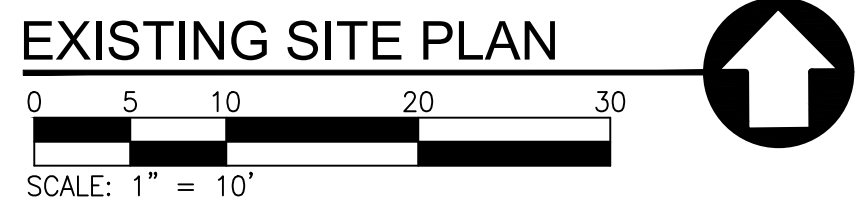


BULKHEAD REPLACEMENT

SCALE : AS NOTED	SHEET NO. S1.1
DESIGN BY : ARM	
DRAWN BY : TFFT	
CHECKED BY: ARM	
GMB FILE : 240239	
DATE : SEPT 2025	



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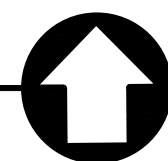
PROJECT NOTES

- PERFORM PROOF PULL TO 8000lb LOAD ON EVERY 5TH COMPLETED TIE ROD TO ASSEMBLE TO CONFIRM CAPACITY. TIGHTEN NUT BEFORE RELEASING LOAD. CONTRACTOR TO KEEP ROD WELDS EXPOSED FOR INSPECTION PRIOR TO BACKFILLING.
- TIMBER AT BULKHEAD END CONNECTIONS AND TRANSITIONS SHALL BE FIT TIGHT WITH LAPPED FILTER FABRIC FROM TOP TO BELOW MUDLINE. THEY SHALL BE SEALED TIGHT TO PREVENT ANY EROSION. ADD ADDITIONAL TIMBER WALES, SHEETING, ETC. TO PROVIDE SOUND EROSION FREE TRANSITION.
- CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF PERMIT DOCUMENTS.
- COORDINATE STRAIGHT SECTIONS OF NEW BULKHEAD ALIGNMENT WITH ENGINEER PRIOR TO STARTING WORK.
- FIELD CUTS SHALL BE TREATED IN ACCORDANCE WITH AWWA STANDARD M4.
- ALL BOLTS SHALL BE WEATHER-TUFF TIMBER BOLTS CONFORMING TO ASTM A307. ALL WASHERS SHALL BE 1/4" THICK N.Y.D.D. DOCK WASHERS AND BUTS SHALL BE HEAVY HEX TYPE UNLESS NOTED OTHERWISE. ALL NAILS SHALL BE RING SHANK OR ANNULAR NAILS AND STAINLESS STEEL SCREWS (316 SERIES).
- TIMBER COMPONENTS SHALL BE GRADE AND PRESSURE TREATMENT AS FOLLOWS:
 - PILES: CLASS B 2.5 CCA
 - SPLIT CAPS: 3x10 - SP#1, 1.5 PCF CCA
 - STRINGER: 3x8 - SP#2, 1.5 PSF CCA
 - DECKING: 2x8 - SP#1, 0.15 CA
 - WALES & LINERS: SP#1, 2.5 CCA
- THE EXPOSED WOOD SURFACES OF ALL DECKING AND CAPS SHALL BE STAINED WITH DURASTAIN BY WOLMAN OR APPROVED SUBSTITUTE. FOLLOW MANUFACTURER RECOMMENDATIONS FOR SURFACE PREPARATION AND APPLICATION. COLOR SELECTION BY OWNER.
- PUBLISHED MEAN TIDAL RANGE IS 1.62 FEET.
- TOPOGRAPHIC SURVEY WAS PERFORMED BY GEORGE, MILES & BUHR, LLC., ON DECEMBER 2024.
- BEFORE ANY EXCAVATION IS PERFORMED, CONTRACTOR SHALL CALL MISS UTILITY AT LEAST 48 HOURS PRIOR TO STARTING WORK TO HAVE UNDERGROUND UTILITIES LOCATED AND MARKED.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKEOUT OF LINE AND GRADE FOR ALL WORK.
- CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
- UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE DOME HEAD WEATHER-TUFF TIMBER BOLTS CONFORMING TO ASTM A307, ALL WASHERS SHALL BE 1/4" THICK N.Y.D.D. DOCK WASHERS AND NUTS SHALL BE HEAVY HEX TYPE. NAILS AND SCREWS SHALL BE 316 STAINLESS STEEL.
- DAMAGED PILES SHALL BE REMOVED AND REPLACED.
- ALL BOLTS SHALL BE DOME HEAD WEATHER-TUFF TIMBER BOLTS CONFORMING TO ASTM A307, ALL WASHERS SHALL BE 1/4" THICK N.Y.D.D. DOCK WASHERS AND NUTS SHALL BE HEAVY HEX TYPE UNLESS NOTED OTHERWISE. ALL NAILS SHALL BE STAINLESS STEEL RING SHANK OR ANNULAR NAILS AND IN ACCORDANCE WITH THE SIZES GIVEN IN THE CONTRACT DOCUMENTS. ALL HARDWARE SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153, EXCEPT NAILS AND SCREWS, WHICH SHALL BE STAINLESS STEEL. TIE RODS SHALL CONFORM TO ASTM A153.
- SHEETING SHALL BE AS INDICATED ON DRAWINGS. USING FULL LENGTH MANUFACTURER RECOMMENDED CORNER ADAPTERS AT ALL CORNERS AND TRANSITIONS.
- THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS FOR APPROVAL. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT IF THE GENERAL CONTRACTOR FAILS TO OBTAIN APPROVAL OF THE SHOP DRAWINGS. THE GENERAL CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER IN WRITING CONCERNING DEVIATIONS AND/OR OMISSIONS FROM THE CONTRACT DOCUMENTS AT THE TIME OF SHOP DRAWING SUBMISSION. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS AND SHALL MAKE ALL CORRECTIONS HE DEEMS NECESSARY BEFORE SUBMISSION. THE GENERAL CONTRACTOR SHALL STATE ON THE SHOP DRAWINGS THAT CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND THAT ALL DIMENSIONS, CONDITIONS, AND QUANTITIES HAVE BEEN REVIEWED AND VERIFIED AS SHOWN AND/OR CORRECTED ON THE SHOP DRAWINGS.

PROPOSED SITE PLAN

0 5 10 20 30

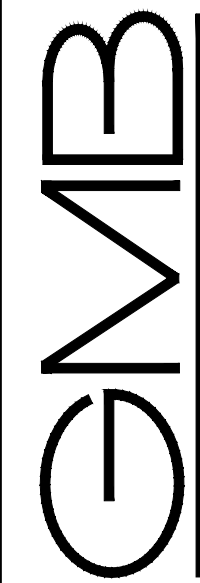
SCALE: 1" = 10'



PRINTS ISSUED FOR:
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REVISIONS

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BULKHEAD REPLACEMENT

CROUSE PARK
DENTON, MARYLAND

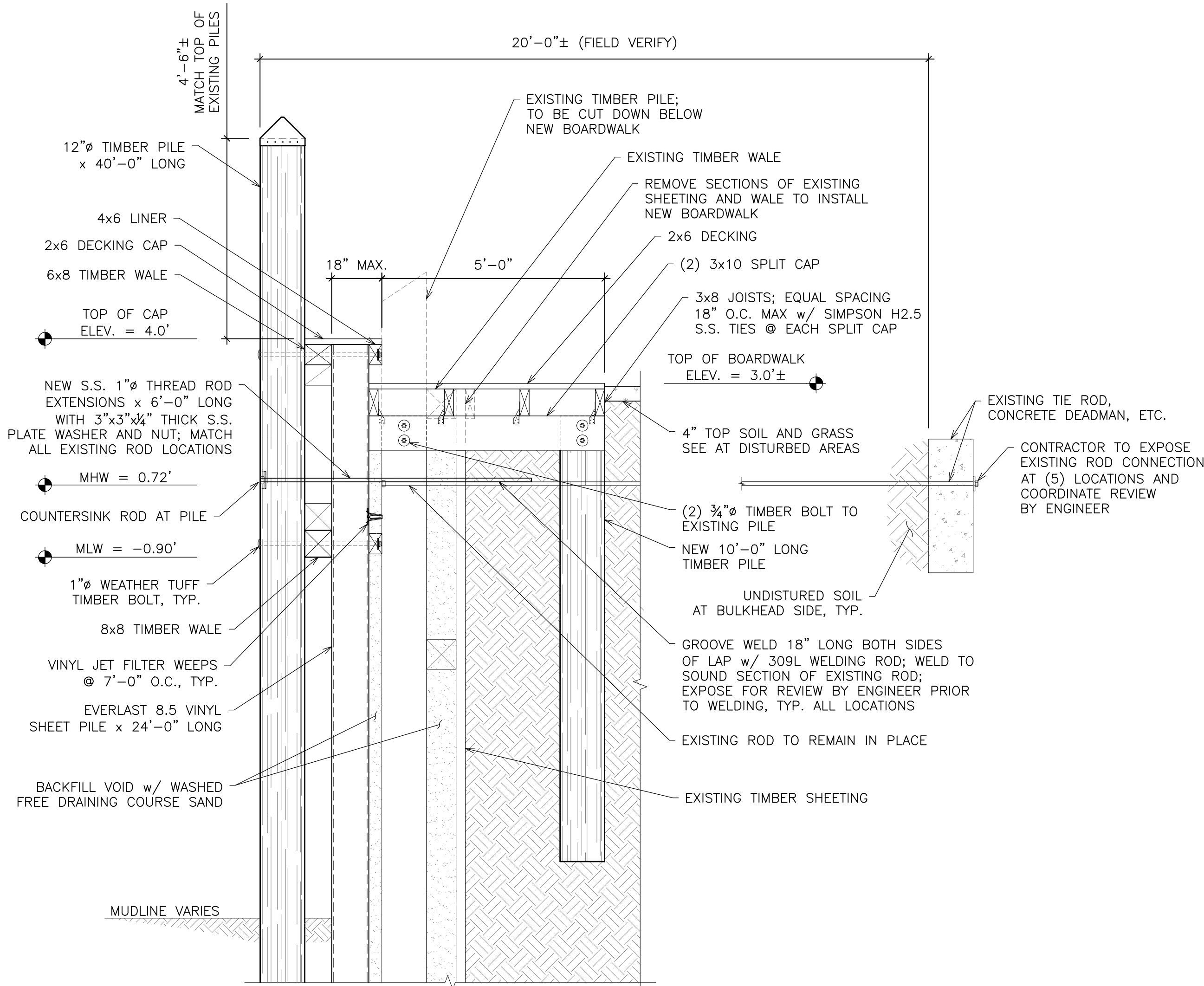
PROPOSED SITE PLAN

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CHECKED BY: ARM	
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S1.2

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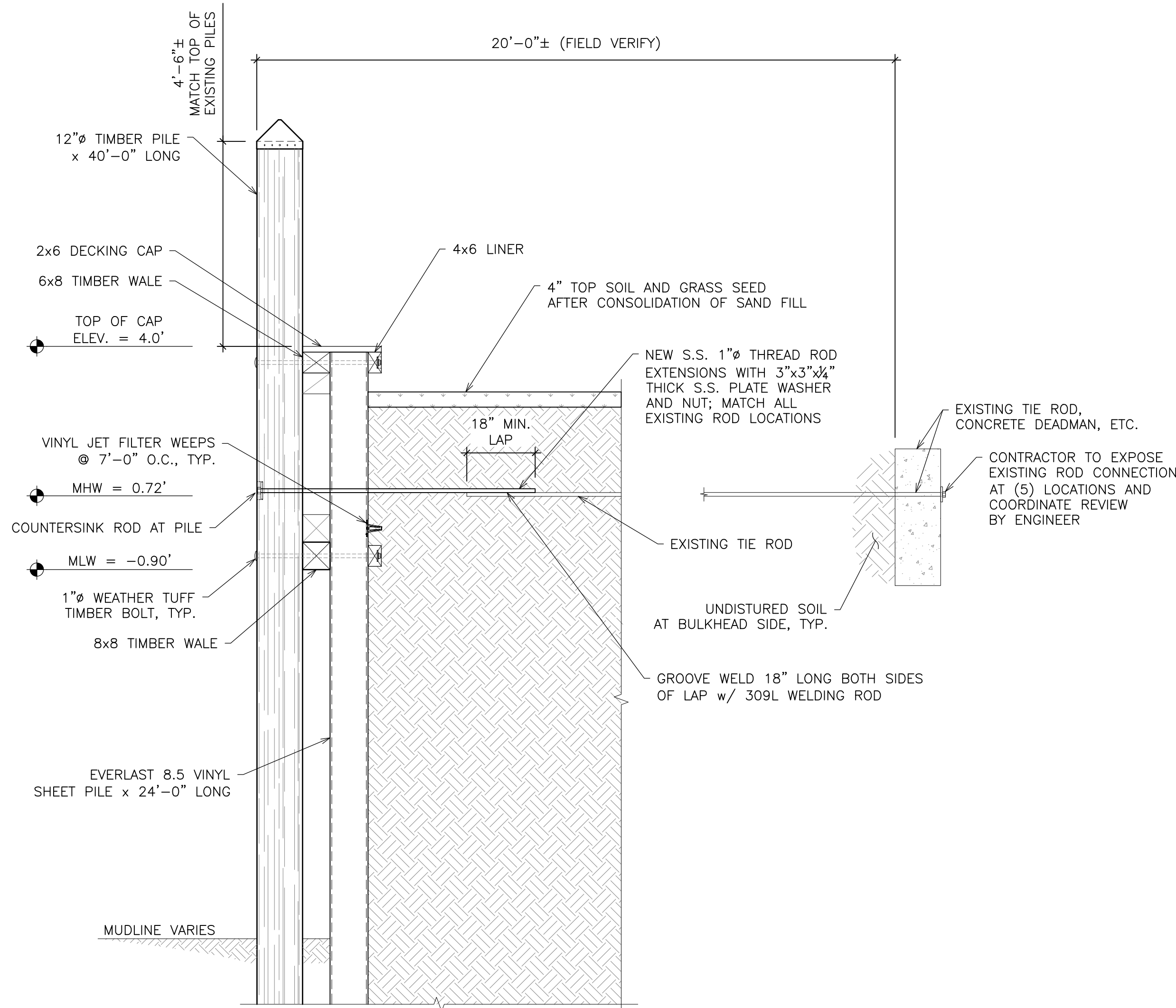
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TYPICAL BULKHEAD SECTION @ BOARDWALK

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

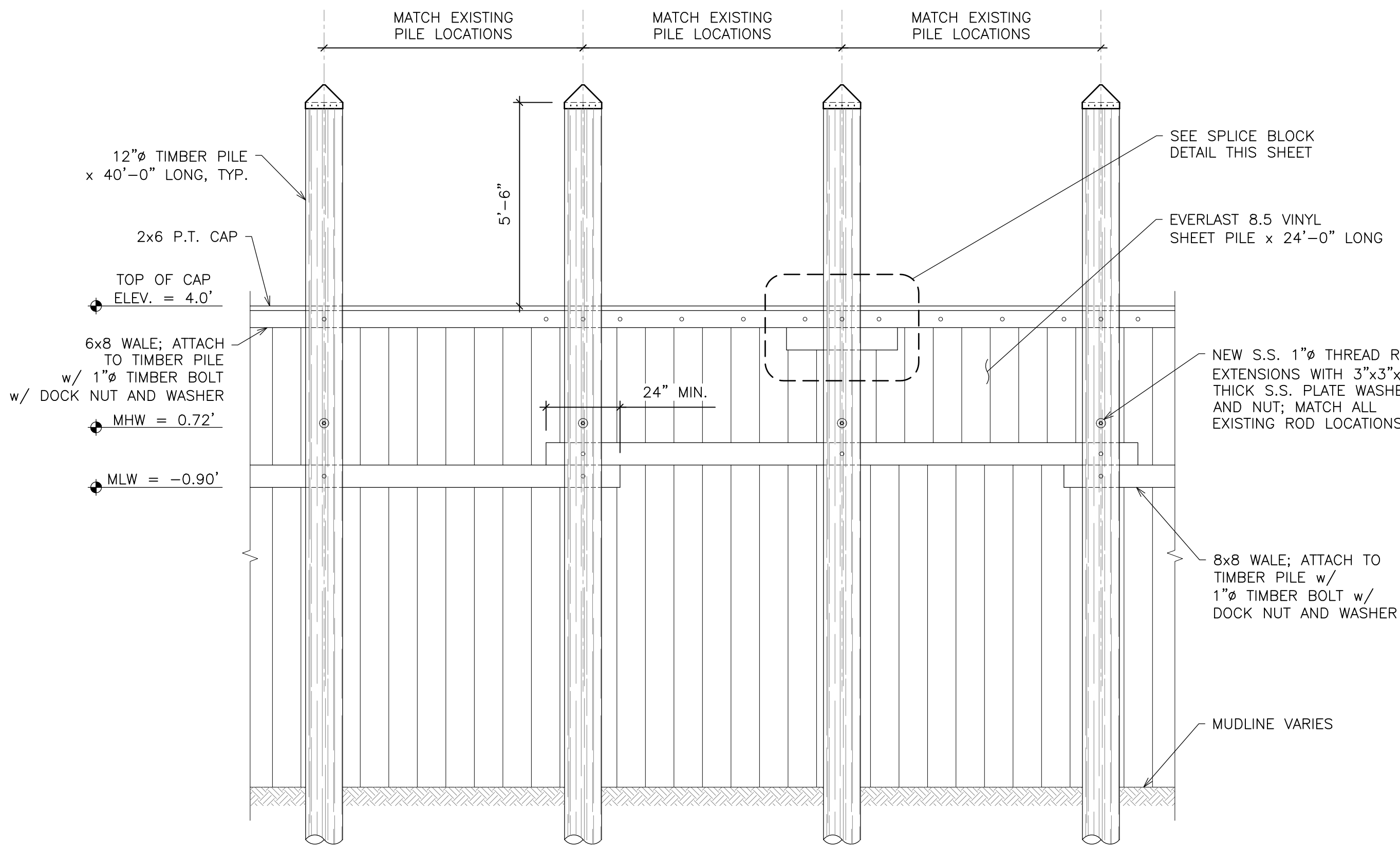
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S2.1



TYPICAL BULKHEAD SECTION @ IN-LINE w/ EXISTING

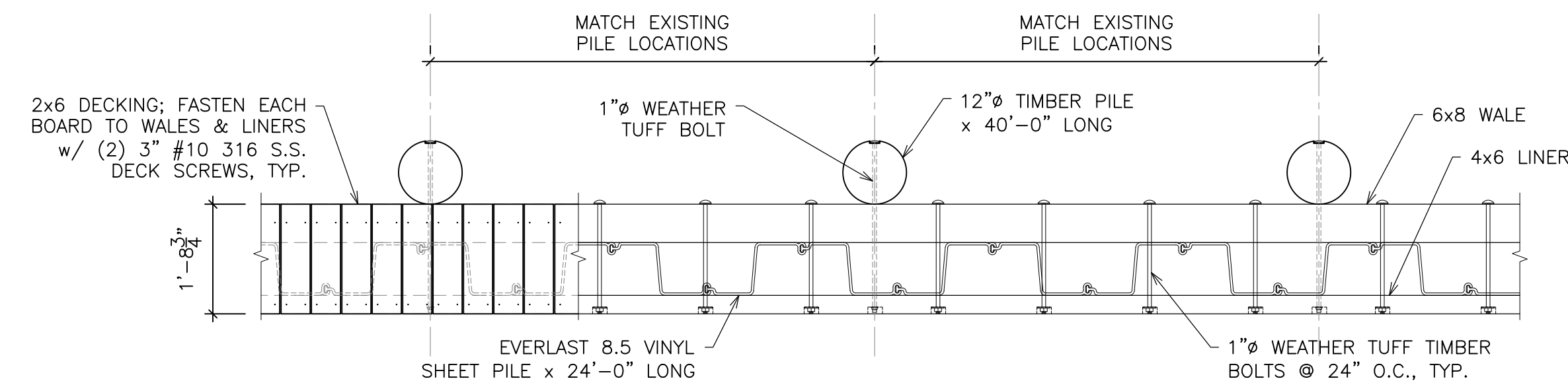
SCALE: 1/2" = 1'-0"

2
S2.1



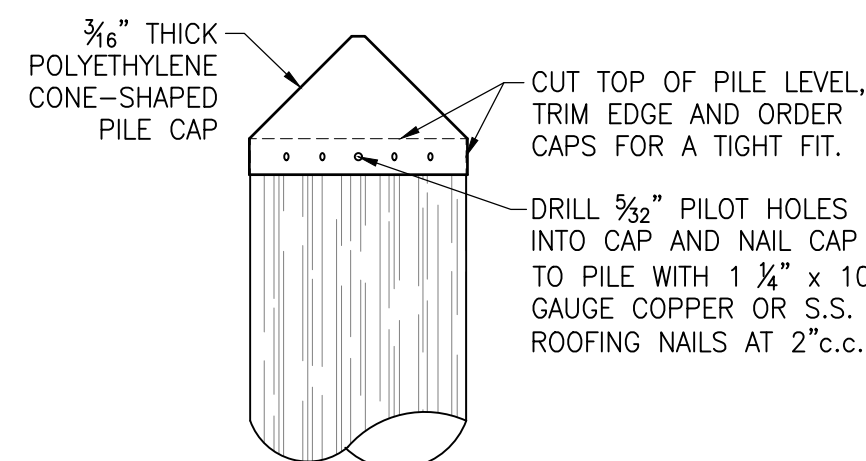
TYPICAL BULKHEAD ELEVATION

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



TYPICAL BULKHEAD PLAN

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

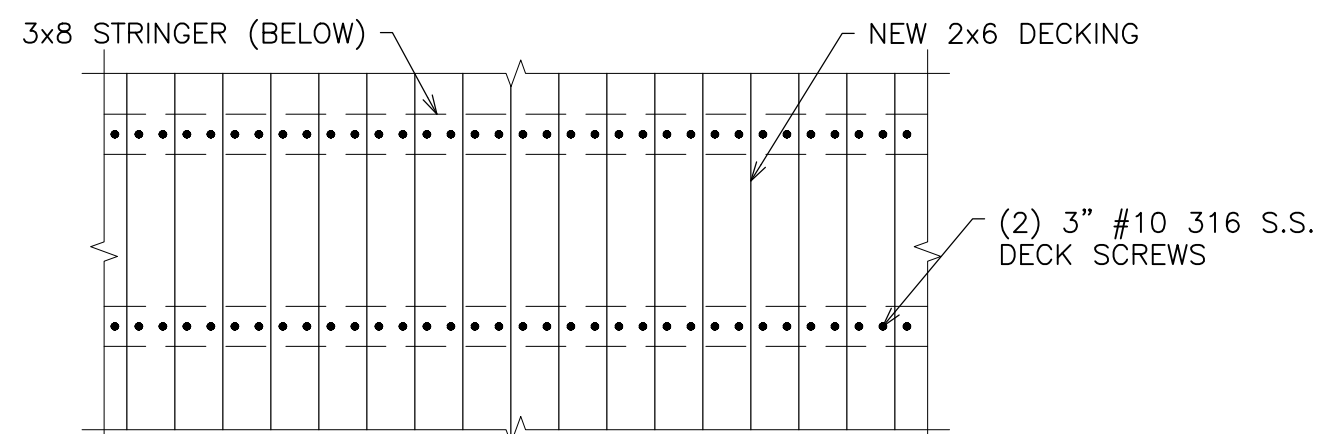


PLASTIC CONE CAP OPTION

NOTE:
SHALL BE WHITE CONE CAPS; INSTALLED AT EACH PILE

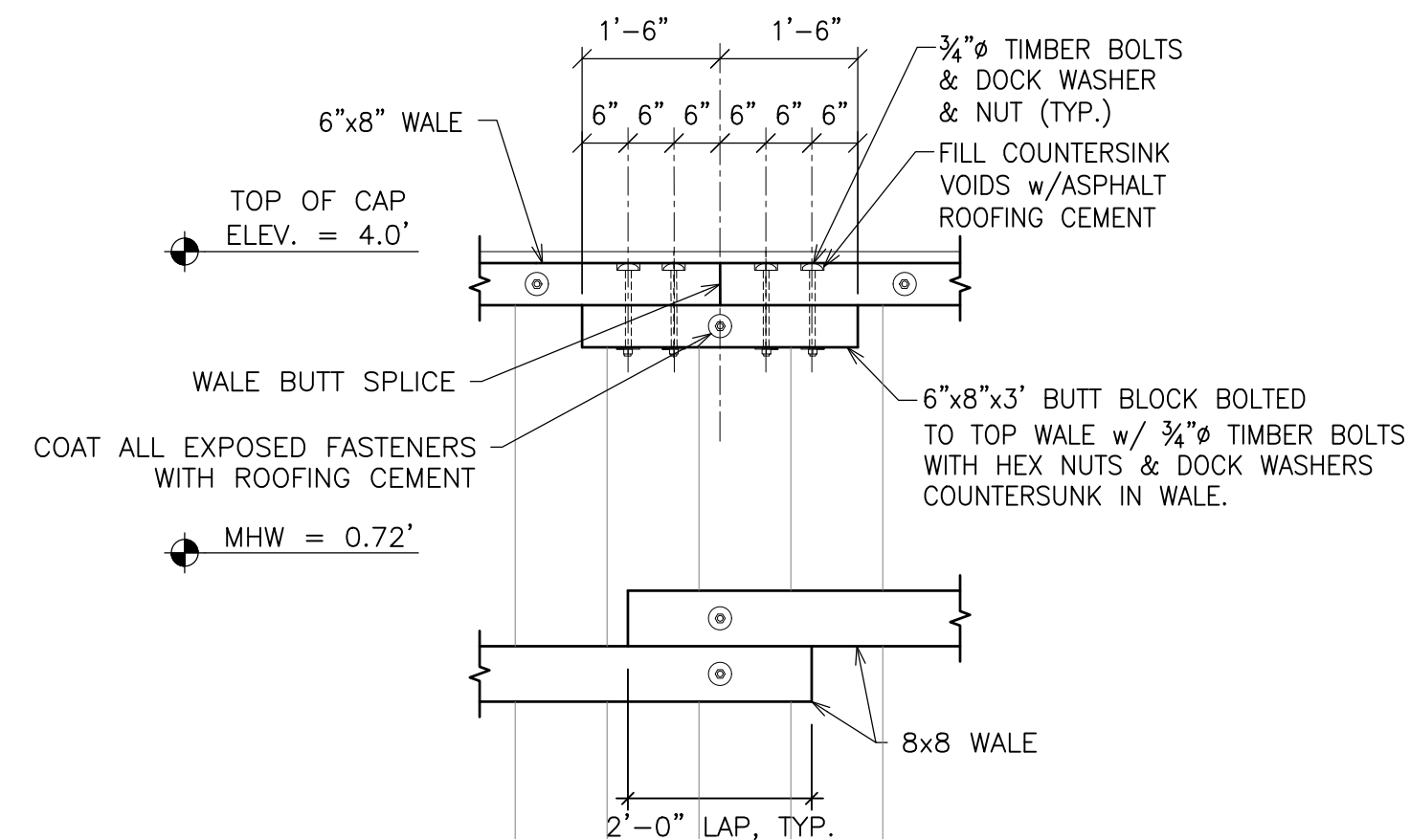
TYP. PILE CAP DETAIL

N.T.S.



DECK BOARD ATTACHMENT DETAIL

N.T.S.



TYPICAL TOP WALE SPICE DETAIL

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

PRINTS ISSUED FOR:
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REVISIONS

REV. #	DESCRIPTION	DATE
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BULKHEAD REPLACEMENT

CROUSE PARK
DENTON, MARYLAND

SECTIONS
AND DETAILS

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