Findings of Fact | Wetland Conditional Use Permit
City of Portsmouth Planning Board

Date: March 20, 2025
Property Address: 333 Borthwick Avenue
Application #: LU-24-224
Decision: □ Approve □ Deny □ Approve with Conditions

Findings of Fact:

Per RSA 676:3, I: The local land use board shall issue a final written decision which either approves or disapproves an application for a local permit and make a copy of the decision available to the applicant. **The decision shall include specific written findings of fact that support the decision. Failure of the board to make specific written findings of fact supporting a disapproval shall be grounds for automatic reversal and remand by the superior court upon appeal, in accordance with the time periods set forth in RSA 677:5 or RSA 677:15, unless the court determines that there are other factors warranting the disapproval.** If the application is not approved, the board shall provide the applicant with written reasons for the disapproval. If the application is approved with conditions, the board shall include in the written decision a detailed description of all conditions necessary to obtain final approval.

In order to grant Wetland Conditional Use permit approval the Planning Board shall find the application satisfies criteria set forth in the Section 10.1017.50 (Criteria for Approval) of the Zoning Ordinance.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	**Finding** **(Meets Criteria for Approval)**	**Supporting Information**
1	*1. The land is reasonably suited to the use activity or alteration.*	**Meets** **Does Not Meet**	The majority of the work area is already disturbed wetland with an existing culvert and roadway crossing. The replacement of this culvert and associated repair work proposes to improve the flow of water through this stream.
2	*2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.*	**Meets** **Does Not Meet**	The proposed location is where an existing culvert system and roadway are located today. While the proposal is a direct wetland impact, the post-construction culvert system is proposed to fix current sedimentation and flow issues that exist today.
3	*3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.*	**Meets** **Does Not Meet**	This replacement project will have direct wetland impacts but construction activities are proposed to minimize direct impacts to the stream during the replacement project.

	Zoning Ordinance Sector 10.1017.50 Criteria for Approval	Finding (Meets Criteria for Approval)	Supporting Information
4	*4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.*	**Meets** **Does Not Meet**	This proposal shows work involving the stream bank and utilizing erosion control blankets. The applicant proposes seeding the banks for stabilization with a conservation mix. The applicant should provide a maintenance plan to ensure the establishment of the seed mix and for long-term vegetation maintenance that would consider aspects such as sustaining wildlife habitat and maintaining sediment trapping.
5	*5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this section.*	**Meets** **Does Not Meet**	This proposal appears to be the least adverse impact to the wetland as the alternative to increasing flow would be to dredge most of the length of the stream. This proposal limits the permanent impacts as well as the temporary impacts compared to dredging and will hopefully solve the flow issues within this wetland.
6	*6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.*	**Meets** **Does Not Meet**	Applicant is proposing temporary disturbance of the streambank for construction activities. Applicant has indicated areas on plan that will receive conservation seed mix/New England wet mix.
7	**<u>Other Board Findings:</u>**		

Bowman

March 03, 2025

City of Portsmouth, NH

Re: **Wetland Conditional Use Permit**
Portsmouth Regional Hospital (PRH) – Culvert Replacement
333 Borthwick Ave, Portsmouth, NH 03801

Portsmouth Regional Hospital is an existing acute hospital on a ±21-acre parcel at 333 Borthwick Ave, Portsmouth, NH 03801. Along the northern property boundary (adjacent to interstate 10) there is an existing *Unitil* natural gas enclosure with regulators and valves. There is an existing gravel drive with (3) 24" culverts that cross over a man made swale (now classified as wetland) that *Unitil* uses to service their equipment. The existing (3) 24" culverts were installed in 1988 based on design drawings by *Kimball Chase*.

On behalf of Portsmouth Regional Hospital and HCA Healthcare, at the request of the City of Portsmouth, Bowman is proposing to remove the existing (3) 24" culverts and replace with a 10' wide by 3' tall box culvert. All construction and materials shall be in compliance with the *New Hampshire Stream Crossing Guidelines,* latest edition. Temporary disturbance will be ±2,900 square feet and permanent disturbance will be ±750 square feet.

Below are the Criteria for Approval per Section 10.1017.50.

1. The land is reasonably suited to the use, activity or alteration.
    a. Correct; the alteration is replacing existing undersized infrastructure.
2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.
    a. Correct; the alteration must occur in the same location as the undersized infrastructure.
3. There will be no adverse impact on the wetland functional values of the site or surrounding properties;
    a. Correct; erosion control measures and construction best management practices will be implemented to ensure no adverse impacts.
4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals; and
    a. Correct; limits of disturbance have been reduced to minimum impact possible.
5. The proposal is the alternative with the least adverse impact to areas and environments under the jurisdiction of this Section.
    a. Correct; limits of disturbance have been reduced to minimum impact possible.
6. Any area within the vegetated buffer strip will be returned to a natural state to the extent feasible.
    a. Correct; re-vegetation includes re-seeding with native wetland seed mixes.

If you have any questions, please feel free to reach me at mhamby@bowman.com.

Matthew Hamby, PE
Principal, Civil Engineer

Bowman

February 17, 2025

New Hampshire Department of Environmental Services (NHDES)
City of Portsmouth, NH

Re: **Portsmouth Regional Hospital (PRH) – Culvert Replacement**
333 Borthwick Ave, Portsmouth, NH 03801

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The contributing drainage area to the existing crossing is ±195-acres, based on USGS topographic delineation. A majority of the contributing drainage area is state prime wetland that flows from south of Borthwick Avenue through two (2) city owned and maintained 18" PVC pipes.

See **Appendix A** for the Overall Drainage Area Map. Contributing drainages area parameters:

- Area: ±195-acres
- Time of Concentration: 128.4 minutes
    - 100' sheet flow at 0.5% slope with 0.95 Manning's N Value. Two-year, 24 hr rainfall: 3.33"
    - 3,780' shallow concentrated flow at 0.5% slope (unpaved)
- Curve Number: 90 (very conservative estimate)

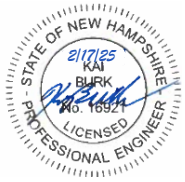
See **Appendix B** for Peak Stormwater Runoff outputs, based on Hydrology Studio 2024 v 3.0.0.32 with Portsmouth, NH IDF Data:

- 02-year storm event: 71.57 cubic ft/ second (cfs)
- 10-year storm event: 136.0 cfs
- 50-year storm event: 210.3 cfs

The replacement 10' wide x 3' tall box culvert at 0.09% slope will pass the 50-year storm event, stagging up to ±23.7; thus not overtopping the driveway. See **Appendix C** for Stormwater Studio 2024 v 3.0.0.35 sizing model results.

If you have any questions, please feel free to reach me at mhamby@bowman.com.

Matthew Hamby, PE
Principal, Civil Engineer



Kai Burk, PE
Chief Civil Engineer

Attachments:
Appendix A – Overall Drainage Basin Map
Appendix B – Peak Stormwater Runoff Results
Appendix C – Box Culvert Sizing Results
Appendix D – Construction Documents

Appendix E - Invasive Plant Plan
Appendix G - Comment Response Letter

POINT OF ANALYSIS

POINT OF ANALYSIS
(3 EXISTING 24" CULVERTS)

EXISTING CULVERT
BENEATH BORTHWICK

DRAINAGE BASIN AREA: ±195 ACRES

Creek
Area

Meadowbrook

Portsmouth
Plains

PORTSMOUTH

Great Bay
Community
College

Paul Mitchell,
the School

Saint
Marys Cem

Calvary Cem

Temple
Israel
Cem

OAK AVE
ASHLAND RD
THORNTON
BARTLETT ST
CABOT ST
STATE ST
MIDDLE ST
LINCOLN AVE
ALDRICH RD
THAXTER RD
WIBIRD ST
UNION ST
BORTHWICK AVE
COAKLEY RD
ISLINGTON ST
ESSEX AVE
SPINNEY RD
SHERBURNE RD
COLONIAL DR
GREENLAND RD
LAFAYETTE RD
JONES AVE
GREENLEAF AVE
MIRONA RD
PEVERLY HILL RD
Sagamore Cr
Great Bog

95
4
Byp
1
33
H

0 500 1,000 Feet

811
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205 Van Buren Street, Suite 126, Nashville, TN 37208
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
7/28/24
BURK
No. 16524
LICENSED
PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

PLAN STATUS

DATE	DESCRIPTION

DESIGN	DRAWN	CHKD
		XX

07/02/2024

APPENDIX A

OVERALL
DRAINAGE
AREA MAP

EXHIBIT-1

Basin Model

Hydrology Studio v 3.0.0.32

APPENDIX B

Project Name:

07-15-2024

Hydrograph by Return Period

Hydrology Studio v 3.0.0.35

File: DAMPeakFlows.hys
02-17-2025

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	NRCS Runoff	Pre Overall		71.57			136.0		210.3	

Tc by TR55 Worksheet

Project Name:

Hydrology Studio v 3.0.0.32

07-15-2024

Overall

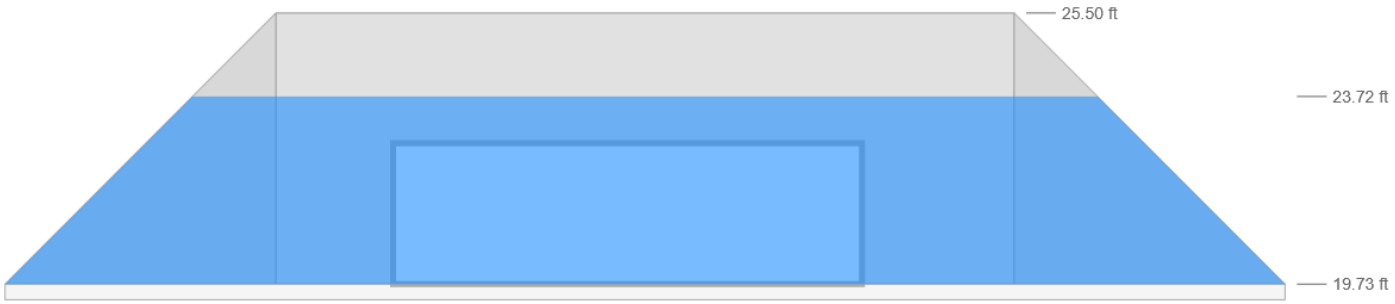
Hyd. No. 1

NRCS Runoff

Description	Segments			
	A	B	C	Tc (min)
Sheet Flow				
Description	Overall			
Manning's n	0.950	0.013	0.013	
Flow Length (ft)	100			
2-yr, 24-hr Precip. (in)	3.33	2.28	2.28	
Land Slope (%)	.5			
Travel Time (min)	**73.22**	**0.00**	**0.00**	**73.22**
Shallow Concentrated Flow				
Flow Length (ft)	3780			
Watercourse Slope (%)	0.50	0.00	0.00	
Surface Description	Unpaved	Paved	Paved	
Average Velocity (ft/s)	1.14			
Travel Time (min)	**55.22**	**0.00**	**0.00**	**55.22**
Channel Flow				
X-sectional Flow Area (sqft)				
Wetted Perimeter (ft)				
Channel Slope (%)				
Manning's n	0.013	0.013	0.013	
Velocity (ft/s)				
Flow Length (ft)				
Travel Time (min)	**0.00**	**0.00**	**0.00**	**0.00**
Total Travel Time				**128.44 min**

Line 1 - Headwall

Headwall - Projecting



Looking Downstream

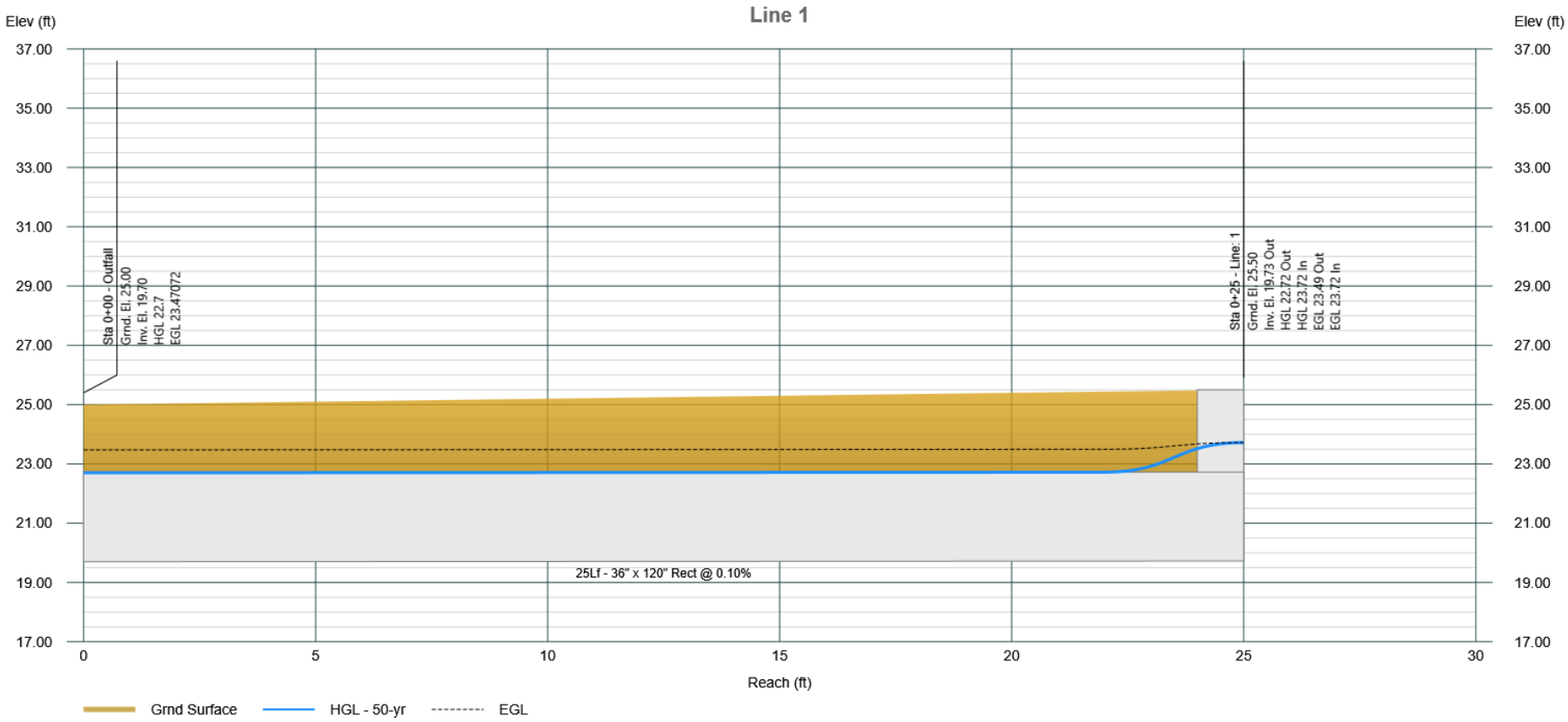
Line	Q (cfs)				Spread (ft)		Depth (ft)		Inlet	
	Catchment	+ Carryover	- Captured	= Bypass	Gutter	Inlet	Gutter	Inlet	Id	Type
1	210.3	0.00	210.3	0.00	n/a	n/a	n/a	n/a		Headwall

Profile View

Stormwater Studio 2024 v 3.0.0.35

PORTSMOUTH REGIONAL HOSPITAL - CULVERT

02-17-2025



Storm Sewer Tabulation

Stormwater Studio 2024 v 3.0.0.35

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
Line 1	25.00	195.000	195.000	0.85	165.75	165.75	128.4	128.40	1.27	210.30	119.46	7.05	36x120r	0.10	19.73	19.70	22.72	22.70	25.50	25.00	1

Notes: IDF File = Portsmouth NH.IDF, Return Period = 50-yrs. r = rectangular e = elliptical a = arch

GRADING AND DRAINAGE PLANS FOR

HCA PORTSMOUTH REGIONAL HOSPITAL

CULVERT REPLACEMENT - UTILITY ACCESS DRIVE

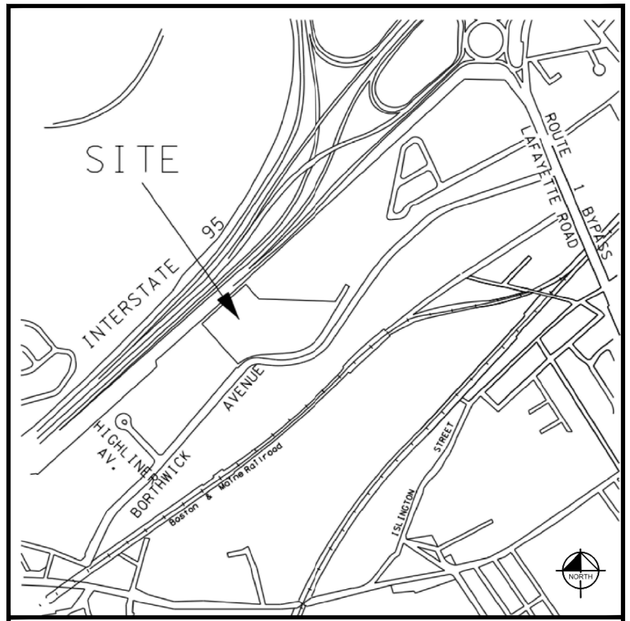
333 BORTHWICK AVE, PORTSMOUTH, NH 03801

CITY OF PORTSMOUTH, NH - PLANNING BOARD SUBMITTAL : FEBRUARY 17, 2025

SITE DATA TABLE	
OWNER OF RECORD	HCA HEALTH SERVICES OF NH INC D/B/A PRH 32902
SITE ADDRESS	333 BORTHWICK AVE, PORTSMOUTH, NH 03801
TAX MAP & LOT	TAX MAP 240, LOT 2-1
ZONING	OR - OFFICE RESEARCH
LAND USE	HOSPITAL
PROPERTY AREA	± 20.87 AC

PROJECT PURPOSE

AT THE REQUEST OF THE CITY OF PORTSMOUTH, NH - THIS PROJECT INTENDS TO RE-GRADE A HISTORIC MANMADE SWALE TO THE ORIGINAL 1988 DRAINAGE DESIGN BY *KIMBALL CHASE*, THAT ULTIMATELY CONVEYS PUBLIC STORMWATER RUNOFF FROM SOUTH OF BORTHWICK AVENUE TO NORTH OF INTERSTATE 95 IN PORTSMOUTH, NEW HAMPSHIRE. THE SUBJECT HISTORIC MANMADE SWALE HAS NOW BEEN MAPPED AS STATE WETLANDS. HCA HEALTH SERVICES OF NH INC D/B/A PRH (PROPERTY OWNER) PROPOSED TO REGRADE PORTIONS OF THE WETLAND THAT LIE ON THEIR PROPERTY ONLY. PROPOSED PROJECT SCOPE CONSISTS OF BY-PASS STORMWATER PUMPING, RE-GRADING, LOWERING STORMWATER CULVERTS, AND RE-STABILIZING WITH NEW ENGLAND WETLAND SEED MIX,



VICINITY MAP
NOT TO SCALE

CITY OF PORTSMOUTH
ROCKINGHAM COUNTY, NEW HAMPSHIRE

Sheet List Table	
Sheet Number	Sheet Title
C0-00	COVER SHEET
C0-01	GENERAL NOTES
C1-00	SITE SURVEY - BY OTHERS
C2-00	CULVERT REPLACEMENT- PLAN & PROFILE
C2-01	SITE PLAN - OVERALL
C3-00	EROSION CONTROL PLAN
C3-01	EROSION CONTROL DETAILS

PROJECT DESIGN TEAM

CIVIL ENGINEER
BOWMAN CONSULTING
CONTACT: MATTHEW HAMBY
PHONE: 615-649-7622
EMAIL: MHAMBY@BOWMAN.COM

SURVEY
JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8
NEWINGTON, NH 03801
PHONE: (603) 436-3557
CONTACT: JIM VERRA, LLS

ENVIRONMENTAL
GOVE ENVIRONMENTAL SERVICES, INC
8 CONTINENTAL DR, UNIT H
EXTER, NH 03833
PHONE: (603) 778-0654
CONTACT: BRENDEN WALDEN

Bowman
1219 4th Avenue S, Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAI BURK
No. 16921
LICENSED PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

811 Know what's below. Call before you dig.

PLAN STATUS		
DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

COVER SHEET

C0-00

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE NEW HAMPSHIRE STORMWATER MANUAL: VOLUME 2 (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
3. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY INVESTIGATION THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITION THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE BOTH THE SURFACE AND SUBSURFACE CONDITIONS AND BASE HIS PRICING ACCORDINGLY. GEOTECHNICAL AND ENVIRONMENTAL REPORTS ARE AVAILABLE FOR REVIEW.
4. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. AN APPROXIMATE LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
8. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
9. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF NEW HAMPSHIRE DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF NEW HAMPSHIRE PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
13. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VERIFYING ALL QUANTITIES, TAKE-OFF MEASUREMENTS, MATERIALS, ETC. DURING THE BID PROCESS, WHEN DISCREPANCIES OCCUR, THE PHYSICAL PLAN TAKES PRECEDENCE. THE ENGINEER, LANDSCAPE ARCHITECT, COUNTY, CITY OR PROJECT MANAGERS ARE NOT TO BE HELD RESPONSIBLE FOR DISCREPANCIES FROM THE SPECIFICATIONS OR PLANS.
14. THE CONTRACTOR SHALL LIMIT CONSTRUCTION OPERATIONS TO WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGES OUTSIDE THE LIMITS OF CONSTRUCTION.
15. CONTRACTOR IS ADVISED THAT THE U.S. ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT ALL OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN THE SAME. A COPY SHALL BE SENT TO THE ENGINEER OF RECORD, ARCHITECT OF RECORD AND THE OWNER.
16. PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF PROPOSED EXCAVATION." THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 2 WORKING DAYS AND A MAXIMUM OF 5 WORKING DAYS PRIOR TO EXCAVATION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE LOCAL ELECTRICAL PROVIDER ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL PLANS RELATED TO SITE WORK INCLUDING (BUT NOT LIMITED TO) LANDSCAPE, IRRIGATION, SITE LIGHTING, BUILDING FOUNDATION, PLUMBING, FIRE SPRINKLER, AND OTHER APPLICABLE PLANS FOR CONFLICTING INFORMATION AND ALERT OWNER'S REPRESENTATIVE OF ANY CONFLICT FOR RESOLUTION.
19. CONTRACTOR SHALL VERIFY LOCATION OF ALL IRRIGATION, STREET LIGHTING, AND ELECTRICAL CONDUIT THAT WILL BE IN CONFLICT WITH ANY PROPOSED CONSTRUCTION AND SHALL RESOLVE CONFLICT ACCORDINGLY. COST OF CONFLICT RESOLUTION SHALL BE INCLUDED IN THE BID.
20. ANY DEBRIS RESULTING FROM STRIPING AND DEMOLITION OPERATIONS SHALL BE REMOVED FROM THE SITE AT FREQUENT INTERVALS TO PREVENT THIS MATERIAL FROM ACCUMULATING ON SITE.
21. UPON REMOVAL OF TREES, SHRUBS OR ANY STUMP GRINDING, NO ROOT GREATER THAN THREE INCHES IN DIAMETER SHALL REMAIN WITHIN FIVE FEET OF AN UNDERGROUND STRUCTURE OR UTILITY LINE OR UNDER PAVED FOOTINGS OR PAVED AREAS.
22. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
23. SAFE PEDESTRIAN TRAFFIC IS TO BE MAINTAINED AT ALL TIMES. POST SIGNAGE AS NEEDED TO AID IN PEDESTRIAN SAFETY.
24. PRIOR TO GRAND OPENING THE CONTRACTOR SHALL:
    - SWEEP THE ENTIRE SITE
    - ELIMINATE ALL DEBRIS IN THE LANDSCAPING AREAS
    - PRESSURE CLEAN THE SITE ASPHALT
    - PRESSURE CLEAN THE CURBS, SIDEWALKS, AND CONCRETE PADS

RECORD DRAWINGS

1. CONTRACTOR SHALL PROVIDE TO THE ENGINEER AND OWNER A MINIMUM OF 1 HARD COPIY OF A PAVING, GRADING AND DRAINAGE RECORD DRAWING AND A SEPARATE UTILITY RECORD DRAWING, AS WELL AS BOTH IN AUTOCAD 2018 OR LATER, BOTH PREPARED BY A NEW HAMPSHIRE REGISTERED SURVEYOR. THE RECORD DRAWINGS SHALL VERIFY ALL DESIGN INFORMATION INCLUDED ON THE DESIGN PLANS OF THE SAME NAME.

PAVING, GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL VEGETATION IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
2. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SODDED UNLESS INDICATED OTHERWISE ON THE ENGINEERING AND LANDSCAPE PLANS.
3. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES AND PIPES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
4. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
5. CONTRACTOR SHALL STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
6. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
7. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE SODDED OR SEEDED AS SPECIFIED IN THE PLANS, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SODDED OR SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
8. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL) :1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
9. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO DOWNSTREAM WATER BODIES IS CAUSED DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE NEW HAMPSHIRE WATER QUALITY STANDARDS.
10. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE DREDGING PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY NHDES REPRESENTATIVES.
11. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

DEMOLITION NOTES

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. THE CONTRACTOR SHALL REFER TO THE DEMOLITION PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY DEMOLITION.
4. CONTRACTOR SHALL ADJUST GRADE OF ANY EXISTING UTILITIES OR DRAINAGE STRUCTURES TO REMAIN.

MAINTENANCE

1. ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION. INLET PROTECTION DEVICES SHALL BE CLEANED OUT AT REGULAR INTERVALS AS THEY BECOME FULL OF DEBRIS.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND OF GRASS IS MAINTAINED. AREAS SHOULD BE WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO NHDES EROSION CONTROL SPECIFICATIONS.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
7. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 55 CUBIC YARDS / ACRE.
8. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.
9. SOD, WHERE CALLED FOR, MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.

TYPICAL ENGINEER OBSERVATIONS

CONTRACTOR SHALL NOTIFY ENGINEER 72 HOURS IN ADVANCE OF THE FOLLOWING ACTIVITIES:
- PRE-CONSTRUCTION MEETING
- GRADING STARTING
- FINAL STABILIZATION
- ANY OTHER INSPECTION FOR WHICH A PERMITTING AGENCY REQUIRES THE ENGINEER TO BE PRESENT

3RD PARTY TEST REPORTS REQUIRED

TEST REPORTS REQUIRED FOR CLOSE OUT INCLUDE, BUT ARE NOT LIMITED TO:
- DENSITY TEST REPORTS
- BACTERIOLOGICAL TESTS OF WATER SYSTEM
- PRESSURE TEST OF WATER/SEWER
- LEAK TESTS ON SEWER SYSTEM AND GREASE TRAPS
- ANY OTHER TESTING REQUIRED BY THE AGENCY

SURVEY DATA

1. ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 88)
2. THE CONTRACTOR SHALL PROTECT ALL PERMANENT REFERENCE MONUMENTS AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO SURVEY MARKERS DURING CONSTRUCTION. ANY SURVEY MARKERS DAMAGED DURING CONSTRUCTION WILL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
3. BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

PRECONSTRUCTION RESPONSIBILITIES

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND ITSELF.
2. THE CONTRACTOR SHALL CONTACT ONE CALL (811) AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING ANY EXCAVATION.
3. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION,AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
4. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
5. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS; THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

CONSTRUCTION SAFETY

1. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

TRENCH SAFETY ACT

1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH ANY STATE OF NEW HAMPSHIRE TRENCH SAFETY ACTS.
2. WHERE EXCAVATIONS TO A DEPTH IN EXCESS OF FIVE FEET (5') ARE REQUIRED. THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION IN THE BID:
   A. A REFERENCE TO THE TRENCH SAFETY STANDARDS THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
   B. WRITTEN ASSURANCES BY THE CONTRACTOR PERFORMING THE TRENCH EXACTION THAT SUCH CONTRACTOR WILL COMPLY WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
   C. A SEPARATE ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY STANDARDS.
3. WHEN A BID IS NOT SUBMITTED, THE CONTRACTOR SHALL SUBMIT THE INFORMATION LISTED IN ITEM "2" TO THE ENGINEER PRIOR TO STARTING WORK.

INTERRUPTION OF EXISTING UTILITIES

1. ANY CONSTRUCTION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR NOTICE TO, AND WRITTEN APPROVAL BY THE APPROPRIATE UTILITY COMPANY AND PORTSMOUTH REGIONAL HOSPITAL. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUTDOWN TO ASSESS THE SCOPE OF WORK. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR. EACH CUSTOMER AFFECTED BY THE SHUT DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

MINIMUM REQUIRED AS-BUILT INFORMATION

1. ALL AS-BUILT INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR, AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
2. UTILITY CROSSING SEPARATION INFORMATION FOR THAT PROVIDED ON THE PLANS VERIFYING:
   A. SIZE AND MATERIAL OF CROSSING PIPES
   B. TOP ELEVATION OF BOTTOM PIPE
   C. BOTTOM ELEVATION OF TOP PIPE
   D. FINISH SURFACE ELEVATION OVER UTILITY CROSSING
3. STORM DRAINAGE:
   A. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER / GRATE AS WELL ALL OTHER STRUCTURES (HEADWALLS, CONTROL STRUCTURES, ETC.)
   B. INVERT ELEVATION OF EACH LINE ENTERING AND LEAVING EACH STRUCTURE, INCLUDING UNDERDRAIN PIPES.
   C. INVERTS OF ALL MITERED END SECTIONS
   D. ACTUAL GRADE OF PIPE BETWEEN THE STRUCTURES
   E. INVERT ELEVATION AND TWO HORIZONTAL TIES FROM PERMANENT VISIBLE OBJECTS TO ALL STORM STUB-OUTS.
4. LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES.
5. REVISIONS TO ROUTING OF PIPING AND CONDUITS.
6. ACTUAL EQUIPMENT LOCATIONS.
7. CHANGES MADE BY CHANGE ORDER OR CONSTRUCTION CHANGE DIRECTIVE.
8. CHANGES MADE FOLLOWING ENGINEER'S WRITTEN ORDERS.
9. DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS.
10. FIELD RECORDS FOR VARIABLE AND CONCEALED CONDITIONS.
11. ALL SLEEVES, FITTINGS, TEES, BENDS, VALVES, ETC. SHALL BE LOCATED BY STATION/OFFSET (OR METHOD APPROVED BY ENGINEER) AND ELEVATION OF TOP OF PIPE FOR ALL CONSTRUCTED SLEEVING. AS-BUILTS FOR ALL SLEEVING DEPICTING TOP OF PIPE AT 100-FOOT INTERVALS MUST BE PROVIDED.
12. RECORD DRAWINGS SHALL INDICATE AS-BUILT DATA FOR EVERY ELEVATION SHOWN ON THE PLANS.
13. IF A NEW BENCHMARK LOCATION IS ESTABLISHED, CONTRACTOR SHALL PROVIDE A BENCH LOOP CLOSURE TO THE CLOSEST EXISTING BENCHMARKS IN BOTH DIRECTIONS. ALL BENCHMARK DATA SHALL BE SUBMITTED BY A REGISTERED LAND SURVEYOR.
14. IDENTIFICATION OF ADDENDUM ITEMS ISSUED DURING BIDDING PERIOD.
15. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL AS-BUILT DATA FOR UTILITIES AND SLEEVING IS COLLECTED PRIOR TO PAVEMENT SECTION CONSTRUCTION. PRELIMINARY UTILITY AS-BUILTS MUST BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO PAVEMENT SECTION CONSTRUCTION.

Bowman
1219 4th Avenue S. Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAS BURK
No. 16924
LICENSED PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

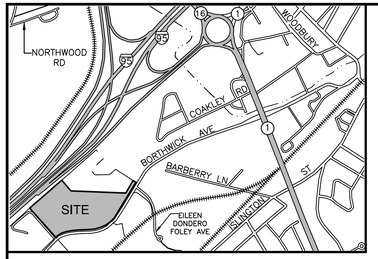
811 Know what's below. Call before you dig.

PLAN STATUS		
DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

GENERAL NOTES

C0-01



LOCUS
(N.T.S.)

THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDEN WALDEN NH CWS 297 OF GOVE ENVIRONMENTAL SERVICES ON JANUARY 19, 2024 IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS:

1. *US Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Technical Report ERDC/EL TR-12-1 (January 2012).
2. *Field Indicators for Identifying Hydric Soils in New England - Version 4, June 2020*. New England Hydric Soils Technical Committee.
3. *US Army Corps of Engineers National Wetland Plant List, 2018.*
4. *Classification of Wetlands and Deepwater Habitats of the United States.* USFW Manual FWS/OBS -79/31 (1979).

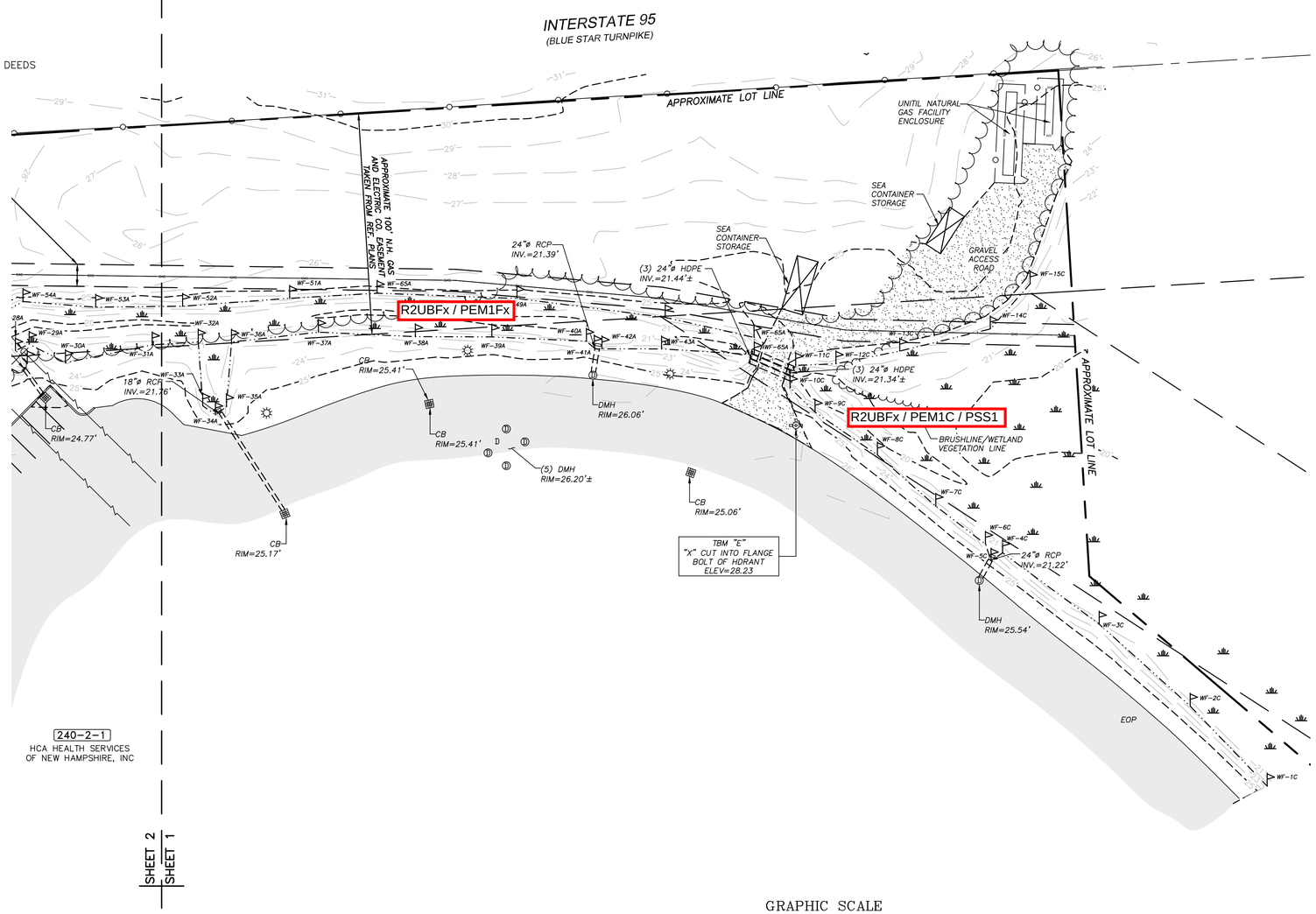
STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
No. 297
CERTIFIED WETLAND SCIENTIST
2/27/2024

LEGEND:

- CHAIN LINK FENCE
- UTILITY POLE
- UTILITY POLE W/TRANSFORMER
- GUY
- LIGHT POLE
- OVERHEAD WIRES
- UGU — UNDERGROUND UTILITIES
- RCRD — ROCKINGHAM COUNTY REGISTRY OF DEEDS
- 240–02–01 — TAX SHEET / LOT NO.
- EOP — EDGE OF PAVEMENT
- LA — LANDSCAPED AREA
- VGC — VERTICAL FACED GRANITE CURB
- SGC — SLOPED FACED GRANITE CURB
- PSNH — PUBLIC SERVICE CO. OF NH
- HANDICAP PARKING SPACE
- CATCH BASIN (SQUARE)
- CB — CATCH BASIN (ROUND)
- D — DRAIN MANHOLE
- S — SEWER MANHOLE
- SIGN
- DOUBLE POST SIGN
- E — ELECTRIC METER
- GAS VALVE
- W — WATER *LINE*
- S — SEWER *LINE*
- D — DRAIN LINE
- G — GAS LINE
- CONIFEROUS TREE
- DECIDUOUS TREE
- TREE LINE
- WATER GATE VALVE
- WATER SHUT OFF VALVE
- HYDRANT
- FIRE CONNECTION
- RIP RAP
- CEMENT CONCRETE PAD
- CONCRETE RETAINING WALL
- LANDSCAPE/LAWN AREA
- (15) — PARKING SPACE COUNT

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

SHEET 2 / SHEET 1



GRAPHIC SCALE
30' 0 15' 30' 60' 90'
(IN FEET)
1 inch = 30' ft.

SURVEYOR'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS SURVEY AND PLAT WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS AN ERROR OF CLOSURE OF GREATER ACCURACY THAN ONE PART IN FIFTEEN THOUSAND (1:15,000)."

LICENSED LAND SURVEYOR _____ DATE _____

NOTES:

1. OWNER OF RECORD: HCA HEALTH SVC OF NH INC D/B/A PRH 32902
   C/O DUCHARME MCMILLEN & ASSOCIATES
   ADDRESS: PO BOX 80610, INDIANAPOLIS, IN 46280
   DEED REFERENCE: BK:2784 PG:1340
   TAX SHEET: 240–02–01
2. ZONED: OFFICE RESEARCH (OR)

MIN. LOT AREA: 3 ACRES	FRONT YARD SETBACK: 50'
FRONTAGE: 300'	SIDE YARD SETBACK: 75'
BUILDING COVERAGE: 30%	REAR YARD SETBACK: 50'
STRUCTURE HEIGHT: 60'	

3. THE INTENT OF THIS PLAN IS TO SHOW THE LIMITED AS–BUILT CONDITIONS OF THE BUILDING ADDITION AND RECONFIGURED DETENTION BASIN. THE BOUNDARY INFORMATION SHOWN IS APPROXIMATE AND TAKEN FROM THE REFERENCE PLANS AND DOES NOT CONSTITUTE AN UPDATED BOUNDARY SURVEY BY THIS OFFICE.
4. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE CATCH BASINS, MANHOLES, WATER GATES ETC.) AND INFORMATION COMPILED FROM PLANS OF RECORD, AND PLANS PROVIDED BY UTILITY COMPANIES AND GOVERNMENTAL AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, SAID AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG–SAFE @ 1–888–DIG–SAFE.
5. HORIZONTAL DATUM: NAD 1983 ESTABLISHED BY SURVEY GRADE GPS OBSERVATION AND NGS "OPUS" SOLUTION. REFERENCE FRAME: NAD83 (2011)(EPOCH: 2010.0000), US SURVEY FOOT.
   VERTICAL DATUM: NAVD 1988. PRIMARY BENCHMARK: CITY OF PORTSMOUTH "ALBA"
6. THE PLAN IS BASED UPON A FIELD SURVEY COMPLETED IN JANUARY OF 2024 WITH TRIMBLE S5 ROBOTIC TOTAL STATION, CARLSON BRX7 RTK GPS UNITS, PANASONIC FZ–M1/TRIMBLE TSC7 DATA COLLECTORS.
7. THE PARCEL SHOWN HEREON LIES WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS IDENTIFIED ON FLOOD INSURANCE RATE MAP, ROCKOINGHAM COUNTY, NEW HAMPSHIRE, MAP NUMBER 33015C0260E, EFFECTIVE DATE MAY 17, 2005 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
8. THE DELINEATION OF THE WETLANDS SHOWN HEREON WAS BY BRENDEN WALDEN NEW HAMPSHIRE CERTIFIED WETLAND SCIENTIST #297, GOVE ENVIRONMENTAL SERVICES, LLC., 8 CONTINENTAL DRIVE, UNIT H, EXETER, NH 03833.
9. CONTRACTOR TO VERIFY SITE BENCHMARKS BY LEVELING BETWEEN 2 BENCHMARKS PRIOR TO THE ESTABLISHMENT OF ANY GRADES OR ELEVATIONS. DISCREPANCIES ARE TO BE REPORTED TO JAMES VERRA AND ASSOCIATES, INC.

REFERENCE PLANS:

1. *GAS LINE AS–BUILT EASEMENT AND CONSERVATION PLAN, PREPARED FOR HOSPITAL CORPROATION OF AMERICA, PORTSMOUTH, NH, DATED 10/31/85. RCRD PLAN #D–15830.*
2. *SCHILLER S/S–OCEAN ROAD S/S, 115 KV TRANSMISSION LINE #U181, MILE 4, PLAN–6775–A, DATED 7/10/2009, BY NORTHEAST UTILITIES, NOT RECORDED.*
3. *SUBDIVISION OF LAND, FRANETAL REALTY TRUST COMPAMY, OPTIONED TO LIBERTY MUTUAL INSURANCE COMPANY, PORTSMOUTH, NEW HAMPSHIRE, REVISED TO 2/19/71 RCRD PLAN #2190.*
4. *LIMITED EXISTING CONDITIONS PLAN – 333 BORTHWICK AVENUE, PORTSMOUTH, NEW HAMPSHIRE – ASSESSORS PARCEL #240–002–001 FOR HCA HEALTH SERVICES OF NEW HAMPSHIRE" ON NOVEMBER 19, 2019 BY THIS OFFICE. NOT RECORDED*
4. *LIMITED AS–BUILT PLAN – PORTSMOUTH REGIONAL HOSPITAL – HCA, 333 BORTHWICK AVENUE, PORTSMOUTH, NEW HAMPSHIRE, TAX MAP 240, LOT 2–1, PREPARED FOR: DPR CONSTRUCTION, LAND OF: HCA HEALTH SERVICES OF NH" ON FEBRUARY 29. 2024 BY THIS OFFICE. NOT RECORDED*

DIRECT ABBUTERS TO SUBJECT PARCEL:

240–01
LIBERTY MUTUAL INSURANCE
ATTN: JOANNE BRAGG
175 BERKLEY STREET
BOSTON, MA 02116
BK: 2057 PG: 0357

240–2–2
JACKSON GRAY CONDOS MASTER CARD
330 BORTHWICK AVE
PORTSMOUTH, NH 03801
BK: 2648 PG: 0901

234–7–3
CITY OF PORTSMOUTH
1 JUNKINS AVENUE
PORTSMOUTH, NH 03801
BK: 4211 PG: 1155

240–2–2001
CITY OF PORTSMOUTH DPW
PO BOX 628
PORTSMOUTH, NH 03802
BK: 2648 PG: 0901

240–2–1001
CITY OF PORTSMOUTH DPW
PO BOX 628
PORTSMOUTH, NH 03802
BK: 2648 PG: 0902

REV. NO.	DATE	DESCRIPTION	APPR'D

LIMITED EXISTING CONDITIONS PLAN
PORTSMOUTH REGIONAL HOSPITAL – HCA
333 BORTHWICK AVENUE
PORTSMOUTH, NEW HAMPSHIRE
TAX MAP 240 LOT 2–1
PREPARED FOR: BOWMAN
LAND OF: HCA HEALTH SERVICES OF NH

JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8, NEWINGTON, N.H., 03801 – 603–436–3557 – ©2024

REL DRAWN BY
RMF PROJECT MGR

DATE:	02/29/2024
JOB NO:	24–2003
SCALE:	1" = 60'
DWG NAME:	24–2003.DWG
PLAN NO:	24–2003.DWG
SHEET:	1 OF 3

THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDEN WALDEN NH CWS 297 OF GOVE ENVIRONMENTAL SERVICES ON JANUARY 19, 2024 IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS:

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STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
No. 297
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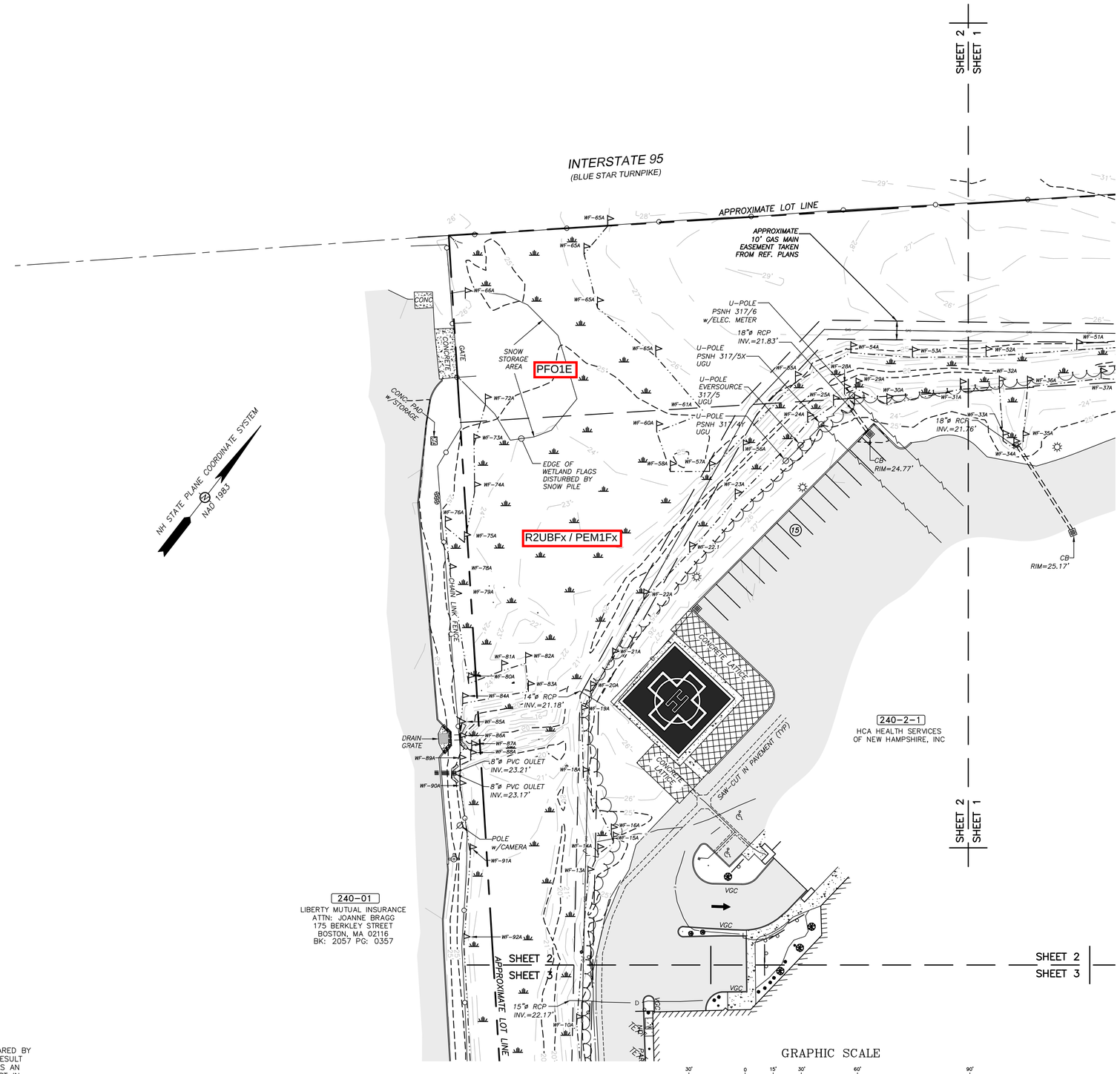
12/27/2024



SURVEYOR'S CERTIFICATION

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LICENSED LAND SURVEYOR _____ DATE _____

REV. NO.	DATE	DESCRIPTION	APPR'D

LIMITED EXISTING CONDITIONS PLAN
PORTSMOUTH REGIONAL HOSPITAL – HCA

333 BORTHWICK AVENUE

PORTSMOUTH, NEW HAMPSHIRE

TAX MAP 240 LOT 2-1

PREPARED FOR: BOWMAN

LAND OF: HCA HEALTH SERVICES OF NH

JVA JAMES VERRA & ASSOCIATES, INC.

101 SHATTUCK WAY, SUITE 8, NEWINGTON, N.H., 03801 – 603-436-3557 – ©2024

REL DRAWN BY

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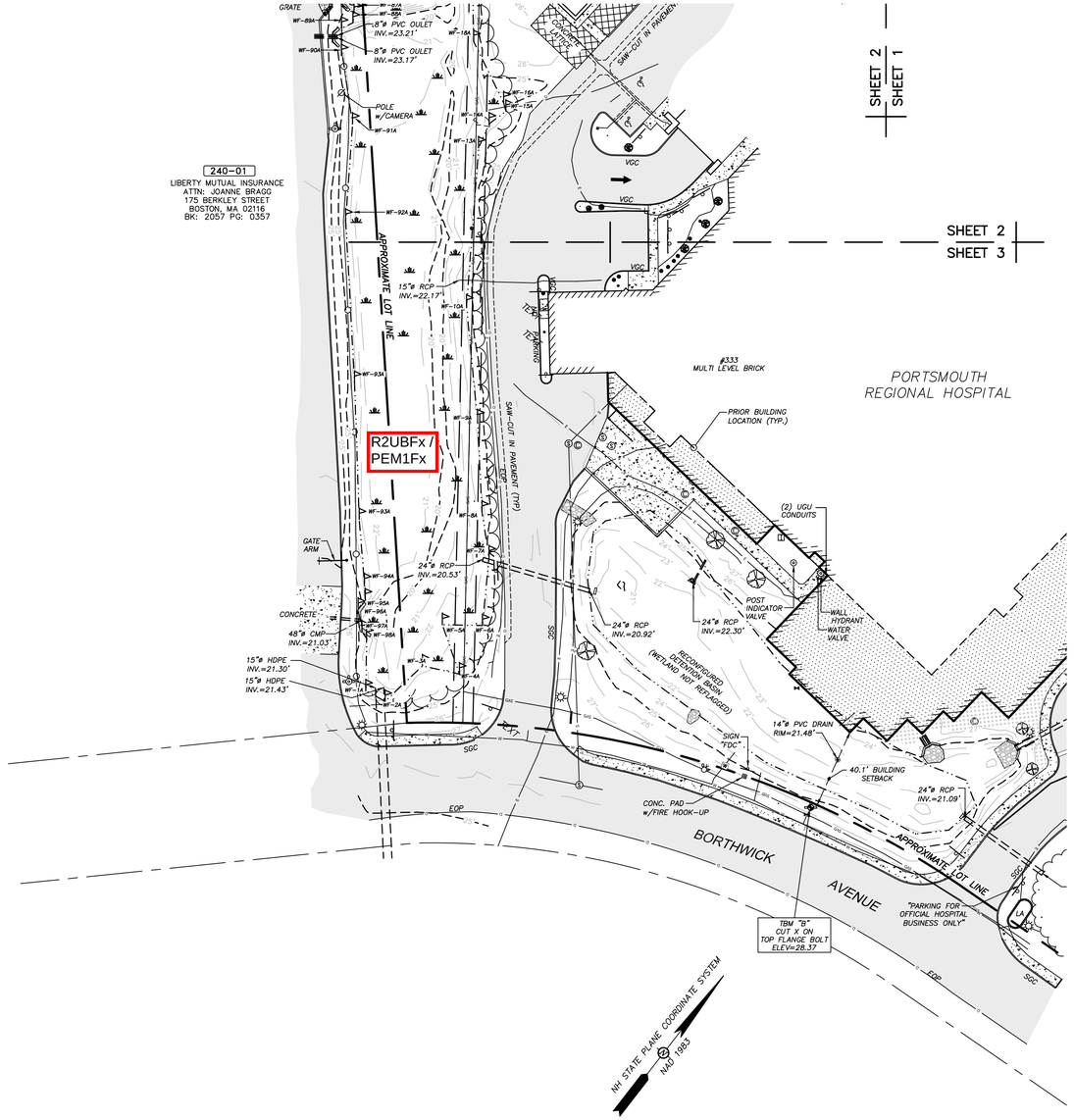
DATE:	02/29/2024
JOB NO:	24-2003
SCALE:	1" = 60'
DWG NAME:	24-2003.DWG
PLAN NO:	24-2003.DWG
SHEET:	2 OF 3

C1-01



THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDEN WALDEN NH CWS 297 OF GOVE ENVIRONMENTAL SERVICES ON JANUARY 19, 2024 IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS:

1. *US Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Technical Report ERDC/EL TR-12-1 (January 2012).
2. *Field Indicators for Identifying Hydric Soils in New England - Version 4, June 2020*, New England Hydric Soils Technical Committee.
3. *US Army Corps of Engineers National Wetland Plant List, 2018.*
4. *Classification of Wetlands and Deepwater Habitats of the United States.* USFW Manual FWS/OBS -79/31 (1979).

STATE OF NEW HAMPSHIRE
BRENDEN M. WALDEN
No. 297
CERTIFIED WETLAND SCIENTIST
12/27/2024

SURVEYOR'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS SURVEY AND PLAT WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS AN ERROR OF CLOSURE OF GREATER ACCURACY THAN ONE PART IN FIFTEEN THOUSAND (1:15,000)."

LICENSED LAND SURVEYOR _____ DATE _____

GRAPHIC SCALE

30' 0 15' 30' 60' 90'

(IN FEET)
1 inch = 30' ft.

REV. NO.	DATE	DESCRIPTION	APPR'D

LIMITED EXISTING CONDITIONS PLAN
PORTSMOUTH REGIONAL HOSPITAL – HCA

333 BORTHWICK AVENUE

PORTSMOUTH, NEW HAMPSHIRE

TAX MAP 240 LOT 2-1

PREPARED FOR: BOWMAN

LAND OF: HCA HEALTH SERVICES OF NH

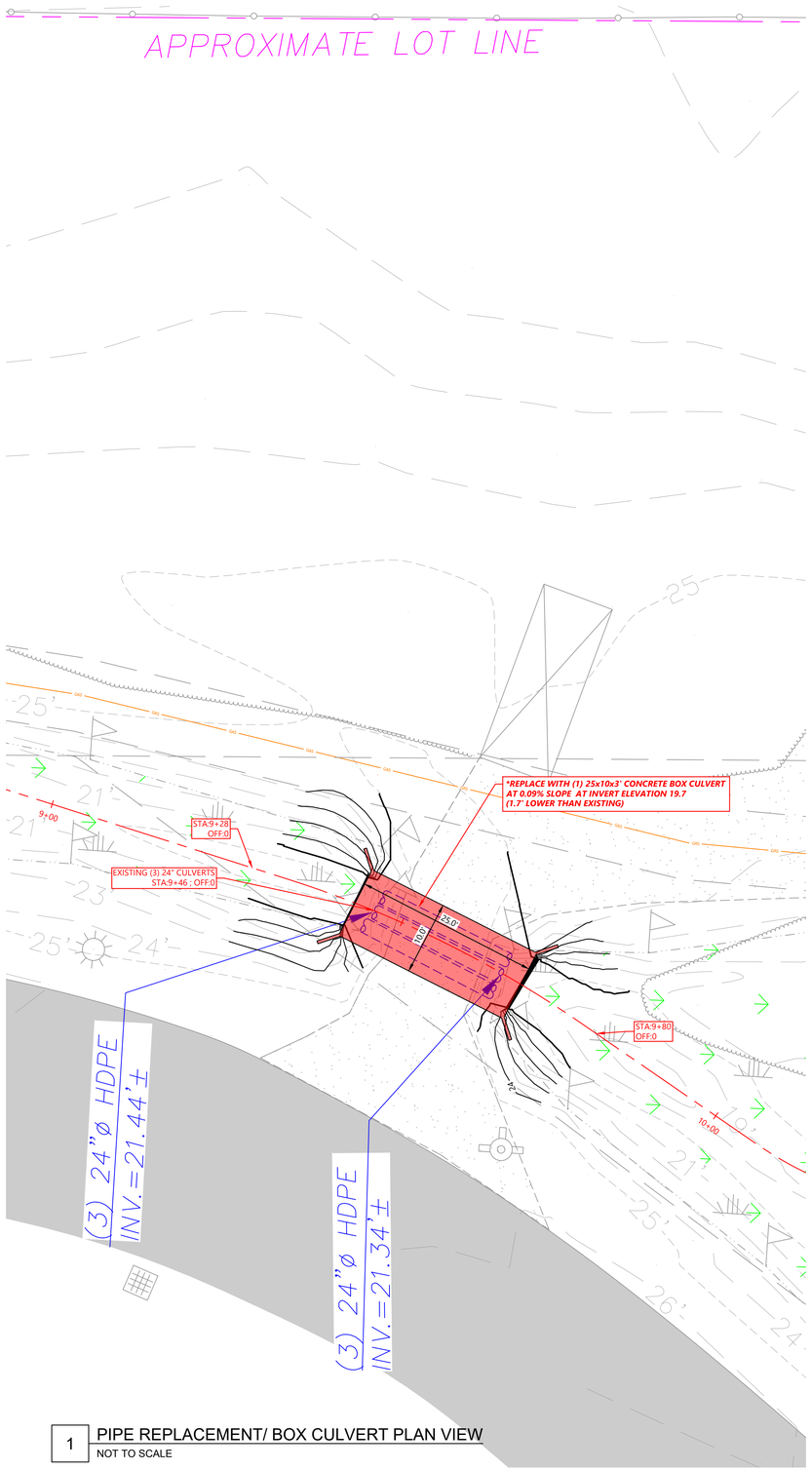
JVA
JAMES VERRA & ASSOCIATES, INC.
101 SHATTUCK WAY, SUITE 8, NEWINGTON, N.H., 03801 – 603-436-3557 – ©2024

REL
DRAWN BY

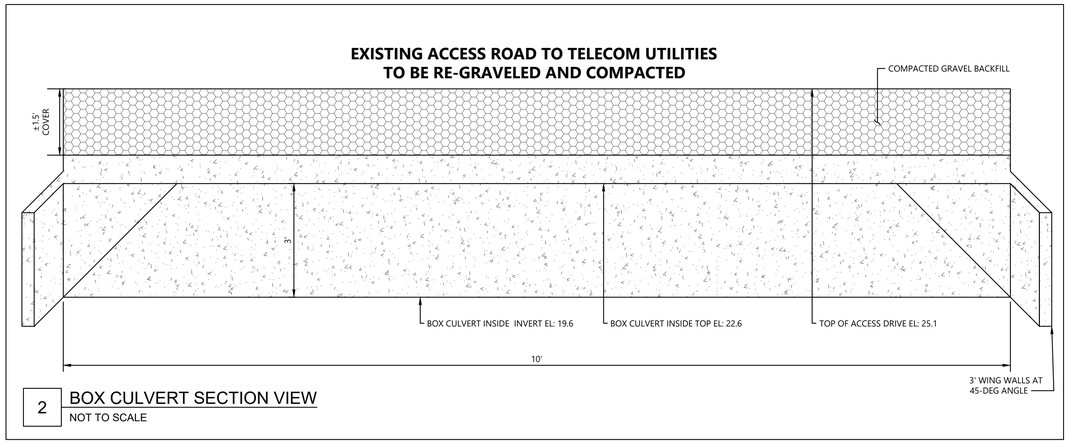
RMF
PROJECT MGR

DATE:	02/29/2024
JOB NO:	24-2003
SCALE:	1" = 60'
DWG NAME:	24-2003.DWG
PLAN NO:	24-2003.DWG
SHEET:	3 OF 3

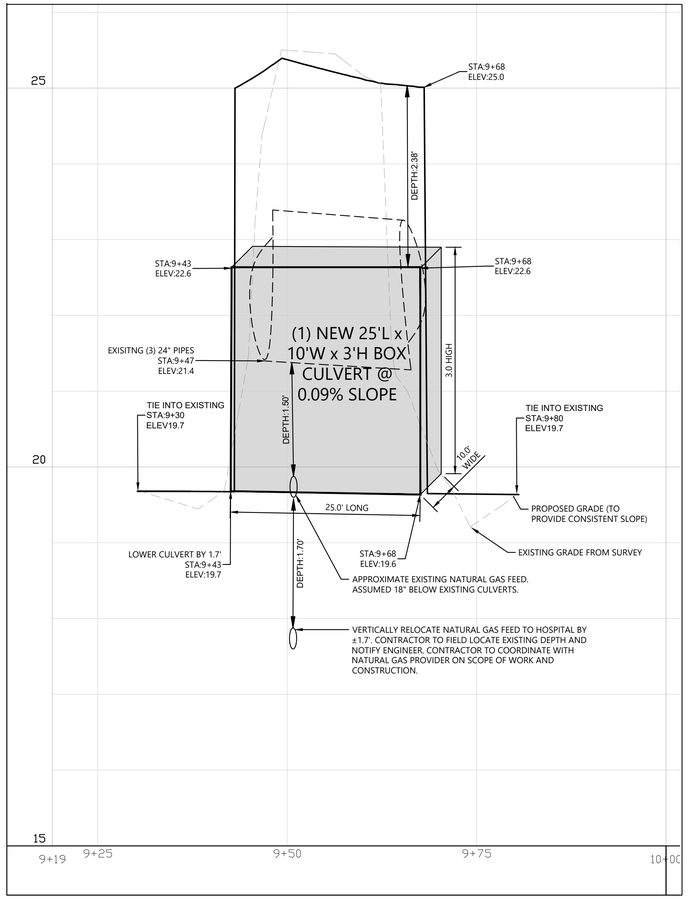
C1-02



1 PIPE REPLACEMENT/ BOX CULVERT PLAN VIEW
NOT TO SCALE



2 BOX CULVERT SECTION VIEW
NOT TO SCALE



3 PIPE REPLACEMENT/ BOX CULVERT PROFILE
NOT TO SCALE

CITY OF PORTSMOUTH NOTE: FERTILIZER IUSE S PROHIBITED WITHIN THIS JURISDICTIONAL WETLAND AND WETLAND BUFFER PER SECTION 10.1018.24 OF THE CITY OF PORTSMOUTH ZONING ORDINANCE.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STAKED WETLAND
- EXISTING PAVEMENT
- GAS — EXISTING GAS MAIN
- 21 — EXISTING CONTOUR
- EXISTING STORM DRAIN
- 21 — PROPOSED CONTOUR
- PROPOSED CENTERLINE OF DREDGED DRAINAGE CHANNEL
- PROPOSED 25x10x3' BOX CULVERT

GRADING NOTES

1. CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING OR INSTALLATION OF ANY PROPOSED UTILITIES. CONTRACTOR TO IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE IFDISCREPANCIES ARE FOUND.
2. ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.
3. DISTURBED AREAS LEFT IDLE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
4. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. IF UNABLE TO ACCOMPLISH, MULCH SHALL BE USED AS A TEMPORARY COVER. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT OF TEN FEET OR GREATER (DOES NOT APPLY TO RETAINING WALLS), AND CUTS AND FILLS WITHIN BUFFERS, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS.
5. THE PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
6. EROSION AND SEDIMENT CONTROL DEVICES MUST BE DISPLAYED AND INSPECTED PRIOR TO ANY GRADING ON SITE. THE CONTRACTOR MUST CALL FOR AN INSPECTION TO OBTAIN A PERMIT TO GRADE. PLEASE CALL WITH ENOUGH LEAD-TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
7. SEDIMENT/EROSION CONTROL DEVICES MUST BE INSPECTED ACCORDING TO LOCAL AND STATE REQUIREMENTS. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES.
8. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
9. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
10. CONTRACTOR SHALL REVIEW SITE GEOTECHNICAL REPORT BEFORE COMMENCING GRADING OPERATIONS.
11. SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED AS PART OF THIS CONTRACT.
12. INSTALL SOD, MATTING, OR RIPRAP IN SWALES AS INDICATED ON GRADING PLANS AND EROSION CONTROL PLANS
13. ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
14. UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, DESIGNER, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL ONE CALL--811
15. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
16. HORIZONTAL DATUM IS BASED ON NAD 1983.
17. VERTICAL DATUM BASED ON NAVD88.

WILDLIFE NOTES

1. BLANDING'S TURTLE (STATE ENDANGERED) AND SPOTTED TURTLE (STATE THREATENED) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHALL BE MADE AWARE OF THE POTENTIAL PRESENCE OF THESE SPECIES AND SHALL BE PROVIDED FLYERS THAT HELP TO IDENTIFY THESE SPECIES, ALONG WITH NHFG CONTACT INFORMATION. SEE PLAN SHEET C3-01.
2. RARE SPECIES INFORMATION SHALL BE COMMUNICATED DURING MORNING TAILGATE MEETINGS PRIOR TO WORK COMMENCEMENT DURING THE CONSTRUCTION PHASE OF THE PROJECT. COMMUNICATIONS MAY CONSISTS OF:
   - IDENTIFICATION, OBSERVATION AND REPORTING OF OBSERVATIONS
   - WHEN TO CONTACT NHFG IMMEDIATELY AND NHFG CONTACT INFORMATION
3. ALL WORK SHALL OCCUR BETWEEN APRIL 1ST AND OCTOBER 15TH TO AVOID IMPACTING OVERWINTERING TURTLES.
4. TURTLES MAY BE ATTRACTED TO DISTURBED GROUND DURING THE NESTING SEASON (MAY 15TH - JUNE 30TH). TURTLE NESTS ARE PROTECTED BY NH LAWS. IF A NEST IS OBSERVED OR SUSPECTED, OPERATORS SHALL CONTACT MELISSA WINTERS OR JOSH MEGYESY AT NHFG IMMEDIATELY FOR FURTHER CONSULTATION. SEE SPECIES FLYERS, SEE THIS SHEET FOR NHFG CONTACT INFORMATION.
5. TO MINIMIZE THE POTENTIAL FOR NESTING TO OCCUR WITHIN THE PROJECT SITE:
   - MINIMIZE GROUND DISTURBANCE ACTIVITIES DURING THE ACTIVE NESTING SEASON. LIMIT CLEARING AREAS AND DISTURBING GROUND UNTIL READY TO START ACTIVE CONSTRUCTION FOR A PROJECT COMPONENT.
   - MINIMIZE ACCESS OR MAKE AREAS LESS ATTRACTIVE TO WILDLIFE FOR NESTING FOR DISTURBED GROUND AREAS DURING ACTIVE NESTING SEASON. COVER SOIL/SANDY MOUNDS OR OPEN SANDY/GRAVELY AREAS WITHIN THE ACTIVE PROJECT SITE WITH TARPS OR OTHER CONSTRUCTION MATERIALS AT THE END OF THE WORK DAY (NOTE TURTLES CAN MOVE INTO A SITE OVERNIGHT TO NEST - BE OBSERVANT FOR OF TRACKS AND NESTING SIGNS).
   - THE NEST OR SUSPECTED NEST SHALL BE MARKED (SURROUNDING ROPED OFF OR CONE BUFFER DEPLOYED) AND AVOIDED; THIS SHALL BE COMMUNICATED TO ALL PERSONNEL ONSITE.
   - SITE ACTIVITIES SHALL NOT OCCUR IN THE AREA SURROUNDING THE NEST OR SUSPECTED NEST UNTIL FURTHER GUIDANCE IS PROVIDED BY NHFG.
6. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, WITH THE EXCEPTION OF TURF REINFORCEMENT MATS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN PLASTIC OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES. SEE PLAN SHEET C3-01.
7. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION.
   - PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
8. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG.
   - SITE OPERATORS SHALL BE ALLOWED TO RELOCATE WILDLIFE ENCOUNTERED IF DISCOVERED WITHIN THE ACTIVE WORK ZONE IF IN DIRECT HARM FROM PROJECT ACTIVITIES.
   - WILDLIFE SHALL BE RELOCATED IN CLOSE PROXIMITY TO THE CAPTURE LOCATION BUT OUTSIDE OF THE WORK ZONE AND IN THE DIRECTION THE INDIVIDUAL WAS HEADING.
   - NHFG SHALL BE CONTACTED IMMEDIATELY IF THIS ACTION OCCURS.
9. NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
10. SORA (SPECIAL CONCERN) AND MARSH WREN OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHOULD BE MADE AWARE OF THE POTENTIAL PRESENCE OF THESE SPECIES AND SHOULD BE PROVIDED FLYERS THAT HELP TO IDENTIFY THIS SPECIES, ALONG WITH NHFG CONTACT INFORMATION. SEE PLAN SHEET C3-01.

NEW HAMPSHIRE FISH & GAME - BIOLOGIST CONTACTS:
- **MELISSA WINTERS (603) 479-1129**
- **JOSH MEGYESY (978) 578-0802**

0 10 20 Feet
HORIZ. SCALE 1":10'
VERT. SCALE: 1"=1'

Bowman
1219 4th Avenue S, Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAS BURK
No. 16924
LICENSED PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

811 Know what's below. Call before you dig.

PLAN STATUS		
DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

CULVERT REPLACEMENT- PLAN & PROFILE

C2-00

LEGEND

- EXISTING PROPERTY LINE
- EXISTING STAKED WETLAND
- EXISTING PAVEMENT
- GAS — EXISTING GAS MAIN
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- EXISTING STORM DRAIN
- 21 — PROPOSED CONTOUR
- PROPOSED CENTERLINE OF DREDGED DRAINAGE CHANNEL
- PROPOSED 25x7x3' BOX CULVERT

SIGN #1 - "WETLAND BOUNDARY

SIGN #2 - "NO SNOW STORAGE"

*EXAMPLE SIGN IS CONCEPTUAL ONLY. CONTRACTOR TO SUBMIT SHOP DRAWING FOR REVIEW.

0 60 120 Feet

HORIZ. SCALE 1":60'

Bowman
1219 4th Avenue S. Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAS
BURK
No. 16921
LICENSED
PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

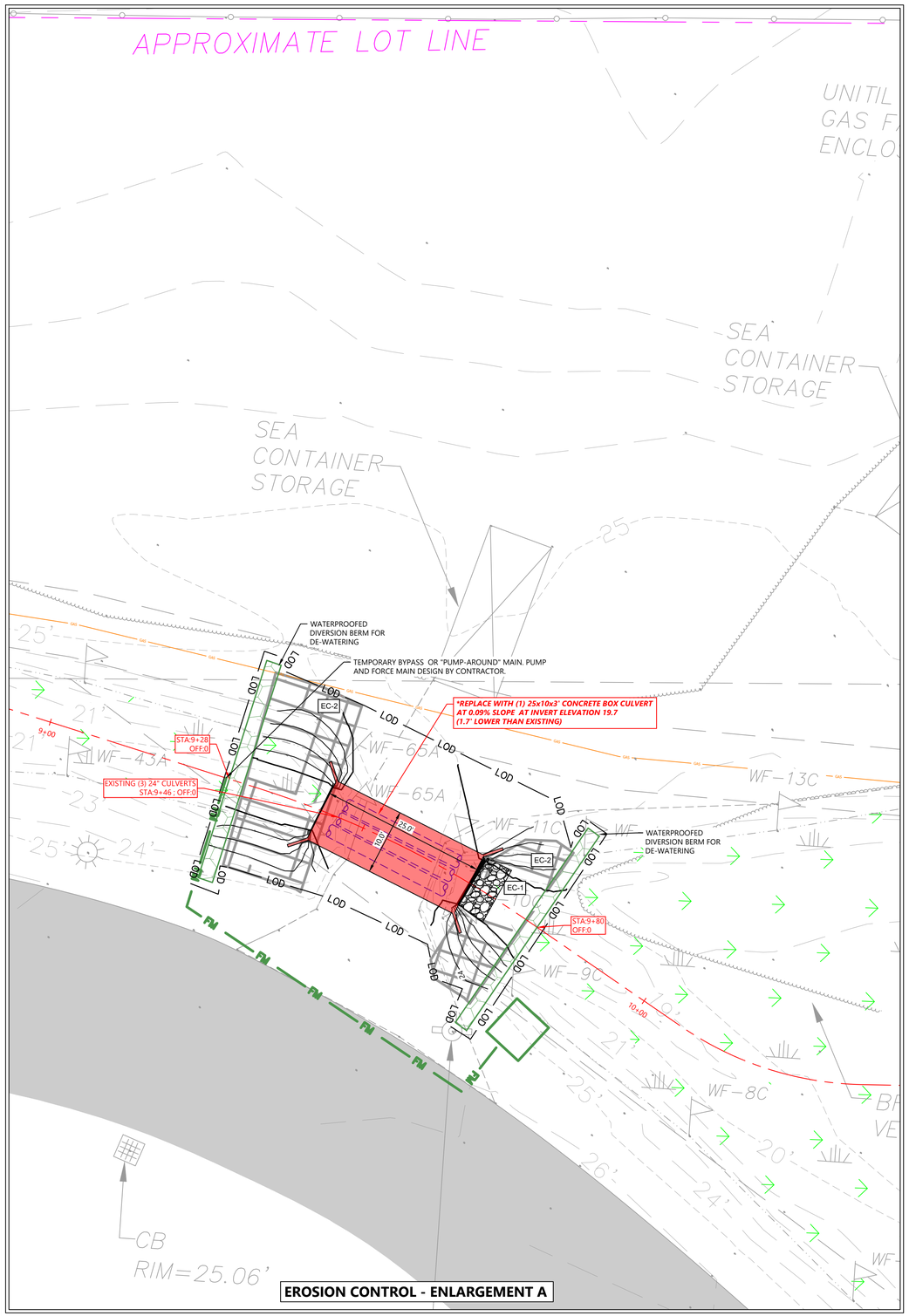
811 Know what's below. Call before you dig.

PLAN STATUS		
DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

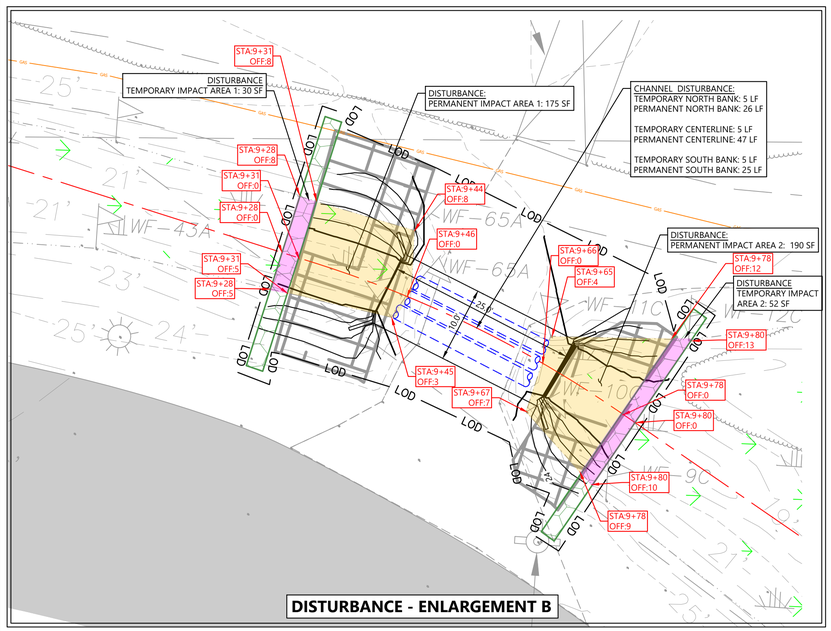
SITE PLAN - OVERALL

C2-01



EROSION CONTROL NOTES

1. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATION BEGINS AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
2. THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS.
3. THE CONTRACTOR SHALL MAINTAIN A RAIN GAUGE AND DAILY RAINFALL RECORDS AT THE SITE OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
4. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
5. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS.
6. SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS AND OTHER SEDIMENT CONTROLS AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AS DIRECTED BY OWNERS REPRESENTATIVE.
7. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNERS REPRESENTATIVE.
8. THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
9. DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF THE COMPLETION OF GRADING ACTIVITIES. SLOPES 3:1 OR STEEPER SHALL BE STABILIZED WITHIN 7 DAYS.
10. INSPECTIONS DESCRIBED IN PARAGRAPHS 2, 3 AND 4 BELOW, SHALL BE PERFORMED AT LEAST TWICE EVERY CALENDAR WEEK. INSPECTIONS SHALL BE PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTION(S) OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (E.G., SITE COVERED WITH SNOW OR ICE) OR DUE TO EXTREME DROUGHT, SUCH INSPECTION ONLY HAS TO BE CONDUCTED ONCE PER 2 MONTH UNTIL THAWING OR PRECIPITATION RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITY RESUMES. INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS THAT HAVE BEEN FINALLY STABILIZED. WRITTEN NOTIFICATION OF THE INTENT TO CHANGE THE INSPECTION FREQUENCY AND THE JUSTIFICATION FOR SUCH REQUEST MUST BE SUBMITTED TO THE LOCAL ENVIRONMENTAL FIELD OFFICE, SHOULD NHDES DISCOVER THAT MONTHLY INSPECTIONS OF THE SITE ARE NOT APPROPRIATE DUE TO INSUFFICIENT STABILIZATION MEASURES OR OTHERWISE, TWICE WEEKLY INSPECTIONS SHALL RESUME. NHDES MAY INSPECT THE SITE TO CONFIRM OR DENY THE NOTIFICATION TO CONDUCT MONTHLY INSPECTIONS.
11. QUALIFIED PERSONNEL (PROVIDED BY THE PERMITTEE OR COOPERATIVELY BY MULTIPLE PERMITTEES) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL.
12. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE SITE'S DRAINAGE SYSTEM. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY.
13. OUTFALL POINTS (WHERE DISCHARGES LEAVE THE SITE AND/OR ENTER WATERS OF THE STATE) SHALL BE INSPECTED TO DETERMINE WHETHER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
14. BASED ON THE RESULTS OF THE INSPECTION, ANY INADEQUATE CONTROL MEASURES OR CONTROL MEASURES IN DISREPAIR SHALL BE REPLACED OR MODIFIED, OR REPAIRED AS NECESSARY, BEFORE THE NEXT RAIN EVENT, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE NEED IS IDENTIFIED.
15. BASED ON THE RESULTS OF THE INSPECTION, THE SITE DESCRIPTION AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THIS SWPPP SHALL BE REVISED AS APPROPRIATE, BUT IN NO CASE LATER THAN 7 DAYS FOLLOWING THE INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SWPPP, BUT IN NO CASE LATER THAN 14 DAYS FOLLOWING THE INSPECTION.
16. ALL INSPECTIONS SHALL BE DOCUMENTED ON THE CONSTRUCTION STORMWATER INSPECTION CERTIFICATION FORM PROVIDED IN APPENDIX D OF THE SWPPP REPORT FOR ALL CONSTRUCTION SITES. INSPECTION DOCUMENTATION WILL BE
17. MAINTAINED ON SITE AND MADE AVAILABLE TO NHDES UPON REQUEST. INSPECTION REPORTS MUST BE SUBMITTED TO NHDES WITHIN 10 DAYS OF THE REQUEST. IF NHDES REQUESTS THE CONSTRUCTION STORMWATER INSPECTION CERTIFICATION FORM TO BE SUBMITTED, THE SUBMITTED FORM MUST CONTAIN THE PRINTED NAME AND SIGNATURE OF THE TRAINED CERTIFIED INSPECTOR AND THE PERSON WHO MEETS THE SIGNATORY REQUIREMENTS OF SECTION 7.7.2 OF THE NPDES GENERAL PERMIT.
18. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION DOCUMENTATION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES.
19. SUBSEQUENT OPERATOR(S) (PRIMARY PERMITTEES) WHO HAVE OBTAINED COVERAGE UNDER THE NPDES GENERAL PERMIT SHOULD CONDUCT TWICE WEEKLY INSPECTIONS, UNLESS THEIR PORTION(S) OF THE SITE HAS BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS OR DUE TO EXTREME DROUGHT AS STATED IN PARAGRAPH A) ABOVE. THE PRIMARY PERMITTEE (SUCH AS A DEVELOPER) IS NO LONGER REQUIRED TO CONDUCT INSPECTIONS OF PORTIONS OF THE SITE THAT ARE COVERED BY A SUBSEQUENT PRIMARY PERMITTEE (SUCH AS A HOME BUILDER).
20. THE SITE ASSESSMENT SHALL BE PERFORMED BY INDIVIDUALS WITH THE FOLLOWING QUALIFICATIONS:
    - A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
    - A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) OR
    - A PERSON THAT SUCCESSFULLY COMPLETED THE "LEVEL II DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE.
21. QUALITY ASSURANCE OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE DONE BY PERFORMING SITE ASSESSMENT AT A CONSTRUCTION SITE. THE SITE ASSESSMENT SHALL BE CONDUCTED AT EACH OUTFALL INVOLVING DRAINAGE TOTALING 10 OR MORE ACRES OR 5 OR MORE ACRES IF DRAINING TO AN IMPAIRED OR EXCEPTIONAL QUALITY WATERS, WITHIN A MONTH OF CONSTRUCTION COMMENCING AT EACH PORTION OF THE SITE THAT DRAINS THE QUALIFYING ACREAGE OF SUCH PORTION OF THE SITE.
22. AS A MINIMUM, SITE ASSESSMENT SHOULD BE PERFORMED TO VERIFY THE INSTALLATION, FUNCTIONALITY AND PERFORMANCE OF THE EPSC MEASURES DESCRIBED IN THE SWPPP REPORT. THE SITE ASSESSMENT SHOULD BE PERFORMED WITH THE INSPECTOR, AND SHOULD INCLUDE A REVIEW AND UPDATE (IF APPLICABLE) OF THE SWPPP REPORT. MODIFICATIONS OF PLANS AND SPECIFICATIONS FOR ANY BUILDING OR STRUCTURE, INCLUDING THE DESIGN OF SEDIMENT BASINS OR OTHER SEDIMENT CONTROLS INVOLVING STRUCTURAL, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER.
23. THE SITE ASSESSMENT FINDINGS SHALL BE DOCUMENTED AND THE DOCUMENTATION KEPT WITH THE SWPPP REPORT AT THE SITE. AT A MINIMUM, THE DOCUMENTATION SHALL INCLUDE INFORMATION INCLUDED IN THE INSPECTION FORM PROVIDED IN APPENDIX D OF THE SWPPP REPORT. THE DOCUMENTATION MUST CONTAIN THE PRINTED NAME AND SIGNATURE OF THE INDIVIDUAL PERFORMING THE SITE ASSESSMENT AND THE FOLLOWING CERTIFICATION:
24. "I CERTIFY UNDER PENALTY OF LAW THAT THIS REPORT AND ALL ATTACHMENTS ARE, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS." 5. THE SITE ASSESSMENT CAN TAKE THE PLACE OF ONE OF THE TWICE WEEKLY INSPECTIONS REQUIREMENT.
25. NHDES MAY REQUIRE ADDITIONAL SITE ASSESSMENT(S) TO BE PERFORMED IF SITE INSPECTION BY NHDES'S PERSONNEL REVEALS SITE CONDITIONS THAT HAVE POTENTIAL OF CAUSING POLLUTION TO THE WATERS OF THE STATE.
26. CONTRACTOR SHALL INSTALL A 4'X4' WEATHER PROOF SIGN (6' HEIGHT) AT THE MAIN CONSTRUCTION ENTRANCE. THE SIGN SHALL HAVE THE FOLLOWING INFORMATION:
    - A COPY OF THE NOTICE OF COVERAGE WITH THE NPDES PERMIT NUMBER (FURNISHED BY ENGINEER).
    - THE NAME AND TELEPHONE NUMBER OF A LOCAL CONTACT PERSON (FURNISHED BY CONSTRUCTION MANAGER).
    - DESCRIPTION OF PROJECT (FURNISHED BY CONSTRUCTION MANAGER)



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- PROPOSED CENTERLINE OF DREDGED DRAINAGE CHANNEL
- PROPOSED 25x10x3' BOX CULVERT

STORMWATER NOTES

FEMA NOTE

THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 33015C0260F, DATED 01/29/2021.

CONSTRUCTION SCHEDULE

1. PRE-CONSTRUCTION MEETING
2. INSTALLATION OF EROSION CONTROL MEASURES
3. EROSION INSPECTION BY AHJ
4. ISSUANCE OF PERMIT
5. CONSTRUCTION

CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE PERMIT.

NEW HAMPSHIRE DEPT. OF ENVIRONMENTAL SERVICES (NHDES) NOTICE OF COVERAGE

THIS PROJECT DOES **NOT** DISTURB MORE THAN 1 ACRE AND IS **NOT** REQUIRED TO APPLY FOR A NOTICE OF COVERAGE UNDER THE NEW HAMPSHIRE GENERAL CONSTRUCTION PERMIT FROM NHDES.

EROSION CONTROL LEGEND

- EC-1 — 4'x8' LARGE DIAMETER SMOOTH RIVER ROCK OUTLET PROTECTION TO BE INSTALLED UPON COMPLETION OF GRADING AND BYPASS PUMPING OPERATION - SEE DETAIL ON C3-01
- EC-2 — EROSION CONTROL MATTING - CONTECH LANDLOCK S2 OR APPROVED EQUAL. CONTRACTOR TO INSTALL ON ALL SLOPES STEEPER THAN 3:1 OR STEEPER. SEE DETAIL ON C3-01. **SHALL NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES** -WITH- PERMANENT STABILIZATION - CONSERVATION SEED MIX/ NEW ENGLAND WETMIX (BENEATH EROSION CONTROL MATTING). **PERMANENTLY STABILIZE ALL DISTURBED AREAS.*
- FM — EC-3 — TEMPORARY BYPASS PUMP/ PUMP AROUND INFRASTRUCTURE. SEE DETAIL ON C3-01.
- LOD — LIMITS OF DISTURBANCE: ±2,500 SF

0 10 20 Feet
SCALE 1":10'

Bowman
1219 4th Avenue S, Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAI BURK
No. 16924
LICENSED PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

811 Know what's **below.** **Call** before you dig.

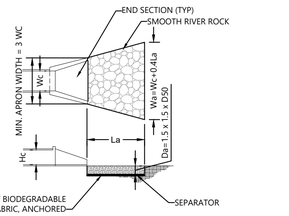
PLAN STATUS

DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

EROSION CONTROL PLAN

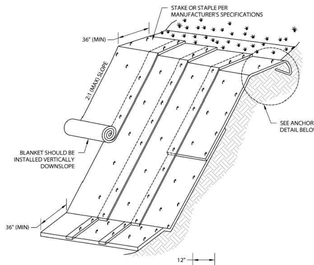
C3-00



L_A = LENGTH OF RIP-RAP APRON
W_A = WIDTH OF RIP-RAP APRON AT END
D_{50} = MEDIAN SIZE OF RIP-RAP
D_{MAX} = MAXIMUM SIZE OF RIP-RAP = 1.5 D_{50}
D_A = DEPTH OF RIP-RAP APRON = 1.5 D_{MAX}
SEPARATOR = GEOTEXTILE UNDERLAYMENT OR GRAVEL FILTER BLANKET

OUTFALL PIPE	LENGTH (La)	WIDTH (Wa)	d50
8-18"	8'	DIA+La/3	3"
24"	8'	DIA+La/3	3"
48"	20'	DIA+La/3	6"

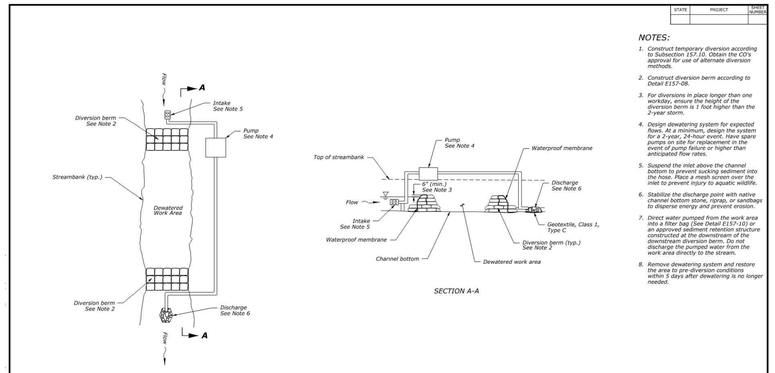
1 OUTLET PROTECTION
NOT TO SCALE



"CONTRACTOR ENSURE EROSION BLANKETS DO NOT INCLUDE PLASTICS"

NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, VEGETATION, STICKS, AND DEBRIS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT. SCARIFY AND/OR TILL SLOPE SURFACE 12" DEEP BEFORE LAYING BLANKET.
2. LAY BLANKETS LOOSELY AND STAKE OR STAPLE AS NEEDED TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH OR TWIST.
3. EROSION CONTROL BLANKETS SHOULD BE USED IN CONJUNCTION WITH REVEGETATION (CONTAINER OR PLUG PLANTING) TO SPECIFICATIONS OF REVEGETATION PLAN FOR PROJECT.
4. HAND WALK BLANKET DOWN SLOPE AS BLANKET IS STAKED OR STAPLED TO PREVENT STRETCHING.
5. DO NOT WALK ON BLANKET ONCE IN PLACE.
6. ALL ANCHORS SHALL BE INSTALLED PERPENDICULAR TO SLOPE.
7. EROSION CONTROL BLANKET SHALL NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES.

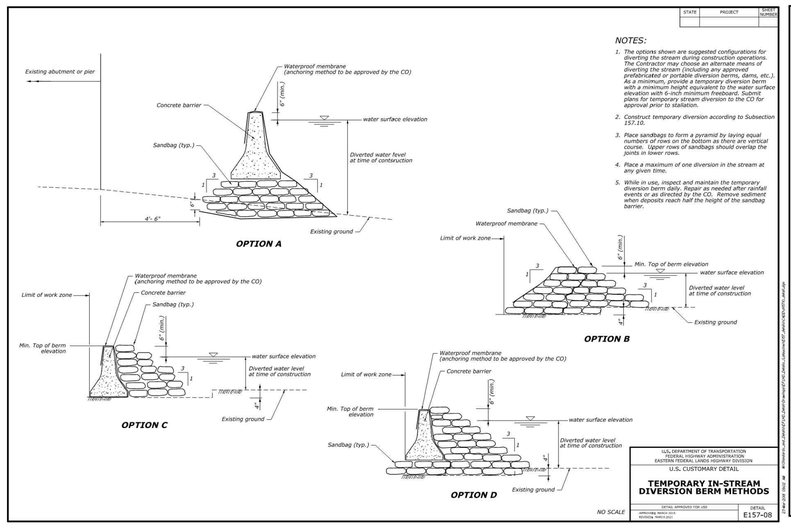
2 EROSION CONTROL BLANKET
NOT TO SCALE



NOTES:
1. Construct temporary diversion according to Subsection 157.10. Obtain the CO's approval for use of alternate diversion methods.
2. Construct diversion berm according to Detail E157-08.
3. For diversions in place longer than one workday, ensure the height of the diversion berm is 1 foot higher than the 2-year storm.
4. Design dewatering system for expected flows. At a minimum, design the system for 1.5 times the largest pump and have spare pumps on site for replacement in case of event of pump failure or higher than anticipated flow rates.
5. Suspend the inlet above the channel bottom to prevent sucking sediment into the hose. Place a mesh screen over the inlet to prevent injury to aquatic wildlife.
6. Stabilize the discharge point with native channel bottom stone, riprap, or sandbags to disperse energy and prevent erosion.
7. Direct water pumped from the work area into a filter bag (See Detail E157-10) or an approved sediment retention structure constructed at the downstream of the downstream diversion berm. Do not discharge turbid or sediment laden water from the work area directly to the stream.
8. Remove dewatering system and restore the area to pre-diversion conditions within 5 days after dewatering is no longer needed.

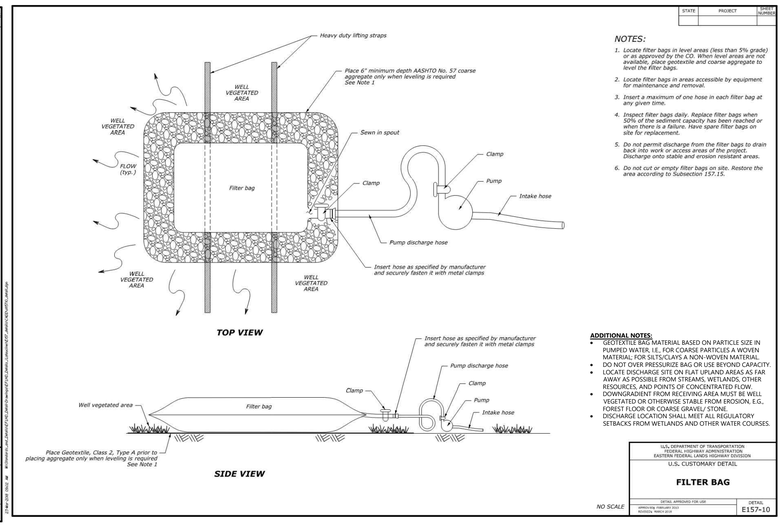
ADAPTED FROM:
WEST VIRGINIA DEPARTMENT OF ENVIRONMENT PROTECTION
EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MANUAL, FIGURE 5.21-14

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
U.S. CUSTOMARY DETAIL
TEMPORARY DIVERSION BERM BYPASS PUMPING
NO SCALE
DETAIL APPROVED FOR USE
APPROVAL FEBRUARY 2010
DETAIL E157-09



NOTES:
1. The options shown are suggested configurations for diverting the stream during construction operations. The Contractor may choose an alternate means of diverting the stream (including any approved modifications to the options shown in sketches, etc.). As a minimum, provide a temporary diversion berm with a minimum height equivalent to the water surface elevation with 6-inch minimum freeboard. Submit plans for temporary stream diversion to the CO for approval prior to stallation.
2. Construct temporary diversion according to Subsection 157.10.
3. Place sandbags to form a pyramid by laying equal numbers of rows on the bottom as there are vertical courses. Upper rows of sandbags should overlap the joints in lower rows.
4. Place a maximum of one diversion in the stream at any given time.
5. While in use, inspect and maintain the temporary diversion berm daily. Repair as needed after rainfall events or as directed by the CO. Remove sediment when deposits reach half the height of the sandbag barrier.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
U.S. CUSTOMARY DETAIL
TEMPORARY IN-STREAM DIVERSION BERM METHODS
NO SCALE
DETAIL APPROVED FOR USE
APPROVAL MARCH 2010
ADDITIONAL MARCH 2014
DETAIL E157-08



NOTES:
1. Locate filter bags in level areas (less than 5% grade) or as approved by the CO. When level areas are not available, construct a geotextile and coarse aggregate to level the filter bags.
2. Locate filter bags in areas accessible by equipment for maintenance and removal.
3. Insert a maximum of one hose in each filter bag at any given time.
4. Inspect filter bags daily. Replace filter bags when 50% of the sediment capacity has been reached or when there is a failure. Have spare filter bags on site for replacement.
5. Do not permit discharge from the filter bags to drain back into work or access areas of the project. Discharge onto stable and erosion resistant areas.
6. Do not cut or empty filter bags on site. Restore the area according to Subsection 157.15.

ADDITIONAL NOTES:
- GEOTEXTILE BAG MATERIAL BASED ON PARTICLE SIZE IN PUMPED WATER, I.E., FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
- DO NOT OVER PRESSURIZE BAG OR USE BEYOND CAPACITY.
- LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES, AND POINTS OF CONCENTRATED FLOW.
- DOWNGRADIENT FROM RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G., FOREST FLOOR OR COARSE GRAVEL/STONE.
- DISCHARGE LOCATION SHALL MEET ALL REGULATORY SETBACKS FROM WETLANDS AND OTHER WATER COURSES.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
U.S. CUSTOMARY DETAIL
FILTER BAG
NO SCALE
DETAIL APPROVED FOR USE
APPROVAL FEBRUARY 2010
REVISED, MARCH 2014
DETAIL E157-10

3 TEMPORARY DEWATERING MEASURES
NOT TO SCALE

WATCH FOR RARE TURTLES

NHFG Wildlife Biologist Contacts:
Melissa Winters 603-479-1129 and Josh Megyesy 978-578-0802

- Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th).
- Turtles are most active from April 15th - October 15th.

Blanding's turtle (State Endangered)
Large, dark/black domed shell with lighter speckles.

Distinct yellow throat/chin.

Semi-aquatic- uses both wetland and terrestrial habitats.

Spotted turtle (State Threatened)

Small, mostly aquatic with black or dark brown with yellow spots.

Fairly flat shell compared to Blanding's turtle.

Spots vary in color and number.

Semi-aquatic - uses both wetland and terrestrial habitats.

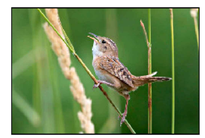
Blanding's and spotted turtles are protected by state laws. It is illegal to capture, harass or harm these species, including their nests. Handle ONLY if necessary to move out of harms way. Move to the nearest location in the direction they were moving and contact NHFG. Do not disturb nests.

Report sightings in accordance with NHFG permit conditions. Contact NHFG Wildlife Biologist Melissa Winters 603-479-1129 (cell) and Josh Megyesy 978-578-0802 (group text preferred) if a turtle is observed nesting or a nest site is suspected within the project area. Please report promptly, noting specific location, project site and date – Photographs strongly encouraged to be included with report.

WATCH FOR SORA & MARSH WREN

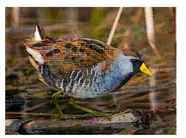

House Wren


Winter Wren


Sedge Wren


Marsh Wren


Carolina Wren


Sora

NEW HAMPSHIRE FISH & GAME - BIOLOGIST CONTACTS:
- **MELISSA WINTERS (603) 479-1129**
- **JOSH MEGYESY (978) 578-0802**

Bowman
1219 4th Avenue S, Nashville, TN 37210
Phone: (615) 649 - 7610 | www.bowman.com

STATE OF NEW HAMPSHIRE
2/17/25
KAS
BURK
No. 16924
LICENSED
PROFESSIONAL ENGINEER

PORTSMOUTH REGIONAL HOSPITAL
HCA HEALTHCARE
PORTSMOUTH, NH

811 Know what's below. Call before you dig.

PLAN STATUS

DATE	DESCRIPTION	
2/17/25	COP PB SUBMITTAL	
DESIGN	DRAWN	CHKD
MH	MH	KB

MARCH 2024

EROSION CONTROL DETAILS

C3-01

Portsmouth Regional Hospital – Culvert Replacement
Invasive Plant Species Control Plan

A. PREVENTION

SOIL DISTURBANCE AND STABILIZATION

Invasive plants readily colonize areas of disturbed soil. It is important to minimize soil disturbance whenever possible. Disturbed sites should be monitored and managed for invasive species. The sooner invasive species are managed the greater the control and eradication success rate. Established populations are more difficult to manage and control.

- Stabilize disturbed soils as soon as possible by seeding and mulching with straw, rip-rap, or gravel that is free of invasive plant material.
- Visually inspect mulch, gravel or other earthen materials before using them to ensure that they are free of invasive species.
- Use seeds of native species whenever possible.
- Never plant Type I or Type II species.
- Never bring materials such as fill, loam, mulch, straw, rip-rap or gravel into project areas from sites where invasive plants are known to occur.
- Monitor work sites for the emergence of invasive plants.

MOVEMENT AND MAINTENANCE OF EQUIPMENT

- Locate and use staging areas that are free of invasive plants to avoid spreading seeds and other viable plant parts.
- Move maintenance and construction equipment from areas free of invasive plants to areas infested by invasive plants whenever possible. This is especially important during ditch cleaning and shoulder scraping activities.
- If equipment must be used in areas containing invasive species:
  - Cut and properly dispose of all aboveground plant material.
  - Cover the cut area with geotextile and one foot of gravel or soil where the equipment is expected to travel. This is not necessary if the infested area was excavated and the infestation was removed.
  - Clean all equipment, machinery, and hand tools cleaned of all visible soil and plant material before leaving the project site. Equipment should be cleaned at the site of infestation.

Acceptable methods of cleaning include, but are not limited to:

- Brush, broom, or other hand tools (used without water)
- High- pressure air
- Portable wash station that contains runoff from washing that comply with wastewater discharge regulations

B. BEST MANAGEMENT PRACTICES (BMP)

MECHANICAL – MOWING/CUTTING

Type II plants have the ability to sprout from stem and root fragments.

- Avoid mowing Type II plants. Mowing for safety/sight distance concerns should be considered an interim measure as these plants will thrive from cutting alone and increase the site's population size and density.

In areas where there are no Type II invasive plants (Purple loosestrife, common reed, and Japanese knotweed):

- Attempt to mow the area prior to seed maturation (approximately July 1st).
- Identifying specific roads that are either heavily infested with invasive plants or roads that are in sensitive habitat areas.
  - Make those roads a priority in the mowing schedule.
- Clean equipment daily, as well as prior to transport. This is particularly important if mowing occurs after seed maturation (after July 1st).

SMOTHERING

Smothering is a method of control that inhibits plant growth by depriving the plant of light and air and heating up the soil.

1. Remove above ground vegetation.
2. Lay down a thick layer landscape fabric over the area. Overlap the target area by a foot or two.
3. Secure the edges in a manner that ensures that no light can reach under the covering and wind cannot displace it.
4. Monitor frequently for damage or displacement of the cover.

DISPOSAL AND TRANSPORT OF ABOVEGROUND PLANT MATERIAL AND SOIL

When invasive plants are cut or removed for roadside maintenance, construction, or control of plants, the viable plant material must be rendered nonviable to avoid spreading it. Movement of invasive plant material and soil containing plant material requires it to be covered in a manner that prevents the release of any plant parts or soil during transport.

The following methods can be used to destroy plant material (render it non-viable).

DRYING

Drying is recommended for Japanese knotweed, Purple loosestrife, and Phragmites.

1. For large amounts of plant material or for plants with rigid stems:
    a. Place the material on asphalt, tarps, or heavy plastic,
    b. Cover with tarps or heavy plastic to prevent the material from blowing away.
2. For smaller amounts of plant material or for plants with pliable stems:
    a. Bag the material in heavy duty (7-mil or thicker) garbage bags.
    b. Keep plant material covered or bagged for at least one month.

The amount of time that it takes for drying is variable. The material is nonviable when it has turned brown, is partially decomposed, very slimy, or brittle. Once material is nonviable, it can be disposed in a landfill or brush pile.

BRUSH PILES

Brush piles are an option for woody shrubs, trees, vines, spotted knapweed, and large quantities of purple loosestrife, common reed, and knotweed. It is NOT recommended for any invasive plant with seeds or fruit attached, unless plants can be piled within the limits of the infestation.

1. Plant material from most invasive plants can be piled on site to dry out.
2. When piling purple loosestrife, common reed, and knotweed, care must be taken to pile stems and roots so that cut surfaces are not in contact with moist soil.

STOCKPILING MATERIAL

Any excavated material that contains viable plant propagules and is not reused within the limits of the infestation must be stockpiled on an impervious surface until viable plant material is destroyed OR the material must be disposed of by burying to the appropriate depth.

Whenever possible, excavation should be avoided in areas containing Japanese knotweed, purple loosestrife, and phragmites. If excavation does occur in these areas, the BMPs described in Section II must be followed. Cover soil and plant material during transport.

City of Portsmouth
Planning & Sustainability Department

RE: 333 Borthwick Avenue. HCA Portsmouth Regional Hospital – Culvert Replacement.

The following are responses from the Conservation Commission meeting on 01/03/2025.

1. Applicant shall include a plan for invasive species management in the proposed disturbance area. Included in this plan should be best management practices for monitoring, removal and disposal.
    a. Plan provided.
2. Applicant shall ensure wildlife notes are consistent: Sheet C2-00 Wildlife Note #6 shall be included in Sheet C3-01 Erosion Control Blanket Notes and in Sheet C3-00 Erosion Control Notes and Erosion Control Legend.
    a. Note #7 added to detail #2 on C3-01.
    b. Erosion control legend on C3-00 revised to include note.
3. The use of fertilizer is prohibited within this jurisdictional wetland and wetland buffer per section 10.1018.24 of the City of Portsmouth Zoning Ordinance. Please note this on plans
    a. Note added to C2-00.
4. Applicant shall note on plans the location of wetland boundary markers. These shall be permanently installed prior to the start of construction between the edge of pavement and the top of the stream bank every 50' to deter foot traffic in the sensitive area.
    a. Signs added every 50'
5. Applicant shall install two 'no snow storage' signs along the swale behind the hospital. Please indicate proposed locations on plans.
    a. Sign added every 100'
6. Applicant shall monitor the success of proposed seeded areas and prepare a memo to be sent to the Portsmouth Planning & Sustainability Department annually for the first two years after planting/seeding. If after two years, the seeded areas show a survival rate of less than 80%, applicant will replant/reseed.
    a. Understood
7. Applicant shall confirm that the proposed box culvert will meet 50-year design storm requirements.
    a. Confirmed. The proposed 10'x3' culvert can pass the 50-year design storm.

If you have any questions, please feel free to reach me at mhamby@bowman.com.

Matthew Hamby
Principal, Civil Engineer
Bowman Consulting