

STRUCTURAL SCOPE OF WORK

- 1. THE STRUCTURAL SCOPE OF WORK IS INTENDED TO ADDRESS THE FOUNDATION AND FRAMING FOR A NEW RESIDENCE.

GENERAL NOTES

- 1. ALL WORK SHALL CONFORM TO THE LATEST FLORIDA BUILDING CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES. OBTAIN ALL REQUIRED PERMITS FOR THE PROPER LEGAL DECLARATION OF THE WORK DESCRIBED IN THESE DRAWINGS AND SPECIFICATIONS.
- 2. PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES OR RAFTERS TO FOUNDATION FOR ALL NEW CONSTRUCTION. IF ANY DISCONTINUITIES, CALL ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.
- 3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING ANY WORK. NOTIFY SHALL NOTIFY THE DESIGNER OF ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ACTUAL SITE CONDITIONS FOUND DURING OR PRIOR TO DEMOLITION.
- 4. FOUNDATION DESIGN IS BASED ON 1,500 PSF STABLE SOIL CONDITIONS.
- 5. PROVIDE TESTING ON SOIL COMPACTION PRIOR TO LAYING STEEL OR POURING CONCRETE. COMPACTION SHOULD ACHIEVE 98% MODIFIED PROCTOR DENSITY.
- 6. PROVIDE ADEQUATE DUCKING BEHIND ALL WALL MOUNTED FIXTURES.
- 7. PROVIDE ALL ACCESSORIES, HARDWARE AND MISC. ITEMS AS PER DRAWINGS AND SPECIFICATIONS. ALL ITEMS SHALL BE INSTALLED AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND CUT SHEETS.
- 8. CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS.
- 9. ALL CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- 10. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OR CHANGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. WORK WILL BE RESPONSIBLE FOR THE SAFETY, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. OR THE CONTRACTORS FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR OR HAVE CONTROL OR CHANGE OVER THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTORS, OR ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.

CODES AND DESIGN CRITERIA

1. THE DESIGN IS BASED ON, AND ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE (FBC) WITH AMENDMENTS AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. USE THE REFERENCED EDITIONS FROM THE FBC CHAPTER 35 OR THE LATEST EDITIONS IF NOT REFERENCED.  
AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE 7-22  
MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES  
STRUCTURAL CONCRETE  
THE AMERICAN CONCRETE INSTITUTE (ACI 318-14 AND ACI 308-06)  
ASSOCIATION  
BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES  
THE MASONRY SOCIETY (TMS 602-13)  
STRUCTURAL STEEL  
STEEL CONSTRUCTION MANUAL - 17TH EDITION BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-16)  
WOOD  
NATIONAL DESIGN SPECIFICATION AND SUPPLEMENT (ANSI/APA WOOD-18)

LIVE LOADS (REDUCIBLE BY CODE)

ROOF	20 PSF
RESIDENTIAL FLOOR	10 PSF
DESIGNATED ATTIC STORAGE AREA	20 PSF
SUN ON GRADE	100 PSF

SUPERIMPOSED DEAD LOADS

CEILING/ROOFING/MEP	10 PSF
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WIND LOAD DESIGN DATA

- 1. WIND LOADS SHALL BE IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE (REFERENCING ASCE 7-16).
- 2. MAIN WIND FORCE RESISTING SYSTEM  
WIND DESIGN DATA:
  - A. ULTIMATE DESIGN WIND SPEED, 3 SECOND GUST, VULT. 125 MPH
  - B. HURRICANE PRICIE REGION. YES
  - C. WINDWANE DESIGN. NO
  - D. BUILDING RISK CATEGORY. II
  - E. WIND EXPOSURE CATEGORY. C
  - F. WIND TOPOGRAPHIC FACTOR (Kt). 1.0
  - G. ENCLASURE CATEGORY. PARTIALLY OPEN
  - H. INTERNAL PRESSURE COEFFICIENT. +/- 0.18
  - I. MEAN ROOF HEIGHT. 18 FEET
  - J. WIND DIRECTIONALITY FACTOR, Kd. 0.85
  - K. VELOCITY PRESSURE COEFFICIENT (Kz). 0.85
  - L. ULTIMATE VELOCITY PRESSURE COEFFICIENT. 20.9 PSF
  - M. COMPONENT 4 CLADDING WIND PRESSURES. SEE TABLE THIS SHEET
  - N. DIMENSION 'D'. 6'-3"
  - O. GROUND ELEVATION FACTOR, Kz. 1.0

- 5. DISTRIBUTE THE MINIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBERS FOR MEP DUCTWORK, PIPING ETC OVER THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION.
- 6. STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATION ISOLATORS.

STRUCTURAL STEEL

- 1. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS:
  - A. ROLLED SHAPES: ASTM A36 OR A992, MIN. YIELD STRENGTH 50 KSI
  - B. METALLURGICAL ANALYSIS: ASTM A36
  - C. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B, MIN YIELD STRENGTH 42 KSI FOR ROUNDED AND 45 KSI FOR RECTANGULAR TUBES
  - D. PLATES: ASTM A572, MIN. YIELD STRENGTH 36 KSI
  - E. WASHERS: 4140 SAE: ASTM A992
  - F. CHAMFERED I-M: CHAMFERED: ASTM A36
  - G. ANGLES & PLATES: ASTM A36
  - H. HIGH STRENGTH BOLTS: ASTM A325 (STEEL-TO-STEEL CONNECTIONS)
  - I. BOLTS: ASTM A307 (STEEL-TO-WOOD CONNECTIONS)
  - J. THREADED RODS: ASTM A36
  - K. WELDED REBAR: ASTM A101
  - L. WELDING ELECTRODES: AWS D1.1, E70 SERIES
  - M. NUTS: ASTM A433
  - N. WASHERS: ASTM A433
- 2. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS (PER CODE).
- 3. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
- 4. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 3/16" FILLET WELD MINIMUM.
- 5. FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. ALL BOLTS SHALL BE FASTENED TO SLUG-TIGHT CONDITION. USE 3/16" FILLET WELD MINIMUM.
- 6. SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE SER IN WRITING.
- 7. SHOW ALL CORNERS, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.
- 8. FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- 9. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, ANSII/AWS D1.1, LATEST EDITION. ALL WELD SIZES SHALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION FORCES, THE MINIMUM SIZE PER ANSII/AWS D1.1, OR 3/16" INCH MINIMUM FILLET WELD UNLESS ANY WELD SIZES SHOWN ON THE DESIGN DRAWINGS ARE CONSIDERED EFFECTIVE. WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH AWS AS REQUIRED BY GAPS OR SLEWS BETWEEN COMPONENTS.

REINFORCEMENT

- 1. REINFORCEMENT BARS: ASTM A615, GRADE 60
- 2. REINFORCEMENT PLACEMENT (LIFT)
  - A. WELDED PLAIN WIRE MESH: ASTM A185, MINIMUM YIELD STRESS OF 60 KSI
  - B. CONCRETE REINFORCEMENT COVER:
    - 3" CLEAR
    - 2" CLEAR
  - C. COVER FROM IN MASONRY CELLS UNL.
- 3. REINFORCEMENT SPLICE:
  - A. LAP REINFORCEMENT: AS PER DIAMETERS
  - B. LAP WELDED WIRE MESH: 20"
- 4. DO NOT USE REBAR STAGES AS CHAIRS. CHAIRS SHALL BE MASONRY OR NON-CORROSIVE SUPPORTS SUCH AS PLASTIC.

CAST-IN-PLACE CONCRETE

- 1. CONCRETE:
  - A. NORMAL WEIGHT STRUCTURAL CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH, Fc: 3,000 PSI
  - 2. PROVIDE NORMAL WEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, UNL.
  - 3. THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM FORMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.
  - 4. ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.
  - 5. MAXIMUM W/C RATIO OF 0.50 FOR FOOTINGS AND 0.45 FOR OTHER CONCRETE. C/MR GROUT SHALL HAVE W/C RATIO OF 0.60 OR HIGHER.
  - 6. ALL FORMWORK SHALL BE DESIGNED, BRACED, SUPPORTED, DRAINED, AND MAINTAINED ACCORDING TO ACI 347, RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK.
  - 7. RESPONSIBILITY: THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
  - 8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED UNLESS OTHERWISE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.
  - 9. THE CONTRACTOR SHALL EMPLOY A TESTING LABORATORY TO PREPARE TEST CYLINDERS REPRESENTING CONCRETE POURED EVERY DAY, ONE SET PER DAY OR ONE SET MINIMUM FOR EACH 100 CYCLES HOURS BEFORE THE TESTING. LABORATORY TECHNICAL SHALL BE PRESENT AT THE BEGINNING OF EACH POUR. LABORATORY REPORT SHALL BE FURNISHED TO THE STRUCTURAL ENGINEER SHOWING STRENGTH OF CONCRETE AT 7 AND 28 DAYS.

WOOD

- 1. STRUCTURAL FRAMING PLANS DEPICT THE PRIMARY STRUCTURAL FRAMING SYSTEM. CONTRACTOR SHALL PROVIDE SECONDARY AND MISCELLANEOUS FRAMING AS REQUIRED TO COMPLETE THE PROJECT (SEE ARCHITECTURAL DRAWINGS).
- 2. DRESSED SEASONED LUMBER: S4S, 10% MAXIMUM MOISTURE CONTENT AT TIME OF DRESSING.
  - A. STUDS AND COLUMNS - SOUTHERN PINE #2 OR STRONGER (NOTE: WHERE CYPRUS FRAMING IS INDICATED, USE DALL CYPRUS NO. 2 OR BETTER.)
  - B. LINTELS, FLOOR JOISTS AND BEAMS: SOUTHERN PINE, NO. 2 GRADE (NOTE: WHERE CYPRUS FRAMING IS INDICATED, USE DALL CYPRUS NO. 2 OR BETTER.)
  - C. WOOD IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED TO WEATHER: ABOVE GRADE PRESSURE-TREATED (APWA-LUCA OR UC30) OR GROUND CONTACT RATED PRESSURE TREATED (APWA-GALN), GROUND CONTACT RATED WOOD IS RECOMMENDED AT THE GRASS/SPACE AND DECK AREAS (IF PRESENT). USE HOT-DIP GALVANIZED NAILS IN PRESSURE TREATED WOOD.
- 3. STRUCTURAL PANELS:
  - A. WALL PANELS: 1/2" APA RATED SHEATHING.
  - B. ROOF PANELS: 1/2" APA RATED SHEATHING.
- 4. WOOD SHEAR WALLS:
  - A. PANELS SHALL BE ORIENTED WITH THE LONG DIMENSION IN THE VERTICAL DIRECTION.
  - B. SOLID 2x BLOCKING SHALL BE PROVIDED AT JOINTS/SPICES, HORIZONTAL PANEL EDGES.
  - C. NAIL PANELS WITH 8d GALV. RINGSHANK NAILS SPACED AT 6" AT THE PERIMETER OF THE PANELS AND AT 12" AT INTERMEDIATE VERTICAL JOINTS.
  - D. DOUBLE 2x FRAMING STUDS SHALL BE USED AT THE ENDS OF EACH SHEAR WALL. WIND CONNECTIONS FOR STRUCTURAL TRUSS: GALVANIZED STEEL CONNECTORS BY THE SIMPSON STRONG-TIE COMPANY OR APPROVED EQUAL.
- 5. LAMINATED VENEER LUMBER (LVL) SHALL BE W/ENHANCED/RESIST JOINT MICROSLIP (LVL OR EQUAL) WITH Fb NOT LESS THAN 2,600 PSI AND MINIMUM 2.0C.
- 6. BOLTED CONNECTIONS SHALL CONSIST OF ASTM A307 BOLTS, FASTENED TO A SLUG-TIGHT CONDITION.

ABBREVIATIONS

- P.T. PRESSURE TREATED
- GAUV. GALVANIZED
- A.B. ANCHOR BOLT
- F.B.C. FLORIDA BUILDING CODE
- U.N.L. UNLESS NOTED OTHERWISE

MASONRY

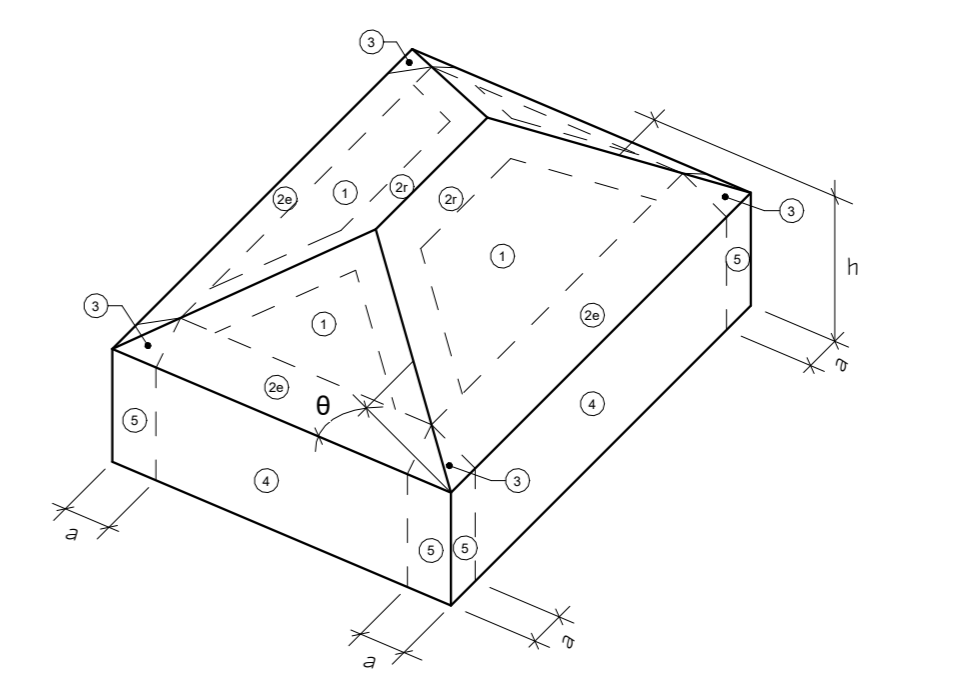
- 1. CONCRETE MASONRY WORK SHALL CONFORM TO TMS 402/602-1.6, BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES.
- 2. LOAD BEARING, NON-LOAD BEARING, AND BACKUP WALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:
  - A. CONCRETE BLOCK:
    - ASTM C200, NORMAL WEIGHT, MINIMUM 1.25 PCF LIGHTWEIGHT (105 PCF) MINIMUM 85 LBS COMPRESSIVE STRENGTH 1,800 PSI FOR 8 OR M OR 2,550 PSI FOR N
  - B. MORTAR:
    - ASTM C270, TYPE S, M OR N PORTLAND CEMENT / LIME OR DIRECT CONTACT WITH POLYMER TYPE 2 MORTAR FOR ALL EXTERIOR AND INTERIOR LOAD BEARING WALLS. USE TYPE N MORTAR FOR ALL EXTERIOR AND INTERIOR NON-LOAD BEARING WALLS. COMPRESSIVE STRENGTH 1,500 PSI
  - C. MORTAR USAGE (EVEN ON DRAWINGS): USE TYPE S OR M MORTAR WHEN MASONRY IS IN DIRECT CONTACT WITH POLYMER TYPE 2 MORTAR FOR ALL EXTERIOR AND INTERIOR LOAD BEARING WALLS. USE TYPE N MORTAR FOR ALL EXTERIOR AND INTERIOR NON-LOAD BEARING WALLS. COMPRESSIVE STRENGTH 1,500 PSI
  - D. MORTAR:
    - ASTM A615, GRADE 60
  - E. REINFORCEMENT:
    - ASTM A62, TRUSS OR LADDER TYPE SPACED AT 16" O.C.
  - F. JOINT REINFORCEMENT:
    - ASTM A62, TRUSS OR LADDER TYPE SPACED AT 16" O.C.
  - G. EXTERIOR JT. REINP:
    - GALVANIZE PER ASTM A153
  - H. INTERIOR JT. REINP:
    - GALVANIZE PER ASTM A153
  - I. ADHESIVE ANCHORS:
    - HT-47Y 270 BY HILTI, TULSA, OK
- 3. MATERIAL SHALL CONFORM TO THE FOLLOWING, NOT-DIPPED GALV. EXCEPT AS NOTED:
  - PLATE AND BENT BAR ANCHORS: ASTM A36, GRADE 50
  - SHEET METAL ANCHORS AND TIES: ASTM A36/A36M
  - WIRE MESH TIES: ASTM A185 OR ASTM A497
  - WIRE TIES AND ANCHORS: ASTM A 62, AND ASTM A167
  - ANCHOR BOLTS: F1554 GR55
- 4. HAND MIXING MORTAR IS NOT ALLOWED.
- 5. POINTS WILL NOT BE ALLOWED IN MORTAR MIX UNLESS OTHERWISE SPECIFIED.
- 6. PROVIDE HORIZONTAL JOINT REINFORCEMENT WITH NO. 9 GAGE HOT-DIP GALVANIZED LONGITUDINAL WIRES AT 16" VERTICALLY UNLESS NOTED OTHERWISE. PROVIDE SPECIAL ACCESSORIES FOR CORNERS, INTERSECTIONS, ETC. WHERE REQUIRED. REINFORCE JOINTS WITH LADDER-TYPE REINFORCEMENT CONFORMING TO ASTM A615 AT 16" O.C. MEASURED VERTICALLY. LAP ALL JOINT REINFORCEMENT 6" MIN.
- 7. THE MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (Fm) SHALL BE 1,500 PSI UNL. VERIFIED BY THE UNIT STRENGTH METHOD IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS.
- 8. CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT.
- 9. PROVIDE FULL FACE SHELL MORTAR COVERAGE ON MASONRY UNIT HORIZONTAL AND VERTICAL (BED AND HEAD) FACE SHELL JOINTS.
- 10. PROVIDE FULL MORTAR COVERAGE ON WEBS AROUND ALL GROUTED CELLS.
- 11. LAP MASONRY UNITS IN RUNNING BOND UNL WITH UNITS DESIGNATED TO ALIGN WITH WEBS IN EACH COURSE. REFER TO PLANS AND DETAILS FOR BONDED JOINT REQUIREMENTS AT WALL CORNERS AND INTERSECTIONS. USE (2) 2x4x4" NO. 4 CORNER BARS AT WALL CORNER/INTERSECTIONS OF BOND BEAMS.
- 12. IF TEMPERATURE FALLS BELOW 40 DEG F, OR EXCEEDS 100 DEG F, SPECIAL CONSTRUCTION MEASURES SHALL BE TAKEN AS PER FBC 1704.3 AND 1704.4.
- 13. GROUT PLACEMENT STOPPED FOR ONE HOUR OR MORE SHALL BE STOPPED 1/2" BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A SHEAR KEY FOR SUBSEQUENT GROUTING.
- 14. SHORE ALL BEAMS AND LINTELS, PREFERABLY FOR NOT LESS THAN ONE WEEK, UNTIL CURED MASONRY STRENGTH REACHES 1,500 PSI.

FOUNDATION

- 1. BEARING SOILS SHALL BE FREE OF ORGANIC MATERIAL AND MEET THE PER REQUIREMENTS TO PROVIDE A MINIMUM OF 1,500 PSF SOIL BEARING DESIGN PRESSURES. PER TABLE K401.4.1 OF THE FLORIDA RESIDENTIAL BUILDING CODE. IT IS THE HOMEOWNER'S RESPONSIBILITY TO VERIFY THAT THE SOIL CONDITIONS ARE SUITABLE FOR THESE ASSUMPTIONS. IT IS SUGGESTED THAT PRIOR TO CONSTRUCTION A GEOTECHNICAL INVESTIGATION BE MADE TO VERIFY THE BEARING PRESSURE AND SUBSURFACE CONDITIONS. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN.
  - A. NOTE: SHALLOW SOIL BORINGS WERE REPORTEDLY OBTAINED ON-SITE IN ACCORDANCE WITH THE SOIL BORING REPORT, DATED MAY 1, 2017, BY FLORIDA SOIL AND ENVIRONMENTAL SERVICES, ENGINEERING.
- 2. RECOMMENDATIONS FOR DEVELOPMENT OF THE SITE WERE EXCLUDED FROM THE REPORT.
- 3. REMOVE TESTS ON SOIL COMPACTION PRIOR TO LAYING STEEL OR POURING CONCRETE. COMPACTION SHOULD ACHIEVE AT LEAST 98% MODIFIED PROCTOR DENSITY.
- 4. REMOVE EXCESS WATER FROM EXCAVATIONS BEFORE PLACING CONCRETE. FOUNDATIONS SHALL BE ALLOWED TO SETTLE PRIOR TO COMMENCEMENT OF WOOD FRAMED CONSTRUCTION. PREPARATION (AFTER CLEARING AND GRUBBING).
- 5. FILL, IF NEEDED, SHOULD BE PLACED IN 12-INCH MAXIMUM LOOSE LIFTS, WITH EACH LIFT COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST METHOD (ASTM D-1557). MAXIMUM DRY DENSITY VALUE, IF HAND HEAVY COMPACTION EQUIPMENT IS USED, THE MAXIMUM LOOSE LIFT THICKNESS SHALL BE 6 INCHES.
- 6. FILL SHALL BE FREE OF ORGANIC MATERIALS, SUCH AS ROOTS AND/OR VEGETATION. USE SAND FILL UNLESS APPROVED OTHERWISE WITH NOTICES 3 TO 1.5 PROPORT. IF DRY WEIGHT PACKING THE U.S. STANDARD NO. 200 SEVE. ALL FILL SHALL BE PREQUALIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO IMPORTING AND PLACING.

POST-INSTALLED ANCHORS

- 1. ANCHOR PRODUCTS APPROVED FOR USE ON THIS PROJECT ARE LISTED BELOW UNLESS OTHERWISE SPECIFIED IN SECTION/DETAILS:
  - A. ADHESIVE ANCHORS INTO CONCRETE SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 308.4 AND ICC-ES AC308 FOR CRACKED CONCRETE:
    - USE THE FOLLOWING (LIFT):
      - 1. HILTI HIT-150 200 ADHESIVE (ICC-ES ESR-13187)
      - 2. HILTI HIT-82 200-SP ADHESIVE (ICC-ES ESR2322)
      - 3. EPICOR EP ADHESIVE (ICC-ES ESR-1337)
      - 4. SIMPSON STRONG-TIE SET-UP ADHESIVE (ICC-ES ESR2508)
      - 5. SIMPSON STRONG-TIE TROP-UP ADHESIVE (BAPV-04 ESR243)
      - 6. EPICOR EP ADHESIVE (ICC-ES ESR2508)
  - B. ADHESIVE ANCHORS INTO MASONRY UNITS OR GROUT FILLED CELLS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC308:
    - USE THE FOLLOWING (LIFT):
      - 1. HILTI HIT-150 ADHESIVE (ICC-ES ESR4143)
      - 2. SIMPSON STRONG-TIE SET-UP (ICC-ES ESR3342)
      - 3. SIMPSON STRONG-TIE SET-UP (ICC-ES ESR3342)
- 2. OVERHEAD AND/OR CONSTANT TENSION EPON/EPON ANCHOR INSTALLATIONS NOT SHOWN ON THE DRAWINGS SHALL NOT BE INSTALLED UNLESS EACH CONNECTION IS IDENTIFIED AND APPROVED IN WRITING BY THE SER.
- 3. INSTALL ANCHORS TO MEET THE REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
- 4. LOCATE, BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCEMENT LAYOUT PREVENTS THE INSTALLATION OF ANCHORS AS INDICATED IN THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS IMMEDIATELY.
- 5. INSTALL MASONRY ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT LEAST ONE COURSE ABOVE AND ONE COURSE BELOW THE ANCHOR. UNL.
- 6. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM STRUCTURAL ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
- 7. ANCHOR INSTALLER SHALL BE TRAINED BY THE MANUFACTURER OR PROPER INSTALLATION METHODS.
- 8. CARE SHALL BE EXERCISED TO AVOID CONFLICTS WITH EXISTING REINFORCING WHEN DRILLING HOLES. PILOT HOLES SHALL BE INSTALLED AS REQUIRED. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND ANCHOR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE OR ON THE STRUCTURAL DRAWINGS. OVERLAP SHALL BE THE MINIMUM SPECIFIED ON THE STRUCTURAL DRAWINGS.

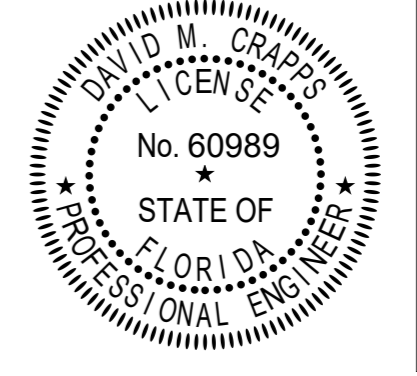


WINDLOAD PLAN DIAGRAM HIP ROOF  
12' x 1'-0"

COMPONENTS AND CLADDING WIND PRESSURES ON HIPPED ROOF AND WALLS (PSF)

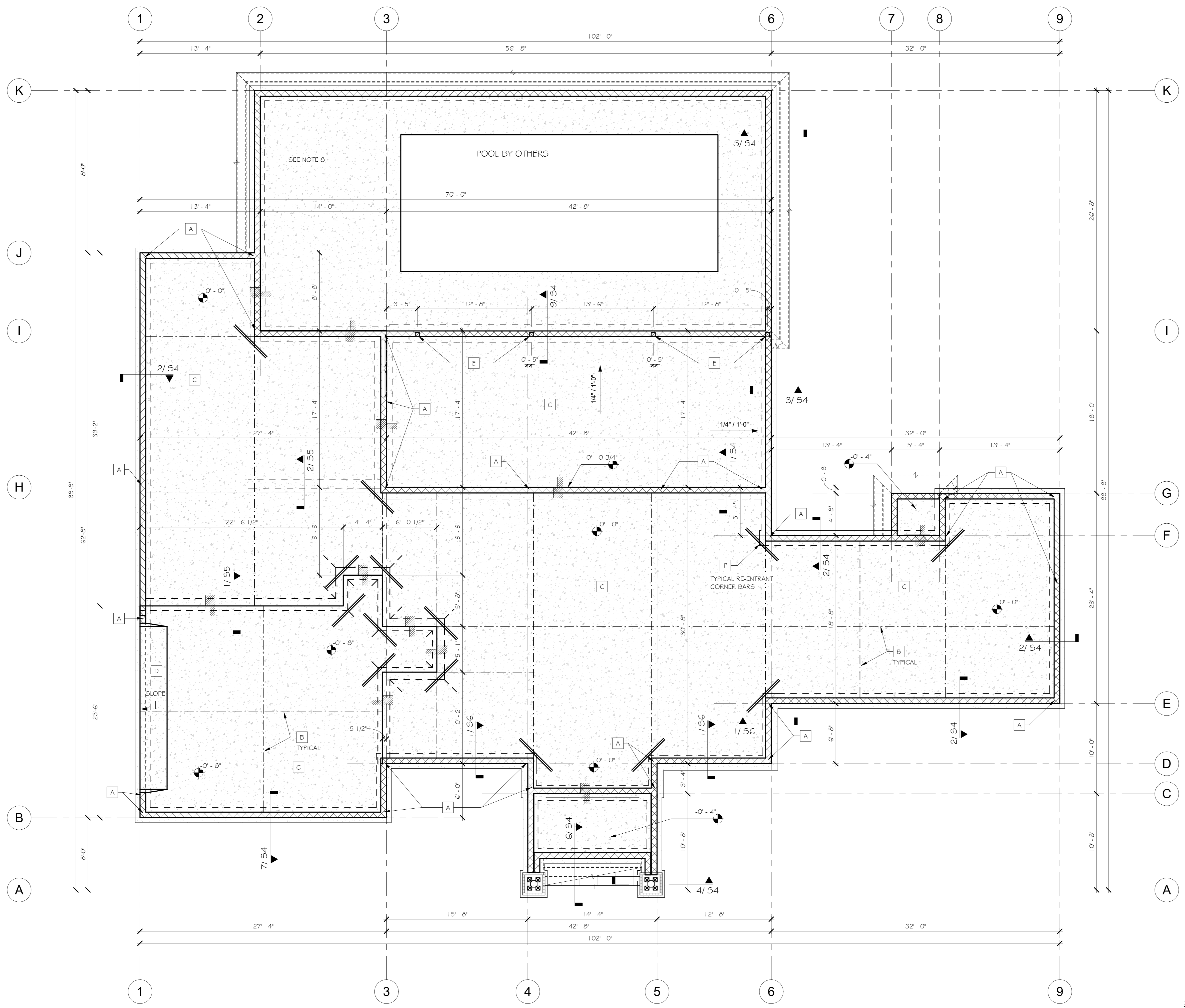
ZONE	1,2,3	1	2e	2r	3	3e	3r	Overhang	4	5		
T/RB AREA	(4)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)	
10	26	-47	-65	-65	-65	-80	-80	-86	35	-38	35	-47
20	23	-42	-58	-58	-58	-75	-75	-81	34	-37	34	-44
50	18	-35	-50	-50	-50	-71	-71	-68	32	-35	32	-40
100	14	-29	-43	-43	-43	-68	-68	-59	30	-33	30	-37
200	14	-29	-35	-35	-35	-65	-65	-50	28	-32	28	-34
500	14	-29	-30	-30	-30	-60	-60	-50	26	-29	26	-32

FOR THE SELECTION OF WINDOW AND DOOR PRODUCTS, TABULATED VALUES SHOWN ARE NORMALLY MULTIPLIED BY 0.6 PRIOR TO COMPARISON WITH THE POSITIVE AND NEGATIVE PRESSURE RATINGS PROVIDED IN EACH FLORIDA PRODUCT APPROVAL. IT IS RECOMMENDED THAT THE MANUFACTURER'S REPRESENTATIVE REVIEW THESE DRAWINGS FOR VERIFICATION.



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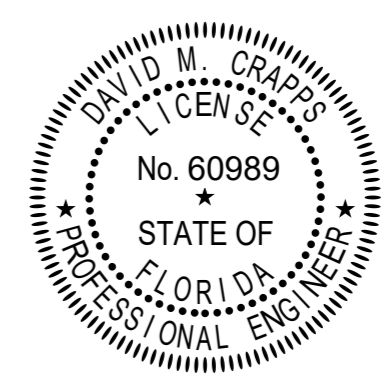
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- PLAN NOTES:**
- LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION FOR NEW FOOTINGS.
  - NEW FOUNDATIONS SHALL BE ALLOWED TO SETTLE PRIOR TO COMMENCEMENT OF WOOD-FRAMED CONSTRUCTION.
  - MAINTAIN POSITIVE SLOPE FOR FINISHED GRADE AWAY FROM NEW FOUNDATIONS PER CODE.
  - FIELD VERIFY DIMENSIONS AS REQUIRED.
  - REFER TO ARCHITECTURAL FOR TERMITE TREATMENT OF SUB-GRADE
  - SLAB ELEVATIONS SHOWN ARE RELATIVE TO AN ARBITRARY SET REFERENCE DATUM OF 0'-0" ACTUAL ELEVATIONS CAN BE PROVIDED BY A LICENSED SURVEYOR.
  - MAXIMUM SPACING OF SAWCUT CONTROL JOINTS IN SLAB SHALL BE APPROXIMATELY 15 FEET IN EACH DIRECTION, WITH LENGTH-TO-WIDTH RATIO OF 1.5 OR LESS AT EACH INDIVIDUAL RECTANGULAR AREA. SAWCUT DEPTH SHALL BE 25 PERCENT OF THE SLAB DEPTH. SAWCUT WORK SHALL BE PERFORMED THE SAME DAY AS THE SLAB PLACEMENT, BUT AFTER THE CONCRETE HAS CURED SUFFICIENTLY TO PREVENT RAVELING. EXTERIOR JOINTS SHALL BE FILLED WITH SILICONE SEALANT AND BACKER ROD (OR EQUAL). CONTRACTOR TO COORDINATE SEALING OF INTERIOR JOINTS WITH FLOOR FINISHES.
  - CONTROL JOINT LAYOUT AT POOL DECK TO BE COORDINATED WITH POOL CONFIGURATION
  - THE SIZE OF THE WELDED WIRE MESH INDICATED IS RECOMMENDED BY THE STRUCTURAL ENGINEER. HOWEVER, AT THE OWNER AND CONTRACTOR'S RISK, OF INCREASED CRACK DEVELOPMENT, 6XG-W1.4XW1.4 WELDED WIRE MESH MAY BE SUBSTITUTED IN ACCORDANCE WITH THE FLORIDA RESIDENTIAL CODE R506.2.4.2.
  - FIBER REINFORCED CONCRETE, IF SELECTED, SHALL BE CONCRETE MANUFACTURER'S FIBER MIX THAT COMPLIES WITH THE FLORIDA RESIDENTIAL CODE SECTION R506.2.4.2. MIX SHALL CONTAIN MICRO-OR MACRO-SYNTHETIC FIBER REINFORCEMENT, WITH FIBER LENGTHS OF 1/2" TO 2-1/4". DOSAGE AMOUNTS SHALL BE FROM 1.5 TO 3.0 POUNDS PER CUBIC YARD, AND SYNTHETIC FIBERS SHALL COMPLY WITH ASTM C1116.

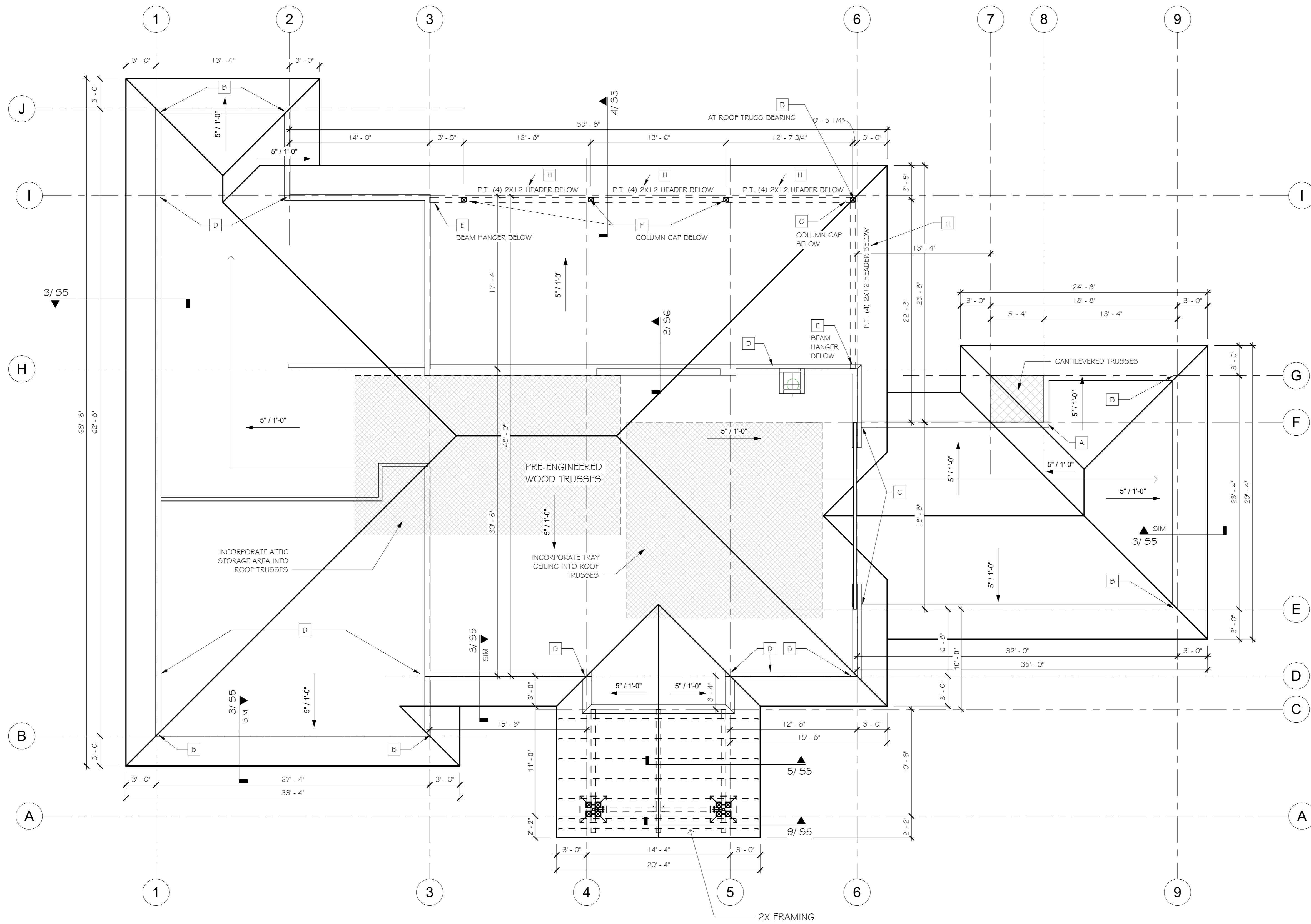
- FOUNDATION PLAN KEYNOTE LEGEND**
- A** SIMPSON HTT4 HOLDDOWN WITH 5/8" DIAMETER HOT DIPPED GALV. THREADED ROD. DRILL AND EPOXY (6" EMBEDMENT). PROVIDE NOT LESS THAN (2) 2X6 STUD PACK, UNLESS NOTED. ADDITIONAL STUDS ARE ON PLAN OR HEADER SCHEDULE ON DETAIL 2/56.
  - B** SUGGESTED SLAB-ON-GRADE CONTROL JOINT LOCATION. SEE NOTE 7.
  - C** 4" CONCRETE SLAB-ON-GRADE OVER 6-MIL POLYETHYLENE VAPOR RETARDER OVER COMPACTED AND TERMITE TREATED SUBGRADE. REINFORCE SLAB WITH ONE OR MORE OF THE FOLLOWING:
    - W2.9XW2.9-6X6" WELDED WIRE MESH (SEE NOTE 9)
    - #3 @ 18" O.C. EACH WAY
    - FIBER REINFORCED CONCRETE. (SEE NOTE 10)
  - D** OPTIONAL APRON FOR SURFACE DRAINAGE AT GARAGE ENTRANCE.
  - E** P.T. 6X6 COLUMN WITH SIMPSON CBS6GZ BASE AND MANUFACTURER'S 1" HOT DIPPED GALV. STANDOFF, WITH (2) 5/8" DIAMETER HOT DIPPED GALV. THROUGH BOLTS. [NOTE: COLUMN BASE WILL NEED TO BE EMBEDDED IN THE CONCRETE POUR.]
  - F** (2) #4X5'-0" LONG RE-ENTRANT CORNER BARS

FOUNDATION PLAN  
3/16" = 1'-0"



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ROOF PLAN  
3/16" = 1'-0"

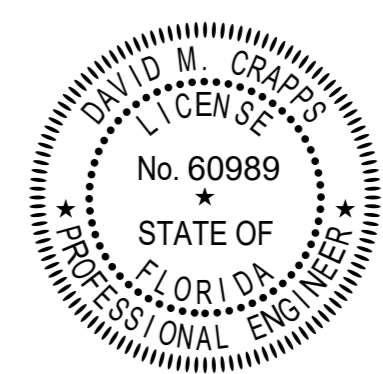
- PLAN NOTES:**
- FIELD VERIFY DIMENSIONS AS REQUIRED.
  - SPIKE MULTIPLE PLY BEAMS (UP TO 14" DEEP) TOGETHER WITH 2 ROWS OF 1 Gd GALV. COMMON NAILS @ 12" O.C. PER PLY. ADD A THIRD ROW OF NAILS FOR BEAMS EXCEEDING 14" DEPTH.
  - ROOF SHEATHING SHALL BE 1/2" APA RATED PLYWOOD OR OSB WITH 8d X 2-1/2" LONG HOT-DIPPED GALV. RINGSHANKED NAILS @ 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD OF PANEL. PROVIDE 1/8" GAP BETWEEN ADJACENT PANELS AND/OR USE SIMPSON PSCL CLIPS.
  - WALL SHEATHING SHALL BE 1/2" APA RATED PLYWOOD OR OSB WITH 8d X 2-1/2" LONG GALV. RINGSHANKED NAILS @ 6" O.C. @ PANEL EDGES AND 12" O.C. IN FIELD OF PANEL. PROVIDE SOLID 2X BLOCKING @ ANY HORIZONTAL EDGES
  - NAIL STUD PACKS TOGETHER WITH 1 Gd HOT-DIPPED GALVANIZED COMMON NAILS @ 6" O.C. STAGGERED PER EACH ADDITIONAL PLY.

- ROOF FRAMING KEYNOTE LEGEND**
- A (2) SIMPSON HGA 1.0, ONE ON EACH SIDE OF HIP BEARING LOCATION.
  - B SIMPSON HCP42 (ADD 1/2" X 1'-0" LONG PLYWOOD SPACER TO FIT, WITH 4-10d HOT-DIPPED COMMON NAILS, STAGGERED)
  - C (2) SIMPSON L5TA15 @ LVL BEARING LOCATION (SEE TRUSS LAYOUT SHOP DRAWING FOR LVL SIZE) INSTALL STRAPS ON FACE OF LVL AND EXTEND TO STUD WALL.
  - D (3) 2X6 STUD PACK BELOW (ALIGN WITH GIRDER TRUSS LOCATION, FOR TRUSS MARK NO. B8, C1, G3, AND K1. SEE TRUSS LAYOUT SHOP DRAWINGS, BY SEMINOLE TRUSSES, DATED 02/28/2023).
  - E SIMPSON HUCQG 1 22-5DSG HANGER WITH DOUBLE BARRIER (CORROSION-RESISTANT) COATED HEAVY DUTY STRONG DRIVE SCREWS
  - F SIMPSON HCG6HDG COLUMN CAP WITH (G) 5/8" DIAMETER HOT-DIPPED GALVANIZED THROUGH BOLTS. SAND / PLANE INSIDE BEAM PLY AS REQUIRED TO FIT.
  - G SIMPSON ECCLRG6HDG L-SHAPED COLUMN CAP WITH (G) 5/8" DIAMETER HOT-DIPPED GALVANIZED THROUGH BOLTS. SAND / PLANE INSIDE BEAM PLY AS REQUIRED TO FIT.
  - H FASTEN 4-PLY HEADER BEAM PLIES TOGETHER WITH (2) ROWS OF 1/2" DIAMETER HOT-DIPPED GALV. THROUGH BOLTS @ 24" O.C. COUNTERSINK BOLTS AS REQUIRED TO FIT WITH TRIM WORK.

ROOF FRAMING PLAN

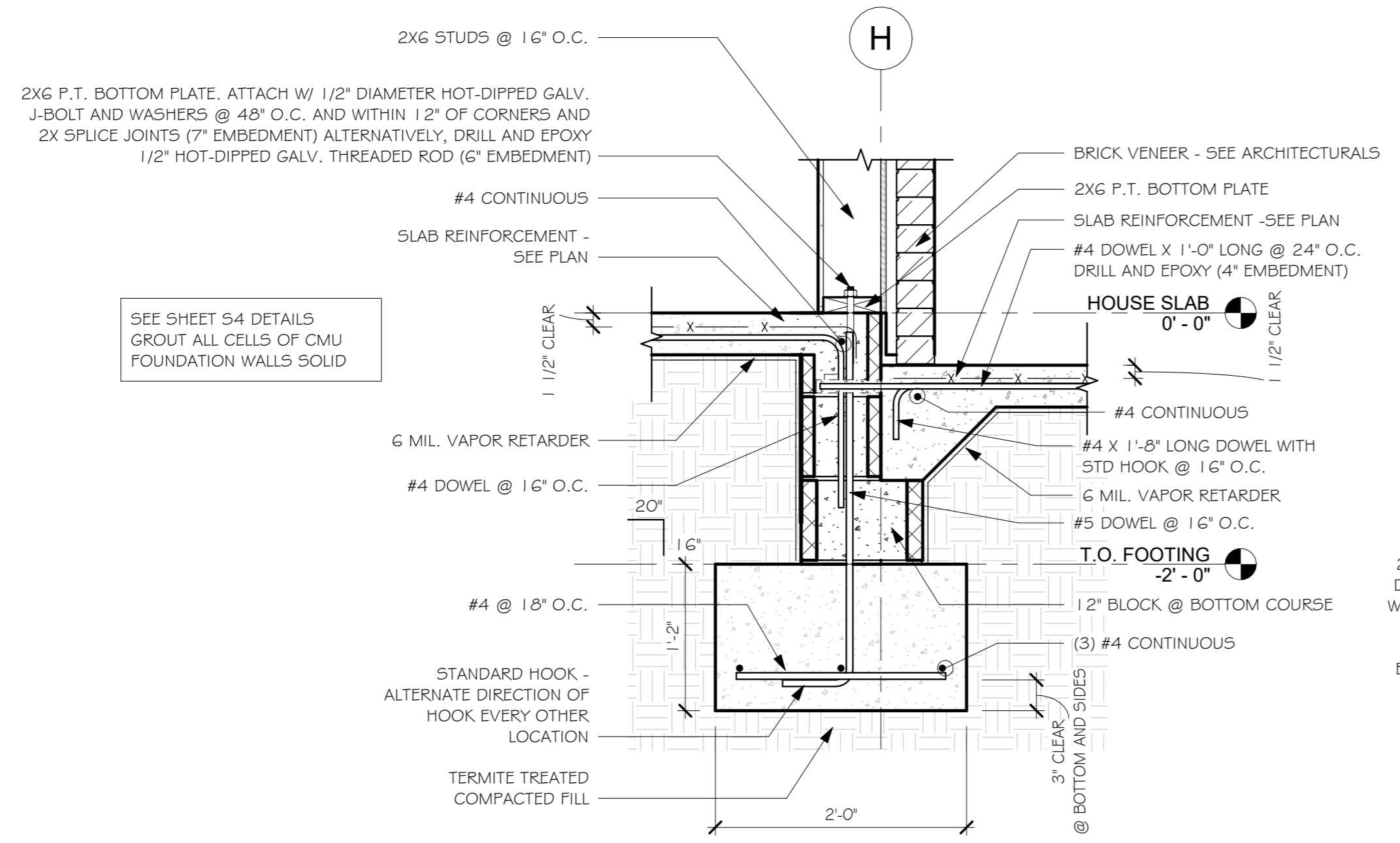
DESIGNED BY: D. CRAPPS - P.E. # 60989  
CHECKED BY: D. CRAPPS - P.E. # 60989  
DRAWN BY: B. HARRIS

MC FALL RESIDENCE  
9515 NW 62ND LANE  
GAINESVILLE, FLORIDA 32653  
DNC PROJECT NO. 1522

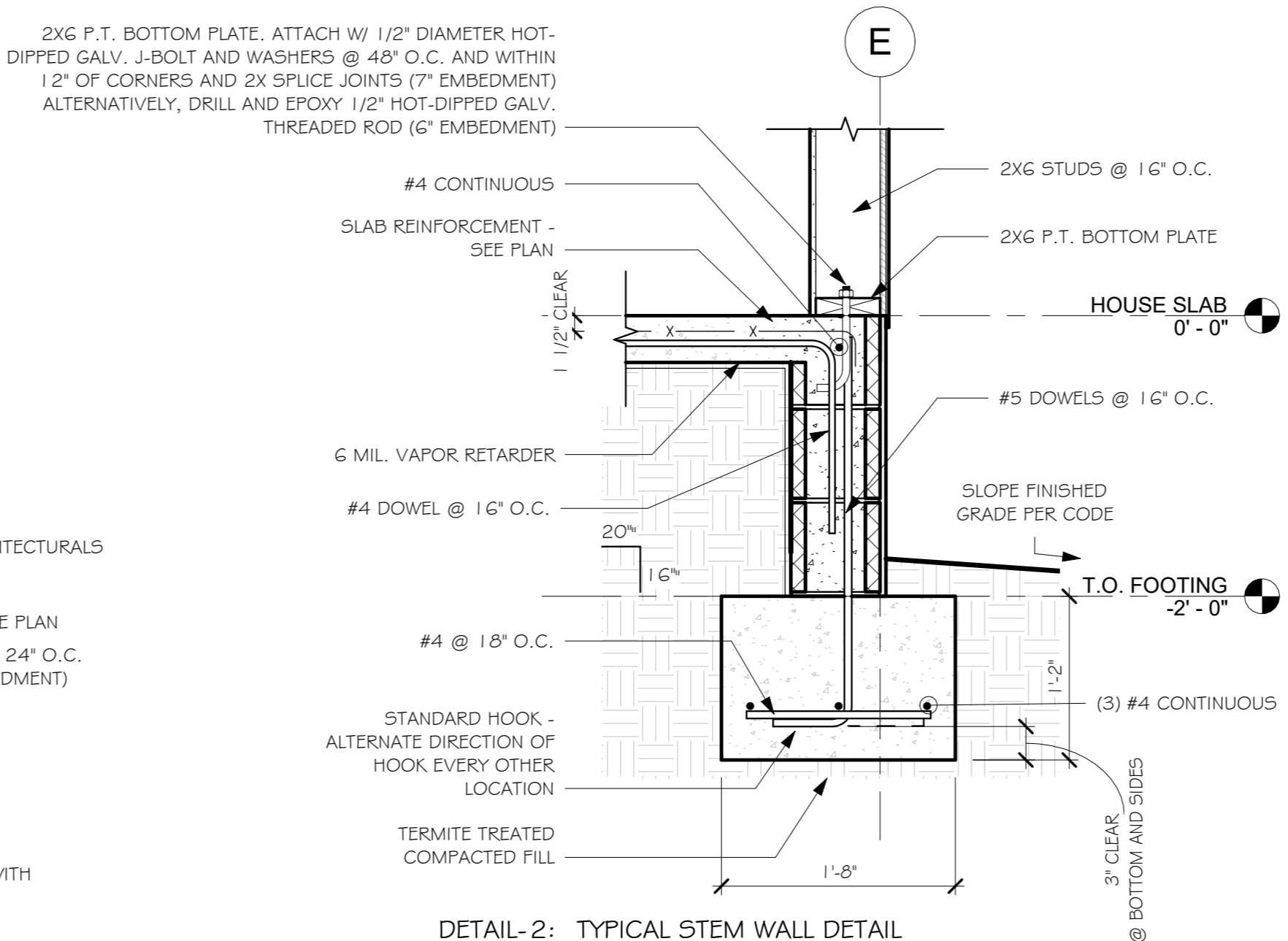


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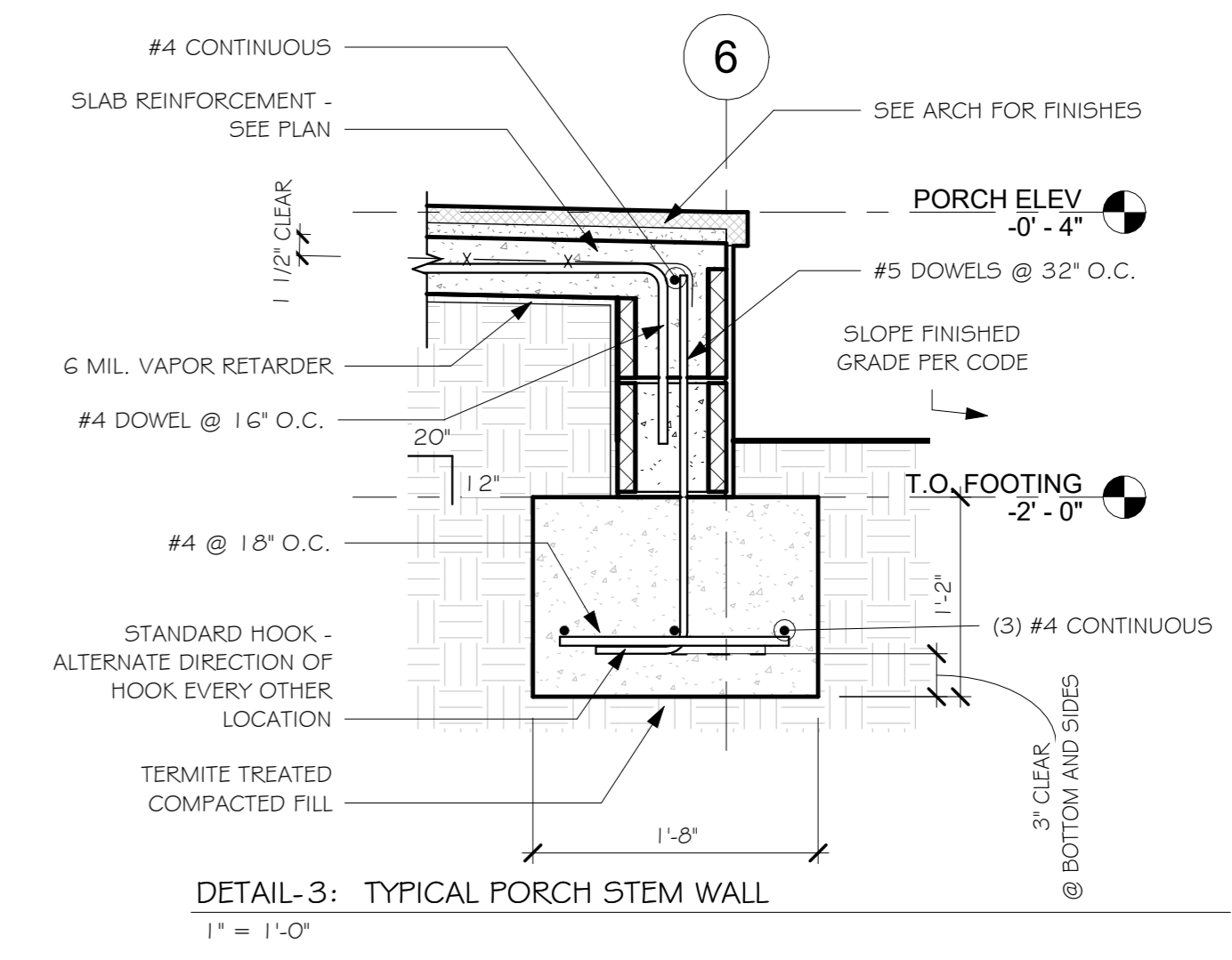
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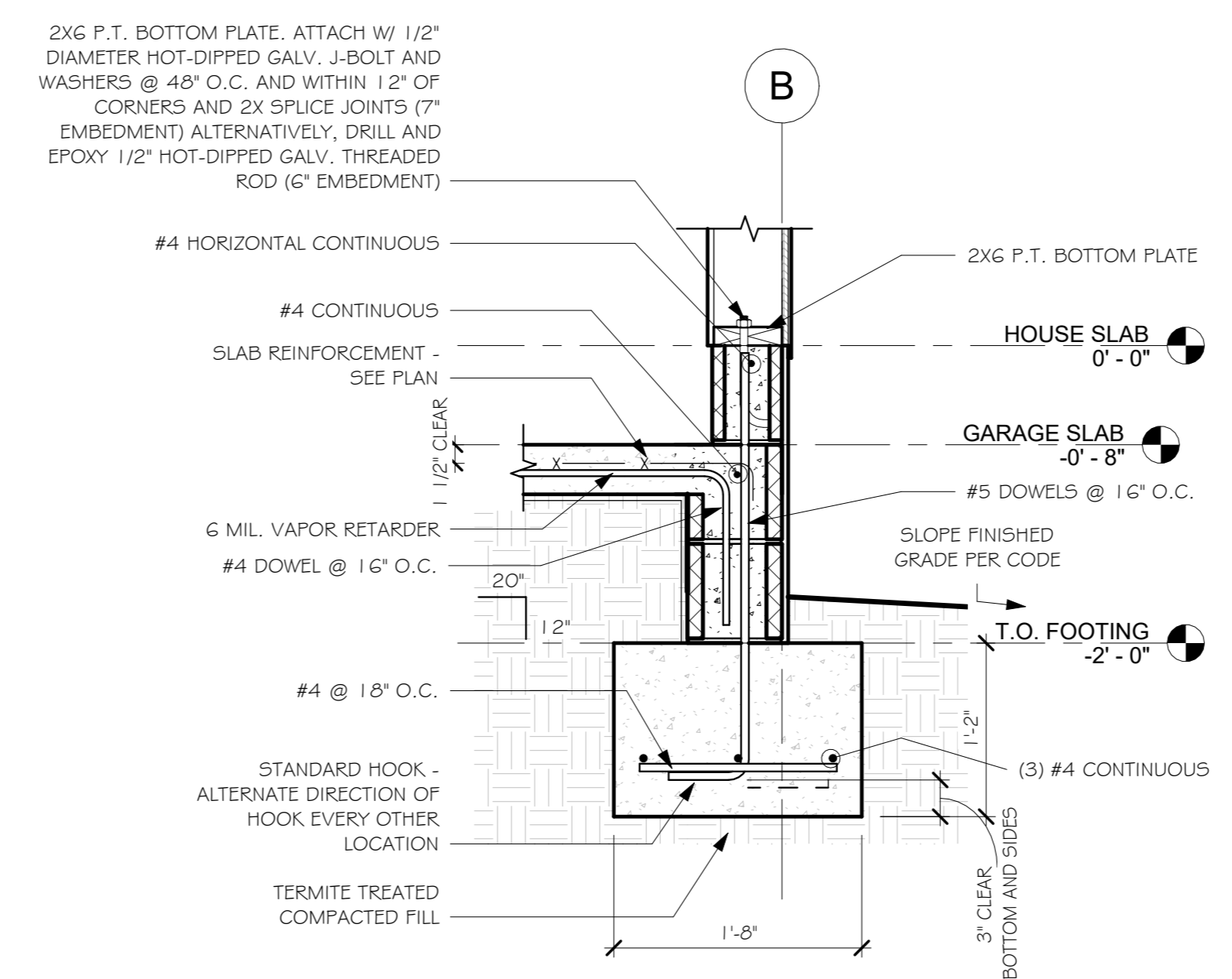
DETAIL-1: FOOTING @ HOUSE AND PORCH  
1" = 1'-0"



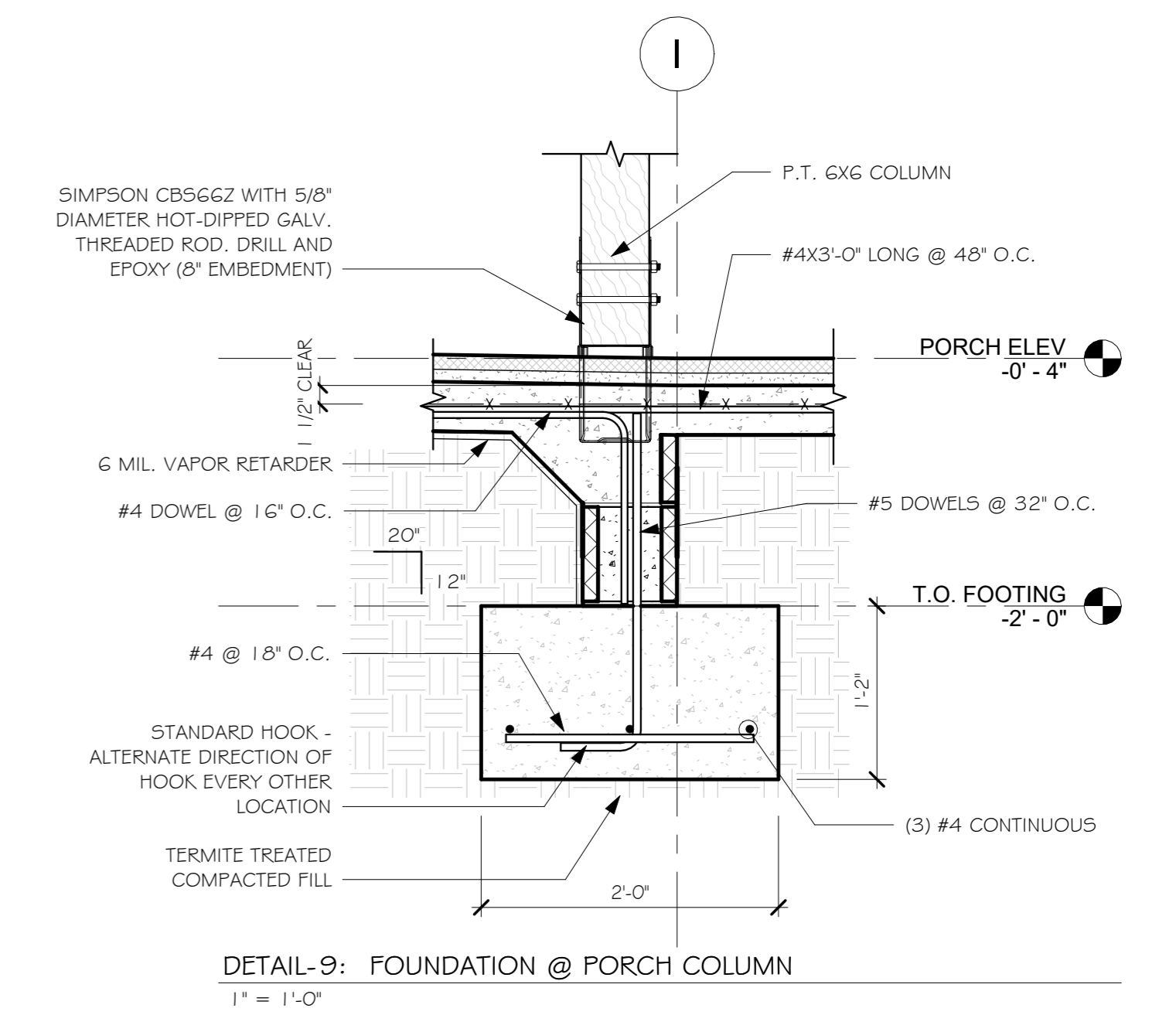
DETAIL-2: TYPICAL STEM WALL DETAIL  
1" = 1'-0"



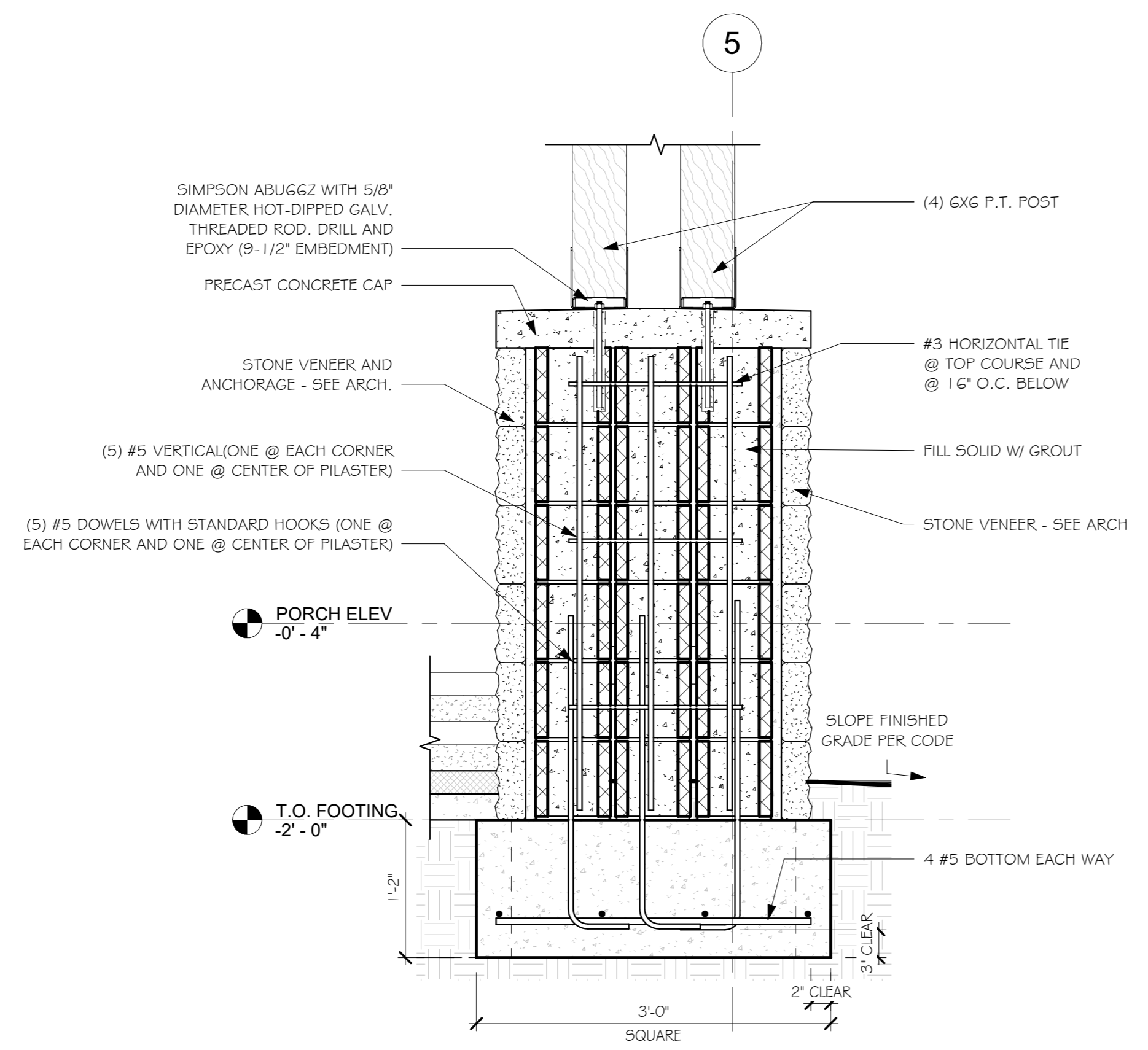
DETAIL-3: TYPICAL PORCH STEM WALL  
1" = 1'-0"



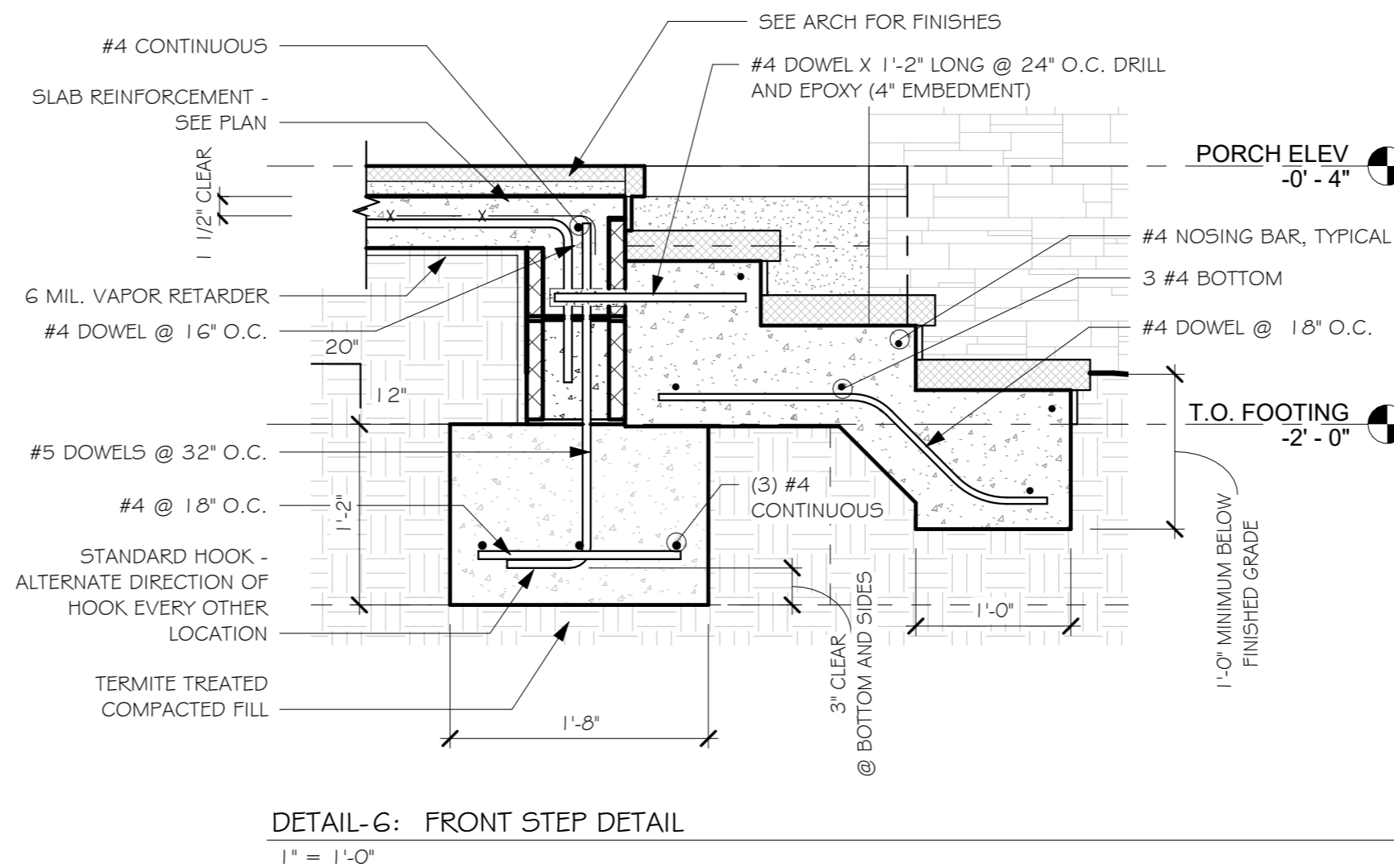
DETAIL-7: FOUNDATION @ GARAGE  
1" = 1'-0"



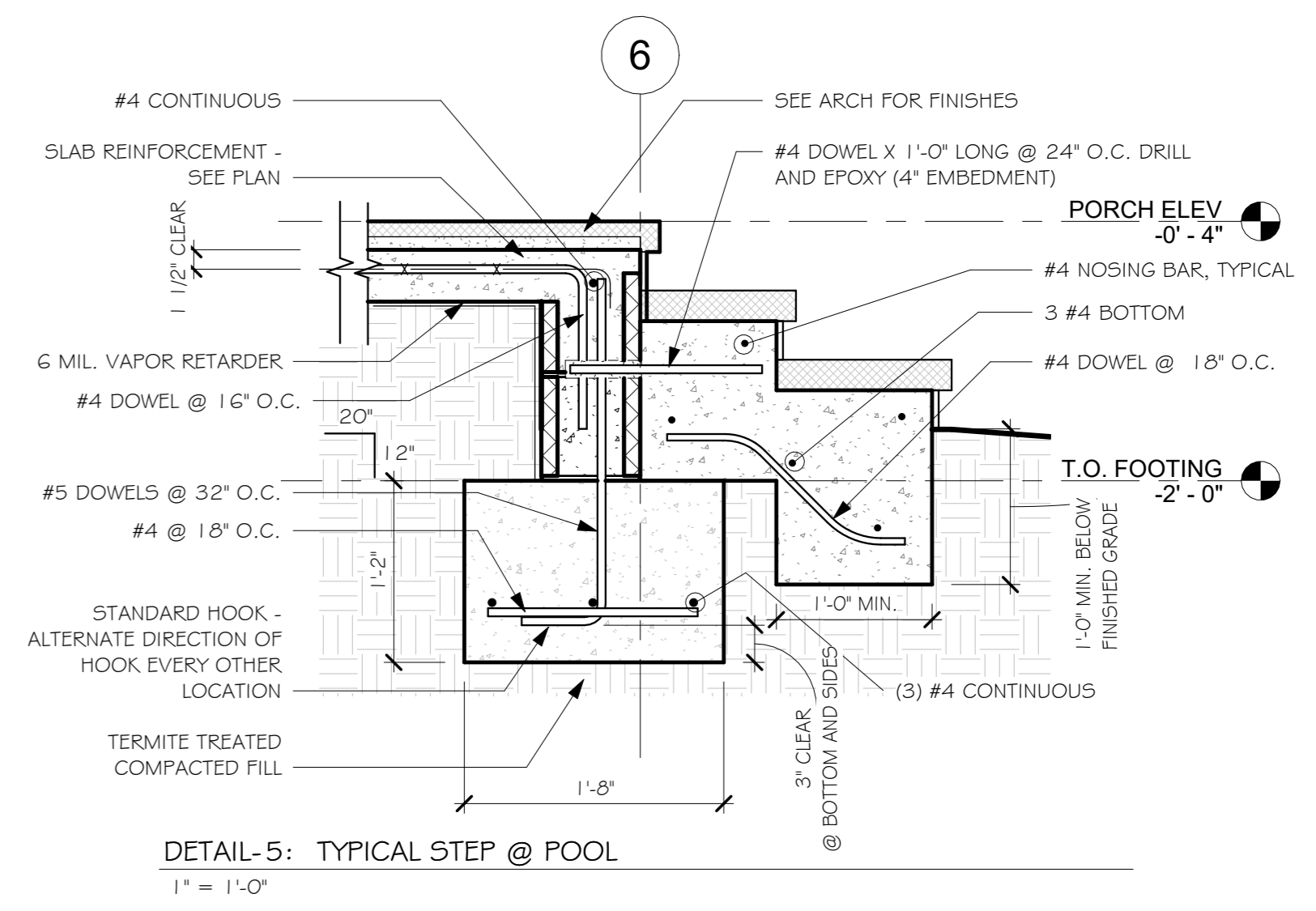
DETAIL-9: FOUNDATION @ PORCH COLUMN  
1" = 1'-0"



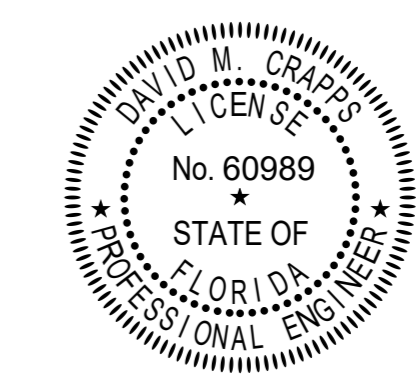
DETAIL-4: TYPICAL FRONT PORCH PIER  
1" = 1'-0"



DETAIL-6: FRONT STEP DETAIL  
1" = 1'-0"

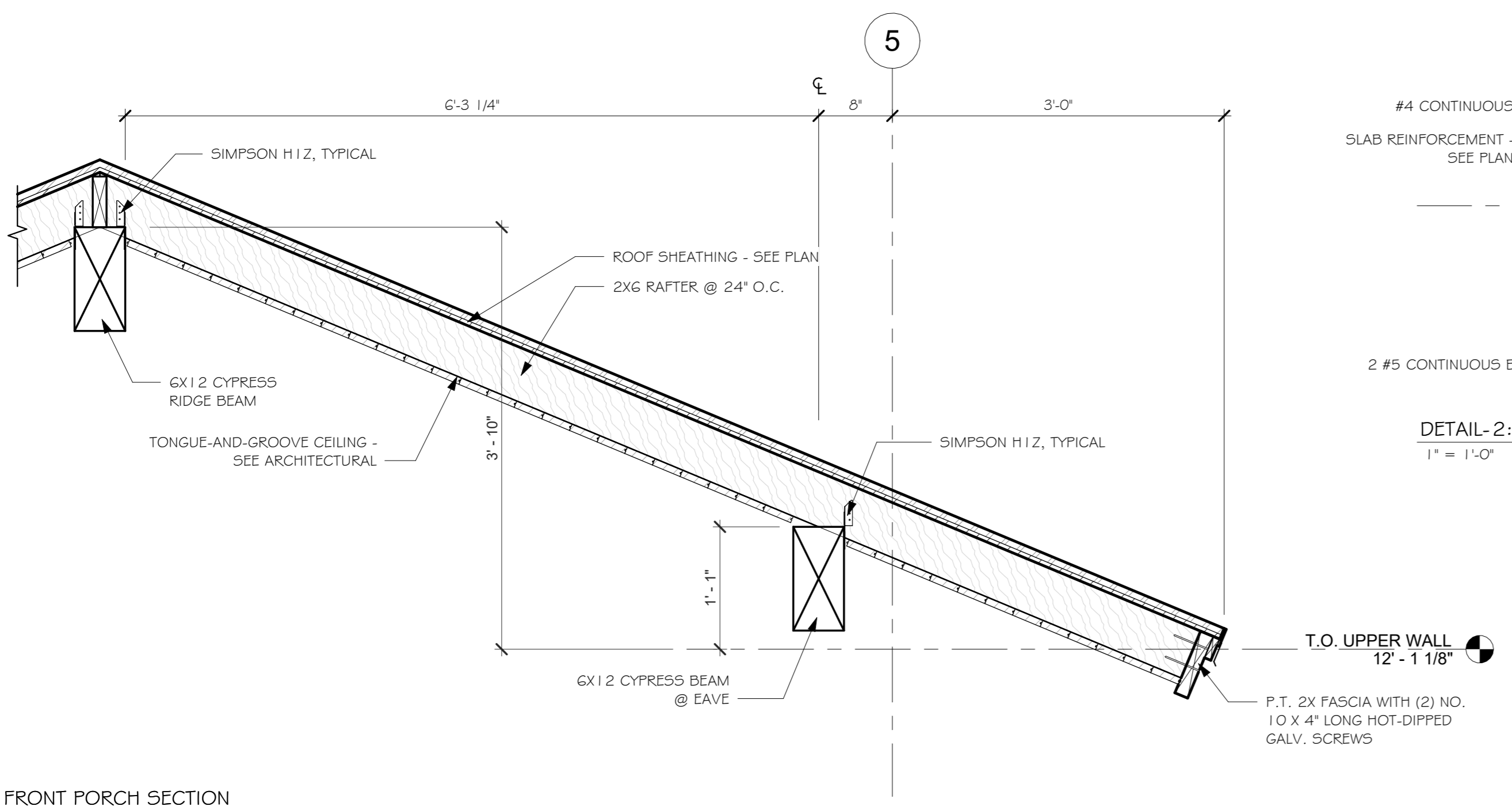


DETAIL-5: TYPICAL STEP @ POOL  
1" = 1'-0"

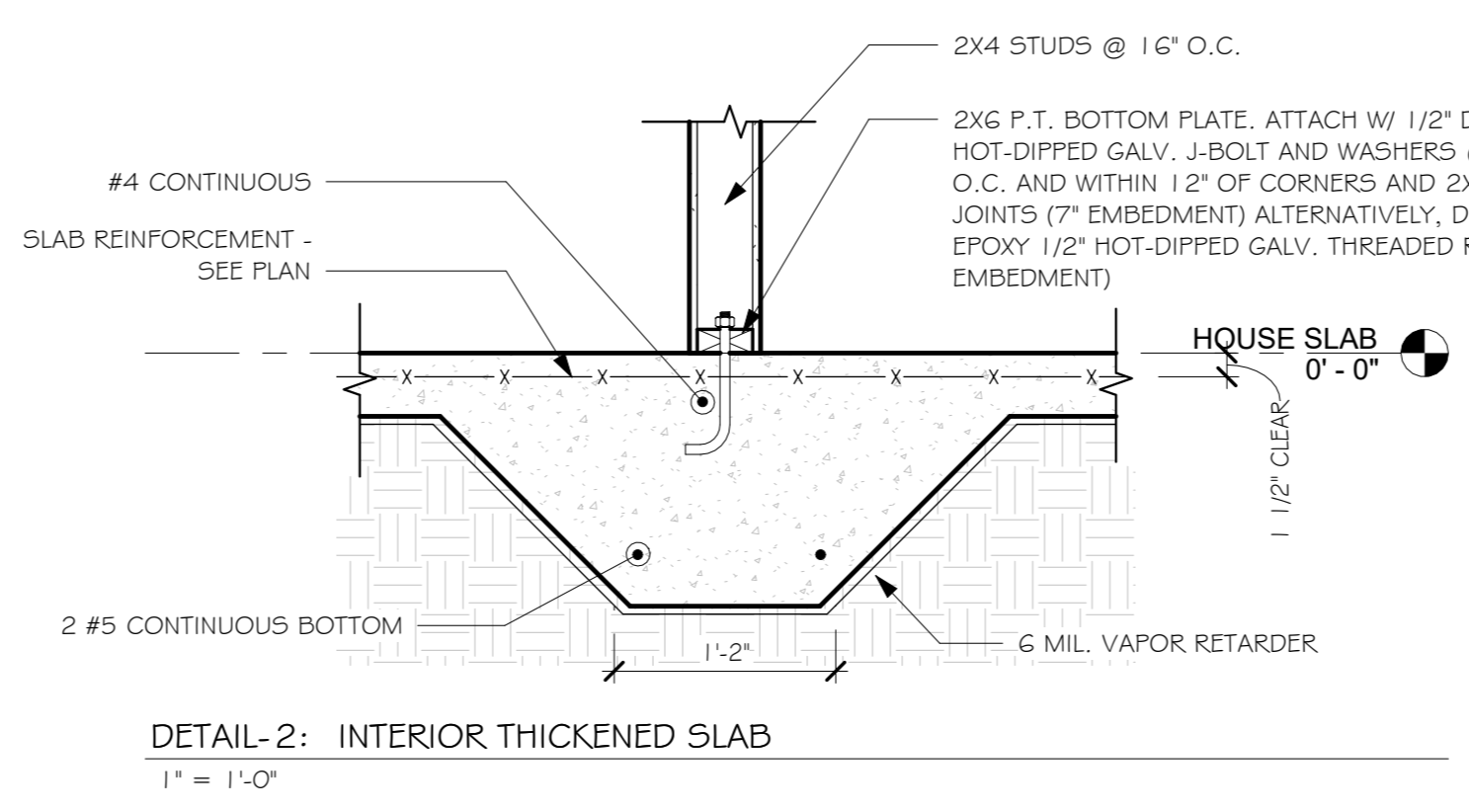


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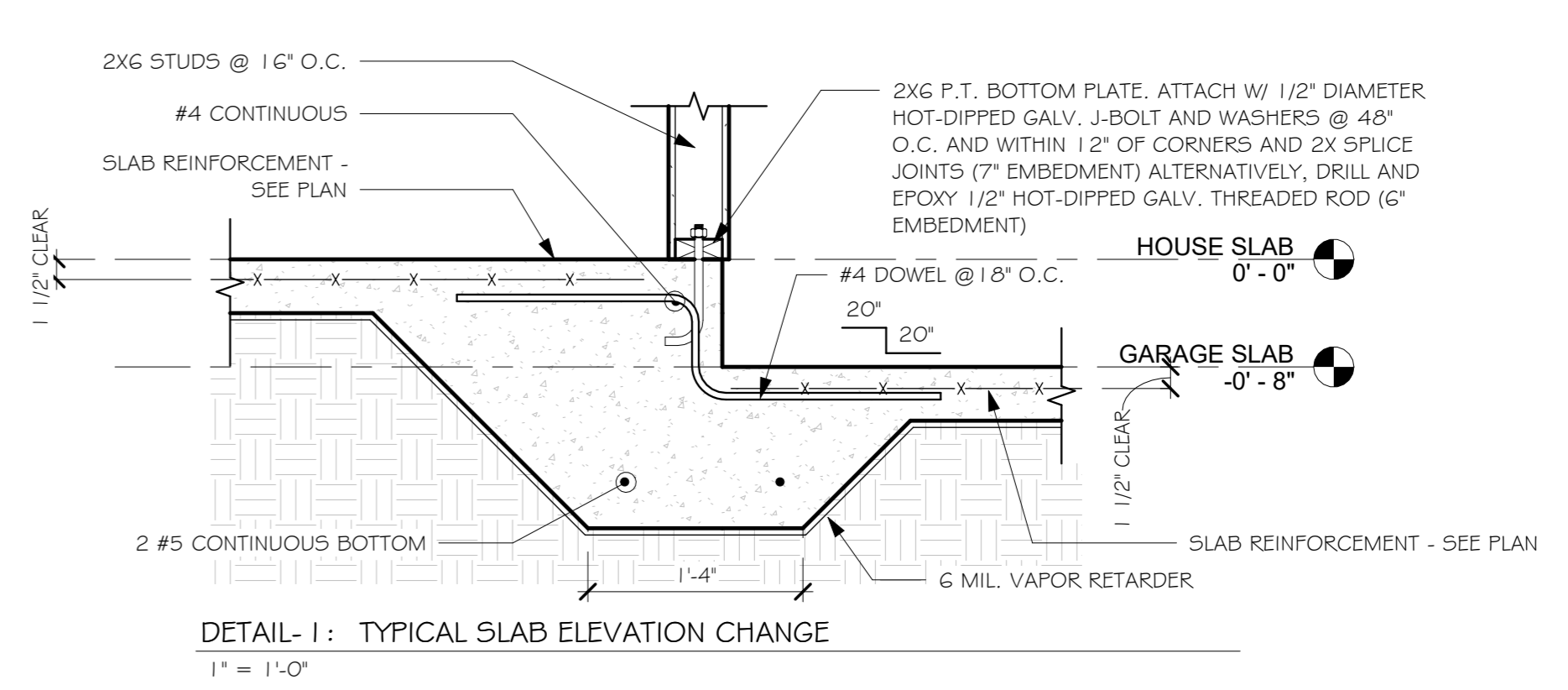
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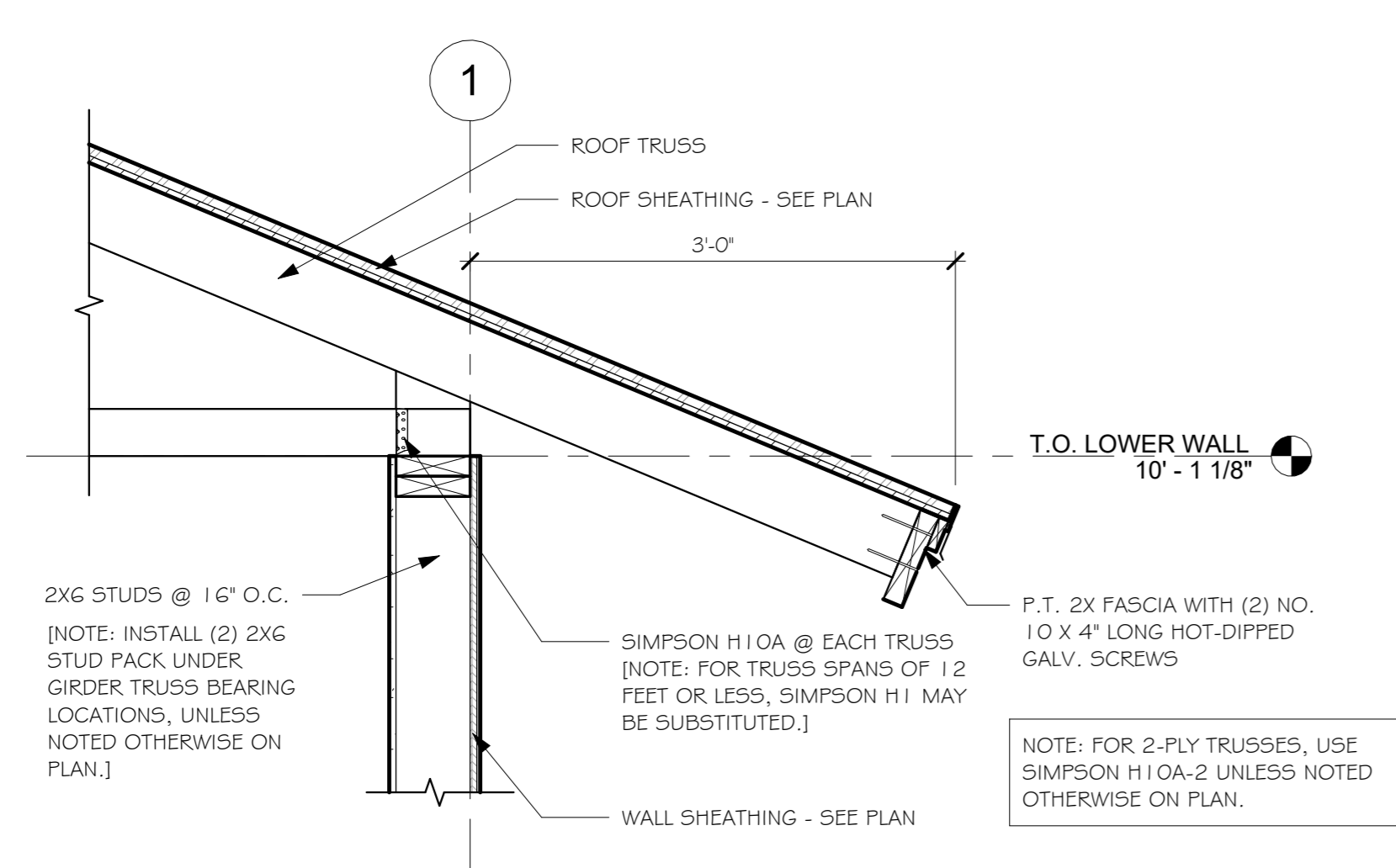
DETAIL-5: FRONT PORCH SECTION  
1" = 1'-0"



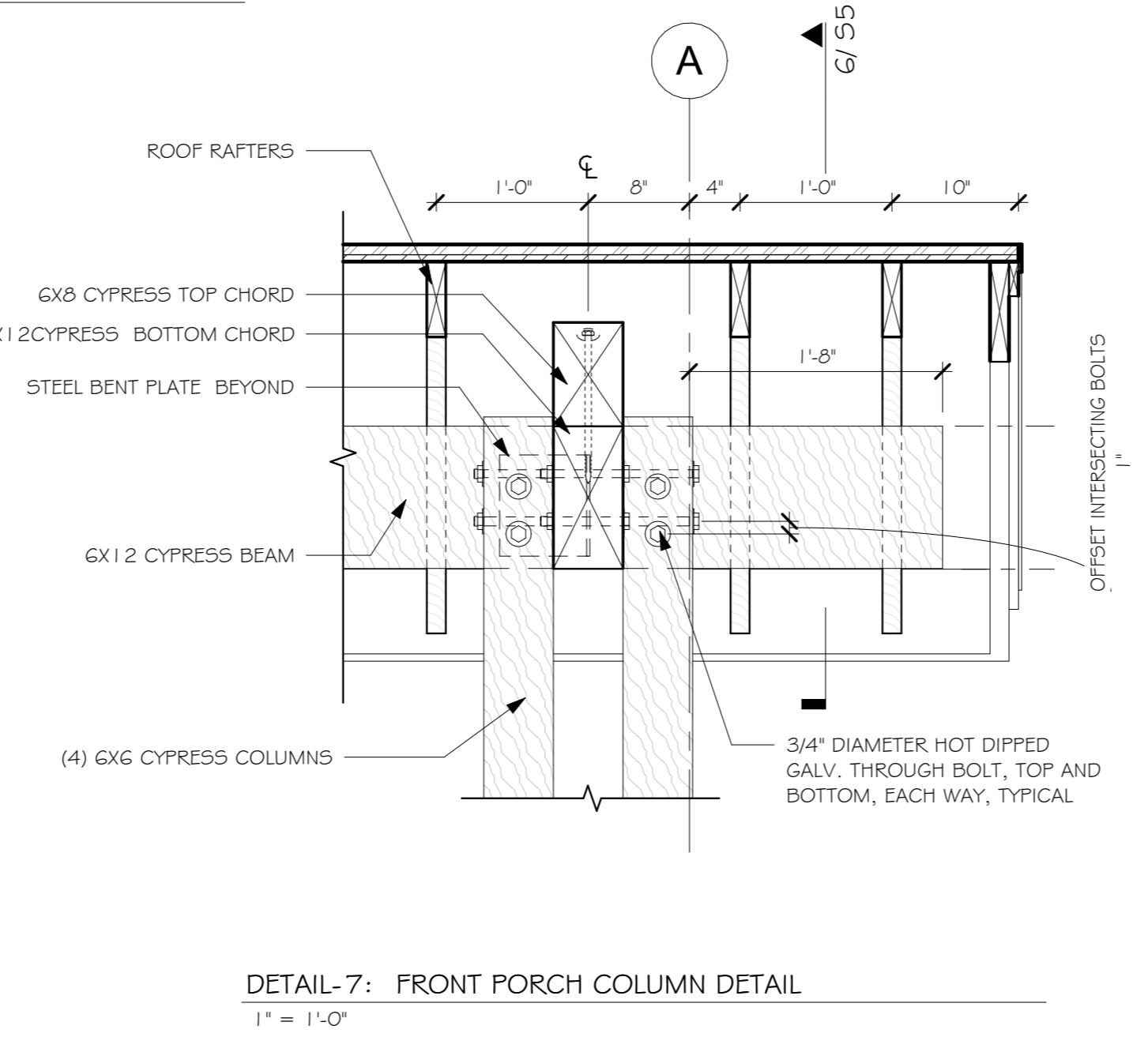
DETAIL-2: INTERIOR THICKENED SLAB  
1" = 1'-0"



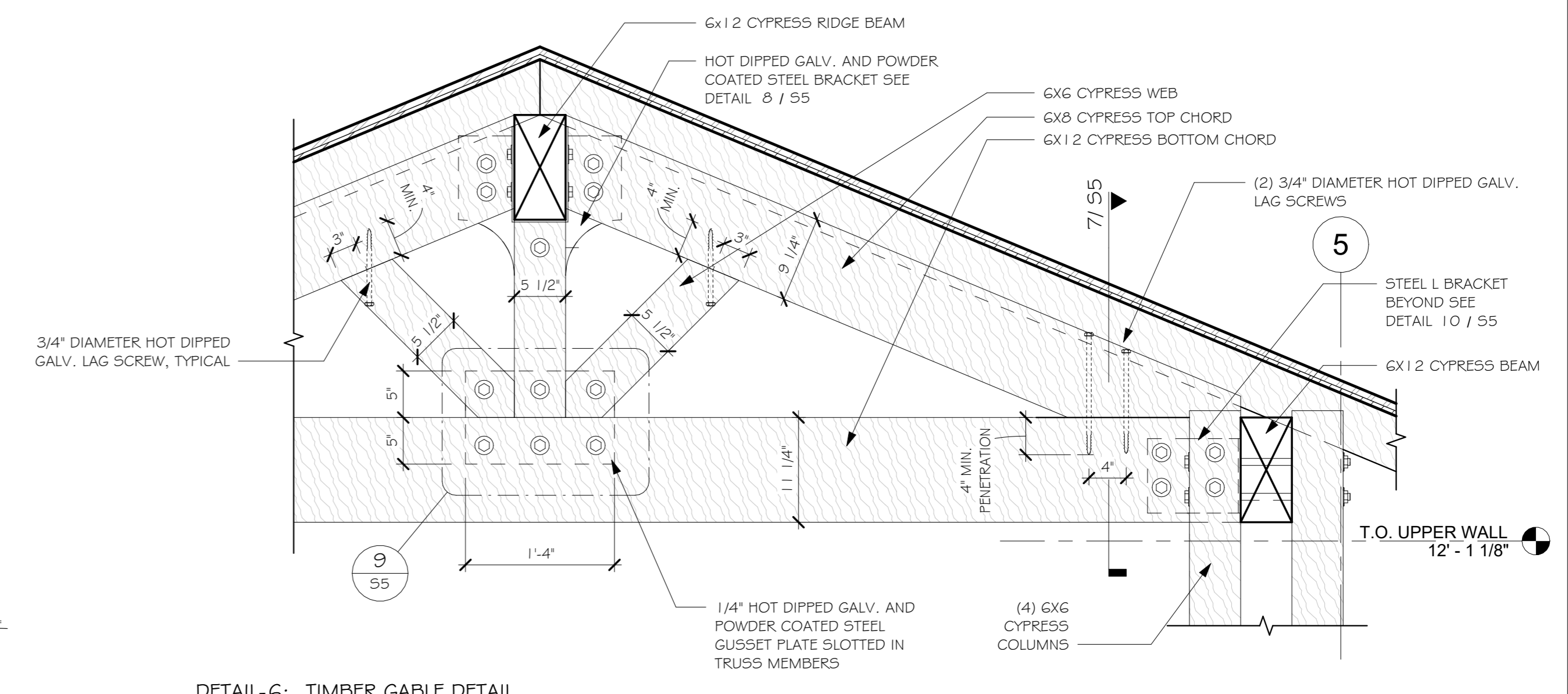
DETAIL-1: TYPICAL SLAB ELEVATION CHANGE  
1" = 1'-0"



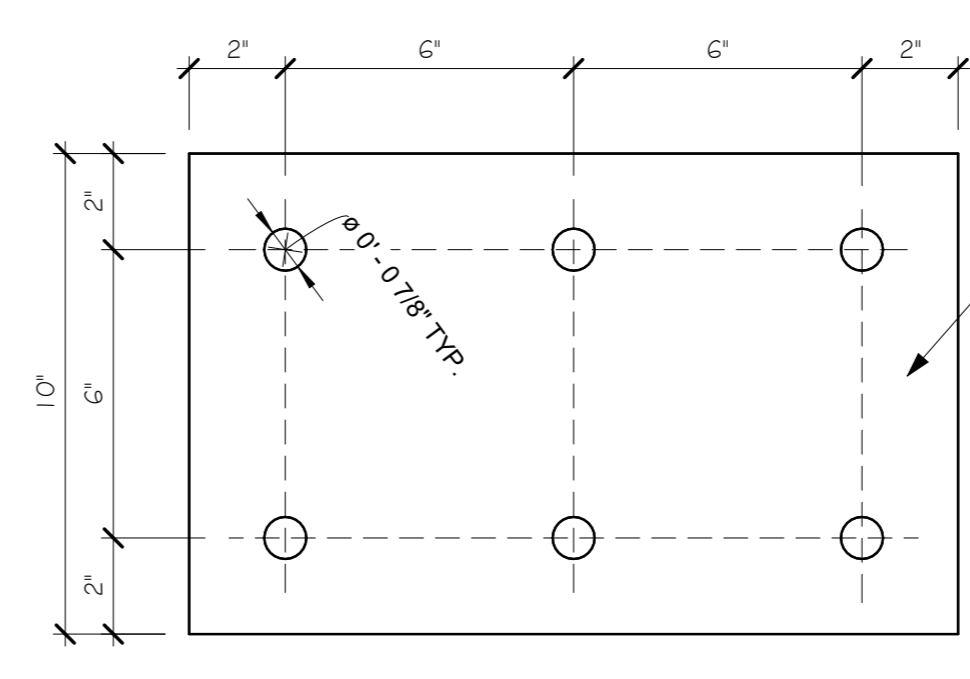
DETAIL-3: TYPICAL EAVE DETAIL  
1" = 1'-0"



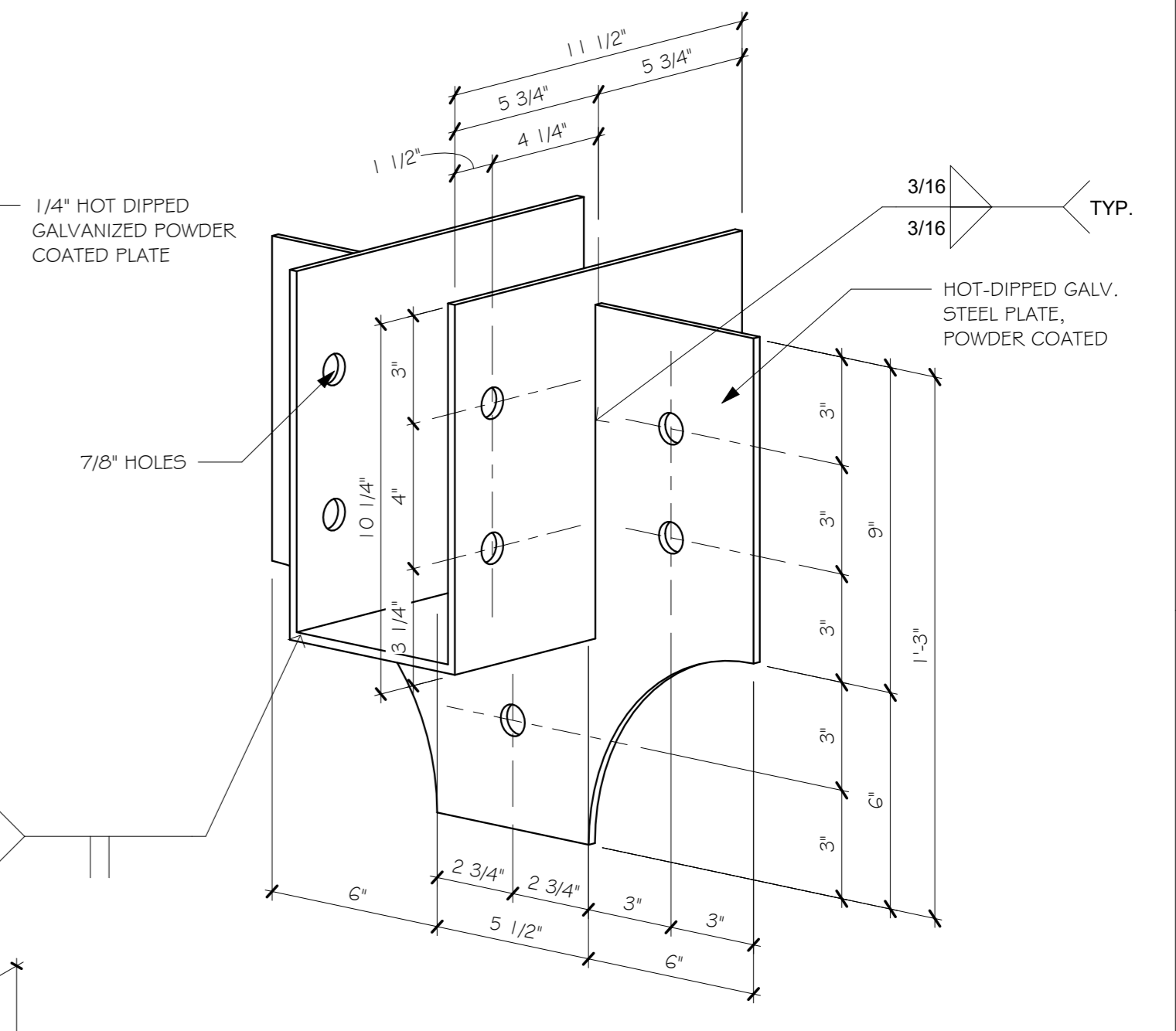
DETAIL-7: FRONT PORCH COLUMN DETAIL  
1" = 1'-0"



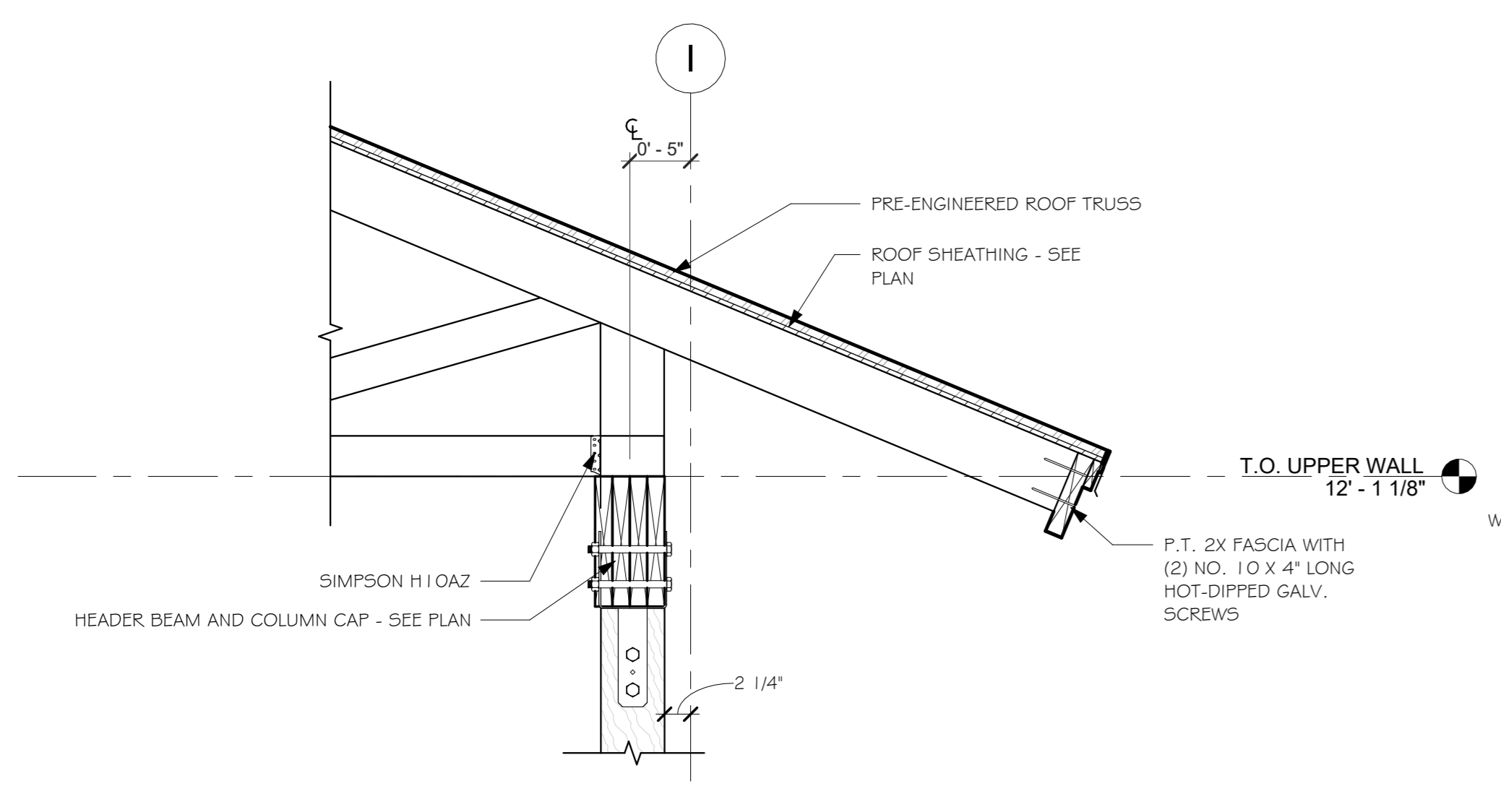
DETAIL-6: TIMBER GABLE DETAIL  
1" = 1'-0"



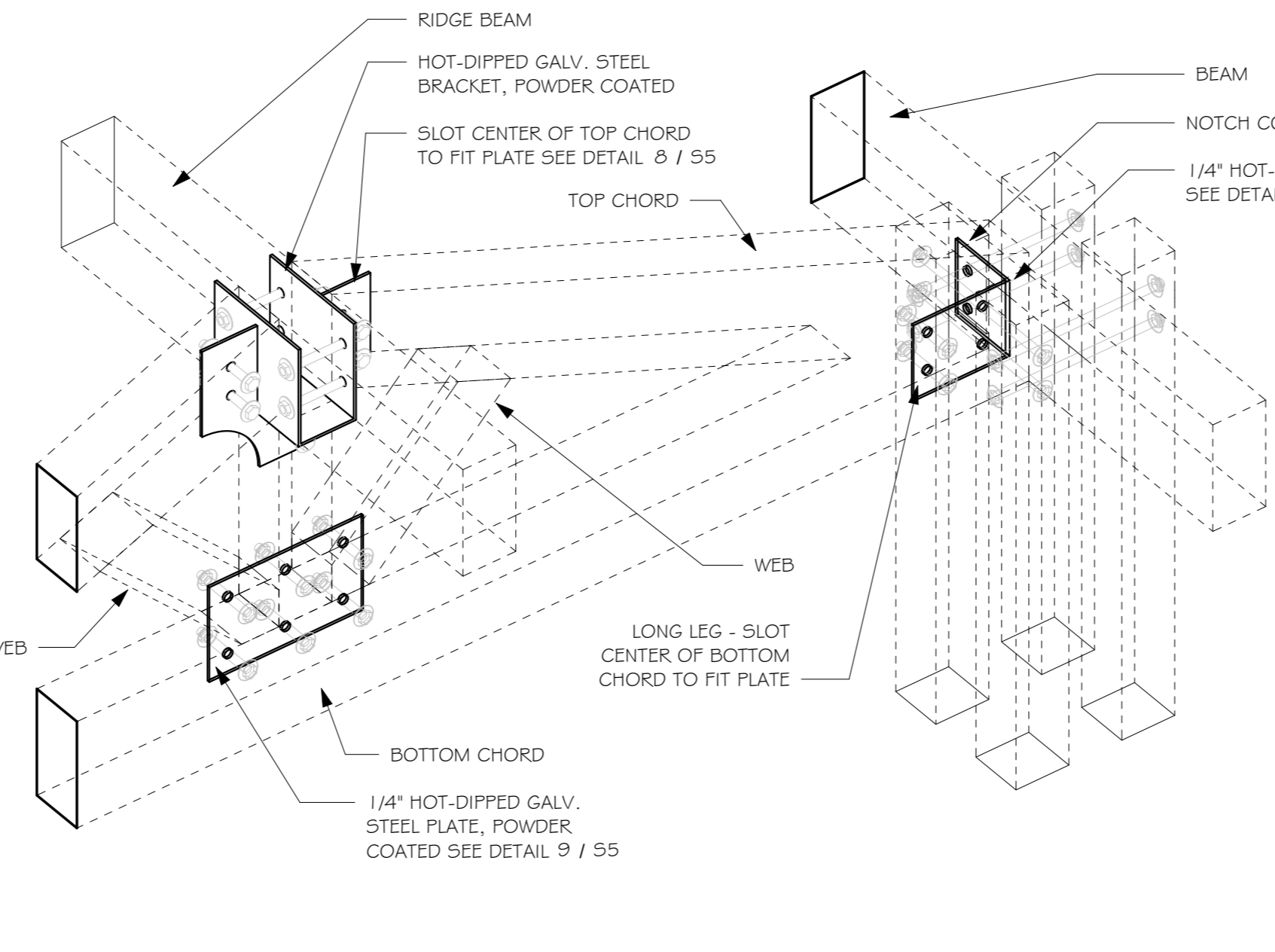
DETAIL-9: STEEL PLATE DETAIL  
3" = 1'-0"



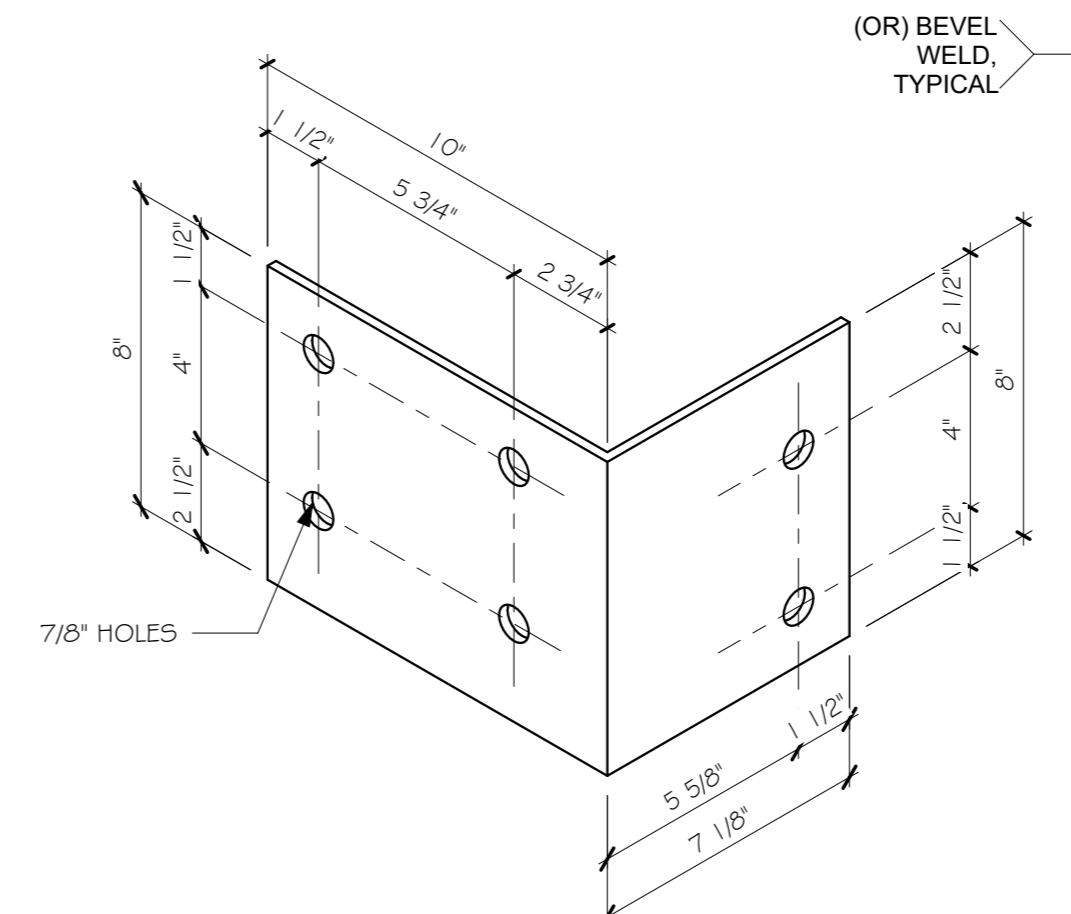
DETAIL-8: STEEL BRACKET ISOMETRIC



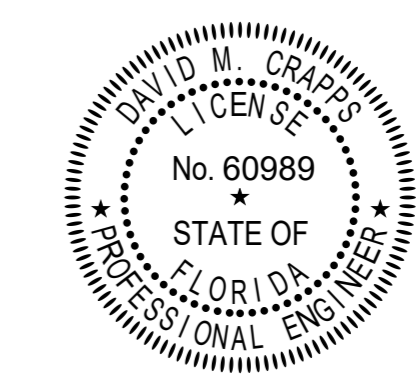
DETAIL-4: EAVE DETAIL @ REAR PORCH  
1" = 1'-0"



DETAIL-11: STEEL BRACKET INSTALLATION



DETAIL-10: STEEL BENT PLATE ISOMETRIC



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