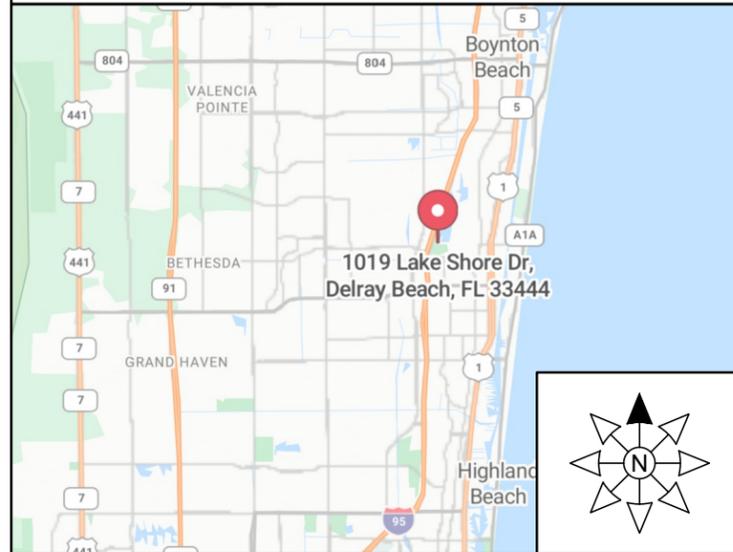


NEW BULKHEAD

VICINITY MAP



AERIAL VIEW



SITE PHOTO



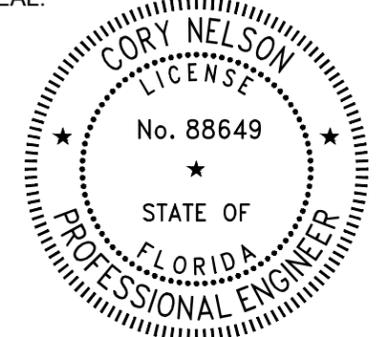
PROJECT ADDRESS:

1019 LAKESHORE DRIVE
 DELRAY BEACH, FL
 PALM BEACH COUNTY

PREPARED FOR:

BREEZY PERMITS

SEAL:



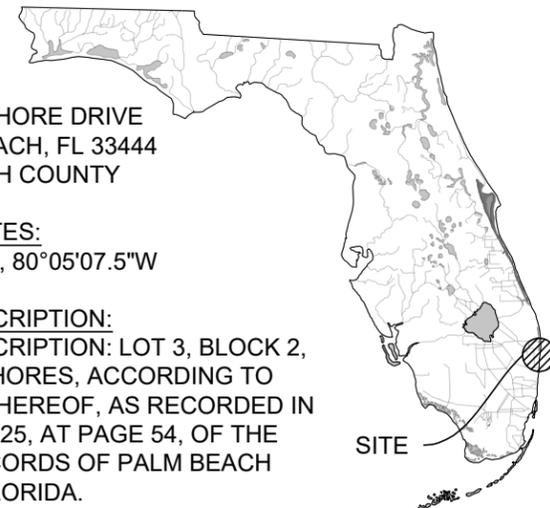
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SITE LOCATION

ADDRESS:
 1019 LAKESHORE DRIVE
 DELRAY BEACH, FL 33444
 PALM BEACH COUNTY

COORDINATES:
 26°28'28.1"N, 80°05'07.5"W

LEGAL DESCRIPTION:
 LEGAL DESCRIPTION: LOT 3, BLOCK 2, LAKE IDA SHORES, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 25, AT PAGE 54, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA.



SCOPE OF WORK

DEMOLITION:

- NONE

NEW CONSTRUCTION:

- CONSTRUCT A NEW VINYL BULKHEAD RESTRAINED WITH CONCRETE ANCHOR BLOCKS.

SHEET INDEX

SHEET	DESCRIPTION
S-0	TITLE SHEET
S-1	GENERAL NOTES
S-2	EXISTING PLAN
S-3	PROPOSED PLAN
S-4	BULKHEAD SECTION
S-5	TYPICAL BULKHEAD DETAILS
S-6	TYPICAL BULKHEAD DETAILS

JOB NO.: 240495 DATE: 28-Jun-25

DATE	REV.	DESCRIPTION
6/30/25	1	DOCK REMOVED

SHEET NAME:

TITLE SHEET

SHEET NO:

S-0

APPLICABLE CODES:

1. FLORIDA BUILDING CODE, 8TH EDITION, 2023 (FBC)
2. AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, 2022 (ASCE 7-22)
3. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2024 (NDS)

DESIGN CRITERIA:

1. WIND SPEED DATA:

RISK CATEGORY	II
EXPOSURE CATEGORY	C
ULTIMATE WIND SPEED	170 MPH
ULTIMATE WIND UPLIFT	55 PSF (35 PSF ASD)
2. LOAD CRITERIA

UPLAND LIVE LOAD SURCHARGE	60 PSF
----------------------------	--------
3. SURVEY BY "ACCURATE LAND SURVEYORS".

TOP OF EXISTING BULKHEAD	+10.0 FEET (NAVD 88)
TOP OF NEW BULKHEAD	+12.5 FEET (NAVD 88)

GENERAL NOTES:

1. TO THE BEST OF OUR KNOWLEDGE, THESE DRAWINGS ARE IN COMPLIANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. ALL ELEVATIONS ON DRAWINGS DEPICTED AS NAVD 88, U.N.O.
3. INFORMATION SHOWN ON THE DRAWINGS AS TO THEIR LOCATION AND CHARACTER HAS BEEN PREPARED FROM THE MOST RELIABLE DATA AVAILABLE TO THE ENGINEER; THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. THE ENGINEER IS NOT LIABLE FOR ANY UNKNOWNNS THAT ARE DISCOVERED DURING CONSTRUCTION.
4. ALL EXISTING DIMENSIONS AFFECTING THE WORK SHOWN ON THE DRAWINGS SHALL BE FIELD CHECKED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
5. DO NOT SCALE THESE DRAWINGS TO OBTAIN DIMENSIONS.
6. NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER OF RECORD.
7. THESE DRAWINGS DO NOT DEFINE THE TOTAL SCOPE OF CONSTRUCTION CONTRACT DOCUMENTS. REFER TO CONSTRUCTION MANAGER'S CONTRACT DOCUMENTS.
8. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ENGINEER'S PRESENCE OR REVIEW OF WORK DOES NOT INCLUDE THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITIES WITHIN THE AREA OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE (1-800-432-4770) 48 HOURS IN ADVANCE OF CONSTRUCTION.
10. BEFORE UNDERTAKING ANY DEMOLITION WORK, THE CONTRACTOR MUST SURVEY AND DOCUMENT THE EXISTING CONDITIONS OF PROPERTIES AND BUILDINGS ADJOINING OR IN

CLOSE PROXIMITY TO THE PREMISES.

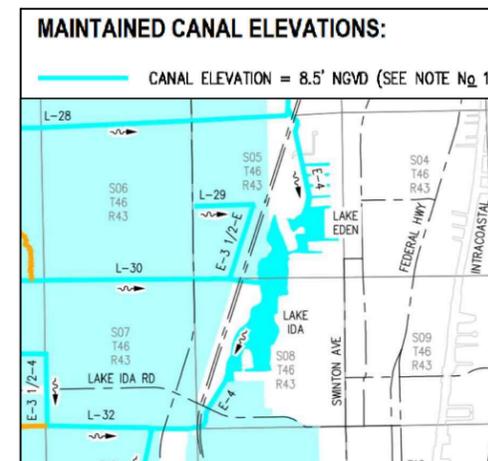
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS RELATED TO THE PARTIAL DEMOLITION OF THE EXISTING SEAWALL, INCLUDING SHORING, BRACING, AND PROTECTING THE STABILITY AND INTEGRITY OF EXISTING AND NEW STRUCTURES DURING DEMOLITION AND CONSTRUCTION.

SHOP DRAWING REVIEW:

1. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.
2. SHOP DRAWING SUBMITTALS ARE REQUIRED FOR THE FOLLOWING ITEMS:
 - 2.1. CONCRETE MIX DESIGNS
 - 2.2. CONCRETE COATING AND SEALING COMPOUNDS
 - 2.3. ANCHOR RODS & PLATES W/ NUT
 - 2.4. CONCRETE REINFORCEMENT
 - 2.5. EXPANSION JOINT MATERIAL

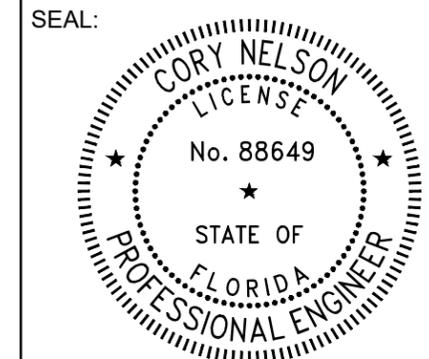
TURBIDITY BARRIERS:

1. FLOATING TURBIDITY BARRIERS WILL BE PLACED AT ALL OUTFALL LOCATIONS CONNECTED TO THE WORK AREA DURING ACTIVE CONSTRUCTION. IF SEAGRASSES ARE PRESENT BARRIERS WILL NOT BE PLACED OVER THEM. THE FLOATING TURBIDITY BARRIERS SHALL BE INSTALLED IN A MANNER TO PREVENT MANATEE ENTANGLEMENT.
2. INSTALL FLOATING TURBIDITY BARRIERS WITH WEIGHTED SKIRTS THAT EXTEND TO WITHIN 1 FT OF THE BOTTOM AROUND ALL WORK AREAS THAT ARE IN, OR ADJACENT TO, SURFACE WATERS.
3. 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.
4. TURBIDITY BARRIERS SHALL REMAIN IN PLACE DURING ALL PHASES OF IN-WATER WORK.
5. CONTRACTOR SHALL EMPLOY AND MAINTAIN ADEQUATE SEDIMENT AND EROSION CONTROL MEASURES DURING ALL PHASES OF WORK.



PROJECT ADDRESS:
 1019 LAKESHORE DRIVE
 DELRAY BEACH, FL
 PALM BEACH COUNTY

PREPARED FOR:
 BREEZY PERMITS



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DATE	REV.	DESCRIPTION
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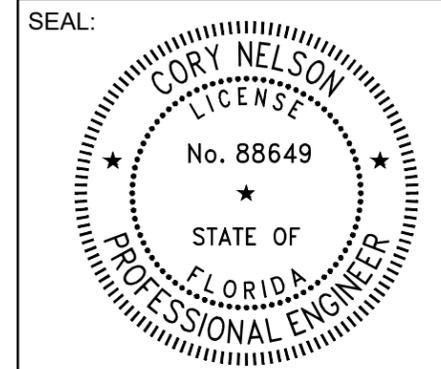
SHEET NAME:
GENERAL NOTES

SHEET NO:
S-1



PROJECT ADDRESS:
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 DELRAY BEACH, FL
 PALM BEACH COUNTY

PREPARED FOR:
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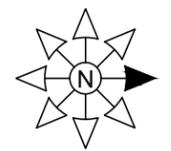
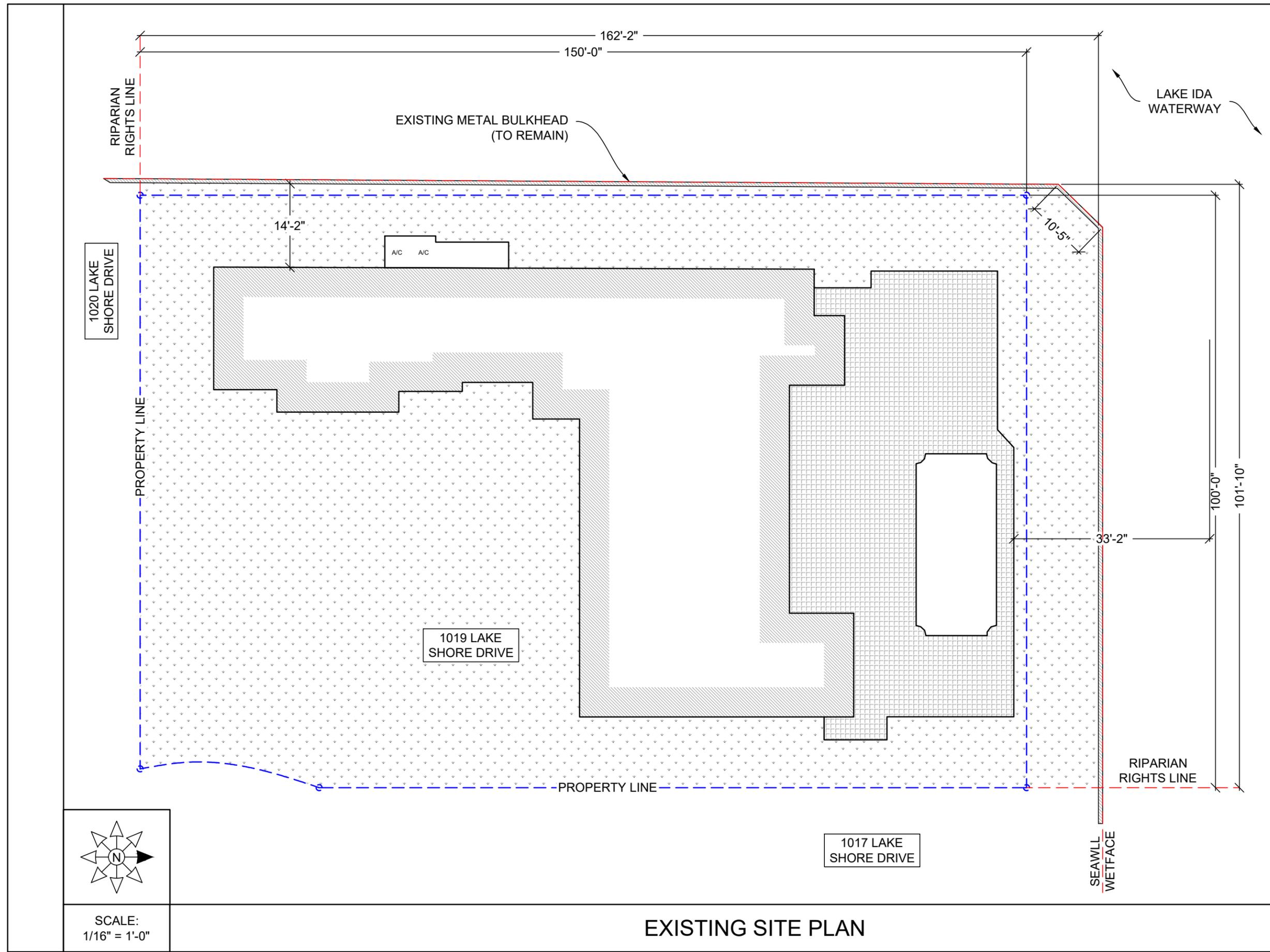


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SHEET NAME:
EXISTING SITE PLAN

SHEET NO:
S-2

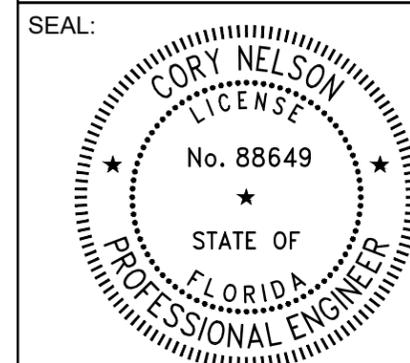


SCALE:
 1/16" = 1'-0"

EXISTING SITE PLAN

PROJECT ADDRESS:
 1019 LAKESHORE DRIVE
 DELRAY BEACH, FL
 PALM BEACH COUNTY

PREPARED FOR:
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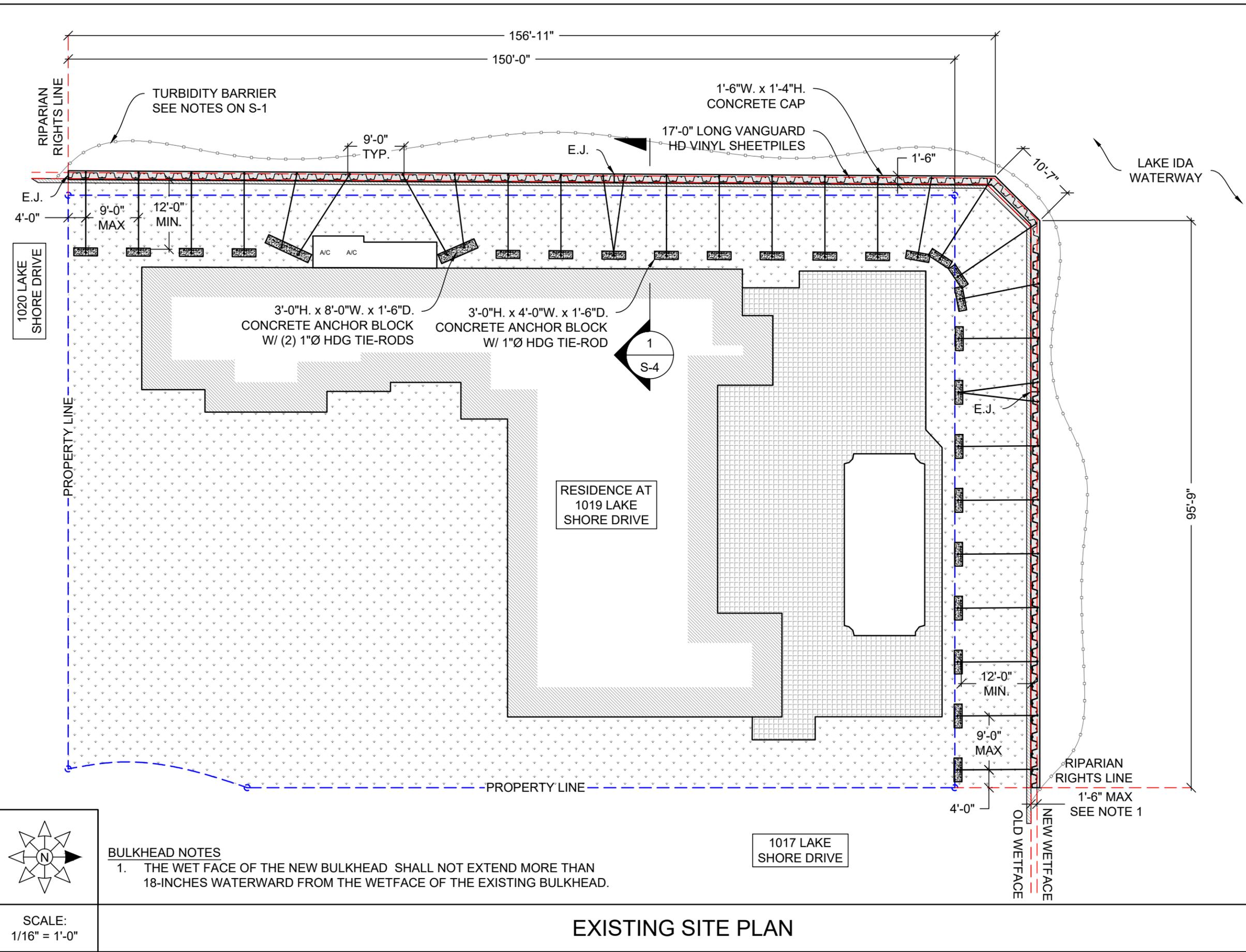


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SHEET NAME:
PROPOSED SITE PLAN

SHEET NO:
S-3

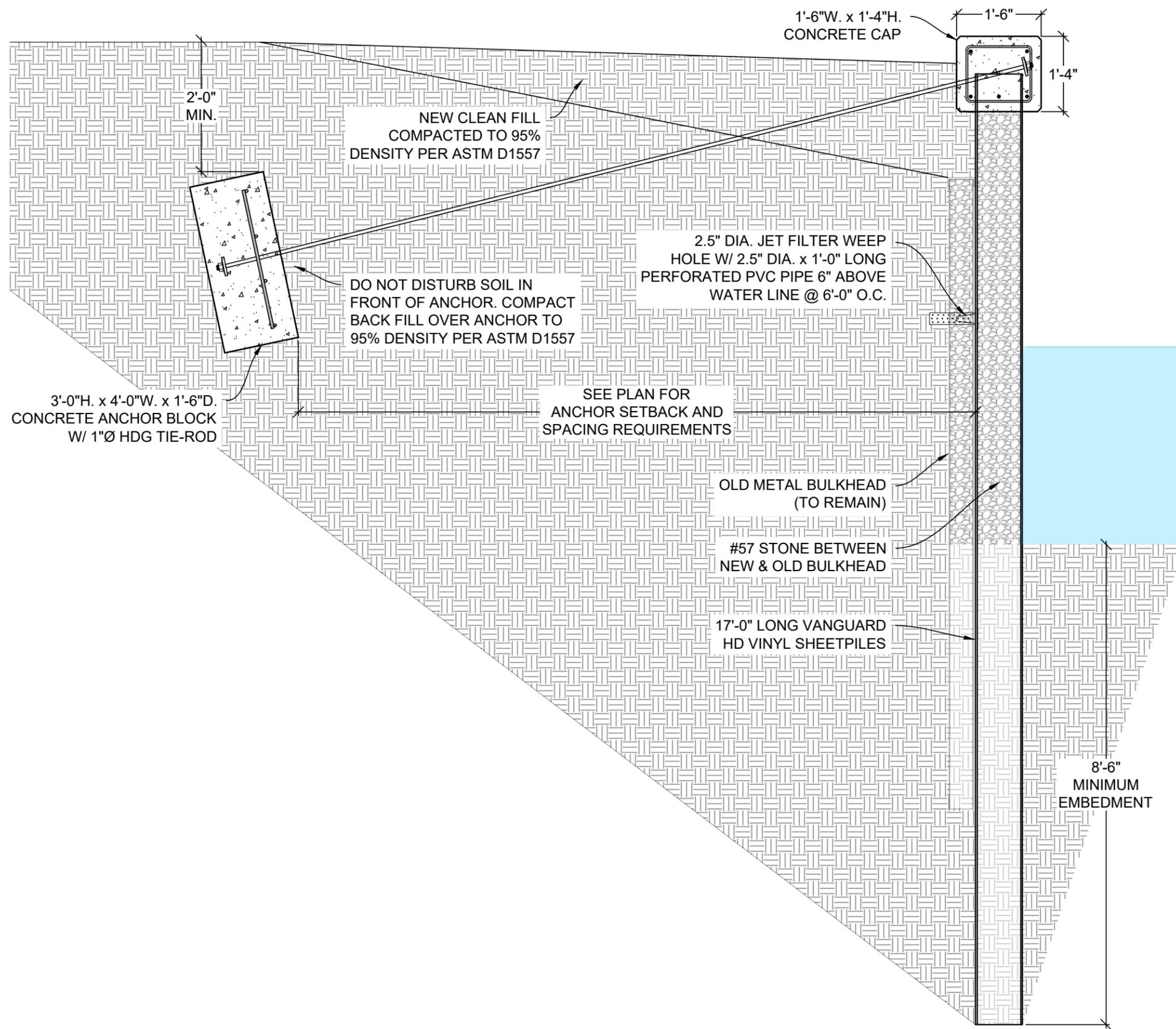


BULKHEAD NOTES

1. THE WET FACE OF THE NEW BULKHEAD SHALL NOT EXTEND MORE THAN 18-INCHES WATERWARD FROM THE WETFACE OF THE EXISTING BULKHEAD.

SCALE:
 1/16" = 1'-0"

EXISTING SITE PLAN



TOP OF NEW BULKHEAD
EL = +12'-6" (NAVD 88)

TOP OF EXISTING BULKHEAD
EL = +10'-0" (NAVD 88)

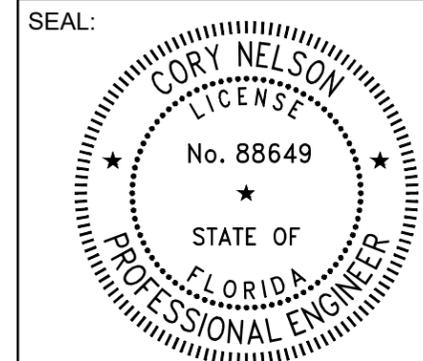
LWDD MAINTAINED
WATER ELEVATION
EL = +7'-0" (NAVD 88)

MUDLINE (VARIES)
EL = +3'-6" (NAVD 88)

MIN. SHEETPILE TIP
EL = -5'-6" (NAVD 88)

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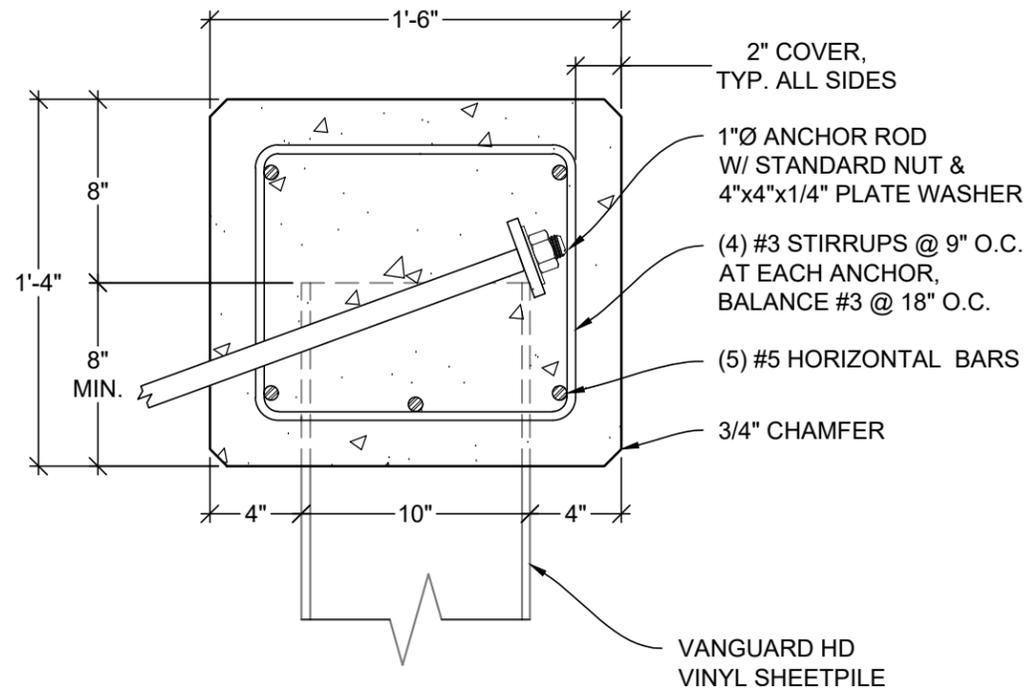
JOB NO.: 240495		DATE: 28-Jun-25
DATE	REV.	DESCRIPTION
6/30/25	1	DOCK REMOVED

SHEET NAME:
BULKHEAD SECTION

SHEET NO:
S-4

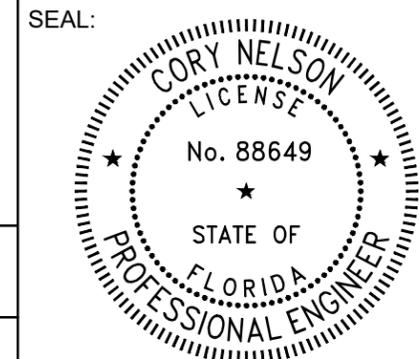
REINFORCED CONCRETE NOTES:

1. STEEL BAR REINFORCEMENT SHALL CONFORM TO PER ASTM A615 GRADE 60.
2. CONCRETE SHALL BE NORMAL WEIGHT WITH A MAXIMUM WATER/CEMENT RATIO OF 0.40 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 5000 P.S.I AT 28 DAYS.
3. A MINIMUM OF 2" CLEAR CONCRETE COVER IS REQUIRED AROUND ALL REINFORCING, U.N.O.
4. ALL REINFORCING SHALL BE SUPPORTED BY AND SECURED TO PLASTIC BOLSTERS. THE USE OF BRICKS OR ROCKS TO SUPPORT REINFORCING IS NOT ACCEPTED.
5. WHERE SEAWALL CHANGES DIRECTION, PROVIDE CORNER BARS OF SAME SIZE AND QUANTITY AS THE SPECIFIED STEEL. BAR REINF. LAP SPLICE LENGTH SHALL BE A MINIMUM OF 48 TIMES THE BAR DIAMETER U.N.O.
6. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR PRIOR TO PLACING CONCRETE TO ALLOW FOR THE INSPECTION OF REINFORCING AND FORM WORK.
7. WET WOOD FORMS IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.
8. CONCRETE TICKETS SHALL BE TIME-STAMPED WHEN BATCHED AND PLACED WITHIN 90 MINUTES FROM BATCH TIME. BATCHES OLDER THAN 90 MINUTES SHALL BE REJECTED.
9. CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND MAINTAINED WITH MINIMAL MOISTURE LOSS FOR THE PERIOD NECESSARY FOR CONCRETE HARDENING.



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SHEET NAME:
TYP. BULKHEAD DETAILS

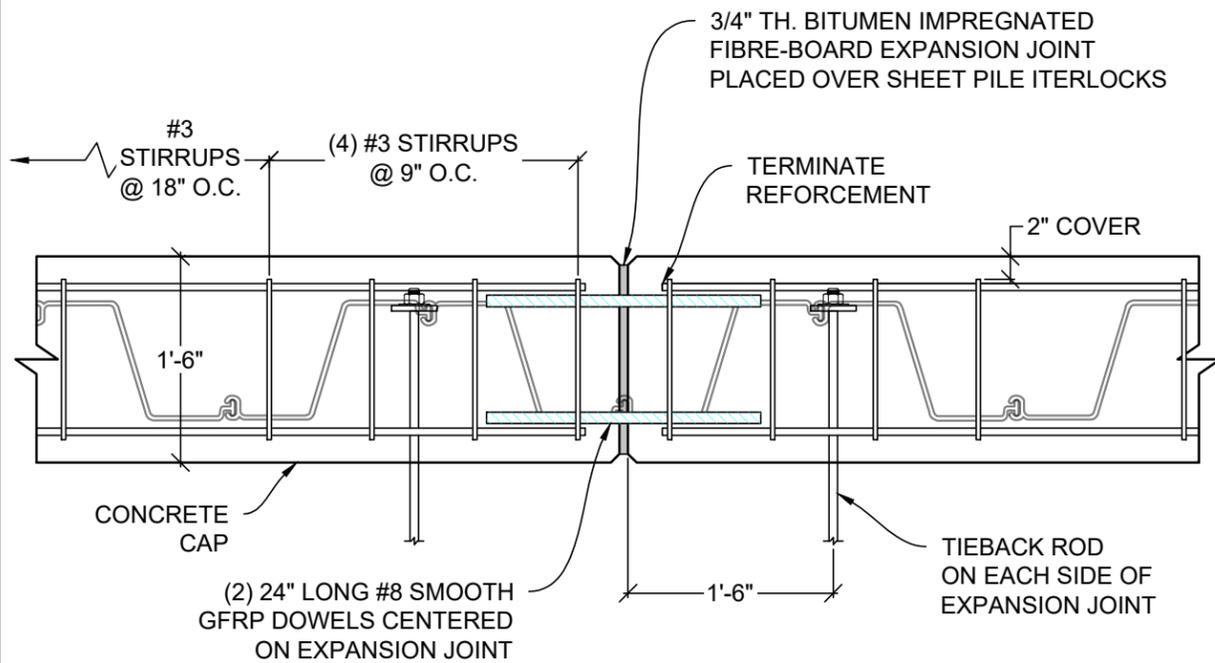
SHEET NO:
S-5

REINFORCED CONCRETE NOTES

C

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

BULKHEAD CAP



NOTE: REFER TO SITE PLAN FOR EXPANSION JOINT LOCATIONS. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 100 FEET.

E

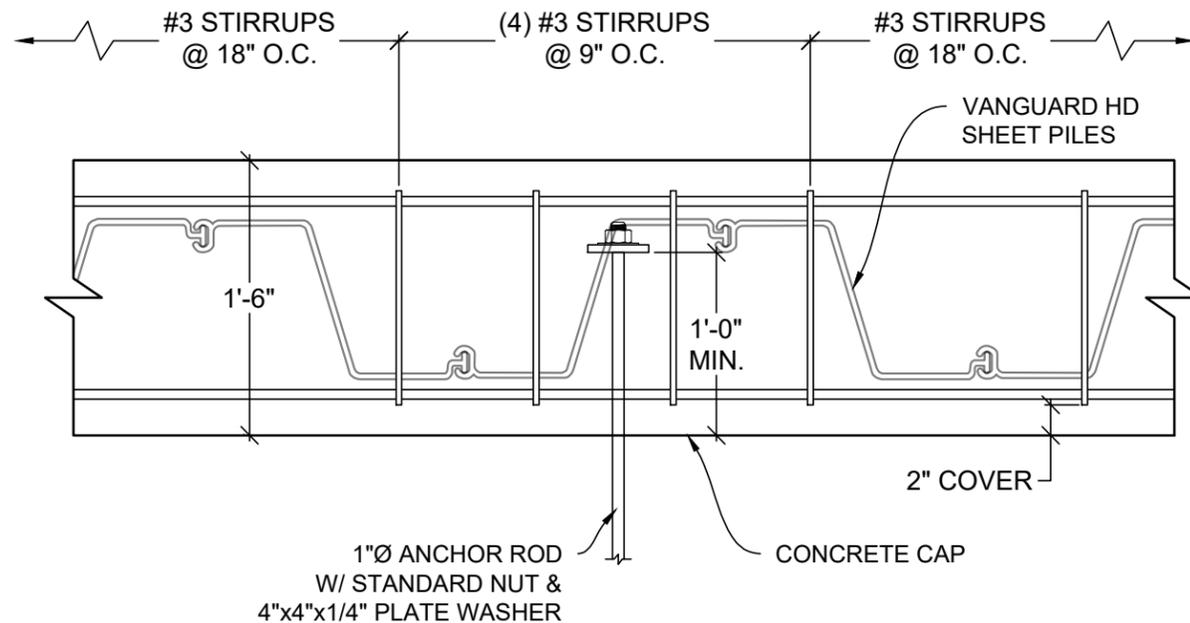
SCALE:
 3/4" = 1'-0"

BULKHEAD EXPANSION JOINT

R

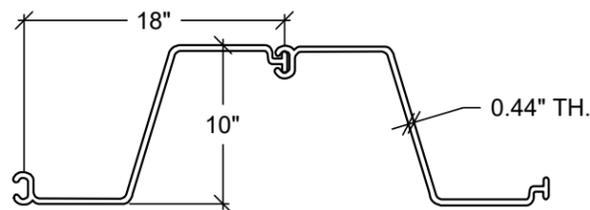
SCALE:
 1" = 1'-0"

TIEBACK ROD CONNECTION

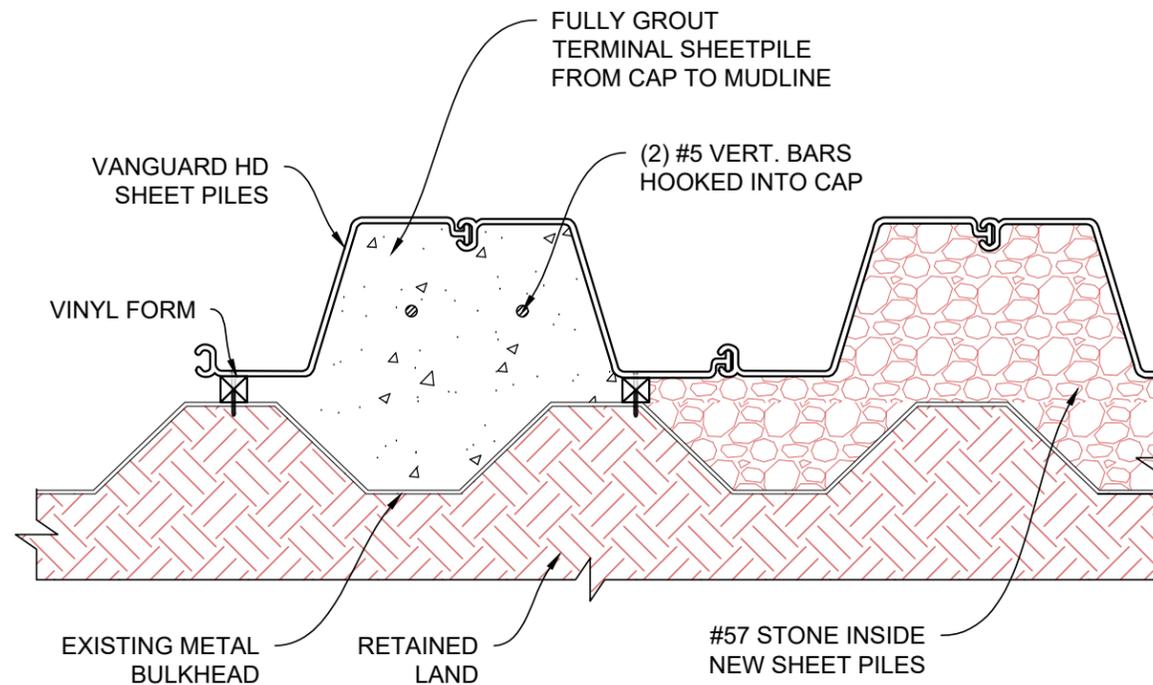


SHEET PILE NOTES:

1. SHEETPILES SHALL BE VANGUARD HD VINYL SHEET PILES OR EQUIVALENT.
2. NO BACKFILL SHALL BE PLACED AGAINST WALLS UNLESS THE WALLS ARE ADEQUATELY BRACED.
3. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR PRIOR TO ANY PILE DRIVING ACTIVITY. ALL PILE DRIVING ACTIVITY SHALL BE OBSERVED BY THE SPECIAL INSPECTOR.
4. PILES SHALL BE DRIVEN WITH A VARIATION OF NOT MORE THAN 1/4" PER FOOT FROM THE VERTICAL, WITH A MAX VARIATION OF THE HEAD OF THE PILE FROM THE POSITION SHOWN ON THE PLANS OF NOT MORE THAN 3".

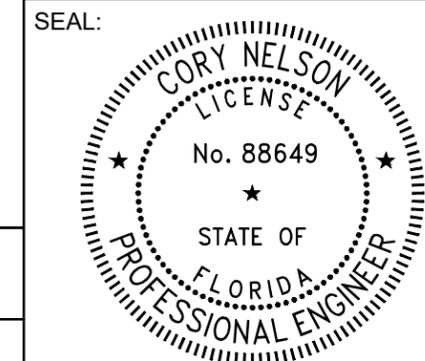


VANGUARD HD SPECS:
 MATERIAL: PVC
 TENSILE STRENGTH: 6,500 PSI
 FLEXURAL STRENGTH: 10,200 PSI
 ALLOWABLE MOMENT: 8,653-FT*LBS/FT



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TYP. BULKHEAD DETAILS

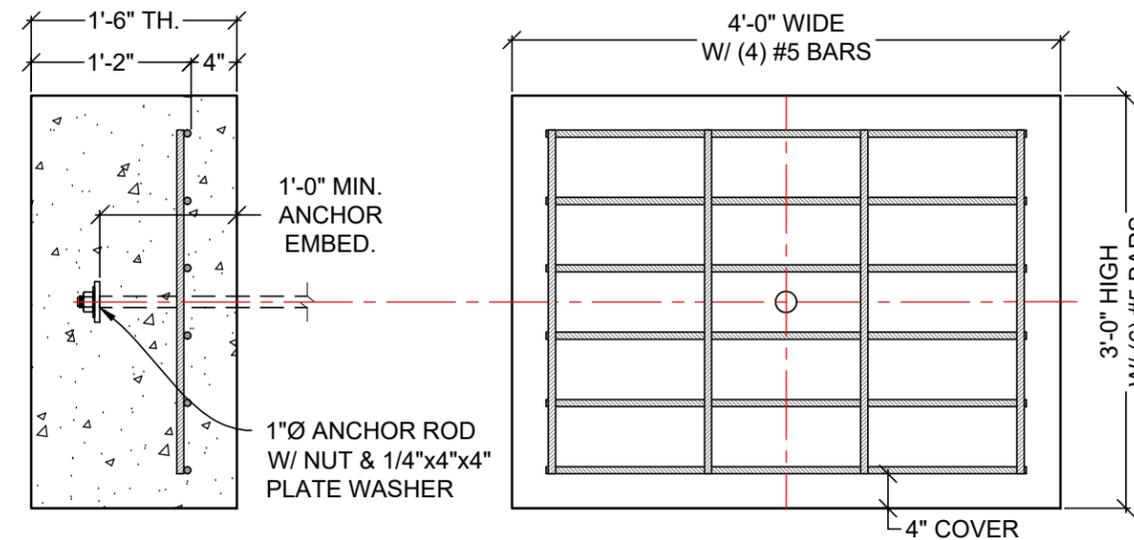
SHEET NO:
S-6

V SCALE: N.T.S. **VANGUARD HD SHEET PILE**

T SCALE: 1" = 1'-0" **BULKHEAD TERMINATION**

ANCHOR BLOCK NOTES:

1. MATERIALS:
 - 1.1. TIE-ROD (ASTM F1554, GR. 55), HOT DIPPED GALVANIZED
 - 1.2. PLATE WASHER (ASTM A36), HOT DIPPED GALVANIZED
 - 1.3. HEX NUT (ASTM A563), HOT DIPPED GALVANIZED



A SCALE: 3/4" = 1'-0" **ANCHOR BLOCK**