

# JUPITER INLET LIGHTHOUSE OUTSTANDING NATURAL AREA SHORELINE STABILIZATION PALM BEACH COUNTY, FLORIDA

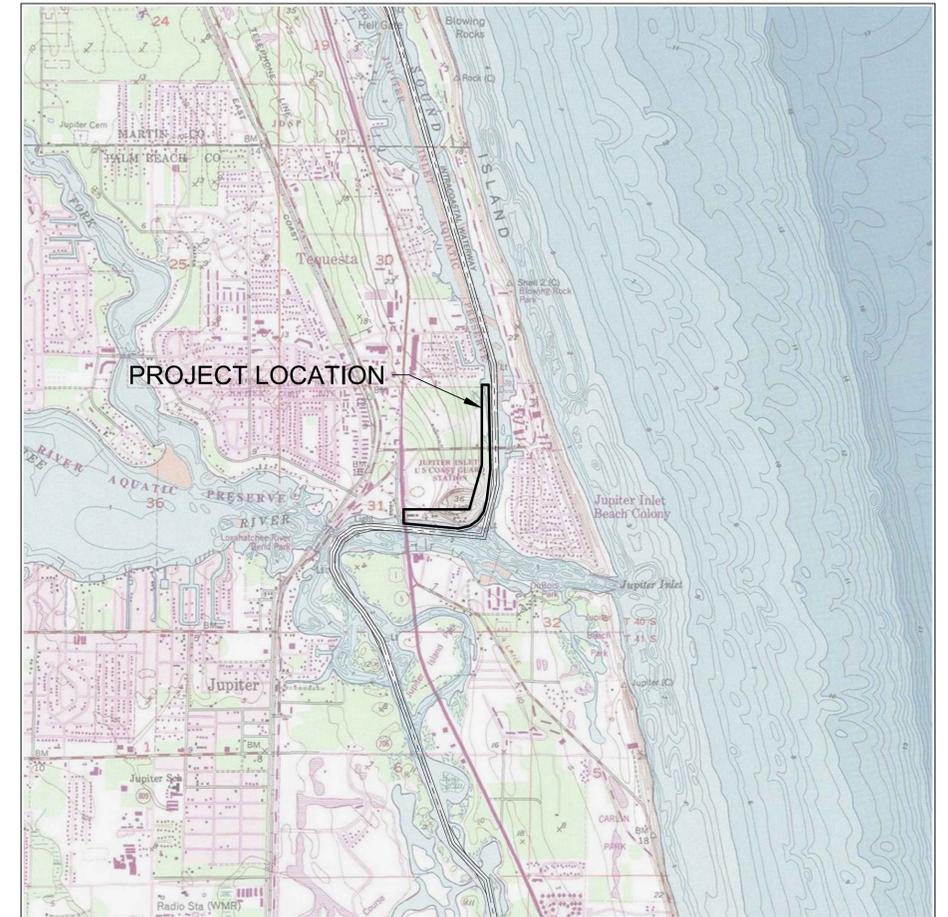


**LOCATION MAP**  
N.T.S.



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**VICINITY MAP**  
1"= 2000' (22x34)  
1"= 4000' (11x17)

**Call 811 before you dig.**

**TAYLOR  
ENGINEERING, INC.**

10199 SOUTHSIDE BLVD  
SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

PROJECT TITLE  
**JUPITER INLET LIGHTHOUSE  
OUTSTANDING NATURAL  
AREA SHORELINE  
STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

SEAL

JONATHAN B. BRUMFIELD P.E.#92397

PROJECT NO C2021-084  
DATE MAY 2024

**C-1**

SHEET 1 OF 27

**INDEMNIFICATION**

- THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND ENGINEER AND THEIR RESPECTIVE REPRESENTATIVES, AGENTS, AND EMPLOYEES, IN BOTH INDIVIDUAL AND OFFICIAL CAPACITIES, AGAINST ALL LAWSUITS, CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING ATTORNEY FEES, CAUSED BY, RESULTING FROM, AND/OR INCIDENTAL TO THE PERFORMANCE OF THE WORK UNDER THIS CONTRACT TO THE FULL EXTENT AS ALLOWED BY THE LAWS OF THE STATE OF FLORIDA AND NOT BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE. IN THE EVENT OF ANY SUCH INJURY, DEATH, LOSS, OR DAMAGE, OR CLAIMS THEREOF, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO THE OWNER AND THE ENGINEER.

**DEFINITIONS**

- OWNER:** BUREAU OF LAND MANAGEMENT (BLM)
- ENGINEER:** TAYLOR ENGINEERING, INC.
- ENGINEER OF RECORD (EOR):** ENGINEER WHOSE NAME AND SEAL IS AFFIXED TO THE DRAWINGS AND SPECIFICATIONS.
- AS-BUILT SURVEY DRAWINGS:** AS-BUILT SURVEY DRAWINGS SHALL BE DEFINED AS POST-CONSTRUCTION SURVEY DRAWINGS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL SURVEYOR AND REVIEWED AND MARKED/SIGNED/SEALED BY THE ENGINEER AS "AS-BUILT" DRAWINGS. THE ENGINEER SHALL MARK ON THESE AS-BUILT SURVEY DRAWINGS ALL DEVIATIONS IN THE WORK AS RECORDED BY THE CONTRACTOR ON THE RECORD DRAWINGS OR AS KNOWN TO THE ENGINEER. IF THE DEVIATIONS ARE TOO EXTENSIVE TO TRANSFER, THE ENGINEER MAY STAPLE TOGETHER THE AS-BUILT SURVEY DRAWINGS WITH THE RECORD DRAWINGS AND MARK THE FIRST SHEET OF EACH AS "AS-BUILT."
- RECORD DRAWINGS:** RECORD DRAWINGS SHALL BE DEFINED AS A COPY OF THE ORIGINAL SIGNED AND SEALED DRAWINGS KEPT ONSITE AT ALL TIMES WHERE THE CONTRACTOR SHALL KEEP A RECORD OF ALL DEVIATIONS FROM THE ORIGINAL DRAWINGS MARKED IN RED PENCIL OR PEN.
- U.N.O.:** UNLESS NOTED OTHERWISE
- V.I.F.:** VERIFY IN FIELD

**TIDAL DATA**

SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)

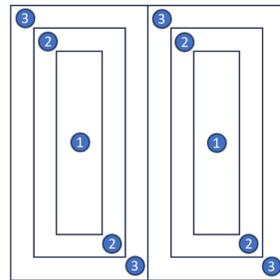
TIDE GAUGE, JUPITER SOUND STATION, STATION ID: 8729085

TIDAL DATUM	FT-NAVD
MEAN HIGHER HIGH WATER (MHHW)	+0.18
MEAN HIGH WATER (MHW)	+0.01

ACTUAL WATER LEVELS SHALL BE EXPECTED TO VARY FROM THOSE LISTED HEREIN. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING WORK IN COORDINATION WITH HIS OR HER OWN ASSESSMENTS. VARIATIONS IN TIDE LEVELS WILL NOT SERVE AS A BASIS FOR SCHEDULE EXTENSIONS OR ADDITIONAL COMPENSATION.

**DESIGN LOADING**

- WIND DESIGN CRITERIA:
  - BASIC WIND SPEED: 168 MPH
  - RISK CATEGORY I
  - EXPOSURE CATEGORY D
  - ROOF ZONES:



ZONE	ALLOWABLE DESIGN WIND PRESSURE (168 MPH ULTIMATE)	MAXIMUM VERTICAL FASTENER SPACING (UPSLOPE) ON ALUMINUM ROOF PANELS <sup>1,2</sup>
NEGATIVE ZONE 1	-34.10 PSF	2' MAX
NEGATIVE ZONE 2	-52.80 PSF	2' MAX
NEGATIVE ZONE 3	-68.20 PSF	2' MAX
POSITIVE ALL ZONES	16 PSF	

<sup>1</sup>FASTENERS SHALL BE #14-13 DP1 CONCEALORS OR APPROVED EQUIVALENT  
<sup>2</sup>ROOF PANELS SHALL BE FABRAL 16" STAND'N SEAM ALUMINUM ROOF PANELS (OR APPROVED EQUIVALENT)

PLYWOOD FASTENING SCHEDULE AT EACH TRUSS <sup>1,2</sup>						
PANEL LOCATION	MAIN ROOF			OVER HANG (EAVES)		
	ZONE 1	ZONE 2	ZONE 3	ZONE 2	ZONE 3	ZONE 3
SUPPORTED PANEL END AND EDGES	FASTENING SCHEDULE (INCHES ON CENTER)					
SUPPORTED PANEL END AND EDGES	6	6	6	6	6	
PANEL FIELD	6	4	3	4	3	

<sup>1</sup>FASTENING SCHEDULE WITHIN 3 FEET OF RIDGE SHALL BE CONSISTENT WITH MAIN ROOF ZONE 2  
<sup>2</sup>FASTENERS SHALL BE 10D RING SHANK NAILS (0.148 X 3 INCHES)

**GENERAL NOTES**

- ALL REGULATORY AND LOCAL PERMITS MUST BE RECEIVED AND APPROVED PRIOR TO CONSTRUCTION.
- CONTRACTORS SHALL COORDINATE WORK WITH BLM AS TO MINIMIZE IMPACTS TO LIGHTHOUSE ACTIVITIES.
- CONTRACTOR SHALL PHOTOGRAPH EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO EXISTING STRUCTURES. CONTRACTOR SHALL IMMEDIATELY REPORT ANY OBSERVED DAMAGE TO THE ENGINEER. CONTRACTOR WILL BE REQUIRED TO FIX DAMAGES DUE TO NEGLIGENCE AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.
- CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRIOR TO BIDDING.
- CONTRACTOR SHALL RESTORE IMPACTED UPLAND AREAS NOT INCLUDED IN CONSTRUCTION TO PRE-CONSTRUCTION CONDITION.
- SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION TO ENSURE PUBLIC AND PRIVATE SAFETY IN AND AROUND THE CONSTRUCTION SITE.
- IT IS THE RESPONSIBILITY OF CONTRACTOR TO ESTABLISH THE FOLLOWING IN THE FIELD: RIGHT OF WAY LINES, BENCHMARKS, CENTER LINES AND STATIONING AS MAY BE REQUIRED TO CONSTRUCT THE PROJECT.
- THE CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE DURING BIDDING AND PRIOR TO INITIATING ANY CONSTRUCTION. THE CONTRACTOR SHALL, PRIOR TO ANY CONSTRUCTION ACTIVITY, HOLD A PRE-CONSTRUCTION MEETING WITH ALL PERMITTING AGENCIES AND THE OWNER REPRESENTATIVES.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL STRUCTURES AND EXISTING UTILITIES (UTILITY SURVEY ABOVE AND BELOW GRADE) WITHIN THE CONTRACTORS PROPOSED WORK AREAS AND ACCESS CORRIDORS, WHETHER SHOWN OR NOT ON THE DRAWINGS.
- DEMOLITION DEBRIS, NOT SLATED FOR REUSE, SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK FOR INSPECTION BY THE ENGINEER, REGULATORY AGENCIES, AND OWNER. THE CONTRACTOR SHALL PROVIDE PERSONNEL AND EQUIPMENT FOR ENGINEER TO INSPECT AND INQUIRE ABOUT THE WORK. THIS MAY INCLUDE PROJECT MANAGERS, SUPERINTENDENTS, FOREMEN, LABORERS, LADDERS, HARD HATS, MEASURING DEVICES, SURVEY EQUIPMENT, ETC.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE ENGINEER OR OWNER AS NECESSARY FOR CONSTRUCTION INSPECTION AND AS-BUILT CERTIFICATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER AT APPROPRIATE AND APPROVED TIMES DURING THE COURSE OF THE WORK THAT THE CONTRACTOR IS READY FOR INSPECTION. WORK THAT IS ASSEMBLED OR COVERED SO THAT THE ENGINEER CANNOT INSPECT THE WORK PROPERLY SHALL BE DISASSEMBLED, UNCOVERED, OR DESTROYED AS NECESSARY FOR INSPECTION. THE COSTS OF REPAIR OR RESTORATION OF THIS WORK SHALL BE BORNE SOLELY BY THE CONTRACTOR.
- ALL PERMANENT MATERIAL SHALL BE NEW. REUSED MATERIAL SHALL NOT BE ALLOWED UNLESS APPROVED BY THE OWNER IN WRITING OR STATED HEREIN.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. ANY DEVIATION IN EXISTING CONDITIONS WITH PLANS OR SPECIFICATIONS SHOULD BE REPORTED TO THE ENGINEER AND OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT FACILITIES AND STRUCTURES CAUSED BY HIS ACTIVITIES DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL RESTORE ALL SUCH DAMAGES TO THEIR PRE-CONSTRUCTION CONDITION AT NO COSTS TO THE OWNER.
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH LOCAL, STATE, AND FEDERAL LAWS, REGULATIONS, AND PERMITS.
- EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY PERMIT AUTHORITIES. ANY ADDITIONAL EROSION CONTROL MEASURES SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE OWNER.

**STAGING AND CONSTRUCTION ACCESS**

- COORDINATION AND APPROVAL FROM BLM ON STAGING AND CONSTRUCTION ACCESS IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO COMMENCING WORK.
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, AND TRAFFIC CONTROLS AS REQUIRED BY THE OWNER OR COUNTY AND IN COORDINATION WITH THE ENGINEER.
- CONTRACTOR SHALL IDENTIFY ANY PROPOSED STAGING AND ACCESS AREAS AND SUBMIT A STAGING AND ACCESS PLAN FOR OWNER OR ENGINEER REVIEW AND APPROVAL. CONTRACTOR'S STAGING AND ACCESS PLAN SHALL INCLUDE MAPS CLEARLY INDICATING PROPOSED STAGING AND ACCESS AREAS, EXCLUSIONARY DEVICES, AND DIMENSIONS.

- CONTRACTOR WILL NOT BE ALLOWED TO TRAVERSE, UTILIZE, OR IMPACT ADJACENT PROPERTIES WITHOUT SPECIFIC AUTHORIZATION FROM THE PROPERTY OWNER AND A STAGING AND ACCESS PLAN ACCEPTED BY THE OWNER AND ENGINEER.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH ALL OTHER CONSTRUCTION ADJACENT TO THE PROJECT. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR IS REQUIRED TO RESTORE THE ACCEPTED STAGING AND CORRIDOR AREAS TO THE ORIGINAL SITE CONDITION. RESTORATION ACTIVITIES MAY INCLUDE, BUT SHALL NOT BE LIMITED TO, GRADING, REPLACING OR REPAIRING DAMAGED INFRASTRUCTURE (INCLUDING FENCING, PAVEMENT, ETC.), PLACING AND GRADING CLEAN SAND FILL IN RUTTED OR DISTURBED AREAS, AND VEGETATION RESTORATION.

**GEOTECHNICAL REPORT**

- THE ENGINEER COMMISSIONED A REPORT TO CHARACTERIZE THE EXISTING SITE CONDITIONS AND PROVIDE REQUIREMENTS FOR GEOTECHNICAL PROJECT WORK. THE CONTRACTOR MUST REVIEW AND BE FAMILIAR WITH THE RESULTS OF THESE STUDIES AND BID, PLAN, SELECT MEANS AND METHODS, AND CONDUCT THE WORK ACCORDINGLY.
  - TERRACON CONSULTANTS, INC. (2022). GEOTECHNICAL ENGINEERING REPORT, BLM JUPITER INLET LIGHTHOUSE NATURAL OUTSTANDING AREA.

**PERMITS AND PERMIT CONDITIONS**

- STATE AND FEDERAL REGULATORY PERMITS WILL BE OBTAINED BY THE OWNER. NO WORK SHALL OCCUR PRIOR TO REGULATORY APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT SUPPLIED BY THE OWNER. COSTS OF OBTAINING PERMITS NOT SUPPLIED BY THE OWNER SHALL BE BORNE BY THE CONTRACTOR. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: NPDES PERMIT (OR NOI), CLEARING OR LAND DISTURBANCE PERMITS, DRIVEWAY OR ENTRANCE PERMITS, PERMISSION OF USE AGREEMENT (PUA), BUILDING PERMIT, AND TEMPORARY UTILITIES PERMITS, ETC.
- UNLESS CLEARLY SPECIFIED OTHERWISE BY THE OWNER IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING ALL NOTICES OF COMMENCEMENTS AND NOTICES OF COMPLETION TO ALL PERMITTING AGENCIES INCLUDING PERMITS SUPPLIED BY THE OWNER.
- ALL PROPOSED CONSTRUCTION ACTIVITIES SHALL BE IN STRICT COMPLIANCE WITH ALL SPECIAL PERMIT CONDITIONS AS OUTLINED IN THE PERMITS. IF PERMIT CONDITIONS DIFFER FROM THESE SPECIFICATIONS, PERMIT CONDITIONS SHALL CONTROL.

**SURVEY NOTES**

- SURVEY COMPLETED BY TAYLOR ENGINEERING, INC. DATED 2022.
- ALL ELEVATIONS REFERENCE THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88), ELEVATIONS IN FEET, U.N.O.
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- PROJECT AREA AERIAL IMAGERY SHOWN HEREIN WAS OBTAINED FROM DRONE SURVEY COMPLETED BY TAYLOR ENGINEERING - 2022.
- THE INFORMATION ON THESE DRAWINGS REPRESENTS THE RESULTS OF THE SURVEYS PERFORMED ON THE DATES AS INDICATED. THE INFORMATION FROM THESE SURVEYS CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THE TIME OF THE SURVEYS.

**AS-BUILT SURVEYS**

- THE CONTRACTOR SHALL INCLUDE THE COST OF AN AS-BUILT SURVEY IN THE BID PRICE AND SHALL STATE A SEPARATE PRICE FOR AN AS-BUILT SURVEY IN THE BID PRICE. THE AS-BUILT SURVEY SHALL BE SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA AND SHALL SHOW THE LOCATION AND ELEVATION OF ALL CONSTRUCTED FEATURES.
- THE AS-BUILT SURVEY SHALL BE SUBMITTED IN DIGITAL AND 24" X 36" PAPER VERSIONS (UP TO 5 COPIES) TO THE ENGINEER FOR APPROVAL. THE AS-BUILT SURVEY SHALL BE PERFORMED IN THE SAME HORIZONTAL AND VERTICAL COORDINATE SYSTEM THE DRAWINGS ARE IN. DIGITAL DRAWINGS SHALL BE IN AUTOCAD 2014 OR NEWER VERSION.

**SUBMITTALS AND TESTING REQUIREMENTS**

- ALL TESTING, EITHER PRE-CONSTRUCTION OR CONSTRUCTION, AS REQUIRED HEREIN OR IN THE CONTRACT DOCUMENTS, SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED TESTING COMPANY. THE COSTS OF ALL SUCH TESTING SHALL BE BORNE BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE BID PRICE.
- THE QUALIFIED TESTING AGENCY SHALL BE APPROVED PER FDOT STANDARDS, AASHTO STANDARDS OR SIMILAR SUCH STANDARDS AS REQUIRED BY THE ENGINEER. ALL TESTING WORK SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN FLORIDA AND SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IF REQUESTED.
- ALL REQUIRED SUBMITTALS OR MANUFACTURER'S INFORMATION SHALL BE IN U.S. CUSTOMARY UNITS.
- ALL TECHNICAL SUBMITTALS ON THESE DRAWINGS REQUIRE APPROVAL BY THE ENGINEER U.N.O.

**SUBMITTAL PROCEDURES**

- DELIVER SUBMITTALS TO THE ENGINEER VIA EMAIL OR OTHER OWNER-APPROVED CORRESPONDENCE.
- ENGINEER'S REVIEW OF SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM ANY RESPONSIBILITIES FOR PERFORMANCE REQUIREMENTS AS DEFINED IN THE CONTRACT DOCUMENTS. NEITHER SHALL ENGINEER'S REVIEW RELEASE THE CONTRACTOR FROM FULFILLING PURPOSE OF INSTALLATION NOR FROM CONTRACTOR'S LIABILITY TO REPLACE DEFECTIVE WORK.
- ENGINEER'S REVIEW OF SHOP DRAWINGS, SAMPLES, OR TEST PROCEDURES WILL BE ONLY FOR CONFORMANCE WITH GENERAL DESIGN CONCEPTS AND FOR COMPLIANCE WITH INFORMATION GIVEN IN CONTRACT DOCUMENTS. ENGINEER'S REVIEW DOES NOT EXTEND TO:

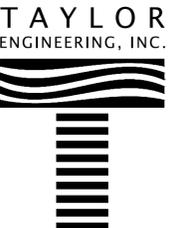
- ACCURACY OF DIMENSIONS, QUANTITIES, OR PERFORMANCE OF EQUIPMENT AND SYSTEMS DESIGNED BY CONTRACTOR.
- CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES EXCEPT WHEN SPECIFIED, INDICATED ON THE DRAWINGS, OR REQUIRED BY CONTRACT DOCUMENTS.
- SAFETY PRECAUTIONS OR PROGRAMS RELATED TO SAFETY, WHICH SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ENGINEER WILL BE ENTITLED TO RELY UPON THE ACCURACY OR COMPLETENESS OF DESIGNS, CALCULATIONS, OR CERTIFICATIONS MADE BY LICENSED PROFESSIONALS ACCOMPANYING A PARTICULAR SUBMITTAL WHETHER OR NOT A STAMP OR SEAL IS REQUIRED BY CONTRACT DOCUMENTS OR LAWS AND REGULATIONS.

**SUMMARY OF WORK**

- BASE BID:** SERVICES IN THIS SCOPE MAY CONSIST OF, BUT ARE NOT LIMITED TO, UPLAND SITE WORK INCLUDING SITE CLEARING, EXCAVATION AND FILL PLACEMENT, CONSTRUCTION OF A TERRACED WALL WITH THE UPPER WALL BEING A LARGE BLOCK GRAVITY WALL (REDI-ROCK BLOCK WALL OR APPROVED ENGINEER EQUIVALENT) AND THE LOWER WALL BEING AN ANCHORED SHEET PILE WALL. FURTHER DESCRIPTIONS OF THE BASE BID WORK ARE PROVIDED BELOW.

**TERRACED WALLS**

- UPPER RETAINING WALL
  - TEMPORARY CONSTRUCTION ACCESS ALONG TOP OF BLUFF TO PROVIDE EQUIPMENT ACCESS TO SITE; RESTORE FOLLOWING CONSTRUCTION
  - APPROXIMATELY 800 LINEAR FEET OF LARGE BLOCK GRAVITY WALL (10 FEET EXPOSURE) AND ASSOCIATED FEATURES (GRAVEL DRAINS, ETC.)
  - POST AND ROPE FENCING FOR PEDESTRIAN TRAFFIC CONTROL
  - THREE TIMBER ACCESS STAIRWAYS PROVIDING ACCESS FROM THE TOP OF BLUFF TO THE MIDDLE TERRACE (+/-10 FT VERTICAL EXPOSURE)
- LOWER RETAINING WALL
  - APPROXIMATELY 800 LINEAR FEET OF ANCHORED STEEL SHEET PILE (A219-700) WALL WITH CONCRETE CAP (HELICAL TIE-BACKS)
  - POST AND ROPE FENCING FOR PEDESTRIAN TRAFFIC CONTROL
  - FOUR TIMBER ACCESS STAIRWAYS TO PROVIDE ACCESS FROM THE MIDDLE TERRACE TO THE LOWER SHORELINE (+/-10 FT VERTICAL EXPOSURE)
- MID-LEVEL TERRACE
  - GRADING BETWEEN UPPER AND LOWER WALLS TO PROVIDE LEVEL SURFACE
  - POST AND ROPE FENCING FOR PEDESTRIAN TRAFFIC CONTROL
- VEGETATION
  - PRESERVE OWNER-SPECIFIED SPECIMEN TREES AT TEMPORARY ON-SITE LOCATION; REPLANT FOLLOWING WALL CONSTRUCTION
  - NEW NATIVE VEGETATION PLANTING AT SPECIFIED AREAS
- SEDIMENT MANAGEMENT
  - ANTICIPATED EXCAVATION FOR THE WALL(S) CONSTRUCTION WILL PRODUCE EXCESS SEDIMENT
  - CONTRACTOR SHALL MANAGE ALL MATERIAL ON SITE
  - PORTIONS OF THE EXCESS SEDIMENT WILL BE USED IN OTHER PROJECT AREAS (E.G., STABILIZED PATH), AS NEEDED
  - ALL REMAINING EXCESS SEDIMENT WILL BE GRADED UPLAND OF THE UPPER RETAINING WALL
  - THE CONTRACTOR SHALL ADHERE TO THE CONTRACT DOCUMENTS FOR THE SPECIFIC CLEARING LOCATIONS TO ENSURE PRESERVATION OF NATIVE SPECIES. THE CONTRACTOR SHALL ADDITIONALLY BE RESPONSIBLE FOR THE PLANTING OF NATIVE SPECIES IN THE DISRUPTED AREAS AFTER THE COMPLETION OF ALL CONSTRUCTION WORK.
- BID OPTION 1:** SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF A NEW TIMBER PAVILION AND ADA SUITABLE PATHWAY ALONG THE LOXAHATCHEE RIVER. FURTHER DESCRIPTIONS OF THE BID OPTION 1 WORK ARE PROVIDED BELOW.
  - PAVILION
    - DEMOLITION OF EXISTING TIMBER PAVILION AND ASSOCIATED CONCRETE FOUNDATION
    - CONSTRUCTION OF A NEW (25 FT BY 30 FT) TIMBER PAVILION WITH A STAND-N-SEAM GABLE ROOF WITH ASSOCIATED CONCRETE FOOTINGS
    - LIMITED EXCAVATION ALLOWED DUE TO LIKELY PRESENCE OF HISTORICALLY SIGNIFICANT ARTIFACTS IN AREA
  - ADA PATHWAY
    - CONSTRUCTION OF A CONCRETE PATHWAY THAT LEADS TO THE PAVILION FROM EXISTING ADA PATHWAY
- BID OPTION 2:** SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF LIMESTONE BREAKWATERS ABOVE AND BELOW MHW ALONG THE LOXAHATCHEE RIVER AND INSTALLATION OF TIMBER FENDER PILES AS AIDS TO NAVIGATION. MINOR MODIFICATIONS TO THE DESIGN DOCUMENTS MAY OCCUR AS A RESULT OF PERMITTING AND PRE-CONSTRUCTION SURVEY RESULTS. ANY CHANGES WILL BE NEGOTIATED AS CHANGE ORDERS TO THE PROJECT. FURTHER DESCRIPTIONS OF THE BID OPTION 2 WORK ARE PROVIDED BELOW.
  - LIMESTONE BREAKWATERS AND REVETMENTS
    - ALL STONE MUST MEET GRADATION SPECIFICATIONS IN THE DESIGN PLANS
    - STONE INSTALLATION ANTICIPATED FROM WATERSIDE
    - CONTRACTOR SHALL MAINTAIN CONTINUOUS NAVIGATION WITHIN THE IWW THROUGHOUT THE PROJECT
  - TIMBER FENDER PILES



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SEAL  
 JONATHAN B. BRUMFIELD P.E.#92397

PROJECT TITLE  
 JUPITER INLET LIGHTHOUSE OUTSTANDING  
 NATURAL AREA SHORELINE STABILIZATION  
 PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

<b>Call 811 before you dig.</b>	
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

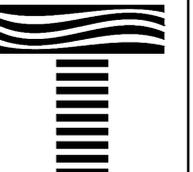
SHEET TITLE

**GENERAL NOTES**

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H	<p>a. 30 FT LONG TIMBER PILES TO RESTRICT BOATING ACCESS TO SELECT LOCATIONS</p> <p>D. <b>BID OPTION 3:</b> SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF VARIOUS LIMESTONE BREAKWATERS AND REVETMENTS SOUTH OF S.R. 707 (LOCALLY KNOWN AS CATO'S BRIDGE), CONSTRUCTION OF A POCKET BEACH, AND PILE DRIVING OF TIMBER FENDER PILES, WITH LOCATIONS NOTED ON THE CONTRACT DOCUMENTS. MINOR MODIFICATIONS TO THE DESIGN DOCUMENTS MAY OCCUR AS A RESULT OF PERMITTING AND PRE-CONSTRUCTION SURVEY RESULTS. ANY CHANGES WILL BE NEGOTIATED AS CHANGE ORDERS TO THE PROJECT. FURTHER DESCRIPTIONS OF THE BID OPTION 3 WORK ARE PROVIDED BELOW.</p> <p>1. LIMESTONE BREAKWATERS AND REVETMENTS</p> <p>a. ALL STONE MUST MEET GRADATION SPECIFICATIONS IN THE DESIGN PLANS</p> <p>b. STONE INSTALLATION ANTICIPATED FROM WATERSIDE</p> <p>c. SELECT REVETMENT CROSS SECTIONS PROVIDE PLANTERS ALONG STRUCTURE CENTERLINE</p> <p>d. INSTALL +/-10,000 MANGROVES (PROVIDED BY OWNER) AS NOTED ON DESIGN PLANS</p> <p>e. CONTRACTOR SHALL MAINTAIN CONTINUOUS NAVIGATION WITHIN THE IWW THROUGHOUT THE PROJECT</p> <p>2. POCKET BEACH</p> <p>a. PRESERVE EXISTING MANGROVES</p> <p>b. EXCAVATE TO ESTABLISH SHALLOW OPEN WATER AREAS</p> <p>3. TIMBER FENDER PILES</p> <p>a. 30 FT LONG TIMBER PILES TO RESTRICT BOATING ACCESS TO SELECT LOCATIONS</p> <p>E. <b>BID OPTION 4:</b> SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, THE CONSTRUCTION OF A TIMBER BOARDWALK WITH A HORIZONTAL ALIGNMENT THAT VARIES BETWEEN ONSHORE AND OFFSHORE OF THE MHW LINE WITH UPLAND STAIRWAY ACCESS AND ROCK PLACEMENT ABOVE AND BELOW MHW WITHIN SPECIFIED AREAS OF THE BOARDWALK'S FOOTPRINT. MINOR MODIFICATIONS TO THE DESIGN DOCUMENTS MAY OCCUR AS A RESULT OF PERMITTING AND PRE-CONSTRUCTION SURVEY RESULTS. ANY CHANGES WILL BE NEGOTIATED AS CHANGE ORDERS TO THE PROJECT. FURTHER DESCRIPTIONS OF THE BID OPTION 4 WORK ARE PROVIDED BELOW.</p> <p>1. BOARDWALK</p> <p>a. APPROXIMATELY 7,100 SF (725 LINEAR FEET) OF TIMBER BOARDWALK WITH COMPOSITE GRATED DECK</p> <p>b. DEBRIS REMOVAL (ABOVE MHW) AND VEGETATION CLEARING, AS NEEDED, TO SUPPORT PILE INSTALLATION</p> <p>c. LIMESTONE ROCK REVETMENT AT SPECIFIED LOCATIONS ALONG THE BOARDWALK</p> <p>2. TWO TIMBER ACCESS STAIRWAYS TO PROVIDE PEDESTRIAN ACCESS FROM UPLAND</p> <p>F. <b>BID OPTION 5:</b> SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF A FLOATING DOCK INCLUDING THE PILE DRIVING WORK AND THE INSTALLATION OF A GANGWAY AND BOAT LIFT.</p> <p>FURTHER DESCRIPTIONS OF THE BID OPTION 5 WORK ARE PROVIDED BELOW. MINOR MODIFICATIONS TO THE DESIGN DOCUMENTS MAY OCCUR AS A RESULT OF PERMITTING AND PRE-CONSTRUCTION SURVEY RESULTS. ANY CHANGES WILL BE NEGOTIATED AS CHANGE ORDERS TO THE PROJECT.</p> <p>1. FLOATING DOCK</p> <p>a. DEMOLITION AND REMOVAL OF EXISTING DEBRIS WITHIN THE FLOATING DOCK FOOTPRINT (REMNANT CONCRETE PILES AND CONSTRUCTION DEBRIS)</p> <p>1) SUBMERGED DEBRIS, TYPICALLY BETWEEN -1 FT-NAVD88 AND -15 FT-NAVD88</p> <p>b. INSTALLATION OF FLOATING DOCK GUIDE PILES (18" PSC - 15 EA)</p> <p>c. INSTALLATION OF CONCRETE FLOATING DOCK (1,250 SF)</p> <p>d. 60 FT ALUMINUM GANGWAY WITH ACCESS GATE</p> <p>2. ONE BOAT LIFT SUPPORTED BY TIMBER PILES</p> <p>G. <b>BID OPTION 6:</b> SERVICES IN THIS CATEGORY MAY INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION OF LIMESTONE BREAKWATERS ABOVE AND BELOW MHW NORTH OF SR 707 (CATO'S BRIDGE) AND SELECTIVE PLACEMENT OF PROPRIETARY ARTIFICIAL SHORELINE STABILIZATION STRUCTURES (I.E., REEF BALLS, SEAHIVE). BID OPTION 6 MAY RESULT IN INSTALLATION OF EXPERIMENTAL SHORELINE STABILIZATION UNITS. INSTALLATION WILL BE WATER BASED AND MUST PRESERVE LOCAL SEAGRASS BEDS. INSTALLATION IN SHALLOW WATER TYPICALLY LESS THAN -4 FT-NAVD. MINOR MODIFICATIONS TO THE DESIGN DOCUMENTS MAY OCCUR AS A RESULT OF PERMITTING AND PRE-CONSTRUCTION SURVEY RESULTS. ANY CHANGES WILL BE NEGOTIATED AS CHANGE ORDERS TO THE PROJECT. FURTHER DESCRIPTIONS OF THE BID OPTION 6 WORK ARE PROVIDED BELOW.</p> <p>1. LIMESTONE BREAKWATERS AND REVETMENTS</p> <p>a. ALL STONE MUST MEET GRADATION SPECIFICATIONS IN THE DESIGN PLANS</p> <p>b. STONE INSTALLATION ANTICIPATED FROM WATERSIDE</p> <p>c. CONTRACTOR SHALL MAINTAIN CONTINUOUS NAVIGATION WITHIN THE IWW THROUGHOUT THE PROJECT</p>													
G														
F														
E														
D														
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B														
A														

**TAYLOR**  
ENGINEERING, INC.



10199 SOUTHSIDE BLVD  
SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

SEAL

JONATHAN B. BRUMFIELD P.E.#92397

PROJECT TITLE

**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

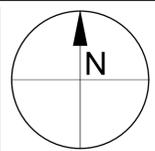
NO	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**GENERAL NOTES**



**TAYLOR**  
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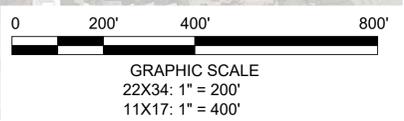
NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

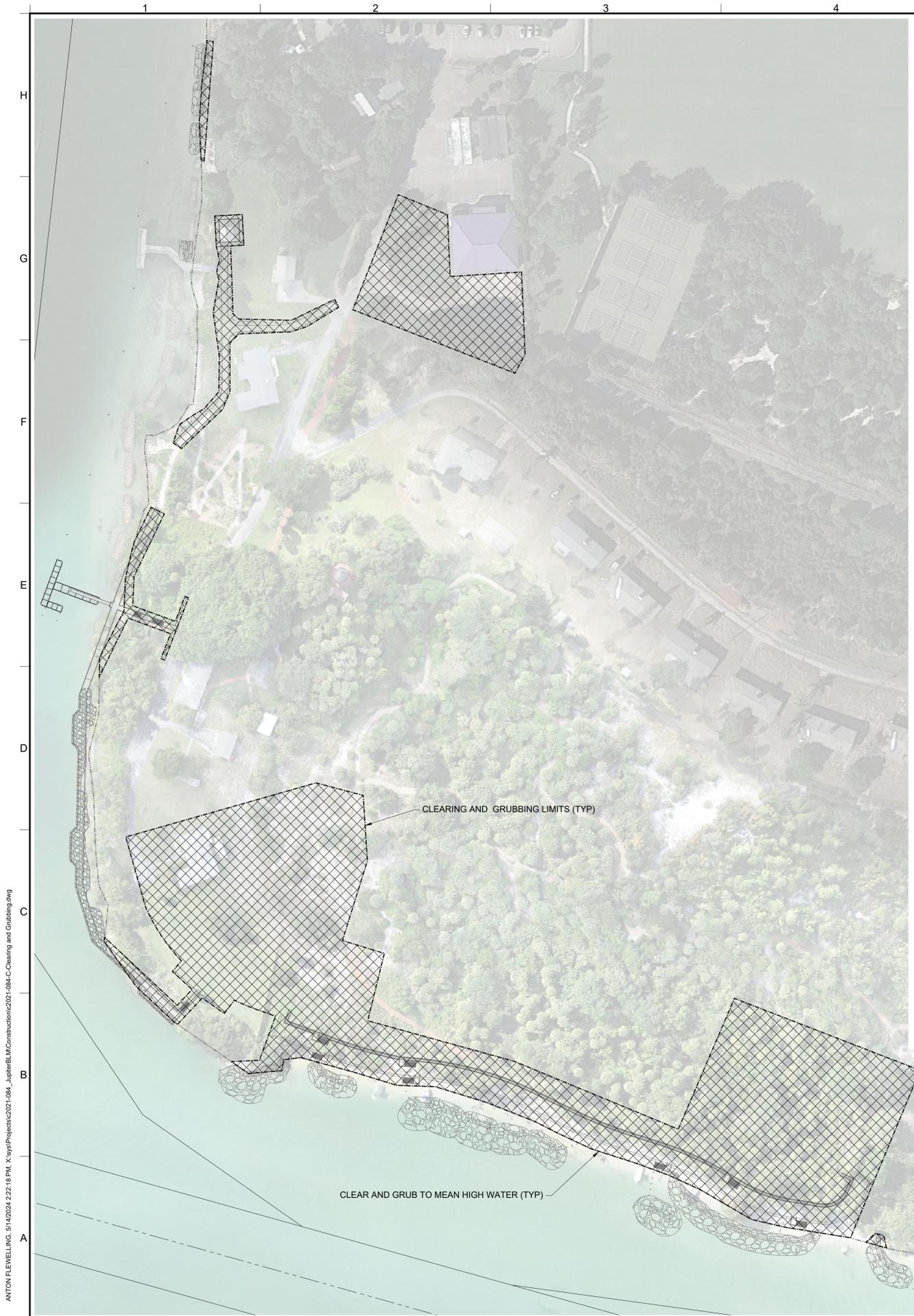
**PROJECT OVERVIEW**



ANTON FLEWELLING, 5/14/2024 2:13:32 PM, X:\projects\2021-084\_Jupiter\BIM\Construction\2021-084-C-Project Overview.dwg

**C-4**

SHEET 4 OF 27

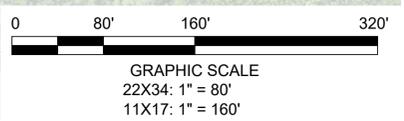
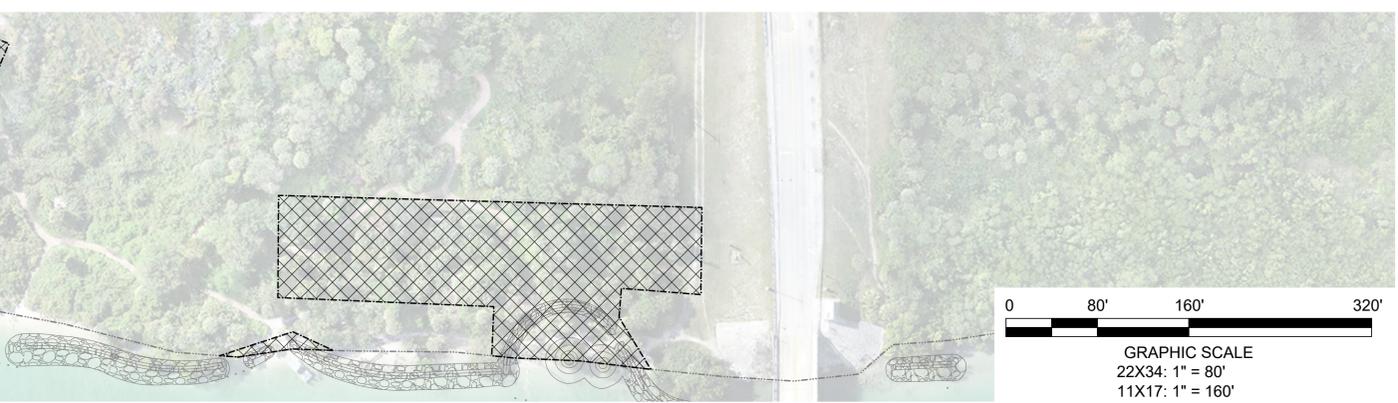
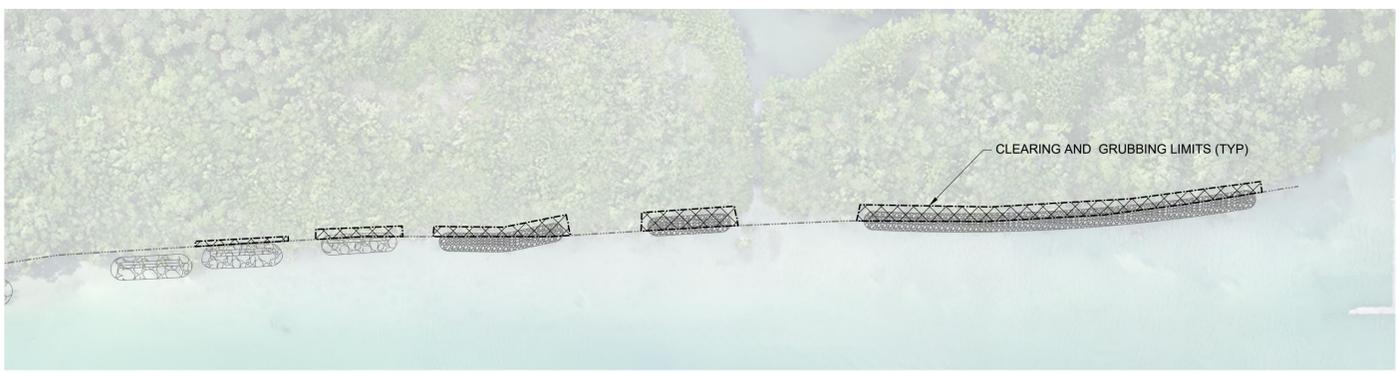
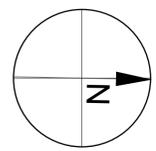


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2	954536.50	951398.73
3	954689.20	951390.12
4	954689.47	951386.22
5	954759.11	951405.01
6	954756.54	951440.23
7	954795.69	951443.09
8	954796.93	951426.20
9	954883.69	951430.96
10	954890.07	951438.44
11	954890.30	951506.07
12	954862.43	951560.70
13	954872.46	951565.99
14	954898.25	951525.41
15	954905.19	951505.12
16	954909.01	951439.03
17	954921.00	951427.73
18	954982.74	951429.07
19	955006.02	951419.95
20	955056.96	951368.36
21	955049.76	951357.36
22	955026.18	951365.30
23	955005.59	951396.13
24	954983.53	951414.76
25	954937.57	951414.33
26	954882.07	951405.35
27	954839.59	951412.02
28	954832.93	951409.24
29	954823.03	951409.82
30	954816.44	951412.45

CLEAR AND GRUB TABLE		
POINT	EASTING	NORTHING
31	954798.27	951407.87
32	955176.85	951310.57
33	955132.61	951330.94
34	955140.68	951348.10
35	955221.27	951311.00
36	955258.77	951310.09
37	955277.69	951364.97
38	955245.60	951376.61
39	955247.39	951381.28
40	955327.28	951352.31
41	955325.65	951347.58
42	955293.63	951359.19
43	955274.77	951304.54
44	955350.76	951269.02
45	955326.06	951268.77
46	955265.70	951299.01
47	955224.01	951299.89
48	955643.19	951334.18
49	955554.28	951307.01
50	955480.28	951549.21
51	955495.08	951609.90
52	955578.37	951616.95
53	955680.79	951587.07
54	955696.30	951640.99
55	955782.63	951621.50
56	955830.65	951809.99
57	955913.15	952021.69
58	955744.69	952090.28
59	955831.70	952329.67
60	956047.63	952244.88

CLEAR AND GRUB TABLE		
POINT	EASTING	NORTHING
61	955838.27	951447.88
62	955835.90	951483.83
63	955779.31	951503.28
64	955773.45	951486.23
65	955759.75	951450.19
66	955777.04	951437.68
67	955757.75	951409.08
68	955792.18	951378.20
69	955682.88	951282.57
70	955767.83	951377.26
71	955747.13	951395.83
72	955724.77	951370.11
73	955710.98	951381.43
74	956052.71	952264.70
75	956041.02	952276.40
76	956043.96	952287.57
77	956059.54	952291.31
78	956100.43	952519.67
79	956078.27	952583.19
80	956093.81	952618.88
81	955959.50	952568.27
82	955962.61	952938.84
83	956038.69	952939.58
84	956034.58	952869.90
85	956059.99	952868.41
86	956104.72	952897.04
87	956095.71	952757.65
88	956052.79	952758.58
89	956048.66	952569.52
90	956054.87	953332.33

CLEAR AND GRUB TABLE		
POINT	EASTING	NORTHING
91	956050.36	953332.04
92	956044.39	953413.36
93	956048.36	953413.61
94	956046.53	953437.50
95	956037.75	953437.36
96	956033.29	953512.93
97	956042.52	953513.69
98	956041.98	953540.14
99	956033.08	953540.74
100	956032.54	953601.61
101	956020.54	953656.23
102	956038.55	953660.24
103	956033.56	953722.14
104	956017.39	953722.29
105	956010.19	953802.99
106	956027.06	953807.01
107	956020.92	953910.46
108	956006.64	953913.26
109	956006.31	954027.83
110	955996.70	954150.24
111	955979.42	954263.16
112	955988.65	954264.65



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(904)-731-7040  
REGISTRY # 4815

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SEAL

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ENG

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PROJECT TITLE

**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

---

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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**Call 811 before you dig.**

PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

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SHEET TITLE

**CLEARING AND GRUBBING PLAN**

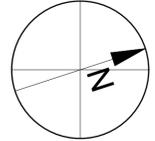
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**C-5**

SHEET 5 OF 27

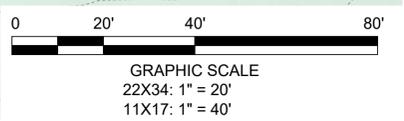
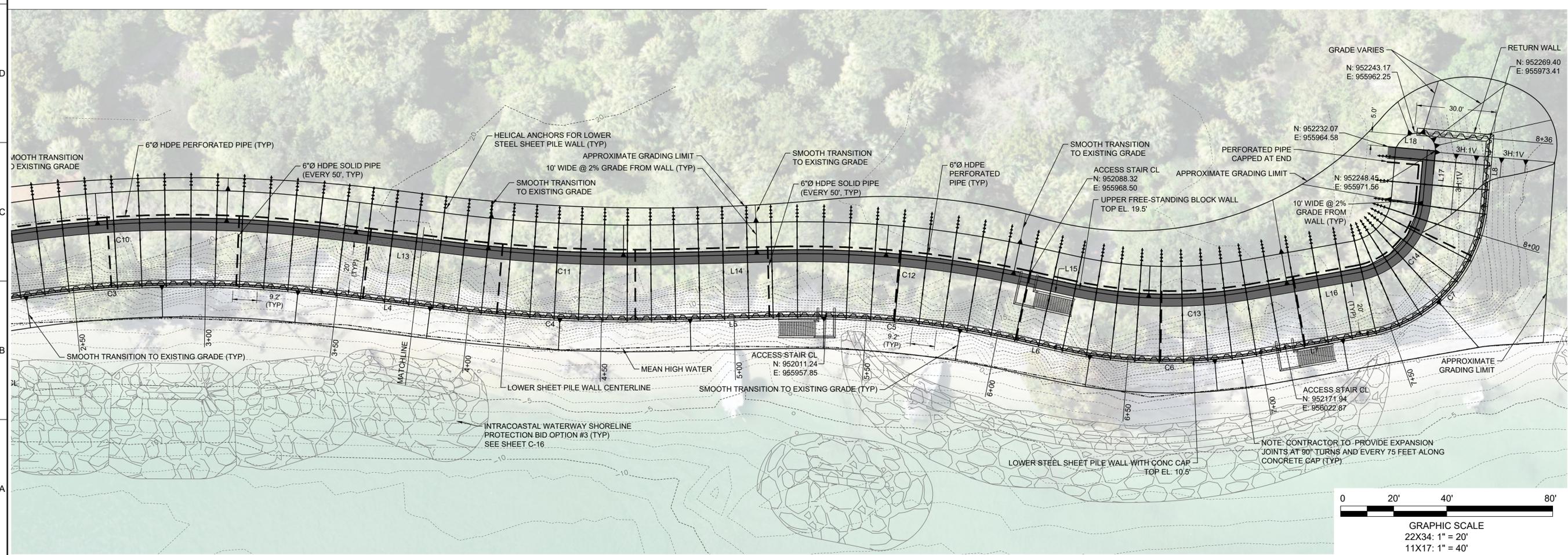
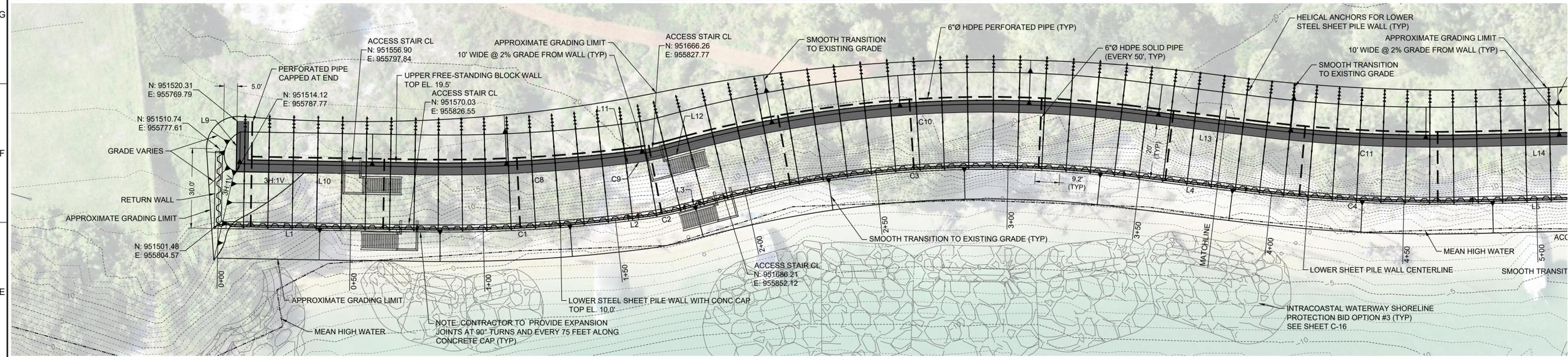
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LINE TABLE					LINE TABLE					CURVE TABLE					CURVE TABLE						
ID	LENGTH	DIRECTION	START POINT (E,N)	END POINT (E,N)	ID	LENGTH	DIRECTION	START POINT (E,N)	END POINT (E,N)	ID	RADIUS	LENGTH	CHORD DIRECTION	START POINT (E,N)	END POINT (E,N)	ID	RADIUS	LENGTH	CHORD DIRECTION	START POINT (E,N)	END POINT (E,N)
L1	75.06	N18° 58' 24.58"E	(955804.57,951501.48)	(955828.97,951572.46)	L10	68.56	N18° 58' 24.58"E	(955787.77,951514.12)	(955810.06,951578.96)	C1	586.57	79.87	N15° 04' 21.53"E	(955828.97,951572.46)	(955849.72,951649.52)	C10	443.46	169.20	N14° 03' 57.36"E	(955833.01,951677.76)	(955873.89,951840.90)
L2	3.76	N11° 10' 18.49"E	(955849.72,951649.52)	(955850.45,951653.21)	L11	3.76	N11° 10' 18.49"E	(955830.10,951653.39)	(955830.83,951657.09)	C2	126.65	17.76	N7° 09' 13.19"E	(955850.45,951653.21)	(955852.66,951670.83)	C11	565.22	82.62	N20° 48' 31.57"E	(955893.52,951883.00)	(955922.84,951960.16)
L3	5.85	N3° 08' 07.89"E	(955852.66,951670.83)	(955852.98,951676.67)	L12	5.85	N3° 08' 07.89"E	(955832.69,951671.92)	(955833.01,951677.76)	C3	423.46	161.57	N14° 03' 57.36"E	(955852.98,951676.67)	(955892.01,951832.44)	C12	394.21	95.62	N23° 34' 12.31"E	(955934.57,951999.46)	(955972.72,952086.89)
L4	46.46	N24° 59' 46.84"E	(955892.01,951832.44)	(955911.64,951874.55)	L13	46.46	N24° 59' 46.84"E	(955873.89,951840.90)	(955893.52,951883.00)	C4	585.22	85.54	N20° 48' 31.57"E	(955911.64,951874.55)	(955942.01,951954.44)	C13	179.71	70.30	N19° 18' 43.38"E	(955980.16,952099.52)	(956003.26,952165.44)
L5	41.01	N16° 37' 16.31"E	(955942.01,951954.44)	(955953.74,951993.74)	L14	41.01	N16° 37' 16.31"E	(955922.84,951960.16)	(955934.57,951999.46)	C5	374.21	90.77	N23° 34' 12.31"E	(955953.74,951993.74)	(955989.95,952076.74)	C14	33.16	43.44	N29° 25' 02.61"W	(956009.01,952205.77)	(955989.16,952240.95)
L6	14.66	N30° 31' 08.32"E	(955989.95,952076.74)	(955997.39,952089.37)	L15	14.66	N30° 31' 08.32"E	(955972.72,952086.89)	(955980.16,952099.52)	C6	199.71	78.12	N19° 18' 43.38"E	(955997.39,952089.37)	(956023.06,952162.63)						
L7	40.73	N8° 06' 18.44"E	(956023.06,952162.63)	(956028.81,952202.95)	L16	40.73	N8° 06' 18.44"E	(956003.26,952165.44)	(956009.01,952205.77)	C7	53.16	69.63	N29° 25' 02.61"W	(956028.81,952202.95)	(955997.00,952259.36)						
L8	25.63	N66° 56' 23.66"W	(955997.00,952259.36)	(955973.41,952269.40)	L17	19.13	N66° 56' 23.66"W	(955989.16,952240.95)	(955971.56,952248.45)	C8	566.57	77.15	N15° 04' 21.53"E	(955810.06,951578.96)	(955830.10,951653.39)						
L9	19.01	S71° 01' 35.42"E	(955769.79,951520.31)	(955787.77,951514.12)	L18	17.81	S23° 03' 36.34"W	(955971.56,952248.45)	(955964.58,952232.07)	C9	106.65	14.96	N7° 09' 13.19"E	(955830.83,951657.09)	(955832.69,951671.92)						



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SEAL

JONATHAN B. BRUMFIELD P.E. #92397

**JUPITER INLET LIGHTHOUSE OUTSTANDING NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

PROJECT NO	C201-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWBY
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

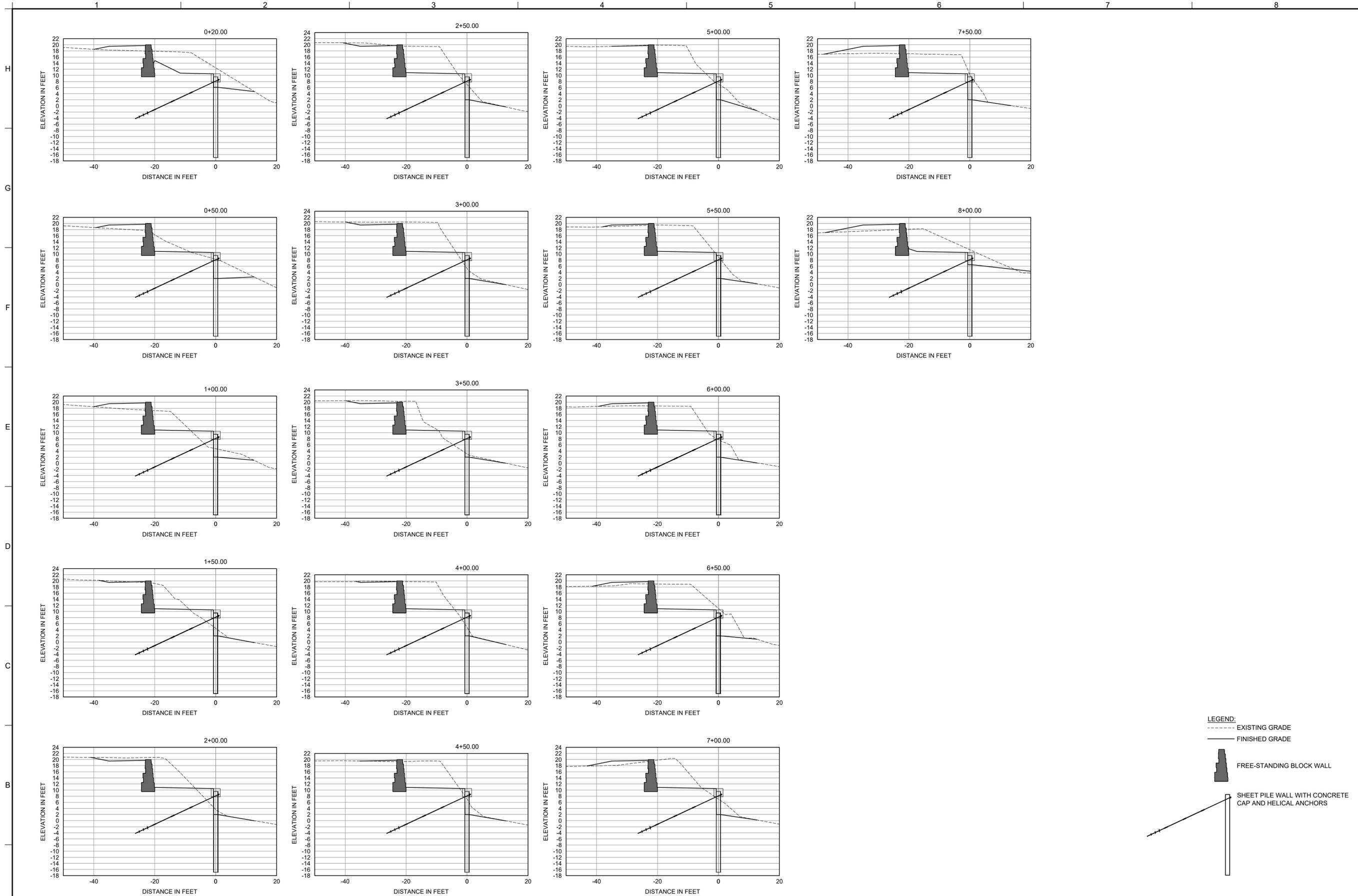
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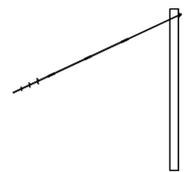
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SHEET 6 OF 27

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ANTON FLEVELLING, 5/14/2024 2:24:42 PM, X:\lay\Projects\2021-084\_Jupiter\BLM\Construction\2021-084-C-Wall Cross Sections.dwg



**LEGEND:**  
 - - - - - EXISTING GRADE  
 \_\_\_\_\_ FINISHED GRADE  
 FREE-STANDING BLOCK WALL  
 SHEET PILE WALL WITH CONCRETE CAP AND HELICAL ANCHORS

**GRAPHIC SCALE**  
 22X34: 1" = 15'  
 11X17: 1" = 30'



SEAL  
 JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE  
**JUPITER INLET LIGHTHOUSE OUTSTANDING NATURAL AREA SHORELINE STABILIZATION**  
 PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE  
**RETAINING WALL CROSS-SECTIONS BASE BID**

NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

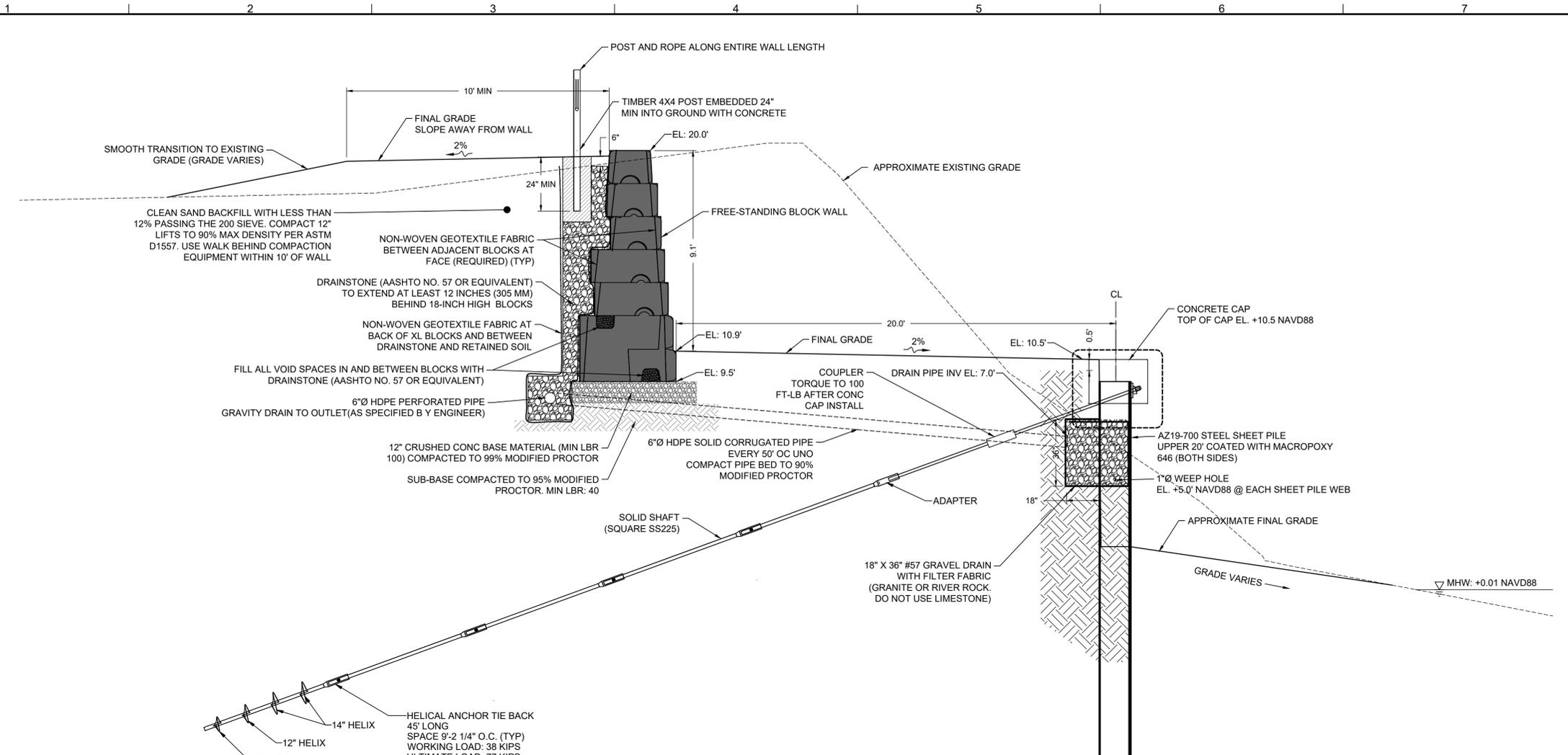
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**RETAINING WALL  
DETAILS BASE BID**

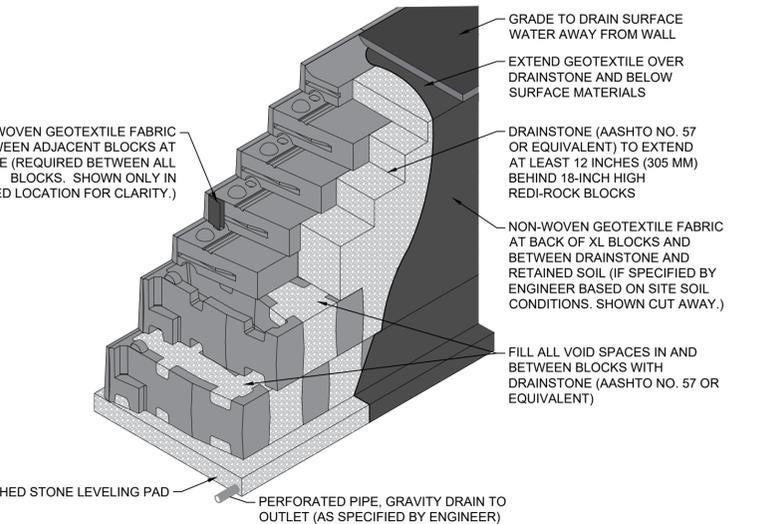
**C-8**

SHEET 8 OF 27



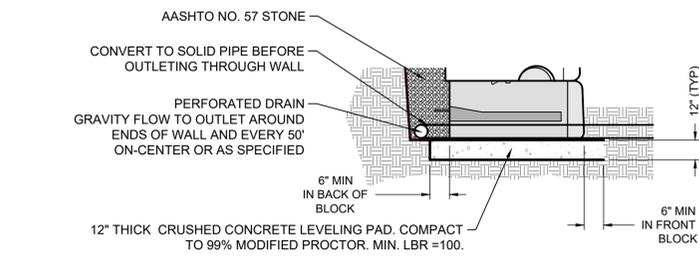
GENERAL NOTE: FREE-STANDING BLOCK WALL IS PRELIMINARY DESIGN ONLY. CONTRACTOR TO ENGAGE A SPECIALTY ENGINEER LICENSED IN THE STATE OF FLORIDA TO SUBMIT SHOP DRAWINGS AND FINAL DESIGN CALCULATIONS DURING CONSTRUCTION FOR ENGINEER APPROVAL. SHOP DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED.

**TYPICAL SEAWALL CROSS-SECTION**  
SCALE: 1" = 3'



**FREE-STANDING BLOCK WALL TYPICAL DETAIL**  
NOT TO SCALE

NOTE: DETAIL PROVIDED TO SHOW DRAINAGE DESIGN INTENT. ACTUAL BLOCK SIZES FOR CONSTRUCTION MAY VARY



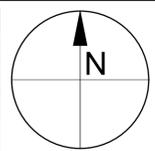
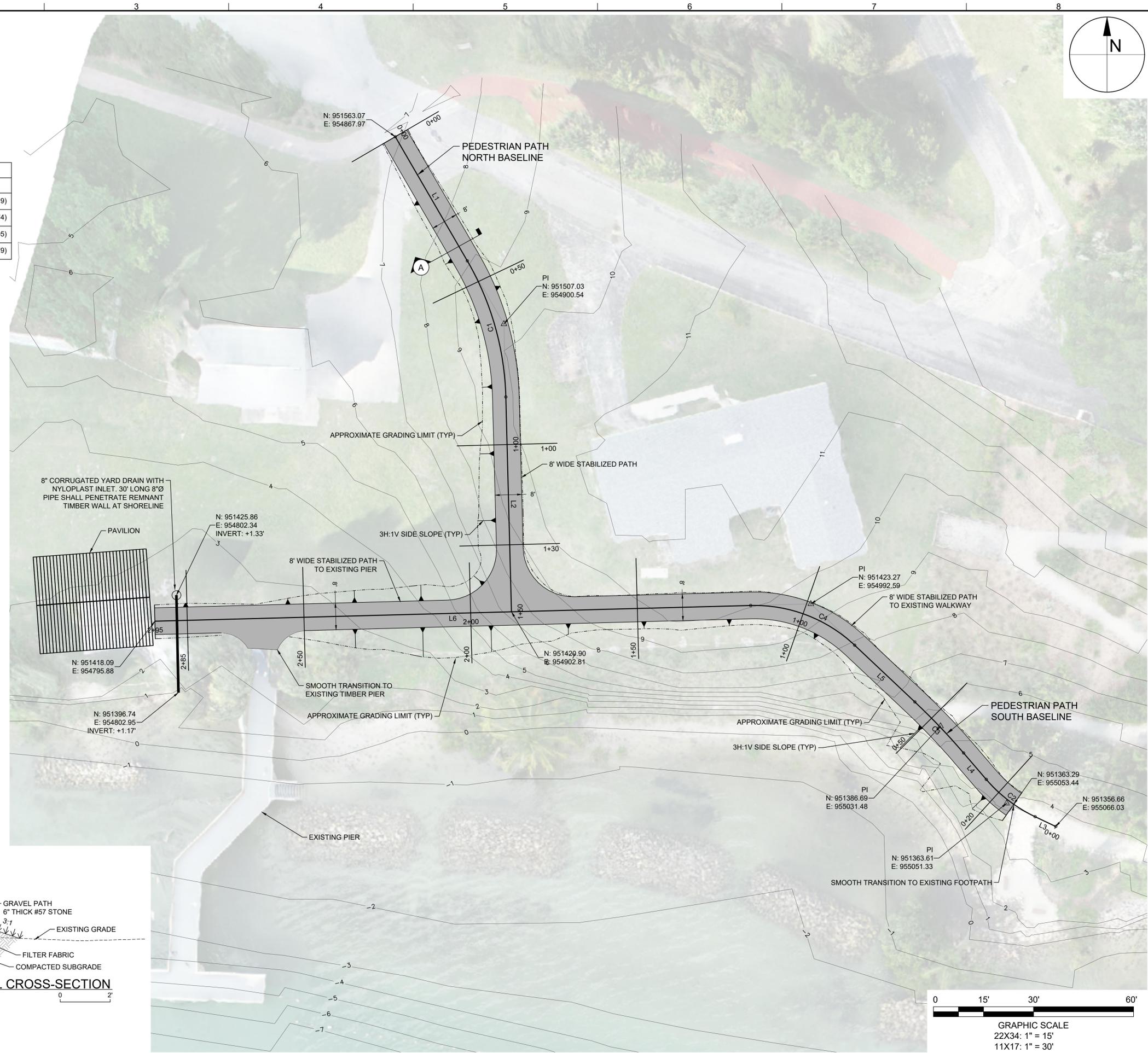
**FREE-STANDING BLOCK WALL CRUSHED  
CONCRETE LEVELING PAD DETAIL**  
NOT TO SCALE

ANTON FLEWELLING, 5/14/2024, 2:25:28 PM, X:\projects\2021-084\_Jupiter\BIM\Construction\2021-084-C-Wall\_Details.dwg



LINE TABLE				
ID	LENGTH	DIRECTION	START POINT (E,N)	END POINT (E,N)
L1	42.98	S30° 09' 55.60"E	(954867.97,951563.07)	(954889.57,951525.91)
L2	64.31	S1° 30' 30.62"E	(954901.12,951485.19)	(954902.81,951420.90)
L3	6.86	N64° 41' 20.89"W	(955066.03,951356.66)	(955059.83,951359.59)
L4	10.43	N40° 41' 35.80"W	(955045.20,951370.74)	(955038.39,951378.65)
L5	24.75	N46° 45' 34.52"W	(955023.76,951393.95)	(955005.73,951410.90)
L6	178.72	S88° 29' 29.38"W	(954974.54,951422.79)	(954795.88,951418.09)

CURVE TABLE					
ID	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C1	85.51	42.77	S15° 50' 13.11"E	(954889.57,951525.91)	(954901.12,951485.19)
C2	44.25	18.53	N52° 41' 28.35"W	(955059.83,951359.59)	(955045.20,951370.74)
C3	200.00	21.18	N43° 43' 35.16"W	(955038.39,951378.65)	(955023.76,951393.95)
C4	43.85	34.25	N69° 08' 02.57"W	(955005.73,951410.90)	(954974.54,951422.79)



**TAYLOR**  
ENGINEERING, INC.

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SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

SEAL

JONATHAN B. BRUMFIELD P.E.#92397

PROJECT TITLE

**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

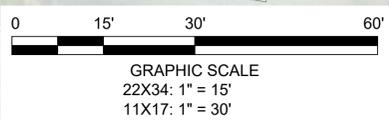
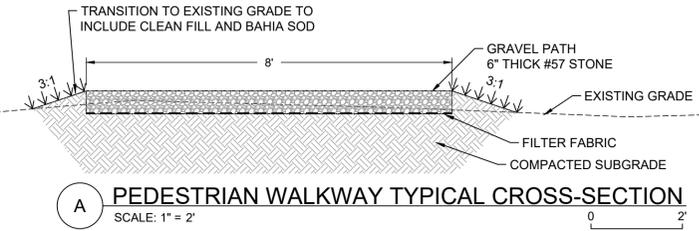
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**ADA PATHWAY BID  
OPTION #1**

**C-10**

SHEET 10 OF 27



ANTON FLEWELLING, 5/14/2024 2:27:51 PM, X:\projects\2021-084\_Jupiter\BLM\Construction\2021-084-C-Path Plan.dwg

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JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE  
**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

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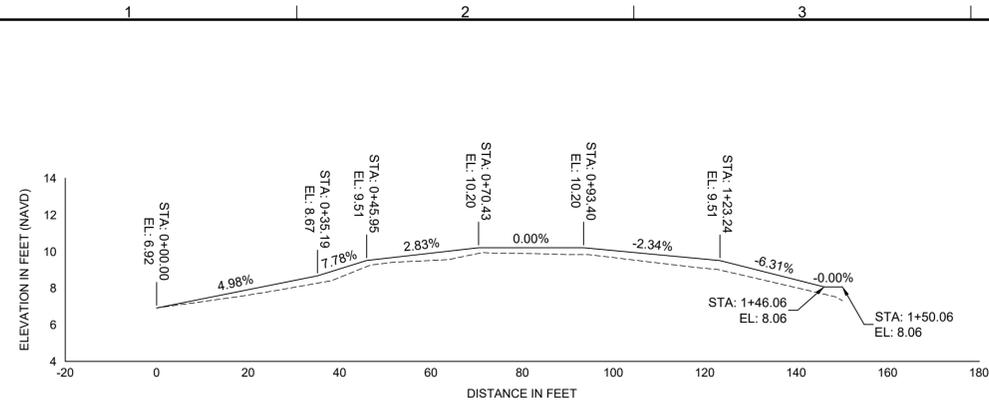
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

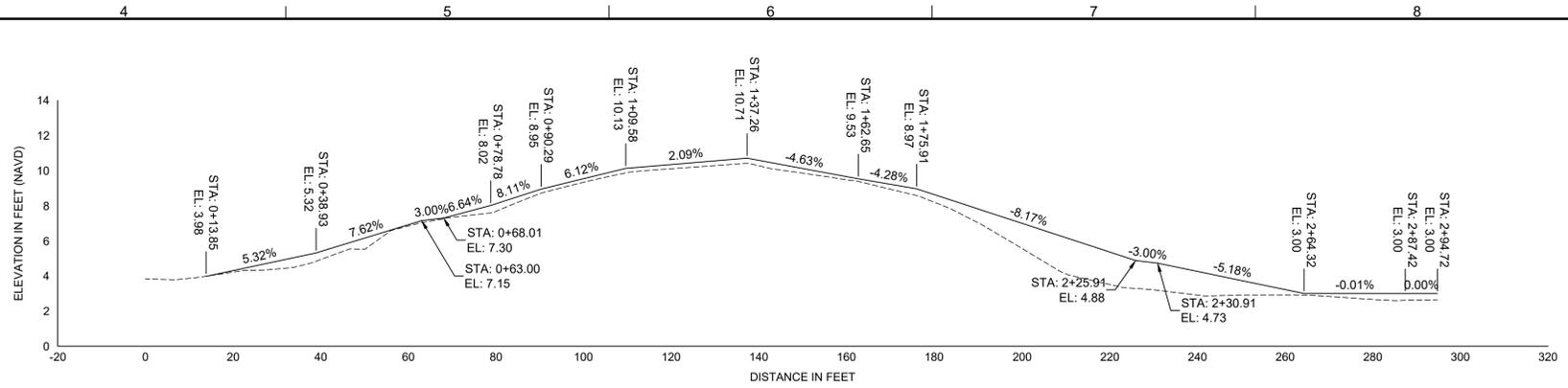
**ADA PATHWAY  
PROFILES AND  
CROSS-SECTIONS  
BID OPTION #1**

**C-11**

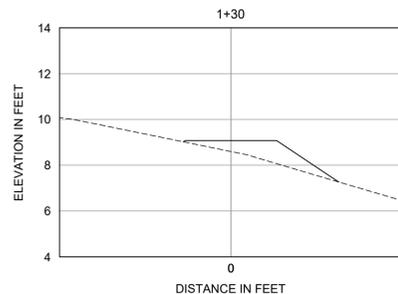
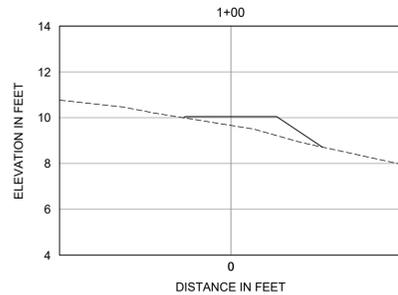
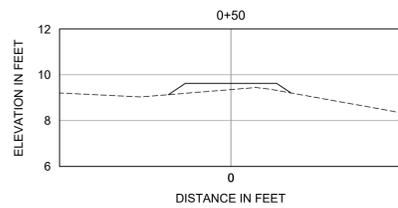
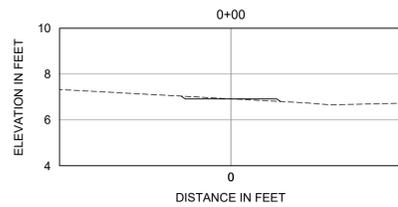
SHEET 11 OF 27



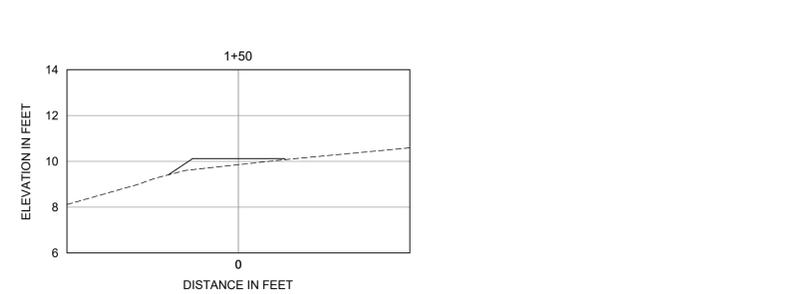
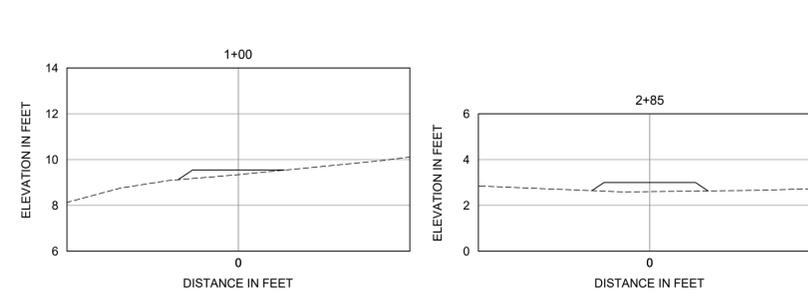
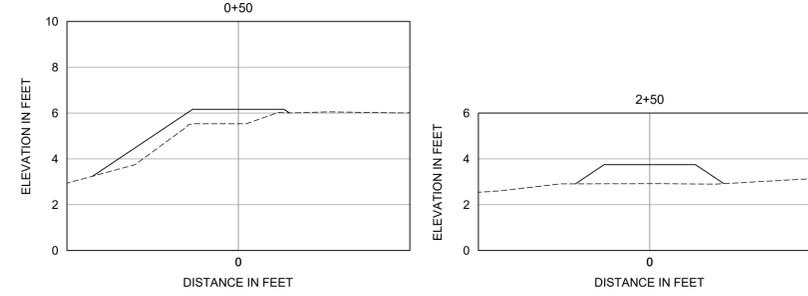
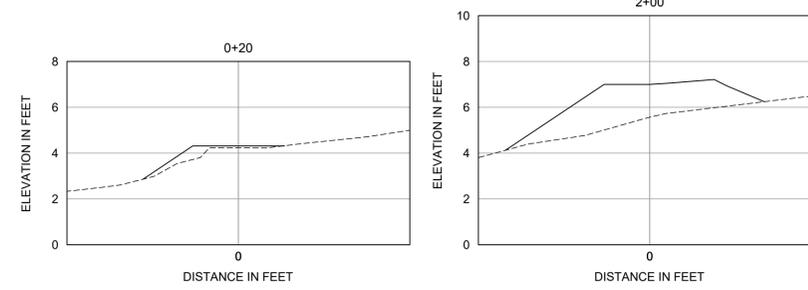
**PEDESTRIAN PATH NORTH BASELINE PROFILE**  
SCALE: 1" = 20'



**PEDESTRIAN PATH SOUTH BASELINE PROFILE**  
SCALE: 1" = 20'

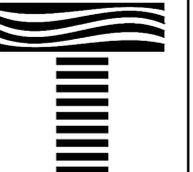


**PEDESTRIAN PATH NORTH BASELINE CROSS-SECTIONS**  
SCALE: 1" = 8'



**PEDESTRIAN PATH SOUTH BASELINE CROSS-SECTIONS**  
SCALE: 1" = 8'

**LEGEND:**  
----- EXISTING GRADE  
———— FINISHED GRADE



SEAL

ENG

PROJECT TITLE  
**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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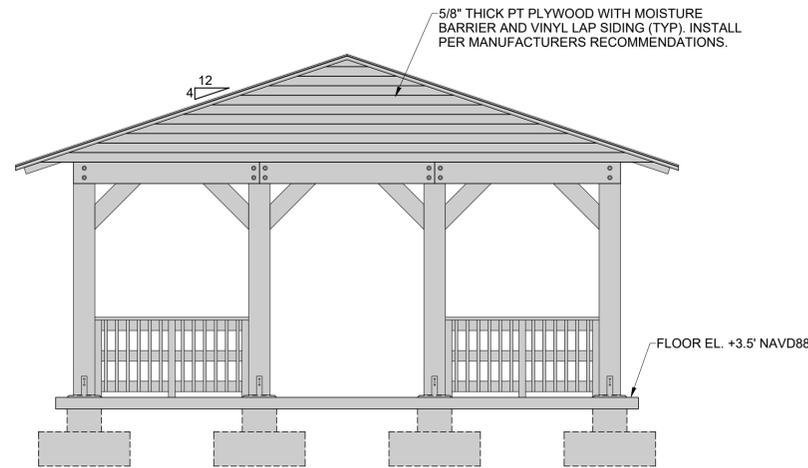
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
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REVIEWED	KRC

SHEET TITLE

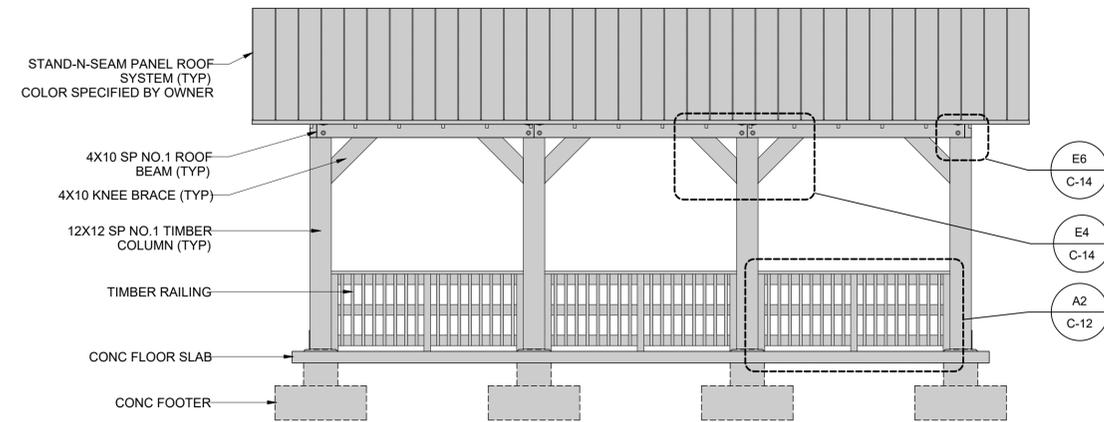
**PAVILION BID  
OPTION #1**

**C-12**

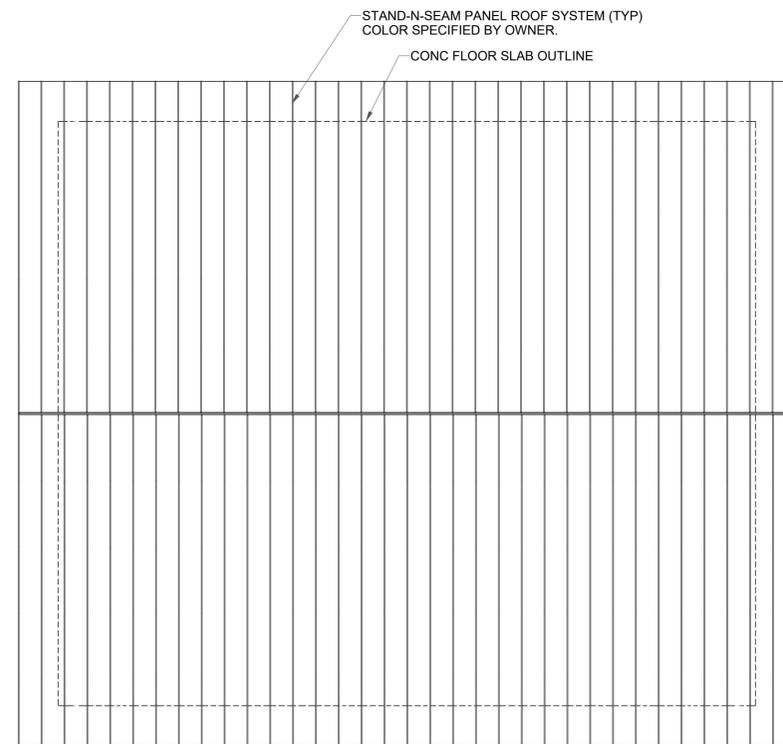
SHEET 12 OF 27



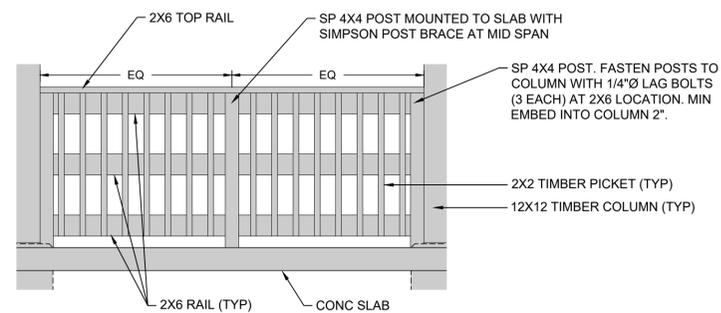
**F2 EAST-WEST ELEVATION**  
SCALE: 1/4" = 1'



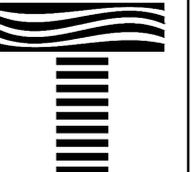
**F6 NORTH-SOUTH ELEVATION**  
SCALE: 1/4" = 1'



**ROOF PLAN**  
SCALE: 1/4" = 1'



**A2 TIMBER RAILING DETAIL**  
SCALE: 1/2" = 1'



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JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE  
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PALM BEACH COUNTY, FLORIDA

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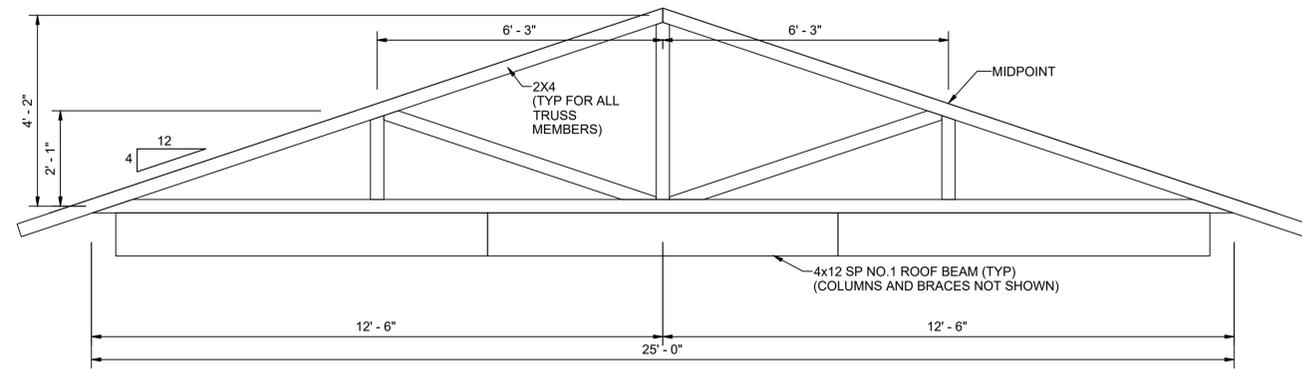
PROJECT NO	C2021-084
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REVIEWED	KRC

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**PAVILION BID  
OPTION #1**

**C-13**

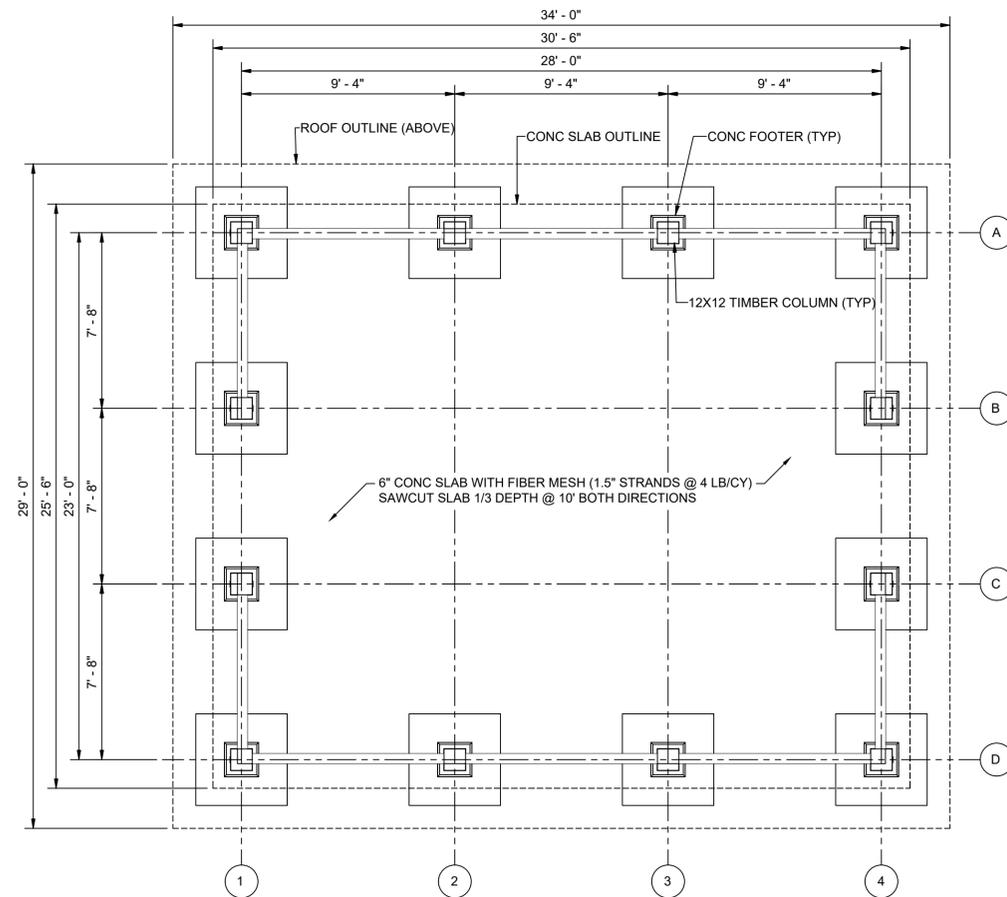
SHEET 13 OF 27



NOTE: CONTRACTOR TO ENGAGE A TRUSS ENGINEER TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS FOR ENGINEER APPROVAL BASED ON LOADING CONDITIONS PROVIDED HEREIN. ENGINEER MUST BE A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA.

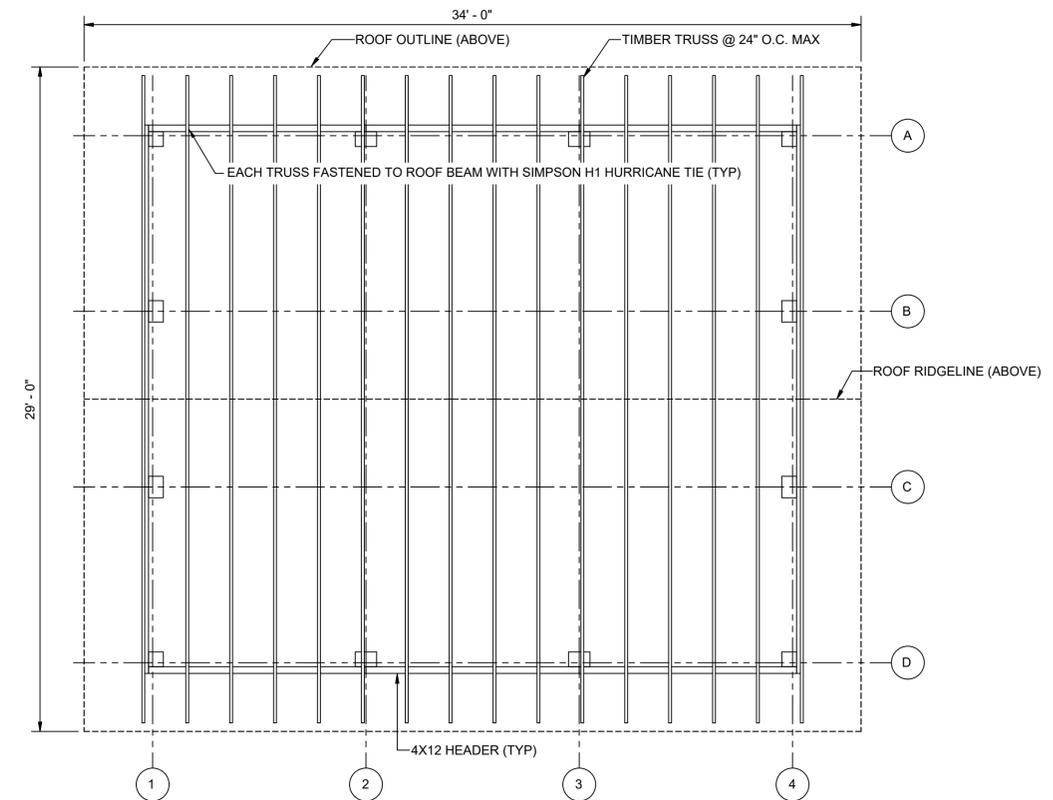
**TYPICAL TRUSS FRAMING DETAIL**

SCALE: 1" = 2'      0      2'



**PAVILION FOUNDATION PLAN**

SCALE: 1" = 4'      0      4'



**PAVILION FRAMING PLAN**

SCALE: 1" = 4'      0      4'







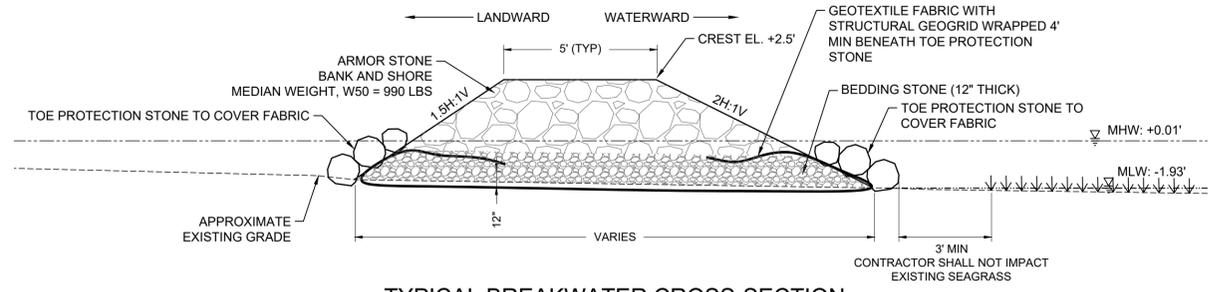
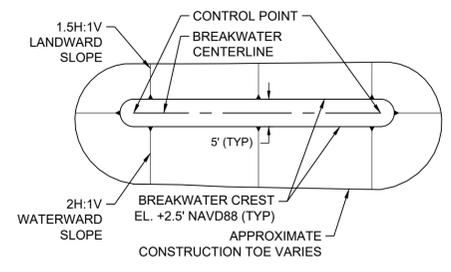
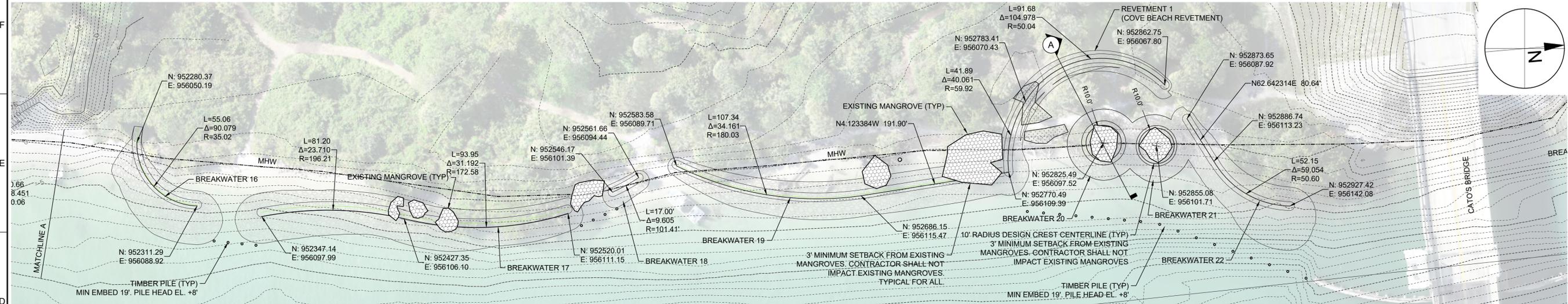
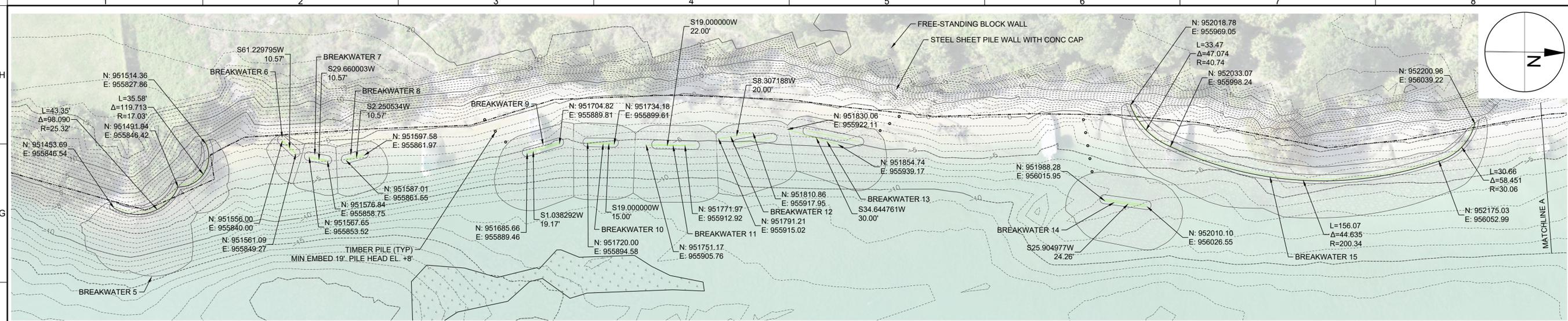
NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

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PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

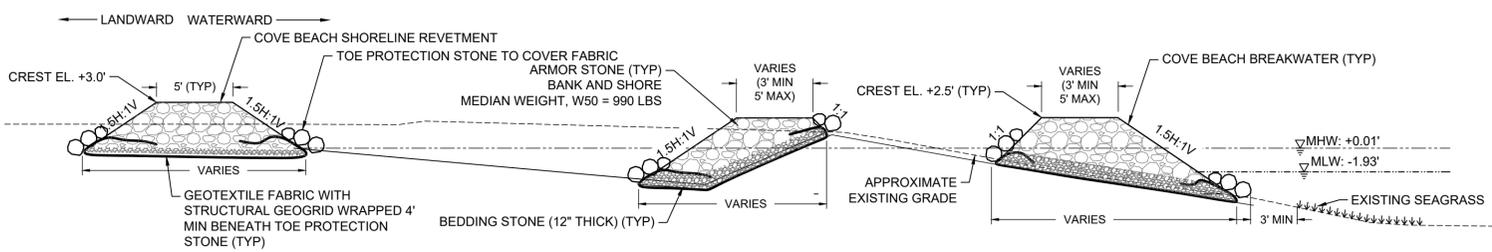
SHEET TITLE

**INTRACOASTAL  
WATERWAY  
SHORELINE  
PROTECTION BID  
OPTION #3**



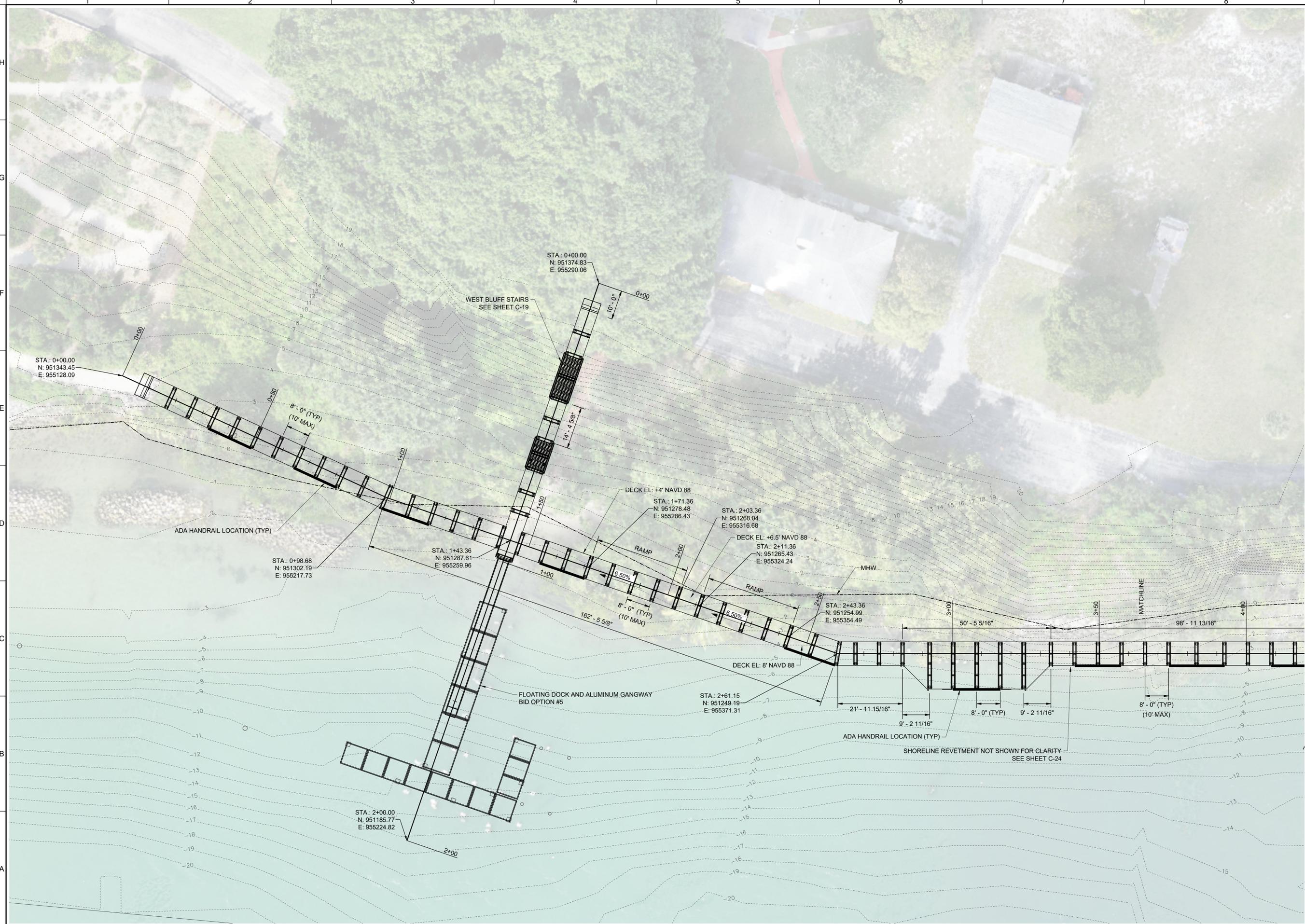
**GENERAL SHEET NOTE:**  
PORTIONS OF EXISTING MANGROVES CONFLICT WITH PROPOSED ROCK STRUCTURES. PER PERMIT, THERE IS NO IMPACT TO MANGROVES. CONTRACTOR SHALL FIELD MODIFY ROCK TEMPLATE AT THESE AREAS TO AVOID IMPACTS BASED ON OBSERVED MANGROVE LOCATIONS DURING CONSTRUCTION. NO ROCK SHALL BE PLACED OUTSIDE IDENTIFIED FOOTPRINTS.

NOTE: CONTRACTOR MAY USE MARINE MATTRESS IN LIEU OF FABRIC AND BEDDING. PRODUCT INFO AND SHOP DRAWINGS TO BE SUBMITTED DURING CONSTRUCTION FOR ENGINEERING APPROVAL.

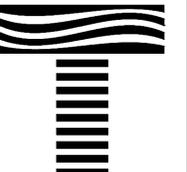


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ANTON FLEWELLING, 5/14/2024 2:32:03 PM, X:\lays\Projects\2021-084-Jupiter\BLM\Construction\2021-084-C-Boardwalk Control Plan.dwg



**TAYLOR**  
ENGINEERING, INC.



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(904)-731-7040  
REGISTRY # 4815

SEAL

JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE

**JUPITER INLET LIGHTHOUSE OUTSTANDING  
NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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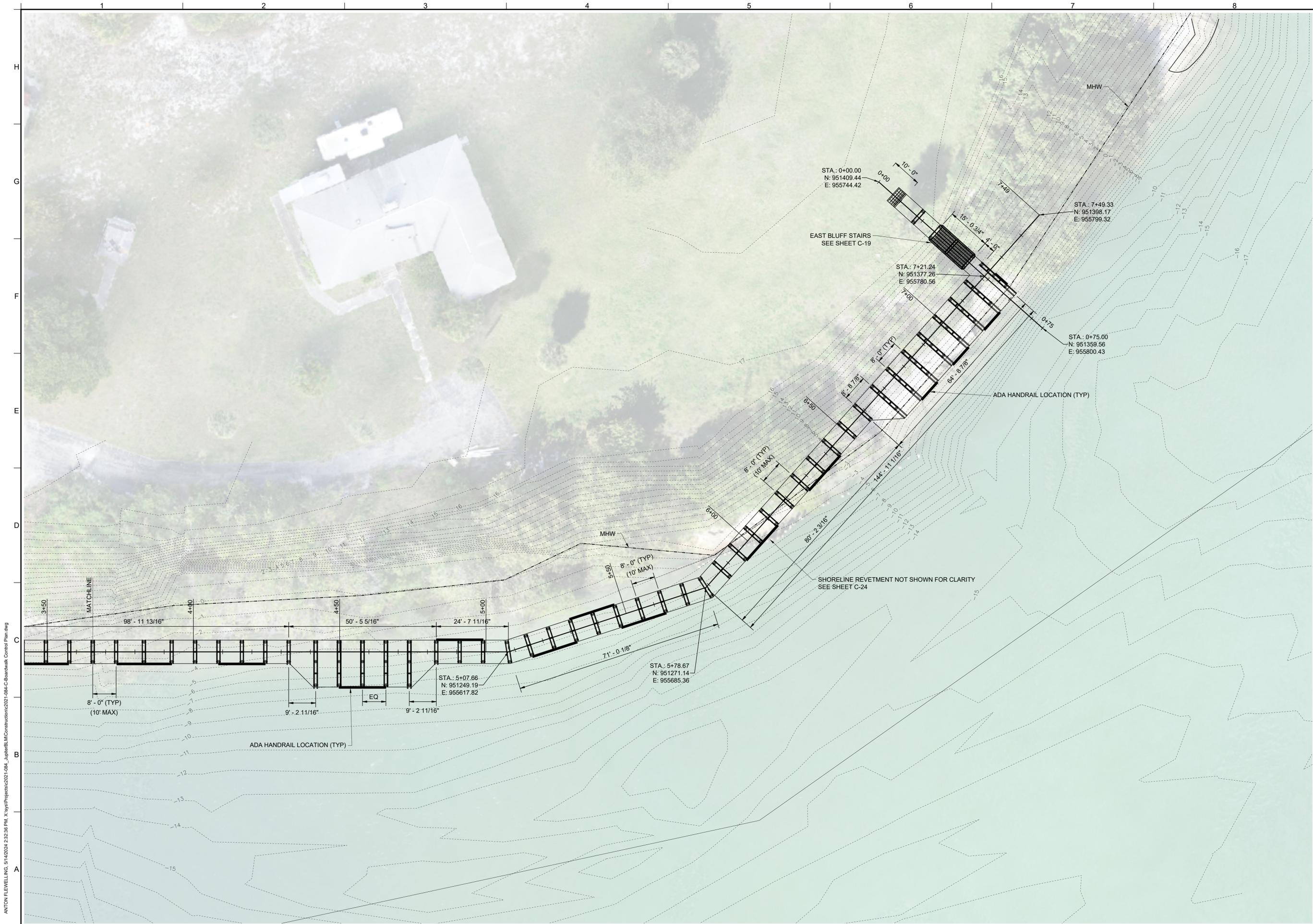
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**TIMBER  
BOARDWALK AND  
ACCESS STAIRS  
CONTROL PLAN BID  
OPTION #4**

**C-17**

SHEET 17 OF 27



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REGISTRY # 4815

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JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE

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NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
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CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**TIMBER  
BOARDWALK AND  
ACCESS STAIRS  
CONTROL PLAN BID  
OPTION #4**

**C-18**

SHEET 18 OF 27

NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

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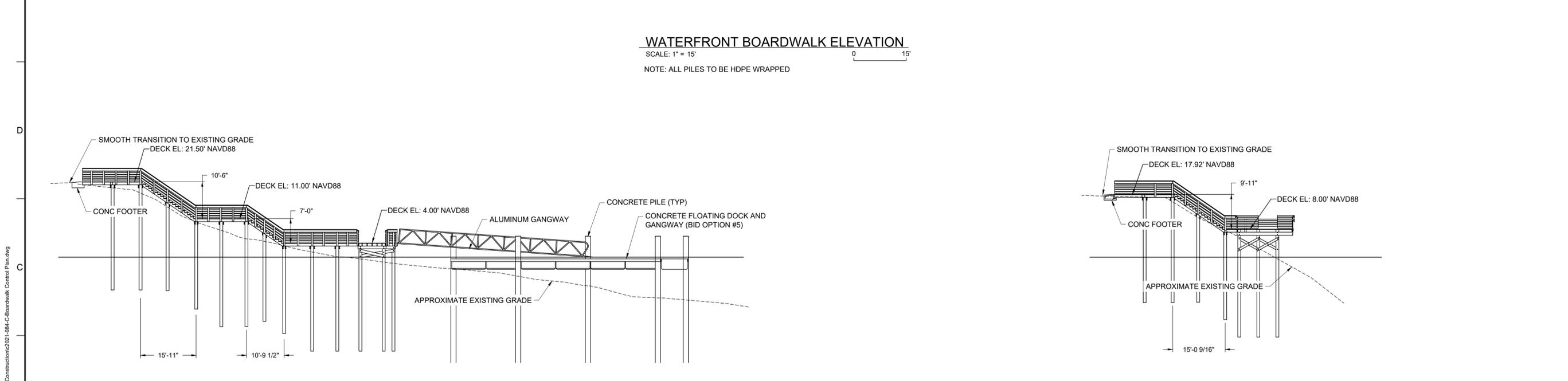
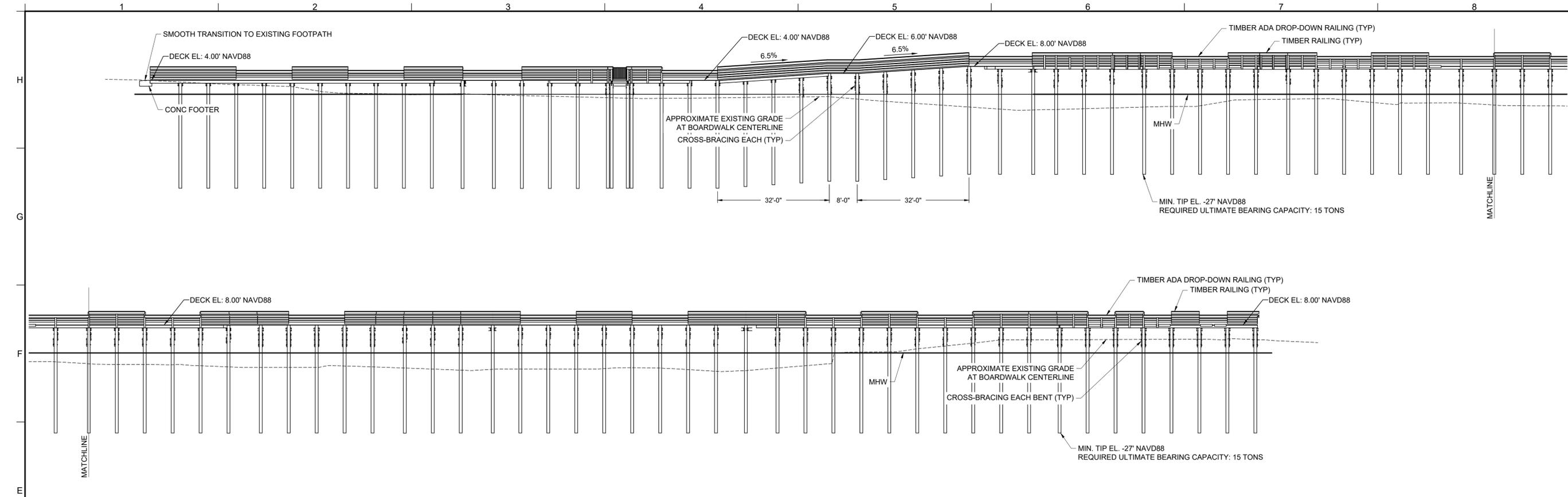
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**TIMBER  
BOARDWALK AND  
ACCESS STAIRS  
ELEVATIONS BID  
OPTION #4**

**C-19**

SHEET 19 OF 27



ANTON FLEVELLING, 5/14/2024 2:32:57 PM, X:\projects\2021-084\_Jupiter\BIM\Construction\2021-084-C-Boardwalk\_Control\_Plan.dwg





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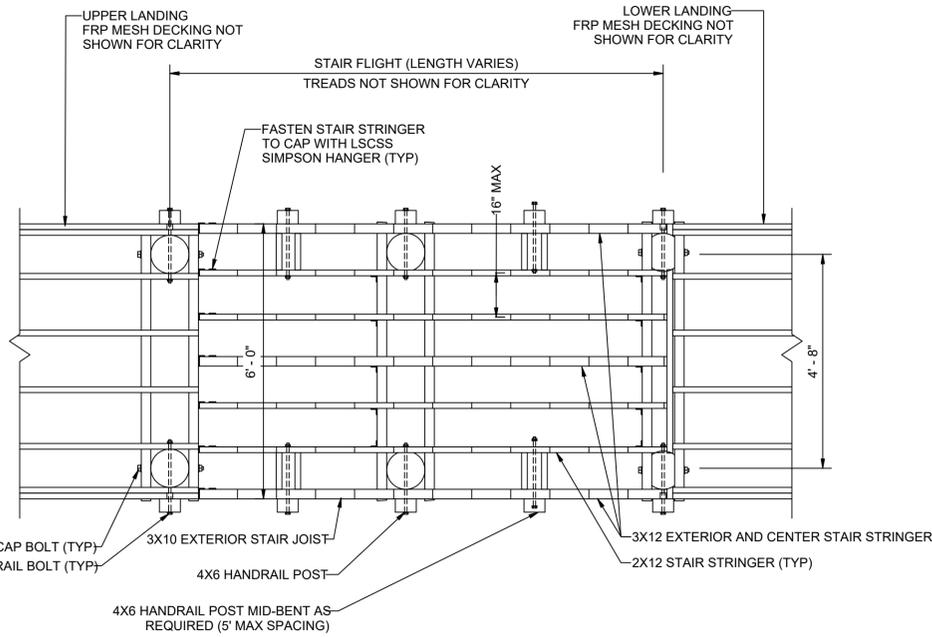
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DATE	MAY 2024
DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
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SHEET TITLE

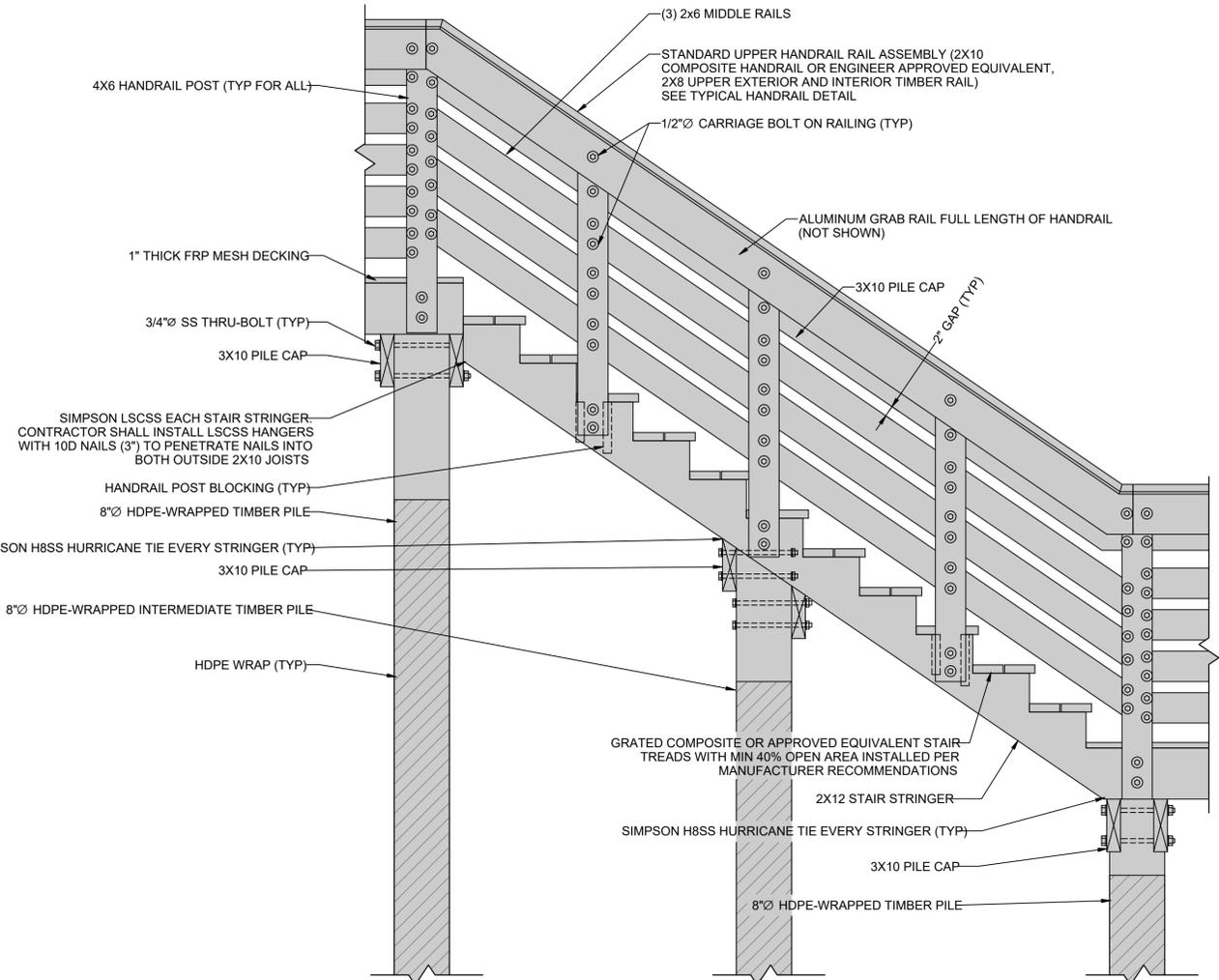
**TIMBER  
BOARDWALK  
DETAILS BID  
OPTION #4**

**C-22**

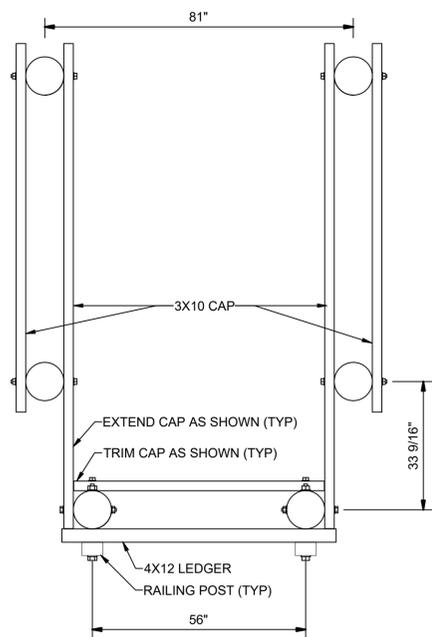
SHEET 22 OF 27



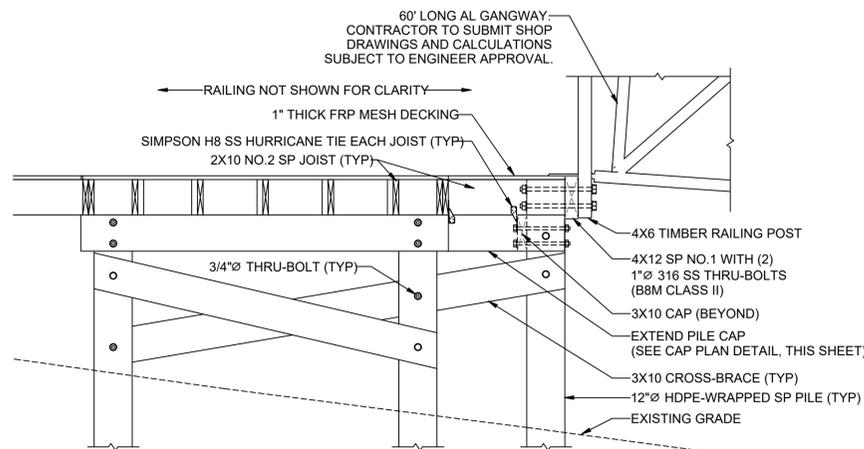
**TYPICAL STAIR PLAN DETAIL**  
SCALE: 1" = 2'



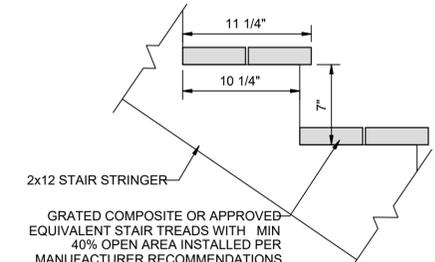
**TYPICAL STAIR ELEVATION DETAIL**  
SCALE: 1" = 2'



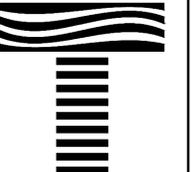
**A1 GANGWAY CONNECTION PILE CAP PLAN DETAIL**  
SCALE: 1" = 10 FT



**A4 GANGWAY CONNECTION CROSS-SECTION**  
SCALE: 1" = 2'



**TYPICAL STAIR STRINGER DETAIL**  
NOT TO SCALE



SEAL

JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE  
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NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

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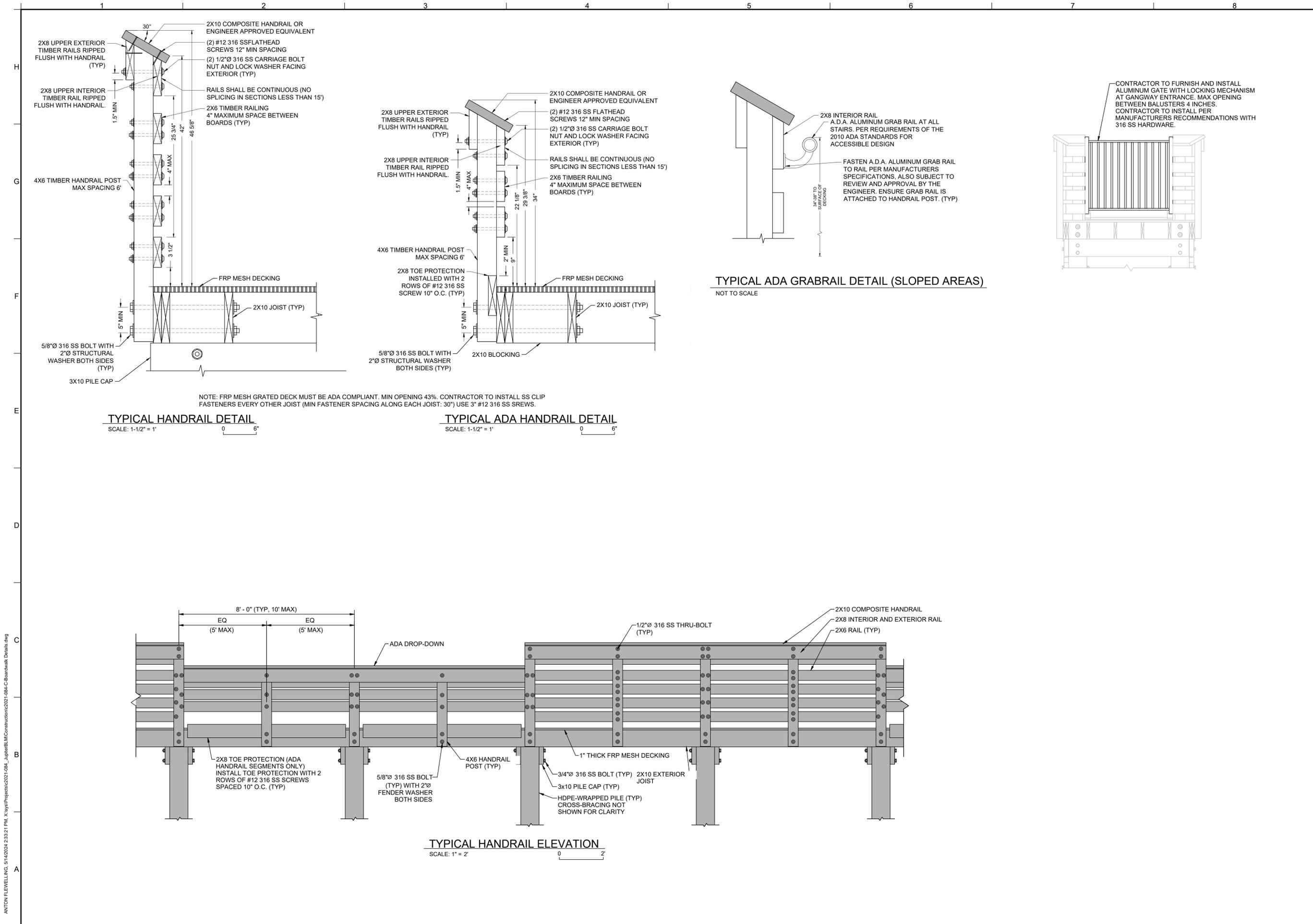
**Call 811 before you dig.**

PROJECT NO	C2021-084
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DESIGNED	JBB
DRAWN	DRWNB
CHECKED	KAK
REVIEWED	KRC

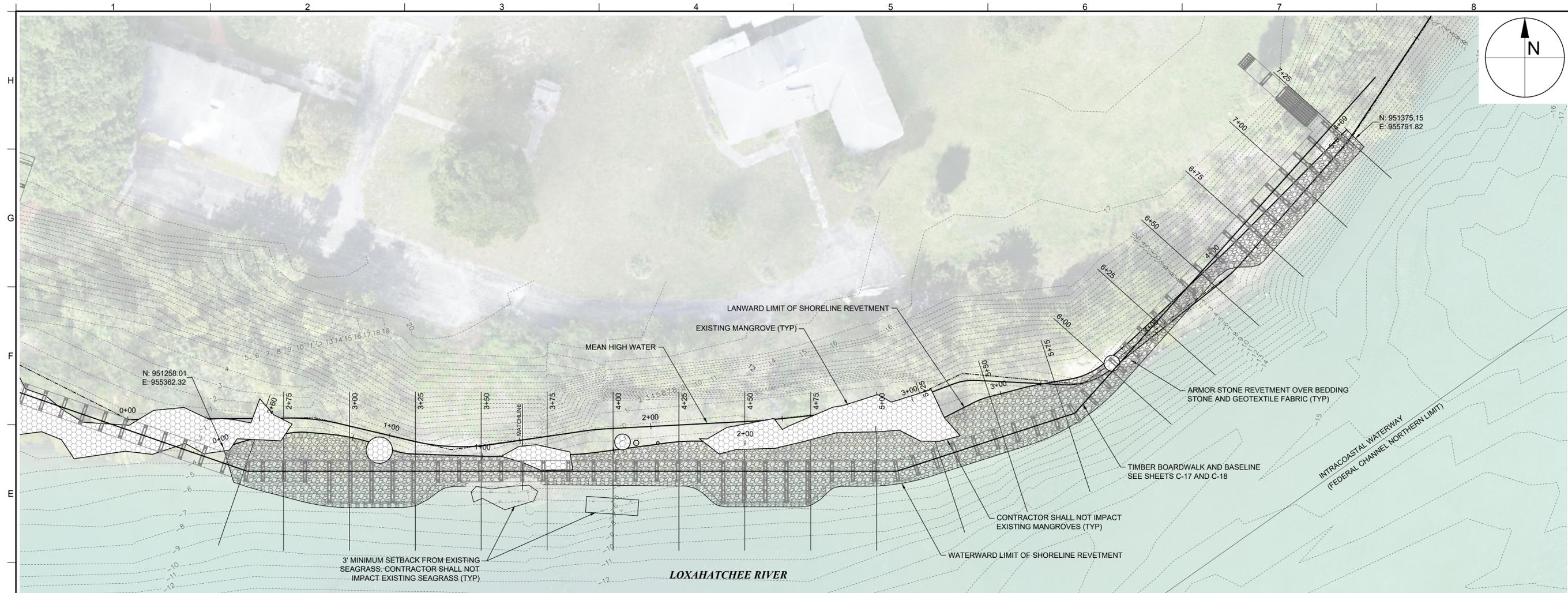
SHEET TITLE

**TIMBER  
BOARDWALK  
DETAILS BID  
OPTION #4**

**C-23**

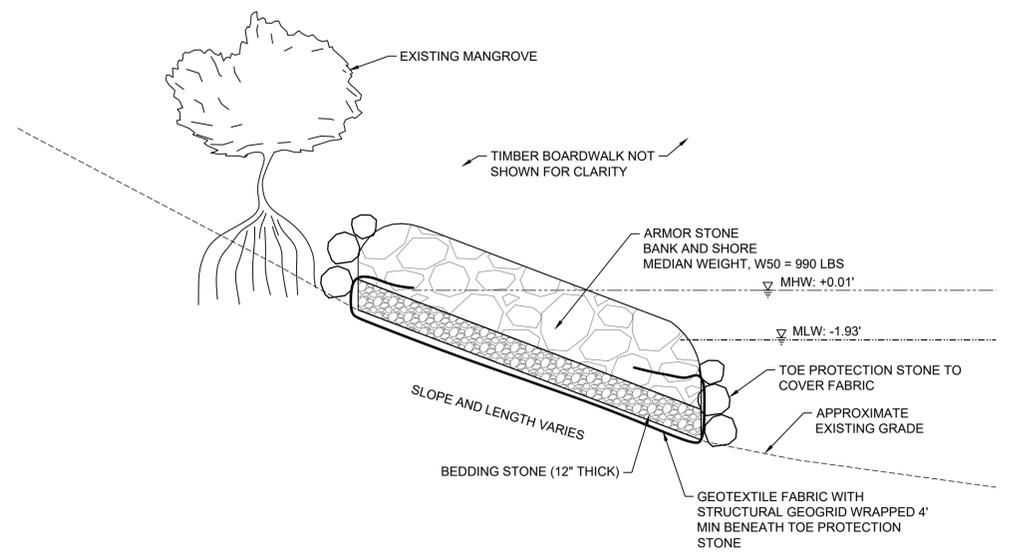


ANTON FLEWELLING, 5/14/2024 2:33:21 PM, X:\lay\Projects\2021-084\_Jupiter\BIM\Construction\2021-084-C-Boardwalk\_Details.dwg



**TIMBER BOARDWALK REVETMENT PLAN**  
SCALE: 1" = 20'

**GENERAL SHEET NOTE:**  
PORTIONS OF EXISTING MANGROVES CONFLICT WITH PROPOSED ROCK STRUCTURES. PER PERMIT, THERE IS NO IMPACT TO MANGROVES. CONTRACTOR SHALL FIELD MODIFY ROCK TEMPLATE AT THESE AREAS TO AVOID IMPACTS BASED ON OBSERVED MANGROVE LOCATIONS DURING CONSTRUCTION. NO ROCK SHALL BE PLACED OUTSIDE IDENTIFIED FOOTPRINTS.



NOTE: CONTRACTOR DOES NOT NEED TO INSTALL FILTER FABRIC AND BEDDING STONE AT AREAS THAT HAVE EXISTING CONCRETE DEBRIS. PLACE ARMOR STONE ON EXISTING CONCRETE TO MEET DESIGN INTENT.

**TYPICAL TIMBER BOARDWALK REVETMENT CROSS-SECTION**  
NOT TO SCALE

**TAYLOR ENGINEERING, INC.**

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PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

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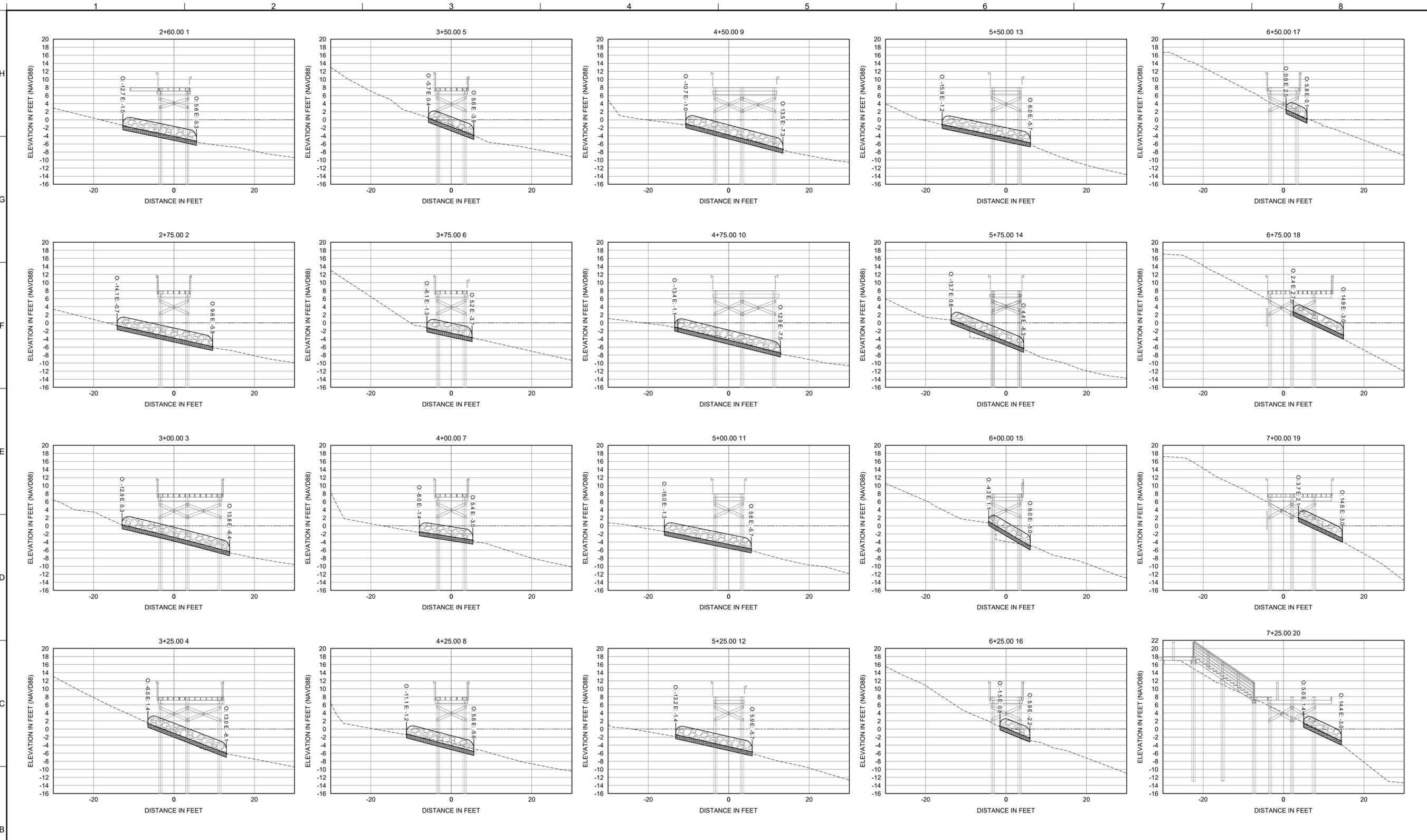
PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**TIMBER BOARDWALK REVETMENT BID OPTION #4**

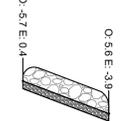
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**TIMBER BOARDWALK SHORELINE REVETMENT CROSS-SECTIONS**  
SCALE: 1" = 12'

**LEGEND:**

-  ARMOR AND BEDDING STONE
-  O=OFFSET
-  E=ELEVATION
-  EXISTING GRADE
-  MEANHIGH WATER = +0.01 NAVD88

**TAYLOR ENGINEERING, INC.**



10199 SOUTHSIDE BLVD  
SUITE 310  
JACKSONVILLE, FLORIDA 32256  
(904)-731-7040  
REGISTRY # 4815

SEAL

JONATHAN B. BRUMFIELD P.E. #92397

PROJECT TITLE

**JUPITER INLET LIGHTHOUSE OUTSTANDING NATURAL AREA SHORELINE STABILIZATION**  
PALM BEACH COUNTY, FLORIDA

NO	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

PROJECT NO	C2021-084
DATE	MAY 2024
DESIGNED	JBB
DRAWN	AF
CHECKED	KAK
REVIEWED	KRC

SHEET TITLE

**TIMBER BOARDWALK REVETMENT CROSS-SECTIONS BID OPTION #4**

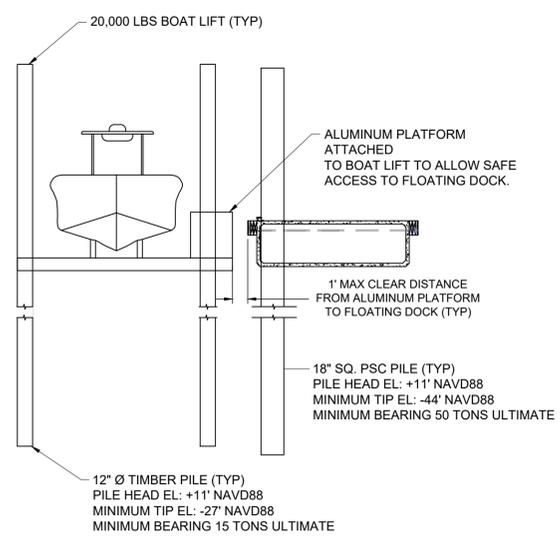
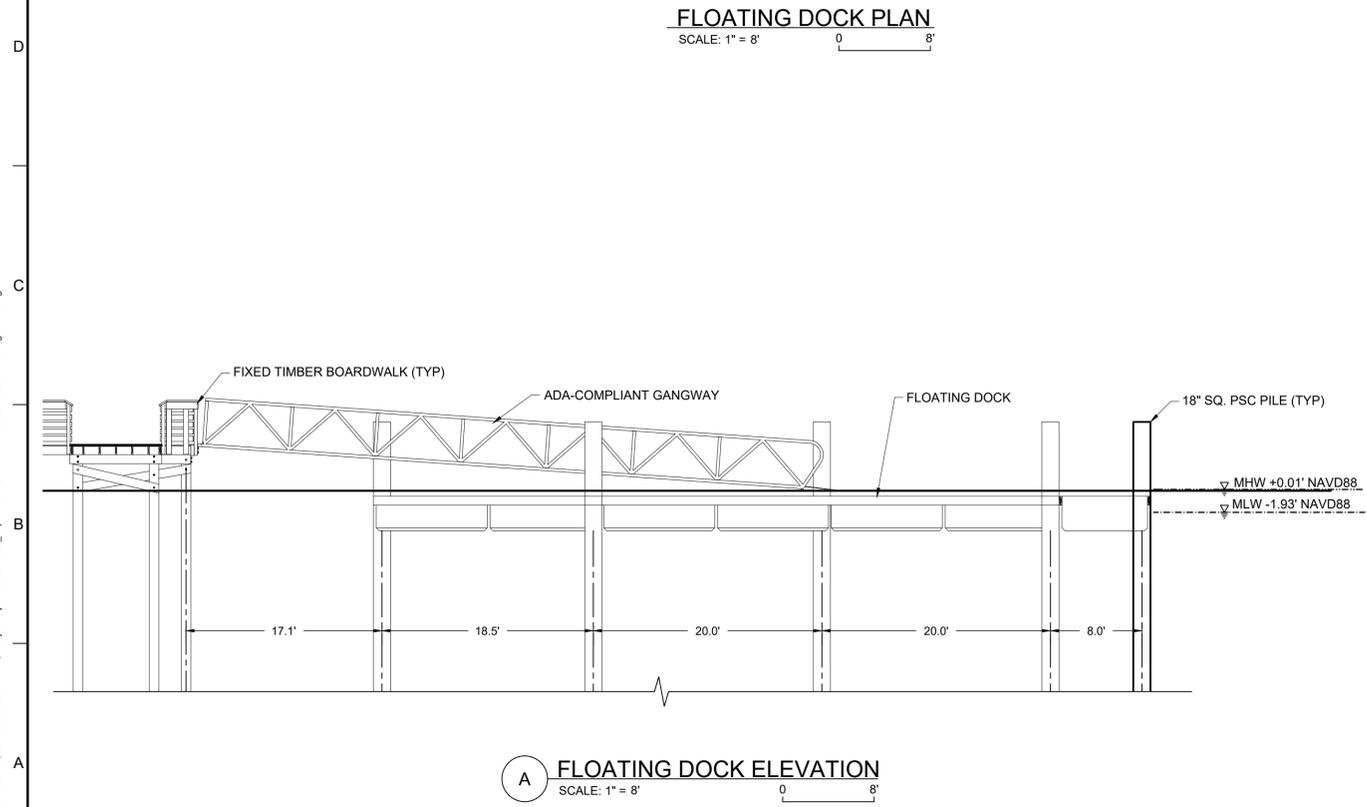
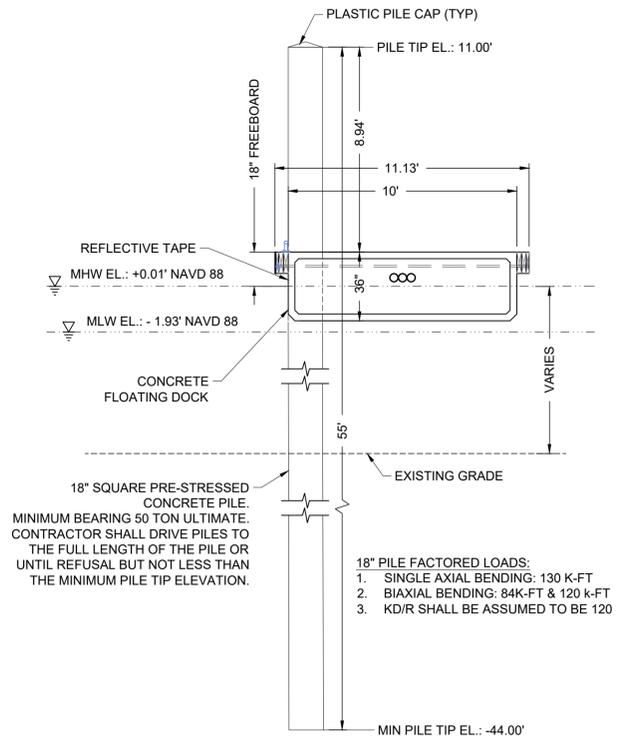
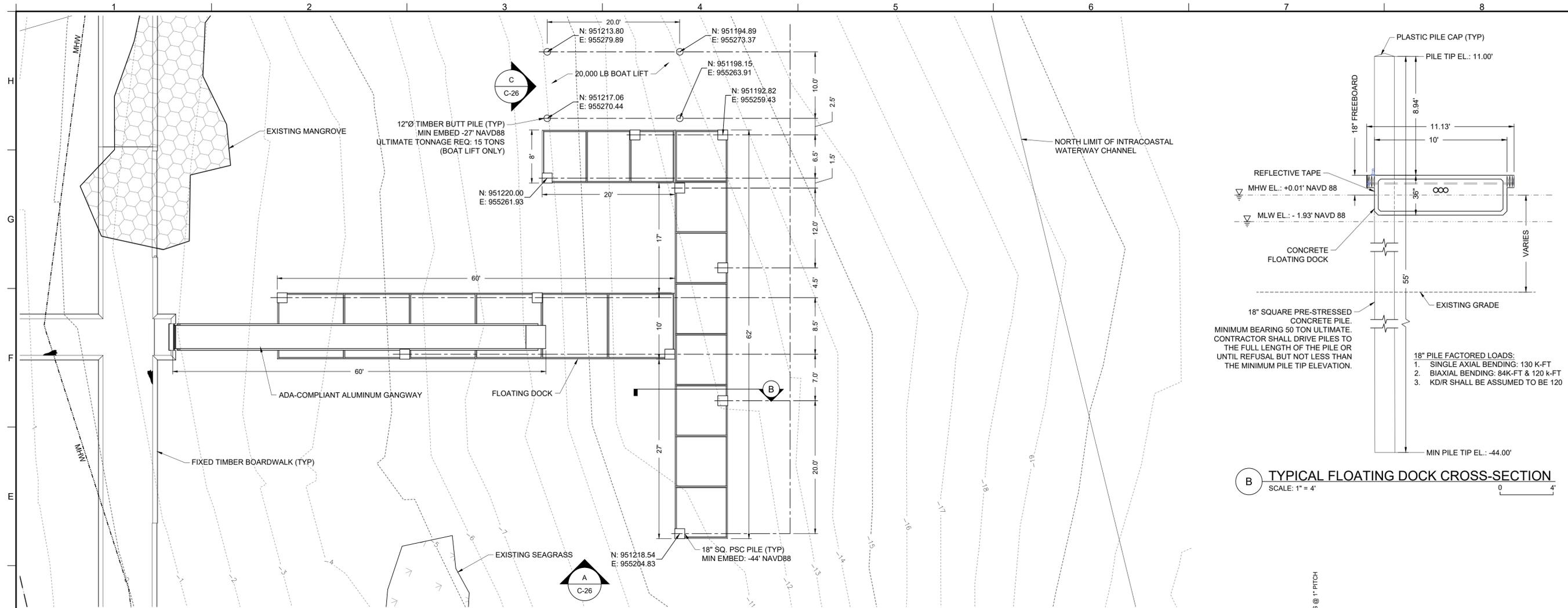
NO.	ZONE	REVISIONS / SUBMISSIONS	DATE

**Call 811 before you dig.**

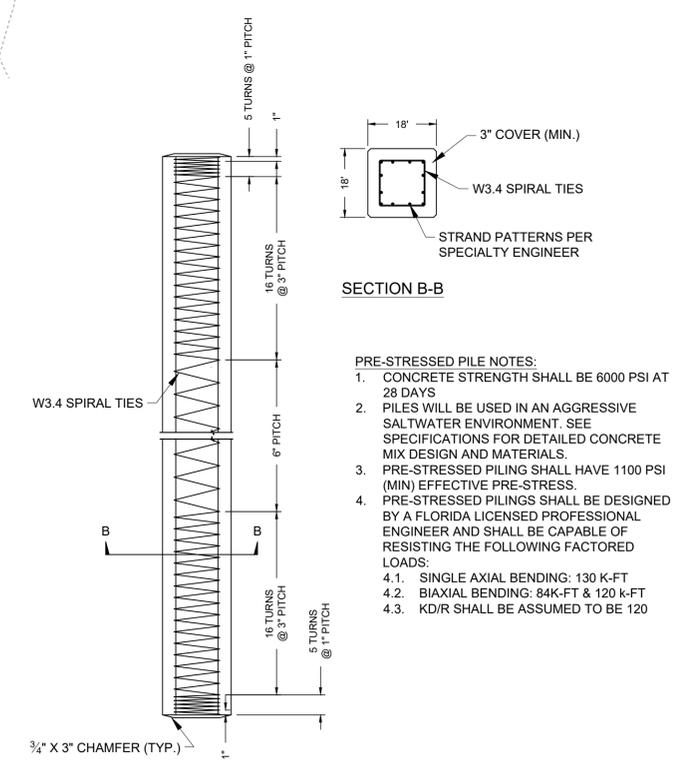
PROJECT NO	C2021-084
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REVIEWED	KRC

SHEET TITLE

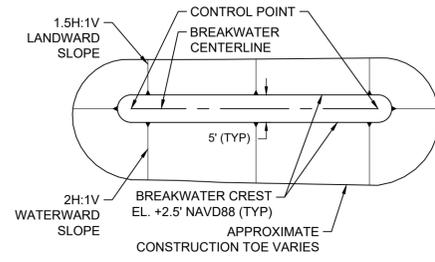
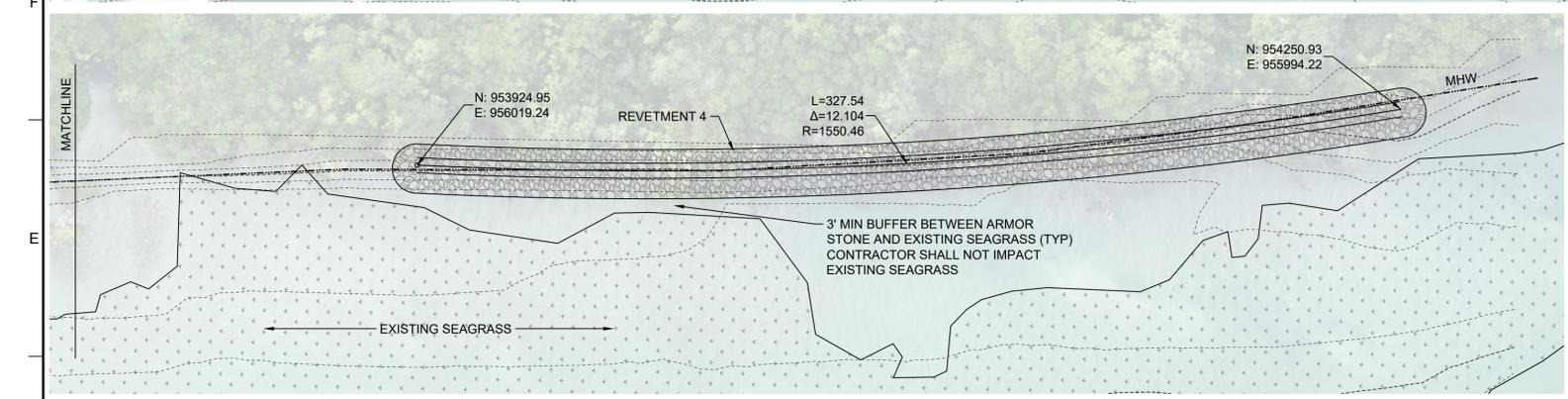
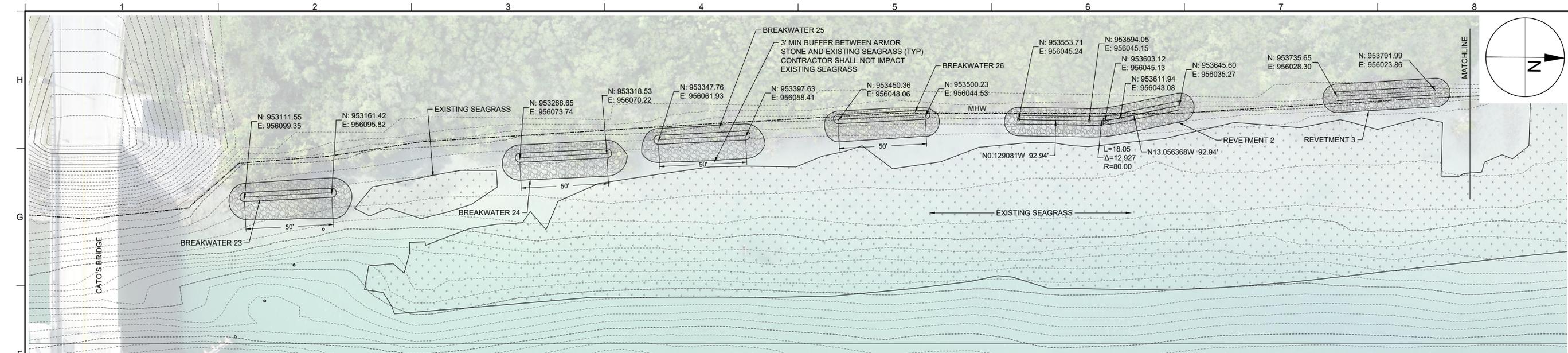
**FLOATING DOCK  
PLAN AND  
ELEVATION BID  
OPTION #5**



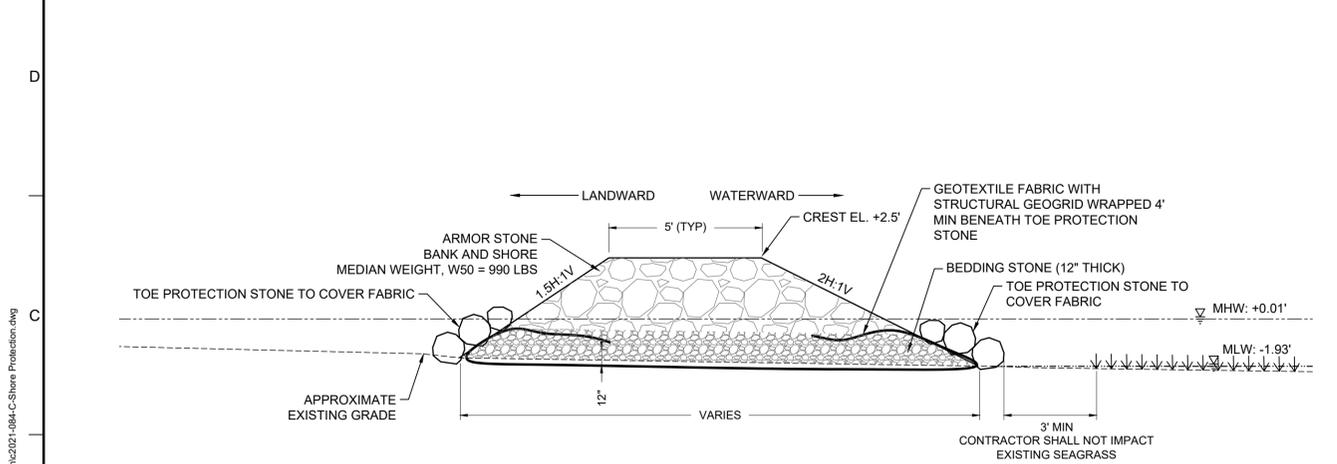
NOTE: BOAT LIFT DEPICTION ABOVE TO PROVIDE DESIGN INTENT ONLY (NOT INCLUDING PILES). CONTRACTOR SHALL PROVIDE BOAT LIFT PRODUCT INFORMATION AND SHOP DRAWINGS DURING CONSTRUCTION FOR ENGINEER APPROVAL.



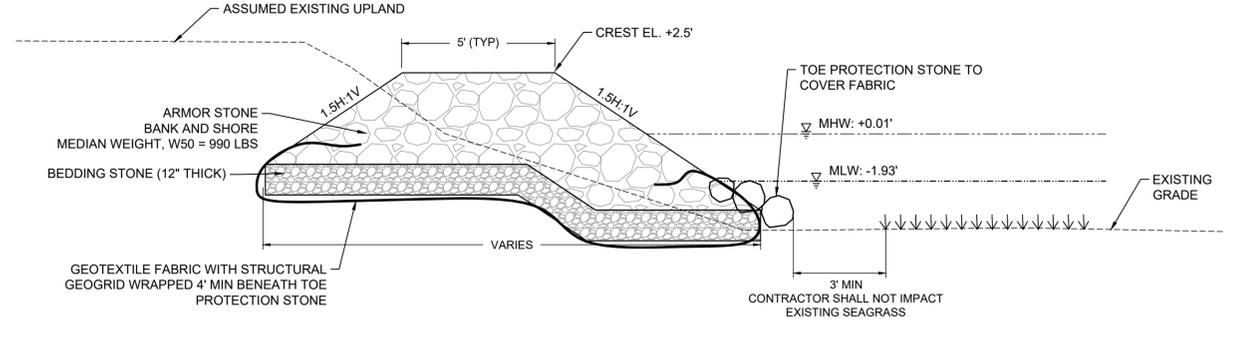
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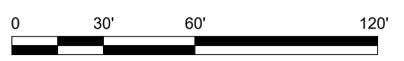
TYPICAL BREAKWATER PLAN DETAIL  
NOT TO SCALE



TYPICAL BREAKWATER CROSS-SECTION  
NOT TO SCALE



TYPICAL REVETMENT CROSS-SECTION  
SCALE: 1" = 3'



GRAPHIC SCALE  
22X34: 1" = 30'  
11X17: 1" = 60'

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REVIEWED	KRC

SHEET TITLE

**NORTH INTRACOASTAL WATERWAY SHORELINE PROTECTION BID OPTION #6**

**C-27**

SHEET 27 OF 27

ANTON FLEWELLING, 5/14/2024, 2:38:05 PM, X:\projects\2021-084\_Jupiter\BLM\Construction\2021-084-C-Shore Protection.dwg