Construction Plans and Specifications

For

MARTIN COUNTY, FL

Lying In

Sections 37, Township 37 S., Range 41 E.

MARTIN COUNTY, FL

TUCKAHOE MANSION SEAWALL REPLACEMENT PROJECT



Location Map

Location⁻

NOTES:

THESE PLANS ARE IN ENGLISH UNITS 1988 DATUM. ADD 1.48 FEET TO CONVERT TO N.G.V.D. 1929 DATUM. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT **OF TRANSPORTATION STANDARDS AND** SPECIFICATIONS.

BOARD OF COUNTY COMMISSIONERS

DOUG SMITH STACEY HETHERINGTON **DISTRICT 2 HAROLD JENKINS** DISTRICT 3 **DISTRICT 4** SARAH HEARD **ED CIAMPI** DISTRICT 5

ENGINEER

MR. JOSEPH W. CAPRA, PE **CAPTEC ENGINEERING, INC. 301 N.W. FLAGLER AVENUE** STUART, FLORIDA 34994 PHONE: (772)-692-4344 (772)-692-4341



Engineering Business

No. EB-0007657

301 N.W. Flagler Avenue Phone: (772) 692-4344 Fax: (772) 692-4341

PROJECT St Lucie River Sewalls Posit **Lighthouse Point** WATERMARK MARENA OF PALM O Palm City HAIMMOCK RIDG RESERVE

Vicinity Map

ALYLT ACRES

EVERGLADES PLANTATION

US SAILING CENTER OF **MARTIN COUNTY** INDIAN RIVER LAGOON **PROJECT** LOCATION THE MANSION AT TUCKAHOE INDIAN RIVERSIDE BROOKDALE JENSEN BEACH

Site Map

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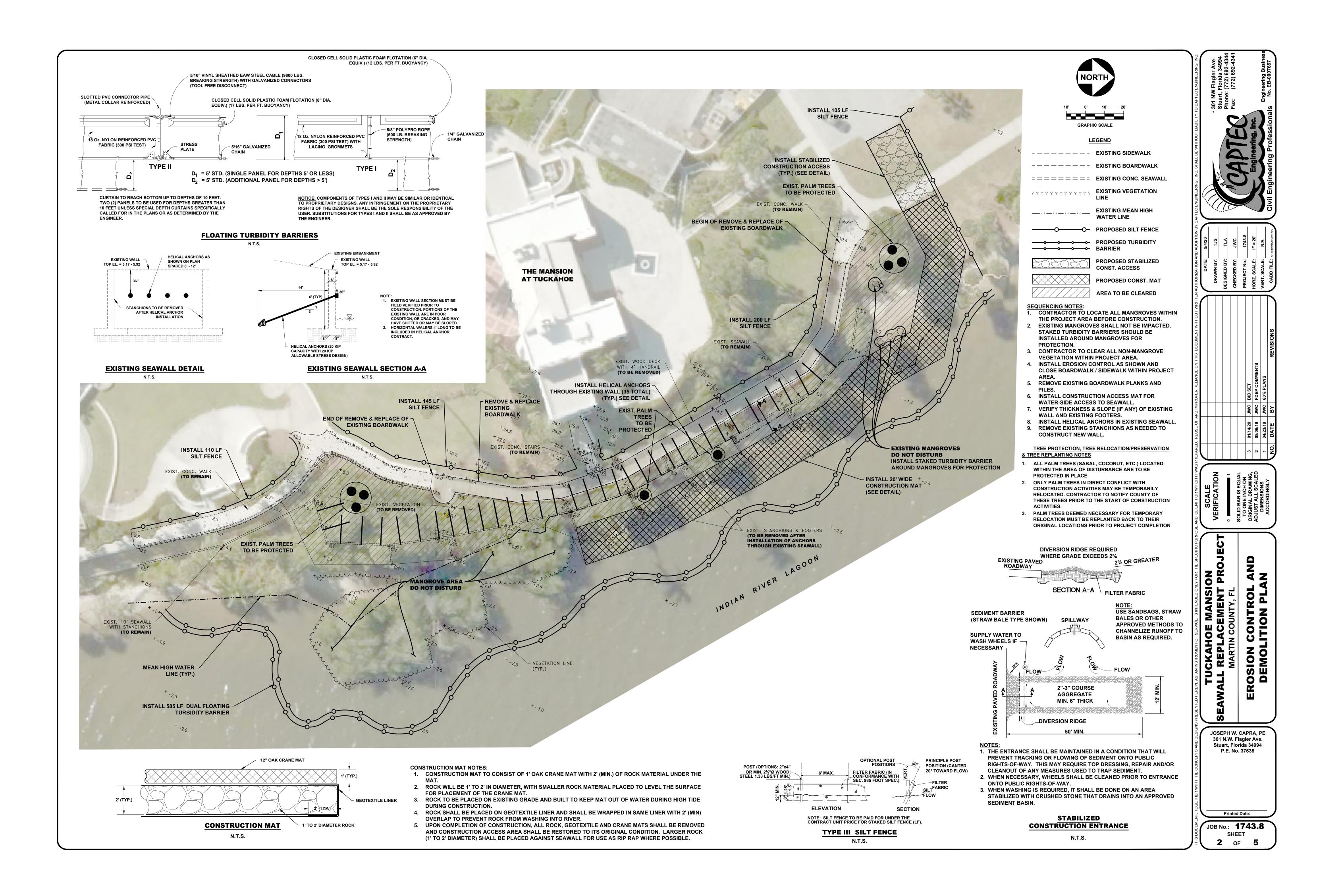
BID SET REV 09/04/20

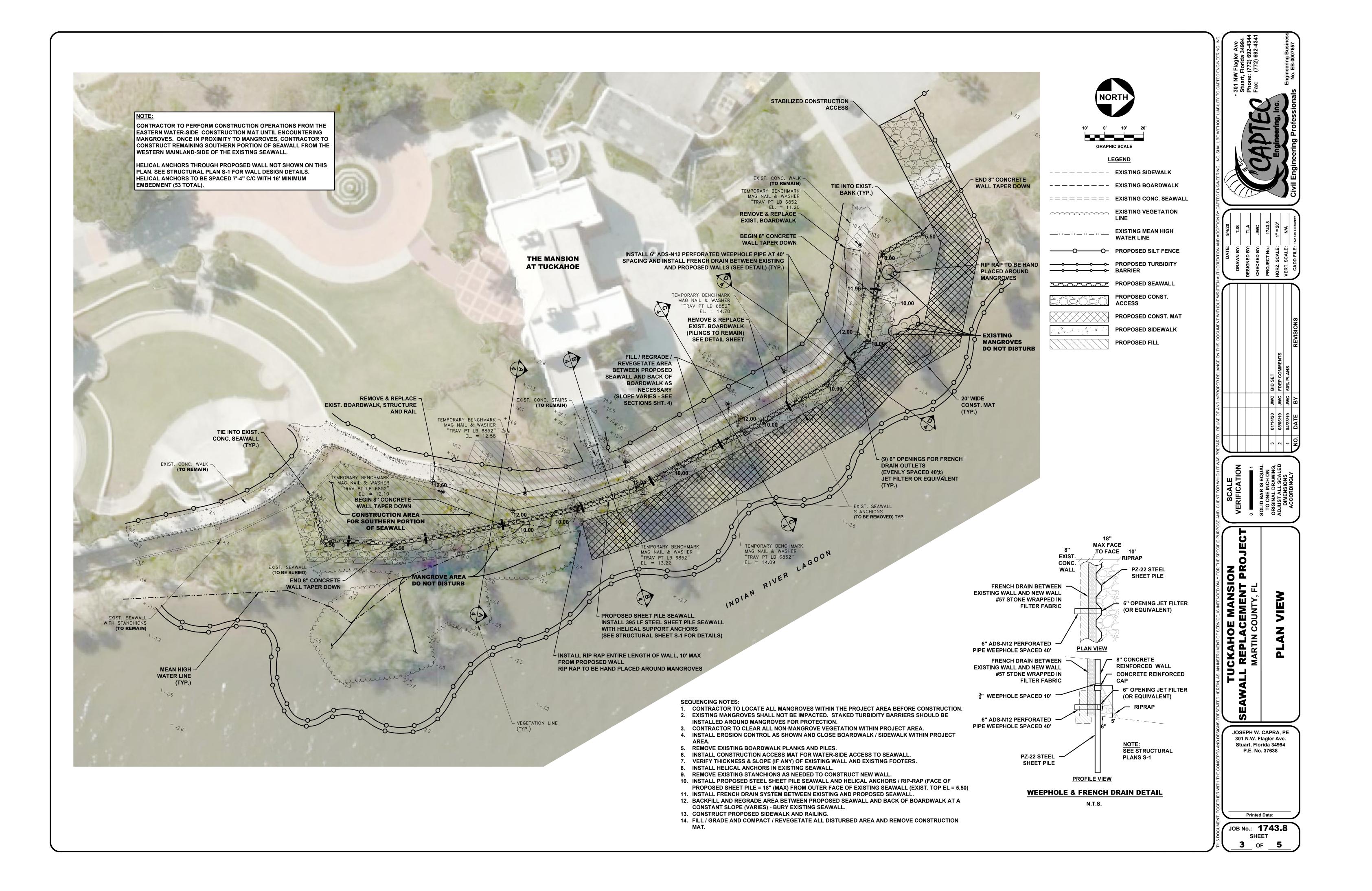


Project No. 1743.8

TUCKAHOE MANSION SEAWALL REPLACEMENT PROJECT

Civil Engineering Professionals





STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

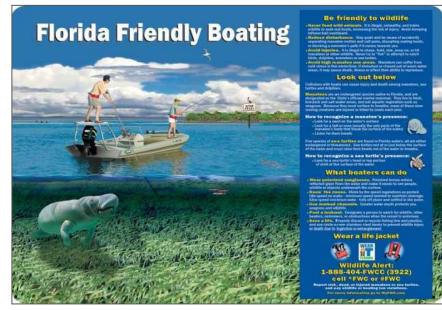
THE PERMITTEE SHALL COMPLY WITH THE FOLLOWING CONDITIONS INTENDED TO PROTECT MANATEES FROM DIRECT PROJECT EFFECTS:

- A. ALL PERSONNEL ASSOCIATED WITH THE PROJECT SHALL BE INSTRUCTED ABOUT THE PRESENCE OF MANATEES AND MANATEE SPEED ZONES, AND THE NEED TO AVOID COLLISIONS WITH AND INJURY TO MANATEES. THE PERMITTEE SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT, THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.
- B. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "IDLE SPEED/NO WAKE" AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.
- C. SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.
- D. ALL ON-SITE PROJECT PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF MANATEE(S). ALL IN-WATER OPERATIONS, INCLUDING VESSELS, MUST BE SHUTDOWN IF A MANATEE(S) COMES WITHIN 50 FEET OF THE OPERATION. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50-FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF THE OPERATION. ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.
- E. ANY COLLISION WITH OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) HOTLINE AT 1-888-404-3922. COLLISION AND/OR INJURY SHOULD ALSO BE REPORTED TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-731-3336) FOR NORTH FLORIDA OR IN VERO BEACH (1-772-562-3909) FOR SOUTH FLORIDA, AND EMAILED TO FWC AT ImperiledSpecies@myFWC.com.
- F. TEMPORARY SIGNS CONCERNING MANATESS SHALL BE POSTED PRIOR TO AND DURING ALL IN-WATER PROJECT ACTIVITIES. ALL SIGNS ARE TO BE REMOVED BY THE PERMITTEE UPON COMPLETION OF THE PROJECT. TEMPORARY SIGNS THAT HAVE ALREADY BEEN APPROVED FOR THIS USE BY THE FWC MUST BE USED. ONE SIGN WHICH READS CAUTION: BOATERS MUST BE POSTED. A SECOND SIGN MEASURING AT LEAST 8½ " BY 11" EXPLAINING THE REQUIREMENTS FOR "IDLE SPEED/NO WAKE" AND THE SHUT DOWN OF IN-WATER OPERATIONS MUST BE POSTED IN A LOCATION PROMINENTLY VISIBLE TO ALL PERSONNEL ENGAGED IN WATER-RELATED ACTIVITIES. THESE SIGNS CAN BE VIEWED AT:

http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.html

QUESTIONS CONCERNING THESE SIGNS CAN BE FORWARDED TO THE EMAIL ADDRESS LISTED ABOVE.

MANATEE INFORMATION SIGN



30" TALL X 36" WIDE (ROUNDED CORNERS WITH RADIUS 1½")

THIS MANATEE
EDUCATIONAL SIGN
REPLACES THE
"MANATEE BASICS
FOR BOATERS" SIGN.

THIS MA

30" TALL X 24" WIDE (ROUNDED CORNERS WITH RADIUS 1½")

THIS AWARENESS SIGN REPLACES THE "CAUTION: MANATEE AREA" SIGN. IT IS INTENDED TO REMIND FACILITY PATRONS OF MANATEES BEFORE GOING OUT ON THE WATER. THESE SIGNS ARE ALSO FREQUENTLY USED AS TEMPORARY SIGNS FOR CONSTRUCTION PURPOSES.

SIGN GUIDELINES

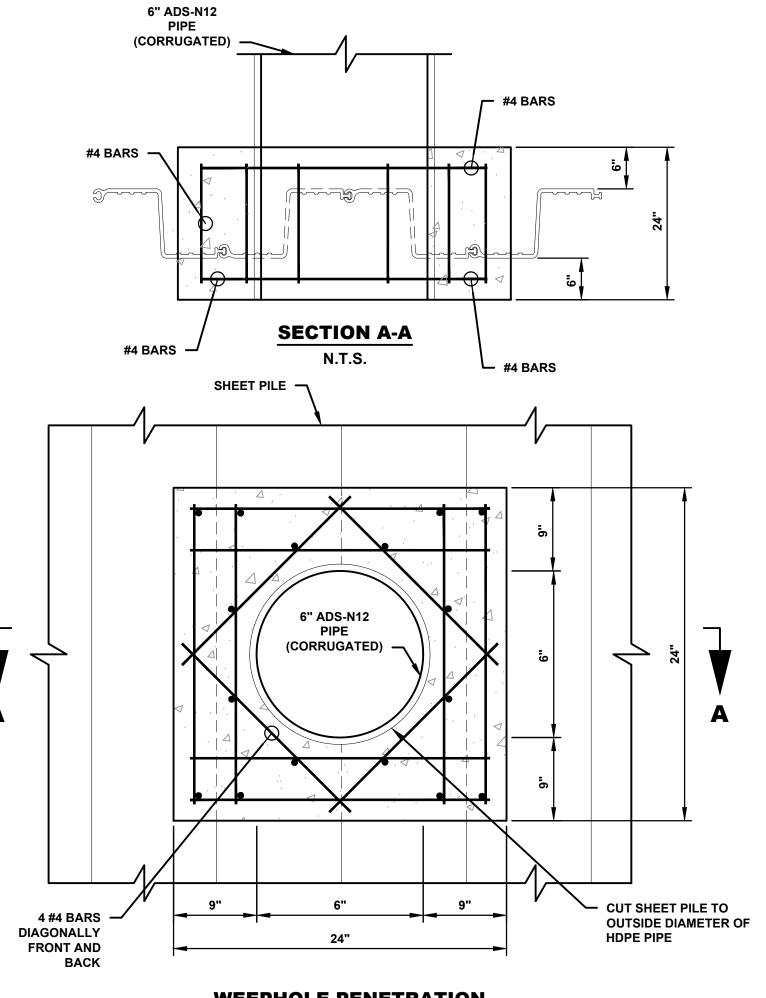
Caution Boaters

Watch for Manatee

1-888-404-FWCC(3922)

SIGNS MUST BE PLACED IN A PROMINENT LOCATION FOR MAXIMUM VISIBILITY. AREAS THAT ARE RECOMMENDED INCLUDE: DOCK WALKWAYS, DOCK MASTER OFFICES, NEAR RESTROOMS OR OTHER HIGH PATRON FOOT TRAFFIC AREAS. THEY MUST BE REPLACED WHEN FADED, DAMAGED OR OUTDATED.

- IF THE FACILITY IS LARGE OR HAS MULTIPLE DOCKS WITH SEPARATE WALKWAYS THAT ARE A CONSIDERABLE DISTANCE APART, MULTIPLE SIGNS SHOULD BE INSTALLED.
- THESE SIGNS MUST NOT FACE THE WATER, MUST NEVER BE ATTACHED TO PILINGS OR NAVIGATIONAL MARKERS IN THE WATER. THE EXCEPTION TO DIRECTION THE SIGN IS FACING IS THE "CAUTION BOATERS" SIGN, WHEN IT IS USED AS A TEMPORARY SIGN DURING IN-WATER WORK.
- ALL SIGNS SHOULD BE METAL OR FIBERGLASS WITH ROUNDED CORNERS (HAND-SANDED TO REMOVE ALL SHARP EDGES AND BURRS), CONSTRUCTED OF 0.08 GAUGE 5052-H38 ALUMINUM WITH AN ALODINE 1200 CONVERSION COATING AND ENGINEER GRADE TYPE I REFLECTIVE SHEETING.
- SIGNS OTHER THAN DEPICTED MAY BE CONSIDERED, BUT MUST BE PRE-APPROVED BY FWC.



WEEPHOLE PENETRATION
THROUGH SHEET WALL DETAIL

N.T.S.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work

all in-water activities must

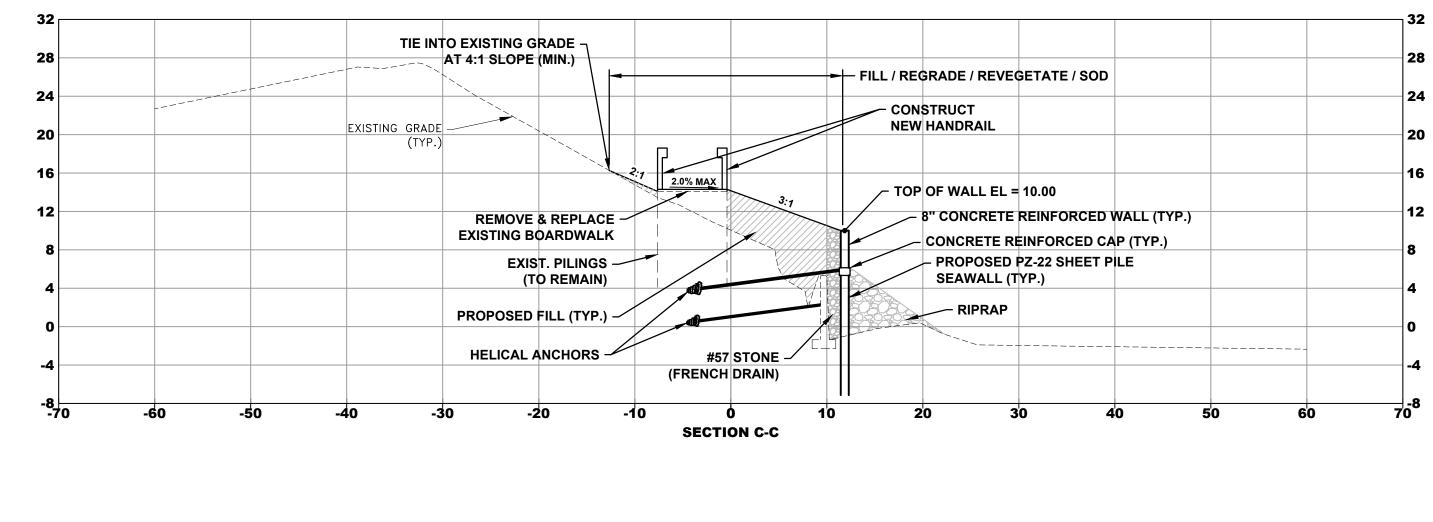
SHUT DOWN

Report any collision with or injury to a manatee:

1-888-404-FWCC(3922)

cell *FWC or #FWC

Wildlife Alert:



- FILL / REGRADE / REVEGETATE / SOD ----

(FRENCH DRAIN)

SECTION A-A

#57 STONE -(FRENCH DRAIN)

SECTION B-B

— CONSTRUCT

- FILL / REGRADE / REVEGETATE / SOD

NEW HANDRAIL

✓ TOP OF WALL EL = 10.00

\$EAWALL (TYP.)

NEW HANDRAIL

• TOP OF WALL EL = 10.00

SEAWALL (TYP.)

8" CONCRETE REINFORCED WALL (TYP.)

- CONCRETE REINFORCED CAP (TYP.)

PROPOSED PZ-22 SHEET PILE

- 8" CONCRETE REINFORCED WALL (TYP.)

- CONCRETE REINFORCED CAP (TYP.)

PROPOSED PZ-22 SHEET PILE

EXISTING GRADE -

(TYP.)

TIE INTO EXISTING GRADE -

AT 4:1 SLOPE (MIN.)

PROPOSED FILL (TYP.) -

REMOVE & REPLACE -

EXIST. PILINGS -

HELICAL ANCHORS —

(TO REMAIN)

EXISTING BOARDWALK

TIE INTO EXISTING GRADE -

EXISTING GRADE -

AT 3:1 SLOPE (MIN.)

REMOVE & REPLACE

EXIST. PILINGS

(TO REMAIN)

PROPOSED FILL (TYP.)

HELICAL ANCHORS -

EXISTING BOARDWALK

essel
a manatee
corted immediately

CAUTION

MANATEE HABITAT

IDLE SPEED is required if operating a vessel in the construction area.

All Equipment must be SHUT DOWN if a manatee comes within 50 feet of operation.

Any collision with and/or injury to a manatee shall be reported immediately to the FWC at:

1-888-404-FWCC

(1-888-404-3922)

TIE INTO EXISTING GRADE -AT 4:1 SLOPE (MIN.) ► FILL / REGRADE / REVEGETATE / SOD CONSTRUCT **NEW HANDRAIL** EXISTING GRADE -(TYP.) - TOP OF WALL EL **=** 10.00 - 8" CONCRETE REINFORCED WALL (TYP.) REMOVE & REPLACE -EXISTING BOARDWALK - CONCRETE REINFORCED CAP (TYP.) EXIST. PILINGS -- PROPOSED PZ-22 SHEET PILE (TO REMAIN) SEAWALL (TYP.) PROPOSED FILL (TYP.) HELICAL ANCHORS -(FRENCH DRAIN) SECTION D-D

SCALE 1" = 10' HORZ AND VERT

ED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY CAPTEC ENGINEERING, INC. SHALL BE WITHOUT LABILITY TO CAPTEC ENGINEERING, INC.

DATE: 9/4/20

DRAWN BY: 1JS

DESIGNED BY: TLA

CHECKED BY: JWC

04/14/20 JWC BID SET

04/2014/20 JWC FIDE COMMENTS

O4/23/19 JWC

04/23/19 JWC

04

SCALE
VERIFICATION

O TO SOLID BAR IS EQUAL
TO ONE INCH ON ORIGINAL DRAWING, ADJUST ALL SCALED
DIMENSIONS

LL REPLACEMENT PROJECTIONS & DETAILS

JOSEPH W. CAPRA, PE 301 N.W. Flagler Ave. Stuart, Florida 34994 P.E. No. 37638

Printed Date:

JOB No.: 1743.8

SHEET

4 OF 5

GENERAL NOTES

- 1. DRAWING DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER / ENGINEER BEFORE COMMENCING WORK.
- 2. NO FIELD CHANGES OR DEVIATION FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER / ENGINEER
- 3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FDEP / ACOE PERMIT.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED CLEARING AND GRUBBING WITHIN THE PROJECT LIMITS. UNLESS NOTED OTHERWISE, THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND PROPER DISPOSAL OF ALL GRASS, WEEDS, TREES, BRUSH, STUMPS, ROOTS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE EXISTING GROUND SURFACE TO A DEPTH OF ONE FOOT (1'). ITEMS TO REMAIN OR TO BE ADJUSTED OR RELOCATED SHALL BE SO DESIGNATED ON THE DRAWINGS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF ALL RUBBLE, DEBRIS AND ANY OTHER UNUSABLE OR UNSUITABLE MATERIAL. THE CONTRACTOR SHALL BE ADVISED THAT THE COUNTY NORMALLY DOES NOT WAIVE TIPPING FEES AT ITS LANDFILL SITES.
- 6. THE "TRENCH SAFETY ACT" SHALL BE INCORPORATED INTO THIS CONTRACT AS ENACTED BY THE LEGISLATURE OF THE STATE OF FLORIDA TO BE IN EFFECT AS OF OCTOBER 1, 1990.
- 7. ELEVATION DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 8. SHOP DRAWINGS FOR ALL CONSTRUCTION ITEMS SHALL BE SUBMITTED TO THE OWNER / ENGINEER FOR REVIEW AND APPROVAL.
- 9. CONSTRUCTION DEWATERING (WELL POINTS, SUMPS, ETC.) MAY REQUIRE A SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) WATER USE/DEWATERING PERMIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING WATER USE/DEWATERING PERMITS AS NECESSARY.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GAINING COMPLETE FAMILIARITY WITH THE PROJECT SITE INCLUDING ACCESS LIMITATIONS, SUBSURFACE SOIL CONDITIONS AND GROUNDWATER TABLE LEVELS.
- 11. THE CONTRACTOR SHALL PROVIDE A QUALIFIED SUPERINTENDENT TO BE PRESENT AT THE PROJECT PRE-CONSTRUCTION MEETING AND TO REMAIN ON THE JOB SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED.
- 12. THE CONTRACTOR SHALL HAVE THE FOLLOWING AVAILABLE AT THE JOB SITE AT ALL TIMES: ONE COPY (1) OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS, ONE (1) COPY OF EACH REQUIRED CONSTRUCTION PERMIT, AND ONE COPY (1) OF THE UTILITY COMPANY DESIGN AND CONSTRUCTION STANDARDS.
- 13. THE CONTRACTOR SHALL RESTORE/REPLACE ALL EXISTING PAVEMENT, DRIVEWAYS, SIDEWALKS, MAILBOXES, SOD, LANDSCAPING, CONDUIT, CABLE, IRRIGATION SYSTEMS, ETC., AFFECTED BY CONSTRUCTION ACTIVITIES.
- 14. SOD SHALL BE REPLACED FOR THE FULL WIDTH DISTURBED. SOD TYPE SHALL MATCH EXISTING UNLESS OTHERWISE SPECIFIED.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DRAINAGE AND PROPER DUST CONTROL ON THE PROJECT SITE AT ALL TIMES. THE LOCAL UTILITY COMPANY MAY REQUIRE THE USE OF NON-POTABLE WATER FOR DUST CONTROL.

UTILITY COORDINATION

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY COORDINATION DURING CONSTRUCTION.
- 2. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- 3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY UNDERGROUND CONDUIT AND / OR PIPING REQUIRED FOR ELECTRIC POWER, TELEPHONE, CABLE TELEVISION, IRRIGATION, ETC., PRIOR TO BEGINNING SUBGRADE WORK. THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF ALL EXISTING UTILITIES WITH THE APPLICABLE UTILITY COMPANIES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY AND PAYING ALL NECESSARY FEES FOR HOLDING POWER POLES AND/OR LINES AFFECTED BY CONSTRUCTION ACTIVITIES.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AT ALL TIMES DURING CONSTRUCTION, INCLUDING PROVIDING DIRECT SUPPORT AND / OR SHORING EXCAVATED AREAS AS NECESSARY. THE CONTRACTOR SHALL NOTIFY AFFECTED UTILITY COMPANIES PRIOR TO ATTEMPTING ANY FACILITY SUPPORT. IF A UTILITY COMPANY REQUIRES THAT ONLY THEIR CREWS MAY SUPPORT THEIR FACILITIES, THEN THE CONTRACTOR SHALL PROVIDE FOR THE REQUIRED COORDINATION AND PAYMENT.
- 6. ALL UTILITY SYSTEM CONSTRUCTION SHALL BE INSTALLED, INSPECTED AND TESTED IN ACCORDANCE WITH THE UTILITY COMPANY DESIGN AND CONSTRUCTION STANDARDS. IN CASE OF DISCREPANCIES BETWEEN THE CONSTRUCTION PLANS AND THE UTILITY COMPANY SPECIFICATIONS, THE MOST RESTRICTIVE SHALL APPLY.
- 7. THE CONTRACTOR SHALL ALLOW UTILITY COMPANIES TO INSPECT THE APPLICABLE UTILITY WORK DURING CONSTRUCTION

TURBIDITY CONTROL PLAN

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SPECIFIC TURBIDITY CONTROL PLAN TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL. THE TURBIDITY CONTROL PLAN SHALL DESCRIBE IN DETAIL THE PROPOSED METHODS FOR CONTROLLING SEDIMENTS AND PROTECTING WATER QUALITY IN ALL AREAS DOWNSTREAM OF THE CONSTRUCTION WORK. THE PLAN SHALL ADDRESS THE USE OF TURBIDITY BARRIERS SUCH AS HAY BALES, SILT SCREENS, FLOATING CURTAINS, ETC. AND PROVIDE FOR TURBIDITY MONITORING AS APPROPRIATE.

PAVING GRADING AND DRAINAGE

- 1. SITE GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES. ALL AREAS SHALL BE GRADED AS NECESSARY TO DRAIN.
- 2. ALL AREAS SHALL BE SODDED AS SOON AS PRACTICAL AFTER FINAL GRADING TO PREVENT EROSION.
- 3. THE CONTRACTOR SHALL IMMEDIATELY CORRECT ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT ARE CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- 4. CERTIFIED TEST REPORTS SHALL BE PROVIDED TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL. REPORTS SHALL BE SUBMITTED DOCUMENTING THE TEST RESULTS OF THE FOLLOWING ITEMS AS A MINIMUM: BACKFILL GRADATION AND COMPACTION, SUBGRADE BEARING AND COMPACTION, AND CONCRETE BREAK STRENGTH. THIS IS FOR AREAS UNDER CONCRETE.

BACKFILL DENSITY TESTING

ALL BACKFILL DENSITY TESTS SHALL BE CONDUCTED BY AN INDEPENDENT TESTING LAB. FOR TYPICAL PIPE TRENCHES, BACKFILL DENSITY TESTS SHALL BE PERFORMED AT 500 FEET (MAXIMUM) INTERVALS. FOR PIPE TRENCHES AT ROADWAYS, TURN-LANES AND DRIVEWAY OPEN-CUTS, A MINIMUM OF ONE (1) BACKFILL DENSITY TEST SHALL BE PERFORMED AND THEREAFTER AT 5 FEET (MAXIMUM) INTERVALS. TESTS SHALL BE CONDUCTED AT THE GROUND AND FOR EVERY SIX INCH (6") LAYER TO FINISH GRADE. CERTIFIED COPIES OF THE TEST REPORTS SHALL BE PROVIDED TO THE OWNER / ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE TESTING LAB AS NECESSARY DURING THE CONSTRUCTION WORK.

SOIL CONSERVATION/CONTROL PLAN

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A SPECIFIC SOIL CONSERVATION / CONTROL PLAN TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL. THE PLAN SHALL DESCRIBE THE PROVISIONS FOR ASSURING THAT ALL ON-SITE SOILS WILL REMAIN ON-SITE DURING CONSTRUCTION AND WILL NOT ERODE INTO ADJACENT PROPERTIES, ADJACENT ROADSIDE SWALES, OR RETENTION AREAS. AS A MINIMUM, THE PLAN SHALL INCLUDE THE FOLLOWING:

- ALL EXISTING DRAINAGE SWALES SHALL REMAIN SODDED DURING CONSTRUCTION.
- SCARIFICATION SHALL BE PERFORMED ONLY TO THE EXTENT ABSOLUTELY NECESSARY.
- HAY BALES AND SILTATION FENCES (PER FDOT INEXT 102) SHALL BE USED DURING CONSTRUCTION TO PROTECT OFF-SITE AREAS FROM DISCHARGES.
- HAY BALES AND SILTATION FENCES (PER FDOT INDEX 102) SHALL BE USED DURING CONSTRUCTION TO PROTECT DRAINAGE SWALES AND RETENTION AREAS FROM ANY DEWATERING AND/OR PUMPING OF WATER.
- ALL DISTURBED AREAS SHALL BE SODDED AS SOON AS PRACTICAL TO PREVENT EROSION.
 DRAINAGE SWALES AND RETENTION AREAS SHALL BE STABILIZED AND SODDED IMMEDIATELY UPON
- DRAINAGE SWALES AND RETENTION AREAS SHALL BE STABILIZED AND SODDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.

CONCRETE

- 1. CONCRETE SHALL BE CLASS 1 4000 PSI CONCRETE FURNISHED AND INSTALLED IN ACCORDANCE WITH ACI 318. SHALL BE SUBMITTED TO THE OWNER / ENGINEER FOR REVIEW AND APPROVAL.
- 2. REINFORCING STEEL SHALL BE GRADE 60 IN ACCORDANCE WITH ASTM A-615. LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318.

PILING - MISCELLANEOUS

- 1. STORAGE AND HANDLING OF PILES SHALL BE AS SUCH TO ELIMINATE THE DANGER OF IMPACT FRACTURE AND UNDUE BENDING STRESSES IN TRANSPORTING THE PILES FROM THE FORMS AND INTO THE LEADS.
- 2. TURBIDITY CURTAINS SHALL BE EMPLOYED AS NECESSARY IN ORDER TO EFFECTIVELY CONTROL TURBIDITY DURING THE COURSE OF CONSTRUCTION.
- 3. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO PREVENT DAMAGE TO EXISTING ADJACENT STRUCTURES DURING PILE DRIVING OPERATIONS.
- 4. THE CONTRACTOR MAY INSTALL THE PILING BY METHODS OTHER THAN DRIVING, PRE-DRILLING, JETTING, ETC. IN ORDER TO MINIMIZE THE EFFECTS OF VIBRATION ON EXISTING ADJACENT STRUCTURES, HOWEVER, THE PILING SHALL BE DRIVEN WITHOUT INTERRUPTION FOR THE LAST FIVE FEET (5').

AS-BUILT PLANS

TOWARD THE END OF THE PROJECT PRIOR TO REQUESTING THE SUBSTANTIAL COMPLETION WALKTHROUGH, THE CONTRACTOR SHALL PRODUCE AT HIS OWN EXPENSE AND SUBMIT TO THE OWNER VIA THE ENGINEER OR ARCHITECT THE FOLLOWING COPIES OF RECORD DRAWINGS FOR REVIEW AND APPROVAL:

A. THREE BLUE (OR BLACK) LINE DRAWINGS SIGNED AND SEALED BY A REGISTERED PROFESSIONALS ENGINEER OR PROFESSIONAL SURVEYOR AND MAPPER LICENSED IN THE STATE OF FLORIDA.

AT THE COMPLETION OF THE PROJECT, INCLUDING PUNCH LIST ITEMS AND PRIOR TO SUBMITTING AN APPLICATION FOR FINAL PAYMENT, THE CONTRACTOR SHALL PRODUCE AT HIS OWN EXPENSE AND SUBMIT TO THE OWNER VIA THE ENGINEER OR ARCHITECT THE FOLLOWING COPIES OF FINAL RECORD DRAWINGS FOR REVIEW AND APPROVAL:

- B. EIGHT BLUE (OR BLACK) LINE DRAWING SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL SURVEYOR AND MAPPER LICENSED IN THE STATE OF FLORIDA.
- C. ONE DIGITAL COPY OF THE RECORD DRAWINGS IN "AUTOCAD" FORMAT VERSION 2004 OR EARLIER AND ADOBE ACROBAT (PDF).

THE ENGINEER MAY REQUIRE THE CONTRACTOR TO SUBMIT ADDITIONAL SIGNED AND SEALED COPIES OF RECORD DRAWINGS AT ANY TIME IN THE PROCESS FOR REVIEW OR USE BY THE OWNER AND ENGINEER AND THE CONTRACTOR WILL PROVIDE ADDITIONAL SIGNED AND SEALED COPIES AS REQUESTED AT NO ADDITIONAL EXPENSE TO THE OWNER OR ENGINEER. ALL ENGINEERING RECORD DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL SURVEYOR AND MAPPER LICENSED IN THE STATE OF FLORIDA. ALL DIGITAL RECORD INFORMATION FILES MUST BE IN STATE PLANE COORDINATES: (NAD 83/90). THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONSTRUCTION STAKING AS NEEDED, TO ACCURATELY COMPLETE THE PROJECT.

GEOTECHNICAL REPORT

SUBSURFACE SOIL EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION THE MANSION AT TUCKAHOE - INDIAN RIVERSIDE PARK SEAWALL REPLACEMENT PROJECT MARTIN COUNTY, FLORIDA ANDERSEN ANDRE CONSULTING ENGINEERS 4-24-19

PERMITS |

FDEP: FILE NO. 43-199775-002-EG-003-EE, 7-12-13
GENERAL PERMIT TO INSTALL RIP-RAP (62-330.431)
EXEMPTION TO REPLACE EXISTING SEAWALL WITHIN 18 INCHES OF THE EXISTING SEAWALL (WETFACE TO WETFACE) (62-330.051(12)(B)

EP: FILE NO. 43-0199775-004-EE, 8-30-19

EXEMPTION TO INSTALL BASE ROCK AND CONSTRUCTION MATS (FS 373.406(6))

OE: SAJ-2014-03008(NW-CF), 10-18-19
NATIONWIDE PERMITE NO. 33 FOR INSTALLATION OF CONSTRUCTION ACCESS

SUBCONSULTANTS:

SURVEYOR:	GEOTECH:	STRUCTURAL:
BETSY LINDSAY, INC.	ANDERSEN ANDRE CONSULTING ENG.	TRC WORLDWIDE ENGINEERING, INC
ELIZABETH A LINDSAY, P.L.S.	PETER G. ANDERSEN, P.E.	DAVID O'CHARLAND, P.E., S.I.
7997 S.W. JACK JAMES DRIVE	834 SW SWAN AVENUE	1230 N. UNIVERSITY DRIVE
STUART, FL. 34997	PORT ST. LUCIE, FL. 34983	PLANTATION, FL. 33322
(772)286-5753	(772)807-9191	(954)484-7777

VERIFICATION

SOLID BAR IS EQUAL

TO ONE INCH ON
ORIGINAL DRAWING,
ADJUST ALL SCALED
DIMENSIONS

2 0

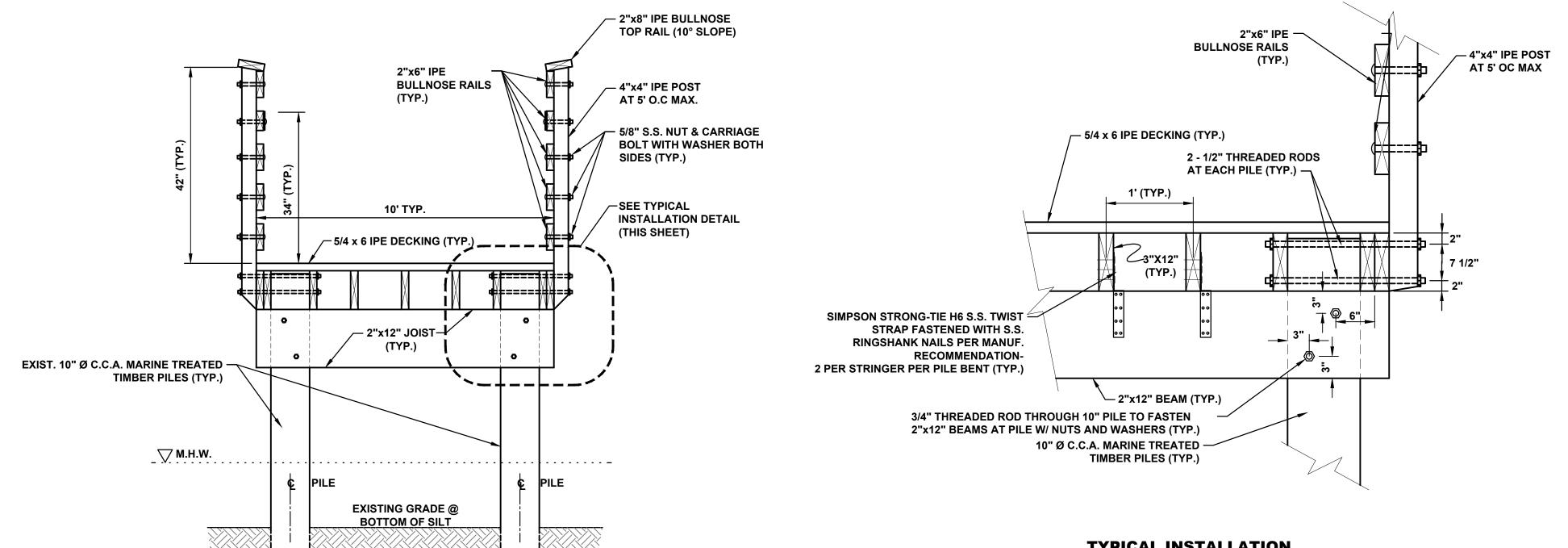
MARTIN COUNTY, FL

JOSEPH W. CAPRA, PE 301 N.W. Flagler Ave. Stuart, Florida 34994 P.E. No. 37638

Printed Date:

JOB No.: 1743.8
SHEET

5 OF 5



TYPICAL INSTALLATION DETAIL WITH SIDE RAILS

BOARDWALK CONSTRUCTION NOTES

- 1. Provide wood construction as specified and as indicated on drawings.
- 2. The CONTRACTOR shall submit lumber and hardware specifications, samples and product data of materials to the OWNER for review and approval prior to installation.
- 3. Comply with all governing codes and regulations, use experienced installers. Deliver, handle and store materials in proper manner to eliminate damage.
- 4. All sub-deck structural lumber (beams, joists, stringers, etc.) shall be CCA Pressure Treated Grade #2 structural yellow pine in accordance with AWPA Standard C-18-73 at the rate of 2.50/FT unless otherwise noted. Note: All exposed surfaces to view shall be free of markings and defects.
- 5. All boardwalk decking, railings, and posts shall be solid wood IPE select and better hardwood S4S with eased edges unless otherwise noted on plans. Decking shall be placed in full lengths and spaced ¼-inch maximum from each other. Decking shall be fastened with two #10 X 3" stainless steel, grade 316, deck screws square drive at each joist/support. Screws shall be set flush with surface of deck. Deck must be pre-drilled for a flush screw set.
- 6. All 3" X 12" joists shall bear on 2" X 12" beams a minimum of 4" and shall overlap a minimum of 12".
- 7. In cases where the decking cannot be installed perpendicular to the joists, bracing members 2" X 12" in size shall be attached to the joists at 16" OC.
- 8. A preservative treatment shall be applied to all fresh cut surfaces for sawn or bored wood members.
- 9. No splitting of lumber shall be permitted.

√ 5/4 x 6 IPE DECKING (TYP.)

-SIMPSON STRONG-TIE H6

S.S. TWIST STRAP

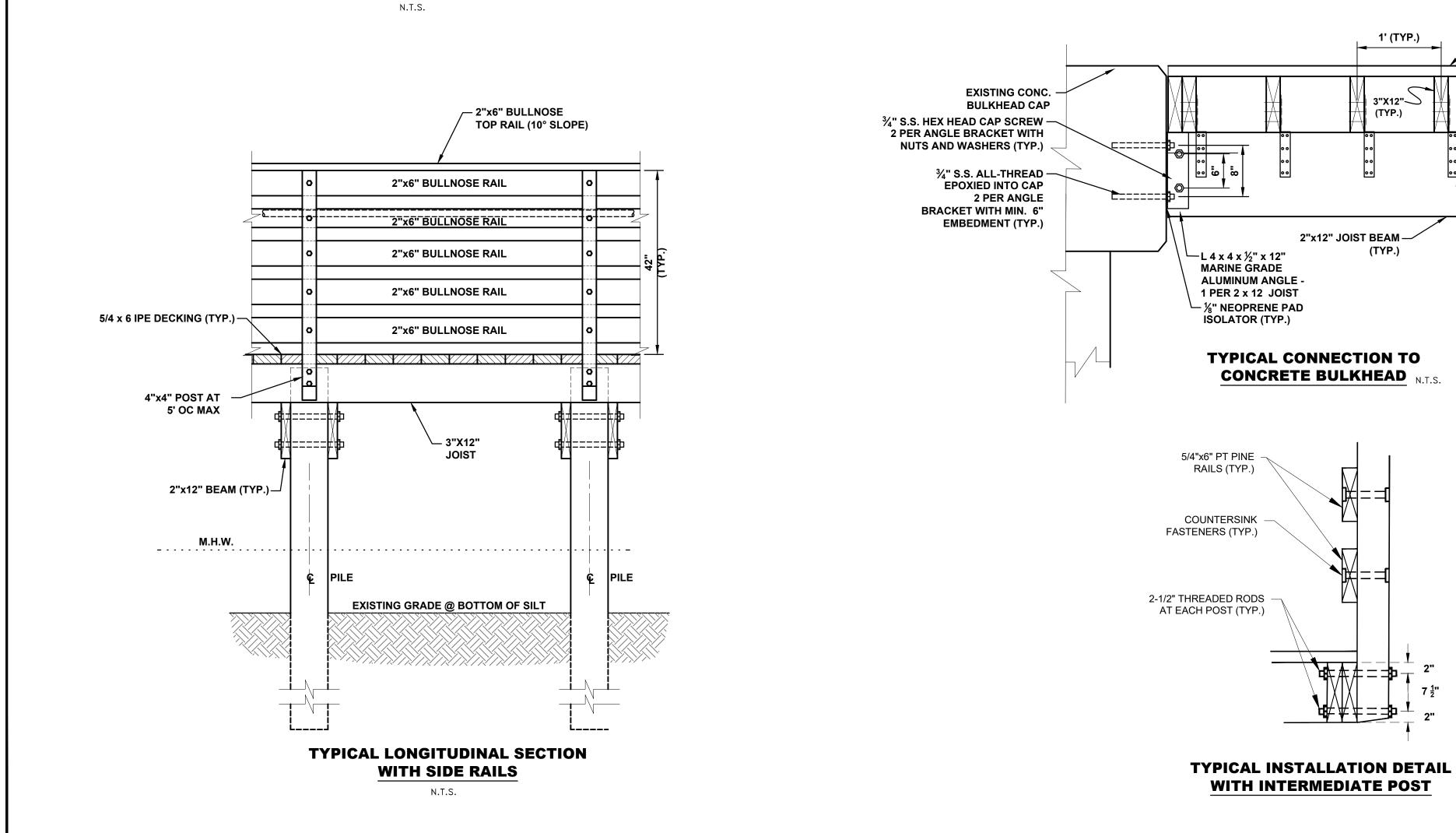
FASTENED WITH S.S.

RINGSHANK NAILS PER

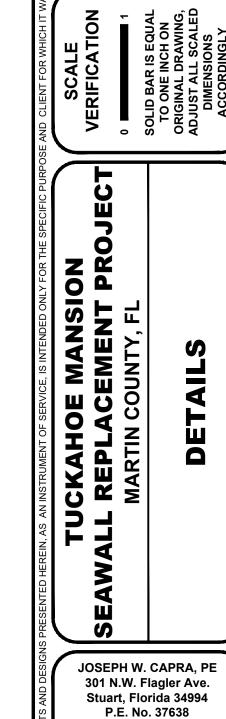
MANUF. RECOMMENDATION-

2 PER STRINGER PER PILE

- 10. All hardware (screws, bolts, rods, washers, nuts, angles, etc.) shall be stainless steel grade 316 unless otherwise noted.
- 11. All bolts shall be fastened with nuts and washers. No lag bolts shall be permitted unless otherwise noted. All bolts, nuts, and washers above deck (railings and posts) shall be bored and countersunk.

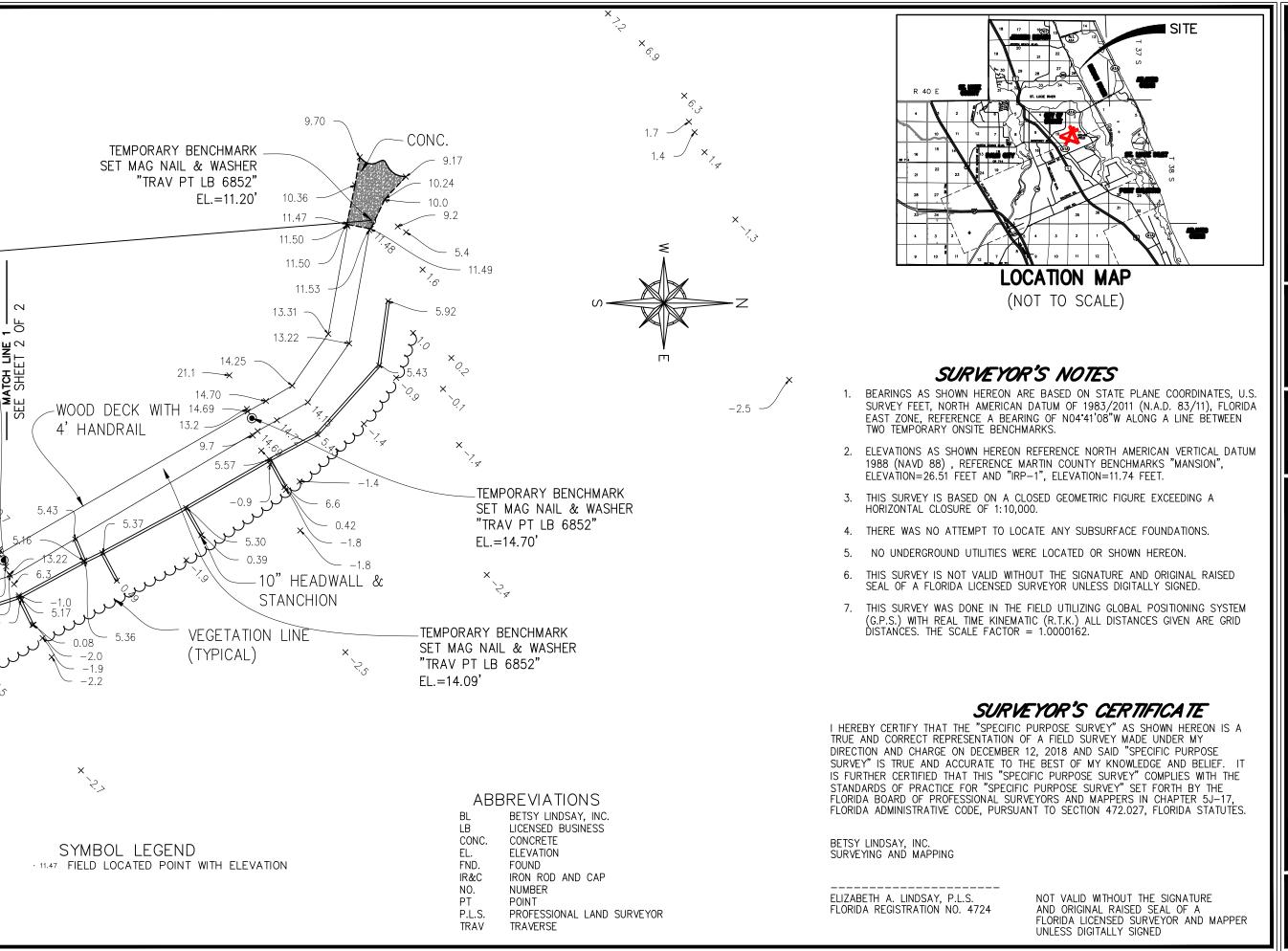


TYPICAL SECTION WITH SIDE RAILS



JOB No.: **1743.8** SHEET

of **7**



BETSY LINDSAY, INC.
SURVEYING AND MAPPING
7997 S.W. JACK JAMES DRIVE STUART, FLORIDA 34997
(772)286-5753 (772)286-5933 FAX
LICENSED BUSINESS NO. 6852

DATE	REVISIONS	

DATE 12/12/2018
SCALE 1"=30'
FIELD BK. MC 47
DRAWN BY <u>C.R.</u>
CHECKED BY <u>E.A.L.</u>

DRAWN BY <u>C.R.</u> CHECKED BY <u>E.A.L.</u>

I RIVERSIDE PARK BOARDWALK & SEAWA
MARTIN COUNTY, FLORIDA
PECIFIC PURPOSE SURVEY
CAPTEC ENGINEERING, INC.

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SHEET NO. 1

OF 2 SHEETS

PROJECT NO. 03-58B

