SITE PLAN REVIEW TECHNICAL ADVISORY COMMITTEE
PORTSMOUTH, NEW HAMPSHIRE

CONFERENCE ROOM A
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE

Members of the public also have the option to join the meeting over Zoom
*(See below for more details)**

2:00 PM **June 3, 2025**

AGENDA

I. APPROVAL OF MINUTES

A. Approval of minutes from May 6, 2025 Site Plan Review Technical Advisory Committee Meeting.

II. OLD BUSINESS

A. The request of **Walter D. Hett Trust (Owner),** for property located at **0 Banfield Road** and **Peverly Hill Road** requesting Preliminary and Final Subdivision Approval and Site Plan Review Approval to subdivide one lot into 5 new residential lots with associated site improvements. Said property is located on Assessor Map 255 Lot 2 and lies within the Single Residence A (SRA) District. (LU-25-22)

B. **REQUEST TO POSTPONE:** The request of **361 Hanover Steam Factory LLC (Owner),** for property located at **361 Hanover Street** requesting Site Plan Review Approval and Preliminary and Final Subdivision Approval for the addition of three dew residential structures and the renovation of the existing commercial building at 361 Hanover Street with the associated and required site improvements. Said property is located on Assessor Map 138 Lot 63 and lies within the Character District 5 (CD-5) and Downtown Overlay District. (LU-24-196)

C. The request of **Sea Level LLC (Owner),** for the property located at **187 Wentworth House Road** requesting consideration that the proposed stormwater alterations and the installation of a concrete cap at the existing commercial site be exempted from requiring Site Review approval. Said property is located on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) district (LU-25-2).

III. NEW BUSINESS

A. The request of **Giri Portsmouth 505 Inc (Owner)**, for property located at **505 US Route 1 Bypass** requesting Amended Site Plan approval for the addition of EV charging spaces and associated support infrastructure. Said property is located on Assessor Map 234 Lot 5 and lies within the Gateway Corridor (G1) District. (LU-25-66)

B. The request of **Gary B. Dodds Revocable Trust (Owner),** for property located at **294 Lincoln Avenue** requesting Site Plan Review approval for the demolition of an existing garage and construction of a new attached 4-bay garage with associated site improvements. Said property is located on Assessor Map 130 Lot 24 and lies within the General Residence A (GRA) District. (LU-24-225)

IV. ADJOURNMENT

**Members of the public also have the option to join this meeting over Zoom, a unique meeting ID and password will be provided once you register. To register, click on the link below or copy and paste this into your web browser:*

https://us06web.zoom.us/webinar/register/WN_7Wc6EjWFSjujW2Ft9k905w

SITE PLAN REVIEW TECHNICAL ADVISORY COMMITTEE
PORTSMOUTH, NEW HAMPSHIRE

CONFERENCE ROOM A
CITY HALL, MUNICIPAL COMPLEX, 1 JUNKINS AVENUE

2:00 PM **May 6, 2025**

MEMBERS PRESENT:
Peter Stith, Chairperson, Planning Manager; David Desfosses, Construction Technician Supervisor; Patrick Howe, Deputy Fire Chief; Peter Britz, Director of Planning & Sustainability; Shanti Wolph, Chief Building Inspector; Zachary Cronin, Assistant City Engineer, Eric Eby, Parking and Transportation Engineer; Mike Maloney; Deputy Police Chief; Vincent Hayes; Planner II – Development

MEMBERS ABSENT:

ADDITIONAL
STAFF PRESENT: Kate Homet, Environmental Planner

MINUTES

I. APPROVAL OF MINUTES

A. Approval of minutes from March 4, 2025 Site Plan Review Technical Advisory Committee Meeting.

D. Desfosses made a motion to approve the March minutes as presented. P. Britz seconded the motion. The motion passed unanimously.

II. OLD BUSINESS

A. The request of **Walter D. Hett Trust (Owner),** for property located at **0 Banfield Road** and **Peverly Hill Road** requesting Preliminary and Final Subdivision Approval and Site Plan Review Approval to subdivide one lot into 5 new residential lots with associated site improvements. Said property is located on Assessor Map 255 Lot 2 and lies within the Single Residence A (SRA) District. (LU-25-22)

DISCUSSION AND DECISION OF THE BOARD

Chairman Stith announced that the applicants had requested postponement of this application until the following month.

B. The request of **361 Hanover Steam Factory LLC (Owner),** for property located at **361 Hanover Street** requesting Site Plan Review Approval and Preliminary and Final Subdivision Approval for the addition of three dew residential structures and the renovation of the existing commercial building at 361 Hanover Street with the associated and required site improvements. Said property is located on Assessor Map 138 Lot 63 and lies within the Character District 5 (CD-5) and Downtown Overlay District. (LU-24-196)

SPEAKING TO THE APPLICATION

John Chagnon (engineer), Terrence Parker (landscape architect), Shayne Forsley and Steve Wilson (developers) came to present this application. In addition to the in-person team, Jeffrey Dirk (traffic engineer) was also available via Zoom. Mr. Chagnon described the proposal and proceeded to go through the latest comments from staff and address them. Staff responded to questions on their original comments and provided feedback on best methods to address the current issues with this proposal. Issues that were discussed included access easements, fire truck and passenger car turning templates, traffic safety, pedestrian safety, impacts to the City-owned retaining wall, driveway alternatives, installation of structures and/or landscaping on City property, pending litigation, and a few others.

PUBLIC HEARING

Liz Bratter of 159 McDonough Street came to comment on this application. Ms. Bratter noted her concerns over safety, current heavy vehicle traffic, the validity of the traffic impact study, blocked sight lines, impervious surfaces and potential increases to stormwater volumes.

Jeff Sateman, a representative of the Hill Hanover Group, came to comment on this application. Mr. Sateman noted that this property is under litigation that has not yet been resolved. This litigation could potentially impact fire truck and vehicular access and they would know more once the litigation was completed.

Robin Husslage of 27 Rock Street came to comment on this application. Ms. Husslage wanted TAC to request a new traffic study and mentioned that there seemed to be inaccuracies in the current study along with some omitted areas that should have been included. She noted her concerns about traffic and safety and stressed that an alternative driveway location should be looked into.

Mark DeLorenzo of 349 Hanover Street came to comment on this application. Mr. DeLorenzo noted his concerns over the existing and potential traffic through to Hill Street and was also concerned about the applicants not considering the traffic from the abutting property that cuts through from Hill Street as part of their study. Mr. DeLorenzo also noted concerns over snow storage, right-of-way easements and the review of this application during a pending lawsuit.

DISCUSSION AND DECISION OF THE BOARD

Mr. Chagnon addressed some of the comments raised by the public and Mr. Dirk spoke to the traffic study. D. Desfosses made a motion to postpone the application and P. Britz seconded the motion. Staff explained their reasonings for seeking a postponement. The motion passed unanimously.

III. NEW BUSINESS

A. The request of **RIGZ Enterprises LLC (Owner)** for the property located at **806 US Route 1 Bypass**. The existing Site Plan approval was granted a second extension by the Planning Board on June 20, 2024 that will expire on June 23, 2025. The purpose of this submission is to request an additional 1-year extension. No changes to the existing plan set are proposed. Said property is located on Assessor Map 161 Lot 43 and lies within the Business (B) District. (LU-22-81)

SPEAKING TO THE APPLICATION

Alex Ross (engineer) and Dave Grzybowski (builder) came to present this application. Mr. Ross explained the need for an extension and Chairman Stith asked if anything had changed from the original approved plans. Mr. Ross responded that nothing had changed.

PUBLIC HEARING

Nobody from the public spoke.

DISCUSSION AND DECISION OF THE BOARD

S. Wolph made a motion to grant the extension. D. Desfosses seconded the motion. The motion passed unanimously.

B. The request of **Strawberry Banke INC (Owner),** for properties located at **65 Washington Street** requesting an amended Site Plan approval for drainage and site improvements to an existing fully developed site. Said property is located on Assessor Map 104 Lot 7 and lies within the Mixed Residential Office (MRO) and Historic Districts. (LU-25-63)

SPEAKING TO THE APPLICATION

Alex Ross (engineer) and Rodney Rowland (owner representative) came to speak to this application. Mr. Ross went on to describe the project proposal and the need for drainage improvements on the Strawbery Banke site. He went through and addressed the staff comments and then answered questions from staff. DPW staff noted the proximity of an existing City drain pipe and the potential impacts that this project could cause. It was agreed that the applicants could work offline with DPW prior to submitting to the Planning Board to ensure the safety of the existing pipe.

PUBLIC HEARING

Nobody from the public spoke.

DISCUSSION AND DECISION OF THE BOARD

P. Britz made a motion to recommend approval of this application with the stipulation that the applicant will work with DPW to ensure proper grading of the proposed rain gardens prior to submission to the Planning Board. Z. Cronin seconded the motion. The motion passed unanimously.

C. The request of **Sea Level LLC (Owner),** for the property located at **187 Wentworth House Road** requesting consideration that the proposed stormwater alterations and the installation of a concrete cap at the existing commercial site be exempted from requiring Site Review approval. Said property is located on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) district (LU-25-2).

SPEAKING TO THE APPLICATION

Steve Graham (engineer) and Carol Riley (Sea Level LLC) came to present this application. Mr. Graham described the project, including the mandated soil excavation project by the EPA, the requests made by the Conservation Commission, and the request for exemption from Site Plan Approval.

P. Britz explained to the Committee why this had been brought before them instead of as an administrative approval and noted some stormwater concerns that he felt required TAC input. D. Desfosses stated that the big issue involved the existing stormwater drain and whether or not the placement of the concrete cap would eliminate future access to the pipe for maintenance. This pipe drains part of a NHDOT road and drains directly to the creek.

It was requested that the applicants provide the exact location of this existing stormwater pipe so that it can be determined if the pipe will need to be relocated or not. If it will be under the proposed concrete cap, then NHDOT will want to relocate the stormwater pipe. A discussion ensued on the approximate location and history of the existing pipe as well as potential impacts from the contaminated soils and the proposed regrading and riprap installation.

PUBLIC HEARING

No public hearing was opened.

DISCUSSION AND DECISION OF THE BOARD

D. Desfosses made a motion to postpone this application. Z. Cronin seconded the motion. The motion passed unanimously.

IV. ADJOURNMENT

The meeting adjourned at 3:58 p.m.

HALEY WARD
200 Griffin Road, Unit 3, Portsmouth, NH 03801
Phone (603) 430-9282 Fax 436-2315

28 May 2025

Peter Stith, TAC Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Proposed Subdivision at Peverly Hill Road & Banfield Road, Tax Map 255, Lot 2; TAC Submission Update

Dear Mr. Stith:

Thank you for reaching out regarding the completeness of the TAC Submission for the above-mentioned project, and the identification of some missing submission items. On behalf of Chinburg Development, we are pleased to update the record and submit herewith the attached information for review at your **June 3, 2025,** Meeting.

The following information and plans are included in our submission:

- Subdivision Plan Set – The plan set remains as submitted, with the exception of the addition of the Utility Contacts on the Subdivision Site Plan, was well as the addition of professional seals
- Subdivision Plan Checklist
- Site Plan Checklist
- Trip Generation Report
- Preliminary Stormwater Management Plan

We look forward to an in-person presentation and TAC review of this submission.

Sincerely,

John Chagnon, PE
Project Manager

P:\NH\5010220-Chinburg_Builders\001-Peverly Hill Rd. & Banfield Rd. - JHW\03-WIP_Files\TAC Submission Letter 5-28-25.doc

May 21, 2025

Peter Stith, Planning Manager
City of Portsmouth
1 Junkins Ave.
Portsmouth, NH 03801
pmstith@portsmouthnh.gov

Re: 0 Banfield Road – Chinburg Subdivision – Response to TAC Comments

Dear Peter,

We are pleased to submit this updated response letter and updated plans in response to staff comments made during our March TAC review meeting. The review comments are listed below in *Italics*, followed by our responses. Please let us know if you have any further questions or comments.

2-4-2025 Staff TAC Comments

0 Banfield Road (LU-25-22)

1. *Applicant must also apply for a site plan approval application. This needs to meet all site plan review requirements and a checklist must be completed.*
   Understood. We are currently preparing the Site Plan application materials. We expect to complete the application once we have the design elements reviewed by TAC.

2. *An existing conditions plan must be provided.*
   The existing conditions are included on the Subdivision Site Plan. Since our last TAC meeting, we have updated the topographic information within the developable portions of the site, existing utility locations (based on the City's plans for a new multi-use plan alongside Peverly Hill Road), and wetland delineation and buffer limits. We have attached a letter from Gove Environmental explaining their determination of the off-site wetland limits.

3. *Proposed Lot 1 does not provide the required frontage (150').*
   The attached plans show the proper frontage for all of the Lots.

4. *Please correct the subdivision checklist to include sheet numbers.*
   The subdivision checklist will be finalized when we complete the application process, after further TAC review.

5. *Please include the delineation for the wetland across the street on Map 254 Lot 4 and the associated 100' buffer and CWS stamp.*

   The wetlands across the street are now shown on our plans. Buffer areas associated with these wetlands have also been added. We have attached a letter from Gove Environmental explaining their determination of the off-site wetland limits.

6. *Please show where the proposed force main will connect to City sewer.*
   The proposed forcemain pipe connections are now shown on the attached plans.

7. *Correct the layout of existing utilities. Location of 20" water main is incorrect and existing force main location is incomplete.*
   We have updated the existing utilities locations on the attached plans.

8. *Lots 1 and 2 show connection to a sewer force main headed north on Peverly Hill Road. No such force main exists. City suggests connecting the sewer services to the sewer force main to the south, or the gravity sewer main in the intersection of Peverly Hill and Mirona Road.*
   The utility connections for each lot have been updated based on comments from the March TAC meeting.

9. *Lots 1 and 2 share an EOne pump. Each lot needs its own separate pump system.*
   The proposed utility connections for each lot have been updated.

10. *EOne pumps do not require septic tanks before pump. Remove septic tanks.*
    The proposed utility connections for each lot have been updated.

11. *Provide detail on sewer service connection to sewer force main.*
    Details have been added to the plans.

12. *Electrical transformers at each property may not be necessary. Secondary power may be available directly from overhead wires.*
    We have updated the utility connections for each lot.

13. *Banfield Road was recently paved. Disturbances in Banfield Road will require full mill and overlay of disturbed area. Provide detail of mill and overlay.*
    The limits of the full mill and overlay area has been included on the attached plans.

14. *Each proposed lot will require a driveway permit.*
    We will include driveway permit application materials in our permitting application process.

15. *Provide sight line information on driveways.*
    Sight distances have been added to the attached plans.

16. *Confirm each proposed lot conforms to stormwater regulations for new impervious surface area.*
    We have prepared a typical lot stormwater management plan design to illustrate the features that will allow each lot to comply with the stormwater regulations.

17. *City is requesting easements from proposed lots 1 and 2 for the Peverly Hill multi-Use Path project.*
    When comparing the City's Multi-Use Trail design plans to our Subdivison Plans, we found two areas where the proposed grading is outside of existing Roadway and Slope Easements associated with Peverly Hill Road. We have shown these two areas as "Proposed Permanent Slope Easement" areas on the Subdivision Plan. The applicant is looking forward to working with the City to finalize the final easement placement and language.

Sincerely,
Haley Ward, Inc.,

Jon H. Whitten, Jr., PE (ME)
Senior Project Manager

GOVE ENVIRONMENTAL SERVICES, INC.

May 21, 2025

To: Jon Whitten Jr.
Senior Project Manager
Haley Ward

Subject: Residential Subdivision
0 Banfield Road, Portsmouth, Tax Map 255 Lot 2

Re: Off-site Wetland Evaluation

Jon,

Per your request, this letter is provided to outline the justification for the established wetland boundaries in the off-site areas, as previously requested by the City of Portsmouth, along with a brief overview of the assessment methodology. The purpose of establishing these off-site boundaries was to determine whether any additional City or State wetland buffers might extend onto the subject property. Since the surrounding parcels are privately owned and not accessible for a typical field delineation, the City of Portsmouth permitted an alternative method using available GIS data to estimate these boundaries.

Two primary off-site areas were identified by the City as potentially contributing encroaching buffers onto the subject property. The first is located to the south, along the southern side of Banfield Road, where a pond is present with abrupt topographic changes near the roadway. The second is to the east, across Peverly Hill Road, where Sagamore Creek flows from the subject property to an off-site area across the road.

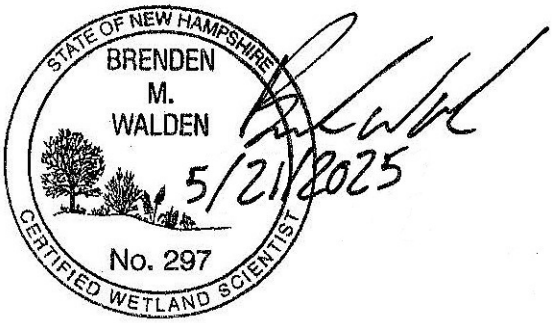
To estimate the wetland boundaries for these areas, we utilized a range of available GIS data layers, including multiple years of aerial imagery, infrared imagery, LiDAR topography, National Wetlands Inventory (NWI) data, soil surveys, and 2-foot contour data. Based on these datasets, we were able to establish wetland boundaries that we believe are within a reasonable margin of accuracy to support evaluation of potential wetland buffer impacts. This approach has been consistently used in our practice to provide clients with the most accurate representation of existing site conditions, especially when field access is not available. We find this method to be more reliable than relying solely on municipal GIS wetland layers, which we have found to vary in accuracy across New Hampshire.

In conclusion, the off-site wetland boundaries were delineated using best available data and accepted remote assessment techniques in coordination with the City of Portsmouth. While not a substitute for on-the-ground delineation, this method provides a reliable and practical means of evaluating potential wetland buffer encroachments onto the subject property when access is limited. The established boundaries for these off-site areas are considered sufficiently accurate for the purposes of planning, permitting, and identifying regulatory constraints, and reflect our

commitment to providing thorough and defensible environmental assessments under the circumstances presented.

If there are any questions on any of the information provided, or if you feel I can be of further assistance please feel free to contact me directly by email: bwalden@gesinc.biz or phone 207-710-7863.

Sincerely,



Brenden Walden
President & NH CWS 297
Gove Environmental Services, Inc.

Attachments: Off-Site Wetland Sketch

City of Portsmouth, New Hampshire

Subdivision Application Checklist

This subdivision application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all subdivision review requirements. Please refer to the Subdivision review regulations for full details.

Applicant Responsibilities (Section III.C): Applicable fees are due upon application submittal along with required number of copies of the Preliminary or final plat and supporting documents and studies. Please consult with Planning staff for submittal requirements.

Owner: Walter Hett Trust Date Submitted: 28 May 2025

Applicant: Chinburg Development

Phone Number: 603-868-5995 E-mail: ssammis@chinburg.com

Site Address 1: 0 Banfield Road Map: 255 Lot: 2

Site Address 2: Peverly Hill Road Map: ____ Lot: 2

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☐	Completed Application form. **(III.C.2-3)**	Online	N/A
☐	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive. **(III.C.4)**	Online	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Name and address of record owner, any option holders, descriptive name of subdivision, engineer and/or surveyor or name of person who prepared the plat. **(Section IV.1/V.1)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	**Preliminary Plat** Names and addresses of all adjoining property owners. **(Section IV.2)** **Final Plat** Names and addresses of all abutting property owners, locations of buildings within one hundred (100) feet of the parcel, and any new house numbers within the subdivision. **(Section V.2)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	North point, date, and bar scale. **(Section IV.3/V3)**	Required on all Plan Sheets	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Zoning classification and minimum yard dimensions required. **(Section IV.4/V.4)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	**Preliminary Plat** Scale (not to be smaller than one hundred (100) feet = 1 inch) and location map (at a scale of 1" = 1000'). **(Section IV.5)** **Final Plat** Scale (not to be smaller than 1"=100'), Location map (at a scale of 1"=1,000') showing the property being subdivided and its relation to the surrounding area within a radius of 2,000 feet. Said location map shall delineate all streets and other major physical features that my either affect or be affected by the proposed development. **(Section V.5)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Location and approximate dimensions of all existing and proposed property lines including the entire area proposed to be subdivided, the areas of proposed lots, and any adjacent parcels in the same ownership. **(Section IV.6)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	
☐	Dimensions and areas of all lots and any and all property to be dedicated or reserved for schools, parks, playgrounds, or other public purpose. Dimensions shall include radii and length of all arcs and calculated bearing for all straight lines. **(Section V.6/ IV.7)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	N/A
☐	Location, names, and present widths of all adjacent streets, with a designation as to whether public or private and approximate location of existing utilities to be used. Curbs and sidewalks shall be shown. **(Section IV.8/V.7)**	Subdivision Plan	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Location of significant physical features, including bodies of water, watercourses, wetlands, railroads, important vegetation, stone walls and soils types that my influence the design of the subdivision. **(Section IV.9/V.8)**	Site Plan	☑ Preliminary Plat ☑ Final Plat	
☐	**Preliminary Plat** Proposed locations, widths and other dimensions of all new streets and utilities, including water mains, storm and sanitary sewer mains, catch basins and culverts, street lights, fire hydrants, sewerage pump stations, etc. **(Section IV.10)** **Final Plat** Proposed locations and profiles of all proposed streets and utilities, including water mains, storm and sanitary sewer mains, catchbasins and culverts, together with typical cross sections. Profiles shall be drawn to a horizontal scale of 1"=50' and a vertical scale of 1"=5', showing existing centerline grade, existing left and right sideline grades, and proposed centerline grade. **(Section V.9)**	No new streets	☑ Preliminary Plat ☑ Final Plat	
☐	When required by the Board, the plat shall be accompanied by profiles of proposed street grades, including extensions for a reasonable distance beyond the subject land; also grades and sizes of proposed utilities. **(Section IV.10)**	N/A	☑ Preliminary Plat ☑ Final Plat	
☐	Base flood elevation (BFE) for subdivisions involving greater than five (5) acres or fifty (50) lots. **(Section IV.11)**	Not in FHZ	☑ Preliminary Plat ☑ Final Plat	
☐	For subdivisions of five (5) lots or more, or at the discretion of the Board otherwise, the preliminary plat shall show contours at intervals no greater than two (2) feet. Contours shall be shown in dotted lines for existing natural surface and in solid lines for proposed final grade, together with the final grade elevations shown in figures at all lot corners. If existing grades are not to be changed, then the contours in these areas shall be solid lines. **(Section IV.12/ V.12)**	Subdivision Site Plan	☑ Preliminary Plat ☑ Final Plat	

Requirements for Preliminary/Final Plat				
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Required for Preliminary / Final Plat**	**Waiver Requested**
☐	Dates and permit numbers of all necessary permits from governmental agencies from which approval is required by Federal or State law. **(Section V.10)**	N/A	☐ Preliminary Plat ☑ Final Plat	
☐	For subdivisions involving greater than five (5) acres or fifty (50) lots, the final plat shall show hazard zones and shall include elevation data for flood hazard zones. **(Section V.11)**	Not in FHZ	☐ Preliminary Plat ☑ Final Plat	
☐	Location of all permanent monuments. **(Section V.12)**	TBD- Final	☐ Preliminary Plat ☑ Final Plat	

General Requirements[1]			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	**1. Basic Requirements: (VI.1)** a. Conformity to Official Plan or Map b. Hazards c. Relation to Topography d. Planned Unit Development	Subdivision Plan	
☐	**2. Lots: (VI.2)** a. Lot Arrangement b. Lot sizes c. Commercial and Industrial Lots	Subdivision Plan	
☐	**3. Streets: (VI.3)** a. Relation to adjoining Street System b. Street Rights-of-Way c. Access d. Parallel Service Roads e. Street Intersection Angles f. Merging Streets g. Street Deflections and Vertical Alignment h. Marginal Access Streets i. Cul-de-Sacs j. Rounding Street Corners k. Street Name Signs l. Street Names m. Block Lengths n. Block Widths o. Grade of Streets p. Grass Strips	N/A	
☐	**4. Curbing: (VI.4)**	N/A	
☐	**5. Driveways: (VI.5)**	Utility Site Plan	
☐	**6. Drainage Improvements: (VI.6)**	N/A	
☐	**7. Municipal Water Service: (VI.7)**	Utility Site Plan	
☐	**8. Municipal Sewer Service: (VI.8)**	Utility Site Plan	
☐	**9. Installation of Utilities: (VI.9)** a. All Districts b. Indicator Tape	TBD	
☐	**10. On-Site Water Supply: (VI.10)**	N/A	
☐	**11. On-Site Sewage Disposal Systems: (VI.11)**	N/A	
☐	**12. Open Space: (VI.12)** a. Natural Features b. Buffer Strips c. Parks d. Tree Planting	N/A	
☐	**13. Flood Hazard Areas: (VI.13)** a. Permits b. Minimization of Flood Damage c. Elevation and Flood-Proofing Records d. Alteration of Watercourses	N/A	
☐	**14. Erosion and Sedimentation Control (VI.14)**	TBD	

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
☐	**15. Easements (VI.15)**	TBD	
☐	a. Utilities		
☐	b. Drainage		
☐	**16. Monuments: (VI.16)**	Final Plan	
☐	**17. Benchmarks: (VI.17)**	Final Plan	
☐	**18. House Numbers (VI.18)**	TBD	

	Design Standards		
	Required Items for Submittal	**Indicate compliance and/or provide explanation as to alternative design**	**Waiver Requested**
☐	**1. Streets have been designed according to the design standards required under Section (VII.1).** a. Clearing b. Excavation c. Rough Grade and Preparation of Sub-Grade d. Base Course e. Street Paving f. Side Slopes g. Approval Specifications h. Curbing i. Sidewalks j. Inspection and Methods	N/A	
☐	**2. Storm water Sewers and Other Drainage Appurtenances have been designed according to the design standards required under Section (VII.2).** a. Design b. Standards of Construction	N/A	
☐	**3. Sanitary Sewers have been designed according to the design standards required under Section (VII.3).** a. Design b. Lift Stations c. Materials d. Construction Standards	N/A	
☐	**4. Water Mains and Fire Hydrants have been designed according to the design standards required under Section (VII.4).** a. Connections to Lots b. Design and Construction c. Materials d. Notification Prior to Construction	N/A	

Applicant's/Representative's Signature: _____ **Date:** 28 May 2025

[1] See City of Portsmouth, NH Subdivision Rules and Regulations for details.

City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. The checklist is required to be completed and uploaded to the Site Plan application in the City's online permitting system. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Applicant: Chinburg Development Date Submitted: 28 May 2025

Application # (in City's online permitting): LU-25-22

Site Address: 0 Banfield Road Map: 255 Lot: 2

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☐	Complete application form submitted via the City's web-based permitting program (2.5.2.1**(2.5.2.3A)**	Online	N/A
☐	All application documents, plans, supporting documentation and other materials uploaded to the application form in viewpoint in digital Portable Document Format (PDF). One hard copy of all plans and materials shall be submitted to the Planning Department by the published deadline. **(2.5.2.8)**	Online	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	Statement that lists and describes "green" building components and systems. **(2.5.3.1B)**	TBD at Site Development	
☐	Existing and proposed gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. **(2.5.3.1C)**	Building Permit Plan	N/A
☐	Tax map and lot number, and current zoning of all parcels under Site Plan Review. **(2.5.3.1D)**	Subdivision Plan	N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. **(2.5.3.1E)**	Subdivision Plan	N/A
☐	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. **(2.5.3.1F)**	Subdivision Plan	N/A
☐	Names, addresses and telephone numbers of all professionals involved in the site plan design. **(2.5.3.1G)**	Subdivision Plan Utility Plan	N/A
☐	List of reference plans. **(2.5.3.1H)**	Subdivision Plan	N/A
☐	List of names and contact information of all public or private utilities servicing the site. **(2.5.3.1I)**	Subdivision Site Plan	N/A

Site Plan Specifications			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director.. **(2.5.4.1A)**	Required on all plan sheets	N/A
☐	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. **(2.5.4.1B)**	Required on all plan sheets	N/A
☐	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. **(2.5.4.1C)**	2011 is current standard	N/A
☐	Plans shall be drawn to scale and stamped by a NH licensed civil engineer. **(2.5.4.1D)**	Required on all plan sheets	N/A
☐	Wetlands shall be delineated by a NH certified wetlands scientist and so stamped. **(2.5.4.1E)**	Certified Wetland Scientist Stamp	N/A
☐	Title (name of development project), north point, scale, legend. **(2.5.4.2A)**	Subdivision Plan	N/A
☐	Date plans first submitted, date and explanation of revisions. **(2.5.4.2B)**	On Sheets	N/A
☐	Individual plan sheet title that clearly describes the information that is displayed. **(2.5.4.2C)**	Required on all plan sheets	N/A
☐	Source and date of data displayed on the plan. **(2.5.4.2D)**	Subdivision Plan	N/A

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	**1. Existing Conditions: (2.5.4.3A)** • Surveyed plan of site showing existing natural and built features; • Existing building footprints and gross floor area; • Existing parking areas and number of parking spaces provided; • Zoning district boundaries; • Existing, required, and proposed dimensional zoning requirements including building and open space coverage, yards and/or setbacks, and dwelling units per acre; • Existing impervious and disturbed areas; • Limits and type of existing vegetation; • Wetland delineation, wetland function and value assessment (including vernal pools); • SFHA, 100-year flood elevation line and BFE data, as required.	Subdivision Plan	
☐	**2. Buildings and Structures: (2.5.4.3B)** • Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation; • Elevations: Height, massing, placement, materials, lighting, façade treatments; • Total Floor Area; • Number of Usable Floors; • Gross floor area by floor and use.	Grading plan Final TBD	
☐	**3. Access and Circulation: (2.5.4.3C)** • Location/width of access ways within site; • Location of curbing, right of ways, edge of pavement and sidewalks; • Location, type, size and design of traffic signing (pavement markings); • Names/layout of existing abutting streets; • Driveway curb cuts for abutting prop. and public roads; • If subdivision; Names of all roads, right of way lines and easements noted; • AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	N/A	
☐	**4. Parking and Loading: (2.5.4.3D)** • Location of off street parking/loading areas, landscaped areas/buffers; • Parking Calculations (# required and the # provided).	N/A	
☐	**5. Water Infrastructure: (2.5.4.3E)** • Size, type and location of water mains, shut-offs, hydrants & Engineering data; • Location of wells and monitoring wells (include protective radii).	Utility Site Plan	
☐	**6. Sewer Infrastructure: (2.5.4.3F)** • Size, type and location of sanitary sewage facilities & Engineering data, including any onsite temporary facilities during construction period.	Utility Site Plan	

☐	**7. Utilities: (2.5.4.3G)** • The size, type and location of all above & below ground utilities; • Size type and location of generator pads, transformers and other fixtures.	Utility Site Plan	
☐	**8. Solid Waste Facilities: (2.5.4.3H)**	Curbside	
	• The size, type and location of solid waste facilities.		
☐	**9. Storm water Management: (2.5.4.3I)** • The location, elevation and layout of all storm-water drainage. • The location of onsite snow storage areas and/or proposed off-site snow removal provisions. • Location and containment measures for any salt storage facilities • Location of proposed temporary and permanent material storage locations and distance from wetlands, water bodies, and stormwater structures.	Grading Plan	
☐	**10. Outdoor Lighting: (2.5.4.3J)** • Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and photometric plan.	N/A	
☐	**11. Indicate where dark sky friendly lighting measures have been implemented. (10.1)**	N/A	
☐	**12. Landscaping: (2.5.4.3K)** • Identify all undisturbed area, existing vegetation and that which is to be retained; • Location of any irrigation system and water source.	N/A	
☐	**13. Contours and Elevation: (2.5.4.3L)** • Existing/Proposed contours (2 foot minimum) and finished grade elevations.	Grading Plan	
☐	**14. Open Space: (2.5.4.3M)** • Type, extent and location of all existing/proposed open space.	N/A	
☐	**15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)**	Subdivision Plan	
☐	**16. Character/Civic District (All following information shall be included): (2.5.4.3P)** • Applicable Building Height (10.5A21.20 & 10.5A43.30); • Applicable Special Requirements (10.5A21.30); • Proposed building form/type (10.5A43); • Proposed community space (10.5A46).	N/A	
☐	**17. Special Flood Hazard Areas (2.5.4.3Q)** • The proposed development is consistent with the need to minimize flood damage; • All public utilities and facilities are located and construction to minimize or eliminate flood damage; • Adequate drainage is provided so as to reduce exposure to flood hazards.	N/A	

Other Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	Traffic Impact Study or Trip Generation Report, as required. **(3.2.1-2)**	Submitted	
☐	Indicate where Low Impact Development Design practices have been incorporated. **(7.1)**	Grading Plan- D1 Details	
☐	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. **(7.3.1)**	N/A	
☐	Stormwater Management and Erosion Control Plan. **(7.4)**	Building Permit Plan	
☐	Inspection and Maintenance Plan **(7.6.5)**	Building Permit Plan	

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	All local approvals, permits, easements and licenses required, including but not limited to: • Waivers; • Driveway permits; • Special exceptions; • Variances granted; • Easements; • Licenses. **(2.5.3.2A)**		
☐	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: • Calculations relating to stormwater runoff; • Information on composition and quantity of water demand and wastewater generated; • Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; • Estimates of traffic generation and counts pre- and post-construction; • Estimates of noise generation; • A Stormwater Management and Erosion Control Plan; • Endangered species and archaeological / historical studies; • Wetland and water body (coastal and inland) delineations; • Environmental impact studies. **(2.5.3.2B)**		
☐	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. **(2.5.3.2D)**		

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	A list of any required state and federal permit applications required for the project and the status of same. **(2.5.3.2E)**		
☐	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." **(2.5.4.2E)**		N/A
☐	For site plans that involve land designated as "Special Flood Hazard Areas" (SFHA) by the National Flood Insurance Program (NFIP) confirmation that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334. **(2.5.4.2F)**		
☐	Plan sheets submitted for recording shall include the following notes: a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director." **(2.13.3)**		N/A

Applicant's Signature: _____ **Date:** 5/28/2025

May 28, 2025

Trip Generation
Proposed Single-Family Residential Subdivision
0 Banfield Road
Portsmouth, NH

On behalf of Chinburg Builders, LLC, we hereby submit the Trip Generation in support of the applicant's filing with TAC and City Planning Board for Subdivision Approval of a 5-lot Subdivision at 0 Banfield Road, Portsmouth, NH.

ITE's *Trip Generation* Manual, 11th Edition, states that Single-Family Detached Housing (Code 210) generates an average of 9.44 trips per lot on a weekday, which consists of an average of 0.76 trips per lot during the AM peak hour and 1.0 trip during PM peak hour. The trip generation for this code is based on the number of dwelling units. Since 5 lots are proposed, it can be assumed that there will be 5 single-family detached homes in the future. Using that description, the proposed use at the site will generate the following peak hour trips.

SINGLE FAMILY DETACHED HOUSING (CODE 210) ON TYPICAL WEEKDAY:

Weekday AM Peak Hour: 4 Trips (1 Trip In and 3 Trips Out)
Weekday PM Peak Hour: 5 Trips (3 Trips In and 2 Trips Out)

This number of trips can be considered negligible when compared to the amount of traffic on Peverly Hill Road and Banfield Road and as a result no significant negative impact to the performance of either roadway is anticipated.

We look forward to an in-person presentation to the Technical Advisory Committee and the review of this submission and feedback on the proposed design.

Sincerely,

John R. Chagnon, PE

P:\NH\5010220-Chinburg_Builders\001-Peverly Hill Rd. & Banfield Rd. - JHW\03-WIP_Files\Applications\City of Portsmouth Subdivision\06 Submission 5-28-25\Traffic Generation Letter.docx

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

PRELIMINARY STORMWATER MANAGEMENT PLAN

Project Name: 5-Lot Residential Subdivision at 0 Banfield Road

Project Location: 0 Banfield Road, Portsmouth, New Hampshire 03870

Applicant: Chinburg Builders

Report Prepared by: Haley Ward, Inc., Attn: Drew Olehowski, PE

Date: May 28, 2025

Introduction

This Preliminary Stormwater Management Plan (SMP) has been prepared to comply with the requirements outlined in Chapter 10.1018.10 of the City of Portsmouth Zoning Ordinance. The purpose of this SMP is to manage and treat stormwater runoff from the proposed development site in a manner that minimizes the potential for flooding, erosion, and water quality degradation. The design and implementation of the stormwater management practices will adhere to both local requirements and Best Management Practices (BMPs) to ensure minimal environmental impact. This SMP is to be considered "preliminary;" additional information and details as required by Chapter 10.1018.10 will be provided in a "Final" SWP with the building permit application.

Project Description

The proposed project consists of the creation of five (5) single-family residential lots at 0 Banfield Road. The creation of the lots will not in itself create new developed or impervious area. The eventual construction of residential scale buildings, driveways, utility connections and reasonable lawn areas will introduce new developed and impervious area on each lot.

The site is located at the intersection of Banfield Road and Peverly Hill Road and is currently undeveloped. There is a stream channel with associated wetlands that bisect the property. The site layout has been designed to avoid impacts to the wetland areas and stream.

Stormwater Management Practices:

The applicant is proposing to illustrate typical stormwater management practices to be used during the building permit process to minimize any potential impact of development on stormwater quality, quantity, and erosion and sedimentation. We have included a typical rain "garden "feature near each proposed single-family structure to meet the requirements of the Ordinance. These rain gardens are considered "Low-Impact Development (LID)" stormwater management facilities.

The use of rain garden LID features will mitigate the slight increase in stormwater runoff that is expected to be generated by new driveways and house structures. The rain gardens will collect, detain, and infiltrate runoff in an effort to minimize possible negative stormwater

120 MAIN STREET, SUITE 132, SACO, ME 04072 207.283.9151 | HALEYWARD.COM

runoff-related impacts from the proposed development. Runoff flow from the lots, and the raingarden overflows, will continue to flow to the existing wetlands and stream channel within the property limits. Runoff within the stream channel will continue to flow through the existing culverts under Peverly Hill Road.

Erosion and Sediment Control

The construction phase will include an Erosion and Sediment Control Plan to prevent sedimentation of watercourses and receiving bodies. Measures will include:

- Silt fences, sediment traps, and inlet protection at all stormwater discharge points.
- Temporary stabilization of disturbed areas during construction.
- Regular inspections and maintenance to ensure the effectiveness of all erosion control measures.

Erosion and sedimentation control features will be shown on the Building Permit plans.

Conclusion

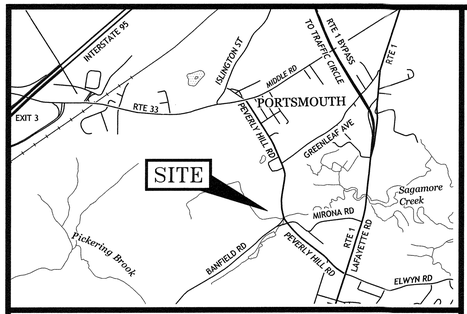
By following the typical stormwater management plan described for this project, the proposed site improvements are expected to be minimal and are not anticipated to adversely impact downstream water bodies or abutters.

Please do not hesitate to contact our office with any questions or comments.

Haley Ward, Inc.

Drew Olehowski, PE
Project Manager

DJO/jok
Attachments



LOCATION MAP SCALE: 1"=2000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
4553/432	DEED BOOK/PAGE
	BOUNDARY
	SETBACK
	IRON ROD/PIPE FOUND
	EDGE OF PAVEMENT
	FRESHWATER WETLAND LINE
	HYDRANT
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
	UTILITY POLE (w/ GUY) (UP)
FP	FAIR POINT
ES	EVERSOURCE
PSNH	PUBLIC SERVICE OF NEW HAMPSHIRE
(CALC)	CALCULATED
E	ELECTRIC METER
EL.	ELEVATION
FF	FINISHED FLOOR
INV.	INVERT
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
	FRESH WATER WETLAND
TBS	TO BE SET

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 07°44'22" E	30.73'
L2	S 07°44'20" E	105.29'
L3	S 06°18'17" E	28.37'
L4	S 09°33'00" E	104.35'
L5	S 05°03'09" E	24.11'
L6	S 04°55'29" E	37.13'
L7	S 41°59'00" W	34.17'
L8	S 43°13'04" W	97.52'
L9	S 57°03'33" W	42.99'
L10	S 53°54'24" W	131.92'
L11	S 53°54'24" W	136.18'
L12	S 60°03'05" W	17.89'
L13	S 60°03'05" W	87.41'
L14	S 55°32'09" W	70.74'
L15	N 52°24'41" W	475.96'
L16	N 60°14'31" E	100.91'
L17	N 59°28'46" E	59.53'
L18	N 59°28'46" E	109.84'
L19	N 59°58'57" E	49.00'
L20	N 59°58'57" E	94.90'
L21	N 56°42'48" E	123.27'
L22	N 50°09'02" E	136.90'
L23	N 48°55'47" E	127.34'
L24	N 50°13'41" E	46.30'
L25	N 49°42'27" E	187.30'
L26	S 52°59'15" W	447.04'
L27	N 75°56'01" W	123.44'
L28	N 75°56'01" W	403.33'
L29	N 52°22'34" W	455.57'
L30	N 52°22'34" W	470.09'
L31	N 48°55'47" E	26.73'
L32	S 06°18'17" E	76.85'
L33	S 83°41'43" W	47.77'
E1	N 05°45'02" W	120.34'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	175.00'	143.27'	139.30'	S18°31'45"W	46°54'28"
E2	779.50'	154.67'	154.42'	N11°26'05"W	11°22'08"
E3	969.50'	7.92'	7.92'	N05°30'59"W	0°28'05"
E4	965.95'	56.90'	56.89'	N01°44'55"W	3°22'30"

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

PLAN REFERENCES:

1) PLAN OF LAND FOR JOHN & MAUD HETT PORTSMOUTH, N.H. PREPARED BY: M.E. JENKINS, SCALE: 1"=100', DATED: DECEMBER 1988. RCRD C-19399.

2) SUBDIVISION PROPERTY OF JOHN & MAUD HETT, PORTSMOUTH NH, RCRD 2057/493. PREPARED BY: M.E. JENKINS, SCALE: 1"=50', DATED: OCTOBER 1988. RCRD C-18915.

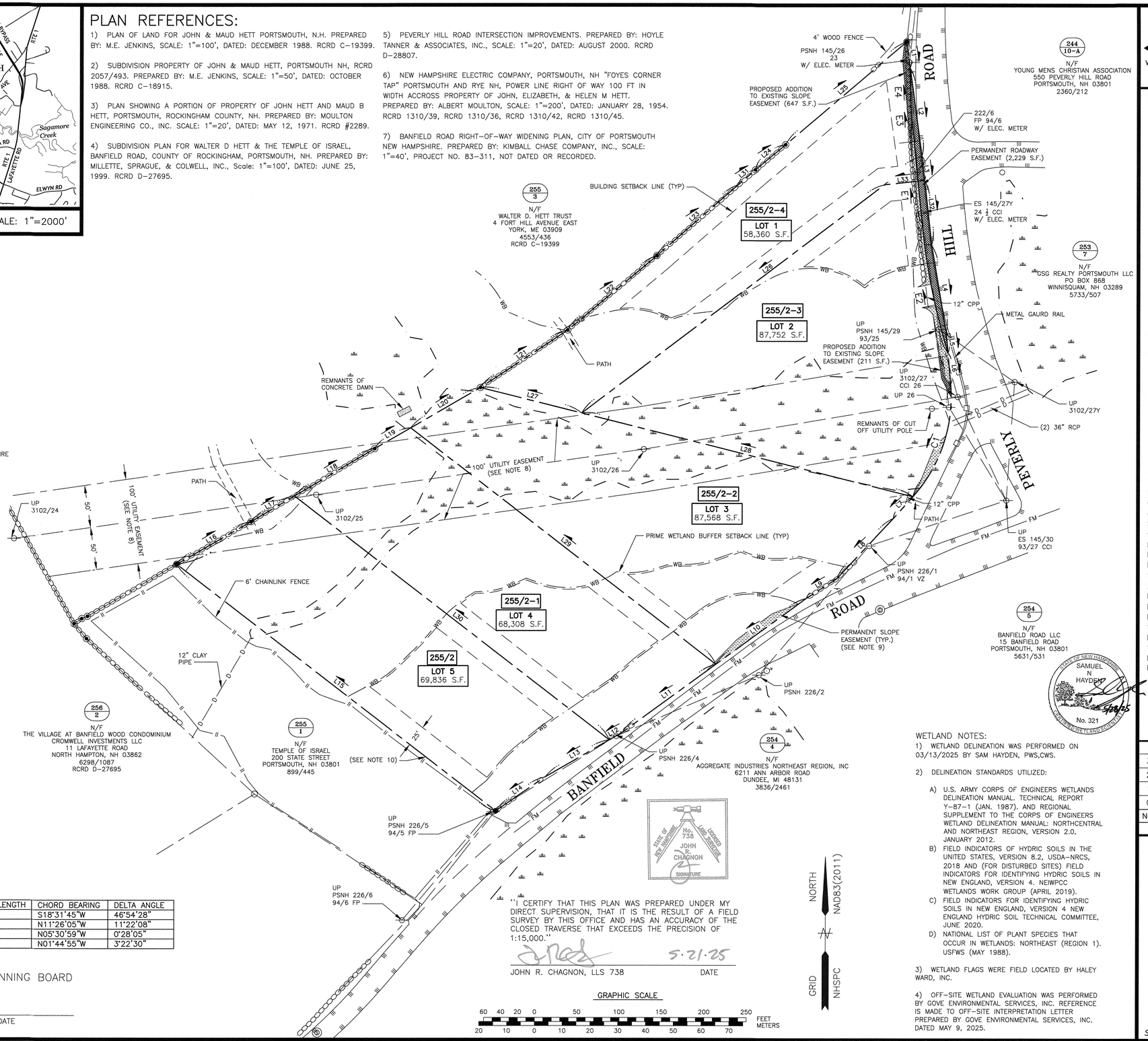
3) PLAN SHOWING A PORTION OF PROPERTY OF JOHN HETT AND MAUD B HETT, PORTSMOUTH, ROCKINGHAM COUNTY, NH. PREPARED BY: MOULTON ENGINEERING CO., INC. SCALE: 1"=20', DATED: MAY 12, 1971. RCRD #2289.

4) SUBDIVISION PLAN FOR WALTER D HETT & THE TEMPLE OF ISRAEL, BANFIELD ROAD, COUNTY OF ROCKINGHAM, PORTSMOUTH, NH. PREPARED BY: MILLETTE, SPRAGUE, & COLWELL, INC., Scale: 1"=100', DATED: JUNE 25, 1999. RCRD D-27695.

5) PEVERLY HILL ROAD INTERSECTION IMPROVEMENTS. PREPARED BY: HOYLE TANNER & ASSOCIATES, INC., SCALE: 1"=20', DATED: AUGUST 2000. RCRD D-28807.

6) NEW HAMPSHIRE ELECTRIC COMPANY, PORTSMOUTH, NH "FOYES CORNER TAP" PORTSMOUTH AND RYE NH, POWER LINE RIGHT OF WAY 100 FT IN WIDTH ACCROSS PROPERTY OF JOHN, ELIZABETH, & HELEN M HETT. PREPARED BY: ALBERT MOULTON, SCALE: 1"=200', DATED: JANUARY 28, 1954. RCRD 1310/39, RCRD 1310/36, RCRD 1310/42, RCRD 1310/45.

7) BANFIELD ROAD RIGHT-OF-WAY WIDENING PLAN, CITY OF PORTSMOUTH NEW HAMPSHIRE. PREPARED BY: KIMBALL CHASE COMPANY, INC., SCALE: 1"=40', PROJECT NO. 83-311, NOT DATED OR RECORDED.



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

JOHN R. CHAGNON, LLS 738 DATE 5.21.25

GRAPHIC SCALE

60 40 20 0 50 100 150 200 250 FEET
20 10 0 10 20 30 40 50 60 70 METERS

WETLAND NOTES:

1) WETLAND DELINEATION WAS PERFORMED ON 03/13/2025 BY SAM HAYDEN, PWS,CWS.

2) DELINEATION STANDARDS UTILIZED:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (APRIL 2019).

C) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4 NEW ENGLAND HYDRIC SOIL TECHNICAL COMMITTEE, JUNE 2020.

D) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

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

4) OFF-SITE WETLAND EVALUATION WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. REFERENCE IS MADE TO OFF-SITE INTERPRETATION LETTER PREPARED BY GOVE ENVIRONMENTAL SERVICES, INC. DATED MAY 9, 2025.

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

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 255 AS LOT 2.

2) OWNERS OF RECORD:
WALTER D. HETT TRUST
WALTER D. HETT TRUSTEE
4 FORT HILL AVENUE
YORK, ME 03909
4553/432 (PARCEL 1)

APPLICANT:
CHINBURG DEVELOPMENT
3 PENSTOCK WAY
NEWMARKET, NH 03847

3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0270F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
371,824 S.F.
8.54 ACRES

5) PARCEL IS LOCATED IN SINGLE RESIDENCE A (SRA) DISTRICT.

6) CURRENT ZONING: SINGLE RESIDENCE A (SRA)
DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:	43,560 S.F.
FRONTAGE:	150 FEET
DEPTH	200 FEET
SETBACKS:	
FRONT	30 FEET
SIDE	20 FEET
REAR	40 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM STRUCTURE COVERAGE:	10%
MINIMUM OPEN SPACE:	50%

7) THE PURPOSE OF THIS PLAN IS TO SHOW A 5 LOT SUBDIVISION ON ASSESSOR'S MAP 255 LOT 2 IN THE CITY OF PORTSMOUTH.

8) PARCEL IS SUBJECT TO A P.S.N.H. UTILITY EASEMENT, SEE RCRD 1310/37 AND 1310/39.

9) PARCEL IS SUBJECT TO A PERMANENT ROADWAY EASEMENT AND PERMANENT SLOPE EASEMENTS CONTAINED IN A DEED FROM WALTER D. HETT TO THE CITY OF PORTSMOUTH, SEE RCRD 3563/686 AND RCRD D-28807.

10) SEE NEW HAMPSHIRE STATUTE, TITLE XXVI CHAPTER: 289:3 LOCATION.III. NO NEW CONSTRUCTION, EXCAVATION, OR BUILDING SHALL BE CONDUCTED WITHIN 25' OF A KNOWN BURIAL SITE OR WITHIN 25' OF THE BOUNDARIES OF AN ESTABLISHED BURIAL GROUND OR CEMETERY.

11) ABUTTER INFORMATION TAKEN FROM THE CITY OF PORTSMOUTH GIS WEBSITE.

12) TOPOGRAPHY SHOWN HEREON DERIVED FROM LiDAR BARE EARTH DIGITAL ELEVATION MODEL 2022 OBTAINED FROM NH GRANIT.

STATE OF NEW HAMPSHIRE SAMUEL N HAYDEN No. 321 PROFESSIONAL LAND SURVEYOR 5/21/25

NO.	DESCRIPTION	DATE
3	EASEMENTS	5/21/25
2	LOTS	3/1/25
1	LOTS	2/12/25
0	ISSUED FOR COMMENT	1/27/25

REVISIONS

SUBDIVISION PLAN
TAX MAP 255 – LOT 2

OWNER:
WALTER D. HETT
BANFIELD ROAD &
PEVERLY HILL ROAD
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=60' JANUARY 2025

FB 499 & PG 1 5010220

UTILITY CONTACTS

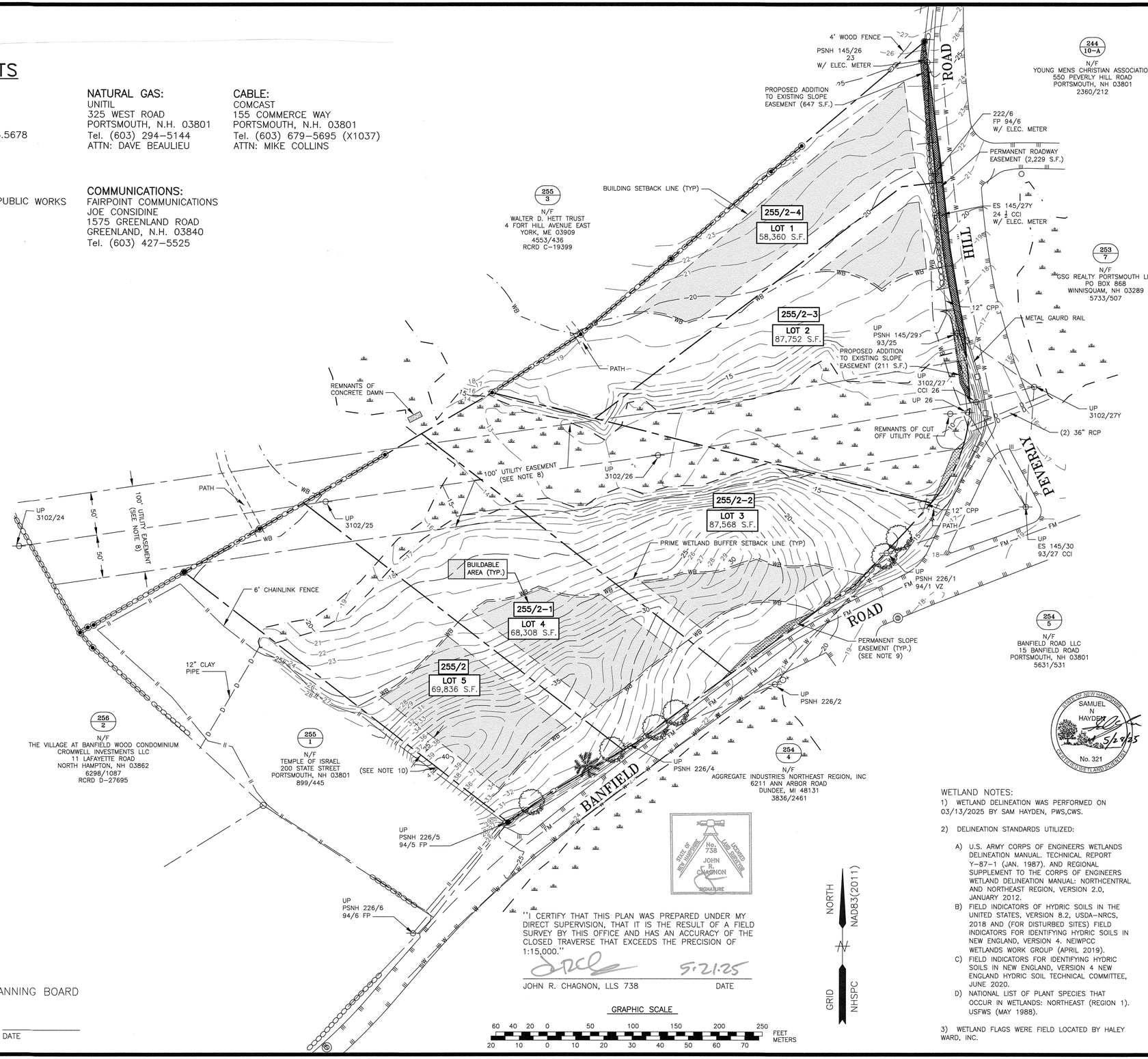
ELECTRIC:
EVERSOURCE
1700 LAFAYETTE ROAD
PORTSMOUTH, N.H. 03801
Tel. (603) 436-7708, Ext. 555.5678
ATTN: NICHOLAS KOSKO

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

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
Tel. (603) 679-5695 (X1037)
ATTN: MIKE COLLINS

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

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



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

5.21.25

JOHN R. CHAGNON, LLS 738 DATE

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

WETLAND NOTES:
1) WETLAND DELINEATION WAS PERFORMED ON 03/13/2025 BY SAM HAYDEN, PWS,CWS.

2) DELINEATION STANDARDS UTILIZED:
- A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
- B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (APRIL 2019).
- C) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4 NEW ENGLAND HYDRIC SOIL TECHNICAL COMMITTEE, JUNE 2020.
- D) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

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

SAMUEL N HAYDEN 5/21/25 No. 321 — STATE OF NEW HAMPSHIRE — CERTIFIED WETLAND SCIENTIST

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

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 255 AS LOT 2.

2) OWNERS OF RECORD:
WALTER D. HETT TRUST
WALTER D. HETT TRUSTEE
4 FORT HILL AVENUE
YORK, ME 03909
4553/432 (PARCEL 1)

APPLICANT:
CHINBURG DEVELOPMENT
3 PENSTOCK WAY
NEWMARKET, NH 03847

3) PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0270F. EFFECTIVE DATE JANUARY 29, 2021.

4) EXISTING LOT AREA:
371,824 S.F.
8.54 ACRES

5) PARCEL IS LOCATED IN SINGLE RESIDENCE A (SRA) DISTRICT.

NO.	DESCRIPTION	DATE
3	EASEMENTS	5/21/25
2	LOTS	3/1/25
1	LOTS	2/12/25
0	ISSUED FOR COMMENT	1/27/25

REVISIONS

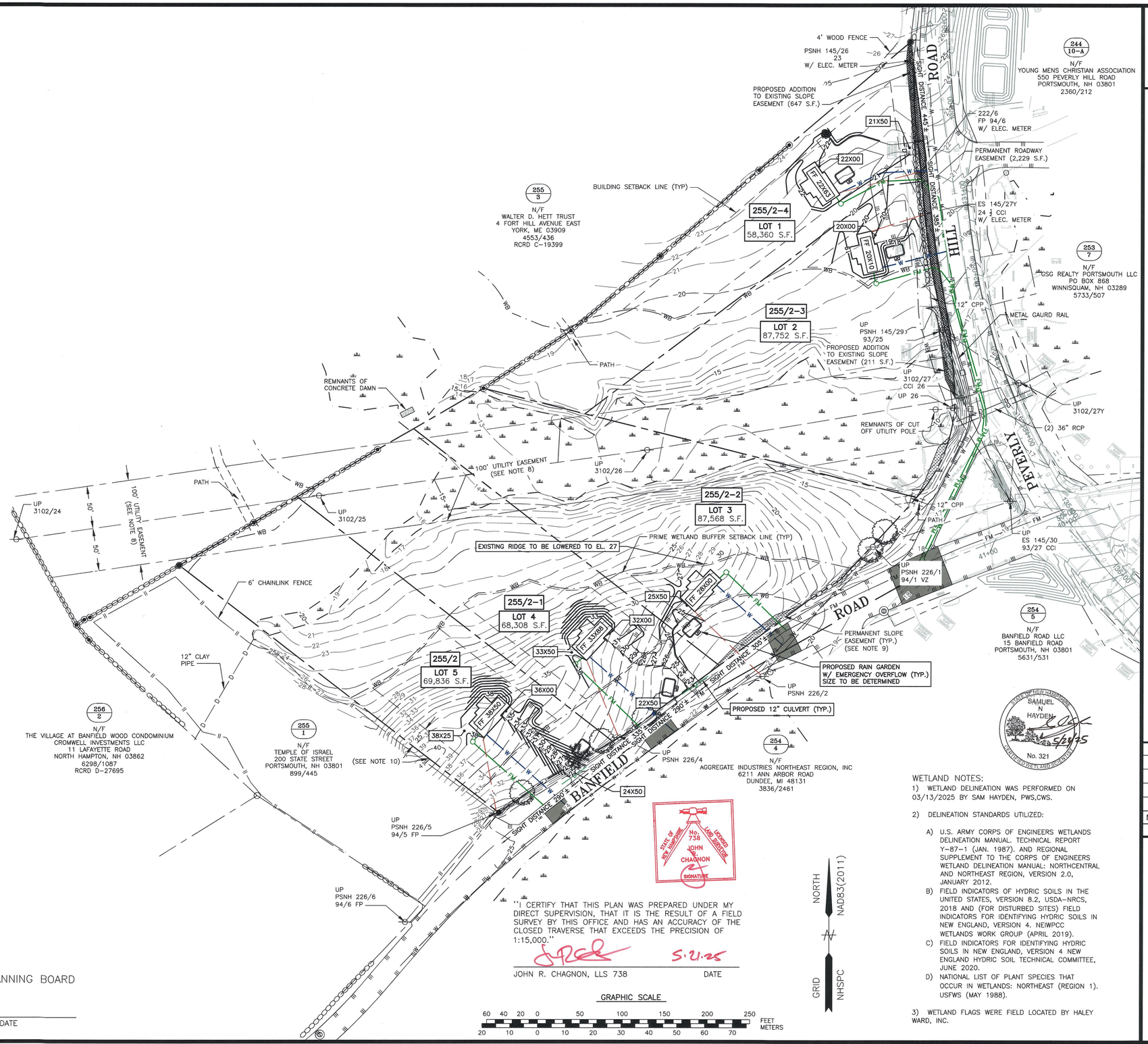
SUBDIVISION SITE PLAN
TAX MAP 255 – LOT 2

OWNER:
WALTER D. HETT
BANFIELD ROAD &
PEVERLY HILL ROAD
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=60' JANUARY 2025

FB 499 & PG 1

5010220



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

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

5.21.25

JOHN R. CHAGNON, LLS 738 DATE

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

GRAPHIC SCALE

60 40 20 0 50 100 150 200 250 FEET
20 10 0 10 20 30 40 50 60 70 METERS

WETLAND NOTES:

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2) DELINEATION STANDARDS UTILIZED:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

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

STATE OF NEW HAMPSHIRE SAMUEL N HAYDEN No. 321 CERTIFIED WETLAND SCIENTIST 5/21/25

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

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE
	REVISIONS	
3	GRADING/EASEMENTS	5/21/25
2	UTILITY DESIGN	4/23/25
1	LOTS	3/1/25
0	ISSUED FOR COMMENT	2/12/25

GRADING PLAN
TAX MAP 255 – LOT 2

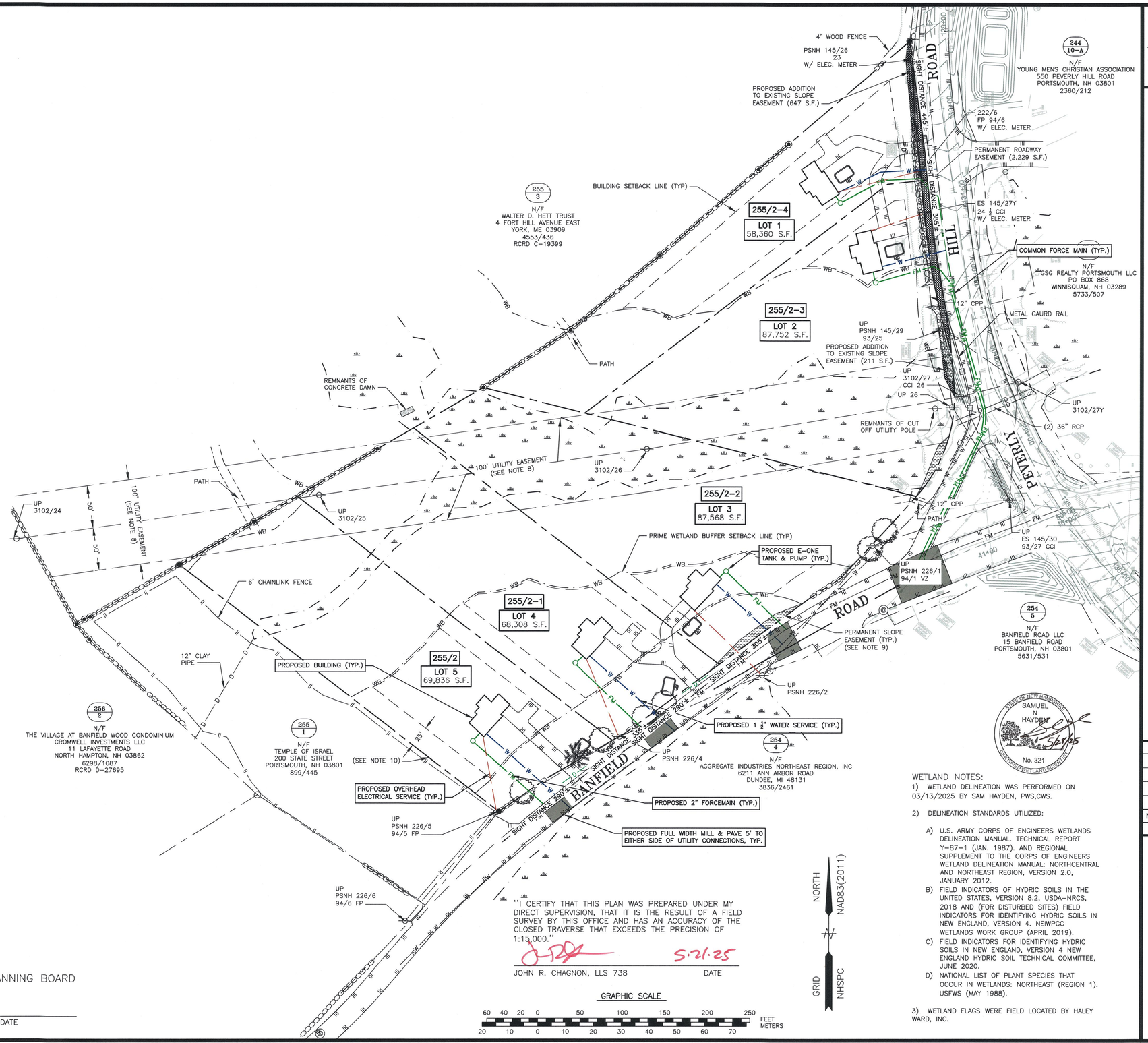
OWNER:

WALTER D. HETT

BANFIELD ROAD &
PEVERLY HILL ROAD
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=60' JANUARY 2025

FB 499 & PG 1 5010220



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

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5.21.25

JOHN R. CHAGNON, LLS 738 DATE

GRAPHIC SCALE

60 40 20 0 50 100 150 200 250 FEET
20 10 0 10 20 30 40 50 60 70 METERS

NORTH NAD83(2011)

GRID NHSPC

WETLAND NOTES:

1) WETLAND DELINEATION WAS PERFORMED ON 03/13/2025 BY SAM HAYDEN, PWS,CWS.

2) DELINEATION STANDARDS UTILIZED:

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STATE OF NEW HAMPSHIRE SAMUEL N HAYDEN 5.21.25 No. 321 WETLAND SCIENTIST

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

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

STATE OF NEW HAMPSHIRE JOHN R. CHAGNON No. 7851 LICENSED PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE
3	GRADING/EASEMENTS	5/21/25
2	UTILITY DESIGN	4/23/25
1	LOTS	3/1/25
0	ISSUED FOR COMMENT	2/12/25

REVISIONS

UTILITY SITE PLAN
TAX MAP 255 – LOT 2

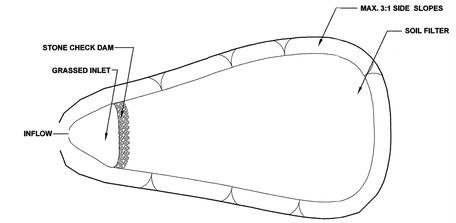
OWNER:

WALTER D. HETT

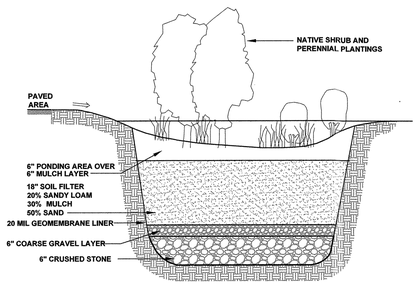
BANFIELD ROAD &
PEVERLY HILL ROAD
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: 1"=60' JANUARY 2025

FB 499 & PG 1 5010220



PLAN VIEW



CONSTRUCTION OVERSIGHT: INSPECTION WILL OCCUR AT A MINIMUM:

- AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
- AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED. BIO-RETENTION CELLS MUST BE STABILIZED PER THE PROVIDED PLANTING SCHEME AND DENSITY FOR THE CANOPY COVERAGE OF 30 AND 50%.
- AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND

LINER

1. NONWOVEN 20MIL GEOMEMBRANE.

PLANT SPECIES

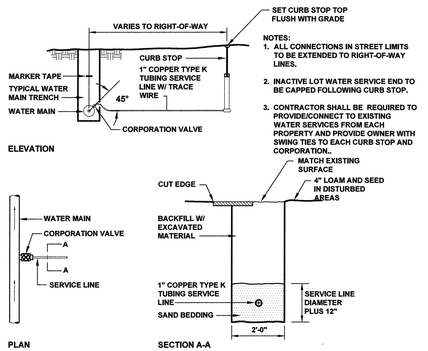
1. PLANT SPECIES SHALL BE CHOSEN IN ACCORDANCE WITH MAINE DEP CHAPTER 500 BMP'S.

MAINTENANCE

DURING THE FIRST YEAR, THE BASIN WILL BE INSPECTED SEMI-ANNUALLY AND FOLLOWING MAJOR STORM EVENTS

1. DEBRIS AND SEDIMENT BUILDUP SHALL BE REMOVED FROM THE FOREBAY AND BASIN AS NEEDED. MOWING OF GRASSED BASIN CAN OCCUR SEMI-ANNUALLY TO A HEIGHT OF NO LESS THAN 6 INCHES.
2. ANY BARE AREA OR EROSION RILLS SHALL BE REPAIRED WITH NEW FILTER MEDIA OR SANDY LOAM, SEEDED AND MULCHED OR SODDED.
3. MAINTAINING GOOD GRASS COVER WILL MINIMIZE CLOGGING WITH FINE SEDIMENTS AND IF PONDING EXCEEDS 48 HOURS, THE TOP OF THE FILTER BED MUST BE ROTOTILLED TO REESTABLISH THE SOIL'S FILTRATION CAPACITY.
4. IN BIORETENTION CELLS, RAKING AND REPLACING THE DEGRADED MULCH BETWEEN PLANTS WILL BE NECESSARY ON AN ANNUAL BASIS. PLANTS THAT ARE NOT ESTABLISHED WITH NEED TO BE REPLACED.

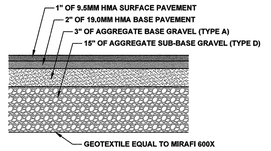
BIORETENTION CELL DETAIL
N.T.S.



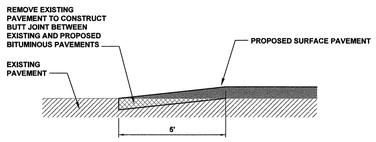
NOTES:

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

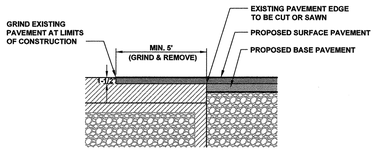
TYPICAL WATER SERVICE DETAIL
NTS



DRIVEWAY APRON BUILDUP DETAIL
NTS



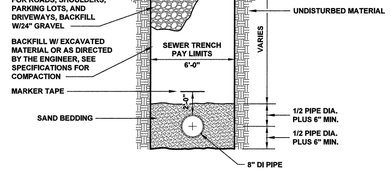
TYPICAL ASPHALT PAVEMENT BUTT JOINT DETAIL
N.T.S.



NOTES:

1. EXTEND NEW SURFACE PAVEMENT ACROSS BUTT JOINT IN BASE COURSE.
2. PROVIDE TACK COAT ON ALL SURFACES OF EXISTING PAVEMENT TO BE COVERED.

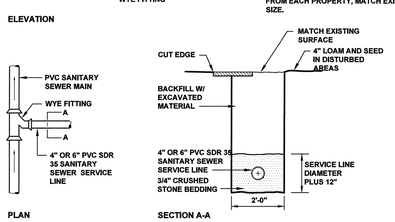
TYPICAL ASPHALT PAVEMENT GRINDING DETAIL
NTS



NOTE:

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

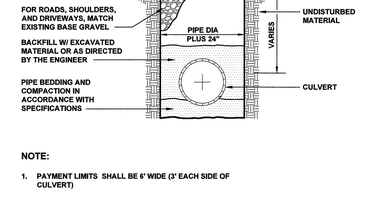
TYPICAL FORCE MAIN TRENCH DETAIL
NTS



NOTES:

1. ALL CONNECTIONS IN STREET LIMITS TO BE EXTENDED TO RIGHT-OF-WAY LINES.
2. INACTIVE LOT SANITARY SEWER END TO BE CAPPED WITH PIPE CAPS, AND MARKED WITH A WITNESS STAKE FOR FUTURE CONNECTIONS.
3. CONTRACTOR SHALL BE REQUIRED TO PROVIDE SEWER SERVICE AND CONNECT TO EXISTING SANITARY SEWER SERVICES FROM EACH PROPERTY, MATCH EXISTING SIZE.

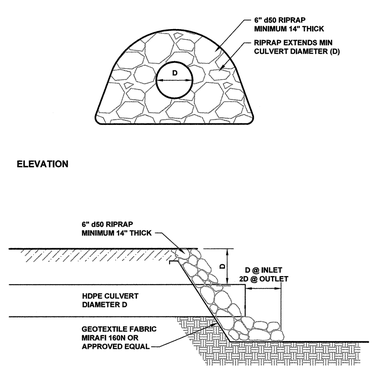
TYPICAL SANITARY SEWER SERVICE DETAIL
NTS



NOTE:

1. PAYMENT LIMITS SHALL BE 6' WIDE (3' EACH SIDE OF CULVERT)

TYPICAL CULVERT TRENCH DETAIL
NTS



TYPICAL CULVERT INLET/OUTLET PROTECTION DETAIL
NTS

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

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BANFIELD ROAD & PEVERLY HILL ROAD
WALTER D. HETT
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	4/23/25

REVISIONS

STATE OF NEW HAMPSHIRE — JOHN R. CHAGNON No. 7861 — LICENSED PROFESSIONAL ENGINEER

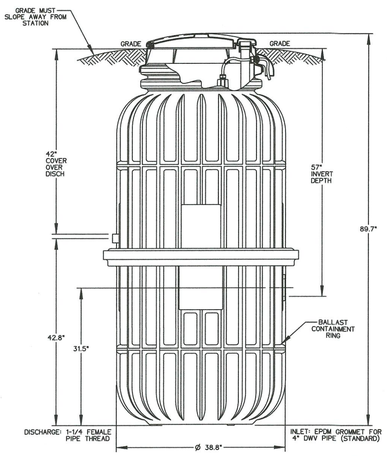
SCALE: AS SHOWN JANUARY 2023

DETAILS D1

FB 499 PG 1

5010220

DH152-93



AD	CAH	4/25/07	-	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

MODEL DH152-93

NA0052P04

BALLAST REQUIREMENTS

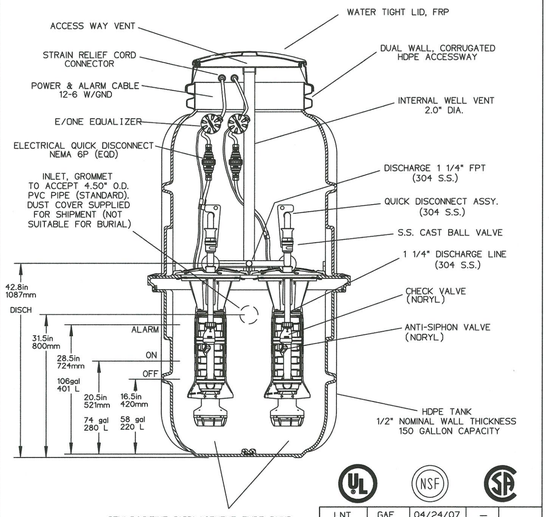
A CONCRETE ANCHOR IS REQUIRED ON ALL MODEL DH152-93 STATIONS

SPECIFIC CONCRETE DIMENSIONS ARE REQUIRED TO ACHIEVE NECESSARY BALLAST EFFECT

SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

DH152

FIELD JOINT REQUIRED FOR MODELS DH152-129 & DH152-160



LNT	GAE	04/24/07	—	
DR BY	CHK'D	DATE	ISSUE	SCALE

MODEL DH152 DETAIL SHEET

NA0052P02

BALLAST REQUIREMENTS

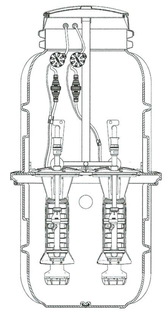
A CONCRETE ANCHOR IS REQUIRED ON ALL OUTDOOR MODEL DH152 STATIONS

SPECIFIC CONCRETE DIMENSIONS ARE REQUIRED TO ACHIEVE NECESSARY BALLAST EFFECT

SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

E/ONE EXTREME SERIES

DH152



Patent Numbers: 5,752,315 5,562,254 5,439,180

* Discharge data includes loss through check valve, which is minimal.

NA0052P01

General Applications

The size, efficiency and operating economy of the DH152 make it an ideal choice for multiple dwellings, waterfront property, subdivision developments and marinas. The DH152 is ideally suited for both new and existing communities.

General Features

The DH152 grinder pump station is a complete unit that includes: two grinder pumps with check valves, HDPE (high density polyethylene) tank and controls. The DH152 is packaged into a single complete unit, ready for installation.

All solids are ground into fine particles, allowing them to pass easily through the pump, check valve and small-diameter pipelines. Even objects that are not normally found in sewage, such as plastic, rubber, fiber, wood, etc., are ground into fine particles.

The 1 1/4-inch discharge connection is adaptable to any piping materials, thereby allowing it to meet local code requirements.

The tank is made of tough corrosion-resistant HDPE. The optimum tank capacity of 150 gallons is based on computer studies of water usage patterns. ~~An single DH152 is ideal for up to four average, single family homes, two average size families, 10 townhouses or family dormitories with the concept of this factory.~~ This model can accommodate flows of 3000 GPD.

The internal check valve assembly, located in each grinder pump, is custom-designed for non-clog, trouble-free operation.

The grinder pump is automatically activated and runs infrequently for very short periods. The annual energy consumption is typically that of a 40-watt light bulb.

Units are available for indoor and outdoor installations. Outdoor units are designed to accommodate a wide range of burial depths.

Operational Information

Motor
1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections
4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections
Pump discharge terminates in 1 1/4-inch NPT female thread. Can easily be adapted to 1 1/4-inch PVC pipe or any other material required by local codes.

*Discharge**
15 gpm at 0 psig (per pump)
11 gpm at 40 psig (per pump)
7.8 gpm at 80 psig (per pump)

Control Panel
This station is designed to use the Alternating Control Panel, MOD T260.

Overload Capacity

The maximum pressure that the pump can generate is limited by the motor characteristics. The motor generates a pressure well below the rating of the piping and appurtenances. The automatic reset feature does not require manual operation following overload.

E/ONE EXTREME SERIES

E/One Sentry™

Alarm Panel — Duplex Protect Plus Package

Description

The E/One Sentry Protect Plus panels are custom designed for use with Environment One Duplex grinder pump stations. They can be configured to meet the needs of your application, from basic alarm indication to advanced warning of pending service requirements.

E/One Sentry Protect Plus panels are supplied with audible and visual high level alarms. They are easily installed in accordance with relevant national and local codes. Standard panels are approved by UL, CSA, CE and NSF to ensure high quality and safety.

The panel features a corrosion-proof, NEMA 4X-rated, thermoplastic enclosure. A padlock is provided to prevent unauthorized entry (safety front).

Features

Includes all features of the basic configuration of the E/One Sentry Simplex panel, including circuit breakers, 240 VAC service, terminal blocks and ground lugs, audible alarm with manual silence, manual run feature and run indicator, safety front, conformal-coated board and overload protection.

Includes all features of the E/One Sentry Simplex Protect package, including a Trouble indication that shuts down the pumps temporarily in the event of an unacceptable operating condition (brownout, system over-pressure, run-dry), as well as:

Predictive status display module

Pre-alarm indication for major operating parameters

Alarm indications for major operating parameters

Hour meter, cycle counter and alarm delay

LCD display and user-friendly interface

Inner cover (dead front)

Contact group — dry contacts and Remote Sentry contacts

Programmable User Settings

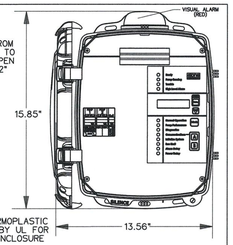
Please consult factory for special applications.

NA0344P01 Rev. –

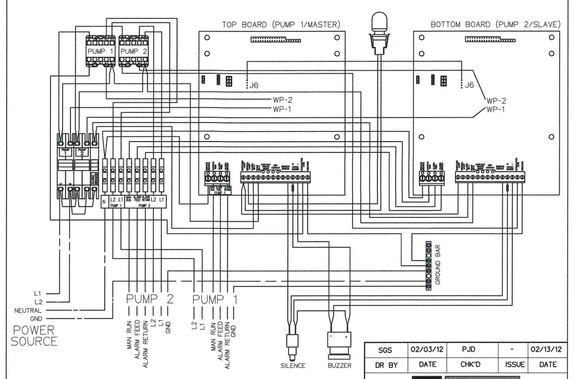
SENTRY PROTECT PLUS DUPLEX

EXTERNAL VISUAL & AUDIBLE ALARM
REMOTE SENTRY DRY CONTACTS FOR OPTIONAL POWER LOSS HIGH LEVEL ALARM (POWER LOSS ALARM FOR WIRELESS)
MANUAL ALARM SILENCE
MANUAL RUN
STATUS LED'S: NORMAL, PUMP RUNNING, HIGH LEVEL
TROUBLE INDICATIONS: RUN DRY, OVERPRESSURE, BROWNOUT, VOLTAGE, EXTENDED RUN TIME
DRY CONTACTS
CONFORMAL COATED CIRCUIT BOARD (BOTH SIDES)
PADLOCK
DEAD FRONT
PREDICTIVE ALARMS
REAL TIME PUMP PERFORMANCE
ADJUSTABLE ALARM DELAY
ADJUSTABLE RUN TIME DELAY
HOUR/CYCLE COUNTER
NEMA 4X ENCLOSURE ASSEMBLY

DIMENSION FROM BACK PANEL TO FRONT OF OPEN DOOR = 18.02"



ENCLOSURE:
CORROSION PROOF THERMOPLASTIC POLYESTER APPROVED BY UL FOR ELECTRICAL CONTROL ENCLOSURE



SGS	02/03/12	PJD	-	02/13/12
DR BY	DATE	CHK'D	ISSUE	DATE

SENTRY PROTECT PLUS PANEL, DUPLEX 240V 60Hz DOUBLE POLE POWER

NA0344P03

OLD / NEW WIRE COLOR MAP

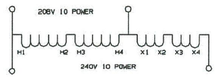
PIN	FUNCTION	2000S	EXTREME
1	MANUAL RUN	RED	BROWN
2	L1	BLACK	RED
3	L2	WHITE	BLACK
4	GND	GREEN	GRN/YEL
5	ALARM FEED	ORANGE	YELLOW
6	ALARM RETURN	BLUE	BLUE

LEGEND
FROM CORE
SUPPLY CABLE
FACTORY INSTALLED

CONTROL CABLE:
TYPE TC: DIRECT BURIAL, SIX CONDUCTOR

Catalog Number : 9T51B0129

Features :
- Line: 120 x 240 Vac
- Load: 16/32 Vac
- Single Phase, 0.75 kVA
- 100 degree rise, Copper
- Buck Boost Application
- No Electrostatic Shield
- QB, 60Hz



Dimensions (inches) : **9.62H x 7.88W x 5.5D x 25lbs**

Buck-Boost Transformers.

Introduction
The Buck-Boost transformer is a very versatile product for which a multitide of applications exist. In its simplest form, these transformers will deliver 12, 16, 24 or 32 volts when their primaries are energized at 120 or 240 volts.

Their prime use, however, lies in the fact that the primaries and secondaries can be **interconnected**, thus permitting their use as an autotransformer. When the primaries and secondaries are connected together so that electrical characteristics are changed from a two winding transformer to those of an autotransformer, the units can economically 'buck or boost' voltage up to +/- 20%.

For use with e|one Duplex Panels

Single Phase Load: 16/32 Vac
Non-Vented (NEMA 3R) Enclosure
Buck Boost

DR BY: SGS	DATE: 4/30/2001	e|one ENVIRONMENT ONE CORPORATION	
CHK'D BY:	DATE:		
ENG BY:	DATE:	TRANSFORMER, BUCK BOOST 0.75KVA, PA0219P03	
APPD BY:	DATE:		
SCALE: FULL		MATERIAL:	
		PART NUMBER:	PART
		LM000230	1
TYPE: 4	CLASS: 06	DWG NUMBER	SHEET 1 OF 1 REV

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

NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

BANFIELD ROAD & PEVERLY HILL ROAD
WALTER D. HETT
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

0	ISSUED FOR COMMENT	4/23/25
NO.	DESCRIPTION	DATE

REVISIONS

STATE OF NEW HAMPSHIRE — JOHN CHAGNON 16951 LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN JANUARY 2023

DETAILS D2

FB 499 PG 1

5010220

HALEY WARD

21 May 2025

Peter Stith, Technical Advisory Committee Chair
City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

RE: Request to Table Site Plan Review at 361 Hanover Street, Site Development

Dear Mr. Stith and Technical Advisory Committee (TAC) Members:

On behalf of 361 Hanover Steam Factory, LLC, we hereby request that the application be Tabled from your June 3, 2025, Agenda and placed on the Agenda for your **July 1, 2025,** Technical Advisory Committee (TAC) Meeting. The design team needs time to address the comments raised by the Departments.

We look forward to continued TAC review of this submission at your July meeting.

Sincerely,

John R. Chagnon, PE

P:\NH\5010135-Hampshire_Development\2977.01-Hanover St., Portsmouth-JRC\JN 2977\2024 Site Plan\Applications\City of Portsmouth Site Plan\TAC Site Plan Postponement Letter 2025.05.21.doc

200 Griffin Rd., Unit 14, Portsmouth, NH 03801
T: 603.430.9282 | HALEYWARD.COM

May 20, 2025
File No. 2021-075

Peter Stith
Planning Manager
Planning & Sustainability Department
Rick Chellman, Chair
Portsmouth Planning Board
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

Subject: 185-187 Wentworth Road, Portsmouth, NH
Wetlands Conditional Use Permit Application (WCUPA) LU-25-2
Marina Restoration Project

Dear Sirs:

On behalf of the Project Applicant/our client Sea Level LLC, Aries Engineering LLC is submitting this letter in hard copy and electronic copy for the subject project. The electronic copy will be uploaded to the portsmouthnh.portal.opengov.com. This letter is intended to supplement the CUPA, and consists of the following:

- Cover Letter to the Planning & Sustainability Department and Planning Board;
- Completed Wetlands CUPA Checklist, required since March 2025 for CUPA applications brought before the Planning Board;
- An Addendum, which identifies specific items in the CUPA originally submitted January 8, and supplemented through January 30, 2025, that have necessarily been modified to respond to a) a March 14, 2025 decision letter by the Conservation Commission, containing four (4) Stipulations; and b) a verbal request made by the Portsmouth Planning Board Technical Advisory Committee (TAC) at its May 6, 2025 meeting, to confirm that the location of the existing 15 inch diameter drainage pipe which traverses the property and discharges into the wetlands area, will not be covered by the proposed concrete cap. Each of these four Stipulations are specifically addressed below in narrative text and/or the attached Addendum with revised Engineering Sheets provided as needed. The location of the pipeline has been identified on revised Engineering Sheet 5 also attached, based on field geophysical investigation conducted by Aries/GPRS on May 15, 2025.

1. **Stipulation No. 1**. Applicant shall receive all necessary permissions from NHDOT and the contributing abutting landowners as applicable prior to plugging or abandoning any of the existing 15" drainage pipe. Further, please provide a drainage plan and calculation analysis for the rerouting of flow entering this pipe. This shall occur prior to Planning Board approval and may need review from TAC. Any proposed ground disturbance within a jurisdictional wetland or wetland buffer due to future rerouting or removal of the existing pipe shall require a separate wetland conditional use permit from the City.

   Applicant Response: This Stipulation will no longer apply because our team proposes to modify its design concept so that the existing drainage pipe will not be plugged or otherwise modified. Originally, our team was concerned that discharge flow and velocity from the pipe would negatively affect the proposed wetland grass plantings. However, a field review of the pipe inlet's relatively small surface service area and monitoring of the pipe's discharges after each significant March and April rainfall events have persuaded the Applicant that a negligible effect will result from this pipe on the area of future wetland grass plantings. March and April represent two of the five months sequentially with the highest average annual levels of precipitation, according to weather-and-climate.com.

2. **Stipulation No. 2**. All areas to be loamed and seeded shall receive a wetland buffer conservation seed mix or equivalent.

   Applicant Response: the CUPA has been modified to reflect this, see Addendum.

3. **Stipulation No. 3.** In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the edge of the gravel parking area near the restoration area at 50-foot intervals and must be installed prior to the start of any

construction.

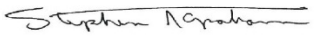
Applicant Response: These markers shall be installed upon completion of the proposed work, and the Addendum reflects this.

4. **Stipulation No. 4**. Applicant shall clearly delineate on the site plan and provide a detailed description of the proposed grassed swale. This should include dimensions, materials, depth, etc.

   Applicant Response: Revised Engineering Sheet 5, attached to Addendum, reflects this stipulation.

Please let us know if you have any questions.

Sincerely,
Aries Engineering, LLC



Stephen J. Graham, P.E.
Director of Engineering

Cc: Jay Johonnett, PE, Aries
Tom Reis, Sea Level LLC
Rick Kowalski, PG, Aries
Drew Olehowski, Haley & Ward
Sam Hayden, Haley & Ward

Attachments: Wetlands CUPA Checklist
CUPA Addendum
Haley and Ward Memorandum, April 29, 2025
Revised Engineering Sheet 5 & New Engineering Sheet 5A
Revised WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), Attachment CC
Revised WPA Addendum S, Site Calculations
ConCom Letter, March 14, 2025
TAC Letter, May 8, 2025

City of Portsmouth, New Hampshire

Wetland Conditional Use Permit Application Checklist

This wetland conditional use permit application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Conservation Commission and Planning Board review. The checklist is required to be uploaded as part of your wetland conditional use permit application to ensure a full and complete application is submitted to the Planning and Sustainability Department and to the online portal. A pre-application conference with a member of the Planning and Sustainability Department is encouraged as additional project information may be required depending on the size and scope of the project. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all wetland conditional use permit requirements. Please refer to Article 10 of the City of Portsmouth Zoning Ordinance for full details.

Applicant Responsibilities: Applicable fees are due upon application submittal to the Planning Board (no fees are required for Conservation Commission submission). The application will be reviewed by Planning and Sustainability Department staff to determine completeness. Incomplete applications which do not provide required information for the evaluation of the proposed site development shall not be provided review by the Conservation Commission or Planning Board.

Name of Applicant: Sea Level, LLC Date Submitted: May 21, 2025

Application # (in City's online permitting): LU-25-2

Site Address: 185-187 Wentworth Rd, Portsmouth, NH Map: 201 Lot: 12

☑	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)
✔	Complete application form submitted via the City's web-based permitting program	OnLine Application (OA), 1-30-25 Cupa, Pg 4-5
✔	All application documents, plans, supporting documentation, this checklist and other materials uploaded to the application form in OpenGov in digital **Portable Document Format (PDF)**. One hard copy of all plans and materials shall be submitted to the Planning and Sustainability Department by the published deadline.	1-30-25 Cupa, Pg 5-6

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Basic property and wetland resource information. **(10.1017.21)**	OnLine Application (OA), 1-30-25 Cupa, Pg 4-5
✔	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. **(10.1017.22)**	1-30-25 Cupa, Pg. 5
✔	Demonstrate impacts as they relate to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way). **(10.1017.23)**	1-30-25 Cupa, Pg 5-6
✔	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. **(10.1017.24)**	See 1-30-25 Cupa, Pg. 6

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Wetland buffer enhancement plan. **(10.1017.25)**	1-30-25 Cupa, Pg. 6
✔	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. **(10.1017.26)**	1-30-25 Cupa, Pg 6-7
✔	Stormwater management must be in accordance with Best Management Practices including but not limited to: *1. New Hampshire Stormwater Manual, NHDES, current version.* *2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004.* **(10.1018.10)**	1-30-25 Cupa, Pg 7
✔	Vegetated Buffer Strip slope of greater than or equal to 10%. **(10.1018.22)**	1-30-25 Cupa, Pg 7
✔	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. **(10.1018.23/10.1018.24/10.1018.25)**	1-30-25 Cupa, Pg 7-8
✔	All new pavement within a wetland buffer shall be porous pavement. **(10.1018.31)**	1-30-25 Cupa, Pg 8
✔	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. **(10.1018.32)**	1-30-25 Cupa, Pg 8
✔	Permanent wetland boundary markers shall be shown on the plan submitted with an application for a conditional use permit and shall be installed during project construction. **(10.1018.40)**	5-20-25 Ltr, Pg 1
☑	**Requested Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**
✔	A narrative/letter addressed to the Conservation Commission Chair (if recommended to Planning Board then an additional narrative addressed to the Planning Board Chair at that time) describing the project and any proposed wetland and/or wetland buffer impacts. Please visit the WCUP instruction page for further application instructions.	1-30-25 Cupa, Pg 1
✔	If New Hampshire Department of Environmental Services (NHDES) Standard Dredge and Fill Permit is required for this work, please provide this permit application at the same time as your submission for a Wetland Conditional Use Permit.	1-30-25 Cupa, Pg 1

Applicant's Signature: _____ **Date:** _____

ADDENDUM TO CUPA

This Addendum to the CUPA submitted January 8, 2025 and revised and resubmitted January 30, 2025 identifies information which supersedes in the specified sections below, the existing text or drawings in the existing CUPA. Page numbers refer to the number of the page of the pdf document.

Pg 2 Cover Letter, Page 2, Section 1.0, Item 2 F: Deleted, the stormwater discharge pipe will no longer be plugged.

Pg 2 Cover Letter, Page 2, Section 3.0, 2nd bullet, AND Pg 11 Wetland Permit Application (WPA) Pg 1, Section 2.0, Project Description, Item 2c; AND Pg 118 WPA Appendix J, Coastal Resource Worksheet, Section 1, Second Paragraph. After first sentence, add:

"Also, 260 SF of the 770 SF level upland graded areas from 11 to 14.5 ft elevation will after 6-inch soil cap installation, be covered by up to 15 inches of revetment, which is an erosion control stone of 6-inch diameter."

Pg 62 WPA Appendix E, Engineering Project Plans, Drawings & Sheets: Sheet 5 is now replaced, and is attached to this document. It has been changed to address the 4 Stipulations of ConCom's March 14, 2025 Letter and include the location of the existing 15 in diameter drainage pipeline. New Sheet 5A is also attached, which presents a new cross section detail of a portion of Sheet 5's Section B-B'. Note that for any site plan information differing between Sheets 5 and 7, Sheet 5 information will prevail. Both Sheets 5 and 5A have been stamped by the Applicant's NH Professional Engineer.

Pg 139 WPA Appendix J, Coastal Resource Worksheet, Part 3, change the sentence fragment "tall fescue…and birdsfoot trefoil" to "wetlands seed mix".

Pg 140 WPA Appendix J, Coastal Resource Worksheet, Part 3, Item 1. Change "4-8" to "11" CY.

Pg 148 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan, Pg 2, 2nd paragraph, Lines 4-5, substitute "south to north" for "east to west". In Line 5, after "via sheet flow to", delete rest of paragraph, and add "a revetment erosion control area consisting of 15 inches of 6-inch diameter stone which interfaces with the riprap rock/stone layer". The rationale for this change is that the underground stormwater retainage system proposed in the CUPA is no longer feasible nor required, due to a) unsuitable soils having been found in its proposed location from an April 2025 soil boring exploration by a NH-licensed Septic System Evaluator from Haley and Ward, civil engineers; b) the impact which would occur from installation of the proposed underground stormwater retainage system to the existing storm drain pipe, whose location was field determined in the soil boring program; and c) upon further evaluation by Haley and Ward to address stormwater requirements, the proposed alternative stormwater management approach (revetment) to handle runoff from the proposed 5,000 square foot concrete pad is practical and compliant with regulations.

Pg 155 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), 2nd bullet, Stormwater Collection System, is deleted.

Pg 164 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), in the OMMP Inspection Form, Attachment CC, second item, delete " Level Spreader (N & W End of Concrete Cap) And,"

Pg 165 WPA Appendix J, Coastal Resource Worksheet, Part 4, Operations Monitoring and Maintenance Plan (OMMP), 1st bullet, delete “Stormwater Packaged System. A revised OMMP Inspection Form, Attachment CC, is attached which supersedes the existing form.

Pg 243 WPA Appendix O, Attachment A, Major and Minor Projects, Section I.VI Floodplain Wetlands, Line 5. Delete “ Sheet flow runoff from the concrete cap will be controlled by two feet of 2 inch stone installed around south and west perimeter edge with underdrain routed to packaged underground stormwater treatment system to treat and intercept runoff directed from this 2% sloped pad, see Sheets 4 and 5”; and delete Line 9 “ Note that a 15 inch storm drain pipe discharging into this blind cove from the state/city roadways east of and outside the project area, will be capped with a 5 ft concrete plug, once the origin of that pipe is terminated by others and approved by regulators.”

Pg 249 Appendix P, Envt WT 311.06, ConCom Comments. Comments have been received on this WPA as noted in the Cover Letter, on March 14, 2025 from ConCom, and on May 8, 2025 from TAC, both attached.

Pg 258 Appendix S, Calculations. A revised sheet is attached here which supersedes the existing page of calculations.

HALEY WARD

MEMO

To: Tom Reis, Sea Level LLC
Stephen Graham, Aries Engineering LLC

From: **Drew Olehowski, PE**

Re: **185-187 Wentworth Road | Wetlands Conditional Use Permit Application, Marina Restoration Project, Stormwater Management Supplement**

Date: **April 9, 2025**

Haley Ward, Inc. (Haley Ward) has been retained by Aries Engineering LLC (Aries Engineering) and Sea Level LLC (Sea Level) to provide engineering design and permitting services related to stormwater management for the proposed 185-187 Wentworth Road Marina Restoration project. This memorandum is to be considered a supplement to the Wetlands Conditional Use Permit Application currently undergoing review by the City of Portsmouth Planning Department.

Per the letter sent from Kate Homet, Environmental Planner, and Petr Stith, Planning Manager, Chair of Technical Advisory Committee, to Sea Level dated February 21, 2025, it was identified that the proposed development triggers Site Plan review per Section 1.2.1 of the City's Site Plan Regulations. This letter explains further that Site Plan review is required due to the proposed rerouting of an existing city-owned storm drain, and the installation of a concrete cap. The Applicant is requesting an exemption from Site Plan review by way of being classified as a "small impact" development. On February 25, 2025, a letter was sent from Aries Engineering to the individuals identified above demonstrating why the "small impact" designation is applicable to the proposed development. This memorandum serves to bolster the justification provided for item 1.2.2(c) (an increase in the lot's impervious surfaces by 500 or more feet,) as well as to comment on the necessity for the development to adhere to the City's Stormwater Management Ordinances, specifically Section 2.5.4.3(i) and Section 7.0 of the Site Plan Regulations, should the "small impact" exemption not be granted.

As described in more detail within the Wetlands Conditional Use Permit Application (WCUP,) the project generally consists of the environmental remediation of the property located at 185-187 Wentworth Road (the "Site"). Other than remediation-specific activities, changes/ improvements to the Site are limited to the conversion of an approximately 5,000 square foot gravel boat storage pad to a concrete "cap." This cap will continue to be used for boat storage.

120 MAIN STREET, SUITE 132, SACO, ME 04072 207.283.9151 | HALEYWARD.COM

As mentioned above, this "alteration" triggers the need for Site Plan review. Applicable stormwater management standards of the Site Plan Ordinance include Section 2.5.4.3(i) and Section 7.0. Should the City uphold the applicability of the Site Plan Ordinance, a waiver for these stormwater-related sections would be requested. In general, the goal of these standards is to prevent adverse stormwater runoff impacts related to new development; these impacts may include flooding on abutting properties, degradation of the water quality of downstream waterways, or impacts to natural resources/groundwater. The nature of the proposed development makes any of these outcomes unlikely, for the following reasons:

1. There will be no significant increase in stormwater runoff volumes leaving the property. Runoff volumes are directly related to the "cover types" found on the Site. Under existing conditions, the subject area is entirely compacted gravel, which mimics an impervious surface. Haley Ward performed a test pit in the gravel area in April 2025 and found the soils to be generally impermeable. A copy of this test pit log is attached. Under proposed conditions, this gravel area will be converted to concrete, which is also an impermeable cover type. There is no discernable difference between compacted gravel and concrete as related to runoff volumes, especially for small sites such as this.
2. There will be no significant alterations in existing stormwater runoff flow paths, or resultant changes in "Summation points." Under existing conditions, the gravel pad generally slopes from south to north, generally with slopes between 0-7 percent. After sheeting over this pad for approximately 60 feet, the terrain steepens to a 1:1 slope along the bank of a wetland/Sagamore Creek. Under proposed conditions, the gravel pad will be replaced with a concrete pad which has been designed to mimic existing conditions. The concrete pad will pitch from south to north, at a flatter grade of 3%. Runoff will be maintained as sheet flow along this pad before discharging to the wetland side slopes, which we are proposing to stabilize via rip rap armoring. Overall, the drainage scheme is improved via this armoring, and a flattening of the Site's slope. The only summation point is the wetland to the north of the Site, which will remain unaltered.
3. The proposed use of this Site will remain unchanged from the existing conditions.
4. No salt is currently used on the Site, which will continue under the proposed conditions.

Haley Ward has carried out an initial investigation into what would be needed to satisfy the City's stormwater ordinances, should they apply, and a waiver not be granted. Due to Site constraints that include wetlands, resource buffers, undisturbed areas, and capped contamination areas, stormwater treatment Best Management Practices (BMP) would be limited to surface features with a small footprint in combination with underground detention systems. This type of BMP would be unfavorable due to the following:

1. Flow performing as "sheet" flow into adjacent wetlands would be captured and channelized via a structural BMP. Channelization of flow is more likely to result in erosion of downstream areas. In this case, the downstream areas are wetlands that we do not want to negatively impact. As mentioned above, the soils in this area are generally low-permeability and discharge from the BMP via infiltration is not an option.

2. There is an existing city-owned storm drain pipe in the most efficient stormwater treatment location. The use of a BMP in this area would require the City to relocate/modify their storm drain.
3. Potential disturbance of underground contaminated areas through the use of the needed underground detention system.

If you have any further comments or questions, please contact our office.

Sincerely,
Haley Ward, Inc.

Drew Olehowski, P.E.
Project Manager

DJO/jok
Attachment

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
185 Wentworth Road 5010185.2025		Portsmouth NH

Exploration Symbol # TP1 ☒ Test Pit ☐ Boring ☐ Probe

0 " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Sand	granular/friable	2.5Y 5/6	None
	Fill, many angular cobbles throughout.			
10	loamy sand	granular/friable	10YR 4/3	None
	Fill, many angular cobbles throughout.			
20	loamy sand	granular/friable	2.5Y 5/6	None
	Fill, many angular cobbles throughout.			
30	gravely coarse sand	granular/friable	10YR 3/6	None
	Fill, many angular cobbles throughout.			
50	Silt loam	massive, firming	2.5Y 3/2	None
	Possible fill from historic dredging of adjacent Sagamore Creek.			
	groundwater table at 65".			
	top of Stormwater drainage pipe at 46"			
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
N/A (Profile)	N/A (Condition)	0-2 (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name: N/A			☐ Hydric ☒ Non-hydric		C (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

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Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
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Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

INVESTIGATOR INFORMATION AND SIGNATURE

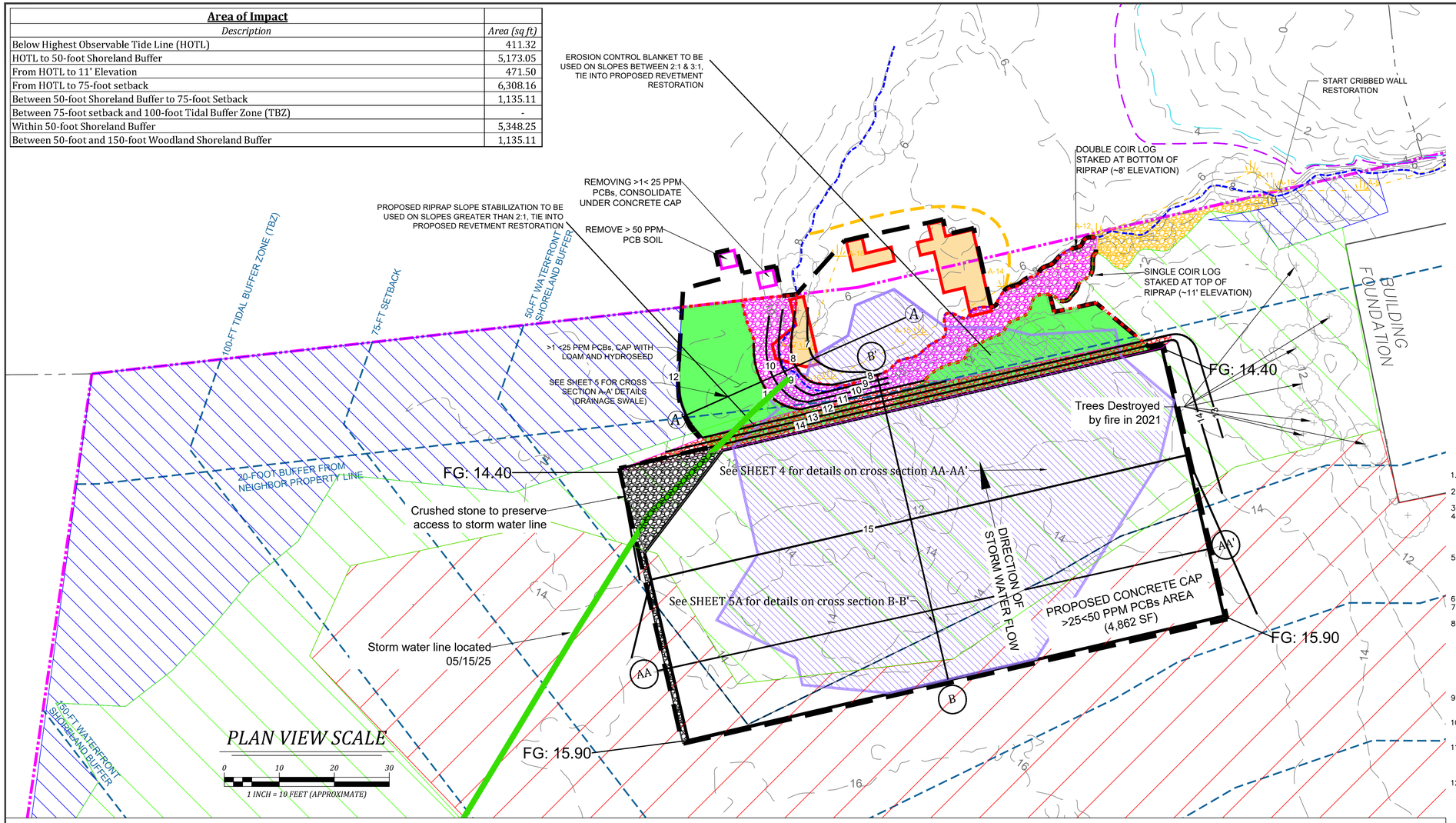
Signature	Date
	4/4/2025
Name Printed: Sam Hayden PWS 321	Cert/Lic/Reg. #

Title ☐ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

STATE OF NEW HAMPSHIRE SAMUEL HAYDEN 4/4/25 No. 321 CERTIFIED WETLAND SCIENTIST

affix professional seal

Area of Impact	
Description	*Area (sq ft)*
Below Highest Observable Tide Line (HOTL)	411.32
HOTL to 50-foot Shoreland Buffer	5,173.05
From HOTL to 11' Elevation	471.50
From HOTL to 75-foot setback	6,308.16
Between 50-foot Shoreland Buffer to 75-foot Setback	1,135.11
Between 75-foot setback and 100-foot Tidal Buffer Zone (TBZ)	-
Within 50-foot Shoreland Buffer	5,348.25
Between 50-foot and 150-foot Woodland Shoreland Buffer	1,135.11



LEGEND

EXISTING
- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (4.22 FT NAVD88)
- MEAN HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- NATURAL WOODLAND AREA
- EXISTING RIPRAP
- TREE

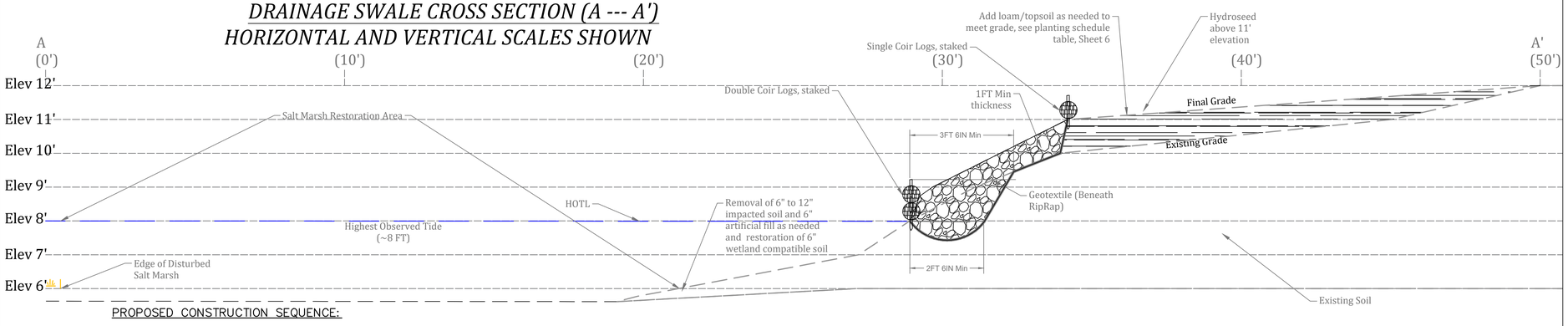
PROPOSED
- PROPOSED WORK LIMITS
- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP
- WETLAND RESTORATION AREA (175 SF)
- REMEDIATION AREA, SOIL REMOVAL >50 PPM PCBs
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- CROSS SECTION
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
- MIXED STONE RIPRAP TO BE RESTORED
- REVETMENT, >15IN THICK STONE
- PROPOSED TURBIDITY SILT CURTAIN
- CONCRETE PAD DRAINAGE
- COIR LOGS STAKED

GENERAL PLAN NOTES:

1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B–DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B–DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST–PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINIUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y–87–1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN–WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE–EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE–EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B–DOCK–PAD–SW
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING 'PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG–2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

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

DRAINAGE SWALE CROSS SECTION (A --- A')
HORIZONTAL AND VERTICAL SCALES SHOWN



PROPOSED CONSTRUCTION SEQUENCE:

1. INSTALL TREE PROTECTION AND EROSION CONTROL MEASURES (COIR LOGS) AT START OF HOTL WITHIN THE LIMIT OF WORK/DISTURBANCE (LOD).
2. CLEAR AND GRUB VEGETATION, EXCEPT TREES, IN THE LIMITS OF WORK, AS NEEDED; WOODY MATERIAL MAY BE CHIPPED / REUSED ON-SITE.
3. ONCE COMPLIANCE WITH TSCA REQUIREMENTS FOR REMOVAL OF CONTAMINANTS IS COMPLETE, BY REMOVING SIX (6) INCHES OF IMPACTED SEDIMENT, RESTORATION OF REMEDIATED SALT MARSH AREA OCCURS BY BACKFILLING WITH CLEAN MIXED SAND IN STAKED BURLAP BAGS TO A FINAL ELEVATION OF 6-FT TO MIMIC ADJACENT SALT MARSH ELEVATION AND THEN PLANTED ON 1-SQ. FT INTERVAL GRID WITH SALTMARSH BULRUSS (SCIRPUS ROBUSTUS). PLUG EXISTING 15-IN STORMWATER DISCHARGE PIPE WITH 5-FT CONCRETE, UPON REGULATORY APPROVAL.
4. PLACE GEOTEXTILE FROM ABOVE HOTL TO EXISTING ELEVATION 11-FT UNDER RIP RAP STONE AND ALSO UNDER REVETMENT STONE FROM 11 FEET TO NORTH EDGE OF CONCRETE CAP.
5. FROM THE HOTL, EMPLACE 4 TO 5-INCH DIAMETER ROUNDED STONE, AND RE-INSTALLED BOULDERS UP TO 4 FT DIAMETER, TO 11 FT ELEVATION TO PROVIDE EROSION CONTROL.
6. FILL ABOVE 11-FT MSL RIPRAP LINE AS NEEDED TO ACHIEVE 11 FT MSL, WITH 6 IN. OF CLEAN FILL TOPSOIL CAP WHERE INDICATED ON PLAN VIEW ABOVE.
7. INSTALL NEW CONCRETE PAD (5,000 SF) RUNOFF RELATIVELY FLAT SLOPE OF <2% DIRECTED TO NORTH.
8. INSTALL VEGETATION ACCORDING TO SHEET 6 (PLANTING PLAN).
9. ONCE AREA IS FULLY STABILIZED, REMOVE EROSION CONTROLS AND TREE PROTECTION.
10. DECONTAMINATE ALL EQUIPMENT AND HAND TOOLING AND VERIFY COMPLIANCE WITH TSCA 40 CFR 761.79(B)(3)(I), UNRESTRICTED USE USING WIPE SAMPLES AND SHOWING PCB LEVELS ARE LESS THAN 10 UG/100 CM2.
11. MINIMAL EROSION POTENTIAL EXISTS ABOVE ELEVATION 11 FT DUE TO RELATIVELY FLAT SLOPE (<4%) OR RUNOFF IS CONTROLLED WITH REVETMENT STONE AREA.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	04/23/23	Revision
REVIEWED BY:	02	09/04/24	Revision
S. Graham	03	04/23/25	Proposed slope/elevation edits and Rip Rap Changes. Remove Treatment Proposal

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5

Jay P. Johonnett, P.E.

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1 inch = 10 ft.

ARIES ENGINEERING
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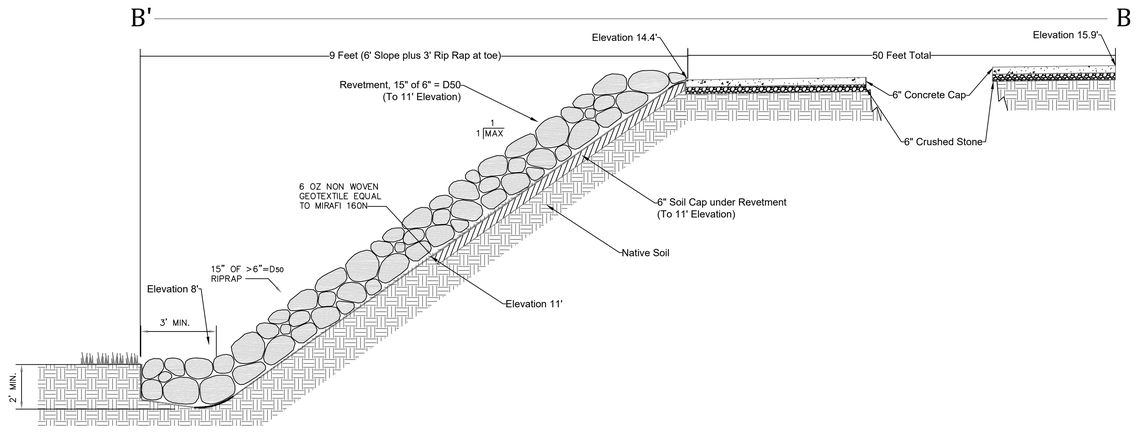
STATE OF NEW HAMPSHIRE - JAY P. JOHONNETT No. 14110 LICENSED PROFESSIONAL ENGINEER -

Jay P. Johonnett, P.E.

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5



RIP RAP AND REVETMENT SLOPE STABILIZATION DETAIL
NTS

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/PAD GRADING DETAIL FOR RIPRAP AND REVETMENT

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum			
REVIEWED BY:			
S. Graham			

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 23, 2025

SHEET 5A

Jay P. Johonnett, P.E.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
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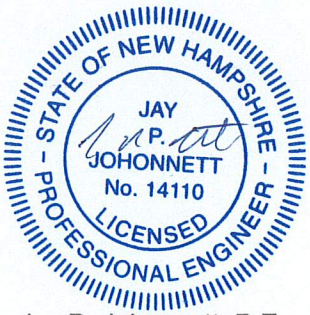
FINAL GRADING PLAN/PAD GRADING DETAIL FOR RIPRAP AND REVETMENT

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum			
REVIEWED BY:			
S. Graham			



Jay P. Johonnett, P.E.

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 23, 2025

SHEET 5A

APPENDIX J, Part 4

ATTACHMENT CC

OPERATIONS MONITORING AND MAINTENANCE (OMM) PLAN

Inspection Checklist

Sea Level, LLC

185-187 Wentworth Rd, Portsmouth, NH

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Stabilized Construction Entrance	Quarterly	Inspect adjacent roadway for sediment tracking Inspect gravel stone for sediment accumulation	Sweep adjacent roadways as soon as sediment is tracked Top dress with additional stone when necessary to prevent tracking	
Concrete Cap (reinforced cement)	Quarterly	Inspect accumulated sediment level, rips, and tears; and concrete surfaces for spalling or cracks	Repair or replace damaged Sections of spreader or cap Remove and dispose of accumulated sediment once level reaches 1/3 of barrier height	
Gravel Base	Annually	Inspect gravel for ruts and depth	Replace gravel as necessary, regrade as necessary to maintain design grades, remove any accumulated gravel washed from roadway	
Litter/Trash Removal	Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Site will be free of litter/trash.	
Deicing Agents	**N/A**	**N/A**	Use agents approved by ConCom as the primary agent for roadway safety during winter.	

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Revetment	Annually	Check for sediment accumulation & clogging.	More than 12" sediment depth	
Grass Lined Drainage Swale, Final Cover Area (Low Occupancy)	Spring and Fall and after every 3" of rain or greater in a 24- hour period, as needed	Check for sediment buildup Check for damaged vegetation, re-seed as needed Inspect for erosion rills or channels .	Remove excess sediment and any trash/debris. Loss of vegetation > 10 % of Final Cover or Drainage Swale Loss of > 1 in of total 6 in Final Cover	
Annual Report	1 time per year	Submit Annual Report to EPA, Other agencies upon request	EPA Requirement	

Inspection Notes:

Inspector: _____

Date of Inspection: _____

Date of Repairs: _____

Repairs Verified By: _____

APPENDIX S Update 4/23/25

Portsmouth Marina

185-187 Wentworth House Road, Portsmouth, NH

Entity	SQFT		
Buildings	931.5		
	824.1		
	474.69		
	1136.6		
	4100		
	444.85		
	103.2		
	493.22		
	1001.19		
	182.5		
	95.16		
	4799.76		
Total	14586.77		

Entity	SQFT		
Pavement	2464.64	1189.32	
		1275.32	

Entity	SQFT		
Leachfield	6684.72		
Other Permeable Surfaces (Lawn etc)	14401.8899	5036.8111	
		2015.4271	
		2405.6524	
		3441.3926	
		1204.2673	
		298.3394	
Property Boundary Area as shown in CAD File	131660.4931		3.022497
Gravel, Intact Gravel, Degraded Gravel, Riprap, Current Rip Rap, Woodland, Buldings, Pavement, Permeable Areas	130603.4586		
Remaining SQFT = Water+ Saltmarsh areas	1057.0345		

Entity	SQFT		
Salt Marsh Restoration	236.12		
Future RipRap*	432.629		
Current RipRap	130.455		
Future Revetment	304.093		
Upland Area Regrade	773.34	409.77	
		363.57	
Wetland Restoration	175.2		
Proposed Concrete	5000		
Concrete Drainage	63.32		
Intact Gravel (Red Hatch)	35006.8907	29126.6909	
		5880.1998	
Degraded Gravel (Green Hatch)	14557.6824		
Gravel Drive (Black Dots)	31973		
Woodland Blue Hatch	10364.7816	4210.3537	
		213.739	
		5940.6889	
Area Outside of 50' Offset (Part of Concrete and Gravel)	1135.11		

Sheet 5 Calcs

Below HOTL	411.32
Hotl to 50' (Rip, Regrade, Cncrete, Drain, - Area Outside	5134.179
HOTL to 11' Elev (RipRap only)	432.629
HOTL to 75' Setback (Rip, Regrade, Cncrete, Drain)	6269.289
50' to 75' Setback (Part of Concrete and Drain)	1135.11
Within 50' Buffer (All above except 50-75 and Salt Marsh Restore	5309.379
Between 50 and 150	1135.11

Note: Tax map says property = 3.07 acres

*Proposed Rip Rap number lowered by Approximately 30 SF, replaced by part of Proposed Revetment SF

CITY OF PORTSMOUTH
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801
(603) 610-7216

CONSERVATION COMMISSION

March 14, 2025

Sea Level LLC
P.O. Box 4094
Portsmouth, New Hampshire 03801

RE: WCUP request for property located at 187 Wentworth House Road, Portsmouth, NH (LU-25-2)

Dear Property Owner:

The Conservation Commission, at its regularly scheduled meeting of **Wednesday, March 12, 2025**, considered your application for a Wetland Conditional Use Permit for the required remediation of PCBs by the EPA and associated impacts within a tidal wetland and previously disturbed wetland buffer. The remediation will remove 175 s.f. of sediment from existing salt marsh down to a depth of 1 ft as well as an adjacent section of 235 s.f. of fill to be removed down to a depth of 6 in. To restore these excavated areas, this project proposes to add 6 in of sand in the first removal area with the addition of saltmarsh bulrush plugs. In the upper portion of the marsh area and above the HOTL, salt tolerant grass mix is proposed as well as boulder armoring and stone riprip for bank stability. Additional proposed impacts to the buffer include the removal of 0.5 cubic yards of soil in two different buffer locations down to 1 ft in depth, with one of these areas proposed to be covered with a geotextile liner and 5,000 s.f. concrete cap. All other areas impacted by PCBs in the wetland buffer will receive 6 in of clean topsoil and vegetation. Other buffer work includes the reuse of existing gravel for boat storage activities and the plugging of an existing storm drain. Said property is shown on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) District. As a result of said consideration, the Commission voted to **recommend approval** of this application to the Planning Board with the following stipulations:.

1. Applicant shall receive all necessary permissions from NHDOT and the contributing abutting landowners as applicable prior to plugging or abandoning any of the existing 15" drainage pipe. Further, please provide a drainage plan and calculation analysis for the rerouting of flow entering this pipe. This shall occur prior to Planning Board approval and may need review from TAC.
Any proposed ground disturbance within a jurisdictional wetland or wetland buffer due to future rerouting or removal of the existing pipe shall require a separate wetland conditional use permit from the City.

2. All areas to be loamed and seeded shall receive a wetland buffer conservation seed mix or equivalent.

3. In accordance with Section 10.1018.40 of the Zoning Ordinance, applicant shall permanently install wetland boundary markers, which may be purchased through the City of Portsmouth Planning & Sustainability Department. Markers are to be placed along the edge of the gravel parking area near the restoration area at 50-foot intervals and must be installed

prior to the start of any construction.

4. Applicant shall clearly delineate on the site plan and provide a detailed description of the proposed grassed swale. This should include dimensions, materials, depth, etc.

This matter will be placed on the agenda for the Planning Board meeting scheduled for **Thursday, April 17, 2025.** One (1) hard copy of any revised plans and/or exhibits as well as an updated electronic file (in a PDF format) must be filed in the Planning & Sustainability Department and uploaded to the online permit system no later than Wednesday, March 26, 2025.

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

Very truly yours,

Samantha Collins, Chair
Conservation Commission

cc:

Jay Johonnett, Project Engineer, Aries Engineering
Steve Graham, Project Engineer, Aries Engineering

CITY OF PORTSMOUTH
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, New Hampshire 03801
(603) 610-7216

TECHNICAL ADVISORY COMMITTEE

May 8, 2025

Tom Reis
Sea Level LLC
P.O. Box 4094
Portsmouth, New Hampshire 03801

RE: Requesting exemption from Site Review approval for property located at 187 Wentworth House Rd, Portsmouth, NH (LU-25-2)

Dear Property Owner:

The Technical Advisory Committee, at its regularly scheduled meeting of Tuesday, May 6, 2025, considered your application for consideration that the proposed stormwater alterations and the installation of a concrete cap at the existing commercial site be exempted from requiring Site Review approval. Said property is shown on Assessor Map 201 Lot 12 and lies within the Waterfront Business (WB) District. As a result of said consideration, the Committee voted to **postpone** the application to the June meeting.

This matter will be placed on the agenda for the Technical Advisory Committee meeting scheduled for **Tuesday, June 3, 2025.** One (1) hard copy of any revised plans and supporting reports and exhibits as well as an updated electronic file (in a PDF format) must be filed in the Planning Department by **Wednesday, May 21, 2025.**

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

Very truly yours,

Peter Britz,
Planning and Sustainability Director

cc:

Jay Johonnett, Project Engineer, Aries Engineering
Steve Graham, Project Engineer, Aries Engineering

Summary of Underground Utility Locating

Prepared For: ARIES Engineering

Prepared By:
Daniel Pacheco
dan.pacheco@gprsinc.com
Project Manager-Boston
617.455.5121

May 18, 2025

May 18, 2025

ARIES Engineering
Attn: Stephen Graham
Email: sgraham@aries-eng.com
Site: 187 Wentworth Rd. Portsmouth, NH 03801

We appreciate the opportunity to provide this report for our work completed on May 15, 2025.

PURPOSE

The purpose of the project was to search for an underground storm drainage line within the project boundaries provided by the client. The scope of work consisted of a single location measuring approximately 175 linear feet. The client marked the end pipe outlet location prior to our scanning and our markings were then placed onto the surface using spray paint and flags.

EQUIPMENT

- **Underground Scanning GPR Antenna**. The antenna with frequencies ranging from 250 MHz-450 MHz is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the types of materials being scanned through. Some soil types such as clay may limit maximum depths to 3' or less. As depth increases, targets must be larger in order to be detected, and non-metallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator**. The EM locator can passively detect the electromagnetic fields from live AC power or from radio signals travelling along some conductive utilities. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. A utility's ability to be located depends on a variety of factors including access to the utility, conductivity, grounding, interference from other fields, and many others. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Traceable Rodder**. The rodder has a copper wire encased in fiberglass. The line is pushed through accessible pipes before placing a current on the wire which is then traced from the surface. The maximum traceable depth is 10' depending on the soil conditions and the maximum distance is 300'. The line can be pushed through a pipe with direct access such as a sewer line at a cleanout or a storm drain catch basin. It may not be able to be pushed through deeper pipes within manholes and conduits will not be accessed by GPRS. The signal cannot be located through metallic pipes. For more information, please visit: Link
- **GPS**. This handheld GPS unit offers accuracy down to .39 inches; however, the accuracy will depend on the satellite environment and obstructions and should not be considered survey-grade. Features can be collected as points, lines, or areas and then exported into Google Earth or overlaid on a CAD drawing. For more information, please visit: Link

PROCESS

The process typically begins with using the EM pipe locator to locate pipes or utilities throughout the scan area. First, the transmitter is used to connect to and trace any visible risers, tracer wires, or accessible, conductive utilities if there is an exposed, metallic surface. The areas are then swept with the receiver to detect live power or radio frequency signals. Locations and depths are painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

Initial GPR scans were then collected to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 3–4-foot scan spacing to locate any potential utilities that were not found with the pipe locator. The GPR data is viewed in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above-ground features, and utilization of services such as One Call/811. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

FINDINGS

The subsurface conditions at the time of the scanning allowed for maximum GPR depth penetration of 6-7 feet in most areas. The drainage pipe was able to be located using either the GPR or EM pipe locator. The traceable rodder was used from both ends of the drainage pipe. The drainpipe starts on the South side of Wentworth Road and drains into Sagamore Creek. The following pages will provide a further explanation of the findings.

Prepared for: ARIES
Prepared By: DP
Date of Scanning: 5/15/25

Terms and Conditions

GPRS does not provide land survey or civil engineering data collection or documentation. This is provided as a reference map of the field markings and is not survey-grade.

LEGEND

	ELECTRIC		SANITARY
	WATER		STORM
	COMM		UNKNOWN
	GAS		

187 Wentworth Rd. Portsmouth, NH 03801

Prepared by:

GPRS

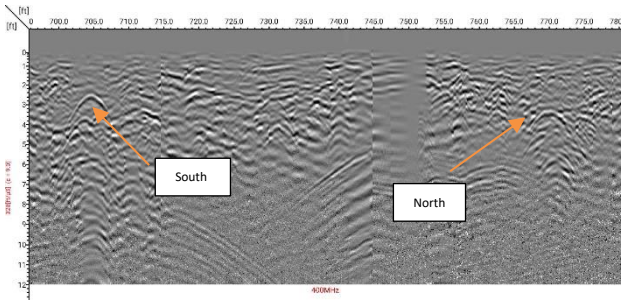
Inlet from Wentworth Rd.

Using Traceable Rodder at Inlet.

Wide-Shot of Inlet.

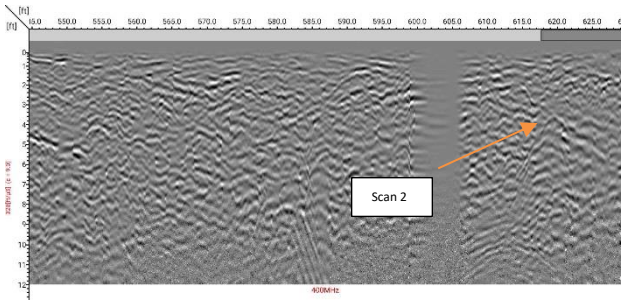
There were many obstructions, but the signal could still be traced and mapped.

GPR Scanning North side of Wentworth Rd.



Data shot South and North of Wentworth Rd.

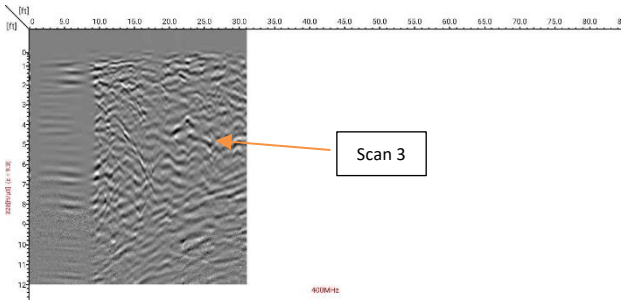
Scan 2.



Data shot from Scan 2.

GPR Data Screenshots and Photos	187 Wentworth Rd. Portsmouth, NH 03801	GPRS

Scan 3 Area.



Data shot from Scan 3 Area.

Same data set using Google Earth map from 2018. Little easier to see surrounding area compared to the 2025 map.

Outlet in Sagamore Creek.

GPR Data Screenshots and Photos	187 Wentworth Rd. Portsmouth, NH 03801	GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Daniel Pacheco

Daniel Pacheco
Project Manager—Boston

Direct: 617.455.5121

dan.pacheco@gprsinc.com

www.gprsinc.com

Reviewed,

Sean Parker
Area Manager—Boston

Direct: 617.372.6695

sean.parker@gprsinc.com

www.gprsinc.com

ARIES ENGINEERING

Environmental & Geotechnical
Engineers & Hydrogeologists

April 10, 2025
File No. 2021-075

Samantha Collins, Chair
Portsmouth Conservation Commission (ConCom)
Portsmouth City Hall
Rick Chellman, Chair
Portsmouth Planning Board
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

Subject: 185-187 Wentworth Road, Portsmouth, NH
Wetlands Conditional Use Permit Application (WCUPA)
Marina Restoration Project

Dear Ms. Collins and Mr. Chellman:

On behalf of the Project Applicant/our client Sea Level LLC, Aries Engineering LLC is requesting a postponement for one month of the scheduled April 17, 2025 Planning Board meeting for this project. This will allow our project team to provide by May 1, 2025 the following new information:

1) a slightly revised WCUPA, prepared in response to the Conservation Commission's March 14, 2025 letter which stated that it had recommended approval of this WCUPA to the Planning Board with four (4) stipulations. Stipulation No. 1 will no longer apply because our team proposes to modify its design concept so that the existing drainage pipe will not be plugged or otherwise modified. Originally, our team was concerned that discharge flow and velocity from the pipe would negatively affect the proposed wetland grass plantings. However, a field review of the pipe's inlet surface service area and monitoring of the pipe's discharges in March and April have shown a negligible effect on the area of future wetland grass plantings. This new design concept is possible since March and April represent the highest annual levels of precipitation; and

2) the underground stormwater retainage system proposed in the WCUPA is no longer feasible nor required, due to a) unsuitable soils having been found in its proposed location, b) the necessary impact by installation of the proposed underground stormwater retainage system to the existing storm drain pipe, and c) upon further evaluation by Haley and Ward, civil engineers brought in to evaluate stormwater requirements, an alternative stormwater management approach for a proposed 5,000 square foot concrete pad can be advanced. A memorandum from Haley and Ward is attached concerning Item 2 above. The current WCUPA design will also need to be modified to reflect this modified approach and provide stormwater management information adequate to address City of Portsmouth Zoning Ordinance requirements.

The proposed postponement also allows the team to collect additional existing pipe discharge measurements through the balance of April to support its contention in Item 1 above and address the other three Stipulations of the March 14 letter.

Please let us know if you have any questions.

Sincerely,
Aries Engineering, LLC

Stephen J. Graham, P.E.
Director of Engineering

Cc: Jay Johonnett, PE, Aries
Tom Reis, Sea Level LLC
Rick Kowalski, PG, Aries
Drew Olehowski, Sam Hayden, Haley & Ward

Attachments: Haley and Ward Memorandum

HALEY WARD

MEMO

To: Tom Reis, Sea Level LLC
Stephen Graham, Aries Engineering LLC

From: **Drew Olehowski, PE**

Re: **185-187 Wentworth Road | Wetlands Conditional Use Permit Application, Marina Restoration Project, Stormwater Management Supplement**

Date: **April 9, 2025**

Haley Ward, Inc. (Haley Ward) has been retained by Aries Engineering LLC (Aries Engineering) and Sea Level LLC (Sea Level) to provide engineering design and permitting services related to stormwater management for the proposed 185-187 Wentworth Road Marina Restoration project. This memorandum is to be considered a supplement to the Wetlands Conditional Use Permit Application currently undergoing review by the City of Portsmouth Planning Department.

Per the letter sent from Kate Homet, Environmental Planner, and Petr Stith, Planning Manager, Chair of Technical Advisory Committee, to Sea Level dated February 21, 2025, it was identified that the proposed development triggers Site Plan review per Section 1.2.1 of the City's Site Plan Regulations. This letter explains further that Site Plan review is required due to the proposed rerouting of an existing city-owned storm drain, and the installation of a concrete cap. The Applicant is requesting an exemption from Site Plan review by way of being classified as a "small impact" development. On February 25, 2025, a letter was sent from Aries Engineering to the individuals identified above demonstrating why the "small impact" designation is applicable to the proposed development. This memorandum serves to bolster the justification provided for item 1.2.2(c) (an increase in the lot's impervious surfaces by 500 or more feet,) as well as to comment on the necessity for the development to adhere to the City's Stormwater Management Ordinances, specifically Section 2.5.4.3(i) and Section 7.0 of the Site Plan Regulations, should the "small impact" exemption not be granted.

As described in more detail within the Wetlands Conditional Use Permit Application (WCUP,) the project generally consists of the environmental remediation of the property located at 185-187 Wentworth Road (the "Site"). Other than remediation-specific activities, changes/ improvements to the Site are limited to the conversion of an approximately 5,000 square foot gravel boat storage pad to a concrete "cap." This cap will continue to be used for boat storage.

120 MAIN STREET, SUITE 132, SACO, ME 04072 207.283.9151 | HALEYWARD.COM

As mentioned above, this "alteration" triggers the need for Site Plan review. Applicable stormwater management standards of the Site Plan Ordinance include Section 2.5.4.3(i) and Section 7.0. Should the City uphold the applicability of the Site Plan Ordinance, a waiver for these stormwater-related sections would be requested. In general, the goal of these standards is to prevent adverse stormwater runoff impacts related to new development; these impacts may include flooding on abutting properties, degradation of the water quality of downstream waterways, or impacts to natural resources/groundwater. The nature of the proposed development makes any of these outcomes unlikely, for the following reasons:

1. There will be no significant increase in stormwater runoff volumes leaving the property. Runoff volumes are directly related to the "cover types" found on the Site. Under existing conditions, the subject area is entirely compacted gravel, which mimics an impervious surface. Haley Ward performed a test pit in the gravel area in April 2025 and found the soils to be generally impermeable. A copy of this test pit log is attached. Under proposed conditions, this gravel area will be converted to concrete, which is also an impermeable cover type. There is no discernable difference between compacted gravel and concrete as related to runoff volumes, especially for small sites such as this.
2. There will be no significant alterations in existing stormwater runoff flow paths, or resultant changes in "Summation points." Under existing conditions, the gravel pad generally slopes from south to north, generally with slopes between 0-7 percent. After sheeting over this pad for approximately 60 feet, the terrain steepens to a 1:1 slope along the bank of a wetland/Sagamore Creek. Under proposed conditions, the gravel pad will be replaced with a concrete pad which has been designed to mimic existing conditions. The concrete pad will pitch from south to north, at a flatter grade of 3%. Runoff will be maintained as sheet flow along this pad before discharging to the wetland side slopes, which we are proposing to stabilize via rip rap armoring. Overall, the drainage scheme is improved via this armoring, and a flattening of the Site's slope. The only summation point is the wetland to the north of the Site, which will remain unaltered.
3. The proposed use of this Site will remain unchanged from the existing conditions.
4. No salt is currently used on the Site, which will continue under the proposed conditions.

Haley Ward has carried out an initial investigation into what would be needed to satisfy the City's stormwater ordinances, should they apply, and a waiver not be granted. Due to Site constraints that include wetlands, resource buffers, undisturbed areas, and capped contamination areas, stormwater treatment Best Management Practices (BMP) would be limited to surface features with a small footprint in combination with underground detention systems. This type of BMP would be unfavorable due to the following:

1. Flow performing as "sheet" flow into adjacent wetlands would be captured and channelized via a structural BMP. Channelization of flow is more likely to result in erosion of downstream areas. In this case, the downstream areas are wetlands that we do not want to negatively impact. As mentioned above, the soils in this area are generally low-permeability and discharge from the BMP via infiltration is not an option.

2. There is an existing city-owned storm drain pipe in the most efficient stormwater treatment location. The use of a BMP in this area would require the City to relocate/modify their storm drain.
3. Potential disturbance of underground contaminated areas through the use of the needed underground detention system.

If you have any further comments or questions, please contact our office.

Sincerely,
Haley Ward, Inc.

Drew Olehowski, P.E.
Project Manager

DJO/jok
Attachment

FORM F Rev. 07/11a

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
185 Wentworth Road 5010185.2025		Portsmouth NH

Exploration Symbol # TP1 ☒ Test Pit ☐ Boring ☐ Probe

0 " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Sand	granular/friable	2.5Y 5/6	None
	Fill, many angular cobbles throughout.			
10	loamy sand	granular/friable	10YR 4/3	None
	Fill, many angular cobbles throughout.			
20	loamy sand	granular/friable	2.5Y 5/6	None
	Fill, many angular cobbles throughout.			
30	gravely coarse sand	granular/friable	10YR 3/6	None
	Fill, many angular cobbles throughout.			
50	Silt loam	massive, firming	2.5Y 3/2	None
	Possible fill from historic dredging of adjacent Sagamore Creek.			
	groundwater table at 65".			
	top of Stormwater drainage pipe at 46"			
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
N/A (Profile)	N/A (Condition)	0-2 (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name: N/A			☐ Hydric ☒ Non-hydric		C (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

Exploration Symbol # _____ ☐ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor		Hydrologic
_____ (Profile)	_____ (Condition)	_____ (Percent)	_____ " (Depth)	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock	
Soil Series/Phase Name:			☐ Hydric ☐ Non-hydric		_____ (Soil Group)

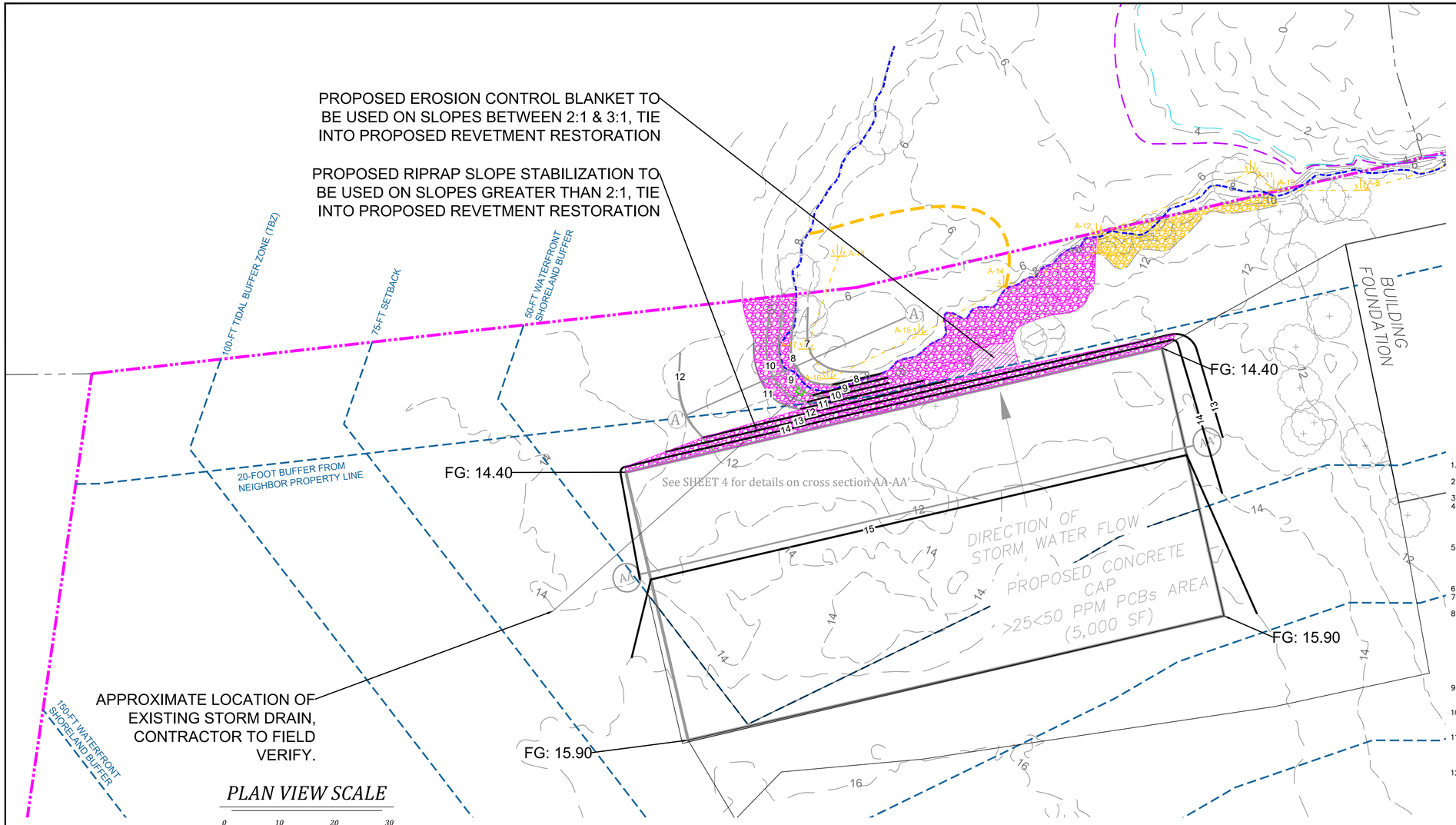
INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Date
	4/4/2025
Name Printed: Sam Hayden PWS 321	Cert/Lic/Reg. #

Title ☐ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

STATE OF NEW HAMPSHIRE SAMUEL HAYDEN 4/4/25 No. 321 CERTIFIED WETLAND SCIENTIST

affix professional seal



PLAN VIEW SCALE

0 10 20 30

1 INCH = 10 FEET (APPROXIMATE)

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (4.22 FT NAVD88)
- MEAN HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- NATURAL WOODLAND AREA
- EXISTING RIPRAP
- TREE

PROPOSED

- PROPOSED WORK LIMITS
- FINAL ELEVATION CONTOUR (FT)
- A — A' CROSS SECTION
- PROPOSED TURBIDITY SILT CURTAIN
- PROPOSED RIPRAP
- PROPOSED EROSION CONTROL BLANKET

N W E S

GENERAL PLAN NOTES:

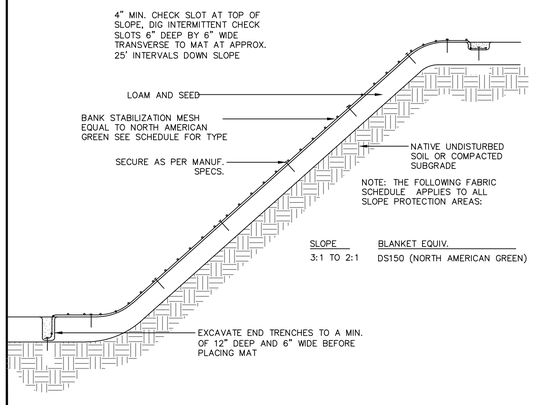
1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B–DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B–DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST–PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINIUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y–87–1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN–WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE–EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE–EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B–DOCK–PAD–SW.
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING "PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG–2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

GRAPHIC SCALE

10 0 5 10 20

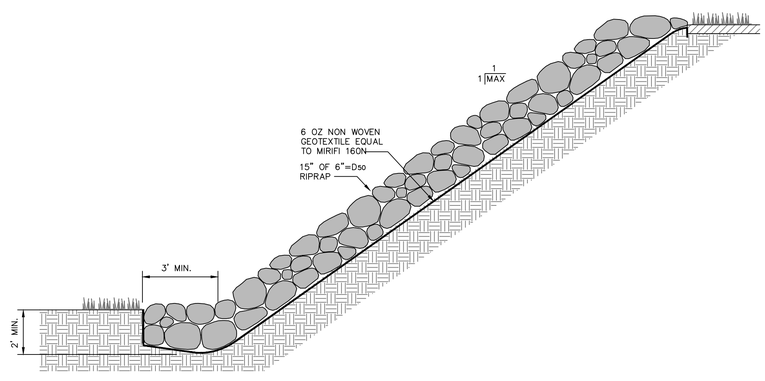
(IN FEET)

1 inch = 10 ft.



BANK STABILIZATION DETAIL

NTS



RIP RAPPED SLOPE STABILIZATION DETAIL

NTS

NOTE: THIS STAMP IS PROVIDED TO CERTIFY THE CONCRETE PAD GRADING ONLY.

STATE OF NEW HAMPSHIRE – DREW JOHN OLEHOWSKI No. 18975 LICENSED PROFESSIONAL ENGINEER – 04/09/2025

Drew J. Olehowski, P.E.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

FINAL GRADING PLAN/PAD GRADING AND FOCAL POINT

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	04/23/23	Revision
REVIEWED BY:	02	09/04/24	Revision
S. Graham			

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5B

Patrick D. Seekamp, PWS, CWS

Jay P. Johonnett, P.E.

© 2024 ARIES ENGINEERING, LLC.

February 25, 2025
File No. 2021-075A

Kate Homet
Environmental Planner
Peter Stith
Planning Manager, Chair of Technical Advisory Committee
City of Portsmouth
Planning and Sustainability Department
1 Junkins Avenue
Portsmouth, NH 03801
Via email to Kehomet@cityofportsmouth.com

Re: File LU 25-2, 185-187 Wentworth Road, Portsmouth, NH
Tax Map 201 Lot 12, Sea Level LLC Facility

Dear Ms. Homet and Mr. Stith:

This letter is submitted on behalf of our client, Sea Level LLC (Sea Level) in response to your February 21, 2025 letter issued to Sea Level concerning the subject property, which stated that "In discussing this project with staff, it became apparent that this project also triggers Site Plan Approval according to Section 1.2.1 (B) in our Site Plan Regulations. The proposed project requires alteration to a commercial site but you may be able to receive an exemption. An exemption can be granted by the Planning & Sustainability Director if deemed a small impact (see Section 1.2.2). The proposed rerouting of the stormwater drain as well as the installation of the concrete cap are what would trigger this need for a Site Plan Update" (SPU).

Each of the two items the City considers as triggers for a SPU are examined below.

Concrete Cap: An exemption of the Site Plan Regulations is requested as allowed in Section 1.2.2 of those regulations, since the proposed project meets all three criteria of that Section, Exemption of Small Projects, as follows:

Section 1.2.2 (a) There is no increase in building height or gross floor area. Rationale: this criterion is met because no building is proposed, nor exists currently within the project limits of work. Instead, a 5,000 square foot concrete cap required by the U.S. Environmental Protection Agency to cover underlying PCB-impacted soils from 25 to 50 parts per million is proposed.

Section 1.2.2 (b) There is no increase in no reduction in the setback of any structure or vehicular service area from any property line. Rationale: no such increase results from the proposed cap.

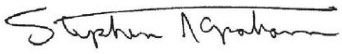
Section 1.2.2 (c) Lot coverage by impervious surfaces does not increase by more than 500 square feet. Rationale: the proposed cap is replacing historical gravel stone in this part of the site, which is considered impervious according to City of Portsmouth zoning and planning regulations. This historical gravel supported boat storage and/or maintenance operations as stated in the Conditional Use Permit Application submitted on January 30, 2025, and seen most clearly in historical photographs in Appendix D, April 23, 2023 Memorandum to NHDES, and Appendix N, Color Photographs of Jurisdictional Area.

Stormwater Drain: Regarding the statement that the project may be subject to a SPU due to the "proposed rerouting of the stormwater drain", it is emphasized that no such rerouting is proposed or required by the applicant. This storm drain pipe is being plugged at its outlet into the wetland restoration area, otherwise a scouring affect from pipe discharge during significant storm events will negatively impact the proposed wetland grass plantings and its subsurface sediment, and undermine the adjacent proposed shoreline

riprap restoration. The applicant noted and recorded video of the pipe being cleaned out by the City of Portsmouth in February 2024 after upgradient street and site redevelopment activities resulted in new stormwater volume, after a significant period of limited prior use/discharge. There is no legal easement on the applicant's property for this pipeline, and it is the responsibility of the City and/or State to manage stormwater being generated upgradient of the wetland restoration area. The applicant has previously noted to the City that stormwater could be diverted along Wentworth Road to a culvert north of his property, but leaves it to others to address this matter.

If you have any questions or need additional information, please contact the undersigned.

Sincerely,
Aries Engineering, LLC (Aries)



Stephen J. Graham, PE

Cc: Jay Johonnett, PE, Aries
Tom Reis, Sea Level LLC
Rick Kowalski, PG, Aries

January 7, 2025

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

I hereby authorize Aries Engineering LLC 36 Taunton Street, Plainville, MA 02762 and 104 Pleasant Street, Concord, NH 03301, to submit on my behalf a Conditional Use Permit Application to the City of Portsmouth, NH for the marina restoration project at my property at 185-187 Wentworth House Road, Portsmouth, NH.

Thomas Reis

Member
Sea Level, LLC.
185 Wentworth Road
Portsmouth, NH 03801

January 7, 2025

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

I hereby authorize Aries Engineering LLC 36 Taunton Street, Plainville, MA 02762 and 104 Pleasant Street, Concord, NH 03301, to submit on my behalf a Conditional Use Permit Application to the City of Portsmouth, NH for the marina restoration project at my property at 185-187 Wentworth House Road, Portsmouth, NH.

Thomas Reis

Member
Sea Level, LLC.
185 Wentworth Road
Portsmouth, NH 03801

January 30, 2025
File No. 2021-075

Samantha Collins, Chair
Portsmouth Conservation Commission (ConCom)
Portsmouth City Hall
1 Junkins Ave, 3rd Floor
Portsmouth, NH 03801

Re: 185-187 Wentworth Road, Portsmouth, NH
Wetlands Conditional Use Permit Application (CUPA)
Marina Restoration Project

Dear Ms. Collins:

Please find attached a hard copy of the following information which was provided in an online application filed January 8, 2025. A site visit was attended by Samantha Collins and Lynn Vacarro of the ConCom on January 27, 2025, at which the proposed limits of work were reviewed in the field along with engineering drawings depicting proposed activities for remediation and restoration.

Aries Engineering looks forward to the February 12, 2025, meeting with ConCom. This information has been prepared to address the City of Portsmouth CUPA on-line instructions and Section 10 of the City Zoning Ordinance, the latter identified in correspondence on January 29, 2025, with Ms. Kate Homet, Environmental Planner, City Planning & Sustainability Department.

A. ON-LINE INSTRUCTIONS/QUESTIONS

1.0 **Description of site and proposed construction;** The project objective is final remediation of PCBs initially addressed under U.S. EPA approval issued on 9-9-2016, with 1-31-23 Addendum approval, per 40 CFR 761.61(a) in a working waterfront; see Appendix D, 4-24-2023 memorandum to NHDES Wetlands Permit Application, for history and regulatory requirements (appended to the CUPA). This new cleanup effort limits impacts within Zone AE/other jurisdictional zones as follows: 1) Zone AE at 5 to 6 FT MSL: 3 small areas totaling 175 square feet (SF) of existing salt marsh area, contained wholly within a small, isolated, and blind section of Witch Cove contiguous to tidal Sagamore Creek will be temporarily impacted via removal of 175 SF of sediment to 1 ft depth, upper 6 inches (in.) of which is PCB-impacted. Also, 6 in. layer of 235 SF adjacent area filled inadvertently during prior remediation will be removed to achieve prior 6 FT MSL, for a total 11 cubic yards (CY) of

wetland soil excavation. Restoration involves adding 6 in. of sand in the 175 SF area, and planting saltmarsh bulrush plugs up to 6 FT MSL in the entire 410 SF area, per grading/planting plan presented in Sheets 5-7 (Appendix E); 2) Zone AE 6 to 8 FT MSL (HOTL): salt tolerant grass mix will be seeded; 3) Outside Zone AE: a) 470 SF of near-vertical tidal cove shoreline above HOTL/below 11 ft MSL will be stabilized by armoring using boulders saved during prior remediation, and adding 4-5 in. stone riprap, lined by geotextile and designed per NH Stormwater Handbook and minimization techniques; b) a 0.5 CY "hot spot" in upland wooded area containing >50 ppm PCBs will be removed to 1 ft deep and that soil transported off-site to a licensed disposal facility, and an adjacent 0.5 CY area with soil >1<25 ppm PCBs, will be excavated to 1 ft deep and placed under the proposed concrete cap, see d) below. Both of these 0.5 CY areas lie on abutter Jason Goulemas property; 770 SF, other adjacent areas above 11 ft MSL in level graded areas, with >1<25ppm PCBs, will receive 6 inches of clean top soil and vegetated; d) within previously developed uplands, consisting of existing boatyard laydown and storage areas, a 5,000 SF 6 inch thick concrete pad, with 6 inch stone base beneath lined by geotextile, will be installed to cover soils with >25<50 ppm PCBs, and also lead levels with potential to leach into groundwater, see Engineering Sheets 4 and 5; e) adjacent to cap, gravel in degraded gravel condition areas will be re-used or re-installed as needed to allow boat storage to recommence; and f) to avoid future scouring effects of restored wetland areas from an existing 15 inch storm drain discharging into that area, this storm drain will be plugged. Appropriate erosion control measures will be applied during construction, which should be completed within one week in total, with wetland excavation occurring within a single day. An Operations Maintenance and Monitoring Plan and a Construction Monitoring Plan is provided in the attached WPA, Appendix J, Parts 4 and 5, respectively, which address future operations and construction activities, in according with federal, state, and City of Portsmouth (Section 10, Zoning Code) requirements. All impacts are temporary, occurring within 1 month period.

2.0 Total area of inland wetland or vernal pool (both on and off the parcel): 0 acres.

3.0 Impacted Jurisdictional Area(s) (i.e. vernal pool, inland wetland, inland wetland buffer, tidal wetland or tidal wetland buffer); The limits of work will impact 410 SF of tidal wetland within the highest observable tide line (HOTL) of 8 feet (actually 7.9 feet); and also, will temporarily impact the following areas within the 100-foot wetland buffer zone for the activities described above and will have the following SF affected:

- 470 SF of near-vertical slope, above HOTL to 11 FT MSL, riprap restoration'
- 772 SF of upland area (2 SF is described in Item 1.0, b above), to which a 6-inch cap will be added and wildlife-compatible seeding (non-lawn species) provided;
- 5,000 SF of concrete cap, with dimension of 50 by 100 feet.

4.0 Distance of proposed structure or activity to the edge of wetland; All activity occurs within 70 feet of the edge of wetland (see Engineering Sheet 5).

5.0 Total wetland area and/or wetland buffer area on the lot; See Section 3.0.

6.0 Total wetland area and/or wetland buffer area to be disturbed on the lot; See Section 3.0.

7.0 Project representatives – names and contact information;

Tom Reis, President, Sea Level, LLC, tom@substructure.com ; **603-436-1039**

Jay Johonnett, Aries Engineering, LLC, jjohonnett@aries-eng.com ; **603-228-0008**

Steve Graham, Aries Engineering, LLC, sgraham@aries-eng.com ; **617-571-5280**

8.0 Plans meeting the requirements of Section 10.1017.20 of the Zoning Ordinance; Engineering Sheets 1, 2, 4, and 5-7 meet these requirements. Sheets 3A-3D provide historical environmental sampling testing results and prior remediation limits.

9.0 All applicants are encouraged to discuss the project with impacted neighbors; Jason Goulemas is an abutter and co-applicant to the NHDES WPA, because remediation in upland areas and wetland areas occurs on his property. Other directly adjoining abutters have been notified, as identified in Appendix M of the attached WPA.

10.0 Enhancement of existing buffer plantings; Consider adding native vegetation (including trees) in the wetland buffer (and throughout the property) to increase biodiversity, habitat, improve soil stability, and reduce climate impact. Additionally, please consider preserving as much existing vegetation and trees as possible. Providing a planting plan is encouraged: A planting plan for wetlands and uplands areas, including appropriate tree additions, is identified in Engineering Sheets 5 and 6, prepared and stamped by a NH Certified Wetland Specialist, and also described in the WPA text in several appendices, see attached WPA List of Appendices.

11.0 Reduce lawn areas; Consider reducing the lawn area on your property, especially in the buffer, and replace it with native plantings or let it grow naturally without mowing. This can increase stormwater runoff infiltration and improve biodiversity and shoreline stability. Additionally, utilizing NOFA's standards for organic land care on any lawn and landscaped areas that remain: Wildlife-enhancing natural grasses and tree plantings in the wetlands buffer are proposed, see Section 10.0

12.0 Use rain gardens, rain barrels, and gutters; Not applicable.

13.0 Reduce impervious surfaces; Consider reducing the area of any new impervious surface (buildings, walkways, patios, driveways, etc.) to the absolute minimum necessary to achieve the project's goals. This can help reduce the environmental impact of your project: This approach has been

undertaken, impervious surface is limited to the 5,000 SF concrete cap required by US EPA to immobilize the relatively low levels of PCBs < 50 ppm. The remaining areas of work limits are either vegetated or permeable (riprap).

14.0 Consider Wildlife; Consider including wildlife tunnels/crossing under roadways, ground clearance of fences, and curb cuts, slanted curbing, or no curbing to allow for the movement of wildlife through the property. The addition of pollinator gardens is encouraged. Wildlife can move within the mature forest canopied area of the upland area, or within the tidal wetlands area. See WPA, Appendix C, Wildlife Habitat Memorandum.

15.0 Limit lighting and blasting; Consider keeping lighting to a minimum and having it be dark-sky compliant, this can be shown in a lighting plan. Limit blasting and the keep the removal of trees and vegetation to an absolute minimum. No blasting will occur, and removal of trees is limited to only that necessary to allow construction of future site landscaping or plantings. Re-planting of appropriate trees has been presented in Section 10.

16.0 Provide property maintenance plans; Consider attaching property maintenance plans for pervious pavements, stormwater infiltration systems, no-mow zones, snow removal and buffer plantings to the property deed. This can help to ensure the long-term sustainability of your project: An Operations Maintenance and Monitoring Plan and a Construction Monitoring Plan is provided in the attached WPA, Appendix J, Parts 4 and 5, respectively, which address future operations and construction activities, in accordance with federal, state, and City of Portsmouth (Section 10, Zoning Code) requirements. All impacts are temporary, occurring within 1 month period.

17.0 Think outside the box; Consider creative ways to reduce and offset the impacts of your project on the wetland buffer and the environment in general: We believe we have provided the most practical and environmentally sensitive approach to meeting environmental cleanup requirements and simultaneously restoring the wetland areas and buffers to a natural condition.

B. COMPLIANCE WITH ZONING ORDINANCE

The following City of Portsmouth Zoning Ordinance sections, as amended through August 2023, have been reviewed and compliance with each section is provided below.

1.0 Section 10.1017.21; (1) Location and area of lot and proposed activities and uses: See attached Engineering Sheets (ES)-1, 2 and 5; (2) Location and area of all jurisdictional areas (vernal pool, inland wetland, tidal wetland, river or stream) on the lot and within 250 feet of the lot; See ES-2 and 5; only tidal wetlands and wetland buffer zones exist. (3) Location and area of wetland buffers on the lot; See ES-5. (4) Description of proposed construction, demolition, fill, excavation, or any other alteration of the wetland or wetland buffer; See A, 1.0, above. (5) Setbacks of proposed alterations from property lines, jurisdictional areas and wetland buffers; See ES-2 and 5. (6) Location and area of wetland impact, new impervious surface, previously disturbed

upland; See ES-2 and 5. (7) Location and description of existing trees to be removed, other landscaping, grade changes, fill extensions, rip rap, culverts, utilities; See ES-2, 5, 6 and 7 for locations, for descriptions see text at bottom of ES-5 and ES-7. (8) Dimensions and uses of existing and proposed buildings and structures; See ES-5, and attached WPA, Appendix S, Marina Property Calculations. (9) Any other information necessary to describe the proposed construction or alteration. See WPA, Appendices A through S.

2.0 Section 10.1017.22; Where the proposed project will involve the temporary or permanent alteration of more than 250 sq. ft. of wetland and/or wetland buffer, the application shall provide information about the affected wetland and wetland buffer as follows: (1) Up to 1,000 sq. ft. of alteration to the wetland: a wetland characterization that describes the type of wetland (e.g., emergent, scrub-shrub, forested), the percent of invasive species, and whether the wetland is seasonally flooded: The wetlands are tidal only, no invasive species are known to exist, and the wetland is tidally flushed daily. See attached WPA List of Appendices, which directs the reviewer to pertinent sections of the attached WPA where a full characterization of the impacted wetland and wetland buffer and adjacent tidal waters is provided, along with impact minimization and mitigation measures. (2) More than 1,000 sq. ft. of alteration to the wetland: a functions and values assessment equivalent to the model set forth in Appendix A of The Highway Methodology Workbook Supplement – Wetland Functions and Values: A Descriptive Approach, NAEEP-360-1-30a, US Army Corps of Engineers, New England Division, September 1999, as amended. N/A. (3) More than 250 sq. ft. of alteration to the wetland buffer (regardless of the amount of alteration to the wetland): a description of the 100-foot buffer including vegetation type, the percent of the buffer with invasive species, and the percent of the buffer that is paved or developed. See ES-2 and WPA List of Appendices. No invasive species are known to predominate, although Oregon grape vine and similar briar species are present sporadically.

3.0 Section 10.1017.23; The application shall describe the impact of the proposed project with specific reference to the criteria for approval set forth in Section 10.1017.50 (or Section 10.1017.60 in the case of utility installation in a right-of-way) and shall demonstrate that the proposed site alteration is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Ordinance. The proposed project meets all of the criteria listed in Section 10.1017.50 below, as demonstrated in the NHDES Application itself, and particularly in Appendices F, Avoidance and Minimization Checklist, and Appendix O, WPA Minor and Major Projects. In the latter, it is stated that the project is being undertaken in accordance with US EPA approvals issued through 2023 (see WPA Appendix D for regulatory history), and no practicable alternative exists to remove the contaminated wetland sediment and upland soils. It is noted that this project proposes to complete bank stabilization after remediation is complete via hard scaping, which is needed to maintain existing infrastructure (prior boat storage laydown area and boat storage shed foundation in a working waterfront with developed

uplands). The stabilization design meets the criteria for approval under NH Env-Wt 514.02 (b)(1), (2), (3), (4), (5), and (7) by design and conforms to the NHDES Wetlands Best Management Practice (BMP) Techniques Avoidance and Minimization (BMPs) since it meets these criteria and techniques to the extent practicable because the near vertical combination boulder and riprap design (see ESs 5-7) is the least intrusive practical method, conforms to the natural alignment of the bank/ shoreline; does not adversely affect the tidal stream course such that water flow will be transported by the stream channel in a manner adversely affecting the physical functions as described in NH Env-Wt 514.91 and BMPs, will not affect or change tidal water flow, alter hydraulics, flow pattern or floodplain connectivity, provides structural erosion control and installation of rip-rap shoreward of the Mean High Water line.

4.0 **Section 10.1017.24;** Where feasible, the application shall include removal of impervious surfaces at least equal in area to the area of impervious surface impact. The intent of this provision is that the project will not result in a net loss of pervious surface within a jurisdictional wetland buffer. If it is not feasible to remove impervious surfaces from the wetland buffer at least equal in area to the area of new impervious surface impact, the application shall include a wetland buffer enhancement plan that describes how the wetland functions and values will be enhanced to offset the proposed impact. Reduction of the extent of the amount of wetland impervious surface is not feasible, due to the need to install a 5,000 SF concrete cap within the wetland buffer zone to restrict future access and prevent infiltration of precipitation onto the underlying slightly impacted soils. This encapsulation method is specifically approved by the US EPA for this site and eliminates the risk of impact to human health and the environment.

5.0 **Section 10.1017.25;** A wetland buffer enhancement plan shall be designed to enhance the functions of the jurisdictional wetland and/or wetland buffer on the lot, and to offset the impact of the proposed project. (1) The wetland buffer enhancement plan shall include a combination of new plantings, invasive species removal, habitat creation areas, improved site hydrology, or protective easements provided offsite. This plan is provided in ES-5, 6 and 7, prepared and stamped by a NH Certified Wetlands Scientist, and described both on those sheets and in very extensive detail in WPA Appendix J, Coastal Resource Worksheet, Part 3—Narrative. (2) Where the vegetated buffer strip contains grass or non-native plantings, or is otherwise not intact, the first priority of the wetland buffer enhancement plan shall be to include revegetation of the vegetated buffer strip with native, low-maintenance shrubs and other woody vegetation. See response to (1) immediately above.

6.0 **Section 10.1017.26;** Where the proposed project involves a use, activity or alteration in a tidal wetland or tidal wetland buffer, the application shall include a living shoreline strategy to preserve the existing natural shoreline and/or encourage establishment of a living shoreline through restoration, as applicable. Said living shoreline strategy shall be implemented unless the Planning Board determines that it is not feasible. A living shoreline is not feasible for reasons described above in A, Section 3.0.

7.0 **Section 10.1017.50;** Criteria for Approval Any proposed development, other than installation of utilities within a right-of-way, shall comply with all of the following criteria: (1) The land is reasonably suited to the use, activity or alteration. (2) There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration. (3) There will be no adverse impact on the wetland functional values of the site or surrounding properties; (4) Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals; and (5) The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section. (6) Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible. All of these criteria are answered by A Sections 1.0 through 6.0; WPA Appendix L, Wetlands Functional Assessment, evaluates these criteria in detail.

8.0 **Section 10.1018.10;** Stormwater Management All construction activities and uses of buildings, structures, and land within wetlands and wetland buffers shall be carried out so as to minimize the volume and rate of stormwater runoff, the amount of erosion, and the export of sediment from the site. All such activities shall be conducted in accordance with Best Management Practices for stormwater management including but not limited to: 1. New Hampshire Stormwater Manual, NHDES, current version. 2. Best Management Practices to Control Non-point Source Pollution: A Guide for Citizens and City Officials, NHDES, January 2004. The proposed construction activities and future use of the property meet these requirements, as described for stormwater management and erosion and sediment control in accordance with the above cited manuals in WPA Appendix J, Coastal Resource Worksheet Part 4—Operations Monitoring & Maintenance Plan, and Part 5—Construction Monitoring Plan, and Appendix J, Part 1 Narrative.

9.0 **Section 10.1018.22;** If the vegetated buffer strip contains an area that has a slope of 10% or more for at least 10 feet in a direction perpendicular to the edge of the jurisdictional area, the required width of the vegetated buffer strip shall be increased to 55 feet from the edge of a vernal pool and to 40 feet from the edge of any other wetland. N/A.

10.0 **Section 10.1018.23;** Removal or cutting of vegetation: (1) Chemical control of vegetation is prohibited in all areas of a wetland or wetland buffer. (2) The removal or cutting of vegetation is prohibited in a wetland or vegetated buffer strip, except that non-chemical control of plants designated by the State of New Hampshire as “New Hampshire Prohibited Invasive Species” is permitted. (3) The removal of more than 50% of trees greater than 6" diameter at breast height (dbh) is prohibited in the limited cut area. These requirements are met, as described in the planting plan for wetlands and uplands areas, including appropriate tree additions, is identified in Engineering Sheets 5 and 6, prepared and stamped by a NH Certified Wetland Specialist.

11.0 **Section 10.1018.24;** Fertilizers: (1) The use of any fertilizer is prohibited in a wetland, vegetated buffer strip or limited cut area. (2) The use of fertilizers other than low phosphate and slow-release nitrogen fertilizers is prohibited in

any part of a wetland buffer. Only limestone fertilizer is proposed as described in Appendix J, Coastal Resource Worksheet, Part 3, Narrative, Subsection 1 (3).

12.0 Section 10.1018.25; Pesticides and herbicides: The use of pesticides or herbicides is prohibited in a wetland or wetland buffer, except that application of pesticides by a public agency for public health purposes is permitted. Pesticides or herbicides will not be applied in the wetland or wetland buffer.

13.0 Section 10.1018.31; All new pavement installed in a wetland buffer shall be porous pavement. The Planning Board may allow exceptions to this requirement where it can be demonstrated that the height of ground water, condition of soil, or other factors as described in the application are not appropriate for porous pavement. This requirement can not be met for reasons stated in B, Section 3.0 above.

14.0 Section 10.1018.32; An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan addressing erosion control, periodic removal of sediment and debris from the porous surfaces, snow management, and repairs. The proposed impermeable cap and its future operation and maintenance are described in a pavement maintenance plan, see WPA Appendix J, Coastal Resource Worksheet Part 4—Operations Monitoring & Maintenance Plan, Subsection 4.1, Cap Maintenance and Part 4, Attachment CC, Inspection Form.

If you have any questions or need additional information, please contact the undersigned.

Sincerely,
Aries Engineering, LLC

Stephen J. Graham, P.E.
Director of Engineering

Jay P. Johonnett, P.E.
Principal Engineer

RK:pj

Attachments: Full size Engineering Sheets
NHDES WPA Appendices Table of Contents
NHDES Wetlands Permit Application (WPA)

New Hampshire Department of Environmental Services Dredge and Fill Wetlands Permit Application (WPA) Appendices

Appendix A	NH Natural Heritage Bureau Data Check Results Letter (Per Section 1, NH ENV-WT 306.05
Appendix B	Priority Resource Area and Protected Species (Per Section 1, NH ENV WT 306.05)
Appendix C	Habitat Evaluation Memorandum (Per Section 1, NH ENV-WT 306.05)
Appendix D	Aries Engineering April 24, 2023 Memorandum to NHDES (Per Section 2)
Appendix E	Engineering Project Plans, Drawings and Sheets (Per Sections 2, 7, 16, and NH ENV-WT 311.05, 311.03 {b}{4})
Appendix F	Avoidance and Minimization Checklist (Per Section 8, NH ENV-WT 313.03{a})
Appendix G	Copy of Application Fee (Per Section 12)
Appendix H	USGS Location Map (Per Section 16, NH ENV-WT 311.06{d})
Appendix I	USACE Appendix B, NH General Permits, Required Information and Corps Secondary Impacts Checklist (Per Application Checklist, includes US FWS IPAC Review and Section 106 Historic/Archaeological Resource Review/NH Division of Historical Resources Review)
Appendix J	Coastal Resource Worksheet (Per Application Checklist, NH ENV-WT 600) Part 1—Coastal Resource Worksheet Part 2—Figure J1 Part 3—Narrative Part 4—Operations Monitoring & Maintenance Plan Part 5—Construction Monitoring Plan
Appendix K	Vulnerability Assessment
Appendix L	Coastal Functional Assessment Part 1—Coastal Functional Assessment Narrative Part 2—L1, Part A, Wetlands Functional Assessment (WFA) Worksheet Part 3—L1, Part B, Ecological Integrity Part 4—L2, USACE Wetland Evaluation
Appendix M	Copy of Town Tax Map, Location of Project on property, and location, name, and address of abutters, recorded deed with book and page numbers, and copies of certified postal receipts (Per Application Checklist, NH ENV-WT 311.06, 311.12, 311.13)
Appendix N	Color Photographs of Jurisdictional Area (Per Application Checklist, NH ENV-WT 311.06, 311.12, 311.13)
Appendix O	WPA Attachment A: Minor & Major Projects (Per Application Checklist)
Appendix P	Request for Concurrent Processing of Related Shoreland and Wetland Permit Application and Other Items (Per Application Checklist, NH ENV WT 311.05, 311.06)
Appendix Q	Tidal Shoreline Stabilization Worksheet
Appendix R	Tidal Dredging Worksheet
Appendix S	Portsmouth Marina Property Calculations

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division / Land Resources Management

Check the Status of your Application

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

APPLICANT'S NAME: Sea Level, LLC & Goulema: **TOWN NAME:** Portsmouth

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

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: Priority Resource Areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	◉ Yes ○ No
Does the property contain a PRA? If yes, provide the following information:	◉ Yes ○ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHFG) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	○ Yes ◉ No
• Protected species or habitat? ○ If yes, species or habitat name(s): ○ NHB Project ID #: B20-3560	○ Yes ◉ No
• Bog?	○ Yes ◉ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	◉ Yes ○ No
• Designated prime wetland or duly-established 100-foot buffer?	◉ Yes ○ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	◉ Yes ○ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	○ Yes ◉ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant: PCBs	(●) Yes ( ) No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	(●) Yes ( ) No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a description of the project and the purpose of the project, the need for the proposed impacts to jurisdictional areas, an outline of the scope of work to be performed, and whether impacts are temporary or permanent.

Objective is final remediation of PCBs initially addressed under U.S. EPA approval issued on 9-9-2016, with 1-31-23 Addendum approval, per 40 CFR 761.61(a) in a working waterfront (See Appendix D, 4-24-2023 memo to NHDES, for history and regulatory requirements). This new cleanup effort limits impacts within Zone AE/other jurisdictional zones as follows: 1) Zone AE at 5 to 6 FT MSL: 3 small areas totaling 175 square feet (sf) of existing salt marsh area, contained wholly within a small, isolated, and blind section of Witch Cove contiguous to tidal Sagamore Creek will be temporarily impacted via removal of 175 SF of sediment to 1 ft depth, upper 6 inches (in.) of which is PCB-impacted. Also, 6 in. layer of 235 SF adjacent area filled inadvertently during prior remediation will be removed to achieve prior 6 FT MSL, for a total 11 cubic yards (CY) of wetland soil excavation. Restoration involves adding 6 in. of sand in the 175 SF area, and planting saltmarsh bulrush plugs up to 6 FT MSL in the entire 410 SF area, per grading/planting plan presented in Sheets 5-7 (Appendix E); 2) Zone AE 6 to 8 FT MSL (HOTL): salt tolerant grass mix will be seeded; 3) Outside Zone AE: a) 470 SF of near-vertical tidal cove shoreline above HOTL/below 11 ft MSL will be stabilized by armoring using boulders saved during prior remediation, and adding 4-5 in. stone riprap; b) a 0.5 CY "hot spot" in upland wooded area containing >50 ppm PCBs will be removed to 1 ft deep and that soil transported off-site to a licensed disposal facility, and an adjacent 0.5 CY area with soil >1<25 ppm PCBs, will be excavated to 1 ft deep and placed under the proposed concrete cap, see below; 770 SF, other adjacent areas above 11 ft MSL in level graded areas, with >1<25 ppm PCBs, will receive 6 inches of clean top soil and vegetated; d) within previously developed uplands, consisting of existing boatyard laydown and storage areas, a 5,000 SF concrete pad will be installed to cover soils with >25<50 ppm PCBs, and also lead levels with potential to leach into groundwater, see Sheet 4; and e) adjacent to cap, gravel in degraded gravel condition areas will be re-used or re-installed as needed to allow boat storage to recommence. Appropriate erosion control measures will be emplaced. All impacts are temporary, occurring within 1 month period.

SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS:	185 - 187 Wentworth Road
TOWN/CITY:	Portsmouth
TAX MAP/BLOCK/LOT/UNIT:	201/12
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: ☐ N/A	Sagamore Creek
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):	43.05333N; 70.74555W

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: Tom Reis, President, Sea Level, LLC & Goulemas Family Trust		
MAILING ADDRESS: PO Box 4094		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03802
EMAIL ADDRESS: info@substructure.com		
FAX:	PHONE: 603-436-1039	

ELECTRONIC COMMUNICATION: By initialing here, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))

☐ N/A

LAST NAME, FIRST NAME, M.I.: Johonnett, Jay P., PE		
COMPANY NAME: Aries Engineering, LLC		
MAILING ADDRESS: 104 Pleasant Street		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03301
EMAIL ADDRESS: jjohonnett@aries-eng.com		
FAX:	PHONE: (603) 228-0008	

ELECTRONIC COMMUNICATION: By initialing here, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))

If the owner is a trust or a company, then complete with the trust or company information.

☒ Same as applicant

NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	

ELECTRONIC COMMUNICATION: By initialing here, I hereby authorize NHDES to communicate all matters relative to this application electronically.

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

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

Env-Wt 400: The wetlands in proximity to the project were delineated on Aug. 5, 2020 and confirmed April 11, 2024 by NH CWS Patrick Seekamp. The delineation of the HOTL was completed in accordance with the definition provided in Env-Wt 602.23 (the farthest landward limit of tidal flow, not including storm events, that can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt-tolerant vegetation, or a physical barrier that blocks inland flow of the tide). The HOTL delineation took into consideration the historic location of the HOTL in the vicinity of a 235 SF 6 inch sump/high spot created during the initial remediation work on the site through inadvertent filling. No freshwater wetlands are present on the project site. The total affected area within HOTL limit is 410 SF. See Sheets 2-7, WPA Appendix E.

Env-Wt 514: This project proposes to complete bank stabilization after remediation is complete via hard scaping, which is needed to maintain existing infrastructure (prior boat storage laydown area and boat storage shed foundation in a working waterfront with developed uplands). The stabilization design meets the criteria for approval under Env-Wt 514.02 (b)(1), (2), (3), (4), (5), and (7) by design and conforms to the NHDES Wetlands Best Management Practice Techniques Avoidance and Minimization (BMPs) since it meets these criteria and techniques to the extent practicable because the near vertical combination boulder and riprap design (see Sheets 5-7) is the least intrusive practical method, conforms to the natural alignment of the bank/ shoreline; does not adversely affect

SECTION 8 - AVOIDANCE AND MINIMIZATION

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

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

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

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

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

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

(■ N/A - Mitigation is not required)

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

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

(■ N/A – Compensatory mitigation is not required)

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

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

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

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

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

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

JURISDICTIONAL AREA		PERM. SF	PERM. LF	PERM. ATF	TEMP. SF	TEMP. LF	TEMP. ATF
Wetlands	Forested Wetland	0		☐			☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐	410		☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐	0		☐
	Previously-developed TBZ			☐	6308		☐
	Docking - Tidal Water			☐			☐
TOTAL					6,718		

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

☐ **MINIMUM IMPACT FEE**: Flat fee of $400.

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

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

Permanent and temporary (non-docking):	6,718 SF	× $0.40 =	$ 2,687
Seasonal docking structure:	0 SF	× $2.00 =	$
Permanent docking structure:	0 SF	× $4.00 =	$
Projects proposing shoreline structures (including docks)		add $400 =	$
		Total =	$ 2,687
The application fee for minor or major impact is the above calculated total or $400, whichever is greater =			$ 2,6871

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05) Indicate the project classification.		
☐ Minimum Impact Project	☐ Minor Project	■ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)	
Initial each box below to certify:	
Initials:	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials:	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials:	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1.
Initials:	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)		
SIGNATURE (OWNER):	PRINT NAME LEGIBLY: Tom Reis	DATE: 12/13/24
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY: JASON GOULEMAS	DATE: 12/13/24
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY: Jay Johonnett	DATE: 12/13/24

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY:	DATE:

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

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

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

Keep this checklist for your reference; do not submit with your application.

APPLICATION CHECKLIST

Unless specified, all items below are required. Failure to provide the required items will delay a decision on your project and may result in denial of your application. Please reference statute RSA 482-A, Fill and Dredge in Wetlands, and the Wetland Rules Env-Wt 100-900.

- ☒ The completed, dated, signed, and certified application (Env-Wt 311.03(b)(1)).
- ☒ Correct fee as determined in RSA 482-A:3, I(b) or (c), subject to any cap established by RSA 482-A:3, X (Env-Wt 311.03(b)(2)). Make check or money order payable to "Treasurer – State of NH".
- ☒ The Required Planning actions required by Env-Wt 311.01(a)-(c) and Env-Wt 311.03(b)(3).
- ☒ US Army Corps of Engineers (ACE) "Appendix B, New Hampshire General Permits (GPs), Required Information and Corps Secondary Impacts Checklist" and its required attachments (Env-Wt 307.02). This includes the US Fish and Wildlife Service IPAC review and Section 106 Historic/Archaeological Resource review.
- ☒ Project plans described in Env-Wt 311.05 (Env-Wt 311.03(b)(4)).
- ☒ Maps, or electronic shape files and meta data, and other attachments specified in Env-Wt 311.06 (Env-Wt 311.03(b)(5)).
- ☒ Explanation of the methods, timing, and manner as to how the project will meet standard permit conditions required in Env-Wt 307 (Env-Wt 311.03(b)(7)).
- ☐ If applicable, the information regarding proposed compensatory mitigation specified in Env-Wt 311.08 and Chapter Env-Wt 800 - Permittee Responsible Mitigation Project Worksheet, unless not required under Env-Wt 313.04 (Env-Wt 311.03(b)(8); Env-Wt 311.08; Env-Wt 313.04).
- ☒ Any additional information specific to the **type of resource** as specified in Env-Wt 311.09 (Env-Wt 311.03(b)(9); Env-Wt 311.04(j)).
- ☒ Project specific information required by Env-Wt 500, Env-Wt 600, and Env-Wt 900 (Env-Wt 311.03(b)(11)).
- ☐ A list containing the name, mailing address and tax map/lot number of each abutter to the subject property (Env-Wt 311.03(b)(12)).
- ☒ Copies of certified postal receipts or other proof of receipt of the notices that are required by RSA 482-A:3, I(d) (Env-Wt 311.03(b)(13)).
- ☒ Project design considerations required by Env-Wt 313 (Env-Wt 311.04(j)).
- ☒ Town tax map showing the subject property, the location of the project on the property, and the location of properties of abutters with each lot labeled with the name and mailing address of the abutter (Env-Wt 311.06(a)).
- ☒ Dated and labeled color photographs that:
  - (1) Clearly depict:
    - a. All jurisdictional areas, including but not limited to portions of wetland, shoreline, or surface water where impacts have or are proposed to occur.
    - b. All existing shoreline structures.
  - (2) Are mounted or printed no more than 2 per sheet on 8.5 x 11 inch sheets (Env-Wt 311.06(b)).
- ☒ A copy of the appropriate US Geological Survey map or updated data based on LiDAR at a scale of one inch equals 2,000 feet showing the location of the subject property and proposed project (Env-Wt 311.06(c)).
- ☒ A narrative that describes the work sequence, including pre-construction through post-construction, and the relative timing and progression of all work (Env-Wt 311.06(d)).

lrm@des.nh.gov or (603) 271-2147
29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
des.nh.gov

- [x] For all projects in the protected tidal zone, a copy of the recorded deed with book and page numbers for the property (Env-Wt 311.06(e)).
- [ ] If the applicant is not the owner in fee of the subject property, documentation of the applicant's legal interest in the subject property, provided that for utility projects in a utility corridor, such documentation may comprise a list that:
  - (1) Identifies the county registry of deeds and book and page numbers of all of the easements or other recorded instruments that provide the necessary legal interest; and
  - (2) Has been certified as complete and accurate by a knowledgeable representative of the applicant (Env-Wt 311.06(f)).
- [x] The NHB memo containing the NHB identification number and results and recommendations from NHB as well as documentation of any consultation requests made to NHFG, communications and information related to the consultation, with the consultation results and recommendations from NHFG. (Env-Wt 311.06(g)). See Wetlands Permitting: Protected Species and Habitat Fact Sheet.
- [ ] A statement of whether the applicant has received comments from the local conservation commission and, if so, how the applicant has addressed the comments (Env-Wt 311.06(h)).
- [ ] For projects in LAC jurisdiction, a statement of whether the applicant has received comments from the LAC and, if so, how the applicant has addressed the comments (Env-Wt 311.06(i)).
- [x] If the applicant is also seeking to be covered by the state general permits, a statement of whether comments have been received from any federal agency and, if so, how the applicant has addressed the comments (Env-Wt 311.06(j)).
- [x] Avoidance and Minimization Written Narrative or the Avoidance and Minimization Checklist, or your own avoidance and minimization narrative (Env-Wt 311.07).
- [ ] For after-the-fact applications: information required by Env-Wt 311.12.
- [x] Coastal Resource Worksheet for coastal projects as required under Env-Wt 600.
- [x] Prime Wetlands information required under Env-Wt 700. See WPPT for prime wetland mapping.
- [ ] For non-tidal shoreline structure projects, the length of shoreline frontage per Env-Wt 311.09(b)(1)

Required Attachments for Minor and Major Projects

- [x] Attachment A: Minor and Major Projects (Env-Wt 313.03).
- [x] Functional Assessment Worksheet or others means of documenting the results of actions required by Env-Wt 311.10 as part of an application preparation for a standard permit (Env-Wt 311.03(b)(3); Env-Wt 311.03(b)(10)). See Functional Assessments for Wetlands and Other Aquatic Resources Fact Sheet. For shoreline structures, see shoreline structures exemption in Env-Wt 311.03(b)(10)).

Optional Materials

- [ ] Stream Crossing Worksheet which summarizes the requirements for stream crossings under Env-Wt 900.
- [x] Request for concurrent processing of related shoreland / wetlands permit applications (Env-Wt 313.05).

New Hampshire Department of Environmental Services Dredge and Fill Wetlands Permit Application (WPA) Appendices

Appendix A	NH Natural Heritage Bureau Data Check Results Letter (Per Section 1, NH ENV-WT 306.05
Appendix B	Priority Resource Area and Protected Species (Per Section 1, NH ENV WT 306.05)
Appendix C	Habitat Evaluation Memorandum (Per Section 1, NH ENV-WT 306.05)
Appendix D	Aries Engineering April 24, 2023 Memorandum to NHDES (Per Section 2)
Appendix E	Engineering Project Plans, Drawings and Sheets (Per Sections 2, 7, 16, and NH ENV-WT 311.05, 311.03 {b}{4})
Appendix F	Avoidance and Minimization Checklist (Per Section 8, NH ENV-WT 313.03{a})
Appendix G	Copy of Application Fee (Per Section 12)
Appendix H	USGS Location Map (Per Section 16, NH ENV-WT 311.06{d})
Appendix I	USACE Appendix B, NH General Permits, Required Information and Corps Secondary Impacts Checklist (Per Application Checklist, includes US FWS IPAC Review and Section 106 Historic/Archaeological Resource Review/NH Division of Historical Resources Review)
Appendix J	Coastal Resource Worksheet (Per Application Checklist, NH ENV-WT 600) Part 1—Coastal Resource Worksheet Part 2—Figure J1 Part 3—Narrative Part 4—Operations Monitoring & Maintenance Plan Part 5—Construction Monitoring Plan
Appendix K	Vulnerability Assessment
Appendix L	Coastal Functional Assessment Part 1—Coastal Functional Assessment Narrative Part 2—L1, Part A, Wetlands Functional Assessment (WFA) Worksheet Part 3—L1, Part B, Ecological Integrity Part 4—L2, USACE Wetland Evaluation
Appendix M	Copy of Town Tax Map, Location of Project on property, and location, name, and address of abutters, recorded deed with book and page numbers, and copies of certified postal receipts (Per Application Checklist, NH ENV-WT 311.06, 311.12, 311.13)
Appendix N	Color Photographs of Jurisdictional Area (Per Application Checklist, NH ENV-WT 311.06, 311.12, 311.13)
Appendix O	WPA Attachment A: Minor & Major Projects (Per Application Checklist)
Appendix P	Request for Concurrent Processing of Related Shoreland and Wetland Permit Application and Other Items (Per Application Checklist, NH ENV WT 311.05, 311.06)
Appendix Q	Tidal Shoreline Stabilization Worksheet
Appendix R	Tidal Dredging Worksheet
Appendix S	Portsmouth Marina Property Calculations

APPENDIX A

NHB DataCheck Results Letter
NH Natural Heritage Bureau
Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

To: Nyssa Seekamp, Seekamp Environmental Consulting, Inc.
15 Park Street
Dover, NH 03820
nmseekamp@gmail.com

From: NHB Review
NH Natural Heritage Bureau
Main Contact: Maddie Severance - nhbreview@dncr.nh.gov

cc: NHFG Review, David Simmons

Date: 09/03/2024 (valid until 09/03/2025)
Re: DataCheck Review by NH Natural Heritage Bureau and NH Fish & Game
Permits: NHDES - Shoreland Standard Permit, NHDES - Standard Dredge & Fill - Major

NHB ID: NHB24-2245

Town: Portsmouth
Location: 187 Wentworth House Road

Project Description: Sea Level, Inc. is undertaking the completion of a remediation project that was begun previously but remains incomplete. During the first remediation attempt a series of soil piles were left in the upland area and within the previously developed 100 foot Tidal Buffer Zone (TBZ). Additionally, a sump was created that disturbed a small portion of salt marsh. The piles of soil have been smoothed over and covered with a gravel base for stabilization until further remediation activities can occur. The purpose of this project is to complete the remediation and restore the disturbed salt marsh area.

Next Steps for Applicant:

NHB's database has been searched for records of rare species and exemplary natural communities. Please carefully read the comments and consultation requirements below.

NHB Comments: No comments at this time.

NHFG Comments: Please refer to NHFG consultation requirements below.

NHB Consultation

If this NHB DataCheck letter includes records of rare plants and/or natural communities/systems, please contact NHB and provide any requested supplementary materials by emailing nhbreview@dncr.nh.gov.

If this NHB DataCheck letter DOES NOT include any records of rare plants and/or natural communities/systems, no further consultation with NHB is required.

NH Fish and Game Department Consultation

If this NHB DataCheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB DataCheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/environmental-review. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB DataCheck results letter number and "Fis 1004 consultation request" in the subject line**.

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email NHFGreview@wildlife.nh.gov, and include the NHB DataCheck results letter number and "review request" in the email subject line.
Contact NH Fish & Game at (603) 271-0467 with questions.

NHB Database Records:
The following record(s) have been documented in the vicinity of the proposed project.
Please see the map and detailed information about the record(s) on the following pages.

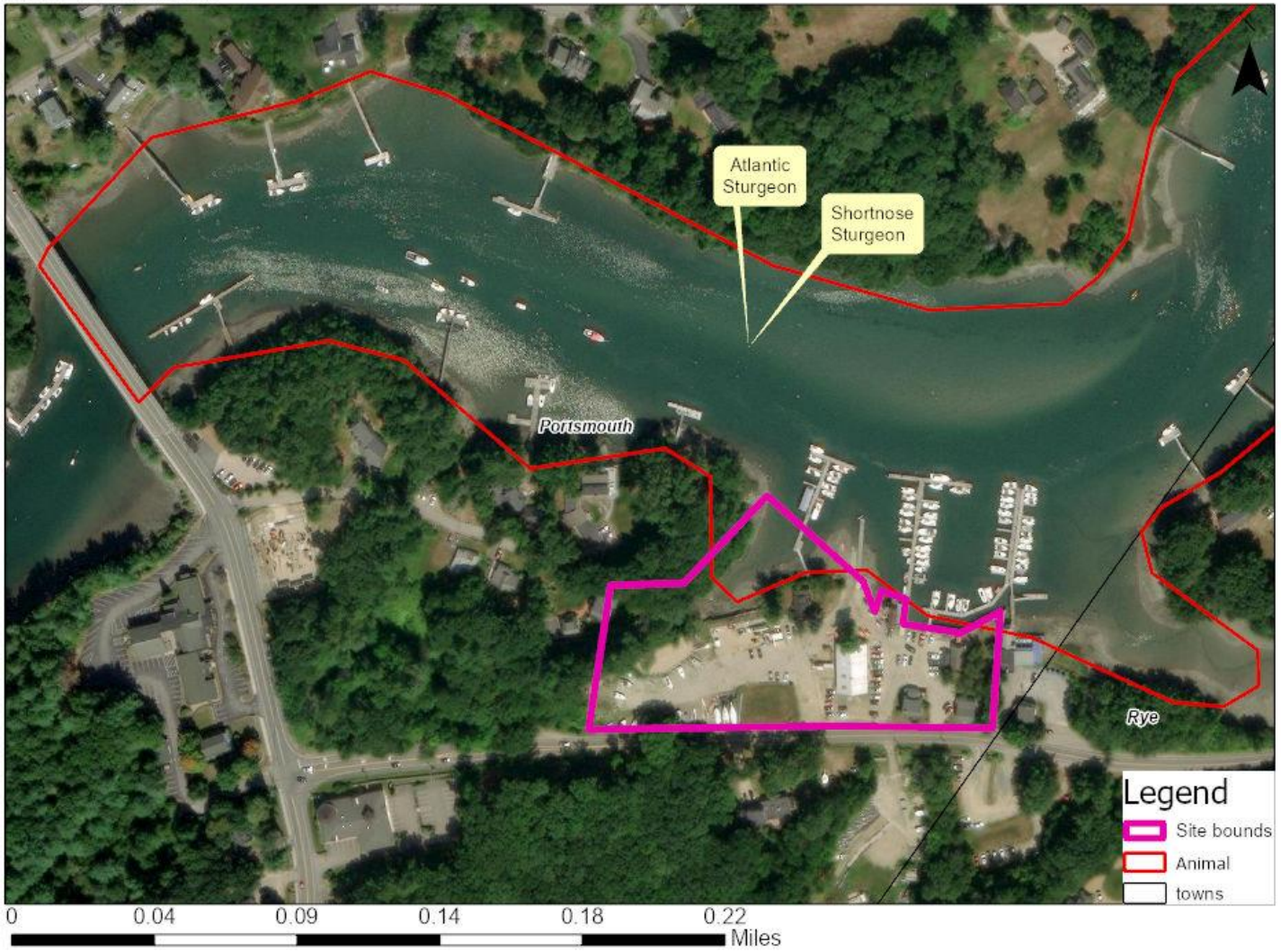
Vertebrate species	State[1]	Federal	Notes
Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)	T	T	Contact the NH Fish & Game Dept (see above) and the US Fish & Wildlife Service (see below).
Shortnose Sturgeon (*Acipenser brevirostrum*)	E	E	Contact the NH Fish & Game Dept (see above) and the US Fish & Wildlife Service (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list.
An asterisk (*) indicates that the most recent report for that occurrence was 20 or more years ago.

For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section above. Contact for federally-listed animals: David Simmons, USFWS, at (603) 223-2541. Contact for federally-listed species: David Simmons, USFWS, at (603) 223-2541.

Disclaimer: NHB's database can only tell you of known occurrences that have been reported to NHFG/NHB. Known occurrences are based on information gathered by qualified biologists or members of the public, reported to our offices, and verified by NHB/NHFG.
However, many areas have never been surveyed, or have only been surveyed for certain species.
NHB recommends surveys to determine what species/natural communities are present onsite.

NHB24-2245


Atlantic Sturgeon
Shortnose Sturgeon
Portsmouth
Rye
Legend
Site bounds
Animal
towns
0
0.04
0.09
0.14
0.18
0.22
Miles

NHB24-2245 EOCODE: AFCAA01042*003*NH

New Hampshire Natural Heritage Bureau - Animal Record

Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)

Legal Status	Conservation Status
Federal: Listed Threatened	Global: Rare or uncommon
State: Listed Threatened	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2016: 1 individual, sex unknown, detected in the lower Piscataqua River. 2015: 1 individual, sex unknown, detected in Portsmouth Harbor. 2012: 1 individual, sex unknown, detected in Little Bay.
General Area: 2016: Tidal waters in Portsmouth Harbor, Little Bay, and the Piscataqua River.
General Comments: --
Management Comments: --

Location

Survey Site Name: Piscataqua River
Managed By:

County:
Town(s): Out-Of-State
Size: 7749.3 acres Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 2016: Tidal waters of Portsmouth Harbor, Little Bay, and the Piscataqua River.

Dates documented

First reported: 2012-06-02 Last reported: 2016-05-27

The U.S. Fish & Wildlife Service has jurisdiction over Federally listed species. Please contact them at 70 Commercial Street, Suite 300, Concord NH 03301 or at (603) 223-2541.

NHB24-2245 EOCODE: AFCAA01010*001*NH

New Hampshire Natural Heritage Bureau - Animal Record

Shortnose Sturgeon (*Acipenser brevirostrum*)

Legal Status	**Conservation Status**
Federal: Listed Endangered	Global: Rare or uncommon
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2016: 2 individuals, 1 female and 1 sex unknown, detected in Portsmouth Harbor and the lower Piscataqua River. 2015: 3 females and 2 other individuals, sex unknown detected in Portsmouth Harbor. 2014: 1 female detected moving from Portsmouth Harbor up the Piscataqua River to the mouth of the Cocheco River. 2012: 1 female detected in Little Bay. 2011: 1 female detected in Little Bay. 2010: 1 female detected in Little Bay.
General Area: 2016: Tidal waters in Portsmouth Harbor, Little Bay, and the Piscataqua River.
General Comments: --
Management Comments: --

Location

Survey Site Name: Piscataqua River
Managed By:

County:
Town(s): Out-Of-State
Size: 7749.3 acres Elevation:

Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions: 2016: Tidal waters of Portsmouth Harbor, Little Bay, and the Piscataqua River.

Dates documented

First reported: 2010-11-03 Last reported: 2016-10-20

The U.S. Fish & Wildlife Service has jurisdiction over Federally listed species. Please contact them at 70 Commercial Street, Suite 300, Concord NH 03301 or at (603) 223-2541.

NHB24-2245 EOCODE: AFCAA01010*001*NH

WPA Appendix B, Priority Resource Mapping

Per SECTION 1 of the WPA Application, the required planning review for all projects subject to Env-Wt 306.05; RSA 482-A:3, I(d)(2)), has been conducted, with a review of the following tools: the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: Priority Resource Areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

The site is a PRA, due to its situation within tidelands, shorelands, and wetlands buffer zones. Specific information on protected species or habitats is provided in WPA Appendices C and J.

APPENDIX C -Wildlife Habitat Memorandum

The sites in Portsmouth, NH has the potential to support many wildlife species, including some endangered, threatened or species of greatest concern according to the NH Wildlife Action Plan (WAP). Based on field observations, aerial imagery, and georeferenced habitat data, Seekamp Environmental Consulting, Inc. (SEC) observed four distinctive wildlife habitats on the site, including Hemlock-Hardwood-Pine Forest, Estuarine, Salt Marsh, and Developed. The open water and part of the forested portion of the site contains "Tier 1 Highest Ranked Habitat in NH" for wildlife, as mapped by New Hampshire Fish and Game (NHFG) in the WAP. The site is mapped as having "low permeability" for wildlife connectivity. The landscape's overall ability to allow wildlife to move and disperse was confirmed in the field by SEC.

Hemlock-Hardwood-Pine Forest

Hemlock-Hardwood-Pine Forest is an upland habitat that makes up approximately 2,500 SF of the site. These habitats are transitional and can occur over different elevations, topography and soil types. They are comprised mainly of hemlock, white pine, beech, and oak trees. Most species that utilize this habitat require large unfragmented blocks of forest.

According to the NH WAP, hemlock-hardwood-pine forested habitat may support the following species: American woodcock, bald eagle, big brown bat, black-billed cuckoo, blue-spotted salamander complex, Canada warbler, chimney swift, common nighthawk, Eastern box turtle, Eastern hog-nosed snake, Eastern red bat, Eastern small-footed bat, Eastern whip-poor-will, golden eagle, hoary bat, Jefferson salamander complex, little brown bat, moose, Northern black racer, Northern goshawk, Northern long-eared bat, purple finch, rapids clubtail, ringed boghaunter, ruffed grouse, scarlet tanager, silver-haired bat, skillet clubtail, timber rattlesnake, tricolored bat, veery, and wood thrush.

The forested habitat on site is minimal and highly fragmented by surrounding developments. The

NHB Memo (NHB24-2245) results do not indicate that any of these species have been reported to occur on site. It is SEC's opinion that the hemlock-hardwood-pine forest habitat on site is not likely to support the minimum requirements of these species, therefore, there is a low potential for these species to occur on site.

Estuarine

An estuary is an open water habitat that makes up approximately 0.7 acres of the site. These habitats are formed when freshwater meets saltwater, in NH these habitats are found in the Great Bay and coastal watersheds. This type of habitat includes intertidal mudflats, oyster reefs, and eelgrass beds. Intertidal mudflats are most present on site.

According to the NH WAP, estuarine habitat may support the following species: American black duck, American oyster, American shad, Atlantic sturgeon, blueback herring, rainbow smelt, red

knot, ruddy turnstone, sanderling, sea lamprey, semipalmated sandpiper, shortnose sturgeon, whimbrel, and willet.

The estuarine habitat on site is minimal and fragmented by the marina and boat docks. The NHB Memo (NHB24-2245) results do not indicate that any of these species have been reported to occur on site. It is SEC's opinion that the estuarine habitat on site is not likely to support the minimum requirements of these species, therefore, there is a low potential for these species to occur on site.

Salt Marsh

Salt marsh is a transitional habitat that makes up approximately 870 SF of the site. These habitats are grass-dominated tidal wetlands which mark the transition between the ocean and upland and are often found bordering estuarine habitats. They provide excellent habitat for bird species and are among the most productive ecosystems. In addition, salt marsh plants are salt-tolerant, and their roots provide stabilization of coastal banks which helps protect from erosion during storm surges and acts as a buffer to surrounding upland habitats.

According to the NH WAP, salt marsh habitat may support the following species: common tern, marsh wren, Nelson's sparrow, Northern harrier, purple martin, red knot, roseate tern, saltmarsh sparrow, saltmarsh tiger beetle, sanderling, seaside sparrow, semipalmated sandpiper, whimbrel, and willet.

The salt marsh habitat on site is minimal and highly fragmented by surrounding developments. The NHB Memo (NHB24-2245) results do not indicate that any of these species have been reported to occur on site. It is SEC's opinion that the salt marsh habitat on site is not likely to support the minimum requirements of these species, therefore, there is a low potential for these species to occur on site.

Developed

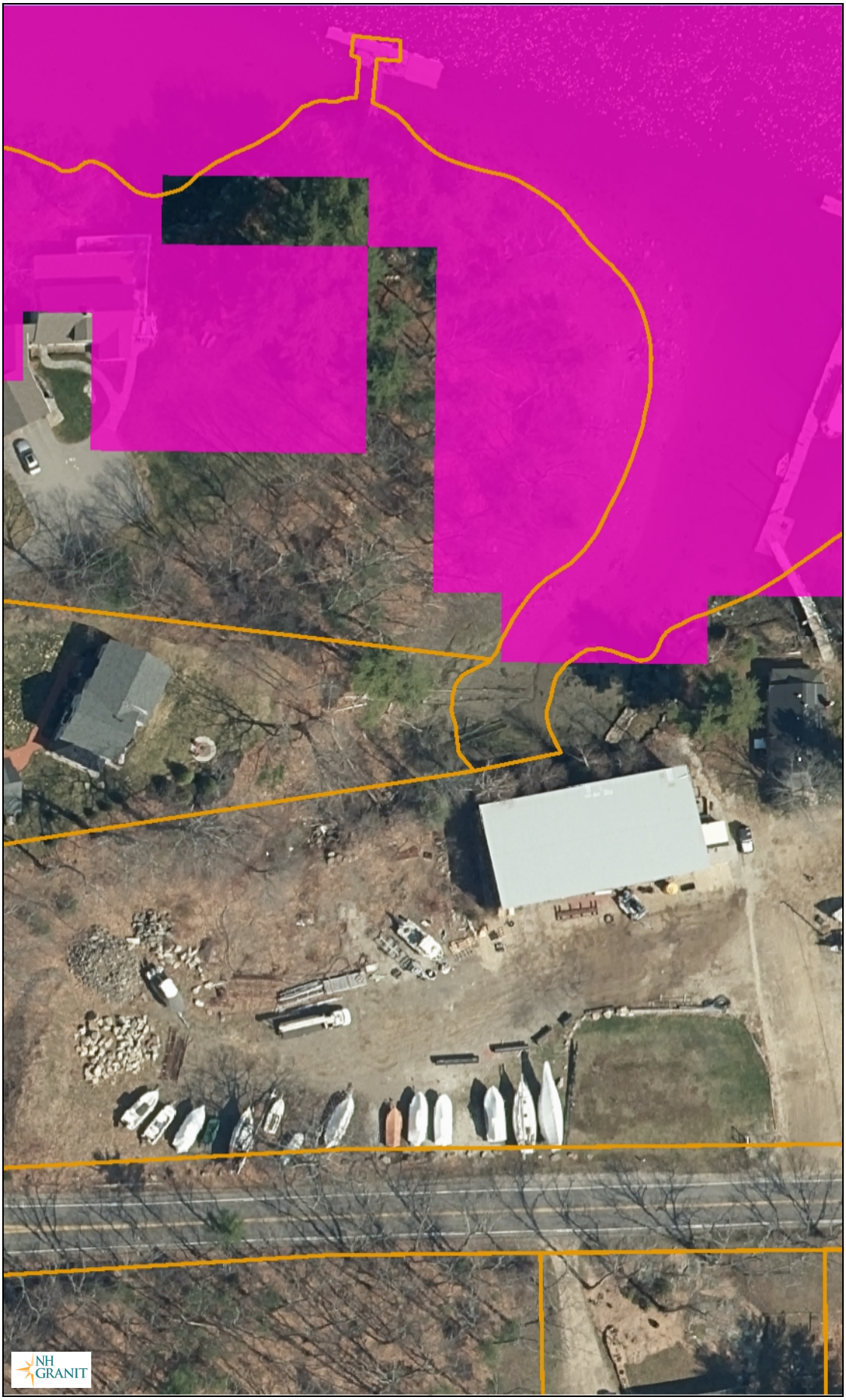
Developed habitat is an upland habitat that makes up approximately 2.7 acres of the site. These habitats include areas that contain residential or commercial development in NH which includes maintained gardens, lawns and buildings and other structures. Some wildlife have learned to use these areas for nesting, food sources and corridors connecting to other habitats.

According to the NH WAP, developed habitat may support the following species: American bumble bee, American kestrel, chimney swift, cliff swallow, common nighthawk, monarch, peregrine falcon, purple martin, rusty-patched bumble bee, yellow bumble bee, and yellowbanded bumble bee.

The developed habitat on site contains minimal vegetation and is highly fragmented from other more productive habitats. There are few food sources present and minimal areas for nesting. The NHB Memo (NHB24-2255) results do not indicate that any of these species have been reported to occur on site. It is SEC's opinion that the developed habitat on site is not likely to support the

minimum requirements of these species, therefore, there is a low potential for these species to occur on site.

Map by NH GRANIT



Legend

- Parcels
- State
- County
- City/Town

WAP 2020: Highest Ranked Wildlife Habitat

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

NH 2021/22 6-inch RGB (PROVISIONAL)

Map Scale

1: 812

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Map Generated: 8/30/2024

Notes

Highest Ranked Wildlife Habitat

MEMORANDUM

DATE: April 24, 2023
FILE No.: 2021-075
TO: Kristen Duclos, Wetlands Specialist, NHDES Wetlands Permitting
FROM: Jay Johonnett, Rick Kowalski, Aries Engineering (Aries)
CC: Patrick Seekamp, Seekamp Consulting; Steve Graham, Pete McGlew, Aries; Tom Reis, Sea Level LLC
SUBJECT: Project Background for Permitting
PROJECT: Sea Level, LLC Marina, 187 Wentworth Road, Portsmouth, NH

This memorandum was prepared in follow up to our Pre-Wetlands Application meeting with you on April 6, 2023, when it was mutually agreed that a history and context for the various permit applications that will be required for this project would be helpful to assist NHDES in its review of wetland, shoreline, and conditional use permit applications that will be submitted for this project. Aries Engineering has been retained by Sea Level, LLC (current property owner) to perform soil remediation planning activities to address polychlorinated biphenyls (PCBs) on the property located at 187 Wentworth Road in Portsmouth, New Hampshire (the Site) in accordance with the Toxic Substances Control Act (TSCA, 40 CFR Part 761.61(a)) using a Self-Implementing Cleanup Plan (SIP) and the New Hampshire Department of Environmental Services (NHDES) regulations Chapter Env-Or 600 Contaminated Site Management. The Site, formerly known as Witch Cove Marina, is now called Portsmouth Marina.

SITE LOCATION AND LEGAL DESCRIPTION

The Site is located along the south bank of Sagamore Creek and Witch Cove, on the north side of Wentworth Road in Portsmouth, New Hampshire (see Figure 1, Site Location Map in attached permit application drawing set). Portsmouth municipal records indicate that the Site consists of one 3.07-acre parcel identified as Lot 12 on Portsmouth Assessor's Map 201.

SITE AND VICINITY GENERAL DESCRIPTION

The Site is developed with one commercial/retail/warehouse building, three commercial apartment residences, one dry boat storage structure, two garages, and two sheds. The dry boat storage structure was destroyed by fire in November 2021, although the foundation remains, and the owner intends to rebuild the storage structure on the same footprint. The Site has been used for boat storage and as a maintenance facility since initial development in the 1950s. Developed properties in the Site area obtain water from the municipal water supply and domestic wastewater is discharged to private septic systems.

The Site topography generally slopes gently downward toward the north across the Site. The slope steepens sharply upon approaching the shoreline to Witch Cove, where at the shore edge, boulder riprapping serves as a retention and slope stability surface. The topography at the Site generally ranges from elevation 8 to 16 feet as referenced to the North American Vertical Datum

1988 (NAVD88). According to the FEMA Flood Hazard map, the northeast area of the Site along Sagamore Creek, a tidal inlet, is located within the 100-year flood zone (Zone AE) associated with the creek established at elevation 7.90 feet NAVD88. A larger area is within the 500-year flood zone (Zone X) extending to the south from the creek. Review of the project location on the U.S. Fish & Wildlife Service website indicates that wetlands of national significance are present along the banks of Sagamore Creek. The delineation of the wetlands was confirmed by a recent survey completed by Seekamp Environmental Consulting, Inc (Seekamp) of Kingston, NH on August 7, 2020 (Figure 2).

CURRENT AND PAST USES OF THE PROPERTY

The City of Portsmouth Tax Assessor's database records indicate that the residences and commercial building present on Lot 12 were constructed in 1950. According to the prior owner J.P. Nadeau, the Site was operated as Witch Cove Marina from 2000 to 2016 and was Mike's Marina prior to 2000. Mr. Nadeau indicated that the Site has been used as a boat yard since its initial development sometime in the 1950s. Mr. Nadeau sold the property to Sea Level LLC on August 15, 2016. Review of historic topographic maps and aerial photographs show development of the Site between 1920 and 1956 and it being undeveloped prior to 1920. Two docks are visible in a 1960 aerial photograph indicating the likely use of the Site as a marina. Aerial photographs presented below show how the site continued to be used as a boat storage yard since at least 1992, down to the edge of the shoreline.

PRIOR SITE INVESTIGATIONS - REMEDIAL ACTIVITIES

PCBs were present in the Site soils and adjacent sediments in the cove, from historic maintenance of boats, specifically, the removal of bottom paint that contained PCBs. The results of the prior investigations completed on the Site indicate that PCBs at concentrations up to 100 milligrams per kilogram (mg/kg) had been detected in Site soils. These soils containing elevated concentrations of PCBs were subsequently removed in an attempt to achieve a post remedial condition of <1 mg/kg PCBs remaining in Site soils (as approved by EPA on September 9, 2016). The following is a summary of the activities previously completed on the Site.

Initial Subsurface Investigation and 2014 Remediation

A Phase II Environmental Site Assessment (ESA) conducted by Stonehill in 2014 included the collection of eight shallow soil samples from soil borings designated as B-1 through B-8. PCBs were detected in one soil sample (28 mg/kg in B-2) at a concentration above the NHDES Soil Remediation Standard of 1.0 mg/kg. This sample was collected from the area where boats had been historically stored in the off-season. Based upon the review of the assumed isolated area of PCBs around B-2, in Spring 2014 an area 10 feet by 15 feet to a depth of approximately two feet was excavated centered around B-2 by Duffield Engineering & Consulting (Duffield) and disposed off-Site at ESMI Landfill in Loudon, NH. A report was prepared and submitted to NHDES to meet the notification requirements. In June 2014 NHDES advised that PCB-impacted sites fall under EPA jurisdiction and that EPA Region 1 should be contacted.

Duffield subsequently developed a sampling plan to meet the TSCA 40 CFR 761 requirements. A grid layout centered at boring B-2, oriented with north-south and east-west axis and a 1.5-meter

grid spacing was used in a hexagonal configuration per federal regulation and guidance. Subsequent sampling rounds were conducted on 8/31/2014, 9/19/2014, 10/20/2014, 11/6/2014, 12/21/2014, 4/17/2015, 5/15/2015 and 5/4/2015. 154 samples were collected and analyzed. The surface sample results and grid layout are shown on Figure 3A (blue dots).

The PCB impact area was estimated at 2,300 square feet and with a one-foot depth for soil removal proposed by Duffield, equated to approximately 85 cubic yards of soil. Duffield submitted a Self-Implementing Plan (SIP) on August 18, 2015 to EPA to address the PCBs which was approved by EPA on March 15, 2016, but this SIP was never implemented. Upon sale of the property from Mr. Nadeau to Sea Level LLC on August 15, 2016, GeoInsight was subsequently retained to complete additional investigation and remediation by the new Site owner, Sea Level LLC.

Geoinsight investigation and 2016/2017 Remediation

GeoInsight submitted correspondence to EPA dated July 12, 2016 to present a PCB Cleanup and Disposal Plan Addendum. This Plan, which specified the removal of soils containing PCBs at a concentration >1 mg/kg, was approved by EPA on September 9, 2016.

Prior to implementing the PCB Cleanup and Disposal Plan Addendum, GeoInsight collected additional surface soil samples in July 2016, for PCB analyses in four areas that the highest PCB concentrations were detected. The results of these analyses are depicted on Figure 3A (green dots). The concentrations of PCBs detected in these samples were 20 mg/kg or less.

GeoInsight completed remedial excavation activities in two phases: the first phase consisting of removing and disposing of soils with PCB concentrations ≥50 mg/kg and the second phase consisting of removing and disposal of soils with PCB concentrations >1 <50 mg/kg. Between November 15 and 17, 2016, the excavation of three areas (“A”, “B” and “C” excavations) with PCBs at concentrations ≥50 mg/kg was completed to a depth of 2 feet below grade in the locations shown on Figure 3B. Following the completion of these excavations, GeoInsight collected verification samples. The locations and results of these samples are shown on Figure 3B. A total of 14.11 tons of ≥ 50 mg/kg PCB soils were disposed at Wayne Disposal Inc. of Belleville, Michigan on December 20, 2016.

The excavation of soils with concentrations >1 mg/kg and <50 mg/kg occurred between December 15, 2016 and January 3, 2017 to a depth of 1 foot below grade in the area outlined on Figures 2 and Figures 3A-3C (outlined in purple). Following the completion of this excavation, GeoInsight collected verification samples. A total of 141 soil samples were collected. All results were less than 30.5 mg/kg. GeoInsight could not collect all of the planned soil samples for analysis of PCBs in the northernmost area of the excavation during initial excavation activities due to wet conditions. A total of 242.28 tons of <50 mg/kg PCB soils were disposed at the Waste Management of New Hampshire Turnkey Landfill in Rochester, New Hampshire in February 2017.

A small pile of soil with PCB concentrations <50 mg/kg was inadvertently left on the Site by GeoInsight (approximately 2-4 cubic yards). This soil was placed back into the excavation area after it was determined that the volume of soil that would be required to be removed to achieve the <1 mg/kg TSCA high occupancy cleanup goal was not economically feasible. All the material

was deposited in a pile in one of the two-foot-deep excavation areas. This material was sampled during the August 2020 supplemental soil sampling. It was anticipated that this soil might need to be removed again, so it was placed on and covered with plastic sheeting.

The continued use of the property for boat storage was determined from a review of TSCA regulations and discussion with EPA, to be allowable if a 6-inch-thick concrete pad would be constructed to serve as a TSCA-compliant cap to cover >25 ≤50 mg/kg PCB soils. The use of a TSCA compliant cap, in lieu of a fence, to isolate the remaining PCB soils will attain the TSCA low occupancy cleanup goal for soils with <50 mg/kg of PCBs.

Supplemental Soil Sampling Results, 2020-2021

In order to document the concentrations of PCBs remaining on Site following the excavation activity implemented by GeoInsight in 2016 and 2017 and the placement of a small pile of soils back into the excavation that had been previously removed in an attempt to achieve a cleanup level of <1 mg/kg, a grid of borings was completed in the area where samples were not previously collected and where the previously excavated soils were emplaced.

August 2020 Sampling Round

On August 24, 2020, a new consultant, CEA, collected a total of 16 soil samples (Sample #1 to #16) from the perimeter of the excavation area and five soil samples from the area where a small soil pile was placed back into the excavated area (Sample #17 to #21). This soil pile had been created after the ≥ 50 mg/kg PCB soils had been removed from the Site, as discussed in the section above. The location of samples #1 to #16 are shown on Figure 4B in blue text and samples #17 to #21 are shown on Figure 4B in purple text. These results indicate that there were four perimeter locations which exhibited PCB concentrations greater than 1 mg/kg, with a maximum concentration of 15 mg/kg detected in a sample collected from the northeast perimeter of the excavation area (sample N9-W2). The results for the soil pile samples indicated that the concentrations of PCBs were all less than 1 mg/kg.

In addition to the PCB samples, CEA collected two, 4-point composite, post-excavation confirmatory soil samples for laboratory analysis for Volatile Organic Compounds (VOCs), and arsenic and lead, in accordance with the requirements stipulated by the NHDES in their March 31, 2016 letter to the former owner (Mr. Nadeau), in response to plans submitted by Duffield. The results of these analyses indicated that there were no detections of VOCs in the samples. Low concentrations of arsenic and lead were detected in the samples.

September 2020 Sampling Round

Based on the August 2020 PCB results, a second round of soil sampling was completed on September 16, 2020, to further delineate the extent of the PCBs around the perimeter of the excavation area where concentrations of PCBs were greater than 1 mg/kg. A deeper sample was also collected from the location of N9-W2 where 15 mg/kg was detected, and samples were collected in seven other locations (samples #25 - #31) beyond the locations previously sampled. Soil samples were collected at two depths (0-0.25 ft and 1-1.25 ft) in four of these locations (sample #s 25, 26, 27 and 28), for a total of 12 samples. The results of these second analyses

indicate that seven of the samples exhibited PCB concentrations of 1.2 to 5.1 mg/kg. The other five samples had no PCB detections.

Based on the results of the lead in soils analyses, CEA activated these samples for analysis via the Synthetic Precipitation Leaching Procedure (SPLP), as required by NHDES for samples with total lead concentrations greater than 100 mg/kg. The results of these analyses indicated that both samples exhibited leaching concentrations less than the regulatory limit of 5 milligrams per liter (mg/L) for lead. However, the results indicate that the concentrations exceed the NHDES Ambient Groundwater Quality Standard (AGQS) for lead (15 micrograms per liter, ug/l), which indicate the potential for the contaminated soils at the site to leach lead to groundwater at concentrations that could exceed the AGQS. Aries notes that the proposed concrete cap over these soils will minimize the potential for lead to leach from these soils to the groundwater.

March 2021 Sampling Round

Due to the detection of greater than 1 mg/kg of PCBs in seven locations in the September 2020 round, CEA collected 35 soil samples on March 3, 2021 and 19 samples on March 25, 2021. A number of these samples were from an area beyond the Sea Level property line, and many were collected from within tidally flushed Sagamore Creek wetlands. The samples collected on March 3, 2021 were identified as S-32 through S-40 -S and -D, S-41-S, S-42-S, S-43-S, S-44-S, S-44-D and S-45-S to S-55-S. The samples collected on March 25, 2021, were identified as 35-2-S, 35-2-D, 35-2 (1.5-1.75'), 41-D, 55-D, and 56- to 68-S. Most of these samples were collected from beyond the northern extent of the PCB excavation area, with the exception of samples 43 and 44 S and D which were collected from beyond the eastern extent of the excavation area. The locations of all of these samples are shown on Figure 4B. Note that the "S" prefix for samples S-32 to S-55 were dropped when depicted on Figure 4B.

The results for the March 3, 2021, samples indicate that there were 11 samples that had concentrations ranging from 1.06 to 6.9 mg/kg. The remaining samples had concentrations less than 1 mg/kg, or were not detected. The results for the March 25, 2021, samples indicate that there were three samples that had concentrations ranging from 2.3 to 4.5 mg/kg. The remaining samples had concentrations less than 1 mg/kg, or were not detected.

April 2021 Sampling Round

The March 2021 results indicated that the extent of PCB impacts greater than 1 mg/kg had still not been fully delineated horizontally. Note that at this time, and until May 4, 2022, the property line was believed to be further north than was subsequently verified by Aries in consultation with Sea Level's surveyor. On April 20, 2021, CEA collected 12 surface soil samples along the northern edge of the property, identified as samples 69 to 80 (Figure 4B). Three of the 10 samples analyzed contained 1.2 to 1.9 mg/kg PCBs; eight samples had concentrations less than 1 mg/kg, or were not detected.), but one of the samples ultimately determined to exist beyond the northern property boundary (#76), exhibited a concentration of 230 mg/kg PCBs. This sample was considered a "hot spot" area, since it contained more than double the maximum PCB concentration detected in all the other samples. and had some rotten wood and colorful paint chips present. The colors were noted to be typical for use on boats. Since this was the first sample (out of 286 samples) that contained Aroclor 1242, in contrast to Aroclors in the other

samples which were Aroclors 1254 and 1260 predominantly, and did not include Aroclor 1242, this hot spot area was considered a separate source of PCBs, and therefore not part of the Sea Level property or responsibility. Historically, both properties have been used for the storage and maintenance of boats.

May 2021 Sampling Round

The May 12, 2021, sample round focused on the immediate area of sample #76. CEA collected 13 soil samples at three depths (0-0.25', 1-1.25' and 2-2.5') in three locations (81, 82 and 83). Samples were also collected at two depths (0-0.25' and 1-1.25') in two locations (84 and 85). The locations of the samples are shown on Figure 4B.

The results for the May samples indicated that the sample #76 hot spot appears to be a small isolated area, and shallow in depth, constituting perhaps less than 0.5 cubic yard, and reflecting the presence of discrete paint remnants. The highest concentration detected was 9.2 mg/kg in a surface sample (#81) within six inches to the west of sample #76. This sample also contained Aroclor 1242, but no other samples in this round did. Sample #84, located approximately 5 feet east-southeast from #76 had concentrations of 1.0 and 1.29 mg/kg in its samples from 0-0.25' and 1-1.25', respectively. The remaining 10 samples had PCB concentrations less than 1 mg/kg, or were not detected. Ultimately, it was decided to remove the # 76 hot spot, based on input from EPA and concurrence by Sea Level, as part of the remediation project.

Summary of Supplemental Sampling Results

Based on the results of the above-described PCB analyses, Aries concludes that the extent of the PCB impacts on Site have been fully delineated. Of the 91 soil samples analyzed within areas outside the previously designated boundary of PCB occurrence, 77 contained <1 mg/kg PCBs. The maximum concentration detected on Site (sample #76 is off-site) of these 91 samples was 15 mg/kg. Two other samples had concentrations between 5 and 10 mg/kg. Eleven samples had concentrations between 1 and 5 mg/kg.

REVISED CLEANUP PLAN

The soils remaining on the Site have been delineated sufficiently and demonstrate that the remaining on-site soils have concentrations less than 50 mg/kg PCBs. As previously stated above, it was determined that the cost to achieve the planned <1 mg/kg cleanup goal would be approximately double the originally estimated amount. Therefore, it is proposed in the SIP Addendum to conduct the following remediation efforts:

1) **Hot Spot:** remove these soils at location #76 for disposal as >50 mg/kg PCBs at a TSCA-approved facility off-site; this is located outside of Zone AE (depicted on Figure 4B) to achieve either <1 mg/kg if possible, or <25 mg/kg at a depth of 1 foot below clean fill;

2) **Soils with PCBs ≥25 <50 mg/kg Outside Zone AE:** these will be covered/isolated with a 6-inch-thick concrete pad, which will serve as a TSCA compliant cap, in lieu of a fence, to attain the TSCA Low Occupancy cleanup goal for soils with <50 mg/kg of PCBs. This cap will also minimize the potential for lead, previously found at low levels, to leach from these soils to the groundwater.

The concrete pad will extend at least 10 feet beyond the area where the PCBs have been delineated to >25 ≤50 mg/kg. The total area of the pad will be approximately 5,000 square feet. The pad will be constructed by leveling and compacting the subgrade using a plate compactor or vibratory roller. A witness fabric consisting of a geotextile fabric will be emplaced over the compacted subgrade soils. A layer of 6-inches of compacted crushed gravel will be emplaced over the witness fabric. The crushed gravel shall meet the material specifications for New Hampshire Department of Transportation (NHDOT) 304.3 Crushed Gravel. The pad will be surrounded by a 2-foot wide, 1-foot deep layer of ¾" washed crushed stone, and other erosion control measures both temporary and permanent will be established in accordance with City of Portsmouth/NHDES requirements, to allow stormwater runoff from the pad to infiltrate into the ground and to protect the soils left in place from erosion. The area proposed for the concrete pad was previously used for boat storage on a crushed gravel ground surface. The crushed gravel was considered an impervious surface. As such, no net increase of impervious area is proposed and a stormwater management plan is not required in accordance with NH RSA 483-B:9. A plan view of the pad relative to the PCB impacted area, and the proposed stone riprap area which extends to the top of the slope overlooking the cove, is shown on Figure 4B;

3) **Surficial Soils within Zone AE, PCBs > 1 < 25 mg/kg:** Remove shallow soils (0-6 inches) located within Zone AE (100-year flood zone) which cannot receive a cover protecting these impacted soils from future erosion due to wind, rain or flooding that may occur in this area and disturb the elevated PCBs (i.e., >1 mg/kg <25 mg/kg); seven locations with PCB concentrations >1 mg/kg within or immediately adjacent to Zone AE, constituting three small areas outlined in red on Figure 5, have a total area of approximately 195 ft^2. Therefore, the estimated volume of soil to be removed is approximately 4 cubic yards (CY). The excavation will be backfilled with wetland soils and re-vegetated with wetland species as required by City of Portsmouth/NHDES regulations;

4) **Other Soils within Zone AE, > 1<25 mg/kg PCBs:** These soils are to be left in place and covered with 6 inches of clean imported material at a minimum to match the surrounding existing grades, see Figure 5.

Note that in order to accommodate a clean soil cover in the areas being remediated within Zone AE, those areas will be excavated to a depth of 0.5 feet prior to emplacement of a 6-inch clean wetland-type soil cover in order to avoid increasing the grade in this area which would decrease the flood storage and require approval by the Federal Emergency Management Agency (FEMA) under a Letter of Map Revision (LOMR). The top and bottom of slopes and the wetland soil removal areas will be restored in accordance with City of Portsmouth/NHDES requirements, under a permitting process to be completed prior to excavation, and as depicted in Figures 5, 6 and 7. The excavated soils from the area within Zone AE, which will be < 25 mg/kg PCBs, will be disposed off-Site at an approved facility such as the Turnkey Landfill in Rochester, NH.

Bottom samples will be obtained in accordance with 40 CFR Part 761, Subpart O, to document PCB concentrations to be left in place below the clean soil cover.

A deed restriction will also be placed on the portion of the property with residual PCBs in soil in accordance with both 40 CFR 761.61 (a) (8) and NHDES regulations Chapter Env-Or 600 Contaminated Site Management.

The concrete pad will be placed in an area outside Zone AE and extend at least 10 feet beyond the area where the PCBs have been delineated to >25 ≤50 mg/kg. The total area of the pad will be approximately 5,000 square feet. Since the excavation area was not backfilled following soil removal, no material will need to be removed from the proposed concrete pad area to prepare for the installation of the pad. The pad will be constructed by leveling and compacting the subgrade using a plate compactor or vibratory roller. A witness fabric consisting of a geotextile fabric will be emplaced over the compacted subgrade soils. A layer of 6-inches of compacted crushed gravel will be emplaced over the witness fabric. The crushed gravel shall meet the material specifications for New Hampshire Department of Transportation (NHDOT) 304.3 Crushed Gravel. Fill materials should be placed in 12-inch maximum loose lifts and should be compacted to a minimum of 95 percent of the material's maximum dry density, as determined by ASTM D 1557 (modified proctor test) and confirmed with field density testing (ASTM D 6938 or equivalent method). Lift thickness should be a maximum of 6-inch loose lifts when compacted with hand-guided equipment. Concrete forms shall be installed, and the concrete poured in one pour. The concrete shall be constructed in accordance with current NHDOT Standard Specifications for Roads and Bridges. The pad will be surrounded by a 2-foot wide, 1-foot deep layer of ¾" washed crushed stone, and other erosion control measures both temporary and permanent will be established in accordance with City of Portsmouth/NHDES requirements, to allow stormwater runoff from the pad to infiltrate into the ground and to protect the soils left in place from erosion. A plan view of the pad relative to the PCB impacted area is shown on Figure 4B.

Permits

Aries will obtain the necessary local and state permits including those required for working within the tidal buffer zone from the NHDES Wetlands Bureau and City of Portsmouth Conservation Commission. Aries will prepare documentation and obtain permits or document compliance with the following federal, state, and City regulatory requirements:

- **NHDES Major Impact Wetland and Shoreline Permit Applications (WPAs):** In accordance with the December 15, 2019, NHDES wetland rules, this project is assumed to be classified as "major" due to its disturbance of existing wetlands, and therefore this permit must be obtained. Sea Level LLC intends to submit the wetland and shoreland applications to the NHDES, and ConCom as one approximately concurrent submittal. Four hard copies of the application (full size drawings and text) will be provided to ConCom for their internal use and public review. A final tree inventory (Figure 7) has been prepared, which reflects the final square footage discussed above and final cap and grading requirements.
- **City of Portsmouth Conditional Use Permit:** The Shoreland Permit Application will request a Conditional Use Permit Application (CUPA) from ConCom for work occurring within tidal wetland overlay district, which this project triggers. The proposed grading and clearing activities within 100-feet of the highest observable tide line of Sagamore Creek (7.9 feet) are subject to review by the City of Portsmouth through the CUPA Permit process. A request to alter an area in excess of 10,000 square-feet of tidal buffer zone would require possible compensatory mitigation, but this project does not reach that threshold. A Functional Evaluation Form (FEF) consisting of approximately two pages of narrative and a writeup of planned saltmarsh restoration plan will be prepared.

Based on the on-line NHDES Wetland Permitting Tool, Sagamore Creek contains two priority resource areas, including tidal wetland and floodplain wetland adjacent to a Tier 3 stream, which influence the classification and permitting requirements for the project.

- **U.S. Army Corps of Engineers (ACOE) Appendix B Checklist:** This checklist will be submitted to the ACOE to identify planned sediment remediation location and techniques, and will be submitted in parallel to the DES Application.
- **NH Historic Resource Information Verification:** Sea Level, LLC verified in 2022 that a Phase IA or Phase 1B archeological assessment work is not required, via correspondence with the responsible NHDES agency, but an update to that letter will be made in parallel to the DES submittal.
- **NH Natural Heritage Bureau (NH NHB) Verification:** Sea Level, LLC verified in 2022 via correspondence with this agency, that Protected species survey and/or mitigation plans will not be needed, but an updated letter to this agency is required, and will be made in parallel to the DES submittal.
- **Abutter Notification:** Sea Level, LLC will notify all abutters of this project via certified mail in accordance with Env-Wt 501.01(c).
- **New Hampshire State Programmatic General Permit (SPGP):** Sea Level, LLC will determine if this Permit and/or State or federal compensatory mitigation is required, by quantifying and classifying the level of natural resource impact (wetland, wetland buffer, shoreland, vernal pool, exemplary natural community, and endangered species habitat) to determine if the proposed project qualifies for this review and its requirements. At this point, this does not appear needed.
- **Vulnerability Assessment Env-Wt 603.05:** This new NHDES requirement involves evaluation of climate-related potential impacts to the site shoreline, and will be prepared by Sea Level LLC. Known as a Climate Resiliency Assessment, this must be done as part of the NHDES WPA.

EPA's approval of the Revised Cleanup Plan, also known as a Self-Implementing Plan, is included as **Attachment 1**.

PHOTOGRAPHS

Photo 1: Google Maps Street View – 187 Wentworth Road (prior to November 2021 fire destroyed 3-sided structure, work area to left of structure).

Photo 2: April 1992 Google Earth Image– Approximate 2016-2017 PCB excavation extents outlined in purple.

Photo 2: April 2013 Google Earth Image – Approximate 2016-2017 PCB excavation extents outlined in purple.

Photo 3: October 2014 Google Earth Image – Approximate excavation extents outlined in purple.

Photo 4: May 2015 Google Earth Image – Approximate 2016-2017 PCB excavation extents outlined in purple. Evidence of 2014 excavation is seen at bottom right of excavation extents.

Photo 5: May 2018 Google Earth Image – Approximate 2016-2017 PCB excavation extents outlined in purple.

Photo 6: June 2020 - Witch Cove on left, PCB excavation area (overgrown) in foreground. Former marina building in background. View to east.

Photo 7: June 2020 - Witch Cove on left, PCB excavation area (overgrown) in foreground. Former marina building in background. View to east.

Photo 8: June 2020 - Witch Cove over slope in background. View to northeast.

Photo 9: June 2020 - Witch Cove over slope in background. View to northeast.

Photo 10: June 2020 - Parking / storage area, PCB soil excavation area, and residence across Witch Cove. View to northwest.

Photo 11: June 2022 Google Earth Image – Approximate 2016-2017 PCB excavation extents outlined in purple. Area covered with geotextile marker and sand.

Photo 12: October 2022 - PCB excavation area covered with sand and marker barrier. View to east. Witch Cove visible in background.

Photo 13: October 2022 - PCB excavation area covered with sand and marker barrier. View to west.

ATTACHMENT 1

From: Woodward, Katherine (she/her/hers)
To: Richard Kowalski
Cc: tom@substructure.com; Stephen Graham
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire
Date: Thursday, February 2, 2023 11:06:45 AM

Rick,

Yes. It only applies only to the soil that is not capped.

Kate

From: Richard Kowalski <rkowalski@aries-eng.com>
Sent: Thursday, February 2, 2023 11:03 AM
To: Woodward, Katherine (she/her/hers) <Woodward.Katherine@epa.gov>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Ms. Woodward: Thank you for your comments. Please provide clarification on one issue. Does the additional/modified condition #1 only apply to those areas that will not be covered by the concrete cap? This would be consistent with the third bullet item below. Thanks,

Rick Kowalski
Director of Hydrogeology
Cell (508) 951-3673

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From: Woodward, Katherine (she/her/hers) <Woodward.Katherine@epa.gov>
Sent: Tuesday, January 31, 2023 5:28 PM
To: Richard Kowalski <rkowalski@aries-eng.com>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Mr. Kowalski,

EPA is in receipt of August 10,2022 *Revised PCB Cleanup Status Report and Request to Modify Approved PCB Cleanup and Disposal under 40 CFR 761.61(a)* (the "Modification") which was submitted under the procedures of 40 CFR § 761.61(a)(3)(ii) as specified in Condition 16 of the September 9, 2016 PCB Cleanup and Disposal Approval under 40 CFR § 761.61(a) (the "Approval").

The modification includes the following:

- The area shown in Figure 7B, bounded by the green line has been determined to be a *low occupancy area* rather than a *high occupancy area*.
- Additional *PCB remediation waste* with ≥ 50 ppm PCBs in the vicinity of sample location #76 will be removed to a depth of 1 ft below grade surface (ft bgs) to achieve a PCB concentration of at least < 25 ppm. However, the goal will be to remediate to < 1 ppm. The PCB remediation waste shall be disposed in accordance with 40 CFR § 761.61(a)(5)(i)(B)(*2*)(*iii*).
- Any *PCB remediation waste* with ≥ 25 ppm but < 50 ppm remaining outside of the Zone AE will be covered with a concrete cap compliant with 40 CFR § 761.61(a)(7).
- Any *PCB remediation waste* with > 1 ppm within the Zone AE boundary will be removed and disposed in accordance with 40 CFR § 761.61(a)(5)(i)(B)(*2*)(*ii*).
- Verification samples shall be collected in accordance with 40 CFR Part 761 Subpart O to document the concentrations remaining beneath the clean soil cover (shown in Figure 7A)
- A concrete pad as shown in Figures 7B and 8 will be placed over the remainder of the remediated area and provide a compliant cap over the area.
- A deed restriction will be placed on the property in accordance with 40 CFR § 761.61(a)(8)

EPA may approve this modification under the provisions of 40 CFR § 761.61(a)(3)(ii). Please be aware that the following additional/modified Conditions will be applied to the modification:

1. The cleanup level for bulk *PCB remediation waste* (i.e., soil) remaining at the Site shall be less than or equal to ("≤") 25 parts per million ("ppm") to meet the *low occupancy area* cleanup requirements at 40 CFR § 761.61(a)(4)(i)(B)(3) (**Modified Condition**).

2. Within sixty (60) days of completing final property-wide remediation, Sea Level LLC shall submit to EPA a recorded deed restriction for the property in its entirety. The deed restriction shall include: a description of the extent and levels of contamination at the property following abatement; a description of the actions taken at the property; a description of the use restrictions for the property; and the long-term monitoring and maintenance requirements on the property per the requirements of 40 CFR § 761.61(a)(8) (**New Condition**).

3. Within 30 days of completion of the work authorized under this Approval, Sea Level LLC shall submit for EPA's review and concurrence, a detailed monitoring and maintenance plan (MMP) for the cap(s). Sea Level LLC shall incorporate any changes to the MMP required by EPA(**New Condition**).

a. The MMP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria, as applicable; and reporting requirements.
b. The MMP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including building users, other on-site workers, and interested stakeholders, if requested.
c. The MMP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the cap(s).
d. Sea Level shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMP is necessary in order to monitor and/or evaluate the long-term effectiveness of the cap(s).
e. Activities required under the MMP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

Please include the modified work in the required final project report (Condition 20). Please be aware that EPA is only requiring documents electronically; therefore, hard copies of the documents are no longer neccessary.

Please feel free to contact me if there are any questions.

Kate Woodward

Katherine A. Woodward, PE, PhD
US Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Mail Code: 07-2
Boston, Massachusetts 02109-3912
617.918.1353/Pronouns: She/her/hers

From: Richard Kowalski <rkowalski@aries-eng.com>
Sent: Tuesday, January 31, 2023 12:38 PM
To: Woodward, Katherine (she/her/hers) <Woodward.Katherine@epa.gov>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Kate: Do you have any comments on this? Thanks,

Rick Kowalski

Director of Hydrogeology
Cell (508) 951-3673

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From: Woodward, Katherine <Woodward.Katherine@epa.gov>
Sent: Thursday, January 12, 2023 4:14 PM
To: Richard Kowalski <rkowalski@aries-eng.com>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

It has been crazy here and I haven't yet gotten to it. I will read it on Tuesday and provide you with some comments.

From: Richard Kowalski <rkowalski@aries-eng.com>
Sent: Thursday, January 12, 2023 3:30 PM
To: Woodward, Katherine <Woodward.Katherine@epa.gov>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Kate: Can you provide an update on your progress on this project? Thanks,

Rick Kowalski
Director of Hydrogeology
Cell (508) 951-3673

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From: Woodward, Katherine <Woodward.Katherine@epa.gov>
Sent: Monday, December 5, 2022 9:35 AM
To: Richard Kowalski <rkowalski@aries-eng.com>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Rick,

This is the first time I am seeing this document. I checked my email and I have nothing. I will have to read through it, which I will do this week.

Kate

From: Richard Kowalski <rkowalski@aries-eng.com>
Sent: Monday, December 5, 2022 8:35 AM
To: Woodward, Katherine <Woodward.Katherine@epa.gov>
Cc: tom@substructure.com; Stephen Graham <sgraham@aries-eng.com>
Subject: RE: Revised SIP for Portsmouth Marina, New Hampshire

Katherine: Please let us know when we may expect to receive any comments back from you regarding the attached revised SIP submitted on August 10, 2022. Thanks,

Rick Kowalski
Director of Hydrogeology
Cell (508) 951-3673

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From: Richard Kowalski
Sent: Wednesday, August 10, 2022 3:02 PM
To: Woodward, Katherine <Woodward.Katherine@epa.gov>
Cc: 'tom@substructure.com' <tom@substructure.com>; Stephen Graham (sgraham@aries-eng.com) <sgraham@aries-eng.com>
Subject: Revised SIP for Portsmouth Marina, New Hampshire

Katherine: Please find attached the revised SIP for the Portsmouth Marina. Please let us know if you have any comments or questions. Thanks,

Richard G. Kowalski, CPG LSP, CHMM
Director of Hydrogeology
Aries Engineering, LLC
104 Pleasant Street
Concord, New Hampshire 03301
Phone (603) 228-0008
Fax (603) 226-0374
Cell (508) 951-3673

rkowalski@aries-eng.com
www.aries-eng.com

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WPA APPENDIX E: ENGINEERING PROJECT PLANS/DRAWINGS/SHEETS

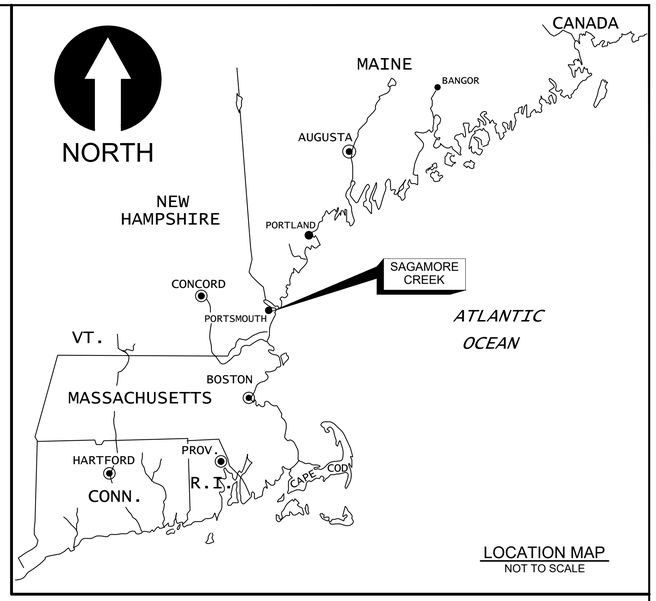
(Per Sections 2,7, 16 and NH ENV WT 311.05, 311.03(b)(4)

MARINA RESTORATION PROJECT
ENGINEERING PLANS

APPLICANT: TOM REIS, SEA LEVEL, INC.
PREPARED BY: ARIES ENGINEERING, LLC

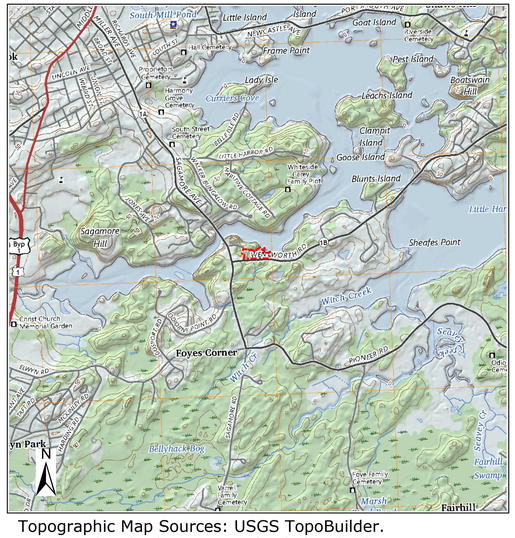
SHEET INDEX

SHEET 1: SITE LOCUS AND SHEET INDEX
SHEET 2: SITE PLAN AND EXISTING CONDITIONS SITE PLAN
SHEET 3A PCB SAMPLE LOCATION PLAN
SHEET 3B >50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN
SHEET 3C <50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN
SHEET 3D SELF-IMPLEMENTING CLEANUP PLAN (SIP)
SHEET 4 CONCRETE PAD CROSS SECTION
SHEET 5 FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)
SHEET 6 PLANTING PLAN WITH PLANTING SCHEDULE
SHEET 7 TREE TYPES AND LOCATIONS



LOCATION MAP
NOT TO SCALE

SITE LOCUS MAP 2024



Topographic Map Sources: USGS TopoBuilder.
Generated 08/21/2024, Downloaded 08/27/2024

2,000 1,000 0 2,000 4,000 Feet

Legend

Extents

Aries Project # 2021-075A
File # 2021-075A\106.22.mxd

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-0008
www.aries-eng.com

SEA LEVEL, LLC
187 WENTWORTH ROAD
PORTSMOUTH, NEW HAMPSHIRE

SITE LOCUS
November 2024 FIGURE 1A

© 2024 ARIES ENGINEERING, LLC

SITE AERIAL MAP 2024

2,000 1,000 0 2,000 4,000 Feet

Legend

Extents

Aries Project # 2021-075A
File # 2021-075A\111.24.mxd

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PORTSMOUTH, NEW HAMPSHIRE

SITE AERIAL
NOVEMBER 2024 FIGURE 1A

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TITLE SHEET, INDEX OF DRAWINGS and SITE LOCUS MAP

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY: J. Drebaum	No.	Date	Revision Description
APPROVED BY: S. Graham	1	8/27/24	Updates
	2	11/07/24	Add Aerial Map

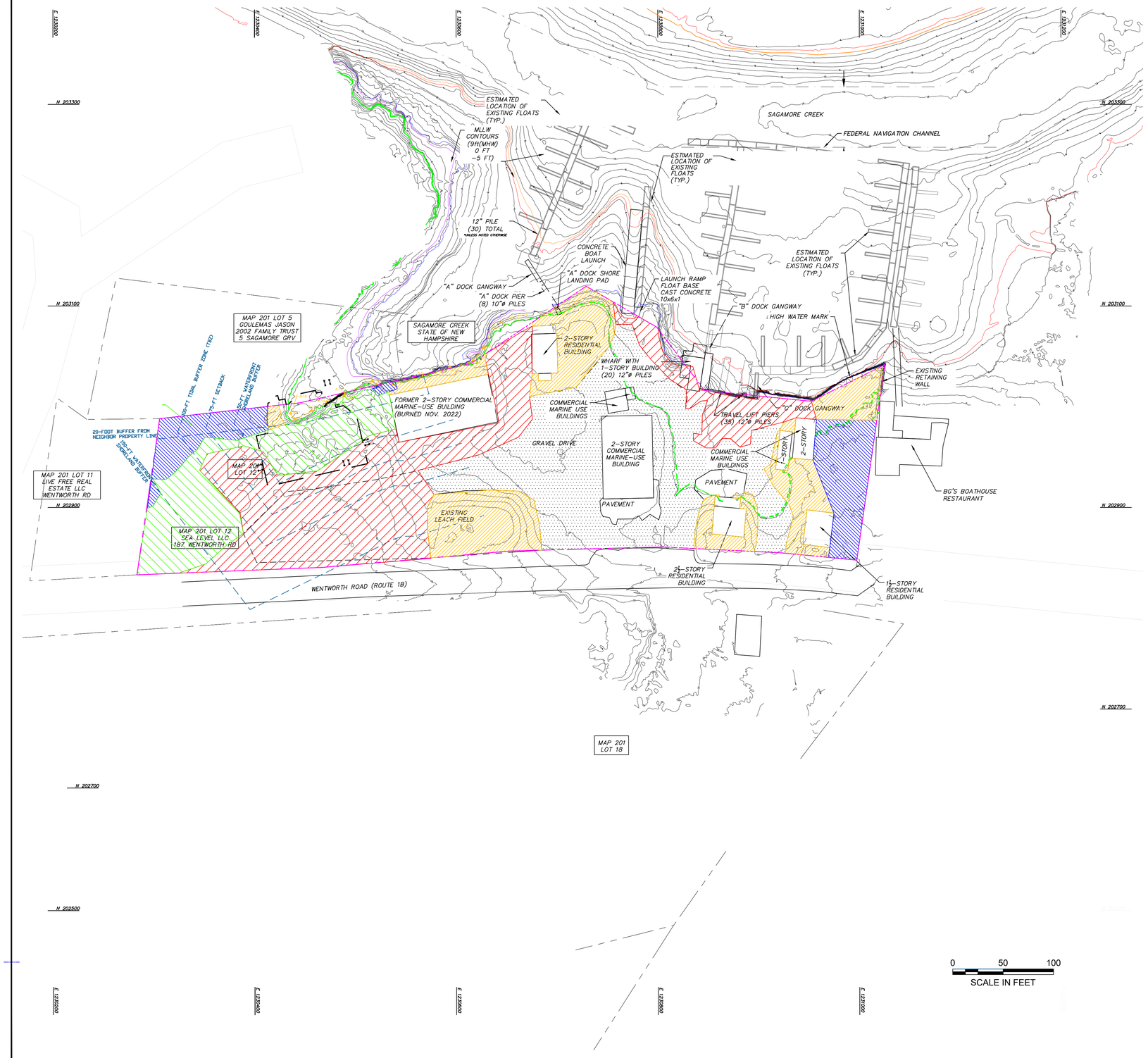
ISSUED FOR PERMITTING

Project #: 2021-075A
File: 2021-075A(SS)02-22

APRIL 24, 2023

Jay P. Johonnett, P.E.

SHEET 1



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARIES
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN LOW WATER (MLW) (-4.30ft NAVD88)
- MEAN HIGH WATER (MHW) (3.81ft NAVD88)
- MEAN LOW LOW WATER (MLLW) (-4.62 ft NAVD88)
- MEAN HIGH HIGH WATER (MHHW) (4.22ft NAVD88)
- HIGHEST OBSERVED TIDE LINE (HOTL 7.9)/ ZONE AE 100 YEAR FLOOD ZONE
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- PRIOR GRAVEL DRIVE (44,785 SF)
- INTACT GRAVEL BOAT STORAGE AREA (19,588 SF)
- DEGRADED GRAVEL BOAT STORAGE AREA (12,950 SF)
- PERMEABLE AREAS (21,086.61 SF)

PROPOSED

- PROPOSED WORK LIMITS

N W E S

A-18

GENERAL PLAN NOTES:

1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B-DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B-DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST-PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINIUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y-87-1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN-WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE-EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE-EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B-DOCK-PAD-SW
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING "PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG-2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
(603) 228-008
www.aries-eng.com

SITE PLAN AND EXISTING CONDITIONS SITE PLAN

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	J. Drebaum	No.	Date	Revision Description
APPROVED BY:	S. Graham	1.	1/23/24	Updates to general notes
		2.	8/27/24	Updates

ISSUED FOR PERMITTING

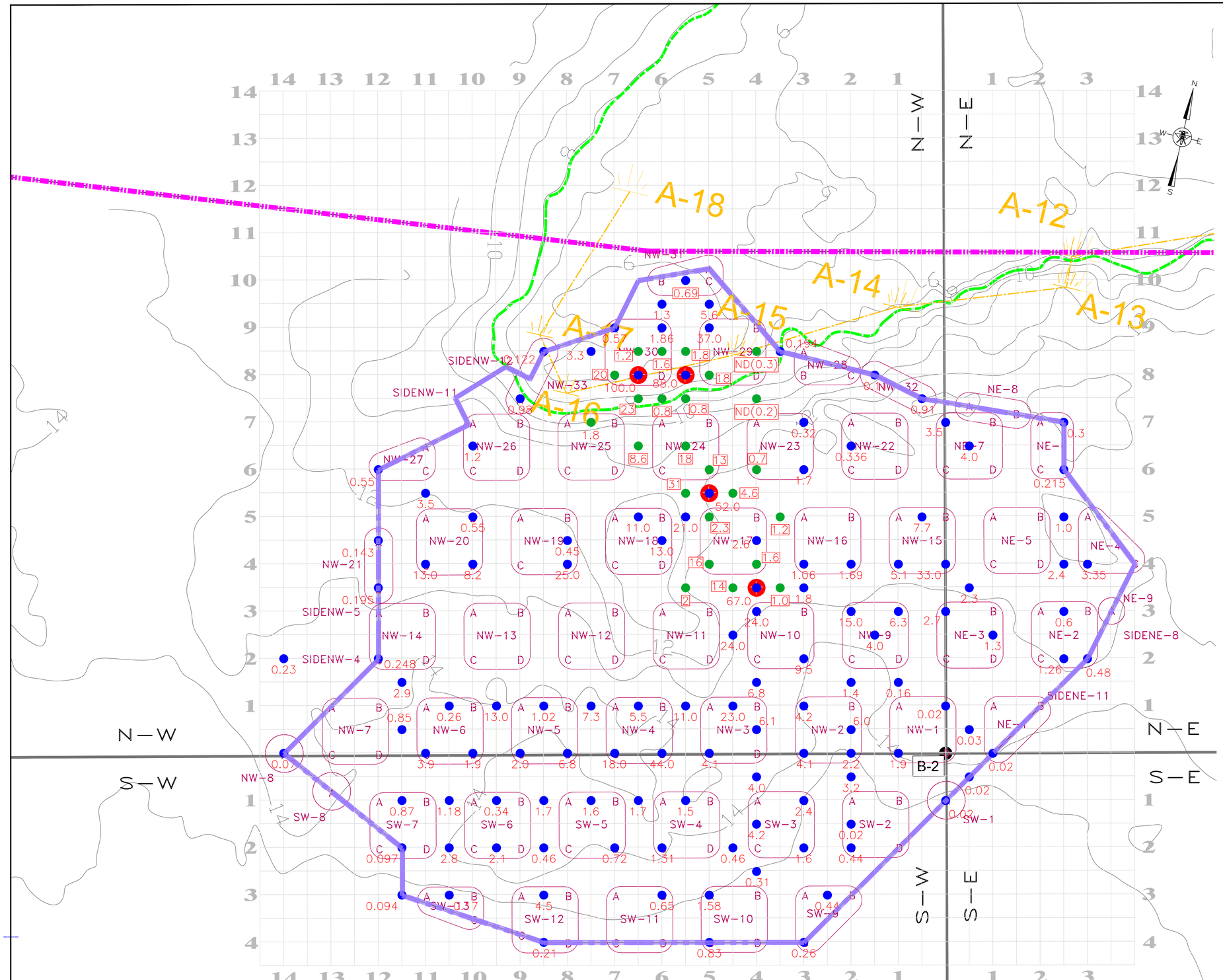
Project #: 2021-075A
File: 2021-075A(SS)02-22

APRIL 24, 2023

SHEET 2

Patrick D. Seekamp, CWS

Jay P. Johonnett, P.E.



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- SOIL BORING LOCATION AND DESIGNATION
- B-1 SOIL SAMPLE LOCATION (DUNFIELD ENG)
- SOIL SAMPLE LOCATION (GEOINSIGHT - 7/25/2016)
- 2.3 PCB CONCENTRATION (ppm)
- PCB CONCENTRATION >50ppm
- S—W SAMPLE NOMENCLATURE QUADRANT
- TREE

GRAPHIC SCALE

0 5 10 20

1 INCH = 5 FEET (APPROXIMATE)

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PCB SAMPLE LOCATION PLAN

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	J. Drebaum	No.	Date	Revision Description
APPROVED BY:	S. Graham	1.	8/27/24	Updates

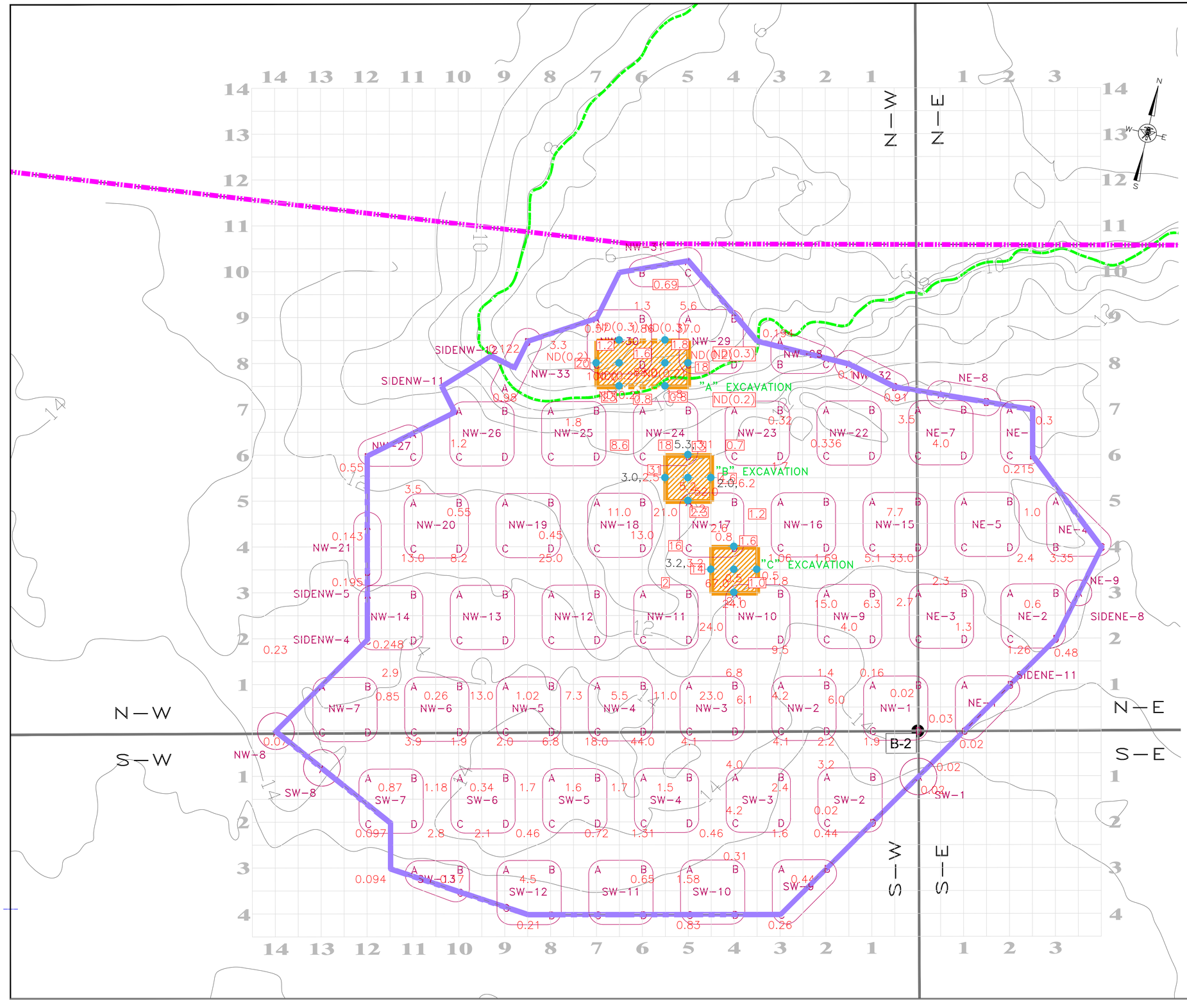
ISSUED FOR PERMITTING

Project #: 2021-075A
File: 2021-075A(SS)06-22

APRIL 24, 2023

Jay P. Johonnett, P.E.

SHEET 3A



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION AREA
- B-1 SOIL BORING LOCATION AND DESIGNATION
- SAMPLE LOCATION
- 0.9 PCB CONCENTRATION (PPM) BOTTOM SAMPLE
- 0.9 PCB CONCENTRATION (PPM) SIDEWALL SAMPLE
- ND(0.2) NOT DETECTED ABOVE LIMIT NOTED
- 3.2, 3.2 PRIMARY AND DUPLICATE SAMPLE RESULTS
- S—W SAMPLE NOMENCLATURE QUADRANT
- TREE

GRAPHIC SCALE

5 10 20

1 INCH = 5 FEET (APPROXIMATE)

ARIES ENGINEERING
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>50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	J. Drebaum	No.	Date	Revision Description
APPROVED BY:	S. Graham	1.	8/27/24	Updates

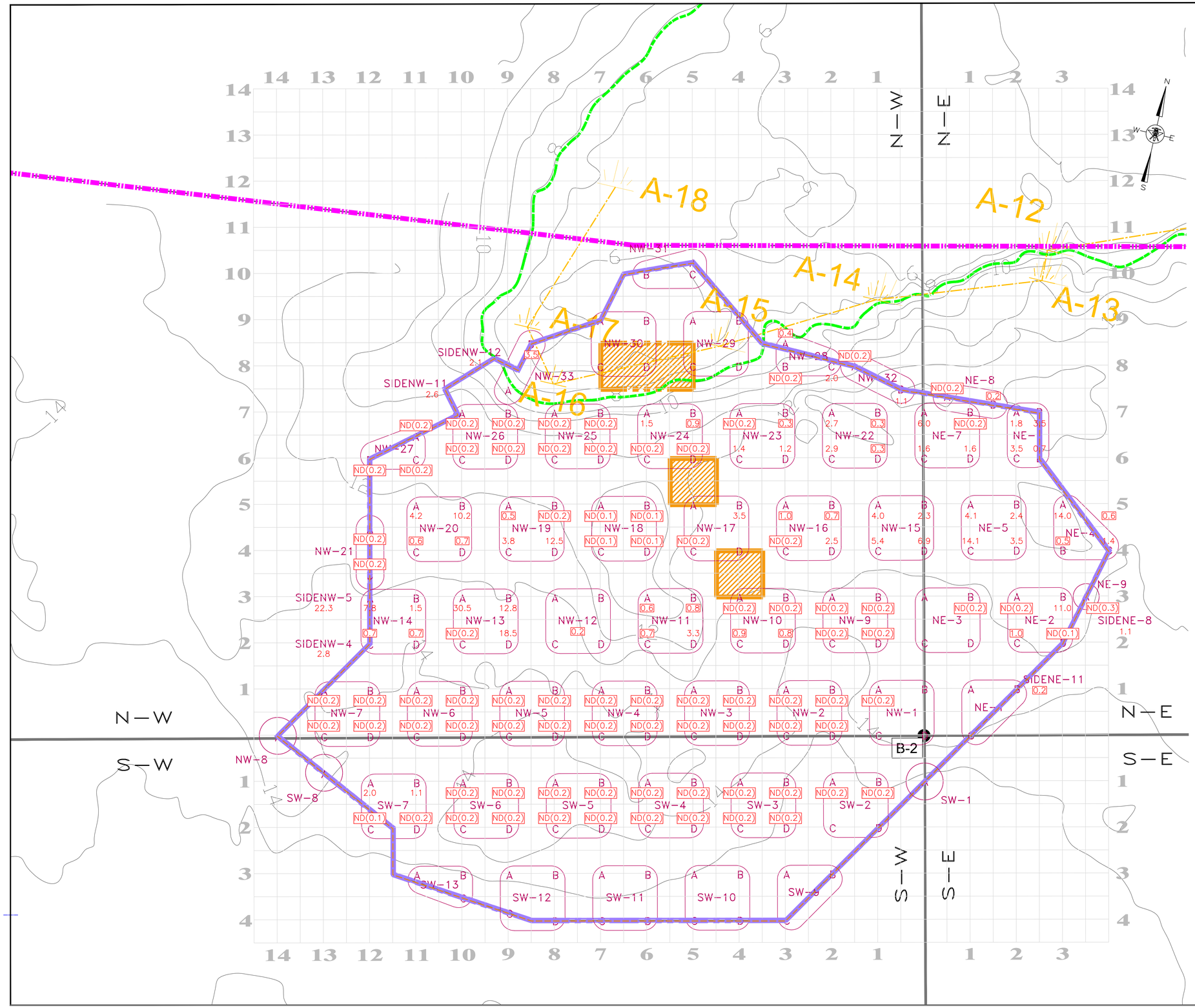
ISSUED FOR PERMITTING

Jay P. Johonnett, P.E.

Project #: 2021-075A
File: 2021-075A(SS)06-22

APRIL 24, 2023

SHEET 3B



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION LIMITS TO 2 FEET BGS PCBS ≥ 50ppm
- B-1 — SOIL BORING LOCATION AND DESIGNATION
- S — W — SAMPLE NOMENCLATURE QUADRANT
- 0.9 — PCB CONCENTRATION (ppm)
- ND(0.2) — NOT DETECTED ABOVE LIMIT NOTED
- TREE

GRAPHIC SCALE

5 10 20

1 INCH = 5 FEET (APPROXIMATE)

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<50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY: J. Drebaum	No.	Date	Revision Description
APPROVED BY: S. Graham	1.	8/27/24	Updates

ISSUED FOR PERMITTING

Project #: 2021-075A
File: 2021-075A(SS)06-22

APRIL 24, 2023

Jay P. Johonnett, P.E.

SHEET 3C

#81, 82, & 83 Sampled @ 0–0.25, 1–1.25, & 2–2.25 ft

#84 & 85 Sampled @ 0–0.25 & 1–1.25 ft

#35-2-S
#35-2-D
2.3/0.18/ND
Samples collected @ 0–0.25' 1–1.25' 1.5–1.75'

SIDENW-12
SIDENW-11
SIDENW-5
SIDENW-4
SW-8
NW-8

A-1
A-11
A-12
A-13
A-15
A-16
A-17

Extent of PCB Impacted Area

B-2

AA
AA'

N—W
N—E
S—W
S—E

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION LIMITS TO 2 FEET BGS PCBS ≥ 50ppm
- B-1 — SOIL BORING LOCATION AND DESIGNATION
- S — W — SAMPLE NOMENCLATURE QUADRANT
- 0.9 — PCB CONCENTRATION (ppm)
- ND(0.2) — NOT DETECTED ABOVE LIMIT NOTED
- #1 — SUPPLEMENTAL SOIL SAMPLE LOCATIONS
- 15.0/3.6 — PCB CONCENTRATION (ppm) AT 0-0.25 FT AND 1-1.25 FT
- #18 — SUPPLEMENTAL SOIL SAMPLE LOCATIONS FROM SOIL PILE PLACED BACK INTO EXCAVATION NO SAMPLES #22, 23, & 24 COLLECTED
- na/ns — NOT ANALYZED/NOT SAMPLED
- TREE

PROPOSED

- PROPOSED WORK LIMITS
- PROPOSED CONCRETE PAD

GRAPHIC SCALE

5 10 20

1 INCH = 5 FEET (APPROXIMATE)

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH 03301
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PROPOSED CONCRETE PAD
w/ SAMPLE LOCATIONS

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	J. Drebaum	No.	Date	Revision Description
APPROVED BY:	S. Graham	1.	8/27/24	Updates

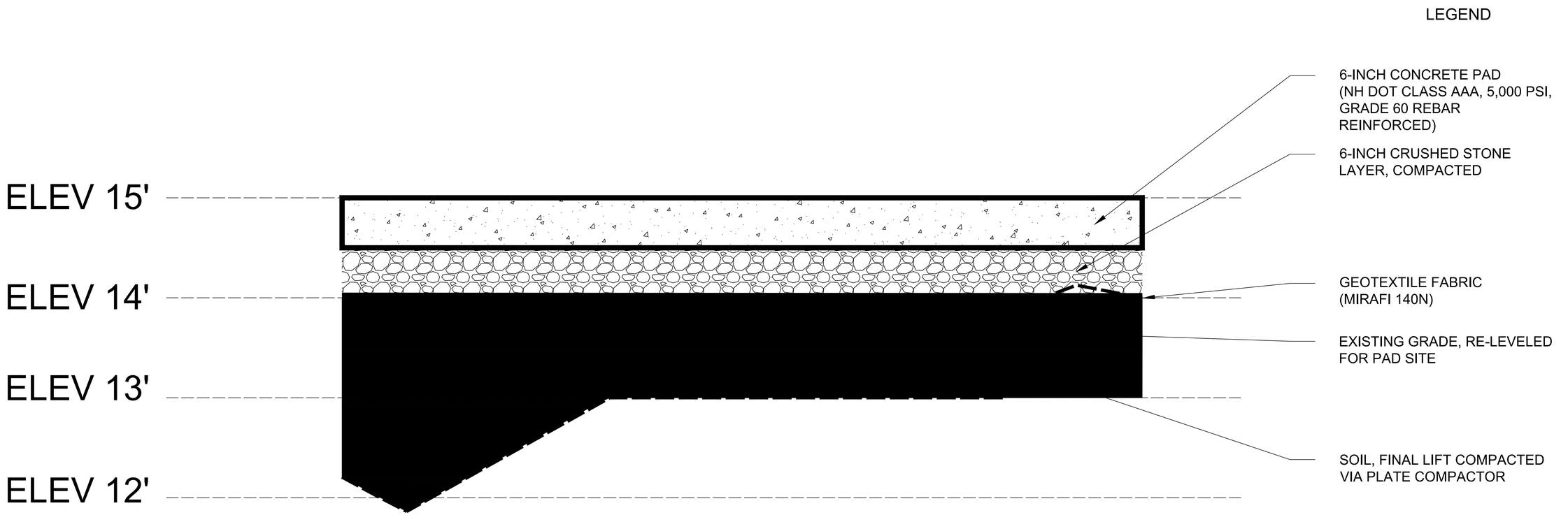
ISSUED FOR PERMITTING

Project #: 2021-075A
File: 2021-075A(SS)06-22

APRIL 24, 2023

Jay P. Johonnett, P.E.

SHEET 3D



PROPOSED CONCRETE PAD CROSS SECTION (AA --- AA')
(SEE SHEET 5 FOR LOCATION)

VERTICAL SCALE

0.5 1 1.5

1 INCH = 0.5 FEET (APPROXIMATE)

HORIZONTAL SCALE

10 20 30

1 INCH = 10 FEET (APPROXIMATE)

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CONCRETE PAD
CROSS SECTION

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY: J. Drebaum	No.	Date	Revision Description
APPROVED BY: S. Graham	1	4/17/2024	Figure number update
	2	8/24/2024	Updates

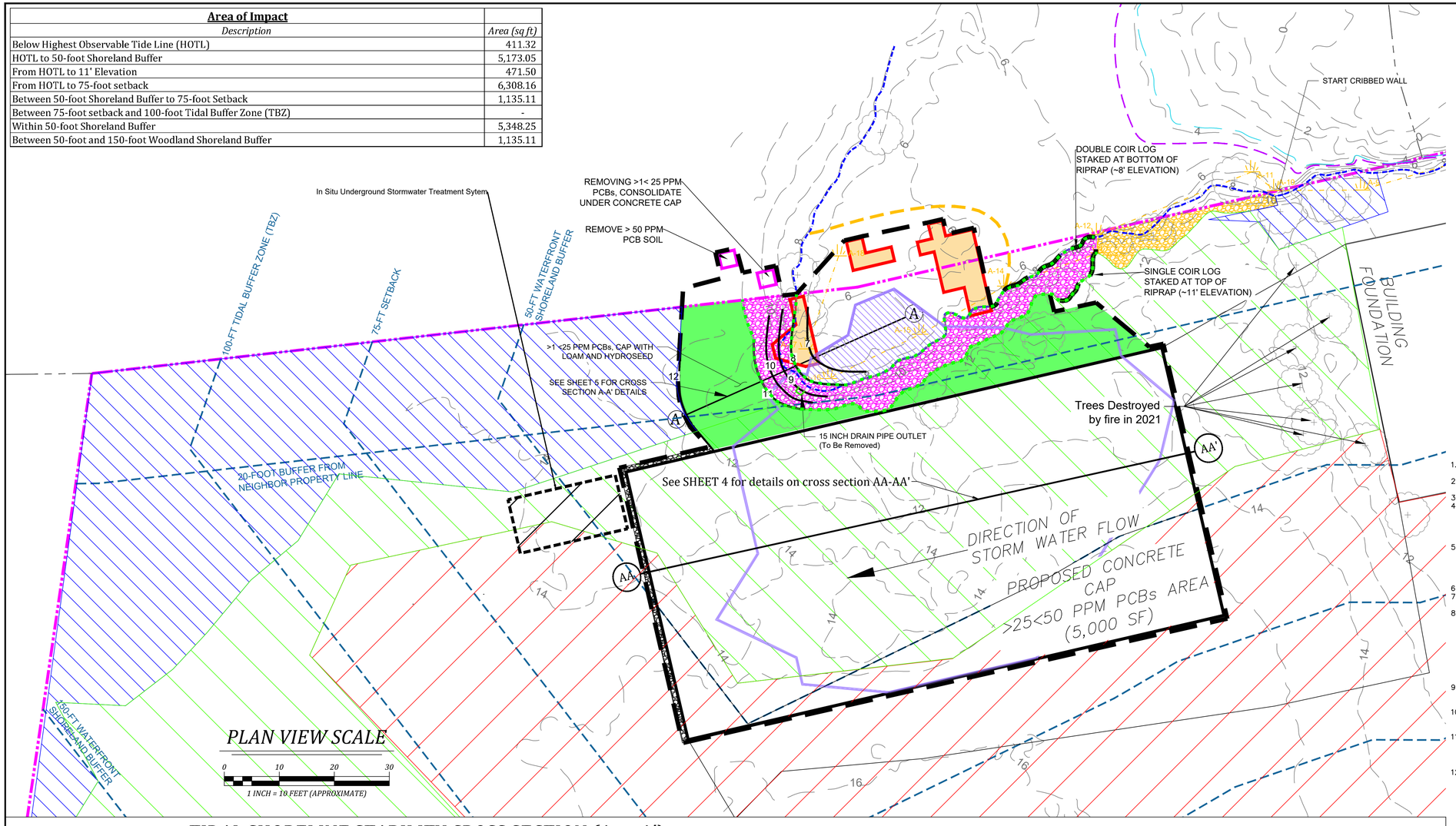
ISSUED FOR PERMITTING

Project #: 2021-075A
File: 2021-075A(SS)02-22

APRIL 24, 2023

Jay P. Johonnett, P.E.

Area of Impact	
Description	*Area (sq ft)*
Below Highest Observable Tide Line (HOTL)	411.32
HOTL to 50-foot Shoreland Buffer	5,173.05
From HOTL to 11' Elevation	471.50
From HOTL to 75-foot setback	6,308.16
Between 50-foot Shoreland Buffer to 75-foot Setback	1,135.11
Between 75-foot setback and 100-foot Tidal Buffer Zone (TBZ)	-
Within 50-foot Shoreland Buffer	5,348.25
Between 50-foot and 150-foot Woodland Shoreland Buffer	1,135.11



LEGEND

EXISTING
- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (4.22 FT NAVD88)
- MEAN HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- NATURAL WOODLAND AREA
- EXISTING RIPRAP
- TREE

PROPOSED
- PROPOSED WORK LIMITS
- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP
- WETLAND RESTORATION AREA (175 SF)
- REMEDIATION AREA, SOIL REMOVAL >50 PPM PCBs
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- A — A' CROSS SECTION
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
- MIXED STONE/RIPRAP TO BE RESTORED (470 SF)
- PROPOSED TURBIDITY SILT CURTAIN
- CONCRETE PAD DRAINAGE
- COIR LOGS STAKED

GENERAL PLAN NOTES:

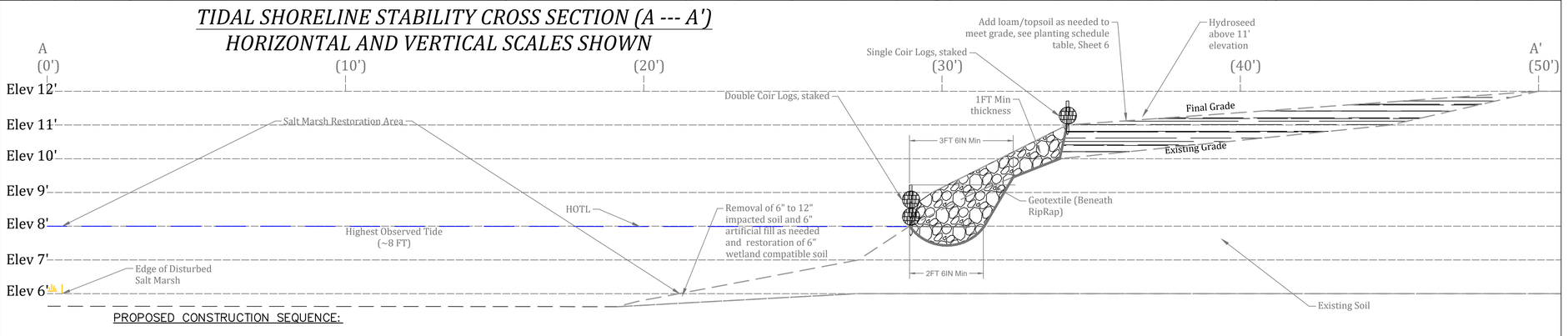
1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B–DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B–DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST–PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINIUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y–87–1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN–WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE–EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE–EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B–DOCK–PAD–SW.
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING "PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG–2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

TIDAL SHORELINE STABILITY CROSS SECTION (A --- A')
HORIZONTAL AND VERTICAL SCALES SHOWN



PROPOSED CONSTRUCTION SEQUENCE:

1. INSTALL TREE PROTECTION AND EROSION CONTROL MEASURES (COIR LOGS) AT START OF HOTL WITHIN THE LIMIT OF WORK/DISTURBANCE (LOD).
2. CLEAR AND GRUB VEGETATION, EXCEPT TREES, IN THE LIMITS OF WORK, AS NEEDED; WOODY MATERIAL MAY BE CHIPPED / REUSED ON-SITE.
3. ONCE COMPLIANCE WITH TSCA REQUIREMENTS FOR REMOVAL OF CONTAMINANTS IS COMPLETE, BY REMOVING SIX (6) INCHES OF IMPACTED SEDIMENT, RESTORATION OF REMEDIATED SALT MARSH AREA OCCURS BY BACKFILLING WITH CLEAN MIXED SAND IN STAKED BURLAP BAGS TO A FINAL ELEVATION OF 6-FT TO MIMIC ADJACENT SALT MARSH ELEVATION AND THEN PLANTED ON 1-SQ. FT INTERVAL GRID WITH SALTMARSH BULRUSS (SCIRPUS ROBUSTUS). PLUG EXISTING 15-IN STORMWATER DISCHARGE PIPE WITH 5-FT CONCRETE, UPON REGULATORY APPROVAL.
4. PLACE NATURAL FIBER BLANKET FROM ABOVE HOTL TO EXISTING ELEVATION 11-FT. ADD GEOTEXTILE AFTER FIBER.
5. FROM THE HOTL, EMPLACE 4 TO 5-INCH DIAMETER ROUNDED STONE, AND RE-INSTALLED BOULDERS UP TO 4 FT DIAMETER, TO 11 FT ELEVATION TO PROVIDE EROSION CONTROL.
6. FILL ABOVE 11-FT MSL RIPRAP LINE AS NEEDED TO ACHIEVE 11 FT MSL, WITH CLEAN FILL, THEN ADD 6-IN TOPSOIL CAP.
7. INSTALL NEW CONCRETE PAD (5,000 SF) RUNOFF RELATIVELY FLAT SLOPE OF <2% DIRECTED TO EAST TOWARDS 12 INCH WIDE, 12 INCH THICK 2 INCH STONE BORDER AREA SERVING AS LEVEL SPREADER/ATTENTUATION MECHANISM.
8. INSTALL VEGETATION ACCORDING TO SHEET 6 (PLANTING PLAN).
9. ONCE AREA IS FULLY STABILIZED, REMOVE EROSION CONTROLS AND TREE PROTECTION.
10. DECONTAMINATE ALL EQUIPMENT AND HAND TOOLING AND VERIFY COMPLIANCE WITH TSCA 40 CFR 761.79(B)(3)(I), UNRESTRICTED USE USING WIPE SAMPLES AND SHOWING PCB LEVELS ARE LESS THAN 10 UG/100 CM2.
11. MINIMAL EROSION POTENTIAL EXISTS ABOVE ELEVATION 11 FT DUE TO RELATIVELY FLAT SLOPE (<4%)

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FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	04/23/23	Revision
REVIEWED BY:	02	09/04/24	Revision
S. Graham			

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 5

Jay P. Johonnett, P.E.

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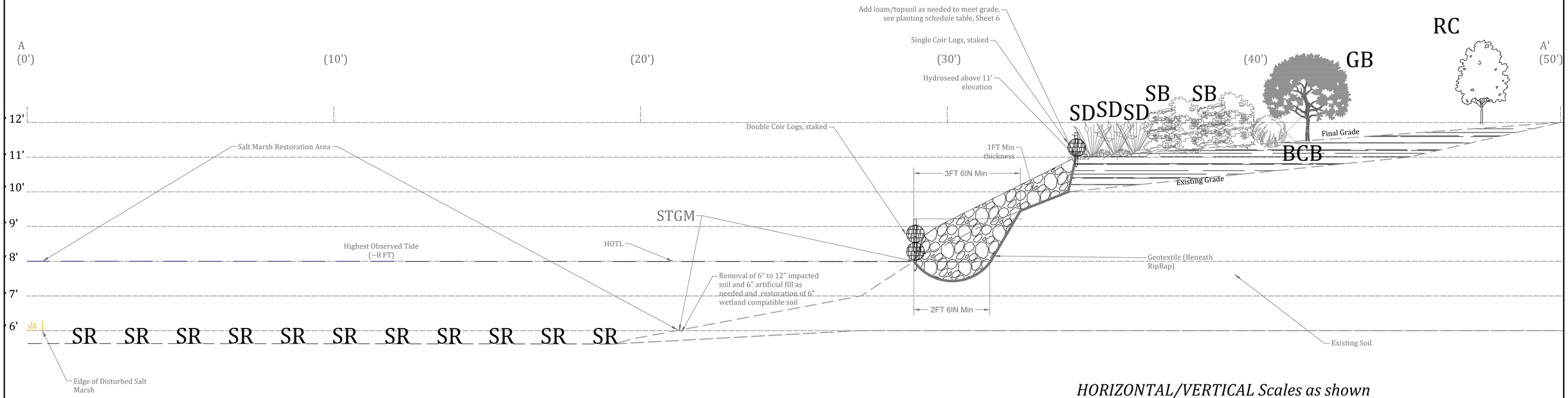

HORIZONTAL/VERTICAL Scales as shown

Planting Schedule					
Key	*Plant Type*	*Species*	*Size (feet)*	*Caliper Size*	*Quantity*
GB	Tree	Gray Birch *(Betula populifolia)*	3-4	-	1
RC	Tree	Red Cedar *(Juniperus virginana)*	3-4	-	1
SD	Shrub	Silky dogwood *(Cornus amomum)*	2-3	-	3
SB	Shrub	Shadbush *(Amelanchier candensis)*	2-3	-	2
BCB	Shrub	Black Chokeberry *(Aronia melanocarpa)*	2-3	-	1
SR	Plugs	*Salt Marsh Bullrush (Scirpus Robustus)*	-	-	350
STGM	Seed	Salt Tolerant Grass Mix*	-	-	5 lb

NOTES:
1. *STGM species list includes: Canada Wild Rye (Elymus canadensis), Red Fescue (Festuca rubra), Atlantic Coastal Panic Grass (Panicum amarum), Big Bluestem (Andropogon gerardii), Indian Grass (Sorghastrum nutans), Switch Grass (Panicum virgatum), and Path Rush (Juncus tenuis)
2. Mean High Water (MHW) and Mean Low Water (MLW) lines are outside of the Limit of Disturbance and beyond the area shown in the above cross section.

NOT TO SCALE

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PLANTING PLAN with PLANTING SCHEDULE

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	01/23/24	Revision to Notes
REVIEWED BY:	02	04/17/24	Revision to notes, area measurements, cross section, planting schedule
S. Graham	03	08/27/24	Updates

Project #: 2021-075A
File:2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 6

Patrick D. Seekamp, CWS

Jay P. Johonnett, P.E.

REMOVING >1< 25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP

REMOVE > 50 PPM PCB SOIL

>1 <25 PPM PCBs, CAP WITH LOAM AND HYDROSEED

SEE SHEET 5 FOR CROSS SECTION A-A' DETAILS

SINGLE COIR LOG STAKED AT TOP OF RIPRAP (~11' ELEVATIC

Grid 1

Grid 2

Grid 3

Grid 4

ALL EROSION CONTROLS WILL BE MONITORED/MAINTAINED LONG TERM BY THE OWNER, SEA LEVEL

ALL TREES, EXCEPT AS NOTED, WILL BE MAINTAINED

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE BOUNDARY)
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- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- TREE/SHRUB WITH TREE NUMBER

PROPOSED

- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP (175 SF)
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
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N W E S

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2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
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12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

1 inch = 10 ft.

PLAN VIEW SCALE

0 5 10 15

1 INCH = 5 FEET (APPROXIMATE)

TREE COUNT TABLE

Grid #	Tree #	# of Stems (clumps)	Tree Type	Tree Diameter at Breast Height (inches)	Point Score	Grid Total Point Score	**Grid Score After Tree Removal	NOTES
1	1	1	American Elm	4	5	35	20	
	2	1	*Red Maple	7	10			
	3	1	*Red Maple	5	5			
	4	1	*Green Ash	15	15			
2	1	1	Staghorn Sumac	N/A	1	1	0	Removed during Prior Remediation
3	1	2	Staghorn Sumac	N/A	1	2	0	Removed during Prior Remediation
	2	3	Box Elder	N/A	1			
4	1	1	Green Ash	10	10	20	20	
	2	1	Black Birch	10	10			

*Trees to be removed

** See Planting Plan with Planting Schedule for replacement of lost trees and shrubs

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TREE TYPES AND LOCATIONS

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

DRAFTED BY:	No.	Date	Revision Description
J. Drebaum	01	01/23/24	Revision to Trees, Table, Silt Curtain, Notes RIPRAP
REVIEWED BY:	02	04/17/24	Revision to notes, riprap, title block
S. Graham	03	08/27/24	Updates

Project #: 2021-075A
File: 2021-075A(SS2)06-22

APRIL 24, 2023

SHEET 7

Patrick D. Seekamp, CWS

Jay P. Johonnett, P.E.

AVOIDANCE AND MINIMIZATION CHECKLIST

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

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

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

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

The following definitions and abbreviations apply to this worksheet:

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

SECTION 1 - CONTACT/LOCATION INFORMATION		
APPLICANT LAST NAME, FIRST NAME, M.I.: Sea Level, LLC and Goulemas Family Trust		
PROJECT STREET ADDRESS: 185 - 187 Wentworth House Road		PROJECT TOWN: Portsmouth
TAX MAP/LOT NUMBER: 201/12		
SECTION 2 - PRIMARY PURPOSE OF THE PROJECT		
Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	☐ Yes ☒ No

If you answered "no" to this question, describe the purpose of the "non-access" project type you have proposed:

Final remediation of PCBs initially addressed under U.S. EPA approval issued on 9-9-2016 per 40 CFR 761.61(a) in a working waterfront (see 4-24-2023 memo to NHDES, Attachment D, for history and regulatory requirements). This new cleanup effort limits impacts within Zone AE/other jurisdictional zones as follows: 1) Zone AE at 5 to 6 FT MSL: removal of 175 SF to 1 ft deep of PCB impacted sediment in existing salt marsh area within isolated and blind section of Witch Cove contiguous to tidal Sagamore Creek plus removal of a 6 inch layer of fill over an area of 235 SF inadvertently placed during prior remediation, totaling 11 CY of wetland sediment excavation, both to be restored with saltmarsh plantings. 2) Outside Zone AE, 470 SF of near vertical tidal cove shoreline above HOTL/below 11 ft MSL to be stabilized by armoring using boulders saved during prior remediation, plus 4-5 inch stone riprap; removal of 0.5 CY of soil to 1' deep with >50ppm PCBs in upland wooded area to be transported off site to licensed disposal facility; removal of 0.5 CY soil to 1' deep with >25<50 ppm PCBs to be placed under concrete cap, both excavations to be filled with clean soil and vegetated; within previously developed uplands, new 5,000 SF concrete pad encapsulating >25<50 ppm PCBs soils with additional lead presence; and restoration of degraded gravel areas as needed to be reestablished to resume site operations. Erosion controls will be emplaced, impacts to be temporary over 1 month period.

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

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

APPENDIX G, COPY OF WPA APPLICATION FEE

(Per Section 12)

The State of New Hampshire

Department of Environmental Services

Robert R. Scott, Commissioner

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

www.des.nh.gov

Documents have been received to the Lobby Reception Window, New Hampshire Department of Environmental Services, 29 Hazen Drive, Concord NH on:

CLH 1815
CLH 1814
Dredge + Fill
Shoreland

RECEIVED
DEC 18 2024
DEPARTMENT OF ENVIRONMENTAL SERVICES

By: _____ 1:34 pm

1815

Sea Level LLC
dba: Portsmouth Marina
P.O. Box 4094
Portmsouth, NH 03802

MEREDITH VILLAGE SAVINGS BANK
MEREDITH, NEW HAMPSHIRE 03253
54-7293/2117

12/13/24

PAY TO THE ORDER OF NH-DES $

FOURTEEN HUNDRED SIXTY-ONE AND 00/XX DOLLARS

MEMO

AUTHORIZED SIGNATURE

⑈001815⑈ ⑆211772936⑆ 06 300307⑈

1814

Sea Level LLC
dba: Portsmouth Marina
P.O. Box 4094
Portmsouth, NH 03802

MEREDITH VILLAGE SAVINGS BANK
MEREDITH, NEW HAMPSHIRE 03253
54-7293/2117

12/13/24

Y TO THE ORDER OF NH - DES $

TWENTY-SIX HUNDRED EIGHTY-SEVEN AND 00/XX DOLLARS

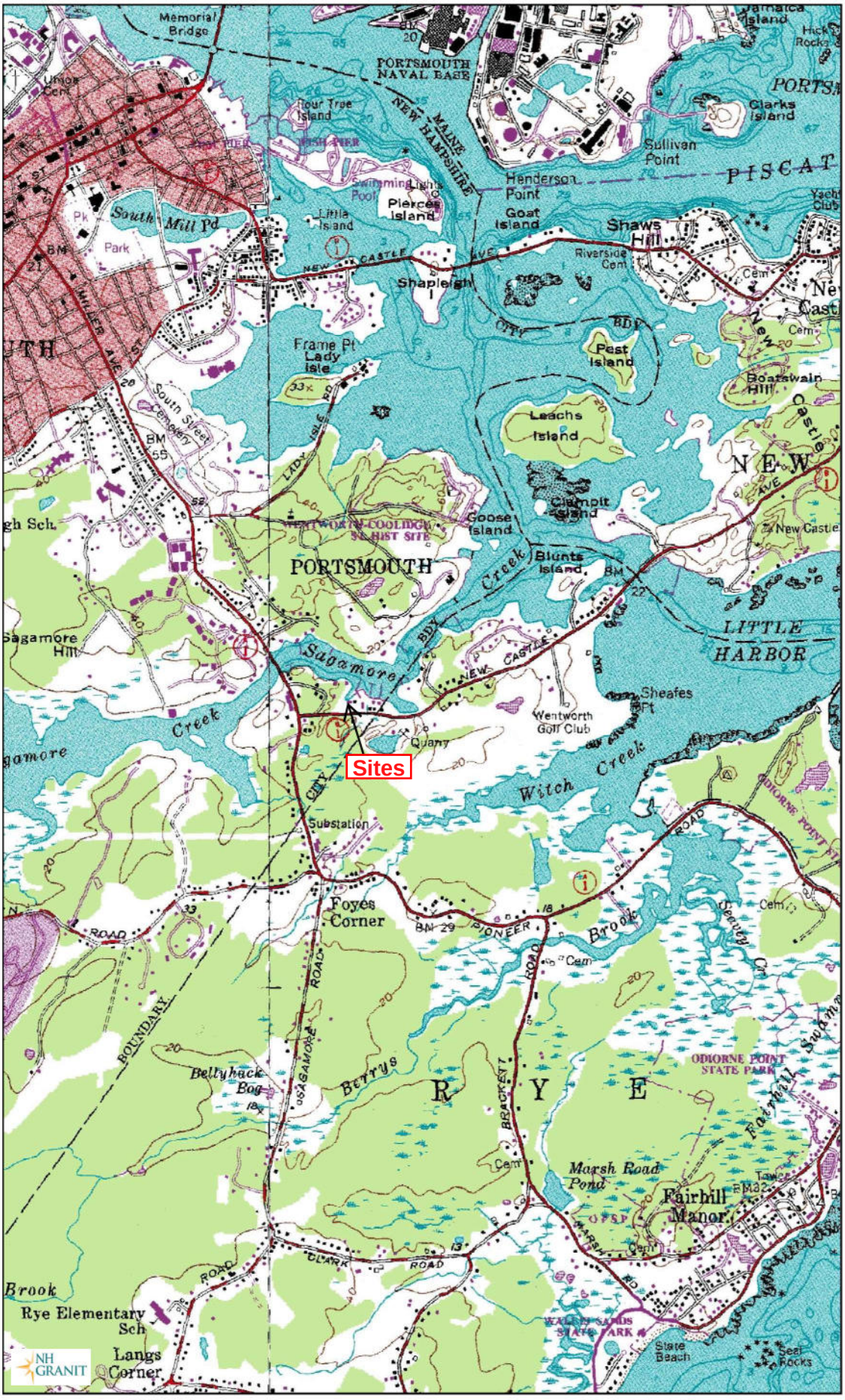
MEMO

AUTHORIZED SIGNATURE

⑈001814⑈ ⑆211772936⑆ 06 300307⑈

APPENDIX H

Sea Level, LLC and Goulemas Family Trust



Map Scale

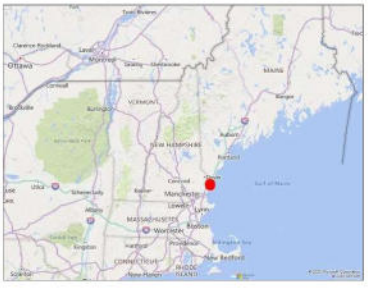
1: 25,000

© NH GRANIT, www.granit.unh.edu

Map Generated: 8/4/2023

Notes

USGS 7.5 Minute Topo Map



APPENDIX I

US Army Corps of Engineers ®
New England District

Appendix B
New Hampshire General Permits
Required Information and USACE Section 404 Checklist

Required Information

In order for USACE to properly evaluate your application, applicants must submit the following information for all projects along with the NHDES Wetlands Bureau application or permit notification forms. Some projects may require more information. Check with USACE at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the NHDES Wetlands Bureau application and Permit by Notification forms.

- NHDES Wetlands Permit Application. See Attachment
- Request for Project Review Form by the NH DHR: https://www.nh.gov/nhdhr/review/rpr.htm. Attached
- Photographs of wetland/waterway to be impacted. See Attachment, Photos
- Purpose of the project. See Attachment, Purpose of Project , NHDES WPA, Section 2
- Legible, reproducible plans no larger than 11"x17" with bar scale. Provide locus map and plan views of the entire property. See Sheets 1-7, Attached
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas. Sheets 5-7
- In navigable waters, show MLW and MHW elevations. Show the HTL elevations when fill is involved. In other waters, show the OHW elevation. See Sheet 2
- On each plan, show the following for the project: See Sheet 2
  - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. In coastal waters this may be mean higher high water (MHHW), MHW, MLW, mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983 - 2001.
  - Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
  - Project limits with existing and proposed conditions.
  - Limits of any FNP in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the FNP.
  - Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the OHW in inland waters and below the HTL in coastal waters.
  - Delineation of all waterways and wetlands on the project site.
- Use Federal delineation methods and include USACE wetland delineation data sheets (GC 2). Attached
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact USACE for guidance. Sheet 2 N/A

US Army Corps of Engineers®
New England District

Appendix B
New Hampshire General Permits
Required Information and USACE Section 404Checklist

USACE Section 404 Checklist

1. Attach any explanations to this checklist. Lack of information could delay a USACE permit determination.
2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 3 for information on single and complete projects.
4. Contact USACE at (978) 318-8832 with any questions.
5. The information requested below is generally required in the NHDES Wetland Application. See page 61 for NHDES references and Admin Rules as they relate to the information below.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See the following to determine if there is an impaired water in the vicinity of your work area. * https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/ https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx		x
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		x
2.2 Are there proposed impacts to tidal SAS, prime wetlands, or priority resource areas? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www4.des.state.nh.us/NHB-DataCheck/.	x	
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage? N/A		
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		x
2.5 The overall project site is more than 40 acres?		x
2.6 What is the area of the previously filled wetlands? 6 in depth fill by prior remediation		235 SF
2.7 What is the area of the proposed fill in wetlands?		0 SF
2.8 What % of the overall project sire will be previously and proposed filled wetlands? of 6,785 SF		3.5%
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www4.des.state.nh.us/NHB-DataCheck/. USFWS IPAC website: https://ipac.ecosphere.fws.gov/ See attached	x	

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		x
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the GC 31?		x
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		x
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage? N/A		
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the RPR Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 37 GC 14(d) of the GP document** See Attached	x	
6. Minimal Impact Determination (for projects that exceed 1 acre of permanent impact)	Yes	No
Projects with greater than 1 acre of permanent impact must include the following: • Functional assessment for aquatic resources in the project area. • On and off-site alternative analysis. N/A • Provide additional information and description for how the below criteria are met.		
6.1 Will there be complete loss of aquatic resources on site?		
6.2 Have the impacts to the aquatic resources been avoided and minimized to the greatest extent practicable?		
6.3 Will all aquatic resource function be lost?		
6.4 Does the aquatic resource (s) have regional significance (watershed or ecoregion)?		
6.5 Is there an on-site alternative with less impact?		
6.6 Is there an off-site alternative with less impact?		
6.7 Will there be a loss to a resource dependent species?		
6.8 Are indirect impacts greater than 1 acre within and adjacent to the project area?		
6.9 Does the proposed mitigation replace aquatic resource function for direct, indirect, and cumulative impacts?		

*Although this checklist utilizes state information, its submittal to USACE is a federal requirement.

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

US Army Corps of Engineers ®
New England District

Appendix B
New Hampshire General Permits
Required Information and USACE Section 404 Checklist

NHDES Rule Citations

Appendix B Requirements	NHDES Citation	NHDES Resource, Form & BMP
1. Impaired Waters		
1.1	See Env-Wt 307.03 Protection of Water Quality Required & Env-Wt 306.05 a) 7	https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/ https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
2. Wetlands		
2.1	N/A	N/A
2.2	Env 307.06; Env- Wt 311.01(a)(b) (c)	NH Online Forms System - Coastal Resource Worksheet. Version 2.0 Wetlands Permitting: Protected Species and Habitat (nh.gov) Wetlands Permitting: Priority Resource Area (nh.gov) https://www4.des.state.nh.us/NHB-DataCheck/.
2.3	Env-Wt 313.03(b)(3); Env-Wt 313.03(b)4)(7); Env-Wt 307.06	See Chapter 7, Stream & Wetland Crossings: *Wetlands Best Management Practice Techniques for Avoidance and Minimiz* Wetlands-BMP-Manual-2019.pdf (neiwpcc.org) (& Env-Wt 900 for Stream Crossings)
2.4	Env-Wt 604.02 (Tidal buffer zone); Env-Wt 704 (prime buffers)	
2.5	N/A	N/A
2.6	N/A	N/A
2.7	Env-Wt 311.04(g)	Standard application Section 11- NH Online Forms System - Standard Dredge and Fill Wetlands Permit Application . Version 3.5
2.8	N/A	N/A
3. Wildlife		
3.1	Env-Wt 103.69 "Protected species or habitat"; Env-Wt 307.06, 311.01	NHB DataCheck Tool: https://www4.des.state.nh.us/NHB-DataCheck/. Wetlands Permitting: Protected Species and Habitat (nh.gov) Wetlands Permitting: Priority Resource Area (nh.gov)
3.2	Env-Wt 311.02; 313.03(b)(2), (4), (7)(16); Env-Wt 313.03(b)(6) & See Env-Wt 808.19(g), Env-Wt 808.20	Wetlands Permitting: Protected Species and Habitat (nh.gov) Wetlands Permitting: Priority Resource Area (nh.gov)
3.3	N/A	N/A
3.4	NA	N/A
3.5	(Env-Wt 900) Microsoft Word - Env-Wt 900 as of 10-2020.docx (nh.gov)	New Hampshire Stream Crossing Guidelines (nh.gov) (2009 UNH) _ NH Online Forms System - Wetland Permit Application Stream Crossing Worksheet. Version 1.8 Stream Crossing Design (nh.gov) : https://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/documents/RR_V.9_FINAL_3-14-19.pdf Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire. 2019. New Hampshire Department of Transportation.
4. Flooding/Floodplain Values		
4.1	Env-Wt 311.05; Env-Wt 103.66 517.03(b); 517.06(a)(6);	Wetlands Permitting: Priority Resource Area (nh.gov) NH Online Forms System - Coastal Resource Worksheet. Version 2.0 New Hampshire Coastal Flood Risk Summary | NH Department of

	527.02(e); 527.04(d); Env-Wt 600 Env-Wt 900	Environmental Services (cited in Env-Wt 603.05) NH Online Forms System - Wetland Permit Application Stream Crossing Worksheet. Version 1.8 hydraulic-vulnerability-handout.pdf (nh.gov)
4.2	Env-Wt 527.02 & 527.04 & 313.04 & Env-Wt 800; Wt 605.03 & 605.04	Yes, for permanent impacts to a PRA, impacts from public highway projects, & those projects where flood storage functions are lost when the mitigation threshold is reached. Wetlands Mitigation | NH Department of Environmental Services
5. Historical/Archeological Resources		
5.0	Env-Wt 311.02(f)(6)	
6. Minimal Impact Determination		
6.0	F/V assessment: (Env-Wt 311.10); Env-Wt 603.04 (Coastal Functional Assessment) Alternatives: (Env-Wt 311.07(b)(2))	NH Online Forms System - Wetlands Functional Assessment Worksheet. Version 1.3 NH Online Forms System - Coastal Resource Worksheet. Version 2.0
6.1		Wetlands Permitting: Avoidance, Minimization, and Mitigation (nh.gov)
6.2	Env-Wt 102.12 (“Avoidance”), Env-Wt 102.13 (“Avoidance, minimization, mitigation”), Env-Wt 102.14 (“Avoid and minimize”), Env-Wt 311.01, Env-Wt 313.03 (“Avoidance & Minimization") Env-Wt 311.07	See *Wetlands Best Management Practice Techniques for Avoidance and Minimization* - Wetlands-BMP-Manual-2019.pdf (neiwpcc.org)referenced in Env-Wt 313.03(a); A/M written narrative (NH Online Forms System - Avoidance and Minimization Written Narrative. Version 2.0); Avoidance and Minimization Checklist: NH Online Forms System - Avoidance and Minimization Checklist. Version 3.1
6.3	Env-Wt 311.10, 603.04	See Functional Assessment worksheets above
6.4	Env-Wt 311.02, Env-Wt 312.04. Env-Wt 306.05, 307.06, 311.01	See Protected Species or Habitat (including exemplary natural communities)
6.5	Env-Wt 311.01, Env-Wt 311.07, Env-Wt 311.10 & 313.01 c)1)	See Avoidance & Minimization cites above & BMPs
6.6	(Env-Wt 313.01c) (1) & Env-Wt 311.07(b)(2))	
6.7	Env-Wt 311.10, Env-Wt 103.69, Env-307.06, see Avoidance & minimization cites	NH Online Forms System - Wetlands Functional Assessment Worksheet. Version 1.3; Wetlands Permitting: Priority Resource Area (nh.gov) NH Online Forms System - Coastal Resource Worksheet. Version 2.0
6.8	Env-Wt 102.05 (Water quality BMPs)	Practices to minimize or prevent direct or indirect discharge of sediment or other pollutants into surface waters and wetlands, listed in Env-Wt 307
6.9	Env-Wt 800	

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
172 Pembroke Road, Concord, NH 03301

RECEIVED OCT 28 2024

DHR Use Only
R&C # 7943mi
Log In Date 10/28/24
Response Date 11/4/24
Sent Date 11/5/24

RECEIVED
NOV 11 2024
ARIES ENGINEERING

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

☑ This is a new submittal
☑ This is additional information relating to DHR Review & Compliance (R&C) #: 7943

GENERAL PROJECT INFORMATION

Project Title: Portsmouth Marina Restoration Project

Project Location: 187 Wentworth Road and 5 Sagamore Grove

City/Town: Portsmouth Tax Map: 201 Lot #: 5, 12

NH State Plane - Feet Geographic Coordinates: Easting 1230592 Northing 202980
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact *(if applicable)* USEPA, TSCA Cleanup: Katherine Woodward
(Agency providing funds, licenses, or permits)
Permit Type and Permit or Job Reference #: Self Implementing Plan Approved 1/31/2023

State Agency and Contact *(if applicable)* NHDES Wetlands Bureau: Kristen Duclos, Wetlands Specialist
Permit Type and Permit or Job Reference #: WPA; NHDES Site No. 198604143

APPLICANT INFORMATION

Applicant Name: Tom Reis, President, Sea Level, LLC

Mailing Address: PO Box 4094 Phone Number: 603-436-1039

City: Portsmouth State: NH Zip: 03802 Email: info@substructure.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company: Johonnett, Jay P., PE/ Aries Engineering, LLC

Mailing Address: 104 Pleasant Street Phone Number: (603) 228-0008

City: Concord State: NH Zip: 03301 Email: jjohonnett@aries-eng.com

This form is updated periodically. Please download the current form at https://www.nhdhr.dncr.nh.gov/project-review/project-review-compliance/requests-project-review. *Please refer to the Request for Project Review Instructions for direction on completing this form.* Submit one copy of this project review form for each project for which review is requested. Please include a self-addressed stamped envelope. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: https://www.nhdhr.dncr.nh.gov/project-review/project-review-compliance/requests-project-review or contact the R&C Specialist at Elizabeth.A.Schneible@dncr.nh.gov or 603-271-2813.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- ☑ Attach the Project Mapping ***using EMMIT or relevant portion of a 7.5' USGS Map.*** *(See RPR Instructions and R&C FAQs for guidance.)*
- ☑ Attach a detailed narrative description of the proposed project.
- ☑ Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- ☑ Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) *(Informative photo captions are requested.)*
- ☑ A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in **Table 1**. *(Blank table forms are available on the DHR website.)* Please note, using EMMIT Guest View for an RPR records search does not provide the necessary information needed for DHR review.
  EMMIT or in-house records search conducted on 10/04/2024 .

Architecture

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

Approximate age(s):

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

Archaeology

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

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

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

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

☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete review.

☐ No Potential to cause Effects ☑ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect

Comments: _____

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

Authorized Signature: Natalie Miller, DSHPO Date: 11/4/24

APPENDIX I

US ARMY CORPS OF ENGINEERS, NH GENERAL PERMIT CHECKLIST, LIST OF ATTACHMENTS

Attachment AA—NHDES Wetlands Permit Application (WPA), With NHDHR Review & Other Appendices

Attachment BB—Engineering Plans-Drawings-Sheets, 11” by 17”

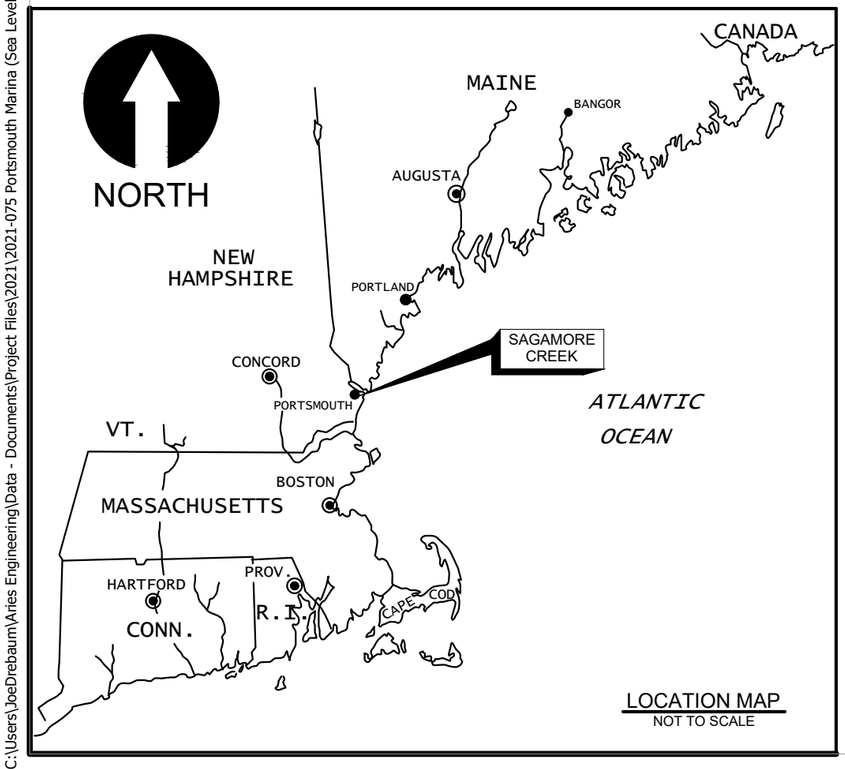
Attachment CC—USFWS ICAP Review

MARINA RESTORATION PROJECT
ENGINEERING PLANS

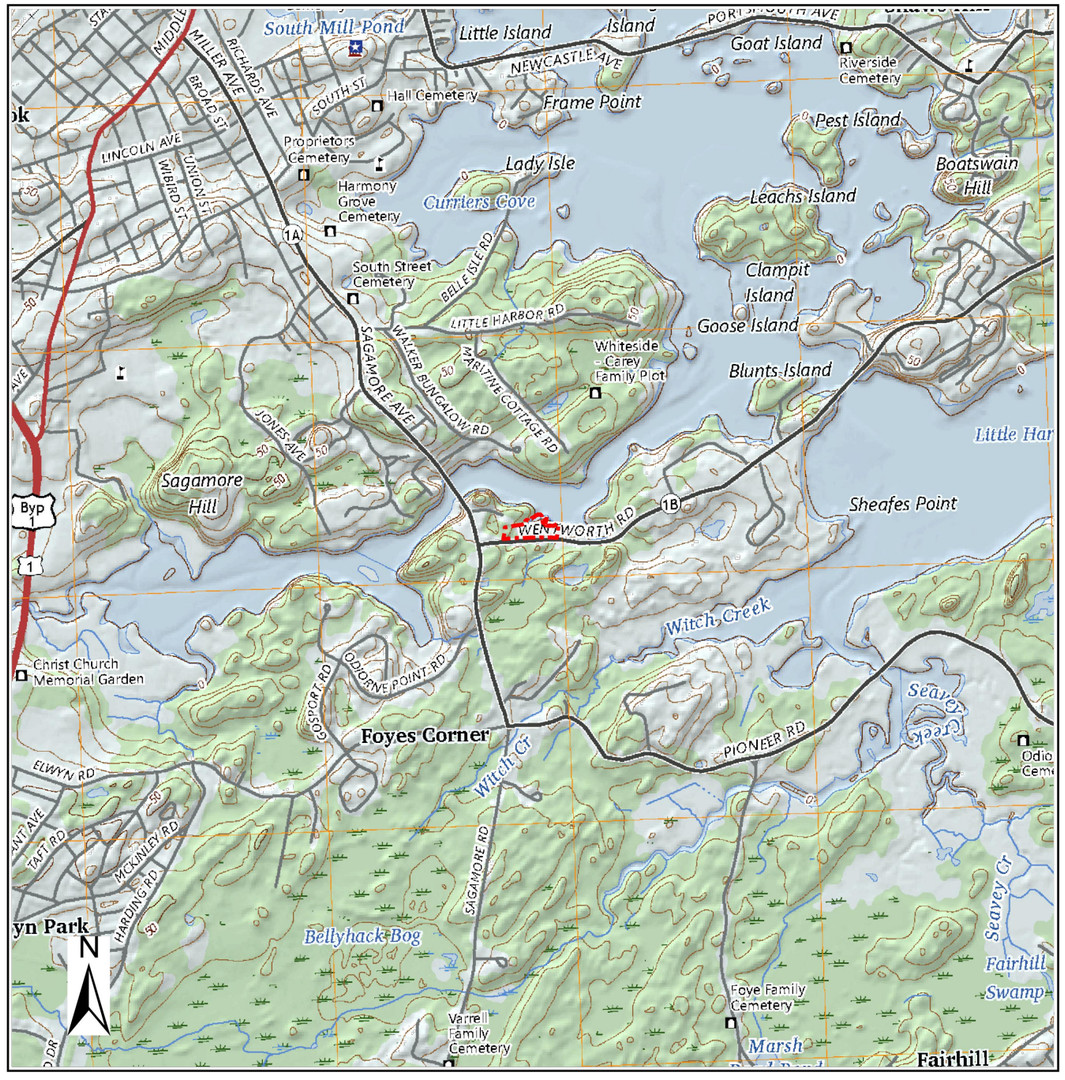
APPLICANT: TOM REIS, SEA LEVEL, INC.
PREPARED BY: ARIES ENGINEERING, LLC / HALEY WARD, INC.

SHEET INDEX

SHEET 1: SITE LOCUS AND SHEET INDEX
SHEET 2: SITE PLAN AND EXISTING CONDITIONS SITE PLAN
SHEET 3A PCB SAMPLE LOCATION PLAN
SHEET 3B >50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN
SHEET 3C <50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN
SHEET 3D SELF-IMPLEMENTING CLEANUP PLAN (SIP)
SHEET 4 CONCRETE PAD CROSS SECTION
SHEET 5 FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN (WITH TIDAL SHORELINE STABILITY)
SHEET 6 PLANTING PLAN WITH PLANTING SCHEDULE
SHEET 7 TREE TYPES AND LOCATIONS



SITE LOCUS MAP 2024



Topographic Map Sources: USGS TopoBuilder.
Generated 08/21/2024, Downloaded 08/27/2024

2,000 1,000 0 2,000 4,000 Feet

Legend

Site Boundary

Aries Project # 2021-075A
File # 2021-075A(1)06.22.mxd

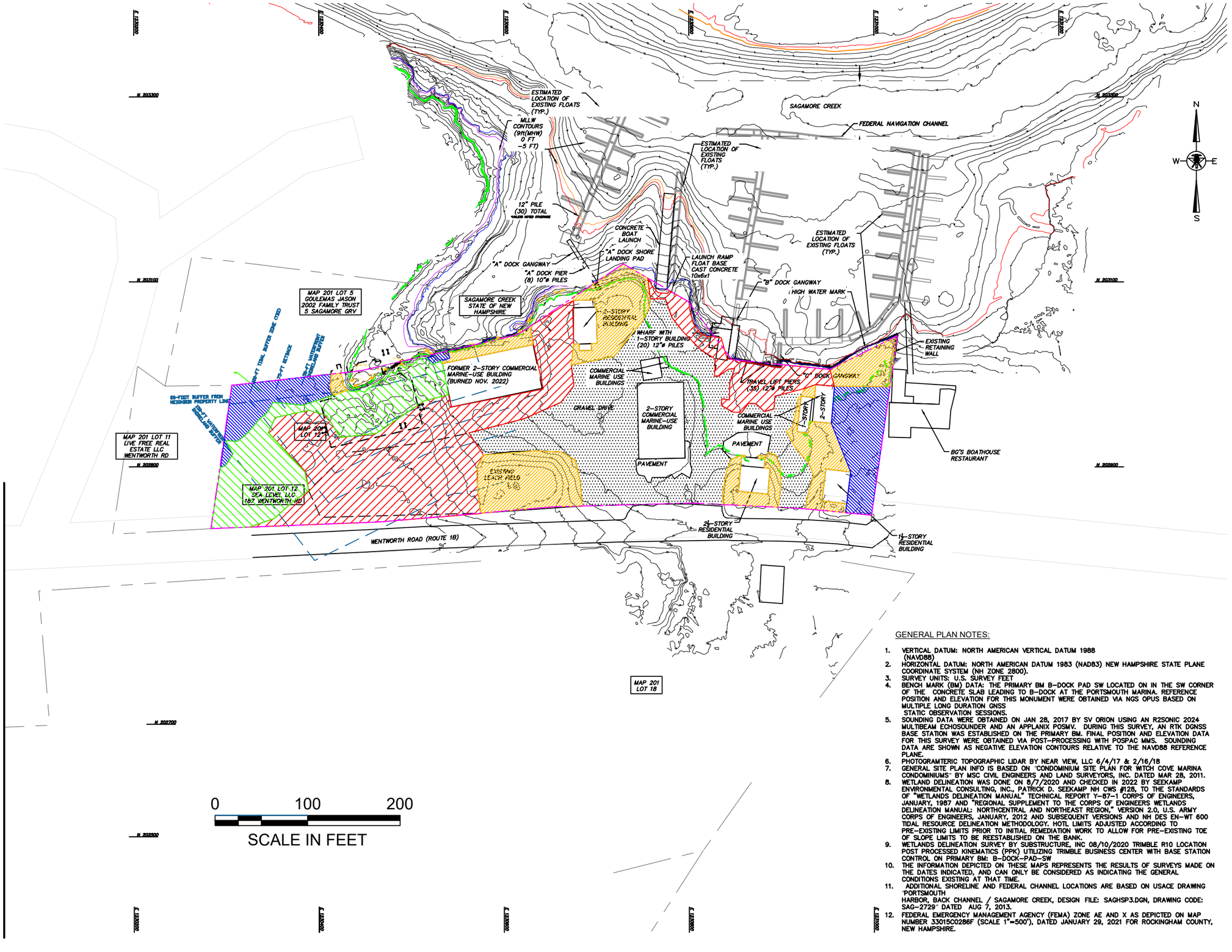
ARIES ENGINEERING

Drafted By:	Reviewed By:
J. Drebaum	R. Kowalski
Date:	Approved By:
10/14/2024	S. Graham

TITLE SHEET, INDEX OF DRAWINGS and SITE LOCUS MAP
MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 1

C:\Users\JoeDrebaum\Aries Engineering\Data - Documents\Project Files\2021\2021-075 Portsmouth Marina (Sea Level)\Tidal Shoreline Stabilization Design -- CAD\CAD\2021-075(SS)04-24.dwg



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARIES
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN LOW WATER (MLW) (-4.30ft NAVD88)
- MEAN HIGH WATER (MHW) (3.81ft NAVD88)
- MEAN LOW LOW WATER (MLLW) (-4.62 ft NAVD88)
- MEAN HIGH HIGH WATER (MHHW) (4.22ft NAVD88)
- HIGHEST OBSERVED TIDE LINE (HOTL 7.9')/ ZONE AE 100 YEAR FLOOD ZONE
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- PRIOR GRAVEL DRIVE (44,785 SF)
- INTACT GRAVEL BOAT STORAGE AREA (19,588 SF)
- DEGRADED GRAVEL BOAT STORAGE AREA (12,950 SF)
- PERMEABLE AREAS (21,086.61 SF)

PROPOSED

- PROPOSED WORK LIMITS

GENERAL PLAN NOTES:

1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B-DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B-DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS.
5. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST-PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
6. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
7. GENERAL SITE PLAN INFO IS BASED ON "CONDOMINIUM SITE PLAN FOR WITCH COVE MARINA CONDOMINUMS" BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC. DATED MAR 28, 2011.
8. WETLAND DELINEATION WAS DONE ON 8/7/2020 AND CHECKED IN 2022 BY SEEKAMP ENVIRONMENTAL CONSULTING, INC., PATRICK D. SEEKAMP NH CWS #128, TO THE STANDARDS OF "WETLANDS DELINEATION MANUAL" TECHNICAL REPORT Y-87-1 CORPS OF ENGINEERS, JANUARY, 1987 AND "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION," VERSION 2.0, U.S. ARMY CORPS OF ENGINEERS, JANUARY, 2012 AND SUBSEQUENT VERSIONS AND NH DES EN-WT 600 TIDAL RESOURCE DELINEATION METHODOLOGY. HOTL LIMITS ADJUSTED ACCORDING TO PRE-EXISTING LIMITS PRIOR TO INITIAL REMEDIATION WORK TO ALLOW FOR PRE-EXISTING TOE OF SLOPE LIMITS TO BE REESTABLISHED ON THE BANK.
9. WETLANDS DELINEATION SURVEY BY SUBSTRUCTURE, INC 08/10/2020 TRIMBLE R10 LOCATION POST PROCESSED KINEMATICS (PPK) UTILIZING TRIMBLE BUSINESS CENTER WITH BASE STATION CONTROL ON PRIMARY BM: B-DOCK-PAD-SW
10. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
11. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING "PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG-2729" DATED AUG 7, 2013.
12. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

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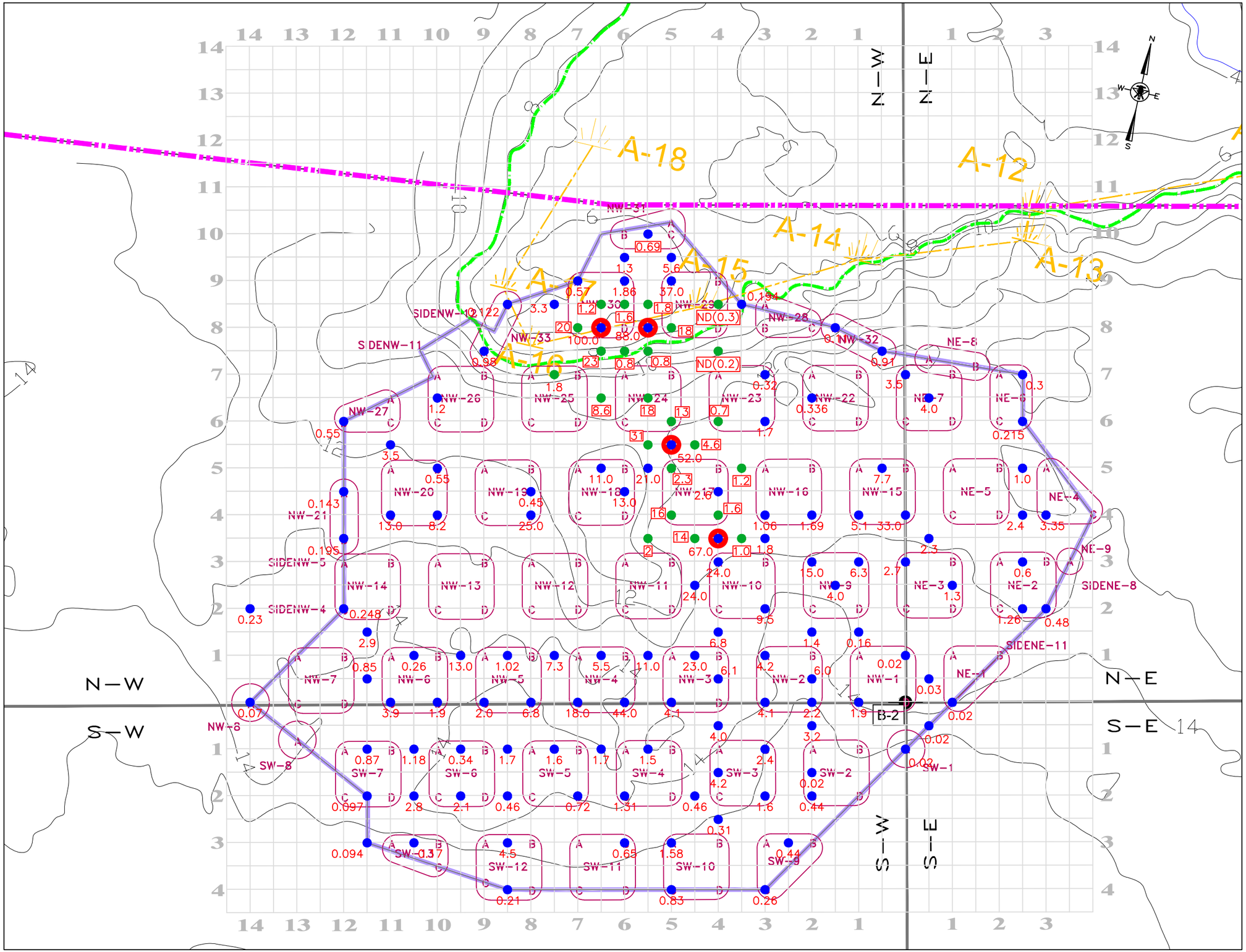
J. Drebaum	R. Kowalski
Date:	Approved By:
10/14/2024	S. Graham

SITE PLAN AND EXISTING CONDITIONS
SITE PLAN
MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 2

C:\Users\JoeDrebaum\Aries Engineering\Data - Documents\Project Files\2021\2021-075 Portsmouth Marina (Sea Level)\Tidal Shoreline Stabilization Design -- CAD\CAD\2021-075(SS)04-24.dwg



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- SOIL BORING LOCATION AND DESIGNATION
- B-1 SOIL SAMPLE LOCATION (DUNFIELD ENG)
- SOIL SAMPLE LOCATION (GEOINSIGHT - 7/25/2016)
- 2.3 PCB CONCENTRATION (ppm)
- PCB CONCENTRATION >50ppm
- S—W SAMPLE NOMENCLATURE QUADRANT
- TREE

0 10 20

1 INCH = 10 FEET (APPROXIMATE)

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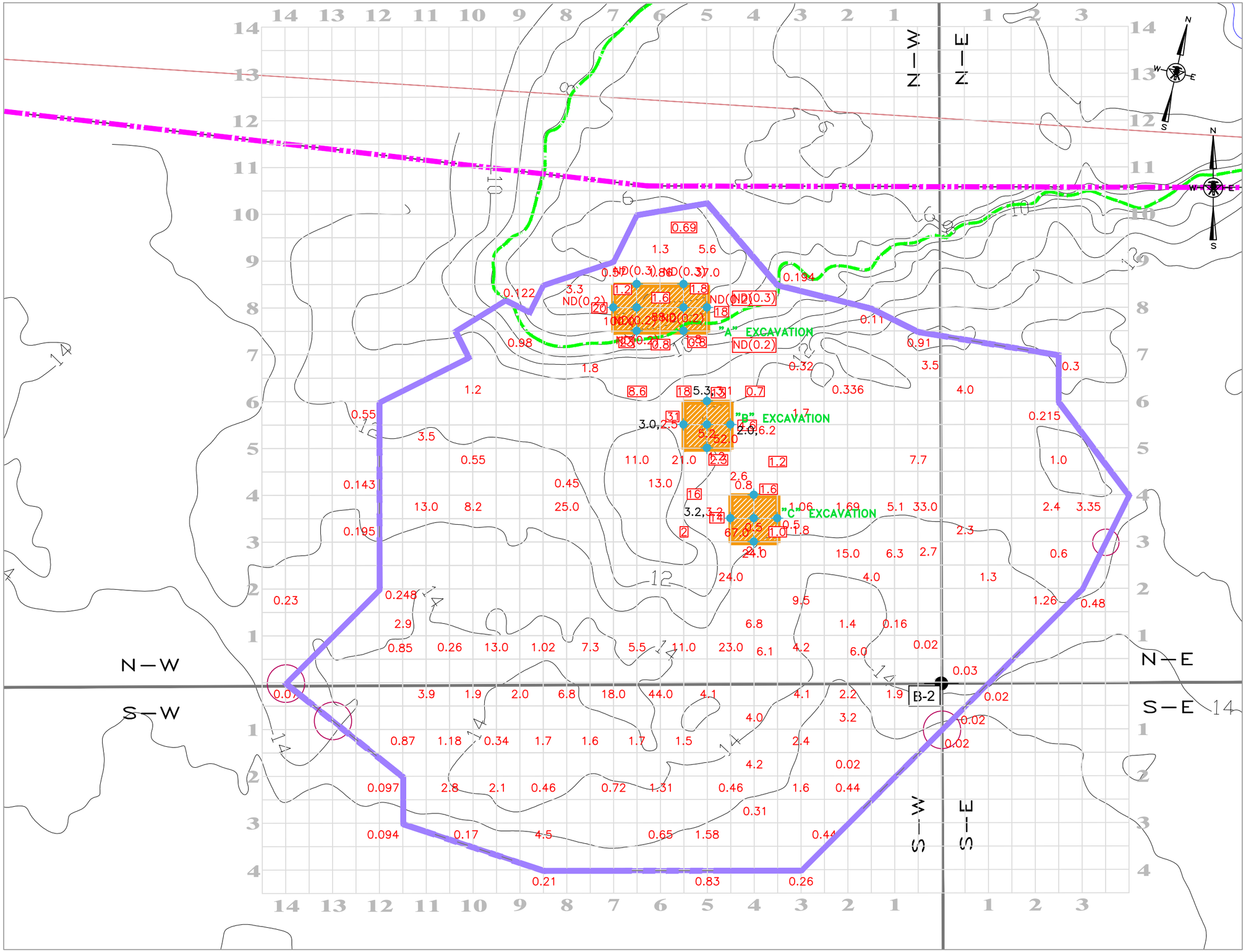
Date:	Approved By:
10/14/2024	S. Graham

PCB SAMPLE LOCATION PLAN

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 3A



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION AREA
- B-1 — SOIL BORING LOCATION AND DESIGNATION
- SAMPLE LOCATION
- 0.9 — PCB CONCENTRATION (PPM) BOTTOM SAMPLE
- 0.9 — PCB CONCENTRATION (PPM) SIDEWALL SAMPLE
- ND(0.2) — NOT DETECTED ABOVE LIMIT NOTED
- 3.2, 3.2 — PRIMARY AND DUPLICATE SAMPLE RESULTS
- S—W — SAMPLE NOMENCLATURE QUADRANT
- TREE

0 10 20

1 INCH = 10 FEET (APPROXIMATE)

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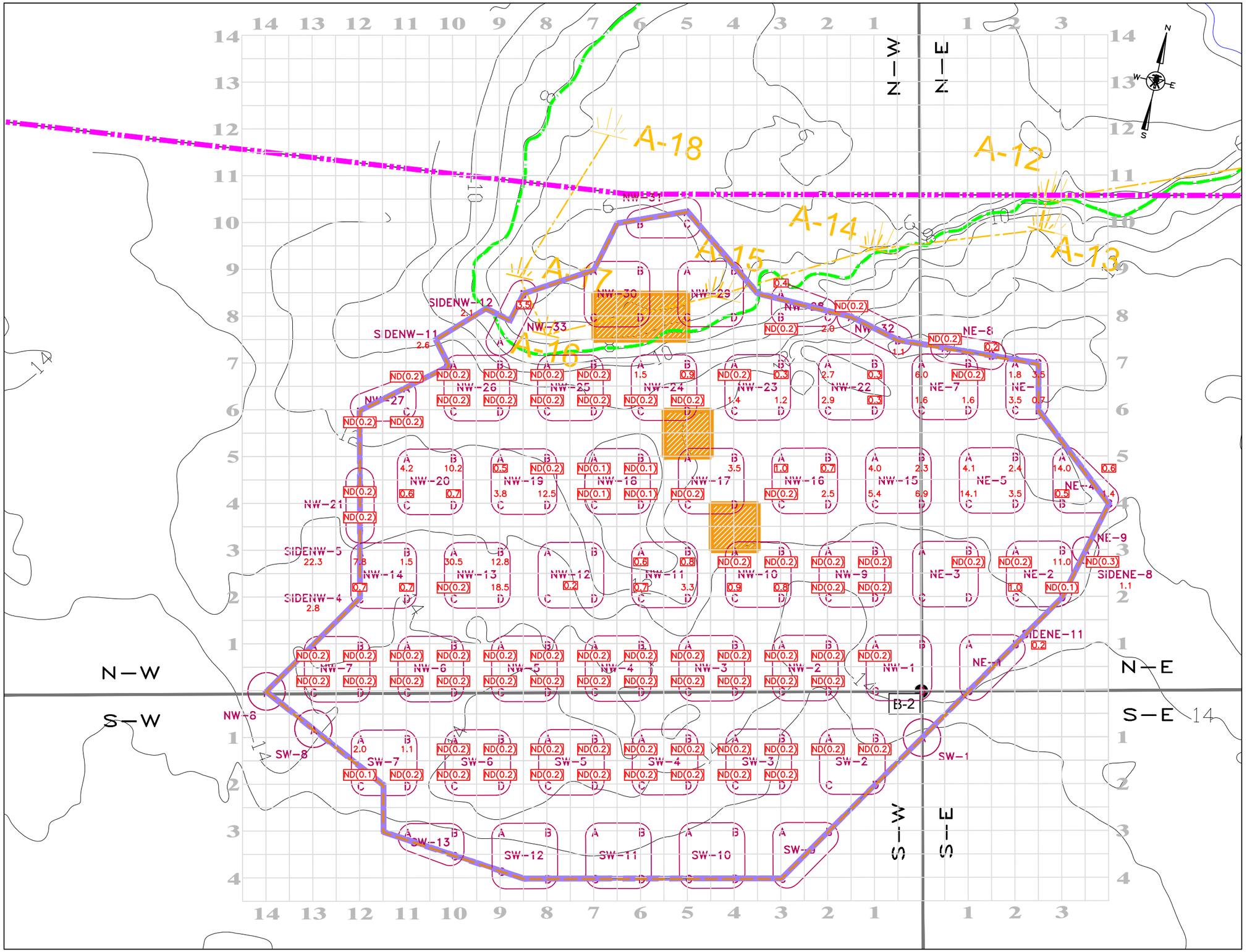
10/14/2024	S. Graham

>50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN
MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 3B



LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION LIMITS TO 2 FEET BGS PCBS ≥ 50ppm
- B-1 — SOIL BORING LOCATION AND DESIGNATION
- S — W — SAMPLE NOMENCLATURE QUADRANT
- 0.9 — PCB CONCENTRATION (ppm)
- ND(0.2) — NOT DETECTED ABOVE LIMIT NOTED
- TREE

0 10 20

1 INCH = 10 FEET (APPROXIMATE)

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10/14/2024	S. Graham

<50 PPM PCB POST-EXCAVATION SAMPLE LOCATION PLAN

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 3C

#81, 82, & 83 Sampled @ 0–0.25, 1–1.25, & 2–2.25 ft

#84 & 85 Sampled @ 0–0.25 & 1–1.25 ft

#35–2–S
#35–2–D
2.3/0.18/ND
Samples collected @ 0–0.25' 1–1.25' 1.5–1.75'

Extent of PCB Impacted Area

A-12 A-13 A-14 A-15 A-16 A-17 A-18

N–W S–W N–E S–E S–W S–E

AA AA'

B-1 B-2

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- EXCAVATION LIMITS TO 1 FOOT BGS PCBS > 1ppm AND < 50ppm
- EXCAVATION LIMITS TO 2 FEET BGS PCBS ≥ 50ppm
- B-1 — SOIL BORING LOCATION AND DESIGNATION
- S — W — SAMPLE NOMENCLATURE QUADRANT
- 0.9 — PCB CONCENTRATION (ppm)
- ND(0.2) — NOT DETECTED ABOVE LIMIT NOTED
- #1 — SUPPLEMENTAL SOIL SAMPLE LOCATIONS
- 15.0/3.6 — PCB CONCENTRATION (ppm) AT 0-0.25' AND 1-1.25'
- #18 — SUPPLEMENTAL SOIL SAMPLE LOCATIONS FROM SOIL PILE PLACED BACK INTO EXCAVATION NO SAMPLES #22, 23, & 24 COLLECTED
- na/ns — NOT ANALYZED/NOT SAMPLED
- TREE

PROPOSED

- PROPOSED WORK LIMITS

0 10 20

1 INCH = 10 FEET (APPROXIMATE)

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Drafted By:	Reviewed By:
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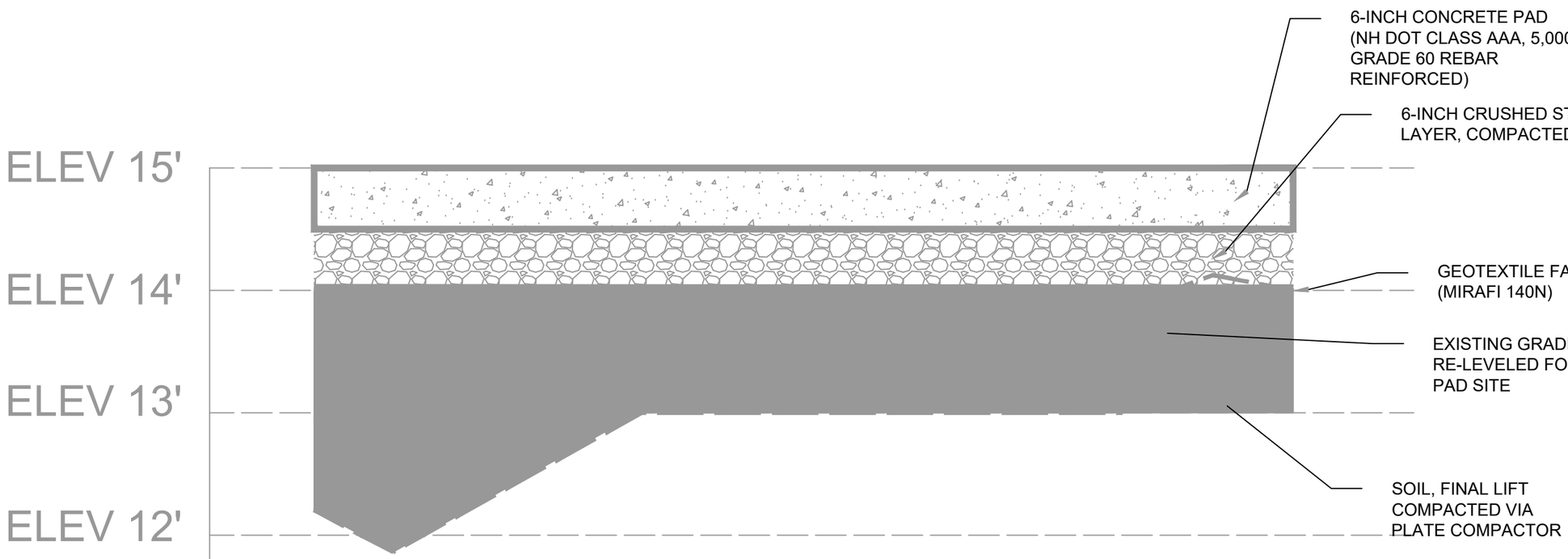
10/14/2024	S. Graham

PROPOSED CONCRETE PAD w/ SAMPLE LOCATIONS
MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 3D



PROPOSED CONCRETE PAD CROSS SECTION (AA --- AA')
(SEE SHEET 5 FOR LOCATION)

HORIZONTAL SCALE

0 20 40 60

1 INCH = 20 FEET (APPROXIMATE)

VERTICAL SCALE

0 1 2 3

1 INCH = 1 FEET (APPROXIMATE)

0 30

LEGEND

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Drafted By:	Reviewed By:
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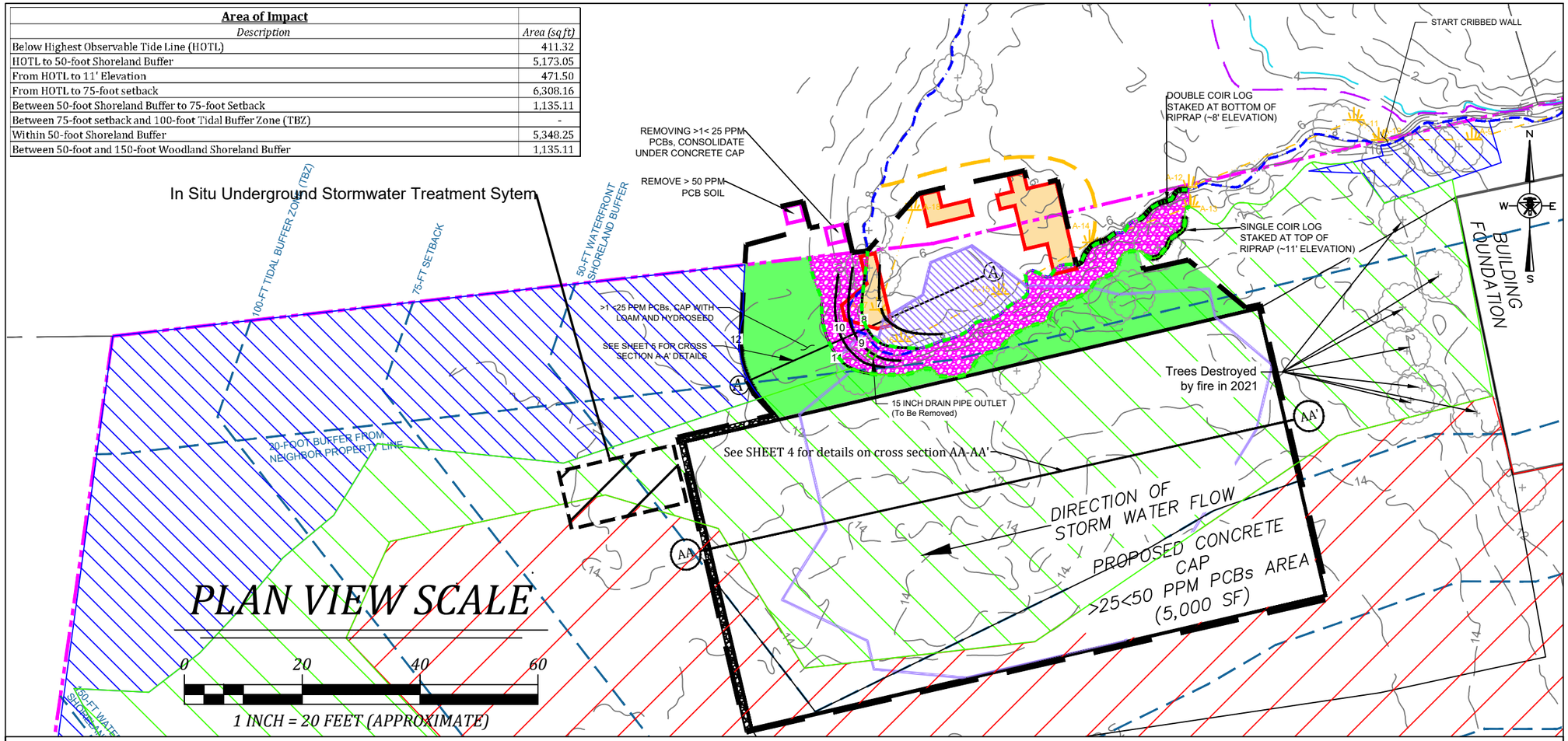
Proposed Concrete Pad Cross Section

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 4

Area of Impact	
Description	*Area (sq ft)*
Below Highest Observable Tide Line (HOTL)	411.32
HOTL to 50-foot Shoreland Buffer	5,173.05
From HOTL to 11' Elevation	471.50
From HOTL to 75-foot setback	6,308.16
Between 50-foot Shoreland Buffer to 75-foot Setback	1,135.11
Between 75-foot setback and 100-foot Tidal Buffer Zone (TBZ)	-
Within 50-foot Shoreland Buffer	5,348.25
Between 50-foot and 150-foot Woodland Shoreland Buffer	1,135.11



PLAN VIEW SCALE

0 20 40 60

1 INCH = 20 FEET (APPROXIMATE)

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (4.22 FT NAVD88)
- MEAN HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- NATURAL WOODLAND AREA
- EXISTING RIPRAP
- TREE

PROPOSED

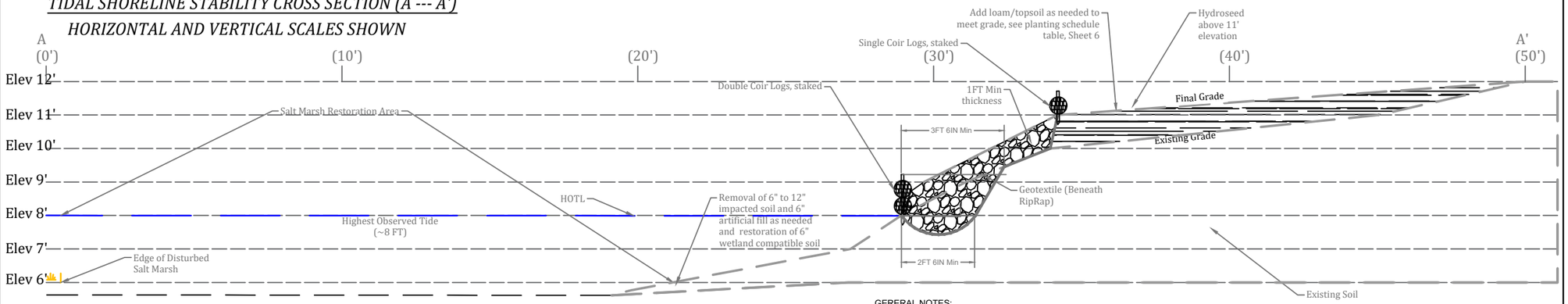
- PROPOSED WORK LIMITS
- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP
- WETLAND RESTORATION AREA (175 SF)
- REMEDIATION AREA, SOIL REMOVAL >50 PPM PCBs
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- CROSS SECTION
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
- MIXED STONE/RIPRAP TO BE RESTORED (470 SF)
- PROPOSED TURBIDITY SILT CURTAIN
- CONCRETE PAD DRAINAGE
- COIR LOGS STAKED

GERERAL NOTES CONTINUED:

9. THE INFORMATION DEPICTED ON THESE MAPS REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
10. ADDITIONAL SHORELINE AND FEDERAL CHANNEL LOCATIONS ARE BASED ON USACE DRAWING "PORTSMOUTH HARBOR, BACK CHANNEL / SAGAMORE CREEK, DESIGN FILE: SAGHSP3.DGN, DRAWING CODE: SAG-2729" DATED AUG 7, 2013.
11. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ZONE AE AND X AS DEPICTED ON MAP NUMBER 33015C0286F (SCALE 1"=500'), DATED JANUARY 29, 2021 FOR ROCKINGHAM COUNTY, NEW HAMPSHIRE.

TIDAL SHORELINE STABILITY CROSS SECTION (A --- A')

HORIZONTAL AND VERTICAL SCALES SHOWN



PROPOSED CONSTRUCTION SEQUENCE:

1. INSTALL TREE PROTECTION AND EROSION CONTROL MEASURES (COIR LOGS) AT START OF HOTL WITHIN THE LIMIT OF WORK/DISTURBANCE (LOD).
2. CLEAR AND GRUB VEGETATION, EXCEPT TREES, IN THE LIMITS OF WORK, AS NEEDED; WOODY MATERIAL MAY BE CHIPPED / REUSED ON-SITE.
3. ONCE COMPLIANCE WITH TSCA REQUIREMENTS FOR REMOVAL OF CONTAMINANTS IS COMPLETE, BY REMOVING SIX (6) INCHES OF IMPACTED SEDIMENT, RESTORATION OF REMEDIATED SALT MARSH AREA OCCURS BY BACKFILLING WITH CLEAN MIXED SAND IN STAKED BURLAP BAGS TO A FINAL ELEVATION OF 6-FT TO MIMIC ADJACENT SALT MARSH ELEVATION AND THEN PLANTED ON 1-SQ. FT INTERVAL GRID WITH SALTMARSH BULRUSS (SCIRPUS ROBUSTUS). PLUG EXISTING 15-IN STORMWATER DISCHARGE PIPE WITH 5-FT CONCRETE, UPON REGULATORY APPROVAL.
4. PLACE NATURAL FIBER BLANKET FROM ABOVE HOTL TO EXISTING ELEVATION 11-FT. ADD GEOTEXTILE AFTER FIBER.
5. FROM THE HOTL, EMPLACE A TO 5-INCH DIAMETER ROUNDED STONE, AND RE-INSTALLED BOULDERS UP TO 4 FT DIAMETER, TO 11 FT ELEVATION TO PROVIDE EROSION CONTROL.
6. FILL ABOVE 11-FT MSL RIPRAP LINE AS NEEDED TO ACHIEVE 11 FT MSL, WITH CLEAN FILL, THEN ADD 6-IN TOPSOIL CAP.
7. INSTALL NEW CONCRETE PAD (5,000 SF) RUNOFF RELATIVELY FLAT SLOPE OF <2% DIRECTED TO EAST TOWARDS 12 INCH WIDE, 12 INCH THICK 2 INCH STONE BORDER AREA SERVING AS LEVEL SPREADER/ATTENTUATION MECHANISM.
8. INSTALL VEGETATION ACCORDING TO SHEET 6 (PLANTING PLAN).
9. ONCE AREA IS FULLY STABILIZED, REMOVE EROSION CONTROLS AND TREE PROTECTION.
10. DECONTAMINATE ALL EQUIPMENT AND HAND TOOLING AND VERIFY COMPLIANCE WITH TSCA 40 CFR 761.79(B)(3)(I), UNRESTRICTED USE USING WIPE SAMPLES AND SHOWING PCB LEVELS ARE LESS THAN 10 UG/100 CM2.
11. MINIMAL EROSION POTENTIAL EXISTS ABOVE ELEVATION 11 FT DUE TO RELATIVELY FLAT SLOPE (<4%)

GERERAL NOTES:

1. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM 1983 (NAD83) NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NH ZONE 2800).
3. SURVEY UNITS: U.S. SURVEY FEET
4. BENCH MARK (BM) DATA: THE PRIMARY BM B-DOCK PAD SW LOCATED ON IN THE SW CORNER OF THE CONCRETE SLAB LEADING TO B-DOCK AT THE PORTSMOUTH MARINA. REFERENCE POSITION AND ELEVATION FOR THIS MONUMENT WERE OBTAINED VIA NGS OPUS BASED ON MULTIPLE LONG DURATION GNSS STATIC OBSERVATION SESSIONS. SOUNDING DATA WERE OBTAINED ON JAN 28, 2017 BY SV ORION USING AN R2SONIC 2024 MULTIBEAM ECHOSOUNDER AND AN APPLANIX POSMV. DURING THIS SURVEY, AN RTK DGNSS BASE STATION WAS ESTABLISHED ON THE PRIMARY BM. FINAL POSITION AND ELEVATION DATA FOR THIS SURVEY WERE OBTAINED VIA POST-PROCESSING WITH POSPAC MMS. SOUNDING DATA ARE SHOWN AS NEGATIVE ELEVATION CONTOURS RELATIVE TO THE NAVD88 REFERENCE PLANE.
5. PHOTOGRAMTERIC TOPOGRAPHIC LIDAR BY NEAR VIEW, LLC 6/4/17 & 2/16/18
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Drafted By:	Reviewed By:
J. Drebaum	R. Kowalski
Date:	Approved By:
10/14/2024	S. Graham

FINAL GRADING PLAN/SHORELINE STABILIZATION PLAN
(WITH TIDAL SHORELINE STABILITY)

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 5

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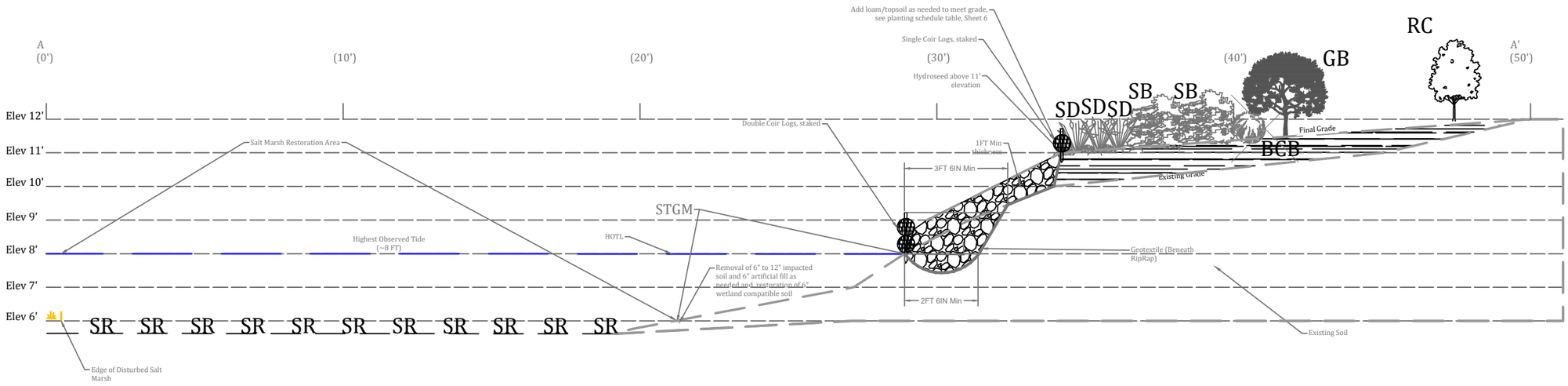

Planting Schedule					
Key	*Plant Type*	*Species*	*Size (feet)*	*Caliper Size*	*Quantity*
GB	Tree	Gray Birch *(Betula populifolia)*	3-4	-	1
RC	Tree	Red Cedar *(Juniperus virginana)*	3-4	-	1
SD	Shrub	Silky dogwood *(Cornus amomum)*	2-3	-	3
SB	Shrub	Shadbush *(Amelanchier candensis)*	2-3	-	2
BCB	Shrub	Black Chokeberry *(Aronia melanocarpa)*	2-3	-	1
SR	Plugs	*Salt Marsh Bullrush (Scirpus Robustus)*	-	-	350
STGM	Seed	Salt Tolerant Grass Mix*	-	-	5 lb

NOTES:
1. *STGM species list includes: Canada Wild Rye (Elymus canadensis), Red Fescue (Festuca rubra), Atlantic Coastal Panic Grass (Panicum amarum), Big Bluestem (Andropogon gerardii), Indian Grass (Sorghastrum nutans), Switch Grass (Panicum virgatum), and Path Rush (Juncus tenuis)
2. Mean High Water (MHW) and Mean Low Water (MLW) lines are outside of the Limit of Disturbance and beyond the area shown in the above cross section.

NOT TO SCALE

HORIZONTAL/VERTICAL Scales as shown

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Drafted By:	Reviewed By:
J. Drebaum	R. Kowalski
Date:	Approved By:
10/14/2024	S. Graham

PLANTING PLAN with
PLANTING SCHEDULE
MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 6

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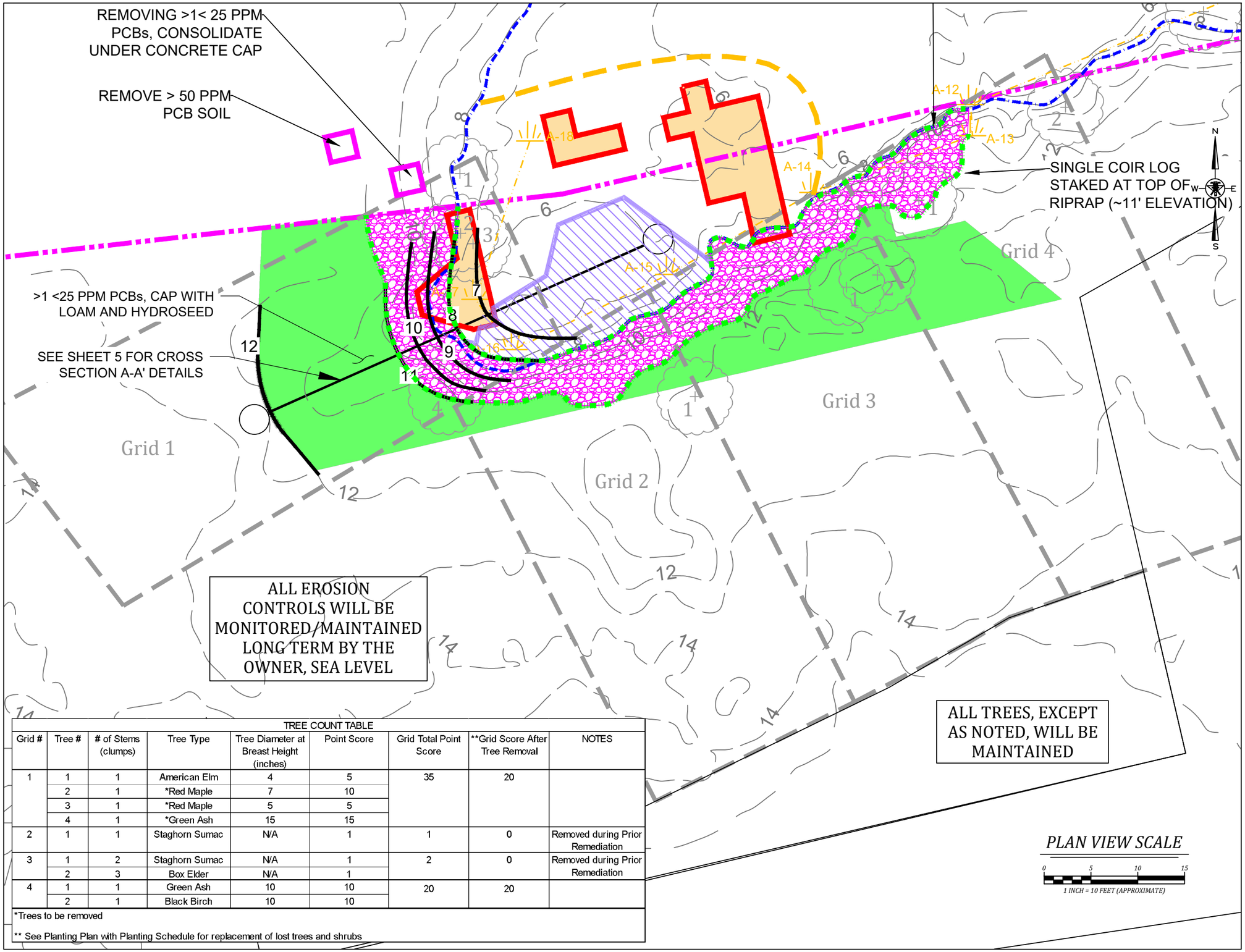

ALL EROSION CONTROLS WILL BE MONITORED/MAINTAINED LONG TERM BY THE OWNER, SEA LEVEL

ALL TREES, EXCEPT AS NOTED, WILL BE MAINTAINED

TREE COUNT TABLE

Grid #	Tree #	# of Stems (clumps)	Tree Type	Tree Diameter at Breast Height (inches)	Point Score	Grid Total Point Score	**Grid Score After Tree Removal	NOTES
1	1	1	American Elm	4	5	35	20	
	2	1	*Red Maple	7	10			
	3	1	*Red Maple	5	5			
	4	1	*Green Ash	15	15			
2	1	1	Staghorn Sumac	N/A	1	1	0	Removed during Prior Remediation
3	1	2	Staghorn Sumac	N/A	1	2	0	Removed during Prior Remediation
	2	3	Box Elder	N/A	1			
4	1	1	Green Ash	10	10	20	20	
	2	1	Black Birch	10	10			

*Trees to be removed

** See Planting Plan with Planting Schedule for replacement of lost trees and shrubs

PLAN VIEW SCALE

0 5 10 15

1 INCH = 10 FEET (APPROXIMATE)

LEGEND

EXISTING

- PROPERTY BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- EXISTING ELEVATION CONTOUR (FT)
- BUILDING FOUNDATION
- MEAN HIGH HIGH WATER (3.81 FT NAVD88)
- HIGHEST OBSERVABLE TIDE (FEMA ZONE AE)
- WETLAND DELINEATION
- FORMER EXCAVATION AREA
- SHORELINE BUFFERS (LABELED IN SHEET)
- INTACT GRAVEL BOAT STORAGE AREA
- DEGRADED GRAVEL BOAT STORAGE AREA
- +1 TREE/SHRUB WITH TREE NUMBER

PROPOSED

- WETLAND REMEDIATION AREA >1<25 PPM PCBs, CONSOLIDATE UNDER CONCRETE CAP (175 SF)
- SALT MARSH TO BE RESTORED IN 2016-2017 EXCAVATION (235 SF)
- FINAL ELEVATION CONTOUR (FT)
- UPLAND AREA REGRADE, ADD LOAM AND HYDROSEED RESTORATION (770 SF), PCBs >1<25 PPM
- MIXED STONE/RIPRAP TO BE RESTORED (470 SF)
- PROPOSED TURBIDITY SILT CURTAIN
- COIR LOGS STAKED

ARIES ENGINEERING

Drafted By:	Reviewed By:
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Date:	Approved By:
10/14/2024	S. Graham

TREE TYPES AND LOCATIONS

MARINA RESTORATION PROJECT
SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NEW HAMPSHIRE

FIGURE 7

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APPENDIX I
Attachment CC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To: 07/18/2024 18:41:23 UTC
Project code: 2024-0118282
Project Name: Portsmouth Marina Remediation Project

Federal Nexus: yes
Federal Action Agency (if applicable):

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'Portsmouth Marina Remediation Project'

Dear Nyssa Seekamp:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on July 18, 2024, for "Portsmouth Marina Remediation Project" (here forward, Project). This project has been assigned Project Code 2024-0118282 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative effect(s)), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17). Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no further consultation with, or concurrence from, the Service is

required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13]).

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service's Northeast DKey, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Roseate Tern (*Sterna dougallii dougallii*)	Endangered	No effect
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	No effect

Conclusion If there are no updates on listed species, no further consultation/coordination for this project is required for the species identified above. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project implements any changes which are final or commits additional resources.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

To complete consultation for species that have reached a "May Affect" determination and/or species may occur in your project area and are not covered by this conclusion, please visit the "New England Field Office Endangered Species Project Review and Consultation" website for step-by-step instructions on how to consider effects on these listed species and/or critical habitats, avoid and minimize potential adverse effects, and prepare and submit a project review package if necessary: https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or PermitsR5MB@fws.gov, with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New England Ecological Services Field Office and reference the Project Code associated with this Project.

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

1. Name

Portsmouth Marina Remediation Project

2. Description

The following description was provided for the project 'Portsmouth Marina Remediation Project':

> Sea Level, Inc. is undertaking the completion of a remediation project that was begun previously but remains incomplete. During the first remediation attempt a series of soil piles were left in the upland area and within the previously developed 100 foot Tidal Buffer Zone (TBZ). Additionally, a sump was created that disturbed a small portion of salt marsh. The piles of soil have been smoothed over and covered with a gravel base for stabilization until further remediation activities can occur. The purpose of this project is to complete the remediation and restore the disturbed salt marsh area.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.05342615,-70.74499582496054,14z

QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

   Yes

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

   Note: This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

   No

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

4. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) the lead agency for this project?

   No

5. Are you including in this analysis all impacts to federally listed species that may result from the entirety of the project (not just the activities under federal jurisdiction)?

   Note: If there are project activities that will impact listed species that are considered to be outside of the jurisdiction of the federal action agency submitting this key, contact your local Ecological Services Field Office to determine whether it is appropriate to use this key. If your Ecological Services Field Office agrees that impacts to listed species that are outside the federal action agency's jurisdiction will be addressed through a separate process, you can answer yes to this question and continue through the key.

   Yes

6. Are you the lead federal action agency or designated non-federal representative requesting concurrence on behalf of the lead Federal Action Agency?

   No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)?

   Yes

8. Will the proposed project involve the use of herbicide where listed species are present?

   No

9. Are there any caves or anthropogenic features suitable for hibernating or roosting bats within the area expected to be impacted by the project?

   No

10. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, land-based or offshore wind turbines, communication towers, high voltage transmission lines, any type of towers with or without guy wires)?

    Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

    No

11. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind turbines)?

    Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

    No

12. Will the proposed project result in permanent changes to water quantity in a stream or temporary changes that would be sufficient to result in impacts to listed species?

    For example, will the proposed project include any activities that would alter stream flow, such as water withdrawal, hydropower energy production, impoundments, intake structures, diversion structures, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

    No

13. Will the proposed project affect wetlands where listed species are present?

    This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES).

    Yes

14. Will the proposed project activities (including upland project activities) occur within 0.125 miles of the water's edge of a stream or tributary of a stream where listed species may be present?

    Yes

15. Will the proposed project directly affect a streambed (below ordinary high water mark (OHWM)) of the stream or tributary where listed species may be present?

    Yes

16. Will the proposed project bore underneath (directional bore or horizontal directional drill) a stream where listed species may be present?

    No

17. Will the proposed project involve a new point source discharge into a stream or change an existing point source discharge (e.g., outfalls; leachate ponds) where listed species may be present?

    No

18. Will the proposed project involve the removal of excess sediment or debris, dredging or in-stream gravel mining where listed species may be present?

    Yes

19. Will the proposed project involve the creation of a new water-borne contaminant source where listed species may be present?

    Note New water-borne contaminant sources occur through improper storage, usage, or creation of chemicals. For example: leachate ponds and pits containing chemicals that are not NSF/ANSI 60 compliant have contaminated waterways. Sedimentation will be addressed in a separate question.

    No

20. Will the proposed project involve perennial stream loss, in a stream of tributary of a stream where listed species may be present, that would require an individual permit under 404 of the Clean Water Act?

    No

21. Will the proposed project involve blasting where listed species may be present?

    No

22. Will the proposed project include activities that could negatively affect fish movement temporarily or permanently (including fish stocking, harvesting, or creation of barriers to fish passage).

    No

23. Will the proposed project involve earth moving that could cause erosion and sedimentation, and/or contamination along a stream or tributary of a stream where listed species may be present?

    Note: Answer "Yes" to this question if erosion and sediment control measures will be used to protect the stream.

    Yes

24. Will earth moving activities result in sediment being introduced to streams or tributaries of streams where listed species may be present through activities such as, but not limited to, valley fills, large-scale vegetation removal, and/or change in site topography?

    No

25. Will the proposed project involve vegetation removal within 200 feet of a perennial stream bank where aquatic listed species may be present?

    Yes

26. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or Federal permits, be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

    Yes

27. Is the project being funded, lead, or managed in whole or in part by U.S Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

    No

28. Will the proposed project result in changes to beach dynamics that may modify formation of habitat over time?

    Note: Examples of projects that result in changes to beach dynamics include 1) construction of offshore breakwaters and groins; 2) mining of sand from an updrift ebb tidal delta; 3) removing or adding beach sands; and 4) projects that stabilize dunes (including placement of sand fences or planting vegetation).

    No

29. [Hidden Semantic] Is the project area located within the red knot AOI?

    Automatically answered
    Yes

30. If you have determined that the red knot is unlikely to occur within your project’s action area or that your project is unlikely to have any potential effects on the red knot, you may wish to make a “no effect” determination for the red knot. Additional guidance on how to make this decision can be found in the project review section of your local Ecological Services Field Office's website. CBFO: https://www.fws.gov/office/chesapeake-bay-ecological-services/project-review ; MEFO: https://www.fws.gov/office/maine-ecological-services ; NJFO: https://www.fws.gov/office/new-jersey-ecological-services/new-jersey-field-office-project-review-guide ; NEFO: https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review#Step5 ; WVFO: https://www.fws.gov/office/west-virginia-ecological-services/project-planning. If you are unsure, answer "No" and continue through the key.

    Would you like to make a no effect determination for the red knot?

    Yes

31. [Hidden Semantic] Is the project area located within the roseate tern AOI?

    Automatically answered
    Yes

32. If you have determined that the roseate tern is unlikely to occur within your project's action area or that your project is unlikely to have any potential effects on the roseate tern, you may wish to make a "no effect" determination for the roseate tern. Additional guidance on how to make this decision can be found in the project review section of your local Ecological Services Field Office's website. CBFO: https://www.fws.gov/office/chesapeake-bay-ecological-services/project-review ; MEFO: https://www.fws.gov/office/maine-ecological-services ; NJFO: https://www.fws.gov/office/new-jersey-ecological-services/new-jersey-field-office-project-review-guide ; NEFO: https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review#Step5 ; WVFO: https://www.fws.gov/office/west-virginia-ecological-services/project-planning. If you are unsure, answer "No" and continue through the key.

    Would you like to make a no effect determination for the roseate tern?

    Yes

33. [Semantic] Does the project intersect the Virginia big-eared bat critical habitat?

    Automatically answered

    No

34. [Semantic] Does the project intersect the Indiana bat critical habitat?

    Automatically answered

    No

35. [Semantic] Does the project intersect the candy darter critical habitat?

    Automatically answered

    No

36. [Semantic] Does the project intersect the diamond darter critical habitat?

    Automatically answered

    No

37. [Semantic] Does the project intersect the Big Sandy crayfish critical habitat?

    Automatically answered

    No

38. [Hidden Semantic] Does the project intersect the Guyandotte River crayfish critical habitat?

    Automatically answered

    No

39. Do you have any other documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

1. Briefly describe the habitat within the construction/disturbance limits of the project site.

   Tidal salt marsh wetland in coastal estuarine habitat. Salt march comprised primarily of intertidal mudflat with sparse vegetation.

2. Approximately how many acres of trees would the proposed project remove?

   0

3. Approximately how many total acres of disturbance are within the disturbance/ construction limits of the proposed project?

   0.16

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Nyssa Seekamp
Address: 129 Route 125
City: Kingston
State: NH
Zip: 03848
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
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In Reply Refer To: 07/18/2024 18:23:38 UTC
Project Code: 2024-0118282
Project Name: Portsmouth Marina Remediation Project

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

To Whom It May Concern:

Updated 4/12/2023 - *Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.*

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat - (**Updated 4/12/2023**) The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule went into effect on March 31, 2023. You may utilize the **Northern Long-eared Bat Rangewide Determination Key** available in IPaC. More information about this Determination Key and the Interim Consultation Framework are available on the northern long-eared bat species page:

https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis

For projects that previously utilized the 4(d) Determination Key, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective. If your project was not completed by March 31, 2023, and may result in incidental take of NLEB, please reach out to our office at newengland@fws.gov to see if reinitiation is necessary.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/service/section-7-consultations

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to

consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

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

https://www.fws.gov/program/migratory-bird-permit

https://www.fws.gov/library/collections/bald-and-golden-eagle-management

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

PROJECT SUMMARY

Project Code: 2024-0118282
Project Name: Portsmouth Marina Remediation Project
Project Type: Non-NPL Site Remediation
Project Description: Sea Level, Inc. is undertaking the completion of a remediation project that was begun previously but remains incomplete. During the first remediation attempt a series of soil piles were left in the upland area and within the previously developed 100 foot Tidal Buffer Zone (TBZ). Additionally, a sump was created that disturbed a small portion of salt marsh. The piles of soil have been smoothed over and covered with a gravel base for stabilization until further remediation activities can occur. The purpose of this project is to complete the remediation and restore the disturbed salt marsh area.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.05342615,-70.74499582496054,14z

Counties: Rockingham County, New Hampshire

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Roseate Tern *Sterna dougallii dougallii* Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

INSECTS

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

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Nyssa Seekamp
Address: 15 Park Street
City: Dover
State: NH
Zip: 03820
Email nseekamp14@gmail.com
Phone: 6038193140

COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

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

APPLICANT LAST NAME, FIRST NAME, M.I.: **Sea Level, LLC and Goulemas Family Trust**

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

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

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

The following information is required for projects in coastal areas.

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

The purpose and goal is to complete remediation of PCBs, stabilize slopes and revegetate 410 SF of marsh, with adjacent slopes hardscape stabilized; also 1 CY soil of upland soil (>11 FT MSL) removed, 770 SF covered with 6 in soil cover (>1<25 ppm PCBs) and 5,000 SF concrete cap installed over soils with >25<50 ppm PCBs and lead, see Sheet 5. Resources proposed for impact include previously developed tidal buffer zone (TBZ) and shoreland. The TBZ and salt marsh within which work is proposed is currently disturbed.

All screening information and associated maps are provided in Appendix J, Part 2--Figure J1. A Coastal Functional Assessment (CFA) is completed in Appendix L for Sagamore Creek and associated tidal wetlands which includes saltmarsh and mudflat, completed by Adel Fiorillo Mattson, PWS#832 and Patrick Seekamp, CWS# 00128. The CFA was completed utilizing the USACE Highway Methodology (HM) Supplement (1993), USACE New England District HM Workbook Supplement (1999) for all functions and values except Ecological Integrity, which was assessed using the Method for the Evaluation and Inventory of Vegetated Tidal Marshes in NH (June 1993).

The Vulnerability Assessment is provided in Appendix K.

For standard permit projects, provide:

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

☒ A vulnerability assessment in accordance with Env-Wt 603.05 (refer to Section 4).

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

Per Env 311.07c, an Avoidance and Minimization Checklist May 2020 NH W-06-050 has been completed in Appendix F, which demonstrates compliance with Env-Wt 311.07. This Checklist demonstrates also that impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable, as required by Env-Wt 313.03.

Recognizing the location cannot be moved for this remediation project, methods to protect natural resources are described in Appendix J, Part 3--Coastal Resource Worksheet Narrative.

Vulnerability Assessment is provided in Appendix K.

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

The project addresses the cited Env-Wt 307 and 313.01, see Appendix J, Part 3, Coastal Resource Worksheet Narrative.

Provide a project design narrative that includes the following:

☒ A discussion of how the proposed project:

- Uses best management practices and standard conditions in Env-Wt 307;
- Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- Meets approval criteria in Env-Wt 313.01;
- Meets evaluation criteria in Env-Wt 313.01(c);
- Meets CFA requirements in Env-Wt 603.04; and
- Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

☒ A discussion of how the completed project will be maintained and managed.

See Appendix J, Part 3, Coastal Resource Worksheet Narrative, which addresses each of these requirements. For erosion/siltation control methods to be used, see Appendix E, Engineering Plans, Sheets 5-7. No dewatering is required. For Construction Sequence, see Sheet 5. For discussion of how completed project will be maintained and managed, see Appendix J, Part 4, Operations Monitoring & Maintenance Plan.

☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);

☒ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and

☐ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors (DP&H) chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

See Appendix J, Part 3, Narrative to Coastal Resource Worksheet concerning design plans and water depth supporting information. See also Section 5 of this Worksheet. No structures are proposed or exist.

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

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

☒ Existing salt marsh and salt marsh migration pathways;

☒ Eelgrass beds;

☒ Documented shellfish sites;

☒ Projected sea-level rise; and

☒ 100-year floodplain.

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

☐ National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and

☒ NOAA Essential Fish Habitat Mapper.

☐ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

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

Projects in coastal areas shall:

☒ Not impair the navigation, recreation, or commerce of the general public; and

☒ Minimize alterations in prevailing currents.

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

☒ Adverse impacts to beach or tidal flat sediment replenishment;

☒ Adverse impacts to the movement of sediments along a shore;

☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

☒ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:

- Performed by a qualified coastal professional; and
- Completed using one of the following methods:

  a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or

  b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

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

☒ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters, or associated sand dunes;

☒ Design the proposed project to have the least impact to tidal wetlands, tidal waters, or associated sand dunes;

☒ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and

☒ Include on-site minimization measures and construction management practices to protect coastal resource areas.

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

☒ Minimize adverse impacts to finfish, shellfish, crustacean, and wildlife;

☒ Minimize disturbances to groundwater and surface water flow;

☒ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and

☒ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

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

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

1 month.

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

See Vulnerability Assessment, Appendix K.

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

The 2 ft sea level rise for mapping was employed (see Appendix J, J1).

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

See Appendix J, Figure J1.

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

See Appendix E, Engineering Plans, Sheets 2, 5 through 7.

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

See Appendix J, Figure J1f, used SLR Scenario 2 ft.

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

☐ Pre-application meeting date held:

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

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

The plan view shall depict the following:

☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;

☒ The location of tidal datum lines depicted as lines with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.

☒ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;

☐ The location of all special aquatic sites at or within 100 feet of the subject property;

☒ Existing bank contours;

☒ The name and license number, if applicable, of each individual responsible for the plan, including:

a. The agent for tidal docking structures who determined elevations represented on plans; and

b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan;

☒ The location and dimensions of all existing and proposed structures and landscape features on the property;

☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and

☐ Location of all special aquatic sites within 100-feet of the property.

The elevation view shall depict the following:

☒ The nature and slope of the shoreline;

☐ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and

☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

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

- Overwater structures (Env-Wt 606).
- Dredging activities (Env-Wt 607).
- Tidal beach maintenance (Env-Wt 608).
- Tidal shoreline stabilization (Env-Wt 609).
- Protected tidal zone (Env-Wt 610).
- Sand Dunes (Env-Wt 611).

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

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

☒ Mean lower low water;

☒ Mean low water;

☒ Mean high water;

☒ Mean tide level;

☒ Mean higher high water;

☒ Highest observable tide line; and

☒ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

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

☒ The date, time of day, and weather conditions when water depths were recorded; and

☒ The name and license number of the licensed land surveyor who conducted the field measurements.

For tidal stream crossing projects, provide:

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

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

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

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

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

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

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

☐ To protect public safety; and

☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

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

☒ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and

☒ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

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

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

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

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

☒ Provide habitat values;

☒ Protect tidal environments from potential sources of pollution;

☒ Provide stability of the coastal shoreline; and

☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

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

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

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

☒ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;

☐ Be designed with a preference for living shorelines over hardened stabilization practices; and

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

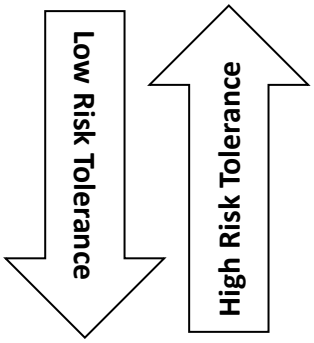
SECTION 10 – GUIDANCE

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

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

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

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



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

Sea Level, LLC and Goulemas Family Trust

Legend

- NH Parcels
- City/Town

APPENDIX J, Part 2

Map Scale

1: 3,247

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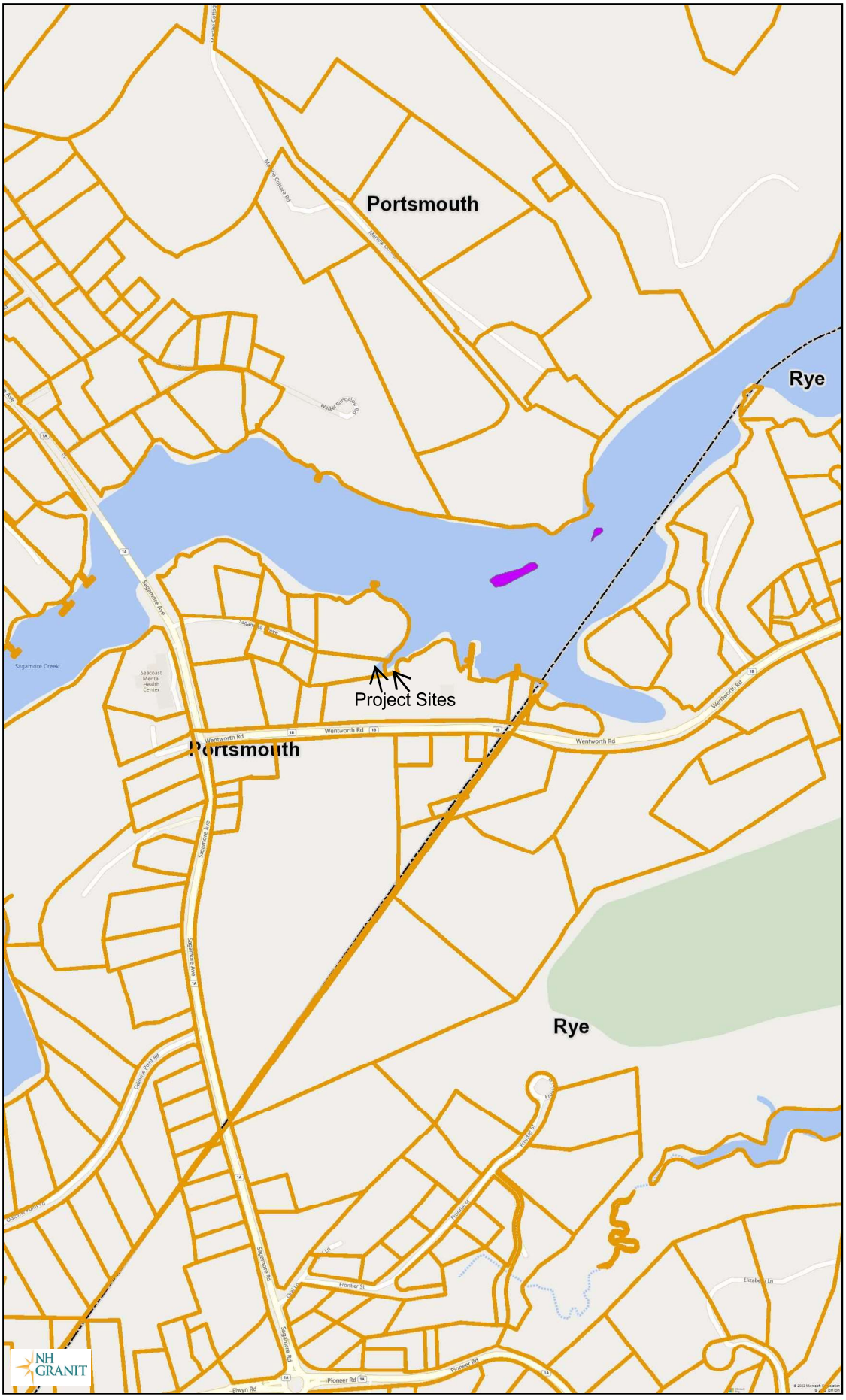
Map Generated: 7/18/2023

Notes

Impaired Waters, ORW's, Class A Waters, Contaminated Sites,

Attachment J1a

Sea Level, LLC and Goulemas Family Trust



Legend

- NH Parcels
- Eelgrass 2017
- Eelgrass 2016
- Eelgrass 2006
- Eelgrass 1996
- Eelgrass 1986
- Oyster Restoration Sites

Map Scale
1: 6,494

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Map Generated: 5/19/2023

Notes

Eelgrass and Shellfish Map
(none present on the project site)

Attachment J1b

J1c. Essential Fish Habitat Report and Map

EFH Mapper Report

EFH Data Notice

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

Greater Atlantic Regional Office
Atlantic Highly Migratory Species Management Division

Query Results

Degrees, Minutes, Seconds: Latitude = 43° 3' 14" N, Longitude = 71° 15' 18" W
Decimal Degrees: Latitude = 43.054, Longitude = -70.745

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

***** WARNING *****

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

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Adult	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Cod	Adult, Eggs, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Atlantic Herring	Adult, Juvenile, Larvae	New England	Amendment 3 to the Atlantic Herring FMP
		Atlantic Mackerel	Eggs, Juvenile, Larvae	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Sea Scallop	ALL	New England	Amendment 14 to the Atlantic Sea Scallop FMP
		Atlantic Wolffish	ALL	New England	Amendment 14 to the Northeast Multispecies FMP

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Bluefin Tuna	Adult	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Pollock	Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Red Hake	Adult, Eggs/Larvae/Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Smooth Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Thorny Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		White Hake	Adult, Eggs, Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Windowpane Flounder	Adult, Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Flounder	Eggs, Juvenile, Larvae/Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP

Pacific Salmon EFH

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

Atlantic Salmon EFH / HAPC

Link	Data Caveat	Name	Designation	Lifestage	Management Council	FMP
		Coastal Areas	EFH	All	New England	Amendment 3 to the Atlantic Salmon FMP

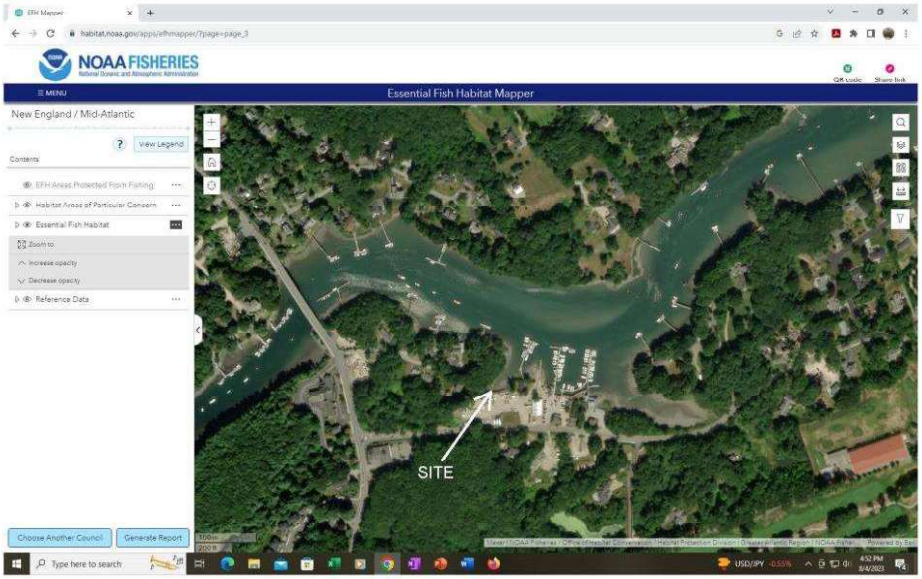
HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Inshore 20m Juvenile Cod	New England Fishery Management Council

EFH Areas Protected from Fishing

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

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data. ****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**
All EFH species have been mapped for the Greater Atlantic region, **Atlantic Highly Migratory Species EFH,** Bigeye Sand Tiger Shark, Bigeye Sixgill Shark, Caribbean Sharpnose Shark, Galapagos Shark, Narrowtooth Shark, Sevengill Shark, Sixgill Shark, Smooth Hammerhead Shark, Smalltail Shark



Sea Level, LLC and Goulemas Family Trust

Legend

NH Parcels

FEMA Floodplains

- 1 pct. Annual Chance Flood Hazard
- Floodway
- 0.2 pct. Annual Chance Flood Hazard
- Area of Undetermined Flood Hazard
- Area Protected by Levee

Map Scale

1: 6,494

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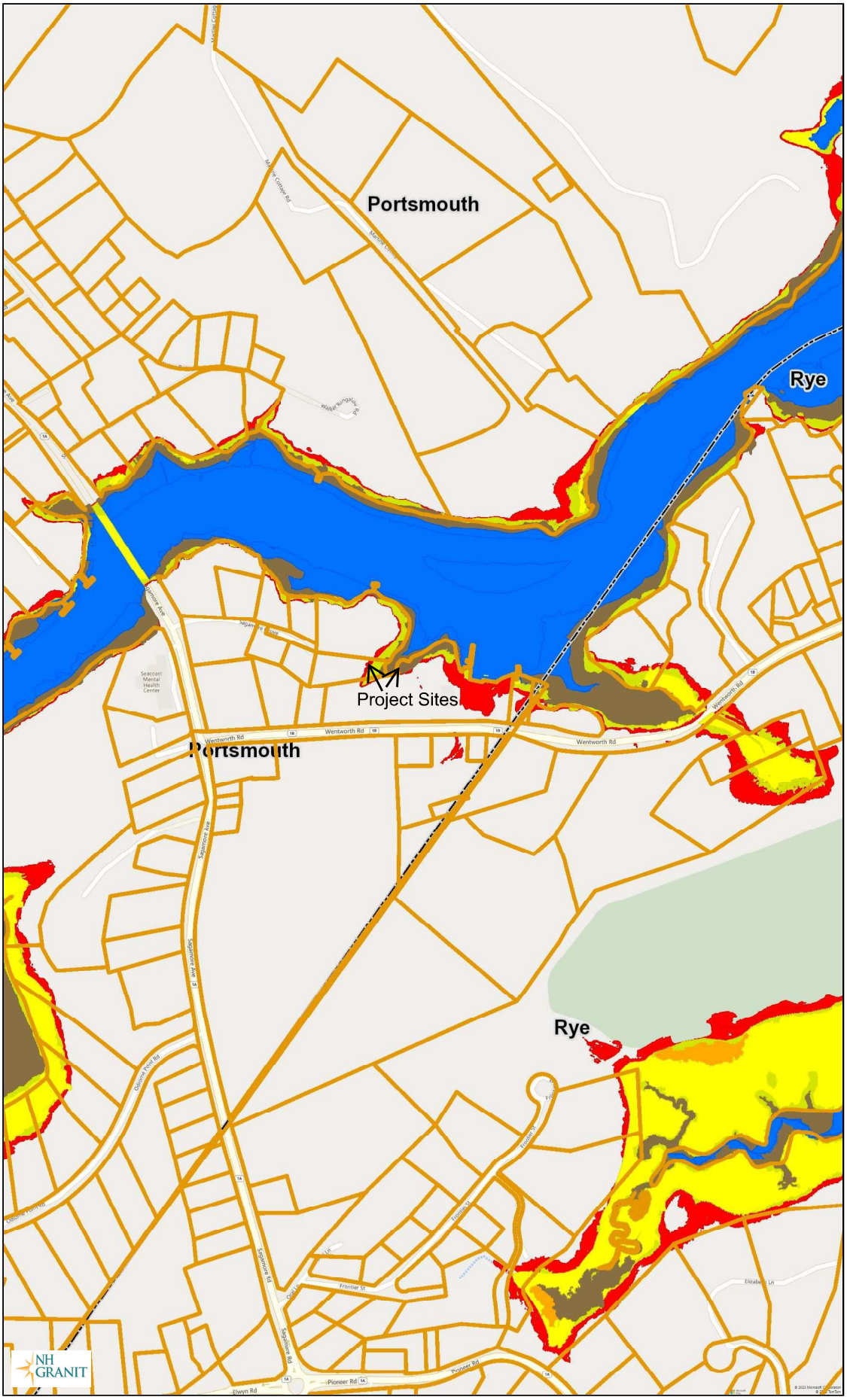
Map Generated: 5/19/2023

Notes

Flood Hazard Map

Attachment J1d

Sea Level, LLC and Goulemas Family Trust



Legend

- NH Parcels

SLAMM 2022 - 0.5-m SLR at Year 2050

- Developed
- Developed-Impervious
- Estuarine Beach
- Estuarine Open Water
- Inland Fresh Marsh
- Inland Open Water
- Inland Shore
- Irregularly-flooded Marsh
- Ocean Beach
- Open Ocean
- Regularly-flooded Marsh
- Riverine Tidal
- Rocky Intertidal
- Swamp
- Tidal Flat
- Tidal Fresh Marsh
- Tidal Swamp
- Transitional Salt Marsh
- Undeveloped

Map Scale
1: 6,494

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Map Generated: 5/19/2023

Notes

Salt Marsh Migration Map

Attachment J1e

Sea Level, LLC and Goulemas Family Trust

Legend

NH Parcels

MHHW Baseline

MHHW + 2-ft SLR

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

Map Scale

1: 6,494

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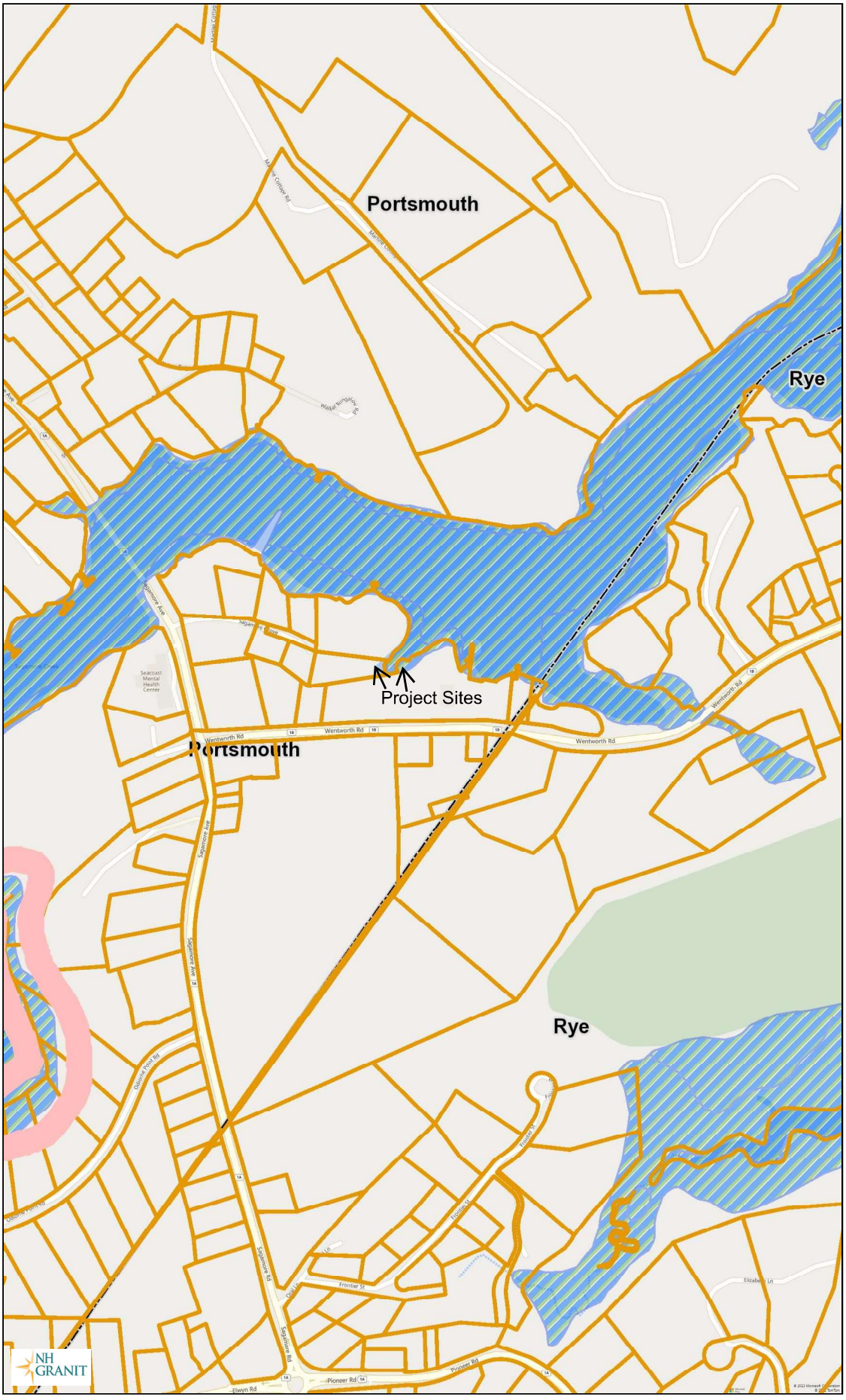
Notes

2 Foot Sea Level Rise Map

Attachment J1f

Sea Level, LLC and Goulemas Family Trust



Legend

- NH Parcels
- Flood Plain Wetlands Adjacent to Tier 3 Streams

Map Scale

1: 6,494

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Map Generated: 5/19/2023

Notes

Priority Resource Map

Attachment J1g

Sea Level, LLC and Goulemas Family Trust

Legend

- NH Parcels
- Prime Wetlands

Map Scale

1: 6,494

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Map Generated: 5/19/2023

Notes

Prime Wetlands Map
(none present on or
near the project site)

Attachment J1h

APPENDIX J, Part 3

Narrative For Coastal Resource Worksheet (CRW), Env Wt 307 and Envt Wt 311.09, Env-Wt 400, Env-Wt 500, Env-Wt 600, and Env-Wt 700, and RSA 482-A:11; and Env Wt 313.01 and 313.03

1. Env Wt 307: The project addresses the proposed dredging, filling, and construction within a jurisdictional area, per 307.1; complies with all conditions of US Army Corps NH state general permit for dredging per 307.2; for 307.3 compliance,
    (a) The Proposed project activities are being conducted in such a way as to not cause or contribute to any violation of:
        (1) The surface water quality standards specified in RSA 485-A:8 or Env-Wq 1700;
        (2) The ambient groundwater quality standards established under RSA 485-C;
        (3) The limitations on activities in a sanitary protective area established under Env-Dw 302.10 or Env-Dw 305.10; or
        (4) Any provision of RSA 485-A, Env-Wq 1000, RSA 483-B, or Env-Wq 1400 that protects water quality.
    (b) Soil erosion control: All work, including management of soil stockpiles, will be conducted so as to minimize erosion, minimize sediment transfer to surface waters or wetlands, and minimize turbidity in surface waters and wetlands using the techniques described in:
        (1) Env-Wq 1505.02, Env-Wq 1505.04, Env-Wq 1506, and Env-Wq 1508; specifically, to comply with Env-Wq 1506, mulching will be anchored with mulch netting or tackifier so that either are not blown away by wind or washed away by flowing water, applied at a rate of 70 to 90 pounds per 1,000 square feet to a thickness of at least two (2) inches; or alternatively, if an erosion control blanket is employed, it would be placed within 24 hours after sowing seed in the area being covered, by being laid loosely over the soils, maintaining contact with the soil, and not stretched; and installed per the manufacturer's specifications and will be anchored at the top of the slope in a trench, unrolled in the direction of the water flow, overlapping the edges and stapling. The seeding will be fertilized by limestone application only, see below. Also, coir logs will be installed and staked at the toe (at HOTL, or 8 FT MSL) and top of the slope, at Elev 11 FT MSL, replacing the existing coir logs which exist in part along this 11 FT MSL line.
        (2) The applicable BMP manual for Wetlands and Waterways Minimization and Avoidance is being followed;
    (c) Water quality control measures have been:
        (1) Selected and implemented based on the size and nature of the project and the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas;
        (2) Comprised of wildlife-friendly erosion control materials;
        (3) Installed prior to start of work and in accordance with the manufacturer's recommended specifications or, if none, the applicable requirements of Env-Wq 1506 or Env-Wq 1508, and will consist of staked coir logs at top

and toe of slopes, see **WPA Appendix E, Engineering Sheets 5-7 ("Sheets 5-7")**;

(4) Is capable of:
   a. Minimizing erosion;
   b. Collecting sediment and suspended and floating materials; and
   c. Filtering fine sediment;

(5) Will be maintained so as to ensure continued effectiveness in minimizing erosion and retaining sediment on-site during and after construction;

(6) Remain in place until all disturbed surfaces are stabilized to a condition in which soils on the site will not experience accelerated or unnatural erosion, using techniques such as achieving and maintaining a minimum of 85% vegetative cover using an erosion control seed mix that is certified by its manufacturer as not containing any invasive species; and will consist of tall fescue and creeping red fescue applied at a rate of .45 lbs/1,000 SF and birdsfoot trefoil applied at a rate of 0.2 lbs/1,000 SF; per the NH Stormwater Handbook, Volume 1, 2008, since the upland soils cap area lies within 50 feet of a surface water, only limestone fertilizer will be applied at a rate of 138 lbs/1,000 SF; and

(7) If designed and installed as temporary methods, be removed upon completion of work when compliance with (6), above, is achieved;

(d) Any sediment collected by water quality control measures shall be:
   (1) Removed with sufficient frequency to prevent the discharge of sediment; and
   (2) Placed in an upland location in a manner that prevents its erosion into a surface water or wetland.

(e) All exposed soils and other fills shall be permanently stabilized within 3 days following final grading.

(f) Turbidity curtain--this will be deployed prior to dredging activities to:
   (1) Enclose the area of dredging conducted along the shoreline of the tidal inlet to Sagamore Creek, and will not be installed during periods of high flow; and
   (2) Will be removed after work within the turbidity control is completed, the contained water has returned to background clarity, and removing the structure will not cause or contribute to a violation of (c)(6), above.

(g) The person in charge of construction equipment shall:
   (1) Inspect such equipment for leaking fuel, oil, and hydraulic fluid each day prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands;
   (2) Repair any leaks prior to using the equipment in an area where such fluids could reach groundwater, surface waters, or wetlands;
   (3) Maintain oil spill kits and diesel fuel spill kits, as applicable to the type(s) and amount(s) of oil and diesel fuel used, on site so as to be readily accessible at all times during construction; and
   (4) Train each equipment operator in the use of the spill kits.

(h) Equipment shall be staged and refueled in accordance with Env-Wt 307.15, ie it will not be stored, maintained or repaired within wetlands; and it is anticipated

that the 4-8 cubic yards of wetland sediment to be removed, will be excavated by long reach excavator from the top of a riprap slope outside wetlands areas.

2. ENV WT 307.4: the project will avoid and minimize discharges of dredged material or placement of fill material during spawning or breeding seasons by using water quality protection techniques as specified in Env-Wt 307 and timing of project as specified in Env-Wt 307.10(g) or (h);
3. ENV WT 307.5: the contractor will not use imported soil or seed stock containing nuisance or invasive species, by following the Invasive Plant BMPs;
4. ENV WT 307.6: no threatened or endangered species exist within the work area;
5. ENV WT 307.7: the proposed activities are consistent with the Shoreland Water Quality Protection Act, specifically maintenance and protection of waterfront buffer, natural woodland buffer, and protected shoreland, through adherence to Env Wq 1400 and RSA 483-B;
6. ENV WT 307.8: water quality and environmental minimization measures will be in place to ensure that functions and values of prime wetlands and duly-established 100-foot buffers are protected to extent practicable during construction;
7. ENV WT 307.09: no structures within jurisdictional areas are proposed;
8. ENV WT 307.10: dredging will not affect setbacks, will occur during low flow conditions, and turbidity controls shall:
    (a) Be installed prior to construction and maintained during construction such that no turbidity escapes the immediate dredge area; and
    (b) Remain in place until suspended particles have settled and water at the work site has returned to normal clarity;
    (c) Dredged materials shall be disposed of out of jurisdictional areas, at a licensed disposal facility;
    (d) Dredged materials (11 CY max) are intended to be to live-loaded and transported off-site, thus no stockpiling in uplands areas is anticipated. If this does become necessary, such stockpiling shall be dewatered in sedimentation basins that are:
        (1) Contained within turbidity controls that prevent turbid water from leaving the basins; and
        (2) Located outside of any jurisdictional area. Also, no dredging shall occur in tidal waters during a fish migration or larval setting stage of fish and shellfish, unless required, which is between March 15 and November 15; and will be designed and implemented to ensure that there is no disruption of tidal flushing;
9. ENV WT 307.11: proposed fill shall be clean wetland hydric soil for dredging restoration areas, and clean topsoil for upland areas, and clean 4 or 5 inch stone and boulders for planned riprap areas, which do not contain any material that could contaminate surface or groundwater or otherwise adversely affect the ecosystem in which it is used; the limits of fill are clearly identified on the drawings (see **Sheets 5 through 7**) and will be controlled in accordance with Env-Wt 307.03 to ensure that fill does not spill over or erode into any area where filling is not authorized; slopes

adjacent to the dredging area and transitioning from upland areas to the dredging area will during construction, be immediately stabilized (as specified in Env-Wq 1506 or Env-Wq 1508), to prevent erosion into adjacent wetlands or surface waters. Fill shall be not placed so as to direct flows onto adjacent or down-current property. No swamp or construction mats nor temporary fill are anticipated, and construction work will be accomplished by excavators stationed on existing upland soils or riprap.

10. ENV WT 307-12: Following project completion, project area will be restored according to the following:
    (a) Within 3 days of final grading or temporary suspension of work in an area that is in or adjacent to surface waters, all exposed soil areas shall be stabilized by:
        (1) Seeding and mulching, if during the growing season; or
        (2) Mulching with tackifiers within the growing season;
    (b) Upon completion of construction, all disturbed wetland areas shall be stabilized with either wetland plantings (See **Sheets 5-7**) or seed mix. Salt marsh bulrush will be planted below 6 FT MSL, and salt tolerant grass mix will be planted from 6 FT MSL to the HOTL at 8 FT MSL; see details under Construction Sequence note on **Sheet 5**;
    (c) Any seed mix used shall not contain plant species that are invasive species;
    (d) Mulch used within an area being restored shall be natural straw or equivalent non-toxic, non-seed-bearing organic material;
    (e) Wetland soils from areas vegetated with invasive species shall not be used in the area being restored;
    (f) If any temporary impact area that is stabilized with seeding or plantings does not have at least 75% successful establishment of wetlands vegetation after 2 growing seasons, the area shall be replanted or reseeded, as applicable;
    (g) If a temporary impact area is restored by seeding or plantings, then:
        (1) The work shall not be deemed successful if the area is invaded by invasive species during the first full growing season following the completion of construction; and
        (2) The person responsible for the work shall submit a remediation plan to the department that proposes measures to be taken to eradicate invasive species during this same period;
    (h) any trees cut in an area of authorized temporary impacts shall be cut at ground level with the shrub and tree roots left intact, to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area.
11. ENV WT 307-1: work will occur within 10 feet of an abutting property line, but written consent of the abutter has been obtained.
12. ENV WT 307-14: rocks will not be removed from surface waters;
13. per 307-15, heavy equipment such as excavator and loader will need to be operated in the shoreland and wetlands buffer jurisdictional areas, but no mobile heavy equipment working in wetlands buffer area will be stored, maintained, or repaired in wetlands, except that repairing or refueling in a wetland is allowed if equipment cannot practicably be removed and secondary containment is provided; Where construction

requires the operation of heavy equipment in wetlands, the equipment will either have low ground pressure, namely less than 4 psi, or not be located directly on wetland soils and vegetation.

14. Per 307-16, adherence to approved plans will be maintained; and
15. per 307-18, a construction monitoring plan (CMP) with inspection reports, water quality reports, and review of project wetland planting plan which has been prepared by a certified wetland scientist is provided as **Appendix J, Part 5** and **Sheets 5-7**. A report that describes the monitoring conducted and date(s) of inspections, and includes photos showing the extent of jurisdictional impacts, areas of restoration, and progress of any plantings will be provided at the conclusion of work, along with a description of the stability of and status of the wetland system, including a description of any necessary adjustments; and a schedule and description of measures to be taken during construction and after completion of the project will be provided in CMP.
16. Env-Wt 311.09, Env-Wt 400, Env-Wt 500, Env-Wt 600, and Env-Wt 700: These criteria have been met, including project-specific criteria established in Env-Wt 500 and Env-Wt 600.
17. Env Wt 800, Compensatory Mitigation, and Env-Wt 900, Stream Crossings, are not applicable. Specifically, for 311.09, since this project lies within the protected shoreland as defined by RSA 483-B, the following has been provided on Sheets 2, and 5-7:
    (a) The reference line;
    (b) The location of all existing structures between the primary building line and the reference line;
    (c) The location of all proposed structures (no new structures are proposed);
    (d) The landward limit of the 100-foot tidal buffer zone; and
    (e) The total jurisdictional area within the protected shoreland to be impacted as a result of the project.
18. Compliance with Env-Wt 400 has been achieved regarding requirements for wetland and hydric soil delineation, jurisdictional area delineation, and assessment/classification of type of impact.
19. Compliance with Env Wt 500 is demonstrated for: natural aquatic vegetation removal and restoration; maintenance of current shoreland alignment and function; and application and design requirements for shoreland riprap installation.
20. For Env Wt 600, the Tidal Dredging Worksheet has been completed as WPA Appendix R, and requirements are met for shoreland design narrative and plans. Specifically, for 603.07,
    (a) design plans for the project in both plan and elevational views are provided in Sheets 1 through 7 which depict and identify all required elements, as described in Env-Wt 311 and (b) and (c), below.
    (b) The plan view depicts the following:
        (1) The engineering scale used, no larger than one inch equals 50 feet;
        (2) The location of tidal datum lines depicted as a line with the associated elevation noted, based on NAVD 88, as described in Env-Wt 603.08;

(3) An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
(4) The location of all special aquatic sites at or within 100 feet of the subject property, if any (none exist, See **WPA Appendix C**, which contains Wildlife Habitat Map, and **WPA Appendix J**, Current Shellfish Beds, and 2023 Eelgrass maps, all of which show no applicability to the project area);
(5) Existing bank contours;
(6) The name and license number of each individual responsible for the plan, including the certified wetland scientist who completed the CFA report and located the identified resources on the plan; and
(7) The location and dimensions of all existing and proposed structures and landscape features on the property.

(c) The elevational views in **Sheets 1-7** depict the following:
(1) The nature and slope of the shoreline;
(2) Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured, as presented on Sheet 5, and as identified in 603.08 has been provided therein. The predicted sea-level rise is identified in the vulnerability assessment (see **Appendix K**) per Env-Wt 603.05.(b); and

(d) A bathymetric survey is essentially provided in Sheet 5 for the purposes of this Application.

21. Regarding ENV WT 607.04,. A sediment dispersion modeling defined in 607.04 has not been undertaken, because only 0.5 to 1.0 feet of either marsh sediment with silty grain size (defined per 607.05(g)) or prior fill materials from prior remediation activities are being excavated. Avoidance and minimization BMPs have been provided in the narrative.
22. In accordance with 607.03(b)(2), a pre-application meeting was held on April 6, 2023 with Kristin Duclos, Wetlands Permitting Specialist, and David Price, Eastern Region Supervisor, of NHDES Water Pollution Division, and a site visit subsequently on April 24, 2023.
23. Per Env Wt 700, wetlands/tidal buffers have been delineated by a Certified Wetlands Scientist, and there is no significant net loss of values of the prime wetland/buffer results from the proposed dredging and restoration activities, based on a functional assessment and impact analysis.
24. Finally, as required by RSA 482-A:11, II for a permit to dredge or fill, the work will not "infringe on the property rights or unreasonably affect the value or enjoyment of property of abutting owners".
25. Env Wt 313.01: The project meets the criteria of this regulation, regarding functional assessments and avoidance and minimization requirements specified in Env-Wt 313.03, since no practicable alternative exists. No compensatory mitigation is

required. No permanent impacts will remain due to avoidance and minimization activities, all applicable conditions specified in Env-Wt 307 have been met.

26. Env Wt 313.03: a demonstration has been made concerning temporary impacts to jurisdictional areas which avoids such impacts to the maximum extent practicable, and establishes that any unavoidable impacts have been minimized, as described in NH Wetlands Avoidance and Mitigation BMPs, as noted above. Furthermore:
    (a) There is no practicable alternative that would have a less adverse impact on the area and environments under the department's jurisdiction;
    (b) The project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented which could provide sources of nutrients for finfish, crustacea, shellfish, and wildlife of significant value;
    (c) The project maintains hydrologic connections between adjacent wetlands;
    (d) The project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A;
    (e) The project avoids and minimizes impacts that eliminate, depreciate, or obstruct public commerce, navigation, or recreation;
    (f) The project avoids and minimizes impacts to floodplain wetlands that provide flood storage;
    (g) The project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

APPENDIX J, Part 4

OPERATIONS MONITORING & MAINTENANCE (OMM) PLAN
PORTSMOUTH MARINA RESTORATION PROJECT
185 - 187 WENTWORTH ROAD, PORTSMOUTH, NH

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Aries Project No. 2021-075
NHDES #198604143

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ATTACHMENTS

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OPERATIONS MONITORING AND MAINTENANCE PLAN
SEA LEVEL, LLC. PORTSMOUTH MARINA RESTORATION PROJECT,
185 - 187 WENTWORTH ROAD, PORTSMOUTH, NH

1.0 - INTRODUCTION

This Operations Monitoring and Maintenance (OMM) Plan ("Plan") is intended to identify procedures and requirements applicable to the portion of the Portsmouth Marina property owned by Sea Level, LLC at 185-187 Wentworth Road, Portsmouth, NH (the "site"), which will be restored in accordance with applicable federal, state, and local environmental regulations. These procedures and requirements will concern as-built structures or constructed features which will have been implemented and need to be maintained and monitored to verify that regulatory standards and protocols are being met and that the integrity and effectiveness of the constructed features will continue over the anticipated 25-year life of the remediated portion of the site.

The applicable environmental regulations and associated requirements are as follows:

- Federal TSCA, 40 CFR 761 et al, for an approved Self-Implementing Plan (SIP), approved September 9, 2016, supplemented by a SIP Addendum approved January 31, 2023 by the U.S. Environmental Protection Agency (EPA), TSCA Section, Region I;
- NH Department of Environmental Services (DES) requirements associated with the Wetlands Protection Act and NH Stormwater Management Standards;
- NHDES requirements for hazardous waste cleanup, noting that EPA regulations take precedence over state regulations for the specific parameter of concern, PCBs, which has been present on site in concentrations exceeding 50 ppm, the threshold which triggers EPA jurisdiction; and
- City of Portsmouth Conservation Commission (ConCom) Wetlands Protection Regulations, Article 10, and Planning Commission requirements for a Conditional Use Permit, as applicable.

Therefore, this OMM Plan will need to be updated once final regulatory approvals from the respective state, local and federal agencies have been issued. It is prepared at present as a technical submittal to accompany the Wetlands Protection Act Application (WPA) and related permit applications, especially the Coastal Resource Worksheet, as Part 4 of the Shoreland Permit Application, to demonstrate the commitment of the WPA Applicant, Sea Level, LLC, to provide long-term maintenance and care of the several different components of remediation measures which will be implemented at the site, which include the following:

- Uplands Final Cover Area, 760 SF in area, a level area above Mean Sea Level (MSL) Elevation 11 to 12 feet and borders the armored riprap which lines the cove. This Area covers PCBs >1< 25 ppm with a six-inch clean soil cap vegetated

with wetland compatible or wildlife meadow mix; it is regulated by TSCA as a "Low Occupancy Area", with certain requirements thereto; and

- Uplands Concrete Cap Area, 5,000 SF in area, covering PCBs >25<50 ppm and lead. It occurs at MSL Elevation 13 to 15 and has a dual design in addition to providing a TSCA cap compliant with 40 CFR 761(a)(7), allows heavier boat storage to occur within this footprint. This Cap is sloped at a 2% slope from east to west, allowing precipitation to drain via sheet flow to the western and northern edges of the cap where it encounters a two-foot-wide 2-inch stone flow level spreader/attenuation barrier which reduces flow prior to entry to a packaged underground stormwater treatment and retention system such as Stormtech or equivalent. This system is intended to be sufficiently sized in design to retain and slowly release into adjacent soils after treatment for oils, metals, and other residues found on the concrete surface, the full volume of rainwater from a 2-year, 24-hour storm (3-inch precipitation event).

  Other stormwater originating adjacent to the cap will drain via overland sheet flow down to the riprap area, either directly in the north direction and over the Final Soil Cover Area, or indirectly (for flow to the west) via the natural vegetated drainage swale which currently exists above MSL Elevation 12 feet, in an east-west direction and downwards over the MSL Elevation 11 to 12 foot area to the riprap zone between MSL Elevation 8 to 11, with 8 feet being the Highest Observable Tide Line.

The anticipated limits of work and final layout and dimensions and components of the completed project components are identified in Engineering Plan/Sheet 5. Each component is addressed separately in the sections which follow.

2.0 - ACTIVITY AND USE RESTRICTION (AUR)

The U.S. EPA will accept a state-defined environmental deed restriction instrument as the legal mechanism by which the remediation area of the site containing final cleanup measures is assured to be maintained and monitored over the post-closure project life to continue to protect human health and the environment, in accordance with TSCA regulations established at 40 CFR 761(a)(8). Specific TSCA requirements pertinent to an AUR, and identified in EPA's January 23, 2023 approval letter, are as follows:

- Within sixty (60) days of completing final property-wide remediation, Sea Level LLC shall submit to EPA a recorded deed restriction for the property in its entirety. The deed restriction shall include: a description of the extent and levels of contamination at the property following abatement; a description of the actions taken at the property; and a description of the use restrictions for the property; and the long-term monitoring and maintenance requirements on the property per the requirements of 40 CFR § 761.61(a)(8).

NHDES En Or 608 Contaminated Site Management provides for an Activity and Use Restriction (AUR) to provide this deed restriction. The Applicant will after completion of remediation activities, file an AUR Application (Attachment AA) which is completed at that time to identify the measures and activities it will undertake to provide assurance that regulatory requirements and environmental controls will remain in good condition.

Where the area subject to the AUR comprises only a portion of a lot, the AUR Application will include both of the following:

a. A metes and bounds description of the restricted area and
b. A recordable plan, prepared by a New Hampshire registered land surveyor that shows the location of the restricted area in relation to the property boundaries of the site.

Also necessary is the following information, which are identified in Sections 3, 4 and 5 of this document, unless provided below in parenthesis following the applicable requirement, or is stated on the AUR Application:

1. The time period during which the AUR shall be effective (25 years).
2. A precise description of the site activities and uses that will be prohibited on the site and allowed on the site.
3. A description of how the restrictions will eliminate the risks to human health and the environment.
4. A precise description of the measures to be taken to ensure compliance with the AUR.
5. A description of the procedures to be followed when an emergency requires immediate excavation of contaminated soil to repair utility lines or other infrastructure on the site, or to respond to other emergencies that might result in a significant risk to human health, evaluated pursuant to procedure specified in Env-Or 606.19(d)(2) and (3), from exposure to contaminants at the site, which shall include:
   a. Notifying NHDES of such emergency condition; and
   b. Limiting disturbance of contaminated media to the minimum necessary to adequately respond to the emergency; and
   c. Undertaking specified precautions to reduce exposure of workers and neighbors of the site to contaminated media and
   d. Preparation and implementation of a written plan for restoring the site to a condition consistent with the AUR.
6. An acknowledgement by the applicant that the AUR shall run with the land pursuant to Env-Or 608.01(b)(3).
7. An analysis of the long-term feasibility of maintaining the AUR.
8. An acknowledgement by the applicant to incorporate either in full or by reference to the AUR into all deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instruments conveying an

interest in and/or a right to use the property pursuant to Env-Or 608.01(b)(2).

9. The procedures for modifying and terminating the AUR pursuant to Env-Or 608.06 and Env-Or 608.07.
10. Title reference by which the property owner(s) acquired title to the property.
11. A schedule for self-certifying compliance with the AUR pursuant to Env-Or 608.01(e).

Future use restrictions and obligations which require the monitoring, maintenance and record keeping are anticipated to exist for the following permanent site remediation features, which are TSCA caps in accordance with 40 CFR 761(a): 1) impermeable concrete cap in upland soils, installed over a 5,000 square foot (SF) area at the site to prevent infiltration of precipitation to soils beneath which contain residual but legally compliant levels of environmental constituents of concern (PCBs >25<50 ppm and lead); and 2) a permeable cap (Final Cover) installed to prevent contact with subsurface levels of PCBs >1<25 ppm considered to exist below regulatory levels, as long as the six-inch-thick Final Cover over the affected 770 SF remains intact; and 3) maintenance of stormwater management controls and features which allow the two caps in Items 1 and 2 to remain intact and prevent human or wildlife contact with the PCBs/lead in soils.

To enforce the prevention of contact with the PCBs/lead in soils, the AUR will be self-certified using the NHDES template (Attachment BB) recorded on the property deed by the Applicant once soil remedial activities are complete as planned for 2025, and will identify the following restrictions and conditions for the site consistent with EPA, NHDES, and City of Portsmouth issued permits and approvals:

- Low occupancy use, as described below with respect to the TSCA Cap;
- Construction Worker Caution, as described below;
- Industrial/Commercial land use restriction, meaning that residential development is prohibited;
- Future Building Construction restriction: Any commercial/industrial building constructed intended for regular occupancy must have a full concrete slab-on-grade floor;
- Any future disturbance of the AUR area, including by utility companies working for third parties, should only be undertaken under the supervision of a NH-Licensed Professional Engineer or Professional Geologist, who will prepare a Health and Safety Plan (HASP) consistent with 29 CFR 1910.120, and conducted in accordance with a Soil and Groundwater Management Plan (SMP), which in combination with a HASP will proscribe safe and environmentally compliant procedures and protocols to protect human health, safety, welfare and the environment while the temporary disturbance of the soils occurs;
- A notification that the caps must be maintained in perpetuity by any potential purchaser of the property; and

- A notification that the land has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area as defined in 40 CR 761.3.

The SMP would need to address the following items:

- Be prepared by a NH-licensed professional and implemented prior to the commencement of any construction activity, or any planned (non-emergency) utility installation, repair or maintenance activity, which is likely to disturb or encounter soil or groundwater located below surface grade (current elevation at the date of the Notice of AUR) within the AUR area unless such activity is permitted as noted above. The SMP shall be prepared in accordance with the MCP (310 CMR 40.0030). The SMP should describe soil excavation, handling, storage, transport, and disposal procedures and include a description of engineering controls and air monitoring procedures necessary to ensure that on-site workers and receptors in the vicinity are not affected by fugitive dust or particles. Procedures for managing water encountered in the excavation should also be addressed in the SMP. On-site workers who may come into contact with impacted soils on the Property must be appropriately trained concerning the requirements of the SMP, must be informed of the requirements in the SMP, and the SMP must be made available on site; and
- Be supplemented by a health and safety plan ("HASP") prepared by a qualified professional and implemented prior to the commencement of any non-emergency utility installation, repair or maintenance activity, or construction activity which is likely to disturb or encounter soil or groundwater located below surface grade (current elevation assumed to be 11+ FT MSL at the date of the Notice of AUR) within the AUR area. The HASP shall require workers encountering subsurface soils and groundwater to be adequately protected and trained consistent with relevant federal and state occupational, health and safety requirements (e.g. 29 CFR 1910.120), and must otherwise be prepared in accordance with the guidelines discussed in the AUR. The HASP should consider the appropriate personal protection equipment (PPE) for construction workers and monitoring of the breathing zone air quality during Site construction and earth work activities. The HASP should clearly identify the location(s) and nature(s) of the capped materials which may be encountered.

The caps must be maintained in perpetuity and include the completion of annual inspections and maintenance activities, unless additional remedial actions are completed and their removal is approved by the appropriate regulatory agency(s);

- On-site construction and utility workers must be informed of the location and nature of contaminated soil within the AUR area and of the restrictions imposed by the AUR. Copies of the HASP and SMP must be available on site during any activities that may result in disturbance of contaminated soil or groundwater in the AUR area;
- Any soils removed from the AUR area in accordance with the AUR must be managed in a manner consistent with NHDES protocols and guidance, and in accordance with federal, state, and local regulations;

- The U.S. EPA requires notification from current and future owners thirty (30) days prior to any change in ownership of the property. Such notice must include the name, address, and telephone number of the new owner, and the name of the new owner's contact person. The current and future owners must also submit a letter to EPA, signed by the potential purchaser, stating whether it intends to maintain the TSCA cap, and whether it plans to maintain the TSCA-defined "low occupancy land use", or whether it intends to remove and dispose of additional PCB-contaminated soils off-site instead;
- The lessee/owner will restrict routine access to the AUR deed restricted area.
- The lessee must notify the owner of any planned or proposed soil disturbance activities in the AUR area at least 30 days prior to the activity;
- No site soils from the AUR area are to be transferred off-site with the prior approval of the owner;
- Lessee/owner will ensure that site access is secured when the site is not occupied;
- Lessee/owner will allow agency access, if requested;
- Sea Level, LLC. will provide sufficient financial assurance to enable annual inspections and maintenance activities.

3.0 - STORMWATER MANAGEMENT SYSTEM/OPERATIONS MONITORING AND MAINTENANCE PLAN (OMM PLAN)

EPA set forth in its January 31, 2023 SIP approval letter the following conditions pertinent to long term maintenance and monitoring:

- Within 30 days of completion of the work authorized under this Approval, Sea Level LLC shall submit for EPA's review and concurrence, a detailed OMM Plan for the caps and other pertinent features. Sea Level Inc. shall incorporate any changes to the OMM Plan required by EPA.
    a. The OMM Plan shall include: a description of the activities that will be
    b. The OMM Plan shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including building users, other on-site workers, and interested stakeholders, if requested.
    c. The OMM Plan also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the cap(s).
    d. Sea Level Inc. shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the OMM Plan is necessary in order to monitor and/or evaluate the long-term effectiveness of the cap(s).
    e. Activities required under the OMM Plan shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

This present OMM Plan is intended to address each of the above requirements. In addition to specific measures identified in Section 3.1, the findings of annual OMM Plan inspections will be communicated to site personnel, and filed with EPA and other regulatory entities as needed; and personnel conducting the inspections and providing maintenance activities, repairs or restoration work, will be trained in performance of their duties.

Consistent with the New Hampshire Stormwater Handbook:

- The owner shall conduct an annual summary inspection using a Stormwater Operation & Maintenance Checklist, which will be the OMM Plan Checklist in Attachment CC, and keep this inspection and log on-site. It can be provided to the City of Portsmouth ConCom if requested. The inspection will focus on inspection and maintenance activities including performances of Best Management Practices (BMPs); and,
- Should ownership of the site change, the owner will continue to be responsible until the succeeding owner shall notify the US EPA, NHDES, and as appropriate, the City of Portsmouth ConCom, that the succeeding owner has assumed such responsibility.

3.1 - Operations, Monitoring & Maintenance (OMM) Plan

Features of the OMM plan, which will meet the EPA requirements for a OMM Plan, including Best Management Practices (BMPs) are as follows:

- **Housekeeping**
  The existing development has been designed to maintain an appropriate level of water quality treatment for stormwater discharge, which will occur via sheet flow to the low point of the cap areas and ultimately to the wetland areas. An OMM plan has been prepared and the owner (or its designee) is responsible for adherence to the OMM plan in a strict and complete manner.

- **Storing of Materials & Water Products**
  The trash and waste program for the site includes exterior dumpsters designed to capture trash and debris.

- **Vehicle Washing**
  Outdoor vehicle washing has the potential to result in high loads of nutrients, metals, and hydrocarbons during dry weather conditions, as the detergent-rich water used to wash the grime off the vehicle enters the stormwater drainage system. The existing site status does not include any designated vehicle washing areas, although it is expected that any vehicle washing will take place on-site on a routine basis, but outside the 100-foot Tidal Buffer Zone.

- **Spill Prevention & Response**

  Sources of potential spill hazards include vehicle fluids, liquid fuels, pesticides, paints, solvents, and liquid cleaning products. The majority of the spill hazards would likely occur within the enclosed site buildings or on the 5,000 SF concrete cap (Engineering Sheet 5) which is provided for heavier boat storage. Other smaller boat storage will occur on NHDES-designated impervious gravel outside the limits of the two caps (soil or concrete). It is noted that this "impervious gravel" is 1-2 inch in size, is a combination of degraded and intact gravel. The degraded gravel has over time, due to its location adjacent to a woodland buffer, received leaf detritus which over time via natural biodegradation has covered its upper surface. However, both the degraded and intact gravel are quite pervious in function, and cover the majority of the site, as noted in the Shoreland Permit Application for this project. This gravel base allows rapid infiltration of stormwater even for design storm events.

  The project design avoids the need for stormwater to enter the local municipal stormwater drainage system. However, there are spill hazards from vehicle fluids from hydraulic lines located outside of the building on the concrete cap which has the potential to enter the overland stormwater drainage system and are to be addressed as follows:

  - Spill hazards of pesticides, paints, and solvents shall be remediated using the Manufacturers' recommended spill cleanup protocol.
  - Vehicle fluids and liquid fuel spills shall be remediated according to the local and state regulations governing fuel spills.
  - The owner shall have the following equipment and materials on hand to address a spill clean-up: brooms, dust pans, mops, rags, gloves, absorptive material and/or sand, and plastic or metal trash containers.
  - All spills shall be cleaned up immediately after discovery.
  - Spills of oil or hazardous material over US EPA and NHDES thresholds would be reported to the appropriate agencies, and cleanup operations undertaken by the owner, if small, or by a licensed spill response contractor.
  - Should a spill occur, the pollution prevention plan will be adjusted to include measures to prevent another spill of a similar nature. A description of the spill, along with the causes and cleanup measures will be included in the updated pollution prevention plan.

- **Management of Deicing Chemicals and Snow**

  Snow will be stockpiled on site until the accumulated snow becomes a hazard to the daily operations of the site. It will be the responsibility of the snow removal contractor to properly dispose of transported snow according to NHDES guidelines governing the proper disposal of snow. It will be the responsibility of the snow removal contractor to follow these guidelines and all applicable laws and regulations. The owner's maintenance staff (or its designee) will be responsible for the clearing of the sidewalk and building entrances. The owner may be required to use a deicing agent such as potassium chloride to maintain a safe walking

surface. If used, the de-icing agent for the walkways and building entrances will be kept within the storage rooms located within the building. If used, de-icing agents will not be stored outside. The owner's maintenance staff will limit the application of sand.

- **Inspection Log Form**

  A OMM Plan Inspection Form (Attachment CC) will be kept summarizing inspections, maintenance, and any corrective actions taken. The log will include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, the location where the sediment and debris was disposed after removal will be indicated. The log will be made accessible to ConCom and NHDES upon request, and will be issued annually to EPA.

- **Stormwater Collection System – On-Site**

  The stormwater collection system is comprised of natural water quality swales, stone check dam/level spreaders at the north and west ends of the concrete cap, (see Engineering Sheets 4 and 5) and the packaged underground stormwater treatment and retention system described above. The packaged system will be maintained by periodic flushing or removal of solids as needed

3.2 - Inspection and Maintenance Frequency and Corrective Measures

The following will be observed for this site:

- **Scope and Frequency of Inspections**:

  In accordance with NHDES Stormwater Handbook: Volume 2, the following areas, facilities, and measures will be inspected and the identified deficiencies will be corrected: Clean-out of stormwater control devices must include the removal and legal disposal of any accumulated sediments, trash, and debris. In any and all cases, operations, inspections, and maintenance activities shall utilize best practical measures to avoid and minimize impacts to wetland resource areas outside the footprint of the Limits of Work. An annual inspection at a minimum, and after severe storm events impacting the caps, is anticipated.

  Proper construction, inspections, maintenance, and repairs are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. For the purpose of this Stormwater Management Program, a significant rainfall event is considered an event of three (3) inches or more in a 24-hour period or at least 0.5 inches in a one-hour period.

- **Construction Requirements**:
  During construction, expected to require only one month, inspections will be conducted every two weeks or after a 0.25" rainfall event in a 24-hour period per the EPA NPDES Phase II SWPPP, until the entire disturbed area is fully restabilized, which should occur within two months after completion of work. Upon full stabilization of the project and filing of an NOI, inspections need only be conducted after a significant rainfall event as described above or as described in the maintenance guidelines below.

- **Invasive Species**:
  The NH Commissioner of Agriculture prohibits the collection, possession, importation, transportation, sale, propagation, transplantation, or cultivation of plants banned by NH LAW RSA 430:53 and NH Code Administrative Rules AGR 3800. The project shall meet all requirements and the intent of RSA 430:53 and AGR 3800 relative to invasive species.

4.0 - TSCA CAP

The TSCA Cap will be inspected on a yearly basis using the OMM Plan inspection form presented in Attachment CC. The TSCA Cap will be maintained as described below, and repaired as needed with the methods identified in the following sections.

4.1 - Cap Maintenance

Recommendations for routine maintenance of the TSCA cap as well as maintenance for asphalt damage and weathering are provided below, in the event repairs are needed. Engineering Sheets 4 and 5 depict the construction and extent of the concrete TSCA cap, which serves as an impermeable barrier.

- **Crack Filling or Sealing**
  This treatment should be used for small and medium cracks that are found to be 0.25 to 2 inches in width. The cracks should be cleaned with high pressure air blasting equipment over the entire length of the cracks prior to sealing. Small cracks (between 0.25 inch and 0.5 inch) should be widened to a minimum of 0.5 inch using a pavement saw where feasible. An appropriate sealant or Type II concrete should be applied to fill such cracks.

- **Full Depth Pavement Reconstruction**
  This repair method should be used where potholes or depressions greater than 3 inches in depth, or extensive spalling or surface degradation, are observed. The edges of the repair should be saw cut to the full depth of the concrete pavement and the existing subbase material removed if needed and replaced with a new 6-inch concrete cap and sub-base material, matching the original cap section.

Because Federal regulations indicate “repairs shall begin within 72 hours of discovery for any breaches which would impair the integrity of the cap” (40 CFR 761.61 (a) (7)), annual cap inspection and routine informal monitoring is recommended. It is expected that the new owner will perform the annual cap inspection and identify deficiencies or recommended actions, using the OMM Plan Inspection Form in Attachment CC.

4.2 - Record Keeping

Copies of the inspections and any maintenance or inspection follow-up activities should be maintained on-site. The facility must maintain a written record of all sampling and analyses of PCBs or notifications for 3 years from the date of the waste's generation. The records must be made available to US EPA and/or NHDES upon request, per 40 CFR 761.62 (b)(5).

4.3 - Change in Ownership

The US EPA requires notification from Sea Level LLC. thirty (30) days prior to any change in ownership of the property. Such notice must include the name, address, and telephone number of the new owner, and the name of the new owner’s contact person. Sea Level LLC must also submit a letter, signed by the potential purchaser, stating whether it intends to maintain the TSCA cap, and whether it plans to maintain the low occupancy land use, or whether it intends to remove and dispose of additional PCB-contaminated soils off-site instead.

5.0 - FINAL SOIL COVER CAP

The Low Occupancy Final Soil Cover’s location and dimensions are provided on Engineering Sheet 5**,** and its composition consists of six inches of clean soil cover/topsoil vegetated with wetland-compatible or wildlife habitat plants. The Cover will be inspected on a yearly basis using the form presented in Attachment CC, and will be maintained as described below, and repaired as needed with the methods identified in the following sections.

5.1 - Cap Maintenance

The integrity of the Cover must be maintained, and repairs as needed must be made “in kind”. If animal burrows are detected, the animal must be removed in accordance with local regulations on animal control, and the burrow sealed with loam (not sand or gravel). Stormwater controls (swales, check dams, level spreaders) must be repaired to original condition.

5.2 - Record Keeping

Copies of the inspections and any maintenance or inspection follow-up activities should be maintained on-site.

LIMITATIONS

Aries prepared this Post-Closure Operation and Maintenance (O & M) Plan for Soil RBDP Stormwater Management System (SMS), TSCA Cap, & Engineered Barriers; BUD Area; and Former Radiological Control Area on behalf of and for the exclusive use of Sea Level, LLC. (Client) solely for its use. This Plan shall not be transmitted to any other party, or relied upon by any other party, without Aries' written consent. However, Aries acknowledges the report may be conveyed to the U.S. EPA, New Hampshire Department of Environmental Services and other local, state, and federal agencies. Aries made the reported observations under the conditions stated herein. Aries based the report conclusions solely on the services described herein, and not on scientific tasks or procedures beyond the scope of described services.

In preparing this report, Aries relied on certain information provided by state officials, federal officials and other parties referenced herein, and on information contained in the files of federal, state and local agencies available to Aries at the time of the report. Although there may have been some degree of overlap in the information provided by these various sources, Aries did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this report.

Aries anticipates variations in actual site conditions beyond those interpreted, and would have to reevaluate the report conclusions and recommendations if additional site data are made available.

Laboratory testing was performed as part of the study. Where such analyses were conducted by an outside laboratory, Aries relied upon the data provided, and did not conduct an independent evaluation of the reliability of these data.

Aries conducted this report in general accordance with accepted consulting practices. Aries makes no warranty, either expressed or implied.

APPENDIX J, Part 4

Application for Activity and Use Restriction (AUR)

Waste Management Division

Env-Or 608

AN ACTIVITY AND USE RESTRICTION (AUR) is implemented under Env-Or 608 at sites where a New Hampshire Department of Environmental Services (NHDES) approved remedial action relies on the restriction of site activities and uses to achieve or maintain protection of human health and the environment.

SUBMIT:

- ONE SIGNED AND COMPLETED APPLICATION SUPPORTING INFORMATION
- SUPPORTING INFORMATION
- PROPOSED AUR DOCUMENT (using NHDES approved template)

TO: NHDES/Waste Management Division
Site Remediation Programs
Groundwater Management Permit Coordinator
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

I. SITE INFORMATION

Site Name: _____ DES Site #: _____
Address: _____
City: _____ State: _____ Zip: _____
Tax Map: _____ Lot Number: _____
Deed Reference: County: _____ Book and Page: _____

II. SITE OWNER INFORMATION

Site Owner Name: _____ Phone: _____
Mailing Address: _____
City: _____ State: _____ Zip: _____
Email: _____ Fax: _____

III. CONTACT PERSON INFORMATION (complete only if different than site owner)

Contact Person Name: _____ Phone: _____
Mailing Address: _____
City: _____ State: _____ Zip: _____
Email: _____ Fax: _____

APPENDIX J, Part 4

IV. SUPPORTING INFORMATION (Check Yes, "Y", if information is enclosed, or Not Applicable, "N/A", if requested information does not apply.)

Y	N/A	
		1. Where the AUR applies to an entire lot, include at least one of the following:
☐	☐	a. Recordable plan of the site prepared by a New Hampshire registered land surveyor; OR
☐	☐	b. A reference by book and page number to a survey plan of the lot that has been recorded or registered in the registry of deeds for the county in which the site is located OR
☐	☐	c. A reference by book and page number to a property description of the lot that has been recorded or registered in the registry of deeds for the county in which the site is located.
		2. Where the area subject to the AUR comprises only a portion of a lot, include both of the following:
☐	☐	a. A metes and bounds description of the restricted area and
☐	☐	b. A recordable plan, prepared by a New Hampshire registered land surveyor that shows the location of the restricted area in relation to the property boundaries of the site.
☐		3. The time period during which the AUR shall be effective.
☐		4. A precise description of the site activities and uses that will be prohibited on the site and allowed on the site.
☐		5. A description of how the restrictions will eliminate the risks to human health and the environment.
☐		6. A precise description of the measures to be taken to ensure compliance with the AUR.
☐		7. A description of the procedures to be followed when an emergency requires immediate excavation of contaminated soil to repair utility lines or other infrastructure on the site, or to respond to other emergencies that might result in a significant risk to human health, evaluated pursuant to procedure specified in Env-Or 606.19(d)(2) and (3), from exposure to contaminants at the site, which shall include: a. Notifying NHDES of such emergency condition; and b. Limiting disturbance of contaminated media to the minimum necessary to adequately respond to the emergency; and c. Undertaking specified precautions to reduce exposure of workers and neighbors of the site to contaminated media and d. Preparation and implementation of a written plan for restoring the site to a condition consistent with the AUR.
☐		8. An acknowledgement by the applicant that the AUR shall run with the land pursuant to Env-Or 608.01(b)(3).
☐		9. An analysis of the long-term feasibility of maintaining the AUR.
☐		10. An acknowledgement by the applicant to incorporate either in full or by reference to the AUR into all deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instruments conveying an interest in and/or a right to use the property pursuant to Env-Or 608.01(b)(2).
☐		11. The procedures for modifying and terminating the AUR pursuant to Env-Or 608.06 and Env-Or 608.07.
☐		

12. Title reference by which the property owner(s) acquired title to the property.
13. A schedule for self-certifying compliance with the AUR pursuant to Env-Or 608.01(e).
14. The proposed AUR document that will be recorded if the AUR application is approved, including a block for the property owner(s) notarized signature (use NHDES template).

V. AUR ISSUANCE INFORMATION

1. Within 90 days from the receipt of a complete AUR application, NHDES shall notify the applicant in writing of its decision to approve or deny the application OR notify the applicant in writing that the information submitted is not sufficient to make a decision and request additional information from the applicant.
2. NHDES shall approve and AUR application if the application contains all items required by Env-Or 608.03 and the proposed AUR is consistent with Env-Or 608.01(b).
3. An AUR that is approved by NHDES shall become effective upon recordation.
4. Within 30 days of the date NHDES approves the AUR application pursuant to Env-Or 608.02(c), the applicant shall provide notice of the AUR to current holders of any interest in the site of the existence and location of the contamination subject to the AUR. Notice sent pursuant to the above shall be on a form provided by NHDES and via certified mail, return receipt requested.
5. Within 60 days of the date on which NHDES approves the AUR application pursuant to Env-Or 608.029(c), the applicant shall sign and acknowledge the document AND record the AUR document and a site plan prepared in accordance with Env-Or 608.03(a)(2) or (a)(3), (as applicable), in the registry of deeds on the chain of title for each lot that is subject to the AUR.
6. Within 30 days of recordation, the applicant shall submit a copy of the recorded AUR document and site plan to NHDES and the governing body of the municipality in which the site is located.

VI. CERTIFICATION

To the best of my knowledge, the data and information that I have submitted to obtain the Activity and Use Restriction (AUR) from the New Hampshire Department of Environmental Services are true and correct.

Date: _____ **Signature:** _____
Permit Applicant

Name (print or type): _____

No liability is incurred by the State by reason of any approval for Groundwater Management Permits. Approval by the New Hampshire Department of Environmental Services is based on the information supplied by the applicant. No guarantee is intended or implied by reason of any advice given by NHDES or its staff.

APPENDIX J, Part 4

Self-Certification of Activity and Use Restriction

Waste Management Division
Site Remediation Programs

Env-Or 608.01(a) and Env-Or 608.01(f)

Pursuant to N.H. Administrative Rules Env-Or 608.01(a), an Activity and Use Restriction (AUR) must be implemented at each site where a remedial action approved by the New Hampshire Department of Environmental Services (NHDES) relies on the restriction of site activities and uses to achieve or maintain protection of human health and the environment. Maintaining compliance with the conditions of the AUR is essential to ensure long term effectiveness of the remedial actions.

Pursuant to Env-Or 608.01(f), the owner of record of a site that is subject to an AUR must certify that all conditions of the AUR for the site are being met. This self-certification is accomplished by completing, signing and returning this form to NHDES within 30 days after receiving it.

SUBMIT TO:

NHDES/Waste Management Division
Site Remediation Programs
Groundwater Management Permit Compliance Coordinator
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

I. SITE OR FACILITY INFORMATION

Site or Facility Name: _____

NHDES Site or Facility #: _____

Address: _____

City: _____ State: _____ Zip: _____

Tax Map: _____ Lot Number: _____

Recorded AUR: County: _____ Book and Page: _____

II. OWNER INFORMATION

Name: _____ Phone: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Email: _____ Fax: _____

III. DESCRIPTION (Please provide a brief description of contaminants remaining at the site and AUR site controls in place, e.g.; fencing, paving, building, soil cover, vegetation, marker barrier, etc.)

IV. CONDITIONS Please check (Yes, "Y" or No "N")

Y	N	
☐	☐	Are all conditions of the AUR being met? (If your answer is no, please provide a detailed explanation and what action will be taken to achieve compliance with all the conditions of the AUR.)

Y	N	
☐	☐	Have site conditions that required implementation of the AUR changed since recordation of the AUR? (If answer is yes, please describe in detail how site conditions changed and what actions will be taken to achieve compliance with the terms of the AUR.)

If detailed explanations are required for either question above, it may indicate the terms of the AUR require modification. In such a case NHDES refers the owner to the modification process requirements outlined in Env-Or 608.06.

V. CERTIFICATION

To the best of my knowledge and belief, the data and information that I have provided to the New Hampshire Department of Environmental Services under this Activity and Use Restriction (AUR) self-certification are true and correct.

Date: _____ **Signature:** _____

Name (print or type): _____ (Owner)

No liability is incurred by the State by reason of any approval for Groundwater Management Permits. Approval by the New Hampshire Department of Environmental Services is based on the information supplied by the applicant. No guarantee is intended or implied by reason of any advice given by NHDES or its staff.

APPENDIX J, Part 4

ATTACHMENT CC

OPERATIONS MONITORING AND MAINTENANCE (OMM) PLAN

Inspection Checklist

Sea Level, LLC

185-187 Wentworth Rd, Portsmouth, NH

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Stabilized Construction Entrance	Quarterly	Inspect adjacent roadway for sediment tracking Inspect gravel stone for sediment accumulation	Sweep adjacent roadways as soon as sediment is tracked Top dress with additional stone when necessary to prevent tracking	
Level Spreader (N & W End of Concrete Cap) And Concrete Cap (reinforced cement)	Quarterly	Inspect accumulated sediment level, rips, and tears; and concrete surfaces for spalling or cracks	Repair or replace damaged Sections of spreader or cap Remove and dispose of accumulated sediment once level reaches 1/3 of barrier height	
Gravel Base	Annually	Inspect gravel for ruts and depth	Replace gravel as necessary, regrade as necessary to maintain design grades, remove any accumulated gravel washed from roadway	
Litter/Trash Removal	Routinely	Inspect dumpsters, outdoor waste receptacles area, and yard areas.	Site will be free of litter/trash.	
Deicing Agents	**N/A**	**N/A**	Use agents approved by ConCom as the primary agent for roadway safety during winter.	

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirement	Maintenance Threshold	Inspection Completed? (yes/no)
Stormwater Packaged System	Annually	Check for sediment accumulation & clogging.	More than 12" sediment depth	
Grass Lined Drainage Swale, Final Cover Area (Low Occupancy)	Spring and Fall and after every 3" of rain or greater in a 24- hour period, as needed	Check for sediment buildup Check for damaged vegetation, re-seed as needed Inspect for erosion rills or channels .	Remove excess sediment and any trash/debris. Loss of vegetation > 10 % of Final Cover or Drainage Swale Loss of > 1 in of total 6 in Final Cover	
Annual Report	1 time per year	Submit Annual Report to EPA, Other agencies upon request	EPA Requirement	

Inspection Notes:

Inspector: _____

Date of Inspection: _____

Date of Repairs: _____

Repairs Verified By: _____

NHDES WPA, APPENDIX J, Part 5 — Construction Monitoring Plan

ARIES ENGINEERING

Environmental Engineers & Hydrogeologists

2021-075

October 22, 2024

CONSTRUCTION MONITORING PLAN FOR PORTSMOUTH MARINA RESTORATION PROJECT

Prepared by:
Aries Engineering, LLC
104 Pleasant Street
Concord, NH 03301
(603) 228-0008

Prepared for:
Sea Level LLC
185-187 Wentworth House Road
Portsmouth, New Hampshire 03801

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1.0 INTRODUCTION 1

1.1 Scope of Work 1

ATTACHMENTS

Attachment A: Inspection Reports

1.0 INTRODUCTION

This Construction Monitoring Plan (CMP) is needed for this project per NH DES Env-Wt 307-18, which requires a CMP to contain inspection reports, water quality reports, and a review/implementation of a project wetland planting plan which has been prepared by a certified wetland scientist. Also, a report must be generated at project completion which describes the monitoring conducted and date(s) of inspections, and includes photos showing the extent of jurisdictional impacts, areas of restoration, and progress of any plantings, along with a description of the stability of and status of the wetland system, including a description of any necessary adjustments. The CMP must also include a schedule and description of measures to be taken during construction and after completion of the project.

1.1 Scope of Work

The specific activities included in this CMP are as follows:

- Inspection reports: a checklist of initial (Week 1) and at-completion (Week 4) inspections is presented in **Attachment A**;
- Water quality reports will be also be filed using the **Attachment A** form, before and after Week 1 of dredging and restoration activities in the wetland area. Only one (1) day of dredging is anticipated in the wetland area (see **Engineering Sheets 1-7, WPA Appendix E**), to remove a maximum of 12 inches of surficial, submerged sediment, generating 8 to 11 CY of sediment via shore-based excavator with dredge attachment. Installation of the marsh grasses (see **Engineering Sheets 5-7**) will be completed within Week 1. The water quality evaluation will be qualitative in nature, observing the relative absence or presence of sediment in the over-sediment water column before and after dredging, to the extent possible. This evaluation must necessarily take into account the potentially twice daily flushing of this wetland area, assuming that the natural berm at the eastern end of this cove area is surmounted by incoming tidal water;
- The review/implementation of a project wetland planting plan in **Engineering Sheet 6** which has been prepared by a certified wetland scientist before and after installation of different vegetative types (6 to 8 FT MSL), from Week 1 installation and then monthly for the next three months until vegetation is adequately established. This frequency of inspection is also documented in Attachment A, and will serve as the report which must be generated at project completion and is required to describe the monitoring conducted and date(s) of inspections;
- Photos showing the extent of jurisdictional impacts, areas of restoration, and progress of plantings will be obtained prior to Week 1, and monthly until Month 3, assuming that period of time is adequate to establish vegetation. A qualitative evaluation of the description of the stability of and status of the wetland vegetative system, including a description of any necessary adjustments, will also be included in the **Attachment A** form.

NHDES WPA, APPENDIX K, VULNERABILITY ASSESSMENT

SECTION E. WORKSHEET AND PROJECT INVENTORY TABLE

This Worksheet and Project Inventory Table is a companion resource to be used while referencing the *New Hampshire Coastal Flood Risk Summary Part II: Guidance* for Using Coastal Flood Risk Projections (Guidance). The purpose of the Worksheet is to help decision makers work through the seven step approach for incorporating coastal flood risk projections in multiple local, state, and federal projects, including planning, regulatory, or site-specific efforts. The Guidance provides principles, step-by-step instructions, and key resources needed to fill out this Worksheet. Use of the Worksheet is voluntary. For some projects, the Worksheet will be a useful tool for decision makers working through the seven step process. For other projects, decision makers may find that only part of the Worksheet is useful, that they need to adjust the worksheet to tailor it to their project, or that they prefer to apply the Guidance to their project without using the Worksheet. Decision makers are expected to acquire additional data about their project in order to use the Guidance and complete the Worksheet.

The seven step approach recommended in the Guidance is intended for private, local, state, and federal planning, regulatory, and site-specific projects affecting or taking place in New Hampshire's 17 coastal zone municipalities, including Dover, Durham, Exeter, Greenland, Hampton, Hampton Falls, Madbury, New Castle, Newfields, Newington, Newmarket, North Hampton, Portsmouth, Rollinsford, Rye, Seabrook, and Stratham. The seven steps provide a framework to guide decision makers as they select appropriate coastal flood risk projections, begin assessing impacts of those projections, and consider actions to increase project resilience. The term "decision maker" refers broadly to project proponents, regulators, advisors, and stakeholders affected or served by a project. In the Guidance and Worksheet, project-specific considerations are provided for steps where Guidance application is likely to differ for planning, regulatory, or site-specific projects. Referenced resources that may be useful for completing the Worksheet appear at the end of each step in the Guidance. The Project Inventory Table is provided for decision makers working on detailed projects and/or projects that are broad in scale with multiple areas, facilities, structures, and/or resources to evaluate.

In order to fill out this worksheet, decision makers will need to reference the Guidance. Prior to beginning the worksheet, read the **Guidance Section A** *Purpose and Intended Use*, as well as **Guidance Section B** *Guiding Principles for Enhancing Coastal Flood Resilience*. **Guidance Section C** *Step-by-Step Approach for Selecting and Incorporating Coastal Flood Risk Projections* presents Steps 1-7 that are directly referenced throughout this Worksheet and Project Inventory Table.

BACKGROUND

B.1 Preparer name: Pete McGlew, PG

B.2 Preparer affiliation to the project: Environmental Consultant

B.3 Preparer contact information: Email pmcglew@aries-eng.com Phone 603-228-0008

B.4 Select the municipality or municipalities where the project takes place.

☐ Dover	☐ Durham	☐ Exeter	☐ Greenland	☐ Hampton	☐ Hampton Falls
☐ Madbury	☐ New Castle	☐ Newfields	☐ Newington	☐ Newmarket	☐ North Hampton
Portsmouth	☐ Rollinsford	☐ Rye	☐ Seabrook	☐ Stratham	

B.5 Date: September 30, 2024

STEP 1 DEFINE PROJECT GOAL, TYPE, LOCATION, AND TIMEFRAME(S)

See Guidance Step 1, *including Resources to Reference.*

STEP 1.1 DEFINE THE PROJECT GOAL AND PROJECT TYPE.

1.1.1 Project name: Marina Restoration Project, 187 Wentworth Rd, Portsmouth, NH

1.1.2 Project goal:

Remediate PCB waste, restore waterfront use (boat storage, marina support)

1.1.3 Identify the project beneficiaries.

Sea Level, LLC

1.1.4 Select the project type:

☐ Planning ☐ Regulatory ■ Site-specific ☐ Other: _____

1.1.5 Briefly describe the project activities.

See WPA attached

STEP 1.2 DEFINE AND INVENTORY THE PROJECT AREA.

1.2.1 Describe the project planning, regulatory, or site-specific area. If relevant (likely for site-specific projects) identify address and tax lot number.

See WPA attached, also Appendix D, Memo to NHDES 4-23-23

Optional: For detailed projects, use the Project Inventory Table, row 1, to list project sub-areas.

1.2.2 Identify important facilities, structures, and resources within the project area.

gravel upland area	tidal wetlands, shoreland	

Optional: For detailed projects, use the Project Inventory Table, row 1, to list facilities, structures, and resources.

1.2.3 Identify important access and services relevant to the project.

water, primary road direct

STEP 1.3 DEFINE THE TIMEFRAME(S) FOR THE PROJECT.

Optional: For detailed projects, use the Project Inventory Table, rows 2-3, to identify multiple timeframes.

1.3.1 Identify the planning horizon, regulatory timeframe, or useful life of the project. .083 Years

1.3.2 Identify the year when the project timeframe ends. Year: 2050

1.3.3 Identify likely incremental action points over the course of the project timeframe.

Incremental Action Point (Year)	Explanation
2037	50% design life

STEP 2 DETERMINE TOLERANCE FOR FLOOD RISK

See Guidance Step 2, *including Step 2 Table and Resources to Reference.*

STEP 2.1 IDENTIFY PROJECT CHARACTERISTICS THAT INFLUENCE TOLERANCE FOR FLOOD RISK.

2.1.1 Identify and rank characteristics of the overall project that influence tolerance for flood risk using the table provided.

Project Characteristics that Influence Tolerance for Flood Risk	Very High	High	Medium	Low	N/A	Explanation
Value or replacement cost	☐	☐	☒	☐	☐	medium cost
Capacity to adapt	☐	☐	☒	☐	☐	medium ability to adapt
Implication for public safety & function	☐	☐	☒	☐	☐	medium implication
Sensitivity to inundation	☐	☐	☒	☐	☐	medium sensitivity
Other, if applicable:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, rows 4-7, to describe tolerance for flood risk characteristics of multiple features.

STEP 2.2 DETERMINE TOLERANCE FOR FLOOD RISK APPLICABLE TO THE PROJECT.

2.2.1 The tolerance for flood risk applicable to the overall project is:

☐ High ■ Medium ☐ Low ☐ Very Low

Explanation:

meets medium criteria. Re-established marina use can be repaired relatively quickly.

Optional: For detailed projects, use the Project Inventory Table, row 8, to determine tolerance for flood risk of multiple features.

2.2.2 Consider the tolerance for flood risk of important access and services identified in Step 1.2 and possible implications for the project.

access continues directly.

2.2.3 Consider how the project goal and use of the project area may change over the course of the project timeframe and resulting changes in tolerance for flood risk.

no change anticipated

STEP 3 SELECT AND ASSESS RELATIVE SEA-LEVEL RISE (RSLR) ESTIMATE(S)

See Guidance Step 3, *including Step 3 Table A or B and Resources to Reference.*

STEP 3.1 SELECT THE RSLR ESTIMATE(S) FOR THE PROJECT.

3.1.1 Based on tolerance for flood risk and project timeframe, select the RSLR or range of RSLR estimate(s) that the project should plan to, regulate for, or design for: 1.6 feet by 2050 year from 1.3.2

3.1.2 Based on tolerance for flood risk and incremental action points, select the RSLR or range of RSLR estimate(s) that the project should make incremental plans for. (Repeat for all incremental action point years).

Incremental Action Point (Year from 1.3.3)	RSLR (feet)
2037	1,3

Optional: For detailed projects, use the Project Inventory Table, row 9, to select RSLR estimate(s) for multiple, different features.

STEP 3.2 ASSESS RSLR IMPACTS TO THE PROJECT.

Mapping tools listed in **Guidance Step 3** *may assist with Step 3.2.*

3.2.1 Identify the tidal datum used for the project.

☑ NAVD88 ☐ NGVD29 ☐ Other:

3.2.2 Select the tidal (non-storm) water reference levels that are most relevant to the project overall.

☐ Mean Lower Low Water ☐ Mean Low Water ☐ Mean Sea Level

☐ Mean High Water ☐ Mean Higher High Water ☑ Highest Observable Tide Line ☐ Other:_____

3.2.3 Calculate RSLR-adjusted elevations for the relevant tidal water reference line(s).

Tidal Water Reference Level	Present-Day Elevation (feet)	RSLR-Adjusted Elevation or Range of Elevations (feet)
Mean Lower Low Water (MLLW)	-4.62	-3.02
Mean Low Water (MLW)	-4.3	-2.7
Mean Sea Level (MSL)		
Mean High Water (MHW)	3.81	5.41
Mean Higher High Water (MHHW)	4.22	5.8
Highest Observable Tide Line (HOTL)	7.9	9.5
Other:		

3.2.4 If relevant, describe present-day sediment deposition and/or erosion dynamics at the site.

Not relevant just removing a limited zone of PCB containing sediment

3.2.5 Evaluate risks to the project from RSLR-induced increases in tidal extent, water level, current velocities, and changes in sediment deposition and/or erosion using the table provided.

Risks from RSLR-Induced:	Very High	High	Medium	Low	N/A	Explanation
Increase in tidal extent	☐	☐	☒	☐	☐	medium still allows sed removal
Increase in water level	☐	☐	☒	☐	☐	medium still allows sed removal
Increase in current velocities	☐	☐	☒	☐	☐	medium still allows sed removal
Changes in sediment deposition	☐	☐	☐	☐	☒	n/a
Changes in erosion	☐	☐	☒	☐	☐	medium still allows sed removal
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 10, to evaluate risks from RSLR-induced impacts to project features.

3.2.6 Describe how nearby landscape features and infrastructure such as undersized culverts and bridges, as well as future land use change may affect risks to the overall project from RSLR in the future.

Project interactions with RSLR and nearby landscape features and infrastructure:

nearby land use expected to continue as at present, homeowners mostly, state road parallel to site

Project interactions with RSLR and future land use change:

Limited changes in project area in past anticipated to remain in future

3.2.7 Evaluate the RSLR impacts on the overall project, natural resources, cultural and historic resources, public access, socially vulnerable populations, and other relevant project characteristics.

RSLR Impacts on:	Very High	High	Medium	Low	N/A	Explanation
Overall Project	☐	☐	☒	☐	☐	medium to low anticipated
Natural Resource	☐	☐	☒	☐	☐	medium
Cultural and Historic Resources	☐	☐	☒	☐	☐	medium to low anticipated
Socially Vulnerable Populations	☐	☐	☒	☐	☐	medium
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 11, to evaluate RSLR impacts for multiple project features.

STEP 4 IDENTIFY AND ASSESS RSLR-ADJUSTED COASTAL STORMS

See Guidance Step 4, *including Step 4 Table and Resources to Reference.*

STEP 4.1 DETERMINE RSLR-ADJUSTED DESIGN FLOOD ELEVATION (DFE).

4.1.1 If relevant, identify the Flood Design Class or classes most closely associated with the project.

☐ Class 1 ☐ Class 3 ☐ Not applicable

■ Class 2 ☐ Class 4

Optional: For detailed projects, use the Project Inventory Table, row 12, to identify Flood Design Class for multiple project features.

4.1.2 Identify the present-day coastal storm(s) relevant to the project.

■ 1% annual chance storm (100-year)

☐ 0.2% annual chance storm (500-year)

☐ Other: _____

4.1.3 Identify present-day FEMA Flood Insurance Rate Map Special Flood Hazard Area(s) flood zone(s) for the project area.

- [x] AE Zone
- [ ] AO Zone
- [ ] Coastal A Zone
- [ ] VE Zone
- [ ] X Zone
- [ ] Other: _____

4.1.4 If the project takes place in a FEMA Special Flood Hazard Area, identify the present-day Base Flood Elevation(s) (BFE) for the project area.

8 feet or [ ] No BFE

Optional: For detailed projects, use the Project Inventory Table, rows 13-14, to identify Flood Zone and BFE for multiple project features.

4.1.5 Identify any freeboard requirements or recommendations associated with the project area related to present-day coastal flood protection.

- [ ] 0 feet
- [ ] 1 foot
- [x] 2 feet
- [ ] Other: _____

Optional: For detailed projects, use the Project Inventory Table, row 15, to identify freeboard for multiple project features.

4.1.6 Identify the present-day coastal storm DFE(s) for the project. For instructions on how to calculate DFE, see **Guidance Step 4 Table**.

11.6 feet

Optional: For detailed projects, use the Project Inventory Table, row 16, to identify DFE for multiple project features.

4.1.7 For projects with no DFE or for which DFE is not applicable, describe how a present-day coastal storm might affect the project.

NA

4.1.8 Identify RSLR-adjusted DFE(s) or range of DFE that the project should plan to, regulate for, or design for. For instructions on how to calculate RSLR-adjusted DFE, see **Guidance Step 4 Table**.

11.6 feet

Optional: For detailed projects, use the Project Inventory Table, row 16, to identify RSLR-adjusted DFE for multiple project features.

STEP 4.2 ASSESS RSLR-ADJUSTED COASTAL STORM IMPACTS TO THE PROJECT.

Mapping tools listed in Guidance Step 4 *Resources to Reference may assist with Step 4.2.*

4.2.1 Evaluate risks to the project from RSLR-adjusted coastal storm induced increases in tidal extent, water level, current velocities, and changes in sediment deposition and/or erosion using the table provided.

Risks from RSLR-Adjusted Coastal Storms Resulting in:	Very High	High	Medium	Low	N/A	Explanation
Increase in flood extent	☐	☐	☒	☐	☐	Medium can time work
Increase in flood water level	☐	☐	☒	☐	☐	Medium can time work
Increase in storm current velocities	☐	☐	☒	☐	☐	Medium can time work
Changes in sediment deposition	☐	☐	☒	☐	☐	Medium can time work
Changes in erosion	☐	☐	☒	☐	☐	Medium can time work
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 18, to evaluate risks from RSLR-adjusted coastal storm impacts on project features.

4.2.2 Describe how nearby landscape features and infrastructure such as undersized culverts and bridges, as well as future land use change may affect risks to the project from RSLR-adjusted coastal storms in the future.

Project interactions with RSLR-adjusted coastal storms and nearby landscape features and infrastructure:

NA

Project interactions with RSLR-adjusted coastal storms and future land use change:

Remove limited sediment within embayment no structures in immediate project area will time work to safe conditions

4.2.3 Assess the RSLR-adjusted coastal storm impacts on the overall project, natural resources, cultural and historic resources, public access, socially vulnerable populations, and other relevant project characteristics.

RSLR-Adjusted Coastal Storm Impacts on:	Very High	High	Medium	Low	N/A	Explanation
Overall Project	☐	☐	☒	☐	☐	limited sed removal no structures
Natural Resources	☐	☐	☒	☐	☐	limited sed removal no structures
Cultural and Historic Resources	☐	☐	☒	☐	☐	limited sed removal no structures
Socially Vulnerable Populations	☐	☐	☒	☐	☐	limited sed removal no structures
Other:	☐	☐	☐	☐	☐	

Optional: For detailed approach, use the Project Inventory Table, row 19, to evaluate RSLR-adjusted coastal storm impacts for multiple project features.

STEP 5 IDENTIFY AND ASSESS RSLR-INDUCED GROUNDWATER RISE

See Guidance Step 5, *including Step 5 Table and Resources to Reference.*

STEP 5.1 IDENTIFY RSLR-INDUCED GROUNDWATER RISE FOR THE PROJECT.

5.1.1 Identify the groundwater rise mapping status for the communities associated with the project area.

☒ Mapped ☐ Unmapped ☐ Both

5.1.2 If the project area is mapped, identify the RSLR-induced groundwater rise estimate(s) or range of estimates. 1.2-2.2 feet

5.1.3 If the project area is unmapped, identify the RSLR-induced groundwater rise estimates for the project.

Commit to manage to: _____ feet and be prepared to adapt to: _____ feet.

Optional: For detailed projects, use the Project Inventory Table, rows 20-21, to identify RSLR-induced groundwater rise for project features.

STEP 5.2 ESTIMATE DEPTH TO PRESENT-DAY AND FUTURE GROUNDWATER FOR THE PROJECT AREA.

5.2.1 Estimate the present-day depth to Seasonal High Water Table (SHWT). 5 feet

Optional: For detailed projects, use the Project Inventory Table, row 22, to estimate present-day depth to SHWT for project features.

5.2.2 Determine estimated depth or range of depths to projected SHWT. 2.8-3.8 feet

Optional: For detailed projects, use the Project Inventory Table, row 23, to estimate depth to projected SHWT for project features.

STEP 5.3 EVALUATE IMPACTS OF RSLR-INDUCED GROUNDWATER RISE FOR THE PROJECT.

5.3.1 Describe risks to the overall project from RSLR-induced groundwater rise.

☐ Very High ☐ High ■ Medium ☐ Low ☐ No Risk

Explanation:

Consistent with mapped groundwater elevation the risk appears medium to this marina boat storage facility. No structures in the work limits we propose.

Optional: For detailed projects, use the Project Inventory Table, row 24, to describe risk from RSLR-induced groundwater rise on project features.

5.3.2 Assess the RSLR-induced groundwater rise impacts on the overall project, natural resources, cultural and historic resources, public access, socially vulnerable populations, and other relevant project characteristics.

RSLR-Induced Groundwater Rise Impacts on:	Very High	High	Medium	Low	N/A	Explanation
Overall Project	☐	☐	☒	☐	☐	sed removal in embayment
Natural Resources	☐	☐	☒	☐	☐	sed removal in embayment
Cultural and Historic Resources	☐	☐	☒	☐	☐	sed removal in embayment
Socially Vulnerable Populations	☐	☐	☒	☐	☐	sed removal in embayment
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 25, to evaluate RSLR-adjusted coastal storm impacts for multiple project features.

STEP 6 IDENTIFY AND ASSESS EXTREME PRECIPITATION ESTIMATES.

See Guidance Step 6, *including Step 6 Table and Resources to Reference.*

STEP 6.1 ACCOUNT FOR PROJECTED INCREASES IN EXTREME PRECIPITATION.

6.1.1 Based on tolerance for flood risk, identify the percent increase in extreme precipitation for the project.

■ 15% ☐ More than 15% Specify: _____%

Optional: For detailed projects, use the Project Inventory Table, row 26, to identify percent increase in extreme precipitation for multiple project features.

6.1.2 For projects involving hydrologic and/or hydraulic modeling, identify the following:

- Duration and recurrence interval(s) relevant to the project,
- Best available present-day extreme precipitation estimates for the selected duration and recurrence interval(s), and
- Projected extreme precipitation estimates for the selected duration and recurrence interval(s).

Duration and Recurrence Interval	Present-day Precipitation Estimate	Projected Precipitation Estimate

STEP 6.2 ASSESS PROJECTED EXTREME PRECIPITATION IMPACTS TO THE PROJECT.

For projects not involving hydrologic and/or hydraulic modeling, qualitatively assess projected extreme precipitation impacts.

For projects conducting hydrologic and/or hydraulic modeling, use modeling results to analyze projected extreme precipitation impacts.

6.2.1 Evaluate risks to the project from projected extreme precipitation using the following table.

Risks from Projected Extreme Precipitation Resulting in:	Very High	High	Medium	Low	N/A	Explanation
Increase in flood extent NA	☐	☐	☒	☐	☐	can time PCB sed removal work
Increase in flood water level	☐	☐	☒	☐	☐	can time PCB sed removal work
Increase in storm current velocities	☐	☐	☒	☐	☐	can time PCB sed removal work
Changes in sediment deposition	☐	☐	☒	☐	☐	can time PCB sed removal work
Changes in erosion	☐	☐	☒	☐	☐	can time PCB sed removal work
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 27, to evaluate risks from projected extreme precipitation for multiple project features.

6.2.2 Describe how nearby landscape features and infrastructure such as undersized culverts and bridges, as well as future land use change may affect risks to the project from projected extreme precipitation.

Project interactions with projected extreme precipitation and nearby landscape features and infrastructure:

NA

Project interactions with projected extreme precipitation and future land use, including possible changes in impervious cover:

NA

6.2.3 Assess the projected extreme precipitation impacts on the overall project, natural resources, cultural and historic resources, public access, socially vulnerable populations, and other relevant project characteristics.

Projected Extreme Precipitation Impacts on:	Very High	High	Medium	Low	N/A	Explanation
Overall Project	☐	☐	☒	☐	☐	no structures in work area, will time work
Natural Resources	☐	☐	☒	☐	☐	no structures in work area, will time work
Cultural and Historic Resources	☐	☐	☒	☐	☐	no structures in work area, will time work
Socially Vulnerable Populations	☐	☐	☒	☐	☐	no structures in work area, will time work
Other:	☐	☐	☐	☐	☐	

Optional: For detailed projects, use the Project Inventory Table, row 28, to assess projected extreme precipitation impacts on multiple project features.

STEP 7 ASSESS CUMULATIVE RISK AND EVALUATE ADAPTATION OPTIONS

See Guidance Step 7, *including Step 7 Tables A and B and Resources to Reference.*

STEP 7.1 ASSESS CUMULATIVE COASTAL FLOOD RISK TO THE PROJECT.

7.1.1 Specify, based on responses to Steps 3-6, projected coastal flood risk impacts to the overall project.

Overall future coastal flood risk impacts to the project:	Very High	High	Medium	Low	N/A
RSLR (3.2.7)	☐	☐	☒	☐	☐
RSLR-adjusted coastal storms (4.2.3)	☐	☐	☒	☐	☐
RSLR-induced groundwater rise (5.3.2)	☐	☐	☒	☐	☐
Projected extreme precipitation (6.2.3)	☐	☐	☒	☐	☐

7.1.2 Describe how the cumulative impact of multiple coastal flood risks occurring together may affect the project.

Will be able to time the limited PCB sediment removal to fair weather. No structures are in the embayment where the sediment will be removed. Upslope on land has been operating as a marina and boat storage for decades.

7.1.3 Select the coastal flood risk(s) that are most impactful to the project and explain.

☐ RSLR ☐ RSLR-adjusted coastal storms ☐ RSLR-induced groundwater rise

☐ Projected extreme precipitation ■ No coastal flood risk outweighs others

Explanation:

limited PCB sediment removal within embayment will time and work around specific issu

Optional: For detailed projects, use the Project Inventory Table, row 29, to specify coastal flood risks that are most impactful for multiple project features.

STEP 7.2 IDENTIFY AND EVALUATE POSSIBLE ADAPTATION OPTIONS TO MITIGATE COASTAL FLOOD RISK.

7.2.1 Identify adaptation options and select relevant action category(ies) for each option. Insert more rows if needed.

Option ID#	Option	Action Category				
		No Action	Avoid	Accommodate	Resist	Relocate
1	Remove limited volume PCB Seds	☒	☒	☐	☐	☐
2	Refurbish existing rirprap after sed work	☒	☒	☒	☐	☐
3		☐	☐	☐	☐	☐
4		☐	☐	☐	☐	☐
5		☐	☐	☐	☐	☐

Use the table "Framework for Evaluating Adaptation Options" on the following page to complete Steps 7.2.2-7.2.3. Insert more rows if needed.

7.2.2 Identify additional "custom" criteria to evaluate adaptation options.

7.2.3 Evaluate adaptation options against each "effectiveness," "guiding principles," and "custom" criteria.

FRAMEWORK FOR EVALUATING ADAPTATION OPTIONS													
Option ID# from 7.2.1	Action Categories from 7.2.1	Evaluation Criteria											
		EFFECTIVENESS			GUIDING PRINCIPLES						CUSTOM		
		Mitigation of Flood Risk	Meets Project Goal	Short-Term or Long-Term	Cost	Contributes to Mal-Adaptation	Effect on Socially Vulnerable Populations	Effect on Natural Resources	Effect on Cultural and Historic Resources	Effect on Public access	Custom Criteria	Custom Criteria
		High Medium Low	Yes/No	ST/LT	$/$$/$$$	Yes/No	Positive Neutral Negative	Positive Neutral Negative	Positive Neutral Negative	Positive Neutral Negative		
1	1,2	Low	Yes	ST	0$	No	Neutral	Neutral	Neutral	Neutral		
2	1,2,3	Low	Yes	ST/SLT	$10K	No	Neutral	Neutral	Neutral	Positive		
3												
4												
5												

Optional: For detailed projects, fill out this framework for each relevant column (project feature) in the Project Inventory Table.

STEP 7.3 SELECT PREFERRED OPTION(S) AND PROCEED WITH PROJECT OR REVISIT AND REVISE PREVIOUS STEPS.

7.3.1 Describe adaptation option(s) selected for the project and considerations to ensure transparent disclosure of flood risk and future actions that may be necessary to further mitigate flood risk, particularly if a flexible adaptation approach is followed.

Project adaptations are to remove the shallow PCB sediments from the embayment when there is not high precipitation, flooding, tidal surges or high velocities from wind and waves. No other adaptations are proposed.

Optional: For detailed projects, use the Project Inventory Table, row 30, to describe preferred option(s) for multiple project features.

7.3.2 Should the project proceed with the adaptation options selected, revisit and revise previous steps, or not proceed?

☐ Proceed ☐ Revisit and revise ☐ Do not proceed

PROJECT INVENTORY TABLE			1
PROJECT DEFINITION	1	Project Sub-area, Structures, Facilities, and/or Resources (list one feature per column; add columns if needed)	No structures in proposed project active area.
	2	Project Timeframe (year)	2025
	3	Incremental Action Points (year(s))	2037
TOLERANCE FOR FLOOD RISK	4	Value or Replacement Cost (very high, high, medium, or low)	Low
	5	Capacity to Adapt (very high, high, medium, or low)	Medium
	6	Importance for Public Function and/or Safety (very high, high, medium, or low)	Medium
	7	Sensitivity to Inundation (very high, high, medium, or low)	Medium
	8	Tolerance for Flood risk (high, medium, low, very low)	Medium
RELATIVE SEA-LEVEL RISE (RSLR)	9	RSLR estimate (in feet)	by 2050 =1.6 feet
	10	Notes about RSLR impacts to the project from changed tidal extent, water level, current velocities, sediment deposition, erosion	Limited impacts
	11	RSLR impact (very high, high, medium, or low)	Medium
RSLR-ADJUSTED COASTAL STORMS	12	Flood Design Class (1, 2, 3, 4)	2
	13	FEMA Flood Zone (AE, AO, Coastal A, VE, X)	AE
	14	BFE (in feet)	8
	15	Freeboard (in feet)	2
	16	DFE (in feet)	11.6
	17	RSLR-adjusted DFE (in feet)	10
	18	Notes about RSLR-adjusted coastal storm impacts from changed tidal extent, water level, current velocities, sediment deposition, erosion	v water embayment on Sagamore Creek low velocity subject to tidal storn
	19	Coastal storm impact (very high, high, medium, or low)	medium
RSLR-INDUCED GROUNDWATER RISE	20	Map status (mapped, unmapped)	Mapped
	21	RSLR-induced groundwater rise estimate (in feet)	1.2 to 2.2
	22	Present-day depth to SHWT (in feet)	5
	23	Projected depth to RSLR-adjusted SHWT (in feet)	2.8 to 3.8
	24	Notes about RSLR-induced groundwater rise impacts	Marina & boat storage work area in creek
	25	Groundwater rise impact (very high, high, medium, or low)	Medium
PROJECTED EXTREME PRECIPITATION	26	Percent increase in extreme precipitation (15% or greater)	15%
	27	Notes about projected extreme precipitation impacts	can perform work when not extreme precipitation
	28	Projected extreme precipitation impact (very high, high, medium, or low)	Medium
CUMULATIVE IMPACTS	29	Which, if any, projected coastal flood risks outweigh others in terms of impacts to the project? (RSLR, RSLR-adjusted coastal storms, RSLR-induced groundwater rise, projected extreme precipitation)	No Risk outweighs the other
	30	Use framework in worksheet (Step 7.2.3) to identify and evaluate adaptation options for each structure, facilitiy, or resource, as needed.	No structures in project area only limited sediment removal

	2	3	4	5	6
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APPENDIX L
Portsmouth Marina, 185-187 Wentworth House Road, Portsmouth, NH

L - Coastal Functional Assessment Narrative

The completed Wetland Function - Value Evaluation Form, Ecological Integrity Worksheet and list of considerations and qualifiers are provided in Attachment L2. All data screening maps are provided in Attachment J1. Table 1 provides a summary of principal functions and values for Sagamore Creek and associated salt marsh and mudflats.

1 - Ecological Integrity

In general, the function of Ecological Integrity focuses on components of the unit such as invasive plant species, extent of tidal flow, level of human disturbance and buffer characteristics. All considerations and calculations are included in Attachment L2. The maximum score is 1.00 and the minimum score is 0.10. The Ecological Integrity (EI) of the Ecological Unit (EU) for Sagamore Creek and associated salt marsh and mudflats is 0.90. Therefore, Sagamore Creek scored high for Ecological Integrity of the EU. However, the EI for the Zone of Influence (ZI), which is more focused around the project site, scored 0.30 which is a low score for the ZI.

2 – Educational Potential

This value considers the ability of the wetlands to provide educational opportunities. This site is not known to currently provide these values and the area is too small and can only be accessed over private land. Therefore, this is not a principal value for this project area.

3 - Fish and Aquatic Life Habitat

This function considers the wetlands ability to support marine resources. The estuarine wetland includes salt marshes and tidal flats that are exposed at low tide. The salt marshes and tidal flats are “special aquatic sites” and the creek provides suitable spawning habitat for small resident fish. However, desktop data indicates that Sagamore Creek is not mapped as Essential Fish Habitat (Attachment J1). There is no eelgrass mapped in Sagamore Creek and, although shellfish areas are not mapped (Attachment J1), the creek does provide the potential for shellfish habitat within the mudflats but within the cove associated with the project site. Therefore, although suitable, Fish and Aquatic Life Habitat are not a principal function of Sagamore Creek and associated mudflats. The project proposes salt marsh restoration which will only benefit the tidal system as a whole.

4 - Flood Storage

This function considers the wetland effectiveness in reducing flood damage. The salt marsh restoration area is within the 100 year floodplain and will continue to provide some storage capacity because post remediation grads will be restored to pre-remediation grades. The adjacent sloping landscape provides little flood storage. This is a principal function of Sagamore Creek but not the narrow cove associated with the proposed project. The project does not propose any impact on flood storage function.

5 - Groundwater Recharge

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

6 - Noteworthiness

This value considers the suitability of the wetlands to provide habitat for rare species. The NH NHB has identified the potential for the presence of rare species but has determined that the proposed project is not likely to have an impact on rare species. However, the proposed remediation and restoration work will be an overall benefit. The IPAC data indicates the potential presence of the endangered Northern Long-eared Bat (*Myotis septentrionalis*), threatened Red Knot (*Calidris canutus rufa*) and the endangered Roseate Tern (*Sterna dougallii dougallii*). The narrow tidal cove and previously developed tidal buffer zone associated with this project do not provide habitat for these mammal or avian species. Overall, the area surrounding the project site is suitable for rare species but this is not a principal value.

7 - Nutrient Trapping/Retention & Transformation

This function considers the wetlands ability to trap, retain or transform excess nutrients from adjacent uplands. The limited tidal marsh vegetation represents the majority of the capability to perform this function here making this a principal function. Additionally, the proposed restoration work will be an overall benefit.

8 - Production Export

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

9 - Scenic Quality

This value considers the quality of the wetland from a visual perspective. Sagamore Creek and associated wetlands have visual quality but the visibility of these areas is not present at the project site due to the narrow cove so this is not considered a principal value. The proposed project will not detract from this value. The aesthetics of the restored area will be an improvement to the existing conditions.

10 – Sediment Trapping

This function considers the wetlands ability to trap sediments. The major source of sediments come from the incoming tides and any sedimentation that occurs within the tidal wetland is natural. The tidal flushing limits the retention of toxicants and pathogens. The proposed project may protect Sagamore Creek and associated wetlands from upland toxicants or pathogen sources through the completion of the remediation work making this a principal function.

11 - Shoreline Anchoring

This function considers the ability of the wetland to maintain shoreline stability. Sagamore Creek and the project site are relatively low energy areas as indicated by the presence of mudflats and salt marshes but storm surges result in high energy flows. These areas provide for the deposition of sediments carried in by the tide making this a principal function.

12 - Uniqueness/Heritage

This value considers the wetlands with respect to local and/or geographical significance as well as the functions it provides. Sagamore Creek provides a significant number of principal functions and values to the community and the public but the project site does not offer these amenities and is therefore not a principal value. The proposed project will not impact the uniqueness or heritage of the area. Both the restoration and the remediation will be a benefit to the community.

13 – Wetland – Based Recreation

This value considers the ability of the wetlands to provide recreational opportunities. Sagamore Creek is frequently used by boaters and offers many other recreational opportunities, however; this is not the case in the narrow cove associated with the project site so recreation is not a principal value. The project will not create barriers to the recreational uses of the creek.

14 – Wetland-Dependent Wildlife Habitat

This function considers the effectiveness of the wetland to provide habitat to species particularly adapted to wetland environments. Sagamore Creek and the tidal marsh is mapped as Highest Ranked Habitat in The Wildlife Action Plan (Attachment J1). Wildlife particularly suited to wetlands are associated with the areas within Sagamore Creek. A list of observed and potential wildlife is provided with the Wetland Function - Value Evaluation Form in Attachment J1. Wildlife habitat is a suitable function of the narrow cove associated with the project site. The proposed restoration project will only serve to improve the ability of the wetlands to perform this function.

Table 1. Summary of Principal Functions and Values

Wetland ID	Cowardin Classes	Ecological Integrity	Educational Potential	Fish/ & Aquatic Life Habitat	Flood Storage	Groundwater Recharge	Noteworthiness	Nutrient Trapping/Retention & Transformation	Production Export	Scenic Quality	Sediment/Toxicant Retention	Sediment Trapping	Uniqueness/Heritage	Wetland-Based Recreation	Wetland-Based Wildlife Habitat	Wetland Description:
Wetland A	E2US3	Y	N	N	N	N	N	Y	N	N	N	Y	N	N	N	Tidal creek complex with mudflats and salt marsh. The project area includes previously disturbed salt marsh due to ongoing remediation efforts.

L1. Wetland Functional Assessment Worksheets

WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management
Wetlands Bureau

Check the Status of your Application

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

APPLICANT LAST NAME, FIRST NAME, M.I.: Sea Level LLC and Goulemas Family Trust

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

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

SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)	
ADJACENT LAND USE: Marina/ Residential	
CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? ☐ Yes ☒ No	
DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): <75 feet	
SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: Patrick Seekamp, CWS	
DATE(S) OF SITE VISIT(S): 10/01/20	DELINEATION PER ENV-WT 406 COMPLETED? ☒ Yes ☐ No
CONFIRM THAT THE EVALUATION IS BASED ON: ☒ Office and ☒ Field examination.	
METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"): ☒ USACE Highway Methodology. ☒ Other scientifically supported method (enter name/ title): Vegetated Tidal Wetlands	

SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID: A	LOCATION: (LAT/ LONG) 43.05333/70.74555
WETLAND AREA: 0.5 acres	DOMINANT WETLAND SYSTEMS PRESENT: Wetland/ Salt Marsh
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? None	COWARDIN CLASS: E2US3
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? ☐ Yes ☒ No if not, where does the wetland lie in the drainage basin? Coastal	IS THE WETLAND PART OF: ☒ A wildlife corridor or ☐ A habitat island? IS THE WETLAND HUMAN-MADE? ☐ Yes ☒ No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? ☒ Yes ☐ No	ARE VERNAL POOLS PRESENT? ☐ Yes ☒ No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? ☒ Yes ☐ No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/ DOWNGRADIENT? ☐ Yes ☒ No
PROPOSED WETLAND IMPACT TYPE: Remediation and Restoration	PROPOSED WETLAND IMPACT AREA: 410 SF, 11 CY

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

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

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

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

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

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☒ Yes ☐ No	The Ecological Integrity of the Ecological Umt{EU) is 0.90 and the Zone of Influence (Zl) is 0.30	☒ Yes ☒ No	Yes for the EU but no for the Zl.
2	☐ Yes ☒ No	None	☐ Yes ☒ No	Project is located on private commercial property.
3	☒ Yes ☐ No	1,5	☐ Yes ☒ No	Small fringe salt marsh at tip of tidal cove exposed at low tide.
4	☐ Yes ☒ No	5,9,18	☐ Yes ☒ No	Small fringe salt marsh at tip of tidal cove.
5	☐ Yes ☒ No	10,15	☐ Yes ☒ No	Tidal exchange is dominant hydrology.
6	☒ Yes ☐ No	1	☐ Yes ☒ No	NHB report states no anticipated Impact.
7	☒ Yes ☐ No	2,3,4,6,7,8,11,12	☒ Yes ☐ No	Relatively small watershed with biggest threat being residential lawns and marina operation. Point source discharge present
8	☒ Yes ☐ No	1,2,4,6,7.10,14	☐ Yes ☒ No	Assessment based on scale/slze of salt marsh fringe.
9	☐ Yes ☒ No	2,6,8	☐ Yes ☒ No	No primary viewing location available.
10	☒ Yes ☐ No	1,7,3,4,8	☒ Yes ☐ No	Small fringe salt marsh at upper reach of tidal cove.
11	☒ Yes ☐ No	1,5,6,10,11,12,13,15	☒ Yes ☐ No	Signs of erosion are present. Proposed restoration and bank stabilization will enhance this function.
12	☐ Yes ☒ No	1,2,13,22,23,31	☐ Yes ☒ No	Old marina cribbing present in wetland.
13	☐ Yes ☒ No	5,9	☐ Yes ☒ No	Private marina

14	☒ Yes ☐ No	6,8,11.13,16,17.18,19,21	☐ Yes ☒ No	

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

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

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

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

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

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

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

SECTION 6 - STREAM RESOURCES SUMMARY

DESCRIPTION OF STREAM:	STREAM TYPE (ROSGEN):
HAVE FISHERIES BEEN DOCUMENTED? ☐ Yes ☐ No	DOES THE STREAM SYSTEM APPEAR STABLE? ☐ Yes ☐ No
OTHER KEY ON-SITE FUNCTIONS OF NOTE:	

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

FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☐ Yes ☐ No		☐ Yes ☐ No	
2	☐ Yes ☐ No		☐ Yes ☐ No	
3	☐ Yes ☐ No		☐ Yes ☐ No	
4	☐ Yes ☐ No		☐ Yes ☐ No	
5	☐ Yes ☐ No		☐ Yes ☐ No	
6	☐ Yes ☐ No		☐ Yes ☐ No	
7	☐ Yes ☐ No		☐ Yes ☐ No	
8	☐ Yes ☐ No		☐ Yes ☐ No	
9	☐ Yes ☐ No		☐ Yes ☐ No	
10	☐ Yes ☐ No		☐ Yes ☐ No	
11	☐ Yes ☐ No		☐ Yes ☐ No	
12	☐ Yes ☐ No		☐ Yes ☐ No	
13	☐ Yes ☐ No		☐ Yes ☐ No	
14	☐ Yes ☐ No		☐ Yes ☐ No	

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

☒ Wildlife and vegetation diversity/abundance list.

☒ Photograph of wetland.

☒ Wetland delineation plans showing wetlands, vernal pools, and streams in relation to the impact area and surrounding landscape. Wetland IDs, vernal pool IDs, and stream IDs must be indicated on the plans.

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

4.1 Functional Assessment.

Function 1 — Ecological Integrity

Tidal marshes are among the most productive and most disturbed ecosystems in the state. It is estimated that 50% of the tidal marshes in New Hampshire have been destroyed. Of the remaining 50%, most of them have been negatively impacted by coastal development to some degree. These impacts include filling and dredging within the EU, construction of roads, railroads or other impounding structures across the surface of the marsh, and adverse land-use in the area surrounding the EU. These impacts can result in the trapping of freshwater from upland drainage, as well as restricting flow of tidal waters that flood the EU. Both of these changes can alter the water and soil chemistry, allowing the EU to be dominated by invasive plant species (e.g. common reed, purple loosestrife), which can lead to the loss of function.

The Ecological Integrity of the marsh is a measure of the extent to which the natural ecosystem has been altered. EUs that have a high Average Functional Index (AFI) for Ecological Integrity have most likely undergone little alteration or degradation. A low AFI for Ecological Integrity indicates an EU that has suffered a high degree of degradation.

This function is divided into two parts. Part A assesses the Ecological Integrity within the EU. Part B assesses the Ecological Integrity of the Zone of Influence by looking at the current condition of the area surrounding the EU. By assessing the two areas separately, the user can gain a better understanding of the factors that influence the integrity of the EU. For example, if the AFI for Part A is high and the AFI for Part B is low, then the EU is being more negatively impacted by what is happening in the Zone of Influence than by a disruption of tidal flushing or extensive damage to the EU itself.

PART A: ECOLOGICAL INTEGRITY OF THE EU

Questions that may require field observation.

Question 1A. Percent of the marsh plant community dominated by invasive plant species.

Directions — Estimate the size of the area of the EU in which plants indicative of changes in the marsh community occur. These species may include common reed (*Phragmites communis*), purple loosestrife (*Lythrum salicaria*), or narrow leaf cattail (*Typha angustifolia*) or other freshwater or upland species that do not naturally occur in tidal marsh communities (see Appendix J).

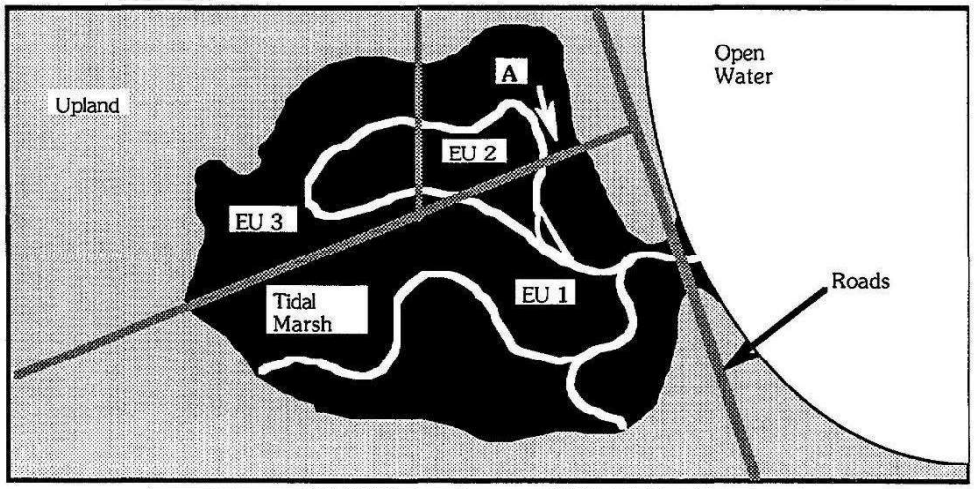
a. less than 5% of EU dominated by invasive species	1.0
b. 5% – 20% of EU dominated by invasive species	0.5
c. more than 20% of EU dominated by invasive species	0.1

Rationale — Invasive plant species may occur in the transition zone of a tidal marsh and not indicate disturbance. However, they can invade and eventually dominate disturbed tidal marshes, causing the loss of the natural diversity in the plant and animal communities. The disturbance can result from changes in drainage patterns caused by road construction, excessive development in the upland, fragmentation of the marsh system, or restriction of tidal flow.

Question 2A. Number of tidal restrictions.

Directions — Count the number of tidal restrictions from the EU to unrestricted tidal flow by the shortest route (see Figure 4-1). Do not consider the bridges over the major tidal rivers as a restriction. A list of the major tidal rivers can be found on page 12.

a. no tidal restrictions	1.0
b. one tidal restriction between EU and free tidal flow	0.5
c. more than one tidal restriction between the EU and free tidal flow	0.1



From point A in EU 2 tidal waters may flow in either direction to reach unrestricted tidal flow. To place this EU in the proper criterion, the shortest route would follow the arrow and have two man-made tidal restrictions

FIGURE 4-1 Counting Tidal Restrictions

Rationale — The restriction of seawater to, and the detention of the freshwater in the marsh can cause changes in the salinity which in turn may affect the natural plant and animal communities of the marsh. The fragmentation of the system by the construction of roads or other types of impoundments and restrictions may influence all of the functions of the marsh. The present condition of the EU may be caused by the cumulative impact of two or more sequential restrictions of tidal flow (see Appendix J).

Question 3A. Type of tidal restriction.

Directions — Identify all the tidal restrictions between the EU and unrestricted tidal waters by the shortest route (See Figure 4-1). Determine which restriction is the most severe and apply the following criteria. Be sure to consider all tidal restrictions affecting flow into the EU (see Appendix J).

a. no restriction affecting flow	1.0
b. flow through bridge appears adequate	0.5
c. flow through bridge appears inadequate and/or flow restricted by culvert(s)	0.1

Rationale —The type of tidal restriction can be one of the main causes of degradation in an EU. A bridge that spans a tidal creek may allow adequate flow in the channel, but the approaches to the bridge are usually associated with the restriction of flow across the surface of the marsh. The presence and type of flow restriction may also cause freshwater flooding in the EU during springtime runoff or major rainstorms. In marsh systems such as the Little River in North Hampton, this flooding can damage surrounding roads and buildings.

There are many types of structures that can influence the free flow of tides, ranging from jetties to culverts. Each type of restriction has different effects on the hydrology of the marsh. For example, jetties, such as those at the mouths of Rye and Hampton Harbors, affect the flow of tidal waters in and out of the marsh. The level of information that will be collected using the *Coastal Method* will not allow for the evaluation of the effects of these changes in hydrology. However, some of the restrictions are so severe that there is a direct effect on the biotic communities of the EU.

Bridges and culverts in the marsh can be of two different types. The restriction with the least effect on a marsh is a structure spanning a tidal creek from headland to headland such as the Rt. 1A bridge over Parsons Creek in Rye. The other type is a road across the surface of the marsh with bridges or culverts over tidal creeks. The construction of the road across the marsh fragments the marsh and creates impoundments which prevent the free flow of tidal waters across the surface of the marsh at the point of construction. Even if the bridge is properly sized for the creek it spans, the amount of tidal water reaching the far side of the road is limited by the presence of the road. Culverts are the most restrictive and are often associated with degraded EUs because of the limited amount of tidal flow that reaches the far side of the culvert.

Question 4A. *Ditching on the surface of the EU.*

Directions — Determine from the base map or a site visit if man-made ditches are present in the EU and in what pattern.

a. no ditching within the EU	1.0
b. ditches present in linear pattern	0.5
c. ditches present in grid pattern	0.1

Rationale — Many of the larger marshes in New Hampshire were ditched either for agricultural purposes or in an attempt to help in the control of salt marsh mosquitoes. The effects of the ditching on the integrity of a marsh are not fully understood, but there is little doubt that the ditches do affect the functioning of the EU. Many times the spoils from the ditching were left on the surface of the marsh next to the ditch, trapping water and leading to the degradation of the marsh peat. A grid pattern of ditches and the associated spoils is more likely to have a negative impact on the EU by trapping both tidal waters and freshwater drainage from the surrounding upland on the marsh surface leading to the dieback of natural tidal marsh plant communities, degradation of the marsh peat and changes in water and soil chemistry.

PART B: ECOLOGICAL INTEGRITY OF THE ZONE OF INFLUENCE

Questions that may require field observation.

Question 1B. Dominant land-use in the 500 foot Zone of Influence surrounding the EU.

Directions — Using the base map, determine the dominant land-use based on the current use of the land. The dominant land-use refers to the use which occupies the largest percentage of the Zone of Influence.

a. forested, fields, open water, or similar open space	1.0
b. agriculture or rural residential	(0.5)
c. commercial, industrial, high density residential or heavily used highways	0.1

Rationale — The *Coastal Method* assumes that marshes in areas which have low intensity use, such as forestry or open space, are least likely to have undergone past disturbances. In addition, these areas are most likely to remain undisturbed in the future.

Question 2B. Ratio of the number of occupied buildings (including seasonally occupied) within the EU or within the Zone of Influence to the total area of EU.

Directions — Count the number of occupied buildings in the EU and/or within 500 feet of the EUs edge. Use the EU area as previously determined on the base map. Express the number of occupied buildings as a ratio to the area of the EU. If an occupied structure falls half in and half out of the Zone of Influence it should be counted as being in.

$$\frac{\text{number of occupied dwellings}}{\text{total area of EU (acres)}} = \frac{\text{buildings}}{\text{acre}}$$

a. less than 0.1 building/ac.	1.0
b. from 0.1 to 0.5 building/ac.	(0.5)
c. more than 0.5 building/ac.	0.1

Rationale — Occupied buildings are an indicator of the human impact on the EU. These impacts can include increased runoff, nutrient loading from malfunctioning septic systems and use of fertilizers and increased activity in and around the EU. This activity can be detrimental to water quality and many plants and animals.

Question 3B. Percent of the EU/upland border which has a buffer of woodland or idle land at least 500 feet in width.

Directions — Using the base map, measure the total length of the EU/upland border. Then measure the length of this border which has a 500 foot buffer zone of woodland or idle land. The 500 foot buffer zone will coincide with the Zone of Influence as mapped. **Do not include those areas bordered by agricultural use**. Express the length of the buffer as a percentage of the total length of the EU/upland border.

$$\frac{\text{length of 500 foot wide undeveloped buffer}}{\text{length EU/upland border}} \times 100$$

a. more than 70%	1.0
b. from 30% to 70%	0.5
c. less than 30%	(0.1)

Rationale — A buffer zone (an uncut area of vegetation providing wildlife cover, and helping to control erosion and maintain water quality) increases the ecological integrity of a EU in several important ways. It provides habitat for upland animals, which may use a tidal marsh during parts of their life cycle, and habitat for water dependent wildlife species that require upland habitat for parts of their life cycle. The vegetation in an undisturbed buffer zone acts as a filter to absorb some of the contaminates from residential, agricultural or commercial development before they can enter the EU. During severe storm events the buffer zone can provide refuge for marsh animals to escape high winds and flooding. These undisturbed areas may also slowly evolve into tidal marsh as sea level rises. Agricultural land is not counted as a buffer zone because the application of fertilizers and pesticides can be harmful to the marsh ecosystem.

Question 4B. Square footage of roads, driveways and parking lots within 150 feet of EU.

Directions — Determine the square footage of roads, driveways and other paved areas such as parking lots within 150 feet of the EU and express it as a ratio to the area of the EU (in acres).

$$\frac{\text{square footage of roads and other paved areas (in sq. feet)}}{\text{area of EU (in acres)}}$$

a. ratio less than 1500 sq. feet/acre	1.0
b. ratio between 1500 – 6000 sq. feet/acre	0.5
c. ratio greater than 6000 sq. feet/acre	(0.1)

Rationale — Roads, driveways, parking lots, and other paved areas are the focus of considerable disturbance including noise, air pollution and polluted runoff. All of these factors can have an negative effect on populations of plant and animals within the EU.

The Ecological Integrity of the Ecological Unit is 0.90

The Ecological Integrity of the Zone of Influence is 0.30

L2: Army Corps Appendix A - List of Considerations and Qualifiers

Appendix A

Wetland evaluation supporting documentation; Reproducible forms.

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

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

CONSIDERATIONS/QUALIFIERS

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

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

CONSIDERATIONS/QUALIFIERS

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

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

CONSIDERATIONS/QUALIFIERS

1. Forest land dominant in the watershed above this wetland.
2. Abundance of cover objects present.

STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE

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

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

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

CONSIDERATIONS/QUALIFIERS

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

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

CONSIDERATIONS/QUALIFIERS

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

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.

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

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

CONSIDERATIONS/QUALIFIERS

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

4. Potential sources of excess nutrients are present in the watershed above the wetland.
5. Wetland saturated for most of the season. Ponded water is present in the wetland.
6. Deep organic/sediment deposits are present.
7. Slowly drained fine grained mineral or organic soils are present.
8. Dense vegetation is present.
9. Emergent vegetation and/or dense woody stems are dominant.
10. Opportunity for nutrient attenuation exists.
11. Vegetation diversity/abundance sufficient to utilize nutrients.

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.

12. Waterflow through this wetland is diffuse.
13. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.
14. Water moves slowly through this wetland.
15. Other

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

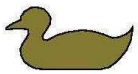
CONSIDERATIONS/QUALIFIERS

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

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

CONSIDERATIONS/QUALIFIERS

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



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

CONSIDERATIONS/QUALIFIERS

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

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

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

CONSIDERATIONS/QUALIFIERS

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

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

CONSIDERATIONS/QUALIFIERS

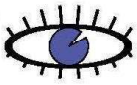
1. Wetland contains or is known to contain threatened, rare, or endangered species.
2. Little or no disturbance is occurring in this wetland.
3. Potential educational site contains a diversity of wetland classes which are accessible or potentially accessible.
4. Potential educational site is undisturbed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

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

CONSIDERATIONS/QUALIFIERS

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

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



CONSIDERATIONS/QUALIFIERS

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

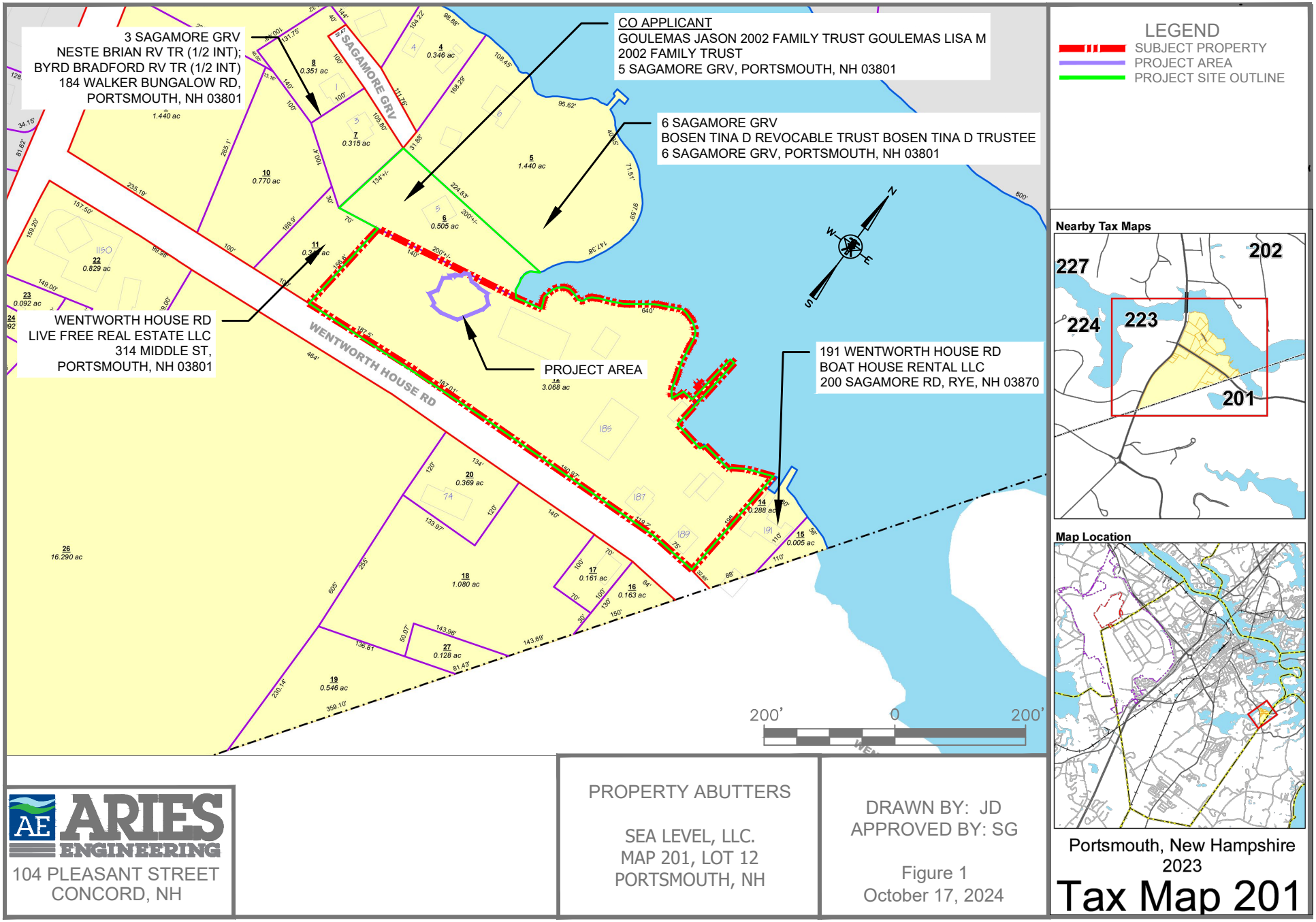
ENDANGERED SPECIES HABITAT — This value considers the suitability of the wetland to support threatened or endangered species.

ES

CONSIDERATIONS/QUALIFIERS

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

WPA APPENDIX M -- Copy of Town Tax Map, Location of Project on property, and location, name, and address of abutters, recorded deeds for site properties with book and page numbers, and copies of certified postal receipts to abutters (Per Application Checklist, NH ENV-WT 311.06, 311.12, 311.13)



LEGEND

- SUBJECT PROPERTY
- PROJECT AREA
- PROJECT SITE OUTLINE

Nearby Tax Maps

Map Location

Portsmouth, New Hampshire
2023

Tax Map 201

ARIES ENGINEERING
104 PLEASANT STREET
CONCORD, NH

PROPERTY ABUTTERS

SEA LEVEL, LLC.
MAP 201, LOT 12
PORTSMOUTH, NH

DRAWN BY: JD
APPROVED BY: SG

Figure 1
October 17, 2024

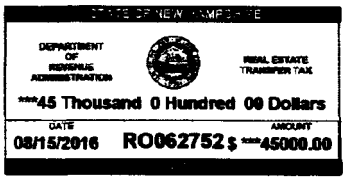
List of Abutters to Portsmouth Marina and Goulemas Properties

3 Sagamore Grove (Map 201, Lot 7)
Owners: Neste Brian Rv Tr (1/2 Int); Byrd Bradford Rv Tr (1/2 Int)
Owners Address: 184 Walker Bungalow Rd, Portsmouth, NH 03801

6 Sagamore Grove (Map 201, Lot 5)
Owners: Bosen Tina D Revocable Trust, Bosen Tina D Trustee
Owners Address: 6 Sagamore Grove, Portsmouth, NH 03801

191 Wentworth House Road (Map 201, Lot 14)
Owner: Boat House Rental LLC
Owners Address: 200 Sagamore Rd, Rye, NH 03870

Wentworth House Road (Map 201, Lot 11)
Owner: Live Free Real Estate LLC
Owners Address: 314 Middle St, Portsmouth, NH 03801



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ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

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

LEGAL DESCRIPTION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4648, Page 0685;

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

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

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

a.) By accepting this Deed, the Grantee is accepting conveyance of the premises in its "as is" condition and without Grantor's warranting compliance with any zoning, land use and other governmental laws, rules and regulations, and particularly those governing the United States Environmental Protection Agency (USEPA) and the State of New Hampshire Department of Environmental Services (NHDES); and

b.) By accepting this Deed, the Grantee is also accepting the responsibility for completing any and all USEPA and NHDES remediation requirements and will accept any Deed Notice provision they may require; and

c.) The free use of one boat slip reserved to William H. Shaheen of 140 Washington Street, Second Floor, Dover, New Hampshire, for the duration of his life, for a boat not in excess of thirty (30) feet in length, which use he can assign for the use of others during his life.

Witness my hand this 15 day of August, 2016

Witness

J.P. Nadeau

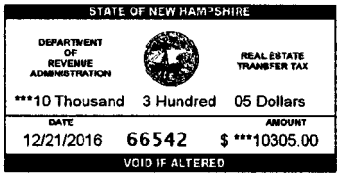
STATE OF NEW HAMPSHIRE
ROCKINGHAM COUNTY

Dated: August 15, 2016

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

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

Return to:



E 59269

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2016 Dec 21 PM 01:33

WARRANTY DEED

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

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

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

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

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

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

E 59269

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

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

Executed this 21st day of December, 2016.

Paul W. Cain Investments, LLC

Paul W. Cain
Duly authorized Member

State of New Hampshire
County of Rockingham

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

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

SANDRA J. ARCHER
MY COMMISSION EXPIRES MAR. 6, 2018
NOTARY PUBLIC
NEW HAMPSHIRE

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Aries Engineering, LLC
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CONCORD NH 03301-2902

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Dec 12 2024
Mailed from ZIP 03301
1 OZ FIRST-CLASS MAIL LETTER RATE
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063S0011718299

USPS CERTIFIED MAIL

9407 1118 9876 5452 7484 99

Brian Neste RV TR & Bradford Byrd RV TR
184 BUNGALOW ROAD
PORTSMOUTH NH 03801

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USPS CERTIFIED MAIL

9407 1118 9876 5452 7476 21

Boat House Rental LLC
200 SAGAMORE RD
RYE NH 03870-2057

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11923275

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063S0011718298

USPS CERTIFIED MAIL

9407 1118 9876 5452 7473 86

Live Free Real Estate LLC
314 MIDDLE ST
PORTSMOUTH NH 03801-5102

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Mailed from ZIP 03301
1 OZ FIRST-CLASS MAIL LETTER RATE
11923275

endicia
063S0011718298

USPS CERTIFIED MAIL

9407 1118 9876 5452 7478 74

Tina D Bosen, Trustee
6 SAGAMORE GRV
PORTSMOUTH NH 03801-5547

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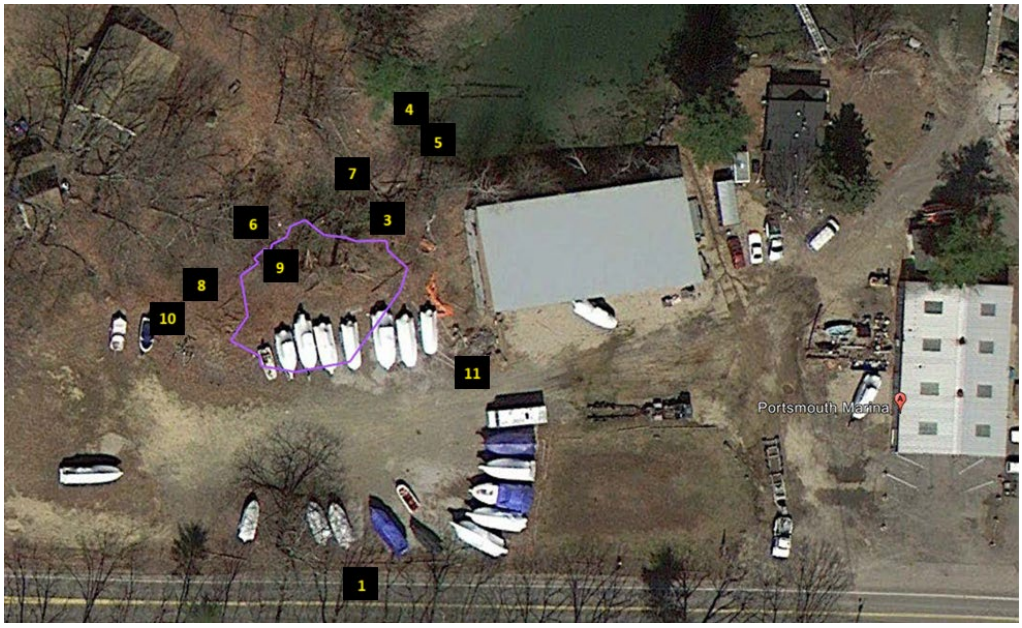
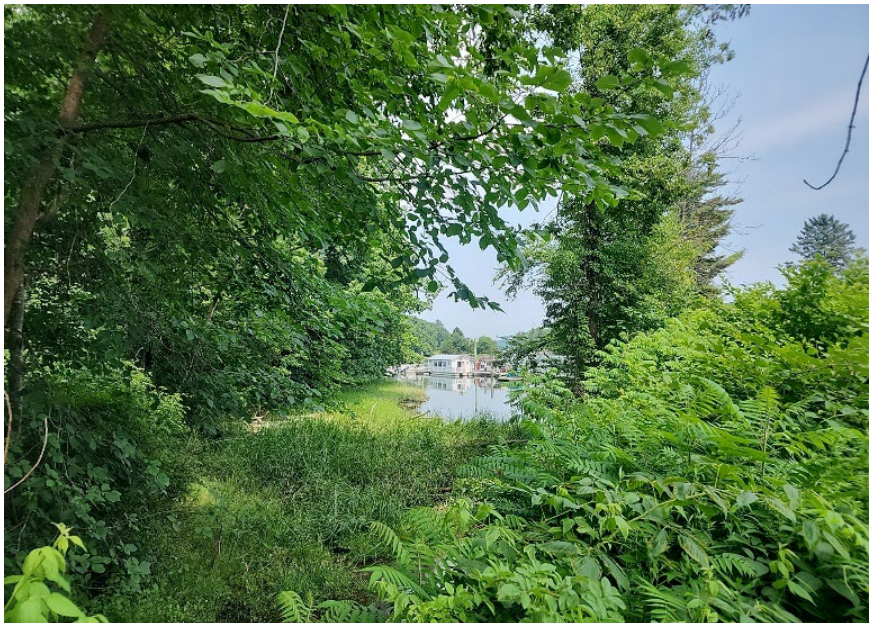
APPENDIX N - Photograph Log
Portsmouth Marina Restoration Project
187 Wentworth Hill Road
Portsmouth, New Hampshire

Photograph 1: Google Maps Street View – 187 Wentworth Road (prior to November 2021 fire destroyed 3-sided structure, work area to left of structure).



Photograph 2: April 2013 Google Earth Image – Approximate 2016-2017 PCB excavation extents outlined in purple with mapped photo key

Photograph 3a: Looking east to Sagamore Creek, east end of wetland remediation area in isolated cove in foreground, berm separates wetland remediation area from Witch Cove; April 2024



Photograph 3b: Looking east to Sagamore Creek, east end of wetland remediation area in isolated cove in foreground, berm separates wetland remediation area from Witch Cove; July 2024

Photograph 4a: Looking east, east of wetland remediation area and berm, in vicinity of cribbed retaining wall and building foundation, at right; April 2024

Photograph 4b: Looking east, east of wetland remediation area and berm, in vicinity of cribbed retaining wall and building foundation, at right; July 2024

Photograph 5a: Looking south, view of cribbed stone retaining wall, from A-10 eastward (see Sheet 5); April 2024

Photograph 5b: Looking south, view of cribbed stone retaining wall, from A-10 eastward (see Sheet 5); July 2024

Photograph 6a: Looking west to abutter at 5 Sagamore Grove at northwest end of wetland remediation area; April 2024

Photograph 6b: Looking west to abutter at 5 Sagamore Grove at northwest end of wetland remediation area; July 2024

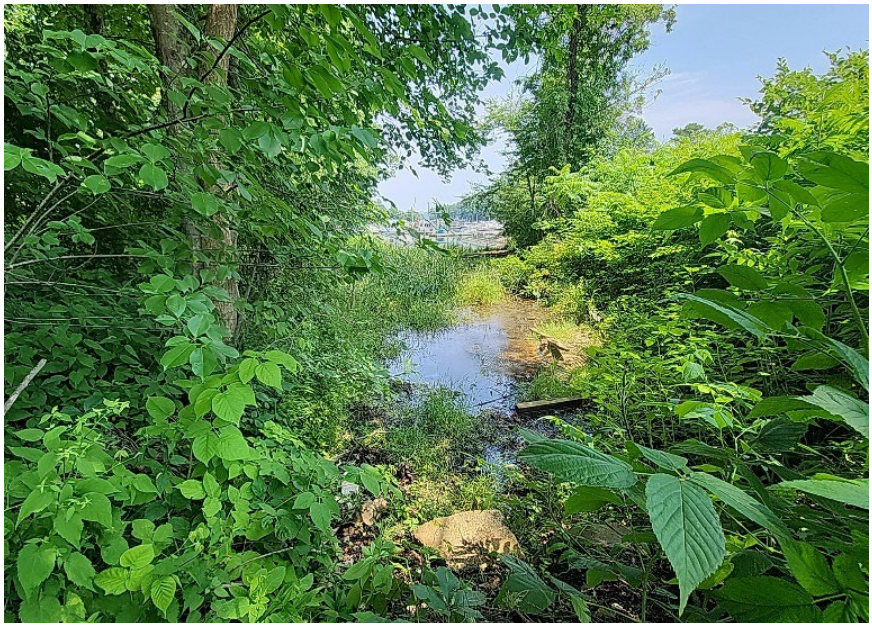
Photograph 7a: Looking north, at north end of wetland remediation area, showing highest observable tide line; April 2024

Photograph 7b: Looking north, at north end of wetland remediation area, showing highest observable tide line; July 2024

Photograph 8a: Looking east, storm drain pipe to left of rock underneath green ash tree, pipe above highest observable tide line; April 2024

Photograph 8b: Looking north, storm drain pipe underneath green ash tree, pipe above highest observable tide line; July 2024

Photograph 9a: Looking east from storm drain pipe, note eroded bank along right, shows entire wetland remediation area; April 2024



Photograph 9b: Looking east from storm drain pipe, note eroded bank along right, shows entire wetland remediation area; July 2024

Photograph 10a: Looking east, also showing south bank and upland remediation area; April 2024

Photograph 10b: Looking east, also showing south bank and upland remediation area; July 2024

Photograph 11a: Looking west, showing prior upland remediation area; April 2024

Photograph 11b: Looking west, showing prior upland remediation area; July 2024

APPENDIX O
Portsmouth Marina, 185-187 Wentworth House Road, Portsmouth, NH

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

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

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

APPLICANT'S NAME: **Tom Reis, Sea Level, LLC and Goulemas Family Trust** **TOWN NAME:** Portsmouth

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

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

PART I: AVOIDANCE AND MINIMIZATION

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

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

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

OBJECTIVE IS FINAL REMEDIATION OF PCBS INITIALLY ADDRESSED UNDER U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) APPROVAL ISSUED ON 9-9-2016 PER 40 CFR 761.61(A) (SEE 4-24-2023 MEMO TO NHDES, WPA APPENDIX D, FOR HISTORY AND REGULATORY REQUIREMENTS). THIS NEW CLEANUP OCCURRING WITHIN ZONE AE AND ADJACENT JURISDICTIONAL ZONES MUST BE UNDERTAKEN PER EPA DIRECTION TO REMOVE CONTAMINATED WETLAND SEDIMENT AND UPLAND SOILS. NO PRACTICABLE ALTERNATIVE EXISTS.

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

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

Impacts to salt marsh are direct but temporary, lasting < one month, and limited to 410 SF with the purpose of completing the remediation work. The original salt marsh disturbance under the previous remediation activities created a sump that ponds tidal flows and traps flotsam and debris within this small, narrow, blind cove. The area proposed for temporary impacts will be restored to match original grades and planted with native salt marsh vegetation to improve existing conditions to the extent possible given the tidal dynamics of the cove. The proposed native salt marsh plantings, in this area with currently limited such vegetation, will improve habitat. Under existing conditions, tidal flushing is the only contributor to nutrients for adjacent Sagamore Creek. Under proposed conditions tidal flushing will continue with the benefit of additional nutrients furnished through natural seasonal senescence (biological breakdown).

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

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

The narrow cove where work is proposed is tidally connected to Sagamore Creek. This will not change under proposed future conditions.

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

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

Proposed remediation activities limit the extent of disturbance to the absolute minimum, and have been defined by hundreds of samples analyzed by a licensed laboratory. Certain temporary (< 1 month) impacts to the following jurisdictional areas will occur: Zone AE: 410 SF; HOTL To Within 50 FT Waterfront Shoreline Buffer: 5,230 SF; HOTL to 75 FT Setback, 6,375 SF; and within 100 FT Tidal Buffer Zone, 6,375 SF. Mitigative measures are discussed in WPA Appendix J, Part 3, Narrative to Coastal Resource Worksheet and Appendix E, Engineering Plans, Sheets 1 through 7. The project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, protected species and habitat, documented fisheries, or any combination thereof, as described further in Appendix J, Coastal Resource Worksheet. Remediation methodologies are driven by site cleanup/EPA regulatory requirements.

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

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

The narrow tidal cove where work is proposed is bordered by private property, and does not currently provide public commerce, naviation or recreation opportunities nor will the proposed project provide for this. The section of Witch Cove within which work will occur lies approximately 100 feet away from the main channel of Sagamore Creek. See also Coastal Resource Worksheet.

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

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

The proposed remediation project will improve flood storage by reducing floodplain by six inches within the 175 SF remediation footprint, and also within an adjacent 235 FT area previously filled in, to total 410 SF, see Sheet 5. Vegetation to be installed above the 11 FT MSL line will retard runoff, in combination with re-engineering the drainage swale south of the cove remediation area, which will be modified to a 4% grade from its current 2:1 slope, and which drains into the remediation footprint area during precipitation events. Sheet flow runoff from the concrete cap will be controlled by two feet of 2 inch stone installed around south and west perimeter edge with underdrain routed to packaged underground stormwater treatment system to treat and intercept runoff directed from this 2% sloped pad, see Sheets 4 and 5. Also, extensive existing gravel fill immediately outside the project limits of work (Sheets 2, 5-7) is permeable, thus little runoff occurs during precipitation events. Note that a 15 inch storm drain pipe discharging into this blind cove from the state/city roadways east of and outside the project area, will be capped with a 5 ft concrete plug, once the origin of that pipe is terminated by others and approved by regulators. This will also reduce significant stormwater discharge originating during precipitation events.

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

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

There are no riverine forested wetlands or scrub-shrub-marsh complexes of high ecological integrity associated with this proposed project.

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

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

The proposed project is in and adjacent to tidal, saltwater wetlands which do not provide for drinking water or which impact groundwater aquifer levels.

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

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

The proposed project is not associated with any stream channel, but Witch Cove is tributary to tidal Sagamore Creek.

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

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

No structures over surface waters are proposed.

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

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

No new structures are proposed within waters that intrude upon the public trust. To maintain slope stabilization, and to avoid the possibililty of exposing adjacent soils containing PCBs >1<25 ppm covered by 6 inches of soil above the 11 FT MSL line, pre-existing boulders will be re-established along the eastern shoreline of the cove supplemented by 4 to 5 inch stone to create an armored rip rap from HOTL 8 FT to 11 FT MSL. The location of these boulders which have been saved are shown in the NHDES 4-26-23 Memo, WPA APPENDIX D, in photographs section and WPA, Appendix C, Wildlife Habitat photo.

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

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

No new shoreline structures are proposed so the project will not have any impact on abutting properties relative to shoreline structures nor will the the single abutter have diminished use and enjoyment of his/her property. Notification to abutter(s) has been confirmed in writing in WPA, Appendix M.

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

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

No new shoreline structures are proposed so the project will not have any impact on the public's right to navigation, passage or use of the resource for commerce or recreation.

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

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

No new shoreline structures are proposed so the proposed project will not have any impact on water quality, aquatic vegetation, wildlife or finfish habitat. However, the proposed project may be beneficial for water quality by remediating hazardous waste and, beneficial through the addition of native salt marsh vegetation where there currently is none, and minor addition of increased flood storage.

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

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

No structures are contemplated. The number of future access points through wetlands or over the bank will remain unchanged, see Sheets 5-7. The shoreline stability will be greatly enhanced as described above.

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: Army Corps of Engineers Highway Methodology and Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire was employed.
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: PATRICK SEEKAMP, CWS
DATE OF ASSESSMENT: 10 OCT 2020/CONFIRMED 202
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☒ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

APPENDIX P

Portsmouth Marina, 185-187 Wentworth House Road, Portsmouth, NH

NHDES WPA, Concurrent Review Request and Other Items (ENV WT 313.05, 311.06 (e)(g)(h)(i))

Per NH ENV Wt 313.05: because the proposed project requires both a Shoreland permit under the Shoreland Water Quality Protection Act (RSA 483-B) and a Wetlands permit under RSA 482-A, as they are proposing impacts regulated under these two statutes, the applicant is requesting that the permit applications for these permits be reviewed concurrently by the New Hampshire Department of Environmental Service (NHDES) Shoreland and Wetlands programs.

Per NH Envt Wt 311.06 (a): Maps and Other Documents: A copy of a town tax map showing the subject property, the location of the project on the property, and the location of properties of abutters with each lot labeled with the name and mailing address of the abutter is provided in **WPA Appendix M.**

Per NH Envt Wt 311.06(e): Since the project is located in a protected tidal zone, a copy of the recorded deed with book and page numbers for the property is provided as **WPA Appendix M.**

Per NH Envt Wt 311.06 (g): The NHB memo in **WPA Appendix A** contains the NHB identification number and results and recommendations from NHB as well as any consultation requests made to NHF&G pursuant to Fis 1004.01, communications and information related to the consultation, results of the consultation from NHF&G pursuant to Fis 1004.01, and any recommendation for actions necessary to prevent adverse impacts to species protected under Fis 1400.

Per NH Envt Wt 311.06 (h), (i): Regarding providing a statement of whether the applicant has received comments from the local conservation commission, or LAC, none have been received.

NHDES-W-06-075

APPENDIX Q
Portsmouth Marina, 185-187 Wentworth House Road,
Portsmouth, **N**H

TIDAL SHORELINE STABILIZATION PROJECT-SPECIFIC WORKSHEET FOR STANDARD APPLICATION

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 609

This worksheet summarizes the criteria and requirements for a Standard Permit for "Tidal Shoreline Stabilization" projects in tidal areas as outlined in Chapter Env-Wt 600. In addition to the project-specific criteria and requirements on this worksheet, all Standard Applications must meet the criteria and requirements listed in the Standard Dredge and Fill Wetlands Permit Application Form (NHDES-W-06-012) and the Coastal Resource Worksheet (NHDES-W-06-079).

SECTION 1 - APPLICATION REQUIREMENTS (Env-Wt 609.02)

Applications for tidal shoreline stabilization projects shall demonstrate that:

☒ The technique or combinations of techniques is based on best available scientific and engineering practices.

☒ The proposed technique or combination of techniques addresses:

- Results of the avoidance and minimization narrative required in Env-Wt 311.07, the avoidance, minimization and mitigation demonstration required in Env-Wt 313.03 and Env-Wt 313.04, the coastal functional assessment (CFA) required in Env-Wt 603.04, and the project design narrative required in Env-Wt 603.06,
- Any causes of erosion that can be identified,
- The degree or extent of erosion,
- Relative exposure based on shoreline geometry, shore orientation, intensity of boat traffic, influence of adjacent structures, storm surge, and extreme precipitation events,
- Potential sea-level rise and vulnerability assessment under Env-Wt 603.05,
- Potential marsh migration as a result of sea-level rise and
- The design requirements of Env-Wt 514.04.

An application for a tidal shoreline stabilization shall include the following information:

☒ Tidal shoreline stabilization shall be accomplished using living shoreline techniques, per Env-Wt 609.04(b), unless the applicant demonstrates that a living shoreline is not practicable.

Applicants proposing to install new rip-rap shall include the following information with the application:

☒ Evidence of erosion that cannot be stabilized solely with a soft stabilization design.

☒ A description of anticipated turbulence, flows, restricted space, fetch or similar factors that render vegetative and diversion methods physically impractical.

☒ An assessment of the potential for the proposed rip-rap to erode the shoreline of neighboring properties, based on an examination of the shoreline and modeling based on tides, average wave height and force, and the energy absorption of deflection or the proposed rip-rap.

☒ Specification of minimum and maximum stone sizes, existing contours and final proposed contours, the volume of rip-rap to be used, the minimum and maximum rip-rap thickness, and the type and thickness of bedding for the stone.

☒ Cross-section and plan views of the proposed installation.

☒ The relationship of the project to fixed points of reference, abutting properties, and features of the natural shoreline.

SECTION 2 - APPROVAL CRITERIA (Env-Wt 607.07; Env-Wt 607.08; Env-Wt 609.01; Env-Wt 609.09)

Applications for tidal shoreland stabilization projects shall:

☒ Maintain or enhance the natural process functions of the shoreline as the critical transition zone between the intertidal zone and upland tidal buffer zone/sand dune regimes.

☒ Provide wildlife habitat while providing protection against coastal hazards.

☒ Be compatible with the existing natural land cover and its functions.

☒ Address the known causes of erosion.

☒ Avoid adverse impacts to near shore ecosystem processes, habitats, and adjacent shoreline.

The department shall not approve any tidal shoreline stabilization plan that proposes to install new rip-rap unless the applicant demonstrates that:

☒ Anticipated turbulence, flows, restricted space, fetch or similar factors render soft stabilization methods physically impractical, and

☒ Natural areas or naturalized soft shoreline stabilization on neighboring properties will not be damaged by the placement of the proposed rip-rap, or

☒ Rip-rap is a component used as a sill to stabilize the toe, but is not the primary or dominant component of a living shoreline stabilization design.

The department shall not approve any tidal shoreline stabilization plan that proposes to install a wall unless:

☒ The wall is required to protect public infrastructure in situations where softer stabilization technique is shown to be impracticable.

SECTION 3 - DESIGN & CONSTRUCTION REQUIREMENTS (Env-Wt 609.05; Env-Wt 609.06)

Living shoreline design plans shall:

☒ Be prepared and stamped by a professional engineer and reviewed relative to delineations of wetlands and stamped by a certified wetland scientist in accordance with the "Guidance for Considering the Use of Living Shorelines" (National Oceanic and Atmospheric Administration, 2015).

☒ Be prepared to show that the project will:

- Use native vegetation, sand fill, and limited stone or wood as specified in Env-Wt 609.06 to provide shoreline stabilization and protection,
- Mimic the natural landscape and leave natural vegetation intact to the greatest extent practicable,
- If practicable, be based on the location of the highest observable tide line, water turbulence and soil conditions, add vegetation to existing sand beaches or dune or construct vegetated sand dunes,
- Design the sill to the lowest elevation possible that still ensure stabilization of the toe of the living shoreline,
- Maintain the shoreline's ability to absorb and mitigate storm impacts and adapt to the landward progression of the sea,
- Minimize or prevent wave reflection toward abutting properties,
- If space and soil conditions allow, cut back unstable banks to a flatter slope, seed and replant with native, non-invasive trees and shrubs, and
- Provide habitat for wildlife and aquatic species.

☐ Large wood debris and natural rock that is comparable to the natural-occurring rock found in the vicinity of the project may be incorporated into a soft tidal shoreline stabilization design as matrix material for a bio-engineering bank stabilization technique.

Living shoreline techniques shall be required if the project is to replace an existing stabilization structure that:

☐ Has not functioned as required by Env-Wt 609.0, or

☐ Is not an existing legal structure.

SECTION 4 - MAINTENANCE & REPAIR (Env-Wt 609.03; Env-Wt 609.08)

Applications for repair or rehabilitation of existing tidal shoreland stabilization structures shall include an analysis by the engineer or qualified coastal professional to rate the conditions of the existing structure and the purpose for the repair based on the following:

☒ The degree of damage or extent of deterioration, as applicable, such as missing components, cracking, or weeping with erosion.

☒ Whether opportunities exist to use soft bank stabilization components or a combination of soft and hard components.

☒ The ability of the structure to withstand coastal flood risk in accordance with the vulnerability assessment required by Env-Wt 603.05.

SECTION 5 - PROJECT CLASSIFICATION (Env-Wt 609.10; Env-Wt 609.11)

Refer to Env-Wt 609.10 and Env-Wt 609.11 for project classification.

NHDES-W-06-073

APPENDIX R
Portsmouth Marina, 185-187 Wentworth House Road, Portsmouth, NH

TIDAL DREDGING PROJECT-SPECIFIC WORKSHEET FOR STANDARD APPLICATION

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 607

This worksheet summarizes the criteria and requirements for a Standard Permit for "Tidal Dredging", one of the six specific project types in tidal area described in Chapter Env-Wt 600. In addition to the project-specific criteria and requirements on this worksheet, all Standard Applications must meet the criteria and requirements listed in the Standard Application form (NHDES-W-06-012) and the Coastal Resource Worksheet.

Pursuant to Env-Wt 607.01, this project type applies to:

- Maintenance and Improvement Dredging of Federal Navigation Projects (FNPs);
- New, improvement, and maintenance dredging associated with non-FNP projects that are in the direct interest of maintaining commerce for the well-being of the general public, such as shipping conveyance of fuel oil or road salt cargo and marinas; and
- Dredging that is necessary to:
  (1) Remediate contaminated sites;
  (2) Restore storm-driven sediment depositions that threaten public safety or hinder navigation; and
  (3) Maintain intake and outflow infrastructure.

SECTION 1 - APPLICATION REQUIREMENTS (Env-Wt 607.05)

An application for a tidal dredge project shall include the following details:

☒ Plans for tidal dredging projects shall include the following:

- ☐ Location of the state boundary line for projects proposed in the Piscataqua River or Salmon Falls River;
- ☒ Location of each sediment sampling location, with a key to sampling findings;
- ☒ Projected dredge prism tied to bottom contours; and
- ☒ Proposed overdredge, not to exceed 2 feet;

☒ Disposal sites adequate to contain the volume of dredged material, including the volume of allowable over-depth dredging, shall be identified;

☒ Bankward slopes of the dredged area shall be no steeper than 3:1 to ensure that sloughing of the channel side slopes does not occur;

☒ Fishery habitat functions/services in the project areas, including an essential fish habitat study, shall be identified and characterized prior to any dredge and fill activities;

☒ The impacts of dredge or fills on fishery habitat shall be identified during proposed project reviews, including alterations of hydrology and water quality as a result of the proposed project;

☒ The coastal functional assessment (CFA) required in Env-Wt 603.04 shall include an assessment of the cumulative impact from past, current, and all reasonably foreseeable future dredge and fill operations that impact aquatic habitats and an anticipated dredge cycle;

☒ Sediment from the proposed dredge site shall be characterized according to the following:

☒ Benthic analysis;

☒ Grain size; and

☒ History of exposure to contamination sources, whether from a land-based discharge source or in-water source from a spill. If the results of the sediment characterization assessment above meet the formula for potential or known contamination, then testing of the sediment in the proposed dredge location shall be as required by:

- Requirements for land-based solid or hazardous waste disposal as specified in Env-Sw 100- 2000, Env-Hw 100-1200, and Env-Or 600; and
- Regional Implementation "Manual for the Evaluation of Dredged Material Proposed for Disposal in New England Waters", US Environmental Protection Agency New England and US Army Corps of Engineers New England District, dated April 2004.

SECTION 2 - APPROVAL CRITERIA (Env-Wt 607.03)

An application for a tidal dredge project shall meet the following criteria:

☒ Dredging in tidal waters or tidal wetlands shall not be allowed unless the primary purpose of the dredging is to:

- Maintain or improve a FNP that provides a public benefit to commercial and industrial shipping, commercial fishing, existing working waterfront areas, or homeland security;
- Construct, maintain, or improve a marina, private association, or public facility; or
- Remediate contamination, remove storm-driven sediment, or maintain intake and outflow infrastructure;

☒ Dredging in tidal waters or tidal wetlands shall not be approved unless:

- The project meets standard conditions of Env-Wt 307 and avoidance and minimization techniques in Env-Wt 607.02;
- The project applicant participates in and follows guidance provided in a pre-application meeting with the department or the New Hampshire dredge management task force; and
- The project is sponsored by the state so that:
  - All applications to the department for dredging of FNPs in tidal waters or tidal wetlands are submitted by the division of ports and harbors ("DP&H") pursuant to RSA 12-G:45; and
  - All other dredging projects in tidal waters/wetlands have DP&H sponsorship or authorization for another entity, such as a municipality or private person, to act as an agent to apply for a permit from the department.

SECTION 3 - DESIGN & CONSTRUCTION REQUIREMENTS (Env-Wt 607.02; Env-Wt 607.06; Env-Wt 607.07; Env-Wt 607.08; Env-Wt 607.09)

A tidal dredge project shall be designed and constructed as follows:

☒ The footprint and volume of material to be dredged shall be reduced to the maximum extent practicable;

☒ Sequential dredging shall be used when practicable to avoid dredging activity during specific time periods in environmentally sensitive areas, to avoid turbidity and sedimentation, bottom disruption, and noise in sensitive areas used by fishery resources during spawning, migration, and egg development;

☒ Avoidance and minimization techniques require avoidance of dredging in accordance with Env-Wt 607.05 in areas of high resource value identified by the CFA, including the following resource areas:

- ☐ Areas that support shellfish beds;
- ☐ Areas with submerged aquatic vegetation, areas that historically supported submerged aquatic vegetation, historic and maintained FNP areas that exhibit high resource value, and publicly funded restoration sites;
- ☒ Intertidal and wetland habitat; or
- ☒ Estuarine/salt marshes, and other high value habitat areas, including shorebird habitat and nesting areas, essential fish habitat, and other protected species or habitat;

☐ New cable and pipeline crossings shall be aligned along the least environmentally damaging route, specifically to avoid sensitive habitats including rocky reefs, submerged aquatic vegetation, oyster reefs, shellfish beds, emergent marsh, and mud flats;

☐ Pipelines and submerged cables shall be buried where possible to avoid impacts to invertebrate migratory patterns resulting from pipe exposure;

☐ Open trenching for pipeline or cable installation shall not be used unless all other methods are not practicable. If open trenching is used, a method in which the trench is immediately backfilled shall be used to reduce the impact duration;

☐ Existing rights-of-way shall be used whenever possible to lessen overall encroachment and disturbance of coastal areas;

☒ Equipment access shall be limited to the immediate project area unless access requires use of a more environmentally sensitive access;

☒ No dredged material shall be disposed in areas containing sensitive or unique marine benthic habitats, including spawning sites, feeding sites, and surface deposits of cobble or gravel substrate;

☐ Prior to finalizing a dredge proposal, the applicant shall conduct an existing conditions bathymetric survey and submit it with the application to the department; and

☒ Prior to finalizing a dredge proposal, the applicant shall submit information regarding the current and historic presence of submerged aquatic vegetation, as documented by the CFA in Env-Wt 603.04, within and adjacent to the proposed dredging footprint.

Dredge Methods:

☐ For non-FNP projects, sediment dispersion modeling shall be done to characterize sediment resuspension and dispersion during operations, and modeling outputs shall be used to design operations, including measures to avoid and minimize impacts from suspended sediment and turbidity on living marine resources. Sediment dispersion models shall be field-verified to various sediment and hydraulic conditions to ensure they have been calibrated appropriately to predict sediment transport and dispersion; and

☒ Dredging methods shall:

- ☒ Be based on the nature of the sediment as determined by sediment characterization, results of contaminant testing, turbidity transport modeling, and resource vulnerabilities;
- ☒ Be based on suitability of existing site conditions;
- ☒ Be based on location and suitability of disposal options;
- ☒ Represent the least environmentally-impacting practicable alternative; and

☒ Be by one of the following means, listed in descending order of preference:

- Mechanical closed, or enviro, bucket dredge;
- Mechanical clamshell dredge;
- Mechanical open bucket dredge; or
- Suction dredge.

Dredging Contaminated Sites:

☒ Areas of known contamination shall not be partially dredged, leaving freshly-exposed sources of contamination to be transported by currents and dispersed into uncontaminated areas; and

☒ For sites identified as contaminated, no dredging of contaminated sediments shall be allowed without complete removal of all contaminated material.

Sedimentation Control:

☒ Dredging in fine sediments shall be avoided when possible to reduce turbidity plumes and the release of nutrients and contaminants that bind to fine particles, and

☒ All practicable methods for minimizing suspended sediment and turbidity shall be employed, including closed buckets when appropriate.

Sediment Transport and Disposal:

☒ The applicant shall include in the application an explanation of how the dredged material will be transported and off-loaded to minimize dispersion of sediments;

☒ The CFA report shall be considered when assessing the potential impact of proposed disposal locations and determining the least impacting disposal location;

☒ Sediment disposal shall not negatively impact priority resource areas;

☐ Any unavoidable negative impacts from sediment disposal shall require compensatory mitigation;

☒ The primary acceptable means of disposal for uncontaminated sediments shall be for beneficial use, such as beach nourishment, dune restoration, and shoal creation associated with living shorelines;

☐ Near-shore disposal of dredged material with the intent of creating a berm to provide a sand source for a nearby sandy beach shall be considered beneficial use;

☐ If dredged materials will not be beneficially used, the disposal location shall be:

- ☐ Appropriate to the nature of the material; and
- ☐ Identified in the application;

☒ Contaminated sediment shall be disposed of at a facility authorized to accept such material;

☐ For non-FNP requests to place dredged material in state waters, the applicant shall evaluate the site evaluation criteria developed for selection or designation of dredged material disposal sites, in accordance with 40 CFR 228 and EPA's ocean dumping program described for Region I at https://www.epa.gov/ocean-dumping/managing-ocean-dumping-epa-region-1.

SECTION 4 - PROJECT CLASSIFICATION (Env-Wt 607.10)

Removal of sediments surrounding an intake or outflow structure shall be classified as minimum impact provided:

(1) The sediments are removed by means of hand-held suction equipment;

(2) Work is limited to the immediate mouth of the structure; and

(3) The footprint of the activity does not exceed 500 square feet.

Except as provided above, all forms of dredging in tidal waters/wetlands shall be classified as major.

APPENDIX S
Portsmouth Marina, 185-187 Wentworth House Road, Portsmouth, NH

Entity	SQFT		
Buildings	931.5		
	824.1		
	474.69		
	1136.6		
	4100		
	444.85		
	103.2		
	493.22		
	1001.19		
	182.5		
	95.16		
	4799.76		
Total	14586.77		

Entity	SQFT		
Pavement	2464.64	1189.32	
		1275.32	

Entity	SQFT		
Leachfield	6684.72		
Other Permeable Surfaces (Lawn etc)	14401.8899	5036.8111	
		2015.4271	
		2405.6524	
		3441.3926	
		1204.2673	
		298.3394	
Property Boundary Area as shown in CAD File	131660.4931		3.022497 <---ACRE
Gravel, Intact Gravel, Degraded Gravel, Riprap, Current Rip Rap, Woodland, Buldings, Pavement, Permeable Areas	130642.3256		
Remaining SQFT = Water+ Saltmarsh areas	1018.1675		

Entity	SQFT		
Salt Marsh Restoration	236.12		
RipRap	471.496		
Current RipRap	130.455		
Upland Area Regrade	773.34	409.77	
		363.57	
Wetland Restoration	175.2		
Proposed Concrete	5000		
Concrete Drainage	63.32		
Intact Gravel (Red Hatch)	35006.8907	29126.6909	
		5880.1998	
Degraded Gravel (Green Hatch)	14557.6824		
Gravel Drive (Black Dots)	31973		
Woodland Blue Hatch	10364.7816	4210.3537	
		213.739	
		5940.6889	
Area Outside of 50' Offset (Part of Concrete and Gravel)	1135.11		

Sheet 5 Calcs	
Below HOTL	411.32
Hotl to 50' (Rip, Regrade, Cncrete, Drain, - Area Outside	5173.046
HOTL to 11' Elev (RipRap only)	471.496
HOTL to 75' Setback (Rip, Regrade, Cncrete, Drain)	6308.156
50' to 75' Setback (Part of Concrete and Drain)	1135.11
Within 50' Buffer (All above except 50-75 and Salt Marsh Restore	5348.246
Between 50 and 150	1135.11

Note: Tax map says property = 3.07 acres

OWNER AUTHORIZATION FOR INDIVIDUAL

I, ASHISH SANGANI,

by my signature below, hereby authorize Coakley Road EV Charging 1, LLC to
(name of applicant)

submit Planning Board/Zoning Board of Adjustment/Planning Division applications and applicable materials for presentation to City of Portsmouth Planning Department/Portsmouth Zoning Board of Adjustment/ Portsmouth Planning Board for the proposed development at:

505 US-1 Portsmouth, NH
(address of site)

(Signature)

4/9/25
(Date)

PERMIT SET

PORT INN AND SUITES
505 US-1, PORTSMOUTH, NH 03801
ELECTRIC VEHICLE CHARGING STATION

GENERAL NOTES

1. AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM/PROJECT OWNER.
2. WHEN THERE IS A CONFLICT BETWEEN THESE GENERAL NOTES AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
3. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, LOCAL ELECTRICAL CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE DRAWINGS.
4. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A CONSTRUCTION LEVEL DESIGN AND ASSOCIATED DRAWINGS AND DETAILS.
5. COORDINATE THESE DRAWINGS WITH SPECIFICATIONS AND MANUFACTURER INSTALLATION AND OPERATION MANUALS.
6. UNLESS OTHERWISE NOTED, THE DESIGN REPRESENTED ON THESE PLANS IS BASED ON THE INFORMATION AND CRITERIA LISTED IN THE "BASIS OF DESIGN" SECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION IN PREPARATION OF THE CONSTRUCTION DESIGN.
7. THE EXISTING CONDITIONS REPRESENTED ON THESE PLANS ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND THE SITE DISCOVERY SUMMARIZED IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF SUCH INFORMATION AND SUPPLEMENT WITH ANY ADDITIONAL REQUIRED INFORMATION.
8. UNLESS INDICATED AS EXISTING (E), ALL PROPOSED MATERIALS AND EQUIPMENT SHALL BE CONSIDERED TO BE NEW.
9. ALL EQUIPMENT AND COMPONENTS SHALL BE MOUNTED IN COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS, CONSTRUCTION DETAILS, AND/OR PRUDENT INDUSTRY STANDARDS.
10. TO THE EXTENT THAT TREES AND OTHER FEATURES AFFECT THE SYSTEM'S INSTALLATION, THEY WILL BE REMOVED AN REPLACED WITH LIKE-KIND WHEN POSSIBLE. IF NOT POSSIBLE CONTRACTOR TO DISCUSS SOLUTIONS WITH SITE OWNER

PROJECT SCOPE

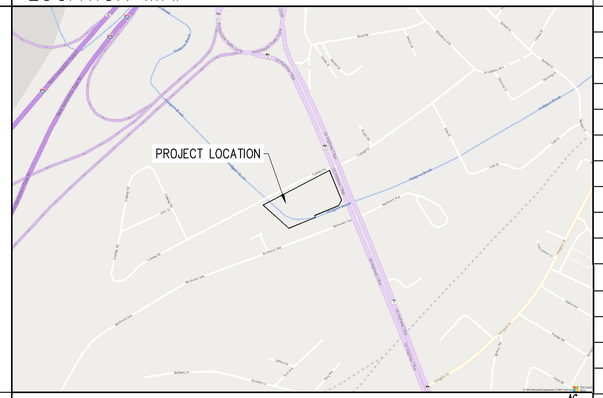
THIS PROJECT CONSISTS OF THE INSTALLATION OF AN ELECTRIC VEHICLE CHARGING STATION PER THE SYSTEM DESCRIPTION, BELOW. THE CHARGERS WILL BE INSTALLED AS SHOWN IN THE SITE PLANS ATTACHED. THE ELECTRIC VEHICLE CHARGING STATION WILL BE INTERCONNECTED WITH ITS OWN SEPARATE ELECTRICAL SERVICE.

SYSTEM DESCRIPTION

NUMBER OF CHARGING STATIONS	4
NUMBER OF CHARGING SPACES (TOTAL)	8
ACCESSIBLE CHARGING SPACES	1

*REFER TO ELECTRICAL DRAWINGS FOR SYSTEM SPECIFICATIONS.

LOCATION MAP



AERIAL VIEW

DRAWING LIST

SHEET NUMBER	SHEET TITLE
T-1.0	TITLE PAGE
SURVEY	
1 OF 1	LIMITED ALTA/NSPS LAND TITLE SURVEY
CIVIL	
C-1.0	OVERALL PLAN
C-2.0	SITE PREPARATION AND DEMOLITION PLAN
C-2.1	SITE PLAN
C-5.0	CIVIL DETAILS
C-5.1	CIVIL DETAILS
ELECTRICAL	
E-0.0	ELECTRICAL NOTES
E-1.0	AC SINGLE LINE DIAGRAM
E-2.0	PLAN DETAILS
E-3.0	ELECTRICAL SCHEDULES

APPLICABLE CODES AND STANDARDS

ALL WORK SHALL COMPLY WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY AUTHORITY HAVING JURISDICTION:
NH STATE BUILDING CODE
NH STATE ELECTRICAL CODE
NH FIRE PREVENTION REGULATIONS
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360)
AMERICAN CONCRETE INSTITUTE
AMERICANS WITH DISABILITIES ACTS DESIGN STANDARDS (ADADS)
2010 ADA DESIGN STANDARDS
U.S. ACCESS BOARD DESIGN RECOMMENDATIONS FOR ACCESSIBLE ELECTRIC VEHICLE CHARGING STATIONS TECHNICAL ASSISTANCE DOCUMENT
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
UL (UNDERWRITERS LABORATORIES, INC.) STANDARDS
CITY OF PORTSMOUTH ZONING BYLAWS

PROJECT DIRECTORY

SYSTEM / PROJECT OWNER
COAKLEY ROAD EV CHARGING 1, LLC

LAND OWNER / HOST
GIRI PORTSMOUTH 505 INC.

AUTHORITY HAVING JURISDICTION
CITY OF PORTSMOUTH
1 JUNKINS AVE, PORTSMOUTH, NH 03801

UTILITY
EVERSOURCE

APPLICANT
FIRM: COAKLEY ROAD EV CHARGING 1, LLC
CONTACT: JONATHAN SALSMAN, PE
PHONE: (800) 818-5249

CIVIL ENGINEER
FIRM: WESTON & SAMPSON ENGINEERS, INC.
CONTACT: JEFFREY W. SANTACRUCE, PE PTOE
PHONE: (978) 532-1900

ELECTRICAL ENGINEER
FIRM: LIG CONSULTANTS
CONTACT: TONY MORREALE, PE
PHONE: (508) 381-3371

BASIS OF DESIGN

ALTA/NSPS LAND TITLE SURVEY:
NORTHEAST SURVEY CONSULTANTS
FEBRUARY 7, 2025

THIS DOCUMENT IS PROVIDED BY NEW LEAF ENERGY, INC. TO FACILITATE THE SALE OF THE ELECTRIC CHARGING STATION PROJECT REPRESENTED HEREIN. REPRODUCTION, RELEASE OR UTILIZATION FOR ANY OTHER PURPOSE, WITHOUT PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.

new leaf energy
55 TECHNOLOGY DRIVE, SUITE 102
LOWELL, MA 01851
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FAX: (888) 843-6778
WWW.NEWLEAFENERGY.COM

NOT FOR CONSTRUCTION

Weston & Sampson
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150 Dow Street, Tower 4, Suite 350
Manchester, NH 03101
978.532.1900 800.SAMPSON
www.westonandsampson.com

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PORT INN AND SUITES
505 US-1
PORTSMOUTH, NH 03801

PROJECT NUMBER:
ENG24-1702

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
0	04/23/25	RWG	JWS	ISSUED FOR PERMITTING
1	05/09/25	RWG	JWS	REVISED FOR PERMITTING

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

T-1.0
TITLE PAGE

TITLE EXCEPTIONS:

The following exceptions are derived from a commitment for title insurance prepared by Stewart Title Guaranty Company, commitment #2392151, commitment date 8-7-2024.

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I – Requirements are met. **(not a survey matter)**
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof. **(not a survey matter)**
3. Discrepancies, conflicts in boundary lines, shortages in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records. **(see Significant Observations for any such matters found by this survey)**
4. Liens for taxes and assessments, which become due and payable subsequent to the date of the commitment. **(not a survey matter)**
5. IF THE INSURED PREMISES IS A CONDOMINIUM UNIT: Covenants, conditions, restrictions, reservations, easements, liens for assessments, options, powers of attorney, and limitations on title, created by the laws of the State of the insured premises or set forth in the Master Deed or Declaration of Condominium, in the related By-Laws, in the Declaration of Trust, or Site Plans and Floor Plans as duly recorded in the appropriate land records office and as the same may have been lawfully amended, and in any instrument creating the estate or interest insured by this policy. **(not a survey matter)**
6. Any inaccuracy in the area, square footage, or acreage of land described in Schedule A. The Company does not insure the area, square footage, or acreage of the land. **(not a survey matter)**
7. Water and sewer easements referred to or set forth in instruments recorded in the Rockingham County Registry of Deeds in Book 1314, Page 221. **(plotted)**
8. Utility Easement granted to New Hampshire Electric Cooperative and New England Telephone & Telegraph Company by instrument recorded at Book 1318, Page 452 of the Rockingham County Registry of Deeds. **(not plottable due to vague description)**
9. Terms and conditions of the condemnation proceedings instituted by the United States of America for the purpose of establishing a perpetual drainage easement as set forth in an instruments recorded in the Rockingham County Registry of Deeds in Book 1533, Page 216 and Book 3107, Page 950. **(plotted)**
10. Utility Easement to the State of New Hampshire as evidenced by instrument recorded at Book 2569, Page 1557 of the Rockingham County Registry of Deeds. **(not plottable due to vague description; generally covers right to install traffic signals on locus; generally area impacted is called out)**
11. Terms and conditions of Cable Television Installation and Service Agreement as set forth in an instrument recorded in the Rockingham County Registry of Deeds in Book 2769, Page 2271. **(not a survey matter)**
12. Notes, rights of way, rights, easements, restrictions, covenants, conditions and other matters depicted on a Plan recorded in the Rockingham County Registry of Deeds in Plan Number D-30041. **(said plan was used in the preparation of this survey)**
13. Commercial Mortgage, Security Agreement and Assignment of Leases and Rents from Giri Portsmouth 505 Inc to Kennebunk Savings Bank dated July 10, 2019 in the original principal amount of $5,912,000.00, recorded with said Registry at Book 6015, Page 2244. **(not a survey matter)**

SURVEY NOTES:

1: The ALTA/NSPS certification given hereon is limited to the proposed facility and access and does not cover the entire locus parcel.
2: Field survey by EDM Total Station, RTK GPS & RTK Drone.
3: The horizontal datum of this plan is the New Hampshire Coordinate System North American Datum 1983 (2011), the vertical datum is North American Vertical Datum 1988, both are based on RTK GPS observations taken on site.
4: According to Federal Emergency Management Agency maps, the entire locus parcels are located in areas designated as "Zone X" (areas of minimal flooding, no shading). Community Panel No. 33015C 0259 F – Effective Date: 1/29/2021.
5: A zoning report or letter was not provided to the surveyor, all zoning information given hereon is taken from the City of Portsmouth website. The locus parcel and all abutting parcels are located in the Gateway Corridor (G1) zoning district.
6: The locations of utility structures shown hereon are from observed field evidence only, this plan may not depict the exact location of underground utilities & does not show all of the utilities which exist within the premises surveyed. Please contact dig-safe at 1-888-344-7233 before excavation.
7: At the time of the ALTA survey there was no observed evidence of active earth moving work. At the time of the ALTA survey there was no observed evidence of building construction or building additions.
8: As allowed under Section 3.Ev and 6.B of the 2021 ALTA/NSPS Minimum Standard Detail Requirements, this survey exceeds the maximum allowable Relative Positional Precision due to the size and configuration of the surveyed property, and the relief, vegetation and improvements on the surveyed property.
9: No wetland delineations were observed or provided to the surveyor.
10: Distance to nearest intersecting street (Borthwick Avenue) is 93'±.

SIGNIFICANT OBSERVATIONS

None found.

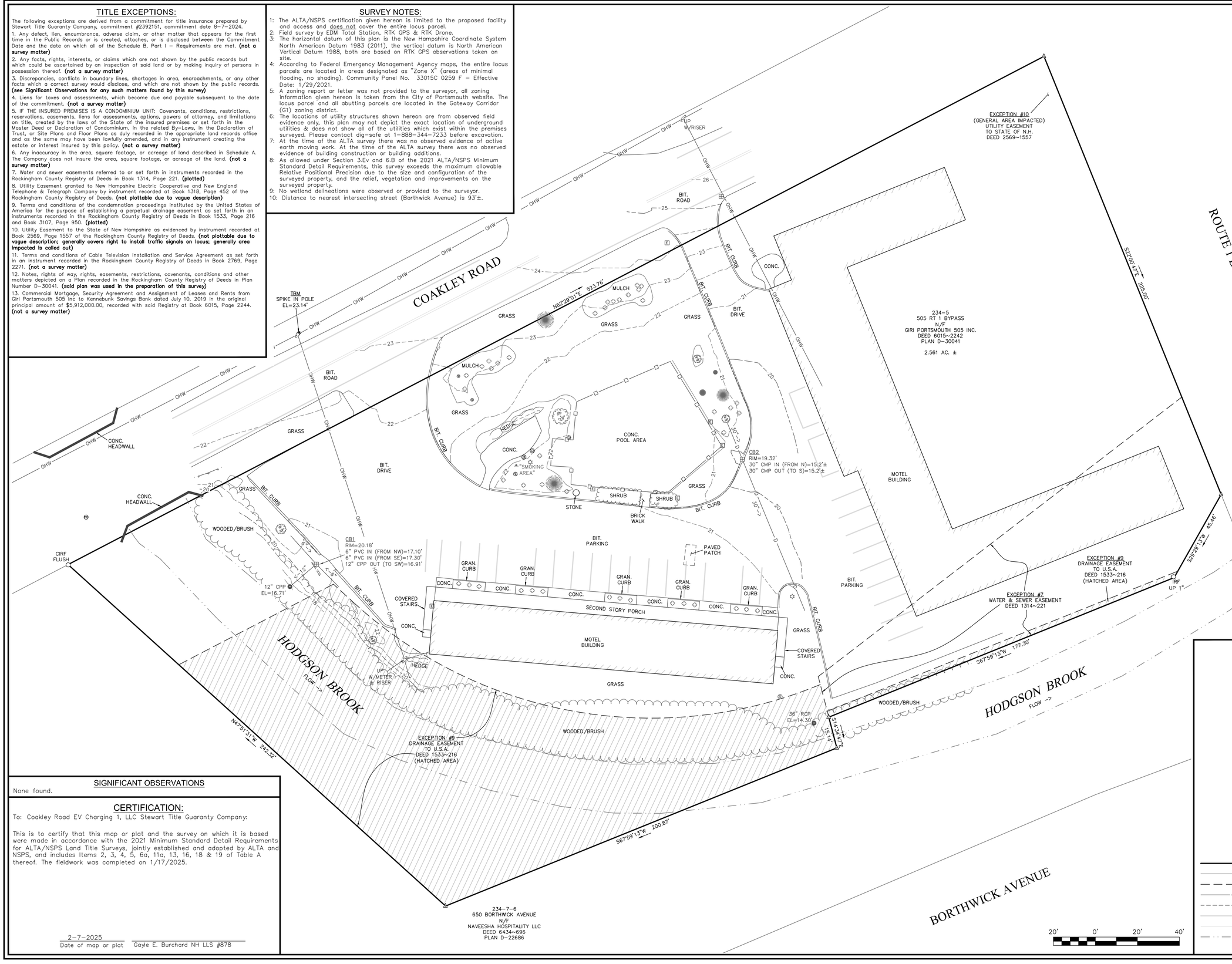
CERTIFICATION:

To: Coakley Road EV Charging 1, LLC Stewart Title Guaranty Company:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 2, 3, 4, 5, 6a, 11a, 13, 16, 18 & 19 of Table A thereof. The fieldwork was completed on 1/17/2025.

2-7-2025 — Date of map or plat

Gayle E. Burchard NH LLS #878



LEGEND:

- 234-5 ASSESSOR'S ID
- N/F NOW OR FORMERLY
- IPF/IRF ○ IRON PIPE OR ROD FOUND
- CIRF ○ CAPPED ROD FOUND
- CALCULATED POINT
- TEMPORARY BENCHMARK (TBM)
- UTILITY POLE
- GUY WIRE ANCHOR
- LIGHT POLE
- ELECTRIC BOX
- TELECOM. BOX
- PIPE INLET OR OUTLET
- CATCH BASIN
- MANHOLE
- GAS METER
- SIGN POST
- TREE
- BUSH
- LOCUS PROPERTY LINE
- ABUTTERS LINE
- EASEMENT LINE
- OHW OVERHEAD WIRES
- CONTOUR LINE
- WHITE PAINT LINE
- YELLOW PAINT LINE
- APPROX. EDGE OF WATER

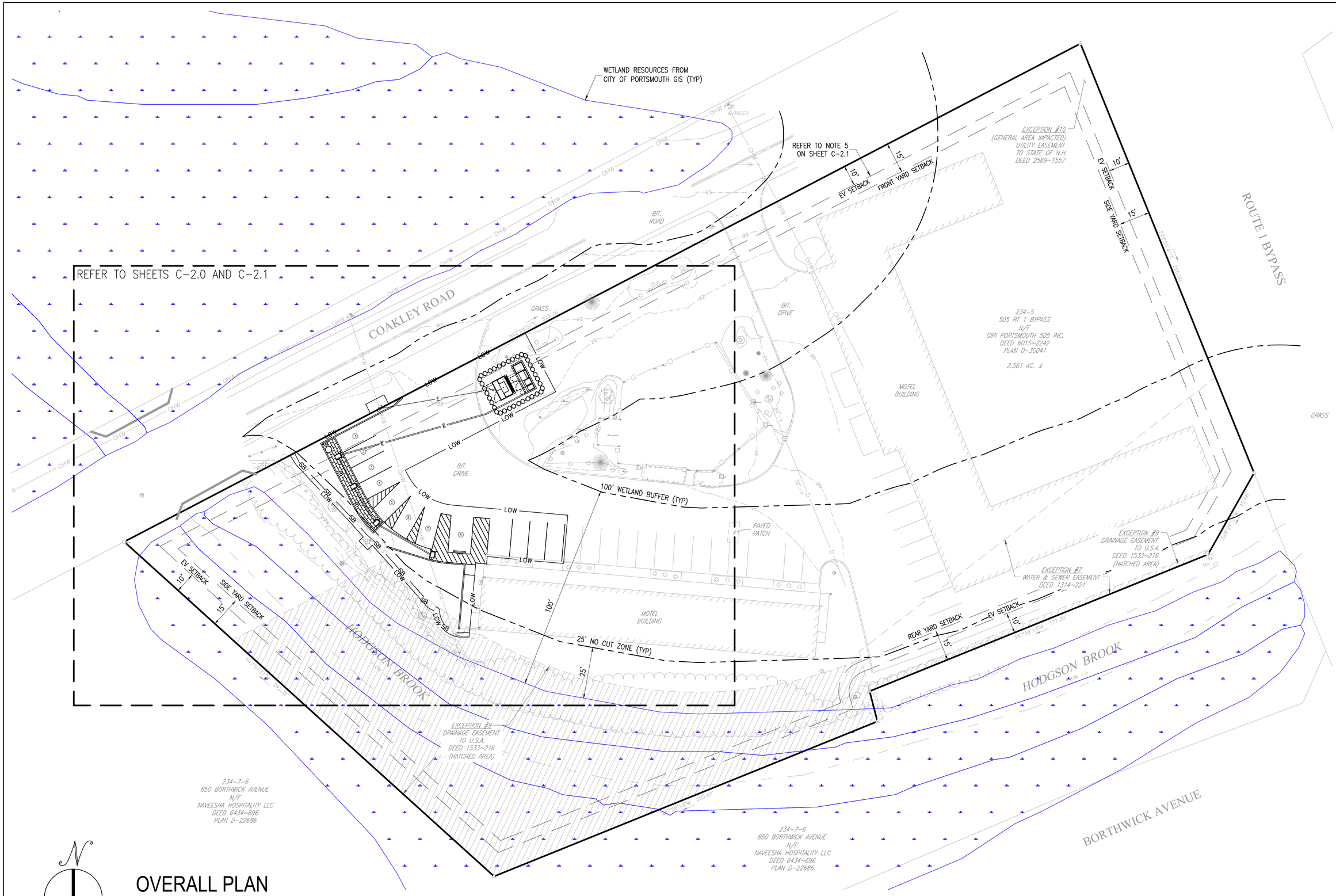
NORTHEAST SURVEY CONSULTANTS
3 FERRY STREET
STUDIO 1 EAST
EASTHAMPTON, MA 01027
(413) 203-5144

505 ROUTE 1 BYPASS

SURVEYOR:	–
DRAFTING:	–
FIELD WORK:	–
PROJECT NUMBER:	24-346
DRAWING NAME:	24-346.DWG
GEB ENGINEER:	–
JDG DESIGN:	–
MAK ESL HORZ. SCALE:	1"=20'
VERT. SCALE:	–
DATE:	2-7-2025

LIMITED ALTA/NSPS LAND TITLE SURVEY
OF LAND IN
PORTSMOUTH, NH
PREPARED FOR
COAKLEY ROAD EV CHARGING 1, LLC

SHEET NO. 1 OF 1



OVERALL PLAN

SCALE: 1" = 20'

0 20' 40'

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C-1.0
OVERALL PLAN

NOTES:
1. ALL VEGETATIVE SURFACES THAT BECOME DISTURBED FROM THE WORK SHALL BE STABILIZED WITH GRASS COVER. ALL PAVED SURFACES THAT BECOME DISTURBED FROM THE WORK SHALL BE RESTORED TO MATCH EXISTING CONDITION, UNLESS OTHERWISE SHOWN.
2. COORDINATE ANY REQUIRED REMOVAL OF EXISTING SITE FEATURES (CURBING & TREES ETC) WITH LANDOWNER.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY CONSTRUCTION FENCING AND GATES TO PROTECT WORK AREA AND MATERIAL/EQUIPMENT STORAGE. THE LOCATION OF FENCING/GATES SHALL BE COORDINATED WITH THE OWNER/ENGINEER PRIOR TO INSTALLATION. PRIVACY SLATS, IF REQUIRED BY OWNER, SHALL BE PROVIDED. SUFFICIENT SUPPORTS/BALLASTS SHALL BE PROVIDED TO ACCOUNT FOR WINDS LOADS PARTICULARLY THOSE ASSOCIATED WITH PRIVACY SLATS.

COAKLEY ROAD

TBM
SPIKE IN POLE
EL=23.14

EXISTING UTILITY POLE

EXISTING OVERHEAD LINE

OHW

BIT. ROAD

BIT. DRIVE

CONC. HEADWALL

REMOVE CURBING AND PAVEMENT WITHIN HATCHED AREAS. LOAM AND SEED DISTURBED AREAS AND STABILIZE WITH GRASS COVER, UNLESS OTHERWISE SHOWN.

LOW

SB

WOODED/BRUSH

7 / C-5.0 SEDIMENT BARRIER

11 / C-5.0 INSTALL INLET PROTECTION AS REQUIRED (TYP)

CB1
RIM=20.18'
6" PVC IN (FROM NW)=17.10'
6" PVC IN (FROM SE)=17.30'
12" CPP OUT (TO SW)=16.91'

12" CPP
EL=16.71'

EXCEPTION #9
DRAINAGE EASEMENT
TO U.S.A.
DEED 1533~216
(HATCHED AREA)

HODGSON BROOK
FLOW

CIRF
FLUSH

EV SETBACK 10'
SIDE YARD SETBACK 15'
REFER TO NOTE 5 ON SHEET C-2.1

WETLAND RESOURCES FROM CITY OF PORTSMOUTH GIS (TYP)

234-7-6
650 BORTHWICK AVENUE
N/F
NAVEESHA HOSPITALITY LLC
DEED 6434~696
PLAN D-22686

N47°51'31"W 242.32'

REFER TO NOTE 5 ON SHEET C-2.1
EV SETBACK 10'
FRONT YARD SETBACK 15'

N52°29'01"E 523.76'

MULCH
GRASS
HEDGE
CONC.
CONC. POOL AREA
"SMOKING AREA"
BIT. CURB
STONE
SHRUB
BRICK WALK

234-5
505 RT 1 BYPASS
N/F
GIRI PORTSMOUTH 505 INC.
DEED 6015~2242
PLAN D-30041
2.561 AC. ±

100' WETLAND BUFFER (TYP)

PARKING STRIPING TO BE REMOVED AND ADJUSTED (REFER TO SHEET C-2.1 FOR LAYOUT)

BIT. PARKING
GRANITE CURB
CONC.
SECOND STORY PORCH
COVERED STAIRS
DP W/ METER RISER
MOTEL BUILDING
100'
25' NO CUT ZONE (TYP)
25'
WOODED/BRUSH

SITE PREPARATION AND DEMOLITION PLAN

SCALE: 1" = 10'

0 10' 20'

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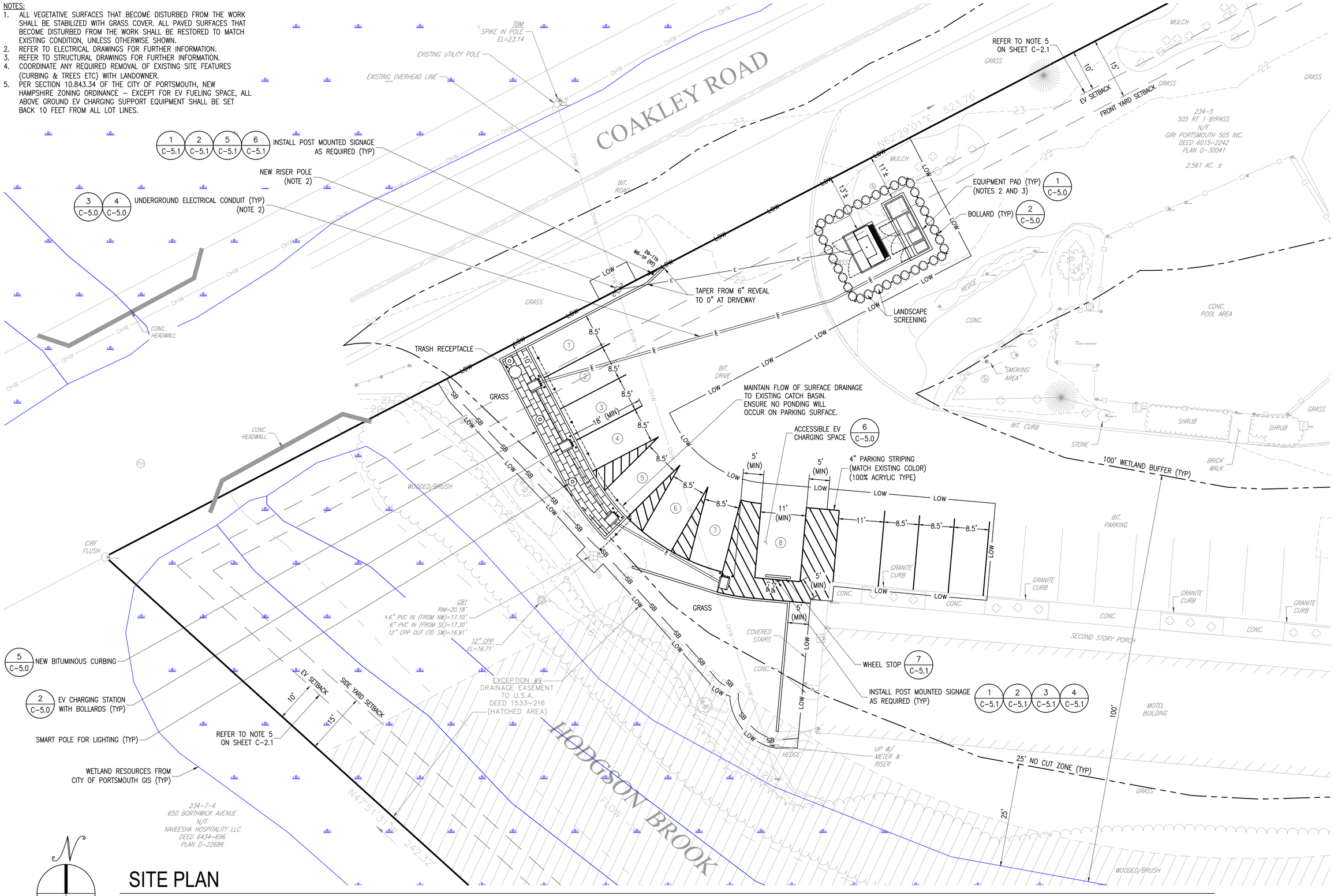
C-2.0
SITE PREPARATION AND DEMOLITION PLAN

NOTES:
1. ALL VEGETATIVE SURFACES THAT BECOME DISTURBED FROM THE WORK SHALL BE STABILIZED WITH GRASS COVER. ALL PAVED SURFACES THAT BECOME DISTURBED FROM THE WORK SHALL BE RESTORED TO MATCH EXISTING CONDITION, UNLESS OTHERWISE SHOWN.
2. REFER TO ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
3. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
4. COORDINATE ANY REQUIRED REMOVAL OF EXISTING SITE FEATURES (CURBING & TREES ETC) WITH LANDOWNER.
5. PER SECTION 10.843.34 OF THE CITY OF PORTSMOUTH, NEW HAMPSHIRE ZONING ORDINANCE – EXCEPT FOR EV FUELING SPACE, ALL ABOVE GROUND EV CHARGING SUPPORT EQUIPMENT SHALL BE SET BACK 10 FEET FROM ALL LOT LINES.



SITE PLAN

SCALE: 1" = 10'

0 10' 20'

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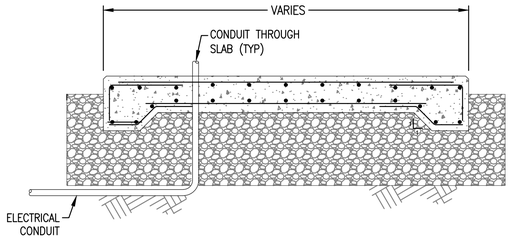
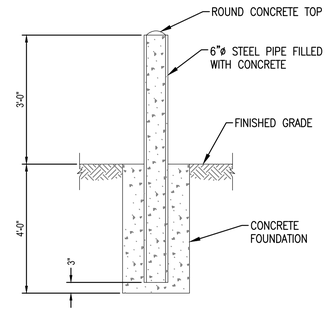
C-2.1
SITE PLAN



NOTES:
1. FINAL FOUNDATION DESIGN TO BE PROVIDED PRIOR TO CONSTRUCTION.
2. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

1 TYPICAL CONCRETE EQUIPMENT PAD SECTION

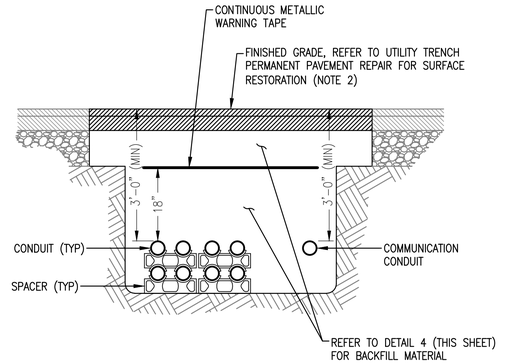
SCALE: NTS



NOTES:
1. STEEL PIPE SHALL BE GALVANIZED (2.0 OZ. ZINC/SQ. FT.) AND SHALL HAVE A MINIMUM WALL THICKNESS OF 0.322 INCHES.
2. PIPE SHALL BE PAINTED YELLOW WITH CATALYZED EPOXY PAINT.
3. INSTALL BOLLARD PER MANUFACTURER RECOMMENDATIONS.
4. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

2 BOLLARD

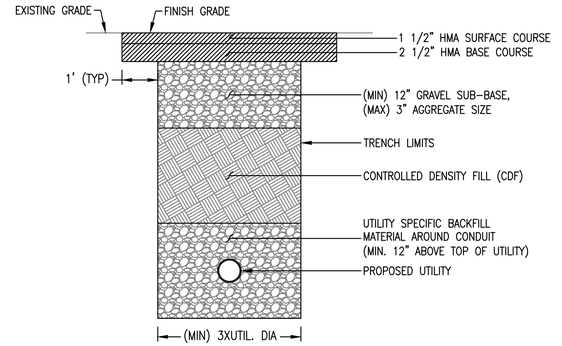
SCALE: NTS



NOTES:
1. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELECTRICAL DESIGN BY OTHERS.
2. REFER TO DETAIL 8 ON C-5.0 FOR DISTURBED AREAS OUTSIDE OF PAVEMENT.

3 TYPICAL BELOW GRADE ELECTRICAL CONDUIT

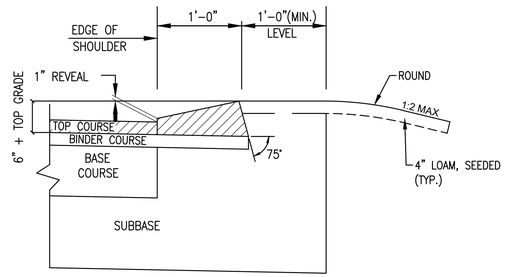
SCALE: NTS



NOTES:
1. THE EXPOSED EDGES OF ALL LONGITUDINAL AND TRANSVERSE SAW CUT JOINTS SHALL BE TREATED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALANT.
2. YELLOW METAL FOIL MARKING TAPE SHALL BE PLACED 18" OVER THE CONDUIT (METAL MARKING TAPE/WIRE SHOULD BE USED FOR NON-METALLIC CONDUIT.

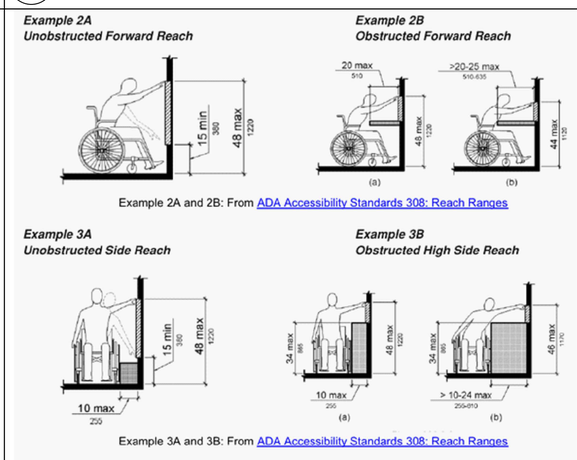
4 UTILITY TRENCH PERMANENT PAVEMENT REPAIR

SCALE: NTS



5 BITUMINOUS CURB

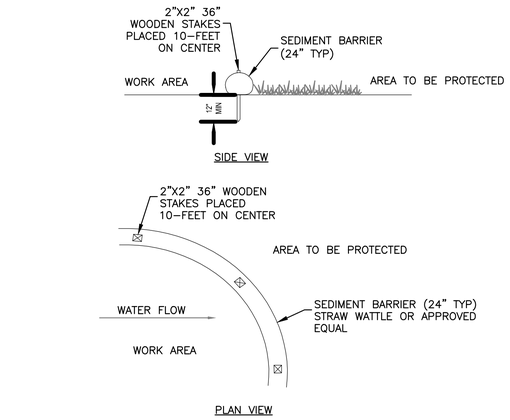
SCALE: NTS



NOTE:
1. DETAIL FROM ADA ACCESSIBILITY STANDARDS 308: REACH RANGES.

6 MINIMUM REACH RANGES

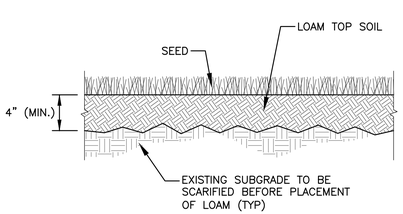
SCALE: NTS



NOTES:
1. SEDIMENT BARRIER SHALL BE PLACED AROUND THE PERIMETER OF THE LIMIT OF WORK AND SHALL BE INSTALLED PARALLEL TO EXISTING GROUND CONTOURS.
2. SEDIMENT BARRIER SHALL NOT BE PLACED UP SLOPE, OR IN A MANNER THAT WILL CREATE CHANNELIZED FLOW.
3. SEDIMENT BARRIERS SHALL BE INSPECTED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

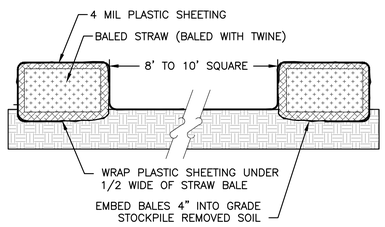
7 SEDIMENT BARRIER

SCALE: NTS



8 LOAM AND SEED DETAIL

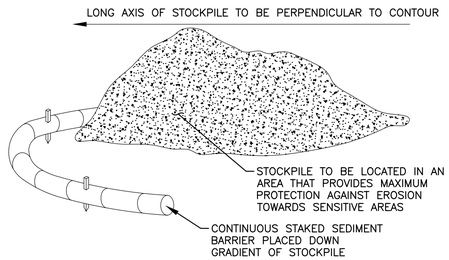
SCALE: NTS



NOTE:
1. PLASTIC SHEETING SHALL BE FREE OF TEARS OR HOLES. AFTER BASIN IS USED, WASHWATER FROM WASHOUT BASIN SHALL EVAPORATE OR BE VACUUMED OUT. REMOVE REMAINING HARDENED SOLIDS. REPLACE PLASTIC SHEETING AND STRAWBALES AS REQUIRED.

9 CONCRETE WASHOUT BASIN

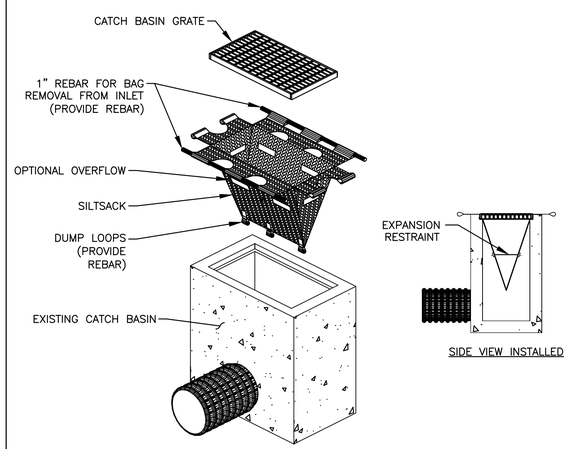
SCALE: NTS



NOTE:
1. STOCKPILE AREAS SHALL BE LOCATED OUTSIDE OF WETLANDS AND 100FT WETLAND BUFFERS AT THE SITE.

10 TEMPORARY STOCKPILE DETAIL

SCALE: NTS



11 INLET PROTECTION

SCALE: NTS

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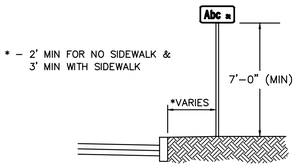
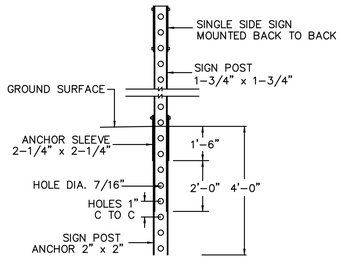
C-5.0
CIVIL DETAILS



NOTE:
1. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

1 TYPICAL SIGN INSTALLATION

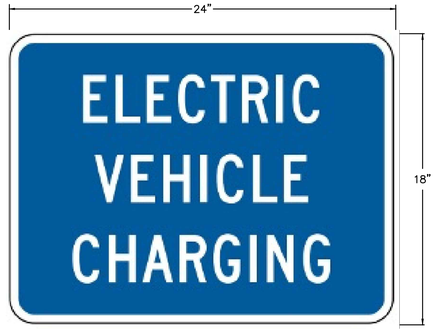
SCALE: NTS



NOTES:
1. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
2. POST SHALL MEET NHDOT REQUIREMENTS.

2 P-5 TELESCOPIC POST

SCALE: NTS



COLORS: LEGEND, BORDER – WHITE (RETROREFLECTIVE)
SYMBOL – WHITE (RETROREFLECTIVE)
BACKGROUND – BLUE (RETROREFLECTIVE)

NOTES:
1. DETAIL FROM MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. SUBMIT SIGN SPECIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

3 SIGN - SP-1 (D9-11bp)

SCALE: NTS

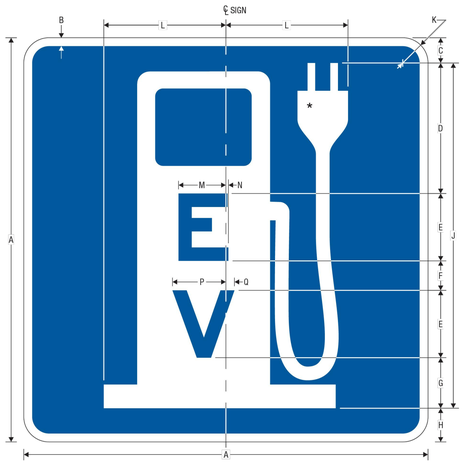
COLORS: LEGEND, BORDER – BLUE (RETROREFLECTIVE)
BACKGROUND – WHITE (RETROREFLECTIVE)

NOTES:
1. SIGN FROM U.S. ACCESS BOARD'S "DESIGN RECOMMENDATIONS FOR ACCESSIBLE ELECTRIC VEHICLE CHARGING STATIONS".
2. SUBMIT SIGN SPECIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

4 SIGN - SP-2

SCALE: NTS

D9-11b (Alternate)
Issued 4/1/2011



D9-11b (Alternate)
Electric Vehicle Charging (Alternate Symbol)

	A	B	C	D	E	F	G	H	J	K	L	M
C	24	0.5	1.5	7.75	4 E(m)	1.75	3	2	20.5	1.5	7.25	2.814
	30	0.75	1.875	9.625	5 E(m)	2	4	2.5	25.625	1.875	9.063	3.518

N	P	Q
0.148	3.174	0.507
0.185	3.968	0.635

* See page IA-13-2 for symbol design

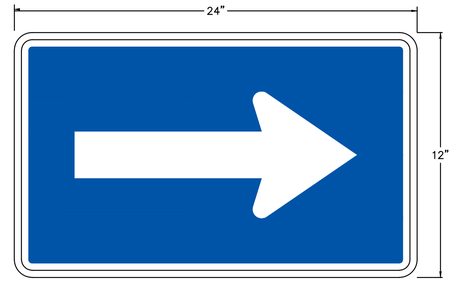
COLORS: LEGEND, BACKGROUND – BLUE (RETROREFLECTIVE)
SYMBOL, BORDER – WHITE (RETROREFLECTIVE)

IA-13-1

NOTES:
1. DETAIL FROM MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. SUBMIT SIGN SPECIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

5 SIGN - D9-11b (ALTERNATE)

SCALE: NTS

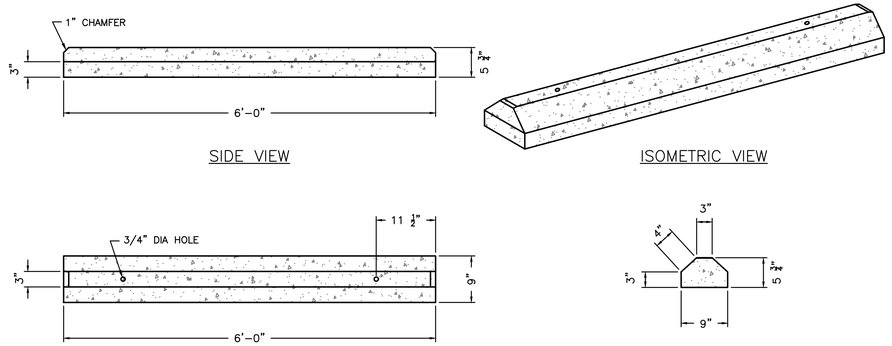


COLORS: LEGEND, BORDER – WHITE (RETROREFLECTIVE)
BACKGROUND – BLUE (RETROREFLECTIVE)

NOTES:
1. DETAIL FROM MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. SUBMIT SIGN SPECIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

6 SIGN - M6-1P

SCALE: NTS



NOTES:
1. DETAIL IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.
2. INSTALL WHEEL STOP PER MANUFACTURER RECOMMENDATIONS.

7 WHEEL STOP

SCALE: NTS

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PORTSMOUTH, NH 03801

PROJECT NUMBER:
ENG24–1702

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
0	04/23/25	RWG	JWS	ISSUED FOR PERMITTING
1	05/09/25	RWG	JWS	REVISED FOR PERMITTING

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-5.1
CIVIL DETAILS

GENERAL:

1. THE ELECTRICAL CONTRACTOR SHALL INDICATE TO THE ENGINEER OF RECORD OF ANY DISCREPANCIES WITH THE DRAWING PACKAGE WITH REGARDS TO THE SITE LAYOUT, NATIONAL ELECTRICAL CODE, AND MANUFACTURER RECOMMENDATIONS. THESE DISCREPANCIES SHALL BE PRESENTED TO THE ENGINEER OF RECORD (EOR) FOR REVIEW.
2. THESE CONTRACT DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO CONVEY THE SCOPE OF WORK, THE GENERAL ARRANGEMENT OF EQUIPMENT, CONDUITS, PANELS, FIXTURES, ETC.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND ACCESSORIES TO MAKE THIS A COMPLETE AND OPERABLE SYSTEM.
4. THE ELECTRICAL CONTRACTOR SHALL FOLLOW ALL EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND ADHERE TO ALL MANUFACTURER'S REQUIREMENTS FOR INSTALLATION.
5. ALL DOCUMENTATION PERTAINING TO THE MAJOR PIECES OF EQUIPMENT SHALL BE PROVIDED TO THE OWNER AND BE PART OF THE TURNOVER DOCUMENTATION.
6. THIS PROJECT SHALL BE IN ACCORDANCE WITH THE 2023 NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL OTHER LOCAL AND STATE LAWS AS WELL AS THE AUTHORITY HAVING JURISDICTION (AHJ).
7. INSPECTIONS BY THE AHJ AND EOR SHALL TAKE PLACE PRIOR TO ANY WORK THAT WILL BE PERMANENTLY COVERED.
8. THE EQUIPMENT AND ACCESSORIES THAT MAKE UP THIS SYSTEM SHALL BE UL LISTED AND BE USED FOR THEIR INTENDED PURPOSE.
9. CONTRACTOR TO CONFIRM EXISTING FIELD CONDITIONS AND VERIFY ALL DIMENSIONS.
10. ALL OUTDOOR EQUIPMENT SHALL BE RATED FOR OUTDOOR USE (NEMA 3R OR BETTER).
11. ALL MATERIALS PROVIDED BY THE INSTALLING CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS AND DAMAGE. ALL ELECTRICAL MATERIALS AND INSTALLATIONS SHALL MEET THE INDUSTRY STANDARDS IDENTIFIED OF THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE), AND UNDERWRITER'S LABORATORIES, INC. (UL)
12. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE AND INSTALL THE EQUIPMENT AND ACCESSORIES THAT WILL LAST THE LIFETIME OF THE SYSTEM.
13. ALL EQUIPMENT AND ACCESSORIES SHALL BE INSTALLED IN A NEAT AND WORK LIKE MANNER. ALL ENCLOSURES SHALL BE CLEANED OF ANY DEBRIS FROM INSTALLATION AND THE SURROUNDING AREA SHALL BE CLEANED AS WELL.
14. THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE PROPER PERMITS FOR THE INSTALLATION AND DISPLAY THEM AT THE JOBSITE OR AS REQUIRED BY THE AHJ.
15. THE ELECTRICAL CONTRACTOR SHALL PERFORM INSULATION RESISTANCE TESTING ON ALL WIRING TO ENSURE THE INTEGRITY OF THE INSULATION IS GOOD FOR IN SERVICE USE. DOCUMENTATION SHALL BE PROVIDED WITH THE RESULTS OF THIS TESTING.
16. ALL EQUIPMENT AND MATERIALS SHALL BE MAINTAINED AND PROTECTED FROM DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER.
17. ENERGIZING THE SITE SHALL NOT BE DONE UNTIL ALL PARTIES HAVE REVIEWED THE INSTALLATION AND ARE SATISFIED WITH THE PRODUCT.
18. ALL EQUIPMENT OPENINGS SHALL BE SEALED TO PREVENT THE INGRESS OF WATER OR RODENTS.
19. SUBMITTALS SHALL BE PROVIDED FOR ALL ELECTRICAL EQUIPMENT AND MATERIALS THAT WILL BE USED FOR THE INSTALLATION.
20. PRIOR TO ANY EXCAVATION DIG SAFE MUST BE CONTACTED.
21. ALL EQUIPMENT SHALL BE INSTALLED TO MAINTAIN PROPER WORKING DISTANCES.

SAFETY:

1. PROPER ELECTRICAL SAFETY SHALL BE EMPLOYED BY THE ELECTRICAL CONTRACTOR.
2. THE ELECTRICAL CONTRACTOR SHALL USE THEIR OWN COMPANY SAFETY PROGRAM IN ADDITION TO ANY SPECIFIC REQUIREMENTS FROM THE OWNER.
3. DURING AND AFTER COMMISSIONING THE CONTRACTOR SHALL MAINTAIN CONTROL OF THE SITE ELECTRICAL SYSTEM UNTIL THE PROJECT HAS BEEN FORMAL TURNED OVER TO THE OWNER.
4. PROPER PROCEDURES AND SAFETY MEASURES SHALL BE TAKEN TO PREVENT ANY WORKER FROM COMING IN CONTACT WITH ANY LIVE ELECTRICAL PARTS.
5. ALL FUSES, DISCONNECTS, AND CIRCUIT BREAKERS SHALL BE LEFT IN THE OPEN POSITION DURING CONSTRUCTION OR SHALL BE IN COMPLIANCE WITH THE ELECTRICAL CONTRACTORS SAFETY PROGRAM.

LABELS:

1. ALL LABELS SHALL BE IN ACCORDANCE WITH THE 2023 NEC AND MEET ALL SAFETY CODES.
2. ALL LABELS SHALL BE MADE OF DURABLE AND WATERPROOF MATERIALS.
3. LABELS SHALL BE INSTALLED ON THE APPROPRIATE EQUIPMENT. IF SPACE IS LIMITED A NEW LOCATION SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER OR RECORD.
4. LABELS SHALL BE SECURELY FASTENED TO THE EQUIPMENT.
5. ALL LABELS SHALL BE LEGIBLE, PRINTED, AND OF APPROPRIATE FONT SIZE.
6. DANGER LABELS SHALL BE RED, WARNING LABELS SHALL BE ORANGE, AND CAUTION LABELS SHALL BE YELLOW.

TESTING:

1. ALL TESTING SHALL BE IN COMPLIANCE WITH NETA 2017 ACCEPTANCE TESTING.
2. ALL TESTING SHALL BE COMPLETED PRIOR TO ENERGIZING THE SYSTEM.
3. A VISUAL INSPECTION SHALL BE PERFORMED ON ALL THE ELECTRICAL EQUIPMENT AND MUST BE DOCUMENTED.
4. ELECTRICAL CONTRACTOR TO PERFORM INSULATION RESISTANCE AND CONTINUITY TESTS FOR ALL CONDUCTORS. INSULATION RESISTANCE TEST SHALL NOT TEST LESS THAN 100 MEGOHMS FOR CABLES RATED 600V. TEST VALUES SHALL BE 1000VDC OR AS REQUIRED BY THE MANUFACTURER. TEST SHALL BE IN ACCORDANCE WITH NETA 2017.
5. ELECTRICAL CONTRACTOR SHALL VERIFY PROPER PHASE ROTATION ONCE THE SITE IS ENERGIZED.
6. CHARGING SYSTEM SHALL BE ENERGIZED BY A CERTIFIED REPRESENTATIVE UNLESS PRIOR NOTICE FROM THE MANUFACTURER HAS BEEN PROVIDED STATING THE ELECTRICAL CONTRACTOR CAN COMMISSION AND START UP THE SYSTEM.
7. ALL TEST RESULTS AND DOCUMENTATION SHALL BE PROVIDED TO THE OWNER AND ENGINEER OR RECORD FOR APPROVAL PRIOR TO THE SITE BEING ENERGIZED.

GROUNDING:

1. ALL GROUNDING SHALL BE IN COMPLIANCE WITH THE 2023 NEC ARTICLE 250.
2. ALL GROUNDING SHALL BE LISTED FOR ITS PURPOSE.
3. GROUND RODS, IF REQUIRED, SHALL HAS A MINIMUM DIAMETER OF 5/8 INCH AND HAVE A MINIMUM LENGTH OF 8 FEET. GROUND RODS SHALL BE COPPER COATED WITH A HIGH STRENGTH STEEL CORE.
4. USE IRREVERSIBLE CRIMP FOR PERMANENTLY CONCEALED AND INACCESSIBLE CONNECTIONS.
5. EQUIPMENT GROUNDING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AS WELL AS THE NEC.
6. GROUND ALL EXPOSED NON-CURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, RACEWAY SYSTEMS, AND EQUIPMENT STRUCTURES IN ACCORDANCE WITH THE NEC, STATE, AND OTHER APPLICABLE LAWS AND REGULATIONS.
7. ELECTRICAL CONTRACTOR SHALL TEST THE GROUNDING ELECTRODE SYSTEM TO ENSURE THAT THE GROUND RESISTANCE IS LESS THAN 25 OHMS. AN EARTH RESISTANCE TESTER SHALL BE USED FOR THIS TEST. TEST RESULTS TO BE SUBMITTED TO THE OWNER AND ENGINEER OF RECORD FOR REVIEW AND APPROVAL.

WIRE AND CABLE

LOW VOLTAGE (AC)

1. ALL LOW VOLTAGE CABLES SHALL BE 75°C AND HAVE A MINIMUM 600V RATING.
2. CABLES SHALL BE RATED FOR THE SYSTEM VOLTAGE.
3. ALL CABLES SHALL BE LISTED FOR WET LOCATIONS.
4. ALL CABLES SHALL BE LISTED FOR THEIR INTENDED USE.
5. ALL CONDUCTORS SHALL BE INSTALLED NEATLY AND DRESSED INTO THE EQUIPMENT SO THAT THEY DO NOT OBSTRUCT OR PREVENT OPERATION OF THE EQUIPMENT. CABLE TIES SHALL BE USED TO SECURE THE CONDUCTORS.
6. ALL EXPOSED CABLES SHALL BE UV RESISTANT AND OUTDOOR RATED.
7. CONDUCTORS SHALL BE SIZED FOR THE AMPACITY OF THE CIRCUIT. THESE VALUES SHALL BE DETERMINED USING THE NEC.
8. CONDUITS SHALL BE FREE OF ANY DEBRIS PRIOR TO PULLING THE CABLES. ALL CABLES SHALL BE PULLED USING THE PROPER PULLING LUBRICANTS. LUBRICANTS SHALL NOT BE DESTRUCTIVE TO THE OUTER JACKET OF THE CABLE. THE PULLING LUBRICANT SHALL BE CONFIRMED WITH THE CABLE MANUFACTURER THAT IT IS APPROVED FOR USE.
9. IRREVERSIBLE, TWO HOLE, LONG BARREL, DOUBLE CRIMPED LUGS SHALL BE USED ON ALL LOW VOLTAGE TERMINATIONS. IF A TWO HOLE LUG CANNOT BE INSTALLED SINGLE HOLE LUGS CAN BE USED WITH THE PERMISSION OF THE ENGINEER OF RECORD.
10. TERMINATIONS THAT ARE SUPPLIED WITH THE MANUFACTURED EQUIPMENT SHALL BE USED AND PROPER TORQUE VALUES MUST BE FOLLOWED.
11. ALL ELECTRICAL CONNECTIONS SHALL BE TORQUE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IF THE MANUFACTURER DOES NOT HAVE RECOMMENDATIONS STANDARD INDUSTRY PRACTICE SHOULD BE FOLLOWED FOR TORQUE VALUES.
12. DOCUMENTATION SHALL BE PROVIDED DETAILING THE TORQUE VALUES OF THE ELECTRICAL CONNECTIONS. THESE CONNECTIONS SHALL BE MARKED WITH TORQUE MARKING PAINT OR EQUIVALENT.
13. ALL CABLES SHALL BE SUPPORTED WITHIN EQUIPMENT TO PROPERLY DISTRIBUTE THE WEIGHT OF THE CABLES AND TO PREVENT STRESS ON THE TERMINATION POINTS.
14. SPLICING OF ANY WIRES IS NOT ALLOWED UNLESS APPROVED BY THE OWNER AND ENGINEER OF RECORD.
15. ALL WIRING SHALL BE FACTORY COLOR CODED. OTHERWISE FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE COLOR CODED AS FOLLOWS:

208V	PHASE	480V	PHASE
BLACK	A	BROWN	A
RED	B	ORANGE	B
BLUE	C	YELLOW	C
WHITE	NEUTRAL	WHITE	NEUTRAL
GREEN	GROUND	GREEN	GROUND

16. THE WIRE SIZE IS BASED ON THE ESTIMATED CONDUCTOR LENGTH AS SHOWN IN THIS DRAWINGS SET. SHOULD THE CONDUIT ROUTING CHANGE AND THE OVERALL LENGTH INCREASED, THE CONDUIT AND WIRE MAY NEED TO BE RESIZED TO MAINTAIN THE DESIGN VOLTAGE DROP. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO MAKING ANY FIELD CHANGES.
17. SUFFICIENT LENGTH OF CABLE SHALL BE PROVIDED TO FACILITATE REPLACEMENTS IF A REPLACEMENT IS NEEDED.

LOW VOLTAGE (DC)

1. ALL LOW VOLTAGE CABLES SHALL BE 75°C AND HAVE A MINIMUM 1000VAC/1500VDC RATING.
2. CABLES SHALL BE RATED FOR THE SYSTEM VOLTAGE.
3. ALL CABLES SHALL BE LISTED FOR WET LOCATIONS.
4. ALL CABLES SHALL BE LISTED FOR THEIR INTENDED USE.
5. ALL CONDUCTORS SHALL BE INSTALLED NEATLY AND DRESSED INTO THE EQUIPMENT SO THAT THEY DO NOT OBSTRUCT OR PREVENT OPERATION OF THE EQUIPMENT. CABLE TIES SHALL BE USED TO SECURE THE CONDUCTORS.
6. ALL EXPOSED CABLES SHALL BE UV RESISTANT AND OUTDOOR RATED.
7. CONDUCTORS SHALL BE SIZED FOR THE AMPACITY OF THE CIRCUIT. THESE VALUES SHALL BE DETERMINED USING THE NEC.
8. CONDUITS SHALL BE FREE OF ANY DEBRIS PRIOR TO PULLING THE CABLES. ALL CABLES SHALL BE PULLED USING THE PROPER PULLING LUBRICANTS. LUBRICANTS SHALL NOT BE DESTRUCTIVE TO THE OUTER JACKET OF THE CABLE. THE PULLING LUBRICANT SHALL BE CONFIRMED WITH THE CABLE MANUFACTURER THAT IT IS APPROVED FOR USE.
9. IRREVERSIBLE, TWO HOLE, LONG BARREL, DOUBLE CRIMPED LUGS SHALL BE USED ON ALL LOW VOLTAGE TERMINATIONS. IF A TWO HOLE LUG CANNOT BE INSTALLED SINGLE HOLE LUGS CAN BE USED WITH THE PERMISSION OF THE ENGINEER OF RECORD.
10. TERMINATIONS THAT ARE SUPPLIED WITH THE MANUFACTURED EQUIPMENT SHALL BE USED AND PROPER TORQUE VALUES MUST BE FOLLOWED.
11. ALL ELECTRICAL CONNECTIONS SHALL BE TORQUE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IF THE MANUFACTURER DOES NOT HAVE RECOMMENDATIONS STANDARD INDUSTRY PRACTICE SHOULD BE FOLLOWED FOR TORQUE VALUES.
12. DOCUMENTATION SHALL BE PROVIDED DETAILING THE TORQUE VALUES OF THE ELECTRICAL CONNECTIONS. THESE CONNECTIONS SHALL BE MARKED WITH TORQUE MARKING PAINT OR EQUIVALENT.
13. ALL CABLES SHALL BE SUPPORTED WITHIN EQUIPMENT TO PROPERLY DISTRIBUTE THE WEIGHT OF THE CABLES AND TO PREVENT STRESS ON THE TERMINATION POINTS.
14. SPLICING OF ANY WIRES IS NOT ALLOWED UNLESS APPROVED BY THE OWNER AND ENGINEER OF RECORD.
15. DC WIRING SHALL BE RED FOR POSITIVE, BLACK FOR NEGATIVE, AND GREEN FOR GROUND. WIRING SHALL BE MARKED SUNLIGHT RESISTANT.
16. THE WIRE SIZE IS BASED ON THE ESTIMATED CONDUCTOR LENGTH AS SHOWN IN THIS DRAWINGS SET. SHOULD THE CONDUIT ROUTING CHANGE AND THE OVERALL LENGTH INCREASED, THE CONDUIT AND WIRE MAY NEED TO BE RESIZED TO MAINTAIN THE DESIGN VOLTAGE DROP. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO MAKING ANY FIELD CHANGES.
17. SUFFICIENT LENGTH OF CABLE SHALL BE PROVIDED TO FACILITATE REPLACEMENTS IF A REPLACEMENT IS NEEDED.

RACEWAYS:

1. CONDUITS IN THE DRAWING SET ARE SHOWN DIAGRAMMATICAL. THE ELECTRICAL CONTRACTOR SHALL ROUTE THE CONDUITS TO AVOID ANY OBSTRUCTIONS AND MAINTAIN PROPER CLEARANCES.
2. ABOVE GROUND CONDUIT SHALL BE RIGID METAL CONDUIT (RMC), THREADED, MINIMUM 3/4 INCH IN SIZE OR AS NOTED IN THE DRAWING SET.
3. USE CONDUIT HUBS OR SEALING LOCKNUTS TO FASTEN CONDUIT TO BOXES IN DAMP AND WET LOCATIONS.
4. ALL CONDUIT AND FITTINGS SHALL BE WATER TIGHT. MYERS HUBS SHALL BE USED FOR CONDUIT ENTRY INTO METAL ENCLOSURES.
5. SUPPORT CONDUIT USING STEEL OR MALLEABLE IRON SINGLE OR DOUBLE HOLE CONDUIT STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS AND SPLIT HANGERS AS REQUIRED. DISTANCE BETWEEN SUPPORTS SHALL BE IN COMPLIANCE WITH THE NEC AND MANUFACTURER'S RECOMMENDATIONS.
6. EXPANSION FITTINGS SHALL BE PROVIDED AS REQUIRED PER THE NEC OR AS NOTED IN THE DRAWING SET.
7. ALL CONDUITS SHALL BE INSTALLED AT THE DEPTHS SHOWN IN DRAWINGS. IF FIELD CONDITIONS DO NOT ALLOW DEPTHS AS SHOWN, CONTRACTOR SHALL FOLLOW NEC TABLE 300.5.
8. ALL METALLIC CONNECTORS AND FITTINGS SHALL BE NON-CORRODING (PVC, ALUMINUM, STAINLESS STEEL OR GALVANIZED STEEL).
9. CONDUIT BENDING SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAY.
10. CONDUIT RUNS SHALL NOT EXCEED 360 DEGREES OF BENDS.
11. ALL FIELD CUT CONDUITS SHALL BE CUT SQUARE AND DEBURRED TO PREVENT DAMAGE TO THE CABLES.
12. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS BEFORE WIRE IS PULLED. ALL SPARE CONDUITS SHALL HAVE PULL STRINGS INSTALLED.
13. ALL JUNCTION BOXES, DISCONNECTS, AND EQUIPMENT SHALL BE PROVIDED WITH PAD LOCKING PROVISIONS.
14. ALL CONDUIT THAT HAS BEEN CUT AND THREADED SHALL BE CLEANED AND COATED WITH A ZINC RICH GALVANIZING COMPOUND.
15. ALL CONDUITS SHALL BE SEALED USING DUCT SEAL OR AN APPROVED SPRAY FOAM.
16. WHERE WIRE AND CABLE ROUTING IS NOT SHOWN, AND DESTINATION ONLY IS INDICATED, CONTRACTOR SHALL DETERMINE EXACT ROUTING AND LENGTHS REQUIRED. A SHOP DRAWING OF PROPOSAL INSTALLATION SHALL BE SUPPLIED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
19. CONDUIT SHALL BE FASTEN SECURELY IN PLACE. CONDUITS SHALL BE RUN AT RIGHT ANGLES AND IN PARALLEL LINES.

EQUIPMENT:

1. ALL EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND SHALL MAINTAIN PROPER CLEARANCES FROM ANY OTHER EQUIPMENT.
2. ALL EQUIPMENT SHALL BE MOUNTED LEVEL AND PLUMB.
3. EQUIPMENT SHALL BE ANCHORED USING HILTI DROP IN ANCHORS OR APPROVED EQUALS OR AS DIRECTED BY THE MANUFACTURER.
4. DISCONNECTS SHALL BE MOUNTED USING UNISTRUT AND ASSOCIATED HARDWARE OR WALL ANCHORS.
5. ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R OR BETTER.

LEGEND:

(M)	KWH METER
	CURRENT TRANSFORMER
———	ABOVE GROUND CONDUCTOR
- - - -	BELOW GROUND CONDUCTOR
	CABLE TERMINATION
	FUSE
	SEPARABLE CONNECTOR
	SURGE ARRESTER
	FUSED CUTOUT
	GANG OPERATED DISCONNECT SWITCH
	POWER TRANSFORMER
	POTENTIAL TRANSFORMER
XXXXAT / XXXXAF	LOW VOLTAGE CIRCUIT BREAKER
	GROUND
	DISCONNECT SWITCH

ABBREVIATIONS:

A	AMPERES
AC	ALTERNATING CURRENT
AL	ALUMINUM
AWG	AMERICAN WIRE GUAGE
COM	COMMUNICATIONS
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
EMS	ENERGY MANAGEMENT SYSTEM
GND	GROUND
JCN	JACKETED CONCENTRIC NEUTRAL
KCMIL	THOUSANDS OF CIRCULAR MILS
KVA	KILOVOLT AMPERES
KW	KILOWATT
MCOV	MAXIMUM CONTINUOUS OPERATING VOLTAGE
NEC	NATIONAL ELECTRICAL CODE
PVC	POLYVINYL CHLORIDE
R	RESISTANCE
RMC	RIGID METAL CONDUIT
SA	SURGE ARRESTER
TYP	TYPICAL
V	VOLTS
X	REACTANCE
XFMR	TRANSFORMER
Z	IMPEDANCE

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Anthony Morreale
03/13/2025

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EV CHARGING STATION
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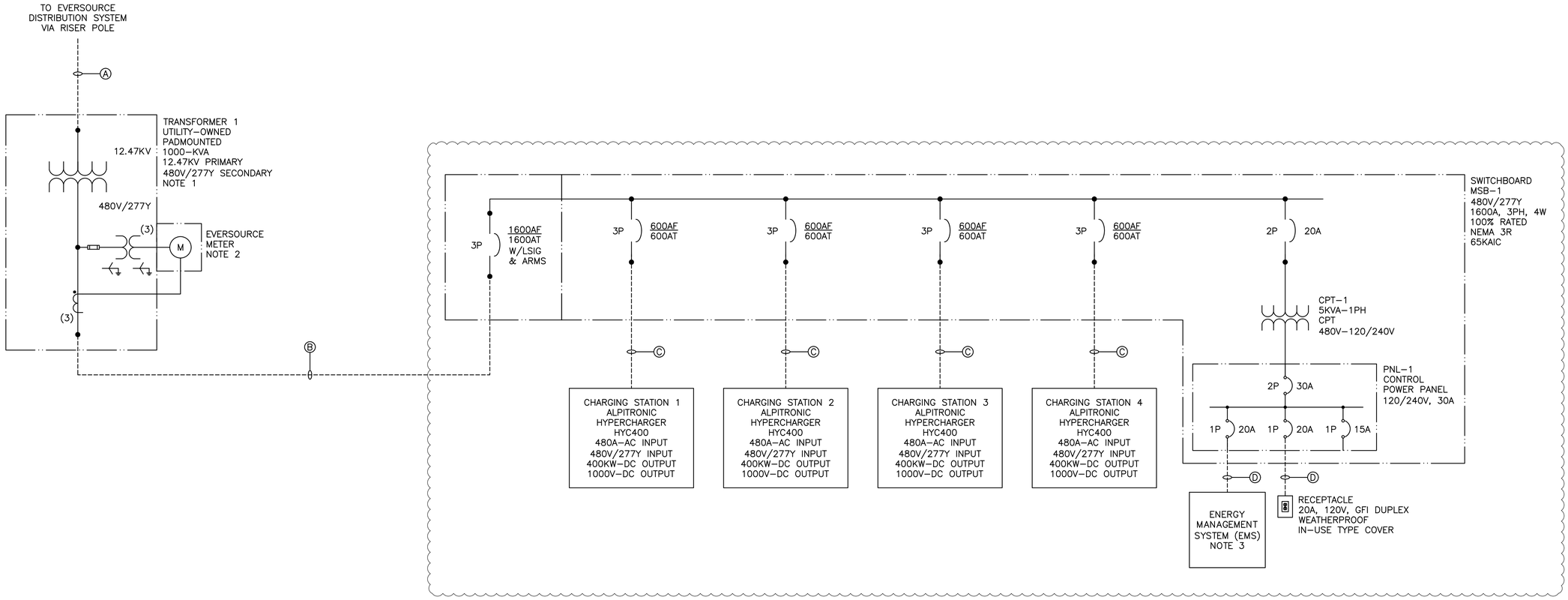
PORTSMOUTH, NH 03801

PROJECT NUMBER:
XXX-XXX

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
A	03/04/2025	NPC	AMM	ISSUED FOR PERMIT

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

E-0.0
ELECTRICAL NOTES



CABLE AND CONDUIT SCHEDULE				
ID	VOLTAGE	SETS	CABLE	CONDUIT
A	15KV	TBD	CABLE SIZED & INSTALLED BY EVERSOURCE	(1) 4" PVC
B	600V	5	(4) 500 KCMIL CU	(5) 4" PVC
C	600V	2	(3) 500 KCMIL CU, (1) #1 AWG GND	(2) 3" PVC
D	600V	1	(1) #12 AWG CU (PH), (1) #12 AWG CU (N), (1) #10 AWG CU (G)	(1) 3/4" PVC

ONELINE DIAGRAM

SCALE: NTS

NOTES
1. CONTRACTOR TO INSTALL ALL SECONDARY CONDUIT AND CABLE. EVERSOURCE TO TERMINATE CABLES ON TRANSFORMER.
2. CONTRACTOR TO VERIFY EXACT METER LOCATION WITH UTILITY. TELECOMMUNICATION LINE OR WIRELESS SERVICE TO BE PROVIDED TO UTILITY REVENUE METERING.
3. PER NEC 625.42 (A), AN ENERGY MANAGEMENT SYSTEM (EMS) WILL BE UTILIZED (MOBILITY HOUSE LLC'S CHARGEPILOT CONTROLLER OR EQUIVALENT). EMS TO BE CONNECTED TO THE EV CHARGERS VIA ETHERNET AND COMMUNICATE WITH CHARGERS THROUGH OPEN CHARGE POINT PROTOCOL (OCPP). USING THE PROGRAMMED UTILITY AND EQUIPMENT CAPACITY LIMITS, THE EMS MANAGES AND OPTIMIZES THE POWER DISTRIBUTION TO ENSURE THAT THE CHARGERS DO NOT OVERLOAD THE SOURCE OR THE EQUIPMENT.

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new leaf energy
55 TECHNOLOGY DRIVE, SUITE 102
LOWELL, MA 01851
PHONE: (888) 898-6273
FAX: (888) 843-6778
WWW.NEWLEAFENERGY.COM

LIG Consultants
510 CHAPMAN STREET, SUITE 202
CANTON, MA 02021
PHONE: (508) 381-3371
FAX: (774) 206-2155
WWW.LIGCONSULTANTS.COM

NOT FOR CONSTRUCTION

STATE OF NEW HAMPSHIRE
ANTHONY R. MORREALE
No.17064
LICENSED PROFESSIONAL ENGINEER
05/15/2025

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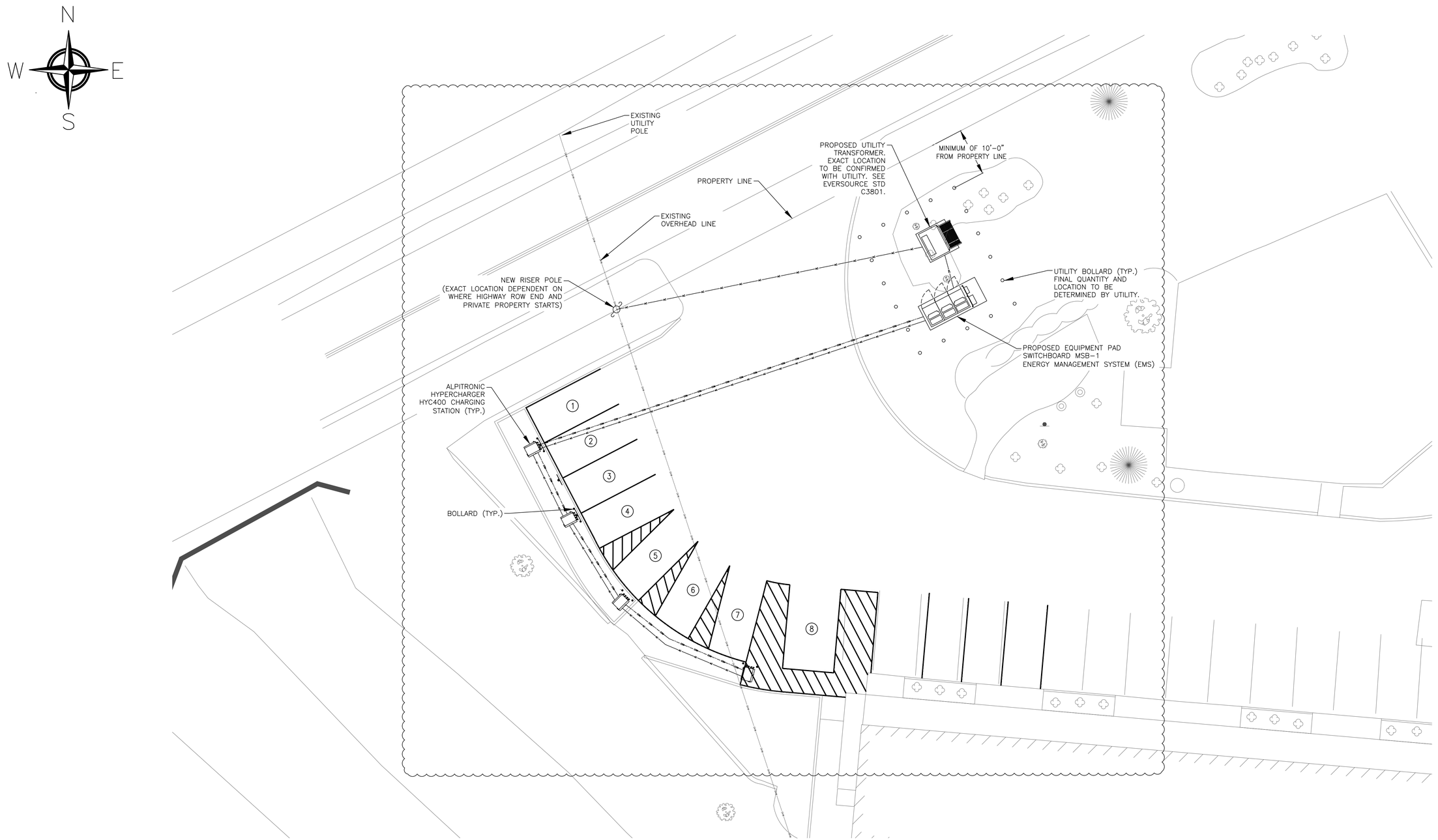
EV CHARGING STATION
505 US-1
PORTSMOUTH, NH 03801

PROJECT NUMBER:
XXX-XXX

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
A	07/16/2024	KRC	AMM	INTERCONNECTION DRAWINGS
B	01/15/2025	AMM	KRC	UPDATED TX & SERVICE SIZE, MOVED METERING
C	02/20/2025	NPC	AMM	UPDATED NUMBER OF CHARGERS
D	03/04/2025	NPC	AMM	ISSUED FOR PERMIT
E	05/12/2025	KRC	AMM	ISSUED FOR PERMIT – REV 1

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

E-1.0
AC SINGLE LINE DIAGRAM



ELECTRICAL SITE PLAN

Scale: 1"=10'

0 5' 10' 20'

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505 US-1
PORTSMOUTH, NH 03801

PROJECT NUMBER: XXX-XXX

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
A	03/04/2025	NPC	AMM	ISSUED FOR PERMIT
B	05/12/2025	KRC	AMM	ISSUED FOR PERMIT - REV 1

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

E-2.0
PLAN DETAILS

NO.	EQUIPMENT	EQUIPMENT TO	EQUIPMENT FROM	VOLTAGE (V)	EQUIPMENT KVA	CURRENT (A)	FULL LOAD CURRENT MULTIPLIED BY 1.25	OVERCURRENT PROTECTIVE DEVICE SIZE	MAXIMUM ONE WAY LENGTH (FT)	CONDUCTOR SIZE	NEUTRAL SIZE	CONDUCTOR MATERIAL	GROUND SIZE	GROUND CONDUCTOR MATERIAL	WIRE AMPACITY	DERATED CONDUCTOR AMPACITY	CONDUCTOR INSULATION TYPE	VOLTAGE DROP (%)	CONDUIT SIZE
1	1600A SWITCHBOARD	MSB-1	XFMR-1	480	1596.21	1920.0	-	1600	25	5 X #500	#500	CU	-	-	1900	1786	XHHW-2	0.10%	(5) 4"
2	POWER CABINET 1	CS-1	MSB-1	480	399.05	480	600	700	50	2 X #500	-	CU	#1	CU	760	714.4	XHHW-2	0.13%	3"
3	POWER CABINET 2	CS-2	MSB-1	480	399.05	480	600	700	50	2 X #500	-	CU	#1	CU	760	714.4	XHHW-2	0.13%	3"
4	POWER CABINET 3	CS-3	MSB-1	480	399.05	480	600	700	45	2 X #500	-	CU	#1	CU	760	714.4	XHHW-2	0.11%	3"
5	POWER CABINET 4	CS-4	MSB-1	480	399.05	480	600	700	45	2 X #500	-	CU	#1	CU	760	714.4	XHHW-2	0.11%	3"
6	ENERGY MANAGEMENT SYSTEM	EMS-1	PNL-1	120	0.25	1.2	1.5	20	15	#12	#12	CU	#12	CU	25	23.5	XHHW-2	0.05%	3/4"
7	RECEPTACLE	RECP-1	PNL-1	120	0.2	1.0	1.3	20	15	#12	#12	CU	#12	CU	25	23.5	XHHW-2	0.04%	3/4"

SWITCHBOARD MSB-1

VOLTAGE: 480/277 V	PHASE: 3P	WIRE: 4W	BUS: 1600 A	MAIN: 1600A	SHORT CIRCUIT 65 KA	LOCATION: -

CIRCUIT	DESCRIPTION	TRIP AMPS	POLES	PHASE LOADS (VA) VA	A	B	C	VA	POLES	TRIP AMPS	DESCRIPTION	CIRCUIT
1	CHARGING STATION 1	600	3	399052.8	798105.6			399052.8	3	600	CHARGING STATION 2	2
						798105.6						
							798105.6					
3	CHARGING STATION 3	600	3	399052.8	798105.6			399052.8	3	600	CHARGING STATION 4	4
						798105.6						
							798105.6					
5	CPT/PANELBOARD	20	2	5000	2886.8			-	-	-	-	-
						2886.8		-	-	-	-	-
-	-	-	-	-			0	-	-	-	-	-
TOTAL CONNECTED PHASE LOAD (VA)					1599098.0	1599098.0	1596211.2					
TOTAL CONNECTED LOAD (VA)					1601211.2							
LIMITED MAXIMUM LOAD (VA)					1000000							

PANEL PNL-1

VOLTAGE: 120/240 V	PHASE: 1P	WIRE: 3W	BUS: 100 A	MAIN: 30A	SHORT CIRCUIT 30 KA	LOCATION: -

CIRCUIT	DESCRIPTION	TRIP AMPS	POLES	PHASE LOADS (VA) VA	A	B	VA	POLES	TRIP AMPS	DESCRIPTION	CIRCUIT
1	ENERGY MANAGEMENT (EMS)	20	1	1000	1000		-	1	20	SPARE	2
3	RECEPTACLE	20	1	200		400	200	1	20	LIGHTING	4
5	SPARE	20	1	-	0		-	-	-	SPACE	6
7	SPARE	20	1	-		0	-	-	-	SPACE	8
9	SPARE	20	1	-	0		-	-	-	SPACE	10
TOTAL PHASE CONNECTED LOAD (VA)					1000	400					
TOTAL PANEL CONNECTED CURRENT (A)					11.67						

ELECTRICAL EQUIPMENT SCHEDULE

REF ID	QUANTITY	DESCRIPTION
MSB-1	1	SWITCHBOARD, 480V, 1600A BUS, 1600A LSIG BREAKER, SERVICE ENTRANCE RATED, WITH ARMS AND INTERNAL CPT/PANELBOARD
EMS	1	MOBILITY HOUSE LLC'S CHARGEPILOT CONTROLLER OR EQUIVALENT ENERGY MANAGEMENT SYSTEM
RECP	1	20A, 120V, GFI DUPLEX WEATHERPROOF IN-USE TYPE COVER
CS-XX	4	ALPITRONIC HYPERCHARGER HYC400 CHARGING STATION

ELECTRICAL SCHEDULES

SCALE: NTS

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Anthony Morreale
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E-3.0
ELECTRICAL SCHEDULES

City of Portsmouth, New Hampshire

Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. The checklist is required to be completed and uploaded to the Site Plan application in the City's online permitting system. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Applicant: Gary Dodds Date Submitted: 5-19-2025

Application # (in City's online permitting): CU-24-225

Site Address: 294 Lincoln Ave Portsmouth Map: 130 Lot: 24

Application Requirements			
☑	**Required Items for Submittal**	**Item Location (e.g. Page or Plan Sheet/Note #)**	**Waiver Requested**
☑	Complete application form submitted via the City's web-based permitting program (2.5.2.1**(2.5.2.3A)**		N/A
☑	All application documents, plans, supporting documentation and other materials uploaded to the application form in viewpoint in digital Portable Document Format (PDF). One hard copy of all plans and materials shall be submitted to the Planning Department by the published deadline. **(2.5.2.8)**		N/A

Site Plan Review Application Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Statement that lists and describes "green" building components and systems. **(2.5.3.1B)**	SEE Attached Sheet	✓
☑	Existing and proposed gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. **(2.5.3.1C)**		N/A
☑	Tax map and lot number, and current zoning of all parcels under Site Plan Review. **(2.5.3.1D)**		N/A

Site Plan Review Application Required Information			
☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
☑	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. **(2.5.3.1E)**		N/A
☑	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property. **(2.5.3.1F)**		N/A
☑	Names, addresses and telephone numbers of all professionals involved in the site plan design. **(2.5.3.1G)**		N/A
☑	List of reference plans. **(2.5.3.1H)**		N/A
☑	List of names and contact information of all public or private utilities servicing the site. **(2.5.3.1I)**		N/A

Site Plan Specifications			
☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
☑	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director.. **(2.5.4.1A)**	Required on all plan sheets	N/A
☑	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans. **(2.5.4.1B)**	Required on all plan sheets	N/A
☑	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. **(2.5.4.1C)**		N/A
☑	Plans shall be drawn to scale and stamped by a NH licensed civil engineer. **(2.5.4.1D)**	Required on all plan sheets	N/A
☑	Wetlands shall be delineated by a NH certified wetlands scientist and so stamped. **(2.5.4.1E)**		N/A
☑	Title (name of development project), north point, scale, legend. **(2.5.4.2A)**		N/A
☑	Date plans first submitted, date and explanation of revisions. **(2.5.4.2B)**		N/A
☑	Individual plan sheet title that clearly describes the information that is displayed. **(2.5.4.2C)**	Required on all plan sheets	N/A
☑	Source and date of data displayed on the plan. **(2.5.4.2D)**		N/A

Site Plan Specifications – Required Exhibits and Data			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	**1. Existing Conditions: (2.5.4.3A)** • Surveyed plan of site showing existing natural and built features; • Existing building footprints and gross floor area; • Existing parking areas and number of parking spaces provided; • Zoning district boundaries; • Existing, required, and proposed dimensional zoning requirements including building and open space coverage, yards and/or setbacks, and dwelling units per acre; • Existing impervious and disturbed areas; • Limits and type of existing vegetation; • Wetland delineation, wetland function and value assessment (including vernal pools); • SFHA, 100-year flood elevation line and BFE data, as required.	SEE Attached	
☑	**2. Buildings and Structures: (2.5.4.3B)** • Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation; • Elevations: Height, massing, placement, materials, lighting, façade treatments; • Total Floor Area; • Number of Usable Floors; • Gross floor area by floor and use.	Photos Plans SEE Attached	
☑	**3. Access and Circulation: (2.5.4.3C)** A • Location/width of access ways within site; A • Location of curbing, right of ways, edge of pavement and sidewalks; A • Location, type, size and design of traffic signing (pavement markings); A • Names/layout of existing abutting streets; A • Driveway curb cuts for abutting prop. and public roads; • If subdivision; Names of all roads, right of way lines and easements noted; • AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	SEE Attach	No signage needed Not sub. No curb cut truck turning N/A
☑	**4. Parking and Loading: (2.5.4.3D)** • Location of off street parking/loading areas, landscaped areas/buffers; • Parking Calculations (# required and the # provided).	SEE Attached	
☑	**5. Water Infrastructure: (2.5.4.3E)** • Size, type and location of water mains, shut-offs, hydrants & Engineering data; • Location of wells and monitoring wells (include protective radii).	SEE Attached	✓
☑	**6. Sewer Infrastructure: (2.5.4.3F)** • Size, type and location of sanitary sewage facilities & Engineering data, including any onsite temporary facilities during construction period.	SEE Attached	✓

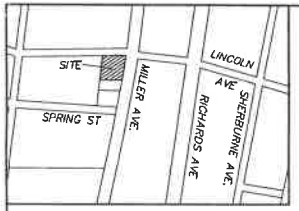
☑	**7. Utilities: (2.5.4.3G)** • The size, type and location of all above & below ground utilities; • Size type and location of generator pads, transformers and other fixtures.	SEE Attached	
☐	**8. Solid Waste Facilities: (2.5.4.3H)**		
	• The size, type and location of solid waste facilities.		
☐	**9. Storm water Management: (2.5.4.3I)** • The location, elevation and layout of all storm-water drainage. • The location of onsite snow storage areas and/or proposed off-site snow removal provisions. • Location and containment measures for any salt storage facilities • Location of proposed temporary and permanent material storage locations and distance from wetlands, water bodies, and stormwater structures.		
☐	**10. Outdoor Lighting: (2.5.4.3J)** • Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and photometric plan.	SEE Attached	
☐	**11. Indicate where dark sky friendly lighting measures have been implemented. (10.1)**		
☐	**12. Landscaping: (2.5.4.3K)** • Identify all undisturbed area, existing vegetation and that which is to be retained; • Location of any irrigation system and water source.	SEE Attached	
☐	**13. Contours and Elevation: (2.5.4.3L)** • Existing/Proposed contours (2 foot minimum) and finished grade elevations.	ON plan	
☐	**14. Open Space: (2.5.4.3M)** • Type, extent and location of all existing/proposed open space.	ON plan	
☐	**15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)**	supplied	
☐	**16. Character/Civic District (All following information shall be included): (2.5.4.3P)** • Applicable Building Height (10.5A21.20 & 10.5A43.30); • Applicable Special Requirements (10.5A21.30); N/A • Proposed building form/type (10.5A43); wood/v • Proposed community space (10.5A46). N/A	SEE Attached	
☐	**17. Special Flood Hazard Areas (2.5.4.3Q)** • The proposed development is consistent with the need to minimize flood damage; • All public utilities and facilities are located and construction to minimize or eliminate flood damage; • Adequate drainage is provided so as to reduce exposure to flood hazards.	N/A	

Other Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☑	Traffic Impact Study or Trip Generation Report, as required. **(3.2.1-2)**	SEE Attached	waiver
☐	Indicate where Low Impact Development Design practices have been incorporated. **(7.1)**	SEE Attached	waiver
☐	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. **(7.3.1)**	N/A	
☑	Stormwater Management and Erosion Control Plan. **(7.4)**		
☐	Inspection and Maintenance Plan **(7.6.5)**	SEE Attached	waiver

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	All local approvals, permits, easements and licenses required, including but not limited to: • Waivers; • Driveway permits; • Special exceptions; • Variances granted; • Easements; • Licenses. **(2.5.3.2A)**		
☐	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to: • Calculations relating to stormwater runoff; • Information on composition and quantity of water demand and wastewater generated; • Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls; • Estimates of traffic generation and counts pre- and post-construction; • Estimates of noise generation; • A Stormwater Management and Erosion Control Plan; • Endangered species and archaeological / historical studies; • Wetland and water body (coastal and inland) delineations; • Environmental impact studies. **(2.5.3.2B)**		waiver GARAGE
☐	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site. **(2.5.3.2D)**		waiver

Final Site Plan Approval Required Information			
☑	**Required Items for Submittal**	**Item Location (e.g. Page/line or Plan Sheet/Note #)**	**Waiver Requested**
☐	A list of any required state and federal permit applications required for the project and the status of same. **(2.5.3.2E)**	N/A	Waiver
☐	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations." **(2.5.4.2E)**		N/A
☐	For site plans that involve land designated as "Special Flood Hazard Areas" (SFHA) by the National Flood Insurance Program (NFIP) confirmation that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334. **(2.5.4.2F)**	N/A	Waiver
✓ ☐	Plan sheets submitted for recording shall include the following notes: a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds." b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director." **(2.13.3)**		N/A

Applicant's Signature: _____ **Date:** 5-19-2025



LOCUS
(N.T.S.)

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

LINCOLN AVENUE (A PUBLIC WAY)

MILLER AVENUE (A PUBLIC WAY)

S 57°26'38" E
0.20'(TIE)
IRON ROD FOUND (DISTURBED)
DETAIL

IRON ROD WITH CAP SET FLUSH

N 58°05'49" E
87.83'(TIE)

N 50°50'44" E 99.46

N 27°09'51" W 98.38

S 24°52'29" E 108.00

S 54°48'33" W 67.20 26.78

1.05'(TIE)
IRON PIPE FOUND "SHLINE" FLUSH (NOW UNDER PAVEMENT)
IRON ROD WITH CAP NOW UNDER PAVEMENT
DETAIL

#312
2 1/2 STORY WOOD FRAME

#294
2 1/2 STORY WOOD FRAME

#280
2 1/2 STORY WOOD FRAME

130-025
RITA PRESZLER WEATHERBY TRUST
525 MAPLEWOOD AVE.
312 LINCOLN AVENUE
PORTSMOUTH, NH 03801
3559/41

130-024
GARY DODDS REVO. TRUST
525 MAPLEWOOD AVE.
PORTSMOUTH, NH 03801
3278/1438

130-06
DAVID F. LOVERN
TARYN ROHRBAUGH-LOVERN
274 LINCOLN AVENUE
PORTSMOUTH, NH 03801
2970/341

130-022
MARC SMALL & REBECCA ROWE
274 MILLER AVE.
PORTSMOUTH, NH 03801
5218/2573

130-023
DAVID J. & JAN M. HUDLIN
280 MILLER AVE.
PORTSMOUTH, NH 03801
4972/1065

130-07
MARK P. & MARGAUX D. PEABODY
259 MILLER AVENUE
PORTSMOUTH, NH 03801
5720/221

EASEMENT AREA
1310 S.F.
SEE REFERENCE PLAN 2

LANDSCAPED AREA
UNITS OF LAWN
IRON ROD FOUND W/CAP LLS 844
IRON ROD FOUND "DISTURBED"
WOOD STEPS
CONCRETE
GARAGE
COVERED PORCH
CRUSHED STONE
NEW FENCE

10 0 10 20 30 40 FEET
5 0 5 10 METERS

LEGEND:

- STONE WALL
- IRON ROD(AS NOTED)
- IRON PIPE FOUND
- SURVEY NAIL SET
- WOOD FENCE
- 103-24 ..... TAX SHEET – LOT NUMBER
- RCRD ..... ROCKINGHAM COUNTY REGISTRY OF DEEDS
- EOP ..... EDGE OF PAVEMENT
- VGC ..... VERTICAL FACED GRANITE CURB
- UTILITY POLE
- TELEPHONE MANHOLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- OHW ..... OVERHEAD WIRES
- CONCRETE

NOTES:

1. OWNER OF RECORD: GARY B. DODDS REVOCABLE TRUST
   GARY B. DODDS, TRUSTEE
   ADDRESS: 300 SAGAMORE ROAD, RYE, NH 03870
   DEED REFERENCE: BK: 3278 PG: 1438
   TAX SHEET / LOT: 130-24

2. ZONED: GENERAL RESIDENCE A

MIN. LOT AREA: 7,500 S.F	FRONT YARD SETBACK: 15'
FRONTAGE: 100'	SIDE YARD SETBACK: 10'
BUILDING COVERAGE: 25%	REAR YARD SETBACK: 20'
MINIMUN=OPEN SPACE: 30%	

3. THE INTENT OF THIS PLAN IS TO UPDATE PRIOR WORK DONE BY THIS COMPANY IN ORDER TO CREATE A RECORDABLE PLAN

4. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION COMPILED FROM PLANS OF RECORD, AND PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE @ 1-888-DIG-SAFE.

5. THE PLAN IS BASED UPON A FIELD SURVEY COMPLETED IN JULY OF 2014, JANUARY OF 2015 & FEBRUARY OF 2024 WITH TRIMBLE S5 ROBOTIC TOTAL STATION, CARLSON BRX7 RTK GPS UNITS, PANASONIC FZ-M1/TRIMBLE TSC7 DATA COLLECTORS.

6. THE PARCEL SHOWN HEREON LIES WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS IDENTIFIED ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE. MAP NUMBER 33015C0259F, EFFECTIVE DATE 1/29/2021 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

REFERENCE PLANS:

1. MONUMENTATION SKETCH, 294 LINCOLN AVE., PORTSMOUTH, NH, FOR:, GARY DODDS, BY JAMES VERRA AND ASSOCIATES, INC. DATED 7-31-2014. NOT RECORDED
2. EASEMENT PLAN, 294 LINCOLN AVENUE, PORTSMOUTH, NEW HAMPSHIRE, DATED 2-12-2013. RECORDED AS RCRD PLAN #C-38768.

PURSUANT TO RSA 676:18,III AND RSA 672:14

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

JAMES VERRA DATE

PRELIMINARY
SUBJECT TO CHANGE

REV. NO.	DATE	DESCRIPTION	APPR'D

PLAT OF LAND

294 LINCOLN AVENUE
PORTSMOUTH, NEW HAMPSHIRE
TAX MAP 130 LOT 24
PREPARED FOR & LAND OF:
GARY B. DODDS REVOCABLE TRUST

JVA
JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8, NEWINGTON, N.H. 03801 – 603-436-3557 – ©2024

STD DRAWN BY	
RME PROJECT MGR	
DATE:	PRELIMINARY
JOB NO:	24-2010
SCALE:	1" = X
DWG NAME:	24-2010BNDY2.DWG
PLAN NO:	24-2010
SHEET:	V1

Chandler Construction
K & D Concrete Services
8025 South Willow Street
Manchester NH

Estimated site work at 294 Lincoln Avenue,
Portsmouth

Streetscape Properties, LLC
Gary Dodds
294 Lincoln Avenue, Portsmouth NH

Per Altus Engineering plan for all site work
at 294 Lincoln Avenue Portsmouth, NH

Excavation, drainage installation, foundation
installation

$55,000

Per review for TAC Committee and
City of Portsmouth Planning Board

Respectfully Submitted
Gary Dodds

Waiver 2.5.3

b.Green building components
Best practices in using green building components.
Landscaping - Rain water will be captured off roof to minimize water usage for landscape.

Energy efficient lighting - All exterior lighting is photo sensitive and use LED bulbs for minimal power usage.

Windows- New energy efficient windows throughout garage and office. Double pane, argon gas high efficiency Simonton windows.

Plumbing - best practices for using environmentally friendly products for plumbing and wastewater to be implemented.

Building designed with high ceilings to utilize fresh air rather than A/C components. where applicable fans can be utilized.

e. Water Infrastructure
Waiver for water infrastructure
Utilizing existing 3/4 water line within the main house to supply water for the bathroom in the office area.

f.Sewer infrastructure
Waiver - tying into the existing sewer line on subject property.
Only one bathroom will be added.

j. Outdoor lighting
Waiver - Minimal amount of lighting to be placed on exterior of building to coincide with harmony of neighborhood. Motion sensors to be used to provide appropriate light for garage usage.

Waiver 2.15.3
Construction management and mitigation plan
Given the size and scope of project being only a garage for the current building tenants.

The building has been rental property for over 30 years with the same long-term tenants. This is not a new residential building or development.

Waiver 2.16.3
As-built plan waiver
The plans that have been submitted will be adhered to; plans have already been certified and engineered by Altus Engineering. The scope of the project is small.

Waiver 3.2.1-2
Waiver for traffic impact study
There is no change in occupancy. The traffic pattern has not changed. There will be no cars backing out into the street.

Waiver 7.1
There is no change to impact on usage of the property.

Waiver7.6.5
Inspection and maintenance plan
Project is very small. Minimal amount of maintenance needed for a garage.

Letter of Authorization

Gary B. Dodds Revocable Trust and Gary B. Dodds, Trustee, record owner of the property located at 294 Lincon Avenue, Tax Map 130, Lot 024, Portsmouth, NH (the "Property"), hereby authorize Altus Engineering, LLC of Portsmouth, NH to represent us as the Owner and Applicant in all matters concerning the engineering and related permitting for said Property. This authorization shall include any signatures required for Federal, State and Municipal permit applications. This Letter of Authorization shall be valid until expressly revoked in writing.

Gary B. Dodds Revocable Trust

12-17-24

Gary B. Dodds Date
Trustee

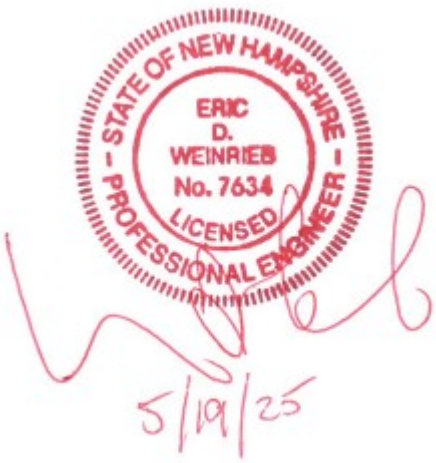
DRAINAGE ANALYSIS

FOR

GARAGE CONSTRUCTION

294 Lincoln Avenue
Portsmouth, NH

May 19, 2025



Gary B. Dodds Revocable Trust
300 Sagamore Road
Rye, NH 03870

Prepared By:
Altus Engineering
133 Court Street
Portsmouth, NH 03801
Phone: (603) 433-2335

ALTUS ENGINEERING

Altus Project 5548

Table of Contents

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- Project Description
- Site Overview
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- Proposed Site Design
- Calculation Methods
- Disclaimer
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- Conclusions

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Section 7 Stormwater Operations and Maintenance Plan
Inspection Form
Stormwater Management Plan

Section 8 Watershed Plans
- Pre-Development Watershed and Soils Plan
- Post-Development Watershed and Soils Plan

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Section 1

Narrative

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PROJECT DESCRIPTION

The Gary B. Dodds Revocable Trust is proposing to construct an attached garage at the property located at 294 Lincoln Avenue. The ±0.22-acre parcel is identified as Tax Map 130, Lot 024 and is located in the General Residence A (GRA) zone. The lot is located at the corner of Lincoln Avenue and Miller Avenue Access to the property is located on both Lincoln Avenue and Miller Avenue. The existing property consists of a 2.5 story wood framed house, a carport/shed and a detached garage.

The proposal includes the construction of a new 4-bay attached garage (±1,320 S.F.) and new driveways.

The new stormwater infrastructure will include one new 6' diameter leaching catch basin that will have an overflow to the City's existing drainage system on Lincoln Avenue. Additionally, a drip strip will be installed around most of the proposed garage to capture runoff from the roof. Gutters and roof leaders will be installed to capture and direct runoff to the catch basin and drip strip. This proposed stormwater management system will reduce peak flows leaving the site.

Site Soils

A site-specific soil survey (SSSS) was not required for the project. The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web soil survey indicates that soil is uniformly urban-land across the entirety of the site, hydrologic soil group A.

Pre-Development (Existing Conditions)

All runoff from the property flows in a southeasterly direction toward Miller Avenue. The property is bounded by Lincoln Avenue to the north, Miller Avenue to the east, and residential properties to the south and west. The southern portion of the lot is encumbered with an access easement for the abutter's driveway. There is no existing stormwater infrastructure located on the property. Approximately half of the existing property is developed, consisting of the house, detached garage, carport/shed and the driveway. The remainder of the property is mostly lawn with some small areas of gravel and sidewalk.

The site hydrology is characterized by one sub-catchments as delineated on the accompanying "Pre-Development Watershed and Soils Plan". Site runoff was analyzed at one point of analysis (POA). POA 1 captures the entire site and is located at the southeasterly corner of the parcel.

Post-Development (Proposed Conditions)

The post-development conditions were analyzed at the same discharge point as the pre-development conditions. The post-development watersheds are delineated on the accompanying "Post-Development Watershed and Soils Plan". Modifications to the delineated areas and associated ground cover were made to sub-catchments to account for the improvements to the property.

As shown on the attached Post-Development Watershed and Soils Plan, the site was divided into three post-development sub-catchment areas, identified as sub-catchments 1.1, 1.2 and 1R.

Site topography, existing features, proposed site improvements, proposed grading, drainage and erosion control measures are shown on the accompanying plan set. Recommended erosion control measures are based upon the December 2008 edition of the "*New Hampshire Stormwater Manual Volumes 1 through 3*" prepared by NHDES and Comprehensive Environmental, Inc. as amended.

CALCULATION METHODS

The drainage study was completed using the USDA SCS TR-20 Method within the HydroCAD Stormwater Modeling System. Reservoir routing was performed with the Dynamic Storage Indication method with automated calculation of tailwater conditions. A Type III 24-hour rainfall distribution was utilized in analyzing the data for the 2, 10, 25 and 50 year - 24-hour storm events using rainfall data provided by the Northeast Regional Climate Center (NRCC). As the project site lies within a Coastal and Great Bay Community identified by NHDES Alteration of Terrain, all rainfall amounts were increased by 15% to account for potential future increases in rainfall due to climate change. A time span of 0 to 30 hours was analyzed at 0.01-hour increments. Design infiltration rates used in the analysis were calculated from the SSSNNE publication *Ksat for New Hampshire Soils* using the average of the lowest rates in the C-horizon of the soil subtypes comprising the in-situ material divided by two.

Disclaimer

Altus Engineering notes that stormwater modeling is limited in its capacity to precisely predict peak rates of runoff and flood elevations. Results should not be considered to represent actual storm events due to the number of variables and assumptions involved in the modeling effort. Surface roughness coefficients (n), entrance loss coefficients (ke), velocity factors (kv) and times of concentration (Tc) are based on subjective field observations and engineering judgment using available data. For design purposes, curve numbers (Cn) describe the average conditions. However, curve numbers will vary from storm to storm depending on the antecedent runoff conditions (ARC) including saturation and frozen ground. Also, higher water elevations than predicted by modeling could occur if drainage channels, closed drain systems or culverts are not maintained and/or become blocked by debris before and/or during a storm event as this will impact flow capacity of the structures. Structures should be re-evaluated if future changes occur within relevant drainage areas in order to assess any required design modifications.

Drainage Analysis

A complete summary of the drainage model is included in the appendix of this report. **Table 1** below compares pre- and post-development peak rates at the Point of Analysis identified on the plans for the 2, 10, 25 and 50-year storm events:

Table 1 - Stormwater Modeling Summary
Peak Q (cfs) for Type III 24-Hour Storm Events

	2-Year Storm (3.69-inch)	10-Year Storm (5.60-inch)	25-Year Storm (7.10-inch)	50-Year Storm (8.50-inch)
POA 1				
PRE	0.20	0.54	0.83	1.13
POST	0.12	0.53	0.80	1.03
CHANGE	-0.08	-0.01	-0.03	-0.10

As the above table demonstrates, the proposed peak rates of runoff at the point of analysis will match or be decreased from the existing conditions for all analyzed storm events.

CONCLUSION

This proposed site development of property located at 294 Lincoln Avenue in Portsmouth, New Hampshire will have minimal adverse effect on abutting properties and infrastructure as a result of stormwater runoff or siltation. Post-construction peak rates of runoff from the site will be at or lower than the existing conditions for all analyzed storm events. Appropriate steps will be taken to properly mitigate erosion and sedimentation through the use of temporary and permanent Best Management Practices for sediment and erosion control.

Section 2

Aerial Photo and USGS Map

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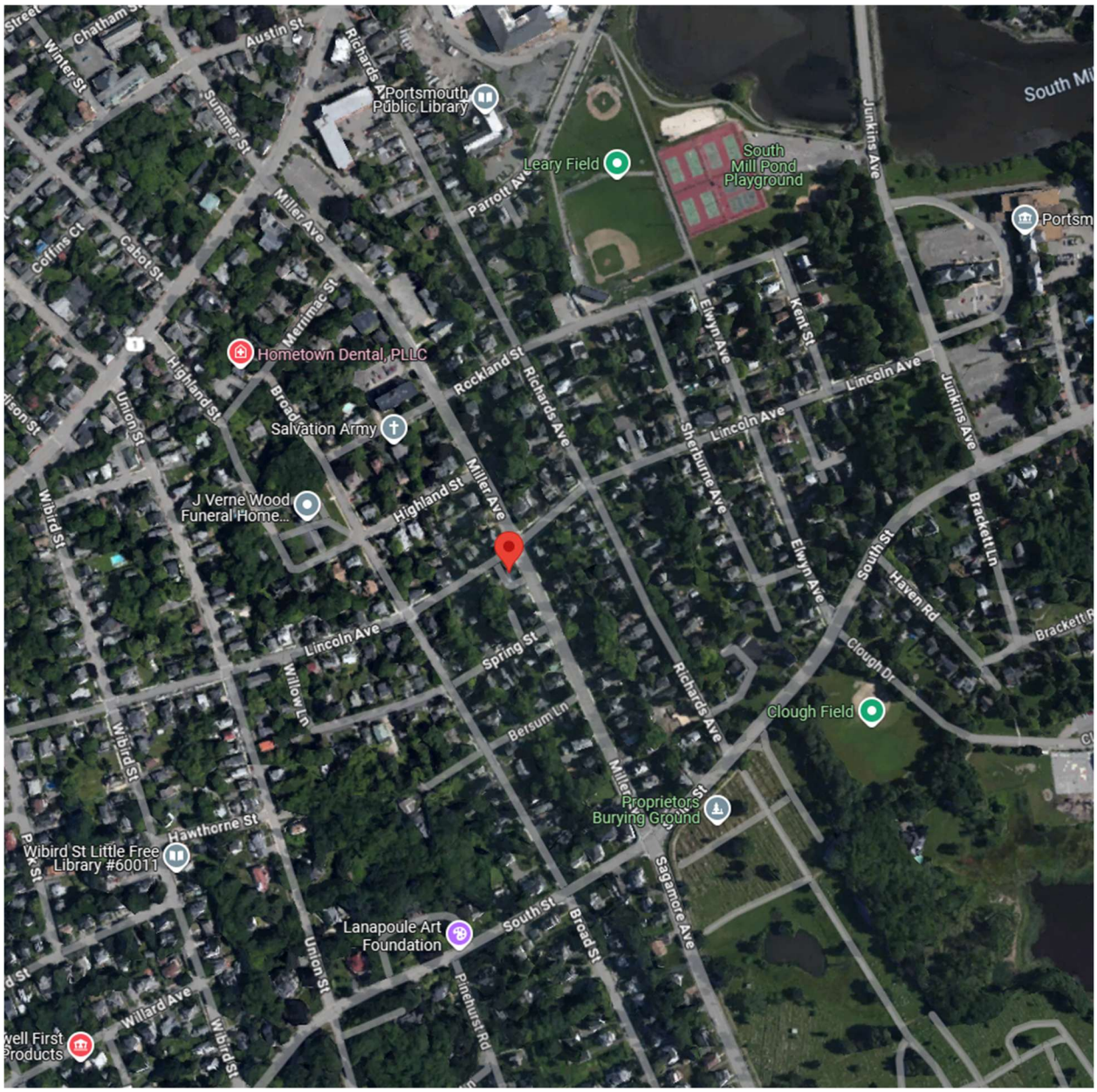
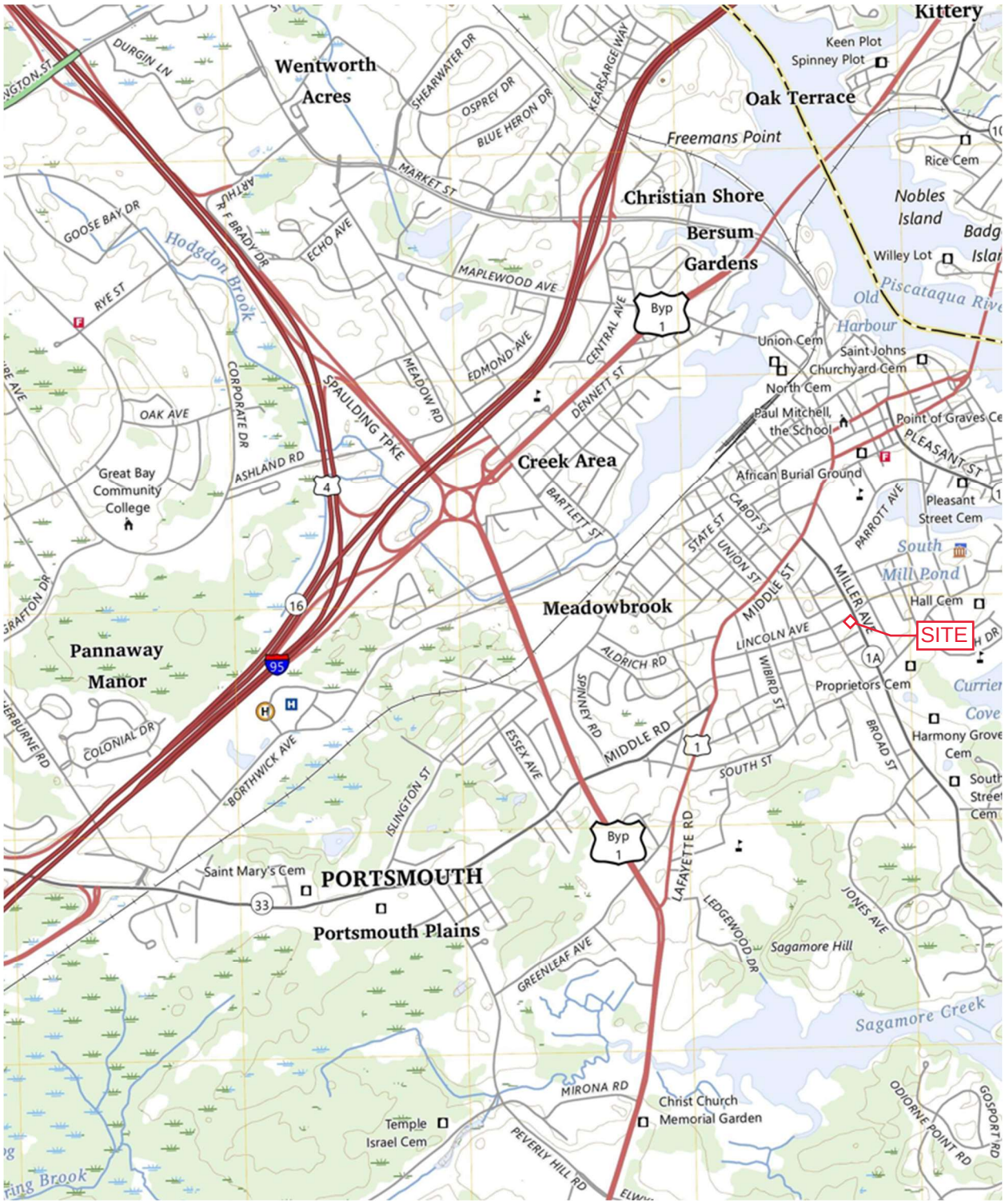

Portsmouth Public Library
Leary Field
South Mill Pond Playground
Hometown Dental, PLLC
Salvation Army
J Verne Wood Funeral Home...
Clough Field
Proprietors Burying Ground
Wibird St Little Free Library #60011
Lanapoule Art Foundation
Austin St
Summer St
Miller Ave
Parrott Ave
Cabot St
Coffins Ct
Merrimac St
Highland St
Union St
Broad St
Rockland St
Richards Ave
Elwyn Ave
Kent St
Junkins Ave
Lincoln Ave
Sherburne Ave
Willow Ln
Spring St
Bersum Ln
Wibird St
Hawthorne St
Pinehurst Rd
Willard Ave
South St
Haven Rd
Clough Dr
Brackett Ln
Sagamore Ave


Kittery
Keen Plot
Spinney Plot
Wentworth Acres
Oak Terrace
Freemans Point
Rice Cem
Nobles Island
Christian Shore
Bersum Gardens
Willey Lot
Old Piscataqua River
Harbour
Union Cem
Saint Johns Churchyard Cem
North Cem
Paul Mitchell, the School
Point of Graves Cem
PLEASANT ST
African Burial Ground
Pleasant Street Cem
South Mill Pond
Hall Cem
SITE
Proprietors Cem
Harmony Grove Cem
Creek Area
Meadowbrook
Pannaway Manor
Great Bay Community College
Hodgdon Brook
Saint Mary's Cem
PORTSMOUTH
Portsmouth Plains
Sagamore Hill
Sagamore Creek
Christ Church Memorial Garden
Temple Israel Cem
Byp 1
95
16
4
33
1
1A
DURGIN LN
SHEARWATER DR
OSPREY DR
BLUE HERON DR
KEARSARGE WAY
MARKET ST
GOOSE BAY DR
ARTHUR F BRADY DR
ECHO AVE
MAPLEWOOD AVE
RYE ST
CENTRAL AVE
EDMOND AVE
MEADOW RD
SPAULDING TPKE
DENNETT ST
OAK AVE
CORPORATE DR
ASHLAND RD
BARTLETT ST
CABOT ST
STATE ST
UNION ST
MIDDLE ST
MILLER AVE
PARROTT AVE
LINCOLN AVE
ALDRICH RD
WIBIRD ST
SPINNEY RD
MIDDLE RD
SOUTH ST
BROAD ST
ESSEX AVE
ISLINGTON ST
BORTHWICK AVE
COLONIAL DR
LAFAYETTE RD
LEDGEWOOD DR
JONES AVE
GREENLEAF AVE
MIRONA RD
PEVERLY HILL RD
ODIORNE POINT RD
GOSPORT RD
GRAFTON DR

Section 3

Drainage Calculations

Pre-Development
2-Year, 24-Hour Summary
10-Year, 24-Hour Complete
25-Year, 24-Hour Summary
50-Year, 24-Hour Summary

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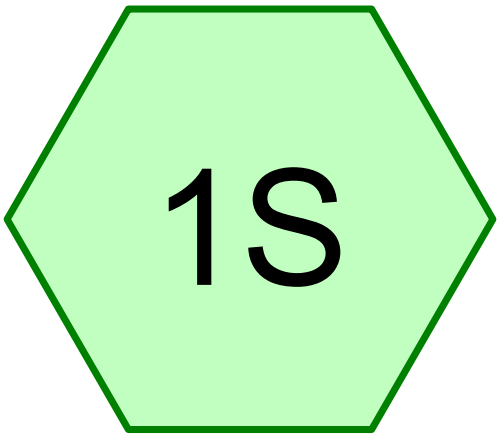


294 Lincoln Avenue

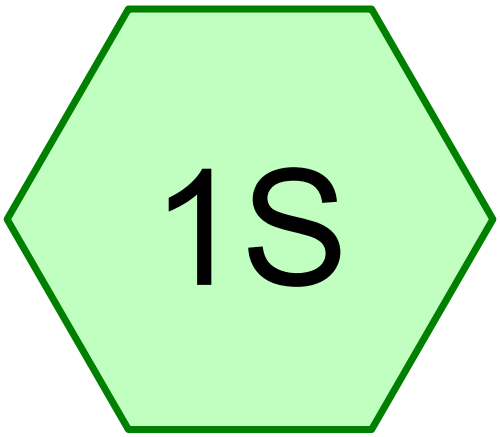
Subcat Reach Pond Link

Routing Diagram for 5548-PRE
Prepared by Altus Engineering, Printed 5/19/2025
HydroCAD® 10.00-26 s/n 01222 © 2020 HydroCAD Software Solutions LLC

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: 294 Lincoln Avenue Runoff Area=9,686 sf 46.41% Impervious Runoff Depth=0.91"
Flow Length=119' Tc=6.0 min CN=66 Runoff=0.20 cfs 0.017 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.017 af Average Runoff Depth = 0.91"
53.59% Pervious = 0.119 ac 46.41% Impervious = 0.103 ac



294 Lincoln Avenue

Subcat Reach Pond Link

Routing Diagram for 5548-PRE
Prepared by Altus Engineering, Printed 5/19/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.119	39	>75% Grass cover, Good, HSG A (1S)
0.056	98	Paved parking, HSG A (1S)
0.047	98	Roofs, HSG A (1S)
0.222	**66**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.222	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.222		**TOTAL AREA**

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: 294 Lincoln Avenue Runoff Area=9,686 sf 46.41% Impervious Runoff Depth=2.15"
Flow Length=119' Tc=6.0 min CN=66 Runoff=0.54 cfs 0.040 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.040 af Average Runoff Depth = 2.15"
53.59% Pervious = 0.119 ac 46.41% Impervious = 0.103 ac

Summary for Subcatchment 1S: 294 Lincoln Avenue

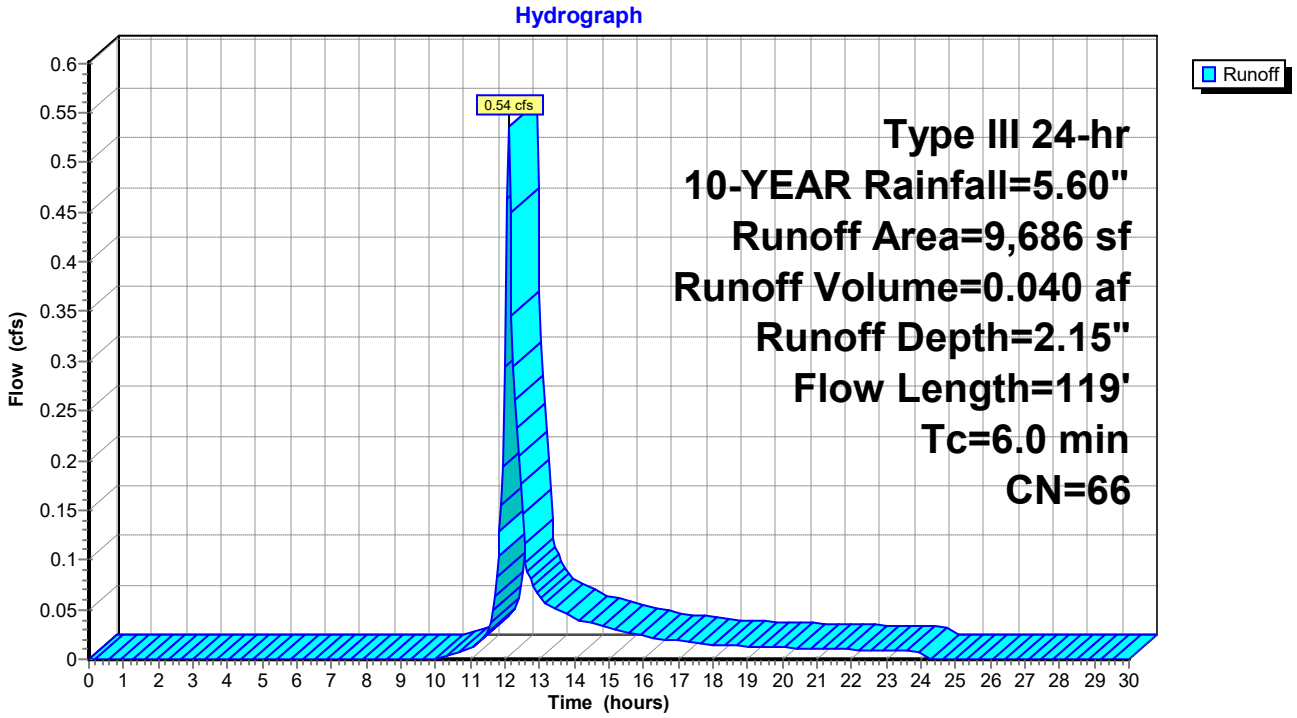
Runoff = 0.54 cfs @ 12.10 hrs, Volume= 0.040 af, Depth= 2.15"

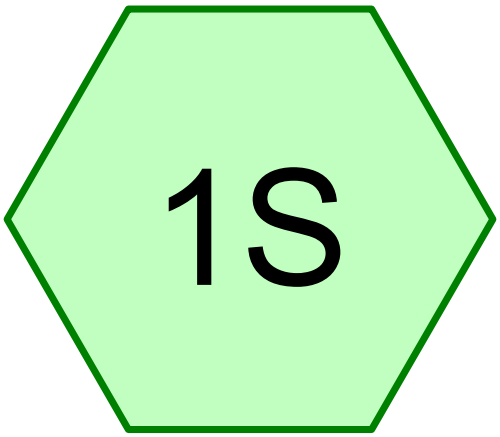
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YEAR Rainfall=5.60"

Area (sf)	CN	Description
2,057	98	Roofs, HSG A
2,438	98	Paved parking, HSG A
5,191	39	>75% Grass cover, Good, HSG A
9,686	66	Weighted Average
5,191		53.59% Pervious Area
4,495		46.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.0	21	0.0476	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.21"
0.7	58	0.0345	1.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	26	0.0577	3.87		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
0.0	14	0.0714	5.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	119	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: 294 Lincoln Avenue





294 Lincoln Avenue

Subcat Reach Pond Link

Routing Diagram for 5548-PRE
Prepared by Altus Engineering, Printed 5/19/2025
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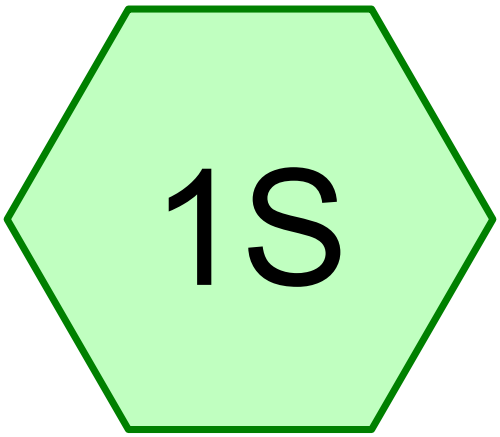
Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: 294 Lincoln Avenue Runoff Area=9,686 sf 46.41% Impervious Runoff Depth=3.28"
Flow Length=119' Tc=6.0 min CN=66 Runoff=0.83 cfs 0.061 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.061 af Average Runoff Depth = 3.28"
53.59% Pervious = 0.119 ac 46.41% Impervious = 0.103 ac



294 Lincoln Avenue

Subcat Reach Pond Link

Routing Diagram for 5548-PRE
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HydroCAD® 10.00-26 s/n 01222 © 2020 HydroCAD Software Solutions LLC

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: 294 Lincoln Avenue Runoff Area=9,686 sf 46.41% Impervious Runoff Depth=4.42"
Flow Length=119' Tc=6.0 min CN=66 Runoff=1.13 cfs 0.082 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.082 af Average Runoff Depth = 4.42"
53.59% Pervious = 0.119 ac 46.41% Impervious = 0.103 ac

Section 4

Drainage Calculations

Post-Development
2-Year, 24-Hour Summary
10-Year, 24-Hour Complete
25-Year, 24-Hour Summary
50-Year, 24-Hour Summary

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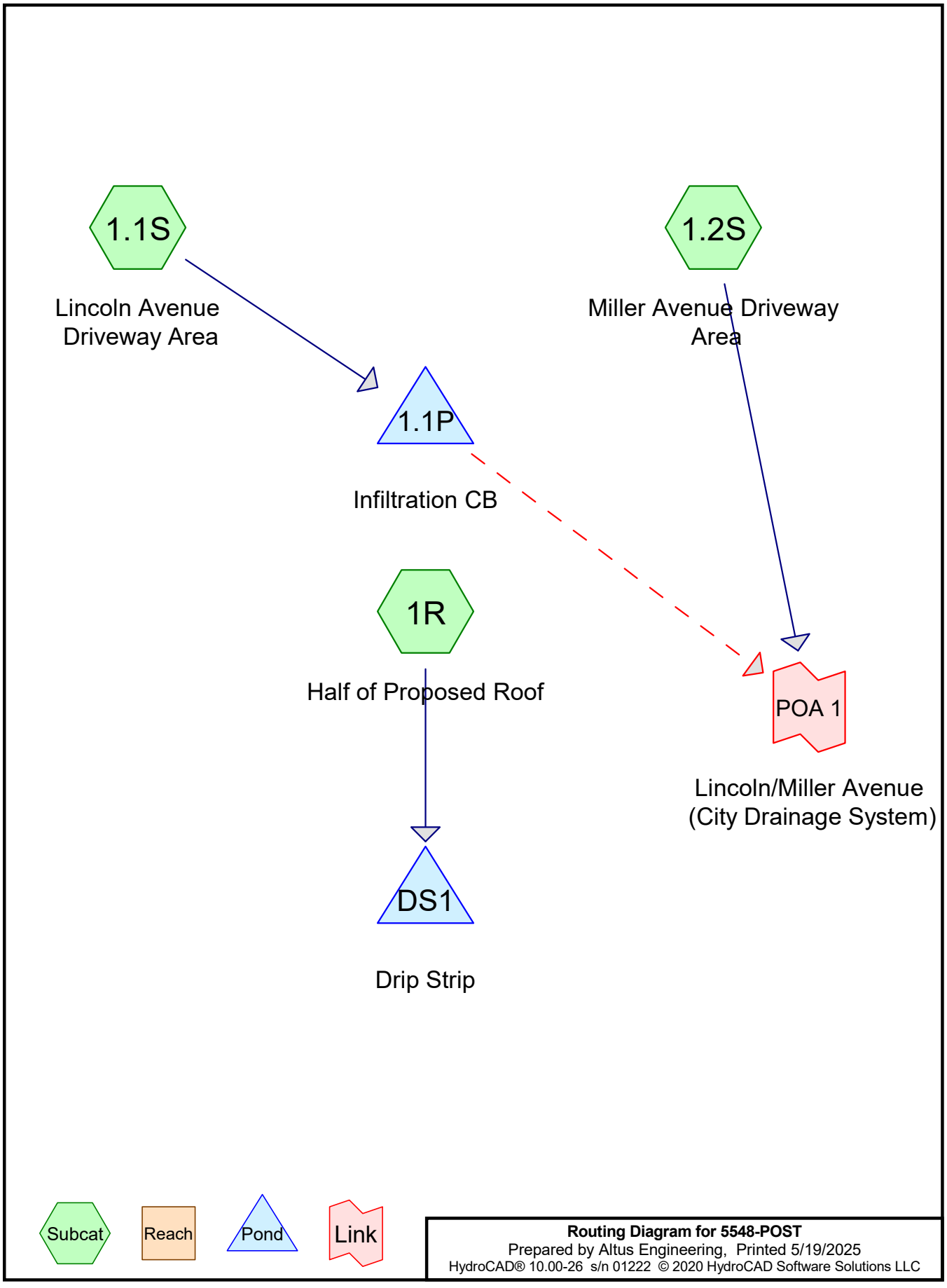

Routing Diagram for 5548-POST
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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Lincoln Avenue Runoff Area=4,231 sf 66.56% Impervious Runoff Depth=1.64"
Flow Length=42' Tc=6.0 min CN=78 Runoff=0.18 cfs 0.013 af

Subcatchment 1.2S: Miller Avenue Runoff Area=4,511 sf 37.35% Impervious Runoff Depth=0.66"
Flow Length=116' Tc=6.0 min CN=61 Runoff=0.06 cfs 0.006 af

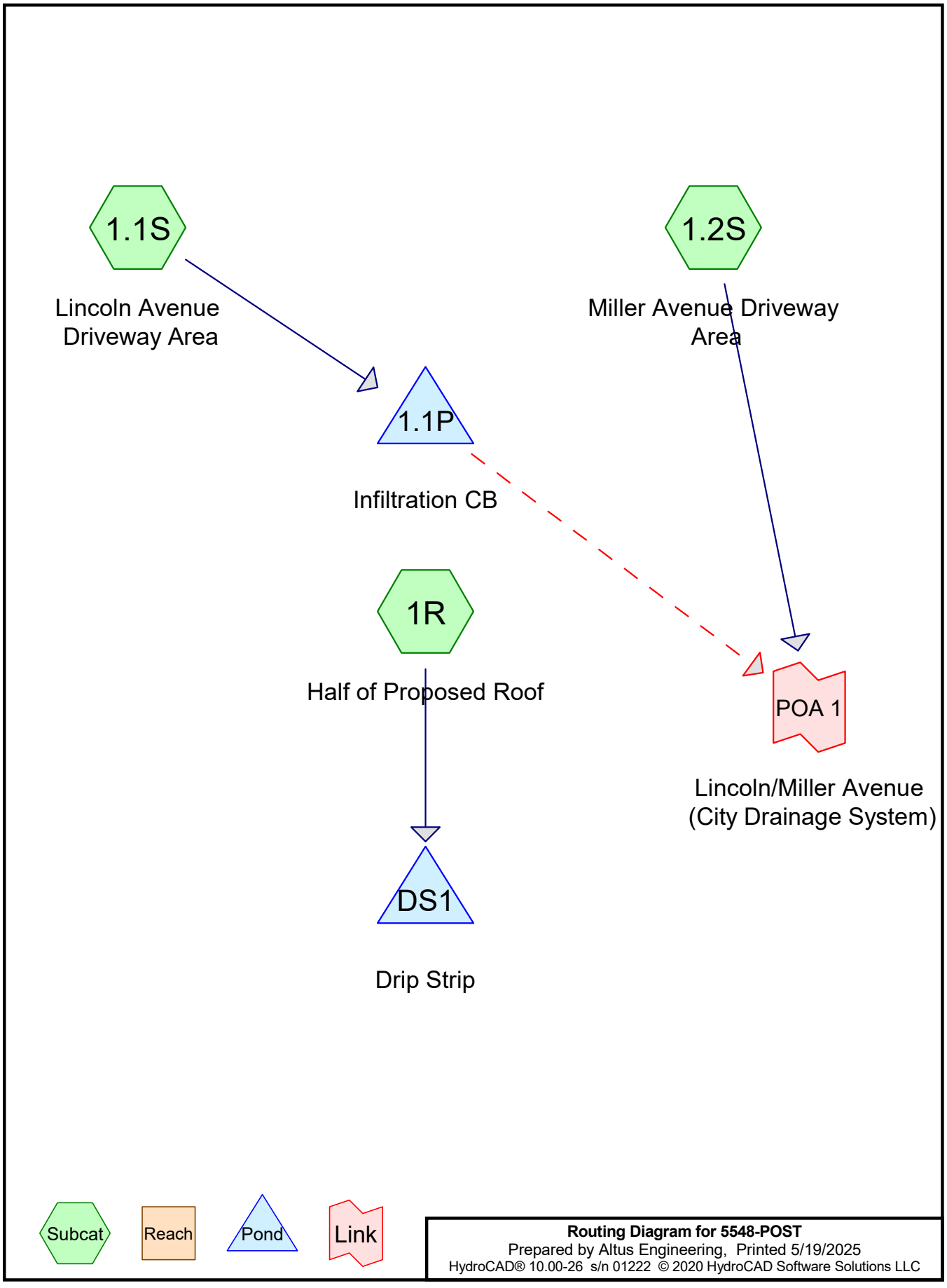
Subcatchment 1R: Half of Proposed Roof Runoff Area=944 sf 80.51% Impervious Runoff Depth=2.35"
Tc=6.0 min CN=87 Runoff=0.06 cfs 0.004 af

Pond 1.1P: Infiltration CB Peak Elev=18.99' Storage=167 cf Inflow=0.18 cfs 0.013 af
Discarded=0.02 cfs 0.012 af Secondary=0.08 cfs 0.001 af Outflow=0.10 cfs 0.013 af

Pond DS1: Drip Strip Peak Elev=0.25' Storage=18 cf Inflow=0.06 cfs 0.004 af
Outflow=0.03 cfs 0.004 af

Link POA 1: Lincoln/Miller Avenue (City Drainage System) Inflow=0.12 cfs 0.007 af
Primary=0.12 cfs 0.007 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.023 af Average Runoff Depth = 1.25"
45.68% Pervious = 0.102 ac 54.32% Impervious = 0.121 ac



Routing Diagram for 5548-POST
Prepared by Altus Engineering, Printed 5/19/2025
HydroCAD® 10.00-26 s/n 01222 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.102	39	>75% Grass cover, Good, HSG A (1.1S, 1.2S, 1R)
0.057	98	Paved parking, HSG A (1.1S, 1.2S)
0.064	98	Roofs, HSG A (1.1S, 1.2S, 1R)
0.222	**71**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.222	HSG A	1.1S, 1.2S, 1R
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.222		**TOTAL AREA**

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Lincoln Avenue Runoff Area=4,231 sf 66.56% Impervious Runoff Depth=3.23"
Flow Length=42' Tc=6.0 min CN=78 Runoff=0.36 cfs 0.026 af

Subcatchment 1.2S: Miller Avenue Runoff Area=4,511 sf 37.35% Impervious Runoff Depth=1.74"
Flow Length=116' Tc=6.0 min CN=61 Runoff=0.20 cfs 0.015 af

Subcatchment 1R: Half of Proposed Roof Runoff Area=944 sf 80.51% Impervious Runoff Depth=4.14"
Tc=6.0 min CN=87 Runoff=0.10 cfs 0.007 af

Pond 1.1P: Infiltration CB Peak Elev=19.23' Storage=176 cf Inflow=0.36 cfs 0.026 af
Discarded=0.03 cfs 0.017 af Secondary=0.33 cfs 0.009 af Outflow=0.36 cfs 0.026 af

Pond DS1: Drip Strip Peak Elev=0.81' Storage=60 cf Inflow=0.10 cfs 0.007 af
Outflow=0.03 cfs 0.007 af

Link POA 1: Lincoln/Miller Avenue (City Drainage System) Inflow=0.53 cfs 0.024 af
Primary=0.53 cfs 0.024 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.049 af Average Runoff Depth = 2.62"
45.68% Pervious = 0.102 ac 54.32% Impervious = 0.121 ac

Summary for Subcatchment 1.1S: Lincoln Avenue Driveway Area

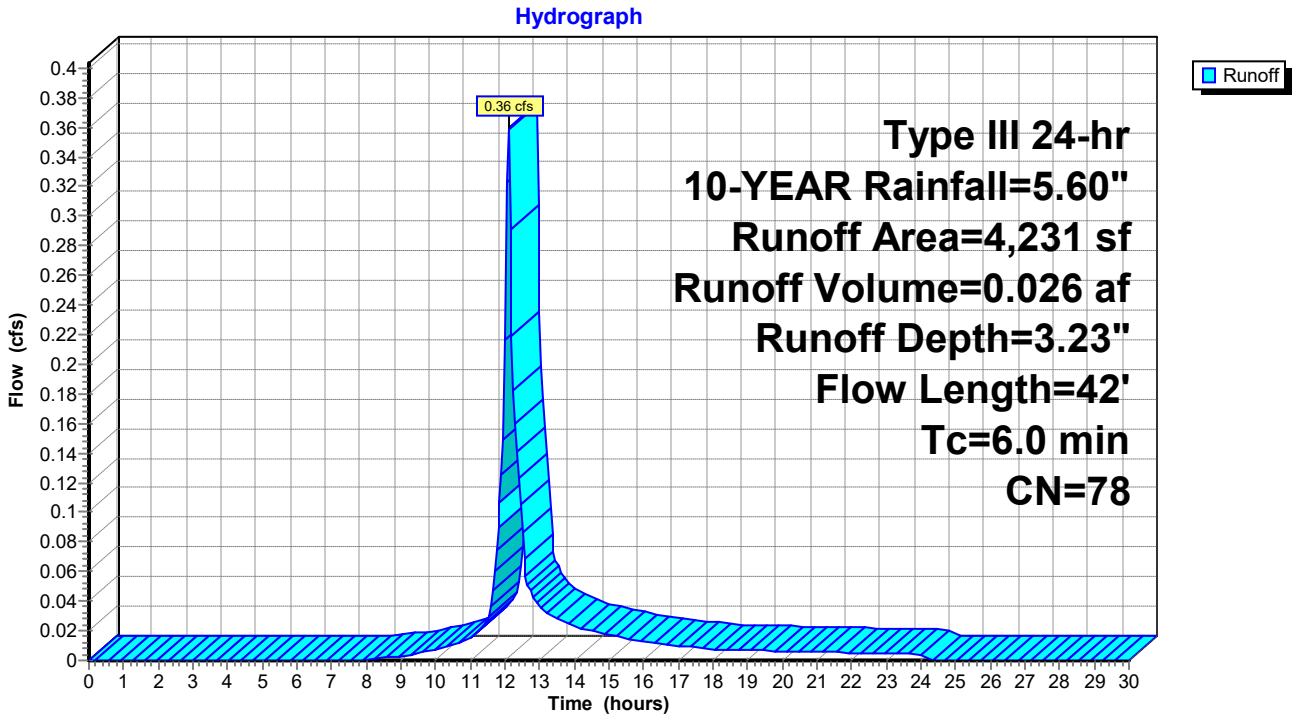
Runoff = 0.36 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 3.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YEAR Rainfall=5.60"

Area (sf)	CN	Description
1,262	98	Roofs, HSG A
1,554	98	Paved parking, HSG A
1,415	39	>75% Grass cover, Good, HSG A
4,231	78	Weighted Average
1,415		33.44% Pervious Area
2,816		66.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	15	0.1000	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.21"
0.1	27	0.0259	3.27		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.2	42	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1.1S: Lincoln Avenue Driveway Area



Summary for Subcatchment 1.2S: Miller Avenue Driveway Area

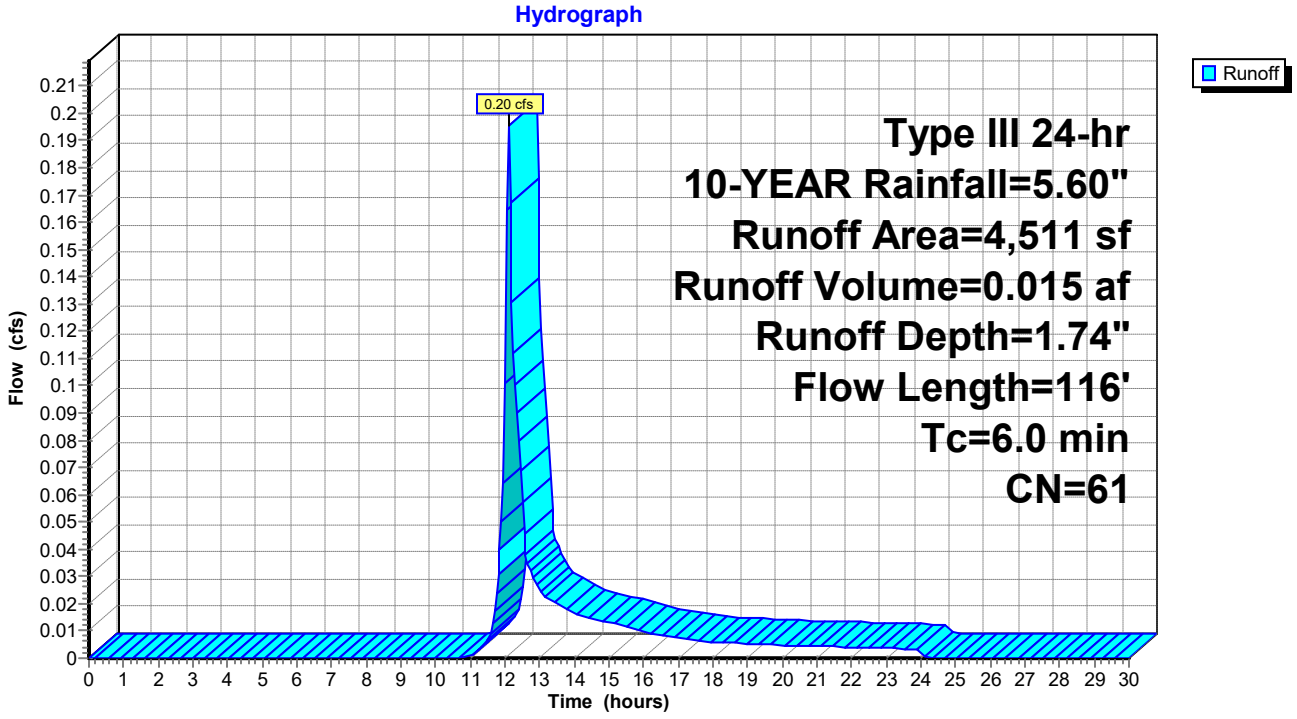
Runoff = 0.20 cfs @ 12.10 hrs, Volume= 0.015 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YEAR Rainfall=5.60"

Area (sf)	CN	Description
762	98	Roofs, HSG A
923	98	Paved parking, HSG A
2,826	39	>75% Grass cover, Good, HSG A
4,511	61	Weighted Average
2,826		62.65% Pervious Area
1,685		37.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	32	0.0156	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.21"
0.5	47	0.0489	1.55		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	37	0.0595	4.95		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.9	116	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1.2S: Miller Avenue Driveway Area



Summary for Subcatchment 1R: Half of Proposed Roof

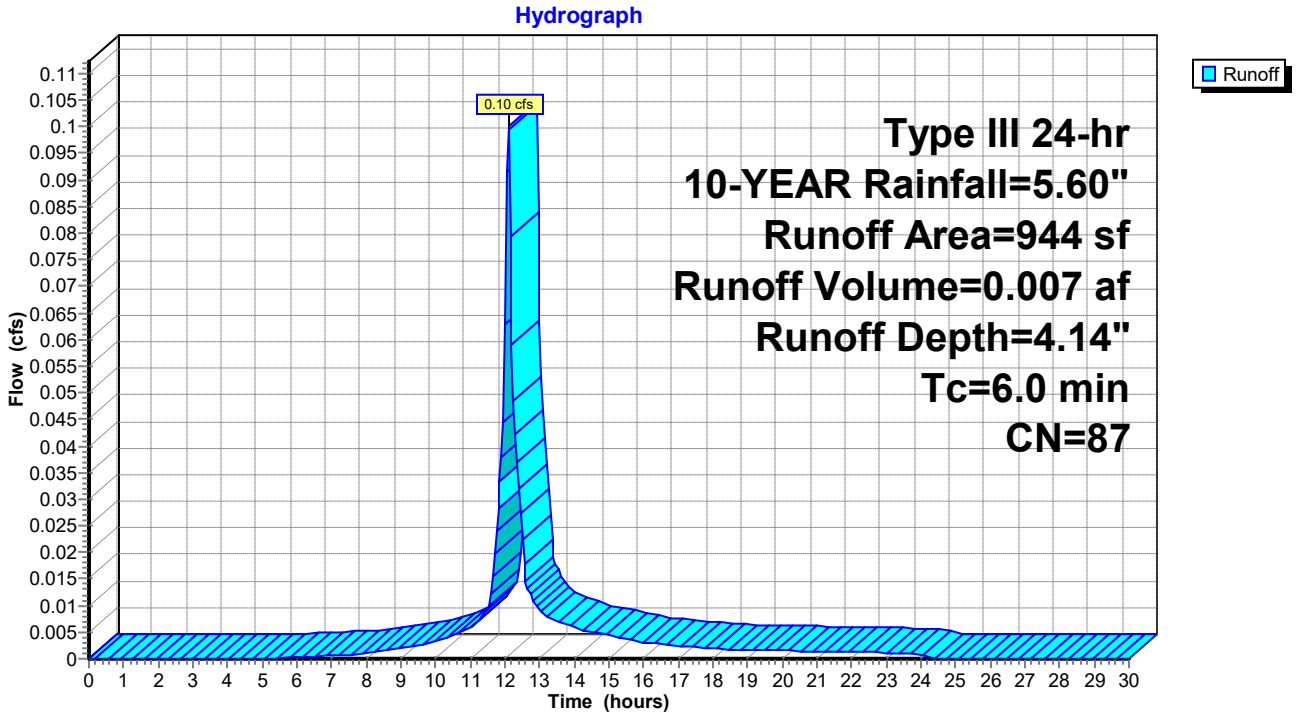
Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 4.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YEAR Rainfall=5.60"

Area (sf)	CN	Description
760	98	Roofs, HSG A
184	39	>75% Grass cover, Good, HSG A
944	87	Weighted Average
184		19.49% Pervious Area
760		80.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1R: Half of Proposed Roof



Summary for Pond 1.1P: Infiltration CB

Inflow Area = 0.097 ac, 66.56% Impervious, Inflow Depth = 3.23" for 10-YEAR event
Inflow = 0.36 cfs @ 12.09 hrs, Volume= 0.026 af
Outflow = 0.36 cfs @ 12.10 hrs, Volume= 0.026 af, Atten= 1%, Lag= 0.5 min
Discarded = 0.03 cfs @ 12.10 hrs, Volume= 0.017 af
Secondary = 0.33 cfs @ 12.10 hrs, Volume= 0.009 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 19.23' @ 12.10 hrs Surf.Area= 50 sf Storage= 176 cf
Flood Elev= 21.80' Surf.Area= 100 sf Storage= 264 cf

Plug-Flow detention time= 52.1 min calculated for 0.026 af (100% of inflow)
Center-of-Mass det. time= 52.1 min (874.2 - 822.1)

Volume	Invert	Avail.Storage	Storage Description
#1	14.00'	76 cf	**8' Dia. Stone Around CB (Conic)** Listed below (Recalc) 372 cf Overall - 181 cf Embedded = 191 cf x 40.0% Voids
#2	15.00'	181 cf	**6' CB Structure (Conic)** Listed below (Recalc) Inside #1
#3	21.60'	51 cf	**Storage Above Rim of CB (Conic)** Listed below (Recalc)
		308 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
14.00	50	0	0	50
21.30	50	365	365	233
21.60	4	7	372	279

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
15.00	28	0	0	28
21.30	28	176	176	146
21.60	4	4	181	170

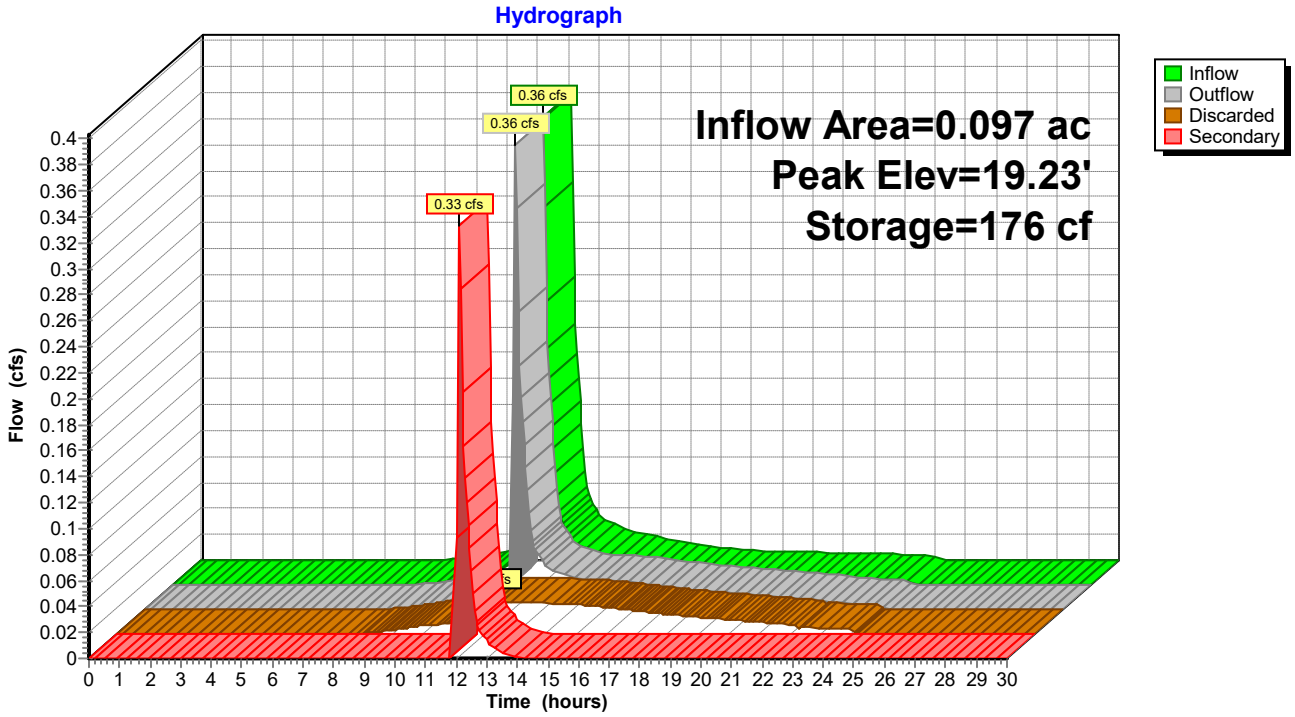
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
21.60	0	0	0	0
22.00	384	51	51	384

Device	Routing	Invert	Outlet Devices
#1	Discarded	14.00'	**6.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Secondary	18.80'	**6.0" Round Culvert** L= 49.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 18.80' / 18.50' S= 0.0061 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.03 cfs @ 12.10 hrs HW=19.23' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Secondary OutFlow Max=0.33 cfs @ 12.10 hrs HW=19.23' TW=0.00' (Dynamic Tailwater)
↑—**2=Culvert** (Barrel Controls 0.33 cfs @ 2.48 fps)

Pond 1.1P: Infiltration CB



Summary for Pond DS1: Drip Strip

Inflow Area = 0.022 ac, 80.51% Impervious, Inflow Depth = 4.14" for 10-YEAR event
Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af
Outflow = 0.03 cfs @ 12.41 hrs, Volume= 0.007 af, Atten= 69%, Lag= 19.3 min
Discarded = 0.03 cfs @ 12.41 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 0.81' @ 12.41 hrs Surf.Area= 184 sf Storage= 60 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 9.9 min (807.0 - 797.1)

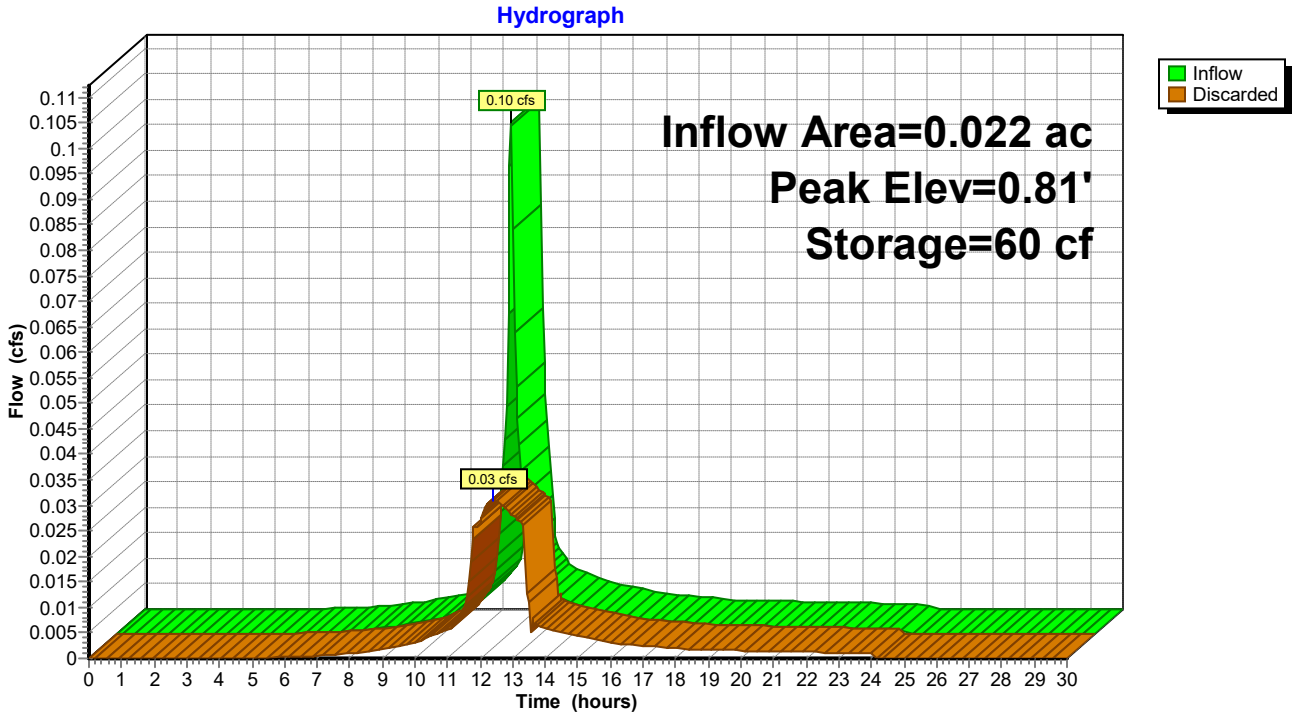
Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	294 cf	**Custom Stage Data (Conic)** Listed below (Recalc) 736 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
0.00	184	0	0	184
4.00	184	736	736	376

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	**6.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'

Discarded OutFlow Max=0.03 cfs @ 12.41 hrs HW=0.81' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.03 cfs)

Pond DS1: Drip Strip

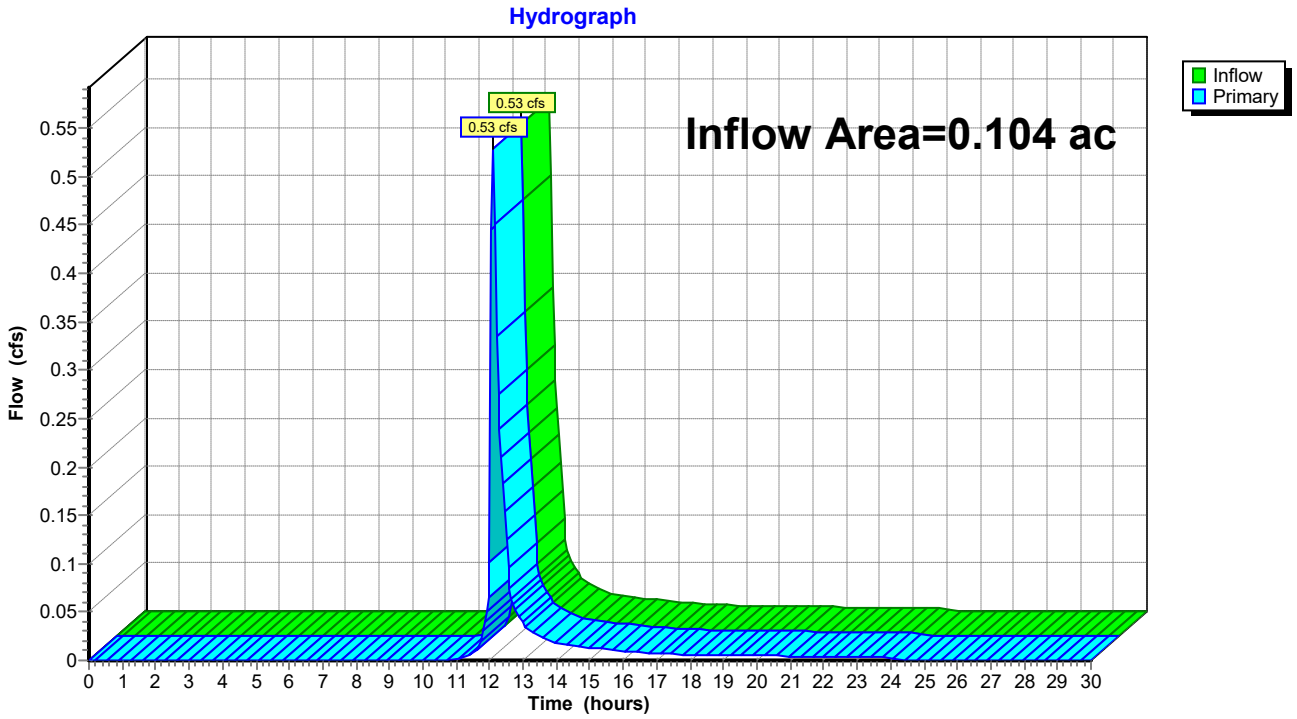


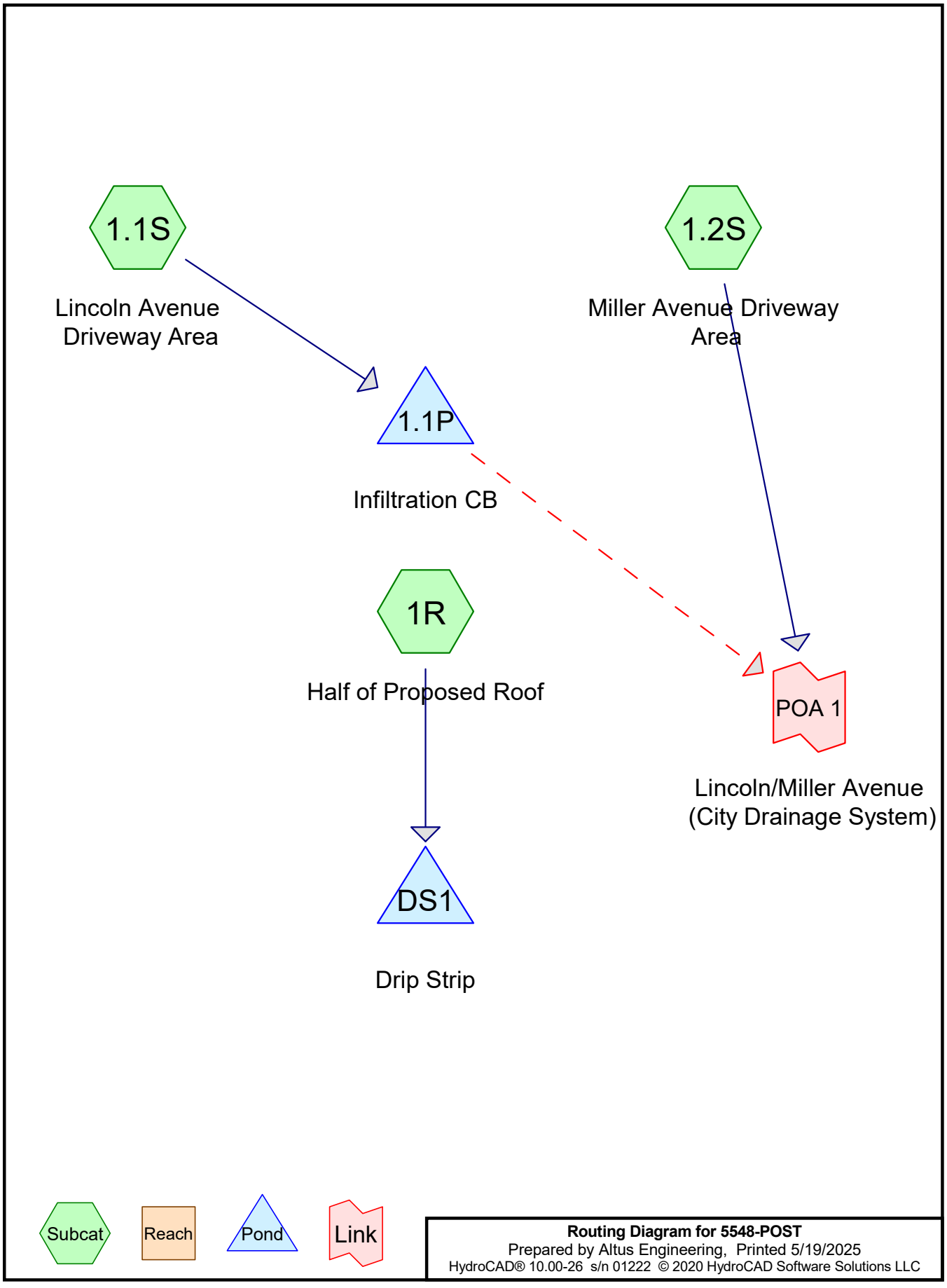
Summary for Link POA 1: Lincoln/Miller Avenue (City Drainage System)

Inflow Area = 0.104 ac, 37.35% Impervious, Inflow Depth = 2.76" for 10-YEAR event
Inflow = 0.53 cfs @ 12.10 hrs, Volume= 0.024 af
Primary = 0.53 cfs @ 12.10 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Link POA 1: Lincoln/Miller Avenue (City Drainage System)





Routing Diagram for 5548-POST
Prepared by Altus Engineering, Printed 5/19/2025
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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Lincoln Avenue Runoff Area=4,231 sf 66.56% Impervious Runoff Depth=4.57"
Flow Length=42' Tc=6.0 min CN=78 Runoff=0.51 cfs 0.037 af

Subcatchment 1.2S: Miller Avenue Runoff Area=4,511 sf 37.35% Impervious Runoff Depth=2.77"
Flow Length=116' Tc=6.0 min CN=61 Runoff=0.32 cfs 0.024 af

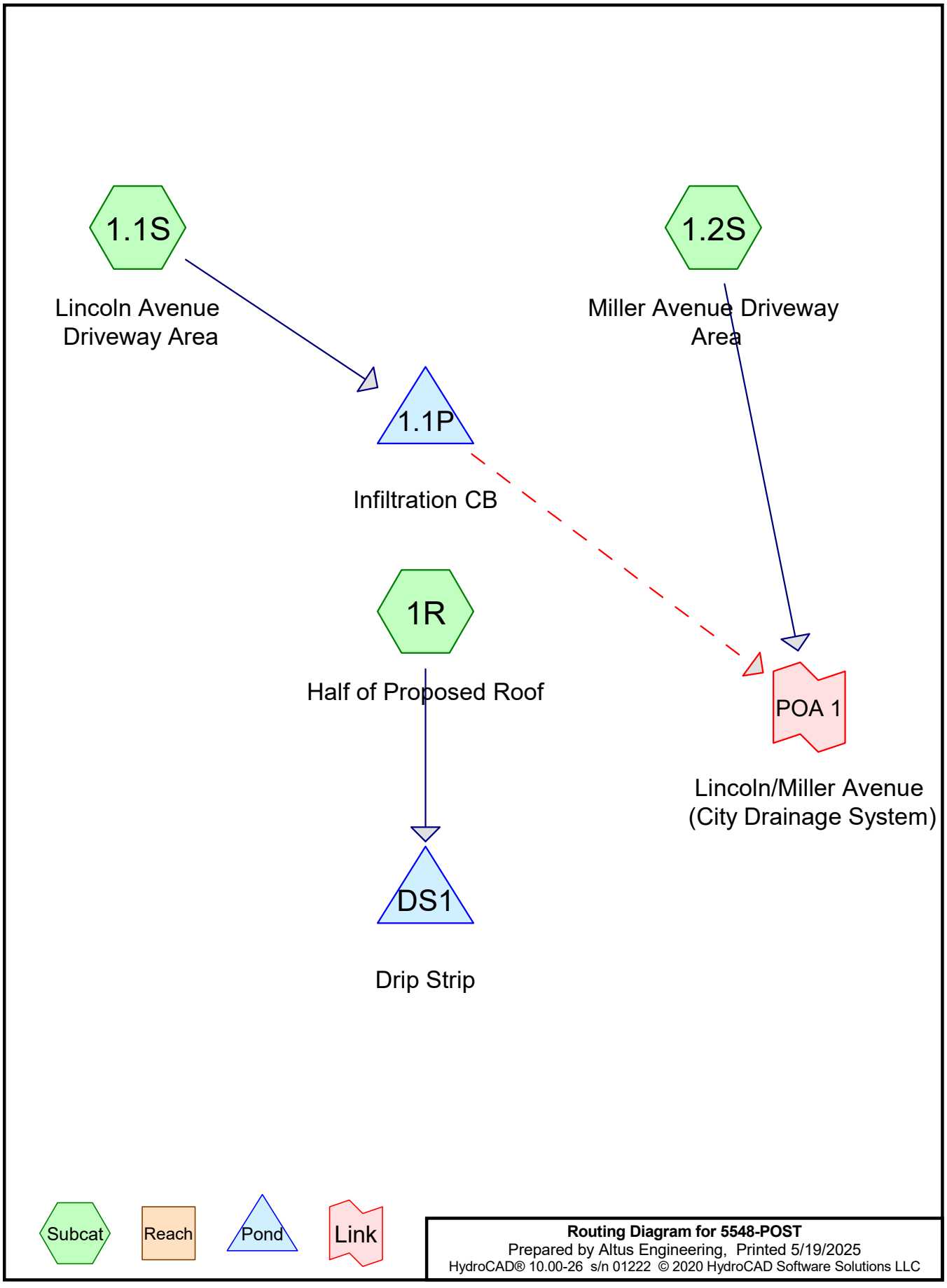
Subcatchment 1R: Half of Proposed Roof Runoff Area=944 sf 80.51% Impervious Runoff Depth=5.58"
Tc=6.0 min CN=87 Runoff=0.13 cfs 0.010 af

Pond 1.1P: Infiltration CB Peak Elev=19.37' Storage=181 cf Inflow=0.51 cfs 0.037 af
Discarded=0.03 cfs 0.021 af Secondary=0.48 cfs 0.016 af Outflow=0.50 cfs 0.037 af

Pond DS1: Drip Strip Peak Elev=1.33' Storage=98 cf Inflow=0.13 cfs 0.010 af
Outflow=0.03 cfs 0.010 af

Link POA 1: Lincoln/Miller Avenue (City Drainage System) Inflow=0.80 cfs 0.040 af
Primary=0.80 cfs 0.040 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.071 af Average Runoff Depth = 3.83"
45.68% Pervious = 0.102 ac 54.32% Impervious = 0.121 ac



Routing Diagram for 5548-POST
Prepared by Altus Engineering, Printed 5/19/2025
HydroCAD® 10.00-26 s/n 01222 © 2020 HydroCAD Software Solutions LLC

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Lincoln Avenue Runoff Area=4,231 sf 66.56% Impervious Runoff Depth=5.85"
Flow Length=42' Tc=6.0 min CN=78 Runoff=0.64 cfs 0.047 af

Subcatchment 1.2S: Miller Avenue Runoff Area=4,511 sf 37.35% Impervious Runoff Depth=3.83"
Flow Length=116' Tc=6.0 min CN=61 Runoff=0.45 cfs 0.033 af

Subcatchment 1R: Half of Proposed Roof Runoff Area=944 sf 80.51% Impervious Runoff Depth=6.94"
Tc=6.0 min CN=87 Runoff=0.16 cfs 0.013 af

Pond 1.1P: Infiltration CB Peak Elev=19.66' Storage=191 cf Inflow=0.64 cfs 0.047 af
Discarded=0.03 cfs 0.023 af Secondary=0.58 cfs 0.024 af Outflow=0.61 cfs 0.047 af

Pond DS1: Drip Strip Peak Elev=1.85' Storage=136 cf Inflow=0.16 cfs 0.013 af
Outflow=0.04 cfs 0.013 af

Link POA 1: Lincoln/Miller Avenue (City Drainage System) Inflow=1.03 cfs 0.057 af
Primary=1.03 cfs 0.057 af

Total Runoff Area = 0.222 ac Runoff Volume = 0.093 af Average Runoff Depth = 5.02"
45.68% Pervious = 0.102 ac 54.32% Impervious = 0.121 ac

Section 5

Precipitation Table

ALTUS ENGINEERING

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Add 15% to each storm
2 year - 3.69 inches
10 year - 5.60 inches
25 year - 7.10 inches
50 year - 8.50 inches
100 year - 10.18 inches

Metadata for Point

Smoothing	Yes
State	
Location	
Latitude	43.068 degrees North
Longitude	70.759 degrees West
Elevation	0 feet
Date/Time	Mon May 12 2025 11:46:29 GMT-0400 (Eastern Daylight Time)

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.04	**1yr**	0.70	0.98	1.21	1.56	2.03	2.66	2.92	**1yr**	2.35	2.81	3.22	3.94	4.55	**1yr**
2yr	0.32	0.50	0.62	0.81	1.02	1.30	**2yr**	0.88	1.18	1.52	1.94	2.49	3.21	3.57	**2yr**	2.84	3.43	3.94	4.68	5.33	**2yr**
5yr	0.37	0.58	0.73	0.98	1.25	1.61	**5yr**	1.08	1.47	1.89	2.43	3.14	4.07	4.58	**5yr**	3.60	4.40	5.04	5.94	6.70	**5yr**
10yr	0.41	0.65	0.82	1.12	1.45	1.89	**10yr**	1.25	1.73	2.23	2.89	3.75	4.87	5.53	**10yr**	4.31	5.32	6.09	7.11	7.98	**10yr**
25yr	0.48	0.76	0.97	1.34	1.77	2.34	**25yr**	1.53	2.14	2.78	3.63	4.74	6.17	7.10	**25yr**	5.46	6.83	7.80	9.03	10.05	**25yr**
50yr	0.54	0.86	1.10	1.54	2.07	2.76	**50yr**	1.79	2.53	3.29	4.32	5.66	7.39	8.58	**50yr**	6.54	8.25	9.42	10.81	11.98	**50yr**
100yr	0.60	0.97	1.25	1.77	2.42	3.26	**100yr**	2.09	2.98	3.90	5.16	6.77	8.85	10.38	**100yr**	7.83	9.98	11.38	12.96	14.27	**100yr**
200yr	0.67	1.10	1.43	2.05	2.82	3.83	**200yr**	2.44	3.52	4.62	6.13	8.08	10.61	12.55	**200yr**	9.39	12.07	13.76	15.55	17.02	**200yr**
500yr	0.80	1.31	1.71	2.48	3.48	4.76	**500yr**	3.00	4.38	5.76	7.70	10.22	13.48	16.14	**500yr**	11.93	15.52	17.67	19.78	21.49	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.36	0.44	0.59	0.72	0.88	**1yr**	0.63	0.86	0.92	1.33	1.68	2.24	2.49	**1yr**	1.98	2.40	2.87	3.18	3.90	**1yr**
2yr	0.31	0.49	0.60	0.81	1.00	1.19	**2yr**	0.86	1.16	1.37	1.82	2.34	3.06	3.45	**2yr**	2.71	3.32	3.82	4.55	5.08	**2yr**
5yr	0.35	0.54	0.67	0.92	1.17	1.40	**5yr**	1.01	1.37	1.61	2.12	2.73	3.79	4.19	**5yr**	3.35	4.03	4.72	5.53	6.24	**5yr**
10yr	0.39	0.59	0.73	1.03	1.33	1.60	**10yr**	1.14	1.56	1.80	2.39	3.06	4.37	4.86	**10yr**	3.87	4.67	5.44	6.41	7.20	**10yr**
25yr	0.44	0.67	0.83	1.19	1.56	1.90	**25yr**	1.35	1.86	2.10	2.75	3.53	4.72	5.89	**25yr**	4.18	5.66	6.65	7.79	8.68	**25yr**
50yr	0.48	0.73	0.91	1.31	1.76	2.17	**50yr**	1.52	2.12	2.35	3.07	3.93	5.33	6.80	**50yr**	4.72	6.54	7.72	9.04	10.02	**50yr**
100yr	0.54	0.81	1.01	1.47	2.01	2.47	**100yr**	1.73	2.41	2.63	3.41	4.35	6.00	7.85	**100yr**	5.31	7.55	8.98	10.51	11.56	**100yr**
200yr	0.59	0.89	1.13	1.63	2.28	2.81	**200yr**	1.96	2.75	2.93	3.78	4.79	6.72	9.06	**200yr**	5.95	8.71	10.42	12.22	13.37	**200yr**
500yr	0.68	1.02	1.31	1.90	2.71	3.36	**500yr**	2.34	3.29	3.41	4.31	5.45	7.82	10.94	**500yr**	6.92	10.52	12.69	14.96	16.19	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.44	0.54	0.72	0.89	1.08	**1yr**	0.77	1.06	1.26	1.74	2.21	2.98	3.16	**1yr**	2.64	3.04	3.58	4.37	5.04	**1yr**
2yr	0.34	0.52	0.64	0.86	1.07	1.27	**2yr**	0.92	1.24	1.48	1.96	2.51	3.42	3.70	**2yr**	3.03	3.56	4.09	4.84	5.63	**2yr**
5yr	0.40	0.62	0.77	1.05	1.34	1.62	**5yr**	1.15	1.58	1.88	2.53	3.25	4.34	4.96	**5yr**	3.84	4.77	5.38	6.37	7.16	**5yr**
10yr	0.47	0.72	0.89	1.25	1.61	1.98	**10yr**	1.39	1.93	2.28	3.11	3.95	5.34	6.20	**10yr**	4.72	5.96	6.82	7.84	8.75	**10yr**
25yr	0.58	0.88	1.09	1.56	2.05	2.57	**25yr**	1.77	2.51	2.95	4.07	5.15	7.78	8.34	**25yr**	6.88	8.02	9.15	10.34	11.41	**25yr**
50yr	0.67	1.02	1.27	1.83	2.46	3.13	**50yr**	2.12	3.06	3.60	5.00	6.32	9.74	10.46	**50yr**	8.62	10.06	11.44	12.72	13.96	**50yr**
100yr	0.79	1.19	1.49	2.16	2.96	3.81	**100yr**	2.55	3.72	4.37	6.16	7.76	12.18	13.10	**100yr**	10.78	12.60	14.31	15.69	17.09	**100yr**
200yr	0.92	1.39	1.76	2.55	3.56	4.65	**200yr**	3.07	4.55	5.34	7.58	9.54	15.28	16.44	**200yr**	13.53	15.81	17.92	19.35	20.92	**200yr**
500yr	1.15	1.71	2.19	3.19	4.53	6.04	**500yr**	3.91	5.90	6.93	10.02	12.56	20.65	22.20	**500yr**	18.27	21.34	24.13	25.51	27.34	**500yr**

Powered by ACIS Northeast Regional Climate Center

Section 6

NRCS Soils Report

ALTUS ENGINEERING

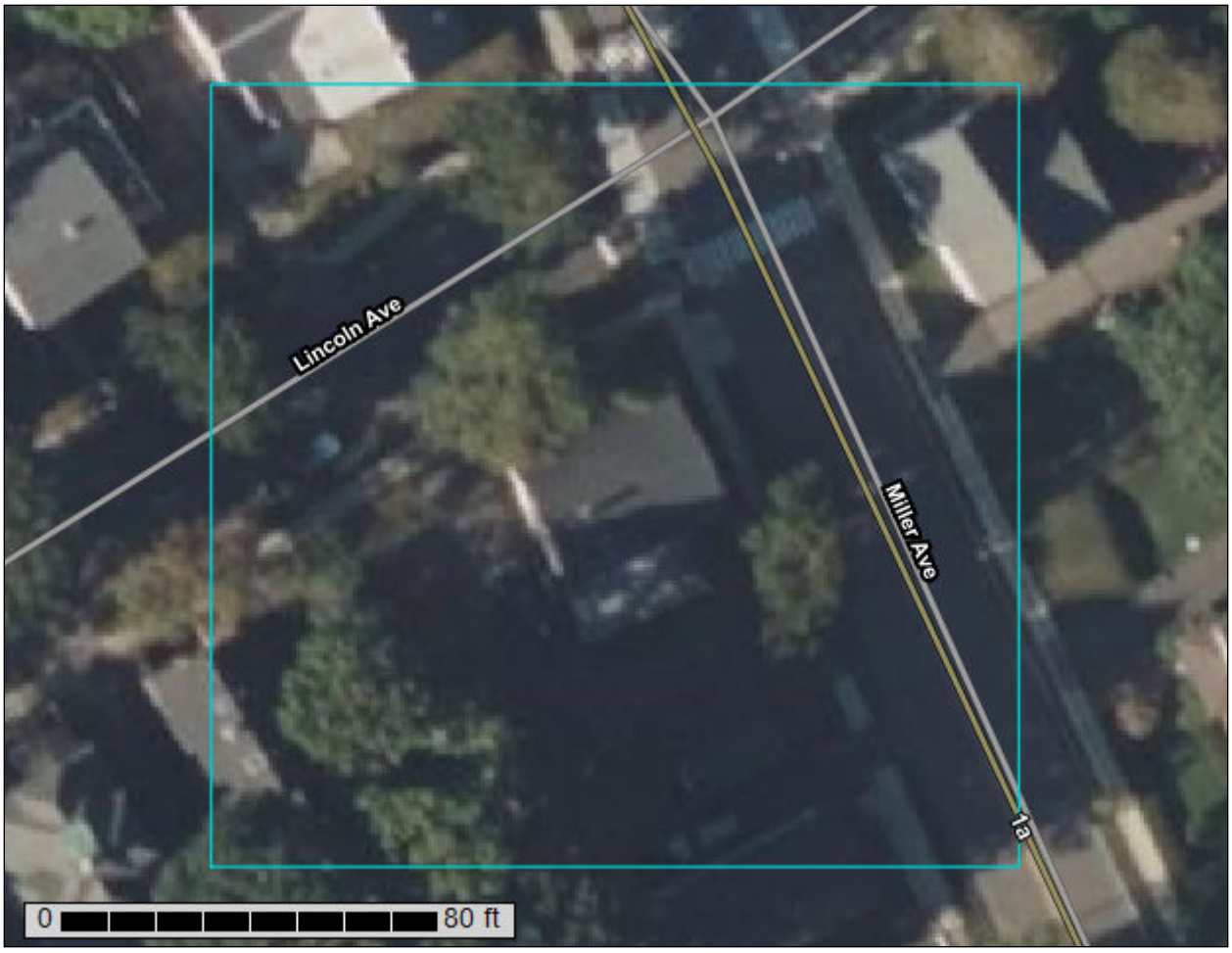
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Rockingham County, New Hampshire



May 12, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:428 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 5 10 20 30

Feet
0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
Survey Area Data: Version 27, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
799	Urban land-Canton complex, 3 to 15 percent slopes	0.7	100.0%
Totals for Area of Interest		**0.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockingham County, New Hampshire

799—Urban land-Canton complex, 3 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9cq0
Elevation: 0 to 1,000 feet
Mean annual precipitation: 42 to 46 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 120 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 55 percent
Canton and similar soils: 20 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton

Setting

Parent material: Till

Typical profile

H1 - 0 to 5 inches: gravelly fine sandy loam
H2 - 5 to 21 inches: gravelly fine sandy loam
H3 - 21 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Boxford and eldridge

Percent of map unit: 4 percent
Hydric soil rating: No

Squamscott and scitico

Percent of map unit: 4 percent
Landform: Marine terraces
Hydric soil rating: Yes

Scituate and newfields

Percent of map unit: 4 percent
Hydric soil rating: No

Chatfield

Percent of map unit: 4 percent
Hydric soil rating: No

Walpole

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Section 7

Stormwater Operations & Maintenance Plan Inspection Form
Stormwater Management Plan

ALTUS ENGINEERING

STORMWATER INSPECTION AND MAINTENANCE MANUAL

Garage Construction
Tax Map 130, Lot 024

OWNER:
City of Portsmouth
Public Works Department
680 Peverly Hill Road
Portsmouth, NH 03801

Proper inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. The following responsible parties shall be in charge of managing the stormwater facilities:

RESPONSIBLE PARTIES:

Owner:	*City of Portsmouth Public Works Department*		*(603) 427-1530*
	Name	*Company*	*Phone*
Inspection:	*City of Portsmouth Public Works Department*		*(603) 427-1530*
	Name	*Company*	*Phone*
Maintenance:	*City of Portsmouth Public Works Department*		*(603) 427-1530*
	Name	*Company*	*Phone*

NOTES:

Written inspection forms and maintenance logs shall be completed yearly by a qualified inspector retained the owner or assigns. Reports shall be submitted to the Portsmouth Public Works Department on or before January 31st of each year and a copy retained at the site's administrative office.

Photographs of each stormwater BMP are to be taken at each inspection and submitted with the annual inspection reports.

Inspection and maintenance responsibilities shall transfer to any future property owner(s).

ALTUS ENGINEERING

This manual shall be updated as needed to reflect any changes related to any transfer of ownership and/or any delegation of inspection and maintenance responsibilities to another entity

CULVERTS AND DRAINAGE PIPES

Function – Drainage pipes convey stormwater away from buildings, walkways, and parking areas and to closed drainage systems.

Maintenance

- Drainage pipes shall be inspected semi-annually, or more often as needed, for accumulation of debris and structural integrity. Leaves and other debris shall be removed from the inlet and outlet to insure the functionality of drainage structures. Debris shall be disposed of on site where it will not concentrate back at the drainage structures or at a solid waste disposal facility.

LEACHING CATCH BASINS AND DRAIN MANHOLES

Function – Leaching catch basins allow for the infiltration of and provide treatment to runoff.

Maintenance

- Inspect annually and after significant rainfall events.
- If an infiltration-based practice does not completely drain within 72-hours following a rainfall event, then a qualified professional shall be retained to assess the condition of the facility to determine measures required to restore its filtration and/or infiltration function(s), including but not limited to removal of accumulated sediments and/or replacement or reconstruction of the structure.
- Remove any obstructions, litter and accumulated sediment or debris as warranted but no less than once a year.

LANDSCAPED AREAS - FERTILIZER MANAGEMENT

Function – Fertilizer management involves controlling the rate, timing and method of fertilizer application so that the nutrients are taken up by the plants thereby reducing the chance of polluting the surface and ground waters. Fertilizer management can be effective in reducing the amounts of phosphorus and nitrogen in runoff from landscaped areas, particularly lawns.

Maintenance

- Have the soil tested by your landscaper or local Soil Conservation Service for nutrient requirements and follow the recommendations.
- Do not apply fertilizer to frozen ground.
- Clean up any fertilizer spills.
- Do not allow fertilizer to be broadcast into water bodies.
- When fertilizing a lawn, water thoroughly, but do not create a situation where water runs off the surface of the lawn.

LANDSCAPED AREAS - LITTER CONTROL

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

Maintenance

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

CONTROL OF INVASIVE PLANTS

Function – Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

Maintenance

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described in the attached "Methods for Disposing Non-Native Invasive Plants" prepared by the UNH Cooperative Extension.

GENERAL CLEAN UP

- Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet filter, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drainpipes that may have accumulated during construction.
- Once in operation, all paved areas of the site should be swept at least once annually at the end of winter/early spring prior to significant spring rains.

APPPENDIX

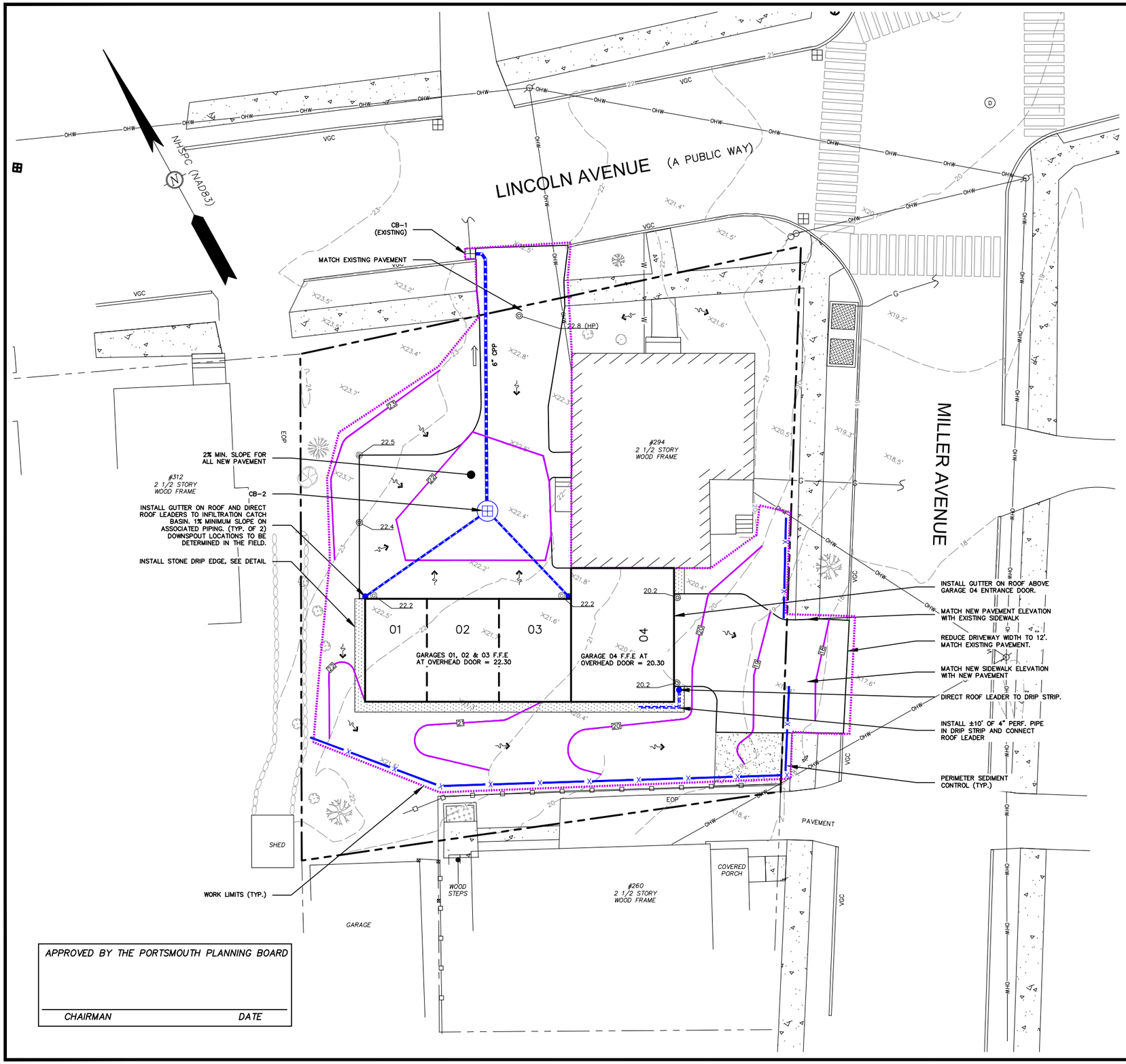
A. Stormwater System Operations and Maintenance Report
B. Grading, Drainage & Erosion Control Plan

STORM WATER SYSTEM OPERATION AND MAINTENANCE REPORT

General Information		
Project Name		
Owner		
Inspector's Name(s)		
Inspector's Contact Information		
Date of Inspection	**Start Time:**	**End Time:**
Type of Inspection: ☐ Annual Report ☐ Post-storm event ☐ Due to a discharge of significant amounts of sediment		
Notes:		

General Site Questions and Discharges of Significant Amounts of Sediment			
Subject		**Status**	**Notes**
A discharge of significant amounts of sediment may be indicated by (but is not limited to) observations of the following. Note whether any are observed during this inspection:			*Notes/ Action taken:*
1	Do the current site conditions reflect the attached site plan?	❑Yes ❑No	
2	Is the site permanently stabilized, temporary erosion and sediment controls are removed, and stormwater discharges from construction activity are eliminated?	❑Yes ❑No	
3	Is there evidence of the discharge of significant amounts of sediment to surface waters, or conveyance systems leading to surface waters?	❑Yes ❑No	

Permit Coverage and Plans				
#	**BMP/Facility**	**Inspected**	**Corrective Action Needed and Notes**	**Date Corrected**
	Leaching Catch Basins	❑Yes ❑No		
	Drainage Pipes	❑Yes ❑No		
	Site Vegetation	❑Yes ❑No		



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

DRAINAGE SCHEDULE

CB-1
RIM: 22.48
IN: 18.50 (CORE NEW 6" CONNECTION FROM CB-2)
OUT: 17.80 (EXISTING)

CB-2
6' DIA. INFILTRATION CATCH BASIN (SEE DETAIL)
RIM: 21.60
OUT: 18.80 (6" CPP)
L=±49' S=0.006 '/'

NOTES

1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON AREA APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, CITY OF PORTSMOUTH DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
2. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
4. ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE PORTSMOUTH POLICE DEPARTMENT AND DPW AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
5. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH AND NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
7. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND CITY REGULATIONS.
8. FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE ARCHITECT, CONTRACTOR, APPROPRIATE UTILITY COMPANIES AND THE PORTSMOUTH DPW.
9. WATER: PORTSMOUTH DPW WATER DIVISION, DOUG SPARKS, (603) 427-1409.
10. SEWER: PORTSMOUTH DPW SEWER DIVISION, DOUG SPARKS, (603) 427-1409.
11. TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427-5525.
12. CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
13. ELECTRICAL: EVERSOURCE, JOSHUA LAHAIE, (603) 332-7551.
14. GAS: UNITIL, DAVID BEAULIEU, (603) 294-5144
15. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
16. WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
17. CONTRACTOR SHALL PROVIDE DPW WITH DETAILS OF TEMPORARY & PERMANENT GROUNDWATER DEWATERING DESIGN IF NECESSARY.
18. SEE SHEET C-1 FOR LEGEND.
19. ALL UTILITIES FOR THE PROPOSED GARAGE WILL BE CONNECTED TO THE EXISTING BUILDING INTERNALLY.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)

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

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
5/19/25

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL	PMJ	05/19/25

DRAWN BY: PMJ
APPROVED BY: EDW
DRAWING FILE: 5548-SITE.dwg

SCALE:
22" x 34" - 1" = 10'
11" x 17" - 1" = 20'

OWNER:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

APPLICANT:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
GRADING, DRAINAGE & EROSION CONTROL PLAN

SHEET NUMBER:
C-3

P5548

Section 8

Watershed Plans

Pre-Development Watershed and Soils Plan
Post-Development Watershed and Soils Plan

ALTUS
ENGINEERING

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- 60 EXISTING CONTOUR
- 60 PROPOSED CONTOUR
- WATERSHED BOUNDARY
- Tc PATH
- REACH PATH
- PROPOSED TREE CLEARING LIMIT
- STREAM
- PROPOSED GROUND SLOPE DIRECTION
- SCS SOIL BOUNDARY
- 299B SCS SOIL DESIGNATION
- SOILS – HSG A
- SOILS – HSG B
- SOILS – HSG C
- SOILS – HSG D
- SOILS – IMPERVIOUS
- SOILS – WATER
- 1 1 1 SUBCATCHMENT/POND/REACH
- POA POINT OF ANALYSIS

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

ALTUS ENGINEERING
133 Court Street Portsmouth, NH 03801
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GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
PRE-DEVELOPMENT WATERSHED AND SOILS PLAN

SHEET NUMBER:
WS-1

P5548

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- 60 EXISTING CONTOUR
- 60 PROPOSED CONTOUR
- WATERSHED BOUNDARY
- Tc PATH
- REACH PATH
- PROPOSED TREE CLEARING LIMIT
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- POA POINT OF ANALYSIS

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

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GARY B. DODDS
REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

APPLICANT:
GARY B. DODDS
REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024

294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
POST-DEVELOPMENT WATERSHED AND SOILS PLAN

SHEET NUMBER:
WS-2

P5548

9:07
Mail
Portsmouth

Specifications

Dimensions: H 12 in, W 6.5 in, D 7.7 in

Sconce Type

Lantern

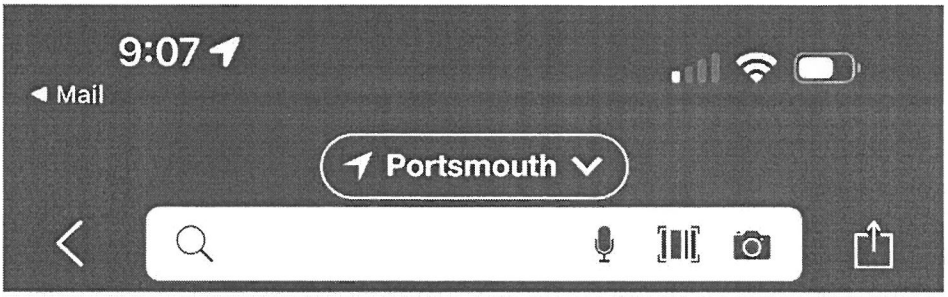
See Similar Items

Number of Lights

1 Light

See Similar Items

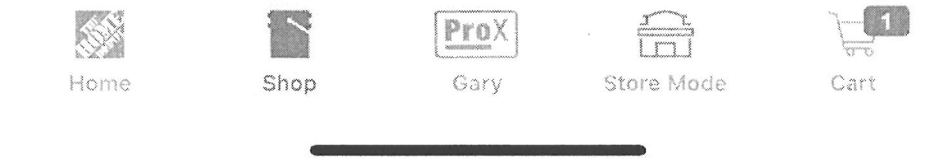
Home
Shop
ProX
Gary
Store Mode
Cart
1



About This Product

Update your exterior lighting experience with the LNC new arrival black wall light with a motion sensor. Feature the classic minimalist design in a black finish, with the clear glass shade, this wall lantern creates a modern flair to your decor. Constructed with an advanced motion sensor, which can adjust the time and brightness of the lighting when someone moves near the light. This outdoor wall sconce can be a perfect lighting fixture to brighten your space and make your life more convenient and efficient.

- Modern design: minimalist outlook with clear glass shade, finished in black, the wall sconce gives off a sense of high-end modern vibe
- Smart exterior wall light: equipped with a sensitive motion sensor, this wall sconce can auto-turn on at dusk and auto-turn off at the dawn, greatly saving electric energy
- Wide application: this dusk-to-dawn wall light is ideal for entranceways, garbage, porch, patio, etc.
- Light fixture dimension: 6.5 in. W x 7.7 in. D x 12 in. H; backplate dimension: 4.5 in. W x 1 in. D x 6.5 in. H
- Bulb requirement: the modern black wall sconce works with 1 x E26 base maximum 60-Watt (bulb not included); compatible with Incandescent bulb and Max 20-Watt equivalent LED dimmable bulb; Note that while the fixture can't be manually dimmed



9:07
Mail
Portsmouth

- 3 Sensing Modes: The modern wall lantern features 3 sensor modes including Text mode, Auto mode, Manual mode
- Motion Sensor: The motion sensor wall sconce can detect movement up to 35 ft. away across a range of 220°. In auto mode, brightness maintains at 40% for all night (but turns off about 1 minute after being exposed to daylight). When someone moves near the light, the LED indicator flashes 3 times, and brightness immediately increases to 100%, but back to 40% without motion detection about 1 minute after)
- Easy installation: including all necessary mounting hardware and detailed instruction for an easy and quick assembly
- Warranty: 2-year limited warranty to guarantee your complete satisfaction with your purchase
- Click here for more information on Electronic Recycling Programs
- Return Policy

Product Information

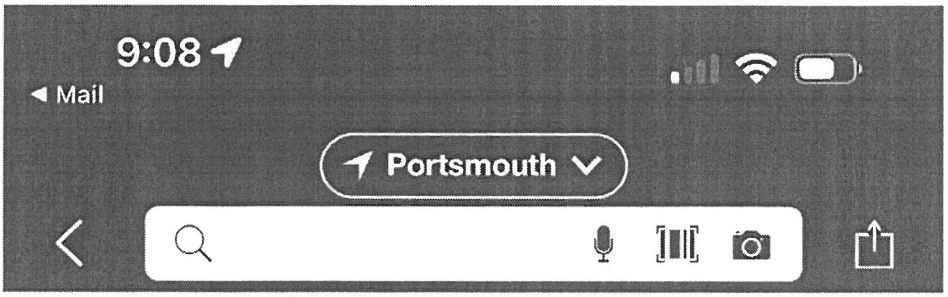
Internet # 325203415
Model # LMRZUMA278AS8C
UPC Code # 810129313253

Additional Resources

Shop All LNC

From the Manufacturer

Home Shop ProX Gary Store Mode Cart 1

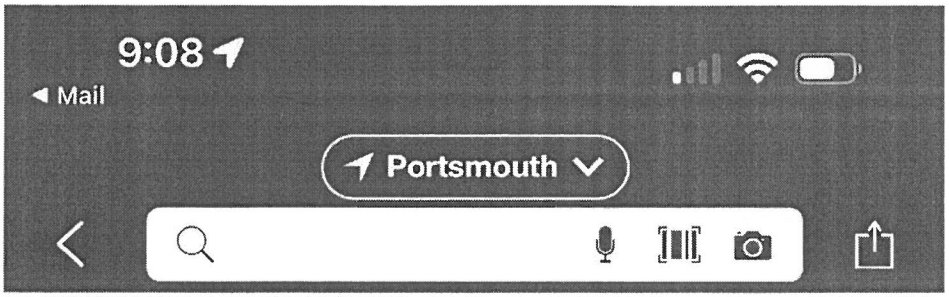


Dimensions

Mounting Plate Height (in.)	6.5 in
Mounting Plate Width (in.)	4.5 in
Product Depth (in.)	7.7 in
Product Height (in.)	12 in
Product Width (in.)	6.5 in

Details

Compatible Bulb Type	Eco-Incandescent, Incandescent, LED
Damp/Wet Rating	Wet Rated
Detection Range (ft.)	35
Durability	Rust Resistant, Weather Resistant
Exterior Lighting Product Type	Sconce
Fixture Color/Finish	Black-Clear Glass
Fixture Material	Metal
Glass Type	Clear Glass



Fixture Material

Metal

See Similar Items

Outdoor Lighting Features

Dimmable

Dusk to Dawn

Motion Sensing

Damp/Wet Rating

Wet Rated

See Similar Items

Power Source

Hardwired

See Similar Items

Light Direction

Down

See Similar Items

Dimensions

Mounting Plate Height (in.)	6.5 in

THIS DRAWING SET HAS NOT BEEN RELEASED FOR CONSTRUCTION

GARAGE CONSTRUCTION

294 Lincoln Avenue
Portsmouth, NH

Tax Map 130, Lot 024

ISSUED FOR TAC

Plan Issue Date:

May 19, 2025

Owner/Applicant:

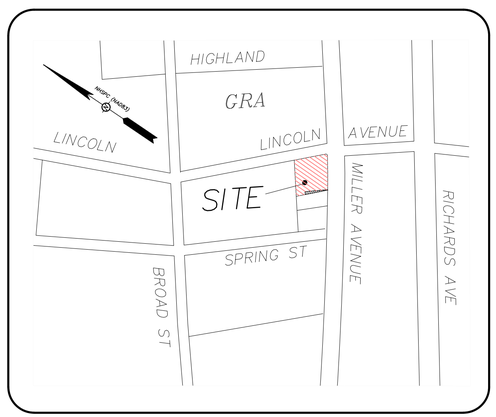
Gary B. Dodds Revocable Trust
Gary B. Dodds Trustee
300 Sagamore Road
Rye, NH 03870

Civil Engineer:

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

Surveyor:

JVA
JAMES VERRA & ASSOCIATES, INC.



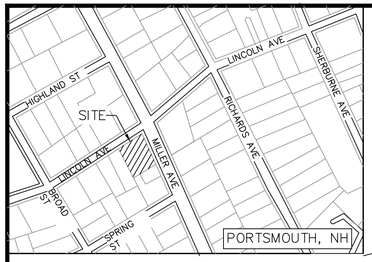
LOCUS NOT TO SCALE

Sheet Index

Title	Sheet No.:	Rev.	Date
Existing Conditions Plan (by JVA)	S–1	0	04/18/25
Site Preparation Plan	C–1	0	05/19/25
Site Plan	C–2	0	05/19/25
Grading, Drainage & Erosion Control Plan	C–3	0	05/19/25
Landscape Plan (by Homeowner)	L–1	0	05/19/25
Detail Sheet	D–1	0	05/19/25
Detail Sheet	D–2	0	05/19/25
Entry Level Plan (REEDesign)	1 of 4	0	12/16/24
Upper Level Plan (REEDesign)	2 of 4	0	12/16/24
South and East Exterior Elevations (REEDesign)	3 of 4	0	12/16/24
North and West Exterior Elevations (REEDesign)	4 of 4	0	12/16/24

Permit Summary	Received
Portsmouth Zoning Board of Adjustment	01/28/25
Portsmouth Site Plan Review	Pending

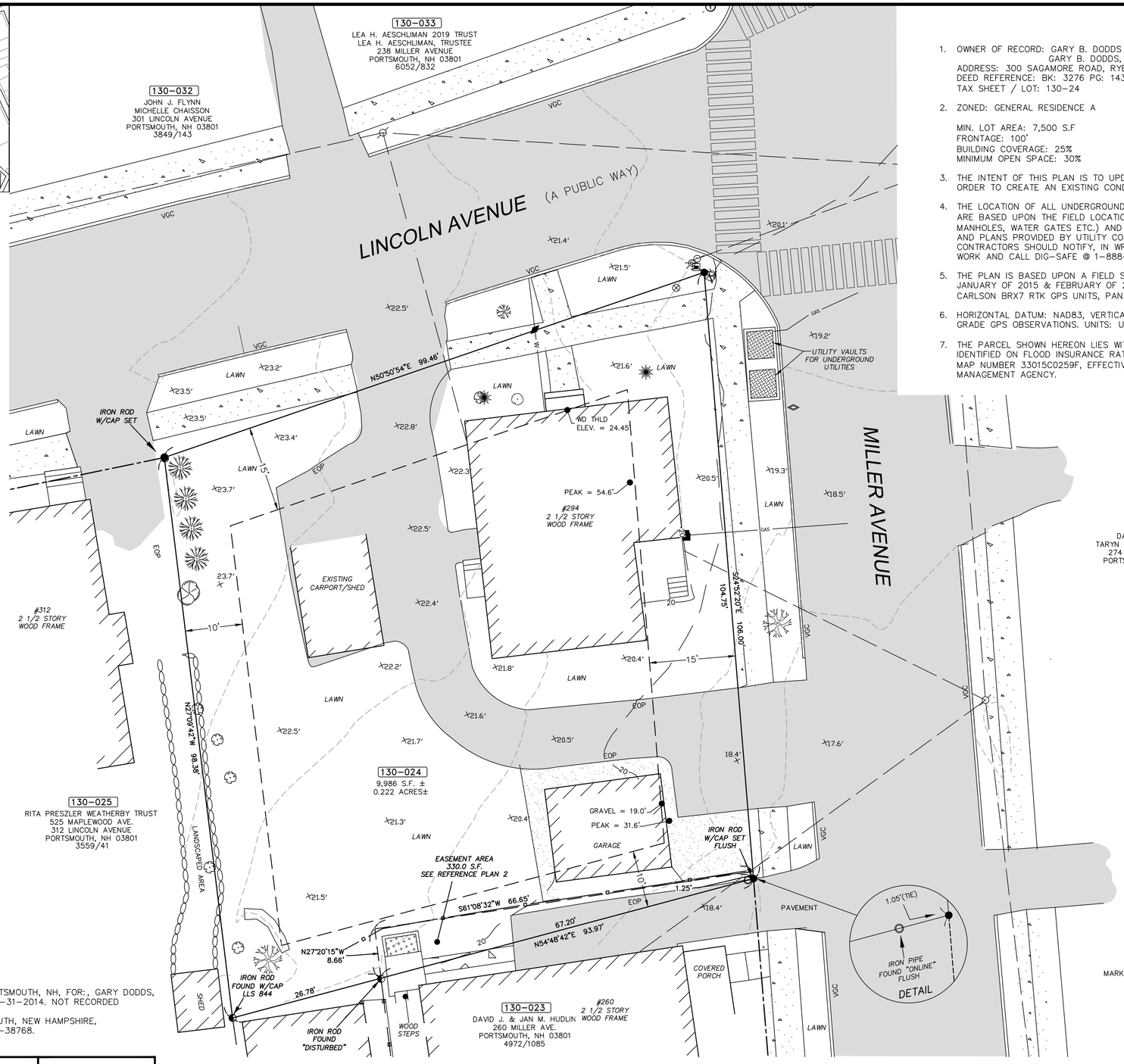
P5548



LOCUS
(N.T.S.)

LEGEND:

- IRON ROD FOUND
- IRON PIPE FOUND
- IRON ROD SET w/CAP
- SPOT GRADE
- STONEWALL
- WALK SIGNAL
- ELECTRIC METER
- U–POLE
- SIGN
- GUY POLE
- CONIFEROUS TREE
- STUMP
- MAPLE TREE
- HEMLOCK TREE
- LANSCAPING
- CRUSHED STONE
- CONCRETE
- VGC = VERTICAL GRANITE CURB
- EOP = EDGE OF PAVEMENT
- OVERHEAD WIRES
- WOOD STOCKADE FENCE
- VINYL FENCE



1. OWNER OF RECORD: GARY B. DODDS REVOCABLE TRUST
   GARY B. DODDS, TRUSTEE
   ADDRESS: 300 SAGAMORE ROAD, RYE, NH 03870
   DEED REFERENCE: BK: 3276 PG: 1438
   TAX SHEET / LOT: 130–24
2. ZONED: GENERAL RESIDENCE A

MIN. LOT AREA: 7,500 S.F	FRONT YARD SETBACK: 15'
FRONTAGE: 100'	SIDE YARD SETBACK: 10'
BUILDING COVERAGE: 25%	REAR YARD SETBACK: 20'
MINIMUM OPEN SPACE: 30%	

3. THE INTENT OF THIS PLAN IS TO UPDATE PRIOR WORK DONE BY THIS COMPANY IN ORDER TO CREATE AN EXISTING CONDITIONS PLAN FOR PLANNING AND PERMITTING.
4. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION COMPILED FROM PLANS OF RECORD, AND PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG–SAFE @ 1–888–DIG–SAFE.
5. THE PLAN IS BASED UPON A FIELD SURVEY COMPLETED IN JULY OF 2014, JANUARY OF 2015 & FEBRUARY OF 2024 WITH TRIMBLE S5 ROBOTIC TOTAL STATION, CARLSON BRX7 RTK GPS UNITS, PANASONIC FZ–M1/TRIMBLE TSC7 DATA COLLECTORS.
6. HORIZONTAL DATUM: NAD83, VERTICAL DATUM: NAVD88. ESTABLISHED BY SURVEY GRADE GPS OBSERVATIONS. UNITS: US SURVEY FOOT.
7. THE PARCEL SHOWN HEREON LIES WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS IDENTIFIED ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE, MAP NUMBER 33015C0259F, EFFECTIVE DATE 1/29/2021 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

REFERENCE PLANS:

1. MONUMENTATION SKETCH, 294 LINCOLN AVE., PORTSMOUTH, NH, FOR:, GARY DODDS, BY JAMES VERRA AND ASSOCIATES, INC. DATED 7–31–2014. NOT RECORDED
2. EASEMENT PLAN, 294 LINCOLN AVENUE, PORTSMOUTH, NEW HAMPSHIRE, DATED 2–12–2013. RECORDED AS RCRD PLAN #C–38768.

GRAPHIC SCALE

(IN FEET)
1 inch = ft.

SURVEYOR'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS SURVEY AND PLAT WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS AN ERROR OF CLOSURE OF GREATER ACCURACY THAN ONE PART IN FIFTEEN THOUSAND (1:15,000)"

LICENSED LAND SURVEYOR DATE

ALTUS JOB#

SURVEYOR:
JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8,
NEWINGTON, N.H., 03801–7876
603–436–3557

JOB NO: 24–2010

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

ISSUED FOR:
ENGINEERING REVIEW

ISSUE DATE:
4/18/25

REVISIONS

NO.	DESCRIPTION	BY	DATE
1			

DRAWN BY: REL/GTD
APPROVED BY: RMF
DRAWING FILE:

SCALE:
22" x 34" – 1" = 10'
11" x 17" – 1" = 20'

APPLICANT:

GARY B. DODDS
REVOCABLE TRUST
300 SAGAMORE ROAD
RYE, NEW HAMPSHIRE 03870

OWNER:

GARY B. DODDS
REVOCABLE TRUST
300 SAGAMORE ROAD
RYE, NEW HAMPSHIRE 03870

PROJECT:

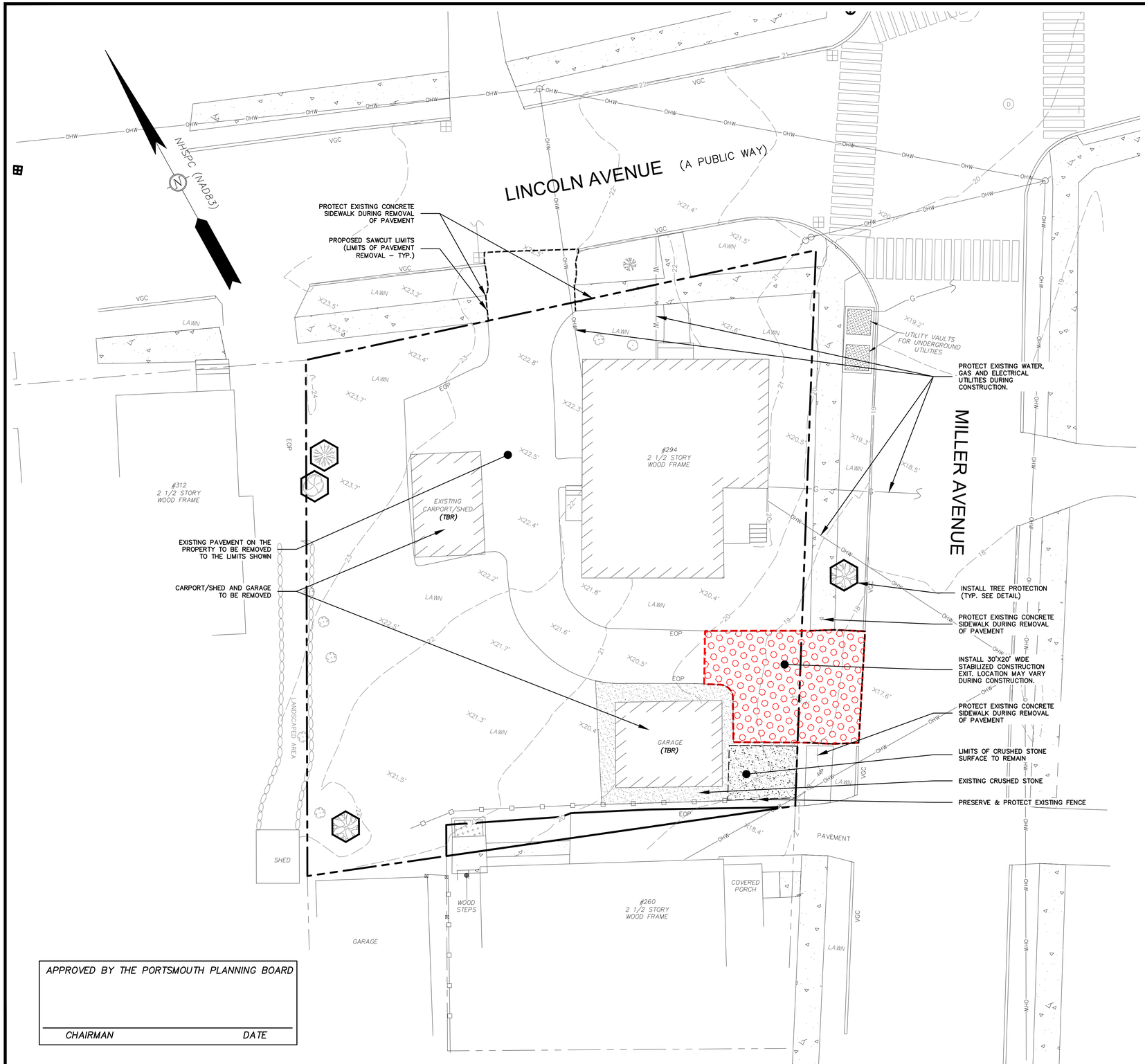
294 LINCOLN AVENUE
TAX MAP 130, LOT 24
294 LINCOLN AVENUE
PORTSMOUTH, NH

TITLE:

EXISTING CONDITIONS PLAN

SHEET NUMBER:
S-1

\\Altusserv\Altusworking\Working\Shared Files\Altus Documents\5500–5549\5548 294 Lincoln Dodds\Received\RECEIVED JVA\2025.5.7 – JVA Contours\24–2010_EXISTNG CONDITIONS_4–18–2025.dwg



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

DEMOLITION NOTES

1. CITY DEMOLITION PERMIT REQUIRED PRIOR TO ANY DEMOLITION ACTIVITIES. CONTRACTOR IS NOTIFIED THAT THIS PERMIT PROCESS MAY REQUIRE A 30-DAY LEAD TIME.
2. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES SCHEDULED TO REMAIN
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
4. ALL UTILITY DISCONNECTIONS, DEMOLITIONS AND RELOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES, PORTSMOUTH DPW AND ABUTTING PROPERTY OWNERS. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
5. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ECT. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
6. SEE EROSION CONTROL PLANS FOR EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES. SEE GRADING PLAN AND DETAIL SHEETS FOR ADDITIONAL NOTES ON EROSION CONTROL.
7. ALL MATERIALS SCHEDULED FOR DEMOLITION REMOVAL ON PRIVATE PROPERTY SHALL BECOME PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
8. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AND CODES.
9. WATER: PORTSMOUTH DPW WATER DIVISION, DOUG SPARKS, (603) 427-1409.
10. SEWER: PORTSMOUTH DPW SEWER DIVISION, DOUG SPARKS, (603) 427-1409.
11. TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427-5525.
12. CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
13. ELECTRICAL: EVERSOURCE, JOSHUA LAHAIE, (603) 332-7551.
14. GAS: UNITIL, DAVID BEAULIEU, (603) 294-5144
15. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
16. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
17. SHOULD GROUNDWATER BE ENCOUNTERED DURING EXCAVATION, APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO ENSURE SEDIMENT LADEN WATER IS NOT DISCHARGED INTO THE CITY DRAINAGE SYSTEM. A DISCHARGE PERMIT SHALL BE OBTAINED PRIOR TO DISCHARGING GROUNDWATER IF GROUNDWATER IS ENCOUNTERED.
18. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
19. CONTRACTOR SHALL SAFELY SECURE THE SITE AND WORK LIMITS.
20. TREES TO REMAIN SHALL BE CLEARLY MARKED TO BE PROTECTED PRIOR TO COMMENCING SITEWORK.

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING PAVEMENT/CURB (VGC SGC)
- PROP. PAVEMENT/VERTICAL OR SLOPED GRANITE CURB (VGC SGC)
- EXISTING/PROPOSED STOCKADE FENCE
- EXISTING/PROPOSED CHAINLINK FENCE
- EXISTING CONTOUR (60)
- PROPOSED CONTOUR/INTERMEDIATE CONTOUR (60)
- PROPOSED SPOT GRADE/TOP & BOTTOM OF WALL (22.5)
- EXISTING WATER/CURB STOP/VALVE/HYDRANT (W, WV)
- EXISTING SEWER/MANHOLE (S)
- EXISTING GAS/VALVE (G, GV)
- EXIST. OVERHEAD/UNDERGROUND UTILITIES/POLE (OHW, UGU)
- EXISTING DRAINAGE/CB/DMH (D)
- PROPOSED DRAINAGE (HARD PIPE)/CB/DCB/DMH/FES
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED DRAINAGE (PERFORATED PIPE)/CLEANOUT
- CPP FES HDWL — CORRUGATED PLASTIC PIPE/FLARED END SECTION/HEADWALL
- PROPOSED GROUND SLOPE/APPROX. GRADE/STONE CHECK DAM (4%)
- SILTFENCE/SEDIMENT BARRIER/CONST. FENCE (X X)
- STABILIZED CONSTRUCTION EXIT
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED SAWCUT
- PROPOSED STONE DRIPEDGE
- TP# — TESTPIT OR BORING/PERC. TEST/BENCHMARK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

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

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
5/19/25

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL	PMJ	05/19/25

DRAWN BY: PMJ
APPROVED BY: EDW
DRAWING FILE: 5548-SITE.dwg

SCALE:
22" x 34" - 1" = 10'
11" x 17" - 1" = 20'

OWNER:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

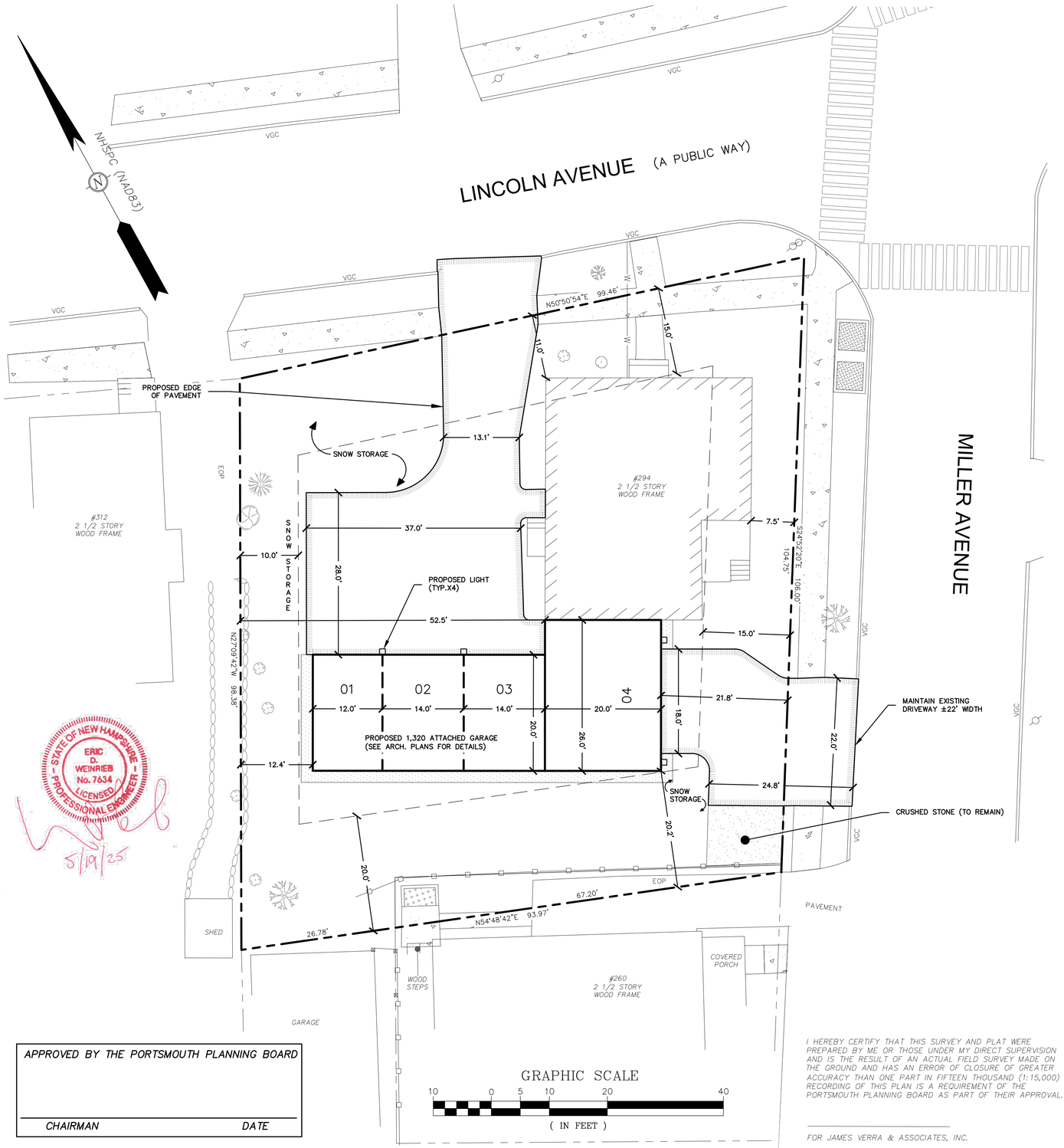
APPLICANT:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
SITE PREPARATION PLAN

SHEET NUMBER:
C-1

P5548



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE –
5/19/25

I HEREBY CERTIFY THAT THIS SURVEY AND PLAT WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS AN ERROR OF CLOSURE OF GREATER ACCURACY THAN ONE PART IN FIFTEEN THOUSAND (1:15,000) RECORDING OF THIS PLAN IS A REQUIREMENT OF THE PORTSMOUTH PLANNING BOARD AS PART OF THEIR APPROVAL.

FOR JAMES VERRA & ASSOCIATES, INC.

DATE

SITE NOTES

DESIGN INTENT – THIS PLAN SET IS INTENDED TO DEPICT THE CONSTRUCTION OF A 4–BAY GARAGE ATTACHED TO A MULTI–FAMILY RESIDENCE.

1. APPROXIMATE LOT AREA: 9,685 S.F.± (0.22 AC.±)
2. ZONE: (GRA) GENERAL RESIDENCE A
3. DIMENSIONAL REQUIREMENTS – (GRA) GENERAL RESIDENCE A

	REQUIRED	EXISTING	PROVIDED
MIN. LOT AREA:	7,500 S.F.	±9,685 SF	±9,685 SF
MIN. STREET FRONTAGE:	100'	106'(MILLER)/96'(LINCOLN)	±106'/±96'
FRONT SETBACK:	15'		
LINCOLN AVE.		±11.0'	±11.0'
MILLER AVENUE.		±7.5'	±7.5'
RIGHT SIDE SETBACK:	10'	±52.4'	±12.4'
REAR SETBACK:	20'	±5.6'	±20.3'
MAX. BUILDING HEIGHT:	35'		
MAIN BUILDING		<35'	<35'
GARAGE		<20' (EX.)	<35' (PROP.)
MAX. BUILDING COVERAGE:	25%	±2,070 SF (21.3%)	±2,715 SF (28.0%) *
MIN. OPEN SPACE:	30%	±5,287 SF (54.6%)	±4,667 SF (48.2%)**

* VARIANCE GRANTED
** INCLUDES ABUTTERS ENCROACHMENTS

4. *VARIANCE APPROVED ON JANUARY 28, 2025*
   VARIANCE FROM SECTION 10.521 TO ALLOW 28% BUILDING COVERAGE WHERE 25% IS THE MAXIMUM ALLOWED.
5. *PARCEL IS NOT IN A SPECIAL FLOOD HAZARD AREA PER FEMA FIRM MAP NUMBER 33015C0259F, MAP REVISED 1/29/21.*
6. *ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE CITY OF PORTSMOUTH & NHDOT'S STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.*
7. *PARKING SPACES REQUIREMENTS:*

   1.3 SPACES/UNIT X 3 UNITS = 3.9 SPACES REQUIRED

   4 SPACES PROVIDED
8. *BASE PLAN: "EXISTING CONDITIONS PLAN" BY JAMES VERRA & ASSOCIATES, INC., 4/18/25.*
9. *BUILDING COVERAGE COMPUTATIONS:*
   EXISTING COVERAGE:
   HOUSE (±1,340 S.F.) + PORCH/STEPS (±90 S.F.) + DECK (±20 S.F.) +
   STEPS (±25 S.F.) + GARAGE (±335 S.F.) + TEMPORARY STORAGE (±260 S.F.) = ±2,070 S.F. / 9,685 S.F. = ±21.3%

   PROPOSED COVERAGE:
   HOUSE (±1,340 S.F. + PORCH/STEPS (±90 S.F.) + DECK (±20 S.F.) +
   *STEPS (±25 S.F.) + NEW GARAGE (±1,240 S.F.) = ±2,715 S.F. (±28.0%) **
10. *OPEN SPACE COMPUTATIONS:*
    EXISTING OPEN SPACE:
    TOTAL AREA (9,685 S.F.– EXISTING APT. BLDG & GARAGE (±1,810 S.F.) – PAVED DRIVE/PKING (±1,976 S.F.) – PAVED EASEMENT AREA (±225 S.F.) – STONE (±125 S.F.) – TEMPORARY STORAGE (±260 S.F.)
    = OPEN SPACE OF ±5,289 S.F. (±54.6%)

    PROPOSED OPEN SPACE:
    TOTAL AREA (9,685 S.F. – EX. APT. BLDG. & PROP. GARAGE (±2,682 S.F.) – PAVED DRIVE (±1,986 S.F.) – PAVED EASEMENT AREA (±225 S.F.) – STONE (±125 S.F.)
    *= OPEN SPACE = ±4,667 S.F. (±48.2%)***

    NOTE: OPEN SPACE INCLUDES WALKS OF 5' WIDTH OR MORE
11. *FIELD OBSERVATIONS CONDUCTED BY ALTUS ENGINEERING, LLC ON 12/17/24 TO CONFIRM EXISTING CONDITIONS OF THE SITE.*
12. *THERE SHALL BE NO VISION OBSTRUCTIONS LOCATED IN THE AREA CREATED BY MEASURING 20' IN EACH DIRECTION FROM A CORNER LOT STREET PROPERTY LINE CORNER.*
13. *SNOW SHALL BE STORED AT THE EDGE OF PAVEMENT, IN AREAS SHOWN HEREON, AND/OR TRUCKED OFF SITE AS APPROPRIATE.*
14. *NO SAND SHALL BE USED FOR WINTER PARKING AREA MAINTENANCE. WINTER MAINTENANCE CONTRACTOR SHALL BE NHDES GREEN SNOWPRO CERTIFIED.*
15. *THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.*
16. *THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.*
17. *ALL LIGHTS SHALL BE BUILDING MOUNTED & "DARK SKY COMPLIANT".*
18. *VERIFY LATEST ARCHITECTURAL DRAWINGS PRIOR TO ANY CONSTRUCTION ACTIVITIES.*
19. *ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.*
20. *ALL IMPROVEMENTS SHOWN ON THIS PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THIS PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.*
21. *TRASH & RECYCLING TOTES SHALL BE STORED INSIDE THE BUILDING.*
22. *PARCEL IS NOT IN A FLOOD HAZARD ZONE.*
23. *EXTERIOR SALT STORAGE IS PROHIBITED.*
24. *THE CONTRACTOR SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATION CARRIER APPROVED BY THE FIRE DEPARTMENT. THE RADIO COMMUNICATION CARRIER MUST BE FAMILIAR WITH THE POLICE & FIRE DEPARTMENT'S RADIO CONFIGURATION. IF SURVEY DETERMINES SIGNAL REPEATERS ARE NECESSARY, THE CONTRACTOR SHALL INSTALL REPEATERS AS NECESSARY.*
25. *SEE THE ENTIRE APPROVED SET OF PLANS ASSOCIATED WITH THE PROJECT ON FILE AT THE CITY OF PORTSMOUTH PLANNING DEPARTMENT.*
26. *THERE ARE NO WETLANDS ON THE LOT OR WITHIN 100' OF THE LOT LINES.*
27. *ALL SOLID WASTE AND RECYCLING SHALL BE STORED INSIDE THE BUILDING.*

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

JVA JAMES VERRA & ASSOCIATES, INC.

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL	PMJ	05/19/25

DRAWN BY: PMJ
APPROVED BY: EDW
DRAWING FILE: 5548–SITE.dwg

SCALE: 22" x 34" - 1" = 10'
11" x 17" - 1" = 20'

OWNER:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

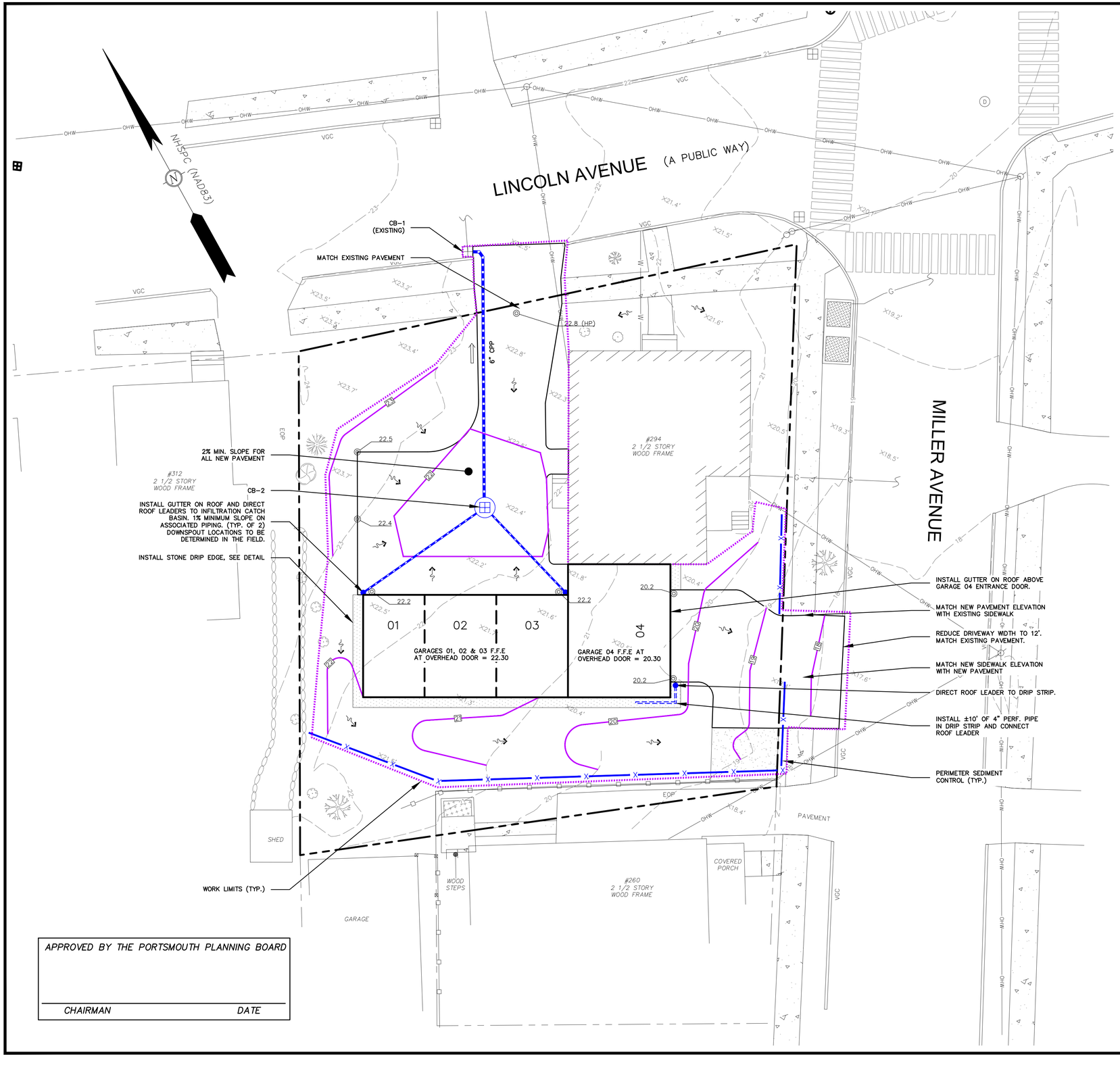
APPLICANT:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
SITE PLAN

SHEET NUMBER:
C-2

P5548



DRAINAGE SCHEDULE

CB–1
RIM: 22.48
IN: 18.50 (CORE NEW 6" CONNECTION FROM CB–2)
OUT: 17.80 (EXISTING)

CB–2
6' DIA. INFILTRATION CATCH BASIN (SEE DETAIL)
RIM: 21.60
OUT: 18.80 (6" CPP)
L=±49' S=0.006 '/'

NOTES

1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON AREA APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, CITY OF PORTSMOUTH DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG–SAFE AT LEAST SEVENTY–TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
2. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE–IN AND CONNECTION FEES.
4. ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE PORTSMOUTH POLICE DEPARTMENT AND DPW AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
5. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE CITY OF PORTSMOUTH AND NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
7. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND CITY REGULATIONS.
8. FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE ARCHITECT, CONTRACTOR, APPROPRIATE UTILITY COMPANIES AND THE PORTSMOUTH DPW.
9. WATER: PORTSMOUTH DPW WATER DIVISION, DOUG SPARKS, (603) 427–1409.
10. SEWER: PORTSMOUTH DPW SEWER DIVISION, DOUG SPARKS, (603) 427–1409.
11. TELECOMMUNICATIONS: CONSOLIDATED, JOE CONSIDINE, (603) 427–5525.
12. CABLE: COMCAST, MIKE COLLINS, (603) 679–5695, EXT. 1037.
13. ELECTRICAL: EVERSOURCE, JOSHUA LAHAIE, (603) 332–7551.
14. GAS: UNITIL, DAVID BEAULIEU, (603) 294–5144
15. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
16. WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"–THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
17. CONTRACTOR SHALL PROVIDE DPW WITH DETAILS OF TEMPORARY & PERMANENT GROUNDWATER DEWATERING DESIGN IF NECESSARY.
18. SEE SHEET C–1 FOR LEGEND.
19. ALL UTILITIES FOR THE PROPOSED GARAGE WILL BE CONNECTED TO THE EXISTING BUILDING INTERNALLY.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN *DATE*

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

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
5/19/25

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

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300 SAGAMORE ROAD
RYE, NH 03870

APPLICANT:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

TITLE:
GRADING, DRAINAGE & EROSION CONTROL PLAN

SHEET NUMBER:
C-3

P5548

LANDSCAPING NOTES

- Removal of Tree
- Fence
- Planting Boxwoods
- Hosta
- New Flower Beds Area (mise Flowers)

LINCOLN AVENUE (A PUBLIC WAY)

MILLER AVENUE

NHSPC (NAD83)

VGC

4 Boxwoods

B Plant Boxwoods

Remove Existing Trees

Install 5' Ht Fence

Remove Existing Tree

EOP

#312
2 1/2 STORY
WOOD FRAME

#294
2 1/2 STORY
WOOD FRAME

N50°50'54"E 99.46'

S24°52'20"E 104.75'

S24°52'20"E 106.00'

N21°09'47"W 98.36'

Install 5' Ht Fence Between Trees

Remove Existing Trees

01 02 03 04

New Flower Beds Area

SHED

GARAGE

Hosta Plantings

26.78'

N54°48'42"E 93.97'

67.20'

EOP

PAVEMENT

Install 3' Ht Fence

Reduce Fence Ht to 3'

WOOD STEPS

#260
2 1/2 STORY
WOOD FRAME

COVERED PORCH

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

LANDSCAPE PLAN

L - 1

SEDIMENT AND EROSION CONTROL NOTES

PROJECT NAME AND LOCATION

PROPOSED GARAGE CONSTRUCTION
294 LINCOLN AVENUE
PORTSMOUTH, NEW HAMPSHIRE
TAX MAP 130 LOT 24

LONGITUDE: 70°45'39" W
LATITUDE: 43°04'05" N

OWNER / APPLICANT:

GARY B. DODDS REVOCABLE TRUST
300 SAGAMORE ROAD
RYE, NH 03870

DESCRIPTION

The project consists of the construction of a 4–bay garage along with associated site improvements.

DISTURBED AREA

The total area to be disturbed for the redevelopment improvements is approximately 6,300 S.F. (±0.15 acres).

PROJECT PHASING

The proposed project will be completed in one phase.

NAME OF RECEIVING WATER

The site drains overland to the municipal drainage system and eventually to the South Mill Pond

SEQUENCE OF MAJOR ACTIVITIES

1. Install temporary erosion control measures including perimeter sediment controls, stabilized construction exit and inlet sediment filters as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Remove temporary shed & raze existing garage structure,
3. Strip loam and stockpile.
4. Rough grade site including placement of borrow materials.
5. Construct garage addition.
6. Construct drainage structures, culverts, utilities, swales & pavement base course materials.
7. Loam (6" min) and seed all disturbed areas not paved or otherwise stabilized.
8. Install final pavement course.
9. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 – 3", issued February 2025, as amended. As indicated in the sequence of Major Activities, the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Stabilize all ditches, swales, & level spreaders prior to directing flow to them.

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

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

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

A. GENERAL

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

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

B. MULCHING

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

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

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

2. Guidelines for Winter Mulch Application –

Type	Rate per 1,000 s.f.	Use and Comments
Hay or Straw	70 to 90 lbs.	Must be dry and free from mold. May be used with plantings.
Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrub plantings.
Jute and Fibrous Matting (Erosion Blanket	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1–1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	* The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 100% passing a 6" screen and a minimum of 70 %, maximum of 85%, passing a 0.75" screen. * The organic portion needs to be fibrous and elongated. * Large portions of silts, clays or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.

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

C. TEMPORARY GRASS COVER

1. Seedbed Preparation –
   Apply fertilizer at the rate of 600 pounds per acre of 10–10–10. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of three (3) tons per acre.

2. Seeding –
   a. Utilize annual rye grass at a rate of 40 lbs/acre.
   b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.
   c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance –
   Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

D. FILTERS

1. Sequence of Installation –
   Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope drainage area.

2. Maintenance –
   a. Silt fence barriers shall be inspected 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, the sediment barriers shall be replaced with a temporary stone check dam.
   b. Should the fabric on a silt fence or filter barrier 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.
   a. Sediment deposits must be removed when deposits reach approximately one–third (1/3) the height of the barrier.
   b. Any sediment deposits remaining in place after the silt fence or other barrier is no longer required shall be removed. The area shall be prepared and seeded.
   c. Additional stone may have to be added to the construction entrance, rock barrier and riprap lined swales, etc., periodically to maintain proper function of the erosion control structure.

E. PERMANENT SEEDING –

1. Bedding – stones larger than 1½", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.

2. Fertilizer – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied:

   Agricultural Limestone @ 100 lbs. per 1,000 s.f.
   10–20–20 fertilizer @ 12 lbs. per 1,000 s.f.

3. Seed Mixture (recommended):

Type	Lbs. / Acre	Lbs. / 1,000 sf
Tall Fescue	24	0.55
Creeping Red Fescue	24	0.55
Total	48	1.10

Seed Mixture (For slope embankments):
Grass Seed: Provide fresh, clean, new–crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified:

Type	Min. Purity (%)	Min. Germination (%)	Kg./Hectare (Lbs/Acre)
Creeping Red Fescue (c)	96	85	45 (40)
Perennial Rye Grass (a)	98	90	35 (30)
Redtop	95	80	5 (5)
Alsike Clover	97	90(e)	5 (5)
		Total	90 (80)

a. Ryegrass shall be a certified fine–textured variety such as Pennfine, Fiesta, Yorktown, Diplomat, or equal.
b. Fescue varieties shall include – Creeping Red and/or Hard Reliant, Scaldis, Koket, or Jamestown.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (CON'T)

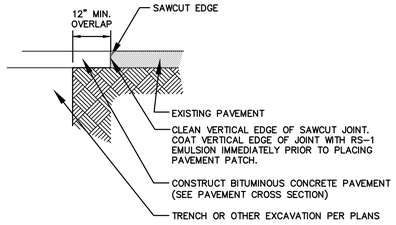
4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

WINTER CONSTRUCTION NOTES

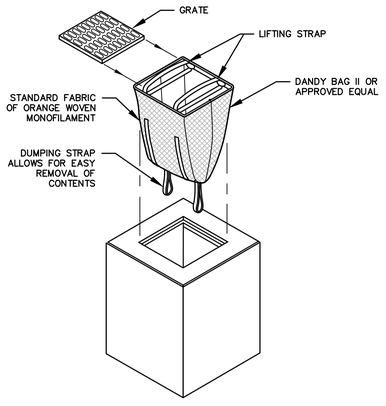
1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events;

2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and

3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.



TYPICAL PAVEMENT SAWCUT NOT TO SCALE



INSTALLATION AND MAINTENANCE:

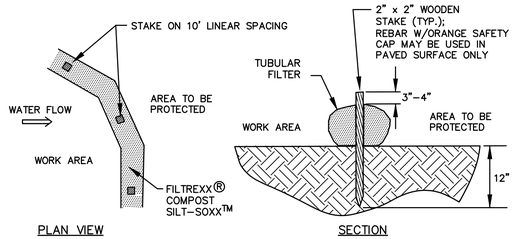
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

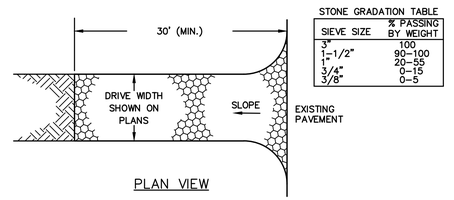
A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

STORM DRAIN INLET PROTECTION NOT TO SCALE



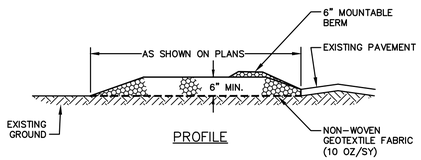
NOTES:
1. *SILTSOXX OR APPROVED EQUAL SHALL BE USED FOR TUBULAR SEDIMENT BARRIERS.*
2. *ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.*
3. *COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.*
4. *ALL SEDIMENT TRAPPED BY BARRIER SHALL BE DISPOSED OF PROPERLY.*

TUBULAR SEDIMENT BARRIER DETAIL NOT TO SCALE



STONE GRADATION TABLE

SIEVE SIZE	% PASSING BY WEIGHT
3"	100
1–1/2"	90–100
1"	20–55
3/4"	0–15
3/8"	0–5



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – NHDOT STANDARD STONE SIZE #4 – SECTION 703 OF NHDOT STANDARD.
2. LENGTH – DETAILED ON PLANS (50 FOOT MINIMUM) OR AS SHOWN ON PLANS.
3. THICKNESS – SIX (6) INCHES (MINIMUM).
4. WIDTH – FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
5. FILTER FABRIC – MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
6. SURFACE WATER CONTROL – ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH 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.
8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS–OF–WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT NOT TO SCALE

P5548

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

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
5/19/25

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

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APPROVED BY: EDW
DRAWING FILE: 5548–DETAILS.DWG

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11" x 17" – N.T.S.

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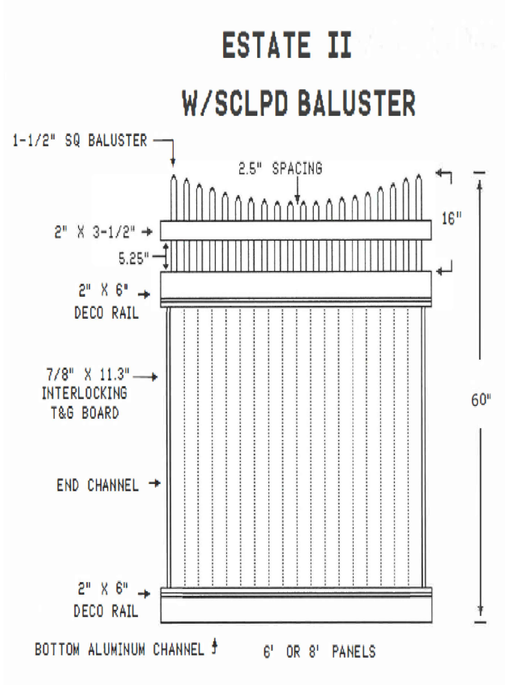
RYE, NH 03870

APPLICANT:
GARY B. DODDS REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

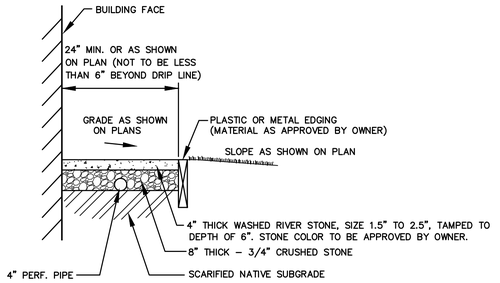
PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH 03801

TITLE:
DETAIL SHEET

SHEET NUMBER:
D-1



FENCE DETAIL NOT TO SCALE

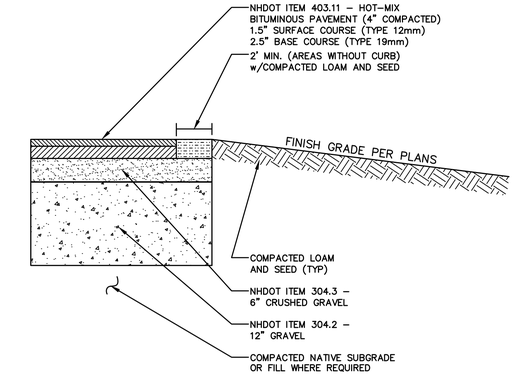


STONE DRIP EDGE CLEANING AND MAINENANCE

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

Maintenance – Stone drip edge surfaces should be observed periodically during rain events for proper water infiltration into the system and inspected at least once per year to verify water flow and exfiltration. Sediment, vegetation and debris should be removed from the joint/void opening to increase infiltration on a semi–annual basis.

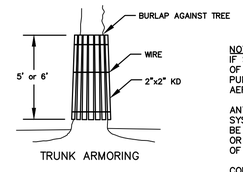
DRIP EDGE DETAIL NOT TO SCALE



NOTES

1. PROJECT GEOTECHNICAL REPORT MAY REQUIRE A DIFFERENT PAVEMENT CROSS SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FOLLOWING ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE REPORT AND CIVIL PLANS DIFFER, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. ALL EXISTING FILL, BURIED ORGANIC MATTER, CLAY, LOAM, MUCK, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
3. SUBGRADE SHALL BE PROOFROLLED A MINIMUM OF 6 PASSES WITH A 10–TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
4. FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER NHDOT REQUIREMENTS.
5. SITEWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
6. TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
7. THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D–2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D–1557.

SITE PAVEMENT CROSS SECTION NOT TO SCALE

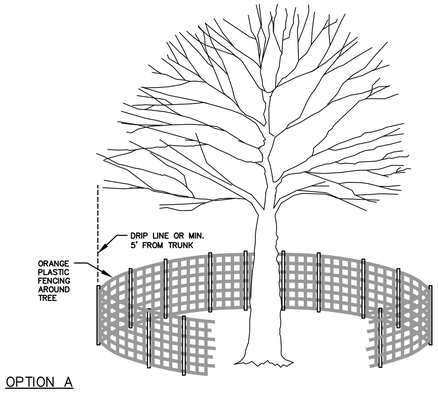


OPTION B

NOTE:
IF SOIL BECOMES COMPATCED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHOULD BE AERATED BY PUNCHING SMALL HOLES IN IT WITH SUITABLE AERATING EQUIPMENT.

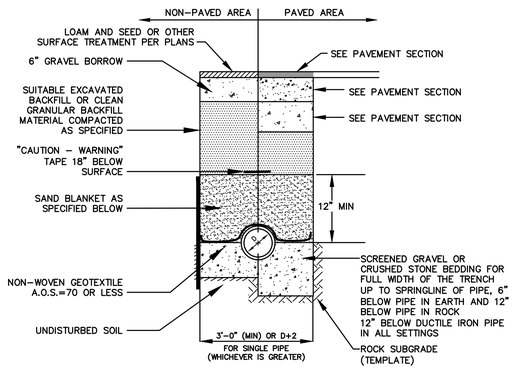
ANY DAMAGE TO THE CROWN, TRUNK OR ROOT SYSTEM OF ANY TREE RETAINED ON SITE SHOULD BE REPAIRED IMMEDIATELY. CONSULT A FORESTER OR TREE SPECIALIST FOR MORE SERIOUS DAMAGE OF TREES.

CONTRACTOR TO USE OPTION A OR B WHERE SUITABLE AND/OR AS DIRECTED BY THE ENGINEER.



OPTION A

TREE PROTECTION DETAILS NOT TO SCALE



NOTES

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

SAND BLANKET/BARRIER

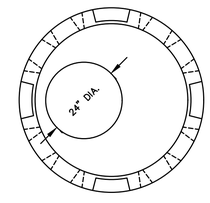
SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 – 100
200	0 – 15

SCREENED GRAVEL OR CRUSHED STONE BEDDING*

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
3/8"	20 – 55
# 4	0 – 10
# 8	0 – 5

* EQUIVALENT TO STANDARD STONE SIZE #67 – SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

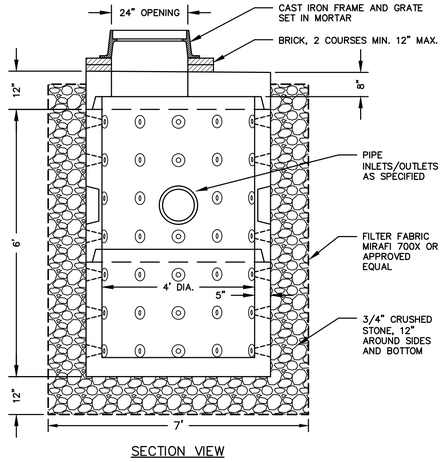
DRAINAGE TRENCH NOT TO SCALE



NOTES

1. TO ACCOMMODATE A 24" CAST IRON FRAME AND GRATE.
2. GRATE OPENING MAY BE OFFSET OR CENTERED IN STRUCTURE TOP.
3. CONCRETE: 4,000 PSI AFTER 28 DAYS.
4. MATERIALS SHALL WITHSTAND H–20 LOADING AT TRAFFIC AREAS
5. RIMS TO BE ELEVATED 6" ABOVE FINISH GRADE WHERE SPECIFIED, SEE DRAINAGE RIM AND INVERT SCHEDULE.

PLAN VIEW



SECTION VIEW

LEACHING CATCH BASIN (LCB) NOT TO SCALE

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

ERIC D. WEINRIEB No. 7634 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
5/19/25

NOT FOR CONSTRUCTION

ISSUED FOR: TAC SUBMISSION

ISSUE DATE: MAY 19, 2025

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	05/19/25

DRAWN BY: RLH
APPROVED BY: EDW
DRAWING FILE: 5548–DETAILS.DWG

SCALE:
22" x 34" – N.T.S.
11" x 17" – N.T.S.

OWNER:
GARY B. DODDS
REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

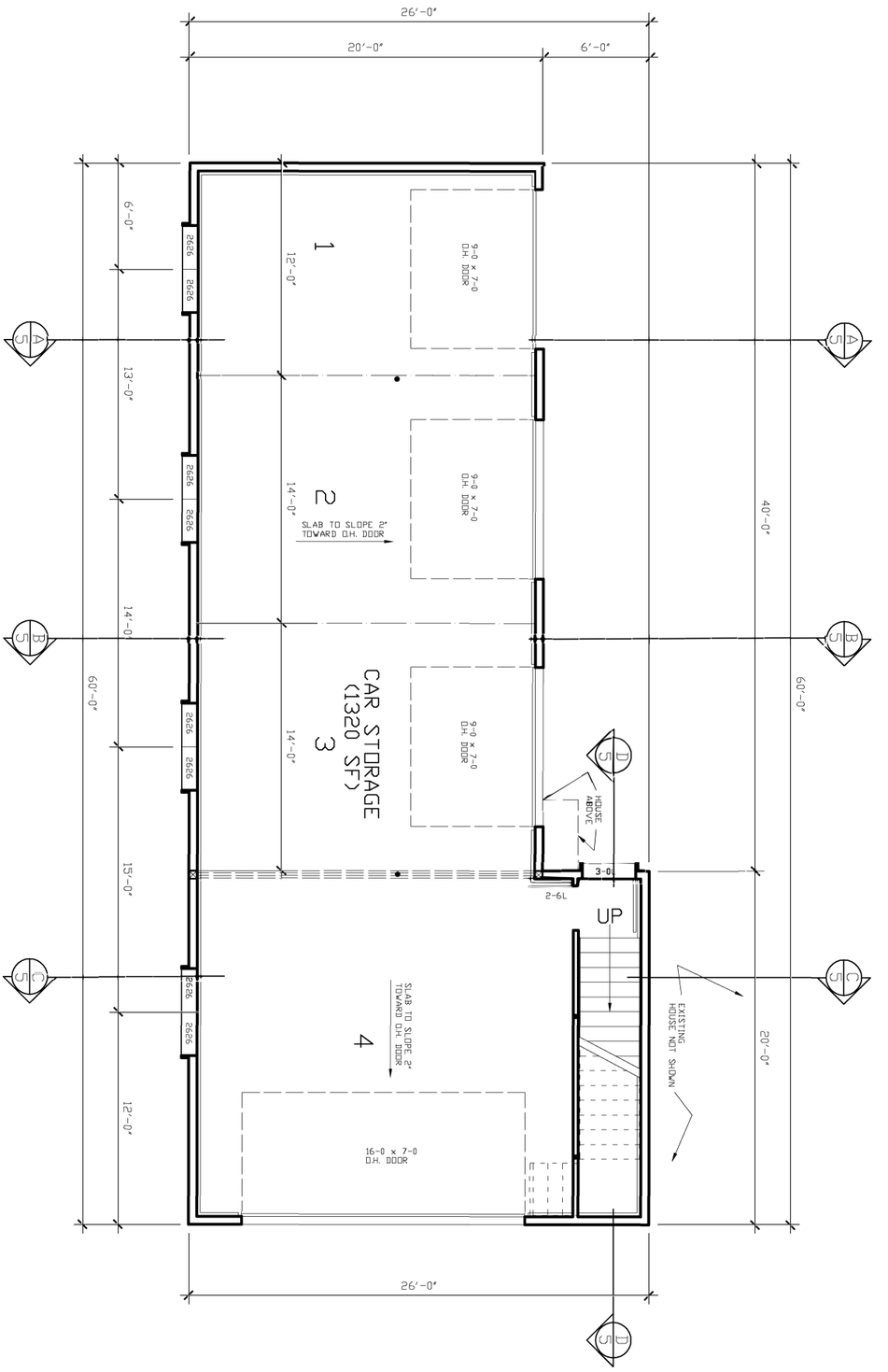
APPLICANT:
GARY B. DODDS
REVOCABLE TRUST
GARY B. DODDS TRUSTEE
300 SAGAMORE ROAD
RYE, NH 03870

PROJECT:
GARAGE CONSTRUCTION
TAX MAP 130 LOT 024
294 LINCOLN AVENUE
PORTSMOUTH, NH
03801

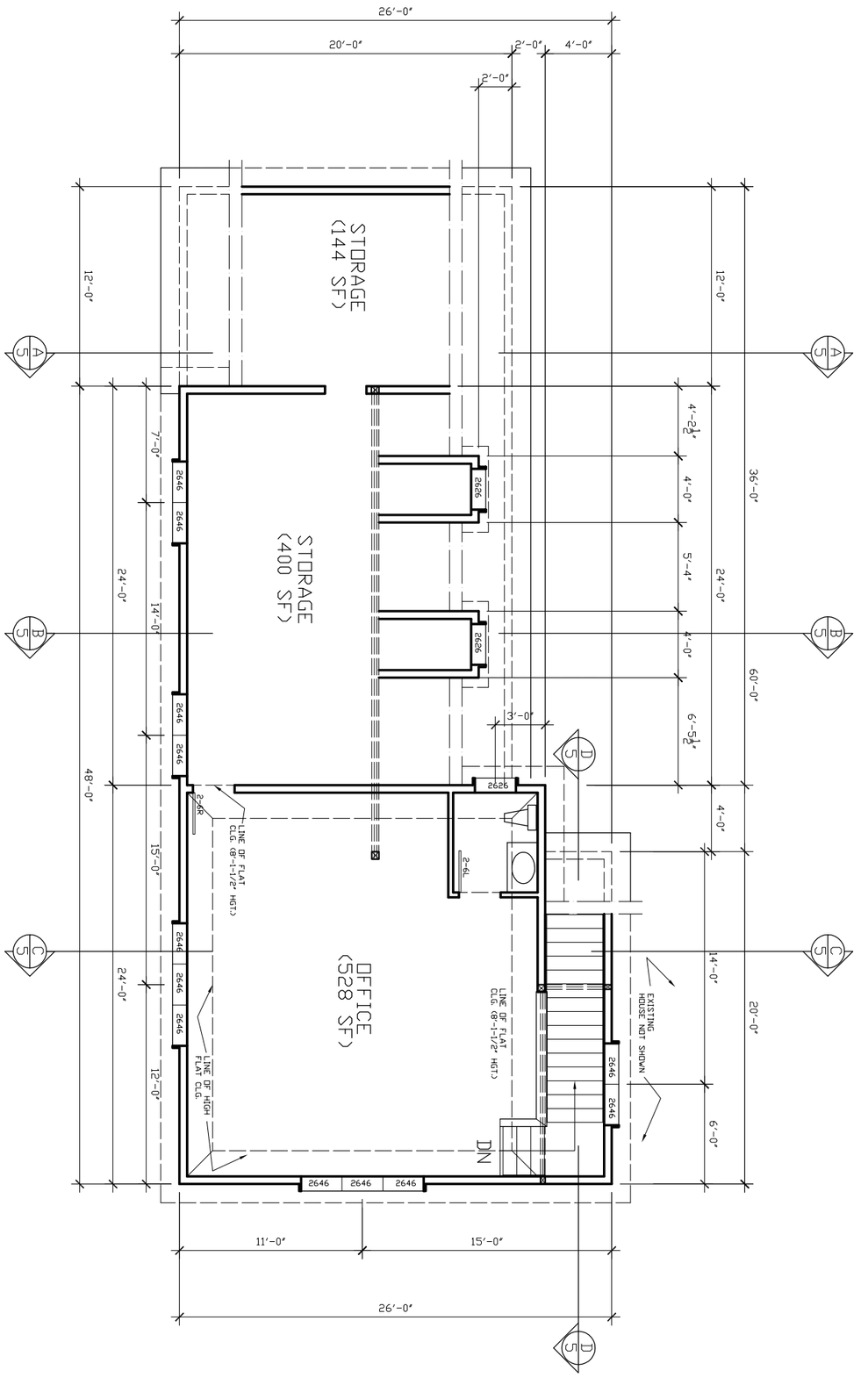
TITLE:
DETAIL SHEET

SHEET NUMBER:
D-2

P5548

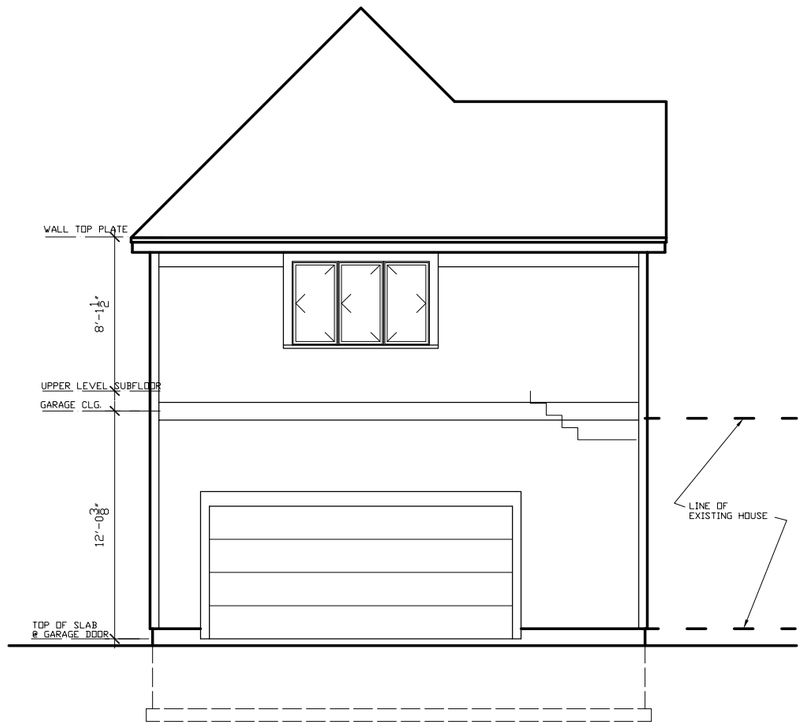


REEDesign 3 SHARON ST TEWKSBURY, MA 01876 (617) 462-5189	CAR STORAGE ADDITION 294 LINCOLN AVENUE PORTSMOUTH, NH 03801 ROCKINGHAM COUNTY	ENTRY LEVEL PLAN SCALE: 1/4" =1'-0" (22X34) SCALE: 1/8" =1'-0" (11X17)	10/29/24 MR 10/30/24 MR 11/22/24 MR 11/26/24 MR 12/02/24 MR 12/16/24 MR	1 OF 4



REEDesign 3 SHARON ST TEWKSBURY, MA 01876 (617) 462-5189	CAR STORAGE ADDITION 294 LINCOLN AVENUE PORTSMOUTH, NH 03801 ROCKINGHAM COUNTY	UPPER LEVEL PLAN SCALE: 1/4" =1'-0" (22X34) SCALE: 1/8" =1'-0" (11X17)	10/29/24 MR 10/30/24 MR 12/02/24 MR 12/16/24 MR	2 OF 4

SOUTH ELEVATION



EAST ELEVATION (FACES MILLER AVE)

SOUTH AND EAST EXTERIOR ELEVATIONS

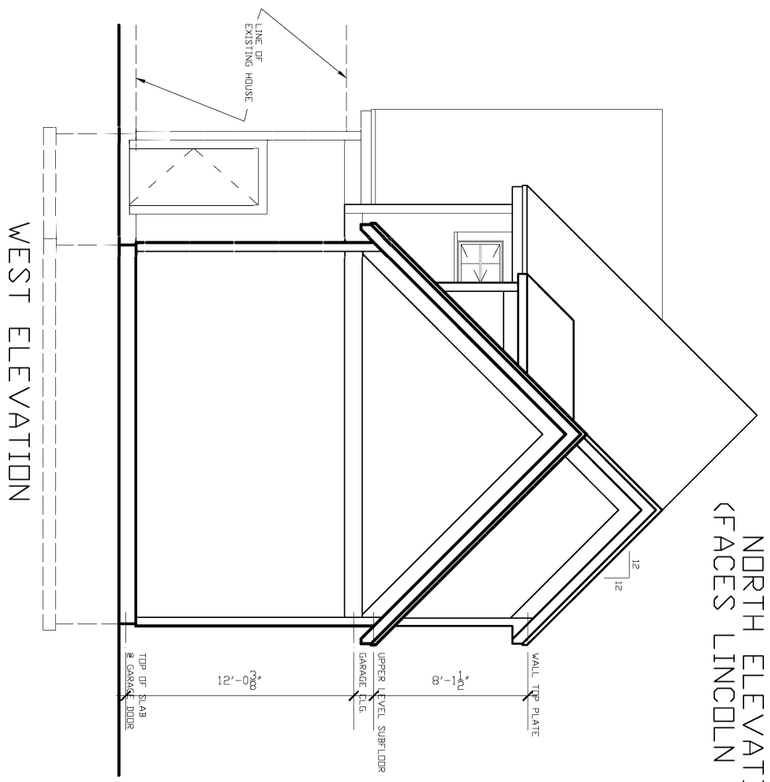
SCALE: 1/4" =1'-0" (22X34)
SCALE: 1/8" =1'-0" (11X17)

10/30/24 MR
12/02/24 MR
12/16/24 MR

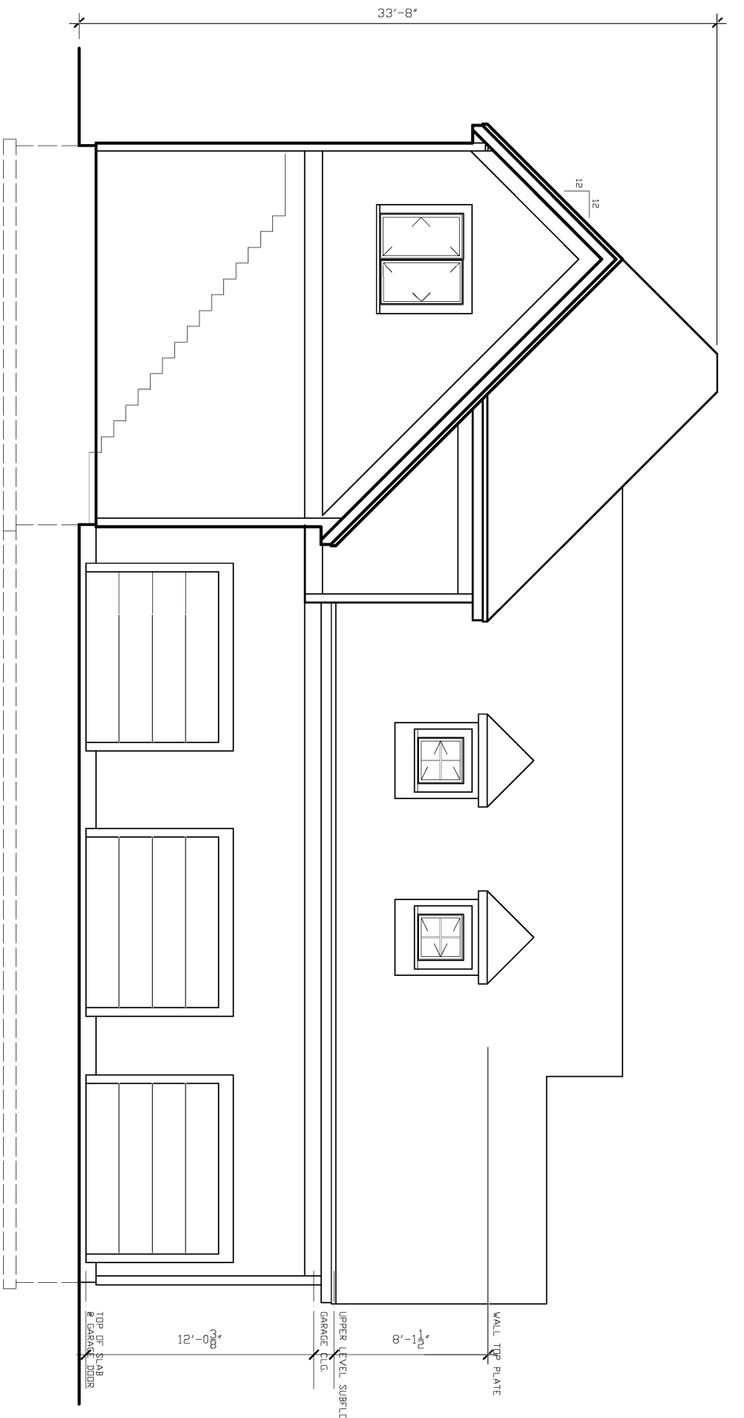
3 OF 4

CAR STORAGE ADDITION
294 LINCOLN AVENUE
PORTSMOUTH, NH 03801
ROCKINGHAM COUNTY

REEDESIGN
3 SHARON ST
TEWKSBURY, MA 01876
(617) 462-5189



WEST ELEVATION



NORTH ELEVATION
(FACES LINCOLN AVE)

REEDESIGN 3 SHARON ST TEWKSBURY, MA 01876 (617) 462-5189	CAR STORAGE ADDITION 294 LINCOLN AVENUE PORTSMOUTH, NH 03801 ROCKINGHAM COUNTY	NORTH AND WEST EXTERIOR ELEVATIONS SCALE: 1/4" =1'-0" (22X34) SCALE: 1/8" =1'-0" (11X17)	10/30/24 MR 12/02/24 MR 12/16/24 MR	4 OF 4