



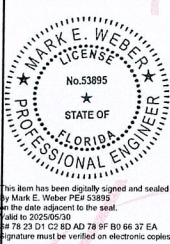


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FEB 21 2025

HIGHLAND BEACH  
BUILDING DEPARTMENT

AREA RESERVED FOR APPROVAL STAMPS FOR CITIES/AGENCIES



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signed by  
Mark E Weber  
Date:  
2024.10.29  
13:43:56  
-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 S. Military Trail, Suite 200  
Deerfield Beach, FL 33442  
954-421-1700 CGC052820  
permits@bm-marine.com

WOOD DOCK:  
BEL-AIR AT HIGHLAND  
BEACH HOMEOWNERS' ASSOC.  
1023 BEL AIR DRIVE  
HIGHLAND BEACH, FL 33487

DATE REVISION #

SCALE: AS NOTED

DATE: 8/28/2024

JOB No: 24-3298

SHT-1

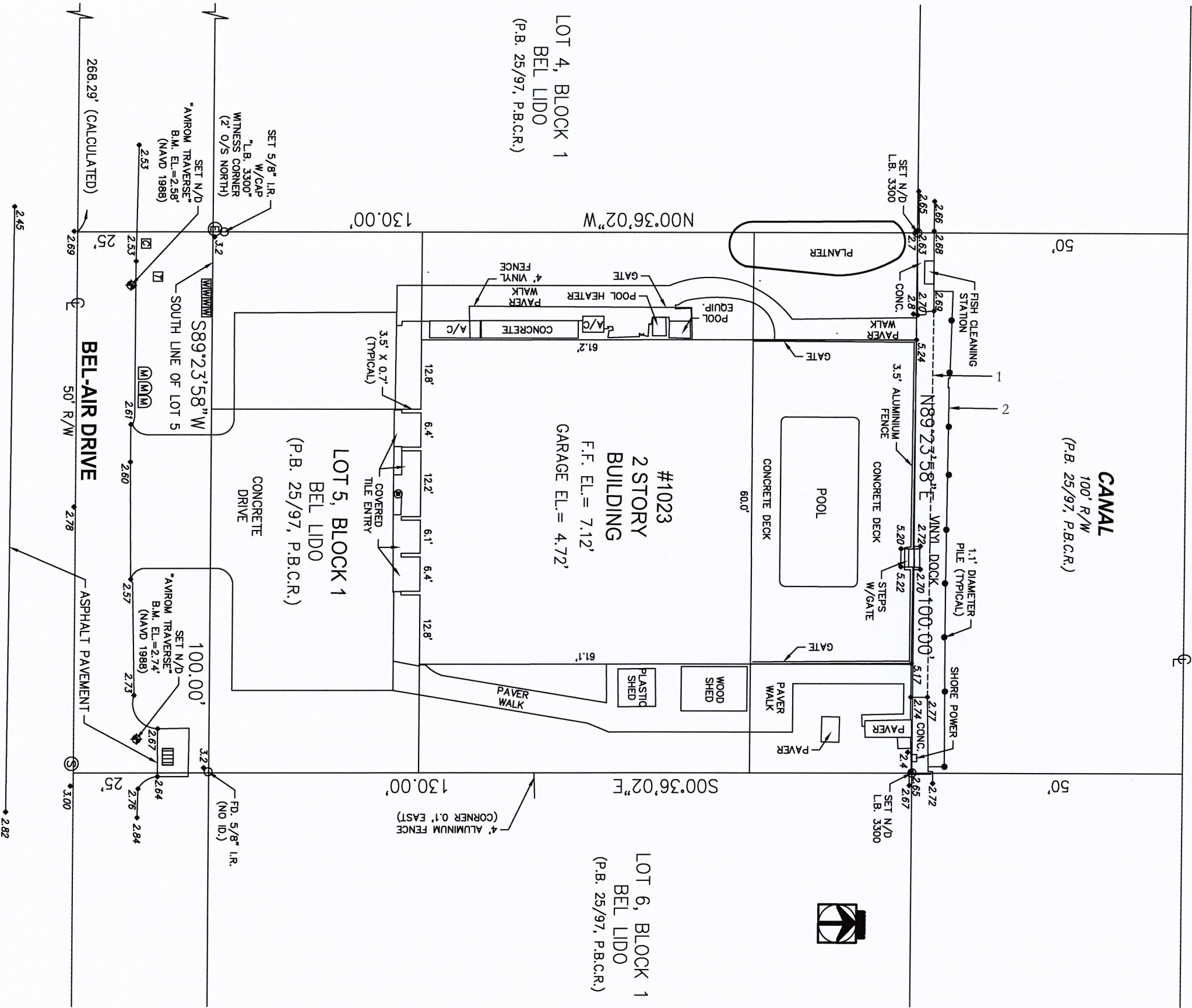
1 OF 4

EXISTING CONDITIONS IDENTIFICATION:

- EXISTING SEAWALL CAP, PANELS AND PILES TO REMAIN
- EXISTING 88' 3'-6" WOOD DOCK (275.3SF) AND ASSOC. PILES TO BE REMOVED

EXISTING CONDITIONS LAYOUT

SCALE: 1" = 20'-0"





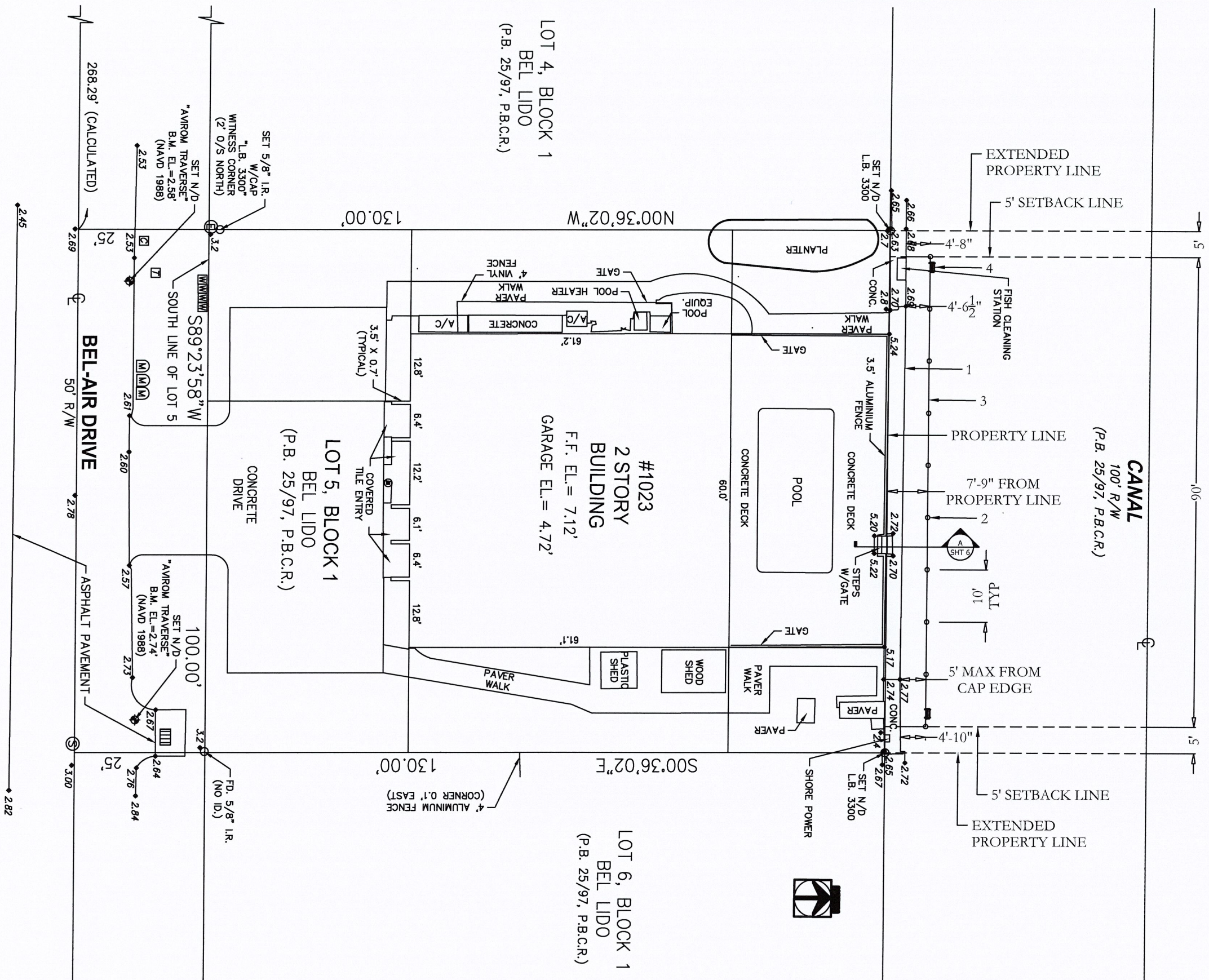
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2 OF 4



SCALE: 1" = 20'-0"

1. EXISTING CONCRETE SEAWALL PANELS, CAP AND PILES TO REMAIN
2. PROPOSED 10" DIA. WOOD PILES EQUALLY SPACED ALONG DOCK LENGTH (TYP OF 10)
3. PROPOSED 90' x MAX 5' WOOD FRAMED DOCK (429.8SF) ON 10" DIA WOOD PILES
4. PROPOSED SAFETY LADDER (TYP OF 2), FINAL LOCATIONS TO BE FIELD DETERMINED



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Mark E Weber  
Date:  
2024.10.29  
13:42:03  
-04'00'

This item has been digitally signed and sealed  
By Mark E. Weber P.E. #53895  
on the date adjacent to the seal.  
Valid to 2025/05/20  
SF 78 23 D1 C2 8D AD 78 9F 6D 66 37 EA  
Signatures must be verified on electronic copies

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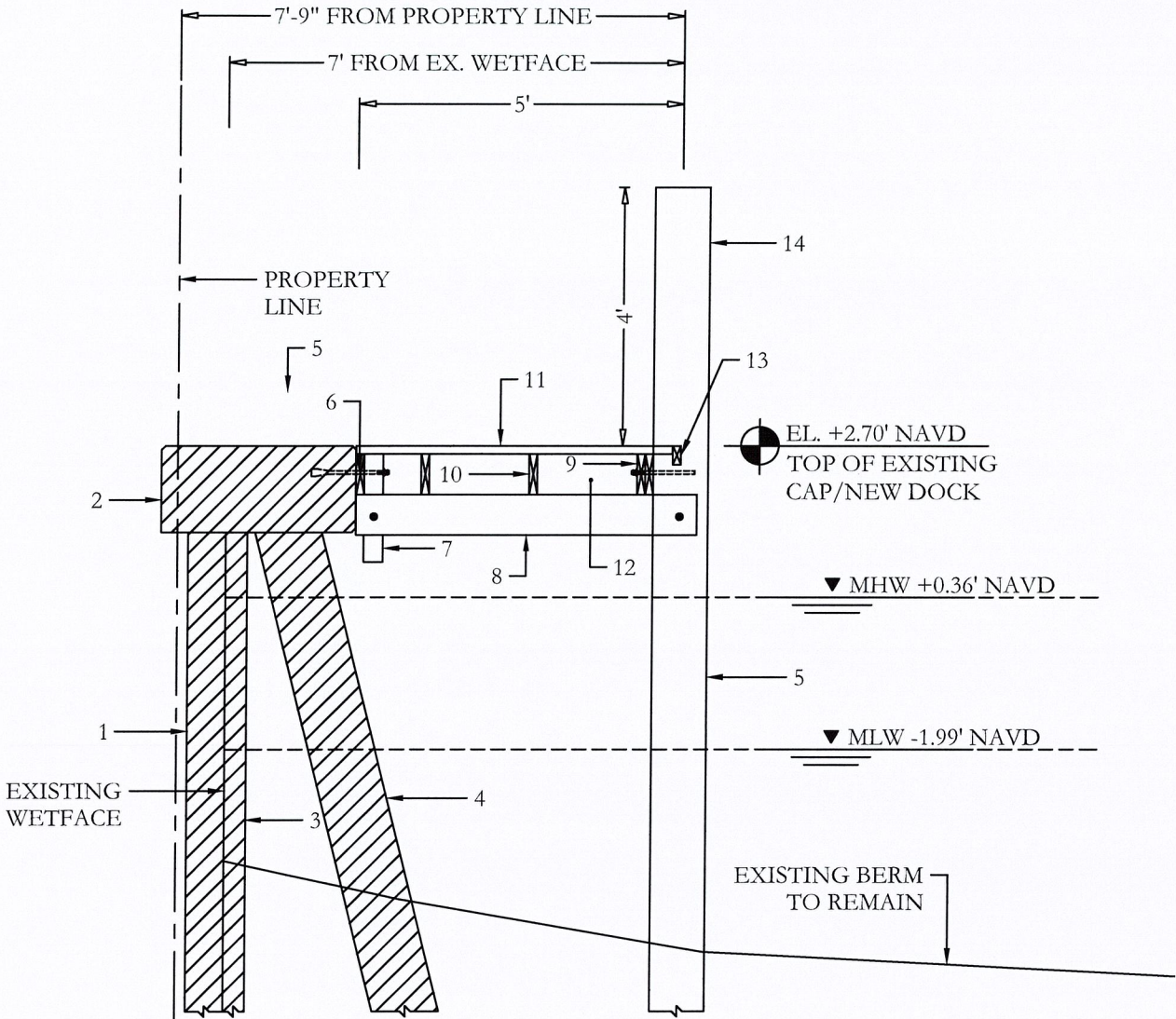
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SHT-3

3 OF 4



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

SECTION A IDENTIFICATION:

- EXISTING CONCRETE SEAWALL PANEL TO REMAIN
- EXISTING CONCRETE SEAWALL CAP TO REMAIN
- EXISTING CONCRETE SEAWALL T-PILE TO REMAIN
- EXISTING CONCRETE BATTER PILE TO REMAIN
- PROPOSED 10" DIA WOOD DOCK PILE (TYP OF 10)
- 2" x 8" LEDGER TO CAP WITH 5/8" WEDGE ANCHORS @ 36" O.C., MIN. 4" EMBEDMENT
- 4" x 10" HANGER TO CAP WITH (2) 5/8" WEDGE ANCHOR, MIN. 4" EMBEDMENT
- 2" x 8" SUBSTRINGER EACH SIDE OF PILE WITH (1) 5/8" THRU BOLT OR LAG BOLT @ PILES AND HANGERS
- (2) 2" x 8" STRINGERS @ PILES WITH (1) 5/8" THRU BOLT OR LAG BOLT TO PILES
- 2" x 8" STRINGERS W/ (2) 16D NAILS TO EACH SUBSTRINGER; @ 16"O.C. FOR AZEK DECK BOARDS OR 24"O.C.. FOR PRESSURE TREATED WOOD DECKBOARDS OR 5/4" IPE DECK BOARDS
- 2" x 6" DECKING WITH (2) #8 x 3" DECK SCREWS PER STRINGER
- 2" x 8" FASCIA BOARD
- 2" x 4" WOOD TRIM
- NON-STRUCTURAL FINISH PER OWNER'S SELECTION

1-NOTE: NO CHANGE TO WETFACE LOCATION



GENERAL NOTES:

- Construction to follow the Florida Building Code 8th Edition (2023) and 2020 NEC and amendments as applicable and all Local, State and Federal Laws.
- 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.
- Do not scale drawings for dimensions.
- Any deviation and/or substitution from the information provided herein shall be submitted to the Engineer for approval prior to commencement of work.
- 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.
- All new work and/or materials shall conform to all requirements of each administrative body having jurisdiction in each appertaining circumstance.
- All new materials and/or patchwork shall be provided to match existing materials and/or adjoining work where practical except as specifically noted herein.
- Licensed Contractor to shall use all possible care to protect all existing materials, surfaces, and furnishings from damage during all phases of construction.
- Licensed Contractor to verify location of existing utilities prior to commencing work.
- The Licensed contractor to install and remove all shoring and bracing as required for the proper execution of the work.
- Licensed Contractor to obtain all permits as necessary from all Local, State, and Federal agencies.
- 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.

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

- 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.”

CONCRETE NOTES: (IF CONCRETE STRUCTURES ARE INSTALLED)

- 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.
- Owner shall employ and pay for testing services from an independent testing laboratory for concrete sampling and testing in accordance with ASTM.
- Licensed contractor is responsible for the adequacy of forms and shoring and for safe practice in their use and removal.
- Concrete cover shall be 3" unless otherwise noted on the approved drawings.
- 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.
- 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.
- 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.
- 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.

HIGH TEMPERATURE CONCRETE PLACEMENT NOTES:

- When the temperature of the concrete as placed exceeds 85°F, incorporate in the mix, a water-reducing retarder.
- Spray reinforcing steel with cool fresh water just prior to placing the concrete.
- Moisten subgrade, steel reinforcement and form work prior to concrete placement.
- Use a concrete consistency that allows rapid placement and consolidation.
- Protect the concrete surface during placement with plastic sheeting or evaporation retarders to maintain the moisture in the concrete mixture.
- Provide sufficient labor to minimize the timem required to place and finish the concrete, as hot weather conditions substantially shorten the times to initial and final set.

PILE DRIVING NOTES: (IF NEW PILES ARE INSTALLED)

- Piles shall be driven using an approved cushion block consisting of material so arranged so as to provide the transmission of hammer energy.
- 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.
- 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'.
- 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.
- 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)

- Concrete piles shall attain 5000 psi compressive strength in 28 days.
- Concrete piles shall be reinforced with six - 7/16"Ø lo-lax strands, 270 kips, and 5 ga. spiral ties.
- Concrete piles shall be 12"x12" square, minimum length of 20'.
- Concrete piles shall be cut to leave strands exposed a min. of 18" and tied to dock or cap steel.
- 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.
- 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.

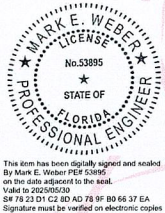
WOOD PILE NOTES: (IF WOOD PILES ARE INSTALLED)

- Wood piles to be 2.5lb CCA treated in accordance with AWWPA Standard C18.
- 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)

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

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