

# ECHO LAKE BOAT RAMP RENOVATIONS AROOSTOOK STATE PARK

STATE PARK ROAD  
PRESQUE ISLE, ME 04769

CLIENT:

## DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY BOATING FACILITIES PROGRAM

STATE HOUSE STATION #22  
AUGUSTA, ME 04333-0022

BRSA PROJECT NO. 2021.118  
BGS PROJECT NO. PT3366

ISSUED FOR FOR BID

PLAN APPROVED  
CITY OF PRESQUE ISLE  
PLANNING BOARD

DATE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### ABBREVIATIONS

AC	AIR CONDITIONING	HC	HANDICAPPED	SF	SQUARE FOOT
ACT	ACOUSTIC CEILING TILE	HORIZ	HORIZONTAL	SHT	SHEET
AFF	ABOVE FINISH FLOOR	HRU	HEAT RECOVERY UNIT	SS	STAINLESS STEEL
AGG	AGGREGATE	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	STA	STATION
ALT	ALTERNATE			STL	STEEL
APROX	APPROXIMATE				
BIT	BITUMINOUS	IJ	ISOLATION JOINT	T	TREAD
BLDG	BUILDING	INS	INSULATED	TOC	TOP OF CONCRETE
BOF	BOTTOM OF FOOTING	INV	INVERT	TOF	TOP OF FOOTING
BOT	BOTTOM			TOM	TOP OF MASONRY
BRG	BEARING	K	KIPS	TOW	TOP OF WALL
				TP	TOILET PAPER, OR TEST PIT
				TYP	TYPICAL
CB	CATCH BASIN	LL	LIVE LOAD	V	VENT PIPE
CFM	CUBIC FEET PER MINUTE	LP	LIGHTING PANEL, LIQUEFIED PROPANE	VB	VAPOR BARRIER
CIP	CAST IN PLACE			VCT	VINYL COMPOSITION TILE
CJ	CONTROL JOINT	MAX	MAXIMUM	VERT	VERTICAL
CL	CENTERLINE	MECH	MECHANICAL	VTR	VENT THROUGH ROOF
CMU	CONCRETE MASONRY UNIT	MFR	MANUFACTURER		
COL	COLUMN	MIN	MINIMUM	WC	WATER CLOSET
CONC	CONCRETE	MISC	MISCELLANEOUS	WF	WIDE FLANGE
CONT	CONTINUOUS	MO	MASONRY OPENING	W/	WITH
CUH	CABINET UNIT HEATER	MR	MOISTURE RESISTANT	W/O	WITHOUT
				WWF	WELDED WIRE FABRIC
D	DIAMETER	NCB	NEW CATCH BASIN	UH	UNIT HEATER
DBL	DOUBLE	NDMH	NEW DRAIN MANHOLE		
DL	DEAD LOAD	NIC	NOT IN CONTRACT		
DTL	DETAIL	NSD	NEW STORM DRAIN LINE		
DW	DISH WASHER	NSS	NEW SANITARY SEWER LINE		
DWG	DRAWING	NTS	NOT TO SCALE		
		NWL	NEW WATER LINE		
EA	EACH	OC	ON CENTER		
EF	EXHAUST FAN, EACH FACE	OH	OVERHEAD		
EJ	EXPANSION JOINT	PAVE	PAVEMENT		
ELEV	ELEVATION	PL	PLATE, PROPERTY LINE		
ELEC	ELECTRICAL	PP	POWER PANEL		
EOP	EDGE OF PAVEMENT	PSF	POUNDS PER SQUARE FOOT		
EQ	EQUAL	PSI	POUNDS PER SQUARE INCH		
EW	EACH WAY	PT	PRESSURE TREATED		
EXIST	EXISTING	PVC	POLYVINYL CHLORIDE		
EXP	EXPANSION	R	RISER, RADIUS		
EXT	EXTERIOR	RD	ROOF DRAIN		
		REINF	REINFORCED		
		REOP	REQUIRED		
		RO	ROUGH OPENING		
		ROW	RIGHT OF WAY		
FCO	FLOOR CLEAN OUT				
FD	FLOOR DRAIN				
FE	FIRE EXTINGUISHER				
FFE	FINISHED FLOOR ELEVATION				
FO	FRAMED OPENING				
FRP	FIBERGLASS REINFORCED PLASTIC				
GA	GALVANIZED				
GC	GENERAL CONTRACTOR				
GWB	GYPSTUM WALL BOARD				

### GENERAL NOTES

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST ADOPTED BUILDING CODES, RULES, AND REGULATIONS OF THE GOVERNING MUNICIPALITY, STATE, AND LOCAL AUTHORITIES.
- CONTRACTOR SHALL PROVIDE TWO (2) COPIES OF ALL REQUIRED SUBMITTALS.
- NO CHANGES SHALL BE MADE TO THE PROJECT WITHOUT WRITTEN NOTICE TO THE CONTRACTOR BY THE OWNER'S REPRESENTATIVE.
- THESE DOCUMENTS ARE THE PROPERTY OF THE ENGINEER AND SHALL NOT BE USED OR COPIED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.
- CONTRACTOR SHALL NOTIFY ENGINEER OF DRAWING DISCREPANCIES PRIOR TO CONSTRUCTION. CHANGE ORDERS WILL NOT BE ALLOWED FOR WORK THAT WAS IDENTIFIABLE FROM CAREFUL PRE-BID SITE AND DRAWING REVIEW.
- CONTRACTOR SHALL PROVIDE ONE SET OF RECORD PRINTS MARKED UP IN RED INK TO SHOW AS-BUILT CONDITIONS. CONTRACTOR SHALL NOTE ALL MANUFACTURERS NAMES, NUMBERS, COLORS, AND OTHER PERTINENT INFORMATION FOR FINISHES, EQUIPMENT, FIXTURES, ETC. RECORD DRAWINGS SHALL BE KEPT CURRENT ON A DAILY BASIS AND SUBMITTED WITH FINAL PAYMENT REQUEST. THEY WILL BE REVISED WITH EACH PAY REQ.
- CONTRACTOR SHALL PROVIDE OWNER WITH ALL WARRANTIES AND GUARANTEES IN WRITING AT PROJECT CONCLUSION.
- WHERE A SPECIFIC MANUFACTURER IS NOTED CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS UNLESS PREVIOUSLY APPROVED DURING BIDDING.
- OWNER SHALL SELECT ALL COLORS, FINISHES, ETC. NOT SPECIFIED ON DRAWINGS. CONTRACTOR SHALL SUBMIT SAMPLES AS REQUIRED TO MAKE REQUESTED DECISIONS. VERIFY SPECIFIED COLORS.
- CONTRACTOR SHALL KEEP JOB SITE CLEAN AND MAINTAIN ON SITE DISPOSAL CONTAINER. DISPOSE OF DEMOLITION AND RUBBISH PROPERLY.
- CONTRACTOR SHALL DO A COMPLETE FINAL CLEANING OF WORK AREAS PRIOR TO FINAL PAYMENT REQUEST.
- CONTRACTOR SHALL HAVE FULL-TIME JOB SUPERINTENDENT WHENEVER ANY WORK IS BEING PERFORMED.

### STANDARD SYMBOL LEGEND

	BUILDING SECTION		LEVEL LINE
	WALL SECTION		KEYED NOTE
	DETAIL		COLUMN LINE
	EXTERIOR ELEVATION		UTILITY POLE
	WINDOW TAG		LIGHT POLE
	DOOR TAG		SANITARY MANHOLE
	RIGID INSULATION		STORMDRAIN MANHOLE
	CONCRETE		TELEPHONE MANHOLE
	STEEL/METAL		ELECTRICAL MANHOLE
	GYPSTUM WALL BOARD		CATCH BASIN
	WOOD		HYDRANT
	GENERAL SECTION		WATER VALVE
	PAVEMENT (SECTION)		GRANITE HIGHWAY MONUMENT FOUND
	GRAVEL		SURVEY CONTROL STATION
	BACKFILL MATERIAL		TEST PIT
	EARTH		TEST BORING
	VEGETATED BUFFER		SIGN
			PROPERTY LINE
			OVERHEAD UTILITY LINE
			UNDERGROUND UTILITY LINE
			FENCE
			EXISTING CONTOUR
			PROPOSED CONTOUR
			UNDERGROUND ELECTRICAL TELEPHONE AND COMMUNICATIONS
			WATER LINE
			SANITARY SEWER LINE
			FORCE MAIN
			STORM DRAIN
			ROOF DRAIN
			FOUNDATION DRAIN
			THRUST BLOCK

SYMBOLS SHOWN ABOVE ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INVOLVEMENT IN THIS PROJECT.

### SHEET INDEX

1	C1.01	EXISTING CONDITIONS PLAN
2	C1.02	PROPOSED LAYOUT PLAN
3	C1.03	PROPOSED GRADING PLAN
4	C1.04	EROSION CONTROL & DETAILS PLAN
5	C5.01	DETAILS
6	C5.02	DETAILS

**BRSA**  
B.R. Smith Associates, Inc.  
Surveying Engineering  
Building Design

11 Hall Street, Presque Isle, Maine 04769  
Tel: 207-764-3661 Fax: 207-764-6918  
30 Lower Detroit Rd, Plymouth, Maine 04969  
Tel: 207-408-9912



STAMP:

STAMP:

DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING OR CONSTRUCTION.

SHEET TITLE: **COVER SHEET**

BRSA PROJECT #	2021.118	PLAN DATE:	8/9/2023
BRSA CAD FILE #	2021118	PLAN SCALE:	N/A

NO PORTION OF THESE PLANS MAY BE IN ANY WAY REPRODUCED OR USED FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT INDICATED HEREON WITHOUT THE WRITTEN PERMISSION OF B.R. SMITH ASSOCIATES, INC.

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SURVEY CONTROL DATA				
#	NORTHING	EASTING	ELEV.	DESCRIPTION
#1	1,075,292.98	1,107,939.60	553.66	STA 1 PK DEC 2021
#2	1,088,250.15	1,108,897.32	587.55	DISK Z 21 AT RR BRIDGE
#3	1,075,020.49	1,108,119.51	555.68	STA 3 NAIL DEC 2021

**GENERAL NOTES:**

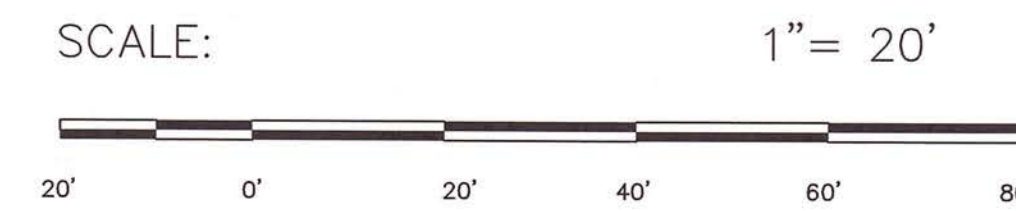
1. THIS PLAN IS NOT A BOUNDARY SURVEY. IT IS AN EXISTING CONDITIONS PLAN OF THE SUBJECT AREA FOR DESIGN PURPOSES FOR PARKING AND A BOAT LAUNCH.
2. CONTOURS SHOWN IN THE LAKE ARE THE LAKE BOTTOM.
3. THE PROJECT AREA IS ZONED AGRICULTURAL FARMING AND FORESTRY WITH A LAKE SHORELAND ZONE OVERLAY.
4. THE PROJECT IS EXPECTED TO BEGIN IN SEPTEMBER WHEN LOW WATER WATER CONDITIONS ARE PRESENT.



- LEGEND**
- SIGN
  - EVERGREEN TREE FOUND
  - DECIDUOUS TREE FOUND
  - EXISTING CONTOUR
  - PROPOSED CONTOUR

PNT #3  
 ▲

C1.02 & C1.03



DRAWING STATUS: ISSUED FOR BID & CONSTRUCTION

#	DATE	REVISIONS

**EXISTING CONDITIONS PLAN**  
 ECHO LAKE BOAT RAMP RENOVATIONS  
 AROOSTOOK STATE PARK  
 STATE PARK ROAD  
 PRESQUE ISLE, MAINE

CLIENT: DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY  
 BOATING AND FORESTRY PROGRAM  
 STATE HOUSE STATION  
 AUGUSTA, ME 04333-0022

DESIGNED BY: KPW  
 DRAWN BY: KPW  
 CHECKED BY: KPW  
 APPROVED BY: TRR

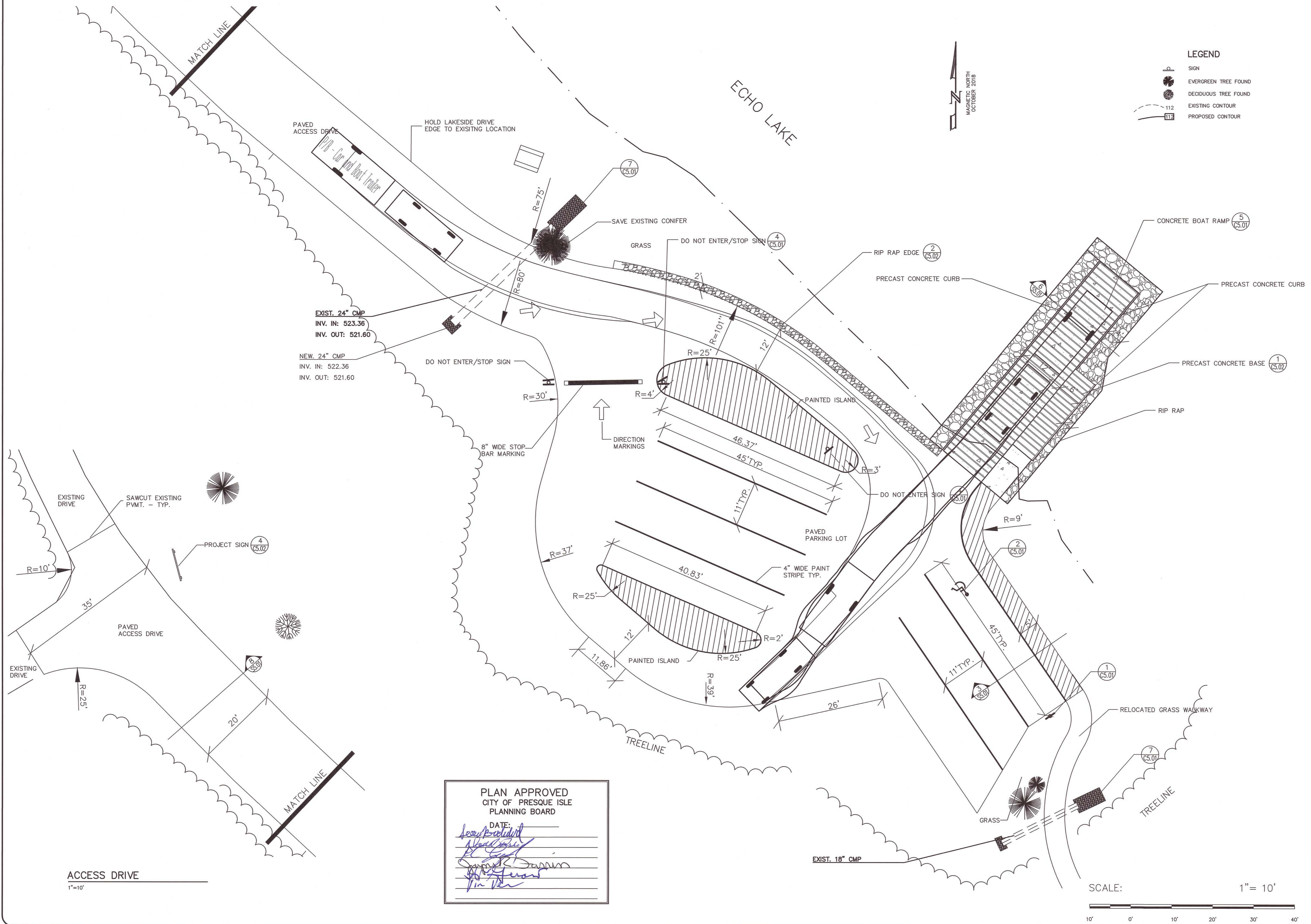
B.R.S.A. PROJ. # 2022.1118  
 B.R.S.A. PROJ. # PT1356  
 FIELD BOOK # NA  
 PLAN DATE: 8-9-2023  
 PLAN SCALE: 1" = 20'

**PLAN APPROVED**  
 CITY OF PRESQUE ISLE  
 PLANNING BOARD

DATE: \_\_\_\_\_

*[Signatures]*

NO PORTION OF THIS PLAN MAY BE IN ANY WAY REPRODUCED OR USED FOR ANY PURPOSE OTHER THAN THE SPECIFIC PROJECT INDICATED HEREON WITHOUT THE WRITTEN PERMISSION OF B.R. SMITH ASSOCIATES, INC.



- LEGEND**
- SIGN
  - EVERGREEN TREE FOUND
  - DECIDUOUS TREE FOUND
  - EXISTING CONTOUR
  - PROPOSED CONTOUR

MAGNETIC NORTH  
OCTOBER 2018

**B.R.S.A.**  
B.R. Smith Associates, Inc.  
Surveying Engineering  
Building Design

11 Hill Street, Presque Isle, Maine 04769  
Tel: 207-766-8661 Fax: 207-766-9916

STATE OF MAINE  
Professional Seal  
B.R. Smith Associates, Inc.  
Professional Engineer  
No. 11238  
Exp. 12/31/2023

ISSUED FOR BID & CONSTRUCTION

NO.	DATE	REVISIONS

**PROPOSED LAYOUT PLAN**  
ECHO LAKE BOAT RAMP RENOVATIONS  
AROSTOOK STATE PARK  
STATE PARK ROAD  
PRESQUE ISLE, MAINE

CLIENT/DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY BOATING FACILITIES PROGRAM AROSTOOK STATE PARK AROSTOOK, ME 04833-0022	BRSA PROJ. # 2023.118 BID # 2023-0022	DESIGNED BY: KPW DRAWN BY: KPW CHECKED BY: KPW APPROVED BY: TRR	FIELD BOOK # P13358 FIELD DATE: 8-9-2023 PLAN DATE: 8-9-2023 PLAN SCALE: 1"=10'
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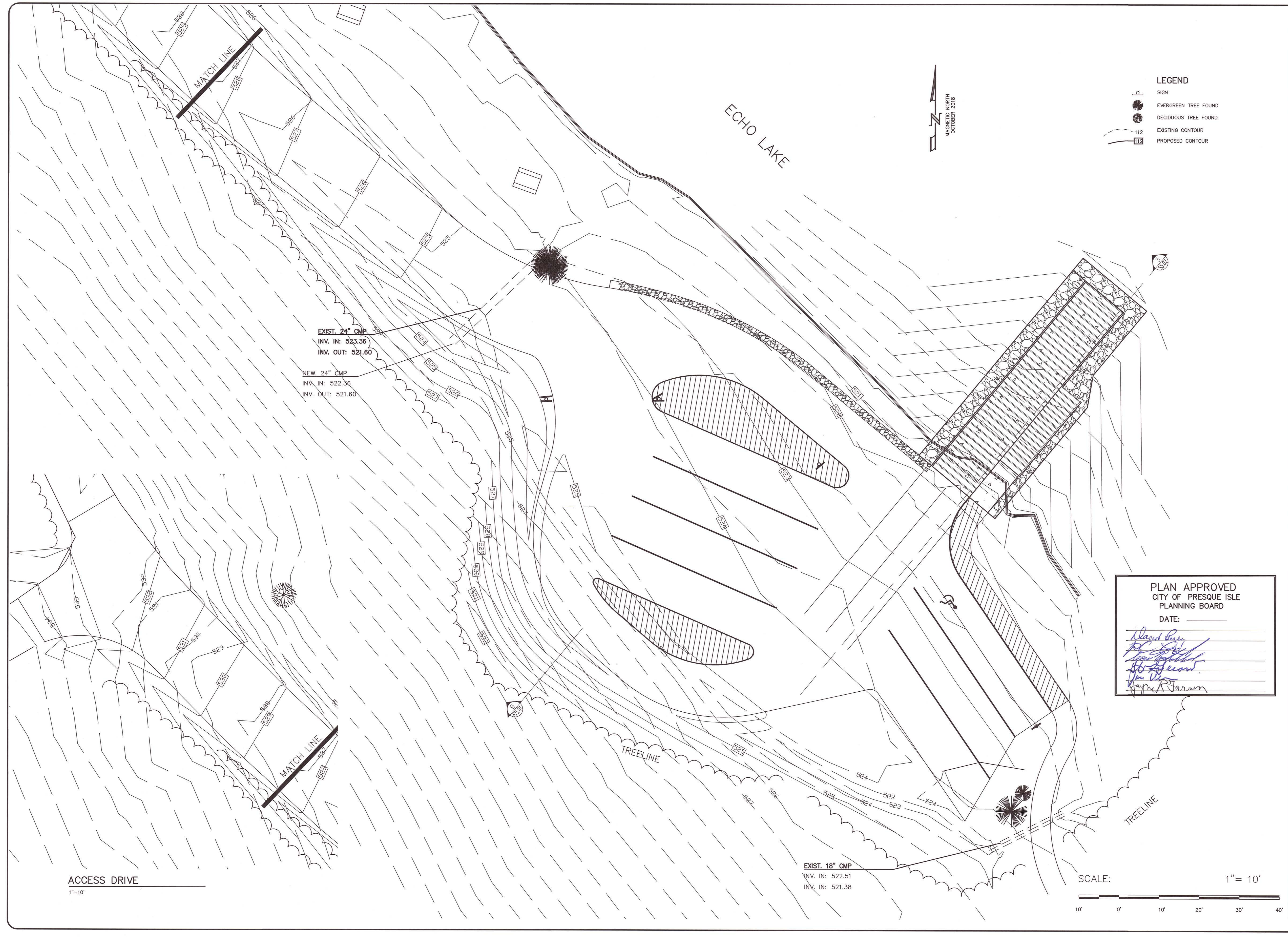
PLAN APPROVED  
CITY OF PRESQUE ISLE  
PLANNING BOARD

DATE: \_\_\_\_\_





SCALE: 1" = 10'

ACCESS DRIVE  
1"=10'

**C1.02**



**LEGEND**

-  SIGN
-  EVERGREEN TREE FOUND
-  DECIDUOUS TREE FOUND
-  EXISTING CONTOUR
-  PROPOSED CONTOUR

MAGNETIC NORTH  
OCTOBER 2016

EXIST. 24" CMP  
INV. IN: 523.36  
INV. OUT: 521.60

NEW. 24" CMP  
INV. IN: 522.36  
INV. OUT: 521.60

EXIST. 18" CMP  
INV. IN: 522.51  
INV. IN: 521.38

PLAN APPROVED  
CITY OF PRESQUE ISLE  
PLANNING BOARD  
DATE: \_\_\_\_\_  
*Alain Bury*  
*John...*  
*...*  
*...*  
*...*

SCALE: 1" = 10'  
0' 10' 20' 30' 40'



**BRSIA**  
B.R. Smith Associates, Inc.  
Surveying Engineering  
Building Design

11 Hill Street, Presque Isle, Maine 04769  
Tel: 207-764-5801 Fax: 207-764-5816



STAMP OR SEAL  
DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING OR CONSTRUCTION

DRAWING STATUS

ISSUED FOR BID & CONSTRUCTION

DRAWN APPD:

#	DATE	REVISIONS

SHEET NAME

PROPOSED GRADING PLAN

PROJECT

CLIENT/DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY BOATING FACILITIES PROGRAM AUGUSTA, ME 04333-0022

BRSIA PROJ.# 2022.1118

BOE PROJ.# P13356

FIELD BOOK# NA

PLAN DATE 8-9-2023

PLAN SCALE 1"=10'

DESIGNED BY: KPW

DRAWN BY: KPW

CHECKED BY: KPW

APPROVED BY: RRR

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C1.03

**Introduction**

This Erosion and Sedimentation Control Plan has been prepared to aid in the prevention of erosion and subsequent sedimentation of the downstream stormwater structures during and after construction of the proposed project. Actual prevention is the responsibility of all those involved in the project especially those involved in site construction. Construction personnel and the developer must be observant and prepared to take immediate action to prevent erosion at all times. This plan should be used as a guide, however unforeseen site conditions and storm events may require additional or alternative preventative measures. This plan has been prepared in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices and MDOT BMP.

**Administration**

This Plan has been prepared by B.R. Smith Associates, Inc. for use by all those involved in the development of the site and lot improvements. The Plan shall be administered by the Construction Manager until completion of construction. Upon completion of construction the administration of the Plan for the site shall pass to the Owner.

**Key Areas of Concern During Construction**

During the development of this site the following areas shall be watched on a continual basis for signs of erosion, and will be areas of preventative measures.

Area	Temp. Measures	Perm. Measures
Natural Slopes Disturbed	Mulch, Grass Cover, Silt Barrier	Grass Cover
Man Made Slopes	Mulch, Grass Cover, Silt Barrier	Grass Cover
Existing Drainage Swales	Check Dams (as req.)	Natural Cover
Man Made Swales	Check Dams, Mulch, Grass	Rip Rap, Grass Cover
Roadway Drainage Structures	Haybale Inlet Protection	Rip Rap
Parking Drainage Structures	Haybale Inlet Protection	

**Key Areas of Concern After Construction**

All people should have a concern for the environment and keep a watch for erosion of soils wherever they travel. Within this development the following areas should be of special concern on an ongoing basis.

Area	Temp. Measures	Perm. Measures
Project Slopes	Mulch, Grass Cover	Grass Cover
Detention Structure & Basin	Mulch, Grass Cover	See Design if Part of Project
Drainage Swales	Mulch, Grass Cover	See Design if Part of Project

**Temporary Control Measures**

**Temporary Mulch**

- Purpose: To prevent erosion by protecting exposed soil surfaces and to aid in the growth of vegetation by conserving available moisture, controlling weeds, and providing protection against extreme heat and cold.
- Product: Organic Mulches: Hay or straw mulch, free of weed seeds.
- Required Usage: Apply to exposed soil surfaces prior to any storm event and within 7 days of exposure.
- Execution: Application shall be at a rate of 2 bales (70 - 90 lb.) per 1,000 sq. ft.
- Maintenance: All mulches shall be inspected weekly and after every storm event, to check for erosion. Remulching shall be required if less than 90% of soil surface is covered.
- Removal: Temporary Mulch shall be removed once vegetative cover has been established or regrading is to be done.
- Winter Mulch Layer: A winter mulch layer shall be applied to all disturbed areas that do not have mature vegetation after September 30. The winter mulch layer shall be 4" thick and shall have 92% coverage of all disturbed areas.

**Temporary Grass Cover**

- Purpose: To reduce erosion by stabilization of disturbed areas which have not been brought to final grade.
  - Product: In accordance with this table:
- | Seed                                            | Lb./Ac.     | TEMPORARY SEEDING RATES AND DATES | Remarks                                                                                                                                                 |
|-------------------------------------------------|-------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 |             | Lb. Per 1000 S.F.                 |                                                                                                                                                         |
| Winter Rye                                      | 112 (2.0)   | 2.6                               | 1-1.5 in. 8/15-10/1 hardy species, such as Aroostook Rye.                                                                                               |
| Oats                                            | 80 (2.5 bu) | 1.8                               | 1-1.5 in. 4/1 - 7/1 Best for spring seeding. Early fall seedings will die when winter weather moves in, but mulch will provide protection.              |
| Annual Ryegrass                                 | 40          | 0.9                               | .25 in. 4/1 - 7/1 Grows quickly but is of short duration. Use where appearance is important. With mulch, seeding may be done throughout growing season. |
| Sudangrass                                      | 40(1.0 bu)  | 0.9                               | 0.5 - 1in. 5/15-8/15 Good growth during hot summer periods.                                                                                             |
| Perennial                                       | 40(1.0 bu)  | 0.9                               | 0.25 8/15-9/15 Good cover, longer lasting than Annual Ryegrass, mulching will allow seeding through growing season.                                     |
| Temporary mulch with or without dormant seeding |             |                                   | 8/15-9/15                                                                                                                                               |

- Required Usage: Provide temporary grass cover to all disturbed areas which will receive no permanent prevention measures for a period of more than 90 days.
- Execution: Loosen topsoil to a depth of 2". Apply 13.8 lb. of 10-10-10 fertilizer per 1,000 sq. ft. and lime at rate of 138 lb. per 1,000 sq. ft. Apply seed uniformly and apply temporary mulch.
- Maintenance: All temporary covers shall be inspected weekly and after every storm event, to check for erosion. Reseeding shall be required if less than 95% of soil surface is covered. Provide for other preventative measures in the interim.

**Sedimentation Barriers**

- Purpose: To intercept and retain small amounts of sediment from disturbed or unprotected areas of limited extent.
- Product: Synthetic filter fabric certified by the manufacturer to meet the following:  
Filtering Efficiency (test VIM-51) 75% min.  
Tensile Strength at 20% (max)  
Elongation (test VIM-52) Extra Strength: 50 lb/in inch  
Standard: 30 lb/in inch  
Flow Rate (test VIM-51) 0.2 gal/sq ft/min
- Required Usage: Install along uniform grade of disturbed downhill slopes.
- Execution: Install barrier in accordance with enclosed detail.
- Maintenance: All sediment barriers shall be inspected weekly and after every storm event, to check for sediment build up or failure. Sediments shall be removed after each storm event. Sediment barriers shall be maintained in effective condition for the life of the barrier.
- Removal: Stakes, reinforcing mesh, and fabric shall be removed once sedimentation of the runoff is no longer a threat. Regrade, reseed and mulch affected areas.

**Temporary Floating Sediment Curtain**

- Purpose: To intercept and retain small amounts of sediment from the underwater disturbed or unprotected areas of limited extent.
- Product: Monofilament Geotextile with a waterflow rate of 18 gpm/ft-squared.
- Required Usage: Install along lake floor outside of work area to prevent sediment from flowing into lake.
- Execution: Install barrier in accordance with enclosed detail and manufacturer's instructions.
- Maintenance: All sediment barriers shall be inspected weekly and after every storm event, to check for sediment build up or failure. Sediment barriers shall be maintained in effective condition for the life of the barrier.
- Removal: Floating sediment curtain shall be removed once the installation of the underwater work is complete.

**Temporary Check Dams**

- Purpose: To reduce the velocity of concentrated stormwater flows to prevent erosion.
- Products: Stone of 2" to 3" in diameter.  
Geotextile fabric of sufficient strength to facilitate removal.
- Required Usage: Locate in all newly constructed or disturbed ditches and drainage ways.
- Execution: Install in accordance with enclosed details.
- Maintenance: All check dams shall be inspected weekly and after every storm event, to check for sediment build up or failure. Sediments shall be removed after each storm event. Check dams shall be maintained in effective condition for the life of the barrier.
- Removal: Remove Check dams when channel stabilization has been established. Seed and mulch area. Areas of removal shall be inspected until stabilization of these areas is reached.

**Permanent Control Measures**

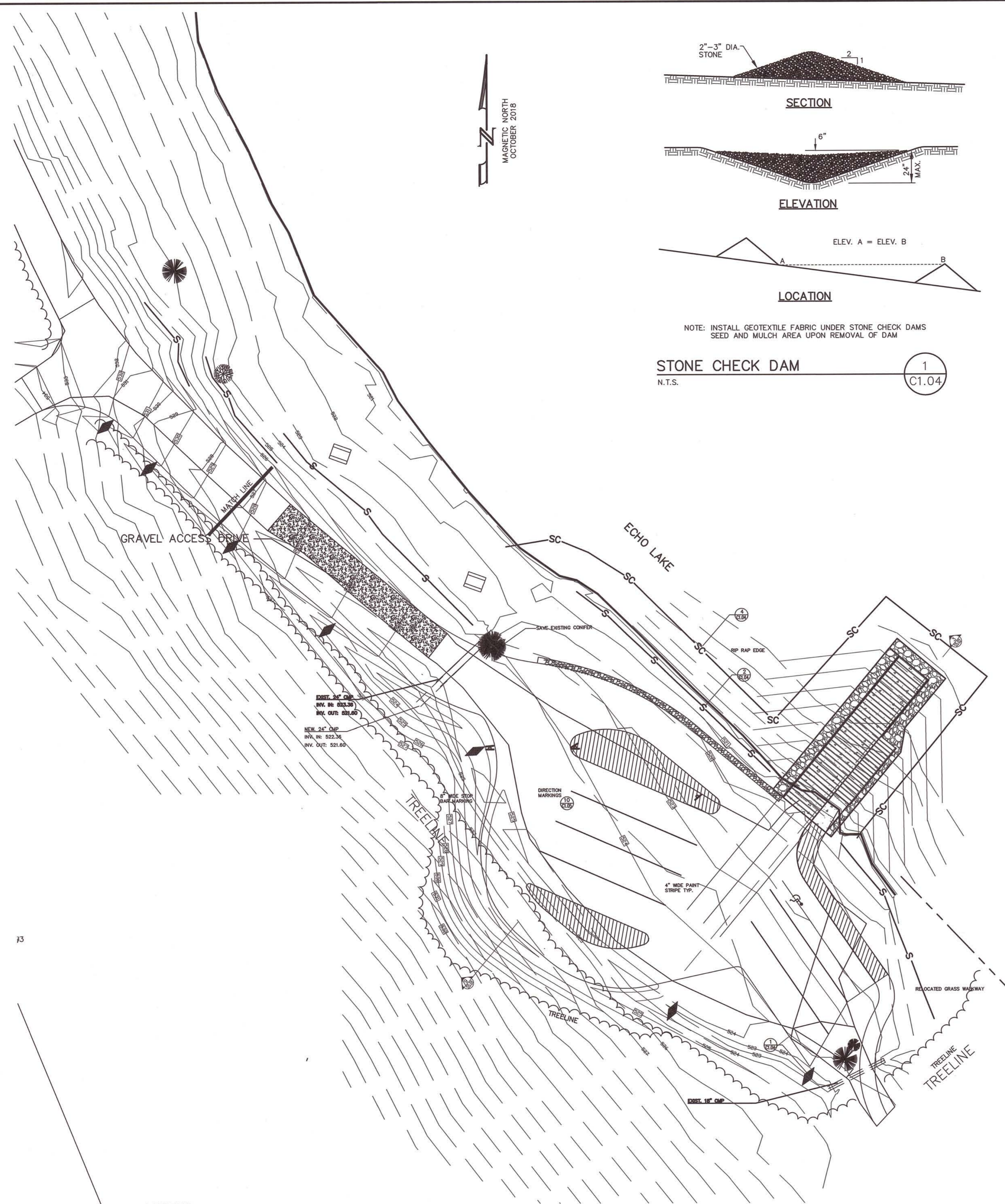
- Permanent Grass Cover
- Purpose: To permanently stabilize the soil to reduce erosion of soils.
- Products: In accordance with BMP Below Table:

**PERMANENT SEED MIXTURE**

Seed Mixture	Lbs/Acre	Lbs/1000 sf
1. Roadsides, ditches, wetland banks, existing and proposed swales, and all slopes less steep than 3 horizontal to 1 vertical, etc. (Mowing desired)		
Creeping Red Fescue	20	0.46
Tall Fescue	20	0.46
Reedtop	2	0.05
Total	42	0.97

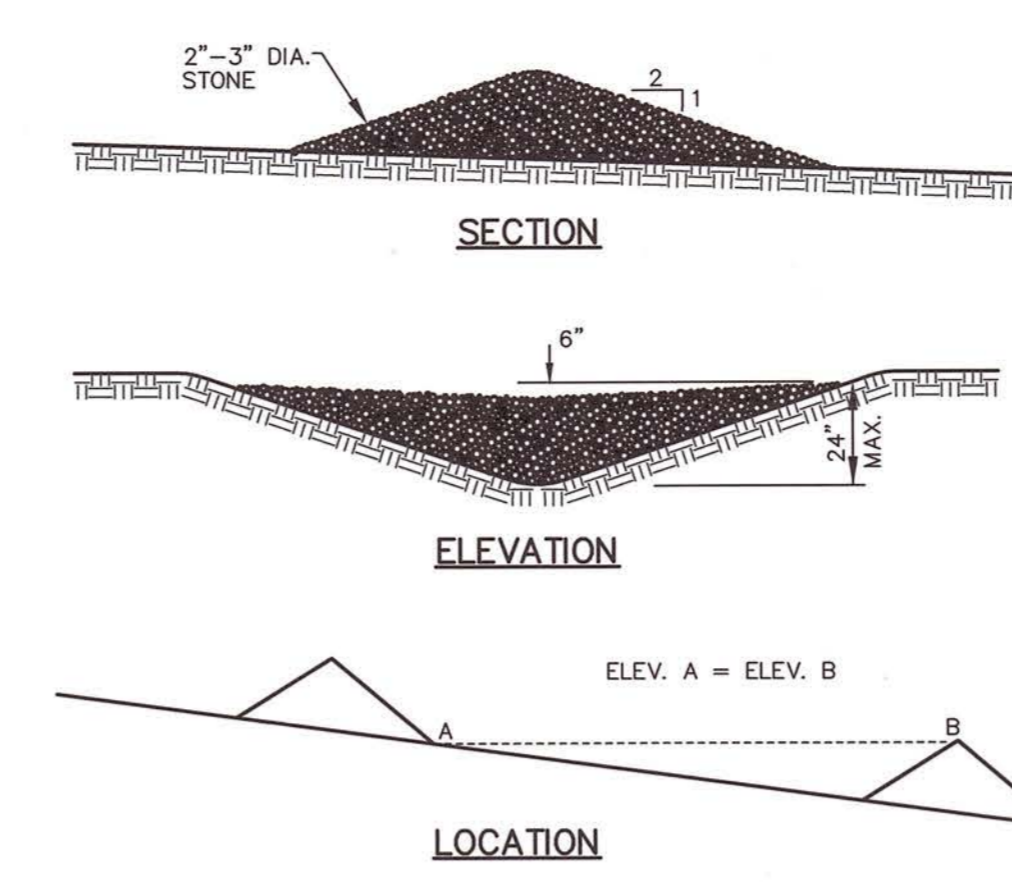
Note: Inoculate all legume seeds, and use four times the recommended rate of inoculant when hydroseeding.

- Execution: Permanent grass cover shall be installed within 7 days of final grading. Apply fertilizer, lime in accordance with Temporary Cover and seed rates of the above BMP table.
- Mulch after seeding.
- Maintenance: Establish a grass cover and remove mulch. Reseed areas not attaining a cover of 90%.

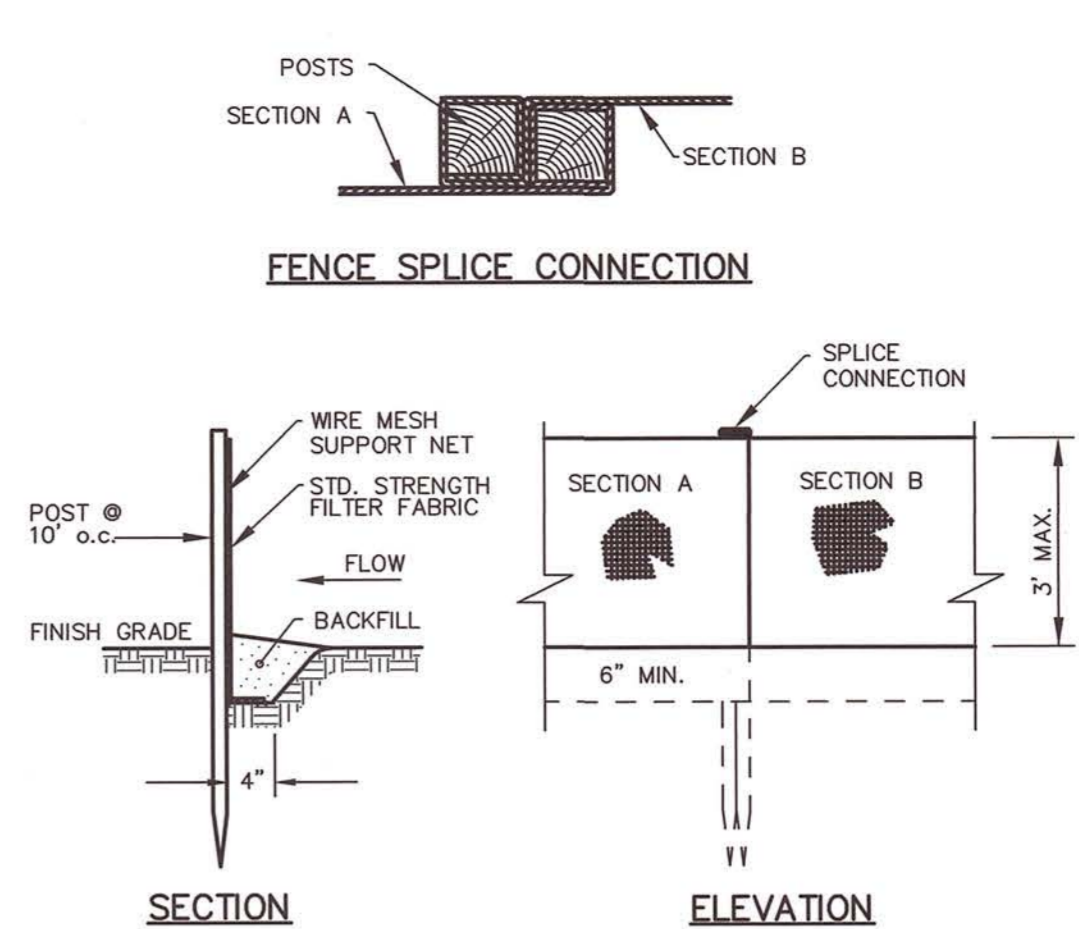


**LEGEND**

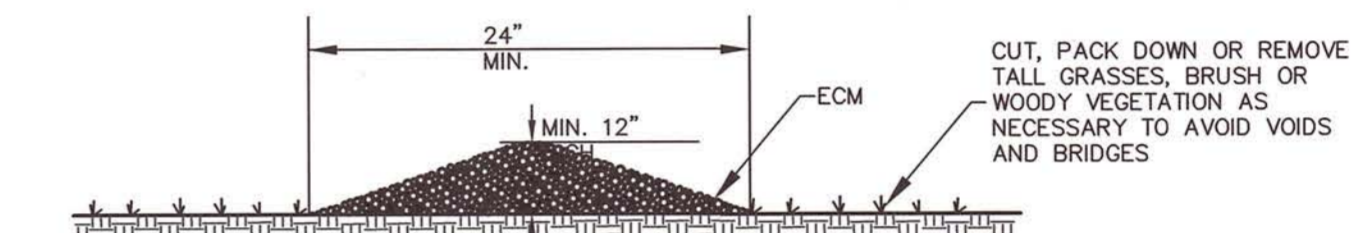
	SILT FENCE
	SEDIMENT CURTAIN
	EVERGREEN TREE FOUND
	DECIDUOUS TREE FOUND
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EROSION CONTROL BERM
	STONE CHECK DAM



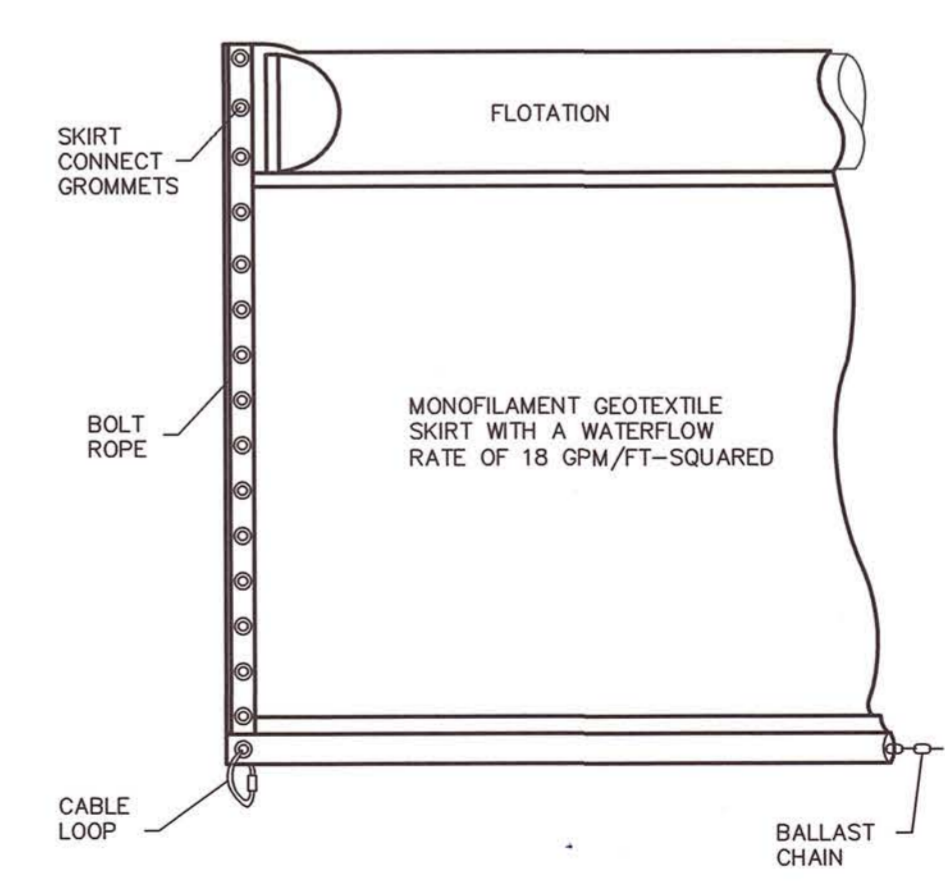
**STONE CHECK DAM**  
N.T.S. (1) C1.04



**SILT FENCE**  
N.T.S. (2) C1.04



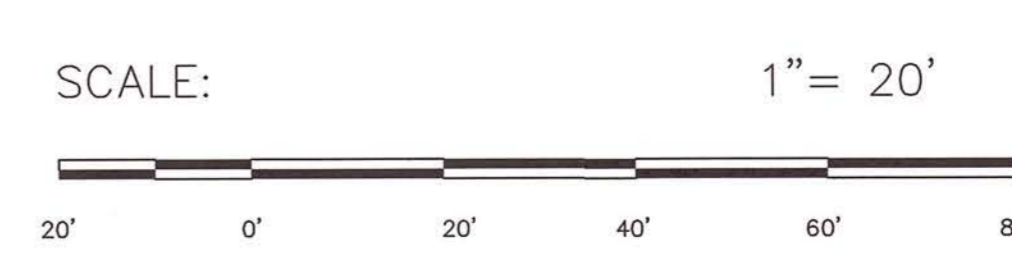
**EROSION CONTROL MIX BERM**  
N.T.S. (3) C1.04



**FLOATING SEDIMENT CURTAIN**  
N.T.S. (4) C1.04

**PLAN APPROVED**  
CITY OF PRESQUE ISLE  
PLANNING BOARD

DATE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
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**BRSA**  
B.R. Smith Associates, Inc.  
Surveying Engineering  
Building Design  
11 Hill Street, Presque Isle, Maine 04769  
Tel: 207-764-9861 Fax: 207-764-9818

---

STAMP OR SEAL  
TIMOTHY J. SMITH  
REGISTERED PROFESSIONAL ENGINEER  
LICENSE NO. 10003  
MECHANICAL  
DRAWINGS NOT SEALED ARE FOR NOT INTENDED FOR PERMITTING OR CONSTRUCTION

---

ISSUED FOR BID & CONSTRUCTION		REVISIONS
DRAWING STATUS	DATE	DESCRIPTION

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**EROSION CONTROL & DETAILS PLAN**

**ECHO LAKE BOAT RAMP RENOVATIONS**  
AROSTOOK STATE PARK  
STATE PARK ROAD  
PRESQUE ISLE, MAINE

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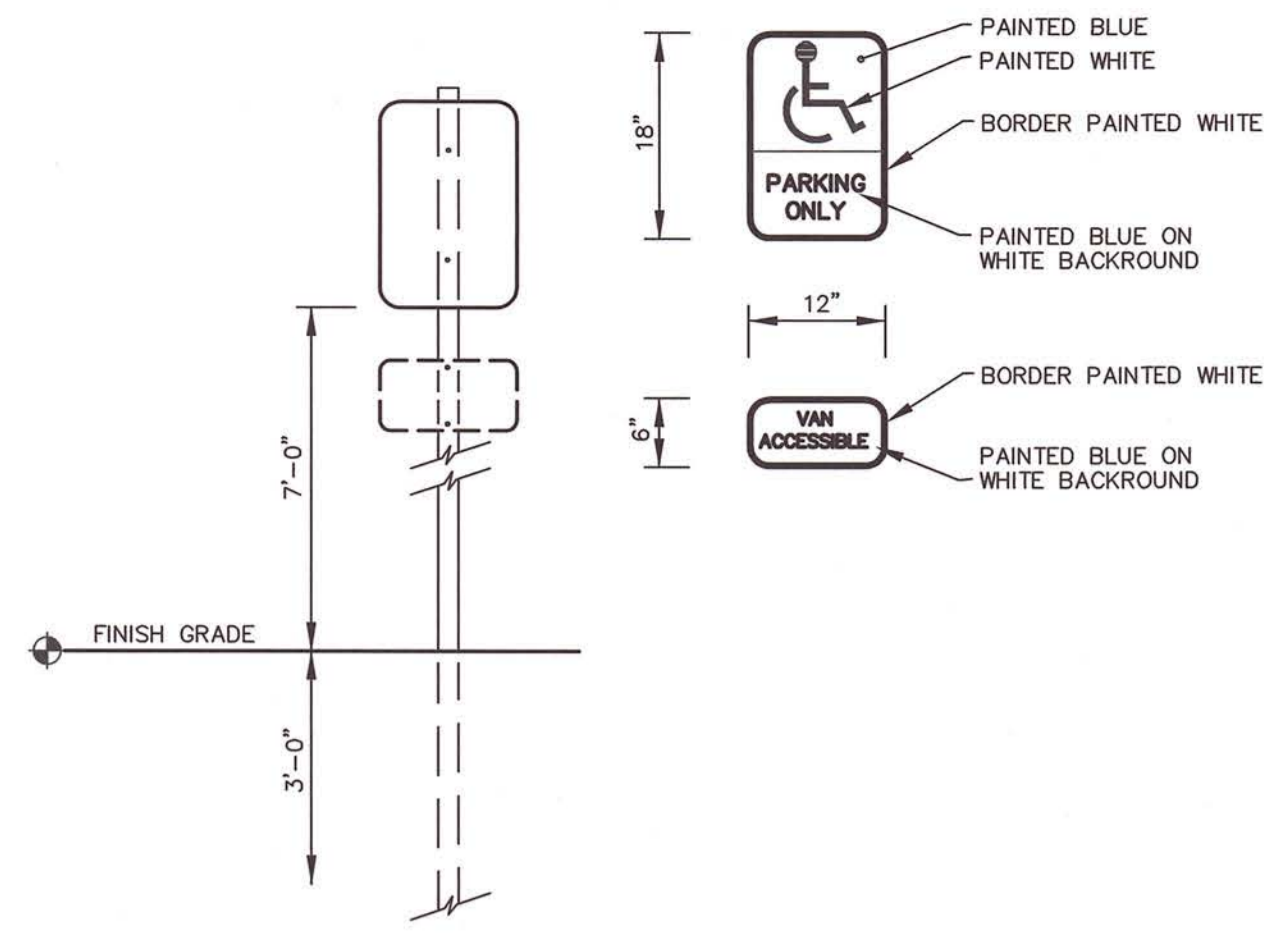
CLIENT: DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY, COOSUM BOATING STATION #22, STATE HOUSE STATION #22, AUGUSTA, ME 04333-0622	PROJECT: BRSA PROJ. # 2021118, BEST PROJ. # PT3385, AUGUSTA, ME 04333-0622
DESIGNED BY: KAH	CHECKED BY: KPW
APPROVED BY: TRR	DATE: 8-9-2023
PLANNING BOARD: AS SHOWN	SCALE: AS SHOWN

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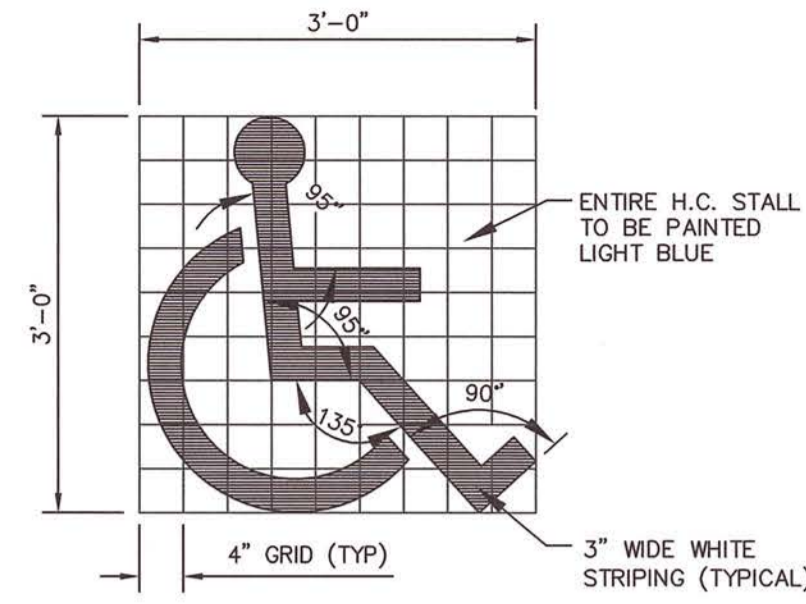
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C1.04



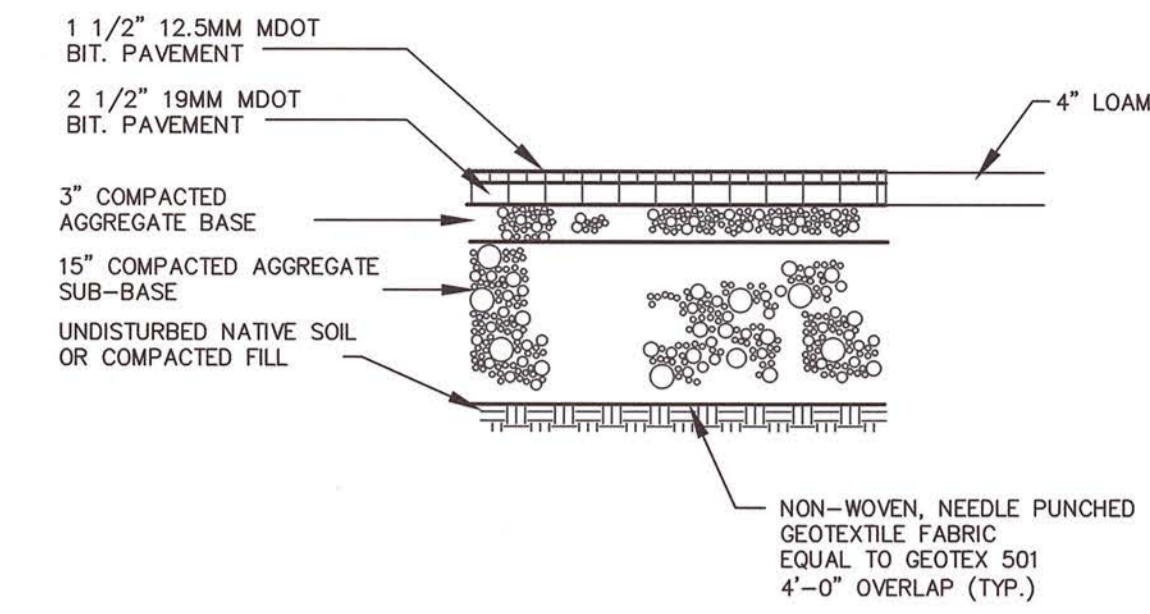
**HANDICAPPED PARKING SIGN**  
N.T.S.

1  
C5.01



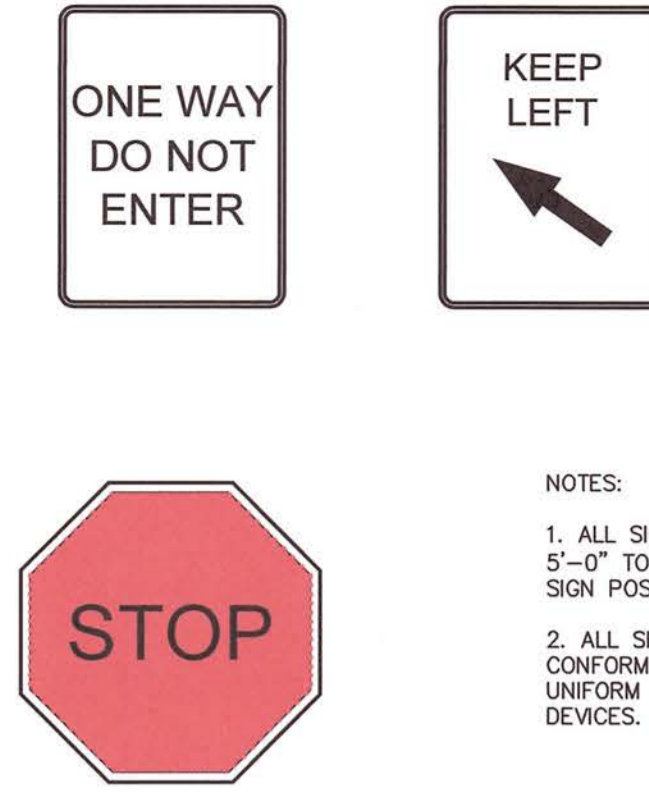
**HC PARKING SYMBOL DETAIL**  
N.T.S.

2  
C5.01



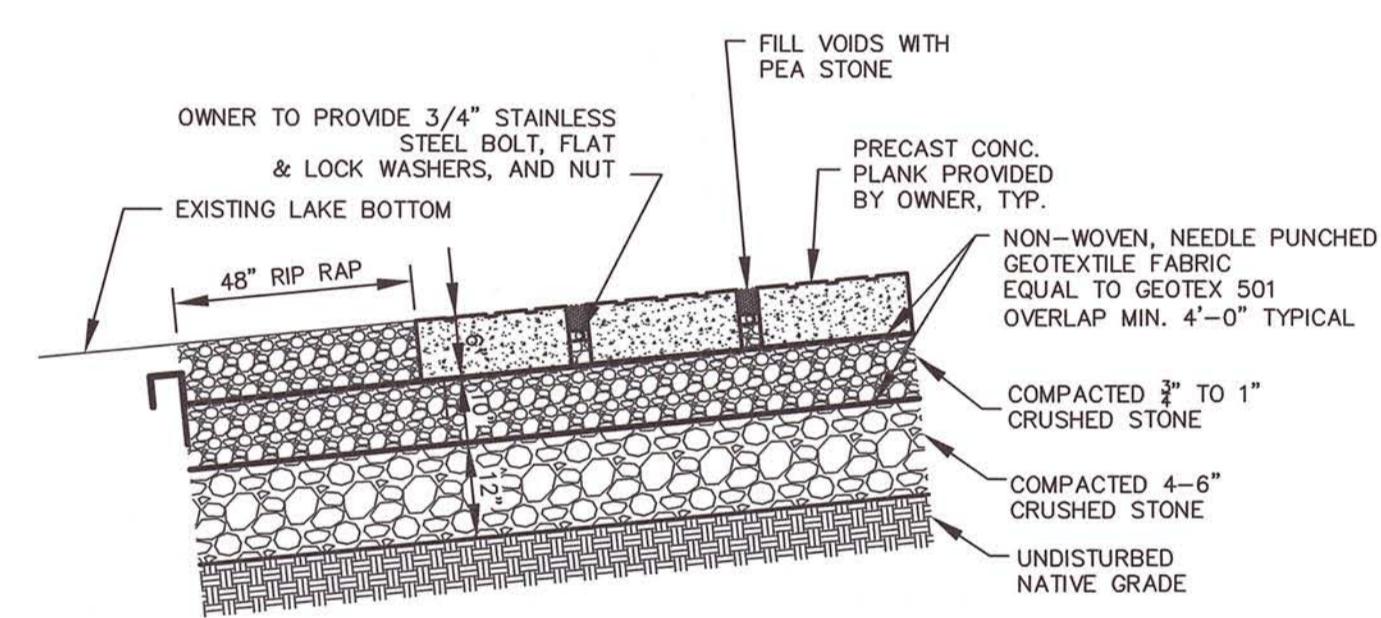
**PAVED ACCESS DRIVE & PARKING LOT SECTION**  
N.T.S.

3  
C5.01



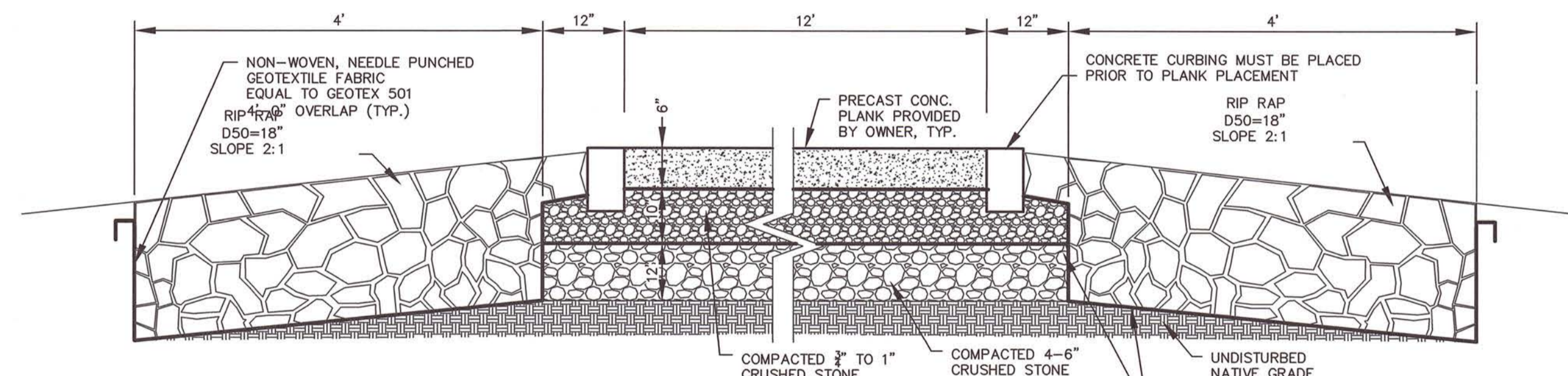
**TYPICAL TRAFFIC SIGNS DETAIL**  
N.T.S.

NOTES:  
1. ALL SIGNS SHALL BE MOUNTED 5'-0" TO TOP OF SIGN STEEL SIGN POST.  
2. ALL SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.



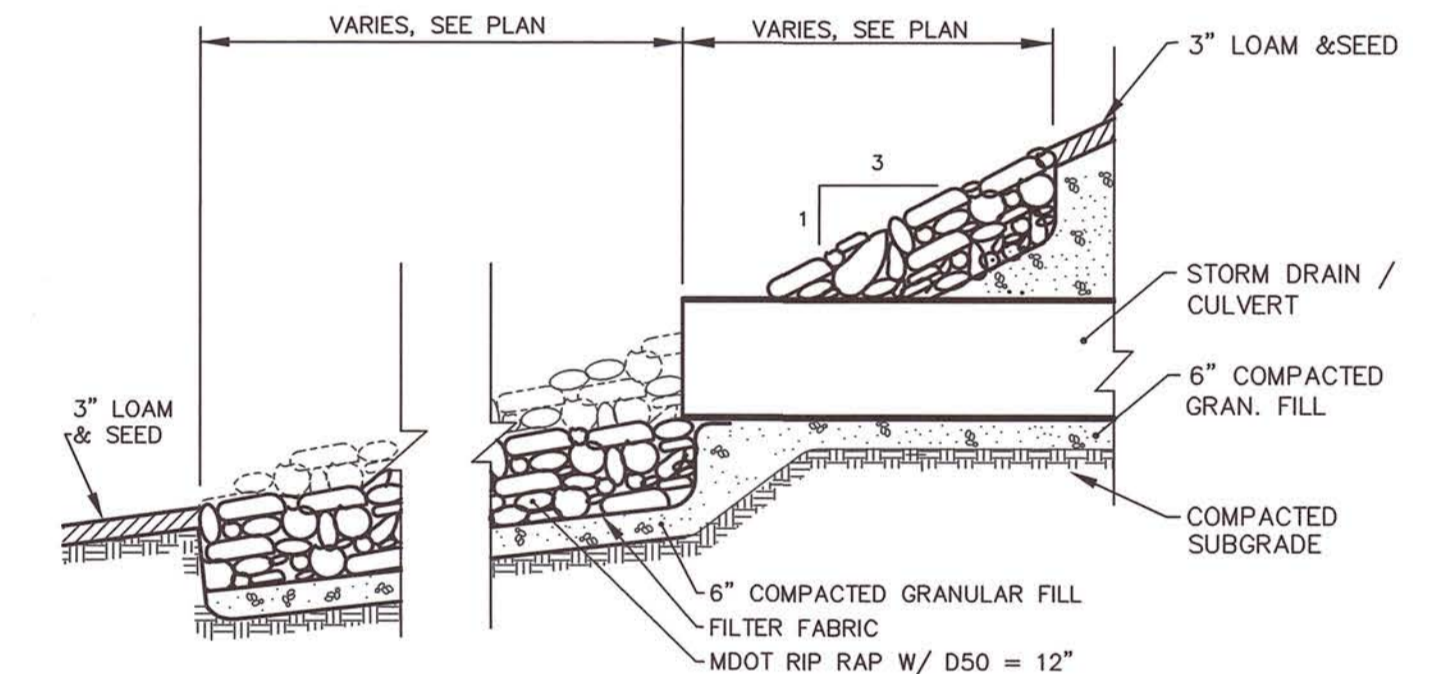
**CONCRETE PLANK INSTALLATION DETAIL**  
N.T.S.

5  
C5.01



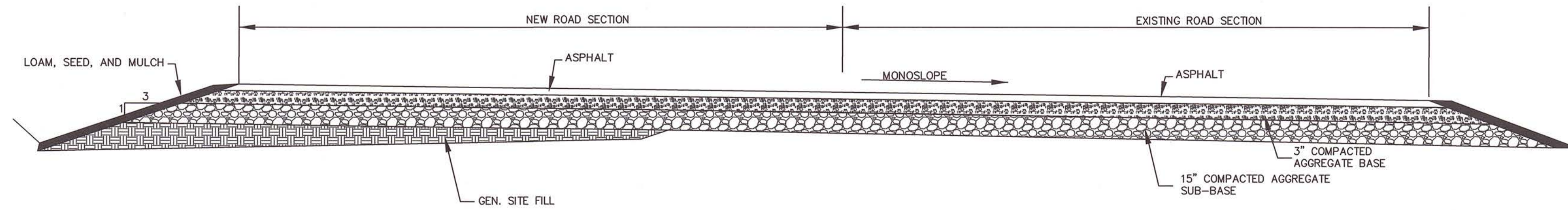
**RAMP SECTION**  
N.T.S.

6  
C5.01



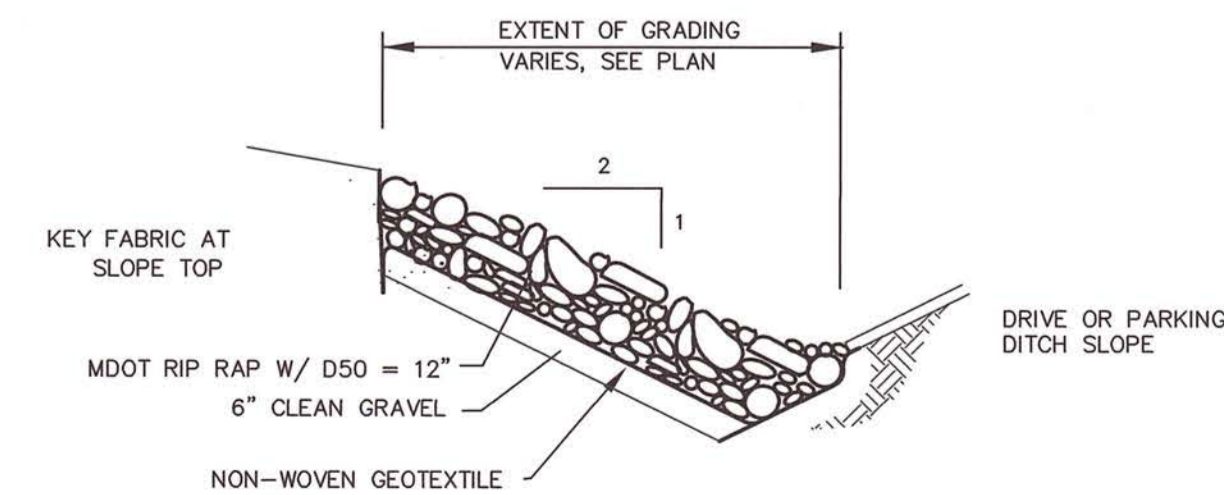
**CULVERT INLET/OUTLET PROTECTION**  
NOT TO SCALE

7  
C5.01



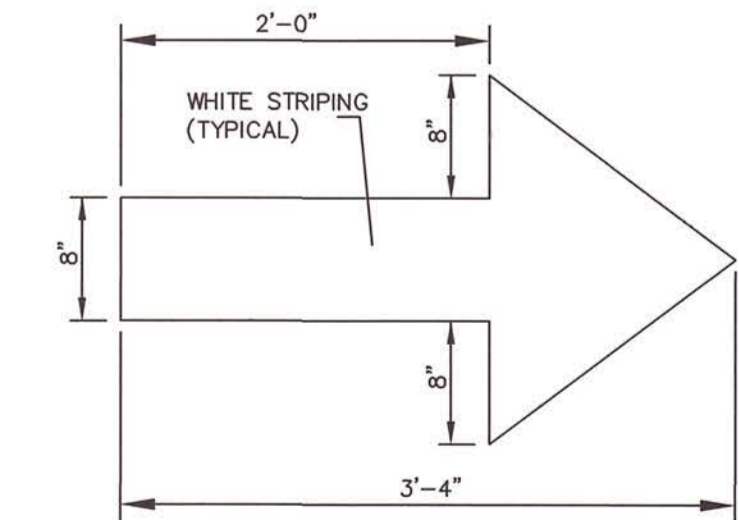
**WIDENED DRIVEWAY**  
N.T.S.

8  
C5.01



**TYPICAL BACKSLOPE RIP-RAP PROTECTION**  
N.T.S.

9  
C5.01



**DIRECTIONAL MARKING**  
NOT TO SCALE

10  
C5.01

**PLAN APPROVED**  
CITY OF PRESQUE ISLE  
PLANNING BOARD

DATE: \_\_\_\_\_

*Kevin Woodard*  
*David...*  
*...*  
*...*

**BRSA**  
B.R. Smith Associates, Inc.  
Surveying Engineering Building Design  
11 Hill Street, Presque Isle, Maine 04769  
Tel: 207-764-2601 Fax: 207-764-5916

STAMP OR SEAL: [Professional Engineer Seal]

ISSUED FOR BID & CONSTRUCTION

REVISIONS: [Table]

PROJECT: ECHO LAKE BOAT RAMP RENOVATIONS  
ARROSTOOK STATE PARK  
STATE PARK ROAD  
PRESQUE ISLE, MAINE

CLIENT: DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOATING FACILITIES PROGRAM  
1000 HULL STREET  
ARROSTOOK, MAINE 04769

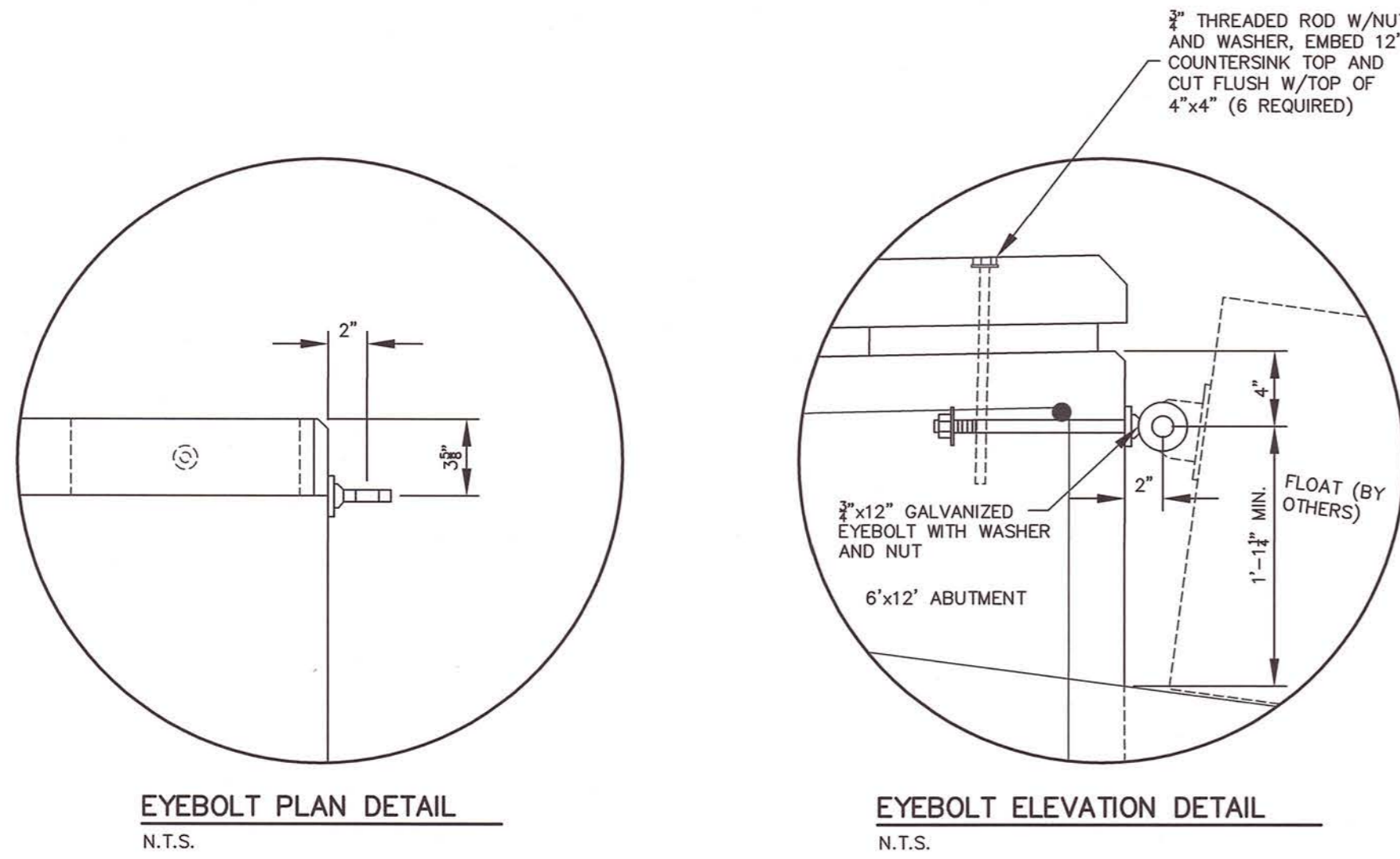
DESIGNED BY: KPW  
DRAWN BY: KPW  
CHECKED BY: KPW  
APPROVED BY: TRR

BRSA PROJ # 2021118  
BIDS PROJ # 213269  
FIELD BOOK # NA  
PLAN DATE: 11-15-2022  
PLAN SCALE: AS SHOWN

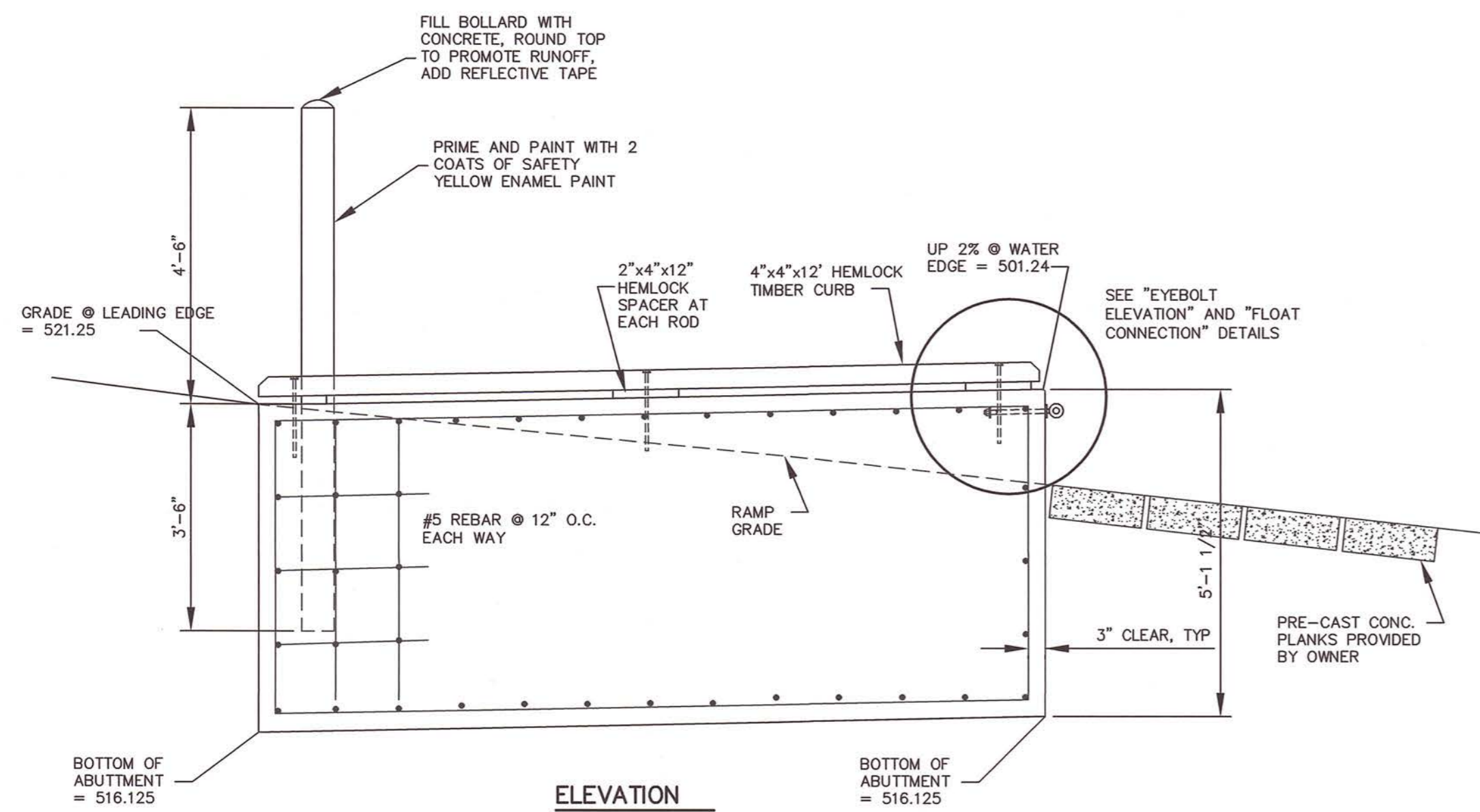
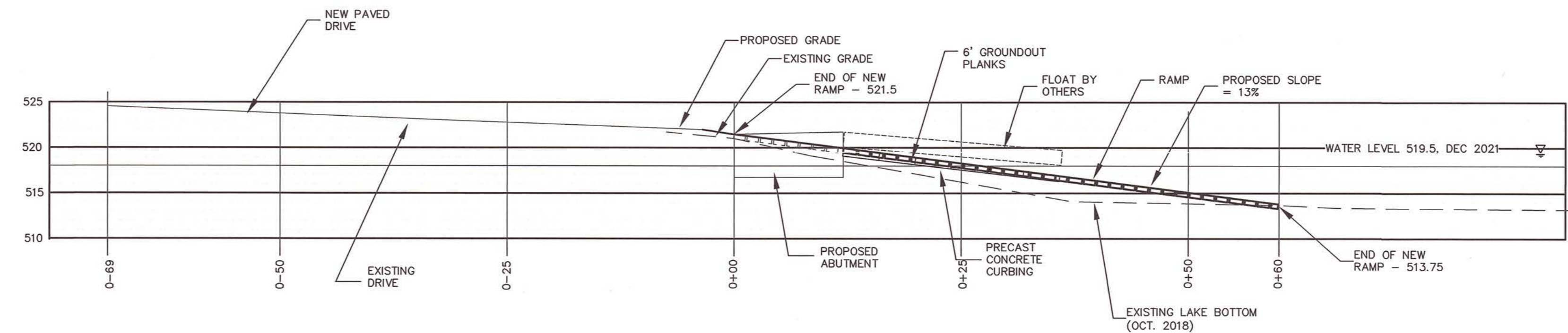
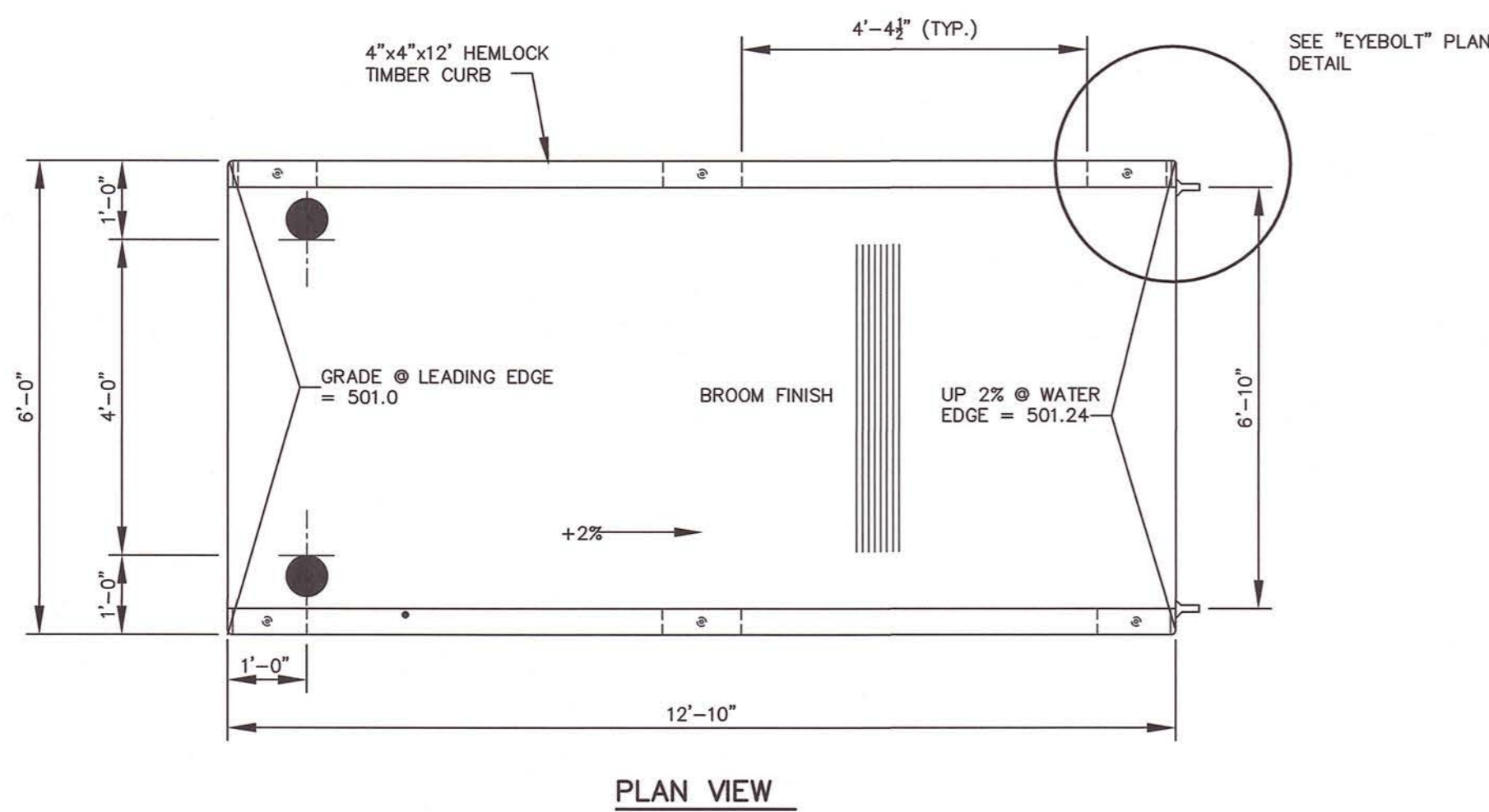
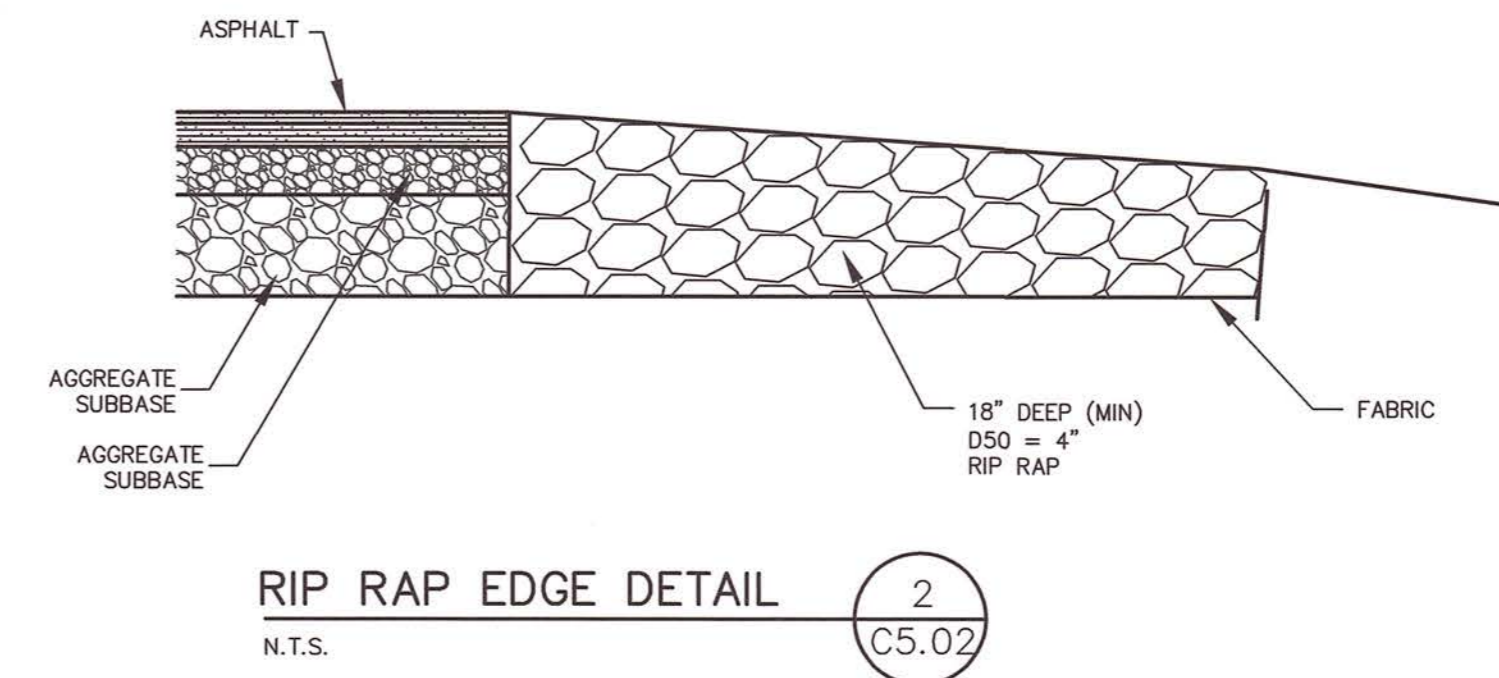
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**C5.01**



- CAST IN PLACE CONCRETE NOTES:**
1. CHAMFER VERTICAL CORNERS OF CONCRETE ABUTMENT  $\frac{1}{4}$ ".
  2. FINISH TOP EDGES (HORIZONTAL CORNERS) OF CONCRETE WITH EDGING TOOL.
  3. USE HEMLOCK TIMBER FOR CURB AND BLOCKS.
  4. PROVIDE DEFORMED REINFORCING STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M31.
  5. CONCRETE SHALL BE 4,000 PSI.
  6. HAND RAILS ARE NOT REQUIRED SINCE THE ABUTMENT IS NORMALLY LESS THAN 30" ABOVE GRADE AND OTHERWISE CONSIDERED PART OF A "LOADING DOCK".



**6' x 12' CONCRETE ABUTMENT 1500 H-20 38Y**  
N.T.S.

**ECHO LAKE BOAT RAMP RENOVATIONS**  
**AROOSTOOK STATE PARK**

STATE PARK ROAD, PRESQUE ISLE, ME 04769

Owner:  
DEPARTMENT OF AGRICULTURE,  
CONSERVATION AND FORESTRY  
BOATING FACILITIES PROGRAM  
STATE HOUSE STATION #22  
AUGUSTA, ME 04333-0022

CONTRACTOR:

Designer:  
**BRSA**  
B.R. Smith Associates, Inc.  
11 Hall Street, Presque Isle, Maine 04769  
Tel: 207-764-3661 Fax: 207-764-5918

**CONSTRUCTION SIGN DETAIL**  
N.T.S.

**PLAN APPROVED**  
**CITY OF PRESQUE ISLE**  
**PLANNING BOARD**

DATE: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**BRSA**  
B.R. Smith Associates, Inc.  
Surveying Engineering  
Building Design

11 Hall Street, Presque Isle, Maine 04769  
Tel: 207-764-3661 Fax: 207-764-5918

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**ISSUED FOR BID & CONSTRUCTION**

NO.	DATE	REVISIONS

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**DETAILS**

**ECHO LAKE BOAT RAMP RENOVATIONS**  
**AROOSTOOK STATE PARK**  
STATE PARK ROAD  
PRESQUE ISLE, MAINE

---

CLIENT: DEPT. OF AGRICULTURE, CONSERVATION AND FORESTRY BOATING FACILITIES PROGRAM AUGUSTA, ME 04333-0022	PROJECT: 2021118	DESIGNER: BRSA	DRAWN BY: KPW	CHECKED BY: KPW	APPROVED BY: TRR	
FIELD BOOK # NA	PLAN DATE: 8-9-2023	PLAN SCALE: AS SHOWN				

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C5.02