CONSTRUCTION PLANS

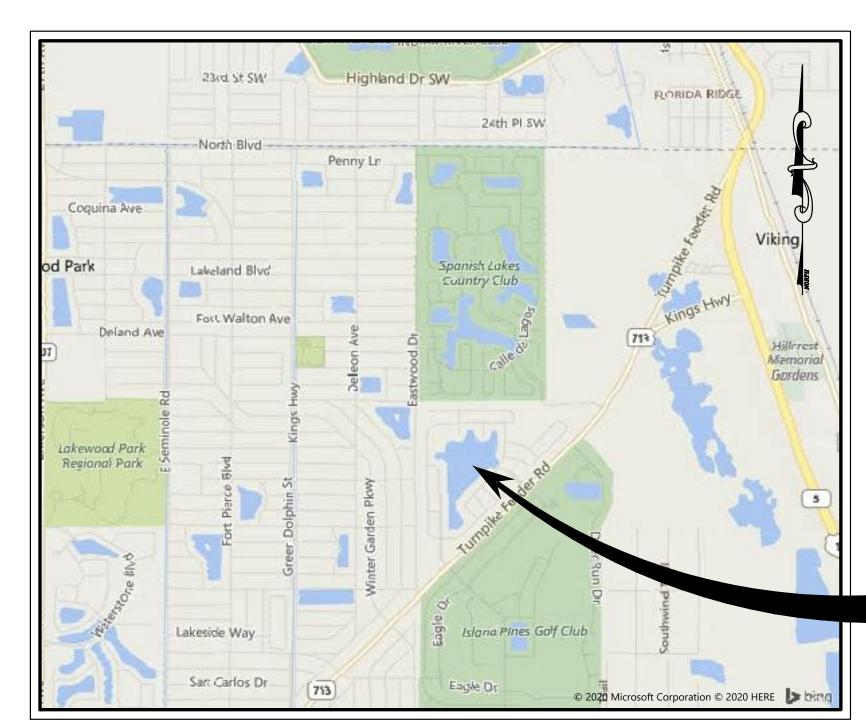
FOR

PORTOFINO SHORES LAKE BANK MAINTENANCE PHASE IIB

SECTION 12, TOWNSHIP 34 SOUTH, RANGE 40 EAST ST. LUCIE COUNTY, FLORIDA

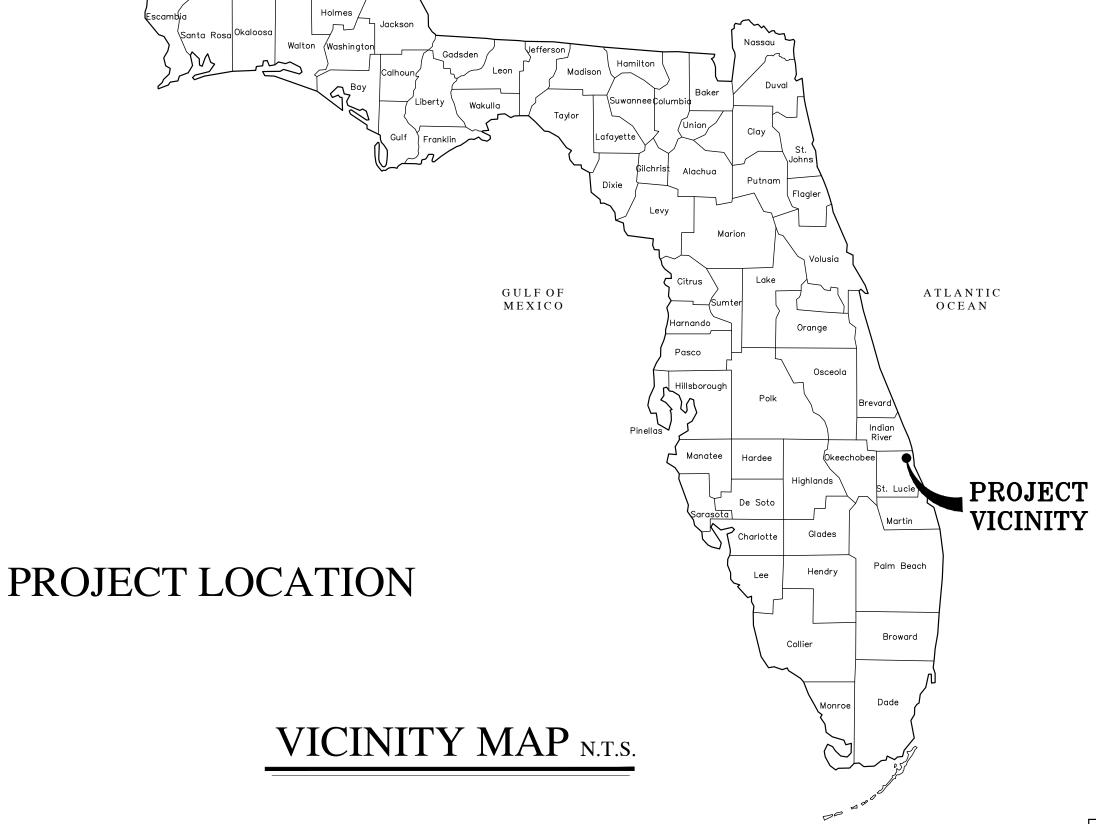
PREPARED FOR

PORTOFINO SHORES, CDD



LOCATION MAP N.T.S.

SECTION 12, TOWNSHIP 34 SOUTH, RANGE 40 EAST



REVISIO	NS
SHEET NO.	DATE

INDEX TO SHEETS						
SHEET NO.	DESCRIPTION					
1	COVER SHEET					
2	LAKE BANK MAINTENANCE PLAN					
3	LAKE BANK MAINTENANCE PLAN DETAILS					
4	LITTORAL DETAILS					

CULPEPPER & 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981 PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com STATE OF FLORIDA BOARD OF PROFESSIONAL **ENGINEERS AUTHORIZATION NO. 4286**

BID SET PLANS DECEMBER 13, 2022

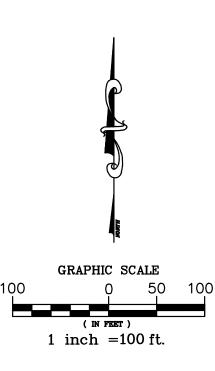
> SIGNED AND SEALED BY STEFAN K. MATTHES. PE ON 12/13/2022 USING A DIGITAL SIGNATURE. PRINTED COPIES OF SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED

> > STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

Call before you dig. DATUM NOTES: 1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.)

Know what's below.





LEGEND

INSTALL NEW BANK MAINTENANCE MEASURES

• FLOATING TURBIDITY BARRIER

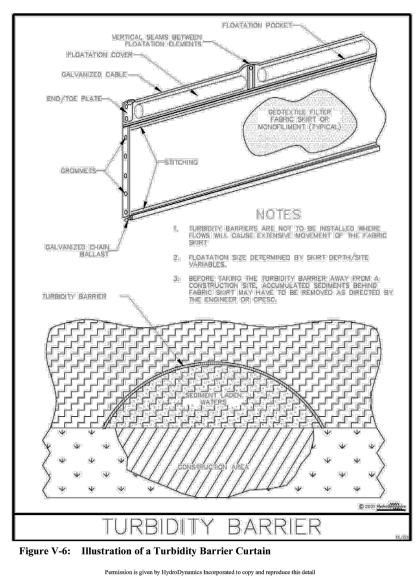
EXISTING VEGETATION

1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF FDOT INDEX NO. 199 FOR $D\!-\!2$ GEOTEXTILE.

2. SHOP DRAWINGS FOR THE GEOTEXTILE FILTER FABRIC OR GEO—FILTER TUBE MUST BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO INSTALLATION.

3. SOD SHALL BE FLORATAM OR APPROVED EQUAL.

STATE OF FLORIDA EROSION & SEDIMENT CONTROL - DESIGNER & REVIEWER MANUAL



STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

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			DESIGNED		
			CALCS.		
			DRAWN	DRP	10/28/
			DETAILED		
			CHECKED	SKM	12/13/

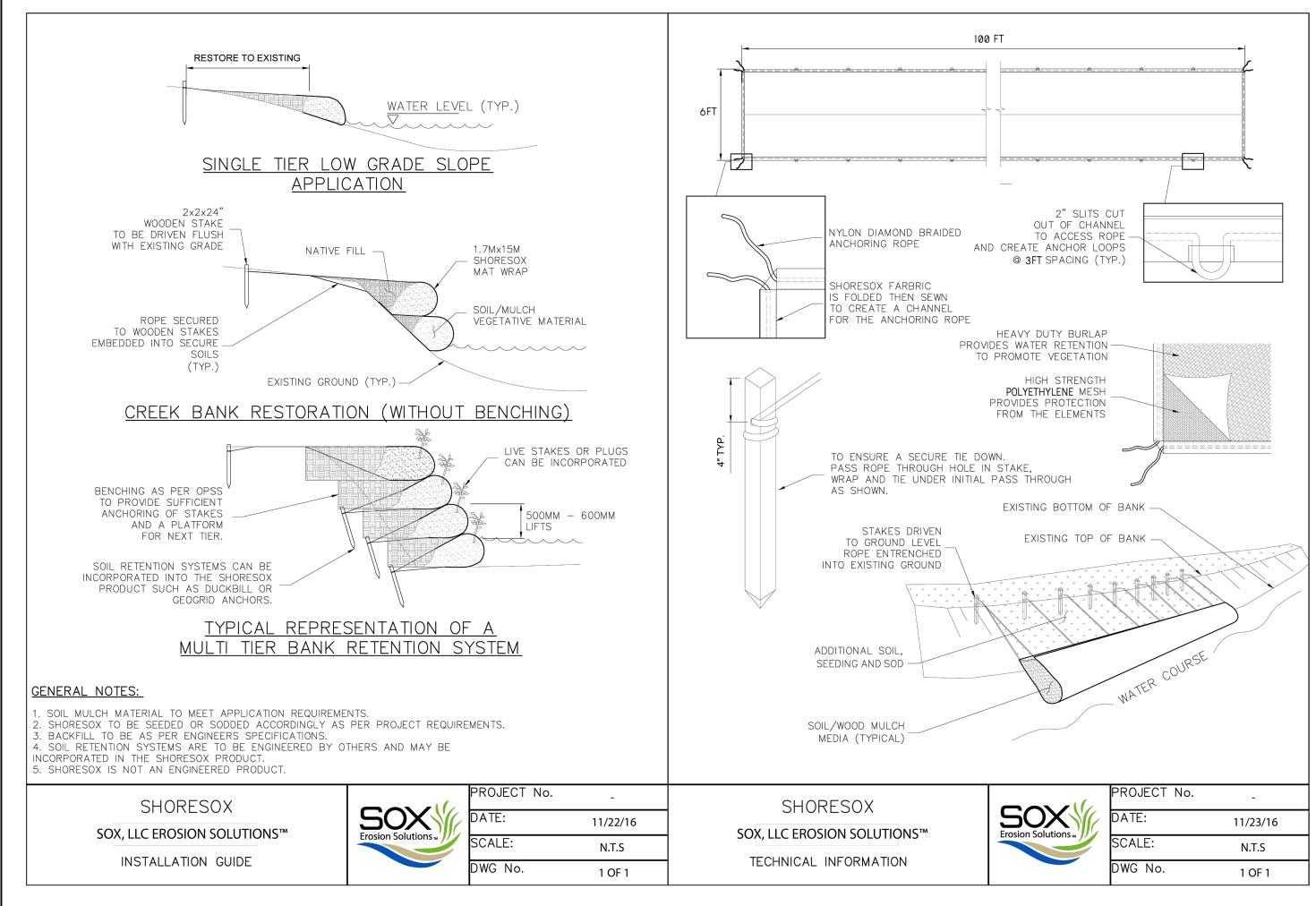
APPROVED SKM 12/13/22

PORTOFINO SHORES LAKE BANK MAINTENANCE PHASE IIB

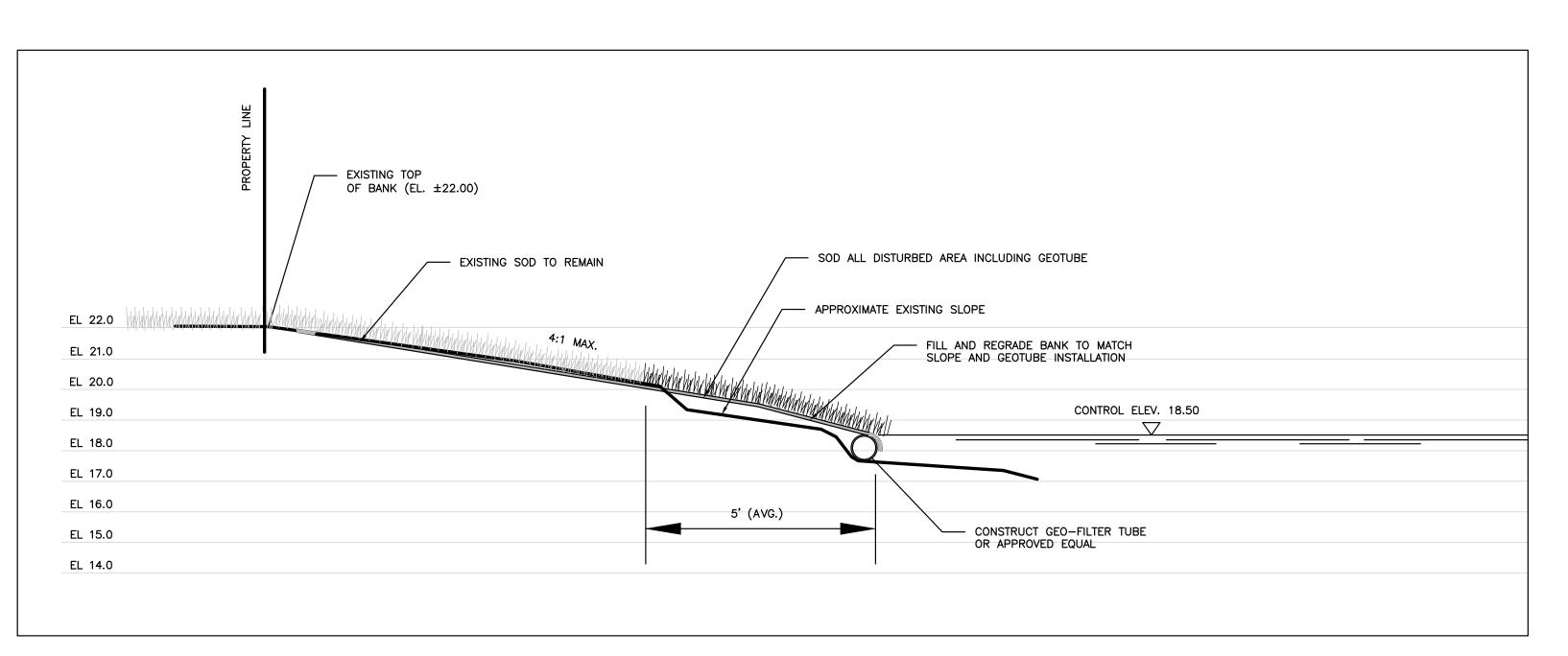
LAKE BANK MAINTENANCE PLAN

HORIZ. SCALE: 1"=100" VERT. SCALE: N/A JOB No. 02-037

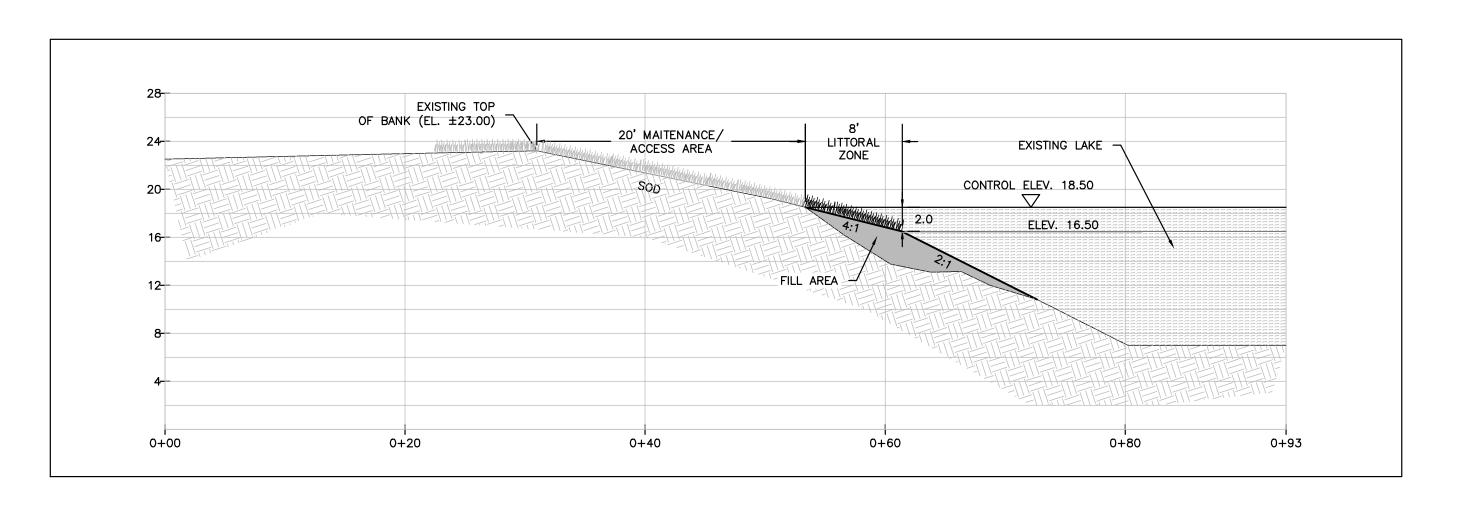
SHEET **2** of **4**



OPTION A - SHORESOX



OPTION B – GEOTUBE



FILL SECTION OPTION C LITTORAL PLANTING

STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

NOTES:

1) ALL ELEVATIONS AND BENCHMARKS SHOWN
HEREON ARE RELATIVE TO THE NORTH AMERICAN
VERTICAL DATUM (N.A.V.D.) OF 1988.



COMPUTER FIELD BK./PG.



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			CHECKED	SKM	12/13/2
			APPROVED	SKM	12/13/2

PORTOFINO SHORES LAKE BANK MAINTENANCE PHASE IIB

LAKE BANK MAINTENANCE DETAILS

DATE: 11/1/2022
HORIZ. SCALE: N/A
VERT. SCALE: N/A
JOB No. 02-037
SHEET **3 of 4**

SCALE: N.T.S. TYPICAL LITTORAL SHELF 0.5 ' DEPTH LANCE-LEAF ARROWHEAD PICKERELWEED | SLENDER SPIKERUSH JOINTED SPIKERUSH

LAKE

4. ALL PLANTS SHALL BE INSTALLED IN HEALTHY AND

VIGOROUS CONDITION, AND SHALL BE FREE OF WEEDS.

5. CONTRACTOR IS RESPONSIBLE FOR THE PROPER

WATERING AND FERTILIZATION OF THE INSTALLED

6. ALL LITTORAL PLANT SPECIES TO BE PLANTED 2' ON

CENTER AND MAY CONSIST OF BARE ROOT OR POTTER

PLANTS FOR A PERIOD OF NOT LESS THAN ONE (1)

DISEASE, AND INSECT PESTS, EGGS OR LARVAE.

ONE (1) PLANT PER FOUR (4) SQUARE FEET TWO (2) FOOT ON CENTERS 10,890 PLANTS PER ACRE

SCALE: N.T.S.

TURBIDITY CURTAIN

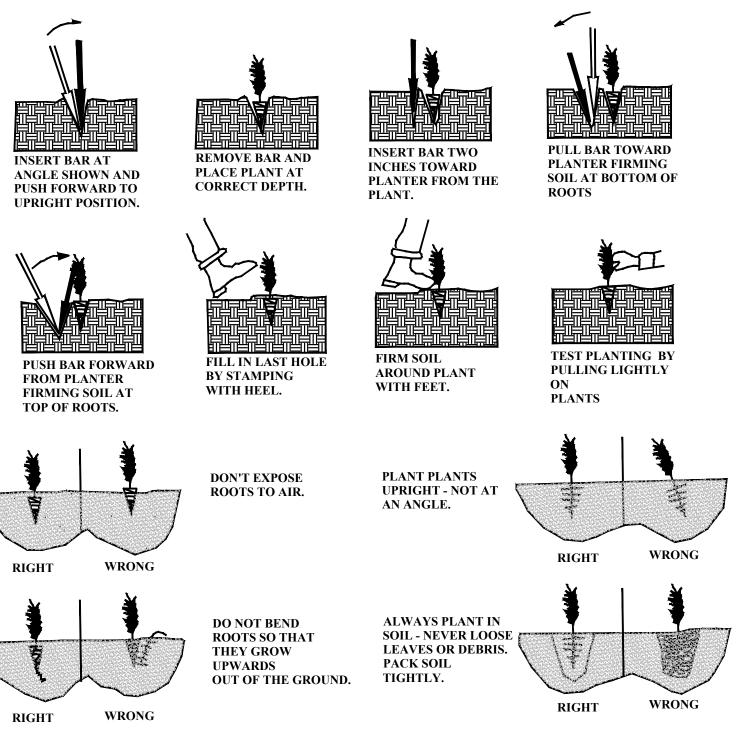
SPACING OF PLANTS

SPECIFICATIONS HIGH STRENGTH NYLON REINFORCED VINY

LOAD LINES: DUAL 5/16" GALVANIZED WIRE

CONNECTOR: SNAP HOOKS AND RINGS CONNECT PVC PIPE FOR FABRIC CLOSURE. OPTIONAL 9 LBS/FT BUOYANCY.

TURBIDITY CURTAINS ARE TO REMAIN IN PLACE FOR A PERIOD OF TIME NOT LESS THAN SEVEN (7) DAYS AFTER WORK HAS BEEN COMPLETED AND TURBIDITY LEVELS ARE EQUAL TO OR BELOW BACKGROUND N.T.U. LEVELS.



PLANTING BARE ROOT PLANTS

1000 FEET OF SHORELINE

SCALE: N.T.S.

LITTORAL ZONE

PLANTS.

COMMON NAME	SCIENTIFIC NAME	DENSITY	SIZE	<u>UNITS</u>
JOINTED SPIKERUSH LANCE-LEAF ARROWHEAD PV PICKERELWEED ZZ SAND CORDGRASS OR SOD SLENDER SPIKERUSH	Eleocharis interstincta Sagittaria lancifolia Pontederia cordata Spartina bakeri Eleocharis baldwinii	2' O.C. 1' O.C. 1' O.C. 2' O.C. 2' O.C.	BR BR BR BR	6000 1650 1650 500 500

UPLAND

SOD

NOTES:

INSTALLATION.

1. PLANTS NATIVE TO FLORIDA MAY BE SUBSTITUTED

SIZE, WITH THE WRITTEN AUTHORIZATION OF THE

2. LOCATION OF PLANTS MAY BE FIELD ADJUSTED IN

3. PLANT MATERIAL SHALL BE INSPECTED BY THE

ENVIRONMENTAL CONSULTANT PRIOR TO

ORDER TO PROVIDE THE BEST GROWING CONDITIONS.

ENVIRONMENTAL CONSULTANT.

FOR THOSE LISTED, ACCORDING TO AVAILABILITY AND

TYPICAL 100' SECTION PLANTING PODS CALL 48 HOURS BEFORE YOU DIG IN FLORIDA

5 PLANTS PER POD

1-800-432-4770

IT'S THE LAW! SUNSHINE STATE ONE CALL

OF FLORIDA, INC.

GENERAL NOTES

- 1. PLANTS NATIVE TO FLORIDA MAY BE SUBSTITUTED FOR THOSE LISTED, ACCORDING TO AVAILABILITY AND SIZE, WITH THE WRITTEN AUTHORIZATION OF THE AGENCIES AND THE ENVIRONMENTAL CONSULTANT.
- 2. LOCATION OF PLANTS MAY BE FIELD ADJUSTED IN ORDER TO PROVIDE THE BEST GROWING CONDITIONS.
- 3. PLANT MATERIAL SHALL BE INSPECTED BY THE ENVIRONMENTAL CONSULTANT PRIOR TO INSTALLATION.
- 4. ALL PLANTS SHALL BE INSTALLED IN HEALTHY AND VIGOROUS CONDITION, AND SHALL BE FREE OF WEEDS, DISEASE, AND INSECT PESTS, EGGS OR LARVAE.
- 5. CONTRACTOR IS RESPONSIBLE FOR THE PROPER WATERING AND FERTILIZATION OF THE INSTALLED PLANTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR.
- 6. ROOT BOUND CONTAINER PLANTS WILL NOT BE ACCEPTED.
- 7. USE FLORIDA GOLD NO FLOAT CYPRESS MULCH OR EQUIVALENT.

GENERAL NOTES

DEFINITION OF IMPROVED SOIL

IMPROVED SOIL IS DEFINED AS A TOPSOIL MIXTURE COMPRISED OF PEAT, SAND OR MUCK WITH AN ORGANIC MATTER CONTENT OF FIVE (5) PEPCENT BY WEIGHT (ASTM STANDARD TEST METHOD D 2974-00) THE IMPROVED SOIL SHALL BE SUITABLE FOR AND CAPABLE OF SUPPORTING WETLAND VEGETATION AND SHALL BE FREE OF EXOTIC OR INVASIVE PLANT SEED SOURCES. ALL IMPROVED SOIL MUST BE APPROVED BY THE PROJECT ENGINEER BEFORE PLACEMENT IN MITIGATION AREAS.

GRADE STANDARDS AND QUALITY

QUALITY OF ALL PLANTS SHALL BE AT LEAST EQUAL TO THAT OUTLINED AS NO. 1 IN GRADES AND STANDARDS FOR NURSERY PLANTS, PART 1, 1963, REVISED EDITION AND PART 1, PALMS AND TREES, BY THE STATE PLANT BOARD OF FLORIDA. ALL PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL

BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS, AND SHALL BE FREE OF DISEASES AND INSECT PESTS, EGGS, OR LARVAE. ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED HEREIN OR INDICATED ON THE CONTRACT DRAWINGS.

TRANSPORTATION AND INSPECTION

PLANT TRANSPORTATION SHALL COMPLY WITH ALL FEDERAL AND STATE REGULATIONS, THEREFORE, AND UPON DELIVERY AT THE SITE, ALL PLANTS SHALL BE INSPECTED BY THE PROJECTS ENVIRONMENTAL CONSULTANT FOR CONFORMITY TO SPECIFICATIONS AND FOR HANDLING DAMAGE. THE CONTRACTOR SHALL PROVIDE THE ENVIRONMENTAL CONSULTANT WITH A 24-HOUR NOTICE BEFORE ANY REQUESTED INSPECTION. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE BY THE CONTRACTOR. TREES THAT HAVE TO BE TRANSPORTED MORE THAN ONE (1) MILE TO REACH THE PROJECT SITE SHALL BE TREATED WITH "WILT PRUF" AND COVERED WITH A 70 % SHADE-CLOTH-TARP OR EQUIVALENT TO PREVENT WIND BURN.

OPTION C - LITTORAL PLANTING

STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

COMPUTER FIELD BK./P **CULPEPPER &** STATE OF FLORIDA BOARD OF www.ct-eng.com PROFESSIVEERS AUTHORIZATION NO. 4286

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			DESIGNED	SKM	#######	
			CALCS.			
			DRAWN	DRP	10/28/22	
			DETAILED			
			CHECKED	##	######	
			APPROVED	SKM	10/31/22	

PORTOFINO SHORES LAKE BANK MAINTENANCE PHASE IIB

LITTORAL DETAILS

DATE: 11/1/2022 HORIZ. SCALE: N/A VERT. SCALE: N/A JOB No. 02-037

SHEET 4 of 4