CITY OF DOVER

DOVER CONSERVATION COMMISSION – AGENDA

Meeting Type: Regular Meeting
Meeting Location: City Council Conference Room - 288 Central Avenue Dover NH
Meeting Date: Monday, September 12, 2022
Meeting Time: **5:30 pm**

1. **CALL TO ORDER AND ROLL CALL**
2. **CITIZEN'S FORUM**
3. **APPROVAL OF THE PRIOR MEETING MINUTES** – August 8, 2022
4. **OLD BUSINESS**
5. **NEW BUSINESS**
   - **A.** City of Dover Conditional Use Permit for JSR, LLC, (Agent: Berry Surveying & Engineering), Assessor's Map D, Lots 11-5 and 11-5SND, zoned IT, located at the intersection of Quality Way and Venture Drive. Proposal is to add fill to allow for access to the site and develop a stormwater treatment cell associated with the construction of a 10,080 square foot Contractor Storage Bay / Office Facility creating 7,935 square feet of wetland buffer impact.
   - **B.** City of Dover Conditional Use Permit for Weave Filtration, LLC, (Owner: DBIDA), (Agent: Civilworks New England), Assessor's Map D, Lot 11-7, zoned IT, located off Quality Way. Proposal is for the construction of a 23,125 square foot building creating 5,075 square feet of wetland buffer impact mostly associated with the grading and drainage.
   - **C.** City of Dover Conditional Use Permit for White Birch Armory, (Owner: Recon Realty, LLC), (Agent: Civilworks New England), Assessor's Map G, Lot 3-A1, zoned CM, located at 80 Industrial Park Drive. Proposal is for a 20,287 square foot addition with associated expanded parking, additional drainage and grading, creating 6,975 square feet of wetland buffer impact.
   - **D.** City of Dover Conditional Use Permit and NHDES Expedited Minimum Impact Wetland Permit for William C. Fisher and Chaney N. Fisher, (Agent: Ross Engineering, LLC), Assessor's Map 7, Lot 2, zoned R-20, located at 1 Boston Harbor Rd. Proposal is to install a 960 square foot addition, new deck stairs, an outdoor shower, replace the existing driveway with pervious pavers, install a pervious paver walkway and concrete pad for utility equipment creating 534 square feet of temporary wetland impact (419 square feet within the Conservation District) and 2,890 square feet of permanent wetland impact (1,306 within the Conservation District).
   - **E.** NHDES Standard Dredge and Fill Wetlands Permit Application for Great Bay Yacht Club, Assessor's Map 8 Lot 40, zoned R-20, located at 21 Wentworth Terrace. Proposal is to conduct maintenance on an existing boulder and gravel causeway by adding trap rocks to fill in the current rip-rap creating 771 square feet of permanent impact to the Tidal Buffer Zone.
   - **F.** City of Dover Conditional Use Permit for Public Service Company of New Hampshire d/b/a Eversource Energy, (Agent: VHB, Inc.), Assessor's Maps 24 and 25, covering various lots within the utility ROW, zoned G and R-12, located between Oak Street and south of Atlantic Ave. Proposal is to replace six deficient wooden utility poles with weathered steel poles creating 2,110 square feet of temporary wetland impact and combined 14,900 square feet of temporary impact to wetland buffers and the Conservation District.
   - **G.** Request for expenditures from the Conservation Fund for:

     1. Open Lands Committee – Conservation Easement Appraisal – not to exceed $10,000
6. **REPORT FROM THE CHAIR**
   - **A.** Review of Correspondence Received From NH Department of Environmental Services
7. **OTHER BUSINESS**
8. **ADJOURNMENT**

CITY OF DOVER

DOVER CONSERVATION COMMISSION – MINUTES

Meeting Type:	Regular Meeting
Meeting Location:	City Council Conference Room - 288 Central Avenue Dover NH
Meeting Date:	Monday, August 8, 2022
Meeting Time:	**5:30 pm**

MEMBERS PRESENT: Bill Hunt (Chair), Steve Fellows (Vice Chair), Kristen Murphy, Abigail Lyon, Bruce Batchelder

ABSENT EXCUSED: Robert Atwood (Secretary), Jason Aube, Amy Kramer-Perry

STAFF PRESENT: Jackson Kaspari – Resilience Coordinator

OTHERS PRESENT: Councilor Lindsey Williams, Chris Berry, Doug LaRosa, Gretchen Young

1. CALL TO ORDER AND ROLL CALL

The meeting was convened at 5:30 PM.
Hunt opened the meeting and did a roll call.

2. CITIZENS' FORUM: None

3. APPROVAL OF THE PRIOR MEETING MINUTES – July 11, 2022

A. Lyon moved to approve the July 11, 2022 minutes, K. Murphy seconded. Vote: 3 yes, 1 abstention.

4. OLD BUSINESS: None

At the Chair's request J. Kaspari acknowledged the passing of Commission Member Richard Erickson and thanked him for his service to the City of Dover is his capacity as a Commission Member and through his involvement in other community-based organizations. May he rest in peace.

S. Fellows arrived at 5:33 pm.

5. NEW BUSINESS

A. City of Dover Conditional Use Permit for Equine Properties, LLC, (Agent: Berry Surveying & Engineering), Assessor's Map H, Lot 37A, zoned Commercial, located at 239 Knox Marsh Road. Proposal is for a 64 unit primarily residential development with 10,394 square feet of wetland buffer impacts and 33.8% of impervious cover in a Secondary Groundwater Protection Zone, where 20% is allowed. The Commission endorsed a Conditional Use Permit for this project during its July 12, 2021 meeting but since then the proposed impervious cover within the Secondary Groundwater Protection Zone has increased from the initial 28.6% to address a life safety concern.

Chris Berry with Berry Surveying & Engineering was present to explain the request to the Commission.

B. Hunt: Where is the site relative to F.W. Webb?

C. Berry: Across the street.

B. Hunt: Is this the site where there is currently a Christmas tree farm?

C. Berry: Yes.

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S. Fellows: So, is the additional portion what is wrapping around the side of development?

C. Berry: That is correct. The addition was to address a life safety function.

A. Lyon: When you say life safety function do you mean emergency vehicle access?

C. Berry: It won't function for a large fire vehicle but can allow for smaller vehicles like ambulances as well as personal transport.

S. Fellows: To clarify the Planning Board has approved the CUP but are looking for additional comment from the Commission?

C. Berry: That is correct.

S. Fellows motioned to endorse the revised conditional use permit as presented stating that the need for the additional impervious is clear and that appropriate mitigation efforts have been taken. A. Lyon seconded.

Vote: 5 yes.

B. City of Dover Conditional Use Permit for Storage Barn, LLC, (Agent: Civilworks New England), Assessor's Map D, Lot 12-2, zoned Innovative Technology, located off Production Drive. Proposal is for five self-storage buildings and an access driveway with 10,310 square feet of wetland buffer impact.

Civilworks New England Staff were present to explain the application.

S. Fellows helped describe the location.

A. Lyon: Can you speak to the reasoning behind the permanent pool?

Vegetation within the pool will help treat the water prior to discharge. The pool helps treat stormwater for suspended solids, phosphorous and nitrogen. The area will become revegetated and will help preserve the current wetland area. This treatment method meets the criteria in the City of Dover Site Review Regulations.

K. Murphy: Were alternative treatment options considered such as a gravel wetland?

D. LaRosa: Treatment capabilities of gravel wetland and pool are similar and a gravel wetland requires more maintenance. City Engineer Ken Mavrogeorge advised to use deep sump catch basins for sediment removal.

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K. Murphy: Can you speak to how the stormwater will move on the left side of the buildings? Is there a drainage swale?

D. LaRosa: All stormwater in the paved area is directed towards the wet pond. The area behind building number one will flow towards an existing drainage wetland. The is project will not add to that be we will be improving the current state of that area to handle larger flow influx.

K. Murphy: How will snow storage be handled?

D. LaRosa: Snow storage will be plowed around the paved area and will be placed in two areas on the site perimeter. There is ample volume. The snow contamination levels are expected to be very low based on the projected use of the site and elements such as the lack of an on-site dumpster.

K. Murphy: Unsure of how the rest of the Commission feels but my preference would be to see some treatment of the snowmelt instead of allowing it to flow into the existing wetland area.

Could the snow be pushed towards the treatment area?

D. LaRosa: Could add note to the plan that the snow is to be left along the side of the curbing so that the melt will be directed towards to the deep sump catch basins.

B. Hunt: Could that be done even with significant snow fall?

D. LaRosa: There is significant volume for storage.

S. Fellows motioned to endorse the revised conditional use permit under the provision that a note is added to the plans that indicate snow storage be located in a way that the snowmelt is directed into the deep sump catch basins with applicable signage onsite. A. Lyon seconded.

Vote: 5 yes.

6. REPORT FROM THE CHAIR

A. Review of Correspondence Received from NH Department of Environmental Services

J. Kaspari: Nothing to report from NHDES but left the item on in case correspondence was submitted between the posting of the agenda and meeting.

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7. OTHER BUSINESS

A. Update on the Proposed Stormwater Utility – Gretchen Young, Environmental Projects Manager

Gretchen Young walked the Commission through a presentation on the proposed stormwater utility. The Commission occasionally is asked about the Utility so the purpose of the presentation is to provide an informative summary of the recommendations and an update on the planning progress.

A detailed summary of the recommendations can be accessed using the following link:

https://www.dover.nh.gov/Assets/government/boards-commissions/city-council/stormwater/documents/Summary%20of%20Recommendations_Dover%20Stormwater%20and%20Flood%20Resilience%20Funding%20Committee_January%202022.pdf

The full Finding & Recommendations Report is available through the link below:

https://www.dover.nh.gov/Assets/government/boards-commissions/city-council/stormwater/documents/Dover%20Stormwater%20and%20Flood%20Resilience%20Funding%20Committee%20Recommendations%20Report%202022.pdf

B. Proposed Mitigation Opportunity List

Priority Level	Project	NHDES Activity Type
Top	Purchase, conserve and restore Severino property and sand pit	Upland Buffer Preservation
Tier 1	Creation of living shoreline along Cochecho River	Restoration
Tier 2	6th Street Culvert Replacement	Enhancement
	Rayner's Brook Culvert Replacement	Enhancement
	Bellamy Culvert Replacement	Enhancement
	Tidal Culvert Improvements (refer to Coastal Hazard Mitigation Plan)	Enhancement
Tier 3	Chapel Street Ravine	Restoration
Tier 4	HLP BMP	Enhancement
Tier 5	Oak, Broadway and Central water management improvements	Enhancement
	Connect Chapel St. ravine to Cochecho outfall	Enhancement
Tier 6	Dam removal projects (conceptual at present)	Restoration

J. Kaspari: Initially we had discussed pulling together a subcommittee to look at this topic but Chair Hunt noted that it would be best if staff proposed an initial list that could then be vetted by the Commission. I asked Gretchen Young to identify projects, solicit feedback from other staff in the Community Services

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Department and rank them based on assessed priority. She provided the list you've been given and the rankings have been formatted into tiers with "top" being the highest followed by "tier 1". The tabulated list includes the priority level, a short description of the project and a categorization of activity type based off the NHDES recommendations.

J. Kaspari: Using the Aquatic Restoration Mapper only one issue had been identified which was the need for Bellamy culvert replacements which were also identified as a priority by Gretchen. K. Murphy had suggested using this tool.

A. Lyon: Could you include expanded descriptions capturing the prioritization?

J. Kaspari: Yes, I can work with Gretchen on that.

A. Lyon: Maybe it would be worth checking to see if applicants could pay into a City fund instead of providing the mitigation themselves via a project? I imagine some of these could use funding built up over time.

Kaspari and Young agreed that this could be a great solution but will need to check with the City Attorney.

K. Murphy voiced her support for the initial list and looks forward to seeing how the effort moves forward.

8. ADJOURNMENT

A. Lyon motioned to adjourn. S. Fellows seconded. Vote: 5 yes.

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City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: JSR LLC Telephone # 1-978-979-2170

Address of Applicant: 17 Fosters Drive, Dover, NH 03820

E-Mail Address: rswhit10@gmail.com

Name of Property Owner (if different from applicant): _____ Telephone #_____

Address of Property Owner: _____

PROPERTY INFORMATION

Assessor's Map # D Lot(s) # 11-5 & 11-5SND

Address of Property: Quality Way and Venture Drive

Zoning District(s) IT Overlay District(s) Wetlands Protection

Existing Use of Property: Vacant

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Filling within the 50' Buffer to gain access to the site and develop a stormwater treatment cell.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: US EPA Notice of Intent

Name of Professional That Prepared Plans: Berry Surveying & Engineering
Kenneth A. Berry PE, LLS
Christopher R. Berry PM

Address 335 Second Crown Point Road
Barrington, NH 03820 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: k.berry@berrysurveying.com
crberry@metrocast.net

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity

Signature of Property Owner: _____ Date: 6-1-22

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 6-1-22

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 6-1-22

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

PLANNING BOARD FEE SCHEDULE/INVOICE

(Revised July 1, 2021)

Below are the fees associated with plan review and are subject to a nonrefundable application fee to cover administrative expenses. Please complete the information below and provide payment with your application submittal. **Plan Review Fees shall be paid prior to technical review committee (TRC) being scheduled.** For plans not requiring TRC review, **fees are due 21 days prior** to the Planning Board meeting. Staff will coordinate abutter/notice fees, which will be invoiced and must be paid 28 hours before the Planning Board meeting for an application to be heard. Fees shall be paid by cash or check made payable to "City of Dover".

A. Plan Review Fees

1. Application fee for the following (SELECT ALL THAT APPLY):

- ☐ SUBDIVISION Application fee $200.00 + $150.00 x # _____ new lots created = $_____
- ☐ LOT LINE ADJUSTMENT Application fee $200.00 + $100.00 X # ___ of lots involved = $_____
- ☐ TRANSFER OF DEVELOPMENT RIGHTS Application fee $200.00 = $_____
- ☐ SITE REVIEW – RESIDENTIAL Application fee $200.00+ $100.00 x # __ per dwelling unit =$_____
- ☐ SITE REVIEW – NON-RESIDENTIAL Application fee $200.00 + (not to exceed $10,000)
  - New construction $.15 sq. ft. x # _____ sq. ft.= $_____
  - Additions (new floor space) $.10 per sq. ft. x # _____sq. ft.= $_____
- ☐ MOTEL/HOTEL $35.00 x # ___ per lodging unit= $_____
- ☐ CHANGE OF USE Application fee $200.00 + (not to exceed $5,000)
  - Existing floor spaces $.10 per sq. ft. x # _____ sq. ft. = $_____
- ☐ CONDITIONAL USE PERMIT Application fee $200.00 x # _____ per Application = $_____
- ☐ GRAVEL PIT/ EXCAVATIONS
  - Application fee $50.00= $_____
  - Permit fee $75.00= $_____
- ☐ EXTENSIONS/AMENDMENTS/WAIVERS FOR AN APPROVED PLAN Application fee $200.00 = $_____
- ☐ REQUEST FOR REZONING Application fee $200.00 = $_____
- ☐ DRIVEWAY WAIVER Application fee $200.00 = $_____

2. TOTAL IMPERVIOUS PAVED AREA (for new development, roadways or additions to existing parking lots, (not to exceed $10,000)) Application fee of $200.00 is N/A if it is part of a Site Review or Subdivision Plan. $200.00 + $.07 per sq. ft. x # _____ sq. ft. = $_____

SUBTOTAL PLAN REVIEW FEE (A) = $_____

AND

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will review the list for accuracy and provide to us the engineer, architect, licensed land surveyor (LLS), licensed landscape architect (LLA) and/or soil scientist whose professional seal appears on the plan with names and addresses for notices.

- ☐ Applicant & Owner, engineer, architect, LLS, LLA and/or soil scientist
  - Certified letters fee # _____ of x $8.00= $_____
- ☐ Certified letters fee: # of abutters _____ X $8.00= $_____
- ☐ First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X $1.00= $_____
- ☐ Creating/Printing Abutter Labels in triplicate per sheet _____ x $10.00= $_____

C. Foster's newspaper public notice fee $100.00 x # _____ applications = $_____

SUBTOTAL NOTICE FEE (B & C) = $_____

TOTAL INVOICE AMOUNT (A, B & C) = $_____

PLAN REVIEW FEE COLLECTED/PAID = $ _____

BALANCE DUE = $ _____

The balance due must be paid 28 hours prior to the Planning Board Meeting, to be heard.

BERRY SURVEYING & ENGINEERING
335 Second Crown Point Road
Barrington, NH 03825
Phone: (603) 332-2863
Fax: (603) 335-4623
www.BerrySurveying.Com
crberry@metrocast.net
September 6, 2022

City of Dover Planning and Community Development
Attention: Mrs. Donna Benton, Director of Planning and Community Development
288 Central Ave
Dover, NH 03820

Re: No-Residential Site Plan
Quality Way
Tax Map D, Lot 11-5 & 11-5SND

Mrs. Benton,

Berry Surveying & Engineering (BS&E,) on behalf of JSR, LLC respectfully submits to Planning Department a Conditional Use Permit request to permit filling within the 50' wetlands buffer found on the project site in the amount of 7,935 Sq.Ft.

Background

JSR LLC owns the parcels on the corner of Quality Way and Venture Drive commonly known as Tax Map D, Lots 11-5 and 11-5SND . The site is comprised of nearly 2 acres of land which is wooded. Wetlands were delineated at the rear of the site by Deidra Benjamin, CWS and are largely consistent with the wetlands delineated for the development of the industrial park undertaken by the City of Dover. On site test pitting was conducted by John P. Hayes, CWS and a Site-Specific Soils Map was produced for the use in developing a hydraulic stormwater model for the project.

This project was one of the original Transfer of Development Rights projects where development rights were transferred or "sent" from certain lots in the development for the purposes of development use in other areas of the City of Dover. Many owners in the development were sold the development lots and then the sending lots, which are denoted with the same tax map and lot number followed by "SND". Though the project now falls in the IT Zone, the project requests modification to the setbacks within the zone using the mechanism found in the TDR.

Since the development of the industrial park the City of Dover has instituted a Wetlands Protection District. The district aims to protect wetlands through the use of the required 50' buffer requirement. Prior to this district being established this site had additional land available for development and use for building, grading and stormwater practices.

Proposal

The proposal is to construct a 10,080 Sq.Ft., Contractor Storage Bay / Office facility which faces Quality Way. The building is designed with 4 units to be sold or rented to small contractors that needs space to run businesses. The site proposes an entrance onto Quality Way and a second onto Venture Drive to allow vehicles to enter and exit without requiring space to turn around. To increase the intersection distance between the driveway on Venture with the intersection of Quality Way the drive aisle is placed as far south as practical given the constraints of the wetlands on site. The drive aisle lines up with the rear aisle needed to ensure practical use of the rear of the building site and loading dock heights.

Site Grading & Stormwater

The existing grade of the site starts at Quality Way and slopes to the wetland buffer and wetland boundary found on the southern boundary line. In kind, the project site is designed to grade in the southern direction. The building's roof line is proposed to slope to the rear. The drive aisle, loading and parking area is all design to be super elevated to the rear of the site. The grading scheme reduces the amount of fill required on the site and in turn reduces the amount of fill required within the buffer.

Stormflow from the project site, including the roof is captured through the use of three catch basins, and routed to an onsite rain garden for treatment and attenuation. The rain garden is designed to range between 0.5'-2.2' above seasonal high-water table to promote infiltration of the treated stormflow during periods the ground will accept the volume. This recharge assumption was not included in the stormwater modeling of the site. The flow from the pond is attenuated in an outlet control structure and is designed to control the 100 Yr.24Hr storm event without the use of the emergency spillway. Dover is a coastal community and therefore 15% was added to each of the assumed storm events. The rain garden is designed to treat the water quality event and discharges flow a small enough rate to adhere to the Alteration of Terrain Channel Flow Protection rules.

In the existing condition there are two outfalls for the stormwater infrastructure along Quality Way and Venture Drive that drain onto the subject parcels. Due to the placement of the driveway onto Venture Drive, the applicant is encroaching into the easement a bit and will need to work with the City of Dover on either a revised easement or a joint use agreement. Additionally, due to the vertical design of the driveway there was an opportunity to improve the stormwater that enters the site by detaining it further and providing additional pre-treatment through the construction of a small detention facility within the easement. Operation and Maintenance of this facility is now proposed to be the applicant's responsibility; however, the easement rights of the City of Dover should be maintained at the pipe outlets.

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www.BerrySurveying.Com

Minimization & Avoidance

Through the use of retaining walls on site and thoughtful layout of site features there are no proposed wetlands impacts for the project site. The proposed rain garden is placed as far from the buffer as practical while still providing the needed storage and treatment required of modern site design. The outfall of the pond is placed outside of the buffer in an effort to increase the overland flow distance prior to entrance into the wetlands. Tree clearing is limited to the extent of the required grading and placards are proposed to be hung as is required in the overlay district.

An evaluation of deeps sumps was done for the project site, and it was determined that the site would be better served by having sumps and hoods. In this case, given the setting of the project within an established industrial park which contains deep sumps, that the use was appropriate. Additionally, if the sumps were removed from the design, additional space would be required within the rain garden for a forebay, increasing the foot print size and providing more disturbance within the 50' buffer. Lastly, given the proposed slopes on site, the terrestrial movement onsite is likely to be confined to the buffer and wetlands areas and not the steep slopes leading to the development site. A similar contemplation was conducted concerning the use of curbing onsite and for the same reasons noted above, it is proposed for use. The outlet control structure however, is not equipped with a sump and the rim is proposed to be set away from the berm with 12" of reveal to reduce the likely hood of climbing and entrapment.

The site is proposed to be lined with landscaping materials that provide both a stout understory, but also taller shading vegetation to reduce the thermal impacts of the development on stormwater. The use of the rain garden, which also provides for un-modeled infiltration component reduces the amount of flow seen at the discharge from the "fist flush" from the developed site and reduces the thermal impact from the site.

Lastly, there are a number of products used which reduce the need for plastic or non-natural items onsite. Steep slopes are lined with a natural product, NAG Bionet SC 150 BN which does not contain plastic, and reduces the risk of entanglement. Though silt fence is offered as a detailed item in the plan set, the plans direct contractors to use mulch berm or non-plastic silt soxs for perimeter erosion control use. The two outlets closest to the wetland boundaries are proposed to be installed with rip-rap aprons that are loamed and seeded over, and stabilized using erosion control blankets.

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Compliance with the following standards

a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

The only alternative is to reduce the developable foot print of an industrial lot, which did not originally contemplate a wetlands buffer. This seems contrary to the development needs of the City of Dover.

b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*

- As noted above the design contemplates the needs of the applicant as well as the environmental impact and proposes multiple features related to minimization and avoidance.

c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.*

- The proposed project minimizes buffer disturbance through several design methods as noted above.

d) *Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.*

- There is no mitigation as required by local or state rules for the proposed buffer impacts, however landscaping enhancements both in the buffer and out of the buffer are proposed to reduce direct and secondary impacts to the buffer and jurisdictional wetlands.

e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*

- There are no proposed impacts to the jurisdictional wetlands, only the buffer. No permit is required.

Respectfully Submitted,
BERRY SURVEYING & ENGINEERING

Christopher R. Berry
Principal, President

BERRY SURVEYING & ENGINEERING
335 Second Crown Pt. Rd., Barrington, NH 03825
(603) 332-2863 / (603) 335-4623 FAX
www.BerrySurveying.Com

PHOTOS TAKEN 7-22-22

#1



#2



PROJECT PHOTOS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
DOVER TAX MAP D, LOT 11-5
DOVER TAX D, LOT 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON , N.H. 332-2863

SCALE :	NONE
DATE :	JULY 25, 2022
FILE NO. :	DB 2021-134

PHOTOS TAKEN 7-22-22

#3



PROJECT PHOTOS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
DOVER TAX MAP D, LOT 11-5
DOVER TAX D, LOT 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON , N.H. 332-2863

SCALE :	NONE
DATE :	JULY 25, 2022
FILE NO. :	DB 2021-134

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11–5
B.) TAX MAP D, LOT 11–5SND

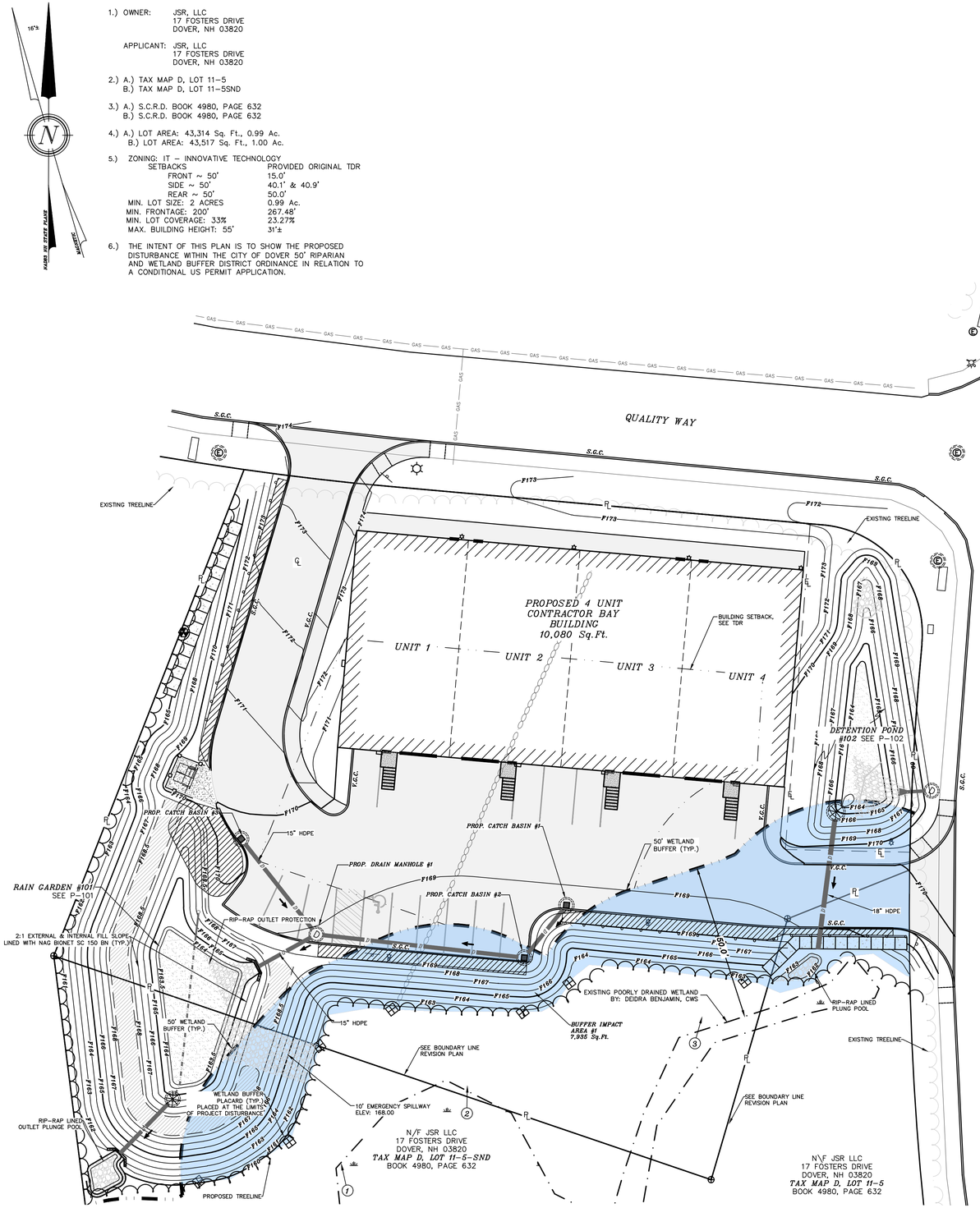
3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

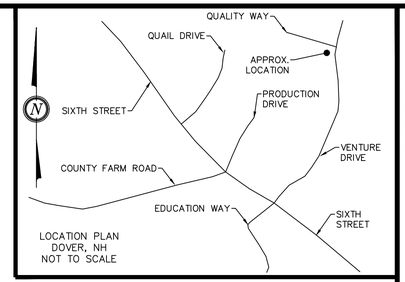
4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) ZONING: IT – INNOVATIVE TECHNOLOGY

SETBACKS	PROVIDED ORIGINAL TDR
FRONT ~ 50'	15.0'
SIDE ~ 50'	40.1' & 40.9'
REAR ~ 50'	50.0'
MIN. LOT SIZE: 2 ACRES	0.99 Ac.
MIN. FRONTAGE: 200'	267.48'
MIN. LOT COVERAGE: 33%	23.27%
MAX. BUILDING HEIGHT: 55'	31'±

6.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED DISTURBANCE WITHIN THE CITY OF DOVER 50' RIPARIAN AND WETLAND BUFFER DISTRICT ORDINANCE IN RELATION TO A CONDITIONAL US PERMIT APPLICATION.





SOIL DATA:

EoB ~ ELMWOOD FINE SANDY LOAM, 3 TO 8% SLOPES
GsC ~ GLOUCESTER VERY STONY FINE SANDY LOAM, 8 TO 15% SLOPES
ScB ~ SCANTIC SILT LOAM, 3 TO 8% SLOPES

SEE USDA / NRCS WEBSOIL

LEGEND:

- STEEL STAKE ~FND~
- UTILITY POLE
- TEST PIT
- BENCHMARK
- (1) PHOTO ORIENTATION POINT
- BUILDING SETBACK LINE
- POORLY DRAINED WETLANDS
- 50' WETLAND SETBACK
- PERIMETER BOUNDARY LINE

FND FOUND
TYP TYPICAL
TBS TO BE SET
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

WETLAND NOTES:

WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN. IN AUGUST OF 2021 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 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).

DEIDRA BENJAMIN, CWS #295

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

APPROVED DOVER

DOVER FILE #PXX-XX

REVISION	DATE	DESCRIPTION

CONDITIONAL USE PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243
LICENSED PROFESSIONAL ENGINEER

COMMERCIAL SITE PLAN
FOR
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5 SND

TABLE OF CONTENTS:

SHEET 1 ~ NEIGHBORHOOD PLAN
SHEET 2 ~ EXISTING CONDITIONS PLAN
SHEET 3 ~ SITE SPECIFIC SOILS MAP
SHEET 4 ~ LOT LINE REVISION PLAN
SHEET 5 ~ EASEMENT PLAN
SHEET 6 ~ SITE PLAN
SHEET 7 ~ GRADING & DRAINAGE PLAN
SHEET 8 ~ GRADING PLAN & PROFILE
SHEET 9 ~ P-101 RAIN GARDEN DETAILS
SHEET 10 ~ P-102 DETENTION POND DETAILS
SHEET 11 ~ EROSION & SEDIMENT CONTROL PLAN
SHEET 12 ~ UTILITY PLAN
SHEET 13 ~ CROSS SECTIONS
SHEET 14 ~ LANDSCAPING PLAN
SHEET 15 ~ LIGHTING PLAN
SHEET 16 ~ SIGHT DISTANCE QUALITY WAY
SHEET 17 ~ SIGHT DISTANCE VENTURE DRIVE
SHEET 18 ~ E101-EROSION & SEDIMENT DETAILS
SHEET 19 ~ E102-EROSION & SEDIMENT DETAILS
SHEET 20 ~ D101-DRAINAGE DETAILS
SHEET 21 ~ D102-DRAINAGE DETAILS
SHEET 22 ~ C101-CONSTRUCTION DETAILS
SHEET 23 ~ C102-CONSTRUCTION DETAILS
SHEET 24 ~ U101-UTILITY DETAILS
SHEET 25 ~ L101-LANDSCAPING DETAILS
SHEET 26 ~ W101-WILDLIFE IDENTIFICATION PLAN
SHEET 27 ~ DOVER FIRE TRUCK TURNING TEMPLATE

SURVEYOR OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332-2863

ENGINEER OF RECORD: KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332-2863

SOIL SCIENTIST: JOHN P. HAYES, III, CSS, CWS
7 LIMESTONE WAY
NORTH HAMPTON, NH 03862

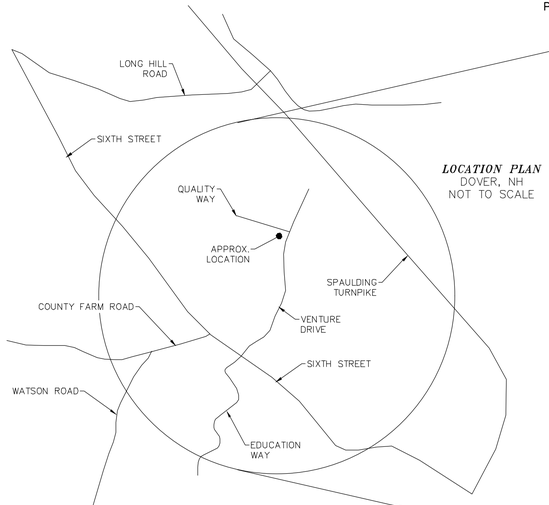
WETLAND SCIENTIST: DEIDRA L. BENJAMIN, CWS
100 LEAVITT ROAD
PITTSFIELD, NH 03263

OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

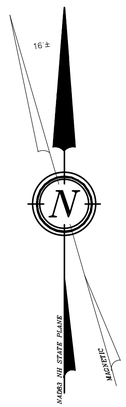
APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

NOTE:

BERRY SURVEYING & ENGINEERING HAS PREPARED AN INSPECTION & MAINTENANCE MANUAL AS PART OF THIS PROJECTS DOCUMENTATION. ALL USERS ARE BOUND TO THIS DOCUMENT AS PART OF THE APPROVAL OF THE PLANNING BOARD. COPIES OF THE YEARLY INSPECTIONS ARE TO BE DELIVERED TO THE CITY OF DOVER COMMUNITY SERVICES DEPARTMENT.



LOCATION PLAN
DOVER, NH
NOT TO SCALE



VICINITY SKETCH
DOVER, NH
SCALE: 1" = 500' ±



REQUIRED PERMITS:

1.) LOCAL SITE PLAN APPROVAL
2.) LOCAL CONDITIONAL USE PERMIT (BUFFERS)
3.) US EPA NOTICE OF INTENT / SWPPP

GENERAL PLAN SET NOTES:

1.) 11x17" PLANS ARE TWICE THE PUBLISHED SCALE.

2.) ALL PLANS ARE CONSIDERED TO BE NOT FOR CONSTRUCTION UNLESS THEY CONTAIN THE APPROVAL STAMP OF THE CITY OF DOVER.

WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE PLAN, THE SITE PLAN APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/SUBDIVIDER/DEVELOPER OF ALL TERMS, CONDITIONS, PROVISIONS AND SPECIFICATIONS OF THE CITY OF DOVER LAND SITE PLAN REGULATIONS AS AMENDED OR AS MAY LATER BE AMENDED, IN EFFECT ON THE DATE OF APPROVAL, UNLESS OR EXCEPT INSOFAR AS EXPRESSLY WAIVED, IN ANY PARTICULAR, BELOW. NON – ADHERENCE MAY RESULT IN A REVOCATION OF APPROVAL. ANY VARIATION FROM THE APPROVED PLAN WILL REQUIRE A RESUBMISSION FOR SITE PLAN APPROVAL.

APPROVED DOVER

STATE OF NEW HAMPSHIRE — LICENSED SURVEYOR — No. 805 — KENNETH A. BERRY — SIGNATURE

STATE OF NEW HAMPSHIRE — KENNETH A. BERRY — No. 14243 — LICENSED PROFESSIONAL ENGINEER

DOVER PLANNING FILE #XX\5

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

COMMERCIAL SITE PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : AS SHOWN
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

ABBREVIATION LEGEND:

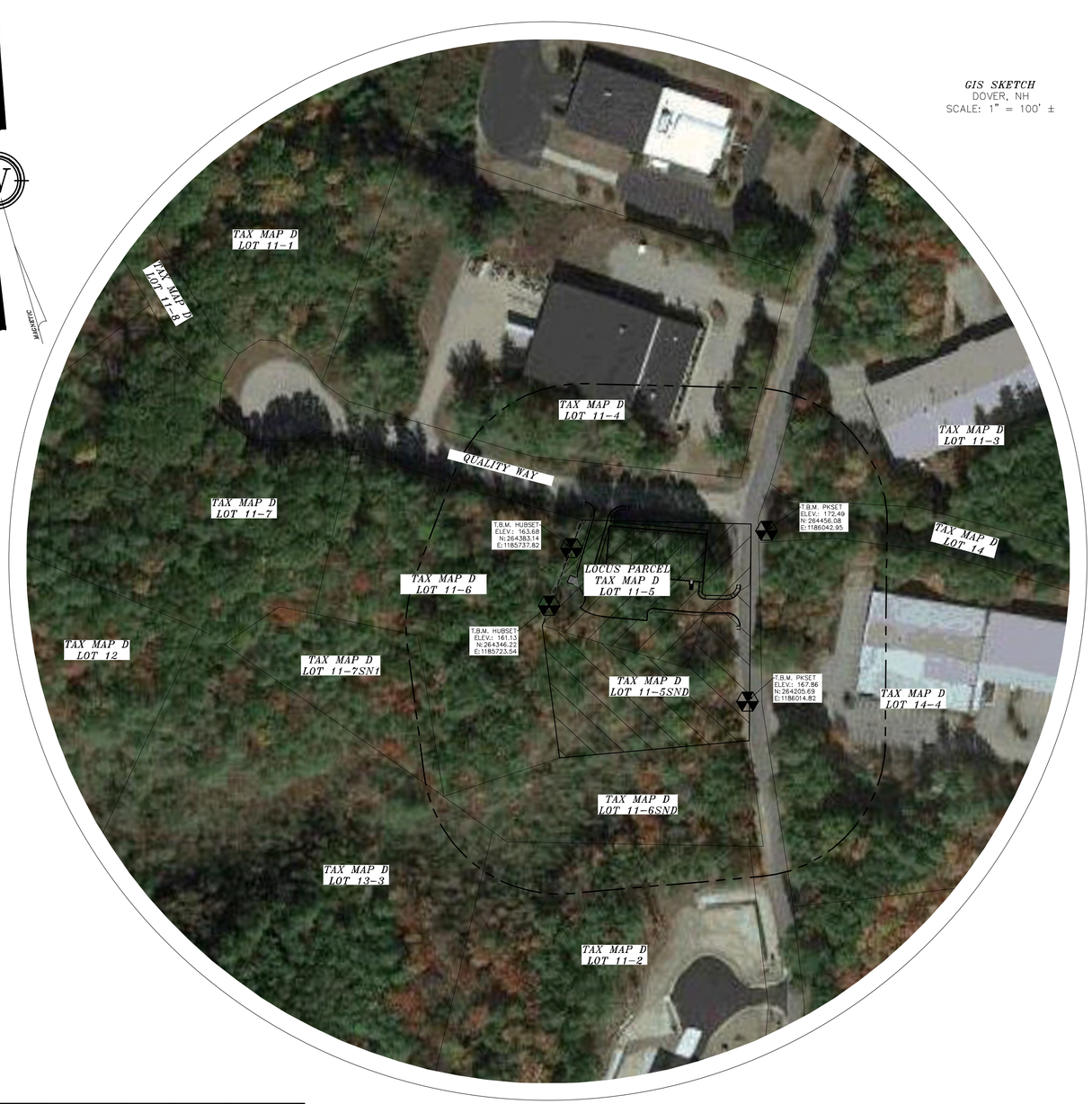
E.O.P.	EDGE OF PAVEMENT
V.G.C.	VERTICAL GRANITE CURB
S.G.C.	SLOPED GRANITE CURB
BITUM.	BITUMINOUS
E.S.H.W.T	ESTIMATE SEASONAL HIGH WATER TABLE
TYP.	TYPICAL
U.G.E	UNDER GROUND ELECTRIC / UTILITY
CLDI	CONCRETE LINED DUCTILE IRON
DI	DUCTILE IRON
F.P.	FIRE PROTECTION
U.D.	UNDER DRAIN
C.O.	CLEAN OUT
INV.	INVERT
ELEV.	ELEVATION
HDPE	HIGH DENSITY POLYETHYLENE
RCP	REINFORCED CONCRETE PIPE
RECB	ROLLED EROSION CONTROL BLANKET
F.G.	FINISHED GRADE
E.G.	EXISTING GRADE
E.T.W.	EDGE OF TRAVELED WAY
T.B.R.	TO BE REMOVED
PL	PROPERTY LINE
EL	EASEMENT LINE
CL	CENTER LINE
CF	CUBIC FEET
P.C.	POINT OF CURVATURE
P.T.	POINT OF TANGENCY
P.V.C.	POINT OF VERTICAL CURVE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.V.T.	POINT OF VERTICAL TANGENCY
EX.	EXISTING
PROP.	PROPOSED
STA.	STATION
BMP	BEST MANAGEMENT PRACTICE
'/.	FEET / FEET
TP	TEST PIT

{ | SSL ( ) ~ {SIZE} SINGLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ | DSL ( ) ~ {SIZE} DOUBLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
{ | SSB ( ) ~ {SIZE} SINGLE SOLID W/ BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ | SBL ( ) ~ {SIZE} SINGLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
{ | DBL ( ) ~ {SIZE} DOUBLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)

LEGEND:

- 3/4" REBAR W/ ID CAP ~TBS~
- GRANITE BOUND ~FND~
- STEEL STAKE ~FND~
- SIGNAGE
- UTILITY POLE
- TEST PIT
- EXISTING SEWER MANHOLE W/ STRUCTURE
- EXISTING/PROPOSED DRAIN MANHOLE W/ STRUCTURE
- EXISTING/PROPOSED CATCH BASIN W/ STRUCTURE
- PROPOSED STORMWATER BMP OUTLET STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- POORLY DRAINED JURISDICTIONAL WETLAND
- 50' WETLAND BUFFER
- CONTOUR MINOR, EXISTING
- CONTOUR MAJOR, EXISTING
- CONTOUR MINOR, PROPOSED
- CONTOUR MAJOR, PROPOSED
- CENTER LINE
- EXISTING WATER MAIN
- EXISTING SEWER LINE
- EXISTING DRAINAGE LINE
- EXISTING GAS LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- PROPOSED DRAINAGE LINE
- PROPOSED GAS LINE
- UNDERGROUND UTILITY
- GATE VALVE
- FIRE HYDRANT
- GAS VALVE
- PROPOSED LIGHT TYPE "A" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "B" MOUNTED ON STRUCTURE
- EXISTING LIGHT TYPE "C" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "D" MOUNTED ON STRUCTURE
- E175.31 / F175.31 — EXISTING SPOT GRADE / PROPOSED SPOT GRADE
- FLOW ARROW
- RIP RAP
- STORMWATER BEST MANAGEMENT PRACTICE (BMP)
- BERM
- SNOW STORAGE
- SILT FENCE / EROSION MIX BERM
- FILTREXX 8" – 12" SILT SOXX AS SPECIFIED
- ORANGE CONSTRUCTION PERIMETER FENCE
- PERIMETER CONTROL
- NRCS SOIL DELINEATION
- SOIL TYPE
- WETLAND BUFFER PLACARD

GIS SKETCH
DOVER, NH
SCALE: 1" = 100' ±



SIGN ID NUMBER	SIGN SIZE (WIDTH x HEIGHT)	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACKGROUND	LEGEND	BORDER	POST SIZE & QUANTITY
R1-1	30"x30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	2	RED	WHITE	WHITE	SQUARE (2)
R7-8	12"x18"	RESERVED PARKING	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	WHITE	GREEN W/ WHITE SYMBOL ON BLUE	RED	SQUARE (1)
R7-8a	12"x6"	VAN ACCESSIBLE	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	WHITE	GREEN	GREEN	SQUARE (0)

ABUTTERS WITHIN 200':

N/F DOVER BUSINESS & IND. DEV. AUTHORITY
F/K/A DOVER IND. DEV. AUTHORITY
288 CENTRAL AVE.
DOVER, NH 03820
TAX MAP D, LOT 11-6
S.C.R.D. BOOK 1559, PAGE 394

N/F DOVER BUSINESS & IND. DEV. AUTHORITY
F/K/A DOVER IND. DEV. AUTHORITY
288 CENTRAL AVE.
DOVER, NH 03820
TAX MAP D, LOT 11-6-SND
S.C.R.D. BOOK 1559, PAGE 394

N/F DOVER BUSINESS & IND. DEV. AUTHORITY
F/K/A DOVER IND. DEV. AUTHORITY
288 CENTRAL AVE.
DOVER, NH 03820
TAX MAP D, LOT 11-7-SN1
S.C.R.D. BOOK 1559, PAGE 394

ABUTTERS WITHIN 200' CONT.:

N/F QUALITY WAY LLC.
55 MAIN STREET
NEWMARKET, NH 03857
TAX MAP D, LOT 11-4
S.C.R.D. BOOK 3973, PAGE 254

N/F MERCHANDISE CENTRAL LLC.
111 VENTURE DRIVE
DOVER, NH 03820
TAX MAP D, LOT 11-3
S.C.R.D. BOOK 4422, PAGE 309

N/F DOVER BUSINESS & IND. DEV. AUTHORITY
288 CENTRAL AVE.
DOVER, NH 03820
TAX MAP D, LOT 14
S.C.R.D. BOOK 4368, PAGE 691

N/F VYGON CORPORATION,
ADVANCED MEDICAL INC,
2750 MORRIS ROAD #A200
LANSDALE, PA 19446-6083
TAX MAP D, LOT 11-4
S.C.R.D. BOOK 1951, PAGE 542

ABUTTERS WITHIN 200' CONT.:

N/F 46 VENTURE DRIVE PROPERTIES LLC.
910 DAY HILL ROAD
WINDSOR, CT 06095
TAX MAP D, LOT 11-2
S.C.R.D. BOOK 4731, PAGE 267

N/F SARNIA PROPOERTIES INC.
1 HAVEN COURT
PORTSMOUTH, NH 03801
TAX MAP D, LOT 13-3
S.C.R.D. BOOK 4850, PAGE 405

STATE OF NEW HAMPSHIRE — No. 805 — KENNETH A. BERRY — LICENSED LAND SURVEYOR — SIGNATURE

DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
#1		9-1-22	REVISED PER DOVER TRC COMMENT

NEIGHBORHOOD PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : AS SHOWN
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE — KENNETH A. BERRY No. 1243 — LICENSED PROFESSIONAL ENGINEER

PLAN REFERENCES:

1.) "SUBDIVISION PLAN DOVER INDUSTRIAL DEVELOPMENT AUTHORITY SIXTH STREET / LONG HILL ROAD EXT. DOVER, NEW HAMPSHIRE" BY: TERRASCAN ENGINEERS SURVEYORS DATED: JANUARY 17, 1992 S.C.R.D. PLAN 41-91

2.) "LOT LINE ADJUST PLAN PREPARED FOR WHITE ENTERPRISES AND DOVER INDUSTRIAL DEVELOPMENT AUTHORITY LONGHILL ROAD, DOVER, NH" BY: MCENEANEY SURVEY ASSOCIATES DATED: JULY 3, 1991 S.C.R.D. PLAN 39-38

3.) "SUBDIVISION PLAN DOVER INDUSTRIAL DEVELOPMENT AUTHORITY SIXTH STREET / LONG HILL ROAD EXT. DOVER, NEW HAMPSHIRE" BY: TERRASCAN ENGINEERS SURVEYORS DATED: JANUARY 17, 1992 S.C.R.D. PLAN 41-92

4.) "SUBDIVISION OF LAND PREPARED FOR DOVER INDUSTRIAL DEVELOPMENT AUTHORITY VENTURE DRIVE DOVER, NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC. DATED: AUGUST 4, 1994 S.C.R.D. PLAN # 45-32

5.) "SUBDIVISION OF LAND PREPARED FOR DOVER INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP H, LOT NO. 11-1 VENTURE DRIVE DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC. DATED: FEBRUARY 25, 2005 S.C.R.D. PLAN # 79-87

PLAN REFERENCES:

6.) "AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: FEBRUARY 14, 2006 S.C.R.D. PLAN 85-99

7.) "AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: FEBRUARY 14, 2006 S.C.R.D. PLAN 85-100

8.) "LOT LINE ADJUSTMENT AND SUBDIVISION PLAN OF LAND PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: JUNE 12, 2006 S.C.R.D. PLAN 86-73

STRUCTURES TABLE:

SMH #4349
RIM = 172.22
INV. IN = 155.72 (*SMH #4350*)
INV. OUT = 155.62 (*SMH #4157*)

SMH #4157
RIM = 172.67
INV. IN = 156.27 (*SMH #4349*)
INV. IN = 156.17 (*SMH #4158*)
INV. OUT = 156.07 (*SMH #4156*)

DMH #4198
RIM = 174.05
INV. IN = 170.45 (*CB #7322*)
INV. IN = 168.55 (*CB #3203*)
INV. OUT = 168.45 (*DMH #8054*)

DMH #8054
RIM = 172.96
INV. IN = 168.02 (*DMH #4198*)
INV. IN = 167.86 (*CB #7321*)
INV. OUT = 167.86 (*CB #7319*)

CB #7325
RIM = 174.60
INV. IN = 167.36
INV. OUT = 166.90

CB #7323
RIM = 172.10
INV. OUT = 168.90 (*CB #7324*)

CB #7324
RIM = 172.08
INV. IN = 168.43 (*CB #7323*)
INV. OUT = 168.33

CB #7322
RIM = 174.15
INV. OUT = 171.40 (*DMH #4198*)

CB #7321
RIM = 172.97
INV. OUT = 167.17 (*DMH #8054*)

CB #3201
RIM = 177.17
INV. IN = 174.47
INV. OUT = 174.37 (*CB #3202*)

CB #3202
RIM = 178.15
INV. IN = 173.93 (*CB #3201*)
INV. OUT = 173.61 (*CB #3203*)

CB #3203
RIM = 178.13
INV. IN = 175.15
INV. IN = 173.31 (*CB #3202*)
INV. OUT = 173.21 (*DMH #4198*)

CB #7320
RIM = 170.63
INV. OUT = 167.11 (*CB #7319*)

CB #7319
RIM = 170.61
INV. IN = 166.51 (*DMH #8054*)
INV. IN = 166.51 (*CB #7320*)
INV. OUT = 166.45

SOIL DATA:

EaB ~ ELMWOOD FINE SANDY LOAM, 3 TO 8% SLOPES
GsC ~ GLOUCESTER VERY STONY FINE SANDY LOAM, 8 TO 15% SLOPES
ScB ~ SCANTIC SILT LOAM, 3 TO 8% SLOPES

SEE USDA / NRCS WEBSOIL

DEIDRA L.BENJAMIN, CWS

STATE OF NEW HAMPSHIRE
DEIDRA L. BENJAMIN
No. 295
CERTIFIED WETLAND SCIENTIST

WETLAND NOTE:

WETLANDS WERE DELINEATED BY DEIDRA L. BENJAMIN, CWS, IN THE SUMMER OF 2021 USING THE FOLLOWING CRITERIA:

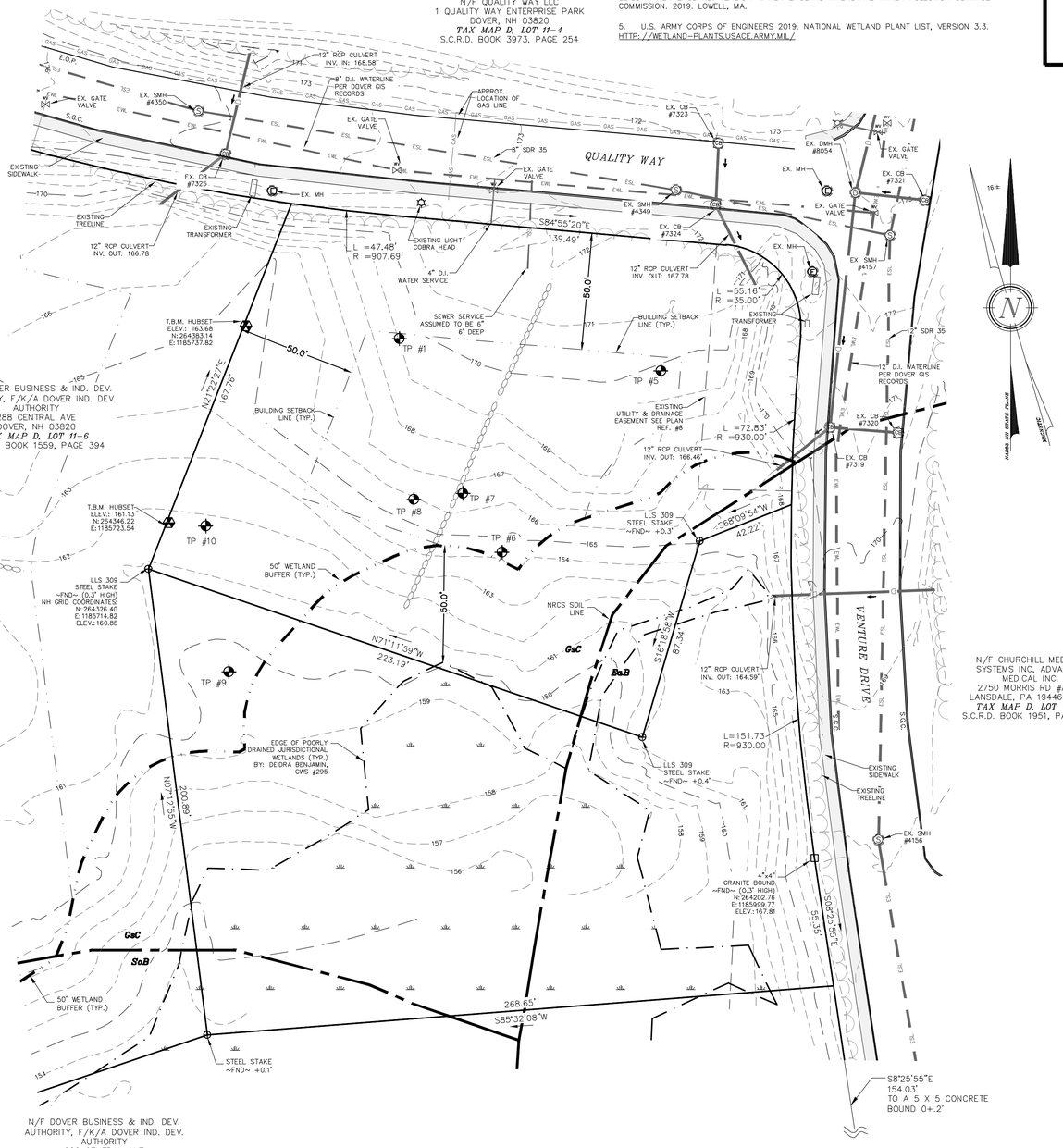
1. USACE. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. VERSION 2.0. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER. 2012. VICKSBURG, MS.

2. USACE. CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. ENVIRONMENTAL LABORATORY. 1987. VICKSBURG, MS.

3. UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. 2018. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2. L.M. VASILAS, G.W. HURT, AND J.F. BERKOWITZ (EDS.). USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.

4. NEW ENGLAND HYDRIC SOIL TECHNICAL COMMITTEE. FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND. VERSION 4. NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION. 2019. LOWELL, MA.

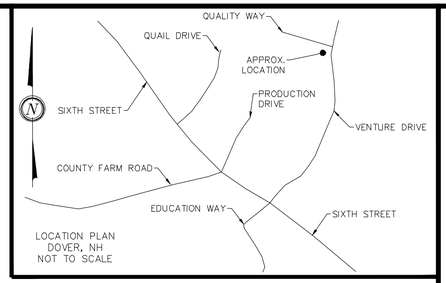
5. U.S. ARMY CORPS OF ENGINEERS 2019. NATIONAL WETLAND PLANT LIST, VERSION 3.3. HTTP://WETLAND-PLANTS.USACE.ARMY.MIL/



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) ZONING: IT – INNOVATIVE TECHNOLOGY
SETBACKS
FRONT ~ 50'
SIDE ~ 50'
REAR ~ 50'
MIN. LOT SIZE: 2 ACRES
MIN. FRONTAGE: 200'
MAX. LOT COVERAGE: 33%
MAX. BUILDING HEIGHT: 55'

6.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING BOUNDARIES AND CONDITIONS OF TAX MAP D, LOT 11-5 & 11-5SND LOCATED IN DOVER, N.H., AS OF THE FIELD SURVEY IN AUGUST 2021.

7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY #330145, MAP 33017C0310E, DATED: SEPTEMBER 30, 2015.

8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING CARLSON BRX7 SURVEY GRADE GPS RECEIVERS.

9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN AUGUST OF 2021 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

10.) TOPOGRAPHY PROVIDED IS DEMARCATED AT 1' INTERVALS, AND IS THE RESULT OF A FIELD SURVEY PERFORMED IN AUGUST 2021.

11.) THIS SITE IS SERVICED BY MUNICIPAL SEWER AND WATER.

EXISTING LEGEND:

- STONE BOUND (FND)
- STEEL STAKE (FND)
- UTILITY POLE / GUY WIRE
- SINGLE POST SIGN
- TEMPORARY BENCHMARK
- TEST PIT
- CURB STOP
- GATE VALVE
- FIRE HYDRANT
- CATCH BASIN
- SEWER MANHOLE
- STONE WALL
- ABUTTING PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING DRAIN LINE
- OVERHEAD UTILITIES
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- EXISTING TREELINE
- NRCS SOIL LINE/LABEL
- POORLY DRAINED WETLANDS
- 50' WETLAND BUFFER

FND FOUND
TYP TYPICAL
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
1		9-1-22	REVISED PER DOVER TRC COMMENT

EXISTING CONDITIONS PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 30 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
No. 805
KENNETH A. BERRY
LICENSED LAND SURVEYOR
SIGNATURE

TEST PIT DATA:

TEST PIT #1
0–6 10YR 3/3 DARK BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–22 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
22–38 2.5Y 5/4 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRIABLE
38–68 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 38"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 68"
REFUSAL @ N/A
P = 10 MIN/IN

TEST PIT #2
0–5 10YR 3/3 DARK BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
5–22 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
22–38 2.5Y 5/4 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRIABLE
38–65 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 38"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 65"
REFUSAL @ N/A
P = 10 MIN/IN

TEST PIT #3
0–6 10YR 3/2 VERY DARK GRAYISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–18 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
18–30 2.5Y 5/4 LIGHT OLIVE BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
30–55 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 30"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 55"
REFUSAL @ N/A
P = 10 MIN/IN

TEST PIT #4
0–6 10YR 3/3 DARK BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–24 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
24–40 2.5Y 5/4 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRIABLE
40–60 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY LOAMY SAND WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 40"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 60"
REFUSAL @ N/A
P = 6 MIN/IN

TEST PIT #5
0–6 10YR 3/2 VERY DARK GRAYISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–22 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
22–38 2.5Y 5/4 LIGHT OLIVE BROWN, GRAVELLY FINE SANDY LOAM, GRANULAR, FRIABLE
38–64 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY FINE SANDY LOAM WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 38"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 64"
REFUSAL @ N/A
P = 10 MIN/IN

TEST PIT #6
0–6 10YR 3/2 VERY DARK GRAYISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–30 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
E.S.H.W.T. @ N/A
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 30"
REFUSAL @ 30"
P = 10 MIN/IN

TEST PIT #7
0–6 10YR 3/2 VERY DARK GRAYISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–22 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
22–38 2.5Y 5/4 LIGHT OLIVE BROWN, GRAVELLY FINE SANDY LOAM, GRANULAR, FRIABLE
38–64 2.5Y 5/3 LIGHT OLIVE BROWN, GRAVELLY FINE SANDY LOAM WITH REDOX. FEAT. PRESENT, MASSIVE, FRIABLE
E.S.H.W.T. @ 38"
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 64"
REFUSAL @ N/A
P = 10 MIN/IN

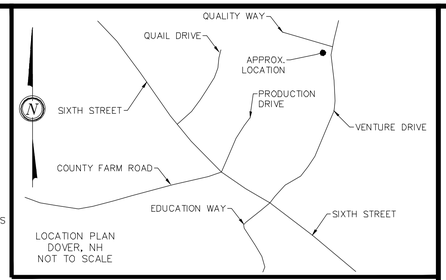
TEST PIT #8
0–6 10YR 3/2 VERY DARK GRAYISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
6–24 10YR 5/6 YELLOWISH BROWN, FINE SANDY LOAM, GRANULAR, FRIABLE
E.S.H.W.T. @ N/A
RESTRICTIVE LAYER @ N/A
GROUND WATER @ N/A
TERMINATED @ 24"
REFUSAL @ 24"
P = 10 MIN/IN

TEST PIT #9
0–5 10YR 4/2 DARK GRAYISH BROWN, SILT LOAM, GRANULAR, FRIABLE
5–12 2.5Y 4/2 DARK GRAYISH BROWN, SILT LOAM, GRANULAR, FRIABLE
12–45 5Y 5/2 OLIVE GRAY SILT LOAM WITH REDOX. FEAT. PRESENT, BLOCKY, FIRM
E.S.H.W.T. @ 12"
RESTRICTIVE LAYER @ 12"
GROUND WATER @ N/A
TERMINATED @ 45"
REFUSAL @ N/A
P = 18 MIN/IN

TEST PIT #10
0–5 10YR 4/2 DARK GRAYISH BROWN, SILT LOAM, GRANULAR, FRIABLE
5–14 2.5Y 4/2 DARK GRAYISH BROWN, SILT LOAM, GRANULAR, FRIABLE
14–45 5Y 5/2 OLIVE GRAY SILT LOAM WITH REDOX. FEAT. PRESENT, BLOCKY, FIRM
E.S.H.W.T. @ 14"
RESTRICTIVE LAYER @ 14"
GROUND WATER @ N/A
TERMINATED @ 45"
REFUSAL @ N/A
P = 18 MIN/IN

EXISTING LEGEND:

- STONE BOUND (FND)
- STEEL STAKE (FND)
- TEST PIT
- EXISTING DRAIN LINE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- EXISTING TREELINE
- NRCS SOIL LINE/LABEL
- POORLY DRAINED WETLANDS
- 50' WETLAND BUFFER
- SOIL LINE
- LIMIT OF SOIL SURVEY
- SOIL SERIES
- S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS
- TYP. FOUND
- FND TYPICAL



LOCATION PLAN
DOVER, NH
NOT TO SCALE



NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11–5
B.) TAX MAP D, LOT 11–5SND

3.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

4.) PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PREFORMED BY BERRY SURVEYING AND ENGINEERING IN 2021 WITH AN ERROR OF CLOSURE BETTER THAN 1 IN 10,000.

5.) VERTICAL DATUM IS BASED ON USGS NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83 NH STATE PLANE COORDINATES. COORDINATES GATHERED FROM CARLSON BRX7 SURVEY GRADE GPS RECEIVERS.

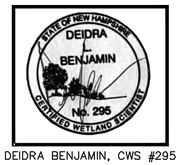
6.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING ANALYZED SITE SPECIFIC SOIL CONDITIONS OF THE SITE.

SITE SPECIFIC SOILS LEGEND

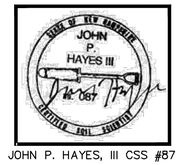
SYMBOL	SLOPES	SOIL TAXONOMIC NAME	HYDROLOGIC SOIL GROUP
Be	A	MAYBID	D
238	A,B,C,D	ELMRIDGE (VERY STONY)	C
Gs	B,C	GLOUCESTER (VERY STONY)	A
Hg	C	HOLLIS–GLOUCESTER COMPLEX (VERY ROCKY)	A/D
Sc	A,B	SCITICO	C
500	A,B,C,D,E	UDORTHENTS	C
600	B	ENDOAQUENTS	C

SLOPE: A = 0–3% B = 3–8% C = 8–15% D = 15–25% E = 25–50% F = 50%+

DENOMINATOR: /VP = VERY POORLY DRAINED /P = POORLY DRAINED
/Rk = VERY ROCKY



DEIDRA BENJAMIN, CWS #295



JOHN P. HAYES, III CSS #87

WETLAND NOTE:

WETLANDS WERE DELINEATED BY DEIDRA L. BENJAMIN, CWS, IN THE SUMMER OF 2021 USING THE FOLLOWING CRITERIA:

1. USACE. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. VERSION 2.0. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER. 2012. VICKSBURG, MS.

2. USACE. CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. ENVIRONMENTAL LABORATORY. 1987. VICKSBURG, MS.

3. UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. 2018. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2. L.M. VASILAS, G.W. HURT, AND J.F. BERKOWITZ (EDS.). USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.

4. NEW ENGLAND HYDRIC SOIL TECHNICAL COMMITTEE. FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND. VERSION 4. NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION. 2019. LOWELL, MA.

5. U.S. ARMY CORPS OF ENGINEERS 2019. NATIONAL WETLAND PLANT LIST, VERSION 3.3. HTTP://WETLAND-PLANTS.USACE.ARMY.MIL/

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

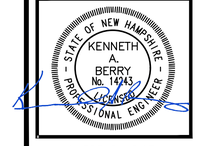
DOVER FILE #P22–55

#	REVISION	DATE	DESCRIPTION
1		9-1-22	REVISED PER DOVER TRC COMMENT

SITE SPECIFIC SOILS MAP
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11–5 & 11–5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 60 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134



DEIDRA L.BENJAMIN, CWS

STATE OF NEW HAMPSHIRE
DEIDRA L BENJAMIN
No. 295
CERTIFIED WETLAND SCIENTIST

WETLAND NOTE:

WETLANDS WERE DELINEATED BY DEIDRA L. BENJAMIN, CWS, IN THE SUMMER OF 2021 USING THE FOLLOWING CRITERIA:

1. USACE. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. VERSION 2.0. U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER. 2012. VICKSBURG, MS.

2. USACE. CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. ENVIRONMENTAL LABORATORY. 1987. VICKSBURG, MS.

3. UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. 2018. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2. L.M. VASILAS, G.W. HURT, AND J.F. BERKOWITZ (EDS.). USDA, NRCS, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.

4. NEW ENGLAND HYDRIC SOIL TECHNICAL COMMITTEE. FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION. 2019. LOWELL, MA.

5. U.S. ARMY CORPS OF ENGINEERS 2019. NATIONAL WETLAND PLANT LIST, VERSION 3.3. HTTP://WETLAND-PLANTS.USACE.ARMY.MIL/

PLAN REFERENCES:

1.) "SUBDIVISION PLAN DOVER INDUSTRIAL DEVELOPMENT AUTHORITY SIXTH STREET / LONG HILL ROAD EXT. DOVER, NEW HAMPSHIRE" BY: TERRASCAN ENGINEERS SURVEYORS DATED: JANUARY 17, 1992 S.C.R.D. PLAN 41-91

2.) "LOT LINE ADJUST PLAN PREPARED FOR WHITE ENTERPRISES AND DOVER INDUSTRIAL DEVELOPMENT AUTHORITY LONGHILL ROAD, DOVER, NH" BY: MCENEANEY SURVEY ASSOCIATES DATED: JULY 3, 1991 S.C.R.D. PLAN 39-38

3.) "SUBDIVISION PLAN DOVER INDUSTRIAL DEVELOPMENT AUTHORITY SIXTH STREET / LONG HILL ROAD EXT. DOVER, NEW HAMPSHIRE" BY: TERRASCAN ENGINEERS SURVEYORS DATED: JANUARY 17, 1992 S.C.R.D. PLAN 41-92

4.) "SUBDIVISION OF LAND PREPARED FOR DOVER INDUSTRIAL DEVELOPMENT AUTHORITY VENTURE DRIVE DOVER, NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC. DATED: AUGUST 4, 1994 S.C.R.D. PLAN # 45-32

5.) "SUBDIVISION OF LAND PREPARED FOR DOVER INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP H, LOT NO. 11-1 VENTURE DRIVE DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC. DATED: FEBRUARY 25, 2005 S.C.R.D. PLAN # 79-87

PLAN REFERENCES:

6.) "AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: FEBRUARY 14, 2006 S.C.R.D. PLAN 85-99

7.) "AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: FEBRUARY 14, 2006 S.C.R.D. PLAN 85-100

8.) "LOT LINE ADJUSTMENT AND SUBDIVISION PLAN OF LAND PREPARED FOR GEORGE J. FOSTER CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY TAX MAP D, LOT NOS. 9A & 11-1 VENTURE DRIVE AND QUALITY WAY DOVER, STRAFFORD COUNTY NEW HAMPSHIRE" BY: MCENEANEY SURVEY ASSOCIATES INC DATED: JUNE 12, 2006 S.C.R.D. PLAN 86-73

LINE	BEARING	DISTANCE
L1	N71°11'59"W	11.72'
L2	N87°42'08"E	13.96'
L3	N32°16'10"E	11.49'
L4	N89°20'00"E	25.07'

N/F QUALITY WAY LLC
1 QUALITY WAY ENTERPRISE PARK
DOVER, NH 03820
TAX MAP D, LOT 11-4
S.C.R.D. BOOK 3973, PAGE 254



N/F DOVER BUSINESS & IND. DEV. AUTHORITY, F/K/A DOVER IND. DEV. AUTHORITY
288 CENTRAL AVE
DOVER, NH 03820
TAX MAP D, LOT 11-6
S.C.R.D. BOOK 1559, PAGE 394

N/F DOVER BUSINESS & IND. DEV. AUTHORITY, F/K/A DOVER IND. DEV. AUTHORITY
288 CENTRAL AVE
DOVER, NH 03820
TAX MAP D, LOT 11-6 SND
S.C.R.D. BOOK 1559, PAGE 394

N/F CHURCHILL MEDICAL SYSTEMS INC, ADVANCED MEDICAL INC.
2750 MORRIS RD #A200
LANSDALE, PA 19446-6083
TAX MAP D, LOT 14-4
S.C.R.D. BOOK 1951, PAGE 542

LEGEND:

- ● 3/4" REBAR W/ ID CAP ~TBS~
- □ GRANITE BOUND ~FND OR TBS~
- ⊕ STEEL STAKE ~FND~
- PROPOSED BOUNDARY LINE
- BUILDING SETBACK LINE
- POORLY DRAINED WETLANDS
- 50' WETLAND BUFFER

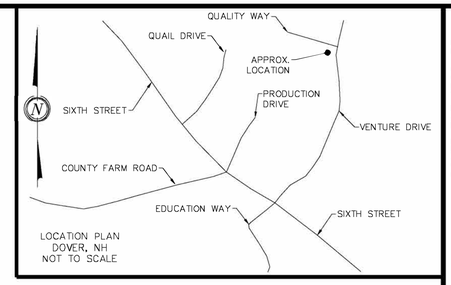
FND FOUND
TYP TYPICAL
TBS TO BE SET
S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

16°±

NORTH (NH STATE PLANE)

MAGNETIC

OWNER



LOCATION PLAN
DOVER, NH
NOT TO SCALE

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

A.) TAX MAP D, LOT 11-5

B.) EXISTING LOT AREA: 43,314 Sq.Ft., 0.99 Ac.
PROPOSED LOT AREA: 43,314 Sq.Ft., 0.99 Ac.

C.) S.C.R.D. BOOK 4980, PAGE 632

2.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

A.) TAX MAP D, LOT 11-5SND

B.) EXISTING LOT AREA: 43,517 Sq.Ft., 1.00 Ac.
PROPOSED LOT AREA: 43,517 Sq.Ft., 1.00 Ac.

C.) S.C.R.D. BOOK 4980, PAGE 63

3.) ZONING: IT - INNOVATIVE TECHNOLOGY
SETBACKS
FRONT ~ 50'
SIDE ~ 50'
REAR ~ 50'
MIN. LOT SIZE: 2 ACRES
MIN. FRONTAGE: 200'
MAX. LOT COVERAGE: 33%
MAX. BUILDING HEIGHT: 55'

4.) THE INTENT OF THIS PLAN IS TO REVISE THE BOUNDARY LINES OF TAX MAP D, LOT 11-5 & 11-5SND. THIS IS AN EQUAL LAND SWAP AND BOTH LOTS WILL HAVE THE SAME LOT AREA AS THE EXISTING.

5.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY #330145, MAP 33017C0310E, DATED: SEPTEMBER 30, 2015.

6.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING CARLSON BRX7 SURVEY GRADE GPS RECEIVERS.

7.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN AUGUST OF 2021 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

8.) THIS SITE IS SERVICED BY MUNICIPAL SEWER AND WATER.

9.) AN EASEMENT IS PROVIDED TO THE CITY TO MAINTAIN THE POTABLE DRINKING WATER QUALITY THROUGH THE HYDRANT FLUSHING PROGRAM, WHICH INCLUDES PROVIDING ACCESS TO THE WATER CURB BOXES.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DOVER APPROVAL

I CERTIFY THAT THIS PLAT EXCEEDS THE MINIMUM REQUIREMENT FOR ACCURACY AND COMPLETENESS OF THE STATE OF N.H. AND THE CITY OF DOVER, N.H. -1:10,000-

KENNETH A. BERRY L.L.S. 805 DATE 9-6-22

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

LOT LINE REVISION
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 30 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE No. 805 LICENSED LAND SURVEYOR KENNETH BERRY SIGNATURE

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) ZONING: IT – INNOVATIVE TECHNOLOGY

SETBACKS	PROVIDED ORIGINAL TDR
FRONT ~ 50'	15.0'
SIDE ~ 50'	40.1' & 40.9'
REAR ~ 50'	50.0'
MIN. LOT SIZE: 2 ACRES	0.99 Ac.
MIN. FRONTAGE: 200'	267.48'
MAX. LOT COVERAGE: 33%	23.27%
MAX. BUILDING HEIGHT: 55'	31'±

6.) THE INTENT OF THIS PLAN IS TO SHOW THE DETAIL SITE DESIGN FOR FOUR CONTRACTOR STORAGE / OFFICE SPACE. THE BUILDING IS PROPOSED TO BE STEEL FRAME AND IS CURRENTLY ASSUMED TO NOT NEED A FIRE SUPPRESSION SYSTEM. FURTHER DETAILS ARE TO BE WORKED OUT WITH THE OWNER AND INSPECTION SERVICES.

NOTES CONTINUED:

7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA COMMUNITY #330145, MAP 33017C0330E, DATED: SEPTEMBER 30, 2015.

8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE. COORDINATES GATHERED USING CARLSON BRX7 SURVEY GRADE GPS RECEIVERS.

9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN AUGUST OF 2021 WITH AN ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000.

10.) LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT OR CONDITIONAL USE PERMITS GRANTED BY THE PLANNING BOARD FOR THE PROPOSED USE OR STRUCTURE:
NONE

11.) WETLANDS WERE DELINEATED BY DEIDRA BENJAMIN, CERTIFIED WETLANDS SCIENTIST, IN ACCORDANCE WITH CHAPTER 170–27.1 OF THE ZONING ORDINANCE, IN AUGUST OF 2021.

12.) AS–BUILT PLANS OF THE SITE PLAN SHALL BE SUBMITTED ON PAPER AND IN DIGITAL FORMAT AUTOCAD DWG, AUTOCAD DXF OR ESRI FORMAT TO THE CITY OF DOVER ENGINEER'S OFFICE UPON COMPLETION OF PROJECT. AS–BUILTS ARE REQUIRED REGARDLESS OF OWNERSHIP OF ROAD. AS–BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A LL.S. OR P.E. DIGITAL FILES SHALL BE GEO–REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.

13.) THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND THROUGHOUT THE SITE FOR WHICH DEVELOPMENT IS PROPOSED.

14.) THE SUBJECT PARCEL IS SERVED BY MUNICIPAL WATER AND SEWER.

NOTES CONTINUED:

15.) ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND WITH THE CITY OF DOVER COMMUNITY SERVICES REGULATIONS AND STANDARD SPECIFICATION FOR CONSTRUCTION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.

16.) ALL EROSION CONTROL NOTES SHALL INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.

17.) ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.

18.) A LETTER OF CREDIT FOR THE COST OF RE–VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED, AND THE APPROVED CONSTRUCTION SIGN INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS. THE PROPOSED PROJECT WILL CONSIST OF ONE PHASE AND WILL DISTURB 47,000 Sq.Ft. 1.08 Ac.

19.) A PRE–CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

20.) SITE CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY–FRIDAY 7 AM–6 PM, SATURDAY 7 AM–6 PM, NO SUNDAY HOURS OR FEDERAL HOLIDAYS. HOURS OF CONSTRUCTION MUST BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE MUST BE LOCATED AND APPROVED BY THE DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT.

NOTES CONTINUED:

21.) BUILDING ADDRESSES SHALL BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.

22.) THE FOLLOWING FEDERAL AND STATE PERMITS OR UTILITY ORDERS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:
NO STATE PERMITTING REQUIRED
EPA NOTICE OF INTENT (NOI) & STORMWATER POLUTION PREVENTION PLAN (SWPPP)
EVERSOURCE WORK ORDER NUMBER XXXXX

23.) COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM TO DOVER CITY CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.

24.) ANY RETAINING WALL TALLER THAN FOUR FEET (4') REQUIRES ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES. THE TWO WALLS ONSITE ARE TO BE DESIGNED BY OTHERS, TYPICALLY THE BLOCK MANUFACTURE, AND REVIEWED AND APPROVE BY THE DESIGN ENGINEER AS WELL AS THE CITY ENGINEER.

25.) ANY FENCE TALLER THAN SEVEN FEET (7') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.

26.) APPLICANT SHALL COMPLETE LAND USE DEVELOPMENT TRACKING FORM, MOST RECENTLY REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL. https://www.unh.edu/unhsc/ptapp

NOTES CONTINUED:

27.) THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS/ENTITIES THAT MAY ACQUIRE ANY PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN. THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE NEED NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING.

28.) FIRE DEPARTMENT ACCESS SHALL BE INSTALLED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS IN ALL WEATHER CONDITIONS AT ALL TIMES.

29.) EXTERIOR LIGHTING SHALL BE CUT–OFF TYPE FIXTURES PER CHAPTER 153–14–E AND SHALL PROVIDE LIGHTING DIRECTED ON–SITE ONLY.

30.) A SECURITY SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 45, ARTICLE I, SECTION 45–2 OF THE CODE OF THE CITY OF DOVER.

31.) APPROVED BACKFLOW PREVENTERS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.

32.) THE PROPOSED STRUCTURE SHALL BE SERVED BY A SPRINKLER SYSTEM IF REQUIRED BY CHAPTER 81– 30 OF THE CODE OF THE CITY OF DOVER AND THE ADOPTED STATE OF NH BUILDING AND FIRE CODES.

33.) 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 AND APPROVED BY INSPECTION SERVICES PRIOR TO CONNECTION OF THE BACKFLOW DEVICE IF REQUIRED.

34.) FIRE DEPARTMENT CONNECTION(S) SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13. ACCESS TO THE FDC SHALL MAINTAIN A CLEAR AND UNOBSTRUCTED PATH AT ALL TIMES IF REQUIRED.

35.) THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. THE PROPOSED STRUCTURE WILL BE ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. (I.E. IBC, ANSI–117.1) AND NH RSA 155–A:5. 1 ADA VAN SPACE IS REQUIRED AND PROVIDED WITH 2% THROUGH THE SPACE AND AISLE.
WALKS ARE DESIGNED AT 5% OR LESS, WITH NO RAMPS NEEDED, AND PROVIDE A CLEAR PATH OF 5' AT ALL TIMES. THE ACCESSIBLE ROUTE FROM THE ADA SPACES IS ACROSS THE DRIVE AISLE, UP THE WALK AND INTO THE FRONT OFFICE AREAS.

36.) EXISTING BUILDING IMPERVIOUS AREA: 0 Sq. Ft. (0%)
EXISTING PAVED/GRAVEL IMPERVIOUS AREA: 0 Sq. Ft. (0%)
TOTAL EXISTING IMPERVIOUS COVER IS 0 Sq. Ft. (0%)
PROPOSED BUILDING IMPERVIOUS AREA: 10,080 Sq. Ft. (23.2%)
PROPOSED PAVED IMPERVIOUS AREA: 13,440 Sq. Ft. (30.9%)
TOTAL PROPOSED IMPERVIOUS COVER IS 23,520 Sq. Ft. (54.1%)

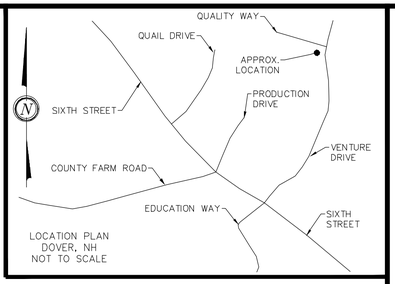
37.) THE SITE IS DESIGNED WITH AN ONSITE DUMPSTER WHICH IS TO BE PLACED ON A CONCRETE PAD AND ENCLOSED WITH A CHAIN LINK FENCE WITH BLACK SLATS.

38.) MUNICIPAL SIDEWALK TO REMAIN OPERATIONAL AT ALL TIMES AND SHALL HAVE A 5' WIDTH MINIMUM IN FINAL CONDITION. SIDEWALK TO BE RECONSTRUCTED ALONG SUBJECT PARCEL FRONTAGE.

39.) THE CLOSEST FIRE HYDRANT IS AT THE OPPOSITE CORNER OF VENTURE AVE. AND QUALITY WAY WHICH IS 240'± FROM THE SOUTHERN CORNER OF THE PROPOSED BUILDING AND 84'± FROM THE NORTH EASTERLY CORNER OF THE PROPOSED BUILDING.

40.) THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN THE 50' CONSERVATION AND WETLAND DISTRICTS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBING ACTIVITY. SEE PLACARDS TO BE PLACED AS WELL AS CONSTRUCTION FENCING AND DOUBLE ROW SILTATION PROTECTION REQUIREMENTS ON THE E&S PLANS.

41.) NO OUTDOOR STORAGE OF EQUIPMENT OR MATERIALS IS ALLOWED.



LOCATION PLAN
DOVER, NH
NOT TO SCALE

TRANSFER OF DEVELOPMENT RIGHTS REQUEST (INDUSTRIAL):

REDUCTION OF THE IT FRONT SETBACK FROM 50' TO 15'
REDUCTION OF THE IT SIDE SETBACK FROM 50' TO 40.1'
REDUCTION OF THE MIN. LOT COVERAGE NOW REQUIRED IN THE ZONE FROM 33% TO 23.27%

CONDITIONAL USE PERMITS:

WETLANDS BUFFER IMPACT: 7,935 Sq.Ft.

WAIVER REQUEST:

SUBDIVISION REGULATION ARTICLE 157–32–G: ROAD GRADE WITHIN 75' OF INTERSECTION

PARKING REQUIREMENTS:

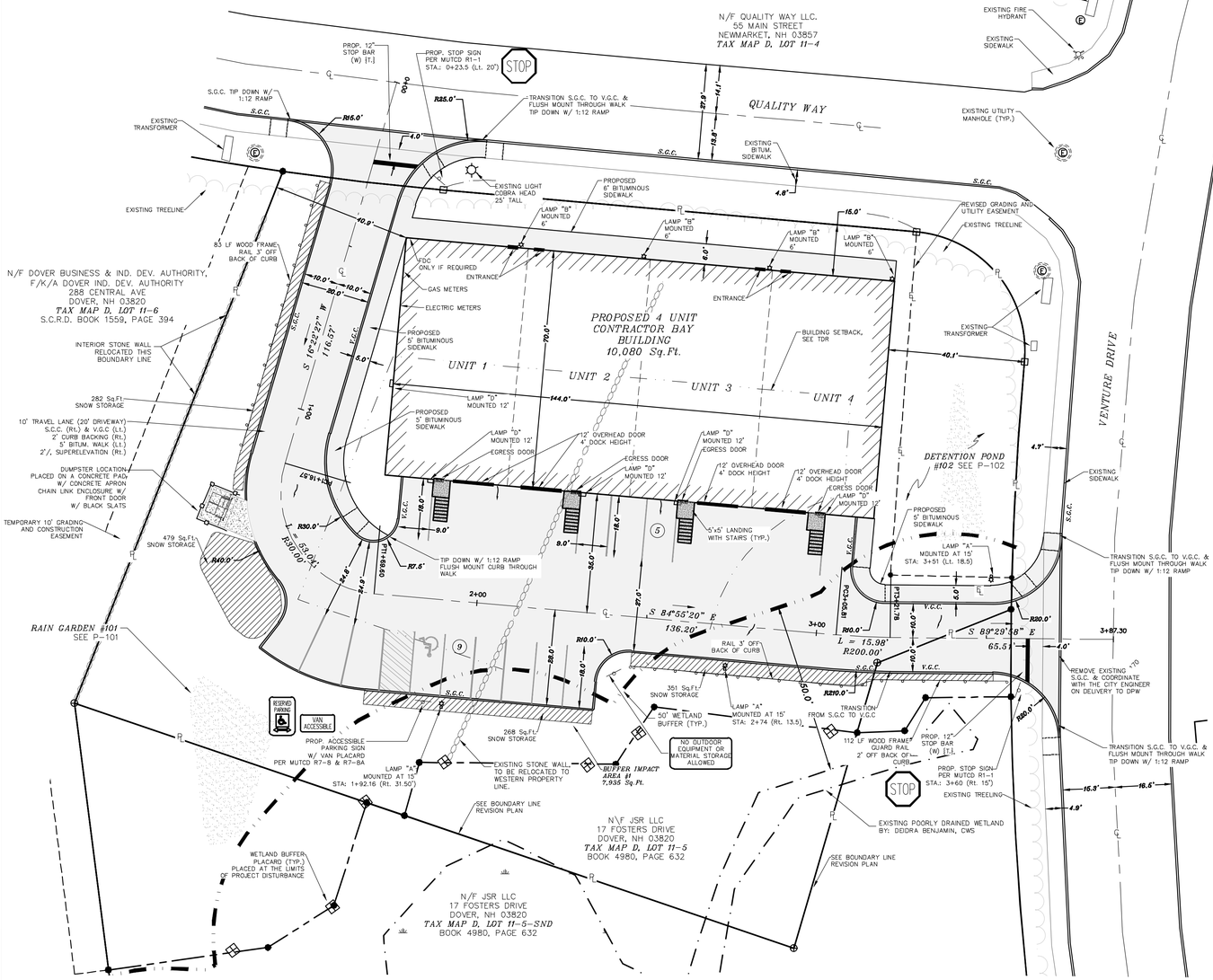
- CHAPTER 153–14D NO USE PRESCRIBED
- ITE LAND USE CODE 110 & 14D CONSULTED
  - 1.1–1.3 PEAK SPACES NEEDED PER 1,000 GFA
  - 14 SPACES REQUIRED

TOTAL PROPOSED = 14 SPACES

SNOW STORAGE CALCULATION:

- STORAGE CALCULATION (6:1 RATIO USED)
  - PAVED AREA = 12,772 Sq.Ft. / 6 = 1100 Sq.Ft.
  - 1380 Sq.Ft. PROVIDED FOR TEMPORARY SNOW STORAGE

SNOW TO BE REMOVED TO AN APPROVED OFF–SITE LOCATION



LEGEND:

- 3/4" REBAR W/ ID CAP ~TBS~
- GRANITE BOUND ~FND~
- STEEL STAKE ~FND~
- SIGNAGE
- WETLAND BUFFER PLACARD
- E101 / E6 — DETAIL SHEET / DETAIL
- POORLY DRAINED JURISDICTIONAL WETLAND
- 50' WETLAND BUFFER
- CENTER LINE
- PROPOSED LIGHT TYPE "A" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "B" MOUNTED ON STRUCTURE
- EXISTING LIGHT TYPE "C" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "D" MOUNTED ON STRUCTURE
- STORMWATER BEST MANAGEMENT PRACTICE (BMP)
- SNOW STORAGE

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

APPROVED DOVER

DOVER FILE #P22–55

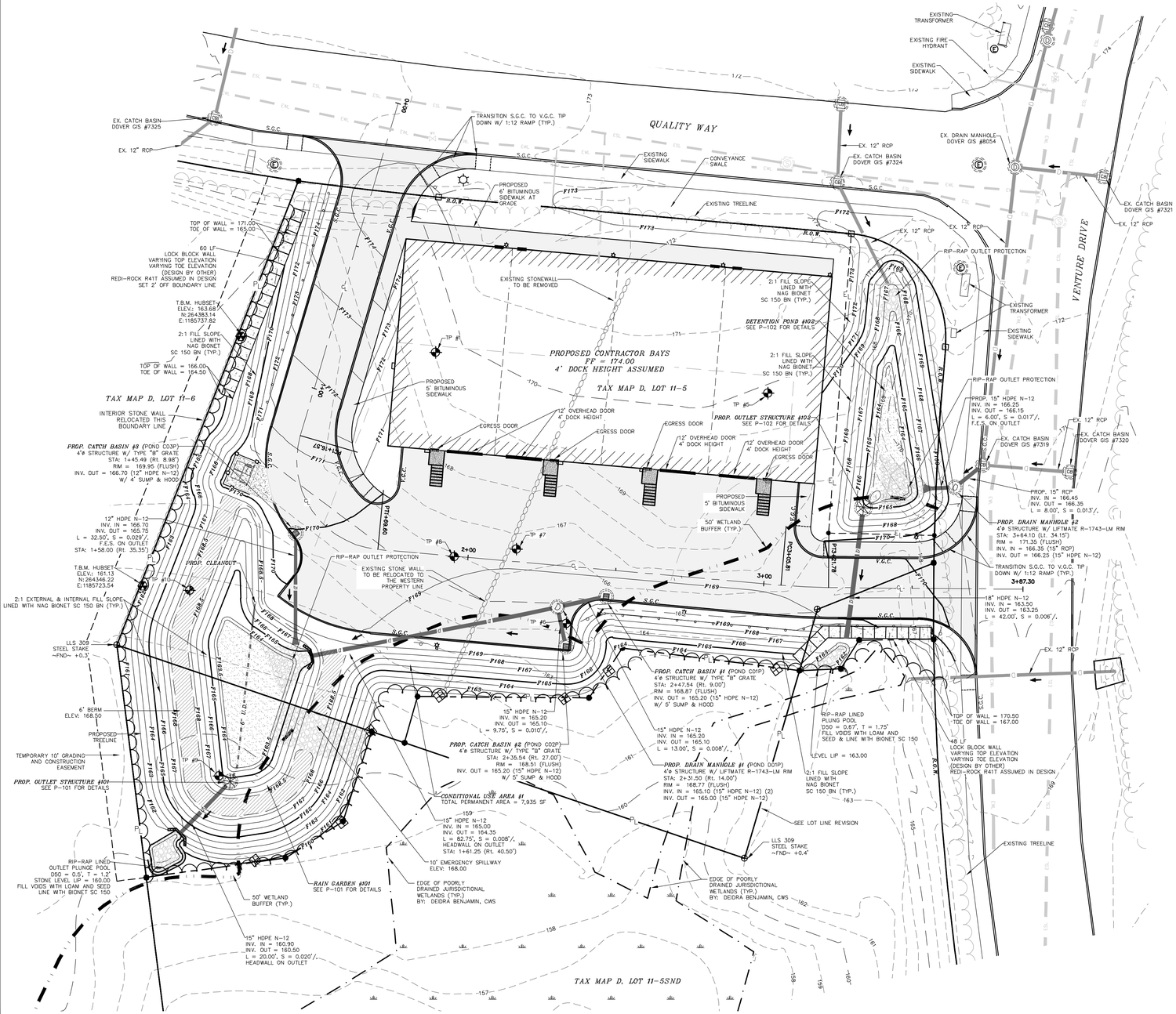
#	DATE	REVISION / DESCRIPTION
#1	9–1–22	REVISED PER DOVER TRC COMMENT

NON–RESIDENTIAL SITE PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11–5 & 11–5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE — KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER



NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THE INTENT OF THIS PLAN IS SHOW THE OVERVIEW GRADING AND DRAINAGE DESIGN FOR THE PROPOSED DEVELOPMENT.

6.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

7.) CONTRACTOR SHALL TAKE SPECIAL CARE IN NOT DISTURBING EXISTING MONUMENTS BOUNDS, AND OR BENCHMARKS WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION

8.) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION

9.) WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

10.) THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.

11.) AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. LIMIT OF GRADING SHOULD NOT BE EXPANDED WITHOUT CONSULTING THE DESIGN ENGINEER. SEE ALSO E&SC PLAN.

12.) THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R & R).

13.) ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM PLACED AND SEEDED. THE LOAM SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.

14.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

15.) PROJECT DISTURBANCE: 47,000 Sq. Ft. (1.08 Ac.) NOTE THAT THE PROJECT IS SUBJECT TO THE EPA NPDES PHASE II. THE NOTICE OF INTENT (NOI) MUST BE FILED ALONG WITH A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). WEEKLY INSPECTIONS WILL BE CONDUCTED BY THE DESIGN ENGINEER OR AFTER A STORM EVENT OF GREATER THAN 0.25".

16.) UPON FINAL COMPLETION AND 85% STABILIZATION THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS TO INCLUDE THE PUMPING OF THE BASINS. SEE SHEET E102, DETAIL E18 FOR DEFINITION OF STABLE.

17.) ALL DRAINAGE PIPE IS TO BE HDPE N-12. INDIVIDUAL PIPE SIZES ARE SPECIFIED, RECYCLED PIPE IS APPROVED FOR PROJECT SITE. RECYCLED HDPE PIPE "GREEN PIPE" IS ACCEPTABLE FOR THIS PROJECT SITE.

18.) ALL BASINS AND DRAINS ARE TO HAVE BOOTS INSTALLED ON ALL INLETS AND OUTLETS.

19.) ALL TREATMENT SWALE TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS UNLESS OTHERWISE INSTRUCTED BY THE DESIGN ENGINEER DURING CONSTRUCTION.

20.) A LETTER OF CREDIT FOR THE COST OF RE-VEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS, AS MAY BE APPLICABLE.

21.) A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND DOVER CITY STAFF SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

22.) WRITTEN DIMENSION ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS TO CONFIRM ALL ELEVATIONS. CONFLICTS WILL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

23.) COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH CITY OF DOVER CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.

24.) SEE DETAILS CONCERNING SITE LAYOUT, DRAINAGE, UTILITY, AND SEDIMENT AND EROSION CONTROLS.

25.) SIDEWALK TO REMAIN USABLE AT ALL TIMES DURING RECONSTRUCTION PROCESS.

LEGEND:

- PROPOSED DRAIN MANHOLE W/ STRUCTURE
- PROPOSED CATCH BASIN W/ STRUCTURE
- PROPOSED STORMWATER BMP OUTLET STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- POORLY DRAINED JURISDICTIONAL WETLAND
- 50' WETLAND BUFFER
- 176 — CONTOUR MINOR, EXISTING
- 175 — CONTOUR MAJOR, EXISTING
- P176 — CONTOUR MINOR, PROPOSED
- P175 — CONTOUR MAJOR, PROPOSED
- CENTER LINE
- EXISTING WATER MAIN
- EXISTING SEWER LINE
- EXISTING DRAINAGE LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- PROPOSED DRAINAGE LINE
- E175.31 — EXISTING SPOT GRADE
- F175.31 — PROPOSED SPOT GRADE
- FLOW ARROW
- RIP RAP
- STORMWATER BEST MANAGEMENT PRACTICE (BMP)
- BERM
- TEST PIT

DOVER FILE #P22-55

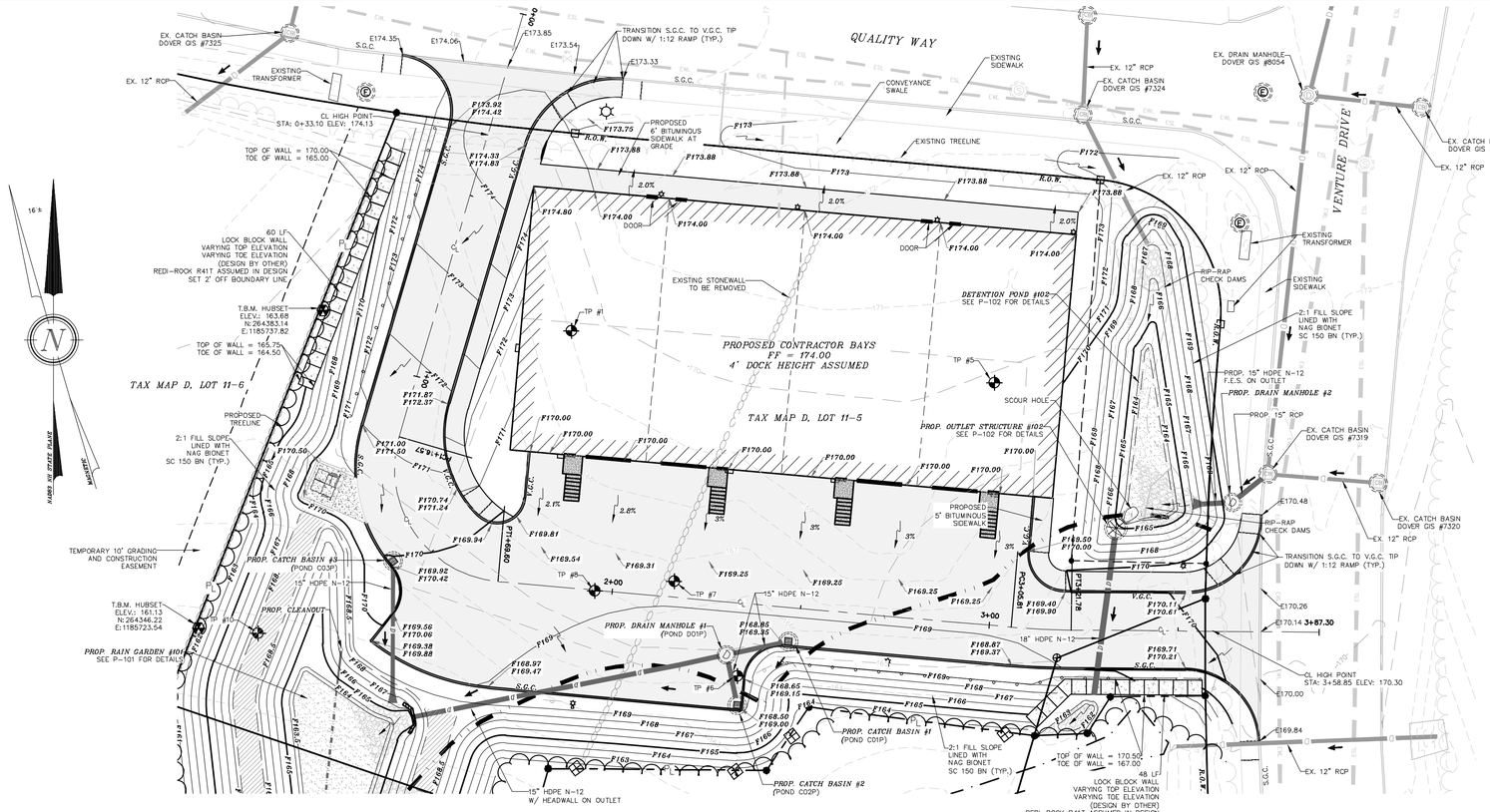
REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

GRADING & DRAINAGE PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243
PROFESSIONAL ENGINEER



NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THE INTENT OF THIS PLAN IS TO PROVIDE GRADING & ENGINEERING DETAILS OF THE PROPOSED DRIVEWAY OF TAX MAP D, LOT 11-5.

6.) SEE EROSION & SEDIMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).

7.) BS&E IS TO PROVIDE ADDITIONAL BENCHMARKS PRIOR TO CONSTRUCTION.

8.) EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS.

LEGEND:

- PROPOSED DRAIN MANHOLE W/ STRUCTURE
- PROPOSED CATCH BASIN W/ STRUCTURE
- PROPOSED STORMWATER BMP OUTLET STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- POORLY DRAINED JURISDICTIONAL WETLAND
- 50' WETLAND BUFFER
- 176 — CONTOUR MINOR, EXISTING
- 175 — CONTOUR MAJOR, EXISTING
- F176 — CONTOUR MINOR, PROPOSED
- F175 — CONTOUR MAJOR, PROPOSED
- CENTER LINE
- EXISTING WATER MAIN
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- EXISTING DRAINAGE LINE
- PROPOSED WATER MAIN
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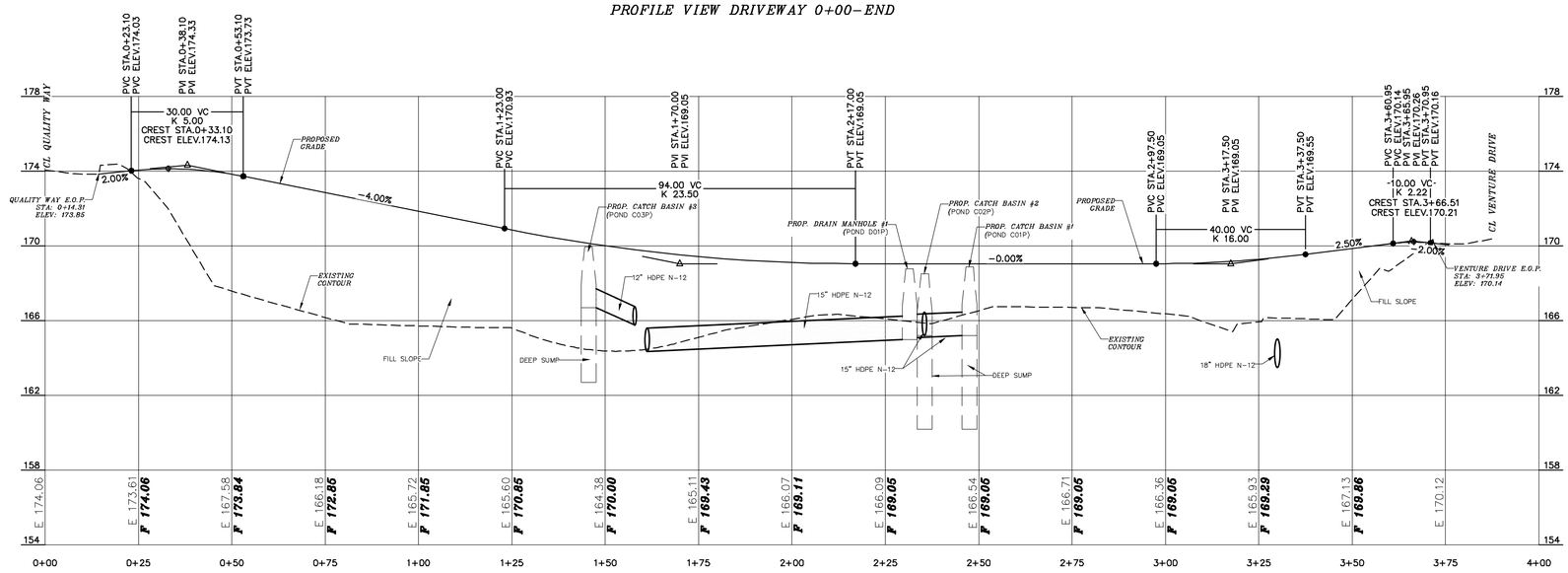
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

PLAN VIEW DRIVEWAY 0+00-END

PROFILE VIEW DRIVEWAY 0+00-END



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 5'

DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
#1		9-1-22	REVISED PER DOVER TRC COMMENT

GRADING PLAN & PROFILE
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE -

P1

BIORETENTION FILTER MEDIA MIXTURES			
Component Material	Percent of Mixture by Volume	Gradation of material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Bioretention Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5

3/8" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	95 – 100
# 4	22 – 55
# 8	0 – 10

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

1-1/2" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
2"	100
1-1/2"	90 – 100
1"	20 – 55
1/2"	0 –15
3/8"	0 –5

* EQUIVALENT TO STANDARD WASHED STONE – SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO MEDIA" MEANS BIORETENTION FILTER MADIA.
3. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
4. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
5. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
6. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 0.25 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

2 PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.

3 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.

4 VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

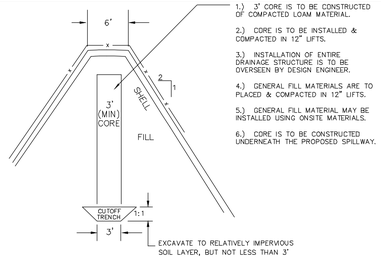
RAIN GARDEN MIX

THE GRASS THAT IS PLANTED WITHIN A RAIN GARDEN BIO-FILTRATION SYSTEM WITHIN THE BIO-MEDIA MUST CONSIST OF A COMBINATION OF WARM SEASON GRASS SEED AND COLD SEASON GRASS SEED IN ORDER FOR THE GRASS TO START GROWING FOR STABILIZATION AND CONTINUE GROWING IN THE SANDY WELL-DRAINED ENVIRONMENT. PLANTING SPECIFICATION WILL MEET THE REQUIREMENTS AS OUTLINED IN "VEGETATION NEW HAMPSHIRE SAND AND GRAVEL PITS" MIX 1 (WARM SEASON GRASSES) (15 LBS/AC) AND INCLUDE ANNUAL AND PERENNIAL RYE GRASS SEED (15 LBS/AC); THE NEW ENGLAND NATIVE WARM SEASON GRASS MIX (23 LBS/AC) BY NEW ENGLAND WETLAND PLANTS, INC.; RAIN GARDEN MIX 180 (15 LBS/AC & 15 LBS/AC OF RYE) / RAIN GARDEN GRASS MIX 180-1 (20 LBS/AC & 10 LBS/AC OF RYE) BY ERNST CONSERVATION SEEDS; OR APPROVED EQUAL.

P2

LOW PERMEABILITY MATERIAL GRADATION

SIEVE SIZE	% PASSING BY WEIGHT
#4	95 – 100
#40	60 – 95
#100	40 – 60
#200	25 – 45



1.) 3" CORE IS TO BE CONSTRUCTED OF COMPACTED LOAM MATERIAL.

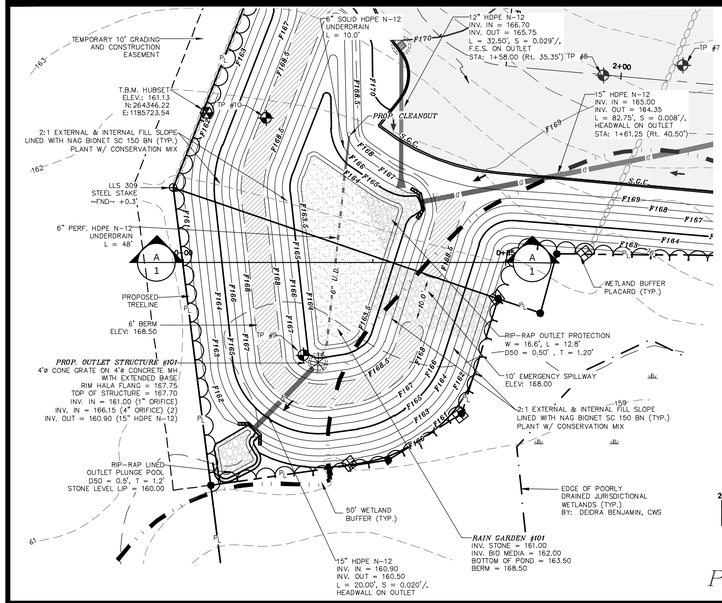
2.) CORE IS TO BE INSTALLED & COMPACTED IN 12" LIFTS.

3.) INSTALLATION OF ENTIRE DRAINAGE STRUCTURE IS TO BE OVERSEEN BY DESIGN ENGINEER.

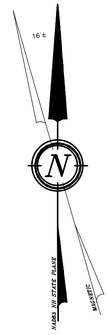
4.) GENERAL FILL MATERIALS ARE TO PLACED & COMPACTED IN 12" LIFTS.

5.) GENERAL FILL MATERIAL MAY BE INSTALLED USING ONSITE MATERIALS.

6.) CORE IS TO BE CONSTRUCTED UNDERNEATH THE PROPOSED SPILLWAY.

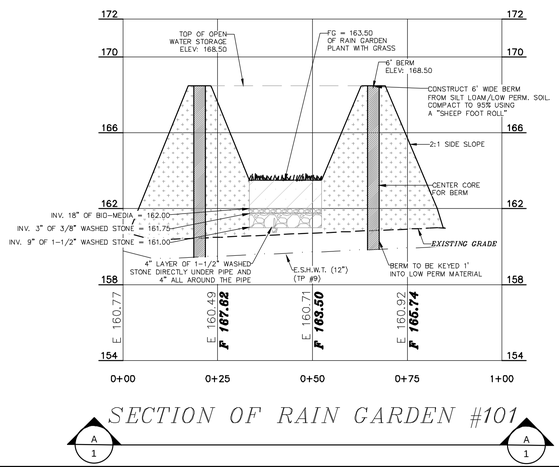


STABILIZATION NOTE:
SEE NOTE #6, SHEET E-102, DETAIL E-18
SIDE SLOPES ARE TO BE STABILIZED WITHIN THREE WORKING DAY UPON COMPLETION OF FINAL GRADE.



GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

PLAN VIEW RAIN GARDEN #101



SECTION OF RAIN GARDEN #101

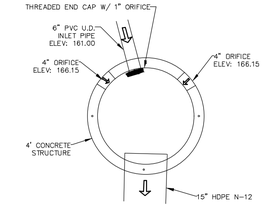
GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

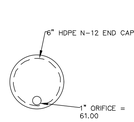
VERTICAL SCALE: 1" = 4'

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.5	FEET 6	INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE		SIZE OF STONE (INCHES) FROM	TO
100%		9	12
85%		8	11
50%		6	9
15%		2	3

P3

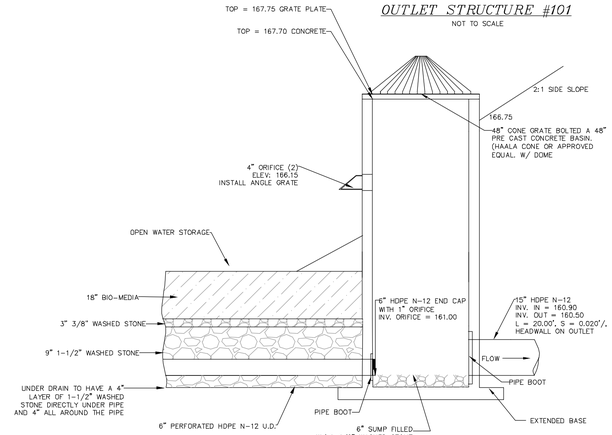
TOP VIEW
NOT TO SCALE





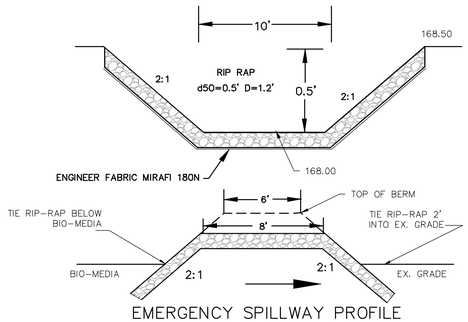
CAP WITH CONTROL ORIFICE
NOT TO SCALE

OUTLET STRUCTURE #101
NOT TO SCALE



P4

SPILLWAY DETAILS
NOT TO SCALE



EMERGENCY SPILLWAY PROFILE

P-101

DOVER FILE #P22-55

#1	9-1-22	REVISED PER DOVER TRC COMMENT
REVISION	DATE	DESCRIPTION

RAIN GARDEN #101
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243
LICENSED PROFESSIONAL ENGINEER

NOTES

1. DO NOT PLACE THE DETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE DETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
3. DETENTION AREA TO BE PLANTED WITH ERNMX-126 RETENTION BASIN FLOOR MIX.

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 0.25 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

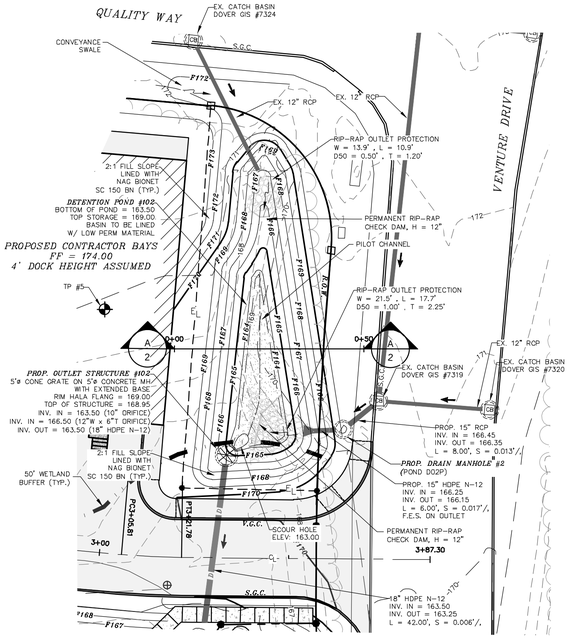
2 PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.

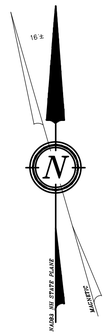
3 VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

STABILIZATION NOTE:
SEE NOTE #6, SHEET E-102, DETAIL E-18
SIDE SLOPES ARE TO BE STABILIZED WITHIN THREE WORKING DAY UPON COMPLETION OF FINAL GRADE.





GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

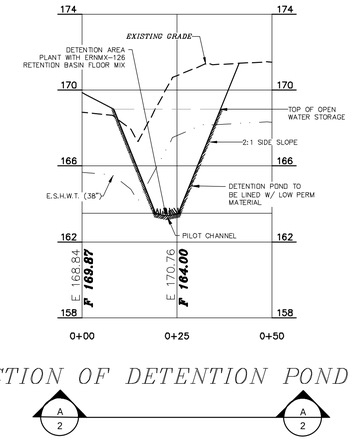
PLAN VIEW DETENTION POND #102

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

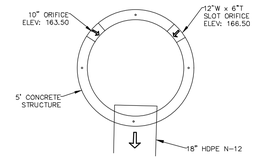
VERTICAL SCALE: 1" = 4'



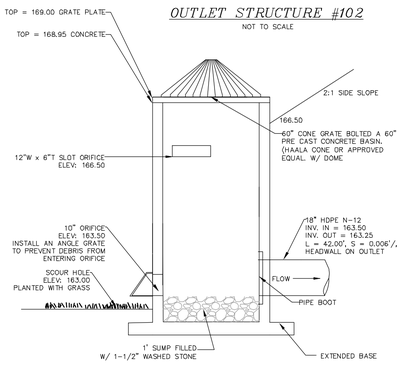
SECTION OF DETENTION POND #102

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.67 FEET	8	INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM		TO
100%	12		16
85%	10		14
50%	8		12
15%	2		4

TOP VIEW
NOT TO SCALE



OUTLET STRUCTURE #102
NOT TO SCALE



DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
#1		9-1-22	REVISED PER DOVER TRC COMMENT

DETENTION POND #102
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

P-102

SOILS & DEWATERING:

Gs	*GLOUCESTER*	*FINE SANDY LOAM*	*K= 0.17*
Hg	*HOLLIS-GLOUCESTER COMPLEX*	*FINE SANDY LOAM*	*K= 0.20*
238	*ELMRIDGE*	*SILT LOAM*	*K= 0.32*
500/600	*ELMWOOD*	*SILT LOAM*	*K= 0.32*

SEE SITE SPECIFIC SOILS MAP (SSSM)
ERODIBILITY FACTOR – K, CPESC MANUAL, ENVIROCERT INTERNATIONAL INC. & ROCKINGHAM COUNTTY SOIL SURVEY, ROCKWEB SOIL ATTRIBUTES.

CONTRACTOR TO BE AWARE OF THE SOIL PROFILES AND ENSURE THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TAKEN AT ALL TIMES. ANY DEWATERING REQUIREMENTS IN NEW HAMPSHIRE REQUIRE SPECIAL PROVISIONS IN ACCORDANCE WITH THE "CLARIFICATION OF SECTION 9.1.2 (STATE OF NEW HAMPSHIRE CONDITIONS) AND OTHER NH SPECIFIC INFORMATION FOR THE U.S. EPA 2012 NPDES CONSTRUCTION GENERAL PERMIT (CGP)" DATED MAY 3, 2012 INCLUDED IN THE SWPPP.

COVER MANAGEMENT DURING CONSTRUCTION FOR EXPOSED SOIL WILL INCLUDE HAY / STRAW APPLIED AT A RATE OF 2.0 TONS PER ACRE, TEMPORARY SEEDING OF ANNUAL RYE GRASS, AND PERMANENT SEEDING AT THE EARLIES OPPORTUNITY. SEE ADDITIONAL REQUIREMENT FOR STABILIZATION ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS, E-101 AND E-102.

THE CONSTRUCTION SCHEDULE WILL BE MANAGED SO THAT ALL STORMWATER STRUCTURES WILL BE BUILT AND STABILIZED PRIOR TO RECEIVING SURFACE WATER RUNOFF. CONTRACTOR TO BE RESPONSIBLE FOR ALL DIVERSIONS DURING CONSTRUCTION AND FOR INTERIM SEDIMENT AND EROSION CONTROL MEASURES.

LEGEND:

- 3/4" REBAR W/ ID CAP ~TBS~
- GRANITE BOUND ~FND~
- STEEL STAKE ~FND~
- EXISTING/PROPOSED CATCH BASIN W/ STRUCTURE
- PROPOSED STORMWATER BMP OUTLET STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- POORLY DRAINED JURISDICTIONAL WETLAND
- 50' WETLAND BUFFER
- CONTOUR MINOR, EXISTING
- CONTOUR MAJOR, EXISTING
- CONTOUR MINOR, PROPOSED
- CONTOUR MAJOR, PROPOSED
- CENTER LINE
- EXISTING DRAINAGE LINE
- PROPOSED DRAINAGE LINE
- RIP RAP
- STORMWATER BEST MANAGEMENT PRACTICE (BMP)
- BERM
- SF — SILT FENCE / EROSION MIX BERM
- SS — FILTREXX 8" – 12" SILT SOXX AS SPECIFIED
- C — ORANGE CONSTRUCTION PERIMETER FENCE
- P/C — PERIMETER CONTROL
- (R) RAIN GARDEN BIO-MEDIA PROTECTION
- (P) PERIMETER CONTROL
- (C) RESIDENTIAL/ROADWAY CONSTRUCTION

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE EASTERN EROSION AND SEDIMENT CONTROL DETAIL.

5.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

6.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

7.) ALL DRAINAGE PIPE IS TO BE HDPE N-12. INDIVIDUAL PIPE SIZES ARE SPECIFIED ON GRADING AND DETAIL PLAN SHEETS, GREEN PIPE.

8.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

9.) UPON FINAL COMPLETION AND 85% STABILIZATION, THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS, SEDIMENT CONTROL PRACTICES REMOVED AND DISPOSED OF PROPERLY, AND ANNUAL MAINTENANCE PREFORMED ON ALL DRAINAGE PRACTICES.

10.) EROSION AND SEDIMENT CONTROL INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24-HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP SECTION 6.3. PLEASE NOTE THAT SPECIFIC STORMWATER, EROSION PREVENTION AND SEDIMENT CONTROL TRAINING AND CERTIFICATION IS REQUIRED. INSPECTION REPORTS TO BE SUBMITTED TO THE CITY OF DOVER, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE PROJECT IS COMPLETED. SEE ALSO CITY OF DOVER ADDITIONAL INSPECTION REQUIREMENTS BELOW.

11.) CONTRACTOR MAY USE, SILT SOXX OR MULCH BERM FOR PERIMETER CONTROL.

12.) PER EPA CGP 2.1.2.2 (INSTALL PERIMETER CONTROL), "YOU MUST INSTALL SEDIMENT CONTROLS ALONG THOSE PERIMETER AREAS OF YOUR SITE THAT WILL RECEIVE STORMWATER FROM EARTH DISTURBING ACTIVITIES." AS A RESULT OF SWPPP INSPECTIONS, THE CONTRACTOR MAY HAVE TO EXPAND PERIMETER CONTROLS TO MEET THIS REQUIREMENT. THE E&SC PLAN IS INITIATING GUIDANCE AS TO THE ANTICIPATED REQUIREMENTS AND IT THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT STORMWATER VIOLATION DO NOT OCCUR.

13.) CONTRACTOR IS REQUIRED TO INSTALL A CONSTRUCTION ENTRANCE PRIOR TO ANY EARTH DISTURBING ACTIVITIES.

14.) CONTRACTOR IS RESPONSIBLE FOR SWEEPING THE PARKING LOT, SIDEWALKS AND ANYTHING DISTURBED, TO ENSURE THAT NO SEDIMENT IS BEING TRACKED ONTO VENTURE DRIVE OR QUALITY WAY.

15.) CONTRACTOR IS RESPONSIBLE FOR CLEANING AND MAINTAINING THE INLET PROTECTION ONCE INSTALLED.

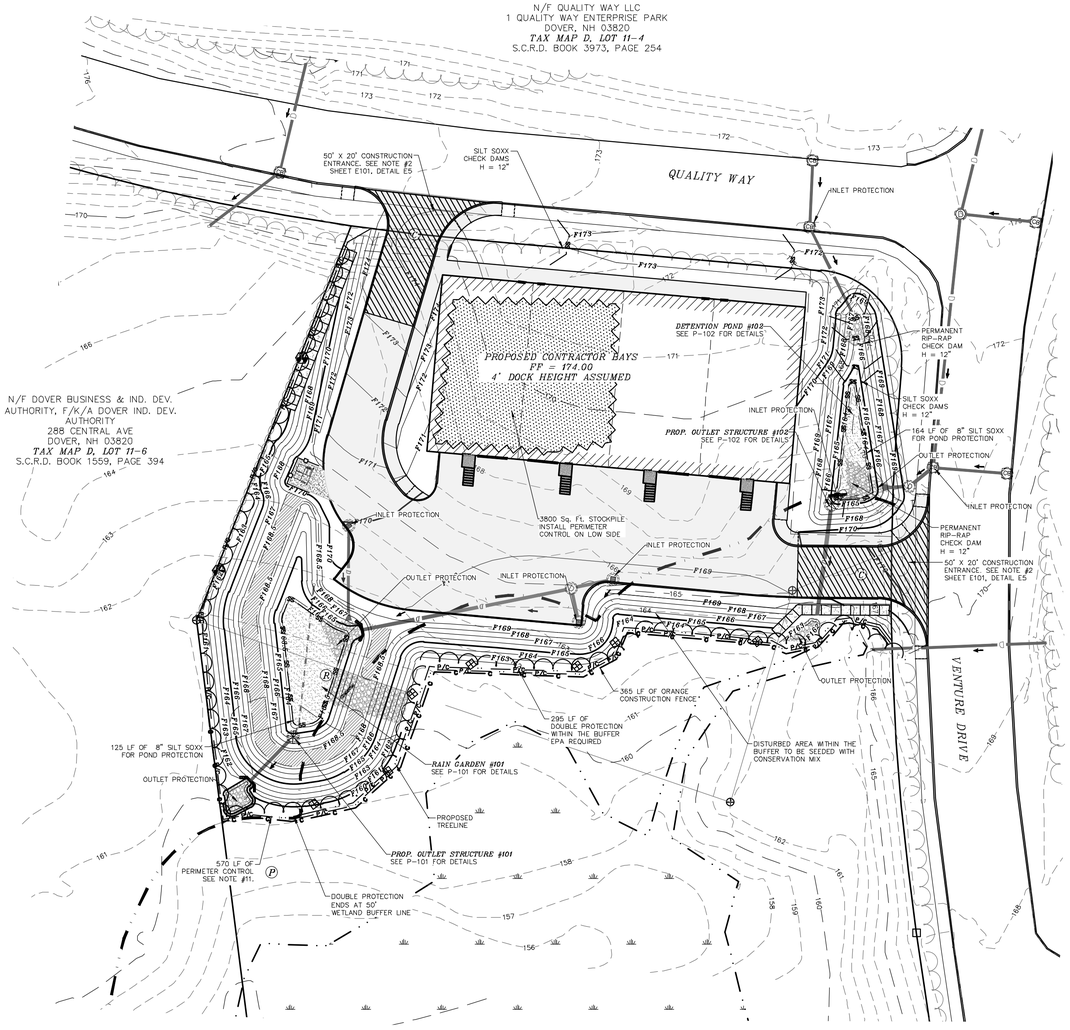
16.) FUGITIVE DUST IS TO BE CONTROLLED THROUGHOUT THE CONSTRUCTION PROCESS IN ACCORDANCE WITH ENV-A 1000.

17.) CONTRACTOR IS TO MEET THE REQUIREMENTS SPECIFIED IN RSA 430:51-57 AND AGR 3800, RELATING TO INVASIVE SPECIES.

18.) CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WATER QUALITY FROM ANY RUN OFF DURING THE CONSTRUCTION PROCESS, IN ACCORDANCE WITH ENV-WQ 1507, IN ORDER TO PREVENT VIOLATIONS OF THE STORM WATER QUALITY STANDARDS.

19.) CITY OF DOVER: IN ACCORDANCE WITH SITE PLAN REVIEW REGULATIONS (153-14) THE FOLLOWING STORMWATER MEASURES ARE REQUIRED.

A.) ALL PROPOSED BMPs WILL CONFORM TO THE NH STORMWATER MANUAL VOLUME 3.
B.) EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY COMMUNITY SERVICE.
C.) TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN CALENDAR DAYS FOR EXPOSED SOILS AREAS THAT ARE WITHIN ONE HUNDRED FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOKL AREAS.
D.) ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL STABILIZATION IS ACCOMPLISHED.
E.) COMMUNITY SERVICES DEPARTMENT OR THEIR DESIGNATED AGENT SHALL HAVE ACCESS TO THE SITE TO COMPLETE ROUTINE INSPECTIONS AND SHALL BE NOTIFIED 24-HOURS PRIOR TO INSTALLATION OF A STORMWATER BMP IN ORDER TO SCHEDULE AN INSPECTION, DURING NORMAL WORKING HOURS.
F.) THE PLANNING BOARD OR COMMUNITY SERVICES MAY REQUIRE THE DESIGN ENGINEER AND/OR AN INDEPENDENT, THIRD-PARTY INSPECTION AND OVERSIGHT OF THE CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND EROSION AND SEDIMENT CONTROL AT THEIR DISCRETION. THE OWNER / APPLICANT IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH INSPECTIONS.
G.) ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSW), OR A CERTIFIED PROFESSIONAL IN STORMWATER QUALITY (CPSWQ). INSPECTION REPORTS WILL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DOVER FILE #P22-55

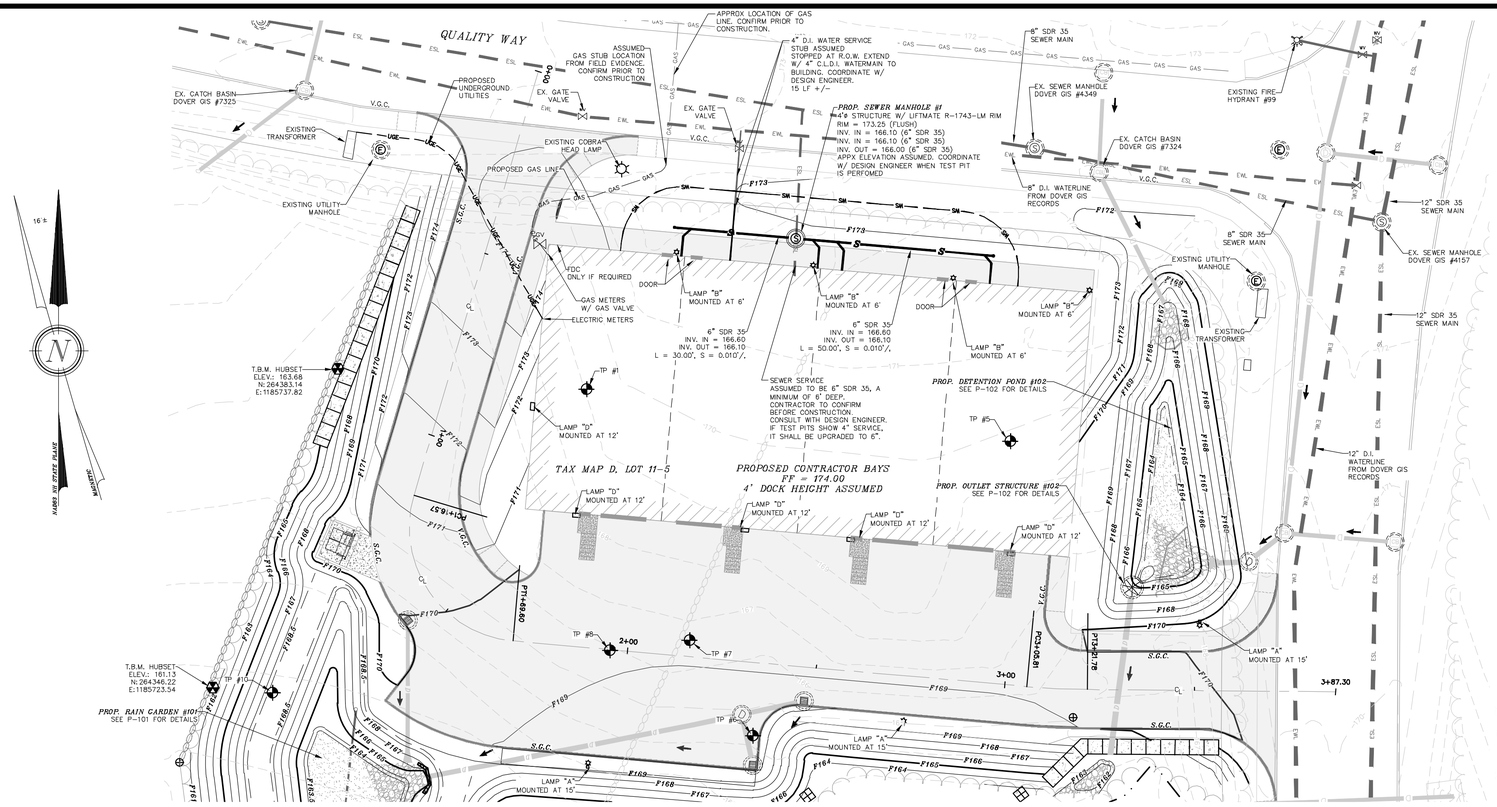
#1	9-1-22	REVISED PER DOVER TRC COMMENT
REVISION	DATE	DESCRIPTION

EROSION AND SEDIMENT CONTROL PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 30 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
PROFESSIONAL ENGINEER
LICENSED



NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THE INTENT OF THIS PLAN IS TO PROVIDE UTILITY & ENGINEERING DETAILS OF THE PROPOSED SITE DEVELOPMENT OF TAX MAP D, LOT 11-5.

6.) SEE EROSION & SEDIMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).

7.) BS&E IS TO PROVIDE ADDITIONAL BENCHMARKS PRIOR TO CONSTRUCTION.

8.) EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS.

LEGEND:

- PROPOSED LIGHT TYPE "A" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "B" MOUNTED ON STRUCTURE
- EXISTING LIGHT TYPE "C" MOUNTED ON POLE
- PROPOSED LIGHT TYPE "D" MOUNTED ON STRUCTURE
- EXISTING SEWER MANHOLE W/ STRUCTURE
- TEMPORARY BENCHMARK (T.B.M.)
- E101 / E6 — DETAIL SHEET / DETAIL
- CONTOUR MINOR, EXISTING
- CONTOUR MAJOR, EXISTING
- CONTOUR MINOR, PROPOSED
- CONTOUR MAJOR, PROPOSED
- EXISTING WATER MAIN
- EXISTING SEWER LINE
- EXISTING DRAINAGE LINE
- EXISTING GAS LINE
- PROPOSED WATER MAIN
- PROPOSED SEWER LINE
- PROPOSED DRAINAGE LINE
- PROPOSED GAS LINE
- UNDERGROUND UTILITY
- WV — GATE VALVE
- FH — FIRE HYDRANT
- GV — GAS VALVE

UTILITY NOTES:

1.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

2.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

3.) PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES, 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 RUNOGF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAGFIC IN SENSITIVE AREAS, AND MAINTAINING AN EGFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL MEETING THE ENGINEERS SPECIFIC RECOMMENDED CRITERIA.

4.) IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER (NOT ALLOWED IN CITY R.O.W.), 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 OPERATION. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.

5.) PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION. VOIDS BETWEEN STONES AND CLUMPS OF MATERIAL SHALL BE FILLED WITH FINE MATERIALS.

6.) FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES AND THE DOVER DPW.

7.) CONTRACTOR TO CONTACT DOVER DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY CONSTRUCTION TO COORDINATE ALL WORK CONCERNING INSTALLATION OF ANY PROPOSED WATER LINE IMPROVEMENTS.

8.) ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO CITY OF DOVER STANDARDS. ALL HIGHWAY CONSTRUCTION WILL MEET THE CITY OF DOVER STANDARDS.

9.) CONTRACTOR SHALL COORDINATE ALL ELECTRICAL INSTALLATIONS WITH EVERSOURCE AT (800) 662-7764. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL. A 48-HOUR MINIMUM NOTICE IS REQUIRED.

10.) CONTRACTOR SHALL COORDINATE ALL TELECOMMUNICATIONS INSTALLATIONS WITH FAIRPOINT COMMUNICATIONS AT (603) 427-5525.

11.) CONTRACTOR SHALL COORDINATE ALL CABLE INSTALLATIONS WITH COMCAST.

12.) CURB BOXES SHOULD BE PLACED IN THE LAWN AREA, OR IF PLACED IN PAVEMENT, A ROAD BOX IS REQUIRED.

13.) SEE EXISTING CONDITIONS PLAN FOR DATUM. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS.

14.) MINIMUM SLOPE FOR ALL SEWER SERVICE CONNECTIONS IS TO BE NO LESS THAN 0.02 FT/FT.

15.) ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) FOR SDR 35 GRAVITY SEWER PIPE, CONFORM WITH ENV-WQ 704.08 FOR SDR 21 / 11 / 9 FORCE MAIN PRESSURE PIPE, AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121. THE FORCE MAIN SHALL BE TESTED IN ACCORDANCE WITH ENV-WQ 704.09.

16.) CONTRACTOR TO TRANSFER TEMPORARY BENCHMARK TO A SUITABLE BENCHMARK TO CONTROL CONSTRUCTION. ANY ELEVATION DISCREPANCIES ARE TO BE REPORTED TO THE THE DESIGN ENGINEER IMMEDIATELY.

17.) ALL SEWER AND WATER CROSSINGS ARE TO MAINTAIN A 1.5' OF SEPARATION.

18.) THERE IS TO BE A MINIMUM OF 4' COVER OVER THE SEWER SERVICE AND 5' COVER OVER THE WATER SERVICE.

19.) THE WATER SERVICE SHALL BE TESTED IN ACCORDANCE WITH CITY OF DOVER STANDARDS.

DOVER FILE #P22-55

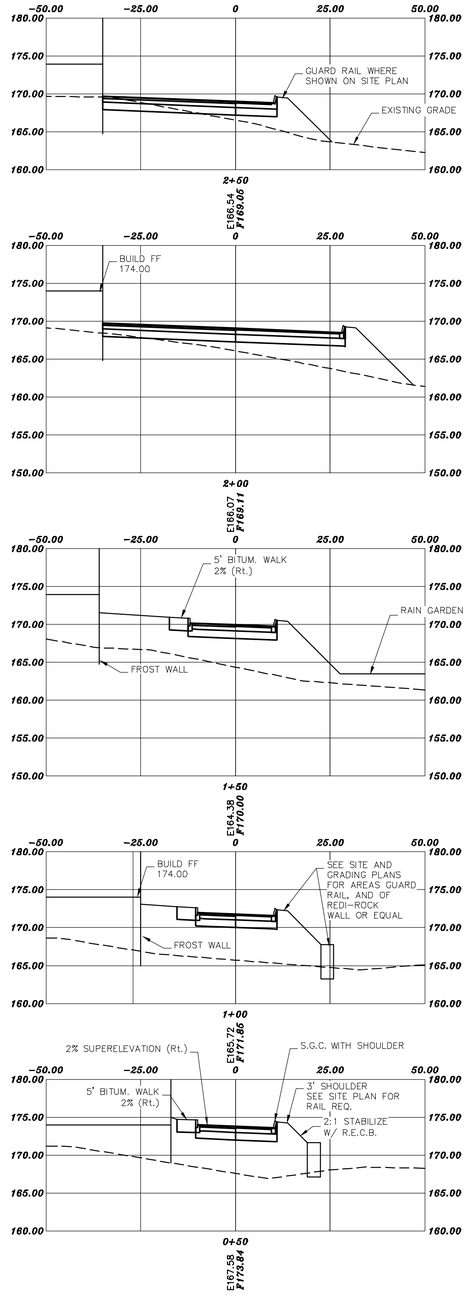
#	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT
REVISION		

UTILITY PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

Vertical Scale 1 INCH = 10 FT.

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

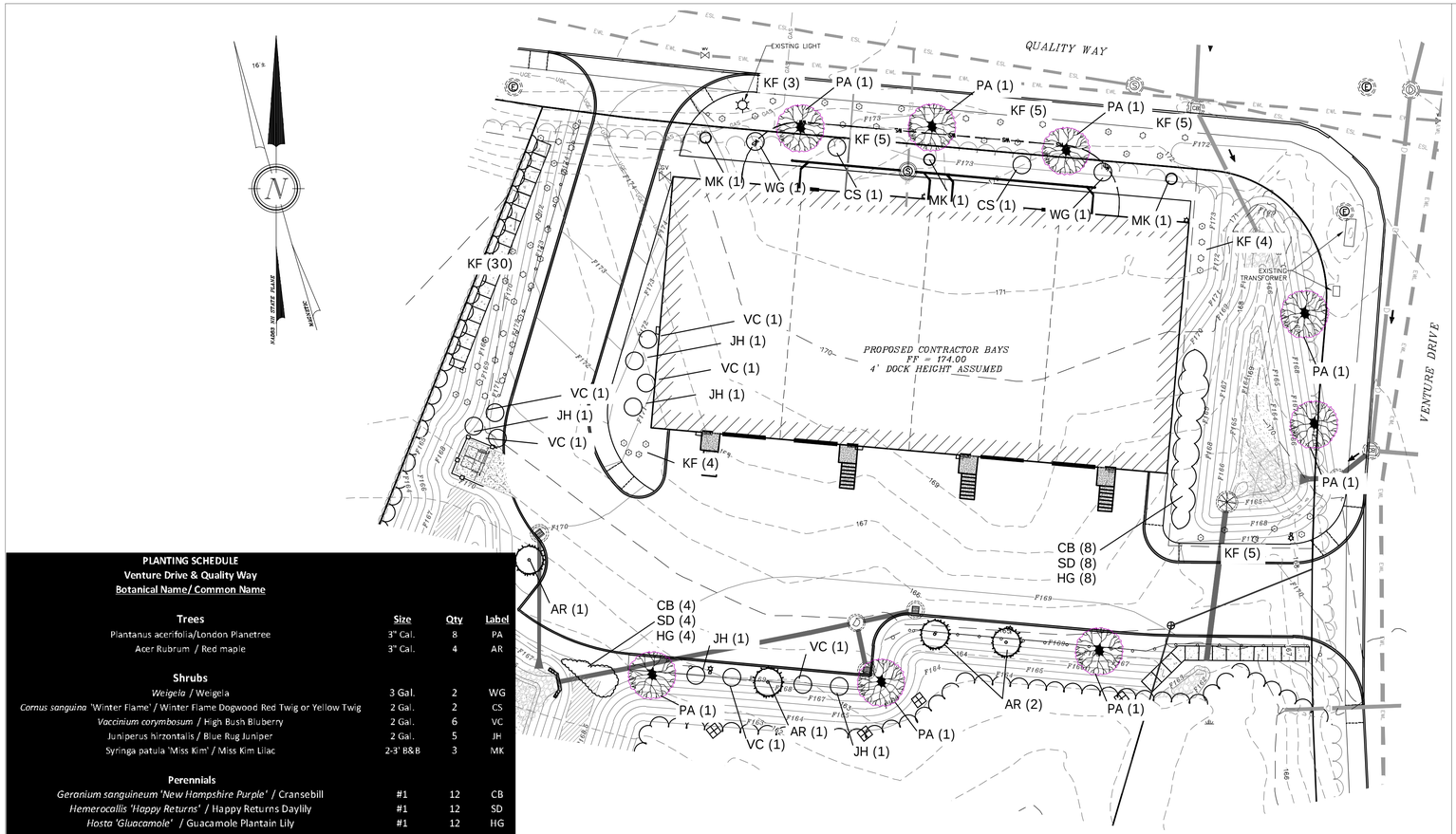
CROSS SECTIONS 0+00 – 3+50

LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
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SCALE : 1 IN. EQUALS 20 FT.
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STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

PLANTING SCHEDULE
Venture Drive & Quality Way

Botanical Name/ Common Name	Size	Qty	Label
Trees			
Plantanus acerifolia/London Planetree	3" Cal.	8	PA
Acer Rubrum / Red maple	3" Cal.	4	AR
Shrubs			
Weigela / Weigela	3 Gal.	2	WG
Cornus sanguina 'Winter Flame' / Winter Flame Dogwood Red Twig or Yellow Twig	2 Gal.	2	CS
Vaccinium corymbosum / High Bush Bluberry	2 Gal.	6	VC
Juniperus hirzontalis / Blue Rug Juniper	2 Gal.	5	JH
Syringa patula 'Miss Kim' / Miss Kim Lilac	2-3' B&B	3	MK
Perennials			
Geranium sanguineum 'New Hampshire Purple' / Cransebill	#1	12	CB
Hemerocallis 'Happy Returns' / Happy Returns Daylily	#1	12	SD
Hosta 'Guacamole' / Guacamole Plantain Lily	#1	12	HG
Grasses			
Calamagrostis acutifolia 'Karl Foerster' / Feather Reed Grass	#2	61	KF

NOTES:

1. CALL DIG SAFE PRIOR TO BEGINNING WORK. (1-888-344-7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.
2. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS. VARIATIONS IN QUANTITIES ARE TO BE APPROVED BY THE DESIGN ENGINEER.
4. PROVIDED SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN
6. ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.
7. ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.
8. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
9. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.
10. NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH
12. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
13. MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWING AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.
14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURE AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.
15. THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL THREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWING SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.
17. ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWING CONDITION AS AN EFFECTIVE VISUAL SCREEN.
18. SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.
19. ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.
20. TREES ARE TO BE 6' TALL AT PLANTING.
21. ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITIONS (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)
22. 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY-PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.
23. PLANT-PIT BACK-FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON-SITE TOPSOIL AS PART OF BACK FILL WHEN AVAILABLE.
24. ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.
25. TOPSOIL WILL BE TESTED FOR FERTILIZATION REQUIREMENTS, AND SLOW RELEASE ENVIRONMENTALLY FRIENDLY FERTILIZER WILL BE APPLIED AT THE RECOMMENDED RATES.
26. ALL DISTURBED WETLAND BUFFER AREAS, EXCEPT FOR AREAS THAT ARE PART OF THE DRAINAGE SYSTEM, ARE TO BE RESEEDED WITH A CONSERVATION SEED MIX AND ONLY MOWED TWICE PER YEAR.
27. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
28. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ONGOING TO CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
29. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
30. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NO LESS THAN ONE FULL YEAR FROM THE TIME OF INSTALLATION. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE OWNER IN WRITING OR OTHERWISE FORFEIT HIS CLAIM.
31. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, THAT HAS LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESS PRUNING OR INADEQUATE OR IMPROPER CARE, OR IS, IN THE OPINION OF THE OWNER, IN UNHEALTHY OR UNSIGHTLY CONDITION.
32. THE CONTRACTOR IS TO USE TEMPORARY MEASURES FOR WATERING PLANTS DURING THE ESTABLISHMENT PERIOD. INCLUDING CONNECTING TEMPORARY HOSES TO THE STRUCTURE WATER SUPPLY LINE AND UTILIZING SPRINKLERS UNTIL 85% GROWTH OCCURS.

PLANTING NOTES

1. CONTRACTOR SHALL OBTAIN APPROVAL FROM L.A. PRIOR TO PURCHASING &/OR INSTALLING SUBSTITUTE PLANT MATERIAL PRIOR TO PURCHASE OF ANY SUBSTITUTE MATERIALS.
2. CONSTRUCTION ACCESS WILL BE AS DIRECTED BY L.A. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ACCESS ROUTE AND ALL AREAS DISTURBED BY PLANTING OPERATIONS UPON COMPLETION OF CONSTRUCTION OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER.
3. LAYOUT OF ALL PLANTING BEDS AND LOCATION OF PLANTS TO BE APPROVED BY L.A. ON SITE PRIOR TO CONSTRUCTION AND INSTALLATION.
4. CONTRACTOR TO REMOVE ALL DEBRIS GENERATED BY PLANT INSTALLATION. DEBRIS TO BE DISPOSED OF IN A LEGAL MANNER.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD, HEALTHY & FLOURISHING CONDITION FOR ONE YEAR FROM THE DATE OF FINAL INSTALLATION APPROVAL BY L.A. CONTRACTOR SHALL REPLACE, WITHOUT COST TO OWNER, AND AS SOON AS WEATHER CONDITIONS PERMIT, ALL DEAD AND NON-FLOURISHING PLANTS AS DETERMINED BY THE L.A. REPLACEMENT PLANTS SHALL BE BE GUARANTEED IDENTICALLY TO ORIGINAL PLANTS, TIME PERIOD COMMENCING FROM DATE OF REPLACEMENT PLANTING APPROVAL BY L.A.
6. ALL BEDS TO BE MULCHED WITH 3" DEPTH SHREDDED BARK MULCH UNLESS NOTED OTHERWISE.
7. CONTRACTOR TO PROVIDE NECESSARY TEMPORARY IRRIGATION IF NEEDED BASED ON TIME OF YEAR THE PROJECT IS IMPLEMENTED.
8. ALL PLANT MATERIAL TO COMPLY WITH THE CITY OF DOVER'S SITE REVIEW REGULATIONS, 149-14(G), SUCH THAT THERE SHALL BE DECIDUOUS SHADE TREES PLANTED 40 FEET O.C. ALONG THE PERIMTERE OF THE PARKING LOTS AND SHRUBS PLANTED 5 FEET O.C. WITHIN THE PERIMETER BUFFER. SEE PLANT LIST FOR SPECIES AND SIZE OF PLANTS.

TEMPORARY WATERING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR MAKING SURE ALL PLANT MATERIAL HAS ADEQUATE WATER DURING THE ESTABLISHMENT PERIOD.
2. THE USE OF GATOR BAGS, SOAKER HOSE, HAND WATERING AND OTHER TECHNIQUES SHOULD BE USED TO ASSURE PROPER HYDRATION OF THE PLANTINGS IS MAINTAINED.
3. TEMPORARY IRRIGATION SYSTEMS CAN BE SET UP TO ASSIST IN WATERING ACTIVITIES.

terrain
planning & design llc

General Plant Maintenance Guide

General Plant Bed Maintenance:

- All plant maintenance should be performed by a qualified horticulturalist or licensed arborist. Cleaning the dead material out of the planting bed in the fall helps keep litter from building up around the plants and in some cases killing the plants. Watering the first year during dry periods will help get the plants established. Mulching every year is not necessary. Raking the old mulch and turning it over is all that is needed. When necessary only install one inch of mulch and do not place the mulch closer than 3" to the trunks or stems of woody plants.

Trees

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the trunk.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after trees have dropped their leaves for the year.
- Prune dead wood once a year.
- Depending on the amount of compaction the bed area receives, deep root aeration may be needed over time

Woody Shrubs

- The first year watering during dry periods will be necessary.
- 3" inches of mulch maybe used. The mulch should be kept 3 inches from the stems.
- Fertilizing is not necessary for the first year. Fertilizing in subsequent years only when and if the foliage is looking weak.
- Fertilization should occur prior to Mat 31st or after shrubs have dropped their leaves or gone dormant for the year.
- Prune dead wood once a year.

Grasses

- Grasses only need to be clipped back at the end of the growing season and all the clippings removed from the area.
- Do not over mulch. Too much mulch will prohibit the grass from developing into a strong clump.

Perennials

- All perennials need to be pruned back after the first or second hard frost. A two-step method; first dead head all the flower heads and let drop to the ground for re-seeding. Second cut the stems back to 3" above the ground and remove the stem and leaf litter and place in compost. Do not over mulch. Too much mulch will prohibit the growth and development
- Fertilizing perennials once in the spring with a low phosphate fertilizer will help the plants to get started in the spring.

terrain
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311 kast hill road
hopkinton, nh 03229
603. 491. 2322
terrainplanning.com

VENTURE DRIVE & QUALITY WAY

Site Location:
Venture Drive & Quality Way
Dover, NH
Tax Map: D
Lots: 11-5 & 11-5SND

Prepared For:
Berry Surveying & Engineering
335 Second Crown Point Rd
Barrington, NH 03825

LANDSCAPE PLAN

DATE:

SCALE: 1" = 20'

PROJECT #: 1802

Drawn By: ID

Checked By: ERB

REVISIONS: DATE:
Issued for Client Review

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L - 01

SHEET 14 OF 27

LICENSED LANDSCAPE ARCHITECT ERIC R BUCK 078 STATE OF NEW HAMPSHIRE

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11–5
B.) TAX MAP D, LOT 11–5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED LIGHTING PLAN FOR THE PROPOSED DEVELOPMENT.

6.) LAMP "A" WILL BE MOUNTED 15 ABOVE GRADE. THESE LAMPS ARE SOLAR.
LAMP "B" WILL BE MOUNTED 6' ON THE UNITS AND ARE BASIC RESIDENTIAL STYLE / ENTRANCE LAMPS
LAMP "C" IS THE COBRA HEAD LAMP ALONG QUALITY WAY AND IS MODELED FOR USE IN DETERMINING NEED AND IMPACT OF LIGHTING. NO CONSTRUCTION REQUIRED.
LAMP "D" ARE WALL MOUNTED 12' ABOVE EXTERIOR GRADE OF THE STRUCTURE

7.) SEE CONSTRUCTION DETAILS FOR LIGHT CUT SHEETS.

8.) EXTERIOR LIGHTING SHALL BE CUT–OFF TYPE FIXTURES PER CHAPTER 153–14–E AND SHALL PROVIDE LIGHTING DIRECTED ON–SITE ONLY.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.8 fc	24.4 fc	0.0 fc	N/A	N/A
Stat Zone # 1	X	1.8 fc	6.5 fc	0.3 fc	21.7:1	6.0:1

16.8°

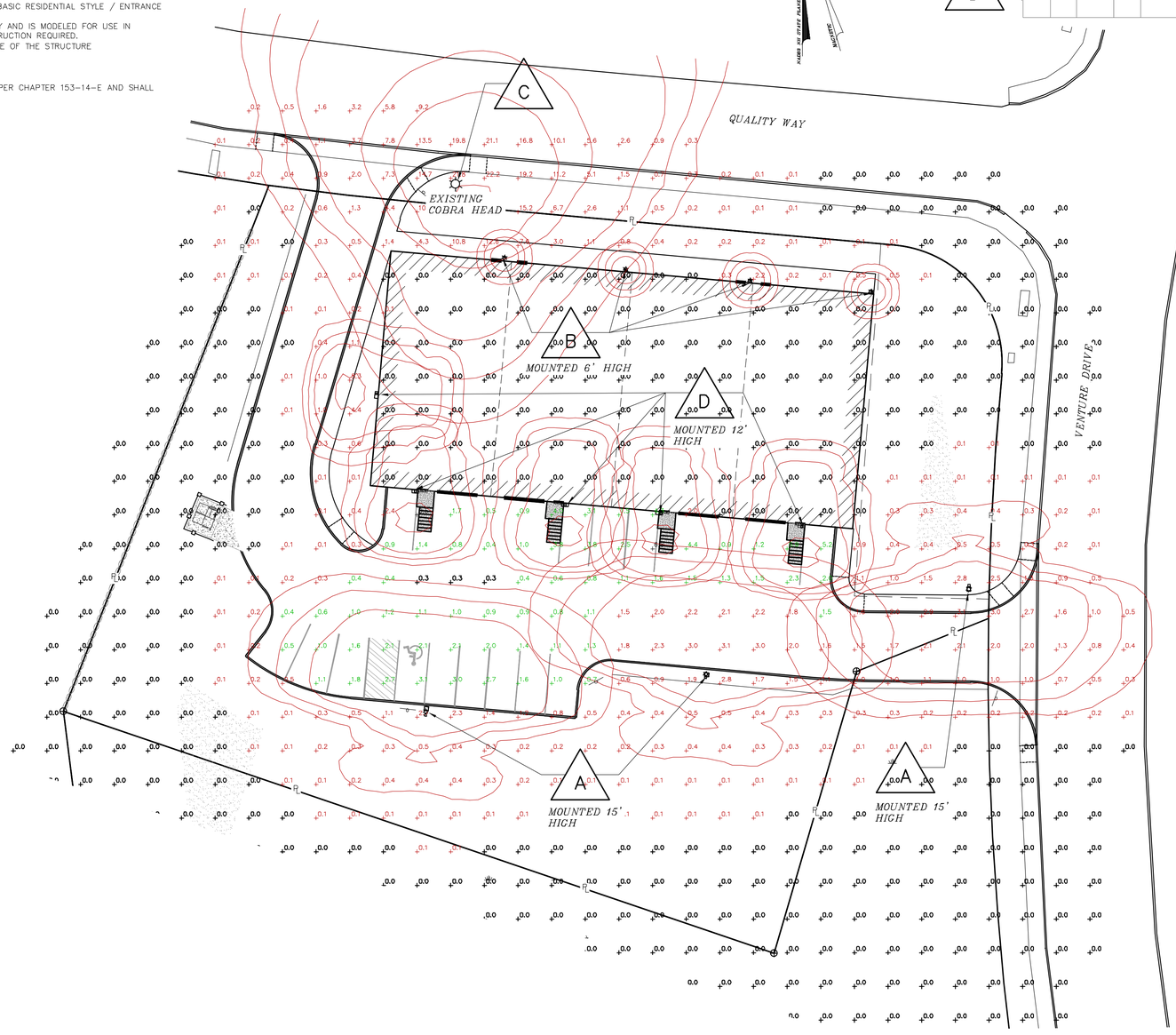
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HUBBS BROOK RIVER PARK

VENTURE DRIVE

Schedule

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
			3	Lithonia Lighting	DSXI LED P1 30K T3M MVOLT	DSXI LED P1 30K T3M MVOLT	1	6279	1	54	
	B		4	Lithonia Lighting	ODSL10 SRC	CRAFTSTON WALL MOUNTED SMALL DECORATIVE LANTERN, ONE LAMP 13W SPIRAL COMPACT FLUORESCENT, WHITE GLASS DIFFUSER 4.25" DIA. X 6.63" HIGH, ELECTRONIC BALLAST	1	900	1	12.6	
	C		1	Lithonia Lighting	HLA LED P3 50K TFTM MVOLT R90	HIGH LUMEN AREA, PERFORMANCE PACKAGE 3, 5000 K, FORWARD THROW MEDIUM, 120–277V, RIGHT ROTATED OPTICS	1	59055	1	598	
	D		5	Lithonia Lighting	WSTM 70M MD	MINIATURE TRAPEZOID ARCHITECTURAL SCONCE, 70–WATT METAL HALIDE, MEDIUM DISTRIBUTION, HYDROFORM REFLECTOR CLEAR, FLAT GLASS LENS MEETS THE NIGHTTIME FRIENDLY CRITERIA	1	5500	0.85	70	



DOVER FILE #P22–55

REVISION	DATE	DESCRIPTION
#1	9–1–22	REVISED PER DOVER TRC COMMENT

LIGHTING PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11–5 & 11–5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
PROFESSIONAL ENGINEER

SHEET 15 OF 27

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

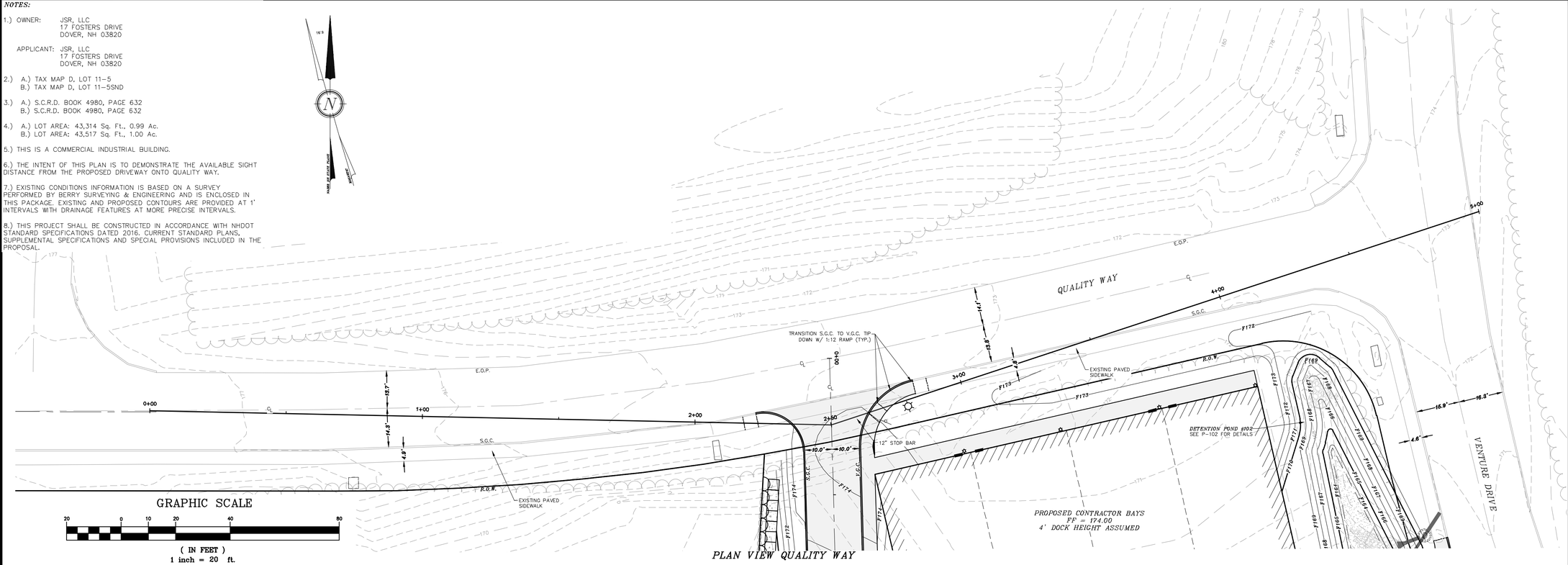
4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THIS IS A COMMERCIAL INDUSTRIAL BUILDING.

6.) THE INTENT OF THIS PLAN IS TO DEMONSTRATE THE AVAILABLE SIGHT DISTANCE FROM THE PROPOSED DRIVEWAY ONTO QUALITY WAY.

7.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE. EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS WITH DRAINAGE FEATURES AT MORE PRECISE INTERVALS.

8.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016, CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

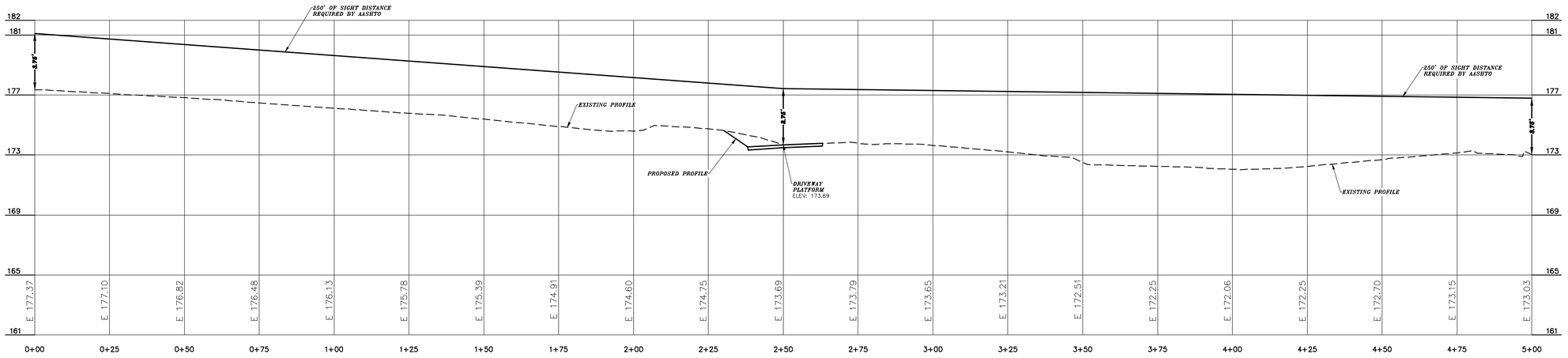
PLAN VIEW QUALITY WAY

PROFILE VIEW SIGHT LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'



HWY-1

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

ACCESS PLAN QUALITY WAY
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE - KENNETH A. BERRY No. 14243 - PROFESSIONAL ENGINEER

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTES:

1.) OWNER: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

APPLICANT: JSR, LLC
17 FOSTERS DRIVE
DOVER, NH 03820

2.) A.) TAX MAP D, LOT 11-5
B.) TAX MAP D, LOT 11-5SND

3.) A.) S.C.R.D. BOOK 4980, PAGE 632
B.) S.C.R.D. BOOK 4980, PAGE 632

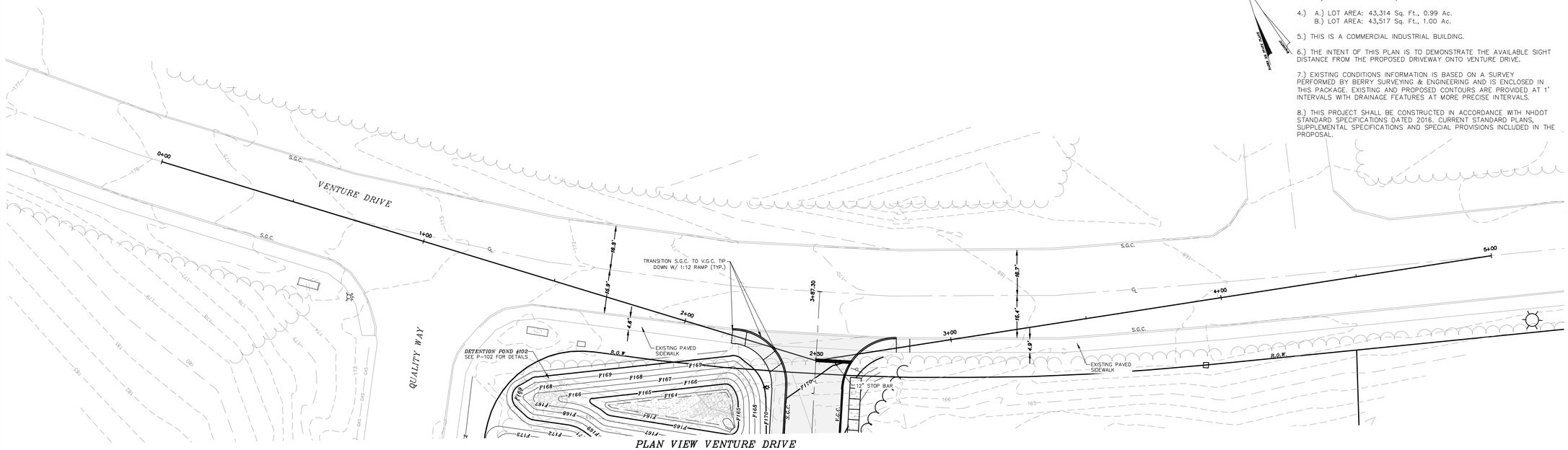
4.) A.) LOT AREA: 43,314 Sq. Ft., 0.99 Ac.
B.) LOT AREA: 43,517 Sq. Ft., 1.00 Ac.

5.) THIS IS A COMMERCIAL INDUSTRIAL BUILDING.

6.) THE INTENT OF THIS PLAN IS TO DEMONSTRATE THE AVAILABLE SIGHT DISTANCE FROM THE PROPOSED DRIVEWAY ONTO VENTURE DRIVE.

7.) EXISTING CONDITIONS INFORMATION IS BASED ON A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING AND IS ENCLOSED IN THIS PACKAGE. EXISTING AND PROPOSED CONTOURS ARE PROVIDED AT 1' INTERVALS WITH DRAINAGE FEATURES AT MORE PRECISE INTERVALS.

8.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2016. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.



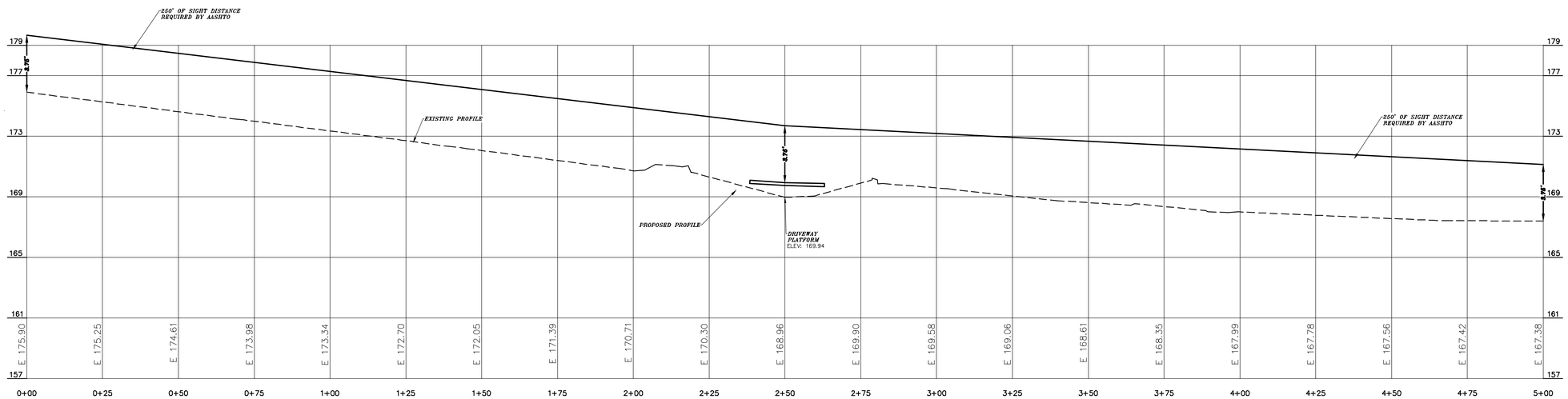
PLAN VIEW VENTURE DRIVE

PROFILE VIEW SIGHT LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4'



HWY-2

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

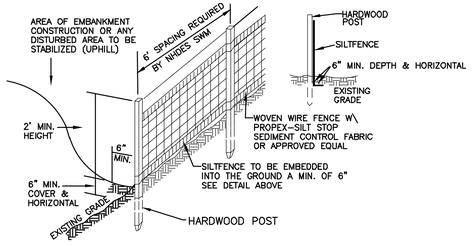
ACCESS PLAN VENTURE DRIVE
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE - KENNETH A. BERRY No. 14243 - LICENSED PROFESSIONAL ENGINEER

E1



SILT FENCE CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8" THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 6' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF. SEE MAINTENANCE NOTE BELOW. REMOVAL OF SEDIMENT REQUIRED AT A DEPTH OF 6-INCHES.
4. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
5. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER.
6. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED.
7. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, SILT FENCE, PAGE 90.

SILT FENCE MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH SIX-INCHES IN DEPTH.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

SILT FENCE DETAIL
NOT TO SCALE

E2

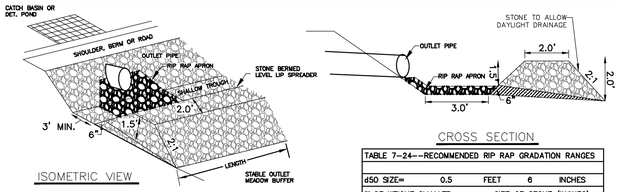
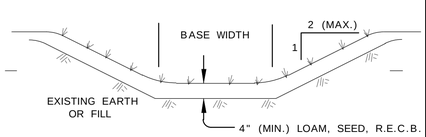


TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.5	FEET 6	INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM		TO
100%	9		12
85%	8		11
50%	6		9
15%	2		3

1. CONSTRUCT THE LEVEL SPREADER LIP ON A 0% GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
3. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING EXCELSIOR ENFORCER MATTING BENEATH THE STONE. EACH STRIP SHALL OVERLAP BY AT LEAST SIX INCHES.
4. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RE-CONCENTRATE IMMEDIATELY BELOW THE SPREADER.
5. MAINTENANCE: THE LEVEL SPREADER SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE LIP HAS BEEN DAMAGED AND THE DESIGN CONDITIONS HAVE NOT CHANGED. ANY DETRIMENTAL SEDIMENT ACCUMULATION SHOULD BE REMOVED. IF STONE REMOVAL HAS TAKEN PLACE ON THE LIP, THEN THE DAMAGE SHOULD BE REPAIRED.
6. REFERENCE IS MADE TO NHDES SWM VOL. 2, 4-6, STONE BERM LEVEL SPREADERS, PAGE 162

STONE BERM LEVEL SPREADER
NOT TO SCALE

E3



GRASS CONVEYANCE SWALE
NOT TO SCALE

INSPECT ANNUALLY FOR EROSION, SEDIMENT ACCUMULATIONS, VEGETATION LOSS, & INVASIVE SPECIES. REPAIR AS NECESSARY.

MOW GRASS ANNUALLY TO A DEPTH OF 4".

INSTALL STABILIZATION MATTING DURING CONSTRUCATION

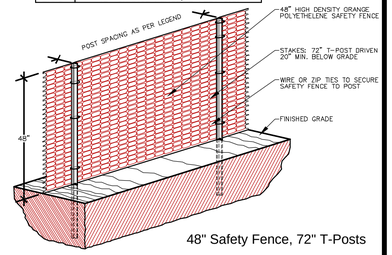
TO BE CONSTRUCTED IAW NH SWM #2 CHAPTER 4, #5 TREATMENT SWALES, PAGE 123.

E4

CONSTRUCTION SAFETY FENCE
NOT TO SCALE

LEGEND

SAF12	48" ORANGE FENCE, 12 FEET O.C.
SAF11	48" ORANGE FENCE, 11 FEET O.C..
SAF10	48" ORANGE FENCE, 10 FEET O.C.
SAF9	48" ORANGE FENCE, 9 FEET O.C.
SAF8	48" ORANGE FENCE, 8 FEET O.C..
SAF7	48" ORANGE FENCE, 7 FEET O.C.
SAF6	48" ORANGE FENCE, 6 FEET O.C.



48" Safety Fence, 72" T-Posts

1. ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
2. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WITH HIGH VISIBILITY FENCE AS PER PLAN.
3. WHEN PRACTICABLE, INSTALL HIGH VISIBILITY 3 FEET OUTSIDE OF THE DRIP LINE OF THE TREE.
4. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
5. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

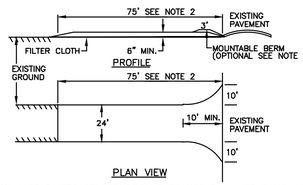
DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

EROSION & SEDIMENT CONTROL DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

E5

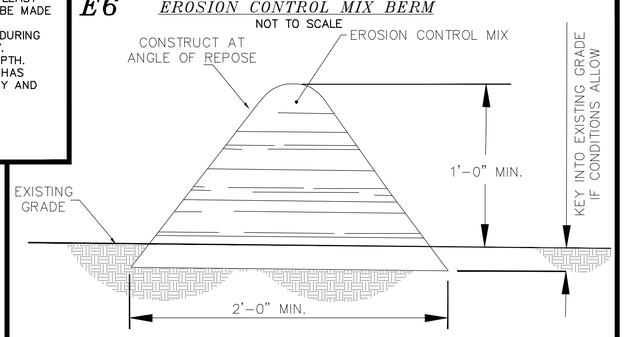
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH ANGULAR STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING
6. 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. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CONSTRUCTION EXIT, PAGE 124.

E6

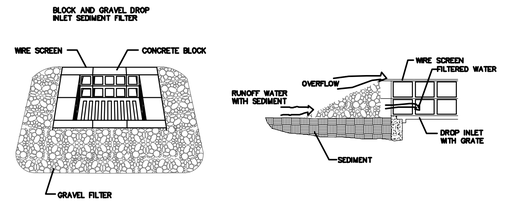
EROSION CONTROL MIX BERM
NOT TO SCALE



EROSION CONTROL MIX BERMS SHALL BE USED ONLY AS FOLLOWS:

1. BERMS SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE BERM.
2. THE BERMS SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSLY AS POSSIBLE.
3. THE BERMS SHALL BE INSTALLED ON SLOPES LESS THAN 5%.
4. SUBJECT TO (E), BELOW, THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS.
5. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS ORGANIC MATERIAL.
6. THE MIX SHALL NOT CONTAIN SILTS, CLAY, OR FINE SANDS.
7. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85% PASSING THE 0.75-INCH SCREEN.
8. THE MIX PH SHALL BE BETWEEN 5.0 AND 8.0.
9. THE BERM SHALL BE AT LEAST 12 INCHES HIGH AND AT LEAST 2 FEET WIDE.
10. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, EROSION CONTROL MIX BERMS, PAGE 106.

E7



MAINTENANCE

ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
NOT TO SCALE

TO BE USED IN ALL AREAS WHERE THERE WILL BE NO TRAFFIC.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

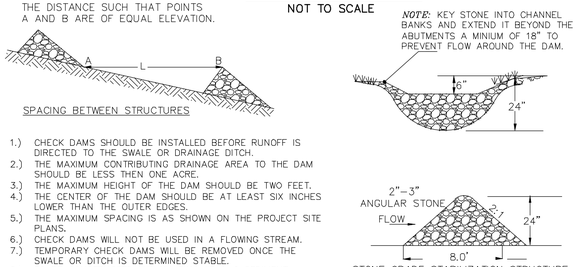
E8

TEMPORARY EROSION CONTROL MEASURES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. (SEE SEED SPECIFICATIONS THIS SHEET)
4. ALL DISTURBED AREAS WILL BE RESTABILIZED WITHIN 45 DAYS. AT ANY ONE TIME, NO MORE THAN 5 ACRES, (217,800 Sq. Ft.) WILL BE DISTURBED.
5. SILT FENCES AND PERIMETER BARRIERS SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY RAIN DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
6. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
7. PER THE EPA CGP REQUIREMENTS THERE WILL BE REPORTS OF THE EROSION CONTROL INSPECTIONS IAW SWPPP PREPARED BY BS&E. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OR GREATER RAIN EVENT.
8. DITCHES, SWALES, AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
9. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
10. ROADWAYS, DRIVEWAYS AND CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.
11. STABILIZATION MEANS:
    - 11.1. A MINIMUM OF 85% OF VEGETATIVE COVER HAS BEEN ESTABLISHED.
    - 11.2. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED, OR
    - 11.3. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
12. THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
13. THE NHDES STORMWATER MANUAL, IN THREE VOLUMES, DATED DECEMBER 2008, IS A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (NH SWM)

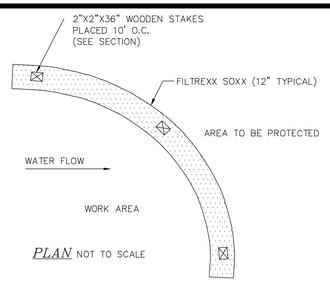
E9

STONE CHECK DAM
NOT TO SCALE



1.) CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
2.) THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THEN ONE ACRE.
3.) THE MAXIMUM HEIGHT OF THE DAM SHOULD BE TWO FEET.
4.) THE CENTER OF THE DAM SHOULD BE AT LEAST SIX INCHES LOWER THAN THE OUTER EDGES.
5.) THE MAXIMUM SPACING IS AS SHOWN ON THE PROJECT SITE PLANS.
6.) CHECK DAMS WILL NOT BE USED IN A FLOWING STREAM.
7.) TEMPORARY CHECK DAMS WILL BE REMOVED ONCE THE SWALE OR DITCH IS DETERMINED STABLE.
8.) TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CHECK DAMS, PAGE 114.

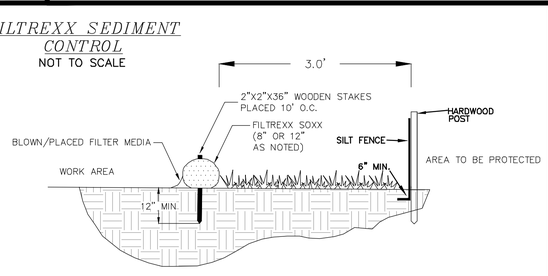
E10



NOTES

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILTER MEDIA FILL TO MEET APPLICATION REQUIRMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
4. SILTSOXX MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
5. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIRMENTS OF THE SPECIFIC APPLICATION.
6. FILTREXX SOXX IS A REGISTERED TRADEMARK OF FILTREXXIN TERNATIONAL, LLC.
7. SILT FENCE IS NOT A SUBSTITUTION FOR SILT SOXX AND ANY EQUAL SUBSTITUTION TO BE APPROVED.
8. TO BE CONSTRUCTED IAW FILTREXX, SECTION 1:EROSION & SEDIMENT CONTROL (PAGE 323) - CONSTRUCTION ACTIVITIES, SWPPP CUT SHEET: FILTREXX SEDIMENT CONTROL

FILTREXX SEDIMENT CONTROL
NOT TO SCALE

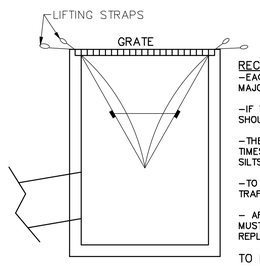


Filtrexx International, LLC
35481 Grafton Eastern Rd | Grafton, Oh 44044
440-926-2607 | fax: 440-926-4021
WWW.FILTREXX.COM
OR APPROVED EQUAL

NOTE: FOR AREAS REQUIRING DOUBLE PERIMETER CONTROL WITHIN 50' OF JURISDICTIONAL WETLANDS AND NOT FOR ALL SILT SOXX APPLICATIONS. THIS DUPLICATION MAY BE SPECIFIED AS 12" SILT SOXX OR ORANGE CONSTRUCTION FENCE AS NOTED.

SECTION NOT TO SCALE

E11



RECOMMENDED MAINTENANCE SCHEDULE

-EACH SILTSACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT, AND MUST BE MAINTAINED.

-IF THERE HAVE BEEN NO MAJOR EVENTS, SILTSACK SHOULD BE INSPECTED EVERY 2-3 WEEKS.

-THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.

-TO BE USED IN ALL AREAS WHERE THERE WILL BE TRAFFIC.

- ARE SUBJECT TO DAMAGE BY SNOW PLOWS, AND MUST BE INSPECTED AFTER ANY SNOW EVENT AND REPLACED AS REQUIRED.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

SILTSACK DETAIL
NOT TO SCALE

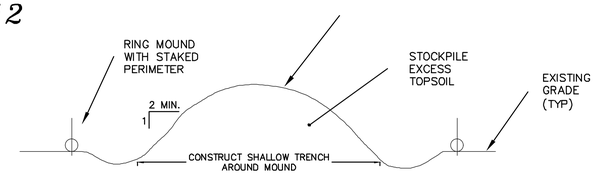
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

E-101

E12

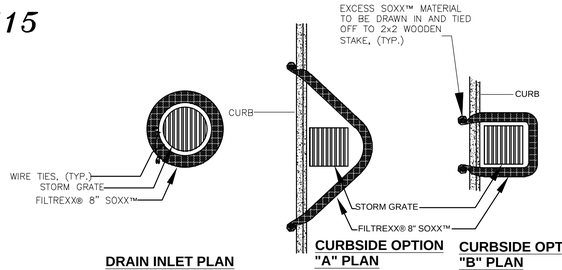


TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, SOIL STOCKPILE PRACTICES, PAGE 46.

TOPSOIL STOCKPILE MOUND

NOT TO SCALE

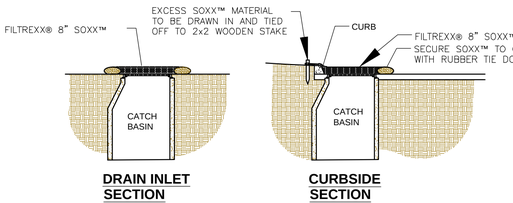
E15



DRAIN INLET PLAN

CURBSIDE OPTION "A" PLAN

CURBSIDE OPTION "B" PLAN



DRAIN INLET SECTION

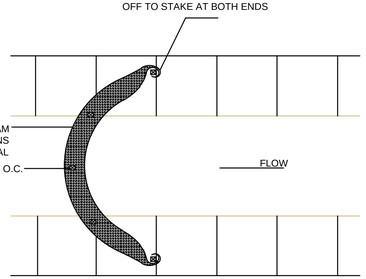
CURBSIDE SECTION

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX INLET PROTECTION

NOT TO SCALE

E19

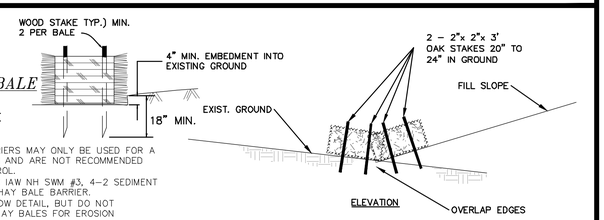


FILTREXX CHECK DAM

NOT TO SCALE

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 1 ACRE OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
5. CONTRACTOR IS REQUIRED TO BE A FILTREXX CERTIFIED™ INSTALLER.

E20



STAKED HAYBALE DETAIL

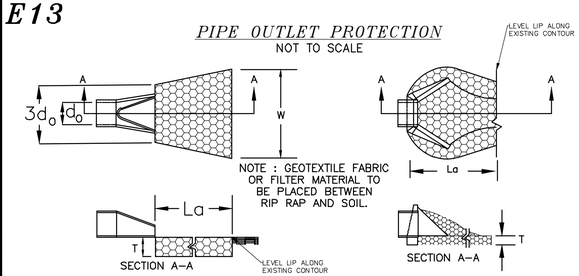
NOT TO SCALE

1.) HAY BALES BARRIERS MAY ONLY BE USED FOR A MAXIMUM OF 60 DAYS AND ARE NOT RECOMMENDED FOR PERIMETER CONTROL.
2.) TO BE INSTALLED IAW NH SWM #3, 4-2 SEDIMENT CONTROL, STRAW OR HAY BALE BARRIER.
3.) REQUIRED TO SHOW DETAIL, BUT DO NOT RECCOMEND USE OF HAY BALES FOR EROSION CONTROL.

E13

PIPE OUTLET PROTECTION

NOT TO SCALE



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

PIPE OUTLET TO WELL-DEFINED CHANNEL

PIPE OUTLET PROTECTION CONSTRUCTION SPECIFICATIONS

SPECIFIED GRADATION.

2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO NHDOT SECTION 583.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. TO BE CONSTRUCTED IAW NH SWM #2 4-6 CONVEYANCE PRACTICES, 6. OUTLET PROTECTION, PAGE 172.

E16

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

NOTE: Temporary seed mix for stabilization of turf shall be winter rye or oats at a rate of 2.5 lbs. per 1000 s.f. and shall be placed prior to OCT. 15, if permanent seeding not yet complete.

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	GOOD	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH-PM-.24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

RECOMMENDED *

SEEDING RATES

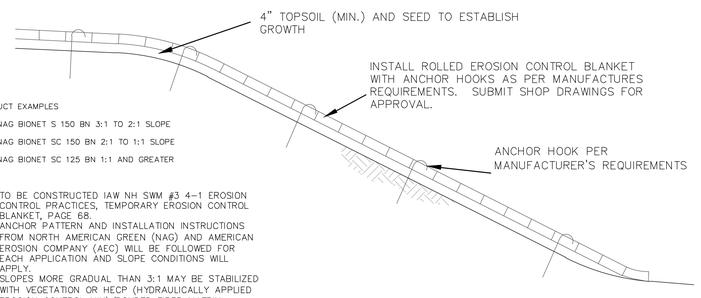
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	24	0.55
CREEPING RED FESCUE	24	0.55
BIRDS FOOT TREFOIL	REMOVED	REMOVED
TOTAL	48	1.10
D. TALL FESCUE	30	0.45
FLAT PEA	20	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

CONSERVATION MIX	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
TALL FESCUE (35%)	15	0.35
CREEPING RED FESCUE (25%)	15	0.35
ANNUAL RYEGRASS (12%)	5	0.12
PERENNIAL RYEGRASS (10%)	5	0.12
KENTUCKY BLUEGRASS (10%)	15	0.35
WHITE CLOVER (3%)	7	0.16

SEEDING SPECIFICATIONS

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1;3:1 SLOPES OR FLATTER ARE PREFERRED.
   WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEED BED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING
   AND INCORPORATED INTO THE SOIL KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE,
   THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
   AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100LBS. PER 1,000 SQ.FT.
   NITROGEN(N), 50LBS. PER ACRE OR 1.1LBS. PER 1,000 SQ.FT.
   PHOSPHATE(P2O5), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   POTASH(K2O), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   (NOTE: THIS IS THE EQUIVALENT OF 500LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000LBS. PER ACRE OF 5-10-10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO TABLE(G-E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H-E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT TREFOIL, AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90LBS PER 1000 S.F.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.
6. TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, PERMANENT VEGETATION, PAGE 60.
7. SEE RAIN GARDEN AND INFILTRATION DETAIL SHEETS FOR SPECIFIC PLANTING INSTRUCTIONS AND SEEDING.

E21



PRODUCT EXAMPLES

1.) NAG BIONET S 150 BN 3:1 TO 2:1 SLOPE
2.) NAG BIONET SC 150 BN 2:1 TO 1:1 SLOPE
3.) NAG BIONET SC 125 BN 1:1 AND GREATER

1. TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, TEMPORARY EROSION CONTROL BLANKET, PAGE 68.
2. ANCHOR PATTERN AND INSTALLATION INSTRUCTIONS FROM NORTH AMERICAN GREEN (NAG) AND AMERICAN EROSION COMPANY (AEC) WILL BE FOLLOWED FOR EACH APPLICATION AND SLOPE CONDITIONS WILL APPLY.
3. SLOPES MORE GRADUAL THAN 3:1 MAY BE STABILIZED WITH VEGETATION OR HECP (HYDRAULICALLY APPLIED EROSION CONTROL MIX)/BONDED FIBER MATRIX. HOWEVER THE ENGINEER RESERVES THE RIGHT TO REQUEST INCREASED RECB TO BE INSTALLED ON ANY SLOPE.
4. ALL RECB IS TO CONSIST OF ALL NATURAL MATERIAL WITH NO SYNTHETIC COMPONENTS (NO PHOTO BIODEGRADABLE NETTING)

ROLLED EROSION CONTROL BLANKET (RECB) SLOPE STABILIZATION DETAIL

E14

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.5	FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM		TO
100%	9		12
85%	8		11
50%	6		9
15%	2		3

E17

CONSTRUCTION SEQUENCE:

1.) CUT AND REMOVE TREES IN CONSTRUCTION AREA ONLY AS REQUIRED, RELOCATE ANY PROJECT T.B.M.
2.) CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS SPECIFIED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.
3.) EROSION, SEDIMENT AND DETENTION CONTROL FACILITY SHALL BE INSTALLED & STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.TEMPORARY DIVERSIONS MAY BE REQUIRED. POST CONSTRUCTION STORM WATER MANAGEMENT PRACTICES MUST BE INITIATED AND STABILIZED EARLY IN THE PROCESS. RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPs ARE STABILIZED.
4.) CLEAR, CUT AND DISPOSE OF DEBRIS IN APPROVED FACILITY
5.) CONSTRUCT TEMPORARY CULVERTS AS REQUIRED, OR DIRECTED
6.) CONSTRUCT ROADWAYS FOR ACCESS TO DESIRED CONSTRUCTION AREAS. ALL ROADS SHALL BE STABILIZED IMMEDIATELY. SEE BEST MANAGEMENT PRACTICES FOR BLASTING ON SHEET C-102.
7.) START BUILDING CONSTRUCTION.
8.) INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. INSTALL RAIN GARDENS. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.
9.) BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED. NO AREA IS ALLOWED TO BE DISTURBED FOR A LENGTH OF TIME THAT EXCEEDS 45 DAYS BEFORE BEING STABILIZED, DAILY, OR AS REQUIRED. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. LIMIT THE LENGTH OF EXPOSURE OF UNSTABILIZED SOIL TO 45 DAYS OR LESS.
10.) CONSTRUCT TEMPORARY BERMS, DRAINS DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
11.) INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORM WATER INSPECTOR (CESSW), OR A CERTIFIED PROFESSIONAL IN STORM WATER QUALITY (CPSWQ). INSPECTION REPORTS SHALL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT. EROSION AND SEDITMENT CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER 0.5" OF RAINFALL.
12.) COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13.) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE.
14.) SMOOTH AND REVEGETATE ALL DISTURBED AREAS.
15.) FINISH PAVING ALL ROADWAYS.
16.) LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

E18 *DEFINITION OF STABLE:*

PER ENV-WQ 1500 ALTERATION OF TERRAIN

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
2. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED..
3. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED.
4. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

ADDITION STABILIZATION NOTES:

5. HAY MULCH OR OTHER APPROVED METHODS SHALL BE USED TO CONTROL EROSION OF NEWLY GRADED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS AFTER THEIR CONSTRUCTION.
6. DISTURBED SOIL AREAS SHALL BE EITHER TEMPORARILY OR PERMANENTLY STABILIZED. IN AREAS WHERE FINAL GRADING HAS NOT OCCURRED, TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN (7) CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN ONE HUNDRED (100) FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE (3) CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.

E22

WINTER STABILIZATION NOTES

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3-4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3-4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER OCTOBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.
2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.
3. PRIOR TO OCT. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15-25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER OCTOBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.
4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWNG SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3-4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.
5. ENV-WQ 1505.06 COLD WEATHER SITE STABILIZATION (B)(1) LIMITS AREA OF EXPOSURE TO ONE ACRE OF UNSTABILIZED SOIL WITHOUT OBTAINING A WAIVER AND WINTER CONSTRUCTION PLAN.

DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
#1		9-1-22	REVISED PER DOVER TRC COMMENT

EROSION & SEDIMENT CONTROL DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

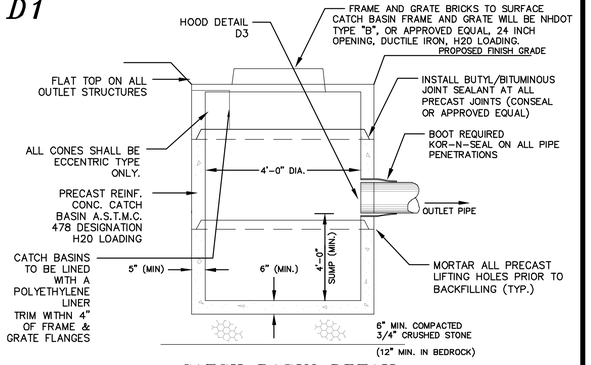
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

E-102

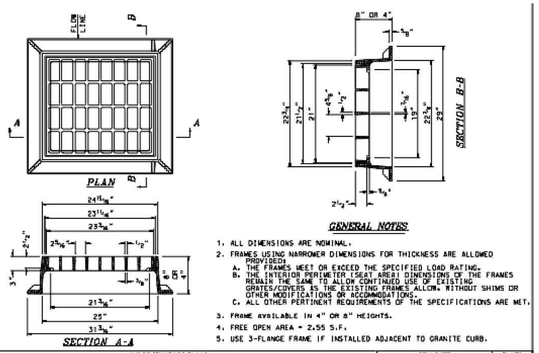
D1



CATCH BASIN DETAIL

NOT TO SCALE

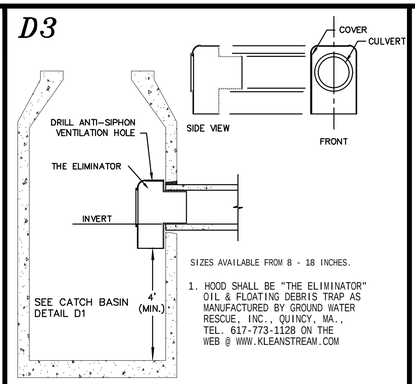
D2



CATCH BASIN GRATE

NOT TO SCALE

D3



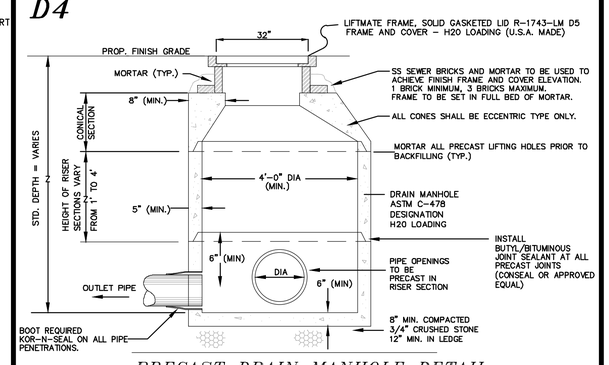
SIZES AVAILABLE FROM 8 - 18 INCHES.

1. HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA., TEL. 617-773-1128 ON THE WEB @ WWW.KLEANSTREAM.COM

CATCH BASIN HOOD DETAIL

NOT TO SCALE

D4



PRECAST DRAIN MANHOLE DETAIL

NOT TO SCALE

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

D5

R-1743-LM

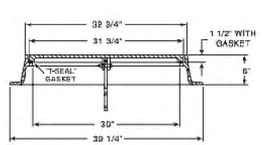
LiftMate Frame, Solid Gasketed Lid

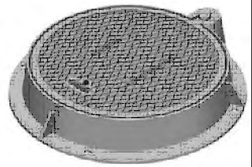
Heavy Duty

Furnished with four 1" anchor holes on 36-7/8" diameter bolt circle.

Hinge plug available for self-seal application.

See p. 13 for LiftMate information.



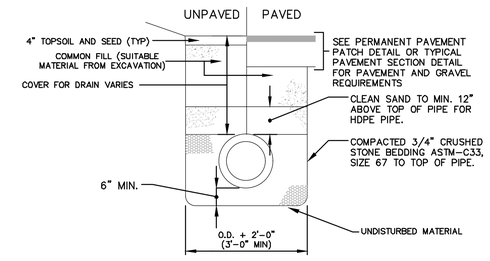


DRAIN MANHOLE FRAME AND GRATE WILL BE LIFTMATE R-1743-LM, OR APPROVED EQUAL, 32 INCH OPENING, CAST IRON, H20 LOADING.

DRAIN MANHOLE COVER DETAIL

NOT TO SCALE

D6



NOTE:

PLASTIC DRAIN PIPE (HDPE) SHALL BE ADS N-12 (CORRUGATED EXTERIOR/SMOOTH INTERIOR) OR EQUAL MEETING AASHTO M-252 AND H-20 LOADING.

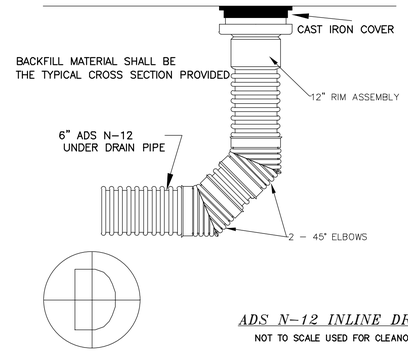
DI DRAIN PIPE SHALL BE CL. 50.

RC DRAIN PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.

TYPICAL DRAIN PIPE TRENCH

NOT TO SCALE

D7



ADS N-12 INLINE DRAIN

NOT TO SCALE USED FOR CLEANOUTS

12" CAST IRON COVER

NOT TO SCALE

CASTINGS ARE RATED FOR H20 WHEEL LOAD TRAFFIC

PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT

D8

CONE GRATE

NOT TO SCALE

NOTE:

MUST BE HAALA INDUSTRIES INC. OR EQUAL.



Cone Grates Top Mount

CG12TM
Part No. CG12TM

Save Trees

Top Mount Cone Grates are designed to mount on the top of round manhole inlet or outlet structures to keep debris from entering the storm water system. Top mount cone grates are easy to install and allow for at grade manhole installations but can be used in a variety of applications. Grates 96" and larger are made as a two piece, bolt together design.

- Plate and bar hybrid design is both clean and cost effective
- Made from 1/2" plate with 3/4" or 1" round bars depending on grate size
- Anti vortex plate can be added upon request
- Hinged and lockable access doors can be added upon request
- Galvanized steel construction. Can be made from aluminum or stainless steel.

D9

ANGLE GRATE

NOT TO SCALE

NOTE:

MUST BE HAALA INDUSTRIES INC. OR EQUAL.



Angle Grates For Manholes

AG0808-58
Part No. AG0808-58

Save Trees

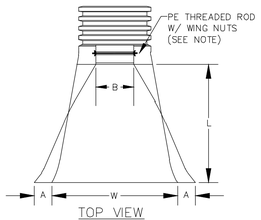
Angle Grates are designed to cover inlet orifices and prevent small to medium debris from passing through. The top angled design helps to minimize the amount of debris that settles on top after the water receeds. All grates are made from plate for a clean and smooth contact surface.

- Plate design for a clean appearance
- Standard 2" openings (other sizes can be made)
- Angled top/front plate to maximize debris deflection
- Mounting flanges on 3 sides allows grate to be mounted at floor level inverts
- Galvanized steel construction. Can be made from aluminum or stainless steel.

D10

PART No.	PIPE SIZE	A	B(MAX)	H	L	W
1510-NP	15" 375 mm	6.5" 165 mm	10" 254 mm	6.5" 165 mm	25" 635 mm	29" 735 mm
1810-NP	18" 450 mm	7.5" 190 mm	15" 380 mm	6.5" 165 mm	32" 812 mm	35" 890 mm
2410-NP	24" 600 mm	7.5" 190 mm	18" 450 mm	6.5" 165 mm	36" 900 mm	45" 1140 mm
3010-NP	30" 750 mm	10.5" 266 mm	N/A	7.0" 178 mm	53" 1345 mm	68" 1725 mm
3610-NP	36" 900 mm	10.5" 266 mm	N/A	7.0" 178 mm	53" 1345 mm	68" 1725 mm

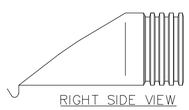
NOTE: PE THREADED ROD W/ WING NUTS PROVIDED FOR END SECTIONS 15"-24". 30" & 36" END SECTIONS TO BE WELDED PER MANUFACTURER'S RECOMMENDATIONS.



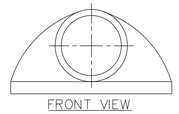
TOP VIEW

ADS N-12 FLARED END SECTIONS

NOT TO SCALE (ALL DIMENSIONS ARE NOMINAL)



RIGHT SIDE VIEW

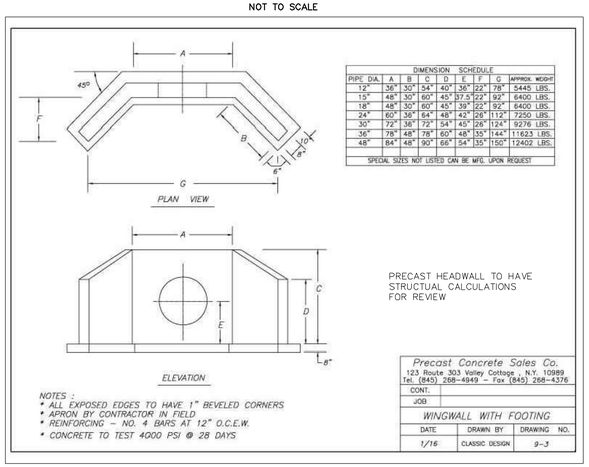


FRONT VIEW

D11

HEADWALL (CONCRETE)

NOT TO SCALE



DIMENSION SCHEDULE								
PIPE DIA.	A	B	C	D	E	F	G	APPROX. WEIGHT
12"	36"	30"	54"	40"	36"	22"	78"	5445 LBS.
15"	48"	30"	60"	45"	37.5"	22"	92"	6400 LBS.
18"	48"	30"	60"	45"	39"	22"	92"	6400 LBS.
24"	60"	36"	64"	48"	42"	26"	112"	7250 LBS.
30"	72"	36"	72"	54"	45"	26"	124"	9276 LBS.
36"	78"	48"	78"	60"	48"	35"	144"	11623 LBS.
48"	84"	48"	90"	66"	54"	35"	150"	12402 LBS.

SPECIAL SIZES NOT LISTED CAN BE MFG. UPON REQUEST

PRECAST HEADWALL TO HAVE STRUCTUAL CALCULATIONS FOR REVIEW

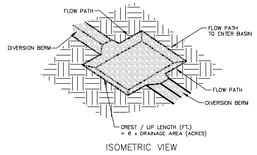
NOTES :
* ALL EXPOSED EDGES TO HAVE 1" BEVELED CORNERS
* APRON BY CONTRACTOR IN FIELD
* REINFORCING - NO. 4 BARS AT 12" O.C.E.W.
* CONCRETE TO TEST 4000 PSI @ 28 DAYS

Precast Concrete Sales Co.
123 Route 303 Valley Cottage , N.Y. 10989
Tel. (845) 268-4949 - Fax (845) 268-4376

CONT.	
JOB	
WINGWALL WITH FOOTING	
DATE	DRAWN BY / DRAWING NO.
1/16	CLASSIC DESIGN / 9-3

D12

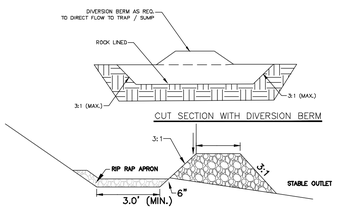
1. TRAP TO BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.



ISOMETRIC VIEW

STONE LINED SEDIMENT TRAP

NOT TO SCALE



CROSS SECTION

SIEVE DESIGNATION	SIZE OF STONE (INCHES)
100%	12
84-100%	6
68-83%	3
42-55%	1
8-12%	NO. 4

REFERENCE IS MADE TO A LONG TERM MAINTENANCE MANUAL PREPARED BY BERRY SURVEYING & ENGINEERING, WHICH IS ON FILE AT THE CITY OF DOVER PLANNING DEPARTMENT, AND CAN BE FOUND AT THE OFFICE OF BERRY SURVEYING & ENGINEERING. (603) 332-2863

D-101

DRAINAGE DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED

DATE : JUNE 1, 2022

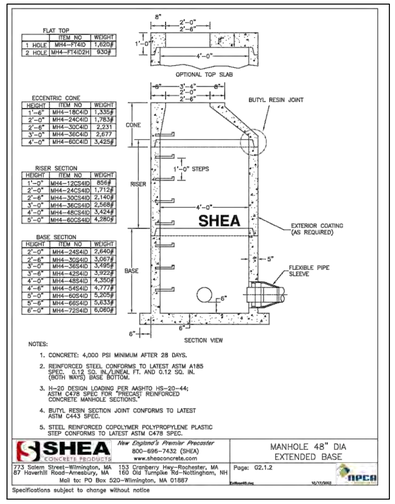
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE — KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER

D13

48" MANHOLE ROUND EXTENDED BASE

NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM A185 WELDED STEEL WIRE FABRIC, 6"X6", W1.4 X W1.4 (W20 X W20) SINGLE BOTTOM.
3. H-20 DESIGN LOADING PER AASHTO HS-20-44; ASTM C478 SPEC FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C443 SPEC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO LATEST ASTM C478 SPEC.

SHEA CONCRETE PRODUCTS — New England's Premier Precaster
800-696-7432 (SHEA)
www.sheaconcrete.com
273 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA
67 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH
Mail to: PO Box 520—Wilmington, MA 01887

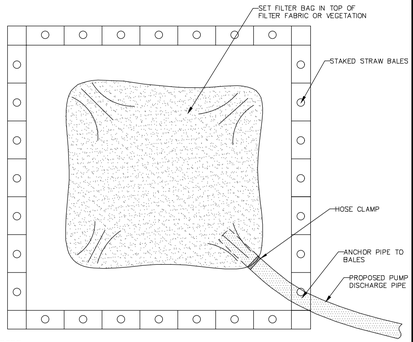
MANHOLE 48" DIA EXTENDED BASE

Page: G2.1.2

NPCA

Specifications subject to change without notice

D14



NOTES:

1.) ENSURE DISCHARGE POINT IS STABILIZED WITH VEGETATION OR PROPER EROSION AND SEDIMENT CONTROL PRACTICES.

2.) USE DIFFUSER NOZZLE OR LOW DISCHARGE RATE TO PREVENT SCOURING.

3.) TO BE PLACED AT AN UPLAND LOCATION THAT WILL ALLOW WATER TO DRAIN INTO THE GROUND.

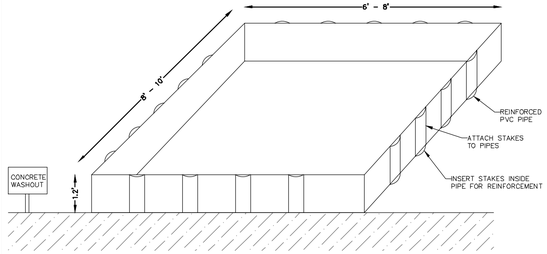
4.) SIZE OF DE-WATERING AREA TO BE 10' X 10', ADJUST SIZE DEPENDING ON VOLUME AND USE.

5.) ADDITIONAL BALES MAY BE USED TO INCREASE RETENTION AND FILTERING.

DE-WATERING BASIN

NOT TO SCALE

D15



NOTES:

1.) CONCRETE WASHOUT SHALL BE INSTALLED PRIOR TO ANY CONCRETE POURS.

2.) SIGNS SHALL BE INSTILLED TO CLEARLY INDICATE WHERE THE LOCATION OF THE WASHOUT AREA IS.

3.) CONTRACTOR IS IRRESPONSIBLE TO MAINTAIN AND REPLACE WASHOUT AREA AS NEEDED.

4.) RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

5.) DO NOT WASH CONCRETE TRUCKS OUT INTO DRAINAGE AREAS, SWALES, STREETS OR UNDISTURBED AREAS.

6.) WASHOUT AREA SHALL BE PLACED AWAY FROM DRAINAGE FEATURES AND OUTSIDE AND WETLAND BUFFERS.

CONCRETE WASHOUT

NOT TO SCALE

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

DRAINAGE DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

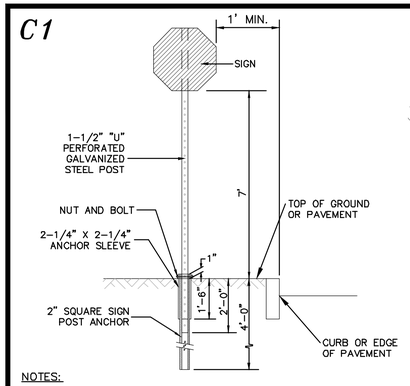
AS NOTED

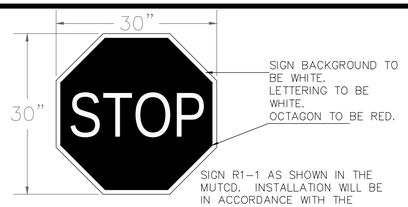
DATE : JUNE 1, 2022

FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE - KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER

C1





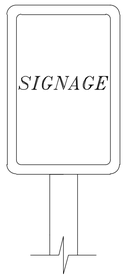
SIGN BACKGROUND TO BE WHITE. LETTERING TO BE WHITE. OCTAGON TO BE RED.

SIGN R1-1 AS SHOWN IN THE MUTCD. INSTALLATION WILL BE IN ACCORDANCE WITH THE MUTCD.

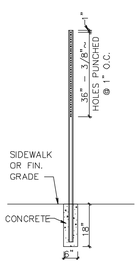
NOTES:

1. ALL SIGNAGE SHALL BE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND NHDOT STANDARDS.
2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS/CATALOG CUTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ERECTING SIGNS.
3. THE LOCATION OF THE SIGNS SHALL BE AS INDICATED ON THE DRAWINGS AND/OR AS DIRECTED BY THE CITY OF DOVER DEPARTMENT OF PUBLIC WORKS.

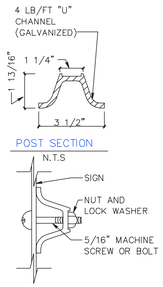
TYPICAL SIGN POST
(NOT TO SCALE)



PARTIAL ELEVATION
N.T.S.



POST
N.T.S.

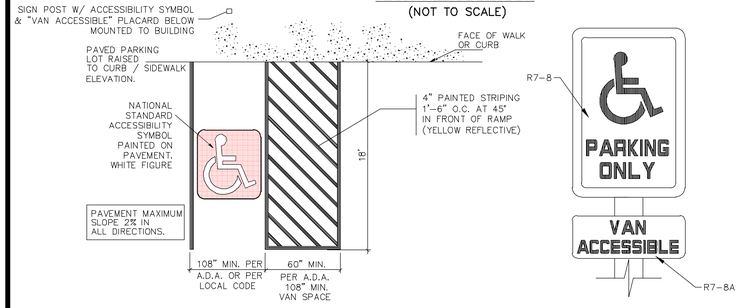


POST SECTION
N.T.S.

MOUNTING
N.T.S.

C2

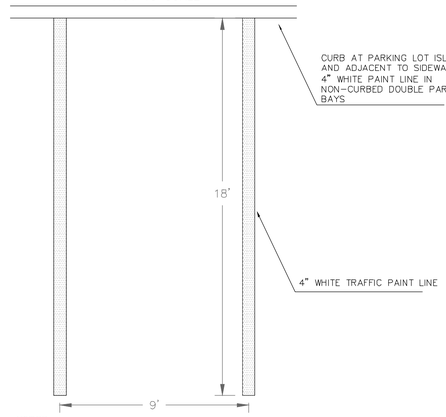
ACCESSIBLE PARKING STALL SIGNAGE
(NOT TO SCALE)



PARTIAL ELEVATION
N.T.S.

C3

PARKING SPACE DETAIL
NOT TO SCALE



NOTES:

1.) PROVIDE TWO COATS OF PAINT ON ALL PARKING LINES.
2.) SEE PROPOSED SITE PLANS FOR LOCATION OF PARKING SPACES.
3.) PAINTED SPACES ONLY WHERE MARKED ON SITE PLAN

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

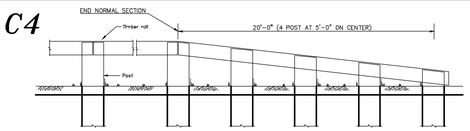
CONSTRUCTION DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134
AS NOTED

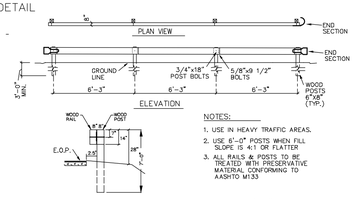
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
PROFESSIONAL ENGINEER
10/4/2022

C4

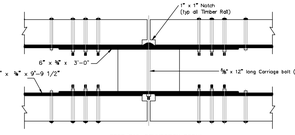


NOTES:
1. POST TYPE : 10" x 12" WOOD
2. BEAM TYPE : 6" x 10" WOOD
3. POST SPACING : 8'-0" O.C.
4. NOMINAL BARRIER HEIGHT : 27"

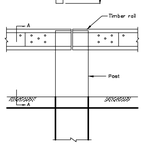
WOOD GUARD RAIL
TERMINAL UNIT DETAIL



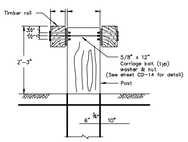
NOTES:
1. USE IN HEAVY TRAFFIC AREAS.
2. USE 6'-0" POSTS WHEN FILL SLOPE IS 4:1 OR FLATTER
3. ALL RAILS & POSTS TO BE TREATED WITH PRESERVATIVE MATERIAL CONFORMING TO AASHTO M133



POST/RAIL CONNECTION DETAIL



POST CONNECTION DETAIL

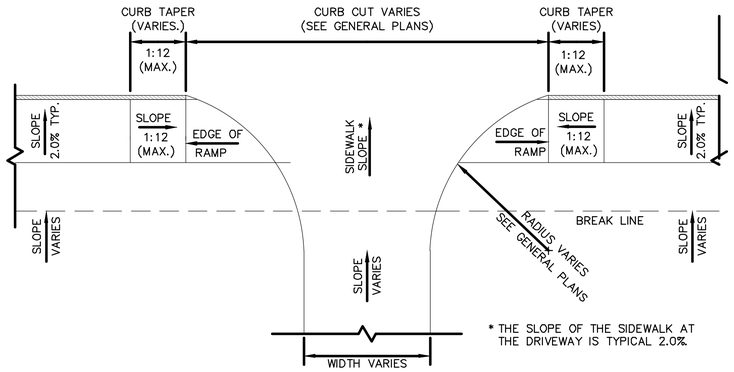


SECTION A-A

NOTES:
1. POST TYPE : 10" x 12" WOOD
2. POST SPACING : 10'-0" O.C.
3. NOMINAL BARRIER HEIGHT : 27"
4. ALL BOLTS & WASHERS TO BE GALVANIZED

WOODEN RAIL GUARD RAIL
NOT TO SCALE

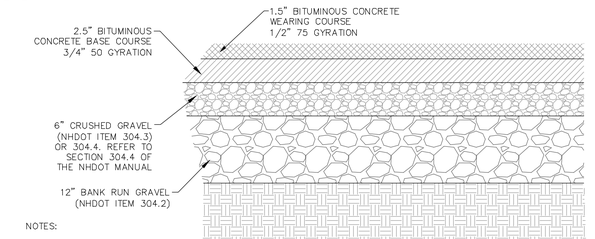
C5



* THE SLOPE OF THE SIDEWALK AT THE DRIVEWAY IS TYPICAL 2.0%

PLAN VIEW (DRIVEWAY & SIDEWALK)
NOT TO SCALE

C6



NOTES:

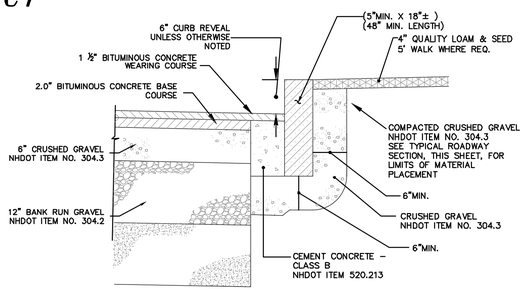
1.) BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SUBSECTION 401.3.6.

2.) PAVEMENT BASE COURSE AGGEGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

3.) PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOFROLLED AND COMPABED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. FOR NEW CONSTRUCTION AREAS ONLY. IN EXISTING PAVEMENT AREAS THE CONTRACTOR IS TO ENSURE THE BASE MATERIAL IS SUITABLE TO THE OWNER FOR RE-PAVING

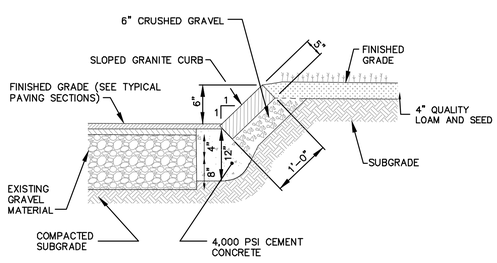
BITUMINOUS CONCRETE PAVEMENT SECTION (NON-POROUS)
NOT TO SCALE

C7



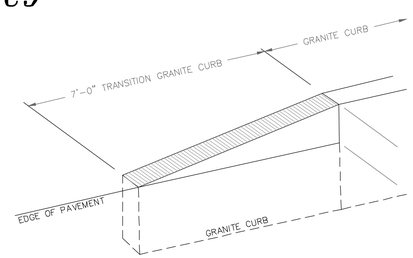
VERTICAL GRANITE CURB DETAIL
NOT TO SCALE

C8



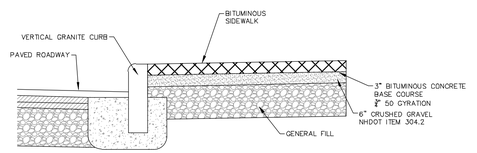
SLOPE GRANITE CURB DETAIL
NOT TO SCALE

C9



CURB TRANSITION DETAIL
NOT TO SCALE
TO BE USED FOR TRANSITION FROM GRANITE CURB TO EDGE OF PAVEMENT

C10



BITUMINOUS SIDEWALK RAISED
NOT TO SCALE

C-101

C11

See Redi-Rock.com for Detailed Section Drawings of Each Condition Shown in the Design Charts

NOTES:

1.) USE THE 41" BOTTOM BLOCK TO INSTALL THE FIRST COURSE. NOTE EMBEDMENT REQUIREMENT. COURSE DEPTH IS 1.5'

3.) USE 41" MIDDLE BLOCK FOR MIDDLE ROWS, APPROXIMATELY 7 COURSES DEPENDING ON WALL HEIGHT.

4.) USE 41" TOP BLOCK ALONG TOP OF WALL. NOTE WALL DROPS ARE TO BE FULL BLOCK DEPTHS.

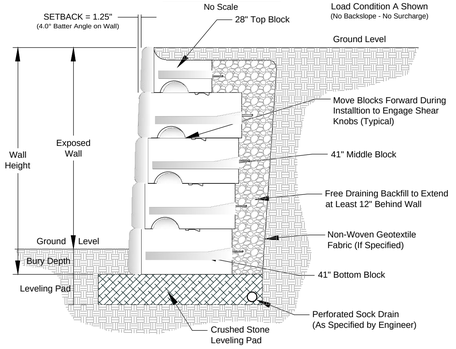
5.) USE 41" HALF BLOCKS FOR RADIAL TURNS AND END SECTIONS.

6.) THE WALL MANUFACTURER TYPICALLY PROVIDES WALL PROFILE AND BLOCK COUNT TO THE CONTRACTOR AS REQUIRED FOR CONSTRUCTION. THIS IS TO BE REVIEWED BY BOTH DPW AND DESIGN ENGINEER FOR CORRELATION WITH PROJECT SITE PLANS AND IS TO BE DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER (OTHERS).

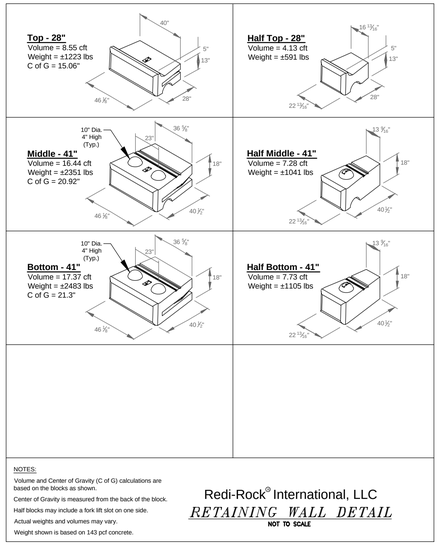
Typical Gravity Wall with 41" Blocks

No Scale

Note: Load Condition A Shown (No Backslope - No Surcharge)



41" SERIES BLOCKS



NOTES:
Volume and Center of Gravity (C of G) calculations are based on the blocks as shown.
Center of Gravity is measured from the back of the block.
Half blocks may include a fork lift slot on one side.
Actual weights and volumes may vary.
Weight shown is based on 143 pcf concrete.

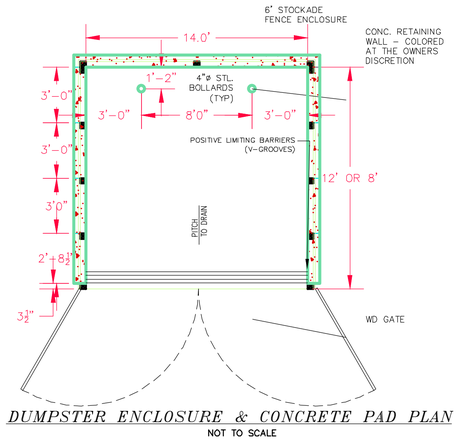
Redi-Rock® International, LLC

RETAINING WALL DETAIL

NOT TO SCALE

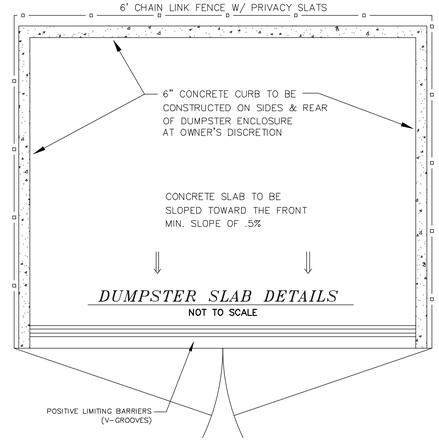
NOTE: RETAINING WALL TO BE DESIGNED BY A LICENSED PROFESSIONAL GEOTECHNICAL/STRUCTURAL ENGINEER.

C12



DUMPSTER ENCLOSURE & CONCRETE PAD PLAN

NOT TO SCALE

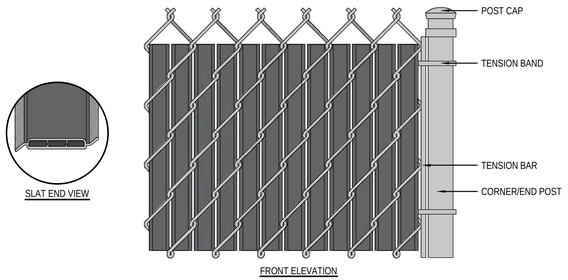


DUMPSTER SLAB DETAILS

NOT TO SCALE

C13

PRIVACYLINK® 3 1/2 IN. X 5 IN. MESH W/ SUPREME PRIVACY SLATS

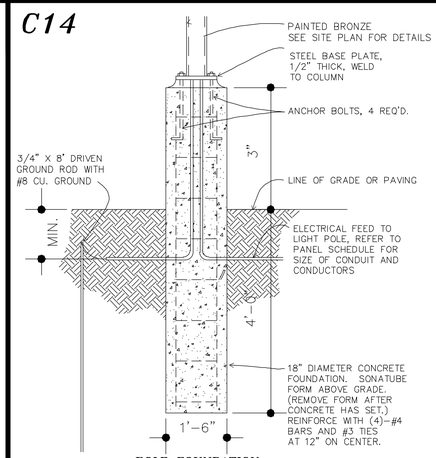


SLAT END VIEW

FRONT ELEVATION

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

C14

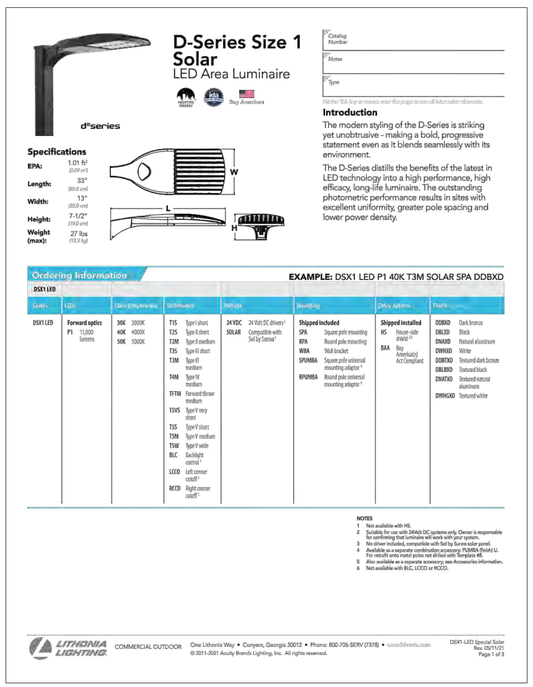


POLE FOUNDATION

LIGHT BASE DETAIL

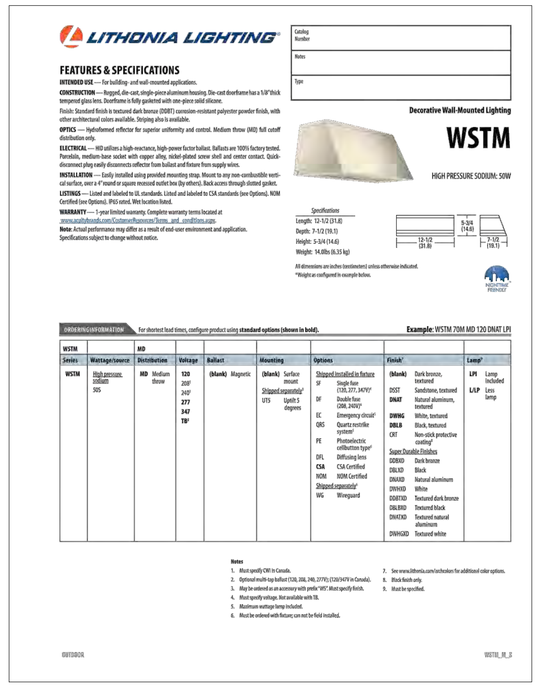
NOT TO SCALE

C15



LAMP "A" MOUNTED 15'

C16



LAMP "D" MOUNTED 12'

C17



LAMP "B" MOUNTED 6'

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

CONSTRUCTION DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

C-102

NOTES ON MANHOLE AND SEWER CONSTRUCTION:

1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND HS-20-44 LOADING, INCLUDING THE COVER. ALL SMH CONSTRUCTION AND MATERIALS WILL BE IAW ENV.-WQ 704.13 ADOPTED OCTOBER 15, 2014

2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE. (IAW ENV.-WQ 704.12 (d))

3) SEWER MANHOLE DIAMETER SHALL BE AS INDICATED ON THE PLANS.

4) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.

5) GRAVITY SEWER PIPE TESTING WILL BE IN ACCORDANCE WITH ENV.-WQ 704.06 AND MAN HOLE TESTING IAW ENV.-WQ 704.17 DATED OCTOBER 15, 2014.

6) INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. INVERT BRICKS SHALL BE LAID ON EDGE AND THE BASE SECTION SHALL BE FULL AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. (IAW ENV.-WQ 704.13 (a) (9)), MORTAR SHALL CONFORM WITH REQUIREMENTS OF IAW ENV.-WQ 704.13 (c).

7) FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH (MINIMUM HEIGHT) LETTERS WITH THE WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH MANHOLE COVER. (IAW ENV.-WQ 704.13 (a) (4-6)) SEWER MAN HOLE COVERS ARE TO PAMREX.

8) SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

9) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE DOVER DPW, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON A DOUBLE ROW OF AN OVERLAPPING TYPE ELASTOMERIC OR MASTIC-LIKE GASKET. APPROVED ELASTOMERIC SEALANTS ARE: RAM-NEK, KENT SEAL NO. 2, EZ, OR EQUAL.

10) IN CROSS COUNTRY AREAS OUTSIDE OF THE PAVED ROADWAY SURFACE, THE MANHOLE FRAME ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINISHED GRADE. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE. SEE TYPICAL TRENCH DETAIL ON SHEET D-102.

11.) ALL FRAMES AND GRATES ARE TO BE U.S.A. MADE. MANHOLE STEPS ARE REQUIRED IN THIS MUNICIPALITY AND MUST CONFORM TO THE REQUIREMENTS OF ENV-WQ 704.14.

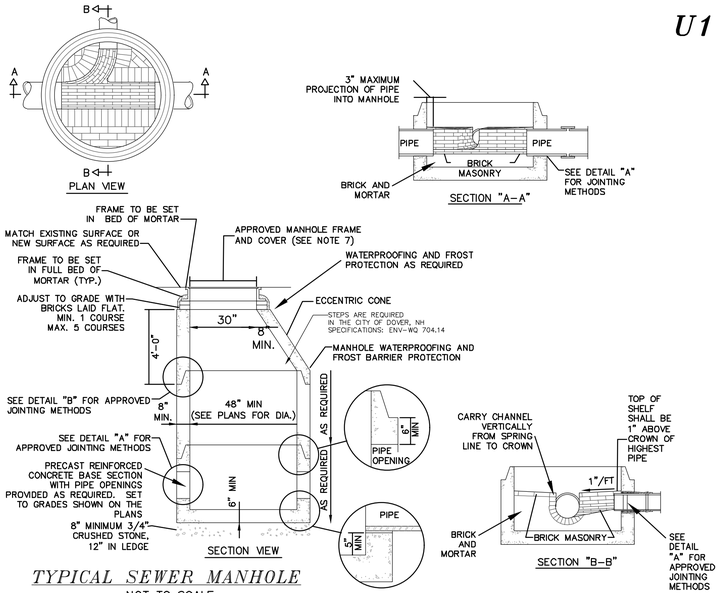
12.) THE CONTRACTOR TO WORK WITH CITY OF DOVER REVIEW ENGINEER AND SEWER DEPARTMENT ON THE MEANS AND METHODS USED TO INSTALL ALL SEWER STRUCTURES.

13.) ANY WORK INVOLVING THE CUTTING INTO THE EXISTING A.C. PIPE SHALL MEET THE REQUIREMENTS OF ENV-A 1800.

14.) THE "CITY OF DOVER, NEW HAMPSHIRE, DEPARTMENT OF COMMUNITY SERVICES, CONSTRUCTION GUIDELINES, PERMITS, RULES, AND REGULATIONS" (DATED MARCH 13, 2018) ARE A PART OF THE CONSTRUCTION DETAILS AND TO BE FOLLOWED.

15.) MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD AND ENV-WQ 704.17.

U1



TYPICAL SEWER MANHOLE
NOT TO SCALE

U2

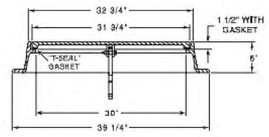
R-1743-LM
LiftMate Frame, Solid Gasketed Lid

Heavy Duty

Furnished with four 1" anchor holes on 36-7/8" diameter bolt circle.

Hinge plug available for self-seal application.

See p. 13 for LiftMate information.

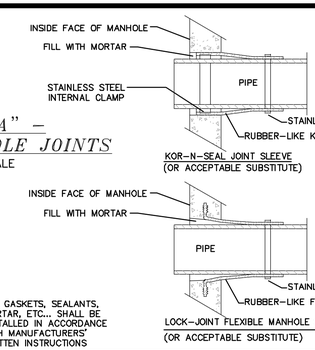




SEWER MANHOLE FRAME AND GRATE WILL BE LIFTMATE R-1743-LM, OR APPROVED EQUAL, 32 INCH OPENING, CAST IRON, H20 LOADING.

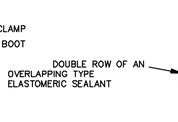
SEWER MANHOLE COVER DETAIL
NOT TO SCALE

U3



DETAIL "A" - PIPE TO MANHOLE JOINTS
NOT TO SCALE

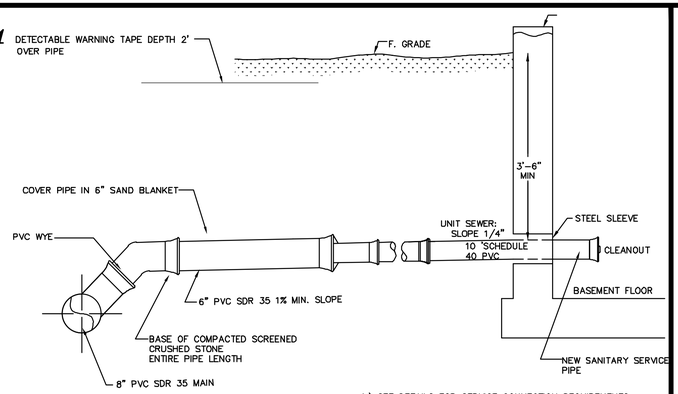
ALL GASKETS, SEALANTS, MORTAR, ETC... SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS



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

DETAIL "B" HORIZONTAL JOINTS
NOT TO SCALE

U4



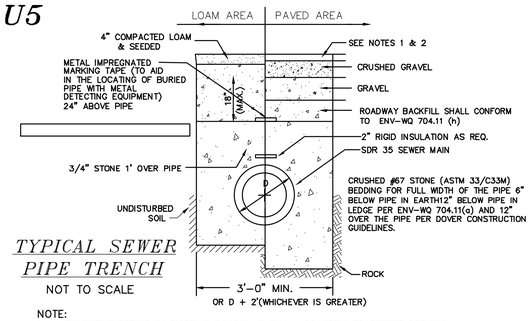
1.) SEE DETAILS FOR SERVICE CONNECTION REQUIREMENTS

2.) SERVICE CONNECTION SHALL BE INSTALLED BELOW WATER MAIN WHERE POSSIBLE.

3.) CLEANOUTS SHALL BE INSTALLED INSIDE EACH BUILDING EXIT POINT

DETAIL OF UNIT SEWER SERVICE
NOT TO SCALE

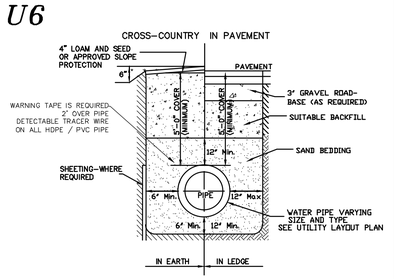
U5



TYPICAL SEWER PIPE TRENCH
NOT TO SCALE

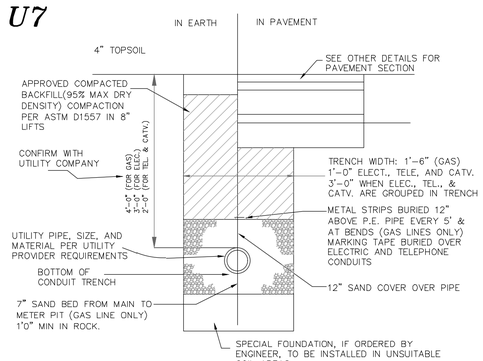
NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.
3. ANTI-SEEP COLLARS OR CLAY CHECK DAMS ON STEEP RUNS IN WET CONDITIONS.
4. ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & MUNICIPAL DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121. SDR-21 PVC FORCE MAIN PIPE MATERIAL IS REQUIRED IN LOCATIONS AS SHOWN. SDR-21 PVC FORCEMAIN PIPE WILL CONFORM TO ENV-WQ 704.08.

U6



TYPICAL TRENCH DETAIL FOR WATER SYSTEM
NOT TO SCALE

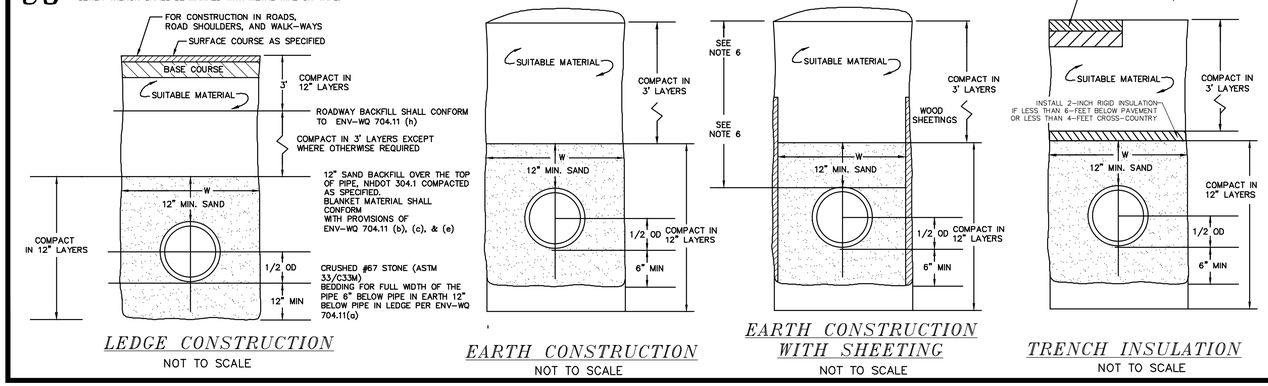
U7



ELECTRICAL, TELEPHONE, AND GAS TRENCH
NOT TO SCALE

U8

SEWER TRENCH SHALL BE MARKED WITH METAL WIRE OR TAPE.



LEDGE CONSTRUCTION
NOT TO SCALE

EARTH CONSTRUCTION
NOT TO SCALE

EARTH CONSTRUCTION WITH SHEETING
NOT TO SCALE

TRENCH INSULATION
NOT TO SCALE

DOVER FILE #P22-55

#	REVISION	DATE	DESCRIPTION
#1		9-1-22	REVISED PER DOVER TRC COMMENT

UTILITY DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
LOTS 11-5 & 11-5SND
TAX MAP D, LOTS 11-5 & 11-5SND

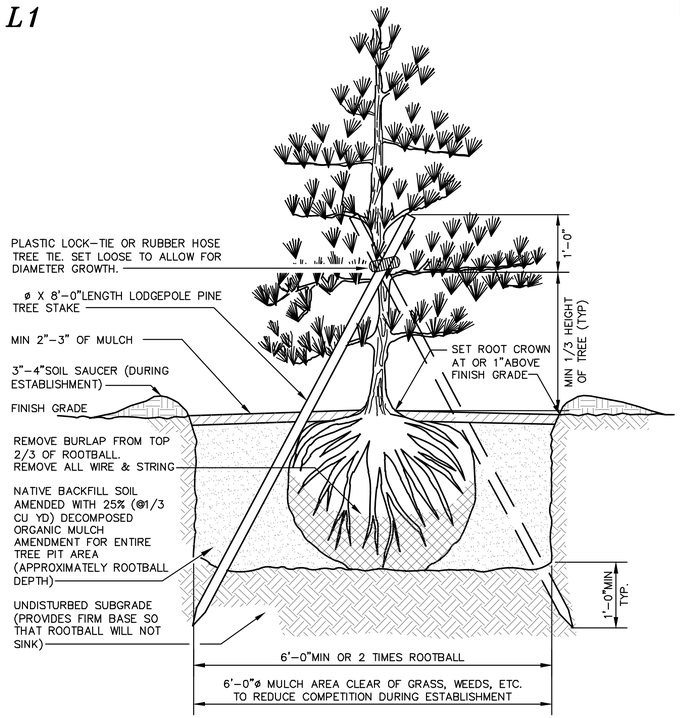
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

AS NOTED
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243
PROFESSIONAL ENGINEER

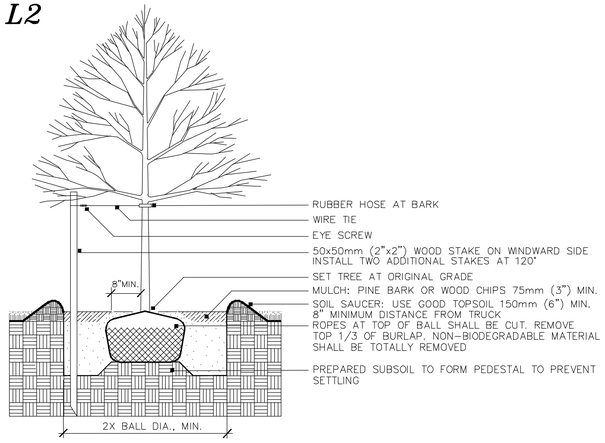
U-101

L1



CONIFEROUS TREE PLANTING

L2



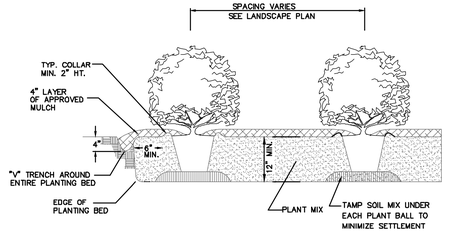
DECIDUOUS TREE PLANTING

NOTE: STAKING TO BE USED IN PARKING ISLANDS AND OTHER CONFINED AREAS AS NECESSARY TO AVOID CONFLICTS WITH PEDESTRIANS

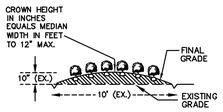
L3

NOTES:

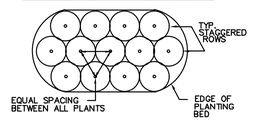
1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
2. INSTALL CONTAINERIZED PLANTS AT FINSHED GRADE
3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



TYPICAL PLANTING BED DETAIL



TYPICAL BED CROWNING

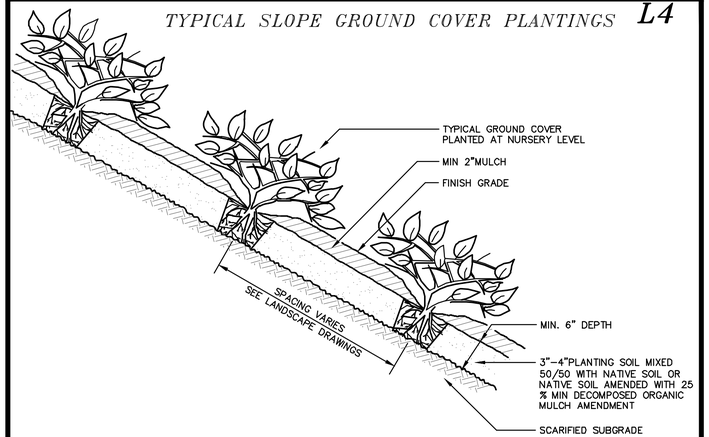


TYPICAL PLANTING BED PLAN

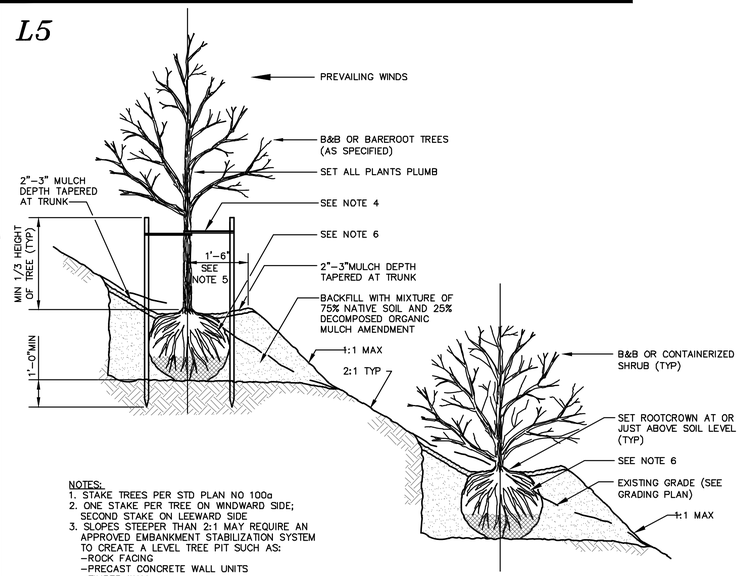
SHRUB & HEDGE PLANTING

L4

TYPICAL SLOPE GROUND COVER PLANTINGS



L5



NOTES:
1. STAKE TREES PER STD PLAN NO 100a
2. ONE STAKE PER TREE ON WINDWARD SIDE; SECOND STAKE ON LEEWARD SIDE
3. SLOPES STEEPER THAN 2:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT SUCH AS:
   –ROCK FACING
   –PRECAST CONCRETE WALL UNITS
   –TIMBER WALL
   –MANUFACTURED SLOPE RETENTION UNITS
4. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
5. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
6. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP.

TREE PLANTING ON SLOPES

L6

NOTES:

1.) CALL DIG SAFE PRIOR TO BEGINNING WORK. (1–888–344–7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.

2.) CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING. SEE NOTE XXX ON OVERALL SITE PLAN.

3.) PROVIDED SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.

4.) ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

5.) ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.

6.) ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.

7.) ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.

8.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.

9.) NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.

10.) ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.

11.) WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL–ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.

12.) MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWNG AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.

13.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURE AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.

14.) THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL THREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWNG SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.

15.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.

16.) ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWNG CONDITION AS AN EFFECTIVE VISUAL SCREEN.

17.) SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.

18.) ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.

19.) TREES ARE TO BE 2–2.5" CALIPER 6" OFF THE ROOT BALL.

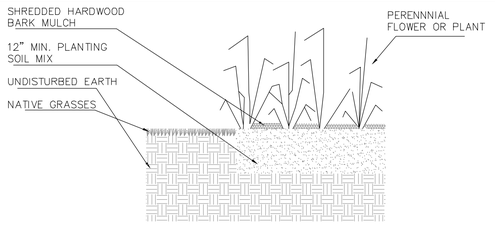
20.) ALL PLANT STOCK SHALL CONFORM TO ANSI Z260.1 – NURSERY STOCK, LATEST EDITIONS (AMERICAN ASSOCIATION OF NURSERYMEN, INC.)

21.) 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY–PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.

22.) PLANT–PIT BACK–FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON–SITE TOPSOIL AS PART OF BACK FILL WHEN AVAILABLE.

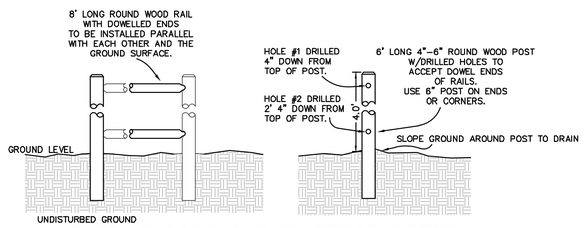
23.) ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH SEED OR SOD AS INDICATED ON PLANS.

L8



PERENNIAL PLANTING DETAIL

L7



TYPICAL POST & RAIL FENCE DETAIL

N.T.S.

DOVER FILE #P22–55

REVISION	DATE	DESCRIPTION
#1	9–1–22	REVISED PER DOVER TRC COMMENT

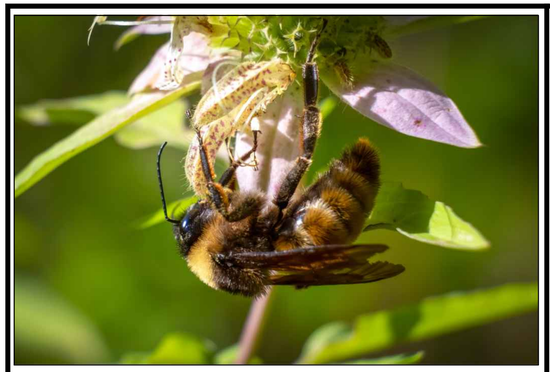
LANDSCAPING DETAILS
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11–5 & 11–5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

AS NOTED
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

L–101



AMERICAN BUMBLE BEE

IDENTIFICATION/DESCRIPTION:

BOMBUS PENSYLVANICUS IS A LARGE BUMBLE BEE WITH THE QUEEN MEASURING 1 IN, THE WORKER FROM 0.5 IN, AND THE MALE FROM 0.75 IN IN LENGTH. THE QUEEN IS MOSTLY BLACK, INCLUDING THE LEGS, SPURS AND TEGULAE (BASE OF WING). TERGITE 1, OR THE MOST ANTERIOR BACK PORTION OF THE QUEEN IS OFTEN YELLOW ESPECIALLY IN THE MIDDLE. WORKER BEES' MIDDLE TERGITES ARE YELLOW, THE TAIL BLACK, AND FACE LONG. THEIR CHEEKS ARE SLIGHTLY LONGER THAN BROAD, AND THE CLYPEUS (NOSE) HAS LARGE PUNCTURES EXCEPT ON THE MID LINE. THE HAIR ON THE TOP OF THE HEAD IS BLACK, SHORT AND EVEN. MALES HAVE A YELLOW ABDOMEN WITH A BLACK HEAD AND BLACK STRIPING IN THE LOWER THORAX.



BLANDINGS TURTLE

IDENTIFICATION/DESCRIPTION:

A 7– TO 9–INCH TURTLE WITH YELLOW SPECKLES THAT OFTEN RUN TOGETHER TO FORM STREAKS ON THE CARAPACE. EASILY IDENTIFIED WHEN BASKING FROM ITS CHARACTERISTIC YELLOW THROAT AND CHIN.



NORTHERN BLACK RACER

IDENTIFICATION/DESCRIPTION:

A SLENDER BLACK SNAKE MEASURING 36–60 INCHES. BLACK RACERS ARE GLOSSY BLACK ON THE TOP AND BOTTOM WITH A WHITE THROAT AND CHIN. YOUNG RACERS ARE PATTERNED WITH BROWN OR REDDISH PATCHES ON A LIGHTER BASE OF GRAY.



SMOOTH GREEN SNAKE

IDENTIFICATION/DESCRIPTION:

A THIN, SLENDER BRIGHT–GREEN SNAKE MEASURING 10–20 INCHES. THE UNDERSIDE IS WHITE OR A PALE YELLOW.



LITTLE BROWN BAT

IDENTIFICATION/DESCRIPTION:

THE LITTLE BROWN BAT IS A SMALL MAMMAL WITH A BODY LENGTH OF 2 1/2 – 4" AND WEIGHING APPROXIMATELY 1/8 TO 1/2 AN OUNCE. THE WINGSPAN OF LITTLE BROWN BATS RANGE FROM 9 – 11". BATS ARE THE ONLY MAMMALS THAT ENGAGE IN TRULY ACTIVE FLIGHT. AS THEIR NAME SUGGESTS THEY ARE GLOSSY BROWN ABOVE WITH A LIGHTER GRAY COLOR BELOW. THESE BATS CAN LIVE 20 TO 30 YEARS.



TRI–COLORED BAT

IDENTIFICATION/DESCRIPTION:

THE TRICOLORED BAT, FORMERLY KNOWN AS THE EASTERN PIPISTRELLE (PIPISTRELLUS SUBFLAVUS), IS A SMALL BAT WEIGHING 0.2 TO 0.3 OUNCES (5 TO 8 GR) AND HAS A WINGSPAN OF 8 TO 10 INCHES. THE TERM "TRICOLORED" REFERS TO THE BAT'S YELLOWISHBROWN COAT THAT IS DARK AT THE BASE, YELLOWISH–BROWN IN THE MIDDLE, AND DARK AT THE TIPS. THE WING MEMBRANES ARE BLACKISH, BUT THE FACE AND EARS HAVE A PINKISH COLOR. AN OBVIOUS IDENTIFYING CHARACTERISTIC OF THIS SPECIES IS THE PINK COLOR OF THE SKIN ON THE RADIUS BONE. THE FEET ARE ALSO RELATIVELY LARGE COMPARED TO ITS BODY SIZE.



NORTHERN LONG–EARED BAT

IDENTIFICATION/DESCRIPTION:

THE NORTHERN LONG–EARED BAT IS A MEDIUM–SIZED BAT WITH A BODY LENGTH OF 3 TO 3.7 INCHES BUT A WINGSPAN OF 9 TO 10 INCHES. THEIR FUR COLOR CAN BE MEDIUM TO DARK BROWN ON THE BACK AND TAWNY TO PALE–BROWN ON THE UNDERSIDE. AS ITS NAME SUGGESTS, THIS BAT IS DISTINGUISHED BY ITS LONG EARS, PARTICULARLY AS COMPARED TO OTHER BATS IN ITS GENUS, MYOTIS



EASTERN SMALL–FOOTED BAT

IDENTIFICATION/DESCRIPTION:

THE EASTERN SMALL–FOOTED BAT HAS BROWNISH FUR, OFTEN WITH A GOLDEN SHEEN, THAT CONTRASTS WITH ITS BLACKISH FACE AND EARS, AND BLACKISH–BROWN WINGS AND TAIL MEMBRANE. IT CAN BE DISTINGUISHED FROM OTHER MYOTIS SPECIES BY ITS BLACK MASK AND SMALL SIZE. THE BODY IS LITTLE MORE THAN 3½ INCHES LONG, INCLUDING A 1½–INCH TAIL. ITS SMALL FEET, WHICH PROVIDE THE COMMON NAME, ARE LESS THAN A HALF–INCH AND ITS WINGSPAN RANGES FROM 8¼ TO 9¾ INCHES. THIS SPECIES FLIES SLOWLY AND ERRATICALLY, USUALLY ABOUT ONE TO THREE YARDS ABOVE THE GROUND.



SILVER HAIRED BAT

IDENTIFICATION/DESCRIPTION:

THE SILVER–HAIRED BAT IS A MEDIUM–SIZED BAT WITH VERY DARK FUR TIPPED WITH SILVER OR WHITE. THE WINGS AND TAIL MEMBRANE ARE BLACK. EARS ARE SHORT AND ROUND WITH A SHORT, BLUNT–TIPPED TRAGUS. THE DORSAL SURFACE OF THE TAIL MEMBRANE IS PARTIALLY FURRED AND THE CALCAR LACKS A KEEL



SPOTTED TURTLE

IDENTIFICATION/DESCRIPTION:

A SMALL 3–5 INCH TURTLE RECOGNIZED BY NUMEROUS YELLOW SPOTS COVERING A DARK CARAPACE. THE NUMBER OF SPOTS IS VARIABLE. SPOTS CAN ALSO BE FOUND ON THE HEAD AND LIMBS.



WOOD TURTLE

IDENTIFICATION/DESCRIPTION:

A 5–8 INCH TURTLE CHARACTERIZED BY ITS HIGHLY SCULPTED SHELL WHERE EACH LARGE SCUTE TAKES AN IRREGULAR PYRAMIDAL SHAPE. THE NECK AND FORELIMBS ARE ORANGE.

NEW HAMPSHIRE FISH AND GAME NOTES:

1.) ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603–271–2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, EMAIL SUBJECT LINE: WILDLIFE SPECIES OBSERVATION, SPECIES, VENTURE DRIVE/QUALITY WAY DOVER, NH. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE

2.) IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04. THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

W–101

DOVER FILE #P22–55

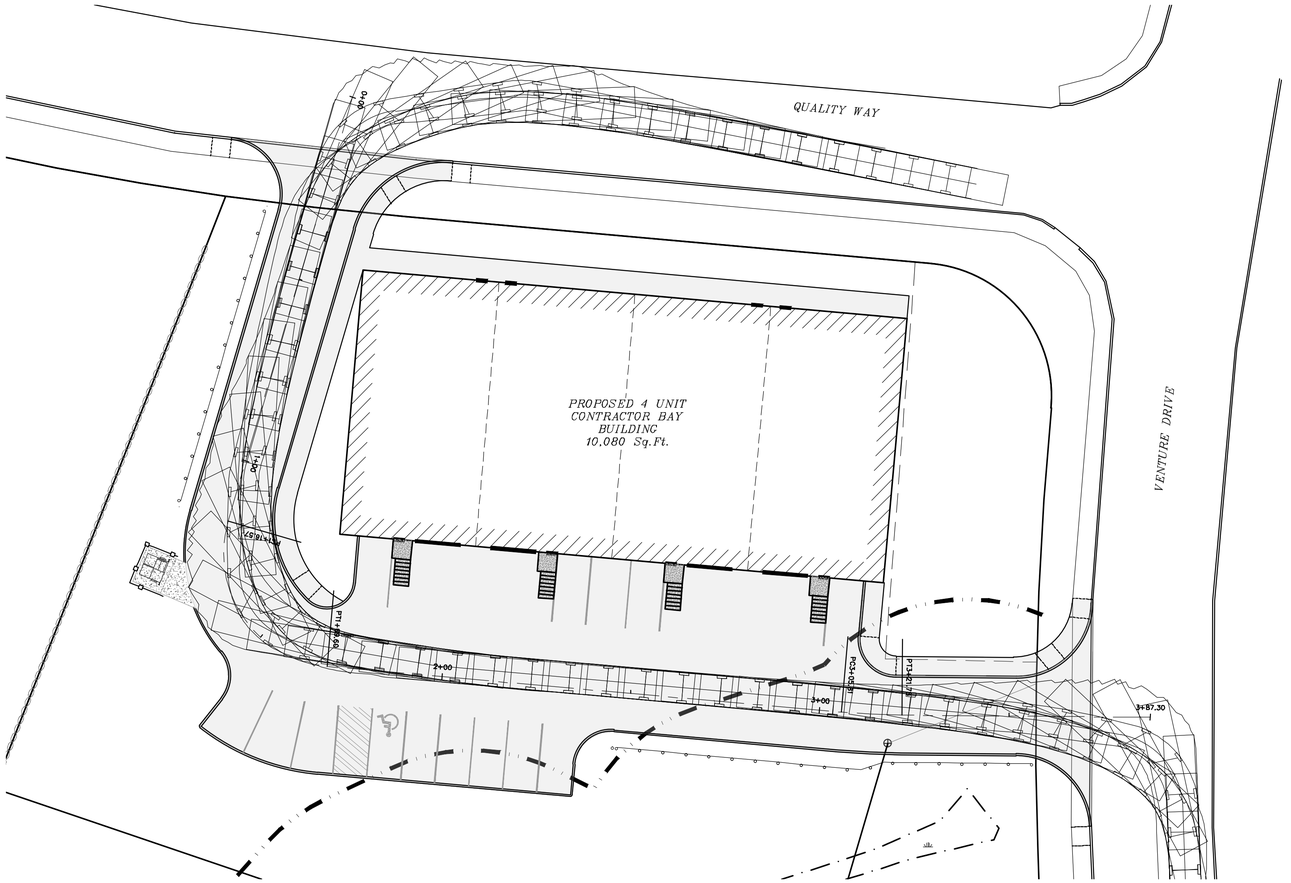
REVISION	DATE	DESCRIPTION
#1	9–1–22	REVISED PER DOVER TRC COMMENT

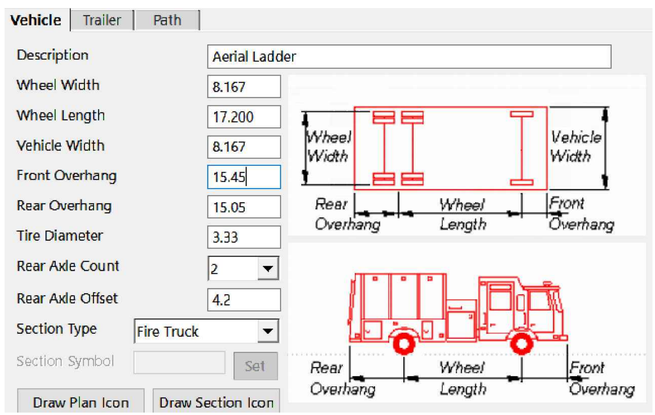
WILDLIFE IDENTIFICATION PLAN
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11–5 & 11–5SND

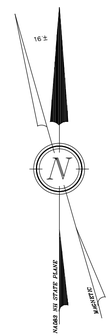
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332–2863

SCALE : NONE
DATE : JUNE 1, 2022
FILE NO. : DB 2021 – 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14943
LICENSED
PROFESSIONAL ENGINEER







GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DOVER FILE #P22-55

REVISION	DATE	DESCRIPTION
#1	9-1-22	REVISED PER DOVER TRC COMMENT

DOVER FIRE TRUCK TURNING TEMPLATE
LAND OF
JSR, LLC
VENTURE DRIVE & QUALITY WAY
DOVER, N.H.
TAX MAP D, LOTS 11-5 & 11-5SND

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : JUNE 1, 2022
FILE NO. : DB 2021 - 134

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

SHEET 27 OF 27

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Weave Filtration LLC Telephone # 603-637-1629

Address of Applicant: 100 Tri-City Road, Unit 117 Somersworth, NH 03878

E-Mail Address: emichaud@weavefiltration.com

Name of Property Owner (if different from applicant): DBIDA Telephone # 603-516-6023

Address of Property Owner: 288 Central Avenue Dover, NH 03820

PROPERTY INFORMATION

Assessor's Map # D Lot(s) # 11-7

Address of Property: Quality Way

Zoning District(s) IT Overlay District(s) NONE

Existing Use of Property: VACANT

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

The proposed Site design will impact a total of 5,075 s.f. of the wetland buffer. The impact is primarily for the associated grading (2,957 s.f.) and drainage (1800 s.f.) and also small portions for pavement (285 s.f) and the building (33 s.f.). NO wetlands will be impacted.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: _____

_____

Name of Professional That Prepared Plans: Stephen J. Haight, PE - Civilworks New England

Address P.O. Box 1166 Dover, NH 03821 Telephone #: 603-749-0443

Professional License #: Stephen J. Haight, PE #7978 E-mail address: shaight@civilworksne.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: _____

x Signature of Applicant (if different from owner): _____ Date: 6/16/2022

Signature of Agent: _____ Date: _____

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: _____

CIVILWORKS NEW ENGLAND

181 WATSON ROAD
P.O. BOX 1166
DOVER, NH 03821-1166
PHONE: 603.749.0443 FAX: 603.749.7348

TRANSMITTAL

To: City of Dover
Planning Board
288 Central Avenue
Dover, NH 03820

From: Civilworks New England

Phone: (603)-749-0443 **Date:** 9/2/2022

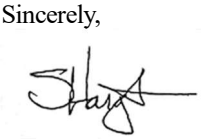
Re: Weave Filtration
Quality Way – Tax Map D, Lot 11-7
Civilworks New England Ref. No. 21094
Conservation Commission Submittal

- **Comments:**

Attached are the following:

- (2) Conditional Use Permit Application (5,075 sf of wetland buffer impact)
- (1) 22” x 34” Plan Set
- (1) 11”x17” Plan Set

Sincerely,



Stephen J Haight, PE
CIVILWORKS NEW ENGLAND

SJH

September 2, 2022
Weave Filtration, Dover Planning File # P22-47, CNE#21094
Tax Map D, Lot 11-7, Quality, Dover, New Hampshire

From 170-27.1 (Wetland Protection District)

(a) Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area. **The proposed driveways, buildings, side slopes, and wet pond locations were chosen to avoid wetland impacts and to minimize wetland buffer impacts. The small areas of impervious impact to the wetland buffer were minimized by utilizing the site characteristics including existing slope and ledge probe information to minimize additional side slope impacts.**

(b) Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative. **All wetland impacts have been avoided. Design incorporated site characteristics including existing slope, depth to ledge, soil type, and groundwater recharge to minimize wetland buffer impacts. The 2,500 sf office area has been moved further into the site to allow a shortening of the drive aisle and parking areas to further reduce wetland buffer impacts. Moving the location of these areas reduced wetland buffer impacts by 3,785 sf from the original design.**

(c) Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade. **There are no wetland impacts. All wetland buffer impacts have been minimized. The design evaluated utilizing 2:1 side slope to further minimize grading in the wetland buffer, however the areas of grading are associated with the wet pond detention berm and directly adjacent to the edge of pavement. Increasing the slopes from 3:1 to 2:1 in the area of the wet pond is not allowed per Env-Wq 1508.03(e) and is not advisable along the curved edge of pavement of the truck entrance.**

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review. **Mitigation is not required as there are no proposed wetland impacts.**

(e) Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below. **A wetland permit is not required as there are no proposed wetland impacts.**

Landscape Best Management Practices
Operations and Maintenance Plan

Weave Filtration, LLC

Quality Way
Dover, New Hampshire 03820

Prepared for
Joseph Griffin
Civilworks New England/Haight Engineering, PLLC
181 Watson Road
PO Box 1166
Dover, New Hampshire 03821

Prepared by
Ironwood Design Group, LLC
PO Box 873
Exeter, New Hampshire 03833



Ironwood
Landscape Architecture • Planning

Landscape Maintenance

Introduction

The landscape enhancements proposed for the Weave Filtration, LLC building will require modest maintenance at various times throughout the year. For the site plantings, maintenance is most important during the first 1-2 years following installation when plants are becoming established. Anyone involved in the upkeep of the facility should become familiar with the landscape and its features. Identified below are basic, at minimum, maintenance tasks:

Weekly Tasks

1. Prune back any shrubs overhanging curbs or sidewalks.
2. Remove litter from plants bed.
3. Remove broken or fallen branches from trees.
4. Prune sucker growth from tree trunks.
5. Remove weeds larger than 2 inches high or wide from plant beds. Weeds 2 inches and larger must be removed, not just killed. **The application of herbicides such as Roundup is discouraged.**
6. Any invasive species seedlings observed should be removed and disposed of properly.
7. Replace bark mulch that may have been washed out of planting beds. Smooth mulch layer if it has been disturbed.
8. Check plants for signs of stress, pests or disease and notify Owner for authorization to replace.
9. If a significant decline in plant health is attributed to an insect pest, **apply an organic product and/or process** to control the pest.
10. Water plants that are dry and stressed.
11. Notify Owner for authorization to replace dead plants at the appropriate time (see annual tasks, September).
12. Identify other tasks listed on the Annual and Monthly checklist of tasks.

Annual Tasks

Early Spring

1. Prune winter damage such as broken tree branches that interfere with public safety.
2. Trim dead perennial foliage left in the fall for winter interest to within six inches of the ground.
3. Add new mulch to plant beds where the mulch depth has been reduced to less than 2 inches. Mulch depth shall not exceed two inches (top dressed). Mulch is not required where shrubs or groundcover completely hide the soil surface from view.
4. Gently prune shrubs at appropriate time of year based on species, for shape and form. **Do not shear.**
5. Energize the irrigation system, repair damaged components, test the system, adjust heads, and update programing.
6. Conduct a soil test to measure at a minimum, pH, phosphorus, potassium, calcium, and magnesium. Follow the recommendations provided with the soil test results.
7. Apply fertilizer only when required. A single application of fertilizer per year before Memorial Day is encouraged.

Monthly Tasks

June

No additional items

July

No additional items

August

No additional items

September

1. Inventory all plant materials, including an exact count of all shrubs and trees.
2. Replace any dead or missing plants.
3. Aerate lawn areas.
4. Apply pelletized lime at a rate of 80 lbs/1,000 square feet or as soil test dictates.

October

1. Winterize irrigation system.

November

1. Remove leaves from lawn areas and planting beds.
2. Remove perennial vegetation that has died back for the season.
3. Apply “WILT-PRUF” to broadleaf evergreens, according to label instructions, to protect shrubs from winter die back.

December

1. Prune any tree branches that interfere with public safety.
2. Prune street and parking lot trees yearly to encourage strong growth the following growing season. Trees adjacent to pedestrian sidewalks shall have branches pruned to 6-foot height.

Management Task or Activity	Time or Frequency						
	Weekly	Monthly	Spring	Summer	Fall	Winter	After Major Rain Events
Replace dead or dying plants			X				
Remove weeds	X		X	X	X		
Cut down grasses			X				
Remove accumulated leaves, litter, and plant debris		X					X

Stormwater Detention Facilities

Introduction

The stormwater facilities are used to attenuate flow and treat stormwater. The stormwater treatment areas consist of a large basin and linear swales seeded with a variety of native, adaptable, and rugged perennial grasses, and sometimes additional flowering plants. There are maintenance tasks associated with stormwater facilities.

Erosion

The soil in the facility and in areas draining to the facility shall be inspected for erosion. Eroded areas shall be filled with soil or mulch and seeded with the approved seed mix for the location.

Sediment Accumulation & Clogging

The accumulation of sediment within the facility may reduce its infiltration capacity and impair performance. The facility shall be inspected for accumulation of sediment and excessive sediment shall be removed with the area re-mulched and replanted as appropriate and necessary.

Outlet Structure Maintenance

The facility outlet structure requires monitoring. Periodically, the orifice on the outlet pipe may clog with debris. Any found debris should be removed and appropriately disposed of off-site.

Debris & Litter

Debris and litter should be removed monthly to maintain aesthetic appearance and public acceptance.

Plant Maintenance

Healthy vegetation contributes to the optimal operation of the stormwater facility. Planting area maintenance tasks include the removal of accumulated leaves, litter, and plant debris as needed. During the first 1-2 years after planting, the facility should be monitored for invasive species and weeded as needed and appropriate. Well-established facility vegetation should be mowed annually in the fall.

Snow Storage

Snow shall not be dumped directly onto the facility.

Chlorides

The stormwater facility is not suitable for treating chlorides. Chloride use on source surface areas tributary to the facility should be avoided if possible. In these locations, it would be prudent to eliminate or reduce application of chloride-containing deicing compounds, use alternative deicers, or apply clean sand as needed. Aggressive sweeping in these areas, along with pretreatment sumps and filter strips, will minimize the negative impact of the sand on the facility.

Management Task or Activity	Time or Frequency						
	Weekly	Monthly	Spring	Summer	Fall	Winter	After Major Rain Events
Inspect for erosion. Rake and redistribute/replenish any soil, rap, or mulch that has eroded		X					X
Inspect for standing water							X
Remove accumulated leaves, litter, and plant debris		X					X
Weed plant material		X					
Mow plant material					X		

SITE PLAN
FOR
WEAVE FILTRATION

TAX MAP D, LOT 11-7

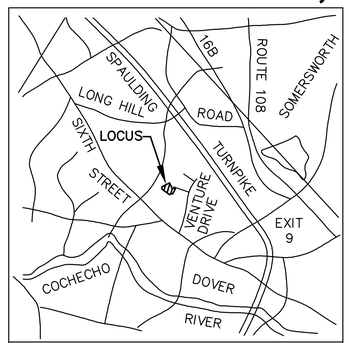
QUALITY WAY

DOVER, NH

JUNE 16, 2022

REV: JULY 28, 2022

REV: SEPTEMBER 1, 2022



LOCATION PLAN
(NO SCALE)

OWNER
DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY
f/k/a DOVER INDUSTRIAL DEVELOPMENT AUTHORITY (D.I.D.A)
288 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820

_____ DATE

APPLICANT
WEAVE FILTRATION LLC
100 TRI–CITY ROAD, UNIT 117
SOMERSWORTH, NH 03878

_____ DATE

SITE CIVIL ENGINEER
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

LAND SURVEYOR
MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND
P.O. BOX 681
24 CHESTNUT STREET
DOVER, NH 03820
(603) 742–0911

ARCHITECT
JOHN M. TUTTLE, ARCHITECT #04015
TW DESIGNS, LLC
254 DRAKE ROAD
STRAFFORD, NH 03884
(603) 664–2181

LANDSCAPE ARCHITECT
JEFFREY R. HYLAND, LANDSCAPE ARCHITECT #00026
IRONWOOD DESIGN GROUP, LLC
PO BOX 873
EXETER, NH 03822
(603) 772–0590

WETLAND SCIENTIST
DAMON E. BURT, CWS #00163
FRAGGLE ROCK ENVIRONMENTAL
38 GARLAND ROAD
STRAFFORD, NH 03884
(603) 969–5574

SOIL SCIENTIST
JOHN P. HAYES, III, CSS #00087
7 LIMESTONE WAY
NORTH HAMPTON, NH 03862
(603) 205–4396

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PLANNING FILE NO.: P22–47



ABUTTERS LIST
(WITHIN 200 FT)

	TAX MAP	LOT NO.	NAME & ADDRESS
D 11-007	D	11-007	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
D 11-007SN1	D	11-007SN1	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
D 11-006	D	11-006	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
D 11-004	D	11-004	QUALITY WAY, LLC 55 MAIN STREET UNIT 407 NEWMARKET, NH 03857
D 11-001	D	11-001	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
D 11-008	D	11-008	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
D 11-007SN2	D	11-007SN2	DOVER BUSINESS & IND DEV AUTHORITY, F/K/A DOVER IND DEV AUTHORITY 288 CENTRAL AVE DOVER, NH 03820
A 49-013	A	49-013	PORTER DOUGLAS W & PORTER YUKARI 29 QUAIL DRIVE DOVER, NH 03820
D 12	D	12	TSB PROPERTIES LLC 385 SIXTH STREET DOVER, NH 03820
D 13-003	D	13-003	SARNIA PROPERTIES INC. 1 HAVEN COURT PORTSMOUTH, NH 03801

D / 11 — TAX MAP / LOT NUMBER

MAGNETIC

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERSHED ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

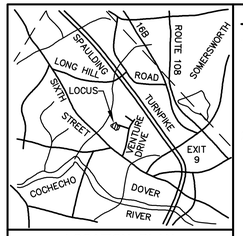
DATE: 6-16-22
SCALE: 1"=200'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 21094
FILE: SITE.DWG

NEIGHBORHOOD PLAN

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

2



LOCATION PLAN
(NO SCALE)

REFERENCE PLANS:

1.) AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER & Co., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY, TAX MAP D, LOT Nos. 9A & 11–1, VENTURE DRIVE AND QUALITY WAY, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE. SCALE: 1" = 100'; DATED: FEBRUARY 14, 2006, REVISED THROUGH 5/3/06; BY THIS OFFICE. RECORDED S.C.R.D. PLANS 85–99 & 85–100.

2.) ROADWAY AS–BUILT PLAN & PROFILE PREPARED FOR DOVER INDUSTRIAL DEVELOPMENT AUTHORITY, QUALITY WAY AT VENTURE DRIVE, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE. SCALE: 1" = 40'; DATED: JANUARY 16, 2006, REVISED THROUGH 3/16/06; BY: McENEANEY SURVEY ASSOCIATES, INC. ON FILE WITH CITY OF DOVER ENGINEERING DEPARTMENT.

No.	Central Angle	Radius	Arc Length	Chord Length	Chord Bearing
C1	24°49'33"	253.78	109.96	109.10	S42°54'51"E
C2	117°00'00"	75.00	153.15	127.90	S55°26'12"E
C3	42°01'29"	100.00	73.35	71.71	N87°04'33"E

No.	Bearing	Distance
L1	N79°03'39"W	40.33'
L2	N55°16'35"W	17.58'

SEWER STRUCTURE SCHEDULE

SMH #4351
RIM = 171.7'
INV. IN = 160.3'
INV. OUT = 160.2'

SMH #4352
RIM = 170.3'
INV. IN = 161.1'
INV. OUT = 161.0'

DRAINAGE STRUCTURE SCHEDULE

CB #4
RIM = 176.8'
INV. = 172.8'
SUMP = 169.8'

FES #4
INV. = 173.0'

D / 11–8 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

I.R. (fnd)

S30°30'05"E 55.67'

D / 11–1 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

D/11–7–SND2 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

N51°47'03"E 374.67'

EDGE OF WETLAND (TYP.)

50' WETLAND SETBACK (TYP.)

CITY / GEOD CORP. GRID NORTH

D / 11–8 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

N20°59'57"W 106.19'

I.R.(fnd)

A / 49–13 — DOUGLAS PORTER, 29 QUAIL DRIVE, DOVER, NH, 4600 / 780, SCRD PLAN 38–129

D.H.(fnd)

BUILDING SETBACK LINE (TYP.)

N66°19'06"W 238.64'

D / 12 — TSB PROPERTIES, LLC, 385 SIXTH STREET, DOVER, NH 03820, 4545 / 961

I.P. (fnd) N – 264,314.852 E – 700,742.376 (SEE NOTE 7)

I.P.(fnd) I.P.(fnd) I.P.(fnd)

N65°42'45"W 123.03'

D / 11–7

D / 11–4 — QUALITY WAY, LLC, 1 QUALITY WAY ENTERPRISE PARK, DOVER, NH 03820, 3973 / 254

EDGE OF PAVEMENT

SMH #4352

8"S

QUALITY WAY

ELECTRIC CABINET 5C/SC9 TBM NORTHEAST CORNER CONCRETE ELEVATION = 170.75'

END GAS

GAS – 4" SLEEVE

SMH #4351

F.E.S. #4

CB #4

U/GT,E

4" W

6" S

C1

C2

C3

TREELINE (TYP.)

SGC

6" SEWER SERVICE INV. = 162.19' 4" WATER SERVICE

CONCRETE BASE FOR LIGHT POLE

TPIT LP1

TPIT LP2

TPIT LP3

TPIT LP4

TPIT LP5

TPIT LP6

TPIT LP7

TPIT LP8

SOIL TEST PIT (TYP.)

D / 11–6 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

S15°29'11"W 249.85'

D.H. (fnd) N – 264,264.247 E – 700,854.518 (SEE NOTE 7)

S55°43'12"W 102.08'

L1

L2

I.R.(fnd)

D/11–7–SND1 — DBIDA, 288 CENTRAL AVENUE, DOVER, NH 03820, 1559 / 394

D / 13–3 — SARNIA PROPERTIES, INC, 1 HAVEN COURT, PORTSMOUTH, NH 03801, 4850 / 405, SCRD PLAN 50–52

NOTES:

1.) OWNERS OF RECORD:

DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY
f/k/a DOVER INDUSTRIAL DEVELOPMENT AUTHORITY (D.I.D.A.)
288 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820
S.C.R.D. VOL. 1559 / 394
TITLE REF. SEE SCRD 1738 / 130, 1027 / 790, 773 / 481

2.) D / 11–7 – DENOTES TAX MAP AND PARCEL NUMBER.

3.) PLAN INTENT: TO SHOW THE SITE EXISTING CONDITIONS.

4.) PARCEL AREA = 152,004 S.F. / 3.49 Ac.

5.) ZONING DISTRICT IS INNOVATIVE TECHNOLOGY (IT)

DIMENSIONAL REQUIREMENTS:

MINIMUM LOT SIZE	= 2 ACRES
MINIMUM LOT COVERAGE	= 33 PERCENT
MINIMUM FRONTAGE	= 200 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT SETBACK	= 50 FEET
SIDE SETBACK	= 50 FEET
REAR SETBACK	= 50 FEET
MAXIMUM BUILDING HEIGHT	= 55 FEET MAXIMUM

6.) THE SUBJECT PARCEL IS LOCATED OUTSIDE OF THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0310; SUFFIX E; MAP NUMBER 33017C0310E; EFFECTIVE DATE SEPTEMBER 30, 2015.

7.) BASIS OF BEARING IS THE CITY OF DOVER / GEOD CORP. GRID PER REFERENCE PLAN No. 1. (G.I.S. STATIONS TR 390 AND TR 391A) VERTICAL DATUM IS CITY OF DOVER / GEOD CORP. PER CITY G.I.S. STATIONS TR 390 AND TR 391A.

8.) PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND WITH AN ERROR NOT GREATER THAN 1 IN 10,000

9.) WETLANDS SHOWN WERE IDENTIFIED BY DAMON E. BURT, N.H.C.W.S. #163 OF FRAGGLE ROCK ENVIRONMENTAL SERVICES ON JUNE 6, 2022 IN ACCORDANCE WITH THE 1987 CORPS. OF ENGINEERS WETLANDS DELINEATION MANUAL AND LOCATED BY McENEANEY SURVEY ASSOCIATES OF NEW ENGLAND.

10.) BUILDING ADDRESSES (INCLUDING APT/UNIT NUMBERS IF APPLICABLE) SHALL BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.

11.) THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND.

12.) THE PARCEL IS SERVED BY MUNICIPAL SEWER AND WATER.

13.) TOPOGRAPHY DEPICTED IS BASED ON FIELD OBSERVATIONS BY THIS OFFICE..

14.) LOT D/11–7 WAS CREATED USING THE CITY OF DOVER TDR ORDINANCE.

STATE OF NEW HAMPSHIRE — DAMON E. BURT — No. 163 — CERTIFIED WETLAND SCIENTIST — 9/2/22

LEGEND

S.F. – SQUARE FEET
Ac. – ACRE
(TYP.) – TYPICAL
± – MORE OR LESS
ø – DIAMETER
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
–o– UP – UTILITY POLE
– STONE WALL
– EDGE OF WET
f/k/a – FORMERLY KNOWN AS
D.H. (fnd) – DRILL HOLE FOUND
I.P. (fnd) – IRON PIPE FOUND
I.R. (fnd) – IRON ROD FOUND

□ CB – CATCH BASIN
F.E.S. – FLARED END SECTION
RCP – REINFORCED CONCRETE PIPE
Ⓢ SMH – SANITARY SEWER MANHOLE
8"S – SANITARY SEWER MAIN PIPE AND SIZE
S – SANITARY SEWER SERVICE
W – WATER MAIN PIPE AND SIZE
W – WATER SERVICE
WV – WATER GATE VALVE
G – GAS MAIN
U/G E,T,C – UNDERGROUND ELECTRIC, TELEPHONE AND CABLE BROADBAND
174 – EXISTING CONTOUR (2 FOOT INTERVAL)
SGC – SLOPED GRANITE CURB

NO.	DATE	DESCRIPTION	BY	CHK
2	7/28/22	REVISE PER CITY COMMENTS	RJM	KMM
1	6/9/22	UPDATE WETLANDS AND NOTE 9	RJM	KMM

REVISIONS

22–2415	EXIST. COND.	00–1, 05–8	60–63
PROJECT NO	TYPE	FIELDBOOK & PAGES	

THE SOIL TYPE ON THE SITE IS:
GsC GLOUCESTER VERY STONY FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES

THE SOURCE FOR THE SOIL TYPE DATA IS USDA NRCS WEB SOIL SURVEY
http: //websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

"I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION, BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS."

STATE OF NEW HAMPSHIRE — No. 661 — KEVIN M. McENEANEY — LICENSED LAND SURVEYOR — SIGNATURE

EXISTING CONDITIONS PLAN OF LAND
PREPARED FOR
DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY
TAX MAP D, LOT No. 11–7
QUALITY WAY
CITY of DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

DOVER PLANNING FILE No. P 22–47

DRAWN BY: RJM	FILE: 2415\DWGS\22–2415ECGEOD
SCALE: 1" = 30'	DATE: FEBRUARY 10, 2022

30 15 0 15 30 60 90 120

McEneaney Survey Associates of NEW ENGLAND
P.O. Box 681 – 24 CHESTNUT STREET
DOVER, NH 03820 (603) 742–0911

SURVEYING – PLANNING – CONSULTING

9/2/2022 10:10:34 File: \\CNEserver1\MSA Projects\2415\Drawings\22.2415 EC GEOD.dwg Layout: 2415 EC

GENERAL NOTES:

1. OWNERS OF RECORD:

   DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY
   f/k/a DOVER INDUSTRIAL DEVELOPMENT AUTHORITY (D.I.D.A.)
   288 CENTRAL AVENUE
   DOVER, NEW HAMPSHIRE 03820
   S.C.R.D. VOL. 1559 / 394
   TITLE REF. SEE SCRD 1738 / 130, 1027 / 790, 773 / 481

2. D/11-7 – DENOTES TAX MAP AND PARCEL NUMBER.

3. PARCEL AREA = 152,004 S.F. / 3.49 Ac.

4. ZONING DISTRICT IS INNOVATIVE TECHNOLOGY (IT)

DIMENSIONAL REQUIREMENTS:	REQUIRED	PROVIDED
MINIMUM LOT SIZE	= 2 ACRES	3.49 ACRES
MAXIMUM LOT COVERAGE	= 33 PERCENT	15.2 PERCENT
MINIMUM FRONTAGE	= 200 FEET	226.5 FEET
MINIMUM OPEN SPACE	= 33 PERCENT	55.3 PERCENT
BUILDING SETBACK REQUIREMENTS:		
FRONT SETBACK	= 50 FEET	±57 FEET
SIDE SETBACK	= 50 FEET	±76 FEET
REAR SETBACK	= 50 FEET	± 140 FEET
MAXIMUM BUILDING HEIGHT	= 55 FEET MAX.	< 55 FEET

5. THE SUBJECT PARCEL IS LOCATED OUTSIDE OF THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0310; SUFFIX E; MAP NUMBER 33017C0310E; EFFECTIVE DATE SEPTEMBER 30, 2015.
6. BASIS OF BEARING IS THE CITY OF DOVER / GEOD CORP. GRID PER REFERENCE PLAN NO. 1. (G.I.S. STATIONS TR 390 AND TR 391A) VERTICAL DATUM IS CITY OF DOVER / GEOD CORP. PER CITY G.I.S. STATIONS TR 390 AND TR 391A.
7. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND WITH AN ERROR NOT GREATER THAN 1 IN 10,000.
8. WETLANDS SHOWN WERE IDENTIFIED BY DAMON E. BURT, N.H.C.W.S. #163 OF FRAGGLE ROCK ENVIRONMENTAL SERVICES ON JUNE 6, 2022 IN ACCORDANCE WITH THE 1987 CORPS. OF ENGINEERS WETLANDS DELINEATION MANUAL AND LOCATED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND.
9. BUILDING ADDRESSES (INCLUDING APT/UNIT NUMBERS IF APPLICABLE) SHALL BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
10. THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND.
11. THE PARCEL IS SERVED BY MUNICIPAL SEWER AND WATER.
12. TOPOGRAPHY DEPICTED IS BASED ON FIELD OBSERVATIONS BY MCENEANEY SURVEY ON MARCH22, 2005 & APRIL 6, 2005.
13. LOT D/11-7 WAS CREATED USING THE CITY OF DOVER TDR ORDINANCE THROUGH THE AMENDED SUBDIVISION AND LOT LINE ADJUSTMENT PLAN PREPARED FOR GEORGE J. FOSTER & CO., INC. AND DOVER BUSINESS AND INDUSTRIAL DEVELOPMENT AUTHORITY, TAX MAP D, LOT NOS. 9A & 11-1, VENTURE DRIVE AND QUALITY WAY, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE. SCALE: 1"=100'; DATED: FEBRUARY 14, 2006, REVISED THROUGH 5-3-06; BY MCENEANEY SURVEY. RECORED S.C.R.D. PLANS 85-99 & 85-100.

DEMOLITION NOTES:

1. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
2. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY DEMOLITION/ CONSTRUCTION ACTIVITIES. (811).
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, UTILITIES AND PAVEMENT ON THE SITE TO THE LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NOT ALREADY OBTAINED BY THE OWNER AND ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
8. STONES FROM THE REMOVED STONEWALL SHALL REMAIN ON-SITE. STONES SHALL BE REPURPOSED ON-SITE AND SHALL NOT BE USED AS FILL.
9. THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
10. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES, AND CODES.
11. ALL EROSION CONTROL NOTES SHALL INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.

PERMIT SUMMARY:

1. THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:

   WASTE WATER CONNECTION PERMIT: PENDING

   ALTERATION OF TERRAIN: PENDING

2. LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT OR CONDITIONAL USE PERMITS GRANTED BY THE PLANNING BOARD FOR THE PROPOSED USE OR STRUCTURE, INCLUDING THE CASE NUMBER AND DATE OF DECISION AND ANY CONDITIONS.

   CONDITIONAL USE PERMIT: P22-48 PENDING

   SITE PLAN: P22-47: PENDING

3. WAIVERS REQUESTED:
   A WAIVER REQUEST FROM SECTION 153-14.H(1) TO ALLOW ACCESS FROM TWO DRIVEWAYS AND TO ALLOW THE DRIVEWAYS TO BE 90 FEET APART: PENDING

   A WAIVER REQUEST FROM SECTION 153-15.C(2) TO ALLOW PARKING IN FRONT OF THE BUILDING: PENDING

   A WAIVER REQUEST FOR PARKING SETBACK RELIEF TO 17.5 FEET FROM THE PROPERTY LINE PROVIDED THROUGH TDR: PENDING

SITE NOTES

1. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A PLAN REFERENCED AND PREPARED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND (SEE EXISTING CONDITIONS PLAN IN THIS PLAN SET).
2. THE PURPOSE OF THIS PLAN IS TO DEPICT IMPROVEMENTS ASSOCIATED WITH A 23,125 S.F. COMMERCIAL BUILDING AND ASSOCIATED SITE IMPROVEMENTS.
3. EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 153-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.
4. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
5. ON-SITE SNOW STORAGE SHALL OCCUR ALONG THE EDGES OF PROPOSED PAVEMENT.
6. ALL CONSTRUCTION LAYOUT SHALL BE DONE BY A LICENSED SURVEYOR UNDER CONTRACT WITH THE CONTRACTOR.
7. SEE DETAILS FOR SIGN LEGENDS.
8. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICAN WITH DISABILITIES ACT, LATEST EDITIONS.
9. THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE FACILITIES AND THEIR COMPONENTS DURING DEMOLITION AND CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE OWNERS REPRESENTATIVE. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS. SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AT THE COMPLETION OF THE PROJECT.
10. METHODS OF DEMOLITION, CONSTRUCTION AND ERECTION ARE THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO DUST CONTROL AND SILT BARRIERS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES OR UTILITIES OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION PHASE CAUSED BY HIMSELF, HIS EMPLOYEES, HIS SUBCONTRACTORS OR EMPLOYEES OF SAME. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY FACILITIES FOR THE PROTECTION OF THE WORK, WORKERS AND PUBLIC SAFETY.
12. BUILDING ADDRESSES TO BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
13. THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS AND NH RSA 155-A:5. THE PROPOSED STRUCTURE WILL ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS.
14. THE SITE SHALL BE MAINTAINED TO PROVIDE ACCESSIBILITY IN ALL WEATHER CONDITIONS.
15. COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH DOVER CITY CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.
16. THE SUBJECT PARCEL(S) IS (ARE) SERVED BY MUNICIPAL WATER AND SEWER.
17. THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN THE 50 FT. OF CONSERVATION AND WETLAND DISTRICTS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBANCE ACTIVITY OCCURRING.
18. AS-BUILT PLANS OF THE SITE SHALL BE SUBMITTED ON PAPER AND IN A DIGITAL FORMAT IN PDF AND AUTOCAD DWG, AUTOCAD DXF OR AN ESRI FORMAT TO THE CITY OF DOVER ENGINEER'S OFFICE UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILES SHALL BE GEO-REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.
19. SITE CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7 AM-6 PM, SATURDAY 9 AM-4 PM. NO CONSTRUCTION SHALL OCCUR ON SUNDAY OR DURING FEDERAL HOLIDAY HOURS. HOURS OF CONSTRUCTION MUST BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT NFORMATION FOR THE GENERAL CONTRACTOR AND THE SIGN SHALL NOTE THAT THE ROADWAY IS PRIVATE. SAID SIGNAGE MUST BE LOCATED AND APPROVED BY THE CITY ENGINEER OR ASSISTANT CITY MANAGER.
20. A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.
21. ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND WITH THE CITY OF DOVER COMMUNITY SERVICES REGULATIONS AND STANDARD SPECIFICATION FOR CONSTRUCTION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
22. ANY RETAINING WALL TALLER THAN FOUR FEET (4') REQUIRES ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
23. ANY FENCE TALLER THAN SEVEN FEET (7') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
24. APPLICANT SHALL COMPLETE LAND USE DEVELOPMENT TRACKING FORM, MOST RECENTLY REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL.
    HTTP://WWW.UNH.EDU/UNHSC/PTAPP.
25. A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
26. THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS/ENTITIES THAT MAY ACQUIRE ANY PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN, THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE NEED NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING.
27. FIRE DEPARTMENT ACCESS SHALL BE INSTALLED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS IN ALL WEATHER CONDITIONS AT ALL TIMES.
28. REFUSE PICKUP WILL BE BY PRIVATE CONTRACTOR AND WILL BE VIA DUMPSTER ON-SITE.
29. SNOW STORAGE WILL BE ACCORDING TO THE OPERATION AND MAINTENANCE PLAN AND WITHIN AREAS AS INDICATED.
30. ALL EXTERIOR DOORS ARE MANUAL AND OPENED FROM THE INTERIOR BY PANIC HARDWARE. ALL EXTERIOR DOORS SHALL COMPLY WITH ADA AND ALL LOCAL BUILDING CODE REQUIREMENTS.

UTILITY NOTES

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
3. 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.
4. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
5. THE SUBJECT PARCEL(S) IS (ARE) SERVED BY MUNICIPAL WATER AND SEWER.
6. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
7. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, DOUBLE CEMENT LINED DUCTILE IRON PIPE OR TYPE "K" COPPER, OR CITY APPROVED MATERIAL.
8. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF DOVER WATER DEPARTMENT.
9. ALL GRAVITY SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE NOTED AND CONFORM TO THE REQUIREMENTS OF THE CITY OF DOVER SEWER DEPARTMENT STANDARDS.
10. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE CITY OF DOVER COMMUNITY SERVICES DEPARTMENT STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
11. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
12. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE UTILITY COMPANIES.
13. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
14. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
15. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
16. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES. COORDINATE WITH GAS COMPANY.
17. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
18. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
19. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
20. GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF DOVER.
21. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF DOVER.
22. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
23. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
24. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PREPARED BY THE PROJECT ELECTRICAL ENGINEER.
25. APPROVED BACKFLOW PREVENTORS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.
26. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE CITY AND STATE CODES.
27. A SECURITY ALARM SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 58, ARTICLE I, SECTION 58-2 OF THE CODE OF THE CITY OF DOVER.
28. THE PROPOSED STRUCTURE SHALL COMPLY WITH CHAPTER 81, ARTICLE IV, SECTION 81-27 AND THE STATE BUILDING CODES OF THE CODE OF THE CITY OF DOVER.
29. FIRE SUPPRESSION PLANS SHALL BE PROVIDED TO THE FIRE/INSPECTION DEPARTMENT PRIOR TO INSTALLATION.
30. THE STRUCTURE SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED UNDER CHAPTER 81-30 OF THE CODE OF THE CITY OF DOVER AND THE ADOPTED STATE OF NEW HAMPSHIRE BUILDING & FIRE CODE.
31. 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.
32. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13.
33. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
34. SEWAGE LOADING (PER METCALF & EDDY)
    OFFICE: 15 EMPLOYEES X 10 GPD/EMPLOYEE = 150 GPD
    WAREHOUSES: 15 EMPLOYEES X 15 GPD/EMPLOYEE = 225 GPD
    TOTAL = 375 GPD

GRADING NOTES:

1. ALL ROAD DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR CONSTRUCTION OF THE CITY OF DOVER, N.H. AND "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION", LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEERING CONSULTANT APPROVED BY THE OWNER, TO CONDUCT COMPACTION TESTING AND FILL GRADATION MONITORING PER THE ABOVE REFERENCED "STANDARD SPECIFICATIONS".
3. SEE EROSION CONTROL NOTES & DETAIL SHEET FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
4. ALL DRAINAGE PIPES SHALL BE HDPE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
5. ALL DISTURBED AREAS NOT OTHERWISE CALLED FOR SURFACE TREATMENT SHALL RECEIVE 6" OF HIGH QUALITY LOAM AND SHALL BE SEEDED WITH GRASS.
6. ALL SITEWORK CONSTRUCTION SHALL BE ADVANCED USING "BEST MANAGEMENT PRACTICES" SANCTIONED BY THE USDA SCS AND NHDES.
7. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED, UTILIZED AND MAINTAINED UNTIL BASE MATERIALS ARE CONSTRUCTED.
8. CONTRACTOR SHALL PROVIDE A FINISH GRADED SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND UNDER RAISED STRUCTURES.
9. DENSITY REQUIREMENTS:

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

   *ALL PERCENTAGES SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH AASHTO STANDARD 180, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH AASHTO STANDARD T-191, T-204, OR T-238 AND T-239.

10. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEET.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
12. INSPECT SILT BARRIERS AFTER EACH RAIN STORM OF 1/4 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
13. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED FOR THIS PROJECT. THE SWPPP MUST INCLUDE THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE SITE. PARTIES RESPONSIBLE FOR DEVELOPING THE SWPPP SHOULD REFER TO THE EPA NPDES CONSTRUCTION GENERAL PERMITS NOTICE OF INTENT FOR A COMPLETE OUTLINE OR REQUIRED ELEMENTS. THESE PLANS AND THE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN PREPARED FOR THIS PROJECT MAY BE UTILIZED IN FULFILLING THE REQUIREMENTS.
14. ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.
15. LIMIT TREE CLEARING TO ONLY THE EXTENT NECESSARY FOR CONSTRUCTION.
16. PLACARDS SHALL BE INSTALLED ALONG THE EDGE OF WETLAND PRIOR TO CONSTRUCTION.

WILDLIFE PROTECTION NOTES:

- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT HYPERLINK "MAILTO:NHFGREVIEW@WILDLIFE.NH.GOV" NHFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB22-1697, WEAVE FILTRATION LLC., WILDLIFE SPECIES OBSERVATION.
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION AS FEASIBLE.
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04.
- THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

UTILITY CONTACTS

NATURAL GAS: – UNITIL CORPORATION
CONTACT: DAVID MACLEAN
325 WEST ROAD
PORTSMOUTH, NH 03801
TEL: (603)-294-5261
EMAIL: MACLEAND@UNITIL.COM

WATER & SEWER: – CITY OF DOVER COMMUNITY SERVICES DEPARTMENT
PUBLIC WORKS & UTILITIES
CONTACT: KEN MAVROGEORGE, PE
271 MAST ROAD
DOVER, NH 03820
TEL: (603)-516-6450
EMAIL: K.MAVROGEORGE@DOVER.NH.GOV

ELECTRIC: – EVERSOURCE
CONTACT: TREVER EMMONS
4 OLD DOVER ROAD
ROCHESTER, NH 03867
TEL: (603)-332-7515
EMAIL: TREVER.EMMONS@EVERSOURCE.COM

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

DATE	BY	DESCRIPTION	APP'D
9-1-22	SJH	REV. PER 2ND TRC COMMENTS	2
7-28-22	SJH	REV. PER TRC COMMENTS	1
DATE		REVISION	NO.

DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY: SJH
PROJECT NO: 21094
FILE: SITE.DWG

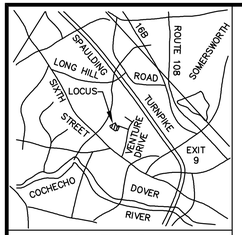
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

NOTE SHEET

4



LOCATION PLAN
(NO SCALE)

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

D / 11-1

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

D/11-7-SND2

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

D / 11-8

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

D / 11-7

D / 11-6

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

D/11-7-SND1

DBIDA
288 CENTRAL AVENUE
DOVER, NH 03820
1559 / 394

50' WETLAND SETBACK (TYP.)

EDGE OF WETLAND (TYP.)

ELECTRIC CABINET
SC/SCG
TBM NORTHEAST
CORNER CONCRETE
ELEVATION = 170.75'

EDGE OF PAVEMENT

TREELINE (TYP.)

SMH #4352

8"S

QUALITY WAY

END GAS

GAS – 4" SLEEVE

SMH #4351

4" W

U/GT,E

6" S

F.E.S. #4

CB #4

4" WATER SERVICE

6" SEWER SERVICE
INV. = 162.19'

PROPOSED TREELINE

TREELINE TO BE REMOVED

STONEWALL TO BE REMOVED (SEE SHEET 4 DEMO NOTE 8)

TO BE REMOVED

PROPOSED TREELINE

CONCRETE BASE FOR LIGHT POLE

DRAIN LINE TO BE CUT FOR NEW PROPOSED DRAIN MANHOLE

STONEWALL TO BE REMOVED (SEE SHEET 4 DEMO NOTE 8)

PROPOSED TREELINE

BUILDING SETBACK LINE (TYP.)

EDGE OF WETLAND (TYP.)

50' WETLAND SETBACK (TYP.)

SEWER STRUCTURE SCHEDULE

SMH #4351
RIM = 171.7'
INV. IN = 160.3'
INV. OUT = 160.2'

SMH #4352
RIM = 170.3'
INV. IN = 161.1'
INV. OUT = 161.0'

DRAINAGE STRUCTURE SCHEDULE

CB #4
RIM = 176.8'
INV. = 172.8'
SUMP = 169.8'

FES #4
INV. = 173.0'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

LEGEND

S.F. – SQUARE FEET	CB – CATCH BASIN
Ac. – ACRE	F.E.S. – FLARED END SECTION
(TYP.) – TYPICAL	RCP – REINFORCED CONCRETE PIPE
± – MORE OR LESS	– HYDRANT
ø – DIAMETER	SMH – SANITARY SEWER MANHOLE
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS	8"S – SANITARY SEWER MAIN PIPE AND SIZE
UP – UTILITY POLE	S – SANITARY SEWER SERVICE
– STONE WALL	W – WATER MAIN PIPE AND SIZE
– EDGE OF WET	W – WATER SERVICE
f/k/a – FORMERLY KNOWN AS	– WATER GATE VALVE
D.H. (fnd) – DRILL HOLE FOUND	G – GAS MAIN
I.P. (fnd) – IRON PIPE FOUND	U/G E,T,C – UNDERGROUND ELECTRIC, TELEPHONE AND CABLE BROADBAND
I.R. (fnd) – IRON ROD FOUND	174 – EXISTING CONTOUR (2 FOOT INTERVAL)
BCC – BITUMINOUS CAPE COD CURB	SGC – SLOPED GRANITE CURB
FM – FORCE MAIN	VGC – VERTICAL GRANITE CURB

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

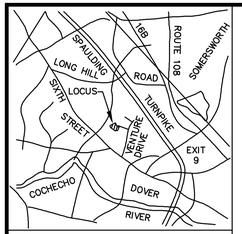
DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

DEMOLITION PLAN

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

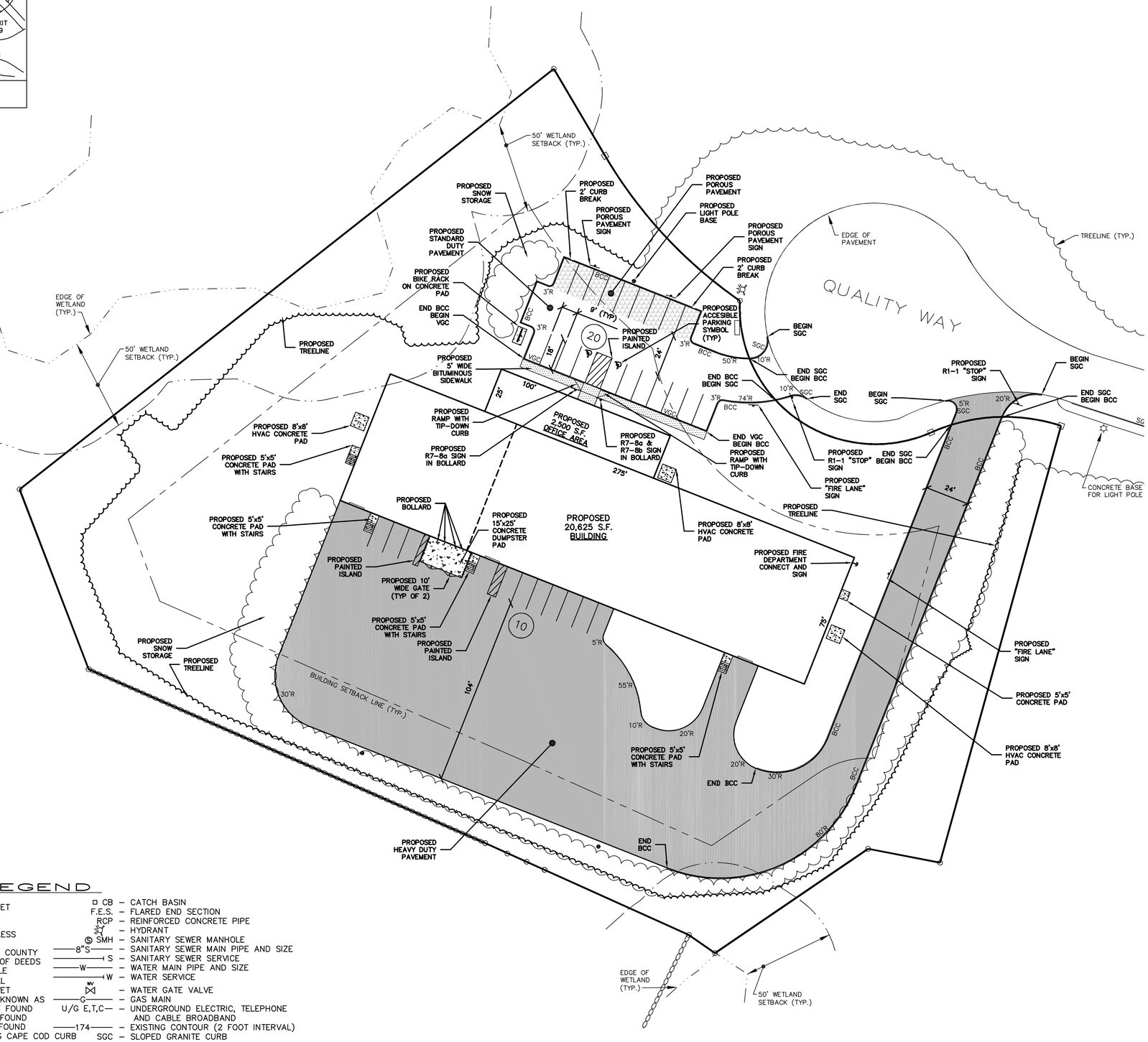
5



LOCATION PLAN
(NO SCALE)

PARKING CALCULATIONS:

	REQUIREMENT	AREA	MAX ALLOWED	PROPOSED
INDUSTRIAL / MANUFACTURING:	1 SP / 800 S.F.	20,625 S.F.	26	22
OFFICE:	1 SP / 300 S.F.	2,500 S.F.	8	8
TOTAL PARKING:			34	30



LEGEND

S.F. – SQUARE FEET	□ CB – CATCH BASIN
Ac. – ACRE	F.E.S. – FLARED END SECTION
(TYP.) – TYPICAL	RCP – REINFORCED CONCRETE PIPE
± – MORE OR LESS	– HYDRANT
ø – DIAMETER	S – SANITARY SEWER MANHOLE
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS	8"S – SANITARY SEWER MAIN PIPE AND SIZE
-o- UP – UTILITY POLE	S – SANITARY SEWER SERVICE
– STONE WALL	W – WATER MAIN PIPE AND SIZE
– EDGE OF WET	W – WATER SERVICE
f/k/a – FORMERLY KNOWN AS	– WATER GATE VALVE
D.H. (fnd) – DRILL HOLE FOUND	G – GAS MAIN
I.P. (fnd) – IRON PIPE FOUND	U/G E,T,C – UNDERGROUND ELECTRIC, TELEPHONE AND CABLE BROADBAND
I.R. (fnd) – IRON ROD FOUND	174 – EXISTING CONTOUR (2 FOOT INTERVAL)
BCC – BITUMINOUS CAPE COD CURB	SGC – SLOPED GRANITE CURB
FM – FORCE MAIN	VGC – VERTICAL GRANITE CURB

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2.	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1.	REV. PER TRC COMMENTS	SJH	7-28-22

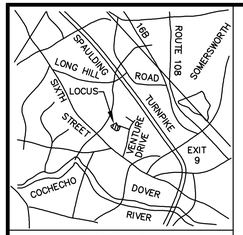
DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

SITE PLAN

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

6



LOCATION PLAN
(NO SCALE)

PDMH2
RIM=168.5
INV.IN=162.50
INV.IN=164.0 (RD)
INV.OUT=161.0

50' WETLAND SETBACK (TYP.)

PROPOSED SILTSOXX

EDGE OF PAVEMENT

TREELINE (TYP.)

PFES4
INV.OUT=158.0

WETLAND FLAG LOCATION & NOMENCLATURE (TYP)

WFA13

PROPOSED 60 LF 15" HDPE S=0.050

WFA9

WFA12

WFA11

WFA10

EDGE OF WETLAND (TYP.)

158.25
TOP OF POND

BUFFER IMPACT A =4,099 S.F.

50' WETLAND SETBACK (TYP.)

158.25
TOP OF POND

PROPOSED SEDIMENT FOREBAY

PROPOSED STONE CHECK DAM (TYP.)

PCB1 W/SILTSACK
RIM=168.25
INV.OUT=164.0

PROPOSED CONSTRUCTION ENTRANCE

PROPOSED CONSTRUCTION ENTRANCE

PDMH4
RIM=175.5
INV.IN=MATCH EXISTING
INV.OUT=172.6

PROPOSED 10 LF 15" HDPE S=0.010

CB #4

PFES6
INV.OUT=153.5

WET POND 1

PFES5
INV.OUT=155.5

PROPOSED 24 LF 15" HDPE S=0.0167

PROPOSED SEDIMENT FOREBAY

PROPOSED 110 LF 6" HDPE S=0.010

PROPOSED 92 LF 15" HDPE S=0.011

F.F. = 170.0
PROPOSED 2,500 S.F. OFFICE AREA

PROPOSED 36 LF 15" HDPE S=0.011

PDMH1
RIM=169.15
INV.IN=163.60
INV.OUT=163.50

PROPOSED INV.IN=164.6

PFES2
INV.IN=165.5

PROPOSED 20,625 S.F. BUILDING
F.F. = 163.5

CONCRETE BASE FOR LIGHT POLE

PFES1
INV.OUT=172.5

PROPOSED 300 LF 12" HDPE S=0.003

PROPOSED 92 LF 15" HDPE S=0.011

PROPOSED STONE CHECK DAM (TYP.)

POS1
RIM=157.15
1.5"x1.5" ORIFICE =154.0
1.5" DIA ORIFICE =154.5
3" DIA. ORIFICE =156.0
INV.OUT=153.9

WET POND 1 PERMANENT POOL

PROPOSED SEDIMENT FOREBAY

PROPOSED INV.IN=156.5

PFES3
INV.OUT=164.5

BUILDING SETBACK LINE (TYP.)

158.25
TOP OF POND

PROPOSED SILTSOXX

PROPOSED STONE CHECK DAM (TYP.)

BUFFER IMPACT B =976 S.F.

EDGE OF WETLAND (TYP.)

50' WETLAND SETBACK (TYP.)

DRAINAGE STRUCTURE SCHEDULE

CB #4
RIM = 176.8'
INV. = 172.8'
SUMP = 169.8'

FES #4
INV. = 173.0'

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

LEGEND

S.F. – SQUARE FEET	CB – CATCH BASIN
Ac. – ACRE	F.E.S. – FLARED END SECTION
(TYP.) – TYPICAL	RCP – REINFORCED CONCRETE PIPE
± – MORE OR LESS	– HYDRANT
ø – DIAMETER	SMH – SANITARY SEWER MANHOLE
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS	8"S – SANITARY SEWER MAIN PIPE AND SIZE
UP – UTILITY POLE	S – SANITARY SEWER SERVICE
– STONE WALL	W – WATER MAIN PIPE AND SIZE
– EDGE OF WET	W – WATER SERVICE
f/k/a – FORMERLY KNOWN AS	– WATER GATE VALVE
D.H. (fnd) – DRILL HOLE FOUND	G – GAS MAIN
I.P. (fnd) – IRON PIPE FOUND	U/G E,T,C – UNDERGROUND ELECTRIC, TELEPHONE AND CABLE BROADBAND
I.R. (fnd) – IRON ROD FOUND	174 – EXISTING CONTOUR (2 FOOT INTERVAL)
BCC – BITUMINOUS CAPE COD CURB	SGC – SLOPED GRANITE CURB
FM – FORCE MAIN	VGC – VERTICAL GRANITE CURB

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2.	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

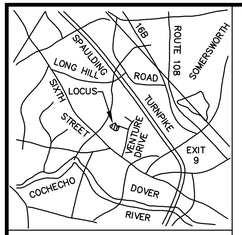
DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

GRADING DRAINAGE & EROSION CONTROL PLAN

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

7



LOCATION PLAN
(NO SCALE)

50' WETLAND SETBACK (TYP.)

ELECTRIC CABINET 5C/SC9 TBM NORTHEAST CORNER CONCRETE ELEVATION = 170.75'

EDGE OF PAVEMENT

TREELINE (TYP.)

SMH #4352

8"S

QUALITY WAY

END GAS

GAS – 4" SLEEVE

SMH #4351

U/GT,E

4" W

6" S

6" SEWER SERVICE INV. = 162.19'

EDGE OF WETLAND (TYP.)

50' WETLAND SETBACK (TYP.)

PROPOSED EV READINESS (2) 2" SCHEDULE 40 PVC CONDUITS

PROPOSED SEWER LINE

4" WATER SERVICE

PROPOSED 7,500 S.F. DEICE AREA

INV.=164.5

PROPOSED 81 LF 6" PVC SDR35

PROPOSED UNDERGROUND TELEPHONE

PROPOSED 29.5 LF 6" PVC SDR35

PSMH1

CONCRETE BASE FOR LIGHT POLE

PROPOSED UNDERGROUND ELECTRIC

PROPOSED 20,625 S.F. BUILDING

PROPOSED 1" DOMESTIC WATER CONNECTION

PROPOSED WATER SHUT-OFF (TYP)

PROVIDE DOUBLE LAYER OF 2" RIGID INSULATION

PROPOSED FIRE DEPARTMENT CONNECTION (FDC)

PROPOSED 4" FIRE WATER CONNECTION

PROPOSED GAS LINE

INV.OUT=155.5

PROPOSED 10 LF 6" PVC SDR35

PROPOSED E-ONE SEWAGE EJECTOR PUMP STATION

PROPOSED 1-1/4" TO 1-1/2" SDR11 ENLARGER

PROPOSED CURB STOP CHECK VALVE

PROPOSED FORCE MAIN

PROPOSED 241 LF 1-1/2" SDR11

BUILDING SETBACK LINE (TYP.)

EDGE OF WETLAND (TYP.)

50' WETLAND SETBACK (TYP.)

SEWER STRUCTURE SCHEDULE

SMH #4351
RIM = 171.7'
INV. IN = 160.3'
INV. OUT = 160.2'

SMH #4352
RIM = 170.3'
INV. IN = 161.1'
INV. OUT = 161.0'

PROPOSED SEWER STRUCTURE SCHEDULE

PSMH1
RIM=168.35
INV.IN=162.90 (6")
INV.IN=163.15 (1.5")
INV.OUT=162.80

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

LEGEND

S.F. – SQUARE FEET	CB – CATCH BASIN
Ac. – ACRE	F.E.S. – FLARED END SECTION
(TYP.) – TYPICAL	RCP – REINFORCED CONCRETE PIPE
± – MORE OR LESS	– HYDRANT
ø – DIAMETER	SMH – SANITARY SEWER MANHOLE
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS	8"S – SANITARY SEWER MAIN PIPE AND SIZE
UP – UTILITY POLE	S – SANITARY SEWER SERVICE
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D.H. (fnd) – DRILL HOLE FOUND	G – GAS MAIN
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NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
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603.749.0443

NO.	REVISION	APP'D	DATE
2.	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

UTILITY PLAN

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

8

DESCRIPTION

1. THE INTENT OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH THE CONSTRUCTION OF A 23,125 S.F. BUILDING, DRAINAGE AND UTILITY IMPROVEMENTS, AND SITE ACCESS.

PROJECT NAME AND LOCATION

WEAVE FILTRATION
TAX MAP D, LOT 11–7 LATITUDE N43° 13' 23"
QUALITY WAY LONGITUDE W70° 54' 44"
DOVER, NH

DISTURBED AREA

±122,500 S.F.

NOTES:

1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

SEQUENCE OF MAJOR ACTIVITIES

1. CONTRACTOR SHALL PREPARE THE SWPPP, FILE FOR AND OBTAIN THE NOI A MINIMUM OF 2 WEEKS PRIOR TO COMMENCEMENT OF SITE WORK.
2. PLACE TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S PRIOR TO EARTH MOVING ACTIVITIES.
3. ALL EROSION CONTROL AND PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO COMMENCING EARTH MOVING OPERATIONS.
4. SELECTIVE DEMOLITION.
5. REGRADE SITE TO SUBGRADE.
6. TEMPORARY WATER DIVERSION (SWALES, BASINS) MUST BE USED AS NECCESSARY UNTIL AREAS ARE STABILIZED.
7. SWALES AND PONDS (AS APPLICABLE) SHALL BE CONSTRUCTED EARLY ON IN THE CONSTRUCTION SEQUENCE AND BEFORE ROUGH GRADING OF THE SITE AND ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
8. INSTALL DRAINAGE STRUCTURES AND CONTROLS.
9. INSTALL FOUNDATION FOOTINGS AND WALLS.
10. INSTALL UTILITIES.
11. PLACE GRAVELS AND FINE GRADE.
12. STABILIZE ROADWAYS AND PARKING AREAS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
13. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED (AS APPLICABLE) WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
14. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EVERY 1/2" OF RAINFALL.
15. IN ALL CASES THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION AND IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
16. WHEN ALL SITE WORK IS COMPLETE AND ALL DISTURBED AREAS ARE STABILIZED REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND FILE THE EPA – N.O.T.

DEFINITIONS

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWNG HAS OCCURRED.

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
3. A MINIMUM OF 3" OF NON–EROSIVE MATERIAL SUCH AS STONE OR RIP–RAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

INSTALLATION, MAINTENANCE, AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

A. SILT BARRIER

1. INSTALLATION
   a. USE SILT BARRIER AS PERIMETER CONTROLS, PARTICULARLY AT THE LOWER OR DOWN SLOPE EDGE OF A DISTURBED AREA.
   b. LEAVE SPACE FOR MAINTENANCE BETWEEN TOE AND SLOPE OF SILT BARRIER.
   c. TRENCH IN THE SILT BARRIER ON THE UPHILL SIDE (6 INCHES DEEP BY 6 INCHES WIDE).
   d. INSTALL STAKES ON THE DOWNHILL SIDE OF THE SILT BARRIER.
   e. CURVE THE END OF THE SILT BARRIER UP–GRADIENT TO HELP IT CONTAIN RUNOFF.
2. SEQUENCE OF INSTALLATION
   a. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
3. MAINTENANCE
   a. SILT BARRIERS SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
   b. SILT BARRIERS HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT BARRIERS SHOULD BE REPLACED PERIODICALLY TO MAINTAIN EFFECTIVENESS.
   c. REMOVE SEDIMENT WHEN IT REACHES ONE–THIRD (1/3) THE HEIGHT OF THE SILT BARRIER.
   d. REPLACE THE SILT BARRIERS WHERE THEY ARE TORN, WORN, OR OTHERWISED DAMAGED AND MONITOR PERFORMANCE TO ENSURE EFFECTIVE PERFORMANCE.
   e. RETRENCH OR REPLACE ANY SILT BARRIER THAT IS NOT PROPERLY ANCHORED TO THE GROUND.
   f. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
   g. SILT BARRIERS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SILT BARRIERS SHOULD BE REPLACED WITH A TEMPORARY CHECK DAM.

B. MULCHING

1. TIMING
   a. APPLY MULCH PRIOR TO ANY STORM EVENT. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
   b. IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS OF INACTIVITY ON A AREA. THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGEMENT 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.
   c. WITHIN 100 FEET OF RIVERS, STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS; THE TIME PERIOD OF WHICH MULCHING SHOULD TAKE OCCUR SHOULD BE NO GREATER THAN SEVEN (7) DAYS. THIS SEVEN DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
2. APPLICATION RATE
   a. MULCH SHALL BE APPLIED AT A RATE OF BETWEEN 1.5 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS PER 1000 SQUARE FEET.
   b. GUIDELINES FOR WINTER MULCH APPLICATION. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 150–200 POUNDS OF HAY OR STRAW PER ACRE WITH ABOUT 4 INCHES IN DEPTH. A TACKIFIER MAY BE ADDED TO THE MULCH.
3. MAINTENANCE
   a. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS. CHECK FOR SIGNS OF EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.
   b. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE AND SHOULD BE REPAIRED AS NECCESSARY.
   c. INSPECTIONS SHOULD TAKE PLACE UNTIL THE SITE IS ESTABLISHED.
   d. EROSION CONTROL MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.

C. TEMPORARY SEEDING

1. SEEDBED PREPARATION
   a. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
   b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
   c. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS.
      i) APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER OR EQUIVALENT.
      ii) APPLY LIMESTONE AT A RATE OF 3 TONS PER ACRE OR 138 POUNDS PER 1,000 SQUARE FEET.
2. SEEDING
   a. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SUMMARY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   b. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
   c. TEMPORARY SEEDING BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
   d. VEGETATED GROWTH COVERING 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH.
3. MAINTENANCE
   a. TEMPORARY SEEDING SHALL BE INSPECTED PERIODICALLY. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER FABRICS, CHECK DAMS, ETC.).

D. PERMANENT SEEDING

1. BEDDING – STONES LARGER THAN 2 INCHES, TRASH, ROOTS, AND OTHER DEBRIS INTERFERRING WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF 4" TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL.
2. FERTILIZER
   a. LIME AND FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 4 INCHES USING A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT PRIOR TO OR AT THE SAME TIME OF SEEDING.
   b. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITORGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER.
   c. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
      AGRICULTURAL LIMESTONE @ 138 LBS. PER 1,000 S.F.
      LOW PHOSPHATE (N–P205–K20) FERTILIZER @ 13.8 LBS. PER 1,000 S.F.
3. SEED MIXTURE (RECOMMENDED)
   RATE:

TYPE	LBS. PER ACRE	LBS. PER 1,000 S.F.
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10

4. SEEDING
   a. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST.
   b. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   c. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.
5. HYDROSEEDING
   a. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF STRAW MULCH ON CRITICAL AREAS IS PREFERRED SINCE IT GRANTS BETTER SLOPE PROTECTION BY USING ADHESIVE MATERIALS.
   b. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
   c. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
6. MAINTENANCE
   a. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
   b. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.
   c. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABALIZATION OF EXPOSED SOILS.
   d. IF EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS RESEEDED. WITH OTHER TEMPORARY MEASURES USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.
   e. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.

E. STORM DRAIN INLET PROTECTION

1. SPECIFICATIONS
   a. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE BARRIER SHOULD BE LESS THAN ONE ACRE.
   b. ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
2. INSTALLATION
   a. INSTALL INLET PROTECTION AS SOON AS STORM DRAIN INLETS ARE INSTALLED AND BEFORE LAND–DISTURBANCE ACTIVITIES BEGIN IN AREAS WITH EXISTING STORM DRAIN SYSTEMS.
   b. PROTECT ALL INLETS THAT COULD RECEIVE STORMWATER FROM YOUR CONSTRUCTION PROJECT.
   c. USE IN CONJUNCTION WITH OTHER EROSION PREVENTION AND SEDIMENT CONTROL BMPS.
   d. DESIGN YOUR INLET PROTECTION TO HANDLE THE VOLUME OF WATER FROM THE AREA BEING DRAINED. ENSURE THAT THE DESIGN IS SIZED APPROPRIATELY.
3. MAINTENANCE
   a. INSPECT INLETS BARRIERS FREQUENTLY, BEFORE AND AFTER EACH RAINFALL EVENT AND REPAIR WHEN NECESSARY.
   b. SEDIMENT SHOULD BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE BARRIER.
   c. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   d. SWEEP STREETS, SIDEWALKS, AND OTHER PAVED AREAS REGULARLY.
   e. ALL CATCH BASINS AND STORM DRAIN INLETS MUST BE CLEANED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES THE SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.

WASTE DISPOSAL

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

MAINTENACE OF STORMWATER MANAGEMENT FACILITIES

THE PROJECT PROPONENT IS RESPONSIBLE FOR THE MAINTENANCE OF ALL STORMWATER FACILITIES DURING CONSTRUCTION AND THE PROPERTY OWNER IS RESPONSIBLE AFTER CONSTRUCTION IS COMPLETE.

CATCH BASINS & STORMWATER TREATMENT STRUCTURES

1. CATCH BASINS & STORMWATER TREATMENT STRUCTURES SHOULD BE INSPECTED ON A MONTHLY BASIS AND/OR AFTER A MAJOR RAINFALL EVENT TO ASSURE THAT DEBRIS OR SEDIMENTS DO NOT REDUCE THE EFFECTIVENESS OF THE SYSTEM.

SPILL PREVENTION

A. MATERIAL MANAGEMENT PRACTICES
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL SANITARY EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
GOOD HOUSEKEEPING:
THE FOLLOWING GOOD HOUSEKEEPING PRACTICES THAT WILL BE FOLLOWED ON SITE DURING
1. THE CONSTRUCTION PROJECT:
   a. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
   b. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   d. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
   e. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   f. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
2. HAZARDOUS PRODUCTS:
   a. THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
   b. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE
   c. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
   d. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

B. PRODUCT SPECIFICATION PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:
1. PETROLEUM PRODUCTS:
   a. ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENACE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. FERTILIZERS:
   a. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
3. PAINTS:
   a. ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
4. CONCRETE TRUCKS:
   a. CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA ON SITE.

C. SPILL CONTROL PRACTICES
IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
   b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
   c. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   d. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
   e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OF LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
   f. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT OCCURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
   g. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY–TO–DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

THE PROJECT PROPONENT IS REQUIRED TO MANAGE CONSTRUCTION TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO CONTROLLING INVASIVE SPECIES AND CONTROLLING FUGITIVE DUST IN ACCORDANCE WITH ENV–A 1002.

AGR 3800 PROHIBITED INVASIVE PLANT SPECIES RULES

THE RULE, AGR 3800, STATES: 'NO PERSON SHALL COLLECT, TRANSPORT, IMPORT, EXPORT, MOVE, BUY SELL, DISTRIBUTE, PROPAGATE OR TRANSPLANT ANY LIVING AND VIABLE PORTION OF ANY PLANT SPECIES, WHICH INCLUDED ALL OF THEIR CULTIVARS AND VARIETIES, LISTED IN TABLE 3800.1, NEW HAMPSHIRE PROHIBITED INVASIVE SPECIES LIST'. A COMPLETE COPY OF THE RULES CAN BE ACCESSED ON THE INTERNET AT HTTP://AGRICULTURE.NH.GOV/TOPICS/PLANTS_INSECTS.HTM.

ENV–A 1002 FUGITIVE DUST; PRECAUTIONS TO PREVENT, ABATE, AND CONTROL FUGITIVE DUST.

a. ANY PERSON ENGAGED IN ANY ACTIVITY WITHIN THE STATE EMITS FUGITIVE DUST, OTHER THAT THOSE LISTED IN ENV–A 1002.02 (b), SHALL TAKE PRECAUTIONS THROUGHOUT THE DURATION OF THE ACTIVITY IN ORDER TO PREVENT, ABATE, AND CONTROL THE EMISSION OF FUGITIVE DUST.
b. PRECAUTIONS REQUIRED BY (a) ABOVE, SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
   i) THE USE OF WATER OR HYDROPHILIC MATERIAL ON OPERATIONS OR SURFACES, OR BOTH;
   ii) THE APPLICATION OF ASPHALT, WATER, OR HYDROPHILIC MATERIAL, OR TARPS OR OTHER SUCH COVERS TO MATERIAL STOCKPILES;
   iii) THE USE OF HOODS, FANS, FABRIC FILTERS, OR OTHER DEVICES TO ENCLOSE AND VENT AREAS WHERE MATERIALS PRONE TO PRODUCING FUGITIVE DUST ARE HANDLED;
   iv) THE USE OF CONTAINMENT METHODS FOR SANDBLASTING OR SIMILAR OPERATIONS; AND
   v) THE USE OF VACUUMS OR OTHER SUCTION DEVICES TO COLLECT AIRBORNE PARTICULATE MATTER.

PER 153–10 F:

ALL SITE IMPROVEMENTS WHICH REQUIRE BLASTING OF LAND SHALL MEET THE FOLLOWNG REQUIRMENTS PRIOR TO ANY BLASTING OCCURING.

1. THE APPLICANT SHALL PREPARE A PRE–BLAST SURVEY OF ALL STRUCTURES WITHIN FIVE HUNDRED (500) FEET OF THE EXTERNAL BOUNDARIES OF THE PROPOSED LOT TO BE DEVELOPED. THIS SURVEY, ALONG WITH A MONITORING PLAN, SHALL BE ON FILE WITH THE DOVER FIRE AND RESCUE. UPON RECOMMENDATIONS OF THE CHIEF, THE PLANNING BOARD MAY REQUIRE A PRE–BLAST SURVEY OF ALL STRUCTURES WITHIN ONE THOUSAND (1000) FEET.
2. THE APPLICANT SHALL HOLD A NEIGHBORHOOD MEETING TO REVIEW THE BLASTING PLAN AND PRE–BLAST SURVEY WITH REPRESENTATIVES OF THE FIRE AND RESCUE AND THE BLASTING COMPANY IN ATTENDANCE, PRIOR TO ANY ON–SITE BLASTING. ABUTTERS WITHIN ONE THOUSAND (1000) FEET OF THE EXTERNAL BOUNDARY OF THE PROJECT PARCEL SHALL BE NOTIFIED BY THE CERTIFIED MAIL (PAID FOR BY THE APPLICANT) OF THE MEETING NO LESS THAN TEN (10) DAYS PRIOR TO THE MEETING AND NO MORE THAN FIFTEEN (15) DAYS PRIOR TO THE MEETING. THE NOTICE SHALL STATE THE TIME AND DATE OF THE BLASTING AND CONTAIN A MAP SHOWING THE BLASTING AREA, THE 1,000–FOOT–RADIUS AREA, AND THE 500–FOOT–RADIUS AREA.
3. PERMIT HOLDERS SHALL BE IN COMPLIANCE WITH NFPA 495, EXPLOSIVE MATERIALS CODE, IN ADDITION TO ALL OTHER ORDINANCES AND CODES SET FORTH IN THE CITY OF DOVER CODE, § 153–14A, STORMWATER MANAGEMENT, EROSION CONTROL AND FLOOD HAZARDS, OF THIS CHAPTER AND THE CITY OF DOVER FIRE PREVENTION CODE, WHICH SPECIFICALLY PROHIBITS THE OVERNIGHT STORAGE OF EXPLOSIVES OR BLASTING AGENTS. FURTHER, ALL STORAGE MAGAZINES SHALL BE LOCKED IN THE OPEN POSITION AT THE END OF THE DAY'S OPERATION FOR EASY INSPECTION BY CITY OFFICIALS.
4. BLASTING PERMITS MAY BE OBTAINED BY CALLING THE DOVER FIRE AND RESCUE DURING NORMAL BUSINESS HOURS. THE PERMITS ARE ONLY ACTIVE FOR THE DATES AND TIME SPECIFIED ON THE PERMIT.
5. PERMIT HOLDERS SHALL HOLD INSURANCE AGAINST CLAIMS FOR DAMAGES FOR PERSONAL INJURY AND PROPERTY WHICH MAY ARISE FROM THE PERFORMANCE OF THE WORK.
6. HOURS OF OPERATION FOR THE BLASTING SHALL BE NO EARLIER THAN 8:00AM AND NO LATER THAN 6:00PM, MONDAY THROUGH FRIDAY, EXCLUDING FEDERAL HOLIDAYS.

WINTER CONSTRUCTION NOTES

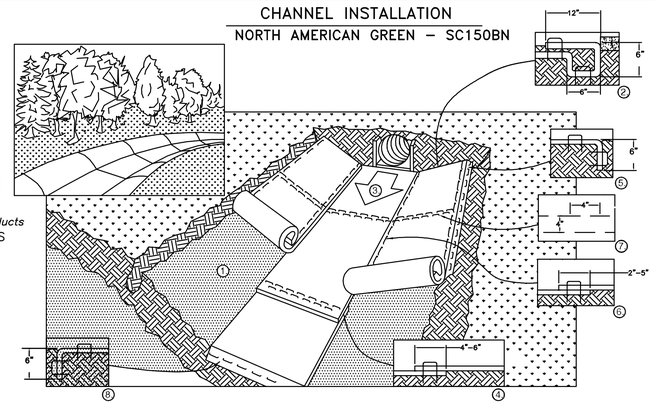
1. ALL PROPOSED POST–DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT.
2. ALL DITCHES & SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS.
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD AND PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3–INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

ENV–WQ 1510: BEST MANAGEMENT PRACTICES FOR BLASTING

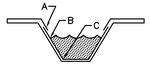
1) ALL ACTIVITIES ASSOCIATED WITH BLASTING NEED TO BE OPTIMIZED TO PREVENT THE RELEASE OF CHEMICALS ASSOCIATED WITH BLASTING ACTIVITIES TO THE ENVIRONMENT.
2) IF MORE THAN 5,000 CY OF ROCK REMOVAL IS REQUIRED DRINKING WATER WELLS MUST BE IDENTIFIED AND LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.
3) THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:
   (1) LOADING PRACTICES. THE FOLLOWING BLASTHOLE 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 VOID

CHANNEL INSTALLATION
NORTH AMERICAN GREEN – SC150BN

NORTH AMERICAN GREEN
EROSION CONTROL *Products Guaranteed* SOLUTIONS



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's 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 RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



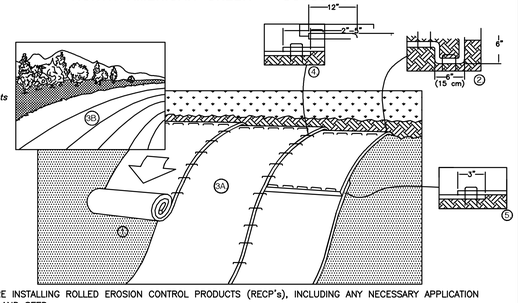
CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

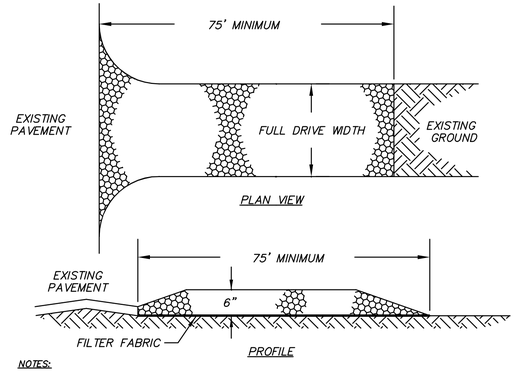
SLOPE INSTALLATION
NORTH AMERICAN GREEN – SC150BN

NORTH AMERICAN GREEN
EROSION CONTROL *Products Guaranteed* SOLUTIONS



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM® , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

NOTE: THE USE OF WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD IN EROSION CONTROL MATTING IS PROHIBITED. THE USE OF WILDLIFE FRIENDLY ORGANIC MATERIALS IS RECOMMENDED.



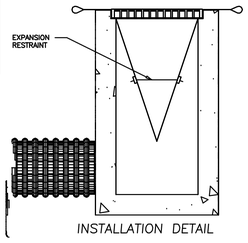
NOTES:
1. *SEE EROSION CONTROL NOTES BELOW FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.*
2. *TO BE INSTALLED AT EACH POINT OF EGRESS FROM THE WORK AREA.*

STABILIZED CONSTRUCTION ENTRANCE

1. SPECIFICATIONS
   A. AGGREGATE SIZE: USE THREE (3) INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
   B. AGGREGATE THICKNESS: NOT LESS THAN SIX (6) INCHES.
   C. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS.
   D. LENGTH: AS REQUIRED, BUT NOT LESS THAN SEVENTY–FIVE (75) FEET. PIPING OF SURFACE WATER UNDER ENTRANCE SHALL BE PROVIDED AS REQUIRED.
   E. GEOTEXTILE: TO BE PLACED OVER THE ENTIRE AREA TO BE COVERED WITH AGGREGATE.
   F. CRITERIA FOR GEOTEXTILE: THE FABRICS SHALL BE TREVIA SPUNBOND 1135, MIRAFI 600X OR EQUAL.

2. MAINTENANCE
   THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



INSTALLATION DETAIL

SILTSACK®
SPECIFICATIONS

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS. AS SUPPLIED BY AH HARRIS OF PORTSMOUTH OR APPROVED EQUAL

REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN–OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D–4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D–4632	20 %
PUNCTURE	ASTM D–4833	120 LBS
MULLEN BURST	ASTM D–3786	800 PSI
TRAPEZOID TEAR	ASTM D–4533	120 LBS
UV RESISTANCE	ASTM D–4355	90 %
APPARENT OPENING SIZE	ASTM D–4751	40 US SIEVE
FLOW RATE	ASTM D–4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D–4491	0.55 SEC –1

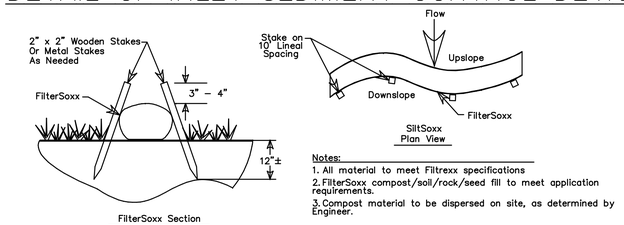
HI–FLOW SILTSACK®
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN–OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D–4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D–4632	20 %
PUNCTURE	ASTM D–4833	135 LBS
MULLEN BURST	ASTM D–3786	420 PSI
TRAPEZOID TEAR	ASTM D–4533	45 LBS
UV RESISTANCE	ASTM D–4355	90 %
APPARENT OPENING SIZE	ASTM D–4751	20 US SIEVE
FLOW RATE	ASTM D–4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D–4491	1.5 SEC –1

OIL–ABSORBANT SILTSACK®

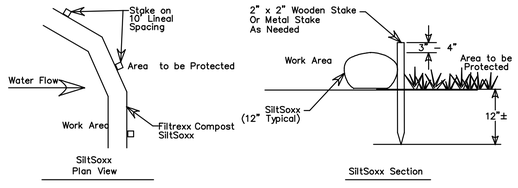
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN–OFF OR SPILLS)
DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK® CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL–ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL–ABSORBANT SILTSACK®, WITH A WOVEN PILLOW INSERT.

DETAIL OF INLET SEDIMENT CONTROL DEVICE



Notes:
1. All material to meet Filtrexx specifications
2. FilterSoxx compost/soil/rock/seed fill to meet application requirements.
3. Compost material to be dispersed on site, as determined by Engineer.

FilterSoxx Staking Details



Notes:
1. All material to meet Filtrexx specifications
2. SiltSoxx compost/soil/rock/seed fill to meet application requirements.
3. SiltSoxx depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.

SILTSOXX DETAILS
NOT TO SCALE

SEEKING REPORTS OF RARE TURTLES

The NH Fish & Game Department is collecting observations of four turtle species:



Blanding's turtle (state endangered)
- Large, dark/black domed shell with lighter speckles
- Distinct yellow throat/chin
- Aquatic but often moves on land



Wood turtle (special concern)
- Sculpted, pyramidal brownish shell
- Orange around neck and limbs
- River/stream turtle spending many months on land



Eastern box turtle (state endangered)
- Small terrestrial turtle with highly domed shell
- Irregular yellow or orange markings over brown/black base



Spotted turtle (state threatened)
- Small, mostly aquatic with black or dark brown with yellow spots.
- Fairly flat shell compared to Blanding's turtle

Report sightings to RAARP@wildlife.nh.gov or 603-271-2461 *Please report promptly, noting specific location and date – Photographs strongly encouraged*

NOTES:
1. *ALL OUTSIDE CONSTRUCTION PERSONNEL SHALL RECEIVE TRAINING IN THE IDENTIFICATION OF RARE TURTLE SPECIES AND MADE AWARE OF THEIR PROTECTED STATUS.*
2. *THE USE OF WELDED PLASTIC OR 'BIODEGRADABLE PLASTIC' NETTING OR THREAD IN EROSION CONTROL MATTING IS PROHIBITED*
3. *THE USE OF EROSION CONTROL BERM, WHITE FILTREXX DEGRADABLE WOVEN SILT SOCK, OR 'WILDLIFE FRIENDLY' WOVEN ORGANIC MATERIAL (E.G. COCO OR JUTE MATTING SUCH AS NORTH AMERICAN GREEN SC150BN OR EQUIVALENT) ARE ACCEPTABLE FOR USE*
4. *IF WOOD, SPOTTED, OR BLANDING'S TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, PLEASE CONTACT MELISSA DOPERALSKI AT 271–1738 or JOSH MEGYESY AT 271–1125 FOR FURTHER INSTRUCTIONS.*

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22–47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9–1–22
1	REV. PER TRC COMMENTS	SJH	7–28–22

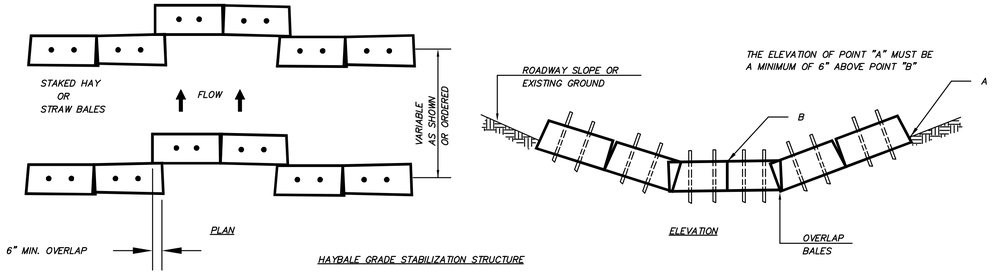
DATE: 6–16–22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY: SJH
PROJECT NO: 21094
FILE: SITE.DWG

DETAIL SHEET

PROJECT: *WEAVE FILTRATION QUALITY WAY DOVER, NH*

APPLICANT: *WEAVE FILTRATION LLC 100 TRI CITY ROAD UNIT 117 SOMERSWORTH, NH 03878*

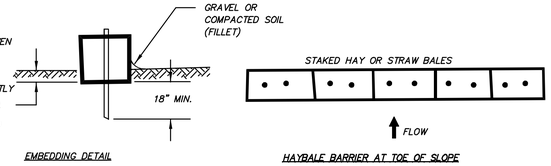
10



HAYBALE GRADE STABILIZATION STRUCTURE

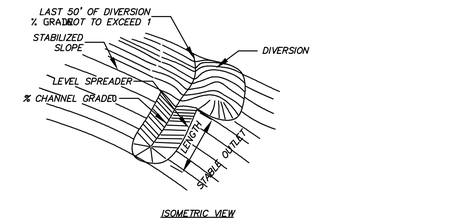
CONSTRUCTION SPECIFICATIONS

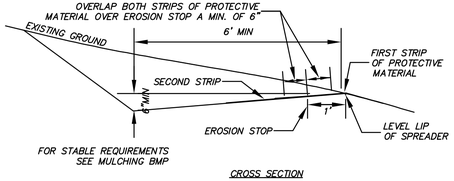
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY 2" x 2" STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. REMOVE AND PROPERLY DISPOSE OF ALL SEDIMENT PRIOR TO REMOVING HAYBALES.



HAYBALE NOTES AND DETAILS

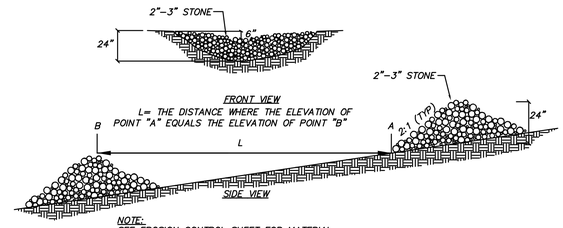
NOT TO SCALE





LEVEL SPREADER DETAIL

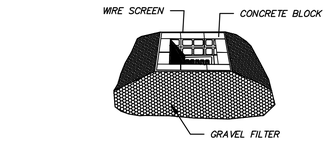
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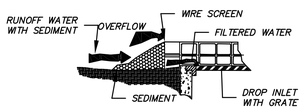


NOTE:
SEE EROSION CONTROL SHEET FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.

STONE CHECK DAM

NOT TO SCALE

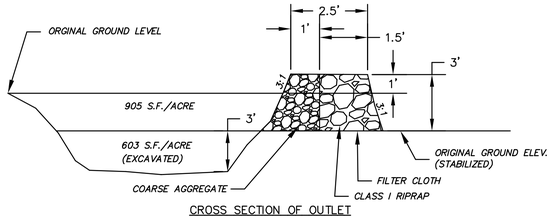




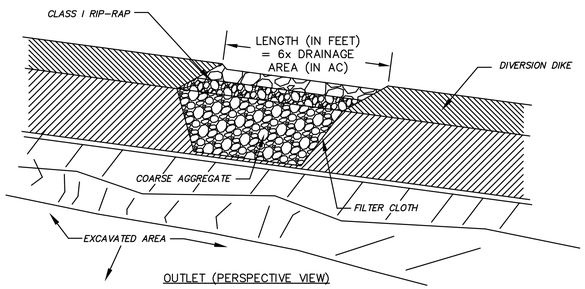
NORMAL USE AROUND CATCH BASINS

TEMPORARY EROSION CONTROL

NOT TO SCALE



CROSS SECTION OF OUTLET

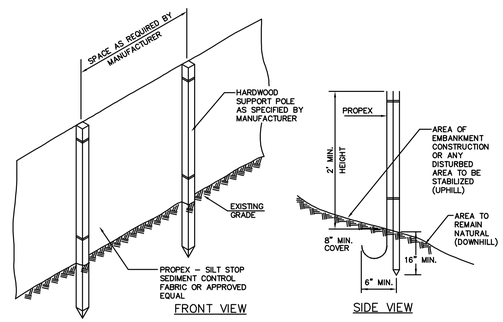


OUTLET (PERSPECTIVE VIEW)

NOTES:
1. COARSE AGGREGATE SHALL MEET NHDOT 304.5 SPECIFICATIONS AND SHALL NOT CONTAIN MORE THAN 5% FINES PASSING THE #200 SIEVE.
2. FILTER CLOTH SHALL BE MIRAFI 700X OR APPROVED EQUAL.
3. CLASS I RIPRAP SHALL MEET NHDOT 583 SS SPECIFICATIONS.
4. THE MAXIMUM CONTRIBUTING AREA TO THE TRAP SHALL BE LESS THAN 5 AC.
5. THE TRAP SHALL BE CLEANED WHEN 50% OF THE ORIGINAL VOLUME IS FILLED.
6. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.

TEMPORARY SEDIMENT TRAP

NOT TO SCALE



SILT FENCE DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
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1	REV. PER TRC COMMENTS	SJH	7-28-22

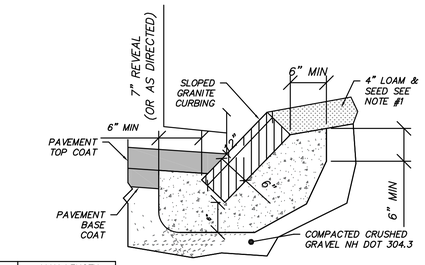
DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

DETAIL SHEET

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

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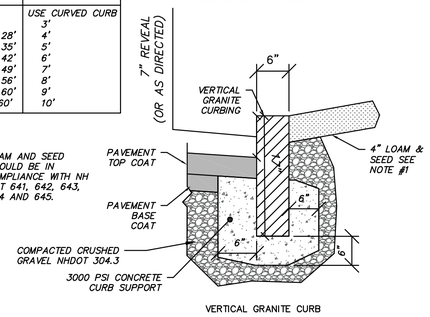


SLOPED GRANITE CURB

RADIUS	MAX LENGTH
< 21'	USE CURVED CURB
12'	3'
22' – 28'	4'
29' – 35'	5'
36' – 42'	6'
43' – 49'	7'
50' – 56'	8'
57' – 60'	9'
OVER 60'	10'

NOTES:

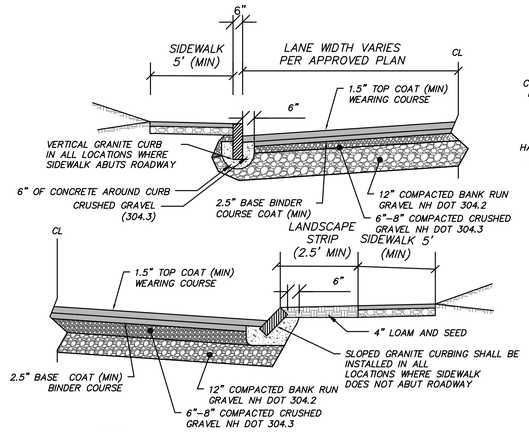
1. LOAM AND SEED SHOULD BE IN COMPLIANCE WITH NH DOT 641, 642, 643, 644 AND 645.



VERTICAL GRANITE CURB

CITY OF DOVER D–8 GRANITE CURB DETAIL

NOT TO SCALE

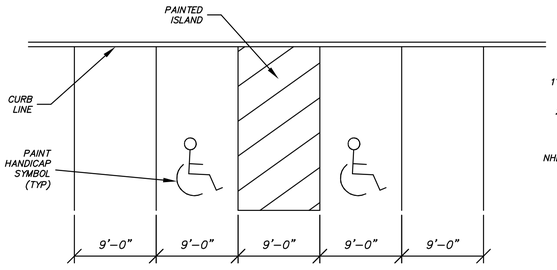


NOTES:

1. THIS DETAIL IS FOR GENERAL REVIEW PURPOSES ONLY, FINAL DESIGN SHALL BE BASED ON SPECIFIC SITE CONDITIONS AND APPROVED PLANS.
2. SIDEWALK LOCATION AND MATERIAL SHALL BE AS APPROVED BY THE CITY OF DOVER.

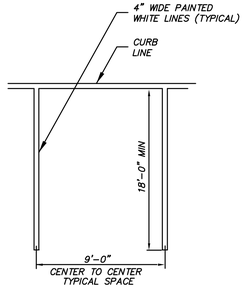
CITY OF DOVER D–5 ROADWAY CROSS SECTION DETAIL

NOT TO SCALE

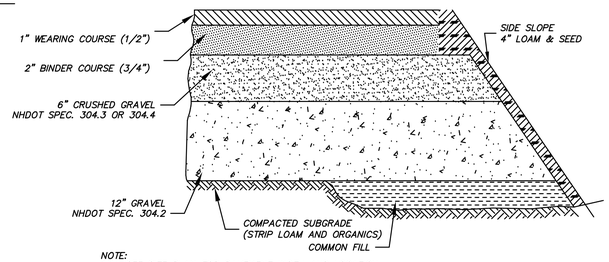


ACCESSIBLE PARKING LAYOUT

NOT TO SCALE



STANDARD PARKING STALL

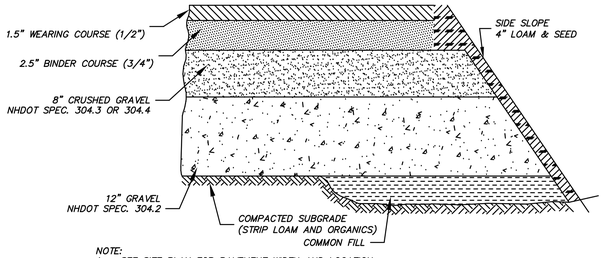


NOTE:

1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS–SLOPE.
3. GEOTEXTILE FABRIC MAYBE REQUIRED UNDER THE ROADWAY AND /OR THE PARKING AREAS AS REQUIRED BY THE ENGINEER BASED UPON SITE CONDITIONS.

TYPICAL PAVEMENT SECTION

NOT TO SCALE



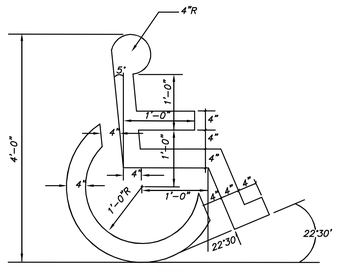
NOTE:

1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS–SLOPE.
3. GEOTEXTILE FABRIC MAYBE REQUIRED UNDER THE ROADWAY AND /OR THE PARKING AREAS AS REQUIRED BY THE ENGINEER BASED UPON SITE CONDITIONS.

HEAVY DUTY TYPICAL PAVEMENT SECTION

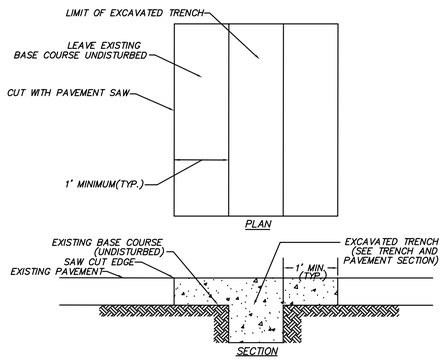
NOT TO SCALE

NOTE: SYMBOL TO BE PAINTED IN ALL HANDICAPPED SPACES



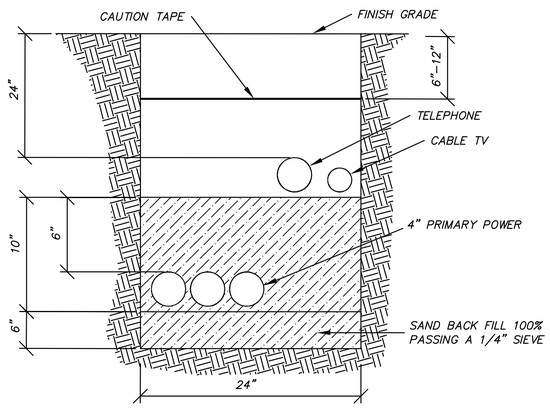
PAINTED HANDICAP SYMBOL

NOT TO SCALE



TRENCH PATCH

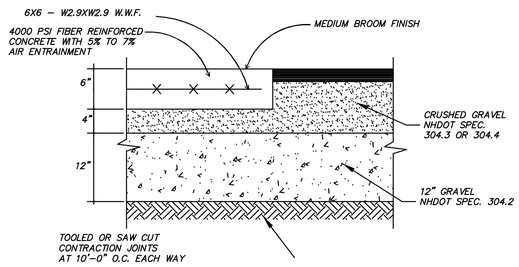
NOT TO SCALE



1. TELEPHONE CONDUIT SHALL BE 3" SCHEDULE 40 PVC, WITH STEEL SWEEPS AT RISER POLE, 90° BENDS AND AT BUILDING.
2. LEAVE PULL ROPE IN ALL CONDUITS FOR CABLE INSTALLATION.
3. FOR COMPLETE SPECIFICATIONS SEE "PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE CONSTRUCTION SPECIFICATIONS FOR UNDERGROUND CONDUIT SYSTEMS".
4. CONTRACTOR SHOULD VERIFY THE NUMBER & SIZE OF CONDUIT WITH THE APPROPRIATE UTILITIES.

UTILITY TRENCH

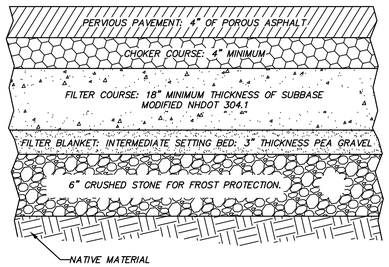
NOT TO SCALE



NOTE: PITCH CONCRETE PAD GRADING TO CENTER

DUMPSTER DETAIL

NOT TO SCALE



(UNHSC DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS)

NOTE:

1. SEE SITE PLAN FOR LOCATION OF POROUS PAVEMENT, PAVEMENT WIDTH AND LOCATION.
2. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON THE POROUS PAVEMENT OR BASE MATERIALS.
3. A PROFESSIONAL ENGINEER SHALL PERFORM ON–SITE INSPECTIONS DURING THE CONSTRUCTION AND INSTALLATION OF POROUS PAVEMENT AND PROVIDE A STATEMENT UPON COMPLETION OF WORK IDENTIFYING THAT THE PAVEMENT WAS PRODUCED AND INSTALLED AS PER THE REFERENCED SPECIFICATION. NOTIFY THE CITY ENGINEER OF THE INSTALLATION SCHEDULE AND IN ADVANCED OF INSTALLATION.
4. CRUSHED STONE, BANK RUN GRAVEL & CRUSHED GRAVEL MATERIALS SHALL CONFORM WITH NHDOT STD. SPECIFICATIONS.
5. THE POROUS PAVEMENT AREAS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS IN "UNHSC DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS, FEBRUARY 2014, REVISED SEPTEMBER 2016" (OR LATEST EDITION), PUBLISHED BY UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER.
6. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS–SLOPE.
7. QUALITY CONTROL AND QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.
8. POROUS ASPHALT SHALL BE INSTALLED AS THE LAST CONSTRUCTION ACTIVITY ONCE THE GRADING ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS BEEN STABILIZED.

(SEE SITE PLAN FOR LOCATION)

POROUS PAVEMENT SECTION

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22–47

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CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
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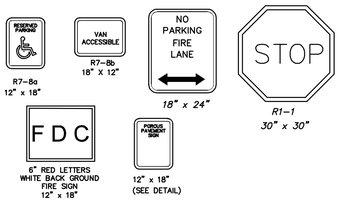
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100 TRI CITY ROAD
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SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

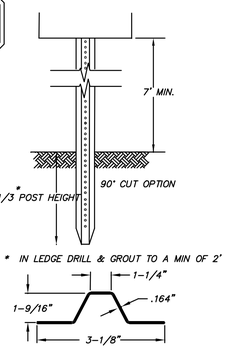
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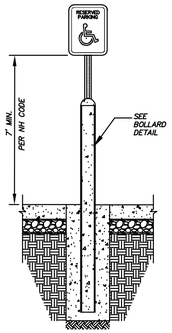
NOTE:
1. ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

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)
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN

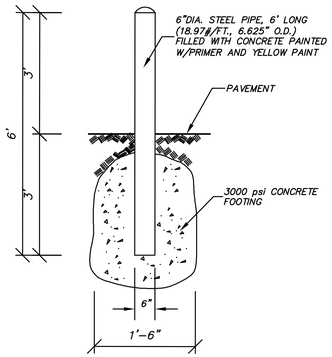
BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY.
ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.



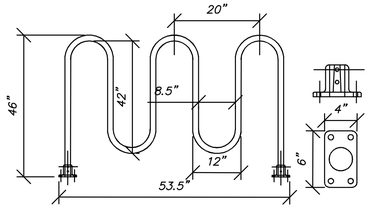
SIGN LEGEND & SIGN POST
NOT TO SCALE



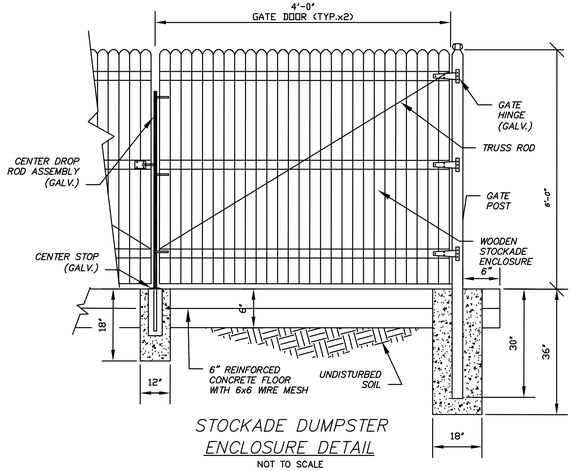
SIGN IN BOLLARD
NOT TO SCALE



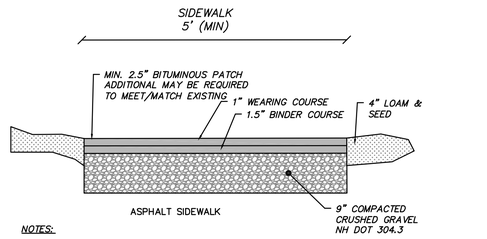
BOLLARD DETAIL
NOT TO SCALE



BIKE RACK DETAIL
NOT TO SCALE

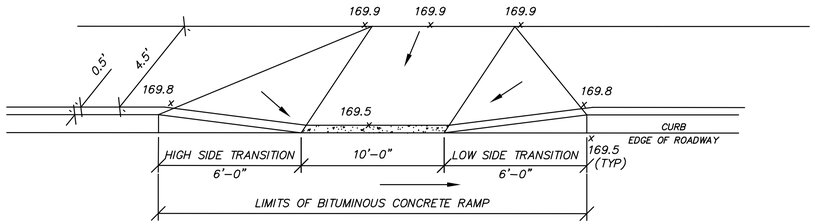


STOCKADE DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE

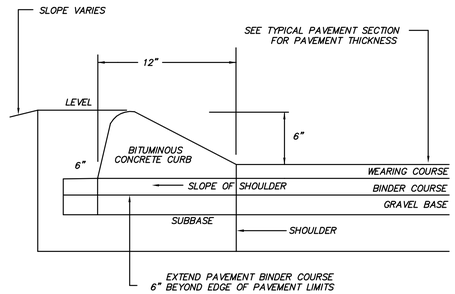


NOTES:
1. MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF DOVER STANDARDS SPECIFICATIONS.
2. SIDEWALK AND DRIVEWAY WIDTHS SHALL BE EQUAL TO EXISTING WIDTHS OR AS APPROVED AND SHALL SLOPE TO MATCH EXISTING ELEVATIONS.
3. BASE FOR THE SIDEWALKS AND DRIVEWAYS SHALL BE 9-INCHES OF CRUSHED GRAVEL.

CITY OF DOVER D-6 ASPHALT SIDEWALK DETAIL
NOT TO SCALE



SIDEWALK APRON
NOT TO SCALE



BITUMINOUS SLOPED CURB
NOT TO SCALE

POROUS PAVEMENT

THIS AREA IS AN INTEGRAL COMPONENT OF THE DRAINAGE SYSTEM FOR THIS SITE. SEE SITE INSPECTION & MAINTENANCE PLAN FOR ALL APPLICABLE WINTER AND REGULAR MAINTENANCE GUIDELINES.

WINTER MAINTENANCE GUIDELINES
- SAND APPLICATION IS PROHIBITED
- APPLY ANTI ICING TREATMENTS PRIOR TO STORMS
- APPLY DEICING TREATMENTS DURING AND AFTER STORMS ONLY AS NECESSARY TO CONTROL COMPACT SNOW OR ICE NOT REMOVED BY PLOWING

MAINTENANCE REQUIRED
- THIS POROUS PAVEMENT AREA SHALL BE CLEANED OF SAND, SALT & DEBRIS AT LEAST 2 TIMES A YEAR (SPRING & FALL) AND/OR AS NEEDED TO KEEP IT IN GOOD WORKING ORDER
- VACUUM SWEEPING IS THE PREFFERED METHOD OF ACCUMULATION REMOVAL
- AT LEAST 2 TIMES A YEAR, WITHIN 30 MINUTES OF A PRECIPITATION EVENT, ENSURE THE PAVEMENT SURFACE DRAINS EFFECTIVELY
- IF THE PAVEMENT SURFACE IS NOT DRAINING PROMPT VACUUM SWEEPING WILL BE REQUIRED

REF: UNH WEBSITE FOR STORMWATE MANAGEMENT "BMP'S" "http://WWW.UNH.EDU/UNHSC/

POROUS PAVEMENT SIGN DETAIL
NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

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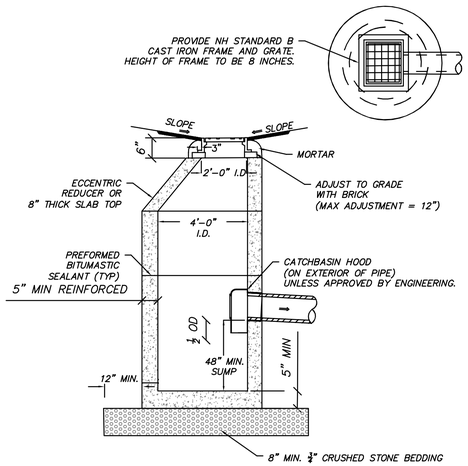
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PROJECT:
WEAVE FILTRATION
QUALITY WAY
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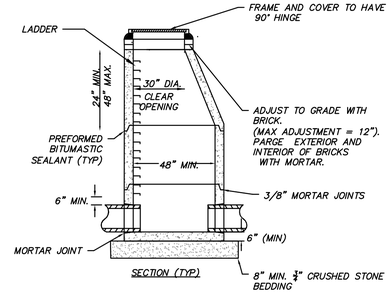


NOTES:

1. ENTIRE STRUCTURE SHALL BE H-20 LOAD RATED. PROVIDE MANUFACTURER REINFORCEMENT DETAILS TO THE CITY ENGINEER UPON REQUEST.

CITY OF DOVER D-19
CATCHBASIN DETAIL

NOT TO SCALE



NOTES:

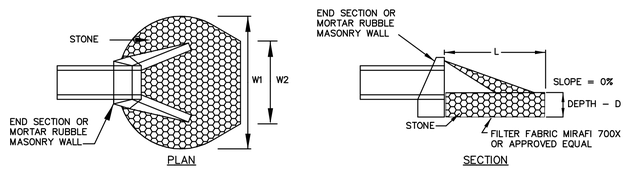
1. CORINGS TO BE SEPARATED BY 6" (MINIMUM) OF MONOLITHIC SECTION

CITY OF DOVER D-20
DRAIN MANHOLE DETAIL

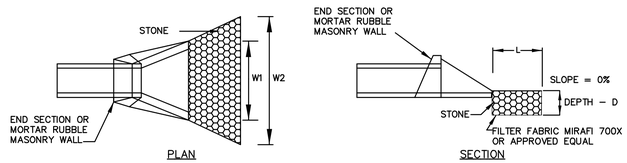
NOT TO SCALE

SPECIFICATIONS

1. All construction shall conform with the State of New Hampshire Department of Transportation (NHDOT), "Standard Specifications for Road and Bridge Construction"; hereinafter referred to as the "Standard Specifications".
2. Storm drains shall be ADS N12 or approved equal, and shall be jointed with neoprene "O" rings.
3. Catch basins and manholes shall be pre-cast reinforced concrete designed by an engineer registered in New Hampshire, and able to withstand loadings of 8 tons (H20 Loading).
4. Manholes shall have cast iron frames and covers with 30" inside diameter openings. A 3-inch (minimum) letter "D" for drain shall be plainly cast into the center of each cover.
5. Catch basins and manholes shall be adjusted to grade with courses of brick. Maximum adjustment to grade shall be 12 inches. Frames shall be set on a full bed of mortar, true to grade and concentric with the masonry. All voids between the top of the structure and the bottom flange of the frame shall be completely filled to make a watertight fit. A ring of mortar at least one inch thick and pitched to shed water away from the frame, shall be placed over and around the outside of the bottom flange. The mortar shall extend to the outer edge of the masonry all around its circumference and shall be finished smooth. No visible leakage will be permitted.
6. Invert channels of sewer manholes shall be formed smoothly to the largest pipe radius. Changes in grade shall be formed smoothly and evenly. The floor of the structure outside the channels shall be sloped towards the channels at approximately 1/2 inch per foot. The floor at the channel shall match the crown of the largest pipe.
7. Trench construction will conform with Section 603.3.1 of the Standard Specifications (1974).
8. Wood sheeting or a suitable trench box shall be used to support the trench as necessary. If wood sheeting is used, it shall be driven at a distance of 1 foot from the outside diameter of the pipe to a depth 6 inches below the invert of the pipe. Wood sheeting shall be cut off and left in place to an elevation not less than 1 foot above the top of the pipe, but not greater than 3 feet below the finished grade.
9. Bedding shall conform with Section 603.3.2 of the Standard Specifications (1974).
10. Backfill material will conform with Section 603.3.5 of the Standard Specifications (1974) and, in addition, shall exclude debris, pieces of pavement, organic matter, top soil, all wet or soft muck, peat or clay, all excavated ledge material, frozen material, all rocks over 6 inches in largest dimension, or any material which, as determined by the Engineer, will not provide sufficient support or maintain the completed construction in a stable condition. Backfill shall not be placed on frozen or previously frozen material.
11. All backfill and bedding compaction shall meet the requirements of AASHO T 99 Method C. Density shall be 95 percent. Compaction shall be 6 inch lifts for bedding and backfill to a plane 1 foot above the pipe and in 12 inch lifts thereafter by an approved mechanical compactor.
12. Should frozen material be encountered, it shall not be placed in the backfill nor shall backfill be placed upon frozen material. Previously frozen material shall be removed as required before new backfill is placed.
13. The Contractor shall be responsible for any damage to frames and grates during and from the time of removal from the existing structure to and during the time of resetting, and shall replace in kind any damaged frames or grates at no additional compensation.
14. All trenches will be covered and debris, including any rejected materials, shall be removed daily. Strict safety precautions shall be maintained at all times.
15. Location of utilities shown on the plans are approximate.
    a) The Contractor shall, 48 hours prior to construction, notify the utility companies and have all utilities in the vicinity of the construction marked in the field.
    b) After the utilities have been located and prior to construction, the Contractor with the Engineer, shall layout the proposed drainage system in the field and rectify any utility conflicts which may be found.
    c) Any conflicts with utilities found during construction by the Contractor shall be immediately brought to the attention of the Engineer and the Utility Company and properly rectified.
    d) The Contractor is responsible for the cost of repair for any utilities damaged during construction. The Contractor shall contact the Utility Company to repair any damages, however, the Contractor may make appropriate repairs with the Utility Company's permission.
16. Complete shop drawings for pipe, manholes, catch basins, frames, grates and covers shall be submitted in triplicate for approval by the Engineer prior to the start of construction. Each shop drawing shall be checked and initialized by the Contractor to indicate approval before it is submitted to the Engineer.
17. Shop drawings for flat concrete covers shall be stamped prior to submission for approval by a New Hampshire Registered Professional Engineer.
18. Brick masonry for setting frames and brick and mortar plugs shall conform to the Standard Specification Section 604.2.4.



STONE APRON OUTLET PROTECTION DETAIL
OUTLET TO DEFINED CHANNEL



STONE APRON OUTLET PROTECTION DETAIL
OUTLET TO FLAT AREA, NON DEFINED CHANNEL

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.

STONE GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100	1.5 TO 2.0 D50
85	1.3 TO 1.8 D50
50	1.0 TO 1.5 D50
15	0.3 TO 0.5 D50

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. 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.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

OUTLET FROM	W1(ft)	W2(ft)	L(ft)	D (ft)	D50(IN)	CHANNEL TYPE
FES1	12	4	10	1	6	DEFINED
FES3	12	4	10	1	6	DEFINED
FES4	4	14	10	1	6	UNDEFINED
FES5	3	10	16	1	6	UNDEFINED
FES6	11	3	11	1	6	DEFINED

RIP RAP OUTLET PROTECTION

NOT TO SCALE

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PLANNING FILE NO.: P22-47

NO.	REVISION	APP'D	DATE
2.	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1.	REV. PER TRC COMMENTS	SJH	7-28-22

DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

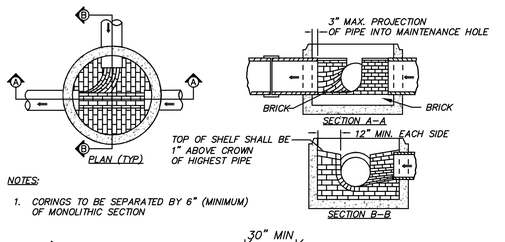
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

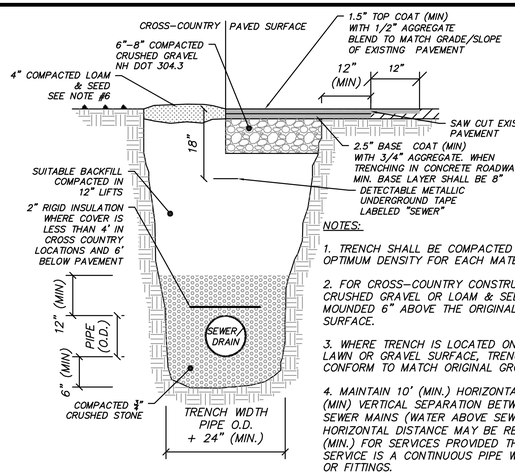
DETAIL SHEET

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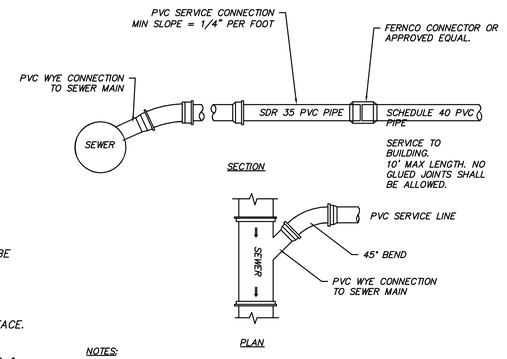
CITY OF DOVER D-16
SEWER MANHOLE DETAIL

NOT TO SCALE



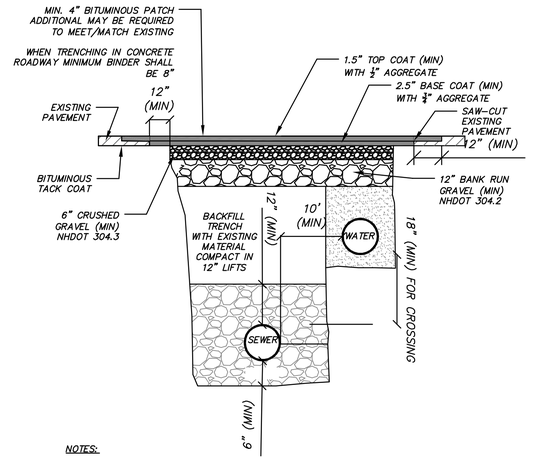
CITY OF DOVER D-3
SEWER TRENCH DETAIL

NOT TO SCALE



CITY OF DOVER D-17
SEWER SERVICE DETAIL

NOT TO SCALE



CITY OF DOVER
TYPICAL TRENCH DETAIL

NOT TO SCALE

TRELLEBORG PIPE SEALS

TRELLEBORG

Kor-N-Seal® I
Stainless Steel Wedge Connector
(WS Series)

Installation Instructions

CONNECTOR INSTALLATION

1. Check to be sure the Stainless Steel Waveband® is properly located in Connector groove.
2. Inspect the inside surface of the cored/formed hole. If there is porosity or wire-to-concrete separation, use patching or hydraulic cement to smooth the surface.
3. Insert Connector Assembly into hole with Wedge Expander at top of hole.
4. Position Connector so it is square to manhole both vertically and horizontally.
5. Tighten Wedge Expander using 1/2" socket wrench to 12 foot pounds.
6. Retorquing prior to shipment is recommended but not required.

Note if Vacuum Testing

Testing should be done prior to backfilling so that leaks can be easily located and repaired.

All lift holes need to be plugged with a nonshrinking mortar.

Plug all pipes entering the manhole, taking care to securely brace the pipes and plugs.

Patented Waveband technology "captures" the rubber between itself and the concrete, creating a more effective seal.



*Covered under US Patent No.: 5,738,359

PIPE INSTALLATION

1. Be sure sealing area of pipe is smooth and free of defects. Repair if needed.
2. Center pipe in Connector opening. (Pipe must not rest on Connector Korband)
3. Position the Pipe Clamp in the Connector's Pipe Clamp groove with the screw at the top.
4. Tighten the Pipe Clamp screw to 60 inch pounds with a T-handle Torque Wrench, P/N 80090

Note:

On minimum pipe O.D. installations, tension the rubber under the pipe clamp by lifting the rubber toward pipe clamp screw housing by hand. This will help prevent the rubber from wrinkling or folding over during tightening of hose clamp. Application of a very small amount pipe lube on the pipe clamp track will allow the pipe clamp to slide on the rubber and improve the performance of the hose clamp. Make sure to torque all screw locations on the pipe clamps.

Caution:

Do not use an impact wrench for installation.

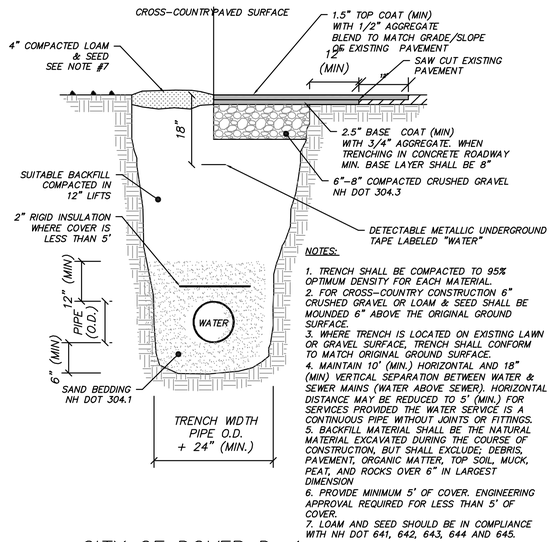
All pipe stubs must be restrained.

Adapters are required when using Corrugated Pipe. Refer to the Corrugated Pipe Adapter Data Sheet for more information.

Check calibration of torque limiters monthly

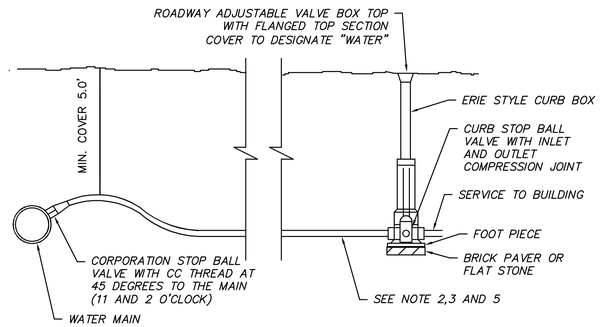
Torque limiters are available for connectors that can be used with cordless drills and hand or air ratchets.

Call 800-626-2180 for information.



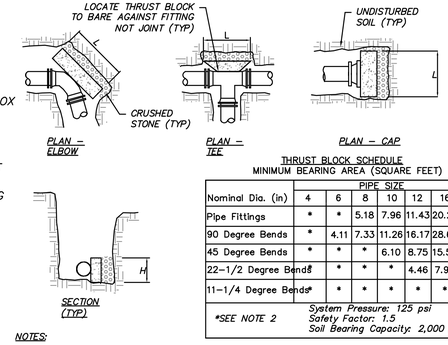
CITY OF DOVER D-4
WATER TRENCH DETAIL

NOT TO SCALE



CITY OF DOVER D-13
WATER SERVICE CONNECTION DETAIL

NOT TO SCALE



	PIPE SIZE					
Nominal Dia. (in)	4	6	8	10	12	16
Pipe Fittings	*	*	5.18	7.96	11.43	20.29
90 Degree Bends	*	4.11	7.33	11.26	16.17	28.69
45 Degree Bends	*	*	*	6.10	8.75	15.53
22-1/2 Degree Bends	*	*	*	*	4.46	7.92
11-1/4 Degree Bends	*	*	*	*	*	*
*SEE NOTE 2	System Pressure: 125 psi Safety Factor: 1.5 Soil Bearing Capacity: 2,000 psf					

CITY OF DOVER D-15
THRUST BLOCK DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

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CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

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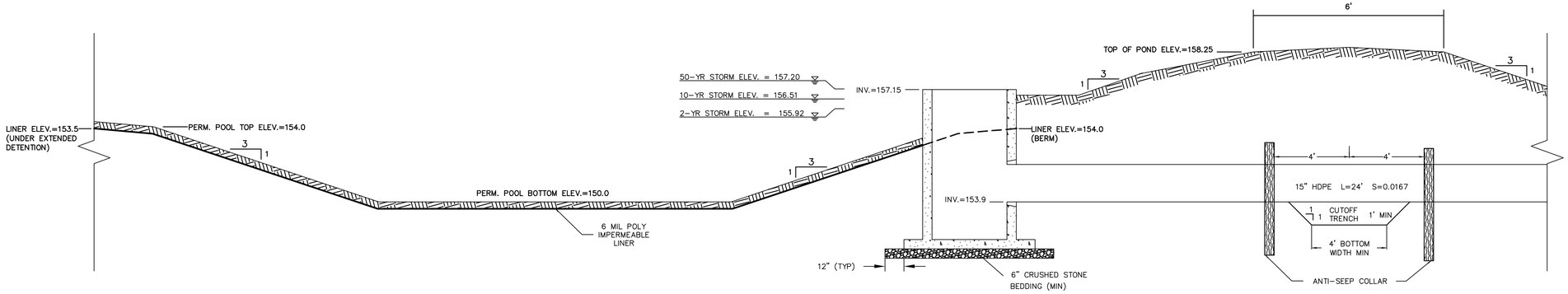
DATE: 6-16-22
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DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

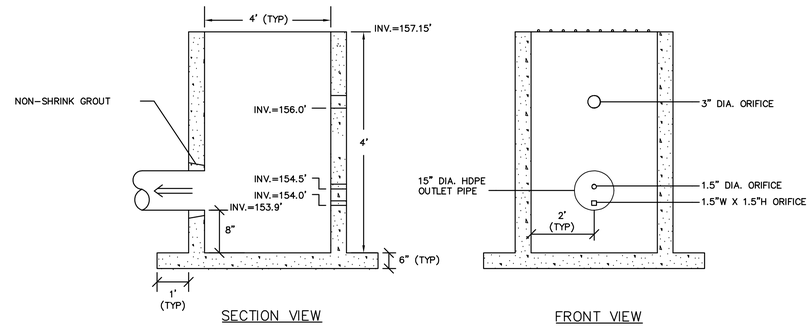
DETAIL SHEET

15



WET POND 1 (WP1)

NOT TO SCALE



SECTION VIEW

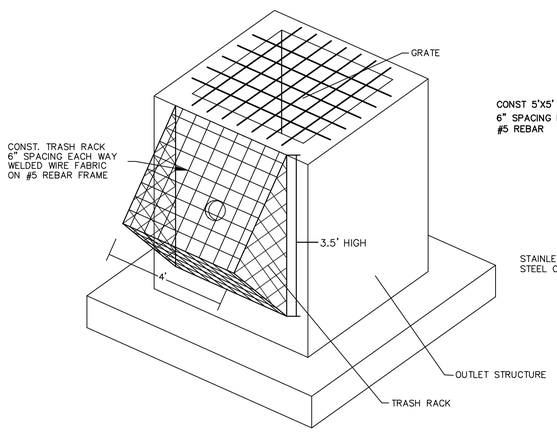
FRONT VIEW

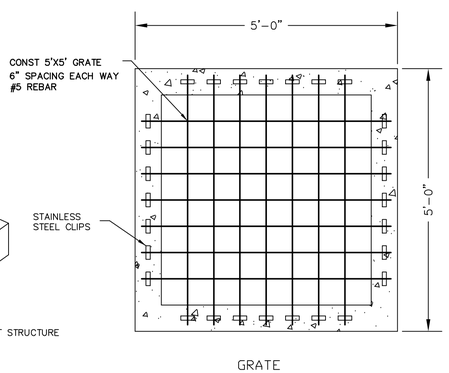
NOTE:

1) ALL OUTLET STRUCTURES SHALL BE PRE CAST WITH A MINIMUM CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EACH STRUCTURE FOR REVIEW BY THE TOWN.
3) SUMPS SHALL NOT BE GREATER THAN 8 INCHES.

OUTLET STRUCTURE WET POND 1 (OS1) DETAIL

NOT TO SCALE





GRATE

TYPICAL INLET TRASH RACKS

NOT TO SCALE

NOTE:

1) OUTLET STRUCTURES SHALL BE PRE CAST WITH A MINIMUM CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EACH STRUCTURE FOR REVIEW BY THE TOWN.

DETENTION POND CONSTRUCTION NOTES

DETENTION AREA EARTH EMBANKMENT:

1 SEE GRADING PLAN FOR BERM WIDTHS.
2 SIDE SLOPES – THREE HORIZONTAL TO ONE VERTICAL (3:1) OR UNLESS OTHERWISE NOTED.
3 FILL MATERIALS SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL.
4 FILL MATERIALS SHALL BE A MIXTURE OF STONES (NOT EXCEEDING 6" IN DIAMETER) AND A FINE SANDY SILT MATERIAL.
5 THE SOIL USED FOR THE SEDIMENT FOREBAY BERM SHALL HAVE A MINIMUM PERCOLATION RATE OF 10 MINUTES AN INCH.
6 SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING.

DETENTION AREA BERM BASE PREPARATION:

1 THE BASE AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED BERM. THE BASE AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF MATERIAL.
2 REMOVE ALL SOFT ORGANIC MATTER, PEAT, DEBRIS AND FOREIGN MATERIAL TO A DEPTH AS NEEDED (1' MIN) TO REACH AN UNYIELDING BASE OF VIRGIN SOIL.

EXECUTION:

1 FILL MATERIALS SHALL BE PLACED IN HORIZONTAL 12" (MAX.) LIFTS TO FULL WIDTHS AS SHOWN ON THE DESIGN PLAN.
2 FILL MATERIALS SHALL BE FRESHLY PLACED PRIOR TO COMPACTION.
3 ALL FILLS SHALL BE COMPACTED BY MECHANICAL VIBRATORY COMPACTION TO 95% PROCTOR DENSITY.
4 FILL SHALL BE CONSTRUCTED IN 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. PLACE THE MORE IMPERVIOUS SOIL (HIGHER PERCENTAGE PASSING THE #200 SIEVE) IN THE UPSTREAM TWO-THIRDS (2/3) OF THE BERM. THE MORE GRANULAR SOIL MATERIAL SHOULD BE PLACED IN THE REMAINING DOWNSTREAM ONE-THIRD PORTION OF THE BERM.
5 INSTALL ANTI-SEEP COLLARS CONCURRENTLY WITH FILL MATERIAL PLACEMENT.
6 INSTALL CUT-OFF TRENCH CONCURRENTLY WITH FILL MATERIAL PLACEMENT. THE CUT OFF TRENCH SHALL BE LOCATED AT OR SLIGHTLY UPSTREAM OF THE CENTER LINE OF THE BERM. IT SHALL EXTEND UP THE ABUTMENTS AS REQUIRED AND BE DEEP ENOUGH TO EXTEND INTO A RELATIVELY IMPERVIOUS LAYER.
7 THE CUTOFF TRENCH SHALL HAVE A BOTTOM WIDTH ADEQUATE TO ACCOMMODATE THE EQUIPMENT USED FOR EXCAVATION, BACKFILL AND COMPACTION OPERATIONS. CUTOFF TRENCH TO BE EXCAVATED AND BACKFILLED PRIOR TO PLACING PIPE.
8 CUTOFF TRENCH SIDE SLOPES SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO ONE VERTICAL.

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.

COMPACTION

FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTI-SEEP COLLARS 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.

MAINTENANCE:

MAINTENANCE IS NECESSARY TO ENSURE THAT THE DETENTION BASINS WILL CONTINUE TO FUNCTION AS ORIGINALLY DESIGNED. THE "HOMEOWNERS ASSOCIATION" IS RESPONSIBLE FOR MAINTAINING THE STRUCTURES AND THE BASIN AREA.

1 EMBANKMENT – THE EMBANKMENT SHOULD BE INSPECTED ANNUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE. IF SUCH ISSUES ARE NOTED THEY SHALL BE RECTIFIED AS SOON AS PRACTICAL.
2 VEGETATION – THE VEGETATED AREAS OF THE BERM 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 SHOULD BE KEPT OFF THE BERM AREA.
3 INLETS AND OUTLETS – SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED.
4 SEDIMENT – SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACH THE STRUCTURE INLET ELEVATION 89.5' THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	DATE	APP'D
2	REV. PER 2ND TRC COMMENTS	9-1-22	SJH
1	REV. PER TRC COMMENTS	7-28-22	SJH

DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

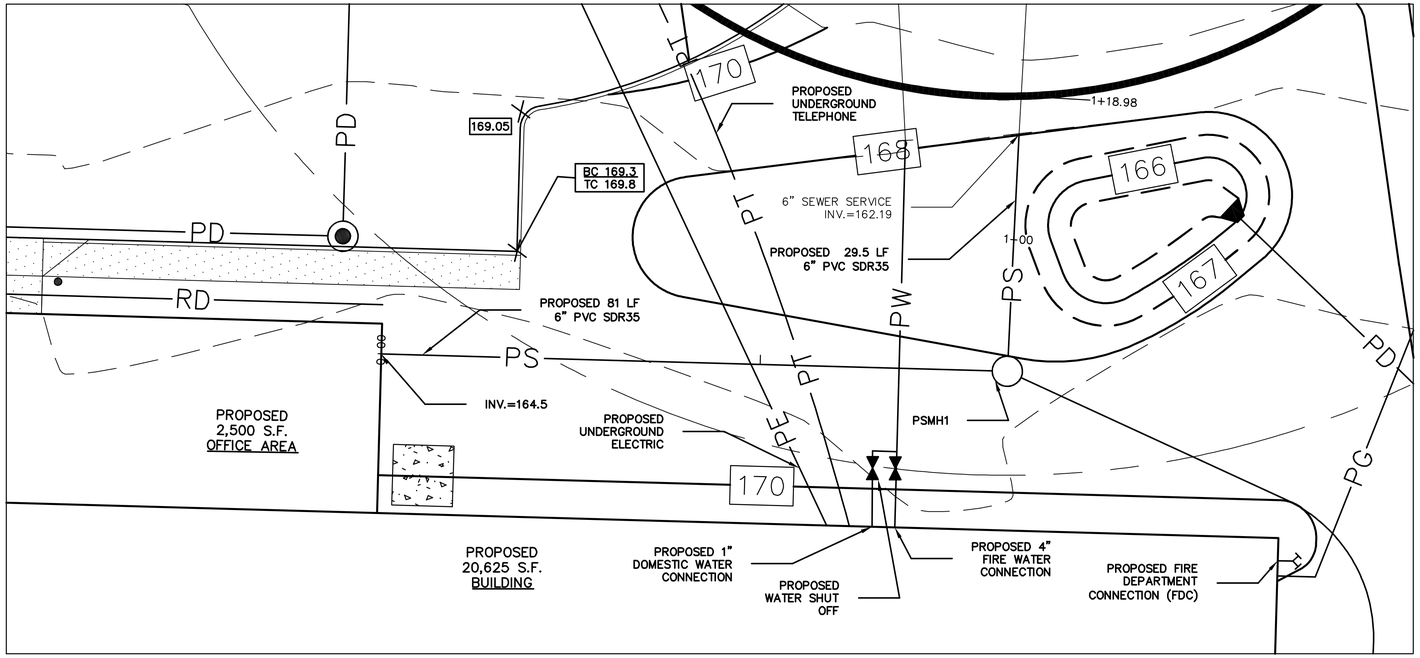
DETAIL SHEET

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

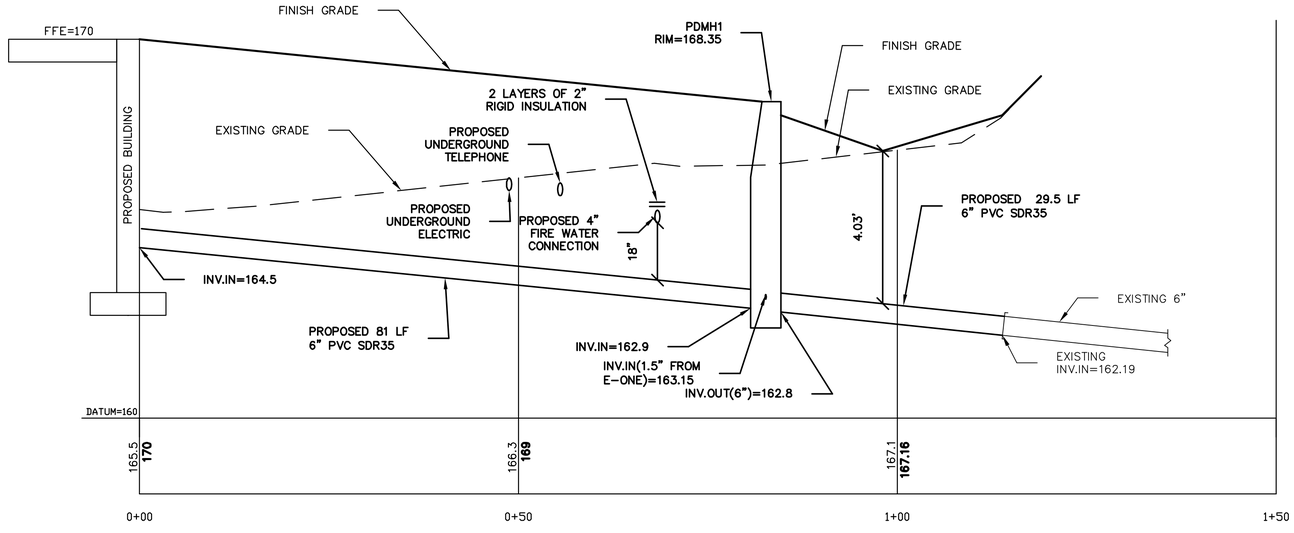
PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

16

SEWER PROFILE



PLAN VIEW
SCALE: 1"=10'



SEWER PROFILE VIEW
SCALE: HORIZONTAL: 1"=10'
VERTICAL: 1"=2'

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CIVIL & WATERFRONT ENGINEERING
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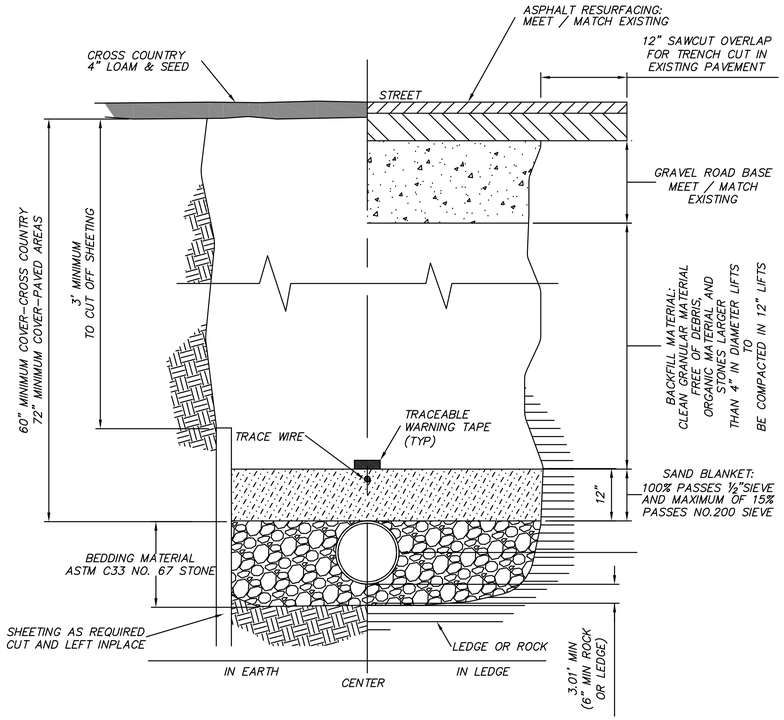
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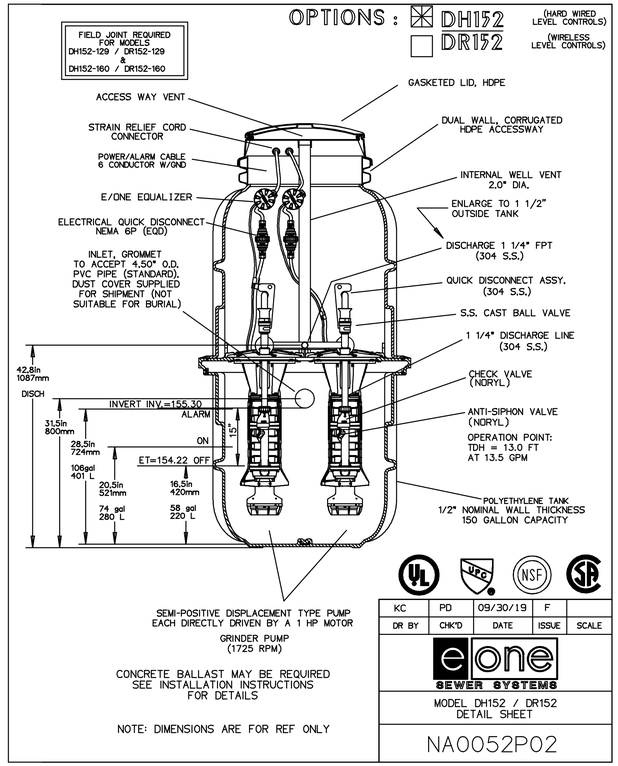
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QUALITY WAY
DOVER, NH

APPLICANT:
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SOMERSWORTH, NH 03878



SEWER FORCEMAIN TRENCH
NOT TO SCALE



KC	PD	09/30/19	F	
DR BY	CHK'D	DATE	ISSUE	SCALE

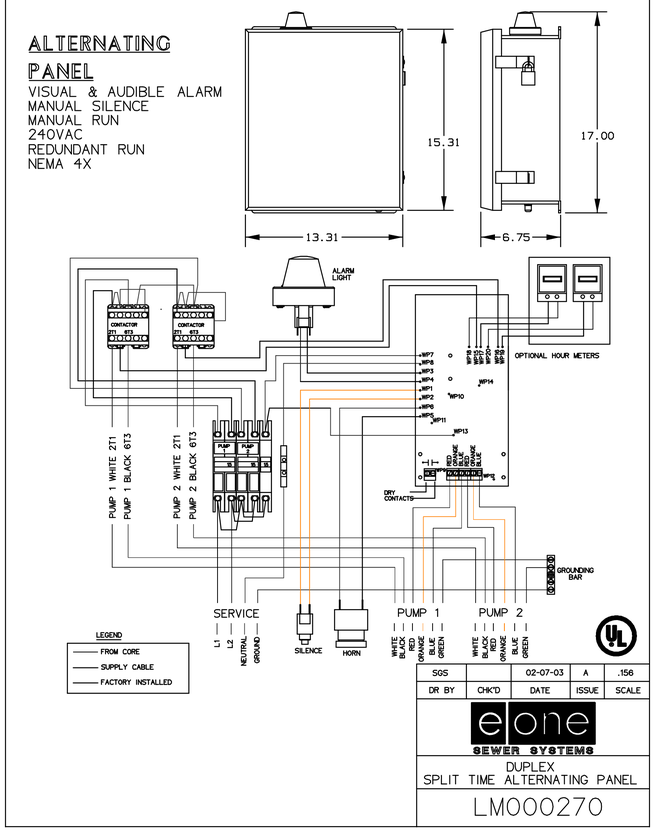
e/one SEWER SYSTEMS

MODEL DH152 / DR152 DETAIL SHEET

NA0052P02

ALTERNATING PANEL

VISUAL & AUDIBLE ALARM
MANUAL SILENCE
MANUAL RUN
240VAC
REDUNDANT RUN
NEMA 4X



SGS		02-07-03	A	.156
DR BY	CHK'D	DATE	ISSUE	SCALE

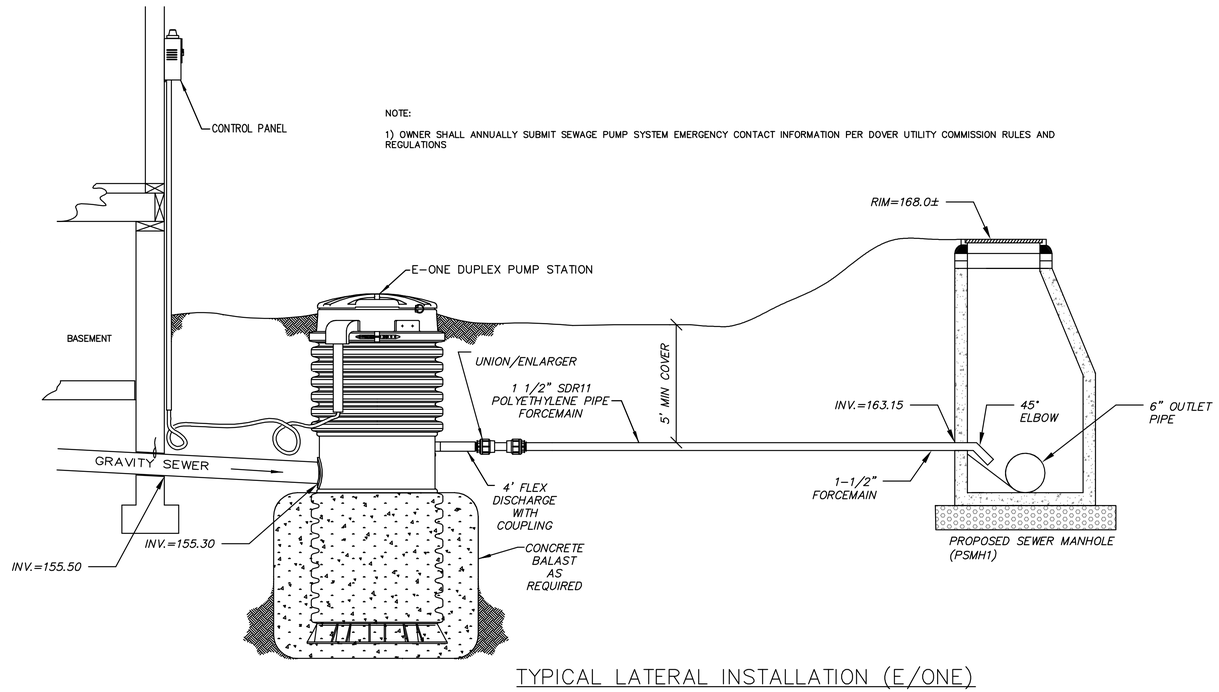
e/one SEWER SYSTEMS

DUPLEX SPLIT TIME ALTERNATING PANEL

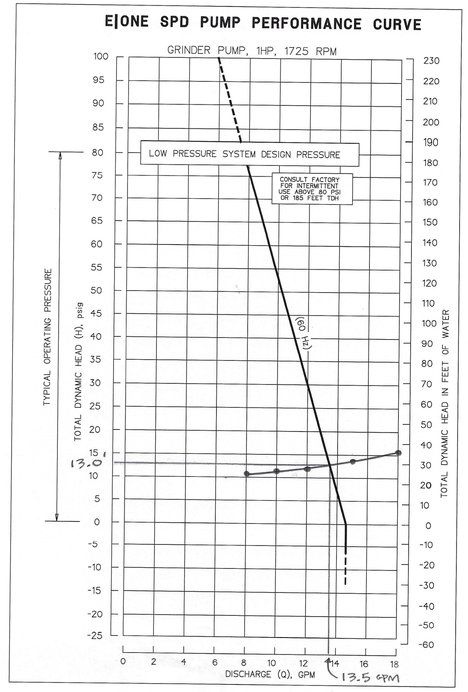
LM000270

BURIED NON-METALLIC UTILITIES SHALL RECEIVE A TRACER WIRE.

1. THE TRACER WIRE SHALL BE INSTALLED ON TOP OF THE BURIED UTILITY CROWN.
2. THE TRACER WIRE SHALL BE POSITIVELY ATTACHED TO THE NON-METALLIC BURIED UTILITIES BY PLASTIC WIRE TIES OF SIMILAR TYPE OF ATTACHMENT EVERY 6 FEET FOR STRAIGHT RUN OF UTILITY AND AT ALL CHANGES OF DIRECTION. TAPE SHALL BE POLYKEN "930-35," PROTECTO-WRAP "310", OR EQUAL.
3. THE ENDS OF THE TRACER WIRE SHALL BE EXPOSED ABOVE THE FINISHED GRADE.
4. INSTALL APPROVED CAST IRON VALVE BOXES AT ALL LOCATIONS WHERE THE ENDS OF THE TRACER WIRE ARE EXPOSED ABOVE THE FINISHED GRADE. THE BOXES SHALL NOT BE MORE THAN 200 FEET APART AND SHALL CONTAIN A 24" COIL OF WIRE FROM EACH END OF THE TRACER WIRE.
5. TRACER WIRE SHALL BE CONTINUOUS BETWEEN BOXES AND SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF THE INSPECTOR.
6. TRACER WIRE SHALL BE NO. 10 AWG, COPPER WIRE WITH TW INSULATION (BLUE IN COLOR FOR USE WITH POTABLE WATER, GREEN FOR USE WITH SEWER). CONNECTORS SHALL BE DRY-CON TYPE CONNECTORS FOR SPECIFIED WIRE GAGE AND SUITABLE FOR USE WITH BURIED TRACER WIRE.
7. TRACER WIRE SHALL BE EXPOSED ABOVE FINISHED GRADE IN THE CAST IRON BOXES AT THE TRANSITION WHERE THE NON-METALLIC BURIED UTILITY CONNECTS TO THE EXISTING METALLIC UTILITY.
8. EXTEND WIRE INTO VALVE BOXES AND TERMINATE WITH A WIRE CONNECTOR. TERMINATE WIRE FROM LINES EXTENDING FROM MAINS TO FIRE RISERS OR BUILDING SERVICES 12" (300MM) ABOVE GRADE AND CAP WITH A WIRE CONNECTOR.



TYPICAL LATERAL INSTALLATION (E/ONE)
NOT TO SCALE



ESD 08-0022 REV. 2. 6/08

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PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

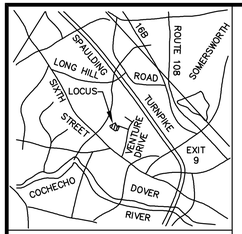
DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

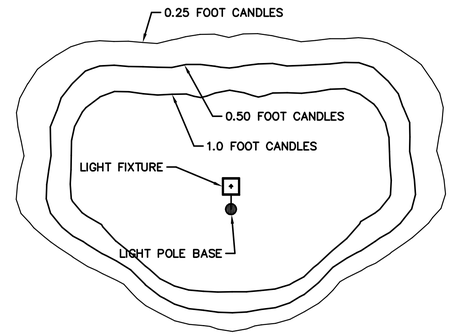
PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

DETAIL SHEET

18

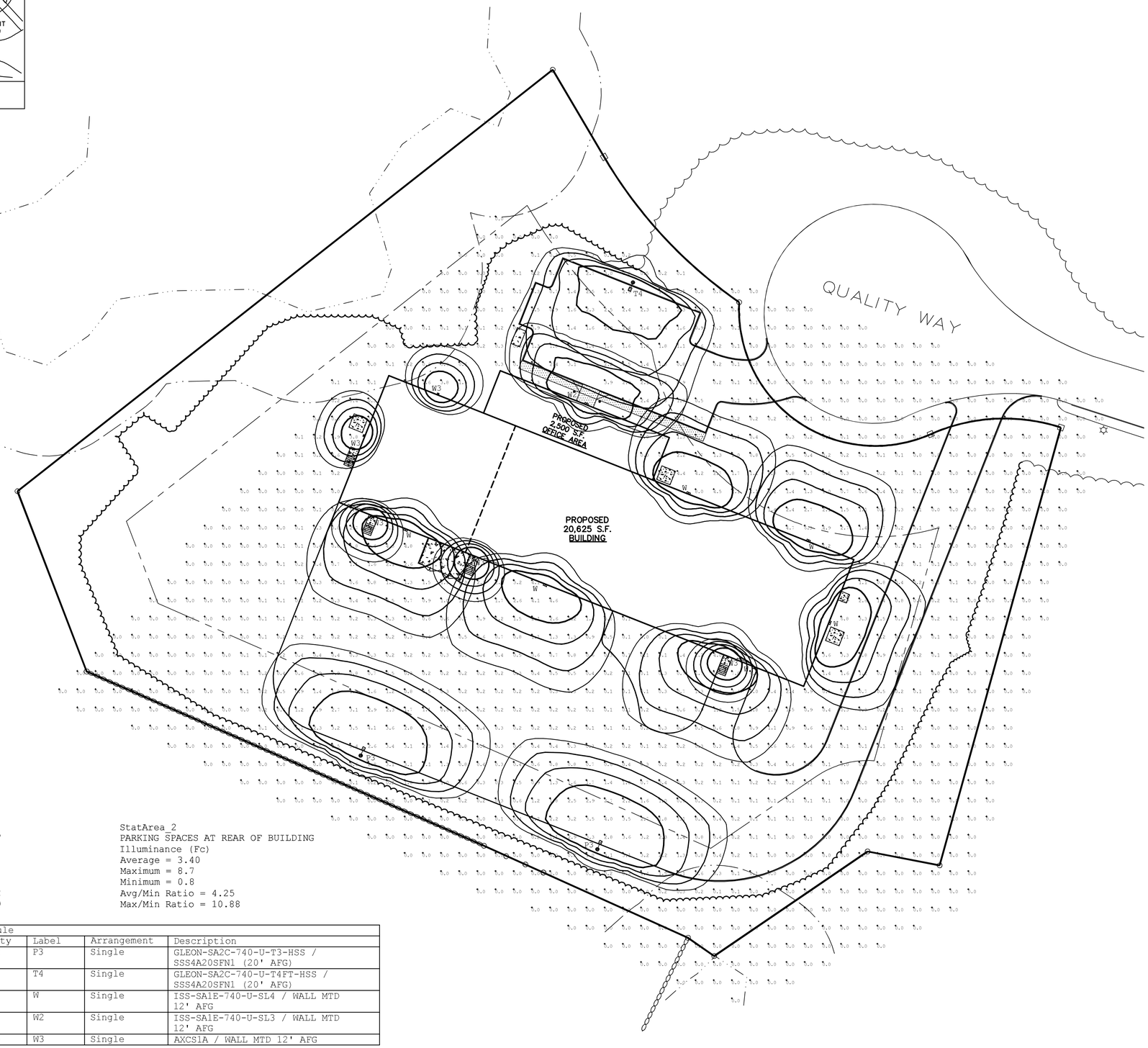


LOCATION PLAN
(NO SCALE)



TYPICAL LIGHT SPREAD
NOT TO SCALE

NOTE:
1. LIGHTING PHOTOMETRICS PREPARED BY CHARRON INC. HOOKSETT, NH.



StatArea_1
EMPLOYEE PARKING LOT
Illuminance (Fc)
Average = 1.86
Maximum = 3.9
Minimum = 0.5
Avg/Min Ratio = 3.72
Max/Min Ratio = 7.80

StatArea_2
PARKING SPACES AT REAR OF BUILDING
Illuminance (Fc)
Average = 3.40
Maximum = 8.7
Minimum = 0.8
Avg/Min Ratio = 4.25
Max/Min Ratio = 10.88

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
	2	P3	Single	GLEON-SA2C-740-U-T3-HSS / SSS4A20SFN1 (20' AFG)
	1	T4	Single	GLEON-SA2C-740-U-T4FT-HSS / SSS4A20SFN1 (20' AFG)
	6	W	Single	ISS-SA1E-740-U-SL4 / WALL MTD 12' AFG
	1	W2	Single	ISS-SA1E-740-U-SL3 / WALL MTD 12' AFG
	5	W3	Single	AXCS1A / WALL MTD 12' AFG

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

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PLANNING FILE NO.: P22-47

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CIVIL & WATERFRONT ENGINEERING
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Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2.	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1.	REV. PER TRC COMMENTS	SJH	7-28-22

DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

LIGHTING PLAN

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

19

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

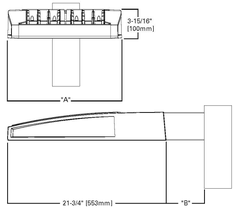
Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 540W)
- Efficacy up to 156 lumens per watt

Dimensional Details



Product Certifications

Product Features

LumenGate Technology · Enlighted · WaveLinx · Light Architect™

Connected Systems

- WaveLinx
- Enlighted

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length[1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

Impact Elite LED

Wall Mount Luminaire

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Energy and Performance Data page 3
- Control Options page 4

Quick Facts

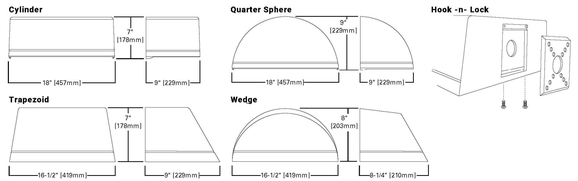
- 10 Optical Distributions
- Lumen packages range from 2,459 to 8,123 (20W - 66W)
- Efficacy up to 143 lumens per watt

Product Certifications

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



Steel Poles



SSS SQUARE
STRAIGHT STEEL

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

FEATURES
- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on 5" and 6" pole; and 2" x 4" on 4" pole
- 10'-39' mounting heights
- Drilled or tenon (specify)

DESIGN CONSIDERATIONS

Wind induced vibrations resulting from steady, unidirectional winds and other aerodynamic forces, as well as vibration and coefficient of height factors for non-grounded mounted installations (e.g., installations on bridges or buildings) are not included in this document. The information contained herein is for general guidance only and is not a replacement for professional judgement. Consult with a professional, and local and federal standards, before ordering to ensure product is appropriate for the intended purpose and installation location. Also, please review Eaton's Light Pole White Paper for risk factors and design considerations. Learn more.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Eaton or visit www.eaton.com/lighting for available options, accessories and ordering information.

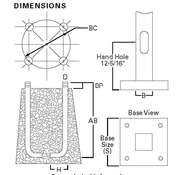
ORDERING INFORMATION

SAMPLE NUMBER: SSA5A20SFM1XG

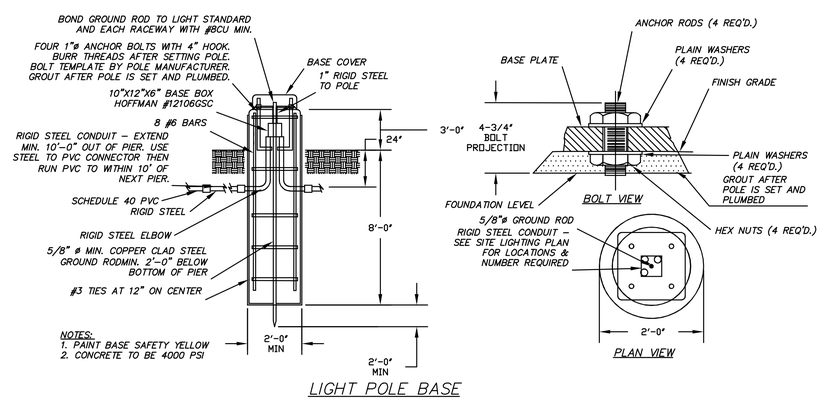
Product Family	Shaft Size (Inches)[1]	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Arm Lengths (Feet)	Options (Add as Suffix)
SSS=Square Straight Steel	**4**=4" **5**=5" **6**=6"	**A**=0.120" **M**=0.188" **X**=0.250"	**10**=10' **15**=15' **20**=20' **25**=25' **30**=30' **35**=35' **39**=39'	**S**=Square Steel Base	**F**=Dark Bronze **G**=Galvanized Steel **J**=Summit White **K**=Carbon Bronze **L**=Dark Platinum **R**=Hartford Green **S**=Silver **T**=Graphite Metallic **V**=Grey **W**=White **X**=Custom Color **Y**=Black	**2**=2-3/8" O.D. Tenon (4" Long) **3**=3-1/2" O.D. Tenon (5" Long) **4**=4" O.D. Tenon (6" Long) **9**=3" O.D. Tenon (4" Long) **6**=2-3/8" O.D. Tenon (6" Long) **7**=4" O.D. Tenon (10" Long) **A**=Type A Drilling **C**=Type C Drilling **E**=Type E Drilling **F**=Type F Drilling **G**=Type G Drilling **J**=Type J Drilling **K**=Type K Drilling **M**=Type M Drilling **N**=Type N Drilling **R**=Type R Drilling **S**=Standard Upsweep Arm **Z**=Type Z Drilling	**1**=Single **2**=2 at 180° **3**=Triple[4] **4**=4 at 90° **5**=2 at 90° **X**=None	**X**=None **2**=2' **2.5**=2.5' **4**=4' **6**=6' **8**=8'	**A**=1/2" Tapped Hub[3] **B**=3/4" Tapped Hub[3] **C**=Convenience Outlet[4] **E**=GFCI Convenience Outlet[4] **G**=Ground Lug **H**=Additional Hand Hole[4] **V**=Vibration Dampener

NOTES: 1. All shaft sizes nominal. **2.** Square poles are 3 at 90°, round poles are 3 at 120°. **3.** Tapped Hub is located 6" below the pole top and on the same side of pole as hand hole, unless specified otherwise. **4.** Outlet is located 4" above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. **5.** Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified.

DIMENSIONS



See technical information.



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PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

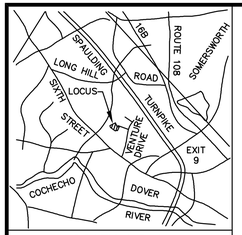
DATE: 6-16-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

LIGHTING DETAILS

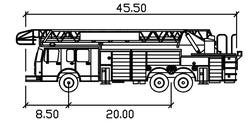
APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

20



LOCATION PLAN
(NO SCALE)



Dover ladder feet

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 44.0

QUALITY WAY

PROPOSED
7,500 S.F.
OFFICE AREA

PROPOSED
20,625 S.F.
BUILDING

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

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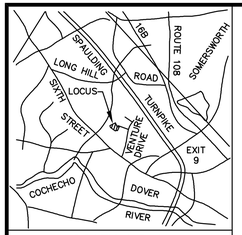
DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

DOVER LADDER TRUCK MOVEMENT PLAN

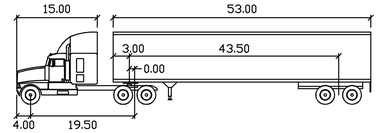
PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

21

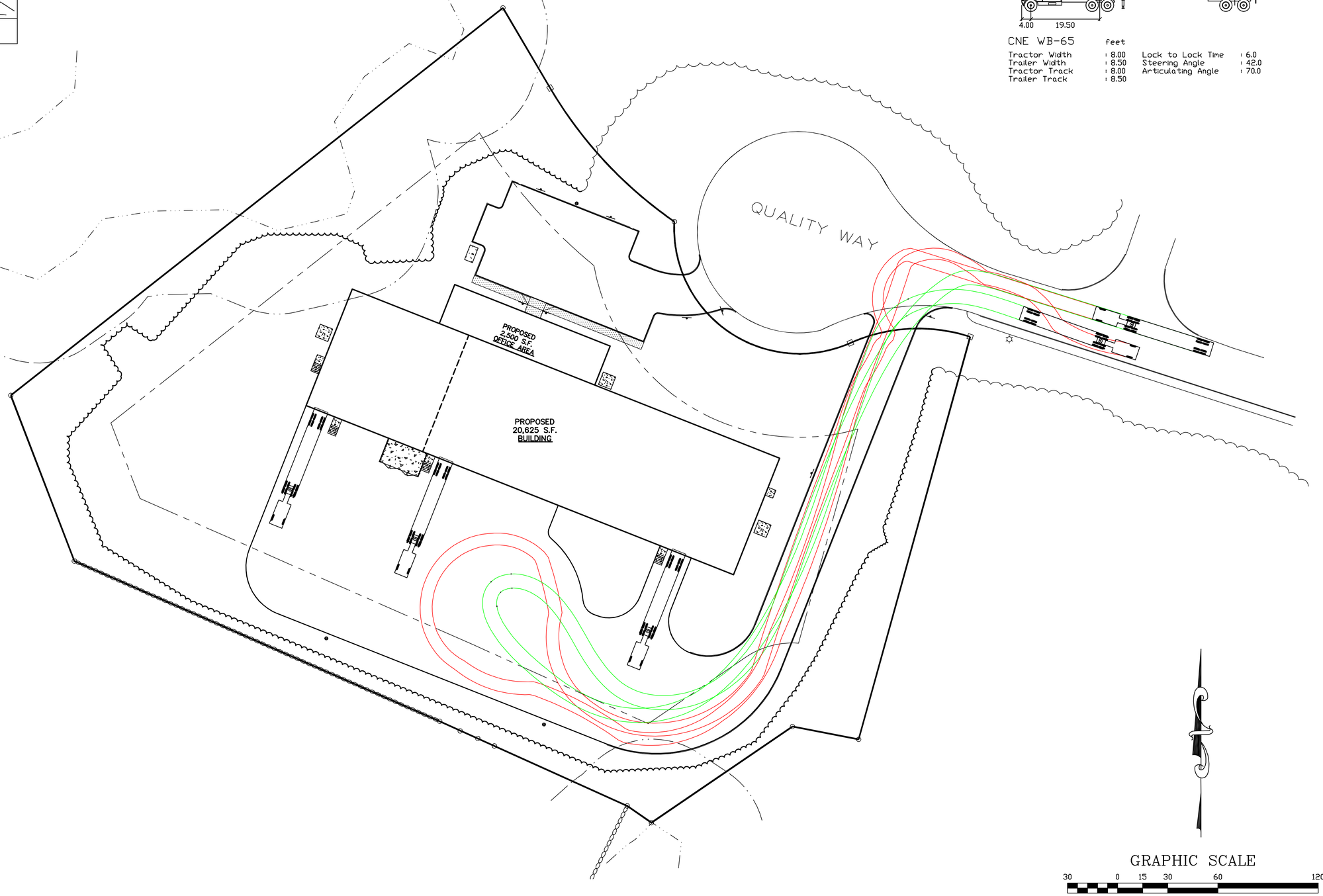


LOCATION PLAN
(NO SCALE)



CNE WB-65 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 42.0
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

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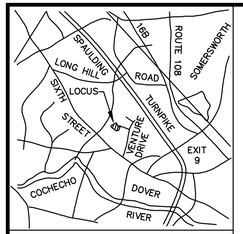
DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SITE.DWG

TRUCK MOVEMENT PLAN

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

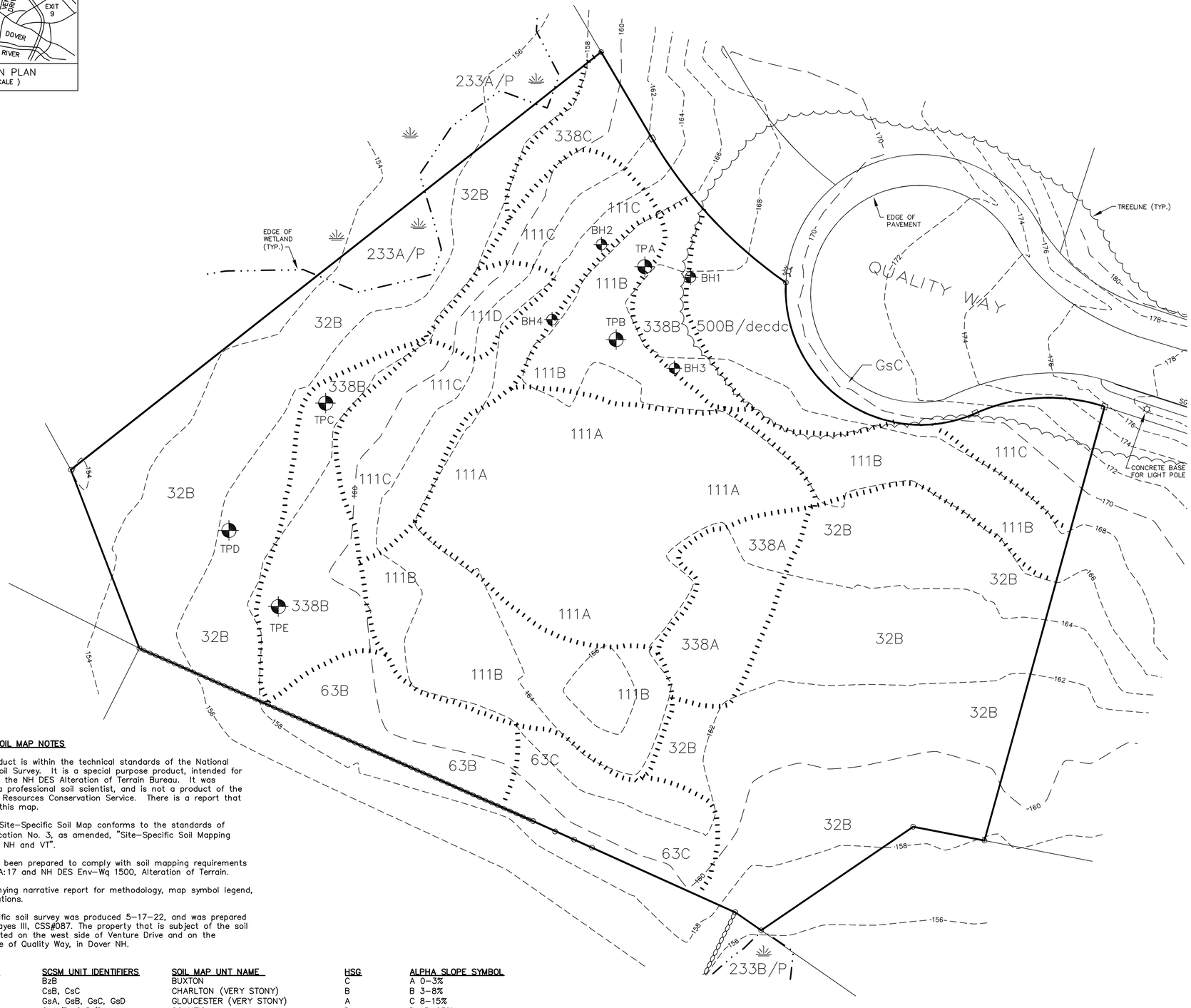
PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

22



LOCATION PLAN
(NO SCALE)





LEGEND

- EXISTING GRADE
- SOIL BOUNDARY
- EDGE OF JURISDICTIONAL WETLAND / SOIL BOUNDARY
- PROPERTY LINE
- WETLANDS
- 953B — SOIL TYPE
- BH2 — BOREHOLE INFILTRATION TEST
- TPA — TEST PIT

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

SITE-SPECIFIC SOIL MAP NOTES

1. This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for submission to the NH DES Alteration of Terrain Bureau. It was produced by a professional soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a report that accompanies this map.
2. This detailed Site-Specific Soil Map conforms to the standards of SSSNNE Publication No. 3, as amended, "Site-Specific Soil Mapping Standards for NH and VT".
3. This map has been prepared to comply with soil mapping requirements of RSA 485-A:17 and NH DES Env-Wq 1500, Alteration of Terrain.
4. See accompanying narrative report for methodology, map symbol legend, and interpretations.
5. The site specific soil survey was produced 5-17-22, and was prepared by John P. Hayes III, CSS#087. The property that is subject of the soil survey is located on the west side of Venture Drive and on the southwest side of Quality Way, in Dover NH.

SSSM SYMBOL	SCSM UNIT IDENTIFIERS	SOIL MAP UNT NAME	HSG	ALPHA SLOPE SYMBOL
32	BzB	BUXTON	C	A 0-3%
63	CsB, CsC	CHARLTON (VERY STONY)	B	B 3-8%
111	GsA, GsB, GsC, GsD	GLOUCESTER (VERY STONY)	A	C 8-15%
233	ScA/P, ScB/P	SCANTIC	D	D 15-25%
338	EaA, EaB, EaC	ELMWOOD (VERY STONY)	C	E 25-50%
500	decdc	UDORTHENTS LOAMY	C	F >50%

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1	REV. PER TRC COMMENTS	SJH	7-28-22

DATE: 6-16-22
SCALE: 1"=30'
DRAWN BY: GMS
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO:21094
FILE: SSSM.DWG

SITE SPECIFIC SOIL MAP

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

23

Test Pit: A **Date:** 6/7/2022

Depth (in)	Color	Texture	Structure	Consistence	Redox Features	Notes
0-2	10 YR 3/3	Fine Sandy Loam	Massive	Friable	None	
2-38	10 YR 4/6	Loamy Sand	Massive	Friable	None	
38-72	10 YR 4/4	Loamy Sand	Massive	Friable	None	Roots few,fine @ 43"

Seasonal High Water (in): 72
Observed Water (in): 72"+
Restrictive Layer (in): None
Bedrock/Refusal (in): None

Soil Series: Gloucester
NHDES Soil Group: A
Hydrologic Soil Group: 1

Percolation Test

Depth Perc Test	Inches Per Hour
NA	NA

Notes:

Test Pit: B **Date:** 6/7/2022

Depth (in)	Color	Texture	Structure	Consistence	Redox Features	Notes
0-3	10 YR 3/3	Fine Sandy Loam	Massive	Friable		Woods
3-30	10 YR 4/6	Loamy Sand	Massive	Friable	15% Cobbles	Roots few,fine @ 29"
30-90	10 YR 4/3	Silt Loam	Blocky	Firm	30"+ 5YR 4/4	

Seasonal High Water (in): 30
Observed Water (in): 90"
Restrictive Layer (in): None
Bedrock/Refusal (in): None

Soil Series: Elmwood
NHDES Soil Group: C
Hydrologic Soil Group: 3

Percolation Test

Depth Perc Test	Inches Per Hour
NA	NA

Notes:

NEW HAMPSHIRE Designer of Subsurface Disposal Systems * * * Douglas J. LaRosa No. 849 Department of Environmental Services

Test Pit: C **Date:** 6/7/2022

Depth (in)	Color	Texture	Structure	Consistence	Redox Features	Notes
0-5	10 YR 3/3	Fine Sandy Loam	Massive	Friable		
5-18	10 YR 5/6	Loamy Sand	Massive	Friable		Roots Many Fine@17"
18-84	5 Y 4/4	Silt Loam	Platy	Firm	5 YR 4/4	

Seasonal High Water (in): 18"
Observed Water (in): None
Restrictive Layer (in): None
Bedrock/Refusal (in): None

Soil Series: Buxton
NHDES Soil Group: 3
Hydrologic Soil Group: C

Percolation Test

Depth Perc Test	Inches Per Hour
NA	NA

Notes:

Test Pit: D **Date:** 6/7/2022

Depth (in)	Color	Texture	Structure	Consistence	Redox Features	Notes
0-5	10 YR 3/3	Fine Sandy Loam	Massive	Friable		
5-23	10 YR 5/6	Loamy Sand & Gravel	Single Grain	Granular		Roots Many Fine @22"
23-88	10 YR 4/6	Medium Sand & Gravel	Single Grain	Loose	24" 10YR 4/4	

Seasonal High Water (in): 18"
Observed Water (in): None
Restrictive Layer (in): None
Bedrock/Refusal (in): None

Soil Series: Buxton
NHDES Soil Group: 3
Hydrologic Soil Group: C

Percolation Test

Depth Perc Test	Inches Per Hour
NA	NA

Notes:

NEW HAMPSHIRE Designer of Subsurface Disposal Systems * * * Douglas J. LaRosa No. 849 Department of Environmental Services

Test Pit: E **Date:** 6/7/2022

Depth (in)	Color	Texture	Structure	Consistence	Redox Features	Notes
0-4	10 YR 3/3	Fine Sandy Loam	Massive	Friable		
4-22	10 YR 6/6	Medium Sand	Granular	Friable		Roots few,fine @ 22"
22-84	5Y 4/4	Silt Loam	Single Grain	Loose	23" 5YR 4/4	

Seasonal High Water (in): 22"
Observed Water (in): 84"
Restrictive Layer (in): None
Bedrock/Refusal (in): None

Soil Series: Buxton
NHDES Soil Group: 3
Hydrologic Soil Group: C

Percolation Test

Depth Perc Test	Inches Per Hour
NA	NA

Notes:

NEW HAMPSHIRE Designer of Subsurface Disposal Systems * * * Douglas J. LaRosa No. 849 Department of Environmental Services

Stormwater Infiltration Testing Log

6/7/2022

Project Name: Weave Filtration **Date:** 6/7/2022
Project Address: Quality Way **Weather:** Sunny, 81*
Testing Company: Civilworks NE **Tester's Name:** Guillermo M. Sepulveda
Phone Number: (603) 749-0443 **Email Address:** gsepulveda@civilworksne.com

Test Number: 1 **Test Pit/Boring Hole Number:** BH1 **Test Method:** Borehole Infiltration Test
Test Depth (feet): 4 **Surface Elevation (feet):** 164 **Instrument Diameter (inches):** 4

Soil Characterization (See Test Pit Logs)

Depth (inches):	Soil Texture:	Limiting Layers Type and Depth (feet):

Presoak (Presoaked on 6/6/2022)

Time:	Time Interval (HRS):	Measurement, (inches):	Drop in water level, (inches):
8:30AM	0	24	0
8:30AM	24	0	24

Infiltration Testing

Time 1:	Time 2:	Measurement, (inches):	Drop in water level, (inches):	Infiltration rate (inches per hour):	Remarks:
12:38PM		24			Start
	1:38PM		24	24	
1:56PM		24			
	2:56PM		23	23	
3:16PM		24			
	4:16PM		23	23	
4:18PM		24			
	5:18PM		22.5	22.5	Finish

Stabilized Infiltration Testing Rate (inches per hour): 22.5 Using Trial 4

Notes:
Proposed parking lot area

Stormwater Infiltration Testing Log

6/7/2022

Project Name: Weave Filtration **Date:** 6/7/2022
Project Address: Quality Way **Weather:** Sunny, 81*
Testing Company: Civilworks NE **Tester's Name:** Guillermo M. Sepulveda
Phone Number: (603) 749-0443 **Email Address:** gsepulveda@civilworksne.com

Test Number: 2 **Test Pit/Boring Hole Number:** BH2 **Test Method:** Borehole Infiltration Test
Test Depth (feet): 1.5 **Surface Elevation (feet):** 164 **Instrument Diameter (inches):** 4

Soil Characterization (See Test Pit Logs)

Depth (inches):	Soil Texture:	Limiting Layers Type and Depth (feet):

Presoak (Presoaked on 6/6/2022)

Time:	Time Interval (HRS):	Measurement, (inches):	Drop in water level, (inches):
8:36AM	0	24	0
8:36AM	24	0	24

Infiltration Testing

Time 1:	Time 2:	Measurement, (inches):	Drop in water level, (inches):	Infiltration rate (inches per hour):	Remarks:
12:41PM		24			Start
	1:11PM		24	48	
1:12PM		24			
	1:50PM		24	37.89	
1:57PM		24			
	2:38PM		24	35.12	
2:39PM		24			
	3:21PM		24	34.29	Finish

Stabilized Infiltration Testing Rate (inches per hour): 34.29 Using Trial 4

Notes:
Proposed parking lot area

Stormwater Infiltration Testing Log

6/7/2022

Project Name: Weave Filtration **Date:** 6/7/2022
Project Address: Quality Way **Weather:** Sunny, 81*
Testing Company: Civilworks NE **Tester's Name:** Guillermo M. Sepulveda
Phone Number: (603) 749-0443 **Email Address:** gsepulveda@civilworksne.com

Test Number: 3 **Test Pit/Boring Hole Number:** BH3 **Test Method:** Borehole Infiltration Test
Test Depth (feet): 3 **Surface Elevation (feet):** 164.5 **Instrument Diameter (inches):** 4

Soil Characterization (See Test Pit Logs)

Depth (inches):	Soil Texture:	Limiting Layers Type and Depth (feet):

Presoak (Presoaked on 6/6/2022)

Time:	Time Interval (HRS):	Measurement, (inches):	Drop in water level, (inches):
8:39AM	0	24	0
8:39AM	24	0	24

Infiltration Testing

Time:	Time Interval HR	Measurement, (inches):	Drop in water level, (inches):	Infiltration rate (inches per hour):	Remarks:
12:44PM		24			Start
	1:20PM		24	40	
1:21PM		24			
	2:07PM		24	31.3	
2:07PM		24			
	2:51PM		24	32.73	
2:52PM		24			
	3:38PM		24	31.3	Finish

Stabilized Infiltration Testing Rate (inches per hour): 31.3 Using Trial 4

Notes:
Proposed office area

Stormwater Infiltration Testing Log

6/7/2022

Project Name: Weave Filtration **Date:** 6/7/2022
Project Address: Quality Way **Weather:** Sunny, 81*
Testing Company: Civilworks NE **Tester's Name:** Guillermo M. Sepulveda
Phone Number: (603) 749-0443 **Email Address:** gsepulveda@civilworksne.com

Test Number: 4 **Test Pit/Boring Hole Number:** BH4 **Test Method:** Borehole Infiltration Test
Test Depth (feet): 1 **Surface Elevation (feet):** 164.5 **Instrument Diameter (inches):** 4

Soil Characterization (See Test Pit Logs)

Depth (inches):	Soil Texture:	Limiting Layers Type and Depth (feet):

Presoak (Presoaked on 6/6/2022)

Time:	Time Interval (HRS):	Measurement, (inches):	Drop in water level, (inches):
8:43AM	0	24	0
8:43AM	24	0	24

Infiltration Testing

Time:	Time Interval HR	Measurement, (inches):	Drop in water level, (inches):	Infiltration rate (inches per hour):	Remarks:
12:45PM		24			Start
	1:03PM		24	80	
1:06PM		24			
	1:33PM		24	53.33	
1:59PM		24			
	2:28PM		24	49.66	
2:32PM		24			
	3:02PM		24	48	
3:19PM		24			
	3:52PM		24	43.64	Finish

Stabilized Infiltration Testing Rate (inches per hour): 43.64 Using Trial 4

Notes:
Proposed office area

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-47

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE
2	REV. PER 2ND TRC COMMENTS	SJH	9-1-22
1	REV. PER TRC COMMENTS	SJH	7-28-22

DESIGN BY: SRD
DRAWN BY: SRD
SCALE: AS SHOWN
DATE: 6-16-22
APPROVED BY:SJH
PROJECT NO: 21094
FILE: SITE.DWG

TEST PIT LOGS

APPLICANT:
WEAVE FILTRATION LLC
100 TRI CITY ROAD
UNIT 117
SOMERSWORTH, NH 03878

PROJECT:
WEAVE FILTRATION
QUALITY WAY
DOVER, NH

24

TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



1 FLOOR PLAN
3/32" = 1'-0"

No. Description Date

Revision Schedule

Project Info:

Weave Filtration

Quality Way
Dover, NH

Sheet Status:

Latest Release:
Issued For: Planning Board Set
Org. Issue Date: n.f.c.

JOB NO: 20025
DRAFTED: JMT
CHECKED: JMT
SCALE: 3/32" = 1'-0"

Sheet Title:

FLOOR PLAN

Sheet Number:

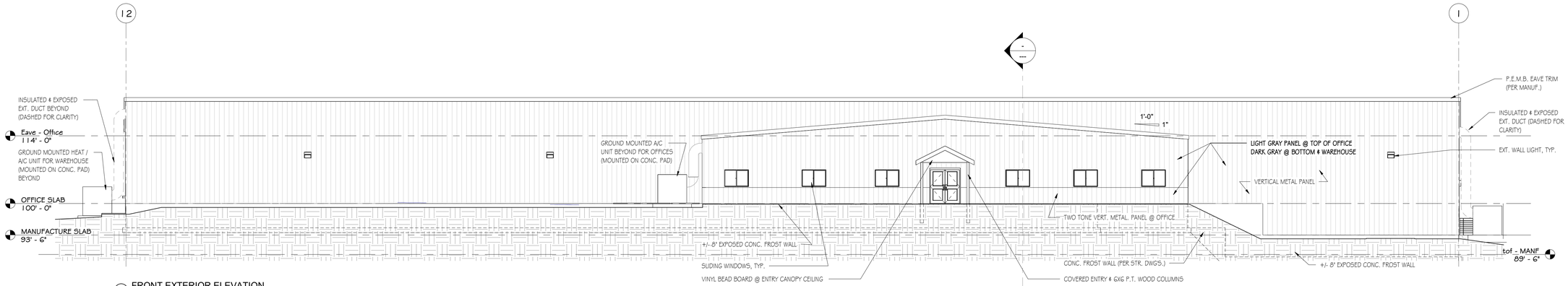
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Printed on: 9/1/2022

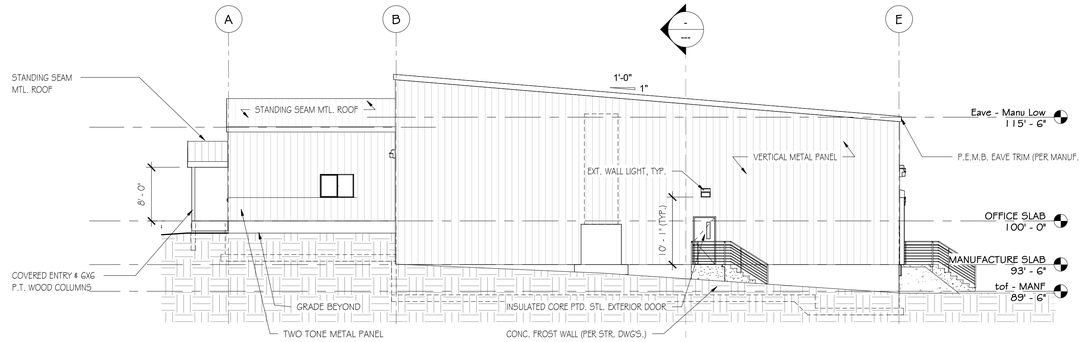
PLANNING BOARD SET
9/1/2022

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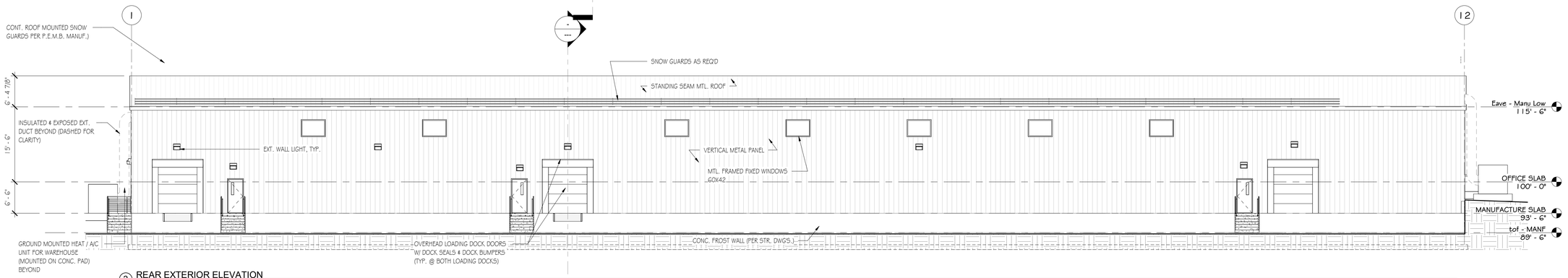
TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



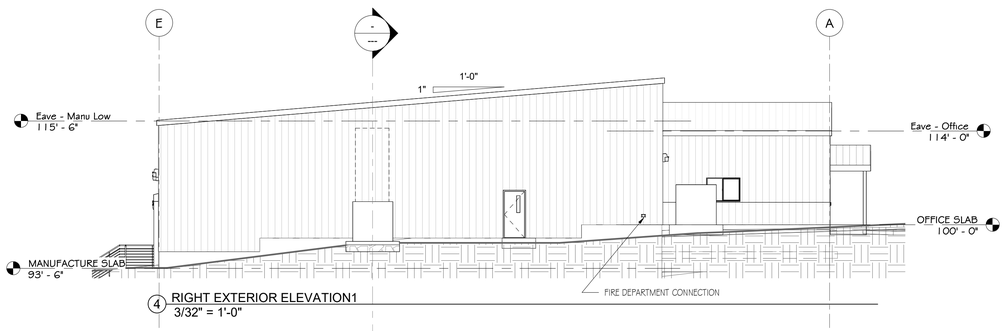
1 FRONT EXTERIOR ELEVATION
3/32" = 1'-0"



2 LEFT EXTERIOR ELEVATION
3/32" = 1'-0"



3 REAR EXTERIOR ELEVATION
3/32" = 1'-0"



4 RIGHT EXTERIOR ELEVATION1
3/32" = 1'-0"

PLANNING BOARD SET
9/1/2022

No.	Description	Date

Revision Schedule

Project Info:

Weave Filtration

Quality Way
Dover, NH

Sheet Status:

Latest Release:
Issued For: Planning Board Set
Org. Issue Date: n.f.c.

JOB NO.: 20025
DRAFTED: JMT
CHECKED: JMT

SCALE: 3/32" = 1'-0"

Sheet Title:

EXTERIOR ELEVATIONS

Sheet Number:

A3.1

Printed on: 9/1/2022

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TW DESIGNS

Street View
Weave Filtration

R1

09/01/22

Legend

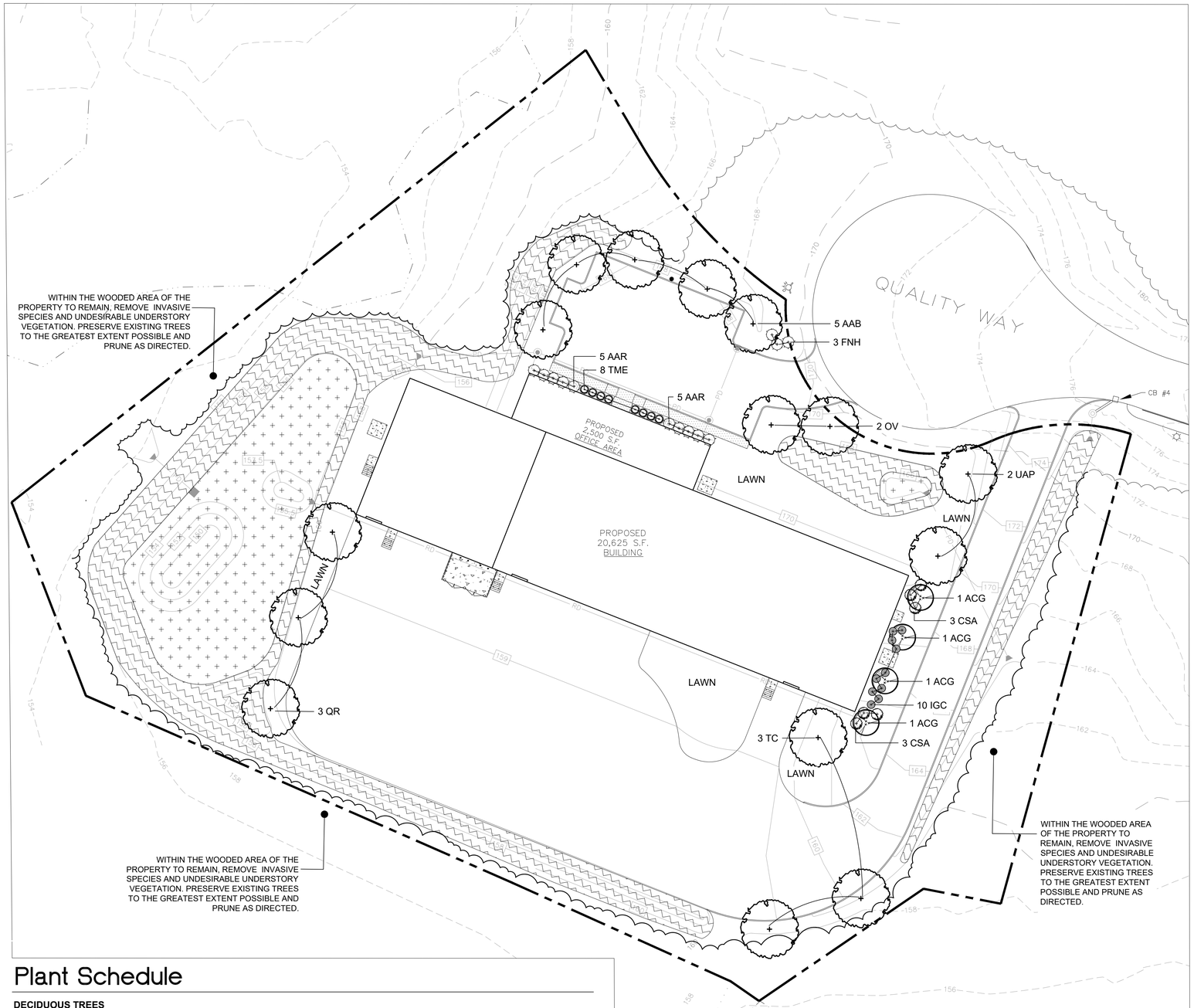
	DECIDUOUS SINGLE-STEMMED TREE PLANTING, SEE 1/L2.0; 2/L2.0
	DECIDUOUS MULTI-STEMMED TREE PLANTING, SEE 3/L2.0
	SHRUB PLANTING, SEE 4/L2.0
LAWN	ALL DISTURBED AREAS WITHOUT A HATCH, SEE 5/L2.0
	WET MEADOW / POND SEED MIX, SEE 6/L2.0
	DRY SITE RESTORATION SEED MIX, SEE 7/L2.0

GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR INFORMATION NOT DEPICTED ON THE LANDSCAPE DRAWINGS.
2. PLANT LOCATIONS SHOWN ON THE PLANTING PLAN ARE SUBJECT TO FIELD MODIFICATION TO ACCOMMODATE EXISTING CONDITIONS. FIELD ADJUSTMENTS SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT.
3. SEE SHEET L2.0 FOR LANDSCAPE DETAILS.
4. CONTACT DIGSAFE PRIOR TO BEGINNING WORK.

PLANTING NOTES:

1. PLEASE REVIEW AND BECOME FULLY ACQUAINTED WITH THESE NOTES, CONSTRUCTION DETAILS, AND THE PLANTING PLAN.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING AND NEW UTILITY LINE LOCATIONS PRIOR TO PLANTING, AND SHALL REPORT ANY CONFLICT TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
3. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN SOCIETY OF NURSERY MEN, INC. LATEST EDITION.
4. THE CONTRACTOR SHALL STAKE THE LOCATION OF ALL THE PROPOSED PLANT MATERIAL FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. NO PLANTS SHALL BE PLANTED BEFORE THE ACCEPTANCE OF ROUGH GRADING. THE BASE OF THE FLARE OF THE TREE TRUNK SHALL BE EXPOSED, IF NECESSARY, AND PLACED 2" ABOVE FINISH GRADE.
5. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES WILL BE PLANTS WITH EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER COLOR, LEAF COLOR, FRUIT COLOR, AND TIME OF BLOOM, AS APPROVED BY THE LANDSCAPE ARCHITECT.
6. EXISTING LOAM: STOCKPILING OF EXISTING LOAM IS SPECIFIED ELSEWHERE. REMOVE CLAY LUMPS, BRUSH, LITTER, ROOTS, STONES 1" AND LARGER, AND OTHER FOREIGN MATERIALS.
7. ADDITIONAL LOAM: IF STOCKPILED LOAM QUANTITY IS INSUFFICIENT, PROVIDE LOAM, WHICH IS A "FINE SANDY LOAM", OR A "SANDY LOAM" DETERMINED BY MECHANICAL ANALYSIS AND BASED ON THE "U.S.D.A. CLASSIFICATION SYSTEM." IT SHALL BE OF UNIFORM COMPOSITION, WITHOUT ADMIXTURE OF SUBSOIL. LOAM SHALL HAVE AN ACIDITY RANGE OF PH 5.8 TO PH 7.0 AND SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 10% ORGANIC MATTER AS DETERMINED BY THE LOSS OF IGNITION OF OVEN-DRIED SAMPLES. PROVIDE LOAM WHICH IS FERTILE, FRIABLE, NATURAL LOAM FREE FROM SUBSOIL, CLAY LUMPS, BRUSH, LITTER, ROOTS, STONES 1" AND LARGER, AND ANY FOREIGN MATERIALS.
8. PINE MULCH: PROVIDE PARTIALLY DECOMPOSED MINIMUM SIX MONTH AGED FINELY SHREDDED PINE BARK MULCH WITH DARK BROWN COLOR AND FREE OF WEEDS, EXCESSIVE FINE PARTICLES, STRINGY MATERIAL, AND CHUNKS OF WOOD THICKER THAN ¼". PROVIDE BARK MULCH APPROVED BY THE LANDSCAPE ARCHITECT. APPLY TACKIFIED MULCH TO ALL SEEDED AREAS.
9. ALL PLANTS SHALL BE PLUM VERTICALLY AFTER SETTLING.
10. ALL PLANT MATERIAL SHALL BE MULCHED AFTER PLANTING.
11. LESS OTHERWISE INDICATED, DICTATED BY CONDITIONS AT THE SITE, AND DIRECTED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE, BACKFILL SHALL CONSIST OF UNAMENDED SOIL EXCAVATED FROM THE PLANTING PIT. BACKFILL IN 3-4" LAYERS AND CONSOLIDATE EACH LAYER WITH WATER TO ELIMINATE VOIDS AND ARE POCKETS BEFORE PLACING SUBSEQUENT LAYERS. CONTINUE UNTIL BACKFILL HAS REACHED FINISHED GRADE. WATER THOROUGHLY WHEN EXCAVATION IS BACK FILLED AND CONTINUE WATERING UNTIL SATURATED. IF EXISTING UNAMENDED SOIL IS NOT ACCEPTED, PROVIDE PLANTING SOIL MIXTURE CONSISTING OF 7 PARTS LOAM AND 1 PART HUMUS. MIX QUANTITY OF FERTILIZER AND SOIL AMENDMENTS AS RECOMMENDED BY SOIL ANALYSIS AND APPROVED BY THE LANDSCAPE ARCHITECT.
12. WATERING: FLOOD ALL PLANTS WITH WATER TWICE WITHIN THE FIRST 24 HOURS AFTER PLANTING.
13. LOAMING: LOOSEN SUBGRADE AND EXISTING LOAM AREAS BY DISCING OR ROTOTILLING TO MINIMUM DEPTH OF 6". REMOVE STONES GREATER THAN 2" AND ALL RUBBISH AND DEBRIS. PLACE LOAM IN TWO EQUAL LIFTS MIXING FIRST APPLICATION INTO LOOSENED SUBGRADE THEN PLACE SECOND LIFT TO BRING LOAM AFTER SETTLING AND COMPACTING TO THE LINES AND GRADES SHOWN IN THE CONTRACT DOCUMENTS, 6" DEEP MINIMUM. DO NOT HANDLE LOAM OR SUBSOIL IF IT IS WET OR FROZEN.
14. AFTER LOAM HAS BEEN SPREAD, IT SHALL BE CAREFULLY PREPARED BY SCARIFYING AND HAND RAKING. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, STUMPS, LITTER AND FOREIGN MATTER, AND STONES OVER ONE INCH IN DIAMETER SHALL BE REMOVED FROM THE LOAM. LOAM SHALL ALSO BE FREE OF SMALLER STONES IN EXCESSIVE QUANTITIES AS DETERMINED BY THE LANDSCAPE ARCHITECT.
15. FINE GRADING: SET SUFFICIENT GRADE STAKES FOR CHECKING THE FINISHED GRADES. STAKES MUST BE SET AT THE BOTTOM AND TOP OF SLOPES. GRADES SHALL BE ESTABLISHED THAT ARE ACCURATE TO 1/10TH OF A FOOT EITHER WAY. CONNECT CONTOURS AND SPOT ELEVATIONS WITH AN EVEN SLOPE. ALL GRADING WILL INSURE DRAINAGE AWAY FROM STRUCTURES.
16. FINE GRADE LAWN AREAS TO SMOOTH, FREE DRAINING, EVEN SURFACES WITH FINE TEXTURE. ROLL, RAKE AND DRAW LAWN AREAS TO FLATTEN RIDGES AND FILL DEPRESSIONS, EXCEPT AT SELECT AREAS SHOW ON THE DRAWINGS. CONTROL MOISTURE CONTENT TO MAINTAIN OPTIMUM CONDITIONS, BUT DO NOT CREATE A MUDDY CONDITION.
17. ROLLING - TYPICAL: ROLL THE ENTIRE AREA WITH A HAND ROLLER WEIGHTING NOT MORE THAN 100 POUNDS. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT OF ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM AND THE SURFACE SHALL BE REGARDED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE OR TO THE SHAPES AND CONFIGURATIONS AS SHOWN ON THE DETAILS.
18. THE SILT FENCE SHALL BE LIMIT OF SEEDING UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL AREAS DISTURBED OUTSIDE THE LIMIT OF WORK SHALL BE SEEDED AS INDICATED ON THE DRAWINGS.
19. IN CASE OF DISCREPANCIES BETWEEN THE QUANTITIES SHOWN ON THE PLANT SCHEDULE AND THE QUANTITIES SHOWN ON THE PLANTING PLAN, THE QUANTITIES ON THE PLANTING PLAN SHALL BE PROVIDED BY THE CONTRACTOR.



Plant Schedule

DECIDUOUS TREES

QTY.	ABRV.	SCIENTIFIC NAME	COMMON NAME	INSTALLED SIZE	REMARKS
5	AAB	ACER FREEMANII 'AUTUMN BLAZE'	AUTUMN BLAZE MAPLE	3"-3 1/2" CAL	B&B
4	ACG	AMELANCHIER CANADENSIS 'GLENFORM'	RAINBOW PILLAR SERVICEBERRY	6'-7' HT	MULTI-STEMMED
2	OV	OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM	3"-3 1/2" CAL	B&B
3	QR	QUERCUS RUBRA	NORTHERN RED OAK	3"-3 1/2" CAL	B&B
3	TC	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	3"-3 1/2" CAL	B&B
2	UAP	ULMUS AMERICANA "PRINCETON"	PRINCETON AMERICAN ELM	3"-3 1/2" CAL	B&B
19					

SHRUBS

10	AAR	AMELANCHIER ALNIFOLIA REGENT	REGENT SERVICEBERRY	18" - 24" HT	CONTAINER
6	CSA	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE RED OSIER DOGWOOD	2 1/2'-3' HT	CONTAINER
3	FNH	FORSYTHIA 'NH GOLD'	NH GOLD FORSYTHIA	2'-2 1/2' HT	CONTAINER
10	IGC	ILEX GLABRA COMPACTA	COMPACT INKBERRY	2'-2 1/2' HT	CONTAINER
8	TME	TAXUS MEDIA 'EVER-LOW'	EVER-LOW YEW	2 1/2'-3' SPD	CONTAINER
37					

DRAWING SUBMITTED FOR CITY REVIEW

Ironwood
Landscape Architecture • Planning
Newmarket, NH | Portland, ME | 603.772.0590 | www.FeWood.com

WEAVE FILTRATION

QUALITY WAY
DOVER, NEW HAMPSHIRE

SHEET TITLE

LANDSCAPE PLAN

REVISION LOG

REV#	DATE	DESCRIPTION
1	7-26-2022	REV. PER TRC COMMENTS
2	8-29-2022	REV. PER TRC COMMENTS

PROJECT NO.	22036.0
DESIGN BY	J. HYLAND / K.OSGOOD
DRAWN BY	K.OSGOOD
CHECKED BY	J. HYLAND
DATE	JUNE 16, 2022

SCALE

0' 30' 60'
SCALE: 1" = 30'-0"

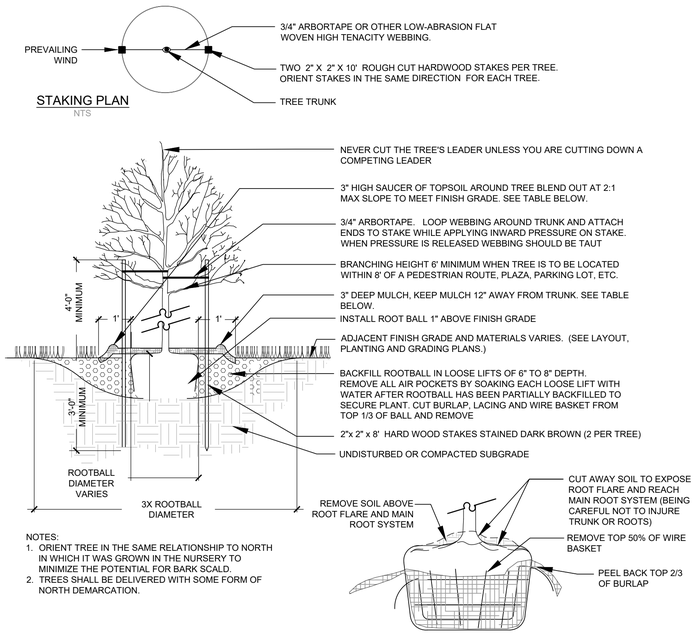
SEAL

JEFFREY R. HYLAND
026
CERTIFIED LANDSCAPE ARCHITECT
STATE OF NEW HAMPSHIRE

L1.0

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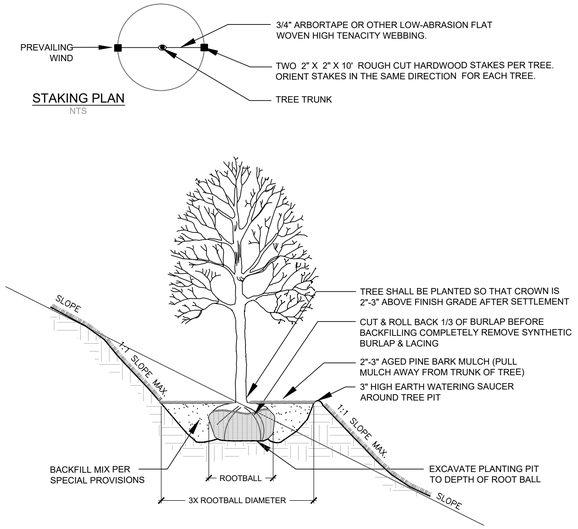


Deciduous Tree Planting

Not to Scale

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1 L2.0

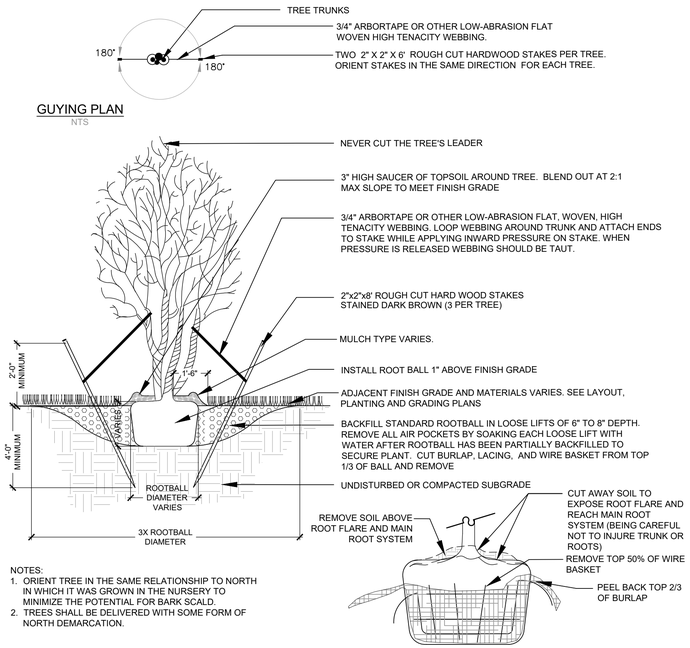


Deciduous Tree Planting: on Slope

Not to Scale

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2 L2.0

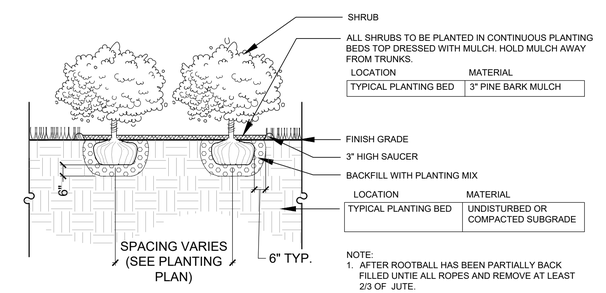


Deciduous Multi-Stemmed Tree Planting

Not to Scale

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3 L2.0

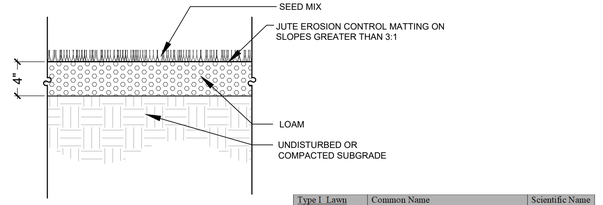


Shrub Planting

Not to Scale

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4 L2.0



Type I Lawn Percent by weight	Common Name	Scientific Name
40%	Celmfine, Rebel II or Tribute Tall Fescue	
15%	Palmer II Perennial Ryegrass	
10%	Jamestown Chewings Fescue	
10%	Reliant Hard Fescue	
10%	Bridsfoot Trefoil	*Arvenis* variety
5%	Switchgrass	
5%	White Clover	
5%	Redtop	*Streaker* variety

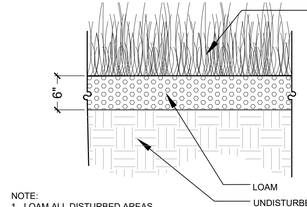
Apply at a rate of 265/lbs/acre

Loam and Lawn Seed Mix

Not to Scale

©IRONWOOD 2022

5 L2.0



Botanical Name	Common Name
Carex lurida	Lurid Sedge
Carex scoparia	Blunt Broom Sedge
Verbena hastata	Blue Vervain
Carex lupulina	Hop Sedge
Scirpus atrovirens	Green Bulrush
Panicum rigidulum	Redtop Panic Grass
Deschampsia cespitosa	Tufted Hairgrass
Bidens aristosa	Tickseed Sunflower/Bur Marigold
Eleocharis palustris	Creeping Spike Rush
Juncus effusus	Soft Rush
Carex crinita	Fringed Sedge
Mimulus ringens	Square Stemmed Monkey Flower
Aster puniceus	Swamp Aster
Eupatorium perfoliatum	Boneset
Glyceria canadensis	Rattlesnake Grass
Asclepias incarnata	Swamp Milkweed
Helenium autumnale	Common Sneezeweed
Penthorum sedoides	Ditch Stonecrop

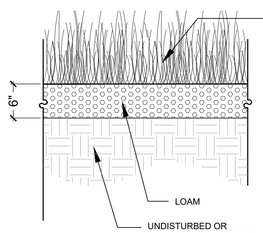
Apply at rate of 231bs/acre. New England Wildflower Mix available at New England Wetland Plants, Ma: www.newp.com . Approved equal may be substituted.

Wet Meadow / Pond Seed Mix

Not to Scale

©IRONWOOD 2022

6 L2.0



New England Erosion Control/Restoration Mix for Dry Sites

Botanical Name	Common Name	Indicator
Elymus canadensis	Canada Wild Rye	FACU+
Festuca rubra	Red Fescue	FACU
Lolium multiflorum	Annual Ryegrass	
Lolium perenne	Perrenial Ryegrass	
Schizachyrium scoparium	Little Bluestem	FACU
Panicum virgatum	Switch Grass	FAC
Sorghastrum nutans	Indian Grass	UPL

NOTE:
1. LOAM ALL DISTURBED AREAS.
2. PRIOR TO SEEDING THE EROSION CONTROL SEED MIX, PROPERLY PREPARE THE SEED BED.
3. INSTALL JUTE MATTING ON SLOPES GREATER THAN 3:1.
4. FOLLOW MFG INSTRUCTIONS FOR SEEDING. AVAILABLE AT NEW ENGLAND WETLAND PLANTS, MA: WWW.NEWP.COM. APPROVED EQUAL MAY BE SUBSTITUTED.
5. SQUARE FOOTAGE: 27,140 (PER PLAN)

Dry Site Restoration Seed Mix

Not to Scale

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7 L2.0

DRAWING SUBMITTED FOR CITY REVIEW

Ironwood
Landscape Architecture • Planning
Newmarket, NH | Portland, ME | 603.772.0590 | www.FeWood.com

WEAVE FILTRATION

QUALITY WAY
DOVER, NEW HAMPSHIRE

SHEET TITLE

LANDSCAPE DETAILS

REVISION LOG

REV#	DATE	DESCRIPTION
1	7-26-2022	REV. PER TRC COMMENTS
2	8-29-2022	REV. PER TRC COMMENTS

PROJECT NO.	22036.0
DESIGN BY	J. HYLAND / K.OSGOOD
DRAWN BY	K.OSGOOD
CHECKED BY	J. HYLAND
DATE	JUNE 16, 2022
SCALE	AS NOTED

SEAL



L2.0

©2022 Ironwood Design Group, LLC

C:\Users\factor\Documents\Clients\Ironwood\Weave Filtration, Dover\ID-SP-22082922.dwg, Kate Osgood 8/29/2022 12:06:20 PM

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: White Birch Armory Telephone # 603-330-0146

Address of Applicant: 80 Industrial Park Drive Dover, NH 03820

E-Mail Address: sean@wbarmory.com

Name of Property Owner (if different from applicant): Recon Realty, LLC Telephone # 603-330-0146

Address of Property Owner: 80 Industrial Park Drive Dover, NH 03820

PROPERTY INFORMATION

Assessor's Map # G Lot(s) # 3-A1

Address of Property: 80 Industrial Park Drive

Zoning District(s) CM Overlay District(s) N/A

Existing Use of Property: Commercial Building w/Associated Parking

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Wetland buffer impacts totaling 6,975 sf associated with expanded parking, additional drainage and necessary grading. No wetlands are being impacted.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: ~~N/A~~

NH DES Alteration of Terrain Permit - Pending

Name of Professional That Prepared Plans: Stephen J. Haight, PE - Civilworks New England

Address P.O. Box 1166, Dover, NH 03821 Telephone #: 603-749-0443

Professional License #: Stephen J. Haight, PE #7978 E-mail address: shaight@civilworksne.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 6/22/22

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 6/22/22

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 6/22/22

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
G	3-A1	Recon Realty, LLC	80 Industrial Park Drive Dover, NH 03820

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS
	White Birch Armory	80 Industrial Park Drive Dover, NH 03820

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Stephen J. Haight, PE	Civilworks New England	P.O. Box 1166 Dover, NH 03821
Kevin McEneaney, LLS	McEneaney Survey Associates	24 Chestnut Street Dover, NH 03820

Conservation Easement Holder: N/A

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

CIVILWORKS NEW ENGLAND

181 WATSON ROAD
P.O. BOX 1166
DOVER, NH 03821-1166
PHONE: 603.749.0443 FAX: 603.749.7348

TRANSMITTAL

To: City of Dover
Planning Board
288 Central Avenue
Dover, NH 03820

From: Civilworks New England

Phone: (603)-749-0443 **Date:** 9/2/2022

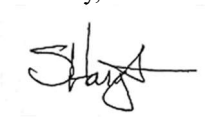
Re: White Birch Armory – Building Addition
80 Industrial Park Drive
Tax Map G, Lot 3-A-100
Civilworks New England Ref. No. 19003
Conservation Commission Submittal

- **Comments:**

Attached are the following:

- (2) Conditional Use Permit Application (6,975 sf of wetland buffer impact)
- (1) 22” x 34” Plan Set
- (1) 11”x17” Plan Set

Sincerely,



Stephen J Haight, PE
CIVILWORKS NEW ENGLAND

SJH

PROJECT NARRATIVE

for

White Birch Armory Building Addition

Site Plan

80 Industrial Park Drive
Tax Map G, Lot 3-A-100

August 2022

PROJECT OVERVIEW & SITE CHARACTERISTICS

The project parcel is shown on Tax Map G as Lot 3-A-100, is located within the CM District, consists of +/- 8.09 acres, and is currently developed with an existing +/- 19,500s.f. building housing an indoor range, retail, office and warehouse areas. The property is owned by Recon Realty, LLC and is home to White Birch Armory. The project applicant is proposing a +/- 20,287 s.f. addition to increase both office and warehouse space on site. The development will also include additional parking as well as landscaping, lighting and stormwater mitigation improvements.

The site is currently serviced by public water and sewer connections, underground electric service, and natural gas service. A small portion of grading, drainage, and pavement is proposed within the 50' wetland buffer with impacts of 6,975 s.f. (See Conditional Use Permit application). There are no proposed impacts to any wetlands.

The project site consists of the following general improvements:

- Clear the limits of work for construction.
- Construction of +/- 20,287 s.f. office/warehouse addition and associated parking.
- Construction of on-site stormwater detention and treatment system, grading, and other drainage requirements.
- Site utility construction.
- Landscape the site and stabilize remaining areas with loam and seed.

DRIVEWAY AND PARKING LOT

Employee and visitor parking will continue to be associated with the existing front parking areas. The proposed parking areas will primarily be for employees of the facility. A dedicated 30' wide x 125' long truck access area will ensure continued access to the existing loading docks. The parking area will have a 24' wide drive aisle with 18' long parking stalls. Lighting for the proposed parking lot and driveway will be per the Lighting Plan and will be LED fixtures that are dark sky compliant.

For the proposed development (inclusive of both existing building and the proposed addition) the City of Dover parking maximums allow for the following (105 spaces):

Required/Proposed:

• Industrial / Warehouse:	1 space per 800 s.f. (20,287 s.f.)	=	25 surface spaces
• Retail:	1 space per 275 s.f. (15,400 s.f.)	=	56 surface spaces
• Office:	1 space per 300 s.f. (7,086 s.f)	=	24 surface spaces

- Existing parking = 60 Surface Spaces (including 3 Accessible Spaces)
- Total proposed = **74 Surface Spaces (includes 3 Accessible Spaces)**

WETLAND SETBACK IMPACT TYPE

The project work requires a conditional use permit from the City of Dover. Approximately +/- 6,975 s.f. of the wetland buffer will be impacted. The project does not impact bogs, marshes, sand dunes, tidal wetlands, cedar swamps, undisturbed tidal buffer zone, or involve any work within 50 feet of a salt marsh. The project is not located within 100 feet of prime wetlands.

DRAINAGE

The parcel is located on the western side of Industrial Park Drive. The proposed development is surrounded by other commercial properties within a previously established industrial park. The site is developed and the groundcover primarily consists of grass and woody vegetation but also includes approximately +/- 1.4 acres of onsite impervious area from the existing building, driveway, and associated parking areas. The 8.32 acre watershed of the parcel includes the project site as well as a portion of Industrial Park Drive. On site soils are a mix of Udorthents, Sutton, Buxton, and Scantic soils. Portions of the Udorthents and Sutton soils are HSG B, with other portions of the Udorthents and Sutton as well as the Buxton, and Scantic soils classified as HSG C.

The project proposes +/- 65,000 s.f. of disturbance. The project will require permitting through NH DES Alteration of Terrain as the overall disturbance to the parcel within the past 10 years will meet permitting thresholds of greater than 100,000 s.f. The site has been designed in accordance with NH DES AoT requirements to treat the stormwater runoff from the full buildout of the site, including the existing building and impervious areas. The post development watershed is modeled utilizing the same points of analysis as the predevelopment watershed, allowing direct comparison of the peak runoff between the pre and post developed conditions (see drainage report).

UTILITIES

The project is currently serviced by City of Dover water and sewer as well as Unitil for natural gas, and Eversource for electricity. The project proposes minimal sewer improvements to provide sewer connection for the proposed addition. Sewer connections and any necessary upgrades will be made per the City's Community Services Utility Division and Fire Department requirements and standards.

September 2, 2022
White Birch Armory – Building Addition CNE# 19003
Tax Map G, Lot 3-A-100, 80 Industrial Park Drive, Dover, New Hampshire

From 170-27.1 (Wetland Protection District)

(a) Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area. **This proposal is for an addition to the existing building. The locations of the truck turn around, parking area, building addition, side slopes, and wet pond location were located to avoid wetland impacts and to minimize wetland buffer impacts. The small area of impact to the wetland buffer is unavoidable due to the limited area available.**

(b) Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative. **All wetland impacts have been avoided. Design incorporated site characteristics and limitations including current development, existing easements, existing slope, and soil type to minimize wetland buffer impacts. The drainage system includes a wet pond for stormwater treatment, allowing treatment for not only the new construction but the existing developed areas of the site. This site configuration is the least impacting alternative.**

(c) Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade. **There are no wetland impacts. All wetland buffer impacts have been minimized by limiting paved areas to smallest footprint allowable as well as utilizing 2:1 side slopes for the site grading minimizing impact to the wetland buffer. Please note that the side sloes in the wet pond have been minimized as much as is practicable.**

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review. **Mitigation is not required as there are no proposed wetland impacts.**

(e) Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below. **A wetland permit is not required as there are no proposed wetland impacts.**

Landscape Best Management Practices
Operations and Maintenance Plan

White Birch Armory

74 Industrial Drive
Dover, New Hampshire 03820

Prepared for
Joseph Griffin
Civilworks New England/Haight Engineering, PLLC
181 Watson Road
PO Box 1166
Dover, New Hampshire 03821

Prepared by
Ironwood Design Group, LLC
PO Box 873
Exeter, New Hampshire 03833



Ironwood
Landscape Architecture • Planning

Landscape Maintenance

Introduction

The landscape enhancements proposed for the 74 Industrial Drive building will require modest maintenance at various times throughout the year. For the site plantings, maintenance is most important during the first 1-2 years following installation when plants are becoming established. Anyone involved in the upkeep of the facility should become familiar with the landscape and its features. Identified below are basic, at minimum, maintenance tasks:

Weekly Tasks

1. Prune back any shrubs overhanging curbs or sidewalks.
2. Remove litter from plants bed.
3. Remove broken or fallen branches from trees.
4. Prune sucker growth from tree trunks.
5. Remove weeds larger than 2 inches high or wide from plant beds. Weeds 2 inches and larger must be removed, not just killed. **The application of herbicides such as Roundup is discouraged.**
6. Any invasive species seedlings observed should be removed and disposed of properly.
7. Replace bark mulch that may have been washed out of planting beds. Smooth mulch layer if it has been disturbed.
8. Check plants for signs of stress, pests or disease and notify Owner for authorization to replace.
9. If a significant decline in plant health is attributed to an insect pest, **apply an organic product and/or process** to control the pest.
10. Water plants that are dry and stressed.
11. Notify Owner for authorization to replace dead plants at the appropriate time (see annual tasks, September).
12. Identify other tasks listed on the Annual and Monthly checklist of tasks.

Annual Tasks

Early Spring

1. Prune winter damage such as broken tree branches that interfere with public safety.
2. Trim dead perennial foliage left in the fall for winter interest to within six inches of the ground.
3. Add new mulch to plant beds where the mulch depth has been reduced to less than 2 inches. Mulch depth shall not exceed two inches (top dressed). Mulch is not required where shrubs or groundcover completely hide the soil surface from view.
4. Gently prune shrubs at appropriate time of year based on species, for shape and form. **Do not shear.**
5. Energize the irrigation system, repair damaged components, test the system, adjust heads, and update programing.
6. Conduct a soil test to measure at a minimum, pH, phosphorus, potassium, calcium, and magnesium. Follow the recommendations provided with the soil test results.
7. Apply fertilizer only when required. A single application of fertilizer per year before Memorial Day is encouraged.

Monthly Tasks

June

No additional items

July

No additional items

August

No additional items

September

1. Inventory all plant materials, including an exact count of all shrubs and trees.
2. Replace any dead or missing plants.
3. Aerate lawn areas.
4. Apply pelletized lime at a rate of 80 lbs/1,000 square feet or as soil test dictates.

October

1. Winterize irrigation system.

November

1. Remove leaves from lawn areas and planting beds.
2. Remove perennial vegetation that has died back for the season.
3. Apply “WILT-PRUF” to broadleaf evergreens, according to label instructions, to protect shrubs from winter die back.

December

1. Prune any tree branches that interfere with public safety.
2. Prune street and parking lot trees yearly to encourage strong growth the following growing season. Trees adjacent to pedestrian sidewalks shall have branches pruned to 6-foot height.

Management Task or Activity	Time or Frequency						
	Weekly	Monthly	Spring	Summer	Fall	Winter	After Major Rain Events
Replace dead or dying plants			X				
Remove weeds	X		X	X	X		
Cut down grasses			X				
Remove accumulated leaves, litter, and plant debris		X					X

Stormwater Detention Facilities

Introduction

The stormwater facilities are used to attenuate flow and treat stormwater. The stormwater treatment areas consist of a large basin and linear swales seeded with a variety of native, adaptable, and rugged perennial grasses, and sometimes additional flowering plants. There are maintenance tasks associated with stormwater facilities.

Erosion

The soil in the facility and in areas draining to the facility shall be inspected for erosion. Eroded areas shall be filled with soil or mulch and seeded with the approved seed mix for the location.

Sediment Accumulation & Clogging

The accumulation of sediment within the facility may reduce its infiltration capacity and impair performance. The facility shall be inspected for accumulation of sediment and excessive sediment shall be removed with the area re-mulched and replanted as appropriate and necessary.

Outlet Structure Maintenance

The facility outlet structure requires monitoring. Periodically, the orifice on the outlet pipe may clog with debris. Any found debris should be removed and appropriately disposed of off-site.

Debris & Litter

Debris and litter should be removed monthly to maintain aesthetic appearance and public acceptance.

Plant Maintenance

Healthy vegetation contributes to the optimal operation of the stormwater facility. Planting area maintenance tasks include the removal of accumulated leaves, litter, and plant debris as needed. During the first 1-2 years after planting, the facility should be monitored for invasive species and weeded as needed and appropriate. Well-established facility vegetation should be mowed annually in the fall.

Snow Storage

Snow shall not be dumped directly onto the facility.

Chlorides

The stormwater facility is not suitable for treating chlorides. Chloride use on source surface areas tributary to the facility should be avoided if possible. In these locations, it would be prudent to eliminate or reduce application of chloride-containing deicing compounds, use alternative deicers, or apply clean sand as needed. Aggressive sweeping in these areas, along with pretreatment sumps and filter strips, will minimize the negative impact of the sand on the facility.

Management Task or Activity	Time or Frequency						
	Weekly	Monthly	Spring	Summer	Fall	Winter	After Major Rain Events
Inspect for erosion. Rake and redistribute/replenish any soil, rap, or mulch that has eroded		X					X
Inspect for standing water							X
Remove accumulated leaves, litter, and plant debris		X					X
Weed plant material		X					
Mow plant material					X		

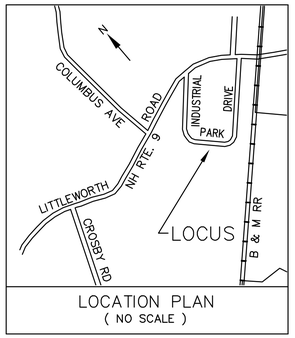
SITE PLAN
WHITE BIRCH ARMORY
BUILDING ADDITION
80 INDUSTRIAL PARK

TAX MAP G, LOT 3-A-100

INDUSTRIAL PARK DRIVE

DOVER, NH

AUGUST 15, 2022



LOCATION PLAN
(NO SCALE)

White Birch ARMORY

_____ _____
DATE

OWNER
RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH

APPLICANT
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

SITE CIVIL ENGINEER
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

LAND SURVEYOR
MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND
P.O. BOX 681
24 CHESTNUT STREET
DOVER, NH 03820
(603) 742–0911

ARCHITECT
JOHN M. TUTTLE, ARCHITECT #04015
TW DESIGNS, LLC
254 DRAKE ROAD
STRAFFORD, NH 03884
(603) 664–2181

LANDSCAPE ARCHITECT
JEFFERY R. HYLAND, LANDSCAPE ARCHITECT #00026
IRONWOOD DESIGN GROUP, LLC
55 MAIN STREET
NEWMARKET, NH 03857

WETLAND SCIENTIST
BRUCE A. GILDAY, CWS #088
BAG LAND CONSULTANTS
43 ROCKINGHAM STREET
CONCORD, NH 03301

SOIL SCIENTIST
BRUCE A. GILDAY, CSS #012
BAG LAND CONSULTANTS
43 ROCKINGHAM STREET
CONCORD, NH 03301

SHEET INDEX	SHEET
COVER SHEET	1
NEIGHBORHOOD PLAN	2
EXISTING CONDITIONS PLAN (BY MCENEANEY SURVEY)	3
NOTE SHEET	4
DEMOLITION PLAN	5
SITE PLAN	6
GRADING, DRAINAGE & EROSION CONTROL PLAN	7
UTILITY PLAN	8
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DOVER LADDER TRUCK MOVEMENT PLAN	17
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COVER SHEET	PCS
3D RENDER	R-1
FLOOR PLANS	A1.1
EXTERIOR ELEVATIONS	A3.1
SECTIONS	A4.2
LANDSCAPE PLAN	
LANDSCAPE PLAN	L1.0
LANDSCAPE PLAN DETAILS	L2.0

PLANNING FILE NO.: P22–



ABUTTERS LIST
(WITHIN 200 FT)

TAX MAP	LOT NO.	NAME & ADDRESS
G	G-3-A-101	JUMAJA SEACOAST LLC 74 INDUSTRIAL PARK ROAD DOVER, NH 03820
G	G-3-B-0	85 INDUSTRIAL PARK II LLC 273 CORPORATE DRIVE, SUITE 150 PORTSMOUTH, NH 03801
G	G-4-E-0	WILLMANCH CORP C/O/ BT-MEWYO LLC ATTN: CORP REAL ESTATE 55 GLENLAKE PARKWAY NE ATLANTA, GA 30328
G	G-41-0-0	BT-NEWYO LLC ATTNE CORP REAL ESTATE DEPT TAX MRG 55 GLENLAKE RARKWAY NE ATLANTA, GA 03028
G	G-2-0-0	WESTFIELD LLC 340 CENTRAL AVE, SUITE 202 DOVER, NH 03820

H / 33-E — TAX MAP / LOT NUMBER

W — N — E

MAGNETIC

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 8-15-22
SCALE: 1"=100'
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:JH
PROJECT NO:19003
FILE: SITE-ADDITION

NEIGHBORHOOD PLAN

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

2

8/11/2022 10:45:50 File: \\CNEServer1\MSA Projects\2227 CNE 19003 White Birch\Drawings\22-2227 EC.dwg Layout: 22-2227 EC 2022

REFERENCE PLANS:

1.) SUBDIVISION PLAN 74 INDUSTRIAL PARK, LLC, 74 INDUSTRIAL PARK ROAD AND LITTLEWORTH ROAD, DOVER, NEW HAMPSHIRE. SCALE: 1" = 60'; DATED: JANUARY 6, 2010, REVISED THROUGH 1/22/2010; BY: TRITECH ENGINEERING CORPORATION. RECORDED S.C.R.D. PLAN 99-24.

2.) TOPOGRAPHIC PLAN - EXISTING CONDITIONS PLAN PREPARED FOR 74 INDUSTRIAL PARK, LLC TAX MAP G, LOT No. 3A-100 INDUSTRIAL PARK ROAD CITY of DOVER COUNTY of STRAFFORD STATE of NEW HAMPSHIRE. SCALE: 1" = 50'; DATED: MAY 20, 2019; BY: McENEANEY SURVEY ASSOCIATES.

3.) AS-BUILT SITE PLAN PREPARED FOR WHITE BIRCH ARMORY, LLC TAX MAP G, LOT No. 3A-100 80 INDUSTRIAL PARK ROAD CITY of DOVER COUNTY of STRAFFORD STATE of NEW HAMPSHIRE. SCALE: 1" = 20'; DATED: JULY 14, 2020, REVISED THROUGH 7/30/21; BY: McENEANEY SURVEY ASSOCIATES OF NEW ENGLAND.

14°37'29" MAG. OBS. 12/03/2018 — NH STATE PLANE GPS OBS. NOVEMBER 30, 2018

INDUSTRIAL PARK ROAD
PUBLIC 60'-WIDE R.O.W. - 743/244 & 759/141

CB RIM = 115.9'
15" RCP CULVERT INV. = 112.6'
MAG NAIL SET
NHHD BOUND FOUND
S35°12'35"E RADIAL
BITUMINOUS CONCRETE DRIVEWAY
SMH RIM = 115.1'
18" RCP CULVERT INV. = 110.0'
15" RCP CULVERT INV. = 112.1'
SMH RIM = 115.0'
8" PVC CULVERT INV. = 112.1'
CITY WATER MAIN EASEMENT REF. 540 / 315 & 288 / 603
C1
C2
EDGE OF PAVEMENT (TYP.)
S50°03'34"W RADIAL
SMH D
NHHD BOUND FOUND
S39°59'26"E 132.11'
IRON ROD FOUND N - 250,812.901 E - 1,187,241.155 (SEE NOTE 8)
S50°43'27"W 228.51'
WATER SERVICE: 6" FIRE PROTECTION 1" DOMESTIC
BITUMINOUS CONCRETE DRIVEWAY AND PARKING AREA
HEADWALL 12" HDPE INV. IN = 110.4 INV. OUT = 109.5
IRON ROD FOUND
256.16' S10°11'09"W
4" PVC INV. OUT = 104.0
10' SIDE/REAR ZONING SETBACK LINE (TYP.)
SMH RIM = 104.3'
IRON ROD FOUND
36" CULVERT INV. = 97.1'
S30°02'29"W 212.60'
SMH RIM = 102.4' GROUND = 97.4' SHELF @ IN = 93.7' (CONCRETE) SHELF @ OUT = 93.3' (CONCRETE) INV. IN = 93.2' 12" SDR INV. OUT = ~~92.7'~~ 12" SDR
IRON ROD FOUND

C / 3B
85 INDUSTRIAL PARK II LLC
273 CORPORATE DRIVE, SUITE 150
PORTSMOUTH, NH 03801
2390 / 453

C / 3C
SOLVETA SALES, INC
44 INDUSTRIAL PARK ROAD
DOVER, NH 03820
4459 / 516

C / 4E
WILLMANCH CORPORATION
c/o BT-NEWYO, LLC
ATTN: CORP REAL ESTATE
55 GLENLAKE PARKWAY NE
ATLANTA, GA 30328 1118 / 392

35' FRONT ZONING SETBACK LINE
20' WIDE WATER MAIN EASEMENT 743/244 & 759/141
STEEL FRAME BUILDING 19,680 S.F. F.F. ELEVATION = 112.7
RD 12" HDPE
CB 1
CB 3
D 12"HDPE
D 15"HDPE
CB 2
OS\1
FES 1 INV. = 104.3
FES 2 INV. = 101.8

C / 3A-1
PARCEL AREA
352,425 S.F.
8.09 Ac.

50' WETLAND BUFFER (TYP.)
18" CMP CULVERT INV. = 107.9'
N78°32'48"E 210.35'
N69°48'43"W 113.77'
N78°32'48"E 249.06'
IRON PIPE FOUND
EDGE OF WETLAND (TYP.)

C / 41
BT-NEWYO, LLC
ATTN: CORP REAL ESTATE
55 GLENLAKE PARKWAY NE
ATLANTA, GA 30328
2710 / 956

10' SIDE/REAR ZONING SETBACK LINE (TYP.)
20' WIDE WATER MAIN EASEMENT 859 / 63
N08°12'17"W 1099.34'
APPROXIMATE WATER MAIN LOCATION
24" HDPE CULVERT INV. IN = 102.7' INV. OUT = 102.6'
IRON PIPE FOUND N - 251,367.676 E - 1,186,699.120 (SEE NOTE 8)

C / 2
WESTFIELD, LLC
340 CENTRAL AVENUE, SUITE 202
DOVER, NH 03820
4733 / 471
906,049 S.F. / 20.80 Ac.

"LOT 4C"
N/F INDUSTRIAL PARK AUTHORITY
(AN AGENCY OF THE STATE OF NH)
CONCORD, NH
825 / 305

No.	Central Angle	Radius	Arc Length	Chord Length	Chord Bearing
C1	23°45'23"	531.09	220.20	218.63	N66°40'06"E
C2	94°46'51"	459.43	760.01	676.27	S07°23'59"W

NOTES:

1.) OWNER OF RECORD:
G/3A-100 RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NEW HAMPSHIRE 03820
S.C.R.D. VOL. 4713, PAGE 625

2.) G/3A-100 - DENOTES TAX MAP AND PARCEL NUMBER.

3.) ZONING DISTRICT IS RURAL RESTRICTED INDUSTRIAL (I-2)

4.) DIMENSIONAL REGULATIONS:

MINIMUM LOT SIZE	= 20,000 S.F.
MAXIMUM LOT COVERAGE	= 50 PERCENT
MINIMUM FRONTAGE	= 100 FEET
BUILDING REQUIREMENTS:	
FRONT SETBACK	= 35 FEET MIN.
SIDE SETBACK	= 10 FEET
REAR SETBACK	= 10 FEET
MAXIMUM BUILDING HEIGHT	= 50 FEET

PER AGREEMENT BETWEEN THE INDUSTRIAL PARK AUTHORITY AND DOVER DEVELOPMENT CORPORATION RECORDED AT S.C.R.D. VOL. 697, PAGE 325 AND AMENDED IN VOL. 759, PAGE 339 THE FOLLOWING RESTRICTIVE COVENANTS ARE IN PLACE:

BUILDING SETBACKS:	
FRONT TO A RIGHT OF WAY	= 50 FEET
SIDE	= 30 FEET
REAR	= 50 FEET
RATIO OF LAND TO BUILDING	= AT LEAST 5 TO 1

5.) THE INTENT OF THIS PLAN IS TO DEPICT AND DESCRIBE THE SUBJECT PARCEL "EXISTING CONDITIONS". INFORMATION SHOWN IS BASED ON SURVEY FIELD DATA TAKEN DURING APRIL AND MAY 2019 BY THIS OFFICE.

6.) PARCEL AREA: 352,425 S.F. / 8.09 Ac.

7.) THE SUBJECT PARCEL IS LOCATED WITHIN AREAS DETERMINED TO BE OUTSIDE THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANELS 0310 & 0320; SUFFIX E; MAP NUMBERS 33017C0310E & 33017C0320E; EFFECTIVE DATE SEPTEMBER 30, 2015.

8.) BASIS OF BEARINGS IS NH STATE PLANE GRID FROM GPS OBSERVATION TAKEN ON NOVEMBER 30, 2018.

9.) VERTICAL DATUM IS NAVD88 FROM GPS OBSERVATION TAKEN ON NOVEMBER 30, 2018.

10.) WETLANDS ONSITE WERE IDENTIFIED UTILIZING THE 1987 FEDERAL TECHNICAL REPORT. THE DELINEATION WAS PERFORMED ON OCTOBER 5, 2021 BY BAG LAND CONSULTANTS (BRUCE A. GILDAY, CWS); 43 ROCKINGHAM STREET, CONCORD, NH 03301 AND FIELD LOCATED BY McENEANEY SURVEY ASSOCIATES, INC..

11.) PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES, INC. DURING APRIL AND MAY 2019 WITH AN ERROR NOT GREATER THAN 1 IN 10,000.

12.) SEE REFERENCE No. 3 FOR EXISTING BUILDING INFORMATION.

SANITARY SEWER STRUCTURE SCHEDULE

SMH A (NOT SHOWN)
RIM = 115.2
INV. IN 8" PVC = 110.0 (ROADWAY NORTH)
INV. IN 8" PVC = 110.0 (U.P.S. SMH)
INV. OUT 8" PVC = 110.0 SMH B

SMH B (NOT SHOWN)
RIM = 116.3
INV. IN 8" PVC = 108.7 SMH A
INV. OUT 8" PVC = 108.7 SMH C

SMH C
RIM = 114.6
INV. IN 8" PVC = 108.1 SMH B
INV. OUT 8" PVC = 108.0 SMH D

SMH D
RIM = 115.0
INV. IN 8" PVC = 107.5 SMH C
INV. OUT 8" PVC = 107.4 (ROADWAY SOUTH)

DRAINAGE STRUCTURE SCHEDULE

CB 1
RIM = 110.35
INV. IN 12" PVC = 106.3 BUILDING
INV. OUT 12" HDPE = 106.2 CB 3
SUMP = 103.35

CB 2
RIM = 109.51
INV. OUT = 105.7 CB3
SUMP = 102.8

CB 3
RIM = 108.50
INV. IN = 105.0 CB 2
INV. IN = 105.2 CB 1
INV. OUT = 104.9 FES 1
SUMP = 101.6

OS 1
INV. IN = 103.4 POND
INV. IN = 104.7 POND
INV. IN = 105.6 POND
INV. OUT = 102.8 FES

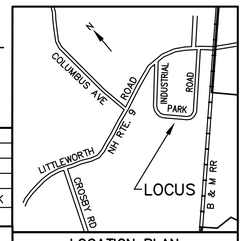
"I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION, BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS."

ATTENTION:

HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF INDUSTRIAL PARK ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT 1-888-344-7233 TO VERIFY LOCATION.

NO.	DATE	DESCRIPTION	BY	CHK
		REVISIONS		

19-2227	EXIST. COND.	19-03	66-69
PROJECT NO	TYPE	FIELDBOOK & PAGES	



LOCATION PLAN
(NO SCALE)

LEGEND

GAS - GAS MAIN AND / OR SERVICE
UGU - UNDERGROUND UTILITIES (POWER, TELECOMMUNICATIONS, CABLE TELEVISION)
UGE - UNDERGROUND ELECTRIC LINE
UGT - UNDERGROUND TELECOMMUNICATIONS
UP - UTILITY POLE
INV. - INVERT
RIM - STRUCTURE RIM
N -247,351.744 - NORTHING
E - 1,199,437.985 - EASTING
ELEV. - ELEVATION
56 - CONTOUR LINE - 2' INTERVAL
HDPE - HIGH DENSITY POLYETHYLENE
RIP RAP - STONE RIP RAP OUTLET PROTECTION
W 6"DI - WATER MAIN, MATERIAL AND PIPE SIZE
DI - DUCTILE IRON
T - ELECTRICAL TRANSFORMER
POLE MOUNTED LUMINAIRE W/ 2'ø CONC. BASE
WSO - WATER SHUT-OFF (CURB STOP)
HYD - FIRE HYDRANT
WV - WATER GATE VALVE

SMH - SEWER MANHOLE AND ID
DMH - DRAIN MANHOLE AND ID
CB - CATCH BASIN AND ID
SIGN ON POST
SGC - SLOPED GRANITE CURB
CCB - CAPE COD BERM
EOP - EDGE OF PAVEMENT
PVC - POLYVINYL CHLORIDE
S.F. - SQUARE FEET
Ac. - ACRE
(TYP.) - TYPICAL
± - MORE OR LESS
S.C.R.D. - STRAFFORD COUNTY REGISTRY OF DEEDS
OS - OUTLET STRUCTURE
I.R. - IRON ROD
BOLLARD
UD - UNDER DRAIN
FD - FOUNDATION DRAIN
RD - ROOF DRAIN
D 12"HDPE - DRAINAGE PIPE SIZE & TYPE
HC PARKING

EXISTING CONDITIONS PLAN OF LAND
PREPARED FOR
RECON REALTY, LLC
TAX MAP G, LOT No. 3A-100
80 INDUSTRIAL PARK DRIVE
CITY of DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

DOVER PLANNING FILE No. P 22-___

DRAWN BY: RJM	FILE: \2227\Dwgs\22-2227 EC
SCALE: 1" = 50'	DATE: APRIL 22, 2022

50 25 0 25 50 100 150 200

STATE OF NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR SIGNATURE

McEneaney Survey Associates of NEW ENGLAND
P.O. Box 681 - 24 CHESTNUT STREET
DOVER, NH 03820 (603) 742-0911
SURVEYING - PLANNING - CONSULTING

GENERAL NOTES:

1. OWNER OF RECORD:

   C/3A-100 — RECON REALTY, LLC
   80 INDUSTRIAL PARK DRIVE
   DOVER, NEW HAMPSHIRE 03820
   S.C.R.D. VOL. 4713, PAGE 625

2. C/3A-100 — DENOTES TAX MAP AND PARCEL NUMBER.

3. ZONING DISTRICT IS COMMERICAL MANUFACTURING (CM)

DIMENSIONAL REGULATIONS:	REQUIRED	PROPOSED
MINIMUM LOT SIZE	= 20,000 S.F.	352,425 S.F.
MAXIMUM LOT COVERAGE	= 50 PERCENT	11.3%
MINIMUM FRONTAGE	= 100 FEET	±892'
BUILDING REQUIREMENTS:		
FRONT SETBACK	= 35 FEET MIN.	45.72' (EX)
SIDE SETBACK	= 10 FEET	32.51' (EX)
REAR SETBACK	= 10 FEET	52.62'
MAXIMUM BUILDING HEIGHT	= 50 FEET	27.5'

   * PER AGREEMENT BETWEEN THE INDUSTRIAL PARK AUTHORITY AND DOVER DEVELOPMENT CORPORATION RECORDED AT S.C.R.D. VOL. 697, PAGE 325 AND AMENDED IN VOL. 759, PAGE 339 THE FOLLOWING RESTRICTIVE COVENANTS ARE IN PLACE:

BUILDING SETBACKS:	REQUIRED
FRONT TO A RIGHT OF WAY	= 50 FEET
SIDE	= 30 FEET
REAR	
RATIO OF LAND TO BUILDING	= AT LEAST 5 TO 1

   * RESTRICTIONS ON THIS LOT WERE RELEASED JUNE 28, 2019.
4. PARCEL AREA: 352,425 S.F. / 8.09 Ac.
5. THE SUBJECT PARCEL IS LOCATED WITHIN AREAS DETERMINED TO BE OUTSIDE THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANELS 0310 & 0320; SUFFIX E; MAP NUMBERS 33017C0310E & 33017C0320E; EFFECTIVE DATE SEPTEMBER 30, 2015.
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9. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES, INC. DURING APRIL AND MAY 2019 WITH AN ERROR NOT GREATER THAN 1 IN 10,000.

DEMOLITION NOTES:

1. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
2. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY DEMOLITION/ CONSTRUCTION ACTIVITIES. (811).
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, UTILITIES AND PAVEMENT ON THE SITE TO THE LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NOT ALREADY OBTAINED BY THE OWNER AND ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
8. THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
9. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES, AND CODES.
10. ALL EROSION CONTROL NOTES SHALL INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.

PERMIT SUMMARY:

1. THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:

   ALTERATION OF TERRAIN: PENDING

2. LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT OR CONDITIONAL USE PERMITS GRANTED BY THE PLANNING BOARD FOR THE PROPOSED USE OR STRUCTURE, INCLUDING THE CASE NUMBER AND DATE OF DECISION AND ANY CONDITIONS.

   CONDITIONAL USE PERMIT: P22-XX PENDING

SITE NOTES:

1. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES, INC. DURING APRIL AND MAY 2019 WITH AN ERROR NOT GREATER THAN 1 IN 10,000.
2. THE INTENT OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH THE CONSTRUCTION OF A COMMERCIAL BUILDING, SURFACE PARKING, DRIVE AISLES, DRAINAGE IMPROVEMENTS, AND UTILITIES.
3. EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURES PER CHAPTER 153-14-E AND SHALL PROVIDE LIGHTING DIRECTED ON-SITE ONLY.
4. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13.
5. ALL ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.
6. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
7. STRIPE PARKING AREAS AS SHOWN INCLUDING HANDICAP SYMBOLS AND PAINTED ISLANDS. ALL MARKINGS SHALL BE CONSTRUCTED USING WHITE TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M-248-TYPE N.
8. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS, AND THE AMERICAN WITH DISABILITIES ACT, LATEST EDITIONS.
9. PAINTED ISLANDS SHALL BE 4 INCHES WIDE DIAGONAL LINES 3 FEET ON CENTER.
10. ON-SITE SNOW STORAGE SHALL OCCUR ALONG THE EDGES OF PROPOSED PAVEMENT.
11. ALL LAYOUT SHALL BE PERFORMED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR UNDER CONTRACT WITH THE CONTRACTOR.
12. SEE DETAILS FOR SIGN LEGENDS.
13. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE FACILITIES AND THEIR COMPONENTS DURING DEMOLITION AND CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE OWNERS REPRESENTATIVE. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS. SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AT THE COMPLETION OF THE PROJECT.
14. METHODS OF DEMOLITION, CONSTRUCTION AND ERECTION ARE THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED. IT IS THE CONTRACTORS' RESPONSIBILITY TO PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO DUST CONTROL AND SILT BARRIERS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES OR UTILITIES OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION PHASE CAUSED BY HIMSELF, HIS EMPLOYEES, HIS SUBCONTRACTORS OR EMPLOYEES OF SAME. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY FACILITIES FOR THE PROTECTION OF THE WORK, WORKERS AND PUBLIC SAFETY.
16. BUILDING ADDRESSES TO BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
17. THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS NH RSA 155-A:5. THE PROPOSED STRUCTURE WILL ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS.
18. THE SITE SHALL BE MAINTAINED TO PROVIDE ACCESSIBILITY IN ALL WEATHER CONDITIONS.
19. COMMERCIAL VEHICLE ROUTE DURING CONSTRUCTION SHALL CONFORM WITH DOVER CITY CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.
20. THE SUBJECT PARCEL(S) IS SERVED BY MUNICIPAL WATER AND SEWER.
21. THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN THE 50 FT. OF CONSERVATION AND WETLAND DISTRICTS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURRING.
22. AS-BUILT PLANS OF THE SITE SHALL BE SUBMITTED ON PAPER AND IN A DIGITAL FORMAT IN PDF AND AUTOCAD DWG, AUTOCAD DXF OR AN ESRI FORMAT TO THE CITY OF DOVER ENGINEER'S OFFICE UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILES SHALL BE GEO-REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.
23. A SECURITY SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 45, ARTICLE I, SECTION 45-2 OF THE CODE OF THE CITY OF DOVER.
24. SITE CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7 AM-6 PM, SATURDAY AND SUNDAY WORK HOURS 9 AM-4 PM. HOURS OF CONSTRUCTION MUST BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE MUST BE LOCATED AND APPROVED BY THE CITY ENGINEER OR ASSISTANT CITY MANAGER.
25. A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.
26. ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND WITH THE CITY OF DOVER COMMUNITY SERVICES REGULATIONS AND STANDARD SPECIFICATION FOR CONSTRUCTION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
27. A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURRING.
28. ANY RETAINING WALL TALLER THAN FOUR FEET (4') REQUIRES ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
29. ANY FENCE TALLER THAN SEVEN FEET (7') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
30. APPLICANT SHALL COMPLETE LAND USE DEVELOPMENT TRACKING FORM, MOST RECENTLY REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL.
    HTTPS://WWW.UNH.EDU/UNHSC/PTAPP
31. THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS/ENTITIES THAT MAY ACQUIRE ANY PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN. THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE NEED NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING.

GRADING NOTES:

1. ALL ROAD (INCLUDING PARKING LOT AND DRAINAGE) WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR CONSTRUCTION OF THE CITY OF DOVER, N.H. AND "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION", LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEERING CONSULTANT APPROVED BY THE OWNER, TO CONDUCT COMPACTION TESTING AND FILL GRADATION MONITORING PER THE ABOVE REFERENCED "STANDARD SPECIFICATIONS".
3. SEE EROSION CONTROL NOTES & DETAIL SHEET FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
4. ALL DRAINAGE PIPES SHALL BE HDPE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
5. ALL DISTURBED AREAS NOT OTHERWISE CALLED FOR SURFACE TREATMENT SHALL RECEIVE 6" OF HIGH QUALITY LOAM AND SHALL BE SEEDED WITH GRASS.
6. ALL SITEWORK CONSTRUCTION SHALL BE ADVANCED USING "BEST MANAGEMENT PRACTICES" SANCTIONED BY THE USDA SCS AND NHDES.
7. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED, UTILIZED AND MAINTAINED UNTIL BASE MATERIALS ARE CONSTRUCTED.
8. CONTRACTOR SHALL PROVIDE A FINISH GRADED SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND UNDER RAISED STRUCTURES.
9. DENSITY REQUIREMENTS:

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

   *ALL PERCENTAGES SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH AASHTO STANDARD 180, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH AASHTO STANDARD T-191, T-204, OR T-238 AND T-239.

10. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEET.
11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
12. INSPECT SILT BARRIERS AFTER EACH RAIN STORM OF 1/4 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
13. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED FOR THIS PROJECT. THE SWPPP MUST INCLUDE THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE SITE. PARTIES RESPONSIBLE FOR DEVELOPING THE SWPPP SHOULD REFER TO THE EPA NPDES CONSTRUCTION GENERAL PERMITS NOTICE OF INTENT FOR A COMPLETE OUTLINE OR REQUIRED ELEMENTS. THESE PLANS AND THE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN PREPARED FOR THIS PROJECT MAY BE UTILIZED IN FULFILLING THE REQUIREMENTS.
14. THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN THE 50 FT. OF CONSERVATION AND WETLAND DISTRICTS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
15. ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.
16. A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE AND APPROVED CONSTRUCTION SIGN SHALL BE IN PLACE PRIOR TO ANY EARTH DISTURBING ACTIVITY.
17. LIMIT TREE CLEARING TO ONLY THE EXTENT NECESSARY FOR CONSTRUCTION.
18. PLACARDS SHALL BE INSTALLED ALONG THE EDGE OF WETLAND PRIOR TO CONSTRUCTION.

UTILITY NOTES:

1. THE PROJECT SITE IS SERVED BY CITY WATER AND SEWER.
2. THE BEST AVAILABLE INFORMATION WAS USED TO DETERMINE THE LOCATION AND SIZE OF EXISTING UTILITIES. THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. THE EXACT SIZE AND LOCATION OF UTILITIES SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING WORK. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
3. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATIONS WITH THE RESPECTIVE UTILITY OWNERS PRIOR TO WORK BEING PERFORMED. CALL DIGSAFE AT 1-888-388-7233 OR "811".
4. ALL PROPOSED UTILITY SERVICES SHALL BE UNDERGROUND WITHIN THE SITE.
5. UNDERGROUND ELECTRIC, TELEPHONE, AND CABLE TV CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH/PER EVERSOURCE, VERIZON, COMCAST, AND UNITIL STANDARDS.
6. PROPOSED INSTALLATION OF UNDERGROUND CONDUITS FOR TELEPHONE, ELECTRIC AND GAS SERVICE SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY.
7. SEE ELECTRICAL DRAWINGS AND DETAILS FOR OUTDOOR LIGHTING CONDUIT LOCATIONS.
8. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
10. SEWAGE LOADING (PER ENV. - Wq 1008.03 TABLE 1008-1)
    OFFICE SPACE/UNSPECIFIED =
    2,986 S.F. X 5 GALS./DAY/100 S.F = 150 GPD
    PLUS
    FACTORIES/WAREHOUSES =
    10 GPD/EMPLOYEE (6) = 60 GPD
    TOTAL = 210 GPD
11. THE PROPOSED STRUCTURES SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED UNDER CHAPTER 81-30 OF THE CODE OF THE CITY OF DOVER AND THE ADOPTED STATE OF NH BUILDING AND FIRE CODES.
12. 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 AND APPROVED BY INSPECTION SERVICES PRIOR TO CONNECTION OF THE BACKFLOW DEVICE.
13. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13. ACCESS TO THE FDC SHALL MAINTAIN A CLEAR AND UNOBSTRUCTED PATH AT ALL TIMES.
14. ALL ON-SITE UTILITIES SHALL BE INSTALLED UNDERGROUND.
15. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
16. APPROVED BACKFLOW PREVENTORS SHALL BE INSTALLED ON BOTH FIRE AND DOMESTIC WATER LINES.
17. ALL UNUSED WATER SERVICES SHALL BE REMOVED BACK TO THE CORPORATION AT THE MAIN.

LEGEND

S.F.	SQUARE FEET	OHW	OVERHEAD WIRES
Ac.	ACRE	E	EXISTING ELECTRIC
±	MORE OR LESS	W	EXISTING WATER LINE
(TYP.)	TYPICAL	S	EXISTING SEWER LINE
S.C.R.D.	STRAFFORD REGISTRY OF DEEDS	D	EXISTING DRAINAGE LINE
NHHD	NEW HAMPSHIRE HIGHWAY DEPT.	G	EXISTING GAS LINE
TBR	TO BE REMOVED		PROPOSED SIGN
ELEV.	ELEVATION	74	PROPOSED FINISH GRADE
INV.	INVERT	x 74.00	PROPOSED SPOT GRADE
R.O.W.	RIGHT-OF-WAY		PAVEMENT WITH CURB
	EXISTING UTILITY POLE		SILT BARRIER
	EXISTING SIGN	PG	PROPOSED GAS
	EXISTING WATER SHUT-OFF	PW	PROPOSED WATER
	EXISTING WATER VALVE		PROPOSED FENCE
	EXISTING GAS VALVE	PE	PROPOSED ELECTRIC
	EXISTING HYDRANT	PD	PROPOSED DRAIN LINE
	EXISTING LIGHT/SIGNAL POLE	RD	PROPOSED ROOF DRAIN
S	EXISTING SEWER MANHOLE	PUD	PROPOSED UNDERDRAIN LINE
D	EXISTING DRAINAGE MANHOLE		PROPOSED CATCHBASIN
	EXISTING CATCHBASIN		INLET PROTECTION
5'R	PAVEMENT RADIUS		HANDICAP PARKING SYMBOL
SGC	SLOPE GRANITE CURB		PROPOSED CONCRETE
VGC	VERTICAL GRANITE CURB		PROPOSED SIDEWALK
x 74.00	EXISTING SPOT GRADE		
—94—	EXISTING GRADE		
BSC	BITUMINOUS SLOPED CURB		

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PLANNING FILE NO.: P22_

NO.	REVISION	APP'D	DATE

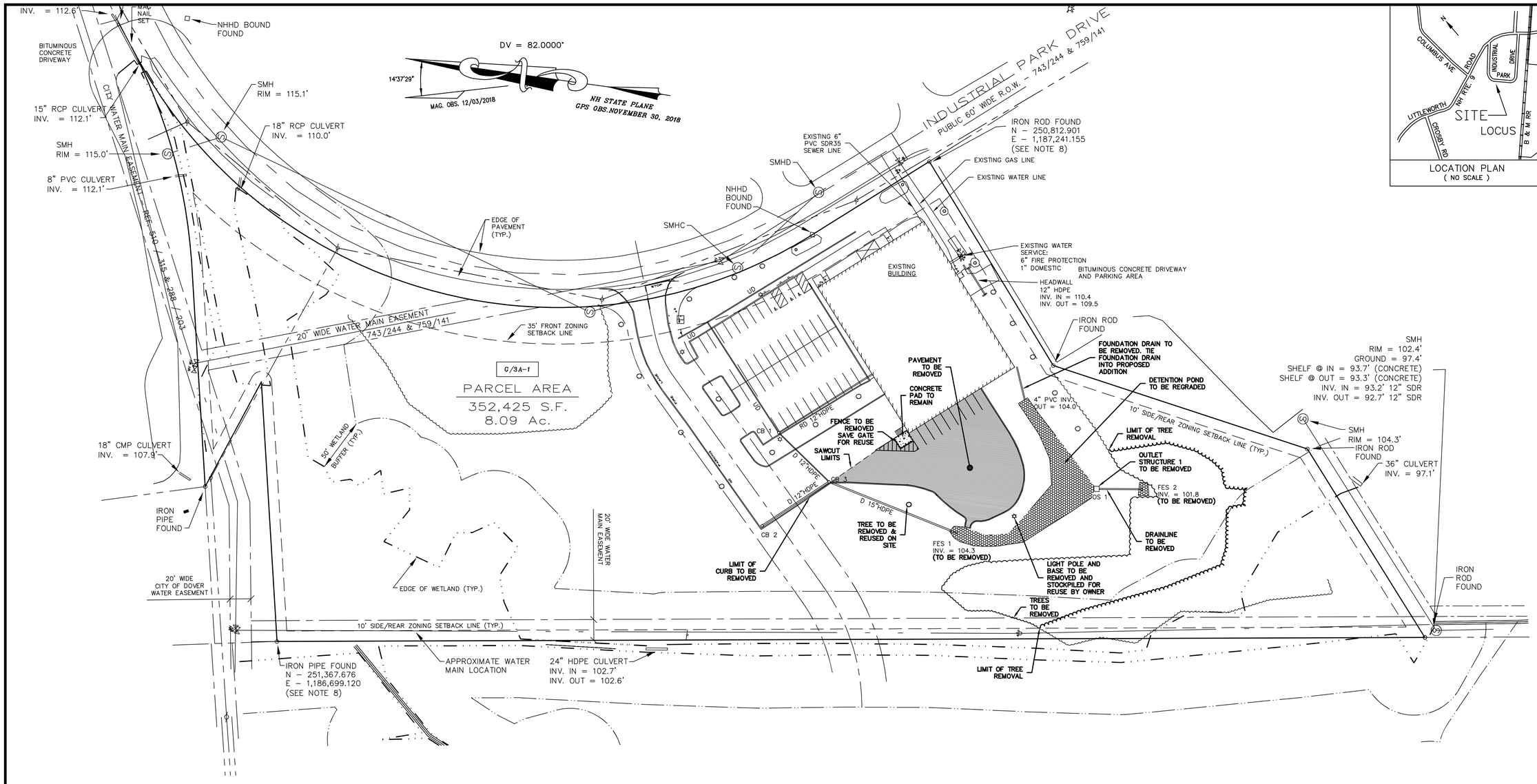
DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:S.H
PROJECT NO:19003
FILE: SITE-ADDITION

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NOTE SHEET

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820



LOCATION PLAN
(NO SCALE)

SANITARY SEWER
STRUCTURE SCHEDULE

SMH C
RIM = 114.6
INV. IN 8" PVC = 108.1 SMH B
INV. OUT 8" PVC = 108.0 SMH D

SMH D
RIM = 115.0
INV. IN 8" PVC = 107.5 SMH C
INV. OUT 8" PVC = 107.4 (ROADWAY SOUTH)

DRAINAGE STRUCTURE
SCHEDULE

CB 1
RIM = 110.35
INV. IN 12" PVC = 106.3 BUILDING
INV. OUT 12" HDPE = 106.2 CB 3
SUMP = 103.35

CB 2
RIM = 109.51
INV. OUT = 105.7 CB3
SUMP = 102.8

CB 3
RIM = 108.50
INV. IN = 105.0 CB 2
INV. IN = 105.2 CB 1
INV. OUT = 104.9 FES 1
SUMP = 101.6

OS 1 (TO BE REMOVED)
INV. IN = 103.4 POND
INV. IN = 104.7 POND
INV. IN = 105.6 POND
INV. OUT = 102.8 FES

ATTENTION:

HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF INDUSTRIAL PARK ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT 1-888-344-7233 TO VERIFY LOCATION.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

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NO.	REVISION	APP'D	DATE

DATE: 8-15-22
SCALE: 1"=50'
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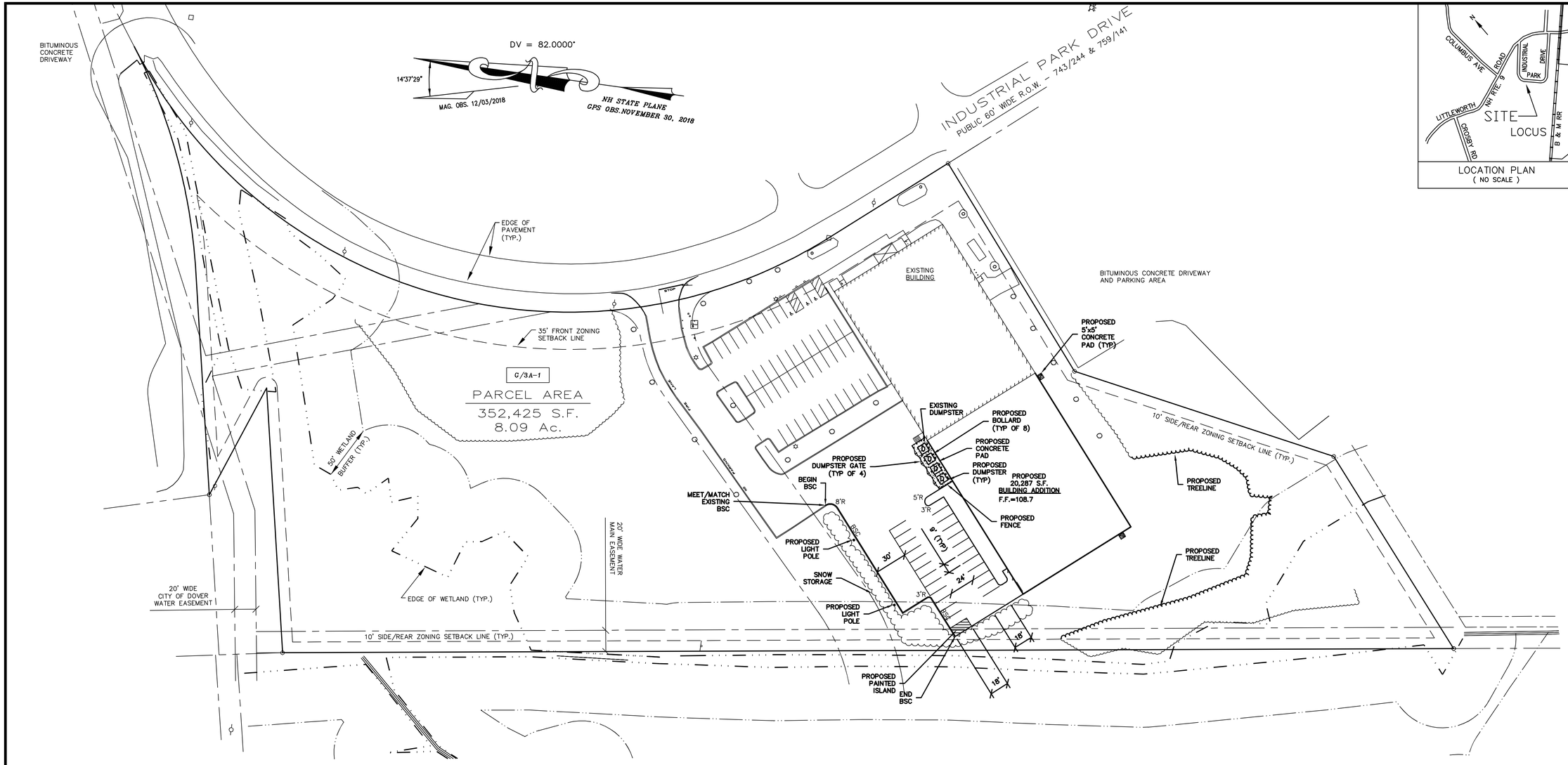
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Dover, New Hampshire 03821
603.749.0443

DEMOLITION PLAN

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

5



LOCATION PLAN
(NO SCALE)

EXISTING PARKING CALCULATIONS:

	REQUIREMENT	AREA	MAX ALLOWED	PROVIDED
RETAIL	1 SP/ 275 S.F.	15,400 S.F.	56	46
OFFICE:	1 SP/300 S.F.	4,100 S.F.	14	14
TOTAL PARKING:			70	60

PROPOSED PARKING CALCULATIONS:

	REQUIREMENT	AREA	MAX ALLOWED	PROPOSED
INDUSTRIAL/WAREHOUSE	1 SP/800 S.F.	20,287 S.F.	25	14
RETAIL	1 SP/275 S.F.	15,400 S.F.	56	46
OFFICE:	1 SP/300 S.F.	7,086 S.F.	24	14
TOTAL PARKING:			105	74

ATTENTION:

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GRAPHIC SCALE

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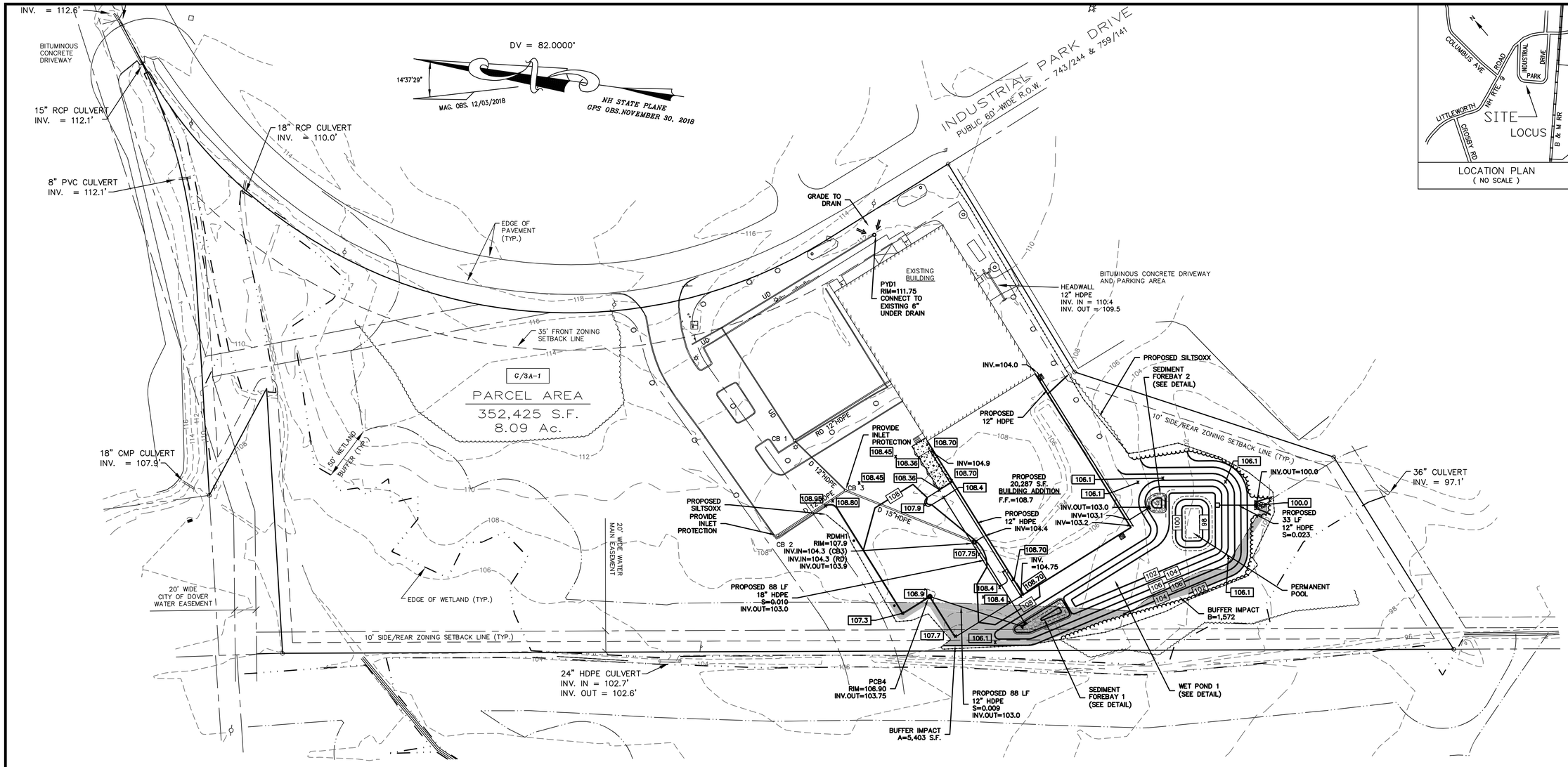
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RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

SITE PLAN

6



LOCATION PLAN
(NO SCALE)

DRAINAGE STRUCTURE SCHEDULE

CB 1
RIM = 110.35
INV. IN 12" PVC = 106.3 BUILDING
INV. OUT 12" HDPE = 106.2 CB 3
SUMP = 103.35

CB 2
RIM = 109.51
INV. OUT = 105.7 CB3
SUMP = 102.8

CB 3
RIM = 108.50
INV. IN = 105.0 CB 2
INV. IN = 105.2 CB 1
INV. OUT = 104.9 FES 1
SUMP = 101.6

OS 1 (TO BE REMOVED)
INV. IN = 103.4 POND
INV. IN = 104.7 POND
INV. IN = 105.6 POND
INV. OUT = 102.8 FES

ATTENTION:

⚠ HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF INDUSTRIAL PARK ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT 1-888-344-7233 TO VERIFY LOCATION.

GRAPHIC SCALE

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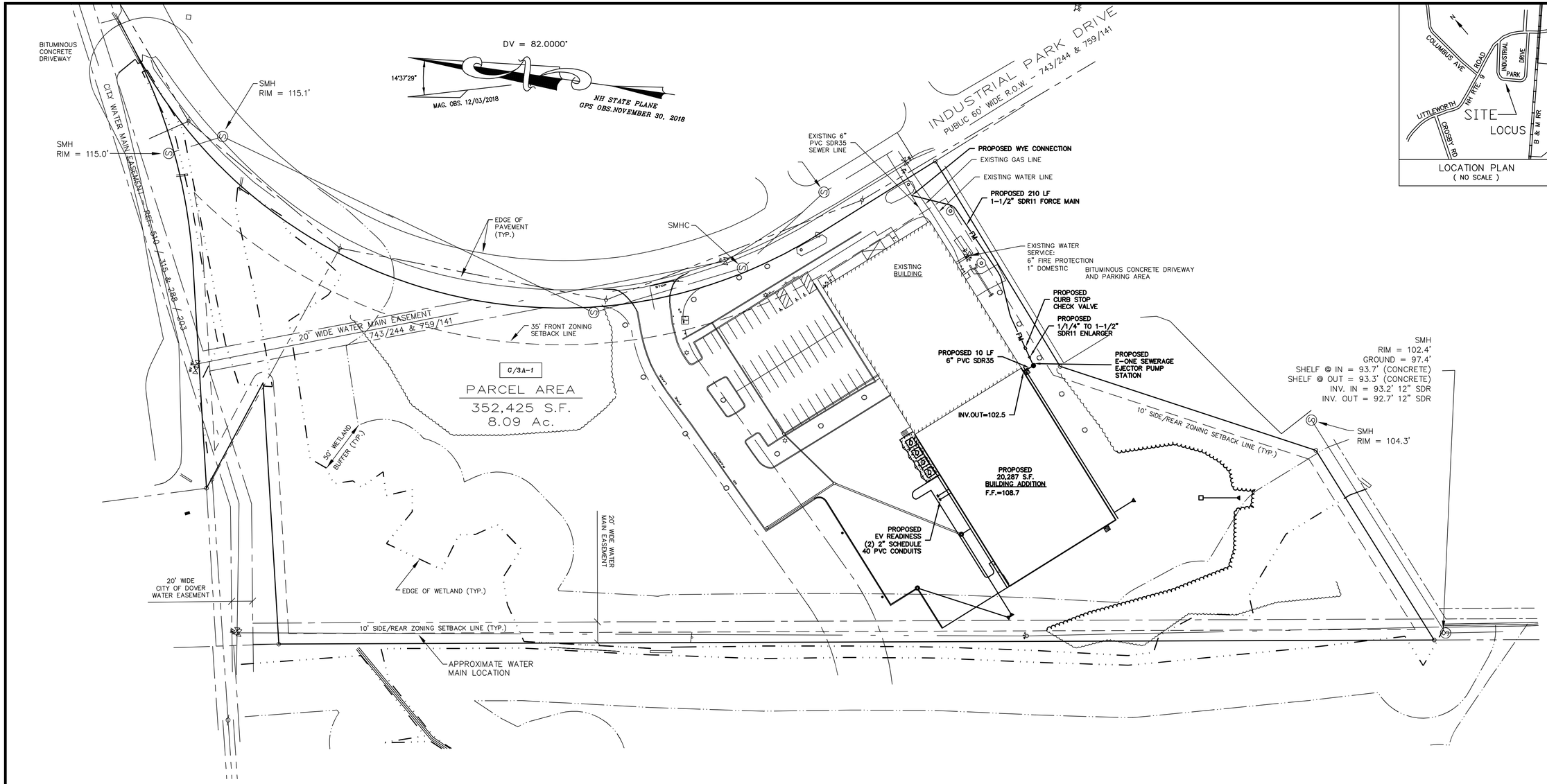
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CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
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GRADING, DRAINAGE & EROSION CONTROL PLAN

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820



SANITARY SEWER
STRUCTURE SCHEDULE

SMH C
RIM = 114.6
INV. IN 8" PVC = 108.1 SMH B
INV. OUT 8" PVC = 108.0 SMH D

SMH D
RIM = 115.0
INV. IN 8" PVC = 107.5 SMH C
INV. OUT 8" PVC = 107.4 (ROADWAY SOUTH)

ATTENTION:

HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF INDUSTRIAL PARK ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT 1-888-344-7233 TO VERIFY LOCATION.

GRAPHIC SCALE

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CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
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UTILITY PLAN

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

8

DESCRIPTION

1. THE PURPOSE OF THIS PLAN IS TO SHOW SITE IMPROVEMENTS ASSOCIATED WITH THE CONSTRUCTION OF A 20,287 SF ADDITION. THE SITE IMPROVEMENTS INCLUDE LIGHTING, SIGNAGE, UTILITIES, ACCESS, PARKING, GRADING, AND STORMWATER MITIGATION.

PROJECT NAME AND LOCATION

WHITE BIRCH ARMORY — LATITUDE N43° 11' 10"
80 INDUSTRIAL PARK DRIVE — LONGITUDE W70° 54' 24"
DOVER, NH

DISTURBED AREA

±65,000 S.F.

NOTES:

1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

SEQUENCE OF MAJOR ACTIVITIES

1. CONTRACTOR SHALL PREPARE THE SWPPP, FILE FOR AND OBTAIN THE NOI A MINIMUM OF 2 WEEKS PRIOR TO COMMENCEMENT OF SITE WORK.
2. PLACE TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S PRIOR TO EARTH MOVING ACTIVITIES.
3. ALL EROSION CONTROL AND PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO COMMENCING EARTH MOVING OPERATIONS.
4. SELECTIVE DEMOLITION.
5. REGRADE SITE TO SUBGRADE.
6. TEMPORARY WATER DIVERSION (SWALES, BASINS) MUST BE USED AS NECCESSARY UNTIL AREAS ARE STABILIZED.
7. SWALES AND PONDS (AS APPLICABLE) SHALL BE CONSTRUCTED EARLY ON IN THE CONSTRUCTION SEQUENCE AND BEFORE ROUGH GRADING OF THE SITE AND ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
8. INSTALL DRAINAGE STRUCTURES AND CONTROLS.
9. INSTALL FOUNDATION FOOTINGS AND WALLS.
10. INSTALL UTILITIES.
11. PLACE GRAVELS AND FINE GRADE.
12. STABILIZE ROADWAYS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
13. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED (AS APPLICABLE) WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
14. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EVERY 1/2" OF RAINFALL.
15. IN ALL CASES THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION AND IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
16. WHEN ALL SITE WORK IS COMPLETE AND ALL DISTURBED AREAS ARE STABILIZED REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND FILE THE EPA – N.O.T.

DEFINITIONS

AN AREA SHALL BE CONSIDERED STABLE OF ONE OF THE FOLLOWING HAS OCCURRED.

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

INSTALLATION, MAINTENANCE, AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

A. SILT BARRIER

1. INSTALLATION
   a. USE SILT BARRIER AS PERIMETER CONTROLS, PARTICULARLY AT THE LOWER OR DOWN SLOPE EDGE OF A DISTURBED AREA.
   b. LEAVE SPACE FOR MAINTENANCE BETWEEN TOE AND SLOPE OF SILT BARRIER.
   c. TRENCH IN THE SILT BARRIER ON THE UPHILL SIDE (6 INCHES DEEP BY 6 INCHES WIDE).
   d. INSTALL STAKES ON THE DOWNHILL SIDE OF THE SILT BARRIER.
   e. CURVE THE END OF THE SILT BARRIER UP-GRADIENT TO HELP IT CONTAIN RUNOFF.
2. SEQUENCE OF INSTALLATION
   a. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
3. MAINTENANCE
   a. SILT BARRIERS SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
   b. SILT BARRIERS HAVE A USEFUL LIFE OF ONE SEASON, ON LONGER CONSTRUCTION PROJECTS, SILT BARRIERS SHOULD BE REPLACED PERIODICALLY TO MAINTAIN EFFECTIVENESS.
   c. REMOVE SEDIMENT WHEN IT REACHES ONE-THIRD (1/3) THE HEIGHT OF THE SILT BARRIER.
   d. REPLACE THE SILT BARRIERS WHERE THEY ARE TORN, WORN, OR OTHERWISED DAMAGED AND MONITOR PERFORMANCE TO ENSURE EFFECTIVE PERFORMANCE.
   e. RETRENCH OR REPLACE ANY SILT BARRIER THAT IS NOT PROPERLY ANCHORED TO THE GROUND.
   f. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
   g. SILT BARRIERS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SILT BARRIERS SHOULD BE REPLACED WITH A TEMPORARY CHECK DAM.

B. MULCHING

1. TIMING
   a. APPLY MULCH PRIOR TO ANY STORM EVENT. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
   b. IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS OF INACTIVITY ON A AREA. THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGEMENT 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.
   c. WITHIN 100 FEET OF RIVERS, STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS, THE TIME PERIOD OF WHICH MULCHING SHOULD TAKE OCCUR SHOULD BE NO GREATER THAN SEVEN (7) DAYS. THIS SEVEN DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
2. APPLICATION RATE
   a. MULCH SHALL BE APPLIED AT A RATE OF BETWEEN 1.5 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS PER 1000 SQUARE FEET.
   b. GUIDELINES FOR WINTER MULCH APPLICATION. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 150-200 POUNDS OF HAY OR STRAW PER ACRE WITH ABOUT 4 INCHES IN DEPTH. A TACKIFIER MAY BE ADDED TO THE MULCH.
3. MAINTENANCE
   a. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS. CHECK FOR SIGNS OF EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.
   b. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE AND SHOULD BE REPAIRED AS NECCESSARY.
   c. INSPECTIONS SHOULD TAKE PLACE UNTIL THE SITE IS ESTABLISHED.
   d. EROSION CONTROL MIX MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.

C. TEMPORARY SEEDING

1. SEEDBED PREPARATION
   a. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
   b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
   c. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS.
      i) APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER OR EQUIVALENT.
      ii) APPLY LIMESTONE AT A RATE OF 3 TONS PER ACRE OR 138 POUNDS PER 1,000 SQUARE FEET.
2. SEEDING
   a. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SUMMARY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   b. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
   c. TEMPORARY SEEDING BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
   d. VEGETATED GROWTH COVERING 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH.
3. MAINTENANCE
   a. TEMPORARY SEEDING SHALL BE INSPECTED PERIODICALLY. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER FABRICS, CHECK DAMS, ETC.).

D. PERMANENT SEEDING

1. BEDDING – STONES LARGER THAN 2 INCHES, TRASH, ROOTS, AND OTHER DEBRIS INTERFERRING WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF 4" TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL.
2. FERTILIZER
   a. LIME AND FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 4 INCHES USING A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT PRIOR TO OR AT THE SAME TIME OF SEEDING.
   b. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITORGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER.
   c. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
      AGRICULTURAL LIMESTONE @ 138 LBS. PER 1,000 S.F.
      LOW PHOSPHATE (N-P205-K20) FERTILIZER @ 13.8 LBS. PER 1,000 S.F.
3. SEED MIXTURE (RECOMMENDED)
   RATE:

TYPE	LBS. PER ACRE	LBS. PER 1,000 S.F.
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10

4. SEEDING
   a. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST.
   b. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   c. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.
5. HYDROSEEDING
   a. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF STRAW MULCH ON CRITICAL AREAS IS PREFERRED SINCE IT GRANTS BETTER SLOPE PROTECTION BY USING ADHESIVE MATERIALS.
   b. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
   c. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
6. MAINTENANCE
   a. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
   b. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.
   c. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABALIZATION OF EXPOSED SOILS.
   d. IF EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS RESEEDED. WITH OTHER TEMPORARY MEASURES USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.
   e. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.

E. STORM DRAIN INLET PROTECTION

1. SPECIFICATIONS
   a. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE BARRIER SHOULD BE LESS THAN ONE ACRE.
   b. ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
2. INSTALLATION
   a. INSTALL INLET PROTECTION AS SOON AS STORM DRAIN INLETS ARE INSTALLED AND BEFORE LAND-DISTURBANCE ACTIVITIES BEGIN IN AREAS WITH EXISTING STORM DRAIN SYSTEMS.
   b. PROTECT ALL INLETS THAT COULD RECEIVE STORMWATER FROM YOUR CONSTRUCTION PROJECT.
   c. USE IN CONJUNCTION WITH OTHER EROSION PREVENTION AND SEDIMENT CONTROL BMPS.
   d. DESIGN YOUR INLET PROTECTION TO HANDLE THE VOLUME OF WATER FROM THE AREA BEING DRAINED. ENSURE THAT THE DESIGN IS SIZED APPROPRIATELY.
3. MAINTENANCE
   a. INSPECT INLETS BARRIERS FREQUENTLY, BEFORE AND AFTER EACH RAINFALL EVENT AND REPAIR WHEN NECESSARY.
   b. SEDIMENT SHOULD BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE BARRIER.
   c. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   d. SWEEP STREETS, SIDEWALKS, AND OTHER PAVED AREAS REGULARLY.
   e. ALL CATCH BASINS AND STORM DRAIN INLETS MUST BE CLEANED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES THE SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.

WASTE DISPOSAL

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

MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES

THE PROJECT PROPONENT IS RESPONSIBLE FOR THE MAINTENANCE OF ALL STORMWATER FACILITIES DURING CONSTRUCTION AND THE PORPERTY OWNER IS RESPONSIBLE AFTER CONSTRUCTION IS COMPLETE.

CATCH BASINS & STORMWATER TREATMENT STRUCTURES

1. CATCH BASINS & STORMWATER TREATMENT STRUCTURES SHOULD BE INSPECTED ON A MONTHLY BASIS AND/OR AFTER A MAJOR RAINFALL EVENT TO ASSURE THAT DEBRIS OR SEDIMENTS DO NOT REDUCE THE EFFECTIVENESS OF THE SYSTEM.

SPILL PREVENTION

A. MATERIAL MANAGEMENT PRACTICES
   THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL SANITARY EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
   GOOD HOUSEKEEPING:
   THE FOLLOWING GOOD HOUSEKEEPING PRACTICES THAT WILL BE FOLLOWED ON SITE DURING
   1. THE CONSTRUCTION PROJECT:
      a. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
      b. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
      c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
      d. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
      e. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
      f. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   2. HAZARDOUS PRODUCTS:
      a. THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
      b. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
      c. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
      d. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

B. PRODUCT SPECIFICATION PRACTICES
   THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:
   1. PETROLEUM PRODUCTS:
      a. ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENACE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
   2. FERTILIZERS:
      a. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
   3. PAINTS:
      a. ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
   4. CONCRETE TRUCKS:
      a. CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA ON SITE.

C. SPILL CONTROL PRACTICES
   IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
   b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
   c. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   d. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
   e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OF LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
   f. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT OCCURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
   g. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

THE PROJECT PROPONENT IS REQUIRED TO MANAGE CONSTRUCTION TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO CONTROLLING INVASIVE SPECIES AND CONTROLLING FUGITIVE DUST IN ACCORDANCE WITH ENV-A 1002.

AGR 3800 PROHIBITED INVASIVE PLANT SPECIES RULES

THE RULE, AGR 3800, STATES: "NO PERSON SHALL COLLECT, TRANSPORT, IMPORT, EXPORT, MOVE, BUY SELL, DISTRIBUTE, PROPAGATE OR TRANSPLANT ANY LIVING AND VIABLE PORTION OF ANY PLANT SPECIES, WHICH INCLUDED ALL OF THEIR CULTIVARS AND VARIETIES, LISTED IN TABLE 3800.1, NEW HAMPSHIRE PROHIBITED INVASIVE SPECIES LIST". A COMPLETE COPY OF THE RULES CAN BE ACCESSED ON THE INTERNET AT HTTP://AGRICULTURE.NH.GOV/TOPICS/PLANTS_INSECTS.HTM.

ENV-A 1002 FUGITIVE DUST: PRECAUTIONS TO PREVENT, ABATE, AND CONTROL FUGITIVE DUST.

a. ANY PERSON ENGAGED IN ANY ACTIVITY WITHIN THE STATE EMITS FUGITIVE DUST, OTHER THAT THOSE LISTED IN ENV-A 1002.02 (b), SHALL TAKE PRECAUTIONS THROUGHOUT THE DURATION OF THE ACTIVITY IN ORDER TO PREVENT, ABATE, AND CONTROL THE EMISSION OF FUGITIVE DUST.
b. PRECAUTIONS REQUIRED BY (a) ABOVE, SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
   i) THE USE OF WATER OR HYDROPHILIC MATERIAL ON OPERATIONS OR SURFACES, OR BOTH;
   ii) THE APPLICATION OF ASPHALT, WATER, OR HYDROPHILIC MATERIAL, OR TARPS OR OTHER SUCH COVERS TO MATERIAL STOCKPILES;
   iii) THE USE OF HOODS, FANS, FABRIC FILTERS, OR OTHER DEVICES TO ENCLOSE AND VENT AREAS WHERE MATERIALS PRONE TO PRODUCING FUGITIVE DUST ARE HANDLED;
   iv) THE USE OF CONTAINMENT METHODS FOR SANDBLASTING OR SIMILAR OPERATIONS; AND
   v) THE USE OF VACUUMS OR OTHER SUCTION DEVICES TO COLLECT AIRBORNE PARTICULATE MATTER.

WINTER CONSTRUCTION NOTES

1. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE 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.
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 403.3.

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

NO.	REVISION	APP'D	DATE

DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY: S.H
PROJECT NO: 19003
FILE: SITE-ADDITION

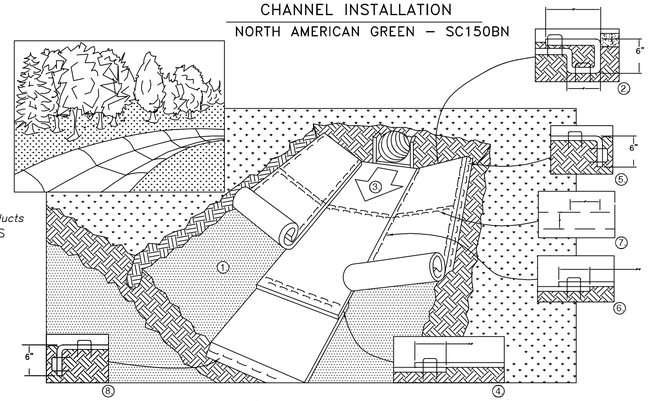
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

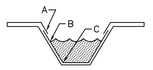
EROSION CONTROL NOTES

CHANNEL INSTALLATION
NORTH AMERICAN GREEN – SC150BN



NORTH AMERICAN GREEN
EROSION CONTROL *Products Guaranteed* SOLUTIONS

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's 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 RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

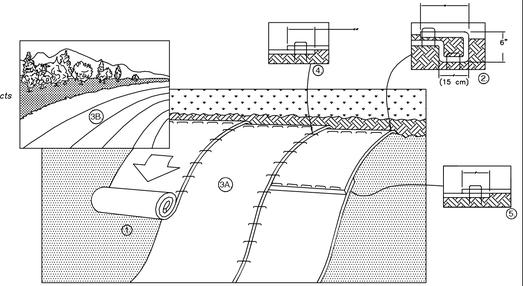


CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

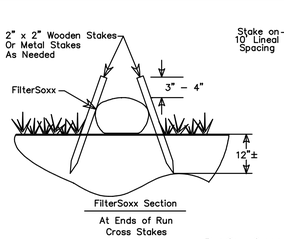
SLOPE INSTALLATION
NORTH AMERICAN GREEN – SC150BN

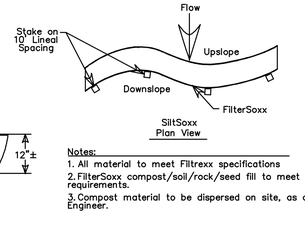


NORTH AMERICAN GREEN
EROSION CONTROL *Products Guaranteed* SOLUTIONS

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM® , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

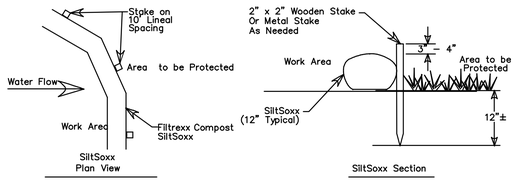
NOTE: THE USE OF WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD IN EROSION CONTROL MATTING IS PROHIBITED. THE USE OF WILDLIFE FRIENDLY ORGANIC MATERIALS IS RECOMMENDED.





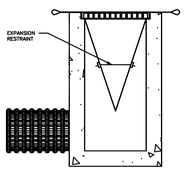
Notes:
1. All material to meet Filtrexx specifications
2. FilterSoxx compost/soil/rock/seed fill to meet application requirements.
3. Compost material to be dispersed on site, as determined by Engineer.

FilterSoxx Staking Details



Notes:
1. All material to meet Filtrexx specifications
2. SiltSoxx compost/soil/rock/seed fill to meet application requirements.
3. SiltSoxx depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.

SiltSoxx Details
NOT TO SCALE



INSTALLATION DETAIL

SILTSACK®
SPECIFICATIONS

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS AS SUPPLIED BY AM HARRIS OF PORTSMOUTH OR APPROVED EQUAL

REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

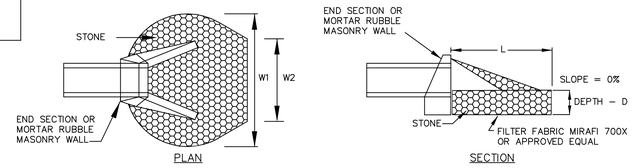
HI-FLOW SILTSACK®
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

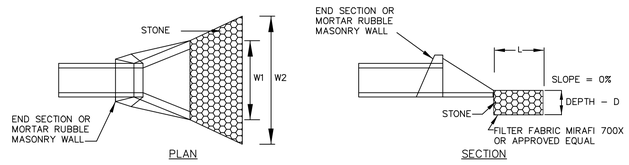
OIL-ABSORBANT SILTSACK®

(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)
DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK® CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK®, WITH A WOVEN PILLOW INSERT.

DETAIL OF INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE



STONE APRON OUTLET PROTECTION DETAIL
OUTLET TO DEFINED CHANNEL



STONE APRON OUTLET PROTECTION DETAIL
OUTLET TO FLAT AREA, NON DEFINED CHANNEL

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.

STONE GRADATION

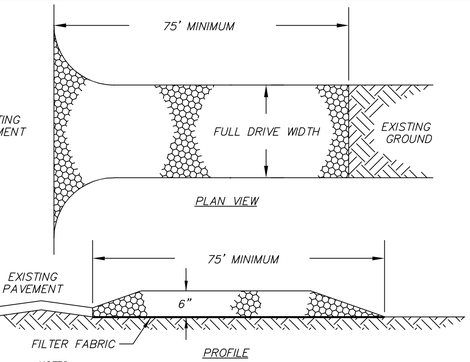
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100	1.5 TO 2.0 D50
85	1.3 TO 1.8 D50
50	1.0 TO 1.5 D50
15	0.3 TO 0.5 D50

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. 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.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

OUTLET FROM	W1(ft)	W2(ft)	L(ft)	D (ft)	D50(IN)	CHANNEL TYPE
WP1	9	3	18	1	6	DEFINED

RIP RAP OUTLET PROTECTION
NOT TO SCALE



NOTES:

1. *SEE EROSION CONTROL NOTES BELOW FOR MATERIAL, INSTALLATION AND MAINTENANCE REQUIREMENTS.*
2. *TO BE INSTALLED AT EACH POINT OF EGRESS FROM THE WORK AREA.*

STABILIZED CONSTRUCTION ENTRANCE

1. SPECIFICATIONS
   A. AGGREGATE SIZE: USE THREE (3) INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
   B. AGGREGATE THICKNESS: NOT LESS THAN SIX (6) INCHES.
   C. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS.
   D. LENGTH: AS REQUIRED, BUT NOT LESS THAN SEVENTY-FIVE (75) FEET. PIPING OF SURFACE WATER UNDER ENTRANCE SHALL BE PROVIDED AS REQUIRED.
   E. GEOTEXTILE: TO BE PLACED OVER THE ENTIRE AREA TO BE COVERED WITH AGGREGATE.
   F. CRITERIA FOR GEOTEXTILE: THE FABRICS SHALL BE TREVIA SPUNBOND 1135, MIRAFI 600X OR EQUAL.
2. MAINTENANCE
   THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

SEEKING REPORTS OF RARE TURTLES

The NH Fish & Game Department is collecting observations of four turtle species:



Blanding's turtle (state endangered)
- Large, dark/black domed shell with lighter speckles
- Distinct yellow throat/chin
- Aquatic but often moves on land



Wood turtle (special concern)
- Sculpted, pyramidal brownish shell
- Orange around neck and limbs
- River/stream turtle spending many months on land



Eastern box turtle (state endangered)
- Small terrestrial turtle with highly domed shell
- Irregular yellow or orange markings over brown/black base



Spotted turtle (state threatened)
- Small, mostly aquatic with black or dark brown with yellow spots.
- Fairly flat shell compared to Blanding's turtle

Report sightings to RAARP@wildlife.nh.gov or 603-271-2461 *Please report promptly, noting specific location and date – Photographs strongly encouraged*

ALL OUTSIDE CONSTRUCTION PERSONNEL SHALL RECEIVE TRAINING IN THE IDENTIFICATION OF RARE TURTLE SPECIES AND MADE AWARE OF THEIR PROTECTED STATUS.

THE USE OF WELDED PLASTIC OR 'BIODEGRADABLE PLASTIC' NETTING OR THREAD IN EROSION CONTROL MATTING IS PROHIBITED

THE USE OF EROSION CONTROL BERM, WHITE FILTREXX DEGRADABLE WOVEN SILT SOCK, OR 'WILDLIFE FRIENDLY' WOVEN ORGANIC MATERIAL (E.G. COCO OR JUTE MATTING SUCH AS NORTH AMERICAN GREEN SC150BN OR EQUIVALENT) ARE ACCEPTABLE FOR USE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

NO.	REVISION	APP'D	DATE

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

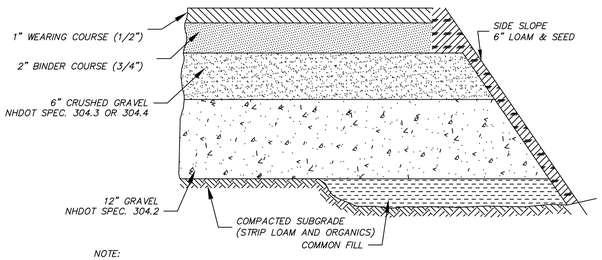
DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:SJH
PROJECT NO:19003
FILE: SITE-ADDITION

EROSION CONTROL DETAILS

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

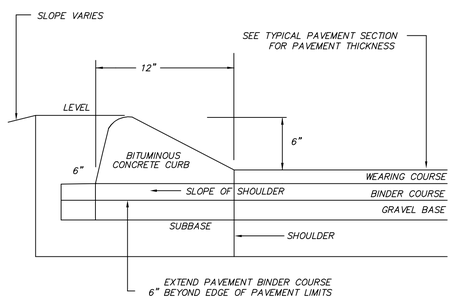
10



NOTE:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. GEOTEXTILE FABRIC MAYBE REQUIRED UNDER THE ROADWAY AND /OR THE PARKING AREAS AS REQUIRED BY THE ENGINEER BASED UPON SITE CONDITIONS.

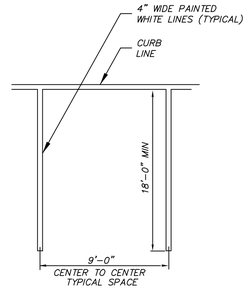
TYPICAL PAVEMENT SECTION

NOT TO SCALE



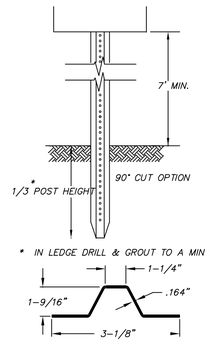
BITUMINOUS SLOPED CURB

NOT TO SCALE



STANDARD PARKING STALL

NOT TO SCALE

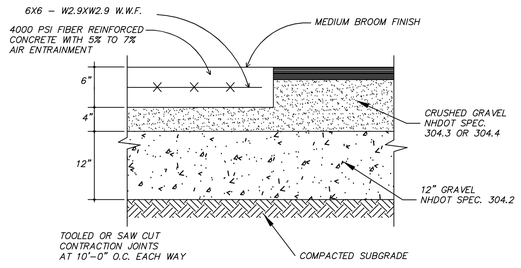


NOTE:
1. ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

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)
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN
BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY.
ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

SIGN LEGEND & SIGN POST

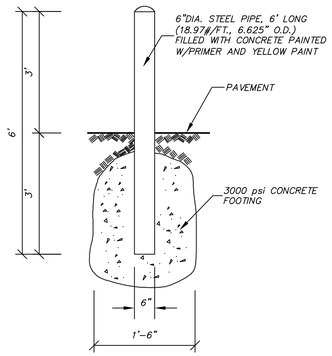
NOT TO SCALE



NOTE: PITCH CONCRETE PAD GRADING TO CENTER

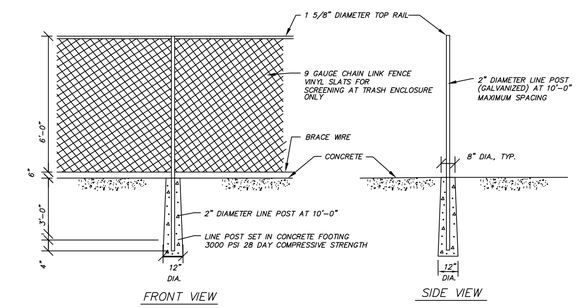
DUMPSTER PAD DETAIL

NOT TO SCALE



BOLLARD DETAIL

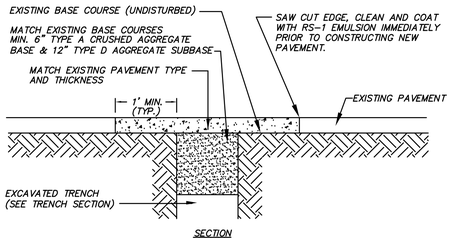
NOT TO SCALE



NOTES:
1. DUMPSTER CHAINLINK FENCE SHALL HAVE GREEN VINYL PRIVACY SLATS.

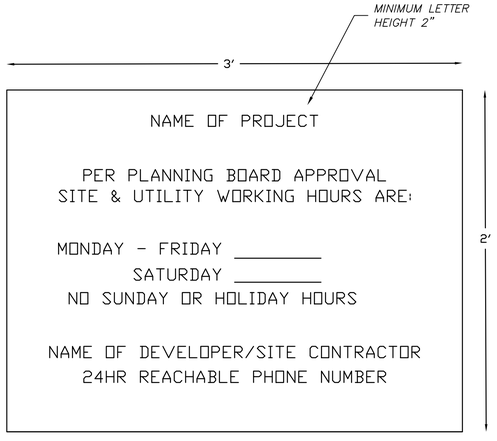
CHAINLINK FENCE DETAIL & DUMPSTER ENCLOSURE

NOT TO SCALE



ROADWAY TRENCH PATCH DETAIL

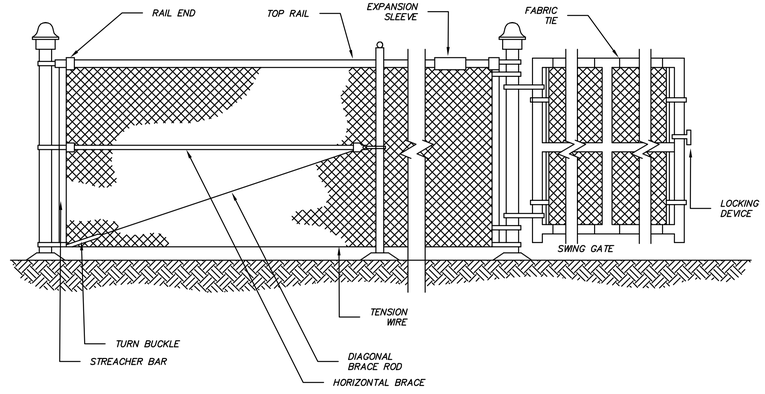
NOT TO SCALE



NOTES:
1. SIGN SHALL HAVE BLACK LETTERS ON A WHITE BACKGROUND
2. SIGN SHALL BE WEATHER RESISTANT AND SECURED TO THE GROUND

CITY OF DOVER CONSTRUCTION SIGN D-2

NOT TO SCALE



CHAINLINK FENCE WITH GATE

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22-

NO.	REVISION	APP'D	DATE

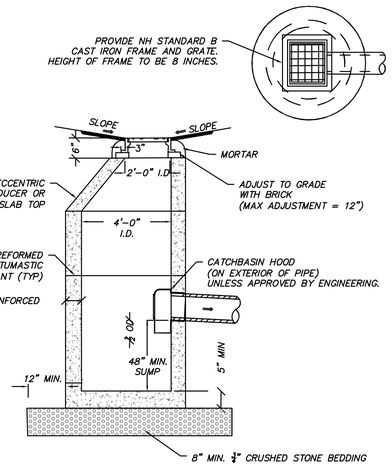
DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:JH
PROJECT NO:19003
FILE: SITE-ADDITION

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

DETAIL SHEET

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
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BUILDING ADDITION
WHITE BIRCH ARMORY
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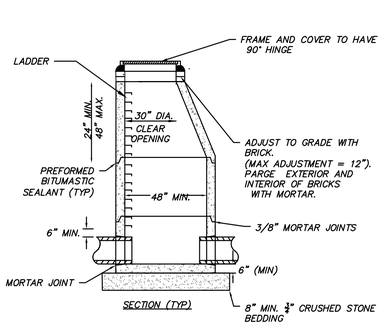


NOTES:

1. ENTIRE STRUCTURE SHALL BE H-20 LOAD RATED. PROVIDE MANUFACTURER REINFORCEMENT DETAILS TO THE CITY ENGINEER UPON REQUEST.

CITY OF DOVER D-19
CATCHBASIN DETAIL

NOT TO SCALE

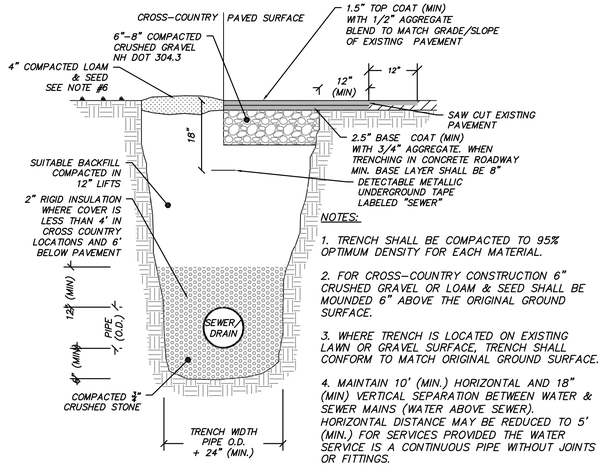


NOTES:

1. CORINGS TO BE SEPARATED BY 6" (MINIMUM) OF MONOLITHIC SECTION

CITY OF DOVER D-20
DRAIN MANHOLE DETAIL

NOT TO SCALE



NOTES:

1. TRENCH SHALL BE COMPACTED TO 95% OPTIMUM DENSITY FOR EACH MATERIAL.
2. FOR CROSS-COUNTRY CONSTRUCTION 6" CRUSHED GRAVEL OR LOAM & SEED SHALL BE MOUNDED 6" ABOVE THE ORIGINAL GROUND SURFACE.
3. WHERE TRENCH IS LOCATED ON EXISTING LAWN OR GRAVEL SURFACE, TRENCH SHALL CONFORM TO MATCH ORIGINAL GROUND SURFACE.
4. MAINTAIN 10' (MIN.) HORIZONTAL AND 18" (MIN) VERTICAL SEPARATION BETWEEN WATER & SEWER MAINS (WATER ABOVE SEWER). HORIZONTAL DISTANCE MAY BE REDUCED TO 5' (MIN.) FOR SERVICES PROVIDED THE WATER SERVICE IS A CONTINUOUS PIPE WITHOUT JOINTS OR FITTINGS.
5. BACKFILL MATERIAL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE; DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, MUCK, PEAT AND ROCKS OVER 6" IN LARGEST DIMENSION
6. LOAM AND SEED SHOULD BE IN COMPLIANCE WITH NH DOT 641, 642, 643, 644 AND 645.

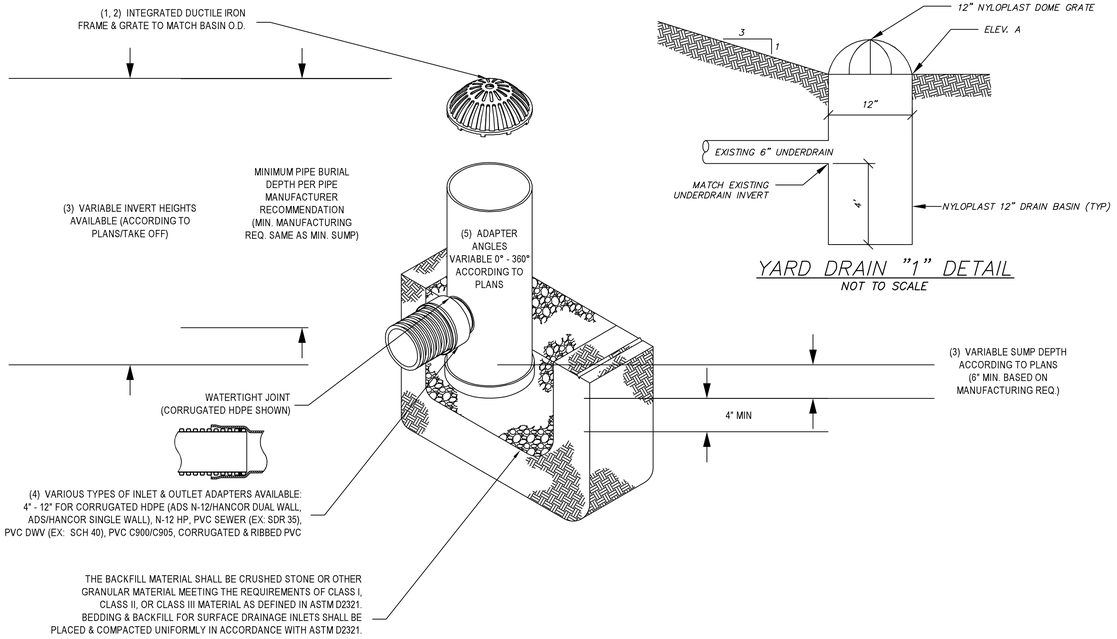
CITY OF DOVER D-3
SEWER TRENCH DETAIL

NOT TO SCALE

SPECIFICATIONS

1. ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT), "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"; HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS".
2. STORM DRAINS SHALL BE ADS N12 OR APPROVED EQUAL, AND SHALL BE JOINTED WITH NEOPRENE "O" RINGS.
3. CATCH BASINS AND MANHOLES SHALL BE PRE-CAST REINFORCED CONCRETE DESIGNED BY AN ENGINEER REGISTERED IN NEW HAMPSHIRE, AND ABLE TO WITHSTAND LOADINGS OF 8 TONS (H20 LOADING).
4. MANHOLES SHALL HAVE CAST IRON FRAMES AND COVERS WITH 30" INSIDE DIAMETER OPENINGS. A 3-INCH (MINIMUM) LETTER "D" FOR DRAIN SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
5. CATCH BASINS AND MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK. MAXIMUM ADJUSTMENT TO GRADE SHALL BE 12 INCHES. FRAMES SHALL BE SET ON A FULL BED OF MORTAR, TRUE TO GRADE AND CONCENTRIC WITH THE MASONRY. ALL VOIDS BETWEEN THE TOP OF THE STRUCTURE AND THE BOTTOM FLANGE OF THE FRAME SHALL BE COMPLETELY FILLED TO MAKE A WATERTIGHT FIT. A RING OF MORTAR AT LEAST ONE INCH THICK AND PITCHED TO SHED WATER AWAY FROM THE FRAME, SHALL BE PLACED OVER AND AROUND THE OUTSIDE OF THE BOTTOM FLANGE. THE MORTAR SHALL EXTEND TO THE OUTER EDGE OF THE MASONRY ALL AROUND ITS CIRCUMFERENCE AND SHALL BE FINISHED SMOOTH. NO VISIBLE LEAKAGE WILL BE PERMITTED.
6. INVERT CHANNELS OF SEWER MANHOLES SHALL BE FORMED SMOOTHLY TO THE LARGEST PIPE RADIUS. CHANGES IN GRADE SHALL BE FORMED SMOOTHLY AND EVENLY. THE FLOOR OF THE STRUCTURE OUTSIDE THE CHANNELS SHALL BE SLOPED TOWARDS THE CHANNELS AT APPROXIMATELY 1/2 INCH PER FOOT. THE FLOOR AT THE CHANNEL SHALL MATCH THE CROWN OF THE LARGEST PIPE.
7. TRENCH CONSTRUCTION WILL CONFORM WITH SECTION 603.3.1 OF THE STANDARD SPECIFICATIONS (1974).
8. WOOD SHEETING OR A SUITABLE TRENCH BOX SHALL BE USED TO SUPPORT THE TRENCH AS NECESSARY. IF WOOD SHEETING IS USED, IT SHALL BE DRIVEN AT A DISTANCE OF 1 FOOT FROM THE OUTSIDE DIAMETER OF THE PIPE TO A DEPTH 6 INCHES BELOW THE INVERT OF THE PIPE. WOOD SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE, BUT NOT GREATER THAN 3 FEET BELOW THE FINISHED GRADE.
9. BEDDING SHALL CONFORM WITH SECTION 603.3.2 OF THE STANDARD SPECIFICATIONS (1974).
10. BACKFILL MATERIAL WILL CONFORM WITH SECTION 603.3.5 OF THE STANDARD SPECIFICATIONS (1974) AND, IN ADDITION, SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, FROZEN MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. BACKFILL SHALL NOT BE PLACED ON FROZEN OR PREVIOUSLY FROZEN MATERIAL.
11. ALL BACKFILL AND BEDDING COMPACTION SHALL MEET THE REQUIREMENTS OF AASHO T 99 METHOD C. DENSITY SHALL BE 95 PERCENT. COMPACTION SHALL BE 6 INCH LIFTS FOR BEDDING AND BACKFILL TO A PLANE 1 FOOT ABOVE THE PIPE AND IN 12 INCH LIFTS THEREAFTER BY AN APPROVED MECHANICAL COMPACTOR.
12. SHOULD FROZEN MATERIAL BE ENCOUNTERED, IT SHALL NOT BE PLACED IN THE BACKFILL NOR SHALL BACKFILL BE PLACED UPON FROZEN MATERIAL. PREVIOUSLY FROZEN MATERIAL SHALL BE REMOVED AS REQUIRED BEFORE NEW BACKFILL IS PLACED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO FRAMES AND GRATES DURING AND FROM THE TIME OF REMOVAL FROM THE EXISTING STRUCTURE TO AND DURING THE TIME OF RESETTING, AND SHALL REPLACE IN KIND ANY DAMAGED FRAMES OR GRATES AT NO ADDITIONAL COMPENSATION.
14. ALL TRENCHES WILL BE COVERED AND DEBRIS, INCLUDING ANY REJECTED MATERIALS, SHALL BE REMOVED DAILY. STRICT SAFETY PRECAUTIONS SHALL BE MAINTAINED AT ALL TIMES.
15. LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE.
    A) THE CONTRACTOR SHALL, 48 HOURS PRIOR TO CONSTRUCTION, NOTIFY THE UTILITY COMPANIES AND HAVE ALL UTILITIES IN THE VICINITY OF THE CONSTRUCTION MARKED IN THE FIELD.
    B) AFTER THE UTILITIES HAVE BEEN LOCATED AND PRIOR TO CONSTRUCTION, THE CONTRACTOR WITH THE ENGINEER, SHALL LAYOUT THE PROPOSED DRAINAGE SYSTEM IN THE FIELD AND RECTIFY ANY UTILITY CONFLICTS WHICH MAY BE FOUND.
    C) ANY CONFLICTS WITH UTILITIES FOUND DURING CONSTRUCTION BY THE CONTRACTOR SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE UTILITY COMPANY AND PROPERLY RECTIFIED.
    D) THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIR FOR ANY UTILITIES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY TO REPAIR ANY DAMAGES, HOWEVER, THE CONTRACTOR MAY MAKE APPROPRIATE REPAIRS WITH THE UTILITY COMPANY'S PERMISSION.
16. COMPLETE SHOP DRAWINGS FOR PIPE, MANHOLES, CATCH BASINS, FRAMES, GRATES AND COVERS SHALL BE SUBMITTED IN TRIPLICATE FOR APPROVAL BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. EACH SHOP DRAWING SHALL BE CHECKED AND INITIALIZED BY THE CONTRACTOR TO INDICATE APPROVAL BEFORE IT IS SUBMITTED TO THE ENGINEER.
17. SHOP DRAWINGS FOR FLAT CONCRETE COVERS SHALL BE STAMPED PRIOR TO SUBMISSION FOR APPROVAL BY A NEW HAMPSHIRE REGISTERED PROFESSIONAL ENGINEER.
18. BRICK MASONRY FOR SETTING FRAMES AND BRICK AND MORTAR PLUGS SHALL CONFORM TO THE STANDARD SPECIFICATION SECTION 604.2.4.

NYLOPLAST 12" DRAIN BASIN: 2812AG



YARD DRAIN "1" DETAIL

NOT TO SCALE

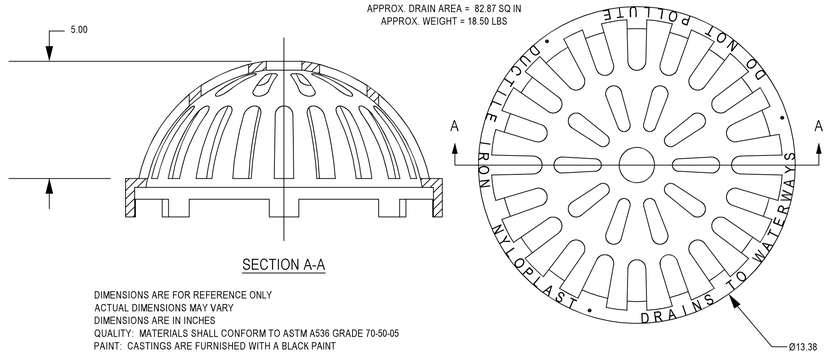
1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 03-29-06			
REVISED BY NMH	PROJECT NO./NAME	TITLE	12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DATE 03-11-16			
DWG SIZE A	SCALE NTS SHEET 1 OF 1	DWG NO. 7001-110-189	REV E

1299CGD

APPROX. DRAIN AREA = 82.87 SQ.IN
APPROX. WEIGHT = 18.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST

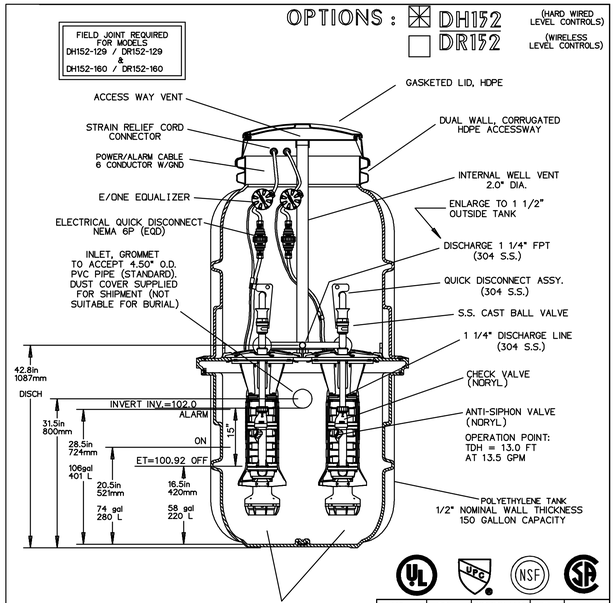
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DRAWN BY EBC	MATERIAL DUCTILE IRON	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 3-6-06			
REVISED BY EBC	PROJECT NO./NAME	TITLE	12 IN DOME GRATE
DATE 3-10-11			
DWG SIZE A	SCALE NTS SHEET 1 OF 1	DWG NO. 7001-110-206	REV D

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443



KC	PD	09/30/19	F	
DR BY	CHK'D	DATE	ISSUE	SCALE

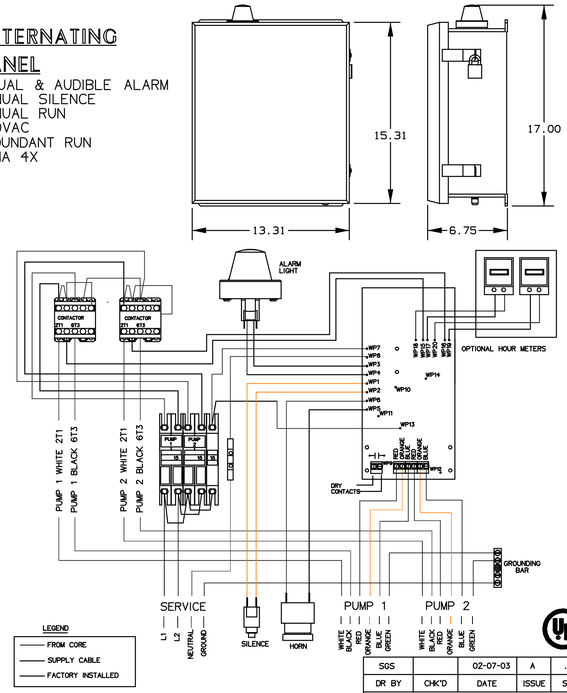
SEWER SYSTEMS

MODEL DH152 / DR152
DETAIL SHEET

NA0052P02

ALTERNATING PANEL

VISUAL & AUDIBLE ALARM
MANUAL SILENCE
MANUAL RUN
240VAC
REDUNDANT RUN
NEMA 4X

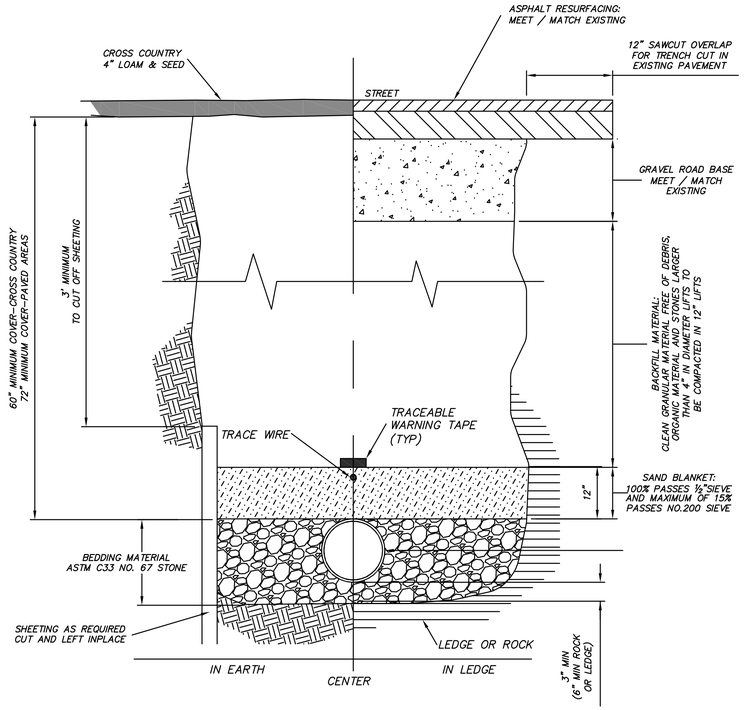


SGS		02-07-03	A	.156
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS

DUPLEX
SPLIT TIME ALTERNATING PANEL

LM000270

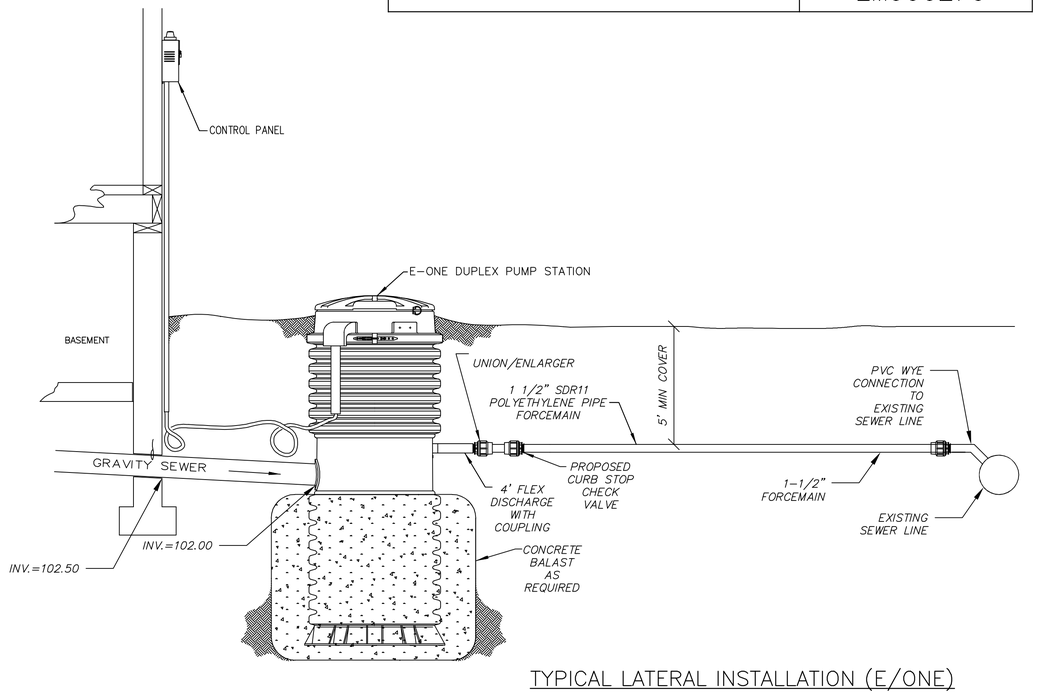


SEWER FORCEMAIN TRENCH

NOT TO SCALE

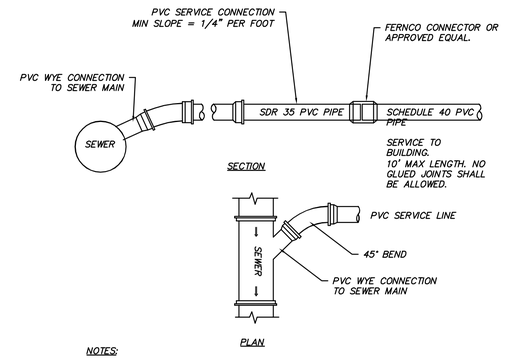
BURIED NON-METALLIC UTILITIES SHALL RECEIVE A TRACER WIRE.

1. *THE TRACER WIRE SHALL BE INSTALLED ON TOP OF THE BURIED UTILITY CROWN.*
2. *THE TRACER WIRE SHALL BE POSITIVELY ATTACHED TO THE NON-METALLIC BURIED UTILITIES BY PLASTIC WIRE TIES OF SIMILAR TYPE OF ATTACHMENT EVERY 6 FEET FOR STRAIGHT RUN OF UTILITY AND AT ALL CHANGES OF DIRECTION. TAPE SHALL BE POLYKEN "930-35," PROTECTO-WRAP "310", OR EQUAL.*
3. *THE ENDS OF THE TRACER WIRE SHALL BE EXPOSED ABOVE THE FINISHED GRADE.*
4. *INSTALL APPROVED CAST IRON VALVE BOXES AT ALL LOCATIONS WHERE THE ENDS OF THE TRACER WIRE ARE EXPOSED ABOVE THE FINISHED GRADE. THE BOXES SHALL NOT BE MORE THAN 200 FEET APART AND SHALL CONTAIN A 24" COIL OF WIRE FROM EACH END OF THE TRACER WIRE.*
5. *TRACER WIRE SHALL BE CONTINUOUS BETWEEN BOXES AND SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF THE INSPECTOR.*
6. *TRACER WIRE SHALL BE NO. 10 AWG, COPPER WIRE WITH TW INSULATION (BLUE IN COLOR FOR USE WITH POTABLE WATER, GREEN FOR USE WITH SEWER). CONNECTORS SHALL BE DRY-CON TYPE CONNECTORS FOR SPECIFIED WIRE GAGE AND SUITABLE FOR USE WITH BURIED TRACER WIRE.*
7. *TRACER WIRE SHALL BE EXPOSED ABOVE FINISHED GRADE IN THE CAST IRON BOXES AT THE TRANSITION WHERE THE NON-METALLIC BURIED UTILITY CONNECTS TO THE EXISTING METALLIC UTILITY.*
8. *EXTEND WIRE INTO VALVE BOXES AND TERMINATE WITH A WIRE CONNECTOR. TERMINATE WIRE FROM LINES EXTENDING FROM MAINS TO FIRE RISERS OR BUILDING SERVICES 12" (300MM) ABOVE GRADE AND CAP WITH A WIRE CONNECTOR.*



TYPICAL LATERAL INSTALLATION (E/ONE)

NOT TO SCALE



NOTES:

1. *TRENCHING AND BEDDING REQUIREMENTS PER CITY SEWER TRENCH DETAIL (D-3).*
2. *SERVICE LATERAL DIAMETER VARIES PER APPLICATION. REVIEW SIZE WITH CITY ENGINEER PRIOR TO INSTALLATION.*
3. *SDR 35 SHALL NOT EXTEND INTO THE BUILDING*

CITY OF DOVER D-17
SEWER SERVICE DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

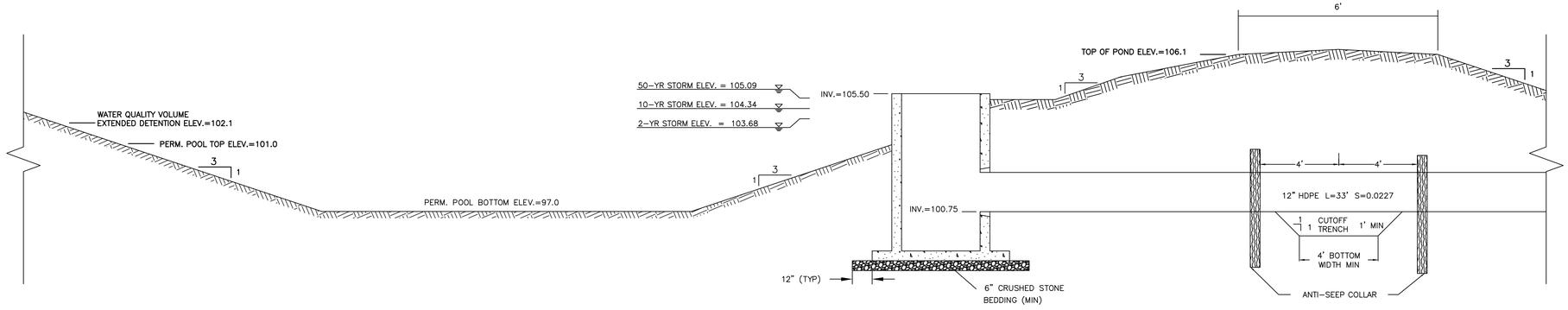
DATE: 8-15-22
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DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:S.H
PROJECT NO:19003
FILE: SITE-ADDITION

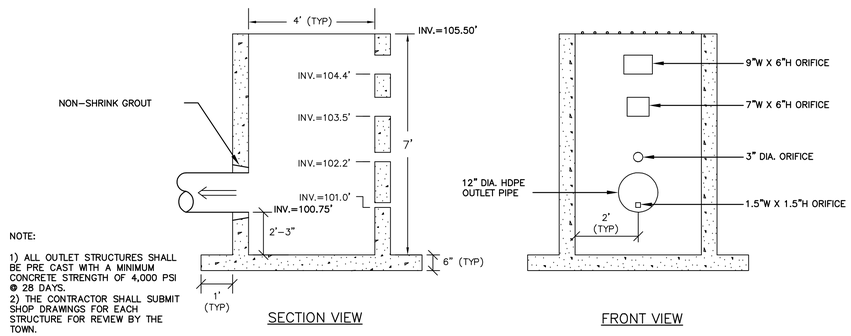
DETAIL SHEET

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

13





NOTE:

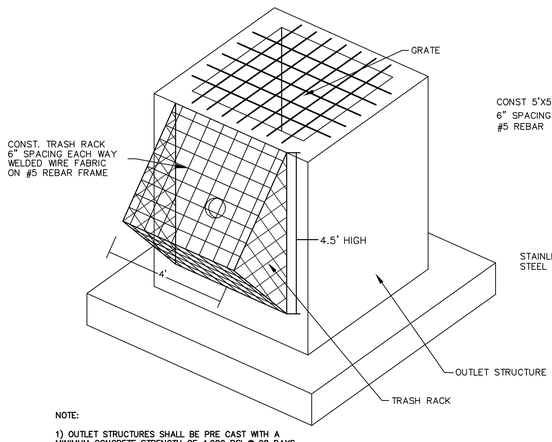
1) ALL OUTLET STRUCTURES SHALL BE PRE CAST WITH A MINIMUM CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EACH STRUCTURE FOR REVIEW BY THE TOWN.

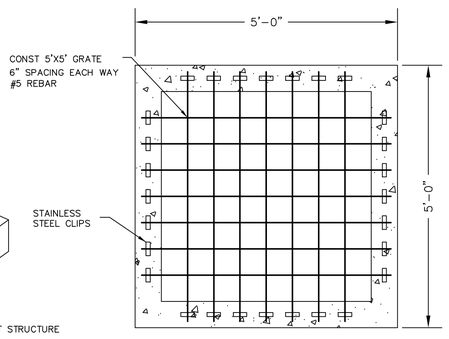
SECTION VIEW

FRONT VIEW

OUTLET STRUCTURE WET POND 1 (OS1) DETAIL

NOT TO SCALE





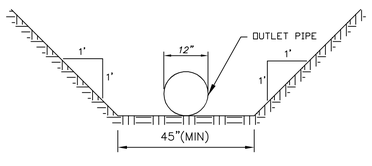
GRATE

NOTE:

1) OUTLET STRUCTURES SHALL BE PRE CAST WITH A MINIMUM CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EACH STRUCTURE FOR REVIEW BY THE TOWN.

TYPICAL INLET TRASH RACKS

NOT TO SCALE



OUTLET PIPE TRENCH DETAIL

NOT TO SCALE

WET POND 1 (WP1)

NOT TO SCALE

DETENTION POND CONSTRUCTION NOTES

DETENTION AREA EARTH EMBANKMENT:
1 SEE GRADING PLAN FOR BERM WIDTHS.
2 SIDE SLOPES – THREE HORIZONTAL TO ONE VERTICAL (3:1) OR UNLESS OTHERWISE NOTED.
3 FILL MATERIALS SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL.
4 FILL MATERIALS SHALL BE A MIXTURE OF STONES (NOT EXCEEDING 6" IN DIAMETER) AND A FINE SANDY SILT MATERIAL.
5 THE SOIL USED FOR THE SEDIMENT FOREBAY BERM SHALL HAVE A MINIMUM PERCOLATION RATE OF 10 MINUTES AN INCH.
6 SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING.

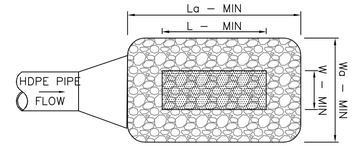
DETENTION AREA BERM BASE PREPARATION:
1 THE BASE AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED BERM. THE BASE AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF MATERIAL.
2 REMOVE ALL SOFT ORGANIC MATTER, PEAT, DEBRIS AND FOREIGN MATERIAL TO A DEPTH AS NEEDED (1' MIN) TO REACH AN UNYIELDING BASE OF VIRGIN SOIL.

EXECUTION:
1 FILL MATERIALS SHALL BE PLACED IN HORIZONTAL 12" (MAX.) LIFTS TO FULL WIDTHS AS SHOWN ON THE DESIGN PLAN.
2 FILL MATERIALS SHALL BE FRESHLY PLACED PRIOR TO COMPACTION.
3 ALL FILLS SHALL BE COMPACTED BY MECHANICAL VIBRATORY COMPACTION TO 95% PROCTOR DENSITY.
4 FILL SHALL BE CONSTRUCTED IN 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. PLACE THE MORE IMPERVIOUS SOIL (HIGHER PERCENTAGE PASSING THE #200 SIEVE) IN THE UPSTREAM TWO-THIRDS (2/3) OF THE BERM. THE MORE GRANULAR SOIL MATERIAL SHOULD BE PLACED IN THE REMAINING DOWNSTREAM ONE-THIRD PORTION OF THE BERM.
5 INSTALL ANTI-SEEP COLLARS CONCURRENTLY WITH FILL MATERIAL PLACEMENT.
6 INSTALL CUT-OFF TRENCH CONCURRENTLY WITH FILL MATERIAL PLACEMENT. THE CUT OFF TRENCH SHALL BE LOCATED AT OR SLIGHTLY UPSTREAM OF THE CENTER LINE OF THE BERM. IT SHALL EXTEND UP THE ABUTMENTS AS REQUIRED AND BE DEEP ENOUGH TO EXTEND INTO A RELATIVELY IMPERVIOUS LAYER.
7 THE CUTOFF TRENCH SHALL HAVE A BOTTOM WIDTH ADEQUATE TO ACCOMMODATE THE EQUIPMENT USED FOR EXCAVATION, BACKFILL AND COMPACTION OPERATIONS. CUTOFF TRENCH TO BE EXCAVATED AND BACKFILLED PRIOR TO PLACING PIPE.
8 CUTOFF TRENCH SIDE SLOPES SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO ONE VERTICAL.

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.

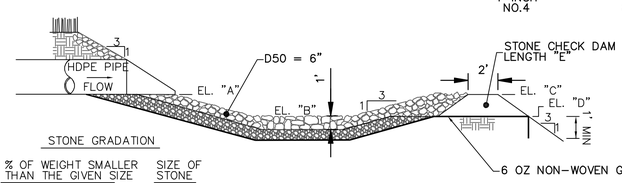
COMPACTION
FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTI-SEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY MEANS OF HAND TAMPING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS.

MAINTENANCE:
MAINTENANCE IS NECESSARY TO ENSURE THAT THE DETENTION BASINS WILL CONTINUE TO FUNCTION AS ORIGINALLY DESIGNED. THE "HOMEOWNERS ASSOCIATION" IS RESPONSIBLE FOR MAINTAINING THE STRUCTURES AND THE BASIN AREA.
1 EMBANKMENT – THE EMBANKMENT SHOULD BE INSPECTED ANNUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE. IF SUCH ISSUES ARE NOTED THEY SHALL BE RECTIFIED AS SOON AS PRACTICAL.
2 VEGETATION – THE VEGETATED AREAS OF THE BERM 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 SHOULD BE KEPT OFF THE BERM AREA.
3 INLETS AND OUTLETS – SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED.
4 SEDIMENT – SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACH THE STRUCTURE INLET ELEVATION 89.5' THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.



STONE CHECK DAM GRADATION

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVE
12–INCH	100%
6–INCH	84%–100%
3–INCH	68%–83%
1–INCH	42%–55%
NO.4	8%–12%



STONE GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100	1.5 TO 2.0 D50
85	1.3 TO 1.8 D50
50	1.0 TO 1.5 D50
15	0.3 TO 0.5 D50

DIMENSIONS AND ELEVATIONS

	L	La	W	Wa	EL. "A"	EL. "B"	EL. "C"	EL. "D"	LENGTH "E"
SEDIMENT FOREBAY 1	5'	17'	5'	17'	103.0'	102.0'	104.0'	102.0'	10' MIN
SEDIMENT FOREBAY 2	3'	15'	2'	14'	103.0'	101.0'	103.0'	101.0'	10' MIN

SEDIMENT FOREBAY / PLUNGE POOL DETAIL

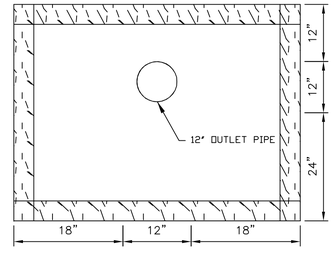
(NOT TO SCALE)

MAINTENANCE

THE SEDIMENT FOREBAY 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 AREA IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM DRAINAGE 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 SEDIMENT FOREBAY.

CONSTRUCTION SPECIFICATIONS

1. FORBAY AREAS AND EXTENTS OF RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. STONE FOR THE SEDIMENT FOREBAY MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. SEDIMENT FOREBAY SHALL BE CONSTRUCTED ON A 6" THICK (MIN) CRUSHED GRAVEL BASE.



ANTI-SEEP COLLAR DETAIL

NOT TO SCALE

NOTES:
1. ANTI-SEEP COLLARS SHALL BE WATERPROOF AND HAVE A WATERPROOF CONNECTION TO THE PIPE.
2. ANTI-SEEP COLLARS TO BE AGRI DRAIN OR APPROVED EQUAL.

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:SJH
PROJECT NO:19003
FILE: SITE-ADDITION

DETAIL SHEET

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

14

BITUMINOUS CONCRETE DRIVEWAY

DV = 82.0000'

14°37'29"

MAG. OBS. 12/03/2018

NH STATE PLANE GPS OBS. NOVEMBER 30, 2018

INDUSTRIAL PARK DRIVE
PUBLIC 60' WIDE R.O.W. - 743/244 & 759/141

EDGE OF PAVEMENT (TYP.)

35' FRONT ZONING SETBACK LINE

C/3A-1

PARCEL AREA
352,425 S.F.
8.09 Ac.

50' WETLAND BUFFER (TYP.)

EXISTING BUILDING

BITUMINOUS CONCRETE DRIVEWAY AND PARKING AREA

10' SIDE/REAR ZONING SETBACK LINE (TYP.)

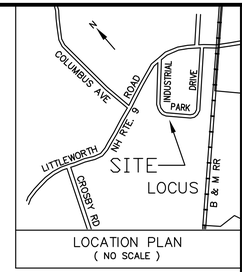
PROPOSED
20,287 S.F.
BUILDING ADDITION
F.F.=108.7

20' WIDE CITY OF DOVER WATER EASEMENT

EDGE OF WETLAND (TYP.)

20' WIDE WATER MAIN EASEMENT

10' SIDE/REAR ZONING SETBACK LINE (TYP.)



LOCATION PLAN
(NO SCALE)

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	Tag
	1	P4	Single	GLEON-SA2C-740-U-T4FT / SSS4A20SFN1 (20' AFG)	NEW PROPOSED ASSEMBLY
	1	S4	Single	GLEON-AF-02-LED-E1-T4FT / SSS4A20SFN1 (20' AFG)	EXISTING RELOCATED ASSEMBLY
	1	S5-2	Back-Back	GLEON-AF-02-LED-E1-5WQ / SSS4A20SFN1 (20' AFG)	EXISTING FIXTURE
	2	W	Single	GWC-SA1C-740-U-T4FT-HSS / WALL MTD 16' AFG	NEW PROPOSED FIXTURE
	2	W3	Single	GWC-SA1C-740-U-SL3 / WALL MTD 16' AFG	NEW PROPOSED FIXTURE
	1	W4	Single	GWC-AF-01-LED-E1-SL4 / WALL MTD 16' AFG	EXISTING FIXTURE

StatArea_1
NEW PARKING AREA
Illuminance (Fc)
Average = 1.79
Maximum = 5.4
Minimum = 0.5
Avg/Min Ratio = 3.58
Max/Min Ratio = 10.80

ATTENTION:

HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF INDUSTRIAL PARK ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT 1-888-344-7233 TO VERIFY LOCATION.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

NO.	REVISION	APP'D	DATE

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

DATE: 8-15-22
SCALE: 1"=50'
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:SJH
PROJECT NO:19003
FILE: SITE-ADDITION

LIGHTING PLAN

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

15

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

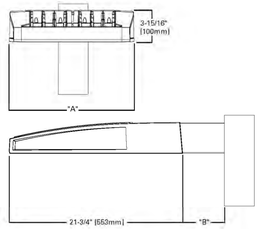
Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt

Dimensional Details



Product Certifications

Product Features

Connected Systems

- WaveLinx
- Enlighted

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GWC Galleon Wall

Wall Mount Luminaire

Typical Applications

Exterior Wall • Walkway

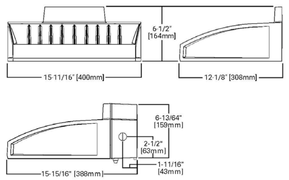
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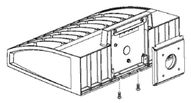
- Ordering Information page 2
- Product Specifications page 2
- Optical Configurations page 3
- Energy and Performance Data page 4
- Control Options page 6

Quick Facts

- Choice of thirteen high-efficiency, patented AccuLED Optics™
- Downward and inverted wall mounting configurations
- Eight lumen packages from 3,215 up to 17,056
- Efficacies up to 154 lumens per watt

Dimensional Details





Product Certifications

Connected Systems

- WaveLinx
- Enlighted

Steel Poles

Catalog #		Type	
Project			
Comments		Date	
Prepared by			



SSS SQUARE
STRAIGHT STEEL

FEATURES
- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on 5" and 6" pole; and 2" x 4" on 4" pole
- 10'-39' mounting heights
- Drilled or tenon (specify)

DESIGN CONSIDERATIONS

Wind induced vibrations resulting from steady, unidirectional winds and other aerodynamic forces, as well as vibration and coefficient of height factors for non-grounded mounted installations (e.g., installations on bridges or buildings) are not included in this document. The information contained herein is for general guidance only and is not a replacement for professional judgement. Consult with a professional, and local and federal standards, before ordering to ensure product is appropriate for the intended purpose and installation location. Also, please review Eaton's Light Pole White Paper for risk factors and design considerations. Learn more.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Eaton or visit www.eaton.com/lighting for available options, accessories and ordering information.

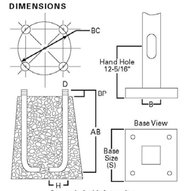
ORDERING INFORMATION

SAMPLE NUMBER: SSA5A20SFM1XG

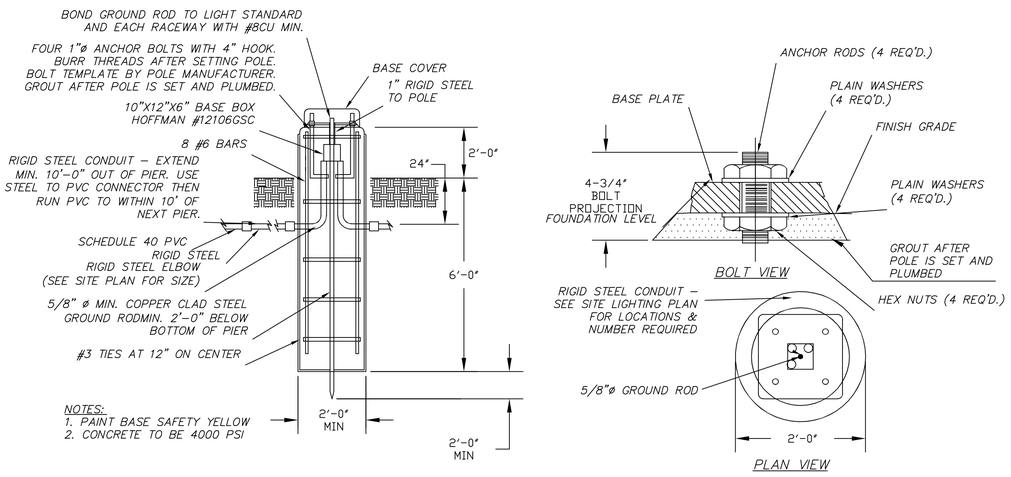
Product Family	Shaft Size (Inches)[1]	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Arm Lengths (Feet)	Options (Add as Suffix)
SSS=Square Straight Steel	**4**=4" **5**=5" **6**=6"	**A**=0.120" **M**=0.188" **X**=0.250"	**10**=10' **15**=15' **20**=20' **25**=25' **30**=30' **35**=35' **39**=39'	**S**=Square Steel Base	**F**=Dark Bronze **G**=Galvanized Steel **J**=Summit White **K**=Carbon Bronze **L**=Dark Platinum **R**=Hartford Green **S**=Silver **T**=Graphite Metallic **V**=Grey **W**=White **X**=Custom Color **Y**=Black	**2**=2-3/8" O.D. Tenon (4" Long) **3**=3-1/2" O.D. Tenon (6" Long) **4**=4" O.D. Tenon (6" Long) **9**=3" O.D. Tenon (4" Long) **6**=2-3/8" O.D. Tenon (6" Long) **7**=4" O.D. Tenon (10" Long) **A**=Type A Drilling **C**=Type C Drilling **E**=Type E Drilling **F**=Type F Drilling **G**=Type G Drilling **J**=Type J Drilling **K**=Type K Drilling **M**=Type M Drilling **N**=Type N Drilling **R**=Type R Drilling **S**=Standard Upsweep Arm **Z**=Type Z Drilling	**1**=Single **2**=2 at 180° **3**=Triple[3] **4**=4 at 90° **5**=2 at 90° **X**=None	**X**=None **2**=2' **3**=2.5' **4**=4' **6**=6' **8**=8'	**A**=1/2" Tapped Hub[2] **B**=3/4" Tapped Hub[2] **C**=Convenience Outlet[4] **E**=GFCI Convenience Outlet[4] **G**=Ground Lug **H**=Additional Hand Hole[5] **V**=Vibration Dampener

NOTES: 1. All shaft sizes nominal. **2.** Square poles are 3 at 90°, round poles are 3 at 120°. **3.** Tapped Hub is located 5' below the pole top and on the same side of pole as hand hole, unless specified otherwise. **4.** Outlet is located 4' above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. **5.** Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified.

DIMENSIONS



See technical information.



LIGHT POLE BASE

NOT TO SCALE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: P22_

DATE: 8-15-22
SCALE: AS SHOWN
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:SJH
PROJECT NO:19003
FILE: SITE-ADDITION

NO.	REVISION	APP'D	DATE

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

LIGHTING DETAILS

RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

BITUMINOUS CONCRETE DRIVEWAY

DV = 82.0000'

14°37'29"

MAG. OBS. 12/03/2018

NH STATE PLANE GPS OBS.NOVEMBER 30, 2018

INDUSTRIAL PARK DRIVE
PUBLIC 60' WIDE R.O.W. - 743/244 & 759/141

EDGE OF PAVEMENT (TYP.)

35' FRONT ZONING SETBACK LINE

C/3A-1

PARCEL AREA
352,425 S.F.
8.09 Ac.

50' WETLAND BUFFER (TYP.)

EXISTING BUILDING

BITUMINOUS CONCRETE DRIVEWAY AND PARKING AREA

PROPOSED 20,287 S.F. BUILDING ADDITION F.F.=108.7

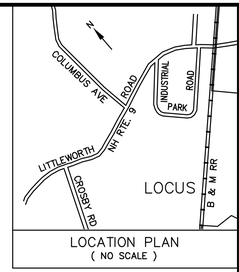
10' SIDE/REAR ZONING SETBACK LINE (TYP.)

20' WIDE CITY OF DOVER WATER EASEMENT

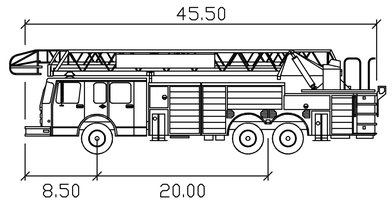
EDGE OF WETLAND (TYP.)

20' WIDE WATER MAIN EASEMENT

10' SIDE/REAR ZONING SETBACK LINE (TYP.)



LOCATION PLAN
(NO SCALE)



Dover ladder feet

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 44.0

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 8-15-22
SCALE: 1"=50'
DRAWN BY: SRD
DESIGN BY: JPG
APPROVED BY:SJH
PROJECT NO:19003
FILE: SITE-ADDITION

DOVER LADDER TRUCK MOVEMENT PLAN

BUILDING ADDITION
WHITE BIRCH ARMORY
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

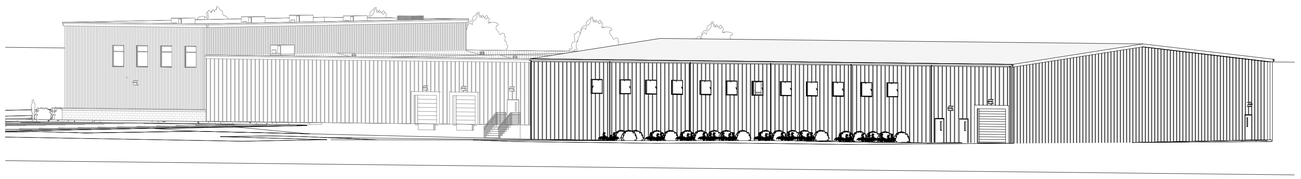
RECON REALTY, LLC
80 INDUSTRIAL PARK DRIVE
DOVER, NH 03820

17

White Birch Armory

80 Industrial Park Dr.
Dover, NH 03820

PLANNING BOARD SET
07/12/2022 (N.F.C.)

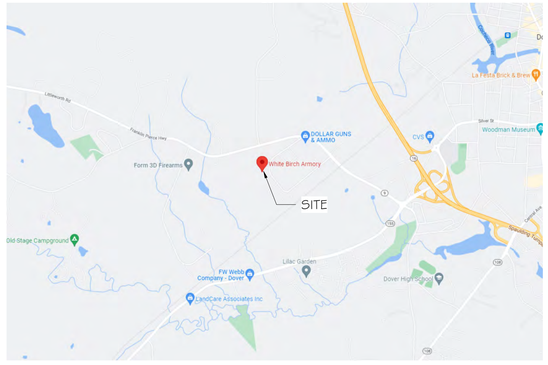


T | W DESIGNS
254 Drake Hill Rd. Strafford, NH
TW-Designs.com | 603.664.2181

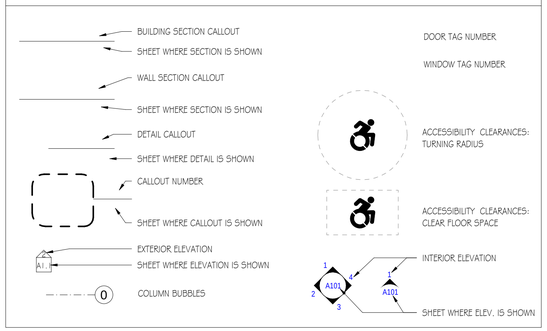
Revision Schedule

No.	Description	Date

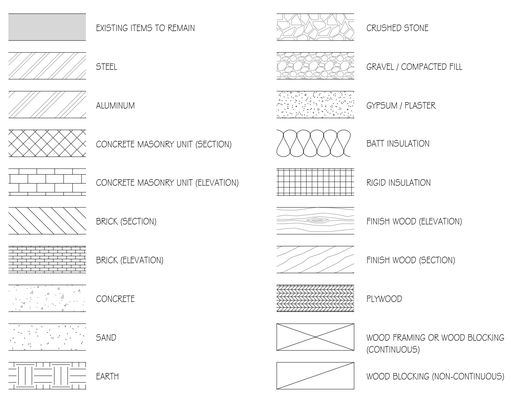
LOCUS MAP: (N.T.S.)



GRAPHIC SYMBOLS LEGEND



MATERIAL LEGEND



MASTER ABBREVIATION KEY:

AB	ANCHOR BOLT			LAM	LAMINATE	S	SOUTH
AC	AIR CONDITIONER	E	EAST	LAV	LAVATORY	S-TRAP	SEDIMENT TRAP
ACI	AMERICAN CONCRETE INSTITUTE	EJ	EXPANSION JOINT			SC	SOLID CORE
ACOUST	ACOUSTIC	EJC	EXPANSION JOINT COVER	MAS	MASONRY	SCED	SCHEDULE
AFF	ABOVE FINISH FLOOR	EL	ELEVATION	MAT	MATERIAL	SD	STORM DRAIN
ALT	ALTERNATE	ELEC	ELECTRICAL	MAX	MAXIMUM	SF	SQUARE FOOT
ALUM	ALUMINUM	ELEV	ELEVATOR	MECH	MECHANICAL	SH	SHOWER
ANCH	ANCHOR	EQ	EQUAL	MEM	MEMBRANE	SHT	SHEET
ANOD	ANODIZED	EQUIP	EQUIPMENT	MEP	MECHANICAL, ELECTRICAL, PLUMBING	SIM	SIMILAR
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	ER	EMERGENCY ROOM	METTP	METAL TOILET PARTITION	SL	SLIDING
		EST	ESTIMATE	MFR	MANUFACTURER	SMR	SINGLE PLY MEMBRANE ROOF
BD	BOARD	EWC	ELECTRICAL WATER COOLER	MH	MANHOLE	SP/PT/FIN	SPECIAL PAINT FINISH
BIT	BITUMINOUS	EXH	EXHAUST	MIN	MINIMUM	SPEC	SPECIFICATION
BL	BUILDING LINE	EXIST	EXISTING	MISC	MISCELLANEOUS	SPKR	SPEAKER
BLDG	BUILDING	EXP	EXPANSION	MO	MASONRY OPENING	SQ	SQUARE
BLK	BLOCK	EXPD	EXPANDED	MTL	METAL	SS	STAINLESS STEEL
BLKG	BLOCKING	EXT	EXTERIOR	MULL	MULLION	STA	STATION
BM	BEAM					STD	STANDARD
BOC	BOTTOM OF CURB	F/F	FACE OF FOUNDATION WALL	N	NORTH	STL	STEEL
BOF	BOTTOM OF FOOTING ELEVATION	FA	FRESH AIR	NAT	NATURAL	STOR	STORAGE
		FAP	FIRE ALARM PANEL	NEC	NECESSARY	STRG	STRINGER
BOT	BOTTOM	FD	FLOOR DRAIN	NIC	NOT IN CONTRACT	STRUCT	STRUCTURAL
BRG	BEARING	FE	FIRE EXTINGUISHER	NOM	NOMINAL	SU	SITE UTILITY
BRK	BRICK	FEC	FIRE EXTINGUISHER CABINET	NRC	NOISE REDUCTION COEFFICIENT	SUSP	SUSPEND (SUSPENDED)
BSMT	BASEMENT	FIN	FINISH	NTS	NOT TO SCALE	SYMM	SYMMETRICAL
BTW	BETWEEN	FL	FLOW LINE			SYS	SYSTEM
BUR	BUILT-UP ROOF	FLR	FLOOR	OC	ON CENTER	T	TREAD
		FND	FOUNDATION	OD	OUTSIDE DIAMETER	TAG	TONGUE & GROOVED
CAB	CABINET	FOF	FACE OF FINISH	OF/C	OUTSIDE FACE OF CONCRETE	T/FRM	TOP OF FRAME
CB	CATCH BASIN	FOM	FACE OF MASONRY	OH	OVERHEAD	T/SLB	TOP OF SLAB
CER	CERAMIC	FOS	FACE OF STUD	OPG	OPENING	TB	TACKBOARD
CF	CUBIC FOOT	FR	FIRE RATED	OPP	OPPOSITE	TEL	TELEPHONE
CI	CAST IRON	FS	FULL SIZE	OR	OPERATING ROOM	TEMP	TEMPORARY
CJ	CONTROL JOINT	FT	FOOT			TERR	TERRAZZO
CL	CLOSET	FTG	FOOTING	PBD	PARTICLE BOARD	THK	THICK
CLCB	CURBLESS CATCH BASIN	FUR	FURRED (FURRING)	PCF	POUNDS PER CUBIC FOOT	THLD	THRESHOLD
CLG	CEILING	FVC	FIRE VALVE CABINET			TOC	TOP OF CURB
CM	CONTRACT MANAGER			PL	PROPERTY LINE	TOF	TOP OF FOUNDATION
CMU	CONCRETE MASONRY UNIT	GA	GAUGE	PLAM	PLASTIC LAMINATE	TOS	TOP OF SLAB
CO	CLEAN OUT	GALV	GALVANIZED	PLAS	PLASTER	TOW	TOP OF WALL ELEVATION
COL	COLUMN	GC	GENERAL CONTRACTOR	PLYWD	PLYWOOD	TR	TO REMAIN
COMP	COMPACTED (COMPOSITION)	GEN	GENERAL	PNL	PANEL	TYP	TYPICAL
		GL	GLASS	PSF	POUNDS PER SQUARE FOOT	UH	UNIT HEATER
CONC	CONCRETE	GLZ	GLAZING	PSI	POUNDS PER SQUARE INCH	UL	UNDERWRITERS LABORATORIES, INC.
CONST	CONSTRUCTION	GRD	GRADE	PT	PAINT	UOD	UNDERSIDE OF DECK
CONT	CONTINUOUS	GYP	GYPSUM	PTD	PAINTED	UON	UNLESS OTHERWISE NOTED
CONTR	CONTRACTOR			PTN	PARTITION	UR	URINAL
CORR	CORRUGATED	H/V	HEATING & VENTILATING	PVC	POLYVINYL CHLORIDE	UV	UNIT VENTILATOR
CP	CONTROL PANEL	HC	HANDICAP			VAR	VARIES OR VARIABLE
CSG	CASING	HDWD	HARDWOOD	QT	QUARRY TILE	VB	VINYL BASE
CSMT	CASEMENT	HGT	HEIGHT			VCT	VINYL COMPOSITION TILE
CT	CERAMIC TILE	HM	HOLLOW METAL	R	RADIUS	VERT	VERTICAL
CTR	CENTER	HP	HIGH POINT	R/A	RETURN AIR	VEST	VESTIBULE
CY	CUBIC YARD	HVAC	HEATING, VENTILATION, AIR CONDITIONING	RC	REINFORCED CONCRETE	VIF	VERIFY IN FIELD
		HWH	HOT WATER HEATER	RD	ROOF DRAIN	VNR	VENEER
DF	DRINKING FOUNTAIN			REF	REFERENCE	VOL	VOLUME
DIA	DIAMETER	ID	INSIDE DIAMETER	REFR	REFRIGERATOR		
DIAG	DIAGONAL	IN	INCH	REINF	REINFORCE	W	WEST
DIM	DIMENSION	INSUL	INSULATION	REQD	REQUIRED	W/	WITH
DL	DEAD LOAD	INT	INTERIOR	RGH	ROUGH	WC	WATER CLOSET
DN	DOWN	INV	INVERT	RL	RAIN LEADER	WD	WOOD
DR	DOOR			RM	ROOM	WDW	WINDOW
DS	DOWNSPOUT	JC	JANITORS CLOSET	RO	ROUGH OPENING	WGL	WIRE GLASS
DSIC	DRIVE SIDE OF CURB	JST	JOIST	ROW	RIGHT OF WAY	WP	WEATHERPROOF (WATERPROOFING)
DTL	DETAIL	JT	JOINT	RQMT	REQUIREMENT		
DWG	DRAWING					WWF	WELDED WIRE FABRIC

DRAWING SHEET INDEX:

Sheet	Sheet Name	Issued	Rev
PCS	*PROJECT COVER SHEET*	*N.F.C.*	
R-1	*3D RENDER*	*N.F.C.*	
A1.1	*FLOOR PLANS*	*N.F.C.*	
A3.1	*EXTERIOR ELEVATIONS*	*N.F.C.*	
A4.2	*SECTIONS*	*N.F.C.*	

GENERAL NOTES:

1. DO NOT SCALE DRAWING OR DIMENSIONS. FOR MISSING DIMENSIONS OR DIMENSIONS IN CONFLICT, CONTACT THE CONTRACTOR IMMEDIATELY BEFORE CONTINUING WITH WORK.
2. ANY DISCREPANCIES IN THESE PLANS WILL BE BROUGHT TO THE CONTRACTOR'S ATTENTION IN WRITING IMMEDIATELY
3. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DESIGN-BUILD PLANS AND SPECIFICATION FOR LOCATIONS OF ALL BLOCK OUTS, INSERTS, OPENINGS, CURBS, BASES, & PADS THAT ARE NOT DIMENSIONED OR SHOWN ON CONTRACTOR'S DWG'S. OR STRUCTURAL DWG'S.
4. STRUCTURAL STEEL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION PLANS AND SPECIFICATION SHALL BE PROVIDED AND ARE THE RESPONSIBILITY OF THERE RESPECTIVE SUBCONTRACTORS IF NOT CARRIED IN ARCHITECTURAL SERVICES
5. ALL CONSTRUCTION SHALL CONFORM TO AND BE IN ACCORDANCE WITH THE REGULATOR REQUIREMENTS MANDATED BY ALL FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION IN ACCORDANCE TO THE STATE IN WHICH THE WORK IS PERFORMED (STATE BUILDING CODE, STATE LIFE SAFETY & FIRE CODE ETC.)
6. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS, AND SHALL CONFIRM WORK IS BUILDABLE AS SHOWN. ANY CONFLICTS OR OMISSIONS, ETC. SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE ARCHITECT FOR CLARIFICATION
7. DIMENSIONS ARE FROM EXTERIOR FACE OF FOUNDATION, VENEER, OR WALL STUD AND TO CENTER OF ALL INTERIOR STUD WALLS OR FACE OF INTERIOR MASONRY. UNLESS NOTED OTHERWISE.
8. CLEAR DIMENSIONS ARE FROM FACE TO FACE OF WALL FINISH. UNLESS NOTED OTHERWISE
9. REFER TO MECHANICAL DRAWINGS / SPEC. FOR ALL SIZES AND LOCATIONS OF MECHANICAL DUCT WORK.
10. UNLESS OBVIOUSLY SHOWN OTHERWISE, DOOR LOCATIONS NOT DESIGNATED BY WRITTEN DIMENSION SHALL BE CENTERED IN THE WALL OR SHALL BE LOCATED FOUR (4) INCHES FROM FINISH WALL TO EDGE OF DOOR JAMB. PER PLAN.
11. PROVIDE METAL CORNER BEAD AT ALL OUTSIDE CORNERS OF PLASTERED OR DRYWALL SURFACES, UNLESS NOTED OTHERWISE.
12. PENETRATIONS OF ALL FIRE RATED ASSEMBLIES SHALL BE PROTECTED BY LIKE RATED CONSTRUCTION DAMPERS, SEALANTS, COLLARS, ETC., TYPICAL.
13. CONTRACTOR SHALL FURNISH, LOCATE AND INSTALL ALL ACCESS PANELS AS REQUIRED AFTER INSTALLATION OF MECHANICAL DUCTS, PLUMBING AND ELECTRICAL WORK, FIRE RATED AS REQUIRED.
14. FURNISH AND INSTALL SOLID BLOCKING BEHIND ALL WALL HUNG MILLWORK ITEMS, RAILS, FIXTURES,GRAB BARS, ETC . WHERE INDICATED OR REQUIRED.
15. CONTRACTOR SHALL LAYOUT OR MARK, ALL EQUIPMENT, SYSTEMS AND MILLWORK ON THE FLOOR FOR ARCHITECT OR OWNER'S APPROVAL PRIOR TO BEGINNING CEILING / OVER HEAD WORK.
16. ALL SPRINKLER HEAD LOCATIONS, MAINS, BRANCHES AND RISER PIPE LOCATIONS MUST BE COORDINATED WITH THE DESIGN / BUILD CONTRACTOR PRIOR TO WORK.
17. FURNISH AND INSTALL FIRE EXTINGUISHERS IN TYPE, QUANTITY, AND LOCATION PER LOCAL FIRE DEPARTMENT. TYPICAL
18. CONTRACTOR SHALL VERIFY, COORDINATE LOCATION WITH THE ARCHITECT ANY SMOKE, CARBON MONOXIDE DETECTOR OR FIRE ALARM DEVICE AS REQUIRED BY THE LOCAL FIRE DEPARTMENT.
19. FURNISH & INSTALL FIRE DAMPERS WITH FUSIBLE LOUVER WHEREVER DUCT WORK PENETRATES ONE OR TWO HOUR CEILINGS OR WALLS. TYPICAL UNLESS NOTED OTHERWISE.
20. PROVIDE PLASTER AND GYPSUM WALL BOARD CONTROL JOINTS AT 30'-0" ON CENTER FROM FLOOR TO CEILING, OR AS NOTED ON THE CONSTRUCTION DOCUMENTS. VERIFY IN FEILD WITH ARCHITECT PRIOR TO WORK.

Architect of Record:
T | W Designs, LLC
254 Drake Hill Rd.
Strafford, NH 03884
603-664-2181

Civil Engineer:
XXX

Structural Engineer:
XXX

Electrical Engineer:
XXX

Mechanical Engineer:
XXX

Fire Protection Eng.:
XXX

General Contractor:
XXX

Project Info:
White Birch Armory
80 Industrial Park Dr.
Dover, NH 03820

22017
PROJECT COVER SHEET

SHEET NUMBER
PCS

TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



PLANNING BOARD SET
7/12/2022

T:\3.Projects\22023-WBA Addition\22023c_WBA Addition.rvt

No. Description Date

Revision Schedule

Project Info:

White Birch Armory

80 Industrial Park Dr.
Dover, NH 03820

Sheet Status:

Latest Release:
Issued For: PLANNING BOARD SET
Org. Issue Date: 2/2022 (N.F.C.)

JOB NO: 22017
DRAFTED: Author
CHECKED: Checker

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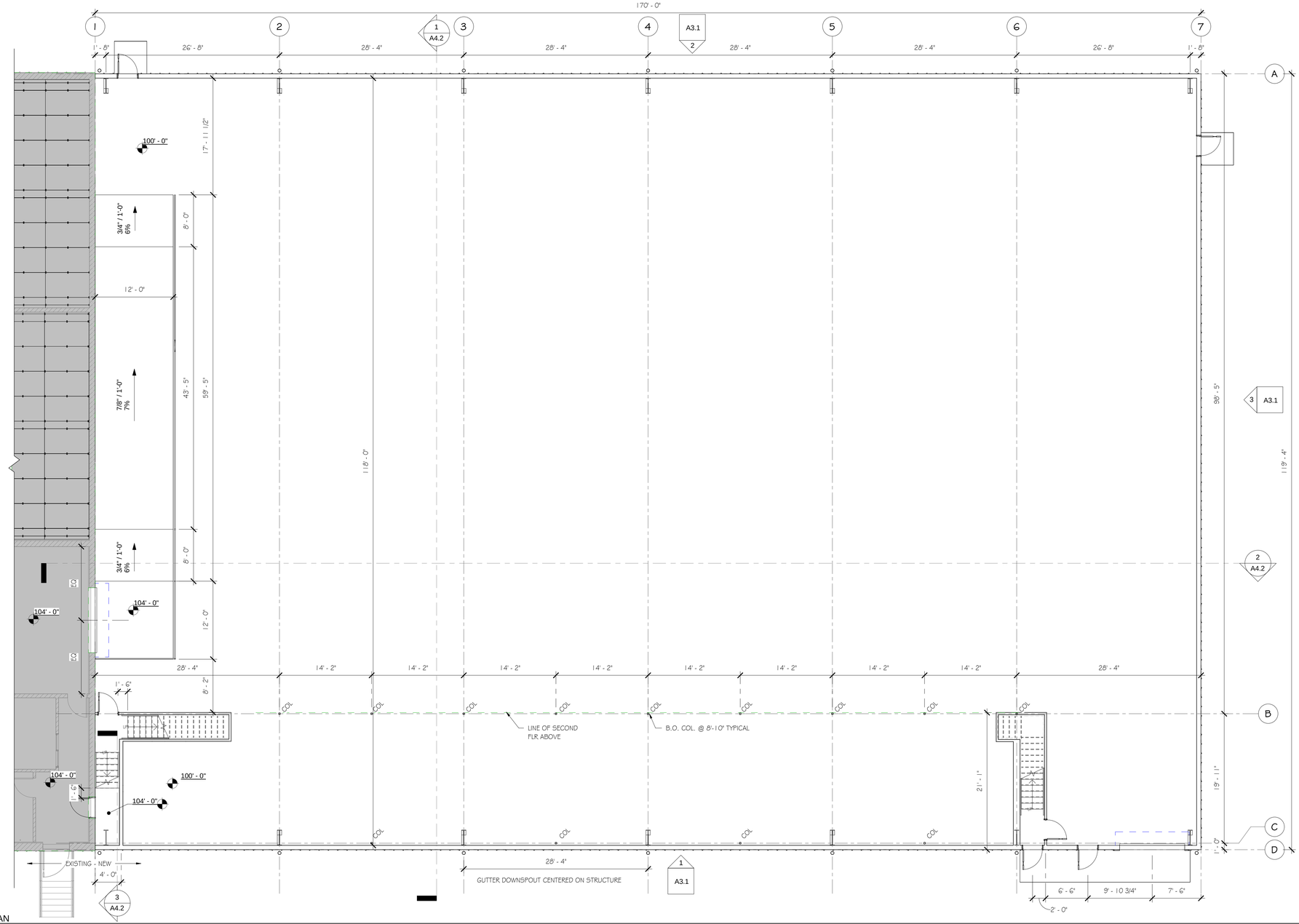
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3D RENDER

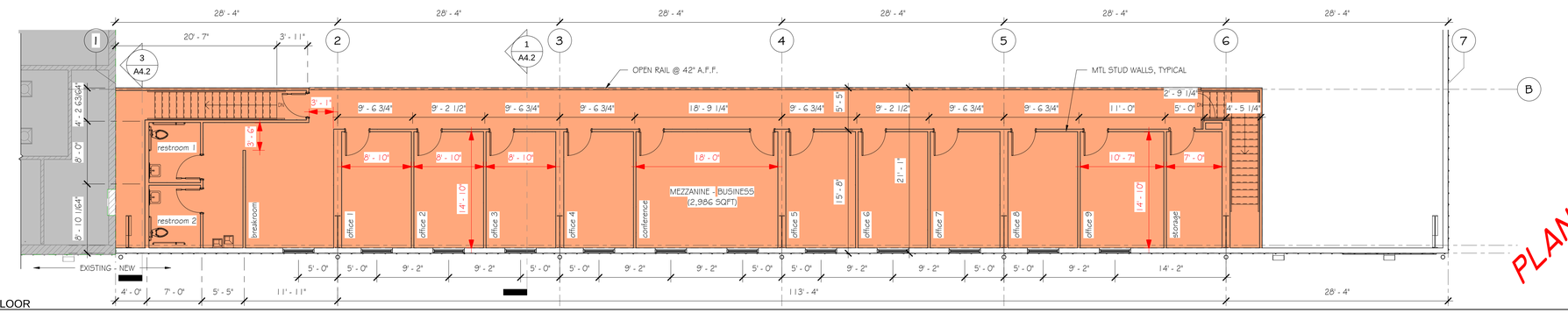
Sheet Number:

R-1

Printed on: 7/12/2022



1 FLOOR PLAN
1/8" = 1'-0"



2 SECOND FLOOR
1/8" = 1'-0"

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TW DESIGNS LLC
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P: 603.664.2181 | F: 603.664.9508

SQ FOOTAGE
1ST FLOOR = 20,287 SQFT
2ND FLOOR = 2,986 SQFT

TOTAL SQFT = 23,273

No.	Description	Date

Revision Schedule

PLANNING BOARD SET
7/12/2022

True
PROJECT NORTH

Project Info:
White Birch Armory

80 Industrial Park Dr.
Dover, NH 03820

Sheet Status:
Latest Release:
Issued For: PLANNING BOARD SET2/2022 (N.F.C.)
Org. Issue Date:

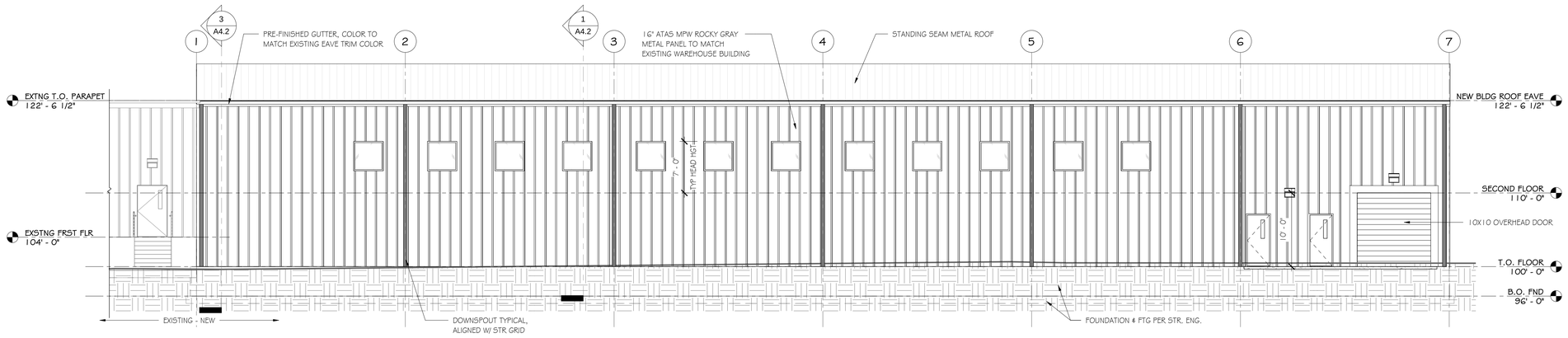
JOB NO: 22017
DRAFTED: SMP
CHECKED: JMT
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Sheet Title:
FLOOR PLANS

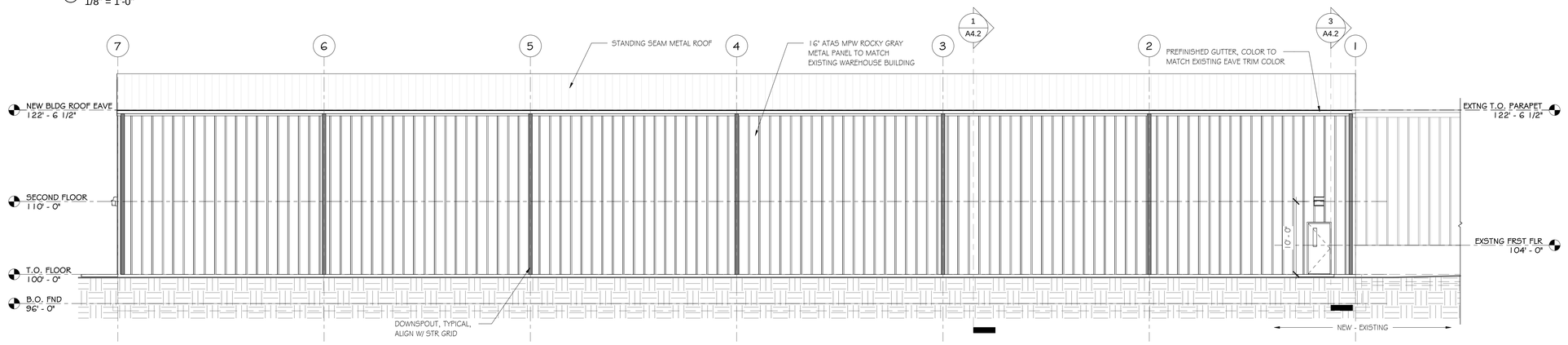
Sheet Number:
A1.1

Printed on: 7/12/2022

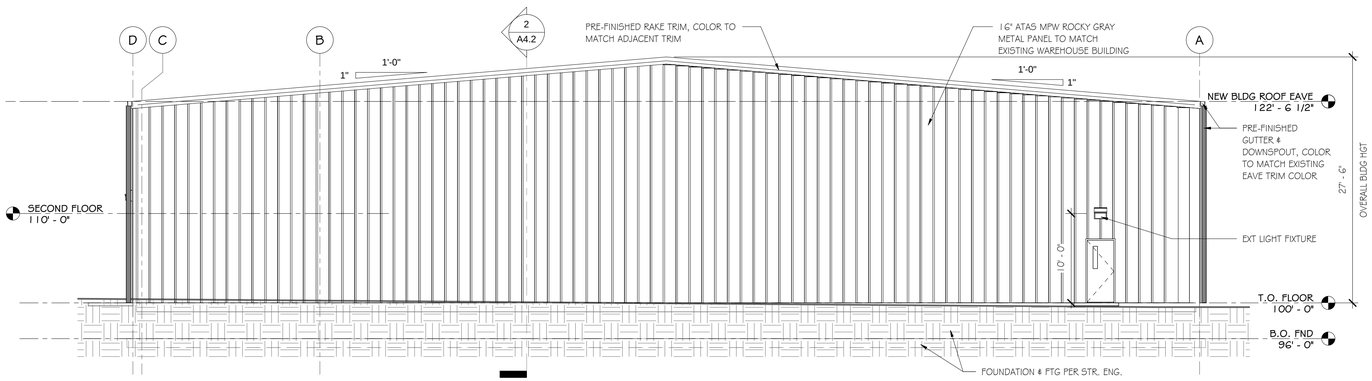
TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



1 FRONT ELEVATION
1/8" = 1'-0"



2 BACK ELEVATION
1/8" = 1'-0"



3 SIDE ELEVATION
1/8" = 1'-0"

T:\3.Projects\22023-WBA Addition\22023c_WBA Addition.rvt

No. Description Date

Revision Schedule

Project Info:

White Birch Armory

80 Industrial Park Dr.
Dover, NH 03820

Sheet Status:

Latest Release:
Issued For: PLANNING BOARD SET2/2022 (N.F.C.)
Org. Issue Date:

JOB NO. 22017
DRAFTED: SMP
CHECKED: JMT

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

Sheet Title:

EXTERIOR ELEVATIONS

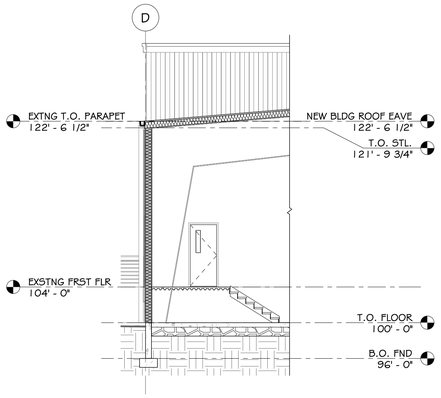
Sheet Number:

A3.1

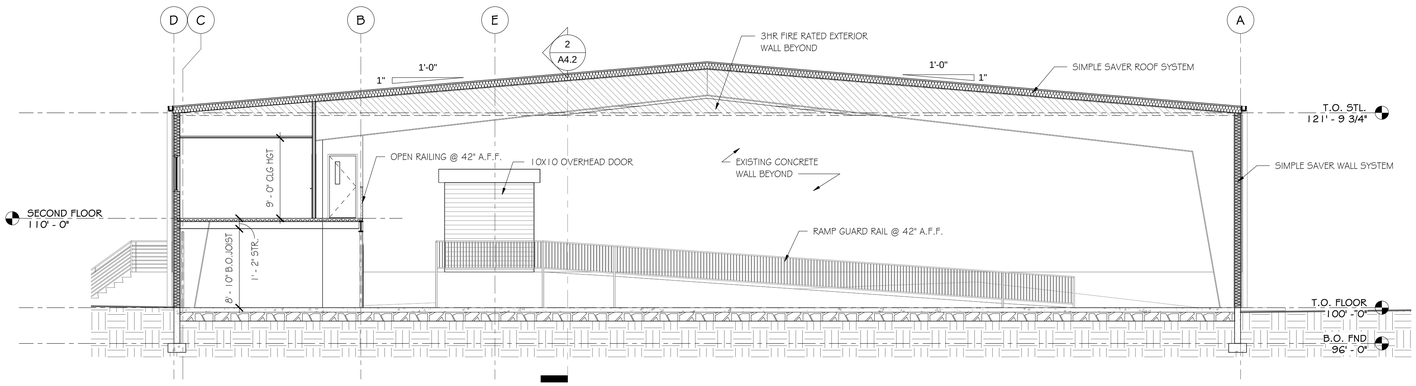
PLANNING BOARD SET
7/12/2022

Printed on: 7/12/2022

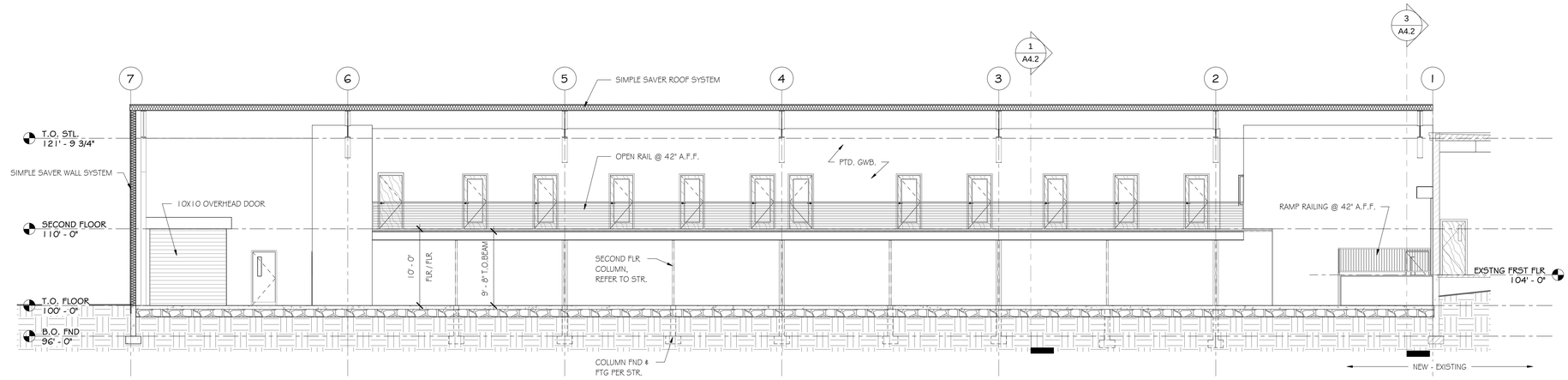
TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



3 SECTION 'A'
1/8" = 1'-0"



1 CROSS SECTION
1/8" = 1'-0"



2 LONGITUDINAL SECTION
1/8" = 1'-0"

PLANNING BOARD SET
7/12/2022

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No. Description Date

Revision Schedule

Project Info:

White Birch Armory

80 Industrial Park Dr.
Dover, NH 03820

Sheet Status:

Latest Release:
Issued For: PLANNING BOARD SET
Org. Issue Date: 2/2022 (N.F.C.)

JOB NO: 22017
DRAFTED: SMP
CHECKED: JMT

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

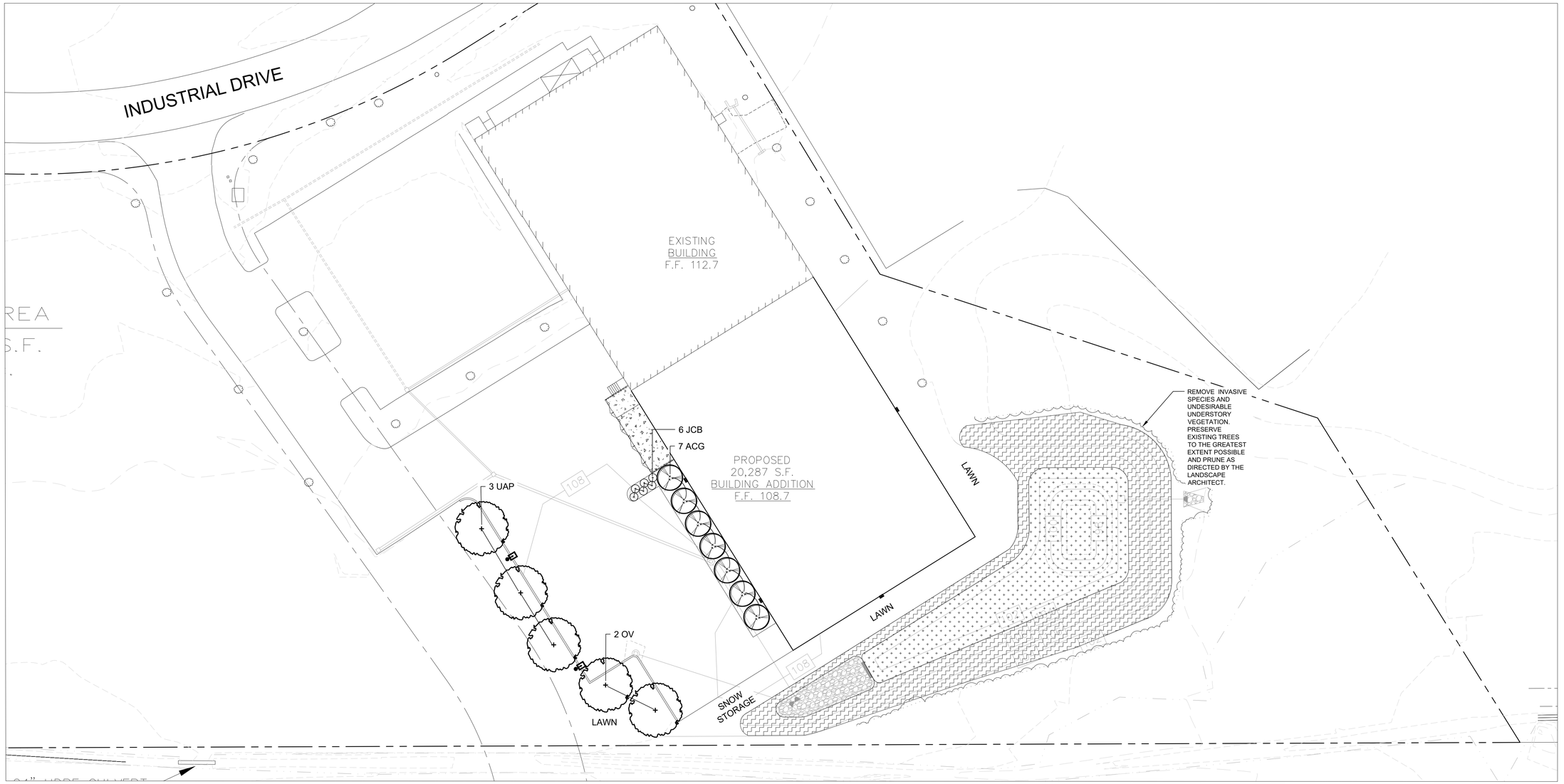
Sheet Title:

SECTIONS

Sheet Number:

A4.2

Printed on: 7/12/2022



GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR INFORMATION NOT DEPICTED ON THE LANDSCAPE DRAWINGS.
2. EXISTING VEGETATION SHALL BE PROTECTED DURING SITE CLEARING AND CONSTRUCTION THROUGH THE USE OF CONSTRUCTION FENCING OR OTHER ADEQUATE PROTECTIVE BARRIERS.
3. PLANT LOCATIONS SHOWN ON THE PLANTING PLAN ARE SUBJECT TO FIELD MODIFICATION TO ACCOMMODATE EXISTING CONDITIONS. FIELD ADJUSTMENTS SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT.
4. WITHIN THE LIMIT OF WORK, ANY INVASIVE PLANT SPECIES ENCOUNTERED SHALL BE REMOVED FOLLOWING NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT BEST MANAGEMENT PRACTICES.
5. SEE SHEET L2.0 FOR LANDSCAPE DETAILS.
6. CONTACT DIGSAFE PRIOR TO BEGINNING WORK.

Legend

- DECIDUOUS SINGLE-STEMMED TREE PLANTING, SEE 1/L2.0
- DECIDUOUS MULTI-STEMMED TREE PLANTING, SEE 2/L2.0
- LAWN — LOAM AND LAWN SEED MIX, SEE 3/L2.0
- LOAM AND WET MEADOW / POND SEED MIX, SEE 4/L2.0
- LOAM AND DRY SITE EROSION / RESTORATION SEED MIX, SEE 5/L2.0

Plant Schedule

DECIDUOUS TREES

QTY.	ABRV.	SCIENTIFIC NAME	COMMON NAME	SIZE	APPROX. SIZE AT MATURITY	REMARKS
7	ACG	AMELANCHIER CANADENSIS 'GLENFORM'	RAINBOW PILLAR SERVICEBERRY	5'-6" HT	15' HT x 10' SPD	MULTI, B&B
2	OV	OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM	3"-3 1/2" CAL	25' HT x 30' SPD	B&B
3	UAP	ULMUS AMERICANA "PRINCETON"	PRINCETON AMERICAN ELM	3"-3 1/2" CAL	60' HT x 40' SPD	B&B
12						

SHRUBS

6	JCB	JUNIPERUS COMMUNIS 'BLUEBERRY DELIGHT'	BLUEBERRY DELIGHT JUNIPER	18"-24" HT	2' HT x 5' SPD	CONTAINER
6						

DRAWING SUBMITTED FOR CITY REVIEW

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Landscape Architecture • Planning
Newmarket, NH | Portland, ME | 603.772.0590 | www.IWood.com

WHITE BIRCH ARMORY

74 INDUSTRIAL PARK
DOVER, NEW HAMPSHIRE

SHEET TITLE

LANDSCAPE PLAN

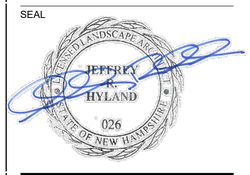
REVISION LOG

REV#	DATE	DESCRIPTION

PROJECT NO.	19040.1
DESIGN BY	J. HYLAND / K.OSGOOD
DRAWN BY	K.OSGOOD
CHECKED BY	J. HYLAND
DATE	JULY 6, 2022
SCALE	

0' 30' 60'
SCALE: 1" = 30'-0"

SEAL



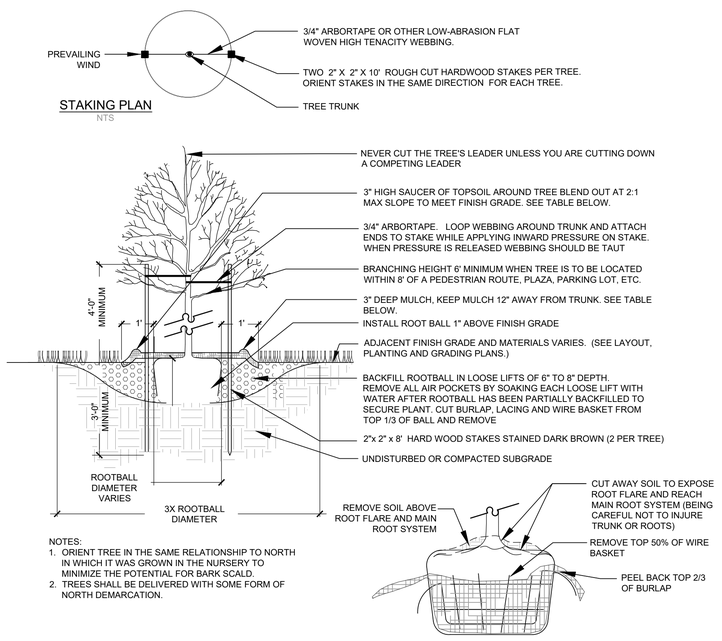
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PLANTING NOTES:

1. PLEASE REVIEW AND BECOME FULLY ACQUAINTED WITH THESE NOTES, CONSTRUCTION DETAILS, AND THE PLANTING PLAN.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING AND NEW UTILITY LINE LOCATIONS PRIOR TO PLANTING, AND SHALL REPORT ANY CONFLICT TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
3. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN SOCIETY OF NURSERY MEN, INC. LATEST EDITION.
4. THE CONTRACTOR SHALL STAKE THE LOCATION OF ALL THE PROPOSED PLANT MATERIAL FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. NO PLANTS SHALL BE PLANTED BEFORE THE ACCEPTANCE OF ROUGH GRADING. THE BASE OF THE FLARE OF THE TREE TRUNK SHALL BE EXPOSED, IF NECESSARY, AND PLACED 2" ABOVE FINISH GRADE.
5. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES WILL BE PLANTS WITH EQUIVALENT OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER COLOR, LEAF COLOR, FRUIT COLOR, AND TIME OF BLOOM, AS APPROVED BY THE LANDSCAPE ARCHITECT.
6. EXISTING LOAM: STOCKPILING OF EXISTING LOAM IS SPECIFIED ELSEWHERE. REMOVE CLAY LUMPS, BRUSH, LITTER, ROOTS, STONES 1" AND LARGER, AND OTHER FOREIGN MATERIALS.
7. ADDITIONAL LOAM: IF STOCKPILED LOAM QUANTITY IS INSUFFICIENT, PROVIDE LOAM, WHICH IS A "FINE SANDY LOAM", OR A "SANDY LOAM" DETERMINED BY MECHANICAL ANALYSIS AND BASED ON THE "U.S.D.A. CLASSIFICATION SYSTEM." IT SHALL BE OF UNIFORM COMPOSITION, WITHOUT ADMIXTURE OF SUBSOIL. LOAM SHALL HAVE AN ACIDITY RANGE OF PH 5.8 TO PH 7.0 AND SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 10% ORGANIC MATTER AS DETERMINED BY THE LOSS OF IGNITION OF OVEN-DRIED SAMPLES. PROVIDE LOAM WHICH IS FERTILE, FRIABLE, NATURAL LOAM FREE FROM SUBSOIL, CLAY LUMPS, BRUSH, LITTER, ROOTS, STONES 1" AND LARGER, AND ANY FOREIGN MATERIALS.
8. PINE MULCH: PROVIDE PARTIALLY DECOMPOSED MINIMUM SIX MONTH AGED FINELY SHREDDED PINE BARK MULCH WITH DARK BROWN COLOR AND FREE OF WEEDS, EXCESSIVE FINE PARTICLES, STRINGY MATERIAL, AND CHUNKS OF WOOD THICKER THAN ¼". PROVIDE BARK MULCH APPROVED BY THE LANDSCAPE ARCHITECT. APPLY TACKIFIED MULCH TO ALL SEEDED AREAS.
9. ALL PLANTS SHALL BE PLUM VERTICALLY AFTER SETTLING.
10. ALL PLANT MATERIAL SHALL BE MULCHED AFTER PLANTING.
11. LESS OTHERWISE INDICATED, DICTATED BY CONDITIONS AT THE SITE, AND DIRECTED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE, BACKFILL SHALL CONSIST OF UNAMENDED SOIL EXCAVATED FROM THE PLANTING PIT. BACKFILL IN 3-4" LAYERS AND CONSOLIDATE EACH LAYER WITH WATER TO ELIMINATE VOIDS AND ARE POCKETS BEFORE PLACING SUBSEQUENT LAYERS. CONTINUE UNTIL BACKFILL HAS REACHED FINISHED GRADE. WATER THOROUGHLY WHEN EXCAVATION IS BACK FILLED AND CONTINUE WATERING UNTIL SATURATED. IF EXISTING UNAMENDED SOIL IS NOT ACCEPTED. PROVIDE PLANTING SOIL MIXTURE CONSISTING OF 7 PARTS LOAM AND 1 PART HUMUS. MIX QUANTITY OF FERTILIZER AND SOIL AMENDMENTS AS RECOMMENDED BY SOIL ANALYSIS AND APPROVED BY THE LANDSCAPE ARCHITECT.
12. WATERING: FLOOD ALL PLANTS WITH WATER TWICE WITHIN THE FIRST 24 HOURS AFTER PLANTING.
13. LOAMING: LOOSEN SUBGRADE AND EXISTING LOAM AREAS BY DISCING OR ROTOTILLING TO MINIMUM DEPTH OF 6". REMOVE STONES GREATER THAN 2" AND ALL RUBBISH AND DEBRIS. PLACE LOAM IN TWO EQUAL LIFTS MIXING FIRST APPLICATION INTO LOOSENED SUBGRADE THEN PLACE SECOND LIFT TO BRING LOAM AFTER SETTLING AND COMPACTING TO THE LINES AND GRADES SHOWN IN THE CONTRACT DOCUMENTS, 6" DEEP MINIMUM. DO NOT HANDLE LOAM OR SUBSOIL IF IT IS WET OR FROZEN.
14. AFTER LOAM HAS BEEN SPREAD, IT SHALL BE CAREFULLY PREPARED BY SCARIFYING AND HAND RAKING. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, STUMPS, LITTER AND FOREIGN MATTER, AND STONES OVER ONE INCH IN DIAMETER SHALL BE REMOVED FROM THE LOAM. LOAM SHALL ALSO BE FREE OF SMALLER STONES IN EXCESSIVE QUANTITIES AS DETERMINED BY THE LANDSCAPE ARCHITECT.
15. FINE GRADING: SET SUFFICIENT GRADE STAKES FOR CHECKING THE FINISHED GRADES. STAKES MUST BE SET AT THE BOTTOM AND TOP OF SLOPES. GRADES SHALL BE ESTABLISHED THAT ARE ACCURATE TO 1/10TH OF A FOOT EITHER WAY. CONNECT CONTOURS AND SPOT ELEVATIONS WITH AN EVEN SLOPE. ALL GRADING WILL INSURE DRAINAGE AWAY FROM STRUCTURES.
16. FINE GRADE LAWN AREAS TO SMOOTH, FREE DRAINING, EVEN SURFACES WITH FINE TEXTURE. ROLL, RAKE AND DRAW LAWN AREAS TO FLATTEN RIDGES AND FILL DEPRESSIONS, EXCEPT AT SELECT AREAS SHOW ON THE DRAWINGS. CONTROL MOISTURE CONTENT TO MAINTAIN OPTIMUM CONDITIONS, BUT DO NOT CREATE A MUDDY CONDITION.
17. ROLLING - TYPICAL: ROLL THE ENTIRE AREA WITH A HAND ROLLER WEIGHTING NOT MORE THAN 100 POUNDS. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT OF ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM AND THE SURFACE SHALL BE REGARDED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE OR TO THE SHAPES AND CONFIGURATIONS AS SHOWN ON THE DETAILS.
18. THE SILT FENCE SHALL BE LIMIT OF SEEDING UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL AREAS DISTURBED OUTSIDE THE LIMIT OF WORK SHALL BE SEEDED AS INDICATED ON THE DRAWINGS.
19. IN CASE OF DISCREPANCIES BETWEEN THE QUANTITIES SHOWN ON THE PLANT SCHEDULE AND THE QUANTITIES SHOWN ON THE PLANTING PLAN, THE QUANTITIES ON THE PLANTING PLAN SHALL BE PROVIDED BY THE CONTRACTOR.

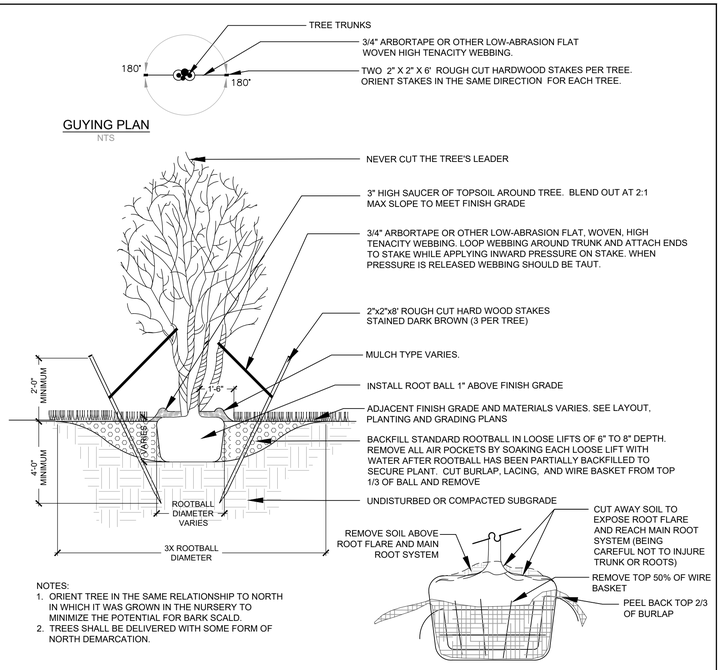


NOTES:
1. ORIENT TREE IN THE SAME RELATIONSHIP TO NORTH IN WHICH IT WAS GROWN IN THE NURSERY TO MINIMIZE THE POTENTIAL FOR BARK SCALD.
2. TREES SHALL BE DELIVERED WITH SOME FORM OF NORTH DEMARCATION.

Deciduous Tree Planting
Not to Scale

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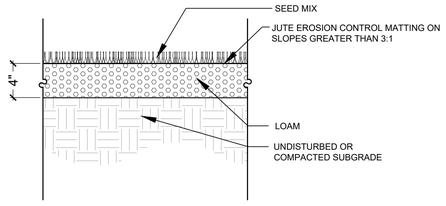


NOTES:
1. ORIENT TREE IN THE SAME RELATIONSHIP TO NORTH IN WHICH IT WAS GROWN IN THE NURSERY TO MINIMIZE THE POTENTIAL FOR BARK SCALD.
2. TREES SHALL BE DELIVERED WITH SOME FORM OF NORTH DEMARCATION.

Deciduous Multi-Stemmed Tree Planting
Not to Scale

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2 L2.0



Type I Lawn Percent by weight	Common Name	Scientific Name
40%	Celmfine, Rebel II or Tribute Tall Fescue	
15%	Palmer II Perennial Ryegrass	
10%	Jamestown Chewings Fescue	
10%	Reliant Hard Fescue	
10%	Bridsfoot Trefoil	*Arvents* variety
5%	Switchgrass	
5%	White Clover	
5%	Redtop	*Streaker* variety

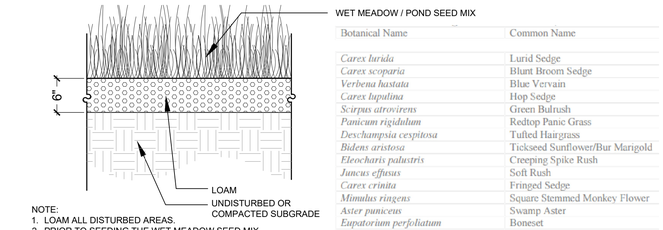
Apply at a rate of 265/lbs/acre

NOTE:
1. LOAM ALL DISTURBED AREAS.
2. PRIOR TO SEEDING THE LAWN SEED MIX PROPERLY PREPARE THE SEED BED.

Loam and Lawn Seed Mix
Not to Scale

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3 L2.0



Botanical Name	Common Name
Carex lurida	Lurid Sedge
Carex scoparia	Blunt Broom Sedge
Verbena hastata	Blue Vervain
Carex lupulina	Hop Sedge
Scirpus atrovirens	Green Bulrush
Panicum rigidulum	Redtop Panic Grass
Deschampsia cespitosa	Tufted Hairgrass
Bidens aristosa	Tickseed Sunflower/Bur Marigold
Eleocharis palustris	Creeping Spike Rush
Juncus effusus	Soft Rush
Carex crinita	Fringed Sedge
Mimulus ringens	Square Stemmed Monkey Flower
Aster puniceus	Swamp Aster
Eupatorium perfoliatum	Boneset
Glyceria canadensis	Rattlesnake Grass
Asclepias incarnata	Swamp Milkweed
Helenium autumnale	Common Sneezeweed
Penthorum sedoides	Ditch Stonecrop

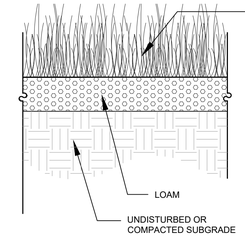
Apply at rate of 231bs/acre. New England Wildflower Mix available at New England Wetland Plants, Ma: www.newp.com . Approved equal may be substituted.

NOTE:
1. LOAM ALL DISTURBED AREAS.
2. PRIOR TO SEEDING THE WET MEADOW SEED MIX PROPERLY PREPARE THE SEED BED.
3. INSTALL JUTE MATTING ON POND SIDE SLOPES GREATER THAN 3:1.
4. FOLLOW MFG INSTRUCTIONS FOR SEEDING. AVAILABLE AT NEW ENGLAND WETLAND PLANTS, MA: WWW.NEWP.COM. APPROVED EQUAL MAY BE SUBSTITUTED.

Loam and Wet Meadow / Pond Seed Mix
Not to Scale

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4 L2.0



New England Erosion Control/Restoration Mix for Dry Sites

Botanical Name	Common Name	Indicator
Elymus canadensis	Canada Wild Rye	FACU+
Festuca rubra	Red Fescue	FACU
Lolium multiflorum	Annual Ryegrass	
Lolium perenne	Perrenial Ryegrass	
Schizachyrium scoparium	Little Bluestem	FACU
Panicum virgatum	Switch Grass	FAC
Sorghastrum nutans	Indian Grass	UPL

Apply at rate of 231bs/acre. New England Wildflower Mix available at New England Wetland Plants, Ma: www.newp.com . Approved equal may be substituted.

NOTE:
1. LOAM ALL DISTURBED AREAS.
2. PRIOR TO SEEDING THE EROSION CONTROL SEED MIX, PROPERLY PREPARE THE SEED BED.
3. INSTALL JUTE MATTING ON SLOPES GREATER THAN 3:1.
4. FOLLOW MFG INSTRUCTIONS FOR SEEDING. AVAILABLE AT NEW ENGLAND WETLAND PLANTS, MA: WWW.NEWP.COM. APPROVED EQUAL MAY BE SUBSTITUTED.

Dry Site Erosion / Restoration Seed Mix
Not to Scale

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WHITE BIRCH ARMORY

74 INDUSTRIAL PARK
DOVER, NEW HAMPSHIRE

SHEET TITLE

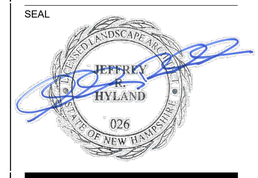
LANDSCAPE PLAN DETAILS

REVISION LOG

REV#	DATE	DESCRIPTION

PROJECT NO.	19040.1
DESIGN BY	J. HYLAND / K.OSGOOD
DRAWN BY	K.OSGOOD
CHECKED BY	J. HYLAND
DATE	JULY 6, 2022
SCALE	

SEAL



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City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: WILLIAM C. & CHANEY N. FISHER Telephone # (339) 927-6567

Address of Applicant: 1 BOSTON HARBOR RD

E-Mail Address: WFISHER@FIAINC.COM

Name of Property Owner (if different from applicant): _____ Telephone #_____

Address of Property Owner: _____

PROPERTY INFORMATION

Assessor's Map # 7 Lot(s) # 2

Address of Property: 1 BOSTON HARBOR RD

Zoning District(s) R-20 Overlay District(s) RIVERFRONT RESIDENTIAL

Existing Use of Property: SINGLE FAMILY RESIDENCE

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

PROPOSED USE ALIGNS WITH CURRENT USE OF THE LAND, WITH IMPACTS INSIDE THE 100' HOTL SETBACK INCLUDING THE FOLLOWING: REMOVAL OF BUILDING PORTION AND INSTALLATION OF ADDITION, REMOVAL OF ASPHALT DRIVEWAY, INSTALLATION OF PAVER WALKWAY & DRIVEWAY, REMOVAL OF DECK PORTION, INSTALLATION OF PROPANE TANKS, AND INSTALLATION OF CONCRETE PADS.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: WETLAND PERMIT - PENDING; SHORELAND PERMIT - PENDING

Name of Professional That Prepared Plans: ALEX ROSS - ROSS ENGINEERING, LLC

Address 909 ISLINGTON ST #6, PORTSMOUTH, NH 03801 Telephone #: (603) 433-7560

Professional License #: 9409 E-mail address: ALEXROSS@COMCAST.NET

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 7/28/2022

Signature of Applicant (if different from owner): _____ Date: _____

Signature of Agent: _____ Date: 7/28/22

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 7/28/2022

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
7	2	WILLIAM C. & CHANEY N FISHER	1 BOSTON HARBOR RD, DOVER

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
ALEX ROSS	ROSS ENGINEERING, LLC	909 ISLINGTON ST #6, PORTSMOUTH

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

Ross Engineering
Civil/Structural Engineering & Surveying

909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

To: Dover Conservation Commission

From: Ross Engineering, LLC

Date: September 1, 2022
Re: William C. & Chaney N. Fisher
1 Boston Harbor Rd
Dover, NH 03820
Tax Map 7, Lot 2

Dear Conservation Commission,

This project involves improvements to an existing family residence located in a previously developed buffer zone. A conditional use permit is required as the work occurs within the 100' Highest Observable Tide Line (HOTL) setback.

Proposed site improvements include:

1. Install a 30' x 32' addition replacing part of the existing house, new deck stairs, and an outdoor shower.
2. Remove existing asphalt driveway and install a smaller footprint, pervious paver driveway. Install a pervious paver walkway. Replace remaining asphalt area with grass. A total decrease of 1,257 sf in impervious surface is proposed.
3. Remove existing deck stairs, a portion of the existing deck, and a portion of the existing house.
4. Install concrete pads for a heat pump condenser, generator, and propane tanks,

Conservation District Requirements

1. **Attempted avoidance of the impact**

The addition is located off the northern portion of the house. This places the impacts as far away from the highest observable tide line (HOTL) as possible.

2. **Minimization of the impact**

Impacts have been constrained only to the areas being improved. Work to be done in stages to minimize the total impact. A construction sequence can be seen on sheet 2 "Site Plan".

3. **Planned mitigation of the effects of the impact**

The asphalt driveway on site will be removed and replaced with a smaller total footprint of pervious pavers. A portion of the house and deck have been removed. The addition footprint replaces a

Ross Engineering
Civil/Structural Engineering & Surveying
909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**
part of the existing house. The result of the above improvements is a decrease in impervious surface coverage of 1,257 sf.

4. **Efficacy of the soil erosion and sedimentation control plan**

Siltsoxx fencing has been proposed along the southern portion of the lot to prevent erosion and sedimentation on the Bellamy River. A full erosion control plan can be seen on sheet 3.

Wetland Protection District Requirements

1. **Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.**

The lot is small and constrains construction. The addition is placed off the existing house on the side furthest from the wetlands.

2. **Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.**

The addition is located off the northern portion of the house. This places the impacts as far away from the highest observable tide line (HOTL) as possible. Impacts have been constrained only to the areas being improved. Work to be done in stages to minimize the total impact. A construction sequence can be seen on sheet 2 “Site Plan”.

3. **Minimization: Any unavoidable impacts have been minimized. No reasonable alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.**

The asphalt driveway on site will be removed and replaced with a smaller total footprint of pervious pavers. A portion of the house and deck have been removed. The addition footprint replaces a part of the existing house. The result of the above improvements is a decrease in impervious surface coverage.

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Civil/Structural Engineering & Surveying
909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

4. **Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.**

Mitigation for this application is not required.

5. **Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.**

An expedited minimum impact wetlands permit is being applied for which requires conservation commission signature.

Sincerely,

Alex Ross, PE, LLS

US Army Corps of Engineers®
New England District

Appendix B

New Hampshire General Permits (GPs)
Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to https://www.nae.usace.army.mil/Missions/Regulatory/ "Useful Documents, Forms and Publications" and then "Corps Application Form and Guidance." Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

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

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.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		X
2.2 Are there proposed impacts to 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 https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New Hampshire 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?	N/A	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	0 SF	
2.7 What is the area of the proposed fill in wetlands?	0 SF	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	0%	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index	X	

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		X
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		X
3.5 Are stream crossings designed in accordance with the GC 21?	N/A	
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		X
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	N/A	
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 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.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Strafford County, New Hampshire



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Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. 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.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Roseate Tern Sterna dougallii dougallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2083	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models

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detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler *Vermivora pinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30

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Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 29 to Jul 20
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31

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Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone Arenaria interpres morinella This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

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Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

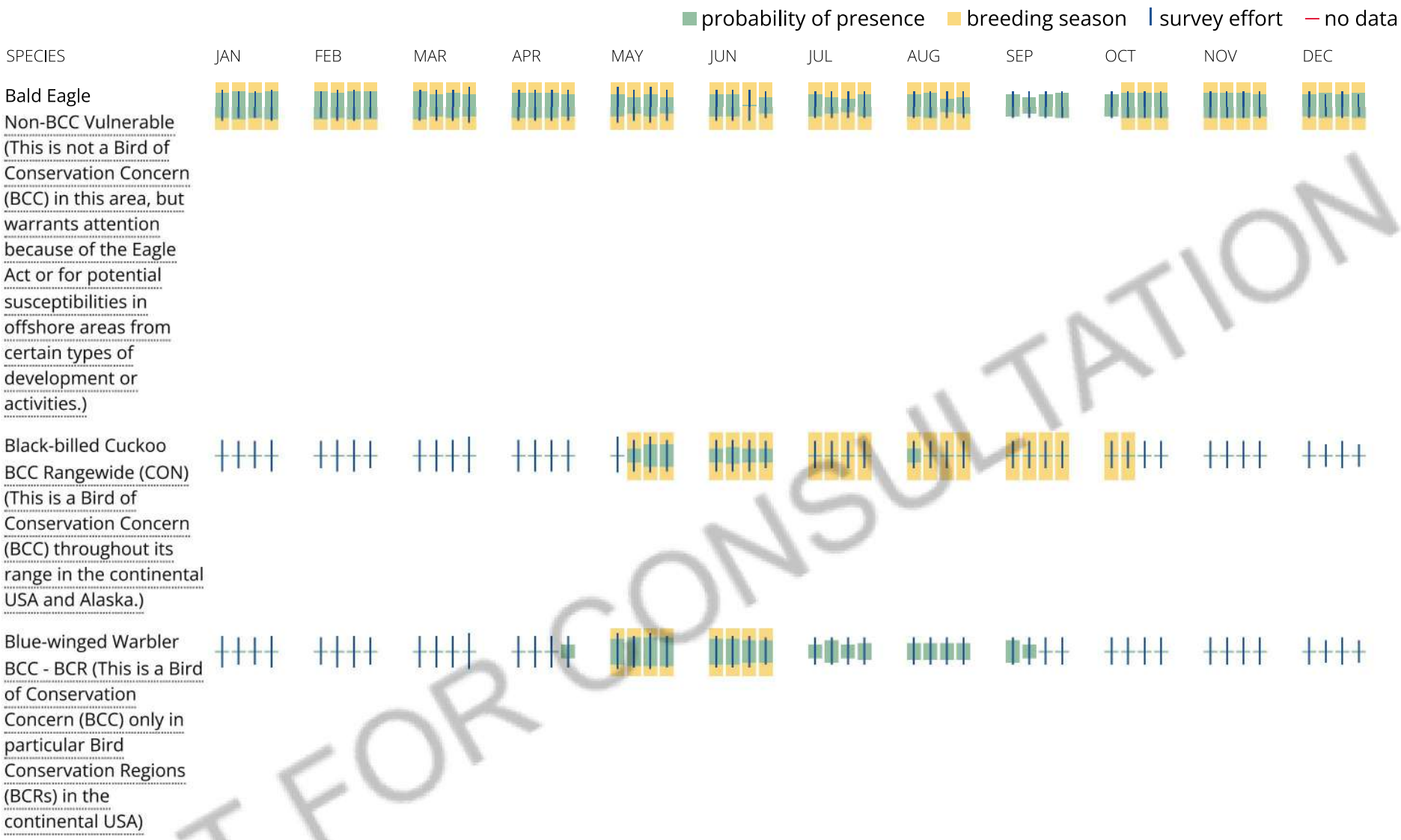
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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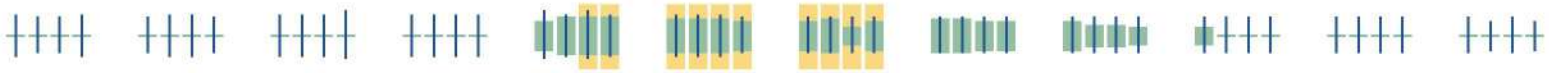
Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

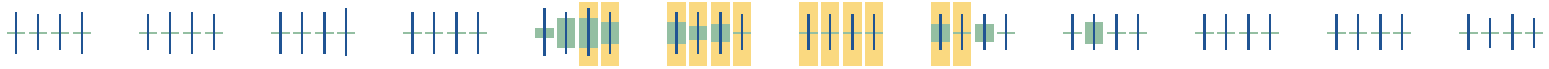


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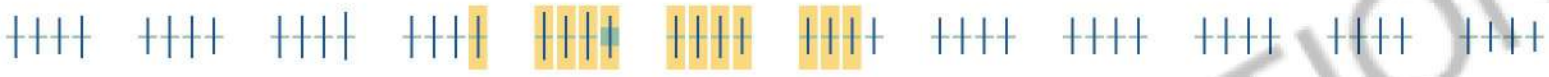
Bobolink
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



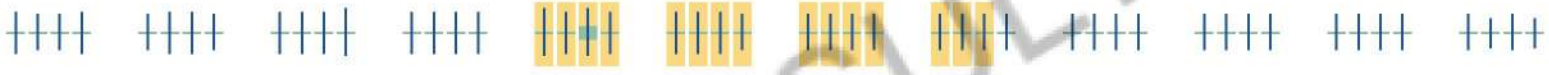
Canada Warbler
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Cerulean Warbler
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Eastern Whip-poor-will
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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Ruddy Turnstone BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Rusty Blackbird BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)												
Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)												
Willet BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)												
Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)												

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

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What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high

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survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

NOT FOR CONSULTATION

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

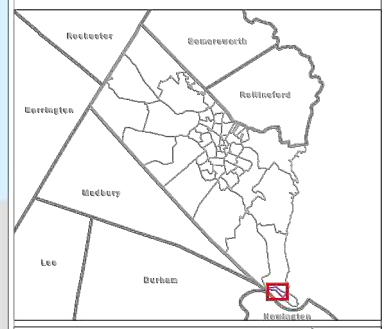
NOT FOR CONSULTATION

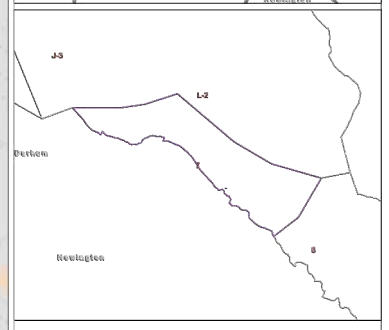
CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: 7

N

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- **A-20-0-0** Parcel Number
- **0.24 AC** Parcel Acreage
- **240** Address Number





200 100 0 200 Feet

1:1,200
1 " = 100 '

This map is for assessment and planning purposes only. It is not intended to be used for description, conveyance, authoritative definition of any legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation associated with the data on which this map is based for information related to its accuracy, currentness and limitations.

Map Generated: Wednesday, March 21, 2018

AppGeo

SITE

Durham

Newington

Ross Engineering
Civil / Structural Engineering

909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**

List of Abutters

Dated 5-27-22

Applicant & Land Owner's Name:
William C. & Chaney N. Fisher
1 Boston Harbor Road
Dover, NH 03820

Location of Land:
1 Boston Harbor Road
Dover, NH 03820
Tax Map 7, Lot 2

Abutters:

Angela K. Engel & Paul L. Sapienza Sr.
3 Boston Harbor Rd
Dover, NH 03820
Tax Map 7, Lot 1

Kevin & Marguerite Clifford
7 Boston Harbor Rd
Dover, NH 03820
Tax Map 7, Lot 27

Michael K. Leonard & Loraine J. Worthington
5 Boston Harbor Rd
Dover, NH 03820
Tax Map 7, Lot 3

Civil Engineer & Surveyor

Alex Ross
Ross Engineering
Certified Professional Engineer
Licensed Land Surveyor
909 Islington Street
Portsmouth, NH 03801

1 Boston Harbor Road, Dover



May 27, 2022

1:18,056

0 0.15 0.3 0.6 mi

0 0.23 0.45 0.9 km

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Ross Engineering, LLC
Civil / Structural Engineering
909 Islington Street **603-433-7560**
Portsmouth, NH 03801 **alexross@comcast.net**



Figure 1 – View of existing house and driveway looking to the South. Image from city GIS. (4/2/2019)



Figure 2 – View of existing house and deck looking to the North. (12/22/2020)

Ross Engineering, LLC
Civil / Structural Engineering
909 Islington Street
Portsmouth, NH 03801
603-433-7560
alexross@comcast.net



Figure 3 – View of existing house, deck and yard looking to the North. (12/22/2020)

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Alex Ross, Ross Engineering
909 Islington St.
Suite 6
Portsmouth, NH 03801

From: NH Natural Heritage Bureau
Date: 6/9/2022 (valid until 6/9/2023)
Re: Review by NH Natural Heritage Bureau of request submitted 5/26/2022
Permits: NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Minimum

NHB ID: **NHB22-1875** **Applicant:** Alex Ross

Location: Dover
1 Boston Harbor Road

Project Description: A 30'x32' addition will be added to the northeast of the existing house, with approximately 260 SF of the existing house being removed to allow for the installation; total increase in house size is 701 SF. The asphalt driveway will be removed and replaced with a smaller pervious paver driveway, along with a pervious paver path around the northwest side of the proposed house.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 2022-05-26 2:33:46 PM, and cannot be used for any other project.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

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

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1875**

NHB22-1875



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

Doc # 0006705 May 25, 2018 11:41 AM
Book 4570 Page 0775 Page 1 of 2
Register of Deeds, Strafford County

C/H
L-CHIP
STA129821

RETURN TO:

STATE OF NEW HAMPSHIRE
DEPARTMENT OF REVENUE ADMINISTRATION
REAL ESTATE TRANSFER TAX
*****5 Thousand 1 Hundred 45 Dollars
DATE 05/25/2018 ST844096 AMOUNT $ *****5145.00
VOID IF ALTERED

FIDUCIARY DEED

I, **MARIE C. ROBINSON** duly appointed Executor of the **ESTATE OF GABRIELLE C. CARRIER,** with an mailing address of 168 North Main Street, Rochester, Strafford County, New Hampshire 03867 of by the power conferred by the 7th Circuit - Probate Division - Dover (Case No. 319-2017-ET-00560) and every other power, for the sum of Three Hundred Forty Three Thousand Dollars ($343,000.00) paid, grant to **WILLIAM CRAGG FISHER AND CHANEY N. FISHER,** husband and wife, with a mailing address of 594 Berry River Road, Barrington, Strafford County, New Hampshire, 03825-7211, as joint tenants with rights of survivorship, as follows:

A certain piece or parcel of land with the buildings thereon, situate on Little Bay, so-called, at Dover Neck in said Dover, bounded and described as follows, to wit:

Beginning on the Northerly shore of Little Bay at an iron hub in the ground at a point two hundred sixty (260) feet from the Southwesterly corner of land now or formerly of Maurice S. Tuttle; thence running Westerly along the shore of said Little Bay sixty-five (65) feet to an iron hub in the ground at other land now or formerly of Albert E. Ouellette; thence running Northerly along said Ouellette land one hundred thirty-five (135) feet, more or less, to a hub in the ground at a private road; thence turning and running Easterly along said private road fifty (50) feet to an iron hub at the other land now or formerly of said Ouellette one hundred thirty-five (135) feet, more or less, to the shore of said Little Bay and the point of beginning. Hereby intending to convey to said grantee said lot with all the reparian and water rights belonging thereto and immediately connected therewith.

Together with a right to pass and repass along said private road from the above described lot to the First New Hampshire Turnpike following the course of said road as it now exists.

Meaning and intending to convey the same premises conveyed to Gabrielle C. Carrier by Deed dated February 18, 2014 and recorded in Strafford County Registry of Deeds in Book 4197, Page 0134.

THIS NOT HOMESTEAD PROPERTY.

SIGNED this 25 day of May, 2018.

ESTATE OF GABRIELLE C. CARRIER

By Marie C. Robinson Executor
MARIE C. ROBINSON, EXECUTOR

STATE OF NEW HAMPSHIRE COUNTY OF STRAFFORD

The foregoing instrument was acknowledged before me this 25th day of May, 2018, by **MARIE C. ROBINSON**, Executor of the **ESTATE OF GABRIELLE C. CARRIER.**

BARBARA B. DEHART NOTARY PUBLIC

Barbara B. DeHart
Notary Public
My Commission Expires: 12/04/18

For any project that would impact tidal wetlands, tidal waters, or associated sand dunes, the applicant shall:

- ☐ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- ☐ Design the proposed project to have the least impact to tidal wetlands, tidal waters, or associated sand dunes;
- ☐ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and
- ☐ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

- ☐ Minimize adverse impacts to finfish, shellfish, crustacean, and wildlife;
- ☐ Minimize disturbances to groundwater and surface water flow;
- ☐ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
- ☐ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

Determine the time period over which the project is designed to serve.

50 years

Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas.

Medium Tolerance for Flood Risk

Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss.

RSLR - 2.5 ft

Identify areas of the proposed project site subject to flooding from SLR.

Flood Zone = AE (El. 6) + SLR (2.5') = 8.5'

1st Floor of Addition = 9.2'

Garage Slab Elevation = 7.575'

Identify areas currently located within the 100-year floodplain and subject to coastal flood risk.

The southern portion of the lot along with small amount of the east and west edges of the lot are within the 100-year floodplain.

Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans.

The first floor of the proposed addition has been elevated above the selected SLR elevation. The area below the SLR scenario is the garage, which is to be used only for building access, parking of vehicles, and storage. This area will have flood vents installed.

Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held:

Env-Wt 310.01
EXPEDITED MINIMUM IMPACT (EXP)
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: William C. & Chaney N. Fisher **TOWN NAME: Dover**

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; Env-Wt 603.03; Env-Wt 603.05)

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

Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&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).	☐ Yes ☒ No

• Protected species or habitat?
  ○ If yes, species or habitat name(s):
  ○ NHB Project ID #: NHB22-1875
	☐ Yes ☒ No

• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☐ Yes ☒ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No
For dredging projects, is the subject property contaminated? • If yes, list contaminant(s):	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☒ Yes ☐ No
For stream crossing projects, provide watershed size (see Wetland Permit Planning Tool or Stream Stats): N/A	

SECTION 2 - ELIGIBILITY (Env-Wt 306.03; Env-Wt 310.01; Env-Wt 310.03)

You must confirm that your project meets **ALL** of the following statements to qualify for the EXP process:

- The project qualifies as minimum impact project (Env-Wt 306.03).
- The project does not include activities that are prohibited under RSA 482-A (Env-Wt 306.03(a)).
- The project does not include any work in a jurisdictional area that was started without first obtaining the applicable approval (Env-Wt 306.03(b)).
- No work has been done on the subject property pursuant to another EXP or a Statutory Permit-by-Notification (SPN) within 12 months of the date this EXP will be issued. Alternatively, if any work has been done on the subject property pursuant to another EXP or a SPN within 12 months of the date this EXP will be issued, then you are submitting information, including a plan, with this application demonstrating that:
  - The work proposed in this EXP application is wholly unrelated to and separate from the work already done under the EXP or SPN; and
  - The work proposed in this EXP application, when combined with work that has been done under previously issued EXPs or SPNs within the last 12 months, does not constitute a project for which a Standard Permit is required (Env-Wt 310.03(a)).
- If the project is located in a PRA, it also qualifies for an impact classification adjustment under Env-Wt 407.02 or a project-type exception (PTE) under Env-Wt 407.04 (Env-Wt 310.01(d)(6)).

☒ My project meets all statements above. Proceed to Section 3.

☐ My project does not meet all of the statements above. **Your project does not qualify for the EXP process. Your project either is not permittable or requires a Standard Permit.**

SECTION 3 - INFORMATION ON THE PROPOSED PROJECT (Env-Wt 310.01(c))

Identify the rule(s)/provision(s) which make the project a minimum impact project. Refer to the project list below and the Expedited Minimum Impact (EXP) Project Classification Guidance Document.

☐ Aquatic Vegetation Control Projects (Env-Wt 510.08(a))
☐ Water Access Structure Construction Projects (Env-Wt 511.06(a))
☐ Beach Replenishment Projects (Env-Wt 511.07(a))
☐ Deck or Patio Repair Projects (Env-Wt 511.08(a))
☐ Breakwater Maintenance and Repair Projects (Env-Wt 512.07(b))
☐ Docking and Accessory Docking Structure Construction, Repair, and Replacement Projects (Env-Wt 513.24(a))
☐ Docking Structure Modification Projects (Env-Wt 513.25(a))
☐ Accessory Docking Structure Installation, Construction, Modification, Repair, and Replacement Projects (Env-Wt 513.26(a))
☐ Canopy Projects (Env-Wt 513.27(a))
☐ Bank/Shoreline Stabilization Construction Projects (Env-Wt 514.07(a))
☐ Dug-in Basins and Boathouse Construction or Modification Projects (Env-Wt 515.06(a), (b))
☐ Dug-in Basins and Boathouse Maintenance and Repair Projects (Env-Wt 515.07(a))
☐ Intake and Outflow Structure Construction, Maintenance and Repair Projects (Env-Wt 516.05; Env-Wt 516.06(b))
☐ Trail or Pathway Projects (Env-Wt 517.06(a); Env-Wt 517.06(d))
☐ Boardwalk Projects (Env-Wt 517.07(a); (Env-Wt 517.09)
☐ Dry Hydrants and Other Non-Docking Structure Projects (Env-Wt 518.07(a)(1), (b))
☐ Pond Construction, Maintenance, and Repair Projects (Env-Wt 519.08(a), (b); Env-Wt 519.09(a))
☐ Residential Utility Installation Projects (Env-Wt 521.06(a)(7))

- ☐ Non-tidal Dredging Projects (Env-Wt 523.04(a))
- ☐ Residential, Commercial, and Industrial Development Projects (Env-Wt 524.06(b))
- ☐ Restoration/Enhancement Projects (Env-Wt 525.05)
- ☐ Dam Construction, Reconstruction, or Replacement Projects (Env-Wt 526.06(a))
- ☐ Dam Modification, Repair, or Maintenance Projects (Env-Wt 526.07(a))
- ☐ Pubic Highway Projects (Env-Wt 527.06; Env-Wt 527.07)
- ☒ Coastal Projects (Env-Wt 600)
- ☐ Stream Crossing Projects (Env-Wt 903.01(e))
- ☐ All Other Projects (Env-Wt 407.03)

Provide the project-specific information required by the rule(s)/provision(s). Refer to Chapters Env-Wt 400, Env-Wt 500, Env-Wt 600, and/or Env-Wt 900, as applicable, for project-specific application and design requirements. **Please see applicable Standard Project Specific Worksheets for guidance**.

For projects located on waterbodies, provide the linear feet of shoreline frontage on the property: linear feet

(☒ Not applicable)

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".

An approximately 260 square foot portion of the northeast of the house will be removed to allow for a 30'x32' addition. The existing asphalt driveway and 80 square feet of the deck/deck stairs will be removed as well. The driveway will be replaced with a smaller, pervious paver driveway with a walkway around the northwest side of the house. A large area of the removed driveway will be replaced with grass, with several stands installed for the generator, heat pump condensor and outdoor shower. New steps will be installed at the proposed entrance on the west side of the building and at the west end of the deck. The temporary impacts are the removal of the driveway portions and the section of the deck, which will be replaced by grass. All other impacts will be permanent.

Identify the type of jurisdictional resources to be impacted and the area of impact in square feet and/or linear feet: (☒ Not applicable)
SECTION 4 - PROJECT LOCATION (Env-Wt 310.01(b))
ADDRESS: 1 Boston Harbor Road
TOWN/CITY: Dover
TAX MAP/LOT NUMBER: Map 7, Lot 2
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Little Bay ☐ N/A
LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.12778° North 70.84472° West
SECTION 5 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 310.01(a)) If the applicant is a trust or a company, then the name of the trust or company should be written as the applicant's name.
NAME: William C. & Chaney N. Fisher
MAILING ADDRESS: 1 Boston Harbor Road
TOWN/CITY: Dover | STATE: NH | ZIP CODE: 03820
PHONE: (339)927-6567 | EMAIL ADDRESS (OPTIONAL): wfisher@fiainc.com
ELECTRONIC COMMUNICATION: By initialing here: WF, I hereby authorize NHDES to communicate all matters relative to this application electronically.
SECTION 6 - AUTHORIZED AGENT INFORMATION (Env-Wt 310.01(a)) If the agent is a company, then the name of the company should be written as the agent's name.
NAME: Alex Ross
MAILING ADDRESS: 909 Islington St #6
TOWN/CITY: Portsmouth | STATE: NH | ZIP CODE: 03801
PHONE: (603)433-7560 | EMAIL ADDRESS (OPTIONAL): alexross@comcast.net
ELECTRONIC COMMUNICATION: By initialing here: AR, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - PROPERTY OWNER INFORMATION, IF DIFFERENT FROM APPLICANT (Env-Wt 310.01(a)) If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name.		
NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL ADDRESS (OPTIONAL):	
ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 8 - APPLICATION FEE (RSA 482-A:3, I)		
☒ $400 for minimum impact projects. Please make your check or money order payable to: "Treasurer - State of NH".		
SECTION 9 - REQUIRED CERTIFICATIONS (Env-Wt 310.01(d))		
Initial each box below to certify:		

Initials:	The proposed project meets the conditions and limits of the applicable minimum impact project rule.
Initials:	All abutters have been notified.
Initials:	If the project is to repair or replace a docking structure, the docking structure is an existing legal structure. (☐ N/A)
Initials:	The proposal is the alternative with the least adverse impact to jurisdictional areas, as required by Env-Wt 310.01(d)(4).
Initials:	The project is not an after-the-fact application.
Initials:	The project is: • Not located in a PRA, or • Is located in a PRA but is subject to a classification adjustment under Env-Wt 407.02 or a project-type exception under Env-Wt 407.04.
Initials:	The applicant is aware of the limits of the EXP and understands and will comply with all conditions in the EXP and all applicable conditions in Env-Wt 307.

Initials:	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials:	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials:	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • 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 trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials:	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 10 - REQUIRED SIGNATURES (Env-Wt 310.01(d))

SIGNATURE (OWNER)*:	PRINT NAME LEGIBLY:	DATE:
	William Fisher	7/5/2022

*Note: If the applicant is not the owner of the property, each property owner also shall sign and date the application provided that property owner signatures shall not be required for transportation projects adjacent to existing rights-of-way where an easement will be obtained prior to the start of construction (Env-Wt 311.11(d)). Check the following box if your project meets this exception: ☐.

SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:
	Alex Ross	7/5/22

SECTION 11 - CONSERVATION COMMISSION SIGNATURE (Env-Wt 310.01(h))**

The signed statement from the Conservation Commission may be submitted electronically.

The signature below certifies that the municipal Conservation Commission or, if there is no conservation commission, the local governing body, has reviewed this application and the municipality waives its right to intervene on the project, per RSA 482-A:11.

AUTHORIZED COMMISSION SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

SECTION 12 - LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE SIGNATURE (Env-Wt 310.01(i))**		
The signature below certifies that the LAC waives its right to intervene per RSA 482-A:11: (☒ N/A This project is **not** within a Designated River Corridor)		
AUTHORIZED LAC REPRESENTATIVE SIGNATURE:	PRINT NAME LEGIBLY:	DATE:

**Note: If the application is administratively complete, except for the signed statement from the Conservation Commission and/or LAC, the application will be processed under the application processing times established in RSA 482-A:3, XIV (Env-Wt 310.02(h)). The applicant may also indicate that they are applying for a minimum impact application under standard processing timelines.

SECTION 14 - TOWN / CITY CLERK SIGNATURE (Env-Wt 310.01(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the municipality has received four copies of the application, including all attachments.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY:	DATE:

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

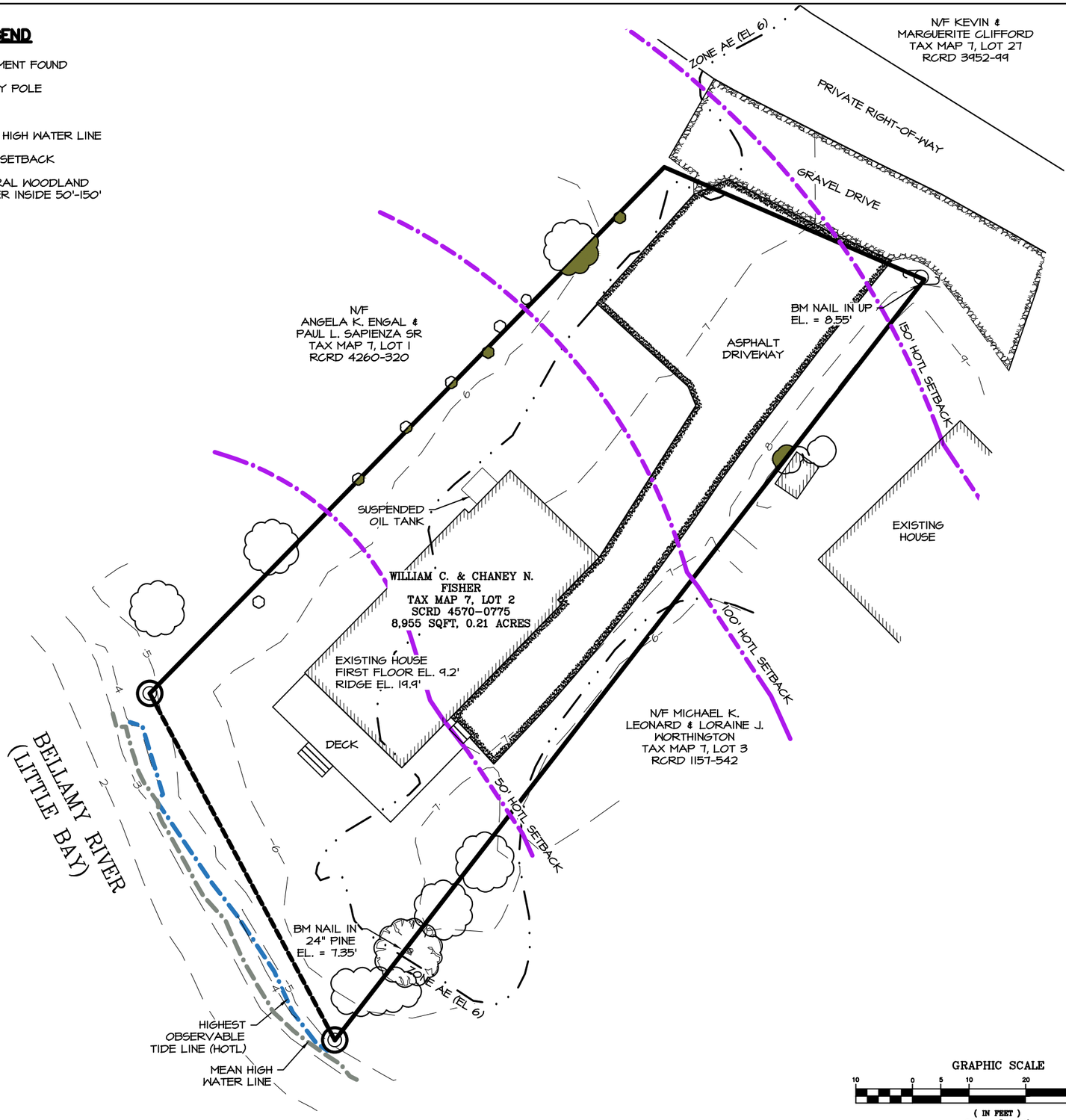
1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY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

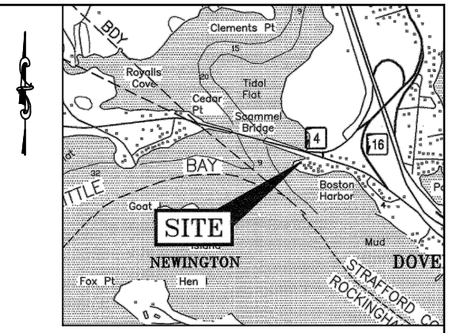
DIRECTIONS FOR APPLICANT:
Submit the single, original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page.

SEE NOTE 2

LEGEND

- MONUMENT FOUND
- UTILITY POLE
- HOTL
- MEAN HIGH WATER LINE
- HOTL SETBACK
- NATURAL WOODLAND BUFFER INSIDE 50'-150'





LOCUS PLAN
N.T.S.

NOTES

1) OWNERS OF RECORD:
WILLIAM C. & CHANEY N. FISHER
1 BOSTON HARBOR ROAD
DOVER, NH 03820
TAX MAP 7, LOT 2
SCRD: 4570-0775
AREA: 8,955 SF, 0.21 ACRES (TO MEAN HIGH WATER LINE)

2) BASIS OF BEARING HELD FROM REF. PLAN #1.

3) THIS PLOT DOES NOT REPRESENT A BOUNDARY SURVEY. ELEVATIONS WERE SURVEYED ON 12-22-20. ALL BOUNDARY INFORMATION IS APPROXIMATE AND HAS BEEN TAKEN FROM REFERENCE PLAN #1.

4) THE HIGHEST OBSERVABLE TIDE LINE IS APPROXIMATE AND HAS BEEN TAKEN FROM REFERENCE PLAN #1.

REFERENCE PLANS

1) "EXISTING CONDITIONS PLAN - FISHER RESIDENCE 1 BOSTON HARBOR ROAD DOVER, N.H." BY AMBIT ENGINEERING, INC. NOVEMBER 25, 2019. NOT RECORDED.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
SCALE: 1" = 20'

ISS.	DATE	DESCRIPTION OF ISSUE
2	8/1/2022	CC SUBMITTAL
1	12/23/2020	FOR REVIEW
SCALE	1" = 20'	
CHECKED	A.ROSS	
DRAWN	D.D.D.	
CHECKED		

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
WILLIAM C. FISHER
1 BOSTON HARBOR ROAD
DOVER, NH 03820

TITLE

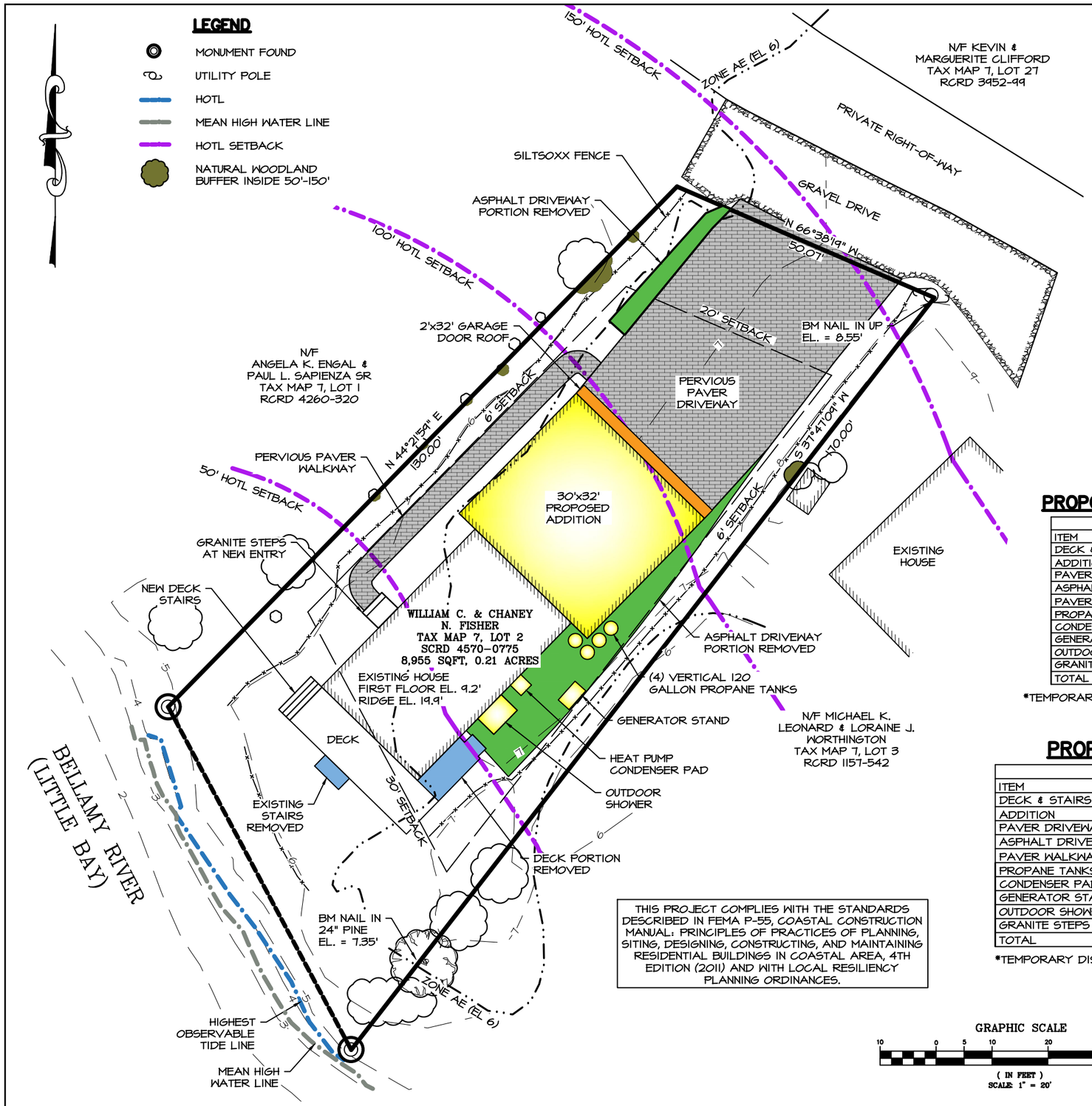
EXISTING CONDITIONS

1 BOSTON HARBOR RD
DOVER, NH 03820
TAX MAP 7, LOT 2

JOB NUMBER	DWG. NO.	ISSUE
20-148	1 OF 4	2

LEGEND

- MONUMENT FOUND
- UTILITY POLE
- HOTL
- MEAN HIGH WATER LINE
- HOTL SETBACK
- NATURAL WOODLAND BUFFER INSIDE 50'-150'



THIS PROJECT COMPLIES WITH THE STANDARDS DESCRIBED IN FEMA P-55, COASTAL CONSTRUCTION MANUAL: PRINCIPLES OF PRACTICES OF PLANNING, SITING, DESIGNING, CONSTRUCTING, AND MAINTAINING RESIDENTIAL BUILDINGS IN COASTAL AREA, 4TH EDITION (2011) AND WITH LOCAL RESILIENCY PLANNING ORDINANCES.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
SCALE 1" = 20'

CONSTRUCTION SEQUENCE

1) INSTALL SILTSOXX FENCING AND ALL EROSION AND SEDIMENT CONTROL.

2) REMOVE EXISTING HOUSE SECTION, DECK SECTION, DRIVEWAY, AND OIL TANK.

3) CONSTRUCT PROPOSED ADDITION, OUTDOOR SHOWER, CONCRETE STANDS AND STAIRS.

4) INSTALL NEW PERVIOUS PAVER WALKWAY AND DRIVEWAY.

5) SEED REMAINING OPEN AREA.

PROPOSED SHORELAND DISTURBANCE

	WITHIN 250'	
ITEM	TEMPORARY	PERMANENT
DECK & STAIRS	80 SF	23 SF
ADDITION	0 SF	960 SF
PAVER DRIVEWAY	0 SF	1,570 SF
ASPHALT DRIVE PORTION	454 SF	0 SF
PAVER WALKWAY	0 SF	254 SF
PROPANE TANKS	0 SF	20 SF
CONDENSER PAD	0 SF	7 SF
GENERATOR STAND	0 SF	12 SF
OUTDOOR SHOWER	0 SF	24 SF
GRANITE STEPS	0 SF	20 SF
TOTAL	534 SF	2,890 SF

*TEMPORARY DISTURBANCE AREAS TO BE REPLACED WITH GRASS

PROPOSED WETLAND DISTURBANCE

	TEMPORARY		PERMANENT	
ITEM	WITHIN 100'	TOTAL	WITHIN 100'	TOTAL
DECK & STAIRS	80 SF	80 SF	23 SF	23 SF
ADDITION	0 SF	0 SF	925 SF	960 SF
PAVER DRIVEWAY	0 SF	0 SF	36 SF	1,570 SF
ASPHALT DRIVE PORTION	339 SF	454 SF	0 SF	0 SF
PAVER WALKWAY	0 SF	0 SF	239 SF	254 SF
PROPANE TANKS	0 SF	0 SF	20 SF	20 SF
CONDENSER PAD	0 SF	0 SF	7 SF	7 SF
GENERATOR STAND	0 SF	0 SF	12 SF	12 SF
OUTDOOR SHOWER	0 SF	0 SF	24 SF	24 SF
GRANITE STEPS	0 SF	0 SF	20 SF	20 SF
TOTAL	419 SF	534 SF	1,306 SF	2,890 SF

*TEMPORARY DISTURBANCE AREAS TO BE REPLACED WITH GRASS

NOTES

1) OWNER OF RECORD:
WILLIAM CRAGG & CHANEY N. FISHER
TAX MAP 7, LOT 2
1 BOSTON HARBOR RD
DOVER, NH 03820
SCRD: 4570-0775
AREA: 8,955 SF, 0.21 ACRES

2) PARCEL IS IN THE LOW-DENSITY RESIDENTIAL ZONE (R-20) & RIVERFRONT RESIDENTIAL OVERLAY DISTRICT:
MINIMUM LOT AREA.....20,000 SF
MINIMUM FRONTAGE.....125 FT
SETBACKS:
FRONT.....20 FT MIN
.....35 FT MAX
SIDE.....6 FT*
REAR.....30 FT
MAXIMUM BUILDING HEIGHT.....35 FT
MAXIMUM LOT COVERAGE.....30%

*AS PER ARTICLE V, SECTION 170-14.A.2 OF THE DOVER ZONING ORDINANCE, THE SIDE SETBACK FOR A LOT OF RECORD WITH A WIDTH OF LESS THAN 75 FT AND MORE THAN 50 FT SHALL BE 6 FT.

**AS PER 170-28.1.E, THIS LOT IS EXEMPT FROM THE PROVISIONS OF THE RIVERFRONT RESIDENTIAL OVERLAY DISTRICT.

3) LOT COVERAGES

BUILDING COVERAGE
EXISTING BUILDING COVERAGE
HOUSE 1,203 SF
COVERAGE 1,203 SF = 13.4%

PROPOSED BUILDING COVERAGE
HOUSE 1,904 SF
COVERAGE 1,904 SF = 21.3%

LOT COVERAGE
EXISTING LOT COVERAGE
BUILDING COVERAGE.....1,203 SF
ASPHALT DRIVEWAY.....1,964 SF
DECK.....320 SF
OIL TANK 20 SF
COVERAGE 3,507 SF = 39.2%

PROPOSED LOT COVERAGE
BUILDING COVERAGE.....1,904 SF
DECK W/ STAIRS.....263 SF
CONCRETE PADS.....19 SF
OUTDOOR SHOWER.....24 SF
PROPANE TANKS.....20 SF
GRANITE STEPS..... 20 SF
COVERAGE 2,250 SF = 25.1%

4) EXISTING WETLAND BUFFER AREA = 36 SF
REQUIRED WETLAND BUFFER AREA = 36 SF
PROPOSED WETLAND BUFFEREAREA = 36 SF

5) THE JURISDICTIONAL RESOURCE TO BE IMPACTED IS THE PREVIOUSLY DEVELOPED TIDAL BUFFER ZONE.

ISS.	DATE	DESCRIPTION OF ISSUE
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1	12/23/2020	FOR REVIEW
SCALE	1" = 20'	
CHECKED	A.ROSS	
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CLIENT
WILLIAM C. FISHER
1 BOSTON HARBOR ROAD
DOVER, NH 03820

TITLE

SITE PLAN

1 BOSTON HARBOR RD
DOVER, NH 03820
TAX MAP 7, LOT 2

JOB NUMBER	DWG. NO.	ISSUE
20-148	2 OF 4	2

EROSION AND SEDIMENTATION CONTROL CONSTRICTION PHASING AND SEQUENCING

1. SEE "EROSION AND SEDIMENTATION CONTROL GENERAL NOTES" WHICH ARE TO BE AN INTEGRAL PART OF THIS PROCESS.
2. INSTALL SILTSOXX FENCING AS PER DETAILS AND AT SEDIMENT MIGRATION.
3. CONSTRUCT TREATMENT SWALES , LEVEL SPREADERS AND DETENTION STRUCTURES AS DEPICTED ON DRAWINGS.
4. STRIP AND STOCKPILE TOPSOIL. STABILIZE PILES OF SOIL CONSTRUCTION MATERIAL & COVER WHERE PRACTICABLE.
5. MINIMIZE DUST THROUGH APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES ON SITE.
6. ROUGH GRADE SITE. INSTALL CULVERTS AND ROAD DITCHES.
7. FINISH GRADE AND COMPACT SITE.
8. RE-SPREAD AND ADD TOPSOIL TO ALL ROADSIDE SLOPES. TOTAL TOPSOIL THICKNESS TO BE A MINIMUM OF FOUR TO SIX INCHES.
9. STABILIZE ALL AREAS OF BARE SOIL WITH MULCH AND SEEDING.
10. RE-SEED PER EROSION AND SEDIMENTATION CONTROL GENERAL NOTES.
11. SILT SOXX FENCING TO REMAIN AND BE MAINTAINED FOR TWENTY FOUR MONTHS AFTER CONSTRUCTION TO ENSURE ESTABLISHMENT OF ADEQUATE SOIL STABILIZATION AND VEGETATIVE COVER. ALL SILT SOXX FENCING ARE THEN TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
12. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
13. ALL TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC. MUST BE USED AS NECESSARY UNTIL AREAS ARE STABILIZED.
14. PONDS AND SWALES SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE - BEFORE ROUGH GRADING THE SITE.
15. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM
16. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
17. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
18. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
19. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
20. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

PLANTING NOTES:

1. ALL PLANT MATERIALS SHALL BE FIRST QUALITY NURSERY GROWN STOCK.
2. ALL PLANTS SHALL BE PLANTED IN ACCORDANCE WITH NEW HAMPSHIRE LANDSCAPE ASSOCIATION STANDARDS AND GUARANTEED FOR ONE YEAR BY THE LANDSCAPE CONTRACTOR.
3. ALL TREES AND SHRUBS SHALL HAVE WATER SAUCERS BUILT AROUND THEIR BASES AND THESE SHALL BE MULCHED WITH 4" OF DARK BROWN AGED BARK MULCH. MULCH MUST BE KEPT 2" AWAY FROM THEIR TRUNKS.
4. ALL TREES AND SHRUBS SHALL BE PLANTED AND MULCHED BEFORE LAWN IS SEEDED.

MAINTENANCE REQUIREMENTS:

1. ALL TREES, SHRUBS, AND PERENNIALS WILL NEED TO BE WATERED THROUGH THANKSGIVING DURING THE FIRST SEASON IN WHICH THEY ARE INSTALLED.
2. AN UNDERGROUND DRIP IRRIGATION SYSTEM IS RECOMMENDED. IF AN UNDERGROUND DRIP IRRIGATION SYSTEM IS NOT INSTALLED, SOAKER HOSES MOUND THROUGHOUT PLANTING BEDS ARE ACCEPTABLE. ALTHOUGH OVERHEAD SPRINKLERS ARE RECOMMENDED FOR LAWN AREAS, THEY ARE NOT ACCEPTABLE FOR IRRIGATING TREES AND SHRUBS.

SEEDING AND STABILIZATION FOR LOAMED SITE:

FOR TEMPORARY & LONG TERM SEEDINGS USE AGWAY'S SOIL CONSERVATION GRASS SEED OR EQUAL
COMPONENTS: ANNUAL RYE GRASS, PERENNIAL RYE GRASS, WHITE CLOVER, 2 FESCUES, SEED AT A RATE OF 100 POUNDS PER ACRE,
FERTILIZER & LIME:
NITROGEN (N) 50 LBS/ACRE, PHOSPHATE (P205) 100 LBS/ACRE, POTASH (K20) 100 LBS/ACRE, LIME 2000 LBS/ACRE
MULCH:
HAY OR STRAW 1.5-2 TONS/ACRE

A) GRADING AND SHAPING
1) SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

B) SEED BED PREPARATION
1) SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
2) STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

1. CONDUCT ALL CONSTRUCTION IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE PHYSICAL ENVIRONMENT, BUT IN NO CASE SHALL EXCEED 2 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
3. ALL DITCHES, SWALES AND PONDS MUST BE STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
4. ALL GROUND AREAS OPENED UP FOR CONSTRUCTION WILL BE STABILIZED WITHIN 24 HOURS OF EARTH-DISTURBING ACTIVITIES BEING CEASED, AND WILL BE FULLY STABILIZED NO LONGER THAN 14 DAYS AFTER INITIATION, (SEE NOTE 11 FOR DEFINITION OF STABLE). ALL SOILS FINISH GRADED MUST BE STABILIZED WITHIN SEVENTY TWO HOURS OF DISTURBANCE. ALL TEMPORARY OR LONG TERM SEEDING MUST BE APPLIED TO COMPLY WITH "WINTER CONSTRUCTION NOTES" (SEE WINTER CONSTRUCTION NOTES). EMPLOY TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AS DETAILED ON THIS PLAN AS NECESSARY UNTIL ADEQUATE STABILIZATION HAS BEEN ASSURED (SEE NOTE 11 FOR DEFINITION OF STABLE).
5. TEMPORARY & LONG TERM SEEDING: USE SEED MIXTURES, FERTILIZER, LIME AND MULCHING AS RECOMMENDED (SEE SEEDING AND STABILIZATION NOTES).
6. SILTSOXX FENCING TO BE SECURELY EMBEDDED AND STAKED AS DETAILED. WHEREVER POSSIBLE A VEGETATED STRIP OF AT LEAST TWENTY FIVE FEET IS TO BE KEPT BETWEEN SILTSOXX AND ANY EDGE OF WET AREA.
7. SEEDED AREAS WILL BE FERTILIZED AND RE-SEEDED AS NECESSARY TO ENSURE VEGETATIVE ESTABLISHMENT.
8. SEDIMENT BASIN(S), IF REQUIRED, TO BE CHECKED AFTER EACH SIGNIFICANT RAINFALL AND CLEANED AS NEEDED TO RETAIN DESIGN CAPACITY.
9. SILTSOXX FENCING WILL BE CHECKED REGULARLY AND AFTER EACH SIGNIFICANT RAINFALL. NECESSARY REPAIRS WILL BE MADE TO CORRECT UNDERMINING OR DETERIORATION OF THE BARRIER AS WELL AS CLEANING, REMOVAL AND PROPER DISPOSAL OF TRAPPED SEDIMENT.
10. TREATMENT SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY UNTIL ADEQUATE VEGETATIVE COVER HAS BEEN ESTABLISHED.
11. AN AREA SHALL BE CONSIDERED FULLY STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
- A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

11. ALL EROSION AND SEDIMENTATION CONTROL MEASURES IN THE PLAN SHALL MEET THE DESIGN BASED ON STANDARDS AND SPECIFICATIONS SET FORTH IN THE STORM WATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE (DECEMBER 2008 OR LATEST) PREPARED BY ROCKINGHAM COUNTY CONSERVATION DISTRICT, N.H. DES AND NRCS.

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 SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENT.;
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
3. AFTER OCTOBER 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.

LONG TERM SEEDING

*WELL TO MODERATELY WELL DRAINED SOILS

FOR CUT AND FILL AREA AND FOR WATERWAYS AND CHANNELS

SEEDING MIXTURE G

	lb/ACRE	lb/1000SF
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED CLOVER (ALSIKE)	20	0.45
TOTAL	48	1.35

LIME: AT 2 TONS PER ACRE OR 100 LBS PER 1,000 S.F.
FERTILIZER: 10 20 20 (NITROGEN, PHOSPHATE, POTASH AT 500# PER ACRE.
MULCH: HAY OR CLEAN STRAW, 2 TONS/ACRE OR 2 BALES/1000 S.F.

GRADING AND SHAPING:
SLOPES SHALL NOT BE STEEPER THAN 2 TO 1. 3 TO 1 OR FLATTER SLOPES ARE PREFERRED.
SEEDBED PREPARATION:
SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
STONES LARGER THAN FOUR INCHES AND TRASH SHOULD BE REMOVED.
SOD SHOULD BE TILLED TO A DEPTH OF FOUR INCHES TO PREPARE SEEDBED. FERTILIZER & LIME SHOULD BE MIXED INTO THE SOIL.
THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

* FROM: STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, DECEMBER 2008.

SHORT TERM SEEDING

*WELL TO MODERATELY WELL DRAINED SOILS

FOR CUT AND FILL AREA AND FOR WATERWAYS AND CHANNELS

SEEDING MIXTURE G

	#/ACRE	#/1000SF
FOR APRIL 1 - AUGUST 15		
ANNUAL RYE GRASS	40	1
FOR FALL SEEDING		
WINTER RYE	112	2.5

LIME: AT 1 TON PER ACRE OR 100 LBS PER 1,000 S.F.
FERTILIZER: 10 10 10 (NITROGEN, PHOSPHATE, POTASH AT 500# PER ACRE.
MULCH: HAY OR CLEAN STRAW, 2 TONS/ACRE OR 2 BALES/1000 S.F.

GRADING AND SHAPING:
SLOPES SHALL NOT BE STEEPER THAN 2 TO 1. 3 TO 1 OR FLATTER SLOPES ARE PREFERRED.

SEEDBED PREPARATION:
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THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

* FROM: STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, DECEMBER 2008.

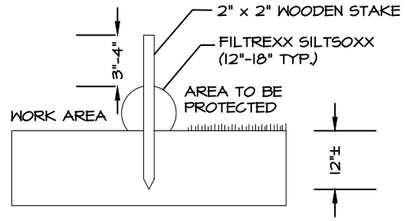
WHEN PROPOSED FOR ALTERATION DURING CONSTRUCTION AS BEING INFESTED WITH INVASIVE SPECIES SHALL BE MANAGED APPROPRIATELY USING THE DISPOSAL PRACTICES IDENTIFIED IN "NHDOT - BEST MANAGEMENT PRACTICES FOR ROADSIDE INVASIVE PLANTS -2008" AND "METHODS FOR DISPOSING NON-NATIVE INVASIVE PLANTS - UNH COOPERATIVE EXTENSION - 2010"

SEED MIXES SHALL NOT CONTAIN ANY SPECIES IDENTIFIED BY THE NEW HAMPSHIRE PROHIBITED INVASIVE PLANT SPECIES LIST.

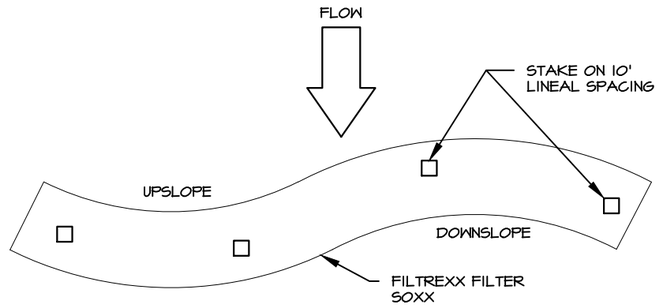
FILTREXX SILTSOXX NOTES

1) ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS

2) SILTSOXX COMPOST, SOIL, ROCK, SEED FILL TO MEET APPLICATION REQUIREMENTS



Filtrexx SiltSoxx Section
N.T.S.



Filtrexx SiltSoxx Plan View
N.T.S.

ISS.	DATE	DESCRIPTION OF ISSUE
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SCALE 1" = 10'
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CLIENT
WILLIAM C. FISHER
1 BOSTON HARBOR ROAD
DOVER, NH 03820

TITLE

EROSION CONTROL PLAN

1 BOSTON HARBOR RD
DOVER, NH 03820
TAX MAP 7, LOT 2

JOB NUMBER	DWG. NO.	ISSUE
20-148	3 OF 4	2

TECHO-BLOC & PERVIOUS PAVER INSTALLATION GENERAL NOTES

DATA COLLECTION

1. DETERMINE THE SIZE, SHAPE AND INTENDED USE OF FINISHED AREAS.
2. CLASSIFY SUB-GRADE SOILS.
3. DOCUMENT ALL EXISTING CONDITIONS. (FIXED POINTS, EXISTING GRADES, SITE CONTOURS, ETC)
4. DOCUMENT SOIL TYPE, LOCATION, AND ELEVATION OF BELOW GRADE AND OVERHEAD UTILITIES BOTH PUBLIC AND PRIVATE.
5. ENSURE PUBLIC UTILITIES ARE MARKED THROUGH THE USE OF LOCATING SERVICE.
6. DETERMINE THE CROSS SECTION DESIGN OF THE SYSTEM BASED ON SOIL TYPE AND APPLICATION, SHOWING PROPOSED SUB-GRADE AND FINISHED GRADE ELEVATIONS AND ALL GEOTEXTILES AND DRAINAGE DRAINAGE PIPES NEEDED FOR CONSTRUCTION.
7. ESTABLISH THE TYPE, LOCATION, AND ELEVATION OF RELIEF STRUCTURES IF REQUIRED (OVERFLOW PIPE DISCHARGING TO RAIN GARDEN, ETC).
8. DETERMINE CURB OR EDGE RESTRAINT TYPE, ELEVATION, AND LOCATION.
9. CHOOSE PATTERN APPROPRIATE TO THE APPLICATION (TRAFFIC TYPE AND LOAD).

EXCAVATION

1. BEFORE EXCAVATING, CALL ALL LOCAL UTILITY COMPANIES (E.G., PHONE, GAS, ELECTRICAL) TO ENSURE THAT THE AREA IN WHICH YOU PLAN TO DIG IS CLEAR OF UNDERGROUND CABLES OR WIRES. IF ANY ARE FOUND, PLEASE NOTIFY THE APPROPRIATE COMPANIES BEFORE YOU BEGIN.
2. EXCAVATION DEPTH IS DETERMINE FROM THE FOUNDATION THICKNESS ACCORDING TO THE PROJECT SPECIFICATIONS (FOUNDATION THICKNESS IS DETERMINED BY QUALIFIED ENGINEER BASED ON STRUCTURAL AND HYDROLOGIC ANALYSIS.)
3. THE SLOPE OF THE SUB-GRADE WILL DEPEND ON DRAINAGE DESIGN AND INFILTRATION TYPE, A MINIMUM SLOPE OF .5% (½" PER FOOT) IS REQUIRED.
4. THE DISTANCE THAT THE EXCAVATED AREA SHOULD EXTEND BEYOND THE AREA TO BE PAVED SHALL BE ONE TO 1.5 TIMES THE THICKNESS OF THE FOUNDATION. EXTRA SPACE ENSURE STABILITY OF PAVERS NEAR EDGE AND EDGE RESTRAINTS.
5. LEVEL THE BOTTOM OF THE EXCAVATED AREA WITH A RAKE.
6. COMPACTION WILL REDUCE THE PERMEABILITY OF THE SUB-GRADE. CARE SHOULD BE TAKEN TO MAINTAIN UNDISTURBED SOIL INFILTRATION DURING EXCAVATION AND CONSTRUCTION. STABILIZATION OF SUB-GRADE MAY BE REQUIRED WITH WEAK, OR CONTINUOUSLY SATURATED SOILS. REDUCED INFILTRATION MAY REQUIRE DRAINAGE PIPES WITHIN THE SUB-BASE TO CONFORM TO STORMWATER DRAINAGE REQUIREMENTS.

GEOTEXTILES, IMPERMEABLE LINERS, AND DRAIN PIPES.

1. USE A WOVEN GEOTEXTILE WITH HIGH BI-AXEL STRENGTH.
2. PLACE THE GEOTEXTILE ON THE BOTTOM AND SIDES OF THE SOIL SUB-GRADE. ELIMINATE WRINKLES IN THE GEOTEXTILE AND ENSURE IT IS NOT DAMAGED DURING CONSTRUCTION.
3. OVERLAP OF GEOTEXTILE SHALL BE A MINIMUM 2'-0" IN THE DIRECTION OF DRAINAGE. OVERLAPPING SHOULD BE "SHINGLE" STYLE WITH RESPECT TO ANY SLOPE DIRECTION AND BASE STONE DISTRIBUTION DIRECTION. KEEP PROPERLY TENSIONED, ELIMINATE WRINKLES, AND AVOID DAMAGING FABRIC (NO SPIKES).

SUB-BASE

1. USE SUB-BASE ASTM NO. 2 OR NO. 3 MEETING THE FOLLOWING REQUIREMENTS:
   - A. 90% FRACTURED SYMMETRICAL PARTICALS
   - B. LESS THAN 5% PASSING 200 SIEVE
   - C. INDUSTRY HARDNESS TESTED
2. MOISTEN SPREAD AND COMPACT ASTM NO. 2 AGGREGATE SUB-BASE IN MINIMUM 6" LIFTS (WITHOUT DAMAGING OR DISTORTING THE GEOTEXTILE).
3. MAKE AT LEAST TWO PASSES IN VIBRATORY MODE FOLLOWED BY AT LEAST TWO PASSES IN STATIC MODE WITH A MINIMUM 10 TON VIBRATORY ROLLER, UNTIL THERE IS NOT VISIBLE MOVEMENT OF THE AGGREGATE.
4. DO NOT ALLOW COMPACTOR TO CRUSH AGGREGATE.
5. SURFACE TOLERANCE OF THE ASTM NO. 2 SUB-BASE SHOULD BE ±2½" OVER 10'.

EDGE RESTRAINT

1. INSTALL AVIGNON, BELGIK, PIETRA, TUNDRA, OR UNIVERSAL EDGE CUT UNITS. CAST-IN-PLACE CONCRETE OR PRECAST CONCRETE CURBS SHALL BE UTILIZED IN VEHICULAR APPLICATIONS.
2. EDGE RESTRAINT MAY REST ON AN OPEN-GRADED OR DENSE-GRADED AGGREGATE BASE.

BASE

1. MOISTEN, SPREAD AND COMPACT THE ASTM NO. 57 AGGREGATE BASE LAYER IN ONE 4" THICK LIFT.
2. MAKE A MINIMUM OF TWO PASSES IN VIBRATORY MODE FOLLOWED BY AT LEAST TWO STATIC MODE WITH A MINIMUM 10 TON ROLLER, UNTIL NO VISIBLE MOVEMENT OF THE AGGREGATE. ALTERNATIVELY, A 13,500 LB PLATE COMPACTOR CAN BE USED TO COMPACTER ASTM NO. 57 AGGREGATE BASE.
3. DO NOT ALLOW COMPACTOR TO CRUSH AGGREGATE.
4. SURFACE TOLERANCE OF THE ASTM NO. 57 BASE SHOULD BE ±1" OVER 10'.

BEDDING COURSE

1. MOISTEN, SPREAD AND SCREED ASTM NO 8. AGGREGATE BEDDING LAYER IN ONE 2" THICK LIFT
2. SURFACE TOLERANCE OF THE ASTM NO 8. BEDDING COURSE ±⅜" OVER 10'
3. CONSTRUCTION EQUIPMENT AND PEDESTRIAN TRAVEL ON SCREEDED BEDDING COARSE IS PROHIBITED.

PAVER

1. PAVERS SHOULD BE PLACED IN PATTERN SHOWN ON DRAWINGS. LAY UNITS TIGHT TO DESIGNATED LAYING PATTERNS. UNITS HAVE LUGS TO MAINTAIN CONSISTENT JOINT WIDTH.
2. IN SLOPED CONDITIONS START LAYING FROM THE BOTTOM IN AN UPHILL DIRECTION.
3. THE MINIMUM SLOPE FOR PERMEABLE PAVEMENT SURFACE IS 1%.
4. INFLO PAVERS CAN BE INSTALLED WITH TB10051 (TECHO-BLOC MECHANICAL TOOL) TO EXPEDITE INSTALLATION.
5. WHEN SUBJECT IT VEHICULAR TRAFFIC, CUT UNITS SHOULD NOT BE SMALLER THEN ⅓ THE WHOLE PAVER. WHEN USING CUT PAVERS MAINTAIN JOINT.
6. IN VEHICULAR APPLICATION LAY PATTERN PERPENDICULAR TO TRAFFIC FLOW.

JOINT FILL

1. FILL PAVER JOINT OPENINGS WITH ASTM NO. 8 AGGREGATE. SWEEP STONE TO FILL JOINTS. SURFACE MUST BE SWEPT CLEAN PRIOR TO COMPACTION
2. COMPACT WITH 5,000 LB PLATE COMPACTOR (TWO PASSES MINIMUM). INSTALL OF NEOPRENE PAD TO PROTECT THE TEXTURE OF THE PAVING UNITS.
3. DO NOT COMPACT WITHIN 6' OF UNRESTRAINED EDGES OF PAVERS.
4. APPLY ADDITIONAL AGGREGATE TO FILL THE JOINT OPENINGS IF NEEDED AND COMPACT.
5. SURFACE TOLERANCE OF COMPACTED PAVERS SHOULD BE ±⅜" OVER 10'.

POST INSTALLATION PROTECTION

1. MAINTAIN EROSION AND SEDIMENT MEASURES AT PERIMETER TO PREVENT CONTAMINATION OF POROUS PAVEMENT SYSTEM.

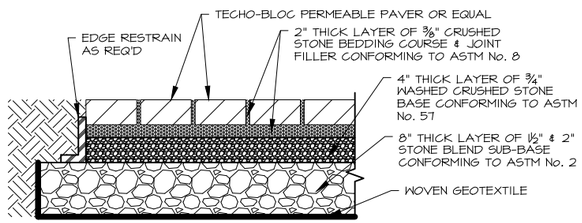
MAINTENANCE NOTES

A. Maintenance of Common Facilities or Property

1. Future owners or assigns are responsible for maintenance of all stormwater infrastructure associated with the facility and the property. This includes the roof drainage system, stone infiltration beds, gravel areas, and the pervious pavers.

B. General Inspection and Maintenance Requirements

1. Permanent stormwater and sediment and erosion control facilities to be maintained on the site include but are not limited to the following:
   a. Pervious Pavers
2. Maintenance of permanent measures shall follow the following schedule:
   a. The following requirements will help assure that the pervious pavers system is maintained to preserve its effectiveness:
      i. Inspection of site shall occur monthly for the first few months after construction. Then inspections can occur on an annual basis, preferably after rain events when clogging can occur and be obvious. Permeable pavers require minimal maintenance; however maintenance is absolutely necessary to ensure a proper working system.
      ii. Asphalt seal coating is absolutely forbidden. Surface seal coating is not reversible.
      iii. Street sweepers with vacuums, water, and brushes can be used to restore permeability. Follow sweeping with high–pressure hosing of the surface pores. Surface should be vacuumed 4 times per year, and at any additional times sediment is spilled, eroded, or tracked onto the surface.
      iv. Planted areas adjacent to pervious pavers should be well maintained to prevent soil washout onto the pavement. If any bare spots or eroded areas are observed within the planted areas, they should be replanted and/or stabilized at once.
      v. Immediately clean any soil deposited on pavers. Superficial dirt does not necessarily clog the voids. However, dirt that is ground in repeatedly by tires can lead to clogging. Therefore, trucks or other heavy vehicles should be prevented from tracking or spilling dirt onto the pavement. Replace any damaged paving blocks.
      vi. Do not allow construction staging, soil/mulch storage, etc. on unprotected pavers surface.
      vii. No winter sanding. Mechanical snow and ice removal preferred.
      viii. Written and verbal communication to the porous paver's future owner should make clear the special purpose and special maintenance requirements such as those listed here.



PERVIOUS PAVERS DETAIL
N.T.S.

ANNUAL OPERATIONS & MAINTENANCE REPORT

ACTIVITY	DATE OF INSPECTION	WHO INSPECTED	SATISFACTORY: YES, NO, N/A	MAINTENANCE NEEDED	IMPLEMENTED DATE OF CORRECTIVE ACTION	FINDINGS OF INSPECTOR
PARKING LOT SWEEPING PERVIOUS PAVEMENT						

FLOOD NOTES

A) In all area of special flood hazard where base flood elevation (BFE) data has been established per Subsection G.(2), the following provisions are required as per Section K in the zoning amendments for the City of Dover:

1. Residential construction, new construction and substantial improvement of any residential structure shall have the lowest floor, including the basement, elevated to at least two (2) feet above base flood elevation. Subsection K.(1)

2. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding are permitted, provided that the enclosed areas meet the following requirements as per Subsection K.(4):

   a) The enclosed area is unfinished or flood resistant, usable solely for parking of vehicles, building access or storage.
   b) The area is not a basement.
   c) The area shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a professional engineer or architect or must meet or exceed the following minimum criteria:
      i. A minimum of two (2) openings having a total area of not less than one (1) square inch for ever square foot of enclosed area subject to flooding shall be provided.
      ii. The bottom of all openings shall be no higher than one (1) foot above grade.
      iii. Openings may be equipped with screens, louvers orother coverings or devices, provided that they permit the automatic entry and exit of flood waters.

VULNERABILITY ASSESSMENT

1) UTILIZING THE NEW HAMPSHIRE COASTAL FLOOD RISK SUMMARY PARTS 1 & 2, THE PROJECTED SEA–LEVEL RISE IS 2.5'.
2) BFE = 6'
   PROJECTED SEA–LEVEL RISE = 2.5'
   ELEVATION OF PROJECTED FLOOD ZONE = 6+2.5 = 8.5'

   ELEVATION OF PROPOSED FIRST FLOOR = 9.2'
   ELEVATION OF PROPOSED GARAGE SLAB = 7.575'

   FIRST FLOOR IS ABOVE THE PROJECTED FLOOD ZONE ELEVATION. AREA BELOW THE PROJECTED FLOOD ZONE ELEVATION TO BE USED ONLY FOR BUILDING ACCESS, PARKING OF VEHICLES, AND STORAGE. AREA ALSO TO HAVE FLOOD VENTS INSTALLED.

ISS.	DATE	DESCRIPTION OF ISSUE
2	8/1/2022	CC SUBMITTAL
1	12/23/2020	FOR REVIEW

SCALE: 1" = 20'
CHECKED: A.ROSS
DRAWN: D.D.D.
CHECKED:

ROSS ENGINEERING, LLC
Civil/Structural Engineering & Surveying
909 Islington St.
Portsmouth, NH 03801
(603) 433-7560

CLIENT
WILLIAM C. FISHER
1 BOSTON HARBOR ROAD
DOVER, NH 03820

TITLE

NOTES

1 BOSTON HARBOR RD
DOVER, NH 03820
TAX MAP 7, LOT 2

JOB NUMBER	DWG. NO.	ISSUE
20–148	4 OF 4	2

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: Great Bay Yacht Club **TOWN NAME:** Dover

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

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

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

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

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☒ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&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.	☒ Yes ☐ No
• Protected species or habitat? o If yes, species or habitat name(s): Monarch Butterfly, Northern Long-Eared Bat, Roseate Tern o NHB Project ID #: NHB22-1313	☒ Yes ☐ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC):	☐ Yes ☒ No

• A copy of the application was sent to the LAC on Month: Day: Year:	
For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats):	

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.

This project is intended to maintain an existing boulder and gravel causeway by adding trap rock to fill in gaps in the rip-rap stone sides. Additional gravel/crushed stone will be added to the surface to level. Our hope is that this project will protect the surrounding area from gravel washout that may occur due to sea level rise. The project would impact approximately 770 sq. ft. in the developed upland tidal buffer zone, though most of the work will occur above the mean high tide level. This area is previously disturbed and work is contained within the previously impacted area.

SECTION 3 - PROJECT LOCATION

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

ADDRESS: 21 Wentworth Terrace

TOWN/CITY: Dover

TAX MAP/BLOCK/LOT/UNIT: 8/40/

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Tidal Buffer
☐ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.124806° North

	-70.830962° West	
SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a)) If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: Great Bay Yacht Club		
MAILING ADDRESS: PO Box 1644		
TOWN/CITY: Dover	STATE: NH	ZIP CODE: 03820
EMAIL ADDRESS: greatbayyachtclub@gmail.com		
FAX:	PHONE: 603-828-7364	
ELECTRONIC COMMUNICATION: By initialing here: MC, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c)) ☐ N/A		
LAST NAME, FIRST NAME, M.I.: Carle, Michael, D		
COMPANY NAME: Greatbay Yacht Club		
MAILING ADDRESS: 16 Wentworth Terrace		
TOWN/CITY: Dover	STATE: NH	ZIP CODE: 03842
EMAIL ADDRESS: noahsdad222@yahoo.com		
FAX:	PHONE: 603-828-7364	
ELECTRONIC COMMUNICATION: By initialing here MC, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b)) If the owner is a trust or a company, then complete with the trust or company information. ☒ Same as applicant		
NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	
ELECTRONIC COMMUNICATION: By initialing here MC, I hereby authorize NHDES to communicate all matters relative to this application electronically.		

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

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):
This project is intended to maintain an existing boulder and gravel causeway by adding trap rock to fill in gaps in the rip-rap stone sides. Additional gravel/crushed stone will be added to the surface to level. Our hope is that this project will protect the surrounding area from gravel washout that may occur due to sea level rise. The project would impact approximately 770 sq. ft. in the developed upland tidal buffer zone, though most of the work will occur above the mean high tide level. This area is previously disturbed and work is contained within the previously impacted area.

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			☐			☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters	771	188	☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ			☐			☐
	Docking - Tidal Water			☐			☐
TOTAL		771	188				

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):		SF	× $0.40 =	$
Seasonal docking structure:		SF	× $2.00 =	$
Permanent docking structure:		SF	× $4.00 =	$
Projects proposing shoreline structures (including docks) add $400 =				$
			Total =	$ 400
The application fee for minor or major impact is the above calculated total or $400, whichever is greater =				$

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

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)	
Initial each box below to certify:	
Initials: MC	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: MC	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: MC	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • 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.
Initials: MC	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)		
SIGNATURE (OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY: Michael Carle (Vice-Commodore)	DATE: 8/28/22
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY: Jessica Mistone
TOWN/CITY: Dover	DATE: 8/29/22

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

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

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



Causeway looking NE from land. The intent of the project is to add trap rock to the upper portion of each side. Then, crushed gravel will be spread to level the surface. June 19, 2022



Looking landward from the end of the causeway. June 19, 2022



Side view of causeway, looking SE. June 19, 2022



SE side of the causeway looking NNE. The intent of the project is to add trap rock to mitigate more erosion from extreme high tide events. March 14, 2022



Property Information

Property ID	08041-B00000
Location	19 WENTWORTH TR
Owner	LAWRENCE STEPHEN S TRUSTEE
Land Use	101
Zoning Code	R-20

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

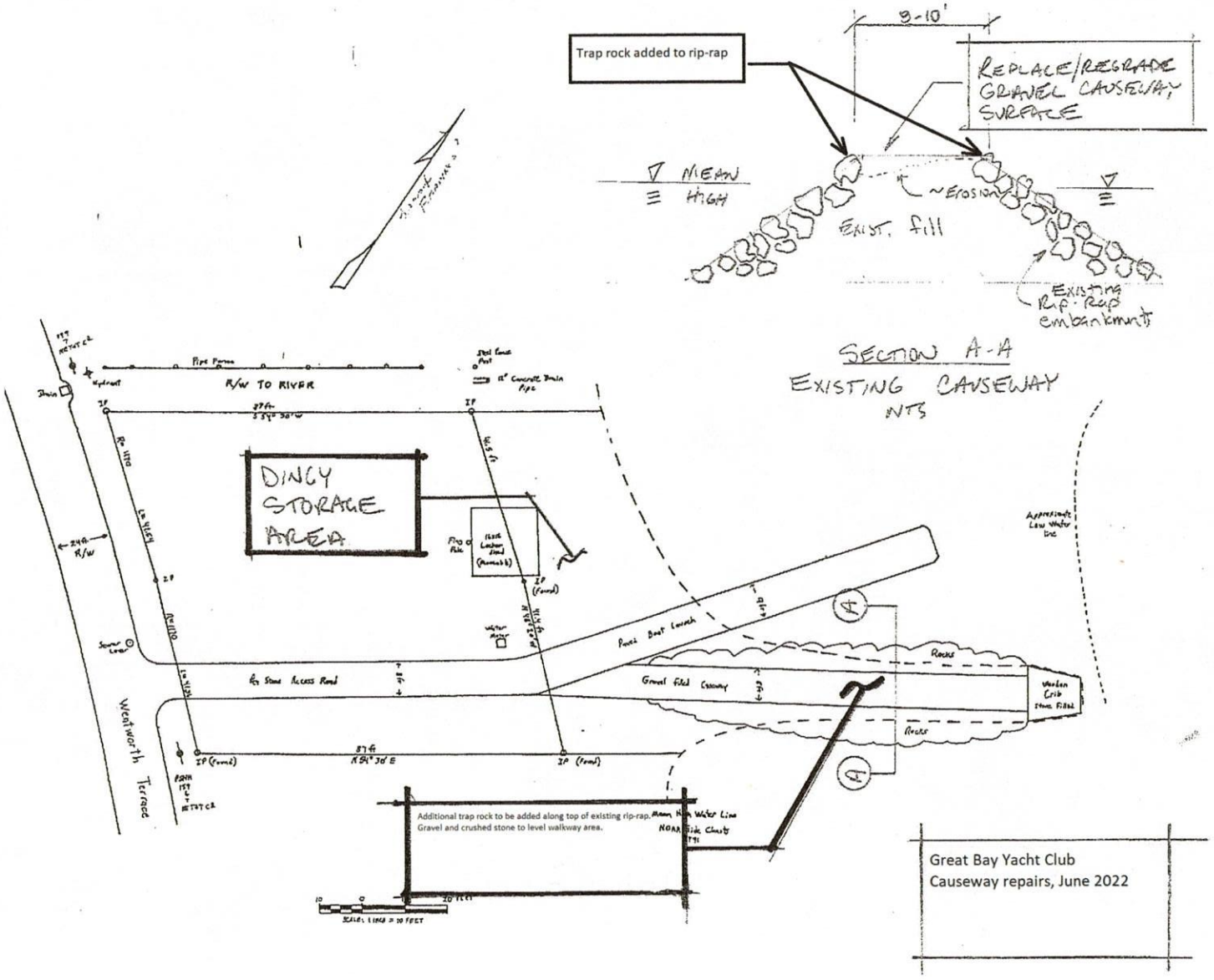
City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 5/3/2021
Data updated Daily

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



Imagery ©2022 Maine GeoLibrary, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2022 100 ft


Trap rock added to rip-rap
9-10'
REPLACE/REGRADE GRAVEL CAUSEWAY SURFACE
MEAN HIGH
EROSION
EXIST. fill
Existing Rip-Rap embankment
SECTION A-A
EXISTING CAUSEWAY
NTS
DINGY STORAGE AREA
R/W TO RIVER
Wentworth Terrace
Gravel filled Causeway
Rocks
Rocks
Additional trap rock to be added along top of existing rip-rap.
Gravel and crushed stone to level walkway area.
Great Bay Yacht Club
Causeway repairs, June 2022

LIBER
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AND IT IS AGREED that, on failure of performance of said conditions, the said mortgagees or their legal representatives or assigns may advertise said mortgaged premises for sale, by publication of notice in some newspaper printed at Dover in the county of Strafford once a week for three successive weeks, the first publication of such notice to be not less than twenty-one days before the day of sale, and by serving a copy of said notice on the mortgagor s or our representative in interest or by sending a copy of said notice by registered mail addressed to said mortgagors or our representative in interest at our last known address, or to at at least twenty-one days before said sale, and may sell the same by public auction on said premises to the highest bidder: and their Deed thereof in pursuance of such sale, shall convey to the purchaser an indefeasible title to the same, discharged of all rights of redemption by the mortgagor s or any other person claiming under us. And the mortgagee shall apply the proceeds of said sale in payment of said mortgage debt, and pay over the balance, if any, to the mortgagor s, after deducting the expense of notice and sale.

In Witness Whereof, We, Edward M. Loomis and Florence R. Loomis

have hereunto set our hand and seals this 13th day of June A. D. 1960

Signed, sealed and delivered in the presence of:

Edward M. Loomis
Florence R. Loomis

Delia J Guyer
To Bth

STATE OF NEW HAMPSHIRE
County of Strafford

On this 13th day of June, 1960 before me, the undersigned officer, personally appeared Edward M. Loomis and Florence R. Loomis known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument and acknowledge that they executed the same for the purpose therein contained.

In witness whereof, I hereunto set my hand.

Delia J Guyer
Justice of the Peace
Title of Officer

RECEIVED 9:50 A.M. June 13, 1960 EXAMINED BY: Marjorie E. Andrews REGISTER

DOCUMENTARY

WARRANTY DEED

DORETTA G. CRATEAU of Dover, County of Strafford and State of New Hampshire, for consideration paid, grants to GREAT BAY YACHT CLUB, INC., a corporation duly organized and existing under the laws of the State of New Hampshire and having a principal place of business at Durham, County of Strafford and State of New Hampshire, with WARRANTY covenants,

Two certain lots of land on the Cocheco River, so-called, at Dover Point in said Dover, shown on a plan entitled "Property of Florence J. Breen, Proposed Development, Dover Point Road, Dover, N. H., October 16, 1948, H. G. Hersey, C. E.", recorded in Strafford County Registry of Deeds, Pocket 7, Folder 3, Plan 6, being Lots 1 and 2 on said plan, bounded and described as follows:

Lot No. 1 - Beginning at an iron pipe at the Southwesterly corner of said lot and running Northwesterly along a street forty-one and thirty-six hundredths (41.36) feet to an iron pipe at the Southwesterly corner of Lot No. 2; thence N. 55 degrees E. eighty-seven (87) feet by said Lot No. 2, to an iron pipe on the bank of the Cocheco River; thence Southeasterly forty-one and four tenths (41.4) feet to an iron pipe; thence S. 55 degrees W. along land of Frank F. Wentworth eighty-seven (87) feet to the point begun at.

Lot No. 2 - Beginning at the Southwesterly corner of said lot running Northwesterly forty-one and thirty-four hundredths (41.34) feet along a street to an iron pipe at a right of way to the river; thence N 55 degrees E along said right of way eighty-seven (87) feet to an iron pipe on the shore of the Cocheco River; thence Southeasterly along said shore forty-one and five tenths (41.5) feet to an iron pipe at Lot No. 1 on said plan; thence S 55 degrees W along said Lot No. 1, eighty-seven (87) feet to the point begun at.

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: Great Bay Yacht Club **TOWN NAME:** Dover

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?

No

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.*

N/A

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 is intended to be limited to the existing causeway structure. Equipment used for placing stone will be able to utilize the causeway for the work needed to be done, avoiding adverse impacts to any surrounding tidal areas.

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 project plans to use trap rock to help mitigate future errosion.

US Army Corps of Engineers®
New England District

Appendix B

New Hampshire General Permits (GPs)
Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to https://www.nae.usace.army.mil/Missions/Regulatory/ "Useful Documents, Forms and Publications" and then "Corps Application Form and Guidance." Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

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

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.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*		x
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		x
2.2 Are there proposed impacts to 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 https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New Hampshire 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?		x
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?	771 sq ft	
2.7 What is the area of the proposed fill in wetlands?	N/A	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	N/A	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index	x	

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		x
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the GC 21?		x
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	x	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	N/A	
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**	N/A	

*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.

Great Bay Yacht Club

Biological Assessment

Prepared using IPaC

Generated by Michael Carle (mcarle@hamptonnh.gov)

July 23, 2022

The purpose of this Biological Assessment (BA) is to assess the effects of the proposed project and determine whether the project may affect any Federally threatened, endangered, proposed or candidate species. This BA is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of July 23, 2022.

Prepared using IPaC version 6.77.2-rc3

Great Bay Yacht Club Biological Assessment

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1 Description Of The Action

1.1 Project Name

Great Bay Yacht Club

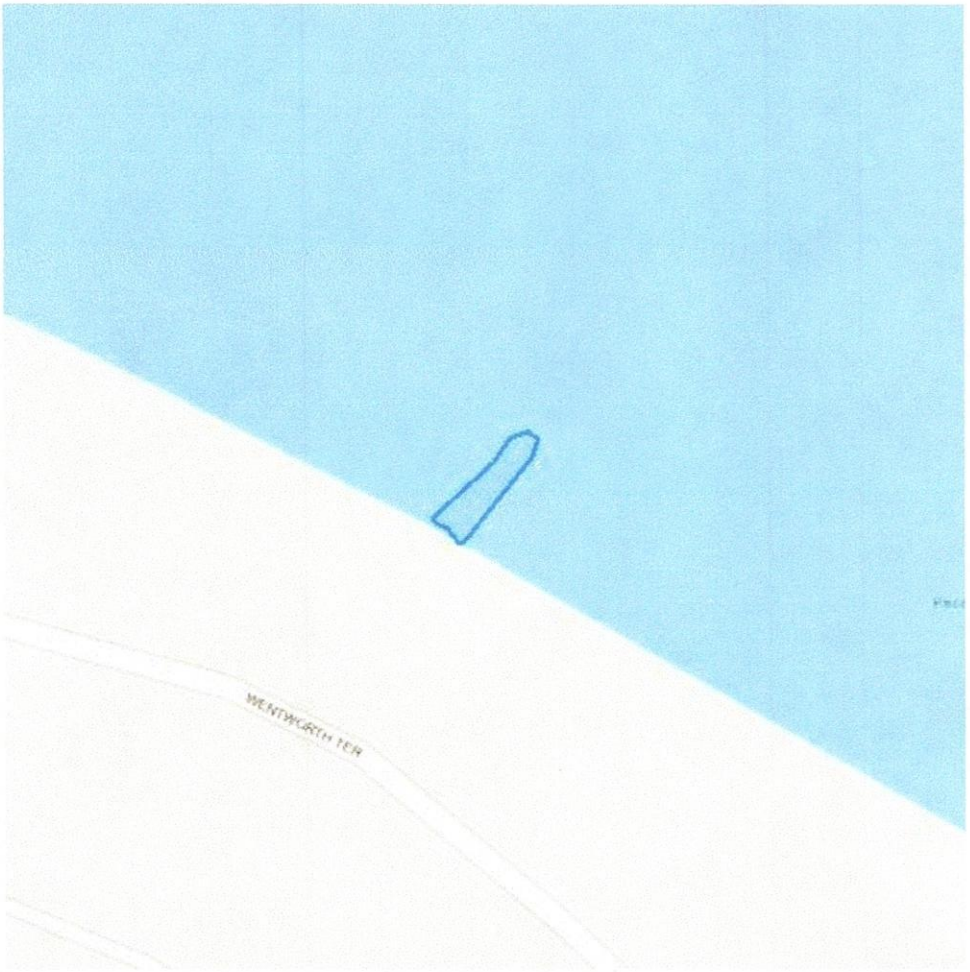
1.2 Executive Summary

This project is intended to maintain an existing causeway by adding trap rock to fill in gaps in the stone sides. With an existing gravel surface, there is no habitat condusive to any of the endangered species on the list. Our hope is that this project will protect the surrounding area from gravel washout that may occur due to sea level rise.

Effect determination summary

1.3 Project Description

1.3.1 Location



LOCATION
Strafford County, New Hampshire

1.3.2 Description of project habitat

The area of the project will impact an existing stone and gravel causeway that extends into the intertidal zone.

Relevant documentation

- GBYC PBN Pictures

1.3.3 Project proponent information

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

Requesting Agency
Great Bay Yacht Club

FULL NAME
Michael Carle

STREET ADDRESS
16 Wentworth Terrace

CITY	STATE	ZIP
Dover	NH	03820

PHONE NUMBER	E-MAIL ADDRESS
6038287364	mcarle@hamptonnh.gov

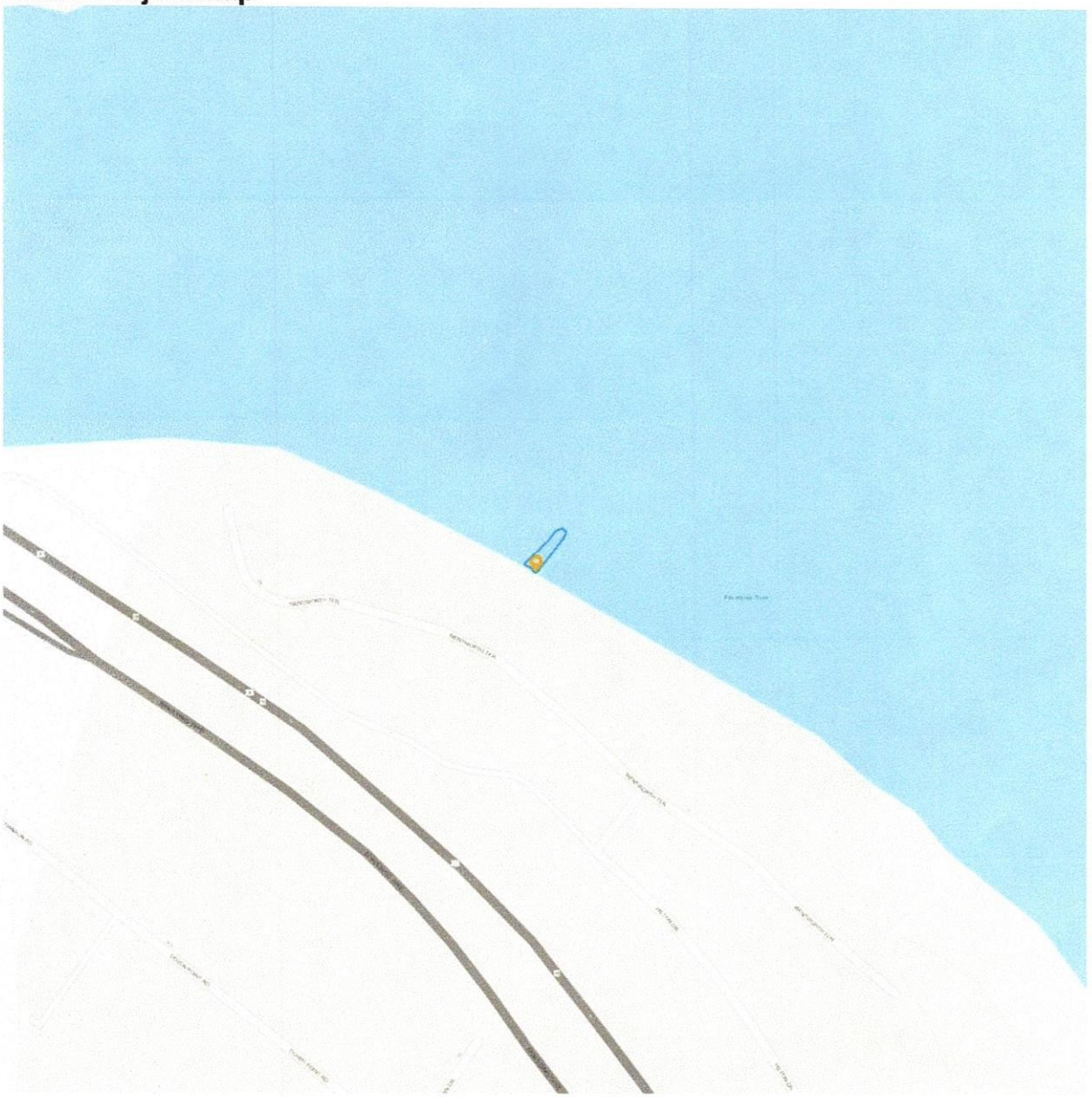
1.3.4 Project purpose

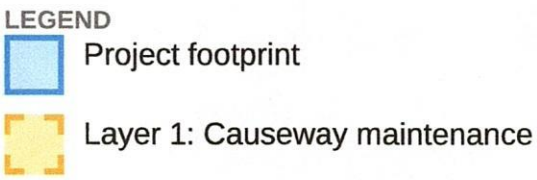
This project is intended to maintain an existing causeway. The addition of trap rock along the upper course of the stone sides is intended to mitigate wash out of the gravel surface.

1.3.5 Project type and deconstruction

This project is a maintence project.

1.3.5.1 Project map




LEGEND
Project footprint
Layer 1: Causeway maintenance

1.3.5.2 causeway maintenance

Activity start date
October 01, 2022

Activity end date
October 03, 2022

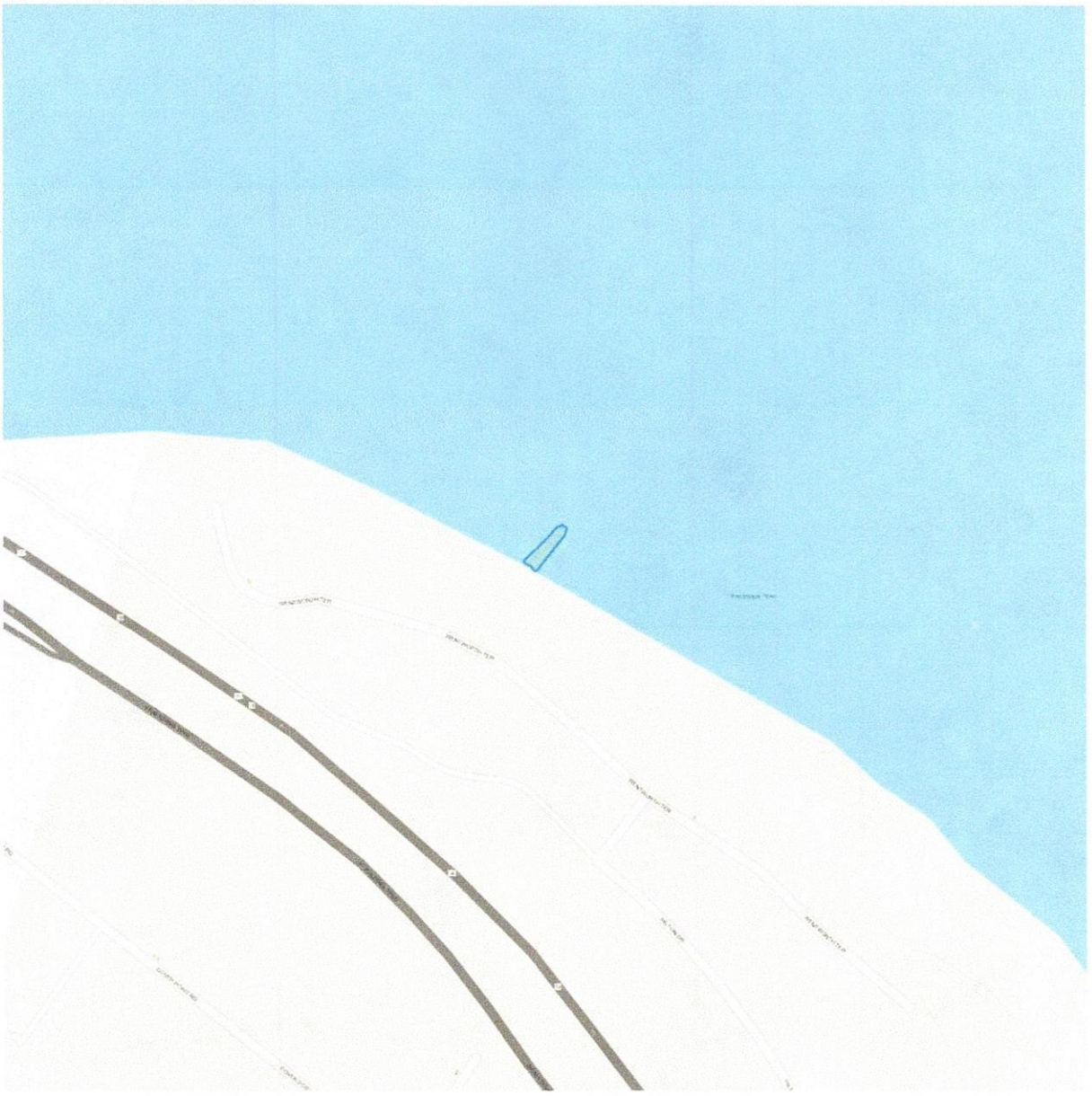
Stressors
This activity is not expected to have any impact on the environment.

Description
The work to be done is intended to be above the mean high tide level.

1.3.6 Anticipated environmental stressors

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.4 Action Area



1.5 Conservation Measures

Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.

No conservation measures have been selected for this project.

1.6 Prior Consultation History

none

1.7 Other Agency Partners And Interested Parties

NH DES, permit issuer.

29 Hazen Drive, PO Box 95 Concord, NH
03302-0095CONTACTS603-271-2147 : 603-271-2147lrm@des.nh.gov : lrm@des.nh.gov (mailto:lrm@des.nh.gov)

1.8 Other Reports And Helpful Information

none

2 Species Effects Analysis

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 Monarch Butterfly

This species has been excluded from analysis in this environmental review document.

Justification for exclusion

There is no vegitation in the project area.

2.2 Northern Long-Eared Bat

This species has been excluded from analysis in this environmental review document.

Justification for exclusion

The project area is a flat ground surface.

2.3 Roseate Tern

This species has been excluded from analysis in this environmental review document.

Justification for exclusion

The project area is an existing causeway that will have no impact on tern habitat.

3 Critical Habitat Effects Analysis

No critical habitats intersect with the project action area.

4 Summary Discussion, Conclusion, And Effect Determinations

4.1 Effect Determination Summary

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Monarch Butterfly	Danaus plexippus	Candidate	Excluded from analysis	Excluded from analysis
Northern Long-eared Bat	Myotis septentrionalis	Threatened	No	NE
Roseate Tern	Sterna dougallii dougallii	Endangered	No	NE

4.2 Summary Discussion

This project is intended to maintain an existing causeway by adding trap rock to fill in gaps in the stone sides. With an existing gravel surface, there is no habitat condusive to any of the endangered species on the list. Our hope is that this project will protect the surrounding area from gravel washout that may occur due to sea level rise.

4.3 Conclusion

This project is intended to maintain an existing causeway by adding trap rock to fill in gaps in the stone sides. With an existing gravel surface, there is no habitat condusive to any of the endangered species on the list. Our hope is that this project will protect the surrounding area from gravel washout that may occur due to sea level rise.

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Michael Carle, Great Bay Yacht Club
16 Wentworth Terrace

Dover, NH 03820

From: NH Natural Heritage Bureau
Date: 4/18/2022 (valid until 4/18/2023)
Re: Review by NH Natural Heritage Bureau of request submitted 4/5/2022
Permits: NHDES - Wetland Permit by Notification (PBN)

VALID ONLY FOR NOTIFICATION OR MINIMUM EXPEDITED APPLICATIONS SUBMITTED TO THE NHDES WETLANDS BUREAU

NHB ID: **NHB22-1313** **Applicant:** Michael Carle

Location: Dover
21 Wentworth Terrace

Project Description: We are planning a maintenance project on our existing causeway. This would include the addition of trap rock and crushed gravel above the MHW line. The causeway is roughly 75'x10'. We anticipate doing the work sometime this spring.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 2022-04-05 7:41:45 PM, and cannot be used for any other project.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

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

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB22-1313**

NHB22-1313

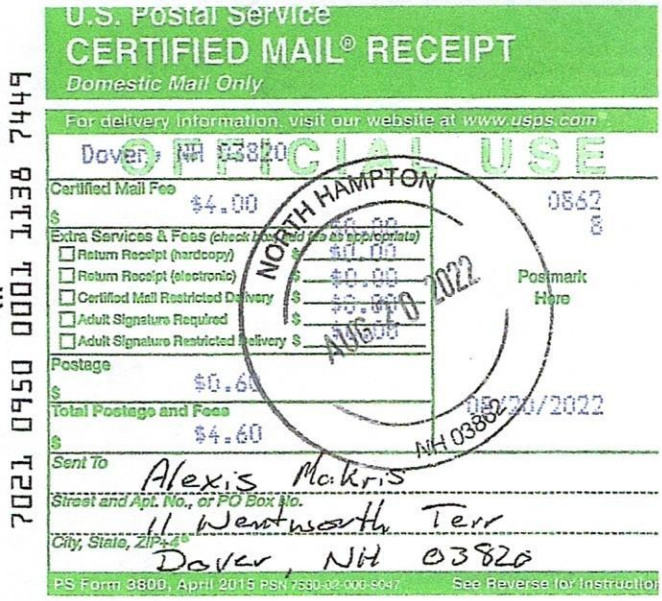


Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

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City, State, ZIP+4® Dover NH 03820
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City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service Company of NH (PSNH) c/o Jeremy Fennell Telephone # 603-634-3396

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: jeremy.fennell@eversource.com

Name of Property Owner (if different from applicant): SAME Telephone # SAME

Address of Property Owner: SAME AS APPLICANT (PSNH owns the easement rights to the utility right-of-way)

PROPERTY INFORMATION

Assessor's Map # 24 and 25 Lot(s) # Various - existing and actively maintained utility right-of-way (ROW)

Address of Property: Existing utility ROW between Oak Street to south of Atlantic Avenue.

Zoning District(s) G (Gateway) along the northern portion and R-12 (Medium-Density Residential) Overlay District(s) Conservation District (CD) and Wetlands Protection District (WPD)

Existing Use of Property: Existing and actively maintained electric distribution line ROW.

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

The proposed project involves the replacement of 6 wooden utility poles in Dover (5 along the 32 Distribution Line and 1 along the 371 Distribution Line) that have been identified as deficient during recent line inspections. These poles will be replaced with weathered steel either in the same location or within 10 feet of the existing poles in accordance with current utility standards. The proposed project is part of Eversource's on going maintenance conducted to ensure reliable electric service for their customers without interruption from preventable outages. This work will require temporary impacts to wetlands and streams through the use of timber matting at unavoidable access road and work pad crossings. No permanent natural resource impacts are proposed. All temporary impacts will be stabilized and restored post-construction, as dictated by site conditions. The use of timber mats often allows for natural vegetation to reestablish during the next growing season.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: **NH Department of Environmental Services (NHDES) Utility Maintenance Activity Statutory Permit by Notification (SPN) is currently being drafted. The City will receive a copy of this filing.**

Name of Professional That Prepared Plans: Kristopher Wilkes, CWS, CPESC

Address 2 Bedford Farms Drive (Suite 200), Bedford, NH 03110 Telephone #: 603-391-3944

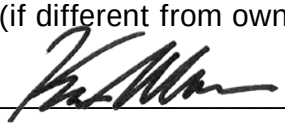
Professional License #: CWS 288 E-mail address: kwilkes@vhb.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

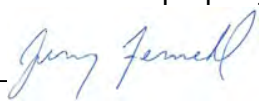
Signature of Property Owner:  (PSNH) Date: 09/01/2022

Signature of Applicant (if different from owner): SAME Date: _____

Signature of Agent:  (VHB) Date: 09/01/2022

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner:  Date: 09/01/2022

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Existing Utility ROW (Easement Rights)		PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS
Jeremy Fennell	PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Kris Wilkes	VHB	2 Bedford Farms Drive (Suite 200), Bedford, NH 03110

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

September 1, 2022

Ref: 52907.00 and 52908.00

Ms. Gina Cruikshank
Dover Planning Board Chair
City Hall
288 Central Avenue
Dover, NH 03820

Re: City of Dover Conditional Use Permit Application
PSNH 32 & 371 Electric Distribution Lines Maintenance/Pole Replacements, Dover, NH

Dear Ms. Cruikshank:

The Public Service Company of New Hampshire (PSNH) d/b/a Eversource Energy proposes to replace 141 utility poles long the existing 32 and 371 Distribution Lines that share a utility right-of-way (ROW) in Dover, Rollinsford, Somersworth, and Rochester, NH that have been identified as deficient during recent line inspections. Of this total, six (6) utility poles (5 along the existing 32 Electric Distribution Line and 1 along the existing 371 Electric Distribution Line) are located in Dover. This project qualifies for a Conditional Use Permit (CUP) approval as a power line project within a utility right-of-way (ROW) within the Conservation and Wetland Protection Overriding Districts in accordance with *Article VIII Sections 170-27(C)(1)* and *170-27.1(F)(1),* respectively, of the City's Zoning Ordinance (as amended 10/13/2021). This CUP Application is being submitted by VHB on behalf of PSNH in accordance with *Sections 170-27* and *170-27.1* of the zoning ordinance and is required for the proposed work to allow temporary impacts to wetlands and streams (and their associated buffers) protected under the Conservation and Wetland Protection Districts.

In accordance with NH RSA 482-A:3, XV, routine utility maintenance work is exempt from the standard wetland permitting process at the state level. However, PSNH is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification (SPN) application to New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impacts associated with use of timber matting within wetlands required to complete the proposed pole replacement work. VHB is currently assisting PSNH with this filing. As part of the permitting process, the City of Dover will receive a copy of this filing concurrent with the NHDES submission.

Existing Conditions

The project involves an approximately 150-foot-wide maintained overhead electric ROW corridor that contains two distribution lines in Dover with the 32 Line to the east and the 371 Line to the west. There is also a third distribution line observed along the eastern edge of the ROW adjacent to existing businesses and apartment complexes. The project ROW is comprised of Eversource owned-property or Eversource-controlled easements. The project ROW is intersected by Oak Street in the north near the Dover-Rollinsford line and Atlantic Avenue in the south between 32 Line Poles 4 and 5. The project ROW contains dense emergent and scrub-shrub wetland and upland vegetation that is maintained (cut) on a three to five-

2 Bedford Farms Drive
Suite 200
Bedford, New Hampshire 03110
P 603.391.3900
F 603.518.7495

year cycle to achieve vertical clearance requirements between ground vegetation and overhead lines. The surrounding land use is mostly commercial and residential with some forested patches.

Project Description

PSNH intends to replace six (6) wooden utility poles (5 along the 32 Line and 1 along the 371 Line) in Dover with weathered steel in the same configuration (either in the same location or within 10 feet of the existing poles) in accordance with current utility standards. Weathered steel poles are more resilient to insect and woodpecker damage and pole rot and can further withstand typical New Hampshire storms and severe weather events. Additionally, associated guy support wires and anchors will be replaced. On average, the height of the new poles will increase between 5 to 10 feet. The purpose of the height increase is to gain compliance with current regulatory standards, meet safety clearance requirements, accommodate the site topography, and minimize environmental impacts. Construction is tentatively scheduled to commence in the fall of 2022. Refer to the attached **Project Plans** for more information.

Since the proposed pole replacement work will occur within the limits of an existing cleared and actively maintained overhead electric utility ROW, no tree clearing or widening of the ROW is proposed.

Proposed Access and Utility Best Management Practices

Work crews will access poles targeted for replacement or removal from existing public roadways that intersect the distribution line ROW, traveling within the limits of the existing cleared ROW corridor to reach the poles. Existing ROW access trails (where present) will be used to minimize ground disturbance and natural resource impacts. Minor improvements of existing access roads (some grading, filling of existing deep ruts, and stone/gravel resurfacing) may be necessary along the proposed upland access trails to provide a safe and stable surface for construction equipment travel. Additionally, some temporary grading may also be required to establish safe equipment travel and staging, however grading work will be confined to upland areas only. Lastly, crews will utilize low-ground pressure ruggedized track equipment capable of traversing the existing ROW terrain to replace the subject poles.

Timber matting will be utilized to gain access across wetlands and streams to reach the existing poles targeted for maintenance to minimize soil disturbance and avoid rutting, as applicable. Additionally, timber mats may be set up around the base of poles located in wetlands to provide a stable work area to stage crews/equipment. Timber mats, typically with dimensions of 16 feet wide by 4 feet long, will be used to reduce the impact of driving equipment through saturated soils by dispersing equipment weight, preventing the formation of ruts, and preventing conditions that are conducive to soil erosion. Erosion controls and stone or wood chip ramps shall be installed to promote a smooth transition to and minimize sediment tracking onto timber mats. In addition to wetland crossings, timber matting will be utilized to span the existing jurisdictional limits (bed and banks) of any streams encountered along the ROW as depicted on the **Project Plans**.

Once access and work pads are established, the new steel poles will be installed either through direct embedment or constructed in caisson foundations that would be backfilled with gravel. Traditional auguring and installation procedures will be used. Any excess excavated spoils will be spread to match existing topography and stabilized with seed and straw mulch cover within adjacent upland areas of the ROW (outside of NHDES jurisdiction). Any construction laydown areas required for equipment and material staging during pole replacement will be situated in upland areas along the existing ROW corridor. Ground

disturbance and grading will be kept to a minimum and will be generally limited to an approximate 50-foot by 50-foot construction work pad around each replacement pole located in uplands. Generally, the work pads are positioned 70/30 as opposed to centered on the poles to provide more space in front of the new pole location to facilitate installation. However, the work pads may be shifted or reduced in size to avoid and minimize natural resource impacts, to the extent practical, as depicted on the **Project Plans.** All access and work pads will be restored following construction as described in more detail below.
Prior to accessing the two project ROWs with construction equipment, crews will install wildlife friendly erosion and sediment control barriers in accordance with project plans and details, New Hampshire Department of Environmental Services (NHDES), New Hampshire Fish and Game (NHF&G) and New Hampshire Natural Heritage Bureau (NHB) conditions, and the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire* (or "Utility BMP Manual," March 2019), published by the New Hampshire Department of Natural and Cultural Resources (NHDNCR). Erosion controls will be inspected daily by the crews and weekly by an environmental monitor hired by PSNH/Eversource to ensure they are maintained throughout the duration of the project.

Proposed Post-Construction Restoration

Stabilization and restoration of disturbed areas/exposed soils will be initiated as timber mats are pulled and utility work is completed. Erosion controls will not be removed until project work is complete (not to be in place longer than one growing season), and the project area is stabilized in accordance with NHDES guidance. Due to the use of timber mats, it is anticipated that minimal restoration within the ROW will be needed, and that natural vegetative re-colonization of impacted areas will occur during the 2023 growing season. If necessary, an approved upland and/or wetland seed mix outlined in NHDES guidance manuals, will be applied to any areas where cover is slow to develop. Additionally, straw or weed-free hay will be applied in conjunction with seed.

Invasive Species Management

Several invasive plant species, varying in density, are present within the project ROW based on field observations made by VHB. Species include multi-flora rose (*Rosa multiflora*), honeysuckle (*Lonicera* sp.), purple loosestrife (*Lythrum salicaria*), and oriental bittersweet (*Celastrus orbiculatus),* with the more aggressive Japanese knotweed (*Reynoutria japonic*a) and common reed (*Phragmites australis*) observed along the northern edge of Wetland 53. Invasive plant species readily colonize disturbed areas and habitat edges, such as ROW corridors. Invasive species management during project construction will adhere to guidance provided in the Utility BMP Manual. Prior to the commencement of work, clearing and pole/line construction crews will be briefed on the invasive plant species present within the ROW and the modes of dispersal and spread of these species.

All equipment, including timber mats, arriving to the site will be visually inspected to ensure that it is clean prior to off-loading. "Clean" is defined as being free of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials. Additionally, any equipment that has been placed or used within areas containing invasive species within the ROW will be cleaned of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the ROW to minimize the spread of invasive species from one area to another. Equipment will be cleaned prior to being removed at the completion of the project. Cleaning will be accomplished by utilizing hand tools, shaking/dropping mats to dislodge any attached material, and/or compressed air.

Rare, Threatened, and Endangered Species

Coordination with the Natural Heritage Bureau (NHB) and NH Fish and Game (NHF&G) Department is currently underway to address potential impacts and BMPs for rare plant species (various herbaceous species) and animal species (including Blanding's turtle, wood turtle, and New England cottontail) within proximity to the project ROW as identified in the NHB DataCheck Results Letter (NHB22-1936) obtained for the project. In regard to the identified herbaceous plant species, the time of year the work is currently proposed (mostly outside the growing season) coupled with the use of timber mats in wetlands and other identified sensitive areas is expected to minimize impacts allowing vegetation to rebound naturally in the spring of 2023 once the mats are removed post-construction. In regard to rare animal species which may be present within the ROW, PSNH with support from VHB intends to implement typical wildlife BMPs including contractor trainings related to species ID and sighting protocols, daily sweeps of the project ROW prior to the start of work, the use of wildlife-friendly/non-plastic erosion controls, restoration of temporarily impacted areas, etc. Furthermore, the project is proposed to start construction in the fall of 2022 which is seen as beneficial in minimizing impacts to animal species such as turtles as they become less mobile and go into hibernation around October/November, reducing the likelihood of encounters.

Delineated Natural Resources

Portions of the proposed project fall within the City of Dover's Conservation District as defined in *Article VIII Section 170-27(B)* of the zoning ordinance to include (1) areas within 100 feet of the tidal Cocheco River, (2) areas within 50 feet of nontidal streams, and (4) in areas with slopes greater than 20% and totaling greater than 2,000 square feet of contiguous area. Only number 2 is applicable to this project, and most of the nontidal stream buffers are located within wetland buffers (in which case only the buffer that extends out the farthest is shown on the plans).

Additionally, portions of the proposed project fall within the City of Dover's Wetland Protection District as defined in *Article VIII Section 170-27.1(C)* of the zoning ordinance to include all wetlands that were delineated within the project area by a NH Certified Wetland Scientist in accordance with the applicable regulations. Jurisdictional wetlands and surface waters within the project ROW were delineated by VHB Wetland Scientists (including a NH Certified Wetland Scientist) in July 2022. The wetland delineation was conducted in accordance with the procedures and standards outlined in the *1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region,* Version 2.0 (January 2012) using alpha-numerically coded pink flagging tape. Wetland delineation also relied upon the *Field Indicators for Identifying Hydric Soils in the United States,* Version 8.2, published by the Natural Resource Conservation Service and the *Field Indicators for Identifying Hydric Soils in New England,* Version 4.0, published by the New England Interstate Water Pollution Control Commission in April 2019. Dominant wetland vegetation was assessed using the *2018 National Wetland Plant List* published by the U.S. Army Corps of Engineers. Wetlands were classified using the USFWS methodology *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979, revised 1985). No potential vernal pools were identified within the ROW during this field work.

Several palustrine emergent (PEM) and palustrine scrub-shrub (PSS) wetlands intersect the existing utility ROW in Dover, along with 2 perennial streams that intersect the ROW. Delineated resources are depicted on the attached **Project Plans** and are generally described below. **Representative Site Photographs** are also attached.

One slightly odd wetland to note is Wetland 54. This wetland contains all three wetland indicators (hydrophytic vegetation, hydrology, and hydric soils) along the eastern and western sides of the utility ROW but not within the central mowed portion. This wetland has been altered (likely by residents of the adjacent apartment complex) through repeated mowing of its central portion to create lawn space and room for their nearby vegetable garden (which is located between 32 Line poles 7X and 8). This mowed area lacks hydrophytic vegetation but does contain hydric soils and a narrow, ill-defined gully (either eroded or artificially excavated) was observed in the grass that connects both portions of this wetland during wetter times of year. Refer to Photo 5 of the attached photo log. This is the reason those wetland lines were left "open" along the mowed area on the plans, with a note that additional matting may be required in this area depending on site conditions at the time of construction.

Wetland Vegetation

Emergent and scrub-shrub palustrine wetlands are present within the existing utility ROW. Wetland and upland vegetation along the ROW is periodically mechanically cut to maintain safe vertical and horizontal clearance distances from the existing overhead distribution lines, thus maintaining a dense shrub-type habitat. Species typically found within these wetlands include tree species, which are not permitted to grow beyond a sapling growth stage, including red maple (*Acer rubrum*) and species of birch (*Betula* spp.). Common dominant shrub species found within these wetlands include white meadowsweet (*Spiraea alba*), steeplebush (*Spiraea tomentosa*), maleberry (*Lyonia ligustrina*), arrowwood (*Viburnum recognitum*), and speckled alder (*Alnus incana*).

Palustrine emergent portions of these wetlands are typically dominated by cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), various species of sedge (*Carex* spp.), rough-stemmed goldenrod (*Solidago rugosa*), soft rush (*Juncus effusus*), swamp dewberry (*Rubus hispidus*), narrowleaf cattail (*Typha angustifolia*), arrow-leaved tearthumb (*Persicaria sagittata*), goldenrod species (*Solidago* spp.), blue vervain (*Verbena hastata*), purple loosestrife, reed canary grass (*Phalaris arundinacea*), white meadowsweet, and peat moss (*Sphagnum* sp.).

Wetland Hydrology and Hydric Soils

Typical indicators of wetland hydrology observed throughout the project ROW wetlands include surface water (A1), saturation (A3), water-stained leaves (B9), drainage patterns (B10), and geomorphic position (D2). Typical indicators of hydric soils observed throughout the project ROW wetlands include Hydric Soil Indicators F3: Depleted Matrix and F6: Redox Dark Surface.

Streams

Delineated perennial streams that intersect the project ROW are classified as Riverine, Unknown Perennial, Unconsolidated Bottom, Sand/Mud (R5UB2/3). These streams generally flow in a north to south direction, ultimately discharging into the Cocheco River well beyond the limits of the proposed work. The channel width varies but is 4-5 feet wide on average. The densely overgrown streambanks had an average height of six inches to one foot.

Functions and Values

The location of the project wetlands within a cleared ROW corridor, their connectivity to larger complexes that extend outside of the existing ROW edge, the presence/absence of streams, and the composition of the immediate surrounding landscape (industrial/commercial/residential) largely dictate their functions and values. Wetlands to be temporarily impacted by the proposed work are made up of dense scrub-shrub and emergent vegetation which contributes to their capacity to perform water quality and hydrologic functions such as sediment/toxicant/pathogen retention and nutrient removal. Potential sources of pollutants are present from abutting industrial/commercial land uses, roadways and maintained residential properties. Their vegetative diversity and position within a linear corridor also contribute to their function to provide wildlife habitat, especially to various bird species. Scrub-shrub wetlands are productive in terms of food resources where they support berried varieties of shrubs. Lastly, based on the size and landscape position of these wetlands, and their proximity to the built environment and connectivity to streams, they also function to retain floodwaters from sources higher in the watershed and may contribute to groundwater recharge. When not associated with a stream or hydrologically connected to a larger complex outside or within the ROW, wetland function and values tend to be more limited due to the small size and isolated nature of some of these resources.

None of the proposed impacts associated with this project are expected to permanently alter the existing topography or hydrology of these wetlands (i.e., no permanent grading or ground disturbance and no inflow/outflow restrictions) within the project ROW which could result in a decrease of groundwater recharge /discharge, floodflow alteration, sediment and nutrient trapping, production export, or shoreline stabilization functions. Some temporary, short-term impacts to the wildlife habitat wetland function are anticipated during the construction period due to temporary construction-related noise and the presence of work crews and equipment.

Proposed Overriding District Impacts

Impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, the positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location/orientation of work pads. It should also be noted that direct stream impacts were avoided by using timber mats that will span the jurisdictional streambanks. Given the overlapping overriding districts and associated buffers, we quantified the impacts in **Table 1** below by direct wetland impact and municipal buffer impact. The municipal buffers were established by taking the farthest buffer (such as when a stream is located within a wetland, the larger wetland buffer was used).

Table 1: Proposed Temporary Impacts

Impact Type	Impact Area (Square Feet)
Direct Wetland Impact	2,110
Municipal Buffer Impact	14,900
Total	**17,010**

Conditional Use Permit Procedures and Requirements

The Dover Zoning Ordinance provides that CUP applications can be approved for limited and regulated uses by the Planning Board if it is found that the use is consistent with the ordinance and does not have an adverse impact on the natural resources and jurisdictional areas within the overriding districts.

Conservation District

A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27(C)(2)* for the Conservation District*:*

(a) The applicant shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

The proposed maintenance work is required to maintain the reliability of the existing infrastructure that provides electricity to the regional grid. Maintaining the flow of electricity to developed regions of the state is essential to the safety and productivity of those communities. All work has been designed to avoid and minimize impacts to the Conservation and Wetland Protection Districts to the extent practical while accomplishing the project objectives of replacing the target poles.

(b) A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:

(i) stabilization of exposed soils and soil stockpiles; **Exposed upland soils will be seeded and stabilized with straw mulch to prevent erosion while vegetation is establishing. Following removal of timber mats from wetland areas, any exposed soils will be stabilized with weed-free straw and allowed to reestablish within the next growing season. If some areas are slow to establish, NHDES-approved wetland seed mixes may be applied. Temporary soil stockpiles, if applicable, will be temporarily stabilized and surrounded by erosion controls (i.e., silt sock), as necessary, to contain the sediment.**

(ii) protection of steep SLOPEs from erosion; **Not applicable to this project.**

(iii) construction site waste management; **Old poles and overhead hardware and all other construction debris will be removed from the site and properly disposed.**

(iv) inspection and maintenance of runoff control measures (BMPs); **An environmental monitor hired by PSNH will be responsible for conducting weekly monitoring of the project to ensure the work is occurring in accordance with the approved plans and that erosion controls are functioning as intended (and recommend corrective actions if/as applicable). Furthermore, the selected contractor will be responsible for daily monitoring of the erosion controls.**

(v) minimization of land clearing; **No tree clearing is proposed as part of this project; however, routine mowing and selective cutting of the project ROW in preparation of construction will likely be required.**

(vi) stabilization of drainage ways; **Not applicable to this project.**

(vii) installation of perimeter controls; **Erosion control lines are shown on the plans where silt fence and/or silt sock are proposed to protect the adjacent natural resources.**

(viii) installation of sediment trapping devices; and **Not appliable to this project.**

(ix) storm drain inlet protection. **Not applicable to this project.**

(c) *Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.*
A Utility Maintenance Activity SPN for the proposed project will be submitted to NHDES to cover environmental permitting at the state level.

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*
(i) attempted avoidance of the impact;
(ii) minimization of the impact;
(iii) planned mitigation of the effects of the impact; and
(iv) efficacy of the soil erosion and sedimentation control plan.
On behalf of PSNH, VHB requests that the Conservation Commission compose a letter to the Planning Board addressing these items and stating any recommendations and concurrence for the project. These items are addressed elsewhere in this application.

<u>Wetland Protection District</u>
A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27.1(F)(1)* of the Wetland Protection District:

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*
Avoidance and minimization of natural resource impacts was a main consideration throughout the project design and implementation, coupled with construction feasibility and safety. All access routes were selected through site walks with PSNH, and work pads were positioned to avoid natural resource impacts to the extent practical while still accomplishing the project objectives. Given the avoidance and minimization efforts employed throughout the plan development, it is our opinion that there is no practicable alternative that would have less impact. It should also be noted that impacts associated with this work are temporary and will be restored.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Conservation and Wetland Protection Districts have been avoided to the extent practical while still accomplishing the project objectives of replacing the target poles. Where stream crossings are proposed (or where streams are located within the work pad areas), they will be spanned from beyond their jurisdictional banks with timber mats to avoid stream impacts.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction, and maintenance methods will be prepared by a registered*

engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Conservation and Wetland Protection Districts have been minimized to the extent practical while still accomplishing the project objectives of replacing the target poles. The use of timber matting further minimizes impacts by reducing ground pressure and preventing rutting within wetlands. Where feasible, wetlands that span the ROW width will be crossed at their narrowest areas to minimize impacts.

(d) *Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.*
Not applicable.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*
A Utility Maintenance Activity SPN for the proposed project will be submitted to the NHDES Wetlands Bureau to cover environmental permitting at the state level for the proposed temporary wetland impacts in Dover.

Property Ownership and Abutters

It is our understanding that the City of Dover will prepare the abutting property list and invoice the applicant for the applicable fee (which must be paid at least 28 hours in advance of the Planning Board meeting). Please do not hesitate to contact me if you have any questions at (603) 391-3944 or kwilkes@vhb.com.

Sincerely,



Kristopher Wilkes, CWS, CPESC
Project Manager, Energy & Environmental

cc: Jeremy Fennell, PSNH

Attachments:
City of Dover Conditional Use Permit Application Form
Tax Maps
Representative Site Photos
Project Plans

PLANNING BOARD FEE SCHEDULE/INVOICE

(Revised July 1, 2021)

Below are the fees associated with plan review and are subject to a nonrefundable application fee to cover administrative expenses. Please complete the information below and provide payment with your application submittal. Plan Review Fees shall be paid prior to technical review committee (TRC) being scheduled. For plans not requiring TRC review, fees are due 21 days prior to the Planning Board meeting. Staff will coordinate abutter/notice fees, which will be invoiced and must be paid 28 hours before the Planning Board meeting for an application to be heard. Fees shall be paid by cash or check made payable to "City of Dover".

A. Plan Review Fees

1. Application fee for the following (SELECT ALL THAT APPLY):

- ☐ SUBDIVISION Application fee $200.00 + $150.00 x # _____ new lots created = $ N/A
- ☐ LOT LINE ADJUSTMENT Application fee $200.00 + $100.00 X # ___ of lots involved = $ N/A
- ☐ TRANSFER OF DEVELOPMENT RIGHTS Application fee $200.00 = $ N/A
- ☐ SITE REVIEW – RESIDENTIAL Application fee $200.00+ $100.00 x # __ per dwelling unit = $ N/A
- ☐ SITE REVIEW – NON-RESIDENTIAL Application fee $200.00 + (not to exceed $10,000)
  - o New construction $.15 sq. ft. x # _____ sq. ft.= $ N/A
  - o Additions (new floor space) $.10 per sq. ft. x # _____sq. ft.= $ N/A
- ☐ MOTEL/HOTEL $35.00 x # ___ per lodging unit= $ N/A
- ☐ CHANGE OF USE Application fee $200.00 + (not to exceed $5,000)
  - o Existing floor spaces $.10 per sq. ft. x # _____ sq. ft. = $ N/A
- ☒ CONDITIONAL USE PERMIT Application fee $200.00 x # 1 per Application = $ 200.00
- ☐ GRAVEL PIT/ EXCAVATIONS
  - o Application fee $50.00= $ N/A
  - o Permit fee $75.00= $ N/A
- ☐ EXTENSIONS/AMENDMENTS/WAIVERS FOR AN APPROVED PLAN Application fee $200.00 = $ N/A
- ☐ REQUEST FOR REZONING Application fee $200.00 = $ N/A
- ☐ DRIVEWAY WAIVER Application fee $200.00 = $ N/A

2. TOTAL IMPERVIOUS PAVED AREA (for new development, roadways or additions to existing parking lots, (not to exceed $10,000)) Application fee of $200.00 is N/A if it is part of a Site Review or Subdivision Plan. $200.00 + $.07 per sq. ft. x # _____ sq. ft. = $ N/A

The City will populate Sections B and C below.

SUBTOTAL PLAN REVIEW FEE (A) = $ 200.00

AND

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will review the list for accuracy and provide to us the engineer, architect, licensed land surveyor (LLS), licensed landscape architect (LLA) and/or soil scientist whose professional seal appears on the plan with names and addresses for notices.

- ☐ Applicant & Owner, engineer, architect, LLS, LLA and/or soil scientist
  - o Certified letters fee # _____ of x $8.00= $_____
- ☐ Certified letters fee: # of abutters _____ X $8.00= $_____
- ☐ First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X $1.00= $_____
- ☐ Creating/Printing Abutter Labels in triplicate per sheet _____ x $10.00= $_____

C. **Foster's newspaper public notice fee $100.00 x # _____ applications =** $_____

SUBTOTAL NOTICE FEE (B & C) = $_____

TOTAL INVOICE AMOUNT (A, B & C) = $_____

PLAN REVIEW FEE COLLECTED/PAID = $ _____

BALANCE DUE = $ _____

The balance due must be paid 28 hours prior to the Planning Board Meeting, to be heard.

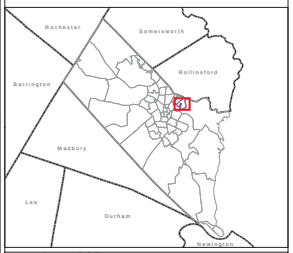
CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

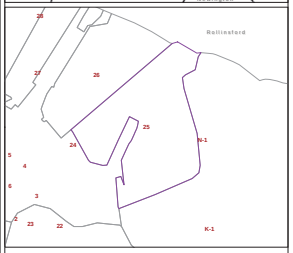
Map Page: 25

Approximate Project Area (not to scale)

N

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





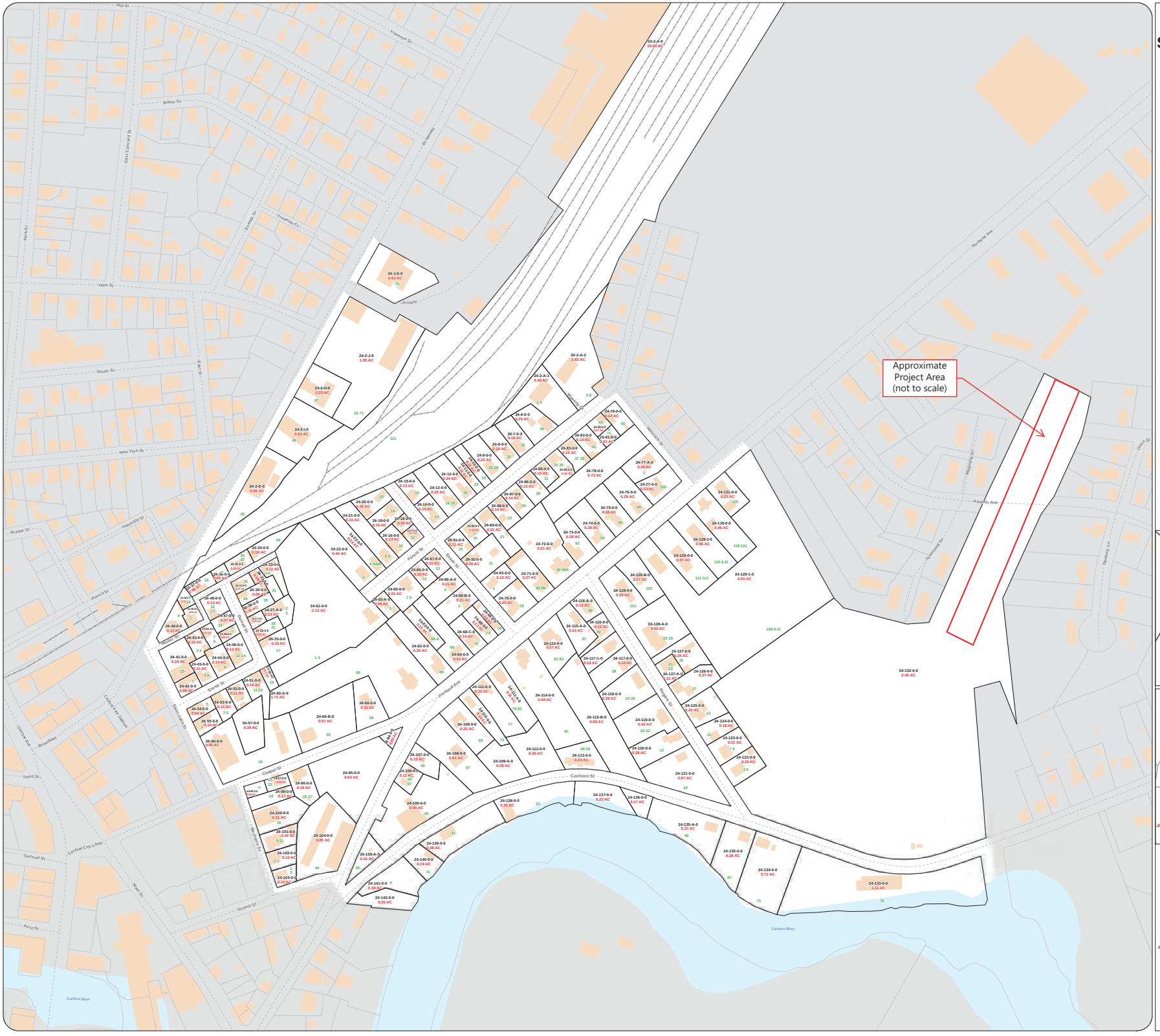
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1:1,200
1 " = 100 '

This map is for assessment and planning purposes only. It is not intended to be used for description, conveyance, authoritative definition of any legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation associated with the data on which this map is based for information related to its accuracy, currentness and limitations.

Map Generated: Wednesday, March 21, 2018

AppGeo

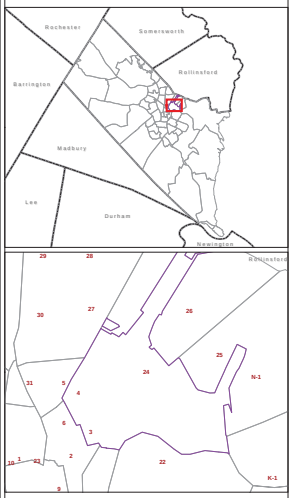


CITY OF DOVER STAFFORD COUNTY NH TAX ASSESSORS MAP

Map Page: 24

N

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number



200 100 0 200 Feet

1:1,200
1 " = 100 '

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Map Generated: Wednesday, March 21, 2018

AppGeo

Representative Site Photographs – July 2022
Eversource 32 and 371 Distribution Lines Structure Replacements – Dover, NH



Photo 1: View northeast of the southern extent of Wetland 52 located north of Oak Street.



Photo 2: View northeast of the non-jurisdictional stormwater basin located south of Oak Street.



Photo 3: View northeast of Wetland 53 with 32 Line Pole 9 in the background for reference (red arrow).



Photo 4: View northwest of the plywood footbridge crossing of the overgrown perennial stream that connects Wetlands 53, 54, and 55.



Photo 5: View west of Wetland 54 taken from within the mowed grass area between the delineated portions of this wetland. Note the approximate location of the ill-defined gully between the natural wetland sections.



Photo 6: View north of the southern end of the densely overgrown scrub-shrub Wetland 55.

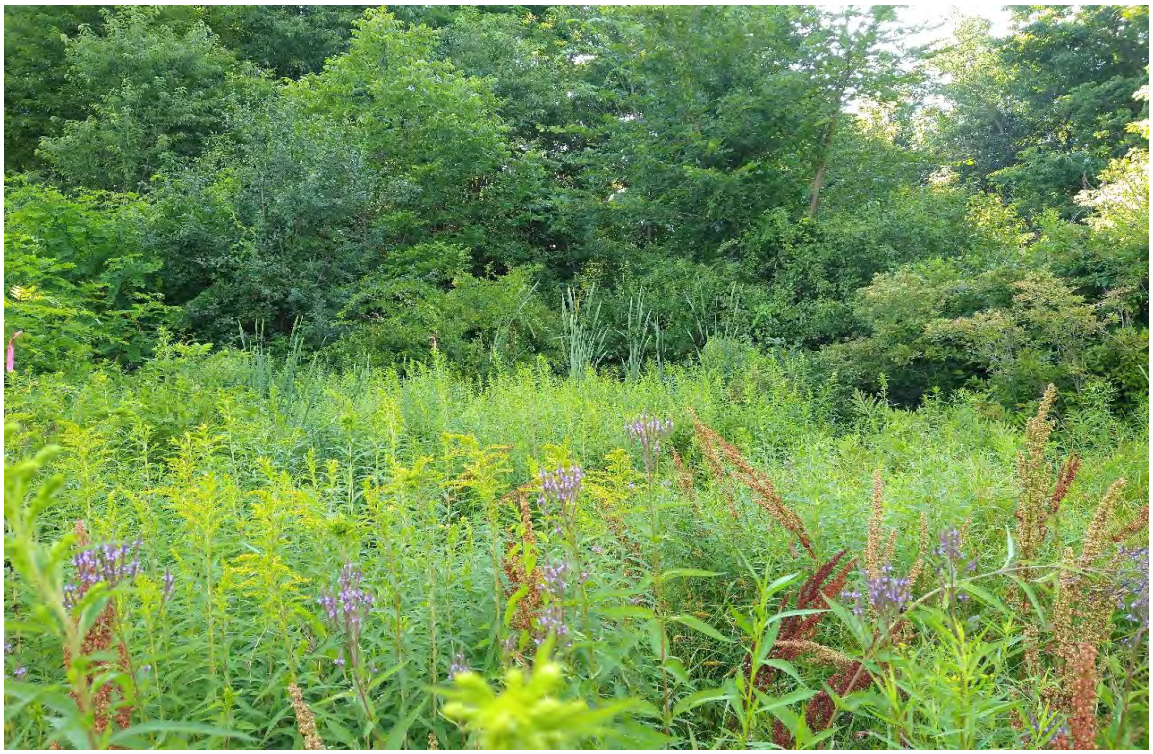


Photo 7: View northwest of the northern portion of Wetland 56.

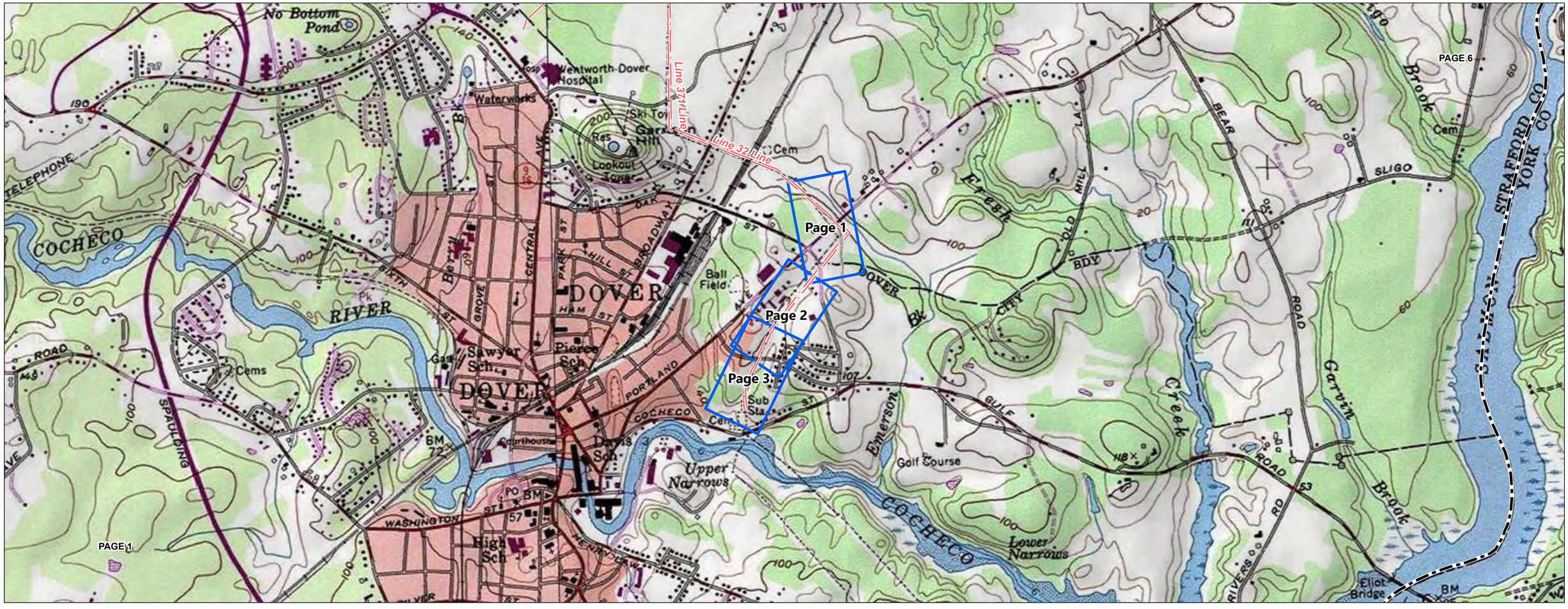


Photo 8: View northeast of the western edge of Wetland 57.

2022 - Line 32 and Line 371 - Structure Replacement Project

Dover, New Hampshire
Local Permitting Plans

Date: August 30, 2022



Page Index
Town Boundary
NH / ME Boundary
Overhead Eversource Lines

N

0 2,000 4,000 Feet

INDEX OF FIGURES

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Map Sheets 1-3

NO.	DATE	REVISIONS

PREPARED FOR:

EVERSOURCE ENERGY

13 Legends Drive
Hooksett, NH 03106

PREPARED BY:

vhb

2 Bedford Farms Drive Suite 200
Bedford, NH 03110

Project Plan Notes

Date Issued: August 30, 2022

1. This plan set is provided to show jurisdictional impacts and required environmental controls only. Engineering documents should be consulted to determine the scope and location of all other construction activities.

2. Applicant: Public Service Company of New Hampshire, (PSNH) d/b/a Eversource Energy, 13 Legends Drive, Hooksett NH 03106

3. Natural Resources along ROW were delineated by VHB under the supervision of Senior Wetland Scientist, Kristopher Wilkes, NH CWS #288, during the summer of 2022.

4. Wetland delineation was performed to the standards in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (January 2012).

5. Hydric soils were reviewed in accordance with Field Indicators for Identifying Hydric Soils in the United States, Version 8.2 published by the Natural Resources Conservation Service, and the Field Indicators for Identifying Hydric Soils in New England, Version 4.0 published by the New England Interstate Water Pollution Control Commission.

6. Dominant wetland vegetation was assessed using the 2018 National Wetland Plant List published by the U.S. Army Corps of Engineers.

7. Wetland classifications follow the USFWS methodology Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979, revised 1985).

8. Wetland work was performed utilizing a handheld GPS units capable of submeter accuracy.

9. Proposed construction limits of disturbance are approximate. Contractor is responsible for minimizing earth disturbance, as practicable.

10. The environmental controls shown on these plans may need to be supplemented due to season of work or work methods proposed. Refer to BMP manuals and additional guidance documents, as needed.

11. Erosion and sedimentation control measures shall be installed prior to start of work, shall be maintained, and shall remain in place during construction until all disturbed surfaces are stabilized. Following stabilization, erosion and sedimentation control measures shall be removed off-site and properly disposed.

12. Erosion and sedimentation controls shall be appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters. The type and installation method of erosion and sediment controls shall be in accordance with the Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire (March 2019), published by the New Hampshire Department of Natural & Cultural Resources, and Eversource BMP documents as applicable.

13. Temporary stone construction entrances will be used at points of construction ingress/egress from public and private roadways to reduce/eliminate sediment track-out.

14. The selected contractor is responsible for street sweeping at points of ingress/egress from public and private roadways.

15. Selected contractor will be responsible for certifying that all equipment on the project is clean of invasive species prior to arriving onsite. The contractor will also be responsible for cleaning equipment as it is moved within the project to reduce the risk of spreading invasive plant seeds and fragments.

16. Timber swamp matting shown on the plans represents the square footage and alignment of matting which is required and has been approved by the regulators. Additional layers of mats may be required at certain locations. Any increase in the number, change in alignment, or decision not to use swamp mats must be approved by the Permittee or an authorized representative of the Permittee(s) and, as appropriate, regulators.

17. Any excavated material shall be placed outside of jurisdictional areas or removed from the site.

18. If dewatering is required, dewatering basins shall be placed in uplands areas and discharge water into upland areas.

19. Areas of soil disturbance shall be stabilized following construction in accordance with the BMP Manual.



		EVERSOURCE ENERGY
		2022 - Line 32 and Line 371 - Structure Replacement Project
		Dover, NH
		Date: August, 2022
		vhb

Temporary Wetland Impact (SF)	Temporary Municipal Buffer Impact (SF)
23	941

371/14
32/13
371/15
32/14
371 Line
32 Line
371/13
371/16
32/15
32/12
W-51
PEM1E/PSS1E
PORTLAND AVE
ROLLINSFORD
OLD OAK ST
TEMPORARY WETLAND IMPACT
W-52 PEM1E/PSS1E:
23 SF
TEMPORARY MUNICIPAL BUFFER IMPACT:
941 SF
371/12
32/16
371/17
W-50
PEM1E/PSS1E
32/11
W-52
PEM1E/PSS1E
DOVER
371/18
32/17
371/11X
32/10Y
371/11
W-49
PEM1E/PSS1E
OAK ST
32/10
371/19
32/18
Emerson Brook

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- Delineated Intermittent Stream
- Delineated Perennial Stream
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- Man-made detention basin
- Potential Vernal Pool
- FEMA 100-Year Flood Zone
- FEMA Floodway
- 50-Foot Stream Buffer
- 50-Foot Wetland Buffer
- Temporary Municipal Wetland Impact
- Culvert
- Gate
- Fence
- Work Pad
- Temporary Construction Matting
- Sediment Control Barrier
- Railroad
- Map Sheet Matchline
- Eversource Owned Property
- Municipal Boundary
- Parcel Boundary
- >20% Slope
- 2' Contour
- 10' Contour

Note: Where municipal buffers overlap, only the buffer that extends out the farthest is shown.

N

1:1,200

0 50 100 Feet

Document Path:

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Line 32 and 371 Structure Replacement Project

Dover, NH | MAP SHEET 1 of 3

Date: August 2022

vhb

Temporary Wetland Impact (SF)	Temporary Municipal Buffer Impact (SF)
2,087	13,824

MOWED GRASS; SATURATED. ADDITIONAL MATTING RECOMMENDED.

TEMPORARY MUNICIPAL BUFFER IMPACT: 4,014 SF

TEMPORARY WETLAND IMPACT W-55 PSS1E: 417 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 916 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 689 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,321 SF

SPAN STREAM WITH MATS

TEMPORARY WETLAND IMPACT W-54 PEM1E/PSS1E: 1,179 SF

SPAN DITCH WITH MATS

TEMPORARY MUNICIPAL BUFFER IMPACT: 5,577 SF

TEMPORARY WETLAND IMPACT W-56 PEM1E/PSS1E 491 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,307 SF

DOVER

OLD OAK ST

OAK ST

ELMWOOD AVE

FAIRVIEW AVE

CROSS ST

DANBURY LN

ATLANTIC AVE

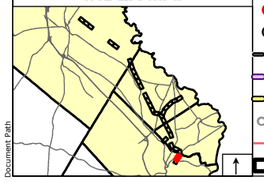
MAGNOLIA DR

GRANITE ST

PORTLAND AVE

32/10 371/10 W-53 PEM1E/PSS1E 32/9 371/9 32/8 32/7X SC-10 371/8 W-54 PEM1E/PSS1E 371/7 W-55 PSS1E 32/7 371/6 371 Line W-56 32/6 PEM1E/PSS1E 32 Line 32/5 371/5 371/4 32/4

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1:1,200

0 50 100 Feet

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NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Line 32 and 371 Structure Replacement Project

Dover, NH

MAP SHEET 2 of 3

Date: August 2022

vhb

Temporary Wetland Impact (SF)	Temporary Municipal Buffer Impact (SF)
0	135

ELMWOOD AVE
FAIRVIEW AVE
CROSS ST
DANBURY LN
ATLANTIC AVE
DOVER
TOWNSEND DR
MAGNOLIA DR

W-55 PSS1E
W-56 PEM1E/PSS1E
W-57 PEM1E
SC-1

371/1
371/2
371/3
371/4
371/5
371/6
371 Line
32/1
32/2
32/3
32/4
32 Line
32/5
32/6
3148X/1
3148X/2

IMPACTS QUANTIFIED ON PREVIOUS SHEET.
IMPACTS QUANTIFIED ON PREVIOUS SHEET.
TEMPORARY MUNICIPAL BUFFER IMPACT: 135 SF

Note: Where municipal buffers overlap, only the buffer that extends out the farthest is shown.

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1:1,200
0 50 100 Feet

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Line 32 and 371 Structure Replacement Project

Dover, NH | MAP SHEET 3 of 3

Date: August 2022

vhb

Document Path: