

TOWN OF EXETER, NEW HAMPSHIRE

10 FRONT STREET • EXETER, NH • 03833-3792 • (603) 778-0591 •FAX 772-4709 <u>www.exeternh.gov</u>

LEGAL NOTICE EXETER PLANNING BOARD AGENDA

The Exeter Planning Board will meet on Thursday, October 12, 2023 at 7:00 P.M. in the Nowak Room of the Exeter Town Office building located at 10 Front Street, Exeter, New Hampshire to consider the following:

APPROVAL OF MINUTES: September 28, 2023

The application(s) of TF Moran, Inc. (on behalf of C3I) for site plan review and Wetland and Shoreland Conditional Use Permits for the proposed construction of two (2), 2-story additions, on the east end and west end of the existing building, along with additional parking and associated site improvements. The subject property is located at 8 Commerce Way, in the I-Industrial zoning district. Tax Map Parcel #48-3. PB Case #23-13.

The application of Michael Lampert for a minor subdivision of the existing 3.8+/- acre parcel located at 158 Epping Road into two (2) lots. The subject parcel is located in the C-3, Epping Road Highway Commercial zoning district. Tax Map Parcel #47-1-2. PB Case#23-17.

OTHER BUSINESS

- Master Plan Discussion
- Land Use Regulations Review
- Field Modifications
- Bond and/or Letter of Credit Reductions and Releases

EXETER PLANNING BOARD

Langdon J. Plumer, Chairman

Posted 09/29/23: Exeter Town Office and Town of Exeter website

1	TOWN OF EXETER
2	PLANNING BOARD
3	NOWAK ROOM – TOWN OFFICE BUILDING
4	10 FRONT STREET
5	SEPTEMBER 28, 2023
6	DRAFT MINUTES
7	7:00 PM
8	I. PRELIMINARIES:
9	
10	BOARD MEMBERS PRESENT BY ROLL CALL: Chair Langdon Plumer, Vice Chair Aaron Brown,
11	John Grueter, Jennifer Martel, and Nancy Belanger Select Board Representative
12	CTAFF PRECENT TO BE A CITY OF THE PROPERTY OF
13	STAFF PRESENT: Town Planner Dave Sharples
14 15	II. CALL TO ORDER: Chair Plumer called the meeting to order at 7:00 PM and introduced the
16	members.
17	members.
18	III. OLD BUSINESS
19	III. GED BOSINESS
20	APPROVAL OF MINUTES
21	
22	September 11, 2023
23	
24	Mr. Grueter motioned to approve the September 14, 2023 minutes. Ms. Belanger seconded the
25	motion. A vote was taken, all were in favor, the motion passed 5-0-0.
26	
27	
28	IV. <u>NEW BUSINESS</u> :
29	1. Land Use Series – Town Planner Dave Sharples
30	
31	Mr. Sharples continued his educational workshop, Land Use Series. He noted that the last
32	workshops reviewed the benefits of undeveloped land and the benefits of undeveloped land.
33	He discussed the goal and benefits of developing land while having the least minimum impact
34	on undeveloped land. For this workshop Mr. Sharples indicated he would review current
35	zoning, the built environment and get feedback from Board members. Vice-Chair Brown asked
36	Mr. Sharples if he could email a copy of the presentation. Ms. Belanger asked if Mr. Sharples
37	could provide an update to her printed copy of the ordinance book.
38	

Mr. Sharples stated that site plan and subdivision regulations are combined in Exeter. He discussed how stormwater can be taken up by trees and provide flood storage and recharge groundwater, something that once land is cleared and paved it doesn't do anymore.

Mr. Sharples discussed the differences between use and area provisions in zoning districts. He discussed types of zoning districts, in residential, rural, industrial and commercial zones and the overlays that can also be present for aquifer protection, historic districts, shoreland protection, wetlands conservation and flood hazard.

 Mr. Sharples discussed how an applicant who doesn't agree with a determination made by the code enforcement officer or planning board can be appealed to the Zoning Board of Adjustment. The party can request a variance for something prohibited in the zoning ordinance or a particular zoning district, and a party can also request a special exception for something allowed by right in that zoning district, which has to then meet the specific criteria and be found to be compatible and not conflict with the rights of other property owners or the public.

Mr. Sharples explained different uses that are allowed in various zoning districts such as a medical office, schools, and businesses and explained where to find those lists in the zoning ordinance under each section.

Mr. Sharples explained how different zoning districts and overlays may have separate criteria for setbacks in the ordinance or could be grandfathered because they existed prior to zoning. There can be setbacks for side, front, rear, height and there can be lot sizes and density requirements for each district or overlay.

Mr. Sharples explained how a property owner in the historic district overlay goes through a process when making improvements or renovations to that structure and involving the Historic District Commission in that process.

Vice Chair Brown asked if every town had to allow all uses, such as adult entertainment and Mr. Sharples stated not all and noted if a use is silent in the ordinance, it is likely prohibited although he has seen some towns try to make a use fit somewhere such as one example in Concord where a gaming hall was allowed using the indoor recreational facility use.

Vice Chair Brown asked about cell towers and Mr. Sharples stated this is an example of where federal regulations come in as Exeter does not have a telecommunications ordinance.

Mr. Sharples noted Exeter currently has 18 districts, which he showed on the Exeter map, Nine are residential, five are commercial, two are corporate/technology, one is industrial, and one is healthcare (the hospital). He showed the greater density of downtown and described some

mixed uses, such as shops with apartments or condominiums, combined together within a structure. He showed some older neighborhoods which he described as dense, which predated zoning setback regulations. He noted some districts require a two-acre minimum, some three. Some open space developments after proving they can meet conventional density, will trade conserving open space conservation land for building homes closer or having smaller lot sizes and setbacks which in turn result in less cost to the developer and town for building or maintaining roadway and providing utility service. Mr. Sharples reviewed some of the conservation easement ownerships, some are town owned, some are private with easement to the town or HOA, some are through Southeast Land Trust. He noted some areas served by town sewer may have a different setback than someone needing their own septic design.

Vice Chair Brown asked about a parcel that is landlocked by wetlands and Mr. Sharples explained allowing a property owner what is considered a reasonable use. He noted it is up to the owner to go through the necessary channels to implement that use in an otherwise challenged property, such as getting permits from the state that need an application from Department of Environmental Services, for instance, to access over or through a wetland. Vice Chair Brown asked about the recent Supreme Court challenge to pocket wetlands. Ms. Belanger stated that she believed the case last year was Sackett v Environmental Protection Agency and had to do with non-contiguous wetlands. Mr. Sharples noted he was aware of the challenge to what are referred to as finger wetlands but has not had an opportunity to evaluate the change in interpretation to Exeter's ordinance. Mr. Sharples explained that the Town does not have specified wetlands mapped somewhere, that it is up to the privately contracted wetland scientist to flag those locations and provide the data to the developer or property owner. Mr. Sharples explained hundred-year flood terminology. He noted there is a 1% chance annually that the specific property could become inundated. He cited the Mother's Day Flood as one example.

Mr. Sharples explained single family residences and the definition of manufactured housing which is not allowed in every district. He noted some single-family or multi-family residences have been built in commercial zones by variance. He discussed Accessory Dwelling Units and Bed and Breakfast Uses by special exception in districts that allow them. He discussed briefly what are conversions. Mr. Sharples discussed the different residential districts, some of which allow multi-family. He showed one district, R-6, which was zoned 55 and over. He discussed Jady Hill in the R-3 district and zoning that concerns height, 25' instead of 35' although noticeably some residents predated that zoning requirement.

Mr. Sharples noted that this was a review of Exeter's current zoning district configuration which there will be a warrant article, possibly on the ballot next year, to simplify, and he will review that article again in coming meetings. There was public outreach on it last year. He noted a lot

118	of owners are burdened by non-conforming lots and need a variance to do anything. Vice Chair					
119	Brown agreed that process can be intimidating for some.					
120 121	Mr. Sharples asked the Board to consider how they felt about mixed uses. Vice Chair Brown					
122		noted it makes a lot of sense if they are compatible, but the zoning needs to hold up. Ms.				
123 124		reed. Vice Chair Brown noted that some multi family dwellings have more of a				
125	transient nature to them that may impact the character of a neighborhood versus single-family owner occupied.					
126	OWITCH OCCU	picu.				
127	VI. OTHER I	BUSINESS				
128 129	•	Master Plan Discussion				
130	•	Field Modifications				
131						
132	•	Bond and/or Letter of Credit Reductions and Release				
133						
134	VII. TOWN	PLANNER'S ITEMS				
135	VIII. CHAIR	PERSON'S ITEMS				
136	IX. PB REPR	RESENTATIVE'S REPORT ON "OTHER COMMITTEE ACTIVITY"				
137 138	_	er reminded that there will be an All Board's Meeting on Wednesday, October 11 th to Know Law workshop on Wednesday, October 18 th .				
139	Ms. Belange	er announced there will be an open house at town hall on October $4^{ ext{th}}$ from 12-2 and				
140	4-8 regardin	ng the parking and pedestrian plan.				
141	X. ADJOURN					
142	Vice Chair Brown motioned to adjourn the meeting at 9:22 PM. Ms. Belanger seconded the					
143	motion. A v	ote was taken, all were in favor, the motion passed 5-0-0.				
144						
145	Respectfully	submitted.				
146	Daniel Hoije	er,				
147	Recording S	ecretary				
148	Via Exeter T	V				

TOWN OF EXETER



Planning and Building Department

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

www.exeternh.gov

Date: October 5, 2023

To: Planning Board

From: Dave Sharples, Town Planner

Re: TF Moran, Inc. (for C3I) PB Case #23-13

The Applicant is seeking site plan approval for the proposed expansion of the C3I building at 8 Commerce Way. The Applicant is proposing to construct two, 2-story additions, on the east end and west end of the existing building, along with additional parking and associated site improvements. The subject property is located in the I-Industrial zoning district and is identified as Tax Map Parcel #48-3.

The Applicant has submitted applications for site plan review, Wetland and Shoreland Condition Use Permits, plans and supporting documents, dated August 11th, 2023 which are enclosed for your review.

The Applicant appeared before the Conservation Commission at their August 8th, 2023 meeting to present their Wetland and Shoreland Conditional Use Permit applications. The Commission had no objections to either of the applications. Please see attached memo from Conservation & Sustainability Planner Kristen Murphy, dated August 27, 2023.

A Technical Review Committee meeting was held on September 14th, 2023. Minimal TRC comments were provided and so noted by the Applicant at that meeting (no TRC comment letter was provided). A copy of the UEI comment letter, dated September 14, 2023 is enclosed for your review.

The Applicant has submitted revised plans and supporting documents, dated October 4, 2023 addressing the TRC and UEI comments. These materials have also been enclosed for your review. Staff is still in the process of reviewing the materials. I will provide an update at the meeting if additional comments and concerns are received.

The Applicant was initially requesting two waivers from the Board's Site Plan Review & Subdivision Regulations from the requirements to provide EV charging stations and granite/concrete curbing for traffic control and planting islands. Subsequently, the Applicant has agreed to forgo the previous mentioned waivers and has submitted a revised waiver request letter, dated October 4th, 2023 which is enclosed for your review.

In the event the board chooses to hold a site walk, I will ask the applicant to mark out the important features of the site. I will be prepared with suggested conditions of approval at the meeting in the event the board decides to act on the request and forego a site walk.

Waiver Motions:

Landscape Islands within /Parking Lots waiver motion: After reviewing the criteria for granting waivers, I move that the request of TF Moran, Inc. (for C3I) (PB Case #23-13) for a waiver from Section 9.7.5.5 of the Site Plan Review and Subdivision Regulations regarding landscape islands be provided in parking lots between every 10 to 15 spaces to avoid long rows of parked cars be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

Shoreland Protection District – Use of Fertilizer: After reviewing the criteria for granting waivers, I move that the request of TF Moran, Inc (for C3I) (PB Case #23-13) for a waiver from Section Article 9.3.4.F. 12 of the Zoning Ordinance regarding the use of fertilizer in the Shoreland Protection District be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

Planning Board Motions:

Conditional Use Permit (Wetlands) Motion: After reviewing the criteria for a Wetlands Conditional Use permit, I move that the request of TF Moran, Inc. (for C3I) (PB Case #23-13) for a Conditional Use Permit be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

Conditional Use Permit (Shoreland) Motion: After reviewing the criteria for a Shoreland Conditional Use permit, I move that the request of TF Moran (for C3I) (PB Case #23-13) for a Conditional Use Permit be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

Site Plan Motion: I move that the request of TF Moran, Inc. (for C3I) (PB Case #23-13) for Site Plan approval be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

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Enclosures

TOWN OF EXETER CONSERVATION COMMISSION MEMORANDUM

Date: August 27, 2023
To: Exeter Planning Board

From: Kristen Murphy for Andrew Koff, Chair, Exeter Conservation Commission

Subject: Wetland and Shoreland Conditional Use Permit

Project Information:

Project Location: 8 Commerce Way, Exeter, NH

Map/Lot: Map 48, Lot 3

<u>CC Review Date</u>: 7/11/23 <u>PB CASE</u>: #23-13

The Conservation Commission conducted a site walk to the property at 5:30 PM prior to the August 8th meeting.

Following the site walk and presentation of the project by the applicant's representatives at the meeting, the Commission voted no objection to the shoreland conditional use permit as proposed which passed 6-0 with one abstention. They also voted no objection to approval of the wetland conditional use permit which passed 6-0 with one abstention.

Kristen Murphy

Conservation & Sustainability Planner

Swite Murphy

civil & environmental engineering



2982.00

September 14, 2023

Mr. David Sharples, Town Planner Town Planning Office, Town of Exeter 10 Front Street Exeter, NH 03833

Re: C3I Building Expansion

Design Review Engineering Services

Exeter, New Hampshire

Site Information:

Tax Map/Lot#:

48/3

Review No. 1

Address:

8 Commerce Way

Lot Area:

6.21Acres

Proposed Use:

Industrial

Water:

Town

Sewer:

Town

Zoning District:

I (Industrial)

Applicant:

C-Marine Dynamics Realty, Inc.

Design Engineer:

TFM

Application Materials Received:

- Site plan set entitled "Site Development Plans" last revised August 8, 2023 prepared by TFM
- Site plan application materials prepared by TFM
- Drainage report prepared by TFM

Dear Mr. Sharples:

Based on our review of the above information, in addition to comments provided by the Town, we offer the following comments in accordance with the Town of Exeter Regulations and standard engineering practice.

General

- 1. Professional stamps should be added per the Town regulations on the final plan set.
- 2. The applicant should confirm the number of new employees, if any, that the proposed addition will require/support.

- 3. It is noted no changes are proposed to the water or sewer service.
 - Provide design flows and applicable calculations for the sewer pump station and 1.5" FM.
 - Per the TRC meeting, it does not appear that the proposed "cafeteria" as shown on the plan, will warrant a grease trap be added in-line of the sewer system. Please confirm.
 - Confirm the size of the existing water and fire services are sufficient to serve the new building footprint.
- **4.** Some coordination is required between the loaming, seeding and fertilizing notes to convey the intent of the applicant in terms of loam depth and fertilizer applications, specifically starter fertilizer (in Hydroseeding) within the resource buffers and any waivers to Exeter regulations that may be required for starter fertilizer within the buffer.

Existing Conditions Plan

5. The existing SMH should be labeled as a pump station. In addition, the existing sewer service label should be changed from 8" PVC to 1.5" FM, and the linetype should be revised to reflect it is an existing pipe.

Site Plan

- **6.** Dimension the loading lane.
- 7. It is noted that no additional HC parking spaces will be provided. Please confirm the two existing spaces are sufficient to meet regulations.
- 8. We recommend the radius of the entrance to the spur parking area be increased to 15' min.
- **9.** Show the new locations of the relocated shed and Conex box.
- **10.** All exterior doors should be shown on the building outline.
- 11. The stone drip edge should be broken at the location of the westerly exterior door. Will a sidewalk be extended to this location?
- **12.** The building outline doesn't fully match the floor plans and elevations shown on the architectural plans. Coordination is needed.

Grading and Drainage Plan

- 13. Please revise the Construction Sequencing Notes (For Alteration of Terrain) to either incorporate them into the general Construction Sequencing Notes or relabel as Project Specific Construction Sequencing Notes.
- **14.** Consider adding a table of riprap apron dimensions.
- **15.** Please add a note requiring that the retaining wall be designed by a structural engineer licensed in NH.



Page 3 of 3 David Sharples September 14, 2023

Detail Sheets

16. The following details should be added:

- Lined concrete washout pit
- Slope stabilization
- Concrete dumpster pad
- Curbing
- Drainage pipe trench

Stormwater Design and Modeling

17. PTAP Database: This project requires registration with the PTAP Database. The Applicant is requested to enter project related stormwater tracking information contained in the site plan application documents using the Great Bay Pollution Tracking and Accounting Program (PTAP) database (www.unh.edu/unhsc/ptapp) and submit the information with the resubmitted response to comments.

A written response is required to facilitate future reviews. Please contact us if you have any questions.

Very truly yours,

UNDERWOOD ENGINEERS, INC.

Allison M. Rees, P.E. Project Manager

AMR:scc

Robert J. Saunders, P.E. Senior Project Engineer







October 4, 2023

Dave Sharples, Town Planner Town of Exeter 10 Front Street Exeter, NH 03833 DSharples@ExeterNH.gov

Re: C3I – 8 Commerce Way – October 12, 2023, Planning Board Meeting

TFMoran Project: 47201.03

Dear Dave,

On behalf of our client C-Marine Dynamics Reality, LLC, we are submitting the following plans and material for review by the Planning Board. Included with this letter are the following materials:

-	15 Copies –	Letter of Authorization;
-	15 Copies –	Site Plan Application;
-	15 Copies –	Response to UEI and TRC Comments;

- 15 Copies – Waiver Request;

15 Copies – Shoreland CUP Application;
 15 Copies – Shoreland Response to Criteria;

15 Copies – Wetland CUP Application;

- 15 Copies - Enhanced Biofiltration with Internal Storage Reservoir BMP Performance Curve;

15 Copies – Wetland Response to Criteria;

15 Copies – Wetland Delineation and Function-Value Report;

2 Copies – Drainage Analysis Report;
 15 Copies – Drainage Summary Report;
 15 Copies – Traffic Memorandum;
 15 Copies – PTAPP Worksheet

5 Copies – 22" x 34" copy of the Site Development Plans Prepared for C-Marine Dynamics Realty, LLC, 8 Commerce Way, Exeter, NH, County of Rockingham, Owned by C-Marines Dynamic Realty, LLC, dated April 14, 2023;

- 10 Copies - 11" x 17" copy of the Site Development Plans Prepared for C-Marine Dynamics Realty, LLC, 8 Commerce Way, Exeter, NH, County of Rockingham, Owned by C-Marines Dynamic Realty, LLC, dated April 14, 2023;

- 5 Copies – 22" x 34" Architectural Elevations and Floor Plans.

- 15 Copies – 11" x17" Architectural Elevations.

- With our Technical Review Committee submission we included the fees and the abutters list and mailing labels.



Dave Sharples October 4, 2023

Our project consists of an expansion of the existing facility, including an addition in on the east end and west end of the existing building, other improvements include additional parking and stormwater improvements, at 8 Commerce Way, Exeter, NH (Tax Map 48. Lot 3). This is a 6.26 acre parcel in the Industrial (I) Zoning District, Wetland Conservation District and Exeter Shoreland Protection District. The majority of this property abuts existing wetland areas. There are no proposed wetland impacts as part of this project, however there are some impacts proposed to the wetland and shoreland buffer. Except for a small portion of the parking area in the wetland and shoreland buffers, the majority of the proposed buffer impacts are for stormwater Best Management Practices (BMP's) to treat and attenuate stormwater flows.

To provide high nitrogen treatment, bioretention areas with internal storage reservoirs (IRS) are being proposed. These systems provided a water quality volume (WQV), the total nitrogen (TN) removal efficiency (RE) is greater than the required 75%. The total phosphorous (TP) removal efficiency is greater than 75% and the total suspended solids (TSS) is in the high 98% removal efficiency. We have attached the BMP performance curve with the removal efficiencies for this system. These treatment efficiencies all meet or exceed the Town standards.

We look forward to discussing this project with you and the rest of the Planning Board on October 12, 2023.

Sincerely,

TFMoran, Inc.

Jack McTigue, PE, CPESO

Project Manager

/JJM

cc: Charles Wagner, Joe Ricci





Authorization

On behalf of C-Marine Dynamics Realty, LLC., owner of land located at 8 Commerce Way, Exeter, New Hampshire, identified as Tax Map 48, Lot 3, this is to confirm authorization for TFMoran, Inc. (TFM) to sign applications as the applicant and represent the owner as an authorized representative. TFM is an authorized representative to join in the application of C-Marine Dynamics Realty, LLC. before the Town of Exeter Technical Review Committee, Town of Exeter Planning Board, and/or any other local, state or federal government or entity.

C-Marine Dynamics Realty, LLC. Exeter, Tax Map 48, Lot 3

Signature:

Printed Name:

Date: _

Town of Exeter



Planning Board Application for Site Plan Review

October 2019



TOWN OF EXETER, NH APPLICATION FOR SITE PLAN REVIEW

			OFFICE USE ONLY
((<u>)</u>	HIS IS AN APPLICATION FOR:) COMMERCIAL SITE PLAN REVIEW (x) INDUSTRIAL SITE PLAN REVIEW) MULTI-FAMILY SITE PLAN REVIEW) MINOR SITE PLAN REVIEW) INSTITUTIONAL/NON-PROFIT SPR		APPLICATION # DATE RECEIVED APPLICATION FEE PLAN REVIEW FEE ABUTTERS FEE LEGAL NOTICE FEE TOTAL FEES
			INSPECTION FEEINSPECTION COSTREFUND (IF ANY)
1.	NAME OF LEGAL OWNER OF RECORD		ine Dynamics Realty, LLC TELEPHONE: (603) 436-3112
	ADDRESS: 11 Fifield Ln, Stratham, NH	03885	
2.	NAME OF APPLICANT: _Jack McTigue/ _		Inc.
	ADDRESS: 170 Commerce Way, Suite 10	2, Portsm	outh, NH 03801
	·		LEPHONE: (603) 431-2222
3.	RELATIONSHIP OF APPLICANT TO PRO	OPERTY I	F OTHER THAN OWNER:
	Agent for Owner		
	(Written permission from Owner is required, pl	lease attacl	1.)
4.	DESCRIPTION OF PROPERTY: Current	t use is Of	fice Space and Light Industrial
	ADDRESS: 8 Commerce Way, Exeter, NF	H 03833	
	TAX MAP: 48 PARCEL#:	3	ZONING DISTRICT: Industrial
	ADEA OF ENTIDE TDACT. 622 Acres	DODT	CION REING DEVELOPED: 40,000+/- sq. ft.



5.	ESTIMATED TOTAL SITE DEVELOPMENT COST \$5,000,000
6.	EXPLANATION OF PROPOSAL: To add two, 2-story, 4,000 square foot footprint additions to
	the site. 22 new parking spaces will be required to accommodate the additional professional space.
7.	ARE MUNICIPAL SERVICES AVAILABLE? (YES/NO) Yes
	If yes, Water and Sewer Superintendent must grant written approval for connection. If no, septic system must comply with W.S.P.C.C. requirements.
8.	LIST ALL MAPS, PLANS AND OTHER ACCOMPANYING MATERIAL SUBMITTED WITH THIS APPLICATION:
	A. Waiver Request NUMBER OF COPIES 5
	B. Shoreland CUP / Wetland CUP 5
	C. Drainage Analysis Report 2
	D. Drainage Summary Report 5
	E. Traffic Memo 5
	F. Site Development Plans and Architectural Elevations. 5
	(See the included Cover Letter for a More Detailed List)
9.	ANY DEED RESTRICTIONS AND COVENANTS THAT APPLY OR ARE CONTEMPLATED (YES/NO) No IF YES, ATTACH COPY.
10.	NAME AND PROFESSION OF PERSON DESIGNING PLAN:
	NAME: _ Jack McTigue, PE / TFMoran
	ADDRESS: 170 Commerce Way, Suite 102, Portsmouth, NH 03801
	<u> </u>
	PROFESSION: Professional Engineer TELEPHONE: (603) 431-2222
11.	LIST ALL IMPROVEMENTS AND UTILITIES TO BE INSTALLED:
	Tow additions, each with a 4,000 sf footprint
	Additional parking spaces meeting town requirements
	Two Bioretention Areas and related drainage



12. HAVE ANY SPECIAL EXCEPTIONS OR VARIANCES BEEN GRANTED BY THE ZONING BOARD OF ADJUSTMENT TO THIS PROPERTY PREVIOUSLY?

NOTICE: I CERTIFY THAT THIS APPLICATION AND THE ACCOMPANYING PLANS AND SUPPORTING INFORMATION HAVE BEEN PREPARED IN CONFORMANCE WITH ALL APPLICABLE REGULATIONS; INCLUDING BUT NOT LIMITED TO THE "SITE PLAN REVIEW AND SUBDIVISION REGULATIONS" AND THE ZONING ORDINANCE. FURTHERMORE, IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 15.2 OF THE "SITE PLAN REVIEW AND SUBDIVISION REGULATIONS", I AGREE TO PAY ALL COSTS ASSOCIATED WITH THE REVIEW OF THIS APPLICATION.

DATE 8/11/23 OWNER'S SIGNATURE

ACCORDING TO RSA 676.4.I (c), THE PLANNING BOARD MUST DETERMINE WHETHER THE APPLICATION IS COMPLETE WITHIN 30 DAYS OF SUBMISSION. THE PLANNING BOARD MUST ACT TO APPROVE, CONDITIONALLY APPROVE, OR DENY AN APPLICATION WITHIN SIXTY FIVE (65) DAYS OF ITS ACCEPTANCE BY THE BOARD AS A COMPLETE APPLICATION. A SEPARATE FORM ALLOWING AN EXTENSION OR WAIVER TO THIS REQUIREMENT MAY BE SUBMITTED BY THE APPLICANT.



ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW

HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S

RECORDS.

TAX MAP Civil Engineers / Surveyor NAME TFMoran, Inc. ADDRESS 170 Commerce Way - Suite 102 Portsmouth, NH 03801	TAXMAP Environmental/Wetlands Scientist NAME Gove Environmental Services, Inc ADDRESS 8 Continental Drive - Bldg H Unit 2, Exeter, NH 03833
TAX MAP Architect NAME Brandon M Holben, A/A ADDRESS 7 Wallingford Square - Unit 2099 Kittery, ME 03904	TAX MAP Locus 48, Lot 3 NAME C Marine Dynamics Realty LLC ADDRESS 11 Fifield Lane, Stratham, NH 03885
TAX MAP 39, Lot 2 NAME Town of Exeter Conservation Com. ADDRESS 10 Front Street, Exeter, NH 03833	TAXMAP 39, Lot 3 NAME Town of Exeter Conservation Com. ADDRESS 10 Front Street, Exeter, NH 0383
TAX MAP 47, Lot 9 NAME CKT Associates ADDRESS 158 Shattuck Way, Newington NH 03801	TAX MAP 47, Lot 11 NAME Boat of Garten LLC ADDRESS PO Box 4430, Manchester, NH 03108
NAME Northeast Distribution LTD ADDRESS 11 Commerce Way, Exeter, NH 03833	TAX MAP <u>48, Lot 4-1</u> NAME <u>Jamris Realty LLC</u> ADDRESS <u>6 Commerce Way, Exeter, NH</u> 03833
TAX MAP 49, Lot 8 NAME Town of Exeter Henderson Swasey Forest ADDRESS 10 Front Street, Exeter, NH 03833	TAX MAP NAME ADDRESS
TAX MAPNAMEADDRESS	TAX MAP NAME ADDRESS
TAX MAPNAMEADDRESS	TAX MAP NAME ADDRESS
TAX MAPNAMEADDRESS	TAX MAPNAMEADDRESS

Please attach additional sheets, if needed



SITE PLAN REQUIREMENTS

7.4 Existing Site Conditions Plan

Submission of this plan will not be applicable in all cases. The applicability of such a plan will be considered by the TRC during its review process as outlined in Section 6.5 Technical Review Committee (TRC) of these regulations. The purpose of this plan is to provide general information on the site, its existing conditions, and to provide the base data from which the site plan or subdivision will be designed. The plan shall show the following:

ADDLICANT	TDC	DEOLUDED EVIUDITO
APPLICANT	TRC	REQUIRED EXHIBITS
X		7.4.1 Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan.
x		7.4.2 Location of the site under consideration, together with the current names and addresses of owners of record, of abutting properties and their existing land use.
x		7.4.3 Title, date, north arrow, scale, and Planning Board Case Number.
X		7.4.4 Tax map reference for the site under consideration, together with those of abutting properties.
x		7.4.5 Zoning (including overlay) district references.
X		7.4.6 A vicinity sketch or aerial photo showing the location of the land/site in relation to the surrounding public street system and other pertinent location features within a distance of 2,000-feet, or larger area if deemed necessary by the Town Planner.
x		7.4.7 Natural features including watercourses and water bodies, tree lines, significant trees (20-inches or greater in diameter at breast height) and other significant vegetative cover, topographic features, and any other environmental features that are important to the site design process.
x		7.4.8 Man-made features such as, but not limited to, existing roads, structures, and stonewalls. The plan shall also indicate which features are to be retained and which are to be removed or altered.
x		7.4.9 Existing contours at intervals not to exceed 2-feet with spot elevations provided when the grade is less than 5%. All datum provided shall reference the latest applicable US Coast and Geodetic Survey datum and should be noted on the plan.
X		7.4.10 A High Intensity Soil Survey (HISS) of the entire site, or appropriate portion thereof. Such soil surveys shall be prepared by a certified soil scientist in accordance with the standards established by the Rockingham County Conservation District. Any cover letters or explanatory data provided by the certified soil scientist shall also be submitted.



x	7.4.11 State and Federally designated wetlands, setback information, total wetlands proposed to be filled, other pertinent information and the following wetlands note: "The landowner is responsible for complying with all applicable local, state, and federal wetlands regulations, including any permitting and setback requirements required under these regulations."
x	7.4.12 Surveyed property lines including angles and bearings, distances, monument locations, and size of the entire parcel. A professional land surveyor licensed in New Hampshire must attest to said plan.
X	7.4.13 The lines of existing abutting streets and driveway locations within 200-feet of the site.
x	7.4.14 The location, elevation, and layout of existing catch basins and other surface drainage features.
x	7.4.15 The shape, size, height, location, and use of all existing structures on the site and approximate location of structures within 200-feet of the site.
x	7.4.16 The size and location of all existing public and private utilities, including off-site utilities to which connection is planned.
x	7.4.17 The location of all existing easements, rights-of-way, and other encumbrances.
x	7.4.18 All floodplain information, including the contours of the 100-year flood elevation, based upon the Flood Insurance Rate Map for Exeter, as prepared by the Federal Emergency Management Agency, dated May 17, 1982.
x	7.4.19 All other features which would fully explain the existing conditions of the site.
x	7.4.20 Name of the site plan or subdivision.



7.5 Proposed Site Conditions Plan (Pertains to Site Plans Only)

The purpose of this plan is to illustrate and fully explain the proposed changes taking place within the site. The proposed site conditions plan shall depict the following:

APPLICANT	TRC	REQUIRED EXHIBITS
X		7.5.1 Proposed grades and topographic contours at intervals not to exceed 2-feet with spot elevations where grade is less than 5%. All datum provided shall reference the latest applicable US Coast and Geodetic Survey datum and should be noted on the plan.
X		7.5.2 The location and layout of proposed drainage systems and structures including elevations for catch basins.
X		7.5.3 The shape, size, height, and location of all proposed structures, including expansion of existing structures on the site and first floor elevation(s). Building elevation(s) and a rendering of the proposed structure(s).
NA	X	7.5.4 High Intensity Soil Survey (HISS) information for the site, including the total area of wetlands proposed to be filled.
X		7.5.5 State and Federally designated wetlands, setback information, total wetlands proposed to be filled, other pertinent information and the following wetlands note: "The landowner is responsible for complying with all applicable local, state, and federal wetlands regulations, including any permitting and setback requirements required under these regulations."
NA		7.5.6 Location and timing patterns of proposed traffic control devices.
NA		7.5.7 The location, width, curbing and paving of all existing and proposed streets, street rights-of-way, easements, alleys, driveways, sidewalks and other public ways. The plan shall indicate the direction of travel for one-way streets. See Section 9.14 – Roadways, Access Points, and Fire Lanes for further guidance.
X		7.5.8 The location, size and layout of off-street parking, including loading zones. The plan shall indicate the calculations used to determine the number of parking spaces required and provided. See Section 9.13 – Parking Areas for further guidance.
X		7.5.9 The size and location of all proposed public and private utilities, including but not limited to: water lines, sewage disposal facilities, gas lines, power lines, telephone lines, cable lines, fire alarm connection, and other utilities.
X		7.5.10 The location, type, and size of all proposed landscaping, screening, green space, and open space areas.
X		7.5.11 The location and type of all site lighting, including the cone(s) of illumination to a measurement of 0.5-foot-candle.
X		7.5.12 The location, size, and exterior design of all proposed signs to be located on the site.
NA		7.5.13 The type and location of all solid waste disposal facilities and accompanying screening.

^{*} No HISS provide. Site is serviced my Municipal Sewer. Site Specific Soil are provide.



X	7.5.14 Location of proposed on-site snow storage.
NA	7.5.15 Location and description of all existing and proposed easement(s) and/or right-of-way.
X	7.5.16 A note indicating that: "All water, sewer, road (including parking lot), and drainage work shall be constructed in accordance with Section 9.5 Grading, Drainage, and Erosion & Sediment Control and the Standard Specifications for Construction of Public Utilities in Exeter, New Hampshire". See Section 9.14 Roadways, Access Points, and Fire Lanes and Section 9.13 Parking Areas for exceptions.
X	7.5.17 Signature block for Board approval

OTHER PLAN REQUIREMENTS (See Section indicated)

- \mathbf{X} 7.7 Construction plan
- 7.8 Utilities plan \mathbf{X}
- 7.9 Grading, drainage and erosion & sediment control plan \mathbf{X}
- 7.10 Landscape plan \mathbf{X}
- 7.11 Drainage Improvements and Storm Water Management Plan \mathbf{X}
- X 7.12 Natural Resources Plan Wildlife Function and Value Report Provided.
- 7.13 Yield Plan





October 4, 2023

Dave Sharples, Town Planner Town of Exeter 10 Front Street Exeter, NH 03833 DSharples@ExeterNH.gov

Re: C3I – 8 Commerce Way – Response to comments from the September 14, 2023, Technical Review Committee and Underwood Engineers, Inc September 14, 2023, comment letter.

TFMoran Project: 47201.03

Dear Dave:

On behalf of our client C-Marine Dynamics Reality, LLC, TF Moran, Inc. (TFM) respectfully submits the following response to comments to the Underwood Engineers, Inc (UEI) comment letter dated September 14, 2023. Also included are responses from the Technical Review Committee (TRC) from the September 14, 2023, meeting.

To facilitate your review of the plans, we have provided the Technical Advisory Committee (TAC) and the staff comments along with our responses which are shown in **bold blue italics**.

Underwood Engineers, Inc (UEI) comment letter dated September 14, 2023

- 1. Professional stamps should be added per the Town regulations on the final plan set.
 - Plans have been stamped.
- The applicant should confirm the number of new employees, if any, that the proposed addition will require/support.
 - There will be additional office workers, requiring additional parking.
 - We confirmed with C3I that no additional employees will be working in the industrial portion of the building and additions.
- 3. It is noted that there are no changes proposed to the water or sewer service.
 - Provide design flows and applicable calculations for the sewer pump station and 1.5"
 FM.
 - The future pump flows have been reviewed with the pump manufacturer representative and they confirmed the pump is adequate for these new flows. A Town Sewer Connection Permit will be filed for the additional flow following the Planning Boards Approval.



- Per the TRC meeting, it does not appear that the proposed "cafeteria" as shown on the plan, will warrant a grease trap be added in-line of the sewer system. Please confirm.
 - The "cafeteria" as shown on the plan is just an office kitchen area. No food is being commercially prepared or sold here. NHDES considers these break rooms.
- Confirm the size of the existing water and fire services are sufficient to serve the new building footprint.
 - We are in the process of confirming that the existing water main is adequate for the additions with the plumbing contractor. We hope to have the answer by the time of the Public Hearing.
- 4. Some coordination is required between the loaming, seeding and fertilizing notes to convey the intent of the applicant in terms of loam depth and fertilizer applications, specifically stater fertilizer (in Hydroseeding) within the resource buffers and any waivers to Exeter regulations that may be required for starter fertilizer within the buffer.
 - The individual loaming and seeding notes were moved to the landscape plan, except the vegetation notes on the erosion control sheet. These reference the loam and seed notes on the landscape plan.

Existing Conditions Plan

- 5. The existing SMH should be labeled as a pump station. In addition, the existing sewer service label should be changed from 8" PVC to 1.5" FM, and the linetype should be revised to reflect it is an existing pipe.
 - Label is updated. (See Sheet S-01.)

Site Plan

- 6. Dimension of the loading lane.
 - Dimensions have been added. (See Sheet C-04.)
- 7. It is noted that no additional HC parking spaces will be provided. Please confirm the two existing spaces are sufficient to meet regulations.
 - ADA Calculations have been revised. One additional ADA space has been provided.
- 8. We recommend the radius of the entrance to the spur parking area be increased to 15' min.
 - The outside curve of the spur parking radius has been increased to 15'. (See Site Plan, Sheet C-04).
- 9. Show the new locations of the relocated shed and Conex box.
 - These are both being removed. The notes have been updated on the Site Preparation,
 Sheet C-03.
- **10.** All exterior doors should be shown on the building outline.
 - Exterior doors have been added. (See Sheet C-04.)

- 11. The stone drip edge should be broken at the location of the westerly exterior door. Will a sidewalk be extended to this location?
 - A sidewalk is shown on the western addition and the stone drip edge has been updated.
 The underdrain pipe still connects these two drip edges to the same outlet. (See Site Plan, Sheet C-04).
- 12. The building outline doesn't fully match the floor plans and elevations shown on the architectural plans. Coordination is needed.
 - The western addition has been updated to reflect the slightly smaller size. (See Site Plan, Sheet C-04).

Grading and Drainage Plan

- 13. Please revise the Construction Sequencing Notes (For Alteration of Terrain) to either incorporate them into the general Construction Sequencing Notes or relabel as Project Specific Construction Sequencing Notes.
 - Major Sequence of Construction Notes have been revised to refer to Construction Sequencing Notes on the Site Preparation Sheet, C-3.
- 14. Consider adding a table of riprap apron dimensions.
 - See Details Plan, Sheet C-14.
- 15. Please add a note requiring that the retaining wall be designed by a structural engineer licensed in NH
 - See General Note 12 on Sheet C-01.

Site Plan

- **16.** The following details should be added:
 - Lined concrete washout pit (*See Details*, *Sheet C-13*).
 - Slopestabilization (See Details, Sheet C-12 and Erosion and Sediment Controls and Stabilization Practices on sheet C-7).
 - Concrete dumpster pad (See Details, Sheet C-12).
 - Curbing (See Details, Sheet C-13).
 - Drainage pipe trench (See Details, Sheet C-13).

Stormwater Design and Modeling

- 17. PTAP Database: This project requires registration with the PTAP Database. The Applicant is requested to enter project related stormwater tracking information contained in the site plan application documents using the Great Bay Pollution Tracking and Accounting Program (PTAP) database (www.unh.edu/unh sc/ptapp) and submit the information with the response to comments.
 - PTAP has been completed and the worksheet is included.

<u>Technical Review Committee (TRC) Comments from the September 14, 2023</u>

- 1. Add EV Conduit to Plan
 - Conduit has been added to the Site Plan. (See Sheet C-04).
 - a. Add 40-amm Breaker to Box
 - A spot for a 40-amp breaker will be reserved for future AV charging.

- 2. Revised Vegetative Notes to include Fertilization Restrictions
 - Have been revised. (See Vegetative Practice, note 8 on the Erosion Control Sheet C-07)
- 3. Add Screened Loam to Loam Note on C-1 Grading and Drainage Noe 19.
 - Loam note has been revised. (See Landscape Plan C-09).
- 4. Waivers
 - a. Add Fertilization Waiver
 - b. Remove Asphalt Curb Waiver
 - c. Remove EV Parking Waiver0
 - d. For Parking Relief for More Than 15 Spaces
 - Waiver request has been updated.
 - Waivers on Cover Sheet have been updated.
- 5. Add All Trees Over 20" diameter at breast height (DBH)
 - a. Mark up To Be Removed (TBR) on Design Plans.
 - Trees over 20" DBH have been shown on the pan with removal notes as needed.

We trust the above responses satisfy the concerns expressed in the Staff Memorandum. We look forward to presenting the project to you at the October 12, 2023, Planning Board Meeting.

Sincerely,

TFMoran, Inc.

Jack/McTigue, PF, CPESC

Project Manager

/JJM

cc: Charles Wagner, Joe Ricci





October 4, 2023

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

via email: dsharples@exeternh.gov

RE: Waiver Requests for New Buildings and Parking Additions, C3I, Inc., Tax Map 48, Lot 3

Dear Mr. Sharples:

On behalf of our client, Ricci Construction, we respectfully request the following waivers as part of the submittal of the proposed development project/building additions at C3I, Inc.:

Waiver Request #1:

Requirement: Site Plan Regulations Section 9.7.5.5: Landscaping plans shall provide additional curbed planting islands (a minimum of 9-feet wide) between every ten to fifteen parking spaces to avoid long rows of parked cars.

Reason for Waiver:

The number of consecutive parking spaces is one space over the limit. Creating an island would increase the impact of the project in the wetland buffers.

Waiver Request #2:

Requirement: Zoning Regulations Section 9.3.4(F)(12)(a)and(b): Fertilization restrictions.

Reason for Waiver:.

Fertilization is being used to establish new growth. This aids in the stabilization and restricting sediment transportation. This aligns with Exeter Zoning Regulation 9.3.1(F)(12)(c)

Fertilizer restrictions may be waived by the Planning Board of their designee for circumstances indicated, provided the following conditions are met:

 Restoration or Establishment of New Landscaping: With the exception of 12.b.i., above restrictions 12.a. and 12.b. above may be waived by the Board or their designee upon submission of written justification addressing the need and the specific location(s) within the property where the request applies and their relationship to the district boundary. Waivers granted will provide for temporary allowance, not to exceed one year.





Waiver Request 8 Commerce Way - C-Marine Dynamics Realty - Tax Map 48 Lot 3 Project #47201-03

October 4, 2023

Thank you for your consideration of these waiver requests. We look forward to presenting this project to you at the next Planning Board hearing.

If you have any questions or concerns, please do not hesitate to contact us.

Respectfully, TFMoran, Inc.

Jack McTigue, PE, CPESC Project Manager

Town of Exeter



Planning Board Application for Conditional Use Permit: Shoreland Protection District

July 2023

Town of Exeter

Planning Board Application

Conditional Use Permit: Shoreland Protection District

SUBMITTAL REQUIREMENTS:

- 1. Refer to the Land Use Board Meeting Schedule and Deadlines for Submission Requirements.
- 2. Plans Must Include:

Existing Conditions

- a. Property Boundaries
- b. Exeter Shoreland Protection District (ESPD): Edge of seasonal high-water mark (HWM) <u>including</u> <u>contiguous wetlands</u> and associated buffer as described in 9.3.3 A-C.

--Exeter, Fresh, Squamscott River and Major Tributaries: **300**'

--Upland Extent of Tidal Marsh adj. to Squamscott River: **150'**

--Mean High Water Level of Perennial Brooks and Streams in the Exeter, Fresh and Squamscott River Watersheds: **150**'

-- Building Setbacks as defined in 9.3.4.C:

300', 150', or 100'--Vegetative Buffer: **75'**

c. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements

Proposed Conditions

- a. Edge of Shoreland and Shoreland Buffers and distances to the following:
 - i. Edge of Disturbance
 - ii. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements
- b. Percent of impervious surface in ESPD
- c. Name and phone number of all individuals whose professional seal appears on the plan
- 3. If applicant and/or agent is not the owner, a letter of authorization must accompany this application
- 4. Supporting documents i.e. Letters from the Department of Environmental Services, Standard Dredge and Fill Application and Photos of the property
- 5. A Town of Exeter Assessors list of names and mailing addresses of all abutters

Required Fees:			
Planning Board Fee: \$50. 00	Abutter Fee: \$10.00	Recording Fee (if applicable): \$25.00	

The Planning Office must receive the completed application, plans and fees NO LATER THAN 4:00 PM on the day indicated on the Planning Board Schedule of Deadlines and Public Hearings.

APPLICANT	Name: Jack McTigue/TFMoran, Inc.			
	Address: 170 Commerce Way, Suite 102, Portsmouth, NH 03801			
	Email Address: jmctigue@tfmoran.com			
	Phone: 603-431-2222			
PROPOSAL	Address: 8 Commerce Way, Exeter, NH 03833			
	Tax Map #_48 Lot#_3 Zoning District: Industrial			
	Owner of Record: C-Marine Dynamics Realty, LLC			
Person/Business	Name: Ricci Construction, LLC			
performing work	Address: 225 Banfield Rd. Portsmouth, NH 03801			
outlined in proposal	Phone: (603)-436-3112			
Professional that	Name: Gove Environmental Services			
delineated wetlands	Address: 8 Continental Drive, Exeter, NH 03833			
	Phone: (603)-778-0644			

Town of Exeter Planning Board Application

Conditional Use Permit: Wetland Conservation Overlay District

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

C3i, Inc. is a business located at 8 Commerce Way in Exeter, NH. The existing building is a 2-story, 8,000 square foot footprint building composed of office space and light industrial work. It was previously permitted by MSC Engineers and constructed in 2016. The land was previously vacant, and the driveway required a wetland crossing with a bridge over Norris Brook. Four stormwater systems were designed to accommodate the development. The building is secluded from surrounding properties and highly screened by native vegetation. It is proposed to add two, 2-story, 4,000 square foot footprint additions to the site. The additions will also be light industrial and office space. It is anticipated that 22 parking spaces will be required to accommodate that additional space. Some existing drainage areas will be removed, and new drainage areas will be constructed to accommodate the increase in impervious areas. A New Hampshire Department of Environmental Services Alteration of Terrain permit is required, as the cumulative area of impact in the past 10 years exceeds 100,0000 square feet.

Shoreland Protection District Impact (in square footage):					
District Impacted: Exeter River ☐ Fresh River ☐ Squamscott River☐					
Buffer	Temporary: 300' Buffer	(SQ FT.)	Permanent:	(SQ FT.)	
Impact	☐ 150 Buffer		X 150 Buffer	_16332	
•	☐ Building Setback		☐ Building Setback		
	☐ Veg Buffer		☐ Veg Buffer		
			x % Impervious Cover	PRE <u>4.6</u>	POST <u>6.7</u>
Project Proposal Does Not Include Any Prohibited Uses as Defined By 9.3.4.F. X No Prohibited Uses Proposed					
Is a State Sho	oreland Permit Required?	Yes X No			
If YES, include filing date or expected filing date:					
List any variances/special exceptions granted by Zoning Board of Adjustment including dates:					
Indicate whether your proposal meets the conditions of Article 9.3.4.G.2 of the Town of Exeter Zoning Ordinance. Note: Written justification for each criterion must be provided to be deemed administratively complete.					
X YES	No a. The proposed use will no otherwise result in unhea		ect the surface water quality	of the adjacent r	iver or tributary, or
X YES	X YES No b. The proposed use will discharge no waste water on site other than that normally discharged by domestic waste water disposal systems and will not involve on-site storage or disposal of hazardous or toxic wastes as herein defined.				
X YES	YES No c. The proposed use will not result in undue damage to spawning grounds and other wildlife habitat.				
X YES	No e. The design and construct	ion of the propose	d use will be consistent with District Ordinance – Authority	the intent of the	purposes set forth in





July 28, 2023

Kristen Murphy
Conservation and Sustainability Planner
Town of Exeter
10 Front Street
Exeter, NH 03833
KMurphy@ExeterNH.gov

Re: C3I – Exeter, NH – Shoreland CUP Responses to 9.3.4.G

TFMoran Project: 47201.03

Dear Kristen:

Below is our response to the Conditional Use criteria for impacts to the Shoreland Protection District.

- a. The proposed use will not detrimentally affect the surface water quality of the adjacent river or tributary, or otherwise result in unhealthful conditions.
 - The proposed pavement in the shoreland setback is being captured and treated by stormwater best management practices (BMP's).
 - The (BMP's) proposed in these areas are to treat stormwater prior to it flowing into the wetlands and stream. The primary purpose of these BMP's is to protect the water quality. These BMP's meet NHDES standards for stormwater treatment.
- b. The proposed use will discharge no waste water on site other than that normally discharged by domestic waste water disposal systems and will not involve on-site storage or disposal of hazardous or toxic wastes as herein defined.
 - Wastewater on the site is managed by an existing sewer line extended from Commerce Way, and no hazardous or toxic wastes will be stored or disposed of on-site. The proposed use will not result in undue damage to spawning grounds and other wildlife habitat.
- c. The proposed use complies with the use regulations identified in Article 9.3.4 Exeter Shoreland Protection District Ordinance Use Regulations and all other applicable sections of this article.
 - The project meets regulations identified in Article 9.3.4 Minium Lot Site, Maximum Lot Coverage, Structures Meeting Conditional Use, Alteration of Terrain Meeting Conditional Use, Vegetated Buffer Impact Meeting Conditional Use, and no prohibited use. Fertilizer restrictions shall be observed in the shoreland 100' setback, except as granted by the planning board for the establishment of new landscaping.
- d. The design and construction of the proposed use will be consistent with the intent of the purposes set forth in Article 9.3.1 Exeter Shoreland Protection District Ordinance Authority and Purpose.
 - The project is consistent with purposes set forth in Artic 9.3.1. Stormwater BMP's are proposed to protect and maintain the water quality. The proposed BMP's are effective in reducing the emission of



Kristen Murphy July 28, 2023

total nitrogen, total phosphorus and total suspended solids. Thus, aquatic and terrestrial habitats in this area will be preserved. The site also includes bike paths for recreation that run close to the river and within the natural shoreline (which will still be available for use following construction).

We trust the above responses satisfy any concerns about the shoreland setback impacts. We look forward to presenting this project to you at the August 8, 2023 Conservation Commission Meeting.

Sincerely,

TFMoran, Inc.

Jack McTigue, PE, CPESC

Prøject Manager

cc: Charles Wagner, Joe Ricci

Town of Exeter



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

July 2023



Town of Exeter Planning Board Application

Conditional Use Permit: Wetland Conservation Overlay District in accordance with Zoning Ordinance Article: 9.1

SUBMITTAL REQUIREMENTS:

- 1. Refer to the Land Use Board Meeting Schedule and Deadlines for Submission Requirements.
- 2. Plans Must Include:

Existing Conditions

- a. Property Boundaries
- b. Edge of Wetland and associated Buffer (Wetlands Conservation Overlay District WCOD)

--Prime wetland: 100'

--Very Poorly Drained: 50'

--Vernal Pool (>200 SF): 75'

--Poorly Drained: 40'

--Exemplary Wetland: 50'

--Inland Stream: 25'

c. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements

Proposed Conditions

- a. Edge of Wetlands and Wetland Buffers and distances to the following:
 - i. Edge of Disturbance
 - ii. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements
- b. Name and phone number of all individuals whose professional seal appears on the plan
- 3. If applicant and/or agent is not the owner, a letter of authorization must accompany this application
- 4. Supporting documents i.e. Letters from the Department of Environmental Services, Standard Dredge and Fill Application and Photos of the property
- 5. A Town of Exeter Assessors list of names and mailing addresses of all abutters

Required Fees:		
Planning Board Fee: \$50.00	Abutter Fee: \$10.00	Recording Fee (if applicable): \$25.00

The Planning Office must receive the completed application, plans and fees on the day indicated on the Planning Board Schedule of Deadlines and Public Hearings.

APPLICANT	Name: Jack McTigue/ TFMoran, Inc.			
	Address: 170 Commerce Way, Suite 102, Portsmouth, NH 03801			
	Email Address: jmctigue@tfmoran.com			
	Phone: 603-431-2222			
PROPOSAL	Address: 8 Commerce Way, Exeter, NH 03833			
	Tax Map # 48 Lot# 3 Zoning District: Industrial			
	Owner of Record: C-Marine Dynamics Realty, LLC			
Person/Business	Name: Ricci Construction, LLC			
performing work	Address: 225 Banfield Rd, Portsmouth, NH 03801			
outlined in proposal	Phone: (603)-436-3112			
Professional that	Name: Gove Environmental Services			
delineated wetlands	Address: 8 Continental Drive, Exeter, NH 03833			
	Phone: 603-778-0644			

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

Detailed Proposal including intent, project description, and use of property: (Use additional sheet as needed) C3i, Inc. is a business located at 8 Commerce Way in Exeter, NH. The existing building is a 2-story, 8,000 square foot footprint building composed of office space and light industrial work. It was previously permitted by MSC Engineers and constructed in 2016. The land was previously vacant, and the driveway required a wetland crossing with a bridge over Norris Brook. Four stormwater systems were designed to accommodate the development. The building is secluded from surrounding properties and highly screened by native vegetation. It is proposed to add two, 2-story, 4,000 square foot footprint additions to the site. The additions will also be light industrial and office space. It is anticipated that 22 parking spaces will be required to accommodate that additional professional space. Some existing drainage areas will be removed, and new drainage areas will be constructed to accommodate the increase in impervious areas. A New Hampshire Department of Environmental Services Alteration of Terrain permit is required, as the cumulative area of impact in the past 10 years exceeds 100,0000 square feet.

Wetland Conservation Overlay District Impact (in square footage):								
Temporary Impact	Wetland:	(SQ FT.)	Buffer:	(SQ FT.)				
	☐ Prime Wetlands		☐ Prime Wetlands					
	Exemplary Wetlands		Exemplary Wetlands					
	☐ Vernal Pools (>200SF)		☐ Vernal Pools (>200SF)					
	☐ VPD		☐ VPD					
	□ PD		□ PD					
	☐ Inland Stream		☐ Inland Stream					
Permanent Impact	Wetland:		Buffer:					
	☐ Prime Wetlands		☐ Prime Wetlands					
	☐ Exemplary Wetlands		X Exemplary Wetlands	9424				
	☐ Vernal Pools (>200SF)		☐ Vernal Pools (>200SF)					
	☐ VPD		☐ VPD					
	☐ PD		☐ PD					
	☐ Inland Stream		x Inland Stream	16332				

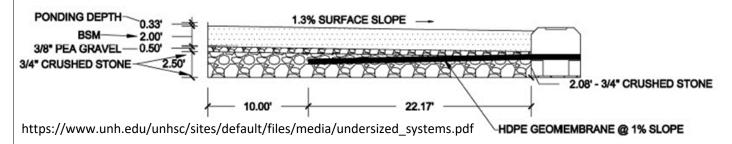
List any variances/special exceptions granted by Zoning Board of Adjustment including dates:						
Describe how the proposal meets conditions in Article 9.1.6.B of the Zoning Ordinance (attached for reference): The proposal meets Article 9.1.6.B, because the use of the addition is permitted in the underlying zoning district. Much of the addition onto the building and parking lot will be located in places that have been disturbed in the past. The project will also add two additional bioretention areas in order to provide proper stormwater management for the property.						

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

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

Enhanced Biofiltration with Internal Storage Reservoir (ISR) Factsheet

Enhanced Biofiltration is a practice the provides temporary storage of runoff for filtering through an engineered soil media, augmented for enhanced phosphorus removal, followed by detention and denitrification in a subsurface internal storage reservoir (ISR) comprised of gravel. Runoff flows are routed through filter media and directed to the underlying ISR via an impermeable membrane for temporary storage. An elevated outlet control at the top of the ISR is designed to provide a retention time of at least 24 hours in the system to allow for sufficient time for denitrification and nitrogen reduction to occur prior to discharge. The design storage capacity for using the cumulative performance curves is comprised of void spaces in the filter media, temporary ponding at the surface of the practice and the void spaces in the gravel ISR. The cumulative phosphorus load reduction curve for this control is intended to be used for systems in which the filter media has been augmented with materials designed and/or known to be effective at capturing phosphorus. If the filter media is not augmented to enhance phosphorus capture, then the phosphorus performance curve for the Bio-Filter should be used for estimating phosphorus load reductions. The University of New Hampshire Stormwater Center (UNHSC) developed the design of this control practice and a design templated can be found at UNHSC's website.



Pollutant Export Rate by Land Use¹

		P Load Export Rate ¹	N Load Export Rate ²
Source Category by Land Use	Land Surface Cover	(lbs./acre/year)	(lbs./acre/year)
Commercial (COM) and Industrial (IND)	Directly connected impervious	1.78	15
Multi-Family (MFR) and High-Density			
Residential (HDR)	Directly connected impervious	2.32	14.1
Medium-Density Residential (MDR)	Directly connected impervious	1.96	14.1
Low-Density Residential (LDR) - "Rural"	Directly connected impervious	1.52	14.1

General Equations

Physical Storage Capacity: Depth of Runoff * Drainage Area

Cost: Physical Storage Capacity * Cost Index * Adjustment Factor¹

Yearly Pollutant Removal: Pollutant Load Export Rate * Drainage Area * Efficiency

Cost (2023)1,2

	Materials and Installation Cost (\$/ft³)	Design Cost (\$/ft³)	Total Cost (\$/ft³)
Rural	12.12	6.52	18.64
Mixed	24.23	13.05	37.28
Urban	36.35	19.57	55.92

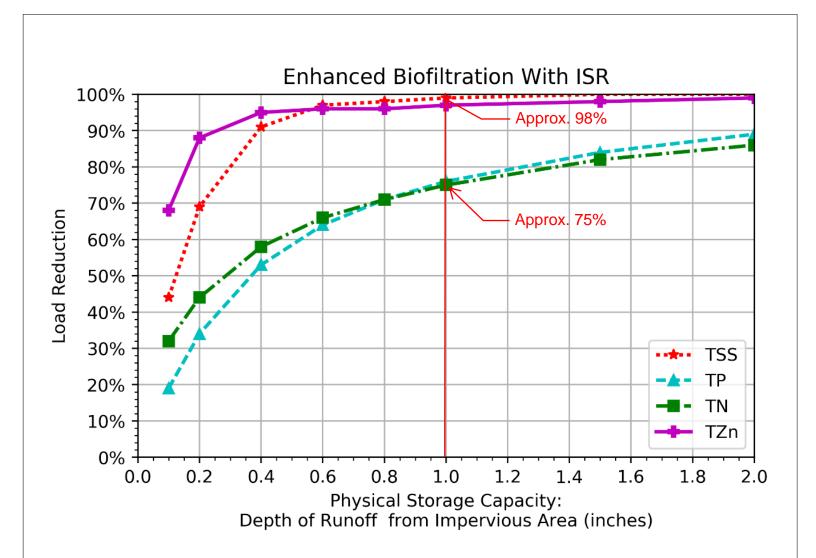
¹ EPA Memorandum "Methodology for developing cost estimates for Opti-Tool." February 20, 2016

Prepared By:
University of New Hampshire
Stormwater Center
Durham, NH
www.unh.edu/unhsc
February 2023

¹ From NH Small MS4 General Permit, Appendix F

² Converted from 2010 to 2023 dollars using U.S. Department of Labor (USDOL). (2012). Bureau of Labor Statistics consumer price index inflation calculator. http://www.bls.gov/data/inflation_calculator.htm

BMP Performance Curve for Enhanced Biofiltration w/ ISR



Enhanced Biofiltration w/ ISR BMP Performance Table: Long-Term Phosphorus & Nitrogen Load Reduction								
Phosphorus 8	k Nitro	ogen	Load	<u> Reau</u>	ction			
BMP Capacity: Depth of Runoff from Impervious Area (inches)	0.1	0.2	0.4	0.6	0.8	1.0	1.5	2.0
Cumulative TSS Phosphorus Load Reduction	44%	69%	91%	97%	98%	99%	100%	100%
Cumulative Phosphorus Load Reduction	19%	34%	53%	64%	71%	76%	84%	89%
Cumulative Nitrogen Load Reduction	32%	44%	58%	66%	71%	75%	82%	86%
Cumulative Zinc Phosphorus Load Reduction	68%	88%	95%	96%	96%	97%	98%	99%





July 28, 2023

Kristen Murphy
Conservation and Sustainability Planner
Town of Exeter
10 Front Street
Exeter, NH 03833
KMurphy@ExeterNH.gov

Re: C3I – Exeter, NH - Responses to 9.1.6.B

TFMoran Project: 47201.03

Dear Kristen:

Below is our response to the Conditional Use criteria for impacts to the Wetland Buffer.

- 1. That the proposed use is permitted in the underlying zoning district;
 - Buffer impacts are limited to stormwater management areas, parking areas and access to the parking areas. Conditions use permits can be granted for "Site development such as but not limited to construction of roads and other access ways, parking areas, utilities, structures, drainage systems, water impoundment and other site improvements that impact the Wetlands Conservation Overlay District." (9.1.6(A)(1)). The proposed use falls within this category.
- 2. No alternative design which does not impact a wetland or wetland buffer, or which has less detrimental impact on the wetland or wetland buffer is feasible;
 - This site is bounded by wetlands. While drainage facilities could be located behind (north of) the proposed addition, this would also encroach upon the wetlands. The impacts would equal or exceed the proposed impacts in the current location.
- 3. A wetland scientist has provided an impact evaluation that includes the "functions and values" of the wetland(s), an assessment of the potential project-related impacts and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.
 - See Attached.
- 4. That the design, construction and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer;
 - We have minimized impacts to the wetland buffer to the extent feasible. The majority of the proposed buffer impacts are to provide stormwater treatment. The stormwater treatment areas will still act as a buffer to the wetland areas.



- 5. That the proposed use will not create a hazard to individual or public health, safety and welfare due to the loss of wetland, the contamination of groundwater, or other reasons;
 - The (BMP's) proposed in these areas are to treat stormwater prior to it flowing into the wetlands. The primary purpose of these BMP's is to protect the water quality. These BMP's meet NHDES standards for stormwater treatment.
- 6. The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland;
 - The site occupies the majority of the available space outside of the wetland buffers. While our client is open to this, there is not much non-buffer area available to offer for wetland buffers.
- 7. In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction;
 - The Proposed use is permanent, no restoration plan is required in this instance.
- 8. That all required permits shall be obtained from the New Hampshire Department of Environmental Services Water Supply and Pollution Control Division under NH RSA §485-A: 17, the New Hampshire Wetlands Board under NH RSA §483-A, and the United States Army Corps of Engineers under Section 404 of the Clean Water Act.;
 - Alteration of Terrain permit, EPA NPDES ENOI CGP and SWPPP will be acquired before the project is constructed.

We trust the above responses satisfy any concerns about the wetland buffer impacts. We look forward to presenting this project to you at the August 8, 2023 Conservation Commission Meeting.

Sincerely,

TFMoran, Inc.

Jagk McTigue, Pℤ, CPESC

P√oiect Managéi

cc: Charles Wagner, Joe Ricci



GOVE ENVIRONMENTAL SERVICES, INC

August 1, 2023

Jack McTigue TFMoran, Inc. 48 Constitution Drive, Bedford, NH 03110

Subject: Wetland Delineation & Function-Value Report

C3i, Inc.

8 Commerce Way

Exeter, NH

Dear Mr. McTigue:

This wetland report is provided in connection with the proposed expansion of the existing C3i facilities at 8 Commerce Way in Exeter, NH. The report documents the delineation and functional assessment of wetland resources in the vicinity of the proposed work as well as an evaluation of the proposed work within the context Section 9.1 of the Exeter Zoning Ordinance (Wetland Conservation District).

WETLAND DELINEATION

Resource areas on this property were delineated on February 13, 2023 by Brendan Quigley, NHCWS #249 utilizing the following standards:

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

Wetland boundaries were surveyed by TFMoran, Inc. and are depicted on the plans submitted separately for the Site Plan Approval and a Conditional Use Permit.

There are two main areas of wetland on the property. A large semi-permanently flooded marsh complex (PEM1F) ¹ occupies the northwest corner of the property and forms the headwater of Norris Brook which flows south. Several areas of forested poorly drained forested wetland also extend onto the property along the eastern and southern property boundaries. These wetlands are dominated by red maple and highbush blueberry (PFO1E) and are portions of a larger interconnected wetland complex which also drains to Norris Brook offsite to the south. A vernal pool survey was conducted during April of 2023 during which no vernal pools were identified on the property.

 $^1 \ Classification \ of \ Wetlands \ and \ Deepwater \ Habitats \ of \ the \ United \ States. \ USFW \ Manual FWS/OBS-79/31 \ (1979).$

FUNCTION &VALUE ASSESSMENT

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

The Highway Methodology considers 13 functions and values:

- 1. Groundwater recharge/discharge: This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where ground water can be discharged to the surface.
- 2. Floodflow Alteration: This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.
- **3. Fish and Shellfish Habitat:** This function considers the effectiveness of seasonal or permanent water bodies associated with the wetland in question for fish and shellfish habitat.
- **4. Sediment/Toxicant/Pathogen Retention:** This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants or pathogens.
- 5. Nutrient Removal/Retention/Transformation: This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.
- **6. Production Export:** This function relates to the effectiveness of the wetland to produce food or usable products for human, or other living organisms.
- 7. **Sediment/Shoreline Stabilization:** This function relates to the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.
- **8. Wildlife Habitat:** This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and or migrating species must be considered.
- **9. Recreation:** This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals or other resources that are intrinsic to the wetland, whereas non-consumptive opportunities do not.
- **10. Educational/Scientific Value:** This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.
- 11. Uniqueness/Heritage: This value relates to the effectiveness of the wetland or its associated water bodies to produce certain special values. Special values may include such things as archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geological features.
- 12. Visual Quality/Aesthetics: This value relates to the visual and aesthetic qualities of the wetland.
- **13.** Threatened or Endangered Species Habitat: This value relates to the effectiveness of the wetland or associated water bodies to support threatened or endangered species.

The wetlands on the site support a number of functions and values by virtue of their association with both a perennial stream (Norris Brook) and the large protected forest block that constitutes the Henderson Swasey Town Forest. Based on the characteristics of the wetlands and their location in the landscape it



was determined that wildlife habitat, water quality, and flood flow alteration are the principal functions of the wetlands on the site. Significant secondary values include public recreation and aesthetic value. The following sections provide more detail on each of the two main areas of wetland. The ACOE Evaluation forms are attached to this letter.

Marsh Complex

The large marsh complex that forms the headwaters of Norris Brook is predominantly a marsh but contains a diversity of wetland types ranging from aquatic bed to scrub shrub wetland and forested wetland at its edge. This diversity supports significant wetland specific habitat as well as general wildlife habitat in the landscape. Its habitat function is elevated by the large block of unfragmented forest and waterway. Water quality function and flood attenuation are also principal functions of the wetland. These functions are both enabled by its large basin, restricted outlet, dense emergent vegetation, and direct association with Norris Brook. The diverse and expansive character of the wetland combined with easy public access make aesthetics and recreation important secondary values.

Forested Wetland

The forested wetland on the site also supports a primary wildlife function through its association with a protected forest block, Norris Brook, and other nearby wetlands including the marsh complex described above. Since surface water in the poorly drained forested wetland is limited to Norris Brook and brief periods during the spring, the wildlife supported on this site is more general in nature. No vernal pools were identified in the areas of forested wetland on or adjacent to the site. Though comparatively less than the large marsh, water quality function has also been considered a primary function of the forested wetland. This is due to the network of wetland on undulating terrain which creates a diffuse drainage pattern toward Norris Brook. These characteristics may also support flood attenuation function but since its storage capacity appears limited this has been considered a secondary function. Recreation and aesthetic value have been considered secondary because they are more closely associated with the general forest and location in a town forest than with wetland characteristics.

RELATION TO THE PROPOSED DEVELOPMENT

Wetland buffer impacts occur at two main locations located east and west of the existing building. No direct wetland impact is proposed. The functional assessment indicates that the primary functions of the resource areas are related to wildlife habitat, water quality, and flood attenuation, with public aesthetic and recreational value being important secondary values. The potential effects of the proposed buffer impact on these functions and values have been mitigated by the layout of the project and several important project elements.

Wildlife Habitat

The function of the wetland buffer with respect to wildlife habitat on this site is largely one of screening. The project utilizes buffer areas at the edges of the current developed site, some of which consist of maintained lawn or existing stormwater BMPs. At the eastern impact area, the proposed work takes place almost entirely with the limits of the perimeter erosion control established for the original construction and expands over the existing trail at the edge of the wetland. The potential effect on wildlife due to proximity impacts at this location will therefore be virtually the same as existing conditions. Repurposing

existing lawn or stormwater areas in the buffer will have no effect on wildlife habitat in the wetland. Where impact to intact buffer is proposed (mostly at the western impact area) the impacts do not further segment wildlife habitat or create significant impediments to wildlife movement beyond what is presented by the existing development. Additionally, the more sensitive area directly north of the existing building which contains a long stretch of intact buffer along the large marsh has been avoided. The small potential effects from loss of intact buffer can be further mitigated by restoration of the outer slopes of the proposed stormwater BMPs using native plantings and seed mixes to replace screening to the extent practicable. This effort would be best focused on the on the western impact area where there is comparatively greater loss of intact buffer.

Water Quality

Wetland buffers offer water quality benefits to wetlands directly as well as supplement this wetland function. The potential effects of the buffer impacts proposed by this project will be mitigated by erosion control best management practices and inclusion of highly effective stormwater management. The modest loss of intact buffer along forested wetland or densely vegetated marsh wetland will have little direct effect on the water quality in the wetland or its water quality function.

Flood Attenuation

This function is supported primarily in the large marsh wetland and to a lesser degree in the forested wetland. The modest impacts proposed in the buffer will have no direct impact on the flood attenuation function of the wetlands which will not be impacted or restricted by segmentation. The proposed stormwater management system will mitigate any potential effects of increased runoff from the project.

Aesthetic and Recreational Value

The main aesthetic value lies in the large marsh area. The proposed impacts will have no effect on the view-scape or public access to the area. The recreational value of wetlands is traditionally associated with activities like fishing, hunting, or boating. While those do not apply to this site, Henderson Swansea Town Forest does provide for the enjoyment of the forest and its diverse wetlands through a network of trails. Access to the Town Forest at this location will be maintained and the trail which will be impacted at the eastern impact area will be relocated to the top of the stormwater basin slope. The project will therefore have no overall effect on the aesthetic or recreational value of the wetlands.

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

Sincerely,

Brendan Quigley, NHCWS

Gove Environmental Services, Inc.

Enc. ACOE Wetland Function Evaluation Forms



Wetland Function-Value Evaluation Form

Total area of wetland >20ac Human made? no	Is wetla	and part of a wildlife corrido	r?_YES	or a "habitat island"? NO	Wetland I.D. Forested Wetland Latitude see sketch Longitude and plans
Adjacent land use Town Forest		Distance to nearest	roadway o	r other development ~30'	Prepared by: BJQ Date 8/1/23
Dominant wetland systems present PFO1E				fer zone present NO	Wetland Impact: Type BUFFER Area ~7000 SF
Is the wetland a separate hydraulic system? NO How many tributaries contribute to the wetland? 0		_Wildlife & vegetation diver	sity/abund Princi	ance (see attached list)	Evaluation based on: Office X Field X Corps manual wetland delineation completed? Y N N
Function/Value	Y / N	(Reference #)*	Funct		Comments
✓ Groundwater Recharge/Discharge	N	6		signs of bedrock ar	nd low permeability soils
Floodflow Alteration	Y	2,3,7,9,15		not directly assoc. with waterway or	r floodplain, minimal storage overall in wetland
Fish and Shellfish Habitat	N			no surface water	
Sediment/Toxicant Retention	Y	1,3,4,7	X	receives runoff from surrour	nding devel. difuse flow to Norris Brk
Nutrient Removal	Y	3,4,7,8,9	Х	receives runoff from surrou	nding devel. difuse flow to Norris Brk
→ Production Export	Y	1,4,7,12		wildlife food source	s,berry prod. shrubs, oak
Sediment/Shoreline Stabilization	N			not associated with	surface water
Wildlife Habitat	Y	4,8,10,11	Х		
Recreation	Y	1,4,5,7,10		assoc with town forest trails, go	ood access, largely unrelated to wetland
Educational/Scientific Value	N			private, extensive opp	ortunity in public area off site
★ Uniqueness/Heritage	N			forested wetland o	only
Visual Quality/Aesthetics	Y			associated with town	forest, limited wetland types
ES Endangered Species Habitat	N			none identified	
Other					

Notes:

Wetland Function-Value Evaluation Form

Total area of wetland >20ac Human made? no Adjacent land use Town Forest Dominant wetland systems present PEM1F Is the wetland a separate hydraulic system? NO How many tributaries contribute to the wetland? 0	If no	Distance to nearest road Contiguous undevelope ot, where does the wetland lie in Wildlife & vegetation diversity/a	way or	r other development ~140' Per zone present YES ainage basin? HIGH ance (see attached list)	Wetland I.D. Marsh Wetland Latitude see sketch Longitude and plans Prepared by: BJQ Date 8/1/23 Wetland Impact: Type BUFFER Area ~8500 SF Evaluation based on: Office X Field X Corps manual wetland delineation completed? YX N
Function/Value	Y/N	(Reference #)* F	uncti		omments
Groundwater Recharge/Discharge	Y	7		not located in aquife	r, GW interaction unclear
Floodflow Alteration	Y	1,2,4,5,7,11,13	X	storage potential, h	eadwater area to Norris
Fish and Shellfish Habitat	N			marsh, stream hea	dwater area
Sediment/Toxicant Retention	Y	1,3,4,5,10,12,14,15	X	storage, dense veg, deep organi	c, constricted outlet, headwater to Norris
Nutrient Removal	Y	3,4,5,6,7,8,10,11,13,14, 15	Χ	storage, dense veg, deep organic, cons	ricted outlet, nut. attenuation, headwater to Norris
→ Production Export	Y	1,4,7,12		wildlife food source	es .
Sediment/Shoreline Stabilization	N			wetland does not bo	order surface water/bank
Wildlife Habitat	Y	1,3,4,5,6,7,8,9,10,11,13,19,21	X	intact marsh, diverse veg, connectivit	y with upl and wet habitats, low development
Recreation	Y	1,4,5,7,10		assoc with town forest trails, go	od access, largely passive enjoyment
Educational/Scientific Value	N			private, extensive oppo	ortunity in public area off site
★ Uniqueness/Heritage	N			none identified	
Visual Quality/Aesthetics	Y	1,2,3,5,6,8		associated with town forest, wildlife habi	tat, good access and views,diverse open wetland
ES Endangered Species Habitat	N			potential, not confir	med
Other					

Notes:

DRAINAGE ANALYSIS SUMMARY

F O R

C31 Inc.
9 Commerce Way
Exeter, New Hampshire
Rockingham County

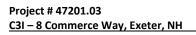
Tax Map 48, Lot 3

Owned by C-Marine Dynamic Realty, LLC Prepared for Ricci Construction, LLC

Month August 10, 2022

Prepared By:

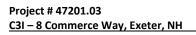




August 10, 2023

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August 10, 2023

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1.0 - SUMMARY & PROJECT DESCRIPTION

The project includes the expansion of commercial building on 8 Commerce Way, Exeter, NH. The existing Tax Map 48 Lot 3 is approximately X acres and currently contains a commercial building and parking area. The site is within the Industrial Zone, the Wetland Conservation, and the Exeter Shoreland Protection Districts and is adjacent to Norris Brook, the Town Forest and other industrial/commercial buildings.

The proposed project is to construct two 2-story building additions. Associated improvements include and are not limited to access, grading, utilities, stormwater management system, lighting, and landscaping. The project proposes an additional 8,000 SF building footprint and total increase of 16,000 SF of impervious area within the property lines and approximately 50,400 SF of disturbance to facilitate the development.

This analysis has been completed to verify the project will not pose adverse stormwater effects on-site and off-site. Compared to the pre-development conditions, the post-development stormwater management system has been designed to reduce peak runoff rates, increases within regulatory limits the runoff volume, reduces the risk of erosion and sedimentation, and improves stormwater runoff quality. In addition, Best Management Practices are employed to formulate a plan that assures stormwater quality both during and after construction. The following summarizes the findings from the study.

2.0 - CALCULATION METHODS

The design storms analyzed in this study are the 2-year, 10-year, and 50-year 24-hour storm events. The software program, HydroCAD version 10.00¹ was utilized to calculate the peak runoff rates from these storm events. The program estimates the peak rates using the TR-20 method. A Type III storm pattern was used in the model. Rainfall frequencies for the analyzed region were also incorporated into the model. Rainfall frequencies from the higher of the Extreme Precipitation Rates from Cornell University's Northeast Regional Climate Center (see Appendix A) and Town Site Plan Review Regulations were used to determine the storm-event intensities, see Table 1. Due to the project's location within the Coastal/Great Bay Region community, the design rainfall increases the Cornell rates by 15% to address projected storm surge, sea level rise, and precipitation events per Env-Wq 1503.08(I). Design standards were taken from the New Hampshire Stormwater Manual, December 2008².

	24-HOUR RAINFALL RATES						
Storm-Event	Northeast Regional Climate Center	Town	Design				
(year)	Extreme Precipitation	Rainfall	Rainfall				
	(in)	(in)	(in)				
2	3.20	3.68	0.00				
10	4.88	5.61	0.00				
50	7.45	8.57	0.00				
100	8.95	10.29	0.00				

<u>Table 1 – 24-Hour Rainfall Rates</u>

¹ HydroCAD version 10.00, HydroCAD Software Solutions LLC, Chocorua, NH, 2013.

² New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

Time of Concentration is the time it takes for water to flow from the hydraulically most remote point in the watershed (with the longest travel time) to the watershed outlet. This time is determined by calculating the time it takes runoff to travel this route under one of three hydrologic conditions: sheet flow, shallow concentrated flow, or channel flow. Because the Intensity-Duration-Frequency (IDF) curve is steep with short TC's, estimating the actual intensity is subject to error and overestimates actual runoff. Due to this, the TC's are adjusted to a minimum of 6 minutes.

3.0 - EXISTING SITE CONDITIONS

The current site that exists today was approved and permitted by the Town in 2016.

The disturbance created by this current proposed project alone does not trigger an AoT review, but due to the 10-year cumulative disturbance rule, it will need to obtain go through AoT permit process. AoT requires that the final design be compared to the property before work had begun (10-yrs prior). The pre-development calculations are shown prior to the initial project.

The majority of the soil soils within the proposed area of disturbance are identified in accordance with the Site-Specific Soil Survey (see Appendix K for detail and soil locations). The Site-Specific Soil Survey identifies the soils within the disturbed project area as primarily Udorthents, loamy (HSG B) with some very stony Canton and very stony Newfields (HSG B). These soils are classified as well drained.

See Section J for the associated Infiltration Rates and related testing and data. Six test pits were performed in 2016 on the first phase of this project. Eleven more were conducted in May of 2023 near the new proposed basin areas. Infiltration tests were determined per Ksat testing using a Compact Constant Head Permeameter (Amoozemeter) per Env-Wq 1504.14(d). The highest Estimated Seasonal High-Water Table (ESHWT) observed were: elevation 130.8' at Bioretention Area #6 and elevation 131.10' at Bioretention Area #6. Due to the elevation of the ledge and ESHWT, infiltration practices were not pursued. The first phase of the project had a standard bioretention area that infiltrated enough water to cover all the existing and proposed impervious areas on this project. The Ground Water Recharge is based on all the existing and proposed impervious and meets this requirement.

4.0 - PRE-DEVELOPMENT CONDITIONS

The pre-development condition is characterized by five subcatchments flowing into four parts of the stie (East, South, North and West). All of these eventually flows into the Norris Brook, which ultimately discharges to the Squamscott River. Pre-development subcatchment areas are depicted on the attached plan entitled "Pre-Development Drainage Map," Sheet D-01 in Appendix P.

Stormwater runoff from the developed portions of the site current flows into two gravel wetlands, one bioretention area and one infiltration area. The remaining stormwater runoff discharges towards the abutting wetlands and flows into Norris Brook. The First Point of Interest (POI-1) is to the east of the site, where stormwater flows through into an existing wetland, eventually flowing to Norris Brook. The Second Point of Interest (POI-2) is south of the site, where stormwater flows through the wetland into Norris Brook. The Third Point of Interest (POI-3) is to the North of the site, where stormwater flows into the wetland and eventually flows into Norris Brook. The Forth Point of Interest (POI-4) is to the west of the site, where stormwater flows through the marsh into Norris Brook.

In the pre-development condition, the total impervious area is 35,476 SF over a total drainage analysis area of 271,963 SF.

5.0 - POST-DEVELOPMENT CONDITIONS

The post-development condition is characterized by thirteen subcatchments flowing into four parts of the stie (East, South, North and West). All of these eventually flows into the Norris Brook, which ultimately discharges to the Squamscott River. Post-development subcatchment areas are depicted on the attached plan entitled "Post-Development Drainage Map," sheet D-02 in Appendix P.

In the post-development condition, the total impervious area is 49,365 SF over a total drainage analysis area of 271,963 SF. Impervious area from the project consists of two additions of 4,000 SF footprint (commercial building) and associated improvements. Two new are proposed to treat and mitigate the stormwater runoff from the impact of the new impervious area from the proposed development.

7 test pits and 7 infiltration tests, at least two in each basin area, were conducted. Infiltration tests were determined per default published Ksat values for the design infiltration rates per Env-Wq 1504.14(c) and/or Ksat testing using a Compact Constant Head Permeameter (Amoozemeter) per Env-Wq 1504.14(d).

Table 2 summarizes the pre- and post-development peak runoff rates for the 2-year, 10-year, and 50-year 24-hour Type III storm events for all discharge. Table 3 summarizes the pre- and post-development peak runoff volumes for the 2-year 24-hour Type III storm events for all discharge.

TABLE 2 – SURFACE WATER PEAK RUNOFF RATE COMPARISON (CF)							
POINT OF		DESIGN STORM					
INTEREST		2-year	10-year	50-year			
DOL 4	Pre	0.4	1.4	3.3			
POI-1	Post	0.4	1.1	2.5			
POI-2	Pre	0.2	0.5	1.1			
POI-2	Post	0.2	0.5	1.1			
DOL 2	Pre	0.4	1.1	2.7			
POI-3	Post	0.4	1.2	2.7			
POI-4	Pre	1.4	4.9	11.9			
FOI-4	Post	1.4	4.0	10.5			

Table 2 - Pre and Post- Development Peak Runoff Rate Comparison

TABLE 3 – SURFACE WATER PEAK RUNOFF VOLUME COMPARISON (CF)					
POINT OF		DESIGN STORM			
INTEREST		2-year			
DOL 1	Pre	2,210			
POI-1	Post	3,695			
DOL 2	Pre	810			
POI-2	Post	810			
POI-3	Pre	1,884			
POI-3	Post	2,048			
POI-4	Pre	8,515			
FUI-4	Post	9,878			

Table 3 - Pre and Post- Development Peak Runoff Volume Comparison

Channel protection as defined within AoT regulations states that the 2-year 24-hour run-off volume shall not increase more than 0.1 acre*feet. Each node is the same or much less than the allowable 0.1 acre/feet. Since these all flow to the same water source, Norris Brook, the combined volume must also meet this requirement. The total combined volume for points of interest 1-4 increases by 3,012 acre*ft (0.06 acre*feet). This still falls within the limits of the regulations.

The proposed project reduces peak rates of runoff compared to existing conditions for all storm events, in accordance with AoT regulations and Town stormwater regulations. Additionally, per NHDES, the 2-year 24-hour storm increased volume is within the limits of Env-Wq 1507.05(b)(1) from the pre-development to post-development condition. There will be no adverse effects on the abutting properties from the proposed stormwater management system.

Appendices B and D summarize all 24-hour storm events for pre- and post-development drainage calculations using HydroCAD analysis. Appendices C and E provide a full summary of the 10-year, 24-hour storm for the pre- and post-development drainage calculations using HydroCAD analysis.

There were 3warning messages for the 10-year storm event related to the proposed BMP's (already existing).:

- PR9 [87] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)
- SGW9a [87] Warning: Oscillations may require smaller dt or Finer Routing (severity=13)
- SGW9b [80] Warning: Exceeded Pond SW9a by 0.15' @ 10.08 hrs. (0.4 cfs. 3,472.8 cf)

Warning 80 occurred in the second cell of the gravel wetland, backing up water into the first cell of the wetland. At no point does it exceed the gravel wetland berms, causing some adjacent stormwater drainage systems to also stage stormwater. The exceeded catch basins and manholes are located where inverts into the basins are similar to the bottom of the chambers.

Warning 87 is related to the dt and fine routing were adjusted to minimize the severity of this occurrence. The oscillation occurs as the water drains down to the surface of the subsurface infiltration basins (See Figure 1). Oscillation warnings less than 100 are considered minor. All oscillation errors occur outside of the peak runoff and therefore are not a significant factor in the calculations. In this case, the oscillation occurs at the very end of the flow and is not noticeable on the hydrograph.

6.0 - REGULATORY COMPLIANCE

The project meets the stricter of the stormwater standards identified in the New Hampshire Department of Environmental Services (DES) Env-Wq 1500 Alteration of Terrain Regulations and Town stormwater management regulations.

7.0 - BEST MANAGEMENT PRACTICES

Best Management Practices will be developed in accordance with the New Hampshire Stormwater Manual, Volumes Two and Three, December 2008³ to formulate a plan that assures stormwater quality both during and after construction. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and mitigate any adverse impacts to stormwater quality resulting from development. Best Management Practices for this project include:

- Temporary practices to be implemented during construction.
- Permanent practices to be implemented after construction.

7.1 – TEMPORARY PRACTICES

- 1. Erosion, sediment, and stormwater detention measures must be installed as directed by the engineer.
- 2. All disturbed areas, as well as loam stockpiles, shall be seeded and contained by a silt barrier.
- 3. Silt barriers must be installed prior to any construction commencing. All erosion control devices including silt barriers and storm drain inlet filters shall be inspected at least once per week and following any rainfall. All necessary maintenance shall be completed within twenty-four (24) hours.
- 4. Any silt barriers found to be failing must be replaced immediately. Sediment is to be removed from behind the silt fence if found to be one-third the height of the silt barrier or greater.
- 5. Any area of the site, which has been disturbed and where construction activity will not occur for more than twenty-one (21) days, shall be temporarily stabilized by mulching and seeding.
- 6. No construction materials shall be buried on-site.

³ New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

- 7. After all areas have been stabilized, temporary practices are to be removed, and the area they are removed from must be smoothed and revegetated.
- 8. Areas must be temporarily stabilized within 14 days of disturbance or seeded and mulched within 3 days of final stabilization.
- 9. After November 15th, incomplete driveways or parking areas must be protected with a minimum of 3" of crushed gravel, meeting the standards of NHDOT item 304.3.
- 10. An area shall be considered stable if one of the following has occurred:
 - a) Base course gravels are installed in areas to be paved.
 - b) A minimum of 85% vegetated growth has been established.
 - c) A minimum of 3" of non-erosive material such as stone or rip rap has been installed.
 - d) Erosion control blankets have been properly installed.

7.2 - PERMANENT PRACTICES

The objectives for developing permanent Best Management Practices for this site include the following:

- 1. Maintain existing runoff flow characteristics.
 - a) Drainage is structured to minimize any offsite increase in runoff.
- 2. Treatment BMPs are established to ensure the water quality.
- 3. Maintenance schedules are set to safeguard the long-term working of the stormwater BMP's.

7.3 - BEST MANAGEMENT PRACTICE EFFICIENCIES

Appendix E of Volume 2 of the New Hampshire Stormwater ⁴ lists the pollutant removal efficiencies of various BMP's. All proposed BMP's meet all state and Town requirements for total suspended solids (TSS) and pollutant removal, Total Nitrogen (TN), and Total Phosphorous (TP).

Bioretention Systems with Internal Storage Reservoirs for a 1" WQV have a 98% TSS removal efficiency, 75% TN removal efficiency, and7 5% TP efficiency. This can be seen on the Enhanced Biofiltration with ISR performance curve, included in the wetland CUP application.

Gravel Wetlands have a 95% TSS removal efficiency, 85% TN removal efficiency, and 64% TP efficiency. Gravel Wetlands have the have the highest removal rating for total nitrogen. The surface of the wetland creates an aerobic zone allowing nitrification of the organic nitrogen and plant debris, and the rock area under the wetland soil allows for an anaerobic zone causing denitrification of the stormwater, releasing nitrogen gas back into the atmosphere.

⁴ New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

8.0 - GENERAL CONSTRUCTION SEQUENCING

- 1. Notify easement owners prior to commencement of work.
- 2. Install all perimeter erosion protection measures as indicated on the plans prior to the commencement of construction.
- 3. Stormwater treatment ponds and swales shall be installed before rough grading the site.
- 4. During construction every effort shall be made to manage surface runoff quality.
- 5. Daily, or as required, construct temporary berms, drains, ditches, silt barriers, sediment traps, etc. mulch and seed as required. (Temporary seed mixture of winter rye applied at a rate of 2.5 lbs./1000 sf shall be used).
- 6. Conduct major earthwork, including clearing and grubbing, within the limits of work. All cut and fill slopes shall be seeded within 72 hours after grading.
- 7. All stripped topsoil and other earth materials shall be stockpiled outside the immediate work and wetland areas. A silt barrier shall be constructed around these piles in a manner to provide access and avoid sediment outside of the work area.
- 8. Construct building pad and commence new building construction.
- 9. Construct temporary culverts and diversions as required.
- 10. Begin permanent and temporary installation of seed and mulch.
- 11. Perform earthwork necessary to establish rough grading around parking fields and access drives. Manage exposed soil surfaces to avoid transporting sediments into wetlands. Parking lots shall be stabilized within 72 hours of achieving finished grade.
- 12. Install subsurface utilities (water, sewer, gas, electric, communications, drainage, drainage facilities, etc.).
- 13. Construct proposed parking areas, bioretention areas and drainage swales. All ditches, swales, and gravel wetlands shall be fully stabilized prior to directing flow to them.
- 14. Do not discharge sediment-laden waters from construction activities (runoff, water from excavations) to BMP's during any stage of construction.
- 15. 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.
- 16. After infiltration systems are excavated to the final design elevation, the floor should be deeply tilled with a rotary tiller or disc harrow to restore infiltration rates, followed by a pass with a leveling drag.
- 17. Do not place stormwater BMP's into service until the contributing areas have been fully stabilized.
- 18. Do not place stormwater bmp's into service until the BMP has been planted, if necessary, and its contributing areas have been fully stabilized.
- 19. Complete building and all off-site improvements.
- 20. Complete seeding and mulching. Seed to be applied with broadcast spreader or by hydro-seeding, then rolled, raked, or dragged to assure seed/soil contact.
- 21. Remove temporary erosion control measures after seeded areas have become firmly established and site improvements are complete.

22. During the course of the work and upon completion, the contractor shall remove all sediment deposits, either on or off site, including catch basins, and sumps, drain pipes and ditches, curb lines, along silt barriers, etc. Resulting from soil and/or construction operations.

9.0 - CONCLUSION

The proposed stormwater management system will treat, infiltrate, and mitigate the runoff generated from the proposed development and provide protection of groundwater and surface waters as required through the Alteration of Terrain Bureau and Town stormwater management regulations. The project has been designed in accordance with NHDES and Town regulations. There is little change in the flow characteristics of the site. The proposed project has been designed to pose no adverse effects on surrounding properties.

Respectfully,

TFMoran, Inc. Seacoast Division

Jack McTigue, PE, CPESC

Project Manager



TRAFFIC MEMORANDUM

Date: July 28, 2023

To: Town of Exeter

Planning Department 10 Front Street Exeter, NH 03833

From: Robert E. Duval, P.E.

Re: Proposed Building Additions – C3I, Inc.

8 Commerce Way, Exeter, NH TFM Project No. 47201.03

INTRODUCTION

TFMoran has prepared this traffic memo to evaluate trip generation and describe the existing roadway network associated with two building additions proposed at the existing Critical Communications, Controls and Instruments (C3I) facility in Exeter.

C3I is proposing two building additions at its existing facility located at 8 Commerce Way in Exeter, New Hampshire. The front building addition will match the width of the building with two stories adding 8,000 sf to the main building. The rear addition is also a 2-story with a total of 8,000 sf and will provide a loading dock area at the rear of the site. Additional parking spaces are proposed to bring the site total of 55 parking spaces on site.

C3I is a manufacturing facility that specializes in Marine Communications. Controls and Instruments. The existing building is split between Professional Office Space (13,650 sf) and Light Industrial Space (18,350 sf). There are currently 14 full time employees, with the anticipation of adding 3 new staff members after the expansions are complete. Typical office hours are 8a-5p daily.

The existing site (Map 48 Lot 3) zoned Industrial (I) and is located at the end of Commerce Way on the east side just before the cul-de-sac. The driveway is about 500 feet longs with the existing 8,000 sf (footprint) building is 2-stories and provides a total of 32 parking spaces for visitors and staff. The lot is bordered on all sides by wetland areas and outside of the building area, the lot is primarily wooded.

DESCRIPTION OF ROADWAYS AND INTERSECTIONS

Commerce Way

- Classification. Commerce Way is a local Town-maintained dead-end roadway branches off Industrial Drive in Epping. Industrial Drive is a loop that connects both ends to NH27.
- The roadway generally provides one 12' travel lane in each direction, with no striping or shoulders. There are no sidewalks, and the only signage is a street sign and a No Outlet sign. There is a cobra head streetlight at the intersection of Industrial Drive and Commerce Way. The roadway is gently sloping with open drainage and normal crown. The pavement is in fair to good condition.
- Adjacent uses and driveways are industrial/manufacturing, office and an ice rink.

TRIP GENERATION

Trip generation rates published by the ITE (11th Edition) for Land Use Code (LUC) 710 – General Office Building and LUC140 – Manufacturing, were used to calculate the vehicle trips for the existing and proposed manufacturing addition. The table below shows the proposed trip generation for the total building and the new trips to the site.

Proposed Trip Generation - GFA

Troposed Trip Contractor CFA	ln	Out	Total
Total Trips			
Weekday AM Peak Hour of Adjacent Street	22	4	26
Weekday PM Peak Hour of Adjacent Street	6	23	29
Weekend SAT Peak Hour of the Generator	6	4	10
Existing Building (11,750 sf)			
Weekday AM Peak Hour of Adjacent Street	17	3	20
Weekday PM Peak Hour of Adjacent Street	4	18	22
Weekend SAT Peak Hour of the Generator	3	2	5
Total New Trips			
Proposed Building (8,000 sf)			
Weekday AM Peak Hour of Adjacent Street	5	1	6
Weekday PM Peak Hour of Adjacent Street	2	5	7
Weekend SAT Peak Hour of the Generator	3	2	5

CONCLUSION

Based on the foregoing, we anticipate the impacts associated with traffic from this project to be minimal. The traffic from this development will add only 6-7 trips during the am and pm peak hours, or about one new trip every 10-12 minutes.

In summary, we find that the traffic associated with this proposal can be safely accommodated on the adjacent roadway network without need for improvements. Please let me know if you have any questions in regard to these items.

TFMORAN, INC.

Robert Duval, PE Chief Engineer

Trip Generation

Based on ITE Trip Generation 11th Edition

Existing

ITE LUC 710 - General Office Building (7,150 sf)

Time Period	Variable: SF		Rate/ Eq	Trip Ends	Directional Split		Directional Distribution	
	Х		Used		ln	Out	In	Out
Weekday AM Peak Hour Adjacent Street	7.15	0.86 Ln(X) + 1.16	Rate	17	88%	12%	14.96	2.04
Weekday PM Peak Hour Adjacent Street	7.15	0.83 Ln(X) + 1.29	Rate	19	17%	83%	3	16
Weekend SAT Peak Hour of the Generator	7.15	0.53	Rate	4	54%	46%	2	2
Weekday Daily	7.15	0.87 Ln(X) + 3.05	Rate	117	50%	50%	59	58
Weekend (SAT) Daily	7.15	2.21	Rate	16	50%	50%	8	8

Description of LUC 710:

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers.

ITE LUC 140 - Manufacturing (4,600 sf)

Time Period	Variable: SF		Rate/ Eq	Trip Ends	Directio	nal Split	Directional Distribution	
	Х		Used		ln	Out	In	Out
Weekday AM Peak Hour Adjacent Street	4.6	0.68	Rate	3	76%	24%	2	1
Weekday PM Peak Hour Adjacent Street	4.6	0.74	Rate	3	31%	69%	1	2
Weekend SAT Peak Hour of the Generator	4.6	0.18	Rate	1	52%	48%	1	0
Weekday Daily	4.6	4.75	Rate	22	50%	50%	11	11
Weekend (SAT) Daily	4.6	1.49	Rate	7	50%	50%	4	3

Description of LUC 140:

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions.

	Total Trip Ger	neration						
Time Period		Trip Ends			rectional stribution			
			In		Out			
Weekday AM Peak Hour Adjacent Street		20		17	3			
Weekday PM Peak Hour Adjacent Street		22		4	18			
Weekend SAT Peak Hour of the Generator		5		3	2			
Weekday Daily		139		70	69			
Weekend (SAT) Daily		23		12	11			

Trip Generation

Based on ITE Trip Generation 11th Edition

Proposed

ITE LUC 710 - General Office Building (6,500 sf)

Time Period	Variable: SF		Rate/ Eq	Trip Ends	Directio	Directional Split		Directional Distribution	
	Х		Used		ln	Out	In	Out	
Weekday AM Peak Hour Adjacent Street	6.5	0.86 Ln(X) + 1.16	Rate		88%	12%	0	0	
Weekday PM Peak Hour Adjacent Street	6.5	0.83 Ln(X) + 1.29	Rate		17%	83%	0	0	
Weekend SAT Peak Hour of the Generator	6.5	0.53	Rate	3	54%	46%	2	1	
Weekday Daily	6.5	0.87 Ln(X) + 3.05	Rate		50%	50%	0	0	
Weekend (SAT) Daily	6.5	2.21	Rate	14	50%	50%	7	7	

Description of LUC 710:

A general office building is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers.

ITE LUC 140 - Manufacturing (9,500 sf)

Time Period	Variable: SF		Rate/ Eq	Trip Ends	Directio	Directional Split		Directional Distribution	
	Х		Used		ln	Out	In	Out	
Weekday AM Peak Hour Adjacent Street	9.5	0.68	Rate	6	76%	24%	5	1	
Weekday PM Peak Hour Adjacent Street	9.5	0.74	Rate	7	31%	69%	2	5	
Weekend SAT Peak Hour of the Generator	9.5	0.18	Rate	2	52%	48%	1	1	
Weekday Daily	9.5	4.75	Rate	45	50%	50%	23	22	
Weekend (SAT) Daily	9.5	1.49	Rate	14	50%	50%	7	7	

Description of LUC 140:

A manufacturing facility is an area where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, a manufacturing facility typically has an office and may provide space for warehouse, research, and associated functions.

	Total Trip Ger	neration							
Time Period		Trip Ends				ectional tribution			
		In		In	Out				
Weekday AM Peak Hour Adjacent Street		6			5	1			
Weekday PM Peak Hour Adjacent Street		7			2	5			
Weekend SAT Peak Hour of the Generator		5			3	2			
Weekday Daily		45			23	22			
Weekend (SAT) Daily		28			14	14			

C3I, 8	Comm	erce Way, Exeter, NH	
Building	Floor	Use	Sq Ft
Existing Building	1st	Office/Engineering/Admin/Common	3,400
	131	Manufacturing	4,600
	2nd	Office/Engineering/Admin/Common	3,750
	Ziiu	Manufacturing	-
		Total Existing Building	11,750
East Addition (Alongside Mfg)	1st	Manufacturing	4,000
	131		
	2nd		
	ZIIU	Warehouse	4,000
		Total East Addition	8,000
West Addition (Alongside cafeteria)	1st	Office/Engineering/Admin/Common	2,500
	131	Manufacturing	1,500
	2nd		
	ZIIU	Office/Engineering/Admin/Common	4,000
		Total West Addition	8,000

C3I - Commerce Way - Addition

Submission ID 390

Approval Status New Submission

Map No. 48

Block No. NA

Lot No. 3

Parcel ID 495

Property Owner C-Marine Dynamic Realty, LLC

Yes

Project Street Address 8 Commerce Way

This project is for a municipality No

This project is inside MS-4 Permit

Area

Project is within the 200 meter No

coastal zone or stream buffer zone

Discharges to an impaired waterbody No

Offsite mitigation No

By submitting this form, I certify all Yes

information is true and correct to the

best of my knowledge and professional judgement.

Town Exeter

Land Use Type Commercial and Industrial

Hydrologic Unit Code (HUC)-10 0106000308 – Exeter Squamscott River

Last Updated By jmctigue

Report Submitted By jmctigue

Last Updated On Tue, 10/03/2023 - 21:17

Report Submitted Tue, 10/03/2023 - 21:10

Impervious Surface Management Table - Structural BMPs

Structural BMP	Impervious Surface Manage (ac)	d	Runoff Volume Storage at Design Capacity (ft³)	Design Storm Depth (")	Infiltration Rate (in/hr)
Enhanced Bio-filtration with Internal Storage Reservoir (ISR)	0.38		10757.00	7.8	N/A
Gravel Wetland	0.14		1319.00	2.6	N/A
Enhanced Bio-filtration with Internal Storage Reservoir (ISR)	0.46		7750.00	4.6	N/A
Bio-filtration	0.12		2885.00	6.6	2.41
Total Impervious Cover (acres)	1	.18			
Total Management (acres)	1	.10			
Effective Impervious Cover (acres)	0	80.0			

Land Use Conversion Table

Soils		Existing Con	ditions		Future Conditions		
Hydrologic Group	Acres	Land Use Type	Acres	Impervious and/or Paved Surfaces Acres	Land Use Type	Acres	Impervious and/or Paved Surfaces Acres
В	0.76	Forest	0.76	0.00	Transportation (roads/parking lots)	0.76	0.76
В	0.36	Forest	0.36	0.00	Commercial/Institutional	0.36	0.36
В	1.37	Forest	1.37	0.00	Disturbed	1.37	0.00
С	0.07	Wetlands	0.07	0.00	Transportation (roads/parking lots)	0.07	0.07
С	0.07	Wetlands	0.07	0.00	Disturbed	0.07	0.00
Totals	2.63		2.63	0		2.63	1.19

Wastewater Management Table

Existing Conditions			Future Conditions		
Management Option	Discharge (GPD)	Description	Management Option	Discharge (GDP)	Description
Totals	0			0	

GENERAL INFORMATION

OWNER

MAP 48 LOT 3 C-MARINE DYNAMICS REALTY, INC 11 FIFIELD LANE STRATHAM, NH 03885

APPLICANT

8 COMMERCE WAY, EXETER, NH 03833

RESOURCE LIST

PLANNING/ ZONING DEPARTMENT 10 FRONT STREET EXETER, NH 03833

(603) 773-6112 DAVE SHARPLES, TOWN PLANNER

BUILDING DEPARTMENT

10 FRONT STREET EXETER, NH 03833 (603) 773-6112 DOUGLAS EASTMAN, INSPECTOR

PUBLIC WORKS 13 NEWFIELDS ROAD EXETER, NH 03833

(603) 773-1355 PAUL VLASICH, TOWN ENGINEER

POLICE DEPARTMENT 20 COURT STREET EXETER, NH 03833 (603) 778-772-1212 CHIEF STEPHAN POULAN

FIRE DEPARTMENT 20 COURT STREET EXETER, NH 03833 (603) 772-6128CHIEF ERIC WILKING

ASSOCIATED WITH

ENVIRONMENTAL SERVICES GOVE ENVIRONMENTAL SERCIES, INC. 8 CONTINENTAL DRIVE, BUILDING 2, UNIT H EXETER, NH 03833-7507 (603) 778-0644

ARCHITECT

BRANDON M. HOLBEN. AIA WINTER HOLBEN ARCHITECTURE + DESIGN 7 WALLINGFORD SQUARE UNIT 2099 KITTERY, ME 03904 (207) 994 - 3104

ABUTTERS

MAP 39 LOT 2 TOWN OF EXETER CONSERVATION COMMISSION 10 FRONT STREET EXETER, NH 03833

MAP 39 LOT 3 TOWN OF EXETER CONSERVATION COMMISSION 10 FRONT STREET EXETER, NH 03833

MAP 47 LOT 9 CKT ASSOCIATES 158 SHATTUCK WAY NEWINGTON, NH 03801

MAP 47 LOT 11 BOAT OF GARTEN LLC PO BOX 4430 MANCHESTER, NH 03108

MAP 48 LOT 2 NORTHEAST DISTRIBUTION LTD 11 COMMERCE WAY EXETER, NH 03833

MAP 48 LOT 4-1 JAMRIS REALTY LLC 6 COMMERCE WAY EXETER, NH 03833

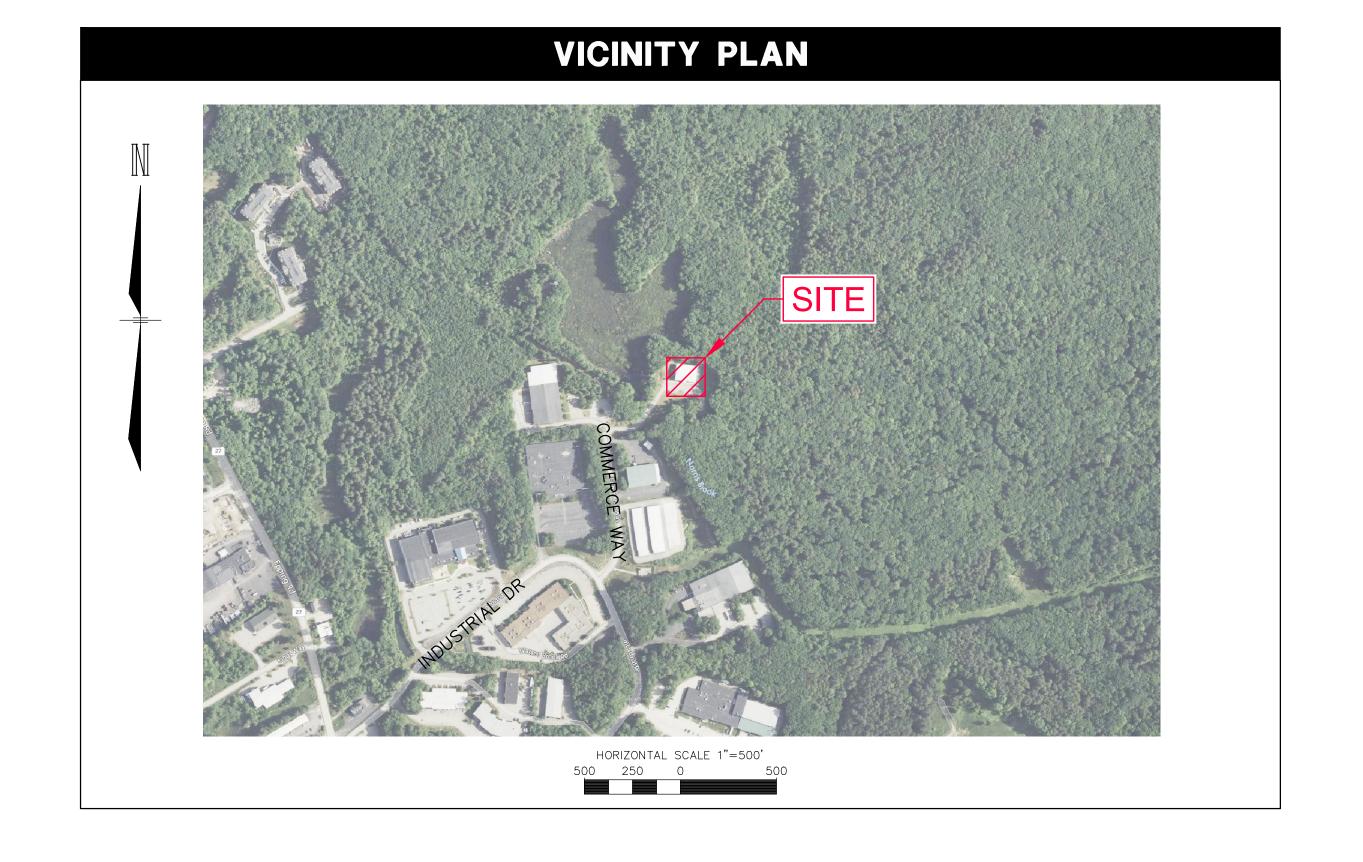
MAP 49 LOT 8 TOWN OF EXETER HENDERSON SWASEY FOREST 10 FRONT STREET EXETER, NH 03833

SITE DEVELOPMENT PLANS

PREPARED FOR: C-MARINE DYNAMICS REALTY, INC.

8 COMMERCE WAY EXETER, NEW HAMPSHIRE

JULY 28, 2023 LAST REVISED AUGUST 8, 2023



SHEET TITLE SHEET COVER SHEET EXISTING CONDITIONS PLAN WETLAND BUFFER IMPACT PLAN SITE PREPARATION PLAN SITE PLAN C - 5GRADING & DRAINAGE PLAN

INDEX OF SHEETS

C-10 TO C-14 DETAILS C-15 & C-16 ENVIRONMENTAL CONCERN NOTES

LIGHTING PLAN

LANDSCAPE PLAN

EROSION CONTROL PLAN

EROSION CONTROL NOTES

PERMITS / APPROVALS

NUMBER APPROVED EXPIRES

TOWN CONDITIONAL USE PERMIT

TOWN SITE PLAN

C-6

C-8

C - 9

NHDES ALTERATION OF TERRAIN

EPA NPDES ENOI CGP & SWPPP

WAIVERS

THE FOLLOWING WAIVERS FROM THE TOWN OF EXETER SITE REVIEW REGULATIONS ARE BEING REVIEWED BY THE PLANNING BOARD:

1. TOWN OF EXETER SITE PLAN REVIEW AND SUBDIVISION REGULATIONS SECTION 9.7.5.5 LANDSCAPING PLANS SHALL PROVIDE ADDITIONAL CURBED PLANTING ISLANDS (A MINIMUM OF 9-FEET WIDE) BETWEEN EVERY TEN TO FIFTEEN PARKING SPACES TO AVOID LONG ROWS OF PARKED CARS.

2. TOWN OF EXETER ZONING REGULATIONS SECTION 9.3.4(F)(12)(A)&(B)

PROHIBITED USE OF FERTILIZER.

THESE PLANS ARE PERMIT DRAWINGS ONLY AND NOT INTENDED FOR CONSTRUCTION OR BIDDING

	APPRO	OVED BY	THE	TOWN	OF EXE	TER PLA	INNING	BOARD	
/									
DARD	MEMBER								AND
PARD	MEMBER								

PLANNING BOARD CASE # _

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

COVER SHEET

C3I, INC. 8 COMMERCE WAY

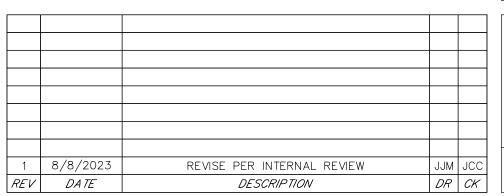
EXETER, NH **COUNTY OF ROCKINGHAM**

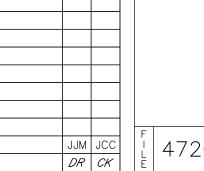
OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS

JULY 28, 2023





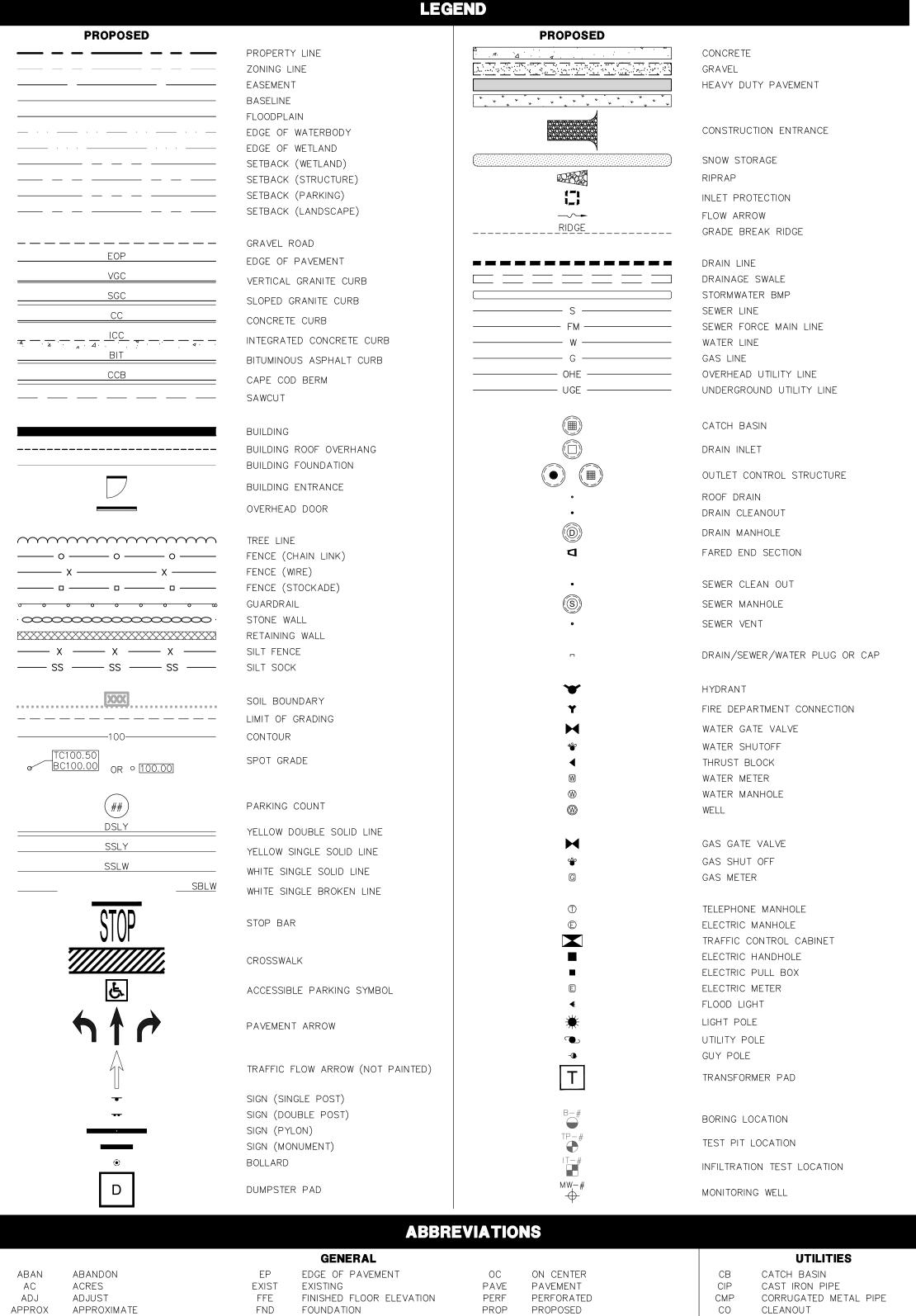
170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

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GENERAL NOTES

- 1. THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
- 2. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN, INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE
- 3. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE TOWN PLANNING BOARD
- 4. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF EXETER, NEW HAMPSHIRE, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO TOWN OF EXETER DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE TOWN AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE TOWN, COUNTY, AND/OR STATE AGENCY.
- 5. THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ENV-WQ 1500. THE SITE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF EACH STORMWATER FACILITY TO COORDINATE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL TAKE PROGRESS PHOTOS DURING CONSTRUCTION OF ALL STORMWATER DRAINAGE COMPONENTS AND SEND TO THE ENGINEER.
- 6. SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
- 7. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- 8. CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS. 9. PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED
- 10. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES

ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN

- 11. TEMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- 12. TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
- 13. ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS
- 14. REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF BUILDING FOUNDATIONS AND CONCRETE ELEMENTS WHICH ABUT THE BUILDING SUCH AS STAIRS, SIDEWALKS, LOADING DOCK RAMPS, PADS, AND COMPACTOR PADS. DO NOT USE SITE PLANS FOR LAYOUT OF FOUNDATIONS.
- 15. PRIOR TO CONSTRUCTION A RETAINING WALL DESIGN MUST BE COMPLETED AND STAMPED BY A STRUCTURAL ENGINEER AND APPROVED BY TFMORAN INC. AND THE TOWN OF EXETER.
- 16. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE
- 17. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER
- SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.

ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.

- 18. CONTRACTOR'S GENERAL RESPONSIBILITIES:
- A. BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS AND CONDITIONS OF ALL PROJECT-SPECIFIC PERMITS AND APPROVALS AS LISTED ON THE COVER SHEET TO THESE PLANS OR OTHERWISE REQUIRED.
- B. NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
- C. EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
- E. TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST, AND UNSIGHTLY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT BETWEEN THE HOURS OF 7 AM AND 10 PM, IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL ORDINANCES AND REGULATIONS OF THE TOWN OF EXETER, NEW HAMPSHIRE.
- F. MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
- G. IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
- H. COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- I. PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY IFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- K. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- L. VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE AND/OR WETLAND SETBACKS PRIOR TO COMMENCING ANY FOUNDATION CONSTRUCTION.
- M. PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE TOWN ENGINEER AND PER TOWN REGULATIONS.
- N. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.

- O. AT COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND A LETTER STAMPED BY A QUALIFIED ENGINEER THAT THEY HAVE OBSERVED ALL UNDERGROUND DETENTION SYSTEMS. INFILTRATION SYSTEMS. OR FILTERING SYSTEMS PRIOR TO BACKFILL, AND THAT SUCH SYSTEMS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS.
 - 1) ADVANCE WRITTEN NOTICE AT LEAST ONE WEEK PRIOR TO COMMENCING ANY WORK UNDER THE PERMIT AND NOTIFICATION TO AOT VIA THE START OF CONSTRUCTION FORM.
 - 2) IF ANY UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS WERE INSTALLED, FOR EACH SUCH SYSTEM:
 - A) REPRESENTATIVE PHOTOGRAPHS OF THE SYSTEM AFTER COMPLETION BUT PRIOR TO BACKFILLING; AND
 - B) A LETTER SIGNED BY A QUALIFIED ENGINEER WHO OBSERVED THE SYSTEM PRIOR TO BACKFILLING, THAT THE SYSTEM CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.
 - 3) UPON COMPLETION OF CONSTRUCTION, NOTIFICATION TO AOT VIA THE
 - COMPLETION OF CONSTRUCTION FORM AND WRITTEN CERTIFICATION THAT: A) ALL WORK UNDER THE PERMIT HAS BEEN CONSTRUCTED IN ACCORDANCE
 - WITH THE APPROVED PLANS AND SPECIFICATIONS. B) IF ANY DEVIATIONS FROM THE APPROVED PLANS WERE MADE, WRITTEN DESCRIPTIONS AND AS-BUILT DRAWINGS OF ALL SUCH DEVIATIONS, STAMPED BY A QUALIFIED ENGINEER, SHALL BE PROVIDED.

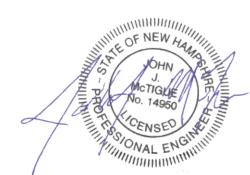
GRADING & DRAINAGE NOTES

- 1. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 AS APPLICABLE.
- 2. THE CONTRACTOR SHALL PREPARE, MAINTAIN, AND EXECUTE A S.W.P.P.P. IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT.
- 3. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN ENOUGAL LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY
- 5. COORDINATE WITH STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.

CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.

EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE

- 6. COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES.
- 7. COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
- 8. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL
- WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS, AND ALIGNMENTS.
- 9. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE, RAMPS, AND LOADING
- 10. THE SITE SHALL BE GRADED SO ALL FINISHED PAVEMENT HAS POSITIVE DRAINAGE AND SHALL NOT POND WATER DEEPER THAN 1/4" FOR A PERIOD OF MORE THAN 15 MINUTES AFTER FLOODING
- 11. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- 12. ALL SIDEWALK AND OTHER CURB REVEALS SHALL BE 6" WITH A TOLERANCE OF PLUS OR MINUS 3/8". WHERE SIDEWALK IS TO BE FLUSH, THE PAVEMENT REVEAL SHALL BE 1/4" WITH A TOLERANCE OF 1/8".
- 13. THE FINISHED GRADE AT BOTTOM OF ALL ACCESSIBLE RAMPS SHALL BE FLUSH WITH PAVEMENT WITH A TOLERANCE OF PLUS OR MINUS 1/4".
- 14. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE PRIOR TO INSTALLATION OF FINISHED PAVEMENT
- 15. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE
- 16. STORMWATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- 17. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
- 18. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
- 19. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER, AND MULCH. SEE LANDSCAPE PLAN FOR ADDITIONAL REQUIREMENTS.
- 20. DENSITY REQUIREMENTS: MINIMUM DENSITY*
- LOCATION BELOW PAVED OR CONCRETE AREAS 95%
- 95% TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL BELOW LOAM AND SEED AREAS *ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE
- OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM D-6938.



SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

NOTES C3I, INC.

8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS

UTILITY NOTES

HAVE NYLON PULL ROPES.

DRAINAGE

FLECTRIC

TELEPHONE

SEWER

WATER

CABLE

RESPONSIBILITY OF THE CONTRACTOR.

1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN

2. ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL, INSTALLATION. TERMINATION. EXCAVATION.

CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION,

SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS,

PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING

REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

4. COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING

5. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER

NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR

RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE

7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS,

CONDUITS REQUIRED PRIOR TO INSTALLATION OF ANY CONDUIT.

LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE

14. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

FAIRPOINT COMMUNICATIONS

PRIVATE

MUNICIPA

COMCAST

MUNICIPAL

OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS

DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR

OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS

CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE

CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED

ON THESE DRAWINGS TO RENDER THE UTILITY INSTALLATION COMPLETE AND OPERATIONAL.

8. ALL UTILITY COMPANIES REQUIRE INDIVIDUAL CONDUITS. CONTRACTOR TO COORDINATE WITH

9. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND

10. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL

SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE

13. UNLESS OTHERWISE SPECIFIED, ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC.

MATCH EXISTING PAVEMENT. OBTAIN ALL PERMITS REQUIRED FOR TRENCHING.

11. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING, AND RELATED

12. PROVIDE PERMANENT PAVEMENT REPAIR FOR ALL UTILITY TRENCHES IN EXISTING ROAD OR

PAVEMENT TO REMAIN. SAW CUT TRENCH, PAVEMENT, AND GRANULAR BASE THICKNESS TO

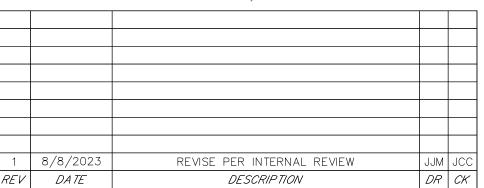
SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO

TELEPHONE, CABLE, AND ELECTRIC COMPANIES REGARDING NUMBER, SIZE, AND TYPE OF

BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE

COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS,

JULY 28, 2023





ivil Engineers tructural Engineers ffic Engineers ind Survevors andscape Architects cientists

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

DR JJM FB

48 Constitution Drive, Bedford, N.H. 03110

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BLDG

BW

COORD

DIA

ELEV

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BEST MANAGEMENT PRACTICE

BOTTOM OF CURE

BOTTOM OF SLOPE

BOTTOM OF WALL

BITUMINOUS

BUILDING

CONCRETE

COORDINATE

DIAMETER

ELEVATION

BOOK & PAGE

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HIGH POINT

LINEAR FEET

LENGTH

MAXIMUM

MINIMUM

LSA

MAX

N/F

NTS

INVERT ELEVATION

INFILTRATION TEST

LANDSCAPE AREA

NOW OR FORMERLY

NEW HAMPSHIRE FISH & GAME NOT TO SCALE

RADIUS R&D REMOVE AND DISPOSE R&R REMOVE AND RESET REM REMOVE RET RETAIN RIM RIM ELEVATION RIGHT OF WAY ROW SLOPE

UNDERGROUND

WITH

SW

TYP

UG

WCR

SQUARE FEET SIDEWALK TEMPORARY BENCHMARK

TOP OF CURB TEST PIT TOP OF WALL TYPICAL

DMH F&C F&G FES GT HDPE HH HWHYD ISR OCS PVC

GREASE TRAP HANDHOLE HEADWAL HYDRANT LIGHT POLE ACCESSIBLE WHEELCHAIR RAMP RCP RD ROOF DRAIN SMH

COND

DCB

DIP

FRAME AND COVER FRAME AND GRATE FLARED END SECTION INTERNAL STORAGE RESERVOIR OUTLET CONTROL STRUCTURE POLYVINYL CHLORIDE PIPE REINFORCED CONCRETE PIPE

CONDUIT DOUBLE CATCH BASIN DUCTILE IRON PIPE DRAIN MANHOLE

HIGH DENSITY POLYETHYLENE PIPE

SEWER MANHOLE SEDIMENT OIL SEPARATOR

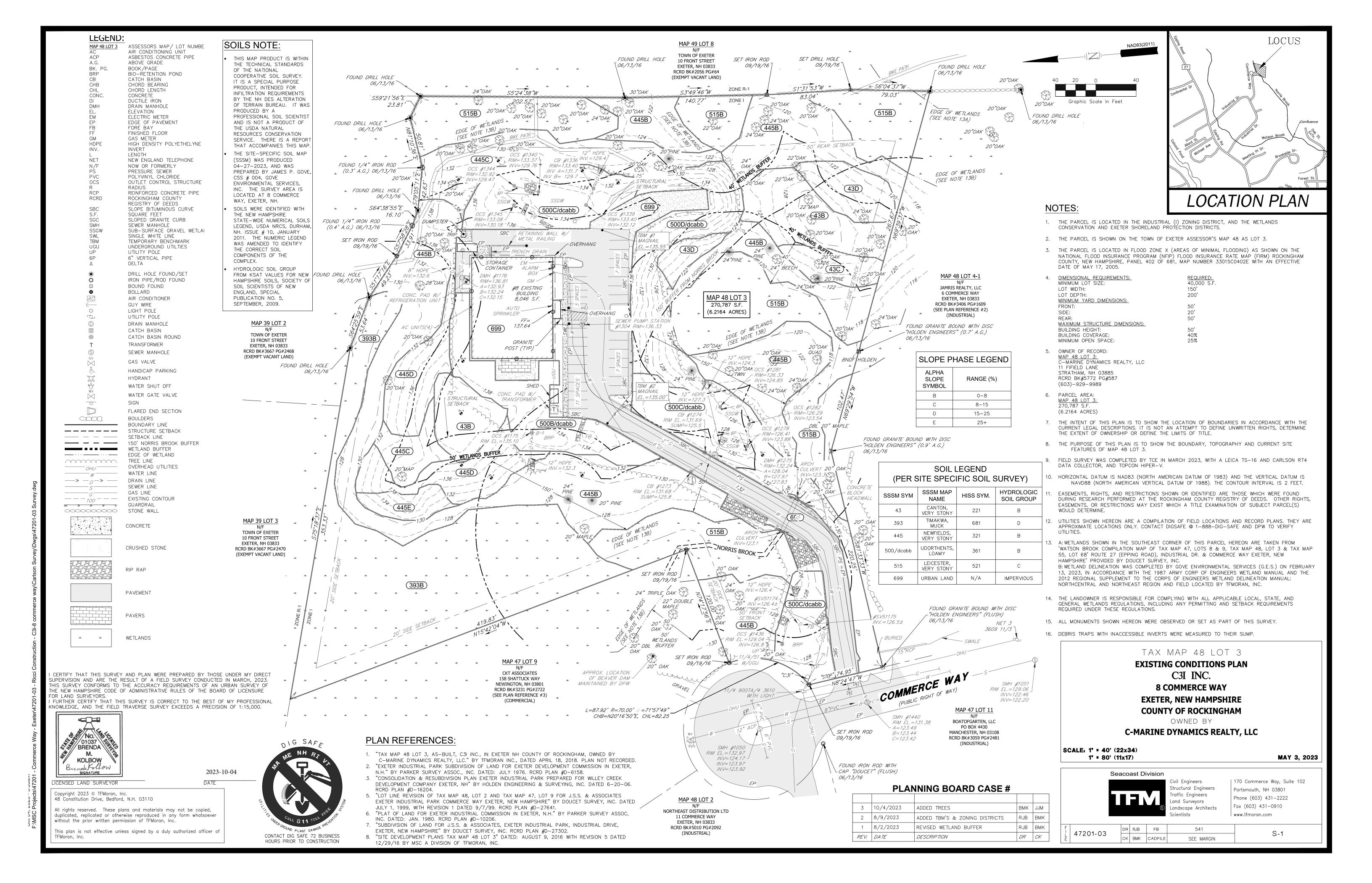
TAPPING SLEEVE, VALVE, AND BOX

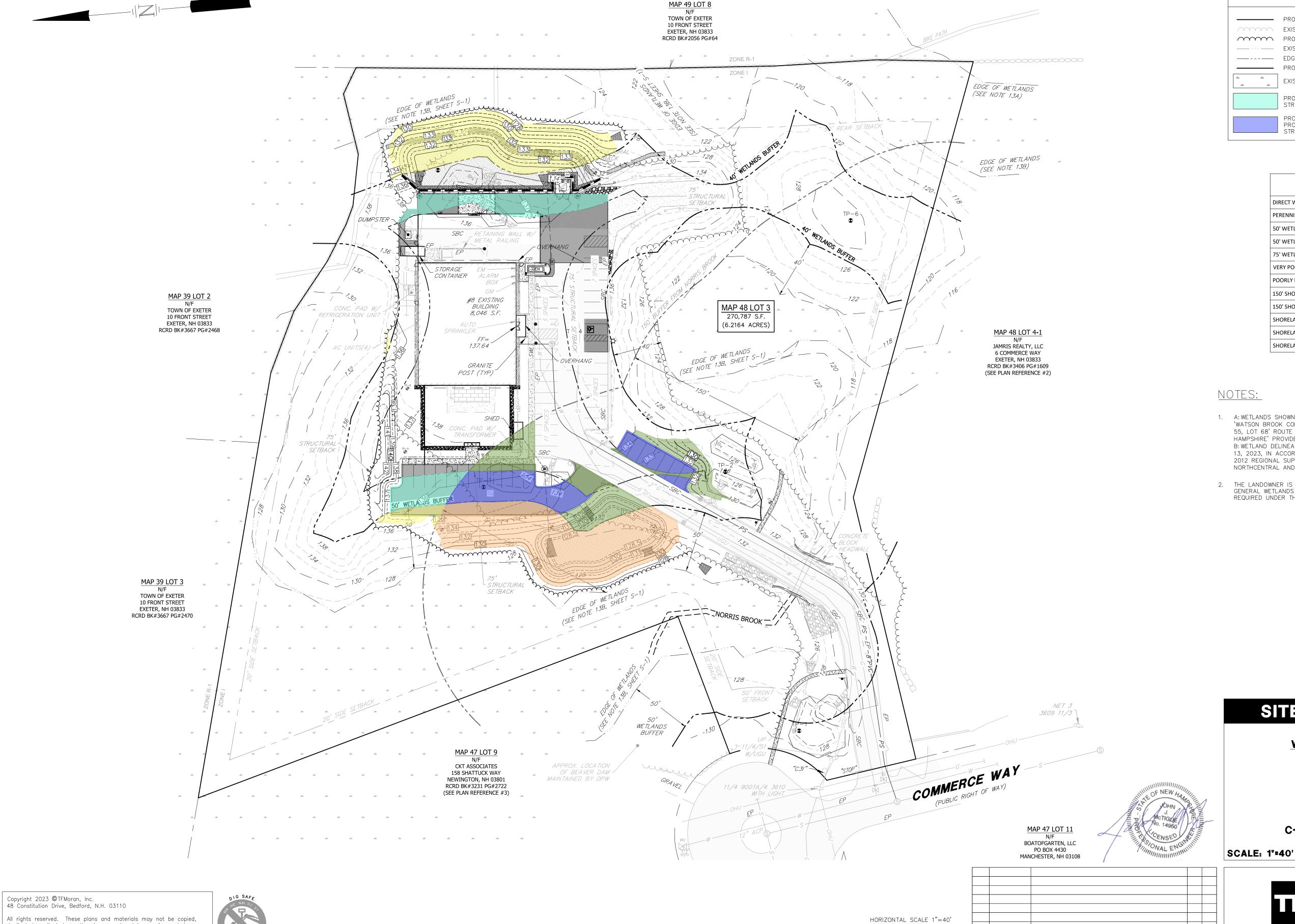
SOS TSV

REV DATE

47201.03 CK JCC CADFILE 47201-03 NOTES

C-1





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LEGEND PROPERTY LINE PROPOSED WETLAND EXISTING TREELINE BUFFER IMPACT PROPOSED TREELINE PROPOSED SHORELAND ---- EXISTING EDGE OF WETLANDS PROTECTION DISTRICT BUFFER IMPACT ----- EDGE OF WETLANDS BUFFER --- PROPERTY LINE PROPOSED SHORELAND PROTECTION AND WETLAND EXISTING WETLANDS BUFFER IMPACT PROPOSED WETLAND PROPOSED PAVEMENT STRUCTURE BUFFER IMPACT PROPOSED SHORELAND PROTECTION AND WETLAND PROPOSED CONCRETE STRUCTURE BUFFER IMPACT

WETLAND BUFFER IMPACT SUMMAR	WETLAND BUFFER IMPACT SUMMARY						
DIRECT WETLAND IMPACT	0 S.F.						
PERENNIAL STREAM IMPACT (36 LF X 3)	0 S.F.						
50' WETLAND BUFFER IMPACT PERMANENT	7,277 S.F.						
50' WETLAND BUFFER IMPACT TEMPORARY	0 S.F.						
75' WETLAND STRUCTURE BUFFER IMPACT	3,434 S.F.						
VERY POORLY DRAINED SOIL (VPD) BUFFER IMPACT	7,828 S.F.						
POORLY DRAINED SOIL (PD) BUFFER IMPACT	9,108 S.F.						
150' SHORELAND PROTECTION BUFFER IMPACT PERMANENT	4,361 S.F.						
150' SHORELAND PROTECTION BUFFER IMPACT TEMPORARY	0 S.F.						
SHORELAND AND WETLAND BUFFER IMPACT PERMANENT	8,504 S.F.						
SHORELAND AND WETLAND BUFFER IMPACT TEMPORARY	0 S.F.						
SHORELAND AND 75' STRUCTURE BUFFER IMPACT	3,515 S.F.						

- 1. A: WETLANDS SHOWN IN THE SOUTHEAST CORNER OF THIS PARCEL HEREON ARE TAKEN FROM 'WATSON BROOK COMPILATION MAP OF TAX MAP 47, LOTS 8 & 9, TAX MAP 48, LOT 3 & TAX MAP 55, LOT 68' ROUTE 27 (EPPING ROAD), INDUSTRIAL DR. & COMMERCE WAY EXETER, NEW HAMPSHIRE' PROVIDED BY DOUCET SURVEY, INC.

 B: WETLAND DELINEATION WAS COMPLETED BY GOVE ENVIRONMENTAL SERVICES (G.E.S.) IN FEBRUARY 13, 2023, IN ACCORDANCE WITH THE 1987 ARMY CORP OF ENGINEERS WETLAND MANUAL AND THE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. FIELD LOCATED BY TFMORAN, INC.
- THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE, AND GENERAL WETLANDS REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

WETLAND BUFFER IMPACT PLAN

C31, INC.
8 COMMERCE WAY
EXETER, NH

COUNTY OF ROCKINGHAM

OWNED BY

C-MARINE DYNAMICS REALTY, LLC



MARKED 75' WETLAND STRUCTURE BUFFER

REVISE PER INTERNAL REVIEW

DESCRIPTION

1 8/8/2023

REV DATE

JJM JCC

DR CK

Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

JULY 28, 2023

NOTES

1. SEE NOTES ON SHEET C-01.

- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATIONS. SIZE. AND ELEVATIONS OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY DEMOLITION. THE LOCATIONS SHOWN ON THESE PLANS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED DEMOLITION TO DETERMINE APPROPRIATE ACTION TO BE TAKEN BEFORE PROCEEDING WITH THE WORK. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ANTICIPATE CONFLICTS AND REPAIR EXISTING UTILITIES AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- 3. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL
- 4. THE CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
- 5. EXISTING UTILITY SERVICES TO BE DISCONTINUED ARE TO BE CAPPED AS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES.
- 6. CONSTRUCTION DEBRIS AND INVASIVE SPECIES SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
- 7. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PLACE ORANGE CONSTRUCTION FENCING AROUND EACH TREE TO BE RETAINED THROUGHOUT CONSTRUCTION. NO STOCKPILES OF MATERIAL ARE PERMITTED WITHIN THE DRIP LINE OF THE TREES TO BE SAVED.
- 8. CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY IF ANY TREES ARE DAMAGED DURING

CONSTRUCTION SEQUENCE NOTES

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

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

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

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

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

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

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

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

- 1. NOTIFY EASEMENT OWNERS PRIOR TO COMMENCEMENT OF WORK.
- 2. INSTALL ALL PERIMETER EROSION PROTECTION MEASURES AS INDICATED ON THE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. (SEE SHEET C-6)
- 3. DEMOLISH EXISTING SITE WORK DESIGNATED FOR REMOVAL 4. STORMWATER TREATMENT PONDS AND SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- (SEE SHEET C-6) 5. DURING CONSTRUCTION EVERY EFFORT SHALL BE MADE TO MANAGE SURFACE RUNOFF QUALITY. 6. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT BARRIERS, SEDIMENT
- A RATE OF 2.5 LBS/1000 SF SHALL BE USED). 7. CONDUCT MAJOR EARTHWORK, INCLUDING CLEARING AND GRUBBING, WITHIN THE LIMITS OF WORK. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
- 8. ALL STRIPPED TOPSOIL AND OTHER EARTH MATERIALS SHALL BE STOCKPILED OUTSIDE THE IMMEDIATE WORK AND WETLAND AREAS. A SILT BARRIER SHALL BE CONSTRUCTED AROUND THESE PILES IN A
- MANNER TO PROVIDE ACCESS AND AVOID SEDIMENT OUTSIDE OF THE WORK AREA. 9. CONSTRUCT BUILDING PAD AND COMMENCE NEW BUILDING CONSTRUCTION.
- 10. CONSTRUCT TEMPORARY CULVERTS AND DIVERSIONS AS REQUIRED.
- 11. BEGIN PERMANENT AND TEMPORARY INSTALLATION OF SEED AND MULCH 12. PERFORM EARTHWORK NECESSARY TO ESTABLISH ROUGH GRADING AROUND PARKING FIELDS AND ACCESS DRIVES. MANAGE EXPOSED SOIL SURFACES TO AVOID TRANSPORTING SEDIMENTS INTO WETLANDS. PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 13. INSTALL SUBSURFACE UTILITIES (DRAINAGE DRAINAGE FACILITIES, ETC.) 14. CONSTRUCT PROPOSED BIO-RETENTION AREAS. ALL DITCHES, SWALES, AND BIO-RETENTION AREAS
- SHALL BE FULLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM. 15. COMPLETE BUILDING AND ALL OFF-SITE IMPROVEMENTS.
- 16. COMPLETE SEEDING AND MULCHING. SEED TO BE APPLIED WITH BROADCAST SPREADER OR BY
- HYDRO-SEEDING, THEN ROLLED, RAKED, OR DRAGGED TO ASSURE SEED/SOIL CONTACT. 17. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDED AREAS HAVE BECOME FIRMLY
- ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE 18. DURING THE COURSE OF THE WORK AND UPON COMPLETION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT DEPOSITS, EITHER ON OR OFF SITE, INCLUDING CATCH BASINS, AND SUMPS, DRAIN PIPES AND DITCHES, CURB LINES, ALONG SILT BARRIERS, ETC. RESULTING FROM SOIL AND/OR CONSTRUCTION
- 19. CONSULT APPLICABLE REGULATIONS, PERMITS, CONDITIONS, AND APPROVED SWPPP FOR CONDITIONS
- RELATED TO NOTICE OF TERMINATION, IF REQUIRED 20. SEE WINTER CONSTRUCTION SEQUENCE FOR WORK CONDUCTED AFTER OCTOBER 15TH.

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

SITE PREPARATION PLAN

C3I, INC. 8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: 1"=40'

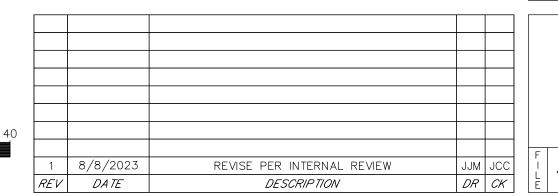
JULY 28, 2023

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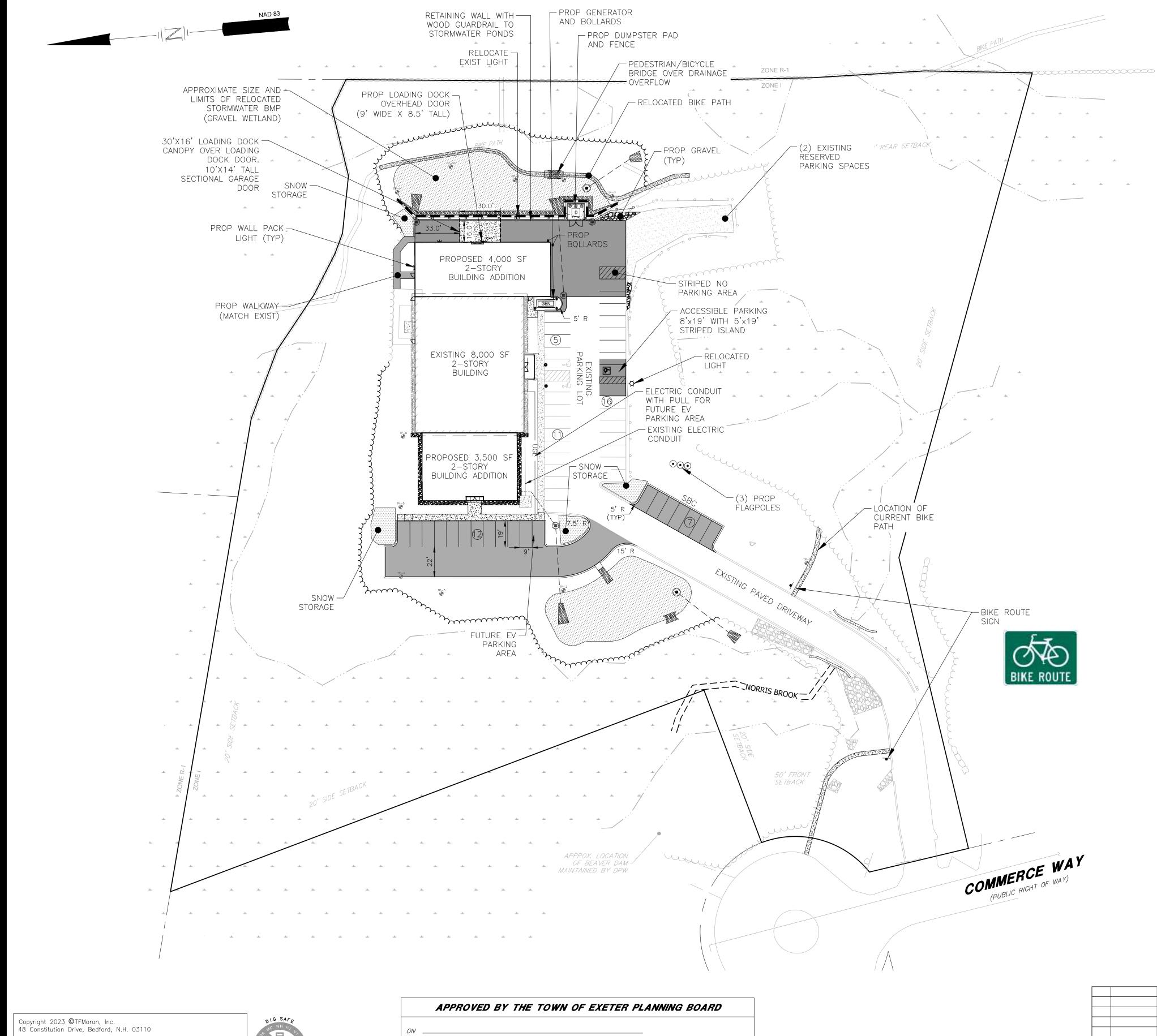
HORIZONTAL SCALE 1"=40'



Structural Engineers Traffic Engineers and Surveyors _andscape Architects cientists

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

DR JJM FB 47201.03 | CK | JCC | CADFILE | 47201-03 SITE PREP



SITE DATA

OWNER OF RECORD OF MAP 48 LOT 3: C-MARINE DYNAMICS REALTY, LLC. AREA OF PARCEL = $270,787\pm$ SF OR $6.22\pm$ ACRES

INDUSTRIAL (I) ZONE

EXISTING USE: LIGHT INDUSTRIAL/PROFESSIONAL OFFICE PROPOSED USE: LIGHT INDUSTRIAL PROFESSIONAL OFFICE

THE PURPOSE OF THIS PLAN IS TO CONSTRUCT TWO, 2-STORY, 4,000 SQUARE FOOT FOOTPRINT BUILDING ADDITIONS. ASSOCIATED IMPROVEMENTS INCLUDE AND ARE NOT LIMITED TO PARKING, GRADING, STORMWATER MANAGEMENT SYSTEMS, LIGHTING, AND LANDSCAPING.

DIMENSIONAL REQUIREMENTS (CURRENT ZONING)

MINIMUM LOT DIMENCIONIC	REQUIRED:	PROVIDED:
MINIMUM LOT DIMENSIONS: LOT AREA LOT FRONTAGE MIN LOT DEPTH	40,000' 150' 200'	270,787 SF 162' 450'
MINIMUM YARD DIMENSIONS: FRONT SIDE REAR	50' 20' 50'	>50' >20' >50'
MAXIMUM STRUCTURE DIMENSIONS: STRUCTURE HEIGHT MAXIMUM BUILDING COVERAGE MINIMUM OPEN SPACE	50 FT 40% 25%	<50 FT 6% >80%
EXETER SHORELAND DISTRICT	10%	7%

PARKING CALCULATIONS

TOTAL REQUIRED: PROFESSIONAL OFFICE - 1 SPACE PER 300 SF

LIGHT INDUSTRIAL - 1 SPACE FOR EACH EMPLOYEE ON MAX. SHIFT

PROFESSIONAL OFFICE: 13,333 SF X 1/300 = 45 SPACES

LIGHT INDUSTRIAL: 9 MANUFACTURING EMPLOYEES = 9 SPACES

TOTAL REQUIRED: 54 SPACES TOTAL PROVIDED: 54 SPACES

NOTES

- 1. SEE NOTES ON SHEET C-01.
- 2. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
- 3. LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE CITY/TOWN ZONING ORDINANCE AND SITE PLAN REGULATIONS.
- 4. SNOW SHALL NOT BE STOCKPILED IN STORMWATER BMP'S, WETLAND BUFFERS, OR WETLANDS. SEE SNOW STORAGE LOCATIONS. IN THE EVENT THAT THE SNOW STORAGE AREAS PROVIDED ON THE SITE ARE COMPLETELY UTILIZED, EXCESS SNOW SHALL BE TRANSPORTED OFF SITE FOR DISPOSAL IN ACCORDANCE WITH NHDES REGULATION. IF SNOW IS STORED WITHIN PARKING AREA, KEEP CATCH BASINS CLEAR.
- 5. ALL WATER, SEWER, ROAD (INCLUDING PARKING LOT), AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 9.3 STORMWATER MANAGEMENT STANDARDS, STORMWATER MANAGEMENT PLAN, STORMWATER POLLUTION PREVENTION PLAN, AND EROSION AND SEDIMENT CONTROL STANDARDS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES IN EXETER, NEW HAMPSHIRE.

SITE DEVELOPMENT PLANS

SITE PLAN C3I, INC.

EXETER, NH

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

JULY 28, 2023



Structural Engineers Land Surveyors Landscape Architects

Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

170 Commerce Way, Suite 102

47201.03 | CK | CR | CADFILE | C-447201-03 SITE

TAX MAP 48 LOT 3

8 COMMERCE WAY

COUNTY OF ROCKINGHAM

SCALE: 1"=40'

DR CK

REVISE PER INTERNAL REVIEW

DESCRIPTION

HORIZONTAL SCALE 1"=40'

1 8/8/2023

REV DATE

BOARD MEMBER BOARD MEMBER

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STRUCTURE 2 TOW 136.90 F.E.S. 5 ¬ (SEE DETAIL) BOW 130.80 INV.=131.50 F.E.S. 4 F.E.S. 6 -INV.=131.50 INV.=131.50 TOW 138.10 INV.=127.0 - TOW 137.10 BOW 130.00 · BOW 130.00 L=38, S=0.013FT/FT 12" HDPE -L=5, S=0.050 FT/FT L=22, S=0.050FT/FT CATCH BASIN 4 — RIM 136.30 INV. OUT 131.75 - CATCH BASIN 5 ERIM 135.90 - INV OUT 1.32 10 $^{\prime}$ 137.55 -SUMP 128.75 🤼 137.60 - 137.55 FF=137.65 137.04 136 137.6 ¬ \L=57, S=0.028 FT/FT CATCH BASIN 6 - INV 124.3 RIM 135.55 /INV. OUT 133.10 FF=137.65 SUMP 129.10 - EX. OCS RIM 126.33 - CONNECT TO INV OUT 124.85 EXISTING U.D. EXISTING SEWER PUMP STATION - EX. CATCH BASIN 2 🔍 RIM 131.45 EX. SUBSURFACE GRAVEL INV. OUT 128.10 L=38, S=0.080FT/FT WETLAND #9 SUMP 124.00 4"x4"x6" TEE CATCH BASIN 3 — INV 127.3 WITH 4" U.D. RIM 134.50 FF=137.65 INV. IN 132.00 INV. OUT 130.55 EX. MANHOLE 1 SUMP 126.50 RIM 132.15 INV. IN(N) 128.4 INV. IN (NW) 127.97 INV OUT 127.83 - EX. CATCH BASIN 1 RIM 131.68 INV. OUT 128.25 SUMP 125.8 - EX. SEWER LINE 1-1/2" SDR-11 HDPE - EX. 2" GAS SERVICE 12" HDPE L=55, S=0.010 FT/FT_ WATER LINE INV.=130.00 — CURB INLET 1-→ OUTLET CONTROL -- INV.=126.5 INLET 132.95 STRUCTURE 8 INV. OUT 131.50 (SEE DETAIL) SUMP 127.50 _ — — - 12" HDPE EX. ELECTRIC/ L=35, S=0.014 FT/FT_ (SEE DETAIL) COMMUNICATION CONDUIT ____ `NV 126.4 ≦ BIORETENTION AREA #10 128-EX. OCS — ****RIM 129.04 INV OUT 126.80

TEST PIT LOGS:

EVALUATOR: GOVE ENVIRONMENTAL SERVICES, INC.

0-4" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 4-23" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, 5%, NONE 23-52" 2.5Y 5/3 LOAMY SAND, MASSIVE, FRIABLE, 5%, 5YR 5/6 52" TERMINATED, NO REFUSAL, NO OBSERVED WATER, ROOTS @ 23", ESTIMATED SEASON HIGH WATER TABLE (ESHWT) @ 23"

TEST PIT NO. 2 0-4" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 4-25" 2.5Y 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE

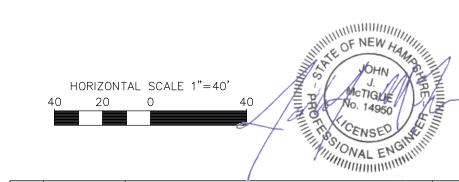
24-59" 2.5Y 5/4 LOAMY SAND, MASSIVE, FRIABLE, 5%, 5YR 5/6 59" TERMINATED, NO REFUSAL, NO OBSERVED WATER, ROOTS @ 24", ESHWT @ 24"

0-5" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 5-33" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 33-40" 2.5Y 5/4 LOAMY SAND, MASSIVE, FRIABLE, NONE 40-60" 2.5Y 5/3 LOAMY SAND, MASSIVE, FIRM, 5%, 5YR 5/6 60" TERMINATED, REFUSAL @ 60", NO OBSERVED WATER, ROOTS @ 40", ESHWT @ 40"

TEST PIT NO. 4 0-6" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 6-13" 10YR 3/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 13-25" 10YR 3/6 LOAMY SAND, MASSIVE, FIRM, 5% 5YR 5/6 25-52" 10YR 3/6 LOAMY SAND, MASSIVE, FRIABLE, 20% 5YR 5/6 52" TERMINATED, NO REFUSAL, OBSERVED WATER @ 50", ROOTS @ 40", ESHWT @ 13"

0-5" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 5-32" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 32-52" 2.5YR 5/3 LOAMY SAND, MASSIVE, FRIABLE, 5% 5YR 5/6 52" TERMINATED, REFUSAL @ 52", NO OBSERVABLE WATER, ROOTS @ 32", ESHWT @ 32"

TEST PIT NO. 6 0-4" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 4-29" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE 29-36" 10YR 4/4 LOAMY SAND, MASSIVE, FRIABLE, NONE 36-120" 2.5Y 5/4 LOAMY SAND, MASSIVE, FRIABLE, NONE 120" TERMINATED, NO REFUSAL, NO OBSERVABLE WATER, ROOTS @ 36", ESHWT >120"



2 9/19/2023 ADD UTILITY CALLOUTS JJM JCC 1 8/8/2023 REVISE PER INTERNAL REVIEW REV DATE **DESCRIPTION** DR CK

NOTES

- 1. SEE NOTES ON SHEET C-01.
- 2. ALL DOORS AND GARAGE ENTRANCES SHALL BE AT FINISHED FLOOR ELEVATION UNLESS OTHERWISE NOTED.
- 3. PROPOSED SPOT GRADES ON PAVEMENT ARE PROVIDED TO THE NEAREST 0.05. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE FINISHED GRADES MEET ADA STANDARDS FOR WHEEL CHAIR RAMPS, HANDICAP SPACES AND ACCESS AISLES, CROSSWALKS, SIDEWALKS, ETC.
- 4. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- 5. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED IN THE
- 6. ALL PROPOSED DRAINAGE PIPES SHALL BE 12" AND HDPE, UNLESS OTHERWISE NOTED ON THE
- 7. DRAINAGE PIPES WITH LESS THAN 3' COVER SHALL BE INSULATED (SEE UTILITY TRENCH DETAIL) AND DRAINAGE CATCH BASINS WITH LESS THAN 3.5' OF COVER OVER INVERTS SHALL USE SLAB TOP CATCH BASIN (SEE DETAILS).
- 8. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SUBDRAINAGE SYSTEMS FOR THE BUILDING FOUNDATION. SUBDRAINAGE MUST DAYLIGHT OR TIE INTO THE STORMWATER MANAGEMENT SYSTEM. COORDINATE SUBDRAINAGE SYSMTEM DESIGN WITH THE ENGINEER OF

TEST PIT LOGS:

EVALUATOR: GOVE ENVIRONMENTAL SERVICES, INC. DATE: 05/31/2023

TEST PIT NO. SO1 0-44" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, FILL 44-69" 2.5Y 7/4 LOAMY SAND, MASSIVE, FRIABLE, 5%, C

69" TERMINATED, REFUSAL @ 69", NO OBSERVABLE WATER, ESTIMATED SEASON HIGH WATER TABLE (ESHWT) @ 44"

0-5" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, AP 5-29" 2.5Y 5/4 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, BW

29-49" 2.5Y 7/2 LOAMY SAND, MASSIVE, FRIABLE, 10%, C 49" TERMINATED, REFUSAL @ 49", VARIABLE @ 30-49", NO OBSERVABLE WATER, ESHWT @ 29"

0-5" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, AP 5-29" 2.5Y 5/4 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, BW 29-39" 2.5Y 7/2 LOAMY SAND, MASSIVE, FRIABLE, 10%, C 39" TERMINATED, REFUSAL @ 39", NO OBSERVABLE WATER, ESHWT @ 29"

0-4" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, AP 4-32" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, BW

32" TERMINATED, REFUSAL @ 32", NO OBSERVABLE WATER, NO ESHWT

21-38" 10YR 5/2 FINE SANDY LOAM, MASSIVE, FRIABLE, 10%, C

0-4" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, AP 4-24" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, BW 24" TERMINATED, REFUSAL @ 24", VARIABLE 6-24", NO OBSERVABLE WATER, NO ESHWT

TEST PIT NO. SO6 0-20" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, B 20-24" 2.5Y 7/2 FINE SANDY LOAM, MASSIVE, FRIABLE, NONE, C 24" TERMINATED, REFUSAL @ 24", VARIABLE 6-24", NO OBSERVABLE WATER, NO ESHWT

0-21" 10YR 3/2 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, FILL 21-43" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, B 43" TERMINATED, REFUSAL @ 43", NO OBSERVABLE WATER, NO ESHWT, MAY BE ROCK FILL

TEST PIT NO. SO8 0-23" 10YR 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, FILL

0-17" 10YR 4/4 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, FILL 17" TERMINATED, REFUSAL @ 17", NO OBSERVABLE WATER, NO ESHWT, MAY BE ROCK FILL

38" TERMINATED, REFUSAL @ 38", NO OBSERVABLE WATER, ESHWT @ 23", MAY BE ROCK FILL

0-37" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, B

37" TERMINATED, REFUSAL @ 17", VARIABLE 23-37", NO ESHWT, MAY BE ROCK FILL TEST PIT NO. SO11 0-36" 10YR 5/6 FINE SANDY LOAM, GRANULAR, FRIABLE, NONE, B

36" TERMINATED, REFUSAL @ 17", NO OBSERVABLE WATER, NO ESHWT, MAY BE ROCK FILL

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

GRADING & DRAINAGE PLAN

C3I, INC. 8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE:



Civil Engineers Structural Engineers Traffic Engineers _and Surveyors _andscape Architects | 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

JULY 28, 2023

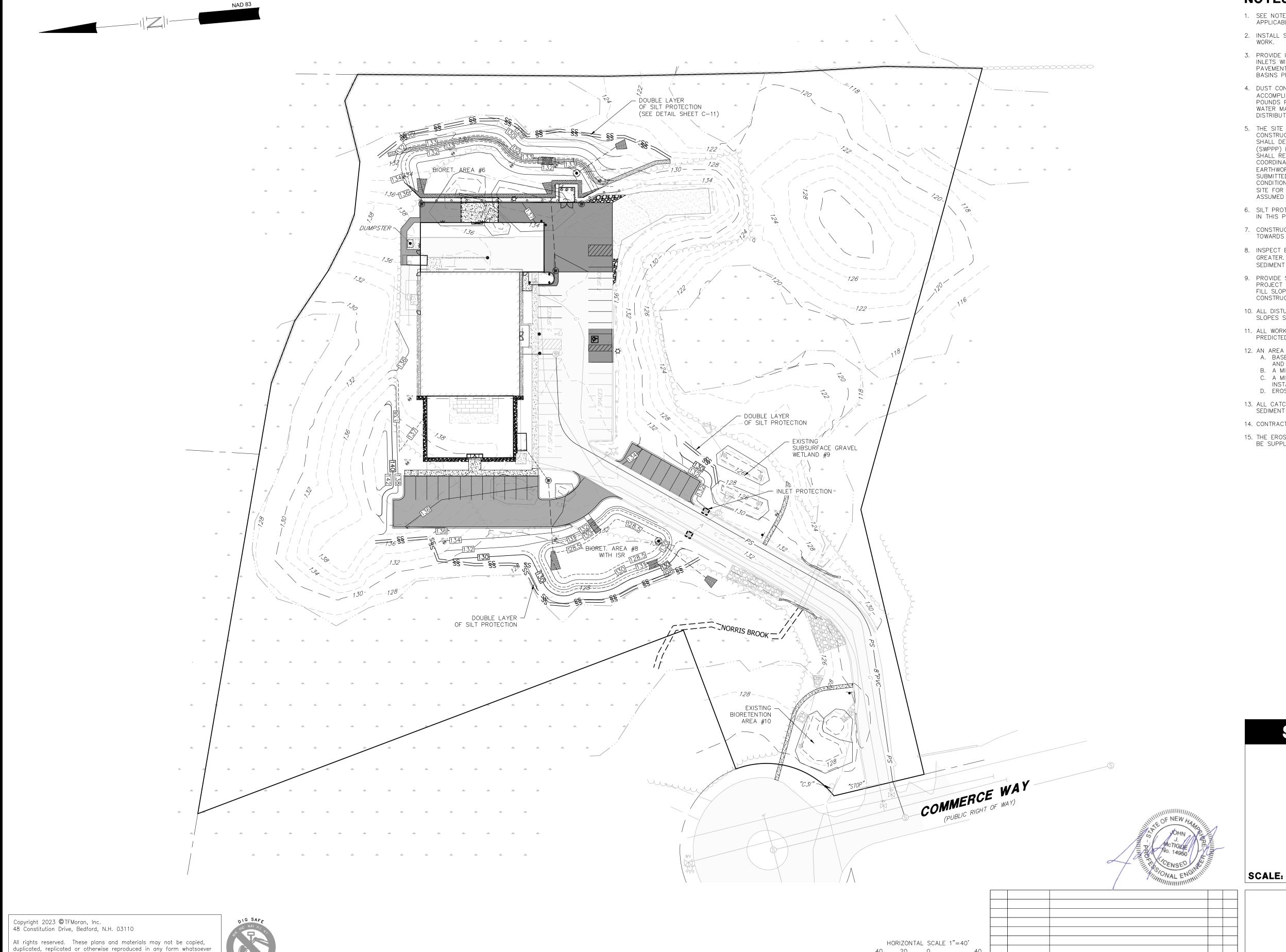
DR JJM FB 47201.03 | CK | JCC | CADFILE | 47201-03 GRADING & DRAIN

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NOTES

- 1. SEE NOTES ON SHEET C-7 AND DETAILS ON SHEET C-11, AND THE APPROVED SWPPP, AS
- 2. INSTALL SILT BARRIER ALONG THE PERIMETER OF THE AREA TO BE DISTURBED AS FIRST ORDER OF
- 3. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED. INLET PROTECTION BARRIERS SHALL BE IN PLACE AT ALL CATCH BASINS PRIOR TO THE DISTURBANCE OF SOIL.
- 4. DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IT SHALL BE ACCOMPLISHED BY THE UNIFORM APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF 1-1/2 POUNDS PER SQUARE YARD BY MEANS OF A LIME SPREADER OR OTHER APPROVED METHOD. WATER MAY ALSO BE USED FOR DUST CONTROL, AND APPLIED BY SPRINKLING WITH WATER TRUCK DISTRIBUTORS, AS REQUIRED.
- 5. THE SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION IF THE DISTURBANCE EXCEEDS ONE ACRE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. THE SITE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE FOR, OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- 6. SILT PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS CONTAINED IN THIS PLAN SET.
- 7. CONSTRUCT JUTE MATTING ON ALL SLOPES STEEPER THAN 3:1, DISTURBED AREAS SLOPING TOWARDS WETLANDS AND ALL LOCATIONS SHOWN ON PLAN.
- 8. INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN STORM OF 0.10" OR GREATER. REPAIR/MODIFY SILT BARRIER AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REMOVE SEDIMENT WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
- 9. PROVIDE SILT BARRIERS AT THE BASE OF CUT AND FILL SLOPES UNTIL COMPLETION OF THE PROJECT OR UNTIL VEGETATION BECOMES ESTABLISHED ON SLOPES. EROSION PROTECTION BELOW FILL SLOPES SHALL BE PLACED IMMEDIATELY AFTER CLEARING, PRIOR TO EMBANKMENT
- 10. ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
- 11. ALL WORK AREAS TO BE STABILIZED AT THE END OF EACH WORK DAY AND PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT.
- 12. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

 A. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, ARE INSTALLED IN AREAS TO BE PAVED
- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN
- D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 13. ALL CATCH BASINS, MANHOLES, AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER ALL AREAS HAVE BEEN STABILIZED.
- 14. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY DURING CONSTRUCTION.
- 15. THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

EROSION CONTROL PLAN

C3I, INC. 8 COMMERCE WAY

EXETER, NH **COUNTY OF ROCKINGHAM**

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

JULY 28, 2023



1 8/8/2023

REV DATE

REVISE PER INTERNAL REVIEW

DESCRIPTION

DR CK

Structural Engineers and Surveyors Landscape Architects 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

DR JJM FB 47201.03 | CK | JCC | CADFILE 47201-03 EROSION CONTROL PLAN

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THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 34,454 SQUARE FEET (0.790 ACRES).

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

SEQUENCE OF MAJOR ACTIVITIES

SEE SITE PREPARATION SHEET C-3, FOR CONSTRUCTION SEQUENCE NOTES

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

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

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

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

INSTALLATION, MAINTENANCE, AND INSPECTION OF EROSION AND SEDIMENT CONTROLS

GENERAL

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN. 1. STABILIZATION OF ALL SWALES, DITCHES, AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.

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

B. <u>FILTERS / BARRIERS</u>

1. SILT SOCKS

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

PARTICLE SIZE

TMECC 02.02-B 2" SIEVE AND MIN. 60% GREATER THAN THE 3" SIEVE

STND TESTING < 60%

MOISTURE CONTENT

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

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

- B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SILT SOCK.
- C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

2. SEQUENCE OF INSTALLATION

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

3. MAINTENANCE

- A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
- B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

C. <u>MULCHING</u>

1. TIMING

TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:

A. APPLY MULCH PRIOR TO ANY STORM EVENT.

THIS IS APPLICABLE WHEN WORKING WITHIN 100' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE

B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT

3. MAINTENANCE

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

D. VEGETATIVE PRACTICE

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

WINTER RYE (FALL SEEDING) 2.5 LBS/1,000 SF

1. INLET BASKET STRUCTURE

- A. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO DISTURBING PAVEMENT AND SHALL REMAIN IN PLACE AND MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.
- B. MOLD 6X6, 42 LB. WIRE SUPPORT AROUND INLET FRAME AND GRATE AND EXTEND 6" BEYOND SIDES. SECURE FILTER FABRIC TO WIRE SUPPORT.

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

- D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 GPM.
- E. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
- F. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

F. WINTER CONSTRUCTION SEQUENCE

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

TIMING OF CONTROLS/MEASURES

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

FOR SINGLE/DUPLEX FAMILY SUBDIVISIONS, WHEN LOT DEVELOPMENT IS NOT PART OF THE PERMIT, THEN 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.

WASTE MATERIALS

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

SPILL PREVENTION

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

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

- A. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB. B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- C. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- D. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
- E. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- F. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER. HAZARDOUS PRODUCTS

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

- A. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
- SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL. 2. PRODUCT SPECIFICATION PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO

REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS 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.

1 8/8/2023

REV DATE

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

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

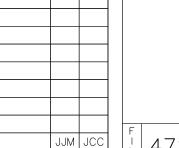
EROSION CONTROL NOTES C3I, INC.

EXETER, NH COUNTY OF ROCKINGHAM

OWNED BY C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS

JULY 28, 2023



DR CK

REVISE PER INTERNAL REVIEW

DESCRIPTION

tructural Engineers affic Engineers and Survevors andscape Architects cientists

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

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IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE

WARNING OF SIGNIFICANT STORMS.

TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.

4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED

- 8. NO FERTILIZER TO BE USED IN THE SHORELAND DISTRICT EXCEPT FOR THE FIRST YEAR TO ESTABLISH GROWTH.
- 10. SEE SEEDING NOTES FOR SEEDING RATES. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY
- 12. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

OATS (SPRING SEEDING) 2.0 LBS/1,000 SF 1.5 TONS/ACRE

- E. CATCH BASIN INLET PROTECTION

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

PREVENTION AND CLEANUP COORDINATOR.

SPECIFICALLY FOR THIS PURPOSE.

<u>SPILL CONTROL PRACTICES</u>

DUST_CONTROL

CLEANUP SUPPLIES.

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

G. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION

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

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

D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE

E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL

F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL

FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE,

THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

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

GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

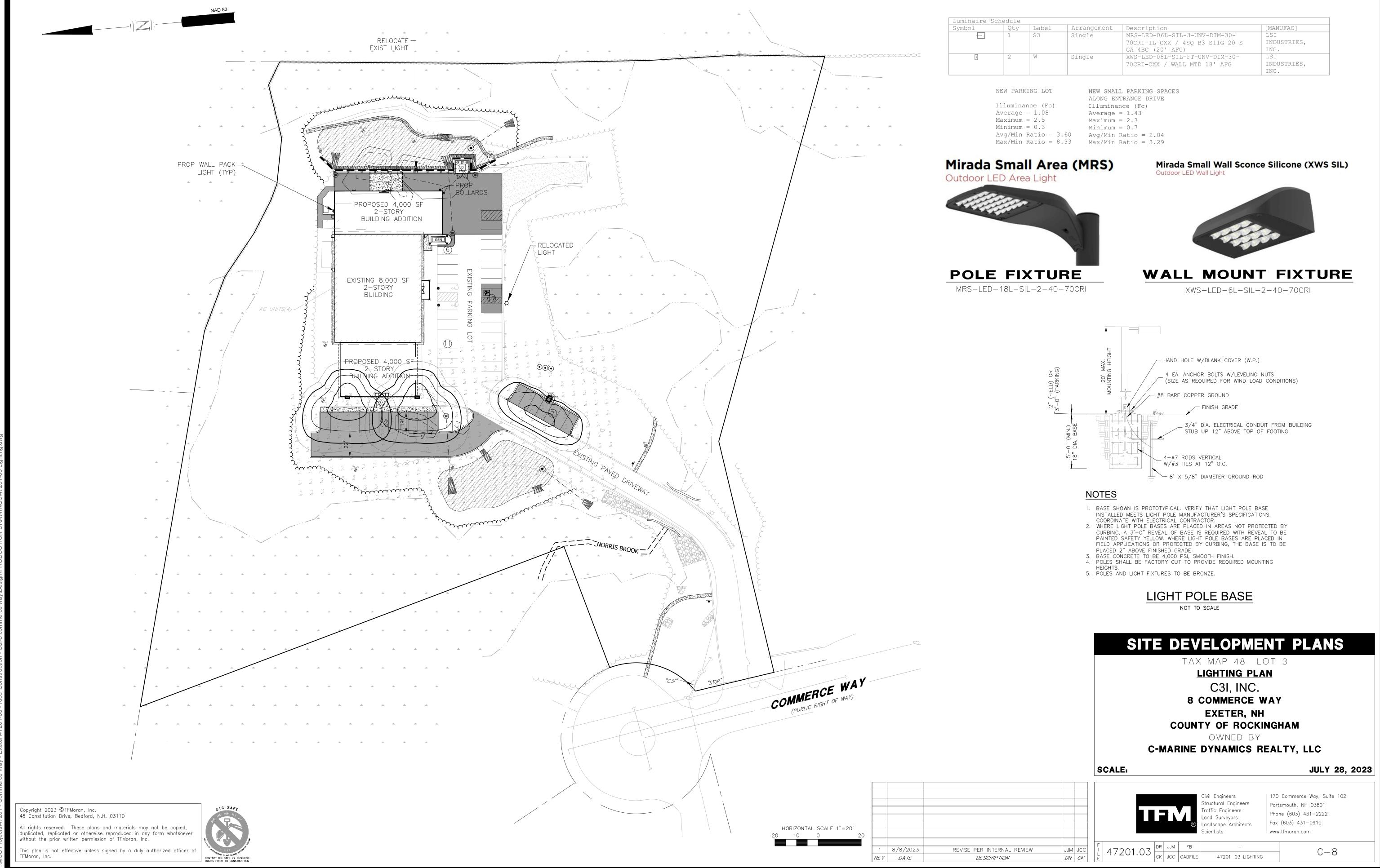
AND THE CLEANUP MEASURES WILL BE INCLUDED.

CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

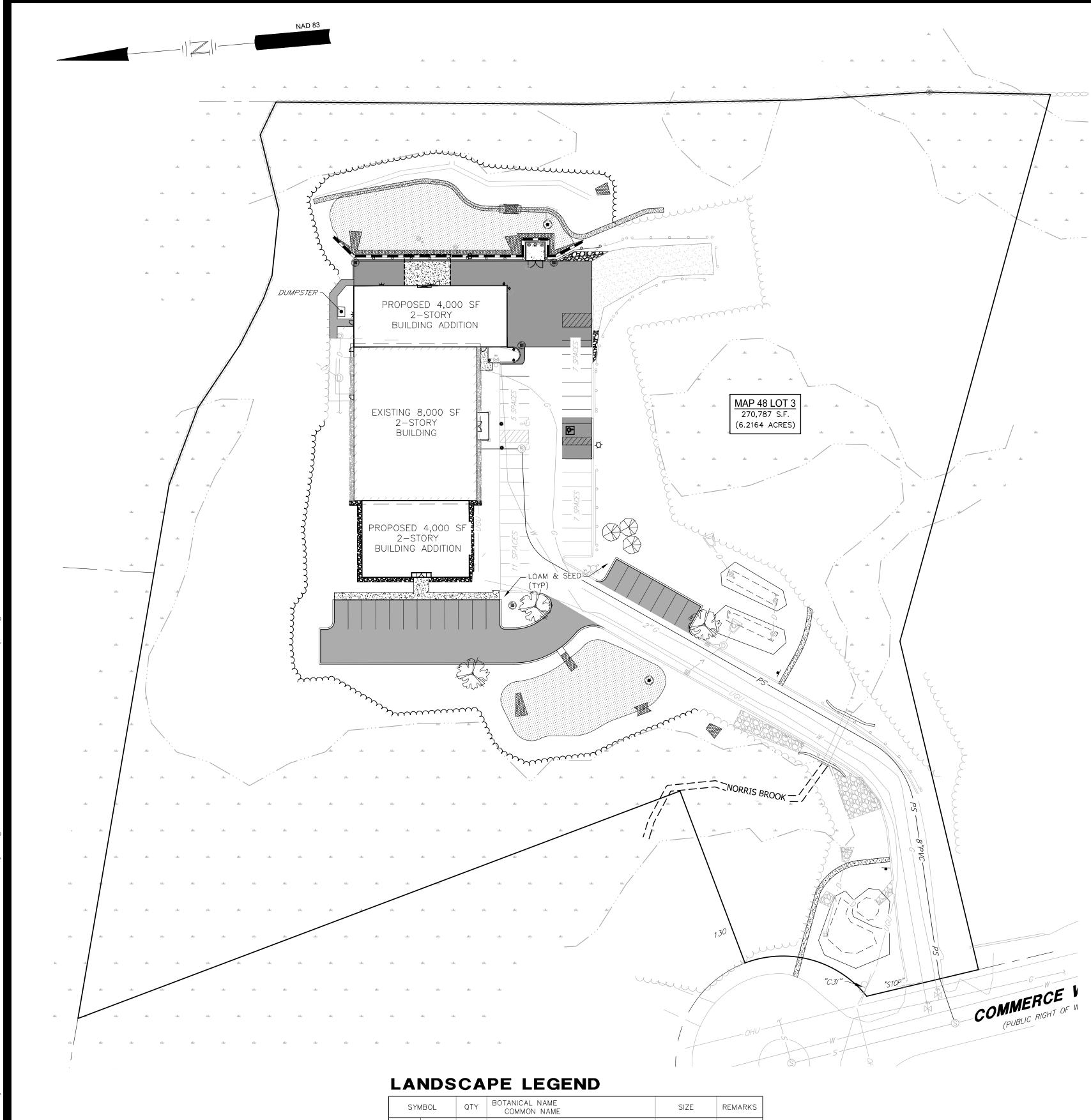
SITE DEVELOPMENT PLANS TAX MAP 48 LOT 3

8 COMMERCE WAY

DR JJM FB 47201.03 | CK | JCC | CADFILE | 47201-03 | EROSION CTRL NOTES



2023 - 1:27pm Projecte/ 47201 - Commerce Wov - Eveter/47201 03 - Dicci Construction - C3: 9 commerce was Deciral DECDIVETION DEV



ACER RUBRUM 'OCTOBER GLORY'

OCTOBER GLORY RED MAPLE

APPLE - TO BE SELECTED BY CLIENT

2 1/2" TO 3"

CAL.

7 GAL.

B&B

В&В

LANDSCAPE NOTES

(SEE DETAILS FOR ADDITIONAL NOTES)

<u>GENERAL</u>

- 1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES, REGULATIONS, LAWS, AND ORDINANCES HAVING JURISDICTION OVER THIS PROJECT SITE.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND NOTIFY OWNER'S REPRESENTATIVE OF CONFLICTS.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON PLANS BEFORE PRICING THE WORK. ANY DIFFERENCE IN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION. LANDSCAPE QUANTITIES SHOWN ON THE PLAN SHALL SUPERCEDE QUANTITIES LISTED IN LANDSCAPE LEGEND.
- 4. THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO STARTING WORK AND VERIFY THAT THE PLANS IN THE CONTRACTOR'S POSSESSION ARE THE MOST CURRENT PLANS AVAILABLE AND ARE THE APPROVED PLAN SET FOR USE IN CONSTRUCTION.
- 5. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA) [FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN] IN THE AMERICAN STANDARD FOR NURSERY STOCK (AS AMENDED) [ANSI Z60.1-1996],
- ALL PLANTS SHALL BE FIRST CLASS AND SHALL BE REPRESENTATIVE OF THEIR NORMAL SPECIES AND/OR VARIETIES. ALL PLANTS MUST HAVE GOOD, HEALTHY, WELL-FORMED UPPER GROWTH AND A LARGE, FIBEROUS, COMPACT ROOT SYSTEM.
- 7. ALL PLANTS SHALL BE FREE FROM DISEASE AND INSECT PESTS AND SHALL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL LAWS PERTAINING TO PLANT DISEASES AND INFESTATIONS.
- 8. ALL TREES SHALL BE BALLED AND BURLAPPED (B & B) UNLESS OTHERWISE NOTED OR APPROVED BY LANDSCAPE ARCHITECT.
- 9. IF APPLICABLE, THE CONTRACTOR SHALL HAVE ALL FALL TRANSPLANTING HAZARD PLANTS DUG IN THE SPRING AND STORED FOR FALL PLANTING.
- 10. ALL INVASIVE PLANT SPECIES FROM THE "NEW HAMPSHIRE PROHIBITED INVASIVE PLANT SPECIES LIST", TO BE REMOVED SHALL BE DONE SO IN ACCORDANCE WITH THE "INVASIVE SPECIES ACT, HB 1258-FN."

THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE WORK FOR A PERIOD OF ONE YEAR, BEGINNING AT THE START OF THE MAINTENANCE PERIOD.

SITE AND SOIL PREPARATION

- 1. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR LEDGE, NOTIFY LANDSCAPE ARCHITECT/ENGINEER BEFORE PLANTING.
- 2. ALL DISTURBED AREAS & PLANTING AREAS, INCLUDING AREAS TO BE SODDED, SHALL RECEIVE THE FOLLOWING SOIL PREPARATION PRIOR TO PLANTING: A MINIMUM OF 6 INCHES OF LIGHTLY COMPACTED TOPSOIL SHALL BE INSTALLED OVER THE SUBSOIL IF TOPSOIL HAS BEEN REMOVED OR IS NOT PRESENT.
- 3. 3/4" SCREENED LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN THREE QUARTERS OF AN INCH (3/4") IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.0. LOAM SHALL CONTAIN A MINIMUM OF TWO PERCENT (2%) AND A MAXIMUM OF FIVE PERCENT (5%) ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. SOIL TEXTURE SHALL BE SANDY CLAY LOAM OR SANDY LOAM WITH CLAY CONTENT BETWEEN 15 AND 25%, AND A COMBINED CLAY/SILT CONTENT OF NO MORE THAN 55%. NOT MORE THAN SIXTY-FIVE PERCENT (65%) SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE #4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
- 4. NATURAL TOPSOIL NOT CONFORMING TO THE PARAGRAPH ABOVE OR CONTAINING EXCESSIVE AMOUNTS OF CLAY OR SAND SHALL BE TREATED BY THE CONTRACTOR TO MEET THOSE REQUIREMENTS.
- 5. SUBMIT TEST RESULTS OBTAINED FROM SOURCE TO ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL, PRIOR TO SPREADING OPERATIONS.
- 6. APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT TO USE THE TOPSOIL WILL DEPEND UPON THE RESULTS OF THE SOIL TESTS.
- 7. THE BURDEN OF PROOF OF SOIL AMENDMENT INSTALLATION RESTS WITH THE CONTRACTOR. SOIL TESTS MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE IN ORDER TO CONFIRM AMENDMENT INSTALLATION.

<u>SEEDING</u>

- ROUGH GRADING SHALL BE COMPLETED PRIOR TO THE START OF PLANTING IN ANY GIVEN AREA OF THE PROJECT SITE.
- 2. SEEDING SHALL BE DONE BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 15, EXCEPT FOR RESEEDING OF BARE SPOTS AND MAINTENANCE. ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVING OR AREAS THAT HAVE NOT BEEN OTHERWISE DEVELOPED SHALL BE SEEDED OR SODDED. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. AFTER OCTOBER 15 DISTURBED SOILS SHALL BE PROTECTED IN ACCORDANCE WITH THE WINTER CONSTRUCTION NOTES.

ACCEPTABLE SEED MIXES ARE AS FOLLOWS:

PARK SEED MIX (NHDOT TYPE	44) MIN. 135 LBS/ACRE:
33% CREEPING RED FESCUE	(MIN. 45 LBS/ACRE)
42% PERENNIAL RYEGRASS	(MIN. 55 LBS/ACRE)
21% KENTUCKY BLUEGRASS	(MIN. 30 LBS/ACRE)
4% REDTOP	(MIN. 5 LBS/ACRE)

TEMPORARY LAWN MIX: (MIN. 47 LBS/ACRE) 100% ANNUAL RYE

SLOPE SEED (WF) (NHDOT TYPE 45) MIX 3:1 OR GREATER SLOPES (MIN. 105 LBS/ACRE):

38% CREEPING RED FESCUE (MIN. 40 LBS/ACRE) 32% PERENNIAL RYEGRASS (MIN. 35 LBS/ACRE) 5% REDTOP (MIN. 5 LBS/ACRE) 5% ALSIKE CLOVER (MIN. 5 LBS/ACRE) 5% BIRDSFOOT TREFOIL (MIN. 5 LBS/ACRE) 3% LANCE-LEAF COREOPSIS (MIN. 3 LBS/ACRE) 3% OXEYE DAISY (MIN. 3 LBS/ACRE) (MIN. 3 LBS/ACRE) 3% BUTTERFLY WEED 3% BLACKEYED SUSAN (MIN. 3 LBS/ACRE) 3% WILD LUPINE (MIN. 3 LBS/ACRE)

SLOPE SEED (NHDOT TYPE 44) MIX 3:1 OR GREATER SLOPES (MIN. 90 LBS/ACRE):

44% CREEPING RED FESCUE (MIN. 40 LBS/ACRE) 38% PERENNIAL RYEGRASS (MIN. 35 LBS/ACRE) 6% REDTOP (MIN. 5 LBS/ACRE) 6% ALSIKE CLOVER (MIN. 5 LBS/ACRE) 6% BIRDSFOOT TREFOIL (MIN. 5 LBS/ACRE)

<u>PLANTING</u>

- 1. EXCAVATE PITS, PLANTERS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
- 2. ANY LEDGE OR RUBBLE MATERIAL SHALL BE FRACTURED TO A DEPTH OF 3 FEET AND EXCAVATED TO A DEPTH OF 30 INCHES FOR TREE POCKETS AND 18 INCHES FOR SHRUB BEDS. THIS PROCEDURE SHALL BE HANDLED BY THE SITE CONTRACTOR. SITE TOPSOIL SHALL BE DEPOSITED IN ALL EXCAVATED POCKETS.
- 3. DISPOSE OF SUBSOIL REMOVED FROM PLANTING EXCAVATIONS. DO NOT MIX WITH PLANTING SOIL OR USE AS BACKFILL.
- 4. FILL EXCAVATIONS FOR TREES AND SHRUBS WITH WATER AND ALLOW TO PERCOLATE OUT
- 5. DISH TOP OF BACKFILL TO ALLOW FOR MULCH PLANT SAUCERS SHALL BE AS SHOWN ON DETAIL SHEETS; 6' DIAMETER FOR ALL DECIDUOUS TREES, AND FOR EVERGREEN TREES A RADIUS 2' BEYOND THE OUTER MOST BRANCHES.
- 6. MULCH TREES, SHRUBS, PLANTERS AND BEDS. PROVIDE NOT LESS THAN 3" THICKNESS OF BARK MULCH, 3/8"-2" OF WIDTH, AND WORK INTO TOP OF BACKFILL. FINISH LEVEL WITH ADJACENT FINISH GRADES AS DIRECTED IN THE FIELD.
- 7. STAKE AND GUY TREES IMMEDIATELY AFTER PLANTING (TREE SUPPORT STAKES SHALL BE 2" X 3" X 8', WOOD STAKES. GUYING WIRE SHALL BE NO. 12 GAUGE GALVANIZED SOFT STEEL WIRE. HOSE FOR COVERING WIRE SHALL BE NEW OR USED TWO PLY RUBBER HOSE NOT LESS THAN 1/2 INCH INSIDE DIAMETER. (PLASTIC "CINCH-TIES" OR EQUIVALENT FASTENING DEVICE MAY BE AN ACCEPTABLE GUY WIRE AND HOSE PROTECTOR SUBSTITUTE.)
- 8. TREEGATOR WATERING SYSTEM OR APPROVED EQUAL SHALL BE INSTALLED FOR ALL DECIDUOUS TREES AT TIME OF PLANTING AND REMOVED BEFORE FROST. WATERING RATE TO BE APPLIED PER MANUFACTURER'S SPECIFICATIONS.
- 9. ALL PLANT MATERIALS SHALL HAVE DEAD OR DAMAGED BRANCHES REMOVED AT TIME OF PLANTING. ALL TAGS AND RIBBONS SHALL BE REMOVED AT THIS TIME.
- 10. TREES TO REMAIN STAKED FOR 1 FULL GROWING SEASON.
- 11. THE CONTRACTOR SHALL REQUEST A FINAL OBSERVATION BY THE OWNER'S REPRESENTATIVE UPON COMPLETION OF INSTALLATION.

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

LANDSCAPE PLAN C3I, INC. 8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM

OWNED BY

JULY 28, 2023

C-MARINE DYNAMICS REALTY, LLC

HORIZONTAL SCALE 1"=40' 1 8/8/2023 REVISE PER INTERNAL REVIEW REV DATE **DESCRIPTION** DR CK

SCALE:

170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 and Surveyors

Fax (603) 431-0910 Landscape Architects www.tfmoran.com cientists DR JJM FB

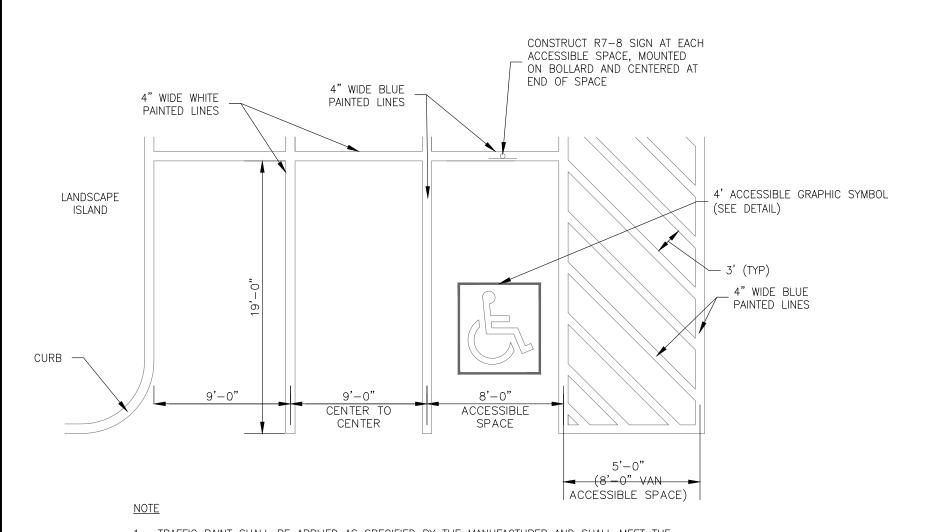
47201.03 | CK | JCC | CADFILE | C-947201-03 LANDSCAPE

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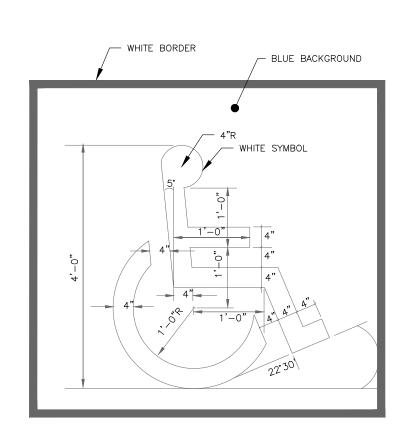




- 1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.
- 2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.
- 3. ALL PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES AT 3'-0" OC BORDERED BY 4" WIDE LINES.
- 4. 2% MAXIMUM CROSS SLOPE ALLOWED IN ACCESSIBLE PARKING SPACES AND ACCESS AISLES.

TYPICAL PARKING LAYOUT

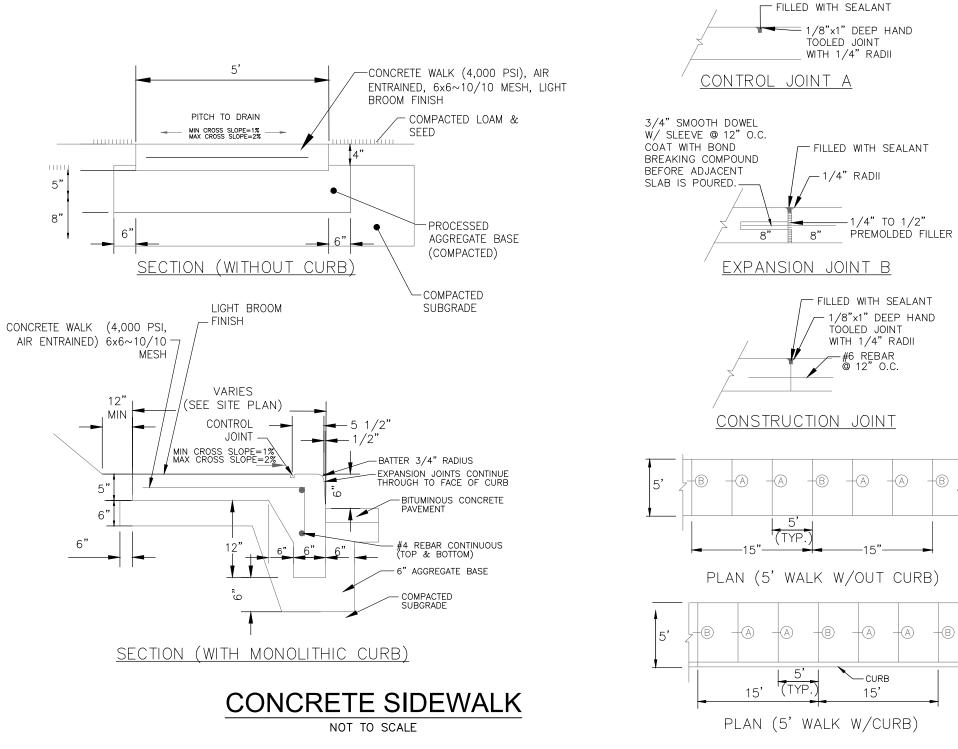
NOT TO SCALE



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- 2. SYMBOLS AND PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.

ACCESSIBLE GRAPHIC SYMBOL

NOT TO SCALE



90° CUT OPTION 1/3 POST HEIGHT (SEE NOTE 1) GALVANIZED STEEL POST

LENGTH: AS REQUIRED

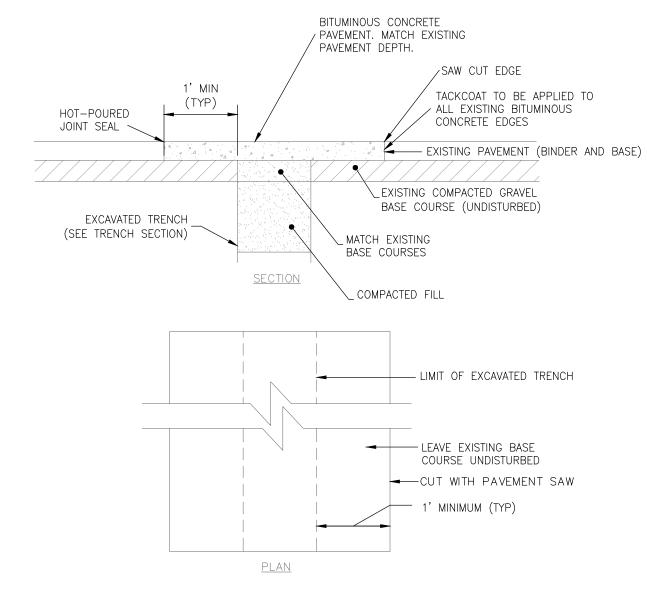
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN) HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH

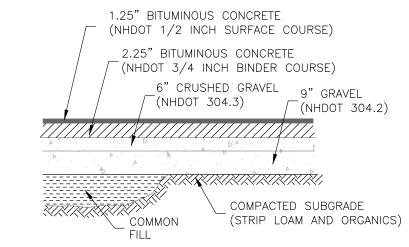
BE COMPLETE BEFORE PAINTING.

STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080) FINISH: SHALL BE PAINTED WITH 2 COATS OF AN APPROVED MEDIUM GREEN BAKED-ON OR AIR-DRIED PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL

1. WHERE LEDGE APPLICATION EXISTS, DRILL & GROUT TO A MINIMUM OF 2'.

> SIGN POST NOT TO SCALE



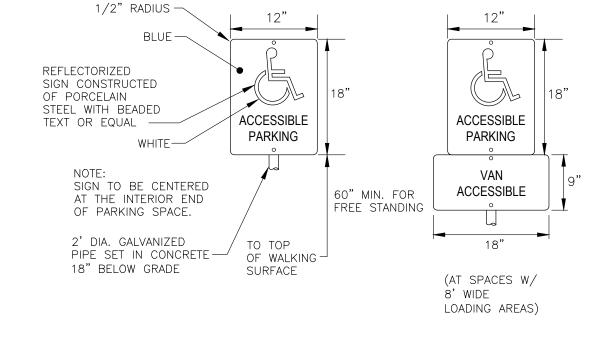


- 1. SEE GRADING & EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
- 2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE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

6" CRUSHED GRAVEL 9" GRAVEL (NHDOT 304.3) (NHDOT 304.2) COMPACTED SUBGRADE (STRIP LOAM AND ORGANICS) COMMON

<u>NOTES</u>

- SEE GRADING & EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE
- 2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. A TACK COAT SHALL ALSO BE PLACED BETWEEN GRAVEL COURSE AND SUCCESSIVE LAYERS OF BITUMINOUS CONCRETE. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE WEARING COURSE.
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- 5. PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- 6. THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.



ACCESSIBLE PARKING SIGN DETAIL

PAVEMENT SECTIONS

NOT TO SCALE



GRAVEL TURNAROUND



C3I, INC. 8 COMMERCE WAY EXETER, NH

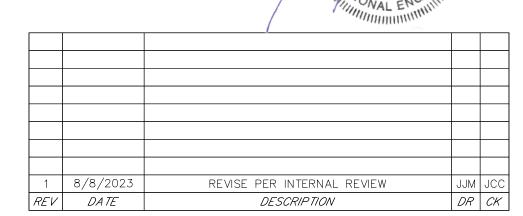
COUNTY OF ROCKINGHAM

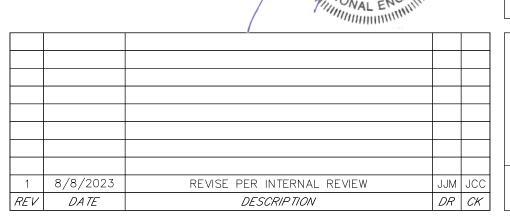
OWNED BY C-MARINE DYNAMICS REALTY, LLC

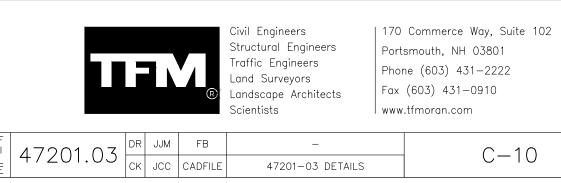
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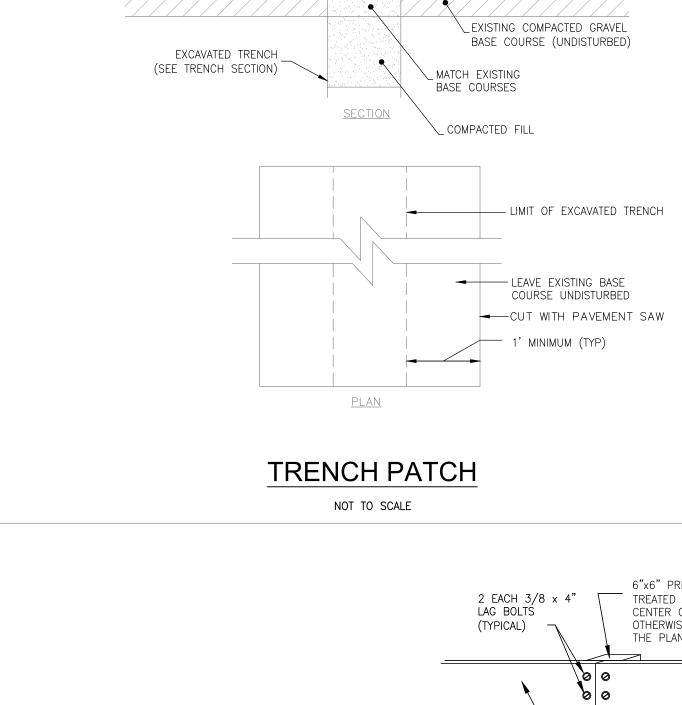
JULY 28, 2023

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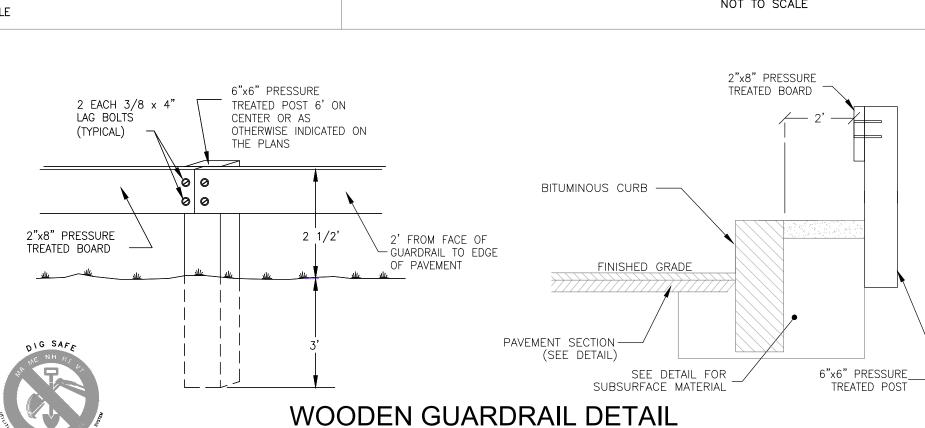
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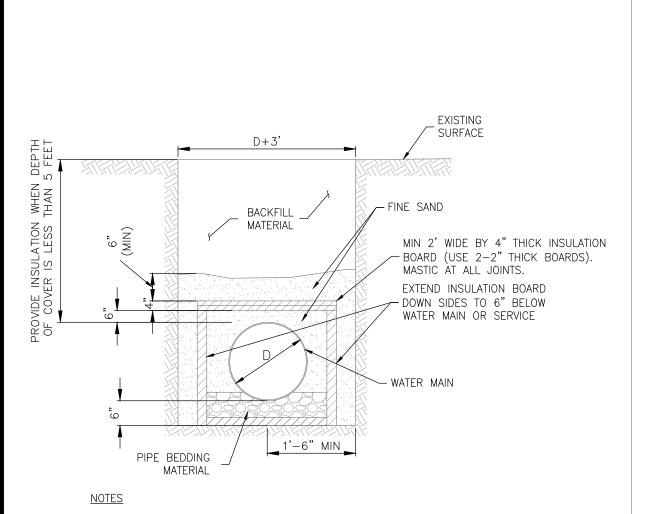
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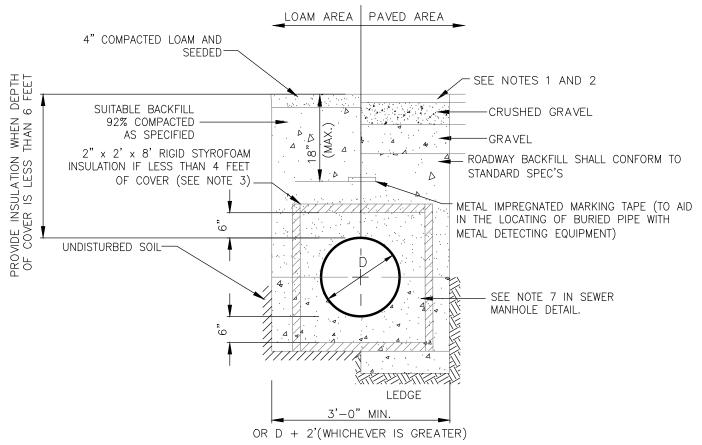


NOT TO SCALE



- 1. INSULATION BOARD SHALL BE FOAMULAR® 250 RIGID FOAM INSULATION BY OWENS CORNING OR APPROVED EQUAL, 2" THICK.
- 2. BACKFILL MATERIAL AROUND INSULATION MUST BE FINE SAND FREE FROM ROOTS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.
- 3. OVERLAP ALL INSULATION BOARD JOINTS

WATER MAIN TRENCH INSULATION DETAIL NOT TO SCALE

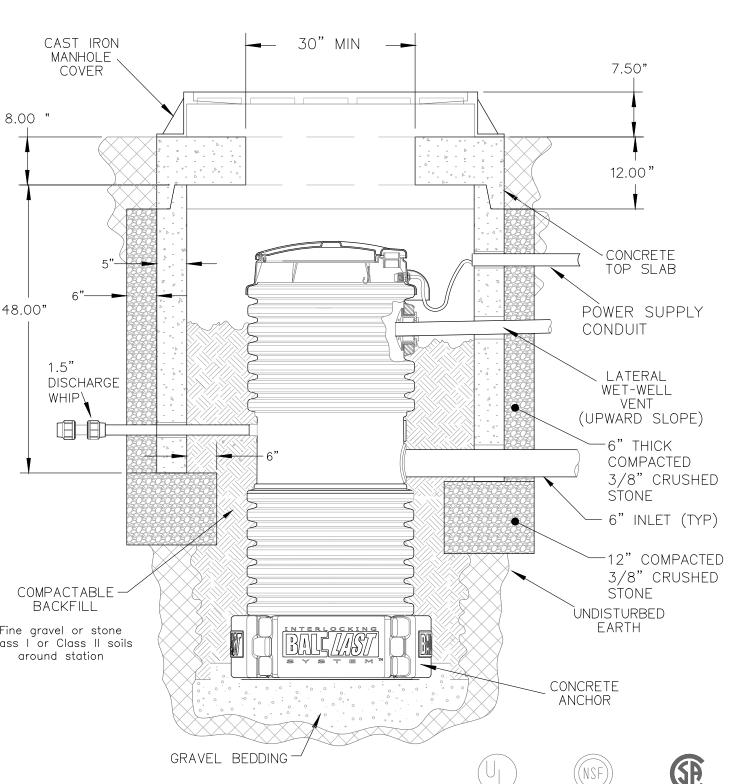


- 1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
- 2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.
- 3. GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED
- 4. REFER TO SEWER MAHOLE NOTES FOR SPECS IN REGARDS TO PIPE TRENCH BEDDING MATERIAL, PIPE BLANKET MATERIAL, TRENCH BACKFILL MATERIAL, AND BACKFILL IN CROSS COUNTRY LOCATIONS.
- 5. FORCE MAINS AND PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF THE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES" STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AVAILABLE AS NOTED IN APPENDIX D (ENV-WQ 700), AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN OPERATING TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.

SEWER TRENCH WITH OPTIONAL INSULATION

NOT TO SCALE

5' MIN.



TRAFFIC BEARING APPLICATION TO BE SPECIFIED AND APPROVED BY LOCAL ENGINEER DIMENSIONS SHOWN ARE FOR REF ONLY THERE IS TO BE NO LOAD FROM THE TRAFFIC

OR THE MANHOLE TRANSFERRED TO THE STATION

H-20 Traffic Detail DH07 2010 or DH071 IN A MANHOLE. LATERAL VENTING F.R. Mahony & Associates, Inc.

6" GATE VALVE

AND BOX

MAIN

THRUST

BLOCK

POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO PIPE JOINTS SHALL BE COVERED WITH CONCRETE.

4" | 6" | 8" | 10" | 12"

0.89 | 2.19 | 3.82 | 11.14 | 17.24

0.65 | 1.55 | 2.78 | 8.38 | 12.00

0.48 | 1.19 | 2.12 | 6.02 | 9.32

1. POST FIRE HYDRANTS SHALL HAVE A MINIMUM VALVE OPENING OF 5 1/4", A 5"

INLET, TWO 2 1/2" HOSE AND ONE 4 1/2" PUMPER NOZZLE WITH NATIONAL

STANDARD FIRE THREADS. ALL NOZZLEŚ SHALL BE EQUIPPED WITH CHAINS.

NOT TO SCALE

NOZZLE CAPS SHALL OPEN BY TURNING COUNTER CLOCKWISE.

3. HYDRANT SHALL BE INSPECTED BY EXETER FIRE DEPARTMENT.

BLOCKING BEARING ON UNDISTURBED MATERIAL

 $\frac{1}{2}$ D 22-1/2° | 0.25 | 0.60 | 1.06 | 3.08 | 4.74

E 11-1/4° | 0.13 | 0.30 | 0.54 | 1.54 | 2.38

2. HYDRANT SHALL BE PAINTED YELLOW.

REACTION

90°

45°

B 180°

OPERATING NUT AND ALL NOZZLE CAPS SHALL OPEN BY TURNING NUT AND ALL

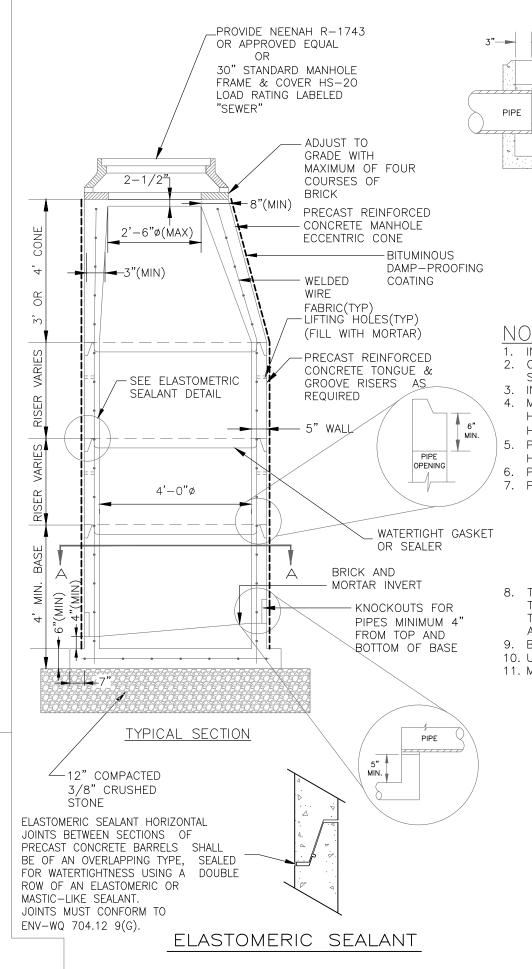
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.

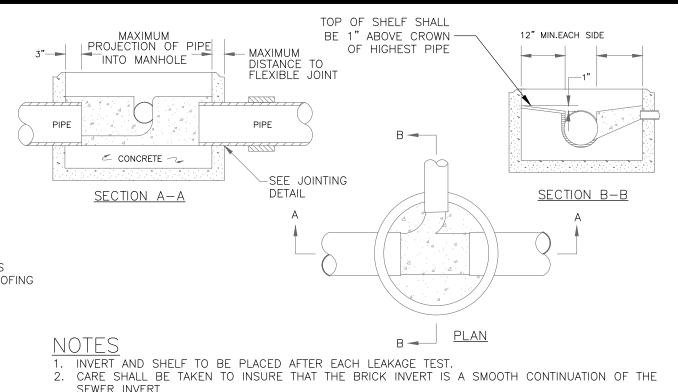
SQUARE FEET OF CONCRETE THRUST

- 3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
- 4. WHERE MECHANICAL JOINT PIPE IS USED, MECHANICAL JOINT PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
- 5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CITY/TOWN ESTABLISHED RULES AND PROCEDURES.

THRUST BLOCKS

NOT TO SCALE





- 3. INVERT BRICKS SHALL BE LAID ON EDGE. 4. MANHOLE FRAME AND COVERS SHALL BE OF HEAVY DUTY DESIGN, GRAY IRON CASTING, AND SHALL
- HAVE THE WORD "SEWER" PLAINLY CAST INTO THE CENTER OF EACH COVER IN 3-INCH (MIN. HEIGHT) LETTERS.
- . PRECAST CONCRETE MANHOLES SHALL MEET AASHTO M199-93/ ASTM C478-90B, RATED FOR HS-20 LOADING WITH CONCRETE STRENGTH OF 4000 PSI OR GREATER. 6. PIPE TRENCH BEDDING MATERIAL SHALL BE #67 STONE (ASTM C33/C33M)
- 7. PIPE BLANKET MATERIAL SHALL CONFORM TO THE FOLLOWING PROVISIONS FROM ENV-WQ 704.11 • THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A $\frac{1}{2}$ -INCH SIEVE AND A MAXIMUM OF 15% PASSES A #200
 - IN LIEU OF THE SAND BLANKET SPECIFIED ABOVE, A STONE ENVELOPE 6 INCHES THICK
- COMPLETELY AROUND THE PIPE USING $\frac{3}{4}$ -INCH STONE MAY BE USED • PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6-INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE 8. TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM
- THE TRENCH DURING CONSTRUCTION, EXCLUDING: DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE MATERIAL, ROCKS OVER 6-INCHES AND ANY MATERIAL NOT APPROVED BY THE ENGINEER
- . BACKFILL IN CROSS COUNTRY LOCATIONS SHALL BE MOUNDED 6" ABOVE ORIGINAL GRADE 10. UNDERLAYMENT OF THE INVERT AND SHELF SHALL BE BRICK MASONRY 11. MORTAR USED IN MANHOLE OF CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING

5-FOOT, 0-INCH | 8-INCH OR 10-INCH |

 MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE AS SHOWN BELOW

MANHOLE DIAMETER	INTERNAL DROP PIPE SIZE	NUMBER OF PIPES REQUIRED
4-FOOT, 0-INCH	8-INCH OR 10-INCH	1
5-FOOT, 0-INCH	15-INCH	1

- CEMENT SHALL BY TYPE II PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS
- HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED
- SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES"
- CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NHDOT'S "STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE
- CONSTRICTION" 12. MANHOLE TESTING SHALL CONFORM TO THE FOLLOWING PROVISIONS FROM ENV-WQ 704.17 a. MANHOLE TESTING SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STANDARD IN EFFECT WHEN THE TESTING IS PERFORMED. A MANHOLE MAY BE BACKFILLED PRIOR TO PERFORMING A VACUUM TEST, BUT IF THE MANHOLE FAILS THE VACUUM
 - b. THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING . THE INITIAL VACUUM GAUGES TEST PRESSURE SHALL BE 10-INCHES HG; AND 2. THE MIN ACCEPTABLE TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9-INCHES HG SHALL BE: - NOT LESS THAN 2 MIN FOR MANHOLES LESS THAN 10-FEET DEEP IN DEPTH;
 - NOT LESS THAN 2.5 MIN FOR MANHOLES 10 TO 15-FEET DEEP; AND - NOT LESS THAN 3 MIN FOR MANHOLES 15 FEET DEEP c. THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIME FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED ABOVE a. INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED

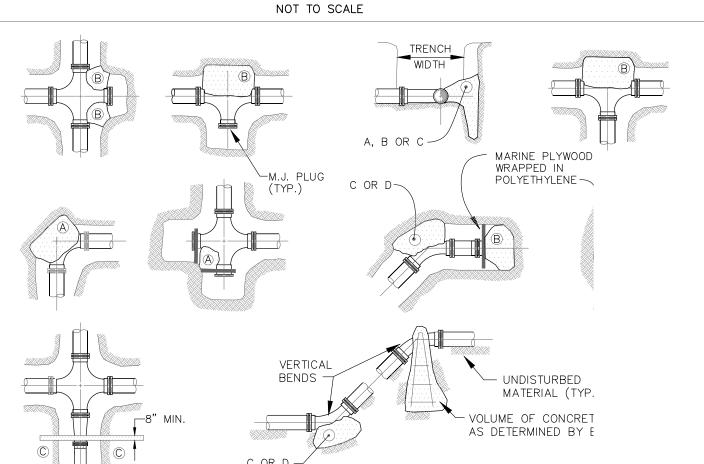
b. IMMEDIATELY FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR

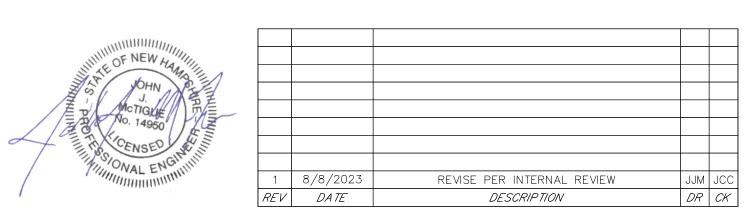
SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS

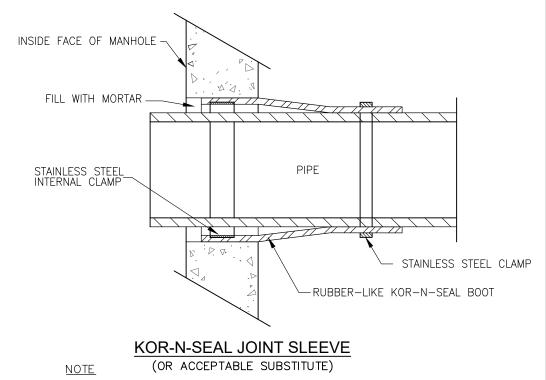
TEST, BACKFILL SHALL BE REMOVED SO REPAIRS TO THE MANHOLE CAN BE MADE FROM THE OUTSIDE OF THE MANHOLE PRIOR TO RETESTING.

READY TO MAKE FINAL ADJUSTMENTS TO GRADE 13. MANHOLE STEPS ARE PROHIBITED PER EXETER DPW STANDARDS.

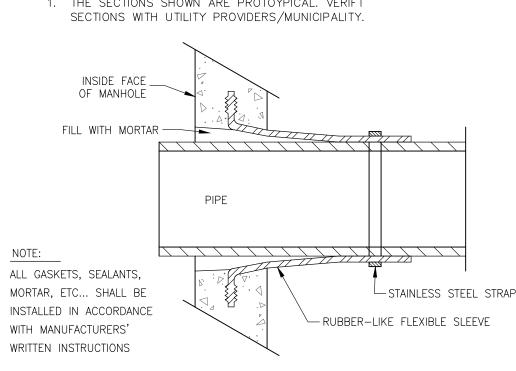
SEWER MANHOLE







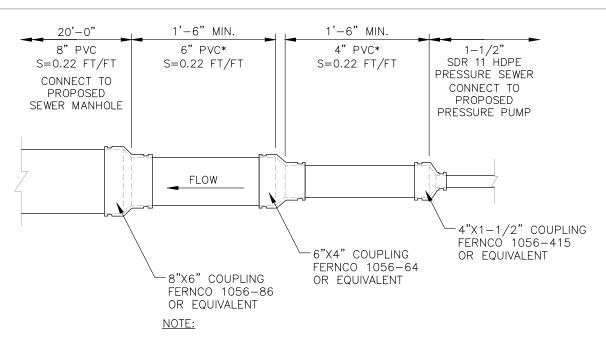
1. THE SECTIONS SHOWN ARE PROTOYPICAL. VERIFT



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE (OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" - PIPE TO MANHOLE JOINTS

1. THE SECTIONS SHOWN ARE PROTOYPICAL. VERIFT SECTIONS WITH UTILITY PROVIDERS/MUNICIPALITY.



1. PIPE TO BE SDR 35 OR EQUIVALENT

SEWER LINE DETAIL - TRANSITION FROM 1-1/2" TO 8" PIPE

NOT TO SCALE

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

DETAILS C3I, INC.

8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS **JULY 28, 2023**



tructural Engineers and Surveyors andscape Architects

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

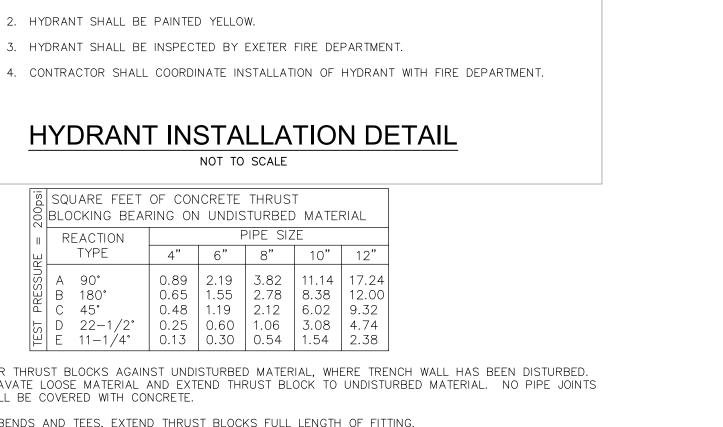
C - 11CK JCC CADFILE 47201-03 DETAILS



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AMERICAN DARLING

B-62-B TRAFFIC MODEL

CLEAN FILL

BLOCK

-CONCRETE PAD

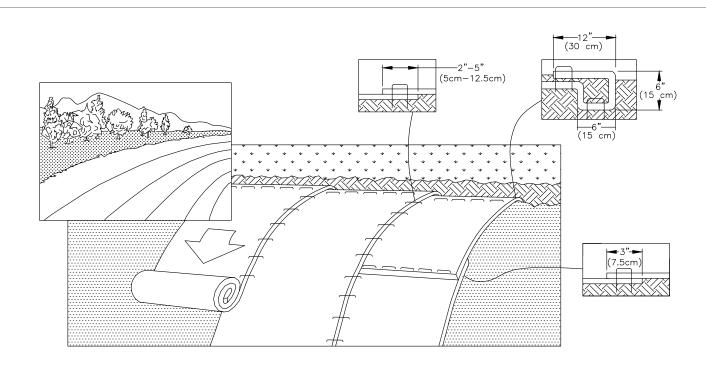
- DRAIN RING

1 1/2" CRUSHED

CONCRETE THRUST

RECON BLOCK RETAINING WALL

NOT TO SCALE



<u>NOTES</u>

- 1. EROSION CONTROL BLANKET SHALL BE BIODEGRADABLE EROSION CONTROL BLANKET MANUFACTURED BY NORTH AMERICAN GREEN (ECB - S150BN) OR APPROVED EQUAL.
- 2. PREPARE SOIL BEFORE INSTALLING RECP'S, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER,
- 3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6 IN. (15 CM) DEEP X 6 IN. (15 CM) WIDE TRENCH WITH APPROXIMATELY 12 IN. (30 CM) OF RECP'S EXTENDED BEYOND THE UPSLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12 IN. APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRÉNCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12 IN. PORTION OF RECP'S BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12 IN. APART ACROSS THE WIDTH OF THE RECP'S.
- 4. ROLL THE RECP'S (3A) DOWN OR (3B) 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
- 5. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH AN APPROXIMATELY 2 IN.-5 IN. (5-12.5 CM) OVERLAP DEPENDING ON THE RECP TYPE.
- 6. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE ENDOVER-END (SHINGLE STYLE) WITH AN APPROXIMATE 3 IN. OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12 IN. APART ACROSS ENTIRE RECPS WIDTH. IN ADVERSE SOIL CONDITIONS LONGER STAPLES/STAKES OR EARTH ANCHORS MAY BE NECESSARY TO PROPERLY SECURE THE RECPS.

EROSION CONTROL BLANKET

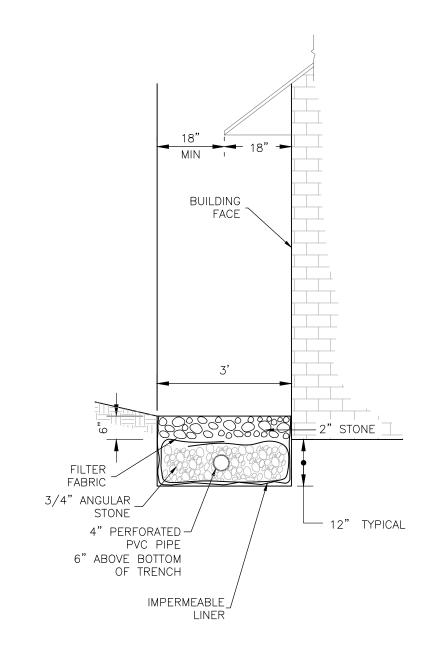
NOT TO SCALE

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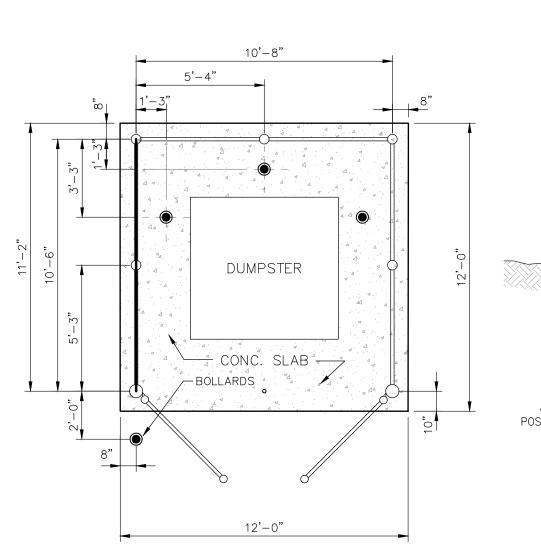
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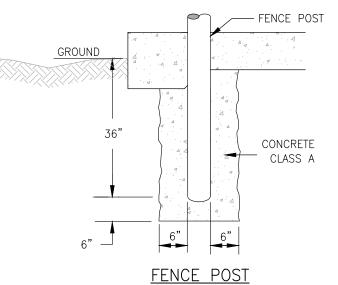


DRIPLINE DETAIL

NOT TO SCALE

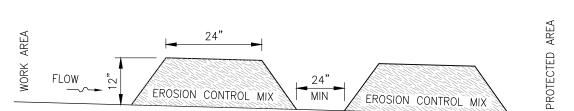


<u>Plan view</u>



TRASH ENCLOSURE

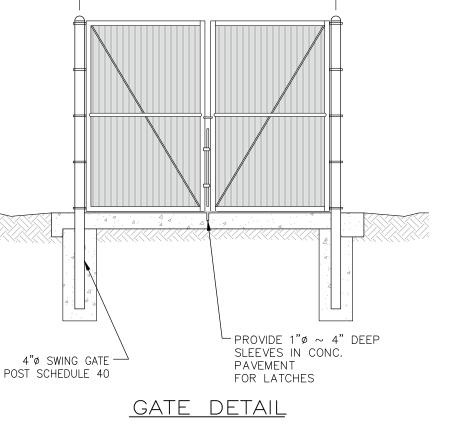
NOT TO SCALE



- 1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT
- 2. EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES ONLY CONTAIN ROCKS LESS THAN 3" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE
- 3. THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25 AND 65%, DRY WEIGHT BASIS.
- 4. PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1-INCH SCREEN, 70% TO 100% PASSING A 0.75-INCH SCREEN, AND A MAXIMUM OF 30% TO 75%, PASSING A
- 5. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- 6. THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
- 7. SOLUBLE SALTS CONTENT SHOULD BE < 4.0 MMHOS/CM.

NOTES:

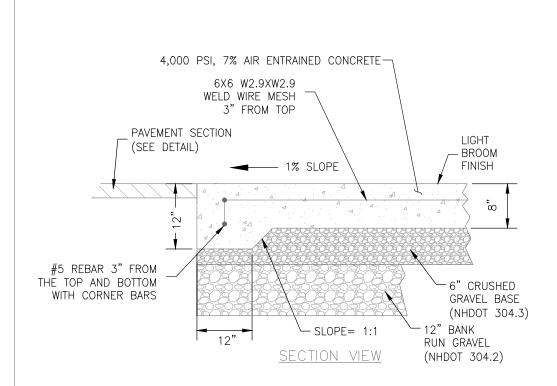
- 1. THE STUMP GRINDINGS BERM MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF
- PROLONGED RAINFALL. THEY SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF BREACHING OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THEN THEY SHOULD BE REPLACED WITH OTHER MEASURES TO INTERCEPT AND TRAP SEDIMENT (SUCH AS A DIVERSION BERM DIRECTING RUNOFF TO A SEDIMENT TRAP OR
- EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD OF THE HEIGHT OF THE BARRIER.
- 5. FILTER BERMS SHOULD BE RESHAPED OR REAPPLIED AS
- BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



10'-8"

1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

- 2. CHAIN LINK FENCE TO BE COMMERCIAL "BEST" GRADE. 2" MESH MADE OF 8 GAUGE OR 6 GAUGE WIRE. 1-5/8" O.D. TOP AND BOTTOM RAILS, SCHEDULE 40. SEE DETAIL FOR POST SIZES.
- 3. POSTS, GATES, WIRE MESH AND HARDWARE TO BE VINYL COATED.
- 4. SEE CONCRETE PAD DETAIL FOR SPECIFICATION ON THE PAD.



CONCRETE PAD

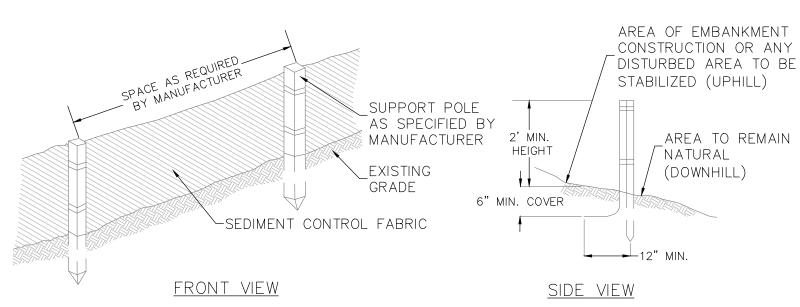
FOR TRASH ENCLOSURE

NOT TO SCALE

<u>NOTES</u>

1. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT - USE TACK COAT.

2. CONCRETE: 4,000 PSI MINIMUM AFTER 28



NOTES

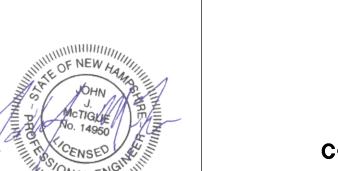
- 1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR BEST MANAGEMENT PRACTICE FOR SILT FENCES, OF THE NEW HAMPSHIRE STORMWATER MANUAL, DECEMBER 2008. 2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES.
- 3. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATIONS. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO
- THE GROUND (MINIMUM OF 16 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS MÁNUFACTURER RECOMMENDS.
- 5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS.
- 6. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND TO A MINIMUM OF 8 INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED INTO EXISTING TREES.

 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
- 8. FILTER BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED. 9. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED
- RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

 10. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND
- THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. 11. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE
- 12. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

SILT FENCE

NOT TO SCALE



SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

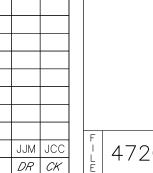
DETAILS C3I, INC. 8 COMMERCE WAY

EXETER, NH COUNTY OF ROCKINGHAM

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS **JULY 28, 2023**



Civil Engineers Structural Engineers raffic Engineers and Surveyors andscape Architects cientists

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

47201.03 | CK | JCC | CADFILE | DR JJM FB C - 1247201-03 DETAILS

FOOTING DETAIL

NOTE:

EROSION CONTROL MIX BERM

EROSION CONTROL MIX SPECIFICATIONS

BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

FOLLOWING STANDARDS:

8. THE PH SHOULD BE BETWEEN 5.0 AND 8.0

THE BARRIER, AND A MINIMUM OF TWO FEET WIDE, PER NHDES.

2. FILTER BERMS ARE NOT TO BE USED IN SWALES OR WHERE CONCENTRATED FLOW IS PRESENT.

3. FILTER BERMS SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING

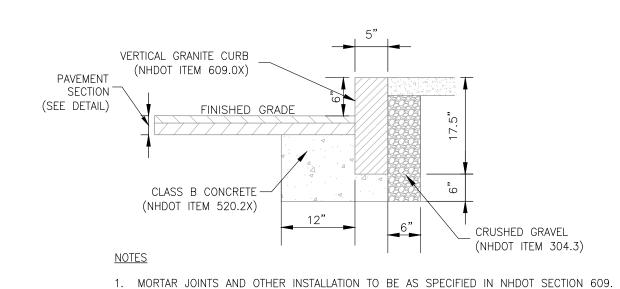
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM

6. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE

1 8/8/2023 REVISE PER INTERNAL REVIEW

DESCRIPTION

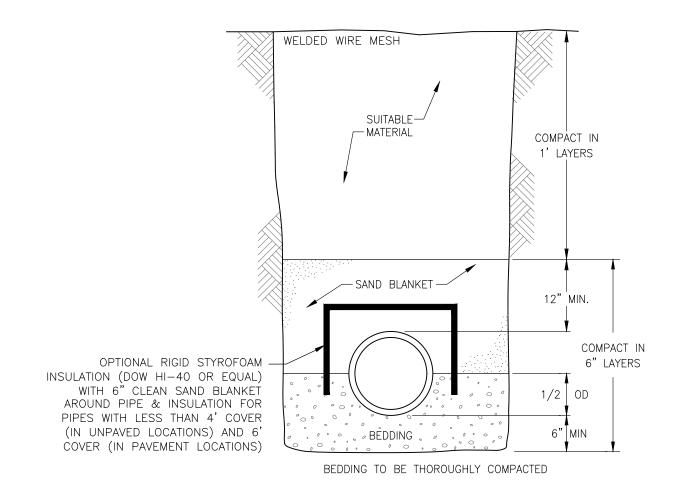
REV DATE



VERTICAL GRANITE CURB

2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.

NOT TO SCALE

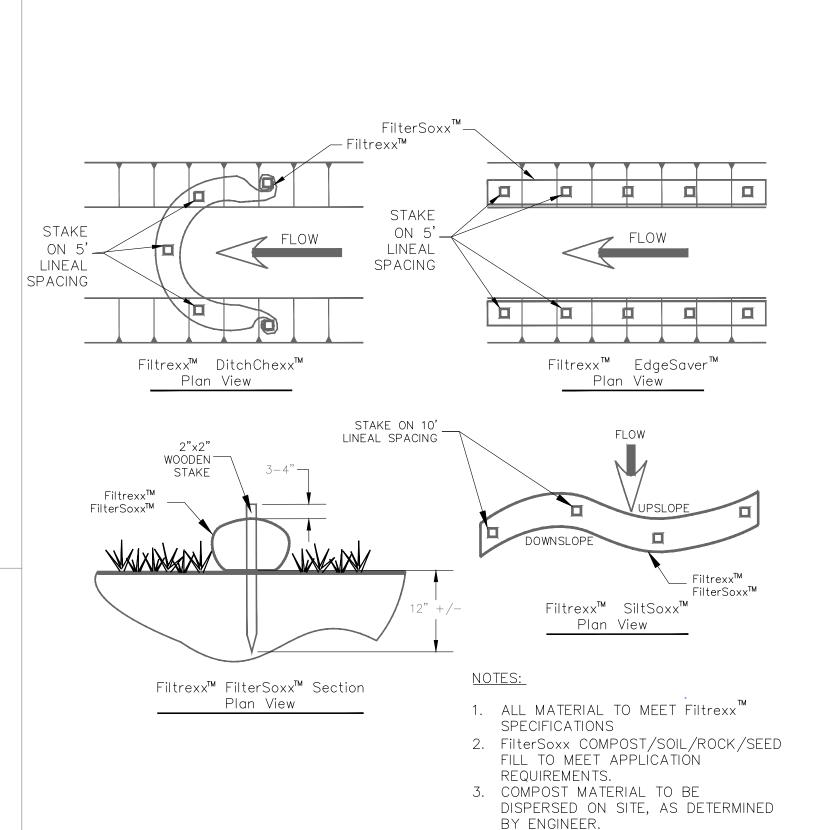


<u>NOTES</u>

- 1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING
- REGULATIONS.
- 2. OPTIONAL RIGID STYROFOAM TO BE USED WHEN 3' DEPTH CANNOT BE MAINTAINED.
- 3. GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED OVER GAP.

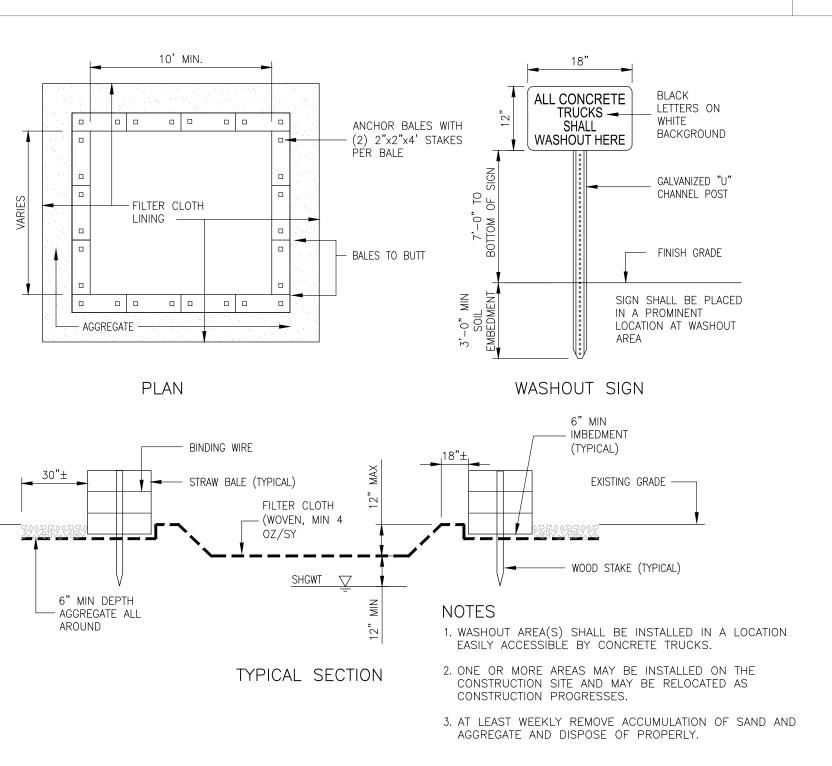
DRAINAGE TRENCH

NOT TO SCALE



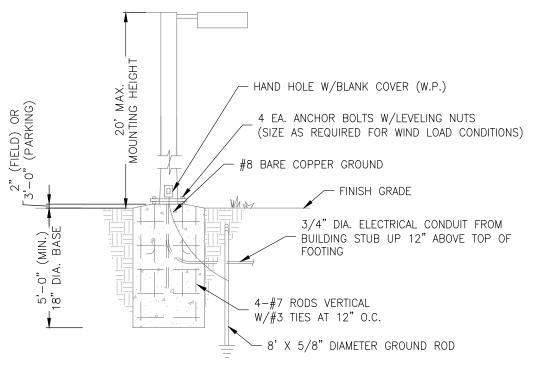
FILTREXX FILTERSOXX STAKING

NOT TO SCALE



CONCRETE WASHOUT AREA

NOT TO SCALE



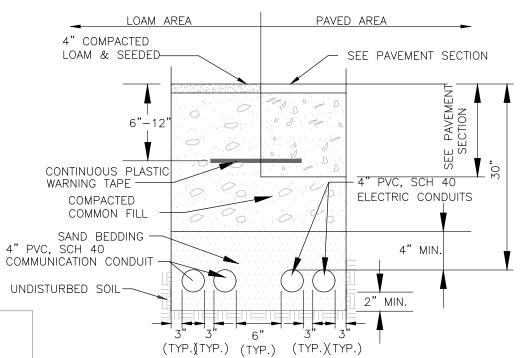
NOTES

- 1. BASE SHOWN IS PROTOTYPICAL. VERIFY THAT LIGHT POLE BASE INSTALLED MEETS LIGHT POLE MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH
- ELECTRICAL CONTRACTOR.

 2. WHERE LIGHT POLE BASES ARE PLACED IN AREAS NOT PROTECTED BY CURBING, A 3'-0" REVEAL OF BASE IS REQUIRED WITH REVEAL TO BE PAINTED SAFETY YELLOW. WHERE LIGHT POLE BASES ARE PLACED IN FIELD APPLICATIONS OR PROTECTED BY CURBING, THE BASE IS TO BE PLACED 2" ABOVE FINISHED GRADE.
- 3. BASE CONCRETE TO BE 4,000 PSI, SMOOTH FINISH.4. POLES SHALL BE FACTORY CUT TO PROVIDE REQUIRED MOUNTING HEIGHTS.5. POLES AND LIGHT FIXTURES TO BE BRONZE.

LIGHT POLE BASE

NOT TO SCALE



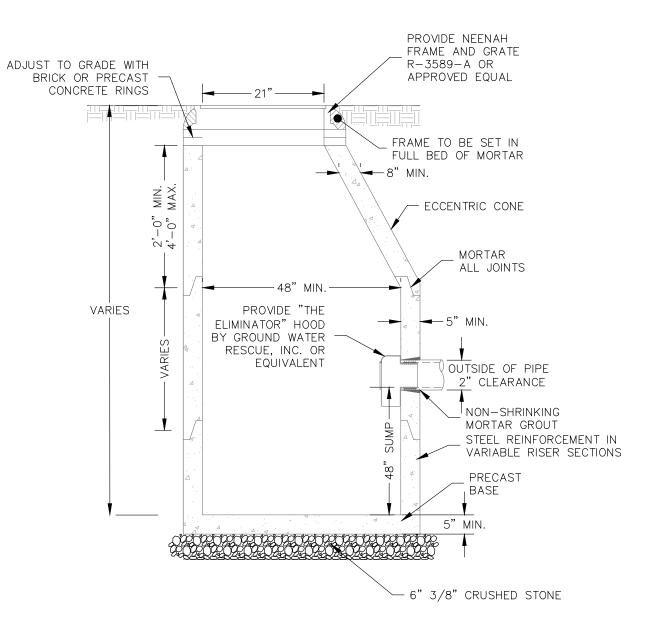
NOTES

- 1. ELECTRIC SERVICE INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND
- LOCAL CODES.
 2. COMMUNICATION SERVICE INSTALLATION SHALL MEET ALL
- CONSTRUCTION REQUIREMENTS.

 3. SEE UTILITIES PLAN OF NUMBER OF CONDUITS.

ELECTRIC/ COMMUNICATION CONDUIT

NOT TO SCALE



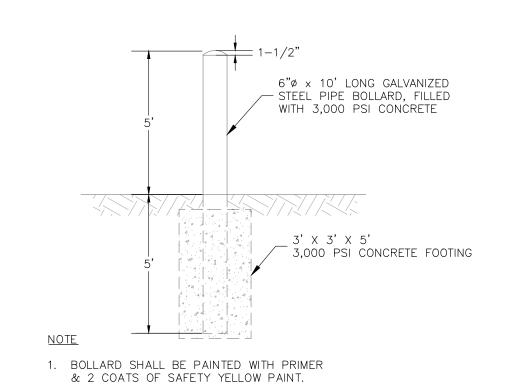
<u>NOTES</u>

ALL SECTIONS SHALL BE PRECAST CONCRETE NHDOT CLASS AA, 4,000 PSI.
 CATCH BASINS SHALL MEET NHDOT SPECIFICATIONS.
 ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING.
 LARGER DIAMETER STRUCTURES SHALL BE USED AS REQUIRED DUE TO NUMBER, ANGLE OR SIZE OF PIPES AT THE STRUCTURE.

ECCENTRIC CATCH BASIN WITH HOODED OUTLET

5. ALL CASTINGS SHALL BE MADE IN THE USA.

NOT TO SCALE



BOLLARD

NOT TO SCALE

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

<u>details</u> C3I, INC.

8 COMMERCE WAY
EXETER, NH

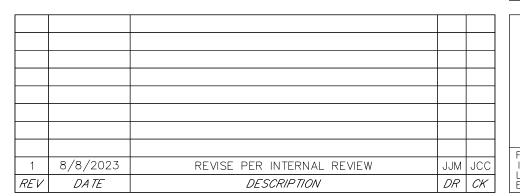
COUNTY OF ROCKINGHAM

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SCALE: NTS

JULY 28, 2023





Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

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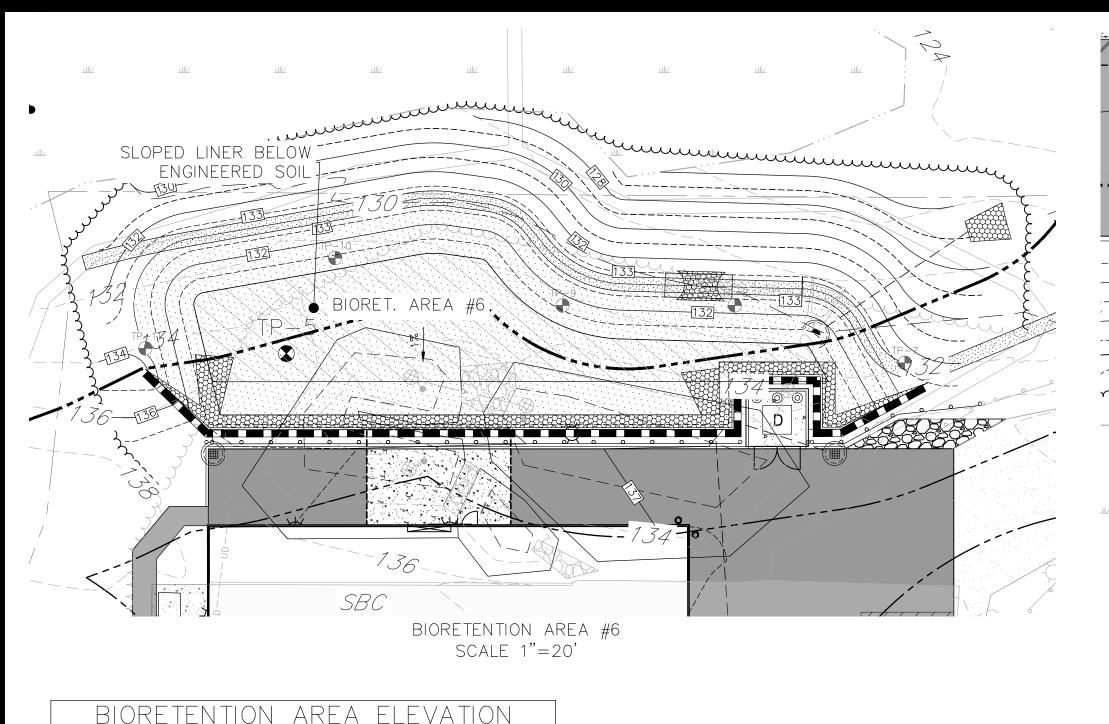
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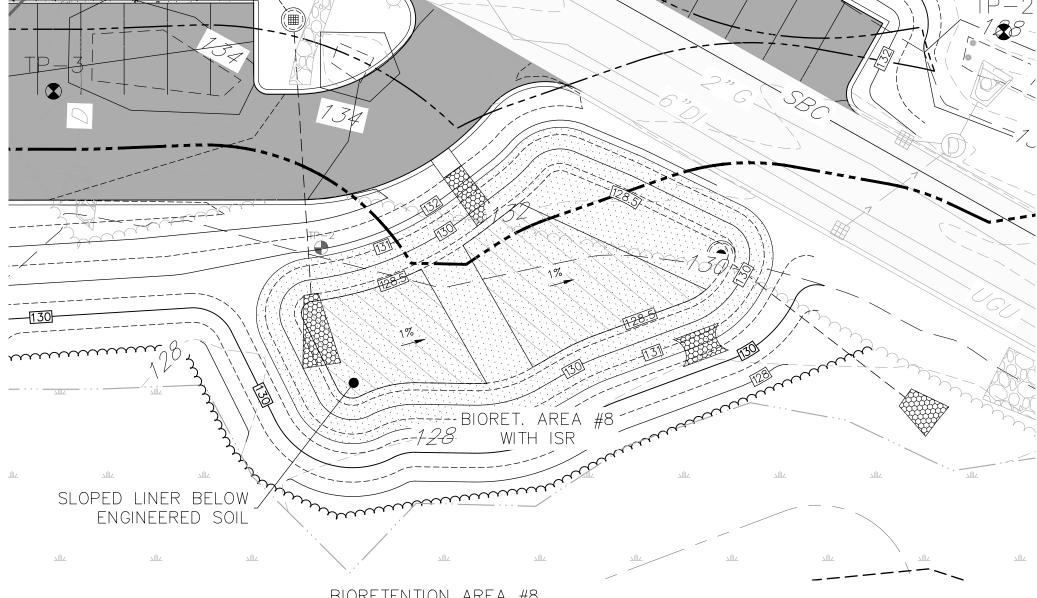
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n. 20prii 3/47201 - Commerce Way - Exeter\47201-03 - Ricci Construction - C3i-8 commerc





BIORETENTION AREA #8 SCALE 1"=20'

FOR BIORETENTION AREAS WITH ISR

40 MIL HDPE IMPERMEABLE LINER -

WITH MIRAFI 140N LAID ON TOP

NO BREAKS OR OPENINGS.

SEAMS TO BE SEALED.

6" PERFORATED

UNDERDRAIN

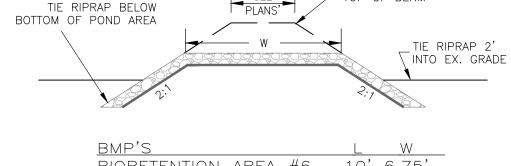
UPPER ORIFICE

SEE ELEVATION -

— 6" UNDERDRAIN

JRETENTION AREA ELEVATION				
TABLE				
DESCRIPTION	BIORETENTION AREA 6	BIORETENTION AREA 8 WITH ISR		
	ELEV	ELEV		
BOT. BASIN	130.00	128.50		
BOT. FLTER MEDIA	128.50	127.00		
BOT. OF 3" PEA STONE	128.25	126.75		
BOT. OF CRUSHED STONE	127.00	125.75		
GRATE	132.25	130.50		
UPPER ORIFICE	NA	NA		
NOT USED	NA	NA		
UNDERDRAIN OUTLET	127.50/ 1.0" ORIFICE	126.75 / 0.7" ORIFICE		
NOT USED	NA	NA		
TOP OF BERM	133.25	131.25		
EMERGENCY SPILLWAY	132.50	130.75		
OUTLET PIPE INVERT	127.50	126.75		

127.00



EMERGENCY SPILLWAY PROFILE

CONSTRUCTION SPECIFICATIONS:

OUTLET PROTECTION APRON.

END OF PIPE INVERT

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR

DAMAGED, IT SHOULD BE CHECKED TO SEE THAT

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

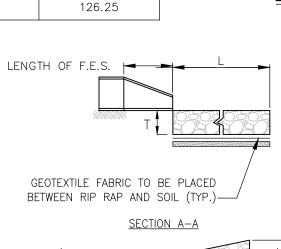
EROSION IS NOT OCCURRING. THE DOWNSTREAM

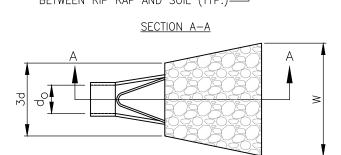
INV.

G

MAINTENANCE:

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





RIP RAP DIMENSIONS

d50 STONE SIZE: 6" 6" 6" 6" LENGTH OF APRON (L): 8' 7' 11.5' 8.5' 9' 8.5' 9' WIDTH OF APRON (W): 6' 6' 7.5' 6.5' 6.5' 6.5' DEPTH OF RIP RAP (T): 9" 9" 9" 9" 9" 9" % OF WEIGHT SMALLER THAN THE GIVEN SIZE SIZE OF STONE (INCHES) 7.80 TO 10.80 6.00 TO 9.00

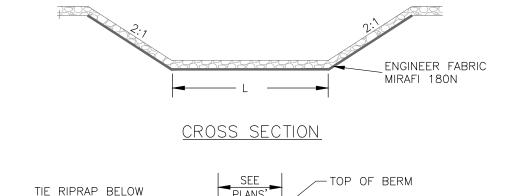
1.80 TO 3.00

FES 1 FES 2 FES 3 FES 4 FES 5 FES 6 FES 7

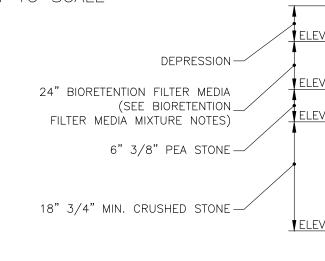
RIP RAP OUTLETS

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BIORETENTION AREA #6 10' 6.75' BIORETENTION AREA #8 10' 4.5'



8" HDPE N-12 PERFORATED RISER IN 3/4" STONE TOP OF BERM BOTTOM OF BERM воттом ог 24 -6" DEEO RIPRAP INLET FOREBAY BOTTOM OF POND 6" HDPE N-12 SOLID PIPE -

RIPRAP SEDIMENT FOREBAY SPILLWAY PROFILE FOR BIORETENTION AREA

NOT TO SCALE

ORIFICE — CAP W/ CONTROL ORIFICE 4' ID OUTLET CONTROL STRUCTURE - WITH 24" SQUARE BEEHIVE GRATE BIORETENTION AREA #2 TOP VIEW - OUTLET CONTROL STRUCTURE

6" SCH. 40

THREADED END CAP

PROVIDE BAR GUARD FOR 40 MIL HDPE GEOMEMBRANE ORIFICES SEE PLAN VIEW ON THIS \ GEOMEMBRANE BIORETENTION AREA #2: 18" HDPE 6" PVC SCH. 40 THREADED END CAP. ORIFICE SIZE PER ELEVATION TABLE) 。 。 。 。 。 。 6" SCH. 40 PVC

1 8/8/2023

REV DATE

BIORETENTION AREA (WITH ISR)

SEAL AROUND -

LINER TO PIPE

— OULTET PIPE

NOT TO SCALE LINER NOTES

6" PERFORATED

UNDERDRAIN

ACCEPTABLE OPTIONS INCLUDE: A. 6-12" IN CLAY SOIL (MINIMUM 15% PASSING #200 SIEVE AND A MAXIMUM PERMEABILITY OF $1X10^{-5}$ CM/S).

* A 40 MIL PVC LINER WITH SAND BEDDING AND NON-WOVEN GEOTEXTILE.

DR CK

REVISE PER INTERNAL REVIEW

DESCRIPTION

PRESSURE FITTING THREADED 90° ELBOW

WITH 3/4" WASHED

-3' SUMP FILLED

STONE

48" DIA. CONCRETE

MANHOLE

BIORETENTION FILTER MEDIA MIXTURES GRADATION OF MATERIAL COMPONENT MATERIAL | % OF MIXTURE | SIEVE | % BY WEIGHT NO. PASSING STANDARD BY VOLUME SIEVE BIORETENTION FILTER MEDIA OPTION A ASTM C-33 CONCRETE 50-55 LOAMY SAND TOPSOIL 20-30 200 15 TO 25 WITH FINES AS MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH 20 - 30200 <5 WITH FINES AS INDICATED

3/8" WASHED (CRUSHED STONE*	3/4" WASHED	CRUSHED STONE*
		'	
SIEVE SIZE	% PASSING BY WIGHT	SIEVE SIZE	% PASSING BY WIGHT
1/2"	100	1"	100
3/8"	95-100	3/4"	90-100
#4	22-55	1/2"	15-55
#8	0-10	#10	0-5
*EQUIVALENT TO	STANDARD WASHED	*EQUIVALENT	TO STANDARD WASHED
STONE-SECTION	702 OF NHDOT	STONE-SECTION	ON 702 OF NHDOT
STANDARD SPEC	CIFICATIONS	STANDARD SP	ECIFICATIONS

HYBRID BIORETENTION AREA MIX:

THE GRASS THAT IS PLANTED WITHIN A 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 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 (20 LBS/AC & 10 LBS/AC OF RYE) BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL.

NOT TO SCALE

- 1. WHEN CONTRACTOR EXCAVATES BIORETENTION 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
- 3. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM
- EXCAVATION) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION. 5. DO NOT TRÁFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM
- EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF INFILTRATION COMPONENTS OF THE
- 6. WHERE BIORETENTION AREA BOTTOM IS UNLINED, IT TO BE ROTOTILLED PRIOR TO INSTALLING
- PEA GRAVEL OR COARSE SAND. 7. A PROFESSIONAL ENGINEER SHALL BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDENS TO
- ENSURE THAT ALL OF THE CRITERIA ARE MET AND THAT A REPORT BE SUBMITTED TO NHDES WHEN CONSTRUCTION OF THE BIORETENTION AREAS ARE COMPLETED.

MAINTENANCE REQUIREMENTS

- 1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 25-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION
- CONDUCTED AS A WARRANTED 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, THAN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION. INCLUDING
- 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.

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

BUT NOT LIMITED TO REMOVAL OF ACCUMULATED OF SEDIMENTS OR RECONSTRUCTION OF FILTER

BIORETENTION AREA NOTES

SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

DETAILS C3I, INC.

8 COMMERCE WAY EXETER, NH

COUNTY OF ROCKINGHAM

OWNED BY C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS **JULY 28, 2023**



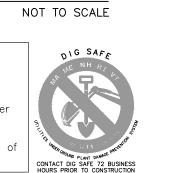
Structural Engineers Traffic Engineers and Surveyors Landscape Architects cientists

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

47201.03 | CK | JCC | CADFILE | DR JJM FB

C - 1447201-03 DETAILS

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hibernation.

Blanding's turtles may be confused with the Eastern box turtle, which can have a yellow chin but lacks a yellow throat and are smaller in length at 4-7 inches. They may also be confused with the spotted turtle, which is much smaller at only around 4 inches in length and has distinct round yellow spots.



WILDLIFE NOTES:

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- FLYERS TO BE POSTED OF GLYCERIA ACUTIFLORA (SHARP-SCALED MANNA GRASS). IF SHARP-SCALED MANNA GRASS IS POTENTIALLY IDENTIFIED IN ANY WORK AREAS, PLEASE CONTACT JESSICA BOUCHARD AT (603) 271-2834 FOR FURTHER INSTRUCTIONS.
- SCREEN COVERS SHALL BE FITTED ON THE STANDPIPES IN THE CONSTRUCTED GRAVEL WETLANDS TO PREVENT SMALLER WILDLIFE GETTING TRAPPED (AS SHOWN ON SUBSURFACE GRAVEL WETLAND DETAIL).
- IMAGES OF TURTLES AND SNAKES TAKEN FROM NEW HAMPSHIRE FISH AND GAME DEPARTMENT. 'TURTLES | NONGAME | NEW HAMPSHIRE FISH AND GAME DEPARTMENT". WELCOME | NEW HAMPSHIRE FISH AND GAME DEPARTMENT, HTTPS://WWW.WILDLIFE.STATE.NH.US/NONGAME /TURTLES.HTML. ACCESSED 24 AUGUST 2021.
- IMAGES OF GLYCERIA ACUTIFLORA TAKEN FROM THE NATIVE TRUST, GOBOTANY. "GLYCERIA ACUTIFLORA TORR." NATIVE PLANT TRUST: GOBOTANY, NATIONAL SCIENCE FOUNDATION, HTTPS://GOBOTANY. NATIVEPLANTTRUST.ORG/GENUS/GLYCERIA/ACUTIFLORA/. ACCESSED
- PRIOR TO THE CONSTRUCTION OF THE PROPOSED TRAILS, AS SHOWN ON THE OPEN SPACE SUBDIVISION PLAN, ALL TRAILS WILL BE REVIEWED IN CONSULTATION WITH THE EXETER CONSERVATION COMMISSION AND NEW HAMPSHIRE FISH AND GAME TO DETERMINE WHICH TRAILS CAN BE RELOCATED OR ABANDONED TO LIMIT IMPACT TO THE ENDANGERED SPECIES.



Spotted turtles are small black turtles with yellow spots. Photo © Gail Coffey



Spotted turtles have a number of bright orange and yellow marks on the head and limbs. Photo © Judi Lindsey



Spotted turtles use a variety of wetland habitats including vernal pools, emergent marsh and shrub wetlands, red maple swamps, fens, and slow streams. Photo © Mike Marchand



Young spotted turtles can be easily recognized by their yellow spots. Photo © John Rockwood



Wood turtle laying low in the vegetation after some rain. Photo © Ethan Nedeau



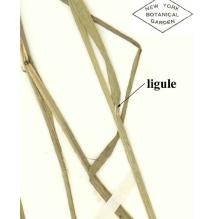
Orange on the neck and limbs is usually quite obvious. Photo © Mike Marchand



Wood turtles often survive wounds inflicted by raccoons, otters, and other predators. Here, a wood turtle was found with a missing limb that had healed. Photo © Brian Hart



Wood turtles prefer slow moving streams and rivers for winter hibernation and spring and fall activities. During the summer, wood turtles venture into surrounding terrestrial fields, shrublands, and floodplain areas. Photo © Mike Marchand





Eastern box turtles are generally dark brown with various yellow and orange markings on the shell, neck, and limbs. Photo by Mike Marchand.



Box turtle plastron (lower shell) with hinge. Photo by Mike Marchand.Box turtle plastron (lower shell) with hinge. Photo by Mike Marchand.



Box turtles eat a variety of foods including insects, carrion, fruits, and mushrooms. Photo by Mike Marchand.



Size and color comparison of an adult eastern box turtle (above) and adult Blanding's turtle (below). Photo by Mike Marchand.



ADULT RACERS ARE SOLID BLACK EXCEPT FOR A WHITE CHIN AND THROAT. (PHOTO BY BRENDON CLIFFORD)



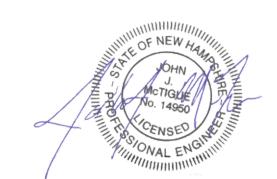
BLACK RACERS ARE LARGE SLIM BLACK SNAKES WITH SMOOTH SCALES (PHOTO BY JOHN LITVAITIS)



RACERS OFTEN LIFT THEIR HEAD ABOVE THE GROUND (REFERRED TO AS PERISCOPING) TO SURVEY THEIR SURROUNDINGS. (PHOTO BY BRENDON CLIFFORD)



RACER NEONATES (NEWLY HATCHED SNAKES) HAVE A BLACK AND WHITE PATTERN THAT REMAINS FOR 1-2 YEARS BEFORE FADING TO SOLID BLACK



SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

ENVIRONMENTAL CONCERN NOTES C3I, INC. 8 COMMERCE WAY EXETER, NH

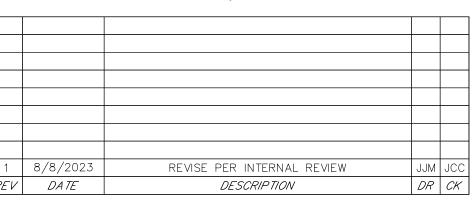
COUNTY OF ROCKINGHAM OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: NTS

JULY 28, 2023

C - 15



_andscape Architects

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

47201.03 CK JCC CADFILE 47201-03 ENVIRONMENTAL

48 Constitution Drive, Bedford, N.H. 03110 All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoeve without the prior written permission of TFMoran, Inc. GLYCERIA ACUTIFLORA (SHARP-SCALED MANNA GRASS) This plan is not effective unless signed by a duly authorized officer of HABITAT: LACUSTRINE (IN LAKES OR PONDS), RIVERINE (IN RIVERS OR STREAMS), SHORES OF RIVERS REV DATE OR LAKES, WETLAND MARGINS (EDGES OF WETLANDS)



Immediately report sightings to NH Fish and Game Melissa Doperalski (603-479-1129) or Brendan Clifford (603-944-0885) Please report promptly, noting specific location and date Photographs strongly encouraged



(New Hampshire Species of Special Concern)



- Neck and forelimbs are
- Characterized by its highly sculpted shell with each large scute taking on an irregular pyramidal shape.
- Adults can be 5-8 inches





Please report sightings to NH Fish and Game at RAARP@wildlife.nh.gov or at 603-271-2461. Photo documentation, location, and date/time of observation is helpful.

NOTE: It is illegal to remove a wood turtle from the wild (RSA 207:1, FIS 804.02).

NEW HAMPSHIRE FISH AND GAME (NHFG) ALTERATION OF TERRAIN PERMIT CONDITIONS FOR THREATENED AND ENDANGERED WILDIFE SPECIES

- 1. NORTHERN BLACK RACER (STATE THREATENED) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. SITE OPERATORS SHALL BE INFORMED OF THE POTENTIAL PRESENCE OF THIS AND SHALL BE PROVIDED FLYERS THAT HELP TO IDENTIFY THESE SPECIES ALONG WITH NHFG CONTACT INFORMATION. SEE PLAN SHEET C-52B. SEE NORTHER BLACK RACER FLYER ON SHEET C-13.
- 2. NORTHERN BLACK RACERS SHALL BE REPORTED IMMEDIATELY TO NHFG WILDLIFE BIOLOGISTS MELISSA WINTERS (603-479-1129) OR BRENDAN CLIFFORD (603-944-0885). IMMEDIATE REPORTING OF OBSERVATIONS IS CRITICAL AS NHFG BIOLOGISTS WILL NEED TO COLLECT DATA ON THE INDIVIDUAL. PHOTOS SHALL BE PROVIDED AS FEASIBLE.
- 3. TURTLES MAY BE ATTRACTED TO DISTURBED GROUND DURING NESTING SEASON (APPROXIMATELY MAY 15TH - JULY 15TH). ALL TURTLE SPECIES NESTS ARE PROTECTED BY NH LAWS. IF A NEST IS OBSERVED OR SUSPECTED, PLEASE CONTACT MELISSA WINTERS (603-479-1129) OR JOSH MEGYESY (978-578-0802) AT NHFG IMMEDIATELY FOR FURTHER CONSULTATION.
- 4. NO SUMPS SHALL BE INCLUDED IN THE DESIGN OF OUTLET CONTROL STRUCTURES.
- 5. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, EXCEPT FOR SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHOULD NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR
- 6. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHOULD 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: NHB20-3776, C3I INC, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR
- 7. THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHOULD SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

WILDLIFE NOTES:

FLYERS TO BE POSTED ON THE PROJECT OF SPECIES OF CONCERN. THESE INCLUDE THE NORTHERN BLACK RACER AND WOOD TURTLE. CONTRACTORS ON THE SITE SHALL BE MADE AWARE OF THE SPECIES AND EDUCATED AND FOLLOW THE CONTACT GUIDANCE AND PROCEDURES IF EITHER SPECIES IS



ENVIRONMENTAL CONCERN NOTES (2)

C3I, INC. 8 COMMERCE WAY **EXETER, NH**

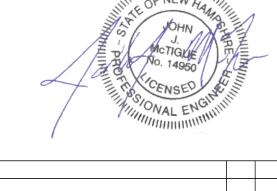
COUNTY OF ROCKINGHAM

C-MARINE DYNAMICS REALTY, LLC

OWNED BY

SCALE: NTS

JULY 28, 2023



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

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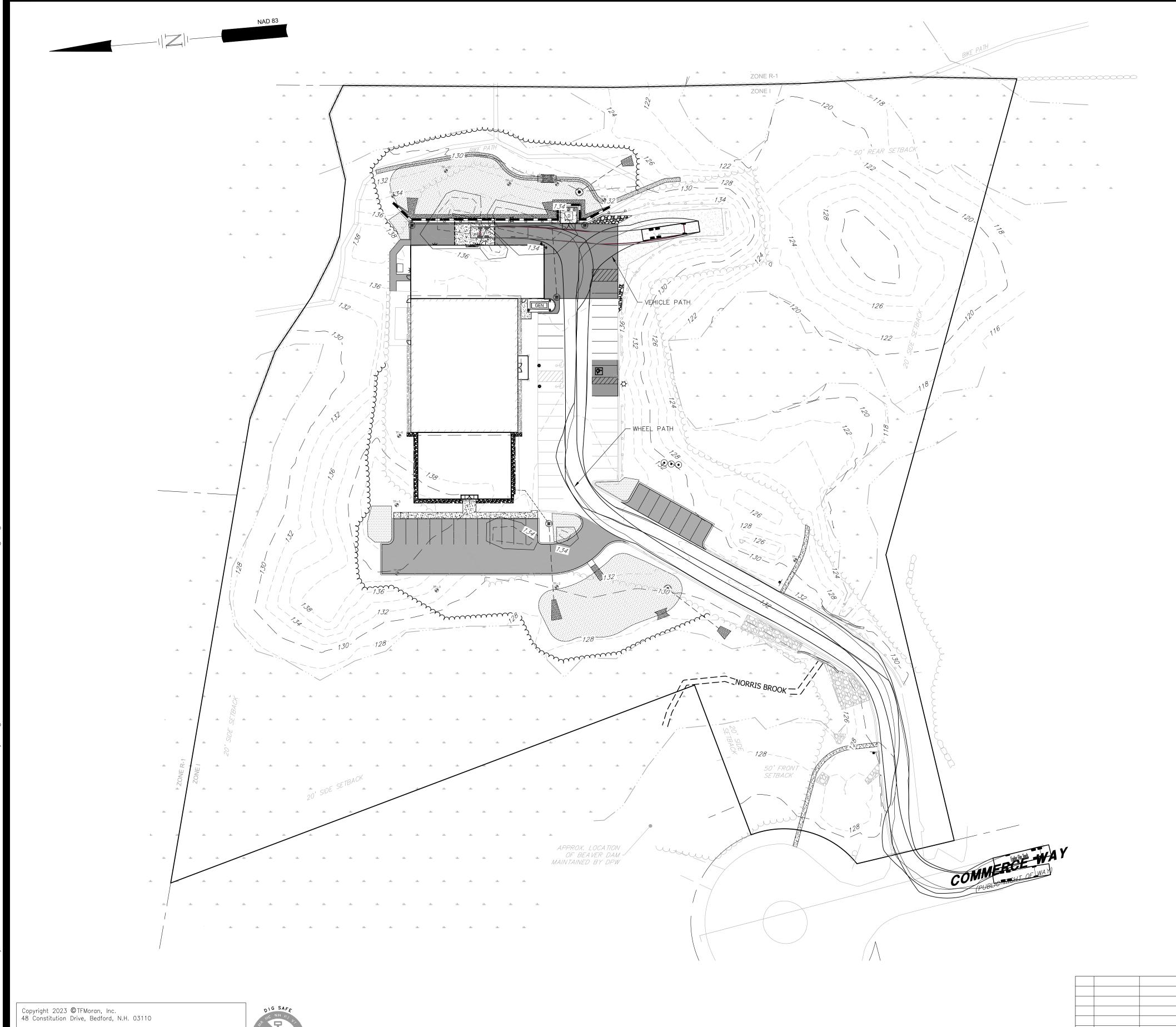
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REVISE PER INTERNAL REVIEW DESCRIPTION

1 8/8/2023

REV DATE

C - 16



SITE DEVELOPMENT PLANS

TAX MAP 48 LOT 3

FIRE TRUCK TURNING PLAN

C3I, INC. 8 COMMERCE WAY

EXETER, NH COUNTY OF ROCKINGHAM

OWNED BY

C-MARINE DYNAMICS REALTY, LLC

SCALE: 1"=40'

JULY 28, 2023

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HORIZONTAL SCALE 1"=40'			
20 0 40			
	1	8/8/2023	REVISE PER INTERNAL REVIEW
	REV	DA TE	DESCRIPTION DESCRIPTION

	M	R	

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

47201.03 DR MM FB - CK CR CADFILE 47201-03 TRUCK TURNING

C - 17

C-MARINE DYNAMICS REALTY, LLC

LEGEND:

WINDOW TYPE (HEXAGON)

 $\langle A \rangle$

8 COMMERCE WAY EXETER, NH 03833

ARCHITECT:

WINTER HOLBEN architecture + design 7 WALLINGFORD SQUARE. UNIT 2099 KITTERY, MAINE 03904 PHONE: (207) 994-3104

DRAWING(S)

ELECTRICAL

ELEVATION

EMERGENCY

EQUIPMENT

EXISTING

EXTERIOR

FLOOR DRAIN

FINISH FLOOR

GALVANIZED

GLASS

GLAZING

GYPSUM

HARDWOOD

HOLLOW METAL

HARDWARE

HORIZONTAL HIGH POINT

HOUR

MATERIAL KEY:

COARSE GRAVEL

GYPSUM/ PLASTER

BATT INSULATION

CONCRETE

STONE

PLYWOOD

FIRE PLACE

FOUNDATION

FLUID APPLIED BASE

FIRE EXTINGUISHER

FIBERGLASS PANELING

GYPSUM WALL BOARD

HOLLOW STRUCTURAL SECTION

EARTH/ COMPACT FILL CONCRETE MASONRY

FINISH WOOD

ROUGH WOOD

BLOCKING WOOD

BRICK MASONRY

RIGID INSULATION

SAND/ FINE GRAVEL

FLUID APPLIED FLOORING

FIRE EXTINGUISHER CABINET

EQUAL

ENTRANCE MAT

ETCHED CONCRETE

EXPANSION JOINT COVER

EAST

ELEC

EQUIP

EXIST

EXT

FAB

FAF

FEC

GALV

GLAZ

HDWD

HORIZ

HSS

GYP BD, GWB

HDWR, HDW

ELEV, El

OWNER

C-MARINE DYNAMICS REALTY, LLC 11 FIFIELD LANE STRATHAM, NEW HAMPSHIRE 03885

CIVIL ENGINEER:

TF MORGAN 170 COMMERCE WAY, SUITE 102 PORTSMOUTH, NH 03801 PHONE: (603) 431-2222

STRUCTURAL ENGINEER:

NAME STREET ADDRESS TOWN, STATE XXXX PHONE: (XXX)XXX-XXXX

MEP ENGINEER:

NAME STREET ADDRESS TOWN, STATE XXXX PHONE: (XXX)XXX-XXXX

FIRE PROTECTION ENGINEER:

GENERAL CONTRACTOR:

 $\overline{\mathbb{S}}$

RENOVATIONS AT

AND

ADDITIONS

WINTER

HOLBEN

architecture + design

7 WALLINGFORD SQ

KITTERY, MAINE 03904

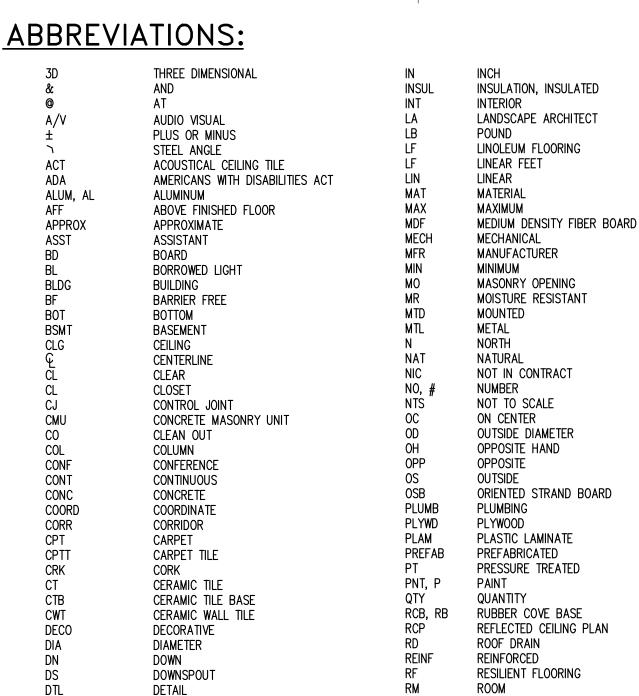
REVISIONS:

UNIT 209-9

207.994.3104

8 COMMERCE WAY NEW HAMPSHIRE 03833

RICCI CONTRUCTION CO., INC. 225 BANFIELD ROAD PORTSMOUTH, NH 03801 PHONE: (603) 436-3112



INSULATION, INSULATED LANDSCAPE ARCHITECT

PHONE: (603) 929-9959

ROUGH OPENING

STAINLESS STEEL

SCHEDULE

SIMILAR

SQUARE

STEEL

STAIN

STORAGE

SYSTEM

TOP OF

VERTICAL

WEST

WITH

TACK BOARD

TELEPHONE

TOP OF CURB

TOP OF STEEL

VERIFY IN FIELD

WHITE BOARD

RECYCLED WOOD

WOOD PANELING

TO BE DETERMINED

STL, ST

STN

STOR

VERT

SQUARE FEET

SUSPENDED ACOUSTICAL TILE

STRUCTURAL, STRUCTURE

THERMOPLASTIC POLYOLEFIN

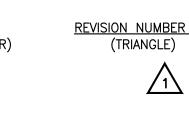
GLASS

STONE VENEER

SPRAY-FOAM

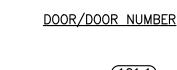
INSULATION

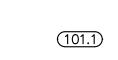
VENT THROUGH ROOF

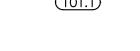


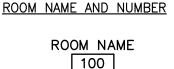
WALL TYPE

(SQUARE W/ LETTER)



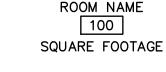


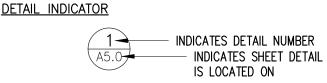


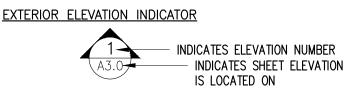


INDICATES DIRECTION OF

FIRST FLOOR — LOCATION OF ELEVATION





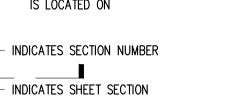


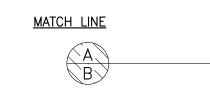
IS LOCATED ON

INDICATES DRAWING NUMBER

INDICATES SHEET ELEVATION

IS LOCATED ON





ELEVATION MARK



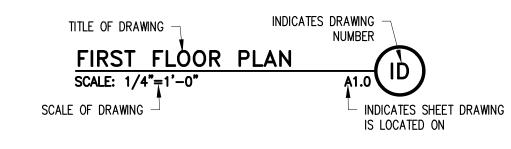




DRAWING TITLE

DETAIL SECTION CUT

INTERIOR ELEVATION INDICATOR



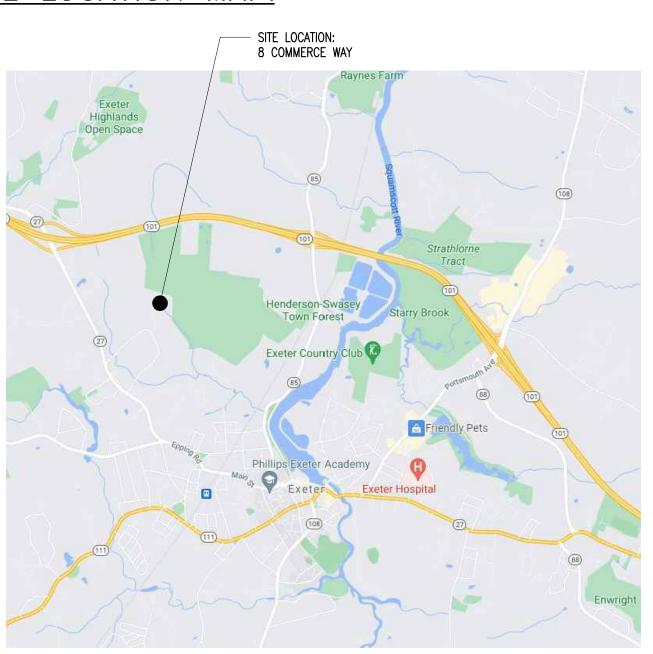
GENERAL NOTES:

- WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES THAT APPLY TO THE PROJECT.
- 2. DO NOT SCALE DRAWINGS FOR DIMENSIONS. FOR MISSING DIMENSIONS OR DIMENSIONS IN CONFLICT, CONTACT THE ARCHITECT IMMEDIATELY BEFORE CONTINUING WITH THE WORK.
- 3. ANY DISCREPANCIES IN THESE PLANS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY.
- REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS AND SPECIFICATIONS FOR LOCATION OF ALL BLOCK OUTS, INSERTS, OPENINGS, CURBS, BASES, AND PADS THAT ARE NOT DIMENSIONED OR SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.
- 5. EXTERIOR DIMENSIONS ARE FROM FACE OF SHEATHING TO FACE OF SHEATHING UNLESS NOTED OTHERWISE. INTERIOR DIMENSIONS ARE FROM FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. DIMENSIONS INDICATED AS "CLEAR" SHALL MAINTAIN A CLEAR OPENING WIDTH FROM FACE OF FINISHES. DIMENSIONS TO EXISTING CONSTRUCTION ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.
- WORK FROM GIVEN DIMENSIONS AND LARGE SCALE DETAILS ONLY. DO NOT SCALE DRAWINGS.
- ROOM NUMBERS ON PLANS ARE FOR REFERENCE ONLY AND MAY NOT CORRESPOND TO ACTUAL ROOM NUMBERS AT THE
- 8. BEFORE PENETRATING JOISTS, BEAMS, OR OTHER STRUCTURAL MEMBERS, OBTAIN APPROVAL FROM THE ARCHITECT.
- 9. HE LOCATION OF DOOR OPENING NOT DIMENSIONS SHALL BE 6" FROM ADJACENT WALL (FACE OF FRAMING TO ROUGH
- 10. PROVIDE BLOCKING BEHIND SURFACE APPLIED FIXTURES, TRIM, GRAB BARS, SHELVES, CHAIR RAILS, PICTURE RAILS, WOOD TRIM, BASE, AND OTHER ACCESSORIES WHEN MOUNTED ON THE STUD WALLS.
- 11. WHERE WALLS OR INFILL WALLS ABUT OR INTERSECT EXISTING WALLS, TAPE AND FINISH JOINTS AT INTERSECTIONS SMOOTH AND CONTINUOUS. USE METAL TRIM WHERE GYPSUM BOARD INTERSECTS OTHER MATERIALS.
- 12. PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COORDINATED WITH PHASING AND THE LOCAL BUILDING COMMISSIONER.

FRONT PERSPECTIVE



SITE LOCATION MAP:



<u>GENERAL</u>

TO.1 TITLE SHEET T1.0 CODE DATA

ARCHITECTURAL DRAWINGS

FIRST FLOOR PLAN A1.2 SECOND FLOOR PLAN

EXTERIOR ELEVATIONS

A8.0 PERSPECTIVE RENDERINGS

DRAWING INDEX:

STAIR AND ELEVATOR DETAILS

TITLE SHEET

ADDITIONS AND RENOVATIONS

8 COMMERCE WAY

EXETER, NH 03833

230701

2023/09/18

RAWING NO.

PROJECT NO.

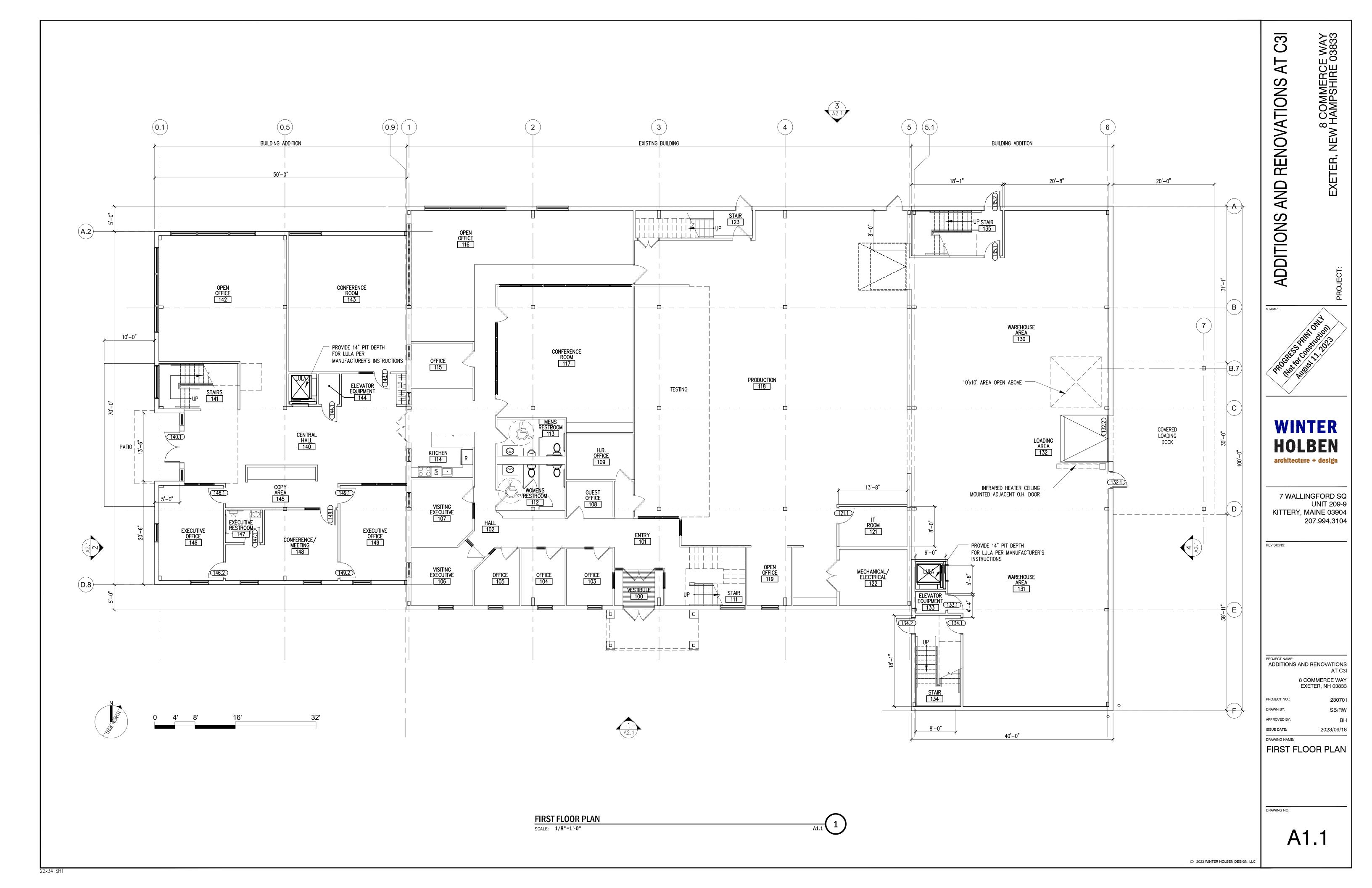
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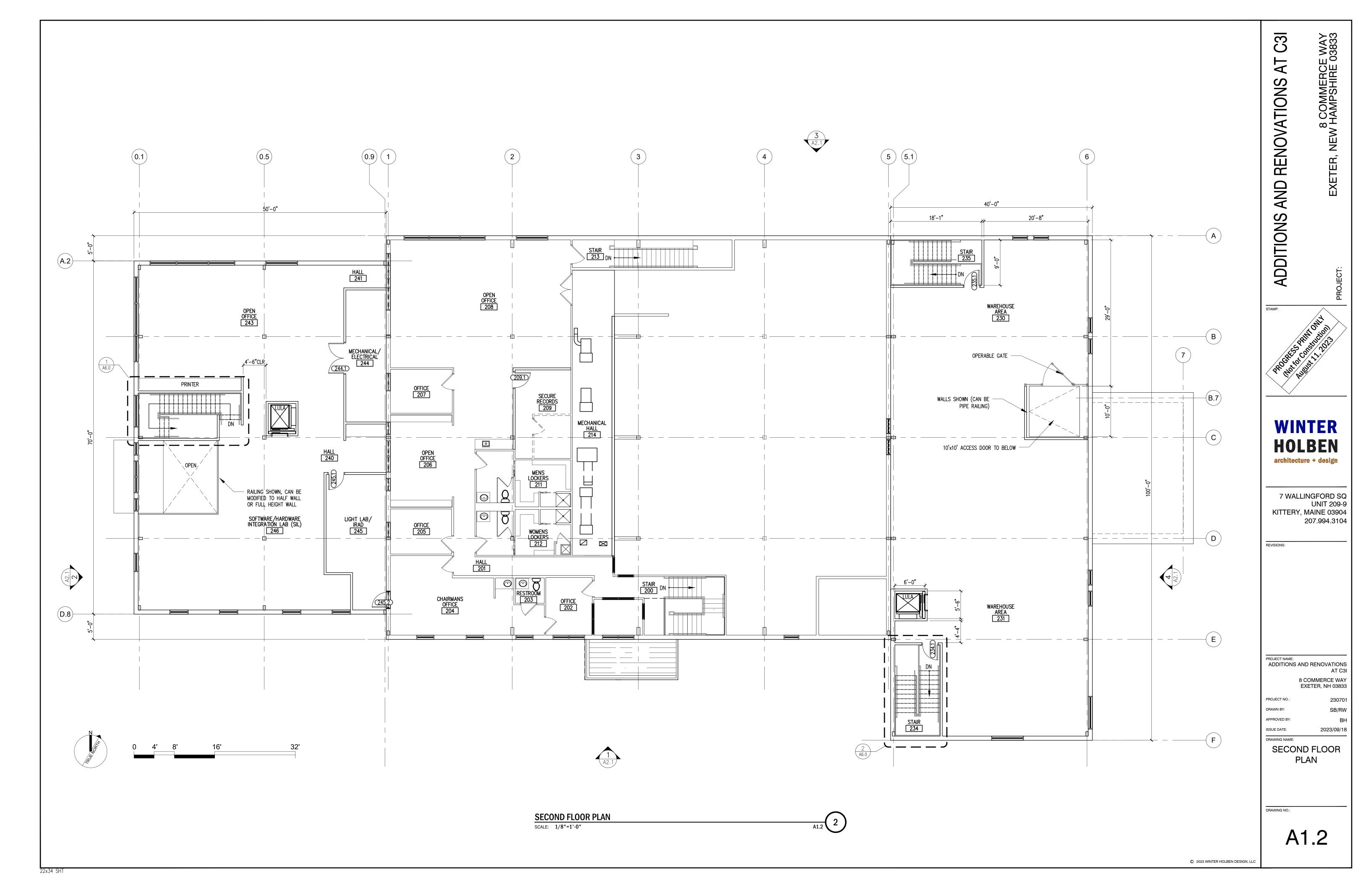
APPROVED BY

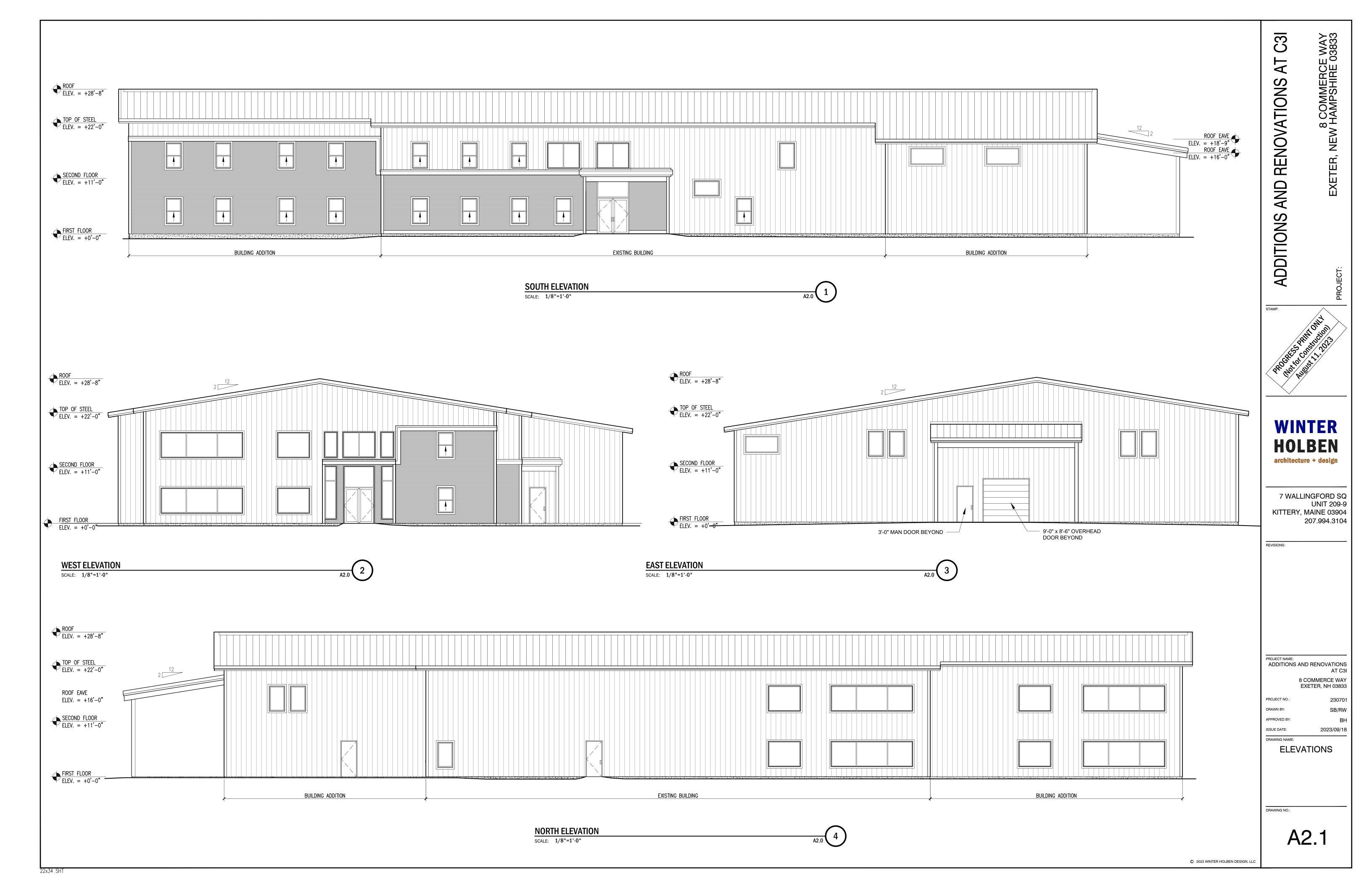
ISSUE DATE:

RAWING NAME:

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FRONT PERSPECTIVE LOOKING NORTHWEST

FRONT PERSPECTIVE LOOKING NORTH



PERSPECTIVE LOOKING EAST



PERSPECTIVE LOOKING SOUTHEAST

ADDITIONS AND RENOVATIONS AT C31 8 COMMERCE WAY EXETER, NEW HAMPSHIRE 03833

WINTER HOLBEN architecture + design

7 WALLINGFORD SQ UNIT 209-9 KITTERY, MAINE 03904 207.994.3104

architecture + design

PROJECT NAME:
ADDITIONS AND RENOVATIONS
AT C3I 8 COMMERCE WAY EXETER, NH 03833

ISSUE DATE: 2023/09/18

PERSPECTIVE

RENDERINGS

A8.0

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architecture + design

TOWN OF EXETER



Planning and Building Department

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

www.exeternh.gov

Date: October 5, 2023

To: Planning Board

From: Dave Sharples, Town Planner

Re: Michael Lampert PB Case #23-17

The Applicant is seeking a minor subdivision of the existing 3.8+/- acre parcel located at 158 Epping Road. The Applicant is proposing to subdivide the lot to create a new 1.993+/- acre lot with frontage on Continental Drive. The remaining 1.805+/- acre parcel is developed and is the site of the recently constructed Nouria motor fuel outlet and convenience store. The subject property is located in the C-3, Epping Road Highway Commercial zoning district and is identified as Tax Map Parcel #47-1-2.

The Applicant submitted a minor subdivision application, plans and supporting documents, dated September 19th, 2023, which are enclosed for your review.

There was no Technical Review Committee meeting, however, the plans were reviewed by staff for compliance with zoning and subdivision regulations. Code Enforcement Officer Doug Eastman has determined that the proposal meets the minimum dimensional requirements

There are no waivers being requested in conjunction with this application.

I will be prepared with suggested conditions of approval at the meeting in the event the board decides to act on the request.

Planning Board Motion:

Minor Subdivision Motion: I move that the request of Michael Lampert (PB Case #23-17) for Minor Subdivision approval be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.

Thank You.

Enclosures

Town of Exeter



Planning Board Application for

- Minor Site Plan Review
 - Minor Subdivision
 - Lot Line Adjustment

January 2019



TOWN OF EXETER, NH APPLICATION FOR MINOR SITE PLAN REVIEW, MINOR SUBDIVISION and/or LOT LINE ADJUSTMENT

A completed application shall contain the following items, although please note that some items may not apply such as waivers or conditional use permit:

1.	Application for Hearing	(X)
2.	Abutter's List Keyed to the Tax Map (including name and business address of all professionals responsible for the submission (engineer, landscape architect, wetland scientist, etc.)	(X)
3.	Checklist for plan requirements	(X)
4.	Letter of Explanation	(X)
5.	Written request and justification for waiver(s) from Site Plan/Sub Regulations	(N/A)
6.	Application to Connect and/or Discharge to Town of Exeter Sewer, Water, or Storm Water Drainage System(s) - if applicable	(N/A)
7.	Application Fees	(X)
8.	Seven (7) copies of 24'x36' plan set	(X)
9.	Fifteen (15) 11"x 17" copies of the plan set	(X)
10.	Three (3) pre-printed 1"x 2 5/8" labels for each abutter, the applicant and all consultants.	(X)

<u>NOTES</u>: All required submittals must be presented to the Planning Department Office for distribution to other Town departments. Any material submitted directly to other departments will not be considered.



TOWN OF EXETER MINOR SUBDIVISION, MINOR SITE PLAN, AND/OR LOT LINE ADJUSTMENT APPLICATION

OFFICE USE ONLY

	THIS IS AN APPLICATION FOR: () MINOR SITE PLAN (X) MINOR (3lots or less) SUBDIVISION (2) LOTS () LOT LINE ADJUSTMENT	APPLICATION DATE RECEIVED APPLICATION FEE PLAN REVIEW FEE ABUTTER FEE LEGAL NOTICE FEE INSPECTION FEE TOTAL FEES AMOUNT REFUNDED
	NAME OF LEGAL OWNER OF RECORD:	158 Epping Road, LLC
	ADDRESS: 156 Epping Road	
	Exeter, NH 03833	TELEPHONE: (603) _777-7036
2.	NAME OF APPLICANT: Michael Lampe ADDRESS: 47 Varney Point Road Right	
	Gilford, NH 03246	TELEPHONE: (603) 777-7036
3.	RELATIONSHIP OF APPLICANT TO PRO	OPERTY IF OTHER THAN OWNER:
	(Written permission from Owner is require	ed, please attach.)
4.	DESCRIPTION OF PROPERTY: ADDRESS: 158 Epping Road	
	TAX MAP:47 PARCEL #: _	1-2 ZONING DISTRICT: C-3
	AREA OF ENTIRE TRACT: 3.8 Ac.+/-	



ARE MUNICIPAL SERVICES AVAILABLE? (YES/NO) YES IF YES, WATER AND SEWER SUPERINTENDENT MUST GRANT WRITTEN APPROVA CONNECTION. IF NO, SEPTIC SYSTEM MUST COMPLY WITH W.S.P.C.C. REQUIREME LIST ALL MAPS, PLANS AND OTHER ACCOMPANYING MATERIAL SUBMITTED THIS APPLICATION: ITEM: NUMBER OF COF A. Subdivision Plan B. Notice of Decision C. D. E. F. ANY DEED RESTRICTIONS AND COVENANTS THAT APPLY OR ARE CONTEMPL (YES/NO) No IF YES, ATTACH COPY. NAME AND PROFESSION OF PERSON DESIGNING PLAN: NAME: David R. Jordan ADDRESS: 44 Stiles Road, Salem, NH 03079 PROFESSION: Licensed Land Surveyor TELEPHONE: (603) 374-79	Subdividing Map 47 Lot 1-2 Into two (2) buildable lots.	EXPLANATION OF PROPOSAL: OUDGIN
THIS APPLICATION: ITEM: NUMBER OF COF A. Subdivision Plan B. Notice of Decision C. D. E. F. ANY DEED RESTRICTIONS AND COVENANTS THAT APPLY OR ARE CONTEMP! (YES/NO) No IF YES, ATTACH COPY. NAME AND PROFESSION OF PERSON DESIGNING PLAN: NAME: David R. Jordan ADDRESS: 44 Stiles Road, Salem, NH 03079	<u> PERINTENDENT MUST GRANT WRITTEN APPROVAL FO</u>	IF YES, WATER AND SEWER SUPERINT
A. Subdivision Plan B. Notice of Decision C	OTHER ACCOMPANYING MATERIAL SUBMITTED WIT	*
DEF	NUMBER OF COPIES	<u>ITEM:</u>
DEF		A. Subdivision Plan
D		B. Notice of Decision
EF		C
ANY DEED RESTRICTIONS AND COVENANTS THAT APPLY OR ARE CONTEMPLY (YES/NO) No IF YES, ATTACH COPY. NAME AND PROFESSION OF PERSON DESIGNING PLAN: NAME: David R. Jordan ADDRESS: 44 Stiles Road, Salem, NH 03079		
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ADDRESS: 44 Stiles Road, Salem, NH 03079	PERSON DESIGNING PLAN:	
PROFESSION: Licensed Land Surveyor TELEPHONE: (603) 374-79	llem, NH 03079	
		· · · · · · · · · · · · · · · · · · ·
LIST ALL IMPROVEMENTS AND UTILITIES TO BE INSTALLED: No improvement	ND UTILITIES TO BE INSTALLED: No improvements,	LIST ALL IMPROVEMENTS AND UT
earthwork, or utilities are proposed at this time.	posed at this time.	earthwork, or utilities are proposed a



11. HAVE ANY SPECIAL EXCEPTIONS OR VARIANCES BEEN GRANTED BY THE ZONING BOARDOF ADJUSTMENT TO THIS PROPERTY PREVIOUSLY?

(Please check with the Planning Department Office to verify) (YES/NO) YES IF YES BELOW AND NOTE ON PLAN. Special Exception - 3/16/2021 - Gas/Service Station use	, LIST
Variance - 3/16/2021 - Front yard setback less than 50'	
Variance - 3/16/2021 - Freestanding sign setback less than 35'	
NOTICE:	
I CERTIFY THAT THIS APPLICATION AND THE ACCOMPANYING PLANS AND SUINFORMATION HAVE BEEN PREPARED IN CONFORMANCE WITH ALL APPLICABE REGULATIONS, INCLUDING BUT NOT LIMITED TO THE "SITE PLAN REVIEW AND SUINFEGULATION" AND THE ZONING ORDINANCE. FURTHERMORE, IN ACCORDANCE REQUIREMENTS OF THE "SITE PLAN REVIEW AND SUBDIVISION REGULATIONS", I PAY ALL COSTS ASSOCIATED WITH THE REVIEW OF THIS APPLICATION.	LE TOWN BDIVISION WITH THE

ACCORDING TO RSA 676.4.I (c), THE PLANNING BOARD MUST DETERMINE WHETHER THE APPLICATION IS COMPLETE WITHIN 30 DAYS OF SUBMISSION. THE PLANNING BOARD MUST ACT TO EITHER APPROVE, CONDITIONALLY APPROVE, OR DENY AN APPLICATION WITHIN SIXTY FIVE (65) DAYS OF ITS ACCEPTANCE BY THE BOARD AS A COMPLETE APPLICATION. A SEPARATE FORM ALLOWING AN EXTENSION OR WAIVER TO THIS REQUIREMENT MAY BE SUBMITTED BY THE APPLICANT.

DATE _____ APPLICANT'S SIGNATURE ____



ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW

HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S

RECORDS.

TAX MAP <u>47 Lot 1-1</u>	TAX MAP
NAME 156 Epping Road, LLC	NAME
ADDRESS 156 Epping Road, Unit 1	ADDRESS
Exeter, NH 03833	
TAX MAP 47 Lot 1-3	TAX MAP
TAX MAP 47 Lot 1-3 NAME 3-5 Continental Drive, LLC	NAME
ADDRESS 156 Epping Road	ADDRESS
Exeter, NH 03833	
TAX MAP 47 Lot 2	TAX MAP
NAME 156 Debrowski Realty Holdings of NH	NAME
ADDRESS 6920 Pointe Inverness Way 301	ADDRESS
Fort Wayne, IN 46804	
TAX MAP_47 Lot 2-1	TAX MAP
NAME Continental Paws, LLC	NAME
ADDRESS 10 Overlook Drive	ADDRESS
Newfields, NH 03856	
TAX MAP 47 Lot 4-12	TAX MAP
NAME GNS Realty Trust, LLC	NAME
ADDRESS 4 Continental Drive #A	ADDRESS
Exeter, NH 03833	
TAX MAP_47 Lot 9	TAX MAP
NAME CKT & Associates	NAME
ADDRESS 158 Shattuck Way	ADDRESS
Newington, NH 03801	
TAX MAP	TAX MAP
NAMEGreenman-Pedersen, Inc	NAME
ADDRESS 44 Stiles Road, Suite 1	ADDRESS
Salem, NH 03079	
TAX MAP	TAX MAP
NAME Gove Environmental Services	NAME
ADDRESS 8 Continental Drive, Building 2, Unit H	ADDRESS
Exeter, NH 03833	

Please attach additional sheets if needed



CHECK LIST FOR MINOR SITE PLAN REVIEW, MINOR SUBDIVISON AND LOT LINE ADJUSTMENT

APPLICANT	TRC	REQUIRED EXHIBITS, SEE REGULATION 6.6.2.4
X		a) The name and address of the property owner, authorized agent, the person or firm preparing the plan, and the person or firm preparing any other data to be included in the plan.
X		 Title of the site plan, subdivision or lot line adjustment, including Planning Board Case Number.
X		c) Scale, north arrow, and date prepared.
X		 d) Location of the land/site under consideration together with the names and address of all owners of record of abutting properties and their existing use.
X		 e) Tax map reference for the land/site under consideration, together with those of abutting properties.
X		f) Zoning (including overlay) district references.
X		g) A vicinity sketch showing the location of the land/site in relation to the surrounding public street system and other pertinent location features within a distance of 1,000-feet.
N/A		 For minor site plan review only, a description of the existing site and proposed changes thereto, including, but not limited to, buildings and accessory structures, parking and loading areas, signage, lighting, landscaping, and the amount of land to be disturbed.
X		 i) If deemed necessary by the Town Planner, natural features including watercourses and water bodies, tree lines, and other significant vegetative cover, topographic features and any other environmental features which are significant to the site plan review or subdivision design process.
X		j) If deemed necessary by the Town Planner, existing contours at intervals not to exceed 2-feet with spot elevations provided when the grade is less than 5%. All datum provided shall reference the latest applicable US Coast and Geodetic Survey datum and should be noted on the plan.
N/A		k) If deemed necessary by the Town Planner for proposed lots not served by municipal water and sewer utilities, a High Intensity Soil Survey (HISS) of the entire site, or portion thereof. Such soil surveys shall be prepared and stamped by a certified soil scientist in accordance with the standards established by the Rockingham County Conservation District. Any cover letters or explanatory data provided by the certified soil scientist shall also be submitted.
X		State and federal jurisdictional wetlands, including delineation of required setbacks.
X		m) A note as follows: "The landowner is responsible for complying with all applicable local, State, and Federal wetlands regulations, including any permitting and setback requirements required under these regulations."
X		Surveyed exterior property lines including angles and bearings, distances, monument locations, and size of the entire parcel. A professional land surveyor licensed in New Hampshire must attest to said plan.



N/A	 For minor site plans only, plans are not required to be prepared by a professional engineer or licensed surveyor unless deemed essential by the Town Planner or the TRC.
X	 For minor subdivisions and lot line adjustments only, the locations, dimensions, and areas of all existing and proposed lots.
X	q) The lines of existing abutting streets and driveways locations within 100-feet of the site.
X	 The location, elevation, and layout of existing catch basins and other surface drainage features.
X	s) The footprint location of all existing structures on the site and approximate location of structures within 100-feet of the site.
X	t) The size and location of all existing public and private utilities.
X	 The location of all existing and proposed easements and other encumbrances.
X	 All floodplain information, including contours of the 100-year flood elevation, based upon the Flood Insurance Rate Map for Exeter, as prepared by the Federal Emergency Management Agency, dated May 17, 1982.
N/A	 w) The location of all test pits and the 4,000-square-foot septic reserve areas for each newly created lot, if applicable.
N/A	 x) The location and dimensions of all property proposed to be set aside for green space, parks, playgrounds, or other public or private reservations. The plan shall describe the purpose of the dedications or reservations, and the accompanying conditions thereof (if any).
N/A	y) A notation shall be included which explains the intended purpose of the subdivision. Include the identification and location of all parcels of land proposed to be dedicated to public use and the conditions of such dedications, and a copy of such private deed restriction as are intended to cover part of all of the tract.
N/A	z) Newly created lots shall be consecutively numbered or lettered in alphabetical order. Street address numbers shall be assigned in accordance with <u>Section 9.17 Streets</u> of these regulations.
X	 aa) The following notations shall also be shown: Explanation of proposed drainage easements, if any Explanation of proposed utility easement, if any Explanation of proposed site easement, if any Explanation of proposed reservations, if any Signature block for Board approval as follows:
	Town of Exeter Planning Board Chairman Date



September 19, 2023

Mr. Dave Sharples, Town Planner Town of Exeter Exeter, NH 03833

SUBJECT: 158 Epping Road Minor Subdivision Application – Letter of Explanation

Dear Mr. Sharples:

On behalf of our client, Michael Lampert, Greenman-Pedersen, Inc is providing the following information to accompany the application for a minor subdivision proposed at 158 Epping Road, identified as Tax Map 47 Parcel 1-2 on the Town of Exeter Assessors Maps. This 3.8-acre property is located entirely within the Epping Road Highway Commercial (C-3) zoning district.

The intent of this application is to subdivide the property into two separate building lots. The easterly portion of the property was recently redeveloped into a car wash and gas station use. The westerly portion of the property is partially developed with a small pocket of wetlands in the southwest corner of the property. Based on the proposed subdivision, the car wash and gas station use will occupy the easterly lot, having frontage on both Epping Road as well as Continental Drive, while the westerly portion of the property will become a separate lot that will have frontage on Continental Drive. This proposed lot will eventually connect to water and sewer services within Continental Drive, although no improvements are proposed at this time.

This application does not request any waivers from the Planning Board.

We look forward to meeting with the Board and presenting our application.

Sincerely,

Alex Camm

Mylin

Land Surveying Department Head

1638 QUINDED

TOWN OF EXETER, NEW HAMPSHIRE

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

www.exeternh.gov

March 18, 20221

John L. Arnold, Esquire Hinckley, Allen & Snyder LLP 650 Elm Street Manchester, New Hampshire 03101

Re:

Zoning Board of Adjustment Case #21-3

Nouria Energy Corporation

Special Exception and Variance Requests

158 Epping Road, Exeter, N.H.

Tax Map Parcel #47-1-2

Dear Attorney Arnold:

This letter will serve as official confirmation that the Zoning Board of Adjustment, at its March 16th, 2021 meeting, voted to grant the above-captioned special exception application to permit the proposed construction of a gasoline station, a convenience store with drive-thru, a carwash and associated site improvements on the property at 158 Epping Road, as presented.

At this same meeting, the Board also granted two variances per Article 6, Section 6.8.2 for relief from the requirement that the second 25' of the front yard be landscaped and to permit a pylon sign to be located approximately 7' from the front property line, where a setback of 35' is required.

Please be advised that in accordance with Article 12, Section 12.4 of the Town of Exeter Zoning Ordinance entitled "Limits of Approval" that all approvals granted by the Board of Adjustment shall only be valid for a period of three (3) years from the date such approval was granted; therefore, should substantial completion of the improvements, modifications, alterations or changes in the property not occur in this period of time, this approval will expire.

If you should have any questions, please do not hesitate to contact the Building Department office.

Sincerely,

Robert V. Prior
Acting Chairman

Exeter Zoning Board of Adjustment

cc:

Tom Healy, Nouria Energy Corporation

Patrick McLaughlin, Nouria Energy Corporation

Chris Tymula, GPI

Douglas Eastman, Building Inspector/Code Enforcement Officer

Dave Sharples, Town Planner Janet Whitten, Deputy Assessor

RVP:bsm

