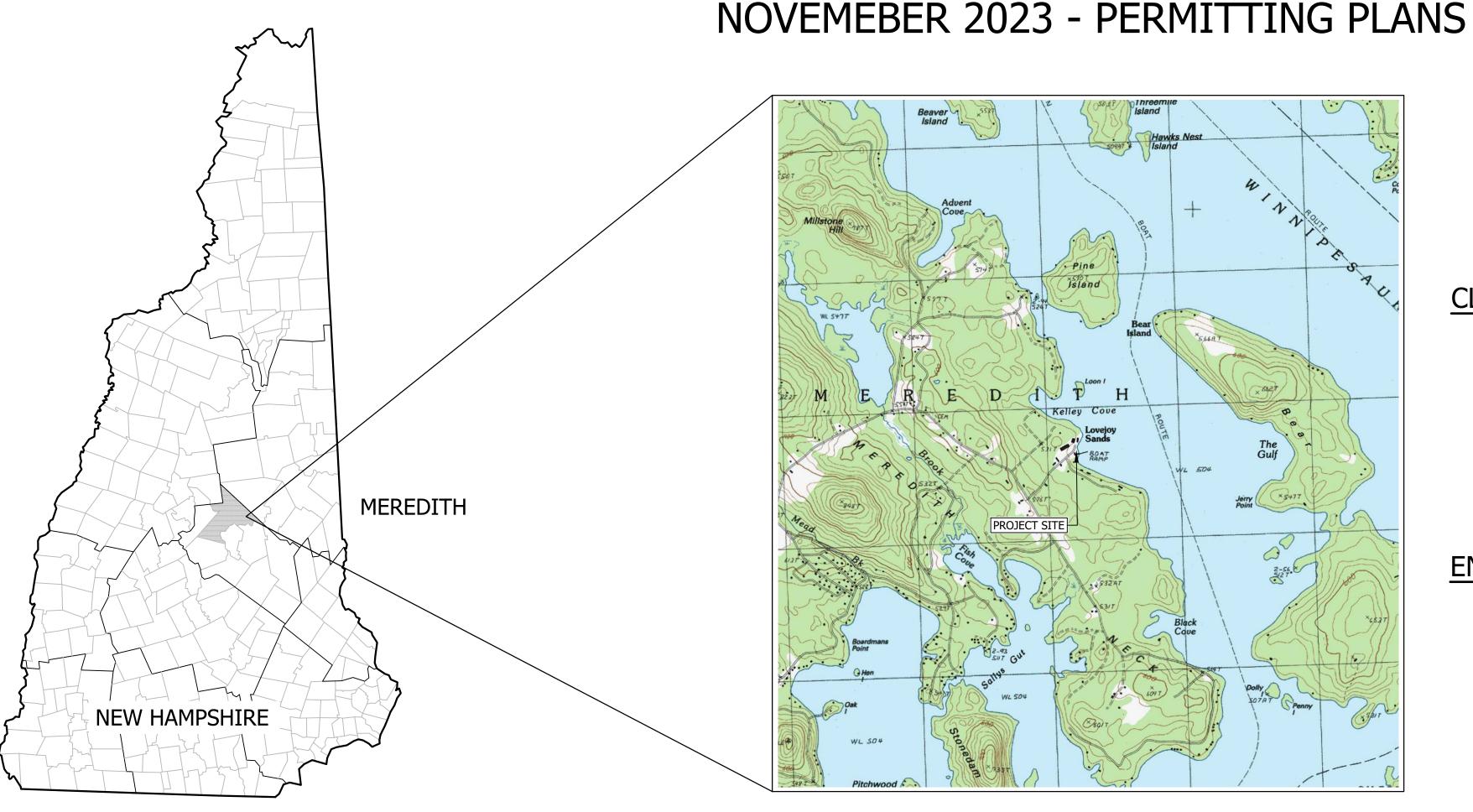
# GOODHUE MEREDITH REAL PROPERTY, LLC

# 31 LOVEJOY SANDS ROAD - COMMERCIAL BOAT LAUNCH AND NEGATIVE LIFT IMPROVEMENTS

MEREDITH, NEW HAMPSHIRE TAX MAP U35 LOTS 8A & 11 ZONING DISTRICT - SHORELINE "S"



## LOCATION PLAN

SCALE: 1" = 2000'

## **CIVIL SHEET LIST:**

## **COVER**

OVERVIEW, GENERAL NOTES AND LEGEND

**EXISTING CONDITIONS PLAN** 

SITE PLAN NOTES AND LOCAL & STATE TABLES

C2.1 PROPOSED COMMERCIAL BOAT RAMP & NEGATIVE LIFT PLAN & PROFILE

C2.2 DOCKING RECONFIGURATION PLAN

C3.1 **EROSION CONTROL NOTES AND DETAILS** 

C3.2 BOAT RAMP DETAILS

C3.3 CONSTRUCTION DETAILS

THIS PROJECT SHALL COMPLY WITH ALL CONDITIONS OF ALL PERMITS FOR THE

CONSTRUCTION. COPIES OF THESE PERMITS MAY BE REQUESTED FROM THE

PROJECT. OWNER SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO

WETLANDS PERMIT - MINOR IMPACT SHORELAND IMPACT

HORIZONS ENGINEERING NEW LONDON OFFICE.

PERMIT APPROVALS

TOWN OF MEREDITH

**NHDES** 

TO BE COORDINATED

## PENDING PENDING

## SEE ALSO BY AMES ASSOCIATES

-BOUNDARY PLAN (AS RECORDED IN BELKNAP COUNTY REGISTRY OF DEEDS) -CERTIFIED TOPOGRAPHICAL AND WETLAND DELINEATION PLAN

## **CLIENT & OWNER:**

GOODHUE MEREDITH REAL PROPERTY, LLC 31 LOVEJOY SANDS ROAD MEREDITH, NH 03253 (603) 279-4573

## **ENGINEER:**

## horizons

Engineering 176 NEWPORT ROAD SUITE 8 NEW LONDON, NH 03766 (603) 877-0116

## **FUNCTIONAL ASSESSMENT CONSULTANT:**

AMBIT ENGINEERING, INC. 200 GRIFFIN, UNIT 3 PORTSMOUTH, NH 03801

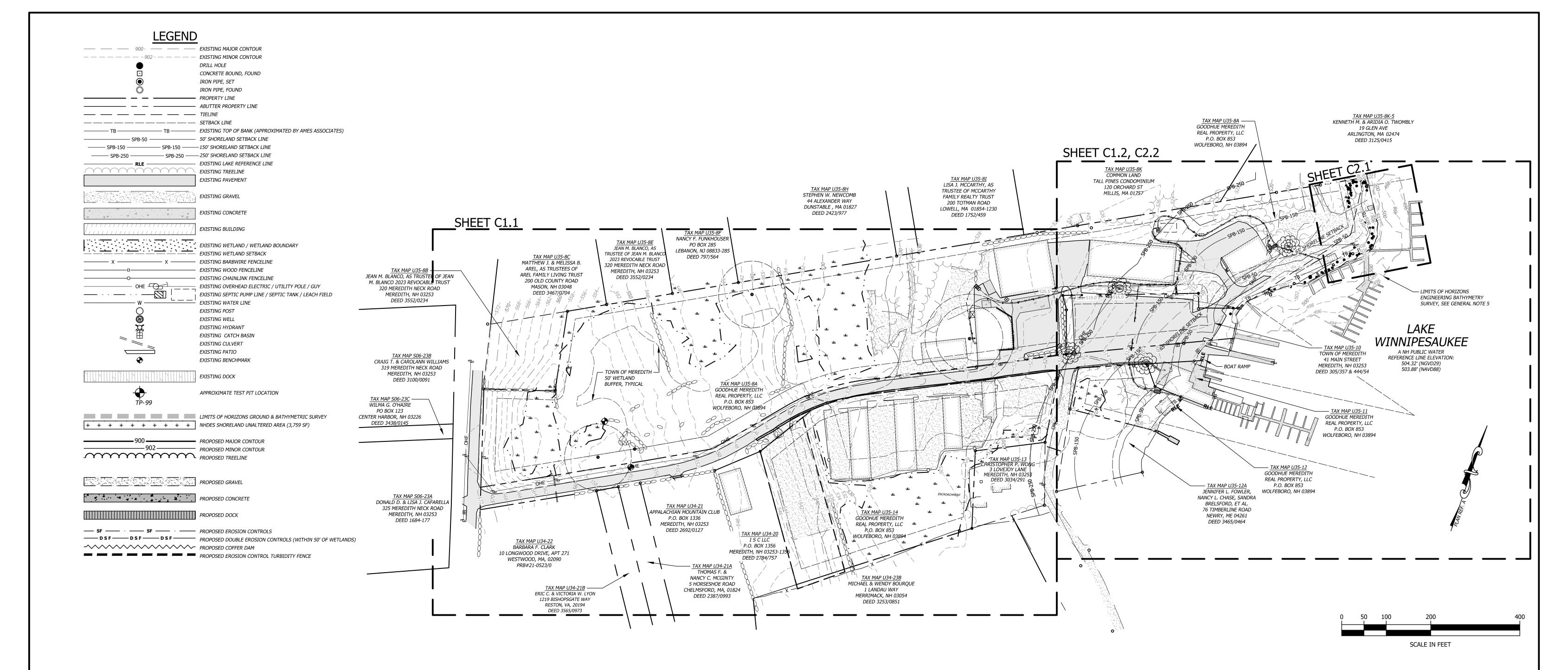
## **SURVEYOR &**

**WETLAND SCIENTIST:** AMES ASSOCIATES 164 NH Route 25 MEREDITH, NH 03253 (603) 279-5705

## **SOIL SCIENTIST:**

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

> DATE OF PRINT NOVEMBER 13 2023 HORIZONS ENGINEERING



## **GENERAL NOTES**

WOLFEBORO, NH 03894

## OWNER OF RECORD:

GOODHUE MEREDITH REAL PROPERTY, LLC PO BOX 853

- RECORDS DEED(S):
- (A) DEED BOOK 3123 PAGE 110 RECORDED IN THE BELKNAP COUNTY REGISTRY OF DEEDS PLAN BOOK L78 PAGE 65, PAGE 1 OF 1.
- 3. PLAN REFERENCE(S):
- (A) "BOUNDARY SURVEY LAND OF DEEPWATER MARINE MANAGEMENT, INC. TAX MAP U35, LOST 8A, 11, 12 &14" PREPARED BY AMES ASSOCIATES DATED JULY 25, 2017 (AMES PROJECT NO. "DEEPWATER MARINE U35-8A"), RECORDED IN THE BELKNAP COUNTY REGISTRY OF DEEDS PLAN BOOK L78 PAGE 65, PAGE 1 OF 1.
- (B) "TOPOGRAPHICAL & WETLAND DELINEATION PLAN LAND OF GOODHUE & HAWKINS NAVY YARD TAX MAP U35, LOST 8A, 11, 12 & 14" PREPARED BY AMES ASSOCIATES DATED JULY 19, 2018 (AMES PROJECT NO. "GOODHUE &
- (C) A DRAFT PLAN (NOT RECORDED) TITLED "BOUNDARY LINE ADJUSTMENT SURVEY, LAND OF GOODHUE MEREDITH REAL PROPERTY LLC - TAX MAP U35, LOT 8A & 11 & TOWN OF MEREDITH - TAX MAP U35, LOT 10" PREPARED BY AMES ASSOCIATES DATED NOVEMBER 16, 2022 (AMES PROJECT NO. "BLA GHNY & MEREDITH").
- 4. BASE MAP INFORMATION INCLUDING BOUNDARY, TOPOGRAPHY AND WETLANDS ON THESE PLANS IS TAKEN FROM PLAN REFERENCE A, B AND C.
- 5. TOPOGRAPHY SHOWN IN THE PUBLIC WATERS OF LAKE WINNIPESAUKE IS BASED ON BATHEMETRY MEASUREMENTS TAKEN BY HORIZONS ENGINEERING, INC IN FEBRUARY 2021.
- 6. THE WORD "CERTIFY" OR "CERTIFICATION" AS SHOWN AND USED HEREON MEANS COMPLIANCE WITH APPLICABLE LAND SURVEY LAWS AND RULES AND AN EXPRESSION OF PROFESSIONAL OPINION BASED ON THE FACTS OF THE SURVEY, PRINCIPLES OF BOUNDARY RETRACEMENT AND LOCAL STANDARD OF CARE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.

7. THE SUBJECT PROPERTY IS MAPPED AS BEING WITHIN THE TOWN OF MEREDITH SHORELINE ZONING DISTRICT

## MINIMUM STANDARDS FOR SHORELINE DISTRICT:

40,000 SQUARE FEET WIDTH: 150 FEET FRONT SETBACK: 65 FEET FROM SHORELINE HIGHWAY SETBACK: 30 FEET FROM PROPERTY LINE SIDE SETBACK: 20 FEET REAR SETBACK: 30 FEET FROM PROPERTY LINE MAX. HEIGHT: 38 FEET MAX. COVERAGE: 30%

- THE SITE SPECIFIC SOIL SURVEY WAS PRODUCED 23 JUNE, 2020, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC. THE SURVEY AREA IS LOCATED ON LOVEJOY SANDS, MEREDITH, NH. THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP.SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH. ISSUE # 10, JANUARY 2011 HYDROLOGIC SOIL GROUP FROM KSAT VALUES FOR NEW HAMPSHIRE SOILS, SOCIETY OF SOIL SCIENTISTS OF NEW ENGLAND, SPECIAL PUBLICATION NO. 5, SEPTEMBER, 2009.
- UTILITY LOCATIONS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF EXISTING UTILITIES AND SHALL REPAIR ANY DAMAGE AS QUICKLY AS POSSIBLE AT HIS OWN EXPENSE. ALL UTILITIES ENCOUNTERED SHALL BE LOCATED BY DEPTH AND TIES AND SHOWN BY THE CONTRACTOR ON HIS "AS BUILT" DRAWINGS. HAND EXCAVATION SHALL BE DONE WHEREVER UNDERGROUND UTILITIES ARE SHOWN OR ANTICIPATED. THE CONTRACTOR SHALL CONTACT DIG SAFE AND THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION IN ORDER TO VERIFY EXISTING CONDITIONS AND UTILITY LOCATIONS.
- 10. HORIZONS ENGINEERING DID NOT PERFORM TEST PIT NUMBER 9 IN JUNE 2021 AND IS NOT SHOWN ON THESE PLANS.

- 11. NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- 12. ALL WORK SHALL BE PERFORMED WITHIN THE PROPERTY OF, AND EASEMENTS SECURED BY, THE OWNER.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DATA COLLECTION AND PREPARATION OF RECORD DRAWINGS.
- 14. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTROLLING EROSION IN ALL AREAS DISTURBED BY HIS ACTIONS. COSTS FOR REQUIRED EROSION CONTROL, REGARDLESS OF WHETHER OR NOT SUCH MEASURES ARE SHOWN ON THE ENGINEERING DRAWINGS, SHALL BE BORNE BY HIM.



GOODHUE MEREDITH, LLC 31 LOVEJOY SANDS ROAD COMMERCIAL BOAT LAUNCH AND

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NEGATIVE LIFT IMPROVEMENTS MEREDITH, NEW HAMPSHIRE

TAX MAP U35 LOTS 8A & 11SHORELINE "S" DISTRICT OVERVIEW PLAN

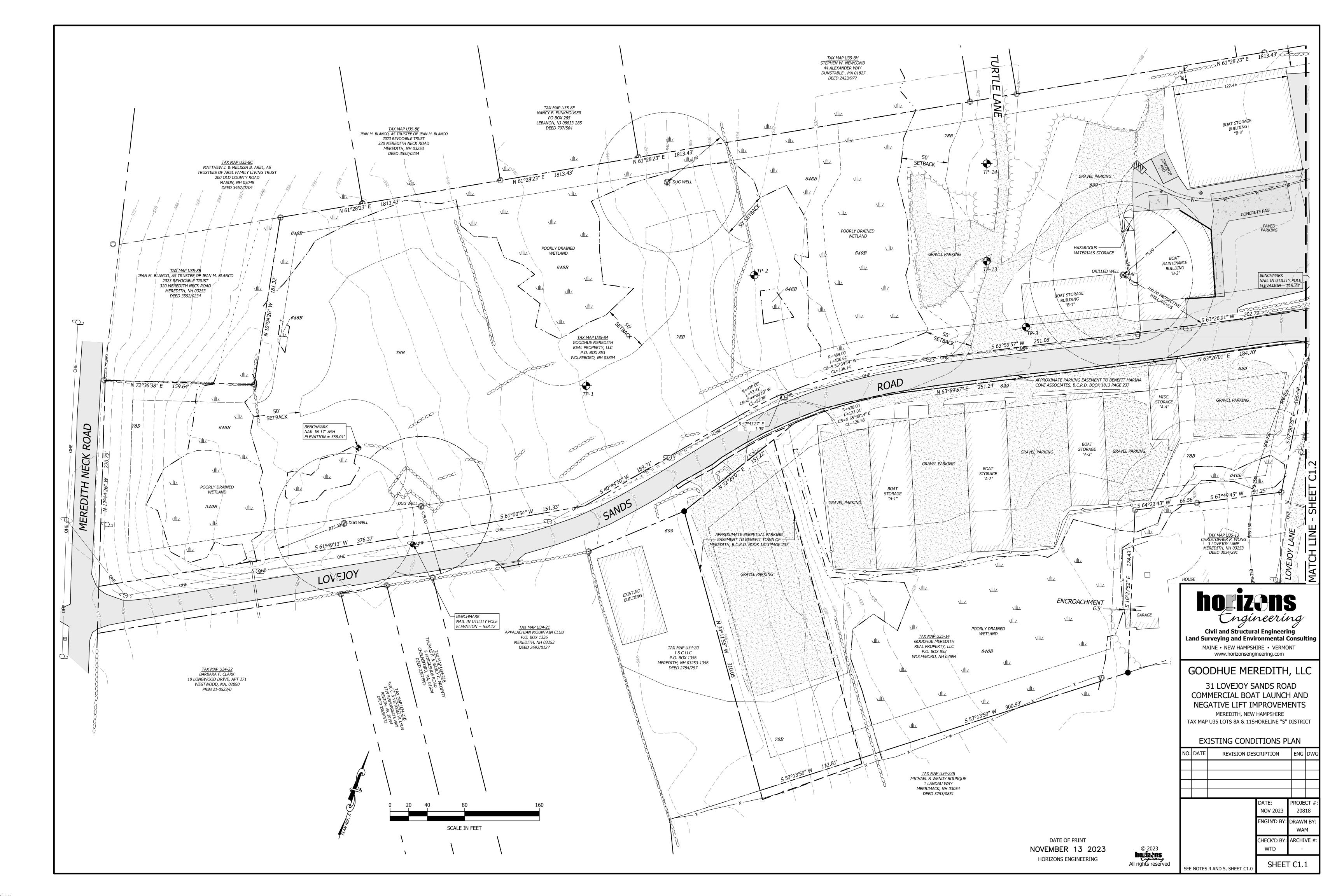
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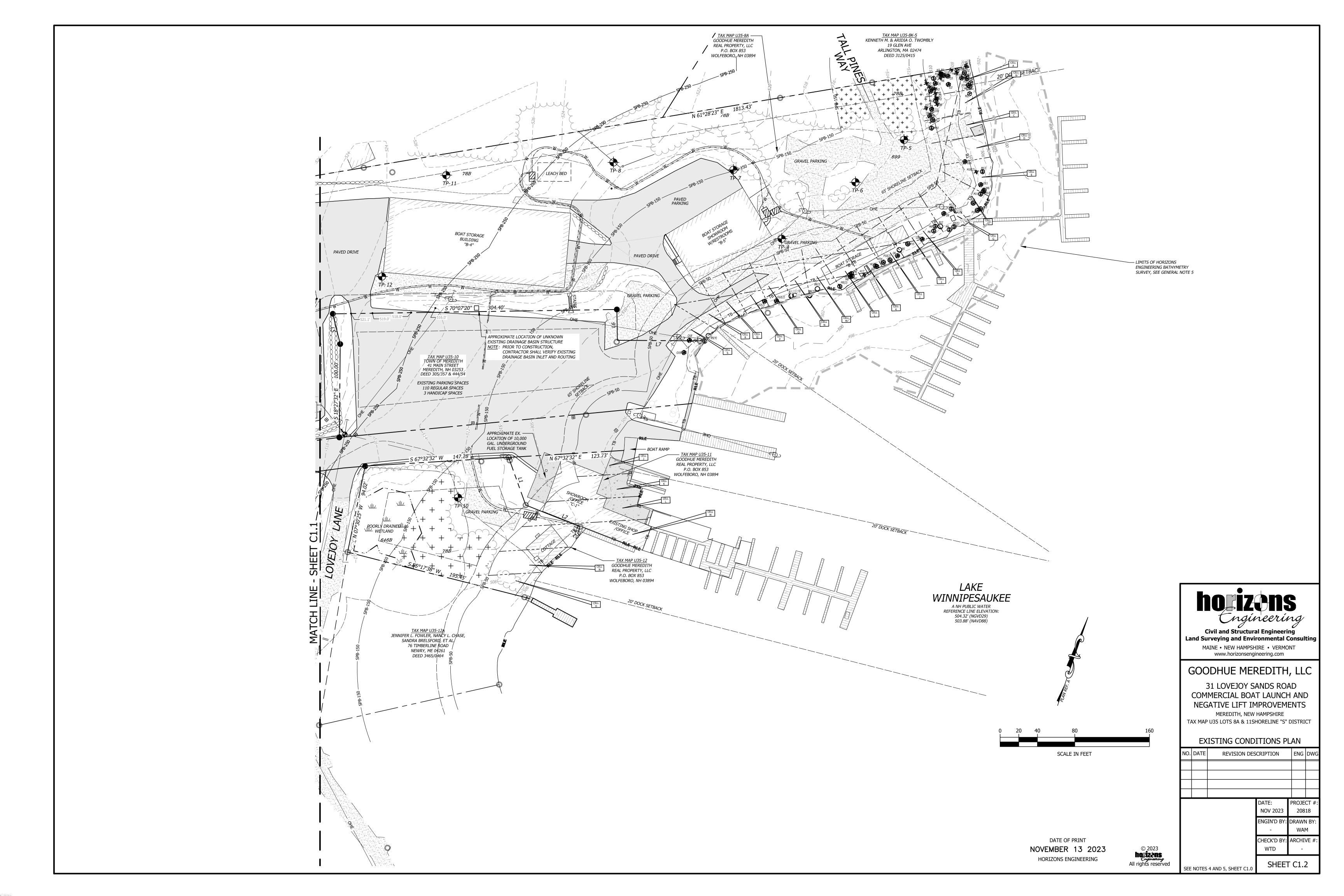
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SEE NOTES 4 AND 5, SHEET C1.0

DATE OF PRINT NOVEMBER 13 2023 HORIZONS ENGINEERING







## SITE PLAN NOTES

1. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS. PRIOR TO CONSTRUCTION, OWNER SHALL OBTAIN ALL LOCATE, STATE AND FEDERAL PERMITS AS APPLICABLE TO THE PROJECT.

PROJECT IMPACTS ARE SUCH THAT NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) SHORELAND AND WETLAND PERMITS ARE REQUIRED. JURISDICTIONAL IMPACTS SHOWN HAVE BEEN CALCULATED BASED ON THE APPARENT TOP OF BANK. SEE ALSO SHEET C1.0, GENERAL NOTE 4.

2. NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.

3. ALL WORK SHALL BE PERFORMED WITHIN THE PROPERTY OF, AND EASEMENTS SECURED BY, THE OWNER.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DATA COLLECTION AND PREPARATION OF RECORD DRAWINGS.

6. UTILITY LOCATIONS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE

5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTROLLING EROSION IN ALL AREAS DISTURBED BY HIS ACTIONS. COSTS FOR REQUIRED EROSION CONTROL, REGARDLESS OF WHETHER OR NOT SUCH MEASURES ARE SHOWN ON THE ENGINEERING DRAWINGS, SHALL BE BORNE BY HIM.

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CELL	1" to 3"	>3" to 6"	>6" to 12"	>12"	POINT
SEGMENT	1 pt each	5 pts each	10 pts each	15 pts each	TOTALS
А	15	5	3	2	100
В	4	1	3	0	39
С	0	0	2	0	20
D	0	0	0	0	0
Е	0	1	2	4	85
F	0	0	2	2	50
G	0	6	3	1	75
Н	0	2	0	1	25
I	0	1	0	1	20
J	0	1	2	1	40
K	0	0	2	1	35
L	0	6	1	0	40
М	0	6	0	0	30
N	0	5	0	0	25
0	0	0	2	0	20
Р	0	0	2	0	20
Q	0	0	0	0	0
R	0	0	0	0	0
S	0	4	0	1	35

\*MINIMUM TREE SCORE OF AT LEAST 25 POINTS SHALL BE MAINTAINED FOR EACH 25'x50' SEGMENT.

NHDES TREE COUNT SUMMARY POST-CONSTRUCTION							
CELL 1" to 3" >3" to 6"			1" to 3" >3" to 6" >6" to 12" >12"	>12"	POINT	CHANGE IN	
SEGMENT	1 pt each	5 pts each	10 pts each	15 pts each	TOTALS	POINTS	
Α	15	5	3	2	100	0	
В	4	1	3	0	39	0	
С	0	0	2	0	20	0	
D	0	0	0	0	0	0	
E	0	1	2	0	25	-60	
F	0	0	2	2	50	0	
G	0	6	3	1	75	0	
Н	0	2	0	1	25	0	
I	0	1	0	1	20	0	
J	0	1	2	1	40	0	
K	0	0	2	1	35	0	
L	0	6	1	0	40	0	
М	0	6	0	0	30	0	
N	0	5	0	0	25	0	
0	0	0	2	0	20	0	
Р	0	0	2	0	20	0	
Q	0	0	0	0	0	0	
R	0	0	0	0	0	0	
S	0	4	0	1	35	0	

\*MINIMUM TREE SCORE OF AT LEAST 25 POINTS SHALL BE MAINTAINED FOR EACH 25'x50' SEGMENT.

<b>NHDES UNALTERED STATE CALCULATION - LOT 8A</b>					
CALCULATION	AREA (SF)				
TOTAL UNALTERED AREA 50' TO 150' BUFFER	3,759				
TOTAL LOT AREA 50' TO 150' BUFFER	44,789				
25% OF TOTAL LOT AREA 50' TO 150' BUFFER	11,197				
MINIMUM AREA TO REMAIN UNALTERED	3,759				

PRE-CONSTRUCTION IMPERVIOUS AREA - LOT 8A				
STRUCTURE	AREA (SF)			
PRIMARY STRUCTURES	14,062			
ACCESSORY STRUCTURES	0			
DRIVEWAYS	41,480			
WALKWAYS, RETAINING WALLS, CONCRETE PADS	29			
TOTAL IMPERVIOUS W/IN 250' BUFFER	55,571			
TOTAL LOT AREA W/IN 250' BUFFER	99,421			
PRE-CONSTRUCTION % COVERAGE	55.9%			
TOTAL IMPERVIOUS W/IN 50' BUFFER	11,114			

NOTE: AREAS CALCULATED ABOVE TOP OF BANK WETLAND JURISDICTION, PER 1406.02(b)(2).

NHDES UNALTERED STATE CALCULATION - LOT 8A				
CALCULATION	AREA (SF)			
TOTAL UNALTERED AREA 50' TO 150' BUFFER	3,759			
TOTAL LOT AREA 50' TO 150' BUFFER	44,789			
25% OF TOTAL LOT AREA 50' TO 150' BUFFER	11,197			
MINIMUM AREA TO REMAIN UNALTERED	3,759			
POST-CONSTRUCTION UNALTERED AREA	3,759			

POST-CONSTRUCTION IMPERVIOUS AREA - LOT 8A				
STRUCTURE	AREA (SF)			
PRIMARY STRUCTURES	14,062			
ACCESSORY STRUCTURES	0			
DRIVEWAYS	41,446			
WALKWAYS, RETAINING WALLS, CONCRETE PADS	53			
TOTAL IMPERVIOUS W/IN 250' BUFFER	55,561			
TOTAL LOT AREA W/IN 250' BUFFER	99,421			
POST-CONSTRUCTION % COVERAGE	55.9%			
TOTAL IMPERVIOUS W/IN 50' BUFFER	11,384			

NOTE: AREAS CALCULATED ABOVE TOP OF BANK WETLAND JURISDICTION, PER 1406.02(b)(2).



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## GOODHUE MEREDITH, LLC

31 LOVEJOY SANDS ROAD SITE IMPROVEMENTS MEREDITH, NEW HAMPSHIRE

TAX MAP U35 LOTS 8A & 11 ZONING DISTRICT - SHORELINE "S"

SITE PLAN NOTES AND LOCAL AND STATE TABLES

NO.	DATE	REVISION DESCRIPTION	ENG	DWG

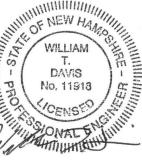
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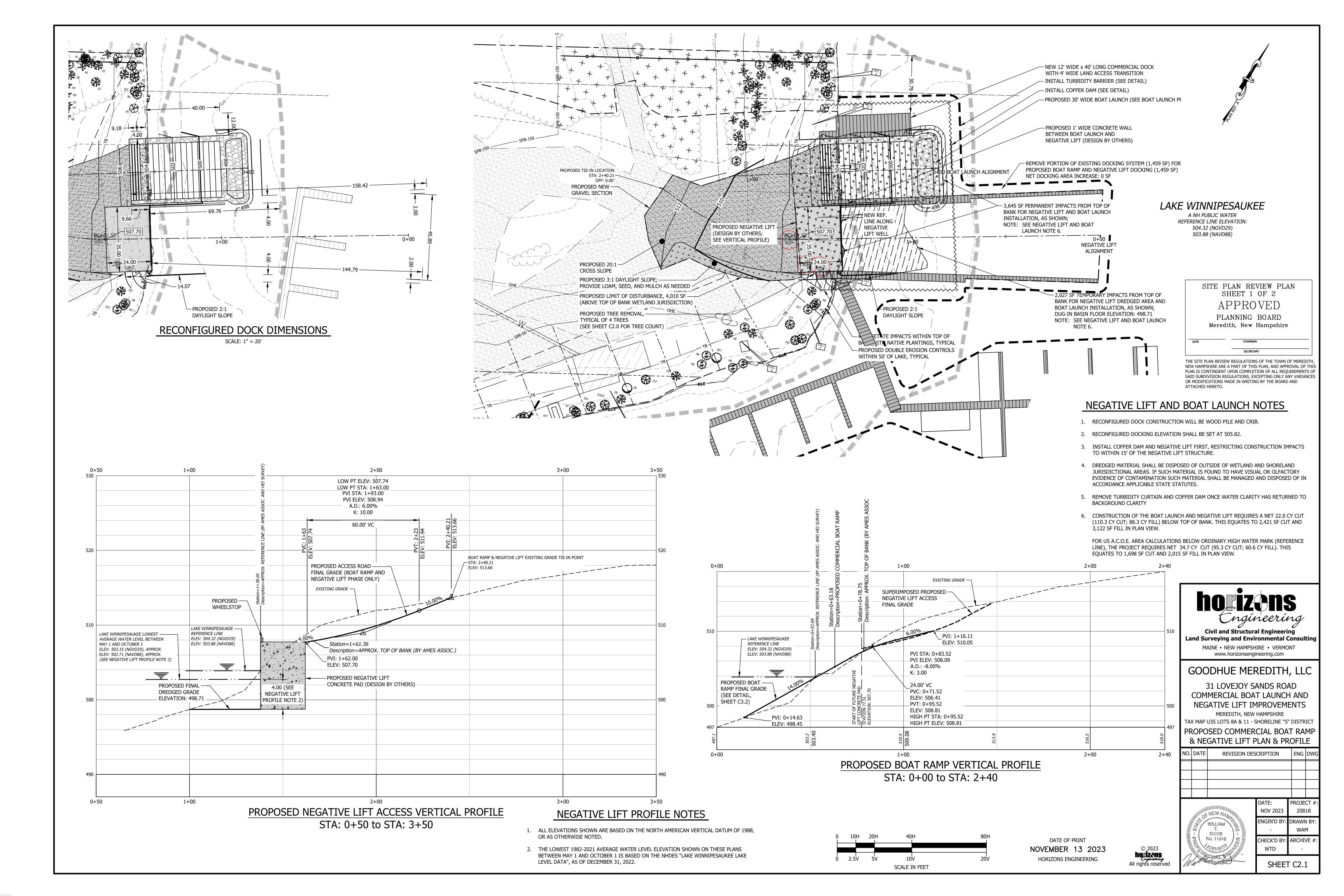
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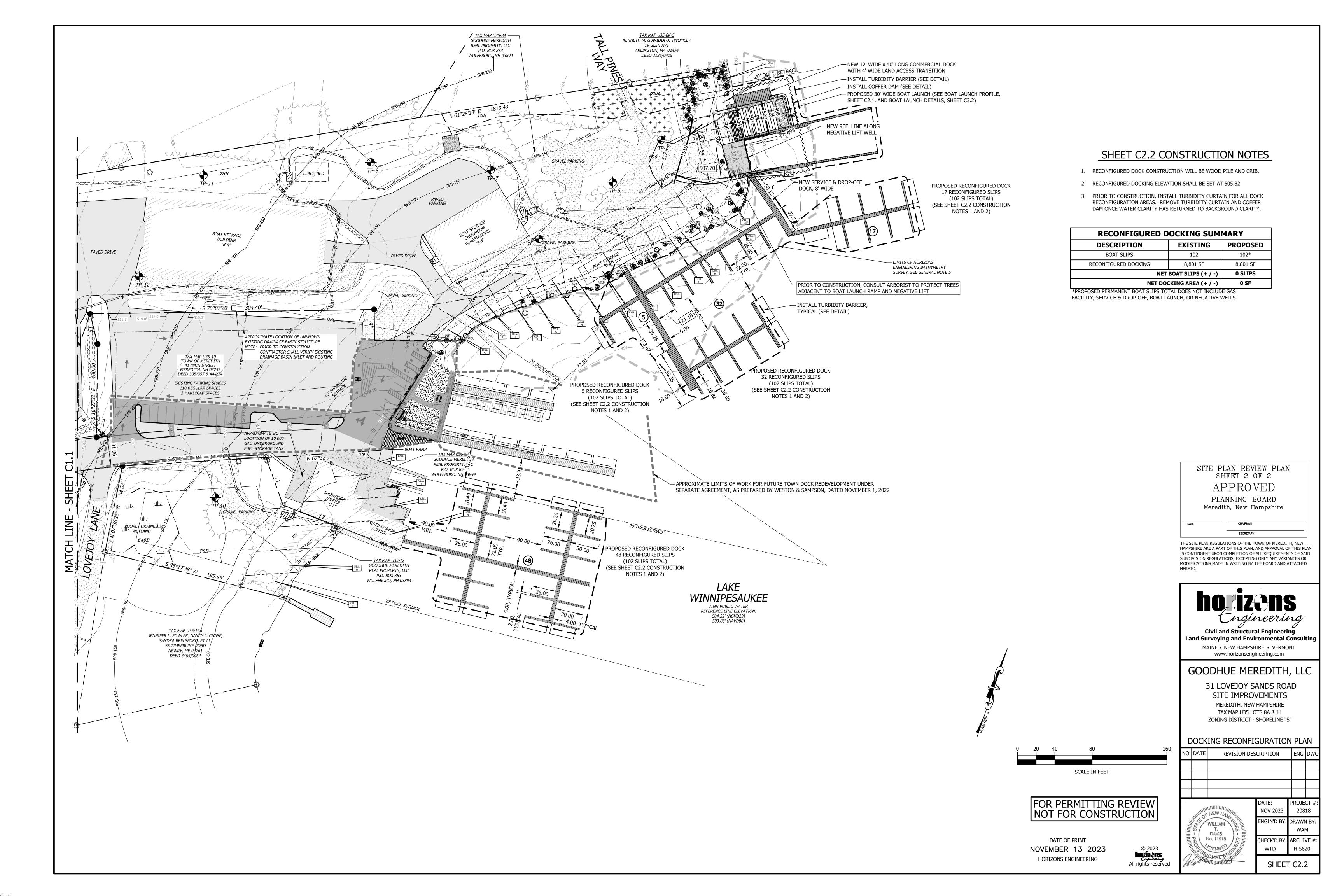
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## **SEEDING RECOMMENDATIONS**

#### 1. GRADING AND SHAPING

A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

#### 2. SEEDBED PREPARATION

A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.

B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE AMENDED WITH ORGANIC MATTER AND TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME THOROUGHLY INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER

#### 3. ESTABLISHING VEGETATION

A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:

-AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ. FT. -NITROGEN (N), 50 LBS., PER ACRE OR 1.1 LBS. PER 1,000 SQ. FT.

-PHOSPHATE  $(P_2O_5)$ , 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT. -POTASH ( $K_20$ ), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ. FT.

(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF

B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

#### C. SEEDING GUIDE:

	SEEDING		SOIL TYPE		
USE	MIXTURE (SEE 3D)	DROUGHTY	WELL DRAINED	MOD. WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A B C	FAIR POOR FAIR	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR FAIR POOR
WATERWAYS, EMERGENCY SPILL- WAYS, AND OTHER CHANNELS WITH FLOWING WATER	А	GOOD	GOOD	GOOD	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A B	GOOD GOOD	GOOD GOOD	GOOD FAIR	FAIR POOR

#### D. SEEDING RATES:

	MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT
Α	TALL FESCUE	20	0.45
	CREEPING RED FESCUE	20	0.45
	REDTOP	2	0.05
	TOTAL:	42	0.95
В	TALL FESCUE	15	0.35
	CREEPING RED FESCUE	10	0.25
	CROWN VETCH OR	15 <b>OR</b>	0.35 <b>OR</b>
	FLATPEA	30	0.75
	TOTAL:	40 <b>OR</b> 55	0.95 <b>OR</b> 1.35
C	TALL FESCUE	20	0.45
	FLATPEA	30	0.75
	TOTAL:	50	1.20

E. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO SEPTEMBER 15. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

## F. TEMPORARY SEEDING DATES.

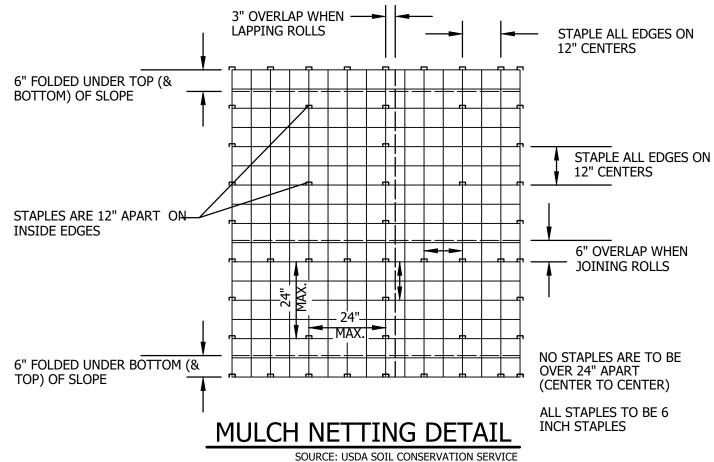
TEMPORARY SEEDING RATES:						
POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.	REMARKS				
112	2.5	BEST FOR FALL SEEDING. SEED FROM AUGUST TO SEPTEMBER 5TH FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.				
80	2.0	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15TH FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.				
40	1.0	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE NOT IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. COVER SEED WITH NO MORE THAN 0.25 INCH OF SOIL.				
30	0.7	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1ST AND JUNE 1ST AND/OR BETWEEN AUGUST 15TH AND SEPTEMBER 15TH. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.				
	POUNDS PER ACRE 112 80 40	POUNDS PER PER ACRE         POUNDS PER 1,000 SQ. FT.           112         2.5           80         2.0           40         1.0				

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.

B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING.

## 5. MAINTENANCE TO ESTABLISH A STAND

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED
- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ON SITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



## **EROSION CONTROL GENERAL NOTES**

#### A. KEEP SITE MODIFICATION TO A MINIMUM

- . CONSIDER FITTING THE BUILDINGS AND STREETS TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
- 2. EXPOSE AREAS OF BARE SOIL TO EROSIVE ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
- 3. SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS 1. TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
- 4. LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND
- 5. AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.

### **B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES**

1. STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED FROM EROSION.

- 2. PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
- 3. USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
- 4. USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
- 5. USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
- 6. PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

#### C. PROTECT AREA AFTER CONSTRUCTION.

1. ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEEDED WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.

- 2. MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
- 3. MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
- 4. DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'
- 5. IF CONSTRUCTION IS ANTICIPATED DURING WINTER MONTHS, REFER TO 'COLD WEATHER SITE STABILIZATION REQUIREMENTS'.

#### **D. INVASIVE SPECIES AND FUGITIVE DUST**

**CONSTRUCTION NOTES** FOR SEDIMENT FENCE

1. INSTALL DOUBLE SEDIMENT FENCING

2. WOVEN WIRE FENCE, IF REQUIRED,

3. FILTER CLOTH TO BE FASTENED

IN ALL AREAS WITHIN 50' OF WETLANDS

TO BE FASTENED SECURELY TO FENCE

POSTS WITH WIRE TIES OR STAPLES.

SECURELY TO WOVEN WIRE FENCE

4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN

EACH OTHER, THEY SHALL BE OVERLAPPED BY 6

5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND

SEDIMENT FENCE, OR 50% OF CAPACITY IS USED.

SHALL BE CONSIDERED AN ACCEPTABLE EQUAL TO

MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE

SEDIMENT FENCE IF INSTALLED PER MANUFACTURER'S

WITH TIES SPACED EVERY 24" AT TOP, MID SECTION, AND BOTTOM

INCHES, FOLDED AND STAPLED.

6. 12" DIAMETER FILTREXX SILTSOXX

RECOMMENDATIONS.

THE PROJECT SHALL NOT CONTRIBUTE TO THE SPREAD OF INVASIVE SPECIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EVALUATE WORK AREAS FOR THE PRESENCE OF INVASIVE SPECIES, AND IF FOUND SHALL TAKE NECESSARY MEASURES TO PREVENT THEIR SPREAD IN ACCORDANCE WITH RSA 430:51-57 AND AGR 3800. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE INTRODUCTION OF INVASIVE SPECIES BY INSPECTING AND CLEANING ALL EQUIPMENT ARRIVING ON SITE.

WOVEN WIRE FENCE -

MAX. 6" MESH SPACING)

WITH FILTER CLOTH OVER

FLOW+

(14-1/2 GA. MIN.,

2. FUGITIVE DUST SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

## COLD WEATHER SITE STABILIZATION **REQUIREMENTS**

- TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:
- THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY NHDES.
- 2. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 3. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEEDED AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H).
- 4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX, MEETING THE CRITERIA OF ENV-WQ 1506.05(D) THROUGH (H), SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
- 5. INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- 6. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
- 7. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
- 8. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS MEETING THE GRADATION REQUIREMENTS OF NHDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM NO. 304.1 OR 304.2.

DRAINAGE

STRUCTURE

— 36" MIN\_FENCE POSTS\_DRIVEN

EMBED FILTER CLOTH

MIN. 8" INTO GROUND

MIN. 16" INTO GROUND

## CONSTRUCTION SEQUENCE

- 1. PREPARE AN EROSION CONTROL PLAN OR A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 2. INSTALL CONSTRUCTION ENTRANCE(S), SEE DETAIL
- 3. CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
- 4. INSTALL TURBIDITY CURTAIN, SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS
- 5. GRUB SITE WITHIN GRADING LIMITS.
- 6. STRIP AND STOCKPILE TOPSOIL AND INSTALL EROSION CONTROL MEASURES.
- 7. INSTALL/ADJUST TURBIDITY CURTAIN, SEDIMENT FENCE, CHECK DAMS, AND HAYBALES, AS REQUIRED.
- CONSTRUCT PERMANENT STORMWATER CONTROLS AS SOON AS PRACTICAL. DO NOT DIRECT STORMWATER TOWARD TREATMENT BASINS, PONDS, SWALES, DITCHES AND LEVEL SPREADERS UNTIL THEY HAVE BEEN STABILIZED
- 9. PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM OF UNCOVERED DISTURBED EARTH AT ANY ONE TIME IS FIVE ACRES. THE MAXIMUM LENGTH OF TIME THAT DISTURBED EARTH MAY BE LEFT UNSTABILIZED IS 45 DAYS.
- CONSTRUCTION SEQUENCE AT NEGATIVE LIFT AND BOAT LAUNCH AREA SHALL BE AS
- A. INSTALL TURBIDITY CURTAIN.
- B. INSTALL TEMPORARY COFFER DAM. C. PROCEED WITH NEGATIVE LIFT WORK IN ACCORDANCE WITH ENV-WT 515. CONSTRUCTION IMPACTS SHALL BE LIMITED TO THE AREA WITHIN 15 FEET OF THE PROPOSED STRUCTURES FOOTPRINT.
- D. UPON COMPLETION OF NEGATIVE LIFT WORK, PROCEED WITH THE BOAT LAUNCH WORK.
- E. REVEGETATE CONSTRUCTION IMPACTS WITHIN TOP OF BANK WITH NATIVE PLANTINGS.
- 10. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 72 HOURS OF
- ACHIEVING FINISHED GRADE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- . INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN TURBIDITY CURTAIN, SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
- 12. CONSTRUCT GRAVEL ROADWAYS AND/OR PARKING AREAS.
- 13. PLACE TOPSOIL, SEED AND MULCH.

**CATCH BASIN PROTECTION** 

**INSERT TYPE** 

NO SCALE

14. COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.

BUILT IN OVERFLOW

WATER FLOW

PORTS (2) FOR HIGH

— NON-WOVEN GEOTEXTILE

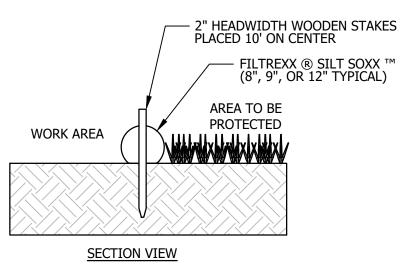
<5% SLOPE

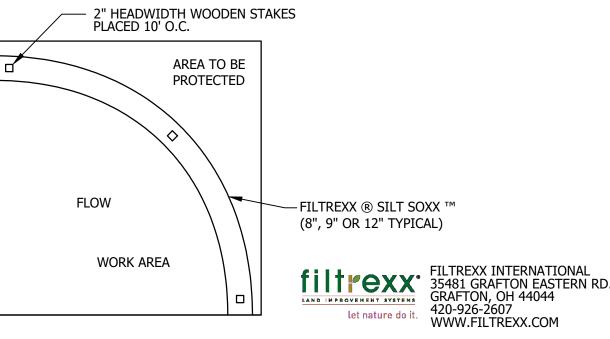
15. MONITOR THE SITE AND MAINTAIN STRUCTURES AS NEEDED UNTIL FULL VEGETATION IS ESTABLISHED.

## STAKE — — ALTERNATE STAKING OPTION - CLOSED END OVERLAPPING SECTIONS -**─** 18" MIN ─ **►**

### COMPOST SOCK CONNECTION/ATTACHMENT DETAI

FORM CONNECTION





#### **TOP VIEW**

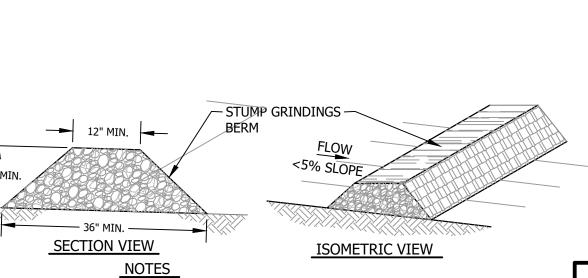
ALL MATERIAL TO MEET FILTREXX ® SPECIFICATIONS.

- . SILT SOXX ™ FILL TO MEET APPLICATION REQUIREMENTS. 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER

## FILTREXX® SILT SOXX™ DETAILS

NOT TO SCALE

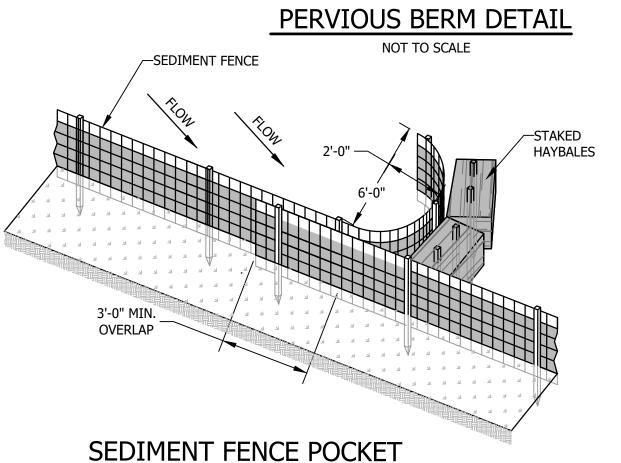
SOURCE: https://www.filtrexx.com/en/resources/design-specs-cads/filtrexx-cad-files THIS DETAIL IS ADAPTED FROM "FILTREXX ® SILT SOXX ™ & SEDIMENT TRAPP ™ DETAILS" SHEET AND IS THE SOLE PROPERTY OF FILTREXX INTERNATIONAL, LLC.



### 1. THE MATERIAL MIX FOR THE BERM SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR EQUIVALENT. 2. GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS THE ORGANIC MATERIAL.

- 3. THE MIX SHALL NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
- 4. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85%

## 5. THE MIX SHALL HAVE A pH BETWEEN 5.0 AND 8.0.



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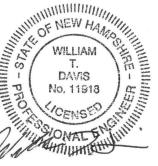
## GOODHUE MEREDITH, LLC

www.horizonsengineering.com

31 LOVEJOY SANDS ROAD COMMERCIAL BOAT LAUNCH AND NEGATIVE LIFT IMPROVEMENTS

MEREDITH, NEW HAMPSHIRE TAX MAP U35 LOTS 8A & 11 - SHORELINE "S" DISTRICT **EROSION CONTROL NOTES** AND DETAILS

REVISION DESCRIPTION



NOV 2023 ngin'd by CHECK'D BY: ARCHIVE # WTD SHEET C3.1

NOVEMBER 13 2023

HORIZONS ENGINEERING

NO SCALE

## ELEVATION OF THE DOWNSTREAM CHECK DAM, THIS WILL VARY DEPENDING ON THE SLOPE OF THE CHANNEL SECTION VIEW 5. REMOVE ROCK CHECK DAMS AND ANY ACCUMULATED SILT IN CHANNEL ONCE

UNDISTURBED GROUND

SEDIMENT FENCE

- 2"-3" STONE, TYP.

1. CONSTRUCT ROCK CHECK DAMS WHERE INDICATED ON THE PLANS OR AS NECESSARY

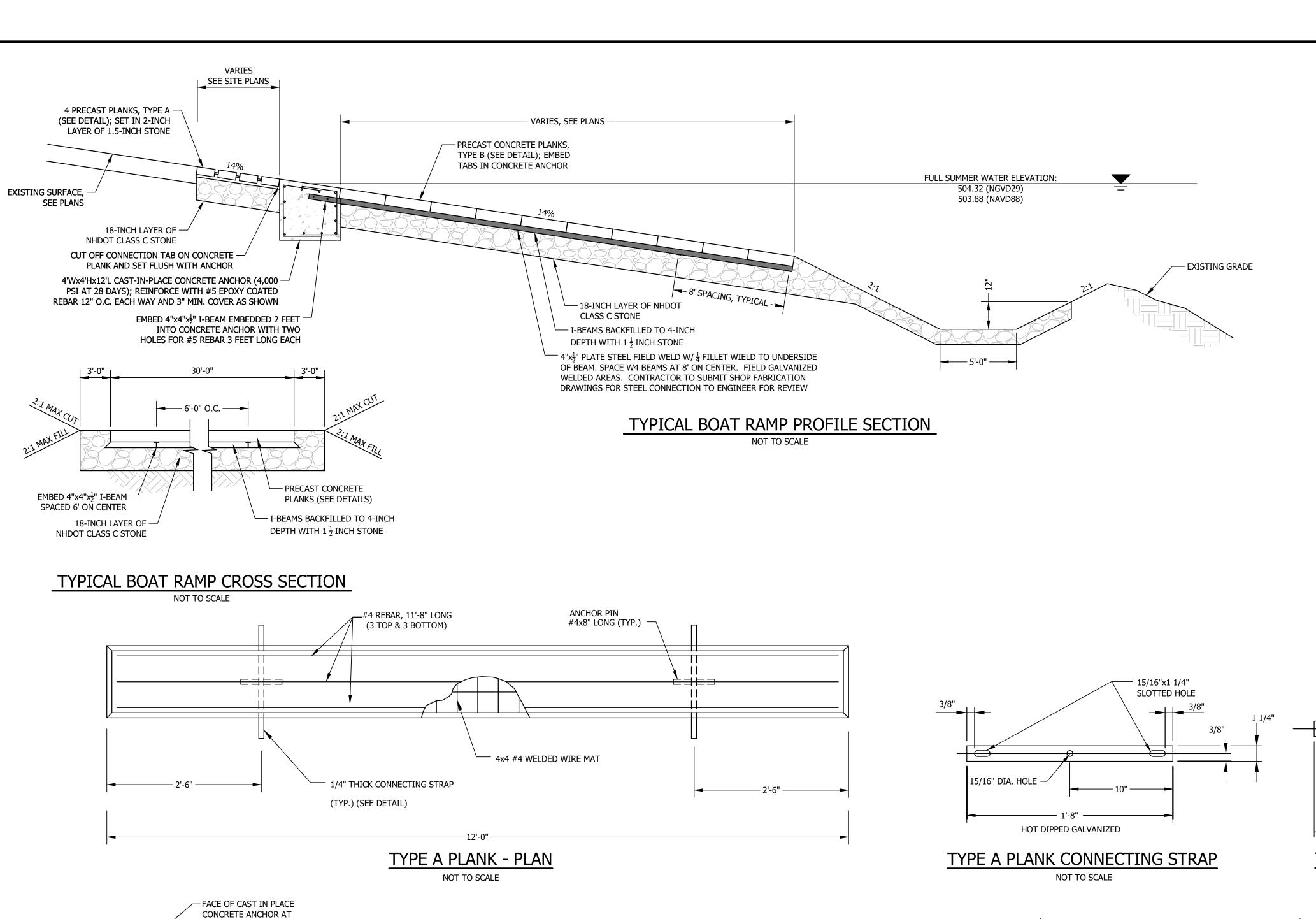
2. CONSTRUCT SPILLWAY IN CENTER OF ROCK CHECK DAM 6" BELOW TOP OF CHANNEL 3. THE MAXIMUM SPACING BETWEEN THE CHECK DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE SPILLWAY

4. ROCK CHECK DAMS SHALL CONSIST OF A WELL GRADED MIXTURE OF 2" - 3" STONE.

PERMANENT CHANNEL LININGS HAVE BEEN ESTABLISHED AND STABILIZED. \_ \_ CHANNEL TOP OF BANK

NO SCALE

## **ROCK CHECK DAM DETAIL**



2 ½" PROJECTION TYP.

TYPICAL

- CONNECTION BOLT ASSEMBLY PER MANUFACTURER PLANK

- CORNER STUDS AND PLATES

PER PLANK MANUFACTURER

TYPICAL 4 CORNERS

- 2  $\frac{1}{2}$ " PROJECTION TYP.

□=====#=

┍╸╸╸╸╸┼

D=====##

FIRST PANEL ONLY

----- 2'-2" -----

c======

#=====**-**

CONNECTION

PLATE SEE DETAIL

======

----

C=======

12" -

3" CHAMFER ALL AROUND TOP EDGE

TYPE B PLANK - PLAN

NOT TO SCALE

TYPE B PLANK - ELEVATION

NOT TO SCALE

-UTILITY ANCHOR

TYPICAL

PER MANUFACTURER

# —— #4 REBAR (TYP.) - 4x4 #4 WELDED 3/8" CHAMFER (TYP.)

 $\frac{1}{2}$ " THICK GALV STEEL PLATE

-1"ØX4 $\frac{1}{4}$ " SLOTTED HOLE

TYPE B PLANK CONNECTION

PLATE DETAIL

NOT TO SCALE

12" LEDGER —

PANEL B - EMBEDMENT DETAIL

NOT TO SCALE

CAST IN PLACE -

CONCRETE ANCHOR

## TYPE A PLANK SECTION

-1"ØX2" SLOTTED HOLE TYP OF 2

-PRECAST PANEL B WITH END

- W4X13 BEAM

- 4" PLATE WELDED TO BEAM

CONNECTION BOLTS EMBEDDED IN

CAST IN PLACE CONCRETE ANCHOR

CONNECTING STRAP

STONE SPECIFICATIONS

STONE SHALL BE GRADED AS FOLLOWS:

SIEVE SIZE

12 INCH

4 INCH

1-1/2 INCH

STONE SIZE 467 (NO. 4 TO 1-1/2").

**EROSION STONE** 

CLASS C

CLASS B CLASS A

REMAINDER OF THE MASS COMPOSED OF SPALLS.

STONE SIZE CLASS MIN. DEPTH

THE 3-INCH SIEVE AND 25 TO 70% PASSING THE NO. 4 SIEVE.

C. MINIMUM DEPTH OF STONE LAYER SHALL CONFORM TO THE FOLLOWING

3/4 INCH

2.1 MATERIALS - STONE FILL

## TYPE A PLANK NOTES

A. MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 585, STONE FILL, NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD

B. STONE FOR STONE FILL SHALL BE APPROVED QUARRY STONE, OR BROKEN ROCK OF A HARD, SOUND, AND DURABLE QUALITY. THE STONES AND

1. 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

2. 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.

3. CLASS C STONE SHALL CONSIST OF CLEAN, DURABLE FRAGMENTS OF LEDGE ROCK, OF UNIFORM QUALITY, REASONABLY FREE FROM THIN

OR ELONGATED PIECES. THE STONE SHALL BE MADE FROM ROCK WHICH IS FREE FROM TOPSOIL AND OTHER ORGANIC MATERIAL. THE

4. CLASS D STONE SHALL CONSIST OF CRUSHED STONE, GRAVEL, OR OTHER APPROVED INERT MATERIALS WITH SIMILAR CHARACTERISTICS

OR COMBINATIONS THEREOF, HAVING HARD, STRONG, DURABLE PARTICLES, FREE FROM SURFACE COATING AND INJURIOUS AMOUNTS OF

SOFT, FRIABLE, OR LAMINATED PIECES, AND FREE OF ALKALINE, ORGANIC, OR OTHER HARMFUL MATTER. THE STONE SHALL BE STANDARD

6-INCHES AND 8-INCHES, APPROXIMATELY 40% OF THE MASS HAVING A MINIMUM DIMENSION BETWEEN 2-INCHES AND 6-INCHES AND THE

6. **SPALLS** FOR FILLING VOIDS SHALL CONSIST OF A MIXTURE OF STONES OR ROCK FRAGMENTS AND PARTICLES WITH 95 TO 100% PASSING

5. **EROSION STONE** SHALL BE IRREGULAR IN SHAPE WITH APPROXIMATELY 50% OF THE MASS HAVING A MINIMUM DIMENSION BETWEEN

SPECIFICATIONS (NHS) FOR THE APPROPRIATE ITEM AS INDICATED ON THE DRAWINGS.

SPALLS SHALL BE SO GRADED AS TO PRODUCE A DENSE FILL WITH A MINIMUM OF VOIDS.

BETWEEN 1 AND 3 CUBIC FEET, AND THE REMAINDER OF THE MASS COMPOSED OF SPALLS.

PERCENTAGE PASSING BY WEIGHT

50-90

0-30

0-10

- 1. COMPRESSIVE STRENGTH OF CONCRETE: 5000 P.S.I. AT 28 DAYS
- 2. PLANKS TO HAVE BROOM FINISH LONGITUDINALLY 3. CONNECTING BOLTS AND NUTS: 1/4"x2" STAINLESS STEEL
- 4. THE APPROXIMATE WEIGHT PER PLANK IS 1050 LBS.
- 5. BOAT RAMP CONSTRUCTION DETAIL DERIVED FROM NEW HAMPSHIRE
- FISH AND WILDLIFE BOAT RAMP STANDARD DETAIL WITH PERMISSION

TYPE B PLANK SECTION NOT TO SCALE

## TYPE B PLANK NOTES

- 1. COMPRESSIVE STRENGTH OF CONCRETE: 4000 P.S.I. NHDOT CLASS AA
- 2. PLANKS REINFORCING STEEL: ASTM A775 (REBAR) GRADE 60, EPOXY COATED
- 3. PLANKS SHALL HAVE A LONGITUDINAL COURSE BROOM FINISH. 4. MISCELLANEOUS STEEL: ASTM A36, ALL EMBEDDED STEEL, CONNECTION PLATES, BOLTS AND
- HARDWARE SHALL BE HOT DIPPED GALVANIZED. 5. TOP AND SIDE OF PLANKS TO BE COATED WITH WATER REPELLENT (SILANE SILOXANE) BY
- PLANK MANUFACTURER
- 6. EACH ANHOR BOLT ASSEMBLY CAST INTO PLAN CONSIST OF (2)  $\frac{3}{4}$  "ØX22" LONG THREADED
- RODS, (4)  $\frac{3}{4}$ " HEAVY DUTY NUTS, (1)  $\frac{1}{4}$ "X3"X6" PLATE WASHER AND (4) LOCK WASHERS. 7. LOOSE HARDWARE (INCLUDING (8)  $\frac{3}{4}$ " HEAVEY DUTY NUTS, (8) LOKC WASHERS AND (2)
- CONNECTION PLATES) TO BE ATTACHED TO PLANK DURING SHIPPING.
- 8. ALL REBAR TO BE EPOXY #6 BARS
- 9. CORNER PLATES SHALL CONSIST OF L4"X4" $\chi_8^3$ "X7" LONG WITH (2)  $\frac{1}{2}$ "ØX6" LONG STUDS TYPICAL 4 CORNERS.
- 10. CONNECTION PLATE BOLTS SHALL CONSIST OF  $\frac{3}{4}$ "Ø X1'-10" LONG THREAD ROD GALV.  $\frac{1}{4}$ "X3"X6" PLATE WASHER, LOCK WASHER AND HEAVY HEX NUTS TYPICAL.

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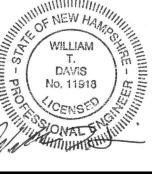
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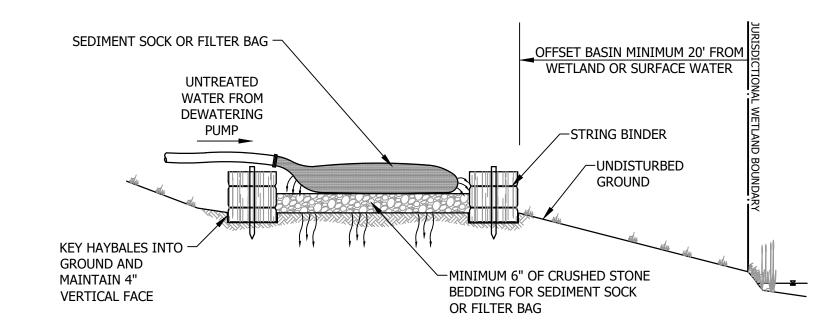
MEREDITH, NEW HAMPSHIRE TAX MAP U35 LOTS 8A & 11 - SHORELINE "S" DISTRICT

## **BOAT LAUNCH DETAILS**

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NOTE:

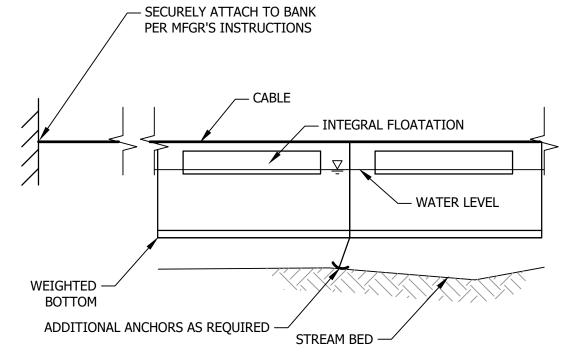
1. DESIGN INTENT FOR TEMPORARY DEWATERING FILTER PAD IS TO ENHANCE PUMP WATER QUALITY PRIOR TO INFILTRATION

INTO UNDISTURBED GROUND.

2. CONTRACTOR TO OPERATE PUMPS AND SIZE TEMPORARY DEWATERING FILTER PAD TO ENCOURAGE INFILTRATION AND PREVENT DISCHARGE TO SURFACE WATERS OR WETLANDS.

3. COVERAGE UNDER EPA'S CONSTRUCTION DEWATERING GENERAL PERMIT OR CONSTRUCTION GENERAL PERMIT MUST BE OBTAINED IF DEWATERING ACTIVITIES RESULT IN A DISCHARGE TO SURFACE WATERS OR WETLANDS.

## TEMPORARY DEWATERING FILTER PAD DETAIL



1. FLOATING TURBIDITY BARRIER SHALL BE TYPE III HEAVY DUTY. 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

3. TURBIDITY BARRIER SHALL BE DEPLOYED DURING ACTIVITIES WHICH HAVE THE POTENTIAL TO CAUSE TURBIDITY. BARRIER SHALL BE TEMPORARILY REMOVED WHEN SIGNIFICANT ICE OR FLOATING DEBRIS IS EXPECTED AND NO WORK IS TAKING PLACE.

## FLOATING TURBIDITY BARRIER DETAIL

NOT TO SCALE

## SEDIMENT RETENTION WATTLES

## DESCRIPTION

EROSION CONTROL AND SEDIMENT RETENTION WATTLES (ESW) OR SLOPE INTERRUPTION DEVICES (SID) COMMONLY KNOWN AS WATTLES, ARE ELONGATED TUBES OF COMPACTED STRAW THAT ARE INSTALLED ALONG CONTOURS OR AT THE BASE OF SLOPES TO HELP REDUCE SOIL EROSION AND RETAIN SEDIMENT. THEY FUNCTION BY SHORTENING SLOPE LENGTH, REDUCING RUNOFF WATER VELOCITY, TRAPPING DISLODGED SOIL PARTICLES AND AMELIORATING THE EFFECTS OF SLOPE STEEPNESS.

WATTLES ARE USED AS WATER FLOW DISSIPATERS TRAPPING SEDIMENT WHEN LOCATED PRIOR TO DRAIN INLETS, ETC. WATTLES ARE HIGHLY EFFECTIVE WHEN THEY ARE USED IN COMBINATION WITH OTHER SURFACE SOIL EROSION/RE-VEGETATION PRACTICES SUCH AS SURFACE ROUGHENING, STRAW MULCHING, EROSION CONTROL BLANKETS, HYDRAULIC MULCHING AND APPLICATION OF BONDED FIBER MATRIX OR OTHER HYDRAULIC SOIL STABILIZERS.

PROPERTIES:
MATERIAL: 100% WEED FREE STRAW LONGEVITY: 24 MONTHS

NETTING: PHOTODEGRADABLE

> LENGTH WEIGHT 1.6 LBS/FT 8' TO 20' 2.8 LBS/FT 8' TO 20' 3.2 LBS/FT 8' TO 20' 3.5 LBS/FT

NOTE: WATTLE SIZES, LENGTHS, WEIGHTS, AND LONGEVITY ARE APPROXIMATE.

## INFORMATION PROVIDED BY:

ULTRATECH INTERNATIONAL, INC. 11542 DAVIS CREEK COURT, JACKSONVILLE, FL 32256 USA

PHONE: 800.353.1611 FAX: 904.292.1325 WWW.STORMWATER-PRODUCTS.COM

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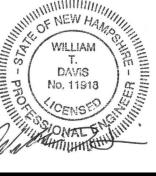
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