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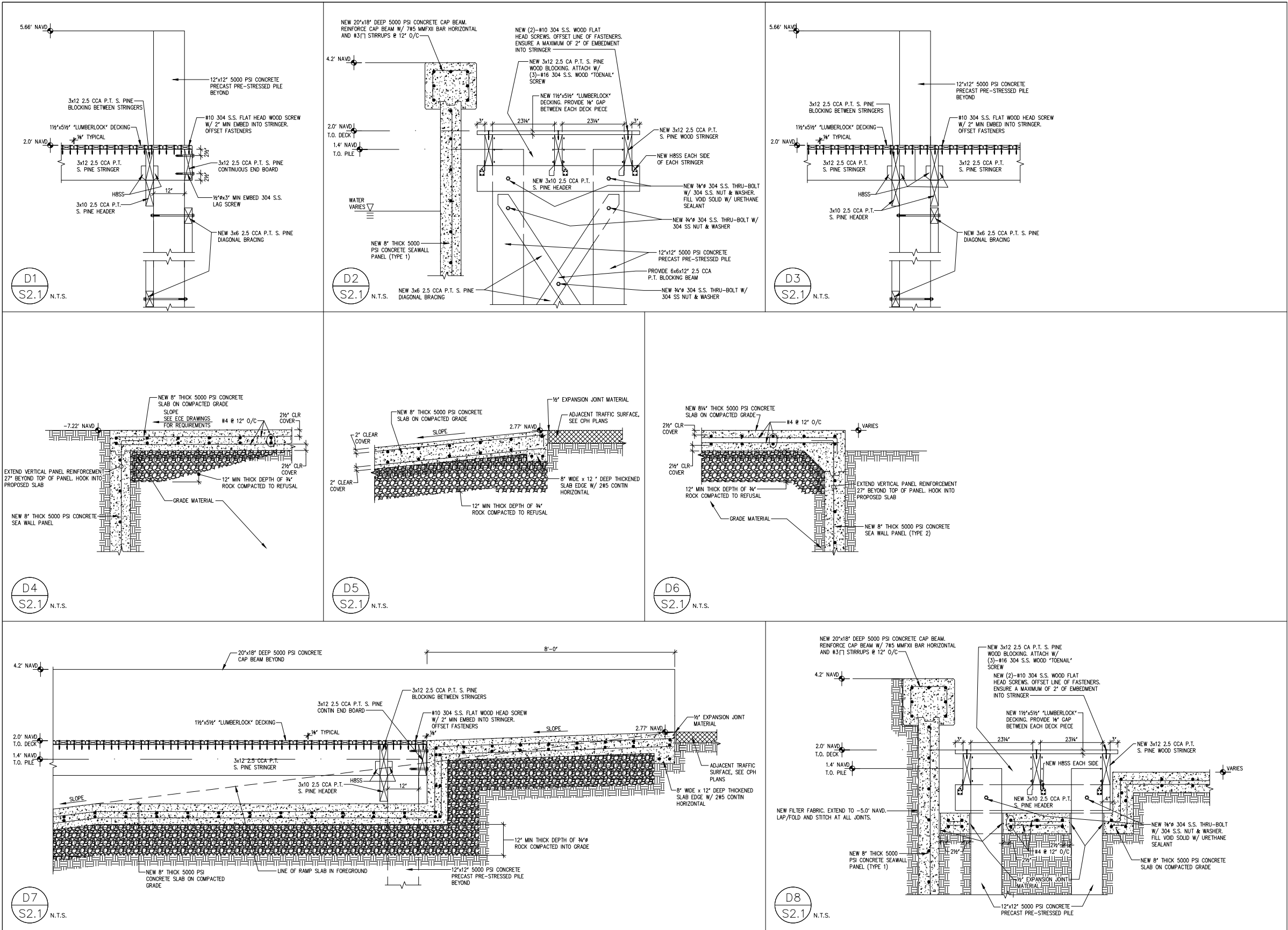
BRIAN STIRLING P.E.
PROFESSIONAL ENGINEER #34927
SWEG# S2013-103

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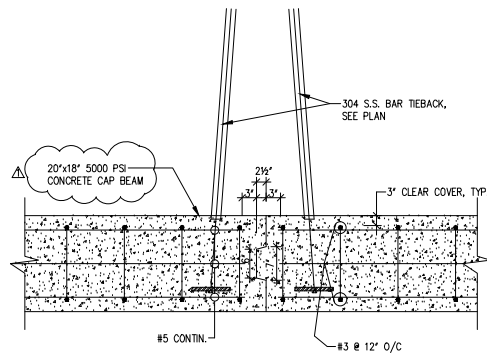
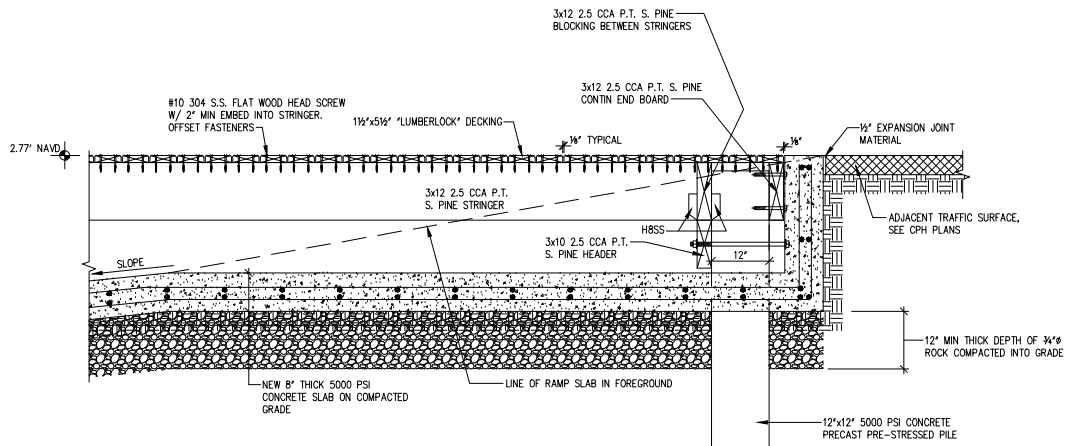
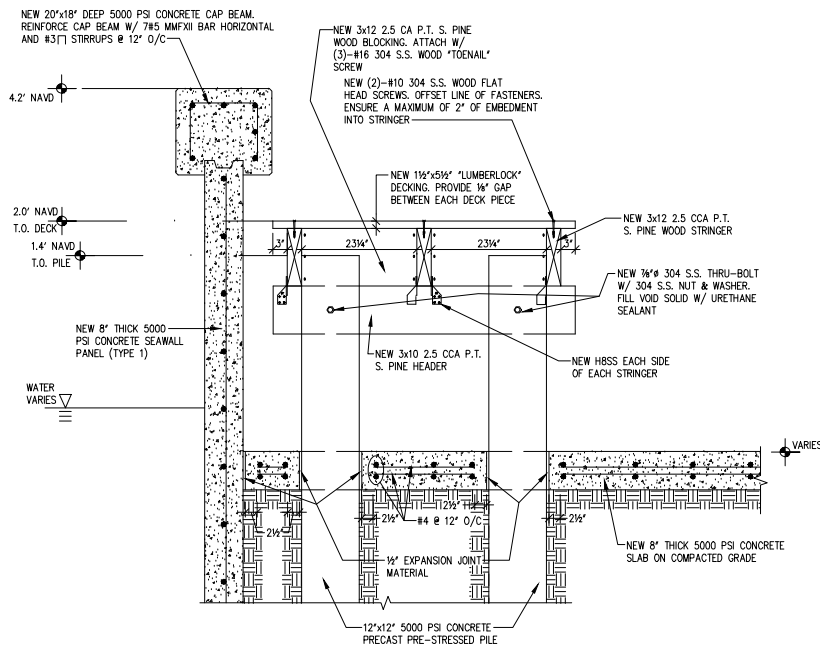
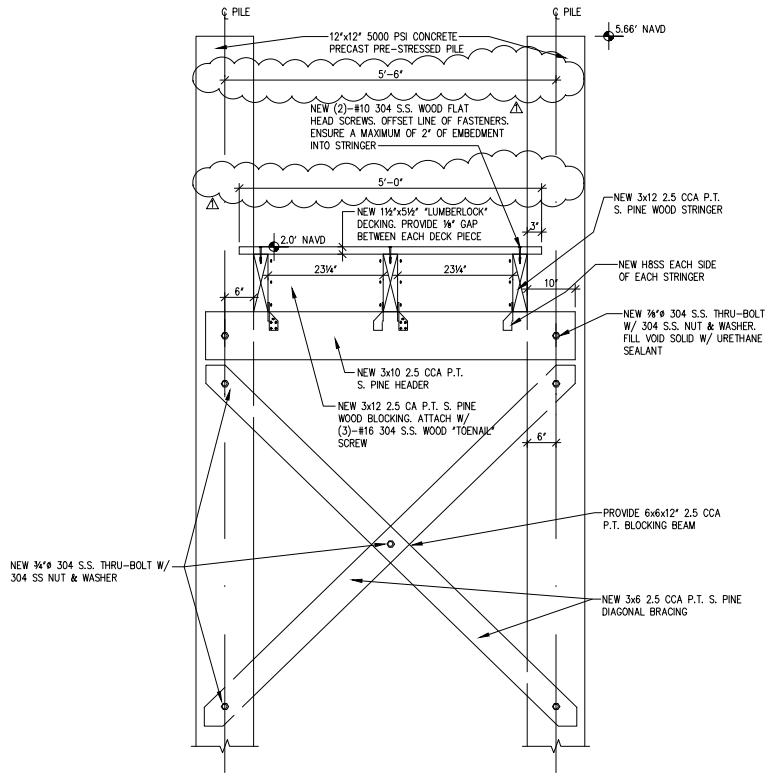
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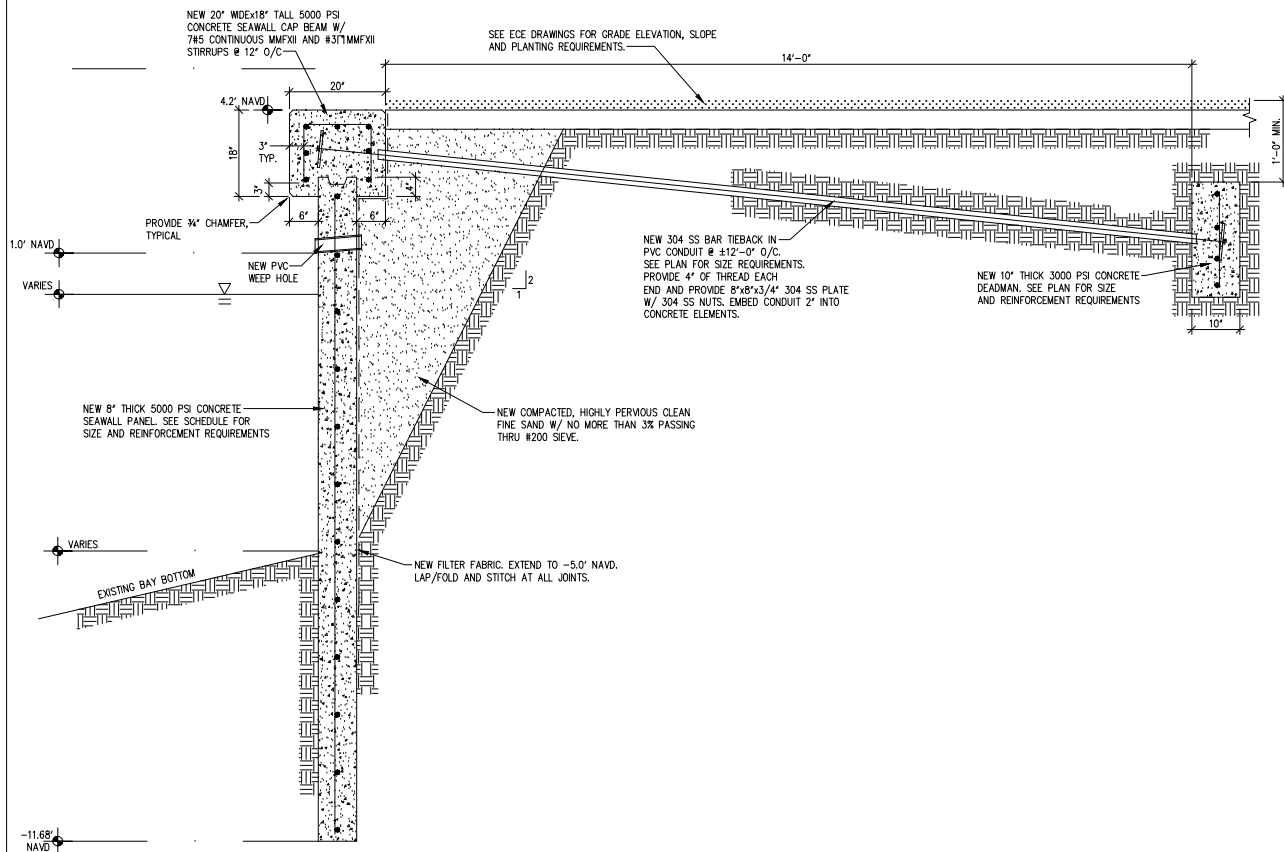
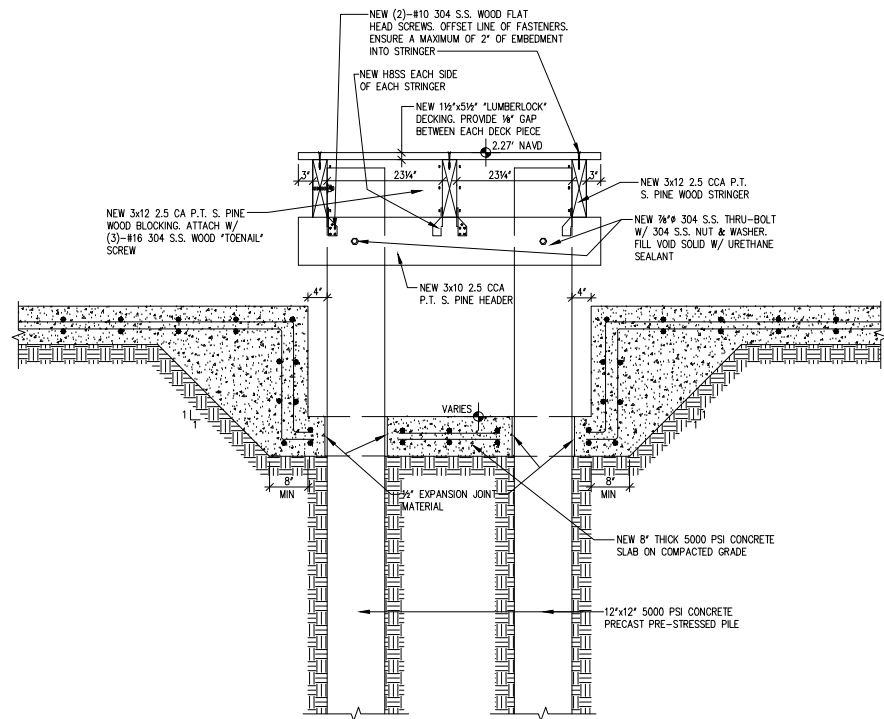
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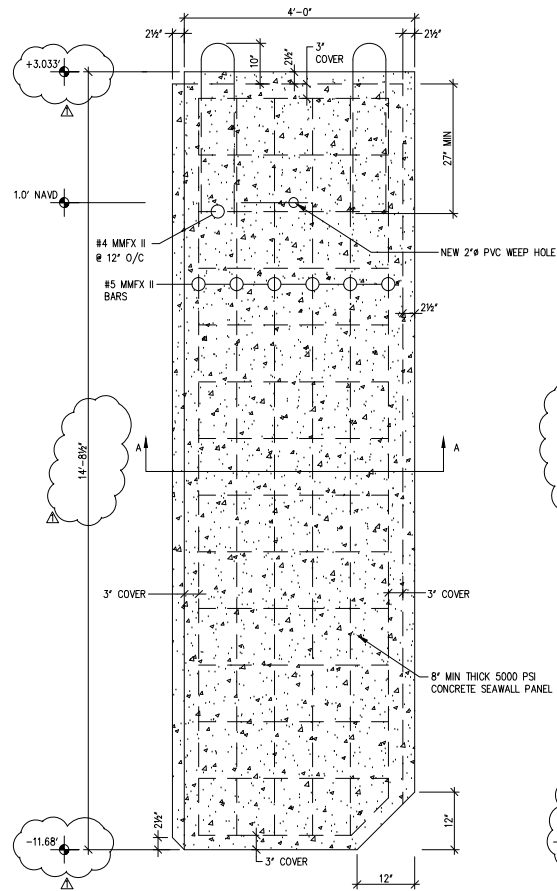
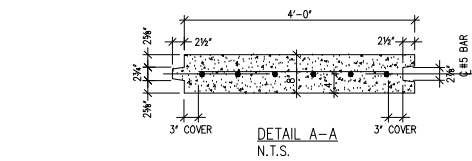
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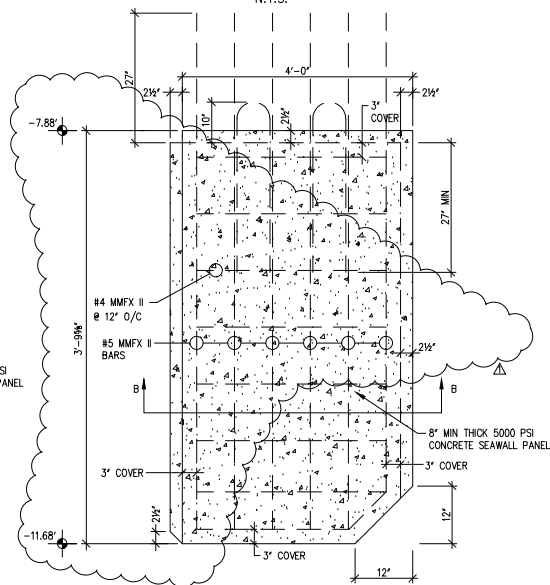
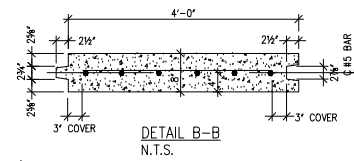
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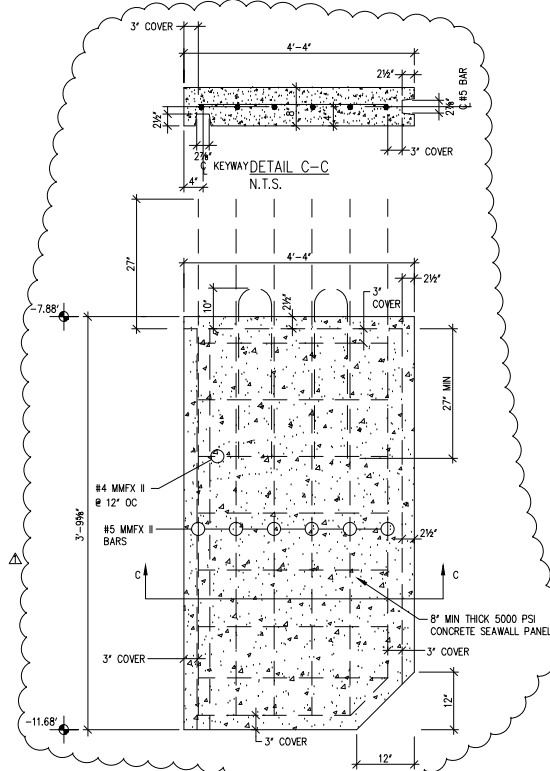
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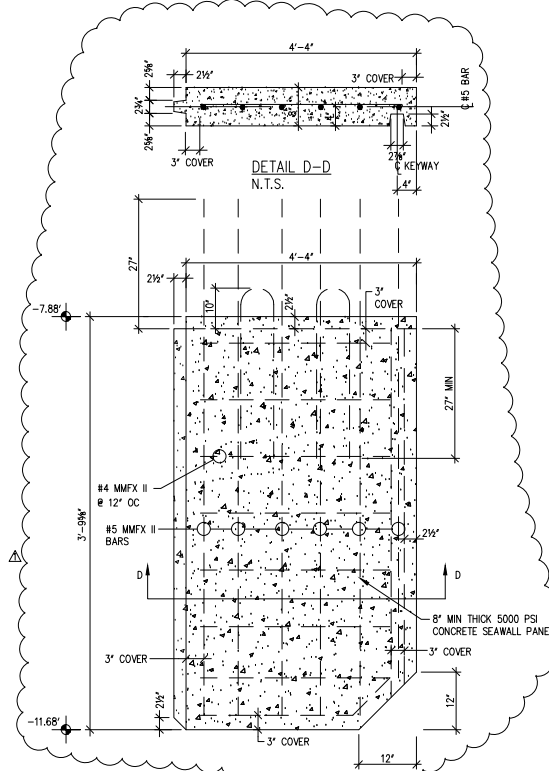
TYPE 1 PANEL DESIGN
N.T.S.
NOTE: MINOR CHANGES TO PANEL WIDTH WILL OCCUR ALONG LENGTH OF SEAWALL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER DETAILING ALL REQUIRED SIZES. CONTRACTOR TO MAINTAIN EQUAL OR GREATER VERTICAL REINFORCEMENT PERCENTAGES.



TYPE 2 PANEL DESIGN
N.T.S.
NOTE: MINOR CHANGES TO PANEL WIDTH WILL OCCUR ALONG LENGTH OF SEAWALL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER DETAILING ALL REQUIRED SIZES. CONTRACTOR TO MAINTAIN EQUAL OR GREATER VERTICAL REINFORCEMENT PERCENTAGES.



TYPE 3 PANEL DESIGN
N.T.S.
NOTE: MINOR CHANGES TO PANEL WIDTH WILL OCCUR ALONG LENGTH OF SEAWALL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER DETAILING ALL REQUIRED SIZES. CONTRACTOR TO MAINTAIN EQUAL OR GREATER VERTICAL REINFORCEMENT PERCENTAGES.



TYPE 4 PANEL DESIGN
N.T.S.
NOTE: MINOR CHANGES TO PANEL WIDTH WILL OCCUR ALONG LENGTH OF SEAWALL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER DETAILING ALL REQUIRED SIZES. CONTRACTOR TO MAINTAIN EQUAL OR GREATER VERTICAL REINFORCEMENT PERCENTAGES.

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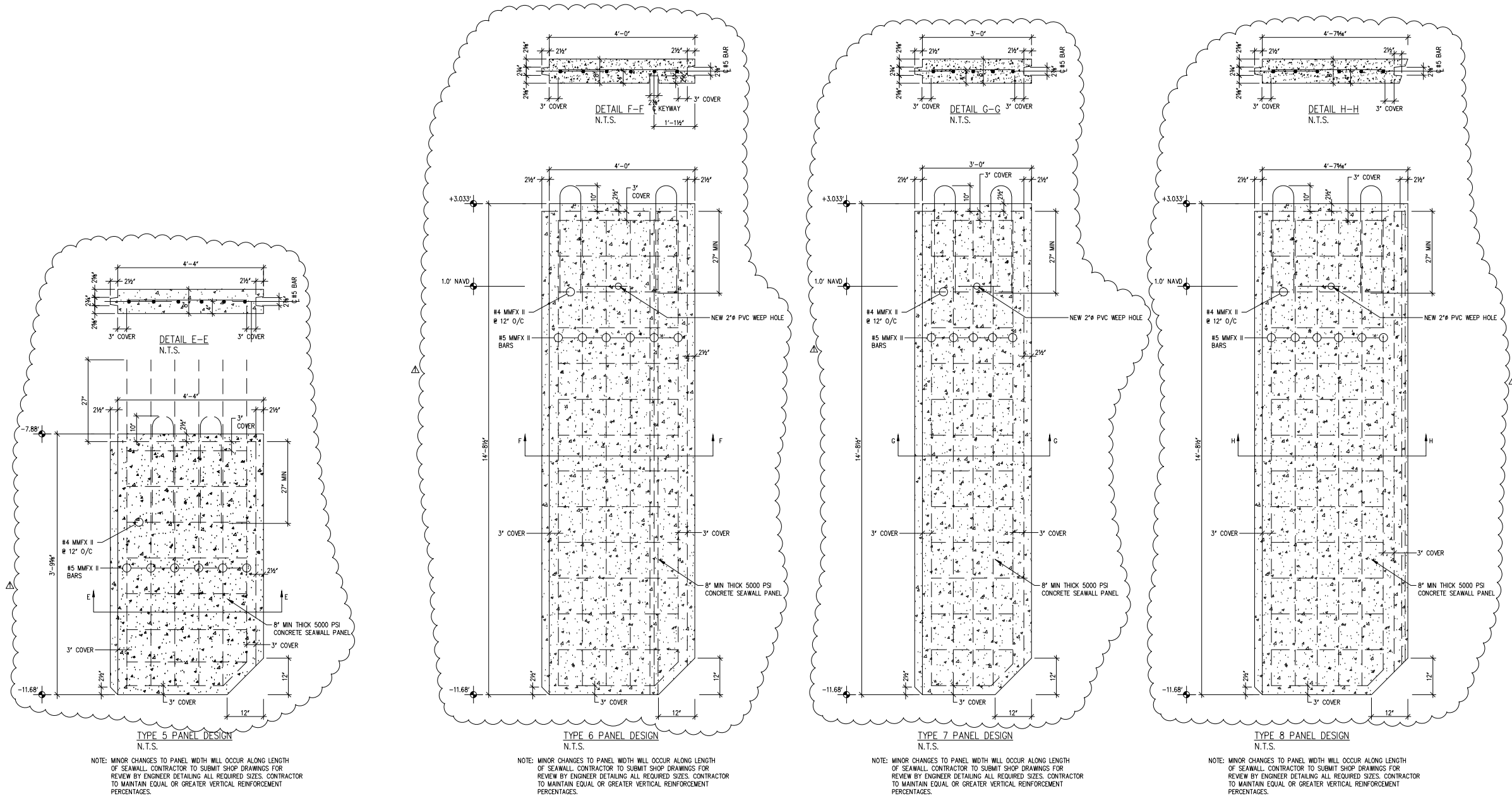
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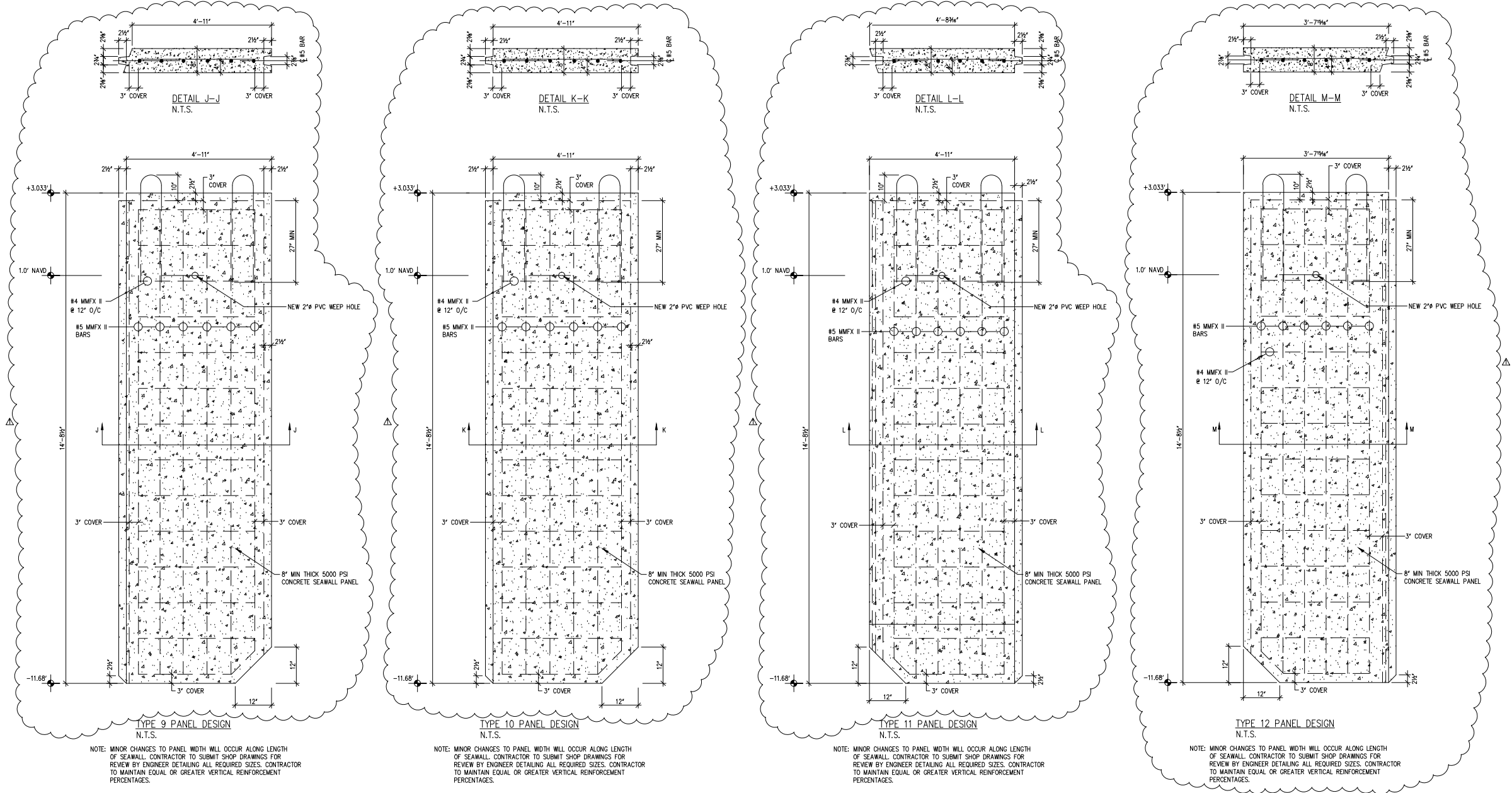
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GENERAL NOTES

DESIGN:

1. THE STRUCTURE DESCRIBED ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2010 EDITION.

GENERAL:

1. ALL DIMENSIONS, OTHER THAN PURELY STRUCTURAL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE CHECKED AGAINST THE ON SITE CONDITIONS. REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK.
2. DO NOT SCALE THE DRAWINGS.
3. NO PROVISION HAS BEEN MADE IN THE STRUCTURAL DESIGN FOR TEMPORARY CONDITIONS OCCURRING DURING CONSTRUCTION UNLESS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING AND BRACING REQUIRED TO RESIST STRESSES OR INSTABILITY OCCURRING FROM ANY CAUSE DURING CONSTRUCTION. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR SUCH MEASURES.
4. ALL CODES AND STANDARDS REFERRED TO ARE LATEST EDITIONS INCLUDING LATEST REVISIONS AND ADDENDA.
5. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING COMPONENTS, NOTED DISTRESSED AREAS, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL COMPONENTS. THE CONTRACTOR SHALL ALSO ESTABLISH EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO PROCEEDING.
6. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION PHASE AS TO ENSURE THAT THE FOUNDATIONS AND SLABS OF THE STRUCTURES AND SLABS TO REMAIN, ARE NOT UNDERMINED OR THAT THE SOIL SUPPORT IS NOT COMPROMISED. REFER TO PLANS OF EXISTING STRUCTURES IN "GOVERNMENTS" POSSESSION FOR MORE INFORMATION.
7. REMOVE AND LEGALLY DISPOSE ALL DEMOLITION DEBRIS TO AN APPROVED SITE.
8. ENGINEER MUST BE CONTACTED 48 HOURS PRIOR TO EACH POUR OF ANY STRUCTURAL CONCRETE.
9. DO NOT DISPOSE OF ANY MATERIALS INTO THE WATER.

FOUNDATIONS:

1. BACK FILLING AND COMPACTION:
 - A. BACK FILL ONLY WITH APPROVED MATERIAL. FOLLOW BACK FILLING RECOMMENDATIONS OF THE GEOTECHNICAL CONSULTANT IN THE ABSENCE OF SUCH INFORMATION, AND UNLESS NOTED OTHERWISE, BACK FILL IN 8" (MAX.) HIGH LIFTS, COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR DRY DENSITY. CONTRACTOR SHALL SUBMIT PROPOSED FILL AND DRAINAGE MATERIAL FOR REVIEW BY ENGINEER PRIOR TO COMMENCEMENT OF PROJECT.

CONCRETE NOTES

GENERAL

1. ALL CONCRETE MATERIALS BATCHING AND WORKMANSHIP SHALL CONFORM TO THE FOLLOWING:
 - ACI 304 CONCRETE PLACED UNDER WATER
 - ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
 - ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
 - ASTM C94 READY MIX CONCRETE

MATERIALS:

1. CONCRETE MINIMUM COMPRESSIVE STRENGTH(S) FOR CONCRETE SHALL BE AS NOTED ON THE STRUCTURAL PLANS, SLUMP 4" +/- 1" WITH A MAXIMUM WATER-TO-CEMENT RATIO OF 0.35 (5,000 PSI), 046 (3000 PSI). PROVIDE FLY ASH SUBSTITUTION TO 20% OF CEMENT CONTENT, ADD 50 LBS OF SILICA FUME PER CUBIC YARD OF MATERIAL. IN ALL CONCRETE PROVIDE A HIGH RANGE WATER REDUCING ADMIXTURE CONFORMING TO ASTM C609. ALL OTHER ADMIXTURES SHALL CONFORM TO ASTM C494 AND SHALL BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. ADD CORROSION INHIBITOR ADMIXTURE PER MANUFACTURER'S RECOMMENDATIONS.
2. SUBMIT MIX DESIGN(S) FOR REVIEW BY THE ENGINEER OF RECORD A MINIMUM OF 7 DAYS PRIOR TO INITIAL CONCRETE POUR.
3. ALL MILD REINFORCEMENT SHALL BE MMEF 2 REBAR (ASTM A615 GRADE 75 AND ASTM A1035-04).

EXECUTION:

1. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, PLACED AND SUPPORTED TO CONFORM WITH THE ACI DETAILING MANUAL, ACI SP-16.
2. MINIMUM REINFORCING STEEL LAP SPLICED LENGTH, UNLESS NOTED OTHERWISE, IS 36X BAR DIAMETER.
3. POUR STRUCTURAL CONCRETE WITHIN THE FOLLOWING TOLERANCES:
VARIATION FROM PLUMB: 1/4" IN 10'-0".
VARIATION FROM LEVEL IN TOPS OF SLABS, AND BEAM: 1/8" IN 10'-0".
4. INSERTS, SLEEVES, CONDUITS, FASTENERS, ETC, WHERE REQUIRED BY THE DOCUMENTS, SHALL BE INSTALLED SO AS NOT TO IMPAIR THE INTEGRITY OF THE STRUCTURE, AND IN A MANNER WHICH WILL NOT REQUIRE THE BENDING, CUTTING OR DISPLACEMENT OF THE REINFORCEMENT.
5. FOR READY MIX CONCRETE THE MAXIMUM TIME PERMITTED BETWEEN BATCHING AND DEPOSITING THE FORM WORK IS 90 MINUTES. CONCRETE NOT PLACED WITHIN THIS TIME LIMIT SHALL BE REJECTED.
6. THE ADDITION OF MIX WATER AT THE SITE TO INCREASE THE CONCRETE SLUMP SHALL NOT BE ALLOWED AND SHALL BE CAUSE FOR REJECTION OF THAT BATCH OF CONCRETE.
7. OPENINGS OR FASTENERS REQUIRED AFTER CONCRETE PLACEMENT SHALL BE INSTALLED ONLY WITH THE APPROVAL OF THE ENGINEER.
8. PLACEMENT OF CONCRETE TO BE POURED BELOW WATER SHALL BE COORDINATED WITH MAXIMUM LOW TIDE PERMISSIBLE.
9. SUBMIT SHOP DRAWINGS FOR REINFORCEMENT DETAILING, BENDING, AND PLACING OF CONCRETE REINFORCEMENT.
10. FOR ALL CONCRETE SURFACES WHERE LEGS OF SUPPORT DEVICES ARE IN CONTACT WITH FORMS, PROVIDE SUPPORTS WITH LEGS THAT ARE STAINLESS STEEL (GR3, CLASS2).
11. ALL CONCRETE SHALL BE CURED FOR A MINIMUM OF 3 DAYS.
12. PROVIDE CONCRETE TESTING OF CONCRETE MATERIAL CONFIRMING DESIGN STRENGTHS.

TIEBACK:

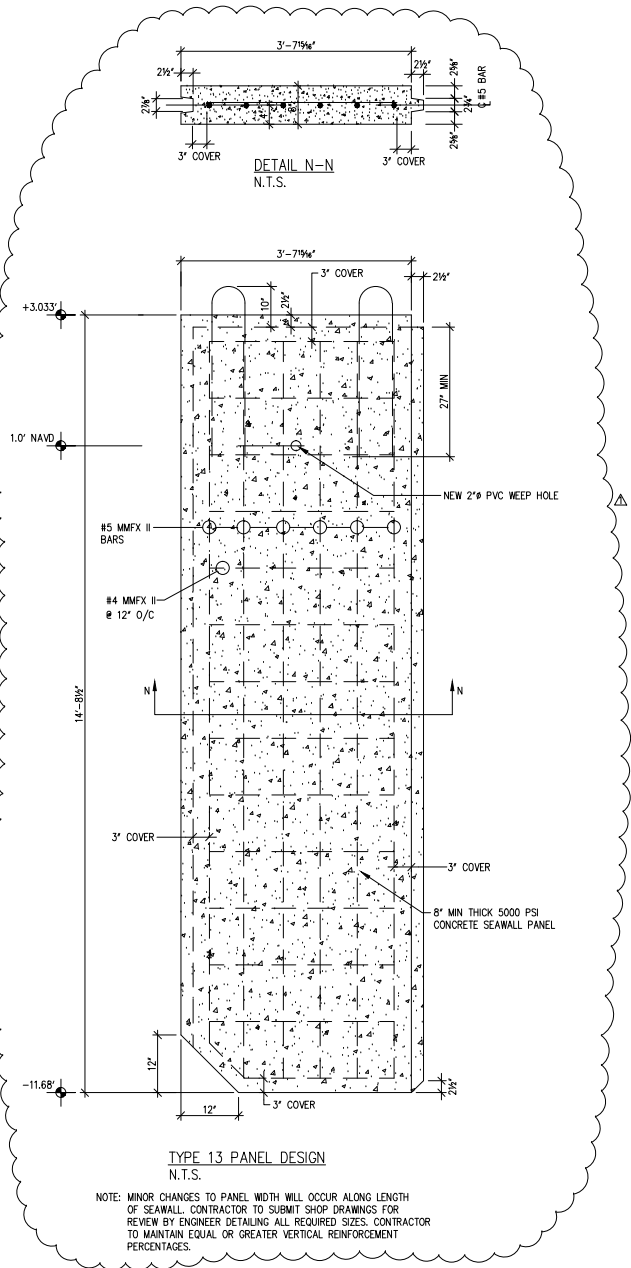
1. PVC:
TYPE I, GRADE I SCHEDULE 40 PVC, CONFORMING TO SECTION 948 OF FDOT "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, 2010".
2. GREASE:
MEET REQUIREMENTS OF SECTION 3.2.5 OF THE POST TENSIONING INSTITUTE SPECIFICATION FOR UNBONDED SINGLE STRAND TENDONS, PER SECTION 451 OF FDOT "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, 2010".

NOTES

1. SUBMIT TO ENGINEER FOR REVIEW, COMPLETE DETAILS AND SPECIFICATION OF THE PROPOSED PILES AND A WRITTEN STATEMENT DESCRIBING THE EQUIPMENT TO BE USED.
2. INSTALL PILES/SHEET PILES TO -11.8' NAVD.
3. REPRESENTATIVE FROM ARDAMAN & ASSOCIATES, INC. TO BE PRESENT DURING PILE INSTALLATION TO PROVIDE THE NECESSARY ENGINEERING DOCUMENTATION OF PILE CAPACITIES. NO STRUCTURAL CONCRETE SHALL BE POURED AT PILES WHERE DOCUMENTATION HAS NOT BEEN SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.
4. REMOVE EXISTING DOCK STRUCTURE, SEAWALL, RAMP, PLUMBING, AND ELECTRICAL COMPONENTS AND DISPOSE OF LEGALLY.
5. THE DOCK WAS DESIGNED TO CARRY A LIVE LOAD OF 40 PSF.
6. PROVIDE THE FOLLOWING MISCELLANEOUS ACCESSORIES, PROVIDE PRODUCT DATA SHEET FOR OWNER REVIEW AND ACCEPTANCE PRIOR TO PURCHASE AND INSTALLATION. ALL ATTACHMENT FASTENERS SHALL BE OF STAINLESS STEEL MATERIAL. (CONICAL PILING CAPS, FISH CLEANING STATION "Fillet-A-Way" CLEANING TABLES AS MANUFACTURED BY "SILTECH", CONCRETE PILE RUB RAILS. REFER TO HIGHLAND SHORES BOAT RAMP FACILITY AT 3535 SHORE DRIVE, ELLENTON FLORIDA). PROVIDE 1/4" DEEP x 1/4" WIDE GROOVES IN RAMP SLAB AT 1/4" O/C. TEXTURE IS A MINIMUM PROFILE. CONTRACTOR TO PROVIDE MEANS AND METHODS OF TEXTURE INSTALLATION W/ BID. ALL ITEMS SHALL BE IN BASE BID, HOWEVER, SINCE SPECIFIED MODELS HAVE NOT BEEN SELECTED BY OWNER, CONTRACTOR SHALL PROVIDE ALLOWANCE FIGURE AND PRODUCT DATA ASSOCIATED WITH SAID ALLOWANCE WITH BID.
7. CONTRACTOR TO ADHERE TO THE FOLLOWING INSTALLATION TOLERANCES:
 - A. CONCRETE SHEET PILE: OUT OF PLANE PLUMBNESS- 1/4" IN 4'.
 - B. CONCRETE SHEET PILE: IN PLANE PLUMBNESS- INTERLOCK SEPARATION 1/4" MAXIMUM.
 - C. STRAIGHTNESS OF CONCRETE SHEETPILE LINE- 1/4" IN 4'.
 - D. TOP OF SHEETPILE ELEVATION ±1/4".
8. FILTER FABRIC SHALL CONFORM TO FDOT SPECIFICATION STANDARD INDEX 199, US 230 (WOVEN).

FRAMING NOTES:

1. CONNECTIONS, MATERIALS AND WORKMANSHIP SHALL BE IN STRICT ACCORDANCE WITH CHAPTER 17, WOOD CONSTRUCTION, OF THE MOST RECENT STANDARD BUILDING CODE AND THE TIMBER CONSTRUCTION MANUAL BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) OR SOUTHERN PINE INSPECTION BUREAU (SPIB). MOISTURE CONTENT SHALL NOT BE MORE THAN 19% AT THE TIME OF INCORPORATION INTO STRUCTURE.
2. ALL STRINGER MATERIAL SHALL BE #1 SOUTHERN PINE FRAMING (UNLESS NOTED OTHERWISE), AS DESCRIBED IN THE SPIB GRADING RULES.
3. IF STANDARDS FOR WOOD PRODUCTS TREATMENT IS NOT CONSISTENT W/ THE FOLLOWING, THE LATEST STANDARDS WILL PREVAIL.
4. PROCESS FOR PRESERVATIVE TREATMENT SHALL BE IN CONFORMANCE TO THE AMERICAN WOOD PRESERVER'S ASSOCIATION (AWPA) STANDARDS C2-90, C9-91, AND C18-91.
5. THE PURCHASE, INSPECTION, AND HANDLING OF ALL NEW WOOD MATERIAL SHALL BE IN CONFORMANCE W/ THE APPLICABLE SECTIONS OF THE AWPA STANDARDS M1, M2, AND M4, LATEST EDITION.
6. THE CONTRACTOR SHALL PROVIDE A LETTER(S) FROM AN EXPERIENCED INSPECTOR(S) QUALIFIED IN THE RESPECTIVE FIELD, THAT THE WOOD PRODUCTS, PRESERVATIVES, AND TREATMENT, MEET THE SPECIFICATIONS AND THAT THE METHODS AND FACILITIES OF PRODUCTION CONFORM W/ THE APPLICABLE AWPA STANDARDS OF RECOMMENDED PRACTICE.
7. AN INSPECTORS TAG/STAMP SHALL BE REQUIRED ON EACH PIECE OF ACCEPTED MATERIAL WHEN SAID MATERIAL ARRIVES ON SITE. THE TAG/STAMP SHALL BE PLACED ON THOSE PIECES CONFORMING TO ALL STAGES OF PROCESSING. THE INSPECTION TAG/STAMP SHALL REMAIN ON MATERIAL, AS A MINIMUM, UNTIL ENGINEER-OF-RECORD HAS VERIFIED MATERIAL.
8. STEP-BY-STEP WORK SHEETS ARE REQUIRED FOR USE IN RECORDING PRESERVATIVE ANALYSIS AND RETENTION ASSAYS. REFER TO SECTION 7.0 OF AWPA STANDARD M2 FOR MORE INFO.
9. ALL COMMENTS WITHIN THE AWPA STANDARDS STATED AS AN OPTION SHALL BE INTERPRETTED BY THE CONTRACTOR AS A SPECIFIC REQUIREMENTS OF THESE DOCUMENTS.
10. BRANDS SHALL BE IN ACCORDANCE WITH AWPA M6 AND SHALL BE PLACED CLEARLY AND PERMANENTLY ON EACH STRINGER. MEMBERS SHALL BE BRANDED AT A MAXIMUM OF 6'-0" O/C.
11. TREATED MATERIAL SHALL NOT BE DRAGGED ALONG THE GROUND.
12. PRIOR TO USE, TREATED MATERIAL SHALL BE STACKED ON TREATED OR NON-DECAYING SKIDS OF SUCH DIMENSIONS AND SO ARRANGED AS TO SUPPORT THE MATERIAL WITHOUT PRODUCING NOTICEABLE DISTORTION.
13. ALL TREATED MATERIAL SHALL BE STOOPIED IN SUCH A MANNER SO THAT THERE IS AIR SPACE BENEATH THE MATERIAL.
14. STORAGE AREAS SHALL BE FREE OF DEBRIS, DECAYED WOOD AND DRY VEGETATION (FIRE HAZARD) AND SHALL HAVE SUFFICIENT DRAINAGE TO PREVENT WOOD PRODUCTS FROM BEING SUBJECTED TO STANDING WATER.
15. ALL CUTS, HOLES, AND INJURES OF THE SURFACE OF TREATED MATERIAL SHALL BE FIELD-PROTECTED BY THOROUGHLY SATURATING ALL AREAS WITH A FIELD-TREATING SOLUTION PRIOR TO ERECTION AND PLACEMENT OF FASTENERS.
16. COPPER NAPHTHENATE SOLUTIONS SHALL BE USED AS FIELD TREATMENTS. THE PRESERVATIVE SOLUTION SHALL BE PREPARED BY BLENDING COPPER NAPHTHENATE PRESERVATIVE MEETING AWPA STANDARD P9. THE SOLUTION SHALL CONTAIN A MIN OF 2% COPPER METAL.
17. ALL UNUSED BORE HOLES AND NAIL HOLES SHALL BE POURED FULL OF PRESERVATIVE AND PLUGGED WITH TIGHT-FITTING TREATED PLUGS OF THE SAME MATERIAL.
18. ALL DIMENSIONS SHOWN ON THE PLAN SHALL BE FIELD VERIFIED PRIOR TO FABRICATION/ERECTION.
19. ALL FASTENER HOLES SHALL BE PRE-DRILLED AND TREATED PRIOR TO INSTALLATION OF FASTENERS.



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