Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

NEW HAMPSHIRE 200

April 7, 2022

Rick Chellman, Chair
Portsmouth Planning Board
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

RE: Planning Board Submission for Wetland CUP Submission & Rev 6 Plans
325 Little Harbor Road, Portsmouth, NH – Tax Map 205 Lot 2
Project #47099.01

Dear Mr. Chellman:

On behalf of our client, ADL 325 Little Harbor Road Trust, please find updated plans, including revised utility design as part of the **Wetland Conditional Use Permit (CUP)** submission relative to the above-referenced project. The following materials have been submitted via ViewPoint and hard copies are also included in this submission:

- **Client Authorization Letter (1 copy);**
- **Portsmouth Wetland CUP Application, Marked Up on February 23, 2022 (Current) (1 copy);**
- **Land Management Plan (1 copy);**
- **History of the Proposed Residential Project to TAC, from Hoefle, Phenix, Gormley & Roberts, PLLC Attorneys at Law, dated April 1, 2022 (1 copy);**
- **Draft Access Easement for Water Services (Granted to City of Portsmouth for Utility Access for Leak Detection and Metering) (1 copy);**
- **MEP Letter of Intent (1 copy); and**
- **Site Development Plans entitled "Site Development Plans, Tax Map 205 Lot 2, Lady Isle Site Renovations, 325 Little Harbor Road, Portsmouth New Hampshire", prepared by TFMoran, Inc., dated September 29, 2021, revised April 4, 2022 (1 copy at 22"x34").**

Although TAC review is not required for Single Family Residential Homes, the client agreed to attend TAC, at the request of the Planning Department and DPW, to provide further details of the proposed utilities. The project was approved at the April 5th TAC meeting.

On April 4th, TAC provides comments which were addressed in TFM's Revision 6 plan set. For the record, we have provided TAC's comments along with our responses, which are shown in ***bold italics***. The following comments were resolved during the April 5th TAC Meeting:

TAC REVIEW COMMENTS:

1. Item to be addressed before Planning Board submittal: Sewer force main has more than one high point. Should be designed and stamped by design engineer. Plan to accommodate high points and air relief.

   Typical with most force main designs, similar to the Sagamore Avenue Sewer Extension Project, EOne's representative F.R. Mahoney and Associates assisted with the sizing of the pipe and pump and provided EOne's design guidance. It is the civil engineer's responsibility to locate the force main horizontally and vertically, locate cleanout and air release manhole locations, provide details, sewer profiles, etc. TFM has provided this information within the plan set, which have been stamped by a Professional Engineer.

   EOne's normal recommendation for air release valves are at peak of 25 feet or more (regardless of dips less than 25 feet) and/or at intervals of 2,000 FT to 2,500 FT. TFM's force main design is just over 3,000 FT long, and originally only included one air release valve within Belle Isle Road's private driveway. The location met the spacing requirement, in between SMH-5 and SMH-6 and were no further from 2,500 SF from either manhole. Additionally, the air release met the vertical spacing requirements, located at least 25 feet in height between SMH-5 and SMH-6.

   Regardless, an additional two valves have been provided to relieve DPW's concern and provide a conservative design. The total proposed air release valves are three. The additional valves are just after the bridge and one within a relative high point within Little Harbor Road.

2. Items to be addressed before construction: Confirm high points in force main does not require air release valve for air entrapment.

   Please refer to the response above.

Project Description

The project includes the replacement of a single-family residence on 325 Little Harbor Road. The existing property is approximately 12.3 acres and currently contains a 2-story house, guest cottage, carriage house, barn, horse barn, horse paddock, shed, and paved driveway. The site is an island within the Rural Zoning District and surrounded by the Piscataqua River. A portion of the development is located within the 100' Tidal Wetland Buffer.

The purpose of this proposal is to demolish the existing house, carriage house, and paddock and to construct a 2-story single-family home, garage, pool, pool cabana, playground, and utility connections via Little Harbor Road; renovate an existing barn and guest cottage; and replace an existing shed and barn with a new shed and barn. The project proposes a total 34,700 SF of impervious area (7%) upon the island within the Highest Observable Tide line. Associated improvements include and are not limited to access (primarily permeable pavers), grading, stormwater management, utilities, and landscaping.

On the mainland side of the bridge, along the Belle Isle Road driveway easement, the intent is to simply install underground utilities and repave the driveway. This will not cause any impacts to woodland area nor increase in impervious area.

The **Total Tidal Wetland Buffer Area is 389,213 SF** within the island and driveway easement. Within this area, the total proposed **disturbance within the Tidal Wetland Buffer Area is 195,656 SF** (58% of Tidal Wetland Buffer Area). The **Temporary Tidal Wetland Impact is 17,189 SF**, primarily required to provide access for construction for suspending utilities from the existing bridge. This impact is also to allow for temporary access beneath the bridge for construction. These calculations are best depicted on Sheet C-04 "Wetland Conditional Use Permit Plan".

All proposed landscape areas propose native vegetation within the Buffer. The combined woodland, lawn, landscaped, and permeable area accounts for 92% of the island's Buffer Area, permitting approximately 8% of the Buffer as impervious. **On the entire island, the project includes a net removal of 16,671 SF of impervious surfaces**, also resulting in a net loss of impervious surface within a jurisdictional wetland buffer. There is also no increase of impervious surface on the entire Lady Isle Road driveway side for the repaving.

Utility Design

The existing utilities serving the residential island include water from Little Harbor Road via the Belle Isle Road, septic system, and overhead electric from Pleasant Point to the island. The intent is to remove the existing water, which is undersized for the proposed improvements and freezes due to improper insulation and burial depth. The septic system will be decommissioned and removed. Pending coordination with Eversource, the overhead electric utilities may be removed via Pleasant Point and replaced with underground.

All proposed utilities will be located along the existing driveway easement of Belle Isle Road. The utilities will conform to Portsmouth DPW and state standards. Gas and sewer are available in Sagamore Avenue and other utilities are available within Little Harbor Road.

Additionally, as recommended by the Conservation Commission during their original November 2021 approval, our team has been exploring the use of geothermal energy. This would be paired with solar energy. The area considered for solar panels is within the previously disturbed horse paddock area, which is a grassed and meadow area. The proposed solar panels will be entirely outside the 100' Wetland Buffer and 150' Natural Woodland Buffer. No trees are expected to require removal beyond what is show on the plan. There is an ongoing solar study and cost-benefit analysis to determine if the geothermal energy and solar panels are feasible to provide supplemental energy needs. Further permitting would be obtained, as necessary, however it is outside of the jurisdictional wetland buffer.

Basis for Wetland CUP Approval

In accordance with section 10.1017.50, Criteria For Approval, we've addressed the six (6) criteria as follows:

> **(1)** The proposed residential improvements are zoned for single family use and reasonably suited for the island. The proposed alteration is within a previously disturbed area and preserves almost half of the island as woodlands. Consider that other possible uses are Open Space PUD's, assisted living, residential care, daycares, or other less preferable uses per Zoning. These uses would likely require larger footprints and human activity that may disturb wildlife. Unlike these for-

profit uses, the homeowners are stewards of the land. At their own expense and decision, they have provided enhanced landscaping, beyond the requirements of Zoning. Additionally, beyond requirements, they have provided a Land Management Plan to control invasive species and restore native plants. The landscaping has been designed to promote wildlife habitat and healthier ecosystem.

(2) & (5) Alternative locations for the development have been considered in previous years. In a previous layout, the design was primarily outside of the 100' Wetland Buffer, which is the western, wooded side of the island. While this design limited impact to the wetland buffer, it required removal of the upland wooded area. It was the Conservation Commission's opinion that development should maintain the majority of the woods on the island and be located within previously disturbed areas, as it is now proposed. The design is intended to provide the least adverse impact to areas and environment within the 100' Wetland Buffer.

(3) & (4) Most of the impact area is to convert areas from pavement and lawn, to open space, such as landscape areas or drought-tolerant meadows, with the goal of establishing more vegetation. Alterations of woodland will occur only to the extent necessary to achieve construction goals.

The project does not propose any permanent wetland impacts, only Tidal Wetland Buffer Impacts within previous development. Temporary wetland impacts are proposed within the Tidal Flats of the Piscataqua River for construction access related to the bridge.

The island will benefit from an overall reduction in impervious area, increased natural vegetation, and improved groundwater infiltration through stormwater infiltration practices. No adverse impact on the wetland functional values of the site or surrounding properties are proposed.

(6) Areas on the western half of the island within the vegetated buffer strip are natural woodland and will remain this way. Areas on the eastern half of the island within the vegetated buffer strip are primarily lawn. Much of this area will be converted from lawn to landscape areas and/or a vegetated meadow. A significant portion of the Buffer will be restored to natural vegetation, particularly along the water line and the seawall.

Project History & City and State Permit and Approval Status

As explain in the the attached letter from HPGR Attorney's at Law and quoted here: *This project has been pending since August 2017, when ADL first applied for a CUP to replace the existing home and renovate/construct associated residential structures on the Property. That CUP received full Planning Board and Conservation Commission review at the time and was approved shortly thereafter on September 25, 2017. The proposal also received NHDES Wetland and Shoreland permitting approval in February 2018. Construction of the project lapsed, as a result of the untimely death of ADL's general contractor at the time.*

Planning Board Submission for Wetland CUP Submission & Rev 6 Plans **April 7, 2022**
325 Little Harbor Road, Portsmouth, NH – Tax Map 205 Lot 2

On September 29, 2021, ADL applied for a new CUP for a modified design in a new location on the Property. ADL met with the Planning Board and Conservation Commission in November 2021. The proposal received a favorable recommendation from the Conservation Commission for the modified project and was originally scheduled for the December 16, 2021 Planning Board meeting.

Shortly prior to the December Planning Board hearing, however, City staff requested that the project be reviewed by TAC due to complexities related to utilities. ADL voluntarily agreed to review despite the fact that TAC is not required for residential projects such as ADL's pending proposal.

Since the continuance of the originally scheduled December 2021 Planning Board meeting, our team has obtained TAC approval and Conservation Commission favorable recommendation. TFM has already obtained a NHDES AoT Permit and are seeking amendments for NHDES Shoreland and Wetland permits. TFM has also submitted to DPW and NHDES Wastewater for sewer permits. Additionally, we have received Planning Board DADU CUP approval for the Guest Cottage in February 2022.

On behalf of our client, we respectfully request review and approval for a Wetland Conditional Use Permit.

We appreciate your consideration of these matters and look forward to presenting this project to you at the April 21, 2022, Planning Board meeting.

Respectfully,
TFMoran, Inc.

Corey Colwell, LLS
Division Manager | Principal

Hannah Giovannucci, PE
Civil Project Manager

JCC/heg

cc: Anthony Dilorenzo, ADL 325 Little Harbor Road Trust (via e-mail)
Stephen Roberts, Hoefle, Phoenix, Gormley & Roberts (via sroberts@hpgrlaw.com)
Jim Youngblood, Youngblood Builders (via jim@youngbloodbuilders.com)
Bernie Lee, Severino Construction (via blee@severinotrucking.com)
Matthew Cunningham, MCLD (via matthew@matthew-cunningham.com)
Mickey Benson, GPSchafer (via mbenson@gpschafer.com)

TFM
Since 1968

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

Letter of Authorization

I, Anthony DiLorenzo, The ADL 325 Little Harbor Road Trust, 127 Parrott Avenue, hereby authorize MSC a division of TFMoran, Inc., 170 Commerce Way, Suite 102, Portsmouth, NH, to act on my behalf concerning property owned by The 325 Little Harbor Road Trust, located at 325 Little Harbor Road, Portsmouth, NH, known as Tax Map 205, Lot 2.
I hereby appoint MSC a division of TFMoran, Inc. as my agent to act on my behalf in the review process, to include any required signatures.

The 325 Little Harbor Road Trust

11/21/19
Date

Witness

11/21/19
Date

TFMoran, Inc.
48 Constitution Drive, Bedford, NH 03110
T(603) 472-4488 www.tfmoran.com

MSC a division of TFMoran, Inc.
170 Commerce Way–Suite 102, Portsmouth, NH 03801
T(603) 431-2222 www.tfmoran.com

2/23/2022
Conservation Commission & Planning Board Submission for Wetland CUP

Please revise the following to the form:

Land Use Application

LU-22-23

Your Submission

Attachments

Guests (0)

- ✔ Preliminary Application Review
- ✔ Land Use Permit -- Planning Department Review and Fee Calculation
- ▶ Application Permit Fee
  - Land Use Code Review
  - Conservation Commission Review
  - Planning Board Conditional Use Permit (Wetlands) Approval
  - Land Use Conditions of Approval Review
  - Building Permit Issued

Your submission

Submitted Feb 15, 2022 at 4:45pm

Contact Information

Corey Colwell

Email address

ccolwell@tfmoran.com

Phone Number

603-431-2222

Mailing Address

170 Commerce Way , Portsmouth, NH 03801

Location

325 LITTLE HARBOR RD
Portsmouth, NH 03801

Applicant Information

Please indicate your relationship to this project *

B. Property Owner's Representative

Alternative Project Address

Alternative Project Address

--

Project Type

Addition or Renovation: any project (commercial or residential) that includes an ADDITION to an existing structure or a NEW structure on a property that already has structure(s) on it

☑

New Construction: any project (commercial or residential) that involves adding a NEW structure on a parcel that is currently VACANT. If there are any existing structures on the property (even if you are planning to remove them), you should select Addition and Renovation above

--

Minor Renovation: for projects in the Historic District only that involve a minor exterior renovation or alteration that does not include a building addition or construction of a new structure

--

Home Occupation: residential home occupation established in an existing residential dwelling unit and regulated by the Zoning Ordinance. Home Occupations are not allowed in the following Zoning Districts: Waterfront Business, Office Research, Industrial, or Waterfront Industrial

--

New Use/Change in Use: for a change of land use or an expansion to an existing use (e.g. addition of dwelling units) that includes no exterior work or site modifications

--

Temporary Structure / Use: only for temporary uses (e.g. tents, exhibits, events)

--

Demolition Only: only applicable for demolition projects that do not involve any other construction, renovation, or site work

--

Subdivision or Lot Line Revision: for projects which involved a subdivision of land or an adjustment to an existing lot line

--

Other Site Alteration requiring Site Plan Review Approval and/or Wetland Conditional Use Permit Approval

--

Sign: Only applies to signs requiring approval from a land use board (e.g. Historic Commission, Zoning Board of Adjustment)

--

Request for Extension of Previously Granted Land Use Approval

--

Appeal of an Administrative Decision or Request for Equitable Waiver

--

Zoning Information

Base Zoning District

Rural Residential (R)

Base Zoning District 2

--

Historic District

--

Flood Plain District

☑

Downtown Overlay District

--

Osprey Landing Overlay District

--

Airport Approach Overlay District

--

Waterfront Use Overlay District

--

North End Incentive Overlay District

--

West End Incentive Overlay District

--

Highway Noise Overlay District

--

Application Type

Lot Line Revision (Planning Board)

--

Subdivision (Planning Board)

--

Amended Subdivision or Lot Line Revision Approval

--

Wetland Conditional Use Permit (Planning Board)

☑

Amended Wetland Conditional Use Permit (Planning Board)

☑ Uncheck please?

Accessory Dwelling Unit / Garden Cottage Conditional Use Permit (Planning Board)

--

Site Plan Review (Planning Board)

--

Amended Site Plan Review

--

Other Conditional Use Permit (Planning Board)

--

Variance (Zoning Board of Adjustment)

--

Special Exception (Zoning Board of Adjustment)

--

Historic District Certificate of Approval (Historic District Commission)

--

Request for Extension of Previously Approved Application ❓

--

Appeal of Administrative Decision ❓

--

Equitable Waiver

--

Project Description

Lot Area (s.f.)

535,990

Lot Area Source

--

Detailed Description of Proposed Work *

Replace an existing residential home; remove carriage house and paddock, construct new garage,pool, pool cabana, playground, utility connections; renovate existing barn and guest cottage, andreplace existing shed and barn. Assocaited improvements include and are not limited to access,grading, stormwater management systems, utilities, and landsaping improvements.

Brief Description of Existing Land Use *

Residential

Land Use Application Fee Calculation

Area of disturbance in wetland or wetland buffer (s.f.)

--

Existing Buildings/Structures

Building / Structure Description	Total Gross Floor Area (s.f.)	Area of Footprint (s.f.)	...
Residential Home	4,180	4,201	...
Guest Cottage	2,056	1,300	...
Barn	3,800	2,130	...
Carriage House	1,982	1,982	...
Horse Shed	467	467	...
Shed	48	48	...

Existing Yards, Coverage, Parking, and Wetlands

Principal Front Yard / Building Setback (ft)

--

Secondary Front Yard / Building Setback (ft)

--

Rear Yard / Building Setback (ft)

--

Right Side Yard / Building Setback (ft)

--

Left Side Yard / Building Setback (ft)

--

Total # of Residential Units

2

Number of Parking Spaces

--

Number of Loading Spaces

--

Area of Surface Parking & Driveways (sq ft)

22,378 — 29,732

Other Impervious Surface Area (sq ft)

21,718 — 21,639

Is all or a portion of the property located in the wetland area and/or within 100' of the wetland boundary?

☑

Proposed Building/Structures (REQUIRED)

Building / Structure Description	Total Gross Floor Area (sq ft)	Area of Footprint (s.f.)	...
Residential House	10,766	6,227	...
Garage	2,212	1,475	...
Guest Cottage	1,320	660	...
Pool Cabana	368	368	...
Shed	384	384	...
Barn	3,882	2,806	...

Building / Structure Description	Total Gross Floor Area (sq ft)	Area of Footprint (s.f.)	...
Barn	722	722	...

Additional Proposed Building Information

Number of new hotel rooms

--

Total New Restaurant Use Gross Floor Area

--

Proposed Yards, Coverage, Parking and Wetlands (REQUIRED)

Principal Front Yard / Building Setback (ft)

--

Secondary Front Yard / Building Setback (ft)

--

Rear Yard / Building Setback (ft)

--

Right Side Yard / Building Setback (ft)

--

Left Side Yard / Building Setback (ft)

--

Total # of Residential Units

--

Number of Parking Spaces

--

Number of Loading Spaces

--

Area of Surface Parking & Driveways (sq ft)

17,154 — 15,860

Other Impervious Surface Area (sq ft)

30,641 — 31,894

Are you proposing to do any work in the wetland area or within 100' of the wetland boundary?

--

Wetland Conditional Use Permit -- Impacted Jurisdictional Areas

Inland Wetland

--

Tidal Wetland

☑

Inland Wetland Buffer

☑

Tidal Wetland Buffer

☑

Vernal Pool

--

Wetland or Wetland Buffer Activity

Total Area of Inland Wetland (both on and off the parcel) (Sq.Ft.)

4532

Total Area of Vernal Pool (both on and off the parcel) (Sq.Ft.)

--

Distance of proposed structure or activity to edge of wetland (ft.):

0

Wetland Buffer Total Area on Lot (Sq.Ft.)

46,415

Wetland Buffer Area to be Disturbed (Sq.Ft.)
--

Inland Wetland Total Area on Lot (Sq.Ft.)
0

Inland Wetland Area to be Disturbed (Sq.Ft.)
--

Vernal Pool Total Area on Lot (Sq.Ft.)
--

Vernal Pool Area to be Disturbed (Sq.Ft.)
--

Tidal Wetland Total Area on Lot (Sq.Ft.)
389,213

Tidal Wetland Area to be Disturbed (Sq.Ft.)
195,656

Review by Independent Certified Wetland Scientist

I have read and understand the above information. I will pay any additional fees due as required.
--

Project Representatives

Relationship to Project	If you selected "Other", please state relationship to project.	Full Name (First and Last)	...
Engineer	--	Hannah Giovannucci	...

Plan Submission

I understand that this application will not be considered complete until I have provided the required plans and any additional submission requirements. I also understand that any hard copies as required by the Planning Department are required to be submitted prior to the application deadline. (You will be prompted at the next screen to upload your plans.) *

☑

I have reviewed the application requirements provided on the Planning Department's web page -- www.cityofportsmouth.com/planportsmouth/land-use-applications-forms-and-fees. *

☑

Acknowledgement

I hereby certify that as the applicant for permit, I am * ❓

Other

If you selected "Other" above, please explain your relationship to this project. Owner authorization is required.

Civil Engineer

I certify that the information given is true and correct to the best of my knowledge. *

☑

I understand that I am responsible for paying any applicable application fees and that I will be invoiced separately for legal and abutter notification costs as well. *

☑

Is this property under condominium ownership? ❓

--

I understand that it is the obligation of the applicant to submit adequate documents, plans, and exhibits to demonstrate compliance with the Zoning Ordinance. *

☑

By signing below, I agree that this is equivalent to a handwritten signature and is binding for all purposes related to this transaction. *

✅ Hannah Giovannucci
Feb 15, 2022

INTERNAL USE -- Land Use Approvals

Historic District Commission

--

HDC Approval Granted

--

Zoning Board of Adjustment

--

BOA Approval Granted

--

Zoning Relief Required

--

Conservation Commission Review

--

Conservation Commission Review Completed

--

Conditional Use Permit (Wetlands)

--

Wetland CUP Granted

--

Conditional Use Permit (Other)

--

Other CUP Granted

--

Prelim. Concept. Consultation

--

Prelim. Concept. Consultation Completed

--

Design Review Phase

--

Design Review Phase Completed

--

Subdivision / Lot Line Revision

--

Subdivision / Lot Line Revision Granted

--

Site Plan Review

--

Site Plan Review Granted

--

Technical Advisory Committee Review

--

TAC Review Completed

--

Internal consistency review required

--

Certificate of Use Required

--

Stipulations

--

Additional Planning Department Comments

--

Your Profile

Your Records (/dashboard/records)

Resources

Search for Records (/search)

Claim a Record (/claimRecord)

Employee Login (https://portsmouthnh.viewpointcloud.io)

Land Management Plan

A Narrative for Invasive Plant Management and Native Plant Restoration

325 Little Harbor Road, Portsmouth, NE

Fall 2021

PARTERRE
ECOLOGICAL

Table of Contents

Introduction and Primary Goals

The Dilorenzo residence is located at 325 Little Harbor Road in Portsmouth. The 11-acre island lies near the mouth of the Piscataqua River and the majority of the site is within the 100' tidal river buffer. An inventory of existing native and invasive plant species can be found in this plan.

The primary goal of this plan is to seek approval from the Portsmouth Conservation Commission to offset home construction and landscape improvements within the 100' Tidal buffer. We propose to remove invasive species on site and to restore the area with native species that will benefit the ecosystem around Piscataqua Rive and reduce further incursion of invasive species on the island. An inventory of existing native and invasive plant species can be found in this plan.

We propose removing invasive species by low-impact manual hand methods and cut & dab herbicide application by licensed applicators. All invasive species greater than 1" in caliper will be cut and dabbed with herbicide to reduce the chance of erosion along the banks. All existing erosion will be stabilize and any soil disturbed during planting will be stabilized and seeded with native wildflower mix. Techniques are outlined in the report. After removal of invasive species we will restore with native shrubs and perennials that will help prevent resurgence of the invasive plants and enhance the existing ecology.

A mass of invasive Multiflora Rose along the edges of the horse paddock with maturing Black Swallowort pods hanging from the stem. The majority of the western portion of the island is healthy pine/oak forest, but invasives are dense in areas with historically high disturbance. We propose managing all invasive species and replacing with native alternatives.

325 Little Harbor Road
Invasive Plant Inventory

Mature invasive species have developed isolated populations along the tidal river buffer and threaten to spread into an otherwise healthy native ecosystem. We propose controlling invasive plant species that have developed self sustaining populations on the Dilorenzo's property and restoring with native species. The physiology of the invasive plants has enabled them to out compete the native plant community and compromise the ecological value of the native plant community. The dominant invasive plants, including Multiflora Rose and Barberry, disrupt the formation of a native understory by filling ecological niches and resisting any browsing by native species. A very small Japanese Knotweed population exists near the southwestern corner of the paddock. It can spread quickly in coastal areas and should be managed before it can establish itself. All invasive perennials and shrubs with viable fruit will be removed from the site. Poison Ivy is a native species with valuable ecological benefits. We propose control the and areas of human traffic.

Invasive Plant Species Identified:

Acer platanoides, Norway Maple
Alliaria petiolata, Garlic Mustard
Berberis thunbergii, Japanese Barberry
Celastrus orbiculatus, Asiatic Bittersweet
Cynanchum louiseae, Black Swallowort
Elaeagnus umbellata, Autumn Olive
Fallopia japonica, Japanese Knotweed
Frangula alnus, Glossy Buckthorn
Lonicera morrowii, Morrow's Honeysuckle
Rhamnus cathartica, Common Buckthorn
Rosa multiflora, Multiflora Rose

****Likely Invasive Plant Species Identified:***

Artemisia vulgaris, Mugwort
Deutzia scabra, Fuzzy Deutzia
Ligustrum vulgaris, Common Privet
Rhodotypos scandens, Jetbead
Vitus sp., Grape (Native but control)

* While not listed as an Invasive Species by ISC (New Hampshire Invasive Species Committee) these species can dominate the shrub layer and crowd out native trees and shrubs. We recommend removal of along with listed invasive plant species in wetland buffers and replace with native shrubs and trees.

Black Swallowort releasing seedheads in the paddock. The majority of this area is a healthy goldenrod/blackberry meadow with patches of Milkweed, but Black Swallowort can establish itself quickly and releases compounds in the soil to limit its competitor. Without intervention there will likely be a large infestation.

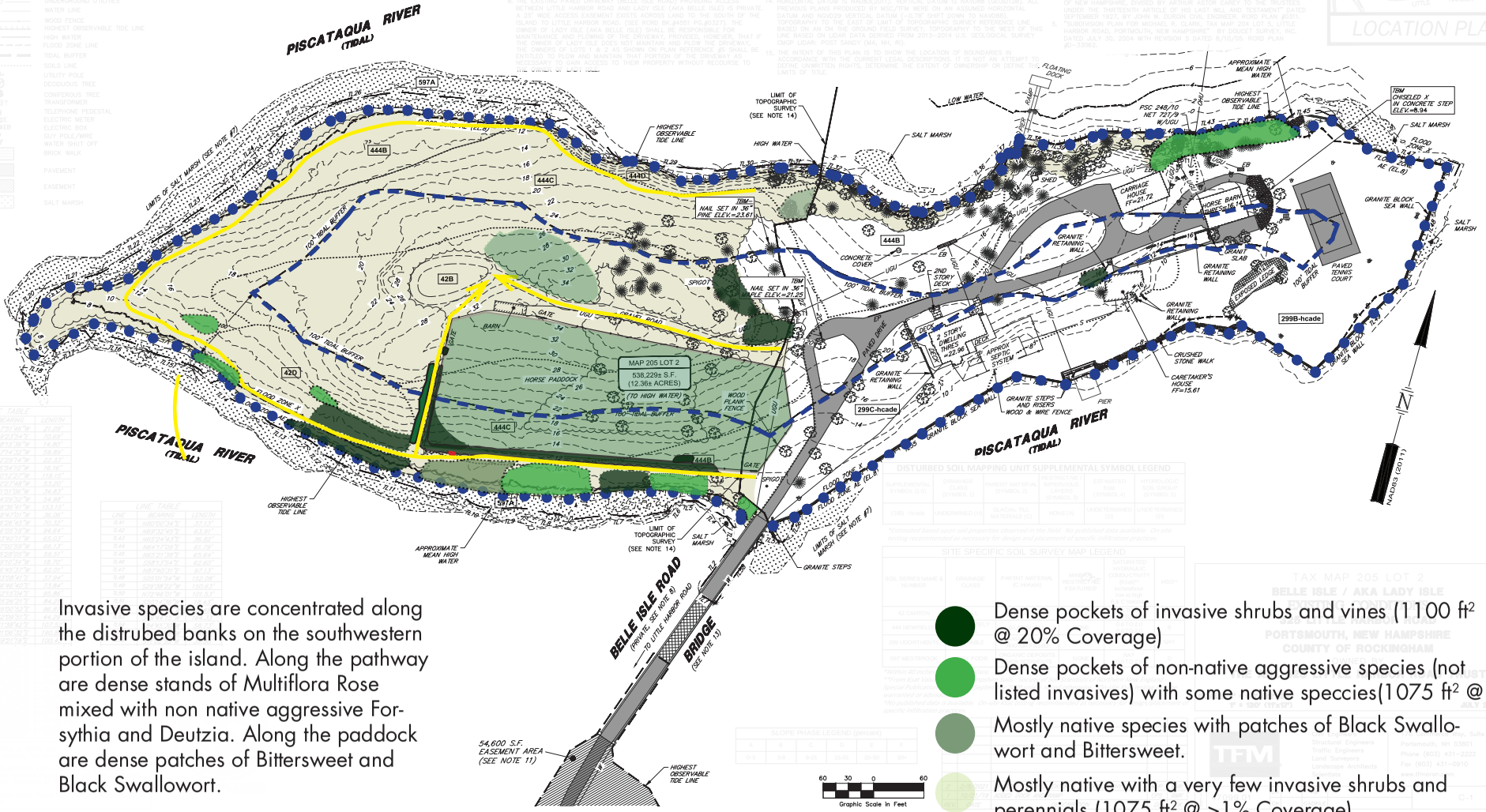
Property area

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 4/1/2019
Data updated 7/17/2019

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.



Invasive species are concentrated along the distrubed banks on the southwestern portion of the island. Along the pathway are dense stands of Multiflora Rose mixed with non native aggressive Forsythia and Deutzia. Along the paddock are dense patches of Bittersweet and Black Swallowort.

- Dense pockets of invasive shrubs and vines (1100 ft² @ 20% Coverage)
- Dense pockets of non-native aggressive species (not listed invasives) with some native speccies(1075 ft² @
- Mostly native species with patches of Black Swallowort and Bittersweet.
- Mostly native with a very few invasive shrubs and perennials (1075 ft² @ >1% Coverage)
- Japanese Knotweed (20 ft²)
- Wetland Buffer
- Highest Observable tide line
- Existing Pathways

325 Little Harbor Road
Invasive Plant Images

Japanese Barberry with Deutzia and Black Swallowort at the edge of the forest

Garlic Mustard seedheads with Mugwort on the northern bank

Japanese Barberry with viable fruits

Autumn Olive in the open paddock

A single small population of Japanese Knotweed on site should be managed as soon as possible

325 Little Harbor Road
Invasive management techniques

We propose a combination of manual hand removal and cut & dab herbicide to control invasive plant species within the identified project areas over a phased time line. Once the initial identified invasive plant species have been removed by manual methods (described below), we propose seeding all exposed soil with native seed blend and begin planting identified tree, shrub and perennial plant species selected from the native plant community list that will increase the density and diversity of the existing wetland buffers.

Manual Hand Removal Methods:
Manual methods of invasive plant management will include hand pulling or cutting. To minimize soil disturbance, shallow-rooted invasive plants less than 1" in caliper will be hand pulled from the soil. Invasive plant species greater than 1" in diameter will be cut. All invasive plant material will be disposed of off site. Manual hand pulling and cutting will remove all invasive plants from the wetland buffer.

Cut and Dab and Foam application: All invasive plant species that have a base greater than 1" in caliper are proposed for herbicide application methods. Although invasive, the root systems of plants greater then 1" in caliper usually have extensive fibrous root systems, providing soil stabilization. So we propose a cut & dab method of application of a Triclopyr based herbicide (Garlon) or Glyphosate based herbicide approved for wetland use (trade name Rodeo) on individual cut stumps. Licensed Pesticide Applicators will complete all aspects of the proposed restoration. For treatment of perennial species that cannot be controlled with cut and dab or by manual methods should be treated by a foam based herbicide that is wiped onto the leaves using a cotton glove. This hyper-specific treatment limits any treatment of non-target plants. No treatment will occur in areas of standing water.

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

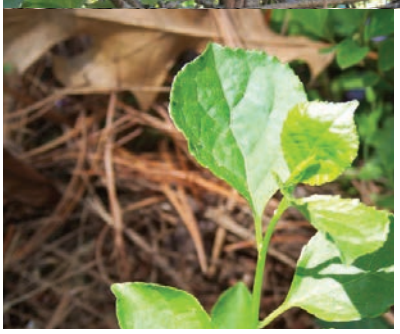
Proposed cut stump treatment (below) using hand tools and applying marking dye to eliminate possibility of treatment of stump twice, or missing stump entirely. (Above) Foam treatment allows highly specific placement of herbicide to remove invasive perennials that limits disturbance and protects surrounding species

325 Little Harbor Road
Asiatic Bittersweet ID and Management

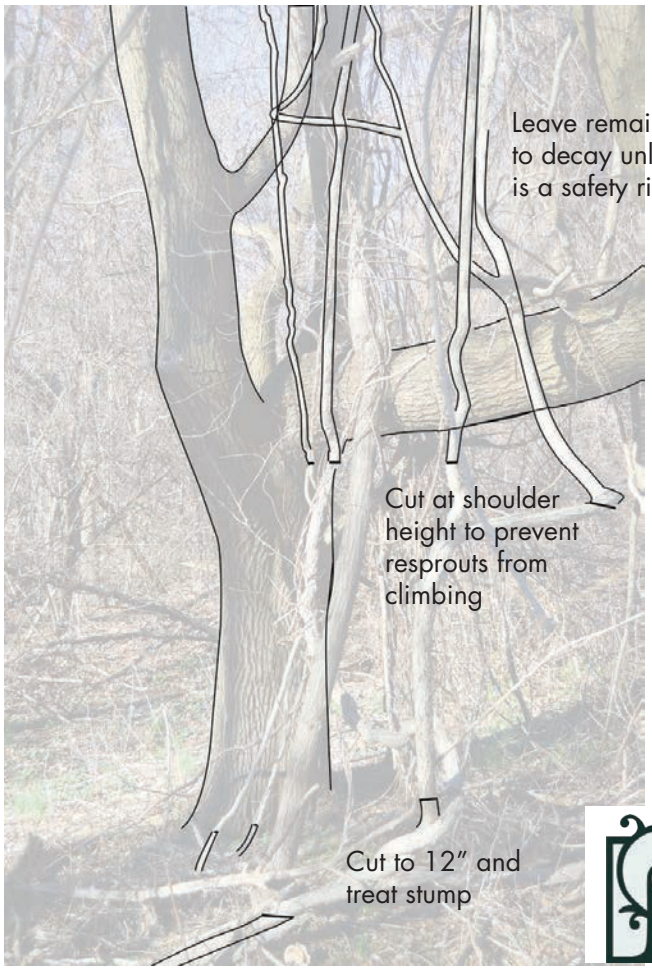
Invasive Bittersweet (*Celastrus orbiculatus)* have the capacity to girdle, weaken, and even kill mature canopy trees. Without some frequency of removal, they will eventually open large holes in the canopy while suppressing saplings from filling the holes. They readily resprout after being cut and can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

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). Our team recommends 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).



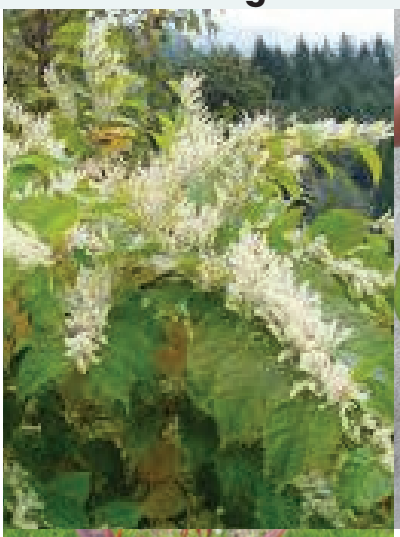
Identification: Alternate, circular light green leaves 2-5 in. long. Distinctive, large light colored vine. Red berries with orange casing appearing in late fall. Seedlings have light green leaves. Deep orange roots.



325 Little Harbor Road
Japanese Knotweed Management

Japanese Knotweed (*Fallopia japonica)* is one of the most difficult invasive species to control. Its main mode of spreading is through cut portions of its rhizomes or stem, which can actively resprout even when 1 inch in length. Growing 10-15' and shading out any competitors, Japanese Knotweed can quickly form a monoculture. It can take 2-5 seasons to fully contain through repeat herbicide treatments. It is at its weakest point during the flowering stage, when nutrients are flowing back into the roots (Aug, Sept.) Unfortunately, taproots can extend over 6' below the ground making organic eradication nearly impossible without excavation. There are two ways to approach treatment.

1. Cut and treat: For smaller areas, involves cutting the stem between the 1st and 3rd node and adding a 66% solution of Aquaneat (glyphosate), generally 5 oz per treated stem. If density is less than 5 ft per plant treat every third stem. Do this for 2-5 seasons.
2. Cut in May, wipe leaves in fall or apply to stem in fall: In this case, dense stands of Knotweed are mown in end of May so when they regrow they are at hip height by August. They can then be easily wiped with a 6.0% Aquaneat (glyphosate) solution



Identification: Herbaceous perennial, with long heart shaped leaves. Young sprouts can be red, rhubarb in nature. Extensive roots can spread and colonize quickly and can reach 15 ft. at maturity.

Japanese Knotweed cut in preparation for a fall herbicide foliar wipe treatment (top left). Treatment of Japanese Knotweed stems using a cut and fill method (above). A combination of cut and fill in the first season and foliar wipe in the second has shown to be effective. Foliar wipe can be accomplished by applying herbicide to a glove and wiping leaves or by utilizing a foaming agent to help herbicide stick to the leaves (left). It is a highly specific treatment with little risk of drift.

Management Calendar for Treatment and Planting

Task	March/ April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
Remove Garlic Mustard and Lesser Celandine seedlings by hand or smothering									
Cutting of Japanese Knotweed									
Cut and dab of woody invasive species									
Treatment of Japanese Knotweed									
Invasive vine management and cut and dab treatment									
Restoration planting									
Treatment of Black Swallowort									
Mowing of meadows									

Optimal timing and efficiency

Not optimal but mostly effective

Possible, but not ideal

325 Little Harbor Road
Native Plant Inventory

Within the tidal river buffer is a diverse native plant community dominated by mature Oaks and White Pines with Chokeberry, Black Cherry, Arrowood Viburnum, and lowbush Blueberry in the understory. In the sunnier areas is a wet meadow featuring Rough Goldenrod, Alleghaney Blackberry, Sumac, Common Rush and Elderberry. An occupied Belted Kingfisher nest was found during the site visits. We propose utilizing these existing native plant species as indicators of what naturally inhabits this plant community and propose additional planting of these species and diversifying with other native trees, shrubs and perennials.

Native Plant Species Identified:

Acer rubrum, Red Maple
Acer sacharinum, Sugar Maple
Aronia melanocarpa, Black Chokeberry
Betula populifolia, Gray Birch
Betula papyrifera, Paper Birch
Iva frutescens, Bigleaf Marsh-elder
Juncus tenuis, Path Rush
Juniperus virginiana, Eastern Red Cedar
Kalmia latifolia, Mountain Laurel
Myrica pensylvanica, Bayberry
Parthenocissus quinquefolia, Virginia Creeper
Pinus strobus, Eastern White Pine
Prunus serotina, Black Cherry
Prunus virginana, Chokecherry
Toxicodendron radicans, Poison Ivy
Quercus alba, White Oak
Rosa virginiana, Virginia Rose
Rhus typhina, Staghorn Sumac
Rubus allegheniensis, Allegheny blackberry
Sambucus canadensis, Elderberry
Solidago bicolor, Silverrod
Solidago sempervirens, Sea-side Goldenrod
Solidago rugosa, Rough-leaved Goldenrod
Swida amonum, Silky Dogwood
Tilia americana, American Basswood
Vaccinium corymbosum, High-bush Blueberry
Viburnum dentatum, Arrowood Viburnum

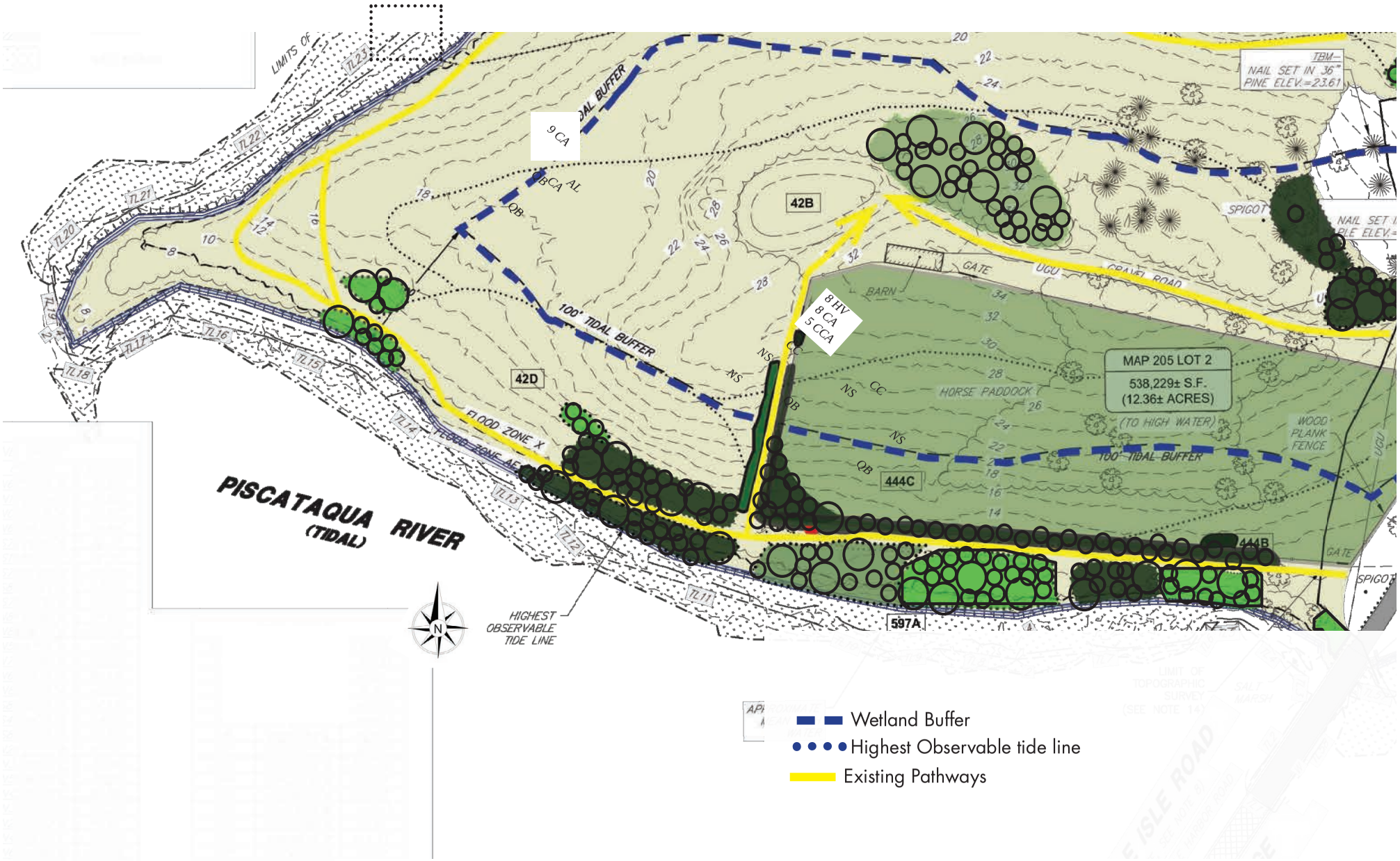
Silverrod alongside Blue-stem Goldenrod and Carex. sp

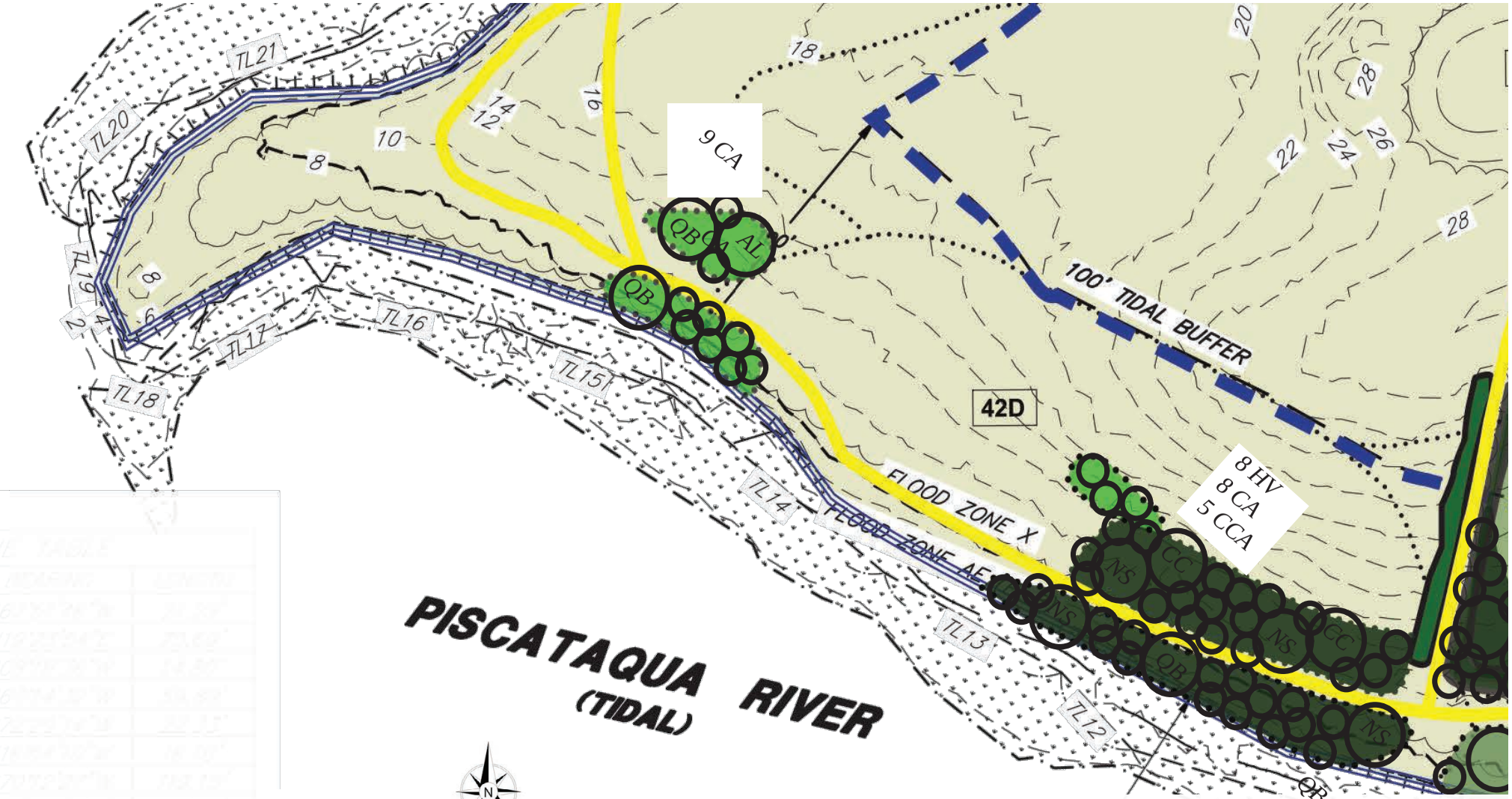
Gray Birch along the bank

325 Little Harbor Road
Invasive Plant Images

Staghorn Sumac along the banks with Arrowood Viburnum and Virginia Rose in the foreground

Marsh Elder along with Beechgrass line the western banks of the island


PISCATAQUA RIVER
(TIDAL)
100' TIDAL BUFFER
FLOOD ZONE X
FLOOD ZONE AE
HIGHEST OBSERVABLE TIDE LINE
42B
42D
444C
444B
597A
9 CA
8 HV
8 CA
5 CCA
BARN
GATE
HORSE PADDOCK
(TO HIGH WATER)
WOOD PLANK FENCE
SPIGOT
MAP 205 LOT 2
538,229± S.F.
(12.36± ACRES)
TBM—
NAIL SET IN 36" PINE ELEV.=23.61
Wetland Buffer
Highest Observable tide line
Existing Pathways

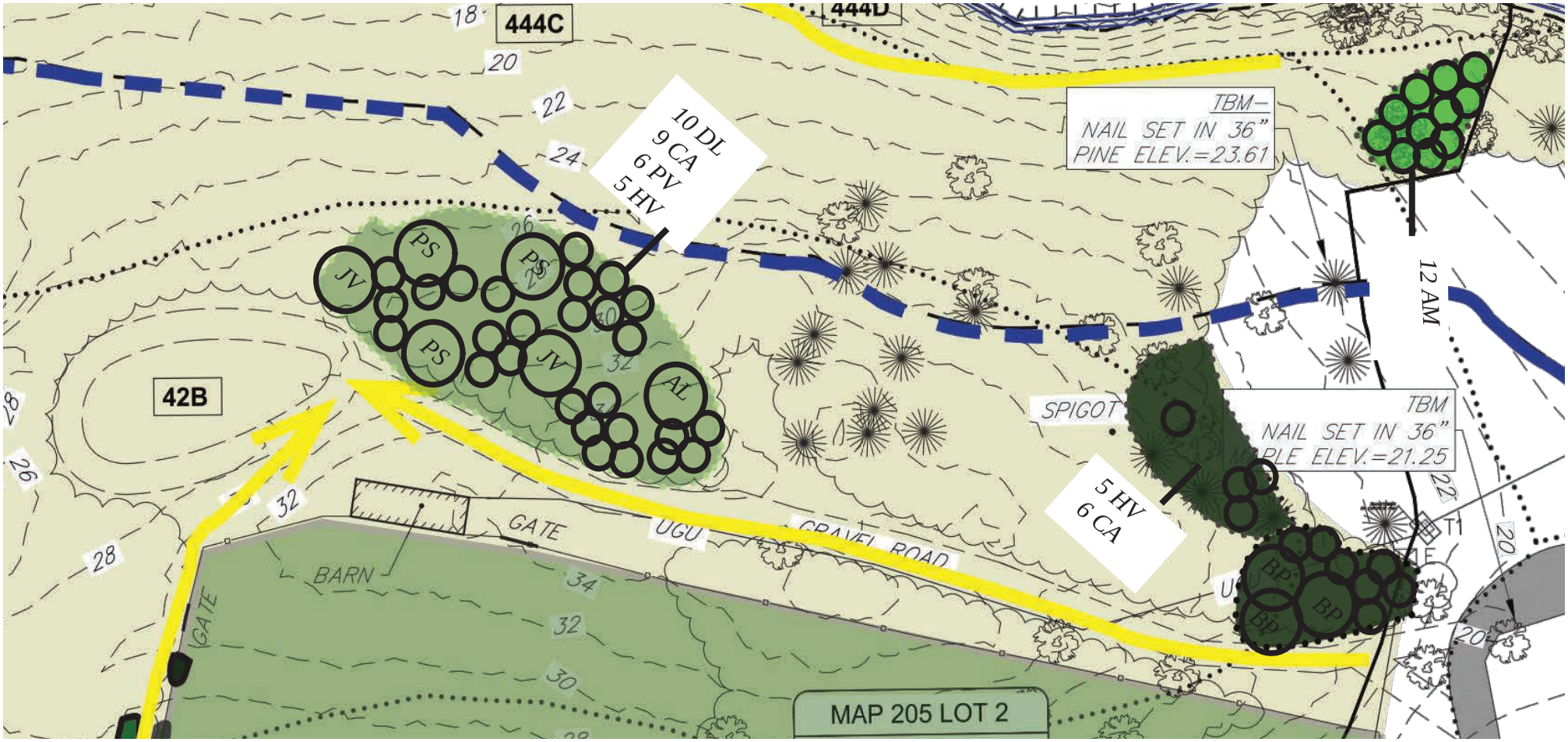


Wetland Buffer

Highest Observable tide line

Existing Pathways

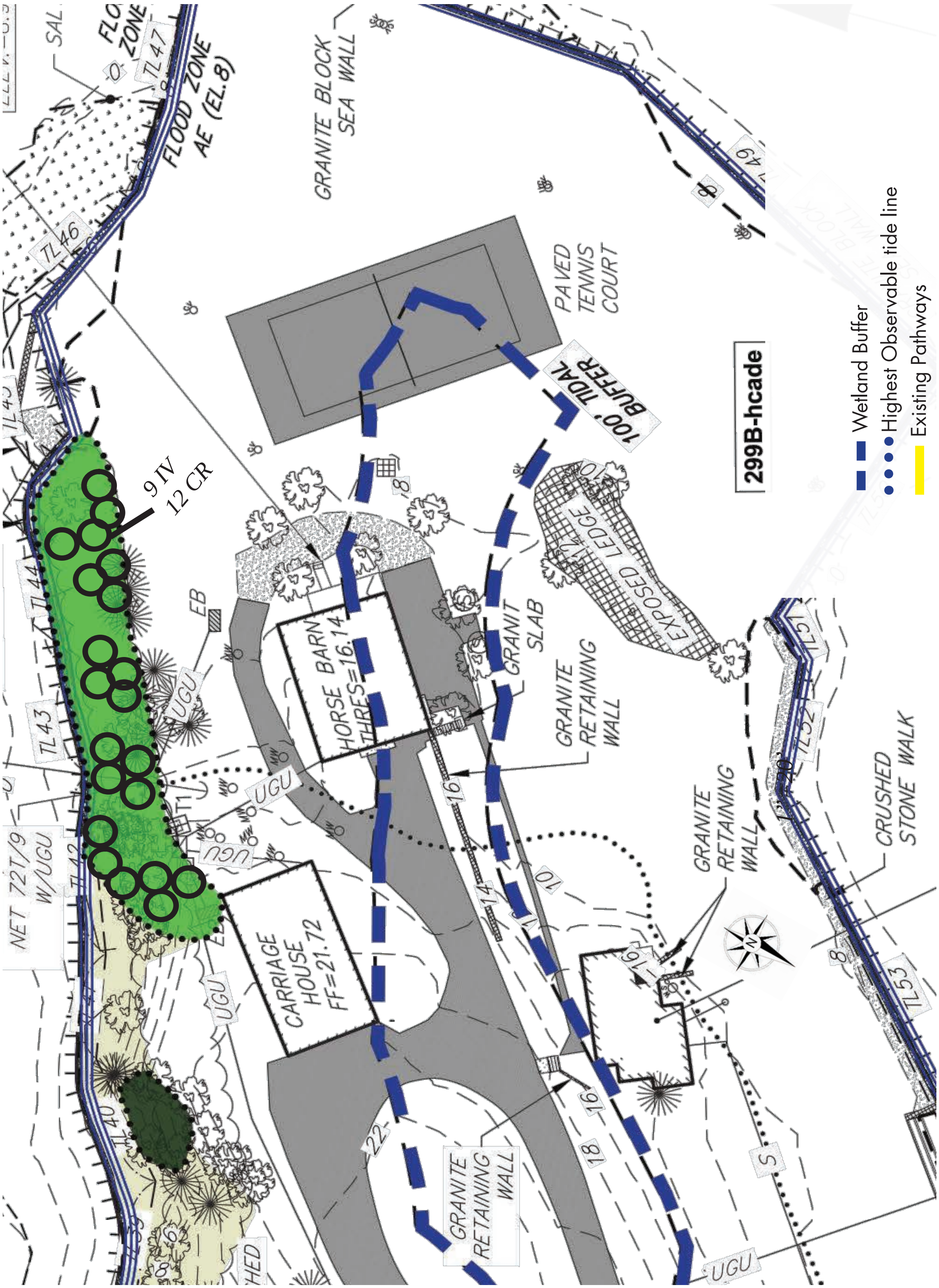
For the planting, we propose restoring a
invasive species with native shrubs and p
path through the meadow In areas propos
propose mowing and controlling existing
establish native perennials and add diver



Wetland Buffer

Highest Observable tide line

Existing Pathways



FLOOD ZONE AE (EL.8)
GRANITE BLOCK SEA WALL
PAVED TENNIS COURT
100' TIDAL BUFFER
299B-hcade
Wetland Buffer
Highest Observable tide line
Existing Pathways
9 IV
12 CR
EXPOSED LEDGE
GRANIT SLAB
GRANITE RETAINING WALL
HORSE BARN THRES=16.14
CARRIAGE HOUSE FF=21.72
CRUSHED STONE WALK
NET 72T/9 W/UGU
UGU
EB
TL40
TL43
TL44
TL46
TL47
TL49
TL51
TL52
TL53

After invasive plant species have been removed from the wetland buffer, the area will be planted with one to five gallon native conservation grade New England native trees, shrubs and perennials from local seed and cutting sources. It is proposed that native plants will have greater than 90% coverage by the conclusion of the 3 year Order of Conditions. Native plants proposed for installation will add diversity of existing native plants, provide habitat and forage for wildlife, and reduce storm water and sediment flow wetland areas. Plants proposed for installation include:

	Quantity	Size	Scientific name	Common name
Within 100' Tidal River Buffer	4	3-4'	Amelanchier laevis	Shadblow Serviceberry
	2	3-4'	Acer rubrum	Red Maple
	12	3-4'	*Aronia melanocarpa*	Black Chokecherry
	5	3-4'	*Betula papyrifera*	*Paper Birch*
	2	3-4'	*Carpinus caroliniana*	*Ironwood*
	44	3-4'	*Clethra alnifolia*	Summersweet
	5	3-4'	*Cornus amonum*	Silky Dogwood
	12	3-4'	*Cornus racemosa*	Gray Dogwood
	10	3-4'	*Diervilla lonicera*	Northern Bush Honeysuckle
	18	3-4'	Hamamelis virginiana	Witchazel
	9	3-4'	Ilex vertilicillata	Winterberry
	2	3-4'	Juniperus virginiana	Eastern Red Cedar
	24	3-4'	*Myrica pennsylvatica*	Bayberry
	6	3-4'	Nyssa sylvatica	Black Tupelo
	6	3-4'	Prunus virginiana	Chokecherry
	3	3-4'	Prunus serotina	Black Cherry
	7	3-4'	Quercus bicolor	Swamp White Oak
	9	3-4'	Rhus typhina	Staghorn Sumac
	16	3-4'	Rosa virginiana	Virginia Rose

After planting the conservation grade native shrubs and trees and slope stabilizing perennials, we propose the area be seeded with a custom Dormant seed mix at recommended seeding rates. This dense seed mix will supply a matrix of vegetative growth to cover disturbed soils, and reduce recolonization of invasive plant species. These mixes include:

New England Showy New England Wildflower mix
New England Understory Grass and Forb Mix

325 Little Harbor Road
Maintenance Schedule

The recommendations for restoration take into consideration the long term health of the wetland. Once the invasive plant species have been managed in a locus area and any native plants installed, a long-term maintenance plan will be set in motion with the goal of continued control of invasive plant species on site, serve, and sustain native plant populations, and improve the native plant diversity and aesthetic beauty of the wetland.

Fall - Winter 2021

- Complete invasive species management of Buckthorn and woody invasive plant species by cut and dab methods
- Identify and manually hand-pull identified invasive shrubs and vines under 1' in caliper
- Cover all disturbed soil along with native seed mix

Winter 2021-Spring 2022

- Continue utilizing control methods of invasive plant management to exhaust seed bank
- Begin planting native plant species according to approved quantities and varieties
- Monitor plant response and continue hand pulling and herbicide application methods on re sprouting invasive plant species
- Cover exposed soils Conservation seed mix

Summer 2022

- Cut and dab/Foam application to Japanese Knotweed and remaining invasive shrub and tree species
- Continue utilizing control methods of invasive plant management to exhaust seed bank
- Continue planting native plant species according to approved quantities and varieties

Fall 2022 - Summer 2023

- Monitor plant response and continue hand pulling and herbicide application methods on re sprouting invasive plant species
- Followup treatment of Japanese Knotweed (Mowing in spring, treating in fall)
- Cover exposed soils Conservation seed mix
- Monitor native species for plant health

Ongoing Maintenance and Monitoring:

- After the treatments of fall 2023, the management plan should be re-evaluated. If management treatments have been successful, only monitoring and minimal hand removal should be required to keep invasive plant species from being reintroduced. Native trees, shrubs, and herbaceous forbs should dominate the wetland buffer.
- Implementation of the LMP should be completed by qualified professionals including:
  NH Licensed pesticide applicator
  Certified Massachusetts/NH Invasive Species Management
  MCH Massachusetts Certified Horticulturist
- Monitoring reports shall be submitted to conservation at the end of each growing season indicating invasive species management efforts and establishment of the restoration plantings.

Bittersweet

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:

Asiatic Bittersweet management is a combination of manual hand pulling with cut & dab herbicide treatments. For established plants, vines should be cut to ground to reduce mass. Persistent root infestations will require repeat cutting and treatments over several seasons. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly.

Celastrus orbiculatus,
Asiatic Bittersweet

Honeysuckle

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 most often occur in forest edges, abandoned fields, and other open, upland habitats. Woodlands and open meadows, especially those that have been grazed or otherwise disturbed and are left unmanaged are also highly susceptible. Morrow's Honeysuckle have the greatest habitat diversity and are capable of invading wetland edges and other uncommon habitat types.

Management:

Morrows Honeysuckle management is a combination of mechanical mowing and manual hand pulling with cut and dab herbicide treatments. When feasible, the root system is generally shallow and plants can be uprooted easily. Persistent root re sprouting may require repeat cutting with herbicide application over several seasons to fully control.

Lonicera morrowii,
Morrow's Honeysuckle

Buckthorn

Description:
Frangula alnus, 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. Abandoned agricultural or pasture lands, an opening in canopy within woodland, or unmanaged meadows are common areas. 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:
Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Mature Buckthorn can also be cut and the stump application of Triclopyr based herbicide. Rake any seeds present, bagging and disposing of correctly.

Frangula alnus,
Glossy buckthorn

Multiflora Rose

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.

Rosa multiflora,
Multiflora rose

IDENTIFICATION AND QUALIFICATION OF APPLICANT

This plan has been developed by Miles H. Connors, Director of Ecological Services at Parterre Ecological, a division of Parterre Garden Services. Parterre Ecological Services provides Land Management Planning, expert Invasive Plant Management services, Native Plant Restoration strategies, and ongoing Maintenance and Monitoring in natural area restorations.

PLAN AUTHOR AND QUALIFICATIONS

Miles Hilton Connors
Director of Ecological Services
mconnors@parterreecological.com

Parterre Garden Services
67 Smith Place, unit 12A
Cambridge MA 12138

Miles holds an Bachelor of Science degree in Environmental Planning and Policy and Biology, with a Masters of Science in Sustainable Landscape Planning and Design. Miles is also a Massachusetts Certified Horticulturist, holds an Invasive Plant Certification from UMASS Amherst and is a Licensed Pesticide Applicator.

Members of the Parterre Ecological team are licensed Massachusetts Pesticide Applicators, are Massachusetts Certified Horticulturists and hold an Invasive Plant Certification from UMASS Amherst.

Precedent Images of a Restoration Project completed in 2020

1. Existing Conditions - Client under an enforcement order to restore buffer after tree & shrub removal and hydroseeding turf

2. After installation of sediment control, we mechanically mowed area and seeded with New England Conservation and Wildlife Seed Mix

3. Covered exposed loam with straw erosion control blanket: BioNet S75BN and staple into existing slope

4. Layout native plant species suitable for an Oak Hickory Forest plant community

5. Native plant species installed: *Quercus rubra, Kalmia latifolia, Ostrya virginiana, Corylus americana, Betula lenta, Fagus grandiflora and Viburnum acerfolium*

HOEFLE, PHOENIX, GORMLEY & ROBERTS, PLLC
ATTORNEYS AT LAW

127 Parrott Avenue, P.O. Box 4480 | Portsmouth, NH, 03802-4480
Telephone: 603.436.0666 | Facsimile: 603.431.0879 | www.hpgrlaw.com

April 1, 2022

BY EMAIL AND FIRST CLASS MAIL
Peter Stith, Chair
City of Portsmouth
Technical Advisory Committee
1 Junkins Avenue
Portsmouth NH 03801

Dear Chairman Stith:

Please accept this letter on behalf of the ADL 325 Little Harbor Road Trust ("ADL") with respect to the pending Wetland Conditional Use Permit ("CUP") application for 325 Little Harbor Road (the "Property"). The purpose of this letter is to provide a history of the proposed residential project and to address the scope of technical advisory committee ("TAC") review.

This project has been pending since August 2017, when ADL first applied for a CUP to replace the existing home and renovate/construct associated residential structures on the Property. That CUP received full Planning Board and Conservation Commission review at the time and was approved shortly thereafter on September 25, 2017. The proposal also received NHDES wetland and shoreland permitting approval in February 2018. Construction of the project lapsed as a result of the untimely death of ADL's general contractor at the time.

On September 29, 2021, ADL applied for a new CUP for a modified design in a new location on the Property. ADL met with the Planning Board and Conservation Commission in November 2021. The proposal received a favorable recommendation from the Conservation Commission for the modified project and was originally scheduled for the December 16, 2021 Planning Board meeting.

Shortly prior to the December Planning Board hearing, however, City staff requested that the project be reviewed by TAC due to complexities related to utilities. ADL voluntarily agreed to review despite the fact that TAC is not required for residential projects such as ADL's pending proposal. ADL's project team met with TAC at its February 8, 2022 work session and again at its March 1, 2022 meeting. They also met with the Conservation Commission on March 9th and received a second favorable recommendation for the project.

ADL has addressed all comments made by the members at the February 8th work session and March 1st meeting. All requested information and documentation that can reasonably be provided at this time has been delivered. All other outstanding requests relate to items that require third party agreements (e.g., utility licenses) and/or are more properly provided subsequent to approval and finalization of plans, as part of the building permit process.

The scope of TAC's review, submitted to voluntarily by the applicant, was limited to technical utility concerns related to the pending wetlands CUP, and not the overall residential project, which has already received multiple Planning Board, Conservation Commission and NH DES review. ADL has provided all requested information and documentation reasonably available at this point in the approval process. This proposal has been pending since 2017 in its original form and for over four months in its current iteration.

Accordingly, I respectfully remind the committee of the limited scope of its review and request that the project be recommended for review and approval at the Planning Board's next regularly scheduled meeting on April 21, 2022.

Very truly yours,

Kevin M. Baum

cc Anthony DiLorenzo
TF Moran, Inc.
John Kuzinevich, Esq.
Stephen H. Roberts, Esq.,
Trustee of The ADL 325
Little Harbor Road Trust

ACCESS EASEMENT FOR WATER SERVICES

KNOW ALL PERSONS BY THESE PRESENTS, that STEPHEN H. ROBERTS, ESQ. TRUSTEE OF THE ADL 325 LITTLE HARBOR ROAD TRUST, with a mailing address of 127 Parrott Avenue, Portsmouth, New Hampshire 03801 ("Grantor"), for consideration received, grants to the CITY OF PORTSMOUTH, a municipal body politic having a mailing address of 1 Junkins Avenue, Portsmouth, County of Rockingham and State of New Hampshire 03801 ("Grantee"), with QUITCLAIM COVENANTS an easement over, below, along, and across Grantor's real property situate on the northerly side of Little Harbor Road, also known as Lady Isle, in the City of Portsmouth, State of New Hampshire, further identified as 325 Little Harbor Road, Portsmouth, Rockingham County, New Hampshire, City of Portsmouth Tax Assessor's Map No. 205, Lot 2.

Meaning and intending to convey an easement over the premises conveyed to the within Grantor by deed of Stephen H. Roberts, Esq., Trustee of The ADL Portsmouth Residence Trust dated November 1, 2018 and recorded in Book 5959, Page 1244 of the Rockingham County Registry of Deeds.

Purpose and Rights: The Grantee shall have a perpetual, permanent uninterrupted and unobstructed nonexclusive easement for the purpose of enabling the City of Portsmouth to access private water infrastructure including mains, water shutoffs, and valves for the limited purpose of leak detection and similar infrastructure inspection services and for access to valves for purposes of turning on and shutting off municipal water service. Grantee shall have no responsibility for installation, maintenance, operation, or replacement of the water infrastructure.

Retained Rights: Grantor retains the right to freely use and enjoy its interest in the easement area insofar as the exercise thereof does not interfere with the purpose of this instrument.

Easement To Run With Land: All rights and privileges, obligations and liabilities created by this instrument shall inure to the benefit of, and be binding upon, the heirs, devises, administrators, executor, successors and assignees of the Grantee and of the Grantor, the parties hereto and all subsequent owners of the Premises and shall run with the land and be binding upon, any and all successors and assignees of the Grantee.

This is an exempt transfer per R.S.A. 78-B:2(I).

IN WITNESS WHEREOF, the parties have executed this document on the _____day of _____, 2022

ADL 325 Little Harbor Road Trust

Witness:_____ By:_____
Stephen H. Roberts, Esq., Trustee

STATE OF NEW HAMPSHIRE
COUNTY OF_____

Personally appeared the above-named Stephen H. Roberts, Esq., Trustee of the ADL 325 Little Harbor Road Trust and acknowledged the foregoing instrument to be his free act and deed executed for the purposes contained therein.

_____
Notary Public/Justice of the Peace
My commission expires: _____

TE2 ENGINEERING, LLC.
200 Reservoir St. Suite 204 Needham, MA 02494
(P) 781-334-8323 (F) 877-360-4269
www.te2engineering.com

March 21, 2022

Portsmouth DPW
Attn: DPW Representative

Re: 325 Little Harbor Rd.
Portsmouth, NH 03801

To whom it may concern,

TE2 Engineering LLC has been hired to design the mechanical, electrical, plumbing and fire protection (MEPFP) systems for the project addressed above. TE2 Engineering, LLC is working in close contact with many team members including but not limited to the architect (GP Schafer), the civil engineer (TF Moran), and general contractor (Youngblood Builders) to design safe, effective and code compliant MEPFP systems.

The water service has been designed based on the current list of plumbing fixtures and building layouts. This calculation has yielded a 4" domestic water line for the property. Our intent is to design an automatic sprinkler system based on the NPFA 13 D standard for the main house, the guest cottage and pool cabana buildings. Each of these buildings would be provided with a tank & pump system to be independent of the domestic water supply. Each fire pump would be powered by utility power, but also backed up on emergency power from a standby generator. In addition, each fire tank will have an automatic fill valve based on the relative water level in the tank, should additional water be required.

We will continue to design the MEPFP systems and look forward to working with you on this project.

Sincerely,

Drew Domnarski, P.E.
TE2 Engineering, LLC.

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD
PORTSMOUTH, NEW HAMPSHIRE

SEPTEMBER 29, 2021
REVISED APRIL 4, 2022

GENERAL INFORMATION

OWNER/APPLICANT
MAP 205 LOT 2
ADL 325 LITTLE HARBOR ROAD TRUST
C/O STEPHEN H ROBERTS, ESQ
TRUSTEE
127 PARROT AVENUE
PORTSMOUTH, NH 03801

RESOURCE LIST

PLANNING/ZONING DEPARTMENT
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
603-610-7296
BEVERLY ZENDT,
PLANNING DIRECTOR

BUILDING DEPARTMENT
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
603-610-7261
ROBERT MARSILIA,
CHIEF BUILDING INSPECTOR

PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801
603-427-1530
PETER RICE,
DIRECTOR OF PUBLIC WORKS

POLICE DEPARTMENT
3 JUNKINS AVENUE
PORTSMOUTH, NH 03801
603-427-1500
MARK NEWPORT, INTERIM CHIEF

FIRE DEPARTMENT
170 COURT STREET
PORTSMOUTH, NH 03801
603-427-1515
TODD GERMAIN, CHIEF

ASSOCIATED PROFESSIONALS

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MICKEY BENSON, PRINCIPAL

ECOLOGICAL SERVICES
PARTERRE ECOLOGICAL
67 SMITH PLACE, UNIT 12A
CAMBRIDGE, MA 02138
617-482-2230
RYAN CORRIGAN, MSED, MCH

LANDSCAPE ARCHITECT
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5 COMMERCE PARK NORTH
BEDFORD, NH 03110
603-232-8739
TRACY TARR, ASSOCIATE PRINCIPAL

HORIZONTAL SCALE 1"=500'
500 250 0 500

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1	BELLE ISLE ROAD BRIDGE REHABILITATION PROJECT

PERMITS/APPROVALS

	NUMBER	APPROVED	EXPIRES
PORTSMOUTH PLANNING BOARD & CONSERVATION COMMISSION WETLAND CUP	LU-22-23	-	-
PORTSMOUTH PLANNING BOARD CUP FOR DADU	LU-21-220	1/27/2022	1/27/2023
NH FISH & GAME	-	3/14/2022	-
NHDES WETLANDS & PERMIT AMENDMENT	2014-02662	2/15/2018 -	2/15/2023
NHDES SHORELAND & PERMIT AMENDMENT	2017-02665	2/26/2018 -	2/26/2023
NHDES ALTERATION OF TERRAIN	AOT-2104	3/14/2022	3/14/2027
NHDES SEWER	-	-	-
EPA NPDES ENOI CGP & SWPPP	-	-	-

NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES

1. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB21-3751, LADY ISLE SITE RENOVATIONS, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE; AND
2. THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
3. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, UTILIZED FOR, BUT NOT LIMITED TO SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, AND INLET PROTECTION, CHECK DAMS, SEDIMENT TRAPS, AND SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH.
4. PRIOR TO CONSTRUCTION, MARSH ELDER SHALL BE IDENTIFIED, FLAGGED, AND SURROUNDED WITH ORANGE CONSTRUCTION FENCING WITH YELLOW CAUTION TAPE FOR PROTECTION OF THE SPECIES. DO NOT REMOVE, MOW, TRAMPLE, COVER, OR OTHERWISE HARM THE PLANT. REMOVE FLAGS AND CONSTRUCTION FENCING AND CAUTION TAPE AFTER CONSTRUCTION IS COMPLETED.

MARSH ELDER

NOTES

1. SHRUBBY PERENNIAL HERB 2 TO 4 FT TALL, WITH THICKISH, OPPOSITE LEAVES AND SMALL GREENISH-WHITE CAPITULA, EACH WITH 5-6 MINUTE TUBULAR-SHAPED FLOWERS
2. EACH CLUMP CONSISTS OF FROM 10 TO 100 OR MORE STEMS FROM A SINGLE WOODY BASE
3. OCCURS NEAR THE HIGH TIDE LINE IN A FEW SMALL, SCATTERED POPULATIONS.

APPROVED BY THE CITY OF PORTSMOUTH PLANNING BOARD

ON _____

BOARD MEMBER _____ AND

BOARD MEMBER _____

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

COVER

LADY ISLE SITE RENOVATIONS
325 LITTLE HARBOR ROAD, PORTSMOUTH, NH
OWNED BY & PREPARED FOR
ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15682
LICENSED
PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
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www.tfmoran.com

FILE	DR	HEG	FB	-	
47099.01	CK	JCC	CADFILE	47099-01_COVER_MAIN	C-00

LEGEND

PROPOSED

- PROPERTY LINE
- ZONING LINE
- EASEMENT
- BASELINE
- FLOODPLAIN
- EDGE OF WATERBODY
- EDGE OF WETLAND
- SETBACK (WETLAND)
- SETBACK (STRUCTURE)
- SETBACK (PARKING)
- SETBACK (LANDSCAPE)
- GRAVEL ROAD
- EOP — EDGE OF PAVEMENT
- VGC — VERTICAL GRANITE CURB
- SGC — SLOPED GRANITE CURB
- CC — CONCRETE CURB
- ICC — INTEGRATED CONCRETE CURB
- BIT — BITUMINOUS ASPHALT CURB
- CCB — CAPE COD BERM
- SAWCUT
- BUILDING
- BUILDING ROOF OVERHANG
- BUILDING FOUNDATION
- BUILDING ENTRANCE
- OVERHEAD DOOR
- TREE LINE
- FENCE (CHAIN LINK)
- FENCE (WIRE)
- FENCE (STOCKADE)
- GUARDRAIL
- STONE WALL
- RETAINING WALL
- SILT FENCE
- SILT SOCK
- SOIL BOUNDARY
- LIMIT OF GRADING
- CONTOUR
- SPOT GRADE — TC100.50 / BC100.00 OR X 100.00
- PARKING COUNT — ##
- DSLY — YELLOW DOUBLE SOLID LINE
- SSLY — YELLOW SINGLE SOLID LINE
- SSLW — WHITE SINGLE SOLID LINE
- SBLW — WHITE SINGLE BROKEN LINE
- STOP BAR
- CROSSWALK
- ACCESSIBLE PARKING SYMBOL
- PAVEMENT ARROW
- TRAFFIC FLOW ARROW (NOT PAINTED)
- SIGN (SINGLE POST)
- SIGN (DOUBLE POST)
- SIGN (PYLON)
- SIGN (MONUMENT)
- BOLLARD
- D — DUMPSTER PAD

PROPOSED

- CONCRETE
- GRAVEL
- HEAVY DUTY PAVEMENT
- LANDSCAPE AREA
- NATURAL WOODED AREA
- CONSTRUCTION ENTRANCE
- SNOW STORAGE
- RIPRAP
- INLET PROTECTION
- DRAIN LINE
- DRAINAGE SWALE
- STORMWATER BMP
- S — SEWER LINE
- FM — SEWER FORCE MAIN LINE
- W — WATER LINE
- G — GAS LINE
- OHE — OVERHEAD UTILITY LINE
- UGE — UNDERGROUND UTILITY LINE
- CATCH BASIN
- DRAIN INLET
- OUTLET CONTROL STRUCTURE
- ROOF DRAIN
- DRAIN CLEANOUT
- DRAIN MANHOLE
- FARED END SECTION
- SEWER CLEAN OUT
- SEWER MANHOLE
- SEWER VENT
- DRAIN/SEWER/WATER PLUG OR CAP
- HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER GATE VALVE
- WATER SHUTOFF
- THRUST BLOCK
- WATER METER
- WATER MANHOLE
- WELL
- GAS GATE VALVE
- GAS SHUT OFF
- GAS METER
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- TRAFFIC CONTROL CABINET
- ELECTRIC HANDHOLE
- ELECTRIC PULL BOX
- ELECTRIC METER
- FLOOD LIGHT
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- T — TRANSFORMER PAD
- B-# — BORING LOCATION
- TP-# — TEST PIT LOCATION
- IT-# — INFILTRATION TEST LOCATION
- MW-# — MONITORING WELL

ABBREVIATIONS

GENERAL

ABAN	ABANDON
AC	ACRES
ADJ	ADJUST
APPROX	APPROXIMATE
BC	BOTTOM OF CURB
BIT	BITUMINOUS
BK/PG	BOOK & PAGE
BLDG	BUILDING
BMP	BEST MANAGEMENT PRACTICE
BS	BOTTOM OF SLOPE
BW	BOTTOM OF WALL
CONC	CONCRETE
COORD	COORDINATE
CUP	CONDITIONAL USE PERMIT
DADU	DETACHED ACCESSORY DWELLING UNIT
DIA	DIAMETER
DOM	DOMESTIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EXIST	EXISTING
FFE	FINISHED FLOOR ELEVATION
FND	FOUNDATION
HP	HIGH POINT
INV	INVERT ELEVATION
IT	INFILTRATION TEST
L	LENGTH
LF	LINEAR FEET
LSA	LANDSCAPE AREA
MAX	MAXIMUM
MIN	MINIMUM
N/F	NOW OR FORMERLY
NHFG	NH FISH & GAME
NTS	NOT TO SCALE
NWA	NATURAL WOODLAND AREA
OC	ON CENTER
PAVE	PAVEMENT
PERF	PERFORATED
PROP	PROPOSED
R	RADIUS
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
REM	REMOVE
RET	RETAIN
RIM	RIM ELEVATION
ROW	RIGHT OF WAY
S	SLOPE
SF	SQUARE FEET
SW	SIDEWALK
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TP	TEST PIT
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
W/	WITH

UTILITIES

CA/TV	CABLE/TELEVISION
CB	CATCH BASIN
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COND	CONDUIT
CTS	COPPER TUBING SIZE
DI	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
F&C	FRAME AND COVER
FES	FLARED END SECTION
FM	FORCE MAIN
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
IRRIG	IRRIGATION
MJ	MECHANICAL JOINT
OCS	OUTLET CONTROL STRUCTURE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
SMH	SEWER MANHOLE
SOS	SEDIMENT OIL SEPARATOR
UP	UTILITY POLE

GENERAL NOTES

1. THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
2. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN, INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
3. THE SITE LAYOUT PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
4. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
5. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF PORTSMOUTH, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE CITY AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE CITY, COUNTY, AND/OR STATE AGENCY.
6. THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ENV-WQ 1500. THE SITE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF EACH STORMWATER FACILITY TO COORDINATE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL TAKE PROGRESS PHOTOS DURING CONSTRUCTION OF ALL STORMWATER DRAINAGE COMPONENTS AND SEND TO THE ENGINEER.
7. SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
8. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
9. CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS.
10. PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
11. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
12. TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
13. TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
14. ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS.
15. ALL DEMOLITION AND RENOVATION OF STRUCTURES SHALL COMPLY WITH ENV-A 1800 FOR ASBESTOS MANAGEMENT AND CONTROL.
16. REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF BUILDING FOUNDATIONS AND CONCRETE ELEMENTS WHICH ABUT THE BUILDING SUCH AS STAIRS, SIDEWALKS, LOADING DOCK RAMPS, PADS, AND COMPACTOR PADS. DO NOT USE SITE PLANS FOR LAYOUT OF FOUNDATIONS.
17. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
18. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
19. CONTRACTOR'S GENERAL RESPONSIBILITIES:
    - A. BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS AND CONDITIONS OF ALL PROJECT-SPECIFIC PERMITS AND APPROVALS AS LISTED ON THE COVER SHEET TO THESE PLANS OR OTHERWISE REQUIRED.
    - B. NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
    - C. EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS.
    - D. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
    - E. TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST, AND UNSIGHTLY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT BETWEEN THE HOURS IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL ORDINANCES AND REGULATIONS OF THE CITY OF PORTSMOUTH.
    - F. MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
    - G. IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
    - H. COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
    - I. PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
    - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
    - K. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
    - L. VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE AND WETLAND SETBACKS PRIOR TO COMMENCING ANY FOUNDATION CONSTRUCTION.
    - M. PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE PLANNING DIRECTOR AND PER CITY REGULATIONS.
    - N. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.

GENERAL NOTES (CONTINUED)

19. CONTRACTOR'S GENERAL RESPONSIBILITIES (CONTINUED):
    - O. THIS PROJECT IS SUBJECT TO THE AOT PERMIT LISTED ON THE COVER SHEET. THE CONTRACTOR SHALL CONFORM TO ALL CONDITIONS OF THE PERMIT AND PROVIDE THE FOLLOWING DOCUMENTATION TO OWNER AND ENGINEER:
        1) ADVANCE WRITTEN NOTICE AT LEAST ONE WEEK PRIOR TO COMMENCING ANY WORK UNDER THE PERMIT.
        2) IF ANY UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS WERE INSTALLED, FOR EACH SUCH SYSTEM:
            - A) REPRESENTATIVE PHOTOGRAPHS OF THE SYSTEM AFTER COMPLETION BUT PRIOR TO BACKFILLING; AND
            - B) A LETTER SIGNED BY A QUALIFIED ENGINEER WHO OBSERVED THE SYSTEM PRIOR TO BACKFILLING, THAT THE SYSTEM CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.
        3) UPON COMPLETION OF CONSTRUCTION, WRITTEN CERTIFICATION THAT:
            - A) ALL WORK UNDER THE PERMIT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
            - B) IF ANY DEVIATIONS FROM THE APPROVED PLANS WERE MADE, WRITTEN DESCRIPTIONS AND AS-BUILT DRAWINGS OF ALL SUCH DEVIATIONS, STAMPED BY A QUALIFIED ENGINEER, SHALL BE PROVIDED.
20. PURSUANT TO PORTSMOUTH PLANNING BOARD DADU CUP APPROVAL ON 1/27/2022, THE APPROVED DADU SHALL BE THE ONLY ACCESSORY DWELLING UNIT ON THE PROPERTY. AN AFFIDAVIT STATING THIS HAS BEEN RECORDED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 AS APPLICABLE.
2. THE CONTRACTOR SHALL PREPARE, MAINTAIN, AND EXECUTE A S.W.P.P.P. IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT.
3. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.
5. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR INFORMATION ABOUT SOIL AND GROUNDWATER CONDITIONS. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDED METHODS TO ADDRESS ANY SOIL AND GROUNDWATER ISSUES THAT ARE FOUND ON SITE, INCLUDING AND NOT LIMITED TO DEWATERING METHODS, PERIMETER DRAINS AND TIE INTO STORMWATER MANAGEMENT SYSTEM, ETC.
6. COORDINATE WITH GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
7. COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES.
8. COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
9. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS, AND ALIGNMENTS.
10. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE, RAMPS, AND LOADING AREAS.
11. THE SITE SHALL BE GRADED SO ALL FINISHED PAVEMENT HAS POSITIVE DRAINAGE AND SHALL NOT POND WATER DEEPER THAN 1/4" FOR A PERIOD OF MORE THAN 15 MINUTES AFTER FLOODING.
12. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
13. ALL SIDEWALK AND OTHER CURB REVEALS SHALL BE 6" WITH A TOLERANCE OF PLUS OR MINUS 3/8". WHERE SIDEWALK IS TO BE FLUSH, THE PAVEMENT REVEAL SHALL BE 1/4" WITH A TOLERANCE OF 1/8".
14. THE FINISHED GRADE AT BOTTOM OF ALL ACCESSIBLE RAMPS SHALL BE FLUSH WITH PAVEMENT WITH A TOLERANCE OF PLUS OR MINUS 1/4".
15. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE PRIOR TO INSTALLATION OF FINISHED PAVEMENT.
16. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE NOTED.
17. STORMWATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
18. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
19. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
20. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER, AND MULCH.
21. DENSITY REQUIREMENTS:

MINIMUM DENSITY*	LOCATION
95%	BELOW PAVED OR CONCRETE AREAS
95%	TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL
90%	BELOW LOAM AND SEED AREAS

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM D-6938.

UTILITY NOTES

1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
2. ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL, INSTALLATION, TERMINATION, EXCAVATION, BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS, CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
4. COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE UTILITY COMPANY.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE UTILITY INSTALLATION COMPLETE AND OPERATIONAL.
8. ALL UTILITY COMPANIES REQUIRE INDIVIDUAL CONDUITS. CONTRACTOR TO COORDINATE WITH TELEPHONE, CABLE, AND ELECTRIC COMPANIES REGARDING NUMBER, SIZE, AND TYPE OF CONDUITS REQUIRED PRIOR TO INSTALLATION OF ANY CONDUIT.
9. SANITARY SEWER SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS AS SHOWN ON THESE PLANS. ALL SEWER MAINS AND FITTINGS SHALL BE PVC AND SHALL CONFORM TO ASTM F 679 (SDR 35 MINIMUM). FORCE MAINS AND FITTINGS SHALL CONFORM TO NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. SANITARY MANHOLES SHALL CONFORM TO NHDES WATER DIVISION WASTEWATER ENGINEERING BUREAU STANDARDS AND SPECIFICATIONS SHOWN HEREON.
10. ON-SITE WATER DISTRIBUTION SHALL BE TO CITY OF PORTSMOUTH STANDARDS AND SPECIFICATIONS. WATER MAINS SHALL HAVE A MINIMUM OF 5.5' COVER. WHERE WATER PIPES CROSS SEWER LINES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER SHALL BE 10' MINIMUM. WHERE A SANITARY LINE CROSSES A WATER LINE, SEWER LINE MUST BE CONSTRUCTED OF FORCE MAIN MATERIALS (PER ENV-WQ 704.08) FROM BUILDING OR MANHOLE TO MANHOLE, OR SUBSTITUTE RUBBER-GASKETED PRESSURE PIPE FOR THE SAME DISTANCE. WHEN SANITARY LINES PASS BELOW WATER LINES, LAY PIPE SO THAT NO JOINT IN THE SANITARY LINE WILL BE CLOSER THAN 6' HORIZONTALLY TO THE WATER LINE.
11. THRUST BLOCKS SHALL BE PROVIDED AT ALL LOCATIONS WHERE WATER LINE CHANGES DIRECTIONS OR CONNECTS TO ANOTHER WATER LINE.
12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE.
13. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES.
14. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING, AND RELATED SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE INDICATED.
15. PROVIDE PERMANENT PAVEMENT REPAIR FOR ALL UTILITY TRENCHES IN EXISTING ROAD OR PAVEMENT TO REMAIN. SAW CUT TRENCH, PAVEMENT, AND GRANULAR BASE THICKNESS TO MATCH EXISTING PAVEMENT. OBTAIN ALL PERMITS REQUIRED FOR TRENCHING.
16. UNLESS OTHERWISE SPECIFIED, ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC. SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO VEHICLE LOADS.
17. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE	PRIVATE
SEWER	MUNICIPAL
WATER	MUNICIPAL
GAS	UNITIL
ELECTRIC	EVERSOURCE
TELEPHONE	COMCAST, CONSOLIDATED COMMUNICATIONS, ETC.
CABLE	COMCAST

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STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI — No. 15682 — LICENSED PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

NOTES & LEGEND

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	HEG	FB	–	
47099.01	CK	JCC	CADFILE	47099-01_NOTES-LEGEND_MAIN	C-01

Apr 05, 2022 - 4:13am
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099-01 - DiLorenzo - 325 Little Harbor Rd\Design\PRODUCTION DRAWINGS\47099-01_Notes-Legend_Main.dwg

LEGEND:

BK.PG.	BOOK/PAGE
ELEV.	ELEVATION
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
NET	NEW ENGLAND TELEPHONE
PSNH	PUBLIC SERVICE COMPANY OF NEW ENGLAND
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
SL	SEPTIC LINE
UGU	UNDERGROUND UTILITIES
TBM	TEMPORARY BENCH MARK
TL	TIE LINE
444C	SOILS TYPE
	TREE LINE
OHU	OVERHEAD UTILITIES
18	EXISTING CONTOUR
	LIMIT OF SALT MARSH
UGU	UNDERGROUND UTILITIES
W	WATER LINE
	WOOD FENCE
	HIGHEST OBSERVABLE TIDE LI
	HIGH WATER
	FLOOD ZONE LINE
	TIDAL BUFFER
	SOILS LINE
TD	UTILITY POLE
	DECIDUOUS TREE
	CONIFEROUS TREE
T	TRANSFORMER
	TELEPHONE PEDESTAL
E	ELECTRIC METER
EB	ELECTRIC BOX
	GUY POLE/WIRE
	WATER SHUT OFF
TP-1	TEST PIT
IT-3	INFILTRATION TEST
	BRICK WALK
	PAVEMENT
	EASEMENT
	SALT MARSH

NOTES:

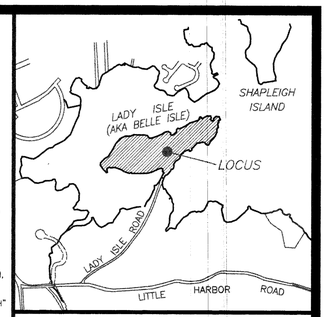
1. THE PARCEL IS LOCATED IN THE RURAL (R) ZONING DISTRICT.
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 205 AS LOT 2.
3. THE PARCEL IS LOCATED IN FLOOD HAZARD ZONE AE (EL.8) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 278, VERSION NUMBER 2.3.2.1 MAP NUMBER 33015C0278F, MAP REVISED: JANUARY 29, 2021. FLOOD ZONES DEPICTED ON THIS PLAN ESTABLISHED BY ELEVATION. THE DATUM IS NAVD88 BASED ON STATIC GPS OBSERVATIONS.
4. OWNER OF RECORD:
   THE ADL 325 LITTLE HARBOR ROAD TRUST
   STEPHEN H. ROBERTS ESQ., TRUSTEE
   127 PARROTT AVENUE
   PORTSMOUTH, NH 03801
   RCRD BK.5959 PG.1244
5. ZONING REQUIREMENTS:

MINIMUM LOT AREA:	5 ACRES (PER DWELLING UNIT)
MINIMUM STREET FRONTAGE:	N/A
DEPTH:	N/A
MINIMUM YARD SETBACKS:	
FRONT:	50 FEET
SIDE:	20 FEET
REAR:	40 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM BUILDING COVERAGE:	5%
MINIMUM OPEN SPACE:	75%

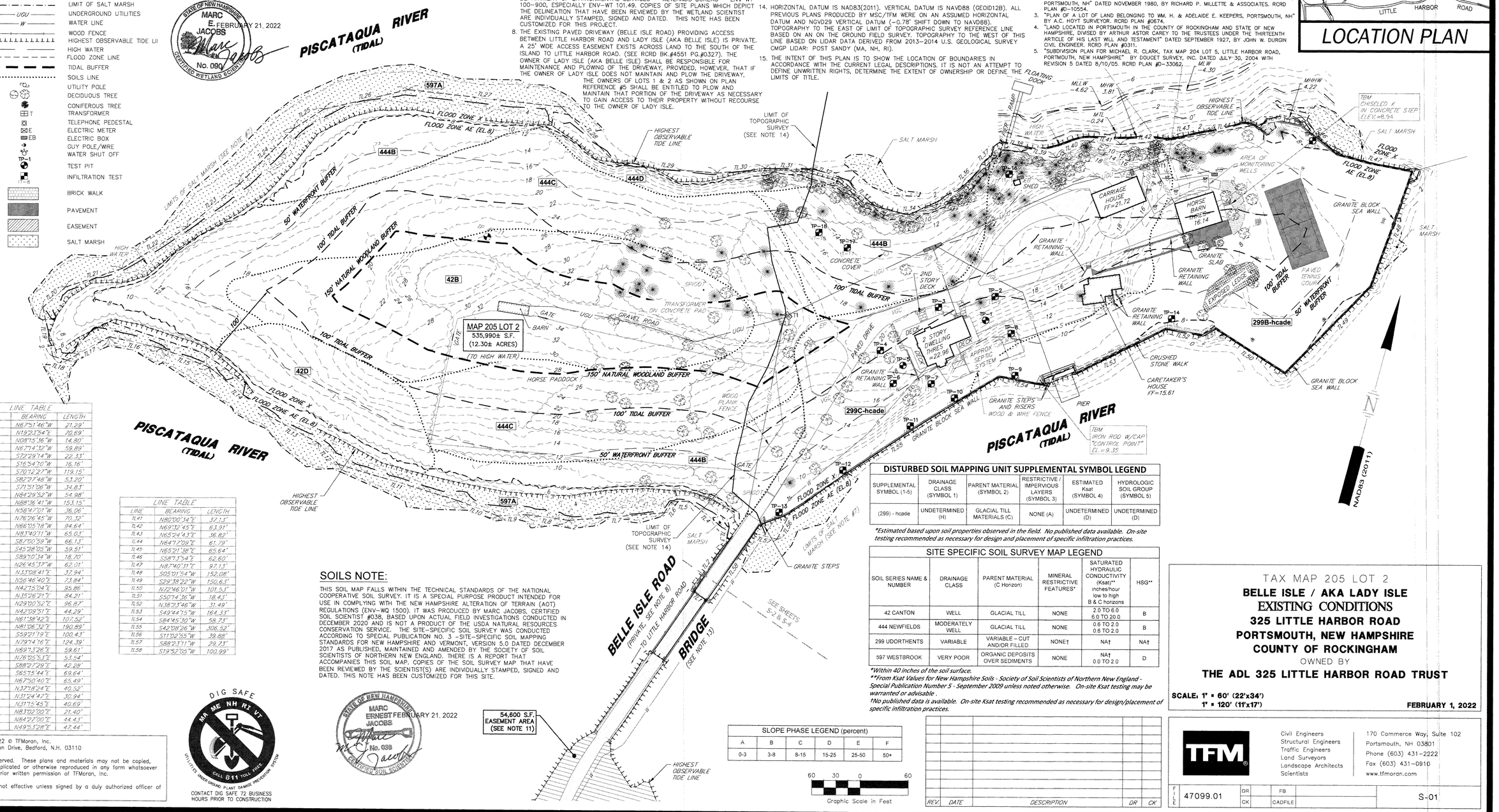
6. TOTAL PARCEL AREA:
   538,229± S.F.
   (12.36± ACRES)
7. HIGHEST OBSERVABLE TIDE LINE (HOTL) AND SALT MARSH NORTHERLY OF THE BRIDGE SHOWN HEREON WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST 090, ON MAY 24, 2019, THE HIGHEST OBSERVABLE TIDE LINE (HOTL), SALT MARSH AND FRESHWATER WETLANDS SOUTHERLY OF THE BRIDGE SHOWN HEREON WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST 090, ON NOVEMBER 9, 2021. SALT MARSH WAS DELINEATED BASED UPON THE EXTENT OF ROOTED EMERGENT SALT-TOLERANT VEGETATION OBSERVED DURING LOW TIDE. HOTL WAS DELINEATED BASED UPON THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES – WETLANDS BUREAU – ENV WT 100–900, ESPECIALLY ENV–WT 101.49. COPIES OF SITE PLANS WHICH DEPICT THE DELINEATION THAT HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS PROJECT.
8. THE EXISTING PAVED DRIVEWAY (BELLE ISLE ROAD) PROVIDING ACCESS BETWEEN LITTLE HARBOR ROAD AND LADY ISLE (AKA BELLE ISLE) IS PRIVATE. A 25' WIDE ACCESS EASEMENT EXISTS ACROSS LAND TO THE SOUTH OF THE ISLAND TO LITTLE HARBOR ROAD. (SEE RCRD BK.#4551 PG.#0327). THE OWNER OF LADY ISLE (AKA BELLE ISLE) SHALL BE RESPONSIBLE FOR MAINTENANCE AND PLOWING OF THE DRIVEWAY, PROVIDED, HOWEVER, THAT IF THE OWNER OF LADY ISLE DOES NOT MAINTAIN AND PLOW THE DRIVEWAY, THE OWNERS OF LOTS 1 & 2 AS SHOWN ON PLAN REFERENCE #5 SHALL BE ENTITLED TO PLOW AND MAINTAIN THAT PORTION OF THE DRIVEWAY AS NECESSARY TO GAIN ACCESS TO THEIR PROPERTY WITHOUT RECOURSE TO THE OWNER OF LADY ISLE.
9. THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. CALL 1–888–344–7233. THE BEST AVAILABLE INFORMATION WAS USED TO DETERMINE THE LOCATION, SIZE AND ELEVATION OF EXISTING UTILITIES. THE EXACT SIZE AND LOCATION OF UTILITIES SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE TERMINATION OF ALL UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.
10. ALL USES AND CONSTRUCTION SHALL COMPLY WITH RSA 483–B, THE SHORELAND WATER QUALITY PROTECTION ACT (SWQPA). REFERENCE IS ALSO MADE TO ARTICLE 10 SECTION 10.1016 OF THE PORTSMOUTH ZONING ORDINANCE WHICH SPECIFIES THE PERMITTED USES IN THE 100' TIDAL BUFFER SHOWN HEREON.
11. THE CURRENT AND FUTURE OWNERS OF LADY ISLE HAVE THE BENEFIT OF A 54,600 S.F. "EASEMENT AREA" AS SHOWN ON PLAN REFERENCE #5 AND DESCRIBED IN RCRD BK.#4551 PG.#0327. THE EASEMENT AREA IS LOCATED TO THE SOUTH OF THE EXISTING BRIDGE.
12. PARCEL IS ON TOWN WATER. THE CURRENT AND FUTURE OWNERS OF LADY ISLE HAVE THE BENEFIT OF A PERMANENT EASEMENT FOR THE INSTALLATION, OPERATION, MAINTENANCE, REPAIR AND REPLACEMENT OF THE EXISTING WATER LINE RUNNING FROM LITTLE HARBOR ROAD TO AND ALONG THE 25' WIDE ACCESS EASEMENT SHOWN ON PLAN REFERENCE #5. SEE RCRD BK.#4551 PG.#0327.
13. SEE PRIVATE ROADWAY & BRIDGE MAINTENANCE AGREEMENT ON FILE WITH THE CITY OF PORTSMOUTH.
14. HORIZONTAL DATUM IS NAD83(2011). VERTICAL DATUM IS NAVD88 (GEOID12B). ALL PREVIOUS PLANS PRODUCED BY MSC/TFM WERE ON AN ASSUMED HORIZONTAL DATUM AND NGVD29 VERTICAL DATUM (–0.78' SHIFT DOWN TO NAVD88). TOPOGRAPHY TO THE EAST OF LIMIT OF TOPOGRAPHIC SURVEY REFERENCE LINE BASED ON AN ON THE GROUND FIELD SURVEY. TOPOGRAPHY TO THE WEST OF THIS LINE BASED ON LIDAR DATA DERIVED FROM 2013–2014 U.S. GEOLOGICAL SURVEY CMGP LIDAR: POST SANDY (MA, NH, RI).
15. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
16. THE PURPOSE OF THIS PLAN IS TO SHOW THE BOUNDARY LINES, TOPOGRAPHY AND CURRENT SITE FEATURES OF MAP 205 LOT 2.
17. EXISTING USE OF THE PROPERTY IS RESIDENTIAL.
18. FIELD SURVEY COMPLETED BY TCE IN APRIL 2019 USING A TOPCON DS103 AND TOPCON FC5000 DATA COLLECTOR AND UPDATED IN DECEMBER 2020, MARCH 2021 AND DECEMBER–JANUARY 2022 USING A LEICA TS–16 AND CARLSON RT–4 DATA COLLECTOR.
19. EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE.
20. TIDE LINES SHOWN BASED ON TIDAL DATUM FOR NOAA STATION #8419870, SEAVEY ISLAND, ME. DATUM IS NAVD88.
21. IN ACCORDANCE WITH THE SCREENING REQUIRED BY THE NH NATURAL HERITAGE BUREAU (NHB), MORE PARTICULARLY, NHB REPORT NHB21–3759, TWO NEW DISTINCT POPULATIONS OF MARSH ELDER (IVA FRUTESCENS) WAS DETERMINED TO BE ON THE PROPERTY.

PLAN REFERENCES:

1. "BOUNDARY PLAN FOR BELLE ISLE PARTNERS TRUST, LITTLE HARBOR ROAD/BELLE ISLE, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH." DATED MARCH 30, 1995, BY RICHARD P. MILLETTE & ASSOCIATES.
2. "SUBDIVISION OF LAND FOR J.P. GRIFFIN, OFF LITTLE HARBOR ROAD COUNTY OF ROCKINGHAM, PORTSMOUTH, NH" DATED NOVEMBER 1980, BY RICHARD P. MILLETTE & ASSOCIATES. RCRD PLAN #D–10554.
3. "PLAN OF A LOT OF LAND BELONGING TO WM. H. & ADELAIDE E. KEEPERS, PORTSMOUTH, NH" BY A.C. HOYT SURVEYOR. RCRD PLAN #3674.
4. "LAND LOCATED IN PORTSMOUTH IN THE COUNTY OF ROCKINGHAM AND STATE OF NEW HAMPSHIRE, DIVISED BY ARTHUR ASTOR CAREY TO THE TRUSTEES UNDER THE THIRTEENTH ARTICLE OF HIS LAST WILL AND TESTAMENT" DATED SEPTEMBER 1927, BY JOHN W. DURGIN CIVIL ENGINEER. RCRD PLAN #0311.
5. "SUBDIVISION PLAN FOR MICHAEL R. CLARK, TAX MAP 204 LOT 5, LITTLE HARBOR ROAD, PORTMOUTH, NEW HAMPSHIRE" BY DOUCET SURVEY, INC. DATED JULY 30, 2004 WITH REVISION 5 DATED 8/10/05. RCRD PLAN #D–33062.



LOCATION PLAN



LINE TABLE		
LINE	BEARING	LENGTH
TL1	N67°51'46"W	21.29'
TL2	N19°23'54"E	70.69'
TL3	N08°15'36"W	14.80'
TL4	N67°14'32"W	59.89'
TL5	S72°29'14"W	22.33'
TL6	S16°54'10"W	16.16'
TL7	S70°12'27"W	119.15'
TL8	S82°27'48"W	53.20'
TL9	S71°51'06"W	34.83'
TL10	N84°29'52"W	54.98'
TL11	N88°36'41"W	153.15'
TL12	N58°47'01"W	36.06'
TL13	N76°26'45"W	70.32'
TL14	N66°05'18"W	94.64'
TL15	N83°40'11"W	65.03'
TL16	S87°00'59"W	66.13'
TL17	S45°28'05"W	59.51'
TL18	S89°10'34"W	18.70'
TL19	N26°45'37"W	62.01'
TL20	N33°08'41"E	32.94'
TL21	N56°46'40"E	73.84'
TL22	N42°15'04"E	95.86'
TL23	N15°26'21"E	84.21'
TL24	N29°00'52"E	96.87'
TL25	N42°09'51"E	44.29'
TL26	N61°38'42"E	107.52'
TL27	N81°06'32"E	190.89'
TL28	S59°21'19"E	100.43'
TL29	N79°14'15"E	124.39'
TL30	N69°13'26"E	59.61'
TL31	N76°05'53"E	53.54'
TL32	S88°27'29"E	42.28'
TL33	S65°15'44"E	69.64'
TL34	N67°50'40"E	65.49'
TL35	N37°18'24"E	40.52'
TL36	N31°24'47"E	30.94'
TL37	N31°15'45"E	40.69'
TL38	N83°02'00"E	21.40'
TL39	N84°27'00"E	14.43'
TL40	N49°53'28"E	47.44'

LINE TABLE		
LINE	BEARING	LENGTH
TL41	N80°00'34"E	37.15'
TL42	N69°32'45"E	63.91'
TL43	N65°24'43"E	36.82'
TL44	N64°17'09"E	61.78'
TL45	N65°21'38"E	65.64'
TL46	S58°13'54"E	62.60'
TL47	N87°40'31"E	97.13'
TL48	S05°01'54"W	152.08'
TL49	S29°38'22"W	150.63'
TL50	N22°46'01"W	101.53'
TL51	S50°14'35"W	18.43'
TL52	N38°37'46"W	31.49'
TL53	S49°44'15"W	164.33'
TL54	S84°45'30"W	58.75'
TL55	S42°08'26"W	306.52'
TL56	S11°02'55"W	39.86'
TL57	S88°23'11"W	29.73'
TL58	S19°52'05"W	100.99'

DISTURBED SOIL MAPPING UNIT SUPPLEMENTAL SYMBOL LEGEND

SUPPLEMENTAL SYMBOL (1-5)	DRAINAGE CLASS (SYMBOL 1)	PARENT MATERIAL (SYMBOL 2)	RESTRICTIVE / IMPERVIOUS LAYERS (SYMBOL 3)	ESTIMATED Ksat (SYMBOL 4)	HYDROLOGIC SOIL GROUP (SYMBOL 5)
(299) - hcade	UNDETERMINED (H)	GLACIAL TILL MATERIALS (C)	NONE (A)	UNDETERMINED (D)	UNDETERMINED (D)

*Estimated based upon soil properties observed in the field. No published data available. On-site testing recommended as necessary for design and placement of specific infiltration practices.

SITE SPECIFIC SOIL SURVEY MAP LEGEND

SOIL SERIES NAME & NUMBER	DRAINAGE CLASS	PARENT MATERIAL (C Horizon)	MINERAL RESTRICTIVE FEATURES*	SATURATED HYDRAULIC CONDUCTIVITY (Ksat)** inches/hour low to high B & C horizons	HSG**
42 CANTON	WELL	GLACIAL TILL	NONE	2.0 TO 6.0 6.0 TO 20.0	B
444 NEWFIELDS	MODERATELY WELL	GLACIAL TILL	NONE	0.6 TO 2.0 0.6 TO 2.0	B
299 UDORTHENTS	VARIABLE	VARIABLE – CUT AND/OR FILLED	NONE†	NA†	NA†
597 WESTBROOK	VERY POOR	ORGANIC DEPOSITS OVER SEDIMENTS	NONE	NA† 0.0 TO 2.0	D

*Within 40 inches of the soil surface.
**From Ksat Values for New Hampshire Soils - Society of Soil Scientists of Northern New England - Special Publication Number 5 - September 2009 unless noted otherwise. On-site Ksat testing may be warranted or advisable.
†No published data is available. On-site Ksat testing recommended as necessary for design/placement of specific infiltration practices.

SOILS NOTE:

THIS SOIL MAP FALLS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR USE IN COMPLYING WITH THE NEW HAMPSHIRE ALTERATION OF TERRAIN (AOT) REGULATIONS (ENV–WQ 1500). IT WAS PRODUCED BY MARC JACOBS, CERTIFIED SOIL SCIENTIST #038, BASED UPON ACTUAL FIELD INVESTIGATIONS CONDUCTED IN DECEMBER 2020 AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THE SITE–SPECIFIC SOIL SURVEY WAS CONDUCTED ACCORDING TO SPECIAL PUBLICATION NO. 3 –SITE–SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 5.0 DATED DECEMBER 2017 AS PUBLISHED, MAINTAINED AND AMENDED BY THE SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND. THERE IS A REPORT THAT ACCOMPANIES THIS SOIL MAP. COPIES OF THE SOIL SURVEY MAP THAT HAVE BEEN REVIEWED BY THE SCIENTIST(S) ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS SITE.

SLOPE PHASE LEGEND (percent)					
A	B	C	D	E	F
0-3	3-8	8-15	15-25	25-50	50+

60 30 0 60
Graphic Scale in Feet

REV.	DATE	DESCRIPTION	DR	CK

TAX MAP 205 LOT 2
BELLE ISLE / AKA LADY ISLE
EXISTING CONDITIONS
325 LITTLE HARBOR ROAD
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
OWNED BY
THE ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: 1" = 60' (22'x34')
1" = 120' (11'x17')
FEBRUARY 1, 2022

TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431–2222
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FILE	47099.01	DR		FB		S-01
		CK		CADFILE		

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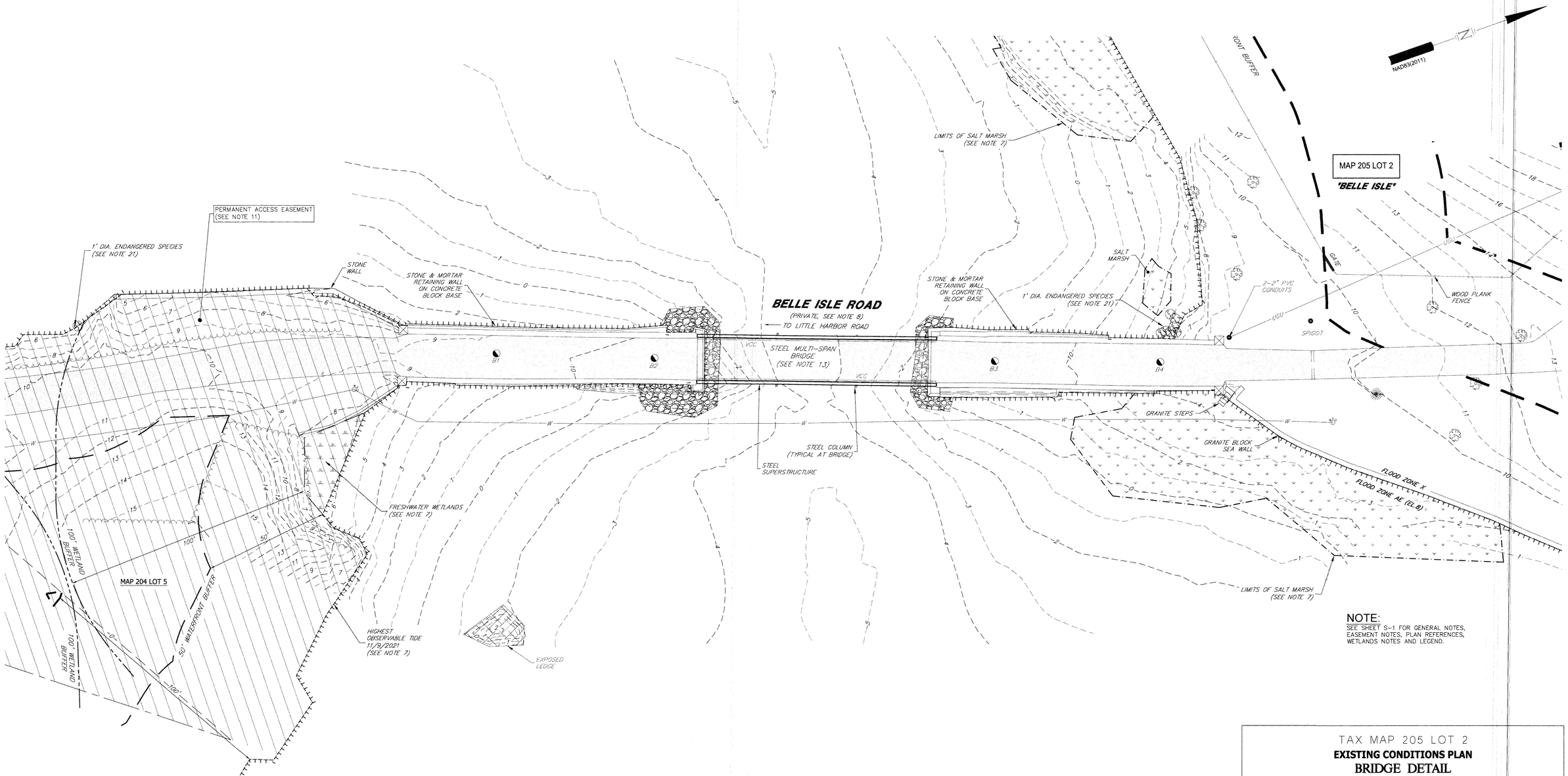
UTILITIES MARK GROUND PLANT DAMAGE PREVENTION SYSTEM
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
MARC E. JACOBS
No. 090
CERTIFIED WETLAND SCIENTIST
FEBRUARY 21, 2022

STATE OF NEW HAMPSHIRE
MARC ERNEST JACOBS
No. 038
CERTIFIED SOIL SCIENTIST
FEBRUARY 21, 2022

Feb 21, 2022 - 2:59pm
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099 01 - DiLorenzo - 325 Little Harbor Rd\Carlson Survey\Dwgs\47099-01 Existing Conditions_2022.dwg



NOTE:
SEE SHEET S-1 FOR GENERAL NOTES, EASEMENT NOTES, PLAN REFERENCES, WETLANDS NOTES AND LEGEND.

DIG SAFE
MA ME NH RI VT
CALL 811 TOLL FREE
UTILITIES UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

20 10 0 20
Graphic Scale in Feet

REV.	DATE	DESCRIPTION	DR	CK

TAX MAP 205 LOT 2
EXISTING CONDITIONS PLAN
BRIDGE DETAIL
325 LITTLE HARBOR ROAD
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM
OWNED BY
THE ADL PORTSMOUTH RESIDENCE TRUST

SCALE: 1" = 20' (22x34)
1" = 40' (11x17)
FEBRUARY 1, 2022

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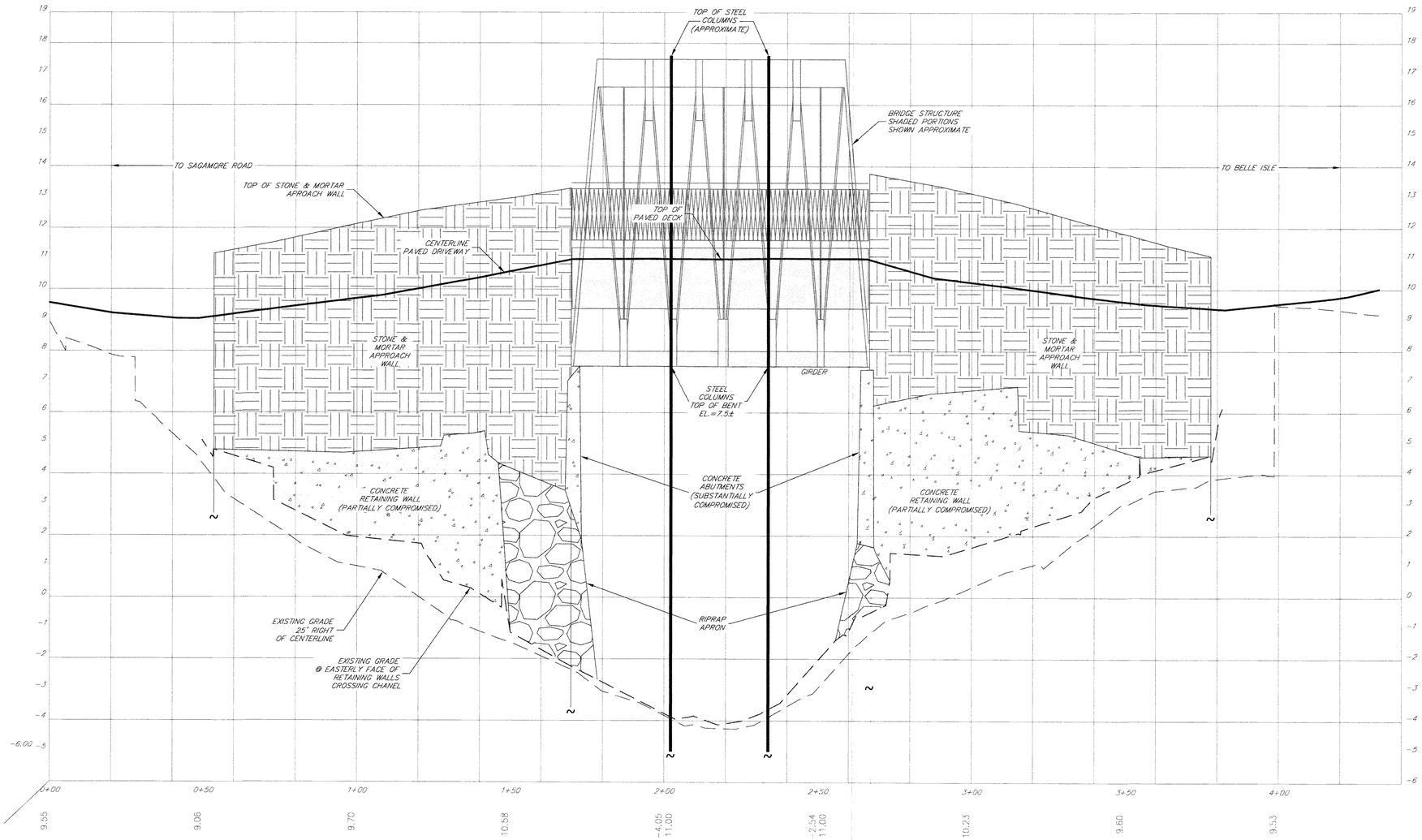
FILE	47099-01	DR	MVP	FB	583	S-02
		CK	BMK	CADFILE	SEE MARGIN	



BRIDGE PROFILE:
1" = 20' HORIZONTAL
1" = 2' VERTICAL

REV.	DATE	DESCRIPTION	DR	CK

FOR REVIEW

NOTE:
SEE SHEET S-1 FOR GENERAL NOTES, EASEMENT NOTES, PLAN REFERENCES, WETLANDS NOTES AND LEGEND.

TAX MAP 205 LOT 2

EXISTING CONDITIONS PLAN

BRIDGE PROFILE

325 LITTLE HARBOR ROAD

PORTSMOUTH, NEW HAMPSHIRE

COUNTY OF ROCKINGHAM

OWNED BY

THE ADL PORTSMOUTH RESIDENCE TRUST

SCALE: AS NOTED

FEBRUARY 1, 2022

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MAP 204 LOT 5

MAP 204 LOT 7

MATCH LINE

12" CLAY
INV.=16.35

GRANITE HEADWALL
12" CLAY
INV.=18.12

BELLE ISLE ROAD
(PRIVATE, SEE NOTE 8)

PERMANENT ACCESS EASEMENT (SEE NOTE 11)

MAP 204 LOT 7

MAP 204 LOT 5

CI HEADWALL
12" RCP
INV.=6.94

FRESHWATER WETLANDS
(SEE NOTE 7)

100' WETLAND BUFFER

100' WETLAND BUFFER

50' WATERFRONT BUFFER

1' DIA. ENDANGERED SPECIES
(SEE NOTE 21)

STONE WALL

FRESHWATER WETLANDS
(SEE NOTE 7)

HIGHEST OBSERVABLE TIDE
11/9/2021
(SEE NOTE 7)

STEEL MULTI-SPAN BRIDGE
(SEE NOTE 13)

STONE & MORTAR RETAINING WALL ON CONCRETE BLOCK BASE

PISCATAQUA RIVER
(TIDAL)

STOCKED LODE

PISCATAQUA RIVER
(TIDAL)

HIGHEST OBSERVABLE TIDE LINE
(SEE NOTE 7)

LIMITS OF SALT MARSH
(SEE NOTE 7)

BELLE ISLE ROAD
(PRIVATE, SEE NOTE 8)

SALT MARSH

1' DIA. ENDANGERED SPECIES
(SEE NOTE 21)

SEE SHEET S-2

LIMITS OF SALT MARSH
(SEE NOTE 7)

150' NATURAL WOODLAND BUFFER

100' TIDAL BUFFER

50' WATERFRONT BUFFER

MAP 205 LOT 2
"BELLE ISLE"

SEE SHEET S-1

UGU SPIGOT

FLOOD ZONE X
FLOOD ZONE AE (EL 8)

60 30 0 60
Graphic Scale in Feet

NAD83(2011)

SEWER INVERT TABLE				
TFM #	RIM EL.	INVERT ID:	INVERT EL.	SIZE/TYPE
4574	50.37	A	43.7'	8" PVC
		B	44.0'	8" PVC
4568	55.07	A	44.7'	8" PVC
		B	44.8'	8" PVC

MAP 204 LOT 5

MATCH LINE

MAP 204 LOT 7

8" HDPE
INV.=31.84

15" RCP
INV.=32.74

BELLE ISLE ROAD
(PRIVATE, SEE NOTE 8)

MAP 204 LOT 7

MAP 204 LOT 6

MAP 204 LOT 4

MAP 204 LOT 10

CURRIERS COVE
(PRIVATE R.O.W.)

36" CMP
INV.=27.53

#4340

#4336

PSNH 140 6A

S&M COLUMN
(TYPICAL)

IRF "DOUCET"
0.2' A.G.

#4242
WATER METER PIT
2 METERS

PSNH 140 10
NET 60 10

PSNH 140 8
VTR 15T

MAP 222 LOT 1

MAP 222 LOT 16

LITTLE HARBOR ROAD
(PUBLIC R.O.W.)

"STOP"

#4505

#4574

#4575

NET 22

MAP 222 LOT 25

MAP 222 LOT 24

#4571

#4570

140-1 65T

ES 140-3
FP 60-3

PSNH 140 4
NET 4

PSNH 140 5 8T
NET 60 5

"STOP"

15" RCP
INV.=28.41

PSNH 140 6
FP 6

PSNH 140 7
NET 60A 60 7

MAP 222 LOT 6

MAP 222 LOT 1-1

MAP 204 LOT 9

LITTLE HARBOR ROAD
(PUBLIC R.O.W.)

60 NET 23

SAGAMORE AVENUE
(PUBLIC R.O.W.)

MAP 222 LOT 23

PSNH 136 24
NET 24

#4568

APPROX. LOCATION

MAP 222 LOT 7

MAP 222 LOT 22

MAP 222 LOT 8

60 30 0 60
Graphic Scale in Feet

NAD83(2011)

NOTE:

SEE SHEET S-1 FOR GENERAL, EASEMENT, PLAN AND WETLANDS NOTES, LEGEND AND SEWER INVERT TABLE.

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PROJ. #	DR	MVP	FB	SHEET
47099-01	CK	BMK	CADFILE	SEE MARGIN

S-4

TAX MAP 205 LOT 2

EXISTING CONDITIONS PLAN
DRIVEWAY & ROADWAY DETAIL
325 LITTLE HARBOR ROAD
PORTSMOUTH, NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

OWNED BY

THE ADL PORTSMOUTH RESIDENCE TRUST

SCALE: 1" = 60' (22x34)
1" = 120' (11x17)

FEBRUARY 1, 2022

Feb 18, 2022 - 11:57am
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099.01 - DiLorenzo - 325 Little Harbor Rd\Carlson Survey\Dwgs\47099-01wk.dwg

NOTES

1. SEE NOTES ON SHEET C–01.
2. NO IMPACTS ARE PROPOSED TO NATURAL GROUND COVERS WITHIN THE WATERFRONT BUFFER. IMPACT ARE ONLY PROPOSED TO EXISTING GRANDFATHERED OPEN AREA.

LEGEND

- HIGHEST OBSERVABLE TIDE LINE (HOTL)
- 100' TIDAL WETLAND BUFFER BOUNDARY
- PROTECTED SHORELAND ZONE BEYOND TBZ
- TEMPORARY IMPACT AREA
- PERMANENT IMPACT AREA
- UNALTERED WOODLAND AREA
- PROPOSED WOODLAND AREA
- LIMIT OF IMPACTS
- PROPOSED TREE (OUTSIDE OF LANDSCAPED AREAS)
- OR EXISTING TREE TO REMAIN
- OR EXISTING TREE TO BE REMOVED
- IMPERVIOUS SURFACE
- PERVIOUS PAVERS
- GRAVEL SURFACE

IMPERVIOUS AREA (PERMITTED)	
TOTAL EXISTING IMPERVIOUS AREA WITHIN 250' PROTECTED SHORELAND	45,095 SF (9.21%)[1]
TOTAL PROPOSED IMPERVIOUS AREA WITHIN 250' PROTECTED SHORELAND	32,884 SF (6.72%)[1]
TOTAL LOT AREA	489,466 SF
TOTAL LAND AREA WITHIN HOTL	496,469 SF

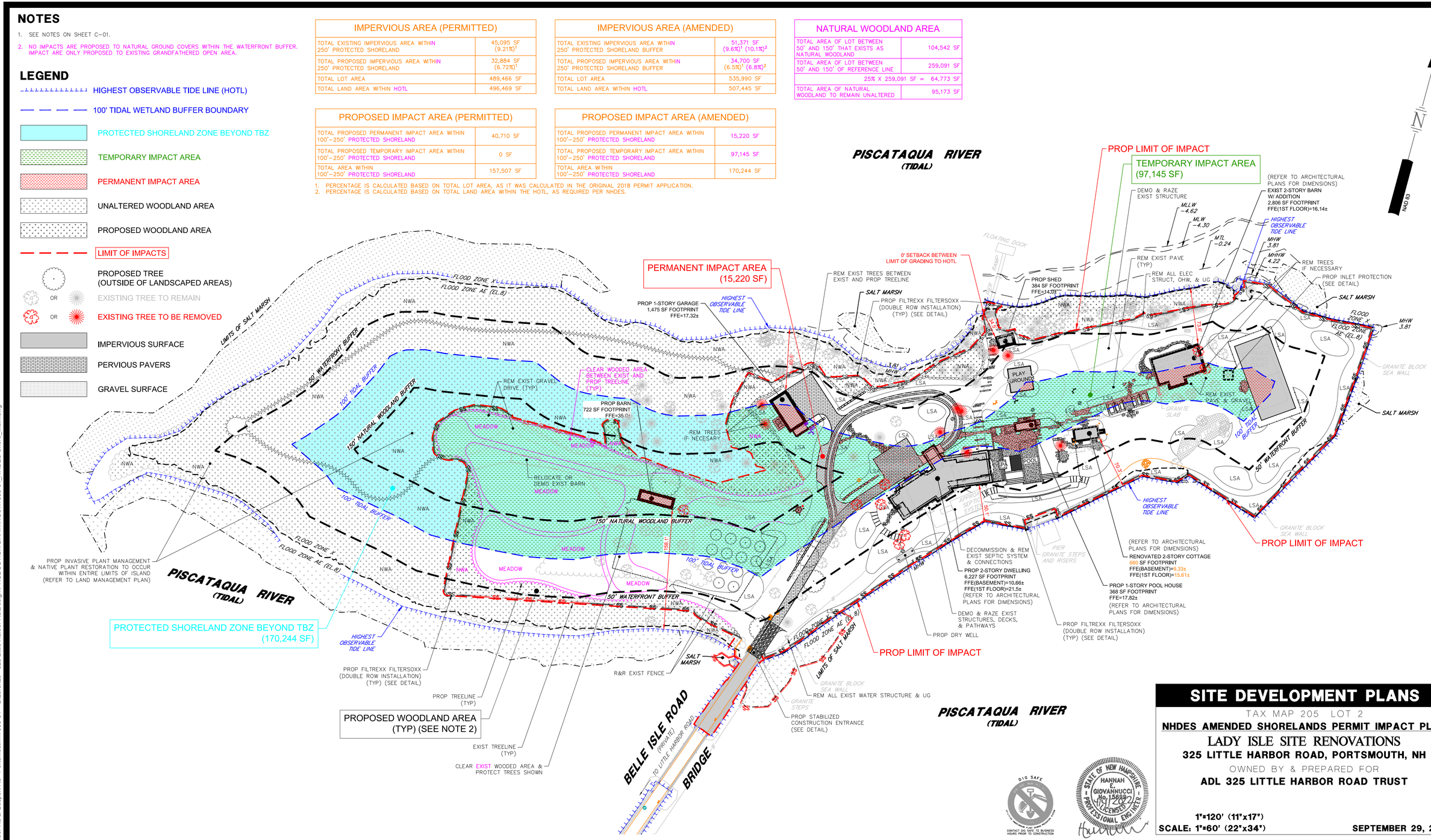
IMPERVIOUS AREA (AMENDED)	
TOTAL EXISTING IMPERVIOUS AREA WITHIN 250' PROTECTED SHORELAND BUFFER	51,371 SF (9.6%)[1] (10.1%)[2]
TOTAL PROPOSED IMPERVIOUS AREA WITHIN 250' PROTECTED SHORELAND BUFFER	34,700 SF (6.5%)[1] (6.8%)[2]
TOTAL LOT AREA	535,990 SF
TOTAL LAND AREA WITHIN HOTL	507,445 SF

NATURAL WOODLAND AREA	
TOTAL AREA OF LOT BETWEEN 50' AND 150' THAT EXISTS AS NATURAL WOODLAND	104,542 SF
TOTAL AREA OF LOT BETWEEN 50' AND 150' OF REFERENCE LINE	259,091 SF
25% X 259,091 SF =	64,773 SF
TOTAL AREA OF NATURAL WOODLAND TO REMAIN UNALTERED	95,173 SF

PROPOSED IMPACT AREA (PERMITTED)	
TOTAL PROPOSED PERMANENT IMPACT AREA WITHIN 100'–250' PROTECTED SHORELAND	40,710 SF
TOTAL PROPOSED TEMPORARY IMPACT AREA WITHIN 100'–250' PROTECTED SHORELAND	0 SF
TOTAL AREA WITHIN 100'–250' PROTECTED SHORELAND	157,507 SF

PROPOSED IMPACT AREA (AMENDED)	
TOTAL PROPOSED PERMANENT IMPACT AREA WITHIN 100'–250' PROTECTED SHORELAND	15,220 SF
TOTAL PROPOSED TEMPORARY IMPACT AREA WITHIN 100'–250' PROTECTED SHORELAND	97,145 SF
TOTAL AREA WITHIN 100'–250' PROTECTED SHORELAND	170,244 SF

1. PERCENTAGE IS CALCULATED BASED ON TOTAL LOT AREA, AS IT WAS CALCULATED IN THE ORIGINAL 2018 PERMIT APPLICATION.
2. PERCENTAGE IS CALCULATED BASED ON TOTAL LAND AREA WITHIN THE HOTL, AS REQUIRED PER NHDES.



SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

NHDES AMENDED SHORELANDS PERMIT IMPACT PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"x17")
SCALE: 1"=60' (22"x34")

SEPTEMBER 29, 2021

DIG SAFE — CONTACT DIG SAFE TO BUSINESS HOURS PRIOR TO CONSTRUCTION

HANNAH E. GIOVANNUCCI No. 15698 LICENSED PROFESSIONAL ENGINEER — STATE OF NEW HAMPSHIRE

HORIZONTAL SCALE 1"=60'
60 30 0 60

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

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47099.01	CK	JCC	CADFILE	47099–01_NHDES–SHORE_MAIN	C–02

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F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099-01 - DiLorenzo - 325 Little Harbor Rd\Design\PRODUCTION DRAWINGS\47099-01_NHDES-Shore_Main.dwg

NOTES

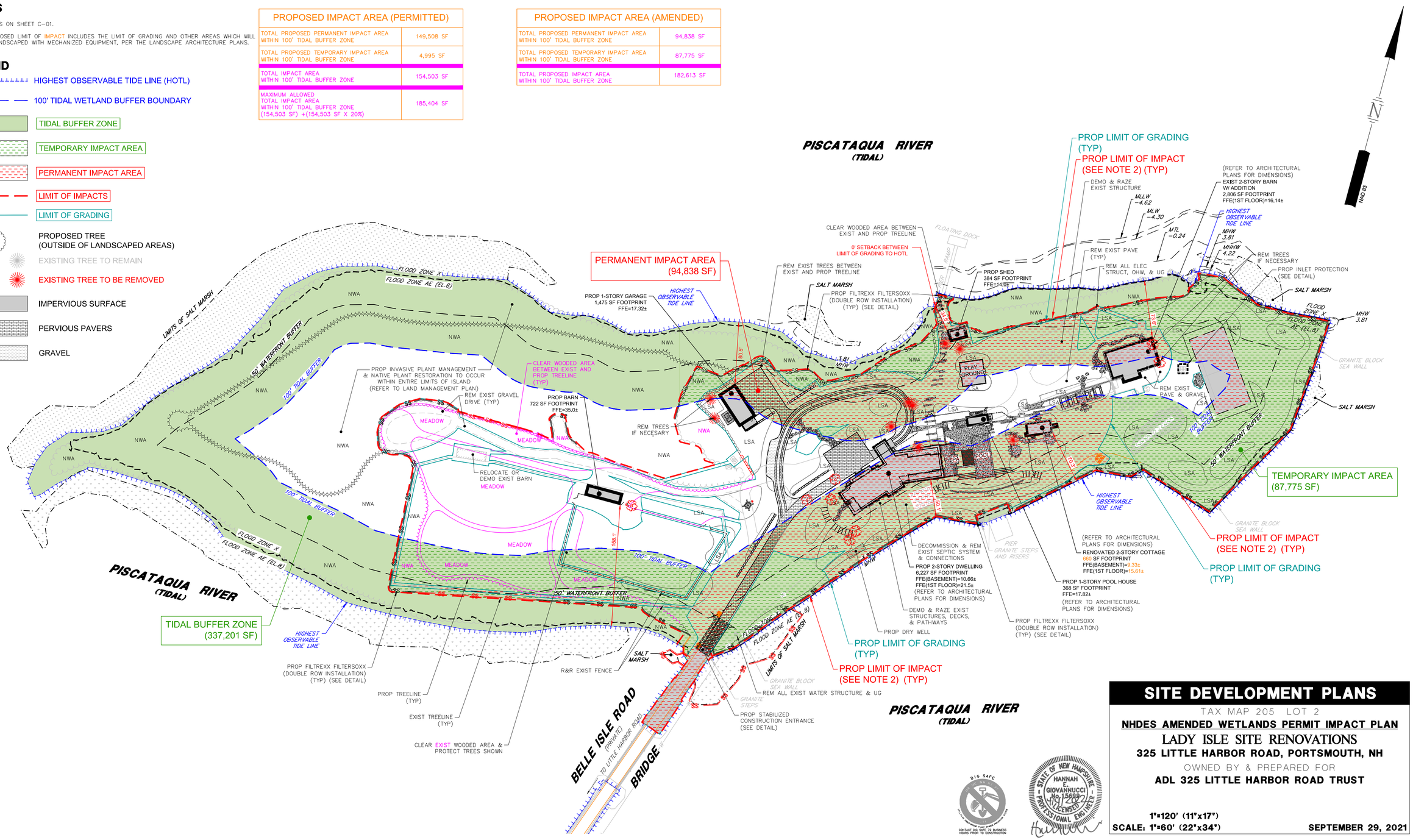
1. SEE NOTES ON SHEET C-01.
2. THE PROPOSED LIMIT OF IMPACT INCLUDES THE LIMIT OF GRADING AND OTHER AREAS WHICH WILL BE BE LANDSCAPED WITH MECHANIZED EQUIPMENT, PER THE LANDSCAPE ARCHITECTURE PLANS.

PROPOSED IMPACT AREA (PERMITTED)	
TOTAL PROPOSED PERMANENT IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	149,508 SF
TOTAL PROPOSED TEMPORARY IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	4,995 SF
TOTAL IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	154,503 SF
MAXIMUM ALLOWED TOTAL IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE (154,503 SF) +(154,503 SF X 20%)	185,404 SF

PROPOSED IMPACT AREA (AMENDED)	
TOTAL PROPOSED PERMANENT IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	94,838 SF
TOTAL PROPOSED TEMPORARY IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	87,775 SF
TOTAL PROPOSED IMPACT AREA WITHIN 100' TIDAL BUFFER ZONE	182,613 SF

LEGEND

- HIGHEST OBSERVABLE TIDE LINE (HOTL)
- 100' TIDAL WETLAND BUFFER BOUNDARY
- TIDAL BUFFER ZONE
- TEMPORARY IMPACT AREA
- PERMANENT IMPACT AREA
- LIMIT OF IMPACTS
- LIMIT OF GRADING
- PROPOSED TREE (OUTSIDE OF LANDSCAPED AREAS)
- OR EXISTING TREE TO REMAIN
- OR EXISTING TREE TO BE REMOVED
- IMPERVIOUS SURFACE
- PERVIOUS PAVERS
- GRAVEL



HORIZONTAL SCALE 1"=60'
60 30 0 60

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

NHDES AMENDED WETLANDS PERMIT IMPACT PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"x17")

SCALE: 1"=60' (22"x34") **SEPTEMBER 29, 2021**

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15688 — LICENSED PROFESSIONAL ENGINEER

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	CK	JCC	CADFILE	47099-01_NHDES WET_MAIN	

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NOTES

1. SEE NOTES ON SHEET C-01.

LEGEND

- HIGHEST OBSERVABLE TIDE LINE (HOTL)
- 100' TIDAL WETLAND BUFFER BOUNDARY
- TIDAL BUFFER ZONE
- IMPACT AREA
- TEMPORARY IMPACT AREA
- LIMIT OF IMPACTS
- IMPERVIOUS SURFACE
- PERVIOUS PAVERS
- GRAVEL SURFACE

EXISTING IMPERVIOUS AREA (LADY ISLE ONLY)		
	TIDAL WETLAND BUFFER ZONE	TOTAL ISLAND AREA*
TOTAL IMPERVIOUS AREA	27,123 SF (8.0%)	51,371 SF (10.2%)
TOTAL PERMEABLE AREA	754 SF (0.3%)	754 SF (0.1%)
EXISTING VEGETATED AREA (LADY ISLE ONLY)		
TOTAL GRASS/LANDSCAPE AREA	176,413 SF (52.3%)	245,920 SF (48.4%)
TOTAL NATURAL WOODLAND AREA	132,911 SF (39.4%)	209,400 SF (41.3%)
TOTAL AREA (LADY ISLE ONLY)		
TOTAL	337,201 SF	507,445 SF

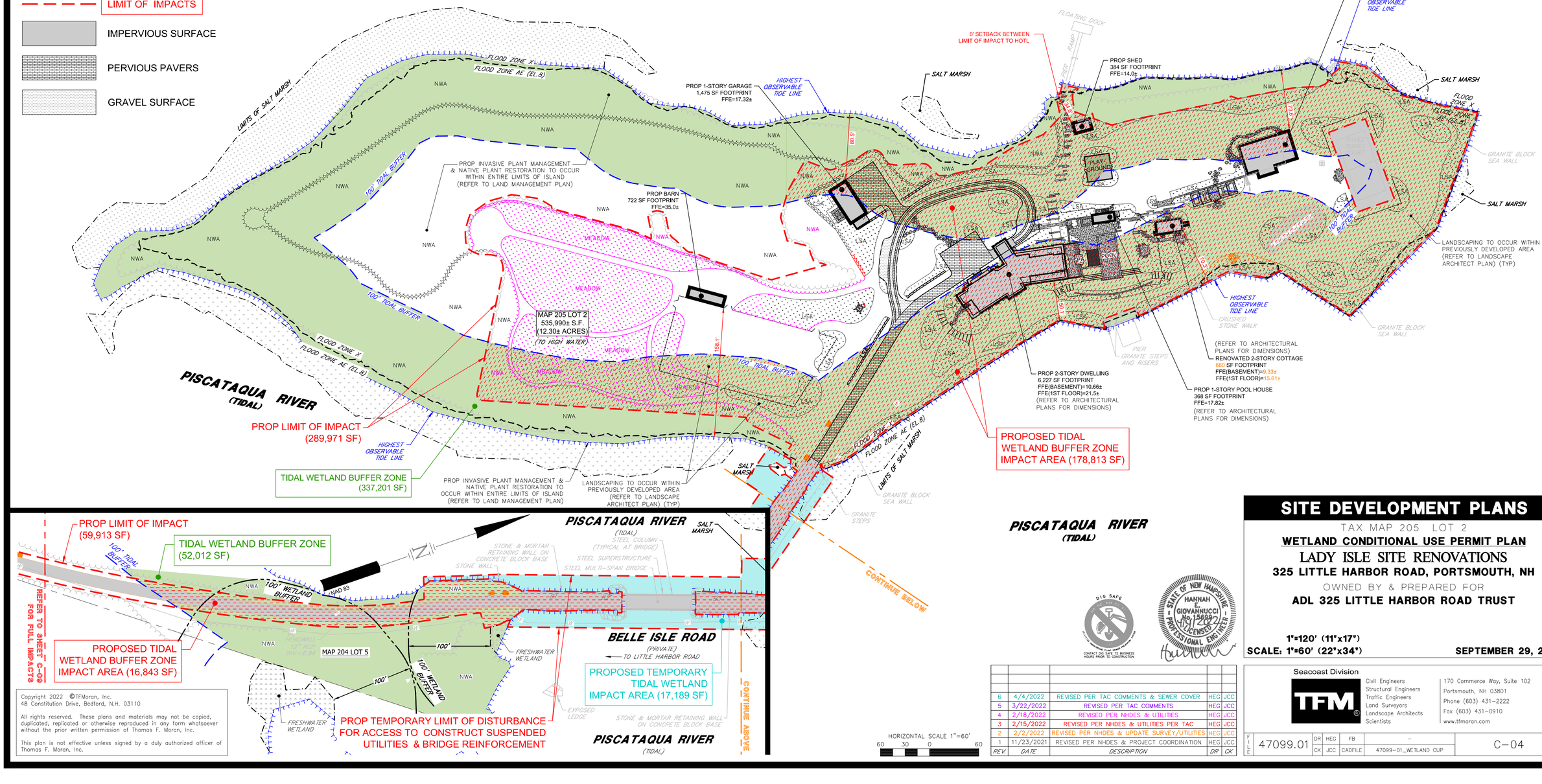
PROPOSED IMPERVIOUS AREA (LADY ISLE ONLY)		
	TIDAL WETLAND BUFFER ZONE	TOTAL ISLAND AREA*
TOTAL IMPERVIOUS AREA	25,217 SF (7.5%)	34,700 SF (6.8%)
TOTAL PERMEABLE AREA	8,144 SF (2.4%)	13,224 SF (2.6%)
PROPOSED VEGETATED AREA (LADY ISLE ONLY)		
TOTAL GRASS AREA	118,339 SF (35.1%)	156,880 SF (30.9%)
TOTAL LANDSCAPE/MEADOW AREA	48,191 SF (14.3%)	97,785 SF (19.3%)
TOTAL NATURAL WOODLAND AREA	137,310 SF (40.7%)	204,856 SF (40.4%)
TOTAL AREA (LADY ISLE ONLY)		
TOTAL	337,201 SF	507,445 SF

*TOTAL ISLAND AREA INCLUDES THE TOTAL LAND UPON LADY ISLE WITHIN HIGHEST OBSERVABLE TIDE LINE (HOTL), INCLUDING THE ADJACENT BRIDGE APPROACH.

PROPOSED IMPACT AREA (ALL IMPROVEMENTS)			
	TIDAL WETLAND BUFFER ZONE	TOTAL LAND AREA	TIDAL WETLAND AREA
TOTAL LAND IMPACT AREA	195,656 SF	349,884 SF	
TOTAL WETLAND TEMPORARY IMPACT AREA			17,189 SF

WETLAND SCIENTIST NOTE

HIGHEST OBSERVABLE TIDE LINE (HOTL) AND SALT MARSH WERE DELINEATED BY MARC JACOBS, CERTIFIED WETLAND SCIENTIST 090, ON MAY 24, 2019. SALT MARSH WAS DELINEATED BASED UPON THE EXTENT OF ROOTED EMERGENT SALT-TOLERANT VEGETATION OBSERVED DURING LOW TIDE. HOTL WAS DELINEATED BASED UPON THE CODE OF ADMINISTRATIVE RULES, NH DEPARTMENT OF ENVIRONMENTAL SERVICES – WETLANDS BUREAU – ENV WT 100-900, ESPECIALLY ENV-WT 101.49. COPIES OF SITE PLANS WHICH DEPICT THE DELINEATION THAT HAVE BEEN REVIEWED BY THE WETLAND SCIENTIST ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS PROJECT.



HORIZONTAL SCALE 1"=60'
60 30 0 60

REV.	DATE	DESCRIPTION	DR	CK
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3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

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STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI — No. 15688 — LICENSED PROFESSIONAL ENGINEER

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

WETLAND CONDITIONAL USE PERMIT PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"x17")
SCALE: 1"=60' (22"x34") **SEPTEMBER 29, 2021**

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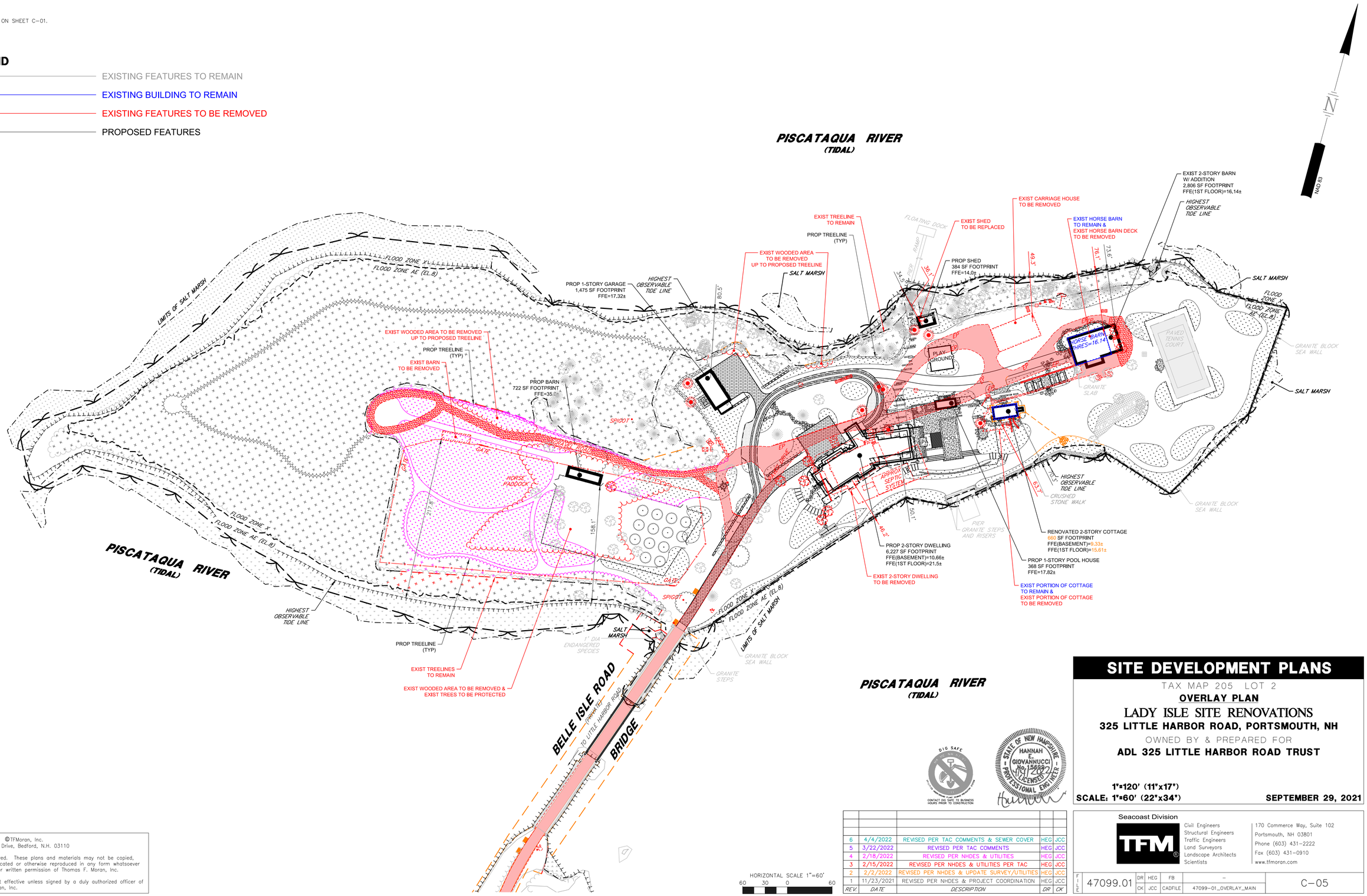
47099.01	CK	JCC	CADFILE	47099-01_WETLAND CUP	C-04

NOTES

1. SEE NOTES ON SHEET C–01.

LEGEND

───	EXISTING FEATURES TO REMAIN
───	EXISTING BUILDING TO REMAIN
───	EXISTING FEATURES TO BE REMOVED
───	PROPOSED FEATURES



CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

HANNAH E. GIOVANNUCCI No. 15699
4/4/2022

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

OVERLAY PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

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47099.01	CK	JCC	CADFILE	47099–01_OVERLAY_MAIN	C–05

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CONSTRUCTION SEQUENCE NOTES

TO MINIMIZE EROSION AND SEDIMENTATION DUE TO CONSTRUCTION, CONSTRUCTION SHALL FOLLOW THIS GENERAL CONSTRUCTION SEQUENCE.

MODIFICATIONS TO THE SEQUENCE NECESSARY DUE TO THE CONTRACTOR'S SCHEDULE SHALL INCLUDE APPROPRIATE TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES.

THE CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY CONSTRUCTION AREA IS STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE EXCEPT AS NOTED BELOW. NO MORE THAN 5 ACRES OF DISTURBED LAND SHALL BE UNSTABILIZED AT ANY ONE TIME.

THE PROJECT SHALL BE MANAGED SO THAT IT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER ARG 3800 RELATIVE TO INVASIVE SPECIES.

DO NOT TRAFFIC EXPOSED SOIL SURFACE OF INFILTRATION SYSTEMS WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

DO NOT DISCHARGE SEDIMENT–LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO STORMWATER BMP'S. STORMWATER RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMP'S ARE STABILIZED.

CONSTRUCTION SEQUENCE NOTES (CONTINUED)

DO NOT PLACE STORMWATER BMP'S INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

AFTER THE INFILTRATION SYSTEM IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE THE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.

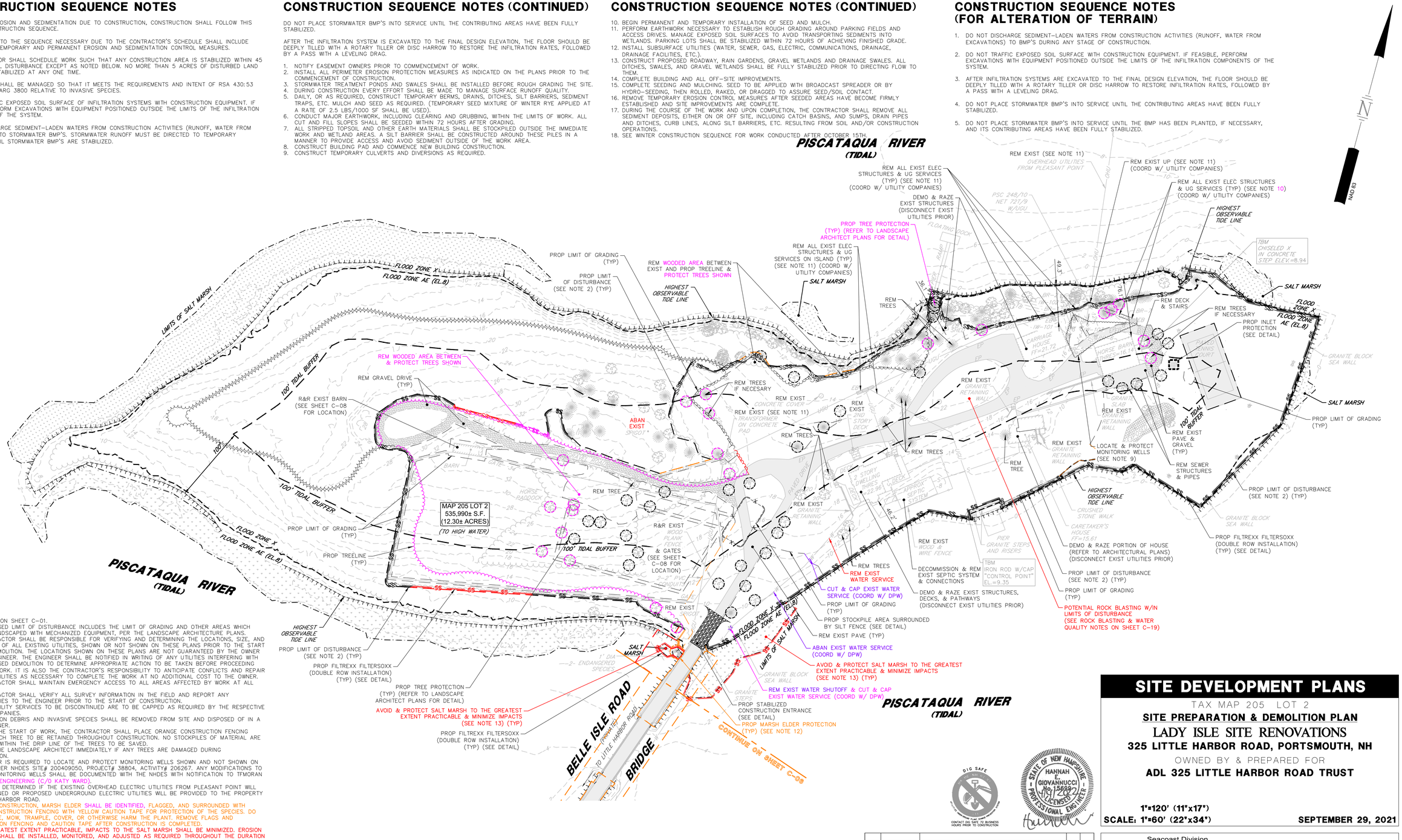
1. NOTIFY EASEMENT OWNERS PRIOR TO COMMENCEMENT OF WORK.
2. INSTALL ALL PERIMETER EROSION PROTECTION MEASURES AS INDICATED ON THE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
3. STORMWATER TREATMENT PONDS AND SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
4. DURING CONSTRUCTION EVERY EFFORT SHALL BE MADE TO MANAGE SURFACE RUNOFF QUALITY.
5. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT BARRIERS, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED. (TEMPORARY SEED MIXTURE OF WINTER RYE APPLIED AT A RATE OF 2.5 LBS/1000 SF SHALL BE USED).
6. CONDUCT MAJOR EARTHWORK, INCLUDING CLEARING AND GRUBBING, WITHIN THE LIMITS OF WORK. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
7. ALL STRIPPED TOPSOIL AND OTHER EARTH MATERIALS SHALL BE STOCKPILED OUTSIDE THE IMMEDIATE WORK AND WETLAND AREAS. A SILT BARRIER SHALL BE CONSTRUCTED AROUND THESE PILES IN A MANNER TO PROVIDE ACCESS AND AVOID SEDIMENT OUTSIDE OF THE WORK AREA.
8. CONSTRUCT BUILDING PAD AND COMMENCE NEW BUILDING CONSTRUCTION.
9. CONSTRUCT TEMPORARY CULVERTS AND DIVERSIONS AS REQUIRED.

CONSTRUCTION SEQUENCE NOTES (CONTINUED)

10. BEGIN PERMANENT AND TEMPORARY INSTALLATION OF SEED AND MULCH.
11. PERFORM EARTHWORK NECESSARY TO ESTABLISH ROUGH GRADING AROUND PARKING FIELDS AND ACCESS DRIVES. MANAGE EXPOSED SOIL SURFACES TO AVOID TRANSPORTING SEDIMENTS INTO WETLANDS. PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
12. INSTALL SUBSURFACE UTILITIES (WATER, SEWER, GAS, ELECTRIC, COMMUNICATIONS, DRAINAGE, DRAINAGE FACILITIES, ETC.).
13. CONSTRUCT PROPOSED ROADWAY, RAIN GARDENS, GRAVEL WETLANDS AND DRAINAGE SWALES. ALL DITCHES, SWALES, AND GRAVEL WETLANDS SHALL BE FULLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
14. COMPLETE BUILDING AND ALL OFF–SITE IMPROVEMENTS.
15. COMPLETE SEEDING AND MULCHING. SEED TO BE APPLIED WITH BROADCAST SPREADER OR BY HYDRO–SEEDING, THEN ROLLED, RAKED, OR DRAGGED TO ASSURE SEED/SOIL CONTACT.
16. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE BECOME FIRMLY ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE.
17. DURING THE COURSE OF THE WORK AND UPON COMPLETION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT DEPOSITS, EITHER ON OR OFF SITE, INCLUDING CATCH BASINS, AND SUMPS, DRAIN PIPES AND DITCHES, CURB LINES, ALONG SILT BARRIERS, ETC. RESULTING FROM SOIL AND/OR CONSTRUCTION OPERATIONS.
18. SEE WINTER CONSTRUCTION SEQUENCE FOR WORK CONDUCTED AFTER OCTOBER 15TH.

CONSTRUCTION SEQUENCE NOTES (FOR ALTERATION OF TERRAIN)

1. DO NOT DISCHARGE SEDIMENT–LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO BMP'S DURING ANY STAGE OF CONSTRUCTION.
2. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
3. AFTER INFILTRATION SYSTEMS ARE EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
4. DO NOT PLACE STORMWATER BMP'S INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. DO NOT PLACE STORMWATER BMP'S INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED, IF NECESSARY, AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.



NOTES

1. SEE NOTES ON SHEET C–01.
2. THE PROPOSED LIMIT OF DISTURBANCE INCLUDES THE LIMIT OF GRADING AND OTHER AREAS WHICH WILL BE LANDSCAPED WITH MECHANIZED EQUIPMENT, PER THE LANDSCAPE ARCHITECTURE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATIONS, SIZE, AND ELEVATIONS OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY DEMOLITION. THE LOCATIONS SHOWN ON THESE PLANS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED DEMOLITION TO DETERMINE APPROPRIATE ACTION TO BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
5. THE CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
6. EXISTING UTILITY SERVICES TO BE DISCONTINUED ARE TO BE CAPPED AS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES.
7. CONSTRUCTION DEBRIS AND INVASIVE SPECIES SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
8. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PLACE ORANGE CONSTRUCTION FENCING AROUND EACH TREE TO BE RETAINED THROUGHOUT CONSTRUCTION. NO STOCKPILES OF MATERIAL ARE PERMITTED WITHIN THE DRIP LINE OF THE TREES TO BE SAVED.
9. CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY IF ANY TREES ARE DAMAGED DURING CONSTRUCTION.
10. CONTRACTOR IS REQUIRED TO LOCATE AND PROTECT MONITORING WELLS SHOWN AND NOT SHOWN ON THE PLAN PER NHDES SITE# 200409050, PROJECT# 38804, ACTIVITY# 206267. ANY MODIFICATIONS TO EXISTING MONITORING WELLS SHALL BE DOCUMENTED WITH THE NHDES WITH NOTIFICATION TO TFMORAN AND ARIES ENGINEERING (C/O KATY WARD).
11. IT IS TO BE DETERMINED IF THE EXISTING OVERHEAD ELECTRIC UTILITIES FROM PLEASANT POINT WILL BE MAINTAINED OR PROPOSED UNDERGROUND ELECTRIC UTILITIES WILL BE PROVIDED TO THE PROPERTY VIA LITTLE HARBOR ROAD.
12. PRIOR TO CONSTRUCTION, MARSH ELDER SHALL BE IDENTIFIED, FLAGGED, AND SURROUNDED WITH ORANGE CONSTRUCTION FENCING WITH YELLOW CAUTION TAPE FOR PROTECTION OF THE SPECIES. DO NOT REMOVE, MOW, TRAMPLE, COVER, OR OTHERWISE HARM THE PLANT. REMOVE FLAGS AND CONSTRUCTION FENCING AND CAUTION TAPE AFTER CONSTRUCTION IS COMPLETED.
13. TO THE GREATEST EXTENT PRACTICABLE, IMPACTS TO THE SALT MARSH SHALL BE MINIMIZED. EROSION CONTROLS SHALL BE INSTALLED, MONITORED, AND ADJUSTED AS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT. UPON COMPLETION, DISTURBED AREAS SHALL BE REPLANTED WITH PLUGS OF SALTMARSH CORDGRASS (SPARTINA ALTERNIFLORA).

HORIZONTAL SCALE 1"=60'
60 30 0 60

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
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4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

HANNAH E. GIOVANNUCCI No. 15689 LICENSED PROFESSIONAL ENGINEER — STATE OF NEW HAMPSHIRE — 11/1/2022

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SITE PREPARATION & DEMOLITION PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"x17")

SCALE: 1"=60' (22"x34") **SEPTEMBER 29, 2021**

Seacoast Division

TFM

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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Portsmouth, NH 03801
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FILE	47099.01	DR	HEG	FB	–	C–06
		CK	JCC	CADFILE	47099–01_SITE PREP_MAIN	

Apr 05, 2022 - 4:18am
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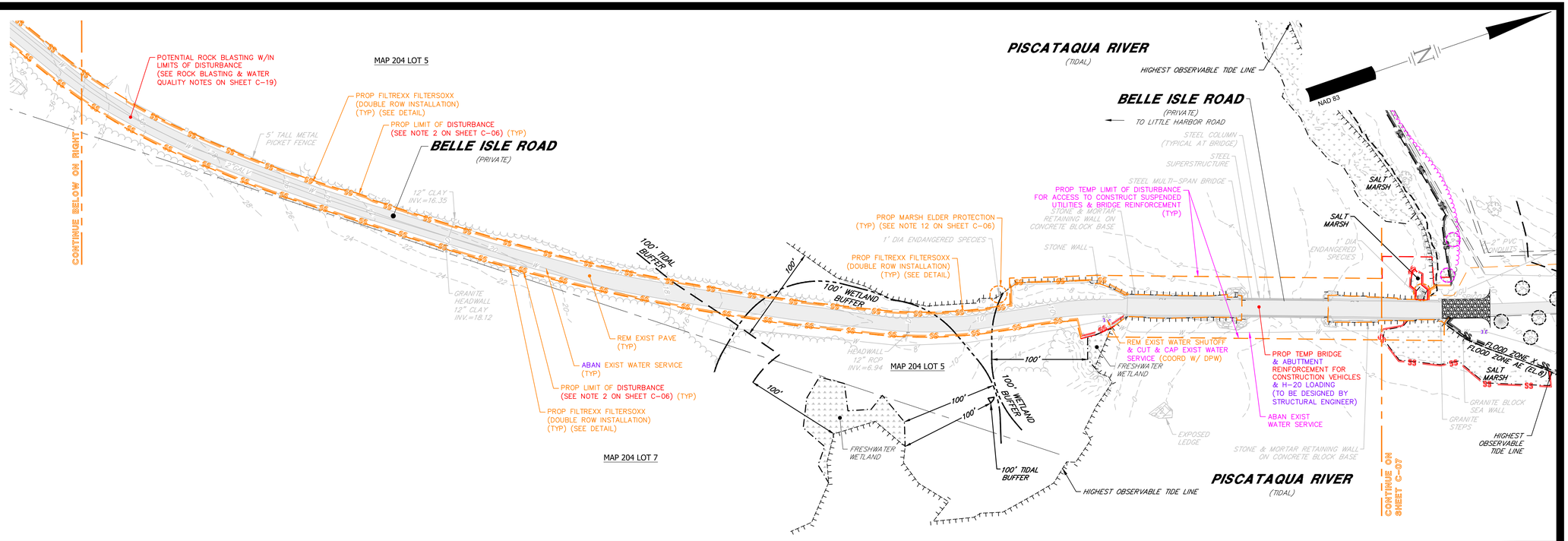
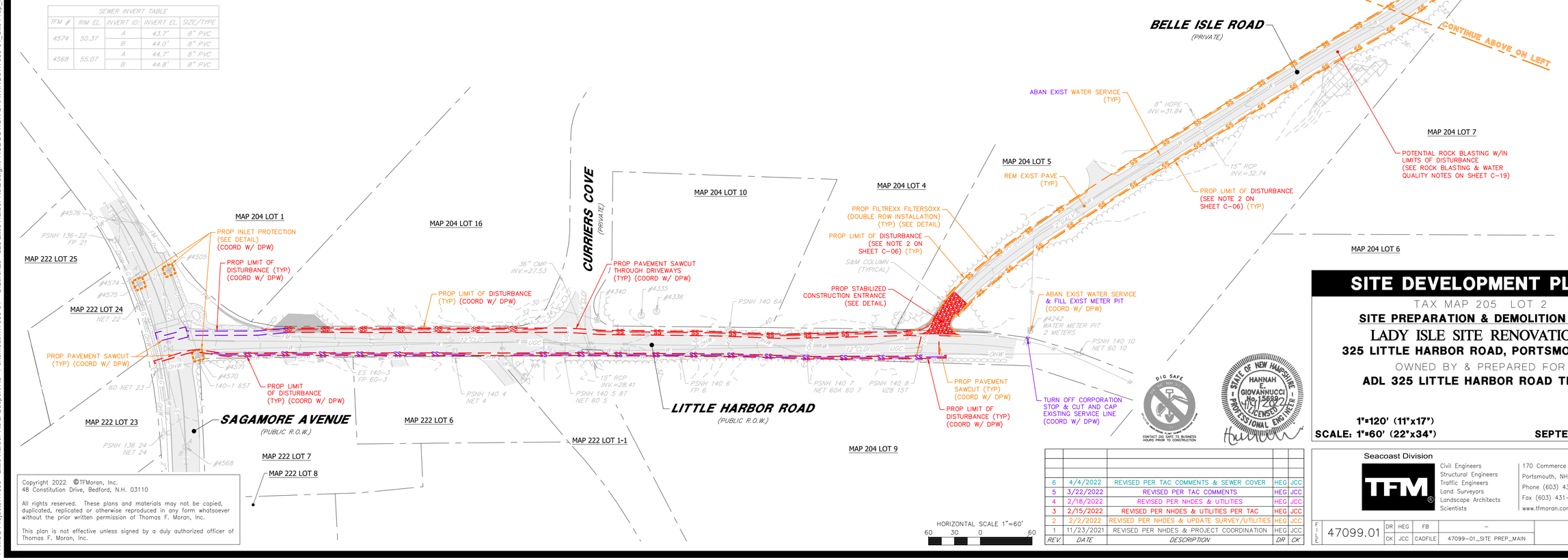
NOTES

1. SEE NOTES ON SHEET C-01 & C-06.



SEWER INVERT TABLE				
TFM #	RIM EL.	INVERT ID:	INVERT EL.	SIZE/TYPE
4574	50.37	A	43.7'	8" PVC
		B	44.0'	8" PVC
4568	55.07	A	44.7'	8" PVC
		B	44.8'	8" PVC



HORIZONTAL SCALE 1"=60'
60 30 0 60

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1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15899
LICENSED PROFESSIONAL ENGINEER

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SITE PREPARATION & DEMOLITION PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"x17")
SCALE: 1"=60' (22"x34")
SEPTEMBER 29, 2021

Seacoast Division
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FILE	47099.01	DR	HEG	FB	–	C-07
		CK	JCC	CADFILE	47099-01_SITE PREP_MAIN	

Apr 05, 2022 - 4:19am
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SITE DATA

OWNER OF RECORD OF MAP 205 LOT 2: THE ADL 325 LITTLE HARBOR ROAD TRUST
STEPHEN H. ROBERTS ESQ., TRUSTEE
127 PARROTT AVENUE
PORTSMOUTH, NH 03801

DEED REFERENCE TO PARCEL IS BK 5959 PG 1244
AREA OF PARCEL = 535,990± SF OR 12.30± ACRES

ZONED: RURAL (R)
EXISTING USE: SINGLE-FAMILY DWELLING / ACCESSORY USE
PROPOSED USE: SINGLE-FAMILY DWELLING / ACCESSORY USE

THE PURPOSE OF THIS PLAN IS TO DEMOLISH THE EXISTING HOUSE, CARRIAGE HOUSE, AND PADDOCK TO CONSTRUCT A 2-STORY SINGLE-FAMILY HOME, GARAGE, POOL, POOL CABANA, PLAYGROUND, AND UTILITY CONNECTIONS VIA LITTLE HARBOR ROAD; RENOVATE AN EXISTING BARN AND GUEST COTTAGE; AND REPLACE AN EXISTING SHED AND BARN WITH A NEW SHED AND BARN. ASSOCIATED IMPROVEMENTS INCLUDE AND ARE NOT LIMITED TO ACCESS, GRADING, STORMWATER MANAGEMENT SYSTEMS, UTILITIES, AND LANDSCAPING.

DIMENSIONAL REQUIREMENTS (CURRENT ZONING)

	REQUIRED:	PROVIDED:
MINIMUM LOT DIMENSIONS:		
LOT AREA	5 AC (PER DWELLING UNIT)	12.30± AC (TOTAL)
MINIMUM YARD DIMENSIONS:		
FRONT	50 FT	>50 FT
SIDE	20 FT	>20 FT
REAR	40 FT	>40 FT
MAXIMUM STRUCTURE DIMENSIONS:		
STRUCTURE HEIGHT	35 FT	<35 FT
BUILDING COVERAGE	5%	4.1%
MINIMUM OPEN SPACE	75%	92%±

SNOW STORAGE CALCULATIONS

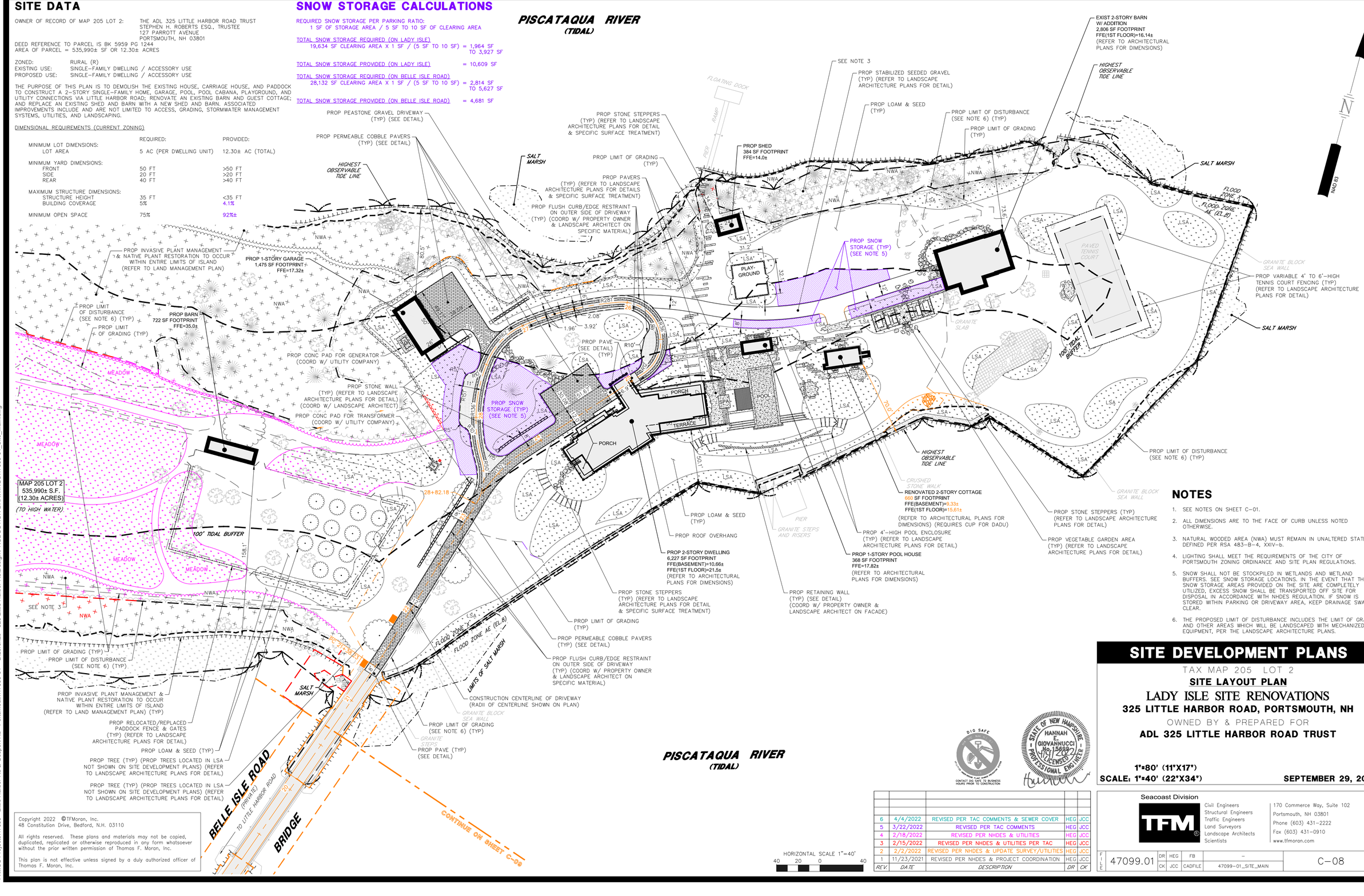
REQUIRED SNOW STORAGE PER PARKING RATIO:
1 SF OF STORAGE AREA / 5 SF TO 10 SF OF CLEARING AREA

TOTAL SNOW STORAGE REQUIRED (ON LADY ISLE)
19,634 SF CLEARING AREA X 1 SF / (5 SF TO 10 SF) = 1,964 SF TO 3,927 SF

TOTAL SNOW STORAGE PROVIDED (ON LADY ISLE) = 10,609 SF

TOTAL SNOW STORAGE REQUIRED (ON BELLE ISLE ROAD)
28,132 SF CLEARING AREA X 1 SF / (5 SF TO 10 SF) = 2,814 SF TO 5,627 SF

TOTAL SNOW STORAGE PROVIDED (ON BELLE ISLE ROAD) = 4,681 SF



NOTES

1. SEE NOTES ON SHEET C-01.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
3. NATURAL WOODED AREA (NWA) MUST REMAIN IN UNALTERED STATE AS DEFINED PER RSA 483-B-4, XXIV-b.
4. LIGHTING SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH ZONING ORDINANCE AND SITE PLAN REGULATIONS.
5. SNOW SHALL NOT BE STOCKPILED IN WETLANDS AND WETLAND BUFFERS. SEE SNOW STORAGE LOCATIONS. IN THE EVENT THAT THE SNOW STORAGE AREAS PROVIDED ON THE SITE ARE COMPLETELY UTILIZED, EXCESS SNOW SHALL BE TRANSPORTED OFF SITE FOR DISPOSAL IN ACCORDANCE WITH NHDES REGULATION. IF SNOW IS STORED WITHIN PARKING OR DRIVEWAY AREA, KEEP DRAINAGE SWALES CLEAR.
6. THE PROPOSED LIMIT OF DISTURBANCE INCLUDES THE LIMIT OF GRADING AND OTHER AREAS WHICH WILL BE LANDSCAPED WITH MECHANIZED EQUIPMENT, PER THE LANDSCAPE ARCHITECTURE PLANS.

HORIZONTAL SCALE 1"=40'
40 20 0 40

REV.	DATE	DESCRIPTION	DR	CK
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SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SITE LAYOUT PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=80' (11"X17")
SCALE: 1"=40' (22"X34")

SEPTEMBER 29, 2021

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15688 — LICENSED PROFESSIONAL ENGINEER

Seacoast Division
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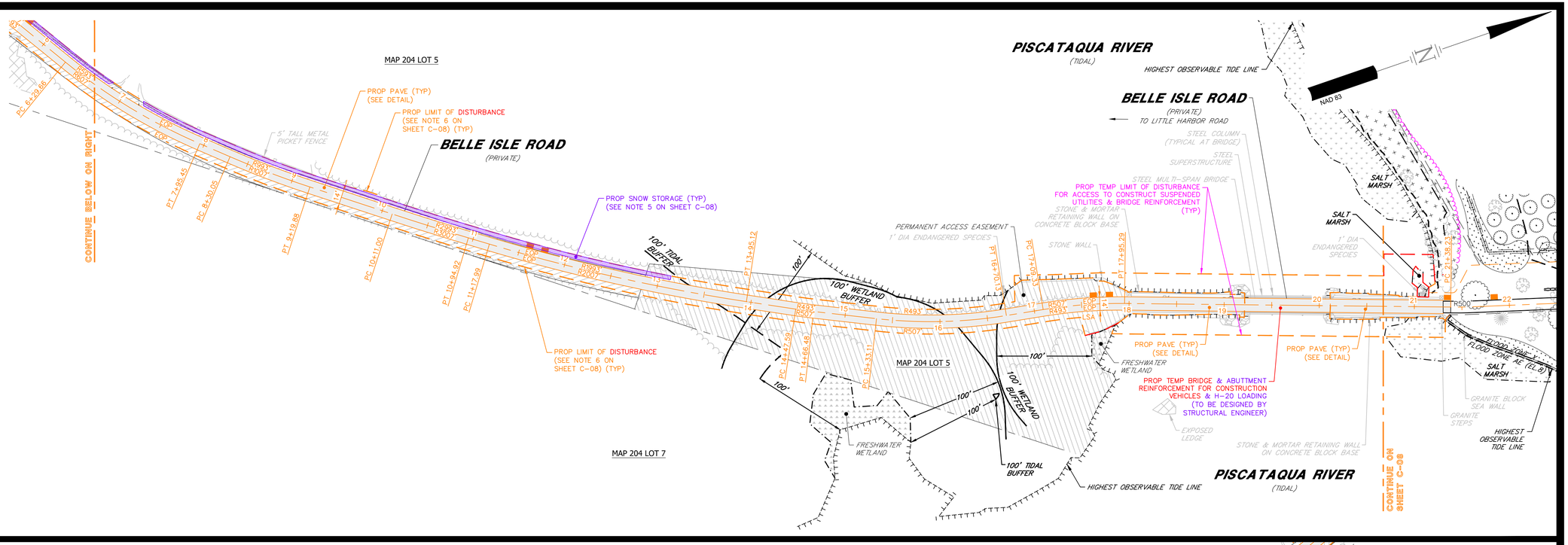
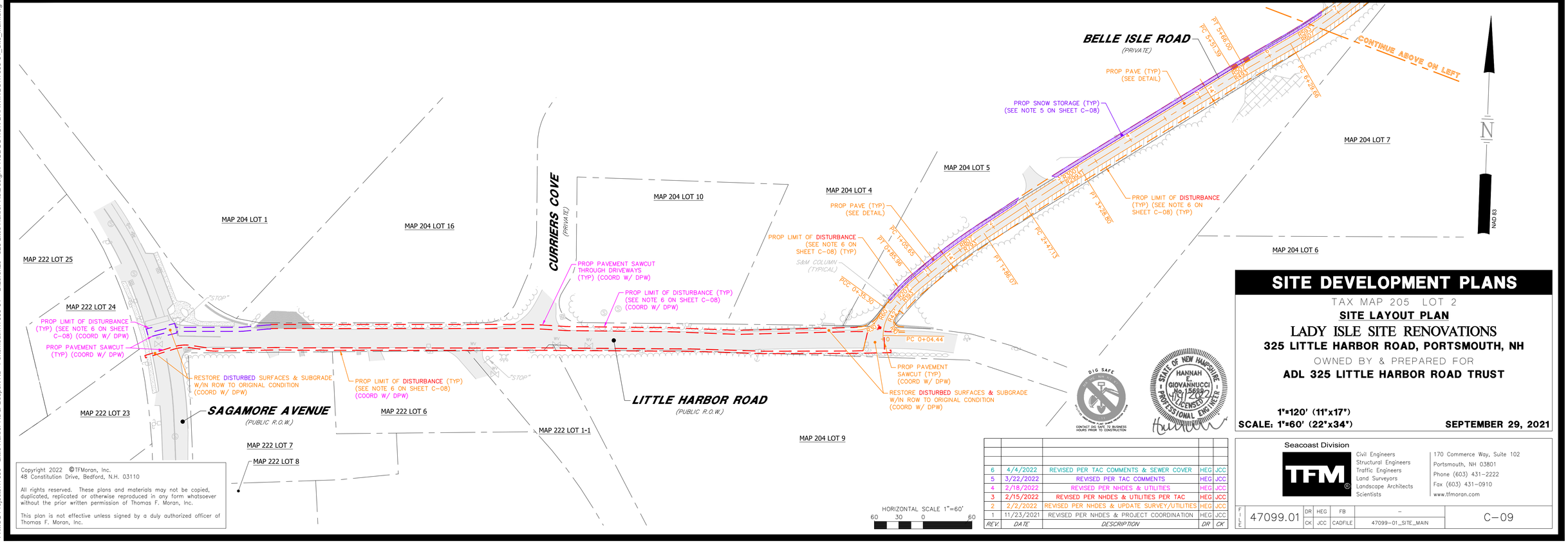
NOTES

1. SEE NOTES ON SHEET C-01 AND C-08.





HORIZONTAL SCALE 1"=60'
60 30 0 60

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SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SITE LAYOUT PLAN

LADY ISLE SITE RENOVATIONS

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DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15699 — LICENSED PROFESSIONAL ENGINEER — 10/1/2021

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47099.01	HEG			C-09
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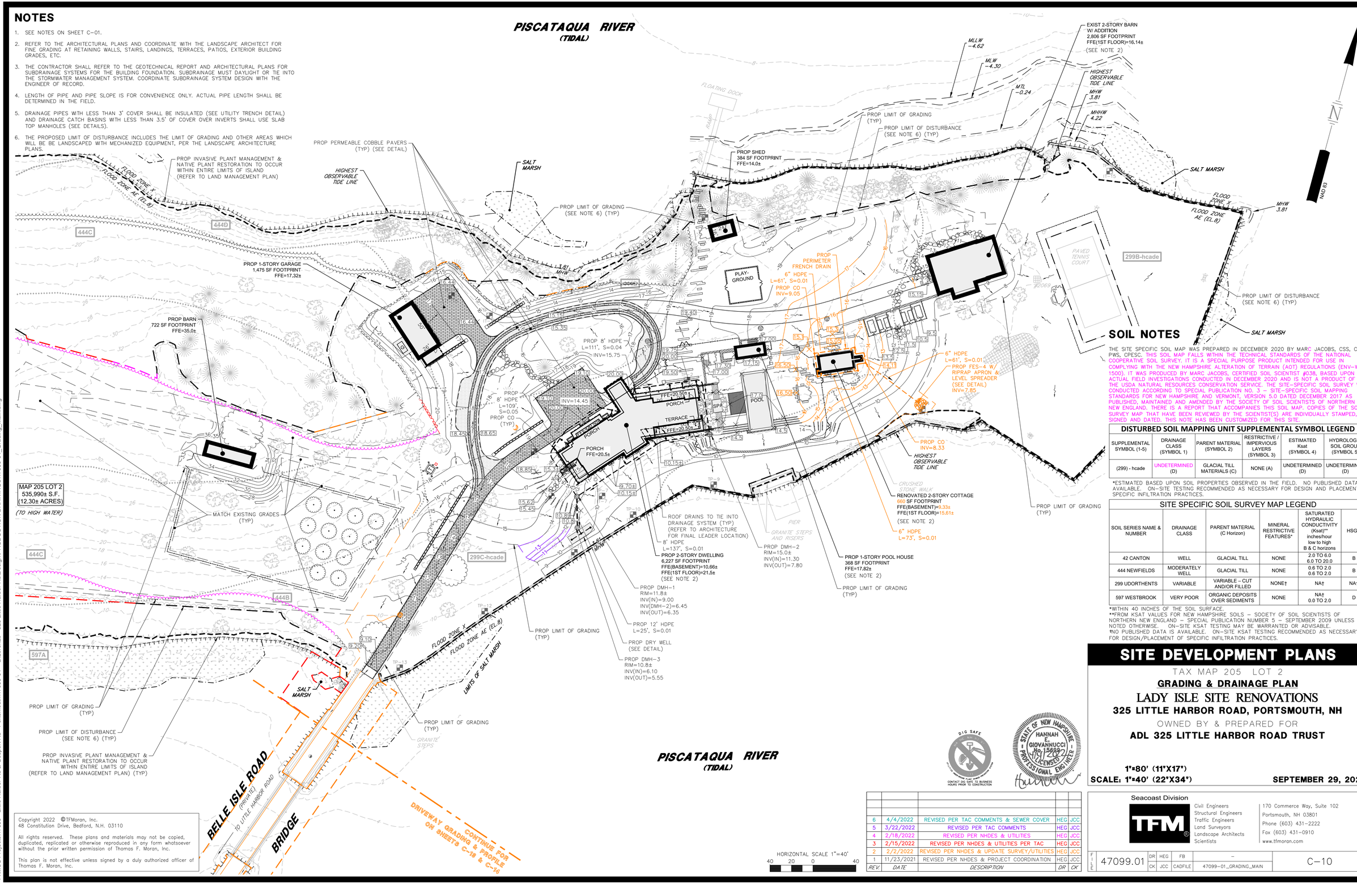
NOTES

1. SEE NOTES ON SHEET C-01.
2. REFER TO THE ARCHITECTURAL PLANS AND COORDINATE WITH THE LANDSCAPE ARCHITECT FOR FINE GRADING AT RETAINING WALLS, STAIRS, LANDINGS, TERRACES, PATIOS, EXTERIOR BUILDING GRADES, ETC.
3. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND ARCHITECTURAL PLANS FOR SUBDRAINAGE SYSTEMS FOR THE BUILDING FOUNDATION. SUBDRAINAGE MUST DAYLIGHT OR TIE INTO THE STORMWATER MANAGEMENT SYSTEM. COORDINATE SUBDRAINAGE SYSTEM DESIGN WITH THE ENGINEER OF RECORD.
4. LENGTH OF PIPE AND PIPE SLOPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
5. DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP MANHOLES (SEE DETAILS).
6. THE PROPOSED LIMIT OF DISTURBANCE INCLUDES THE LIMIT OF GRADING AND OTHER AREAS WHICH WILL BE BE LANDSCAPED WITH MECHANIZED EQUIPMENT, PER THE LANDSCAPE ARCHITECTURE PLANS.



SOIL NOTES

THE SITE SPECIFIC SOIL MAP WAS PREPARED IN DECEMBER 2020 BY MARC JACOBS, CSS, CWS, PWS, CPESC. THIS SOIL MAP FALLS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR USE IN COMPLYING WITH THE NEW HAMPSHIRE ALTERATION OF TERRAIN (AOT) REGULATIONS (ENV-WQ 1500). IT WAS PRODUCED BY MARC JACOBS, CERTIFIED SOIL SCIENTIST #038, BASED UPON ACTUAL FIELD INVESTIGATIONS CONDUCTED IN DECEMBER 2020 AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THE SITE-SPECIFIC SOIL SURVEY WAS CONDUCTED ACCORDING TO SPECIAL PUBLICATION NO. 3 – SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 5.0 DATED DECEMBER 2017 AS PUBLISHED, MAINTAINED AND AMENDED BY THE SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND. THERE IS A REPORT THAT ACCOMPANIES THIS SOIL MAP. COPIES OF THE SOIL SURVEY MAP THAT HAVE BEEN REVIEWED BY THE SCIENTIST(S) ARE INDIVIDUALLY STAMPED, SIGNED AND DATED. THIS NOTE HAS BEEN CUSTOMIZED FOR THIS SITE.

DISTURBED SOIL MAPPING UNIT SUPPLEMENTAL SYMBOL LEGEND

SUPPLEMENTAL SYMBOL (1-5)	DRAINAGE CLASS (SYMBOL 1)	PARENT MATERIAL (SYMBOL 2)	RESTRICTIVE / IMPERVIOUS LAYERS (SYMBOL 3)	ESTIMATED Ksat (SYMBOL 4)	HYDROLOGIC SOIL GROUP (SYMBOL 5)
(299) - hcade	UNDETERMINED (D)	GLACIAL TILL MATERIALS (C)	NONE (A)	UNDETERMINED (D)	UNDETERMINED (D)

*ESTIMATED BASED UPON SOIL PROPERTIES OBSERVED IN THE FIELD. NO PUBLISHED DATA AVAILABLE. ON-SITE TESTING RECOMMENDED AS NECESSARY FOR DESIGN AND PLACEMENT OF SPECIFIC INFILTRATION PRACTICES.

SITE SPECIFIC SOIL SURVEY MAP LEGEND

SOIL SERIES NAME & NUMBER	DRAINAGE CLASS	PARENT MATERIAL (C Horizon)	MINERAL RESTRICTIVE FEATURES*	SATURATED HYDRAULIC CONDUCTIVITY (Ksat)** inches/hour low to high B & C horizons	HSG**
42 CANTON	WELL	GLACIAL TILL	NONE	2.0 TO 6.0 6.0 TO 20.0	B
444 NEWFIELDS	MODERATELY WELL	GLACIAL TILL	NONE	0.6 TO 2.0 0.6 TO 2.0	B
299 UDORTHENTS	VARIABLE	VARIABLE – CUT AND/OR FILLED	NONE†	NA†	NA†
597 WESTBROOK	VERY POOR	ORGANIC DEPOSITS OVER SEDIMENTS	NONE	NA† 0.0 TO 2.0	D

*WITHIN 40 INCHES OF THE SOIL SURFACE.
**FROM KSAT VALUES FOR NEW HAMPSHIRE SOILS – SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND – SPECIAL PUBLICATION NUMBER 5 – SEPTEMBER 2009 UNLESS NOTED OTHERWISE. ON-SITE KSAT TESTING MAY BE WARRANTED OR ADVISABLE.
†NO PUBLISHED DATA IS AVAILABLE. ON-SITE KSAT TESTING RECOMMENDED AS NECESSARY FOR DESIGN/PLACEMENT OF SPECIFIC INFILTRATION PRACTICES.

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

GRADING & DRAINAGE PLAN

LADY ISLE SITE RENOVATIONS

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OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=80' (11"X17")
SCALE: 1"=40' (22"X34")

SEPTEMBER 29, 2021

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15689 — LICENSED PROFESSIONAL ENGINEER

HORIZONTAL SCALE 1"=40'
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6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

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FILE	DR	HEG	FB	–	
47099.01	CK	JCC	CADFILE	47099-01_GRADING_MAIN	C-10

Apr 05, 2022 - 4:21am
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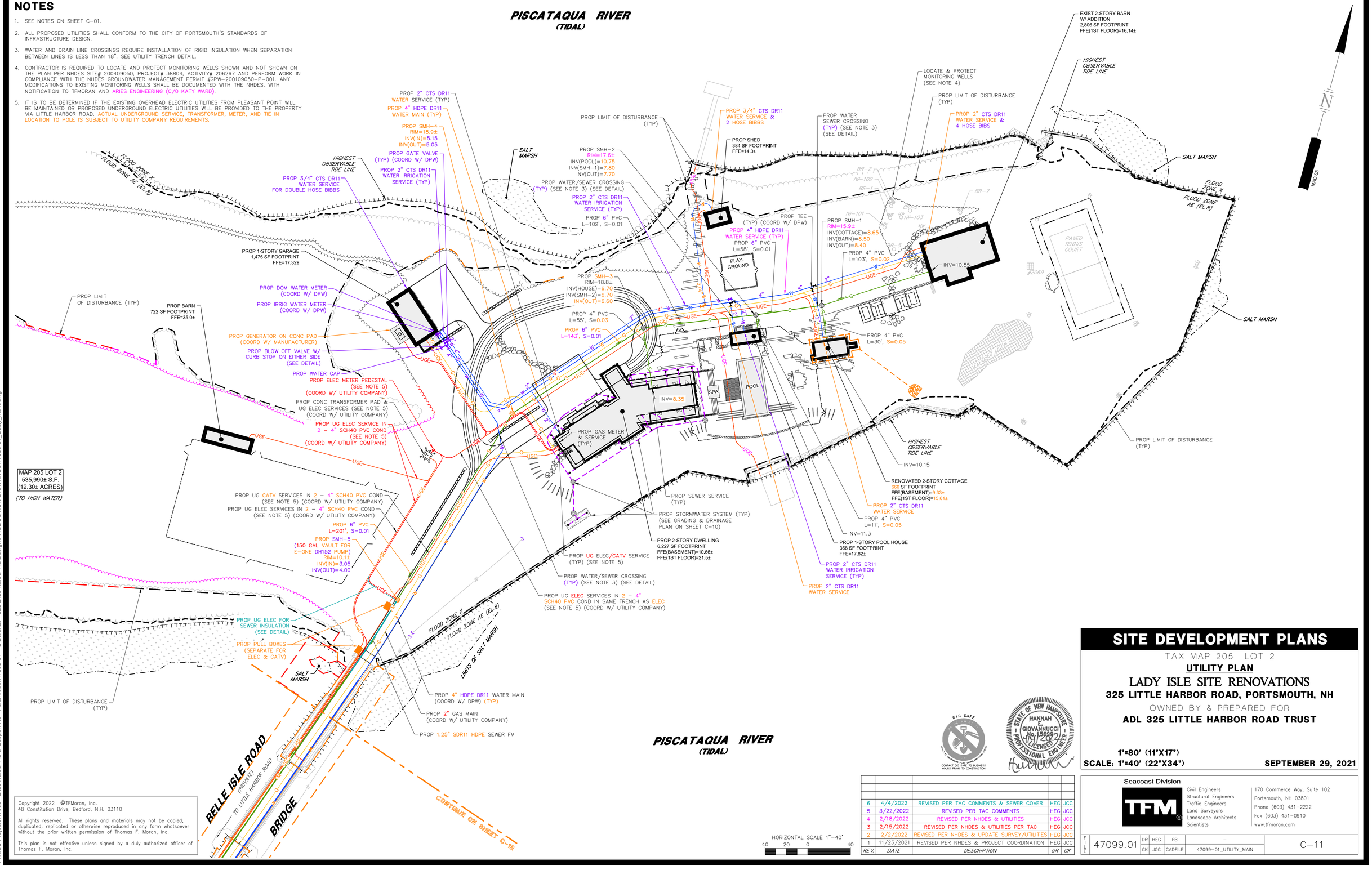
NOTES

1. SEE NOTES ON SHEET C-01.
2. ALL PROPOSED UTILITIES SHALL CONFORM TO THE CITY OF PORTSMOUTH'S STANDARDS OF INFRASTRUCTURE DESIGN.
3. WATER AND DRAIN LINE CROSSINGS REQUIRE INSTALLATION OF RIGID INSULATION WHEN SEPARATION BETWEEN LINES IS LESS THAN 18". SEE UTILITY TRENCH DETAIL.
4. CONTRACTOR IS REQUIRED TO LOCATE AND PROTECT MONITORING WELLS SHOWN AND NOT SHOWN ON THE PLAN PER NHDES SITE# 200409050, PROJECT# 38804, ACTIVITY# 206267 AND PERFORM WORK IN COMPLIANCE WITH THE NHDES GROUNDWATER MANAGEMENT PERMIT #GPW-200109050-P-001. ANY MODIFICATIONS TO EXISTING MONITORING WELLS SHALL BE DOCUMENTED WITH THE NHDES, WITH NOTIFICATION TO TFMORAN AND ARIES ENGINEERING (C/O KATY WARD).
5. IT IS TO BE DETERMINED IF THE EXISTING OVERHEAD ELECTRIC UTILITIES FROM PLEASANT POINT WILL BE MAINTAINED OR PROPOSED UNDERGROUND ELECTRIC UTILITIES WILL BE PROVIDED TO THE PROPERTY VIA LITTLE HARBOR ROAD. ACTUAL UNDERGROUND SERVICE, TRANSFORMER, METER, AND TIE IN LOCATION TO POLE IS SUBJECT TO UTILITY COMPANY REQUIREMENTS.



HORIZONTAL SCALE 1"=40'
40 20 0 40

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
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1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15689 — LICENSED PROFESSIONAL ENGINEER — 11/1/2021

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

UTILITY PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=80' (11"X17")
SCALE: 1"=40' (22"X34")

SEPTEMBER 29, 2021

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47099.01	CK	JCC	CADFILE	47099-01_UTILITY_MAIN	

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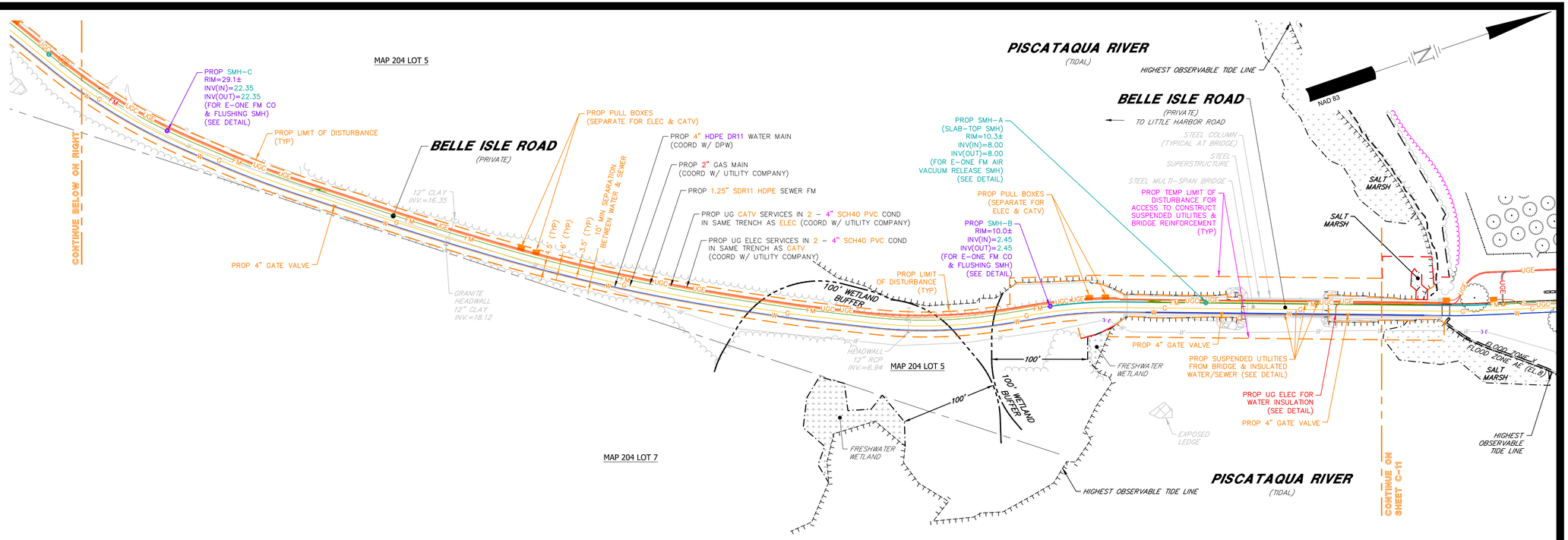
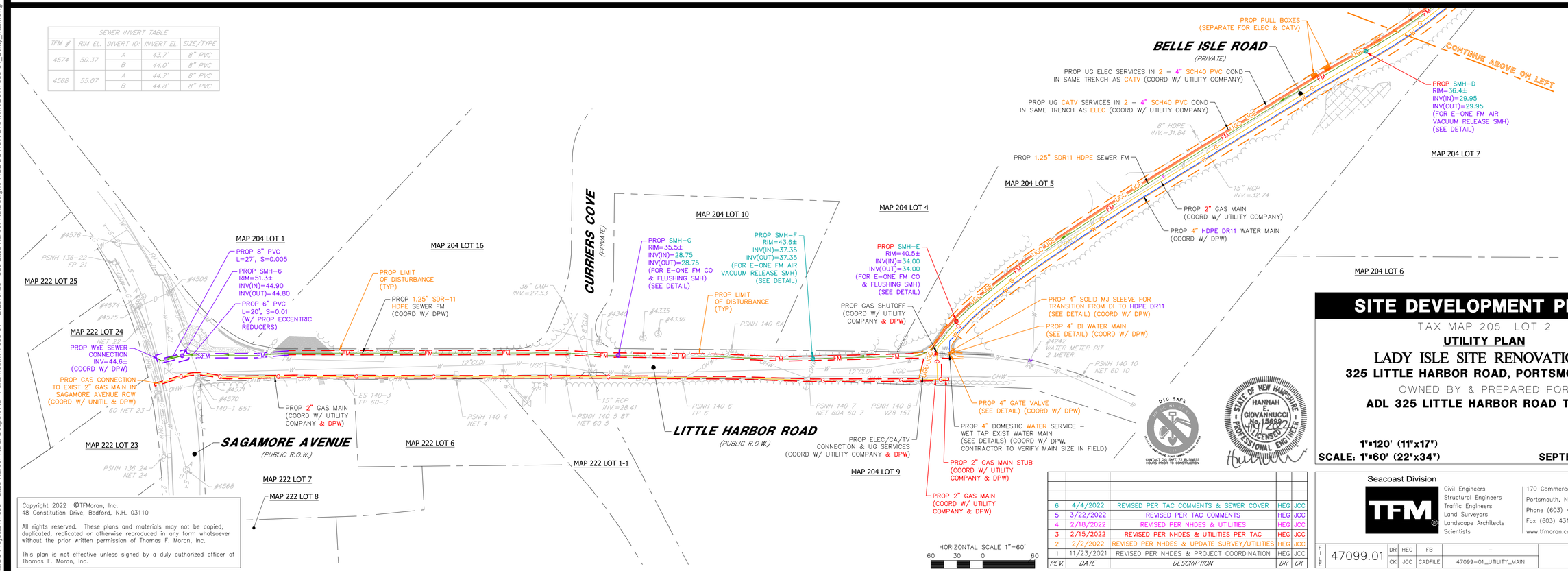
NOTES

1. SEE NOTES ON SHEET C-01 & C-12.





REV.	DATE	DESCRIPTION	DR	CK
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SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

UTILITY PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

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DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15698
LICENSED PROFESSIONAL ENGINEER

1"=120' (11"x17")
SCALE: 1"=60' (22"x34")
SEPTEMBER 29, 2021

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FILE	DR	HEG	FB	–	
47099.01	CK	JCC	CADFILE	47099-01_UTILITY_MAIN	C-12

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NOTES

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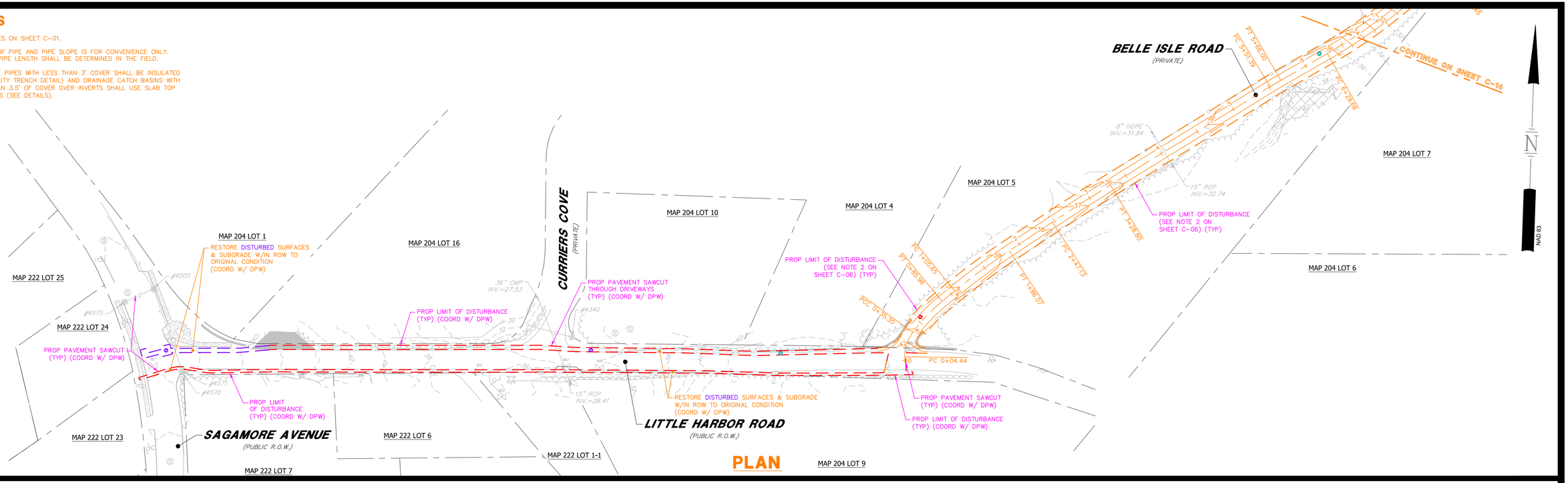
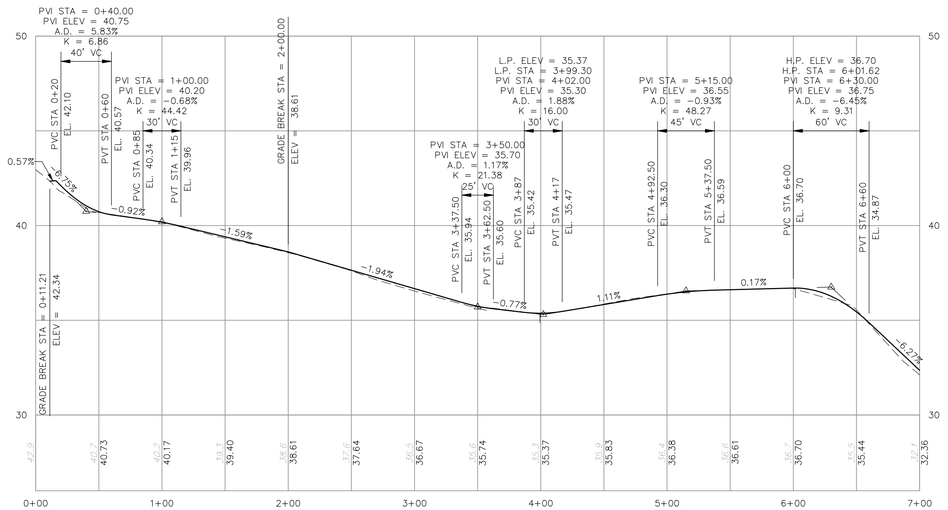
2. LENGTH OF PIPE AND PIPE SLOPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE FIELD.
3. DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP MANHOLES (SEE DETAILS).



PLAN



BELLE ISLE ROAD PROFILE

HORIZONTAL SCALE 1"=60'
VERTICAL SCALE 1"=4'

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STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15698
LICENSED PROFESSIONAL ENGINEER

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SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DRIVEWAY GRADING & PROFILE

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

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SEPTEMBER 29, 2021

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47099.01	CK	JCC	CADFILE	47099-01_PROFILE_DRIVEWAY	C-13

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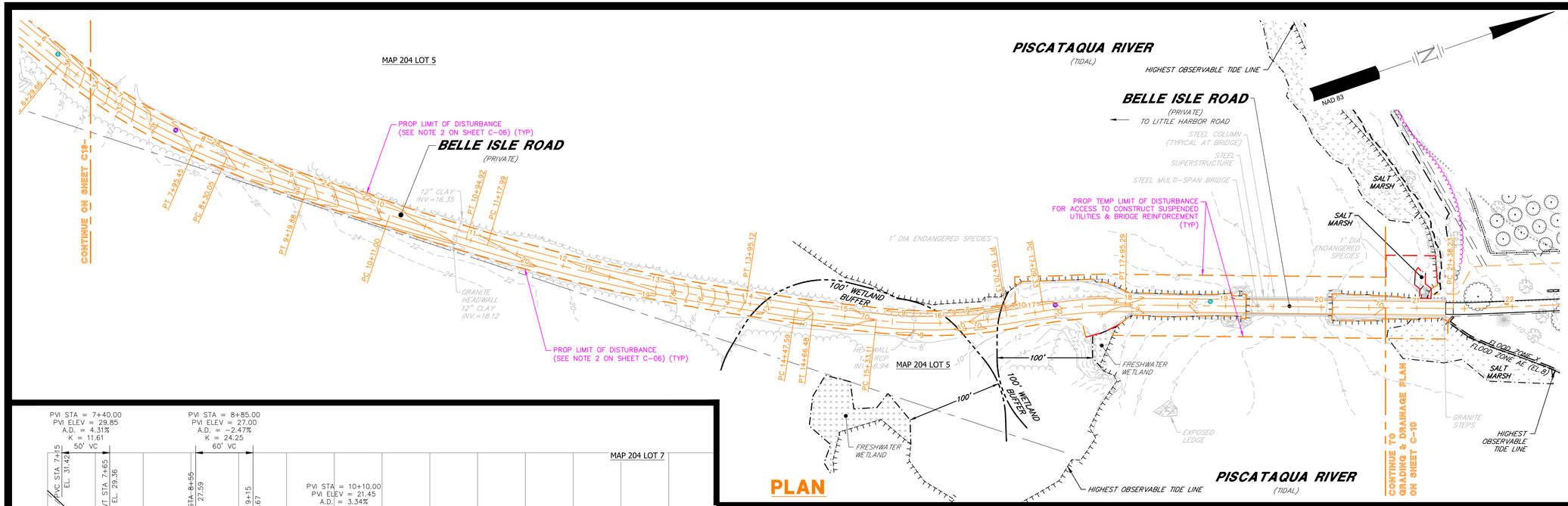

NOTES

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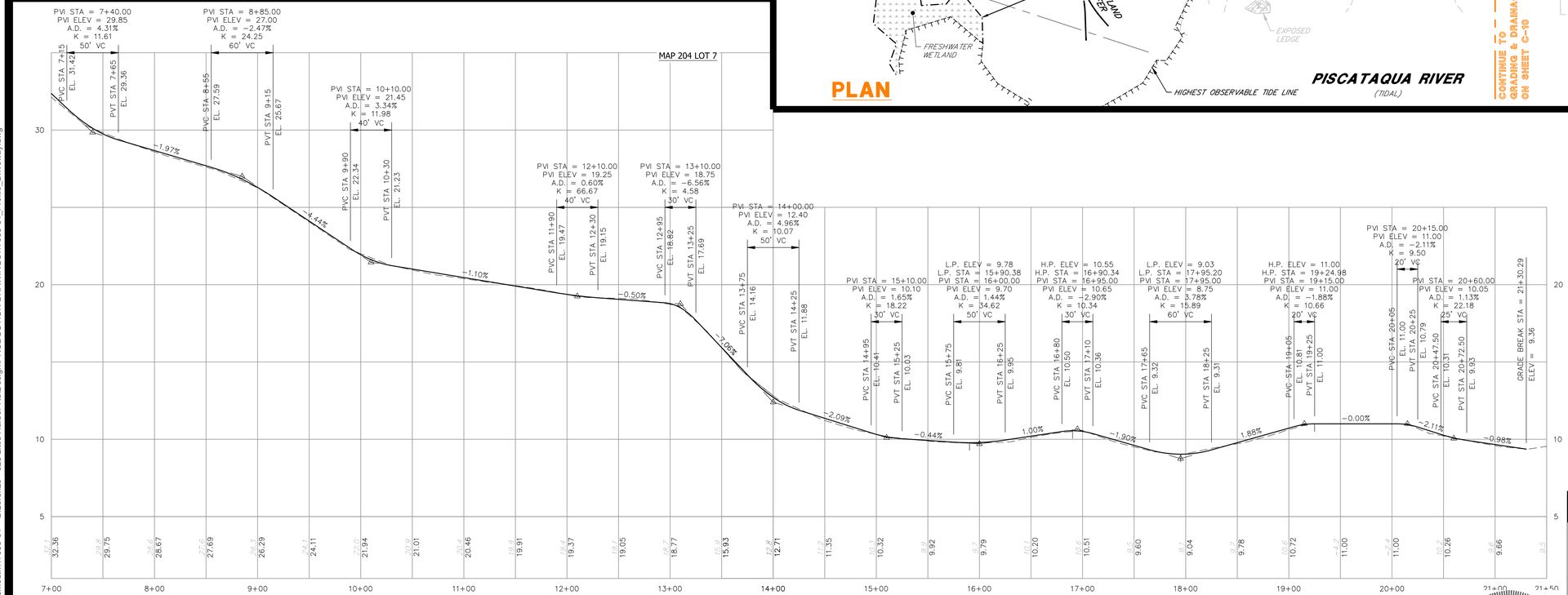

BELLE ISLE ROAD PROFILE

HORIZONTAL SCALE 1"=60'
60 30 0 60
VERTICAL SCALE 1"=4'
4 0 4

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

HANNAH F. GIOVANNUCCI No. 15698 LICENSED PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE

REV.	DATE	DESCRIPTION	DR	CK
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1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DRIVEWAY GRADING & PROFILE

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

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SEPTEMBER 29, 2021

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	47099.01	CK	JCC	CADFILE	47099-01_PROFILE_DRIVEWAY	C-14

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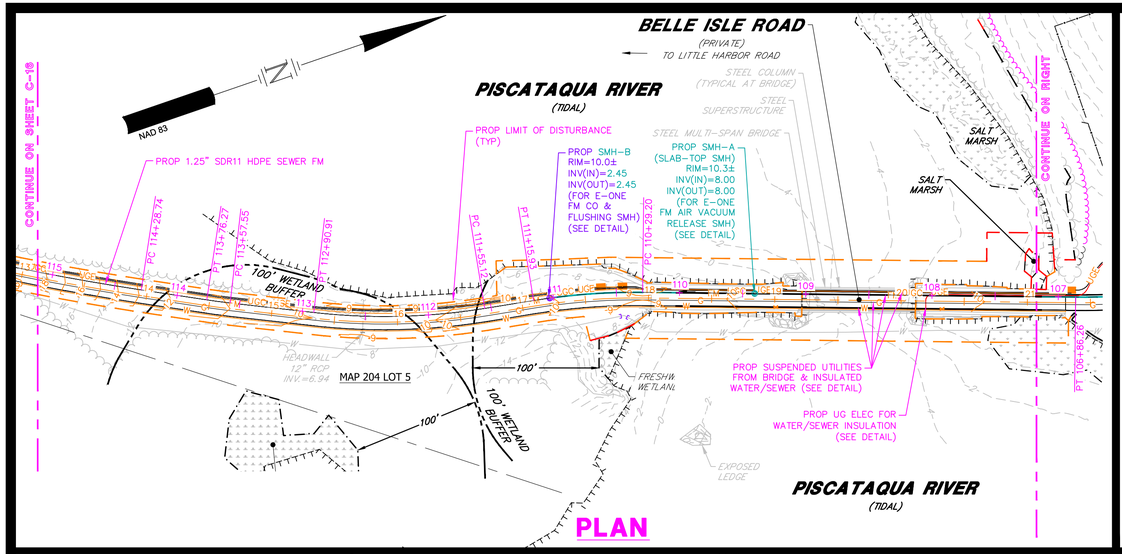
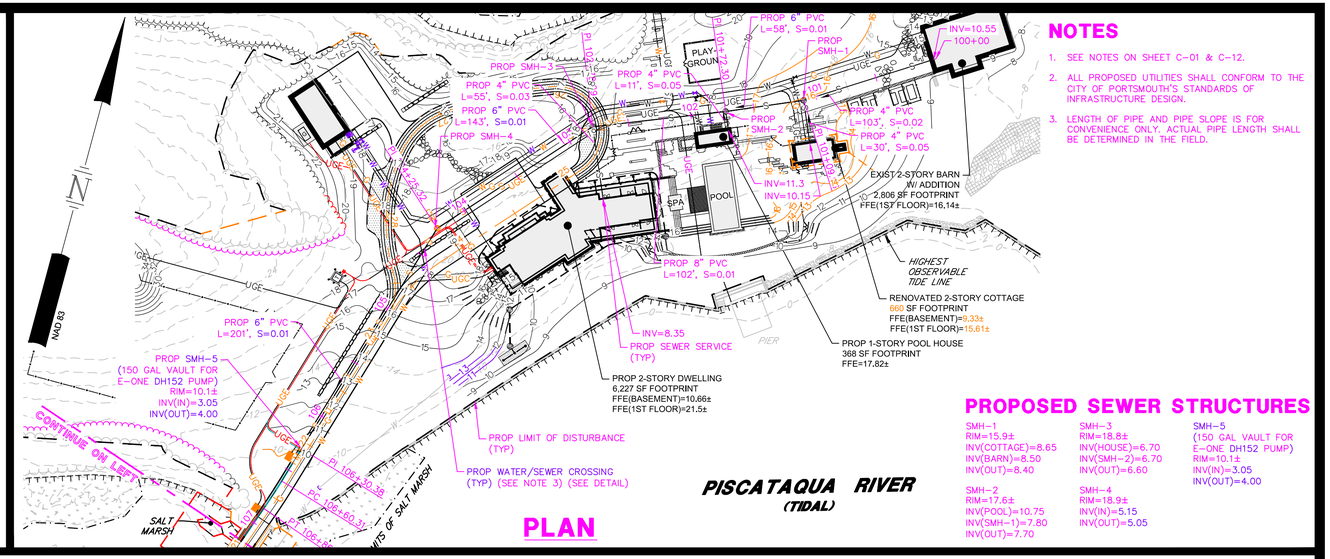


PLAN



PLAN

NOTES

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2. ALL PROPOSED UTILITIES SHALL CONFORM TO THE CITY OF PORTSMOUTH'S STANDARDS OF INFRASTRUCTURE DESIGN.
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PROPOSED SEWER STRUCTURES

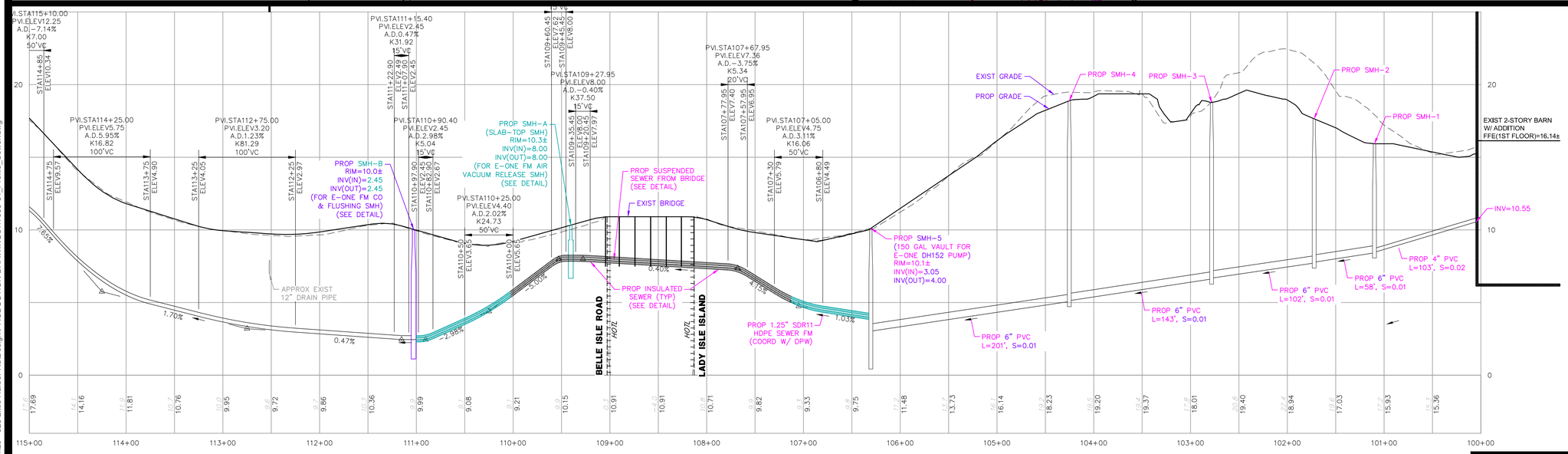
SMH-1
RIM=15.9±
INV(COTTAGE)=8.65
INV(BARN)=8.50
INV(OUT)=8.40

SMH-2
RIM=17.6±
INV(POOL)=10.75
INV(SMH-1)=7.80
INV(OUT)=7.70

SMH-3
RIM=18.8±
INV(HOUSE)=6.70
INV(SMH-2)=6.70
INV(OUT)=6.60

SMH-4
RIM=18.9±
INV(IN)=5.15
INV(OUT)=5.05

SMH-5
(150 GAL VAULT FOR E-ONE DH152 PUMP)
RIM=10.1±
INV(IN)=3.05
INV(OUT)=4.00



SEWER PROFILE

HORIZONTAL SCALE 1"=40'
40 20 0 40

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SEWER PROFILE

LADY ISLE SITE RENOVATIONS

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SEPTEMBER 29, 2021

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CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15688
LICENSED
PROFESSIONAL ENGINEER

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6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
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47099.01	CK	JCC	CADFILE	47099-01_PROFILE_SEWER	C-15

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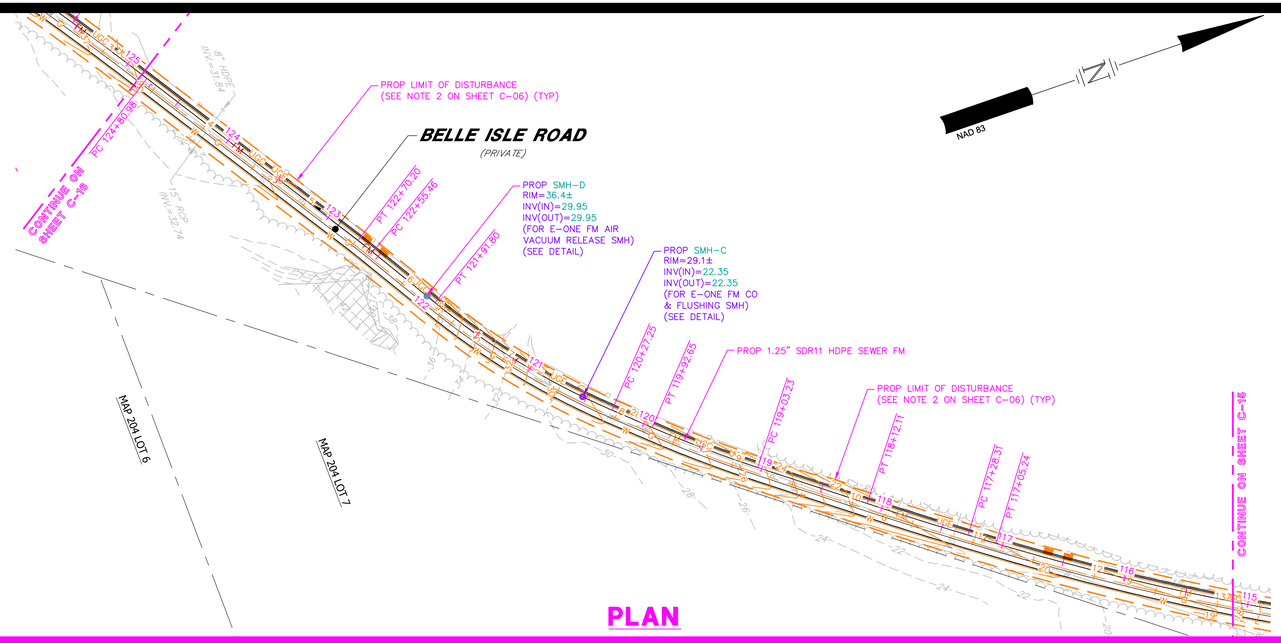

PLAN

NOTES

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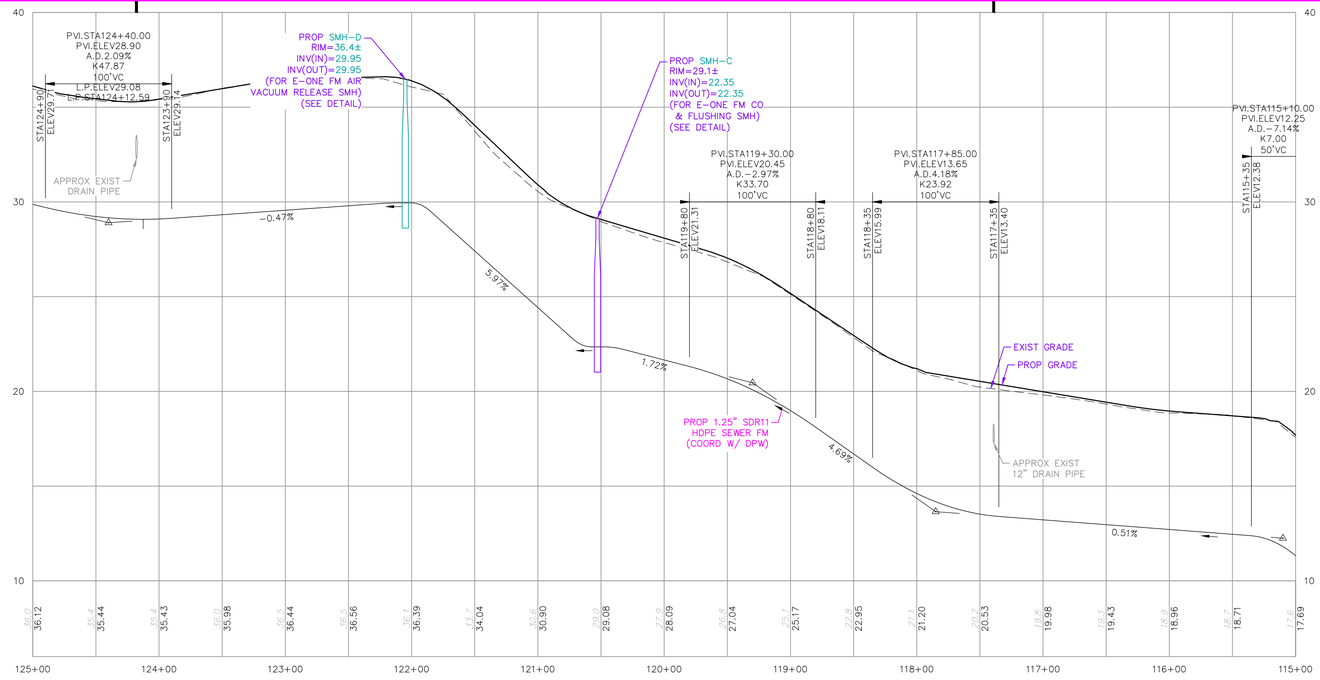

SEWER FORCE MAIN PROFILE

HORIZONTAL SCALE 1"=60'
60 30 0 60
VERTICAL SCALE 1"=4'
4 0 4

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PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE
10/29/2022

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SEWER PROFILE

LADY ISLE SITE RENOVATIONS

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SEPTEMBER 29, 2021

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	47099.01	CK	JCC	CADFILE	47099-01_PROFILE_SEWER	C-16

NOTES

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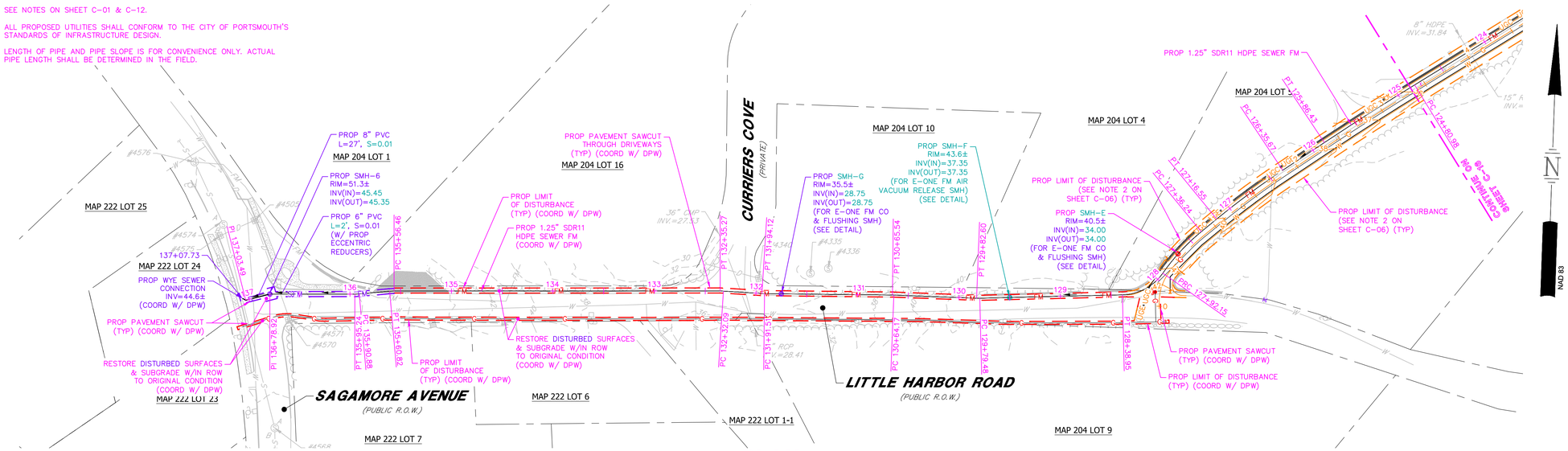

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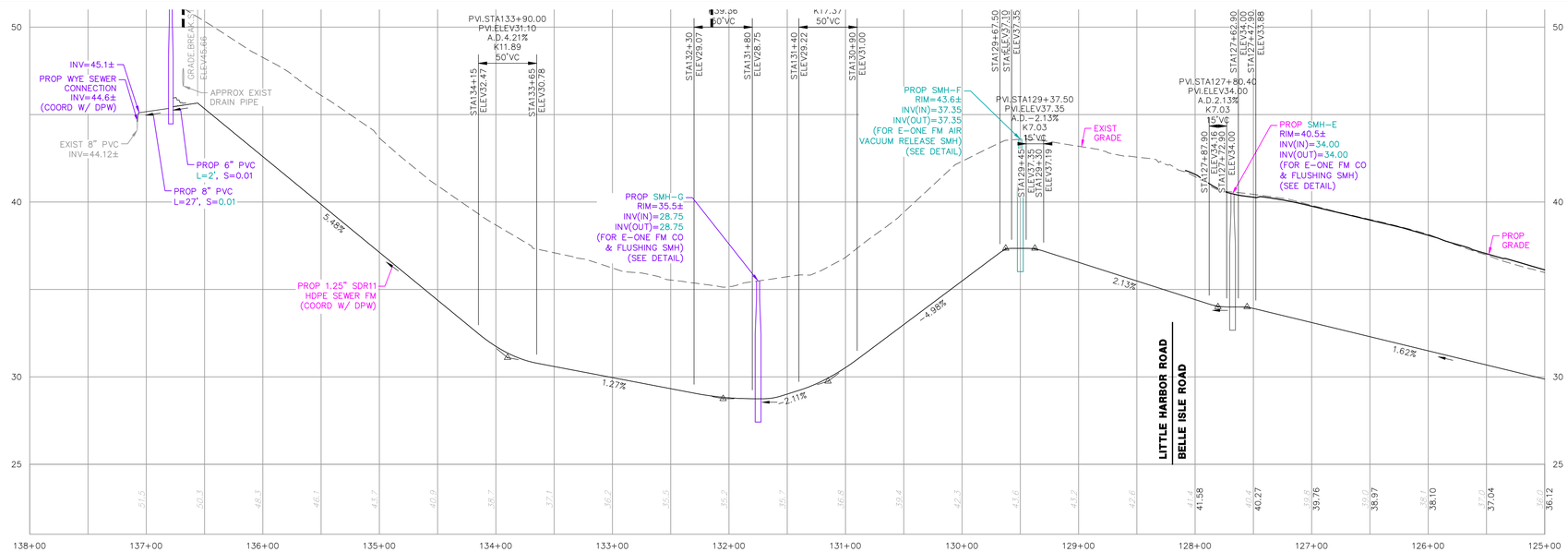

SEWER PROFILE

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HORIZONTAL SCALE 1"=60'
VERTICAL SCALE 1"=4'

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STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15698
LICENSED PROFESSIONAL ENGINEER

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

SEWER PROFILE

LADY ISLE SITE RENOVATIONS

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PROJ.	DR	HEG	FB	–	SHEET
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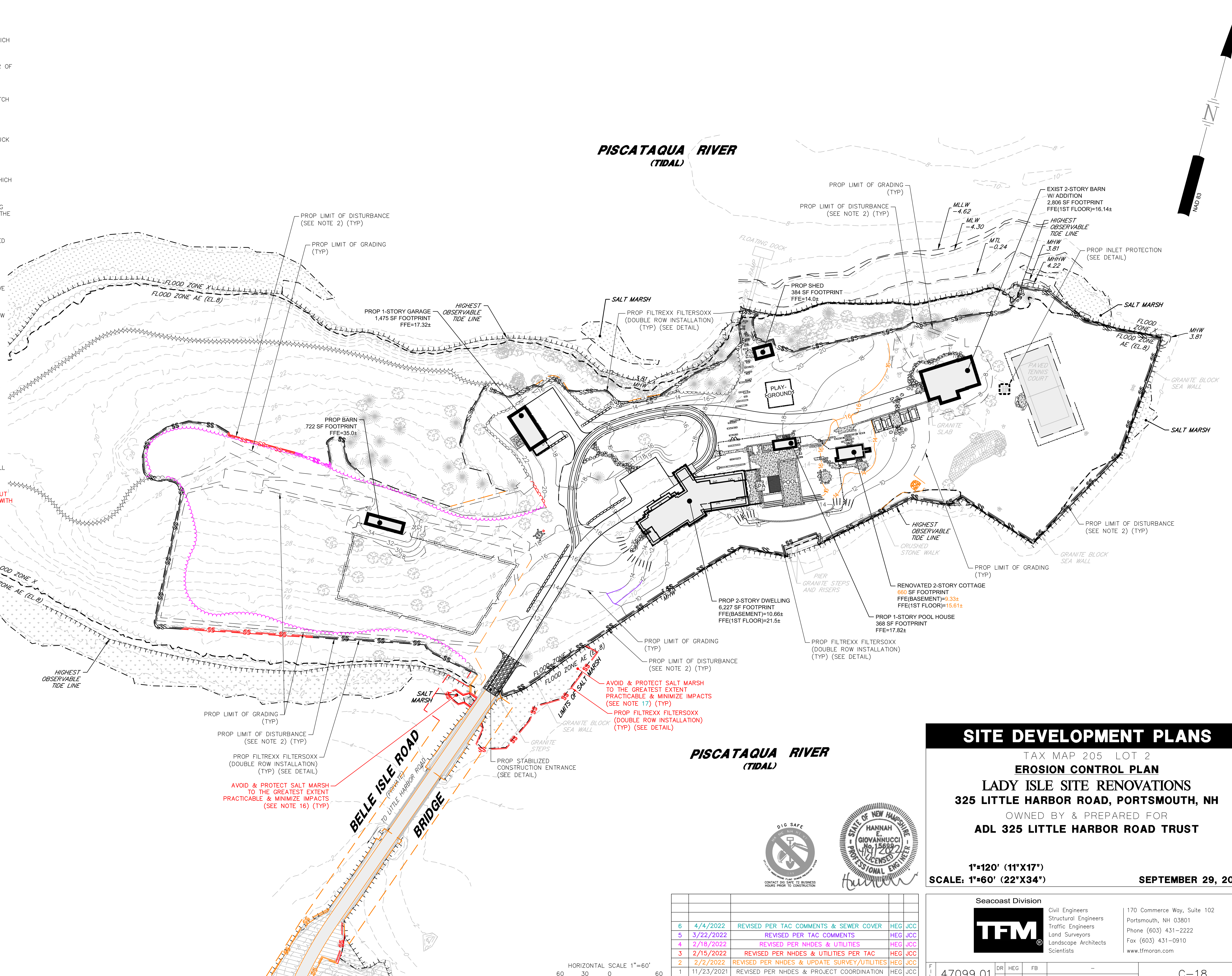
NOTES

1. SEE NOTES ON SHEET C–01, EROSION CONTROL NOTES ON SHEET C–19, EROSION CONTROL DETAILS ON SHEET C–20, AND THE APPROVED SWPPP, AS APPLICABLE.
2. THE PROPOSED LIMIT OF DISTURBANCE INCLUDES THE LIMIT OF GRADING AND OTHER AREAS WHICH WILL BE BE LANDSCAPED WITH MECHANIZED EQUIPMENT, PER THE LANDSCAPE ARCHITECTURE PLANS.
3. INSTALL SILT BARRIER ALONG THE PERIMETER OF THE AREA TO BE DISTURBED AS FIRST ORDER OF WORK.
4. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED. INLET PROTECTION BARRIERS SHALL BE IN PLACE AT ALL CATCH BASINS PRIOR TO THE DISTURBANCE OF SOIL.
5. DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IT SHALL BE ACCOMPLISHED BY THE UNIFORM APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF 1–1/2 POUNDS PER SQUARE YARD BY MEANS OF A LIME SPREADER OR OTHER APPROVED METHOD. WATER MAY ALSO BE USED FOR DUST CONTROL, AND APPLIED BY SPRINKLING WITH WATER TRUCK DISTRIBUTORS, AS REQUIRED.
6. THE SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION IF THE DISTURBANCE EXCEEDS ONE ACRE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. THE SITE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE FOR, OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
7. SILT PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS CONTAINED IN THIS PLAN SET.
8. CONSTRUCT JUTE MATTING ON ALL SLOPES STEEPER THAN 3:1, DISTURBED AREAS SLOPING TOWARDS WETLANDS AND ALL LOCATIONS SHOWN ON PLAN.
9. INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN STORM OF 0.10" OR GREATER. REPAIR/MODIFY SILT BARRIER AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REMOVE SEDIMENT WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
10. PROVIDE SILT BARRIERS AT THE BASE OF CUT AND FILL SLOPES UNTIL COMPLETION OF THE PROJECT OR UNTIL VEGETATION BECOMES ESTABLISHED ON SLOPES. EROSION PROTECTION BELOW FILL SLOPES SHALL BE PLACED IMMEDIATELY AFTER CLEARING, PRIOR TO EMBANKMENT CONSTRUCTION.
11. ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
12. ALL WORK AREAS TO BE STABILIZED AT THE END OF EACH WORK DAY AND PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT.
13. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    A. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, ARE INSTALLED IN AREAS TO BE PAVED
    B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
    C. A MINIMUM OF 3" OF NON–EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED
    D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
14. ALL CATCH BASINS, MANHOLES, AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER ALL AREAS HAVE BEEN STABILIZED.
15. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY DURING CONSTRUCTION.
16. THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.
17. TO THE GREATEST EXTENT PRACTICABLE, IMPACTS TO THE SALT MARSH SHALL BE MINIMIZED. EROSION CONTROLS SHALL BE INSTALLED, MONITORED, AND ADJUSTED AS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT. UPON COMPLETION, DISTURBED AREAS SHALL BE REPLANTED WITH PLUGS OF SALTMARSH CORDGRASS (SPARTINA ALTERNIFLORA).



SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

EROSION CONTROL PLAN

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=120' (11"X17")
SCALE: 1"=60' (22"X34")

SEPTEMBER 29, 2021

DIG SAFE — MA ME NH RI VT — 811 — UTILITIES UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15699 — LICENSED PROFESSIONAL ENGINEER — 4/4/2022

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

Seacoast Division
TFM®
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
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www.tfmoran.com

FILE	DR	HEG	FB	–	
47099.01	CK	JCC	CADFILE	47099–01_EROSION_MAIN	C–18

Apr 05, 2022 - 4:28am
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099-01 - DiLorenzo - 325 Little Harbor Rd\Design\PRODUCTION DRAWINGS\47099-01_Erosion_Main.dwg

SOIL CHARACTERISTICS

THE SOIL IN THE VICINITY OF THE SITE CONSIST OF UDORTHENTS (UNKNOWN, BUT ASSUMED TO BE HSG D), NEWFIELDS (HSG B), AND CANTON (HSG B). THESE SOILS ARE CLASSIFIED AS VARIABLE, MODERATELY DRAINED, AND WELL-DRAINED, RESPECTIVELY.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 366,773 SQUARE FEET (8.4± ACRES). CONSTRUCTION SHALL BE PHASED TO LIMIT DISTURBED AREAS TO LESS THAN 5 ACRES.

CRITICAL NOTE: THIS DRAWING IS PROVIDED FOR GENERAL GUIDANCE. ALL SPECIAL EROSION CONTROL MEASURES MUST BE EXECUTED IN ACCORDANCE WITH APPLICABLE CURRENT STATE AND LOCAL REGULATIONS, APPROVED SWPPP, AND PERMIT REQUIREMENTS.

SEQUENCE OF MAJOR ACTIVITIES

1. INSTALL PERIMETER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, AND TEMPORARY EROSION CONTROL MEASURES PER APPROVED SITE DEVELOPMENT PLANS, PERMITS, OR SWPPP IF REQUIRED, PRIOR TO EARTH MOVING OPERATIONS.
2. DEMOLISH EXISTING SITE WORK DESIGNATED FOR REMOVAL.
3. INSTALL STORMWATER TREATMENT PONDS AND SWALES BEFORE ROUGH GRADING THE SITE.
4. COMPLETE MAJOR GRADING OF SITE.
5. CONSTRUCT BUILDING PAD, STORMWATER SYSTEM, AND SITE UTILITIES.
6. CONSTRUCT PARKING AREAS.
7. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE ALL INLET PROTECTION, SILT BARRIERS, AND SEDIMENT THAT HAS BEEN TRAPPED BY THESE DEVICES.
8. CONSULT APPLICABLE REGULATIONS, PERMITS, CONDITIONS, AND APPROVED SWPPP FOR CONDITIONS RELATED TO NOTICE OF TERMINATION, IF REQUIRED.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

1. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT BARRIERS. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIPRAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE EROSIVE VELOCITIES ARE ENCOUNTERED.

OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

INSTALLATION, MAINTENANCE, AND INSPECTION OF EROSION AND SEDIMENT CONTROLS

A. GENERAL

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

1. STABILIZATION OF ALL SWALES, DITCHES, AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
2. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDED AT ONE TIME. (5 AC MAX)
3. ALL CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH APPLICABLE REGULATIONS, PERMITS, AND CONDITIONS AND FOR PROJECTS REQUIRING A NHDES AOT PERMIT AND NHPDES EPA GCP, DISCHARGING TO A NON-SENSITIVE WATERBODY, AT LEAST EVERY 7 DAYS AND AFTER A 0.5 INCH RAIN EVENT OR GREATER, AND INSPECTIONS SHALL BE CONDUCTED BY THE ENVIRONMENTAL MONITOR IF ONE IS REQUIRED, PURSUANT TO ENV-WQ 1505.03(B) OR FOR PROJECTS REQUIRING A NHDES AOT PERMIT AND NHPDES EPA GCP, DISCHARGING TO A SENSITIVE WATERBODY, AT LEAST EVERY 7 DAYS AND AFTER A 0.25 INCH RAIN EVENT OR GREATER, AND INSPECTIONS SHALL BE CONDUCTED BY THE ENVIRONMENTAL MONITOR IF ONE IS REQUIRED, PURSUANT TO ENV-WQ 1505.03(B).
4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT BARRIER WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE BARRIER.
6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY GROWTH.
8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING AN ENVIRONMENTAL MONITOR, IF ONE IS REQUIRED, PURSUANT TO ENV-WQ 1505.03(B), IS CONTRACTED.

B. FILTERS / BARRIERS

1. SILT SOCKS

   A. KNOTTED MESH NETTING MATERIAL SHALL BE DELIVERED TO SITE IN A 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" MATERIAL, FILLED WITH COMPOST CONFORMING TO THE FOLLOWING REQUIREMENTS:

PHYSICAL PROPERTY	TEST	REQUIREMENTS
PH	TMECC 04.11-A	5.0 TO 8.0
PARTICLE SIZE	TMECC 02.02-B	2" SIEVE AND MIN. 60% GREATER THAN THE $\frac{3}{8}$" SIEVE
MOISTURE CONTENT		STND TESTING < 60%

   MATERIAL SHALL BE RELATIVELY FREE OF INERT OR FOREIGN MAN-MADE MATERIALS

   MATERIAL SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, FREE FROM ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH.

   B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SILT SOCK.

   C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

2. SEQUENCE OF INSTALLATION

   SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

3. MAINTENANCE

   A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.

   B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

   C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.

   D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

C. MULCHING

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' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.

   B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

   THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES 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.

   WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

3. MAINTENANCE

   ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.

D. VEGETATIVE PRACTICE

1. AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE SHALL BE SCARIFIED TO A DEPTH OF 4". THEN, FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE PLANS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND REROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY THE SITE SUBCONTRACTOR.
2. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER, AND OTHER FOREIGN MATERIAL, AS WELL AS STONES OVER 1" IN DIAMETER, SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.
3. THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS AND GRADING TO ELIMINATE WATER POCKETS AND IRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRREGULARITIES TO LOW POINTS.
4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.
5. ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEEDED.
6. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
7. IF PERMITTED PER LOCAL AND STATE REGULATIONS, FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
8. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.
9. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4" AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.
10. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.
11. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.
12. THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.
13. UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK. IN NO CASE SHALL THE WEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. FOR TEMPORARY PLANTINGS AFTER SEPTEMBER 30, TO EARLY SPRING AND FOR TEMPORARY PROTECTION OF DISTURBED AREAS:

    A. FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS.
    B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

WINTER RYE (FALL SEEDING)	2.5 LBS/1,000 SF
OATS (SPRING SEEDING)	2.0 LBS/1,000 SF
MULCH	1.5 TONS/ACRE

E. CATCH BASIN INLET PROTECTION

1. INLET BASKET STRUCTURE

   A. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO DISTURBING PAVEMENT AND SHALL REMAIN IN PLACE AND MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.

   B. MOLD 6X6, 42 LB. WIRE SUPPORT AROUND INLET FRAME AND GRATE AND EXTEND 6" BEYOND SIDES. SECURE FILTER FABRIC TO WIRE SUPPORT.

   C. THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS:

   GRAB STRENGTH: 45 LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682)
   MULLEN BURST STRENGTH: MIN. 60PSI (ASTM D774)

   D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 GPM.

   E. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.

   F. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

F. WINTER CONSTRUCTION SEQUENCE

1. ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT 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 EVENT.
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 WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER OCTOBER 15TH, INCOMPLETE PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER, ALL TRAVEL SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOWFALL AFTER EACH STORM EVENT.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

WASTE DISPOSAL

1. WASTE MATERIALS
   ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE
   ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE
   ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION

1. MATERIAL MANAGEMENT PRACTICES
   THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

   GOOD HOUSEKEEPING:
   THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

   A. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.

   B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

   C. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

   D. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

   E. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

   F. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

   HAZARDOUS PRODUCTS:
   THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

   A. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

   B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.

   C. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

2. PRODUCT SPECIFICATION PRACTICES
   THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

   PETROLEUM PRODUCTS:
   ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

   FERTILIZERS:
   FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

   PAINTS:
   ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

   CONCRETE TRUCKS:
   CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA DESIGNATED ON SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.

G. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

ROCK BLASTING & WATER QUALITY NOTES

1. IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.

2. 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 HANDING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.
   A. LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
      (1) 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.
      (2) 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.
      (3) 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.
      (4) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
      (5) 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.
      (6) 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.
   B. EXPLOSIVE SELECTION. THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
      (1) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
      (2) 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.
   C. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
   D. 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:
      (1) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
      (2) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
   E. 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:
      (1) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
         - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
         - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
         - LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
         - INSPECT STORAGE AREAS WEEKLY.
         - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
         - 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.
         - 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.
      (2) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
         - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
         - PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
         - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
         - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
         - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
      (3) THE TRAINING OF ONSITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
      (4) 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-DWGB-22-6: "BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT).

CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

HANNAH E. GIOVANNUCCI
No. 15689
4/4/2022

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

EROSION CONTROL NOTES

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

1"=80' (11"X17")
SCALE: NTS 1"=40' (22"X34")
SEPTEMBER 29, 2021

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

Seacoast Division
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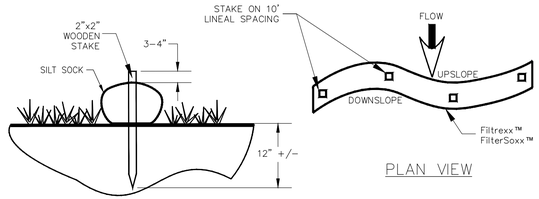
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

FILE	DR	HEG	FB	–	
47099.01	CK	JCC	CADFILE	47099-01_EROSION_MAIN	C-19

Apr 05, 2022 - 4:28am
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099-01 - DiLorenzo - 325 Little Harbor Rd\Design\PRODUCTION DRAWINGS\47099-01_Erosion_Main.dwg



SECTION VIEW

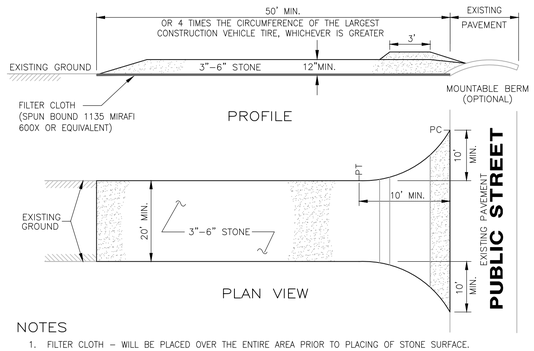
PLAN VIEW

NOTES:

1. SILT SOCK SHALL BE FILTREXX™ SILTSOXX™ NATURAL ORIGINAL OR APPROVED EQUIVALENT.
2. ALL MATERIAL AND SIZES TO MEET FILTREXX SPECIFICATIONS.
3. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
4. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.

FILTREXX™ FILTERSOXX™ STAKING

NOT TO SCALE

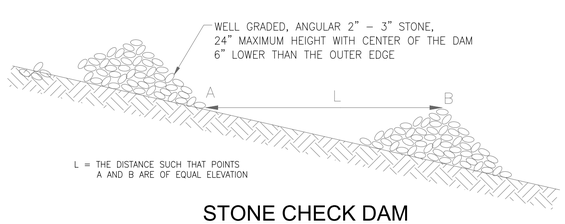


NOTES

1. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
2. WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
3. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
4. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN STORM EVENT.

STABILIZED CONSTRUCTION ENTRANCE

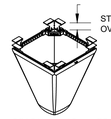
NOT TO SCALE



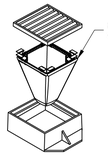
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

STONE CHECK DAM

NOT TO SCALE



TYPICAL RECTANGULAR INLET FILTER



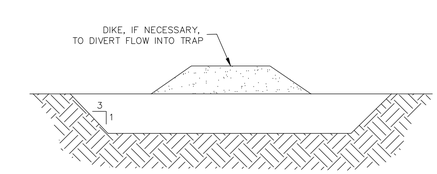
NOTES:

1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT > ½".
3. EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS.
4. REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM SPRAY WITH OPTIMAL FILTRATION.
5. REPLACE BAG IF TORN OR PUNCTURED TO > ½" DIAMETER ON LOWER HALF OF BAG.

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC.
A DIVISION OF ADS, INC.
WWW.INLETFILTERS.COM
(866) 287-8655 INFO@INLETFILTERS.COM

INLET PROTECTION

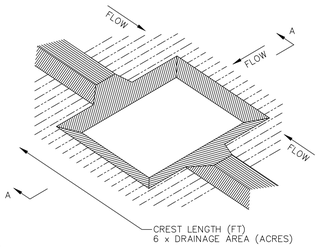
NOT TO SCALE



SECTION A-A

NOTES

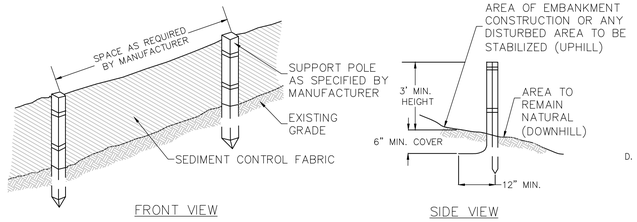
1. SEDIMENT TRAP TO BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED. IF IT IS DETERMINED THAT CONSTRUCTION OF A SEDIMENT TRAP IS WARRANTED, CONSULT WITH ENGINEER TO DETERMINE APPROPRIATE NUMBER AND DIMENSIONS.
2. 3,600 CF OF BASIN STORAGE IS REQUIRED FOR EVERY ACRE OF CONTRIBUTING DRAINAGE AREA.



SEDIMENT TRAP – ISOMETRIC VIEW

SEDIMENT TRAP

NOT TO SCALE



FRONT VIEW

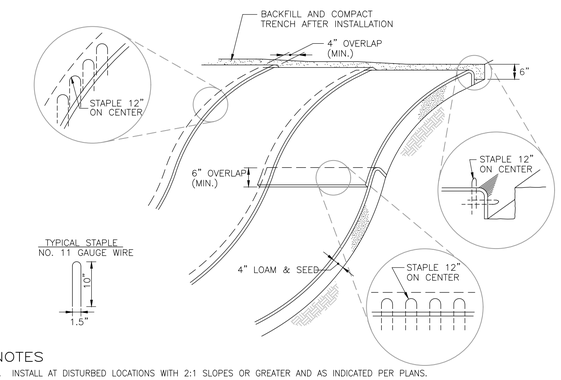
SIDE VIEW

NOTES

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR BEST MANAGEMENT PRACTICE FOR SILT FENCES, OF THE NEW HAMPSHIRE STORMWATER MANUAL, DECEMBER 2008.
2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES.
3. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATIONS.
4. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 16 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS MANUFACTURER RECOMMENDS.
5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS.
6. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND TO A MINIMUM OF 8 INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED INTO EXISTING TREES.
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
8. FILTER BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
9. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
10. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
11. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
12. 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.

SILT FENCE

NOT TO SCALE

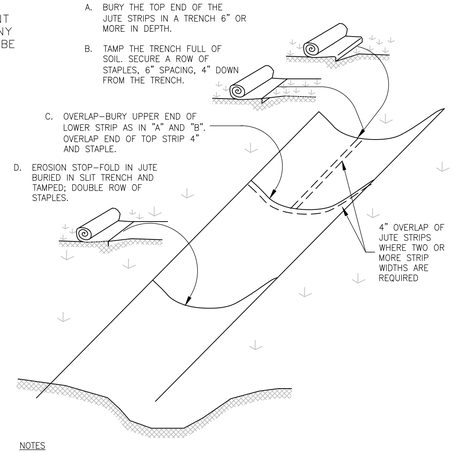


NOTES

1. INSTALL AT DISTURBED LOCATIONS WITH 2:1 SLOPES OR GREATER AND AS INDICATED PER PLANS.
2. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
3. ROLL THE BLANKET DOWN THE SLOPE OR SWALE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
6. BLANKET SHALL BE NORTH AMERICAN GREEN C125BN, EAST COAST EROSION CONTROL ECC-2B, AMERICAN EXCELSIOR COMPANY CURLEX III FIBRENET, ROLANKA GEONATURAL EROSION & SEDIMENT CONTROL MATTE JUTEMAT OR BIOD-OCF 30, OR APPROVED EQUAL.
7. BLANKET SHALL BE PLACED WITHIN 24-HRS AFTER SOWING SEE IN THE AREA BEING COVERED

EROSION CONTROL BLANKET

NOT TO SCALE



NOTES

1. MATTING SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS, INCLUDING STAPLE PATTERNS.
2. STAPLES SHALL BE BIODEGRADABLE.

JUTE MATTING

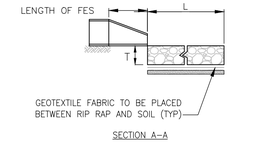
NOT TO SCALE

MAINTENANCE:

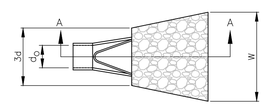
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

CONSTRUCTION SPECIFICATIONS:

1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12".
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. ADD ANIMAL SCREEN TO FLARED END SECTION OUTLET.



SECTION A-A

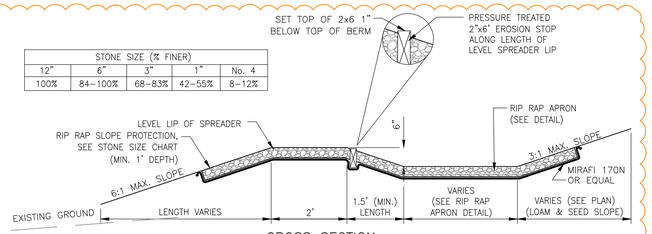


RIP RAP DIMENSIONS

LOCATION	FES-4
d50 STONE SIZE:	3"
LENGTH OF APRON (L):	4'
WIDTH OF APRON (W):	3'
DEPTH OF RIP RAP (T):	6"
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)
100	4.50 TO 6.00
85	3.90 TO 5.40
50	3.00 TO 4.50
15	0.90 TO 1.50

RIP RAP AND FLARED END SECTION WITH OUTLET PROTECTION

NOT TO SCALE



STONE SIZE (% FINER)					
12"	6"	3"	1"	No. 4	
100%	84-100%	68-83%	42-55%	8-12%	

CROSS SECTION

LEVEL SPREADER

NOT TO SCALE

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE – HANNAH E. GIOVANNUCCI No. 15682 – 10/12/2022 – LICENSED PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

Seacoast Division

TFM

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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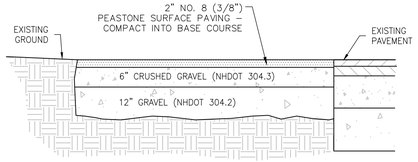
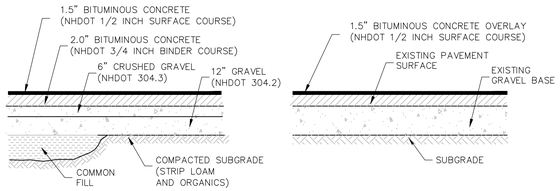
		CK	JCC	CADFILE	47099-01_DETAILS_MAIN	



PEASTONE GRAVEL DRIVEWAY

NOT TO SCALE



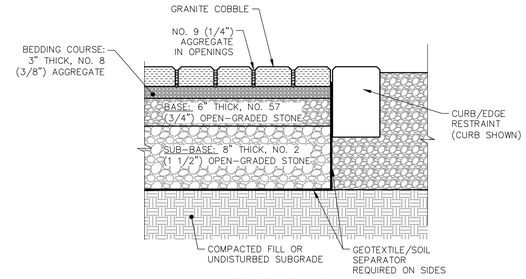
STANDARD DUTY PAVEMENT | OVERLAY

NOTES

1. SEE GRADING & EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS–SLOPE.
2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT– USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.
3. REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.
4. BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SECTION 401.
5. BITUMINOUS CONCRETE SHALL BE COMPACTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.
6. PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
7. PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
8. THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.
9. ALL PARKING SPACES SHALL BE STANDARD DUTY. ALL OTHER LOCATIONS SHALL BE HEAVY DUTY.

PAVEMENT SECTIONS

NOT TO SCALE



PROFILE VIEW

NOTES:

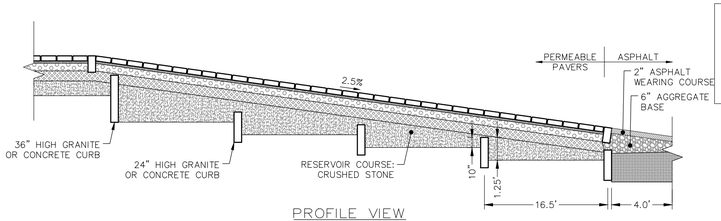
1. REFER TO LANDSCAPE ARCHITECTURE FOR ADDITIONAL DETAIL AND SPECIFIC SURFACE TREATMENT.
2. PERMEABLE PAVERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. INSTALLATION OF PERMEABLE PAVER SECTION SHALL BEGIN AT LOWEST GRADE AND END AT HIGHEST GRADE.

MAINTENANCE:

1. PERMEABLE PAVERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. PERMEABLE PAVERS FUNCTION AS AN EFFECTIVE STORMWATER TREATMENT SYSTEM AND REMAIN CLOG–FREE FOR YEARS WITH REASONABLE GOOD HOUSEKEEPING PRACTICES.
2. KEEP THE PAVEMENT FREE OF LEAVES, WEEDS, AND SEDIMENT.
3. AVOID THE USE OF SAND IN THE WINTER; IF USED, SPREAD SPARINGLY.
4. PERIODICALLY SWEEP THE OPENINGS TO REMOVE CRUST THAT FORMS ON THE SURFACE. A STIFF BRISTLE BROOM WORKS WELL FOR RESIDENTIAL WALKS AND DRIVEWAYS.
5. IF PUDDLES RESULT FROM CLOGGING, INFILTRATION RATES CAN BE RESTORED TO 100% CAPACITY BY REMOVING THE AGGREGATE FROM THE OPENINGS AND REPLACING IT WITH CLEAN MATERIAL.
6. DO NOT PRESSURE WASH.
7. MINIMIZE APPLICATION OF SALT FOR ICE CONTROL.
8. INSPECT ANNUALLY FOR PAVER DETERIORATION.
9. MONITOR PERIODICALLY TO ENSURE THAT THE PAVERS DRAIN EFFECTIVELY AFTER STORMS.
10. PERIODICALLY ADD JOINT MATERIAL TO REPLACE LOST MATERIAL.
11. MAJOR CLOGGING MAY NECESSITATE REPLACEMENT OF PAVERS AND POSSIBLY FILTER COURSE AND SUB–BASE COURSE.

PERMEABLE PAVER

NOT TO SCALE



PROFILE VIEW

MAINTENANCE:

- PERMEABLE PAVERS FUNCTION AS AN EFFECTIVE STORMWATER TREATMENT SYSTEM AND REMAIN CLOG–FREE FOR YEARS WITH REASONABLE GOOD HOUSEKEEPING PRACTICES.
- KEEP THE PAVEMENT FREE OF LEAVES, WEEDS, AND SEDIMENT.
- AVOID THE USE OF SAND IN THE WINTER; IF USED, SPREAD SPARINGLY.
- PERIODICALLY SWEEP THE OPENINGS TO REMOVE CRUST THAT FORMS ON THE SURFACE. A STIFF BRISTLE BROOM WORKS WELL FOR RESIDENTIAL WALKS AND DRIVEWAYS.
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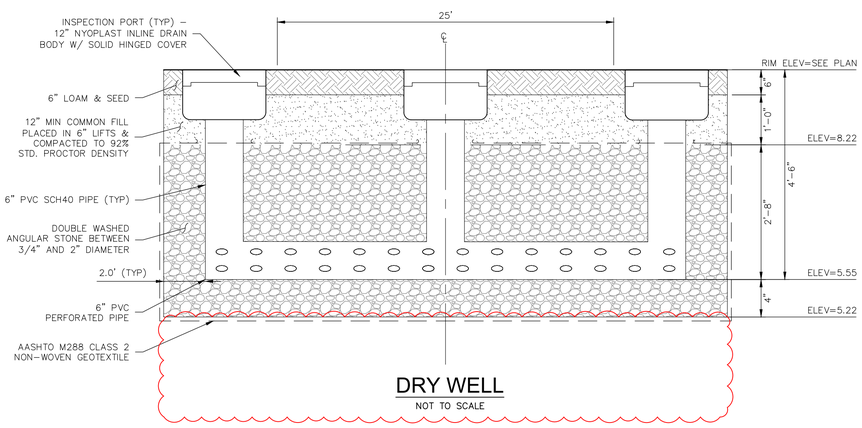
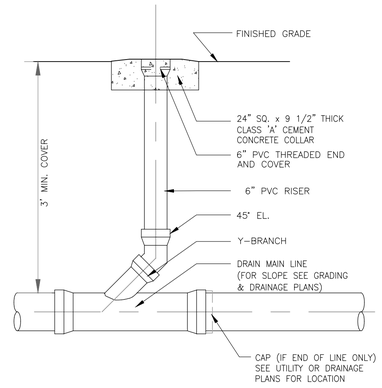
PERMEABLE PAVER DRIVEWAY

NOT TO SCALE



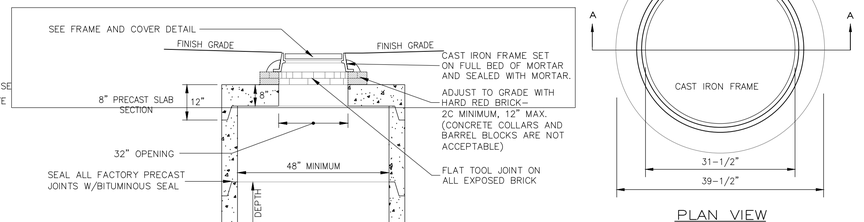
DRY WELL

NOT TO SCALE



DRAINAGE CLEAN OUT

NOT TO SCALE

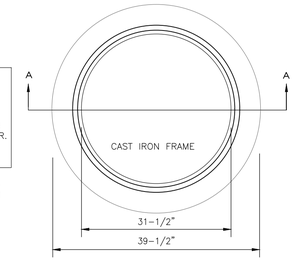


NOTES

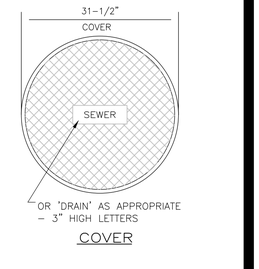
1. ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C–478
2. MANHOLES SHALL MEET NHDOT SPECIFICATIONS.
3. ALL COMPONENTS SHALL BE DESIGNED FOR HS–20 LOADING
4. REINFORCING SHALL CONFORM TO ASTM 185 OR ASTM 1497 & ASTM A615, GRADE 60.
5. ALL CONCRETE SHALL BE NHDOT CLASS A.

SLAB TOP MANHOLE

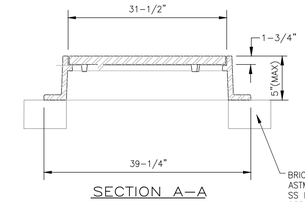
NOT TO SCALE



PLAN VIEW



COVER



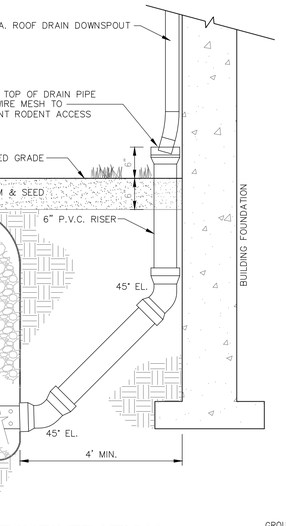
SECTION A–A

NOTES

1. FRAMES AND COVERS SHALL BE MANUFACTURED FROM DUCTILE IRON IN ACCORDANCE WITH ISO 1083.
2. COVERS SHALL BE ON MAN OPERABLE USING STANDARDS TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 120,000 LBS (H20 REQUIREMENT).
3. FRAME SHALL INCORPORATE A SEATING GASKET.
4. FLANGE SHALL INCORPORATE BEDDING SLOTS AND BOLT HOLES.
5. ALL COMPONENTS SHALL BE BLACK COATED.
6. MANHOLE FRAME AND COVER SHALL BE PER TOWN OF TILTON STANDARDS.

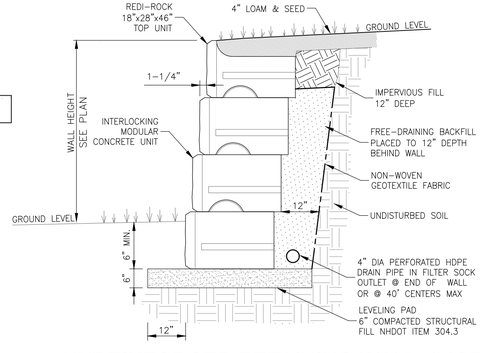
MANHOLE FRAME AND COVER

NOT TO SCALE



DOWNSPOUT INFILTRATION

NOT TO SCALE



UNREINFORCED RETAINING WALL (MODULAR CONCRETE UNIT)

NOT TO SCALE

GENERAL NOTES

1. THIS DETAIL IS ONLY FOR WALLS LESS THAN 4 FEET IN HEIGHT.
2. WALL DESIGNS SHALL CONSIDER EFFECTS OF SLOPE, TRAFFIC LOADS, AND/OR BUILDING LOADS AS REQUIRED.
3. BLOCK COLOR SHALL BE DETERMINED BY OWNERS REPRESENTATIVE.
4. FINAL WALL DESIGN SHALL BE SUBJECT TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
5. IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

MANUFACTURER'S DESIGN

1. DESIGN SHALL BE FROM THE WALL MANUFACTURER.
2. DESIGN CALCULATIONS AND PLANS SHALL BE SUBMITTED TO THE OWNER AND ENGINEER OF RECORD FOR APPROVAL.
3. DESIGN CALCULATIONS TO INCLUDE SAFETY FACTORS AGAINST OVERTURNING, SLIDING, BEARING CAPACITY, GEOGRID PULLOUT AND GLOBAL STABILITY. MINIMUM FACTORS OF SAFETY ARE INDICATED BELOW.
4. THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETE IN ACCORDANCE WITH DESIGN.

DRAINAGE NOTES

1. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
2. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL CONCURRENTLY WITH WALL CONSTRUCTION

DIG SAFE — CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE — HANNAH E. GIOVANNUCCI No. 15699 — LICENSED PROFESSIONAL ENGINEER

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SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

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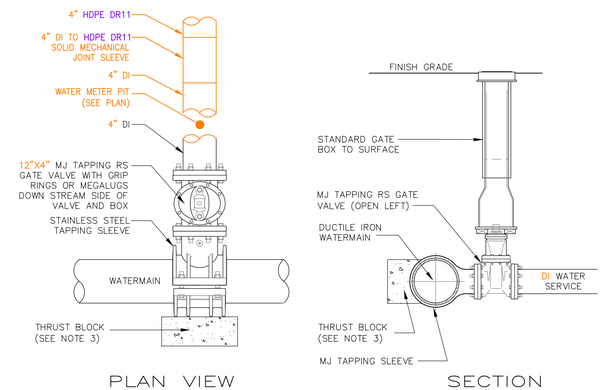

PLAN VIEW SECTION

NOTES
1. TAPPING SLEEVES SHALL BE STAINLESS STEEL (SS) WITH SS HARDWARE.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 6' FROM TOP OF PIPE TO FINISH GRADE PER NHDOT REQUIREMENTS WITHIN THE RIGHT OF WAY.
3. PRECAST CONCRETE THRUST BLOCK TO BE USED, SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATERMAIN.

WATER SERVICE WET TAP INSTALLATION

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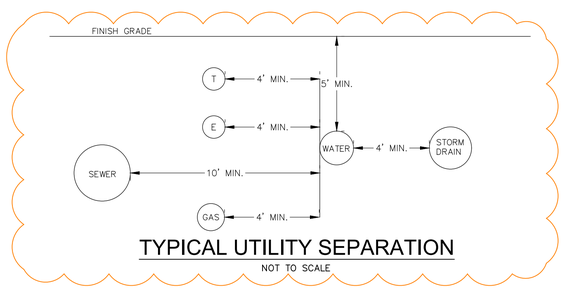

TYPICAL UTILITY SEPARATION

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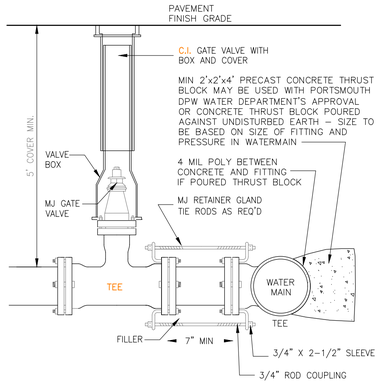

BURIED GATE VALVE

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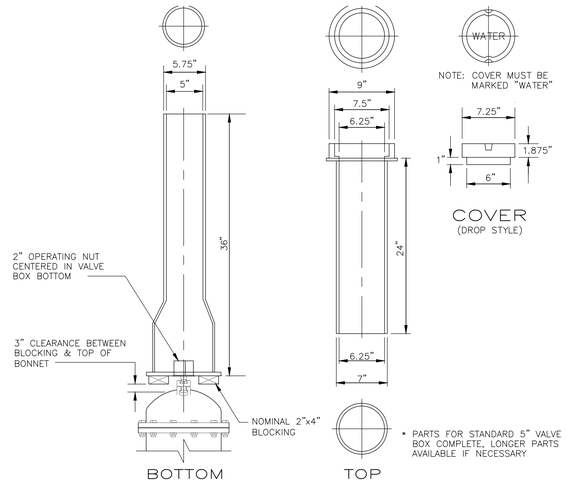

VALVE BOX

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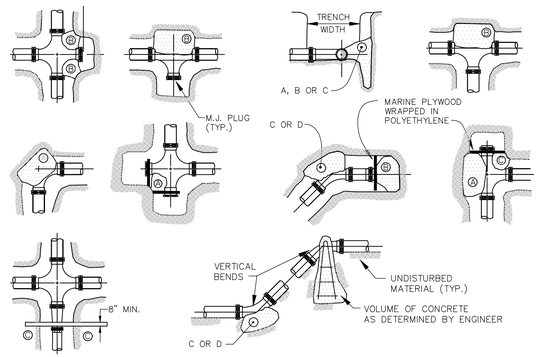


BEARING AREA REQUIRED, SQUARE FEET

TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS, pfs	4" AND LESS DEGREE BEND				6" AND 8" DEGREE BEND				10" AND 12" DEGREE BEND			
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90
LOOSE SAND OR MEDIUM CLAY – 2,000	1.0	2.0	2.7	4.0	1.5	3.0	6.0	10.0	3.0	6.2	12.0	22.0
PACKED GRAVEL AND SAND – 4,000	1.0	1.0	1.5	2.0	1.0	1.5	3.0	5.0	1.5	3.1	6.0	11.0
ROCK – 10,000	1.0	1.0	1.0	1.0	1.0	1.0	1.2	2.0	1.0	1.3	2.4	4.4

BEARING AREA REQUIRED, SQUARE FEET

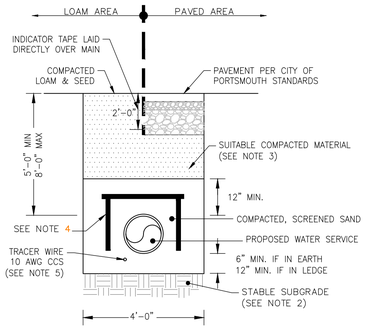
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS, pfs	14" AND 16" DEGREE BEND OR DEFLECTION				18" AND 20" DEGREE BEND OR DEFLECTION			
	11 1/4	22 1/2	45	90	11 1/4	22 1/2	45	90
LOOSE SAND OR MEDIUM CLAY – 2,000	6.0	12.0	22.5	40.0	9.5	19.0	37.0	67.0
PACKED GRAVEL AND SAND – 4,000	3.0	6.0	11.3	20.0	4.8	9.5	18.5	33.5
ROCK – 10,000	1.2	2.4	4.5	8.0	2.0	3.8	7.4	13.5

NOTES

1. ALL MATERIAL, INSTALLATION PROCEDURES, MANUFACTURERS, AND DIMENSIONAL REQUIREMENTS SHALL CONFORM TO PORTSMOUTH'S INFRASTRUCTURE DESIGN STANDARDS AND PORTSMOUTH DPW'S ESTABLISHED RULES AND PROCEDURES.
2. A PRECAST CONCRETE THRUST BLOCK IS PREFERRED BY PORTSMOUTH DPW AND MUST CONFORM TO PORTSMOUTH DPW'S INFRASTRUCTURE DESIGN STANDARDS.
3. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO PIPE JOINTS SHALL BE COVERED WITH CONCRETE.
4. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
5. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS. PLACE ROOFING FELT AROUND HYDRANT ELBOW BEFORE POURING THRUST BLOCKS AND ENSURE CONCRETE DOES NOT PLUG HYDRANT DRAIN PORTS.

THRUST BLOCKS

NOT TO SCALE

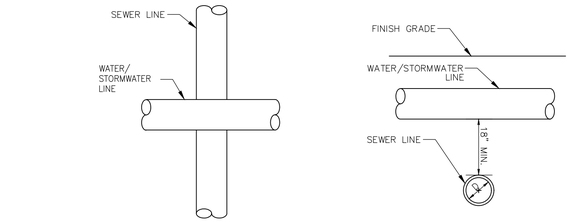


NOTES

1. ALL MATERIAL, INSTALLATION PROCEDURES, MANUFACTURERS, AND DIMENSIONAL REQUIREMENTS SHALL CONFORM TO PORTSMOUTH'S INFRASTRUCTURE DESIGN STANDARDS AND PORTSMOUTH DPW'S ESTABLISHED RULES AND PROCEDURES.
2. IN LOCATIONS WITH EXISTING FILL SOILS, CONSULT WITH THE GEOTECHNICAL ENGINEER FOR METHODS TO PREPARE STABLE SUBGRADE AND REMOVAL OF MATERIAL IF NECESSARY.
3. SUITABLE MATERIAL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER 6" IN THE LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. SUITABLE MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
4. RIGID STYROFOAM INSULATION (DOW HI-40 OR EQUAL) WITH 6" CLEAN SAND BLANKET AROUND WATER PIPE WHERE WATER AND DRAIN PIPE SEPARATION IS LESS THAN 18".
5. TRACER WIRE SPECIFIED FOR NON-METALLIC WATER LINES SHALL BE INSTALLED BELOW AND TO THE SIDE OF THE PIPE AND PER THE MANUFACTURER REQUIREMENTS. TRACER WIRE PRODUCT SHALL BE SELECTED FOR OPEN CUT INSTALLATION TECHNIQUE.

WATER TRENCH

NOT TO SCALE



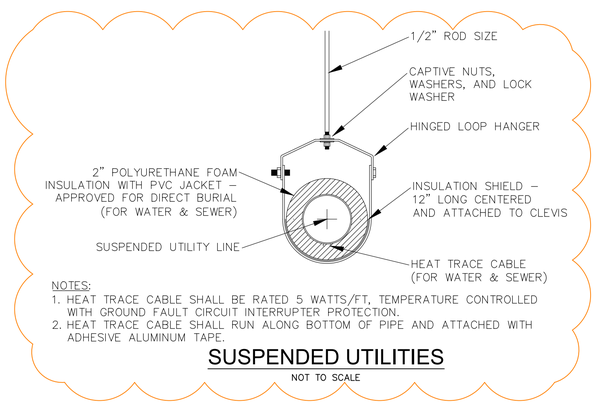
NOTES:

PLAN VIEW PROFILE VIEW

1. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPERATION SHALL BE PROVIDED BETWEEN ALL WATER/STORMWATER AND SANITARY SEWER LINES. AN 18" MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/STORMWATER AND SANITARY SEWER CROSSINGS.
2. PROTECTION OF WATER SUPPLIES
   1. THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN A PUBLIC OR PRIVATE POTABLE WATER SUPPLY SYSTEM AND A SEWER OR SEWER APPURTENANCE WHICH WOULD PERMIT THE PASSAGE OF SEWAGE OR POLLUTED WATER INTO THE POTABLE SUPPLY. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE.
   2. NO SEWER SHALL BE LOCATED WITHIN THE WELL PROTECTED RADII ESTABLISHED IN ENV-WS 300 FOR ANY PUBLIC WATER SUPPLY WELLS OR WITHIN 100 FEET OF ANY PRIVATE WATER SUPPLY WELL.
   3. SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN.
   4. A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (2) OR (3) ABOVE SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENTS SPECIFIED IN ENV-WQ 704.06.
   5. WHENEVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
      1. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL BE NOT LESS THAN 18 INCHES, WITH WATER ABOVE SEWER; AND
      2. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

WATER/STORMWATER & SEWER CROSSING

NOT TO SCALE



NOTES:
1. HEAT TRACE CABLE SHALL BE RATED 5 WATTS/FT, TEMPERATURE CONTROLLED WITH GROUND FAULT CIRCUIT INTERRUPTER PROTECTION.
2. HEAT TRACE CABLE SHALL RUN ALONG BOTTOM OF PIPE AND ATTACHED WITH ADHESIVE ALUMINUM TAPE.

SUSPENDED UTILITIES

NOT TO SCALE

REV.	DATE	DESCRIPTION	DR	CK
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4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
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2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

DIG SAFE – CALL BEFORE YOU DIG – CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE – HANNAH E. GIOVANNUCCI – No. 15688 – LICENSED PROFESSIONAL ENGINEER

SCALE: NTS **SEPTEMBER 29, 2021**

Seacoast Division
TFM ©
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Traffic Engineers
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FILE	47099.01	DR	HEG	FB	–	C-22
		CK	JCC	CADFILE	47099-01_DETAILS_MAIN	

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GENERAL NOTES

1. IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
2. BARRELS, CONE SECTIONS AND CONCRETE GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AND SHALL CONFORM ENV-WQ 704.12 & 704.13.
3. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478-06.
4. BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
5. MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
6. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL.
7. ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
8. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.
9. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT. APPROVED ELASTOMERIC SEALANTS ARE:

   SIKAFLEX-12-SL

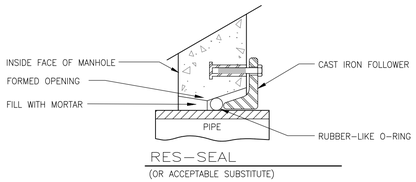
   SONNEBORN BUILING PRODUCTS-SONOLASTIC SL-1
10. THE MINIMUM INTERNAL DIAMETER OF MANHOLES SHALL BE 48 INCHES. FOR SEWERS LARGER THAN 24-INCH DIAMETER. MANHOLE DIAMETERS SHALL BE INCREASED SO AS TO PROVIDE AT LEAST 12-INCHES OF SHELF ON EACH SIDE OF THE SEWER.
11. LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE TO ENV-WQ 704.17.
    (a) ALL MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STARNDARD IN EFFECT WHEN THE TESTING IS PERFORMED.
    (b) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
        1. THE INITIAL VACUUM GUAGE TEST PRESSURE SHALL BE 10 INCHES Hg.
        2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR 1-INCH Hg PRESSURE DROP TO 9 INCHES SHALL BE:
           A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP.
           B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP.
           C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
    (c) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (b) ABOVE.
    (d) INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETE.
    (e) FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT
12. ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.
13. BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32-05, CLAY OR SHALE, FOR GRADE SS HARD BRICK.

    MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
    (a) 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
    (b) 4.5 PARTS SAND, 1 PART CEMENT AND 0.5 PART HYDRATED LIME

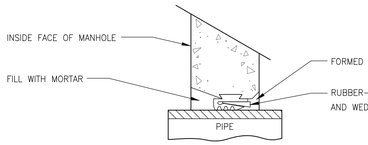
    CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05. HYDRATED LIME SHALL BE TYPE S CONFORMING TO ASTM C207-06 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES". SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO ASTM C33-03 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES".
14. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED OR PRECAST CONCRETE SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
15. FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN, CLASS 30, CONFORMING TO ASTM A48/48M AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH WORD (MINIMUM HEIGHT) LETTERS "SEWER" SHALL BE PLAINLY CAST INTO THE TOP SURFACE. THE CASTING SHALL BE OF EVEN GRAINED CAST IRON, SMOOTH, AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
16. BEDDING: PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO ASTM C33-03 NO. 67 STONE AND FREE FROM CLAY, LOAM AND ORGANNIC MATTER. THE EXCAVATION SHALL BE PROPERLY DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING OF THE BASE OR POURING CONCRETE. WATER-STOPS SHALL BE USED AT THE HORIZONTAL JOINT OF THE CAST-IN-PLACE MANHOLES.

100% PASSING	1" SCREEN
90-100% PASSING	3/4" SCREEN
20-55% PASSING	3/8" SCREEN
0-10% PASSING	#4 SIEVE
0-5% PASSING	#8 SIEVE

17. FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WIbHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION: (a) WITHIN 48 INCHES FOR REINFORCED CONCRETE PIPE (RCP). (b) WITHIN 60 INCHES FOR PVC PIPE LARGER THAN 15" DIAMETER.
18. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DUCTILE IRON PIPE OR PVC PIPE UP THROUGH 15-INCH DIAMETER.
19. PIPE TO MANHOLE JOINTS SHALL BE ONLY AS FOLLOWS:
    A. ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.
    B. CAST INTO WALL OR SECUREED WITH STAINLESS STEEL CLAMPS.
    C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH THE SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING.
    D. ON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
20. THE INVERT OF THE INCOMING PIPE SHALL BE NO MORE THAN 6 INCHES ABOVE THE OUTGOING PIPE UNLESS A DROP ENTRY IS USED.



RES-SEAL
(OR ACCEPTABLE SUBSTITUTE)



PRESS-WEDGE II
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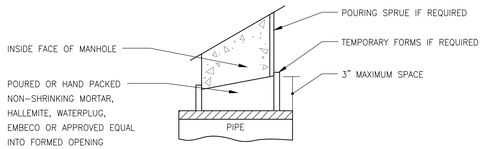

NON-SHRINKING MORTAR
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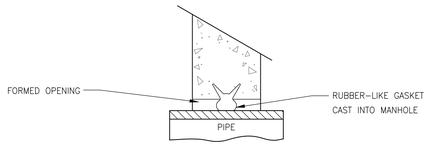
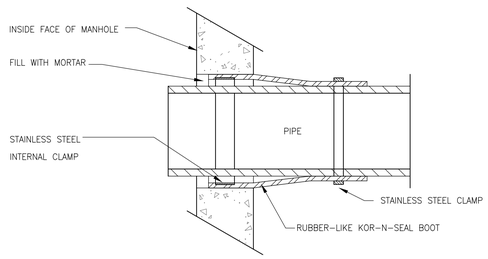
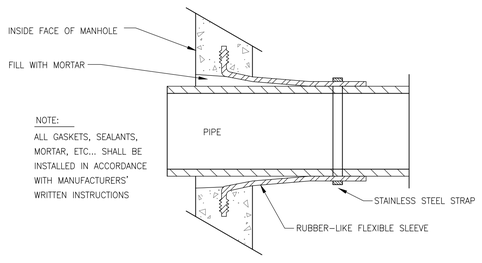


A-LOK
(OR ACCEPTABLE SUBSTITUTE)

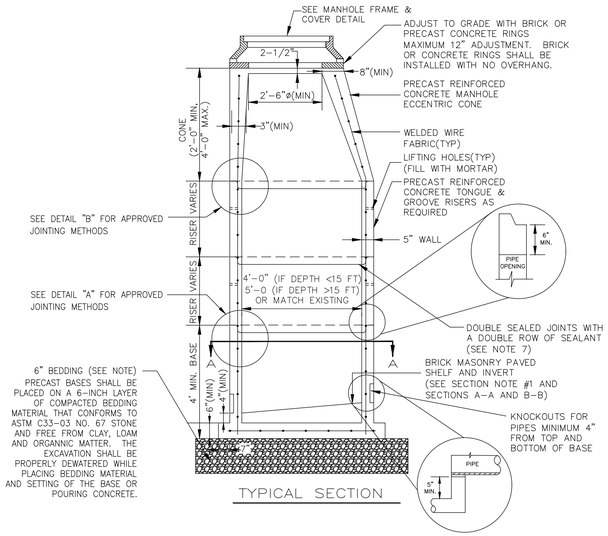


KOR-N-SEAL JOINT SLEEVE
(OR ACCEPTABLE SUBSTITUTE)



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
(OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" – PIPE TO MANHOLE JOINTS



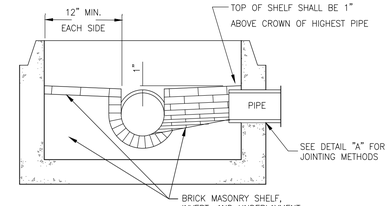
TYPICAL SECTION

NOTES
1. UNDERLAYMENT OF MANHOLE INVERT AND SHELF SHALL BE BRICK MASONRY PER ENV-WQ 704.12(K).
2. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
3. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
4. INVERT BRICKS SHALL BE LAID ON EDGE.
5. PRECAST CONCRETE MANHOLES SHALL MEET AASHTO M199-93/ ASTM C478-90B, RATED FOR HS-20 LOADING WITH CONCRETE STRENGTH OF 4000 PSI OR GREATER.
6. ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
7. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.

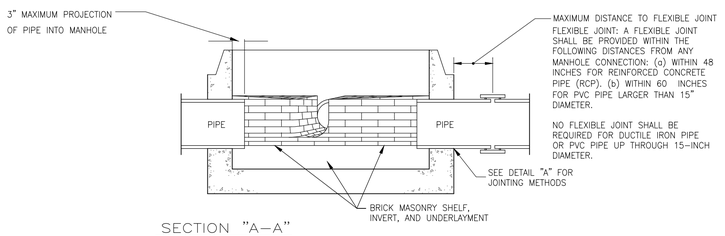
   ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

   STATE OF NEW HAMPSHIRE APPROVED PRODUCTS
   A) SIKAFLEX-12-SL
   B) SONNEBORN BUILDING PRODUCTS SONOLASTIC SL-1
8. MANHOLE STEPS ARE PROHIBITED BY TILTON SEWER COMMISSION.

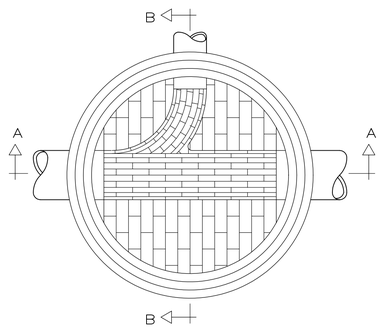
NOTES:
1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON EDGE.
3. BASE SECTION TO BE FULL WALL THICKNESS AND MONOLITHIC TO A POINT 6" ABOVE THE PIPE CROWN.



SECTION "B-B"

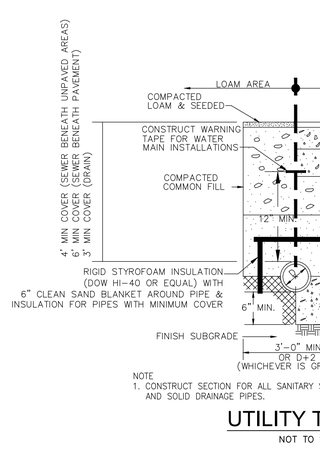


SECTION "A-A"



TYPICAL MANHOLE – PLAN VIEW

STANDARD MANHOLE
NOT TO SCALE



NOTE
1. CONSTRUCT SECTION FOR ALL SANITARY SEWERS AND SOLID DRAINAGE PIPES.

UTILITY TRENCH
NOT TO SCALE

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

DIG SAFE SYSTEM, INC. CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE HANNAH E. GIOVANNUCCI No. 15699 LICENSED PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
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Seacoast Division
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FILE	DR	HEG	FB	–	
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SEWER SERVICE NOTES

1) MINIMUM SIZE PIPE FOR SEWER SERVICE SHALL BE FOUR INCHES.

2) PIPE AND JOINT MATERIALS:
   A. PLASTIC SEWER PIPE
      1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034	*PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
D2680	*ABS (COMPOSITES WALL)	8" THROUGH 15"

      *PVC: POLY VINYL CHLORIDE
      *ABS: ACRYLONITRILE-BUTADIENE-STYRENE

      2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON, BELL AND SPIGOT TYPE.

      ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).

      JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

   B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

      1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
         A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.
         A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.
      2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
         A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS

3) DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4) JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.

5) TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A BOLTED, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER.

6) SEWER SERVICE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.

   THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/8" INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

7) TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

   A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.

   B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.

   C. DRY FLUORESCENE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.

   LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.

8) ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.

9) WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.

10) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%-55% PASSING	3/8 INCH SCREEN
0%-10% PASSING	#4 SIEVE
0%-5% PASSING	#8 SIEVE

   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

11) LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPEFINDER.

12) CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE SEWER CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

GRAVITY SEWER NOTES

1. MINIMUM SIZE PIPE FOR GRAVITY SEWER SHALL BE 8-INCHES.

2. PIPE AND JOINT MATERIALS FOR PLASTIC SEWER PIPE SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	GENERIC PIPE MATERIAL	SIZES APPROVED
D3034-04a	* PVC (SOLID WALL)	8" THROUGH 15" (SDR 35)
F679-03	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F794-03	PVC (RIBBED WALL)	8" THROUGH 36"
F1760-01(2005)e1	PVC, RECYCLED	ALL DIAMETERS

   *PVC: POLY VINYL CHLORIDE

3. PLASTIC SEWER PIPE SHALL HAVE A PIPE STIFFNESS RATING OF AT LEAST 46 POUNDS PER SQUARE INCH AT 5 PERCENT PIPE DIAMETER DEFLECTION, AS MEASURED IN ACCORDANCE WITH ASTM D2412-02 DURING MANUFACTURE.

4. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212-96(a)(2003)e1 AND SHALL BE PUSH-ON, BELL AND SPIGOT TYPE.

5. DUCTILE-IRON PIPE, FITTINGS AND JOINTS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA).

   AWWA C151/A21.51-02 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536-84 (2004) DUCTILE IRON CASTINGS.

   AWWA C151/A21.51-02 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.

   JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO AWWA C151/A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS.

6. CONCRETE PIPE SHALL CONFORM TO AWWA C302-04.

7. PRESTRESSED CONCRETE CYLINDER PIPE AND FITTINGS SHALL CONFORM TO AWWA C301-99.

   JOINTS SEALS FOR CONCRETE CYLINDER PIPE SHALL BE OIL RESISTANT ELASTOMERIC MATERIAL CONFORMING TO ASWWA C301-99 SPECIFICATIONS.

8. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

9. GRAVITY SEWER PIPE TESTING SHALL BE AS FOLLOWS:

   ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.

   LOW PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH:

   ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW PRESSURE AIR".

   UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, "LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE".

10. ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE.

11. ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 DAYS FOLLOWING INSTALLATION.

12. THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5.0 PERCENT OF THE AVERAGE INSIDE DIAMETER.

13. TRENCH CONSTUCTION SHALL CONFORM TO THE FOLLOWING:

   SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6' BELOW GRADE IN ALL ROADWAY LOCATIONS AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS COUNTRY LOCATIONS.

   WHERE SEWER LINES CROSS WATER PIPES, A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. AT SEWER/WATER INTERSECTIONS, A MINIMUM OF 6 FEET SHALL BE PROVIDED FROM THE WATER LINE TO THE SEWER PIPE JOINT. 12" SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE REQUIRED BETWEEN SEWER LINES AND ALL OTHER PIPES.

   TRENCH DIMENSIONS FOR SEWER PIPE LESS THAN 15 INCHES IN DIAMETER, THE ALLOWABLE TRENCH WIDTH AT A PLANE 12 INCHES ABOVE THE PIPE SHALL BE NO MORE THAN 36 INCHES AND FOR PIPE 15 INCHES AND LARGER, THE ALLOWABLE WIDTH SHALL BE EQUAL TO THE PIPES OUTSIDE DIAMETER PLUS 24 INCHES.

   PIPE TRENCH BEDDING MATERIAL AND FILL MATERIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE TO ASTM C33-03 STONE SIZE NO. 67. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ANY ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSED THE 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE. IN LIEU OF A SAND BLANKET, A STONE ENVELOPE 6 INCHES THICK COMPLETELY AROUND THE PIPE USING 3/4-INCH STONE MAY BE USED.

   PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6-INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.

   PIPE SAND BLANKET MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE OUTSIDE SURFACE.

   COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.

   BACKFILL MATERIAL SHALL BE IN 3-FOOT LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3-FEET SHALL BE COMPACTED IN 12-INCH LAYERS TO THE ROAD BASE SURFACE.

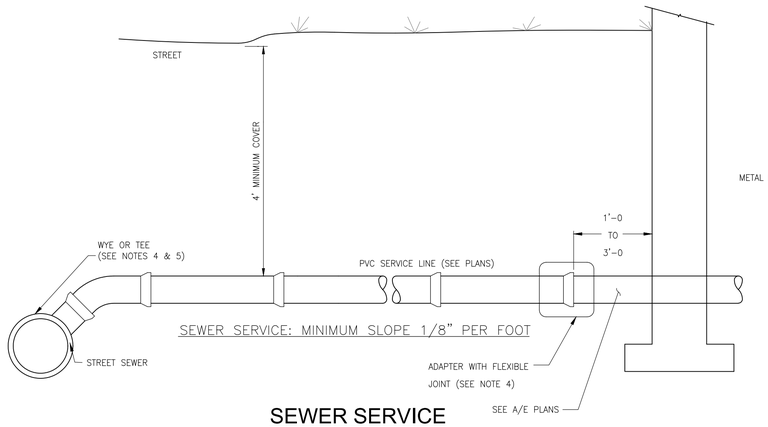
   TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING DEBRIS, PAVEMENT PIECES, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT, CLAY, EXCAVATED LEDGE, ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION, OR ANY OTHER UNSUITABLE MATERIAL NOT APPROVED BY THE ENGINEER.

   TRENCH BACKFILL AT CROSS-COUNTRY LOCATIONS SHALL BE AS DESCRIBED ABOVE EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED. BACKFILL SHALL BE MOUNDED 6-INCHES ABOVE ORIGINAL GROUND.

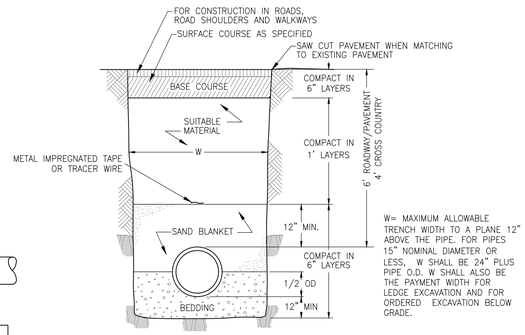
   BASE COURSE MATERIALS FOR TRENCH REPAIRS SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.

   WHERE SHEETING IS PLACED ALONG SIDE OF THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISH GRADE.

   TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT AND TRENCHES FOR SEWER PIPES BELOW THE SEASONAL HIGH GROUND WATER LEVEL SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.



SEWER SERVICE
NOT TO SCALE



LEDGE CONSTRUCTION
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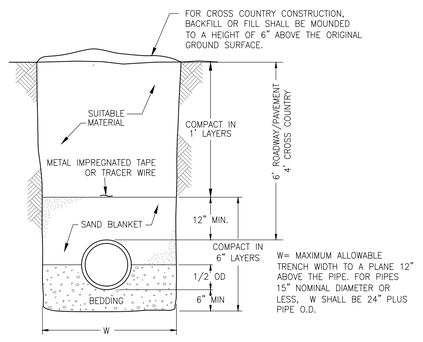

EARTH CONSTRUCTION
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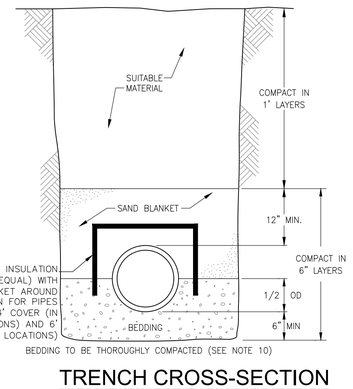

TRENCH CROSS-SECTION
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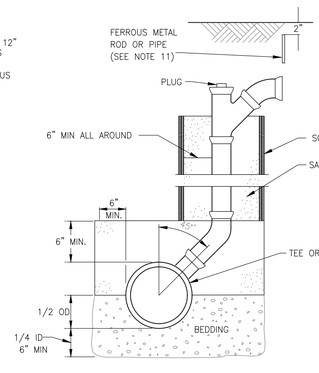
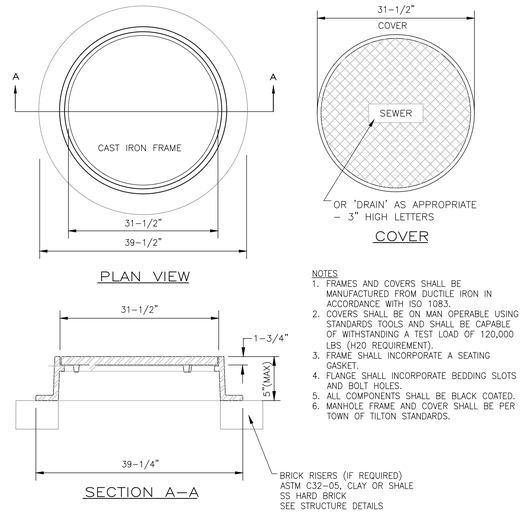


CHIMNEY
NOT TO SCALE



NOTES
1. FRAMES AND COVERS SHALL BE MANUFACTURED FROM DUCTILE IRON IN ACCORDANCE WITH ISO 1083.
2. COVERS SHALL BE ON MAN OPERABLE USING STANDARDS TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 120,000 LBS (H20 REQUIREMENT).
3. FRAME SHALL INCORPORATE A SEATING GASKET.
4. FLANGE SHALL INCORPORATE BEDDING SLOTS AND BOLT HOLES.
5. ALL COMPONENTS SHALL BE BLACK COATED.
6. MANHOLE FRAME AND COVER SHALL BE PER TOWN OF TILTON STANDARDS.

MANHOLE FRAME AND COVER
NOT TO SCALE

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE - HANNAH E. GIOVANNUCCI - No. 15609 - LICENSED PROFESSIONAL ENGINEER

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

Seacoast Division
TFM
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Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
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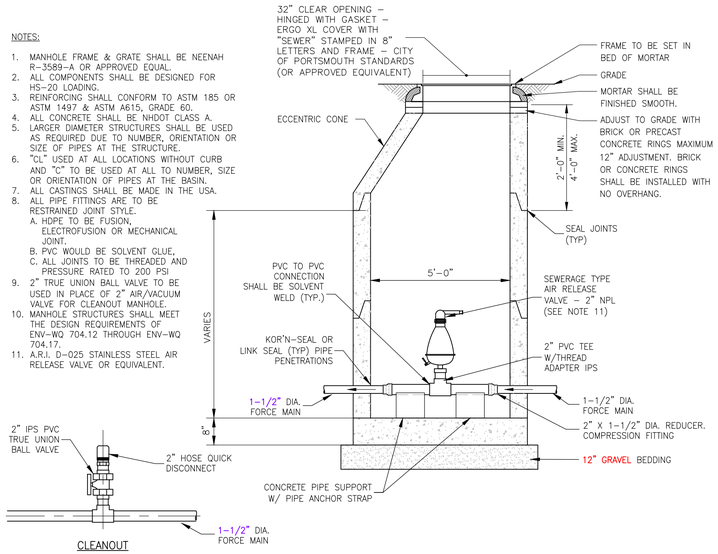
PROJ.	47099.01	DR	HEG	FB	–	C-24
		CK	JCC	CADFILE	47099-01_DETAILS_MAIN	

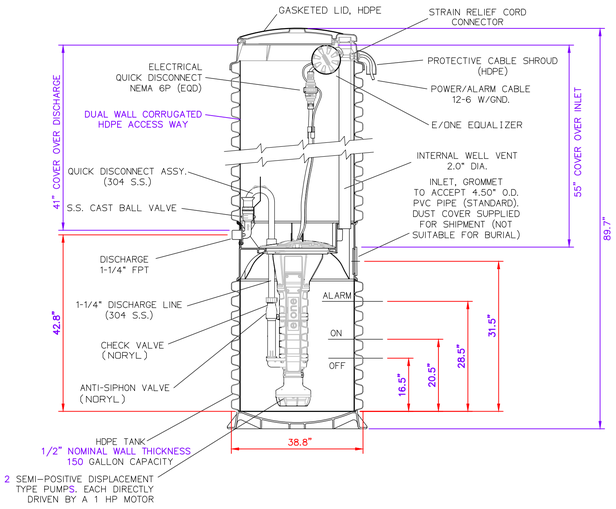
NOTES:

1. MANHOLE FRAME & GRATE SHALL BE NEENAH R-3589-A OR APPROVED EQUAL.
2. ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING.
3. REINFORCING SHALL CONFORM TO ASTM 185 OR ASTM 1497 & ASTM A615, GRADE 60.
4. ALL CONCRETE SHALL BE NHDOT CLASS A.
5. LARGER DIAMETER STRUCTURES SHALL BE USED AS REQUIRED DUE TO NUMBER, ORIENTATION OR SIZE OF PIPES AT THE STRUCTURE.
6. "CL" USED AT ALL LOCATIONS WITHOUT CURB AND "C" TO BE USED AT ALL TO NUMBER, SIZE OR ORIENTATION OF PIPES AT THE BASIN.
7. ALL CASTINGS SHALL BE MADE IN THE USA.
8. ALL PIPE FITTINGS ARE TO BE RESTRAINED JOINT STYLE.
   A. HDPE TO BE FUSION, ELECTROFUSION OR MECHANICAL JOINT.
   B. PVC WOULD BE SOLVENT GLUE,
   C. ALL JOINTS TO BE THREADED AND PRESSURE RATED TO 200 PSI
9. 2" TRUE UNION BALL VALVE TO BE USED IN PLACE OF 2" AIR/VACUUM VALVE FOR CLEANOUT MANHOLE.
10. MANHOLE STRUCTURES SHALL MEET THE DESIGN REQUIREMENTS OF ENV-WQ 704.12 THROUGH ENV-WQ 704.17.
11. A.R.I. D-025 STAINLESS STEEL AIR RELEASE VALVE OR EQUIVALENT.



E-ONE AIR VACUUM RELEASE MANHOLE

NOT TO SCALE



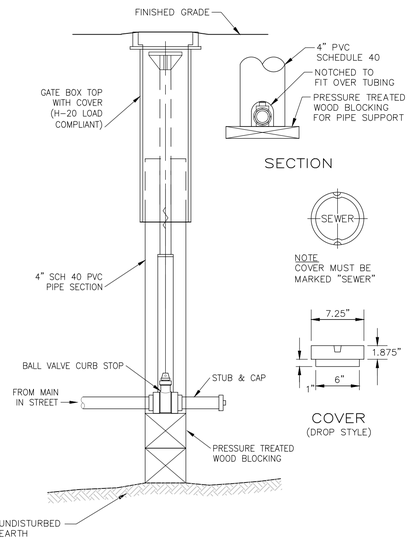
CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTION FOR DETAILS

NOTES:

1. ACTUAL E-ONE PUMP AND SPECIFICATION MUST BE DESIGNED AND PROVIDED BY EONE DESIGNER OR EQUAL.
2. THE PUMP CORE CONTAINS BUILT IN CHECK AND ANTI-SIPHON VALVES. IN ADDITION, THERE IS A REDUNDANT UNILATERAL CHECK AND ISOLATION VALVE AT THE LOT LINE WITH THE STAINLESS STEEL ASSEMBLY.
3. THE STATION MONITOR CONTAINS A HIGH LEVEL ALARM. THE HIGH LEVEL ALARM IS RUN OFF A REDUNDANT RUN SWITCH THAT OVERRIDES THE RUN SWITCH IF IT SHOULD SEE A POWER FAILURE.
4. THE ALARM PANEL HAS THE OPTION TO CONNECT A PORTABLE GENERATOR WITH A 20 AMP, 240 VOLT SUPPLY. POWER TRANSFERS AUTOMATICALLY IF THE PUMP IS CALLING TO RUN.
5. THE PUMP RATED TO 700 GPD.
6. THE TANK HAS A 150-GAL VOLUME.
7. IN CASE OF A POWER FAILURE, A BATTERY BACKUP REMOTE SENTRY ALARM PANEL SHALL BE USED IN CONJUNCTION WITH THE E-ONE PUMP SYSTEM.
8. A BACKUP GENERATOR WILL BE PROVIDED THAT SHALL BE AMPLE ENOUGH TO SUPPLY POWER TO RUN THE GRINDER PUMP AND ALARM SYSTEM. THERE SHALL BE ENOUGH FUEL ON SITE TO RUN THE GENERATOR FOR A MINIMUM OF 6 HRS.
9. SEWER PUMP ASSEMBLY AND TANK SHOULD BE PROTECTED WITHIN A SEWER MANHOLE IN PAVED AREAS.

E-ONE DH152 PUMP

NOT TO SCALE

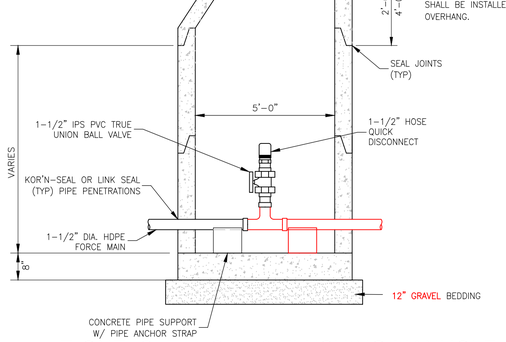


NOTES:

1. MANHOLE FRAME & GRATE SHALL BE NEENAH R-3589-A OR APPROVED EQUAL.
2. ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING.
3. REINFORCING SHALL CONFORM TO ASTM 185 OR ASTM 1497 & ASTM A615, GRADE 60.
4. ALL CONCRETE SHALL BE NHDOT CLASS A.
5. LARGER DIAMETER STRUCTURES SHALL BE USED AS REQUIRED DUE TO NUMBER, ORIENTATION OR SIZE OF PIPES AT THE STRUCTURE.
6. "CL" USED AT ALL LOCATIONS WITHOUT CURB AND "C" TO BE USED AT ALL TO NUMBER, SIZE OR ORIENTATION OF PIPES AT THE BASIN.
7. ALL CASTINGS SHALL BE MADE IN THE USA.
8. INSTALL PIPE SUPPORTS ON THE SWEEP ELBOW.
9. ALL PIPE FITTINGS ARE TO BE RESTRAINED JOINT STYLE.
   A. HDPE TO BE FUSION, ELECTROFUSION OR MECHANICAL JOINT.
   B. PVC WOULD BE SOLVENT GLUE,
   C. ALL JOINTS TO BE THREADED AND PRESSURE RATED TO 200 PSI
10. MANHOLE STRUCTURES SHALL MEET THE DESIGN REQUIREMENTS OF ENV-WQ 704.12 THROUGH ENV-WQ 704.17.
11. A.R.I. D-025 STAINLESS STEEL AIR RELEASE VALVE OR EQUIVALENT.

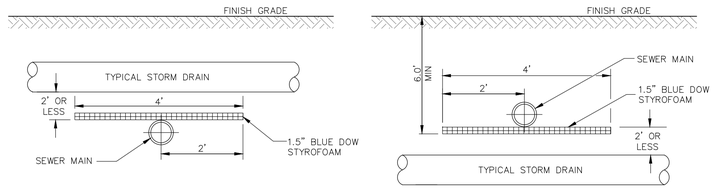
FORCE MAIN CURB STOP

NOT TO SCALE



E-ONE CLEANOUT & FLUSHING MANHOLE

NOT TO SCALE



NOTES:

1. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
2. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

INSULATION AT STORM DRAIN AND SEWER MAIN INTERSECTING RUNS

NOT TO SCALE

PRESSURE SEWER TESTING NOTES

1. PIPE AND JOINT MATERIALS:
   A. PRESSURE SEWERS SHALL BE CONSTRUCTED OF DUCTILE IRON (DI), HIGH DENSITY POLYETHYLENE (HDPE), OR PVC MATERIAL.
   B. PRESSURE SEWERS SHALL BE TREATED AS GRAVITY SEWERS FOR PURPOSES OF FOUNDATION BEDDING AND BACKFILL REQUIREMENTS.
   C. PVC PIPE USED PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM D2241 OR ASTM D1785 STANDARDS IN EFFECT WHEN THE PIPE IS MANUFACTURED.
   D. HDPE PIPE USED FOR PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM D3035 STANDARD IN EFFECT WHEN THE PIPE IS MANUFACTURED.
   E. IF DI PIPE IS USED IN AN ENVIRONMENT THAT COULD CAUSE CORROSION OR OTHER DETERIORATION OF OR DAMAGE TO AN IRON PIPE, OR OTHERWISE REDUCE THE TYPICAL LIFE EXPECTANCY OF THE PIPE, SUCH AS MAY OCCUR WITH CERTAIN SOIL TYPES, LOW PH LEVELS, OR WATER CONDITIONS, THE PIPE SHALL BE PROTECTED AGAINST CORROSION, SUCH AS WITH CATHODIC PROTECTION.
2. TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING) PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF THE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES"STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN OPERATING TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.
3. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
4. JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
5. SEWER SERVICE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 11. BEDDING AND RE-FILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.
6. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
7. THE CENTERLINE OF ALL BUILDING CONNECTIONS SHALL ENTER THE TOP HALF OF THE SEWER.
8. ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.
9. PRESSURE SEWERAGE SHALL HAVE AN ISOLATION VALVE OR CURB STOP VALVE INSTALLED AT THE PROPERTY LINE / LIMITED COMMON AREA. IF A CHECK VALVE IS USED AT THE PROPERTY LINE, THE VALVE SHALL BE INSTALLED WITHIN A VAULT TO FACILITATE MAINTENANCE.
10. WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.
11. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33/C33M STONE SIZE 67 AND FREE FROM CLAY, LOAM AND ORGANNIC MATTER. THE EXCAVATION SHALL BE PROPERLY DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING OF THE BASE OR POURING CONCRETE.

100% PASSING	1 INCH SCREEN
90%-100% PASSING	3/4 INCH SCREEN
20%-55% PASSING	3/8 INCH SCREEN
0%-10% PASSING	#4 SIEVE
0%-5% PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

12. LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS.
13. INTERNAL STEPS IN MANHOLES ARE PROHIBITED PER PORTSMOUTH DPW STANDARDS.

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
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4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

Seacoast Division
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Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
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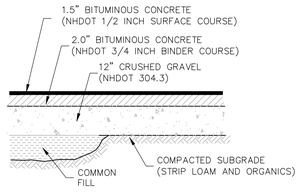
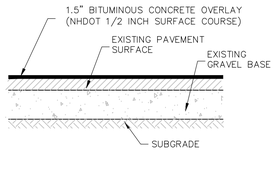
FILE	47099.01	DR	HEG	FB	–	C-25
		CK	JCC	CADFILE	47099-01_DETAILS_MAIN	



STANDARD DUTY PAVEMENT



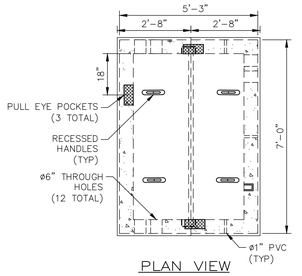
OVERLAY

NOTES

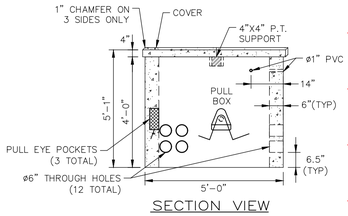
1. SEE GRADING & DRAINAGE PLAN & DRIVEWAY GRADING & PROFILE FOR PAVEMENT SLOPE AND CROSS–SLOPE.
2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT – USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.
3. REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.
4. BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SECTION 401.
5. BITUMINOUS CONCRETE SHALL BE COMPACTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.
6. PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
7. PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
8. THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.

PAVEMENT SECTIONS

NOT TO SCALE



PLAN VIEW



SECTION VIEW

ESTIMATED VAULT WEIGHTS:

COVER (EACH)	= 675 LBS
BASE	= 6,500 LBS
TOTAL:	= 7,850 LBS

NOTES:
1. ELECTRIC PULLBOX SHALL BE PER THE STANDARDS OF EVERSOURCE.
2. REINFORCEMENT STEEL CONFORMS TO: ASTM A615 GRADE 60
3. CONCRETE: FC = 5,000 PSI @ 28 DAYS MINIMUM
4. DESIGN LOADING: AASHTO–HS20–44
5. BUTYL RUBBER JOINT SEALANT PROVIDED

ELECTRIC PULL BOX

NOT TO SCALE

DIG SAFE
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

STATE OF NEW HAMPSHIRE
HANNAH E. GIOVANNUCCI
No. 15699
LICENSED
PROFESSIONAL ENGINEER

REV.	DATE	DESCRIPTION	DR	CK
6	4/4/2022	REVISED PER TAC COMMENTS & SEWER COVER	HEG	JCC
5	3/22/2022	REVISED PER TAC COMMENTS	HEG	JCC
4	2/18/2022	REVISED PER NHDES & UTILITIES	HEG	JCC
3	2/15/2022	REVISED PER NHDES & UTILITIES PER TAC	HEG	JCC
2	2/2/2022	REVISED PER NHDES & UPDATE SURVEY/UTILITIES	HEG	JCC
1	11/23/2021	REVISED PER NHDES & PROJECT COORDINATION	HEG	JCC

SITE DEVELOPMENT PLANS

TAX MAP 205 LOT 2

DETAILS

LADY ISLE SITE RENOVATIONS

325 LITTLE HARBOR ROAD, PORTSMOUTH, NH

OWNED BY & PREPARED FOR

ADL 325 LITTLE HARBOR ROAD TRUST

SCALE: NTS **SEPTEMBER 29, 2021**

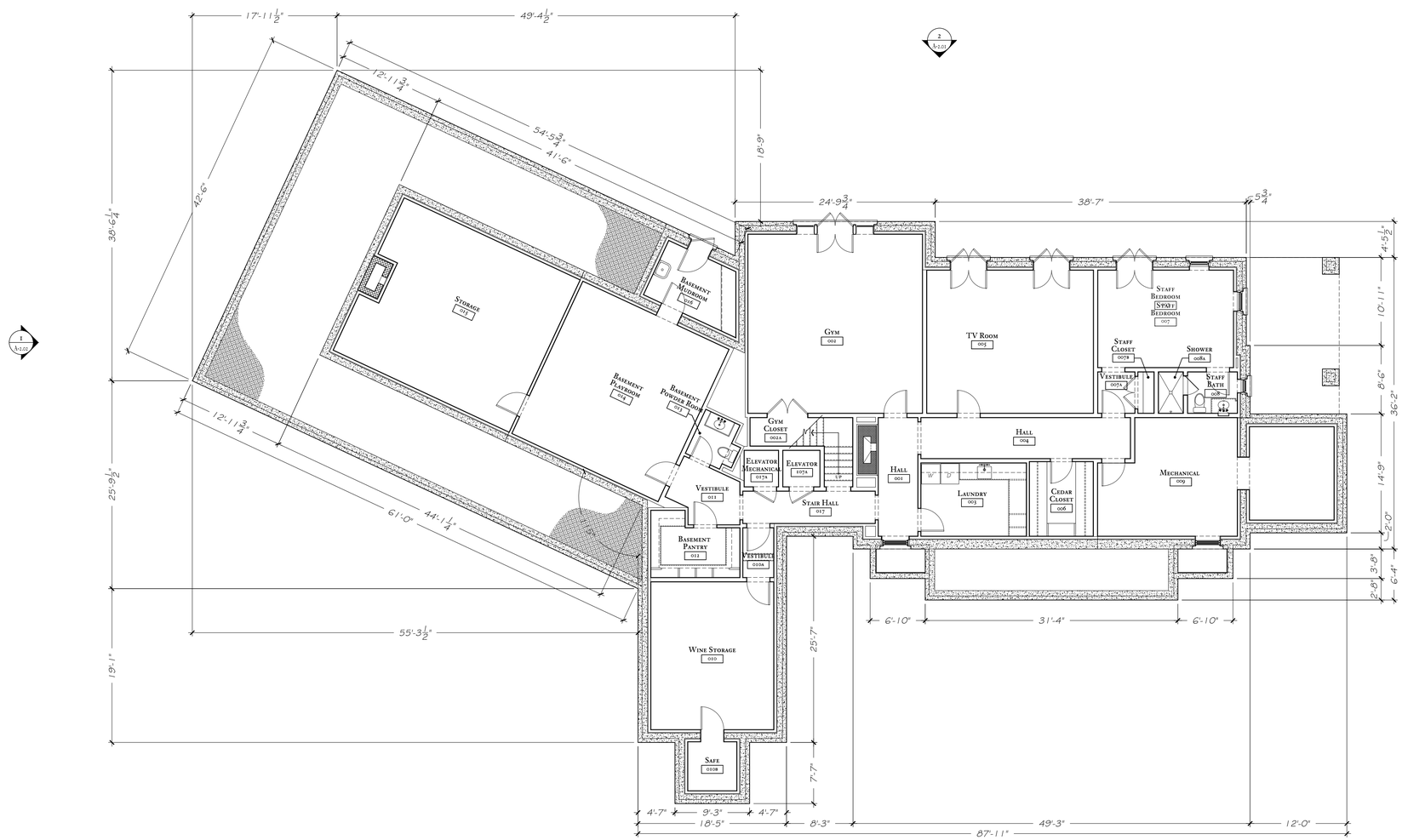
Seacoast Division
TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431–2222
Fax (603) 431–0910
www.tfmoran.com

FILE		DR	HEG	FB	–	
	47099.01	CK	JCC	CADFILE	47099–01_DETAILS_MAIN	C–26

Apr 05, 2022 - 4:29am
F:\MSC Projects\47099 - Little Harbor Rd & Gosport Rd - Portsmouth\47099-01 - DiLorenzo - 325 Little Harbor Rd\Design\PRODUCTION DRAWINGS\47099-01_Details_Main.dwg

Gross Floor Area at Main House

	Conditioned sq.ft.	Unconditioned sq.ft.
Basement	3,382 sq.ft.	1,050 sq.ft.
First Floor	3,897 sq.ft.	1,496 sq.ft.
Second Floor	3,487 sq.ft.	--
Total	10,766 sq.ft.	2,546 sq.ft.
	13,312 sq.ft.	



1 / A-1.00 Basement Floor Plan - Overall

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

ISSUED FOR PERMIT	*6/24/21*

A New Residence & Garage
at
LADY ISLE
Portsmouth, New Hampshire

Sheet Title :

Basement
Overall Plan

Date : *June 24, 2021*

Scale : *1/8" = 1'-0"*

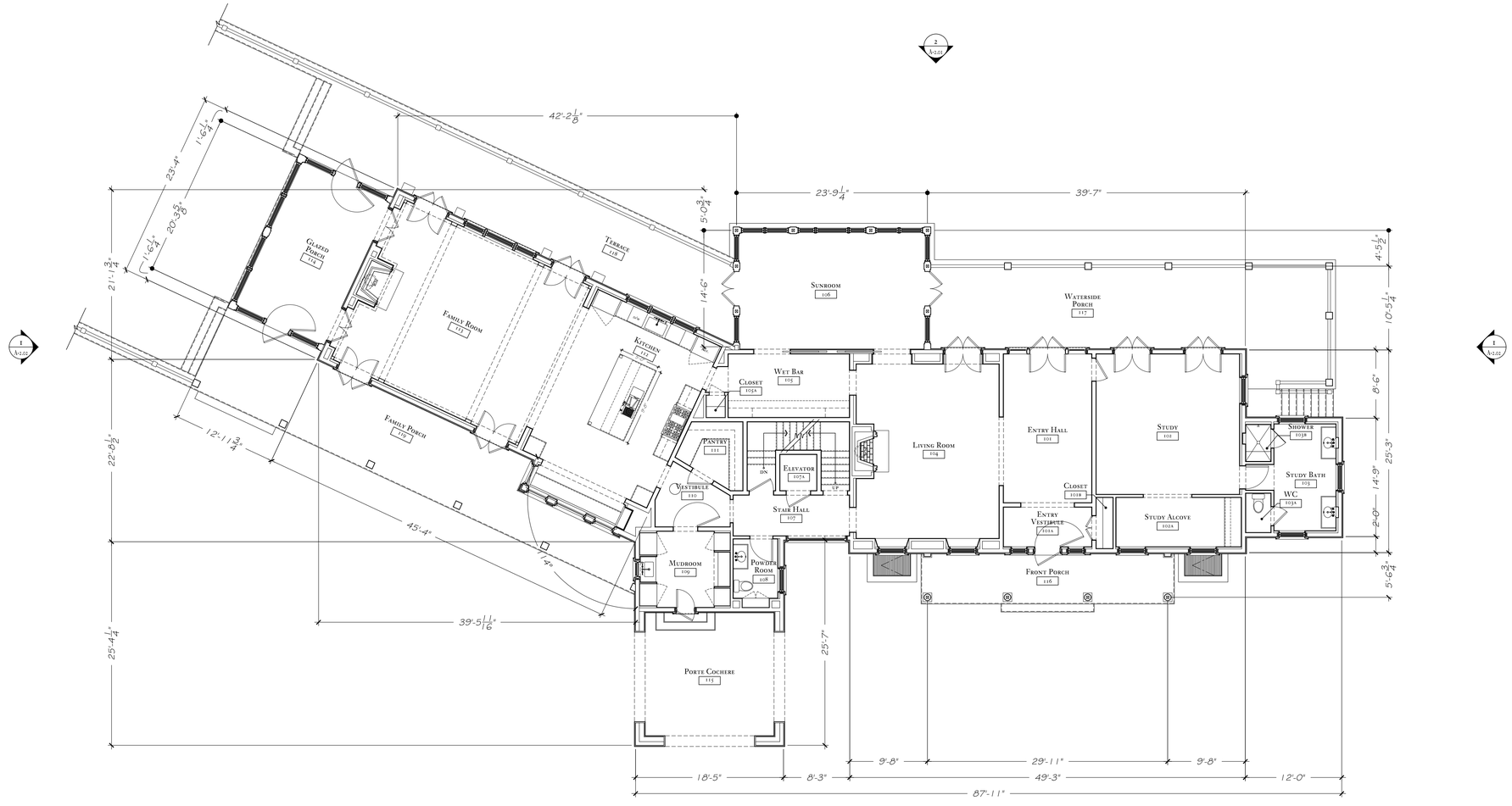
Drawn By : *PM / AB*

Sheet Number :
MH
A-1.00

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Gross Floor Area at Main House		
	Conditioned sq.ft.	Unconditioned sq.ft.
Basement	3,382 sq.ft.	1,050 sq.ft.
First Floor	3,897 sq.ft.	1,496 sq.ft.
Second Floor	3,487 sq.ft.	--
Total	10,766 sq.ft.	2,546 sq.ft.
	13,312 sq.ft.	



1 / A-1.01 — First Floor Plan - Overall

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:

NOT FOR CONSTRUCTION

ISSUED FOR PERMIT 6/24/21

A New Residence & Garage

at

Lady Isle
Portsmouth, New Hampshire

Sheet Title :

First Floor
Overall Plan

Date : *June 24, 2021*

Scale : *1/8" = 1'-0"*

Drawn By : *PM / AB*

Sheet Number :

MH
A-1.01

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
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Gross Floor Area at Main House		
	Conditioned sq.ft.	Unconditioned sq.ft.
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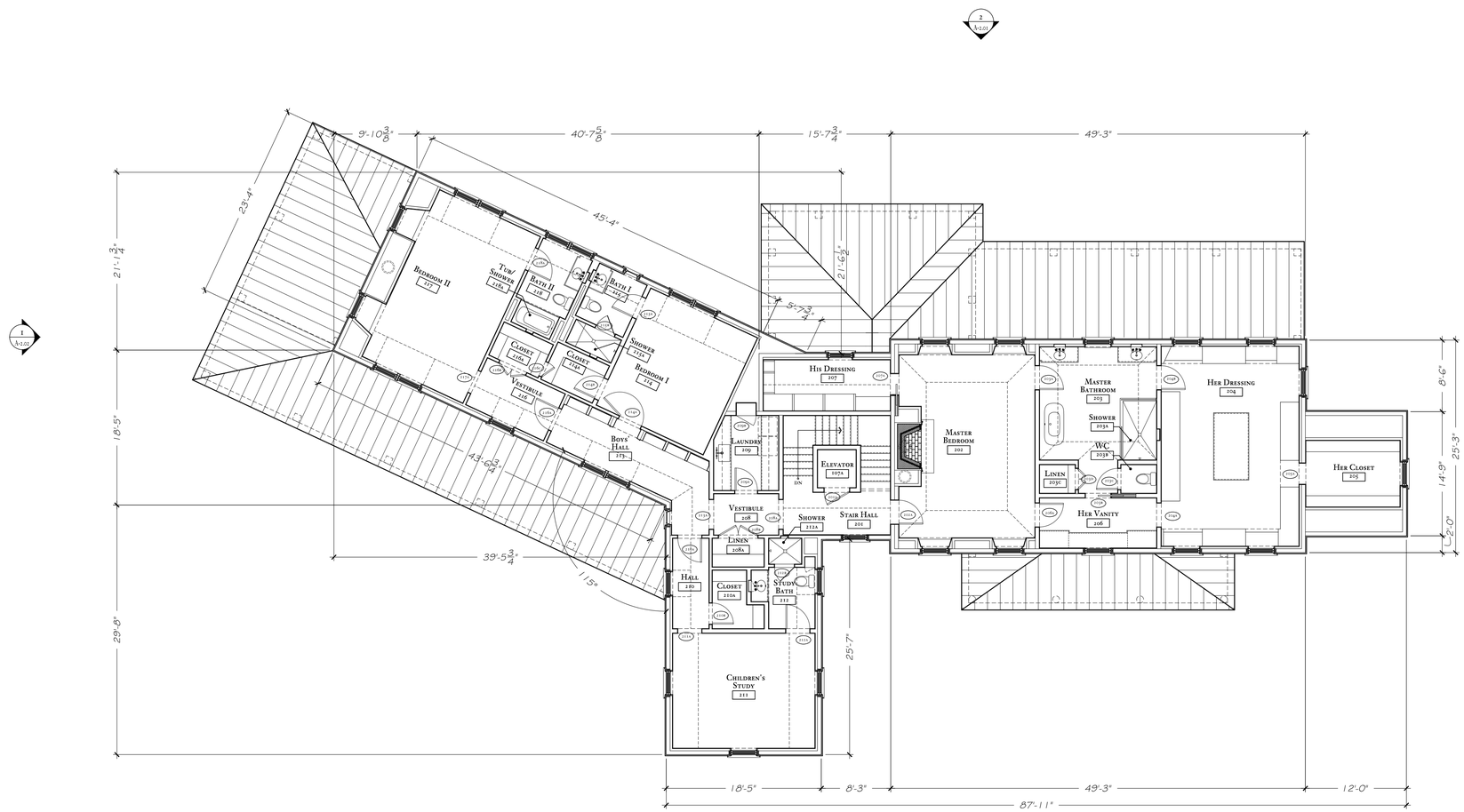
Total	10,766 sq.ft.	2,546 sq.ft.
	13,312 sq.ft.	



1 / A-1.02 Second Floor Plan - Overall

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

ISSUED FOR PERMIT 6/24/21

A New Residence & Garage
at
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
Second Floor
Overall Plan

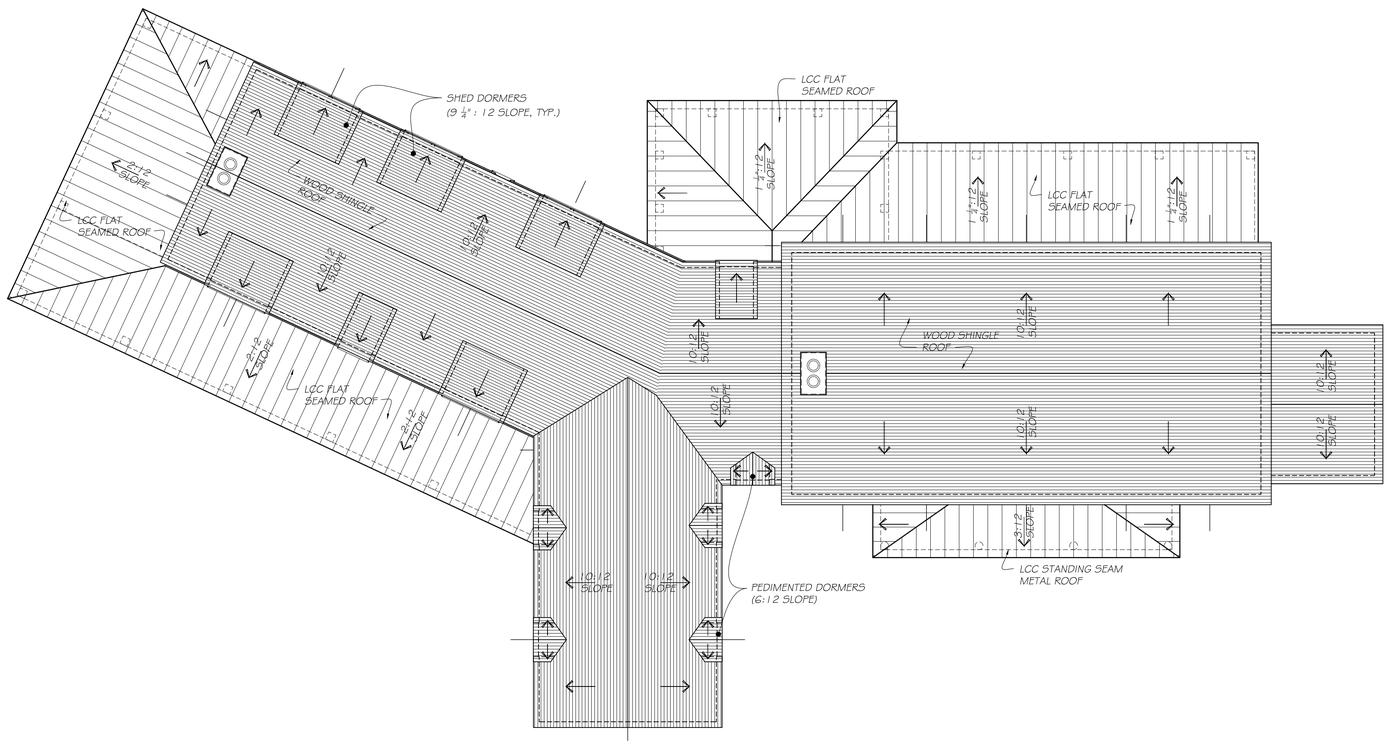
Date : *June 24, 2021*

Scale : *1/8" = 1'-0"*

Drawn By : *PM / AB*

Sheet Number :
MH
A-1.02

G. P. Schafer Architect, dpc
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



1 / A-1.03 — Roof Plan - Overall

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

ISSUED FOR PERMIT	*6/24/21*

A New Residence & Garage

at

Lady Isle
Portsmouth, New Hampshire

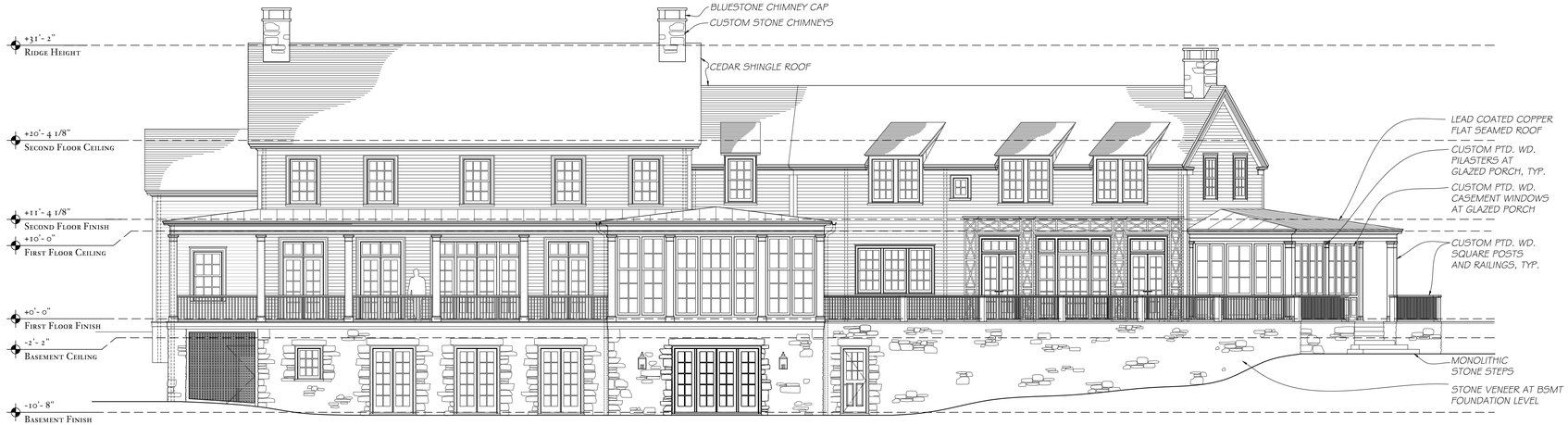
Sheet Title :

Roof
Overall Plan

Date :	Sheet Number :
June 24, 2021	MH A-1.03
Scale : *1/8" = 1'-0"*	
Drawn By : *PM / AB*	

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



2 / A-2.01 **Overall East Elevation**

Scale: 1/8" = 1'-0"

1 / A-2.01 **Overall West Elevation**

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:

NOT FOR CONSTRUCTION

ISSUED FOR PERMIT	*6/24/21*

A New Residence & Garage

at

Lady Isle
Portsmouth, New Hampshire

Sheet Title :

Exterior Elevations
Overall

Date :	Sheet Number :
June 24, 2021	MH A-2.01
Scale : *1/8" = 1'-0"*	
Drawn By : *PM / AB*	

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
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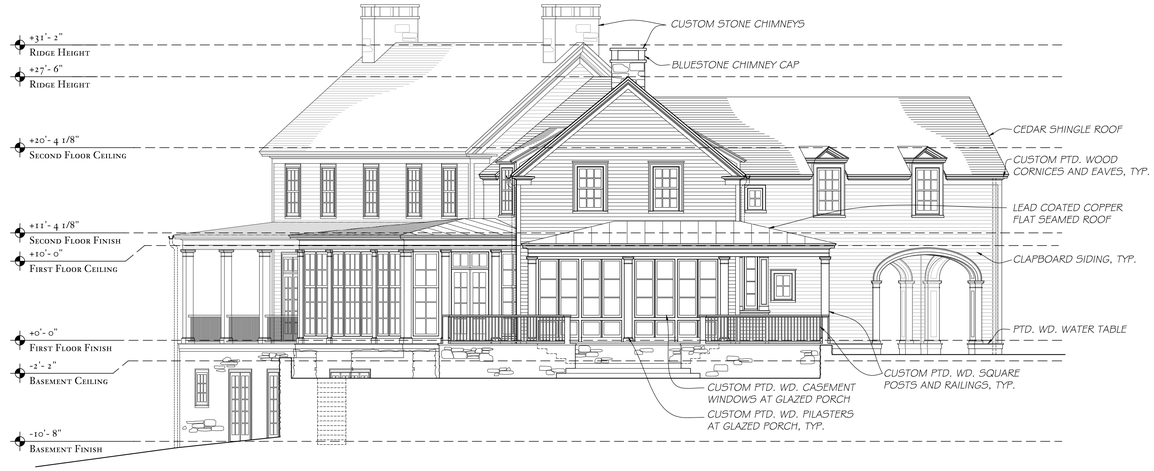

2 A-2.02 **Overall North Elevation**

Scale: 1/8" = 1'-0"

1 A-2.02 **Overall South Elevation**

Scale: 1/8" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

ISSUED FOR PERMIT	*6/24/21*

A New Residence & Garage

at

Lady Isle
Portsmouth, New Hampshire

Sheet Title :

Exterior Elevations
Overall

Date :	Sheet Number :
June 24, 2021	MH A-2.02
Scale : *1/8" = 1'-0"*	
Drawn By : *PM / AB*	

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

FOR PERMIT ONLY:
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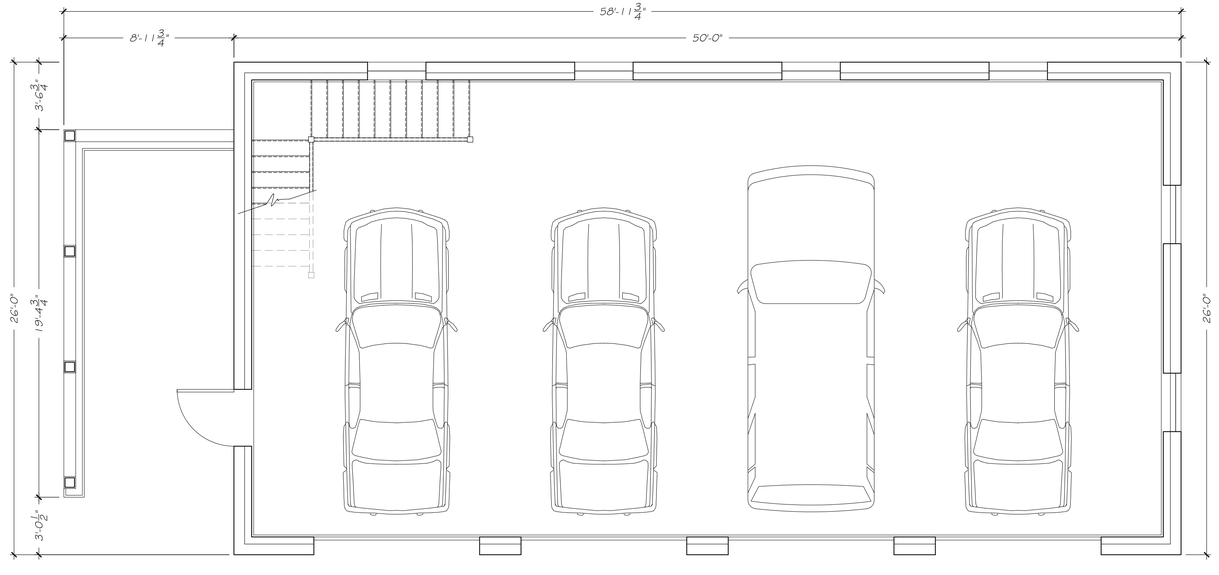


1 / A-1.01 — First Floor Plan
Scale: 1/4" = 1'-0"

ISSUED FOR PERMIT — *6/24/21*

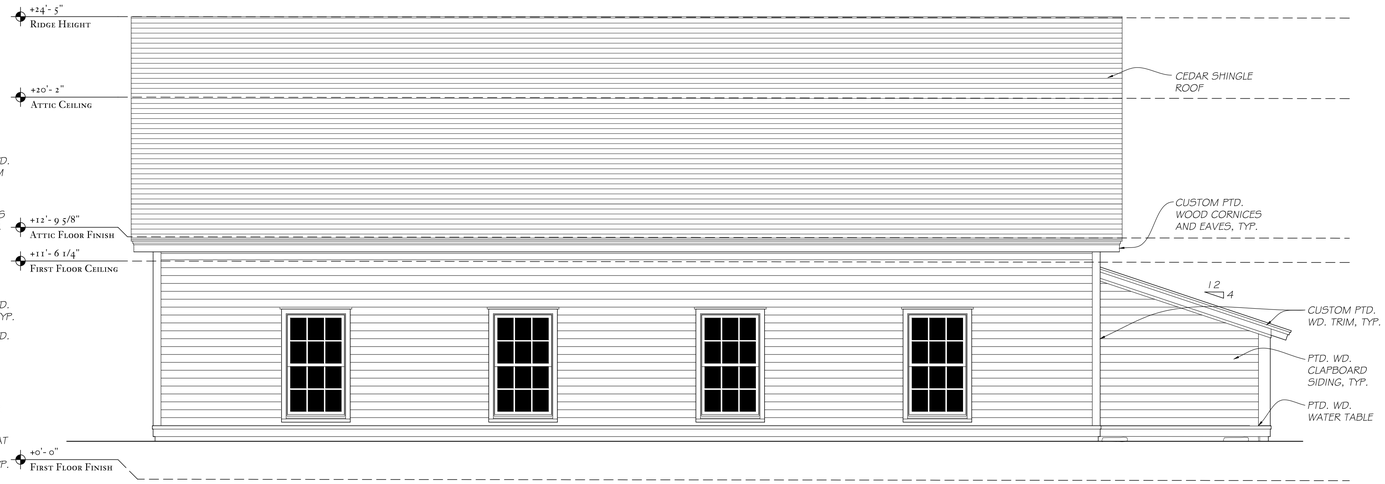
A New Residence & Garage
at
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
First Floor Plan

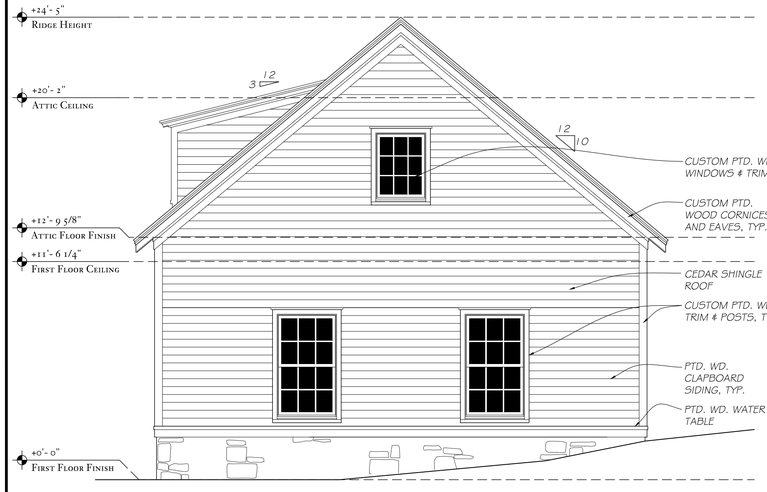
Date : *June 24, 2021*	Sheet Number : GAR A-1.01
Scale : *1/4" = 1'-0"*	
Drawn By : *PM*	

G. P. Schafer Architect, dpc
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

4 East Elevation
A-2.01 Scale: 1/4" = 1'-0"



3 South Elevation
A-2.01 Scale: 1/4" = 1'-0"



2 West Elevation
A-2.01 Scale: 1/4" = 1'-0"

1 North Elevation
A-2.01 Scale: 1/4" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

ISSUED FOR PERMIT 6/24/21

A New Residence & Garage
at
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
Exterior Elevations

Date : *June 24, 2021*
Scale : *1/4" = 1'-0"*
Drawn By : *PM*
Sheet Number : GAR A-2.01

G. P. Schafer Architect, dpc
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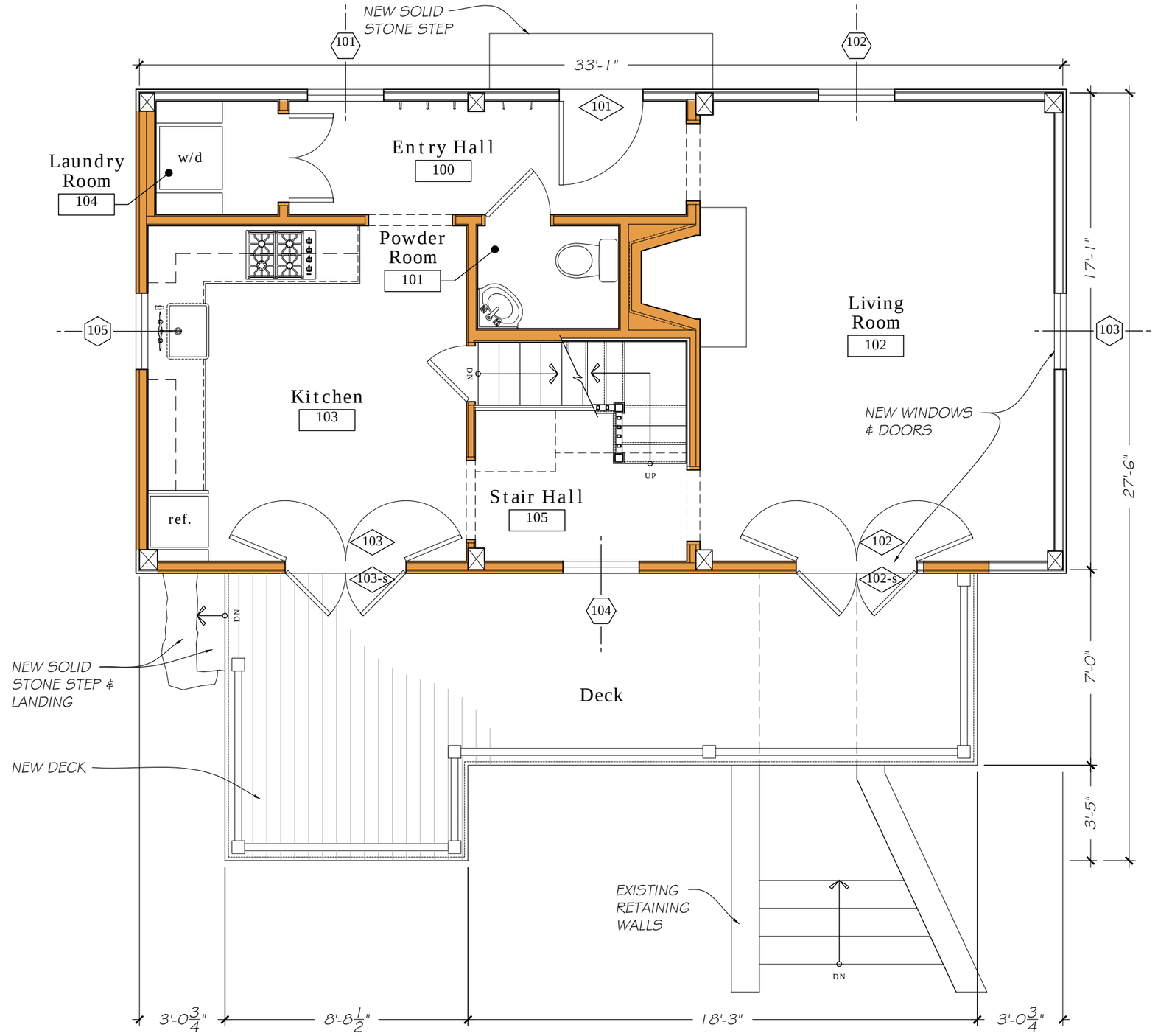
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



1 / A-1.01 First Floor Plan - Proposed

Scale: 1/4" = 1'-0"

PROPOSED PLAN GRAPHIC LEGEND:

NEW CONSTRUCTION

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:

Proposed
First Floor Plan

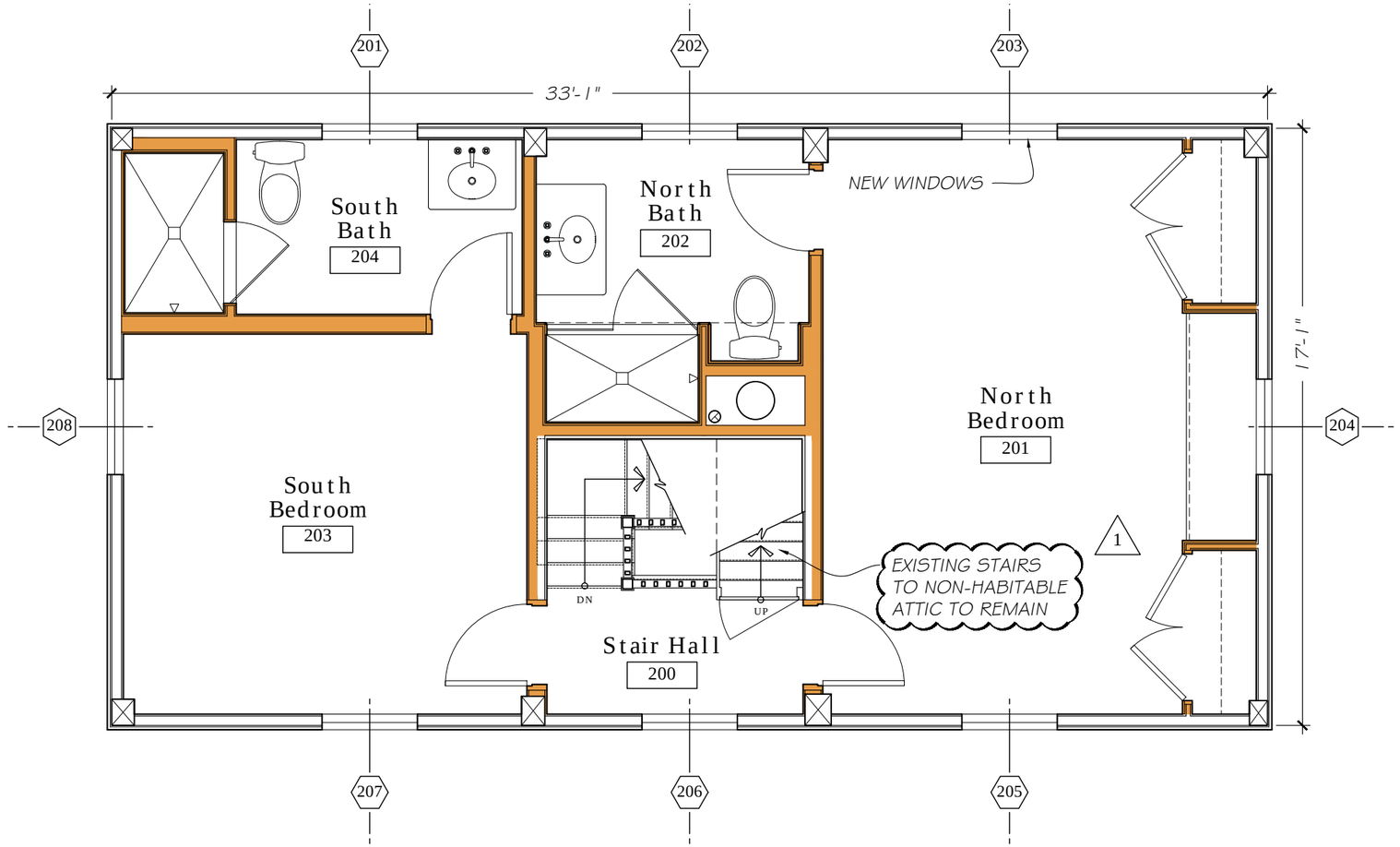
Date: June 12, 2020

Scale: 1/4" = 1'-0"

Drawn By: PM

Sheet Number: A-1.01

G. P. Schafer Architect, PLC
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



1 A-1.02 Second Floor Plan - Proposed

Scale: 1/4" = 1'-0"

PROPOSED PLAN GRAPHIC LEGEND:

NEW CONSTRUCTION

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:

Proposed
Second Floor Plan

Date: *June 12, 2020*

Scale: *1/4" = 1'-0"*

Drawn By: *PM*

Sheet Number: A-1.02

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
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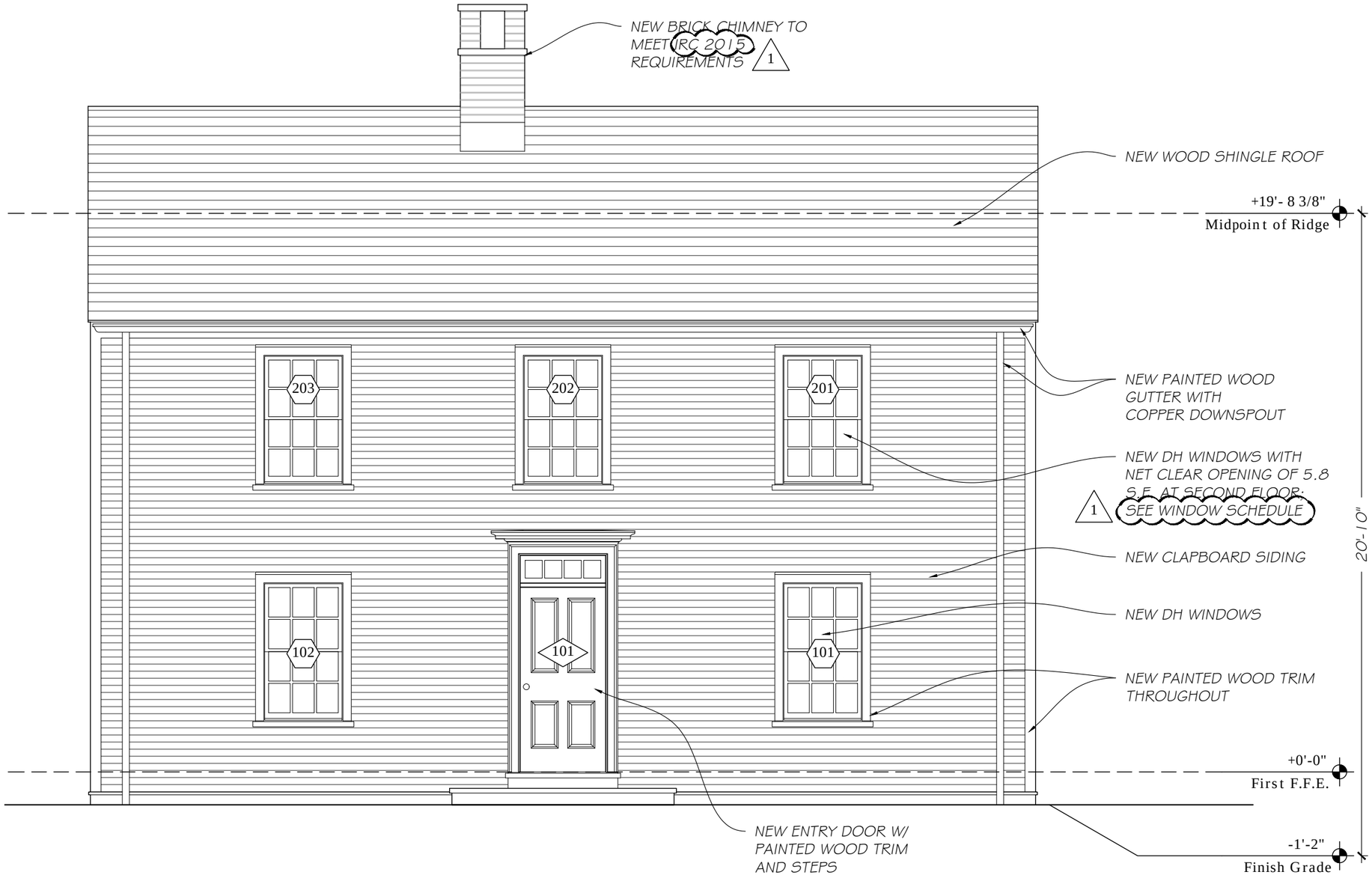
Telephone: 212-965-1355
Telefax: 212-965-1356



1 / D-2.01 West Elevation (Proposed)

Scale: 1/4" = 1'-0"

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:
Exterior Elevations

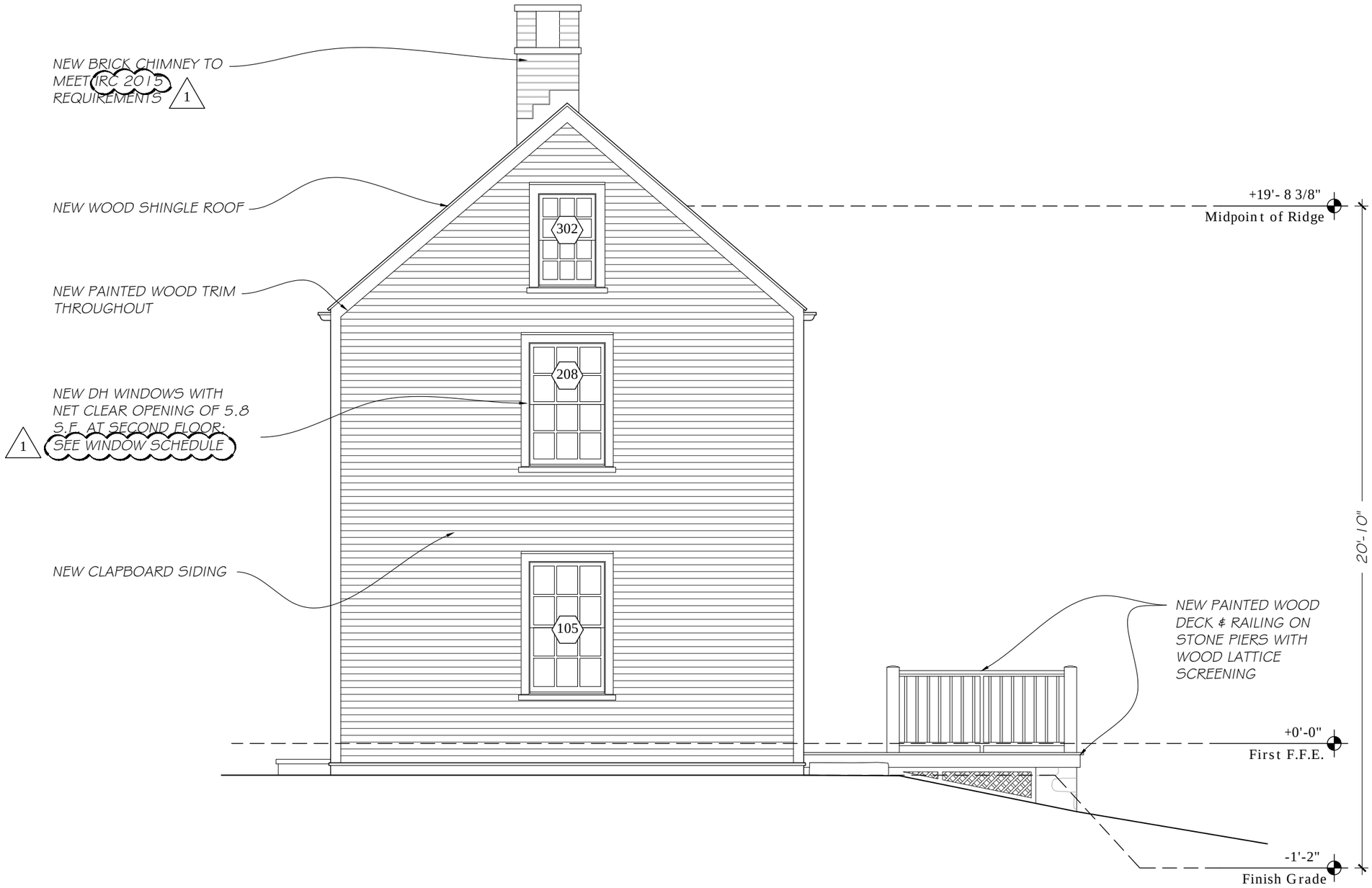
Date: June 12, 2020

Scale: 1/4" = 1'-0"

Drawn By: TG

Sheet Number: A-2.01

G. P. Schafer Architect, dpc
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



1 / A-2.02 South Elevation (Proposed)

Scale: 1/4" = 1'-0"

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR BUILDING PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:
Exterior Elevations

Date: June 12, 2020

Scale: 1/4" = 1'-0"

Drawn By: TG

Sheet Number: A-2.02

G. P. Schafer Architect, DPC
19 Union Square West
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Telephone: 212-965-1355
Telefax: 212-965-1356

NEW BRICK CHIMNEY TO MEET IRC 2015 REQUIREMENTS

1

NEW WOOD SHINGLE ROOF

+19'- 8 3/8"
Midpoint of Ridge

NEW PAINTED WOOD GUTTER WITH COPPER DOWNSPOUT

NEW DH WINDOWS WITH NET CLEAR OPENING OF 5.8 S.F. AT SECOND FLOOR; SEE WINDOW SCHEDULE

1

NEW PAINTED WOOD TRIM THROUGHOUT

NEW FRENCH DOORS WITH PAINTED WOOD TRIM

NEW CLAPBOARD SIDING

22'- 1 1"

+0'-0"
First F.F.E.

-3'-3"
Finish Grade

207 206 205

103 104 102

NEW PAINTED WOOD DECK & RAILING ON STONE PIERS WITH WOOD LATTICE SCREENING

NEW PAINTED WOOD DOOR IN EXISTING OPENING. EXISTING RETAINING WALL TO REMAIN.

1 / A-2.03 East Elevation (Proposed)

Scale: 1/4" = 1'-0"

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:
Exterior Elevations

Date: June 12, 2020

Scale: 1/4" = 1'-0"

Drawn By: TG

Sheet Number: A-2.03

G. P. Schafer Architect, dpc
19 Union Square West
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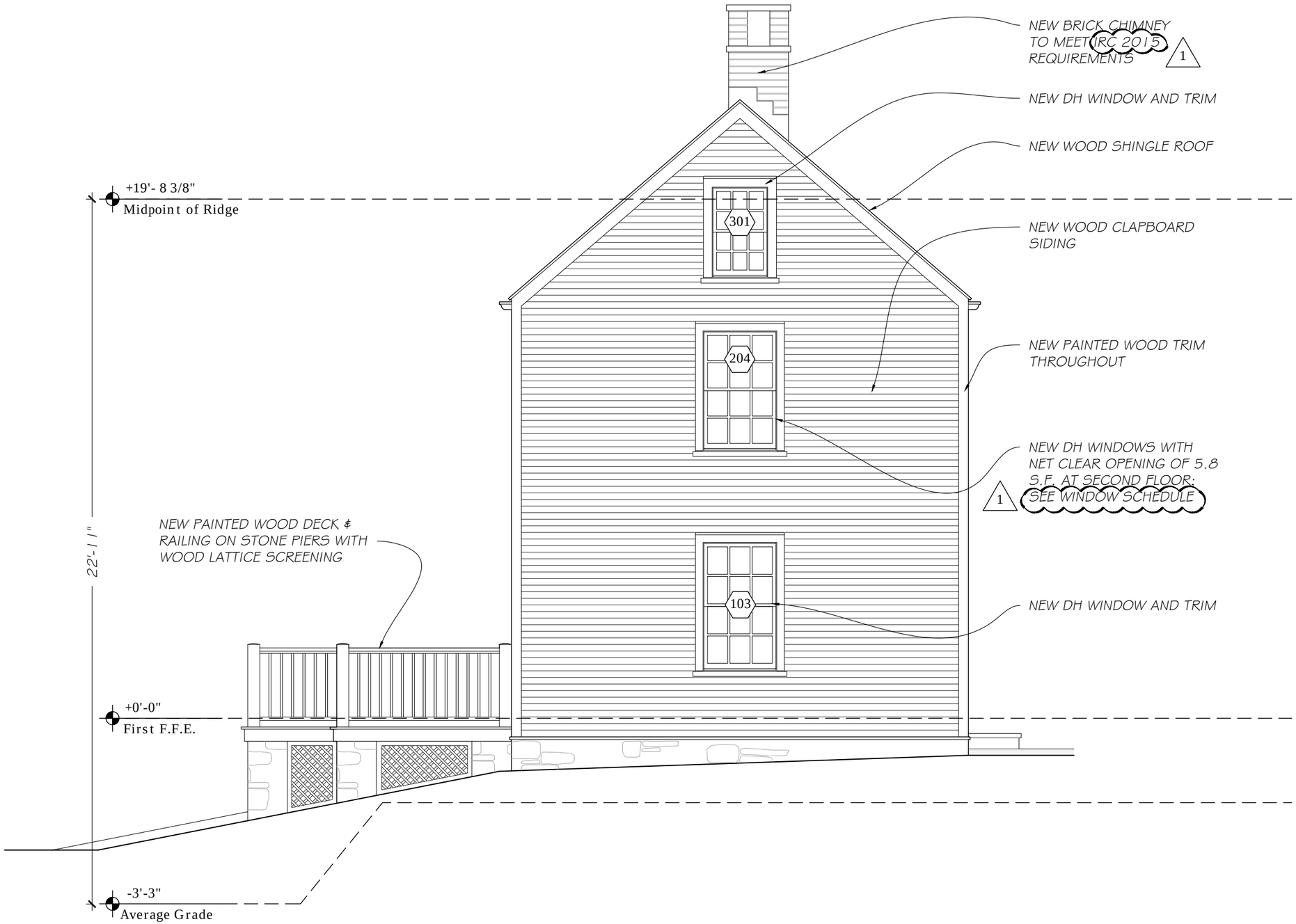

1 A-2.04 North Elevation (Proposed)

Scale: 1/4" = 1'-0"

GENERAL NOTE FOR REVISION 1:

WINDOW AND DOOR NUMBER TAGS HAVE BEEN ADDED TO REFERENCE WITH SCHEDULES IN A-6 SERIES AND A-7 SERIES

1

FOR PERMIT ONLY

002	REVISION 1	1	06/12/2020
001	ISSUED FOR BUILDING PERMIT		05/14/2020

A Renovated Guest Cottage
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title:
Exterior Elevations

Date: June 12, 2020

Scale: 1/4" = 1'-0"

Drawn By: TG

Sheet Number: A-2.04

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19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
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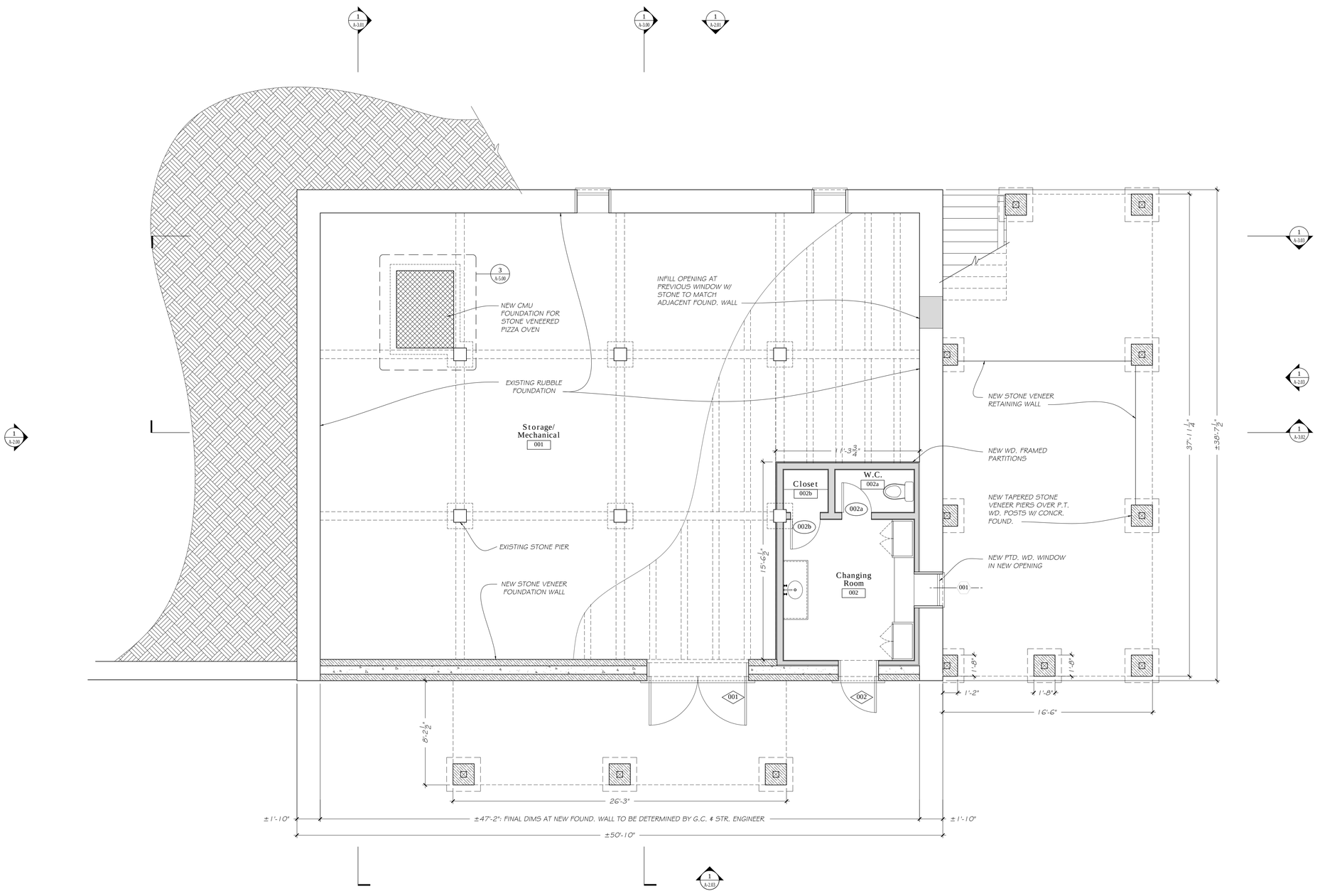


1 / A-1.00 **Basement Plan**

Scale: 1/4" = 1'-0"

LEGEND

- EXISTING FOUNDATION WALL
- NEW CONCR. STEM WALL
- NEW STONE VENEER
- NEW CMU FOUNDATION
- NEW FRAMING
- NEW WOOD POST

COORDINATION ONLY
NOT FOR CONSTRUCTION

-	ISSUED FOR PRICING (NOT FOR CONSTRUCTION)	9/8/20

A Renovated Barn
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
Basement Plan
Barn

Date : *September 8, 2020*

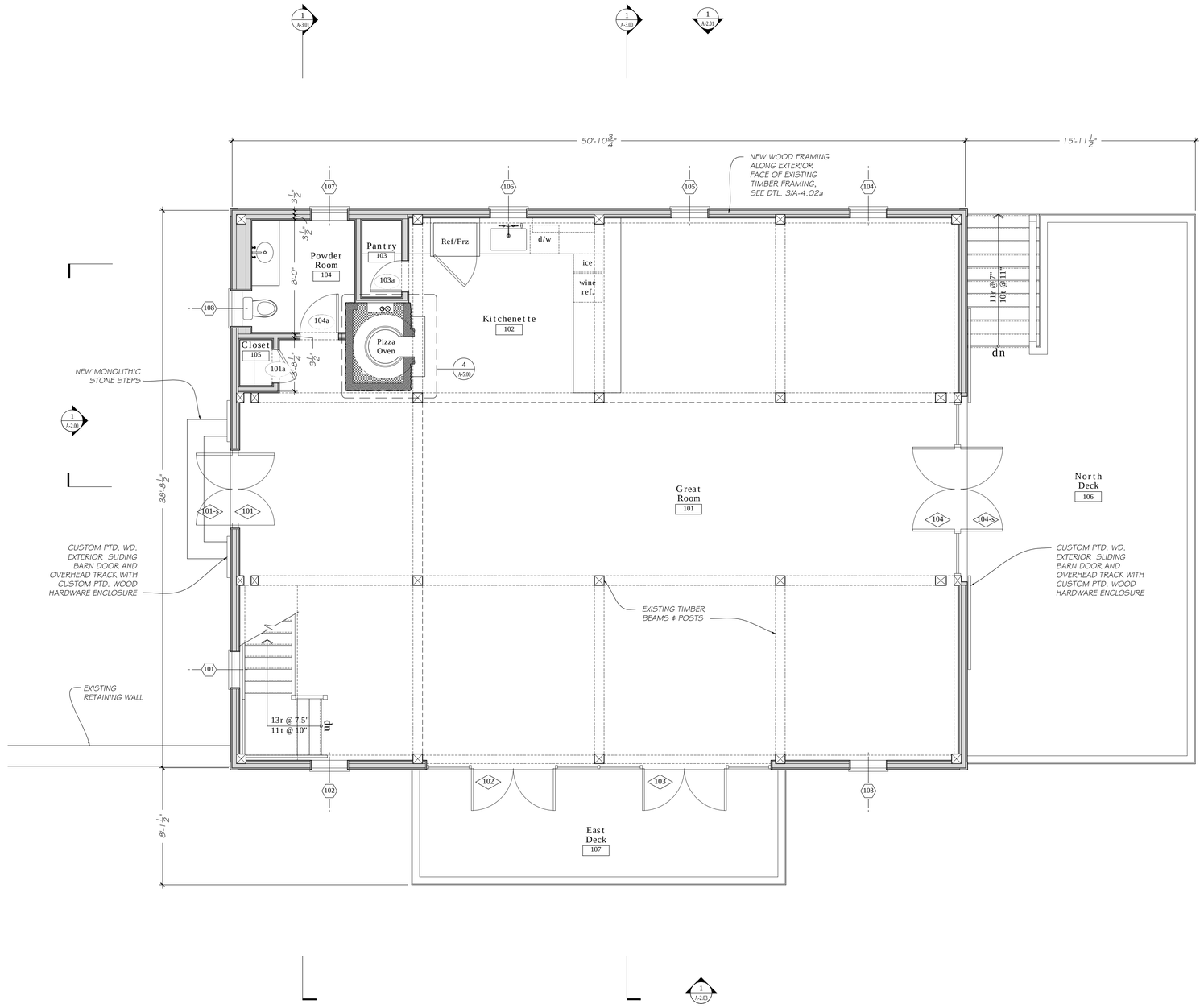
Scale : *1/4" = 1'-0"*

Drawn By : -

Sheet Number : **A-1.00**

G. P. Schafer Architect, DPC
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Actual North / Project North



1 First Floor Plan
A-1.01
Scale: 1/4" = 1'-0"

LEGEND

- EXISTING FOUNDATION WALL
- NEW CONCR. STEM WALL
- NEW STONE VENEER
- NEW CMU FOUNDATION
- NEW FRAMING
- EXISTING TIMBER POST

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

-	ISSUED FOR PRICING (NOT FOR CONSTRUCTION)	9/8/20

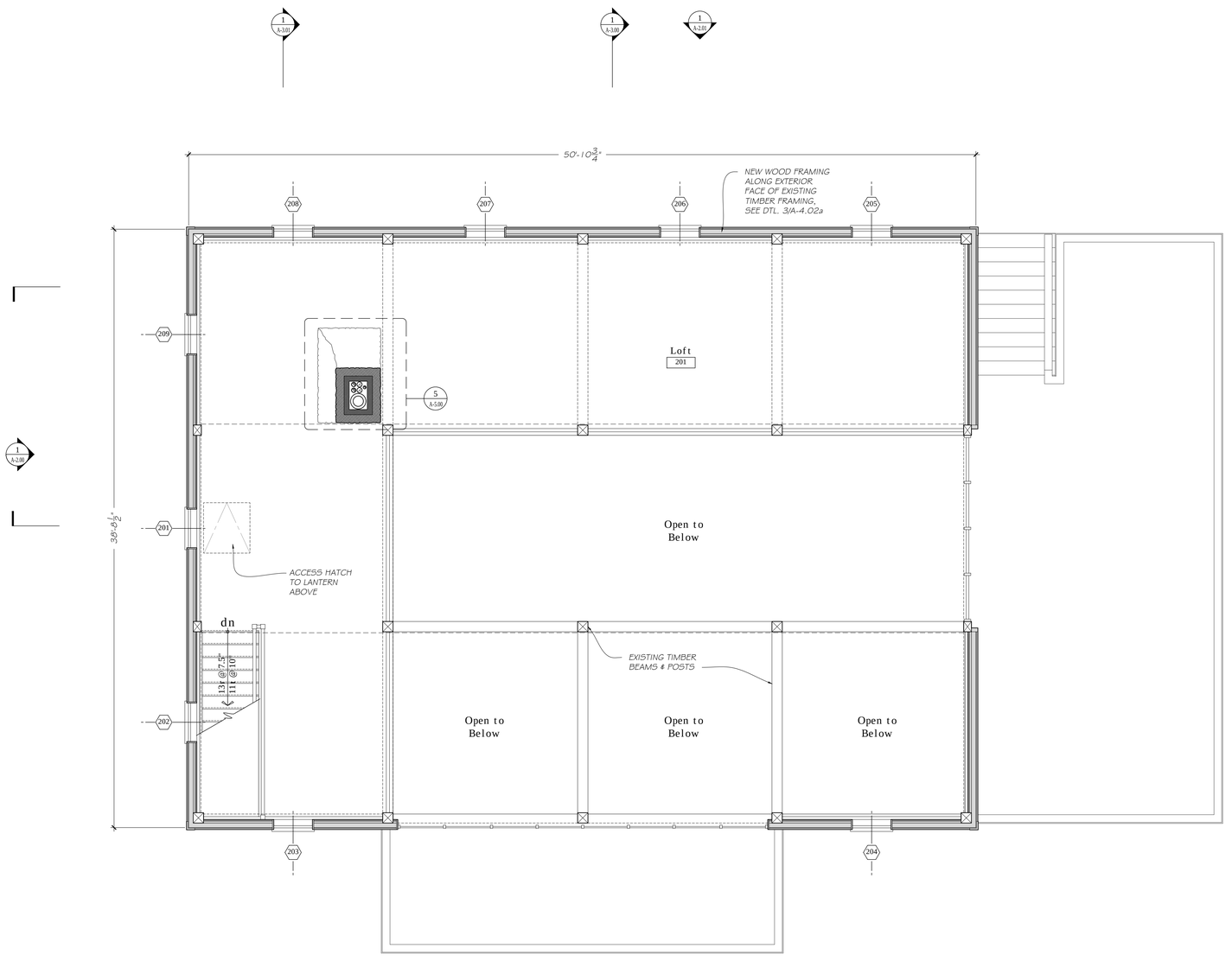
A Renovated Barn
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
First Floor Plan
Barn

Date : *September 8, 2020*
Scale : *1/4" = 1'-0"*
Drawn By : -
Sheet Number : **A-1.01**

G. P. Schafer Architect, DPC
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Actual North
Project North



1 / A-1.02 **Second Floor Plan**

Scale: 1/4" = 1'-0"

LEGEND

- EXISTING FOUNDATION WALL
- NEW CONCR. STEM WALL
- NEW STONE VENEER
- NEW CMU FOUNDATION
- NEW FRAMING
- EXISTING TIMBER POST

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

-	ISSUED FOR PRICING (NOT FOR CONSTRUCTION)	9/8/20

A Renovated Barn
for
Lady Isle
Portsmouth, New Hampshire

Sheet Title :

Second Floor Plan
Barn

Date : *September 8, 2020*

Scale : *1/4" = 1'-0"*

Drawn By : -

Sheet Number :

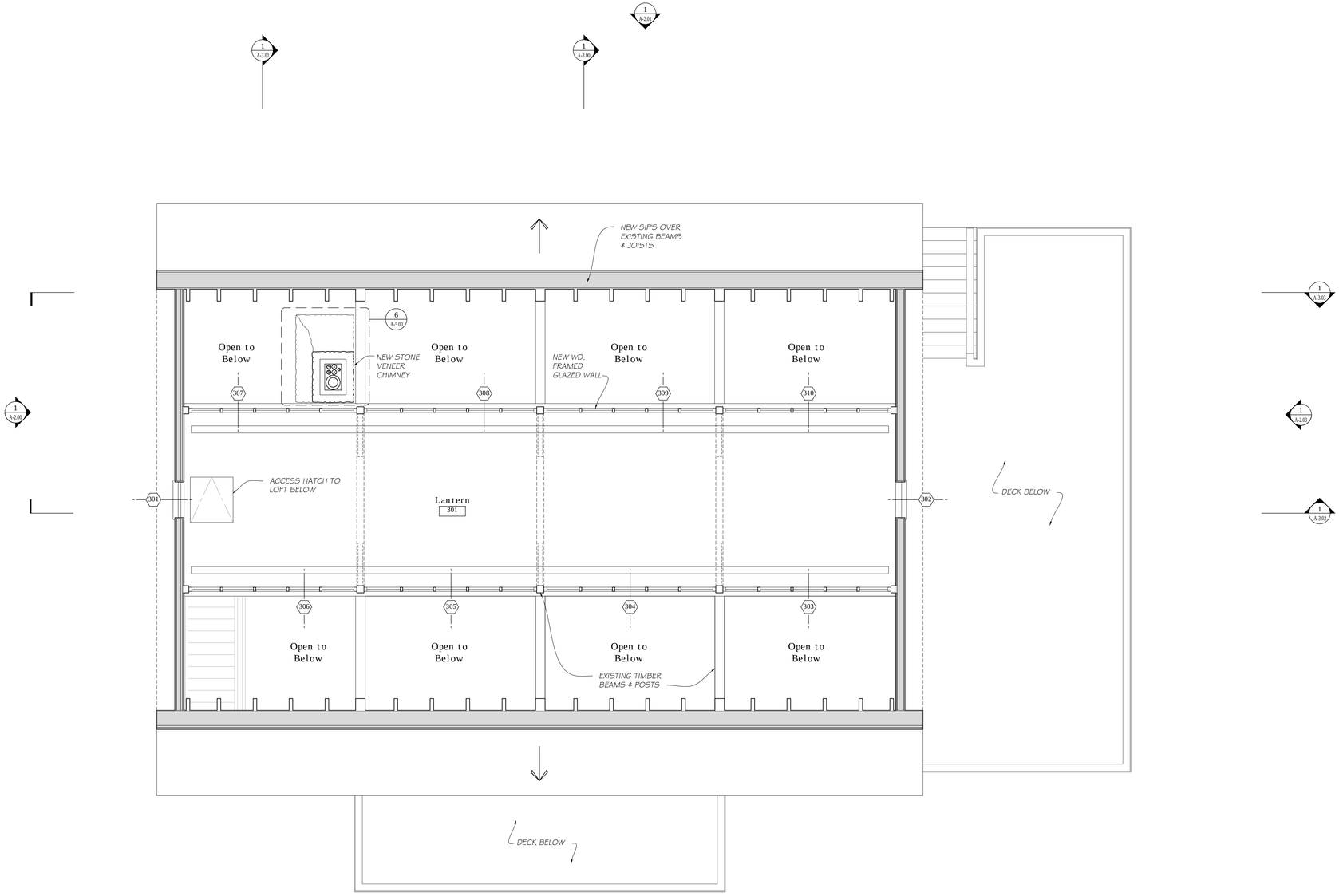
A-1.02

G. P. Schafer Architect, DPC

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Actual North

Project North



1 Third Floor Plan
A-1.03 Scale: 1/4" = 1'-0"

LEGEND

- EXISTING FOUNDATION WALL
- NEW CONCR. STEM WALL
- NEW STONE VENEER
- NEW CMU FOUNDATION
- NEW FRAMING
- EXISTING TIMBER POST

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

-	ISSUED FOR PRICING (NOT FOR CONSTRUCTION)	9/8/20

A Renovated Barn
for
Lady Isle
Portsmouth, New Hampshire

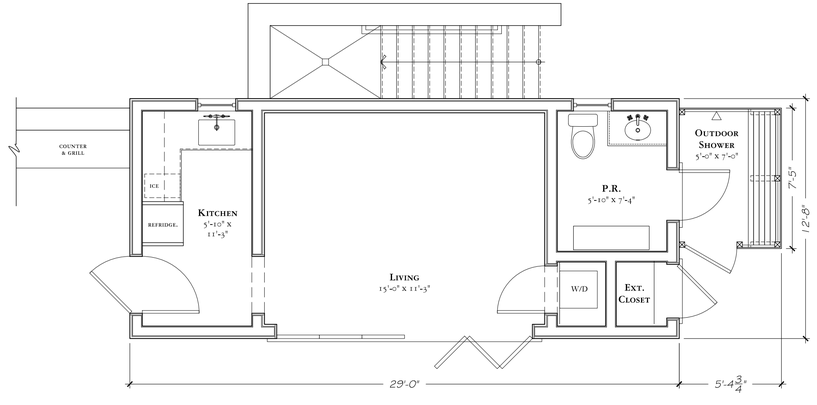
Sheet Title :
Third Floor Plan
Barn

Date : *September 8, 2020*
Scale : *1/4" = 1'-0"*
Drawn By : -
Sheet Number : A-1.03

G. P. Schafer Architect, dpc
19 Union Square West
7th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Actual North
Project North

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION



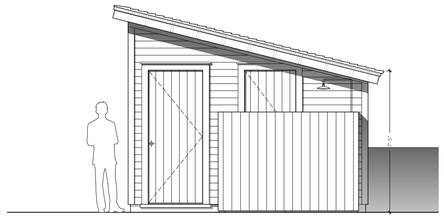
1 / A-1.01 — First Floor Plan
Scale: 1/4" = 1'-0"

A New Residence & Garage
at
Lady Isle
Portsmouth, New Hampshire

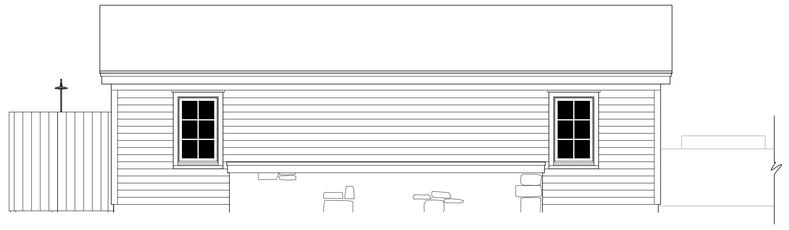
Sheet Title :
First Floor Plan

Date : *June 24, 2021*
Scale : *1/4" = 1'-0"*
Drawn By : *PM*
Sheet Number :
PC
A-1.01

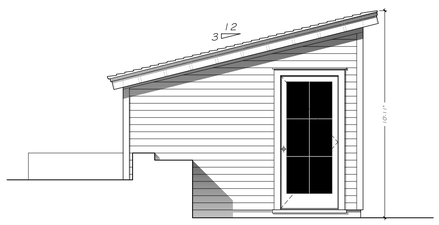
G. P. Schafer Architect, dpc
19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356



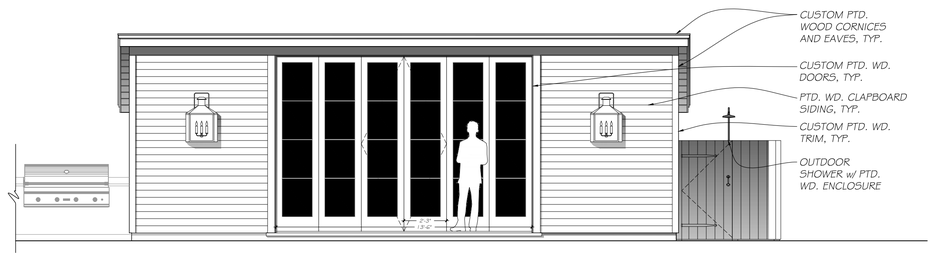
4 A-2.01 **West Elevation**
Scale: 1/4" = 1'-0"



3 A-2.01 **North Elevation**
Scale: 1/4" = 1'-0"



2 A-2.01 **South Elevation**
Scale: 1/4" = 1'-0"



1 A-2.01 **East Elevation**
Scale: 1/4" = 1'-0"

FOR PERMIT ONLY:
NOT FOR CONSTRUCTION

A New Residence & Garage
at
Lady Isle
Portsmouth, New Hampshire

Sheet Title :
Exterior Elevations

Date :
June 24, 2021

Scale :
1/4" = 1'-0"

Drawn By :
PM

Sheet Number :
PC
A-2.01

G. P. Schafer Architect, dpc

19 Union Square West
4th Floor
New York, New York 10003
Telephone: 212-965-1355
Telefax: 212-965-1356

Lady Isle

325 Little Harbor Road, Portsmouth NH

General Notes:

1. Existing conditions and topographic data are from a site plan of land dated March 2, 2021; prepared by: Thomas F. Moran Inc., 170 Commerce Way, Suite 102, Portsmouth, NH, 03801 - Tel: (603) 431.2222

2. Existing conditions supplemented from data collected by: Matthew Cunningham Landscape Design LLC, 411 Main Street, Stoneham, MA 02180 - Tel: (617) 905.2246

3. Do not scale drawings

LICENSED LANDSCAPE ARCHITECT
MATTHEW J. CUNNINGHAM
00161
STATE OF NEW HAMPSHIRE

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC

matthew-cunningham.com

SCALE: 1" = 50'-0" DATE: 23 FEBRUARY 202

0' 25' 50' 1C

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

L1.0

FOR PERMIT SUBMISSION

6 L1.4 PERMEABLE COBBLE PAVING

7 L1.4 GRANITE VEHICULAR PAVING

COBBLE TIRE TRACKS

9 L1.4 POOL ENCLOSURE MESH FENCE

LAWN

5 L1.4 STABILIZED SEEDED GRAVEL VEHICULAR PAVING

9 L1.4 POOL ENCLOSURE MESH FENCE

10 L1.4 TENNIS COURT FENCING

STONE STEPPERS

PERMEABLE COBBLE PAVING 6 L1.4

PLANT BED

DRY-LAID STONE PAVING

VEGETABLE BED

EXISTING TENNIS COURT

PEASTONE VEHICULAR PAVING 8 L1.4

DRY-STACKED STONE WALL

HOUSE

FLUSH WOOD DECK

SPA

POOL 20'X50'

DRY-LAID STONE PAVING

LAWN

EXPOSED LEDGE

9 L1.4 POOL ENCLOSURE MESH FENCE

PLANT BED

STONE STEPPERS

POOL ENCLOSURE MESH FENCE 9 L1.4

PLANT BED

DRY-STACKED STONE WALL

PLANT BED

PLANT BED

LAWN

6 L1.4 PERMEABLE COBBLE PAVING

Lady Isle

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00161
STATE OF NEW HAMPSHIRE

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC

matthew-cunningham.com

SCALE: 1" = 30'-0" DATE: 23 FEBRUARY 202

0' 15' 30' 6

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

L1.1

FOR PERMIT SUBMISSION

TOTAL PROPOSED PLANT BED WITHIN LIMIT OF WORK: ~42,750SF

EXISTING LAWN AREA TO BE CONVERTED TO PLANT BED: ~34,770SF

PROPOSED PLANT PALETTE

Key	Qty.	Latin Name	Common Name	Scheduled Size
TREES				
ARR	6	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	4-4.5" cal. B&B
ASG	5	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple	4-4.5" B&B
AC	30	Amelanchier canadensis	Shadblow Serviceberry	10-12' B&B
BPW	12	Betula platyphylla 'Whitespire'	Japanese Whitespire Birch	8-10' B&B
CF	2	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	4-4.5" cal. B&B
JV	4	Juniperus virginiana	Eastern Red Cedar	8-10' B&B
LL	5	Larix laricina	Tamarack	10-12' B&B
MJ	1	Magnolia liliiflora 'Jane'	Jane Magnolia	7-8' ht. B&B
MV	5	Magnolia virginiana	Sweetbay Magnolia	8-10' ht. B&B
MG	13	Malus x domestica 'Gala'	Gala Apple	4-4.5" cal. B&B
NS	2	Nyssa sylvatica	Tupelo	4-4.5" cal. B&B
PA	3	Picea abies	Norway Spruce	10-12' ht. B&B
QA	3	Quercus 'Alba'	White Oak	4-4.5" B&B
SA	6	Salix babylonica	Weeping Willow	3-3.5" cal. B&B
SP	1	Stewartia pseudocamellia	Japanese Stewartia	3.5-4" cal. B&B
TP	3	Thuja plicata 'Green Giant'	Green Giant Arborvitae	10-12' ht. B&B

NOTES:

1. PLANT LOCATIONS ON PLAN ARE FOR DIAGRAMMATIC PURPOSES AND DO NOT NECESSARILY REFLECT ACTUAL PROPOSED LOCATIONS OF PLANTING
2. PLANT SIZES OR QUANTITIES SHOWN ARE SUBJECT TO CHANGE BASED ON AVAILABILITY
3. THE USE OF ANY FERTILIZER IS PROHIBITED WITHIN A WETLAND, VEGETATED BUFFER AREA, OR LIMITED CUT AREA
4. THE USE OF FERTILIZERS OTHER THAN LOW PHOSPHATE OR SLOW RELEASE NITROGEN FERTILIZER IS PROHIBITED IN ALL COASTAL RESOURCE AREAS

Latin Name	Common Name
SHRUBS	
Aesculus parviflora	Bottlebrush Buckeye
Aronia arbutifolia	Red Chokeberry
Callicarpa dichotoma	Beautyberry
Cephalanthus occidentalis	Buttonbush
Clethra alnifolia	Summersweet
Comptonia peregrina	Sweetfern
Cornus sericea	Red-Twig Dogwood
Daphne × burkwoodii	Burkwood Daphne
Fothergilla x intermedia	Fothergilla
Hamamelis x intermedia	Witchhazel
Hydrangea arborescens	Smooth Hydrangea
Hydrangea paniculata	Lacecap Hydrangea
Hydrangea quercifolia	Oakleaf Hydrangea
Ilex glabra	Inkberry
Ilex verticillata	Winterberry
Itea virginica	Sweetspire
Myrica gale	Sweetgale
Myrica pensylvanica	Northern Bayberry
Prunus maritima	Beach Plum
Rhododendron 'Cunningham's White'	Cunningham's White Rhododendron
Rhododendron maximum	Rosebay Rhododendron
Rhus aromatica 'Gro-Lo'	Fragrant Sumac
Rhus typhina	Staghorn Sumac
Rosa virginiana	Virginia Rose
Sambucus canadensis	American Elderberry
Syringa meyeri	Dwarf Korean Lilac
Syringa vulgaris	Common Purple Lilac
Vaccinium corymbosum	Highbush Blueberry
Viburnum dentatum	Arrowwood Viburnum
Viburnum plicatum f. tomentosum	Doublefile Viburnum
Viburnum trilobum	American Cranberry Virburnum

Latin Name	Common Name
PERENNIALS	
Actaea racemosa	Snakeroot
Agastache x hybrida	Anise Hyssop
Alchemilla mollis	Lady's Mantle
Allium senescens	Circle Chives
Amsonia hubrichtii	Bluestar
Andropogon gerardii	Big Bluestem
Anemone tomentosa	Grapeleaf Anemone
Anemone x hybrida	Japanese Anemone
Anemonella thalictroides	Rue Anemone
Aruncus dioicus	Goat's Beard
Asclepias incarnata	Swamp Milkweed
Asclepias syriaca	Common Milkweed
Astilbe x hybrida	Astilbe
Astrantia rubra	Red Masterwort
Athyrium niponicum pictum	Japanese Painted Fern
Baptisia australis	False Indigo
Calamagrostis x acutiflora 'Karl Foerster'	Foerster's Feather Reed Grass
Carex pensylvanica	Oak Sedge
Centaurea montana	Cornflower
Clematis x jackmanii	Jackman Clematis
Corydalis lutea	Yellow Corydalis
Dennstaedia punctilobula	Hay-Scented Fern
Deschampsia cespitosa	Tufted Hairgrass
Dicentra spectabilis	Bleeding Heart
Digitalis purpurea	Foxglove
Echinacea purpurea	Purple Coneflower
Epimedium x rubrum	Red Barrenwort
Eragrostis spectabilis	Purple Love Grass
Eupatorium dubium	Dwarf Joe Pye Weed
Eupatorium maculatum	Spotted Joe Pye Weed
Eurybia divaricata	White Wood Aster
Galium odoratum	Sweet Woodruff
Geranium 'Rozanne'	Rozanne Cranesbill
Geranium macrorrhizum	Cranesbill
Gillenia trifoliata	Bowman's Root

Latin Name	Common Name
PERENNIALS (Cont.)	
Hakonechloa macra	Hakone Grass
Helleborus x hybridus	Lenten Rose
Heuchera micrantha	Coral Bells
Hydrangea anomala petiolaris	Climbing Hydrangea
Iris cristata	Crested Iris
Iris sibirica	Siberian Iris
Kirengeshoma palmata	Yellow Waxbells
Lavandula intermedia	Lavender
Leucanthemum superbum	Shasta Daisy
Lupinus polyphyllus	Lupine
Matteuccia struthiopteris	Ostrich Fern
Miscanthus sinensis	Maiden Grass
Nepeta x faassenii	Catmint
Osmunda cinnamomea	Cinnamon Fern
Paeonia lactiflora	Peony
Panicum virgatum	Switchgrass
Pennisetum alopecuroides	Dwarf Fountain Grass
Perovskia atriplicifolia	Russian Sage
Podophyllum peltatum	May Apple
Polygonatum odoratum	Solomon's Seal
Pulmonaria officinalis	Lungwort
Rosa x 'New Dawn'	New Dawn Rose
Rudbeckia fulgida	Black-Eyed-Susan
Salvia x sylvestris	Wood Sage
Salvia nemorosa	Woodland Sage
Schizachyrium scoparium	Little Bluestem
Solidago ssp.	Goldenrod
Sorghastrum nutans	Indian Grass
Sporobolus heterolepsis	Prairie Dropseed
Stachys byzantina	Lamb's Ear
Symphyotrichum novae-angliae	New England Aster
Symphyotrichum novi-belgii	New York Aster
Symphyotrichum oblongifolium	Aromatic Aster
Thalictrum rochebrunianum	Lavender Mist Meadow-rue
Thymus vulgaris	Common Thyme

Lady Isle

325 Little Harbor Road, Portsmouth NH

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3. Do not scale drawings

MATTHEW J. CUNNINGHAM 00161 LICENSED LANDSCAPE ARCHITECT STATE OF NEW HAMPSHIRE

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC

matthew-cunningham.com

SCALE: 1" = 30'-0" DATE: 23 FEBRUARY 202

0' 15' 30' 6

SHEET TITLE:

PLANTING PLAN

SHEET NUMBER:

L1.2

FOR PERMIT SUBMISSION

EXISTING TRAIL
WOODLAND
RESTORED MEADOW
WOODLAND
RESTORED MEADOW
DROUGHT TOLERANT LAWN
APPLE TREES
DROUGHT TOLERANT LAWN
ASG
DROUGHT TOLERANT LAWN
MG, TYP.
ASG
ASG
ARR
LL
TPG
JV
PA
TPG
JV
TPG
MATCH LINE B
MATCH LINE A

Lady Isle

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MATTHEW J. CUNNINGHAM
00161
STATE OF NEW HAMPSHIRE

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC
matthew-cunningham.com

SCALE: 1" = 30'-0" DATE: 23 FEBRUARY 202

0' 15' 30' 6

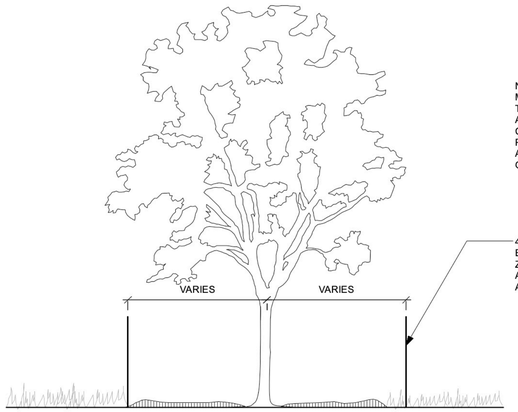
SHEET TITLE:

PLANTING PLAN

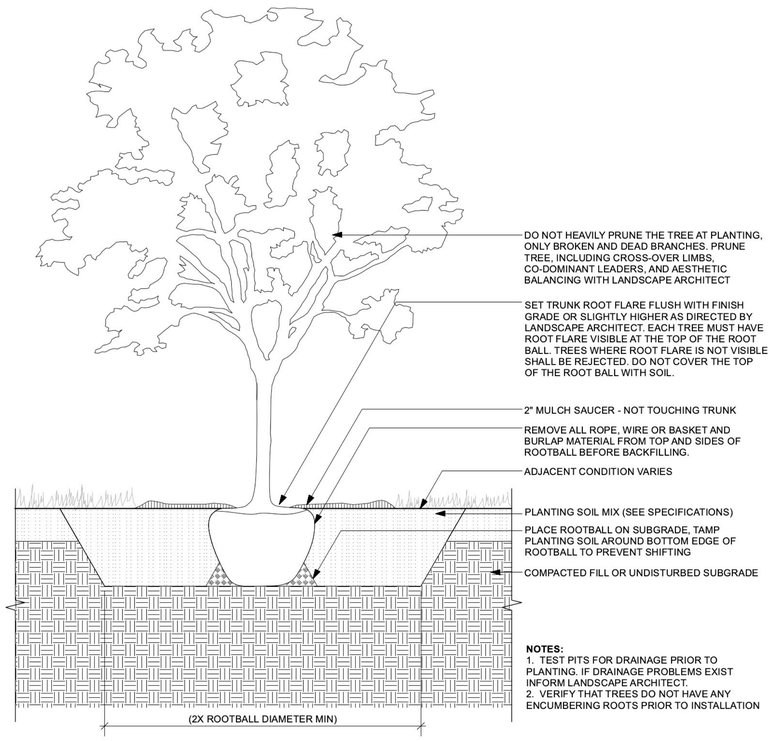
SHEET NUMBER:

L1.3

FOR PERMIT SUBMISSION

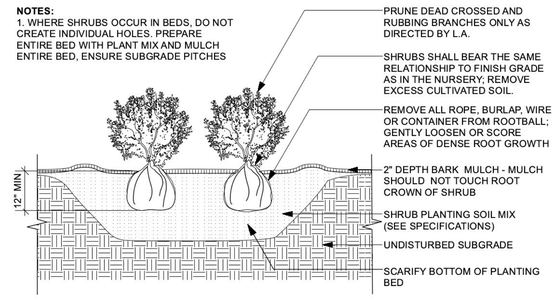


1 TREE PROTECTION FENCING
Scale: 1/2" = 1'-0"

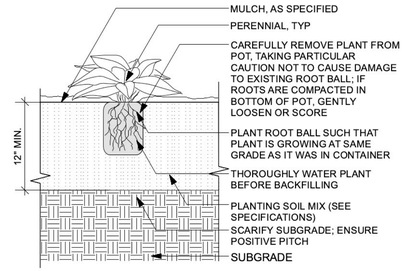


NOTES:
1. TEST PITS FOR DRAINAGE PRIOR TO PLANTING. IF DRAINAGE PROBLEMS EXIST INFORM LANDSCAPE ARCHITECT.
2. VERIFY THAT TREES DO NOT HAVE ANY ENCUMBERING ROOTS PRIOR TO INSTALLATION

2 TREE PLANTING - TYPICAL SECTION
Scale: 1/2" = 1'-0"

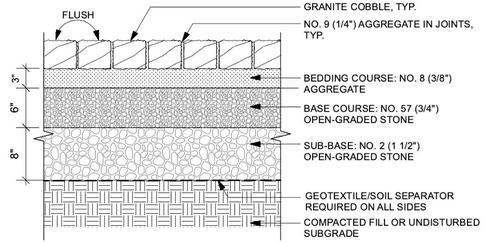


3 SHRUB PLANTING - TYPICAL SECTION
Scale: 1/2" = 1'-0"



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

4 PERENNIAL PLANTING - TYPICAL SECTION
Scale: 1/2" = 1'-0"

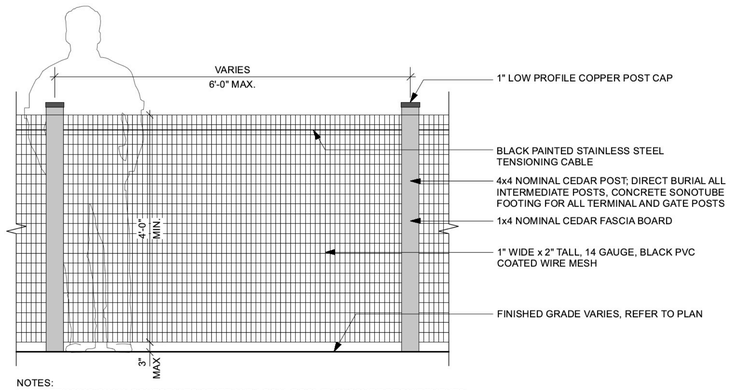


5 STABILIZED SEEDED GRAVEL VEHICULAR PAVING
Scale: 1" = 1'-0"

6 PERMEABLE COBBLE PAVING
Scale: 1" = 1'-0"

7 GRANITE VEHICULAR PAVING
Scale: 1" = 1'-0"

8 PEASTONE VEHICULAR PAVING
Scale: 1" = 1'-0"



NOTES:
1. ALL FENCING SHALL CONFORM TO STATE AND LOCAL POOL ENCLOSURE REQUIREMENTS
2. DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY, FINAL LAYOUT AND DIMENSIONS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION

9 POOL ENCLOSURE MESH FENCE - TYPICAL PANEL ELEVATION
Scale: 3/4" = 1'-0"

10 TENNIS COURT FENCING - TYPICAL PANEL ELEVATION
Scale: 1/2" = 1'-0"

Lady Isle

325 Little Harbor Road, Portsmouth NH

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MATTHEW J. CUNNINGHAM 00161 LICENSED LANDSCAPE ARCHITECT STATE OF NEW HAMPSHIRE

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC
matthew-cunningham.com

SCALE: AS NOTED DATE: 23 FEBRUARY 202

SHEET TITLE:

LANDSCAPE DETAILS

SHEET NUMBER:

L1.4

FOR PERMIT SUBMISSION

PLANNING BOARD | EXISTING AERIAL PHOTO (06/02/21)

Lady Isle | 325 Little Harbor Road, Portsmouth NH
23 February 2022

G. P. SCHAFER ARCHITECT
ARCHITECTURE & DESIGN

TFM Since 1968
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

Youngblood BUILDERS

MATTHEW CUNNINGHAM LANDSCAPE DESIGN LLC
matthew-cunningham.com

PLANNING BOARD | EXISTING AERIAL PHOTOS (06/02/21)

Lady Isle | 325 Little Harbor Road, Portsmouth NH
23 February 2022

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PLANNING BOARD | EXISTING AERIAL PHOTOS (06/02/21)

Lady Isle | 325 Little Harbor Road, Portsmouth NH
23 february 2022

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PLANNING BOARD | PROPOSED ILLUSTRATIVE RENDERINGS

Lady Isle | 325 Little Harbor Road, Portsmouth NH
23 February 2022

G. P. SCHAFER ARCHITECT
ARCHITECTURE & DESIGN

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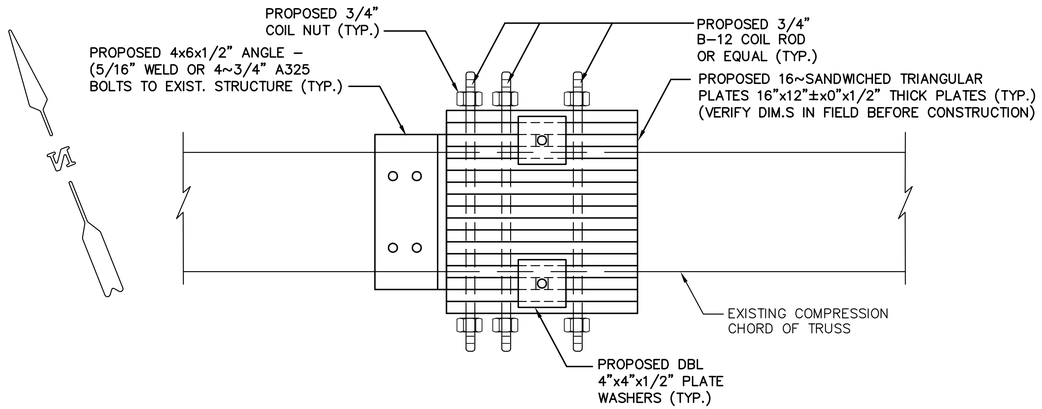
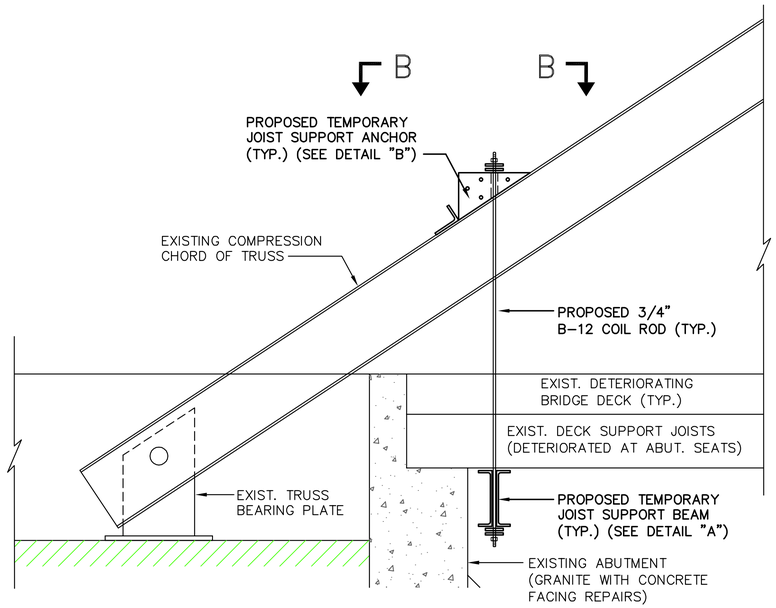


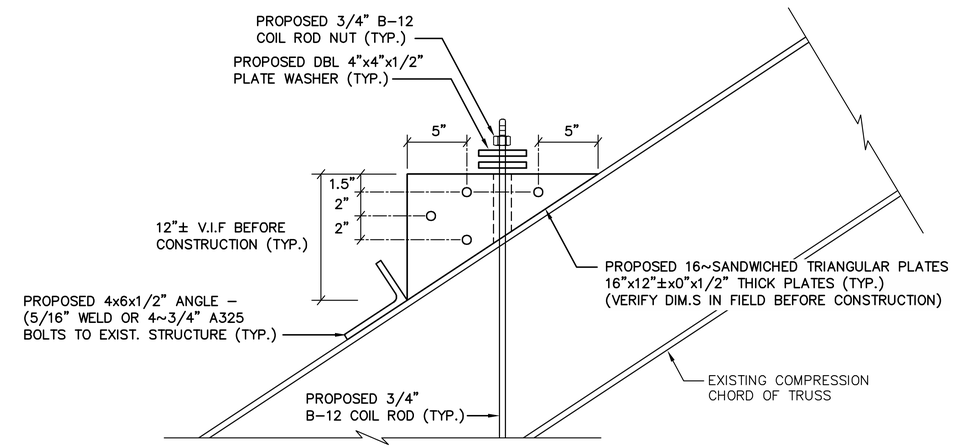
PLAN "B-B" OF TEMPORARY JOIST SUPPORT ANCHOR (SOUTHERN ABUTMENT SHOWN, NORTHERN ABUTMENT SIMILAR)

SCALE: 1'=2'-0"



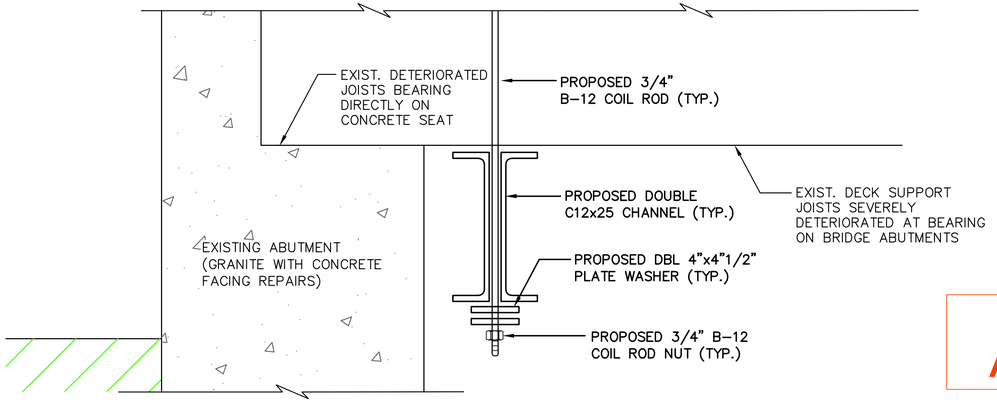
ELEVATION SECTION A-A (TEMPORARY JOIST SUPPORT)

SCALE: 3/4"=1'-0"



DETAIL "B" (TEMP. JOIST SUPPORT ANCHOR)

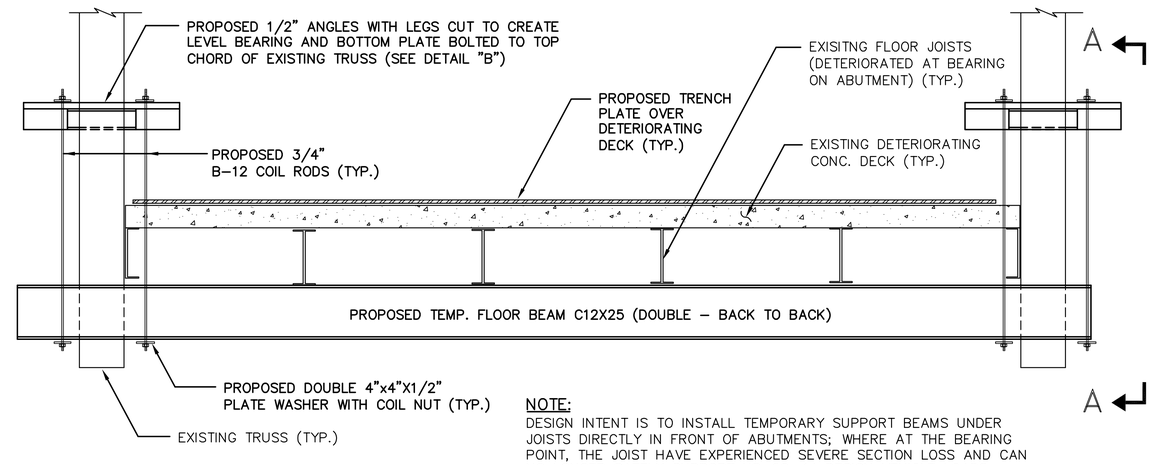
SCALE: 1'=2'-0"



DETAIL "A" (TEMP. JOIST SUPPORT BEAM)

SCALE: 1'=2'-0"

PLAN SIZE:
FULL SIZE PLANS ARE 24x36
11x17 ARE APPROXIMATE HALF SCALES



TRANSVERSE SECTION AT TEMPORARY JOIST SUPPORT

SCALE: 3/4"=1'-0"

NOTE:
DESIGN INTENT IS TO INSTALL TEMPORARY SUPPORT BEAMS UNDER JOISTS DIRECTLY IN FRONT OF ABUTMENTS; WHERE AT THE BEARING POINT, THE JOIST HAVE EXPERIENCED SEVERE SECTION LOSS AND CAN NO LONGER SAFELY SUPPORT HS-20-44 DESIGN VEHICLE LOADS.

PROJECT BACKGROUND:

1.) ECKMAN ENGINEERING, LLC ON FEBRUARY 3, 2022 COMPLETED A VISUAL INSPECTION OF THE EXISTING BELLE ISLE BRIDGE WHICH WAS FOLLOWED BY A SURVEY THAT INCLUDED DETAILED MEASUREMENT OF THE EXISTING SUBSTRUCTURE AND SUPERSTRUCTURE.

2.) THE 94± SINGLE-SPAN TRUSS WAS REHABILITATED AT SOME-TIME IN THE PAST ADDING 2-INTERIOR H-PILE BENTS. THE TRUSS'S ORIGINAL DESIGN LOADING IS NOW GREATLY REDUCED DUE TO THE INTERIOR H-PILE BENTS AND THE DECK SUPERSTRUCTURE NOW ACTS MOST LIKE A THREE-SPAN STRUCTURE.

3.) THE EXISTING BRIDGE STRUCTURE IS SCHEDULED TO BE COMPLETELY REPLACED IN A FEW YEARS HOWEVER THE INTENT IS TO CONTINUE TO UTILIZE THE EXISTING STRUCTURE TEMPORARILY WHILE RE-CONSTRUCTION OF BUILDINGS ON BELLE ISLE BEGIN.

4.) TWO DEFICIENCIES OF CONCERN WERE IDENTIFIED THAT LIMIT CAPCITY OF THE STRUCTURE AND NEED TO BE REPAIRED PRIOR TO USE BY CONSTRUCTION VEHICLES. THE FIST DEFICIENCY IS THAT THE CONCRETE DECK HAS LOCATIONS WITH SPALLING AND SOFT-SPOTS. THE SECOND DEFFICIENCY OF CONCERN IS THAT THE EXISTING DECK SUPPORT JOISTS ARE APPROXIMATELY 60% DETERIORATED IN SECTION WHERE THEY BEAR DIRECTLY ON THE CONCRETE ABUTMENTS AT EACH END OF THE TRUSS.

CONCERN GREATLY LIMITING THE CAPACITY OF MAJOR CONCERN WERE OBSERVED WITH THE SUPERSTRUCTURE. THE FIRST WAS THE SPALLING AND DETERIORATING CONCRETE DECK THAT HAD MANY SOFT-SPOTS. THE SECOND DEFICIENCY WAS THAT THE FLOOR JOISTS WERE APPROXIMATELY 60% OF THE JOIST SECTION HAS DETERIORATED AT THE BEARING LOCATION ON THE CONCRETE ABUTMENT SEATS.

TEMPORARY SUPERSTRUCTURE REPAIR AND DESIGN LOADING:

1.) TO DISTRIBUTE LOADS OVER THE SOFT-SPOTS IN THE CONCRETE DECK AND STRENGTHEN THE EXISTING DECK OVERALL STEEL TRENCH PLATE IS PROPOSED TO BE INSTALLED OVER THE ENTIRE 94± FOOT LENGTH OF THE DECK. A TEMPORARY SUPPORT BEAM SHALL BE INSTALLED UNDER THE DECK SUPPORT JOISTS DIRECTLY IN FRONT OF EACH ABUTMENT FACE AT A LOCATION WHERE THE JOIST HAVE NEARLY THEIR FULL SECTION.

2.) ECKMAN ENGINEERING ANALYZED THE STRUCTURE IN ACCORDANCE WITH AASHTO PROCEDURES USING DESIGN LOADS FOR AN HS20-44 TRUCK (2~32KIP REAR AXLES & AN 8KIP FRONT AXLE) ALONG WITH A TANDEM LOAD (2~25KIP AXLES; 4-FEET APART). THE HS20-40 DESIGN TRUCK CONTROLLED GENERATING A MAXIMUM SHEAR LOAD AT THE ABUTMENT FACE OF 47.4-KIPS. THE PROPOSED TEMPORARY SUPPORT BEAM SUPPORTS THE FULL MAXIMUM SHEAR-LOAD WITH SAFETY FACTOR > 2.

STATE OF NEW HAMPSHIRE
DAVID E. ECKMAN No. 9213
LICENSED PROFESSIONAL ENGINEER
2/21/22

PRELIMINARY PLAN FOR APPROVAL/REVIEW ONLY

PREPARED FOR:
EVROCKS CORPORATION, Inc
23 INDUSTRIAL DRIVE
NORTHFIELD, NH 03276
PHONE: (603) 527-3545

ECKMAN Engineering, LLC
1950 Lafayette Road Unit 301, PO Box 8025
Portsmouth, New Hampshire 03802
Phone: (603) 433-1354
Fax: (603) 433-2367

No.	DESCRIPTION	BY	DATE
	REVISIONS		
P	REV. TEMPORARY SUPPORT ANCHOR PER EVROKS	DEE	3/22

BELLE ISLE ROAD BRIDGE REHABILITATION PROJECT

TOWN PORTSMOUTH, NH 03801 — BRIDGE NO. N/A
FEDERAL PROJECT ---- — NHDOT PROJECT N/A
LOCATION/PROJECT: BELLE ISLE ROAD BRIDGE, PORTSMOUTH, NH
TEMPORARY JOIST SUPPORT BEAMS (EACH ABUTMENT FACE)

PRELIMINARY PLAN, ELEV., SECTION & DETAILS

	BY	DATE		BY	DATE
DESIGNED	SRP	02/22	CHECKED	DEE	03/22
DRAWN	JJM	02/22	CHECKED	DEE	03/22
TRACED			CHECKED		
QUANTITIES			CHECKED		
REVIEWED BY:					

EE PROJ. NO. 22-104
FILE NUMBER 22-104_STR
STATE PROJ. NO. N/A
SHEET NO. 1
TOTAL SHEET 1