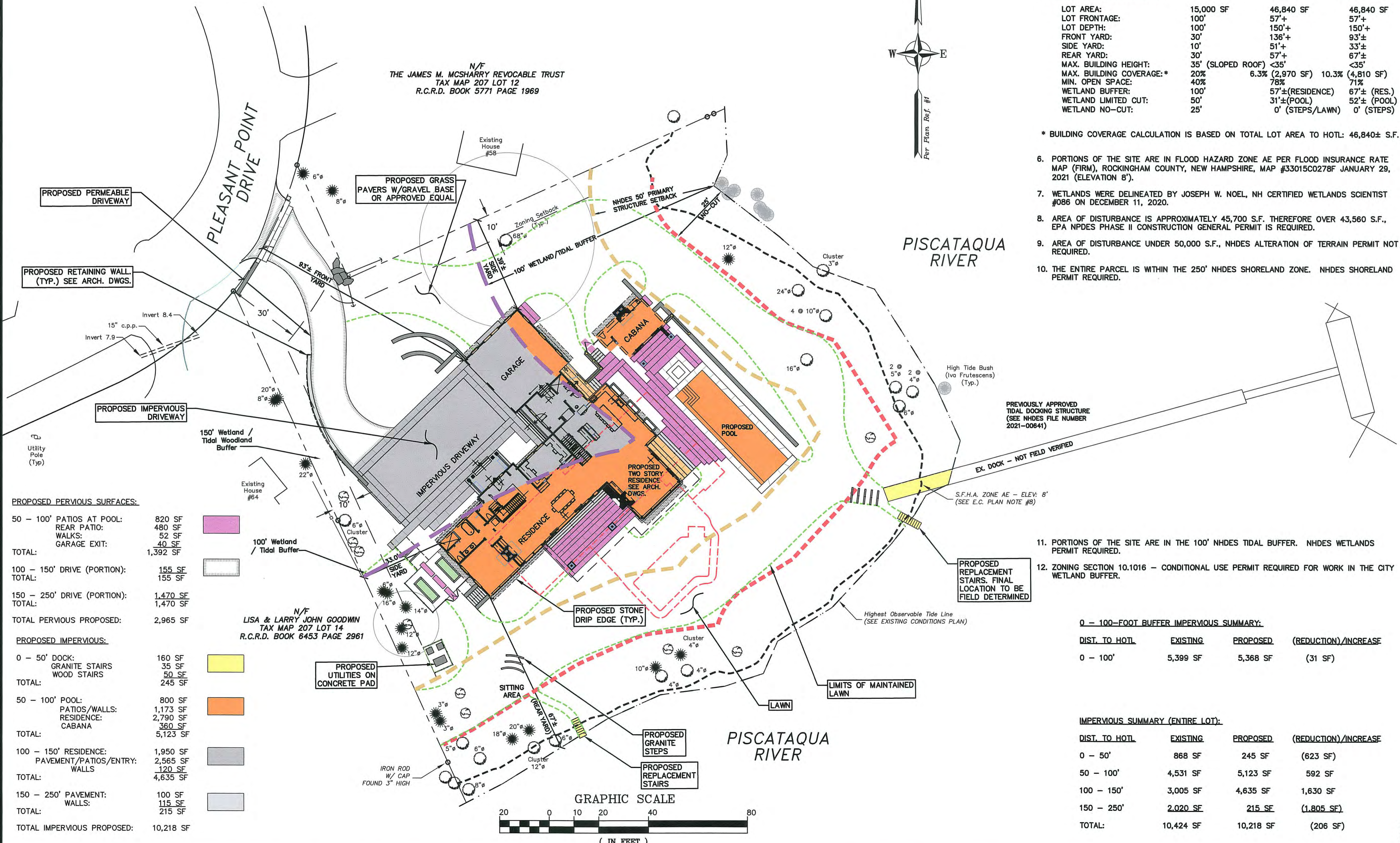
APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

SITE NOTES

- DESIGN INTENT - THE EXISTING ANTIQUATED SINGLE FAMILY RESIDENCE WILL BE RAZED & REPLACED WITH A NEW SINGLE FAMILY RESIDENCE.
 - THE BASE PLAN USED HERE WAS DEVELOPED FROM "EXISTING CONDITIONS PLAN FOR PROPERTY AT 60 PLEASANT POINT DRIVE, PORTSMOUTH, NH", DATED FEB. 4, 2021 BY EASTERLY SURVEYING, INC.
 - PROJECT PARCEL: MAP 207 LOT 13, 46,840 S.F. (1.08 ACRES) TO HIGHEST OBSERVABLE TIDE LINE (HOTL).
 - ZONE: SRB (SINGLE RESIDENCE B) OVERLAY: FLOOD PLAIN DISTRICT OVERLAY
 - DIMENSIONAL REQUIREMENTS:

	EXISTING	PROPOSED
LOT AREA:	15,000 SF	46,840 SF
LOT FRONTAGE:	100'	57'+
LOT DEPTH:	100'	150'+
FRONT YARD:	30'	136'+
SIDE YARD:	10'	51'+
REAR YARD:	30'	57'+
MAX. BUILDING HEIGHT:	35' (SLOPED ROOF)	<35'
MAX. BUILDING COVERAGE:*	20%	6.3% (2,970 SF)
MIN. OPEN SPACE:	40%	78%
WETLAND BUFFER:	100'	57'±(RESIDENCE)
WETLAND LIMITED CUT:	50'	31'±(POOL)
WETLAND NO-CUT:	25'	0' (STEPS/LAWN)
- * BUILDING COVERAGE CALCULATION IS BASED ON TOTAL LOT AREA TO HOTL: 46,840± S.F.
- PORTIONS OF THE SITE ARE IN FLOOD HAZARD ZONE AE PER FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP #33015C0278F JANUARY 29, 2021 (ELEVATION 8').
 - WETLANDS WERE DELINEATED BY JOSEPH W. NOEL, NH CERTIFIED WETLANDS SCIENTIST #086 ON DECEMBER 11, 2020.
 - AREA OF DISTURBANCE IS APPROXIMATELY 45,700 S.F. THEREFORE OVER 43,560 S.F., EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT IS REQUIRED.
 - AREA OF DISTURBANCE UNDER 50,000 S.F., NHDES ALTERATION OF TERRAIN PERMIT NOT REQUIRED.
 - THE ENTIRE PARCEL IS WITHIN THE 250' NHDES SHORELAND ZONE. NHDES SHORELAND PERMIT REQUIRED.



PROPOSED PERVIOUS SURFACES:

50 - 100' PATIOS AT POOL:	820 SF
REAR PATIO:	480 SF
WALKS:	52 SF
GARAGE EXIT:	40 SF
TOTAL:	1,392 SF
100 - 150' DRIVE (PORTION):	155 SF
TOTAL:	155 SF
150 - 250' DRIVE (PORTION):	1,470 SF
TOTAL:	1,470 SF
TOTAL PERVIOUS PROPOSED:	2,965 SF

PROPOSED IMPERVIOUS:

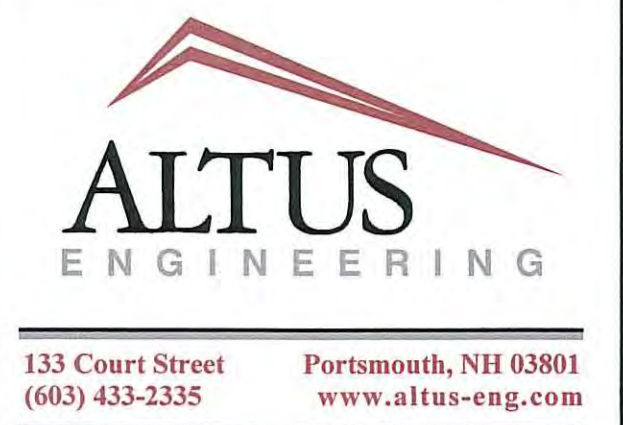
0 - 50' DOCK:	160 SF
GRANITE STAIRS:	35 SF
WOOD STAIRS:	50 SF
TOTAL:	245 SF
50 - 100' POOL:	800 SF
PATIOS/WALLS:	1,173 SF
RESIDENCE:	2,790 SF
CABANA:	360 SF
TOTAL:	5,123 SF
100 - 150' RESIDENCE:	1,950 SF
PAVEMENT/PATIOS/ENTRY:	2,565 SF
WALLS:	120 SF
TOTAL:	4,635 SF
150 - 250' PAVEMENT:	100 SF
WALLS:	115 SF
TOTAL:	215 SF
TOTAL IMPERVIOUS PROPOSED:	10,218 SF

0 - 100-FOOT BUFFER IMPERVIOUS SUMMARY:

DIST. TO HOTL	EXISTING	PROPOSED	(REDUCTION)/INCREASE
0 - 100'	5,399 SF	5,368 SF	(31 SF)

IMPERVIOUS SUMMARY (ENTIRE LOT):

DIST. TO HOTL	EXISTING	PROPOSED	(REDUCTION)/INCREASE
0 - 50'	868 SF	245 SF	(623 SF)
50 - 100'	4,531 SF	5,123 SF	592 SF
100 - 150'	3,005 SF	4,635 SF	1,630 SF
150 - 250'	2,020 SF	215 SF	(1,805 SF)
TOTAL:	10,424 SF	10,218 SF	(206 SF)



NOT FOR CONSTRUCTION

ISSUED FOR: NHDES APPROVAL

ISSUE DATE: NOVEMBER 28, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	10/27/23
1	NHDES SUBMISSION	EDW	11/28/23

DRAWN BY: RLH
 APPROVED BY: EDW
 DRAWING FILE: 5138SITE-8-30-2023

SCALE:
 (22"x34") 1" = 20'
 (11"x17") 1" = 40'

OWNER:
 120-0 WILD ROSE LANE, LLC
 209 WATER STREET
 NEWBURYPORT, MA 01950

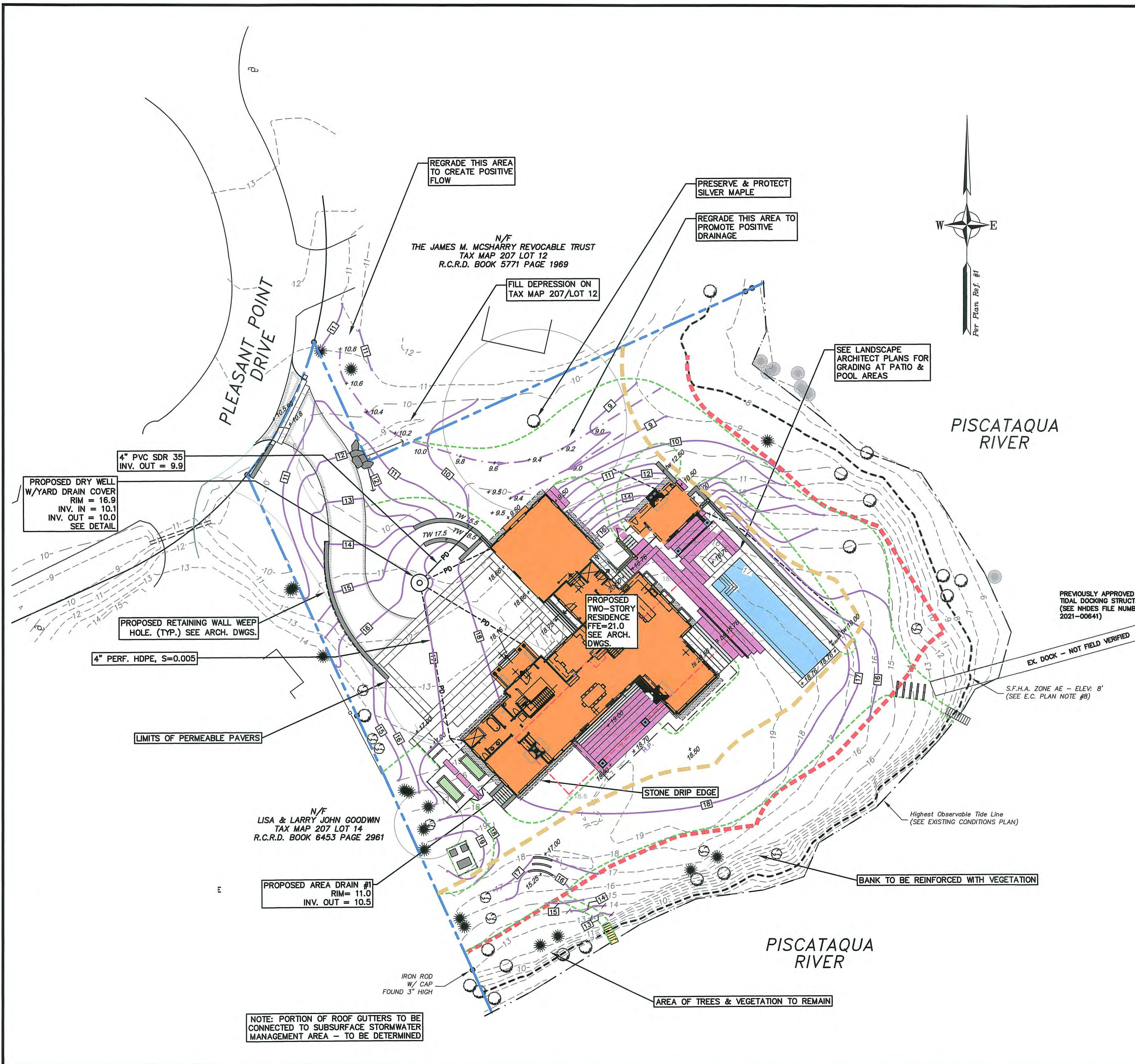
APPLICANT:
 120-0 WILD ROSE LANE, LLC
 209 WATER STREET
 NEWBURYPORT, MA 01950

PROJECT:
 JOHN & MICHELLE MORRIS RESIDENCE
 TAX MAP 207, LOT 13
 60 PLEASANT POINT DRIVE
 PORTSMOUTH, NH

TITLE:
 SITE PLAN

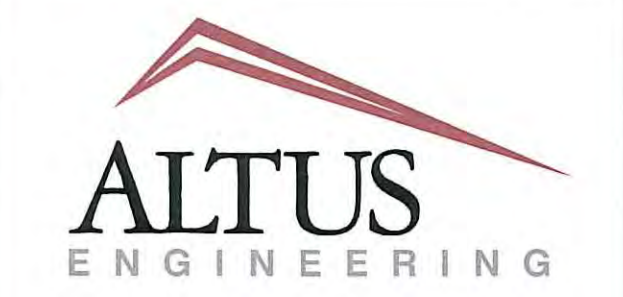
SHEET NUMBER:
 C - 2

P5138



STORMWATER MANAGEMENT NOTES

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
- TEMPORARY INLET PROTECTION MEASURES SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED GATCH BASINS WITHIN 100' OF THE PROJECT SITE WHEN SITE WORK WITHIN CONTRIBUTING AREAS IS ACTIVE OR SAID AREAS HAVE NOT BEEN STABILIZED.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL, AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
- IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- ALL CPP PIPE SHALL BE ADS N-12 OR APPROVED EQUAL.
- TOTAL AREA OF PROJECT DISTURBANCE IS ±45,700 S.F. (>1 ACRE THEREFORE SUBJECT TO EPA NPDES PHASE II. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED INSPECTIONS.
- NO EARTHWORK, STUMPING OR GRUBBING SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH IN THE NHDES NH STORMWATER MANUALS, VOL. 1-3, DATED DECEMBER 2008 AS AMENDED.
- CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND/OR ENTERING WETLANDS AND ENSURE PERMANENT SOIL STABILIZATION.
- ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
- ALL SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF COMPACTED LOAM, LIMESTONE, ORGANIC FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES OR AS INDICATED ON THE LANDSCAPE ARCHITECTURAL PLANS.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT AND ALL TEMPORARY EROSION AND SEDIMENT CONTROLS REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.
- THE ENGINEER OF RECORD SHALL SUBMIT A WRITTEN REPORT WITH PHOTOGRAPHS AND ENGINEERS STAMP CERTIFYING THAT THE STORMWATER INFRASTRUCTURE WAS CONSTRUCTED TO THE APPROVED PLANS AND WILL MEET THE DESIGN PERFORMANCE.
- THE RESIDENCE SHALL BE CONSTRUCTED WITH STONE DRIP EDGES, WHERE APPROPRIATE. DRIP EDGE UNDERDRAINS SHALL BE DIRECTED TO A STORMWATER PIPE OR DAYLIGHT IN AN AREA OUTSIDE THE CITY 100 FOOT WETLANDS BUFFER.
- WEST SIDE OF HOUSE (DRIVEWAY SIDE) TO HAVE ROOF GUTTERS CONNECTED TO LEACHING CATCH BASIN.



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION
ISSUED FOR: NHDES APPROVAL
ISSUE DATE: NOVEMBER 28, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	10/27/23
1	NHDES SUBMISSION	EDW	11/28/23

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5138SITE.dwg

SCALE:
(22"x34") 1" = 20'
(11"x17") 1" = 40'

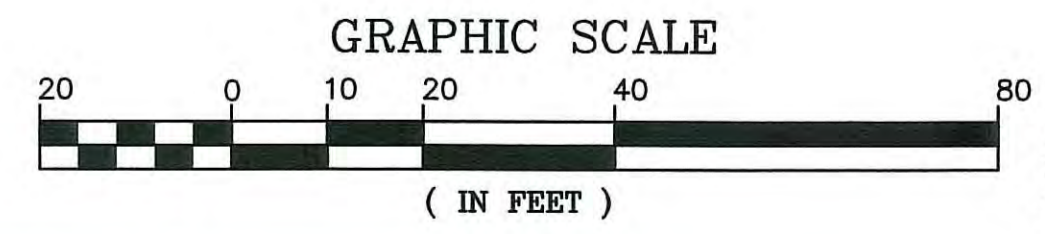
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209 WATER STREET
NEWBURYPORT, MA 01950

APPLICANT:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
TAX MAP 207, LOT 13
60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

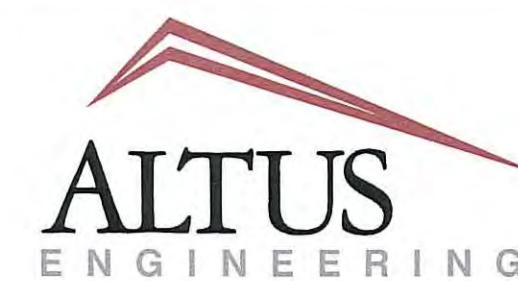
TITLE:
STORMWATER MANAGEMENT & GRADING PLAN

SHEET NUMBER:
C - 3

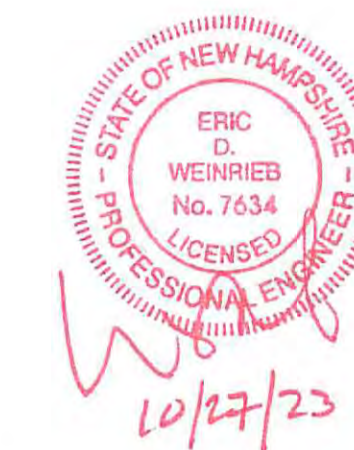


EROSION CONTROL NOTES

1. SEE DETAIL SHEET D-1.



133 Court Street
(603) 433-2335
Portsmouth, NH 03801
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CONSERVATION COMM. REVIEW

ISSUE DATE:
OCTOBER 27, 2023

REVISIONS NO.	DESCRIPTION	BY	DATE
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APPROVED BY: _____ EDW
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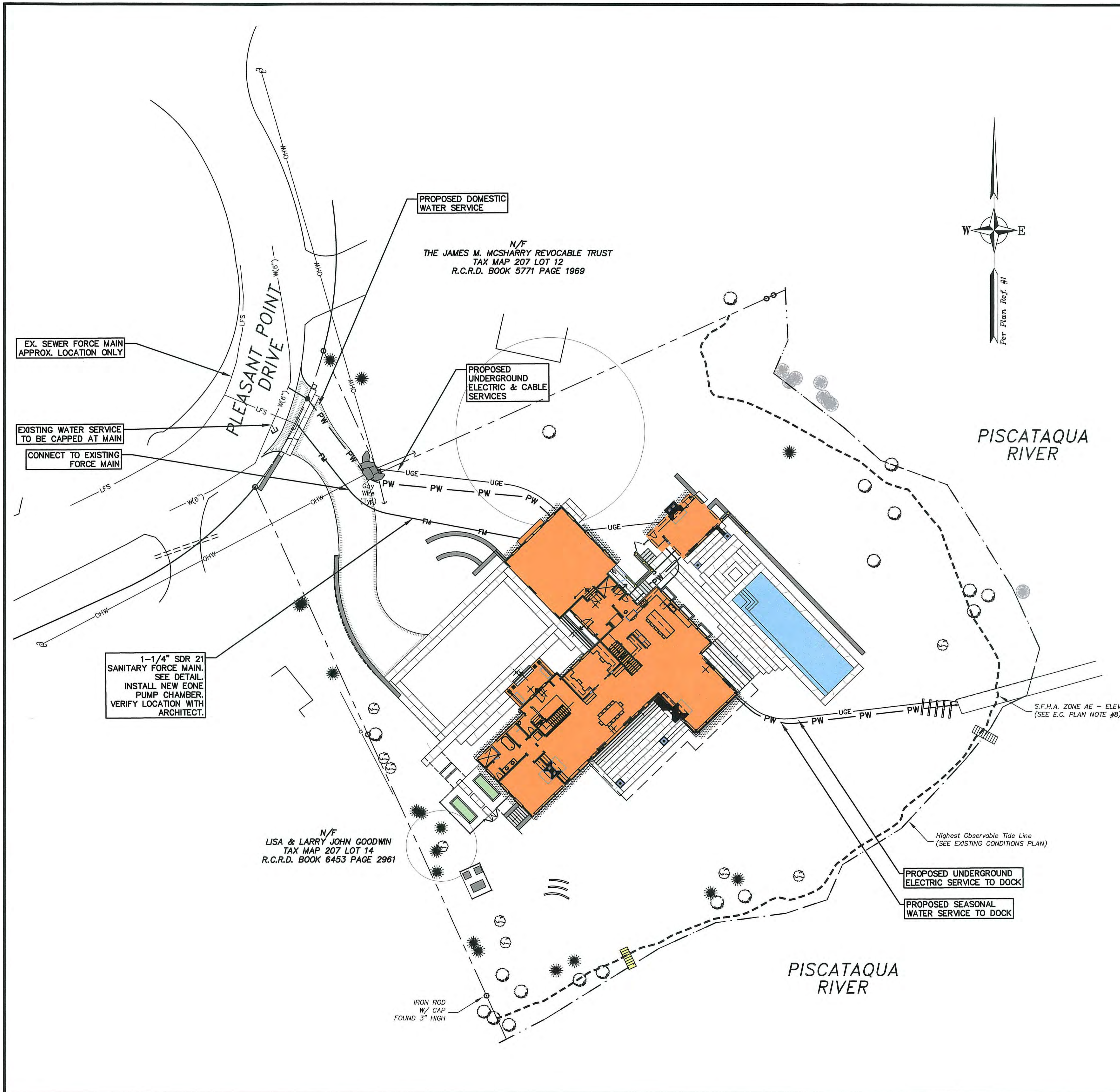
PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
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60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
C - 4

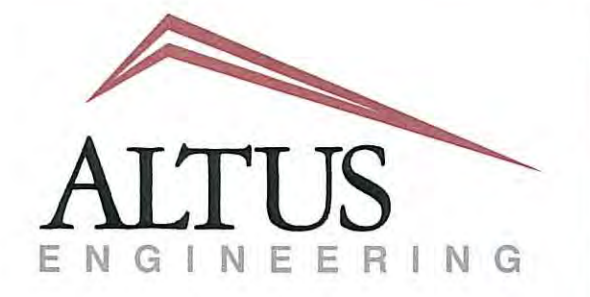
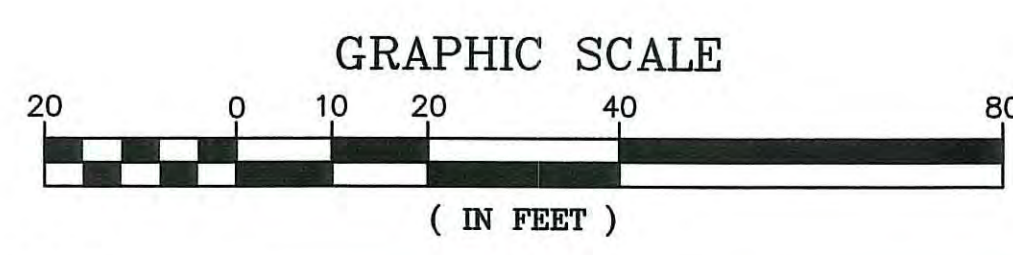


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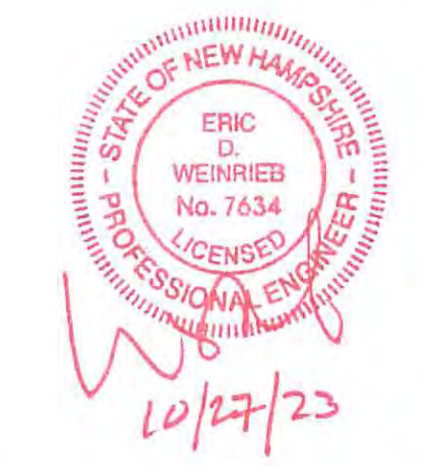


UTILITY NOTES

1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, CITY OF PORTSMOUTH DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
2. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF NECESSARY, EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
4. ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE PORTSMOUTH POLICE DEPARTMENT AND DPW AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
5. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH AND NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
7. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND CITY REGULATIONS.
8. FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE ARCHITECT, CONTRACTOR, APPROPRIATE UTILITY COMPANIES AND THE PORTSMOUTH DPW.
9. WATER: PORTSMOUTH DPW WATER DIVISION, JIM TOW, (603) 427-1530.
10. SEWER: PORTSMOUTH DPW SEWER DIVISION, JIM TOW, (603) 427-1530.
11. TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427-5525.
12. CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
13. ELECTRICAL: EVERSOURCE, MICHAEL BUSBY, (603) 332-4227, EXT. 5555334. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL, 48-HOUR MINIMUM NOTICE REQUIRED.
14. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
15. ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL BE CONSTRUCTED AND TESTED PER PORTSMOUTH DPW STANDARDS AND SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE TO THE STANDARDS AND SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
16. WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
17. CONTRACTOR SHALL PROVIDE DPW WITH DETAILS OF TEMPORARY & PERMANENT GROUNDWATER DEWATERING DESIGN IF NECESSARY.
18. THE APPLICANT OR ASSIGNS SHALL AGREE TO PAY FOR THE SERVICES OF A THIRD-PARTY OVERSIGHT ENGINEER, TO BE SELECTED BY THE CITY, TO MONITOR THE INSTALLATION OF UTILITIES INCLUDING SEWER, WATER AND DRAINAGE.
19. RESIDENTIAL HOUSES SHALL BE EQUIPPED WITH NFPA 13D-COMPLIANT SPRINKLER SYSTEMS IF THEIR FRONT DOORS ARE LOCATED GREATER THAN 50' FROM THE EDGE OF ROADWAY PAVEMENT.
20. ALL MEANS, METHODS, MATERIALS AND INSTALLATION OF NEW SEWER LATERALS SHALL BE APPROVED AND WITNESSED BY PORTSMOUTH DPW PRIOR TO BACKFILLING.



133 Court Street Portsmouth, NH 03801
 (603) 433-2335 www.altus-eng.com



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CONSERVATION COMM. REVIEW

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DRAWN BY: _____ RLH
 APPROVED BY: _____ EDW
 DRAWING FILE: 5138SITE.dwg

SCALE:
 (22"x34") 1" = 20'
 (11"x17") 1" = 40'

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 209 WATER STREET
 NEWBURYPORT, MA 01950

APPLICANT:
 120-0 WILD ROSE LANE, LLC
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PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
 TAX MAP 207, LOT 13
 60 PLEASANT POINT DRIVE
 PORTSMOUTH, NH

TITLE:
UTILITIES PLAN

SHEET NUMBER:
C - 5

P5138

Morris Residence

60 Pleasant Point Drive
Portsmouth, NH

General Notes:

- Existing conditions and topographic data are from a site plan of land dated 8 February 2021, prepared by Atlas Engineering, INC., 133 Court Street, Portsmouth, NH 03801 - Tel: (603) 433.2335
- Existing conditions supplemented from data collected by: Matthew Cunningham Landscape Design LLC, 411 Main Street, Stoneham, MA 02108 / 366 Fore Street, Portland, ME 04101 - Tel: (617) 905.2246
- True and current conditions may differ from those indicated on the plan. Contractor shall verify true conditions in the field prior to construction and notify landscape designer of significant discrepancies.
- Contractor shall verify location of any existing utilities and services and provide protection during construction. Contractor shall directly coordinate with DIG Safe. Utilities damaged during construction shall be repaired at contractor's expense.
- Contractor shall contact and inform client and landscape designer to any unforeseen conditions which may affect the intended design as set forth in the drawings.
- Contractor shall secure any necessary permits required for the work from any state or local agencies, departments, utility companies or other authorities having jurisdiction and affected by the work.
- All work shall be in accordance with the New Hampshire State Building Code.
- Contractor shall leave site clean and orderly during all phases of the construction process. Remove from the site all excess materials, soils, debris, and equipment. Store materials only in an approved location.
- Do not scale drawings.
- All angles are assumed to be 90 degrees unless otherwise stated.

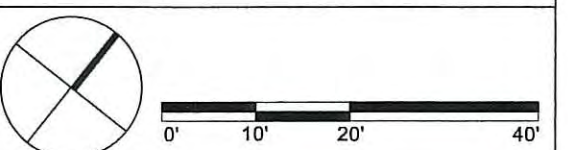
MATTHEW
CUNNINGHAM
LANDSCAPE
DESIGN LLC
matthew-cunningham.com

411 Main Street, Stoneham, MA 02180
366 Fore Street, Portland, ME 04101
617.905.2246 p | 617.321.4014 f

REVISIONS:

#:	DATE:	DESCRIPTION:

SCALE: 1"= 20'-0" DATE: 25 October 2023



SHEET TITLE:

**Illustrative
Master Plan**

SHEET NUMBER:

L0.0

NOT FOR CONSTRUCTION



PLANTING SCHEDULE

ID	Latin Name	Common Name	Scheduled Siz
TREES			
AGA	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	10-12' B&B
CC	Cercis canadensis	Redbud	4-4.5' cal. B&B
COG	Chamaecyparis obtusa 'Gracilis'	Gracilis Hinoki Falsecypress	10-12' B&B
CK	Cornus kousa	Kousa Dogwood	8-10' B&B
CVW	Crataegus viridis 'Winter King'	Winter King Hawthorne	4-4.5' cal. B&B
HD	Hamamelis x intermedia 'Diane'	Diane Witchhazel	3-4' ht. B&B
IO	Ilex opaca	American Holly	10-12' B&B
JV	Juniperus virginiana	Eastern Red Cedar	8-10' B&B
PA2	Picea abies	Norway Spruce	10-12' ht. B&B
PA	Picea abies	Norway Spruce	10-12' ht. B&B
PO	Picea orientalis	Oriental Spruce	10-12' ht. B&B
TP	Thuja plicata 'Green Giant'	Green Giant Arborvitae	10-12' ht. B&B

SHRUBS			
AE	Aesculus parviflora	Bottlebrush Buckeye	5-6' ht. B&B
AAB	Aronia arbutifolia 'Brilliantissima'	Red Chokeberry	#7 cont.
CL	Clethra alnifolia	Summersweet	3-4' ht. B&B
CP	Comptonia peregrina	Sweetfern	#3 cont.
FMA	Fothergilla x intermedia 'Mount Airy'	Mount Airy Fothergilla	3-4' ht. B&B
HPE	Hydrangea anomala petiolaris	Climbing Hydrangea	#3 cont.
HAA	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	#5 cont.
HLL	Hydrangea paniculata 'Little Lime'	Little Lime Hydrangea	3-5-4' ht. B&B
HQA	Hydrangea quercifolia 'Alice'	Alice Oakleaf Hydrangea	3-3.5' ht. B&B
HQP	Hydrangea quercifolia 'Pee Wee'	Pee Wee Oakleaf Hydrangea	2-2.5' ht. B&B
HS	Hydrangea serrata 'Bluebird'	Bluebird Lacecap Hydrangea	#5 cont.
IGS	Ilex glabra 'Shamrock'	Dwarf Inkberry	3.5-4' ht. B&B
IVR	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	2-3' ht. B&B
IVS	Ilex verticillata 'Southern Gentleman'	Southern Gentleman Winterberry	#2 cont.
LB	Lindera benzoin	Spicebush	3-4' ht. B&B
MG	Myrica gale	Sweetgale	#3 cont.
MP	Myrica pennsylvanica	Northern Bayberry	3-3.5' ht. B&B
PM	Prunus maritima	Beach Plum	3-4' ht. B&B
RCW	Rhododendron 'Cunningham's White'	Cunningham's White Rhododendron	2.5-3' ht. B&B
RCA	Rhododendron catawbiense 'Album'	White Catawba Rhododendron	3-4' ht. B&B
RM	Rhododendron maximum	Rosebay Rhododendron	5-6' ht. B&B
WR	Viburnum nudum 'Winterthur'	Winterthur Viburnum	4-5' ht. B&B

PERENNIALS			
ARA	Actaea racemosa	Snakeroot	#1 cont.
AMO	Alchemilla mollis	Lady's Mantle	#1 cont.
ADL	Astilbe 'Delft Lace'	Delft Lace Astilbe	#1 cont.
ABV	Astilbe 'Bridal Veil'	Bidal Veil Astilbe	#1 cont.
CPN	Carex pensylvanica	Oak Sedge	#1 cont.
DPU	Dennstaedia punctiloba	Hay-Scented Fern	#1 cont.
GRZ	Geranium 'Rozanne'	Rozanne Cranesbill	#1 cont.
LIP	Lavandula intermedia 'Phenomenal'	Phenomenal Lavender	#1 cont.
MST	Matteuccia struthiopteris	Ostrich Fern	#1 cont.
NWL	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	#1 cont.
PLF	Paeonia lactiflora 'Festiva Maxima'	Festiva Maxima Peony	#2 cont.
PLS	Paeonia lactiflora 'Sarah Bernhardt'	Sarah Bernhardt Peony	#2 cont.
PAH	Pennisetum alopecuroides 'Hamel'	Dwarf Fountain Grass	#2 cont.
PAT	Perovskia atriplicifolia	Russian Sage	#2 cont.
SSC	Schizachyrium scoparium 'Carousel'	Carousel Little Bluestem	#2 cont.
SH	Sporobolus heterolepis	Prairie Dropseed	#2 cont.

RESTORATION PLANT LIST

SHRUBS	
Scientific Name	Common Name
Rosa virginiana	Virginia Rose
Prunus maritima	Beach Plum
Ilex glabra	Inkberry
Myrica pennsylvanica	Bayberry
Viburnum dentatum	Arrowwood Viburnum
Comptonia peregrina	Sweetfern
Arctostaphylos uva-ursi	Bearberry

GRASSES (SEED)	
Scientific Name	Common Name
Panicum amarum	Atlantic Coastal Panic Grass
Panicum virgatum	Switch Grass
Eragrostis spectabilis	Purple Love Grass
Juncus gerardii	Salt Meadow Rush
Sporobolus heterolepis	Prairie Dropseed
Ammophila breviflora	American Beachgrass
Bouteloua gracilis	Blue Gramma
Schizachyrium scoparium	Little Bluestem
Festuca rubra	Red Fescue

PLUGS AND CONTAINERS	
Scientific Name	Common Name
Amorpha canescens	Lead Plant
Amsonia Spp.	Blue Star
Aquilegia canadensis	Eastern Columbine
Asclepias tuberosa	Butterfly Milkweed
Baptisia australis	Blue False Indigo
Eurybia spectabilis	Eastern Showy Aster
Heuchera americana	American Alumroot
Liatris aspera	Button Blazing Star
Penstemon digitalis	Bear-Tongue
Solidago sempervirens	Seaside Goldenrod
Waldsteinia fragarioides	Barren Strawberry

NOTES:

- LANDSCAPE ARCHITECT TO SUBSTITUTE PLANTS WITH PLANT OF COMPARABLE SIZE AND SPECIES AT TIME OF INSTALLATION.
- RESTORATION PLANT PALETTE IS NOT FINALIZED BUT WILL ONLY INCLUDE PLANTS FROM THIS LIST. ALL PLANTS LISTED ARE NATIVE.



Morris Residence

60 Pleasant Point Drive
Portsmouth, NH

General Notes:

- Existing conditions and topographic data are from a site plan of land dated 8 February 2021; prepared by Atlas Engineering, INC., 133 Court Street, Portsmouth, NH 03801 - Tel: (603) 433.2335
- Existing conditions supplemented from data collected by Matthew Cunningham Landscape Design LLC, 411 Main Street, Stoneham, MA 02108 / 366 Fore Street, Portland, ME 04101 - Tel: (617) 905.2246

Planting Notes:

- The contractor shall supply all plant material in quantities sufficient to complete the planting shown on all drawings.
- All plant material shall conform to the guidelines established by "The American Standard for Nursery Stock" published by The American Association of Nurserymen, latest edition.
- All plant material shall be warranted for 1 year after substantial completion.
- All plants shall be balled and burlap unless otherwise noted on the plant list/ schedule.
- All plants shall be approved by Landscape Designer prior to their installation at the site.
- Contractor shall stake all plant locations in the field. Obtain approval of Landscape Designer before starting plant installations.
- Plants to be transplanted shall be flagged and exact planting locations staked in the field.
- All areas disturbed by construction shall be restored to a pre-construction state unless otherwise noted by landscape architect or plans.

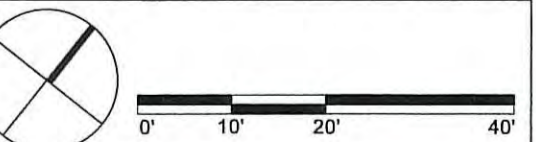
MATTHEW
CUNNINGHAM
LANDSCAPE
DESIGN LLC
matthew-cunningham.com

411 Main Street, Stoneham, MA 02180
366 Fore Street, Portland, ME 04101
617.905.2246 p | 617.321.4014 f

REVISIONS:

#:	DATE:	DESCRIPTION:

SCALE: 1"= 20'-0" DATE: 25 October 2023



SHEET TITLE:

Planting Plan

SHEET NUMBER:

L0.2

NOT FOR CONSTRUCTION

General Notes:

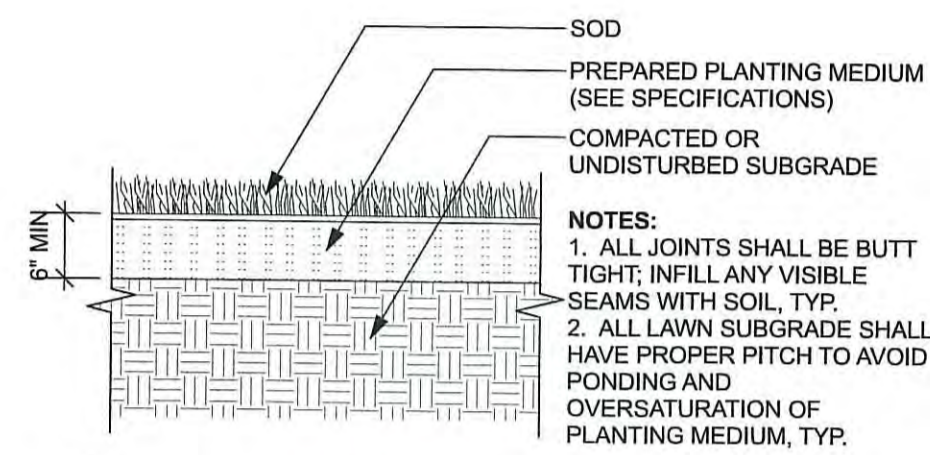
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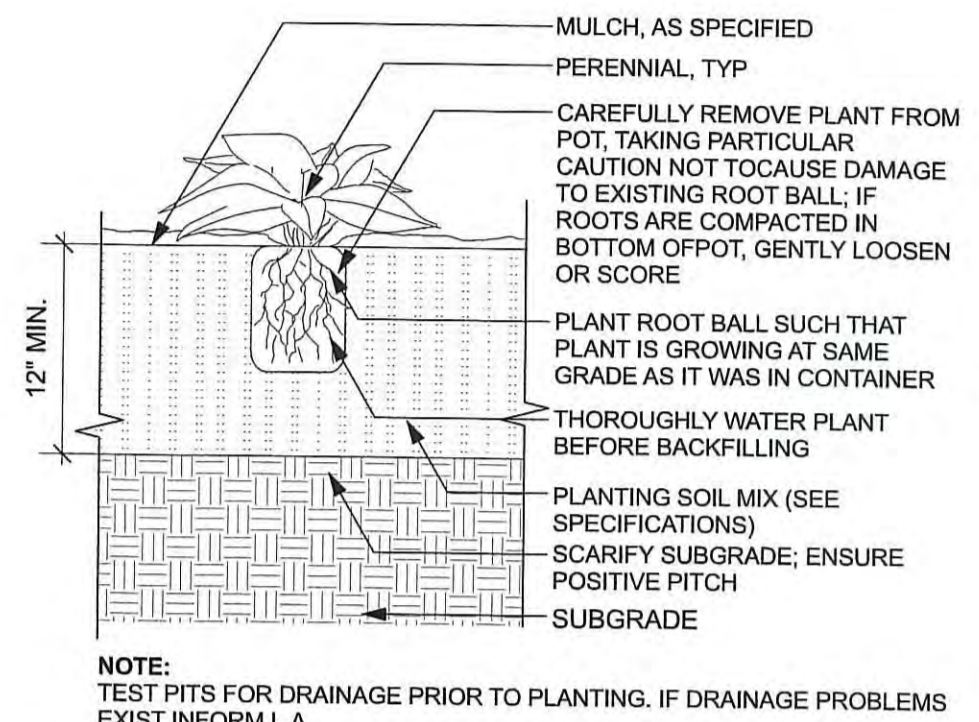
SODCO MICRO CLOVER BLEND	
%	PRODUCT
97.00%	BLACK BEAUTY TURF **
3.00%	WHITE CLOVER
**SEE BLACK BEAUTY TURF BELOW	

** BLACK BEAUTY TURF	
%	PRODUCT
29.72%	GOLCONDA TALL FESCUE
19.88%	MONTANA TALL FESCUE
19.74%	DORADO TALL FESCUE
11.72%	DEEPBLUE KENTUCKY BLUEGRASS
7.91%	PROSPERITY KENTUCKY BLUEGRASS
4.97%	FRONTIER PERENNIAL RYEGRASS
4.92%	SINGULAR PERENNIAL RYEGRASS
1.14%	INERT MATTER



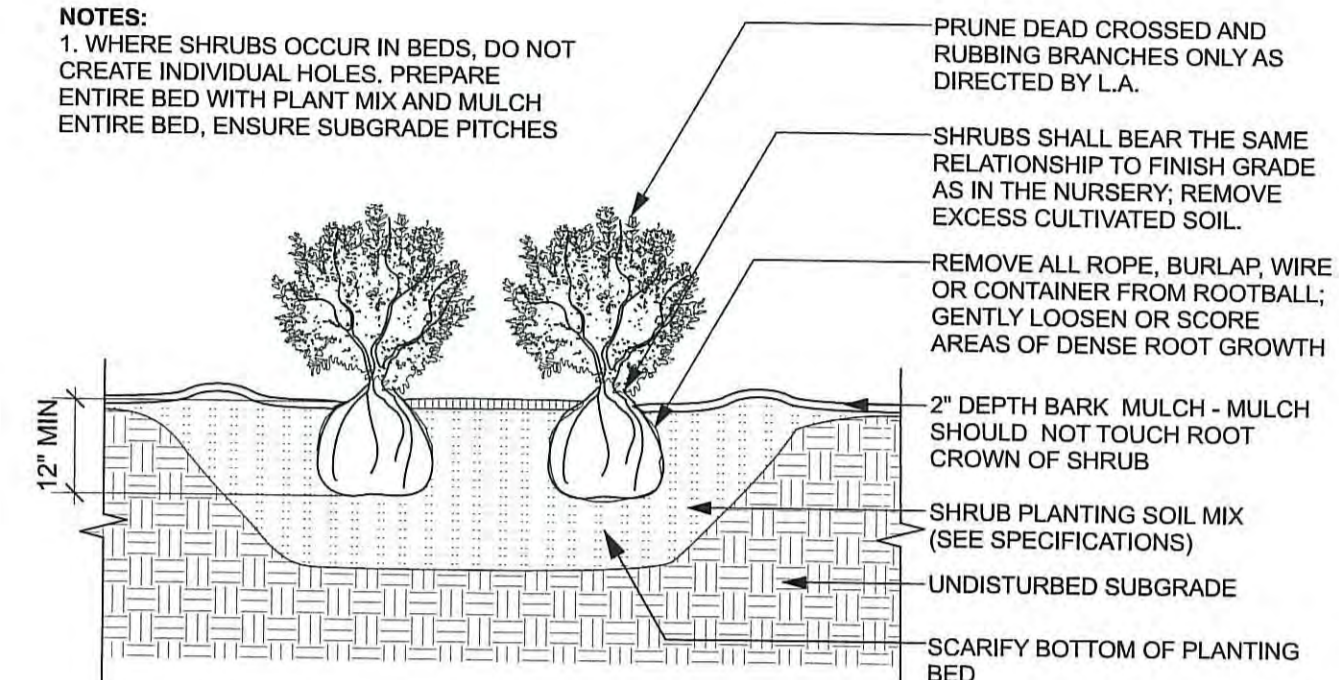
- NOTES:
- ALL JOINTS SHALL BE BUTT TIGHT; INFILL ANY VISIBLE SEAMS WITH SOIL, TYP.
 - ALL LAWN SUBGRADE SHALL HAVE PROPER PITCH TO AVOID PONDING AND OVERSATURATION OF PLANTING MEDIUM, TYP.

1 MICRO CLOVER SOD
Scale: NTS



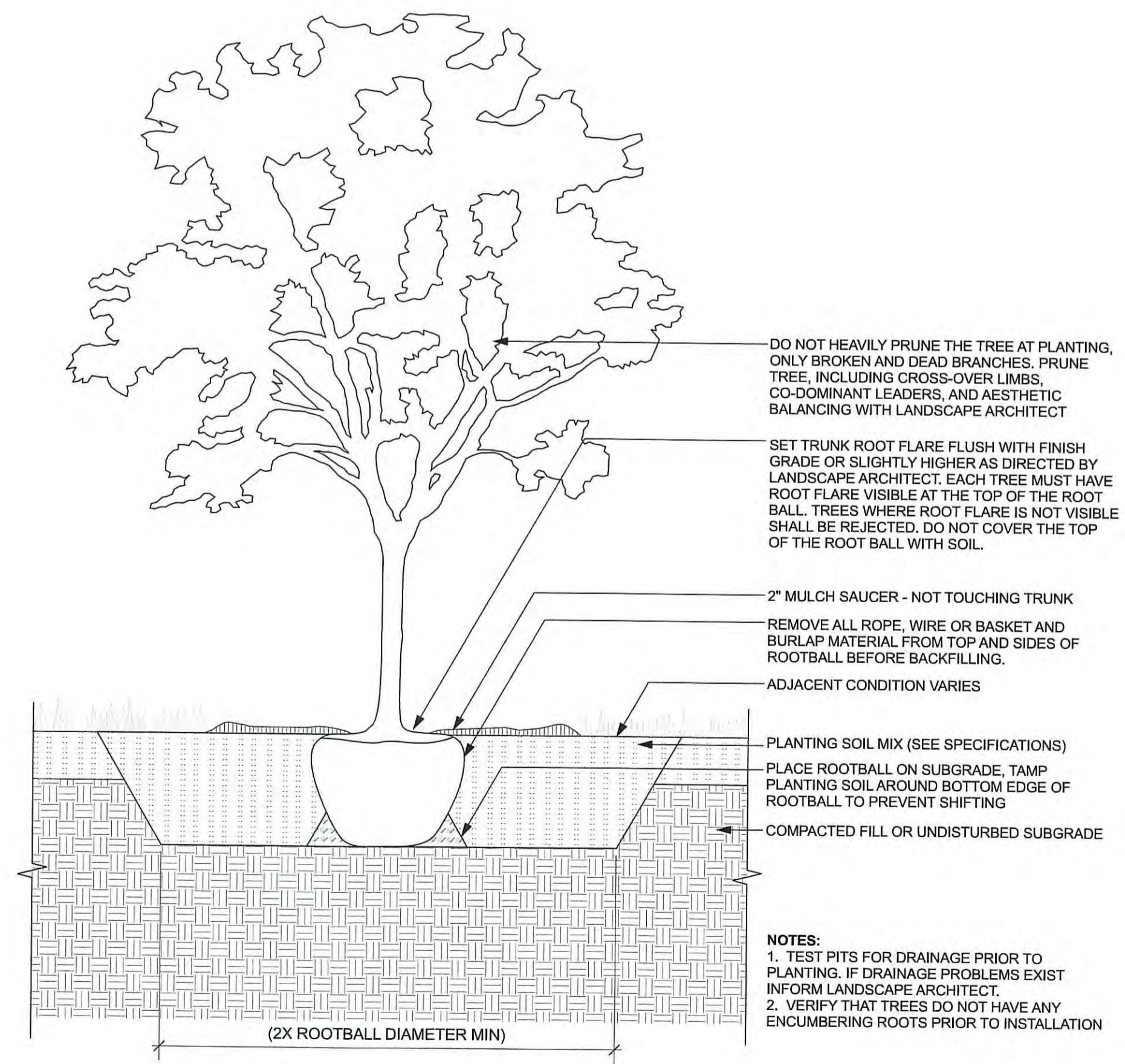
- NOTE:
- TEST PITS FOR DRAINAGE PRIOR TO PLANTING. IF DRAINAGE PROBLEMS EXIST INFORM L.A.

3 PERENNIAL PLANTING
Scale: NTS



- NOTES:
- WHERE SHRUBS OCCUR IN BEDS, DO NOT CREATE INDIVIDUAL HOLES. PREPARE ENTIRE BED WITH PLANT MIX AND MULCH ENTIRE BED, ENSURE SUBGRADE PITCHES
 - SHRUBS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS IN THE NURSERY; REMOVE EXCESS CULTIVATED SOIL.
 - REMOVE ALL ROPE, BURLAP, WIRE OR CONTAINER FROM ROOTBALL; GENTLY LOOSEN OR SCORE AREAS OF DENSE ROOT GROWTH

4 SHRUB PLANTING
Scale: NTS



- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. ONLY BROKEN AND DEAD BRANCHES, PRUNE TREE, INCLUDING CROSS-OVER LIMBS, CO-DOMINANT LEADERS, AND AESTHETIC BALANCING WITH LANDSCAPE ARCHITECT

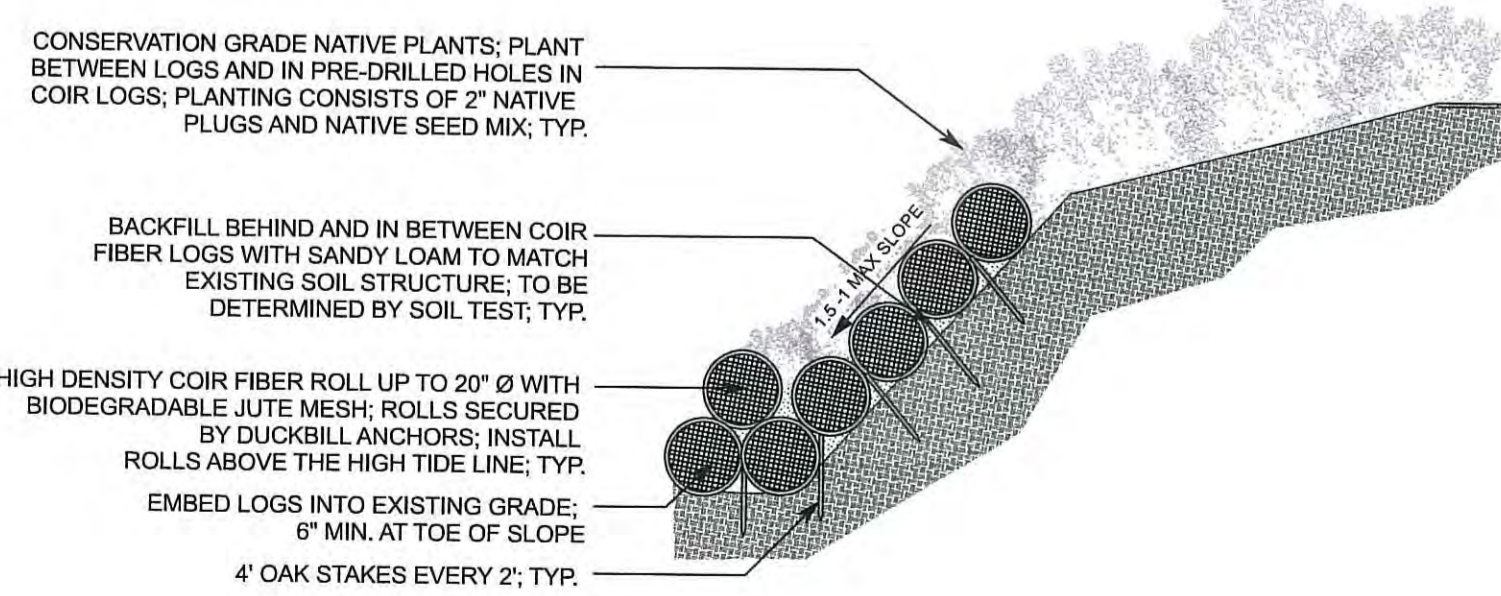
- SET TRUNK ROOT FLARE FLUSH WITH FINISH GRADE OR SLIGHTLY HIGHER AS DIRECTED BY LANDSCAPE ARCHITECT. EACH TREE MUST HAVE ROOT FLARE VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE ROOT FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.

- 2" MULCH SAUCER - NOT TOUCHING TRUNK
REMOVE ALL ROPE, WIRE OR BASKET AND BURLAP MATERIAL FROM TOP AND SIDES OF ROOTBALL BEFORE BACKFILLING.
ADJACENT CONDITION VARIES

- PLANTING SOIL MIX (SEE SPECIFICATIONS)
PLACE ROOTBALL ON SUBGRADE, TAMP PLANTING SOIL AROUND BOTTOM EDGE OF ROOTBALL TO PREVENT SHIFTING
COMPACTED FILL OR UNDISTURBED SUBGRADE

- NOTES:
- TEST PITS FOR DRAINAGE PRIOR TO PLANTING. IF DRAINAGE PROBLEMS EXIST INFORM LANDSCAPE ARCHITECT.
 - VERIFY THAT TREES DO NOT HAVE ANY ENCUMBERING ROOTS PRIOR TO INSTALLATION

5 TREE PLANTING
Scale: NTS



- CONSERVATION GRADE NATIVE PLANTS; PLANT BETWEEN LOGS AND IN PRE-DRILLED HOLES IN COIR LOGS; PLANTING CONSISTS OF 2" NATIVE PLUGS AND NATIVE SEED MIX, TYP.
- BACKFILL BEHIND AND IN BETWEEN COIR FIBER LOGS WITH SANDY LOAM TO MATCH EXISTING SOIL STRUCTURE; TO BE DETERMINED BY SOIL TEST, TYP.
- HIGH DENSITY COIR FIBER ROLL UP TO 20" Ø WITH BIODEGRADABLE JUTE MESH; ROLLS SECURED BY DUCKBILL ANCHORS; INSTALL ROLLS ABOVE THE HIGH TIDE LINE, TYP.
- EMBE LOGS INTO EXISTING GRADE; 6" MIN. AT TOE OF SLOPE
- 4" OAK STAKES EVERY 2'; TYP.

6 Coir Fiber Rolls on Coastal Bank Edge
Scale: NTS

- NOTES:
- COASTAL BANK TO BE PREPARED IN ADVANCE BY MANAGING INVASIVE PLANT SPECIES AND CLEARING ANY DEBRIS SO THAT COIR LOGS WILL COME IN DIRECT CONTACT WITH SOILS; SEE LAND MANAGEMENT PLAN FOR DETAILS ON METHOD OF EXISTING INVASIVE SPECIES REMOVAL
 - LINEAR FOOTAGE OF COIR FIBER ROLLS TO BE VERIFIED IN THE FIELD
 - LIMIT OF WORK IS INTENDED TO BE LANDWARD OF THE HOTEL

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CUNNINGHAM
LANDSCAPE
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411 Main Street, Stoneham, MA 02180
366 Fore Street, Portland, ME 04101
617.905.2246 p | 617.321.4014 f

REVISIONS:

#	DATE	DESCRIPTION

SCALE: AS SHOWN DATE: 25 October 2023

SHEET TITLE:
Planting Details

SHEET NUMBER:
L0.3
NOT FOR CONSTRUCTION



NOT FOR CONSTRUCTION

ISSUED FOR: **NHDES APPROVAL**

ISSUE DATE: **NOVEMBER 28, 2023**

REVISIONS NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EDW	11/28/23

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5138SITE-8-30-2023

SCALE:
(22"x34") 1" = 20'
(11"x17") 1" = 40'

OWNER:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

APPLICANT:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
TAX MAP 207, LOT 13
60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

TITLE:
NHDES WETLANDS & SHORELAND PERMIT APPLICATION PLAN

SHEET NUMBER:
1 OF 1

EXISTING CONDITIONS NOTES (SHORELAND & WETLAND APPLICATIONS)

- DESIGN INTENT - THIS PLAN IS INTENDED TO DEPICT THE AREAS OF IMPACT WITHIN THE WETLAND & SHORELAND BUFFERS TO REMOVE EXISTING OUTDATED HOUSE; CONSTRUCT NEW RESIDENCE, CONSTRUCT NEW PATIOS, POOL AND DRIVEWAY CONNECTION ALONG WITH NEW UNDERGROUND UTILITIES & EXTENSIVE LANDSCAPING.
- THE BASE PLAN USED HERE WAS DEVELOPED FROM "EXISTING CONDITIONS PLAN FOR PROPERTY AT 60 PLEASANT POINT DRIVE, PORTSMOUTH, N.H.", DATED FEBRUARY 4, 2021, BY EASTERLY SURVEYING, INC.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF NEW CASTLE & NHDOT'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER & SURVEYOR.
- WETLANDS WERE DELINEATED BY JOSEPH W. NOEL, CERTIFIED WETLAND SCIENTIST #086 ON DECEMBER 11, 2020.
- EXISTING IMPERVIOUS AREAS WITHIN THE 250' SHORELAND BUFFER ARE AS FOLLOWS: EX. RESIDENCE/DECK (2970 SF) + EX. PAVED DRIVE (5100 SF) + STONE WALKS/WALLS (224 SF) + POOL/PATIO (1,630 SF) + EX. STAIRS (50 SF) + CONCRETE PADS (290 SF) + EX. DOCK (160 SF) = 10,424 SF TOTAL (±22.3% OF THE PARCEL)
- PROPOSED IMPERVIOUS AREAS WITHIN THE 250' SHORELAND BUFFER ARE AS FOLLOWS: PROP. HOUSE/DECK (4,740 SF) + PROP. CABANA (360 SF) + PROP. PAVED DRIVE (2570 SF) + PROP. STEPS (465 SF) + PROP. PATIOS (555 SF) + PROP. POOL (800 SF) + PROP. WALLS (405 SF) + HVAC & EM. GENERATOR CONC. PADS & MISC. (78 SF) + STAIRS (85 SF) + DOCK (160 SF) = 10,218 SF TOTAL (±21.8% OF THE PARCEL)

NHDES VEGETATION MANAGEMENT SUMMARY

TAX MAP 207, LOT 13
OWNER: 120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

ZONING DISTRICT: SRB (SINGLE RESIDENCE B)

PERMITTED USES: SINGLE FAMILY DWELLING STRUCTURE PERMITTED.

DIMENSIONAL REQUIREMENTS:

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	15,000 S.F.	±46,840 SF (1.08 AC.)	±46,840 SF
MIN. FRONTAGE:	100'	±57'	±57'
MIN. DEPTH:	100'	±150'	±150'
FRONT SETBACK:	30'	±136'	±93'
SIDE SETBACK:	10'	±51'	±33'
REAR SETBACK:	30'	±31'	±67'
WETLAND BUFFER:	100'	±80' (RESIDENCE)	100'+(RES.)
NO-CUT BUFFER:	25'	0' (LAWN)	0'

WATERFRONT BUFFER (0 - 100'):	TOTAL AREA
EXISTING GROUND COVER, TREES, SHRUBS	34,527 SF
PROPOSED GROUND COVER, TREES, SHRUBS	6,575 SF
	11,000 SF - SEE LANDSCAPE PLAN

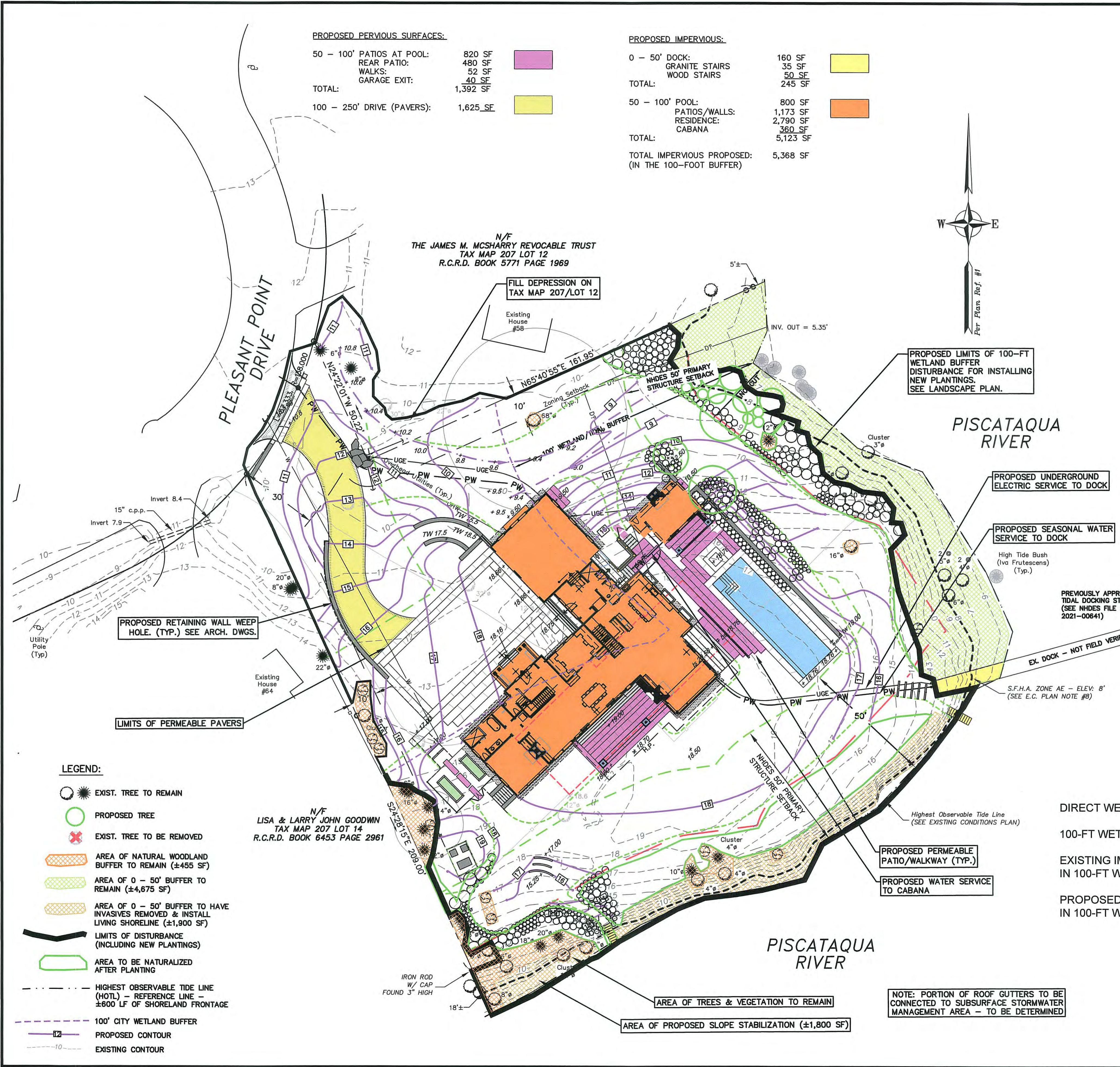
WOODLAND BUFFER REQUIREMENTS (50 - 150'):	NATURAL WOODLAND (25% MIN.)
EXISTING GROUND COVER, TREES, SHRUBS	5,770 SF (TOTAL AREA 23,078 SF X 25%)
PROPOSED GROUND COVER, TREES, SHRUBS	455 SF OR 2.0%
	4,260 SF OR 18.5%



CONSERVATION COMMISSION RECOMMENDATIONS:

- IN ACCORDANCE WITH SECTION 10.1018.40 OF THE ZONING ORDINANCE, APPLICANT SHALL INSTALL PERMANENT WETLAND BOUNDARY MARKERS ALONG THE 25' VEGETATIVE BUFFER DURING PROJECT CONSTRUCTION. THESE CAN BE PURCHASED THROUGH THE CITY OF PORTSMOUTH PLANNING AND SUSTAINABILITY DEPARTMENT.
- APPLICANT SHALL PROVIDE MONTHLY INVASIVE MANAGEMENT AND PLANTING UPDATES TO THE PLANNING AND SUSTAINABILITY DEPARTMENT ONCE REMOVAL BEGINS AND UNTIL THE END OF THE RESTORATION PROCESS (SEE MANAGEMENT CALENDAR FOR TREATMENT AND PLANTING). THESE UPDATES SHALL BE A REPORT SUMMARIZING THE ACTIVITIES PERFORMED, THE SUCCESS RATES, ANY PROPOSED PLAN CHANGES, AND ANY UPCOMING ACTIVITIES INVOLVING THE 25' VEGETATIVE BUFFER ON SITE. IF PLANTS HAVE NOT ACHIEVED AN 80% SUCCESS RATE OR GREATER AFTER ONE YEAR, APPLICANTS WILL REPLANT AND REPORT BACK TO THE PLANNING AND SUSTAINABILITY DEPARTMENT ONE YEAR AFTER PLANTING IS COMPLETE AND EACH SUBSEQUENT YEAR UNTIL AN 80% PLANTING SUCCESS RATE HAS BEEN ACHIEVED.

PROPOSED LIMITS OF 100-FT WETLAND BUFFER DISTURBANCE FOR INSTALLING NEW PLANTINGS. SEE LANDSCAPE PLAN.



PROPOSED PERVIOUS SURFACES:

50 - 100' PATIOS AT POOL:	820 SF
REAR PATIO:	480 SF
WALKS:	52 SF
GARAGE EXIT:	40 SF
TOTAL:	1,392 SF
100 - 250' DRIVE (PAVERS):	1,625 SF

PROPOSED IMPERVIOUS:

0 - 50' DOCK:	160 SF
GRANITE STAIRS:	35 SF
WOOD STAIRS:	50 SF
TOTAL:	245 SF
50 - 100' POOL:	800 SF
PATIOS/WALLS:	1,173 SF
RESIDENCE:	2,790 SF
CABANA:	360 SF
TOTAL:	5,123 SF
TOTAL IMPERVIOUS PROPOSED:	5,368 SF

(IN THE 100-FOOT BUFFER)

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN _____ DATE _____

CONDITIONAL USE PERMIT NOTES

- ZONING SECTION 10.1016 - CONDITIONAL USE PERMIT REQUIRED FOR EARTH DISTURBANCE IN THE 100' CITY WETLAND BUFFER.
- PROJECT PARCEL: MAP 207 LOT 13, 46,840 S.F.± (1.08 ACRES±) TO HIGHEST OBSERVABLE TIDE LINE (HOTL).
- WETLAND AREA ON LOT: 0 S.F. (0 ACRES)
- 100' WETLAND BUFFER ANALYSIS (EXISTING CONDITIONS):
LAWN/LANDSCAPING: ±22,553 S.F.
BRUSH/TREES: ± 6,575 S.F.
IMPERVIOUS: ± 5,399 S.F.
TOTAL BUFFER: ±34,527 S.F. (±0.79 ACRES)
- 100' WETLAND BUFFER ANALYSIS (PROPOSED CONDITIONS):
LAWN/LANDSCAPING: ±16,662 S.F.
BRUSH/TREES: ±11,105 S.F.
PERVIOUS SURFACES: ±1,392 S.F.
IMPERVIOUS: ±5,368 S.F.
TOTAL BUFFER: ±34,527 S.F. (±0.79 ACRES)
- AREA OF 100' WETLAND BUFFER IMPACT:
ON-SITE: ±31,300 S.F.
OFF-SITE: ± 20 S.F. (REPLACE PORTION OF STEPS BELOW HOTL)
TOTAL: ±31,320 S.F. (±0.56 ACRES)
- AREA OF TREE/BRUSH REMOVAL IN 100' WETLAND BUFFER:
0-25': ± 0 S.F.
25'-50': ± 0 S.F.
50'-100': ±40 S.F. (REMOVE 1 TREE)
TOTAL: ±40 S.F. (DOES NOT INCLUDE INVASIVES)
- EXISTING IMPERVIOUS SURFACES IN 50-FOOT BUFFER: 868 S.F.
PROPOSED IMPERVIOUS SURFACES IN 50-FOOT BUFFER: 245 S.F.
- PROPOSED WETLAND IMPACT: 20 S.F. (REPLACE STAIRS)
- WETLANDS (HOTL) WERE DELINEATED BY JOSEPH W. NOEL, NH CERTIFIED WETLANDS SCIENTIST #086, ON DECEMBER 11, 2020.
- CONSTRUCTION ACTIVITIES SHALL BE MANAGED IN STRICT ACCORDANCE WITH NH RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. NO INVASIVE SPECIES SHALL BE INSTALLED ON THE PROJECT SITE FOR ANY REASON.
- AREAS WHERE EXISTING INVASIVE SPECIES ARE TO BE REMOVED & ROOTS TREATED ARE NOT INCLUDED IN AREAS OF DISTURBANCE BECAUSE THERE IS NO DISTURBANCE TO THE EXISTING GRADES.

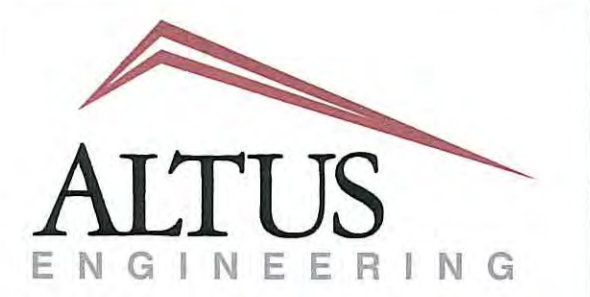
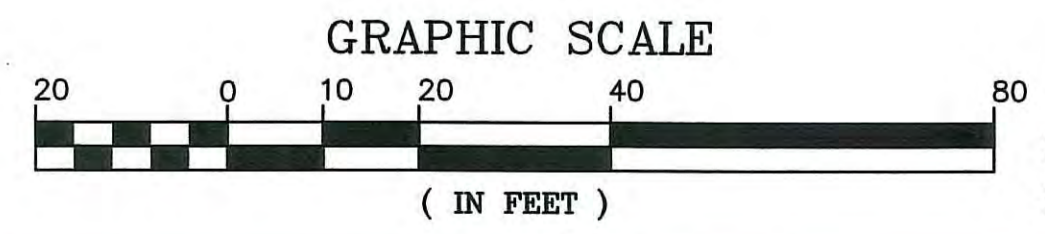
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- IN ACCORDANCE WITH SECTION 10.1018.40 OF THE ZONING ORDINANCE, APPLICANT SHALL INSTALL PERMANENT WETLAND BOUNDARY MARKERS ALONG THE 25' VEGETATIVE BUFFER DURING PROJECT CONSTRUCTION. THESE CAN BE PURCHASED THROUGH THE CITY OF PORTSMOUTH PLANNING AND SUSTAINABILITY DEPARTMENT.
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WETLANDS IMPACT TABLE

DIRECT WETLANDS IMPACTS	= 20 SF (REPLACE STEPS)
100-FT WETLANDS BUFFER IMPACTS	= 31,300 SF
EXISTING IMPERVIOUS AREA IN 100-FT WETLANDS BUFFER	= 5,399 SF
PROPOSED IMPERVIOUS AREA IN 100-FT WETLANDS BUFFER	= 5,368 SF

- LEGEND:**
- EXIST. TREE TO REMAIN
 - PROPOSED TREE
 - EXIST. TREE TO BE REMOVED
 - AREA OF NATURAL WOODLAND BUFFER TO REMAIN (±455 SF)
 - AREA OF 0 - 50' BUFFER TO REMAIN (±4,675 SF)
 - AREA OF 0 - 50' BUFFER TO HAVE INVASIVES REMOVED & INSTALL LIVING SHORELINE (±1,900 SF)
 - LIMITS OF DISTURBANCE (INCLUDING NEW PLANTINGS)
 - AREA TO BE NATURALIZED AFTER PLANTING
 - HIGHEST OBSERVABLE TIDE LINE (HOTL) - REFERENCE LINE - ±600 LF OF SHORELAND FRONTAGE
 - 100' CITY WETLAND BUFFER
 - PROPOSED CONTOUR
 - EXISTING CONTOUR



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR:
CONSERVATION COMM. REVIEW
ISSUE DATE:
NOVEMBER 28, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	10/27/23
1	ADD CON. COMM. REC.	EDW	11/28/23

DRAWN BY: _____ RLH
APPROVED BY: _____ EDW
DRAWING FILE: 5138SITE.dwg

SCALE:
(22"x34") 1" = 20'
(11"x17") 1" = 40'

OWNER:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

APPLICANT:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

PROJECT:
JOHN & MICHELLE MORRIS RESIDENCE
TAX MAP 207, LOT 13
60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

CONDITIONAL USE PERMIT PLAN

SHEET NUMBER:
1 OF 1

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

60 PLEASANT POINT DRIVE
PORTSMOUTH, NEW HAMPSHIRE
TAX MAP 207 LOT 13

LATITUDE: 43.06883° N
LONGITUDE: -70.74364° W

OWNER/APPLICANT:
120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

DESCRIPTION

The project consists of the redevelopment of a single-family residence and associated site improvements.

DISTURBED AREA

The total area to be disturbed for the development is ±45,700 S.F. (±1.05 acres).

PROJECT PHASING

The project will be completed in one phase.

NAME OF RECEIVING WATER

The site drains to Piscataqua River.

SEQUENCE OF MAJOR ACTIVITIES

1. Install temporary erosion control measures including perimeter controls, stabilized construction entrance and inlet sediment filters as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Delineate limits of disturbance.
3. Remove designated trees, stumps and brush, strip loam and stockpile.
4. Demolish existing site features, building, utilities, pavement, etc. as shown on Demolition Plan.
5. Blast, hammer and remove ledge.
6. Construct building foundations.
7. Rough grade site including placement of borrow materials.
8. Construct new buildings and associated improvements.
9. Construct drainage structures, culverts, utilities & pavement base course materials.
10. Install paving and sidewalks.
11. Loom (6" min.) and seed on all disturbed areas not paved or otherwise stabilized.
12. Install landscaping.
13. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 - 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, perimeter controls shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area and permanent measures are established, perimeter controls shall be removed.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through appropriate perimeter controls. All storm drain inlets shall be provided with inlet protection measures.

BEST MANAGEMENT PRACTICES FOR BLASTING

REFERENCE: NHDES WD-19-05

PURPOSE: ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDLING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

LOADING PRACTICES: THE FOLLOWING BASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:

- (a) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
- (b) EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
- (c) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
- (d) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
- (e) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
- (f) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.

EXPLOSIVE SELECTION: THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:

- (a) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
- (b) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.

PREVENTION OF MISFIRES: APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.

MUCK PILE MANAGEMENT: MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:

- (a) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
- (b) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are general inspection and maintenance practices that shall be used to implement the plan:

1. The smallest practical portion of the site shall be denuded at one time.
2. All control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater.
3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
4. Built-up sediment shall be removed from perimeter barriers when it has reached one-third the height of the barrier or when "bulges" occur.
5. All diversion dikes shall be inspected and any breaches promptly repaired.
6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
7. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
8. An area shall be considered stable if one of the following has occurred:
 - a. Base coarse gravels have been installed in areas to be paved;
 - b. A minimum of 85% vegetated growth has been established;
 - c. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed; - or -
 - d. Erosion control blankets have been properly installed.
9. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

1. Timing - In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards which shall be used to assure this:
 - a. Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.
 - b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.
2. Guidelines for Winter Mulch Application -

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.

Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrubs.
Jute and Fibrous Matting (Erosion Blanket)	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	<ul style="list-style-type: none"> * The organic matter content is between 80 and 100% dry weight basis. * Particle size by weight is 100% passing a 6" screen and a minimum of 70 % maximum of 85%, passing a 0.75" screen. * The organic portion needs to be fibrous and elongated. * Large portions of silts, clays or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.

3. Maintenance - All mulches must be inspected periodically, in particular after rainstorms, to check for fill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.

C. PERMANENT SEEDING -

1. Bedding - stones larger than 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.
2. Fertilizer - lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and organic fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:
 - Agricultural Limestone @ 100 lbs. per 1,000 s.f.
 - 10-20-20 organic fertilizer @ 12 lbs. per 1,000 s.f.

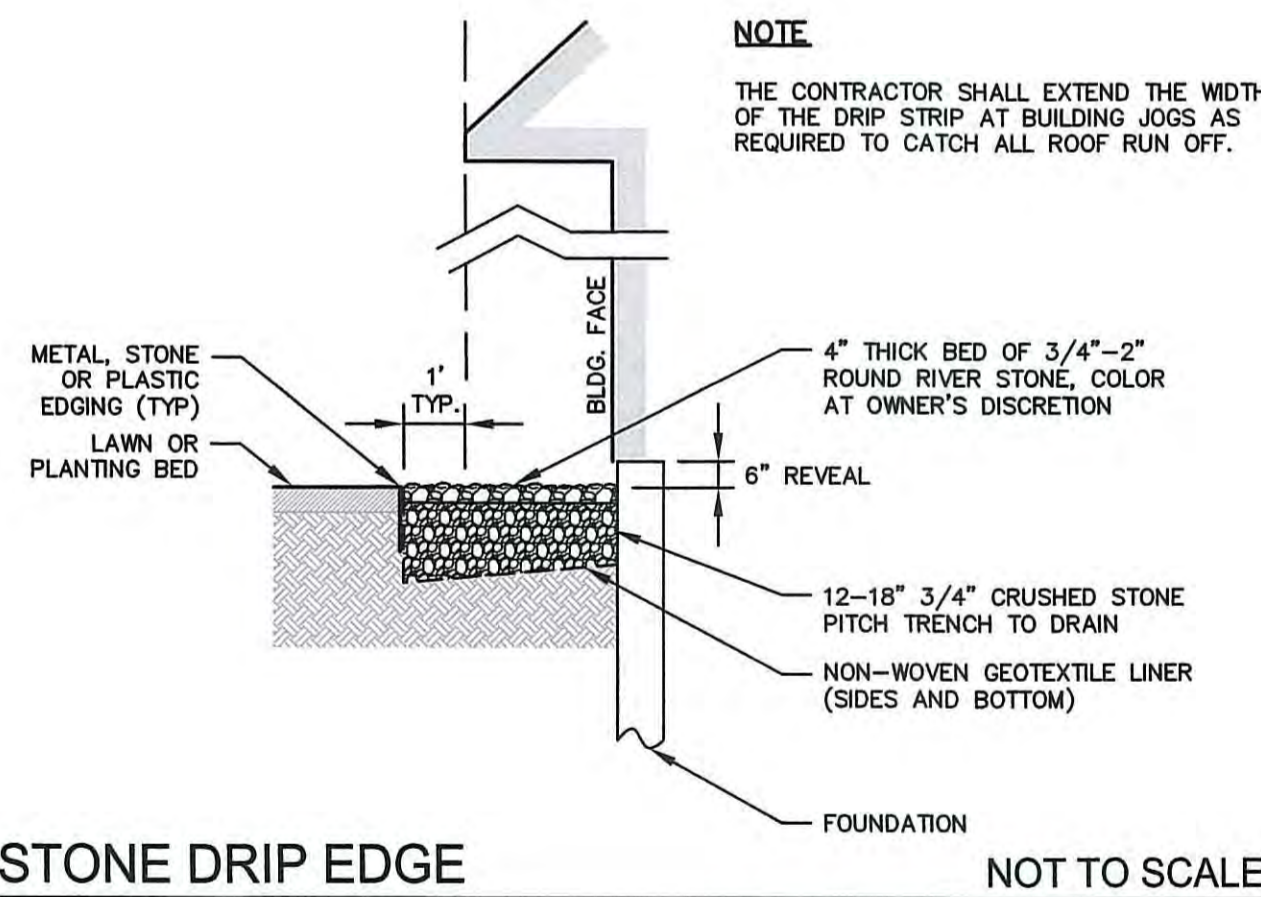
3. Seed Mixture (for lawns**): SEE LANDSCAPE ARCHITECT'S PLANS & DETAILS.

WINTER CONSTRUCTION NOTES

1. 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 elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. 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;
2. 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; and
3. 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.

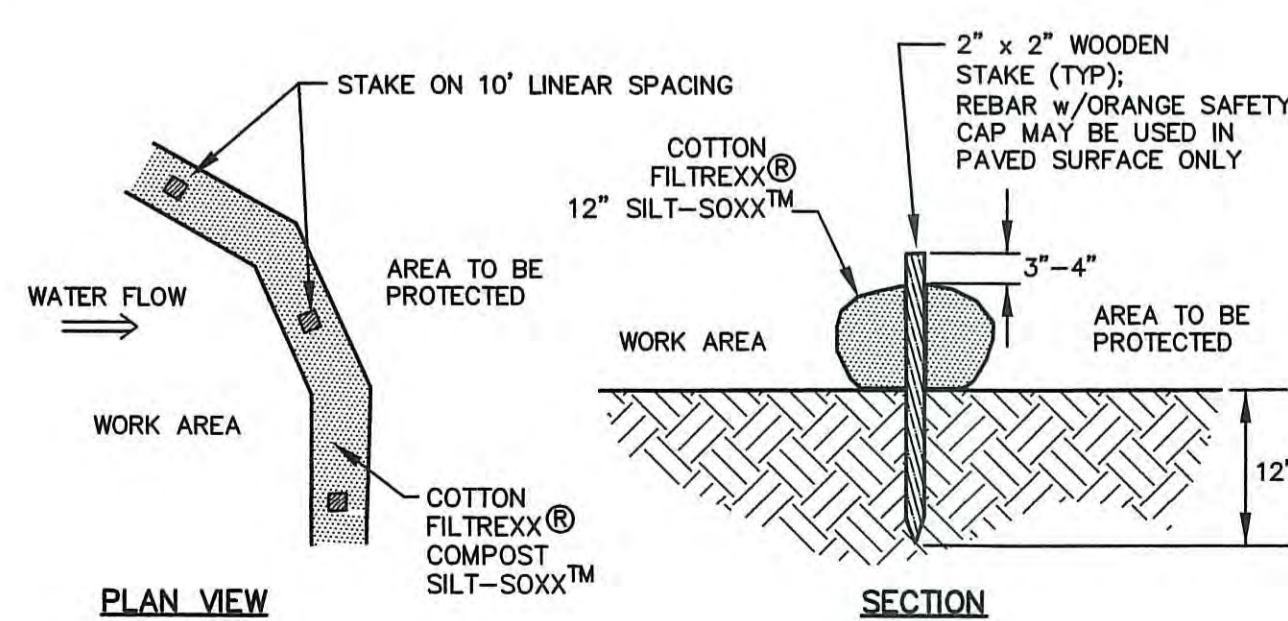
SPILL PREVENTION MEASURES AND SPILL MITIGATION: SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:

- (a) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
 4. INSPECT STORAGE AREAS WEEKLY.
 5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
 7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
- (b) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
 2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
 3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
 4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
 5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
- (c) THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
- (d) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF NHDES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWBG-22-6: "BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT].



STONE DRIP EDGE

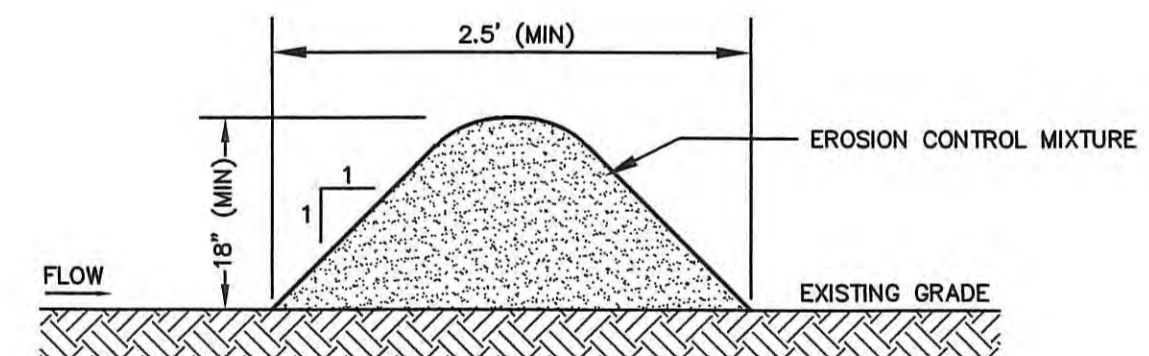
NOT TO SCALE



TUBULAR SEDIMENT BARRIER

NOT TO SCALE

- NOTES:**
1. SILT-SOCK MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
 2. ALL SOCK MATERIAL TO BE COTTON AND MEET FILTER SOCK SPECIFICATIONS.
 3. SILT-SOCK COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
 4. ALL SEDIMENT TRAPPED BY SILT-SOCK SHALL BE DISPOSED OF PROPERLY.

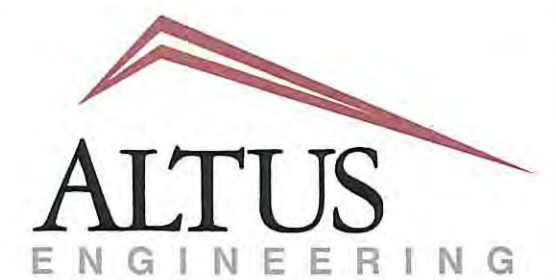


NOTES

1. ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
2. THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
 - a) THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
 - b) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
 - c) THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
 - d) LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
 - e) SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
 - f) THE pH SHALL BE BETWEEN 5.0 AND 8.0.
3. ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
4. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
5. FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
7. ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.
8. FILTER BERMS ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILTFENCE.

ORGANIC FILTER BERM

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ISSUED FOR:

NHDES APPROVAL

ISSUE DATE:

NOVEMBER 28, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	10/27/23
1	NHDES SUBMISSION	EDW	11/28/23

DRAWN BY: _____ RLH

APPROVED BY: _____ EDW

DRAWING FILE: 5138SITE.dwg

SCALE:

(22"x34") NOT TO SCALE
(11"x17") NOT TO SCALE

OWNER:

120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

APPLICANT:

120-0 WILD ROSE LANE, LLC
209 WATER STREET
NEWBURYPORT, MA 01950

PROJECT:

JOHN & MICHELLE MORRIS RESIDENCE
TAX MAP 207, LOT 13

60 PLEASANT POINT DRIVE
PORTSMOUTH, NH

TITLE:

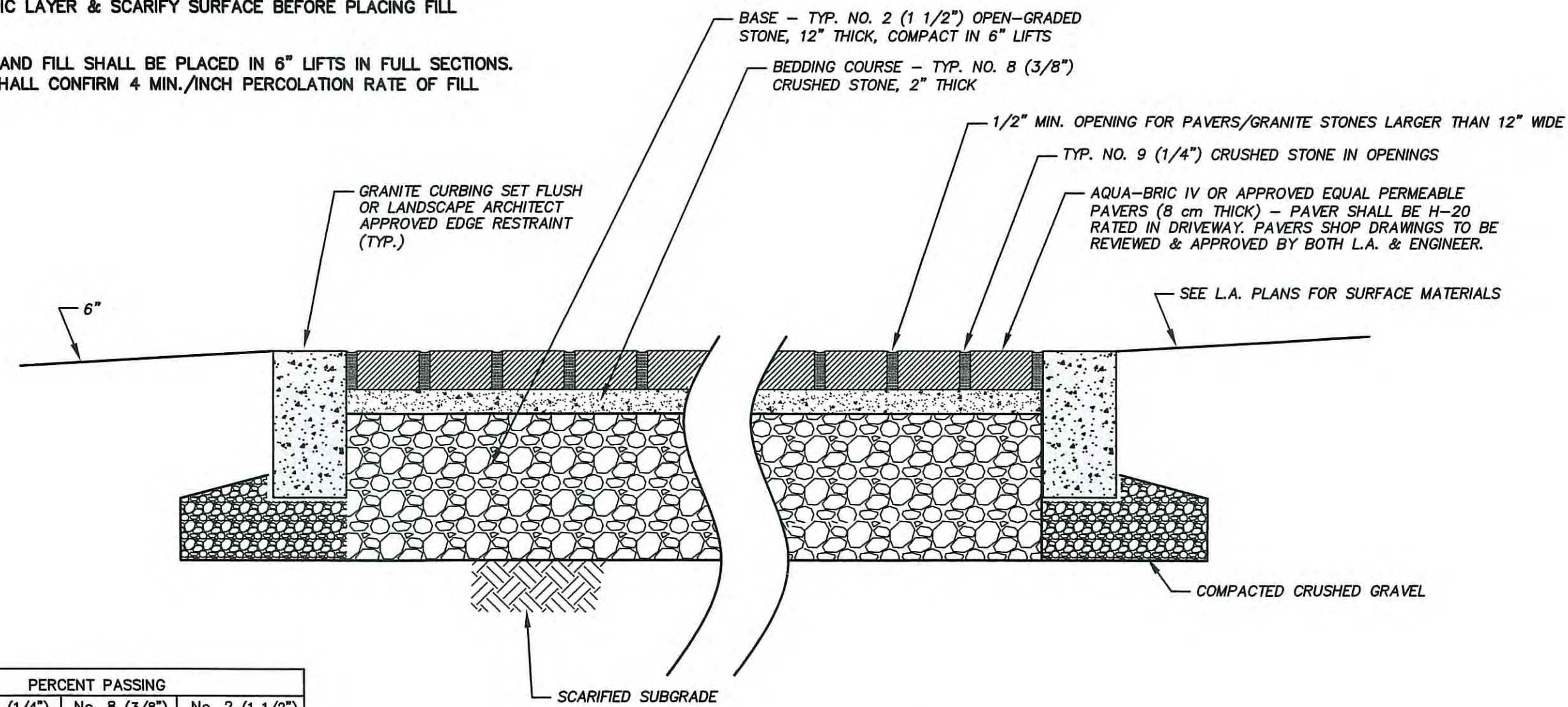
EROSION CONTROL NOTES & DETAILS

SHEET NUMBER:

D - 1

NOTES

- ENGINEER TO OBSERVE SUBGRADE PREPARATION & INSTALLATION OF ALL SELECT MATERIALS TO ENSURE COMPLIANCE WITH DESIGN INTENT.
- REMOVE ORGANIC LAYER & SCARIFY SURFACE BEFORE PLACING FILL MATERIALS.
- NHDOT 304.1 SAND FILL SHALL BE PLACED IN 6" LIFTS IN FULL SECTIONS. CONTRACTOR SHALL CONFIRM 4 MIN./INCH PERCOLATION RATE OF FILL MATERIALS.



SIEVE SIZE	PERCENT PASSING		
	No. 9 (1/4")	No. 8 (3/8")	No. 2 (1 1/2")
3 in	-	-	100
2 1/2 in	-	-	90 - 100
2 in	-	-	35 - 70
1 1/2 in	-	-	0 - 15
3/4 in	-	-	0 - 5
1/2 in	100	100	-
3/8 in	90 - 100	85 - 100	-
No. 4	20 - 55	10 - 30	-
No. 8	5 - 30	0 - 10	-
No. 16	0 - 10	0 - 5	-
No. 50	0 - 5	-	-

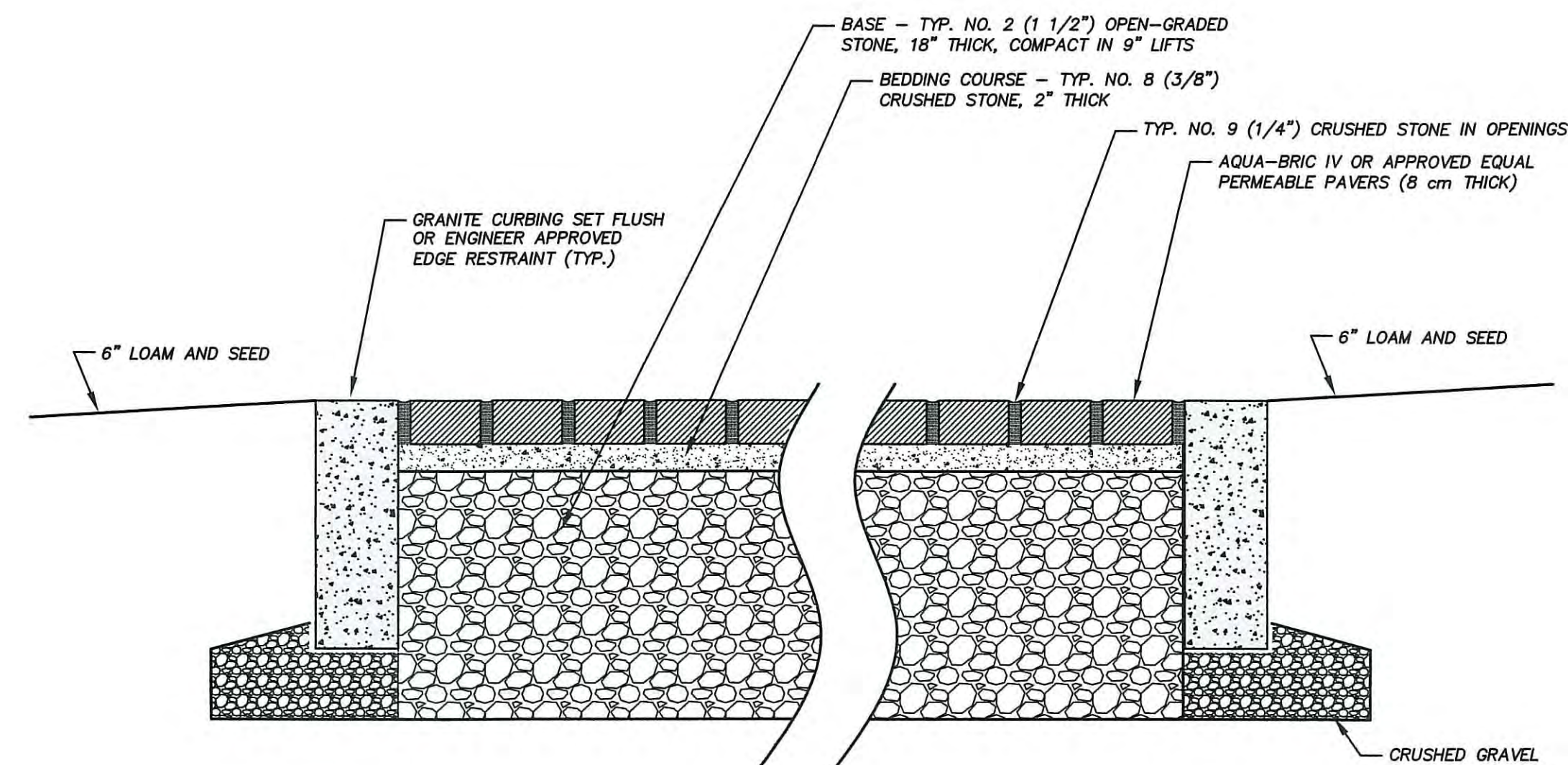
PERMEABLE PAVER CLEANING AND MAINTENANCE

Function - Pavers are designed to capture rainwater runoff containing suspended solids, nutrients and pollutants. These systems require periodic maintenance to insure infiltration and storage capacity.

Maintenance - Permeable pavers should be observed periodically during rain events for proper water infiltration into the system and inspected at least once per year to verify water flow and exfiltration. Sediment and debris should be removed from the joint/void opening to increase infiltration through light vacuuming on a semi-annual basis.

PERMEABLE DRIVEWAY PAVERS & PATIO DETAIL

NOT TO SCALE



SIEVE SIZE	PERCENT PASSING		
	No. 9 (1/4")	No. 8 (3/8")	No. 2 (1 1/2")
3 in	-	-	100
2 1/2 in	-	-	90 - 100
2 in	-	-	35 - 70
1 1/2 in	-	-	0 - 15
3/4 in	-	-	0 - 5
1/2 in	100	100	-
3/8 in	90 - 100	85 - 100	-
No. 4	20 - 55	10 - 30	-
No. 8	5 - 30	0 - 10	-
No. 16	0 - 10	0 - 5	-
No. 50	0 - 5	-	-

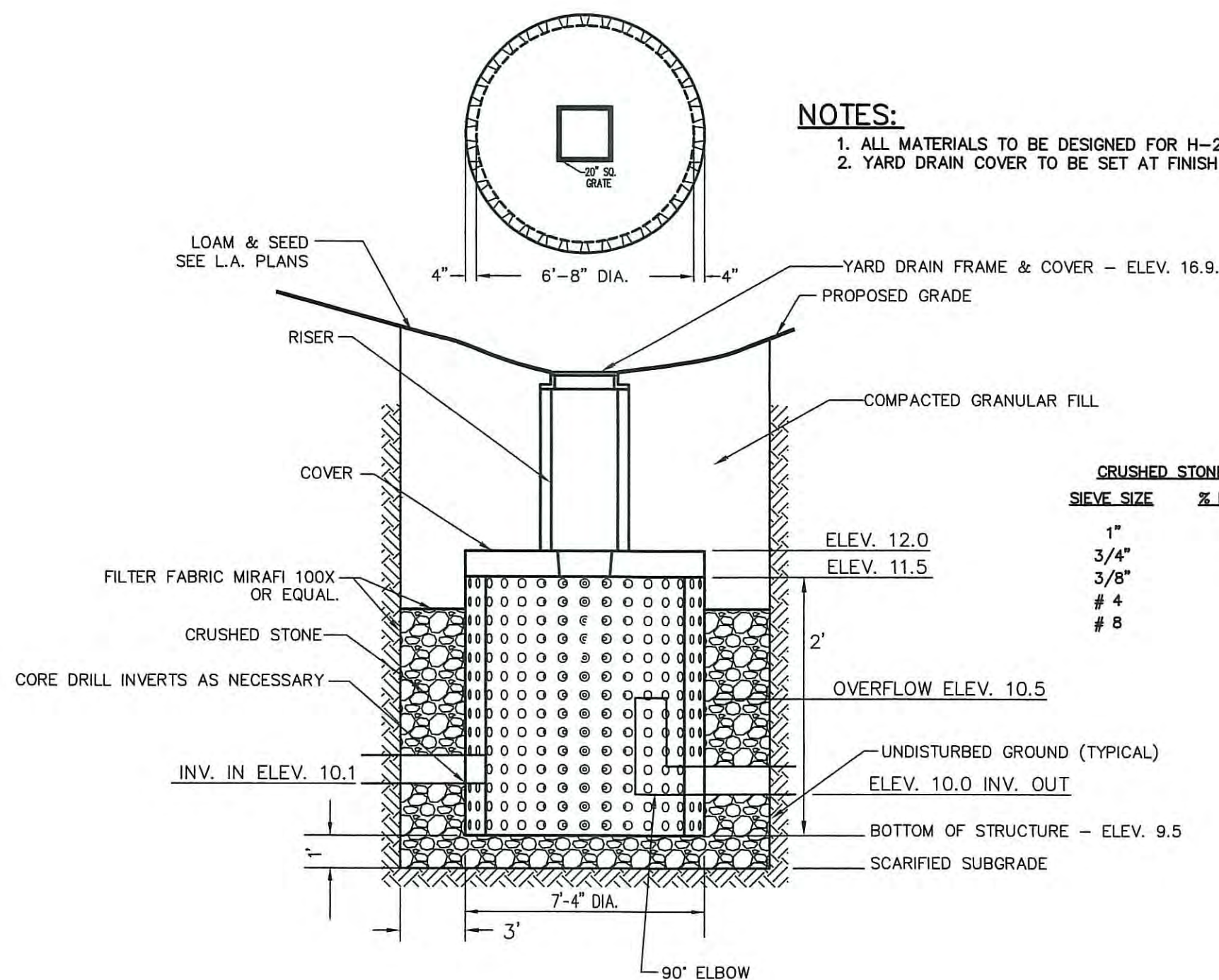
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PERMEABLE PAVERS DETAIL (DRIVEWAY)

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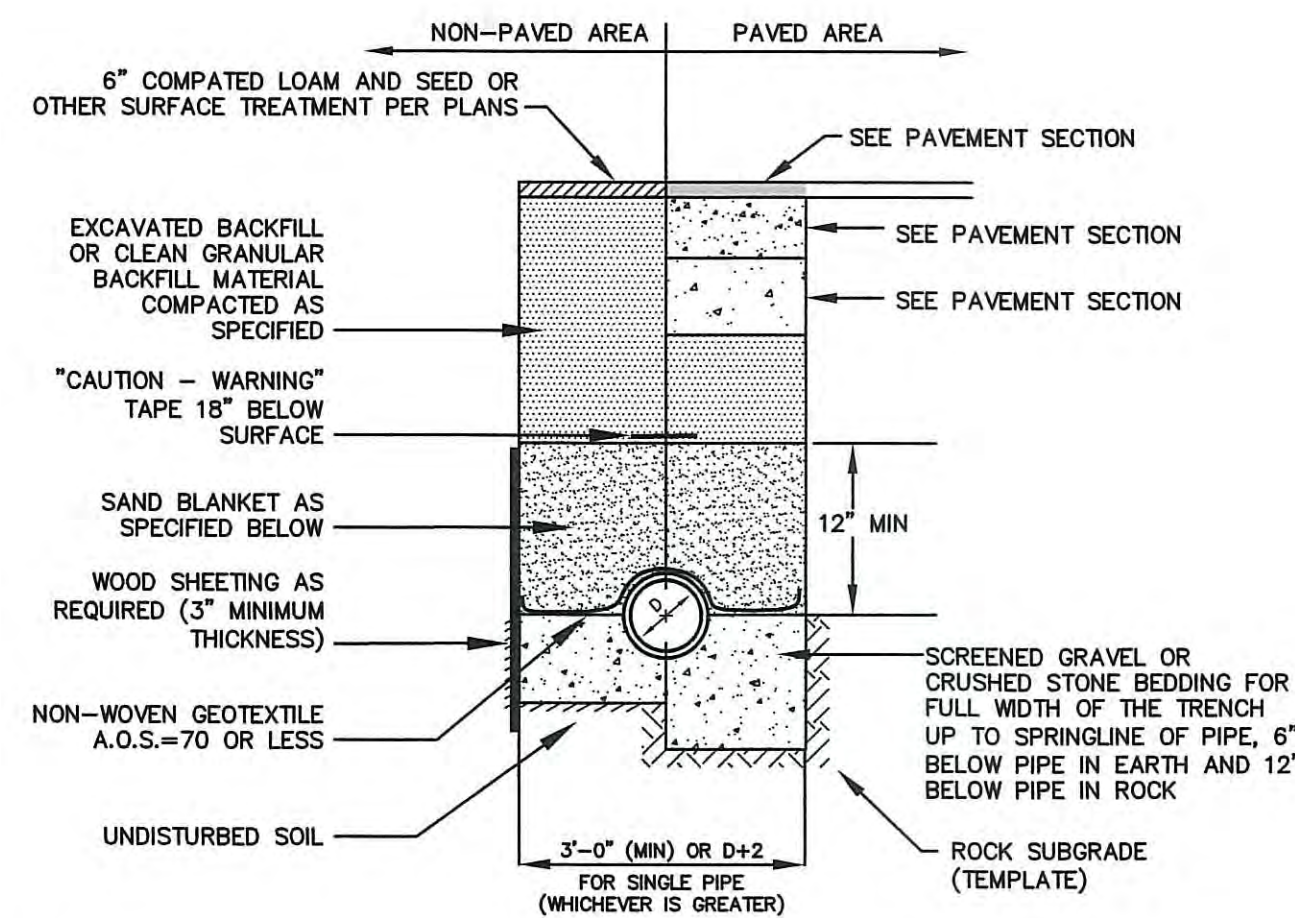
NOTES:

- ALL MATERIALS TO BE DESIGNED FOR H-20 LOADING WHERE SUBJECT TO VEHICLE LOADING.
- YARD DRAIN COVER TO BE SET AT FINISH GRADE.

CRUSHED STONE BEDDING	
SIEVE SIZE	% FINER BY WEIGHT
1"	100
3/4"	90 - 100
3/8"	20 - 55
# 4	0 - 10
# 8	0 - 5

LEACHING YARD DRAIN DETAIL

NOT TO SCALE



NOTES

- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
- INSULATE GRAVITY SEWER AND FORCEMAINS WHERE THERE IS LESS THAN 5'-0" OF COVER WITH 2" THICK CLOSED CELL RIGID BOARD INSULATION, 18" ON EACH SIDE OF PIPE.
- MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION AND WIDEN TRENCH ACCORDINGLY IF MULTIPLE PIPES ARE IN TRENCH.

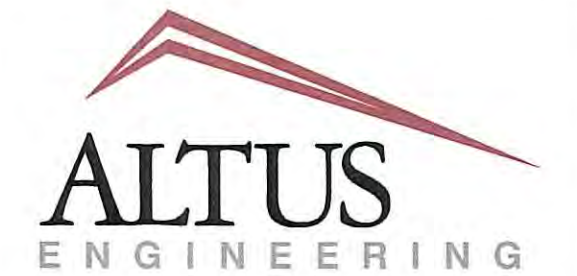
SAND BLANKET/BARRIER	
SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 - 100
200	0 - 15

SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 - 100
3/8"	20 - 55
# 4	0 - 10
# 8	0 - 5

* EQUIVALENT TO STANDARD STONE SIZE #87 - SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

DRAINAGE TRENCH

NOT TO SCALE



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ISSUED FOR:
CONSERVATION COMM. REVIEW

ISSUE DATE:
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REVISIONS		
NO.	DESCRIPTION	BY DATE
0	INITIAL SUBMISSION	EDW 10/27/23
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D - 2