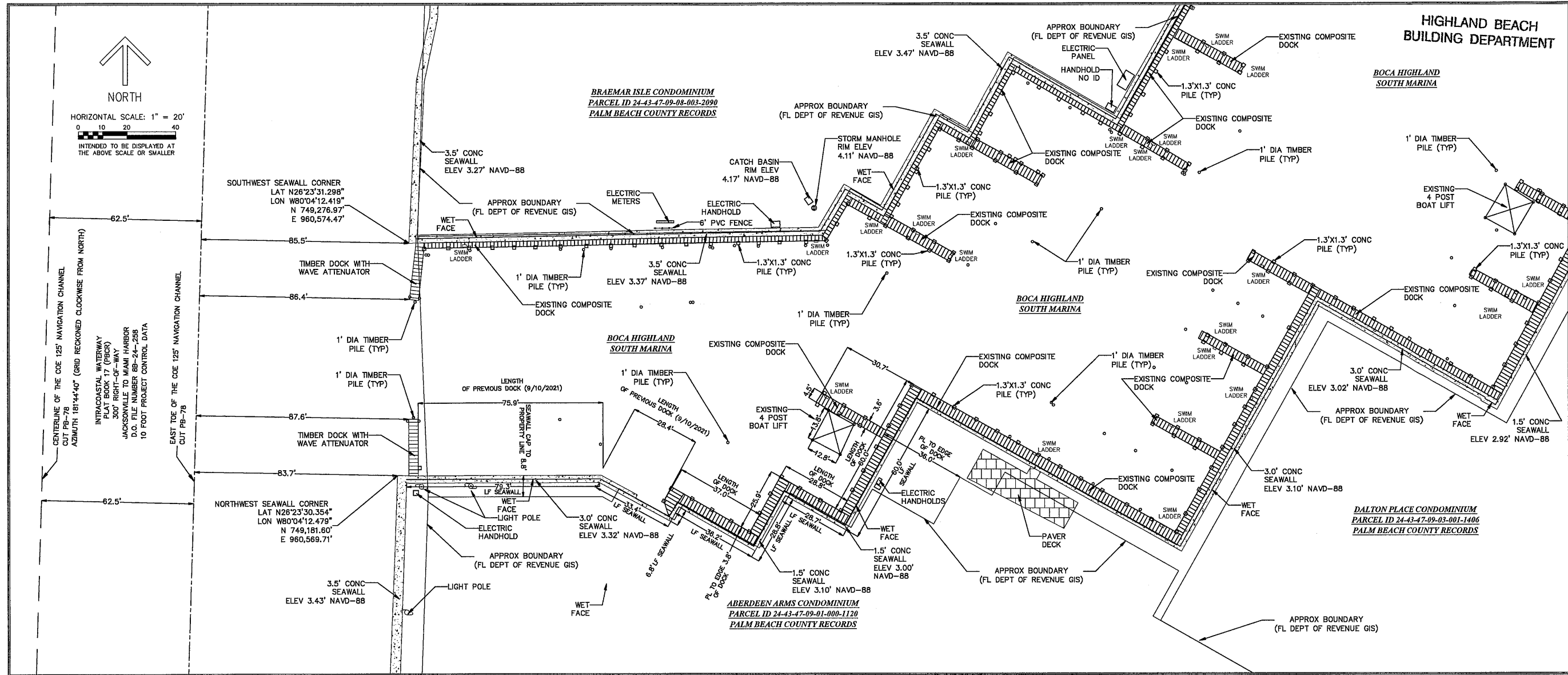


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LOCATION AND SPECIFIC PURPOSE SURVEY, 4801 SOUTH OCEAN BOULEVARD, HIGHLAND BEACH, FLORIDA, 33487  
A PORTION OF SECTION SECTION 9, TOWNSHIP 47 SOUTH, RANGE 43 EAST



HIGHLAND BEACH BUILDING DEPARTMENT

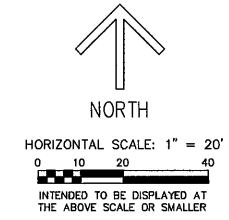
BOCA HIGHLAND SOUTH MARINA

BOCA HIGHLAND SOUTH MARINA

DALTON PLACE CONDOMINIUM  
PARCEL ID 24-43-47-09-03-001-1406  
PALM BEACH COUNTY RECORDS

ABERDEEN ARMS CONDOMINIUM  
PARCEL ID 24-43-47-09-01-000-1120  
PALM BEACH COUNTY RECORDS

BRAEMAR ISLE CONDOMINIUM  
PARCEL ID 24-43-47-09-08-003-2090  
PALM BEACH COUNTY RECORDS



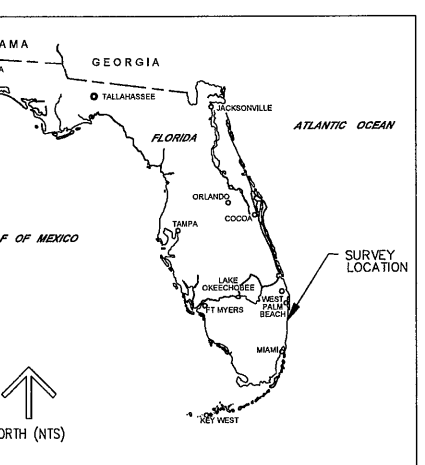
SOUTHWEST SEAWALL CORNER  
LAT N26°23'31.298"  
LON W80°04'12.419"  
N 749,276.97'  
E 960,574.47'

NORTHWEST SEAWALL CORNER  
LAT N26°23'30.354"  
LON W80°04'12.479"  
N 749,181.60'  
E 960,569.71'

CENTERLINE OF THE COE 125' NAVIGATION CHANNEL CUT PB-78  
AZIMUTH 181°44'40" (GRID RECKONED CLOCKWISE FROM NORTH)

EAST TOE OF THE COE 125' NAVIGATION CHANNEL CUT PB-78

INTRACOASTAL WATERWAY PLAT BOOK 17 (PBCR) 300' RIGHT-OF-WAY JACKSONVILLE TO MIAMI HARBOR D.O. FILE NUMBER 88-24-258 10 FOOT PROJECT CONTROL DATA

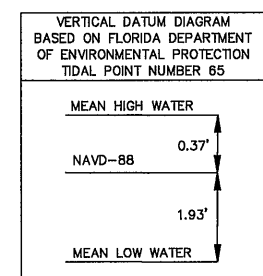


VICINITY MAP

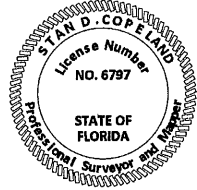


LOCATION MAP  
HIGHLAND BEACH, FL 33487

ABBREVIATIONS/LEGEND table with columns for symbol, description, and found status.



SURVEY NOTES: 1. THIS IS NOT A BOUNDARY SURVEY. 2. THIS SURVEY REPRESENTS A SPECIFIC PURPOSE SURVEY AS DEFINED BY THE STANDARDS OF PRACTICE FOR SURVEYING AND MAPPING IN CHAPTER 5J-17 FLORIDA ADMINISTRATIVE CODE. 3. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID UNLESS SEALED WITH AN EMBOSSED SURVEYOR'S SEAL. 4. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED EMBOSSED SEAL OR SECURE ELECTRONIC SIGNATURE OF THE UNDERSIGNED. 5. NO SEARCH OF THE PUBLIC RECORDS WAS PERFORMED FOR EASEMENTS, ENCUMBRANCES OR OTHER INSTRUMENTS OF RECORD OTHER THAN THOSE SHOWN HEREON WHICH MAY AFFECT THIS PARCEL OF LAND. 6. THIS SURVEY IS INTENDED TO BE DISPLAYED AT SCALE OF 1 INCH EQUALS 20 FEET OR SMALLER. 7. UNDERGROUND UTILITIES WERE NOT LOCATED AS PART OF THIS SURVEY. 8. GEOGRAPHIC AND PLANE COORDINATES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICA DATUM OF 1983, FLORIDA STATE PLANE, ZONE 901, TRANSVERSE MERCATOR PROJECTION IN THE U.S. SURVEY FOOT UNIT OF MEASUREMENT. 9. AZIMUTHS SHOWN HEREON ARE GRID ALONG THE CENTERLINE OF THE INTRACOASTAL WATERWAY NAVIGATION CHANNEL AS PROVIDED BY THE US ARMY CORPS OF ENGINEERS. 10. LOCATIONS OF ALL IMPROVEMENTS WERE OBTAINED USING REAL TIME KINEMATIC GPS METHODOLOGIES WITH BROADCAST CORRECTIONS FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION REFERENCE NETWORK AND ARE ACCURATE TO THIRD ORDER, CLASS II. 11. THE SPECIFIC PURPOSE OF THIS SURVEY IS TO SHOW THE LOCATION OF THE EXISTING SEAWALL AND ADJACENT IMPROVEMENTS WITHIN THE DEPICTED MARINA. 12. ANY ELEVATIONS SHOWN HEREON ARE IN FEET AND RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD-88). CERTIFICATION: I HEREBY CERTIFY THAT THE ATTACHED SPECIFIC PURPOSE SURVEY OF THE HEREON DESCRIBED PROPERTY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS SURVEYED UNDER MY DIRECTION ON JULY 27TH, 2023. I FURTHER CERTIFY THAT THIS SPECIFIC PURPOSE SURVEY MEETS THE STANDARDS OF PRACTICE SET FORTH IN CHAPTER 5J-17 ADOPTED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS PURSUANT TO FLORIDA STATUTE 472.027.



Digitally signed by Stanley Copeland  
DN: c=US,  
serialNumber=AATL2023040629317  
0, cn=Stanley Copeland,  
email=stan@tdisurvey.com  
Date: 2023.07.27 18:27:07 -04'00'

STAN D. COPELAND, PSM - FLORIDA REGISTRATION NUMBER 6797  
JULY 27TH, 2023

Table with columns: REVISIONS, FILE NAME, DATE, BY.

PREPARED BY: TECHNICAL DISCIPLINES, INC. PROFESSIONAL SURVEYING AND MAPPING 6335 STATE STREET, SUITE 3344I DEERFIELD BEACH, FLORIDA 33441 954-850-2008 - LICENSED BUSINESS NO 8123

PREPARED FOR: BOCA HIGHLAND BEACH CLUB & MARINA, INC. 4801 S. OCEAN BLVD. HIGHLAND BEACH, FL 33487

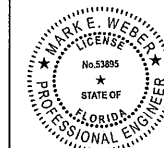
DATE 07/27/23  
DRAWN BY SDC  
F.B./PG. ELEC  
SCALE AS-SHOWN

JOB # TDI-928  
SHT. NO. 1  
OF 1 SHEETS

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HIGHLAND BEACH  
BUILDING DEPARTMENT



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Mark E  
Weber  
Date:  
2023.10.16  
18:51:25  
-04'00'

Mark E. Weber, P.E.  
LICENSE #53885 | CA 30702  
MW ENGINEERING, INC  
902 NE 1 Street Suite #2  
Pompano Beach, Florida 33060  
Ofc: 754-333-0877  
WWW.MwEngineering.net

PREPARED FOR:  
B & M MARINE  
CONSTRUCTION, INC.  
1211 South Military Trail, Suite 200  
Deerfield Beach, FL 33442  
954-421-1700 CGC052820

SEAWALL REPLACEMENT FOR:  
BOCA HIGHLANDS  
4801 S OCEAN BLVD  
HIGHLAND BEACH, FL

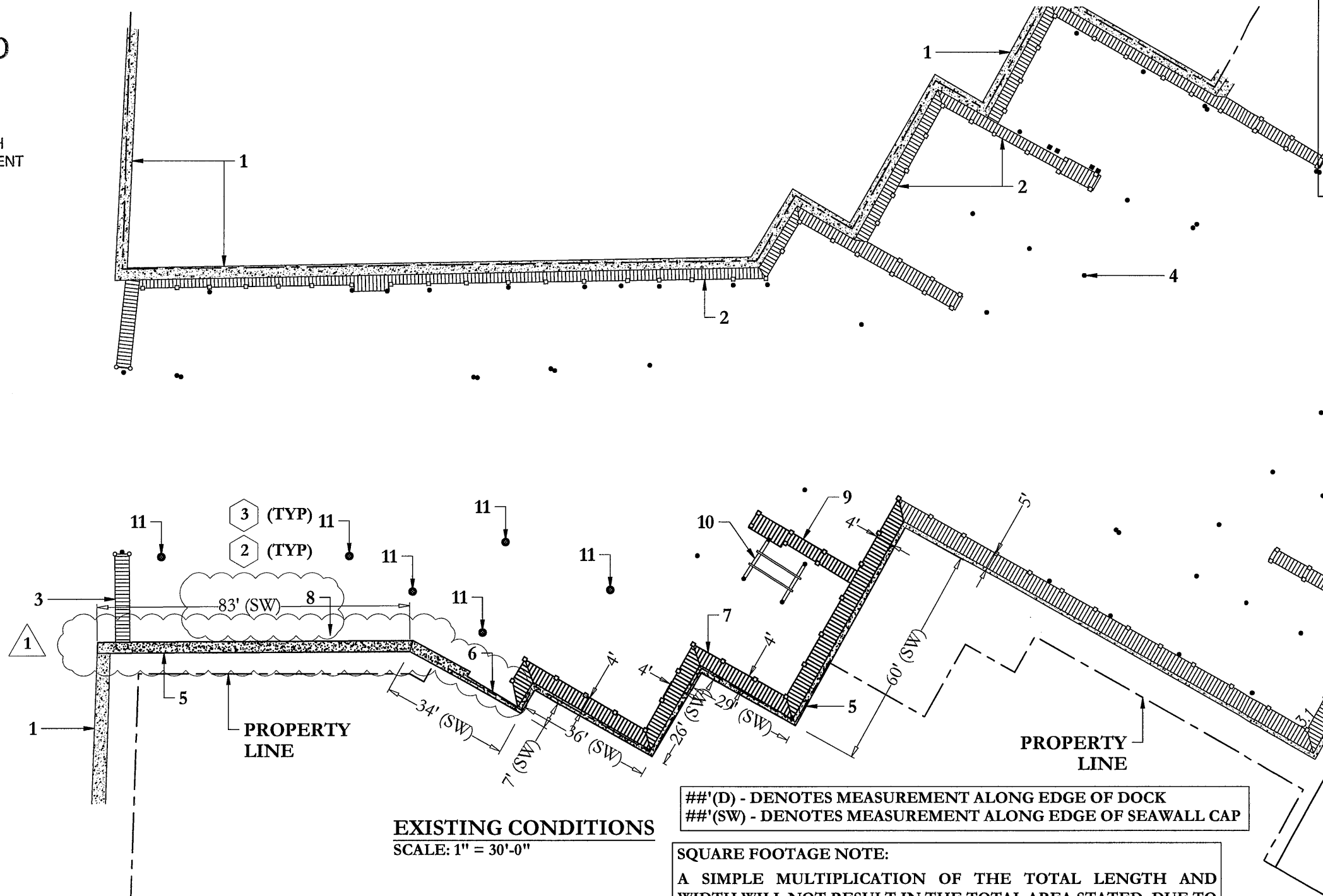
DATE	NOTES/REVISIONS
7/28/2023	REVISION 1
8/25/2023	Corrections per Town
10/16/2023	Corrections per Town

SCALE: AS NOTED  
DATE: 8/04/2021

JOB No: 20-2515

SHT 1

1 of 11



EXISTING CONDITIONS  
SCALE: 1" = 30'-0"

##'(D) - DENOTES MEASUREMENT ALONG EDGE OF DOCK  
##'(SW) - DENOTES MEASUREMENT ALONG EDGE OF SEAWALL CAP

SQUARE FOOTAGE NOTE:  
A SIMPLE MULTIPLICATION OF THE TOTAL LENGTH AND WIDTH WILL NOT RESULT IN THE TOTAL AREA STATED, DUE TO THE CORNERS ALONG THE LENGTH OF THE DOCK. A SIMPLE MULTIPLICATION WILL CAUSE SOME CORNERS TO BE DUPLICATED IN THE TOTAL AREA AND SOME CORNERS TO BE MISSED IN THE TOTAL AREA. THE TOTAL AREA WAS CALCULATED ELECTRONICALLY USING THE CAD PROGRAM THAT WAS USED TO DRAW THE PLANS.

EXISTING LOCATIONS ARE APPROXIMATE BASED ON SURVEY BY  
TECHNICAL DISCIPLINES INC. SURVEYING AND MAPPING DATED 7/27/23

EXISTING CONDITIONS IDENTIFICATION:

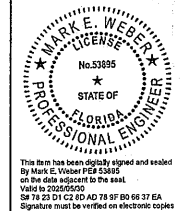
- EXISTING CONCRETE SEAWALL, CAP AND PILES TO REMAIN
- EXISTING WOOD DOCK AND PIERS TO REMAIN
- EXISTING FINGER PIER AND WAVEBREAK TO REMAIN
- EXISTING MOORING PILES TO REMAIN (EXCEPT AS NOTED IN ITEM #11)
- EXISTING CONCRETE SEAWALL, CAP AND PILES TO BE REPLACED 19" TO 22" IN FRONT (APPROX. 172')
- EXISTING CONCRETE SEAWALL, CAP AND PILES TO BE REMOVED AND REPLACED UP TO 29' IN FRONT (APPROX. 103')
- EXISTING WOOD DOCK TO BE REMOVED (APPROX. 158', 636SF)
- EXISTING WOOD DOCK REMOVED DURING INITIAL COMMENCEMENT OF PROJECT (APPROX. 104', 312SF)
- EXISTING WOOD FINGER PIER (30' x 4', 120SF) AND PILES TO BE REMOVED
- EXISTING LIFT AND PILES TO BE REMOVED
- EXISTING MOORING PILES TO BE REMOVED (TYP OF 6)

- 3 Corrections 3 - Removed bold highlight from dimensions on Sheets 1, 2, 3 of 11
- 2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger
- 1 Revision 1 - Denoted removal of portion of existing dock; Change to layout design of new seawall and dock

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Mark E Weber  
Date:  
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18:52:24  
-04'00'

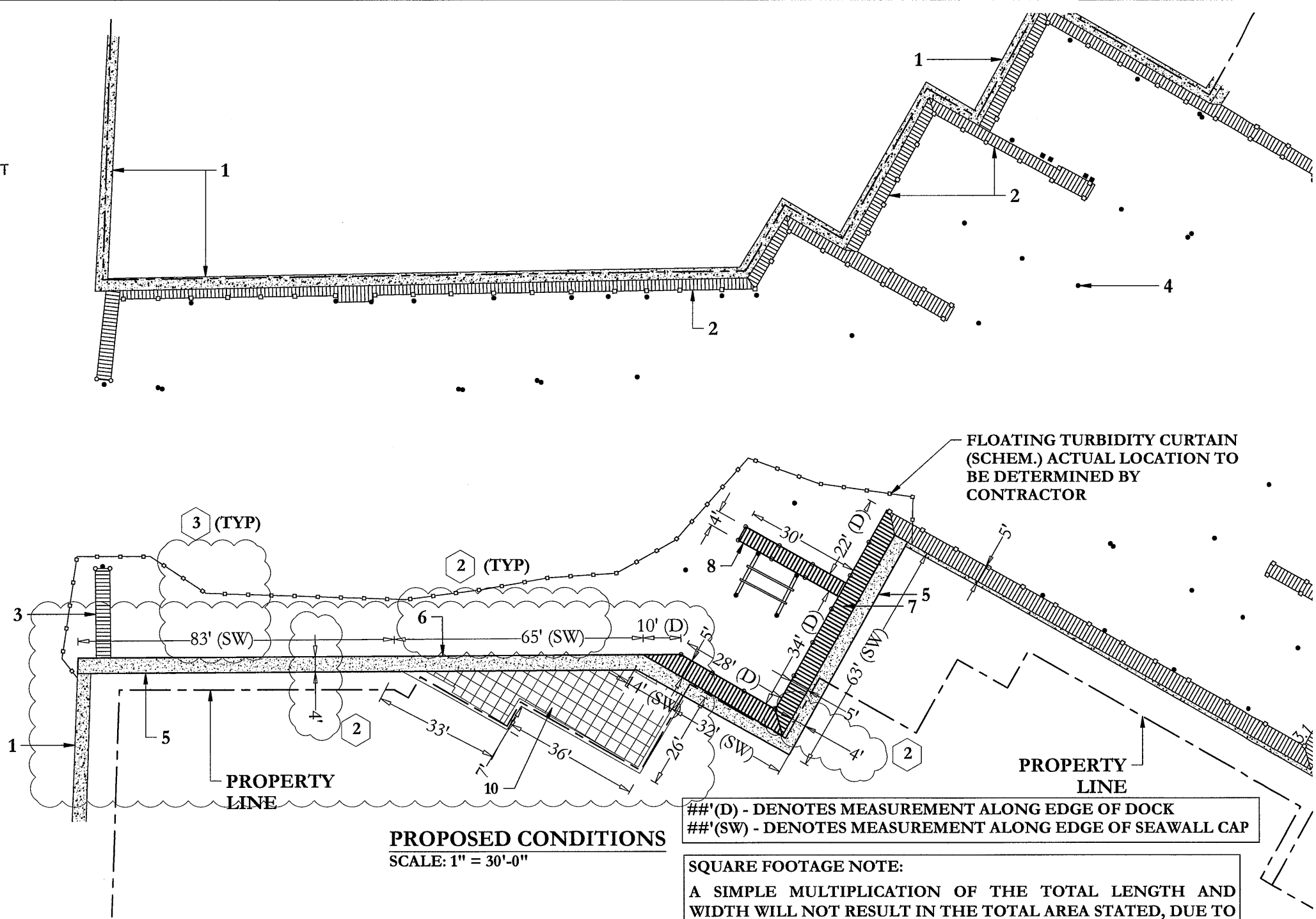
Mark E. Weber, P.E.  
LICENSE #53895 | CA 30702  
MW ENGINEERING, INC  
902 NE 1 Street Suite #2  
Pompano Beach, Florida 33060  
Ofc: 754-333-0877  
WWW.MwEngineering.net

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Deerfield Beach, FL 33442  
954-421-1700 CGC052820

SEA WALL REPLACEMENT FOR:  
BOCA HIGHLANDS  
4801 S OCEAN BLVD  
HIGHLAND BEACH, FL

DATE	NOTES/REVISIONS
7/28/2023	REVISION 1
8/25/2023	Corrections per Town
10/16/2023	Corrections per Town

SCALE: AS NOTED  
DATE: 8/04/2021  
JOB No: 20-2515  
SHT 2  
2 of 11



**PROPOSED CONDITIONS**  
SCALE: 1" = 30'-0"

###(D) - DENOTES MEASUREMENT ALONG EDGE OF DOCK  
###(SW) - DENOTES MEASUREMENT ALONG EDGE OF SEAWALL CAP

**SQUARE FOOTAGE NOTE:**  
A SIMPLE MULTIPLICATION OF THE TOTAL LENGTH AND WIDTH WILL NOT RESULT IN THE TOTAL AREA STATED, DUE TO THE CORNERS ALONG THE LENGTH OF THE DOCK. A SIMPLE MULTIPLICATION WILL CAUSE SOME CORNERS TO BE DUPLICATED IN THE TOTAL AREA AND SOME CORNERS TO BE MISSED IN THE TOTAL AREA. THE TOTAL AREA WAS CALCULATED ELECTRONICALLY USING THE CAD PROGRAM THAT WAS USED TO DRAW THE PLANS.

EXISTING LOCATIONS ARE APPROXIMATE BASED ON SURVEYS BY TECHNICAL DISCIPLINES INC. SURVEYING AND MAPPING DATED 7/27/23

**PROPOSED CONDITIONS IDENTIFICATION:**

1. EXISTING CONCRETE SEAWALL, CAP AND PILES TO REMAIN
2. EXISTING WOOD DOCK AND PIERS TO REMAIN
3. EXISTING FINGER PIER AND WAVEBREAK TO REMAIN
4. EXISTING MOORING PILES TO REMAIN
5. NEW CONCRETE SEAWALL, CAP AND PILES INSTALLED 19" TO 22" IN FRONT OF EXISTING (APPROX. 176')
6. NEW CONCRETE SEAWALL, CAP AND PILES INSTALLED UP TO 29' IN FRONT OF EXISTING (APPROX. 81')
7. NEW 93' x 5' WOOD DOCK ON (9) NEW WOOD PILES (476SF)
8. NEW WOOD FINGER PIER (30' x 4', 120SF) ON (6) NEW WOOD PILES TO BE RECONSTRUCTED IN SAME LOCATION AS EXISTING ON NEW WOOD PILES
9. EXISTING LIFT AND PILES TO BE REINSTALLED IN SAME LOCATION
10. CLEAN BACKFILL BETWEEN NEW AND EXISTING SEAWALLS; 830SF, 310CY

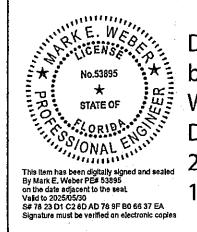
- 3 Corrections 3 - Removed bold highlight from dimensions on Sheets 1, 2, 3 of 11
- 2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger
- 1 Revision 1 - Denoted removal of portion of existing dock; Change to layout design of new seawall and dock

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##'(PD) - DENOTES MEASUREMENT FROM PROPERTY LINE TO EDGE OF DOCK  
##'(PS) - DENOTES MEASUREMENT FROM PROPERTY LINE TO EDGE OF CAP  
##'(PP) - DENOTES MEASUREMENT FROM PROPERTY LINE TO END OF PIER  
##'(PL) - DENOTES MEASUREMENT FROM PROPERTY LINE TO END OF LIFT



Digitally signed  
by Mark E  
Weber  
Date:  
2023.10.16  
18:52:43 -04'00'

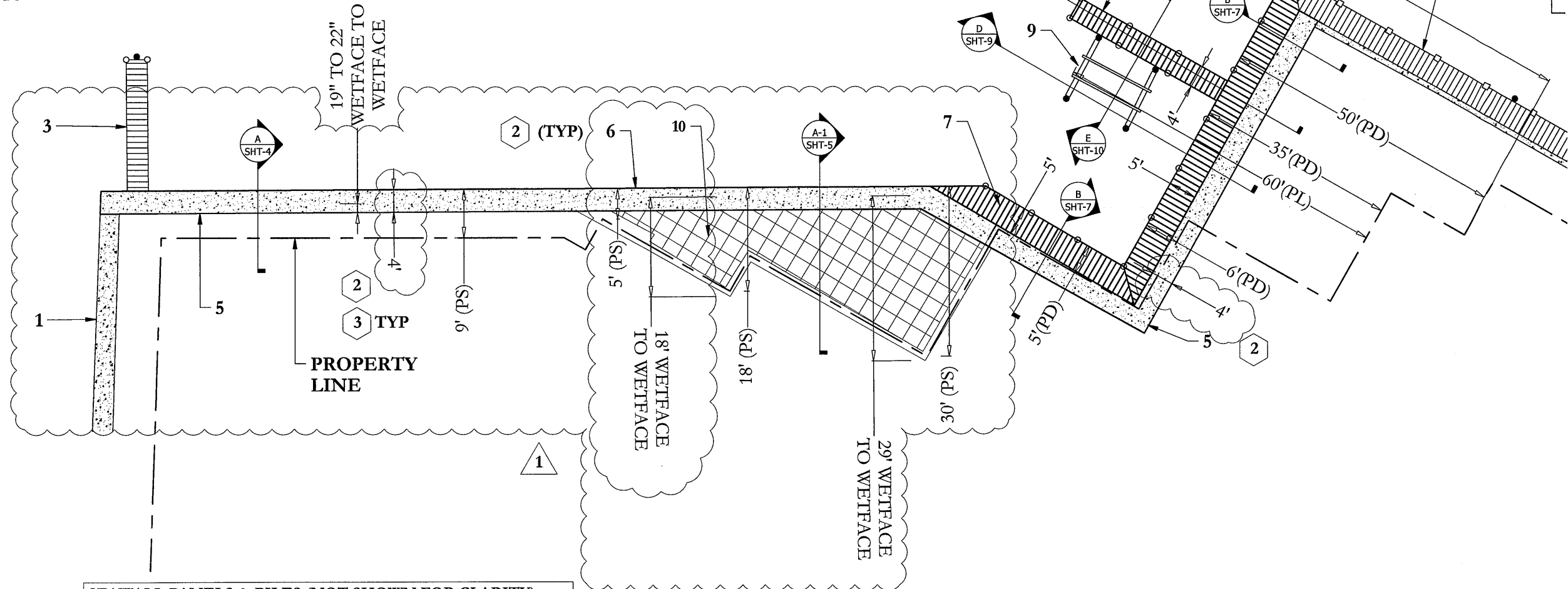
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Pompano Beach, Florida 33060  
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954-421-1700 CGC052820

SEAWALL REPLACEMENT FOR:  
BOCA HIGHLANDS  
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DATE	NOTES/REVISIONS
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SCALE: AS NOTED  
DATE: 8/04/2021  
JOB No: 20-2515  
SHT 3  
3 of 11



SEAWALL PANELS & PILES (NOT SHOWN FOR CLARITY) -  
PANELS - 28 VERTICAL PILES - 30 BATTER PILES - 28  
(ALL QUANTITIES ARE APPROXIMATE; ACTUAL  
QUANTITIES MAY DIFFER DUE TO FINAL LAYOUT  
DETERMINED IN FIELD)

SECTION DETAIL LAYOUT  
(w/ DIMENSIONS FROM PROPERTY LINE)  
SCALE: 1" = 20'-0"

PROPOSED CONDITIONS IDENTIFICATION:

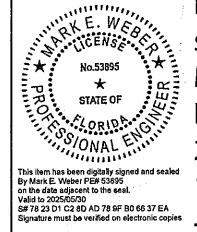
- EXISTING CONCRETE SEAWALL, CAP AND PILES TO REMAIN
- EXISTING WOOD DOCK AND PIERS TO REMAIN
- EXISTING FINGER PIER AND WAVEBREAK TO REMAIN
- EXISTING MOORING PILES TO REMAIN (EXCEPT AS NOTED)
- NEW CONCRETE SEAWALL, CAP AND PILES INSTALLED 19" TO 22" IN FRONT OF EXISTING (APPROX. 176')
- NEW CONCRETE SEAWALL, CAP AND PILES INSTALLED UP TO 29' IN FRONT OF EXISTING (APPROX. 81')
- NEW 93' x 5' WOOD DOCK ON (9) NEW WOOD PILES (476SF)
- NEW WOOD FINGER PIER (30' x 4', 120SF) ON (6) NEW WOOD PILES TO BE RECONSTRUCTED IN SAME LOCATION AS EXISTING ON NEW WOOD PILES
- EXISTING LIFT AND PILES TO BE REINSTALLED IN SAME LOCATION
- CLEAN BACKFILL BETWEEN NEW AND EXISTING SEAWALLS; 830SF, 310CY

- 3 Corrections 3 - Removed bold highlight from dimensions on Sheets 1, 2, 3 of 11
- 2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger
- 1 Revision 1 - Denoted removal of portion of existing dock; Change to layout design of new seawall and dock

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BUILDING DEPARTMENT



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Mark E Weber  
Date:  
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18:53:04  
-04'00'

Mark E. Weber, P.E.  
LICENSE #53895 | CA 30702  
MW ENGINEERING, INC  
902 NE 1 Street Suite #2  
Pompano Beach, Florida 33060  
Ofc: 754-333-0877  
WWW.MWEngineering.net

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954-421-1700 CGC052820

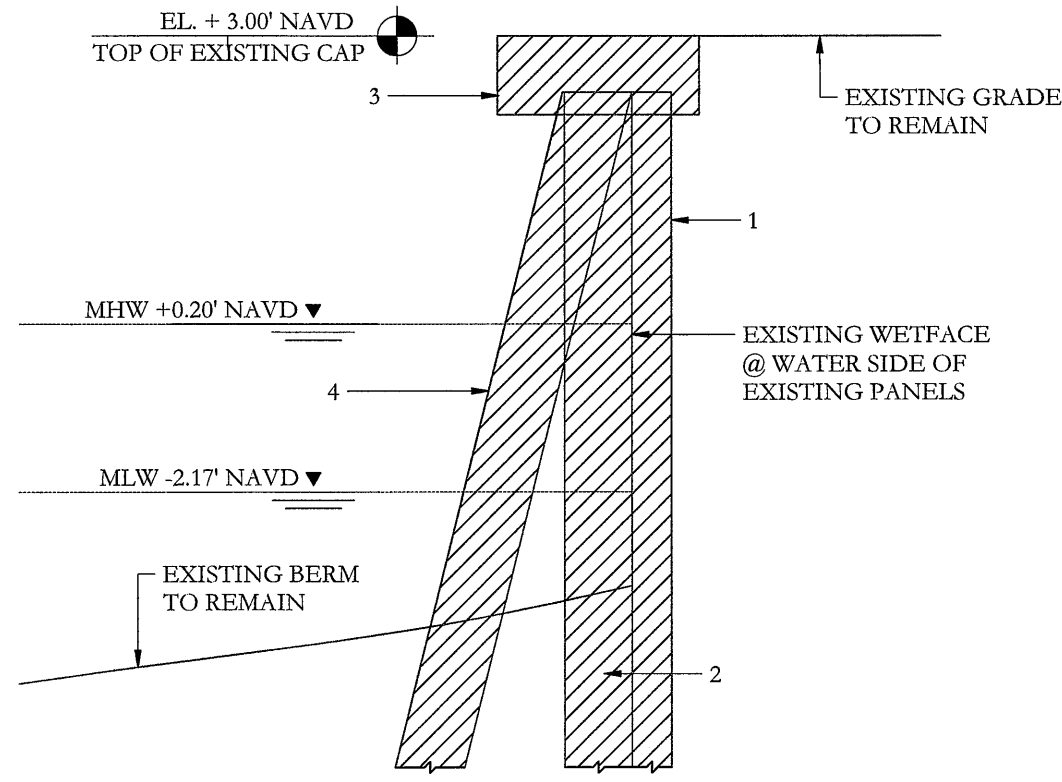
SEAWALL REPLACEMENT FOR:  
BOCA HIGHLANDS  
4801 S OCEAN BLVD  
HIGHLAND BEACH, FL

DATE	NOTES/REVISIONS
8/25/2023	Corrections per Town

SCALE: AS NOTED  
DATE: 8/04/2021

JOB No: 20-2515

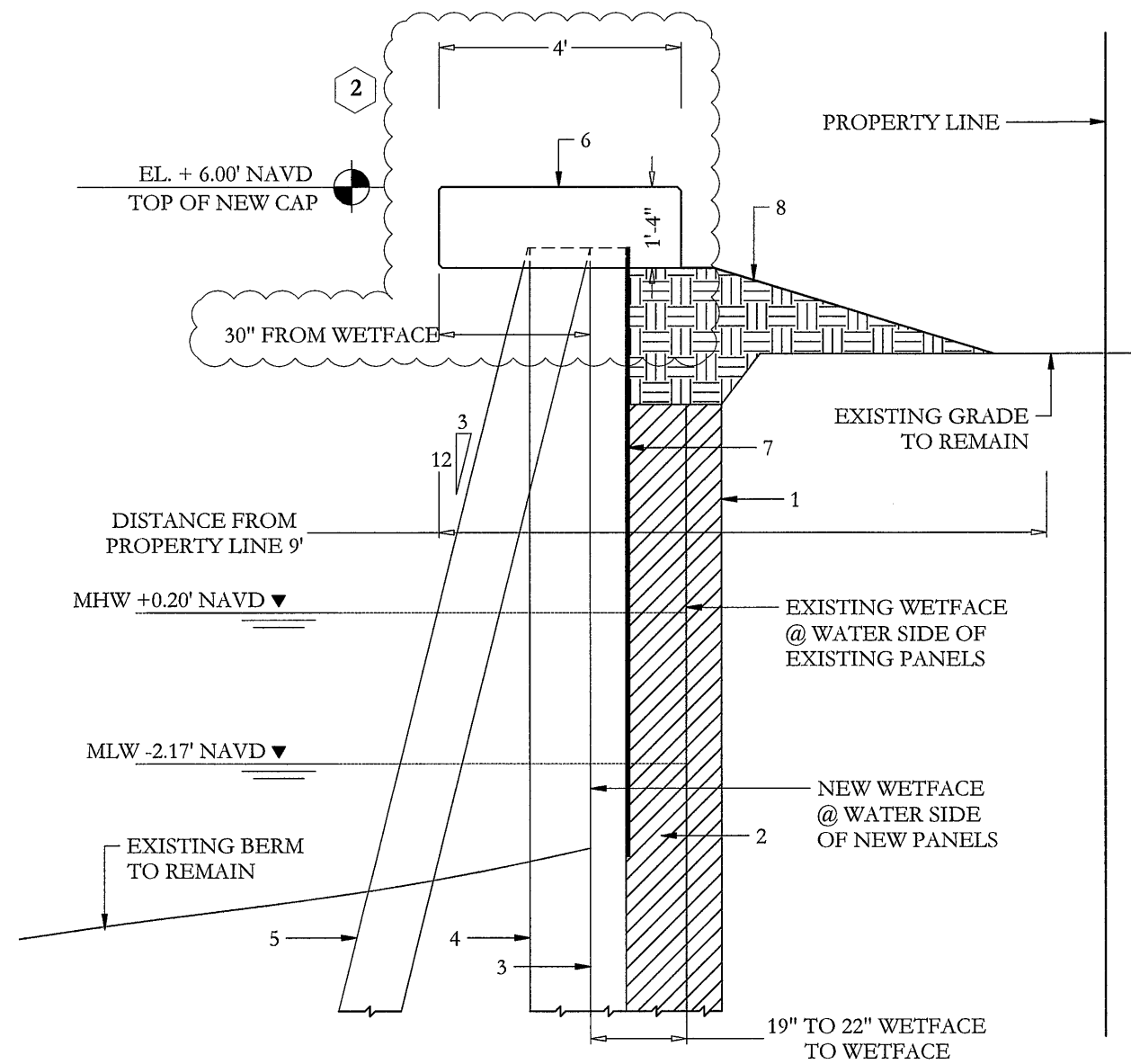
SHT 4



**EXISTING SEAWALL DETAIL**  
SCALE: 3/8" = 1'-0"

**EXISTING SEAWALL IDENTIFICATION:**

1. EXISTING SEAWALL PANELS TO REMAIN
2. EXISTING VERTICAL PILES TO REMAIN TO MAINTAIN WALL INTEGRITY DURING INSTALLATION OF NEW WALL; SOME EXISTING VERTICALS PILINGS TO BE REMOVED AS NECESSARY;
3. EXISTING CAP TO BE REMOVED
4. EXISTING BATTER PILES TO BE REMOVED

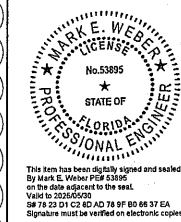


**SECTION A**  
SHT 4 SCALE: 3/8" = 1'-0"

**PROPOSED SEAWALL IDENTIFICATION:**

1. EXISTING SEAWALL PANELS TO REMAIN
2. EXISTING VERTICAL PILES TO REMAIN TO MAINTAIN WALL INTEGRITY DURING INSTALLATION OF NEW WALL; SOME EXISTING VERTICALS PILINGS TO BE REMOVED AS NECESSARY;
3. PROPOSED 8'-10" x 7.5" x 12' PRE-CAST CONCRETE PANEL (SEE SHEET 6 FOR DETAILS)
4. PROPOSED 12" x 12" CONCRETE KING PILE
5. PROPOSED 12" x 12" CONCRETE BATTER PILE
6. PROPOSED 48" x 16" CONCRETE SEAWALL CAP
7. PROPOSED GEOTEXTILE FABRIC AT CONCRETE PANEL GAP
8. MINIMAL BACKFILL WITH CLEAN MATERIAL OVER EXISTING SEAWALL COMPONENTS TO REMAIN

2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger



Digitally signed by Mark E Weber  
 Date: 2023.10.16 18:53:23 -04'00'

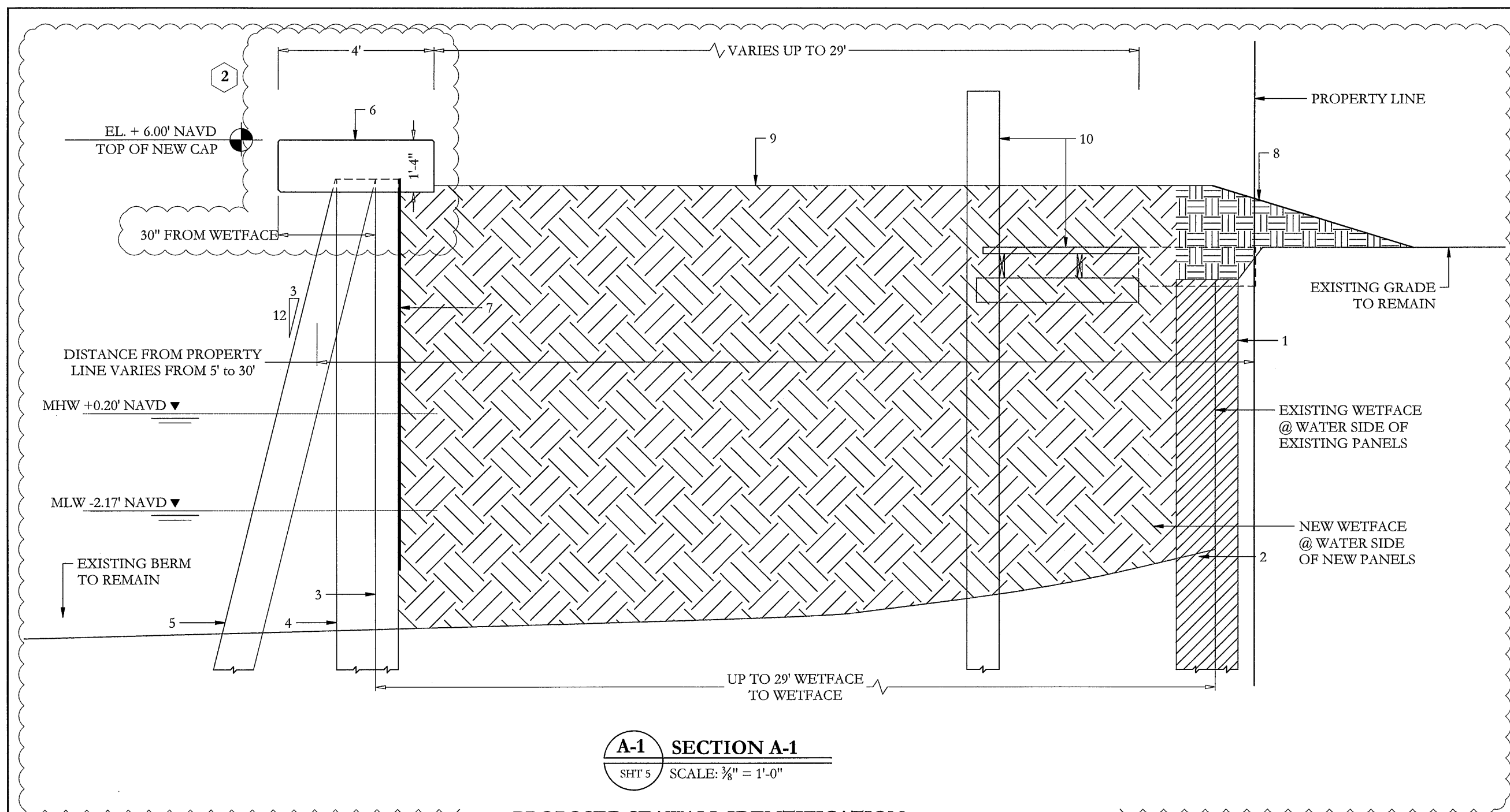
Mark E. Weber, P.E.  
 LICENSE #53895 | CA 30702  
 MW ENGINEERING, INC  
 902 NE 1 Street Suite #2  
 Pompano Beach, Florida 33060  
 Ofc: 754-333-0877  
 WWW.MwEngineering.net

PREPARED FOR:  
 B & M MARINE CONSTRUCTION, INC.  
 1211 South Military Trail, Suite 200  
 Deerfield Beach, FL 33442  
 954-421-1700 CGC052820

SEAWALL REPLACEMENT FOR:  
 BOCA HIGHLANDS  
 4801 S OCEAN BLVD  
 HIGHLAND BEACH, FL

DATE	NOTES/REVISIONS
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8/25/2023	Corrections per Town

SCALE: AS NOTED  
 DATE: 8/04/2021  
 JOB No: 20-2515  
 SHT 5  
 5 of 11



**A-1 SECTION A-1**  
 SHT 5 SCALE: 3/8" = 1'-0"

**PROPOSED SEAWALL IDENTIFICATION:**

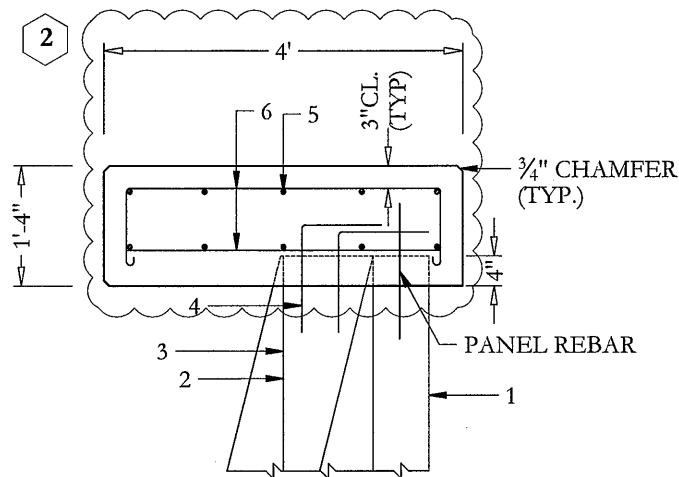
1. EXISTING SEAWALL PANELS TO REMAIN
2. EXISTING VERTICAL PILES TO REMAIN TO MAINTAIN WALL INTEGRITY DURING INSTALLATION OF NEW WALL; SOME EXISTING VERTICALS PILINGS TO BE REMOVED AS NECESSARY;
3. PROPOSED 8'-10" x 7.5" x 12' PRE-CAST CONCRETE PANEL (SEE SHT 6 FOR DETAILS)
4. PROPOSED 12" x 12" CONCRETE KING PILE
5. PROPOSED 12" x 12" CONCRETE BATTER PILE
6. PROPOSED 48" x 16" CONCRETE SEAWALL CAP
7. PROPOSED GEOTEXTILE FABRIC AT CONCRETE PANEL GAP
8. MINIMAL BACKFILL WITH CLEAN MATERIAL OVER EXISTING SEAWALL COMPONENTS TO REMAIN
9. BACKFILL WITH CLEAN MATERIAL BETWEEN NEW AND EXISTING SEAWALLS
10. EXISTING DOCK AND PILES TO BE REMOVED

1

2  
 1  
 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger  
 Revision 1 - Denoted removal of portion of existing dock; Change to layout design of new seawall and dock

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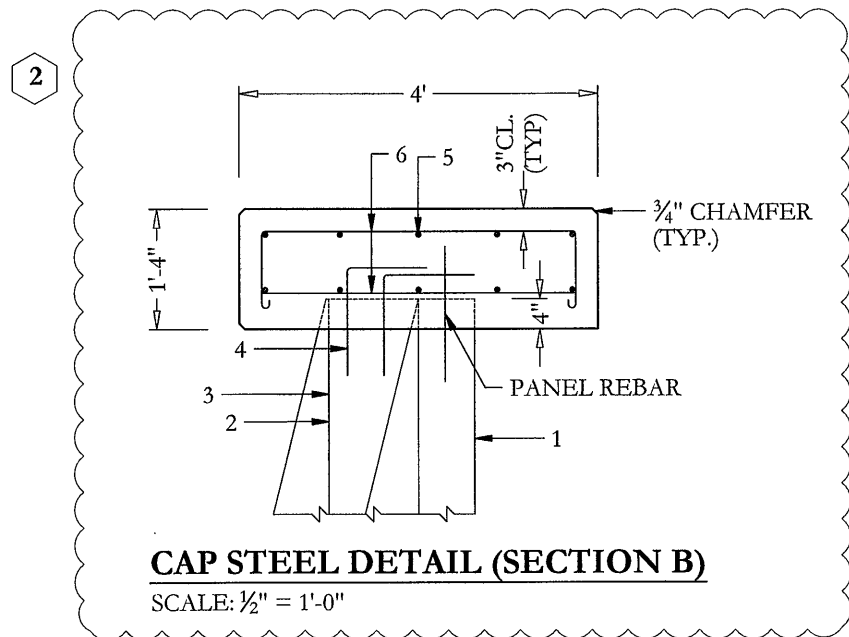


**CAP STEEL DETAIL (SECTIONS A & A-1)**

SCALE: 1/2" = 1'-0"

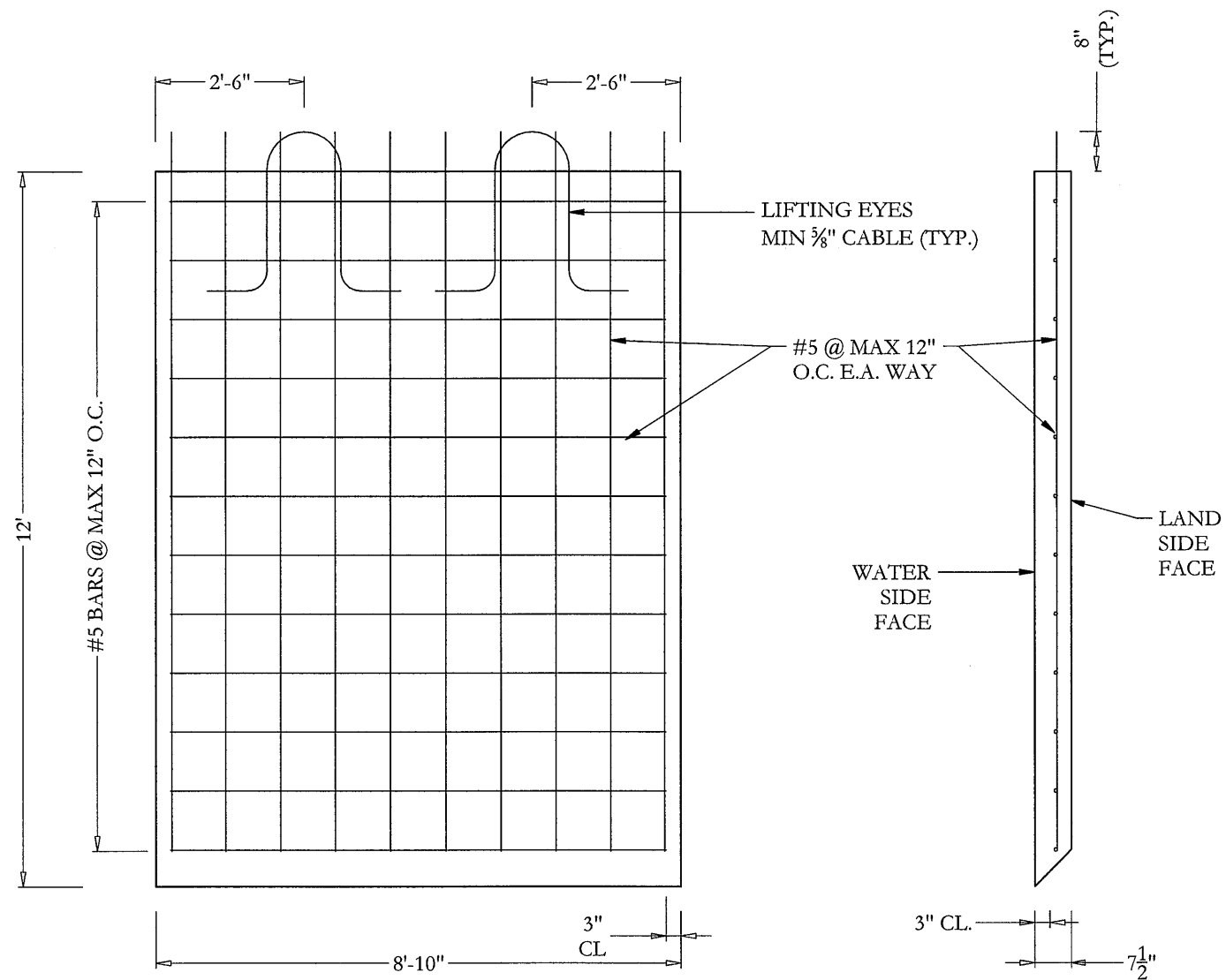
**CAP STEEL IDENTIFICATION:**

1. PROPOSED 8'-10" x 7.5" x 12' PRE-CAST CONCRETE PANEL (SEE SHEET 6 FOR DETAILS)
2. PROPOSED 12" x 12" CONCRETE VERTICAL PILE
3. PROPOSED 12" x 12" CONCRETE BATTER PILE
4. EXTEND PILE STRANDS A MIN. OF 18" INTO CAP/DOCK SLAB STEEL OR CUT STRANDS EVEN W/ TOP OF PILINGS & DOWEL & EPOXY (2) #5 L-BARS, 12" LONG W/ 12" BEND, INTO TOP OF PILINGS, W/ A MIN. OF 4" EMBEDMENT.
5. (10) #5 BARS CONTINUOUS
6. #3 STIRRUPS WITH #3 CROSS TIES @ 18" O.C.



**CAP STEEL DETAIL (SECTION B)**

SCALE: 1/2" = 1'-0"



**CONCRETE PANEL DETAIL**

SCALE: 3/8" = 1'-0"

**SIDE VIEW**

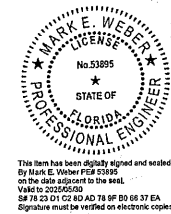
SCALE: 3/8" = 1'-0"

NOTE:  
PANEL HEIGHT TO BE VERIFIED ON SITE BY CONTRACTOR BEFORE CONSTRUCTION, TO PROVIDE A MINIMUM OF 2' EMBEDMENT INTO EXISTING GRADE.

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HIGHLAND BEACH  
BUILDING DEPARTMENT



Digitally signed by Mark E Weber  
Date: 2023.10.16 18:53:41 -04'00'

**Mark E. Weber, P.E.**  
LICENSE #53895 | CA. 30702  
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SEA WALL REPLACEMENT FOR:  
**BOCA HIGHLANDS**  
4801 S OCEAN BLVD  
HIGHLAND BEACH, FL

DATE	NOTES/REVISIONS
8/25/2023	Corrections per Town

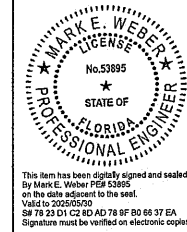
SCALE: AS NOTED  
DATE: 8/04/2021

JOB No: 20-2515

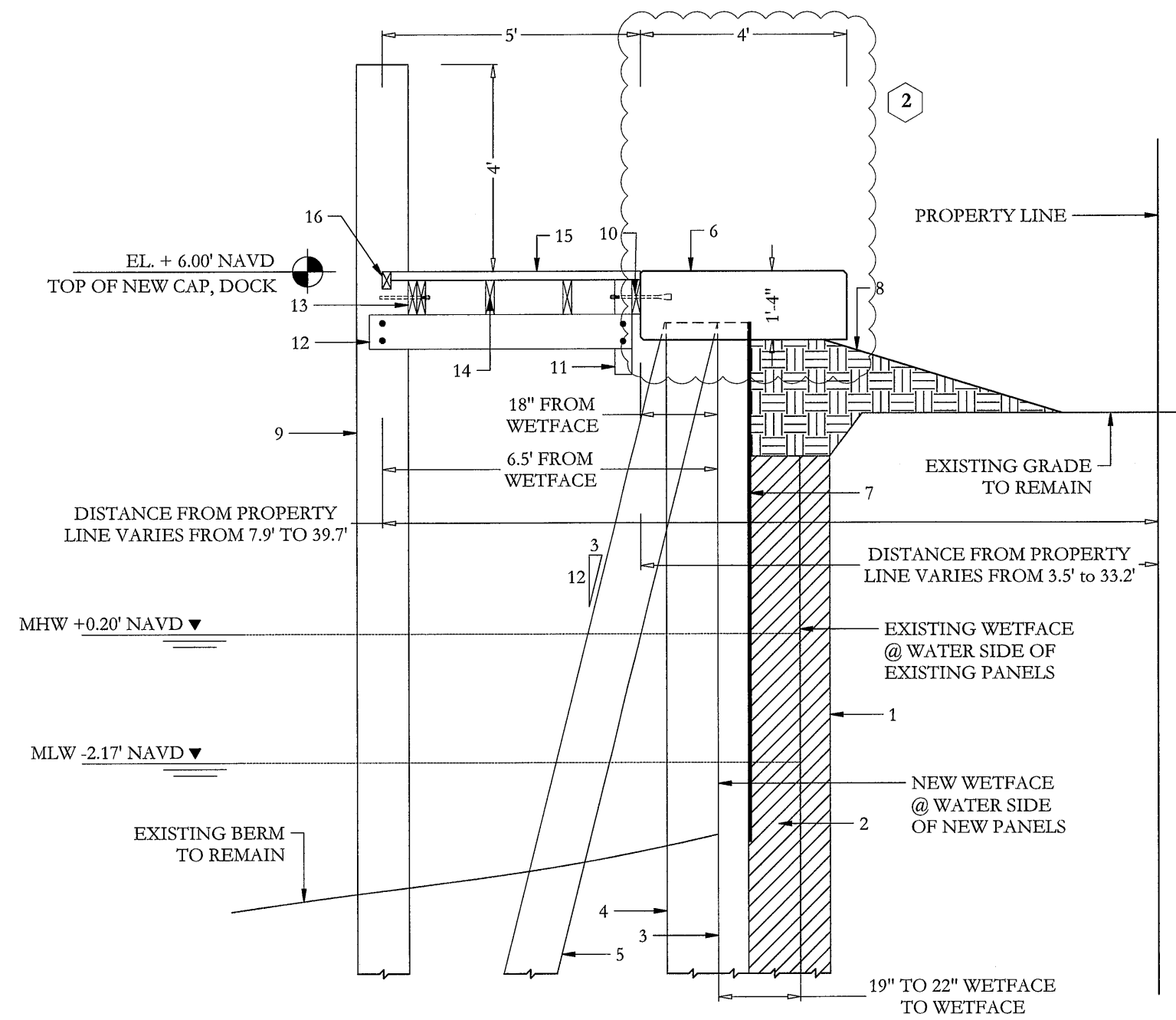
**SHT 6**  
6 of 11

2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger

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 HIGHLAND BEACH  
 BUILDING DEPARTMENT



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**B SECTION B**  
 SHT 7 SCALE: 3/8" = 1'-0"

**PROPOSED SEAWALL & DOCK IDENTIFICATION:**

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. EXISTING SEAWALL PANELS TO REMAIN</li> <li>2. EXISTING VERTICAL PILES TO REMAIN TO MAINTAIN WALL INTEGRITY DURING INSTALLATION OF NEW WALL; SOME EXISTING VERTICALS PILINGS TO BE REMOVED AS NECESSARY;</li> <li>3. PROPOSED 8'-10" x 7.5" x 12' PRE-CAST CONCRETE PANEL (SEE SHEET 6 FOR DETAILS)</li> <li>4. PROPOSED 12" x 12" CONCRETE KING PILE</li> <li>5. PROPOSED 12" x 12" CONCRETE BATTER PILE</li> <li>6. PROPOSED 48" x 16" CONCRETE SEAWALL CAP</li> <li>7. PROPOSED GEOTEXTILE FABRIC AT CONCRETE PANEL GAP</li> <li>8. MINIMAL BACKFILL WITH CLEAN MATERIAL OVER EXISTING SEAWALL COMPONENTS TO REMAIN</li> </ol> | <ol style="list-style-type: none"> <li>9. NEW 12" DIA. WOOD PILING</li> <li>10. 2" x 8" LEDGER TO CAP WITH (2) 5/8" WEDGE ANCHORS @ 36" O.C, MIN. 4" EMBEDMENT</li> <li>11. 4" x 12" HANGER TO CAP WITH (2) 5/8" WEDGE ANCHOR, MIN. 4" EMBEDMENT</li> <li>12. 2" x 8" SUBSTRINGER WITH (2) 5/8" THRU BOLT OR LAG BOLT @ PILINGS AND HANGERS</li> <li>13. (2) 2" x 8" STRINGERS @ PILINGS WITH (1) 5/8" THRU BOLT OR LAG BOLT TO PILINGS</li> <li>14. 2" x 8" STRINGERS W/ (2) 16D NAILS TO EACH SUBSTRINGER; @ 16" O.C. FOR AZEK DECKBOARDS OR 24" O.C.. FOR PRESSURE TREATED WOOD DECKBOARDS OR 3/4" IPE DECKBOARDS</li> <li>15. 2" x 6" DECKING WITH (2) #8 x 3" DECK SCREWS PER STRINGER</li> <li>16. 2" x 4" WOOD TRIM</li> </ol> |
|--|---|

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 1211 South Military Trail, Suite 200  
 Deerfield Beach, FL 33442  
 954-421-1700 CGC052820

SEAWALL REPLACEMENT FOR:  
**BOCA HIGHLANDS**  
 4801 S OCEAN BLVD  
 HIGHLAND BEACH, FL

DATE	NOTES/REVISIONS
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2 Corrections 2 - Changed cap width to 4' to match FDEP/ACOE; Made dimensions/leaders bold and larger



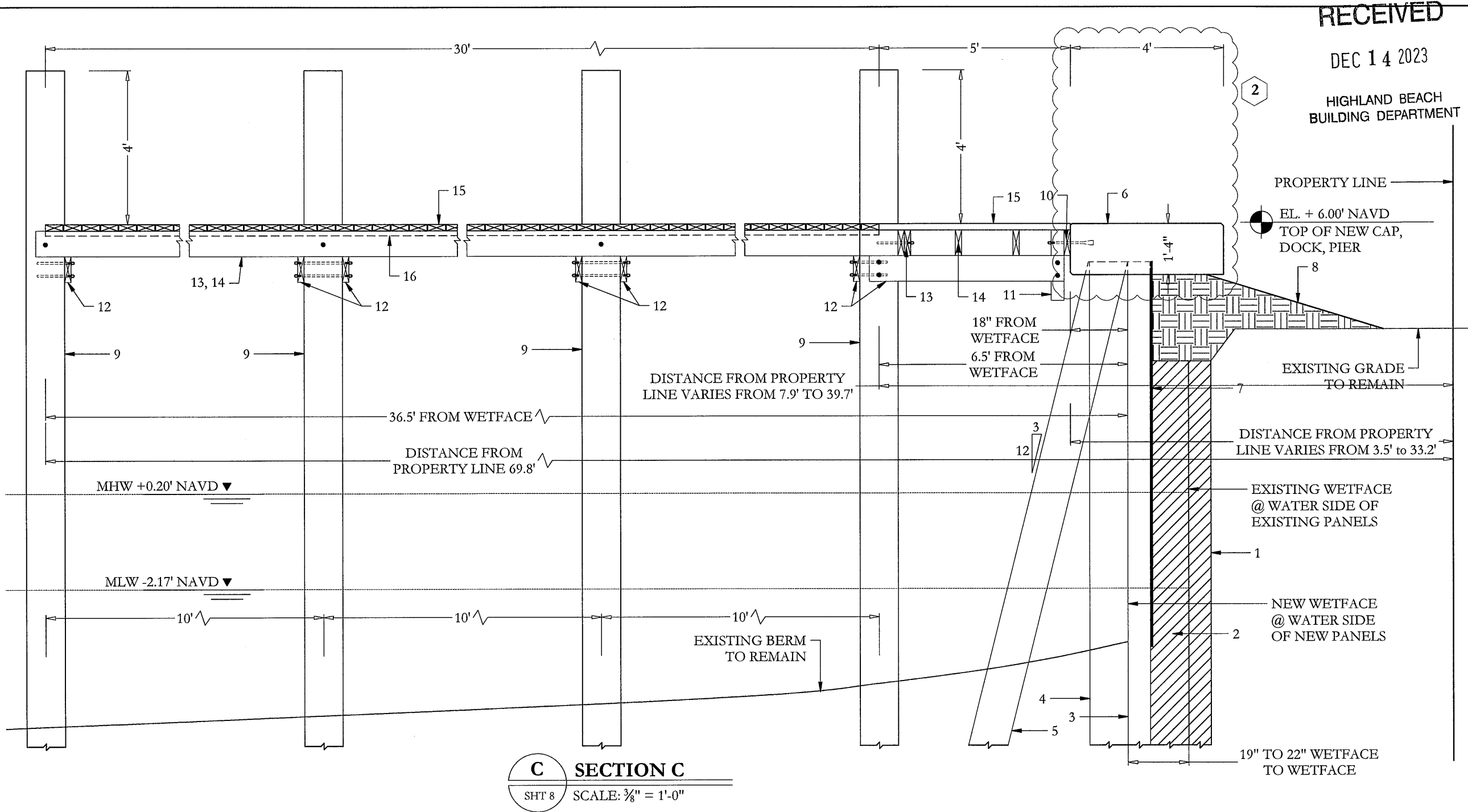
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**C SECTION C**  
SHT 8 SCALE: 3/8" = 1'-0"

**PROPOSED SEAWALL, DOCK & PIER IDENTIFICATION:**

- |  |  |
|--|--|
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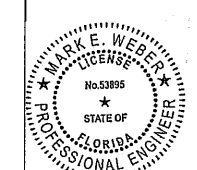
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**SHT 8**  
8 of 11

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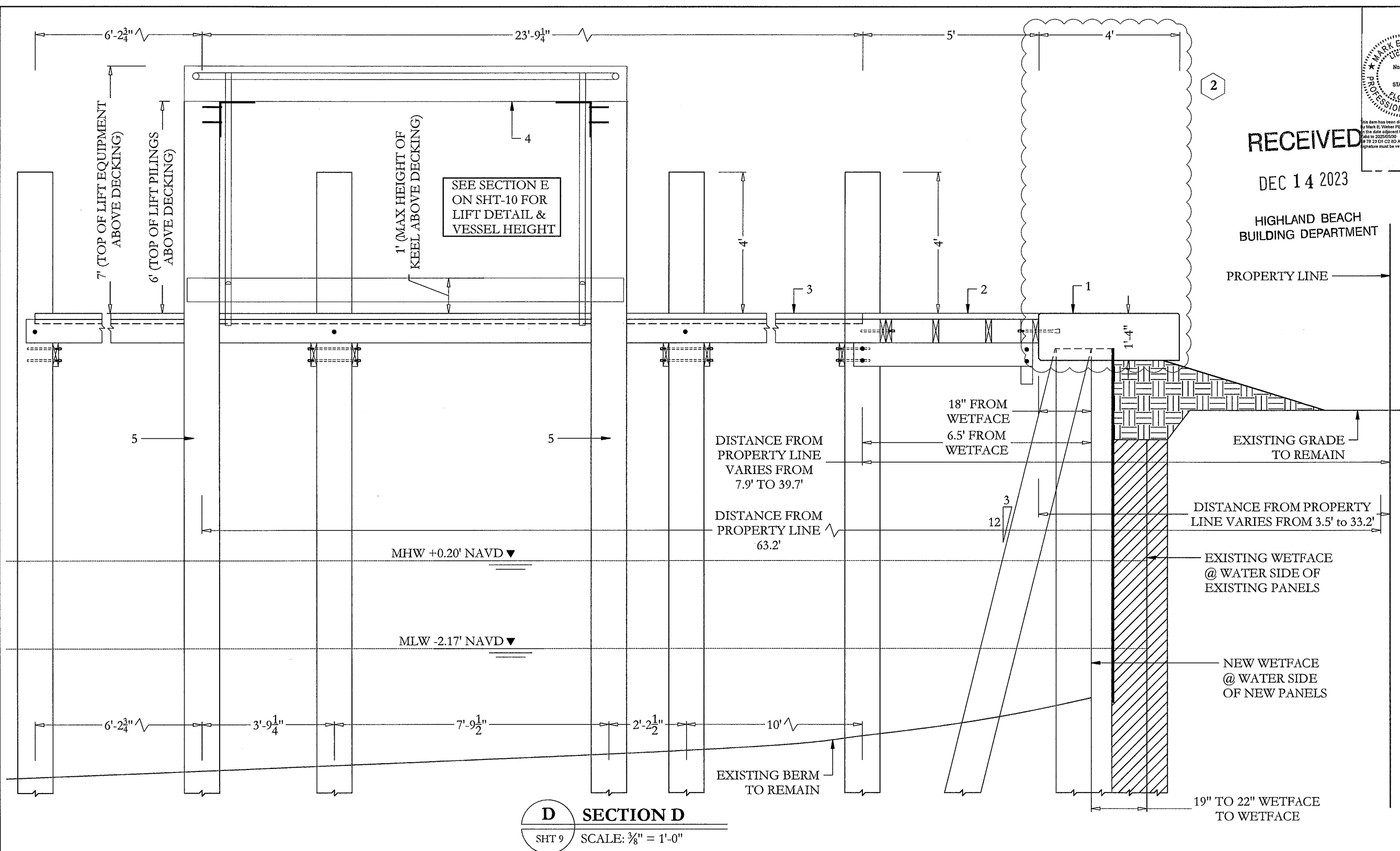
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SHT 9	
9 of 11	



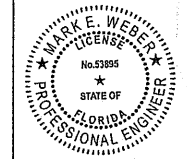
**D SECTION D**  
 SHT 9 SCALE: 3/8" = 1'-0"

**REINSTALLED LIFT IDENTIFICATION:**

1. SEE SECTION A ON SHT-4 FOR PROPOSED SEAWALL DETAILS
2. SEE SECTION B ON SHT-5 FOR PROPOSED DOCK DETAILS
3. SEE SECTION C ON SHT-7 FOR PROPOSED PIER DETAILS
4. EXISTING LIFT TO BE REMOVED AND REPLACED IN SAME LOCATION ALONG REBUILT PIER
5. EXISTING 12" DIA WOOD LIFT PILES TO BE REMOVED AND REINSTALLED

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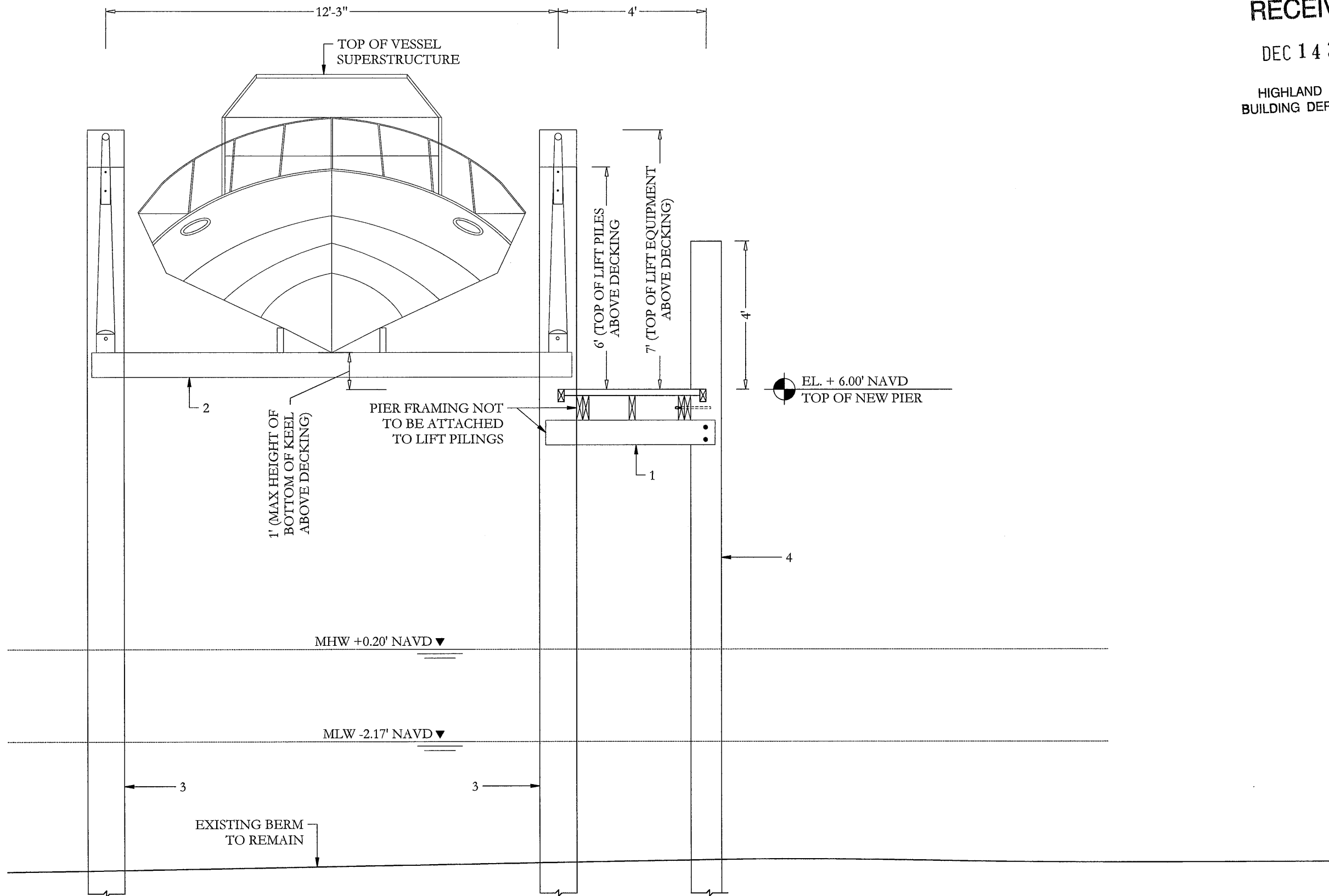
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JOB No: 20-2515

**SHT 10**



**E SECTION E**  
 SHT 10 SCALE: 3/8" = 1'-0"

**REINSTALLED LIFT IDENTIFICATION:**

1. SEE SECTION C ON SHT-7 FOR PROPOSED PIER DETAILS
2. EXISTING LIFT TO BE REMOVED AND REPLACED IN SAME LOCATION ALONG REBUILT PIER
3. EXISTING 12" DIA WOOD LIFT PILES TO BE REMOVED AND REINSTALLED
4. NEW 12" DIA. WOOD PIER PILES

**GENERAL NOTES:**

1. Construction to follow the Florida Building Code 7th Edition (2020) and amendments as applicable and all Local, State and Federal Laws.
2. Licensed contractor shall verify the existing conditions prior to the commencement of the work. Any conflicts or omissions between existing conditions or the various elements of the working drawing shall be brought to the attention of the Engineer prior to the commencement of the work. The Licensed Contractor and all subcontractors are responsible for all lines, elevations, and measurements in connection with their work.
3. Do not scale drawings for dimensions.
4. Any deviation and/or substitution from the information provided herein shall be submitted to the Engineer for approval prior to commencement of work.
5. All unanticipated or unforeseen demolition and/or new construction conditions which require deviation from the plans and notes herein shall be reported to the Engineer prior to commencement of work.
6. All new work and/or materials shall conform to all requirements of each administrative body having jurisdiction in each appertaining circumstance.
7. All new materials and/or patchwork shall be provided to match existing materials and/or adjoining work where practical except as specifically noted herein.
8. Licensed Contractor to shall use all possible care to protect all existing materials, surfaces, and furnishings from damage during all phases of construction.
9. Licensed Contractor to verify location of existing utilities prior to commencing work.
10. The Licensed contractor to install and remove all shoring and bracing as required for the proper execution of the work.
11. Licensed Contractor to obtain all permits as necessary from all Local, State, and Federal agencies.
12. Turbidity barriers to be marked with site contractor's company name using permanent markings no smaller than 3 inches in height on the top of the barrier.

**CONCRETE NOTES: (IF CONCRETE STRUCTURES ARE INSTALLED)**

1. Concrete shall conform to ACI 318-14 and shall be regular weight, sulfate resistant, with a design strength of 5000 psi at 28 days with a maximum water-cementitious materials ratio, by weight aggregate concrete of 0.40.
2. Owner shall employ and pay for testing services from an independent testing laboratory for concrete sampling and testing in accordance with ASTM.
3. Licensed contractor is responsible for the adequacy of forms and shoring and for safe practice in their use and removal.
4. Concrete cover shall be 3" unless otherwise noted on the approved drawings.
5. Reinforcing steel shall be in conformance with the latest version of ASTM A615 Grade 60 specifications. All reinforcement shall be placed in accordance with ACI 315 and ACI Manual of Standard Practice.
6. Splices in reinforcing bars shall be not be less than 48 bar diameters and reinforcing shall be continuous around all corners and changes in direction. Continuity shall be provided at corners or changes in direction by bending the longitudinal steel around the corner 48 bar diameters.
7. Defective, cracked or loose concrete areas must be cut out, the rebar must be cleaned, coated with zinc and repaired with at least 3" of epoxy-concrete mix or gunnite concrete with sulfate-resistant cement.
8. For cap overpours, dowel and epoxy #5 bars or L-bars into top and/or front of existing cap, staggered @ 24" o.c., min. 4" embedment.

**SHORING NOTE: (IF EXISTING SEAWALL IS TO BE REMOVED AND REPLACED)**

1. Contractor of record and permit holder responsible for all shoring. Until provisions for permanent support have been made, all excavations shall be properly guarded and protected so as to prevent them from becoming dangerous to life and property and shall be sheet piled, braced and/or shored, where necessary, to prevent the adjoining earth from caving in; such protection to be provided by the person causing the excavation to be made. All excavations shall comply with the minimum requirements of the Florida Building Code, and Florida Statute 553.60, "Trench Safety Act," and 29-cfr1926-650 (p) "Occupational Safety and Health Administration Excavation Safety Act."

**PILE DRIVING: (IF PILES NEW ARE INSTALLED)**

1. Piles shall be driven using an approved cushion block consisting of material so arranged so as to provide the transmission of hammer energy.
2. Piles shall be driven to a minimum allowable bearing capacity of 10 tons for wood, and 25 tons for concrete, and 5 tons for pin piles, a minimum of 8' into berm or refusal.
3. Piles shall be driven with a drop hammer or gravity hammer provided the hammer shall weight no less than 3,000 pounds, and the fall of the hammer shall not exceed 6'.
4. Piles shall be driven with a variation of not more than ¼ inch per foot from the vertical, or from the batter line indicated, with a maximum variation of the head of the pile from the position shown on the plans of not more than three inches.
5. Where piling must penetrate strata offering high resistance to driving, the structural engineer of record or special inspector may require that the piles be set in pre-drilled or punched holes. The piles shall reach their final penetration by driving.

**CONCRETE PILE NOTES: (IF CONCRETE PILES ARE INSTALLED)**

1. Concrete piles shall attain 5000 psi compressive strength in 28 days.
2. Concrete piles shall be reinforced with four - 7/16"Ø lo-lax strands, 270 kips, and 5 ga. spiral ties.
3. Concrete piles shall be 12"x12" square, minimum length of 20'.
4. Concrete piles shall be cut to leave strands exposed a min. of 18" and tied to dock or cap steel.
5. For all prestressed pilings, extend pilings strands a min. of 18" into cap/dock slab steel or cut strands even w/ top of pilings & dowel & epoxy (2) #5 L-bars, 12" long w/ 12" bend, into top of pilings, w/ a min. of 4" embedment.
6. New batter and vertical pilings and panels to have a minimum 4" penetration into the new cap form. New dock pilings to have a minimum 3" penetration into the new dock slab form.

**WOOD PILES NOTES: (IF WOOD PILES ARE INSTALLED)**

1. Wood piles to be 2.5lb CCA treated in accordance with AWWA Standard C18.
2. Wood piles shall be a minimum diameter of 10"; Miami Dade County requires minimum diameter of 12".

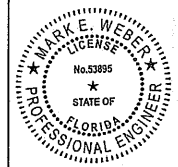
**WOOD DOCK/PIER NOTES: (IF WOOD STRUCTURES ARE INSTALLED)**

1. All materials to be pressure treated pine unless otherwise noted.
2. All frame work materials to be Southern Yellow Pine Grade #1, Fb=1200 PSI and Fv=175 PSI.
3. All decking materials to be grade #1 unless otherwise noted.
4. All hardware to be Stainless Steel or Galvanized unless otherwise noted.

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Date: 2023.10.16 18:55:21 -04'00'

This form has been digitally signed and sealed by Mark E. Weber PE# 53895 on this form adjacent to the seal. Valid to 2025/05/29. All PE 78 23 01 C2 80 40 78 00 00 00 37 EA. Signature must be verified on electronic copies.

**Mark E. Weber, P.E.**  
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**SHT 11**