

LEGEND:

N/F
RP
RECORD OF PROBATE
SCRD
STRAFFORD COUNTY REGISTRY OF DEEDS

11
O
IRON ROD/IRON PIPE FOUND
STONE/CONCRETE BOUND FOUND
BOUNDARY
BUILDING SETBACK

MEAN HIGH WATER LINE

SPOT ELEVATION

MARSH GRASS

EL. ELEVATION

TBM TEMPORARY BENCHMARK

TYP. TYPICAL

WETLAND NOTES:

97x3

- 1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 11/10/2021 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS
 DELINEATION MANUAL. TECHNICAL REPORT Y-87-1
 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE
 CORPS OF ENGINEERS WETLAND DELINEATION
 MANUAL: NORTHCENTRAL AND NORTHEAST REGION,
 VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA—NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
- E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

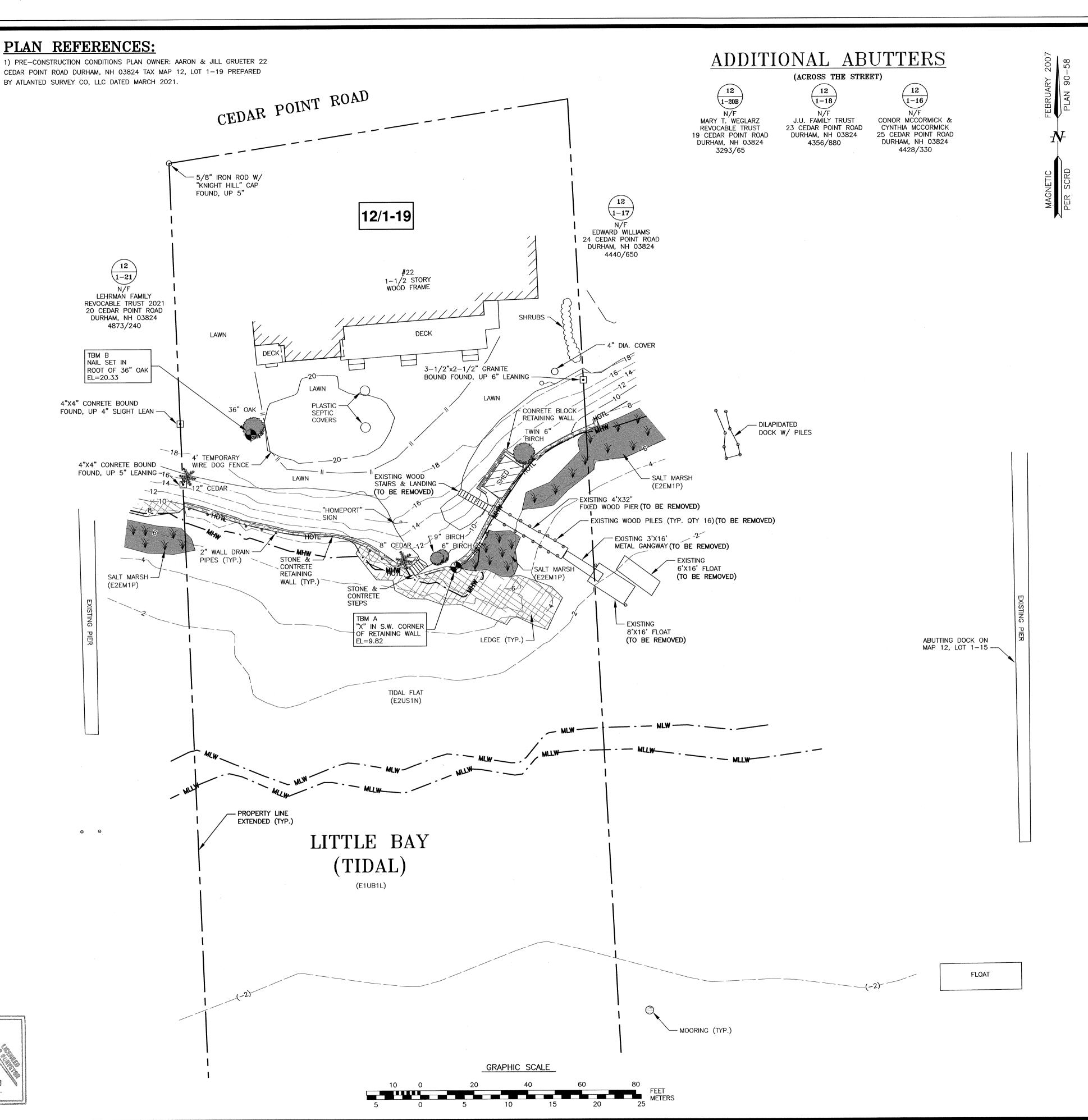
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

2:25.22

DATE

JOHN R. CHAGNON, LLS







AMBIT ENGINEERING, INC.

Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCEL IS SHOWN ON THE TOWN OF DURHAM ASSESSOR'S MAP 12 AS LOT 1-19.

2) OWNER OF RECORD:

AARON GRUETER & JILL GRUETER

22 CEDAR POINT ROAD

DURHAM, NH 03824

4792/380

3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA, ZONE AE (EL. 6), AS SHOWN ON FIRM PANEL 33017C0340E. EFFECTIVE DATE SEPTEMBER 30, 2015.

4) EXISTING LOT AREA:

21,800 S.F. \pm (PER PLAN REFERENCE 1) 0.50 ACRES \pm (PER PLAN REFERENCE 1)

- 5) PARCEL IS LOCATED IN THE RESIDENCE COASTAL (RC) ZONING DISTRICT AND IS SUBJECT TO THE WETLAND CONSERVATION AND SHORELAND PROTECTION OVERLAY DISTRICTS.
- 6) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON A PORTION OF AND ADJACENT TO ASSESSOR'S MAP 12 LOT 1-19 IN THE TOWN OF DURHAM.
- 7) VERTICAL DATUM IS NAVD88 MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS NHDOT BENCHMARK 133-0410. TRANSFORMATION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER, NEW HAMPSHIRE. MLLW BEING 3.93' LOWER THAN 0 NAVD88.
- 8) THIS IS NOT A BOUNDARY SURVEY. BOUNDARY LINES AS SHOWN ARE BASED ON THE REFERENCE PLAN LISTED HEREON. NO DEED RESEARCH OR BOUNDARY DETERMINATION WAS MADE TO CONFIRM OR REFUTE MATTERS SHOWN ON SAID PLANS FOR THE PURPOSES OF THIS PLAN. EASEMENTS, RESERVATIONS, ETC. THAT MAY EXIST ARE NOT SHOWN OR NOTED HEREON.

GRUETER RESIDENCE 22 CEDAR POINT ROAD DURHAM, N.H.

0 ISSUED FOR COMMENT 2/25/22
NO. DESCRIPTION DATE
REVISIONS



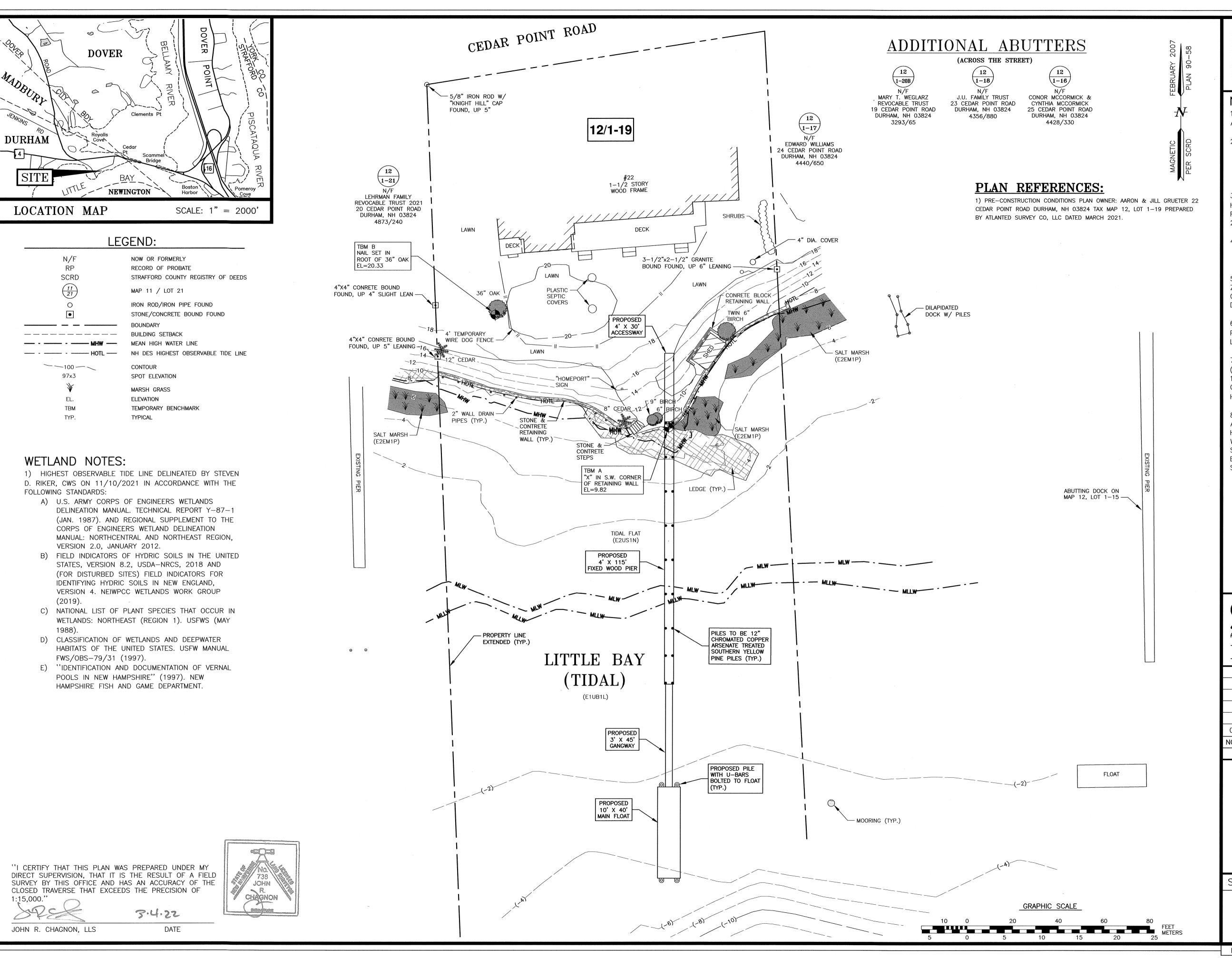
SCALE: 1' = 20'

FEBRUARY 2022

EXISTING CONDITIONS PLAN

FB 374 PG 16

3050.82



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GRUETER RESIDENCE 22 CEDAR POINT ROAD DURHAM, N.H.

0 ISSUED FOR COMMENT 3/4/22
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REVISIONS

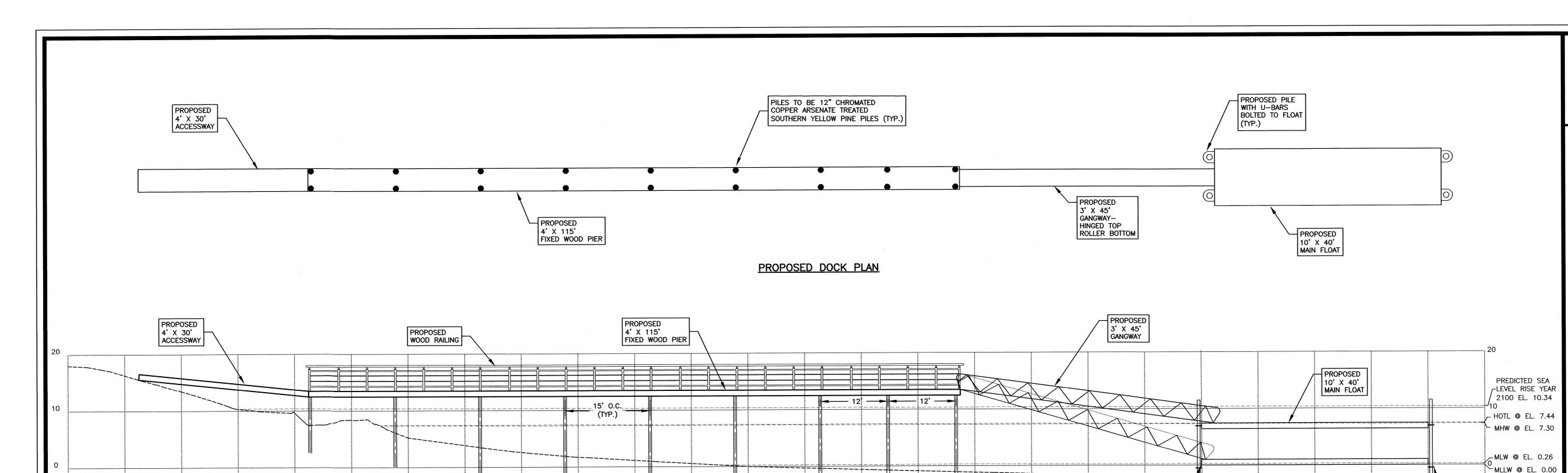


SCALE: 1' = 20'

MARCH 2022

NH DES PERMIT PLAN

C2

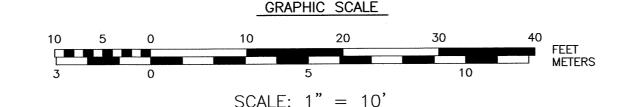


PROPOSED PIER, GANGWAY & FLOAT w/ PILES

PROPOSED DOCK ELEVATION

1+40

1 + 30



SEQUENCE OF CONSTRUCTION

AND INSTALLED.

0+20

0+00

0 + 10

- 1) MOBILIZATION OF A CRANE BARGE, PUSH BOAT, WORK SKIFF, MATERIALS AND PREFABRICATED COMPONENTS SUCH AS THE GANGWAY AND FLOAT TO THE SITE VIA APPROVED ACCESS.
- 2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.

 3) THE BARGE WILL BE POSITIONED ALONGSIDE THE PROPOSED LOCATION OF THE NEW DOCK AND WATERWARD OF ANY EMERGENT VEGETATION TO MINIMIZE IMPACTS

 4) INSTALLATION OF THE SUB-STRUCTURE WILL BE PERFORMED FROM A CRANE BARGE OR
- 4) INSTALLATION OF THE SUB STRUCTURE WILL BE PERFORMED FROM A CRANE BARGE OR SKIFF TO REDUCE THE AMOUNT OF FOOT TRAFFIC IN THE INTERTIDAL AREA.
 5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.
- PILINGS WILL BE MECHANICALLY DRIVEN BY A CRANE ELIMINATING ANY EXCAVATION FOR INSTALLATION OF THE PILINGS. PILING ARE DRIVEN TO REFUSAL.
 PILINGS ARE CUT AND BEAM CAPS ARE INSTALLED AND THE SUPER STRUCTURE OF THE PIER IS BUILT. MATERIALS ARE LIFTED FROM THE BARGE AND SET INTO POSITION
- BY THE CRANE.

 8) ONCE THE PIER IS COMPLETE, THE GANGWAY AND FLOAT ARE BROUGHT INTO POSITION.

DISCHARGES. AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORPS AND AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACOE AND AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

UNLESS SPECIFICALLY AUTHORIZED USACOE AND AND NHDES, NO WORK SHALL DRAIN A
 WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE
 SURFACE.

HEAVY EQUIPMENT IN FRESH WATER WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS. UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION: IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDUROY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE

0 + 70

0+60

0+50

0+80

0+90

SOUTHERN YELLOW PINE PILES (TYP.)

PILES TO BE 12" CHROMATED

COPPER ARSENATE TREATED

1+00

1+10

1 + 20

- I. PILES INSTALLED IN-THE-DRY DURING LOW WATER OR IN-WATER BETWEEN NOV. 8TH APR. 9TH, OR
 II. MUST BE DRILLED AND PINNED TO LEDGE, OR
- III. VIBRATORY HAMMERS USED TO INSTALL ANY SIZE AND QUANTITY OF WOOD, CONCRETE OR STEEL PILES, OR

 IV. IMPACT HAMMERS LIMITED TO ONE HAMMER AND <50 PILES INSTALLED/DAY WITH THE
- IV. IMPACT HAMMERS LIMITED TO ONE HAMMER AND <50 PILES INSTALLED/DAY WITH THE FOLLOWING: WOOD PILES OF ANY SIZE, CONCRETE PILES ≤18—INCHES DIAMETER, STEEL PILES 12—INCHES DIAMETER IF THE HAMMER IS ≤3000 LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.

 FOR II—IV ABOVE:
- I. IN-WATER NOISE LEVELS SHALL NOT >187dB SEL RE ΙμΡα OR 206dB PEAK RE ΙμΡα AT A DISTANCE >10M FROM THE PILE BEING INSTALLED, AND
 II. IN-WATER NOISE LEVELS >155dB PEAK RE ΙμΡα SHALL NOT EXCEED 12 CONSECUTIVE

HOURS ON ANY GIVEN DAY AND A 12 HOUR RECOVERY PERIOD (I.E., IN-WATER NOISE BELOW 155dB PEAK RE IµPa) MUST BE PROVIDED BETWEEN WORK DAYS.

WORK SITE RESTORATION 1 UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND

- UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- PROHIBITED.

 IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL

 BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT

 DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO

THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS

ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING

SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH

THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY

REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.

WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE—CONSTRUCTION ELEVATION.

SEDIMENTATION AND EROSION CONTROL

THE SAME, UNLESS AUTHORIZED.

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON—SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS.

DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON—STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

1+50

1+60

1+80

OF FLOAT

1+90

2.2 FEET OF DEPTH

ON NORTHERN END

1+70

STORAGE OF SEASONAL STRUCTURES

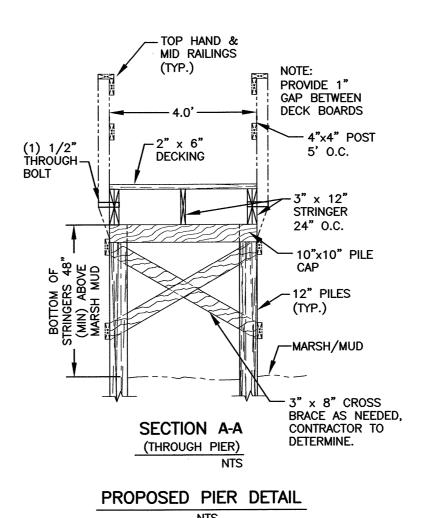
COASTAL STRUCTURES SUCH AS PIER SECTIONS, FLOATS, ETC., THAT ARE REMOVED FROM THE WATERWAY FOR A PORTION OF THE YEAR (OFTEN REFERRED TO AS SEASONAL STRUCTURES) SHALL BE STORED IN AN UPLAND LOCATION, LOCATED ABOVE HIGHEST OBSERVABLE TIDE LINE (HOTL) AND NOT IN TIDAL WETLANDS. THESE SEASONAL STRUCTURES MAY BE STORED ON THE FIXED, PILE—SUPPORTED PORTION OF THE STRUCTURE THAT IS SEAWARD OF HOTL. THIS IS INTENDED TO PREVENT STRUCTURES FROM BEING STORED ON THE MARSH SUBSTRATE AND THE SUBSTRATE SEAWARD OF MHW.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACOE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/ FOR CONTROL

<u>INSPECTIONS</u>

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST—CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK, AND POST—DREDGING SURVEY DRAWINGS FOR ANY DREDGING WORK.



2+30

2+10

2+20

2+50

(TYP.)

PILE WITH U-BARS

BOLTED TO FLOAT

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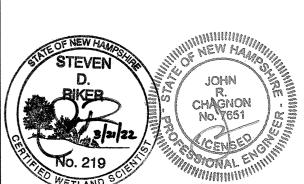
NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY WITHIN 100 FEET OF UNDERGROUND UTILITIES. THE EXCAVATOR IS RESPONSIBLE TO MAINTAIN MARKS. DIG SAFE TICKETS EXPIRE IN THIRTY DAYS.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER
- 3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
- 4) NUMBER OF PILES TO BE DRIVEN FOR DOCKING STRUCTURE NOT TO EXCEED 22 PILES AS DEPICTED ON PROPOSED DOCK ELEVATION. ALSO NOTE TIME OF YEAR AND NOISE RESTRICTIONS FOR DRIVING OF PILES.
- 7) VERTICAL DATUM IS NAVD88 MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS NHDOT BENCHMARK 133-0410. TRANSFORMATION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER, NEW HAMPSHIRE. MLLW BEING 3.93' LOWER THAN 0 NAVD88

GRUETER RESIDENCE 22 CEDAR POINT ROAD DURHAM, N.H.

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SCALE: AS SHOWN

MARCH 2022

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DOCK DETAILS **C**3

FB 374 PG 16