The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

34

September 16, 2022

His Excellency, Governor Christopher T. Sununu
and The Honorable Council
State House
Concord, NH 03301

REQUESTED ACTION

Approve Higgins Family Property Trust's request to perform the following work on Lake Winnipesaukee in Alton pursuant to NH Department of Environmental Services (NHDES) Wetlands Bureau permit #2022-00286, and in accordance with RSA 482-A:3. No comments were submitted by the Alton Conservation Commission regarding the project as proposed.

Place 160 cubic yards of fill on 1,245 square feet of lakebed to construct a 40.9 foot breakwater, install a 6 foot x 45.25 foot piling pier connected by a 6 foot x 10 foot connecting walkway to a 6 foot x 30 foot piling pier in an h-shaped configuration, dredge 5 cubic yards from 672 square feet of lakebed and impact 572 square feet of bank and 964 square feet of shoreland along 68 linear feet of shoreline to construct a 34 foot x 34 foot 2-slip, dug-in boathouse, and an 18 foot x 26 foot pervious patio on an average of 418 feet of frontage along Roberts Cove on Lake Winnipesaukee in Alton.

NHDES imposed the following conditions as part of this approval:

1. In accordance with Env-Wt 307.16, all work shall be done in accordance with the revised plans dated August 3, 2022, by Horizon Engineering, as received by the NH Department of Environmental Services (NHDES) on August 4, 2022.
2. This permit shall not be effective until it has been recorded in the Belknap County Registry of Deeds and a copy of the recorded permit has been provided to the NHDES as required pursuant to RSA 482-A:3, and Env-Wt 314.02.
3. Any subdivision of the property frontage will require removal of a sufficient portion of the docking structures to comply with the dock size and density requirements in effect at the time of the subdivision as required to maintain compliance with Env-Wt 314.02 and Env-Wt 513.12.
4. In accordance with RSA 483-B:9 V(a), prior to inundation of the dug-in basin, all proposed waterfront buffer grid segments must comply with the required 25 points score within each 25 foot x 50 foot grid segment.
5. All portions of the proposed docking structures and proposed breakwater shall be located at least 20 feet from the abutting property lines and no watercraft shall be secured to the docking facility such that it crosses over the imaginary extension of the property lines over the surface water as required by RSA 482-A:3, XIII.

6. In accordance with Env-Wt 512.04(e), the breakwater, when measured from the normal high water line (Elev. 504.32), shall have no point more than 50 feet from the normal high water line, a total length of no more than 43 feet and a gap of 6 feet or more between the breakwater and shoreline.
7. In accordance with Env-Wt 307.10(f), dredged materials to be stockpiled in uplands shall be dewatered in sedimentation basins that are contained within turbidity controls that prevent turbid water from leaving the basins; and located outside of any jurisdictional area.
8. In accordance with Env-Wt 307.10(d), dredged materials shall be disposed of out of jurisdictional areas, unless other disposition is specifically permitted pursuant to Env-Wt 307.10(e).
9. In accordance with Env-Wt 512.05(b), no rocks shall be stockpiled in any jurisdictional area.
10. The use of these structures shall be limited to the docking and securing of watercraft as required to comply with Env-Wt 307.09.
11. Owners of permanent docking structures which are not maintained so as to be structurally sound and usable for their intended purpose shall remove those docking structures in accordance with Env-Wt 513.22(c), to prevent hazards to public safety, navigation, and recreation.
12. The owner understands and accepts that should these docking structures be found to have an unreasonable impact on the ability of abutting owners to use and enjoy their properties or the public's right to navigation, passage, and use of the resource for commerce and recreation the structures shall be subject to removal pursuant to RSA 482-A:1, RSA 482-A:11, (2), and Env-Wt 513.03(a).
13. Work authorized shall be carried out in accordance with Env-Wt 307 such that appropriate turbidity controls are in place to protect water quality, that no turbidity escapes the immediate dredge area, and that appropriate turbidity controls shall remain until suspended particles have settled and water at the work site has returned to normal clarity.
14. All construction-related debris shall be placed outside of those areas subject to RSA 482-A or RSA-483-B unless a permit for the deposition of materials within those areas has been obtained as required per RSA 482-A:3 or RSA 483-B:5-b respectively.
15. No agitating or heating device shall be installed for the purpose of inhibiting the formation of ice in proximity to the approved structures unless it has been registered with the municipal clerk of the town in which such device shall be operated pursuant to RSA 270:34 Registration Required.
16. No activity shall be conducted in such a way as to cause or contribute to any violation of surface water quality standards specified in RSA 485-A:8 or Env-Wq 1700.

EXPLANATION

NHDES approved this project on August 17, 2022. NHDES supported its decision with the following findings:

1. This is a major impact project per Administrative Rule Env-Wt 512.06, construction of a breakwater and Env-Wt 513.24, (c) (2) construction of a docking structure providing 5 or more slips.
2. The applicant has an average of 418 feet of frontage along Lake Winnipesaukee.
3. A maximum of 6 slips may be permitted on this frontage per Rule Env-Wt 513.12, Frontage Requirements for Private and Non-commercial Docking Structures.
4. The proposed docking facility will provide 5 slips as defined per RSA 482-A:2, VIII, and therefore meets Rule Env-Wt 513.12.
5. The applicant has provided the NHDES with evidence that the property has insufficient water depth to provide the allowable slips on a standard length pier as required by Env-Wt 513.08(b).

6. The NHDES has accepted the evidence of the physical hardship and approved the extension of permanent piling dock beyond the standard length under Env-Wt 513.11(a)(1)(b).
7. The NHDES finds that because the project is not of significant public interest and will not significantly impair the resources of Lake Winnipesaukee a public hearing under RSA 482-A:8 is not required.
8. No concerns were received from abutters nor the local Conservation Commission related to the project.
9. The NHDES finds that the project as proposed and conditioned meets the requirements of RSA 482-A and the Wetlands Program Code of Administrative Rules Chapters Env-Wt 100 - 900.

NHDES Wetlands Bureau permit #2022-00286 application documents are enclosed for review by the Governor and the Executive Council in consideration of this request and in accordance with RSA 482-A:3, II(a), as it is a major project located in New Hampshire public waters.

We respectfully request your approval of this item.

Robert R. Scott
Commissioner

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

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

APPLICANT'S NAME: HIGGINS FAMILY PROPERTY TRUST **TOWN NAME:** ALTON, NH

RECEIVED Administrative Use Only	COMPLETE Administrative Use Only	Administrative Use Only	File No. 2022-00286 Check No. 2902 Amount: 454.00 Initials: BH
FEB 07 2022 NHDES LAND RESOURCES MANAGEMENT	FEB 08 2022		

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

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))
Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☐ Yes ☒ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	☐ Yes ☒ No
• Protected species or habitat? o If yes, species or habitat name(s): o NHB Project ID #: NHB21-3132	☐ Yes ☒ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☐ Yes ☒ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☐ Yes ☒ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☒ Yes ☐ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats):	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached", please use the space provided below.

The proposed project includes construction of a waterfront access structure, permanent dock, breakwater, and a new dug-in boathouse. The project also includes the construction of a new residence and attached garage on Tax Map 18 Lots 29-5, 29-6 and 29-7. The (3) lots will be merged to create a lot suitable for the construction scale. Associated construction items include driveway and grading modifications, drainage design, and community septic connection. A landscaping plan will be incorperated to include boulder features, walkways, patios and plantings. A restoration plan is proposed within the impacted tree cells. The site is located within the 250' buffer of Lake Winnipesaukee, in which the project will also require Shoreland Permit.

SECTION 3 - PROJECT LOCATION

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

ADDRESS: DEWITT DRIVE	
TOWN/CITY: ALTON, NEW HAMPSHIRE	
TAX MAP/BLOCK/LOT/UNIT: TAX MAP 18 LOTS 29-5,6 &7	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: LAKE WINNIPESAUKEE ☒ N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):	43.53300° North 71.21873° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a)) If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: HIGGINS FAMILY PROPERTY TRUST		
MAILING ADDRESS:		
TOWN/CITY	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	
ELECTRONIC COMMUNICATION: By initialing here: I hereby authorize NHDES to communicate all matters relative to this application electronically.		

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c)) ☒ N/A		
LAST NAME, FIRST NAME, M.I.: DAVIS, WILLIAM T.		
COMPANY NAME: HORIZONS ENGINEERING, INC.		
MAILING ADDRESS: 176 NEWPORT ROAD - SUITE 8		
TOWN/CITY: NEW LONDON	STATE: NH	ZIP CODE: 03257
EMAIL ADDRESS: ATHIBEAULT@HORIZONSENGINEERING.COM		
FAX:	PHONE: 603-877-0116	
ELECTRONIC COMMUNICATION: By initialing here WTD, I hereby authorize NHDES to communicate all matters relative to this application electronically.		

SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b)) If the owner is a trust or a company, then complete with the trust or company information. ☒ Same as applicant		
NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	
ELECTRONIC COMMUNICATION: By initialing here, I hereby authorize NHDES to communicate all matters relative to this application electronically.		

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

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):

The proposed project will impact a non-tidal wetland (Lake Winnipesaukee) in order to construct a breakwater, permanent dock, new dug-in boathouse and waterfront access structure. Each proposed feature will follow the project specific criteria as published within Env-Wt 500. (See Section 5 - Project Specific Criteria for each proposed wetland structure).

SECTION 8 - AVOIDANCE AND MINIMIZATION

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

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

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

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

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

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

(☒ N/A - Mitigation is not required)

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

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

(☒ N/A – Compensatory mitigation is not required)

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

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

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

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

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

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

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland						
	Scrub-shrub Wetland						
	Emergent Wetland						
	Wet Meadow						
	Vernal Pool						
	Designated Prime Wetland						
	Duly-established 100-foot Prime Wetland Buffer						
Surface Water	Intermittent / Ephemeral Stream						
	Perennial Stream or River						
	Lake / Pond	2975			1797		
	Docking - Lake / Pond	501					
	Docking - River						
Banks	Bank - Intermittent Stream						
	Bank - Perennial Stream / River						
	Bank / Shoreline - Lake / Pond	369			203		
Tidal	Tidal Waters						
	Tidal Marsh						
	Sand Dune						
	Undeveloped Tidal Buffer Zone (TBZ)						
	Previously-developed TBZ						
	Docking - Tidal Water						
TOTAL		3845			2000		

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

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

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

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

Permanent and temporary (non-docking):	5345 SF	× $0.40 =	$ 2138
Seasonal docking structure:	SF	× $2.00 =	$
Permanent docking structure:	501 SF	× $4.00 =	$ 2004
Projects proposing shoreline structures (including docks) add $400		=	$ 400
		Total =	$ 4542
The application fee for minor or major impact is the above calculated total or $400, whichever is greater =			$ 4542

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)

Indicate the project classification.

☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)

Initial each box below to certify:

Initials: RWH	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: RWH	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: RWH	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: RWH	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

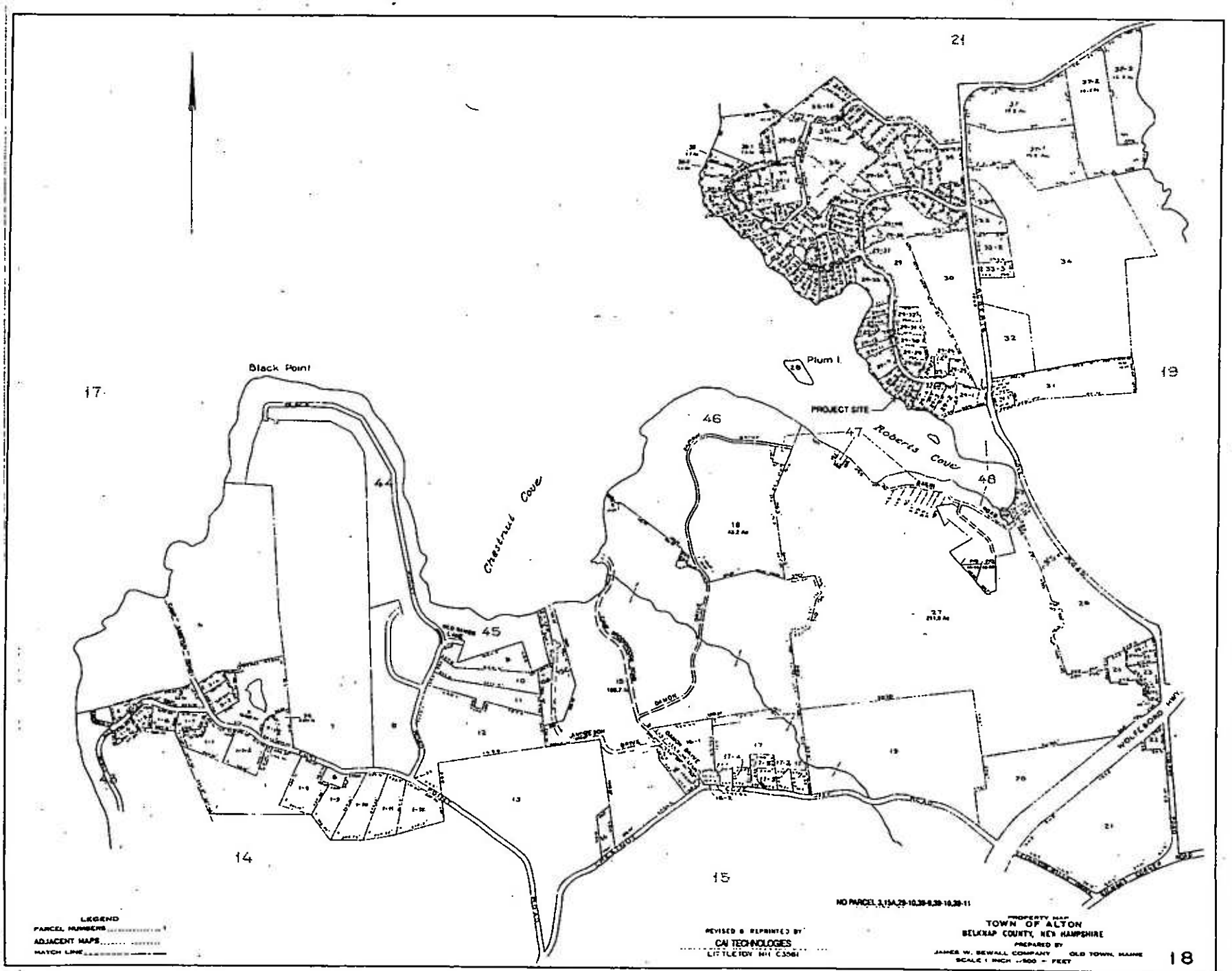
SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

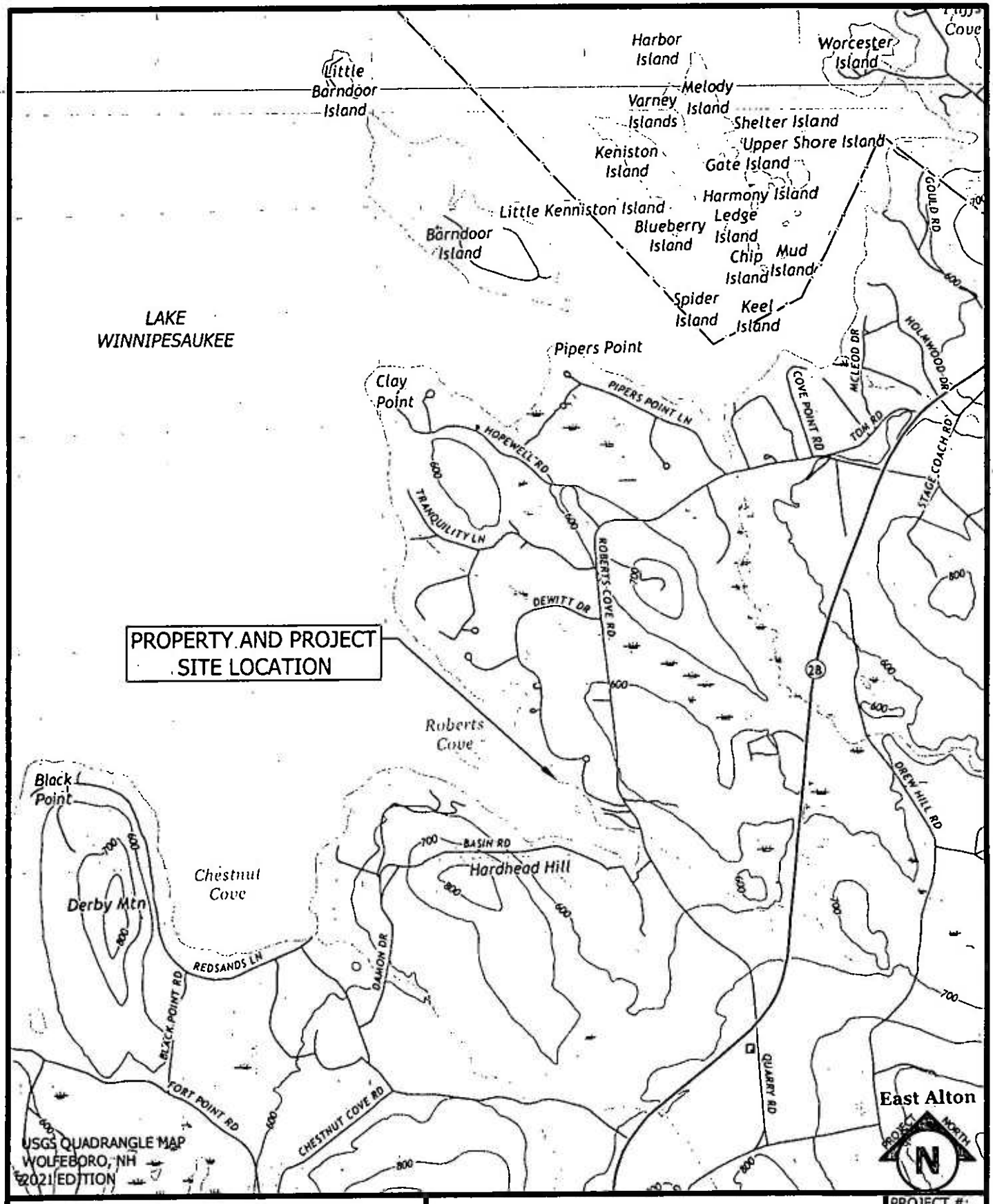
SIGNATURE (OWNER):	PRINT NAME LEGIBLY:	DATE:
[redacted]	[redacted] Richard W. Higgins for Higgins Family Rev Trust	11/26/22
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
[redacted]	[redacted]	[redacted]
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:
[redacted]	[redacted] Aaron Thibeault, Horizons Engineering	12/2/2022

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
[redacted] Deputy	[redacted] Jennifer L. Collins
TOWN/CITY: [redacted]	DATE: [redacted] 2/3/2022


21
Black Point
17
Plum I.
19
PROJECT SITE
46
47
Roberts Cove
48
42
Chestnut Cove
45
14
15
LEGEND
PARCEL NUMBERS
ADJACENT MAPS
MATCH LINE
NO PARCEL 3,15A,29-10,39-8,39-10,39-11
REVISED & REPRINTED BY
CAI TECHNOLOGIES
LITTLETON NH 03561
TOWN OF ALTON
BELKNAP COUNTY, NEW HAMPSHIRE
PREPARED BY
JAMES W. SEWALL COMPANY OLD TOWN, MAINE
SCALE 1 INCH = 500 = FEET
18



horizons Engineering

NEWPORT VT • LITTLETON NH • NEW LONDON NH
POMFRET VT • KENNEBUNK ME • CONWAY NH

HIGGINS FAMILY PROPERTY TRUST

DEWITT DRIVE

ALTON, NEW HAMPSHIRE

USGS LOCATION MAP

PROJECT #:	20903
ENGIN'D BY:	-
DRAWN BY:	AST
DATE:	DEC 2021

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Aaron Thibeault, Horizons Engineering
176 Newport Road - Suite 8

New London, NH 03257

From: NH Natural Heritage Bureau
Date: 10/6/2021 (valid until 10/6/2022)
Re: Review by NH Natural Heritage Bureau of request submitted 10/5/2021
Permits: NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: NHB21-3132 **Applicant:** Aaron Thibeault

Location: Alton
140 Dewitt Drive

Project Description: The project includes the construction of a new residence and attached garage on Tax Map 18 Lots 29-5, 29-6, 29-7. The project also includes driveway and grading modifications, drainage design, community septic connection, permanent dock, breakwater and boathouse. Landscaping will be incorporated to include boulders, patios, walkways and plantings. The (3) lots will be merged to create a lot suitable for the construction.

The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 10/5/2021 8:33:11 AM, and cannot be used for any other project.

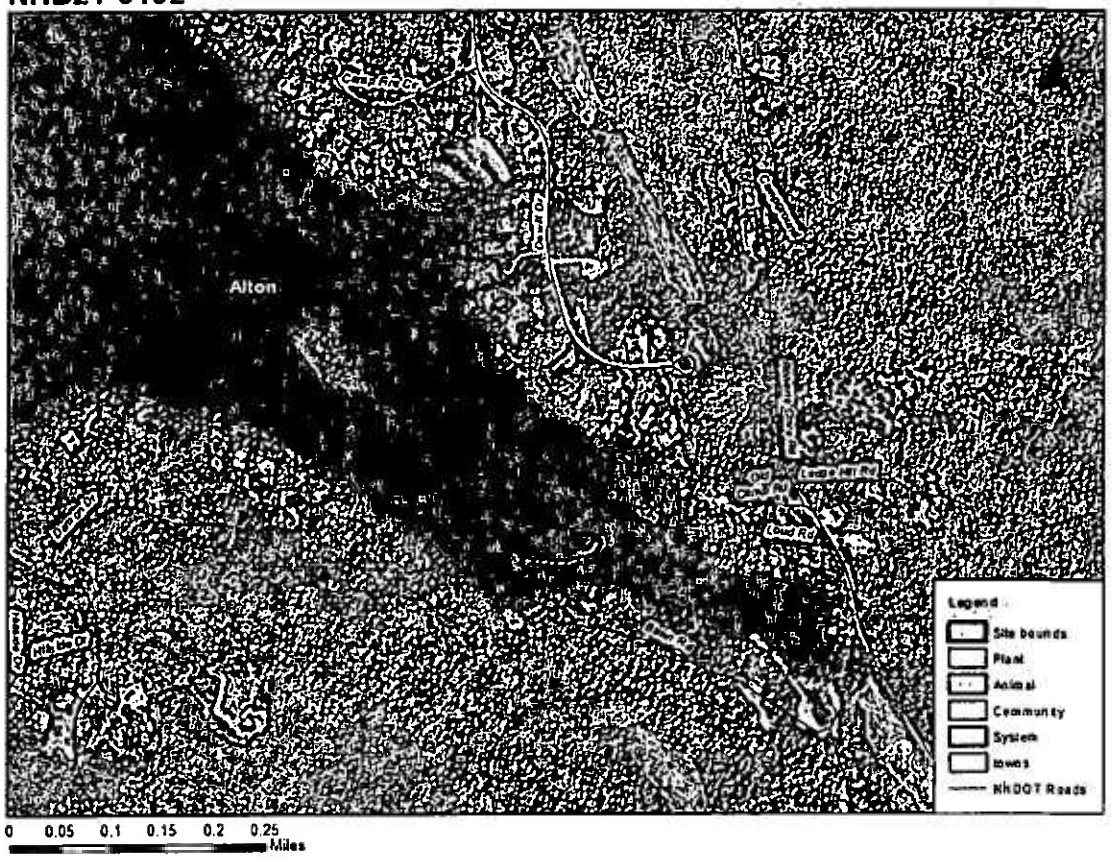
Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: **NHB21-3132**

NHB21-3132



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

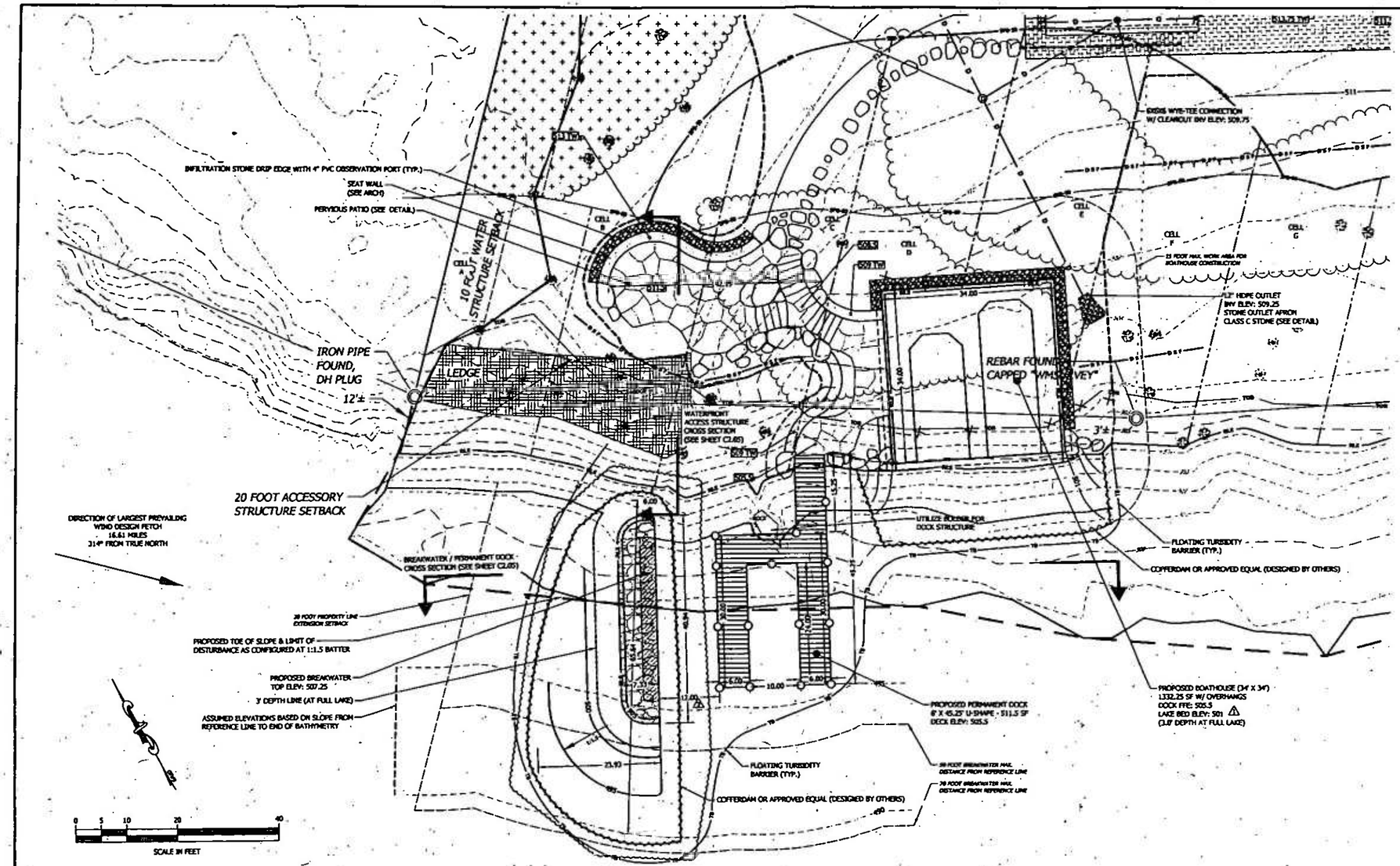
DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

ABUTTERS LIST

Higgins Family Property Trust *Richard & Carrie Higgins, Trustees* ***Tax Map 18 Lot 29-5*** ***SUBJECT PARCEL***	*Higgins Family Property Trust* *Richard & Carrie Higgins, Trustees* ***Tax Map 18 Lot 29-6*** ***SUBJECT PARCEL***	*Higgins Family Property Trust* *Richard & Carrie Higgins, Trustees* ***Tax Map 18 Lot 29-7*** ***SUBJECT PARCEL***
The Schmidt Cedar Cove Trust *Rudolph & Patricia Schmidt, Trustees* ***Tax Map 18, Lot 29-4***	*Michael K. Higgins* ***Tax Map 18, Lot 29-8***	

horizons Engineering
176 Newport Road – Suite 8
New London, NH 03257
(603) 877-0116

Higgins Family Property Trust
Dewitt Drive Residential Development
Alton, New Hampshire
Wetland Permit Application Abutters List
Project No. 20903
Compiled 1/25/2022



WETLAND CONSTRUCTION NOTES

1. LOT MERGER TO BE RECORDED PRIOR TO THE START OF CONSTRUCTION. ALL PERMITS SHALL BE CONDITIONAL ON THE APPLICATION AND RECORDING OF A VOLUNTARY LOT MERGER THROUGH THE TOWN OF ALTON.
2. COFFERDAM AND TURBIDITY CURTAIN ANCHORING TO BE DESIGNED BY OTHERS. MAINTENANCE OF TURBIDITY CURTAIN THROUGHOUT THE PROJECT IS CRUCIAL AS TO HOW ALLOW SEDIMENT TO ESCAPE.
3. DREDGE MATERIAL DEWATERING TO BE DONE IN AN APPROVED TEMPORARY SEDIMENT BASIN. UTILIZE SOIL STOCKPILING DETAIL WITH WIRE BACKED SILT FENCE TO PREVENT COLLAPSING UNDER THE WEIGHT OF ANY IMPOUNDED WATER. ALTERNATIVE DREDGE MATERIAL DEWATERING BASIN DESIGNS TO BE APPROVED BY THE ENGINEER.
4. TEMPORARY DE-WATERING DISCHARGE AREA SHALL BE CHOSEN WITH CAREFUL CONSIDERATION TO THE DOWNGRADE WATER RESOURCE AND THE EXISTING LANDSCAPES ABILITY TO TREAT WATER FLOWS FROM THE DE-WATERING PROCESS. WOODED BUFFERS AND FLAT SLOPES PROVIDE THE BEST OPPORTUNITY FOR FILTRATION AND ABSORPTION OF SUCH DISCHARGES. (SEE DETAILS ON SHEET D1.04)
5. ALL ROCKS SHALL BE LOCATED WITHIN 20 FEET OF THEIR ORIGINAL LOCATION. IF CONDITIONS PRESENT WHERE THE ROCK CANNOT BE RELOCATED, THE APPLICANT SHALL SPECIFICALLY REQUEST AUTHORIZATION FOR AN ALTERNATIVE ROCK PLACEMENT LOCATION.
6. IF EQUIPMENT IS TO BE PLACED WITHIN THE COFFERDAM THE LAKE BOTTOM MUST BE PROTECTED USING TIMBER MATS TO LIMIT SOIL DISTURBANCE.

FOR PERMITTING
NOT FOR CONSTRUCTION

DATE OF PRINT
AUGUST 03 2022
HORIZONS ENGINEERING

NO.	DATE	REVISION DESCRIPTION	DWG	CHKD
1	4/2022	6X6 WETLANDS SHIFT	WTD	MT
2	6/2022	6X6 WETLANDS RECONFIGURING TO ALLOW PERMITTING	WTD	CH
3	8/22	BREAKWATER DESIGN MODIFICATIONS PER 6X6	CH	CH

PROJECT #: 20903
DATE: JAN 2021
SURVEYED BY: -
ENGINEERED BY: WTD
DRAWN BY: AST
CHECKED BY: WTD

horizons Engineering
Civil and Structural Engineering
Land Surveying and Environmental Consulting
HAVRE · NEW HAMPSHIRE · VERMONT
www.horizonsengineering.com

HIGGINS FAMILY PROPERTY TRUST

DEWITT DRIVE RESIDENTIAL DEVELOPMENT
ALTON, NEW HAMPSHIRE

WETLANDS SITE PLAN

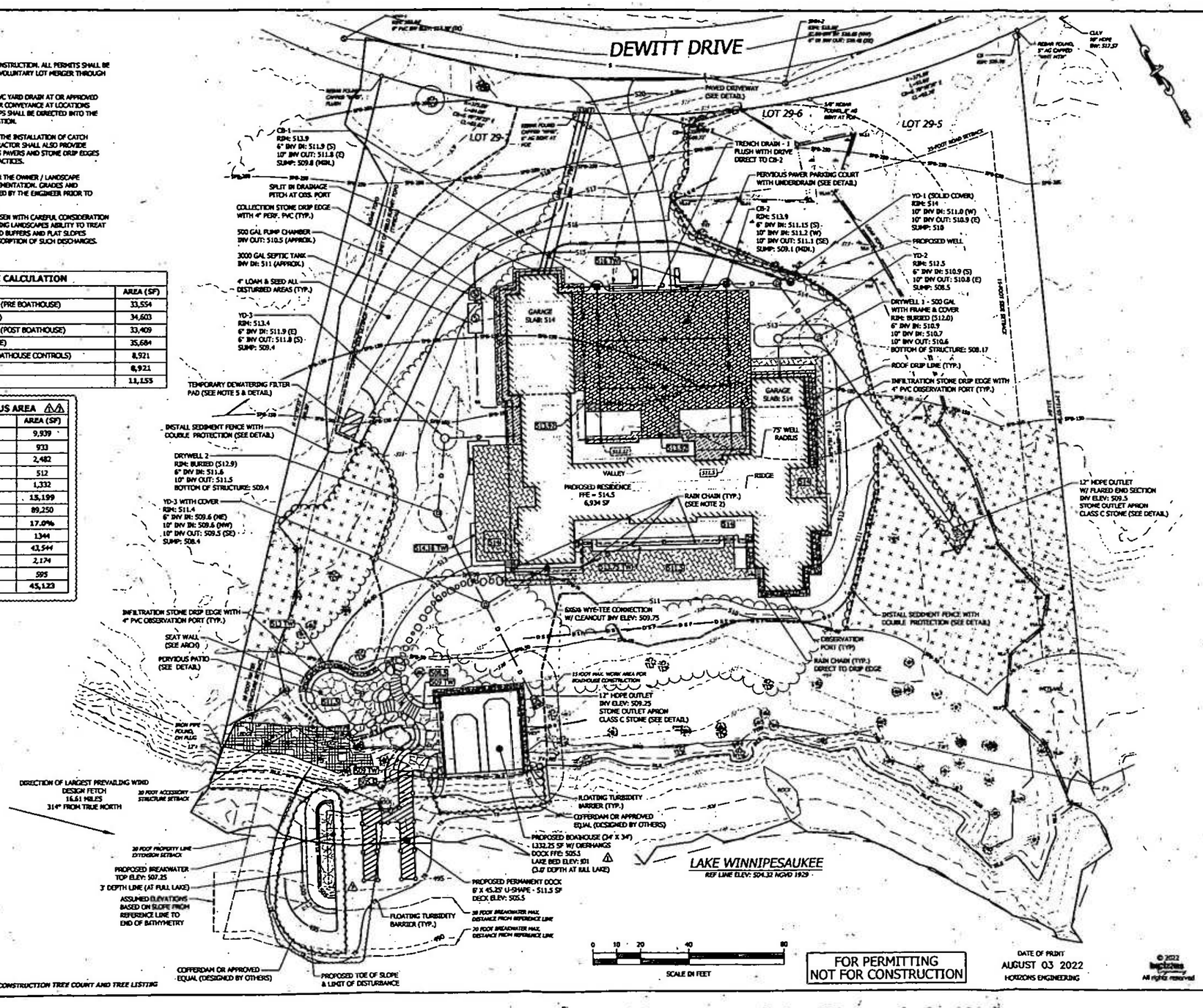
SHEET C 2.03

CONSTRUCTION NOTES

1. SEE SHEET C1.01 FOR GENERAL CONSTRUCTION NOTES
2. LOT MERGER TO BE RECORDED PRIOR TO THE START OF CONSTRUCTION. ALL PERMITS SHALL BE CONDITIONAL ON THE APPLICATION AND RECORDING OF A VOLUNTARY LOT MERGER THROUGH THE TOWN OF ALTON.
3. GUTTER/RAIN CHAIN DROPS SHALL BE COLLECTED BY 6"ø PVC YARD DRAIN AT OR APPROVED EQUAL AND ROUTED TO THE CLOSED DRAINAGE SYSTEM FOR CONVEYANCE AT LOCATIONS INDICATED ON THE PLAN. OTHER GUTTER/RAIN CHAIN DROPS SHALL BE DIRECTED INTO THE DRIP EDGE DIRECTLY BELOW FOR COLLECTION OR INFILTRATION.
4. CONTRACTOR TO PROVIDE INLET PROTECTION FOLLOWING THE INSTALLATION OF CATCH BASINS / YARD DRAINS THROUGHOUT THE SITE. THE CONTRACTOR SHALL ALSO PROVIDE SEDIMENT PROTECTION SURROUNDING AREAS OF PERVIOUS PAVERS AND STONE DRIP EDGES TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE PRACTICES.
5. FINISH MATERIAL SELECTION SHALL BE COORDINATED WITH THE OWNER / LANDSCAPE ARCHITECT TO ENSURE CORRECT LANDSCAPE DESIGN IMPLEMENTATION. GRADES AND MATERIALS WHICH VARY FROM THE PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
6. TEMPORARY DE-WATERING DISCHARGE AREA SHALL BE CHOSEN WITH CAREFUL CONSIDERATION TO THE DOWNGRADIENT WATER RESOURCE AND THE EXISTING LANDSCAPES ABILITY TO TREAT WATER FLOWS FROM THE DE-WATERING PROCESS. WOODED BUFFERS AND FLAT SLOPES PROVIDE THE BEST OPPORTUNITY FOR FILTRATION AND ABSORPTION OF SUCH DISCHARGES. (SEE DETAILS ON SHEET D1.04)

UNALTERED STATE CALCULATION	
CALCULATION	AREA (SF)
TOTAL EXISTING UNALTERED AREA 50' TO 150' BUFFER (PRE BOATHOUSE)	33,554
TOTAL LOT AREA 50' TO 150' BUFFER (PRE BOATHOUSE)	34,603
TOTAL EXISTING UNALTERED AREA 50' TO 150' BUFFER (POST BOATHOUSE)	33,409
TOTAL LOT AREA 50' TO 150' BUFFER (POST BOATHOUSE)	35,684
25% OF TOTAL LOT AREA 50' TO 150' BUFFER (POST BOATHOUSE CONTROLS)	8,921
MINIMUM AREA TO REMAIN UNALTERED	8,921
POST-CONSTRUCTION UNALTERED AREA	11,155

POST-CONSTRUCTION IMPERVIOUS AREA ⚠⚠	
STRUCTURE	AREA (SF)
PRIMARY STRUCTURE + ATTACHED DECKS	9,939
DRIVEWAY (PAVED)	933
WALKWAYS	2,482
STAIRS & DOCK	512
BOATHOUSE	1,332
TOTAL IMPERVIOUS W/IN 250' BUFFER	15,199
TOTAL LOT AREA W/IN 250' BUFFER	89,250
POST-CONSTRUCTION % COVERAGE	17.0%
TOTAL IMPERVIOUS W/IN 50' BUFFER	1,344
TOTAL IMPACT AREA WITHIN SHORELAND (TO RLE)	43,544
TOTAL IMPACT AREA WITHIN WETLAND (TO TOB)	2,174
IMPACT OVERLAP (BETWEEN TOB & RLE)	595
TOTAL PROJECT DISTURBANCE	45,123



NOTE: SEE SHEET C 2.02 FOR WATERFRONT BUFFER POST CONSTRUCTION TREE COUNT AND TREE LISTING

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DATE OF PRINT
AUGUST 03 2022
HORIZONS ENGINEERING

NO.	DATE	REVISION DESCRIPTION	ENG	DWG
1	9/2022	PER WETLANDS REPORT	MFT	
2	9/2022	PER WETLANDS MODIFICATION TO ALLOW PERMITTING	WTD	CH
3	9/2022	BREAKWATER DESIGN MODIFICATION PER WORB	CH	CH

PROJECT #: 20903
DATE: JAN 2021
SURVEYED BY: -
ENGINEERED BY: WTD
DRAWN BY: AST
CHECKED BY: WTD

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SITE PLAN - GRADING, DRAINAGE & EROSION CONTROL

SHEET C 2.01

⚠ ⚠ ⚠ WETLANDS DISTURBANCE AREA SUMMERY

PERMANENT IMPACT - LAKE
CONSTRUCTION OF BREAKWATER = 1,245 SQ FT (PERMANENT)
CONSTRUCTION OF BREAKWATER = 429 SQ FT (TEMPORARY)
DREDGE AREA FOR BOATHOUSE = 672 SQ FT

PERMANENT IMPACT - LAKE (DOCKING)
PROPOSED PERMANENT DOCKING STRUCTURE = 501 SQ FT

TEMPORARY IMPACT - BANK
AREA SURROUNDING BOATHOUSE, WATER ACCESS STRUCTURE/WALLS AND PATHS TO AFOREMENTIONED FEATURES = 203 SQ FT

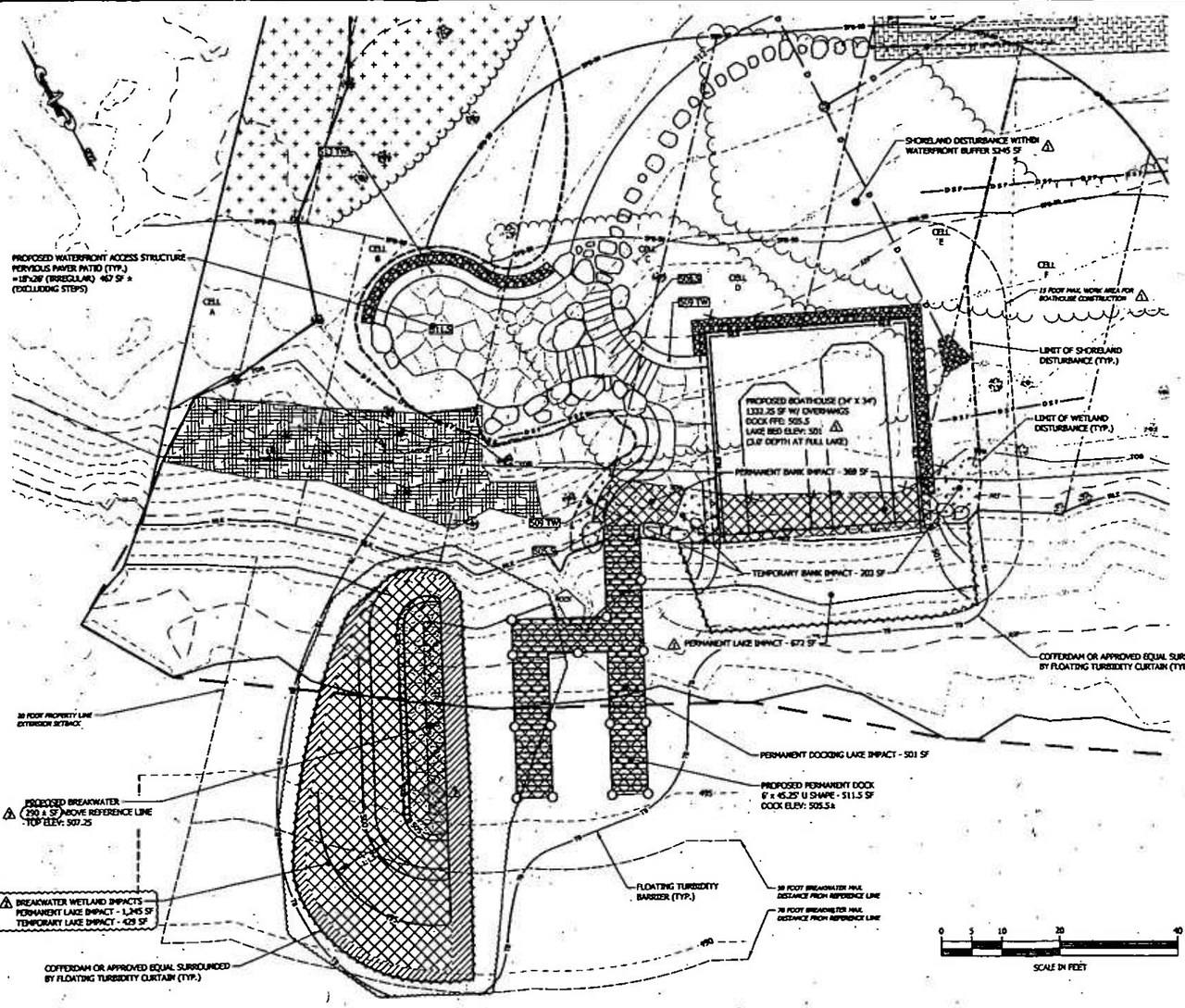
PERMANENT IMPACT - BANK
WATERFRONT ACCESS STRUCTURE/WALLS AND PATHS AND BOATHOUSE ENTRANCE = 369 SQ FT

TOTALS:
PERMANENT = 2,787 SQ FT
TEMPORARY = 632 SQ FT
COMBINED WETLAND IMPACTS = 3,419 SQ FT

TEMPORARY IMPACT AREA

PERMANENT IMPACT AREA

LAKE WINNIPESAUKEE FRONTAGE			
LOT	SHORELINE	PIN TO PIN	AVERAGE
29-5	173	101	137
29-6	139	127	133
29-7	152	145	148
COMBINED LOT	464	373	418



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DATE OF PRINT
AUGUST 03 2022
HORIZONS ENGINEERING

NO.	DATE	REVISION DESCRIPTION	DWG
⚠	4/2022	MORE WETLANDS IMPS	MT
⚠	5/2022	MORE WETLANDS MODIFICATIONS TO ALLOW PERMITTING	CH
⚠	8/2022	GREENWATER DESIGN MODIFICATIONS PER MDES	CH

PROJECT #: 20903
DATE: JAN 2021
SURVEYED BY: —
ENGINEERED BY: WTD
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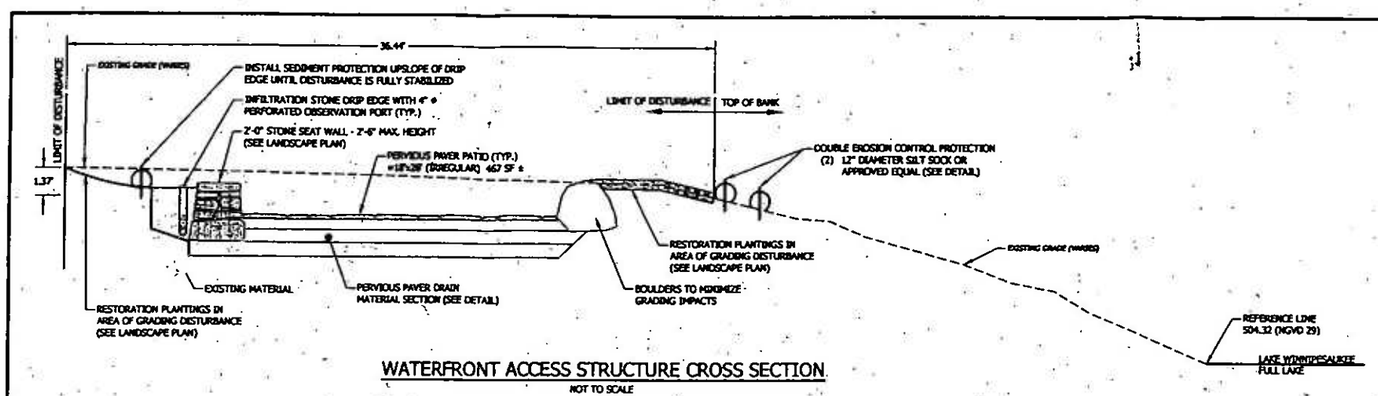
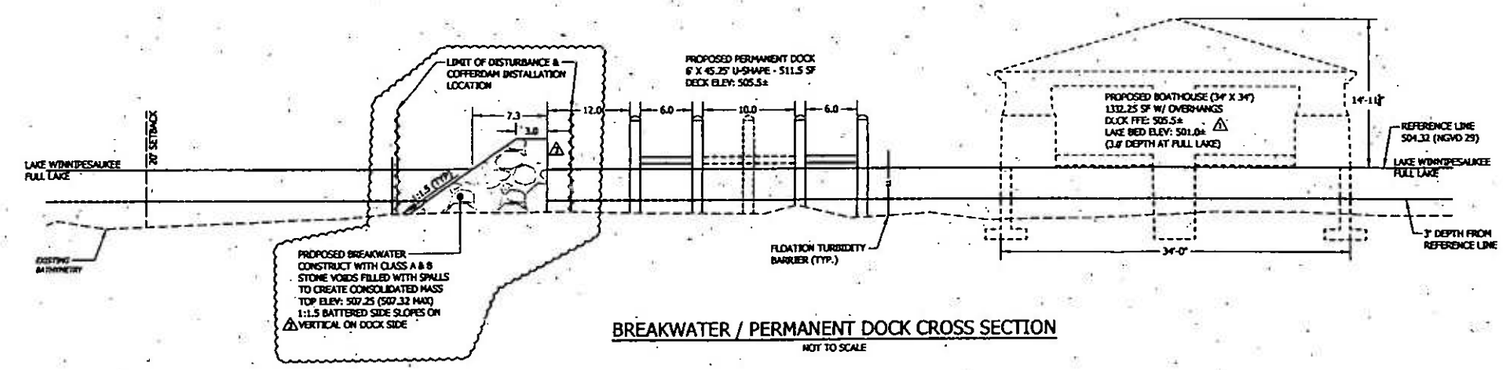
WETLAND IMPACT AREA PLAN

SHEET C 2.04



WATERFRONT ACCESS STRUCTURE CROSS SECTION

NOT TO SCALE



BREAKWATER / PERMANENT DOCK CROSS SECTION

NOT TO SCALE

CONSTRUCTION MATERIAL LIST

BOATHOUSE:

SEE ARCHITECTURAL PLANS

BREAKWATER:

COMBINATION OF CLASS A & B STONE -

CLASS A STONE - SHALL BE IRREGULAR IN SHAPE WITH APPROXIMATELY 50 % OF THE MASS HAVING A MINIMUM VOLUME OF 12 CUBIC FEET, APPROXIMATELY 30 % OF THE MASS RANGING BETWEEN 3 AND 12 CUBIC FEET, APPROXIMATELY 10 % OF THE MASS RANGING BETWEEN 1 AND 3 CUBIC FEET, AND THE REMAINDER OF THE MASS COMPOSED OF SPALLS.

CLASS B STONE - SHALL BE IRREGULAR IN SHAPE WITH APPROXIMATELY 50% OF THE MASS HAVING A MINIMUM VOLUME OF 3 CUBIC FEET, APPROXIMATELY 40% OF THE MASS RANGING BETWEEN 1 AND 3 CUBIC FEET, AND THE REMAINDER OF THE MASS COMPOSED OF SPALLS.

WATERFRONT ACCESS STRUCTURE CONSTRUCTION SEQUENCE

1. CUT AND CLEAR TREES AS INDICATED ON THE PLAN WITHIN THE 50FT WATERFRONT BUFFER. ONLY REMOVE STUMPS WITHIN AREAS OF DIRECT GROUND DISTURBANCE. CUT REMAINING STUMPS FLUSH WITH ROOTS INTACT FOR EROSION CONTROL PURPOSES.
2. INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
3. GRUB AREA WITHIN GRADING LIMITS MAINTAINING AS MUCH NATURAL GROUNDCOVER AS POSSIBLE THROUGHOUT CONSTRUCTION, REMOVING AREA AS NECESSARY.
4. CHECK & ADJUST SEDIMENT FENCE, CHECK DAMS, AND STRAWBALES, AS REQUIRED.
5. CONSTRUCT PERMANENT STORMWATER CONTROLS AS SOON AS PRACTICAL. DO NOT DIRECT STORMWATER TOWARD DRIP EDGES OR PERVIOUS PAVERS UNTIL THE UPSLOPE GROUND HAS BEEN STABILIZED. ENSURE PROPER PERIMETER CONTROLS ARE INSTALLED SURROUNDING DRAINAGE PRACTICES UNTIL STABILIZED.
6. PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. IF WORK IS TO CEASE FOR MORE THAN 7 DAYS ON DISTURBANCE AREA WITHIN THE 50FT WATERFRONT BUFFER, ALL GROUND DISTURBANCE SHOULD BE FULLY STABILIZED.
7. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 3 DAYS OF ACHIEVING FINISHED GRADE. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REGULATIONS REGARDING FERTILIZER USAGE WITHIN THE PROTECTED SHORELAND.
8. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED;
   - A MINIMUM OF 70% VEGETATED GROWTH HAS BEEN ESTABLISHED;
   - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
   - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
9. INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
10. PLACE TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZE DISTURBED AREAS.COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES. MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.
11. MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.
16. RE-FUELING OF EQUIPMENT SHALL ONLY WITHIN WETLANDS JURISDICTIONAL AREAS LOCATED ON THE BARGE OR TIMBER MATS. SECONDARY CONTAINMENT IS REQUIRED FOR REFUELING OPERATIONS AND EMERGENCY SPILL KITS SHOULD BE PLACED ONSITE. FUEL STORAGE SHALL NOT BE WITHIN 50 FEET OF JURISDICTIONAL WETLANDS. DAILY INSPECTIONS OF THE EQUIPMENT SHALL BE CONDUCTED TO ENSURE NO LEAKING FUEL, OIL OR HYDRAULIC OIL IS PRESENT ON THE EQUIPMENT, TIMBER MAT OR DECK OF THE BARGE.

DOCKING STRUCTURE CONSTRUCTION SEQUENCE

1. INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
2. INSTALL TURBIDITY CURTAIN IN LOCATIONS INDICATED ON THE PLAN.
3. INSTALL SHEET PILE COFFERDAM OR APPROVED EQUAL IN AREAS INDICATED ON THE PLAN.
4. DEWATER COFFERDAM - DEWATERING SHOULD BE CONDUCTED LAW LOCAL, STATE AND FEDERAL REGULATIONS. DISCHARGE WATER SHOULD BE DIRECTED TOWARD THE DEWATERING FILTER PAD (SEE DETAIL)
5. CHECK & ADJUST SEDIMENT FENCE, TURBIDITY CURTAIN, DEWATERING SEDIMENT TRAP, ROCK CHECK DAMS AND STRAWBALES, AS REQUIRED.
6. PROCEED WITH WORK ON BREAKWATER AND BOATHOUSE, LIMITING THE DURATION OF DISTURBANCE. IF WORK IS TO CEASE FOR MORE THAN 3 DAYS ON DISTURBANCE AREA WITHIN THE SOFT WATERFRONT BUFFER, ALL GROUND DISTURBANCE SHOULD BE FULLY STABILIZED. AREA OF PERMANENT DOCK SHOULD BE UTILIZED AS BARGE STAGING AREA FOR BREAKWATER AND BOATHOUSE CONSTRUCTION. ALL WORK ON THE BOATHOUSE SHOULD BE DONE OUTSIDE OF THE JURISDICTIONAL AREA.
7. CONSTRUCT PERMANENT STORMWATER CONTROLS AS SOON AS PRACTICAL. DO NOT DIRECT STORMWATER TOWARD DRIP EDGES OR PERVIOUS PAVERS UNTIL THE UPSLOPE GROUND HAS BEEN STABILIZED. ENSURE PROPER PERIMETER CONTROLS ARE INSTALLED SURROUNDING DRAINAGE PRACTICES UNTIL GROUND IS STABILIZED.
8. PROCEED WITH DREDGING FOR THE BOATHOUSE ENTRANCE. DREDGING SHALL OCCUR BETWEEN MAY 1 AND OCTOBER 1. DREDGED MATERIAL TO BE STOCKPILED IN UPLANDS AND DEWATERED IN SEDIMENT BASINS THAT ARE CONTAINED WITH TURBIDITY CONTROLS THAT PREVENT TURBID WATER FROM LEAVING THE BASINS AND LOCATED OUTSIDE AND AS FAR AS POSSIBLE FROM ANY JURISDICTIONAL AREA.
9. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 7 DAYS OF ACHIEVING FINISHED GRADE. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REGULATIONS REGARDING FERTILIZER USAGE WITHIN THE PROTECTED SHORELAND.
10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED;
    - A MINIMUM OF 70% VEGETATED GROWTH HAS BEEN ESTABLISHED;
    - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
    - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
11. REMOVE SHEET PILE COFFERDAMS ONCE CONSTRUCTION IS COMPLETE - INUNDATING THE BOATHOUSE AND BREAKWATER. TURBIDITY CURTAIN MUST REMAIN IN PLACE FOLLOWING THE COFFERDAM REMOVAL UNTIL SUSPENDED PARTICLES HAVE SETTLED AND THE WATER AT THE WORK SITE HAS RETURNED TO NORMAL CLARITY.
12. PROCEED WITH WORK ON PERMANENT DOCK, LIMITING THE DURATION OF DISTURBANCE. TURBIDITY CURTAIN MUST REMAIN IN PLACE AFTER DOCK CONSTRUCTION UNTIL SUSPENDED PARTICLES HAVE SETTLED AND THE WATER AT THE WORK SITE HAS RETURNED TO NORMAL CLARITY.
13. INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
14. PLACE TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZE DISTURBED AREAS.COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES. MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.
15. MONITOR THE SITE AND MAINTAIN STRUCTURESAS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.
16. RE-FUELING OF EQUIPMENT SHALL ONLY WITHIN WETLANDS JURISDICTIONAL AREAS LOCATED ON THE BARGE OR TIMBER MATS. SECONDARY CONTAINMENT IS REQUIRED FOR REFUELING OPERATIONS AND EMERGENCY SPILL KITS SHOULD BE PLACED ONSITE. FUEL STORAGE SHALL NOT BE WITHIN 50 FEET OF JURISDICTIONAL WETLANDS. DAILY INSPECTIONS OF THE EQUIPMENT SHALL BE CONDUCTED TO ENSURE NO LEAKING FUEL, OIL OR HYDRAULIC OIL IS PRESENT ON THE EQUIPMENT, TIMBER MAT OR DECK OF THE BARGE.

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ALGUST 03 2022
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3	8/2022	BREAKWATER DESIGN MODIFICATIONS PER MOBS	CH
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WETLANDS CROSS SECTIONS
AND CONSTRUCTION SEQUENCING

SHEET C 2.05