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: Chinburg Development Date Submitted: July 30, 2025

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

Site Address: 0 Banfield Road Map: 255 Lot: 02

☑	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	Plan Set
✔	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.	Cover Letter/RTC Letter

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Basic property and wetland resource information. **(10.1017.21)**	Plan Set
✔	Additional information required for projects proposing greater than 250 square feet of permanent or temporary impacts. **(10.1017.22)**	Appendix A
✔	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)**	Cover Letter/RTC Letter
✔	Balance impervious surface impacts with removal and/or wetland buffer enhancement plan. **(10.1017.24)**	Plan Set

☑	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)
✔	Wetland buffer enhancement plan. **(10.1017.25)**	Plan Set
☐	Living shoreline strategy provided for tidal wetland and/or tidal buffer impacts. **(10.1017.26)**	N/A
✔	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)**	Stormwater Management Report
☐	Vegetated Buffer Strip slope of greater than or equal to 10%. **(10.1018.22)**	N/A
✔	Removal or cutting of vegetation, use of fertilizers, pesticides and herbicides. **(10.1018.23/10.1018.24/10.1018.25)**	Plan Set
✔	All new pavement within a wetland buffer shall be porous pavement. **(10.1018.31)**	Plan Set
✔	An application that proposes porous pavement in a wetland buffer shall include a pavement maintenance plan. **(10.1018.32)**	E&S Report
✔	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)**	Subdivision Plan
☑	**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.	Cover Letter
☐	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.	N/A

Applicant's Signature: _____ **Date:** 07-30-2025

July 9, 2025

Samantha Collins, Chair
City of Portsmouth Conservation Commission
1 Junkins Avenue
Portsmouth, NH 03801

Re: Response to Comments | City of Portsmouth Wetland Conditional Use Permit Request | Tax Map 255, Lot 2 | 0 Banfield Road (with frontage on Peverly Hill Road), Portsmouth, New Hampshire

Dear Ms. Collins:

On behalf of the applicant, Chinburg Development, we are pleased to submit this response to comments and suggestions included in a July 3, 2025 Memo, from Kate Homet and Peter Britz, to the Conservation Commission Members in preparation for the July 9, 2025 meeting. The comments and suggestions are included below in *Italics*, followed by our responses in **Bold** text.

This application is for the installation of residential driveways, underground utility piping, and at-grade stormwater management BMPs for an undeveloped site that is to be subdivided and developed into five single-family residential properties. This project proposes 6,676 s.f. of permanent disturbance to the 100' wetland buffer.

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

   This land within the wetland buffer is previously undeveloped land and is adjacent to a major road. The addition of new impervious surfaces to this buffer will increase the untreated stormwater flow into the wetland across the street. Rain gardens are proposed but it is unclear how the stormwater from the driveway runoff could go uphill into the proposed systems.

Based on discussions at the Conservation Commission site walk meeting on Wednesday, July 2, 2025, the applicant is proposing to eliminate the individual driveway for Lot 5 and instead, propose a shared driveway for Lots 3, 4, and 5. This will limit the amount of new impervious area and grading impacts within the wetland buffer area adjacent to Banfield Road. The use of pervious pavement and other stormwater management features will minimize the amount of untreated stormwater runoff entering the Banfield Road right-of-way.

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

It is important to point out that stormwater runoff from the project site does not cross over, or under Banfield Road. Runoff entering the north side of Banfield Road flows in a northeasterly direction and eventually enters the existing multi-culvert crossing under Peverly Hill Road, at its intersection with Banfield Road.

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

   Applicant is looking to create driveways for future lots. It appears there may be an opportunity to weave one shared driveway between the two 100' wetland buffer lines for Lot 3, 4 and 5.

The location of the currently proposed, shared driveway for Lots 3, 4, and 5 is based on safety standards associated with stopping sight distance requirements. If the driveway entrance were to be located any closer to the intersection of Peverly Hill and Banfield Roads, it would not meet traffic safety standards. Access to Lots 3, 4, and 5 from Peverly Hill Road would require significant impacts to, and crossing of, the prime wetland and stream on the property. Given these situations, we believe there is no alternative location for the shared driveway outside of the wetland buffer.

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

   Impacts to the buffer include new impervious surfaces and construction of new utility and stormwater services. Applicant needs to show how stormwater runoff on site will be retained and treated. Current stormwater plans need to be finalized, and an erosion control plan must be provided.

adfadf

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

   The construction of the new services and driveways will likely have impacts on the existing tree line along Banfield and Peverly Hill Road. Applicant should clearly mark the trees to remain and to be removed on the plan set.

We have added labels to the plans to show which existing trees will remain and which will likely be removed.

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

This project proposes impacts to a previously undeveloped area. It is not the proposal with the least adverse impacts.

The project site is located within the Single Residence A (SRA) Zoning District which was created to provide areas for single-family dwellings at low to medium densities and appropriate accessory uses. The proposed subdivision is an allowed use within the SRA District and will be required to meet current zoning regulations to be eligible for approval from the Planning Board. The applicant has limited the project's proposed impacts to the wetland buffer area by limiting the number of driveway entrances to one and limiting the proposed building envelopes to areas outside of wetland buffer limits.

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

A planting plan is needed to determine this.

The project site is located approximately 38 feet away, and across Banfield Road from, the wetland that is the source of the wetland buffer (source wetland). It is our understanding that the vegetated buffer strip is typically located within twenty-five feet of the source wetland and can be pushed out to 40 feet if steep slopes are adjacent to the source wetland. In either case, the proposed project is not proposing to remove or replace any vegetation within the vegetated buffer strip section of the wetland buffer.

Recommendation: Staff recommends postponement of this application to give the applicant time to address the following issues:

1. *Wetland delineation shall be certified and stamped by a NH Certified Wetland Scientist (CWS).*

Notes on the Subdivision Plan indicate that the wetland limits within the project site were delineated by a NH Certified Wetland Scientist from Haley Ward, Inc. The off-site wetlands are based on information provided by Gove Environmental Services, Inc. Signatures and letters regarding these delineations, as well as functions and values are attached.

2. *Applicant should explore alternative plan with one shared driveway entering Lot 3 between the buffer setbacks to provide access to Lots 4 and 5.*

The only area that is outside of a wetland buffer, and adjacent to Banfield Road, AND part of the project parcel is too close to the intersection of Peverly Hill and Banfield Roads to be considered a safe access point. We are proposing the new driveway entrance near the proposed lot line between Lots 3 & 4 because it is a safe distance from the intersection, has adequate sight distance in both directions, and has the shallowest slopes within the Banfield Road frontage of the site. This minimizes grading and stormwater management impacts, which minimizes impacts to existing vegetation within the wetland buffer.

3. *Exact dimensions, location and a detail sheet are needed for the proposed rain gardens.*

We will provide detailed information…

4. *Erosion and sediment control plans must be included in this application, not just the building permit phase.*

An Erosion and Sedimentation Control Plan has been created for this project and is attached for your review.

5. *Application checklist is not complete, please address how this application complies with the following sections in the City of Portsmouth Zoning Ordinance:*

   a. 10.1017.24, b. 10.1017.25, c. 10.1018.31, d. 10.1018.32, e. 10.1018.40

Please see updated checklist.

6. *Applicant should propose buffering or protection along each of the lots that protects the natural vegetated state of the prime wetland and its 100' buffer to the rear of the site.*

The Subdivision Plan indicates the boundaries of the wetlands and associated buffers. The building setback lines are shown to be outside of the wetland buffer limits. Notes indicating the existence of the buffers and wetlands are included on the plan as well. Future lot owners will be subject to following zoning regulations, including those related to the wetlands and associated buffer areas.

7. *Applicant shall include a planting plan in the plan set. This should also show vegetation to remain and to be removed.*

The plans have been updated to show vegetation to remain and to be removed within the wetland buffer area.

8. *Applicant must clearly define and address areas to be filled and areas to be regraded on the plans.*

The Grading Plan has been updated to show the proposed grading associated with the proposed driveway and single-family housing for each lot. Any changes in grade have been considered in the calculation of proposed wetland impacts.

GOVE ENVIRONMENTAL SERVICES, INC.

June 30, 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 Functions and Values Evaluation

Jon,

Per your request, this letter provides an assessment and analysis of the functions and values of an identified off-site wetland system located on Banfield Road. At the City's request, this wetland was previously documented using the methodology outlined in the letter dated May 21, 2025. As there are no direct impacts proposed to this wetland, the analysis focuses on potential impacts to its buffer that may result from the construction activities associated with the proposed residential subdivision at 0 Banfield Road in Portsmouth, identified as Tax Map 255, Lot 2. The buffer for this wetland is defined in the City of Portsmouth's Zoning Ordinance, dated May 5, 2025, which designates a 100-foot buffer to this wetland, which extends onto the subject property.

A wetland assessment was conducted using the US Army Corps Highway Methodology guidelines. Functions are self-sustaining properties of wetlands which exist in the absence of human involvement. Values refers to the benefits gained by society from a given wetland or ecosystem by their inherent functions. Functions and values identified as "primary" have been determined to be significant features of the wetland being evaluated. An important distinction is that the primary functions and values of a particular wetland don't necessarily indicate the wetland supports them at a significant *level* in comparison to other wetlands in the region or even near the site.

The Highway Methodology considers 13 functions and values:

1. **Groundwater recharge/discharge:** This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where ground water can be discharged to the surface.
2. **Floodflow Alteration:** This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.
3. **Fish and Shellfish Habitat:** This function considers the effectiveness of seasonal or permanent water bodies associated with the wetland in question for fish and shellfish habitat.
4. **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.

5. **Nutrient Removal/Retention/Transformation:** This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.
6. **Production Export:** This function relates to the effectiveness of the wetland to produce food or usable products for human, or other living organisms.
7. **Sediment/Shoreline Stabilization:** This function relates to the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.
8. **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.
9. **Recreation:** This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as 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, whereas non-consumptive opportunities do not.
10. **Educational/Scientific Value:** This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.
11. **Uniqueness/Heritage:** This value relates to the effectiveness of the wetland or its associated water bodies to produce certain special values. Special values may include such things as archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geological features.
12. **Visual Quality/Aesthetics:** This value relates to the visual and aesthetic qualities of the wetland.
13. **Threatened or Endangered Species Habitat:** This value relates to the effectiveness of the wetland or associated water bodies to support threatened or endangered species.

The results of the functional assessment are summarized in the table below. The Highway Methodology data forms are also attached.

Table 2—Wetland Function & Value Summary

Wetland ID	Principle Function(s)	Justification/Discussion
A	Groundwater Recharge/Discharge Floodflow Alteration Fish and Shellfish Habitat, Sediment and Toxicant Removal Nutrient Removal Sediment and Shoreland Stabilization Wildlife Habitat	The identified wetland is a large wetland system based on aerial review extending to the south of Banfield Rd, containing areas of emergent wetland and areas of ponding and open water. These areas of slow-moving water and dense vegetation adjacent to areas with potential sources of excess sediment & nutrients provide areas that can retain and utilize both.

Functional Assessment Relative to Proposed Development

As outlined above, the purpose of this functions and values assessment is to evaluate the potential impacts to the wetland system resulting from the proposed residential subdivision. Since the development associated with the subdivision does not involve direct impacts to

jurisdictional wetlands, the assessment focuses on the potential impacts to the wetland buffer, as defined by the applicable local zoning ordinances for inland and tidal wetlands.

Wetland buffers generally serve to protect or enhance the principal functions of the associated wetland systems. Undisturbed buffers typically provide significant water quality benefits through infiltration and natural filtration processes, while also offering secondary benefits to wildlife habitat. At this particular location, there is substantial existing disturbance in the immediate vicinity of the wetland, including surrounding commercial development and the physical separation between the subject property and the off-site wetland.

The wetland system being assessed consists of a ponded/emergent area located south of Banfield Road. It is part of a larger wetland complex that extends further south, with surface water discharging through an outlet structure located on the eastern edge of the pond. The exact discharge point of this outlet structure is unknown. The wetland boundary at the location being reviewed for buffer impacts lies just interior to the existing guardrail (see photo), as identified in previous aerial assessments. This boundary is defined by significant topographic changes that create an abrupt transition into wetland conditions. Although the precise origin of the wetland is unclear, historical aerial imagery confirms the presence of the ponded area and associated wetland system as early as 1970. Principal functions for this wetland were identified to include, Groundwater Recharge/Discharge, Floodflow Alteration, Fish and Shellfish Habitat, Sediment and Toxicant Removal, Nutrient Removal, Sediment and Shoreland Stabilization, Wildlife Habitat. These principal functions are attributed to the permanent water in the wetland, the large area of the system, the ability for the wetland to retain stormwater runoff during rain events and the areas of dense vegetation and slow-moving water able to attain excess sediment and nutrients from runoff. The buffer to this wetland has a small vegetated strip between the approximate wetland boundary and the existing roadway. Beyond this roadway there is another strip of forested vegetation which then transitions to maintained field. With these existing conditions there is no visible signs of degradation to the resource area.

The current proposed design includes impacts to the wetland buffer to allow driveway access to two of the proposed subdivision lots. These impacts total approximately 6,610 square feet and are associated with driveway construction and grading necessary for site access. All impacts are located on the north side of Banfield Road, providing physical separation between the wetland resource area and the proposed areas of disturbance. All construction activities will adhere to current best management practices (BMPs) for erosion control and site stabilization.

Based on the existing site conditions in this area, the nature of the proposed development interior of the buffer, and the documented separation between the subject property and the off-site wetland, the proposed project is not anticipated to adversely affect the identified functions and values of the wetland system. The buffer area extending onto the subject property is already relatively compromised by existing disturbance, most notably Banfield Road, which functions as a physical and hydrologic barrier between the property and the wetland. While the remaining forested/field upland on the subject parcel may provide some general ecological value, it does not appear to play a substantial role in maintaining or enhancing the primary functions of the

wetland. Therefore, the proposed residential subdivision is not expected to result in measurable degradation of wetland functions or further diminish the performance of the existing, previously disturbed buffer.

This concludes the functions and values assessment for the wetland and associated buffer relative to the 0 Banfield Rd residential subdivision. If there are any questions related to any of the materials provided, please feel free to reach out to me directly by email bwalden@gesinc.biz or phone 207-710-7863.

Sincerely,

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

Attachments:

Aerial Imagery
ACOE Highway Methodology
Buffer Impact Plan Sheet
Photo Log

GOVE ENVIRONMENTAL SERVICES, INC.

AERIAL IMAGERY

GOVE ENVIRONMENTAL SERVICES, INC.

ACOE HIGHWAY METHODOLOGY

Wetland Function-Value Evaluation Form

Total area of wetland unknown Human made? no Is wetland part of a wildlife corridor? no or a "habitat island"? no

Adjacent land use commercial/residential Distance to nearest roadway or other development 0ft

Dominant wetland systems present PEM2 Contiguous undeveloped buffer zone present no

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

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

Wetland I.D. Off-site 1

Latitude Longitude

Prepared by: BMW Date 6/27/25

Wetland Impact:
Type Buffer Area 6,610SF

Evaluation based on:
Office X Field X

Corps manual wetland delineation completed? Y N X

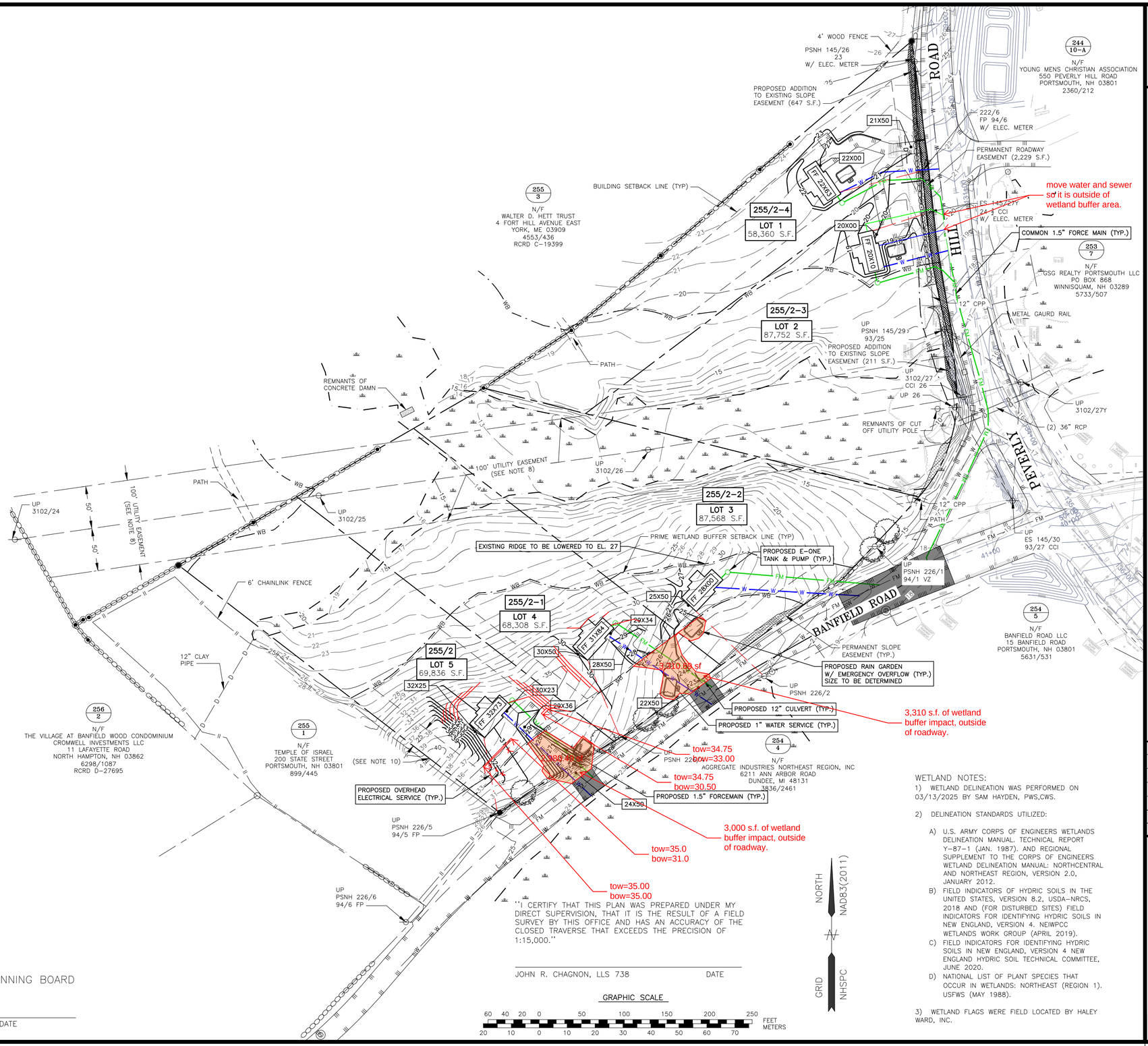
Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1,2,4,9,15	Y	Large wetland associated with areas of ponding
Floodflow Alteration	Y	1,3,5,6,7,8,9,15,18	Y	Large wetland with areas of dense vegetation and ponding
Fish and Shellfish Habitat	Y	5,10	Y	areas of permanent water present
Sediment/Toxicant Retention	Y	1,4,5,6,8,912,15,16	Y	Large wetland with open water present adjacent to areas of potential excess sediment
Nutrient Removal	Y	1,2,3,4,5,6,7,8,9,10,11	Y	Large wetland with dense vegetation present
Production Export	N	1,2,4,5,6,7,12,14	N	no signs of export observed at this location
Sediment/Shoreline Stabilization	Y	2,3,7,12,13,15		shoreline appears to be stable adjacent to wetland boundary
Wildlife Habitat	Y	6,7,8,11,13,17,18,19,20,21		Large wetland with areas of open water and dense vegetation
Recreation	N		N	Private property no access
Educational/Scientific Value	N		N	No areas for parking and private property
Uniqueness/Heritage	N		N	disturbed wetland common in developing areas of NH
Visual Quality/Aesthetics	N		N	no public view points
ES Endangered Species Habitat				
Other				

Notes:

* Refer to backup list of numbered considerations.

GOVE ENVIRONMENTAL SERVICES, INC.

BUFFER IMPACT PLAN SHEET



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."

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

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.

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).

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

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

GOVE ENVIRONMENTAL SERVICES, INC.

PHOTO LOG

GOVE ENVIRONMENTAL SERVICES, INC.

Photo Log
0 Banfield Rd, Portsmouth, NH
Taken: 5/13/25

Photo #1: Looking to the east along Banfield Rd and the subject property.

Photo #2: Looking to the south east along Banfield Rd separating the subject property and the resource area.

Photo #3: Looking at the emergent vegetation present interior of the off site wetland.

Photo #4: Looking to the west along Banfield Rd separating the subject property and the resource area.

Photo #5: Looking at the ponded area of the off site wetland.

Photo #6: Another view of the emergent portion of the wetland.

Photo #7: Looking at the open water and the emergent vegetated area noting the small vegetated strip between the wetland and the roadway.

EROSION AND SEDIMENTATION CONTROL PLAN

A. Narrative. The proposed construction will require the implementation of temporary and permanent erosion control measures. These measures will be implemented in accordance with the New Hampshire Stormwater Manual, Volume 3, prior to removal of any on-site vegetation or disturbance of any on-site soil. The general erosion and sediment control specifications and details, as provided within this section, are intended to describe measures to be used by contractors working on the site to maintain compliance with the standards established in the BMPs. These standards include information on temporary and permanent erosion control measures, rates of seeding and applied mulch, slope and soil stabilization, effect of construction schedule, and other details.

   The proposed location and use of erosion control measures on-site are shown on the proposed plan. There are no known existing erosion control concerns with the site. Implementation of proper erosion control measures will be required by site conditions to confine sediment and debris within the limit of soil disturbance. Proper use and maintenance of erosion control measures will provide protection against off-site transport of sediment and discharge of sediment to undisturbed areas of the development.

B. Completion Date. Fall 2025

C. Site Features. For site features please refer to the enclosed plan.

D. Temporary and Permanent Erosion Control Measures. For temporary and permanent erosion control measures please refer to the enclosed plan.

E. Limits of Disturbed Areas. Areas of disturbance will be limited to the proposed work shown on the enclosed plan.

F. Design Drawings and Specifications. For design drawings please refer to the enclosed plan. The following specifications will be utilized by the site contractor during construction of the project.

EROSION CONTROL PLAN SPECIFICATIONS

A. General

1. All work and measures will be as per the New Hampshire Stormwater Manual, Volume 3.

2. The following specifications will be employed.

B. Prior to Construction

1. Prior to the beginning of construction, erosion and sedimentation controls shall be in place.

C. During Construction

1. Exposed soil surfaces will be treated immediately if they are to remain ungraded more than 30 days, or if they are at final grades.

2. Drainage ways, either designed or incidental, will have filter barriers installed.

3. All work and materials necessary to minimize sediment loss from the site will be provided.

4. All erosion control measures will be inspected and repaired after every rainfall greater than ½-inch and at least daily during rain events lasting longer than 24 hours.

D. Post Construction

1. Erosion control measures will be maintained until permanent soil stabilization has been achieved with a growth of vegetation greater than 90%.

SOIL PROTECTION AND EROSION CONTROL

PART 1 - GENERAL

1.01 Description of Work

A. Provide and maintain devices to control erosion, siltation, sedimentation, and dust that occur during construction operations. Undertake every reasonable precaution and do whatever is necessary to avoid erosion of soil and to prevent silting of wetland areas and drainage ditches.

B. Provide measures to control dust caused whether on or off the project site.

C. Deficiencies in erosion control measures indicated by failures or erosion will be corrected as soon as reasonably possible by providing additional measures or different techniques to correct the situation and prevent subsequent erosion.

D. Exposure of soils on embankments, excavations, and graded areas will be kept as short as possible. Initiate seeding and other erosion control practices as soon as reasonably possible.

1.02 Quality Assurance

A. Conform to all requirements of applicable Federal, State, and local permits and conform to the recommendations of the New Hampshire Stormwater Manual whether the measures are specifically noted herein, or not.

B. Standards: New Hampshire Stormwater Manual, hereinafter called Erosion Control Handbook.

PART 2 - PRODUCTS

2.01 Materials: Use the following materials to implement and construct erosion control measures.

A. Silt Soxx: Refer to Construction drawings for detail.

B. Mulch: Type and use as specified by the Erosion Control Handbook

1. Long fibered hay or straw in dry condition and which are relatively free of weeds and foreign matter detrimental to plant life.

2. Mulch netting: Plastic or nylon mesh netting with approximate openings of ¼- inch to 1-inch.

C. Permanent Seeding: Cut and fill slopes and disturbed areas will be stabilized as with a meadow seed mix:

PART 3 - EXECUTION

3.01 Construction

A. Hay Bales:

1. Install as directed by Stormwater M, and stake with required stakes.

B. Mulch:

1. Undertake after each area has been properly prepared.

2. When seed for erosion control is sown prior to placing the mulch, place mulch on the seeded areas within 48 hours after seeding.

3. Blowing chopped mulch will be permitted.

4. Hay mulch should cover the ground enough to shade it, but the mulch should not be so thick that a person standing cannot see the ground through the mulch.

5. Remove matted mulch or bunches.

C. Temporary Erosion Control Matting (where necessary):

1. Surface Preparation:
   a. Conform to grades for slopes and ditches shown of the drawings.
   b. Finish to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed.
   c. Loosen soil surface to permit bedding of the matting.
   d. Unless otherwise directed, apply seed prior to placement.
2. Installation:
   a. Place strips lengthwise in the direction of the flow of water.
   b. Where strips are laid parallel or meet as in a tee, overlap at least four inches.
   c. Overlap ends at least six inches in a shingle fashion.
   d. The up-slope end of each strip of the matting will be turned down and buried to a depth of not less than six inches with the soil firmly tamped against it.
   e. Build check slots at right angles to the direction of the flow of water. Space so that one check slot or one end occurs within each 50 feet of slope length. Construct by placing a tight fold of the matting at least six inches vertically into the ground and tamp the same as up-slope ends.
   f. Bury edges of matting around the edges of the catch basins and other structures.

g. Where determined by the Engineers, additional seed will be spread over matting, particularly at those locations disturbed by building the slots. Matting will then be pressed onto the ground with a light lawn roller or by other satisfactory means.
h. Drive staples vertically into the ground flush with the surface.
i. On slopes flatter than 4:1, space staples not more than three feet and one row, alternately spaced, down the center.
j. On grades 4:1 or steeper, place in the same three rows, but spaced two feet apart.
k. On all overlapping or butting edges, double the number of staples, with the spacing halved; all ends of the matting and all required check slots will likewise have staples spaced every foot.

D. Permanent Seeding:

1. Seed with appropriate seeds and application rates as noted in Section 2.01C.

2. Mulch areas where seeding has been applied. Do not mulch seeded areas where matting will be immediately installed.

E. Topsoil Storage:

1. Topsoil which is stockpiled on the site for use in loam applications will be placed out of natural drainages, in piles that have side slopes of 2:1 to 1.5:1.

2. A trench (depth as required) will be constructed around the base of the pile to prevent eroding soil from washing into drainages.

F. Dust Control: Utilize the application of sprinkled water to reduce the emission of airborne soil particulates from the Project site.

G. Temporary Berms: Construct temporary barriers along the toe of embankments using side drains, as necessary.

H. Temporary Basins: Construct temporary sedimentation basins adequate to avoid siltation of surface water bodies.

I. Other Temporary Measures:

1. Type and use will be as specified in the Erosion Control Handbook.

J. Winter Stabilization Notes

1. At this time, it is not expected that significant soil disturbance will occur during winter months or periods of heavy icing. If construction is performed during these times, the following construction practices will be followed.

a. All disturbed areas not stabilized with stone or other measures will have approved erosion control matting installed and be dormant seeded.
b. No frozen soil material or material containing significant snow or ice will be used for fill material.
c. All material stockpiles will have silt fence and/or hay bales installed downgradient of piles.
d. Follow general erosion control notes described previously wherever possible and as conditions permit.

3.02 Maintenance

A. Inspect erosion control practices immediately after each rainfall greater than ½- inch and at least daily during rainfall lasting longer than 24 hours or snowmelt for damage. Provide maintenance and make appropriate repairs or replacement.

B. Remove silt from around hay bales when it has reached one-foot above grade or prior to expected heavy runoff or siltation.

C. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.

3.03 Removal of Temporary Erosion Control

A. Remove temporary materials and devices when permanent soil stabilization has been substantially achieved. For vegetated areas, substantially complete means 95% vegetated cover has been established.

B. Level and grade to the extent required to present a sightly appearance and to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.

C. Remove unsuitable materials from site and dispose of them in a lawful manner.

INSPECTION AND MAINTENANCE

The following Maintenance Plan will be employed for this facility. Chinburg Development will be responsible for all maintenance. Erosion control measures for this site were designed by:

Drew Olehowski, P.E.
Haley Ward, Inc.
One Merchants Plaza, Suite 701
Bangor, Maine 04401
(207) 989-4824
dolehowski@haleyward.com

A Pre- and Post-Construction Maintenance Plan for the stormwater management system and erosion control measures are included in this section.

MAINTENANCE PLAN

The New Hampshire Stormwater Manual was used as a guideline in the development of this Maintenance Plan. General maintenance requirements are listed below.

A. DURING CONSTRUCTION

The general contractor will be responsible for the inspection and maintenance of all stormwater management system components during construction.

Inspection: Inspection of disturbed and impervious areas, erosion control measures, materials' storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site will be performed at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. Inspections shall be conducted by a person with knowledge of erosion and stormwater control, including the standards and conditions in the permit.

Maintenance: All erosion control measures will be kept in effective operating condition until areas are permanently stabilized. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation will be completed within seven calendar days and prior to any rainfall event.

Documentation: A log shall be kept summarizing the inspections and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, Construction Inspection Log.

B. POST-CONSTRUCTION

The Owner or their assigns will be responsible for the inspection and maintenance of all stormwater management system components.

Inspection and Corrective Action

1. Vegetated Areas/Buffers: Inspections and maintenance of vegetated areas will be performed early in the growing season or after significant rainfall to identify any erosion problems. Areas where erosion is evident will be covered with an appropriate lining, or erosive flows will be diverted to an area able to handle the flows. Any bare areas or areas with sparse growth will be replanted.

2. Ditches, Swales, and Culverts: Inspections and maintenance of ditches, culverts, and swales will be performed in the Spring, late Fall, and after rain events greater than 1-inch in depth to remove any obstructions to flow, to remove any accumulated sediments within the structures, and to repair any erosion of channel linings, check dams, inlet protection, or outlet protection. Vegetated ditches and swales must be mowed no more than twice per year and cut no less than 6-inch in height.

3. Roadways: Gravel roadways will be graded at least twice per year, if needed, to maintain drainage patterns as designed. Inspections and maintenance of the road will be performed in the Spring, late Fall, and after rain events greater than 1-inch in depth to remove any obstructions to flow and to repair any erosion of the road or its side slopes.

4. Documentation: A log will be kept summarizing the inspections, maintenance, and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, BMP Inspection Log.

HOUSEKEEPING

1. Spill Prevention - During construction, controls will be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

2. Groundwater Protection - During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater will not be stored or handled in areas of the site draining to an infiltration area. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

3. Fugitive Sediment and Dust - Actions will be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil will not be used for dust control. Water will be used for dust control during construction.

   Operations during wet months that cause mud to be tracked off the site onto public roads will provide sweeping of the road areas at least once per week and prior to significant storm events.

4. Debris and Other Materials - Litter, construction debris, and chemicals exposed to stormwater will be prevented from becoming a pollutant source. The nature of this development will not cause problems related to debris and other materials.

5. Trench or Foundation De-Watering - If de-watering is necessary, the collected water will be removed from the ponded area and spread through natural wooded buffers or discharged into a construction sedimentation basin. The water will not be allowed to flow over disturbed areas to the site.

0 BANFIELD ROAD, PORTSMOUTH, NH
CONSTRUCTION INSPECTION LOG

Inspection Date	Inspector (Name and Qualifications)	Major Observations	Work Performed

Notes

1) Major Observations include the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major Observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.
2) Work Performed will include a description of the corrective action taken, the date the corrective action was taken, and the name and qualifications of the person taking the corrective actions
3) The log must be made accessible to NHDES staff, and a copy must be provided upon request.
4) The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

O BANFIELD ROAD, PORTSMOUTH, NH
BMP INSPECTION LOG

Date	Inspector (Name and Qualifications)	ID Number	BMP Structure	Work Performed	Comments

Notes

1) If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal.
2) BMP structures shall be numbered sequentially and located on attached site map.
3) The log must be made accessible to NHDES staff, and a copy must be provided upon request.
4) The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.

INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)		
	INSPECTION SCHEDULE	**CORRECTIVE ACTIONS**
VEGETATED AREAS	Annually early spring and after heavy rains	Inspect all slopes and embankments and replant areas of bare soil or with sparse growth
		Armor rill erosion areas with riprap or divert the runoff to a stable area
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Mow vegetation as specified for the area
DITCHES, SWALES AND OPEN STORMWATER CHANNELS	Annually spring and late fall and after heavy rains	Remove obstructions, sediments or debris from ditches, swales, and other open channels
		Repair any erosion of the ditch lining
		Mow vegetated ditches
		Remove woody vegetation growing through riprap
		Repair any slumping side slopes
		Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodged
GRAVEL ROADWAYS	Twice Per Year	Regrade roadway, as needed, to maintain drainage patterns as designed. Repair any channelization or other signs of erosion as needed.

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

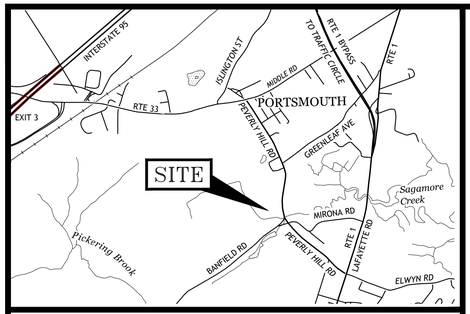
By following the typical stormwater management plan described for this project, the proposed site improvements are expected to be minimal and are not anticipated to adversely impact downstream water bodies or abutters.

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.

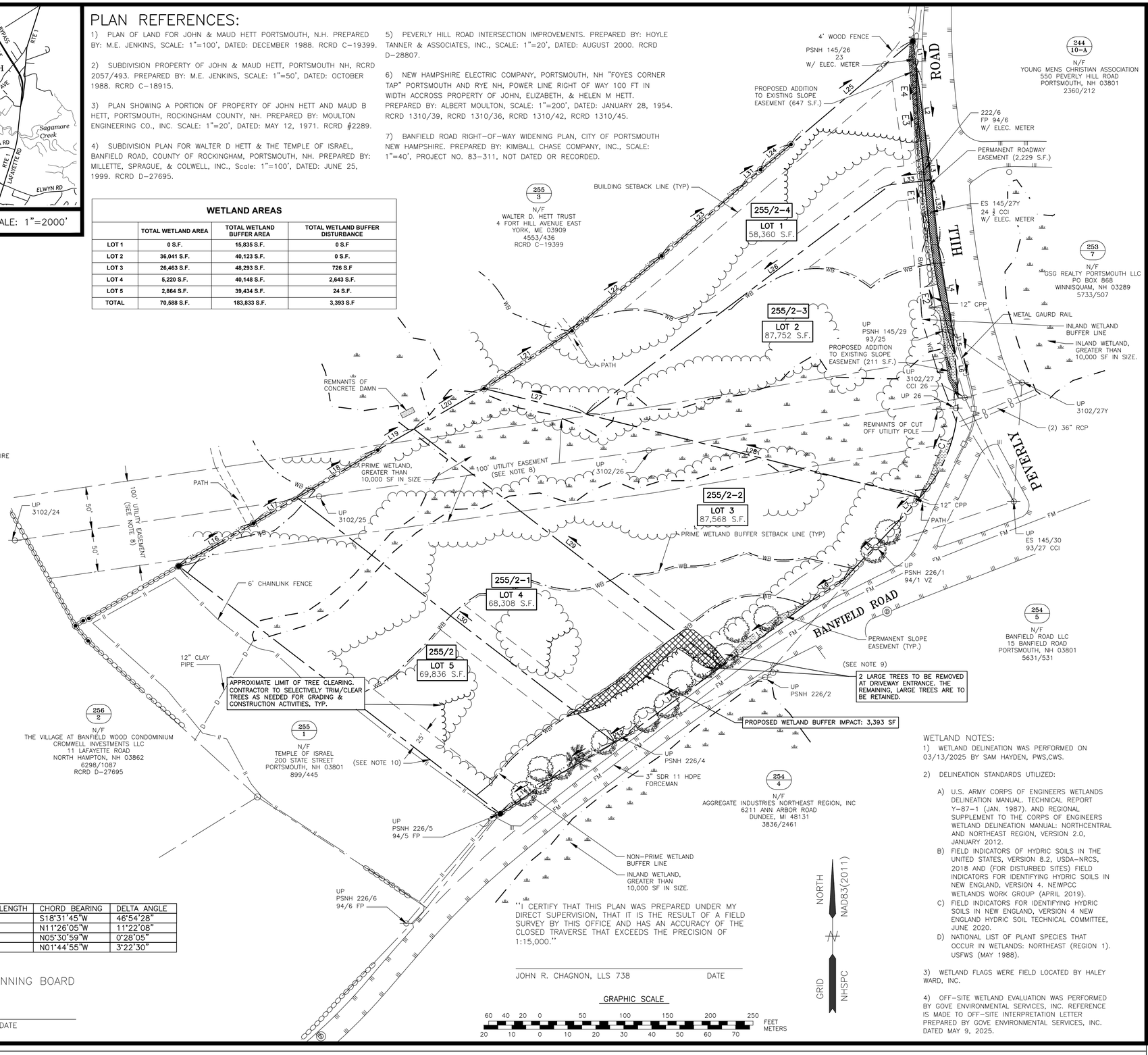
5) PEVERLY HILL ROAD INTERSECTION IMPROVEMENTS. PREPARED BY: HOYLE TANNER & ASSOCIATES, INC., SCALE: 1"=20', DATED: AUGUST 2000. RCRD D-28807.

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.

WETLAND AREAS

	TOTAL WETLAND AREA	TOTAL WETLAND BUFFER AREA	TOTAL WETLAND BUFFER DISTURBANCE
LOT 1	0 S.F.	15,835 S.F.	0 S.F
LOT 2	36,041 S.F.	40,123 S.F.	0 S.F.
LOT 3	26,463 S.F.	48,293 S.F.	726 S.F
LOT 4	5,220 S.F.	40,148 S.F.	2,643 S.F.
LOT 5	2,864 S.F.	39,434 S.F.	24 S.F.
TOTAL	70,588 S.F.	183,833 S.F.	3,393 S.F



"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

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
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.

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.

NO.	DESCRIPTION	DATE
5	REVISED DRIVEWAYS, DETAILS & ESC PLAN	7/09/25
4	WETLAND IMPACTS	6/25/25
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

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

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

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

CABLE:
COMCAST
155 COMMERCE WAY
PORTSMOUTH, N.H. 03801
ATTO: Tel. (603) 679-5695 Ext. 1037
ATTP: DOUG SPARKS

WETLAND AREAS

	TOTAL WETLAND AREA	TOTAL WETLAND BUFFER AREA	TOTAL WETLAND BUFFER DISTURBANCE
LOT 1	0 S.F.	15,835 S.F.	0 S.F
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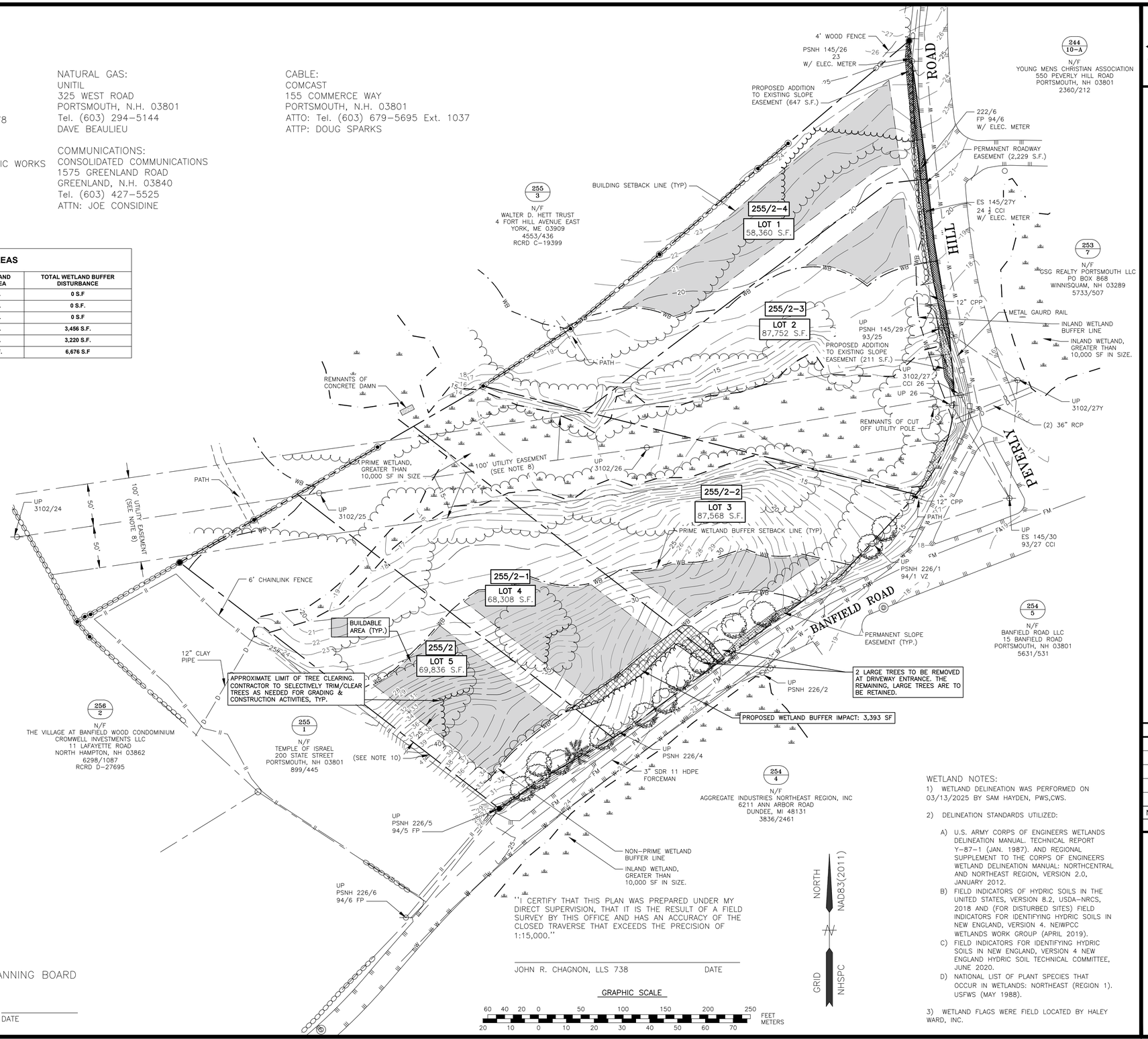
LOT 4	5,220 S.F.	40,148 S.F.	3,456 S.F.
LOT 5	2,864 S.F.	39,434 S.F.	3,220 S.F.
TOTAL	70,588 S.F.	183,833 S.F.	6,676 S.F



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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.

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
5	REVISED DRIVEWAYS, DETAILS & ESC PLAN	7/09/25
4	WETLAND IMPACTS	6/25/25
3	EASEMENTS	5/21/25
2	LOTS	3/1/25
1	LOTS	2/12/25
0	ISSUED FOR COMMENT	1/27/25

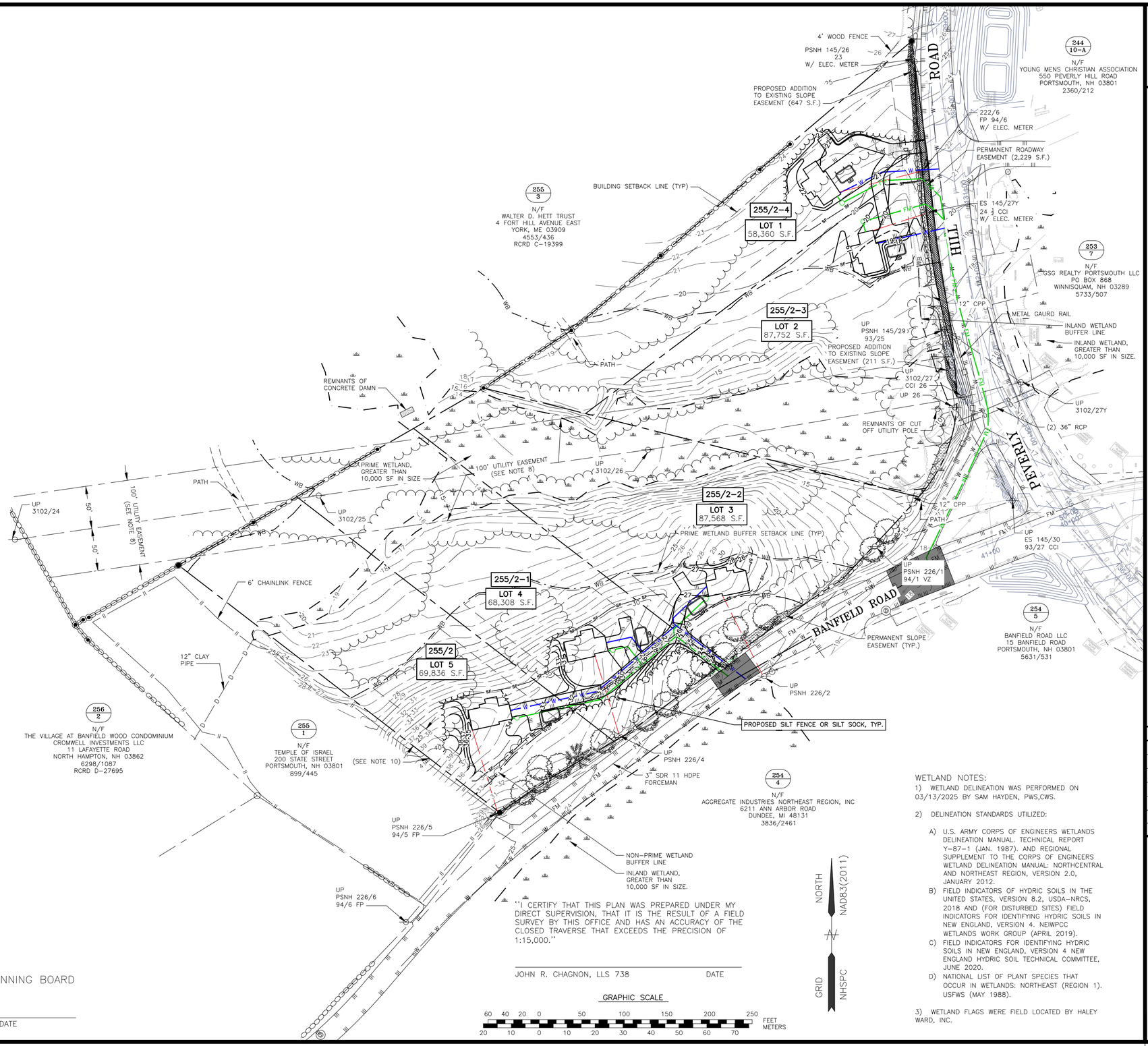
REVISIONS

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

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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).

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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

EROSION CONTROL 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*

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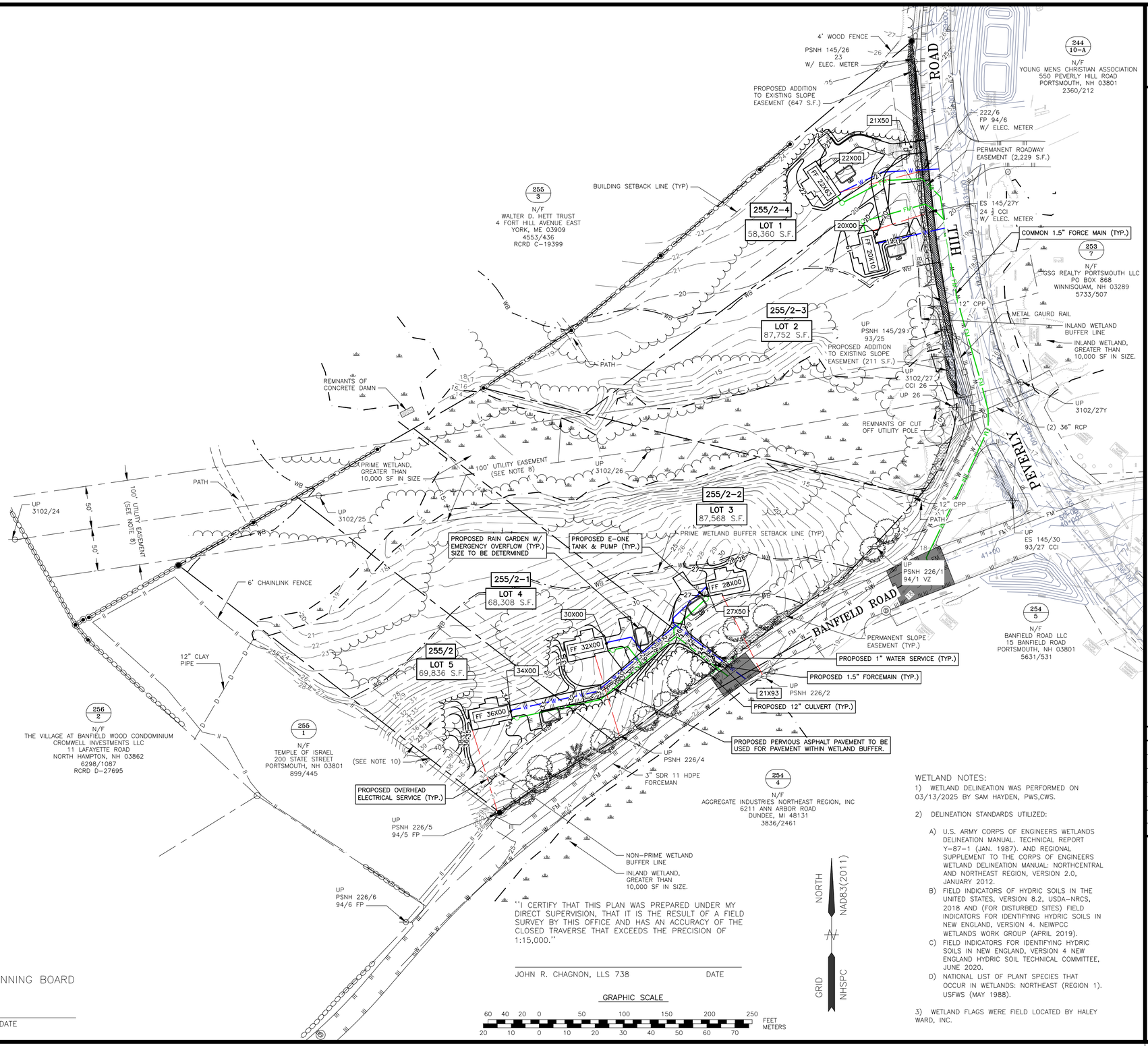

APPROVED BY THE PORTSMOUTH PLANNING BOARD

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0	ISSUED FOR COMMENT	2/12/25

REVISIONS

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*

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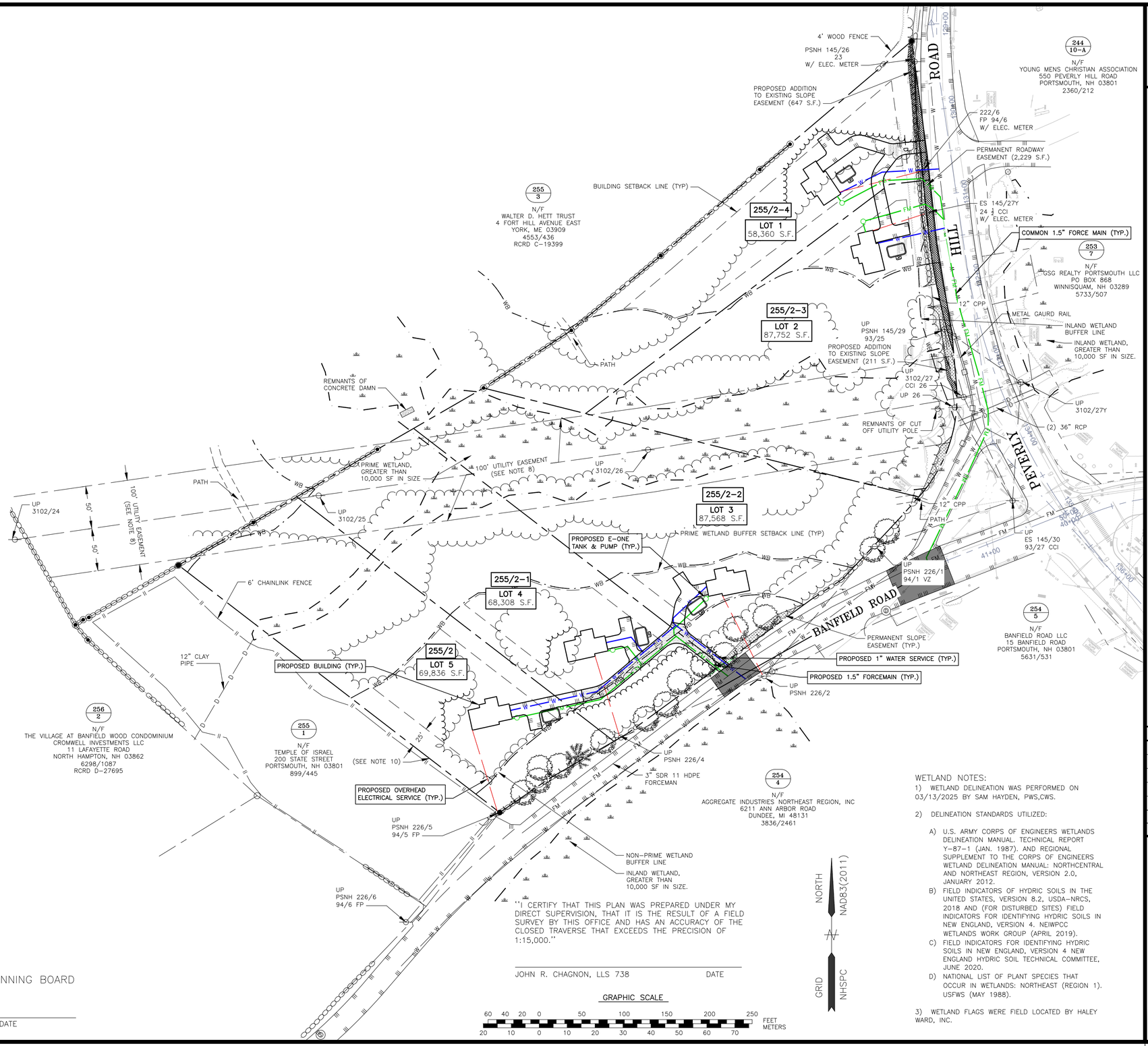

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0	ISSUED FOR COMMENT	2/12/25

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

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

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

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

THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:
1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
3. A REPRESENTATIVE OF THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

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

THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES. PLACE FODS AS NEEDED.

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

ROUGH GRADE SITE.

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

CONSTRUCT BUILDING(S).

CONNECT UTILITIES.

PLACE BINDER LAYER OF PAVEMENT FOR DRIVEWAYS.

PLANT LANDSCAPING IN AREAS OUT OF WAY OF BUILDING CONSTRUCTION. PREPARE AND STABILIZE FINAL SITE GRADING BY ADDING TOPSOIL, SEED, MULCH AND FERTILIZER.

AFTER BUILDINGS ARE COMPLETED, FINISH ALL REMAINING LANDSCAPED WORK.

CONSTRUCT DRIVEWAYS.

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

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF A 5 LOT RESIDENTIAL SUBDIVISION WITH ASSOCIATED UTILITIES AND PAVING.

THE STORMWATER RUNOFF FROM THE SITE WILL TREATED USING PERVIOUS PAVEMENT & SOIL FILTER TREATMENT BMPS.

GENERAL CONSTRUCTION NOTES

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

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

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

THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

DUST CONTROL: DUST CONTROL MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.
IF TEMPORARY STABILIZATION PRACTICES, SUCH AS TEMPORARY VEGETATION AND MULCHING, DO NOT ADEQUATELY REDUCE DUST GENERATION, APPLICATION OF WATER OR CALCIUM CHLORIDE SHALL BE APPLIED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES.

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

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

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

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

FILL MATERIAL SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.

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

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

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

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED ON AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED
- EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
- IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA.

STABILIZATION MEASURES TO BE USED INCLUDE:
- TEMPORARY SEEDING;
- MULCHING.

1. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
2. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN THESE AREAS, SILTSOXX, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH\DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
3. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILTSOXX, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY OCTOBER 15.

MAINTENANCE AND PROTECTION

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

SILTSOXX SHALL BE REMOVED ONCE SITE IS STABILIZED, AND DISTURBED AREAS RESULTING FROM SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.

THE CATCH BASIN INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

WINTER NOTES

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

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

AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;

STOCKPILES

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

CONCRETE WASHOUT AREA

THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
1. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FAILITY;
2. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
3. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
4. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES

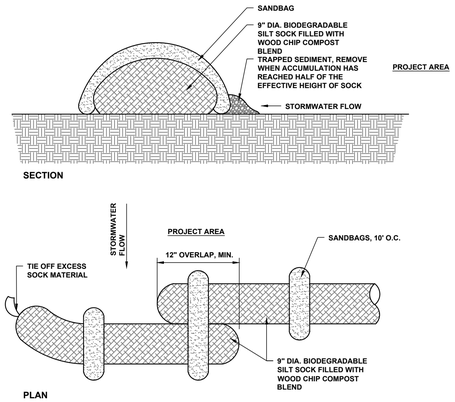
1. FIRE-FIGHTING ACTIVITIES;
2. FIRE HYDRANT FLUSHING;
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
4. WATER USED TO CONTROL DUST;
5. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
6. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
9. UNCONTAMINATED GROUND WATER OR SPRING WATER;
10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
11. UNCONTAMINATED EXCAVATION DEWATERING;
12. LANDSCAPE IRRIGATION.

WASTE DISPOSAL

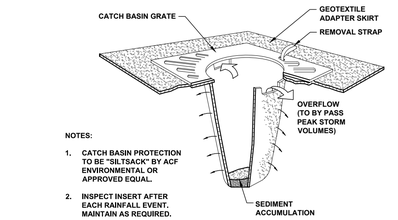
1. WASTE MATERIAL
   - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
   - NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
   - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE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

BLASTING NOTES

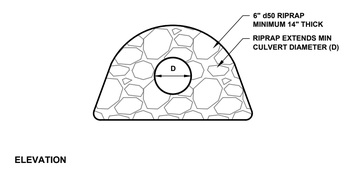
1. CONTRACTOR SHALL CONTACT THE NHDES AND/OR LOCAL JURISDICTION PRIOR TO
2. COMMENCING ANY BLASTING ACTIVITIES.
3. FOR ANY PROJECT FOR WHICH BLASTING OF BEDROCK IS ANTICIPATED, THE APPLICANT
4. SHALL SUBMIT A BLASTING PLAN THAT IDENTIFIES:
   - WHERE THE BLASTING ACTIVITIES ARE ANTICIPATED TO OCCUR;
   - THE ESTIMATED QUANTITY OF BLAST ROCK IN CUBIC YARDS; AND
   - SITE-SPECIFIC BLASTING BEST MANAGEMENT PRACTICES.



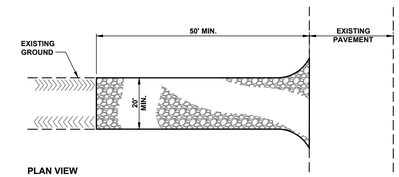
SILT SOCK DETAIL
NTS



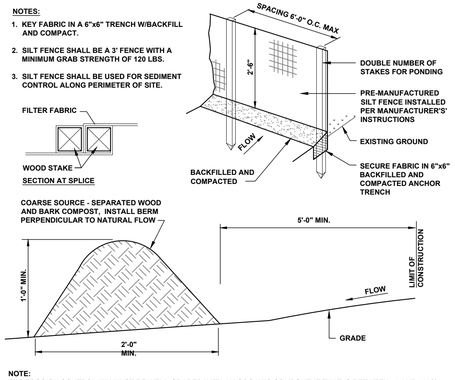
SEDIMENT SACK INLET PROTECTION DETAIL
NTS (MAY BE USED AS AN ALTERNATE TO HAY BALES)



TYPICAL CULVERT INLET/OUTLET PROTECTION DETAIL
NTS



STABILIZED CONSTRUCTION ENTRANCE DETAIL
NTS



NOTE:
THE EROSION CONTROL MIX MUST BE WELL-GRADED WITH AN ORGANIC COMPONENT THAT IS BETWEEN 50 AND 100% OF DRY WEIGHT, AND THAT IS COMPOSED OF FIBROUS AND ELONGATED FRAGMENTS. THE MINERAL PORTION OF THE MIX SHOULD BE NATURALLY INCLUDED IN THE PRODUCT WITH NO LARGER ROCKS (>4"), OR LARGE AMOUNTS OF FINES (SILTS AND CLAYS). IN STUMP GRINDING, THE MINERAL SOIL ORIGINATES FROM THE ROOT BALL AND SHOULD NOT BE REMOVED BEFORE GRINDING. THE MIX SHOULD BE FREE OF REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR UNSUITABLE MATERIAL (BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS).

SILT FENCE AND EROSION CONTROL MIX BERM DETAILS
NTS ECM BERM MAY BE USED FOR INTERIOR SILT CONTROL ONLY

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).

NO.	DESCRIPTION	DATE
	REVISIONS	
5	REVISED DRIVEWAYS, DETAILS & ESC PLAN	7/09/25
4	GRADING/WETLAND IMPACTS	6/25/25
3	GRADING/EASEMENTS	5/21/25
2	UTILITY DESIGN	4/23/25
1	LOTS	3/1/25
0	ISSUED FOR COMMENT	2/12/25

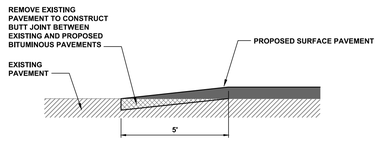
DETAILS
TAX MAP 255 – LOT 2

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

SCALE: NTS JANUARY 2025

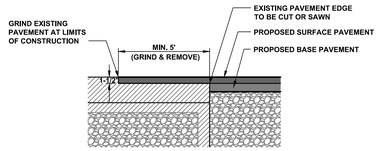
FB 499 & PG 1

5010220



TYPICAL ASPHALT PAVEMENT BUTT JOINT DETAIL

N.T.S.

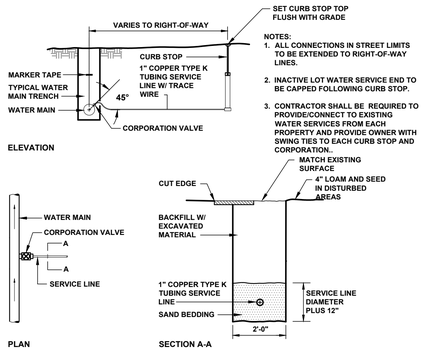


NOTES:

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

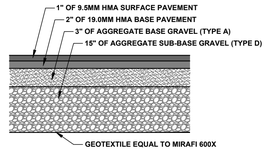
TYPICAL ASPHALT PAVEMENT GRINDING DETAIL

NTS



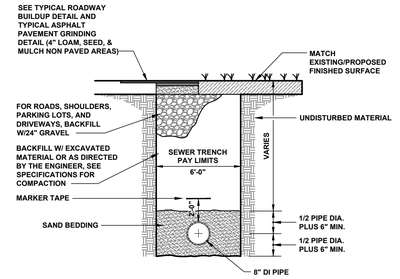
TYPICAL WATER SERVICE DETAIL

NTS



DRIVEWAY APRON BUILDUP 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

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

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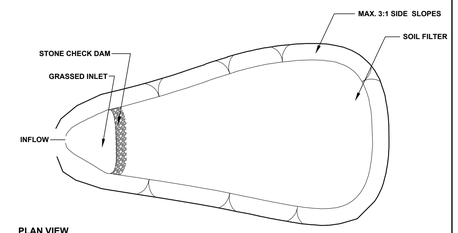
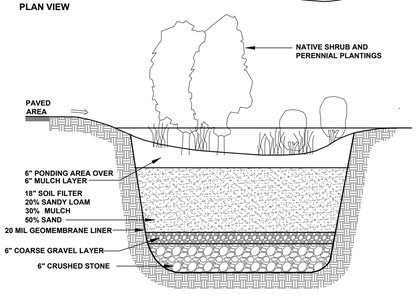


PLAN VIEW



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.

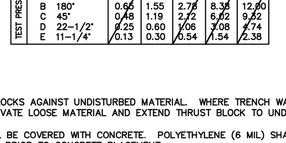
MAINTENANCE

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 SOILS 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.

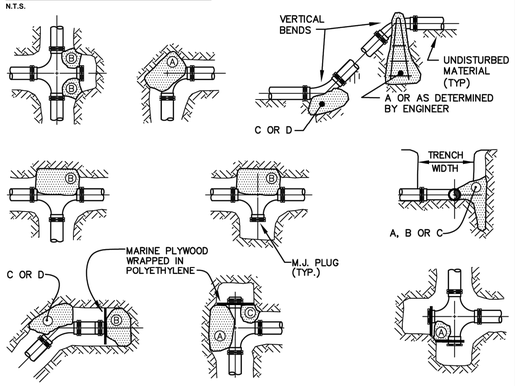


NOTES

1. *A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER AND SEWER MAINS. A MINIMUM VERTICAL DISTANCE WITH WATER ABOVE SEWER SHALL BE MAINTAINED.*
2. *SEWER PIPE JOINTS SHALL BE LOCATED A MINIMUM OF 6 FEET HORIZONTALLY FROM WATER MAIN.*
3. *IF THE REQUIRED CONFIGURATION CANNOT BE MET, THE SEWER MAIN SHALL BE CONSTRUCTED TO MEET THE NHDES REQUIREMENTS FOR FORCE MAIN CONSTRUCTION.*

WATER/SEWER MAIN CROSSING

N.T.S.



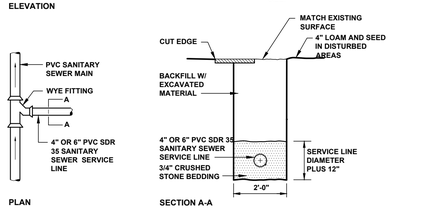
TEST PRESSURE = 150 psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL				
	REACTION TYPE	PIPE SIZE			
		3"			
	A 90°	0.89	2.19	3.82	11.14	17.24
	B 180°	0.66	1.55	2.78	8.36	12.80
	C 45°	0.48	1.19	2.12	6.02	9.32
	D 22-1/2°	0.25	0.60	1.06	3.08	4.74
	E 11-1/4°	0.13	0.30	0.54	1.54	2.38

NOTES

1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL.
2. NO JOINTS SHALL BE COVERED WITH CONCRETE. POLYETHYLENE (6 MIL) SHALL BE PLACED AROUND FITTINGS PRIOR TO CONCRETE PLACEMENT.
3. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
4. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.

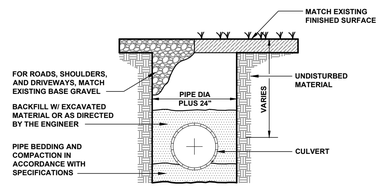
WATER/SEWER MAIN CROSSING

N.T.S.



TYPICAL SANITARY SEWER SERVICE DETAIL

NTS



NOTE:

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

TYPICAL CULVERT TRENCH DETAIL

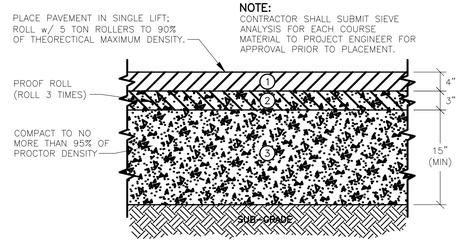
NTS

POROUS PAVEMENT SPECIFICAITONS

① POROUS PAVEMENT w/ THE FOLLOWING GRADATIONS*		② CHOKER/RESERVOIR COURSE w/ THE FOLLOWING GRADATIONS**		③ FILTER COURSE (Item 304.3, Processed Gravel)	
SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)
3/4" (19mm)	100	1" (25mm)	100	3" (75mm)	100
1/2" (12.5mm)	85-100	3/4" (19mm)	45-55	2.0" (63mm)	95-100
3/8" (9.5mm)	55-75	1/2" (12.5mm)	40-50	1" (25mm)	55-85
No. 4 (4.75mm)	10-25	3/8" (9.5mm)	35-45	No. 4 (4.75mm)	27-52
No. 8 (2.36mm)	5-10	No. 4 (4.75mm)	---	---	---
No. 200 (0.075mm)	2-4	No. 8 (2.36mm)	0-5	No. 200 (0.075 mm)	0-12 (in sand portion)

* WITH 6% PERFORMANCE GRADED ASPHALT BINDER CONTENT BY VOLUME. AIR VOIDS TO BE 20%

** CRUSHED QUARRY STONE SHALL CONTAIN AT LEAST 2 FRACTURED FACES, & SHALL BE WASHED WITH LESS THAN 1% BY WEIGHT PASSING No. 200 SIEVE.



PAVEMENT SECTION
NTS

POROUS PAVEMENT SECTION

N.T.S.

NO.	DESCRIPTION	DATE
5	REVISED DRIVEWAYS, DETAILS & ESC PLAN	7/09/25
4	GRADING/WETLAND IMPACTS	6/25/25
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2	UTILITY DESIGN	4/23/25
1	LOTS	3/1/25
0	ISSUED FOR COMMENT	2/12/25

REVISIONS

DETAILS
TAX MAP 255 - LOT 2

OWNER:

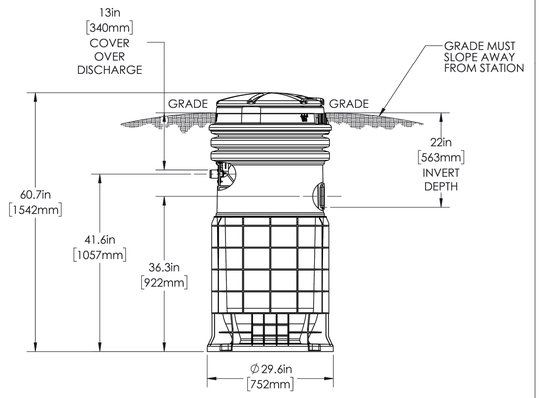
WALTER D. HETT
BANFIELD ROAD &
PEVERLY HILL ROAD
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE: NTS — JANUARY 2025

FB 499 & PG 1 — 5010220

NA0050P04

DH071-61



NOTE: DIMENSIONS ARE FOR REF ONLY

CONCRETE BALLAST NOT REQUIRED

DISCHARGE: 1-1/4in FEMALE PIPE THREAD

INLET: EPDM GROMMET FOR 4in DWV PIPE (STANDARD)

BK	JG	10/13/2023	E	1:16
DR BY	CHK'D	DATE	ISSUE	SCALE

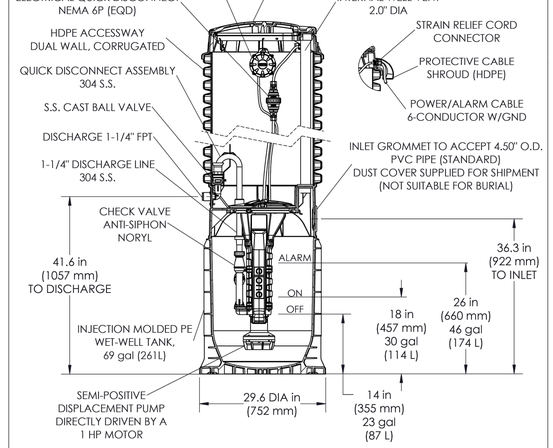
e/one
SEWER SYSTEMS

MODEL DH071-61
CUT SHEET

NA0050P04

NA0050P02

DH071



CONCRETE BALLAST NOT REQUIRED

NOTE: DIMENSIONS ARE FOR REF ONLY

FIELD JOINT REQUIRED FOR MODELS
DH071-129 / DH071-160

JVL	SGS	7/14/2023	F	1:16
DR BY	CHK'D	DATE	ISSUE	SCALE

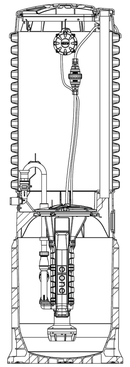
e/one
SEWER SYSTEMS

MODEL DH071
DETAIL SHEET

NA0050P02

E/ONE EXTREME SERIES

DH071



General Features

The model DH071 grinder pump station is a complete unit that includes: the grinder pump, check valve, HDPE (high density polyethylene) tank, controls, and alarm panel. A single DH071 is a popular choice for one, average single-family home and can also be used for up to two average single-family homes where codes allow and with consent of the factory.

- Rated for flows of 700 gpd (2650 lpd)
- 70 gallons (265 liters) of capacity
- Indoor or outdoor installation
- Standard outdoor heights range from 61 inches to 160 inches

The DH071 has a cable that connects the motor controls to the level controls through watertight penetrations.

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 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

Discharge
15 gpm at 0 psig (0.95 lps at 0 m)
11 gpm at 40 psig (0.69 lps at 28 m)
7.8 gpm at 80 psig (0.49 lps at 56 m)

Accessories

E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.

NA0050P01 Rev E

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 ~~or 480~~ 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

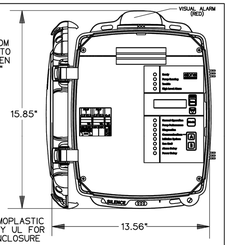
Please consult factory for special applications.

NA0344P01 Rev. –

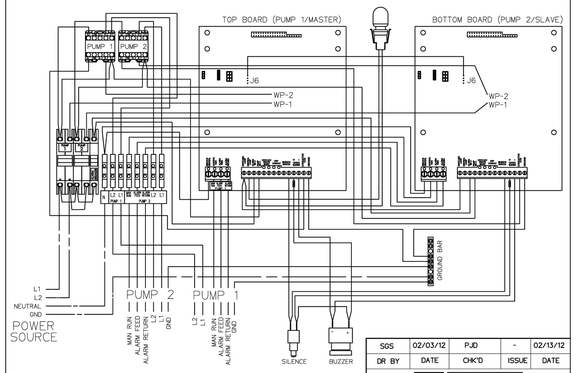
SENTRY PROTECT PLUS DUPLEX

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



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

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

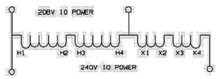
e/one
SEWER SYSTEMS

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

NA0344P03

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:		
APPD BY:	DATE:	TRANSFORMER, BUCK BOOST 0.75KVA, PA0219P03	
SCALE: FULL		MATERIAL:	
		PART NUMBER:	PART
		LM000230	1
TYPE: 4	CLASS: 05	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).

NO.	DESCRIPTION	DATE
5	REVISED DRIVEWAYS, DETAILS & ESC PLAN	7/09/25
4	GRADING/WETLAND IMPACTS	6/25/25
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

DETAILS
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: NTS *JANUARY 2025*

FB 499 & PG 1

5010220