CITY OF KEY WEST
ENGINEERING DEPARTMENT

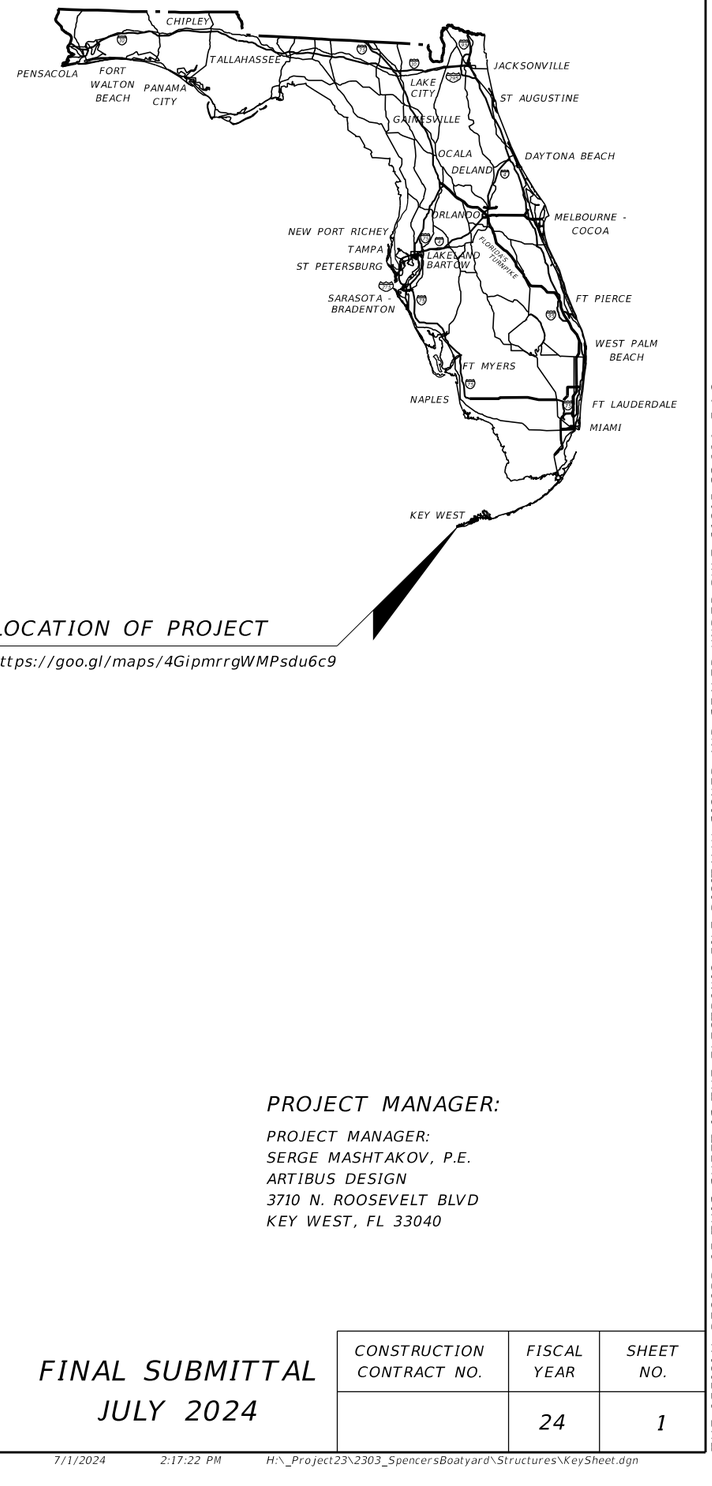
SPENCER'S BOAT YARD
BOAT SLIP AND SEAWALL REPAIRS
CITY OF KEY WEST RFQ NO. 22-006

STRUCTURE PLANS

INDEX OF STRUCTURE PLANS

LOCATION OF PROJECT

701 PALM AVE, KEY WEST, FL 33040



LOCATION OF PROJECT

https://goo.gl/maps/4GipmrrgWMPsdu6c9

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY 2023-24 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road and Bridge Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, 2023 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks

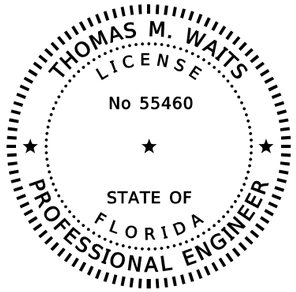
PROJECT MANAGER:

PROJECT MANAGER:
SERGE MASHTAKOV, P.E.
ARTIBUS DESIGN
3710 N. ROOSEVELT BLVD
KEY WEST, FL 33040

FINAL SUBMITTAL
JULY 2024

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	24	1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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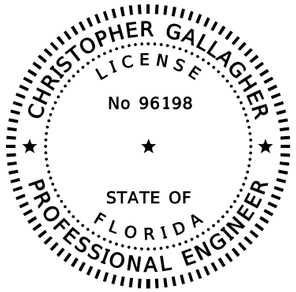
THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3	SUMMARY OF STRUCTURE QUANTITIES
4 - 5	GENERAL NOTES
6	PROJECT OVERVIEW
7	PROJECT LAYOUT
8	TURBIDITY CONTROL PLAN
9	DREDGING PLAN
10	REPORT OF CORE BORINGS
11	FOUNDATION LAYOUT
12	PILE DATA TABLE
13	BOAT HOIST SUPPORT PLATFORM 1
14	BOAT HOIST SUPPORT PLATFORM 2
15	BOAT HOIST SUPPORT PLATFORM 3
16	BOAT HOIST SUPPORT PLATFORM DETAILS
17	TIMBER DOCK PLAN AND TYPICAL SECTION
18	TIMBER DOCK DETAILS
19	WALL PLAN
20	WALL ELEVATION
21 - 22	SEAWALL DETAILS
23	FUEL STORAGE SLAB DETAILS
24 - 25	REINFORCING BAR LIST
26	BENT BAR DETAILS



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SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
10	REPORT OF CORE BORINGS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460

HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

DRAWN BY: JAH 06/23
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CHECKED BY: TMW 06/23

CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: SIGNATURE SHEET

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 2

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QUANTITIES FOR CONSTRUCTION PROGRESS - NOT TO BE USED FOR BIDDING PURPOSES

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
				P	F	P	F		
104-10-3	SEDIMENT BARRIER	WORK BOUNDARY	LF	190					
104-11	FLOATING TURBIDITY BARRIER	WATER	LF	218					
110-3	REMOVAL OF EXISTING STRUCTURES	PLATFORMS 1, 2, 3	SF	546					
110-4-10 (SF)	REMOVAL OF EXISTING CONCRETE	WALL CAPS, WALL F, FUEL STORAGE PAD	SF	449					
110-82	REMOVE & DISPOSE OF STRUCTURAL TIMBER	TIMBER DOCK	MB	1.7					
120-5	CHANNEL EXCAVATION	WATER	CY	126.6					
120-6	EMBANKMENT	RETAINING WALLS	CY	15					
121-7	FLOWABLE FILL	RETAINING WALLS	CY	53.6					
125-1	EXCAVATION FOR STRUCTURES	DEADMAN, WALL F	CY	340.1					
210-2	LIMEROCK-NEW MATERIAL FOR REWORKING BASE	SLAB SHOULDER	CY	10.5					
400-2-10	CONCRETE CLASS II, APPROACH SLABS	SLABS	CY	24.8					
400-4-5	CONCRETE CLASS IV, SUBSTRUCTURE	PLATFORMS 1, 2, 3	CY	32.4					
400-4-11	CONC CLASS IV, RETAINING WALLS	RETAINING WALLS	CY	124.4					
415-3-5	LOW-CARBON CHROMIUM REINFORCING STEEL, SUBSTRUCTURE	PLATFORMS 1, 2, 3	LB	7517					
455-34-1	PRESTRESSED CONCRETE PILING, 12" SQ.	PLATFORMS 1, 2, 3	LF	374					
455-143-1	TEST PILES-PRESTRESSED CONCRETE, 12" SQ.	PLATFORMS 1, 2, 3	LF	32					
470-1	TREATED TIMBER, STRUCTURAL	TIMBER DOCK	MB	1.6					
999-0-1	RETAINING WALL SYSTEM, TRULINE 800 SERIES	RETAINING WALLS	LF	189					
999-0-2	ROUND TIMBER PILES - 10" DIAMETER PT TIMBER	TIMBER DOCK	LF	340					
999-0-3	STORAGE AND HANDLING OF FUEL TANK ASSEMBLY	FUEL STORAGE PAD	LS	1					
999-0-4	STAINLESS STEEL CLAD REINFORCING STEEL	RETAINING WALL, DEADMAN, TIEBACKS, CONCRETE APRON, FUEL STORAGE PAD	LB	15381					
999-0-5	DRIVEN STEEL PIN PILE	RETAINING WALLS	LF	3990					
999-0-6	TEMPORARY COFFERDAM	WALL F	LS	1					

PAY ITEM NOTES:

1. PAY ITEM 110-3 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO REMOVE AND DISPOSE OF THE THREE EXISTING CONCRETE GANTRY PLATFORMS OVER WATER IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
2. PAY ITEM 110-4-10 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO REMOVE AND DISPOSE OF EXISTING SEAWALL SEGMENT F, EXCLUDING THE REQUIRED TEMPORARY COFFERDAM AND ASSOCIATED DEWATERING. SEE WALL PLAN AND ELEVATION SHEETS FOR DETAILS IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
3. PAY ITEM 110-82 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO REMOVE AND DISPOSE OF EXISTING TIMBER DOCK ATTACHED TO SEAWALL AS WELL AS THE ASSOCIATED STEEL PILES. TEMPORARY REMOVAL AND STORAGE OF THE STEEL RAMP CONNECTION TO THE EXISTING TIMBER DOCK IS INCLUDED IN THIS PAY ITEM. STEEL PILES ARE TO BE EXTRACTED AND DISPOSAL OF ALL DEMOLITION MATERIAL IS TO BE IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
4. PAY ITEM 120-5 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE ALL DREDGING REQUIRED WITHIN THE SPECIFIED LIMITS TO THE SPECIFIED DEPTHS. REMOVAL, STOCKPILING, TRANSPORTATION, AND DISPOSAL OF DREDGED MATERIAL IS INCLUDED IN THIS PAY ITEM.
5. PAY ITEM 210-2 INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO IMPORT AND GRADE #57 STONE BORDERING CONCRETE SLABS.
6. PAY ITEM 400-2-10 INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO CONSTRUCT THE FUEL STORAGE SLAB, AND CONCRETE APRON, EXCLUDING THE REINFORCING STEEL. MACROPOLYMERIC FIBER USED IN FUEL STORAGE SLAB SHALL BE INCIDENTAL TO THIS PAY ITEM.
7. PAY ITEM 400-4-11 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO CONSTRUCT ALL CONCRETE PORTIONS OF THE SEAWALL INCLUDING BUT NOT LIMITED TO THE CAP, DEADMEN, AND CONCRETE INFILL WITHIN THE TRULINE WALL CELLS. DEWATERING FOR DEADMAN IS INCIDENTAL TO THIS PAY ITEM. POST-INSTALLED MOORING CLEATS INSTALLED IN SEAWALL CAP AND PLATFORMS ARE INCLUDED IN THIS PAY ITEM.
8. PAY ITEMS 455-34-1 AND 455-143-1 INCLUDES QUANTITY ADJUSTMENT TO ACCOUNT FOR ALL RELATED PILE DRIVING ACTIVITIES, INCLUDING PREFORMED PILE HOLES, SET-CHECKS, AND CLEAN A-3 BACKFILL FOR THE PREFORM HOLES AFTER PILE DRIVING PER FDOT SPECIFICATION SECTION 455-11.
9. PAY ITEM 470-1 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO CONSTRUCT PROPOSED TIMBER DOCK. INCLUDES ALL LUMBER, FASTENERS, AND HARDWARE. MOORING CLEATS INSTALLED IN TIMBER DOCK ARE INCLUDED IN THIS PAY ITEM. EXCLUDES TIMBER PILING, SEE PAY ITEM 999-0-2.
10. PAY ITEM 999-0-1 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO CONSTRUCT THE PROPOSED SEAWALL. INCLUDES TRENCHING BY OVERLAPPING AUGER HOLES, AND THE TRULINE CHANNEL SYSTEM. INCLUDES PHASED CONSTRUCTION OF WALL SYSTEM.
11. PAY ITEM 999-0-2 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO CONSTRUCT TIMBER PILES. INCLUDES PILES, SHIPPING, PILE DRIVING, AND CUTTING OF PILE TOPS FOR CAP BEAM CONNECTION.
12. PAY ITEM 999-0-3 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO STORE FUEL TANK ASSEMBLY IN ACCORDANCE WITH GENERAL NOTE R.
13. PAY ITEM 999-0-4 INCLUDES ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NECESSARY FOR THE STAINLESS STEEL CLAD REINFORCEMENT FOR THE RETAINING WALL CAP, TIEBACKS, DEADMAN, CONCRETE APRON, AND FUEL STORAGE PAD.
14. PAY ITEM 999-0-6 INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO CONSTRUCT THE TEMPORARY COFFERDAM TO ALLOW DEMOLITION OF EXISTING SEAWALL SEGMENT F AND CONSTRUCTION OF PROPOSED IN A DRY CONDITION. DEWATERING WITHIN DAM AND REMOVAL OF DAM ARE INCLUDED IN THIS PAY ITEM.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460

HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
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DRAWN BY: JAH 06/23
CHECKED BY: TMW 06/23
DESIGNED BY: JAH 06/23
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: SUMMARY OF STRUCTURE QUANTITIES

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 3

GENERAL NOTES

A. DESIGN SPECIFICATIONS
1. FLORIDA BUILDING CODE – BUILDING, 8TH EDITION (2023).
2. ASCE/SEI 7-22 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES.
3. NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION, 2018 EDITION (LRFD).
4. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION AND ALL SUBSEQUENT INTERIMS.
5. ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, 2019 EDITION.

B. GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS
FLORIDA DEPARTMENT OF TRANSPORTATION, FY2024-25 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND 2024 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

C. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), U.O.N.

D. ENVIRONMENT
THIS PROJECT INVOLVES WORK IN EXTREMELY AGGRESSIVE MARINE ENVIRONMENT.

E. DESIGN METHODOLOGY
1. LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD USING STRENGTH, SERVICE, AND FATIGUE LIMIT STATES.
2. CONCRETE AND RETAINING WALL COMPONENTS WERE DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. STRENGTH I LIMIT (LL FACTOR OF 1.75) STATE WAS APPLIED TO PLATFORMS, AND STRENGTH II LIMIT STATE (LL FACTOR OF 1.35) WAS APPLIED TO THE RETAINING WALL SYSTEM.
3. TIMBER DOCK COMPONENTS WERE DESIGNED ACCORDING TO NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION.

F. DESIGN LOADINGS
1. LIVE LOADS: OWNER SPECIFIED VEHICLE (SEE NEXT SHEET FOR VEHICLE) –
MARINE BOAT HOIST – 25 TON CAPACITY, 9.5 TON MACHINE WEIGHT
PEDESTRIAN LOAD – 60 PSF
2. DEAD LOADS:
REINFORCED CONCRETE: 150 PCF
STRUCTURAL STEEL: 490 PCF
3. WIND LOAD: BASIC WIND SPEED = 180 MPH, CAT. 2, EXP. D
4. UTILITIES: NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN DESIGN.

G. MATERIALS
1. REINFORCING MATERIALS:
a. C.I.P. BOAT HOIST PLATFORM: ASTM A1035 TYPE CS GRADE 100 CHROMX 9100 DEFORMED BARS.
b. C.I.P. COPING, C.I.P. DEADMAN, C.I.P. FUEL STORAGE PAD, AND C.I.P. CONCRETE APRON: AASHTO M329 GRADE 60 STAINLESS-STEEL CLAD DEFORMED BARS. CONTRACTOR SHALL SOURCE MATERIAL FROM ALLIUM ENGINEERING, INC. (https://alliumeng.com | 978-551-0094) OR APPROVED MANUFACTURER.
c. ANCHOR TIEBACKS: AASHTO M329 GRADE 60 STAINLESS-STEEL CLAD DEFORMED BARS, UNLESS OTHERWISE NOTED.
d. RETAINING WALL PIN PILES: ASTM A500 GRADE B WITH A MINIMUM YIELD STRENGTH OF 42 KSI, HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123. STEEL PIPE PILES SHALL BE OF SCHEDULE 80 WITH A 3-1/2" OUTER DIAMETER AND MINIMUM 0.3" WALL THICKNESS.

2. CONCRETE: CONCRETE SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS 346.
a. ALL CAST IN PLACE CONCRETE SHALL USE TYPE II CEMENT.
b. SLUMP TOLERANCE FOR CAST IN PLACE CONCRETE SHALL BE ±1-1/2".
c. CAST IN PLACE CONCRETE SHALL BE CONVENTIONAL CONCRETE WITH THE EXCEPTION OF RETAINING WALL FILL WHICH SHALL BE FLOWING CONCRETE PER FDOT STANDARD SPECIFICATION 346-3.

CONCRETE CLASS	MIN. 28-DAY COMPRESSIVE STRENGTH (PSI)	LOCATION OF CONCRETE IN STRUCTURE	TARGET SLUMP VALUE (IN)
II	4500	C.I.P. CONCRETE APRON	3
II **	4500	C.I.P. FUEL STORAGE SLAB	3
IV	5500	C.I.P. RETAINING WALL FILL	9
IV *	5500	C.I.P. BOAT HOIST PLATFORM, C.I.P. COPING, C.I.P. DEADMAN	3
V (SPECIAL) *	6000	PRESTRESSED CONCRETE PILES	N/A ***

* WITH SILICA FUME
** WITH 2% MACROPOLYMERIC FIBER BY VOLUME
*** PRECAST MANUFACTURER SHALL SET TARGET SLUMP IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS 346.

GENERAL NOTES (CONTINUED)

3. CONCRETE COVER

CAST-IN-PLACE SUPERSTRUCTURE (FORMED SURFACES)	3"
CAST-IN-PLACE RETAINING WALL COPING	2.5"
CAST-IN-PLACE DEADMAN	4"
CAST-IN-PLACE CONCRETE APRON	3"

CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE FDOT SPECIFICATIONS SECTION 415 FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO CENTERLINE OF BAR EXCEPT WHERE CLEAR DIMENSION IS NOTED TO FACE OF CONCRETE.

4. EPOXY COMPOUND
a. TYPE HV FOR POST-INSTALLED ANCHORS IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 937 AND 416.
5. STRUCTURAL FASTENERS
a. ALL NUTS SHALL BE TYPE 316 STAINLESS STEEL, LOCK NUT, UNLESS OTHERWISE NOTED.
b. ALL WASHERS SHALL BE TYPE 316 STAINLESS STEEL, UNLESS OTHERWISE NOTED. PROVIDE WASHERS UNDER BOTH THE BOLT HEAD AND NUT FOR ALL BOLTED ASSEMBLIES.
c. ALL BOLTS AND LAG SCREWS SHALL BE ASTM F593 GRADE 2, UNLESS OTHERWISE NOTED.
d. ALL JOIST HANGERS SHALL BE STAINLESS STEEL GRADE 316, UNLESS OTHERWISE NOTED.
6. LUMBER
a. LUMBER SIZES SHOWN ARE NOMINAL SIZES UNLESS OTHERWISE NOTED. LUMBER SHALL BE FURNISHED IN SIZES MEETING THE REQUIREMENTS OF THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION, 2018 EDITION OF THE AMERICAN FOREST AND PAPER ASSOCIATION.
b. ALL LUMBER SHALL BE TREATED IN ACCORDANCE WITH THE AWPA (AMERICAN WOOD PRESERVERS ASSOCIATION) USE CATEGORY UC5C FOR TIMBER PILES AND UC4B FOR ALL OTHER LUMBER.
c. ALL LUMBER SHALL MEET THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS SECTION 952, SOUTHERN PINE, MARINE GRADE NO. 1, AND BE PRESSURE TREATED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 955 FOR SALT WATER ENVIRONMENTS.
d. TIMBER PILES SHALL BE SOUTHERN PINE IN ACCORDANCE WITH ASTM D25. ALL PILES SHALL HAVE A MINIMUM 10 INCH TIP DIAMETER.
7. FLOWABLE FILL
a. PROVIDE FLOWABLE FILL IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 121. PROVIDE A MIX DESIGN BASED ON EXTREMELY AGGRESSIVE ENVIRONMENT, EXPOSURE TO WATER, AND UTILIZING AN ANTI-WASHOUT ADDITIVE. PLACE THE FLOWABLE FILL UTILIZING A TREMIE. SUBMIT THE MIX DESIGN TO THE EOR FOR APPROVAL.
8. EMBANKMENT
a. PROVIDE EMBANKMENT MATERIAL IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS 120.

H. CONCRETE FINISH COATING
A CLASS 2 FINISH COATING SHALL BE APPLIED TO THE PORTIONS OF THE STRUCTURES SHOWN ON THE SURFACE FINISH DETAILS. SUBMIT COLOR AND TEXTURE FOR APPROVAL. APPLY BROOM SURFACE FINISH TO THE C.I.P. CONCRETE APRON AND FUEL STORAGE SLAB PER FDOT STANDARD SPECIFICATION 522.

I. PLAN DIMENSIONS
ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

J. UTILITIES
LOCATIONS OF UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE.

K. JOINTS IN CONCRETE
CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED IN THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

L. REMOVAL OF EXISTING STRUCTURES
1. ATTACHED PLANS SHOW DETAILS OF ITEMS TO BE REMOVED (I.E. BOAT HOIST PLATFORMS, TIMBER DOCKS, RETAINING WALL COMPONENTS, ETC.). THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND DISPOSAL OF ALL STRUCTURES IDENTIFIED TO BE REMOVED. SEE INDIVIDUAL STRUCTURES SHEETS FOR ADDITIONAL NOTES AND REQUIREMENTS SPECIFIC TO DEMOLITION AND CONSTRUCTION OF EACH COMPONENT.
2. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DEBRIS FROM FALLING INTO THE WATERWAY.
3. COMPLETELY REMOVE THE EXISTING STRUCTURES IDENTIFIED IN THE PLANS.
4. REMOVE EXISTING PILING BY EXTRACTION. WHERE PILE EXTRACTION IS NOT CONSIDERED PRACTICAL DUE TO DAMAGE OR OTHER UNUSUAL DIFFICULTIES, AS DETERMINED BY THE ENGINEER, PILE MAY BE CUT-OFF IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 455.
5. THE EXISTING STEEL RAMP AND FLOATING DOCK CONNECTED TO THE TIMBER DOCK SHALL BE REMOVED FOR CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER FOR TEMPORARY STORAGE OF THE FLOATING DOCK AND RAMP COMPONENTS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: GENERAL NOTES (1 OF 2)
REF. DWG. NO.:
PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS
SHEET NO.: 4

GENERAL NOTES (CONTINUED)

M. USE OF THE PREMISES
1. LIMIT THE USE OF THE PREMISES TO ACTIVITIES DESIGNATED IN THE PLANS AND ALLOW FOR OWNER OCCUPANCY OF THE EXISTING BUILDINGS AND FACILITIES THROUGHOUT CONSTRUCTION.
2. CONFINE OPERATIONS AT THE SITE TO THE AREAS PERMITTED UNDER THE CONTRACT. PORTIONS OF THE SITE BEYOND AREAS ON WHICH WORK IS INDICATED ARE NOT TO BE DISTURBED. CONFORM TO SITE RULES WHILE ENGAGED IN PROJECT CONSTRUCTION.
3. DO NOT UNREASONABLY ENCUMBER THE SITE WITH MATERIALS OR EQUIPMENT AND CONFINE STOCKPILING OF MATERIALS AND LOCATION OF STORAGE TO AREAS IN THE IMMEDIATE VICINITY OF THE WORK. IF ADDITIONAL STORAGE IS NECESSARY, OBTAIN AND PAY FOR SUCH STORAGE OFF SITE.
4. WORK HOURS: COORDINATE WITH OWNER.
5. SITE ACCESS WILL BE RESTRICTED AND SUBJECT TO OWNERS SECURITY PROCEDURES.

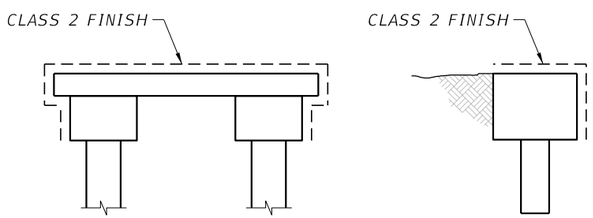
N. COORDINATION
1. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES SUCH AS DELIVERIES, STORAGE, PARKING, AND WORK HOURS WITH THE OWNER IN ORDER TO AVOID CONFLICTS WITH NORMAL MARINE BOATYARD ACTIVITIES.
2. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH MONROE COUNTY OFFICIALS.
3. CONTRACTOR SHALL COORDINATE CONSTRUCTION CLOSURE AND SCHEDULE WITH CITY OF KEY WEST.
4. THE CONTRACTOR SHOULD TAKE NOTE OF THE EXISTING OVERHEAD HIGH VOLTAGE POWER LINES AND FOLLOW ALL OSHA REGULATIONS FOR WORK NEAR 69kV POWER LINES. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH KEYS ENERGY SERVICES. KEYS ENERGY SERVICES SHALL BE NOTIFIED AT LEAST 30 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE CONTRACTOR SHALL COORDINATE WITH FDEP AS NECESSARY TO PERFORM SITE VISITS PRIOR TO TEMPORARY STOCKPILING OF DREDGED MATERIALS, INSTALLATION OF THE CONCRETE APRON, AND PLACEMENT OF EMBANKMENT IN THE UPLANDS PORTION OF THE PROJECT.

O. TURBIDITY CONTROL
PROVIDE AND MAINTAIN FLOATING TURBIDITY BARRIERS AS REQUIRED TO CONTROL TURBIDITY CAUSED BY CONSTRUCTION OPERATIONS AND MONITOR TURBIDITY LEVELS IN ACCORDANCE WITH ENCLOSED PLAN.

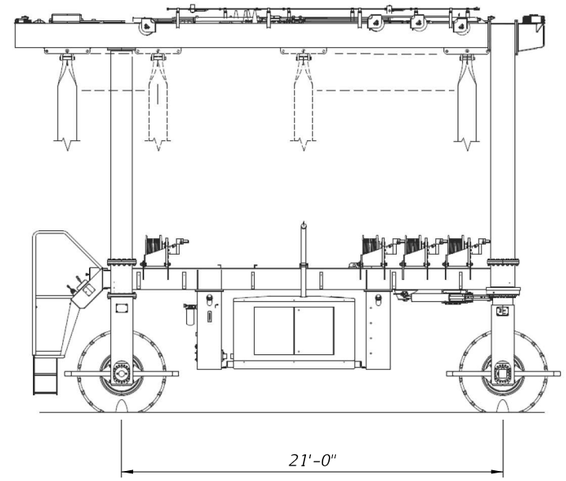
P. BOAT TRAFFIC
THE CONTRACTOR SHALL COMPLY WITH COAST GUARD REGULATIONS REGARDING MAINTENANCE OF BOAT TRAFFIC. A COPY OF THE CONTRACTOR'S PLAN, SCHEDULE, AND SEQUENCE OF OPERATIONS, APPROVED BY THE COUNTY, SHALL BE SUBMITTED TO THE US COAST GUARD 60 DAYS PRIOR TO ANY WORK OVER THE WATERWAY.

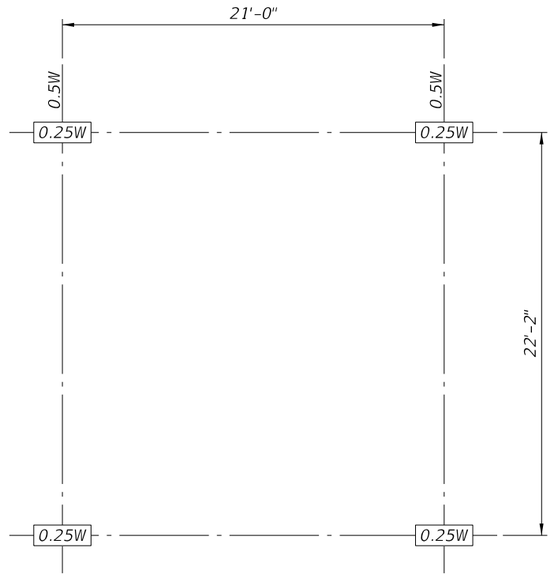
Q. FUEL STORAGE PAD
THE EXISTING FUEL STORAGE SLAB LOCATED IN THE NORTH-EAST PORTION OF THE SITE SHALL BE REMOVED AND REPLACED TO FACILITATE REMOVAL AND REPLACEMENT OF THE SEAWALL. THE CONCRETE FUEL STORAGE SLAB IS 12'-0" x 5'-9" AND IS LOCATED APPROXIMATELY 3'-2" FROM THE EXISTING SEAWALL. THE FUEL STORAGE SLAB HOLDS A 550-GALLON FUEL STORAGE TANK DESIGNATED AS UN1203 CLASS 3 FLAMMABLE LIQUID. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNER TO HAVE THE TANK EMPTIED, MOVED AND STORED IN A TEMPORARY LOCATION AWAY FROM CONSTRUCTION FOLLOWING ALL OSHA REGULATIONS AND DOT 49 CFR 172.500 REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE DURING STORAGE TO ALLOW FOR RE-INSTALLATION AFTER CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE DISCONNECTION OF ELECTRICAL AND UTILITY LINES FROM THE TANK AND TANK COMPONENTS. THE FUEL STORAGE TANK AND ALL EXISTING TANK COMPONENTS FASTENED TO THE EXISTING CONCRETE SLAB SHALL BE RE-INSTALLED ON THE PROPOSED CONCRETE SLAB IN A SIMILAR MANNER. IF ANY OTHER ADDITIONAL PERMITTING IS REQUIRED FOR HANDLING AND STORAGE OF THE FUEL TANK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SUCH PERMITS.

R. MOORING CLEATS
MOORING CLEATS SHALL BE POST-INSTALLED ALONG THE EDGE OF ALL PROPOSED CONCRETE WALL AND PLATFORMS BORDERING OPEN WATER AT A REGULAR SPACING OF APPROXIMATELY 15FT. CLEATS SHALL ALSO BE INSTALLED ALONG THE SEAWARD EDGE OF THE PROPOSED TIMBER DOCK AT A REGULAR SPACING OF APPROXIMATELY 10FT. ALL MOORING CLEATS AND ASSOCIATED ANCHORS OR FASTENERS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED IN ACCORDANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE EXACT PLACEMENT OF CLEATS WITH THE CITY OF KEY WEST. MOORING CLEATS MUST NOT OBSTRUCT THE PATH OF THE MARINE BOAT HOIST.



SURFACE FINISH DETAILS - PLATFORMS AND RETAINING WALLS





W = TOTAL WEIGHT OF TRUCK AND LOAD

SUPPORT PLATFORM DESIGN VEHICLE
MARINE BOAT HOIST

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

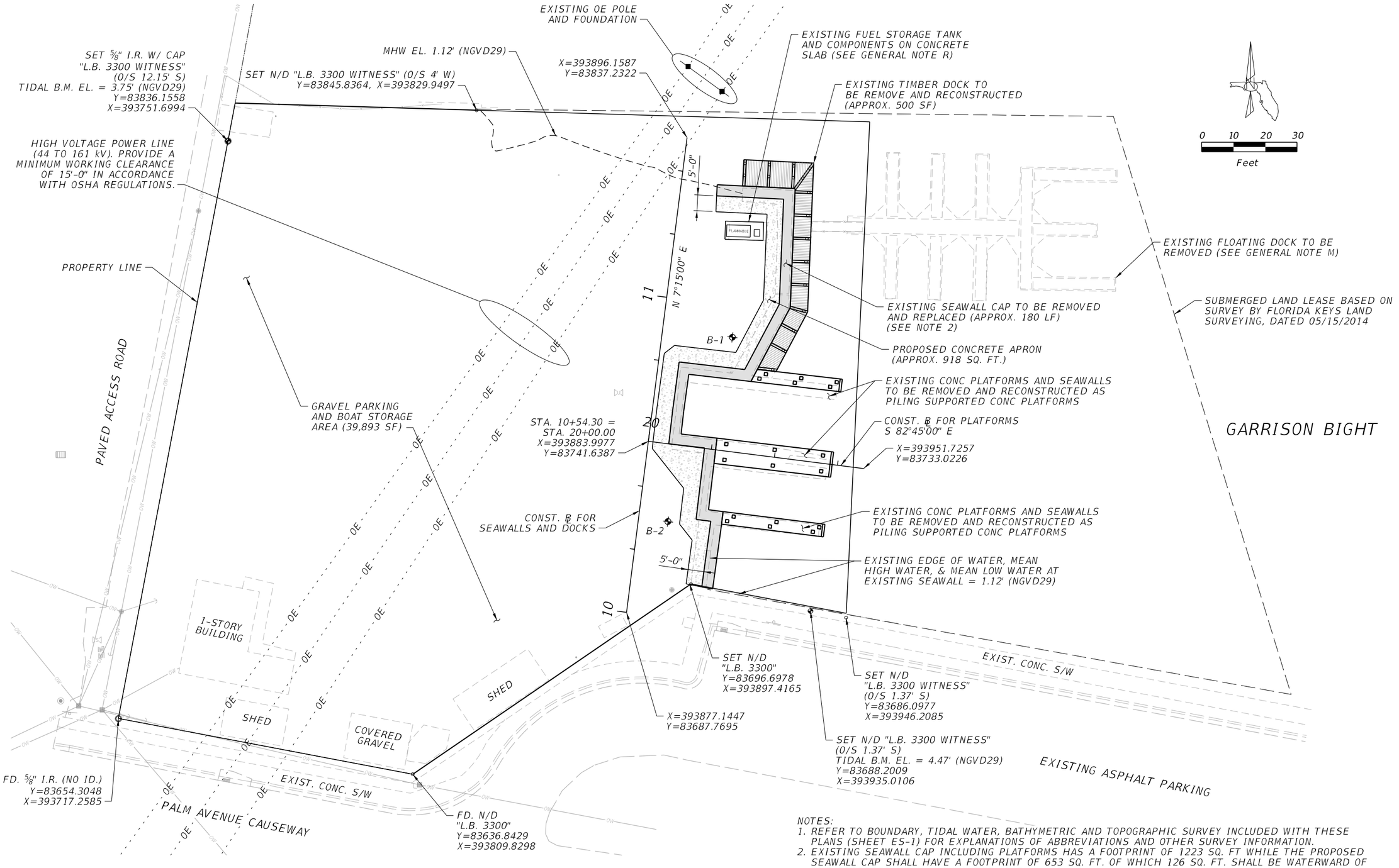
ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: GENERAL NOTES (2 OF 2)

REF. DWG. NO.

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO. 5



NOTES:
1. REFER TO BOUNDARY, TIDAL WATER, BATHYMETRIC AND TOPOGRAPHIC SURVEY INCLUDED WITH THESE PLANS (SHEET ES-1) FOR EXPLANATIONS OF ABBREVIATIONS AND OTHER SURVEY INFORMATION.
2. EXISTING SEAWALL CAP INCLUDING PLATFORMS HAS A FOOTPRINT OF 1223 SQ. FT WHILE THE PROPOSED SEAWALL CAP SHALL HAVE A FOOTPRINT OF 653 SQ. FT. OF WHICH 126 SQ. FT. SHALL BE WATERWARD OF THE PROPOSED MEAN HIGH WATER LINE.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: PROJECT OVERVIEW

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 6

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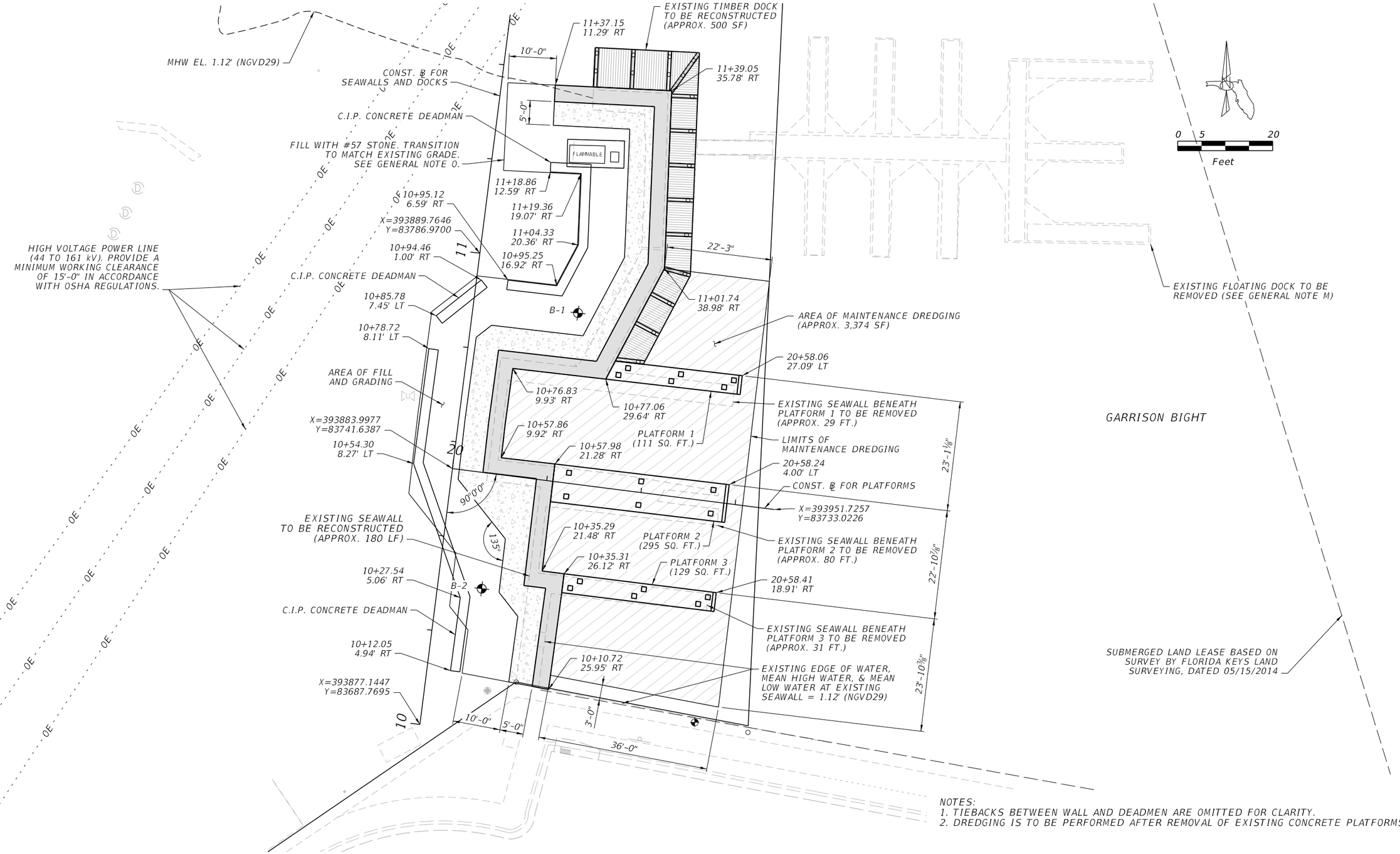

NOTES:
1. TIEBACKS BETWEEN WALL AND DEADMEN ARE OMITTED FOR CLARITY.
2. DREDGING IS TO BE PERFORMED AFTER REMOVAL OF EXISTING CONCRETE PLATFORMS.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: PROJECT LAYOUT

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 7

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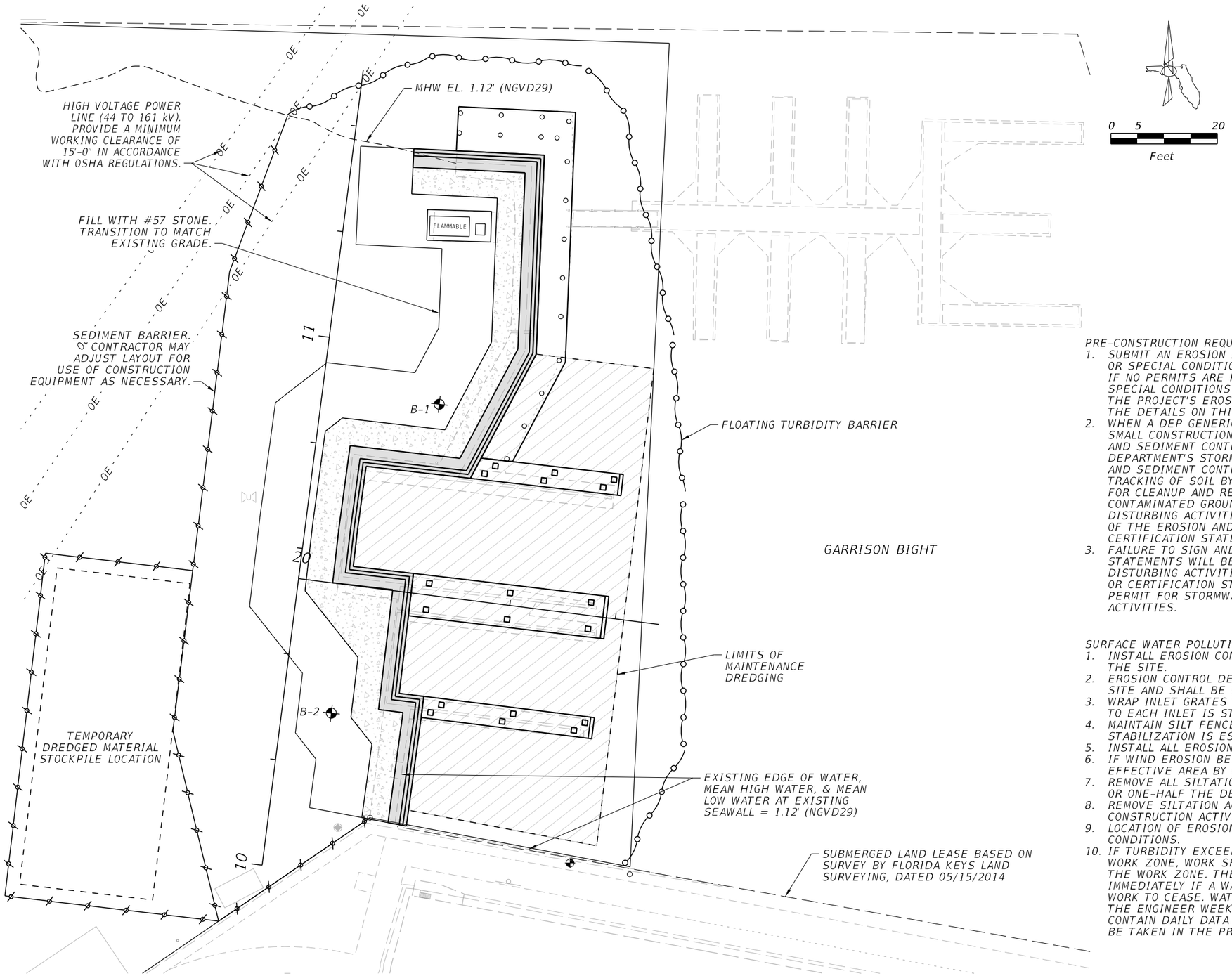

PRE-CONSTRUCTION REQUIREMENTS:

1. SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN MEETING THE REQUIREMENTS OR SPECIAL CONDITIONS OF ALL PERMITS AUTHORIZING PROJECT CONSTRUCTION. IF NO PERMITS ARE REQUIRED OR THE APPROVED PERMITS DO NOT CONTAIN SPECIAL CONDITIONS OF SPECIFICALLY ADDRESS EROSION AND WATER POLLUTION, THE PROJECT'S EROSION AND SEDIMENT CONTROL PLAN WILL BE GOVERNED BY THE DETAILS ON THIS SHEET.
2. WHEN A DEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES PERMIT IS ISSUED, THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN SHALL BE PREPARED TO ACCOMPANY THE DEPARTMENT'S STORMWATER POLLUTION PREVENTION PLAN. ENSURE THE EROSION AND SEDIMENT CONTROL PLAN INCLUDES PROCEDURES TO CONTROL OFF-SITE TRACKING OF SOIL BY VEHICLES AND CONSTRUCTION EQUIPMENT AND A PROCEDURE FOR CLEANUP AND REPORTING OF NON-STORM WATER DISCHARGES, SUCH AS CONTAMINATED GROUNDWATER OR ACCIDENTAL SPILLS. DO NOT BEGIN ANY SOIL DISTURBING ACTIVITIES BEFORE RECEIVING THE ENGINEER'S WRITTEN APPROVAL OF THE EROSION AND SEDIMENT CONTROL PLAN, INCLUDING THE REQUIRED SIGNED CERTIFICATION STATEMENTS.
3. FAILURE TO SIGN AND SUBMIT ANY REQUIRED DOCUMENTS OR CERTIFICATION STATEMENTS WILL BE CONSIDERED A DEFAULT OF THE CONTRACT. ANY SOIL DISTURBING ACTIVITIES PERFORMED WITHOUT THE REQUIRED SIGNED DOCUMENTS OR CERTIFICATION STATEMENTS IS CONSIDERED A VIOLATION OF THE DEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

SURFACE WATER POLLUTION PREVENTION NOTES:

1. INSTALL EROSION CONTROL DEVICES AS NEEDED TO PREVENT SOIL FROM LEAVING THE SITE.
2. EROSION CONTROL DEVICES WILL BE BUILT TO PREVENT SOIL FROM LEAVING THE SITE AND SHALL BE INSTALLED PRIOR TO ANY GRUBBING AND/OR DEMOLITION.
3. WRAP INLET GRATES WITH FILTER FABRIC UNTIL THE DRAINAGE AREA DRAINING TO EACH INLET IS STABILIZED WITH EITHER PAVEMENT OR SOD.
4. MAINTAIN SILT FENCE AND ALL OTHER EROSION CONTROL DEVICES UNTIL STABILIZATION IS ESTABLISHED TO PREVENT SOIL FROM LEAVING THE SITE.
5. INSTALL ALL EROSION CONTROL DEVICES AS PER CURRENT FDOT STANDARD PLANS.
6. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, STABILIZE THE EFFECTIVE AREA BY USING WETTING OR OTHER ACCEPTABLE METHODS.
7. REMOVE ALL SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL DEVICE.
8. REMOVE SILTATION ACCUMULATIONS IN ANY DRAINAGE PIPE AFFECTED BY CONSTRUCTION ACTIVITIES ON THE SITE PRIOR TO COMPLETION OF CONSTRUCTION.
9. LOCATION OF EROSION CONTROL DEVICES MAY BE ADJUSTED DUE TO FIELD CONDITIONS.
10. IF TURBIDITY EXCEEDS 0 NTU'S ABOVE BACKGROUND LEVELS OUTSIDE OF THE WORK ZONE, WORK SHALL CEASE UNTIL TURBIDITY FALLS TO 0 NTU'S OUTSIDE THE WORK ZONE. THE CONTRACTOR WILL CONTACT THE CITY OF KEY WEST IMMEDIATELY IF A WATER QUALITY VIOLATION IS DETECTED THAT REQUIRES THE WORK TO CEASE. WATER QUALITY MONITORING REPORTS SHALL BE SUBMITTED TO THE ENGINEER WEEKLY DURING CONSTRUCTION ACTIVITY. WEEKLY REPORTS SHALL CONTAIN DAILY DATA LOGS DURING ACTIVE WORK DAYS. TURBIDITY TESTS ARE TO BE TAKEN IN THE PRESENCE OF THE CITY OF KEY WEST OR ITS INSPECTOR.

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460

HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

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DESIGNED BY: JAH 06/23
CHECKED BY: TMW 06/23

CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: TURBIDITY CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO. 8

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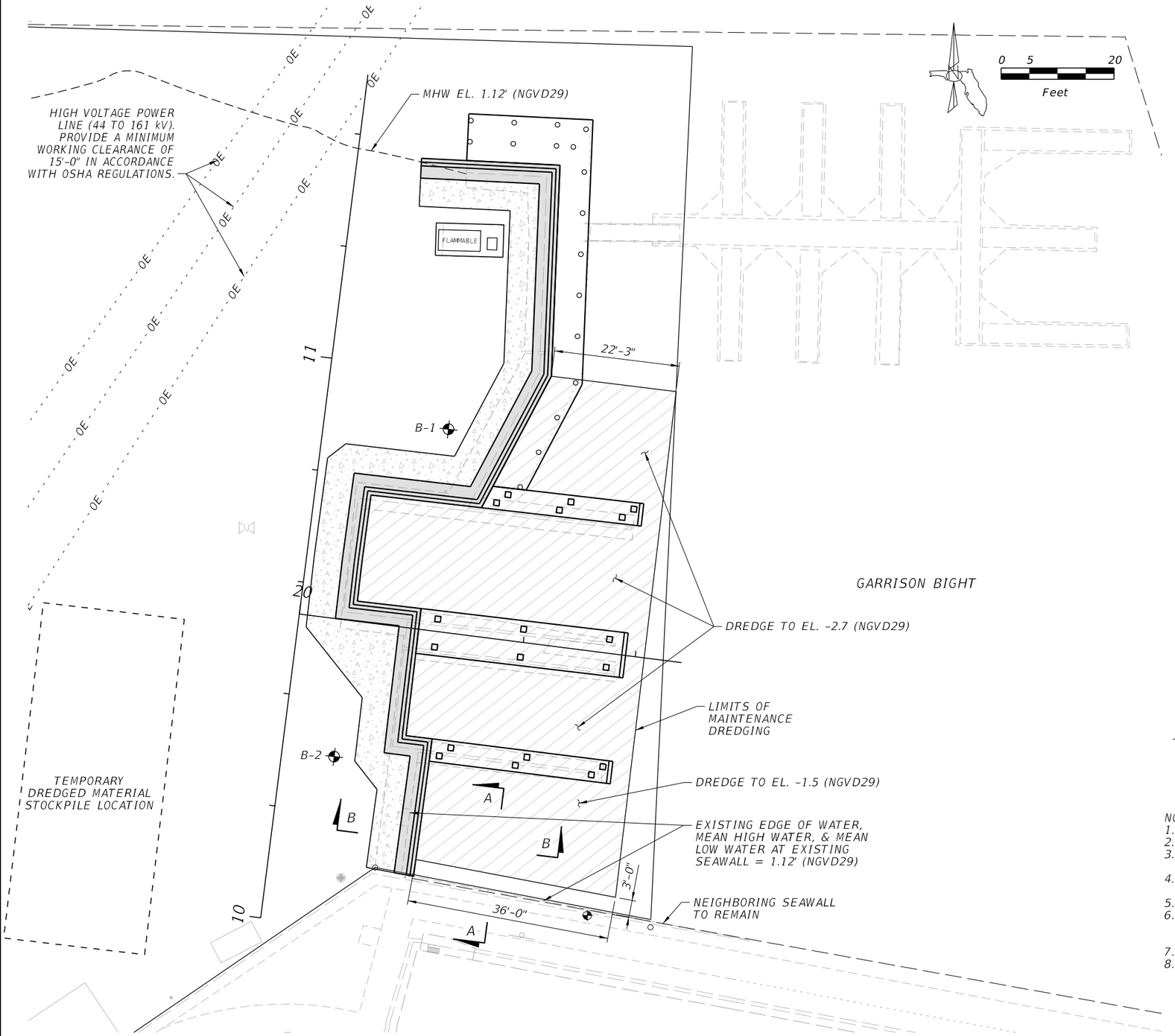
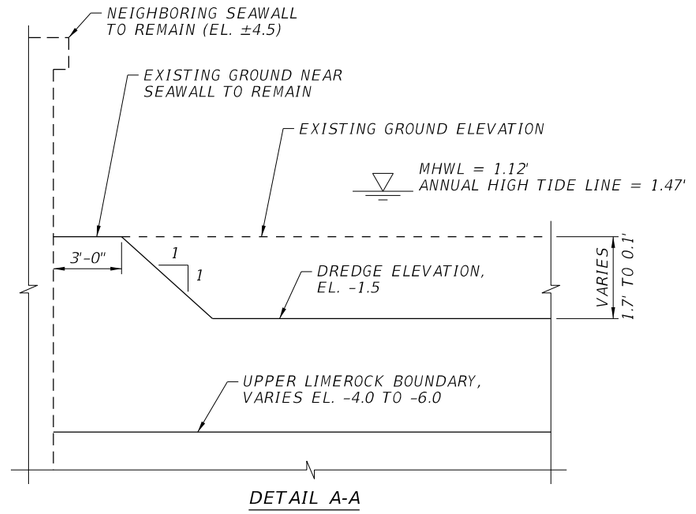
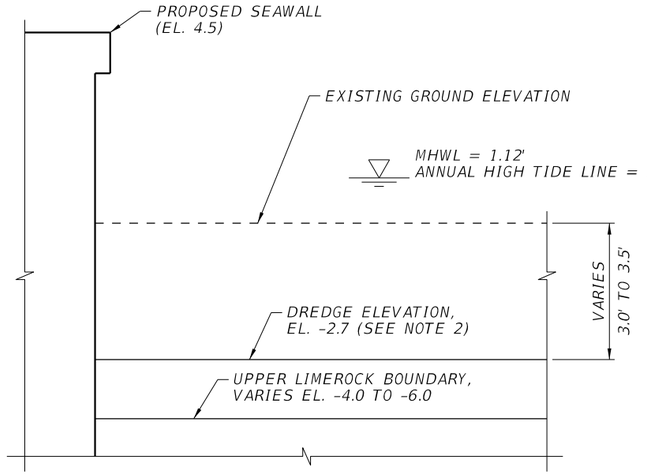




DETAIL A-A



DETAIL B-B

NOTES:
1. CONTRACTOR SHALL NOT DAMAGE NEIGHBORING SEAWALL DURING CONSTRUCTION.
2. DREDGING IS TO BE PERFORMED AFTER THE REMOVAL OF THE EXISTING PLATFORMS.
3. EXERCISE CAUTION NOT TO UNDERMINE OR DAMAGE PROPOSED SEAWALL DURING DREDGING.
4. CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION FROM DREDGED GROUND TO EXISTING ELEVATION NEAR NEIGHBORING WALL AS DETAILED ABOVE.
5. DREDGING SHALL NOT EXTEND INTO LIMEROCK.
6. NO MATERIAL SHALL BE STOCKPILED IN PRIVATE PROPERTY UNLESS CONTRACTOR ACQUIRES PRIVATE/TEMPORARY EASEMENTS. ANY MATERIAL TO BE STOCKPILED SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES.
7. THE CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING ALL DREDGED MATERIAL.
8. THE CONTRACTOR IS RESPONSIBLE FOR STOCKPILING DREDGE MATERIAL PRIOR TO FINAL DISPOSAL. THE MATERIAL WILL THEN BE TAKEN TO AN APPROVED DISPOSAL SITE.

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: DREDGING PLAN

REF. DWG. NO.

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO. 9

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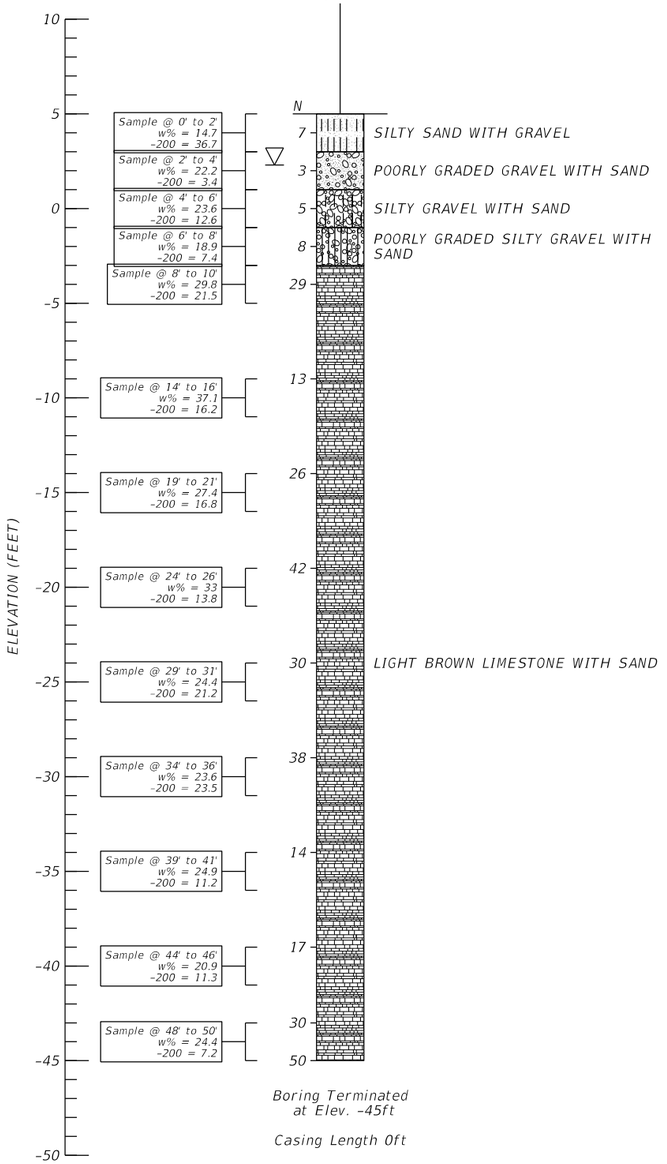

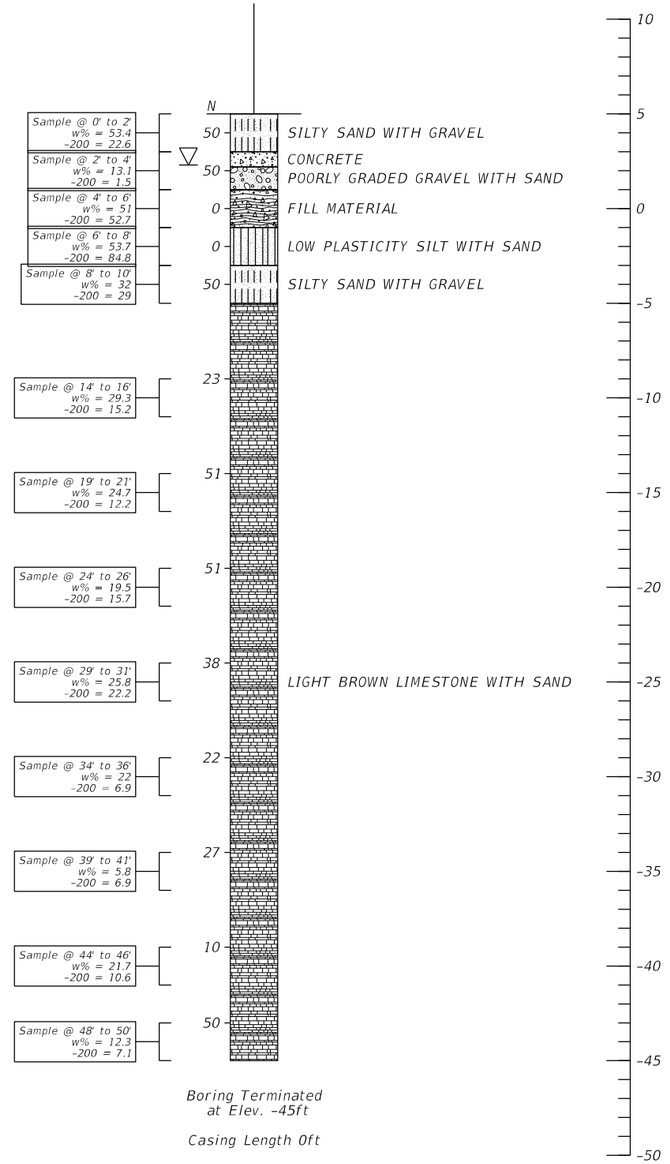

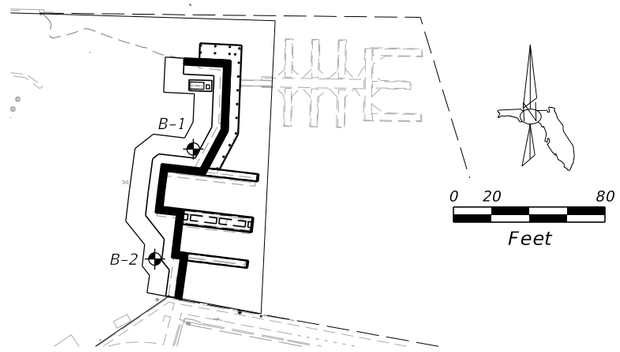

BORING LOCATION

LEGEND

- Silty GRAVEL: Gravel with 12% to 50% Silt
- Gravelly SILT: Silt with > 30% Gravel
- Silty SAND: Sand with 12% to 50% Silt
- Concrete
- Gravelly SAND: Sand with > 30% Gravel
- Debris
- Sandy SILT: Sand/Silt mixture with > 50% Silt
- Soft LIMESTONE: Limestone with N ≤ 50
- APPROXIMATE SPT BORING LOCATION
- N — STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- ▽ — WATER LEVEL MEASURED ON DATE BORING INITIATED
- NAVD88 — NORTH AMERICAN VERTICAL DATUM OF 1988
- w — MOISTURE CONTENT
- -200 — PERCENT PASSING THE NO. 200 STANDARD SIEVE

GRANULAR MATERIALS		
RELATIVE DENSITY	SAFETY HAMMER SPT N-VALUE (BLOW/FOOT)	AUTOMATIC HAMMER SPT N-VALUE (BLOW/FOOT)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 - 10	3 - 8
MEDIUM DENSE	10 - 30	8 - 24
DENSE	30 - 50	24 - 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40

SILTS AND CLAYS		
CONSISTENCY	SAFETY HAMMER SPT N-VALUE (BLOW/FOOT)	AUTOMATIC HAMMER SPT N-VALUE (BLOW/FOOT)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 - 4	1 - 3
FIRM	4 - 8	3 - 6
STIFF	8 - 15	6 - 12
VERY STIFF	15 - 30	12 - 24
HARD	GREATER THAN 30	GREATER THAN 24

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: REPORT OF CORE BORINGS

REF. DWG. NO.

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO. 10

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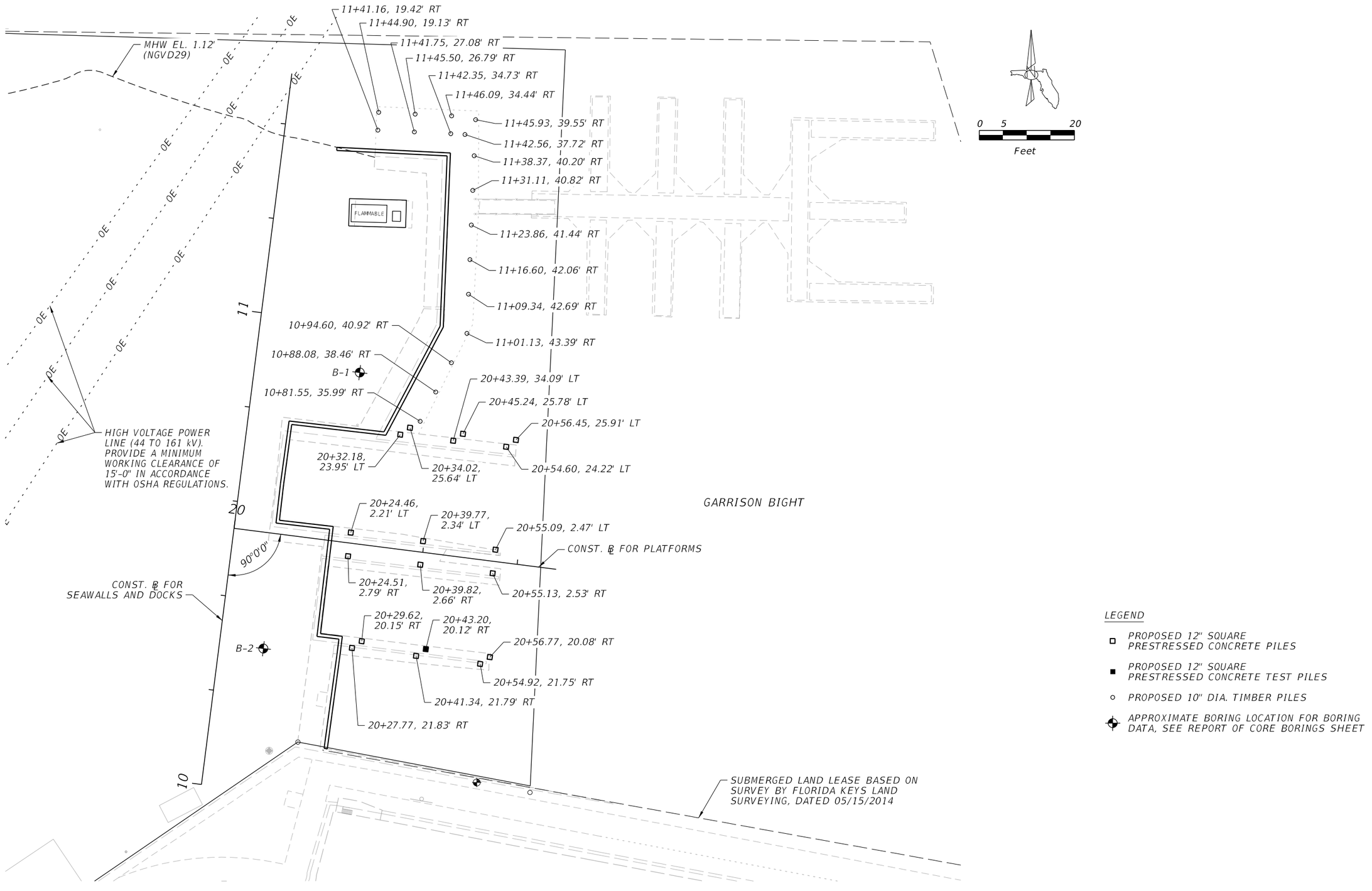

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: FOUNDATION LAYOUT

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 11

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PILE DATA TABLE

INSTALLATION CRITERIA								DESIGN CRITERIA								PILE CUT-OFF ELEVATIONS					
PILE LOCATION	PILE SIZE (in.)	NOMINAL BEARING RESISTANCE (tons)	NOMINAL UPLIFT RESISTANCE (tons)	MINIMUM TIP ELEVATION (ft.)	TEST PILE LENGTH (ft.)	REQUIRED JET ELEVATION (ft.)	REQUIRED PREFORM ELEVATION (ft.)	FACTORED DESIGN LOAD (tons)	FACTORED DESIGN UPLIFT LOAD (tons)	DOWN DRAG (tons)	TOTAL SCOUR RESISTANCE (tons)	NET SCOUR RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	Ø COMPRESSION	Ø UPLIFT	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6
PLATFORM 1	12 *	43.0	N/A	-15	30	N/A	-9	28.0	N/A	N/A	N/A	N/A	N/A	0.65	N/A	3.5	3.5	3.5	3.5	3.5	3.5
PLATFORM 2	12 *	37.0	N/A	-15	N/A	N/A	-9	24.0	N/A	N/A	N/A	N/A	N/A	0.65	N/A	3.5	3.5	3.5	3.5	3.5	3.5
PLATFORM 3	12 *	43.0	N/A	-15	N/A	N/A	-9	28.0	N/A	N/A	N/A	N/A	N/A	0.65	N/A	3.5	3.5	3.5	3.5	3.5	3.5
TIMBER DOCK	10 **	3.0	N/A	-12	SEE NOTE 4	N/A	-8	1.9	N/A	N/A	N/A	N/A	N/A	0.65	N/A	SEE NOTE 4					

* 12" SQUARE PRESTRESSED CONCRETE PILE
** 10" DIA. TIMBER PILES

$$\frac{\text{Factored Design Load + Net Scour Resistance + Down Drag}}{\emptyset} \leq \text{Nominal Bearing Resistance}$$

UPLIFT RESISTANCE – The ultimate side friction capacity that must be obtained below the 100 year scour elevation to resist pullout of the pile (Specify only when design requires uplift capacity).

TOTAL SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the scourable soil.

NET SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the soil from the required preformed or jetting elevation to the scour elevation.

100-YEAR SCOUR ELEVATION – Estimated elevation of scour due to the 100 year storm event.

PILE INSTALLATION NOTES:

1. CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO ANY PILE INSTALLATION ACTIVITIES.
2. MINIMUM TIP ELEVATION IS REQUIRED FOR LATERAL STABILITY AT ALL LOCATIONS AND SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATIONS SECTION 455.
3. ADDITIONAL PREFORMING BEYOND THAT SHOWN IN THE PILE DATA TABLE WILL NOT BE ALLOWED WITHOUT APPROVAL OF THE ENGINEER.
4. THE ANTICIPATED ORDER PILE LENGTH FOR TIMBER PILES IS 20'-0". THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF TIMBER PILE CUT-OFF ELEVATIONS TO EOR FOR APPROVAL PRIOR TO DRIVING PILES.
5. DURING INSTALLATION OF FOUNDATIONS, PROTECT AND MONITOR EXISTING STRUCTURES IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 455-1.1.
6. THE CONTRACTOR SHALL PERFORM A WAVE EQUATION ANALYSIS (WEAP) TO ESTABLISH DRIVING CRITERIA FOR THE CONCRETE AND TIMBER PILES IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 455-5. THE CONTRACTOR MUST SUBMIT A PILE INSTALLATION PLAN AND FDOT FORM 700-020-01 ALONG WITH THE WAVE EQUATION ANALYSIS (WEAP) TO THE EOR FOR APPROVAL.
7. CONTRACTOR SHALL HAVE AN ENGINEER PERFORM THE PDA AND CAPWAP ANALYSIS TO DETERMINE THE PILE LENGTHS AND PILE DRIVING CRITERIA.
8. AT EACH PLATFORM, PILE DRIVING IS TO COMMENCE AT THE CENTER OF THE PLATFORM AND PROCEED OUTWARD.
9. ALL PILES SHALL BE INSTALLED PLUMB IN THE FINAL POSITION NO MORE THAN 1 1/2" LATERALLY FROM THE PLAN POSITION AND 1/4" PER FOOT FROM THE VERTICAL. IN ADDITION, THE CUT-OFF ELEVATION MUST BE WITHIN 1 1/2" FROM THE ELEVATION SPECIFIED.
10. THE CONTRACTOR SHOULD ANTICIPATE THE USE OF SPECIALIZED EQUIPMENT AND/OR METHODS INCLUDING, BUT NOT LIMITED TO, CORE BARRELS, ROCK AUGERS, PUNCHES, DRILL BITS, ETC. TO COMPLETE PREFORMING. IF DRILLING EQUIPMENT WITH A TAPERED END IS USED TO CONSTRUCT THE PREFORMED PILE HOLES, THE MAXIMUM DIAMETER OF THE DRILLING EQUIPMENT HAS TO REACH THE REQUIRED PREFORMED ELEVATION.
11. DO NOT ADVANCE PREFORMED PILE HOLES DEEPER THAN THE PREFORMED ELEVATIONS SHOWN IN THE TABLE WITHOUT APPROVAL OF THE ENGINEER. IF ACTUAL PREFORMING ELEVATIONS DIFFER FROM THOSE SHOWN IN THE TABLE, THE ENGINEER SHALL DETERMINE THE REQUIRED DRIVING RESISTANCE. FILL ALL VOIDS BETWEEN PILE AND SOIL RENAMING AFTER DRIVING THROUGH PREFORMED HOLES WITH CLEAN A-3 SAND, AFTER THE PILE HAS ACHIEVED REQUIRED MINIMUM TIP ELEVATION.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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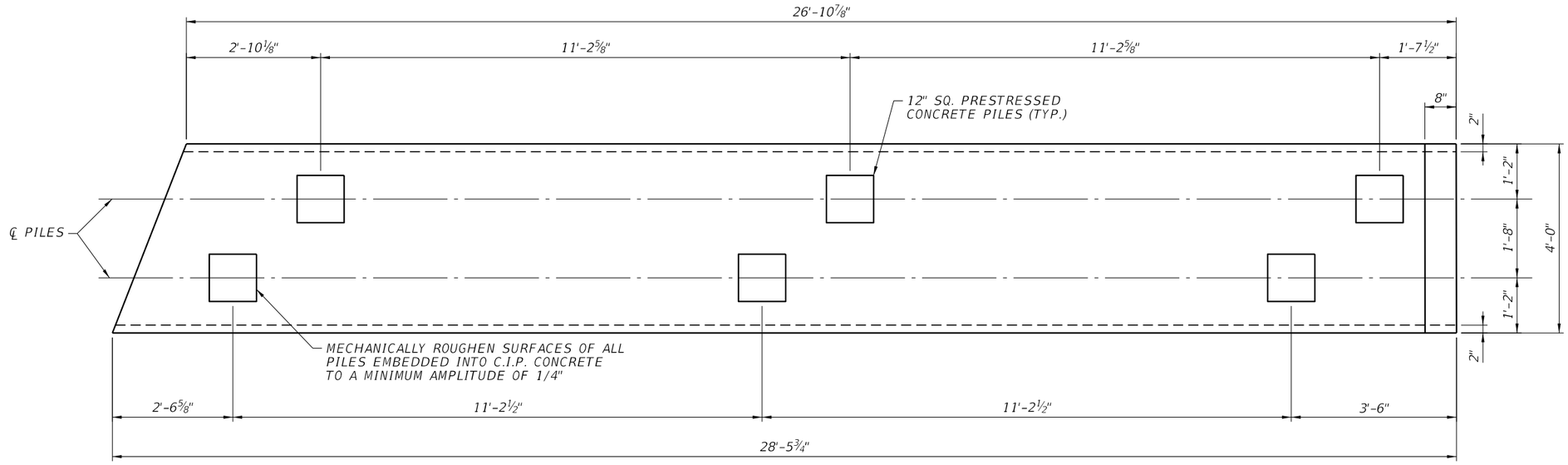
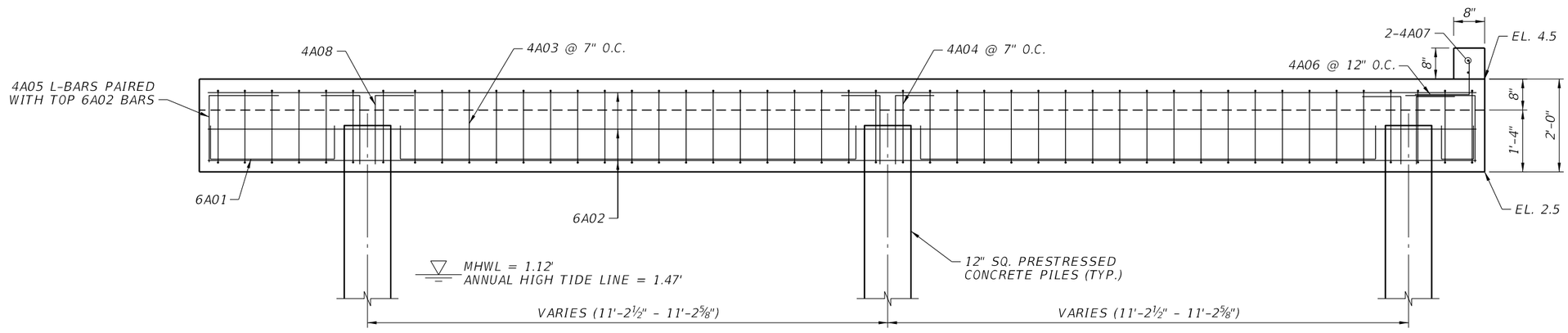
CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: PILE DATA TABLE
REF. DWG. NO.:
PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS
SHEET NO.: 12



PLAN



ELEVATION

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

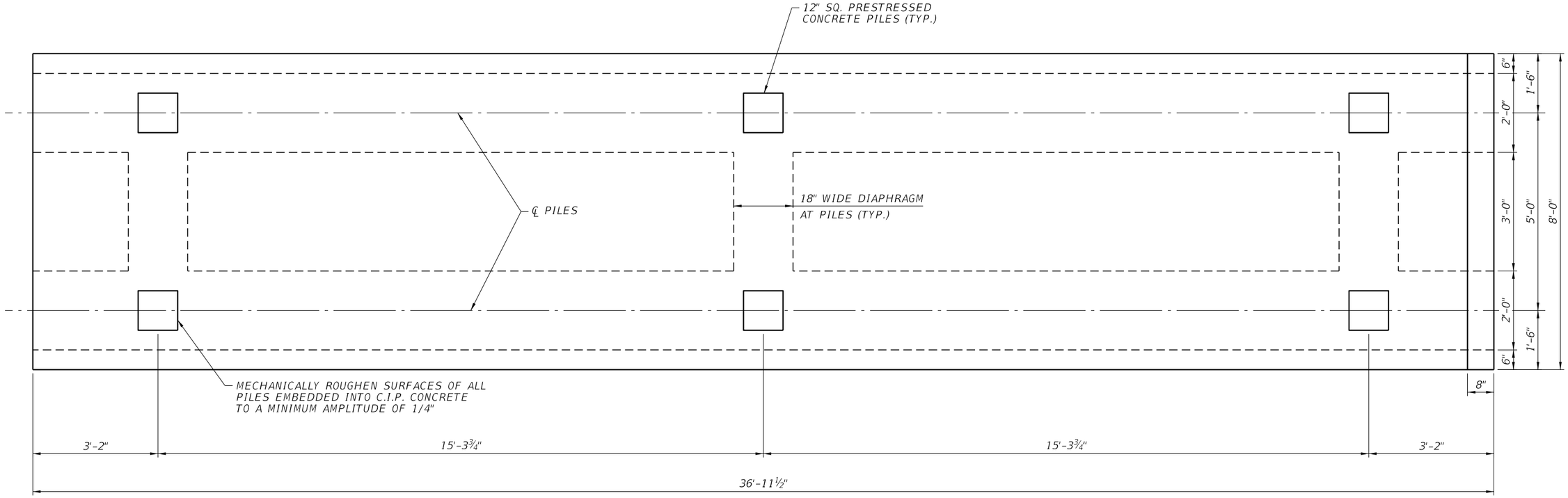
ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: BOAT HOIST SUPPORT PLATFORM 1

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 13



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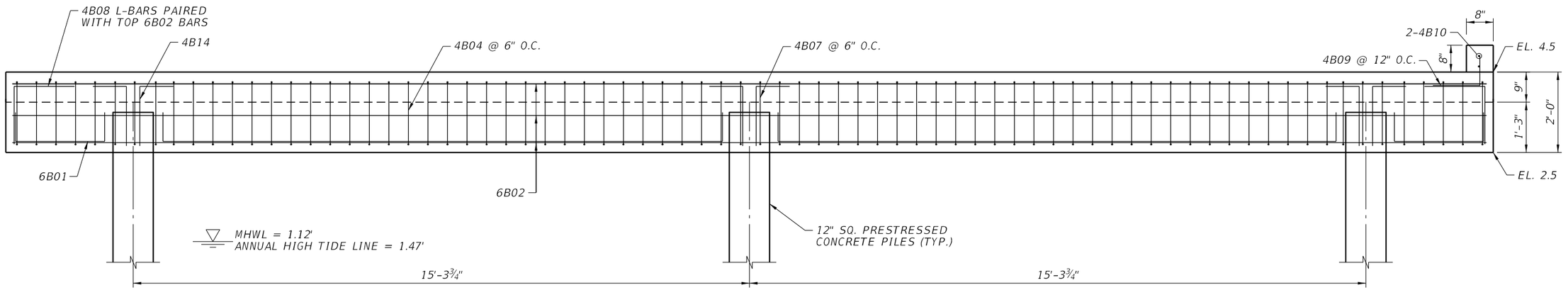

ELEVATION
(SLAB AND DIAPHRAGM REINFORCEMENT OMITTED FOR CLARITY)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

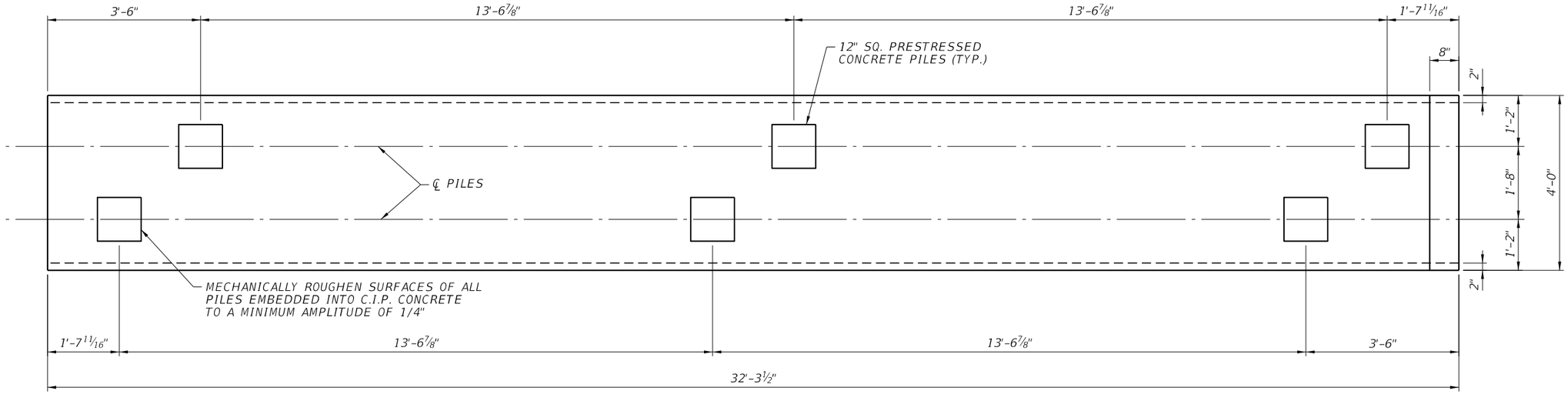
ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: BOAT HOIST SUPPORT PLATFORM 2

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 14



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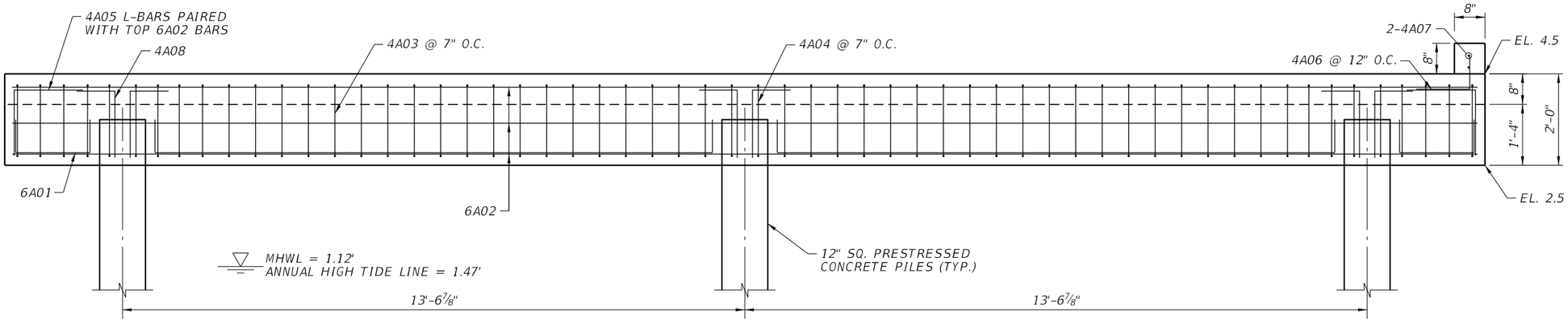

ELEVATION

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: BOAT HOIST SUPPORT PLATFORM 3

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 15

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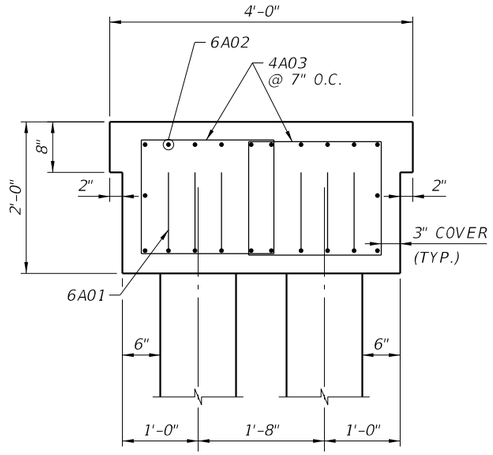
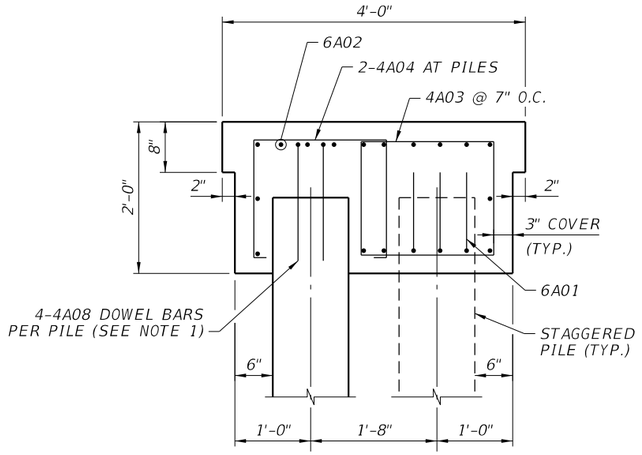
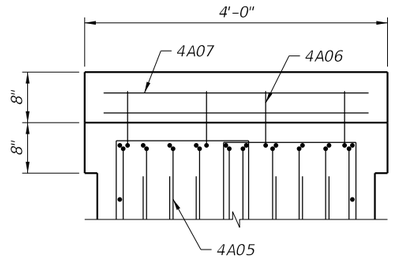


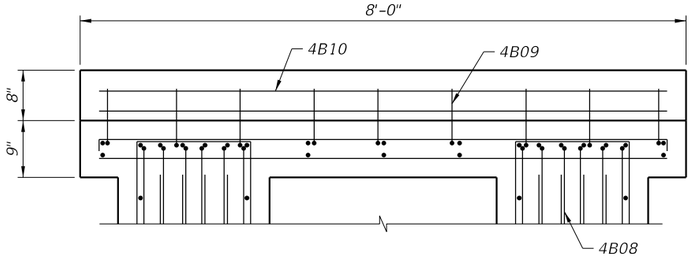
PLATFORMS 1 & 3 BETWEEN PILES



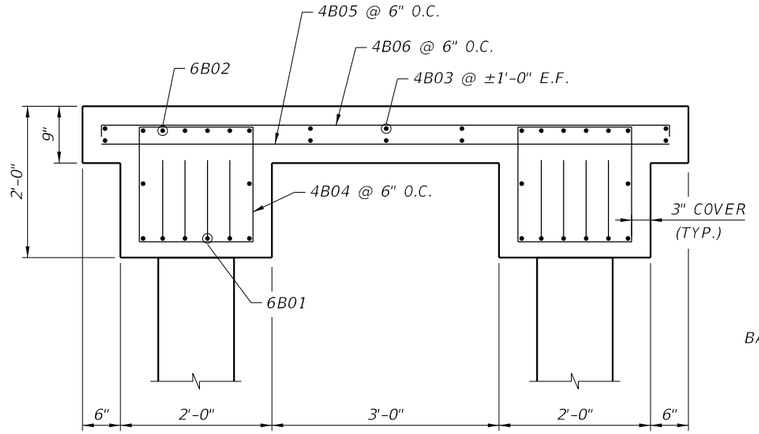
PLATFORMS 1 & 3 AT PILES



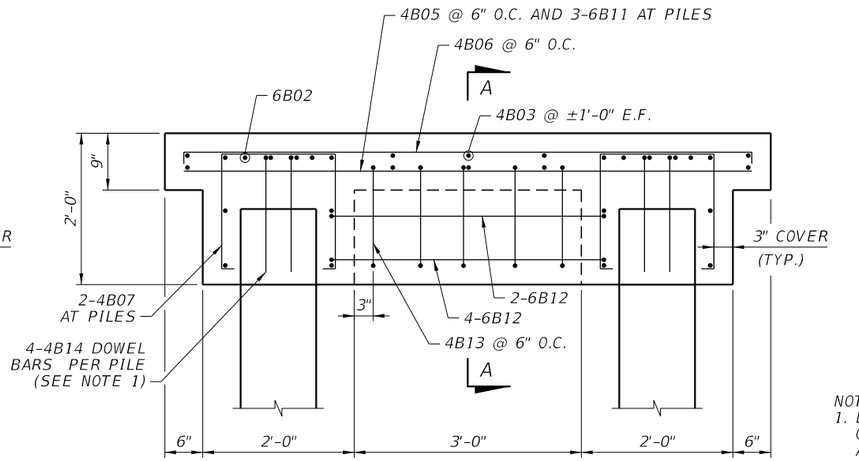
PLATFORMS 1 & 3 CURB DETAILS



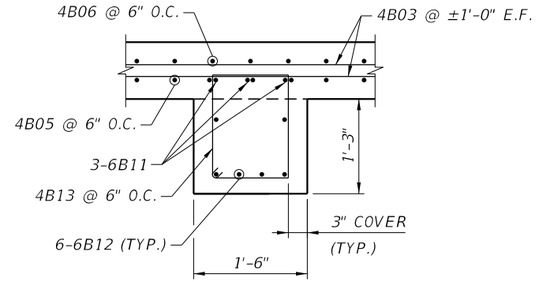
PLATFORM 2 CURB DETAILS



PLATFORM 2 BETWEEN PILES



PLATFORM 2 AT PILES



PLATFORM 2 DIAPHRAGM DETAILS
SECTION A-A

NOTES:
1. DOWEL BARS ARE TO BE PREDRILLED AND EPOXY ANCHORED INTO THE TOP OF ALL PRESTRESSED PILES FOR A MINIMUM EMBEDMENT OF 10". PROVIDE A 4" COVER FROM EACH FACE OF THE PILE TO THE DOWEL BAR. USE A TYPE HV STRUCTURAL ADHESIVE BONDING AGENT COMPOUND IN ACCORDANCE WITH FDOT SPECIFICATIONS 937 LISTED ON FDOT'S APPROVED PRODUCTS LIST (APL). INSTALL IN ACCORDANCE WITH FDOT SPECIFICATIONS 416 AND PER MANUFACTURER'S RECOMMENDATIONS FOR HOLE DIAMETER AND CLEANING. SUBMIT SELECTED ADHESIVE PRODUCT TO ENGINEER FOR APPROVAL.
2. MECHANICALLY ROUGHEN SURFACES OF ALL PILES EMBEDDED INTO C.I.P. CONCRETE PLATFORMS TO A MINIMUM AMPLITUDE OF 1/4".

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: BOAT HOIST SUPPORT PLATFORM DETAILS

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 16

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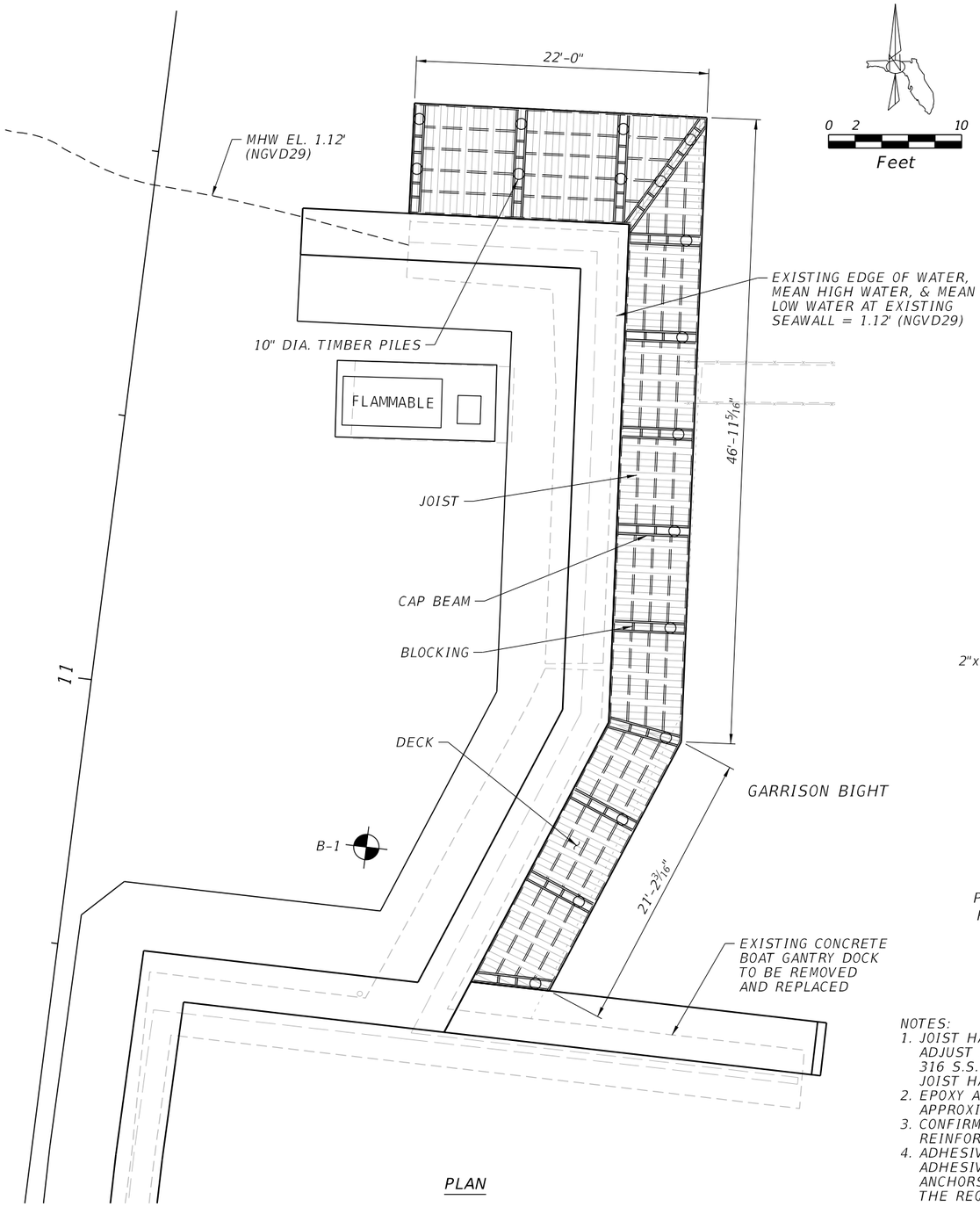
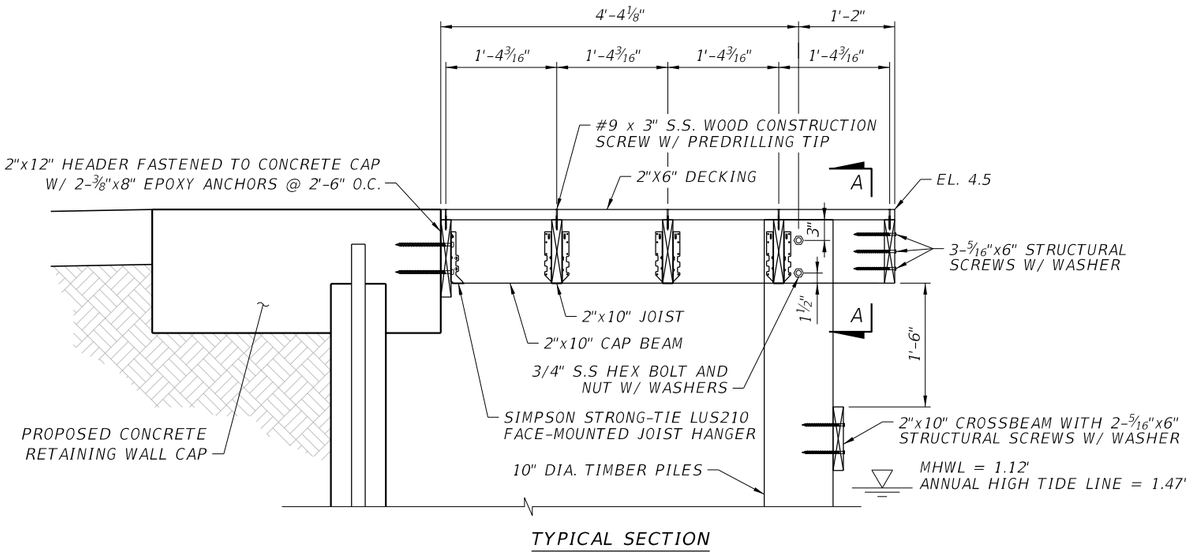


PLAN

MATERIALS LIST	
PILES	10" DIA SYP ASTM D25, 2.5 CCA
CAP BEAM	2" x 10" x 10' SYP MARINE GRADE NO. 1, S4S 0.31 CA
JOISTS	2" x 10" x 8' SYP MARINE GRADE NO. 1, S4S 0.31 CA
RIM JOISTS	2" x 10" x 8' SYP MARINE GRADE NO. 1, S4S 0.31 CA
DECKING	2" x 6" x 10' SYP MARINE GRADE NO. 1, S4S 0.31 CA
HEADER	2" x 12" SYP MARINE GRADE NO. 1, S4S 0.31 CA
CROSSBEAM	2" x 10" x 8' SYP MARINE GRADE NO. 1, S4S 0.31 CA
BLOCKING	2" x 10" SYP MARINE GRADE NO. 1, S4S 0.31 CA

CONNECTOR AND FASTENER SCHEDULE		
CONNECTION LOCATION	TYPE	NUMBER FASTENERS PER CONNECTION
PILE TO CAP BEAM	3/4" DIAM S.S. HEX BOLT AND NUT, W/ WASHERS, GRADE 2	2
HEADER TO CONCRETE CAP	3/8" x 8" EPOXY ANCHOR BOLTS W/ WASHER (SEE NOTES)	2
RIM JOIST TO CAP BEAM	GRK RUGGED STRUCTURAL SCREW 5/16" X 6" W/ WASHERS	3
DECKING TO SUBFLOOR	GRIP-RITE 3" X #9 WOOD EXTERIOR SCREW W/ PREDRILLING TIP, PRIMEGUARD PLUS COATING	2
JOIST HANGERS	SIMPSON STRONG-TIE LUS210 GR. 316 SS	SEE NOTE 1
CROSSBEAM TO PILE	GRK RUGGED STRUCTURAL SCREW 5/16" x 6" W/ WASHERS	2
CAP BEAM BLOCKING	GRK RUGGED STRUCTURAL SCREW 5/16" x 4" W/ WASHERS	3



TYPICAL SECTION

NOTES:
1. JOIST HANGERS FOR JOIST CONNECTIONS AND CAP BEAM CONNECTIONS SHALL BE SIMPSON STRONG-TIE LUS210 GR. 316 SS, OR APPROVED EQUAL. ADJUST SKEW AND SLOPE OF HANGER IN FIELD TO FOLLOW PROPOSED DOCK LAYOUT. INSTALL HANGERS WITH 8 - #9 x 1 1/2" AND 4 - #9 x 1 1/2" 316 S.S. SD CONNECTOR SCREWS IN THE HEADER AND JOIST CONNECTION, RESPECTIVELY. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR JOIST HANGER AND FASTENER INSTALLATION. SUBMIT PRODUCTS TO ENGINEER FOR APPROVAL.
2. EPOXY ANCHOR GR. 316 SS 3/8" x 8" BOLTS SPACED AT 3'-9" O.C. ALONG THE CONCRETE CAP FACE. EPOXY ANCHOR LOCATIONS SHOWN ARE APPROXIMATE, PLACE ANCHOR BOLTS TO AVOID EXISTING REINFORCEMENT IN THE CONCRETE CAP.
3. CONFIRM THE ABSENCE OF REINFORCING IN THE CONCRETE CAP BY DRILLING 1/4" DIAMETER PILOT HOLE FOR EACH ANCHOR. DO NOT CUT REINFORCING WITHOUT APPROVAL OF THE EOR.
4. ADHESIVE BONDING MATERIAL SYSTEM FOR ANCHORS SHALL COMPLY WITH FDOT SPECIFICATIONS SECTION 937. USE A PRE-APPROVED TYPE HV ADHESIVE MATERIAL LISTED ON THE FDOT APPROVED PRODUCTS LIST (APL) WITH A MINIMUM BOND STRENGTH OF 1.08 KSI. ADHESIVE BONDED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR HOLE DIAMETER, HOLE PREPARATION, AND MEET THE REQUIREMENTS OF FDOT SPECIFICATIONS SECTION 416. SUBMIT SELECTED ADHESIVE PRODUCT TO ENGINEER FOR APPROVAL.

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REVISIONS					
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: TIMBER DOCK PLAN AND TYPICAL SECTION
REF. DWG. NO.:
PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS
SHEET NO.: 17

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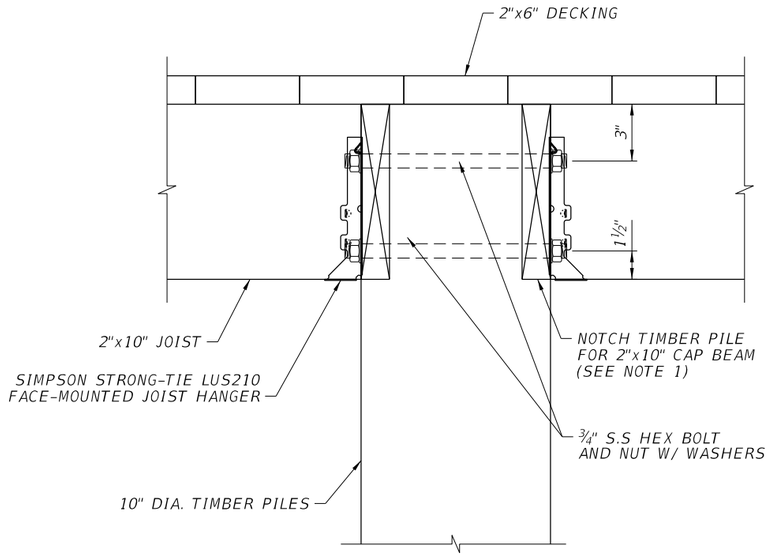
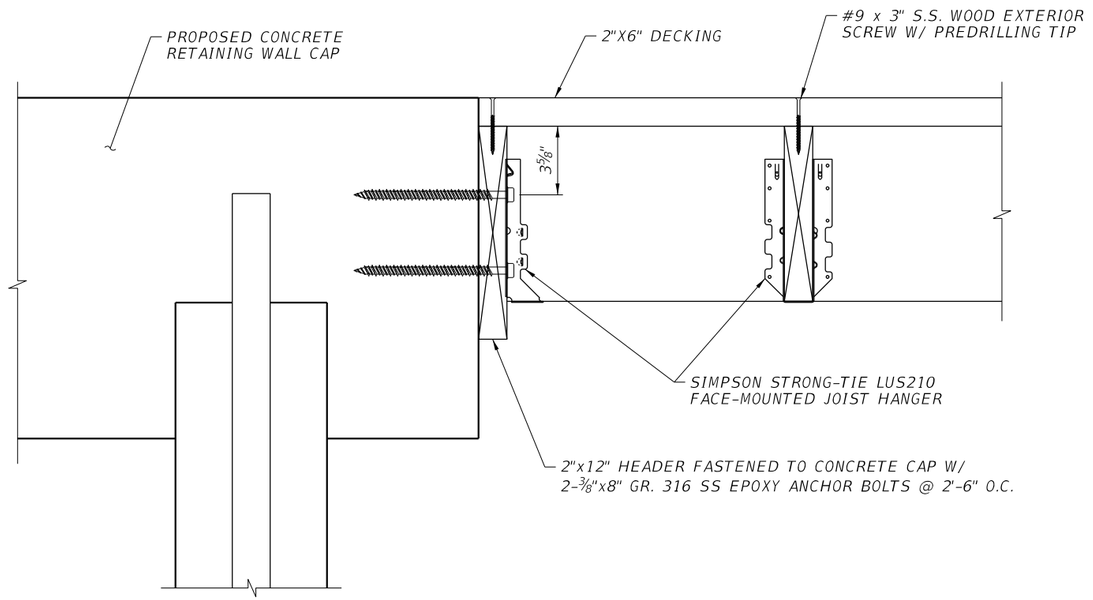
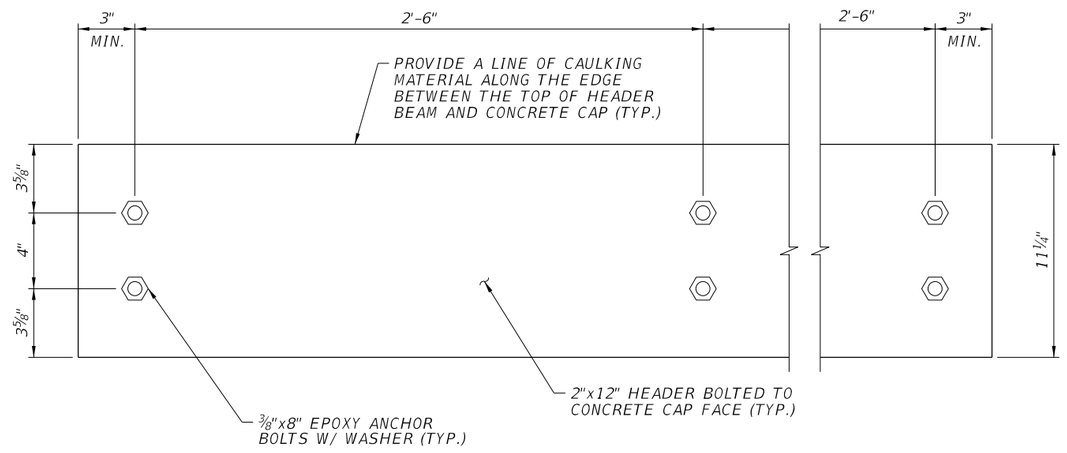


SECTION A-A



CAP BEAM CONNECTION TO RETAINING WALL (TYP.)



HEADER BEAM TO CONCRETE CAP (TYP.)

NOTES:
1. THE CONTRACTOR SHALL NOTCH THE TIMBER PILES 1-1/2" DEEP ON BOTH SIDES FOR THE CAP CONNECTION. THE PILE NOTCH SHALL BE CUT TO A HEIGHT OF 9-1/4" TO FIT THE CAP BEAM AND PROVIDE A SECURE BEARING SURFACE.

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

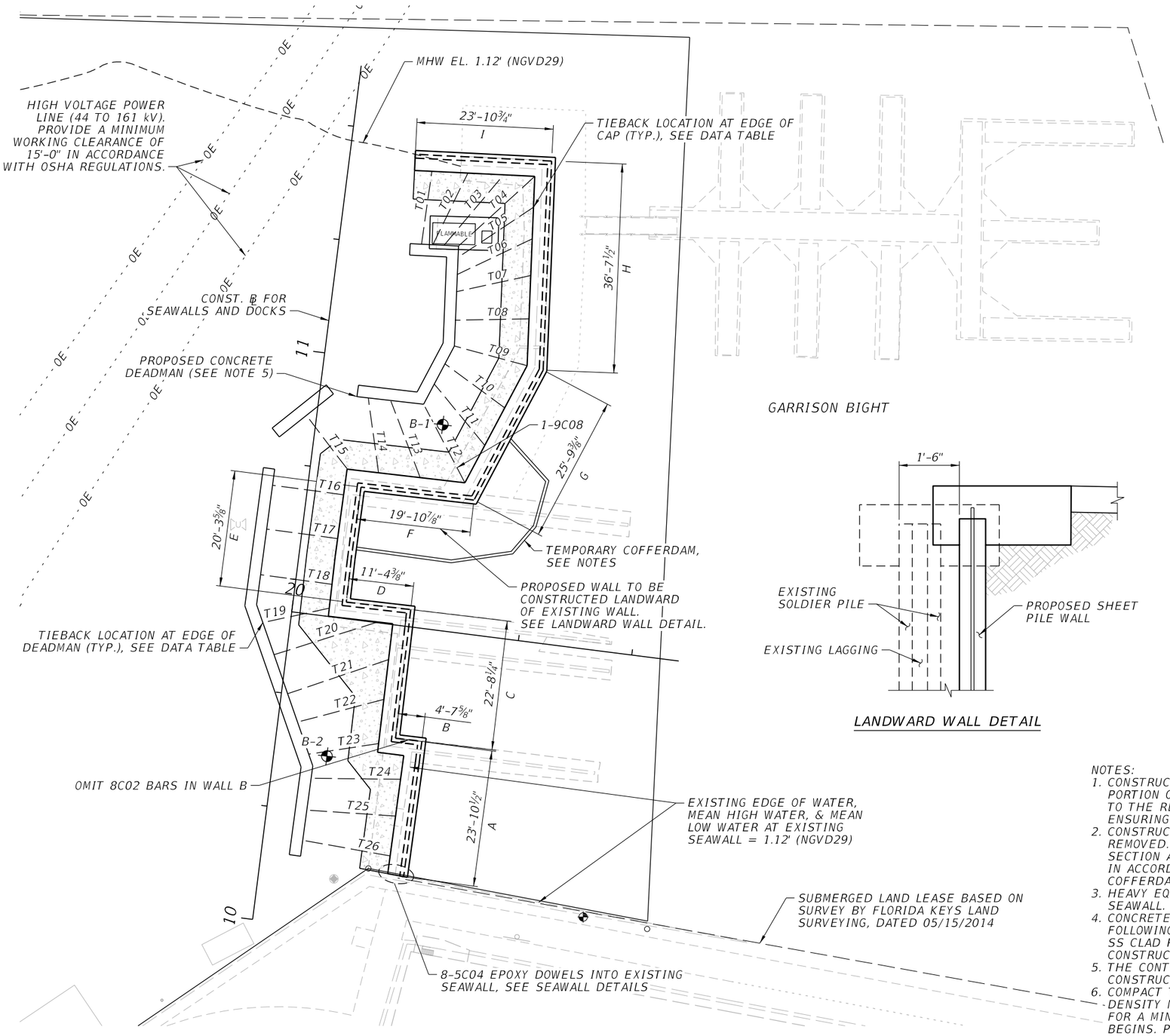
ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: TIMBER DOCK DETAILS

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 18



LANDWARD WALL DETAIL

TIEBACK LOCATION DATA TABLE

TIEBACK	EDGE OF CAP		EDGE OF DEADMAN	
	STATION	OFFSET	STATION	OFFSET
T01	11+33.89	14.60' RT	11+21.02	14.41' RT
T02	11+34.38	20.89' RT	11+21.20	16.40' RT
T03	11+34.87	27.14' RT	11+21.37	18.39' RT
T04	11+35.29	32.59' RT	11+21.51	20.89' RT
T05	11+29.92	33.05' RT	11+19.52	21.04' RT
T06	11+24.39	33.52' RT	11+16.52	21.28' RT
T07	11+17.98	34.07' RT	11+13.53	21.51' RT
T08	11+10.41	34.72' RT	11+08.55	21.89' RT
T09	11+02.23	35.42' RT	11+04.05	22.39' RT
T10	10+94.42	32.47' RT	11+00.74	21.14' RT
T11	10+87.47	29.84' RT	10+97.00	19.72' RT
T12	10+80.53	27.22' RT	10+93.26	18.31' RT
T13	10+80.44	19.33' RT	10+93.07	12.57' RT
T14	10+80.35	12.01' RT	10+93.11	8.57' RT
T15	10+80.29	6.51' RT	10+88.73	1.79' LT
T16	10+75.76	6.42' RT	10+75.85	6.13' LT
T17	10+68.03	6.36' RT	10+68.11	6.18' LT
T18	10+59.96	6.39' RT	10+60.04	6.23' LT
T19	10+55.75	6.44' RT	10+51.78	4.78' LT
T20	10+54.42	15.15' RT	10+46.45	2.13' LT
T21	10+48.13	17.87' RT	10+39.98	1.10' RT
T22	10+41.12	17.93' RT	10+35.27	3.44' RT
T23	10+33.34	18.00' RT	10+29.94	6.10' RT
T24	10+27.61	22.60' RT	10+25.81	7.05' RT
T25	10+21.11	22.54' RT	10+20.19	7.00' RT
T26	10+14.07	22.48' RT	10+14.87	6.96' RT

NOTES:
1. CONSTRUCTION OF THE RETAINING WALL SHALL BE COMPLETED IN PHASES TO ALLOW THE PORTION OF THE PROPOSED WALL TO BE CONSTRUCTED LANDWARD OF THE EXISTING PRIOR TO THE REMAINING PORTIONS OF THE WALL. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE EXISTING WALL DURING CONSTRUCTION.
2. CONSTRUCT A TEMPORARY COFFERDAM SURROUNDING THE PORTION OF EXISTING WALL TO BE REMOVED. DEWATER BEHIND THE TEMPORARY COFFERDAM TO REMOVE THE EXISTING WALL SECTION AND CONSTRUCT THE NEW WALL SECTION. BACKFILL BEHIND NEW WALL SECTION IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS PACKAGE PRIOR TO REMOVING TEMPORARY COFFERDAM.
3. HEAVY EQUIPMENT IS NOT PERMITTED TO DRIVE ON OR ADJACENT TO THE PROPOSED SEAWALL.
4. CONCRETE DEADMAN AND RETAINING WALL SYSTEM TO BE CONSTRUCTED IN SEGMENTS FOLLOWING THE PHASING PLAN. CONTRACTOR SHALL ANTICIPATE CONSTRUCTION JOINTS AND SS CLAD REBAR SPLICING IN THE DEADMAN AND SEAWALL CAP. SUBMIT PROPOSED CONSTRUCTION JOINTS AND SS CLAD REBAR SPLICING PLAN TO THE EOR FOR APPROVAL.
5. THE CONTRACTOR SHALL PROTECT THE FIRST CONSTRUCTED PHASE OF THE WALL DURING CONSTRUCTION OF THE REMAINING WALL SECTIONS.
6. COMPACT THE SOIL BENEATH THE DEADMAN EXCAVATION WITH SUITABLE EQUIPMENT TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DENSITY AS DETERMINED BY FM 1-T180, FOR A MINIMUM DEPTH OF 2 FEET BELOW THE BOTTOM OF EXCAVATION BEFORE BACKFILLING BEGINS. PROVIDE 6" LIFTS OF COMPACTED CLEAN BACKFILL, FREE OF TOP SOILS, VEGETATION, DEBRIS, STANDING WATER, AND MUD, UP TO THE EXISTING GROUND SURFACE.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: WALL PLAN
REF. DWG. NO.:
PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS
SHEET NO.: 19

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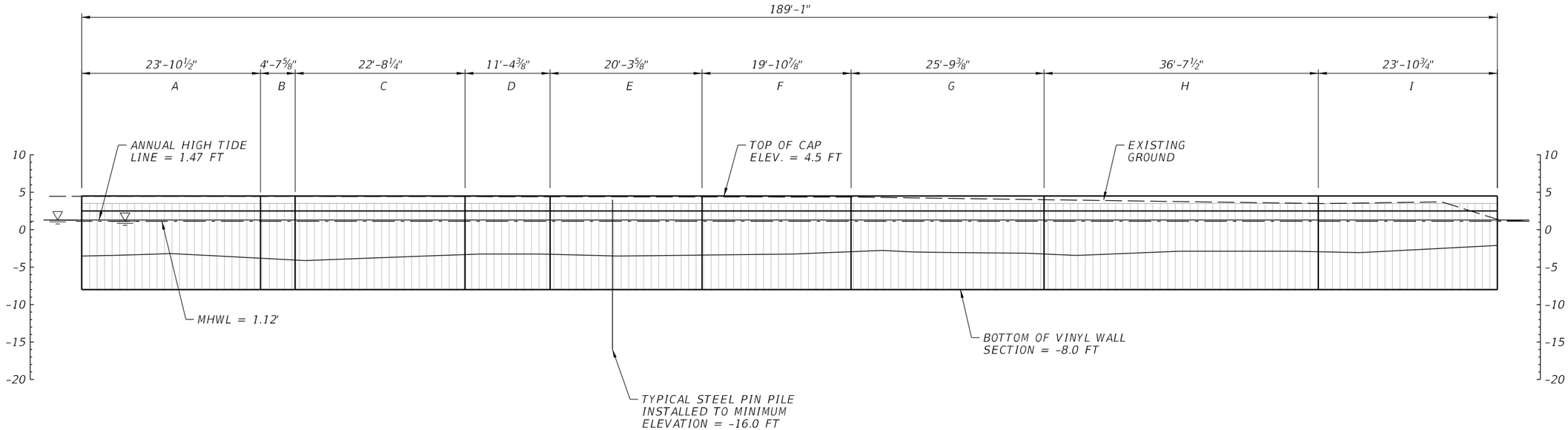

ELEVATION VIEW

NOTE:
1. ALL PROPOSED SEAWALL IS TO HAVE AN CONSTANT TOP OF CAP ELEVATION OF 4.5 (NGVD29).
2. CONTRACTOR SHALL SUBMIT SHOP DRAWING SUBMITTALS INCLUDING LAYOUT OF TRULINE CELLS FOR ALL CORNERS AND ENDS OF THE WALL. SEE TECHNICAL SPECIFICATIONS PACKAGE FOR ADDITIONAL CONTRACTOR SUBMITTALS.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460

HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

DRAWN BY:	JAH 06/23
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DESIGNED BY:	JAH 06/23
CHECKED BY:	TMW 06/23

CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: WALL ELEVATION

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 20

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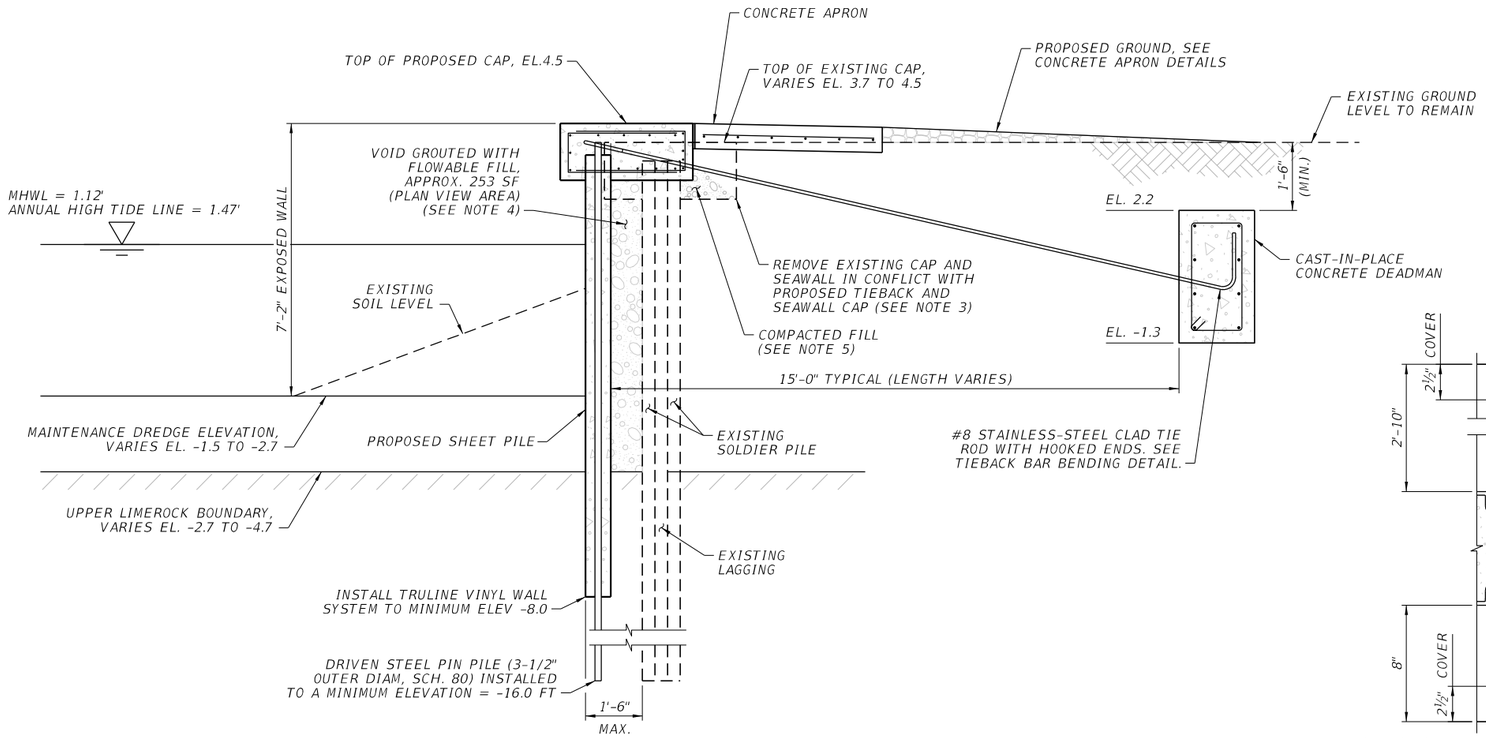
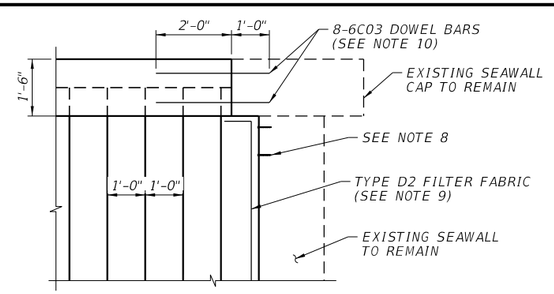
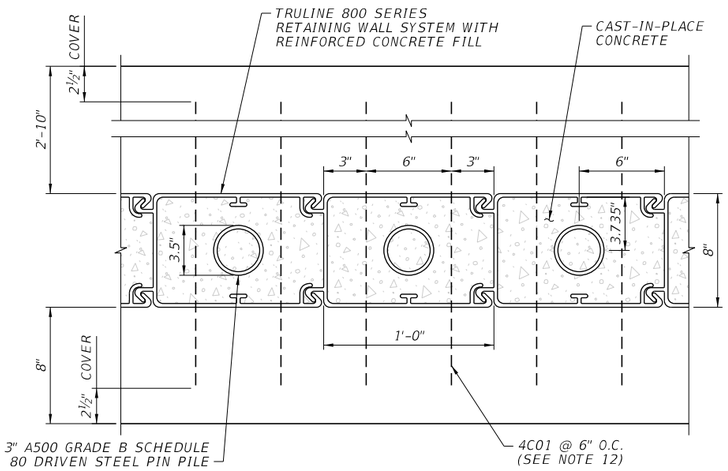


TYPICAL SECTION

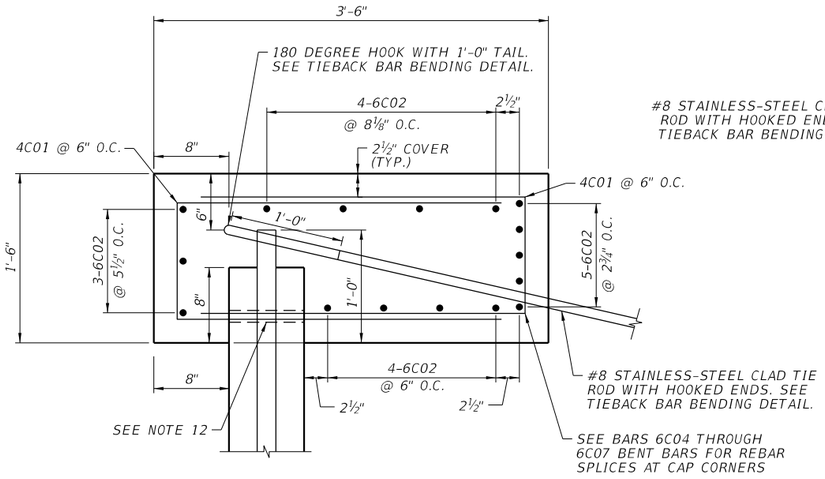
(SECTION F TO BE CONSTRUCTED LANDWARD OF THE EXISTING WALL, ALL OTHER SECTIONS TO BE CONSTRUCTED WATERWARD OF THE EXISTING WALL)



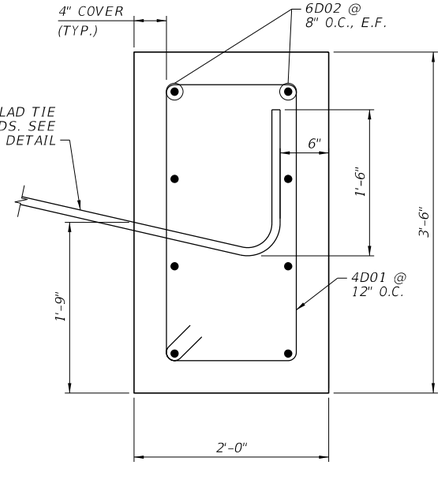
CONNECTION TO EXISTING SEAWALL



TRULINE SEAWALL TYPICAL SECTION



SEAWALL CAP TYPICAL SECTION



C.I.P. DEADMAN PANEL (TYP.)

NOTES:

1. THE RETAINING WALL SHALL BE THE TRULINE 800 SERIES RETAINING WALL SYSTEM WITH REINFORCED CONCRETE FILL. PROVIDE STEEL PIN PILES IN THE CONFIGURATION SHOWN DRIVEN TO AN ELEVATION OF -16. SEE MANUFACTURERS SPECIFICATIONS FOR CONCRETE INSTALLATION.
2. THE REPORT OF SOIL BORINGS SHOW SHALLOW SOFT LIMESTONE. THE CONTRACTOR SHALL EXCAVATE AND INSTALL THE VINYL SHEET PILES TO AN ELEVATION OF -8.0. EXCAVATION OF THE TRENCH FOR SHEET PILES SHALL BE ACCOMPLISHED BY OVERLAPPING AUGER HOLES WITH A MAXIMUM ALLOWED DIAMETER OF 1'-8".
3. THE EXISTING SEAWALL CAP IS TO BE REMOVED THROUGHOUT. EXISTING SOLDIER PILES AND LAGGING SHALL REMAIN EXCEPT FOR PORTIONS THAT CONFLICT WITH THE PROPOSED SEAWALL CAP OR ANCHORS.
4. FOR ALL WALL PORTIONS OTHER THAN SEGMENT F, THE VOID BETWEEN PROPOSED AND EXISTING SEAWALLS ARE TO BE GROUTED WITH FLOWABLE FILL AFTER CURING OF CONCRETE IN PROPOSED SEAWALL. THE VOID ON THE LANDWARD SIDE OF SEGMENT F SHALL BE BACKFILLED WITH SOIL IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS PACKAGE PRIOR TO DEMOLITION OF THE TEMPORARY COFFER DAM.
5. ANY VOIDS BENEATH THE LANDWARD SIDE OF THE PROPOSED SEAWALL CAP SHALL BE FILLED WITH COMPACTED FILL.
6. SPLICE LENGTHS SHALL BE A MINIMUM OF 3'-6" AND 1'-8" FOR ALL SIZE 8 AND 5 SS CLAD BARS, RESPECTIVELY.
7. ASTM A955 GRADE 60 STAINLESS-STEEL BARS MAY BE USED IN LIEU OF AASHTO M329 SS CLAD BARS FOR TIEBACKS AND CAP REINFORCEMENT. SUBMIT PRODUCT TO EOR FOR APPROVAL.
8. MALE END PLATE SHALL BE ATTACHED TO TRULINE CELL BORDERING EXISTING SEAWALL ACCORDING TO TECHNICAL SPECIFICATIONS PACKAGE, AND SHALL BE THROUGH BOLTED TO EXISTING SEAWALL USING 4 SS 1/4"x4" TAPCONS WITH 3" OVERSIZED WASHERS. NOTCH TOP OF TRULINE WALL TO ALLOW IT TO REST PLUMB AGAINST THE EXISTING SEAWALL.
9. TYPE D2 FILTER FABRIC SHALL BE SECURED AGAINST EXISTING SEAWALL AND LANDWARD SIDE OF PROPOSED TRULINE WALL IN ORDER TO PREVENT OUTFLOW OF FLOWABLE FILL.
10. DOWEL BARS ARE TO BE PREDRILLED AND EPOXY ANCHORED INTO THE EXISTING SEAWALL CAP FOR A MINIMUM OF 1'-0". DOWEL BARS SHALL HAVE A 2'-0" SPLICE LENGTH INTO THE PROPOSED SEAWALL CAP FOR A TOTAL LENGTH OF 3'-0". BARS SHALL BE EQUALLY DISTRIBUTED WITH A MINIMUM SPACING OF 6" AND A MINIMUM COVER OF 3" WITHIN BOTH THE EXISTING AND PROPOSED CAP. USE A TYPE HV STRUCTURAL ADHESIVE BONDING AGENT COMPOUND IN ACCORDANCE WITH FDOT SPECIFICATIONS 937 LISTED ON FDOT'S APPROVED PRODUCTS LIST (APL). INSTALL IN ACCORDANCE WITH FDOT SPECIFICATIONS 416 AND PER MANUFACTURER'S RECOMMENDATIONS FOR HOLE DIAMETER AND CLEANING. SUBMIT SELECTED ADHESIVE PRODUCT TO ENGINEER FOR APPROVAL.
11. CLEAN AND MECHANICALLY ROUGHEN THE SURFACE OF THE EXISTING SEAWALL CAP PRIOR TO CASTING PROPOSED CAP. APPLY EPOXY BONDING AGENT TO EXISTING CONCRETE FACE WHERE NEW CAP WILL BE CAST. USE A TYPE AB EPOXY LISTED ON THE APL. FOLLOW MANUFACTURER'S SPECIFICATIONS FOR SURFACE PREPARATION, USE, AND INSTALLATION. SUBMIT SELECTED EPOXY BONDING PRODUCT TO ENGINEER FOR APPROVAL.
12. PRIOR TO CASTING CONCRETE, DRILL 1-1/4" DIA. HOLE IN VINYL SHEET PILE AND INSTALL STIRRUPS. DURING TREMIE POUR OF RETAINING WALL FILL, ONE PAIR OF 4C01 BARS MAY BE REMOVED FROM A TRULINE CELL AT A TIME TO ALLOW TREMIE ACCESS AS NEEDED. BARS MUST BE REINSTALLED PRIOR TO HARDENING OF RETAINING WALL FILL.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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HIGHSPANS ENGINEERING, INC.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: SEAWALL DETAILS (1 OF 2)

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 21

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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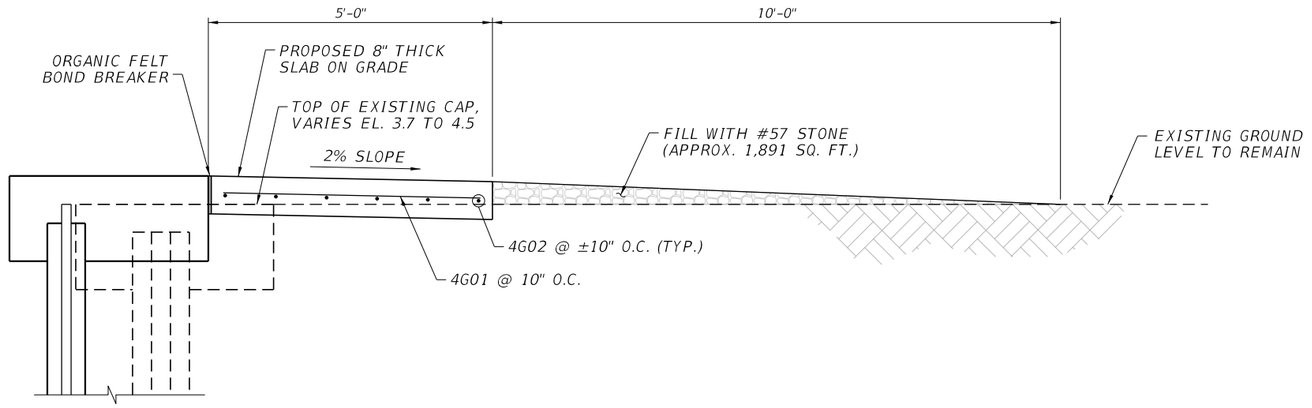

CONCRETE APRON DETAIL

(CAP REINFORCEMENT OMITTED FOR CLARITY)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
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HIGHSPANS ENGINEERING, INC.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: SEAWALL DETAILS (2 OF 2)

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 22

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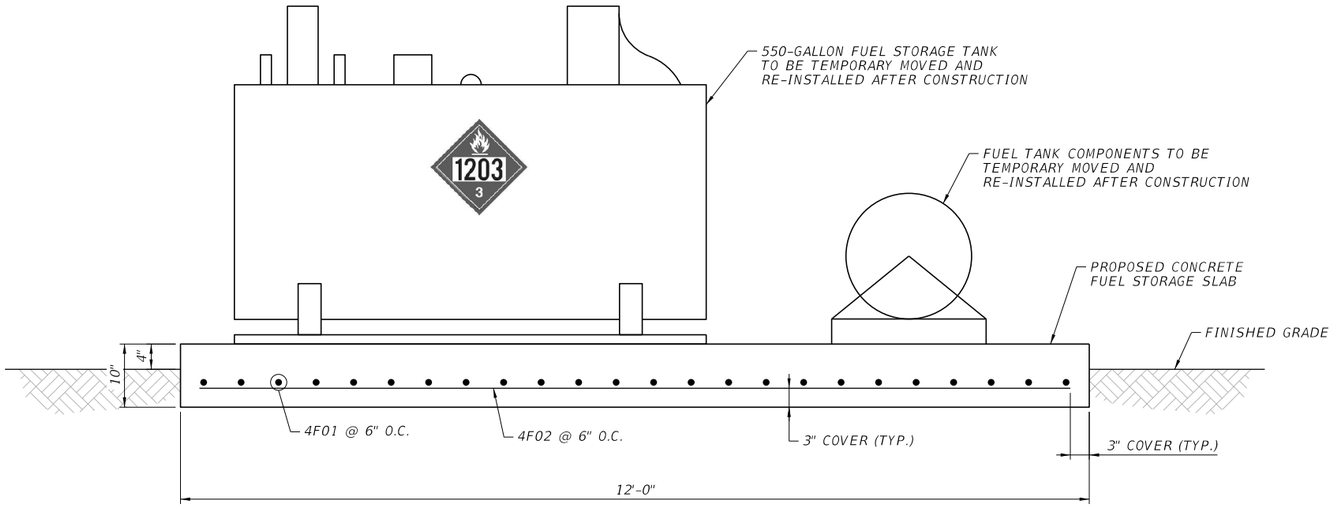
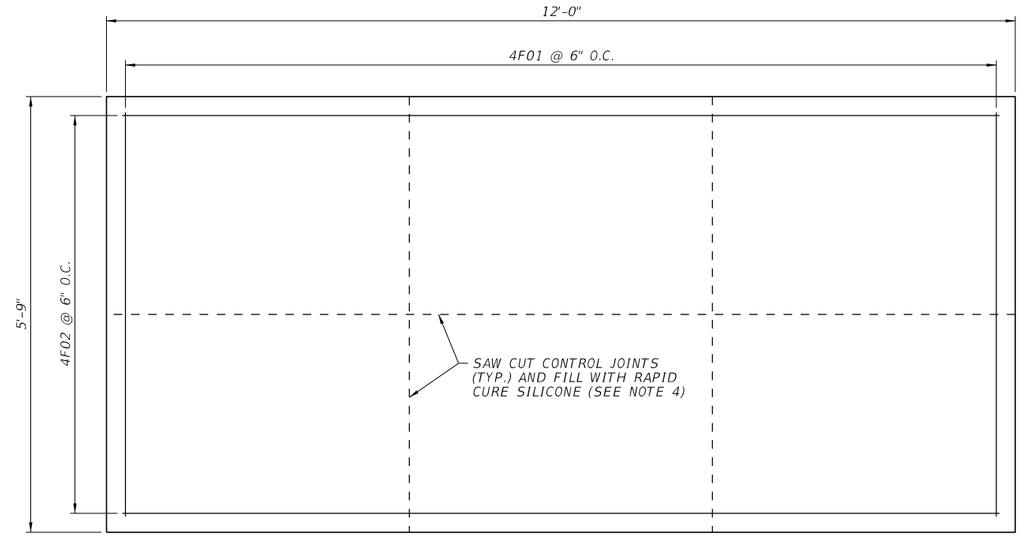


ELEVATION VIEW



PLAN VIEW

(FUEL TANK AND COMPONENTS OMITTED FOR CLARITY)

NOTES:

1. THE EXISTING FUEL STORAGE SLAB LOCATED IN THE NORTH-EAST PORTION OF THE SITE SHALL BE REMOVED AND REPLACED TO FACILITATE REMOVAL AND REPLACEMENT OF THE SEAWALL. SET BACK THE NEW FUEL STORAGE SLAB 6" FROM THE CONCRETE APRON BEHIND THE PROPOSED SEAWALL.
2. THE FUEL STORAGE SLAB HOLDS A 550-GALLON FUEL STORAGE TANK DESIGNATED AS UN1203 CLASS 3 FLAMMABLE LIQUID. THE CONTRACTOR SHALL FOLLOW ALL OSHA REGULATIONS AND DOT 49 CFR 172.500 REQUIREMENTS WHILE EMPTYING OAND TEMPORARILY STORING THE TANK. SEE GENERAL NOTE R FOR MORE INFORMATION.
3. THE FUEL STORAGE TANK AND ALL EXISTING TANK COMPONENTS FASTENED TO THE EXISTING CONCRETE SLAB SHALL BE RE-INSTALLED ON THE PROPOSED CONCRETE SLAB IN A SIMILAR MANNER.
4. EARLY ENTRY SAW CUTTING IS REQUIRED ON THE FUEL STORAGE SLAB SURFACE TO CONTROL UNWANTED CRACKING THAT THE ENGINEER EXPECTS TO OCCUR. FILL SAW CUTS WITH RAPID CURE SILICONE. SAW CUTS SHALL BE CLEAN AND FREE OF GREASE AND DEBRIS BEFORE FILLING. SUBMIT PROPOSED EQUIPMENT AND SILICONE SEALANT TO THE EOR FOR APPROVAL.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460

HIGHSPANS ENGINEERING, INC.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: FUEL STORAGE SLAB DETAILS

REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 23

Mark		Material1 [1]	Length		No	TYP	STY		B		C		D		E		F		H		J		K		N	ϕ
Size	Des	Type	Ft	In	Bars	BAR	A	G	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	NO	ANG
Boat Hoist Support Platform 1																									No. Required = 1	
6	A01 [2]	CHROMX	12'-0"		24	11			9'-11"		1'-0"		1'-0"													
6	A02 [2]	CHROMX	28'-0"		16	1			28'-0"																	
4	A03	CHROMX	7'-3"		82	4	5	5	1'-6"		1'-9"															
4	A04	CHROMX	5'-1"		12	5			1'-6"		1'-9"		2"		2"											
4	A05	CHROMX	2'-10"		20	10			1'-5"		1'-5"															
4	A06	CHROMX	2'-0"		4	10			1'-2"		10"															
4	A07	CHROMX	3'-6"		2	1			3'-6"																	
4	A08	CHROMX	2'-4"		24	10			1'-6"		10"															
Boat Hoist Support Platform 2																									No. Required = 1	
6	B01 [2]	CHROMX	16'-1"		32	11			14'-0"		1'-0"		1'-0"													
6	B02	CHROMX	36'-5"		20	1			36'-5"																	
4	B03	CHROMX	36'-5"		10	1			36'-5"																	
4	B04	CHROMX	6'-9"		140	4	5	5	1'-6"		1'-6"															
4	B05	CHROMX	7'-6"		74	1			7'-6"																	
4	B06	CHROMX	8'-0"		74	11			7'-6"		3"		3"													
4	B07	CHROMX	4'-10"		12	5			1'-6"		1'-6"		2"		2"											
4	B08	CHROMX	2'-10"		24	10			1'-5"		1'-5"															
4	B09	CHROMX	2'-0"		9	10			1'-2"		10"															
4	B10	CHROMX	3'-6"		2	1			3'-6"																	
6	B11	CHROMX	7'-6"		3	1			7'-6"																	
6	B12	CHROMX	5'-8"		6	11			3'-8"		1'-0"		1'-0"													
4	B13	CHROMX	5'-5"		5	4	5	5	1'-0"		1'-4"															
4	B14	CHROMX	2'-4"		24	10			1'-6"		10"															
Boat Hoist Support Platform 3																									No. Required = 1	
6	A01 [2]	CHROMX	20'-7"		24	11			18'-6"		1'-0"		1'-0"													
6	A02	CHROMX	31'-9"		16	1			31'-9"																	
4	A03	CHROMX	7'-3"		104	4	5	5	1'-6"		1'-9"															
4	A04	CHROMX	5'-1"		12	5			1'-6"		1'-9"		2"		2"											
4	A05	CHROMX	2'-10"		20	10			1'-5"		1'-5"															
4	A06	CHROMX	2'-0"		4	10			1'-2"		10"															
4	A07	CHROMX	3'-6"		2	1			3'-6"																	
4	A08	CHROMX	2'-4"		24	10			1'-6"		10"															
Seawall Cap																									No. Required = 1	
4	C01	SS CLAD	7'-3"		758	11			1'-1"		3'-1"		3'-1"													
6	C02 [3]	SS CLAD	184'-0"		16	1			184'-0"																	
6	C03	SS CLAD	3'-0"		8	1			3'-0"																	
6	C04	SS CLAD	9'-4"		32	10			4'-8"		4'-8"															
6	C05	SS CLAD	6'-8"		64	10			3'-4"		3'-4"															
6	C06	SS CLAD	6'-8"		16	12			3'-4"		3'-4"															69
6	C07	SS CLAD	6'-8"		16	12			3'-4"		3'-4"															26
CIP Deadman																									No. Required = 1	
4	D01	SS CLAD	9'-1"		126	4	5	5	2'-10"		1'-4"															
6	D02 [3]	SS CLAD	125'-0"		8	1			125'-0"																	
6	D03	SS CLAD	6'-8"		8	10			3'-4"		3'-4"															
6	D04	SS CLAD	6'-8"		8	12			3'-4"		3'-4"															25
6	D05	SS CLAD	6'-8"		8	12			3'-4"		3'-4"															69
6	D06	SS CLAD	6'-8"		16	12			3'-4"		3'-4"															27

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THOMAS M. WAITS, P.E.
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HIGHSPANS ENGINEERING, INC.
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CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: REINFORCING BAR LIST (1 OF 2)

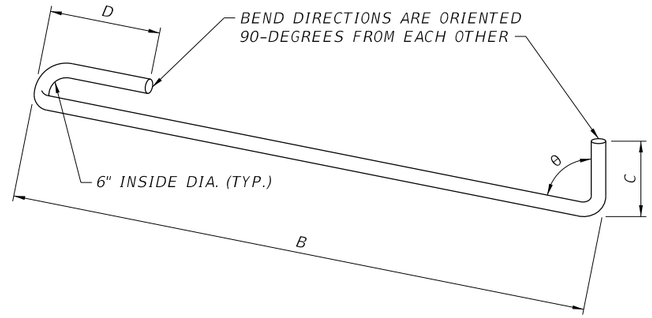
REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

SHEET NO.: 24

Mark		Material1 [1]	Length		No	TYP	STY		B		C		D		E		F		H		J		K		N	ϕ
Size	Des	Type	Ft	In	Bars	BAR	A	G	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	NO	ANG
CIP Fuel Storage Slab																									No. Required = 1	
4	F01	SS CLAD	5'-3"		24	1			5'-3"																	
4	F02	SS CLAD	11'-6"		12	1			11'-6"																	
CIP Concrete Apron																									No. Required = 1	
4	G01	SS CLAD	4'-6"		228	1			4'-6"																	
4	G02 [3]	SS CLAD	189'-1"		6	1			189'-1"																	
Tieback Anchors																									No. Required = 1	
8	T01 [4]	SS CLAD	20'-6"		1	*			17'-8"		1'-6"		1'-0"													77
8	T02 [4]	SS CLAD	21'-11"		1	*			19'-1"		1'-6"		1'-0"													77
8	T03 [4]	SS CLAD	24'-9"		1	*			21'-11"		1'-6"		1'-0"													77
8	T04 [4]	SS CLAD	27'-4"		1	*			24'-6"		1'-6"		1'-0"													77
8	T05 [4]	SS CLAD	24'-5"		1	*			21'-7"		1'-6"		1'-0"													77
8	T06 [4]	SS CLAD	22'-8"		1	*			19'-10"		1'-6"		1'-0"													77
8	T07 [4]	SS CLAD	21'-0"		1	*			18'-2"		1'-6"		1'-0"													77
8	T08 [4]	SS CLAD	20'-6"		1	*			17'-8"		1'-6"		1'-0"													77
8	T09 [4]	SS CLAD	20'-10"		1	*			18'-0"		1'-6"		1'-0"													77
8	T10 [4]	SS CLAD	20'-7"		1	*			17'-9"		1'-6"		1'-0"													77
8	T11 [4]	SS CLAD	21'-10"		1	*			19'-0"		1'-6"		1'-0"													77
8	T12 [4]	SS CLAD	23'-11"		1	*			21'-1"		1'-6"		1'-0"													77
8	T13 [4]	SS CLAD	22'-6"		1	*			19'-8"		1'-6"		1'-0"													77
8	T14 [4]	SS CLAD	21'-0"		1	*			18'-2"		1'-6"		1'-0"													77
8	T15 [4]	SS CLAD	20'-6"		1	*			17'-8"		1'-6"		1'-0"													77
8	T16 [4]	SS CLAD	20'-2"		1	*			17'-4"		1'-6"		1'-0"													77
8	T17 [4]	SS CLAD	20'-2"		1	*			17'-4"		1'-6"		1'-0"													77
8	T18 [4]	SS CLAD	20'-3"		1	*			17'-5"		1'-6"		1'-0"													77
8	T19 [4]	SS CLAD	19'-8"		1	*			16'-10"		1'-6"		1'-0"													77
8	T20 [4]	SS CLAD	29'-7"		1	*			26'-9"		1'-6"		1'-0"													77
8	T21 [4]	SS CLAD	26'-5"		1	*			23'-7"		1'-6"		1'-0"													77
8	T22 [4]	SS CLAD	23'-4"		1	*			20'-6"		1'-6"		1'-0"													77
8	T23 [4]	SS CLAD	20'-1"		1	*			17'-3"		1'-6"		1'-0"													77
8	T24 [4]	SS CLAD	23'-3"		1	*			20'-5"		1'-6"		1'-0"													77
8	T25 [4]	SS CLAD	23'-1"		1	*			20'-3"		1'-6"		1'-0"													77
8	T26 [4]	SS CLAD	23'-1"		1	*			20'-3"		1'-6"		1'-0"													77

Bar List Notes:	1. ALL REINFORCING BAR MATERIAL TYPES ARE SPECIFIED IN THE BARLIST TABLE. CHROMX BARS SHALL BE ASTM 1035 TYPE CS. SS CLAD BARS SHALL BE AASHTO M329 STAINLESS-STEEL CLAD DEFORMED BARS.
	2. LENGTHS REPORTED ARE MAXIMUM LENGTHS. THESE BARS SHALL BE FIELD CUT AND BENT TO LENGTHS REQUIRED.
	3. LENGTHS REPORTED ARE TOTAL LENGTHS. THESE BARS SHALL BE FIELD CUT TO LENGTHS REQUIRED. SEE ADDITIONAL NOTES TO THE RIGHT.
	4. THE "C" DIMENSION AND "Φ" ANGLE ARE FOR THE END WITHIN SEAWALL CAP WHEREAS THE "D" DIMENSION AND "N" ANGLE ARE FOR THE END WITHIN THE DEADMAN.



*TIEBACK BAR BENDING DETAIL

NOTE:
1. BENDING OF STEEL BARS SHALL BE IN ACCORDANCE TO FDOT INDEX 415-001.
2. SS CLAD BARS SHALL NOT BE FLAME CUT. CUT END OF STAINLESS CLAD BARS SHALL BE EPOXIED AND CAPPED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS WITH EITHER STAINLESS STEEL CAPS OR PLASTIC CAPS IMMEDIATELY AFTER CUT. CAPS SHALL BE SEALED TO PREVENT THE INTRUSION OF MOISTURE.
3. WHEN PLACING SS CLAD BAR, ALL WIRE SUPPORTS, SPACERS, AND TYING WIRE SHALL BE PLASTIC, PLASTIC COATED, OR TYPE 316 STAINLESS STEEL.
4. SEE BENT BAR DETAIL SHEET FOR TYPICAL GEOMETRY OF SS CLAD BENT BARS AT SEAWALL CAP AND DEADMAN CORNERS.

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THOMAS M. WAITS, P.E.
P.E. LICENSE NUMBER 55460
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BOULEVARD
SUITE 200
FORT MYERS, FL 33901

DRAWN BY:	JAH 06/23
CHECKED BY:	TMW 06/23
DESIGNED BY:	JAH 06/23
CHECKED BY:	TMW 06/23

CITY OF KEY WEST
ENGINEERING DEPARTMENT

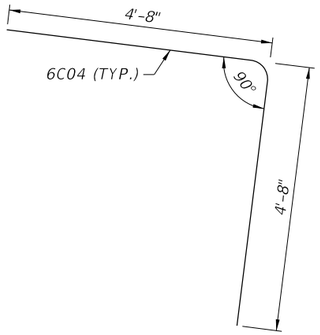
ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: REINFORCING BAR LIST (2 OF 2)

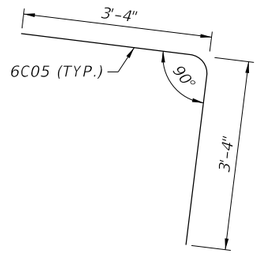
REF. DWG. NO.:

PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS

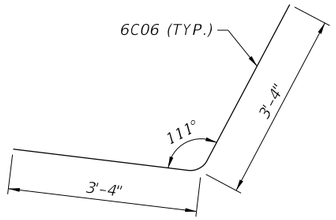
SHEET NO.: 25



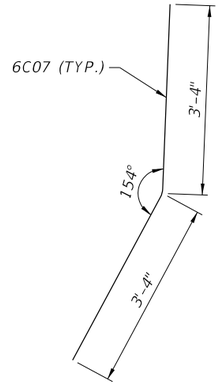
TYPICAL BENT SS CLAD BARS
AT CORNERS A-B, B-C IN CAP
(ORIENTATION AT A-B SHOWN)



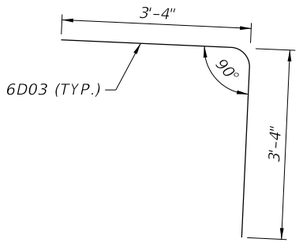
TYPICAL BENT SS CLAD BARS
AT CORNERS C-D, D-E, E-F, H-I IN CAP
(ORIENTATION AT A-B SHOWN)



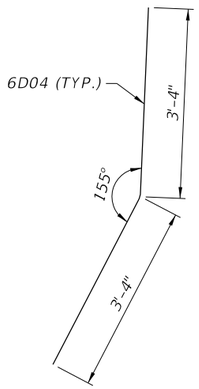
TYPICAL BENT SS CLAD BARS
AT CORNERS F-G IN CAP



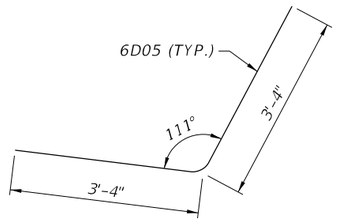
TYPICAL BENT SS CLAD BARS
AT CORNERS G-H IN CAP



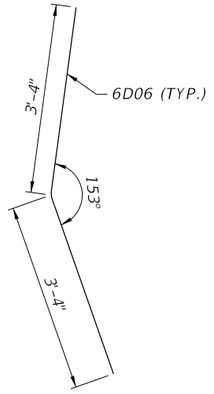
TYPICAL BENT SS CLAD BAR FOR
CORNER AT TIEBACK T04 IN DEADMAN



TYPICAL BENT SS CLAD BAR FOR
CORNER AT TIEBACK T09 IN DEADMAN



TYPICAL BENT SS CLAD BAR FOR
CORNER AT TIEBACK T12 IN DEADMAN



TYPICAL BENT SS CLAD BAR FOR
CORNER AT TIEBACK T18 & T23 IN DEADMAN
(ORIENTATION AT C-D SHOWN)

NOTE:
1. BENDING OF SS CLAD BARS SHALL BE IN ACCORDANCE WITH FDOT INDEX 415-001.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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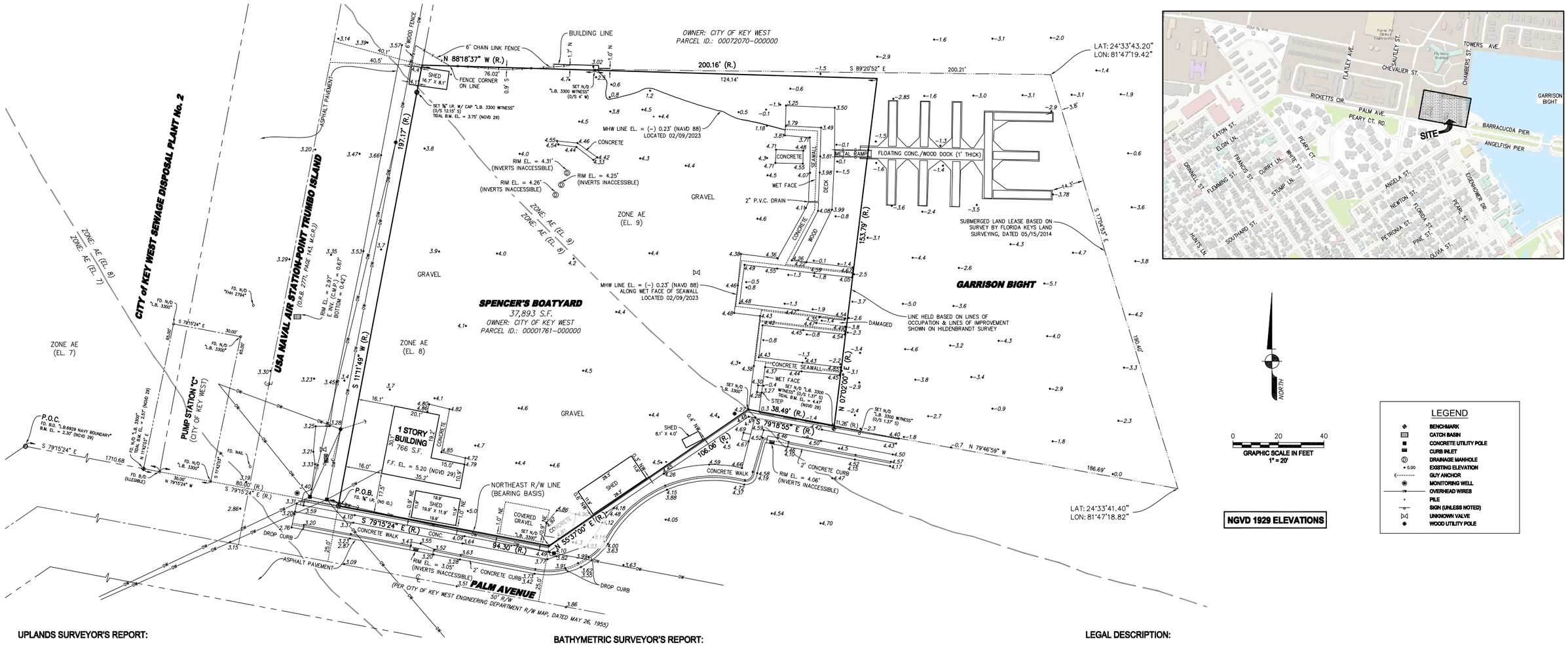
CITY OF KEY WEST
ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	COUNTY PROJECT NO.
	MONROE	

SHEET TITLE: BENT BAR DETAILS
REF. DWG. NO.:
PROJECT NAME: SPENCER'S BOAT SLIP AND SEAWALL REPAIRS
SHEET NO.: 26



UPLANDS SURVEYOR'S REPORT:

1. Reproductions of this Sketch are not valid without the signature and the original seal of a Florida Licensed Surveyor and Mapper. Additions or deletions to this survey map or report by other than the signing party is prohibited without written consent of the signing party.
2. No Title Opinion or Abstract to the subject property has been provided. It is possible that there are Deeds, Easements, or other instruments (recorded or unrecorded) which may affect the subject property. No search of the Public Records has been made by the Surveyor.
3. The legal description shown hereon is based on a survey by Frederick H. Hildebrandt, Drawing Number 07–259 dated August 19, 1996, revised August 23, 2007. During the course of our field work we determined the lines of occupation, supported by recovered boundary evidence, existing infrastructure and geometric calculations indicates that the true line of the eastern boundary falls westerly of the course and distance (S 71°45'24" E, 49.75'). The lines of occupation and recovered boundary monuments were respected and held as true based on a pre–ponderance of the recovered evidence and coincides with the improvements of the docks as shown on the Hildebrandt survey.
4. No underground improvements were located.
5. Bearings and distances shown hereon are in accord with the plat and/or deed of record and agree with the survey measurements, unless otherwise noted. Bearings are based on the Northeast right–of–way line of Palm Avenue having a bearing of S 79°15'24" E.
6. The property described hereon lies within Flood Zones AE (Elevation 8 & 9), as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 12087C1516K, Community Number 120168, dated February 18, 2005.
7. Elevations shown hereon are in feet and based on the National Geodetic Vertical Datum of 1929 (NGVD 1929). To convert NGVD 1929 elevations to North American Vertical Datum of 1988 (NAVD 1988) for this property, the model value of (–)1.345 feet must be added algebraically to the NGVD 1929 height.
8. Benchmark Description: National Geodetic Survey (N.G.S.) Benchmark D 121, Elevation = 3.92 feet (NGVD 29), 2.57 feet (NAVD 88)
9. Symbols shown hereon and in the legend may have been enlarged for clarity. These symbols have been plotted at the center of the field location and may not represent the actual shape or size of the feature.
10. This map is intended to be displayed at a scale of 1:240 (1" = 20').
11. Units of measurement are in U.S. Survey Feet and decimal parts thereof. Well identified features in this survey were field measured to a horizontal positional accuracy of 0.10'. The elevations on impervious surfaces were field measured to 0.07' and on ground surfaces to 0.1'.
12. Pipe size, material and inverts of sewer and drainage structures were obtained where accessible. Due to the nature of obtaining the data where the structures are in use and the actual inverts may be obscured, the information obtained is the best approximation of the true measurements. It is the responsibility of the end user to verify the diameter and material utilizing as–build drawings or other resources prior to construction.
13. Abbreviation Legend: B/D= Brass Disk; B.M. = Benchmark; C.M.P. = Corrugated Metal Pipe; CONC. = Concrete; EL. = Elevation; FEMA = Federal Emergency Management Agency; F.B. = Field Book; FD. = Found; F.F. = Finished Floor; ID. = Identification; INV. = Invert; I.R. = Iron Rod; L.B. = Licensed Business; M.C.R. = Monroe County Records; NAVD = North American Vertical Datum; N/D = Nail & Disk; N.G.S. = National Geodetic Survey; NGVD = National Geodetic Vertical Datum; O.R.B. = Official Records Book; O/S = Offset; OW = Overhead Wires; P.B. = Plat Book; PG. = Page; P.I. = Point of Intersection; P.L.S. = Professional Land Surveyor; P.O.B. = Point of Beginning; P.O.C. = Point of Commencement; R = Record; R/W = Right–of–Way; S.F. = Square Feet; W/ = With; ℄ = Centerline.

BATHYMETRIC SURVEYOR'S REPORT:

1. This Bathymetric Survey was conducted on February 7, 2023 through February 9, 2023.
2. (a) The Tidal Water Survey depicted hereon complies with Chapter 177, Part II Florida Statutes and is recorded in the public repository of the Florida Department of Environmental Protection, Bureau of Surveying and Mapping as Tidal Water Survey File _____.
   (b) The Tidal Water (MHW) Line at this site is along the wet–face of the seawall, having an elevation of (–) 0.23' (NAVD 88) as located on February 09, 2023.
   (c) The Tidal Water Elevation as shown hereon was established by extending the elevation shown at Tidal Station Id. 8724542 (Sigsbee Park, Garrison Bight Channel), which is based on the National Oceanic and Atmospheric Administration (NOAA) established Tidal Datum.
   (d) NOTE: The Tidal Datum from NOAA was utilized because an application was made to the Florida Department of Environmental Protection for the Tidal Datum for Subordinate Tide Station 3262, Garrison Bight without a response.
3. The horizontal data shown hereon are based on the North American Datum of 1983, adjustment of 2011 (NAD 83/2011) Epoch 2010.00, of the Florida State Plane Coordinate System (Transverse Mercator Projection), East Zone established by a Real–time Network (RTN) GPS Control Survey which is certified to a 2 centimeter local accuracy.
   a. Method: Wide Area Continuously Operating GPS Reference Station Network
   b. Equipment Used: Leica: GS18, Serial No. 3602394
   c. Processing Software: Leica Infinity, Version 3.1.0.3188
3. Bathymetry data shown hereon are in tenths of a foot, showing elevations relative to the National Geodetic Vertical Datum of 1929 (NGVD 29). The Mean Low Water (MLW) elevation of (–) 1.24 feet (NAVD 88) is based on the National Ocean and Atmospheric Administration (NOAA) Tidal Datum relative to Tide Station ID 8724542. To convert the bathymetry data from elevations in NGVD 29 to depths below MLW add algebraically (–) 1.55 feet to the elevations.
4. Elevations shown hereon are in feet and based on the National Geodetic Vertical Datum of 1929 (NGVD 1929). To convert NGVD 1929 elevations to North American Vertical Datum of 1988 (NAVD 1988) for this property, the model value of (–)1.345 feet must be added algebraically to the NGVD 1929 height.
5. Tidal Benchmark Description: National Geodetic Survey (N.G.S.) Benchmark D 121, Elevation = 3.92 feet (NGVD 29), 2.57 feet (NAVD 88)
6. Local Tidal Benchmarks were established by a three wire closed loop differential bench run to the N.G.S. Benchmark D 121.
7. The information depicted on this map represents the results of the survey on the date indicated and is considered as depicting the General Conditions during that epoch of time.
8. This chart is intended to be displayed at a scale of 1:240 (1"=20') or smaller.
9. Soundings were obtained by direct measurements to the sea floor utilizing G.P.S., with redundant checks made to the established Tidal Benchmarks.

LEGAL DESCRIPTION:

A parcel of land and bay bottom laying Northeasterly of Palm Avenue, and Southeasterly of a 80 foot Access Easement and adjacent to Garrison Bight, in the City of Key West, Monroe County, Florida, and being more particularly described as follows:

COMMENCE at the intersection of the said Northeasterly right–of–way line of Palm Avenue and the Northwesterly line of Eaton Street, said point being marked by a brass disk stamped "L.B. 6929 Navy Boundary"; thence S 79°15'24" E along the said Northeasterly right–of–way line of Palm Avenue for 1710.68 feet to the Southeast corner of the City of Key West Garage, or the City sewerage plant property; thence continue S 79°15'24" E along the said Northeasterly right–of–way line of Palm Avenue for 80.00 feet to the POINT OF BEGINNING; thence continue S 79°15'24" E along the said Northeasterly right–of–way line of Palm Avenue for 94.30 feet; thence N 55°37'00" E for 106.06 feet; thence S 79°18'55" E for 38.49 feet; thence N 07°02'00" E for 153. 79 feet; thence N 88°18'37" W for 200.16 feet to the Southeasterly line of an 80 foot easement; thence S 10°44'36" W along the said Southeasterly tine of the 80 foot easement for 197.17 feet to the POINT OF BEGINNING.

Said land situate in the City of Key West, Moroe County, Florida, and containing 37,893 square feet (0.87 acres), more or less.

CERTIFICATION:

I HEREBY CERTIFY that this Boundary Survey, Topographic Survey, Bathymetric Survey and Tidal Water Survey meets the Standards of Practice set forth in Chapter 5J–17, Florida Administrative Code, pursuant to Chapter 472, Florida Statutes, it complies with Chapter 177, Part II Florida Statutes and is recorded in the public repository of the Florida Department of Environmental Protection, Bureau of Surveying and Mapping as Tidal Water Survey File _____.

Date: 02/04/2023

Digitally signed by Keith M. Chee-A-Tow, PLS
Date: 2023.02.20 09:56:07 -05'00'

KEITH M. CHEE–A–TOW, P.L.S.
Florida Registration No. 5328
AVIROM & ASSOCIATES, INC.
L.B. No. 3300
EMAIL: keith@aviromsurvey.com

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REVISIONS	DATE	F.B. / PG.	BY	CK'D	REVISIONS	DATE	F.B. / PG.	BY	CK'D

FOR INFORMATION ONLY

BOUNDARY, TIDAL WATER, BATHYMETRIC AND TOPOGRAPHIC SURVEY
SPENCERS BOATYARD
701 PALM AVENUE
(O.R.B. 357, PAGE 489, M.C.R.)
& CORRECTIVE DEED 19259-A
CITY OF KEY WEST
MONROE COUNTY, FLORIDA

JOB #:	12699
SCALE:	1" = 20'
DATE:	02/04/2023
BY:	M.A.J.
CHECKED:	K.M.C.
F.B. 2162	PG. 04 - 16
SHEET:	1 OF 1