



# TOWN OF EXETER, NEW HAMPSHIRE

10 FRONT STREET • EXETER, NH • 03833-3792 • (603) 778-0591 • FAX 772-4709

[www.exeternh.gov](http://www.exeternh.gov)

## PUBLIC NOTICE EXETER CONSERVATION COMMISSION

### Site Walk

The Exeter Conservation Commission will be holding a site walk to review Action Item #2 below.

They will meet at 19 Continental Drive, Exeter on **Tuesday, July 12<sup>th</sup>, 2022 at 5:00 P.M.**

### Monthly Meeting

The Exeter Conservation Commission will meet in the Nowak Room, Exeter Town Offices at 10 Front Street, Exeter on **Tuesday, July 12<sup>th</sup>, 2022 at 7:00 P.M.**

### Call to Order:

1. Introduction of Members Present
2. Public Comment

### Action Items:

1. Wetland Conditional Use Permit application for Unutil to remove an above-ground meter station and decommission a section of buried natural gas pipe between Kingston Road and Heritage Way. Construction vehicle access to the work area will require temporary impact to wetlands within the natural gas pipeline corridor. Tax Map Parcels #74-81 and #81-56.
2. Wetland Conditional Use Permit application and Standard Dredge and Fill Wetland Permit Application for the construction of a 95,000 SF Industrial Warehouse building located at 19 Continental Drive Tax Map 47-7-2.
3. Correspondence
4. Committee Reports
  - a. Property Management
    - i. Garrison Lane
    - ii. Raynes Haying
  - b. Trails
  - c. Outreach Events
    - i. Geocaching Event July 16 9a-10a
    - ii. Raynes Raptors of New England – Word Barn
5. Approval of Minutes: June 14th, 2022 Meeting
6. Other Business
7. Next Meeting: Date Scheduled (8/9/22), Submission Deadline (7/29/22)

*Andrew Koff*

*Exeter Conservation Commission*

*Posted July 8<sup>th</sup>, 2022 Exeter Town Website [www.exeternh.gov](http://www.exeternh.gov) and Town Office kiosk.*

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### **ZOOM Public Access Information:**

Virtual Meetings can be watched on Channel 22 and on Exeter TV's Facebook and YouTube pages.

To participate in public comment, click this link: <https://exeternh.zoom.us/j/83875361756>

To participate via telephone, call: +1 646 558 8656 and enter the Webinar ID: 838 7536 1756

Please join the meeting with your full name if you want to speak.

Use the "Raise Hand" button to alert the chair you wish to speak. On the phone, press \*9.

More instructions for how to participate can be found here: <https://www.exeternh.gov/townmanager/virtual-town-meetings>

**Contact us at [extvg@exeternh.gov](mailto:extvg@exeternh.gov) or 603-418-6425 with any technical issues.**

**TOWN OF EXETER  
PLANNING DEPARTMENT MEMORANDUM**

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Date: July 8th, 2022  
To: Conservation Commission Board Members  
From: Kristen Murphy, Natural Resource Planner  
Subject: July 12<sup>th</sup> Conservation Commission Meeting

1. Wetland CUP application for Unitil

This project qualifies for a Utility Maintenance Statutory Permit by Notification (PBN) so you will not see a wetland application for this activity. A site walk for this project was scheduled for Thursday, July 7<sup>th</sup>. Bill and Trevor were in attendance. The application is scheduled to go before the Planning Board on Thursday July 14<sup>th</sup>.

**Suggested Motion for Wetland Conditional Use Permit:**

\_\_\_\_\_ *We reviewed this application and feel the **need to table** the application to a date certain due to insufficient information on criteria necessary for the Commission to make a recommendation to the planning board as noted below: We recommend the required information be submitted by the next meeting submission deadline of \_\_\_\_\_ to be heard at the \_\_\_\_\_ conservation commission meeting date.*

\_\_\_\_\_ *We have reviewed this application and have **no objection** to the approval of the conditional use permit as proposed.*

\_\_\_\_\_ *We have reviewed this application and recommend that the wetland conditional use permit be (**approved with conditions**) (**denied**) as noted below:*

2. Wetland CUP application and State Wetland Permit Application for the construction of a 95,000 SF Industrial Warehouse building located at 19 Continental Drive Tax Map 47-7-2.

The application was before the Technical Review Committee (TRC) on June 24<sup>th</sup>. I submitted comments in writing because I had a conflict that day. Dave Sharples provided the applicant with my comments. They are scheduled to appear before the Planning Board on August 25<sup>th</sup> so we have not yet received a response to TRC comments or any application revisions.

The site may be familiar to you as we reviewed an application for a tennis facility on this parcel in 2009 and 2015 and the property abuts the Little River Conservation Area portion off Garrison Lane.

**Suggested Motion for Wetland Conditional Use Permit:**

\_\_\_\_\_ *We reviewed this application and feel the need to table the application to a date certain due to insufficient information on criteria necessary for the Commission to make a recommendation to the planning board as noted below: We recommend the required information be submitted by the next meeting submission deadline of \_\_\_\_\_ to be heard at the \_\_\_\_\_ conservation commission meeting date.*

\_\_\_\_\_ *We have reviewed this application and have no objection to the approval of the conditional use permit as proposed.*

\_\_\_\_\_ *We have reviewed this application and recommend that the wetland conditional use permit be (approved with conditions) (denied) as noted below:*

3. Correspondence: **DTC Request for Rehearing**

Your packet contains a letter from DTC requesting you reconsider your decision on the shoreland conditional use permit for the relocation of Building D on the Ray Farm project that was before the board at the June 14<sup>th</sup> meeting. **Please note, this is not a public hearing and as Dave's email indicates, we advise you to not open this up for public comment.**

The application is currently scheduled to be before the Planning Board on July 14th.

Your options for addressing this request are:

1. **Deny the request for reconsideration.** The memo included in your packet would go to the Planning Board as presented.
2. **Move to reconsider the application** at the August 9<sup>th</sup> Conservation Commission meeting.  
Should you choose this option, we will send a memo to the Planning Board indicating your intent to reconsider your decision. This will defer any action on the CUP portion of the application until after your August 9<sup>th</sup> meeting.

To guide your preparation for the meeting, the meeting video is available [here](#) (starting at 6:19), and your packet includes the memo from the CC to the Planning Board, the email from Dave Sharples to DTC's Justin Pasay, and the 7-1-22 packet submitted by DTC.

# Unitil CUP Application



Wood Environment & Infrastructure Solutions, Inc.  
100 Apollo Drive, Suite 302  
Chelmsford, MA 01824  
USA

T: 978-692-9090

[www.woodplc.com](http://www.woodplc.com)

June 30, 2022

Town of Exeter  
Conservation Commission  
10 Front Street  
Exeter, NH 03833

**Re: Conditional Use Permit Application  
Proposed Gas Pipeline Lateral and Station Decommissioning  
Unitil GSGT Pipeline Corridor North of Kingston Road, Exeter, NH**

To the Exeter Conservation Commission:

On behalf of Unitil Granite State Gas Transmission (Unitil/applicant), Wood Environment & Infrastructure Solutions, Inc. (Wood) submits the attached Conditional Use Permit application for the above-referenced project.

The purpose of the project is to decommission a segment (lateral) of existing underground natural gas transmission pipe, above-ground metering & regulating (M&R) station, and main line valve/bridle, all within Unitil's existing pipeline easement. The work will require construction vehicle access across wetlands that will be protected through the temporary placement of timber mats. The total areas of temporary impact are tabulated on the application form, and consist of temporary impacts to wetlands underlain by poorly drained soils, and a wetland functioning as vernal pool habitat. There are no prime wetlands, exemplary wetlands, very poorly drained soils, or inland streams in the project area. The work is scheduled for August 2022, which is outside the time window in which vernal pool amphibians use the vernal pool habitat. All impacts will be restored in place after work completion by removal of timber mats and seeding/mulching where needed.

Unitil will also submit a Utility Maintenance Activity Statutory Permit-by-Notification (SPN) to the New Hampshire Department of Environmental Services for this project. The work is covered by the U.S. Army Corps of Engineers New Hampshire General Permits for minimal impact work.

We are available for a site walk at your convenience, and we look forward to presenting this project to the Conservation Commission at your July 12 hearing.

Sincerely,  
Wood Environment & Infrastructure Solutions, Inc.

Stephen G. Herzog, PWS  
Senior Ecologist, Project Manager

Copy: Unitil Granite State Gas Transmission

Attachments



**Town of Exeter**  
**Planning Board Application**  
**Conditional Use Permit: Wetland Conservation Overlay District**

Detailed Proposal including intent, project description, and use of property: (Use additional sheet as needed)

Unitil will abandon in-place a segment (lateral) of existing underground natural gas transmission pipe, above-ground metering & regulating (M&R) station, and main line valve/bridle. The work will require access along the existing pipeline easement corridor, which will result in temporary impact to wetlands through the placement of timber mats to allow construction vehicle access. All impacts will be restored in place after work completion by removal of timber mats and seeding/mulching where needed. Unitil will submit a Utility Maintenance Activity Statutory Permit-by-Notification (SPN) to the New Hampshire Department of Environmental Services for this work.

**Wetland Conservation Overlay District Impact (in square footage):**

Temporary Impact	Wetland:	(SQ FT.)	Buffer:	(SQ FT.)
	<input type="checkbox"/> Prime Wetlands	0	<input type="checkbox"/> Prime Wetlands	0
	<input type="checkbox"/> Exemplary Wetlands	0	<input type="checkbox"/> Exemplary Wetlands	0
	<input type="checkbox"/> Vernal Pools (>200SF)	1,650	<input type="checkbox"/> Vernal Pools (>200SF)	1,800
	<input type="checkbox"/> VPD	0	<input type="checkbox"/> VPD	0
	<input type="checkbox"/> PD	6,750	<input type="checkbox"/> PD	960
	<input type="checkbox"/> Inland Stream	0	<input type="checkbox"/> Inland Stream	0
<b>Permanent Impact</b>  The project will result in no permanent impacts to wetlands or their buffers.	<b>Wetland:</b>		<b>Buffer:</b>	
	<input type="checkbox"/> Prime Wetlands	_____	<input type="checkbox"/> Prime Wetlands	_____
	<input type="checkbox"/> Exemplary Wetlands	_____	<input type="checkbox"/> Exemplary Wetlands	_____
	<input type="checkbox"/> Vernal Pools (>200SF)	_____	<input type="checkbox"/> Vernal Pools (>200SF)	_____
	<input type="checkbox"/> VPD	_____	<input type="checkbox"/> VPD	_____
	<input type="checkbox"/> PD	_____	<input type="checkbox"/> PD	_____
	<input type="checkbox"/> Inland Stream	_____	<input type="checkbox"/> Inland Stream	_____

List any variances/special exceptions granted by Zoning Board of Adjustment including dates:     None

**Describe how the proposal meets conditions in Article 9.1.6.B of the Zoning Ordinance (attached for reference):**

The project will decommission an existing gas pipeline lateral and appurtenant equipment, requiring temporary wetland impact. There is no alternative which will not impact a wetland. A NH-Certified Wetland Scientist prepared a functions and values assessment that concluded the proposed temporary impact is not detrimental to the functions and values of the wetlands and the greater hydrologic system. Design, construction, and maintenance during the work will minimize impacts. The project will not create a hazard due to loss of wetland. The applicant will restore disturbed areas by use of a wetland seed mix. All required permits will be obtained including a Statutory Permit-by-Notification from NHDES and USACE General Permit.

**ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S RECORDS.**

74-75  
Exeter West Condo Association  
25 Ernest Ave., Exeter NH

74-76  
Exeter West Condo Association  
26 Ernest Ave., Exeter NH

74-77  
Exeter West Condo Association  
27 Ernest Ave., Exeter NH

74-78  
Exeter West Condo Association  
39 Ernest Ave., Exeter NH

74-79  
Exeter West Condo Association  
38 Ernest Ave., Exeter NH

74-80  
Exeter West Condo Association  
37 Ernest Ave., Exeter NH

81-79  
Town of Exeter  
31 Kingston Road, Exeter NH

74-74  
Kazantzidis Peter  
7 Heritage Way, Exeter NH

74-73  
Rebeil Family Revocable Trust  
9 Heritage Way, Exeter NH

74-72  
Claar Family Trust  
11 Heritage Way, Exeter NH

74-71  
Vincent Shelley Connor Trust  
13 Heritage Way, Exeter NH

74-70  
Fifteen Heritage Way Rlty Trust  
15 Heritage Way, Exeter NH

74-69  
Tremblay John & Tammy Rev Living Tr  
17 Heritage Way, Exeter NH

75-20  
Maney Robert F Jr  
19 Heritage Way, Exeter NH

75-19  
Radzom Axel  
21 Heritage Way, Exeter NH

62-55  
Browne, Daryl  
40 Brentwood Rd, Exeter NH

81-57  
Town of Exeter  
Kingston Rd, Exeter NH



9.1.6. B: Conditions: Prior to issuance of a conditional use permit, the Planning Board shall conclude and make a part of the record, compliance with the following criteria:

1. That the proposed use is permitted in the underlying zoning district;
2. No alternative design which does not impact a wetland or wetland buffer or which has less detrimental impact on the wetland or wetland buffer is feasible;
3. A wetland scientist has provided an impact evaluation that includes the “functions and values” of the wetland(s), an assessment of the potential project-related impacts and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.
4. That the design, construction and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer;
5. That the proposed use will not create a hazard to individual or public health, safety and welfare due to the loss of wetland, the contamination of groundwater, or other reasons;
6. The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland
7. In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction.
8. That all required permits shall be obtained from the New Hampshire Department of Environmental Services Water Supply and Pollution Control Division under NH RSA §485-A: 17, the New Hampshire Wetlands Board under NH RSA §483-A, and the United States Army Corps of Engineers under Section 404 of the Clean Water Act.;

**Wetland Delineation Photographs**

**Client:** Unitil **Project Number:** 3652220367

**Site Name:** West Exeter (Proposed Abandonment) **Site Location:** Exeter, NH

**Photographer:**

Charles Lyman

**Date:**

4/14/2022

**Photograph:**

1

**Description:**

View looking northwest from end of GSGT ROW at Kingston Rd.



**Photographer:**

Charles Lyman

**Date:**

4/14/2022

**Photograph:**

2

**Description:**

View looking southeast in center of ROW; note wetland established in tire ruts.



**Wetland Delineation Photographs**

**Client:** Unitil **Project Number:** 3652220367

**Site Name:** West Exeter (Proposed Abandonment) **Site Location:** Exeter, NH

**Photographer:**

Charles Lyman

**Date:**

4/14/2022

**Photograph:** 3

**Description:**

View looking southeast down ROW from northern part.



**Photographer:**

Charles Lyman

**Date:**

4/14/2022

**Photograph:** 4

**Description:**

View looking at area of wetland functioning as vernal pool habitat – low-lying area in ROW.



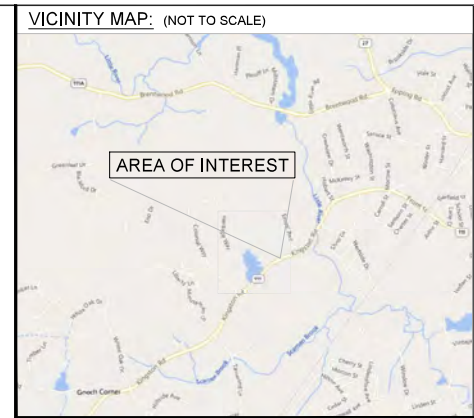
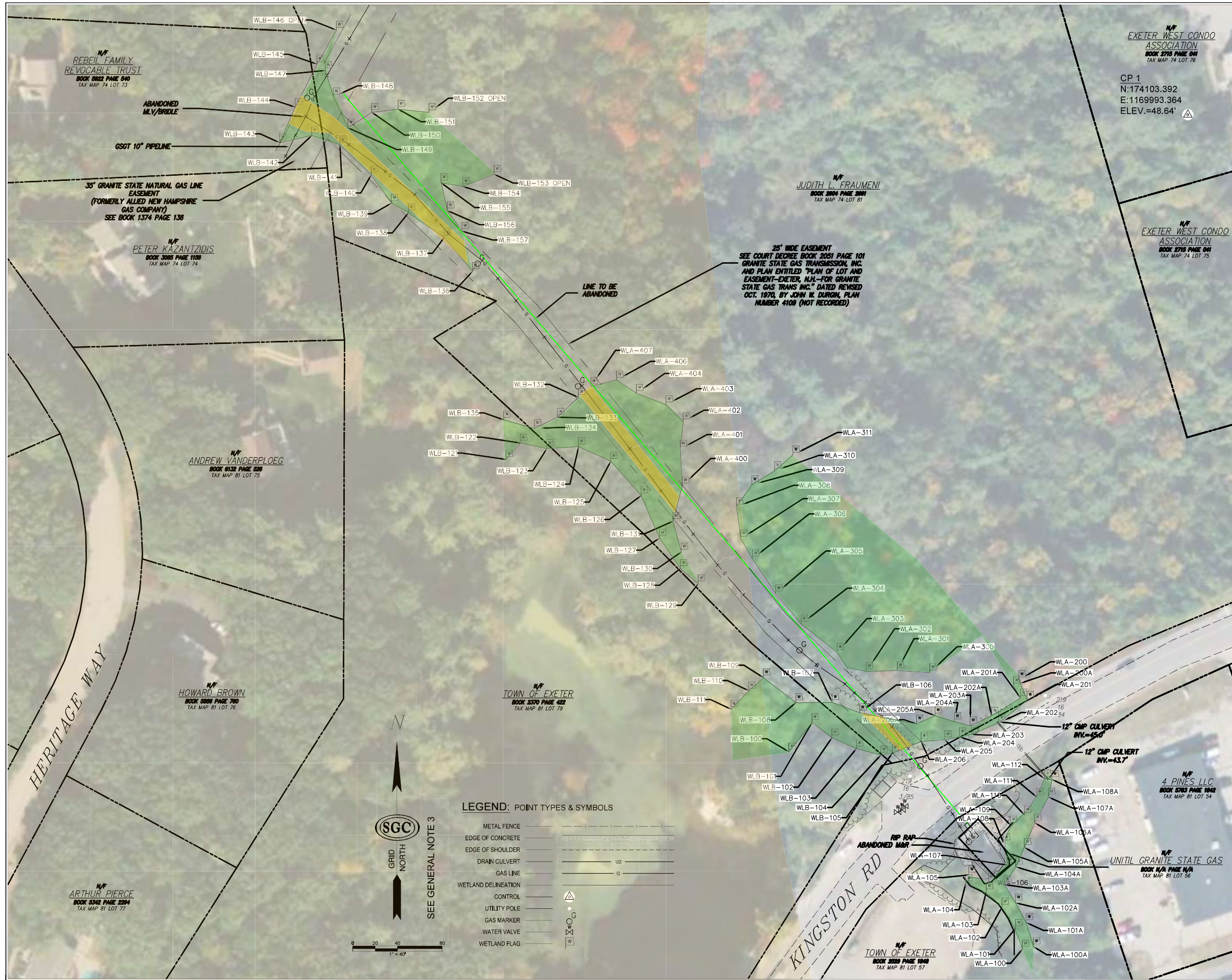
# Wetland Function-Value Evaluation Form

Total area of wetland \_\_\_\_\_ Human made? NO Is wetland part of a wildlife corridor? YES or a "habitat island"? NO  
 Adjacent land use Recreational; 1/4 acre Res, Ducks; If - Conn. Industrial Distance to nearest roadway or other development < 20'  
 Dominant wetland systems present PSS; Pond; Shanty Contiguous undeveloped buffer zone present Yes  
 Is the wetland a separate hydraulic system? NO If not, where does the wetland lie in the drainage basin? Below pond  
 How many tributaries contribute to the wetland? 2 Wildlife & vegetation diversity/abundance (see attached list) \_\_\_\_\_

Wetland I.D. Wetland A  
 Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Prepared by: CHL Date 4/25/22  
 Wetland Impact: Type PSS Area \_\_\_\_\_  
 Evaluation based on: Office X Field X  
 Corps manual wetland delineation completed? Y X N \_\_\_\_\_

Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	Y	1, 2, 3, 7, 8, 13, 15	1 Pond	
Floodflow Alteration	N	1, 2, 5, 6, 7, 9, 14, 15, 18	Converted below Pond.	
Fish and Shellfish Habitat	Y	1, 4, 5, 6, 9, 10, 12, 13, 14	- Stocked Pond next to Pond/Hydraulically connected to Wetland # 1 B.	
Sediment/Toxicant Retention	N	1, 2, 3, 4, 7, 8, 9, 10	Marginal lands & Residences up slope of wetlands.	
Nutrient Removal	Y	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Yard chemicals/runoff from Residential Development.	
Production Export	Y	1, 2, 4, 5, 6, 8, 10, 12	Deer, Duck, Hawk, Crow, Ducks, observed.	Pond/wetlands complex considered.
Sediment/Shoreline Stabilization	N	3, 6, 7, 9, 10, 12		
Wildlife Habitat	Y	2, 4, 5, 6, 8, 10, 13, 14, 17, 18, 19, 23	Town owned Park.	
Recreation	Y	1, 2, 4, 6, 8, 9, 10, 11, 12	SEE final Report of the Residential Wetland Improvements Project for the Town of Greer.	Opportunity present for educational trails here.
Educational/Scientific Value	Y	3, 5, 6, 7, 8, 9, 10, 11, 12, 16		Open space in Developed Area.
Uniqueness/Heritage	Y	2, 5, 8, 9, 11, 12, 13, 14, 19, 21, 22, 27		Ponds & Wetlands are public Park/Access, available w/ Parking
Visual Quality/Aesthetics	Y	1, 2, 3, 4, 6, 8, 9, 12		
ES Endangered Species Habitat	N	-Not Listed		
Other				

Notes: Pond is stocked and used by fishermen; Hikers & Fishermen\* Refer to backup list of numbered considerations.  
 observed During site visit.



- GENERAL NOTES:**
- 1) THIS PLAN AND ALL WORK ASSOCIATED WITH IT WAS PERFORMED BY SGC ENGINEERING, LLC PURSUANT TO A PROFESSIONAL SERVICES CONTRACT BETWEEN WOOD ENVIRONMENTAL AND SGC ENGINEERING LLC, DATED MARCH, 2022.
  - 2) WETLANDS WERE FIELD DELINEATED, VERIFIED, AND LOCATED BY OTHERS.
  - 3) THE BEARINGS SHOWN HEREON ARE BASED ON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NAD83) AND ARE BASED ON GPS OBSERVATIONS.
  - 4) NO SUBSURFACE INVESTIGATION HAS BEEN PERFORMED BY SGC ENGINEERING, LLC. DIG-SAFE SHOULD BE CONTACTED PRIOR TO COMMENCING ANY EXCAVATION. (888-344-7233).
  - 5) THIS PLAN IS THE RESULT OF A FIELD SURVEY CONDUCTED BY SGC ENGINEERING, LLC ON JUNE 03, 2022.
  - 6) ABUTTER INFORMATION WAS ACQUIRED FROM THE TOWN OF EXETER ONLINE TAX MAP SERVICE.

**WETLAND NOTES:**

Wetlands were field-delineated by Charles Lyman, NH Certified Wetland Scientist #120, phone 207-828-3280, on April 14, 2022.

The following jurisdictional resources are not present within the Granite State Gas Transmission easement shown on this plan: Priority Resource Areas, Prime Wetlands, Exemplary Wetlands, Inland Streams, Very Poorly Drained Soils

Poorly Drained Soils information is taken from the New Hampshire Wetlands Permit Planning Tool, and is shown in light brown.

Proposed temporary impacts areas from temporary timber mat placement are shown in orange.

**REVISIONS:**


NO.	DATE	APPROVED FOR SUBMITTAL
0		
1	6-30-2022	WETLANDS PERMIT APPLICATIONS

**Unitil Granite State Gas Transmission**

**Gas Pipeline Lateral and Station Decommissioning**

**Kingston Road, Exeter NH**  
**June 30, 2022**

**Issued for Permitting**



**SGC ENGINEERING, LLC**  
SURVEY AND MAPPING

501 COUNTY ROAD  
WESTBROOK, MAINE 04092  
PHONE: 207-347-8100 // FAX: 207-347-8101  
WWW.SGCENG.COM

# Glerups CUP Application



**Civil  
Site Planning  
Environmental  
Engineering**

133 Court Street  
Portsmouth, NH  
03801-4413

May 31, 2021

Dave Sharples, Town Planner  
Planning Department, Town of Exeter  
10 Front Street  
Exeter, NH 03833

**Re: Glerups Warehouse  
Tax Map 46, Lot 7  
19 Continental Drive  
Altus Project No. 4839**

Dear Mr. Sharples,

On behalf of the Applicant, Glerups, Inc., we are pleased to submit Site Plan and Conditional Use Permit Applications for a  $\pm 95,116$  sf warehouse building at 19 Continental Drive. We respectfully request this be placed on the next available TRC agenda.

Please feel free to contact me directly if you have any questions or require any additional documentation. Thank you for your time and consideration.

Sincerely,

**ALTUS ENGINEERING, INC.**

A handwritten signature in red ink, appearing to read "Erik B. Saari", is written over a dashed horizontal line.

Erik B. Saari  
Vice President

ebs/4839.00-CoverLetter

# Town of Exeter



## **Planning Board Application for Conditional Use Permit: Wetlands Conservation Overlay District**

*March 2020*





**Town of Exeter  
 Planning Board Application  
 Conditional Use Permit: Wetland Conservation Overlay District**

Detailed Proposal including intent, project description, and use of property: (Use additional sheet as needed)

Construction of a +/- 95,000 sf industrial warehouse together with associated accessways, parking and site improvements.

**Wetland Conservation Overlay District Impact (in square footage):**

Temporary Impact	Wetland:	(SQ FT.)	Buffer:	(SQ FT.)
	<input type="checkbox"/> Prime Wetlands	_____	<input type="checkbox"/> Prime Wetlands	_____
	<input type="checkbox"/> Exemplary Wetlands	_____	<input type="checkbox"/> Exemplary Wetlands	_____
	<input type="checkbox"/> Vernal Pools (>200SF)	_____	<input type="checkbox"/> Vernal Pools (>200SF)	_____
	<input type="checkbox"/> VPD	_____	<input type="checkbox"/> VPD	_____
	<input checked="" type="checkbox"/> PD	<u>944</u>	<input type="checkbox"/> PD	_____
	<input type="checkbox"/> Inland Stream	_____	<input type="checkbox"/> Inland Stream	_____
Permanent Impact	Wetland:		Buffer:	
	<input type="checkbox"/> Prime Wetlands	_____	<input type="checkbox"/> Prime Wetlands	_____
	<input type="checkbox"/> Exemplary Wetlands	_____	<input type="checkbox"/> Exemplary Wetlands	_____
	<input type="checkbox"/> Vernal Pools (>200SF)	_____	<input checked="" type="checkbox"/> Vernal Pools (>200SF)	<u>3,019</u>
	<input type="checkbox"/> VPD	_____	<input type="checkbox"/> VPD	_____
	<input checked="" type="checkbox"/> PD	<u>9,452</u>	<input checked="" type="checkbox"/> PD	<u>77,991</u>
	<input type="checkbox"/> Inland Stream	_____	<input type="checkbox"/> Inland Stream	_____

List any variances/special exceptions granted by Zoning Board of Adjustment including dates:

None

Describe how the proposal meets conditions in **Article 9.1.6.B** of the Zoning Ordinance (attached for reference):

The inclusion of steep slopes and extensive retaining walls has allowed impacts to be reduced by the greatest extent feasible. Numerous alternative layouts were explored and all would have required approximately the same area of impact. The proposed stormwater system will provide for appropriate treatment and infiltration of runoff, the design of which is subject to NHDES review and approval. Temporary erosion and sediment control measures will also be employed during construction in order to minimize construction-related impacts to surrounding areas. Furthermore, the functions and values assessment indicates that the impacted wetlands are of relatively low value.

**ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S RECORDS.**

TAX MAP See attached Letter of Authorization  
NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
\_\_\_\_\_

TAXMAP \_\_\_\_\_  
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9.1.6. B: Conditions: Prior to issuance of a conditional use permit, the Planning Board shall conclude and make a part of the record, compliance with the following criteria:

1. That the proposed use is permitted in the underlying zoning district;
2. No alternative design which does not impact a wetland or wetland buffer or which has less detrimental impact on the wetland or wetland buffer is feasible;
3. A wetland scientist has provided an impact evaluation that includes the “functions and values” of the wetland(s), an assessment of the potential project-related impacts and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.
4. That the design, construction and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer;
5. That the proposed use will not create a hazard to individual or public health, safety and welfare due to the loss of wetland, the contamination of groundwater, or other reasons;
6. The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland
7. In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction.
8. That all required permits shall be obtained from the New Hampshire Department of Environmental Services Water Supply and Pollution Control Division under NH RSA §485-A: 17, the New Hampshire Wetlands Board under NH RSA §483-A, and the United States Army Corps of Engineers under Section 404 of the Clean Water Act.;

**Letter of Authorization**

Glerups, Inc., hereby authorizes Altus Engineering, Inc. of Portsmouth, NH to represent us the as the Owner and Applicant in all matters concerning the engineering and related permitting of a site plan on Exeter Tax Map 47, Lot 7-2 located at 19 Continental Drive in Exeter, New Hampshire. This authorization shall include representation at public hearings and other project-related meetings in addition to any signatures required for Federal, State and Municipal permit applications.

*Kiera Ryan*  
Signature

Kiera Manahan Ryan  
Print Name

5-18-22  
Date

*Barry Ryan*  
Witness

Barry T. Ryan  
Print Name

5-18-22  
Date









# glerups

19 Continental Drive  
Exeter, NH

Assessor's Parcel 46, Lot 7

*Owner/Applicant:*



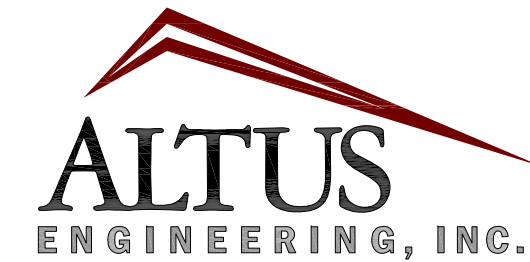
glerups, inc.  
27 Pleasant Street  
Newfields, NH 03856  
(603) 978-7683

Plan Issue Date:

May 31, 2022

Initial PB Submission

*Civil Engineer:*



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

*Architect:*



PO Box 4430  
Manchester, NH 031108  
(603) 623-8811

*Surveyor:*

Hayner/Swanson, Inc.

CIVIL ENGINEERS/LAND SURVEYORS  
Three Congress Street  
Nashua, New Hampshire  
03062-3301  
Tel 603-883-2057

*Landscape Architect:*



103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

*Lighting Consultant:*



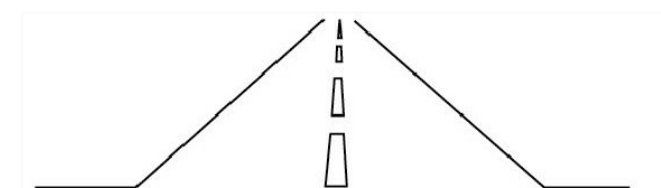
VISIBLELIGHT  
24 STICKNEY TERRACE, SUITE 6  
HAMPTON, NH 03842  
(603) 926-6049

*Wetland Scientist:*

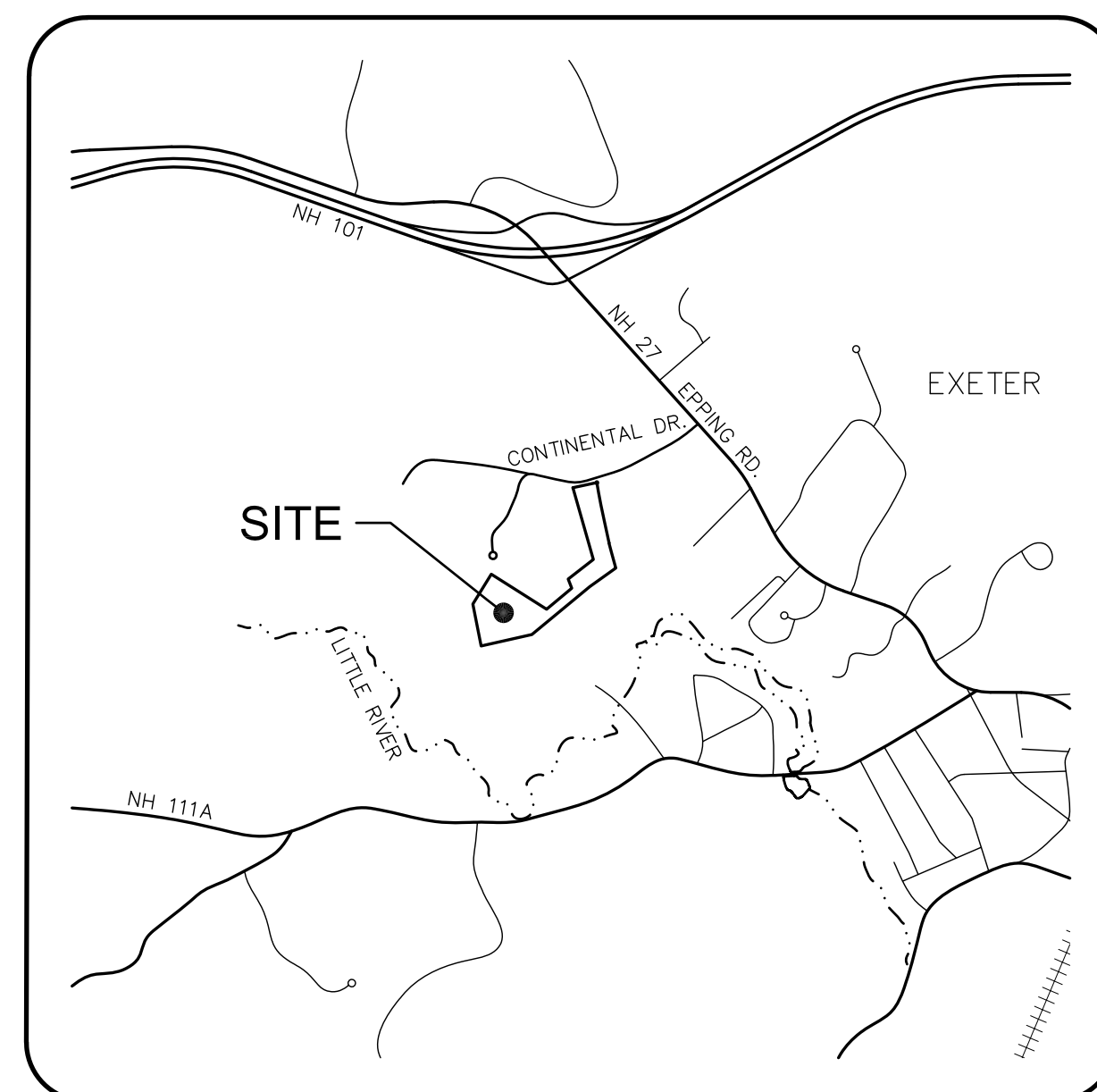


GOVE ENVIRONMENTAL SERVICES, INC.  
Wetlands and Soil Mapping  
8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526  
Ph (603) 778 0644 / Fax (603) 778 0654

*Traffic Engineer:*



Stephen G. Pernaw & Company, Inc.  
P.O. Box 1721, Concord, NH 03302  
(603) 731-8000



LOCUS

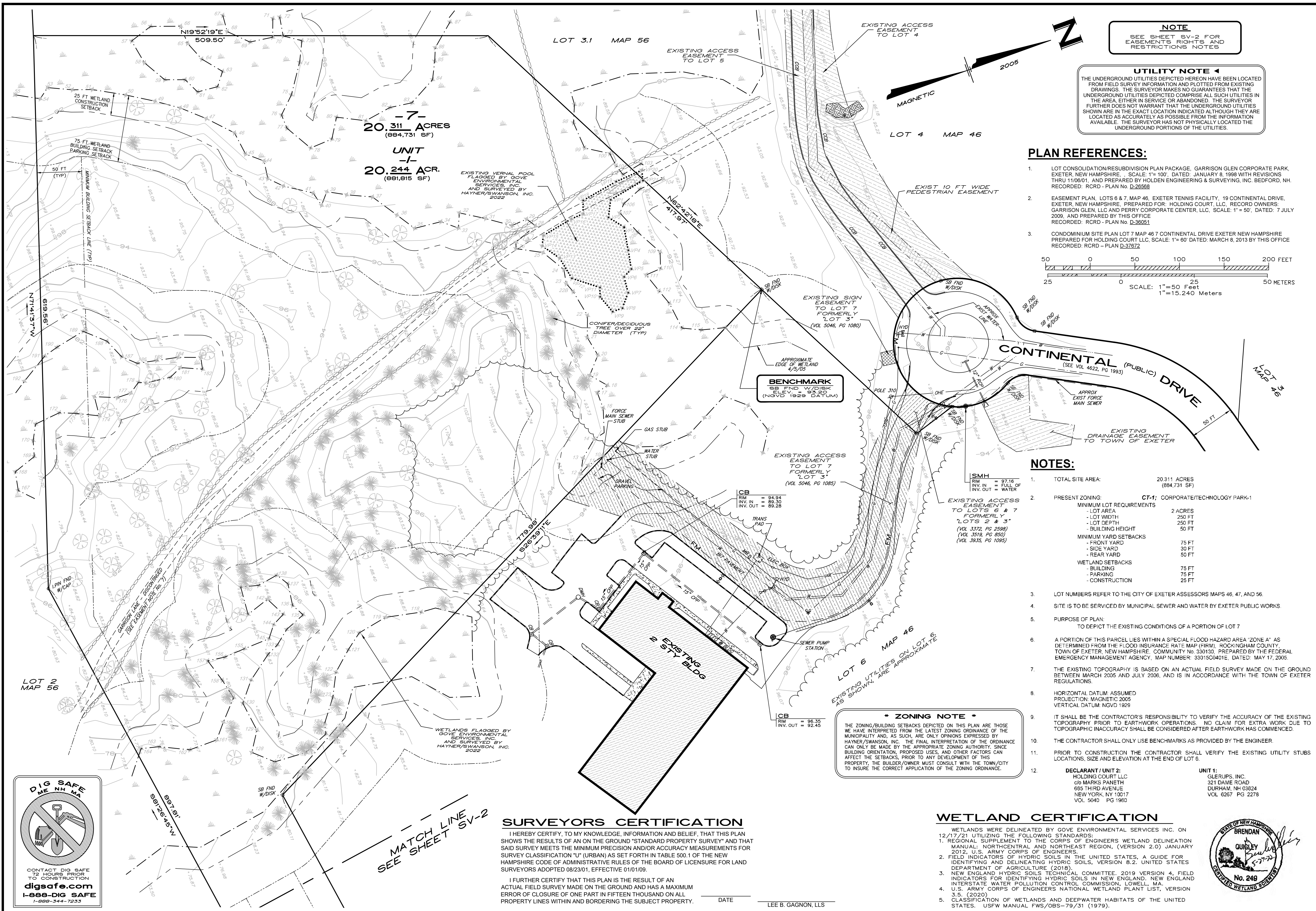
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**Sheet Index**

Title	Sheet Desig.:	Sheet No.:	Rev.	Date
Existing Conditions Plan	SV-1	2		05/05/22
Existing Conditions Plan	SV-2	3		05/05/22
Site Plan	C-1	4		05/31/22
Stormwater Management Plan	C-2	5		05/31/22
Erosion and Sediment Control Plan	C-3	6		05/31/22
Utility Plan	C-4	7		05/31/22
Wetland/Conditional Use Permit Plan	C-5	8		05/31/22
Lighting Plan	C-6	9		05/31/22
Detail Sheet	C-7	10		05/31/22
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Landscape Plan	L-1	18		05/31/22
Architectural Perspective	-	19		04/11/22
Architectural Perspective	-	20		04/11/22
Architectural Perspective	-	21		04/11/22
Architectural Perspective	-	22		04/11/22

**Permit Summary:**

	Submitted	Received
Exeter Site Plan Review	05/31/22	-
NHDES Alteration of Terrain	-	-
NHDES Wetlands	-	-
EPA Notice of Intent	By Contractor 14 days prior to construction	

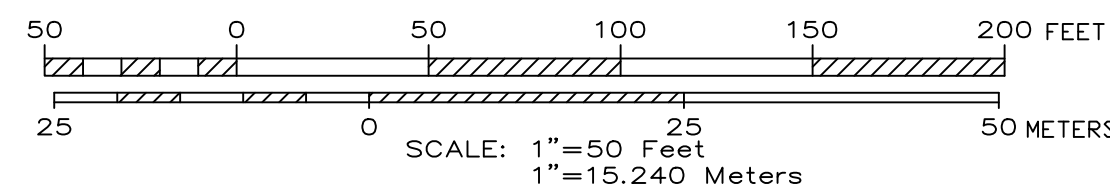


**NOTE**  
SEE SHEET SV-2 FOR EASEMENTS RIGHTS AND RESTRICTIONS NOTES

**UTILITY NOTE**  
THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND PLOTTED FROM EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

**PLAN REFERENCES:**

1. LOT CONSOLIDATION/RESUBDIVISION PLAN PACKAGE, GARRISON GLEN CORPORATE PARK, EXETER, NEW HAMPSHIRE, SCALE: 1"=100', DATED: JANUARY 8, 1998 WITH REVISIONS THRU 11/06/01, AND PREPARED BY HOLDEN ENGINEERING & SURVEYING, INC. BEDFORD, NH. RECORDED: RCRD - PLAN No. D-28568
2. EASEMENT PLAN, LOTS 6 & 7, MAP 46, EXETER TENNIS FACILITY, 19 CONTINENTAL DRIVE, EXETER, NEW HAMPSHIRE, PREPARED FOR: HOLDING COURT, LLC, RECORD OWNERS: GARRISON GLEN, LLC AND PERRY CORPORATE CENTER, LLC, SCALE: 1"=50', DATED: 7 JULY 2009, AND PREPARED BY THIS OFFICE. RECORDED: RCRD - PLAN No. D-38051
3. CONDOMINIUM SITE PLAN LOT 7 MAP 46 7 CONTINENTAL DRIVE EXETER NEW HAMPSHIRE PREPARED FOR HOLDING COURT LLC, SCALE: 1"=60' DATED: MARCH 6, 2013 BY THIS OFFICE RECORDED: RCRD - PLAN D-37872



**NOTES:**

1. TOTAL SITE AREA: 20.311 ACRES (884,731 SF)
2. PRESENT ZONING: CT-1; CORPORATE/TECHNOLOGY PARK-1  
MINIMUM LOT REQUIREMENTS  
- LOT AREA: 2 ACRES  
- LOT WIDTH: 250 FT  
- LOT DEPTH: 250 FT  
- BUILDING HEIGHT: 50 FT  
MINIMUM YARD SETBACKS  
- FRONT YARD: 75 FT  
- SIDE YARD: 30 FT  
- REAR YARD: 50 FT  
WETLAND SETBACKS  
- BUILDING: 75 FT  
- PARKING: 75 FT  
- CONSTRUCTION: 25 FT
3. LOT NUMBERS REFER TO THE CITY OF EXETER ASSESSORS MAPS 46, 47, AND 56.
4. SITE IS TO BE SERVICED BY MUNICIPAL SEWER AND WATER BY EXETER PUBLIC WORKS.
5. PURPOSE OF PLAN: TO DEPICT THE EXISTING CONDITIONS OF A PORTION OF LOT 7
6. A PORTION OF THIS PARCEL LIES WITHIN A SPECIAL FLOOD HAZARD AREA "ZONE A" AS DETERMINED FROM THE FLOOD INSURANCE RATE MAP (FIRM), ROCKINGHAM COUNTY, TOWN OF EXETER, NEW HAMPSHIRE, COMMUNITY No. 330130, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER: 3301500401E, DATED: MAY 17, 2005.
7. THE EXISTING TOPOGRAPHY IS BASED ON AN ACTUAL FIELD SURVEY MADE ON THE GROUND BETWEEN MARCH 2005 AND JULY 2006, AND IS IN ACCORDANCE WITH THE TOWN OF EXETER REGULATIONS.
8. HORIZONTAL DATUM: ASSUMED  
PROJECTION: MAGNETIC 2005  
VERTICAL DATUM: NGVD 1929
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACCURACY OF THE EXISTING TOPOGRAPHY PRIOR TO EARTHWORK OPERATIONS. NO CLAIM FOR EXTRA WORK DUE TO TOPOGRAPHIC INACCURACY SHALL BE CONSIDERED AFTER EARTHWORK HAS COMMENCED.
10. THE CONTRACTOR SHALL ONLY USE BENCHMARKS AS PROVIDED BY THE ENGINEER.
11. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE EXISTING UTILITY STUBS LOCATIONS, SIZE AND ELEVATION AT THE END OF LOT 6.
12. **DECLARANT/UNIT 2:** HOLDING COURT LLC  
c/o MARKS PANETH  
685 THIRD AVENUE  
NEW YORK, NY 10017  
VOL. 5040 PG. 1960

**\* ZONING NOTE \***  
THE ZONING/BUILDING SETBACKS DEPICTED ON THIS PLAN ARE THOSE WE HAVE INTERPRETED FROM THE LATEST ZONING ORDINANCE OF THE MUNICIPALITY AND, AS SUCH, ARE ONLY OPINIONS EXPRESSED BY HAYNER/SWANSON, INC. THE FINAL INTERPRETATION OF THE ORDINANCE CAN ONLY BE MADE BY THE APPROPRIATE ZONING AUTHORITY. SINCE BUILDING ORIENTATION, PROPOSED USES, AND OTHER FACTORS CAN AFFECT THE SETBACKS, PRIOR TO ANY DEVELOPMENT OF THIS PROPERTY, THE BUILDER/OWNER MUST CONSULT WITH THE TOWN/CITY TO INSURE THE CORRECT APPLICATION OF THE ZONING ORDINANCE.

**SURVEYORS CERTIFICATION**

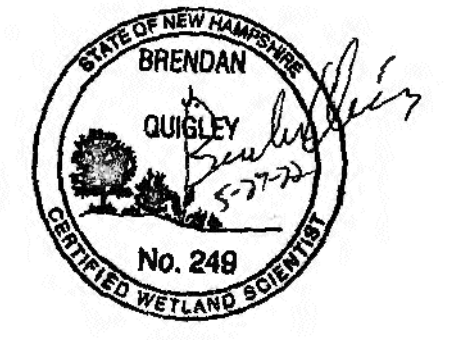
I HEREBY CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/09.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTEEN THOUSAND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

DATE \_\_\_\_\_  
LEE B. GAGNON, LLS

**WETLAND CERTIFICATION**

- WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. ON 12/17/21 UTILIZING THE FOLLOWING STANDARDS:
1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
  2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.2, UNITED STATES DEPARTMENT OF AGRICULTURE (2018).
  3. NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE, 2019 VERSION 4, FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
  4. U.S. ARMY CORPS OF ENGINEERS NATIONAL WETLAND PLANT LIST, VERSION 3.5 (2002).
  5. CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1979).



PREPARED FOR:  
**ALTUS ENGINEERING, INC.**  
133 COURT STREET PORTSMOUTH, NH 03801  
DECLARANT:  
**HOLDING COURT, LLC**  
141 MAIN STREET NASHUA, NEW HAMPSHIRE 03060

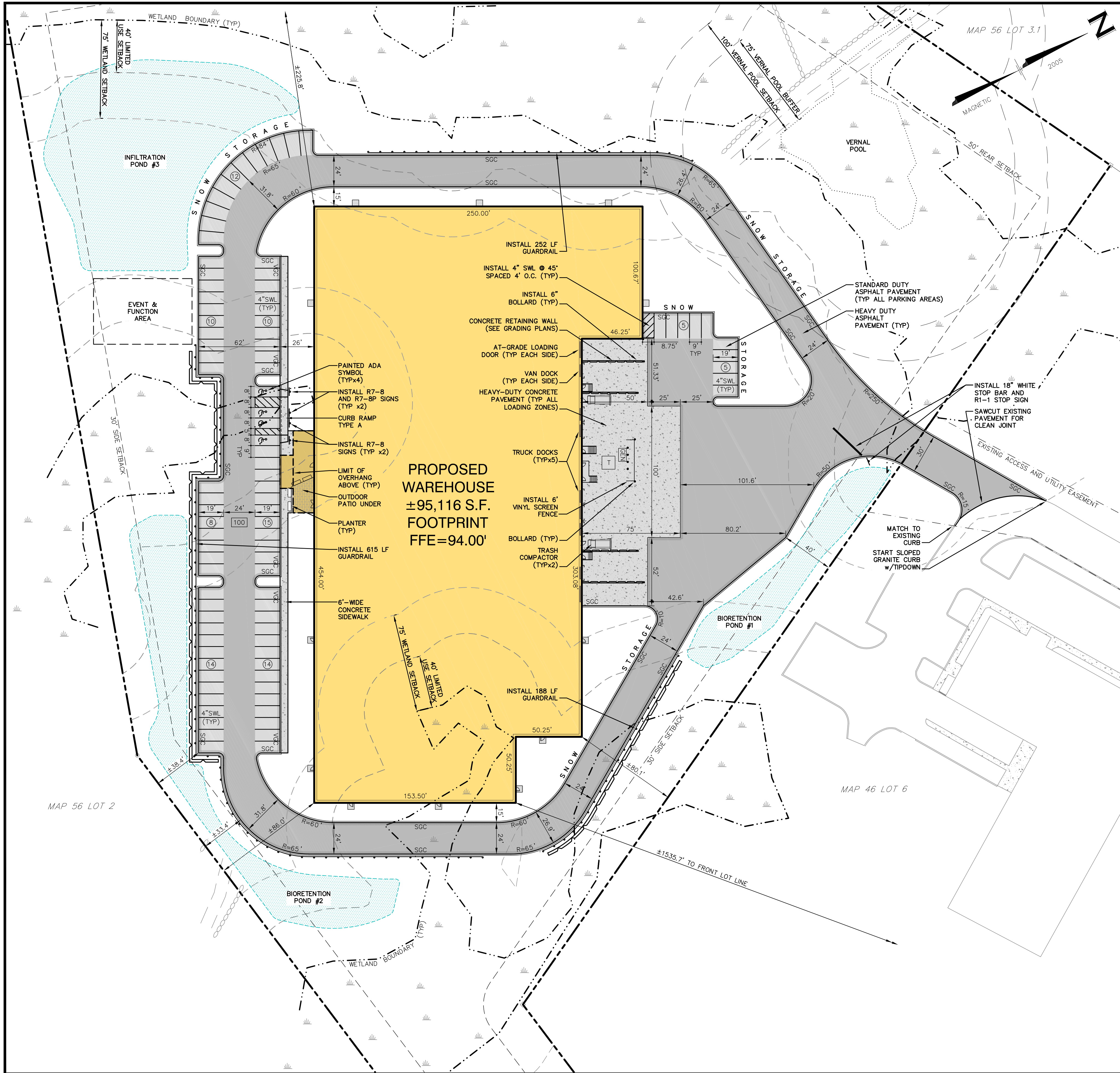
EXISTING CONDITIONS PLAN  
(LOT 7, MAP 46)

**19 CONTINENTAL DRIVE**  
EXETER, NEW HAMPSHIRE

**HSI Hayner/Swanson, Inc.**  
Civil Engineers/Land Surveyors  
Three Congress Street, Nashua, New Hampshire 03062-3301  
Tel (603) 882-2057 Fax (603) 882-5057  
www.haynerswanson.com

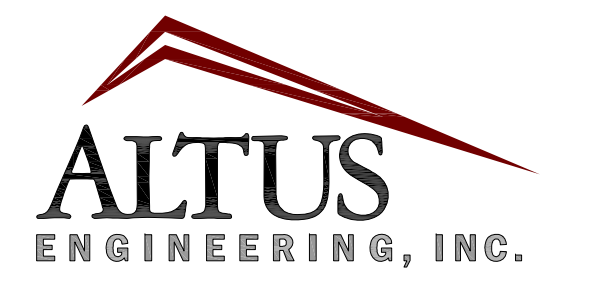
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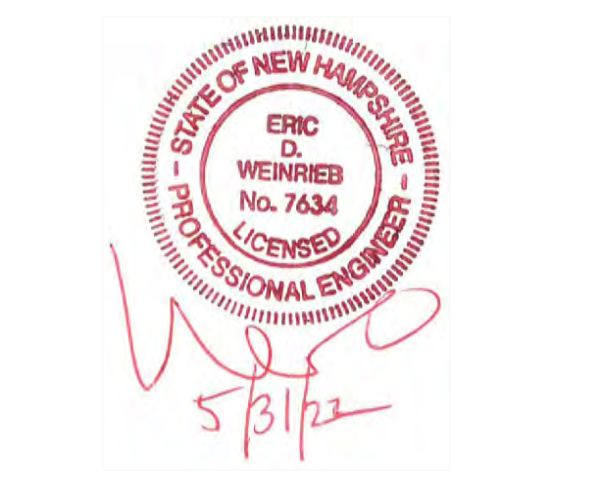


**SITE NOTES**

- DESIGN INTENT - THIS PLAN SET IS INTENDED TO DEPICT THE DEVELOPMENT OF THE SITE FOR A WAREHOUSE USE.
- LOT AREA: ±884,731 S.F. (±20.24 ACRES)
- REFERENCE DEED: RCRD BOOK 6267 PAGE 2278
- ZONE: CORPORATE/TECHNOLOGY PARK - 1 (CT-1)
- DIMENSIONAL REQUIREMENTS - CT-1:
  - MIN. LOT AREA: 87,120 S.F.
  - MIN. STREET FRONTAGE: 250' (292.82' PROVIDED)
  - FRONT SETBACK: 75' (±1535.7' PROVIDED)
  - SIDE SETBACK: 30' (±80.1' PROVIDED)
  - REAR SETBACK: 50' (±225.8' PROVIDED)
  - MAX. BUILDING HEIGHT: 50' (60' IF 200' FROM RESIDENTIAL ZONE/USE)
  - MAX. BLDG. COVERAGE: 40% (10.8% PROPOSED)
  - MIN. OPEN SPACE: 30% (78.9%/695,689 SF PROVIDED)
  - PARKING SETBACK: 10' (±38.4' PROVIDED)
  - WETLAND SETBACKS: 40' LIMITED USE (POORLY DRAINED)
  - 50' LIMITED USE (VERY POORLY DRAINED)
  - 75' PARKING/STRUCTURE
  - 75' LIMITED USE (VERNAL POOL)
  - 100' PARKING/STRUCTURE (VERNAL POOL)
- PARKING REQUIREMENTS:
  - 9'x19' SPACES, 22' AISLES (24' PROPOSED)
  - WAREHOUSE: 1 SPACE/EMPLOYEE MAX. SHIFT (BUT NOT <25% GFA)
  - 75 EMPLOYEES ON MAXIMUM SHIFT = 75 SPACES
  - TOTAL PARKING REQUIRED = 75 SPACES
  - TOTAL PARKING PROVIDED = 83 SPACES
- CONDITIONAL USE PERMIT UNDER ZONING SECTION 9.1.6 REQUIRED FOR SITE DEVELOPMENT IN THE WETLANDS CONSERVATION OVERLAY DISTRICT.
- OVERALL AREA OF DISTURBANCE OVER 100,000 S.F., NHDES ALTERATION OF TERRAIN PERMIT REQUIRED.
- AREA OF DISTURBANCE OVER 43,560 SF, COVERAGE UNDER EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT REQUIRED (NOI TO BE PREPARED AND SUBMITTED BY CONTRACTOR, SWPPP AND INSPECTIONS TO BE PREPARED AND PERFORMED BY CONTRACTOR).
- WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. ON DECEMBER 17, 2021.
- SNOW SHALL BE STORED AT THE EDGE OF PAVEMENT, IN AREAS SHOWN HEREON, AND/OR TRUCKED OFF SITE AS APPROPRIATE.
- PAVEMENT MARKINGS SHALL BE CONSTRUCTED USING WHITE, YELLOW OR BLUE TRAFFIC PAINT (WHERE SPECIFIED) MEETING THE REQUIREMENTS OF AASHTO M248, TYPE F OR EQUAL. PAINTED ISLANDS AND LOADING ZONES SHALL BE 4'-WIDE DIAGONAL WHITE LINES 3'-0" O.C. BORDERED BY 4'-WIDE WHITE LINES. PARKING STALLS SHALL BE SEPARATED BY 4'-WIDE WHITE LINES. SEE DETAILS FOR HANDICAP SYMBOLS, SIGNS AND SIGN DETAILS.
- PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE TOWN OF EXETER & NHDOT'S STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINES WITH RS-1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- ALL BONDS AND FEES SHALL BE PAID/POSTED PRIOR TO INITIATING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.
- UNLESS OTHERWISE NOTED, ALL NEW CURBING SHALL BE VERTICAL OR SLOPED GRANITE WITH A MINIMUM RADIUS OF 4'.
- PROPOSED BUILDING MAY BE CONSTRUCTED IN PHASES. COORDINATE WITH ARCHITECTURAL PLANS FOR LIMITS.
- THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.
- BUILDING AREA SHOWN IS BASED ON FOOTPRINT MEASURED TO THE EDGE OF FOUNDATIONS AND/OR SLABS. ACTUAL INTERIOR SPACE WILL DIFFER.
- SEE SHEET C-11 FOR LEGEND.



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



NOT FOR CONSTRUCTION  
ISSUED FOR: **PLANNING BOARD**  
ISSUE DATE: **MAY 31, 2022**

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EBS	05/31/22

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APPROVED BY: \_\_\_\_\_ EBS  
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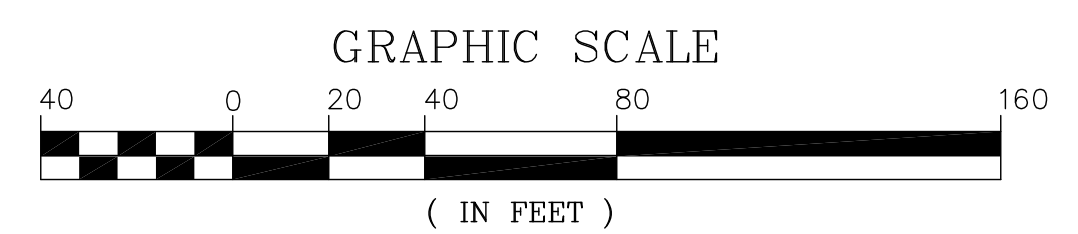
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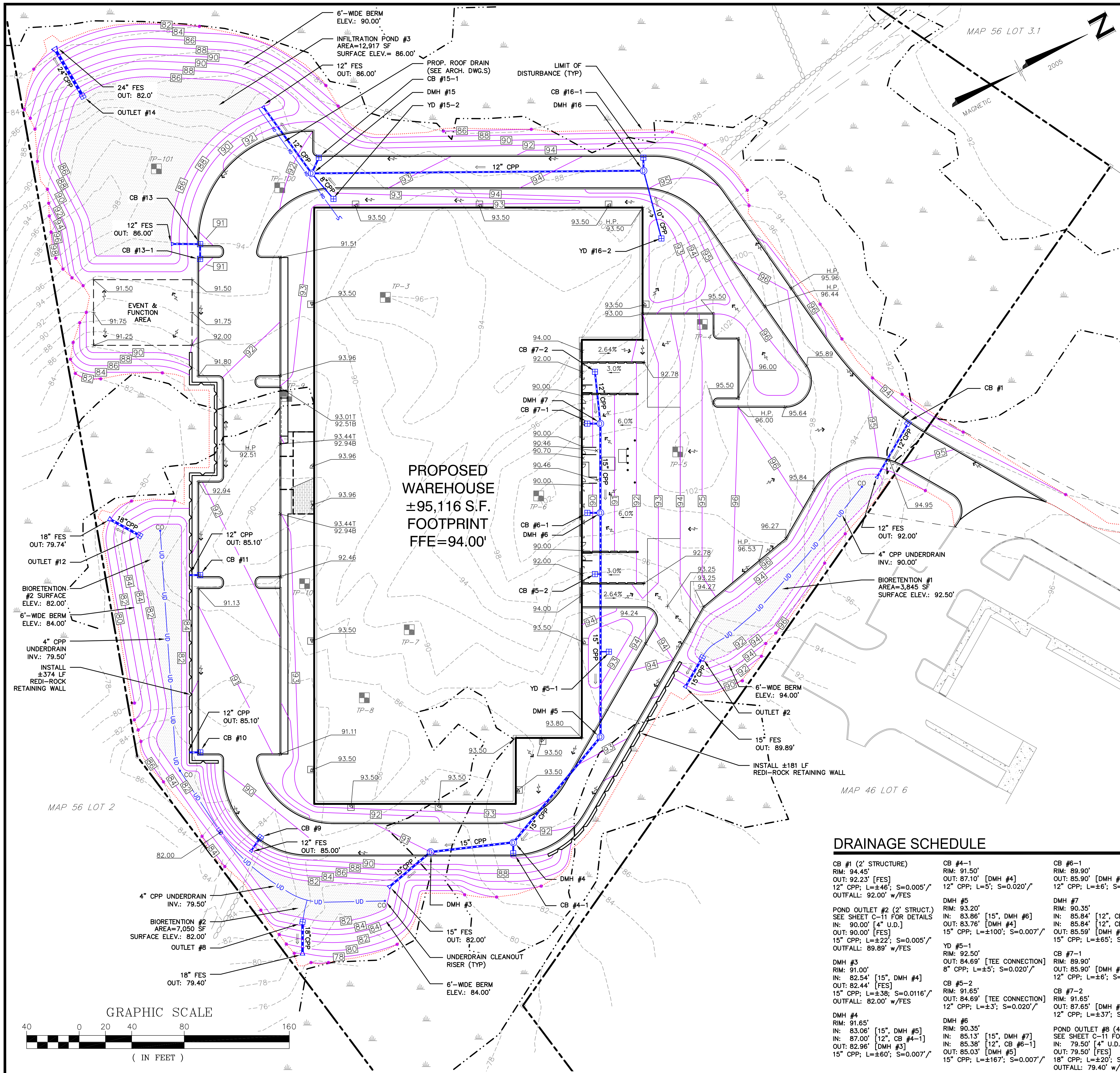
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**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

APPLICANT:  
**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT:  
**GLERUPS**  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

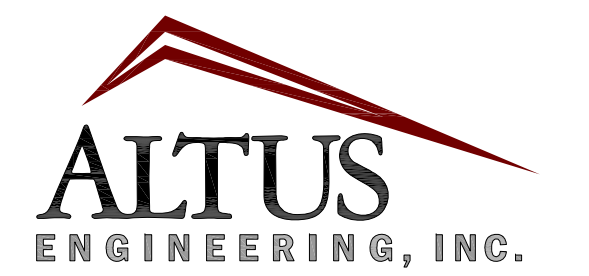
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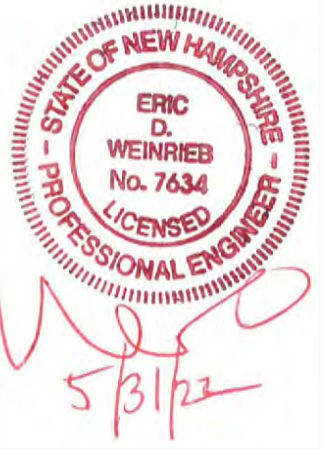


**GRADING AND DRAINAGE NOTES**

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN 50 FT. OF WETLANDS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBMS) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL, AND REPLACED WITH FREE DRAINING STRUCTURAL FILL IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- DRAINAGE PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP), TYPE ADS N-12 OR HANCOR H1-Q, OR PVC SDR 35 WHERE SPECIFIED.
- ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
- ALL ROOF DRAIN LEADERS SHALL BE LOCATED IN COORDINATION WITH THE ARCHITECTURAL PLANS TO MATCH DOWNSPOUTS. RISERS SHALL BE SET TO FINISH GRADE PLUS 6" (MIN.) IF APPLICABLE.
- ALL SPOT GRADES ARE AT FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
- IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. SYMBOLS MAY NOT BE INDICATIVE OF THE CENTER OF A STRUCTURE, PARTICULARLY WHEN SHOWN ADJACENT TO A CURB LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- THE APPLICANT SHALL COMPLETE A LAND USE TRACKING FORM, MOST RECENT REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL AT <https://www.unh.edu/unhsc/ptapp>.
- CONTRACTOR SHALL PROVIDE RETAINING WALL DESIGN DRAWINGS STAMPED BY A NH-LICENSED PROFESSIONAL STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. DESIGN MUST BE PRE-APPROVED BY SELECTED WALL MANUFACTURER.
- CONTRACTOR SHALL CONNECT BUILDING FOUNDATION DRAINS TO THE NEAREST DRAINAGE STRUCTURE PROVIDED A MINIMUM 1% SLOPE BETWEEN THE BUILDING AND THE STRUCTURE CAN BE MAINTAINED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FOUNDATION DRAINS WITH THE BUILDING PLANS.
- ALL WATER, SEWER, ROAD (INCLUDING PARKING LOT), AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 9.5 GRADING, DRAINAGE, AND EROSION & SEDIMENT CONTROL AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES IN EXETER, NEW HAMPSHIRE.
- SEE SHEET C-11 FOR LEGEND.



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22" x 34" - 1" = 40'  
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NEWFIELDS, NH 03856

APPLICANT:  
**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

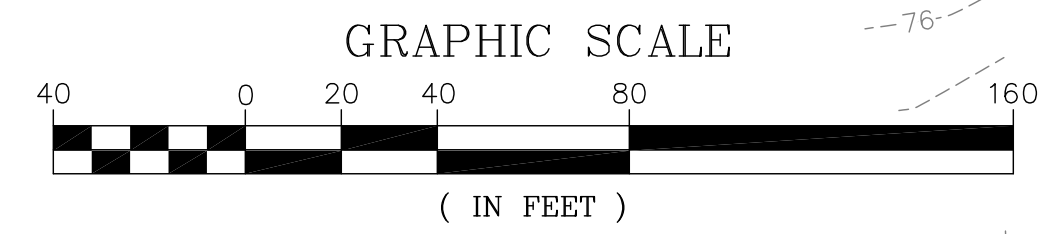
PROJECT:  
**GLERUPS**  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

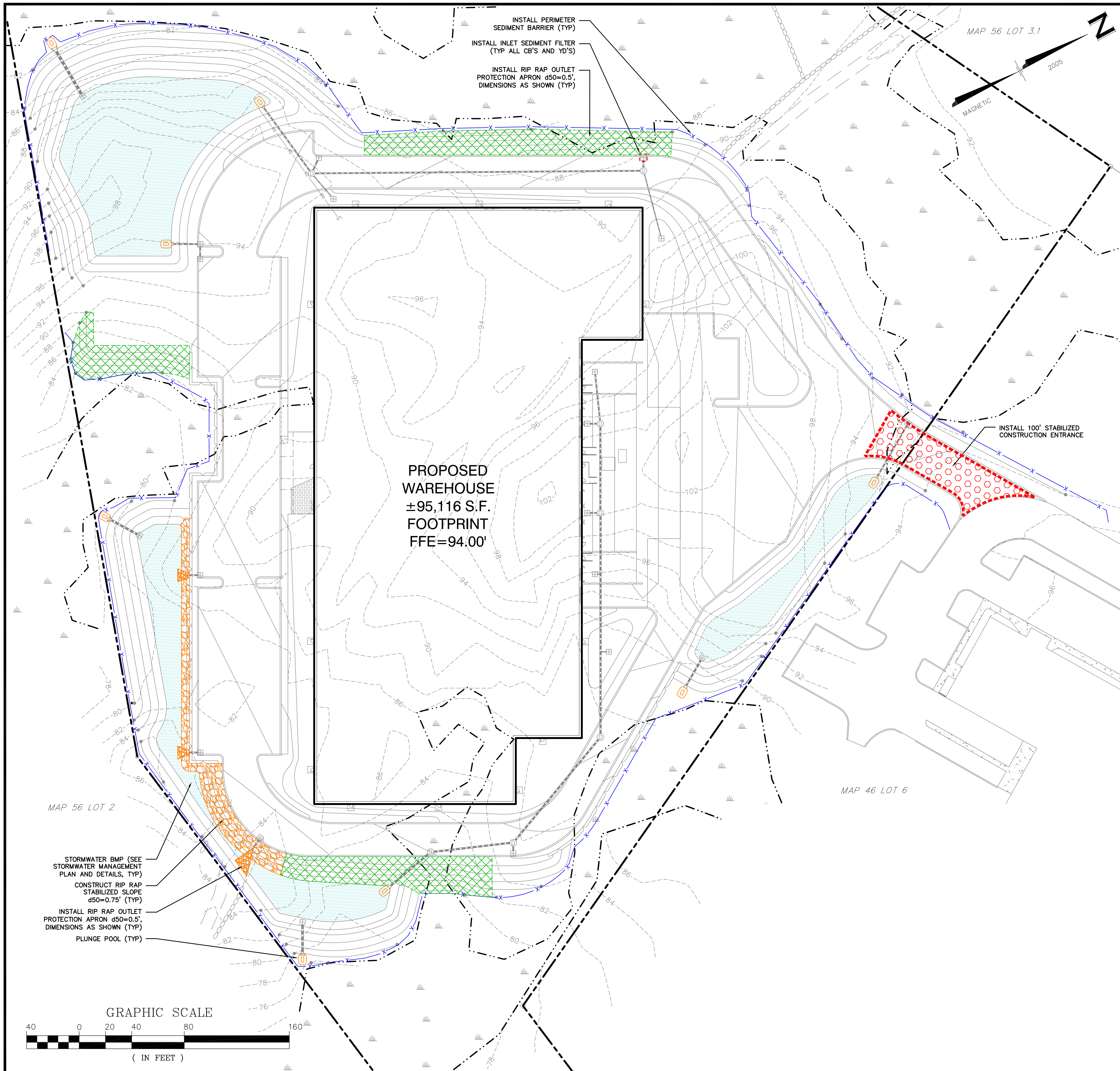
TITLE:  
**STORMWATER  
MANAGEMENT PLAN**

SHEET NUMBER:  
**C - 2**

**DRAINAGE SCHEDULE**

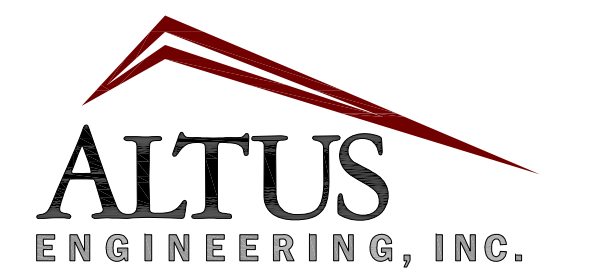
CB #1 (2' STRUCTURE) RIM: 94.45' [FES] OUT: 92.23' [FES] 12" CPP; L=±46'; S=0.005'/ OUTFALL: 82.00' w/FES	CB #4-1 RIM: 91.50' OUT: 87.10' [DMH #4] 12" CPP; L=±5'; S=0.020'/	CB #6-1 RIM: 89.90' OUT: 85.90' [DMH #6] 12" CPP; L=±6'; S=0.0867'/	CB #9 RIM: 89.50' OUT: 85.10' [FES] 12" CPP; L=±10'; S=0.010'/ OUTFALL: 85.00' w/FES	CB #13 RIM: 90.90' OUT: 86.83' [12", CB #13-1] OUT: 86.73' [FES] 12" CPP; L=±18'; S=0.0406'/ OUTFALL: 86.00' w/FES	CB #15-1 RIM: 92.05' OUT: 88.05' [DMH #15] 12" CPP; L=±10'; S=0.010'/
POND OUTLET #2 (2' STRUCT.) SEE SHEET C-11 FOR DETAILS IN: 90.00' [4" U.D.] OUT: 90.00' [FES] 15" CPP; L=±22'; S=0.005'/ OUTFALL: 89.89' w/FES	DMH #5 RIM: 93.20' OUT: 84.89' [15", DMH #6] OUT: 83.78' [DMH #4] 15" CPP; L=±100'; S=0.007'/	DMH #7 RIM: 90.35' IN: 85.84' [12", CB #7-1] IN: 85.84' [12", CB #7-2] OUT: 85.59' [DMH #8] 15" CPP; L=±65'; S=0.007'/	CB #10 RIM: 90.00' [OUTFALL] OUT: 86.00' [OUTFALL] 12" CPP; L=±6'; S=0.010'/ OUTFALL: 85.94'	CB #13-1 RIM: 90.90' OUT: 86.90' [CB #13] 12" CPP; L=±7'; S=0.010'/	YD #15-2 RIM: 92.40' OUT: 88.40' [DMH #15] 8" CPP; L=±20'; S=0.010'/
DMH #3 RIM: 91.00' IN: 82.54' [15", DMH #4] OUT: 82.44' [FES] 15" CPP; L=±38'; S=0.0116'/ OUTFALL: 82.00' w/FES	CB #5-2 RIM: 91.65' OUT: 84.69' [TEE CONNECTION] 8" CPP; L=±5'; S=0.020'/	CB #7-1 RIM: 91.65' OUT: 87.65' [DMH #7] 12" CPP; L=±37'; S=0.0489'/	CB #11 RIM: 91.25' OUT: 87.25' [OUTFALL] 12" CPP; L=±6'; S=0.010'/ OUTFALL: 87.19'	POND OUTLET #14 (4' STRUCT.) SEE SHEET C-11 FOR DETAILS OUT: 80.00' [FES] 18" CPP; L=±26'; S=0.010'/ OUTFALL: 79.74'	DMH #15 RIM: 92.20' IN: 86.70' [12", DMH #16] IN: 87.95' [12", CB #15-1] IN: 88.20' [8", YD #15-2] OUT: 86.60' [FES] 12" CPP; L=±60'; S=0.011'/ OUTFALL: 86.00' w/FES
DMH #4 RIM: 91.65' IN: 83.06' [15", DMH #5] IN: 87.00' [12", CB #4-1] OUT: 82.96' [DMH #3] 15" CPP; L=±60'; S=0.007'/	DMH #6 RIM: 90.35' IN: 85.13' [15", DMH #7] IN: 85.38' [12", CB #6-1] OUT: 85.03' [DMH #5] 15" CPP; L=±167'; S=0.007'/	POND OUTLET #8 (4' STRUCT.) SEE SHEET C-11 FOR DETAILS OUT: 79.50' [FES] 18" CPP; L=±20'; S=0.010'/ OUTFALL: 79.40' w/FES	DMH #16 RIM: 92.20' IN: 86.70' [12", DMH #16] IN: 87.95' [12", CB #15-1] IN: 88.20' [8", YD #15-2] OUT: 86.60' [FES] 12" CPP; L=±60'; S=0.011'/ OUTFALL: 86.00' w/FES	CB #16-1 RIM: 94.40' OUT: 90.40' [DMH #16] 12" CPP; L=±11'; S=0.05'/	YD #16-2 RIM: 92.40' OUT: 89.78' [DMH #16] 10" CPP; L=±50'; S=0.005'/



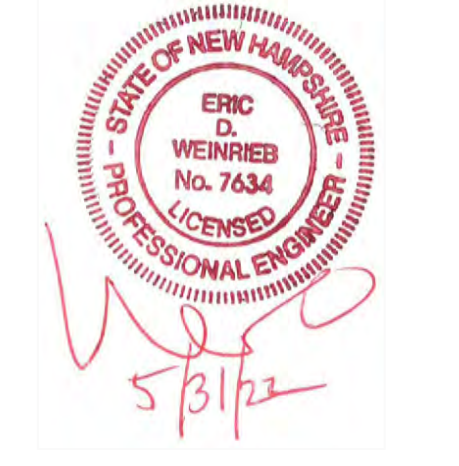


**EROSION AND SEDIMENT CONTROL NOTES**

- PROJECT SUBJECT TO EPA NPDES PHASE II. NOI, SWPPP AND MINIMUM WEEKLY INSPECTIONS REQUIRED. NOI TO BE PREPARED AND SUBMITTED BY CONTRACTOR. SWPPP AND INSPECTIONS TO BE PREPARED AND PERFORMED BY CONTRACTOR. CONTRACTOR SHALL FILE NOI WITH EPA 2 WEEKS PRIOR TO CONSTRUCTION.
- AREA OF DISTURBANCE = ±307,800 S.F. (INCLUDES OFFSITE WORK). NHDES ALTERATION OF TERRAIN PERMIT REQUIRED.
- AREA OF WETLAND IMPACT = 9,900 S.F. (448 S.F. TEMPORARY, 9,452 S.F. PERMANENT) NHDES DREDGE AND FILL PERMIT REQUIRED.
- PERIMETER SEDIMENT CONTROLS AND CULVERT AND CATCH BASIN INLET PROTECTION MEASURES SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
- GRIND STUMPS AND REUSE GRINDINGS FOR EROSION CONTROL WHERE POSSIBLE OR TRUCK OFFSITE. NO STUMPS SHALL BE BURIED ON SITE.
- NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
- SEE DETAIL SHEETS FOR PERTINENT SEDIMENT AND EROSION CONTROL DETAILS AND ADDITIONAL NOTES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND/OR ENTERING WETLANDS AND ENSURE PERMANENT SOIL STABILIZATION.
- TEMPORARY INLET PROTECTION MEASURES SHALL BE INSTALLED IN ALL CATCH BASINS WITHIN 100' OF THE PROJECT SITE WHEN SITE WORK WITHIN CONTRIBUTING AREAS IS ACTIVE OR SAID AREAS HAVE NOT BEEN STABILIZED.
- ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.
- CONTRACTOR SHALL READ AND FOLLOW ALL CONDITIONS OF APPROVAL IN THE SITE'S NHDES ALTERATION OF TERRAIN, NHDES WETLANDS, ARMY CORPS OF ENGINEER'S AND TOWN OF EXETER SITE PLAN PERMITS.
- CONSTRUCTION ACTIVITIES SHALL BE MANAGED IN STRICT ACCORDANCE WITH NH RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES. NO INVASIVE SPECIES SHALL BE INSTALLED ON THE PROJECT SITE FOR ANY REASON.
- FUGITIVE DUST SHALL BE CONTROLLED DURING CONSTRUCTION IN ACCORDANCE WITH ENV-A 1000. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DUST FROM LEAVING THE SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE PROACTIVE MANAGEMENT OF STOCKPILES, MATERIALS PROCESSING ACTIVITIES, VEHICULAR TRAFFIC, THE EXCAVATION AND PLACEMENT OF EARTH MATERIALS, SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- SEE SHEET C-7 FOR BLASTING BEST MANAGEMENT PRACTICES.
- SEE SHEET C-11 FOR LEGEND.



133 Court Street  
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ISSUED FOR:  
**PLANNING BOARD**

ISSUE DATE:  
**MAY 31, 2022**

NO.	DISCUSSION	BY	DATE
0	DISCUSSION	EBS	05/31/22

DRAWN BY: \_\_\_\_\_ EBS  
APPROVED BY: \_\_\_\_\_ EBS  
DRAWING FILE: 4839-SITE.dwg

SCALE:  
22" x 34" - 1" = 40'  
11" x 17" - 1" = 80'

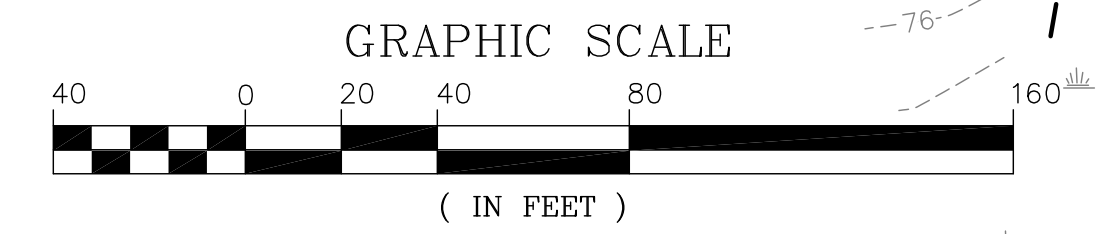
OWNER:  
**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

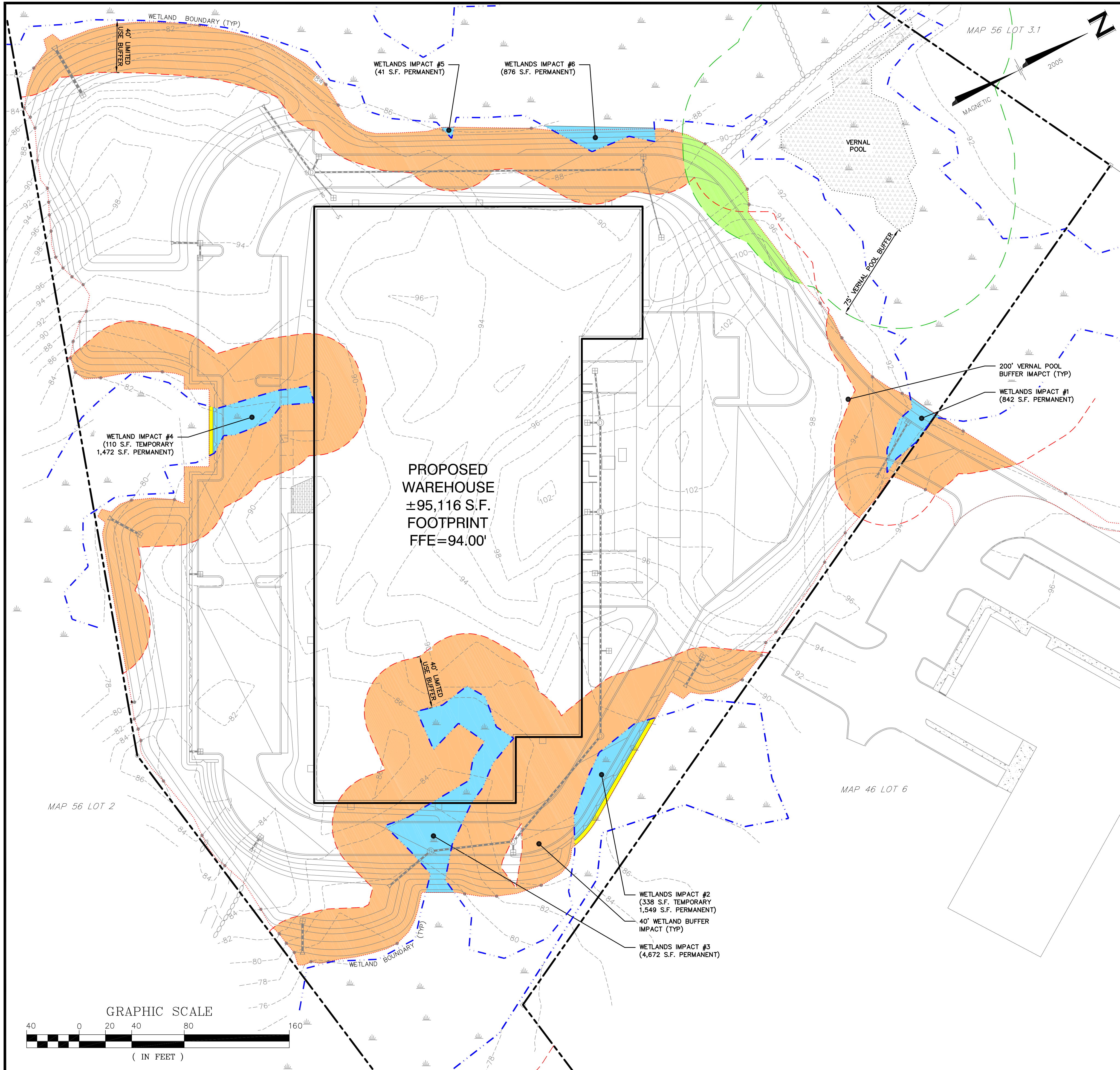
APPLICANT:  
**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT:  
**GLERUPS**  
  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE:  
**EROSION AND SEDIMENT CONTROL PLAN**

SHEET NUMBER:  
**C - 3**



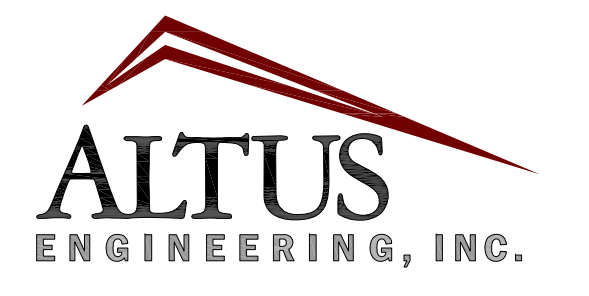


**EROSION AND SEDIMENT CONTROL NOTES**

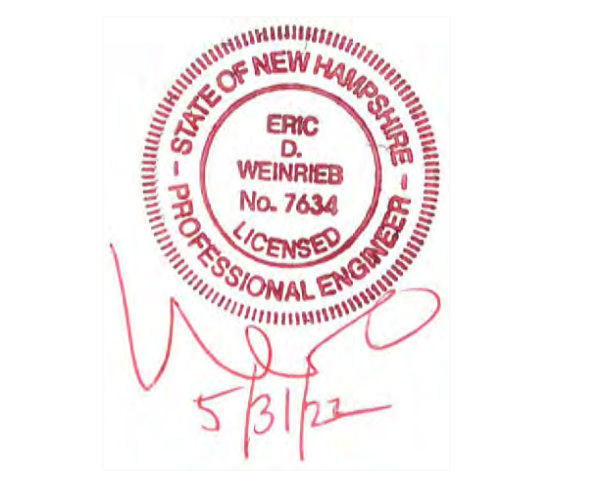
- NHDES WETLAND IMPACT ANALYSIS:
  - AREA: 448 S.F.
  - TEMPORARY IMPACT: 9,452 S.F.
  - PERMANENT IMPACT: 9,900 S.F.
  - TOTAL WETLAND IMPACT: 9,900 S.F.
- TOWN OF EXETER WETLAND BUFFER IMPACT ANALYSIS:
  - AREA: 77,991 S.F.
  - 75' WETLAND BUFFER: 3,019 S.F.
  - 200' VERNAL POOL BUFFER: 81,010 S.F.
  - TOTAL BUFFER IMPACT: 81,010 S.F.
- WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES INC. ON 12/17/21 UTILIZING THE FOLLOWING STANDARDS:
  - REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
  - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.2. UNITED STATES DEPARTMENT OF AGRICULTURE (2018).
  - NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE, 2019 VERSION 4, FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
  - U.S. ARMY CORPS OF ENGINEERS NATIONAL WETLAND PLANT LIST, VERSION 3.5. (2020)
  - CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES, USFW MANUAL FWS/OBS-79/31 (1979).

**LEGEND**

- 75' WETLAND SETBACK
- 75' VERNAL POOL BUFFER
- ... LIMIT OF PROJECT DISTURBANCE
- - - WETLAND BOUNDARY
- STIPPLED VERNAL POOL
- PROPOSED 75' WETLAND BUFFER IMPACT
- PROPOSED 200' VERNAL POOL BUFFER IMPACT
- PROPOSED TEMPORARY WETLAND IMPACT
- PROPOSED PERMANENT WETLAND IMPACT



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APPROVED BY: \_\_\_\_\_ EBS  
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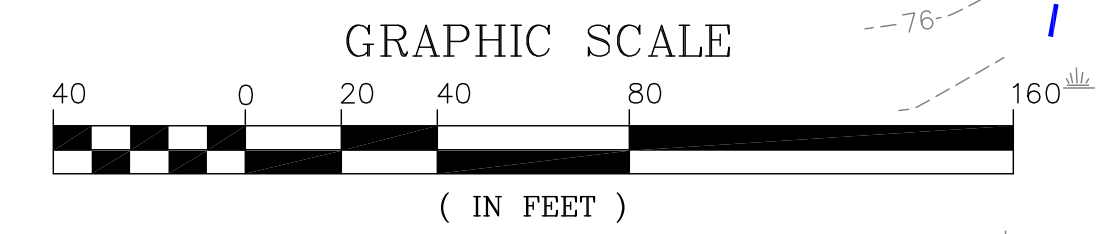
OWNER:  
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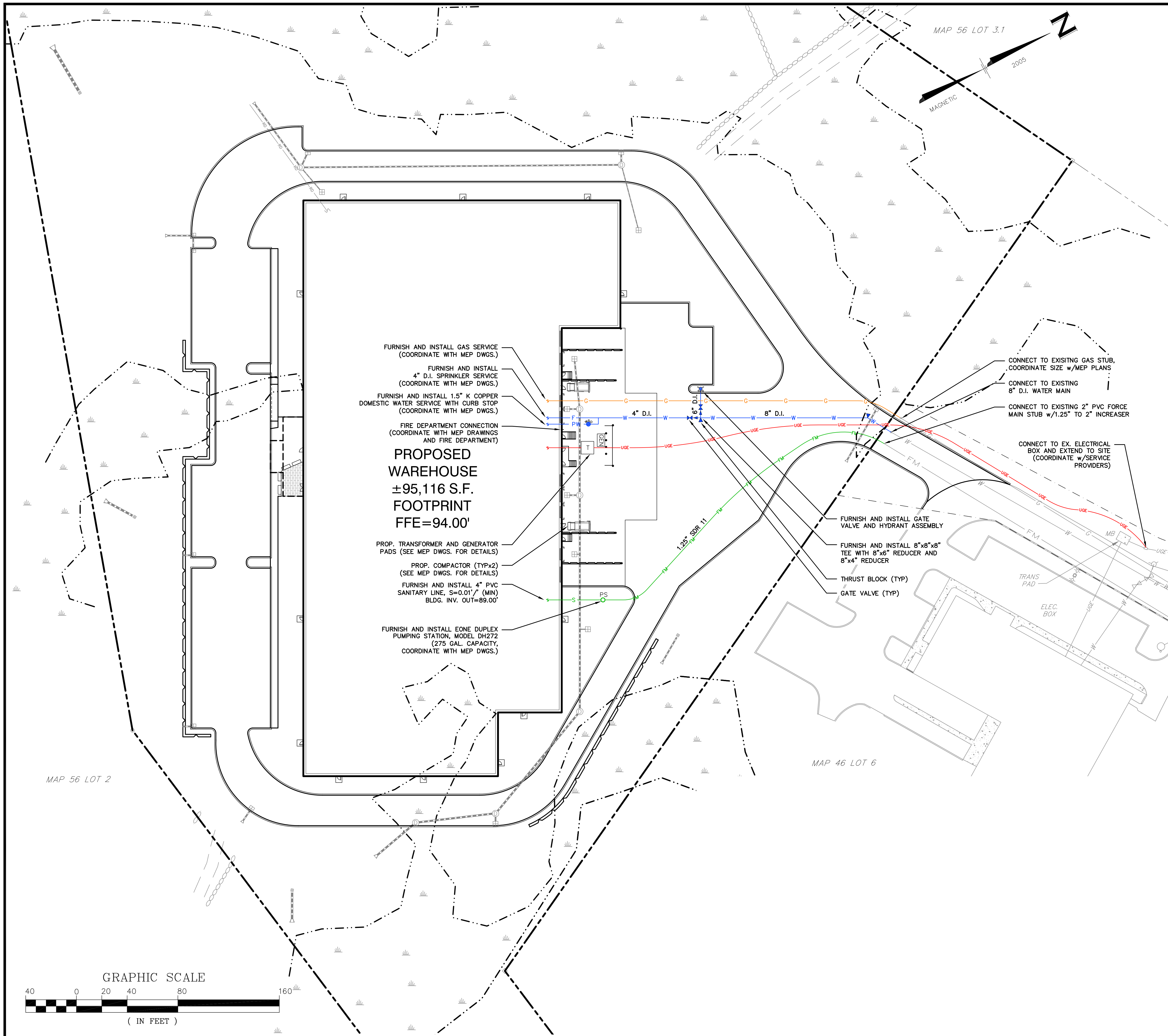
APPLICANT:  
**GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT:  
**GLERUPS**  
  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE:  
**WETLAND AND  
CONDITIONAL USE  
PERMIT PLAN**

SHEET NUMBER:  
**C - 4**



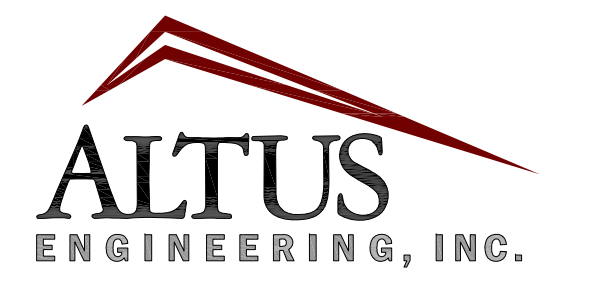


**UTILITY NOTES**

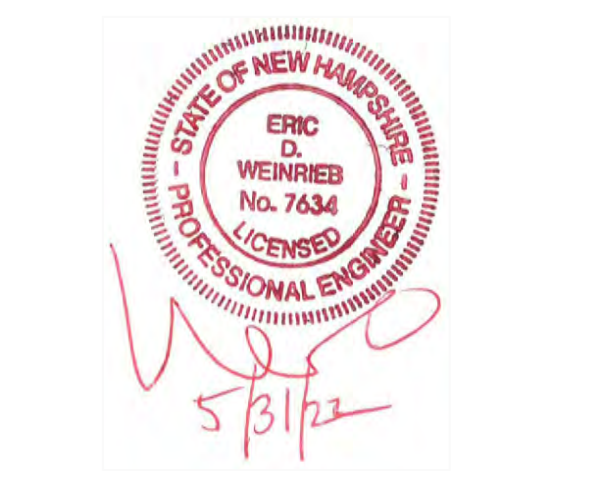
1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, TOWN OF EXETER DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
2. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF NECESSARY, EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
3. THE SITE IS SERVED BY MUNICIPAL WATER AND SEWER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
5. ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE EXETER POLICE DEPARTMENT AND DPW AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
7. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND CITY REGULATIONS.
8. SEE ARCHITECTURAL/MECHANICAL DRAWINGS FOR EXACT LOCATIONS & ELEVATIONS OF UTILITY CONNECTIONS AT BUILDING. COORDINATE ALL WORK WITHIN FIVE (5) FEET OF BUILDINGS WITH BUILDING CONTRACTOR AND ARCHITECTURAL/MECHANICAL DRAWINGS. ALL CONFLICTS AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND PRIOR TO COMMENCING RELATED WORK.
9. THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND THROUGHOUT THE SITE FOR WHICH DEVELOPMENT IS PROPOSED. SITE PLANS SHALL SHOW ANY EASEMENTS FOR THESE SERVICES.
10. APPROVED BACKFLOW PREVENTORS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.
11. FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE ARCHITECT, CONTRACTOR, APPROPRIATE UTILITY COMPANIES AND THE EXETER DPW.
12. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
13. UTILITY PROVIDERS AND CONTACTS:
  - WATER & SEWER: EXETER PUBLIC WORKS, PAUL VLASICH, TOWN ENGINEER, (603) 773-6157.
  - GAS: UNITIL, DAVID MACLEAN, (603) 294-5144.
  - TELECOMMUNICATIONS: CONSOLIDATED, JASON CUNHA, (603) 325-2041.
  - CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
  - ELECTRICAL: EVERSOURCE, NICK KOSKO, (603) 332-4227. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL, 48-HOUR MINIMUM NOTICE REQUIRED.
11. CONTRACTOR TO PROVIDE BOLLARDS AT SERVICE ENTRANCES PER THE SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
12. ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL BE CONSTRUCTED AND TESTED PER EXETER DPW STANDARDS AND SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE TO THE STANDARDS AND SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
13. WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
14. WATER AND SANITARY SEWER LINES SHALL BE LOCATED AT LEAST 10' HORIZONTALLY FROM EACH OTHER. WHERE CROSSING, 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER INSTALLED OVER SEWER.
15. THE CONTRACTOR SHALL CONFIRM ALL UTILITY LINE AND CONDUIT SIZES WITH THE MEP PLANS AND SERVICE PROVIDERS PRIOR TO INSTALLATION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
16. FIRE ALARM PANELS SHALL BE MONITORED THROUGH A THIRD-PARTY SECURITY COMPANY. CONTRACTOR SHALL COORDINATE PANEL LOCATIONS AND INTERCONNECTIONS WITH CITY FIRE DEPARTMENT AND ARCHITECT.
17. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE BUILDING AS SHOWN. COORDINATE WITH THE MEP PLANS AND THE CITY FIRE DEPARTMENT. ACCESS TO THE FDC SHALL BE MAINTAINED AS A CLEAR AND UNOBSTRUCTED PATH AT ALL TIMES.
18. THE PROPOSED STRUCTURE SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED UNDER THE 2015 STATE BUILDING CODES.
19. SPRINKLER CONNECTIONS MUST BE FLUSHED IN ACCORDANCE WITH NFPA 24 AND A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM MUST BE COMPLETED.
20. THE TOWN OF EXETER SHALL BE GRANTED A BLANKET EASEMENT FOR ACCESS TO ALL WATER VALVES AND FIRE HYDRANTS.
21. UNLESS OTHERWISE DETERMINED BY THE UTILITY PROVIDER, ALL ELECTRICAL TRANSFORMERS AND SWITCHES SHALL REMAIN THE PROPERTY OF EVERSOURCE.
22. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL HANDHOLES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED IN THIS DRAWING SET IN ORDER TO RENDER THE FULL INSTALLATION OF COMPLETE AND OPERATIONAL UTILITY AND DRAINAGE SYSTEMS.
23. SEE SHEET C-11 FOR LEGEND.

**WATER/SEWER FLOW CALCULATIONS**

INDUSTRIAL BUILDING:  
 15 GPD/EMPLOYEE (TYPICAL FLOW RATE)  
 15 GPD \* 75 EMPLOYEES = 1,125 GPD  
 (CALCULATED FROM METCALF & EDDY/AECOM "WASTEWATER ENGINEERING TREATMENT AND RESOURCE RECOVERY", 5TH EDITION)



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ISSUE DATE: MAY 31, 2022

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EBS	05/31/22

DRAWN BY: EBS  
 APPROVED BY: EBS  
 DRAWING FILE: 4839-SITE.dwg

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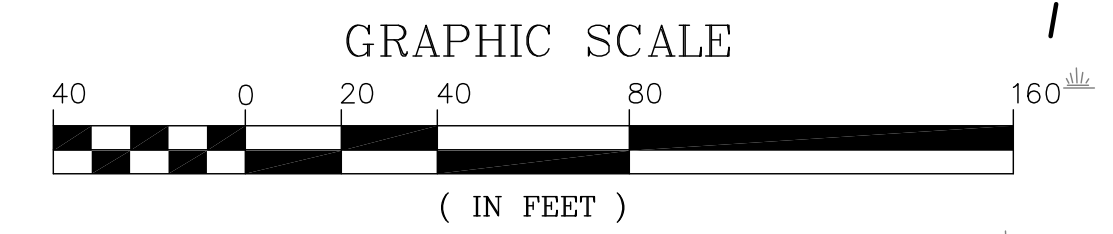
OWNER:  
 GLERUPS, INC.  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

APPLICANT:  
 GLERUPS, INC.  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

PROJECT:  
 GLERUPS  
 TAX MAP 46, LOT 7  
 19 CONTINENTAL DRIVE  
 EXETER, NH

TITLE:  
 UTILITY PLAN

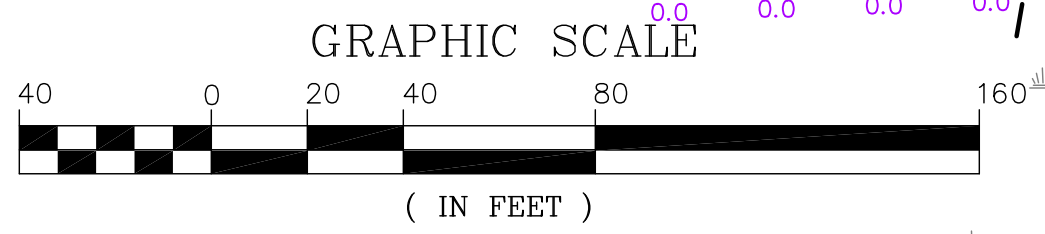
SHEET NUMBER:  
 C - 5







PROPOSED WAREHOUSE  
±95,116 S.F.  
FOOTPRINT  
FFE=94.00'

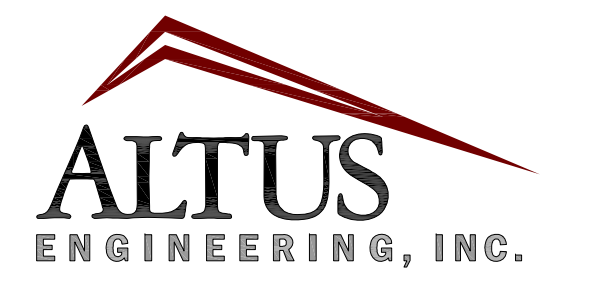


**LIGHTING NOTES**

1. SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF UNDERGROUND UTILITY AND DRAINAGE INFRASTRUCTURE BEFORE INSTALLING POLE BASES.
2. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES TO INCLUDE LIGHTING CONDUIT, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
3. LIGHTING CONDUIT SHALL BE PVC SCH 40.
4. ALL LIGHTING MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND LOCAL REGULATIONS.
5. ALL PARKING LOT AND DRIVEWAY LIGHTING FIXTURES SHALL BE FULL CUT-OFF AND 3000K COLOR TEMPERATURE SO AS TO BE DARK-SKY COMPLIANT.
6. CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND BUILDING ELECTRICAL CONTRACTOR FOR ALL SITE ELECTRICAL WORK INCLUDING BUT NOT LIMITED TO ALL SERVICE ENTRANCES/EXITS, RISERS, CIRCUITRY, METERS, SUB-METERS, ETC.
7. COORDINATE WITH ARCHITECTURAL PLANS FOR ALL BUILDING-MOUNTED AND LANDSCAPE FIXTURES, TYPES, LOCATIONS AND WIRING.
8. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP BALLAST AND LUMINAIRE MAY AFFECT FIELD RESULTS.
9. EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.
10. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION PROVIDED BY VISIBLE LIGHT, INC., 24 STICKNEY TERRACE, SUITE 6, HAMPTON, NH 03842. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, CIRCUITRY, ETC.) SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ARCHITECT AND SPECIFIER.
11. SEE DETAIL SHEETS POLE BASE AND CONDUIT TRENCH DETAILS.
12. SEE SHEET C-11 FOR LEGEND.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Landscape Island	+	2.2 fc	10.6fc	0.1 fc	106.0:1	22.0:1
Outside of Parking Lot	+	0.1 fc	1.8 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.5 fc	17.2fc	0.3 fc	57.3:1	5.0:1

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens per Lamp	LLF	Wattage	Distribution
⌘	S3	8	Lithonia Lighting	DSXO LED P3 30K TSM MVOLT SPA DBBX with SSS 20 4C DM19AS DBBX	DSXO LED Area Fixture; mounted at 22ft (20ft pole on 2ft base)	LED	DSXO_LED_P3_30K_TSM_MVOLT.ies	7616	0.9	71	TYPE III, MEDIUM, BUG RATING: B2 - U0 - G2
⌘	S4	5	Lithonia Lighting	DSXO LED P3 30K TFTM MVOLT SPA DBBX with SSS 20 4C DM19AD DBBX	DSXO LED Area Fixture; mounted at 22ft (20ft pole on 2ft base)	LED	DSXO_LED_P3_30K_TFTM_MVOLT.ies	7841	0.9	71	TYPE IV, SHORT, BUG RATING: B2 - U0 - G2
⌘	W1	9	Lithonia Lighting	WDGE1 LED P2 30K 80CRI VF MVOLT SRM DBBX	WDGE1 LED Wallpack; mounted above mandooors at 10ft	LED	WDGE1_LED_P3_30K_80CRI_VF.ies	1872	0.9	15.0178	TYPE II, VERY SHORT, BUG RATING: B1 - U0 G0
⌘	W2	9	Lithonia Lighting	WDGE2 LED P5 30K 80CRI VF MVOLT SRM DBBX	WDGE2 LED Wallpack; mounted at 15ft	LED	WDGE2_LED_P5_30K_80CRI_VF.ies	5771	0.9	48.44	TYPE III, VERY SHORT, BUG RATING: B1 - U0 - G1
⌘	W3	12	Lithonia Lighting	WDGE3 LED P4 30K 80CRI R4 MVOLT SRM DBBX	WDGE3 LED Wallpack; mounted at 18ft	LED	WDGE3_LED_P4_70CRI_R4_30K.ies	11554	0.9	87.8914	TYPE IV, SHORT, BUG RATING: B2 - U0 G2



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NOT FOR CONSTRUCTION

ISSUED FOR: PLANNING BOARD

ISSUE DATE: MAY 31, 2022

NO.	DESCRIPTION	BY	DATE
0	DISCUSSION	EBS	05/31/22

DRAWN BY: EBS  
APPROVED BY: EBS  
DRAWING FILE: 4839-SITE.dwg

SCALE:  
22" x 34" - 1" = 40'  
11" x 17" - 1" = 80'

OWNER:  
GLERUPS, INC.  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

APPLICANT:  
GLERUPS, INC.  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT:  
GLERUPS  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE:  
LIGHTING PLAN

SHEET NUMBER:  
C - 6

# SEDIMENT AND EROSION CONTROL NOTES

## PROJECT NAME AND LOCATION

19 CONTINENTAL DRIVE  
EXETER, NEW HAMPSHIRE  
TAX MAP 46 LOT 7

LATITUDE: 42.991° N  
LONGITUDE: 70.351° W

## OWNER/APPLICANT:

GLERUPS, INC.  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

## DESCRIPTION

The project consists of the development of a ±95,116 s.f. warehouse and associated improvements.

## DISTURBED AREA

The total area to be disturbed for the development is ±307,800 S.F. (±7.07 acres).

## PROJECT PHASING

The project will be completed in one phase.

## NAME OF RECEIVING WATER

The site drains to an unnamed wetland tributary to the Little River.

## SEQUENCE OF MAJOR ACTIVITIES

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

## TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION PRACTICES

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

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

## BEST MANAGEMENT PRACTICES FOR BLASTING

REFERENCE: NHDES WD-19-05

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

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

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

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

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

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

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

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

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

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

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

### A. GENERAL

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

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

### B. MULCHING

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

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

### 2. Guidelines for Winter Mulch Application -

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

Wood Chips or Bark Mulch	460 to 920 lbs.	Used mostly with trees and shrubs.
Jute and Fibrous Matting (Erosion Blanket)	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	* The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 100% passing a 6" screen and a minimum of 70 % maximum of 85%, passing a 0.75" screen. * The organic portion needs to be fibrous and elongated. * Large portions of silts, clays or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.

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

### C. PERMANENT SEEDING -

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

Agricultural Limestone @ 100 lbs. per 1,000 s.f.	10-20-20 organic fertilizer @ 12 lbs. per 1,000 s.f.
--	--
3. Seed Mixture (for lawns\*\*):

Type	Lbs. / Acre	Lbs. / 1,000 sf
Tall Fescue	24	0.55
Creeping Red Fescue	24	0.55
Total	48	1.10

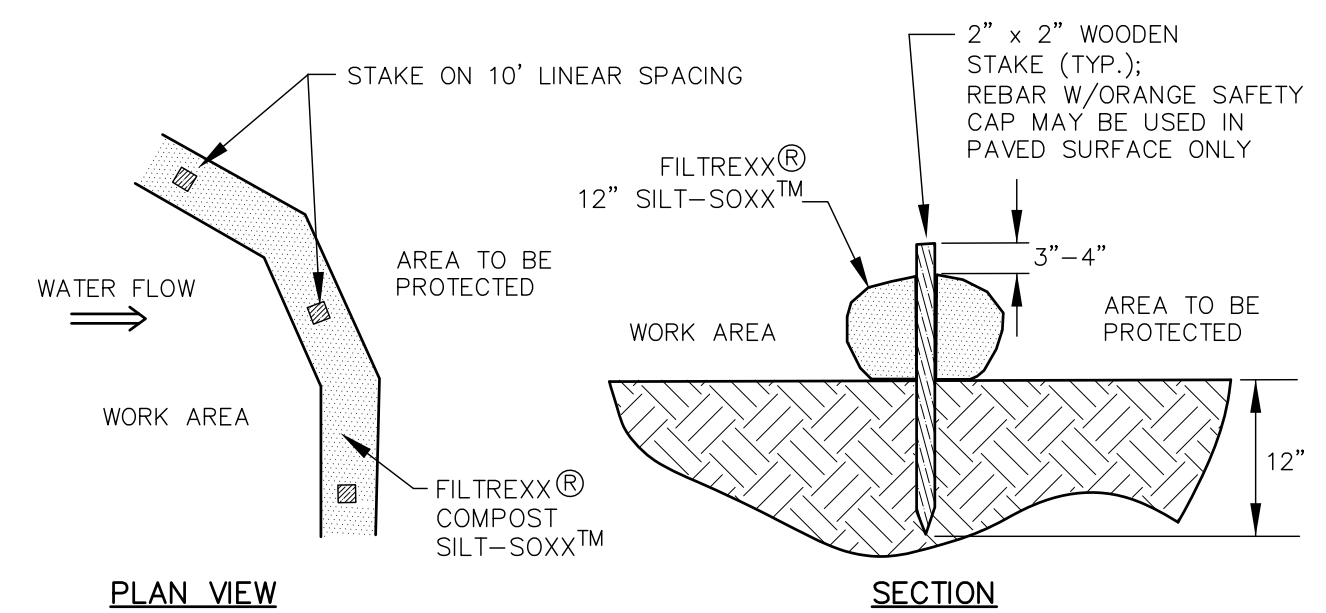
Seed Mixture (For slope embankments\*\*):  
Grass Seed: Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America. Provide seed mixture composed of grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as specified:

Type	Min. Purity (%)	Min. Germination (%)	Kg./Hectare (Lbs./Acre)
Creeping Red Fescue (c)	96	85	45 (40)
Perennial Rye Grass (a)	98	90	35 (30)
Redtop	95	80	5 (5)
Alsike Clover	97	90(e)	5 (5)
Total			90 (80)

- a. Ryegrass shall be a certified fine-textured variety such as Pennfine, Fiesta, Yorktown, Diplomat, or equal.
- b. Fescue varieties shall include - Creeping Red and/or Hard Reliant, Scaldis, Koket, or Jamestown.
- \*\* In the event that the seed mixes shown here conflict with the project landscape plans, the landscape plans shall govern.
4. Sodding - sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

## WINTER CONSTRUCTION NOTES

1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and elsewhere seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events;
2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
3. After November 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.



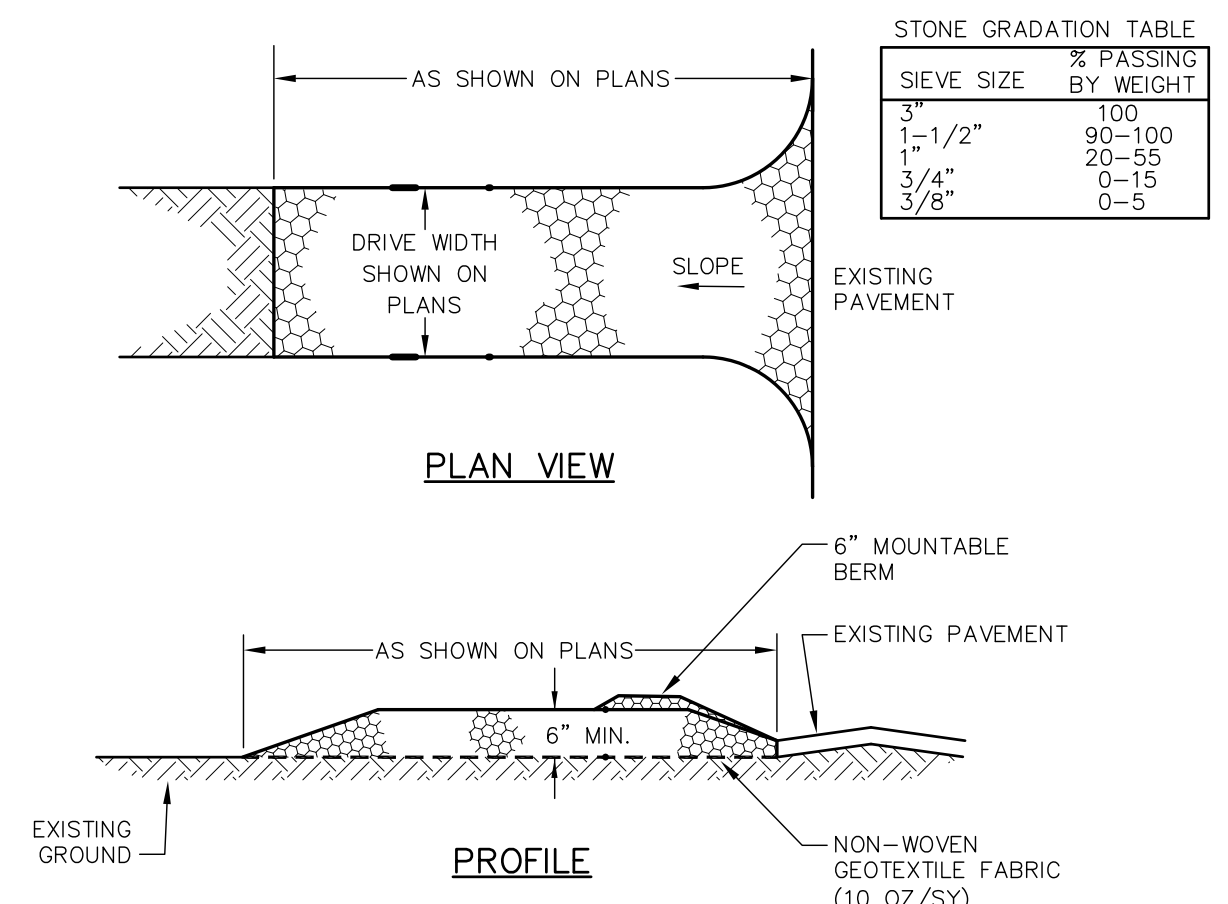
### NOTES:

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

## TUBULAR SEDIMENT BARRIER NOT TO SCALE

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

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



## CONSTRUCTION SPECIFICATIONS

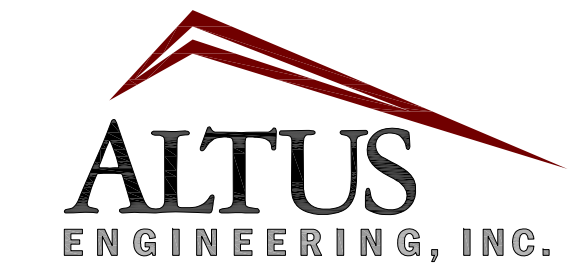
1. **STONE SIZE** - NHDOT STANDARD STONE SIZE #4 - SECTION 703 OF NHDOT STANDARD.
2. **LENGTH** - DETAILED ON PLANS (50 FOOT MINIMUM).
3. **THICKNESS** - SIX (6) INCHES (MINIMUM).
4. **WIDTH** - FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
5. **FILTER FABRIC** - MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
6. **SURFACE WATER CONTROL** - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. **MAINTENANCE** - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. **WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.** WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. **STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.**

## STABILIZED CONSTRUCTION EXIT NOT TO SCALE

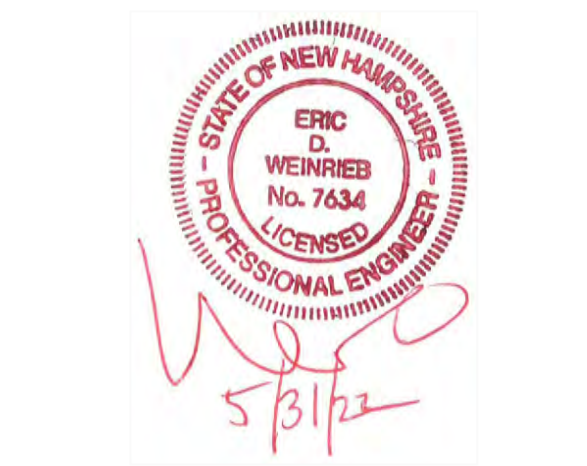
## ORGANIC FILTER BERM NOT TO SCALE

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

## ORGANIC FILTER BERM NOT TO SCALE



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## NOT FOR CONSTRUCTION

ISSUED FOR: **PLANNING BOARD**

ISSUE DATE: **MAY 31, 2022**

REVISIONS NO. DESCRIPTION BY DATE

0 INITIAL SUBMISSION EBS 05/31/22

DRAWN BY: **EBS**

APPROVED BY: **EBS**

DRAWING FILE: **4839-SITE.dwg**

SCALE: **AS SHOWN**

OWNER: **GLERUPS, INC.**

**27 PLEASANT STREET  
NEWFIELDS, NH 03856**

APPLICANT: **GLERUPS, INC.**

**27 PLEASANT STREET  
NEWFIELDS, NH 03856**

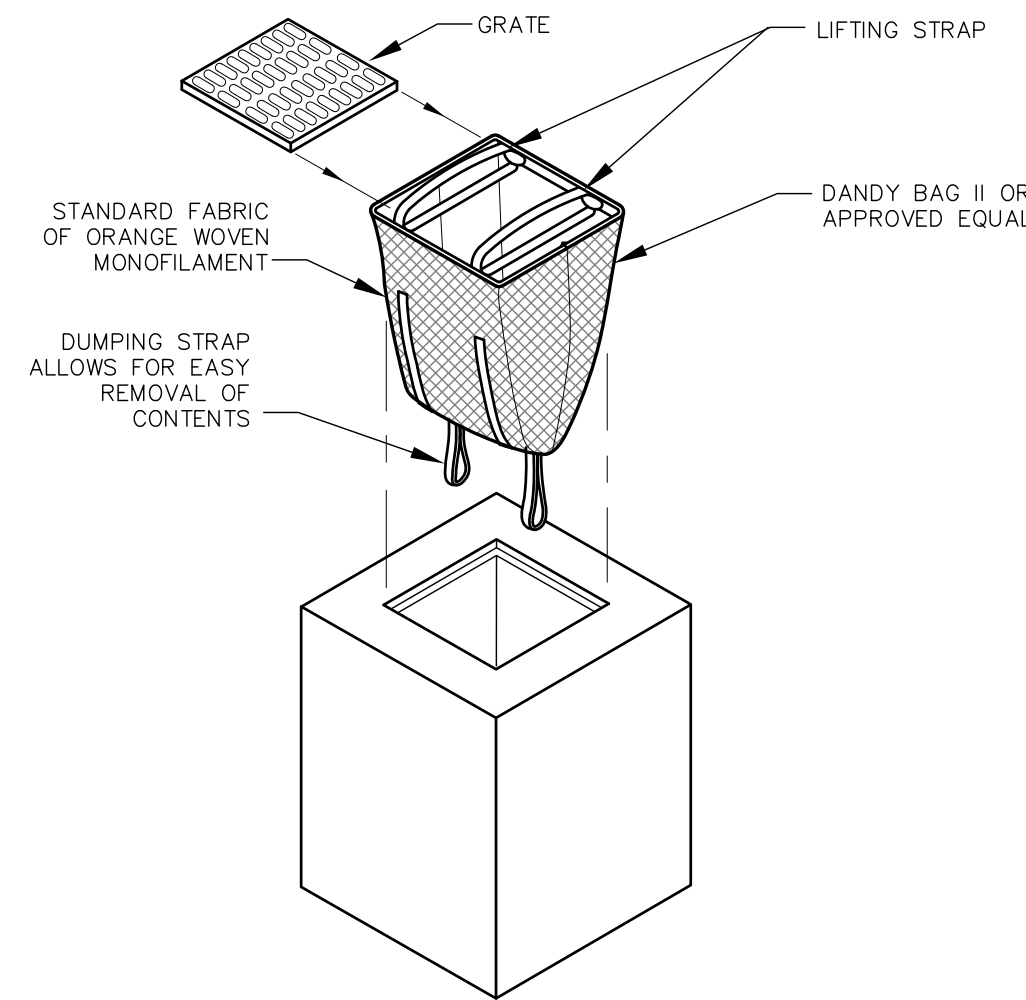
PROJECT: **GLERUPS**

**TAX MAP 46, LOT 7**

**19 CONTINENTAL DRIVE  
EXETER, NH**

TITLE: **DETAIL SHEET**

SHEET NUMBER: **C - 7**



**INSTALLATION AND MAINTENANCE:**

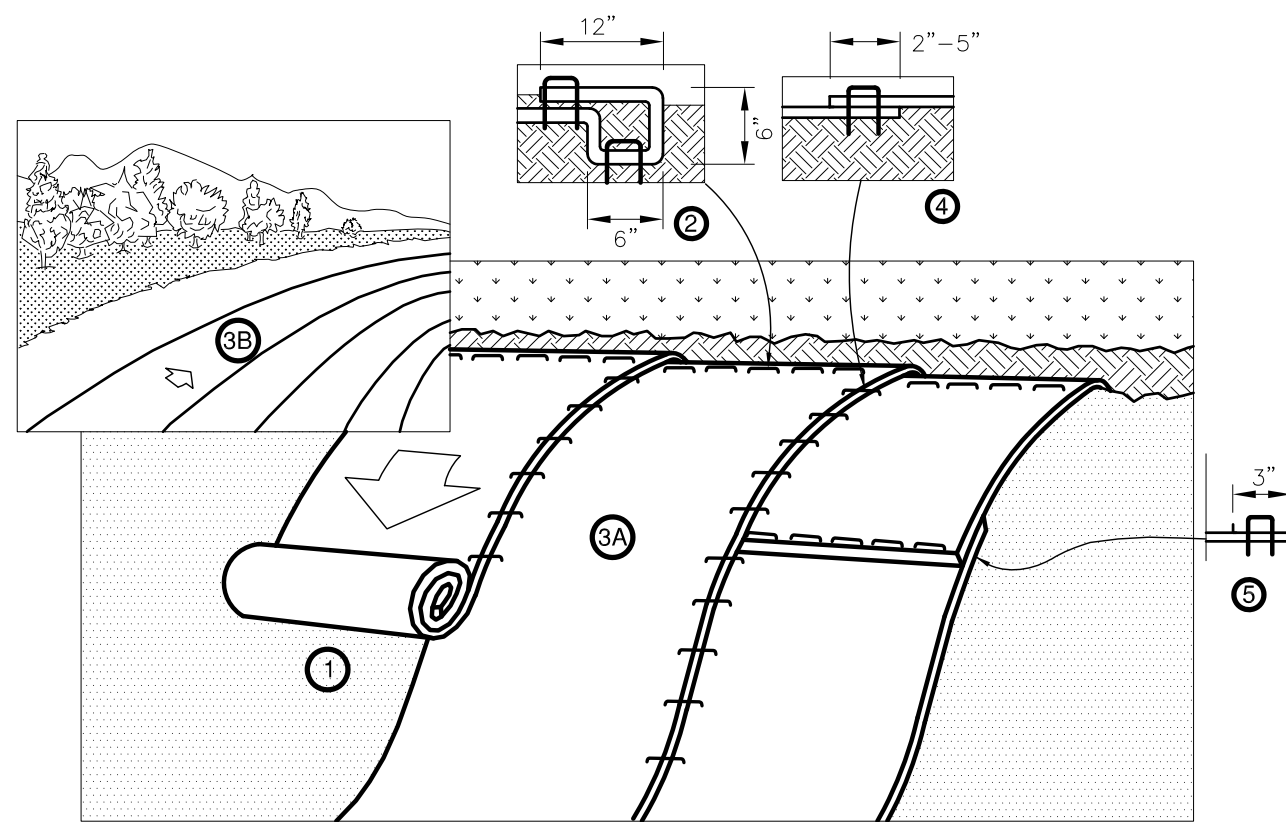
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT FILL IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS; LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

**UNACCEPTABLE INLET PROTECTION METHOD:**

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

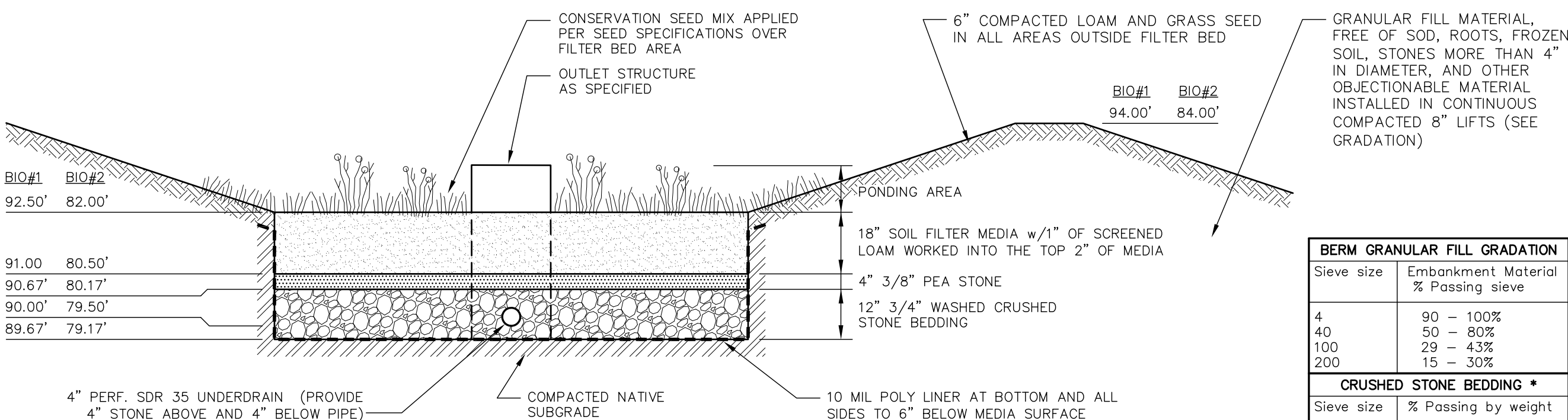
**STORM DRAIN INLET PROTECTION NOT TO SCALE**



**NOTES**

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

**EROSION CONTROL BLANKET - SLOPE NOT TO SCALE**



**NOTES**

1. WHEN CONTRACTOR EXCAVATES BIORETENTION POND AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL EITHER OPTION A OR OPTION B AT CONTRACTOR'S DISCRETION.
3. DO NOT PLACE BIORETENTION POND INTO SERVICE UNTIL ITS SIDE SLOPES AND CONTRIBUTING AREAS HAVE BEEN STABILIZED.
4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES TO THE BIORETENTION POND DURING ANY STAGE OF CONSTRUCTION.
5. DO NOT TRAFFIC EXPOSED SURFACES OF BIORETENTION POND WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION ACTIVITIES WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE BASIN.
6. POND BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STORMWATER POND BERM DETAIL.

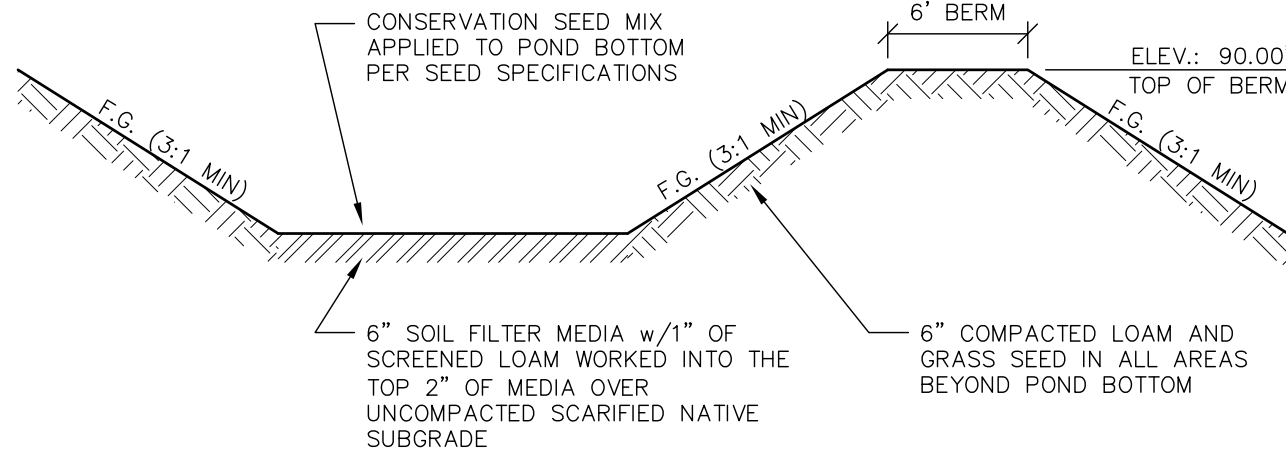
**MAINTENANCE REQUIREMENTS**

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, WEED WHACKING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES. BERM AREAS ARE TO BE MOWED TWICE ANNUALLY.

**DESIGN REFERENCES**

- UNH STORMWATER CENTER
- EPA (1999A)
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

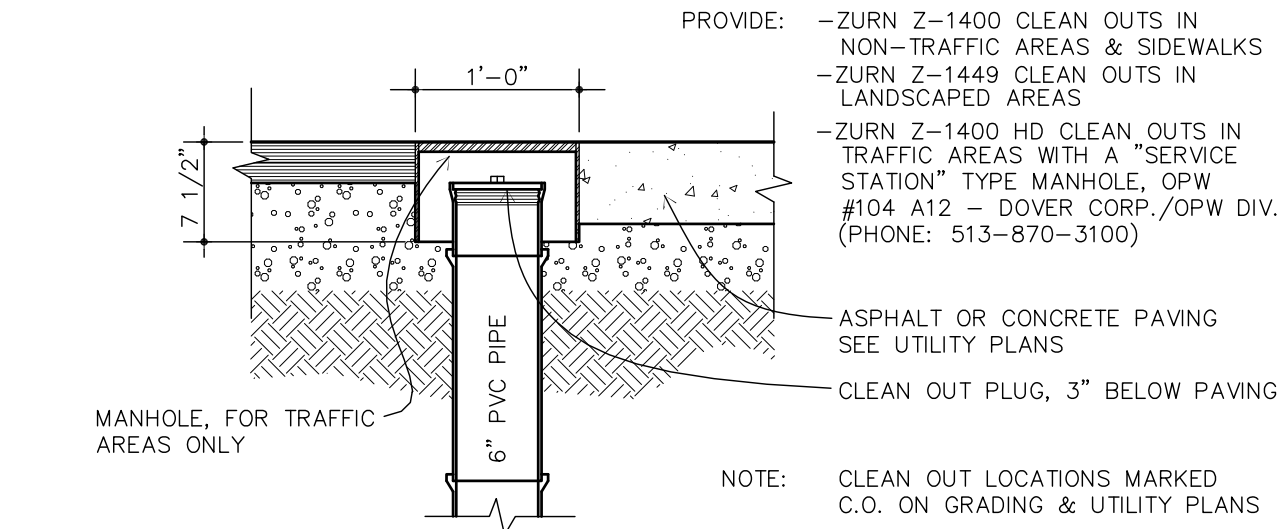
**BIORETENTION POND (BIO #'S 1 AND 2) NOT TO SCALE**



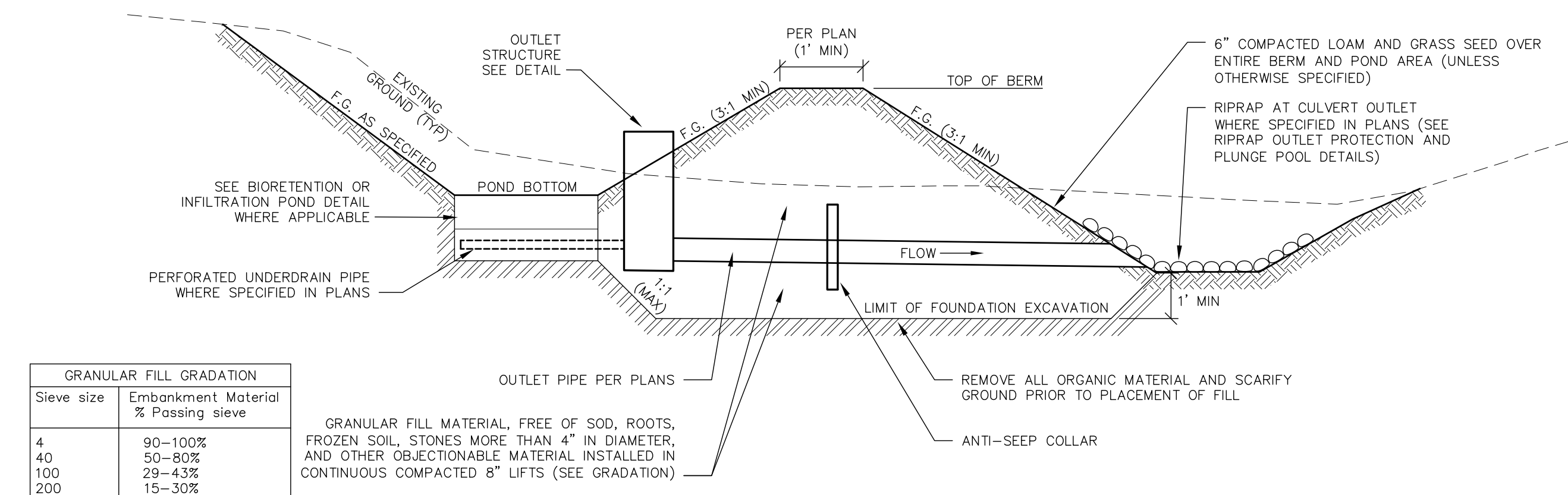
**NOTES**

1. SOIL FILTER MEDIA SHALL BE AS SPECIFIED FOR BIOFILTRATION PONDS, SEE DETAIL.
2. DO NOT PLACE INFILTRATION POND INTO SERVICE UNTIL ITS SIDE SLOPES AND CONTRIBUTING AREAS HAVE BEEN STABILIZED.
3. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES TO THE INFILTRATION POND DURING ANY STAGE OF CONSTRUCTION.
4. DO NOT TRAFFIC EXPOSED SURFACES OF INFILTRATION POND WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION ACTIVITIES WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE BASIN.
5. POND BERMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STORMWATER POND BERM DETAIL.

**INFILTRATION POND #3 NOT TO SCALE**



**CLEANOUT DETAIL NOT TO SCALE**



GRANULAR FILL GRADATION	
Sieve size	Embankment Material % Passing sieve
4	90-100%
40	50-80%
100	29-43%
200	15-30%

**Construction Criteria**

1. Foundation Preparation -- The foundation shall be cleared of trees, logs, stumps, roots, brush, boulders, sod, and rubbish. If suitable for reuse, the topsoil and sod shall be stockpiled and spread on the completed embankment and spillways. Foundation surfaces shall be sloped no steeper than 1:1. The foundation area shall be thoroughly scarified before placement of fill material. The surface shall have moisture added and/or it shall be compacted if necessary so that the first layer of fill can be bonded to the foundation. The cutoff trench and any other required excavations shall be dug to the lines and grades shown on the plans or as staked in the field. If they are suitable, excavated materials shall be used in the permanent fill. Existing stream channels in the foundation area shall be sloped no steeper than 1:1 and deepened and widened as necessary to remove all stones, gravel, sand, stumps, roots, and other objectionable material and to accommodate compaction equipment. Foundation areas shall be kept free of standing water when fill is being placed on them.
2. Granular Fill Placement -- The material placed in the fill shall be free of sod, roots, frozen soil, stones more than 4 inches in diameter and other objectionable material. Selected backfill material shall be placed around structures, pipe conduits, and drainage diaphragm at about the same rate on all sides to prevent damage from unequal loading. The placing and spreading of fill material shall be started at the lowest point of the foundation and the fill brought up in horizontal layers of such thickness that the required compaction can be obtained. The fill shall be constructed in 8" continuous horizontal layers except where openings or sectionalized fills are required. In those cases, the slope of the bonding surfaces between the embankment in place and the embankment to be placed shall not be steeper than 3 horizontal to 1 vertical. The bonding surface shall be treated the same as that specified for the foundation so as to insure a good bond with the new fill. The distribution and gradation of materials shall be such that no lenses, pockets, streaks, or layers of material differ substantially in texture or gradation from the surrounding material. If it is necessary to use materials of varying texture and gradation, the more impervious material shall be placed in the center and upstream parts of the fill. If zoned fills of substantially differing materials are specified, the zones shall be placed according to the lines and grades shown on the drawings. The complete work shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.
3. Moisture Control -- The moisture content of the fill material shall be adequate for obtaining the required compaction. Material that is too wet shall be dried to meet this requirement, and material that is too dry shall have water added and mixed until the requirement is met.
4. Compaction -- Construction equipment shall be operated over the areas of each layer of fill to insure that the required compaction is obtained. Special equipment shall be used if needed to obtain the required compaction. Fill material shall be compacted to not less than 95% of AASHTO T99 Method C compaction method. Fill adjacent to structures, pipe conduits, and drainage diaphragm shall be compacted to a density equivalent to that of the surrounding fill by means of hand tamping or manually directed power tamper or plate vibrators. Fill adjacent to concrete structures shall not be compacted until the concrete is strong enough to support the load.
5. Protection -- A protective cover of vegetation shall be established on all exposed surfaces of the embankment, spillway, and borrow area in accordance with the plans. If soil or climatic conditions preclude the use of vegetation and protection is needed, non-vegetative means, such as mulches or gravel, may be used. In some places, temporary vegetation may be used until conditions permit establishment of permanent vegetation.

**Maintenance**

- Maintenance is necessary if detention/retention basins are to continue to function as originally designed. A local government, a designated group such as a homeowners' association, or an individual must be assigned responsibility for maintaining the structures and the basin area. A maintenance plan should be developed that outlines the maintenance operations and a schedule for carrying out the procedures.
- The following should be considered in formulating a maintenance plan:
1. Embankment -- The embankment should be inspected annually to determine if rodent burrows, wet areas, or erosion of the fill is taking place.
  2. Vegetation -- The vegetated areas of the structure should be protected from damage by fire, grazing, traffic, and dense weed growth. Lime and fertilizer should be applied as necessary as determined by soil tests. Trees and shrubs should be kept off the embankment and emergency spillway areas.
  3. Inlets -- Pipe inlets and spillway structures should be inspected annually and after every major storm. Accumulated debris and sediment should be removed.
  4. Outlets -- Pipe outlets should be inspected annually and after every major storm. The condition of the pipes should be noted and repairs made as necessary. If erosion is taking place, then measures should be taken to stabilize and protect the affected area.
  5. Sediment -- Sediment should be continually checked in the basin. When sediment accumulations reach the predetermined design elevation, then the sediment should be removed and properly disposed of.
  6. Safety Inspections -- All permanent impoundments should be inspected by a qualified professional engineer on a periodic basis. If there is potential for significant damage or loss of life downstream, then the inspection should be carried out annually.

**STORMWATER POND BERM DETAIL NOT TO SCALE**

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

STATE OF NEW HAMPSHIRE  
 ERIC D. WEINRIEB  
 No. 7634  
 LICENSED PROFESSIONAL ENGINEER  
 5/31/22

**NOT FOR CONSTRUCTION**  
 ISSUED FOR: **PLANNING BOARD**  
 ISSUE DATE: **MAY 31, 2022**

REVISIONS NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	05/31/22

DRAWN BY: \_\_\_\_\_ EBS  
 APPROVED BY: \_\_\_\_\_ EBS  
 DRAWING FILE: 4839-SITE.dwg

**SCALE:**  
**AS SHOWN**

**OWNER:**  
**GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

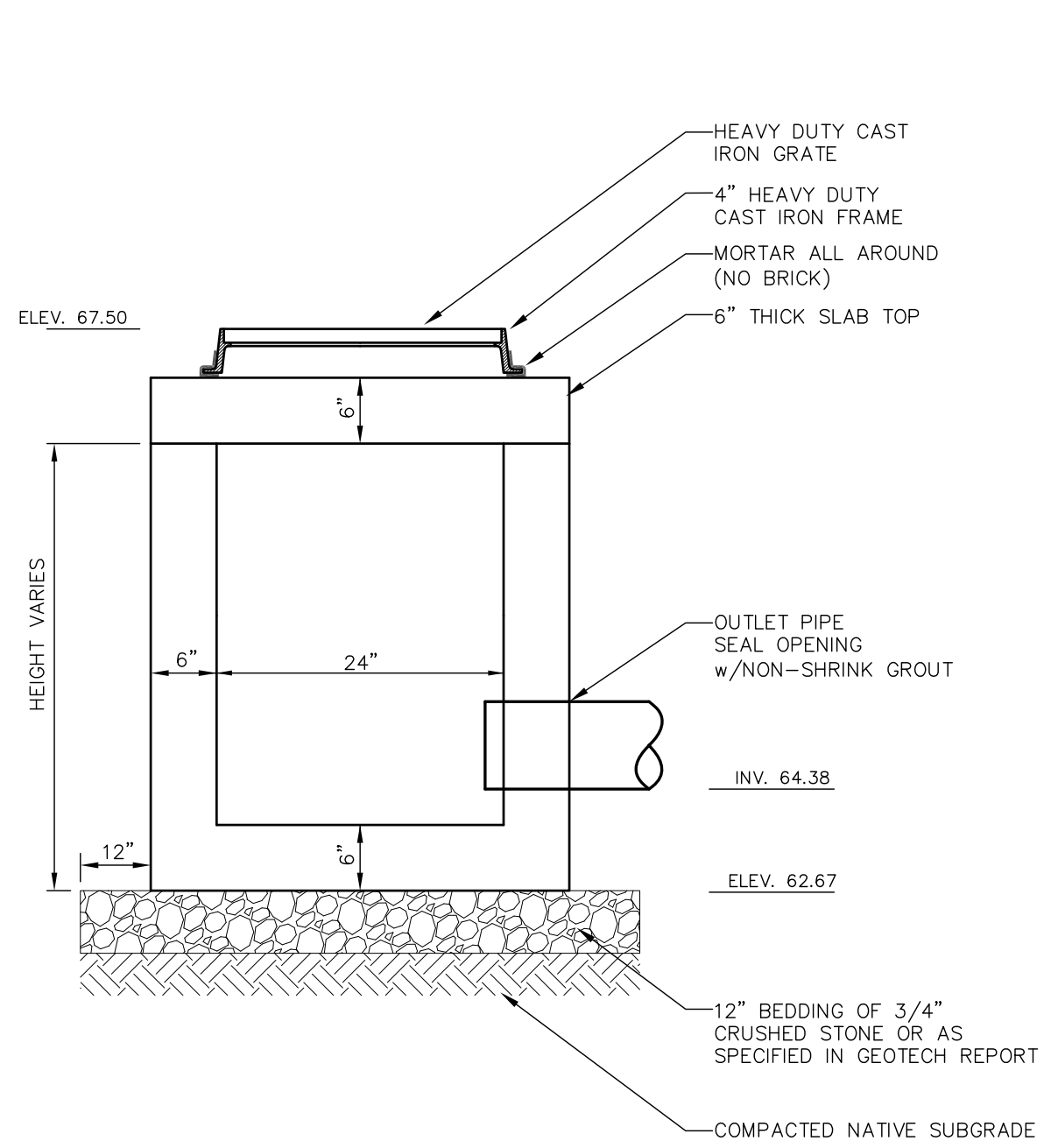
**APPLICANT:**  
**GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

**PROJECT:**  
**GLERUPS**  
 TAX MAP 46, LOT 7  
 19 CONTINENTAL DRIVE  
 EXETER, NH

**TITLE:**  
**DETAIL SHHET**  
**SHEET NUMBER:**

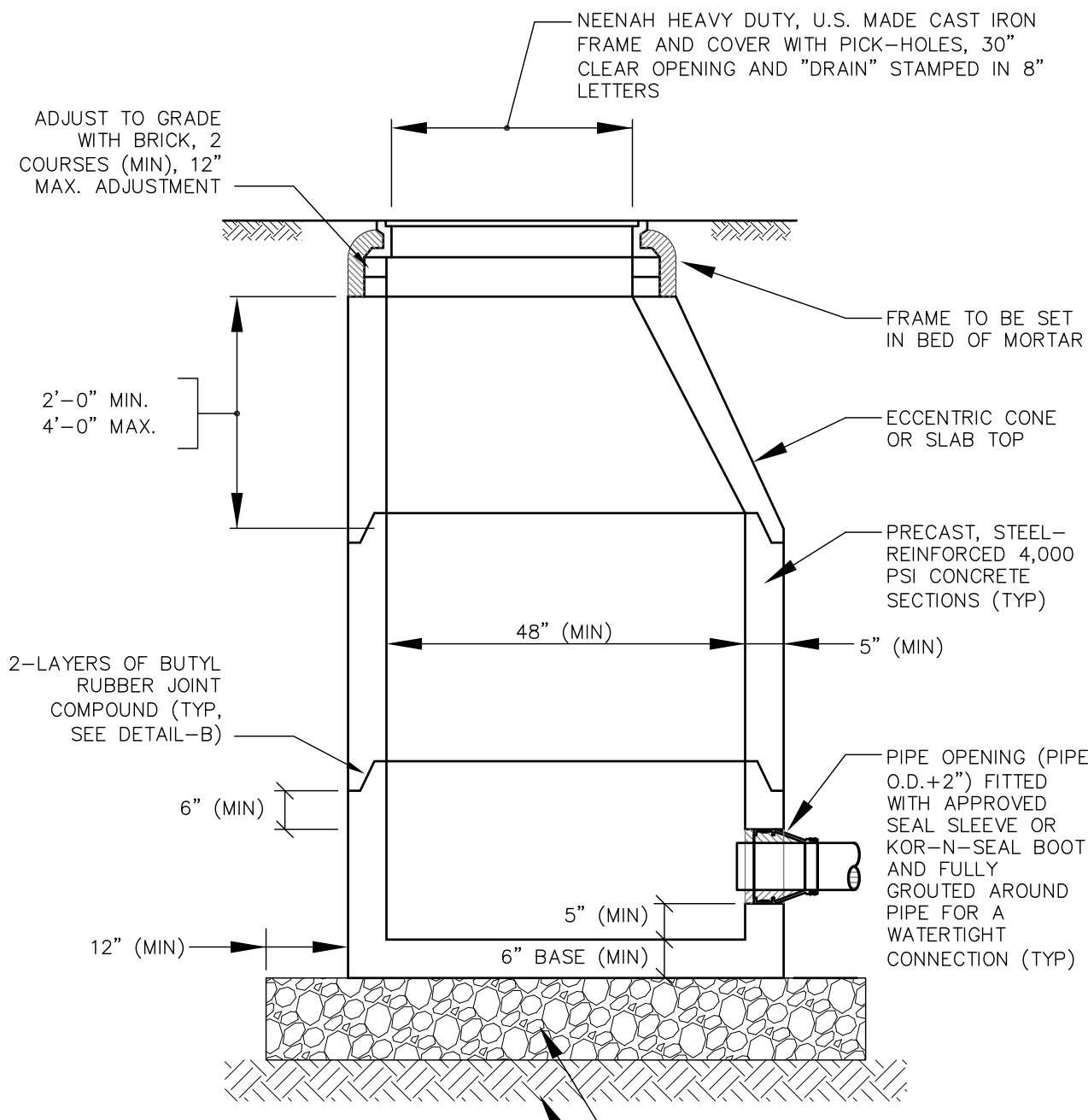
**C - 8**





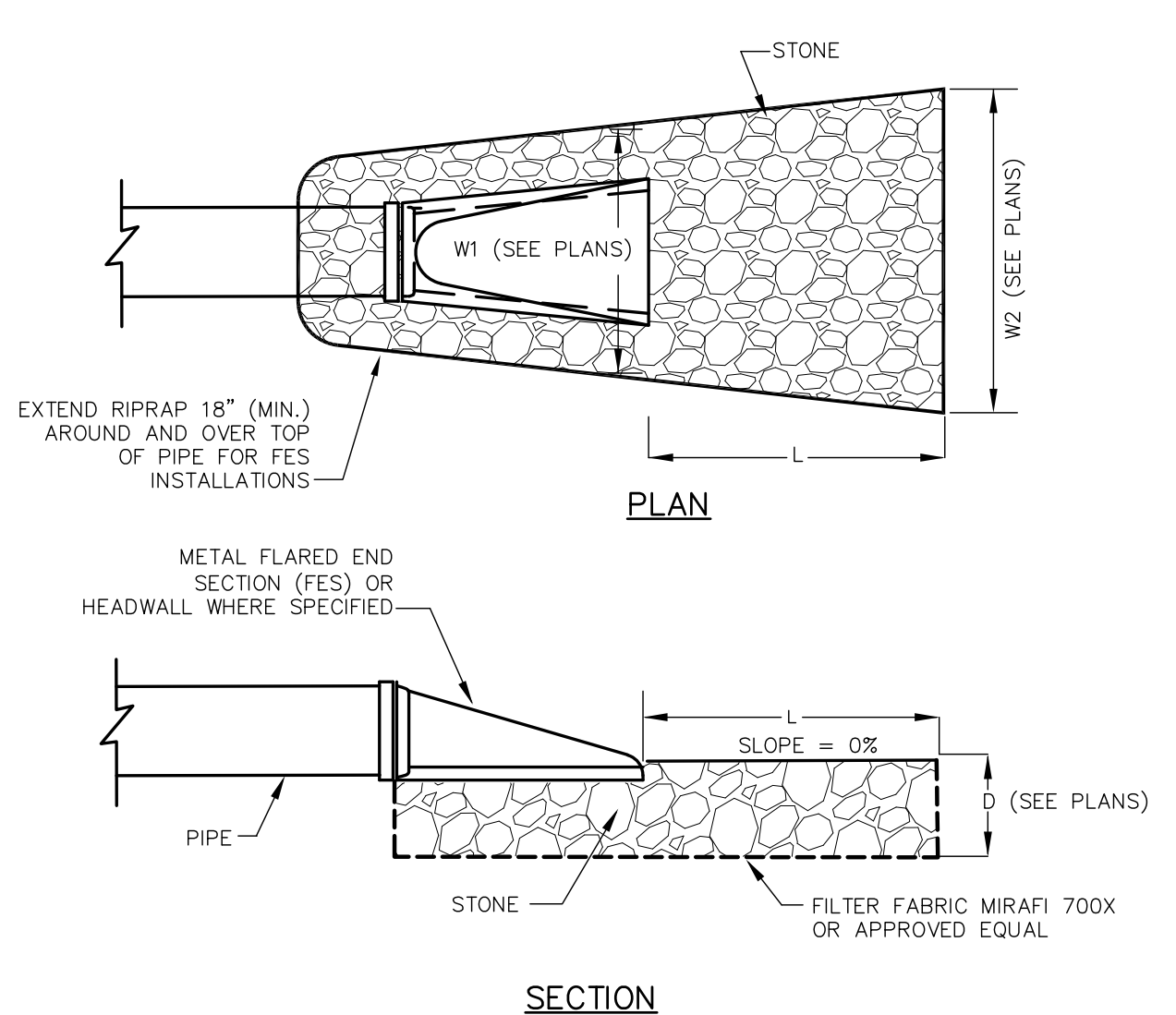
- NOTES**
- STRUCTURE SHALL TO ACCOMMODATE HEAVY DUTY 24" SQ. C.I. FRAME AND GRATE.
  - "24" SQUARE AREA DRAIN" AVAILABLE FROM PHOENIX PRECAST PRODUCTS (800-639-2199) OR APPROVED EQUAL.
  - CONCRETE: 4,000 PSI AFTER 28 DAYS
  - STRUCTURE SHALL BE STEEL REINFORCED MEET OR EXCEED H-20 LOADING.
  - SEAL ALL TONGUE AND GROOVE JOINTS w/BUTYL RUBBER JOINT COMPOUND.

**CATCH BASIN (2' STRUCTURE) NOT TO SCALE**



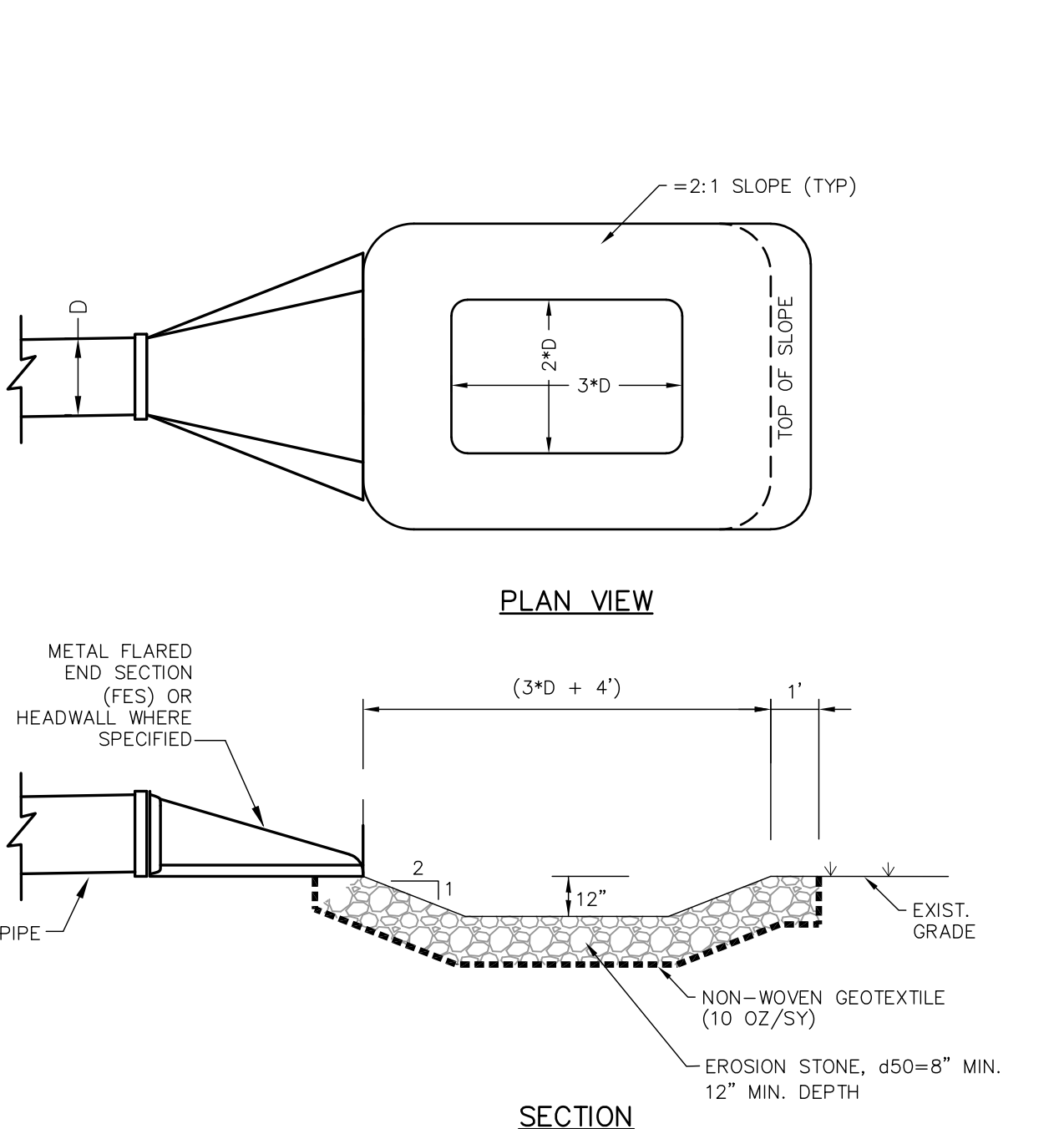
- NOTES**
- ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI).
  - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
  - THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
  - RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
  - ALL MANHOLE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
  - USE H-20 LOADING SLAB TOP SECTION IN LIEU OF ECCENTRIC TOP WHERE PIPE INVERT IS WITHIN 4 FT. OF GRADE.
  - MANHOLE STEPS ARE REQUIRED PER THE CITY OF DOVER.

**DRAIN MANHOLE (DMH) NOT TO SCALE**



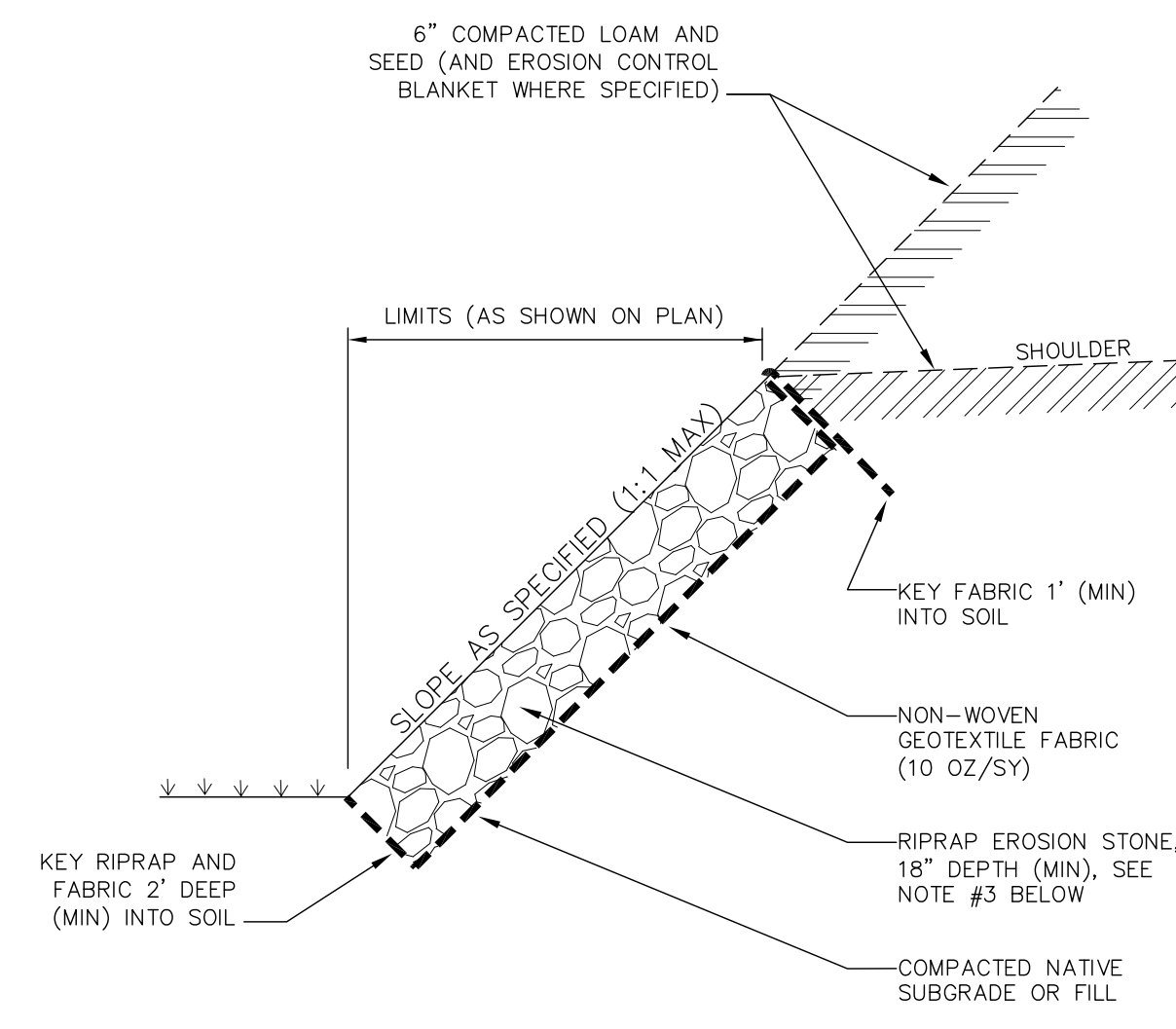
- MAINTENANCE**
- THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.
- CONSTRUCTION SPECIFICATIONS**
- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
  - THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
  - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
  - STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

**RIPRAP OUTLET PROTECTION NOT TO SCALE**



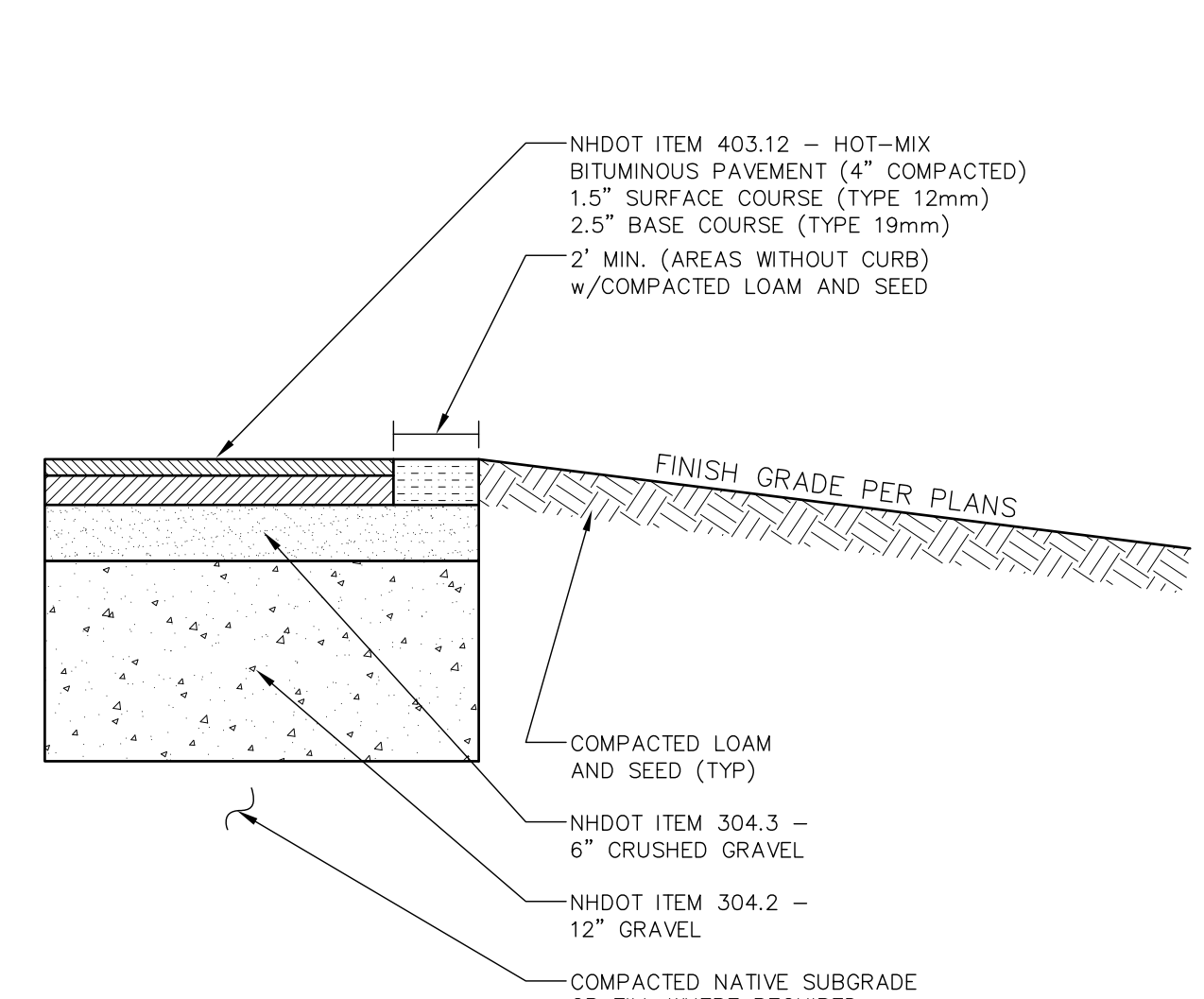
- CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
- THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
- EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
- THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

**PLUNGE POOL NOT TO SCALE**



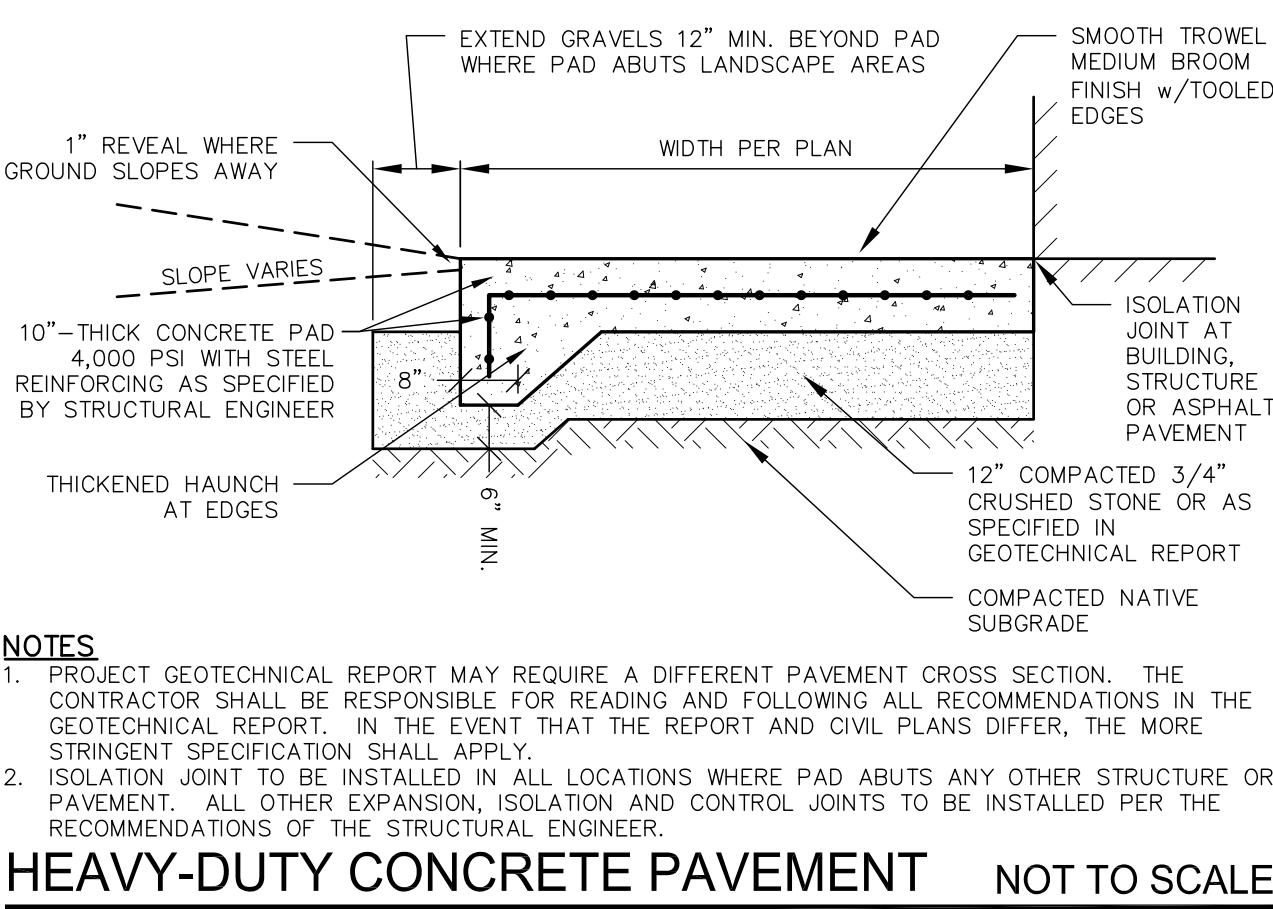
- NOTES**
- CONSTRUCT RIP RAP LINED SLOPE TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
  - THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS.
  - EROSION STONE USED FOR THE RIP RAP LINED SLOPE SHALL MEET THE FOLLOWING GRADATION:
- | SIZE | PERCENT PASSING BY WEIGHT |
|------|---------------------------|
| 12"  | 100                       |
| 6"   | 25-50                     |
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.
  - THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

**RIPRAP STABILIZED SLOPE NOT TO SCALE**

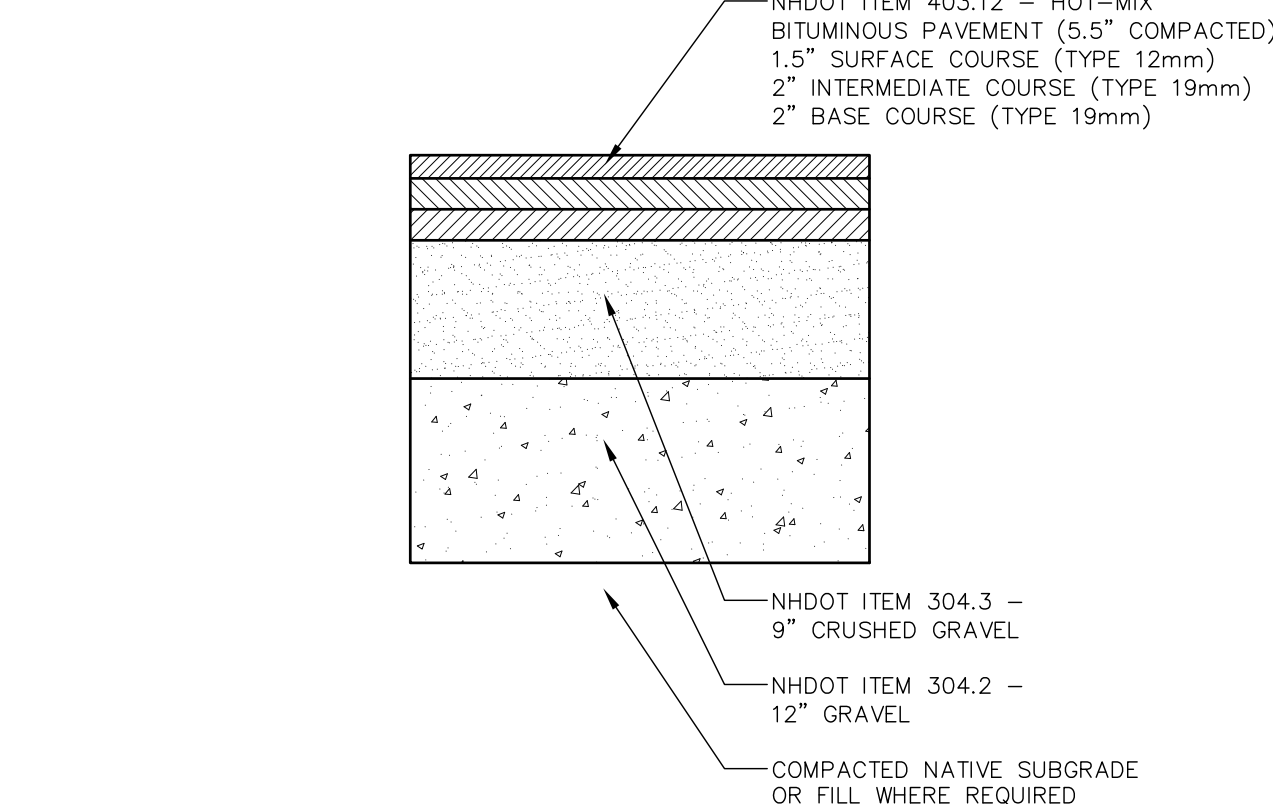


- NOTES FOR STANDARD AND HEAVY DUTY ASPHALT PAVEMENT**
- PROJECT GEOTECHNICAL REPORT MAY REQUIRE A DIFFERENT PAVEMENT CROSS SECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FOLLOWING ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE REPORT AND CIVIL PLANS DIFFER, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
  - ALL EXISTING FILL, BURIED ORGANIC MATTER, CLAY, LOAM, MUCK, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
  - SUBGRADE SHALL BE PROFFROLLED A MINIMUM OF 6 PASSES WITH A 10-TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
  - FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER DOT REQUIREMENTS.
  - SITWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
  - TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
  - THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 95 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D-1557.

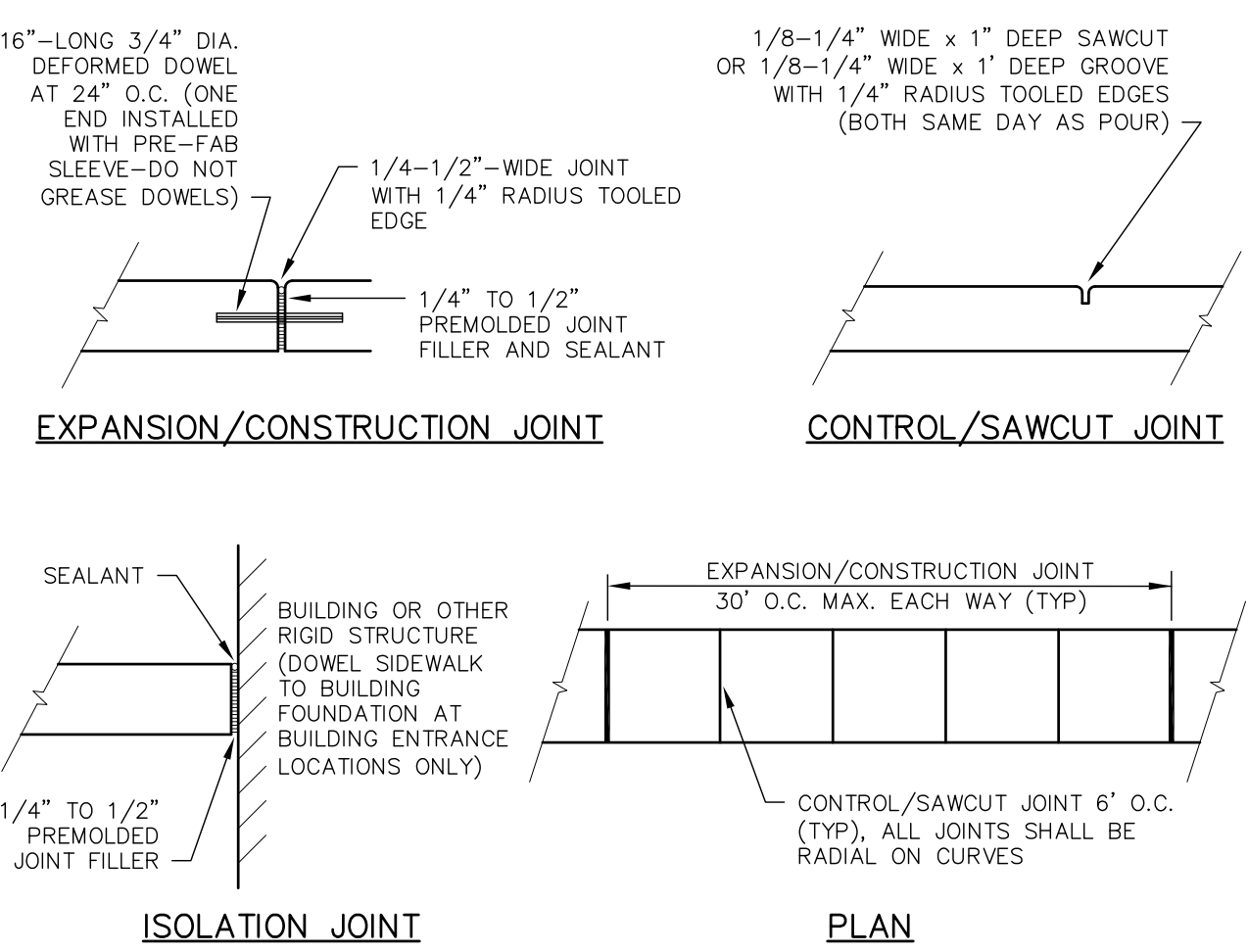
**STANDARD DUTY ASPHALT PAVEMENT NOT TO SCALE**



**HEAVY-DUTY CONCRETE PAVEMENT NOT TO SCALE**

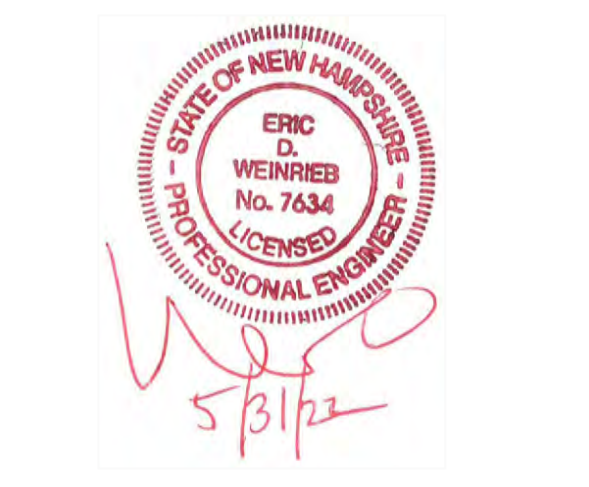


**HEAVY DUTY APSHALT PAVEMENT NOT TO SCALE**



- NOTE**
- JOINTS IN CONCRETE SIDEWALKS SHALL CONFORM TO THE TYPES AND LOCATIONS SHOWN IN THE HEAVY-DUTY CONCRETE PAVEMENT DETAIL.

**CONCRETE SIDEWALK NOT TO SCALE**



**NOT FOR CONSTRUCTION**  
**ISSUED FOR: PLANNING BOARD**  
**ISSUE DATE: MAY 31, 2022**

**REVISIONS**

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	05/31/22

**DRAWN BY: EBS**  
**APPROVED BY: EBS**  
**DRAWING FILE: 4839-SITE.dwg**

**SCALE: AS SHOWN**

**OWNER: GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

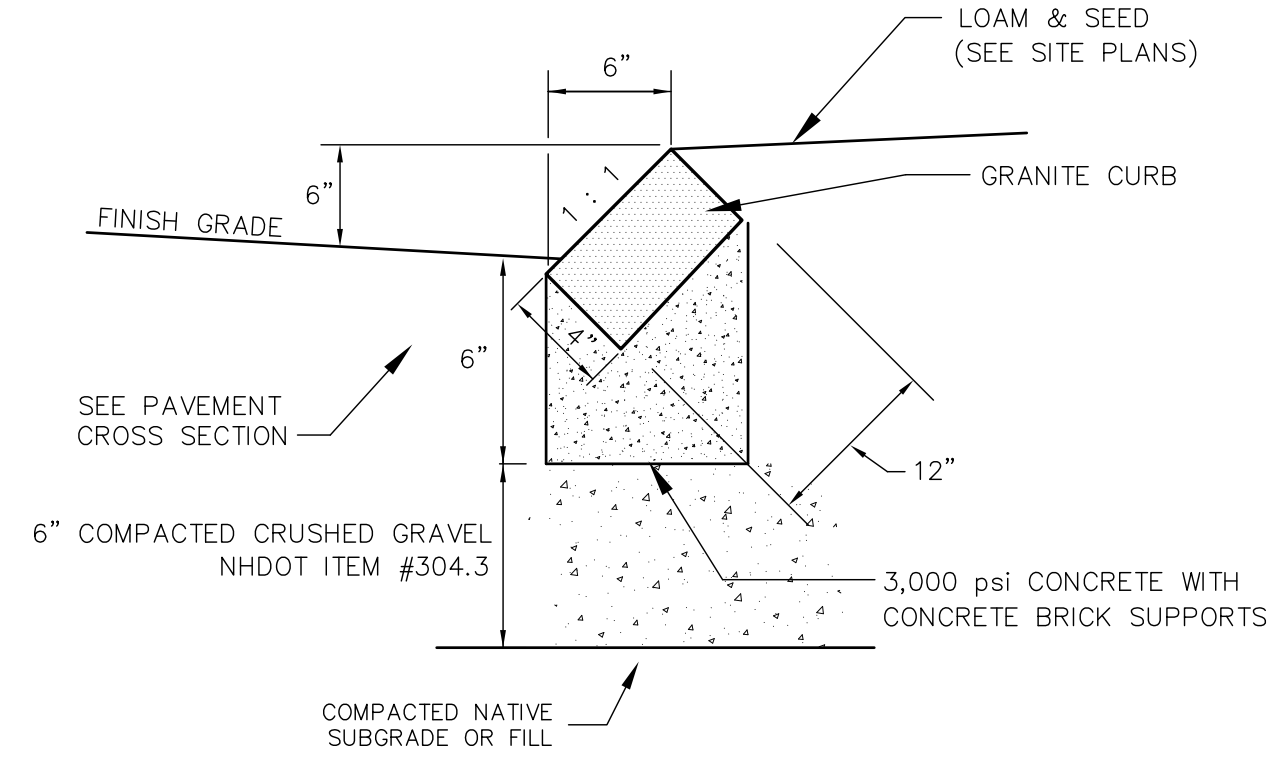
**APPLICANT: GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

**PROJECT: GLERUPS**  
 TAX MAP 46, LOT 7  
 19 CONTINENTAL DRIVE  
 EXETER, NH

**TITLE: DETAIL SHEET**  
**SHEET NUMBER: C - 10**

**LEGEND**

- PROPERTY LINE
- - - BUILDING SETBACK
- - - EDGE OF WETLAND
- TP #11 TESTPIT OR BORING LOCATION
- EXISTING/PROPOSED GRAVEL
- VGC/SGC/MCC EXISTING PAVEMENT/VERTICAL/SLOPED GRANITE CURB
- DYL PROP. PAVEMENT/VERTICAL/SLOPED GRANITE/CONCRETE CURB
- EXISTING/PROPOSED GUARDRAIL
- EXISTING/PROPOSED STOCKADE FENCE
- 60 EXISTING CONTOUR
- 60 PROPOSED CONTOUR
- 100.00 x 104.00T / 100.00B PROPOSED SPOT GRADE/TOP & BOTTOM OF WALL OR CURB
- PROPOSED RETAINING WALL
- W EXISTING WATER/CURB STOP/VALVE/HYDRANT
- S EXISTING SEWER/MANHOLE
- G EXISTING GAS/VALVE
- OHW UGU EXIST. OVERHEAD/UNDERGROUND UTILITIES/POLE
- D EXISTING DRAINAGE/CB/DMH
- W F PROPOSED THRUST BLOCK/CURB STOP/VALVE/HYDRANT
- PW F PROPOSED DOMESTIC/FIRE WATER SERVICE LINE
- S G PROPOSED SEWER/MANHOLE/CLEANOUT
- UG E PROPOSED UNDERGROUND ELECTRIC
- PROPOSED DRAINAGE (HARD PIPE)/CB/YD/DCB/DMH/FES
- UD PROPOSED DRAINAGE (PERFORATED PIPE)/CLEANOUT
- RD PROPOSED DRAINAGE (ROOF DRAIN)
- CPP FES HDWL CORRUGATED PLASTIC PIPE/FLARED END SECTION/HEADWALL
- 4% PROPOSED GROUND SLOPE/APPROX. GRADE/PLUNGE POOL
- SILTFENCE/SEDIMENT BARRIER/CONST. FENCE
- STABILIZED CONSTRUCTION EXIT
- 44 226 PROPOSED LIMIT OF DISTURBANCE/TREE CLEARING
- PARKING COUNT PER ROW/FOR TOTAL SITE
- PROPOSED RIPRAP
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED BIORETENTION/INFILTRATION POND SURFACE

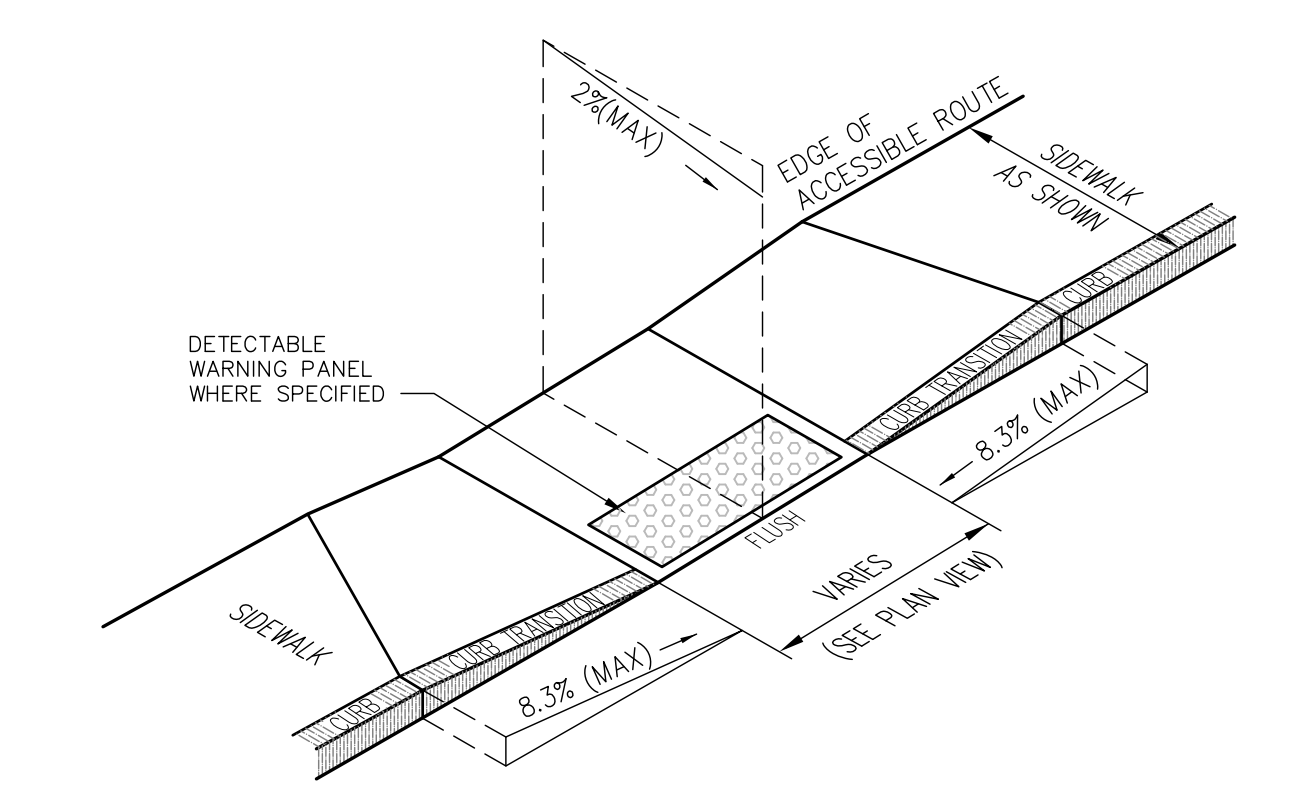


- NOTES**
- SEE SITE PLAN FOR LIMITS OF CURBING
  - ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
  - MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8"
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART

RADIUS FOR STONES WITH SQUARE JOINTS	MAXIMUM LENGTH
16'-28'	1'-6"
29'-41'	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
OVER 110'	8'

**SLOPED GRANITE CURB NOT TO SCALE**

**BOLLARD NOT TO SCALE**

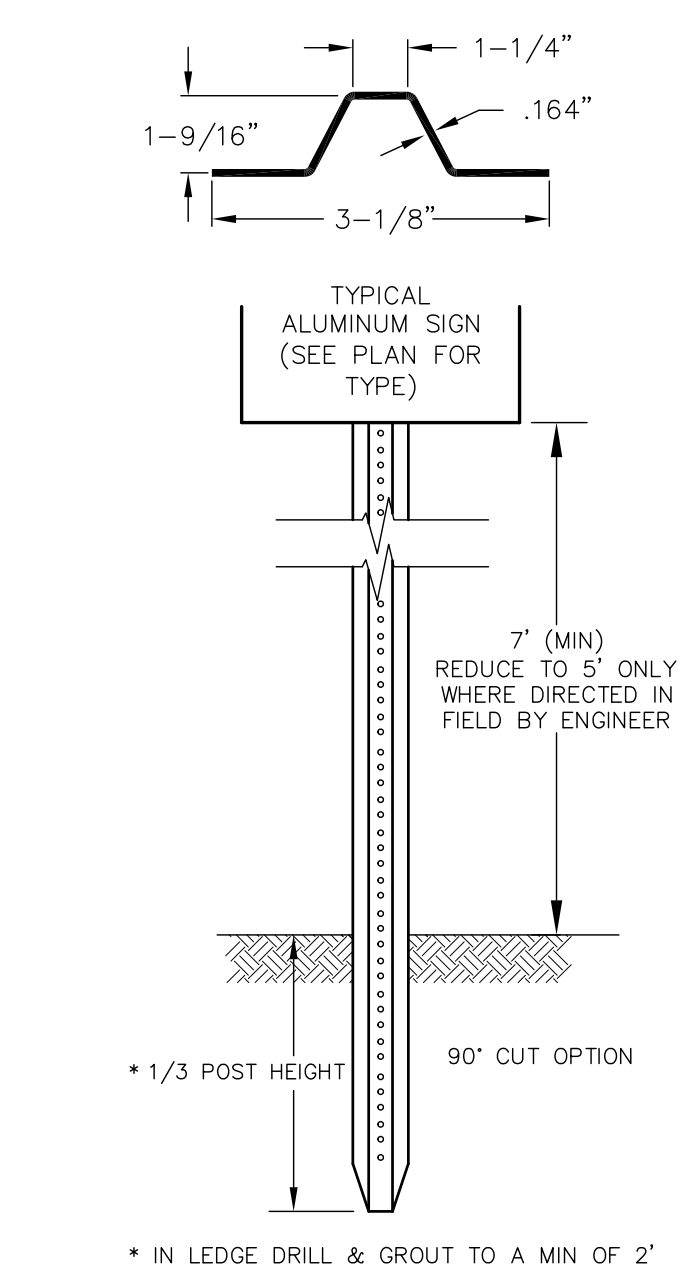


**CURB RAMP (TYPE 'A') NOT TO SCALE**

**FLUSH CURB AT RAMP DETAIL NOT TO SCALE**

- NOTES APPLICABLE TO ALL CURB RAMPS:**
- THE MAXIMUM ALLOWABLE CROSS SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 2%.
  - THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
  - THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) CURB RAMP SHALL BE 8.3% FOR A MAXIMUM ELEVATION CHANGE OF 6".
  - CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
  - BASE OF RAMP SHALL BE GRADED TO PREVENT THE PONDING OF WATER.
  - SEE CONCRETE SIDEWALK SECTION FOR RAMP CONSTRUCTION.
  - ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA), PROWAG R305.21 AND ALL APPLICABLE CODES.
  - FLUSH CURB SECTIONS SHALL HAVE A MAXIMUM LIP REVEAL OF 1/4" WITH A BEVEL AT THE EDGE OF PAVEMENT.
  - EDGES OF CONCRETE SIDEWALK FOOTINGS ALONG FLUSH CURBS SHALL BE HAUNCHED SO AS TO EXTEND TO A MINIMUM DEPTH OF 1" BELOW FINISH GRADE.
  - NO RAMP SHALL BE LESS THAN 4' IN WIDTH.
  - CURB RAMPS SHALL HAVE A FLAT 2% MAX LANDING AT THE TOP AND BOTTOM OF THE RAMPS WHEN THERE IS A CHANGE IN DIRECTION.

**CURB RAMP NOTES NOT TO SCALE**



R1-1 (30")



R7-8 12" x 18"

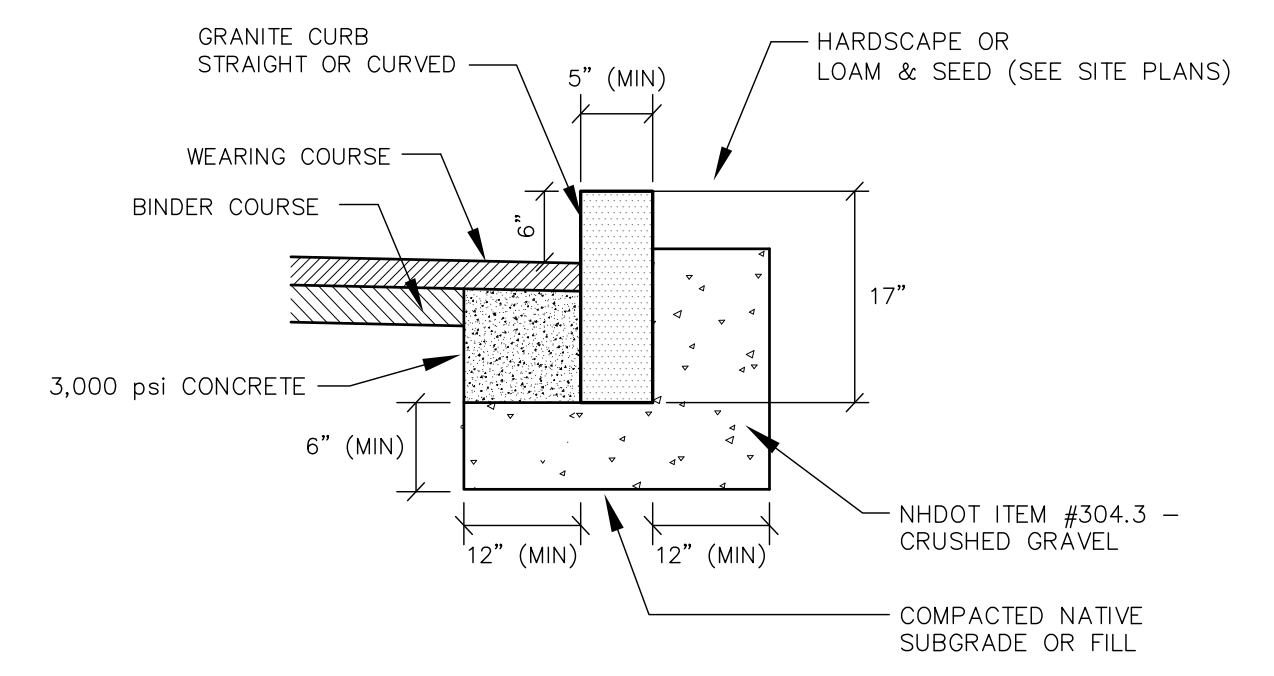


R7-8P 18" x 9"

LENGTH: AS REQUIRED  
 WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)  
 HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH  
 STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)

- NOTES**
- ALL SIGNS SHALL MEET THE REQUIREMENTS OF AND BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

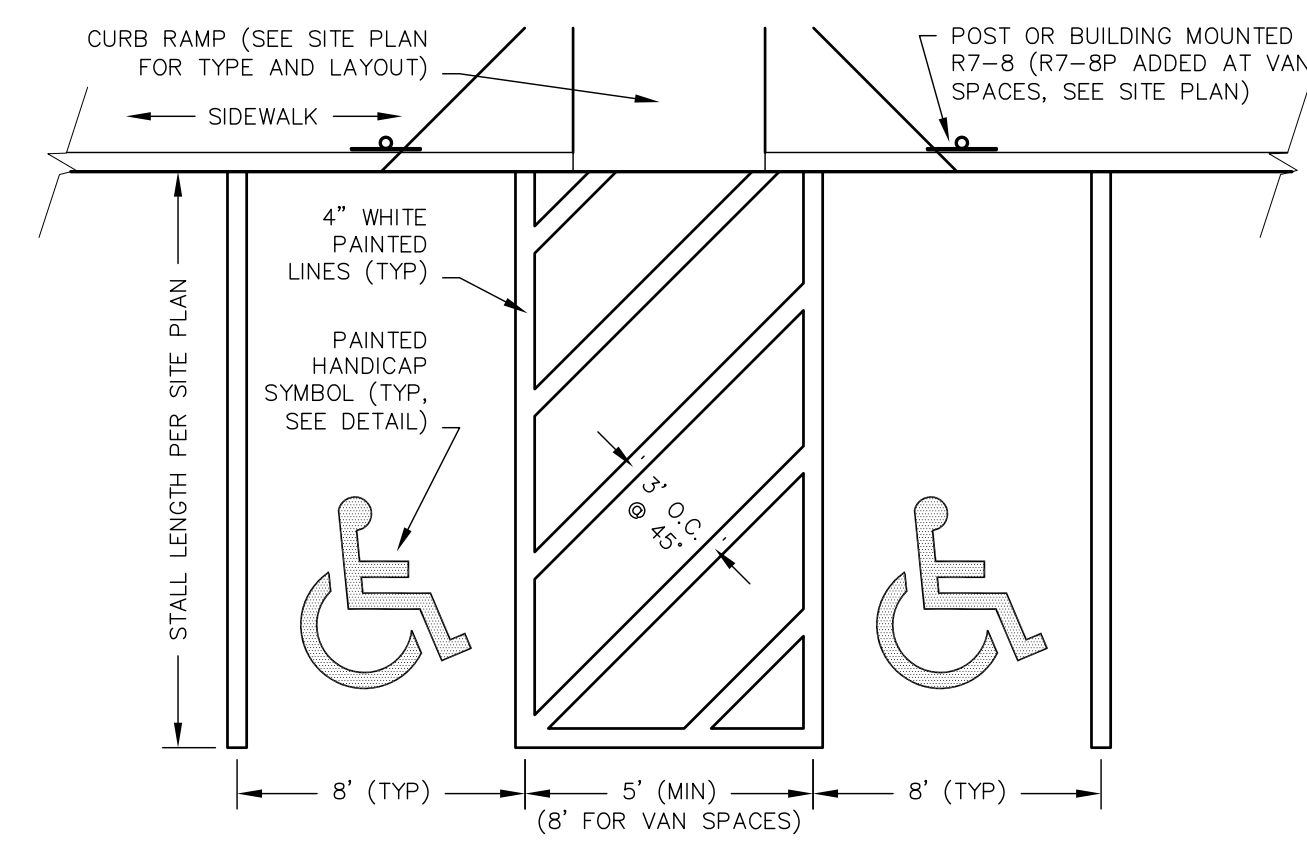
**SIGN DETAILS NOT TO SCALE**



- NOTES:**
- SEE PLANS FOR CURB LOCATION.
  - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
  - MINIMUM LENGTH OF CURB STONES = 3'
  - MAXIMUM LENGTH OF CURB STONES = 10'
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART.
  - CURB ENDS TO ROUNDED AND BATTERED FACES TO BE CUT WHEN CALLED FOR ON THE PLANS.

RADIUS	MAX. LENGTH
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'

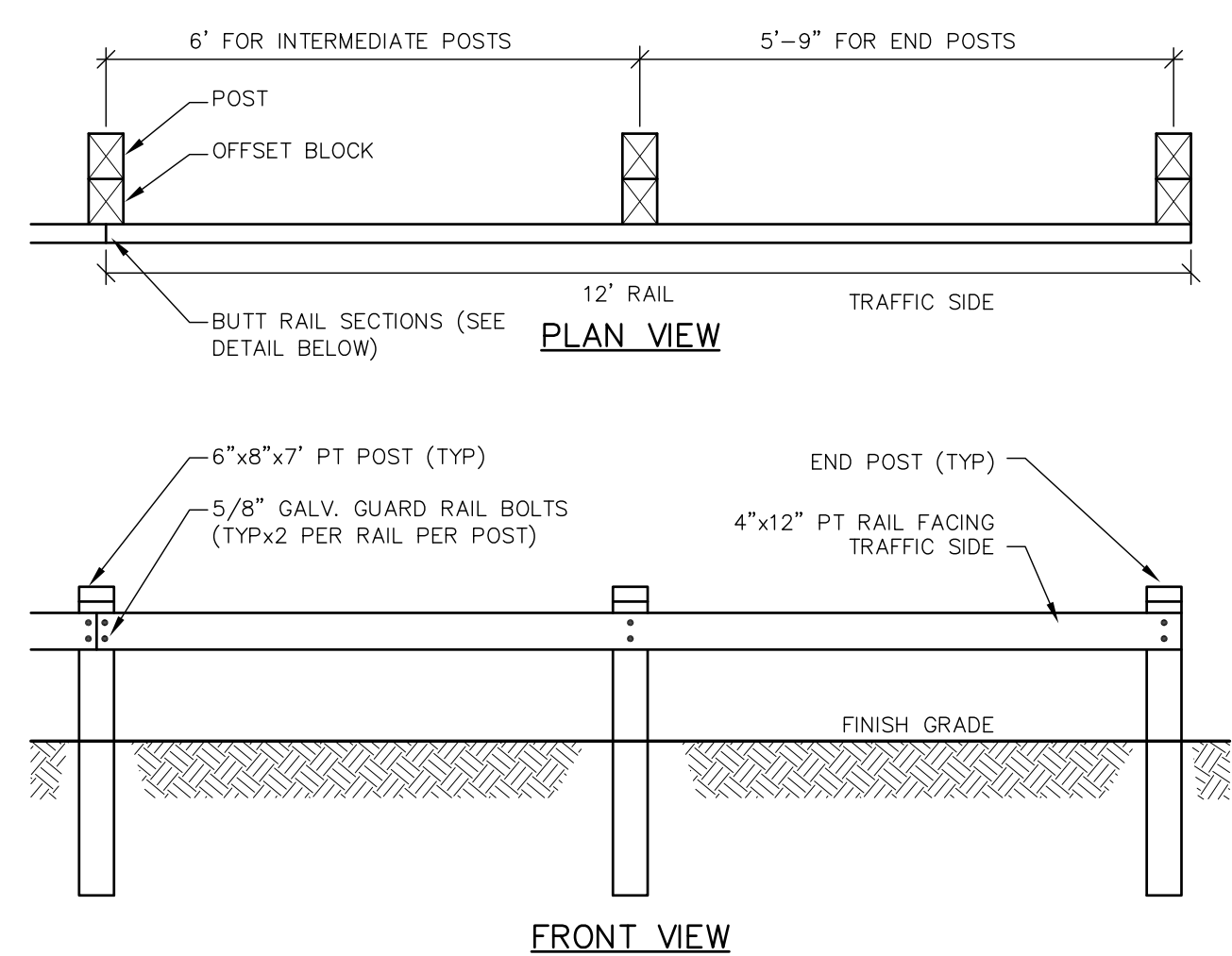
**VERTICAL GRANITE CURB NOT TO SCALE**



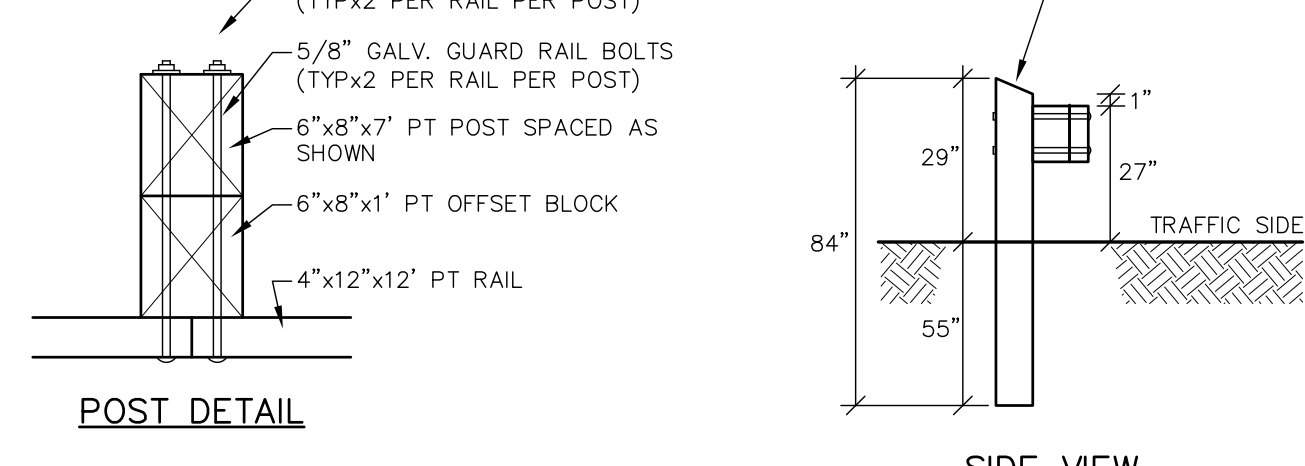
**HANDICAP PARKING STALL LAYOUT NOT TO SCALE**

- NOTES**
- SYMBOL TO BE PAINTED IN ALL HANDICAPPED ACCESSIBLE SPACES IN WHITE PAINT (BLUE-PAINTED SQUARE BACKGROUND AND WHITE BORDER OPTIONAL).

**PAINTED HANDICAP SYMBOL NOT TO SCALE**

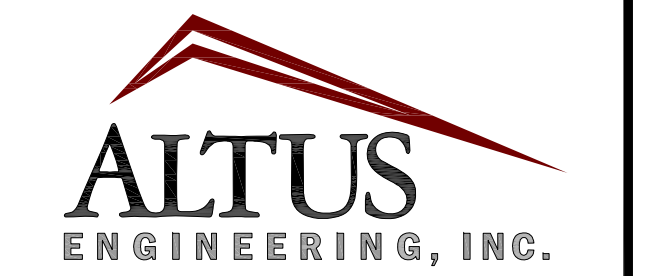


**WOOD BEAM GUARDRAIL NOT TO SCALE**

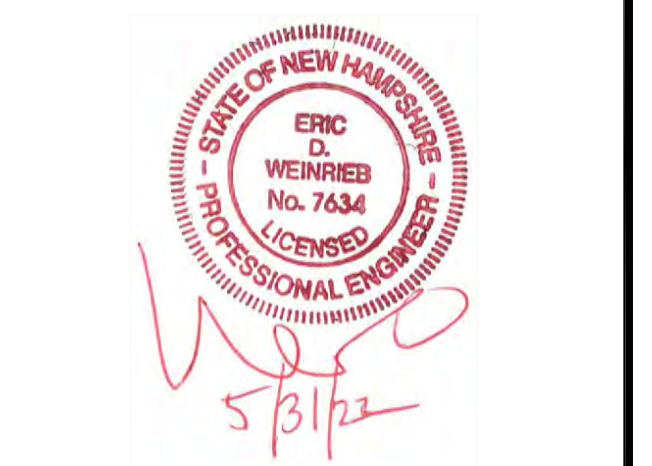


- NOTES**
- ALL POST AND RAIL MATERIAL SHALL BE PRESSURE TREATED (PT). PT POSTS SHALL BE RATED FOR GROUND CONTACT.
  - BOLT LENGTH IS DETERMINED BY 8" POST AND RAIL THICKNESS PLUS 1 INCH FOR NUT AND WASHER.
  - ALL MATERIAL TO MEET OR EXCEED NHDOT SECTION 606 - GUARDRAIL.

**WOOD BEAM GUARDRAIL NOT TO SCALE**



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



NOT FOR CONSTRUCTION

ISSUED FOR: **PLANNING BOARD**

ISSUE DATE: **MAY 31, 2022**

REVISIONS  
 NO. DESCRIPTION BY DATE  
 0 INITIAL SUBMISSION EBS 05/31/22

DRAWN BY: EBS

APPROVED BY: EBS

DRAWING FILE: 4839-SITE.dwg

SCALE: **AS SHOWN**

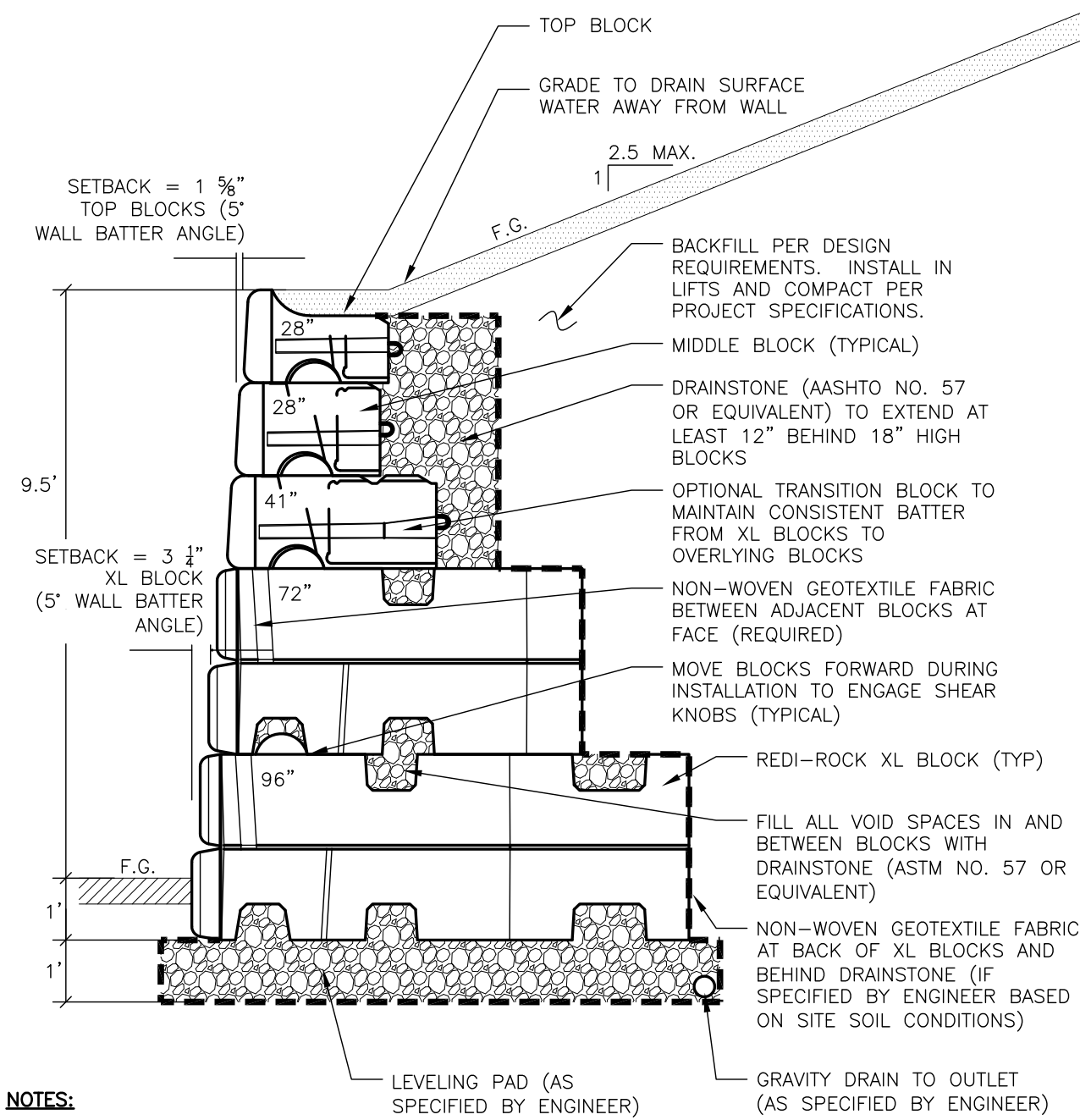
OWNER:  
**GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

APPLICANT:  
**GLERUPS, INC.**  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

PROJECT:  
**GLERUPS**  
 TAX MAP 46, LOT 7  
 19 CONTINENTAL DRIVE  
 EXETER, NH

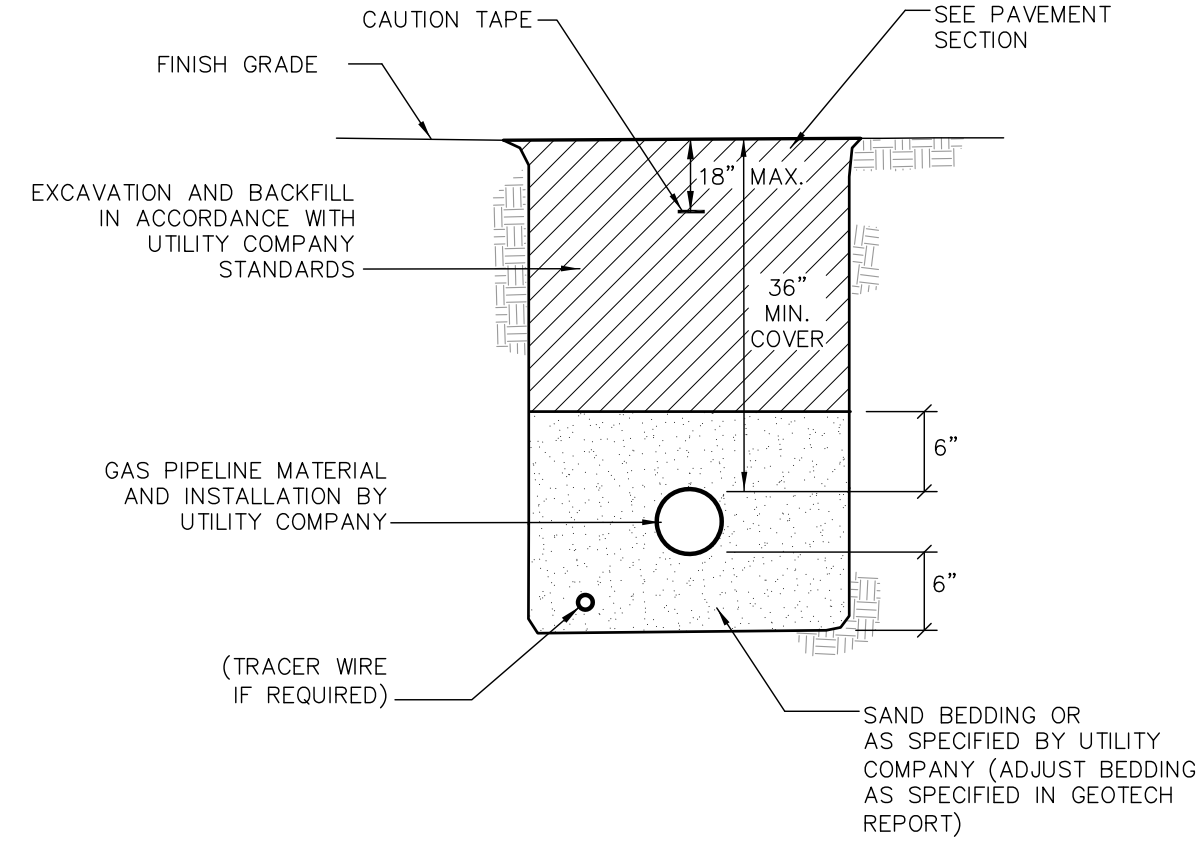
TITLE:  
**DETAIL SHEET**

SHEET NUMBER:  
**C - 11**



- NOTES:**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY SHORING, SHEETING AND/OR BRACING OF EXCAVATION WALLS AGAINST PROPERTY LINES OR OTHER AREAS THAT ARE NOT TO BE UNDERMINED.
  2. WALL SHALL BE REDI-ROCK OR APPROVED EQUAL.
  3. NO RETAINING WALL WORK SHALL EXTEND BEYOND THE LIMITS OF THE PROJECT SITE.
  4. THIS DRAWING IS FOR REFERENCE ONLY. FINAL PROJECT DESIGNS, INCLUDING ALL CONSTRUCTION DETAILS, SHALL BE PREPARED BY A NH LICENSED PROFESSIONAL STRUCTURAL ENGINEER USING THE ACTUAL CONDITIONS OF THE PROPOSED SITE. FINAL WALL DESIGN MUST ADDRESS BOTH INTERNAL AND EXTERNAL DRAINAGE AND ALL MODES OF WALL STABILITY.
  5. FINAL WALL DESIGN PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

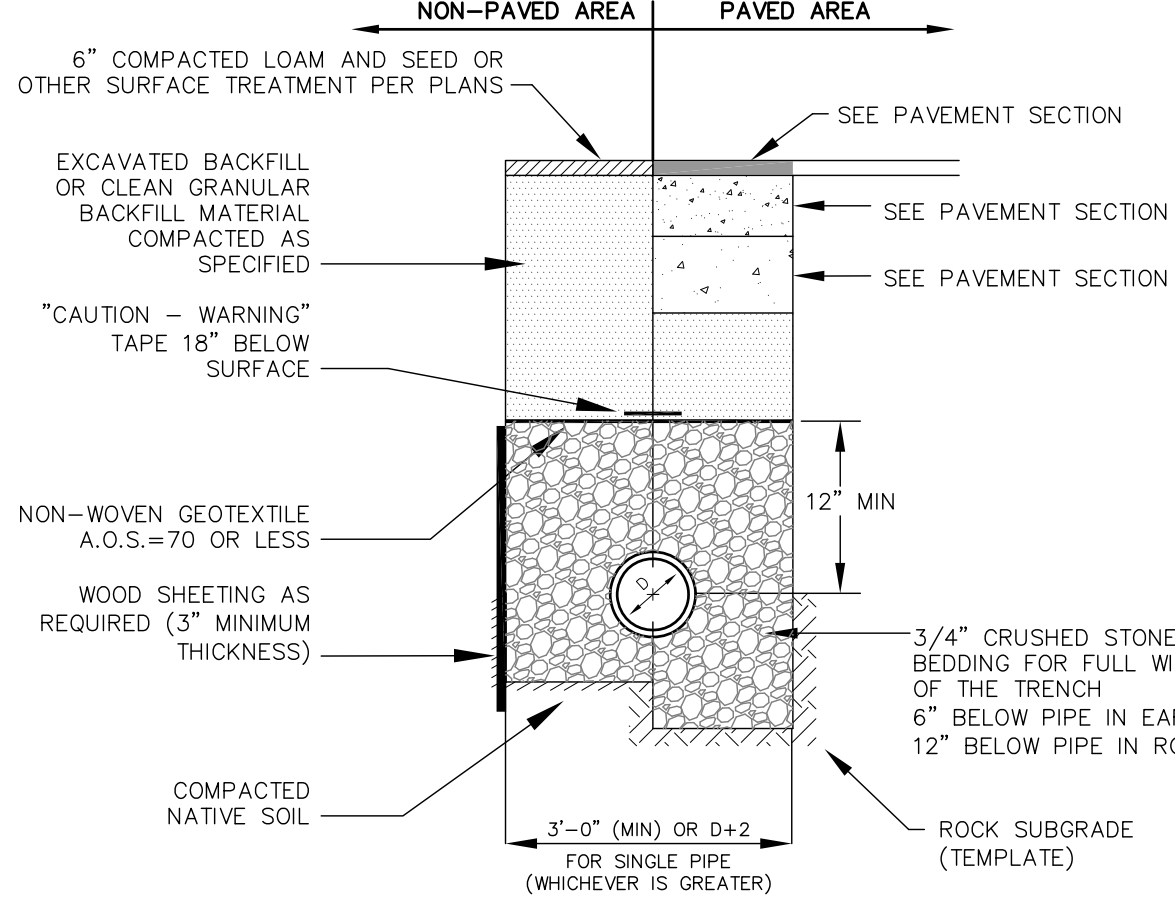
**MODULAR BLOCK RETAINING WALL NOT TO SCALE**



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

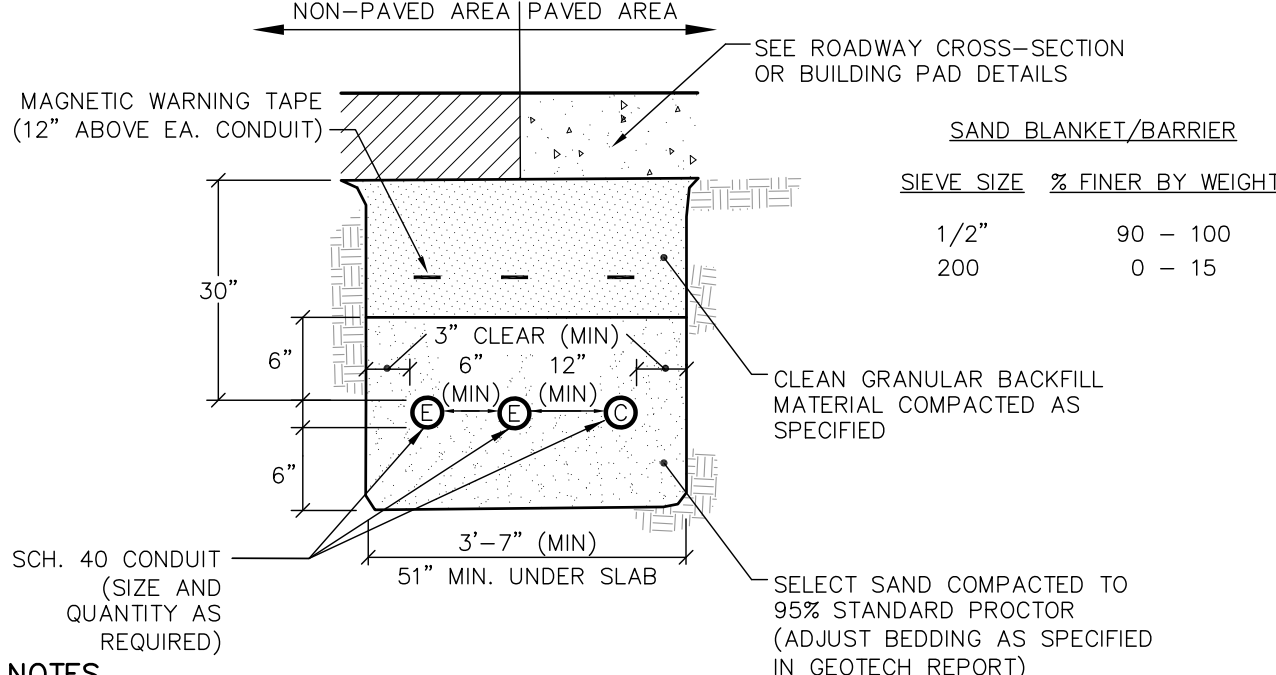
- NOTES:**
1. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY AND PROVIDE ALL EXCAVATION, COMPACTION AND BACKFILL REQUIRED FOR PIPE INSTALLATION.
  2. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

**GAS TRENCH NOT TO SCALE**



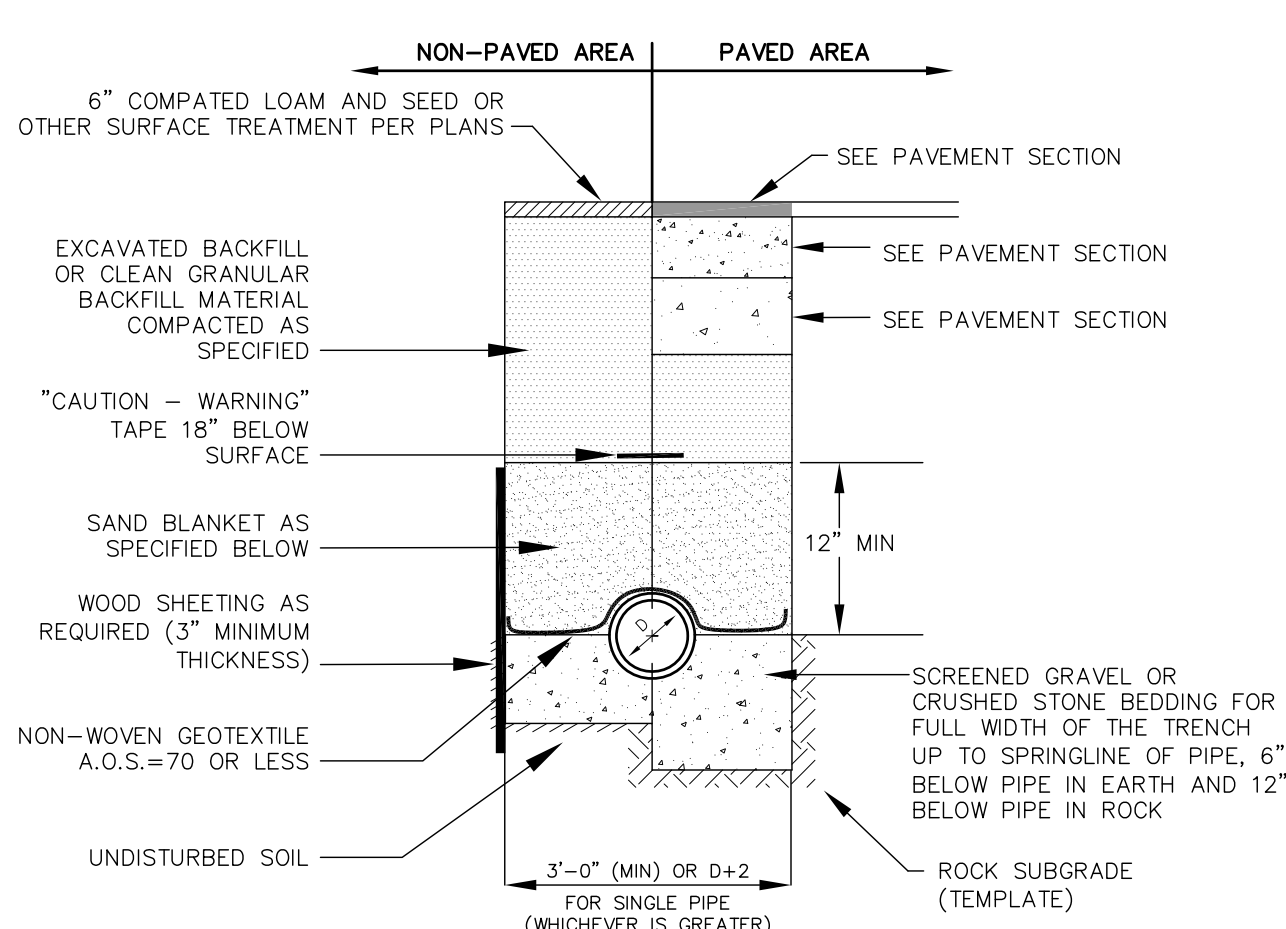
- NOTES:**
1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
  2. INSULATE GRAVITY SEWER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

**SEWER TRENCH NOT TO SCALE**



- NOTES:**
1. ALL CONDUIT IS TO BE SCHEDULE 40 PVC, ELECTRICAL GRADE, GRAY IN COLOR AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE SERVICE PROVIDER DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING PULLING OF THE CABLE. ALL JOINTS ARE TO BE WATERTIGHT.
  2. ALL 90 DEGREE SWEEPS WILL BE MADE WITH RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES.
  3. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY SERVICE PROVIDER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE IN 6-INCH LAYERS AND THOROUGHLY COMPACTED.
  4. A SUITABLE PULLING STRING, CAPABLE OF 300 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE SERVICE PROVIDER IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT. A MINIMUM OF TWENTY-FOUR (24") INCHES OF ROPE SLACK SHALL REMAIN AT THE END OF EACH DUCT. PULL ROPE SHALL BE INSTALLED IN ALL CONDUIT FOR FUTURE PULLS. PULL ROPE SHALL BE NYLON ROPE HAVING A MINIMUM TENSILE STRENGTH OF THREE HUNDRED (300#) LBS.
  5. SERVICE PROVIDER SHALL BE GIVEN THE OPPORTUNITY TO INSPECT ALL CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD SERVICE PROVIDER BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
  6. TYPICAL CONDUIT SIZES ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY. HOWEVER, SERVICE PROVIDERS MAY REQUIRE DIFFERENT NUMBERS, TYPES AND SIZES OF CONDUIT THAN THOSE SHOWN HERE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDUIT SIZES, TYPES AND NUMBERS WITH EACH SERVICE PROVIDER PRIOR TO ORDERING THEM.
  7. ROUTING OF CONDUIT, LOCATION OF MANHOLES, TRANSFORMERS, CABINETS, HANDHOLES, ETC., SHALL BE DETERMINED BY SERVICE PROVIDER DESIGN PERSONNEL. THE CONTRACTOR SHALL COORDINATE WITH ALL SERVICE PROVIDERS PRIOR TO THE INSTALLATION OF ANY CONDUIT.
  8. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. WHERE REQUIRED BY UTILITY PROVIDER, CONDUIT SHALL BE SUPPORTED IN PLACE USING PIPE STANCHIONS PLACED EVERY FIVE (5) FEET ALONG THE CONDUIT RUN.
  9. UNDER A BUILDING SLAB THE CONDUIT SHALL BE ENCASED IN 8" OF CONCRETE ON ALL SIDES.
  10. ALL CONDUIT TERMINATIONS SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT.

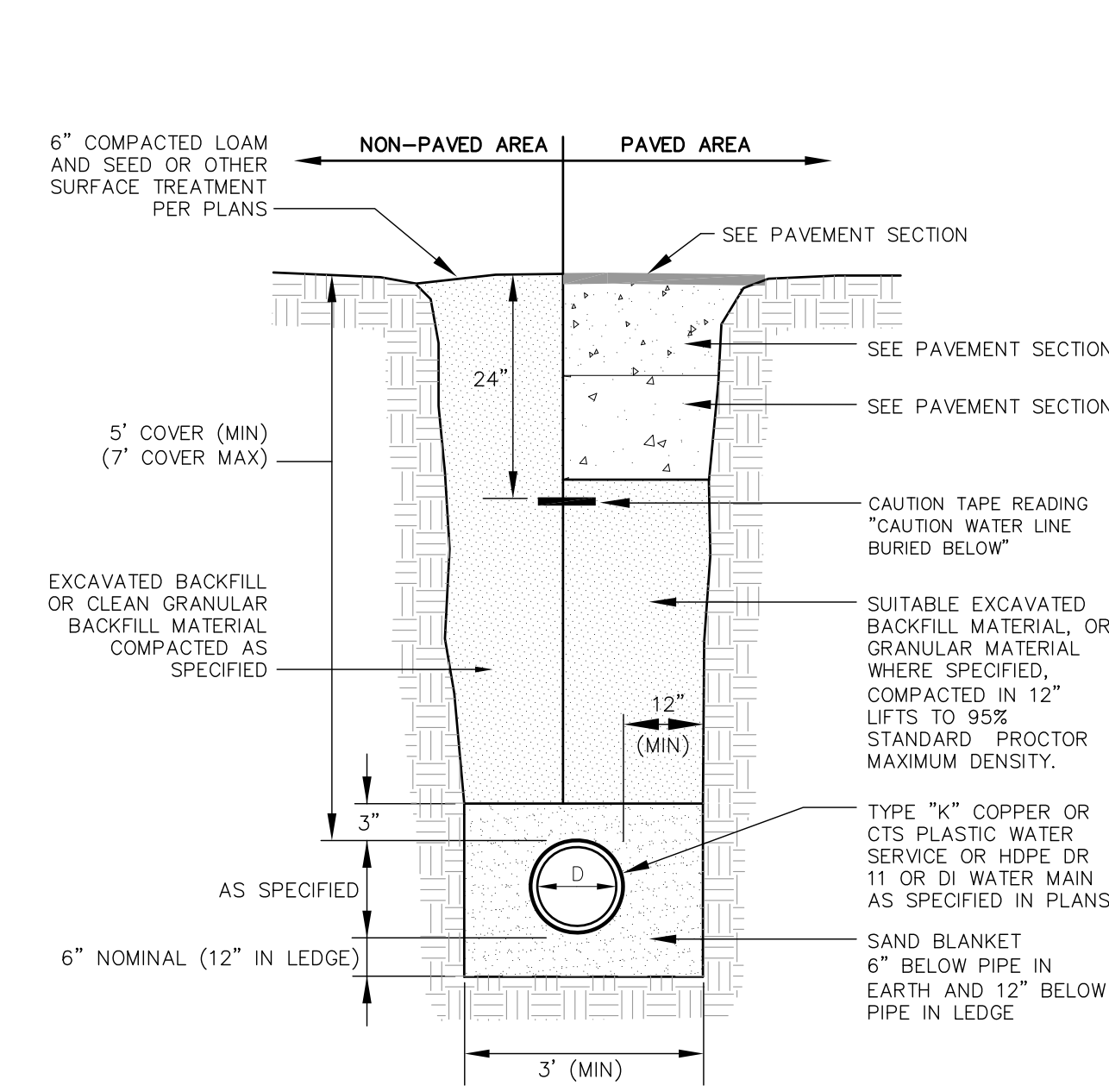
**ELECTRIC / COMMUNICATION TRENCH NOT TO SCALE**



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

SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

**DRAINAGE TRENCH NOT TO SCALE**



SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

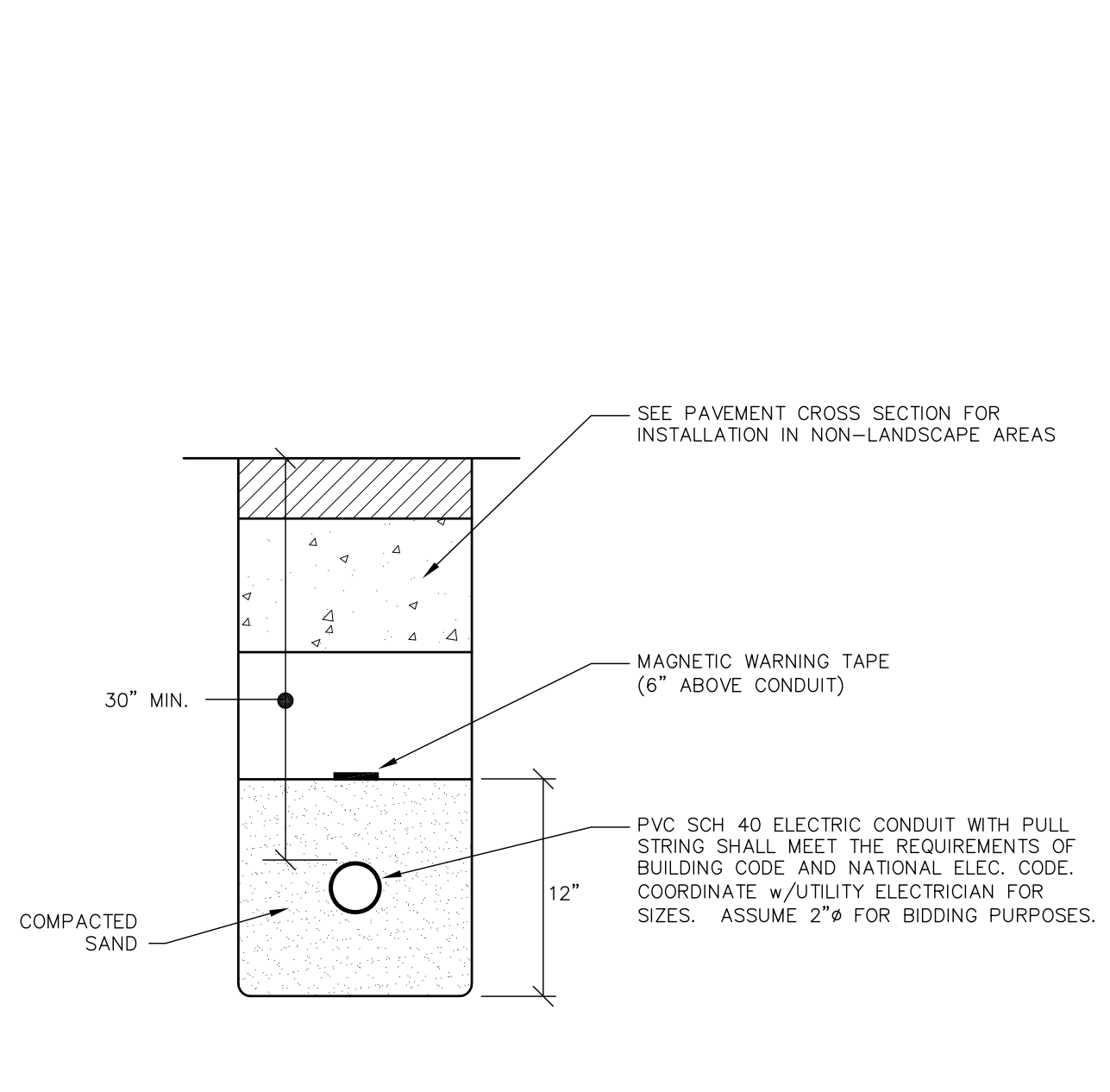
- NOTES:**
1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
  2. ALL TRENCHING AND BACKFILL SHALL CONFORM WITH THE STANDARDS OF EXETER DPW.

**WATER MAIN TRENCH NOT TO SCALE**

**STANDARD TRENCH NOTES**

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWING.
2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. BLANKET MAY BE REPLACED WITH BEDDING MATERIAL FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE AND THE GEOTEXTILE IS RELOCATED ACCORDINGLY.
4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY, ALL EXCAVATED LEDGE MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT ONLY IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
6. SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
7. W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.). ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL, FILL AND/OR LOAM SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
9. CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE NEW HAMPSHIRE DOT STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:  
CEMENT: 6.0 BAGS PER CUBIC YARD  
WATER: 5.75 GALLONS PER BAG  
CEMENT MAXIMUM SIZE OF AGGREGATE: 1 INCH  
CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
10. CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
11. NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO CITY STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.
12. THE CONTRACTOR SHALL INSTALL TRENCH DAMS IN ACCORDANCE WITH NHDES REGULATIONS.
13. SEWER TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER FACILITIES, LATEST EDITION.

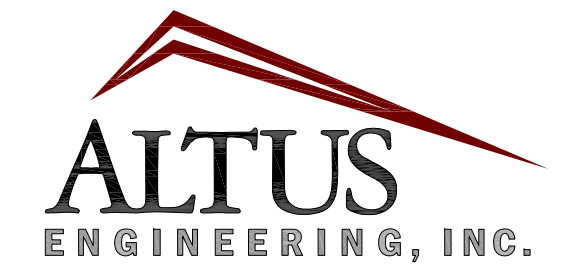
**NOT TO SCALE**



SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING*	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

- NOTES:**
1. CONTRACTOR TO COORDINATE WITH MEP PLANS AND ELECTRICIAN AND PROVIDE ALL EXCAVATION, COMPACTION AND BACKFILL REQUIRED FOR CONDUIT INSTALLATION.
  2. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

**LIGHTING TRENCH SECTION NOT TO SCALE**



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(603) 433-2335 www.altus-eng.com



**NOT FOR CONSTRUCTION**

ISSUED FOR: **PLANNING BOARD**

ISSUE DATE: **MAY 31, 2022**

REVISIONS	NO. DESCRIPTION	BY DATE
0	INITIAL SUBMISSION	EBS 05/31/22

DRAWN BY: \_\_\_\_\_ EBS  
APPROVED BY: \_\_\_\_\_ EBS  
DRAWING FILE: 4839-SITE.dwg

SCALE: **AS SHOWN**

OWNER: **GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

APPLICANT: **GLERUPS, INC.**  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT: **GLERUPS**

TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE: \_\_\_\_\_

DETAIL SHEET

SHEET NUMBER: \_\_\_\_\_

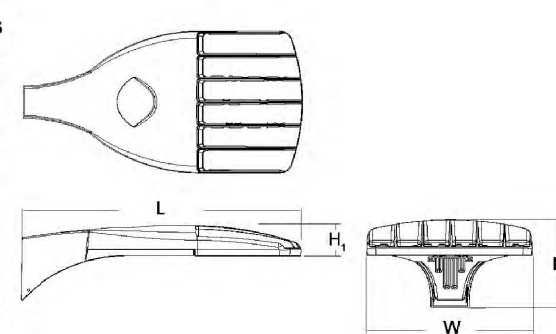
**C - 12**



### D-Series Size 0 LED Area Luminaire

#### Specifications

EPA: 0.95 ft<sup>2</sup> (0.09 m<sup>2</sup>)  
 Length: 26" (0.66 m)  
 Width: 13" (0.33 m)  
 Height: 3" (0.08 m)  
 Height: 2" (0.05 m)  
 Weight: 16 lbs (7.3 kg)  
 (max)



Color	
Finish	
Age	

**Introduction**  
 The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

#### Ordering Information EXAMPLE: DSXO LED P6 40K T3M MVOLT SPA NLTAR2 PIRHN DDBXD

Series	LEDs	Color Temperature	Distribution	Voltage	Mounting
DSXO LED	Forward optics P1 P5 P2 P6 P3 P7 P4	30K 3000K 40K 4000K 50K 5000K	T15 Type I (short) T25 Type I (short) T35 Type I (short) T45 Type I (short) T55 Type I (short)	MVOLT (120V-277V) XVOLT (277V-480V)	Shipped included SPA Round pole mounting BPA Round pole mounting VBA Wall mount SPRMSA Square pole universal mounting adapter RPM2SA Round pole universal mounting adapter
DSXO LED	Rotated optics P10 P12 P11 P13		T15 Type I (short) T25 Type I (short) T35 Type I (short) T45 Type I (short) T55 Type I (short)	200V 240V 277V 480V	Shipped separately KXSD DDBXD Square mounting bracket adapter Specify finish

Control options	Other options	Finish
Shipped installed NLTAR2 Light AR generation 2 available** PIRHN Remote, high/low photocell sensor** PER2 100% photocell response only (control ordered separately)** PER3 Five-pin response only (control ordered separately)** PER7 Seven-pin response only (control ordered separately)** DMG 0-10V dimming sensor out back (housing for external control (control ordered separately)**	PRR High/low, remote dimmer sensor, 8-15' mounting height, ambient sensor enabled at 26" height PRRI High/low, remote dimmer sensor, 15-20' mounting height, ambient sensor enabled at 26" height PRRHCY High/low, remote dimmer sensor, 8-15' mounting height, ambient sensor enabled at 26" height PRRHCCY High/low, remote dimmer sensor, 15-20' mounting height, ambient sensor enabled at 26" height FAO Field adjustable output**	DEBDD Dark bronze DBLDD Black DNDDD Natural aluminum DWDDD White DESTD Treated dark bronze DBLSD Treated black DNDSD Treated natural aluminum DWDSD Treated white DSSTD Treated sandstone

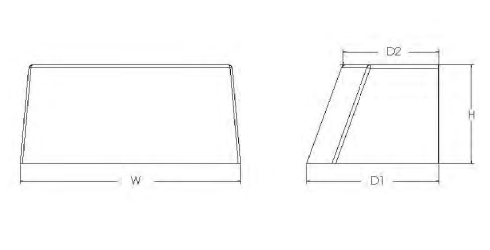
LITHONIA LIGHTING One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-735-SEV (3738) • www.lithonia.com  
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### ARC1 LED Architectural Wall Luminaire

#### Specifications

Depth (D1): 6.5"  
 Depth (D2): 4.75"  
 Height: 5"  
 Width: 11"  
 Weight: 7 lbs  
 (without options)



Color	
Finish	
Age	

**Introduction**  
 The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback. ARC1 delivers up to 3,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of ARC1, with its integrated emergency battery backup option, is ideal for over-the-door applications.

#### ARC LED Family Overview

Luminaire	Standard EM, 4°C	Cold EM, 20°C	Approximate Lumens (4000K)				
			P1	P2	P3	P4	P5
ARC1 LED	40'	—	1,500	2,000	3,000	—	—
ARC2 LED	40'	80'	1,500	2,000	3,000	4,000	6,500

#### Ordering Information EXAMPLE: ARC1 LED P2 40K MVOLT PE DDBXD

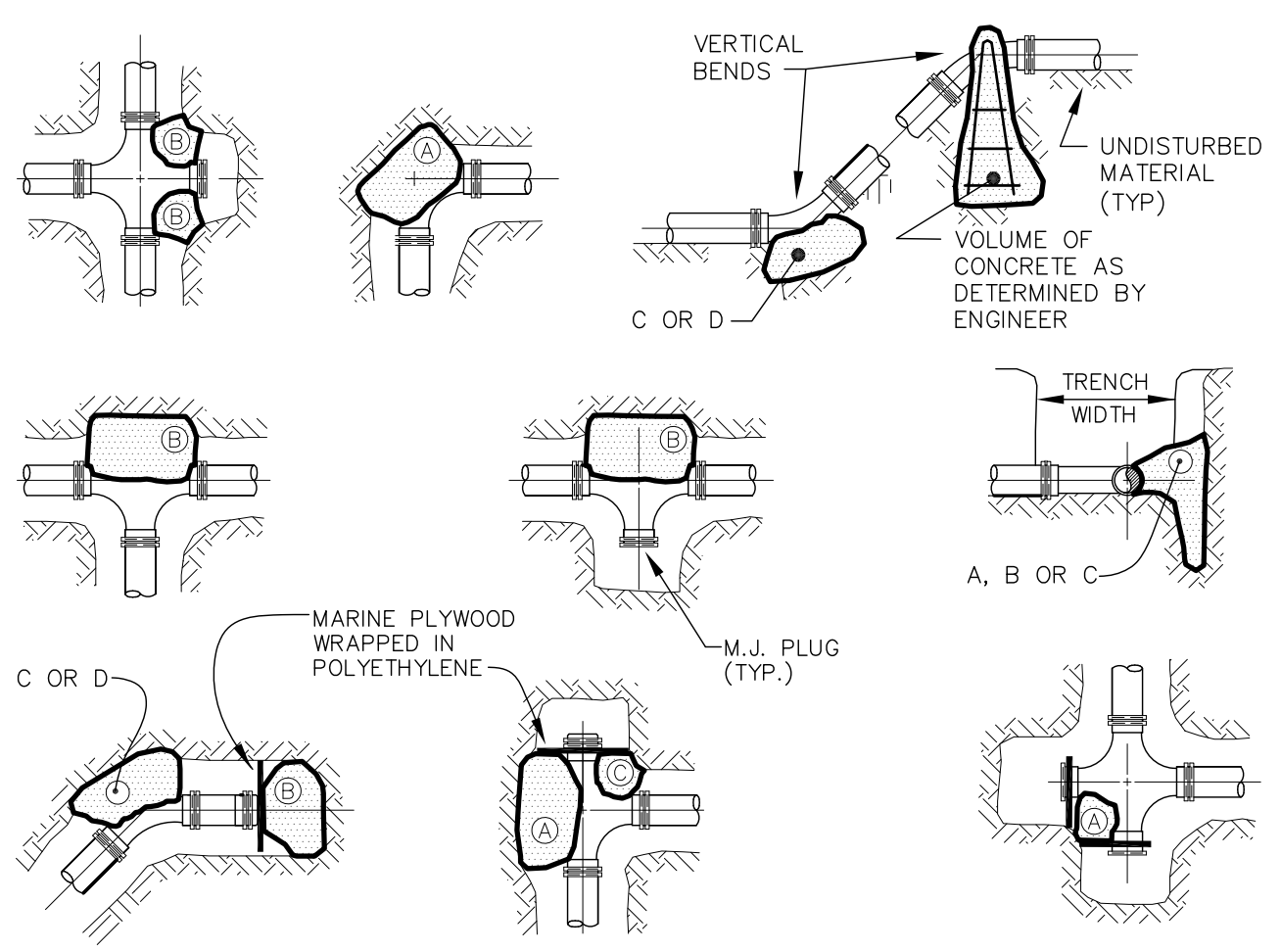
Series	Package	Color Temperature	Voltage	Options	Finish
ARC1 LED	P1 1,500 Lumens P2 2,000 Lumens P3 3,000 Lumens	30K 3000K 40K 4000K 50K 5000K	MVOLT 347V	EMVW Emergency battery backup, IEC compliant (EMV only) FE Battery type/backup for dock-to-dock operation DMG 0-10V dimming sensor (control ordered separately with external control ordered separately)** OPWAV 0-10V emergency backup FAO Field adjustable light output/adjustable photocell sensor (control ordered separately, from 29% to 100%)	DEBDD Dark bronze DBLDD Black DNDDD Natural aluminum DWDDD White DESTD Treated dark bronze DBLSD Treated black DNDSD Treated natural aluminum DWDSD Treated white DSSTD Treated sandstone

**Accessories**  
 W3SW W3SW1 Surface-mounted backbox (specify finish)  
 NOTES:  
 1. EMVW not available with EMVW.  
 2. FAO not available with DMG.

LITHONIA LIGHTING COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-735-SEV (3738) • www.lithonia.com  
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## LIGHT FIXTURE CUT SHEETS

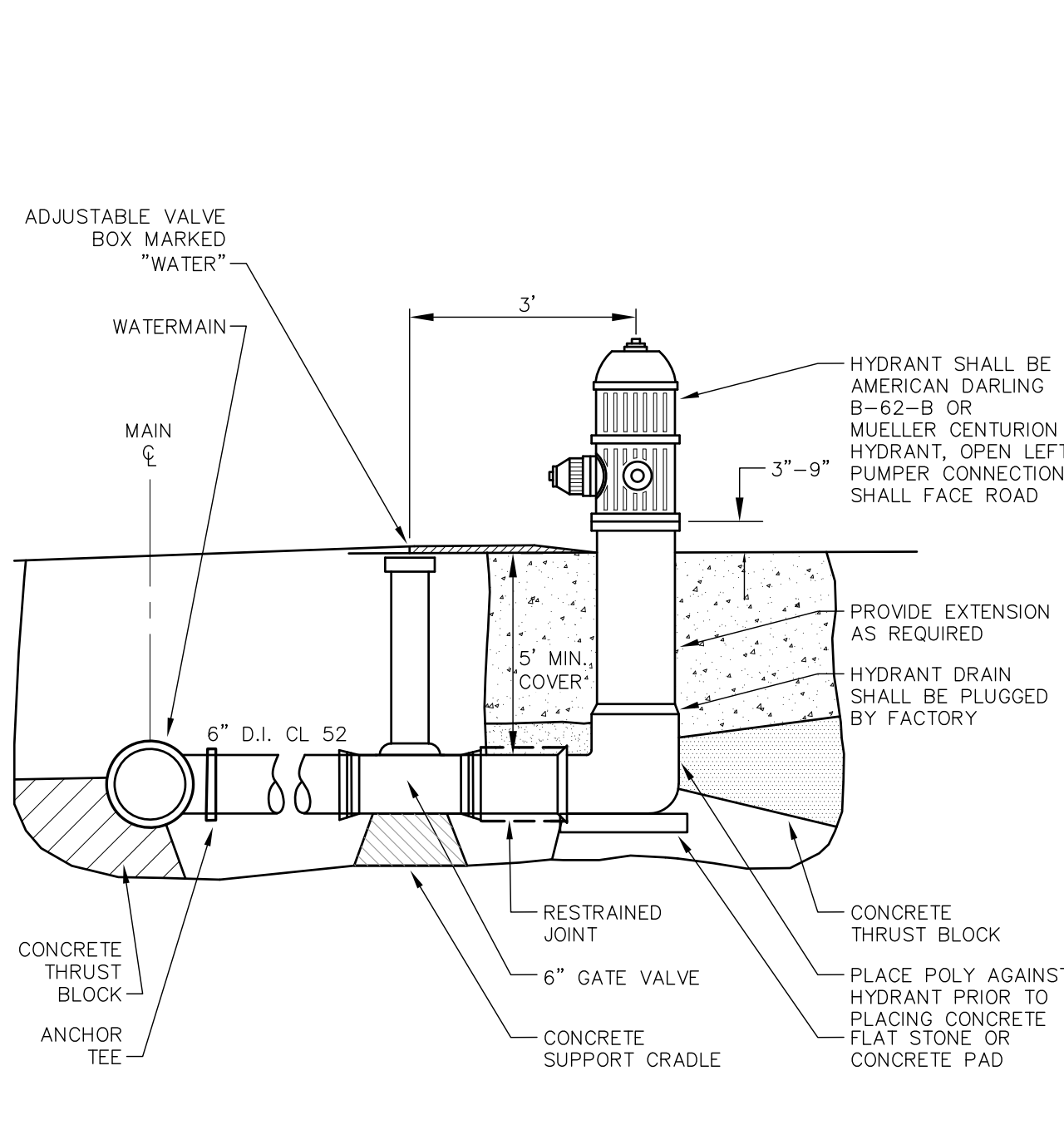
## NOT TO SCALE



REACTION TYPE	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL				
	4"	6"	8"	10"	12"
A 90°	0.89	2.19	3.82	11.14	17.24
B 180°	0.65	1.55	2.78	8.38	12.00
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**
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL.
  - NO JOINTS SHALL BE COVERED WITH CONCRETE. POLYETHYLENE (6 MIL) SHALL BE PLACED AROUND FITTINGS PRIOR TO CONCRETE PLACEMENT.
  - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
  - 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.

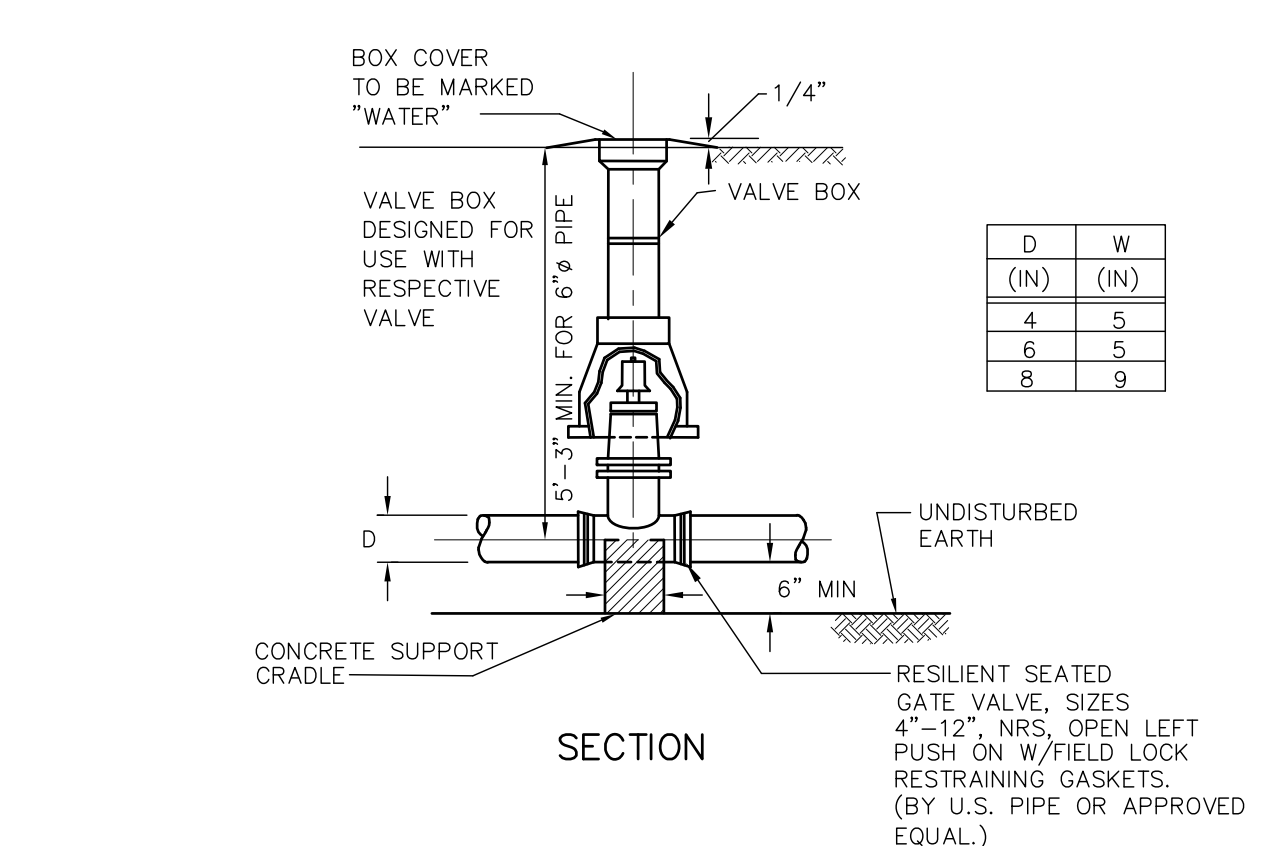
## LIGHT FIXTURE CUT SHEETS



- NOTES**
- HYDRANT INSTALLATION AND OPERATION TO CONFORM TO REGULATIONS OF THE EXETER WATER & FIRE DEPARTMENT.
  - HYDRANT TO BE PAINTED YELLOW.
  - FIRE HYDRANT CONNECTION SHALL USE MEGALUG (RODS NOT ALLOWED).
  - DRAIN PLUG SHALL BE PLUGGED.
  - GATE VALVES SHALL BE 6" M.J. RESILIENT SEAT GATE VALVE, OPEN LEFT, CONFORMING TO EXETER WATER DEPARTMENT REQUIREMENTS.

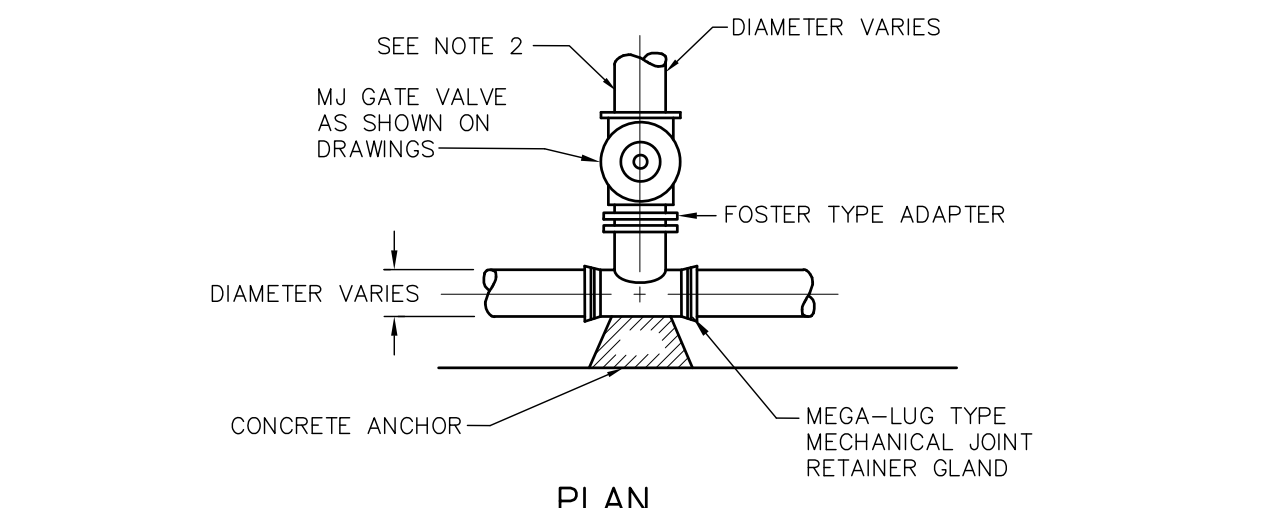
## FIRE HYDRANT

## NOT TO SCALE



## WATER VALVE

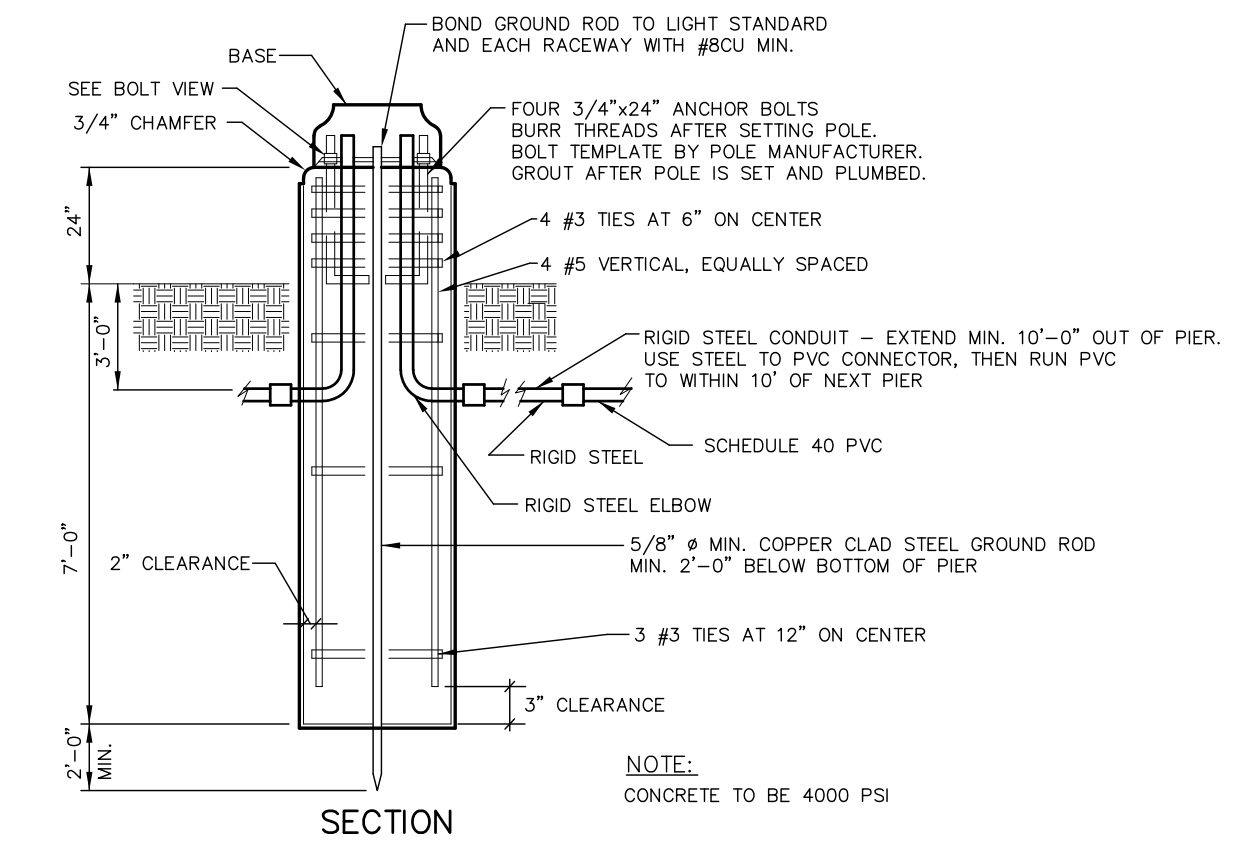
## NOT TO SCALE



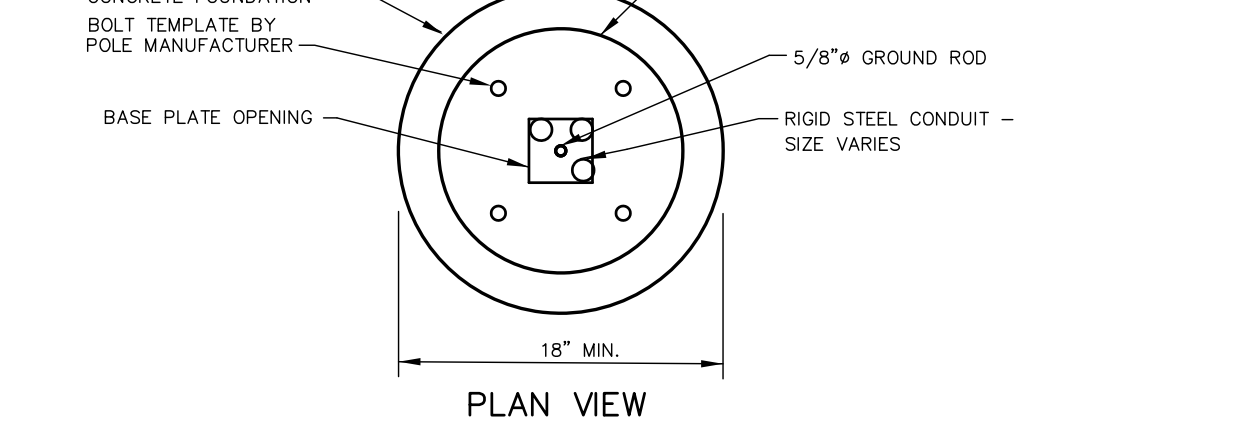
- NOTES**
- GATE VALVES SHALL OPEN RIGHT, PER CITY STANDARDS.
  - BRANCH PIPING SHALL BE MECHANICALLY RESTRAINED AS NOTED UNDER THRUST BLOCK DETAIL REQUIREMENTS.

## TEE & GATE VALVE ASSEMBLY

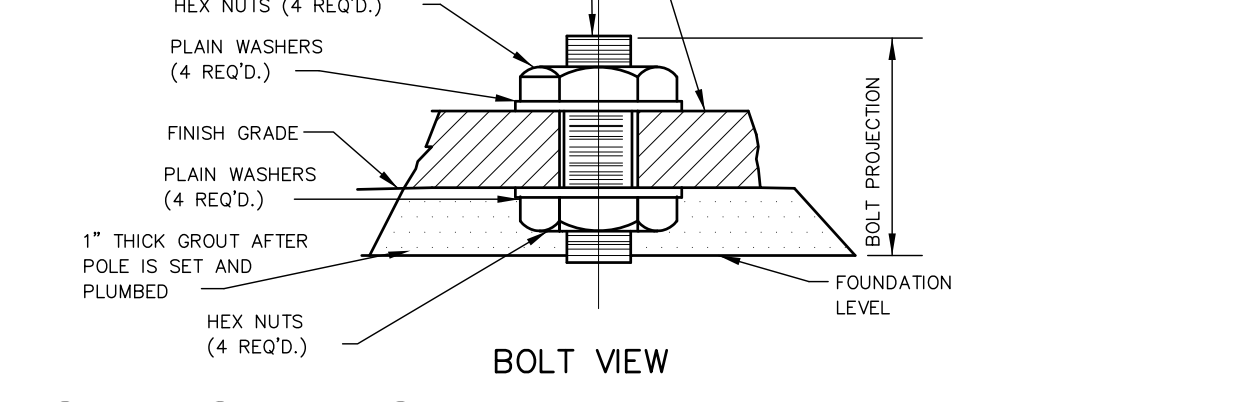
## NOT TO SCALE



## SECTION



## PLAN VIEW

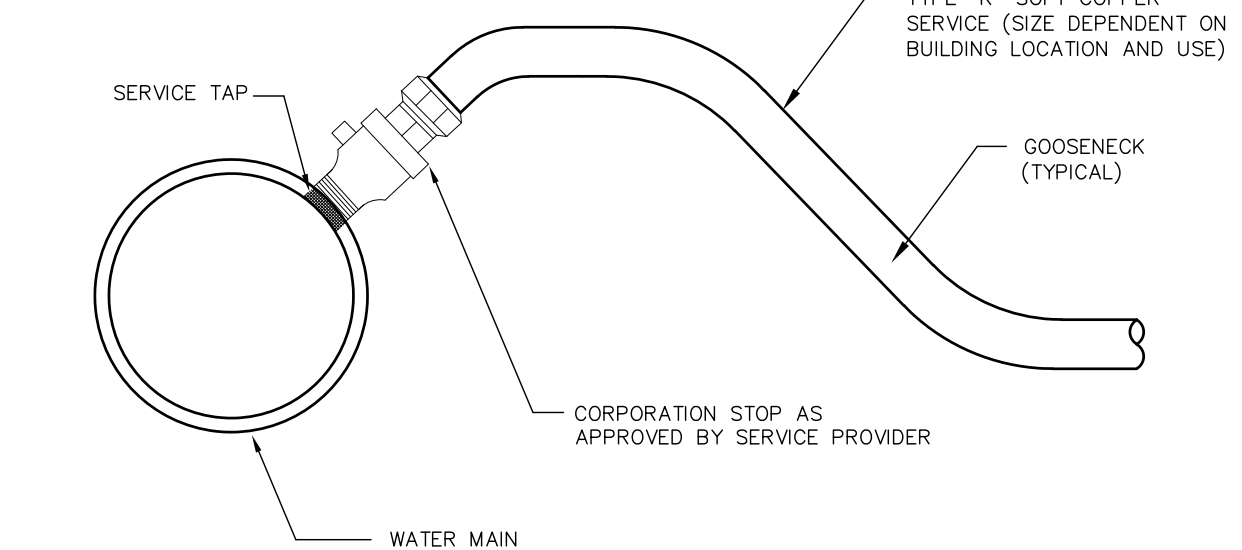


## BOLT VIEW

## NOT TO SCALE

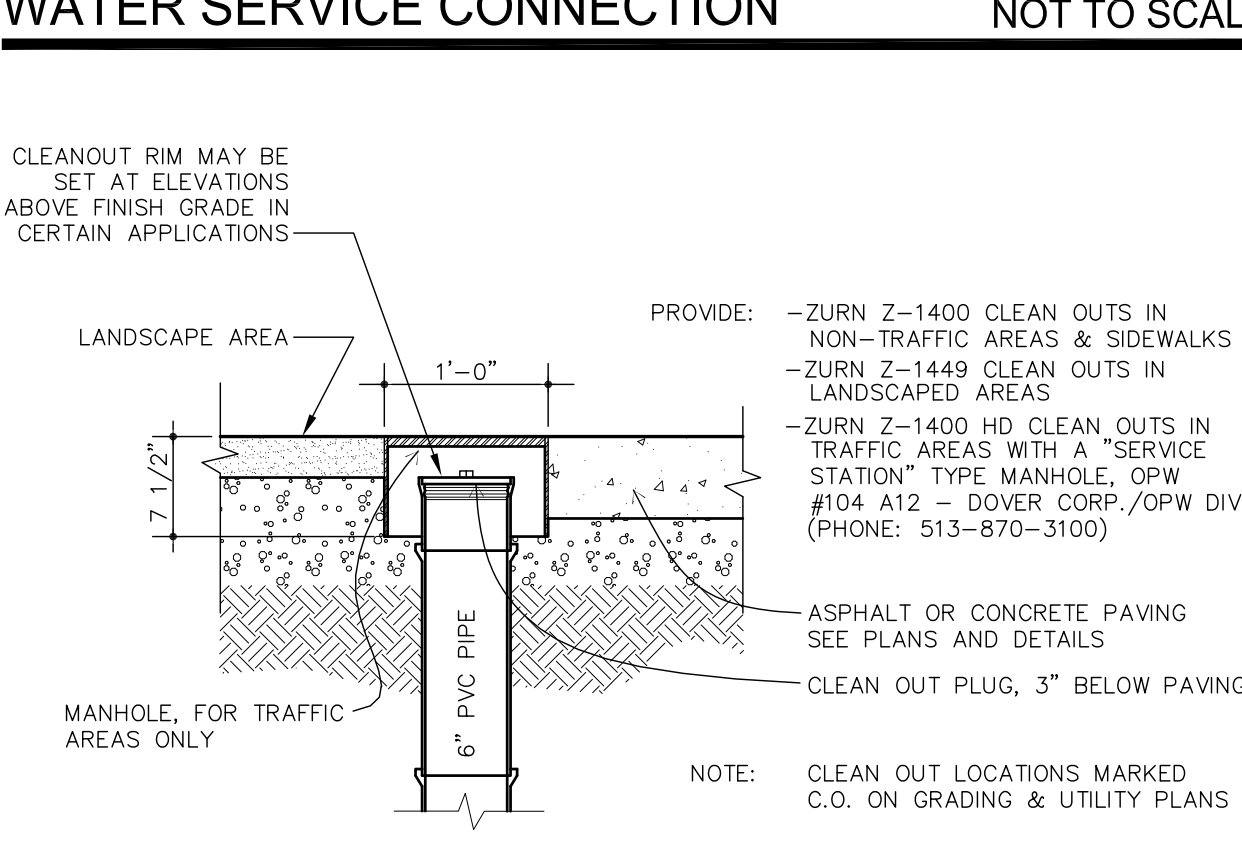
## LIGHT POLE BASE

## NOT TO SCALE



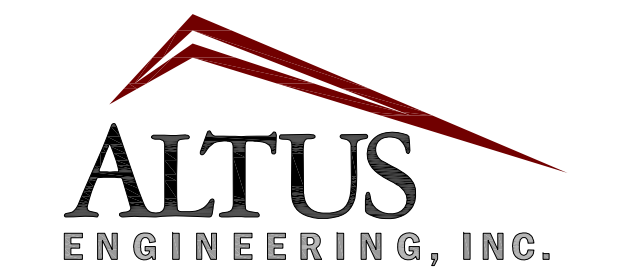
## WATER SERVICE CONNECTION

## NOT TO SCALE



## SEWER CLEANOUT

## NOT TO SCALE



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 Portsmouth, NH 03801  
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## NOT FOR CONSTRUCTION

## ISSUED FOR:

PLANNING BOARD

## ISSUE DATE:

MAY 31, 2022

## REVISIONS

NO. DESCRIPTION BY DATE  
 0 INITIAL SUBMISSION EBS 05/31/22

DRAWN BY: EBS

APPROVED BY: EBS

DRAWING FILE: 4839-SITE.dwg

## SCALE:

AS SHOWN

## OWNER:

GLERUPS, INC.  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

## APPLICANT:

GLERUPS, INC.  
 27 PLEASANT STREET  
 NEWFIELDS, NH 03856

## PROJECT:

GLERUPS  
 TAX MAP 46, LOT 7  
 19 CONTINENTAL DRIVE  
 EXETER, NH

## TITLE:

DETAIL SHEET

## SHEET NUMBER:

C - 13

## THRUST BLOCKING

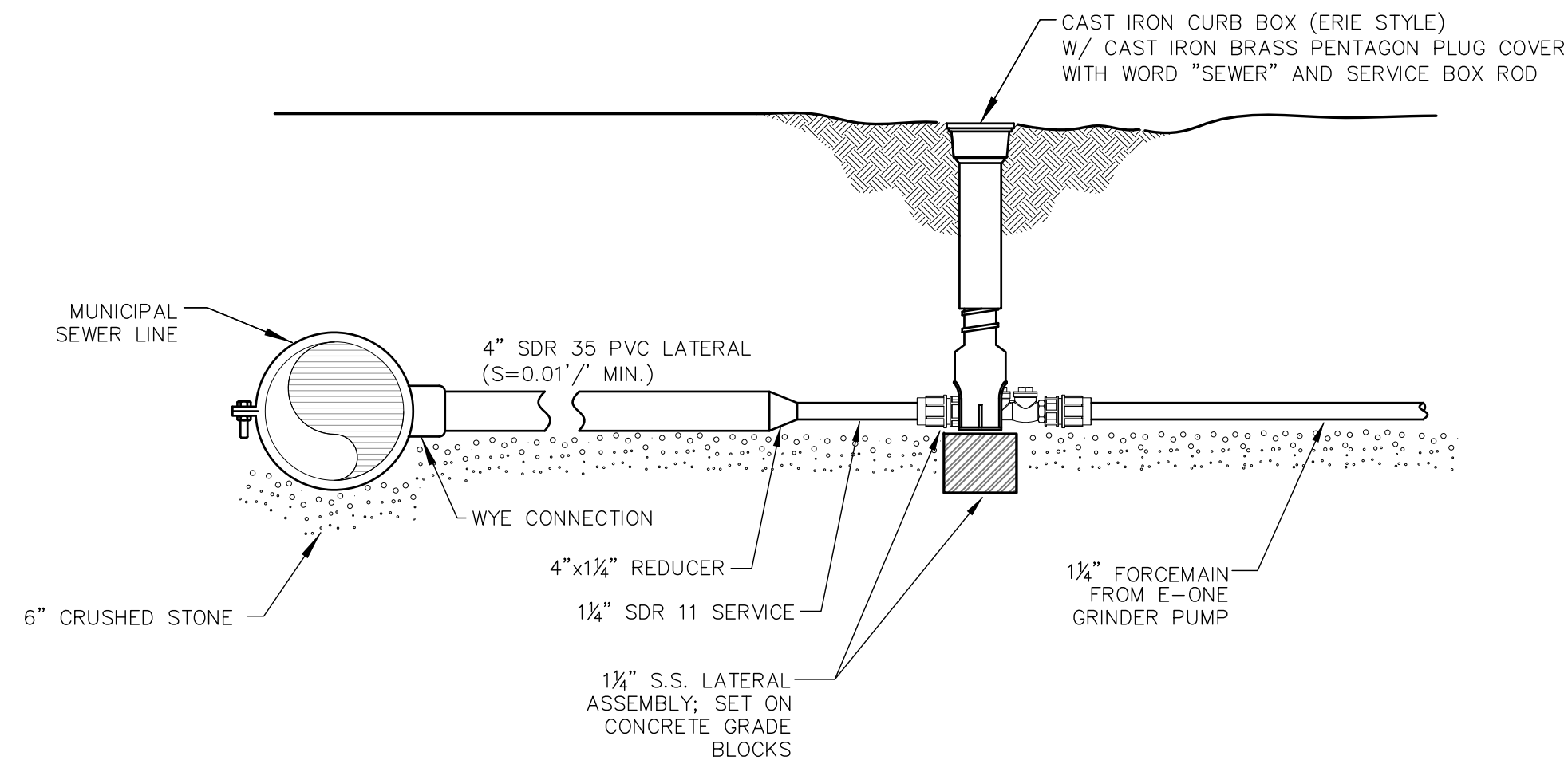
## NOT TO SCALE

## NOT TO SCALE

## NOT TO SCALE

## NOT TO SCALE





**SERVICE CONNECTION - LOWER PRESSURE SEWER**

NOT TO SCALE

**Pumping Station:** Furnish and install pump station as shown on the plans. Pump station shall include but not be limited to pump, controller, access cover, piping, fittings, valves, level sensors, electric service, siphon breaker, and level controls. Electrical wiring, circuits and conduit shall be designed by an electrical engineer or licensed electrician. All wiring shall be in compliance with the Town of Exeter, New Hampshire codes. All pump motor grinder units shall be of like type and horsepower. All internal discharge piping shall be 304 stainless steel. Contractor to submit shop drawings for all system components.

**Pump Chamber:** High density polyethylene tank with melt index of 2.0 grams /10 minutes or lower to dimensions shown. Corrugated sections shall be of double wall construction with a smooth interior wall.

**Pumps:** Low pressure pumps shall be supplied capable of delivering 15 gpm at 0' TDH and 9 gpm at 138' TDH. Pump must also be capable of operating at negative TDH without overloading motor. Motor shall be one phase, 1 h.p., and 1,725 rpm unless otherwise specified by the manufacturer and approved by the Engineer. Pumps shall be grinder sewage pump designed to operate in low pressure systems such as E-One semi-positive displacement sewer grinder pumps Model DH272 manufactured by Environment One Corporation (www.eone.com) or approved equal.

**Piping:** Contractor shall provide 1-1/4" HDPE SDR 11 discharge pipe and 4" PVC SDR 35 gravity inlet pipe with push on joints and all other fittings necessary to provide a complete working system. Install full ported stainless steel ball valve rated for 200 psi minimum in discharge pipe (see detail). PVC ball valves will not be accepted. The working pressure of all check valves and curb stop shall be 150 psi minimum. Contractor shall provide redundant check valve assembly per manufacturer's recommendation. Piping shall be pressure tested for one hour at 100 psi.

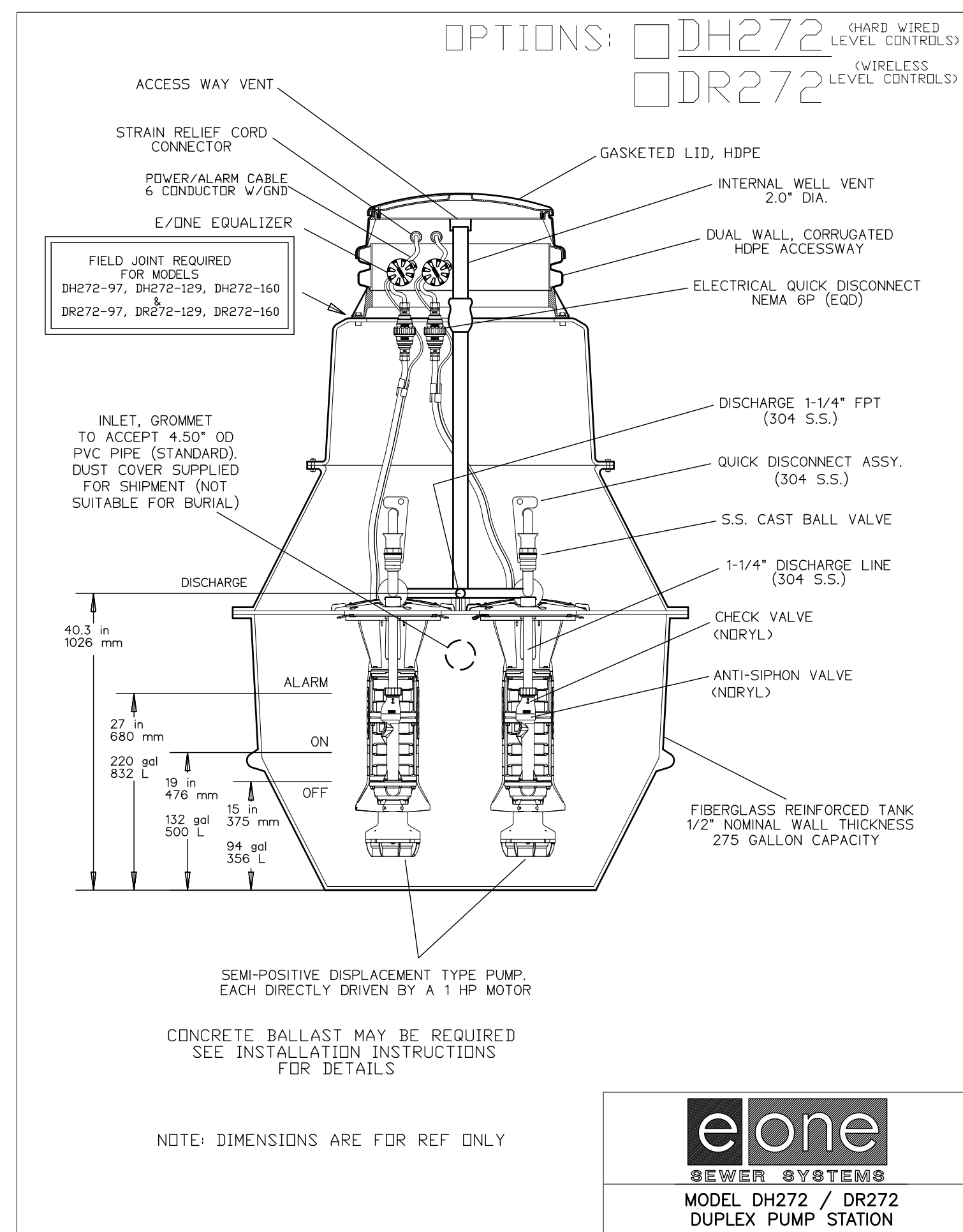
**Controls:** Non-fouling wastewater level controls for controlling pump operation shall be accomplished by monitoring the pressure changes in an integral air column connected to a pressure switch. Level detection device shall have no moving parts in direct contact with the wastewater. ON/OFF and High-level alarm functions shall not be controlled by the same switch.

**Alarm Panel:** NEMA 4X, UL listed duplex alternating alarm panel suitable for wall mounting. NEMA 4X enclosure shall include a hinged, lockable cover, padlock, and secured dead front. The alarm panel shall include the following features: run time meters, audio & visual alarm, push-to-run switch, and high level (redundant) pump starting control. Alarm sequence to be per manufacturer's installation instructions. Locate panel on building wall or post according to local codes and Owner's preference.

**Ballast:** Pump station shall not be installed without installation of ballast. See anchoring system detail.

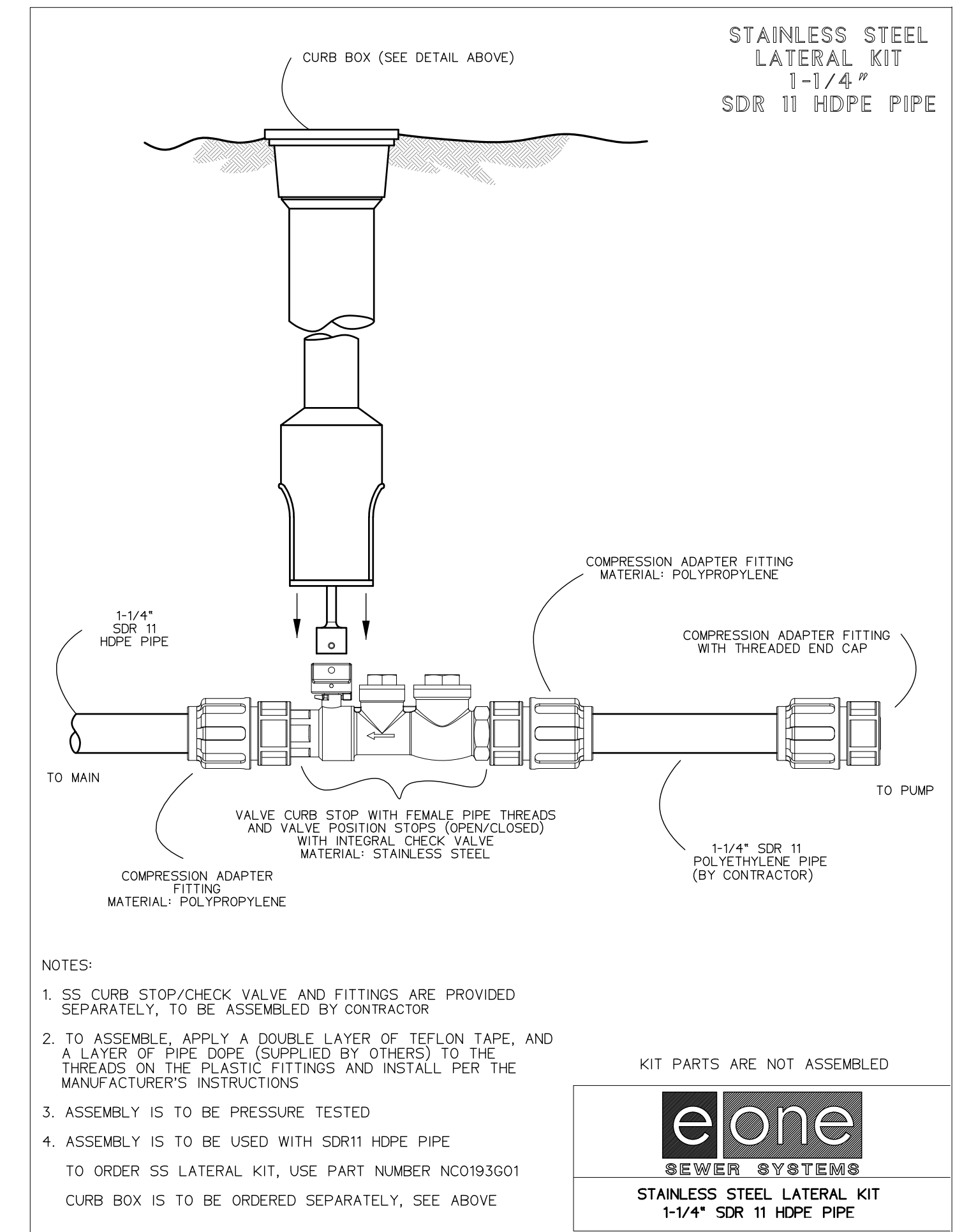
**PUMPING STATION SPECIFICATIONS**

NOT TO SCALE



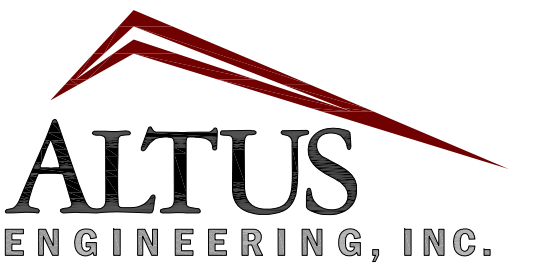
**DUPLEX PUMPING STATION**

NOT TO SCALE

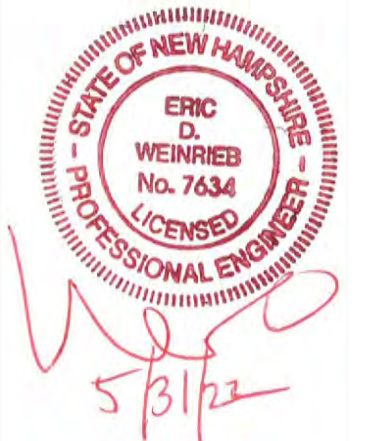


**STAINLESS STEEL LATERAL KIT - 1 1/4" SDR 11 HDPE PIPE**

NOT TO SCALE



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ISSUED FOR: **PLANNING BOARD**

ISSUE DATE: **MAY 31, 2022**

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	05/31/22

DRAWN BY: \_\_\_\_\_ EBS

APPROVED BY: \_\_\_\_\_ EBS

DRAWING FILE: 4839-SITE.dwg

SCALE: **AS SHOWN**

OWNER: **GLERUPS, INC.**

27 PLEASANT STREET  
NEWFIELDS, NH 03856

APPLICANT: **GLERUPS, INC.**

27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT: **GLERUPS**

TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE: **DETAIL SHEET**

SHEET NUMBER: **C - 14**

SHEET NUMBER: \_\_\_\_\_

NOT FOR CONSTRUCTION

ISSUED FOR: INITIAL SUBMISSION

ISSUE DATE: MAY 31, 2022

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	VM	05/31/22

DRAWN BY: VM  
APPROVED BY: RW  
DRAWING FILE: 4839-SITE.dwg

SCALE:  
22" x 34" - 1" = 40'  
11" x 17" - 1" = 80'

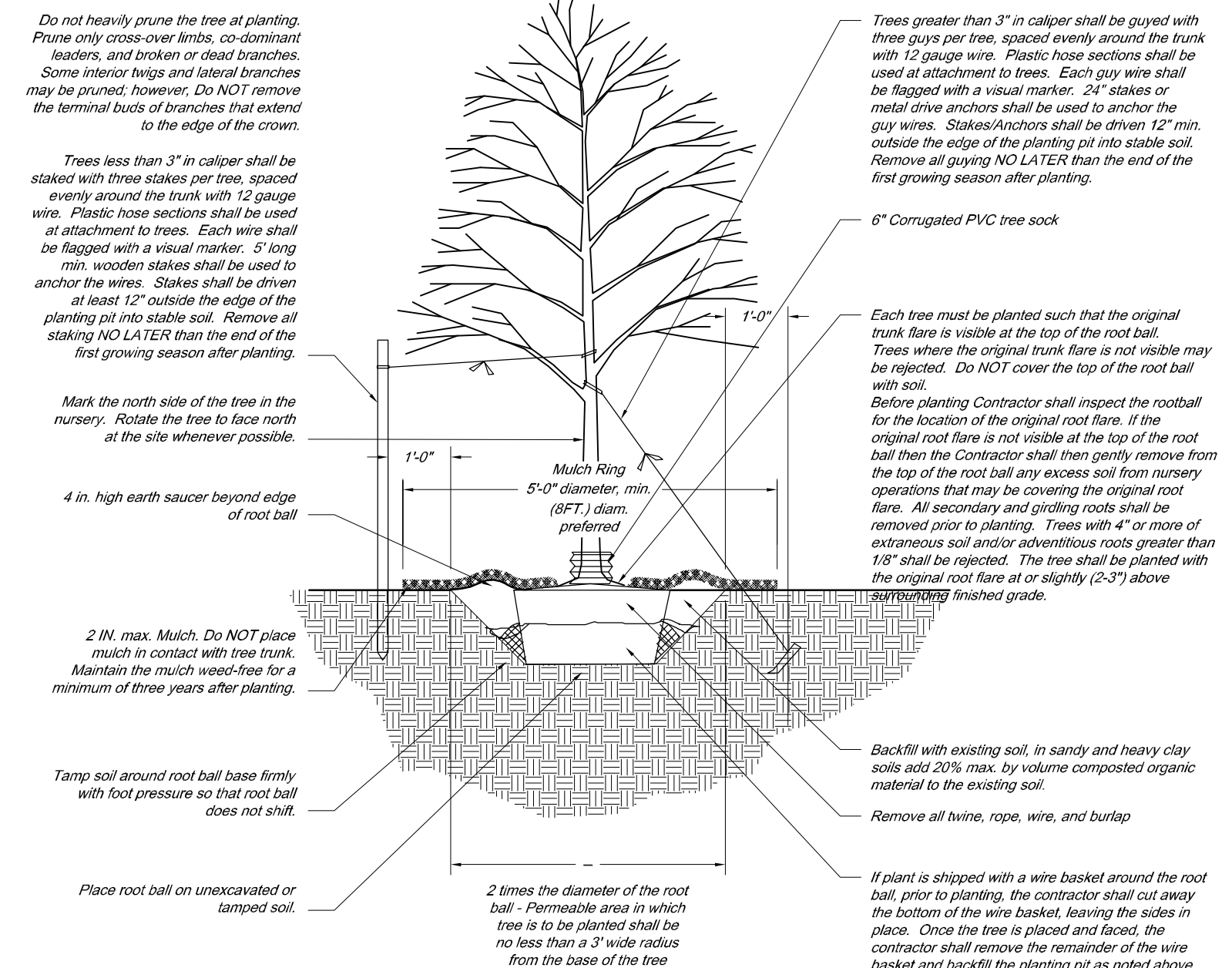
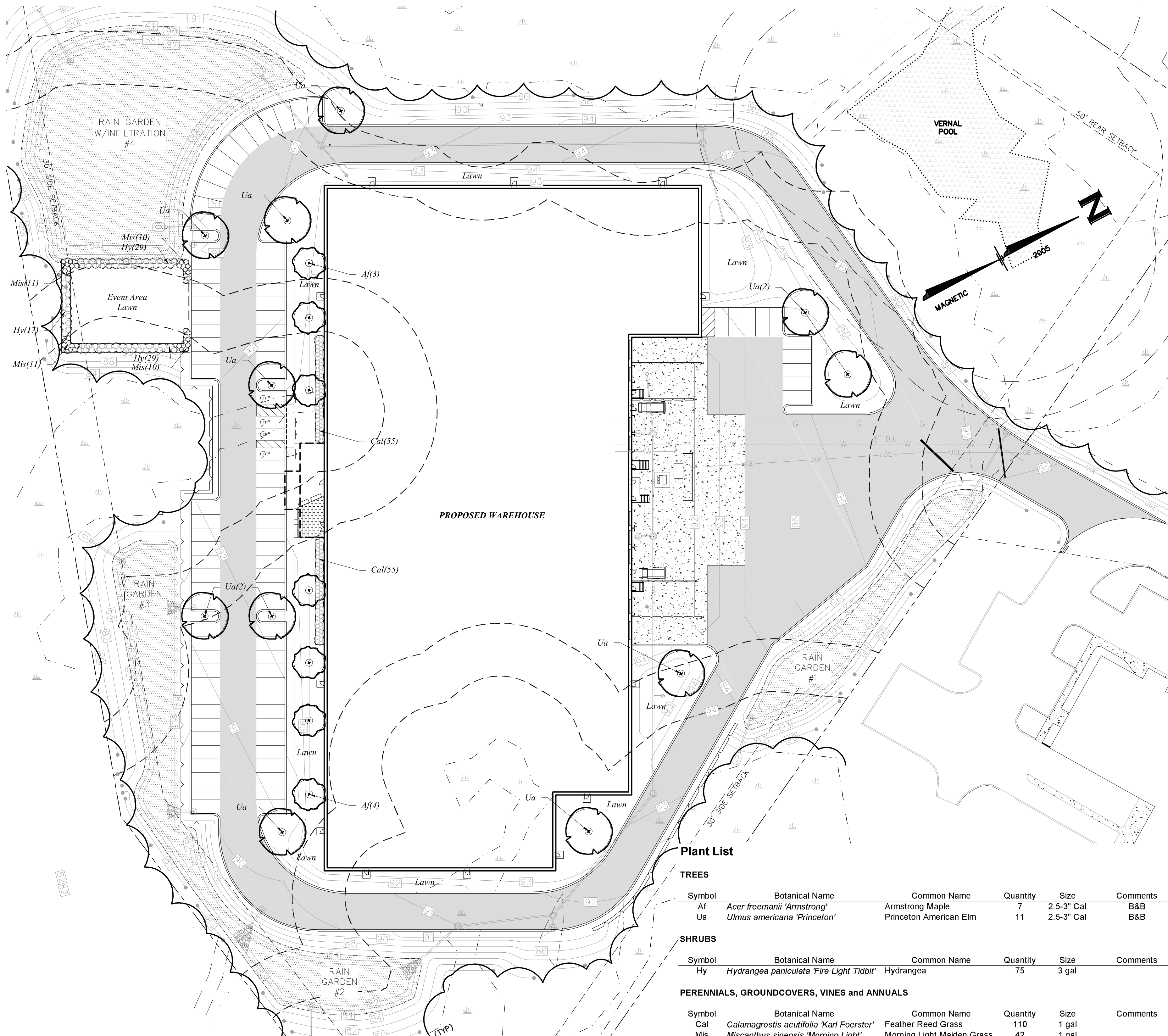
OWNER:  
GLERUPS, INC.  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

APPLICANT:  
GLERUPS, INC.  
27 PLEASANT STREET  
NEWFIELDS, NH 03856

PROJECT:  
GLERUPS  
TAX MAP 46, LOT 7  
19 CONTINENTAL DRIVE  
EXETER, NH

TITLE:  
LANDSCAPE PLAN

SHEET NUMBER:  
L - 1



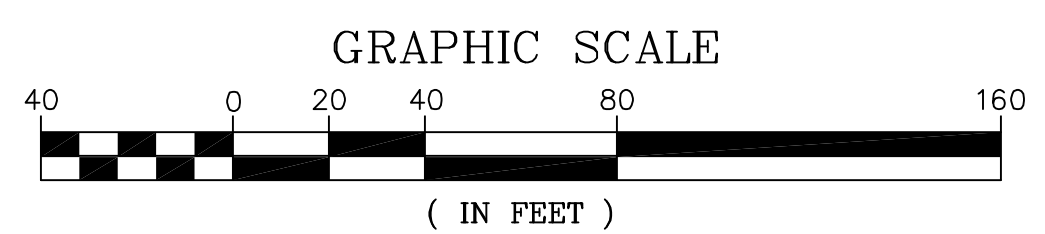
**Tree Planting Detail**

**Landscape Notes**

- Design is based on drawings by Altus Engineering and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction.
- Erosion Control to consist of Hay Bales and Erosion Control Fabric shall be staked in place between the work and Water bodies, Wetlands and/or drainage ways prior to any construction.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall not landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly tagged with proper botanical name.
- The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
  - Outside hose attachments spaced a maximum of 150 feet apart, and
  - An underground irrigation system, or
  - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. This includes but is not limited to vehicle intersections. Branches shall be raised to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the contractor.

**Plant List**

TREES						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Af	<i>Acer freemanii</i> 'Armstrong'	Armstrong Maple	7	2.5-3" Cal	B&B	
Ua	<i>Ulmus americana</i> 'Princeton'	Princeton American Elm	11	2.5-3" Cal	B&B	
SHRUBS						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Hy	<i>Hydrangea paniculata</i> 'Fire Light Tidbit'	Hydrangea	75	3 gal		
PERENNIALS, GROUNDCOVERS, VINES and ANNUALS						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Cal	<i>Calamagrostis acutifolia</i> 'Karl Foerster'	Feather Reed Grass	110	1 gal		
Mis	<i>Miscanthus sinensis</i> 'Morning Light'	Morning Light Maiden Grass	42	1 gal		





Sheet 19 of 22



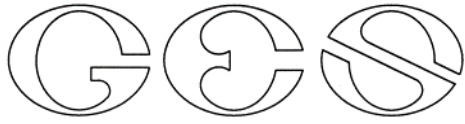
Sheet 20 of 22



Sheet 21 of 22



Sheet 22 of 22



## GOVE ENVIRONMENTAL SERVICES, INC

June 9, 2022

Erik Saari  
Altus Engineering, Inc.  
133 Court Street  
Portsmouth, NH 03801

Subject: Wetland Delineation & Function-Value Report  
19 Continental Drive  
Exeter, NH

Dear Mr. Saari:

This wetland report is being submitted in connection with the proposed development at 19 Continental Drive in Exeter, NH. This report documents the delineation and functional assessment of wetland resources in the vicinity of the proposed work as well as an evaluation of the proposed work within the context Section 9.1 of the Exeter Zoning Ordinance (Wetland Conservation District).

### **WETLAND DELINEATION**

Resource areas on this property were delineated in December 2021 by Brendan Quigley, NHCWS #249 utilizing the following standards:

1. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, (Version 2.0) January 2012, U.S. Army Corps of Engineers.
2. *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils*, Version 8.2. United States Department of Agriculture (2018).
3. *New England Hydric Soils Technical Committee. 2019 Version 4, Field Indicators for Identifying Hydric Soils in New England*. New England Interstate Water Pollution Control Commission, Lowell, MA.
4. *National Wetland Plant List*, Version 3.2 (2016).
5. *Classification of Wetlands and Deepwater Habitats of the United States*. USFW Manual FWS/OBS-79/31 (1979).

A vernal pool survey was subsequently conducted during the appropriate season in May of 2022. Wetland boundaries were surveyed by Hayner Swanson, Inc. and are depicted on the plans submitted separately for Site Plan Approval and a Conditional Use Permit.

The dominant wetland type on the property is saturated and seasonally flooded forested wetland dominated by red maple and highbush blueberry (PFO1E). These wetlands have developed in predominantly poorly drained soil amongst a familiar landscape of small hills, boulders, and exposed ledge that is common in this area and present on all the adjacent properties. These wetlands represent the upper reaches of the broader network of wetland associated with the Little River, which itself lies well off-site to the west. They are, however, distinctly different than the very poorly drained swamps and marshes directly associated with the river such that they are not “contiguous wetlands” in the context of the Exeter Shoreland Protection District. Like many of the adjacent properties, portions of the site, including portions of the wetland, were logged roughly seven years ago. These areas have an earlier successional character with denser shrub cover and fewer trees.

A single vernal pool was identified in the northern corner of the property. The pool occupies a shallow depression east the discontinued path of Garrison Lane. Water in this pool appears to be at least partially impounded by grade differences and lack of proper drainage within this historical road.

The appropriate buffers for wetlands and vernal pools Wetland Conservation District and Shoreland Protection District ordinances are depicted on the project plans.

## FUNCTION & VALUE ASSESSMENT

A wetland function and value 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 and their inherit 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 does not necessarily indicating 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.

A number of the functions and values listed above are either not supported or supported in a very limited way by the wetlands on the site. The primary limiting characteristic is the lack of closer association with surface water. Most obviously these wetlands do not support fish habitat or shoreline stabilization, both of which are directly related to the interaction of vegetated wetland and waterbody. Direct interaction between a water body and a wetland, such as takes place in the floodplain, is also a large part of flood attenuation function. The wetlands on this site do not support this type of flood attenuation but are able to intercept and attenuate runoff in the watershed. Since storage potential is limited however, their flood attenuation role is likely minor. Wetland supported recreation is also strongly linked with surface water for activities such as boating and fishing which are not supported in these wetlands. Lack of surface water combined with their relatively uniform and common character also limits their relevance to values that are typically associated with more diverse, unique, or accessible wetlands. This would include scientific and educational pursuits, general aesthetics, and heritage. Lastly, the low permeability of the soils on the site may produce some discharge of shallow groundwater on slopes but does not allow significant interaction with the groundwater and are not characteristic of groundwater discharge or recharge areas.

Based on the characteristics of the wetlands and their location in the landscape it was determined that Wildlife Habitat, Production-Export, and Sediment/Toxicant Retention & Nutrient Removal are the principal functions of the wetlands on the site. These are described in greater detail in the following sections.

**Wildlife Habitat**— Wildlife habitat is clearly the principal function of the portion of wetland that supports vernal pool breeding habitat. This type of habitat is highly specific and not supported in the other areas of wetland on the property. The remainder of the wetland supports general wildlife habitat, the value of which is elevated by the large block of unfragmented forest and waterway within the Little River Conservation land which lies directly adjacent to the property.

**Production Export** –In n this case, Production Export function is closely related to wildlife habitat by way of production of wildlife food sources. The early successional species currently present in recently logged areas of the wetland combined with mast producing trees (principally oaks) produce an abundant source of berries, nuts, seeds, and pollen bearing flowers. This likely provides a substantial source of food for wildlife. It is notable that function is supported across much of the site, including upland areas which contain more of the mast producing oak.

**Sediment/Toxicant Retention & Nutrient Removal** – Due to their location upstream of the Little River conservation land and considering the significant development pressure in this area, the wetlands likely play an important role in protecting the water quality within Little River and other high value wetlands in the conservation land. The wetlands on the property lack significant streams or other defined drainage paths. This diffuse drainage pattern provides the opportunity for treatment long before reaching more defined flow paths downstream.

## RELATION TO THE PROPOSED DEVELOPMENT

A Conditional Use Permit (CUP) is being sought for proposed wetland and wetland buffer impacts within the Wetlands Conservation Overlay District associated with construction of a warehouse building on the site. The proposed impacts are necessary for slope grading, for portions of pavement related to access and parking, and for a portion of the building itself. The sections below provide a response to the CUP criteria in 9.1.6.B.2:

*No alternative design which does not impact a wetland or wetland buffer or which has less detrimental impact on the wetland or wetland buffer is feasible*

The property is constrained in several ways which are relevant to an assessment of the proposed impacts. First, the property has wetland on all sides, including two fingers extending from the southern property lines toward the middle of the site. Access is also dictated via an easement from the driveway of the adjacent property with a large vernal pool existing adjacent to this area. Accessing the property in any other location (if even possible) would involve significantly more wetland impact.

The development has been located to utilize the contiguous upland roughly in the middle of the site and limit the majority wetland impacts to the two fingers, which would be nearly impossible to avoid with most viable development plans for the site. Several smaller impacts are necessary at the edges of the larger surrounding wetland. Direct impact to the vernal pool has been avoided and buffer impact in this area has been minimized to the maximum extent possible given the location of the access and need for traffic circulation around the building. Impacts overall have also been minimized by utilizing retaining walls and steep grading and the edges of the development.

Warehouse facilities are designed for efficient management of internal space, docking facilities, and external circulation truck traffic. This translates to a relatively inflexible, boxy design that requires a large contiguous area. The proposed facility is also being constructed to meet the space requirements of a specific tenant. Given these design criteria and the site constraints and impact minimization measures already employed, there does not appear to be a feasible alternative with less impact to wetland and wetland buffer.

*A wetland scientist has provided an impact evaluation that includes the “functions and values” of the wetland(s), an assessment of the potential project-related impacts and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.*

A functional evaluation of the wetlands is provided in the previous sections of this letter. The primary functions of the resource areas were determined to be related to wildlife habitat, production export for wildlife food sources, and water quality. The potential for impact to these functions has been largely avoided by limiting wetland and buffer impact to the edges of the wetland and to several narrow finger-like extensions. The interior areas of the wetland that are of relatively greater importance for wildlife are therefore maintained. Segmentation of wetland areas is also avoided ensuring the free movement of wildlife through the wetland and between larger habitat area in the protected Little River conservation land. Habitat continuity has also been maintained for vernal pool breeding species which will continue to have unhindered access to wetland and upland terrestrial habitat north, east, and west of the pool. To the south of the pool, upland terrestrial habitat has been maintained to the maximum extent possible given the



location of the pool adjacent to the entrance of the site. The proposed vernal pool buffer impact in this area will result in the loss of some supporting upland habitat around the pool. Given that connectivity is being maintained and the rest of its buffer will remain undisturbed, this is not likely to have a significant impact on the pool. The project will therefore have minimal overall effect on the wildlife habitat present in these and nearby wetlands.

The loss of water quality function will be limited to the direct loss of wetland within the proposed wetland impact areas. By maintaining continuity of flow through the wetlands and the avoiding segmentation of wetland areas, water quality function of the larger wetland system will remain largely unaffected. The proposed stormwater management system, which will make use of vegetated bio-retention type treatment and infiltration areas, will compensate for loss of existing buffer and ensure that no greater pressure is placed on the wetlands to support a water quality role in the watershed.

The proposed project should therefore have only minor effects on the wetland and its ability to support the identified functions and values. The overall wetland function and the greater hydrologic system will not be negatively affected.

*That the design, construction and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer;*

The design of the project minimizes impacts by physically minimizing impacts with the use of retaining walls, steep slopes, and overall project layout. The proposed stormwater management system, which will utilize bio-retention treatment and infiltration will also minimize potential water quality impacts and provided a softer vegetated edge along these areas of the development. Comprehensive erosion and sedimentation control will also of course be employed during construction.

*That the proposed use will not create a hazard to individual or public health, safety and welfare due to the loss of wetland, the contamination of groundwater, or other reasons;*

The potential for impacts on water quality or flooding are the only aspects public health and safety that are relevant to the proposed project. The potential for effects on these interest have been mitigated by the inclusion of comprehensive stormwater management and overall minimization of impacts as described in the previous sections.

*In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction.*

Minor temporary impacts are associated with narrow areas along the base of the retaining walls located in wetland areas. These areas will be returned to original grade following construction and seeded with a mix containing native species appropriate for wetland areas.

*The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland.*

Due to the limited size of the area available for the project, and the fact that buffers in other areas of the site are relatively undisturbed, no such areas are proposed.

This concludes the wetland delineation and wetland functional assessment report. If I can be of further assistance, please feel free to contact me at (603) 778-0644.

Sincerely,



Brendan Quigley, NHCWS  
Gove Environmental Services, Inc.





*Civil  
Site Planning  
Environmental  
Engineering*

133 Court Street  
Portsmouth, NH  
03801-4413

June 14, 2022

Dave Sharples, Town Planner  
Planning Department, Town of Exeter  
10 Front Street  
Exeter, NH 03833

**Re: Glerups Warehouse  
Tax Map 13, Lot 1  
19 Continental Drive  
Exeter, New Hampshire  
Altus Project No. 4839**

Dear Mr. Sharples,

Pursuant to our Conditional Use Permit Application for the above reference project, we respectfully submit the following to address the criteria listed under Section 9.1.6.B of the Zoning Ordinance:

1. The proposed use is an industrial warehouse which is permitted in the CT-1 zone.
2. After exploring numerous concepts, any layout for a similar development program was found to have similar or greater impacts to wetlands and associated wetland buffers.
3. In conjunction with the forthcoming wetlands permit application, Gove Environmental Services has conducted a full functions and values assessment which is attached to this correspondence.
4. The design incorporates retaining walls and steep slopes where possible in order to minimize wetland and buffer impacts.
5. As designed, the project will not present any hazard to public health, safety or welfare. The proposed stormwater system will provide for appropriate treatment of runoff prior to discharging it to the surrounding wetland system as well as allow for groundwater recharge.
6. Although expanded wetland buffers are not included in the proposal, approximately 13.30 acres or +/-65% of the site will remain in its natural state. This includes wetlands as well as adjacent upland areas.

7. Temporary impacts are limited to small areas. However, the planned erosion control measures provide for revegetation of these areas. It is anticipated that these areas will eventually revert back to conditions similar to those found in the existing conditions.
8. Applications for the required NHDES permits are currently being prepared. We would expect that receipt of these would be a condition of Planning Board approval.

Please feel free to contact me directly if you have any questions or require any additional documentation. Thank you for your time and consideration.

Sincerely,

**ALTUS ENGINEERING, INC.**



Erik B. Saari  
Vice President

ebs/4839-LTR-CUP-061422

**TOWN OF EXETER  
PLANNING DEPARTMENT MEMORANDUM**

---

Date: June 22, 2022  
To: 6/24/22 Technical Review Committee  
From: Kristen Murphy, Natural Resource Planner  
Subject: Glerups, Inc., PB 22-9

**General Site Layout**

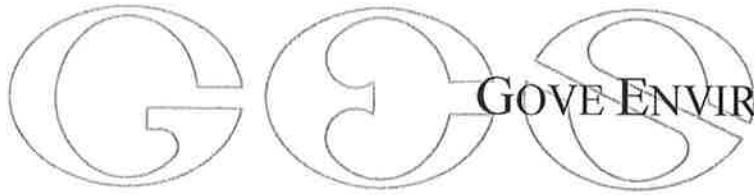
- Recommend eliminating the access road along the west side of the building if possible. With loading docks in the front of the building, it seems viable to have a two-way access road to the back for parking. This would reduce a significant amount of buffer impacts, prevent the isolation of the vernal pool from the upland areas essential for vernal pool species when the abutting parcel is developed, and may also free up space to move Infiltration basin #3 further from the wetland.
- Parking exceeds parking calc requirements by 8 spaces, eliminating these at the building rear could further reduce buffer impact.
- Is it possible to narrow up the 21' grass strip in the back of the building and bring the pavement closer to the building and therefore further from the wetland?
- Has porous pavement been considered?
- Please clarify what the surface material of the event/function area is.

**Grading/Drainage/Erosion**

- Given the presence of wetlands, there is a potential for entrapment of amphibians from the deep sump catch basins. Is there potential to avoid the use of them?
- Please confirm all erosion control materials are limited to natural material such as jute or coconut matting as photodegradable plastic causes wildlife impacts. Add note accordingly.
- Add requirement for wetland boundary disks to be installed along wetland buffers within the development (SS 9.9.1).
- Snow storage should be located on the side of the road interior to the building to allow for some level of treatment. Please add signage adjacent to the vernal pool indicating snow storage is prohibited. If circular access road is eliminated, sign is not necessary.
- Add note in construction sequence that limits of disturbance will be marked onsite prior to any tree removal.

**CUP**

- The Wetland CUP criteria response to 9.1.6.B.6 would benefit from discussing the 212-acre area of land granted to the town when this area was subdivided.
- Please update Sheet C-4 notes to add the May wetland survey dates mentioned in the CUP wetland report. Currently notes only indicate 12/17/21 survey.
- Sheet C-4 depicting buffers has numerous corrections needed. Please refer to 9.1.3.E and show limited use, parking and structure buffers as indicated. Example: vernal pools require 75' limited use buffer and 100' parking and structure setback. Only 75' buffer is shown and it is labeled as 200' buffer. Similar errors for wetland buffers.
- The Conservation Commission will want a site walk. I recommend proposing dates that work for the applicant's team prior to the 7/12 meeting. They will want the ability to ask questions of the wetland scientist during the walk, so their presence is requested. With later sunsets, 5 pm before the meeting often works well.



GOVE ENVIRONMENTAL SERVICES, INC.

NH DES WETLANDS BUREAU  
MINOR IMPACT  
DREDGE & FILL APPLICATION  
For

GLERUPS, INC.

19 Continental Drive

Exeter, NH

June 23, 2022

---

Town Clerk's Office

JUN 27 2022

Received

Prepared By

Gove Environmental Services, Inc.  
8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526  
Ph (603) 778 0644 / Fax (603) 778 0654  
[info@gesinc.biz](mailto:info@gesinc.biz) / [www.gesinc.biz](http://www.gesinc.biz)

RECEIVED

JUN 27 2022

EXETER PLANNING OFFICE



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### Figures

USGS Locus Map

Aerial Photo

WPPT Results

Wetland Impact Detail

### Appendices

Appendix A	Impact Area Photos
Appendix B	Abutter Information
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Appendix D	ACOE Supplemental Information Secondary Impacts Checklist, SHPO Inquiry, IPaC Report
Appendix E	New Hampshire Natural Heritage Inquiry
Appendix F	Site Plans (under separate cover)

**NH DES Dredge & Fill Application Forms**





**STANDARD DREDGE AND FILL  
WETLANDS PERMIT APPLICATION**  
Water Division/Land Resources Management  
Wetlands Bureau



Check the Status of your Application

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

**APPLICANT'S NAME:** Glerups

**TOWN NAME:** Exeter

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

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

<b>SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))</b>	
Please use the <a href="#">Wetland Permit Planning Tool (WPPT)</a> , the Natural Heritage Bureau (NHB) <a href="#">DataCheck Tool</a> , the <a href="#">Aquatic Restoration Mapper</a> , or other sources to assist in identifying key features such as: <a href="#">priority resource areas (PRAs)</a> , <a href="#">protected species or habitats</a> , coastal areas, designated rivers, or designated prime wetlands.	
Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&amp;G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Protected species or habitat?                             <ul style="list-style-type: none"> <li>○ If yes, species or habitat name(s): <input type="text"/></li> <li>○ NHB Project ID #: <input type="text"/></li> </ul> </li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Bog?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Designated prime wetland or duly-established 100-foot buffer?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the property within a Designated River corridor? If yes, provide the following information:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Name of Local River Management Advisory Committee (LAC): <input type="text"/></li> <li>• A copy of the application was sent to the LAC on Month: <input type="text"/> Day: <input type="text"/> Year: <input type="text"/></li> </ul>	

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
---	---

Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
---	---

For stream crossing projects, provide watershed size (see WPPT or Stream Stats):  
no stream crossings

**SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))**  
 Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.

The project involves construction of a +/- 95,000 sf industrial warehouse together with associated accessways, parking, stormwater management, and other related site improvements. The development will utilize approximately 11 acres of the 20-acre property situated at the cul-de-sac terminus of Continental Drive. Access will be provided via an easement across the existing driveway for the adjacent property (#15 Continental Drive). The remainder of the property, consisting of a narrow extension to an earlier point on Continental Drive, is largely wetland and will be left undisturbed. A total of 9,452 square feet of wetland fill and 448 square feet of temporary disturbance is proposed in order to construct the project.

**SECTION 3 - PROJECT LOCATION**

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

ADDRESS: 19 Continental Drive

TOWN/CITY: Exeter

TAX MAP/BLOCK/LOT/UNIT: 46-7-2

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Little River  
 N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):  
42.99122° North  
70.98193° West

<b>SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))</b>		
If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: Glerups, Inc. C/O Kiera Ryan		
MAILING ADDRESS: 27 Pleasant Street		
TOWN/CITY: Newfields	STATE: NH	ZIP CODE: 03856
EMAIL ADDRESS: kiera@glerups.com		
FAX: [ ]	PHONE: 6039787683	
ELECTRONIC COMMUNICATION: By initialing here: [ ] , I hereby authorize NHDES to communicate all matters relative to this application electronically.		
<b>SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))</b>		
<input type="checkbox"/> N/A		
LAST NAME, FIRST NAME, M.I.: Quigley, Brendan		
COMPANY NAME: Gove Environmental Services, Inc (see attached authorization for owner and applicant signatures)		
MAILING ADDRESS: 8 Continental Drive Bldg 2 Unit H		
TOWN/CITY: Exeter	STATE: NH	ZIP CODE: 03833
EMAIL ADDRESS: bquigley@gesinc.biz		
FAX: [ ]	PHONE: 603-778-0644	
ELECTRONIC COMMUNICATION: By initialing here <i>BQ</i> , I hereby authorize NHDES to communicate all matters relative to this application electronically.		
<b>SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))</b>		
If the owner is a trust or a company, then complete with the trust or company information.		
<input checked="" type="checkbox"/> Same as applicant		
NAME: [ ]		
MAILING ADDRESS: [ ]		
TOWN/CITY: [ ]	STATE: [ ]	ZIP CODE: [ ]
EMAIL ADDRESS: [ ]		
FAX: [ ]	PHONE: [ ]	
ELECTRONIC COMMUNICATION: By initialing here [ ] , I hereby authorize NHDES to communicate all matters relative to this application electronically.		

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

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

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):  
 The boundary of the wetland was delineated by Gove Environmental Services utilizing the criteria specified in Env-Wt 406.01.

The project meets project specific design requirements for industrial development Env-Wt 524.04 (a) through (f):

- a. The project does not involve stream crossings and is not subject to any other resource specific requirements.
- b. All proposed stormwater management facilities are located in upland areas, the project does not use wetlands or surface waters to serve as stormwater treatment
- c. The proposed project will incorporate stormwater management system in full compliance with State of NH regulations. The project lies outside of aquifers, source water protection areas, and wellhead protection zones.
- d. The project does not involve stream or wetland crossing which have the potential to disrupt flows. The proposed edge impacts will not alter the drainage pattern in the wetland or to downstream waterways.
- e. The project will not impact surface waters or wetland associated with fish habitat.
- f. Since impacts are limited to the wetland edge only, wildlife movement through wetland specific habitat will not be restricted. Impacts to the vernal pool have been avoided. Disturbance in the buffer to the vernal pool has been minimized and the pool will remain connected to other adjacent wetland and upland habitat.

**SECTION 8 - AVOIDANCE AND MINIMIZATION**

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

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

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

**SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)**

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

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

N/A - Mitigation is not required

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

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

N/A – Compensatory mitigation is not required

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

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

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

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

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

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

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland	9452		<input type="checkbox"/>	448		<input type="checkbox"/>
	Scrub-shrub Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Emergent Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Wet Meadow			<input type="checkbox"/>			<input type="checkbox"/>
	Vernal Pool			<input type="checkbox"/>			<input type="checkbox"/>
	Designated Prime Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer			<input type="checkbox"/>			<input type="checkbox"/>
Surface Water	Intermittent / Ephemeral Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Perennial Stream or River			<input type="checkbox"/>			<input type="checkbox"/>
	Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - River			<input type="checkbox"/>			<input type="checkbox"/>
Banks	Bank - Intermittent Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Bank - Perennial Stream / River			<input type="checkbox"/>			<input type="checkbox"/>
	Bank / Shoreline - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
Tidal	Tidal Waters			<input type="checkbox"/>			<input type="checkbox"/>
	Tidal Marsh			<input type="checkbox"/>			<input type="checkbox"/>
	Sand Dune			<input type="checkbox"/>			<input type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input type="checkbox"/>			<input type="checkbox"/>
	Previously-developed TBZ			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
<b>TOTAL</b>		<b>9452</b>			<b>448</b>		

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

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

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

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

Permanent and temporary (non-docking): 9900 SF × \$0.40 = \$ 3960

Seasonal docking structure: SF × \$2.00 = \$

Permanent docking structure: SF × \$4.00 = \$

Projects proposing shoreline structures (including docks) add \$400 = \$

Total = \$ 3960

**The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 3960**

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

<b>SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)</b>		
Indicate the project classification.		
<input type="checkbox"/> Minimum Impact Project	<input type="checkbox"/> Minor Project	<input checked="" type="checkbox"/> Major Project
<b>SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)</b>		
Initial each box below to certify:		
Initials: EBS EBS <i>Ed</i>	To the best of the signer's knowledge and belief, all required notifications have been provided.	
Initials: EBS EBS <i>BR</i>	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.	
Initials: EBS EBS <i>BR</i>	The signer understands that: <ul style="list-style-type: none"> <li>• The submission of false, incomplete, or misleading information constitutes grounds for NHDES to:                         <ol style="list-style-type: none"> <li>1. Deny the application.</li> <li>2. Revoke any approval that is granted based on the information.</li> <li>3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1.</li> </ol> </li> <li>• The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.</li> <li>• The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.</li> </ul>	
Initials: EBS EBS <i>BR</i>	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.	
<b>SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)</b>		
SIGNATURE (OWNER): <i>Erik Saari</i>	PRINT NAME LEGIBLY: Erik Saari, Altus Engineering, Inc.--duly authorized	DATE: 06/23/22
SIGNATURE (APPLICANT, OWNER): <i>Erik Saari</i>	PRINT NAME LEGIBLY: Erik Saari, Altus Engineering, Inc.--duly authorized	DATE: 06/23/22
SIGNATURE (AGENT, IF APPLICABLE): <i>Brendan Quigley</i>	PRINT NAME LEGIBLY: Brendan Quigley Govt Engr SRIS.	DATE: 6-23-22
<b>SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))</b>		
As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.		
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:	
TOWN/CITY:	DATE:	

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)



**Letter of Authorization**

Glerups, Inc., hereby authorizes Altus Engineering, Inc. of Portsmouth, NH to represent us the as the Owner and Applicant in all matters concerning the engineering and related permitting of a site plan on Exeter Tax Map 47, Lot 7-2 located at 19 Continental Drive in Exeter, New Hampshire. This authorization shall include representation at public hearings and other project-related meetings in addition to any signatures required for Federal, State and Municipal permit applications.

*Kiera Ryan*  
Signature

Kiera Manahan Ryan  
Print Name

5-18-22  
Date

*barry ryan*  
Witness

Barry T. Ryan  
Print Name

5-18-22  
Date



STANDARD DREDGE AND FILL  
WETLANDS PERMIT APPLICATION  
ATTACHMENT A: MINOR AND MAJOR PROJECTS



Water Division/Land Resources Management  
Wetlands Bureau

Check the Status of your Application

**RSA/ Rule:** RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

**APPLICANT'S NAME:** Glerups, Inc

**TOWN NAME:** Exeter

Attachment A is required for *all minor and major projects*, and must be completed *in addition* to the Avoidance and Minimization Narrative or Checklist that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

**PART I: AVOIDANCE AND MINIMIZATION**

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

**SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))**

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

WAREHOUSE FACILITIES ARE DESIGNED FOR EFFICIENT MANAGEMENT OF INTERNAL SPACE, DOCKING FACILITIES, AND EXTERNAL CIRCULATION OF TRUCK TRAFFIC. THIS TRANSLATES TO A RELATIVELY INFLEXIBLE, BOXY DESIGN THAT REQUIRES A LARGE CONTIGUOUS AREA. THE PROPOSED FACILITY IS ALSO BEING CONSTRUCTED TO MEET THE SPACE REQUIREMENTS OF A SPECIFIC TENANT.

THE PROPERTY IS CONSTRAINED BY WETLAND ON ALL SIDES, INCLUDING TWO FINGERS EXTENDING FROM THE SOUTHERN PROPERTY LINES TOWARD THE MIDDLE OF THE SITE. ACCESS IS ALSO DICTATED VIA AN EASEMENT FROM THE DRIVEWAY OF THE ADJACENT PROPERTY WITH A LARGE VERNAL POOL EXISTING ADJACENT TO THIS AREA. ACCESSING THE PROPERTY IN ANY OTHER LOCATION WOULD INVOLVE SIGNIFICANTLY MORE WETLAND IMPACT.

THE DEVELOPMENT HAS BEEN LOCATED TO UTILIZE THE CONTIGUOUS UPLAND ROUGHLY IN THE MIDDLE OF THE SITE AND LIMIT WETLAND IMPACTS TO TWO FINGERS OF WETLAND EXTENDING INTO THE MIDDLE OF THE SITE AND SEVERAL SMALLER AT THE EDGES OF THE SURROUNDING WETLAND. DIRECT IMPACT TO THE VERNAL POOL HAS BEEN AVOIDED AND IMPACT TO THE UPLAND SURROUNDING THE POOL HAS BEEN MINIMIZED TO THE MAXIMUM EXTENT POSSIBLE GIVEN THE LOCATION OF THE ACCESS AND NEED FOR TRAFFIC CIRCULATION AROUND THE BUILDING. IMPACTS OVERALL HAVE ALSO BEEN MINIMIZED BY UTILIZING RETAINING WALLS AND STEEP GRADING AND THE EDGES OF THE DEVELOPMENT.

GIVEN THE DESIGN CRITERIA, THE SITE CONSTRAINTS, AND IMPACT MINIMIZATION MEASURES ALREADY EMPLOYED, THERE IS NO OTHER FEASIBLE ALTERNATIVE WITH LESS IMPACT TO WETLANDS.

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

**SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))**

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

There is no freshwater marsh on the site nor is there any tidal marsh in this area.

**SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))**

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed impacts are located at the edges of a large, forested wetland system that ultimately drains to the Little River approximately 1,000 feet southwest of the site. The project does not involve wetland crossings or other impacts that would segment or disrupt flow into, within, or out of the larger wetland complex. Hydrologic connections will not therefore be affected.

**SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))**

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

The development has been clustered in the contiguous upland in the middle of the site. Wetland crossings or segmentation has been avoided and wetland impacts are limited to the edges of the surrounding wetland. Edge impacts have been minimized by utilizing retaining walls and steep slopes. Direct impact to the vernal pool has been avoided and impact to the supporting upland habitat surrounding the pool has been minimized to the maximum extent possible given the location of the access and need for traffic circulation around the building. The development also utilizes bioretention stormwater treatment which will not only provide effective stormwater treatment but will also provide a softer vegetated edge in proximity to wetlands.

**SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))**

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The project will not impact navigable waters, nor will it directly involve elements of public commerce or recreation as they relate to wetland resource areas.

**SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))**

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The project will not impact the floodplain or floodplain wetlands

**SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB – MARSH COMPLEXES (Env-Wt 313.03(b)(7))**

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

There are no such resources in the project area.

**SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))**

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The proposed wetland impacts will not segment wetlands or disrupt flow paths such that groundwater may be affected and will infiltrate treated stormwater in accordance with AOT regulations. Also, the project does not lie in an aquifer area.

**SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))**

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

The project does not impact streams directly nor does it propose wetland crossings which could negatively affect stream channels outside the impact area. The stormwater management system will ensure that runoff from the development does not adversely affect downstream flows.

**SECTION I.X - SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA (Env-Wt 313.03(c)(1))**

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

N/A, the project does not involve surface water or shoreline structures

**SECTION I.XI - SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST (Env-Wt 313.03(c)(2))**

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

N/A, the project does not involve surface water or shoreline structures

**SECTION I.XII - SHORELINE STRUCTURES – ABUTTING PROPERTIES (Env-Wt 313.03(c)(3))**

Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.

N/A, the project does not involve surface water or shoreline structures

**SECTION I.XIII - SHORELINE STRUCTURES – COMMERCE AND RECREATION (Env-Wt 313.03(c)(4))**

Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.

N/A, the project does not involve surface water or shoreline structures



**SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))**

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

N/A, the project does not involve surface water or shoreline structures

**SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))**

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

N/A, the project does not involve surface water or shoreline structures

PART II: FUNCTIONAL ASSESSMENT	
<b>REQUIREMENTS</b>	Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
<b>FUNCTIONAL ASSESSMENT METHOD USED:</b>	ACOE Highway Methodology
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: BRENDAN QUIGLEY	
DATE OF ASSESSMENT: 1/10/22	
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: <input checked="" type="checkbox"/>	
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: <input checked="" type="checkbox"/>	
Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.	



AVOIDANCE AND MINIMIZATION  
WRITTEN NARRATIVE  
Water Division/Land Resources Management  
Wetlands Bureau



Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1)b; Env-Wt 313.01(c)

APPLICANT'S NAME: **Glerups, Inc**

TOWN NAME: **Exeter**

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide the narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

**SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1))**

Is the primary purpose of the proposed project to construct a water access structure?

No

**SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1))**

Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?

A portion of the impacts are required for access due to the presence of wetlands surrounding the upland and limited access locations

**SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2))\***

For any project that proposes permanent impacts of more than one acre, or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?

*\*Except as provided in any project-specific criteria and except for NH Department of Transportation projects that qualify for a categorical exclusion under the National Environmental Policy Act.*

The project proposes 9,452 SF of permanent impact and there are no PRAs on the site. Offsite alternatives analysis is not required

**SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))**

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization?

The project clusters development in the central upland area, avoids wetland crossings, and limits impacts to the edges of the wetland. Retaining walls and steep stabilized slopes are used to limit impacts due to grading. Stormwater management will make use of vegetated bio-retention and infiltration basins. (also see Section 4 of the narrative)

**SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))\*\***

How does the project conform to Env-Wt 311.10(c)?

*\*\*Except for projects solely limited to construction or modification of non-tidal shoreline structures only need to complete relevant sections of Attachment A.*

The primary functions of the resource areas were determined to be wildlife habitat, production export for wildlife food sources, and water quality. While water quality and production export function are supported uniformly in all the wetlands on the site. Wildlife habitat is concentrated in the vernal pool and the interior portions of the larger wetland, particularly closer to the Little River conservation land. Impact to the vernal pool, which has the most prominent wetland habitat function, has been avoided. Wetland specific wildlife habitat elsewhere on the site has been preserved by avoiding impacts which segment the wetland and limiting impact to the edges of the wetland with comparatively less function. Water quality function has been preserved by avoiding crossings or other impacts that may disrupt flow. (also see section 2.3 and 4.4 of the narrative)

## 1.0 Introduction

This Major Impact Dredge and Fill Application is being submitted by Gove Environmental Services, Inc. on behalf of Glerups, Inc. for the construction of a warehouse building at 19 Continental Drive in Exeter, NH. The 20-acre property is identified as Map 46 Lot 7-2 on the Exeter tax maps and is comprised of undeveloped land located within the Garrison Glen Industrial Park near the end of Continental Drive. The proposed project will utilize approximately 11 acres located at the cul-de-sac terminus of Continental Drive with access through an existing driveway and easement on the adjacent lot. A total of 9,900 square feet of wetland impact is proposed to accommodate the proposed development, 448 square feet of which is temporary. The wetlands, proposed impacts, and project are discussed in more detail in the following sections.

## 2.0 Wetland Resources

### 2.1 Wetland Delineation

Wetlands were delineated by Brendan Quigley of Gove Environmental Services, Inc. in early December of 2021 utilizing the following standards:

1. *US Army Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (Jan 1987) **AND** *Regional Supplement to Corps of Engineers Wetland Delineation Manual; Northcentral and Northeast Region*, Version 2.0, January 2012.
2. *Field Indicators for Identifying Hydric Soils in New England*, Version 4, April 2019, New England Interstate Water Pollution Control Commission, Lowell, MA.
3. *US Army Corps of Engineers National Wetland Plant List*, 2018

Flagging in the project area was surveyed by Hayner Swanson. The dominant wetland type on the property is saturated and seasonally flooded forested wetland dominated by red maple and highbush blueberry (PFO1E). These wetlands have developed in predominantly poorly drained soil amongst a landscape of small hills, boulders, and exposed ledge that is common in this area and present on all the adjacent properties. Portions of the site, including portions of the wetland, were logged roughly seven years ago. These areas have an earlier successional character with denser shrub cover and fewer trees. These wetlands represent the upper reaches of the broader network of wetland associated with the Little River, which itself lies off-site approximately 1,000 feet southwest of the site

## 2.2 Vernal Pools

A vernal pool investigation was conducted in the spring of 2022. A single vernal pool was identified in the northern corner of the property. The pool occupies a shallow depression east of the discontinued path of Garrison Lane. Water in this pool appears to be at least partially impounded by grade differences and lack of proper drainage within this historical road. The limit of this pool appears on the project plans.

## 2.3 Wetland Function and Value Assessment

A wetland function and value 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 and their inherit 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 does not necessarily indicating 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.

Several of the functions and values listed above are either not supported or supported in a very limited way by the wetlands on this site. The primary limiting characteristic is the lack of closer association with surface water. Most obviously these wetlands do not support fish habitat or shoreline stabilization, both of which are directly related to the interaction of vegetated wetland and waterbody. Direct interaction between a water body and a wetland, such as takes place in the floodplain, is also a large part of flood attenuation function. The wetlands on this site do not support this type of flood attenuation but are able to intercept and attenuate runoff in the watershed. Since storage potential is limited however, their flood attenuation role is likely minor. Wetland supported recreation is also strongly linked with surface water for activities such as boating and fishing which are not supported in these wetlands. Lack of surface water combined with their relatively uniform and common character also limits their relevance to values that are typically associated with more diverse, unique, or accessible wetlands. This would include scientific and educational pursuits, general aesthetics, and heritage. Lastly, the low permeability of the soils on the site may produce some discharge of shallow groundwater on slopes but does not allow significant interaction with the groundwater. These wetlands are not characteristic of groundwater discharge or recharge areas.

Based on the characteristics of the wetlands and their location in the landscape it was determined that Wildlife Habitat, Production-Export, and Sediment/Toxicant Retention & Nutrient Removal are the principal functions of the wetlands on the site. These functions

are described in greater detail in the following sections. The assessment forms are included in the Appendix C.

**Wildlife Habitat**— Wildlife habitat is clearly the principal function of the portion of wetland that supports vernal pool breeding habitat. This type of habitat is highly specific and not supported in the other areas of wetland on the property. The remainder of the wetland supports general wildlife habitat, the value of which is elevated by the large block of unfragmented forest and waterway within the Little River Conservation land which lies directly adjacent to the property.

**Production Export**—In this case, Production Export function is closely related to wildlife habitat by way of production of wildlife food sources. The early successional species currently present in recently logged areas of the wetland combined with mast producing trees (principally oaks) produce an abundant source of berries, nuts, seeds, and pollen bearing flowers. This likely provides a substantial source of food for wildlife. It is notable that function is supported across much of the site, including upland areas which contain more of the mast producing oak.

**Sediment/Toxicant Retention & Nutrient Removal**— Due to their location upstream of the Little River conservation land and considering the significant development pressure in this area, the wetlands likely play an important role in protecting the water quality within Little River and other high value wetlands in the conservation land. The wetlands on the property lack significant streams or other defined drainage paths. This diffuse drainage pattern provides the opportunity for treatment long before reaching more defined flow paths downstream.

### 3.0 Proposed Project

The project involves construction of a +/- 95,000 square foot industrial warehouse together with associated accessways, parking, stormwater management, and other related site improvements. The project has been designed for and will be occupied by Glerups, Inc. who also owns the property. The development will utilize approximately 11 acres of the 20-acre property situated at the cul-de-sac terminus of Continental Drive. Access will be provided via an easement across the existing driveway for the adjacent property (#15 Continental Drive). The remainder of the property, consisting of a narrow extension to an earlier point on Continental Drive, is largely wetland and will be left undisturbed. A total of 9,452 square feet of wetland fill is proposed to construct the project. An additional 448 square feet of temporary disturbance is also proposed in order to construct the two retaining walls being used to minimize impacts.



## **4.0 Alternatives Analysis**

### **4.1 Project Purpose**

The proposed facility is being constructed to meet the location, space, and operational requirements of Glerups, Inc. to support the distribution and sale of their products (specialty shoes) in the U.S.

### **4.2 Site Constraints**

The property is constrained by wetland on all sides, including two fingers extending from the southern property lines toward the middle of the site. The fingers make it nearly impossible to site an industrial use on the site, a use which has been specifically envisioned for the property and for which the property is zoned. Access is also dictated via an easement from the driveway of the adjacent property with a large vernal pool existing adjacent to this area. The narrow "arm" of the property extending around the back of the adjacent properties to Continental Dive has extensive wetland, including 100-year floodplain, and cannot be utilized for access or any other aspect of the project. Accessing the property in any other location would therefore involve significantly more wetland impact and more valuable resource areas.

### **4.3 Avoidance & Minimization**

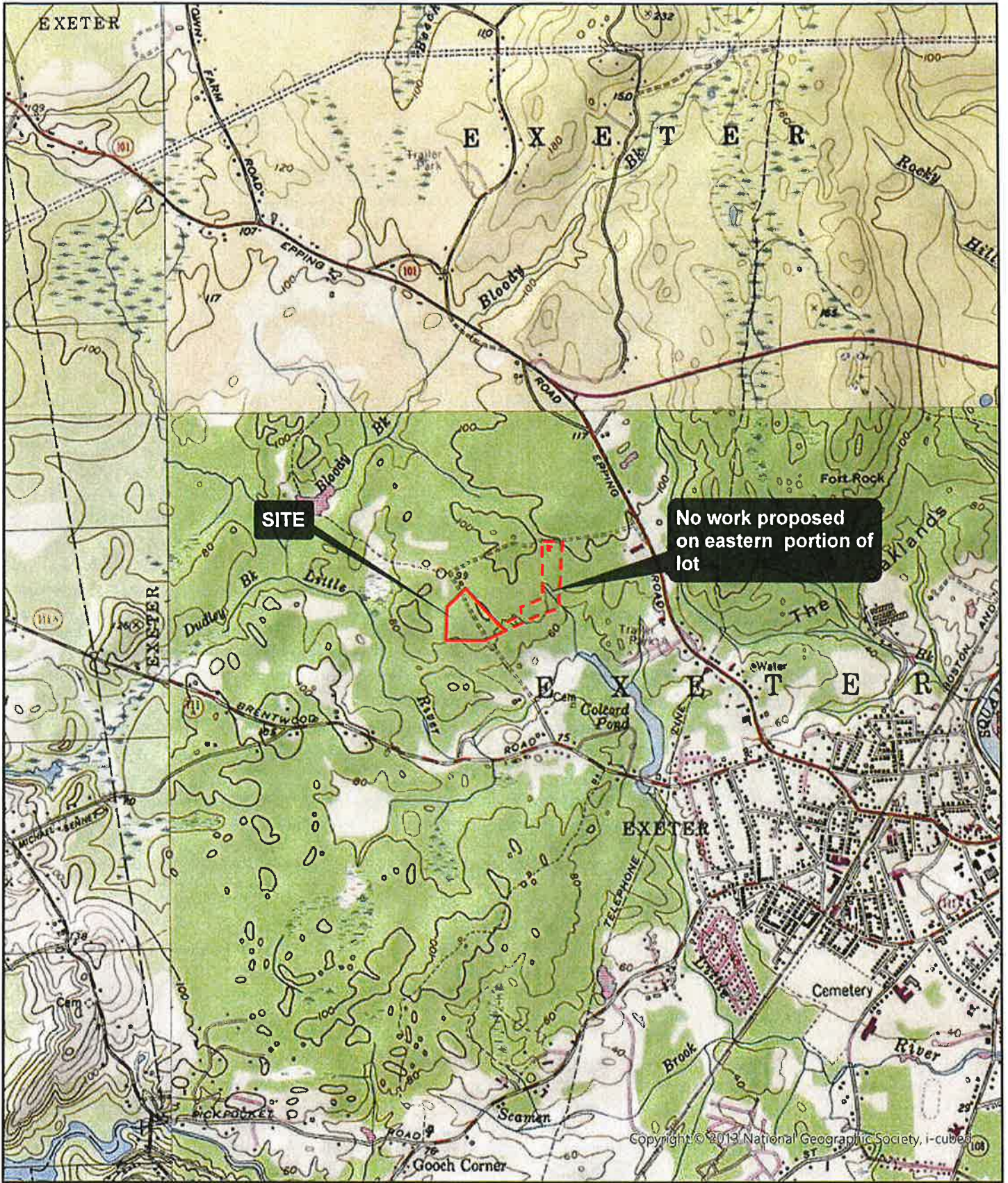
Warehouse facilities such as this are designed for efficient management of internal space, docking facilities, and external circulation of truck traffic. This translates to a relatively inflexible, boxy design that requires a large contiguous area. The development has been located to utilize the contiguous upland roughly in the middle of the site and limit wetland impacts to the two fingers of wetland extending into the middle of the site and several smaller areas at the edges of the surrounding wetland. Direct impact to the vernal pool has been avoided and impact to the upland surrounding the pool has been minimized to the maximum extent possible given the location of the access and need for traffic circulation around the building. Impacts overall have also been minimized by utilizing retaining walls and steep grading and the edges of the development. Given the design criteria, the site constraints, and impact minimization measures already employed, there is no other feasible alternative with less impact to wetlands.

### **4.4 Conformance With Env-Wt 311.10**

In addition to avoiding and minimizing impacts overall, the project has been designed to avoid the most valuable areas of wetland and preserve wetland functions and values to the maximum extent practicable. The primary functions of the resource areas were determined to be related to wildlife habitat, production export for wildlife food sources,

and water quality. While water quality and production export function are supported rather uniformly in all the wetlands on the site, wildlife habitat is concentrated in the vernal pool and the interior portions of the larger wetland, particularly closer to the Little River conservation land. Impacts to the vernal pool, which is the single most valuable resource areas on the site have been avoided. Additionally, by limiting wetland impact elsewhere to the edges and narrow extensions of the wetland, the more valuable wetland specific wildlife habitat on the interior has been preserved. The project also avoids crossings or larger incursions into the body of the wetland to so that habitat continuity is maintained within the wetland and between other habitat located off the site. Avoidance of segmentation and crossings also preserves water quality function by maintain existing flow patterns.

## Figures



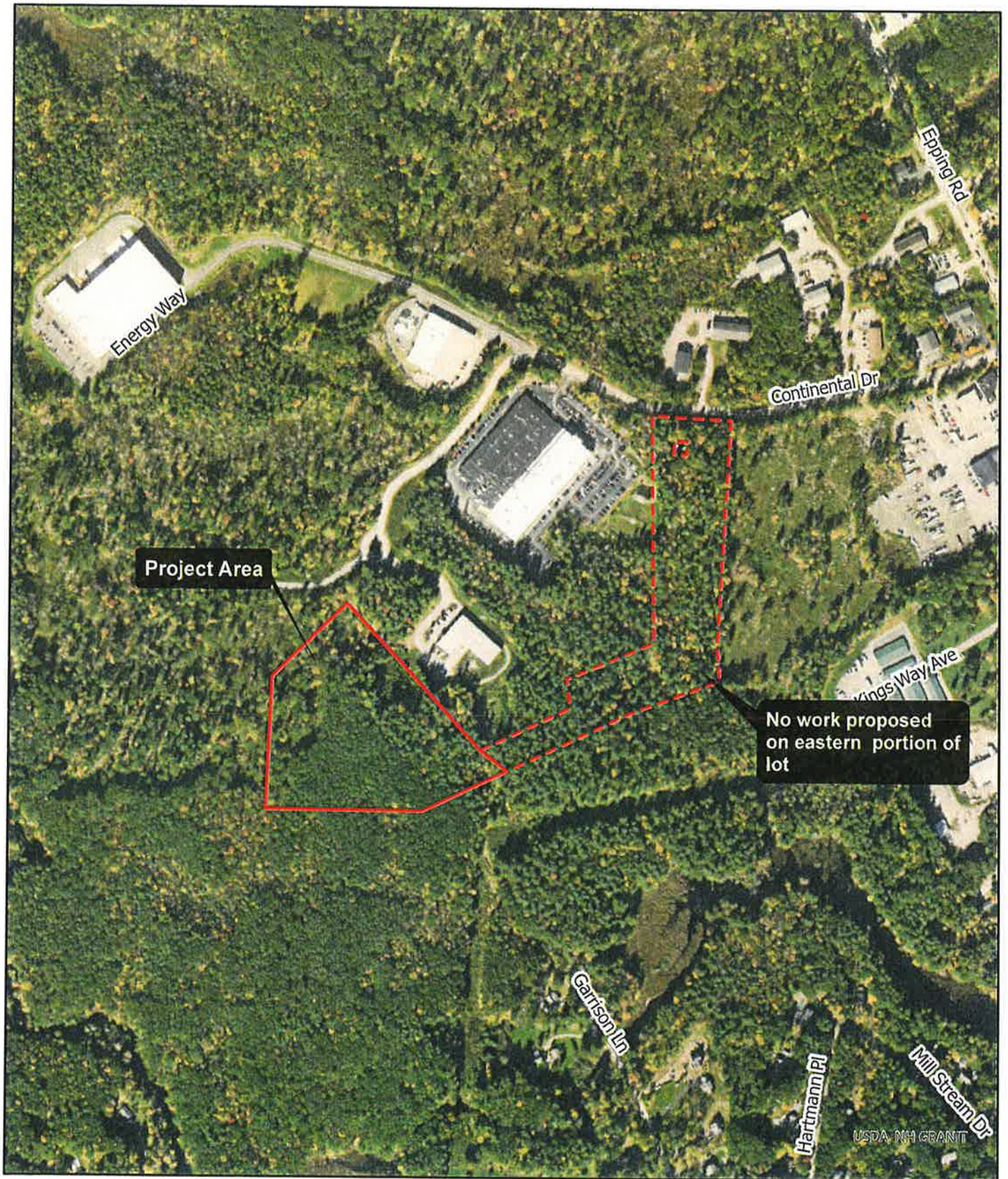
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# Locus Map

19 Continental Drive  
Exeter, NH



Gove Environmental Services, Inc.  
8 Continental Drive, Bldg 2 Unit 11, Exeter NH 03833 603-778-0641



1:6,000

## 2018 Aerial Photo

19 Continental Drive  
Exeter, NH



Your Organization

1000 7th Street



1: 13,902

0.4 Miles  
0.22  
0

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.  
THIS MAP IS NOT TO BE USED FOR NAVIGATION

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
© Latitude Geographics Group Ltd.

### Legend

- Parcel Polygons
- Parcel Polygons
- Attributes for Additional Lines
- Parcel Lines
- Flood Plain Wetlands Adjacent
- Prime Wetlands with 100 ft Buffer
- Prime Wetlands
- Designated Rivers
- Subject to SWQPA
- Not Subject to SWQPA
- Sand Dunes
  - backdune
  - foredune
  - intertide
  - other
- Tidal Waters / Tidal Wetlands
  - Tidal wetland
  - Transitional salt marsh
  - Salt marsh
  - Mud flat
  - Tidal water
- World Imagery
- Low Resolution 15m Imagery
- High Resolution 60cm Imagery
- High Resolution 30cm Imagery

### Notes



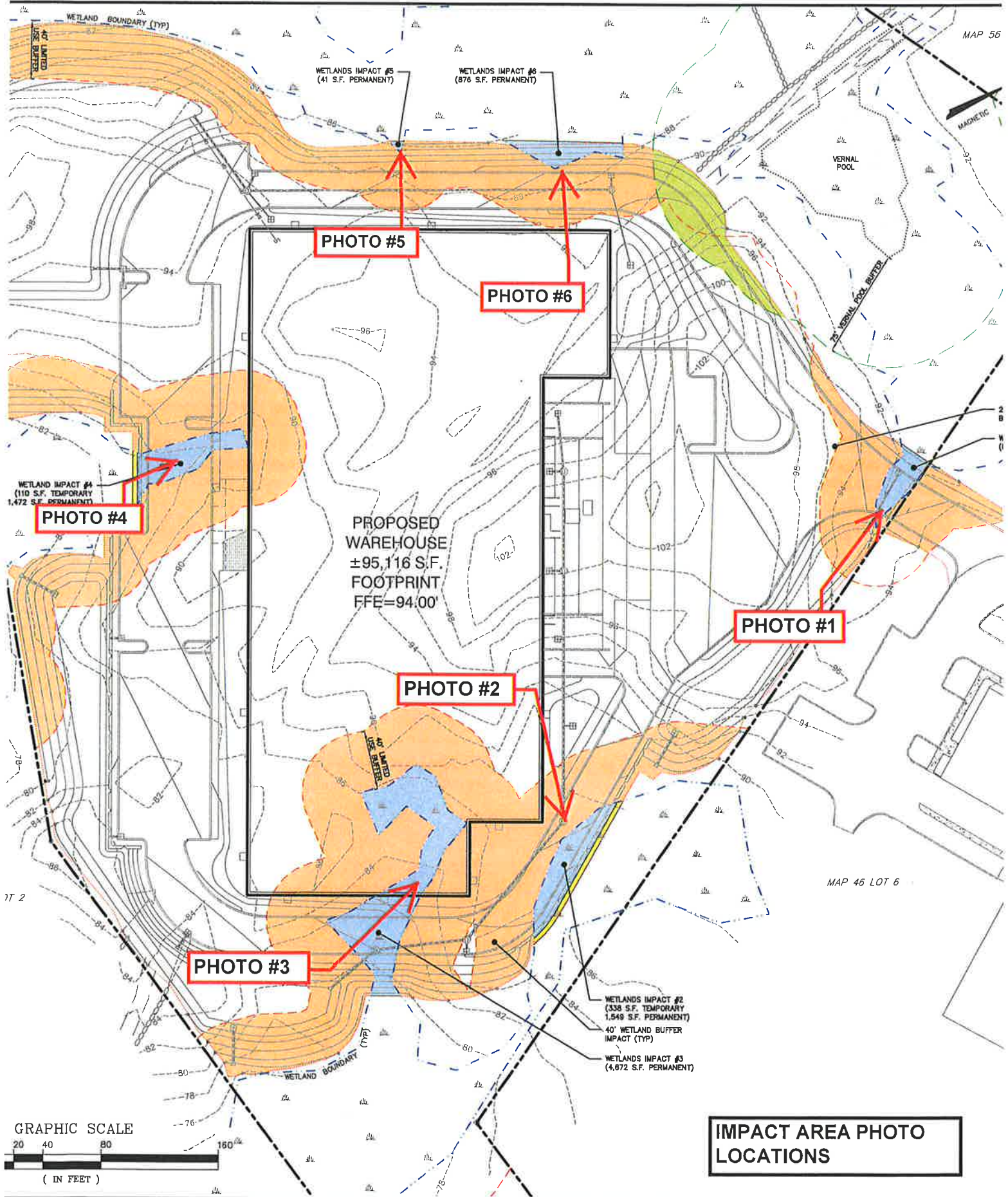
**Wetland Impact Overview**

**Appendix A**  
**Impact Area Photos**





MAGNETIC





Impact Area 1



Impact Area 2



Impact Area 3



Impact Area 4



Impact Area 5

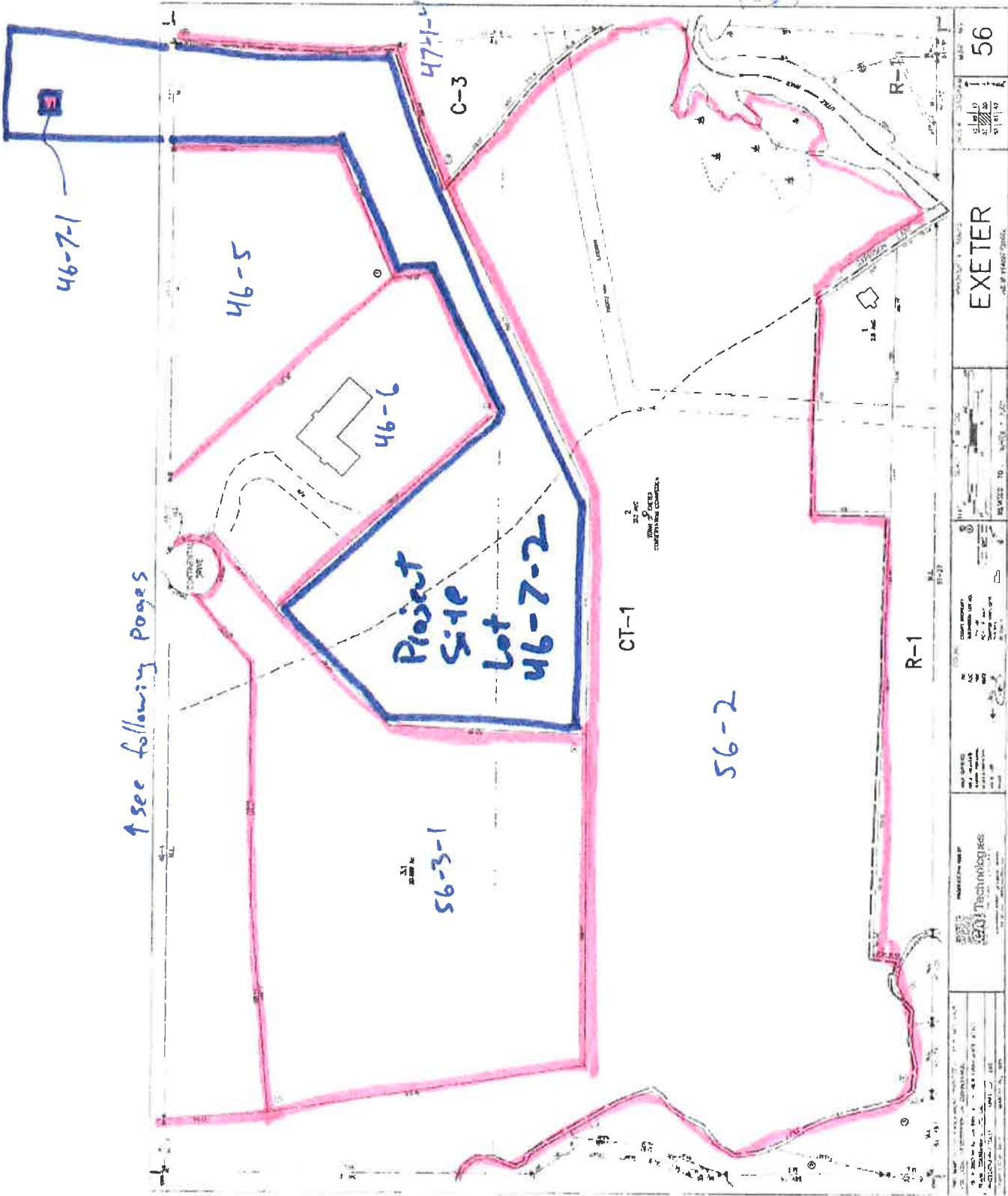


Impact Area 6

**Appendix B**  
**Abutter Information**



↑ See following pages



↑ see following pages

46-7-1

46-5

46-6

Project Site  
Lot 46-7-2

56-3-1

56-2

46-7-1

C-3

CT-1

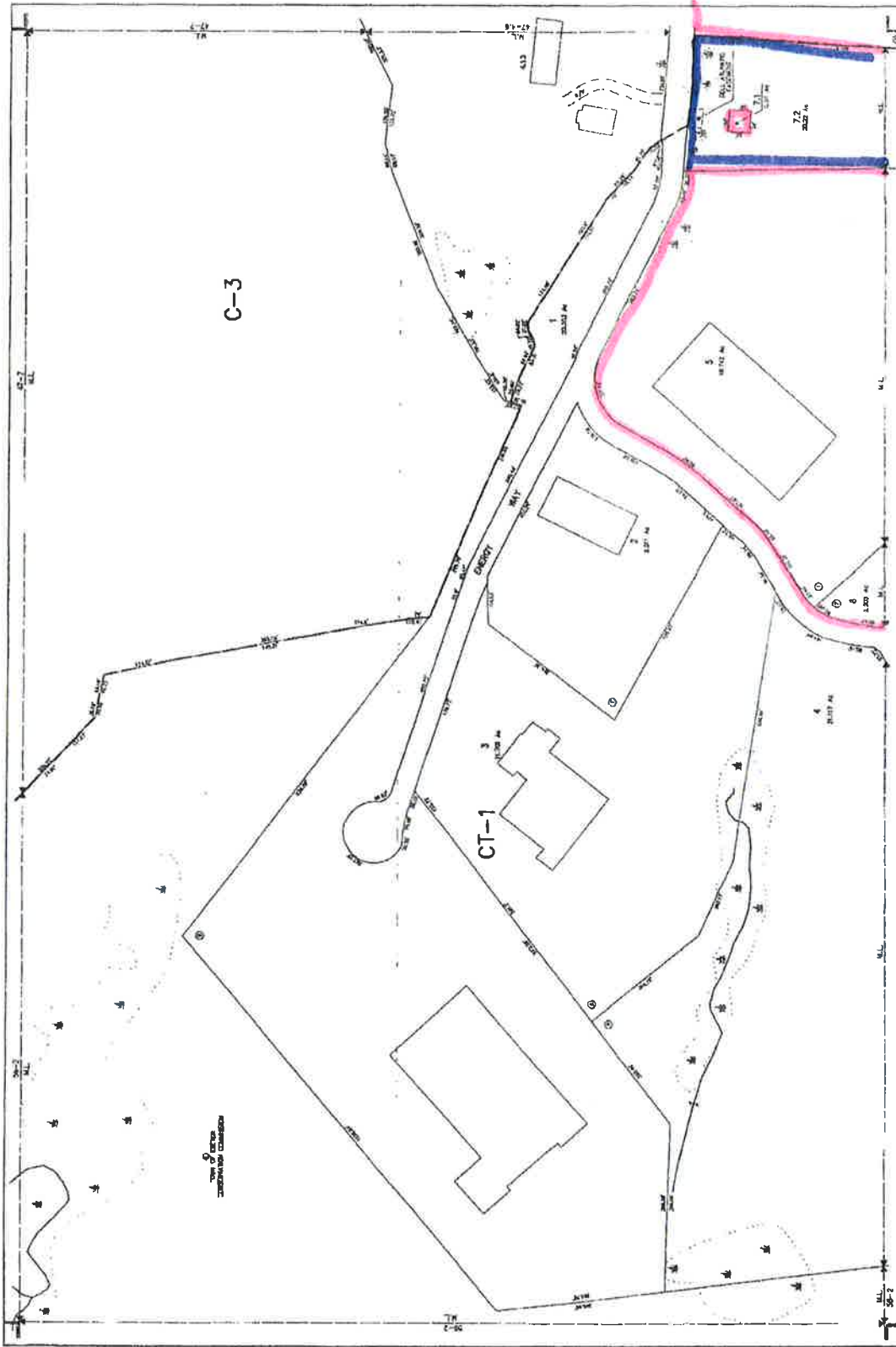
R-1

EXETER

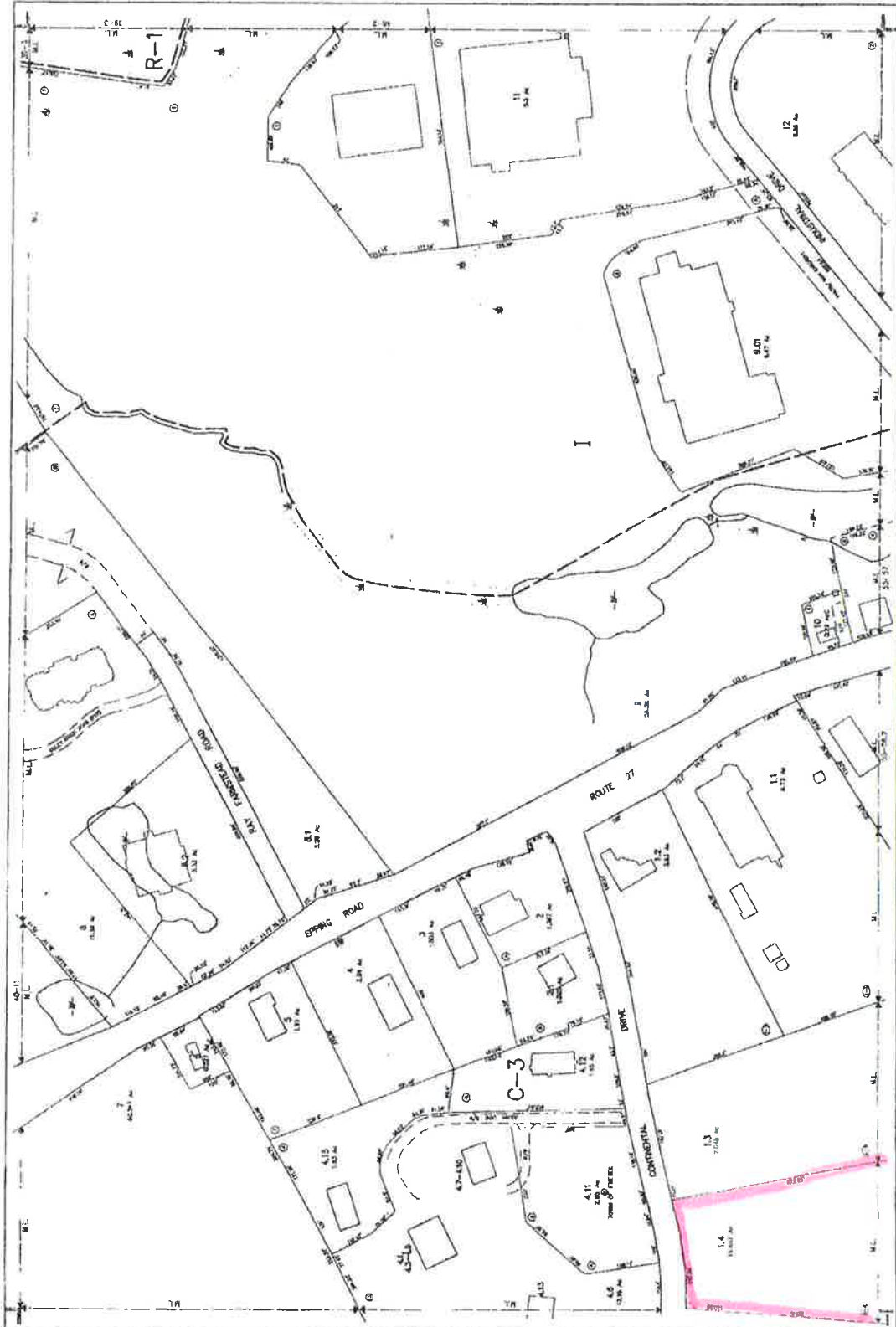
56

GAY Technologies

DATE: 10/11/19



INDEX MAP MAP NO. 46 17 18 19 20 21 22	
PROPERTY MAPS <b>EXETER</b> NEW HAMPSHIRE	
SCALE 1" = 100' 0 50 100 FEET	REVISIONS TO: 10/21/2023
<b>LEGEND</b> BOUNDARY EXISTING BUILDING PROPOSED BUILDING DRIVE WALKWAY FENCE UTILITY TREE SHED POLE SIGN LIGHT MANHOLE VALVE WATER SEWER GAS ELEC TEL CABLE FIBER RAILROAD HIGHWAY RIVER LAKE STREAM DITCH DRAINAGE SWAMP SAND GRAVEL ROCK CLAY SILT MUD VEGETATION FOLIAGE TREES SHRUBS GRASS BARN GARAGE PORCH DECK PATIO WALKWAY DRIVE FENCE SIGN LIGHT MANHOLE VALVE WATER SEWER GAS ELEC TEL CABLE FIBER	PROJECT NO. 2023-001 DATE 10/21/2023 DRAWN BY J. B. BROWN CHECKED BY J. B. BROWN SCALE 1" = 100' REVISIONS TO: 10/21/2023
NOT TO BE USED FOR ANY PURPOSES IF IN ANY MANNER FOR LOCAL DEPARTMENT OR OTHERWISE WITHOUT THE WRITTEN CONSENT OF THE EXETER ZONING COMMISSION PROJECT NUMBER: 2023-001 PROJECT DATE: 10/21/2023 COMPLETION DATE: 10/21/2023	



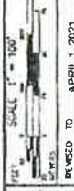
MAP NO  
**47**

INDEX DIAGRAM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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PROPERTY MAPS  
**EXETER**  
NEW HAMPSHIRE

DATE REPORT  
APRIL 1, 1977

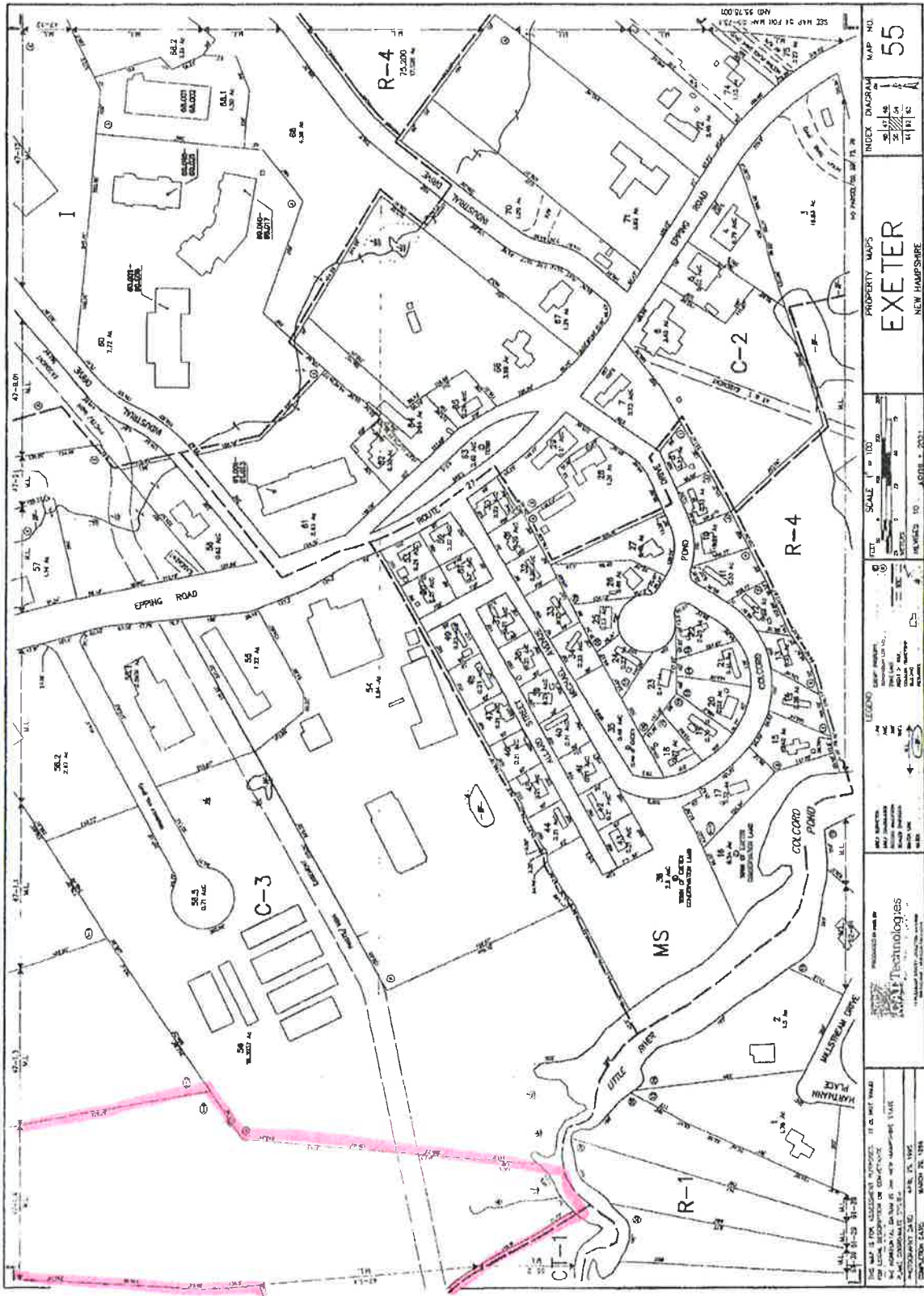


THIS MAP IS A REPRODUCTION OF THE ORIGINAL AS SHOWN ON THE ORIGINAL RECORD MAPS AND PLANS ON FILE IN THE OFFICE OF THE REGISTRAR OF DEEDS AND CONVEYANCES, STATE OF NEW HAMPSHIRE.



11-5-4677-11-6  
OFFICE OF THE REGISTRAR OF DEEDS AND CONVEYANCES  
STATE OF NEW HAMPSHIRE  
PLANNING DIVISION  
1000 STATE STREET  
CONCORD, N.H. 03301  
APRIL 1, 1977  
REPRODUCED BY THE REGISTRAR OF DEEDS AND CONVEYANCES, STATE OF NEW HAMPSHIRE





INDEX DIAGRAM MAP NO. 55  
 PROPERTY MAP OF EXETER NEW HAMPSHIRE  
 SCALE 1" = 100'  
 REVISIONS TO: APRIL 2, 2001  
 LEGEND  
 PREPARED BY: **ES&T Technologies**  
 100 Main Street, Exeter, NH 03824  
 TEL: 603-271-1111 FAX: 603-271-1112  
 WWW.ESANDT.COM  
 THIS MAP IS FOR ASSISTANCE PURPOSES. IT IS NOT NEARLY AS ACCURATE AS THE ORIGINAL RECORDS. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION SHOWN ON THIS MAP.

## DIRECT ABUTTER LIST

### SITE:

46-7-2	GLERUPS INC 27 Pleasant Street Newfields, NH 03856
--------	--

### ABUTTERS:

46-5	Continental Microwave, Inc. 11 Continental Drive Exeter, NH 03833
46-6	Perry Corporate Center 2094 Townline Road Madison, OH 44057
46-7-1	Holding Court, LLC C/O American Tower Corp 900 Circle 75 PKWY Suite 300 Atlanta, GA 30339
47-1-4	3-5 Continental Drive 156 Epping Road Exeter NH 03833
56-2	Town of Exeter 10 Front Street Exeter, NH 03833
56-3-1	Garrison Glen, LLC 20 Trafalga Sq, Suite 610 Nashua, NH

June 23, 2022

«Name»

«Street»

«TownStateZip»

Re: 19 Continental Drive  
Map 46 Lot 7.2  
Exeter, NH

Dear Abutter:

The purpose of this letter is to inform you that GLERUPS, Inc has submitted a Dredge and Fill Application to the NH Department of Environmental Services for construction of a warehouse building located at 19 Continental Drive in Exeter, NH, Tax Map 46 Lot 7.2. DES requires this notice for work within a wetland area. After filing, a copy of the final Application, including plans, will be made available for your review at the Exeter Town Hall and at the NH Department of Environmental Services Wetlands Bureau, 29 Hazen Drive, in Concord.

If you have any questions that we might be able to answer, please feel free to contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "Brendan Quigley". The signature is fluid and cursive, with a long, sweeping underline.

Brendan Quigley, CWS  
Gove Environmental Services, Inc.

7021 1970 0001 1537 3623

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Return Receipt (electronic) \$

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Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total \$

Sent \$

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3-5 Continental Drive  
156 Epping Road  
Exeter NH 03833

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Town of Exeter  
10 Front Street  
Exeter, NH 03833

City, State, ZIP+4®

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Adult Signature Required \$

Adult Signature Restricted Delivery \$

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Street 46-6  
Perry Corporate Center  
2094 Townline Road  
Madison, OH 44057

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 1970 0001 1537 3647

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Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total \$

Sent \$

Street 46-7-1  
Holding Court, LLC  
C/O American Tower Corp  
700 Circle 75 PKWY Suite 300  
Atlanta, GA 30339

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total \$

Sent \$

Street 56-5  
Continental Microwave, Inc.  
11 Continental Drive  
Exeter, NH 03833

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total \$

Sent \$

Street 56-3-1  
Garrison Glen, LLC  
20 Trafalga Sq, Suite 610  
Nashua, NH

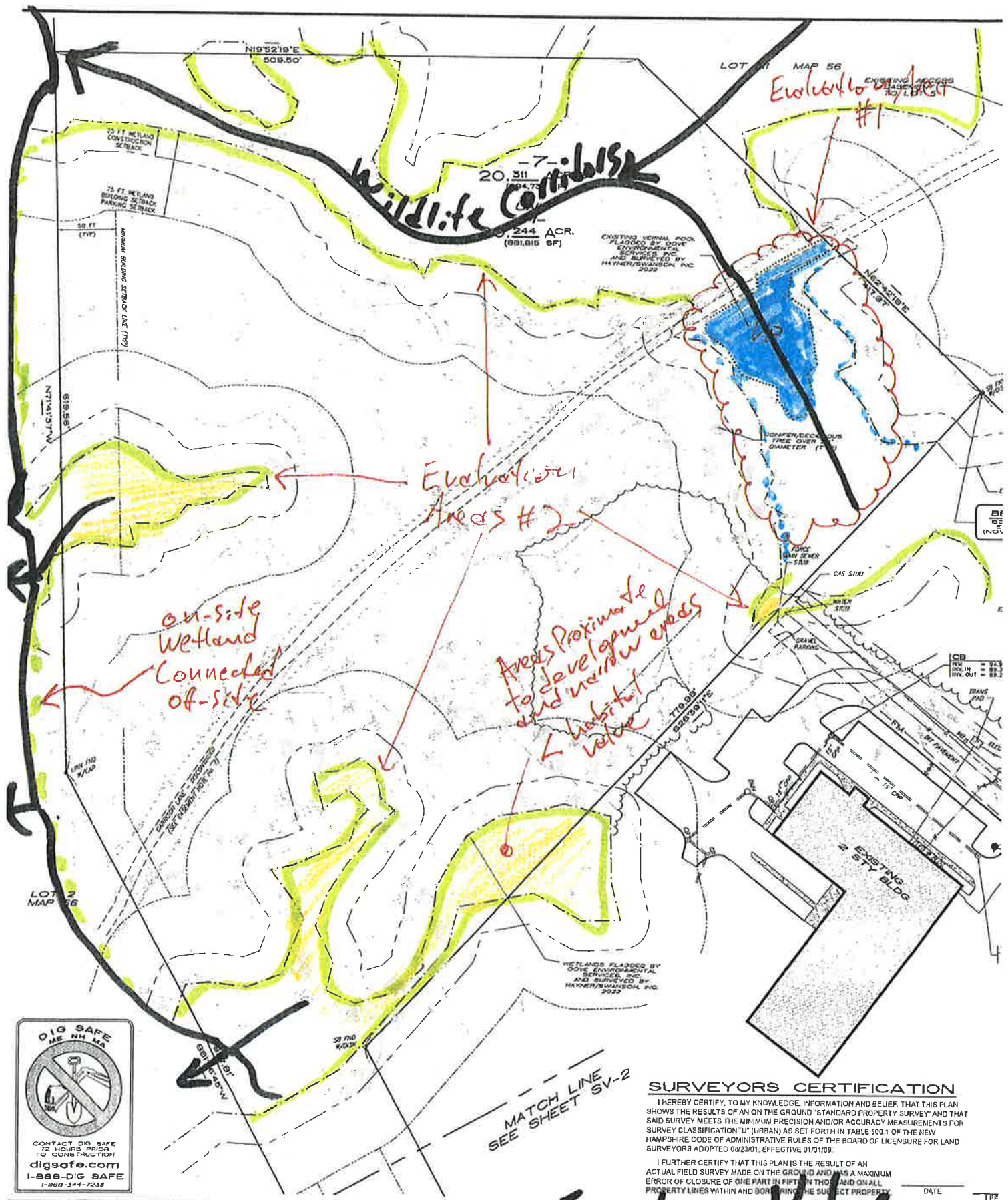
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**Appendix C**

**Function and Value Assessment Worksheets**





MATCH LINE  
SEE SHEET SV-2

**SURVEYORS CERTIFICATION**

I HEREBY CERTIFY, TO MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN SHOWS THE RESULTS OF AN ON THE GROUND "STANDARD PROPERTY SURVEY" AND THAT SAID SURVEY MEETS THE MINIMUM PRECISION AND/OR ACCURACY MEASUREMENTS FOR SURVEY CLASSIFICATION "U" (URBAN) AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS ADOPTED 08/23/01, EFFECTIVE 01/01/03.

I FURTHER CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS A MAXIMUM ERROR OF CLOSURE OF ONE PART IN FIFTY THOUSAND AND ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY

DATE \_\_\_\_\_  
LEE

**Function & Value Sketch**

# Wetland Function-Value Evaluation Form

Wetland I.D. Eval Area 1 (Vernal Pool)  
 Latitude see sketch Longitude and plans  
 Prepared by: BJQ Date 4/5/22  
 Wetland Impact: \_\_\_\_\_  
 Type buffer Area \_\_\_\_\_

Total area of wetland ~26,000 SF Human made? no Is wetland part of a wildlife corridor? YES or a "habitat island"? NO  
 Adjacent land use Industrial Development and Roadway Distance to nearest roadway or other development <10'  
 Dominant wetland systems present PFO1E/PSS1 Contiguous undeveloped buffer zone present NO  
 Is the wetland a separate hydraulic system? NO If not, where does the wetland lie in the drainage basin? HIGH  
 How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Evaluation based on:  
 Office X Field X  
 Corps manual wetland delineation completed? Y X N N

Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	N	6	signs of bedrock and low permeability soils	
Floodflow Alteration	Y	2,3,7,9,15	basin shape of VP provides some storage, minimal in overall wetland	
Fish and Shellfish Habitat	N		ephemeral surface water	
Sediment/Toxicant Retention	Y	1,3,4,7	receives runoff from surrounding devel. diffuse flow to little river	
Nutrient Removal	Y	3,4,7,8,9	receives runoff from surrounding devel. diffuse flow to little river	
Production Export	Y	1,4,7,12	wildlife food sources, dense berry prod. shrubs	
Sediment/Shoreline Stabilization	N		not associated with surface water	
Wildlife Habitat	Y	7,8,13,16,17,18,20X	confirmed vernal pool	
Recreation	N	4	low aesthetic value and diversity, lacks surface water, rec. largely unrelated to wetland	
Educational/Scientific Value	Y	5	limited value for VP study, private, limited diversity	
Uniqueness/Heritage	N		adj developed areas, forested wetland only	
Visual Quality/Aesthetics	N		adj developed areas, forested wetland only	
Endangered Species Habitat	N		none identified	
Other				

Notes: \* Refer to backup list of numbered considerations.

# Wetland Function-Value Evaluation Form

Wetland I.D. Eval Area 2 (other wetland on site)  
 Latitude see sketch Longitude and plans  
 Prepared by: BJQ Date 4/5/22  
 Wetland Impact: Type Fill Area 9,452  
 Evaluation based on: Office X Field X  
 Corps manual wetland delineation completed? Y<sup>x</sup> N

Total area of wetland ~ 3 ac Human made? no Is wetland part of a wildlife corridor? YES or a "habitat island"? NO  
 Adjacent land use Industrial Development and Roadway Distance to nearest roadway or other development <10'  
 Dominant wetland systems present PFO1E Contiguous undeveloped buffer zone present NO  
 Is the wetland a separate hydraulic system? NO If not, where does the wetland lie in the drainage basin? HIGH  
 How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	N	6		<b>signs of bedrock and low permeability soils</b>
Floodflow Alteration	Y	2,3,7,9,15		not directly assoc. with waterway (floodplain), minimal storage overall in wetland
Fish and Shellfish Habitat	N			<b>no surface water</b>
Sediment/Toxicant Retention	Y	1,3,4,7	X	receives runoff from surrounding devel. diffuse flow to little river
Nutrient Removal	Y	3,4,7,8,9	X	receives runoff from surrounding devel. diffuse flow to little river
Production Export	Y	1,4,7,12	X	<b>wildlife food sources, berry prod. shrubs, oak</b>
Sediment/Shoreline Stabilization	N			<b>not associated with surface water</b>
Wildlife Habitat	Y	4,8,10,11		concentrated in wildlife passage areas (see sketch) and interior of wetland
Recreation	N	4		low aesthetic value and diversity, lacks surface water, rec. largely unrelated to wetland
Educational/Scientific Value	Y			<b>private, limited diversity</b>
Uniqueness/Heritage	N			<b>adj developed areas, forested wetland only</b>
Visual Quality/Aesthetics	N			<b>adj developed areas, forested wetland only</b>
Endangered Species Habitat	N			<b>none identified</b>
Other				

Notes: \* Refer to backup list of numbered considerations.



## **Appendix D**

### **ACOE Supplemental Information**

(Secondary Impacts Checklist, SHPO Inquiry, IPaC Report)





**US Army Corps  
of Engineers**  
New England District

**New Hampshire General Permits (GPs)  
Appendix B - Corps Secondary Impacts Checklist  
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

<b>1. Impaired Waters</b>	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See <a href="http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm">http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm</a> to determine if there is an impaired water in the vicinity of your work area.*	X	
<b>2. Wetlands</b>	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		X
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at <a href="https://www2.des.state.nh.us/nhb_datacheck/">https://www2.des.state.nh.us/nhb_datacheck/</a> . The book <u>Natural Community Systems of New Hampshire</u> also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	NO Crossings	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	0	
2.7 What is the area of the proposed fill in wetlands?	9,452 SF	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	approx 1%	
<b>3. Wildlife</b>	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: <a href="https://www2.des.state.nh.us/nhb_datacheck/">https://www2.des.state.nh.us/nhb_datacheck/</a> USFWS IPAC website: <a href="https://ecos.fws.gov/ipac/location/index">https://ecos.fws.gov/ipac/location/index</a> <span style="border: 1px solid black; padding: 2px;">NLEB, SWP</span>	X	

3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> <li>• PDF: <a href="https://wildlife.state.nh.us/wildlife/wap-high-rank.html">https://wildlife.state.nh.us/wildlife/wap-high-rank.html</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul>	X	
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?	X	
3.5 Are stream crossings designed in accordance with the GC 21?		
<b>4. Flooding/Floodplain Values</b>	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		X
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	N/A	
<b>5. Historic/Archaeological Resources</b>		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**	X	

\*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

\*\* If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources  
State Historic Preservation Office  
Attention: Review & Compliance  
19 Pillsbury Street, Concord, NH 03301-3570

RECEIVED FEB 28 2022

DHR Use Only	
R&C #	13561
Log In Date	2/28/22
Response Date	4/06/22
Sent Date	4/09/22

## Request for Project Review by the New Hampshire Division of Historical Resources

- This is a new submittal  
 This is additional information relating to DHR Review & Compliance (R&C) #:

<b>GENERAL PROJECT INFORMATION</b>
Project Title 19 Continental Drive
Project Location 19 Continental Drive
City/Town Exeter Tax Map 46 Lot # 7.2
NH State Plane - Feet Geographic Coordinates: Easting 1167491 Northing 179743 (See RPR Instructions and R&C FAQs for guidance.)
Lead Federal Agency and Contact (if applicable) ACOE (Agency providing funds, licenses, or permits) Permit Type and Permit or Job Reference # GP
State Agency and Contact (if applicable) NHDES Permit Type and Permit or Job Reference # Dredge & Fill
<b>APPLICANT INFORMATION</b>
Applicant Name GLERUPS INC
Mailing Address PO BOX 884 Phone Number
City Durham State NH Zip 038924 Email
<b>CONTACT PERSON TO RECEIVE RESPONSE</b>
Name/Company Brendan Quigley
Mailing Address 8 Continental Drive Bldg2 Unit H Phone Number 6036860086
City Exeter State NH Zip 03833 Email bquigley@gesinc.biz

This form is updated periodically. Please download the current form at [www.nh.gov/nhdhr/review](http://www.nh.gov/nhdhr/review). Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Please include a self-addressed stamped envelope. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: [www.nh.gov/nhdhr/review](http://www.nh.gov/nhdhr/review) or contact the R&C Specialist at [marika.s.labash@dnr.nh.gov](mailto:marika.s.labash@dnr.nh.gov) or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION 13561

Project Boundaries and Description

- Attach the Project Mapping *using EMMIT or relevant portion of a 7.5' USGS Map.* (See RPR Instructions and R&C FAQs for guidance.)
- Attach a detailed narrative description of the proposed project.
- Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) *(Informative photo captions are requested.)*
- A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in Table 1. *(Blank table forms are available on the DHR website.)*  
EMMIT or in-house records search conducted on / / .

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area?  Yes  No  
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s):

- Photographs of *each* resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity?  Yes  No  
If yes, submit all of the following information:

- Description of current and previous land use and disturbances.
- Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

**DHR Comment/Finding Recommendation** *This Space for Division of Historical Resources Use Only*

- Insufficient information to initiate review.  Additional information is needed in order to complete review.
- No Potential to cause Effects  No Historic Properties Affected  No Adverse Effect  Adverse Effect

Comments: PROJECT AREA SURVEYED AT 1-A LEVEL IN 2016 UNDER RPR # 7101. CONCUR WITH RESULTS AND RECOMMENDATION OF NO FURTHER STUDY.

*If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.*

Authorized Signature: Nashli Miller, DSRPO Date: 4/26/22

## Project Summary

Project Code: 2022-0035405

Event Code: None

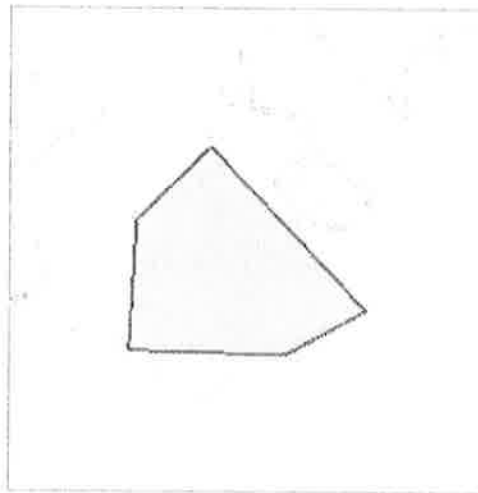
Project Name: 19 Continental Dr. Warehouse

Project Type: Commercial Development

Project Description: The project involves construction of a 41,000 SF, multi tenant warehouse and light manufacturing building on a currently vacant lot within the Garrison Glen Industrial Park.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.99118489999999,-70.98161178893633,14z>



Counties: Rockingham County, New Hampshire

## Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

### Flowering Plants

NAME	STATUS
Small Whorled Pogonia <i>Isotria medeoloides</i> Population: No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1890">https://ecos.fws.gov/ecp/species/1890</a>	Threatened

### Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

---

## **IPaC User Contact Information**

Agency: Gove Environmental Services Inc  
Name: Brendan Quigley  
Address: 8 Continental Drive  
Address Line 2: Bldg 2 Unit H  
City: Exeter  
State: NH  
Zip: 03833  
Email: [bquigley@gesinc.biz](mailto:bquigley@gesinc.biz)  
Phone: 6037780644

---





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104  
<http://www.fws.gov/newengland>

In Reply Refer To:  
Project code: 2022-0035405  
Project Name: 19 Continental Dr. Warehouse

April 25, 2022

Subject: Verification letter for the '19 Continental Dr. Warehouse' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Brendan Quigley:

The U.S. Fish and Wildlife Service (Service) received on April 25, 2022 your effects determination for the '19 Continental Dr. Warehouse' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"<sup>[1]</sup> prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Small Whorled Pogonia *Isotria medeoloides* Threatened

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

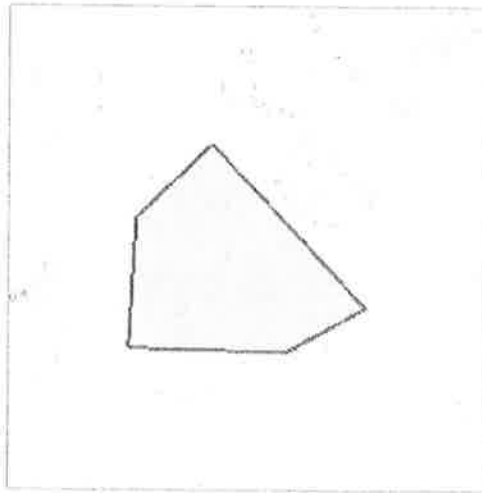
19 Continental Dr. Warehouse

**2. Description**

The following description was provided for the project '19 Continental Dr. Warehouse':

The project involves construction of a 41,000 SF, multi tenant warehouse and light manufacturing building on a currently vacant lot within the Garrison Glen Industrial Park.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.99118489999999,-70.98161178893633,14z>

**Determination Key Result**

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

**Determination Key Description: Northern Long-eared Bat 4(d) Rule**

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require

ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

## Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

## Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?  
Yes
2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")  
No
3. Will your activity purposefully **Take** northern long-eared bats?  
No
4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?  
**Automatically answered**  
No
5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at [www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html](http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html).

Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?  
No
7. Will the action involve Tree Removal?  
Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

*No*

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

*No*

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

*No*

---

## Project Questionnaire

**If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.**

1. Estimated total acres of forest conversion:

5

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

**If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.**

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

**If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.**

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

**If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.**

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

### **IPaC User Contact Information**

Agency: Gove Environmental Services Inc  
Name: Brendan Quigley  
Address: 8 Contintental Drive  
Address Line 2: Bldg 2 Unit H  
City: Exeter  
State: NH  
Zip: 03833  
Email: bquigley@gesinc.biz  
Phone: 6037780644

### **Lead Agency Contact Information**

Lead Agency: Army Corps of Engineers



**Appendix E**

**New Hampshire Natural Heritage Inquiry**



# Memo

## NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.  
Maps and NHB record pages are confidential and should be redacted from public documents.

**To:** Luke Hurley, Gove Environmental Services, Inc.  
8 Continental Drive  
Exeter, NH 03833

**From:** NHB Review, NH Natural Heritage Bureau

**Date:** 2/24/2022 (valid until 02/24/2023)

**Re:** Review by NH Natural Heritage Bureau

**Permits:** MUNICIPAL POR - exeter, NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit, USEPA - Stormwater Pollution Prevention

**NHB ID:** NHB22-0691      **Town:** exeter      **Location:** 19 continental dr

**Description:** Industrial/Commercial development involving approximately 10,000 SF of wetland impact

**cc:** Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

### Comments

**NHB: No Comments At This Time**  
**F&G:** As of February 3, 2022, New Hampshire Fish and Game requirements for environmental review consultation have changed. To review the new rules, please go to <https://www.wildlife.state.nh.us/legislative/proposed-rules.html>. All requests for consultation and submittals should be sent via email to [NHFGreview@wildlife.nh.gov](mailto:NHFGreview@wildlife.nh.gov) or can be sent by mail. The NHB datacheck results letter number needs to be included in the email subject line.

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Consultation requests for these projects can be sent directly to [kim.tuttle@wildlife.nh.gov](mailto:kim.tuttle@wildlife.nh.gov).

### Vertebrate species

	State <sup>1</sup>	Federal	Notes
Northern Black Racer ( <i>Coluber constrictor</i> )	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle ( <i>Glyptemys insculpta</i> )	SC	--	Contact the NH Fish & Game Dept (see below).

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

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

DNCR/NHB  
172 Pembroke Rd.  
Concord, NH 03301

## **Memo**

NH Natural Heritage Bureau  
NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

Contact for all animal reviews: *Kim Tuttle, NHF&G, (603) 271-6544.*

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A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

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

DNCR/NHB  
172 Pembroke Rd.  
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB22-0691



**Appendix F**  
**Plans (under separate cover)**



# Correspondence: Request For Reconsideration Materials

**TOWN OF EXETER  
CONSERVATION COMMISSION MEMORANDUM**

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Date: June 15, 2022  
To: Planning Board  
From: Andrew Koff, Chair, Exeter Conservation Commission  
Subject: Ray Farm Building D Relocation - Wetland and Shoreland CUP

**Project Information:**

Project Location: Ray Farm  
Map/Lot: Map 47, Lot 8.1  
CC Review Date: June 14, 2022  
PB CASE: #22-03

Following a site walk, an evaluation of the application materials, a presentation by the applicant's representatives and review of the conditional use permit criteria for both Wetland and Shoreland, the Exeter Conservation Commission voted unanimously as follows:

To recommend denial of the Shoreland Conditional Use Permit over concerns that the location of the proposed development and extent of shoreland buffer impacts will detrimentally affect the surface water quality of Watson Brook, and therefore fails to meet criteria 9.3.4 (G)(2)(a). Additional design modifications could be made to limit the site impacts to the upland outside of the shoreland zone.

To recommend approval of the Wetland Conditional Use Permit with the condition that the wetland crossing structure between Building C and Building D be redesigned to include an open bottom box culvert.

Should design changes occur in a way that alters impacts to the buffers, we would request an opportunity for additional review.



---

Andrew Koff  
Chair, Exeter Conservation Commission



Kristen Murphy &lt;kmurphy@exeternh.gov&gt;

---

**Re: FW: [EXTERNAL] Conservation Commission submission requirements**

1 message

**David Sharples** <dsharples@exeternh.gov>

Wed, Jul 6, 2022 at 12:51 PM

To: "Justin L. Pasay" &lt;jpasay@dtclawyers.com&gt;

Cc: Barbara McEvoy &lt;bmcevoy@exeternh.gov&gt;, Stephanie Carty &lt;scarty@dtclawyers.com&gt;, Lisa Hayes &lt;lhayes@dtclawyers.com&gt;, Kristen Murphy &lt;kmurphy@exeternh.gov&gt;

Hello Justin,

Thanks for the additional information. I reviewed your letter and I have advised Kristen that the Conservation Commission should consider your request at their meeting next week. As I'm sure you are aware, whether to reconsider an application is not a staff decision. That determination rests with the board/commission. Although not technically a land use board like the Planning Board or ZBA, I agree that they can reconsider their decision should they choose to do so, and I will advise them to consider your request as a land use board would normally do. The process for this is to bring the request to the board and let them decide if they wish to reconsider. This is not a public hearing and I will advise them not to open it to the public. If they do wish to reconsider, then the matter will be placed on the next available agenda which I assume will be the August meeting.

Thanks,  
Dave

On Tue, Jul 5, 2022 at 10:06 AM Justin L. Pasay &lt;jpasay@dtclawyers.com&gt; wrote:

Hi Dave – I'm sure Kristen forwarded this to you but I intended to send it to you directly on Friday as the Planning Board is cc'd.

We plan to file tomorrow a supplement for the Planning Board matters so that we will be heard as scheduled on 14 July. Thanks much.

j

Justin L. Pasay, Esq.

Donahue, Tucker &amp; Ciandella, PLLC

111 Maplewood Ave., Suite D

Portsmouth, NH 03801

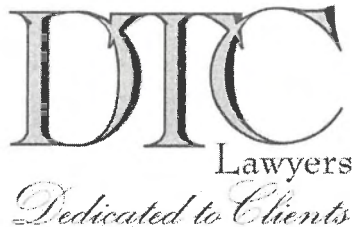
Phone (603) 766-1686

Fax (603) 766-1687

Email: [jpasay@dtclawyers.com](mailto:jpasay@dtclawyers.com)Web: [www.dtclawyers.com](http://www.dtclawyers.com)**Visit our website:** [www.dtclawyers.com](http://www.dtclawyers.com)

Now with offices in Exeter, Portsmouth and Meredith, NH





CELEBRATING OVER 30 YEARS OF SERVICE TO OUR CLIENTS

**PLEASE RESPOND TO PORTSMOUTH OFFICE**

1 July 2022

Kristen Murphy  
Exeter Natural Resource Planner  
10 Front Street  
Exeter, NH 03833

Re: Shoreland Protection District Conditional Use Permit Supplement and Request  
Ray Farm – Building D Relocation (the “Project”)

Dear Kristen and Conservation Commission Members:

As you know, we represent Jonathan Shafmaster and his various business entities with regard to the Ray Farm Condominium which is a 55+ senior living development in Exeter located on property off of Ray Farmstead Road (the “Project”). This letter follows our recent appearance on 14 June 2022 before the Exeter Conservation Commission (the “Commission”) regarding two Conditional Use Permit applications which will facilitate the relocation of Building D of the Project. That evening, the Commission recommended that the Planning Board approve the Applicant’s Wetlands Conservation Overlay District Conditional Use Permit but recommended, by a 4 – 0 vote, that the Planning Board deny the Applicant’s Shoreland Protection District Conditional Use Permit Application (the “Shoreland Permit”).

For the reasons outlined below, the Commission’s decision to recommend denial of the Applicant’s Shoreland Permit constituted legal error and was based on the misapplication of the applicable law and the relevant criteria within the Town’s Zoning Ordinance. The Applicant therefore provides the clarifying information below and enclosed herewith, and requests to appear before the Commission at its 12 July 2022 meeting so that the Commission has an opportunity to review and correct its error, which process is consistent with New Hampshire land use law that favors the resolution of such disputes at the earliest possible time so to avoid unnecessary appeals.<sup>1</sup>

**Executive Summary**

The Commission’s recommendation to deny the Applicant’s Shoreland Permit for failure to comply with Article 9.3.4(G)(2)(a) of the Zoning Ordinance constitutes legal error because the

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<sup>1</sup> See generally, 15 Loughlin, New Hampshire Practice, Land Use Planning and Zoning, §21.19 (4<sup>th</sup> Ed.).

DONAHUE, TUCKER & CIANDELLA, PLLC  
16 Acadia Lane, P.O. Box 630, Exeter, NH 03833  
111 Maplewood Avenue, Suite D, Portsmouth, NH 03801  
Towle House, Unit 2, 164 NH Route 25, Meredith, NH 03253  
83 Clinton Street, Concord, NH 03301

Commission ignored uncontradicted expert testimony, made a recommendation unsupported by the evidence before it, and misinterpreted and/or misconstrued the legal standard contained within Article 9.3.4(G)(2)(a). Indeed, pursuant to the Commission's interpretation, no improvements within the Shoreland District should be permitted, which is not the correct standard of review and not an accurate reflection of the Legislative Body's intent when it adopted the Shoreland Protection District Ordinance. In the spirit of resolving disputes at the lowest level possible, the Applicant respectfully requests that the Commission revisit and reverse its recommendation to the Planning Board regarding the Applicant's Shoreland Permit application.

### **Factual Context**<sup>2</sup>

The Exeter Shoreland Protection District (the "Shoreland District") is associated with the three major rivers in Town to include the Exeter River, the Fresh River, and the Squamscott River, as well as those three rivers' major tributaries and other specifically defined waters within the watersheds of these three rivers. The lateral extent of the Shoreland District and the associated use restrictions imposed by the Zoning Ordinance differ depending on the nature and value of the waterbody involved.

In this case, the proposed work falls within the watershed of the Squamscott River but *is not adjacent* to the Squamscott River, its tidal marshes, or any of its major tributaries which include Norris Brook, Wheelwright Creek, Parkman Brook, Rocky Hill Brook, Dearborn Brook and Water Works Pond. Rather, the applicable Shoreland District in this case is associated with the perennial portion of Watson Brook to specifically include the area of land within 150 feet horizontal distance of the mean high-water level.<sup>3</sup> Of the surface water resources the Zoning Ordinance endeavors to protect through the Shoreland Protection District regulations, this area is of the lowest value.

On 14 June 2022, the Applicant's team of consultants appeared before the Commission. For approximately one hour and 20 minutes, the Applicant's consultants summarized the basis for the two requested Conditional Use Permits.<sup>4</sup> Thereafter, the Applicant's consultants engaged a lengthy presentation analyzing the Shoreland Permit criteria found in Article 9.3.4.G(2)(a) – (e) within the context of the unique facts and circumstances of the underlying property and the

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<sup>2</sup> The below factual context and analysis sections draw considerably from the work product of Brendan Quigley, NHCWS of Gove Environmental Services, Inc., the Wetland Scientist on the Project, and Denis M. Hamel, PE of GM2 Associates, Inc., the civil engineer on the Project.

<sup>3</sup> See Zoning Ordinance, Article 9.3.3(C)(2). We note that pursuant to Article 9.3.2(E) of the Zoning Ordinance, the term "mean high water" applies to saltwater resources, as determined according to the published tables and standards of the National Ocean Survey, adjusted to the locality from such tables, which begs the question whether a Shoreland Permit is even required for impacts within 150 ft of Watson Brook, which does not contain salt water, and is not tidal. For this reason alone, no Shoreland Permit is required in this case.

<sup>4</sup> See Conservation Commission Hearing Video, 14 June 2022 (the "Hearing Video") (<https://www.youtube.com/watch?v=BTZ59BPVAho>) at 0:07:00 – 1:28:30.

proposed Project. To summarize, the Applicant's expert consultants offered the following testimony which corroborated the voluminous written materials and analyses provided to the Commission to include the Wetland Report filed by Brendan Quigley:

- First, undersigned counsel provided a legal analysis of the Shoreland Permit Criteria which incorporated to a large extent the express findings of Brendan Quigley's Wetland Report.<sup>5</sup>
- Thereafter, Brendan Quigley characterized the specific nature of the "lower end" value of the Shoreland area implicated by the Project and took pains to emphasize that the Shoreland area in question was not a wetland buffer, that the Project's proposed impacts should not be viewed as impacts to a wetland buffer, and that the Zoning Ordinance permits by conditional use permit more intensive uses within the District than the grading, paving and stormwater management infrastructure proposed by the Project, like industrial, commercial and multi-family residential development.<sup>6</sup>
- Deny Hamel then testified at length regarding the state-of-the-art stormwater management infrastructure that will serve Building D and be partially located within the Shoreland District, as well as the best management practices ("BMPs") which will be employed by the Project.<sup>7</sup> Mr. Hamel's testimony included details regarding how the Project's stormwater infrastructure far exceeds all applicable State and local regulations, and is designed to handle flows that far exceed the 100-year stormwater event.<sup>8</sup>
- Finally, Brendan Quigley provided additional information focusing on the specific issue of Project-impact to the surface water quality of Watson Brook and testified unequivocally that based on all the factors presented, the Project will not have any negative impact on the surface water of Watson Brook, which is the core consideration of Article 9.3.4(G)(2)(a).<sup>9</sup>

Thereafter, the Commission's deliberation on the Shoreland Permit began.<sup>10</sup> Without any review, discussion, or analysis of the expert testimony regarding the application of the Town's Shoreland Protection District Ordinance to the Project, which had just been presented to the Commission for approximately 20 minutes, the Commission Chairman made a motion two (2) minutes later which stated in relevant part:

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<sup>5</sup> See Hearing Video at 1:28:30 – 1:33:30.

<sup>6</sup> See Hearing Video at 1:33:30 – 1:36:20. See also Zoning Ordinance, Article 9.3.4(G)(1) and additional analysis below.

<sup>7</sup> See Hearing Video at 1:36:20 – 1:44:00. See also additional analysis below.

<sup>8</sup> Id.

<sup>9</sup> See Hearing Video at 1:45:00.

<sup>10</sup> See Hearing Video at 1:47:00.

I'll make a motion to deny the Shoreland Conditional Use Permit because the alternative design ... would be less impactful.<sup>11</sup>

Thereafter, undersigned counsel advised the Chair of the Commission that an alternatives analysis, which was the sole basis of the Chair's motion to recommend denial of the Shoreland Permit, was not an appropriate consideration pursuant to Article 9.3.4(G)(2) of the Zoning Ordinance. In response, the Chairman of the Commission stated:

In terms of ... maybe it needs to be in terms of ... yeah, I understand what your saying Justin but at the same time ... that it does seem that this will have impacts to surface water quality to the adjacent river or tributary. I mean, you're putting a large ... your taking a natural forested hillside and turning it into a large building ... and that's directly above this Watson Brook area that is considered part of the Shoreland criteria. So, I understand the concern that, I guess the way I phrased it in terms of the other design did not have that, but, I am concerned about the impact of all of the grading and the building on this Watson Brook because it parallels ... that whole thing parallels ... the whole structure parallels the brook.<sup>12</sup>

The Chairman continued his analysis through his motion to deny the Shoreland Permit:

Either way, [Building D is] close to this priority resource that, that we've protected for a reason. So I would recommend that we deny it based on this. There is potentially other alternatives that could shore up the building ... and move it, potentially move the building, or move it out ... I don't know the exact configurations and why this configuration was chosen, I know it's convenient that it's the same exact configuration as three other buildings, but that doesn't necessarily, that's not what, I'm not approving here tonight ... I think there could be other engineered designs for an apartment structure with 32 buildings [sic] that has a smaller footprint and doesn't impact the shoreland in the same way. So just because your other three look this way doesn't mean we here need to approve that same design. So, I would motion, again, that because of these impacts, and the first criteria of the shoreland conditional use permit that we just recommend ... we're not denying this, we're recommending to the Planning Board ... that they deny this ... shoreland conditional use permit due to the extent of impact to the buffer and potential water quality issues .. and wildlife issues that could come from that.<sup>13</sup>

There was virtually no relevant participation by other members of the Commission in the deliberation and on this analysis alone, which was singularly focused on the criteria listed in

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<sup>11</sup> See Hearing Video at 1:49:35.

<sup>12</sup> See Hearing Video at 1:50:50.

<sup>13</sup> See Hearing Video at 1:55:27.

Article 9.3.4(G)(2)(a), pertaining to impact to surface water quality, the Chairman's motion carried by a vote of 4 – 0.

### Analysis<sup>14</sup>

The Commission's recommendation to deny the Shoreland Permit was in error because 1) the Commission ignored uncontradicted expert testimony and made a recommendation unsupported by the evidence before it; and 2) the Commission misconstrued and/or misinterpreted the legal standard contained in Article 9.3.4(G)(2)(a) of the Zoning Ordinance. We address each error below.

#### **1. The Commission erred by ignoring uncontradicted expert testimony and making a recommendation unsupported by the evidence before it.**

In arriving at a quasi-judicial decision, land use board members in New Hampshire are permitted to consider their own knowledge and may base their conclusions upon their own experience and observations in addition to expert testimony. Board members may not simply choose to ignore expert advice, however, especially if that expert evidence is uncontradicted.<sup>15</sup>

In this case, the only evidence in the record regarding the impact the Project will have on the surface water quality of Watson Brook is expert evidence offered by Brendan Quigley and Deny Hamel. That expert analysis unequivocally maintains that there will be no detrimental impact to the surface water quality of Watson Brook. There is no evidence to the contrary within the record upon which the Conservation Commission could have reasonably based its recommendation.

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<sup>14</sup> The 14 June 2022 Hearing before the Commission included a considerable discussion, initiated by the Commission, about the so-called "TIF Road extension" issue and corresponding lawsuit which the Town has inserted into the record of the Planning Board's proceedings in this matter over the objection of the Applicant. The Applicant has responded in kind, and will continue to respond to comments made by Town Staff, members of land use boards, or third parties regarding this issue in the interest of preserving an accurate and full record, but the issue of the TIF Road is primarily one of a private real estate and title dispute which is not the appropriate consideration of the Planning Board or Conservation Commission. To that end, the Applicant reminds all involved that the TIF Road was never a proper topic of consideration for the Planning Board nor the Conservation Commission, and the Conservation Commission needs to ignore this issue lest it run afoul the juror standard. The Applicant reserves all rights with regard to same: the Commission's consideration of this issue, which evidently continued into the Commission's deliberation, constitute legal error on its own.

<sup>15</sup> 15 Loughlin §28.10 (citations and quotations omitted). See also Condos East Corp. v. Town of Conway, 132 N.H. 431, 438 (1989) (planning board decisions "must be based on more than the mere personal opinion of its members"); Continental Paving, Inc. v. Town of Litchfield, 158 N.H. 570, 574 (2009) (upholding the determinations of the trial court which found the lay opinions of certain ZBA members, based upon general information not specifically addressed to the subject site, to be *insufficient* to counter the uncontroverted expert opinions presented by the applicant).

To summarize the evidence that has been provided to the Commission through the Applicant's filings, and through Brendan Quigley and Deny Hamel's testimony, based on the unobtrusive nature of the proposed impacts which include, state-of-the-art stormwater management infrastructure, grading, and limited paving, the water quality in Watson Brook will not be detrimentally affected. On the contrary, both the surface water quality of Watson Brook and the surrounding and related wildlife habitat will be protected.<sup>16</sup>

For example, in addition to adhering to BMPs for erosion control during construction, the Project will adhere to the applicable 100 ft building setback, will maintain an undisturbed 50 ft. buffer along the waterway, and will include revegetation of graded slopes within the Shoreland Protection District using a native seed mix.

Further, the Project will employ structural stormwater management infrastructure which utilizes state-of-the-art the BMPs to treat all stormwater runoff from the project. More specifically, all runoff from pavement around Building D will be collected in Deep Sump Catch Basins for pretreatment, removing up to 15% of Total Suspended Solids ("TSS"), 5% of Total Nitrogen ("TN") and 5% of Total Phosphorous ("TP").<sup>17</sup> After this pretreatment, all stormwater runoff from the pavement will be directed through a closed pipe system to two bio-retention areas which utilize the Focal Point System for primary treatment.<sup>18</sup> This BMP resembles a small open basin but employs several layers of closely specified media over an underdrain, which together act as a filter.<sup>19</sup> The Focal Point system has a demonstrated performance of 90% TSS removal and 65% removal of TN and TP.<sup>20</sup> Following this phase of treatment, treated stormwater is infiltrated in either an open basin or underground infiltration system which provide additional treatment. These infiltration basins also have demonstrated performance of 90% TSS removal, 10% TN removal, and 60% TP removal.

Clean runoff from the roof of the building is captured separately and infiltrated in an under-pavement infiltration system with the same redundancy and efficiency.

To ensure the absolute resilience and redundancy of the system, and as elaborated upon by Brendan Quigley and Deny Hamel at the 14 June 2022 hearing before the Commission, the Project's stormwater management has been designed using volumes from the Northeast Regional Climate Center's Extreme Precipitation Tables which have also been increased by 15%. Overall, the stormwater management system will far exceed State of NH Alteration of Terrain and Town of Exeter standards for treatment and detention of stormwater.

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<sup>16</sup> See Wetland Report.

<sup>17</sup> See Enclosure 1 which includes select sections of the New Hampshire Stormwater Manual.

<sup>18</sup> See Enclosure 2 which includes photographs from other Focal Point systems utilized in the Project.

<sup>19</sup> Id. See also Enclosure 3 which includes the specifications for the Focal Point Biofiltration Systems.

<sup>20</sup> See Enclosure 1.

Based on this evidence, the uncontroverted expert testimony before the Commission is that the Project will not detriment the surface water quality of Watson Brook.<sup>21</sup>

Despite this evidence, and without reviewing, discussing, or analyzing same, the stated bases for the Commission's recommendation to deny the Shoreland Permit included the following assertions and conclusions:

- The Commission stated that it “*seem[s]*” like the Project will have impacts to surface water quality because the Applicant is converting a “natural forested hillside and turning it into a large building” that is “directly above [Watson Brook] that is considered part of the Shoreland criteria”;<sup>22</sup>
- The Commission had “concern[] about the impact of all of the grading and building on this Watson Brook because ... the whole structure parallels the brook”<sup>23</sup>;
- The Commission stated that Building D is “close to this priority resource ... that we’ve protected for a reason”<sup>24</sup>; and
- The Commission stated that the Shoreland Permit should be denied “due to the extent of impact to the buffer and *potential* water quality issues ... and wildlife issues that could come from that.”<sup>25</sup>

These assertions constitute unsubstantiated speculation about unidentified “potential” impacts to surface water quality and wildlife which have no basis in facts or evidence before the Commission and did not, therefore, form a reasonable basis for the Commission's recommendation to deny the Shoreland Permit.<sup>26</sup> The threat to resources protected by the Shoreland Protection District Ordinance is stormwater runoff. The runoff from this Project is being treated by state-of-the-art stormwater management infrastructure and BMPs which far exceed all applicable local and State regulations. If these types of improvements within the Shoreland District are not the type the Legislative Body envisioned would be permitted by conditional use permit, it is difficult to imagine under what circumstances any improvements would be permitted within the District, let alone industrial development, commercial development, or multi-family residential development, all of which are permitted by conditional use permit in the District pursuant to the express terms of the Zoning Ordinance.<sup>27</sup> This cannot be the status of the law in Exeter with regard to proposed impacts within the Shoreland District.

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<sup>21</sup> See also Wetland Report.

<sup>22</sup> See Hearing Video at 1:50:50 (emphasis added).

<sup>23</sup> Id.

<sup>24</sup> See Hearing Video at 1:55:27.

<sup>25</sup> Id. (emphasis added).

<sup>26</sup> See Wetland Report and below argument regarding the Commissions' misapplication of the legal standard contained within Article 9.3.4(G)(2)(a).

<sup>27</sup> See Zoning Ordinance, Article 9.3.4(G)(1).

More importantly, the Commission's assertions and conclusions conflict with the weight of the uncontradicted expert evidence presented to the Commission which maintains unequivocally that the Project will not have a detrimental impact to the surface water quality of Watson Brook. In fact, there simply is no evidence before the Commission that the permitted conditional uses proposed to be sited within the Shoreland District will have any detrimental impact on the surface water quality of Watson Brook.

Under the circumstances, the Commission's recommendation constitutes mere personal opinion which ignored the uncontroverted expert evidence within the record in contravention of New Hampshire law. Further, the Commission's findings are unsupported by the evidence and record before it. Accordingly, the Applicant respectfully requests that the Commission review the Shoreland Permit Application and supporting materials again and find, consistent with the body of evidence before it, that the Project will not cause a detrimental impact to the surface water quality of Watson Brook.

**2. The Commission erred by misconstruing and/or misinterpreting the legal standard contained in Article 9.3.4(G)(2)(a) of the Zoning Ordinance.**

Article 9.3.4(G)(2)(a) of the Zoning Ordinance, upon which the Commission's recommendation exclusively hinged, requires the Commission to determine whether the proposed use will "detrimentally affect the surface water quality of the adjacent river or tributary, or otherwise result in unhealthful conditions." The Commission erred by misconstruing and/or misinterpreting the legal standard contained within this regulation.

More specifically, the first motion entertained by the Commission was to deny the Shoreland Permit because there was an alternative design that would, in the Commission's opinion, be less impactful than what the Applicant is proposing.<sup>28</sup> Despite being informed that such an alternatives analysis was not appropriate within the context of a Shoreland Permit, the Commission nevertheless voted on a motion which expressly incorporated and relied on an alternatives analysis. Specifically, the motion to recommend denial of the Shoreland Permit that carried unanimously was as follows:

Either way, [Building D is] close to this priority resource that, that we've protected for a reason. So I would recommend that we deny it based on this. *There is potentially other alternatives that could shore up the building ... and move it, potentially move the building, or move it out ... I don't know the exact configurations and why this configuration was chosen, I know it's convenient that it's the same exact configuration as three other buildings, but that doesn't necessarily, that's not what, I'm not approving here tonight ... I think there*

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<sup>28</sup> See Hearing Video at 1:49:35.



*could be other engineered designs for an apartment structure with 32 buildings [sic] that has a smaller footprint and doesn't impact the shoreland in the same way. So just because your other three look this way doesn't mean we here need to approve that same design.* So, I would motion, again, that because of these impacts, and the first criteria of the shoreland conditional use permit that we just recommend ... we're not denying this, we're recommending to the Planning Board ... that they deny this ... shoreland conditional use permit due to the extent of impact to the buffer and potential water quality issues .. and wildlife issues that could come from that.<sup>29</sup>

The analysis regarding whether Building D could be designed in way with a smaller footprint or sited further away from the Shoreland District is an alternatives analysis. An alternatives analysis is not a relevant consideration within the context of the Shoreland Permit criteria outlined within Article 9.3.4(G)(2) of the Zoning Ordinance. The Commission's incorporation of an alternatives analysis in its recommendation was therefore error.

Beyond this, the Commission's limited deliberation suggests that their recommendation to deny the Shoreland Permit was rooted in part by the mere fact that there would be *any* impacts within the District. This perspective constitutes a misinterpretation of the regulation. In New Hampshire, the fact that an applicant requires relief from the provisions of a Zoning Ordinance is not a valid reason for denying such relief.<sup>30</sup>

In this case, part of the stated basis for the Commission's recommendation to deny the Shoreland Permit was the following analyses:

In terms of ... maybe it needs to be in terms of ... yeah, I understand what your saying Justin but at the same time ... that it does seem that this will have impacts to surface water quality to the adjacent river or tributary. *I mean, you're putting a large ... your taking a natural forested hillside and turning it into a large building ... and that's directly above this Watson Brook area that is considered part of the Shoreland criteria.* So, I understand the concern that, I guess the way I phrased it in terms of the other design did not have that, *but, I am concerned about the impact of all of the grading and the building on this Watson Brook because it parallels ... that whole thing parallels ... the whole structure parallels the brook.*<sup>31</sup>

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<sup>29</sup> See Hearing Video at 1:55:27 (emphasis added).

<sup>30</sup> See Malachy Glen Associates, Inc. v. Town of Chichester, 155 N.H. 102, 107 (2007); see also Harborside Associates L.P. v. Parade Residence Hotel, LLC, 162 N.H. 508 (2011) ("mere conflict with the terms of the ordinance is insufficient").

<sup>31</sup> See Hearing Video at 1:50:50.

*Either way, [Building D is] close to this priority resource that, that we've protected for a reason. So I would recommend that we deny it based on this.*<sup>32</sup>

The mere presence of conditional uses like stormwater infrastructure, grading, and paving within the Shoreland District is not sufficient, as a matter of law, to substantiate a finding of detrimental impact to surface water quality pursuant to Article 9.3.4(G)(2)(a) and the Commission's finding to the contrary was error. There is a reason why the Town's Legislative Body permits industrial and commercial uses, multi-family residential development, transmission lines, driveways, parking lots, roadways, detention ponds, treatment swales and other drainage structures to be located within the Shoreland District under certain circumstances: because it is possible to appropriately site these types of development, many of which are far more intense than the Applicant's proposal in this case, within the Shoreland District *without* detrimentally effecting the surface water of the adjacent river or tributary.<sup>33</sup>

Similarly, Building D's proximity to the Shoreland District, its orientation vis-à-vis the Shoreland District, and the Applicant's proposal to convert a naturally vegetated hillside do not, by themselves, without some nexus to evidence tending to prove that such considerations actually contribute to a detrimental impact to the surface water quality of Watson Brook, reasonably substantiate the Commission's recommendation in this case. That evidentiary nexus simply does not exist here. To find otherwise would convert the Town's Shoreland Protection District Ordinance into a prohibition on *any* improvements within the District.

### **Conclusion**

Pursuant to the evidence in the record, and that additional information and evidence contained herewith<sup>34</sup>, the Applicant respectfully requests that the Commission revisit and reverse its recommendation to the Planning Board regarding the Shoreland Permit.

Very truly yours,  
DONAHUE, TUCKER & CIANDELLA, PLLC



Justin L. Pasay  
JLP/lh  
Enclosures  
cc: Exeter Planning Board

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<sup>32</sup> See Hearing Video at 1:55:27.

<sup>33</sup> See Zoning Ordinance, Article 9.3.4(G)(1).

<sup>34</sup> See Supplemental Shoreland Permit criteria analysis from Gove Environmental, Inc., enclosed herewith as Enclosure 3.

Kristen Murphy

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1 July 2022

Jonathan Shafmaster

Denis Hamel, PE GM2 Associates, Inc.

Brendan Quigley, NHCWS Gove Environmental

tabbies  
EXHIBIT  
1

# NEW HAMPSHIRE STORMWATER MANUAL



VOLUME 1  
STORMWATER AND ANTIDEGRADATION  
DECEMBER 2008



# Appendix E. BMP Pollutant Removal Efficiency

## Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis

Best Management Practice (BMP) removal efficiencies for pollutant loading analysis for total suspended solids (TSS), total nitrogen (TN), and total phosphorus (TP) are presented in the table below. These removal efficiencies were developed by reviewing various literature sources and using best professional judgment based on literature values and general expectation of how values for different BMPs should relate to one another. The intent is to update this information and add BMPs and removal efficiencies for other parameters as more information/data becomes available in the future.

NHDES will consider other BMP removal efficiencies if sufficient documentation is provided.

Please note that all BMPs must be designed in accordance with the specifications in the Alteration of Terrain (AoT) Program Administrative Rules (Env-Wq 1500). If BMPs are not designed in accordance with the AoT Rules, NHDES may require lower removal efficiencies to be used in the analysis.

BMP in Series: When BMPs are placed in series, the BMP with the highest removal efficiency shall be the efficiency used in the model for computing annual loadings. Adding efficiencies together is generally not allowed because removals typically decrease rapidly with decreasing influent concentration and, in the case of primary BMPs (i.e., stormwater ponds, infiltration and filtering practices), pre-treatment is usually part of the design and is therefore, most likely already accounted for in the efficiencies cited for these BMPs.

Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis				Values Accepted for Loading Analyses		
BMP Type	BMP	Notes	Lit. Ref.	TSS	TN	TP
Stormwater Ponds	Wet Pond		B, F	70%	35%	45%
	Wet Extended Detention Pond		A, B	80%	55%	68%
	Micropool Extended Detention Pond	TBA				
	Multiple Pond System	TBA				
	Pocket Pond	TBA				
Stormwater Wetlands	Shallow Wetland		A, B, F, I	80%	55%	45%
	Extended Detention Wetland		A, B, F, I	80%	55%	45%
	Pond/Wetland System	TBA				
	Gravel Wetland		H	95%	85%	64%
Infiltration Practices	Infiltration Trench ( $\geq 75$ ft from surface water)		B, D, I	90%	55%	60%
	Infiltration Trench ( $< 75$ ft from surface water)		B, D, I	90%	10%	60%
	Infiltration Basin ( $\geq 75$ ft from surface water)		A, F, B, D, I	90%	60%	65%
	Infiltration Basin ( $< 75$ ft from surface water)		A, F, B, D, I	90%	10%	65%
	Dry Wells			90%	55%	60%
	Drip Edges			90%	55%	60%
Filtering Practices	Aboveground or Underground Sand Filter that infiltrates WQV ( $\geq 75$ ft from surface water)		A, F, B, D, I	90%	60%	65%
	Aboveground or Underground Sand Filter that infiltrates WQV ( $< 75$ ft from surface water)		A, F, B, D, I	90%	10%	65%
	Aboveground or Underground Sand Filter with underdrain		A, I, F, G, H	85%	10%	45%
	Tree Box Filter	TBA				
	Bioretention System		I, G, H	90%	65%	65%
	Permeable Pavement that infiltrates WQV ( $\geq 75$ ft from surface water)		A, F, B, D, I	90%	60%	65%
	Permeable Pavement that infiltrates WQV ( $< 75$ ft from surface water)		A, F, B, D, I	90%	10%	65%
	Permeable Pavement with underdrain		Use TN and TP values for sand filter w/ underdrain and outlet pipe	90%	10%	45%

Focal Point



Pollutant Removal Efficiencies for Best Management Practices for Use in Pollutant Loading Analysis				Values Accepted for Loading Analyses		
BMP Type	BMP	Notes	Lit. Ref.	TSS	TN	TP
Treatment Swales	Flow Through Treatment Swale	TBA				
Vegetated Buffers	Vegetated Buffers		A, B, I	73%	40%	45%
Pre-Treatment Practices	Sediment Forebay	TBA				
	Vegetated Filter Strip		A, B, I	73%	40%	45%
	Vegetated Swale		A, B, C, F, H, I	65%	20%	25%
	Flow-Through Device - Hydrodynamic Separator		A, B, G, H	35%	10%	5%
	Flow-Through Device - ADS Underground Multichamber Water Quality Unit (WQU)		G, H	72%	10%	9%
	Other Flow-Through Devices	TBA				
	Off-line Deep Sump Catch Basin		J, K, L, M	15%	5%	5%







## SPECIFICATION

### HIGH PERFORMANCE MODULAR BIOFILTRATION SYSTEM (HPMBS)

#### Material, Performance and Installation Specification

#### I. Summary

The following general specifications describe the components and installation requirements for a volume based High Performance Modular Biofiltration System (HPMBS) that utilizes physical, chemical and biological mechanisms of a soil, plant and microbe complex to remove pollutants typically found in urban storm water runoff. The modular treatment system in which the biologically active biofiltration media is used shall be a complete, integrated system designed to be placed in Square Foot or Linear Foot increments per the approved drawings to treat contaminated runoff from impervious surfaces.

The High Performance Modular Biofiltration System (HPMBS) is comprised of the following components:

#### A. Plant Component

1. Supplier shall provide a regionalized list of acceptable plants.
2. Plants, as specified in the approved drawings/supplier's plant list, shall be installed at the time the HPMBS is commissioned for use.
3. Plants and planting are typically included in landscape contract.

#### B. Biofilter Component

1. This component employs a high performance cross-section in which each element is highly dependent on the others to meet the performance specification for the complete system. It is important that this entire cross-section be provided as a complete system, and installed as such.
2. As indicated in the approved drawings, the elements of the Biofilter include:
  - A. *A mulch protective layer (if specified).*
  - B. *An advanced high infiltration rate biofiltration planting media bed which utilizes physical, chemical and biological mechanisms of the soil, plant, and microbe complex, to remove pollutants found in storm water runoff.*
  - C. *A separation layer which utilizes the concept of 'bridging' to separate the biofiltration media from the underdrain without the use of geotextile fabrics.*

comparable size and quality.

**A. Plants**

1. Plants must be compatible with the HPMBS media and the associated highly variable hydrologic regime. Plants are typically facultative with fibrous roots systems such a native grasses and shrubs.
2. Supplier shall provide a regionalized list of acceptable plants.
3. All plant material shall comply with the type and size required by the approved drawings and shall be alive and free of obvious signs of disease.

**B. Mulch**

1. Mulch, typically double shredded hardwood (non-floatable), shall comply with the type and size required by the approved drawings, and shall be screened to minimize fines.

**C. Biofiltration Media**

1. Biologically active biofiltration media shall be visually inspected to ensure appropriate volume, texture and consistency with the approved drawings, and must bear a batch number marking from the supplier which certifies performance testing of the batch to meet or exceed the required infiltration rate (100 in/hr). A third party laboratory test must be provided to certify the 100 in/hr rate.
2. Within 90 days after project completion, the infiltration rate shall be confirmed at the supplier's expense, by a wetted condition hydraulic conductivity test.
  - a. *Failure to pass this test will result in removal and replacement of all media in the system at no cost to the project owner/operator.*
  - b. *Test must utilize the equipment and follow the standard operating procedures found in the Harris County Texas manual entitled, Low Impact Development & Green Infrastructure Design Criteria for Storm Water Management (2011).*
  - c. *Replacement media, if required, must be taken from a different batch than the original.*
3. Supplier shall provide, at no additional cost to the project owner/operator, maintenance of the biofiltration system for a period of one year.
4. Pollutant Removal performance, composition and characteristics of the Biofiltration Media must meet or exceed the following minimum standards as

**E. Separation Mesh**

1. Separation Mesh shall be composed of high-tenacity monofilament polypropylene yarns that are woven together to produce an open mesh geotextile which shall be inert to biological degradation and resistant to naturally encountered chemicals, alkalis and acids. The mesh shall meet or exceed the following characteristics:

Properties	Test Method	Unit	Min Ave Roll Value	
			MD	CD
Tensile Strength	ASTM D4595	kN/m (lbs/ft)	21 (1440)	25.3 (1733)
Creep Reduced Strength	ASTM D5262	kN/m (lbs/ft)	6.9 (471)	8.3 (566)
Long Term Allowable Design Load	GRI GG-4	kN/m (lbs/ft)	5.9 (407)	7.2 (490)
UV Resistance (at 500 hours)	-	% strength retained	90	
Aperture Size (machine direction)	-	mm (in)	2 (0.08)	
Aperture Size (cross machine direction)	-	mm (in)	2 (0.08)	
Mass/Unit Area	ASTM D5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	197 (5.8)	

**F. Bridging Stone**

1. Bridging Stone shall be 3/8" pea gravel, or other diameter sized to prevent migration of filter media, as specified by supplier.
2. Stone must be washed and free from sediment, soil and contaminants.

**III. Delivery, Storage and Handling**

- A.** Protect all materials from damage during delivery and store UV sensitive materials under tarp to protect from sunlight including all plastics, when time from delivery to installation exceeds one week. Storage should occur on smooth surfaces, free from dirt, mud and debris.
- B.** Biofiltration media shall be segregated from any other aggregate materials and shall be protected against contamination, including contamination from any stormwater runoff from areas of the site which are not stabilized.

## **V. Project Conditions**

- A.** Review supplier's recommended installation procedures and coordinate installation with other work affected, such as grading, excavation, utilities, construction access and erosion control to prevent all non- installation related construction traffic over the completed HPMBS.
  
- B. Cold Weather**
  - 1. Do not use frozen materials or materials mixed or coated with ice or frost.
  - 2. Do not build on frozen ground or wet, saturated or muddy subgrade.
  - 3. Care must be taken when handling plastics when air temperature is at 40 degrees or below as plastic becomes brittle.
  
- C.** Protect partially completed installation against damage from other construction traffic when work is in progress and following completion of backfill by establishing a perimeter with highly visible construction tape, fencing, or other means until construction is complete.
  
- D.** Soil stabilization of the surrounding site must be complete before the Biofiltration System can be brought online. Soil stabilization occurs when 90% of the site has been paved or vegetated. Temporary erosion control and/or sedimentation prevention measures shall be implemented to reduce the possibility of sediments being transported into the Biofiltration System prior to full stabilization of the site. Significant sediment loads can damage the HPBMS and lead to failure if not prevented or remediated promptly.

## **VI. PRODUCTS**

- A. Acceptable HPBMS**

FocalPoint High Performance Biofiltration System
  
- B. Acceptable Beehive Overflow Grate Structure (Optional)**

Beehive Overflow Grate Structure with removable StormSack
  
- C. Acceptable System Supplier**

Convergent Water Technologies, Inc.  
(800) 711-5428  
[www.convergentwater.com](http://www.convergentwater.com)

**B. Inspection**

1. Examine prepared excavation for smoothness, compaction and level. Check for presence of high water table, which must be kept at levels below the bottom of the under drain structure at all times. If the base is pumping or appears excessively soft, a geotechnical engineer should be consulted for advice.
2. Installation commencement constitutes acceptance of existing conditions and responsibility for satisfactory performance. If existing conditions are found to be unsatisfactory, contact Project Manager or Engineer for resolution prior to installation.

**IX. Cleanup and Protection during Ongoing Construction Activity**

- A. Perform cleaning during the installation and upon completion of the work.
- B. Remove from site all excess materials, debris, and equipment. Repair any damage to adjacent materials and surfaces resulting from installation.
- C. If surrounding drainage area is not fully stabilized, a protective covering of geotextile fabric should be securely placed to protect the Biofiltration Media.
- D. Construction phase erosion and sedimentation controls shall be placed to protect the inlet(s) to the Biofiltration System. Excessive sedimentation, particularly prior to establishment of plants may damage the HPMBs.
- E. Strictly follow supplier's guidelines with respect to protection of the HPMBs between Installation and Commissioning phases.

**X. Commissioning**

- A. Commissioning should only be carried out once the contributing drainage area is fully stabilized. If Commissioning must be carried out sooner, it is imperative that appropriate erosion and sediment controls be placed to prevent the entry of excessive sediment/pollutant loads into the system.
- B. Commissioning entails removing the protective covering from the Biofiltration Media, planting the plant material in accordance with the approved drawings, and placing mulch if specified.
  1. Dig planting holes the depth of the root ball and two to three times as wide as the root ball. Wide holes encourage horizontal root growth that plants naturally produce.
  2. With trees, you must ensure you are not planting too deep. Don't dig holes deeper than root balls. The media should be placed at the root collar, not above the root collar. Otherwise the stem will be vulnerable to disease.

water into the Observation/Maintenance Port or adjacent overflow structure, allowing the turbulent flows through the underdrain to re-suspend the fine sediments. If multiple Observation/Maintenance Ports have been installed, water should be pumped into each port to maximize flushing efficiency.

Sediment-laden water can be pumped out and either captured for disposal or filtered through a Dirtbag filter bag, if permitted by the locality.

## **XII. Measurement and Payment**

Given the integrated nature of the HPMBS, measurement and payment will be based not on the individual component prices, but on the size of the Biofiltration Media bed. The external dimension as indicated in the approved plans and executed in the installation will be measured in Square Feet and payment will be made per HPMBS system.

Measurement and payment of beehive overflow grate structure with removable filter insert will be based on per unit price.





Shoreland Protection District Conditional Use Permit Supplemental Analysis under Article 9.3.4.G.2

a. The proposed use will not detrimentally affect the surface water quality of the adjacent river or tributary, or otherwise result in unhealthful conditions.

The water quality in Watson Brook will be protected in a number of ways. In addition to construction term best management practices for erosion control, the project will adhere to the 100 foot building setback, will maintain an undisturbed 50-foot buffer along the waterway, and will include revegetation of graded slopes within the SPD using a native seed mix. One of the most significant but less obvious measure being employed is the proposed structural stormwater management which utilizes state of the best management practices (BMPs) treat all stormwater runoff from the project.

All runoff from pavement will be collected in deep sump catch basins for pretreatment, removing up to 10% of Total Suspended Solids (TSS) and 5% nitrogen and phosphorus. Stormwater will then be directed through a closed pipe system to two bio-retention areas which utilize the Focal Point system for primary treatment. This BMP resembles a small open basin but employs several layers of closely specified media over an underdrain, which together act as a filter. The Focal Point system has a demonstrated performance of 90% TSS removal and 65% removal of phosphorus and nitrogen. Following this phase of treatment, treated stormwater is infiltrated in either an open basin or underground infiltration system which provide additional treatment. Clean runoff from the roof of the building is captured separately and infiltrated in an under-pavement infiltration system.

To ensure resilience of the system, it has been designed using volumes from the Northeast Regional Climate Center's Extreme Precipitation Tables which have also been increased by 15%. Overall, the stormwater management system will exceed State of NH Alteration of Terrain and Town of Exeter standards for treatment and detention of stormwater.

b. The proposed use will discharge no wastewater on site other than that normally discharged by domestic waste water disposal systems and will not involve on-site storage or disposal of hazardous or toxic wastes as herein defined.

There will be no discharge of wastewater on site as the Project will utilize sewer. There are no other hazardous discharges.

c. The proposed use will not result in undue damage to spawning grounds and other wildlife habitat.

The wildlife habitat associated with Watson Brook is concentrated in the stream and the associated wetland areas. This habitat will be preserved intact by avoiding any impacts to the stream, associated wetlands, or 50-foot wetland buffer. The habitat along the stream corridor will not be segmented in any way. Watson Brook is unlikely to provide spawning habitat due to a number of downstream barriers to fish passage. Potential spawning habitat will, however, be protected by maintaining an undisturbed 50-foot buffer along the waterway and avoiding any impacts to the stream or associated wetland. The comprehensive treatment and infiltration of stormwater will also protect water quality, prevent temperature impacts, and maintain flows.

d. The proposed use complies with the use regulations identified in Article 9.3.4 Exeter Shoreland Protection District Ordinance – Use Regulations and all other applicable sections of this article.

9.3.4(A)—Minimum Lot Size: The lot exceeds the minimum lot requirements of the underlying zoning district. The regulation is met.

9.3.4(B)— Maximum Lot Coverage: A total of 9.76% of the total SPD on the lot is proposed (6,927 SF of 71,000 SF). The regulation is met.

9.3.4(C)— Building Setbacks: Watson Brook is subject to a 100-foot building setback. The proposed building is located outside the setback. The regulation is met.

9.3.4(D)—Surface Alterations: This regulation applies to the SPD associated with the Exeter River, Squamscott River and their major tributaries. The regulation does not apply to Watson Brook at this location.

9.3.4(E)— Vegetative Buffer: This regulation applies to the SPD associated with the Exeter River, Squamscott River and their major tributaries. The regulation does not apply to Watson Brook at this location. (It may be noted that the proposed project will in fact maintain a 50-foot undisturbed buffer, two thirds of the 75-feet cited in the regulation).

9.3.4(F)— Prohibited Uses: The proposed use will not involve any of the uses prohibited in the regulation (disposal of solid waste, handling of hazardous or toxic materials, disposal of liquid or leachable wastes, buried storage of petroleum fuel and other refined petroleum products, uncovered storage of road salt and other de-icing chemicals, commercial animal feedlots, automotive service and repair shops, junk and salvage yards, dry cleaning establishments Laundry and car wash establishments not served by a central municipal sewer system, sand gravel excavation). Snow storage is located outside the SPD as depicted on the Site Plan. Operation of the site will comply with the restrictions on use of fertilizer in the SPD

e. The design and construction of the proposed use will be consistent with the intent of the purposes set forth in Article 9.3.1 Exeter Shoreland Protection District Ordinance – Authority and Purpose.

As described in our responses to CUP criteria a through d, the project has been designed consistent with the intent and purpose of the Exeter Shoreland Protection District. The project includes multiple elements intended to protect the water quality of the Squamscott River by protecting the water quality in Watson Brook which lies in its watershed. Aquatic and terrestrial habitat will be protected by minimizing impacts within the SPD to the maximum extent practicable and avoiding those impacts with the greatest potential harm such as segmentation of the stream corridor or buffer areas. Although Watson Brook is not associated with traditional waterway recreation, the aesthetic value of the stream will be preserved by maintaining a continuous vegetated buffer. Protection of water quality in the watershed will also serve to protect and advance the recreation and aesthetic values supported in waterways downstream of Watson Brook, including the Swampscott.

The design and operation commitments of the project address and satisfy the applicable use regulations and permit criteria, all of which support the stated intent and purpose of the Exeter SPD. Furthermore, the proposed multifamily residential development, a use which is allowed by grating of a CUP, is located largely outside the SPD. The majority of the proposed SPD impacts are incurred for the construction of stormwater management, which is a separate use allowed by CUP and, most

importantly, is directly related the protection of water quality. It is therefore clear that the proposed project is consistent with the purpose of the SPD ordinance and its construction in this area of the SPD is appropriate.

# Minutes

Exeter Conservation Commission  
June 14, 2022  
Nowack Room  
Exeter Town Offices  
10 Front Street  
Draft Minutes

**Call to Order**

1. Introduction of Members Present (by Roll Call)

Present at tonight's meeting were by roll call, Chair Andrew Koff, David Short, Conor Madison, Select Board representative Nancy Belanger, Kyle Welch, Alternate (@7:05 PM), and Bill Campbell, Alternate.

Staff Present: Natural Resources Planner Kristen Murphy

Mr. Koff called the meeting to order at 7:00 PM and indicated Alternates Bill Campbell would be an active voters.

2. Public Comment (7:00 PM)

Mr. Koff asked if there were any questions or comments from the public related to non-agenda matters and there was none.

**Action Items**

1. Election of Officers

Current slate of officers:

Chair Drew Koff

Vice-Chair Trevor Mattera

Treasurer Dave Short

Mr. Koff read the slate of officers and asked the Commission if anyone wanted to make any changes.

***Mr. Campbell motioned to nominate the slate of officers as presented, again. Mr. Koff seconded the motion. A vote was taken, all were in favor, the motion passed 4-0-0.***

Mr. Welch arrived at 7:05 PM and Mr. Koff noted he would be an active voter.

2. Wetland and Shoreland Conditional Use Permit applications for the relocation of Building D of Ray Farmstead 55+ residential development (Justin Pasay, Brendan Quigley)

44 Tax Map 47 Lot 8.1  
45 C-3 Zoning district

46  
47 Mr. Koff read out loud the Public Hearing Notice.  
48

49 Mr. Short recused himself citing a long business relationship with the developer.  
50

51 Attorney Justin Pasay appeared on behalf of the applicant. He noted that Dennie Hamel, the civil  
52 engineer with GMZ Assoc. and Brendan Quigley, the wetland scientist were also present.

53  
54 Attorney Pasay questioned the quorum required for the Commission to meet and Ms. Murphy indicated  
55 the quorum was 4 members.

56  
57 Attorney Pasay presented the applications for a wetlands conditional use permit and shoreland  
58 conditional use permit noting the applicant would appear before the Planning Board at their July 14,  
59 2022 meeting.

60  
61 Attorney Pasay reviewed the history of the development noting there were 116 units planned at the 55+  
62 Ray Farm development which would have four buildings, A, B and C which are identical and building D  
63 which is the fourth building. He posted the plan and noted the original location approved for Building D  
64 near the Mobil Station and Epping Road. He noted the original approvals impacts to the buffer zone and  
65 that the new proposal would relocate Building D to an upland area combining other land. He noted  
66 Building A & B have been built and are occupied and Building C is nearly complete with all units sold out.  
67

68 Attorney Pasay noted the approval by the Zoning Board of Adjustment on November 21<sup>st</sup> which was a  
69 use variance as the property is zoned C-3 and the approval for multi-family use.

70  
71 Attorney Pasay noted there would be more land area with less density.  
72

73 Brendan Quigley noted there was a site walk earlier today and spoke to the functions and values report  
74 and compared the original approval and its impacts to the new proposal and its impacts. Attorney Pasay  
75 noted the first approval was 700 SF of direct wetland impact. The new proposal is to extend the  
76 driveway from Building C to Building D. He described the 9,400 SF buffer impacts for grading, pavement,  
77 gravel and crossing and the temporary crossing originally approved crossing Commerce Way which the  
78 TRC indicated was not ideal. He noted there will be no more temporary construction access, 9100 SF of  
79 impact within the 100' shoreland for grading and stormwater treatment, 16,500 SF of impact within the  
80 150' shoreland protection for grading and drainage and portions of pavement for Building D.

81  
82 Dennis Hamel described the three infiltration basins and roof drainage and described the focal  
83 bioretention system, grading and elevation, outdoor parking spaces, water and sewer connections and  
84 recommendation for future water connections by the Fire Dept. Mr. Hamel described the guardrail and  
85 untouched buffer zone.

86

87 Attorney Pasay noted there would be 485 SF of direct wetland impact for the crossing from Building C to  
88 Building D, a 31% reduction and 4,126 SF a reduction of 44% to buffer impact focusing on the  
89 “avoidance and minimization” piece. He noted there would be no alternative access that would have  
90 less impact. Building D would be the same as the other buildings.

91

92 Mr. Quigley referenced Watson Brook a primary resource area and described the perennial to  
93 intermittent stream, wildlife food sources and aesthetics. He noted there were probably no fish habitat  
94 due to barriers that prevent passage downstream. He noted the maintenance of buffers goes along way  
95 to preserving the functions and values and provides screening and water quality. He noted no impact to  
96 the Brook or wetland themselves and no disturbance to wildlife corridor as there is more potential in  
97 the area he showed on the plan to the right.

98

99 Mr. Campbell asked about reduced impacts and Mr. Quigley indicated from 17,000 to 10,000 from  
100 original plan.

101

102 Mr. Campbell asked Mr. Hamel why there couldn’t be an open box culvert and he noted it was too steep  
103 and there was not a flowing stream, the slope would be too high. The 36” culvert proposed is bigger  
104 than necessary. Mr. Welch asked the length and Mr. Hamel noted about 42.’

105

106 Mr. Quigley described the state standards for Tier 1 crossings up to two acres.

107

108 Mr. Koff noted the access road to the Carlisle property behind Buildings C and D and the deeded ROW.  
109 He noted the Commission received a letter dated today from the Carlisle’s attorney indicated they do  
110 plan to develop the property and use this ROW at some point in the future. Mr. Koff noted he did not  
111 want to discuss the litigation regarding the TIFF road but there is a real possibility of an additional access  
112 road. The worst outcome would be for both of these, and he noted concerns that both roads may be  
113 built, and the impact would be significant.

114

115 Attorney Pasay noted the Commission is bound to make a decision on the proposal before it. To the  
116 extent that road gets built the applicant will file an amended site plan and make the site compatible but  
117 cautioned about speculating about things that may never come to fruition. Ms. Murphy disagreed  
118 noting there is an approved subdivision on Carlisle property and opined that it was fair and reasonable  
119 for the Commission to have an understanding and evaluate the potential. The Commission should focus  
120 on the resource and noted the comparison to alternatives that have been proposed. The easement is  
121 not a Conservation matter, but Carlisle could submit tomorrow.

122

123 Mr. Campbell noted he was having trouble. Mr. Short stated the cumulative impact with adding the  
124 alternative is not adding much versus the previous location with the other road going in.

125

126 Mr. Quigley noted no wetland impact associated with Building D only a small amount for the driveway  
127 and significant buffer impact is being avoided. He noted Building D is proposed larger.

128

129 Mr. Koff compared the new building impacts to the shoreland of Watson Book to the original approval  
130 by the Mobil and Epping Road. Mr. Koff noted the number of units originally allowed for Building D

131 which were less than the other buildings. Attorney Pasay noted the 116 units were based on a variance  
132 that runs with the land from 2014; with three 32 units and one with 20 units the total is 116 units; not  
133 based on a yield plan, but on the variance.

134  
135 Attorney Pasay noted he mis-referenced Article 9.1 where it should be 9.6. He noted no alternate  
136 design would have less impact for Building D with 32 units now where 20 were approved originally. He  
137 referenced the functions and values report of the wetland scientist and reviewed the fourth criteria that  
138 entire Building D is out of the buffer reduced from the original plan and the fifth criteria not detrimental  
139 to public health, safety or welfare by loss of wetland or contamination of groundwater describing the  
140 most ecological way to get to the upland and criteria six to access the upland area switching from a  
141 location with a higher function and value. Attorney Pasay described the restoration proposals and  
142 seeding of disturbed areas and that all permits will be obtained for state and federal which are a  
143 Planning Board condition of approval.

144  
145 Mr. Campbell questioned whether it would make more sense to table the application due to insufficient  
146 information.

147  
148 Mr. Koff noted the original design was least impactful on the whole. Attorney Pasay reminded the  
149 proposal for Building D is larger for 32 units, not 20 and that on Page Two of the June 3<sup>rd</sup> narrative all of  
150 Ms. Murphy's comments were addressed. The culvert is more than satisfactory and there is no  
151 detriment to functions and values and the higher value of the wetland near the Epping Mobil.

152  
153 Attorney Pasay reviewed the criteria for the shoreland conditional use permit. Mr. Quigley spoke to the  
154 water quality and restoration of graded areas with natural seed mix. Attorney Pasay noted no  
155 wastewater discharge on site other than domestic, with water and sewer as reported on page six, no  
156 hazardous materials stored on site, no damage to spawning grounds. He referenced criteria #4  
157 compliance with setbacks and criteria #5 maintaining water quality or affect on recreational values. Mr.  
158 Quigley added that there is no vegetation criteria.

159  
160 Mr. Koff noted concerns with discharge so close to Watson Brook feeding to Norris Brook. Mr. Hamel  
161 described the treatment system and nitrogen removal. He noted the catch basin is easy to maintain and  
162 requires inspection twice a year with a report sent to the Town annually. Mr. Hamel described parking  
163 lot runoff filtration. Mr. Quigley noted the stormwater treatment is a big part of not having negative  
164 impacts.

165  
166 Mr. Koff noted the Commission has the option to not object, recommend approval with conditions or  
167 recommend denial and stated he would motion to deny because there is an alternate design that is less  
168 impactful. Attorney Pasay noted the shoreland conditional use permit criteria does not have that  
169 analysis under the regulations. Mr. Koff noted his concerns are with impact to surface water quality  
170 directly above Watson Brook for a structure that parallels Watson Brook. 25,600 SF of shoreland would  
171 be detrimentally impacted and within the 100' buffer for the stormwater structure and grading. The  
172 parking lot within the 150' buffer and does not know why this configuration was chosen.

173



174 **Mr. Koff motioned to recommend to the Planning Board that they deny the shoreland conditional use**  
175 **permit due to the extent of impact to the buffer and potential water quality and wildlife issues that**  
176 **could come from that. Mr. Campbell seconded the motion. A vote was taken, all were in favor, the**  
177 **motion passed 4-0-0.**

178

179 Mr. Koff noted the wetlands conditional use permit seemed like the most feasible access.

180

181 **Mr. Koff motioned to approved the wetlands conditional use permit.**

182

183 Mr. Campbell recommended conditions: native seed mix and recommended the open box culvert with  
184 open bottom design instead of the 36" culvert.

185

186 **Mr. Campbell seconded the motion. A vote was taken, all were in favor, the motion passed 4-0-0.**

187

188 Mr. Koff noted a memo would be drafted to the Planning Board with the Commission's  
189 recommendations.

190

191 Mr. Short returned as a voting member.

192

### 193 3. Committee Reports

194

#### 195 a. Property Management

196

197 Ms. Murphy reported a call from the Davis that they are mowing Raynes using the modified protocol.  
198 David O'Hearn asked about brush hogging the field edge at a cost of \$200.

199

200 **Mr. Short motioned to approve the \$200 expenditure to have David O'Hearn do the brush cutting at**  
201 **Raynes. Mr. Koff seconded the motion. A vote was taken, all were in favor, the motion passed 5-0-0.**

202

#### 203 b. Trails

204

205 i. Update to Event Permit – (inc. Police, Fire & DPW sign-off before CC review)

206

207 Ms. Murphy provided an update to the event permit for this weekend's trail race.

208

209 ii. Jolly Rand Trail Sign Replacement (expenditure request)

210

211 Mr. Short reported the trail signs are worn out. Ms. Murphy noted she did not have a  
212 quote but expected the replacement cost to be under \$200.

213

214 **Mr. Short motioned to expend up to \$200 to replace the Jolly Rand trail signs at both**  
215 **ends. Mr. Campbell seconded the motion. A vote was taken, all were in favor, the**  
216 **motion passed 5-0-0.**

217

218 Ms. Murphy indicated a family reached out wanting to volunteer. The Commission recommended help  
219 with unclogging the drainage ditches or cutting small brush back.

220

221 c. Outreach Events

222

223 i. Alewife Festival Debrief

224

225 Mr. Koff reported the Alewife Festival went well and everyone did a good job. The groundwater  
226 migration model was filmed and very popular. Ms. Murphy noted no attendance at the film  
227 festival or kayak event. Mr. Welch recommended spreading out over multiple weekends. There  
228 used to be a race down river and there could be a kid's race on a smaller scale. Ms. Murphy  
229 noted TEAMS invited them to combine with their event the following weekend. Mr. Koff noted  
230 he liked the stand-alone event and Mr. Short noted it was pretty well attended and the full  
231 committee could get together and have a discussion.

232

233 iii. Geocaching Event Planning – TBD

234

235 Mr. Welch described the Commerce Way circle and three caches in a mile loop and possibilities  
236 for placement by Fort Rock. Ms. Murphy described the July 16<sup>th</sup> flyer and recommended  
237 potential prizes or a passport program and posting on social media.

238

239 4. Approval of Minutes:

240

241 i. May 10, 2022 Meeting

242

243 ***Mr. Koff motioned to approve the May 10, 2022 meeting minutes. Mr. Short seconded the***  
244 ***motion. A vote was taken, all were in favor, the motion passed unanimously 5-0-0.***

245

246 5. Correspondence

247

248 Ms. Murphy noted an upcoming workshop on gravestone restoration which might be helpful with  
249 Raynes Wiggins. It is June 26<sup>th</sup> from 4-6 PM in Kensington.

250

251 6. Other Business

252

253 7. Next Meeting: Date Scheduled (7/12/22), Submission Deadline (7/1/22)

254

255 Adjournment

256

257 MOTION: Mr. Koff moved to adjourn the meeting at 9:31 PM seconded by Mr. Short. A vote was  
258 taken, all were in favor, the motion passed unanimously.

259

260

261 Respectfully submitted,  
262  
263 Daniel Hoijer, Recording Secretary  
264 Via Exeter TV  
265  
266 This meeting was also presented virtually Zoom ID 829 3937 4046

# Join the Conservation Commission for **GEOCACHING 101**

**July 16th 9:00 - 10:00 AM**

**Henderson Swasey Town Forest  
Meet at the end of Commerce Way**

*Learn the basics of geocaching, then put your new skills to the test in this FREE, family friendly event.*

*Download the app at  
[Geocaching.com](http://Geocaching.com)*

*Hike Distance: 0.75 mi*

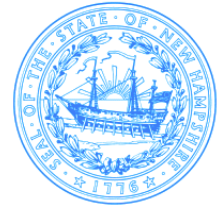


**Exeter NH  
Conservation Commission**



The State of New Hampshire  
**Department of Environmental Services**

Robert R. Scott, Commissioner



July 5, 2022

Exeter Rose Farm, LLC  
Attn: Mr. Todd Baker  
953 Islington Street, #23D  
Portsmouth, New Hampshire 03801  
(sent via email to: todd@bakerprop.com)

Re: Exeter Rose Farm  
Oak Street Extension and Forest Street  
Tax Map 54, Lot 5, Exeter, NH

**Permit: AoT-2188**

Dear Mr. Baker:

Based upon the plans and application, approved on July 5, 2022, we are hereby issuing RSA 485-A:17 Alteration of Terrain Permit AoT-2188. The permit is subject to the following conditions:

**PROJECT SPECIFIC CONDITIONS:**

1. The plans titled *Subdivision Plans, An Open Space Development, "Exeter Rose Farm"* by TF Moran, last revised June 21, 2022, and supporting documentation in the file are a part of this approval. The project must be constructed as shown on the approved plans.
2. **This permit expires on July 5, 2027.** No earth moving activities shall occur on the project after this expiration date unless the permit has been extended by the Department. If an extension is required, the request must be received by the department before the permit expires. The Amendment Request form is available at: <https://www.des.nh.gov/land/land-development>.
3. The project is to be phased as shown on Sheet C-72 of the plans. Each phase shall be stabilized pursuant to Env-Wq 1505.04 before disturbance of subsequent phases.
4. The Permittee shall comply with all recommendations by the New Hampshire Fish and Game Department related to state or federally listed threatened or endangered species that are incorporated into the project plans, and as stipulated within *New Hampshire Fish and Game (NHFG) Alteration of Terrain Permit Conditions for Threatened and Endangered Species* on Sheet C-52C of the approved project plans.
5. A parcel described on the Overall Open Space Subdivision Plan (Sheet C-04C) as Recreation Area 1, Conservation Land (6.31 acres) shall be deeded to the Town of Exeter as conservation land with provisions as described in the warranty deed received by the Department on June 23, 2022. This permit is not valid and effective until the warranty deed is recorded with the Rockingham County Registry of Deeds. Prior to starting construction activities, a copy of the recorded warranty deed shall be submitted to the Department.
6. Restrictive covenants as described in Declaration of Restrictions For Exeter Rose Farm Subdivision, Exeter, New Hampshire, and as described in Declaration of Covenants, Easements, and Restrictions of Exeter Rose Farm Subdivision – An Open Space Development And Exeter Rose Farm Subdivision Homeowners Association (collectively "Documents"), as both documents received by the Department on June 23, 2022, shall be recorded with the Rockingham County Registry of Deeds by the permittee. This permit is not valid and effective until the Documents are recorded. Prior to starting construction activities, the permittee shall provide a copy of the recorded Documents to the Department.

[www.des.nh.gov](http://www.des.nh.gov)

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095  
(603) 271-3503 • TDD Access: Relay NH 1-800-735-2964

7. In accordance with Env-Wq 1503.21 (c)(1), a written notice signed by the permit holder and a qualified engineer shall be submitted to DES stating that the project was completed in accordance with the approved plans and specifications. If deviations were made, the permit holder shall review the requirements in Env-Wq 1503.21(c)(2) and submit revised plans or an application to amend the permit as necessary.
8. A qualified engineer shall submit stamped reports of their observations of the installations of the porous pavement and gravel wetland systems, with representative photos, within 7 days of each system's completed construction. The reports shall be submitted to [Ridgely.Mauck@des.nh.gov](mailto:Ridgely.Mauck@des.nh.gov), and shall describe, at a minimum, whether the systems are being constructed in accordance with the approved plans, identify any deviation from the approved plans or any other noted deficiencies, and specifically include:
  - a. For construction of the gravel wetlands: observations during installation of all impermeable liners, placement of underdrains, stone courses and outlet structures.
  - b. For construction of the porous pavement: observations during placement of the filter course and asphalt courses, results of infiltration testing of the filter course, and documentation of satisfactory fulfillment of quality control and quality assurance requirements as detailed on design plan sheet C-66.
9. The permittee, its heirs, successors and assigns shall have the responsibility to inspect, maintain and repair the stormwater BMPs, pursuant to Env-Wq 1507.07 and Env-Wq 1503.24 for as long as the stormwater practices are reasonably expected to be used. Successors include the Exeter Rose Farm Subdivision Homeowners Association and individual lot owners in the Exeter Rose Farm Development.

#### **GENERAL CONDITIONS:**

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.
2. You must submit revised plans for permit amendment prior to any changes in construction details or sequences. You must notify the Department in writing within ten days of a change in ownership.
3. You must notify the Department in writing prior to the start of construction and upon completion of construction. Forms can be submitted electronically at: <https://www.des.nh.gov/land/land-development> . Paper forms are available at the referenced web address.
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at: <https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents>
5. In accordance with Env-Wq 1503.21 (c)(1), a written notice signed by the permit holder and a qualified engineer shall be submitted to DES stating that the project was completed in accordance with the approved plans and specifications. If deviations were made, the permit holder shall review the requirements in Env-Wq 1503.21(c)(2) and submit revised plans or an application to amend the permit as necessary.
6. No activity shall occur until a Wetlands Permit is obtained from the Department. Issuance of this permit does not obligate the Department to approve a Wetlands Permit for this project.
7. This project has been screened for potential impact to known occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have not been surveyed in detail, unidentified sensitive species or communities may be present. This permit does

Alteration of Terrain Permit: AoT-2188  
Exeter Rose Farm  
Oak Street Extension and Forest Street  
Tax Map 54, Lot 5, Exeter, NH  
Page 3 of 3

not absolve the permittee from due diligence regarding state, local or federal laws regarding such communities or species. This permit does not authorize in any way the take of threatened or endangered species, as defined by RSA 212-A:2, or of any protected species or exemplary natural communities, as defined in RSA 217-A:3.

Sincerely,



Ridgely Mauck, P.E.  
Alteration of Terrain Bureau

cc: Exeter Planning Board

ec: TF Moran  
Exeter-Squamscott River Local Advisory Committee (Theresa Walker [theresawalker@comcast.net](mailto:theresawalker@comcast.net))  
Melissa Winters, NH Fish & Game Department