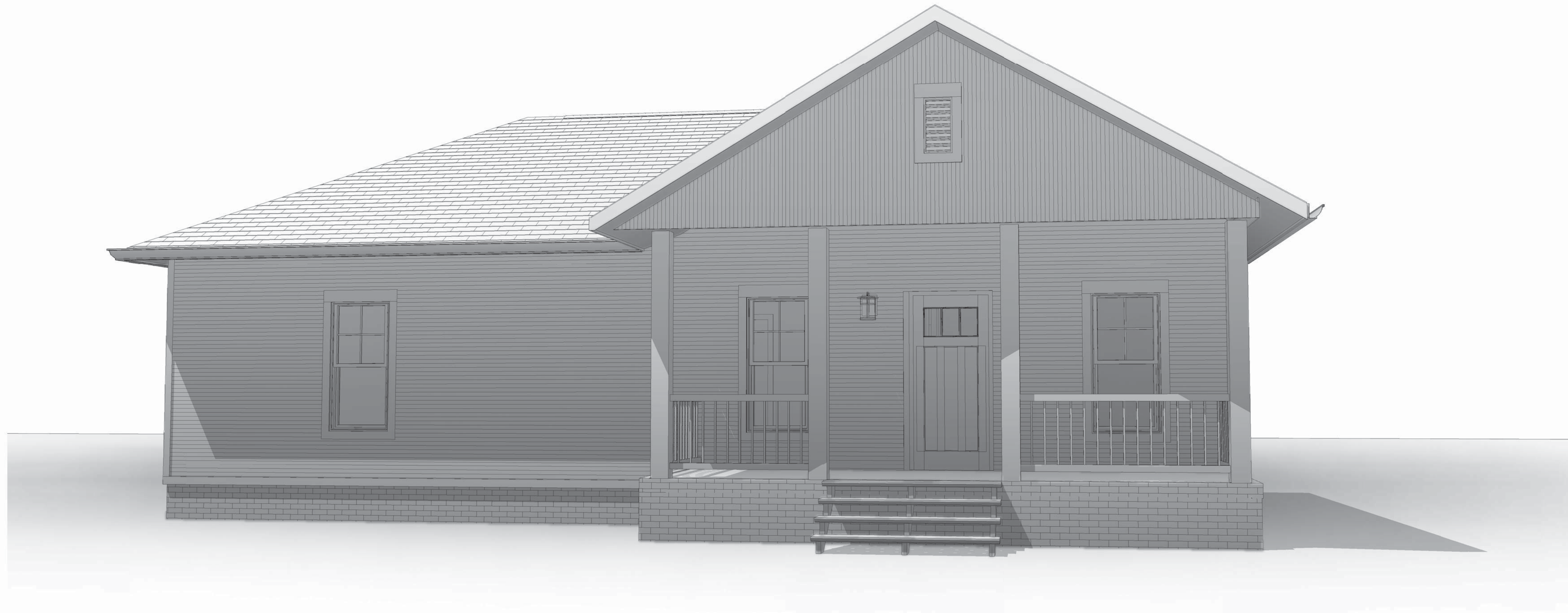


THE NORTH CAROLINA OFFICE OF RESILIENCY AND RECOVERY (NCORR)

# HADLEY I RANCH

| BUILDING DATA         |
|-----------------------|
| 1,080 TOTAL HEATED SF |
| 154 SF FRONT PORCH    |

| APPLICABLE CODES   |
|--|
| 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL   |
| 2018 NORTH CAROLINA STATE BUILDING CODE: ENERGY CONSERVATION CODE  |
| 2010 AMERICANS WITH DISABILITY ACT STANDARDS FOR ACCESSIBLE DESIGN   |
| INTERNATIONAL CODE COUNCIL A117.1 - 2009 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES (WHERE APPLICABLE BY AUTHORITIES HAVING JURISDICTION) |



**OWNER**

State of North Carolina Department of Public Safety  
 NC Office of Recovery and Resiliency  
 200 Park Offices Drive  
 Durham, NC, 27713  
 Contact: Ivan Duncan  
 E-Mail: ivan.duncan@ncdps.gov  
 Phone: (833) 275-7262

**ARCHITECT**

Summit Design & Engineering Services  
 1110 Navaho Drive, Suite 600  
 Raleigh, NC 27609  
 Contact: Bradley J. McClung, AIA, NCARB  
 E-Mail: bradley.mcclung@summitde.net  
 Phone: (919) 322-0115  
 Fax: (919) 322-0116

**STRUCTURAL**

Summit Design & Engineering Services  
 1110 Navaho Drive, Suite 600  
 Raleigh, NC 27609  
 Contact: C. Christian Berg, PE  
 E-Mail: chris.berg@summitde.net  
 Phone: (919) 322-0115  
 Fax: (919) 322-0116

**MEP**

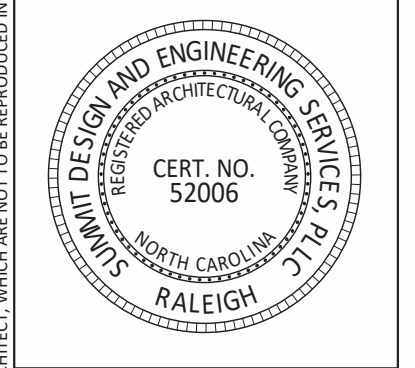
Nick Kisley, PE  
 115 Mackenan Drive  
 Cary, NC 27511  
 Contact: D. Nick Kisley, PE  
 E-Mail: nkisley@yahoo.com  
 Phone: (919) 460-9091  
 Fax:

**SHEET INDEX**

| COVER SHEET           |                                  |
|-----------------------|----------------------------------|
| CS000                 | COVER SHEET                      |
| ARCHITECTURE          |                                  |
| A100                  | FLOOR PLAN, ROOF PLAN, AND NOTES |
| A200                  | EXTERIOR ELEVATIONS              |
| A300                  | WALL SECTION AND DETAILS         |
| A400                  | DETAILS                          |
| A500                  | BATHROOM DETAILS & MISC NOTES    |
| STRUCTURAL            |                                  |
| S100                  | GENERAL NOTES AND PLANS          |
| S200                  | DETAILS                          |
| S201                  | TRUSS PROFILES                   |
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| ELECTRICAL            |                                  |
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THE NORTH CAROLINA OFFICE OF RESILIENCY AND RECOVERY (NCORR)  
**HADLEY I RANCH**



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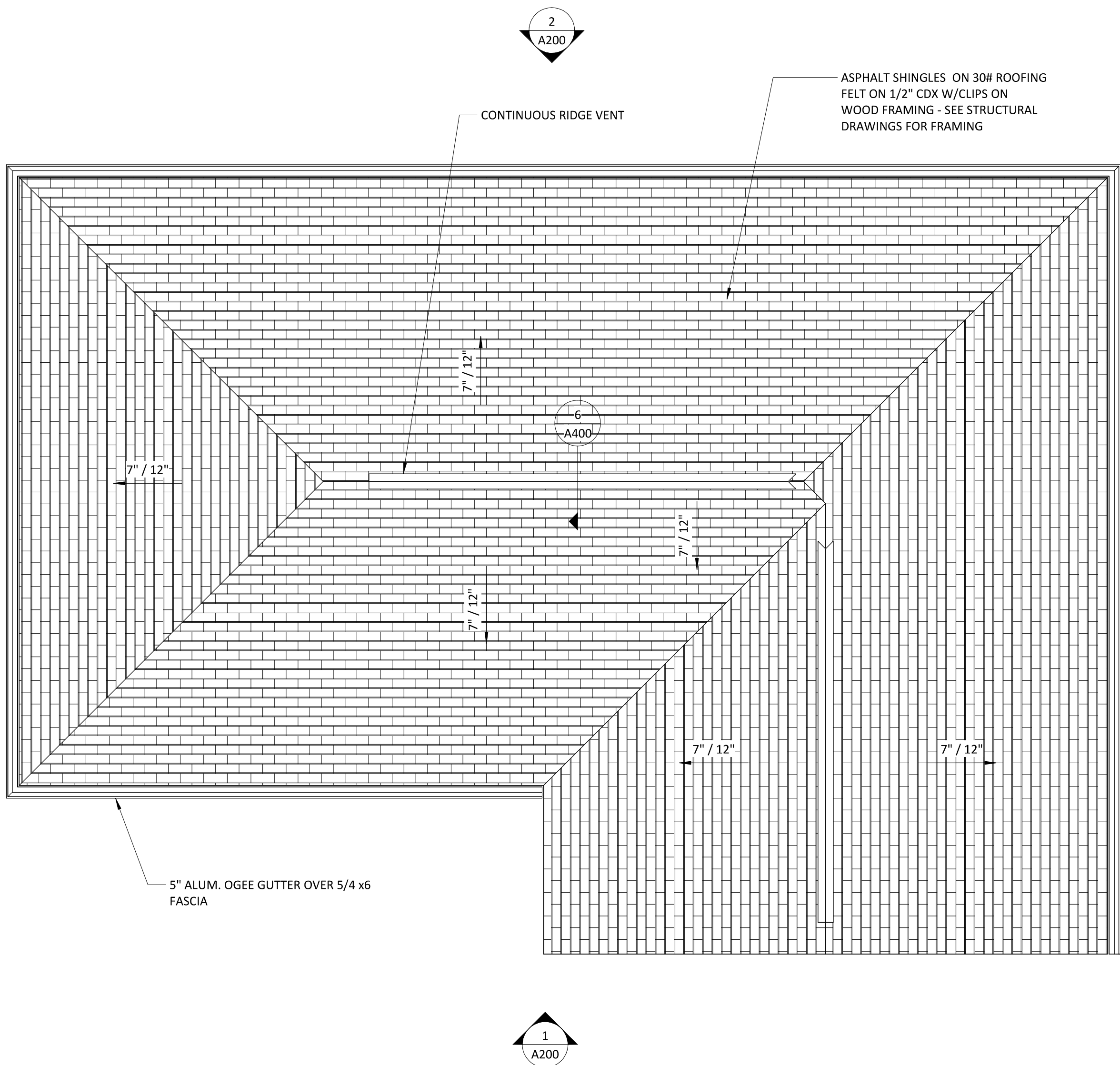
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**20-0108.020**

**COVER SHEET**

**CS000**

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**2** ROOF PLAN  
1/4" = 1'-0"



**ATTIC VENTILATION CALCULATIONS**

THE TOTAL NET FREE AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. THE NET FREE CROSS-VENTILATION AREA SHALL BE PERMITTED TO BE REDUCED TO 1/300 PROVIDED AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

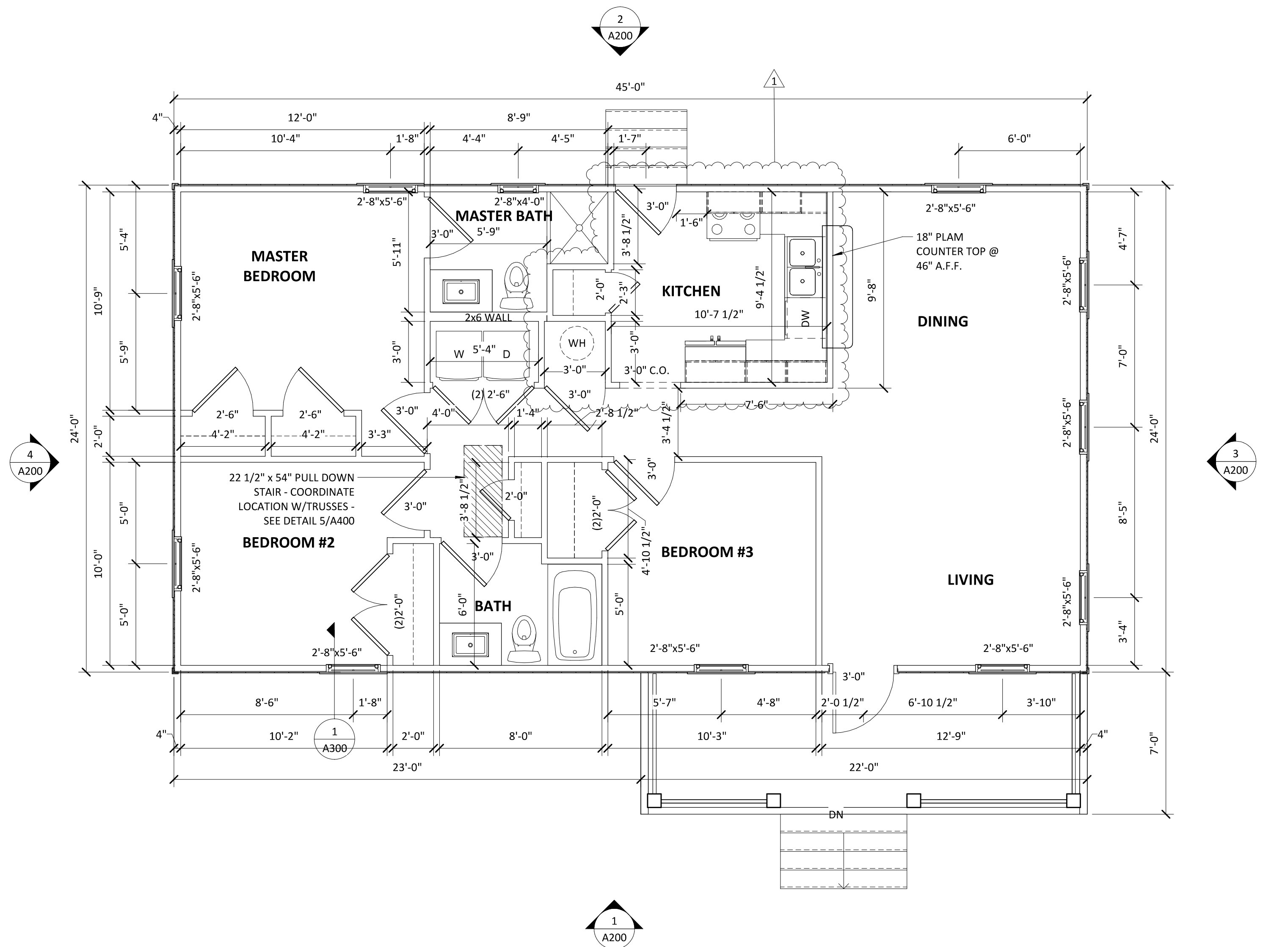
|       |  |
|-------|--|
| 1,081 | SQUARE FEET<br>TOTAL ATTIC / 150 =                   |
| 7.21  | SQUARE FEET<br>NET FREE AREA VENTILATION<br>REQUIRED |
| 3.605 | SQUARE FEET<br>EAVE VENTILATION                      |
| 3.605 | SQUARE FEET<br>RIDGE OR ROOF EXHAUST<br>VENTILATION  |

IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE RIDGE VENT AND EAVE VENT PRODUCTS PROVIDE SUFFICIENT VENTILATION

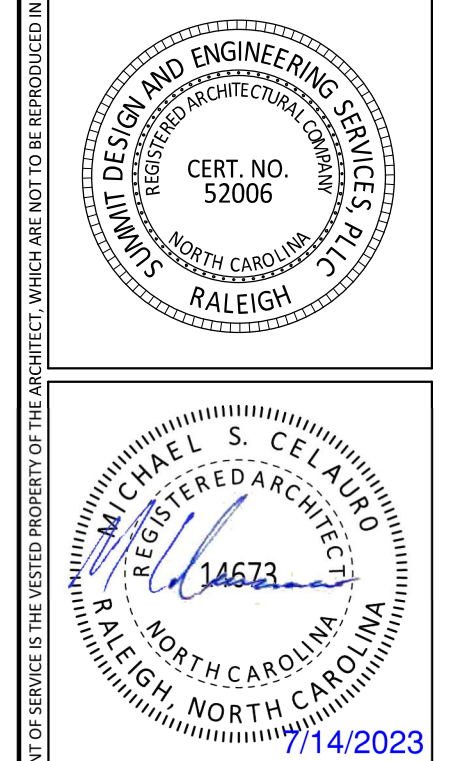
- FLOOR PLAN NOTES**
1. ALL INTERIOR WALLS ARE DRAWN @ 3 1/2" WIDE AND EXTERIOR WALLS ARE DRAWN WITH 1/2" SHEATHING @ 4" WIDE.
  2. ALL DIMENSIONS ARE DRAWN TO FACE OF STUD ON INTERIOR WALLS AND TO EXTERIOR SHEATHING ON INTERIOR WALLS.
  3. ALL DOORS SHALL BE 7'-0" TALL U.N.O.
  4. ALL WINDOWS TO HAVE SCREENS.
  5. PROVIDE PLASTIC COATED WIRE SHELVING W/ CLOTHES ROD IN COAT CLOSET & BEDROOM CLOSETS, ONE (1) SHELF IN LAUNDRY CLOSET & FOUR (4) SHELVES IN PANTRY.
  6. UNLESS REQUIRED BY HOMEOWNER, ALL FIXTURES, BATHROOMS, AND KITCHENS DO NOT NEED TO BE ADA COMPLIANT. IN THE EVENT ADA ACCESSIBILITY IS REQUIRED, REFER TO ADA COMPLIANCE NOTES AND DIAGRAMS.
  7. 1/2" GYPSUM WALLBOARD SHALL BE INSTALLED ON BOTTOM CHORD OF TRUSSES. GYPSUM BOARD SHALL BE LEVEL 4 OR 5 FINISH WITH 1 PRIMER COAT AND 2 FINISH COATS OF "CEILING WHITE" FLAT LATEX PAINT.
  8. ALL INTERIOR WALLS SHALL BE FINISHED WITH 1/2" GYPSUM BOARD WITH A LEVEL 4 OR FINISH WITH 1 PRIMER COAT AND 2 FINISH COATS OF EGGSHELL LATEX PAINT. PAINT COLOR SHALL DETERMINED BY HOMEOWNER.
  9. PROVIDE "GREEN" WALL BOARD FOR BATHROOM AND WALLS BEHIND COUNTER IN KITCHEN.
  10. IF WALL TILE IS USED, PROVIDE CEMENTITIOUS BACKER BOARD FOR TILE APPLICATIONS.
  11. G.C. SHALL PROVIDE BLOCKING FOR CABINERY AND COUNTERTOP SUPPORT. COORDINATE ATTACHMENT LOCATIONS WITH CABINERY SUPPLIER.

- ADA COMPLIANCE NOTES**
1. PROVIDE CONTINUOUS BLOCKING FOR GRAB BARS IN THE BATHROOM. REFER TO ADA.GOV, 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN FOR EXACT LOCATIONS. BLOCKING SHALL BE CONT. 2x6 WOOD STUDS FROM 32"-38" A.F.F.
  2. IN UNITS WHERE ACCESSIBILITY IS REQUIRED, PROVIDE ADA COMPLIANT ROLL IN SHOWER, ADA COMPLIANT VANITY, AND GRAB BARS.
  3. KITCHEN DESIGN SHALL BE DESIGNED IN ACCORDANCE WITH 2010 ADA OR SHALL BE DESIGNED TO BE EASILY CONVERTED.
  4. IF A HANDICAP RAMP IS ACCESSIBLE, THE GEOMETRY SHALL BE BASED ON SITE CONDITIONS AND RAMP SHALL BE ADA COMPLIANT
  5. REFER TO A500 FOR ADA DIAGRAMS, MOUNTING HEIGHTS, ETC.

**1** FIRST FLOOR PLAN  
1/4" = 1'-0"



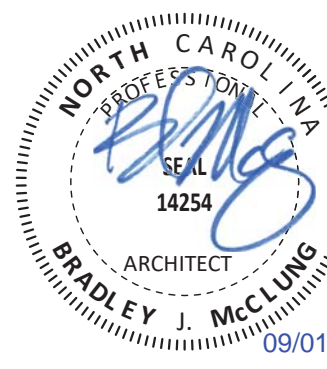
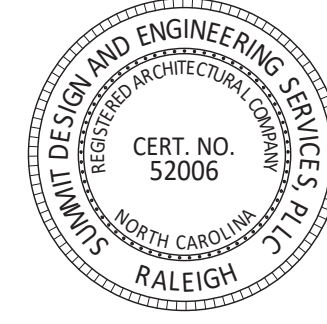
THE NORTH CAROLINA OFFICE OF RESILIENCY AND RECOVERY (NCORR)  
**HADLEY | RANCH**



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FLOOR PLAN, ROOF PLAN, AND NOTES

**A100**

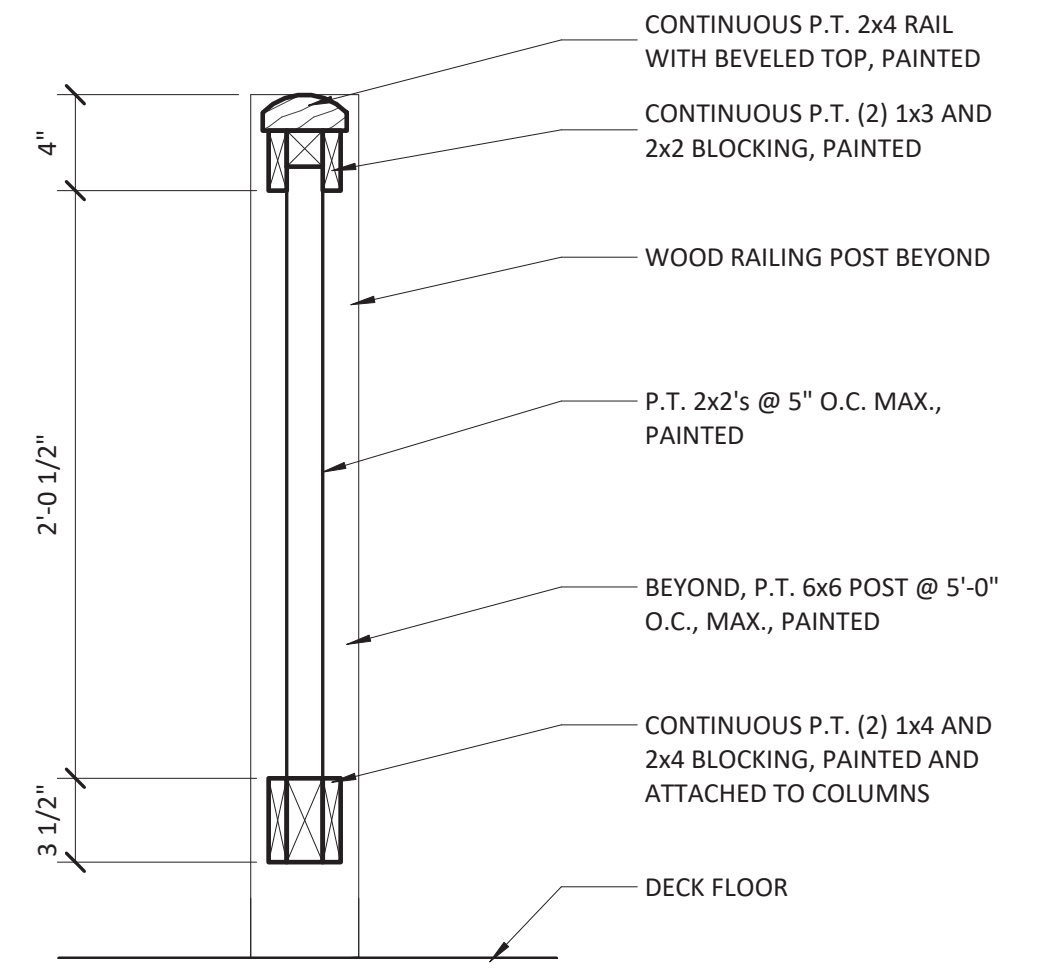


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EXTERIOR ELEVATIONS

**A200**



**GUARDRAIL AND HANDRAIL NOTES**

INSTALL HANDRAILS AND GUARDS PER 2018 NC RESIDENTIAL BUILDING CODE SECTIONS R311.7.2 THROUGH R312. PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 36" IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 30" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREAS, BALCONIES, AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW PASSAGE OF AN OBJECT 4" OR MORE IN DIAMETER. HORIZONTAL SPACING BETWEEN THE VERTICAL MEMBERS IN REQUIRED GUARDRAILS SHALL BE A MAXIMUM OF 4" AT THE NEAREST POINT BETWEEN MEMBERS.

INSTALL HANDRAILS PER 2018 NC RESIDENTIAL BUILDING CODE SECTION R311.5.6 AT ALL PORCH STAIRS WITH MORE THAN 4 RISERS. HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL NOT BE LESS THAN 34" AND NOT MORE THAN 38"

**EXTERIOR FINISH NOTES**

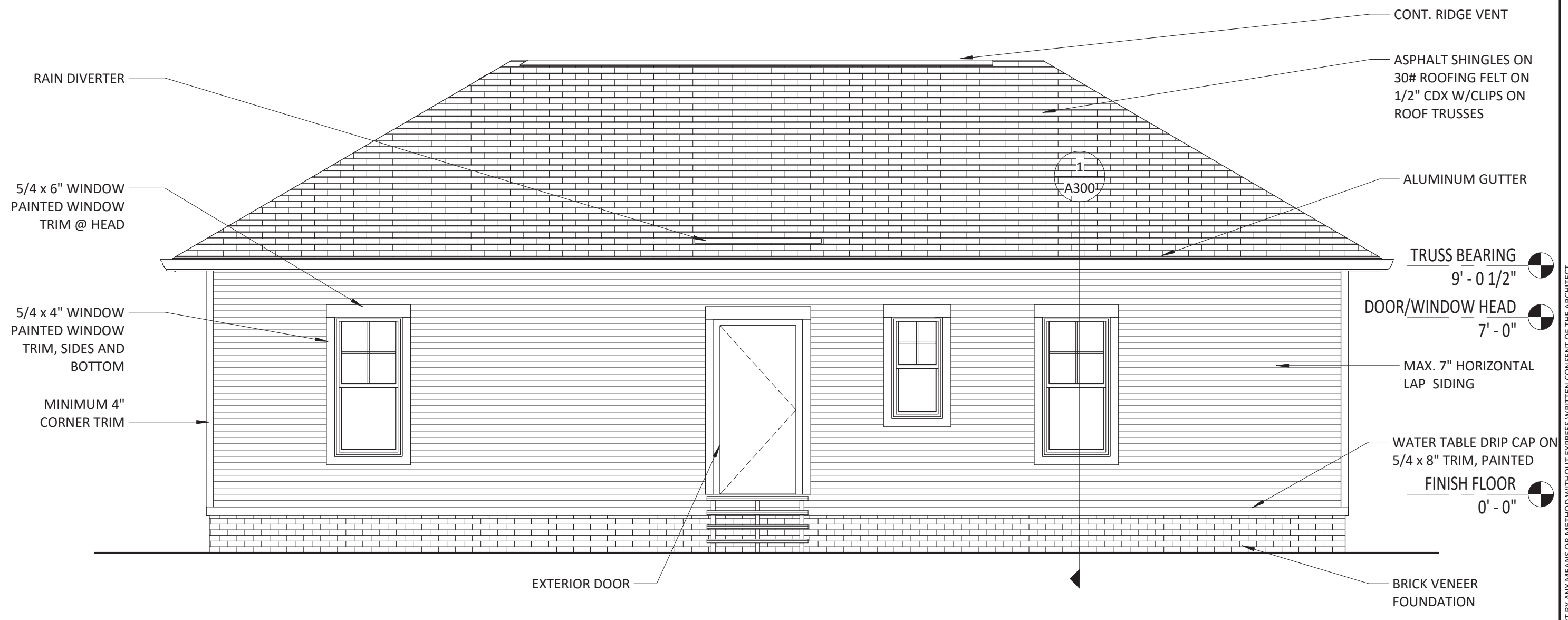
ALL SIDING SHALL BE FIBER CEMENT. ACCEPTABLE SIDING OPTIONS ARE AS FOLLOWS:  
-BOARD AND BATTEN - BATTENS @ 24" SPACING  
-SHAKES  
-HORIZONTAL LAP SIDING WITH THINNER REVEAL  
-HORIZONTAL LAP SIDING PAINTED DIFFERENT COLOR THAN MAIN BODY SIDING.

ASPHALT SHINGLES SHALL HAVE A 25 YEAR WARRANTY; COLOR AND STYLE TO BE SELECTED FROM MANUFACTURER'S CATALOG OF 3-TAB PRODUCT LINE.

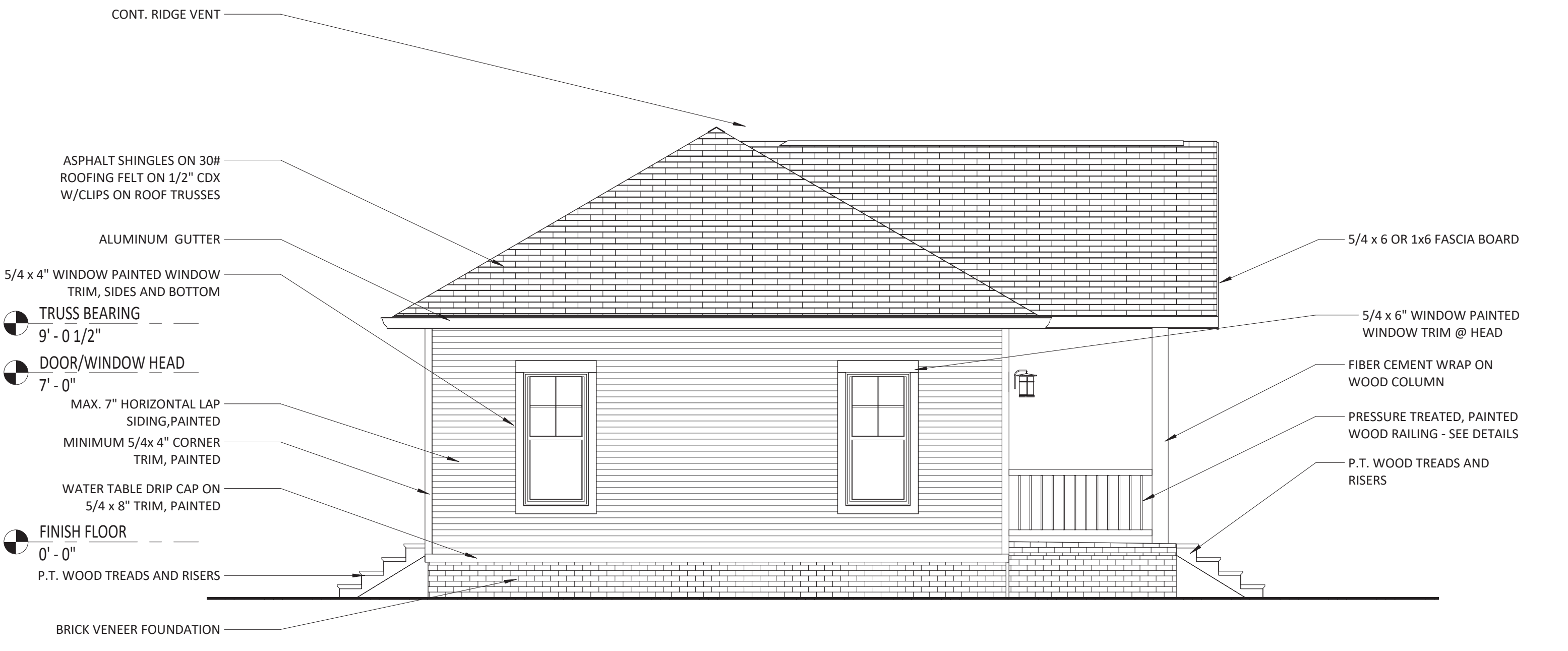
ACCENT ROOFING SHALL BE EXPOSED FASTENER, 26 GA., SELECTED FROM MANUFACTURER'S FULL RANGE.

ALL FIBER CEMENT SIDING, TRIM, PRESSURE TREATED WOOD (EXCEPT STAIR TREADS AND RISERS) SHALL BE PAINTED. EXTERIOR PAINT SHALL BE 1 COAT PRIMER AND TWO COATS OF EXTERIOR ACRYLIC LATEX PAINT.

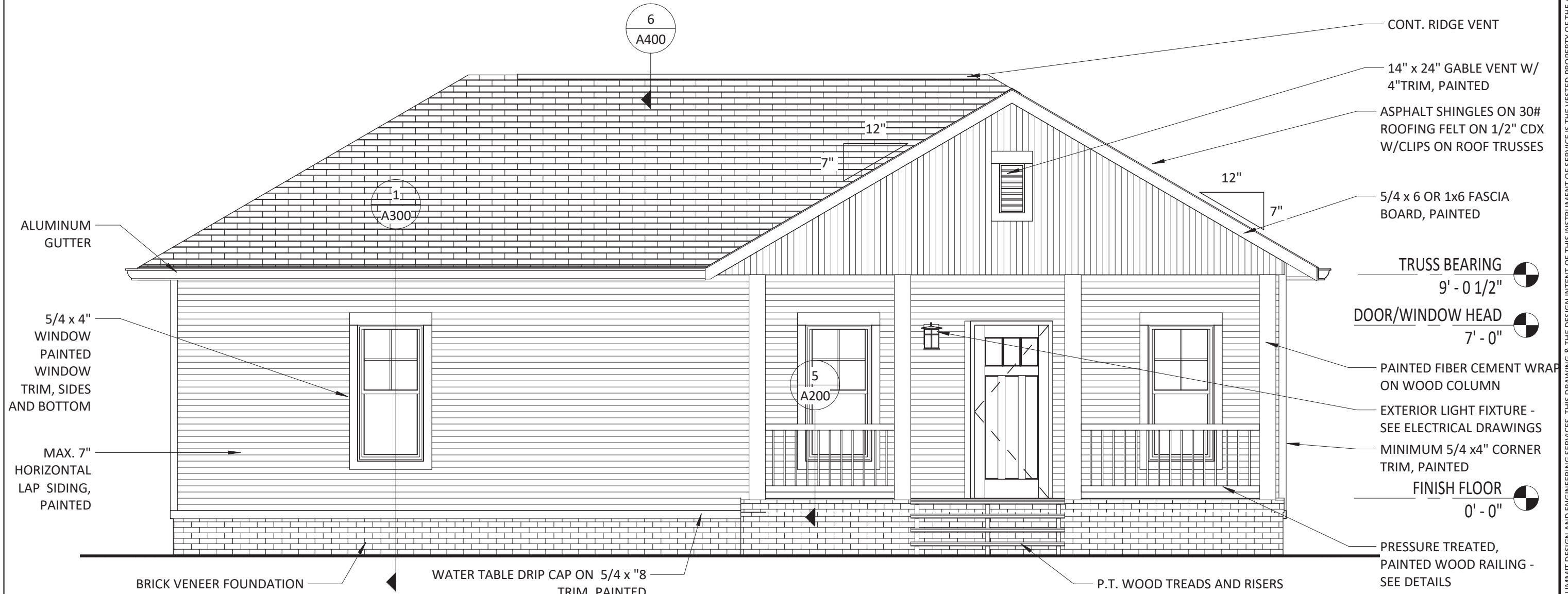
**5 RAILING DETAIL**  
1 1/2" = 1'-0"



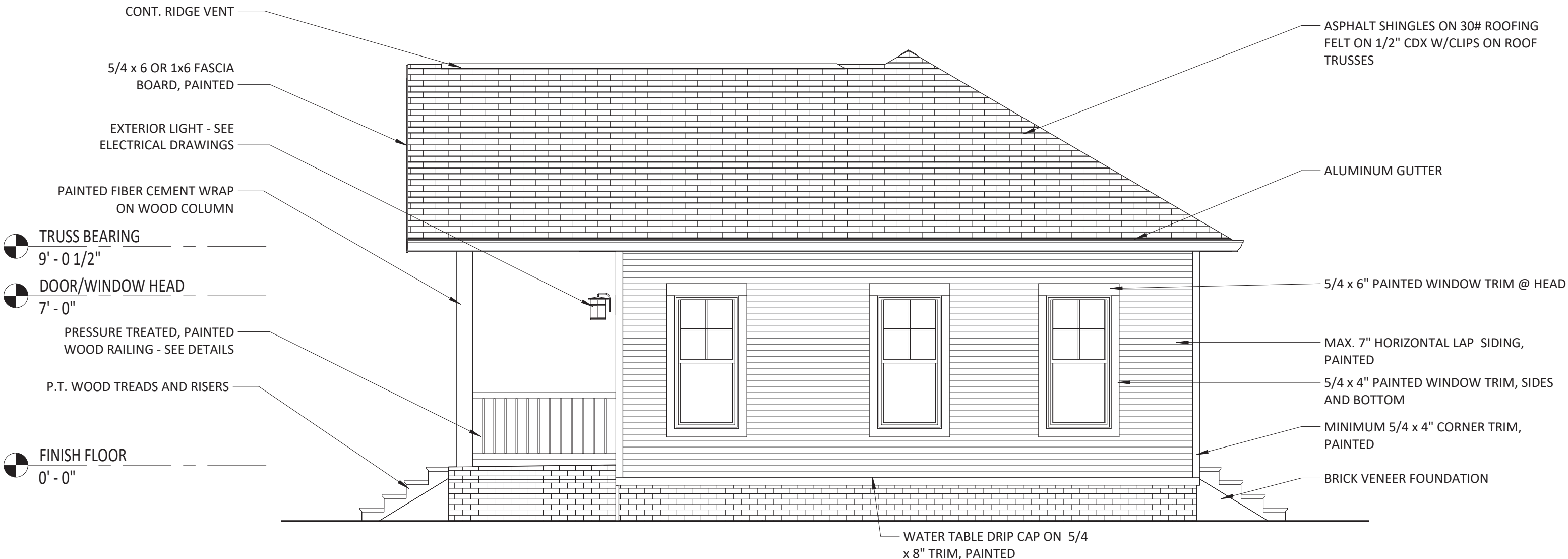
**2 REAR ELEVATION**  
1/4" = 1'-0"



**4 LEFT ELEVATION**  
1/4" = 1'-0"



**1 FRONT ELEVATION**  
1/4" = 1'-0"

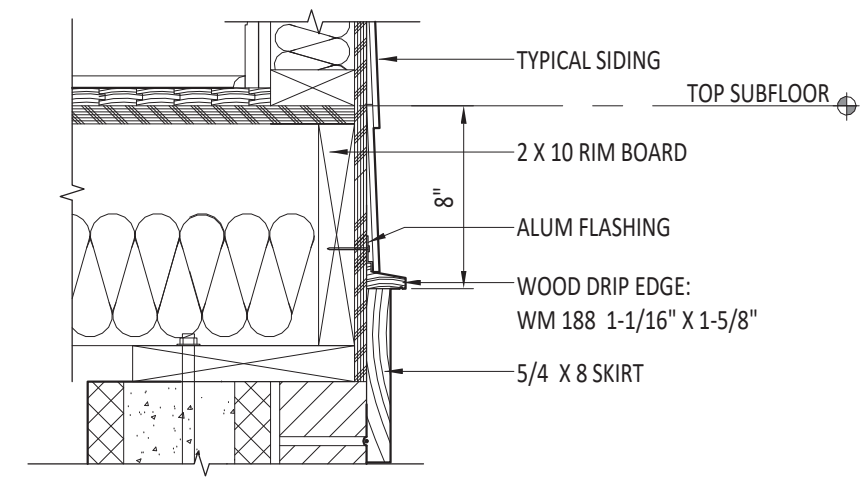


**3 RIGHT ELEVATION**  
1/4" = 1'-0"

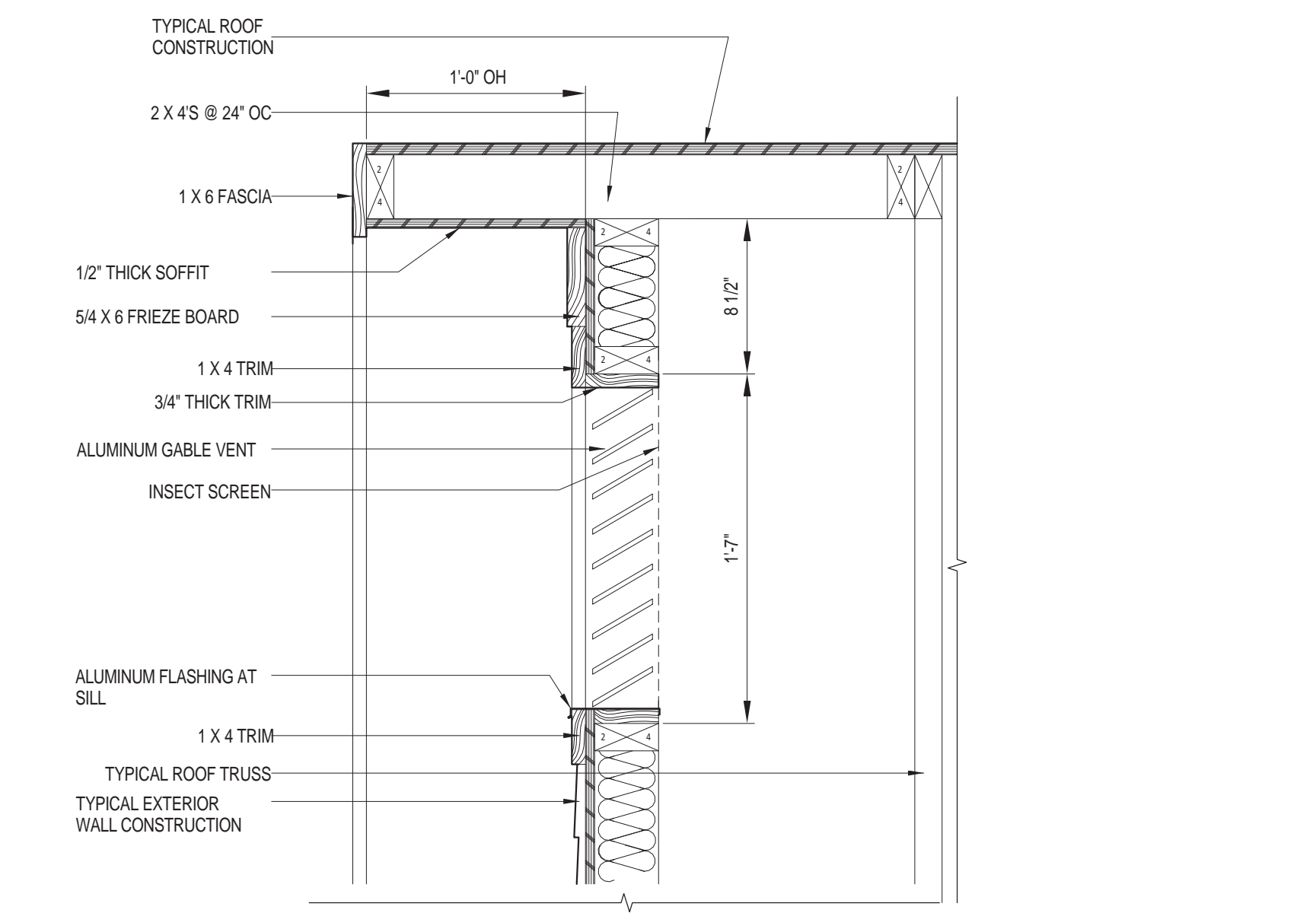
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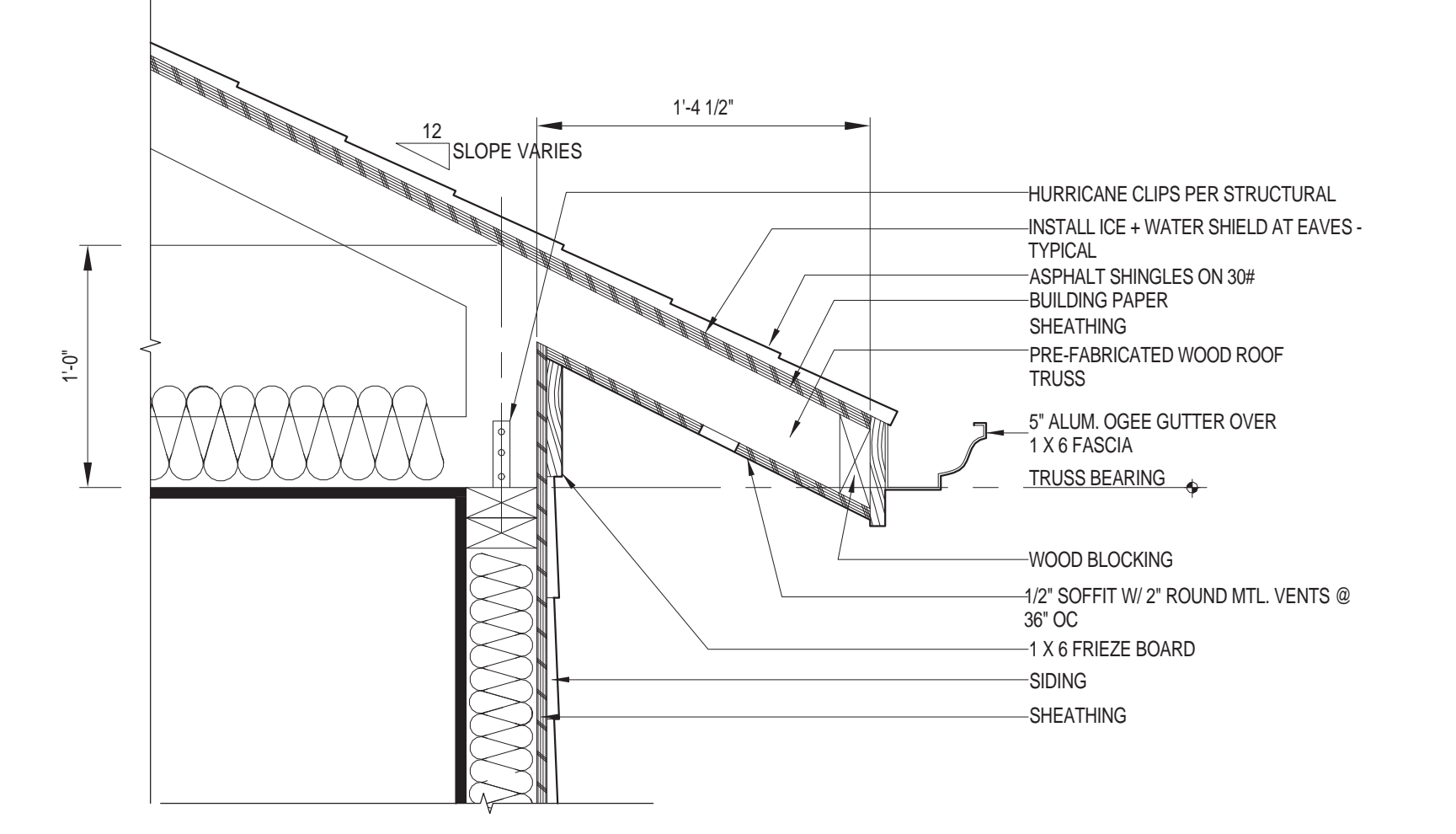
**5** WATER TABLE DETAIL  
1 1/2" = 1'-0"



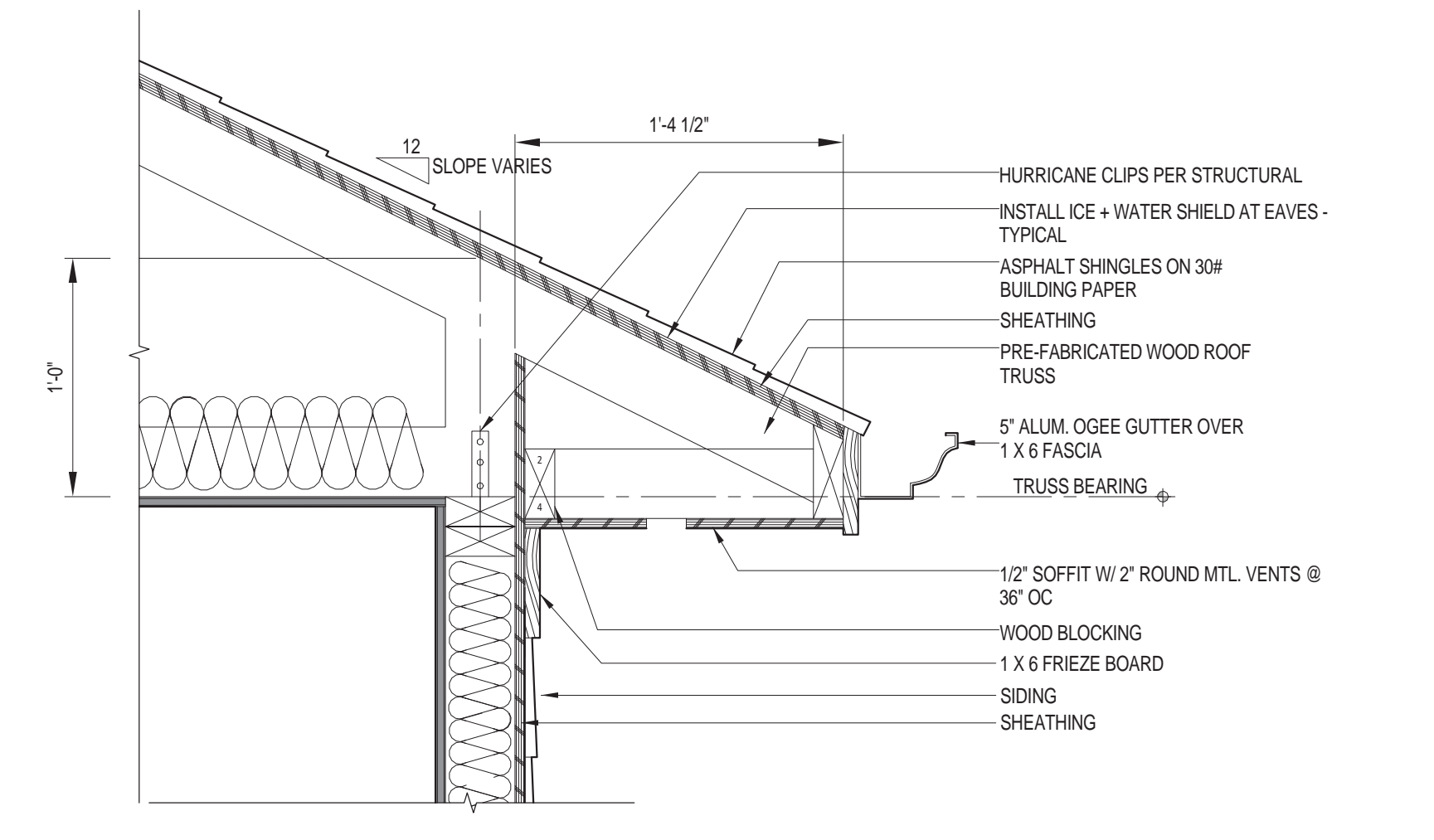
**2** TYPICAL RAKE DETAIL  
1 1/2" = 1'-0"



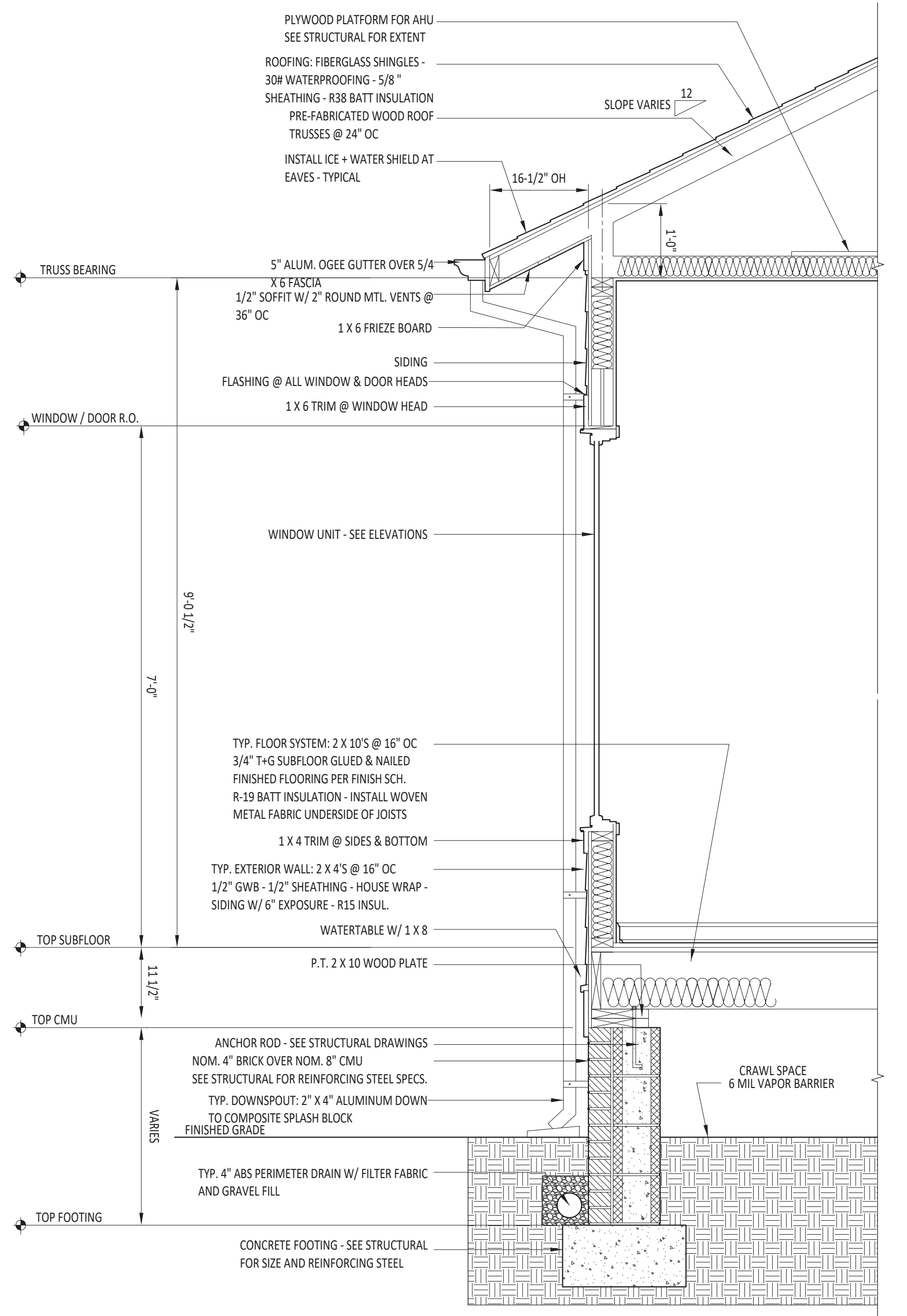
**3** TYPICAL CORNICE DETAIL  
1 1/2" = 1'-0"



**4** ALTERNATE SOFFIT DETAIL  
1 1/2" = 1'-0"



**1** WALL SECTION  
3/4" = 1'-0"



**A300**

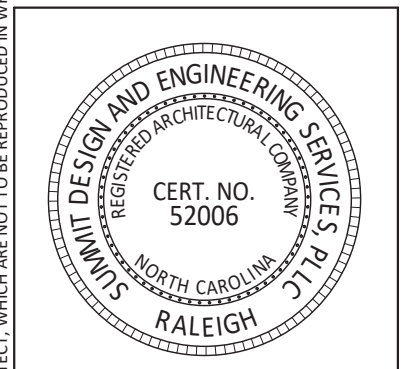
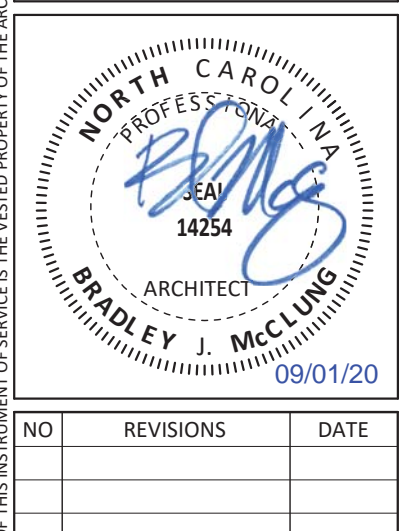
WALL SECTION AND DETAILS

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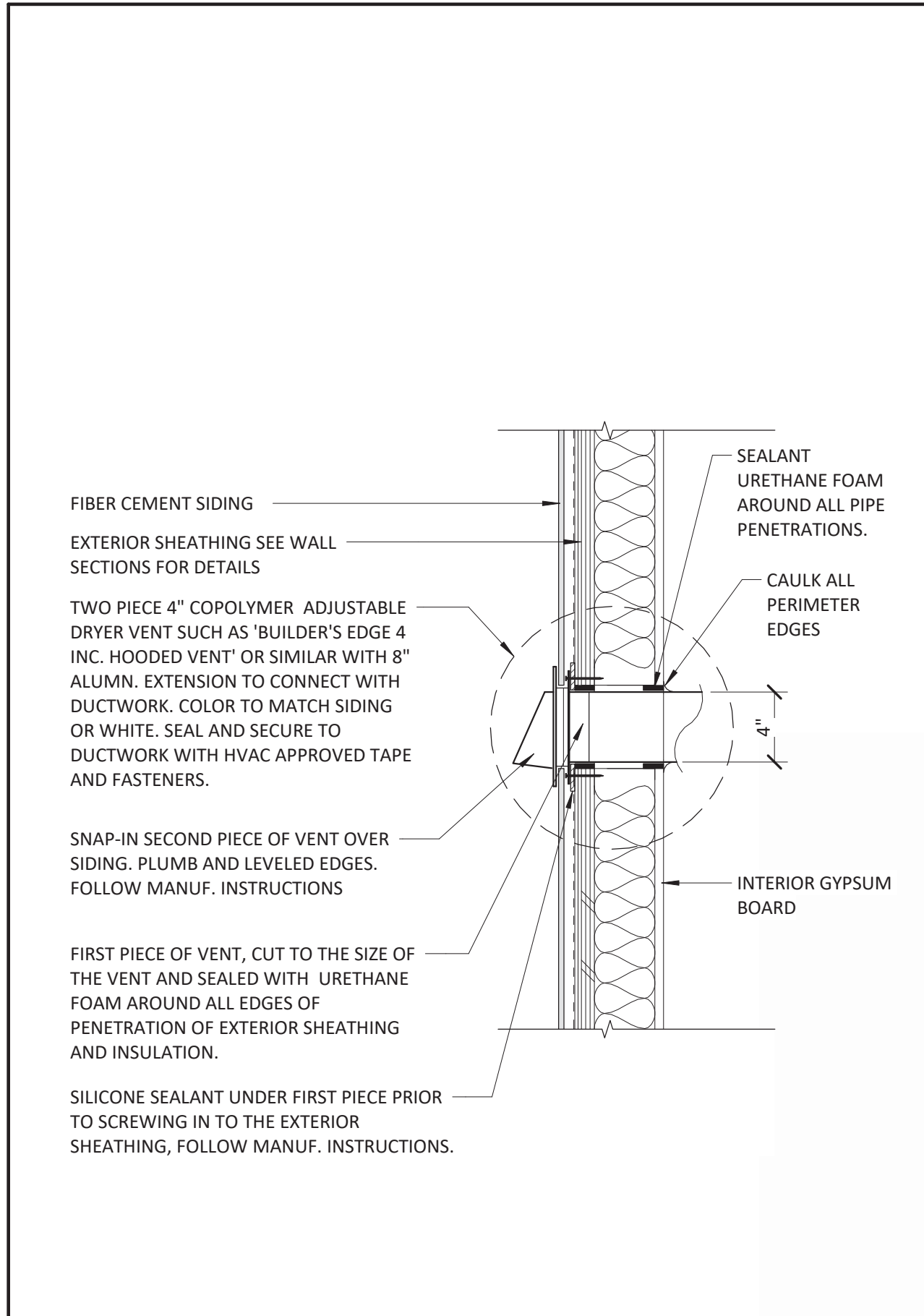


THE NORTH CAROLINA OFFICE OF RESILIENCY AND RECOVERY (NCROR)  
**HADLEY | RANCH**

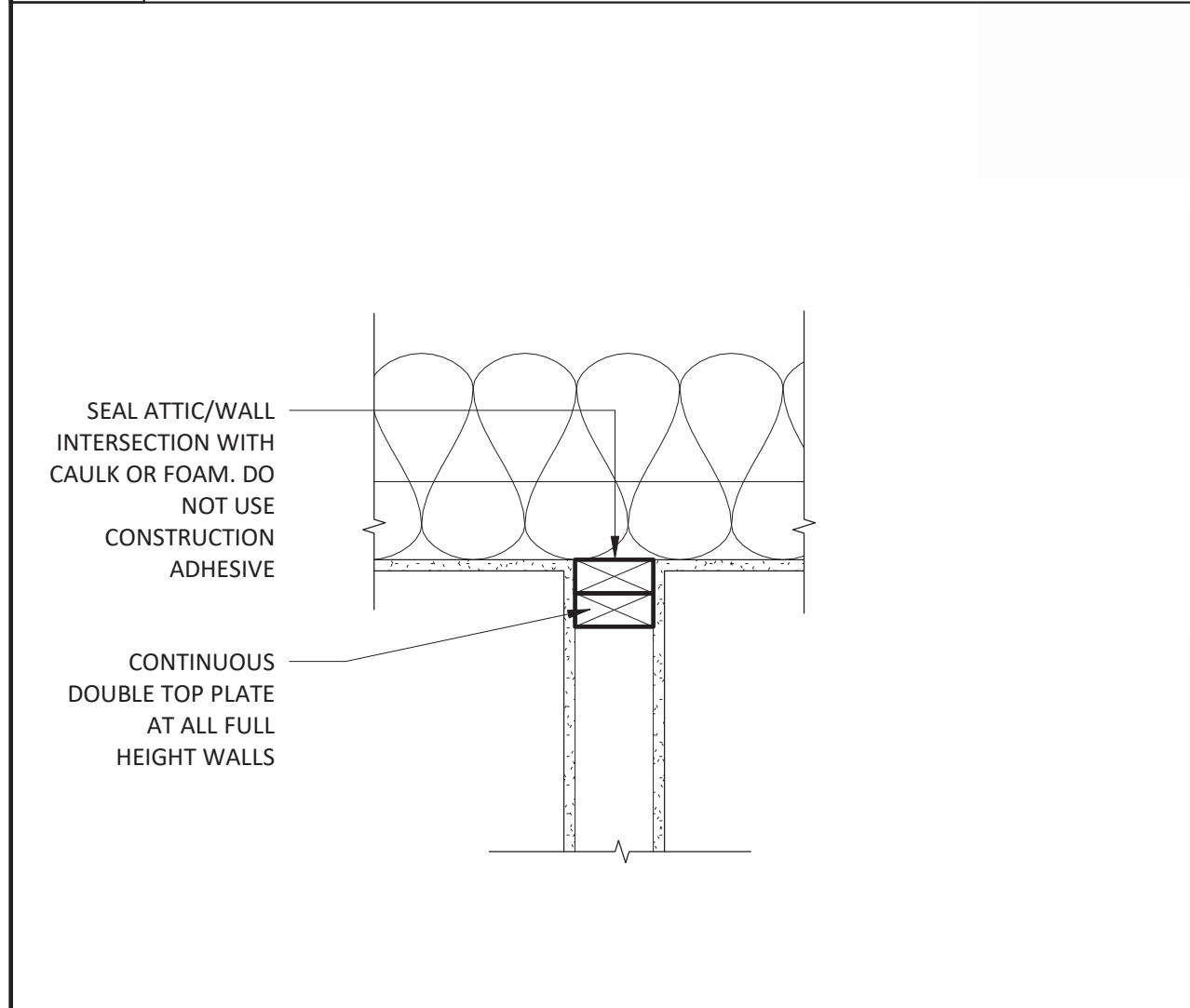
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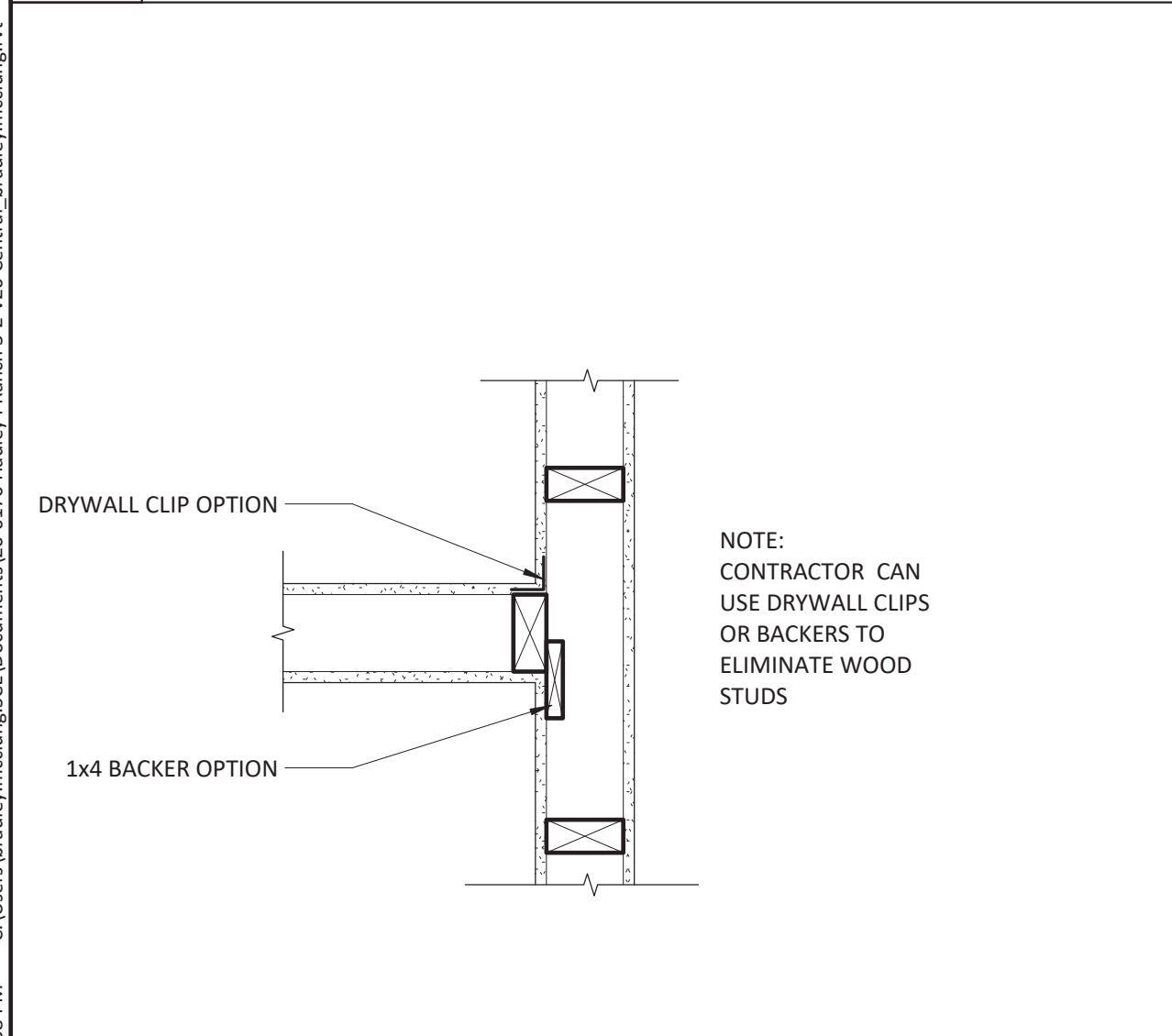
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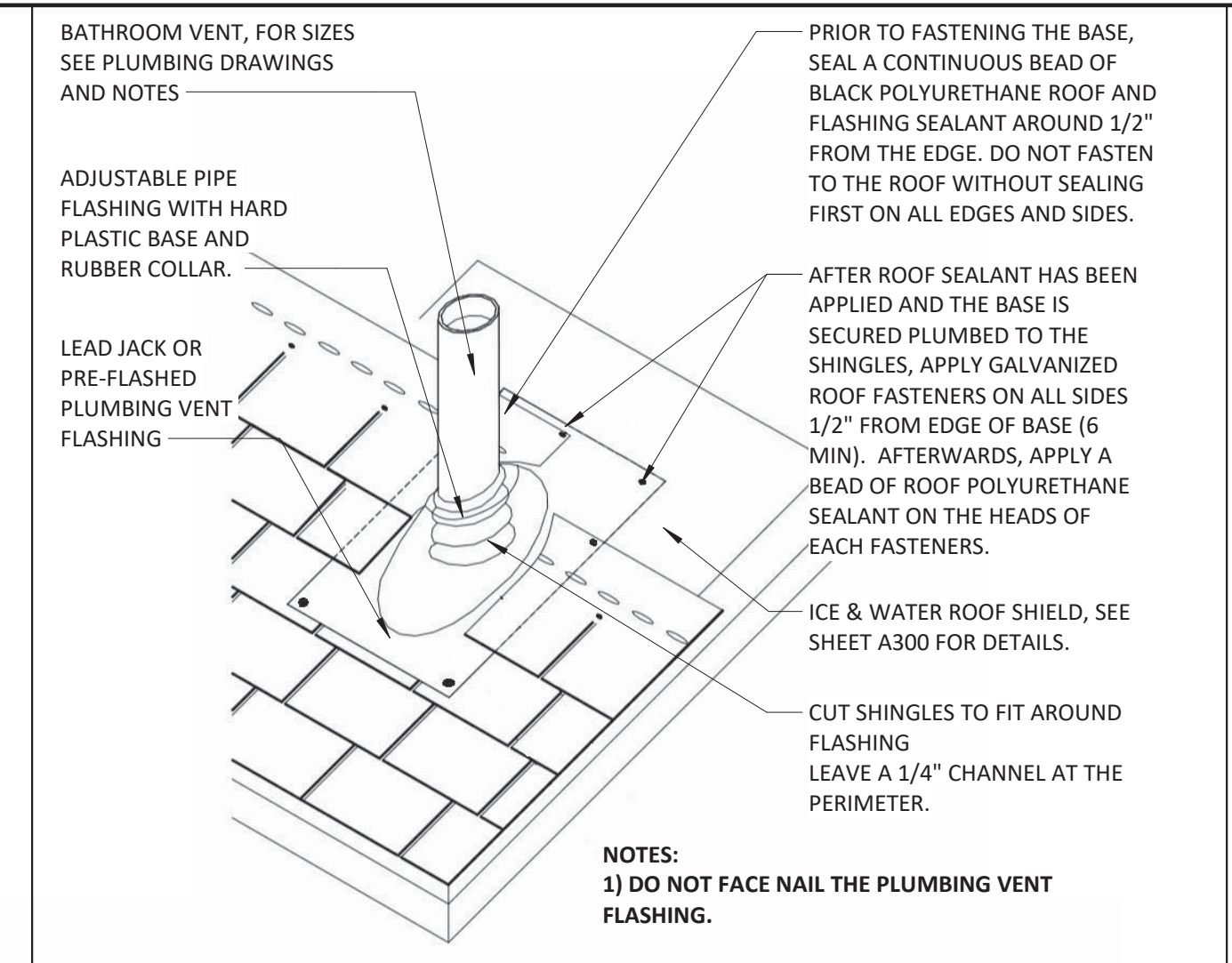
**13** EXT. DRYER WALL VENT DETAIL  
1 1/2" = 1'-0"



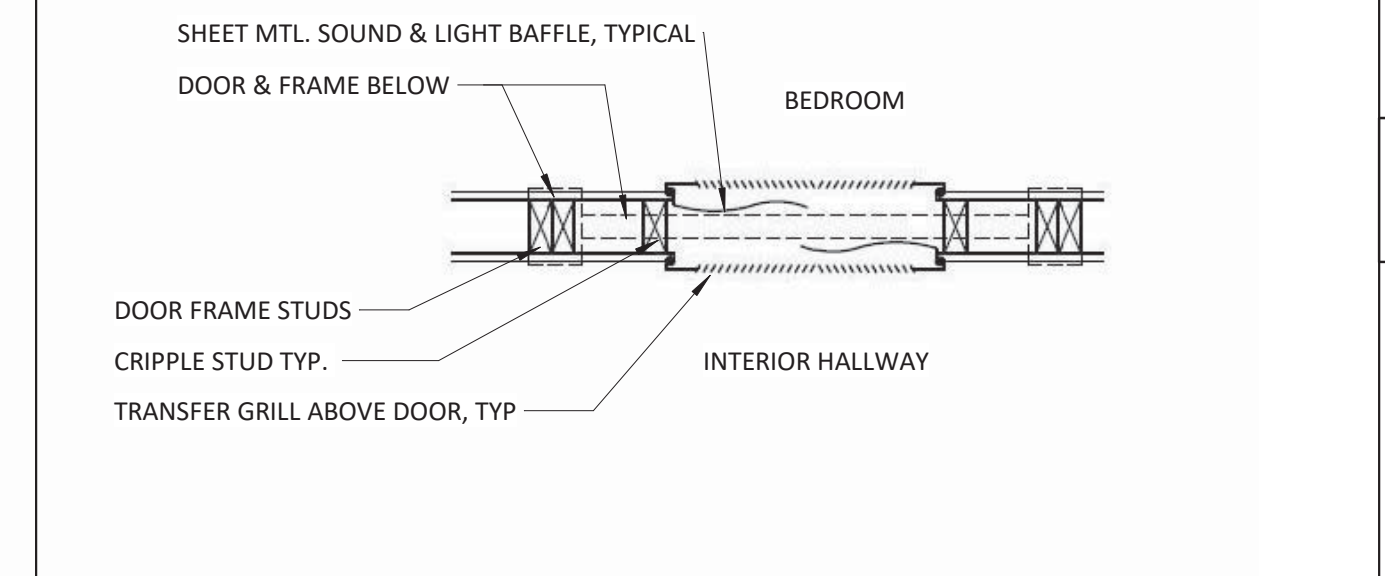
**12** INTERIOR WALL AT ATTIC  
1 1/2" = 1'-0"



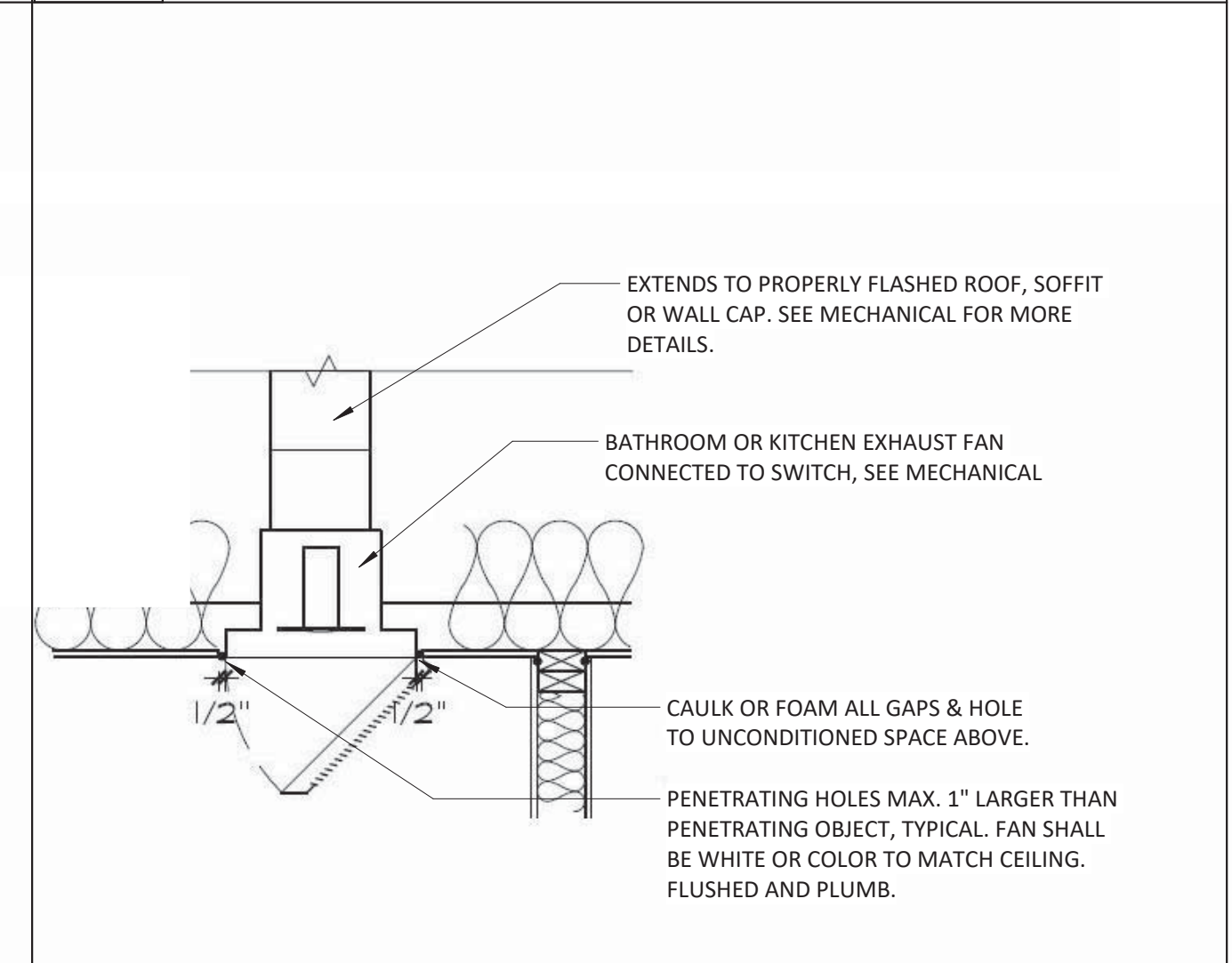
**11** INTERIOR INTERSECTING WALL DETAIL  
1 1/2" = 1'-0"



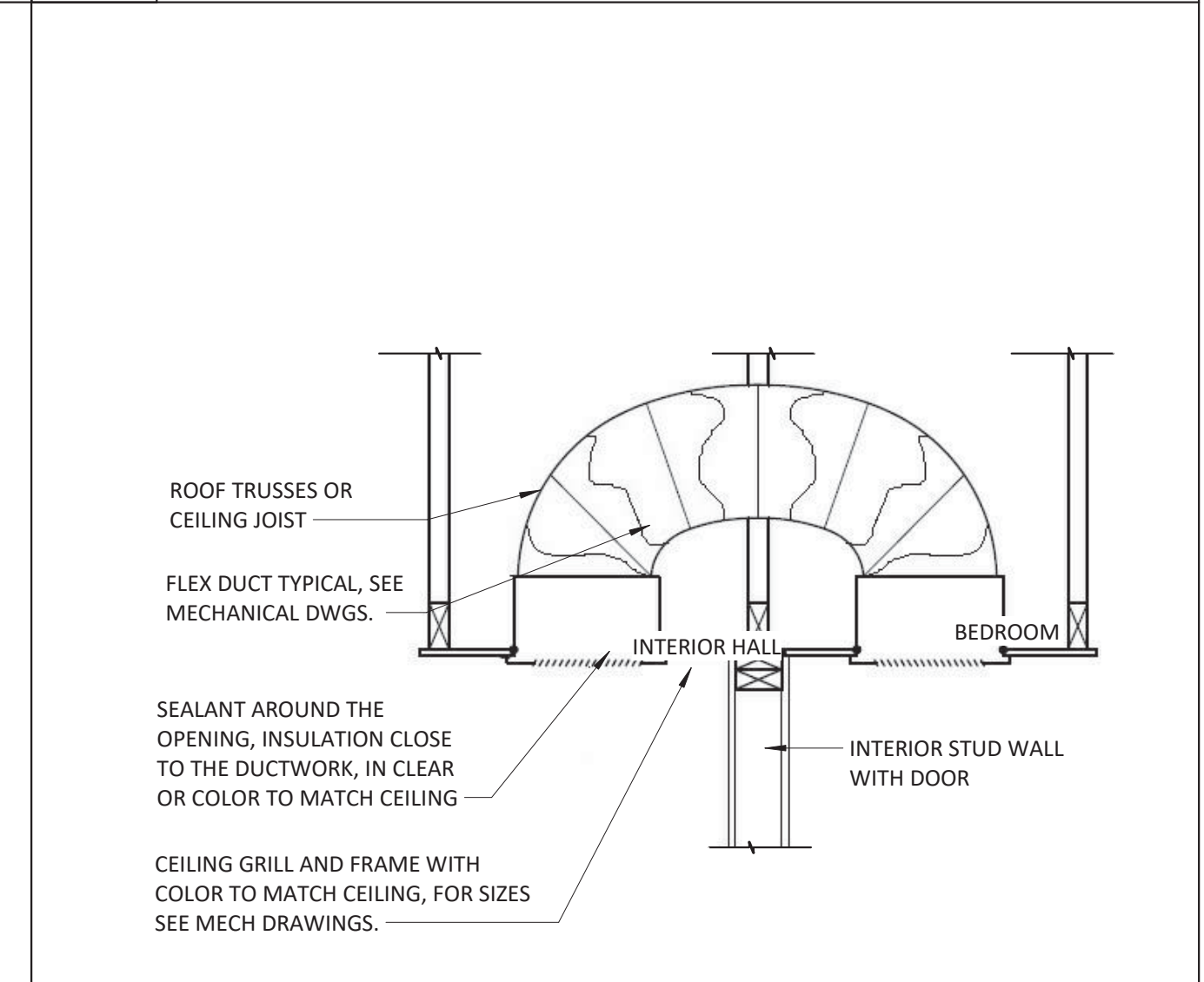
**10** ROOF VENT DETAIL  
NOT TO SCALE - REFER TO NOTES



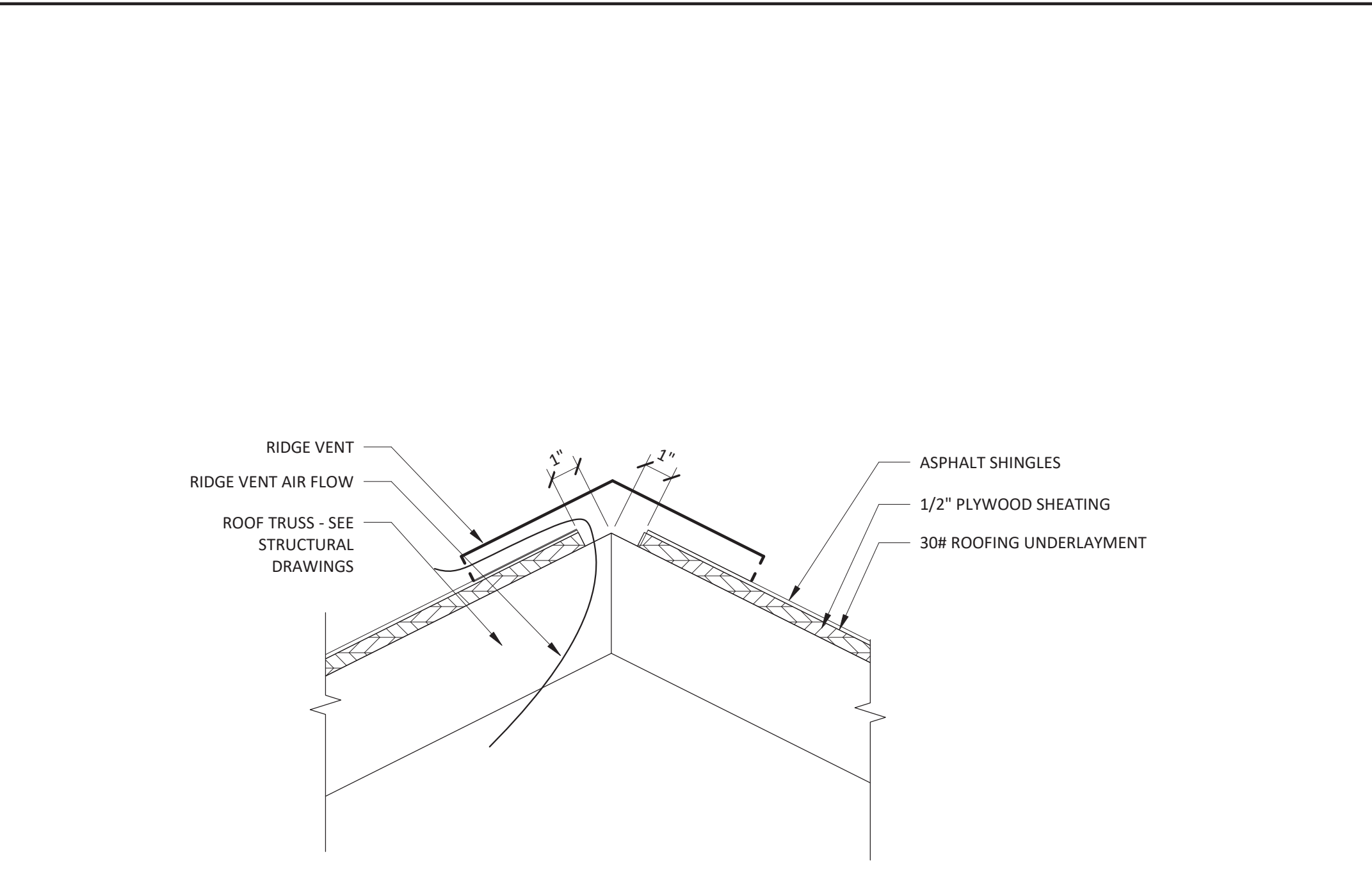
**9** BEDROOM PRESSURE BALANCE - TRANS. GRILL  
NOT TO SCALE - REFER TO NOTES



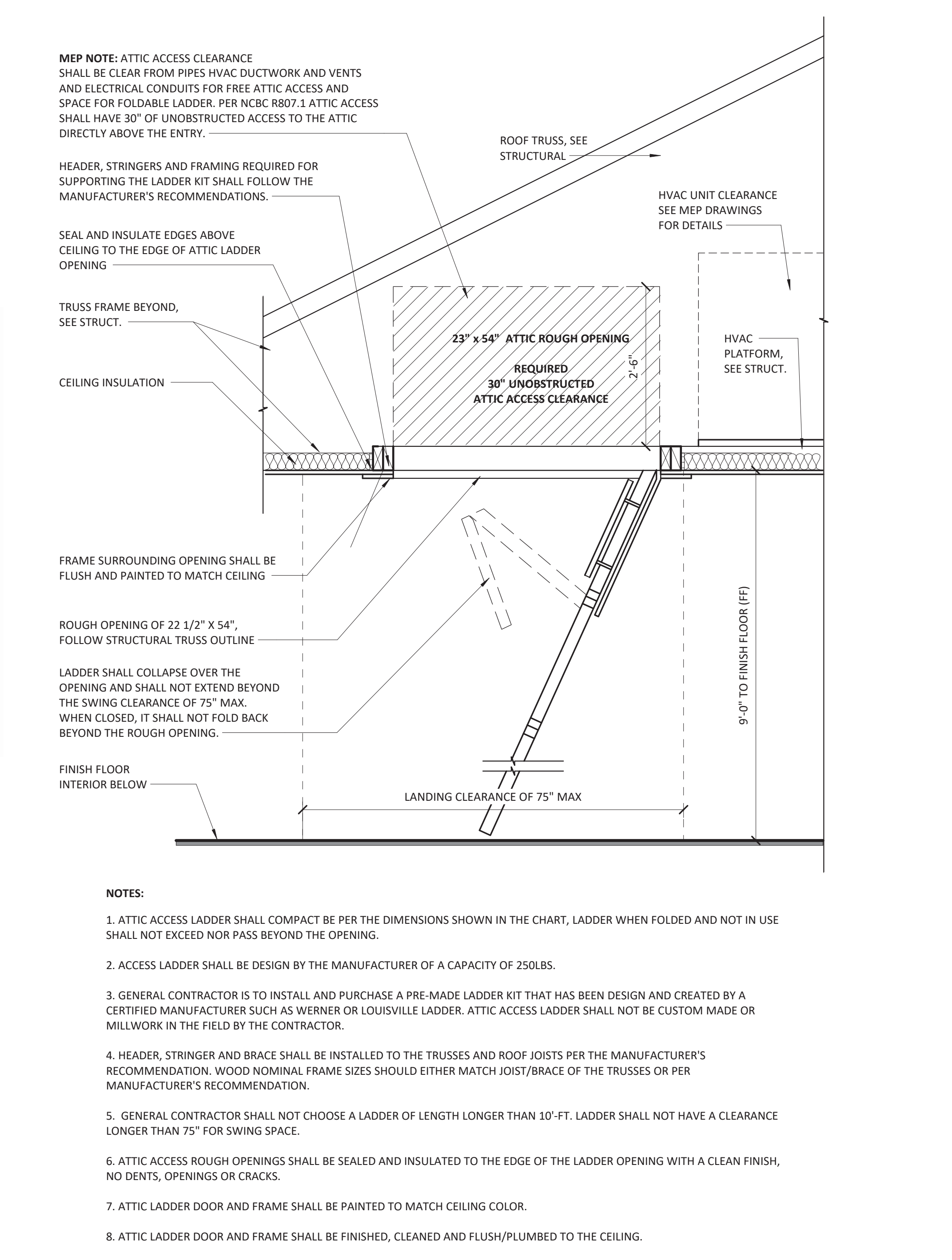
**8** TYP EXHAUST FAN DETAIL  
NOT TO SCALE - REFER TO NOTES



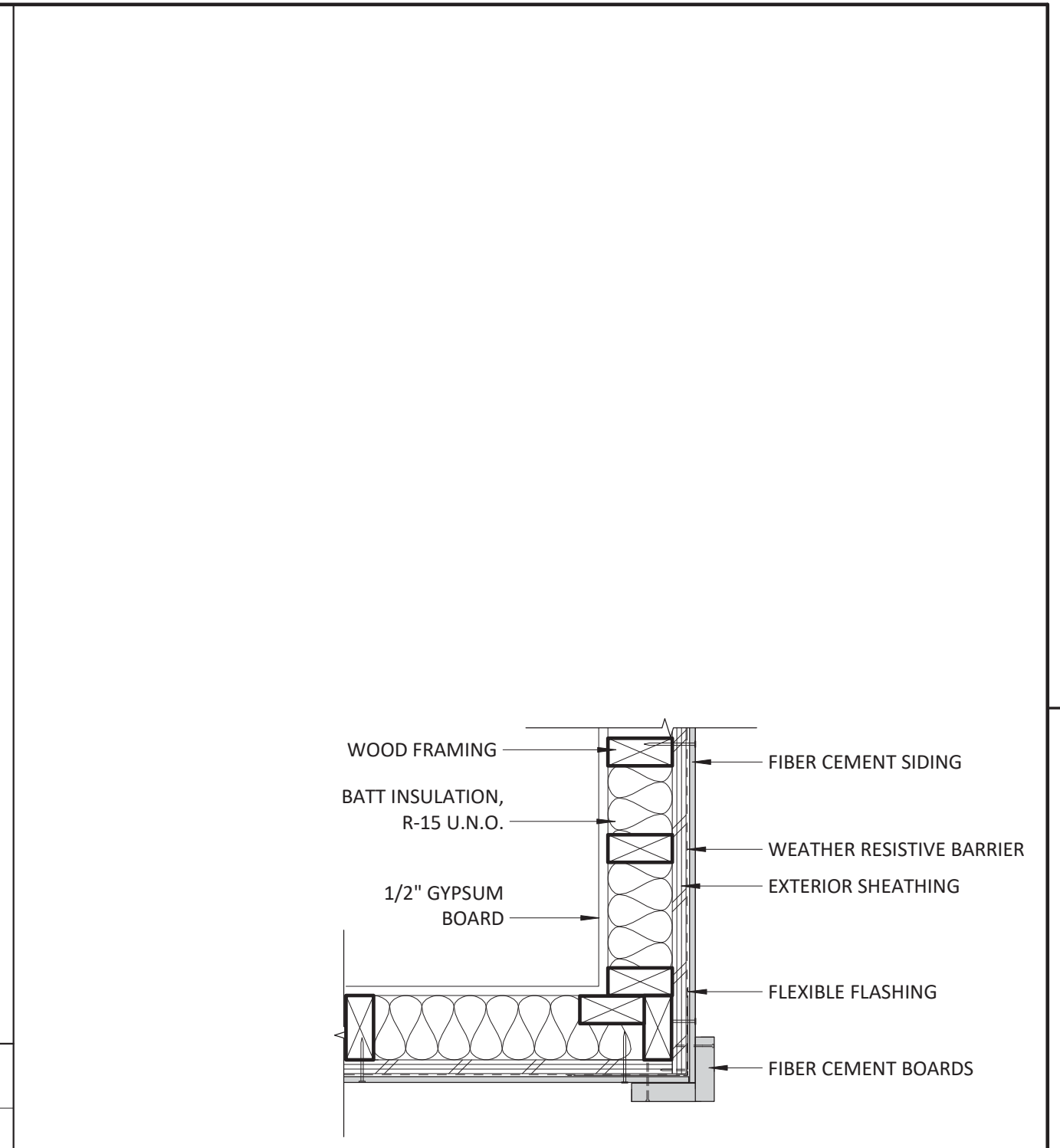
**7** BEDROOM PRESSURE BALANCE - JUMPER DUCT  
NOT TO SCALE - REFER TO NOTES



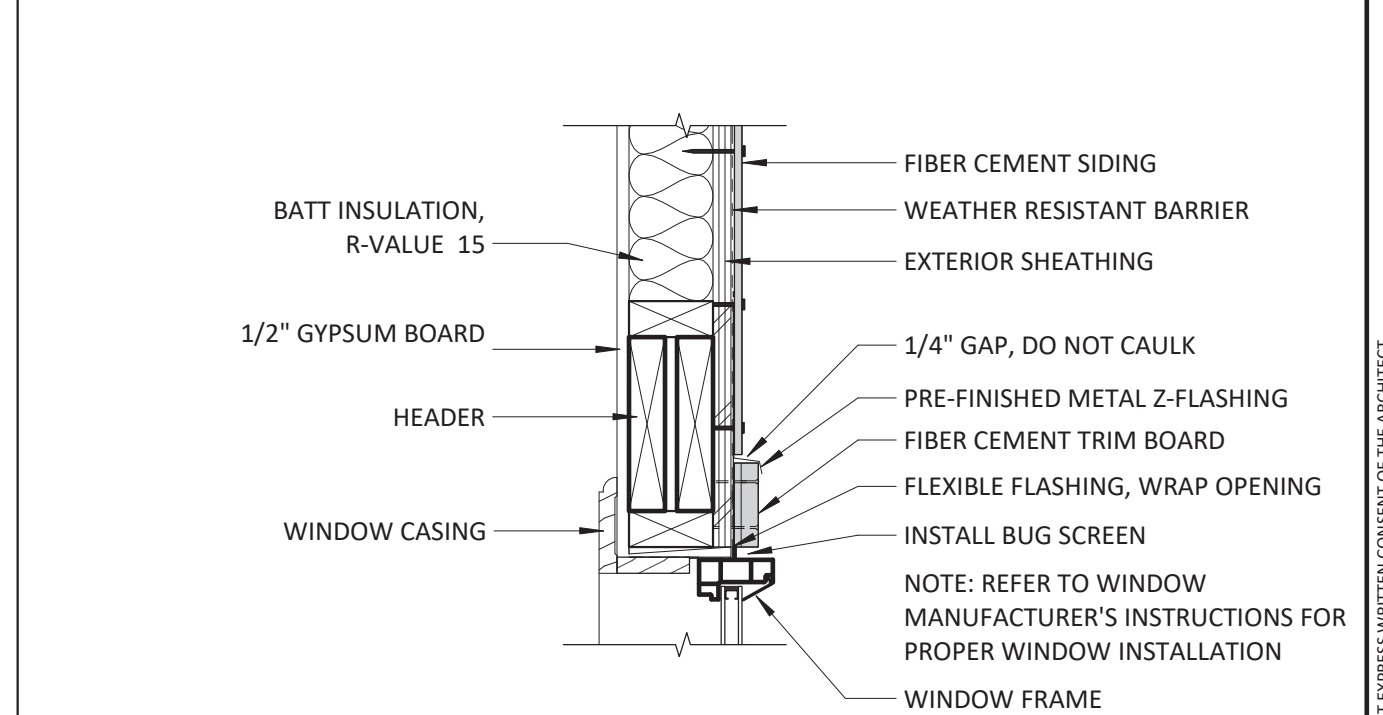
**6** RIDGE VENT DETAIL  
3" = 1'-0"



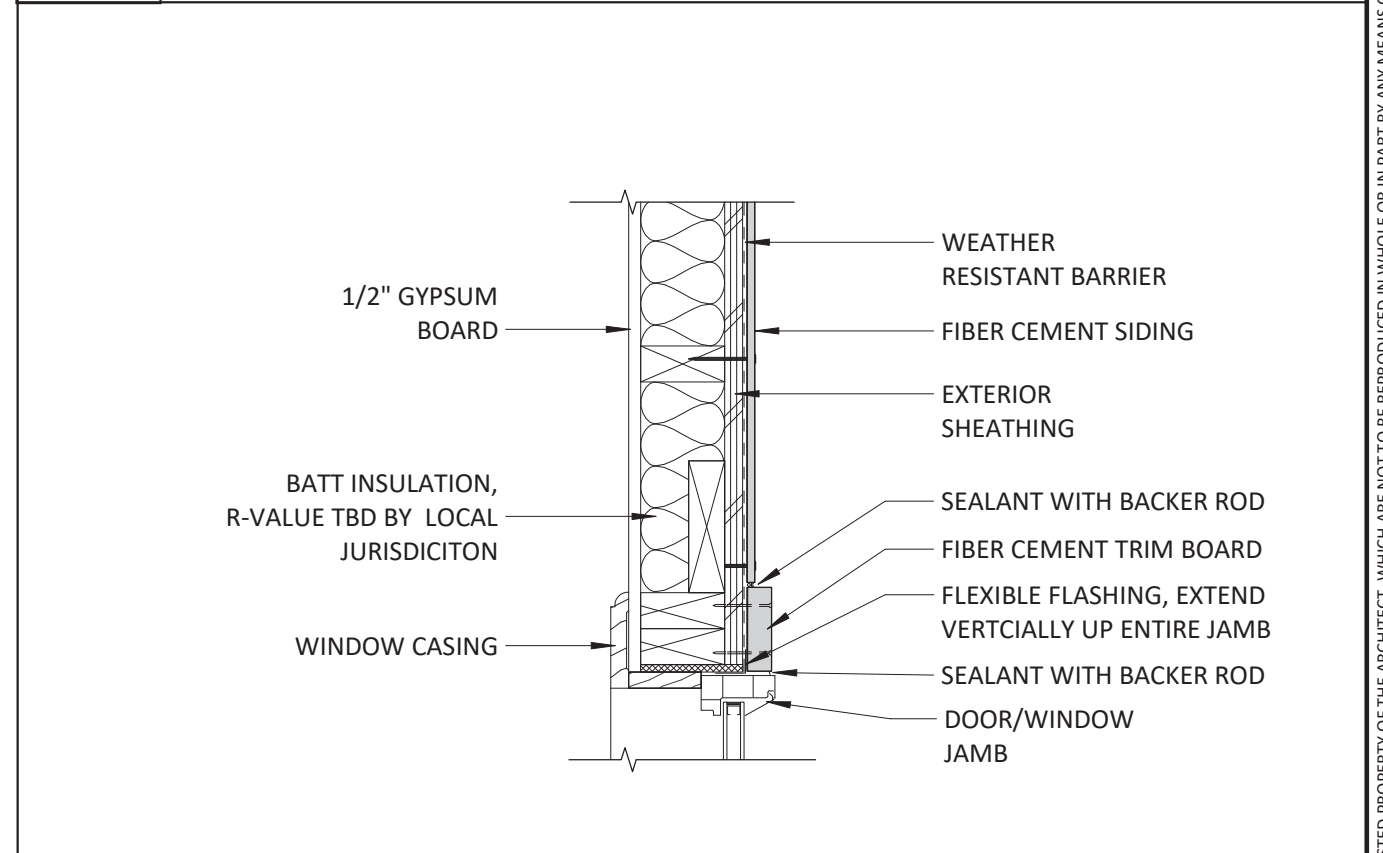
**5** ATTIC ACCESS DETAIL & SPECS  
3/4" = 1'-0"



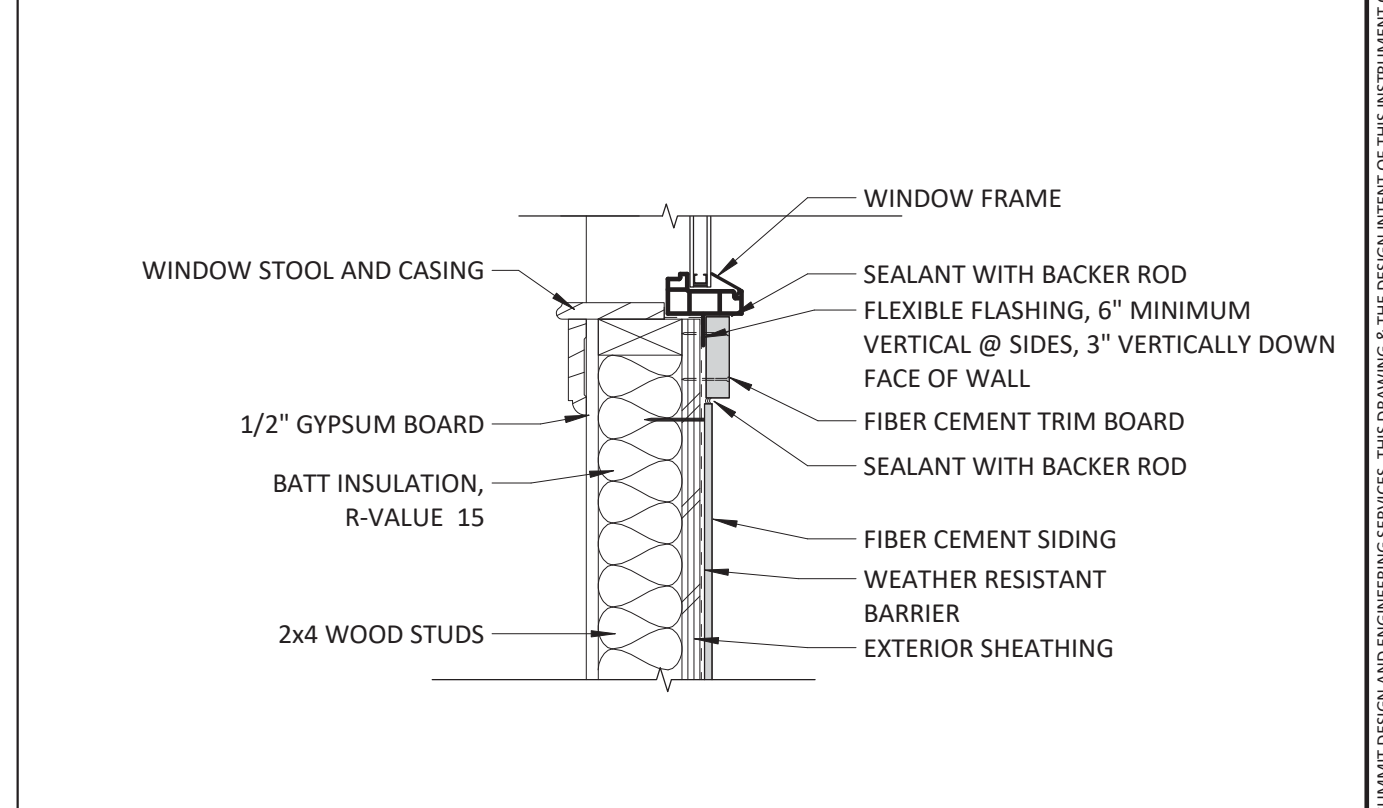
**4** TYPICAL OUTSIDE CORNER  
1 1/2" = 1'-0"



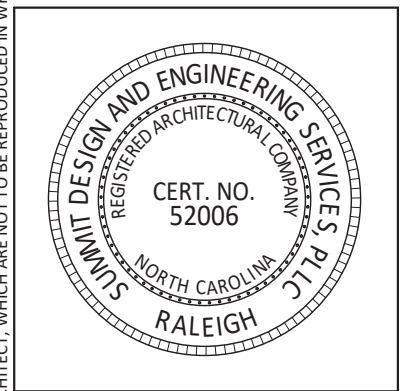
**3** EXTERIOR DOOR/WINDOW HEAD  
1 1/2" = 1'-0"



**2** EXTERIOR DOOR/WINDOW JAMB  
1 1/2" = 1'-0"

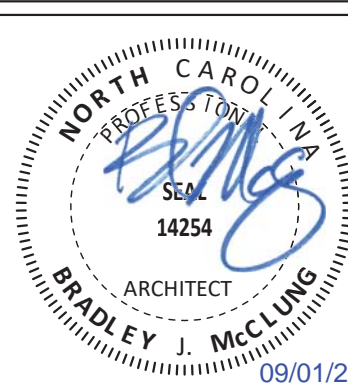
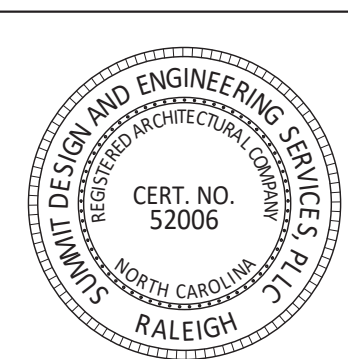


**1** EXTERIOR WINDOW SILL DETAIL  
1 1/2" = 1'-0"



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DETAILS



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**BATHROOM DETAILS & MISC NOTES**

**ADA NOTES:**

- INSIDE CLEAR DIMENSIONS SHOWN ARE AS REQUIRED TO MEET HANDICAPPED CLEARANCE CRITERIA. COORDINATE STUD/SUBSTRATE DIMENSIONS WITH WALL TYPES SHOWN ON FLOOR PLAN.
- PROVIDE FRT WOOD BLOCKING IN WALL BEHIND ALL WALL MOUNTED TOILET ACCESSORIES & EQUIPMENT. VERIFY MOUNTING HEIGHTS OF ALL OWNER MOUNTED EQUIPMENT WITH OWNER REPRESENTATIVE.
- GRAB BARS TO BE BOBBICK BY LENGTH INDICATED ON DRAWINGS AND TO MEET 609 OF ANSI 1020
- THE RESTROOM LAYOUT IS BASED ON AND COMPLIES WITH THE "AMERICAN WITH DISABILITIES ACT" LATEST REGULATIONS. PLEASE NOTE THE FOLLOWING SECTIONS:

**4.16.5 FLUSH CONTROLS:** FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.27.4. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44" (1120mm) ABOVE THE FLOORS.

**4.19.4 EXPOSED PIPES AND SURFACES:** HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.

**4.19.5 FAUCETS:** FAUCETS SHALL COMPLY WITH 4.27.4. LEVER-OPERATED PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

**WATER CLOSETS:** HEIGHT OF WATER CLOSET SHALL BE 17 INCHES TO 19 INCHES MEASURED TO THE TOP OF THE TOILET SEAT PER ACCESSIBILITY 609 TO BE LOCATED 16 INCHES MIN. AND 18 INCHES MAX. FROM SIDE WALL.

**MIRRORS:** SHALL BE MOUNTED WITH BOTTOM EDGE OF THE REFLECTING SURFACE NO HIGHER THAN 40 INCHES A.F.F. AND STANDING CENTER TO THE VANITY LAVATORY AT A HEIGHT OF 36" WITH STAINLESS STEEL FRAMING

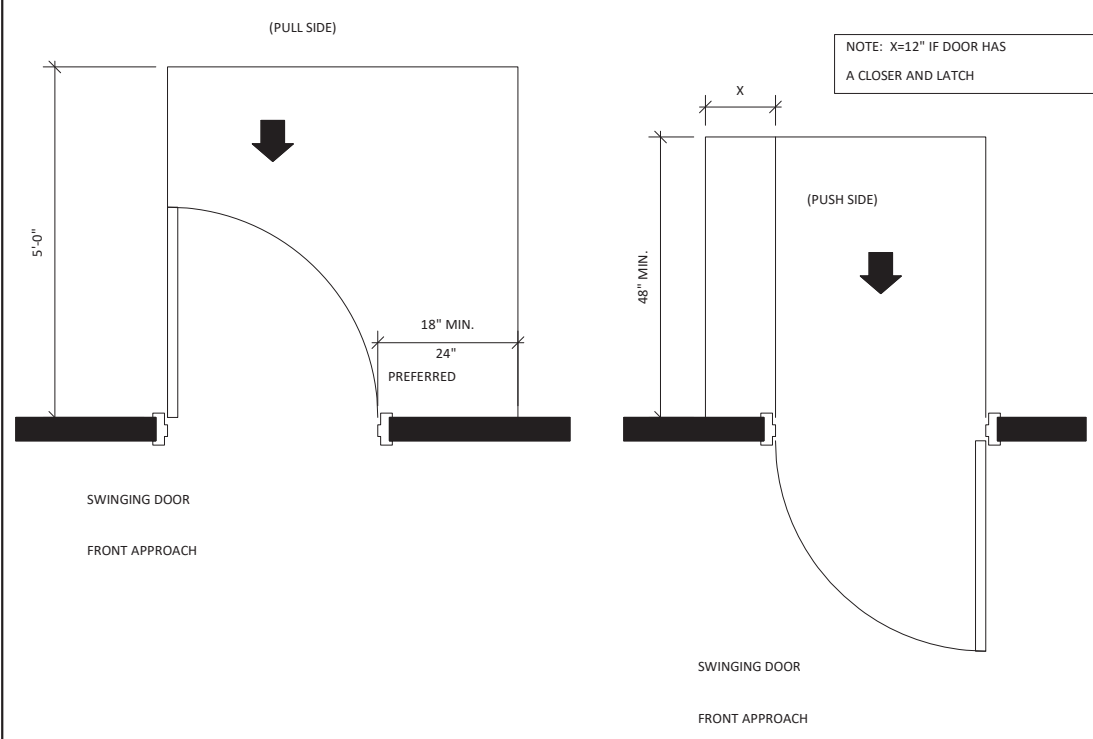
**4.26.2 GRAB BARS:** OUTSIDE DIAMETER - MIN 1 1/4", MAX 1 1/2", SPACE BETWEEN WALL AND GRAB BAR - 1 1/2" A. GRAB BAR TO BE MOUNTED HORIZONTALLY AT A HEIGHT OF 33 INCHES A.F.F. MIN. AND 35 INCHES A.F.F. MAX. B. A HANDRAIL OR GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS & EDGES. C. GRAB BARS STRUCTURAL STRENGTH PER ACCESSIBILITY CODE NC 609 AND ANSI 604. 15. PROVIDE BACKER PLATES IN BETWEEN PARTITIONS FOR H.C. GRAB BARS AND COMPLY WITH FBC ACCESSIBILITY 609.\*\*\*

**4.27.4 OPERATION:** CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF (222 N).

**DOORS:** WHEN HOUSE HOLD NEEDS TO BE ADA COMPLIANT: DOOR HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED 34 INCHES MIN. AND 48 INCHES MAX ABOVE FINISHED FLOOR.

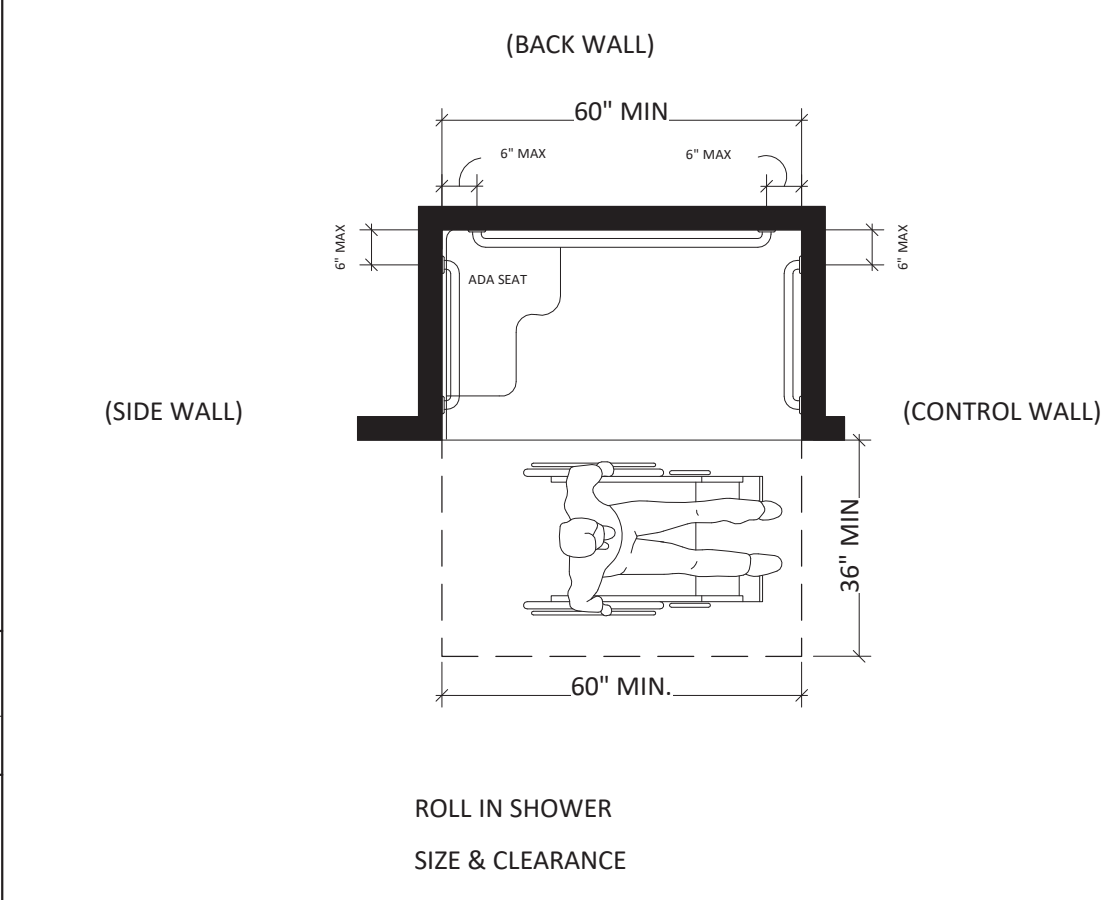
ALL DOORS SHALL BE OPERATED BY A SINGLE EFFORT. EXTERIOR SWING DOORS PUSHED OR PULLED OPEN WITH A FORCE NOT EXCEEDING 8.5 LBF. SLIDING OF FOLDING DOORS SHALL BE OPERABLE BY A FORCE NOT EXCEEDING 5 LBF. INTERIOR IN-SWING DOORS SHALL BE OPERABLE BY A FORCE NOT EXCEEDING 5 LBF.

\*\*\*ADA STANDARDS MEET WITH THE AMERICANS DISABILITY ACT GUIDELINES AND PER ANSI A117.1 REQUIREMENTS



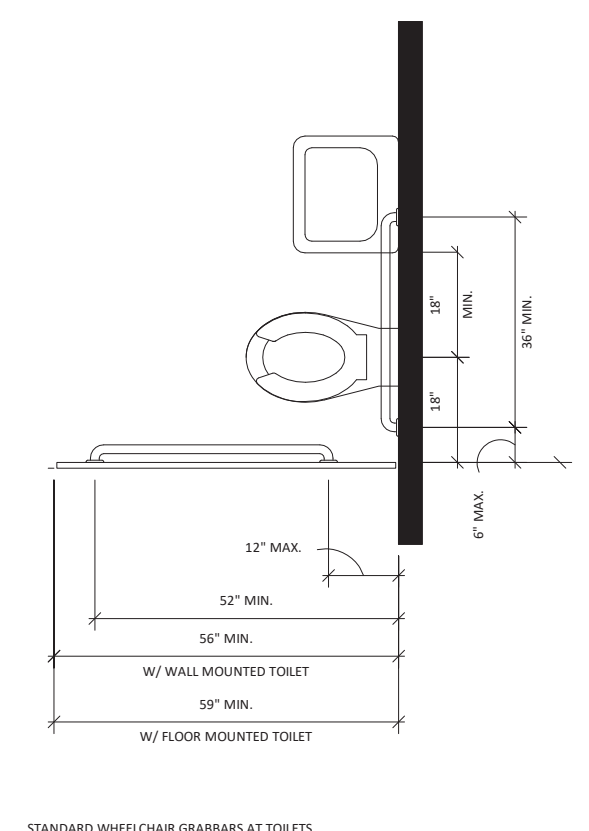
**DOOR ADA STANDARD DIMENSIONS**

3/8" = 1'-0"



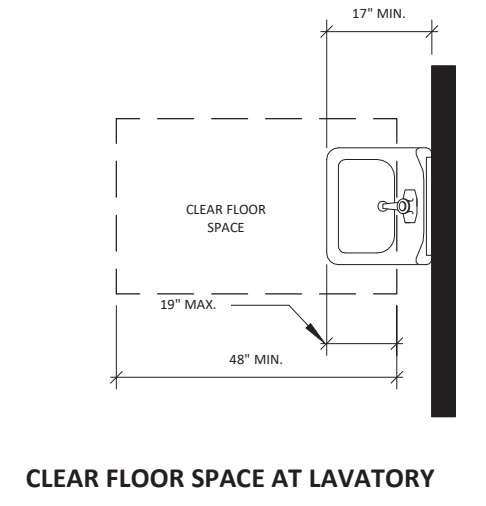
**SHOWER - ADA STANDARD DIMENSIONS**

3/8" = 1'-0"

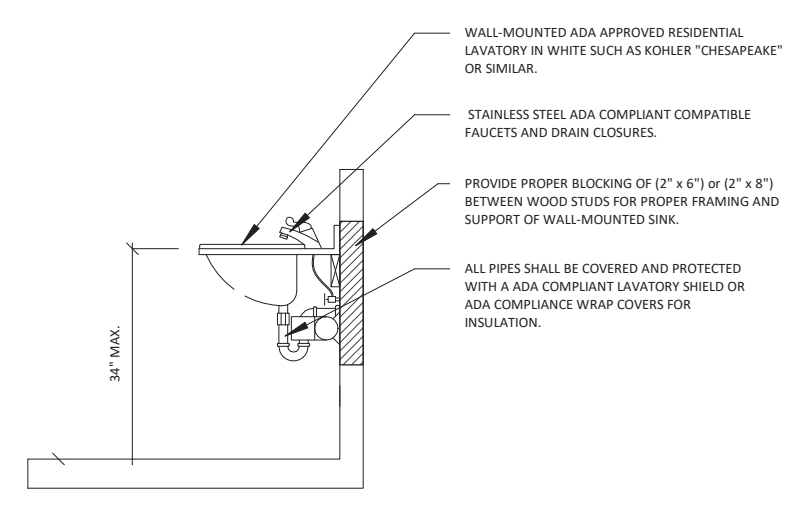


**TOILET ADA STANDARD DIMENSIONS**

3/8" = 1'-0"

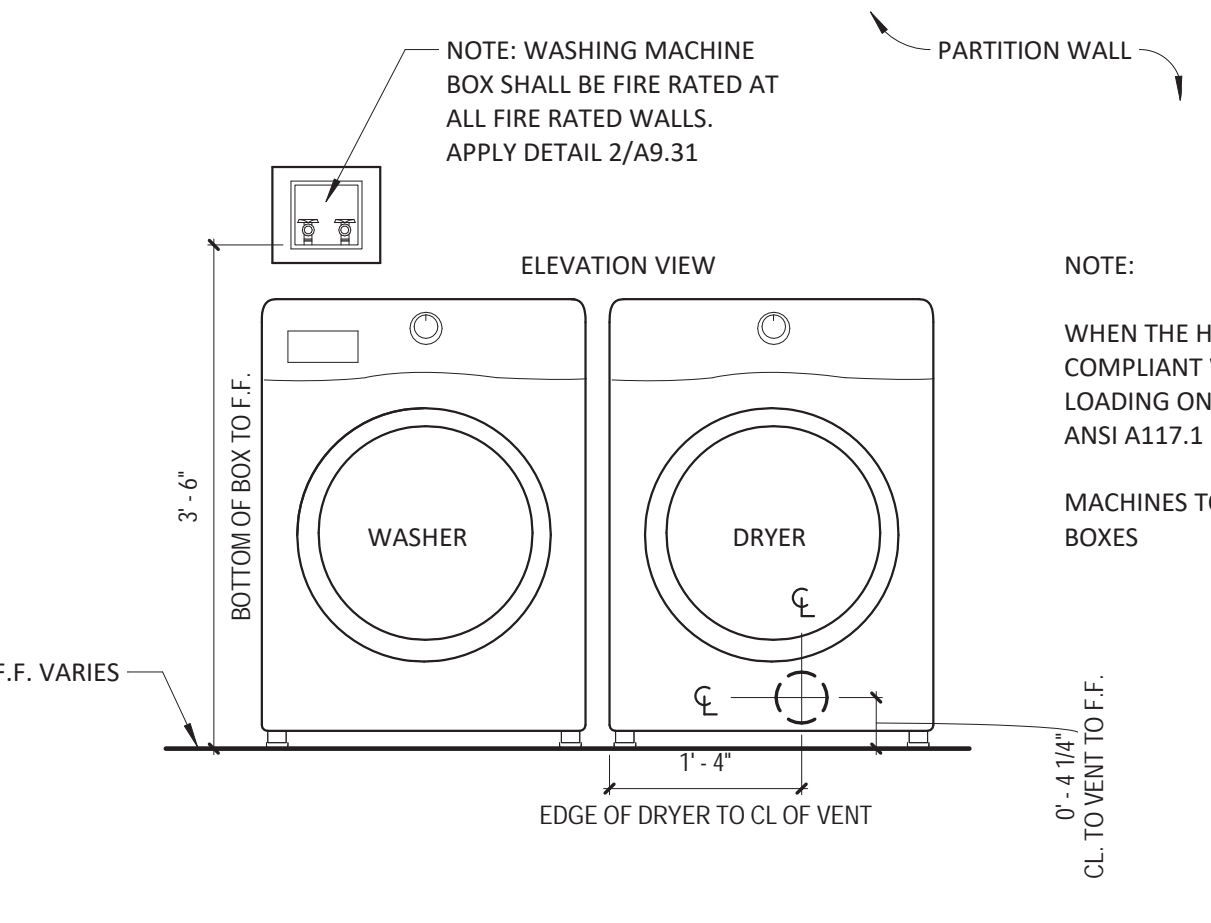


CLEAR FLOOR SPACE AT LAVATORY



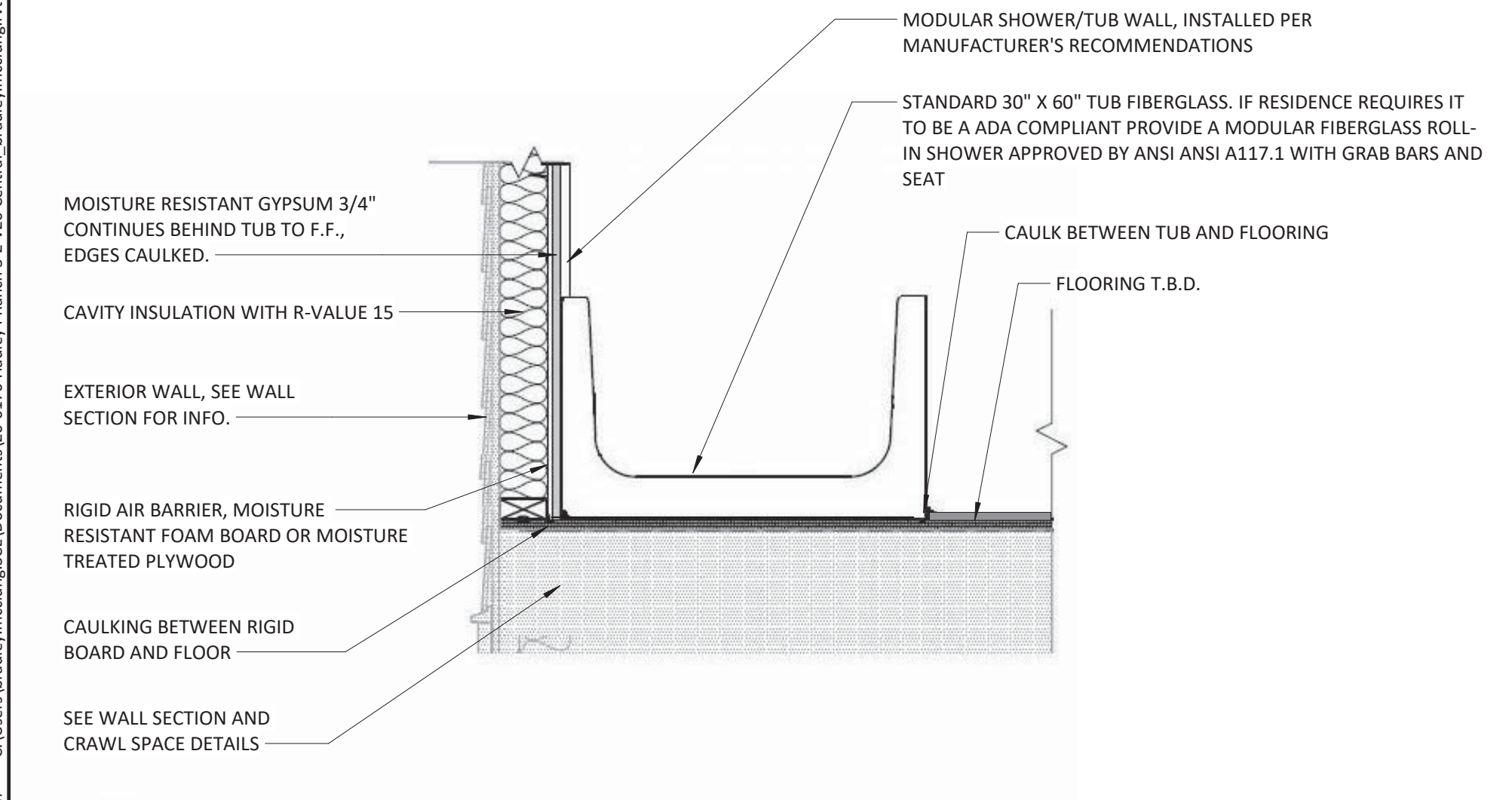
**LAVATORY ADA STANDARD DIMENSIONS**

3/8" = 1'-0"



**WASHER DRYER DETAIL**

3/4" = 1'-0"



**TUB WALL DETAIL**

1" = 1'-0"

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**DESIGN CRITERIA**

- BUILDING CODE:**  
NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE, 2018 EDITION
- SNOW LOAD:**  
IMPORTANCE FACTOR (I<sub>s</sub>): 1.0  
GROUND SNOW LOAD (P<sub>g</sub>): 20 PSF  
TERRAIN CATEGORY: C  
EXPOSURE FACTOR (C<sub>e</sub>): 1.0  
THERMAL FACTOR (C<sub>t</sub>): 1.0
- WIND LOAD:**  
OCCUPANCY CATEGORY: II  
BASIC WIND SPEED: UP TO 150 MPH  
SITE CLASS: C  
EXPOSURE CATEGORY: C  
COMPONENTS & CLADDING: CALCULATED PER ASCE 7-10
- SEISMIC LOAD:**  
IMPORTANCE FACTOR (I<sub>s</sub>): 1.0  
SITE CLASS: D  
SEISMIC DESIGN CATEGORY: B
- LIVE LOADS:**  
ROOF (MINIMUM): 20 PSF  
FLOOR: 40 PSF  
BALCONY / DECK: 60 PSF

**GENERAL NOTES:**

- STRUCTURAL MEMBERS, INCLUDING BEAMS, COLUMNS, JOISTS, TRUSSES, WALLS, SLABS AND BRACING ELEMENTS, ARE DESIGNED FOR THE FINAL DESIGN LOADS GIVEN ON THIS SHEET. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING, AS REQUIRED. SHORING IS TO BE DESIGNED TO PRECLUDE OVERSTRESSING OF ANY STRUCTURAL ELEMENT (AS REQUIRED AT ANY STAGE OF CONSTRUCTION) UNTIL COMPLETION OF THIS PROJECT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ON-SITE SAFETY. AT A MINIMUM, THE CONTRACTOR IS TO RESEARCH AND IMPLEMENT ALL SAFETY REGULATIONS IN FORCE IN THE JURISDICTION OF THIS PROJECT. PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE STRUCTURAL ENGINEER ANY STRUCTURAL DETAIL THAT WOULD PRODUCE AN UNSAFE CONDITION.

**FOUNDATIONS**

- ALL FOUNDATION WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE, CHAPTER 4.
- THE BUILDING STRUCTURE IS DESIGNED FOR SUPPORT OF SPREAD AND STRIP FOOTINGS WITH AN ASSUMED ALLOWABLE NET SOIL BEARING PRESSURE OF 2000 PSF ON UNDISTURBED SOILS OR FILL COMPACTED TO 98% MAXIMUM DRY DENSITY.
- ALL EXTERIOR FOUNDATIONS SHALL EXTEND BELOW THE FROST DEPTH SPECIFIC TO THE PROJECT SITE.
- CRAWL SPACE VENTS SHALL BE 8"X16" MINIMUM AND SHALL BE LOCATED WITHIN 3 FEET OF EACH BUILDING CORNER. CRAWL SPACE DOOR MAY SERVE AS A VENT.
- INSTALL A 6-MIL POLY VAPOR BARRIER CRAWL SPACE LINER.

**CONCRETE**

- ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI-301 AND THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI-318.
- ALL REINFORCING STEEL IS TO BE TIED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. TACK WELDING OF REINFORCING STEEL IS PROHIBITED.
- ALL REINFORCING STEEL IS TO BE CONTINUOUS. AT SPLICE, REINFORCING STEEL SHALL BE LAPPED A MINIMUM OF 38 BAR DIAMETERS (#6 AND SMALLER) OR 48 BAR DIAMETERS (#7 AND LARGER).
- ALL INTERSECTING STRIP FOOTINGS SHALL HAVE CORNER BARS.
- TYPICAL REINFORCING CLEAR COVER SHALL CONFORM TO ACI-318.

**CONCRETE BLOCK MASONRY**

- ALL MASONRY WORK SHALL COMPLY WITH THE SPECIFICATIONS FOR MASONRY STRUCTURES, ACI 530.1 AND THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, ACI 530.
- HOLLOW MASONRY UNITS SHALL CONFORM TO ASTM C90, LIGHTWEIGHT, WITH A MINIMUM COMPRESSIVE STRENGTH F<sub>m</sub> = 1500 PSI ON THE NET BLOCK AREA.
- MORTAR SHALL CONFORM TO ASTM C270 CEMENT TYPE M OR S. MINIMUM COMPRESSIVE STRENGTH TO BE 2000 PSI.
- MASONRY GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8". MINIMUM COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS.

- REINFORCING STEEL (#3 AND LARGER) SHALL BE LAPPED A MINIMUM OF 72 BAR DIAMETERS.
- ALL BLOCK CELLS SHALL BE FILLED SOLID WITH GROUT WHERE REINFORCING BARS OCCUR.

**SAWN LUMBER AND SHEATHING**

- ALL LUMBER WORK SHALL COMPLY WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSIAWC NDS.
- ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP.
- ALL DIMENSIONAL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH MASONRY SHALL BE PRESERVATIVE TREATED.
- NAILS SHALL BE COMMON WIRE NAILS, UNLESS NOTED OTHERWISE.
- MULTI-PLY BEAMS SHALL BE FASTENED TOGETHER WITH 8d NAILS @ 16" O.C., T&B, STAGGERED.
- U.N.O. ALL SHEATHING SHALL BE FASTENED WITH 8d COMMON NAILS AT 6" AND 12" SPACING FOR EDGE AND FIELD, RESPECTIVELY. WALLS SHALL BE BLOCKED.
- WALL SHEATHING: 1/2" APA RATED OSB  
ROOF SHEATHING: 3/4" APA RATED T&G PLYWOOD  
SUBFLOOR: 3/4" APA RATED T&G PLYWOOD
- WALL PANEL HORIZONTAL EDGES SHALL HAVE 8d COMMON NAILS @ 3" O.C.
- ROOF SHEATHING NAILING AT FIELD SHALL BE REDUCED TO 6" SPACING FOR MINIMUM 48" DISTANCE FROM RIDGES, EAVES, AND GABLE ENDS.

**STRUCTURAL COMPOSITE LUMBER**

- ALL STRUCTURAL COMPOSITE LUMBER WORK SHALL COMPLY WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSIAWC NDS.
- ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP.
- STRUCTURAL COMPOSITE LUMBER (SCL) DESIGN IS BASED ON THE FOLLOWING MINIMUM DESIGN PROPERTIES:  
LVL: F<sub>b</sub> = 2,600 PSI F<sub>c</sub> = 750 PSI  
F<sub>v</sub> = 285 PSI E = 1,900 KSI  
GLULAM: 24F-V5 SPS/P  
E = 1,900 KSI
- LVL MEMBERS SHALL BE PROTECTED FROM WEATHER ACCORDING TO THEIR MANUFACTURER'S RECOMMENDATIONS. GLULAM BEAMS ARE TO BE PRESERVATIVE TREATED IF THEY ARE EXPOSED TO WEATHER.

**PRE-ENGINEERED WOOD TRUSSES**

- ALL PRE-ENGINEERED WOOD TRUSS WORK SHALL COMPLY WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSIAWC NDS.
- ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP.
- TRUSS MANUFACTURER SHALL PROVIDE DRAWINGS AND CERTIFIED STRUCTURAL CALCULATIONS PREPARED AND SEALED BY A QUALIFIED ENGINEER, REGISTERED IN NORTH CAROLINA. MNFR DRAWINGS SHALL INCLUDE AN ERECTION PLAN WITH DETAILS SHOWING ALL REQUIRED TRUSS PLATES, BLOCKING, BRIDGING, CONNECTION MATERIALS AND OTHER ITEMS AS REQUIRED TO PROVIDE A COMPLETE INSTALLATION.
- CALCULATIONS SHALL CLEARLY INDICATE ALL DESIGN LOADS SHOWN ON THESE DRAWINGS AND OTHER LOADS AS REQUIRED. TRUSSES SHALL BE DESIGNED FOR "IN PLACE" LOADS AND MUST BE DESIGNED TO WITHSTAND ALL FABRICATING, TRANSPORTING, AND ERECTION STRESSES.
- THE TRUSS PLATE MANUFACTURER SHALL BE A MEMBER OF THE TRUSS PLATE INSTITUTE. THE TRUSS FABRICATOR SHALL PARTICIPATE IN AN APPROVED THIRD PARTY QUALITY ASSURANCE PROGRAM THAT MEETS TRUSS PLATE INSTITUTE REQUIREMENTS.
- DESIGN TRUSS TO WITHSTAND LOADS SHOWN ON DRAWING WITHOUT DEFLECTIONS GREATER THAN L/360 FOR FLOOR TRUSSES AND L/240 FOR ROOF TRUSSES.
- TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING SERVICE LOADS:  
TOP CHORD LIVE: 20 PSF  
TOP CHORD COLLATERAL: 15 PSF  
BOT CHORD COLLATERAL: 10 PSF  
BY TRUSS MNFR  
TRUSS SELF WEIGHT:  
WIND LOADS: CALCULATED BY TRUSS MNFR PER ASCE 7-10

**MATERIALS**

- STEEL**  
BOLTS (WOOD FRAMING): ASTM A307  
BOLTS (ANCHOR): ASTM F1554 GRADE 36  
METAL DECKING: ASTM A653 GRADE 80 (GALV 60)
- REINFORCING STEEL**  
GENERAL REINFORCING: ASTM A615, f<sub>y</sub> = 60 KSI  
WELDED WIRE FABRIC: ASTM A185, IN FLAT SHEETS

- CONCRETE**  
FOOTINGS: f<sub>c</sub> = 3000 PSI, NORMAL-WEIGHT  
SLAB-ON-GRADE: f<sub>c</sub> = 3000 PSI, NORMAL-WEIGHT  
ELEVATED SLABS: f<sub>c</sub> = 3000 PSI, LIGHTWEIGHT (110 PCF MAX)
- DIMENSIONAL LUMBER**  
JOISTS, RAFTERS, & GIRDERS: SPF NO.2 OR BETTER  
WALL STUDS: SPF NO.2 OR BETTER

| HEADER SCHEDULE |          |            |            |
|-----------------|----------|------------|------------|
| MAX OPENING     | SIZE     | JACK STUDS | KING STUDS |
| 4' - 0"         | (2) 2X8  | 2X4        | (2) 2x4    |
| 6' - 8"         | (2) 2X10 | (2) 2X4    | (3) 2x4    |

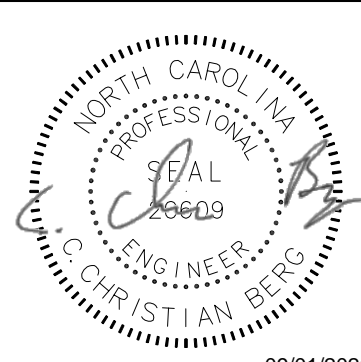
| FACE MOUNTED HANGER SCHEDULE |                  |          |                  |
|------------------------------|------------------|----------|------------------|
| SIZE                         | SIMPSON PART NO. | SIZE     | SIMPSON PART NO. |
| 2x6                          | LUS26            | 2x10     | LUS210           |
| (2) 2x6                      | LUS26-2          | (2) 2x10 | HUS210-2         |
| (3) 2x6                      | LUS26-3          | (3) 2x10 | HUS210-3         |
| 2x8                          | LUS28            | 2x12     | LUS210           |
| (2) 2x8                      | LUS28-2          | (2) 2x12 | HUS212-2         |
| (3) 2x8                      | LUS28-3          | (3) 2x12 | HUS212-3         |

**CRAWL SPACE VENT CALC:** CRAWL SPACE W/ VAPOR BARRIER REQUIRES 1 SF VENT AREA PER 1500 SF CRAWL SPACE AREA  
1100 SF CRAWL SPACE / 1500 SF = 0.73 SF VENT AREA  
0.73 SF X 144 IN<sup>2</sup>/SF = 105 IN<sup>2</sup>  
8"X16" VENTS W/ 50% FREE AIR SPACE = 64 IN<sup>2</sup> FREE AIR PER VENT  
105 IN<sup>2</sup> / 64 IN<sup>2</sup> = 2 VENTS REQUIRED -> 13 VENTS PROVIDED



THE NORTH CAROLINA OFFICE OF RESILIENCY AND RECOVERY (NORRR)

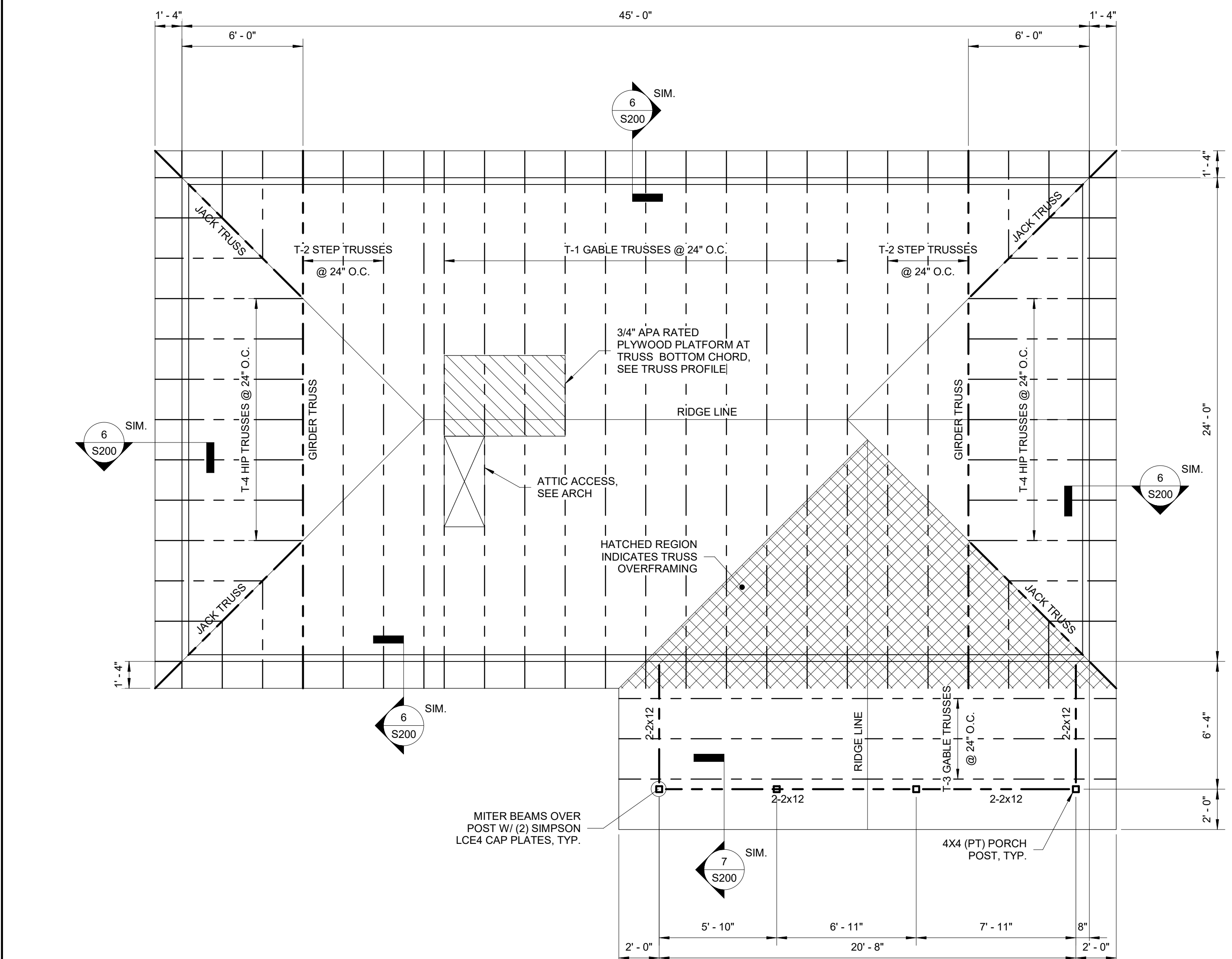
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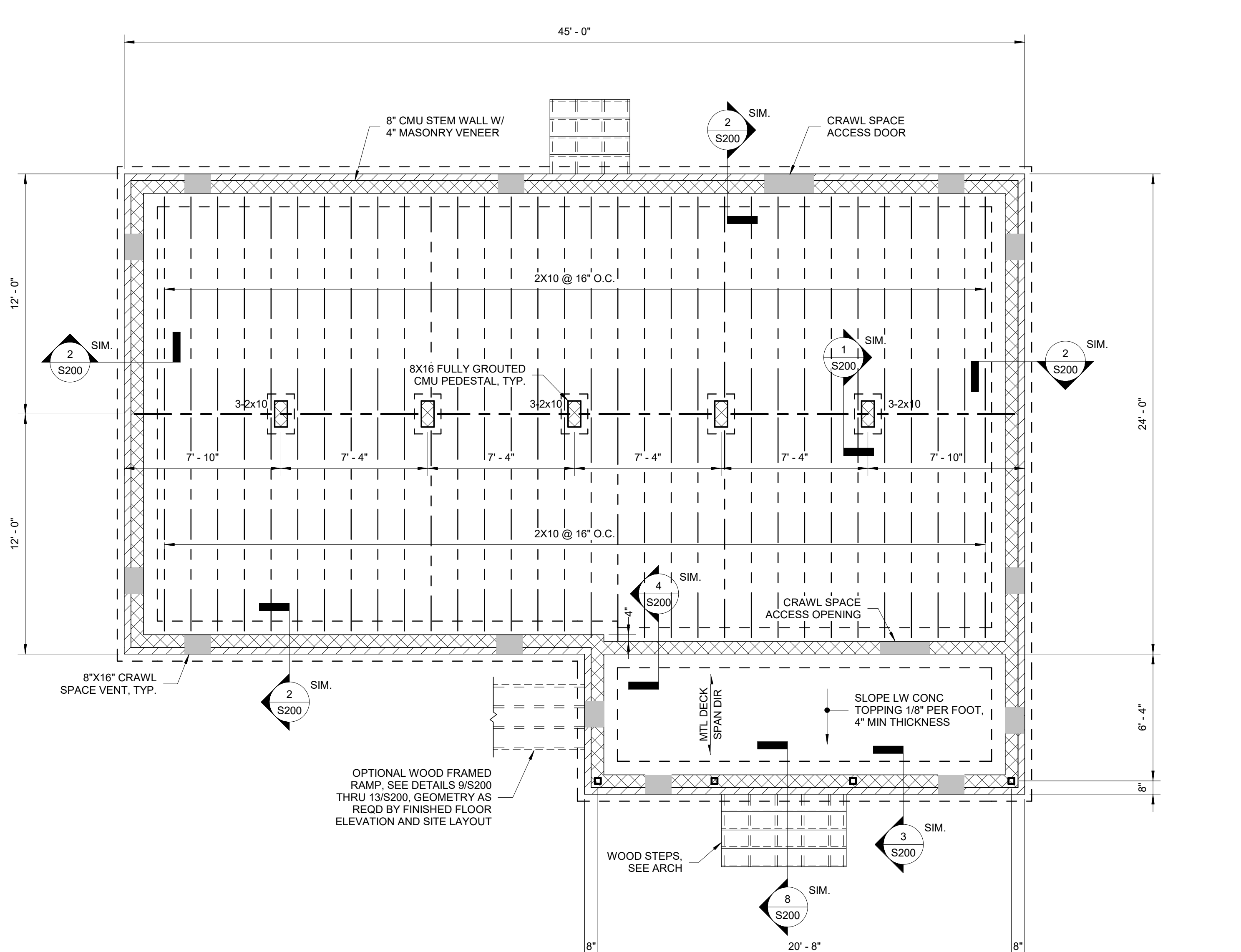
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FIRST ISSUE DATE: 09/01/2020  
PROJECT NO.  
**20-0170.400**  
**GENERAL NOTES & PLANS**

**S100**

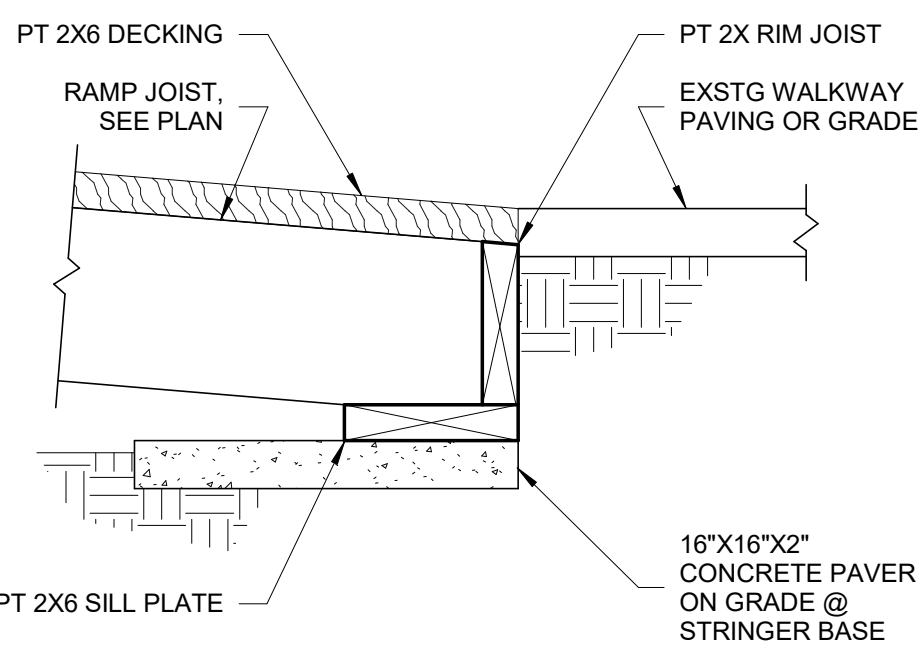


**2 ROOF FRAMING PLAN**  
1/4" = 1'-0"



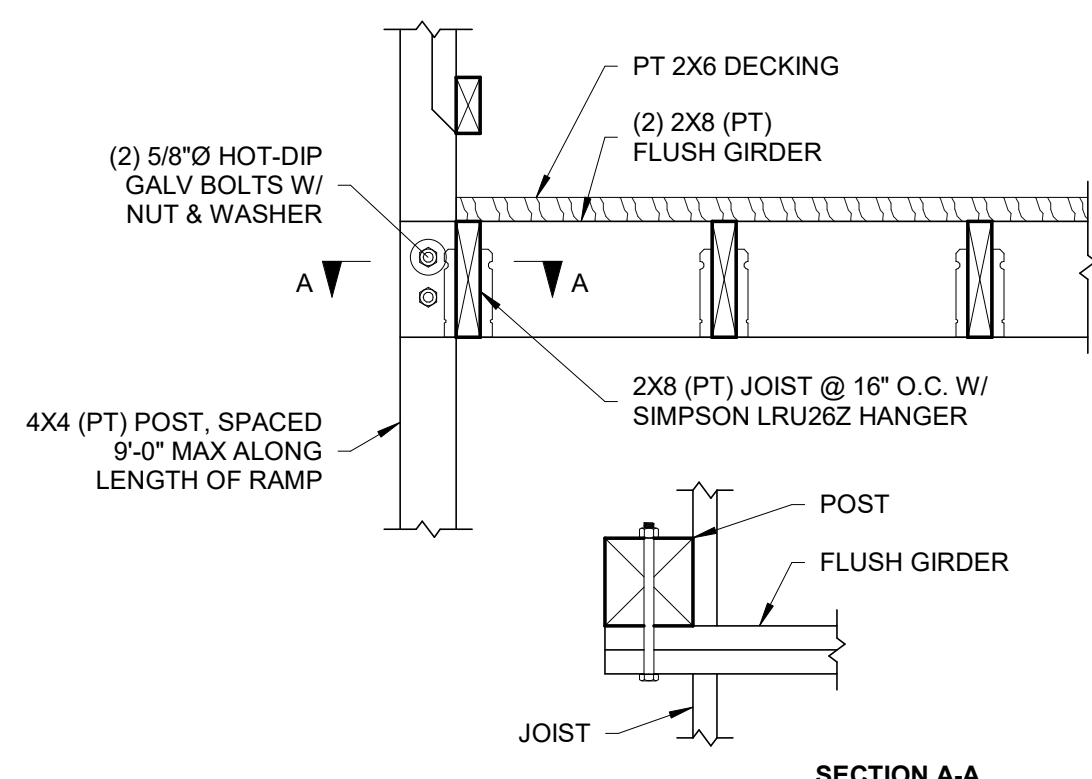
**1 FOUNDATION & FLOOR FRAMING PLAN**  
1/4" = 1'-0"

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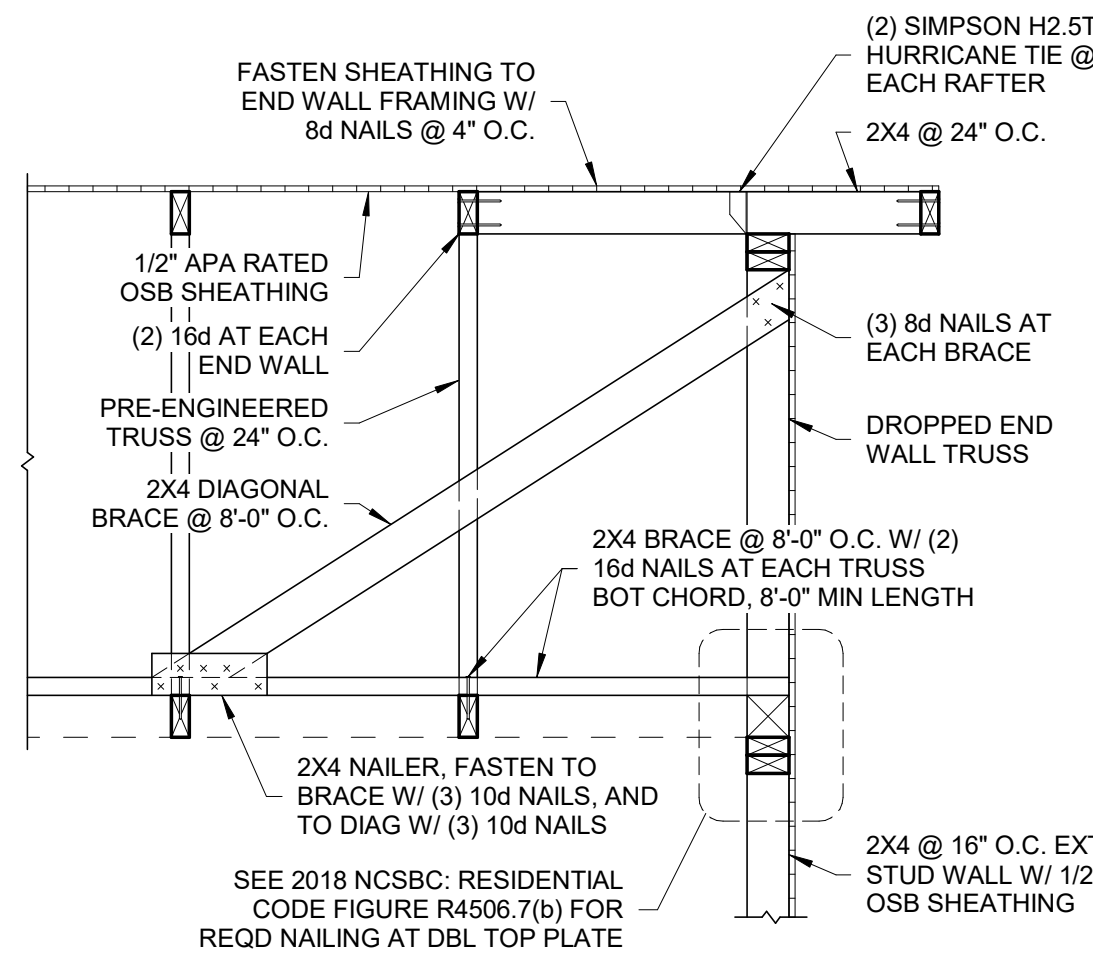


13 OPTIONAL RAMP LANDING SECTION NTS

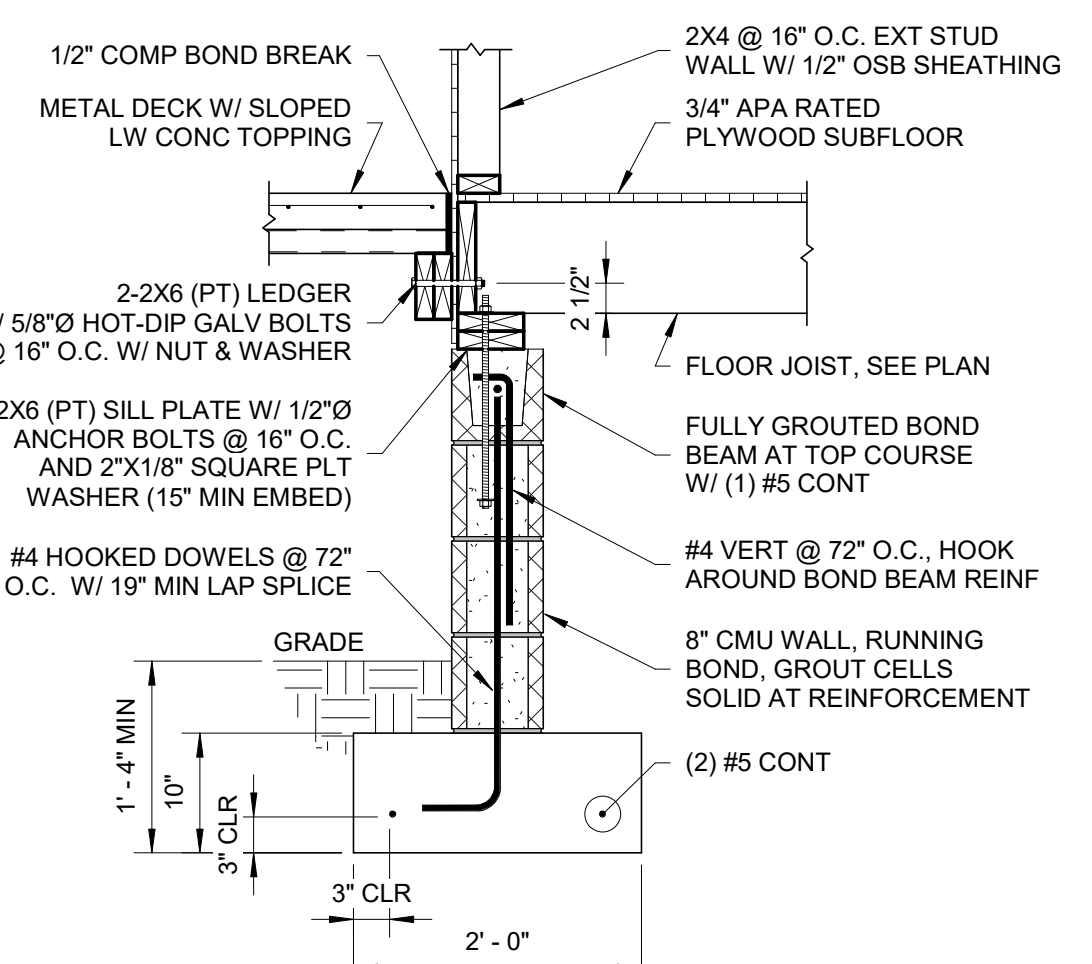
NOTES:  
 1. GUARDRAILS ARE REQUIRED FOR ALL LOCATIONS WHERE THE TOP OF DECKING IS 30" OR MORE ABOVE GRADE. SEE TYPICAL DETAILS.  
 2. RAMP SLOPE SHALL NOT EXCEED 1 UNIT VERTICAL PER 12 UNITS HORIZONTAL.  
 3. PROVIDE 36" MINIMUM EGRESS WIDTH.



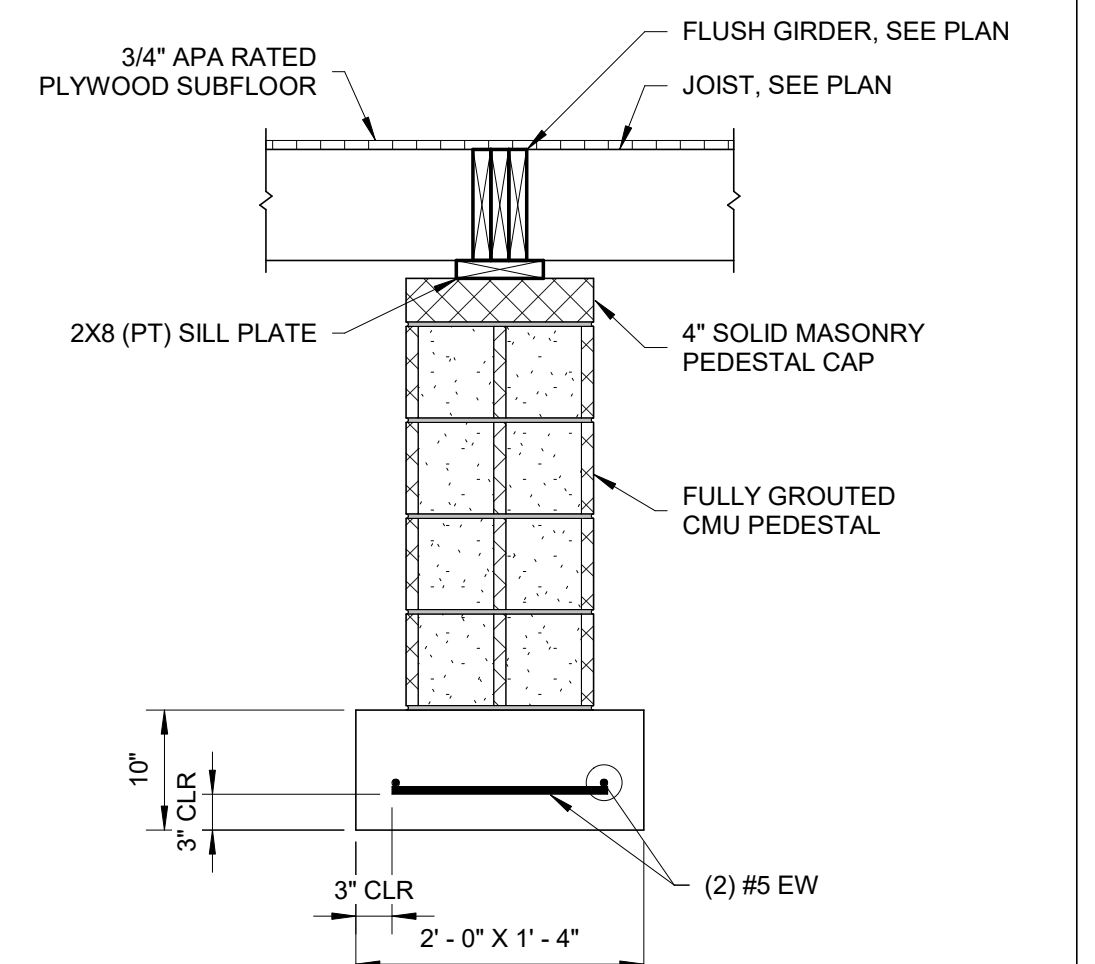
10 OPTIONAL RAMP INTERMEDIATE SUPPORT SECTION NTS



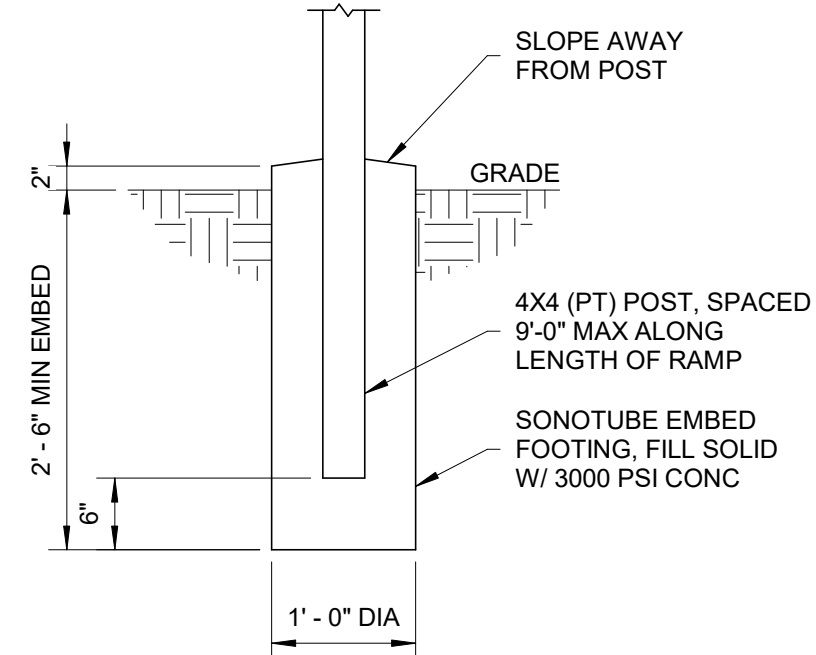
7 GABLE END WALL SECTION NTS



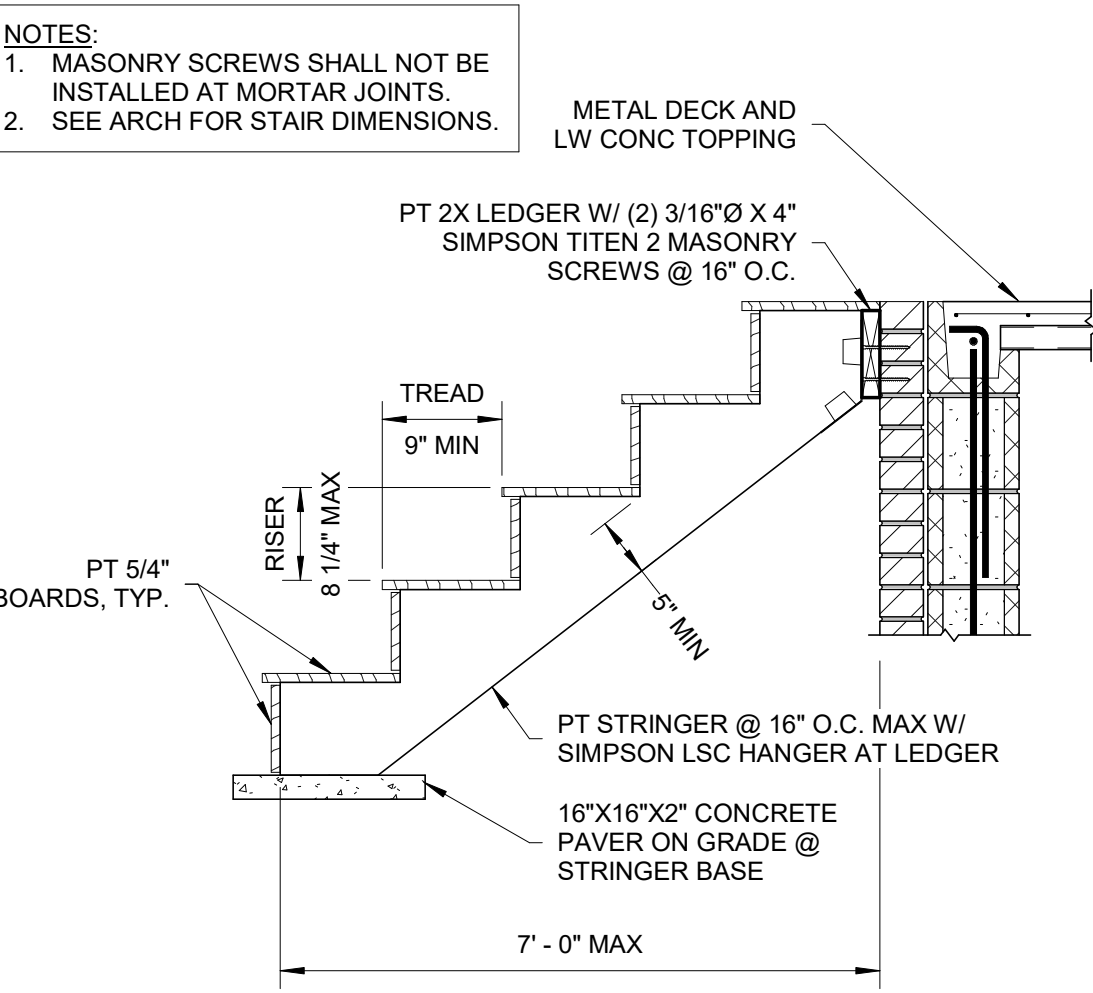
4 STEM WALL SECTION AT PORCH NTS



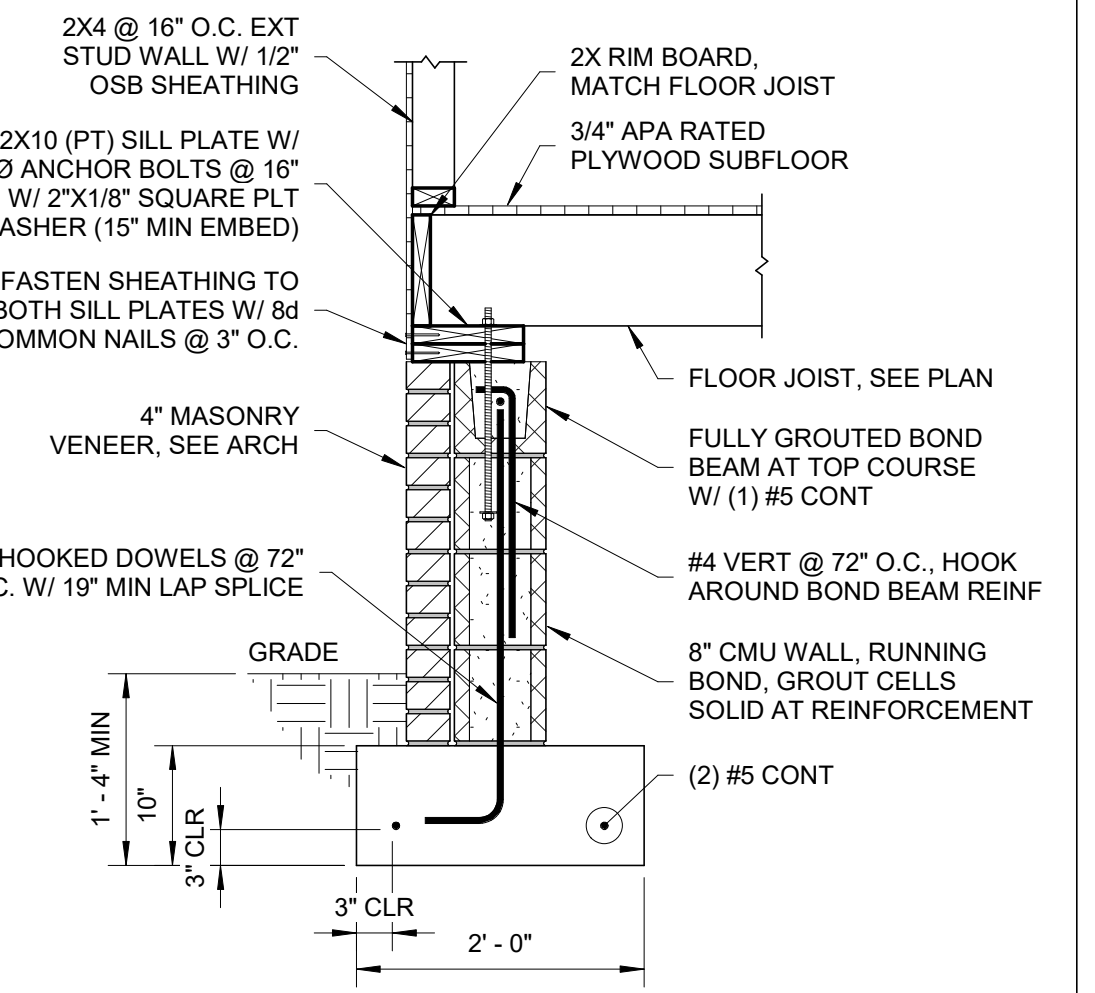
1 TYPICAL PEDESTAL SECTION NTS



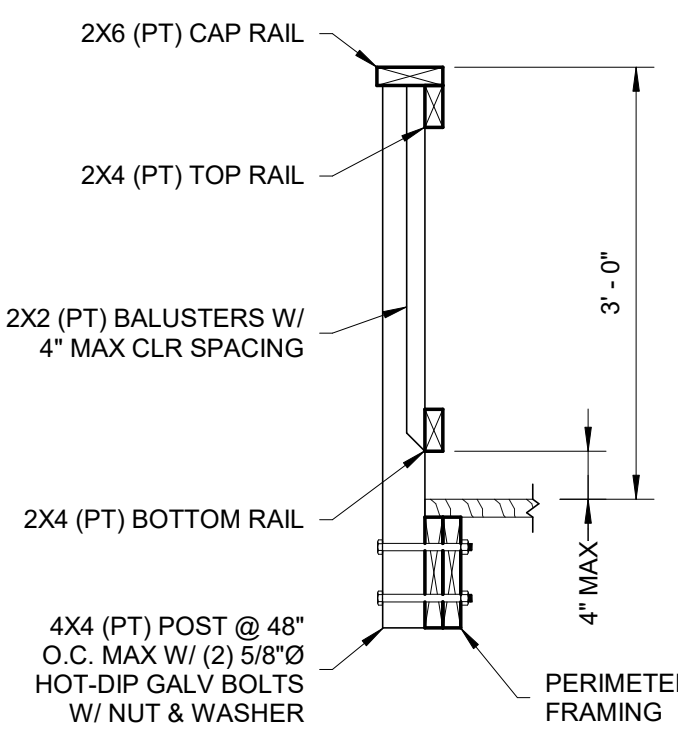
11 OPTIONAL RAMP EMBED POST SECTION NTS



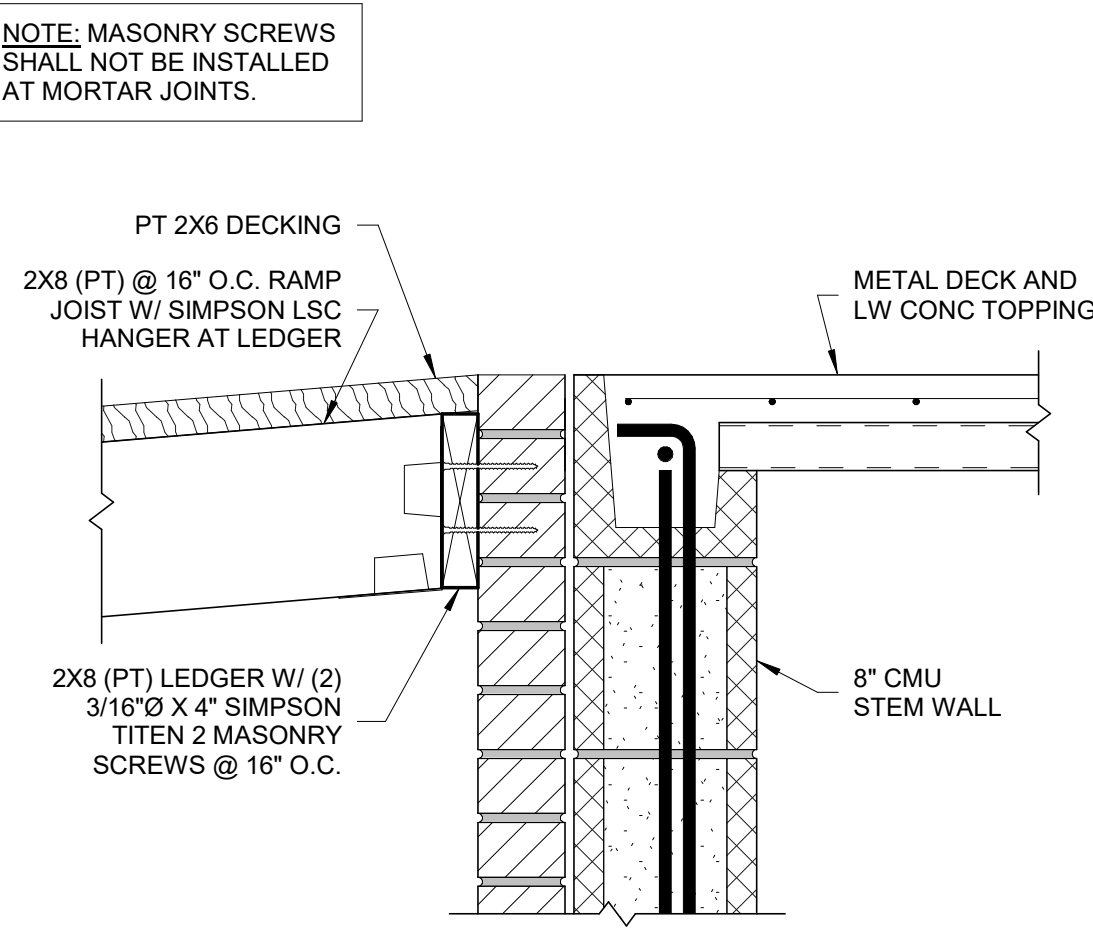
8 TYPICAL WOOD STAIR SECTION NTS



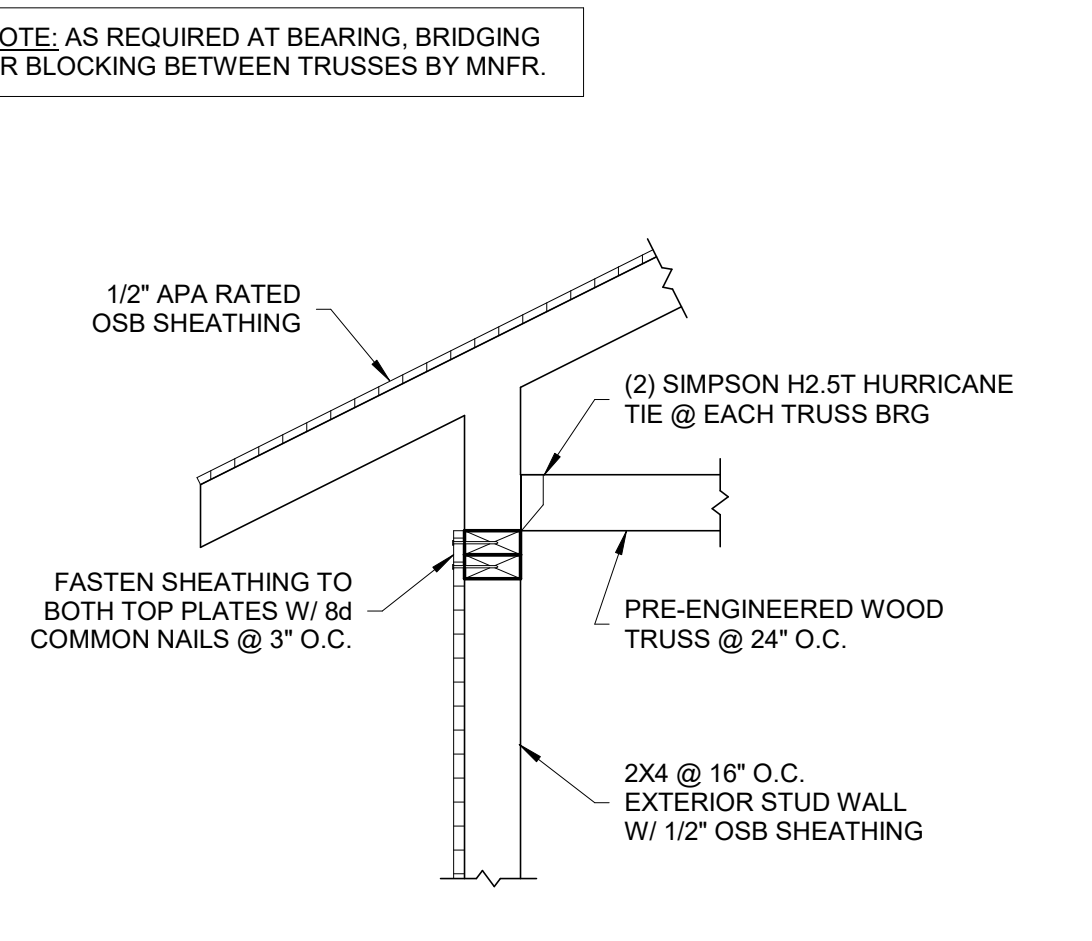
2 TYPICAL STEM WALL SECTION NTS



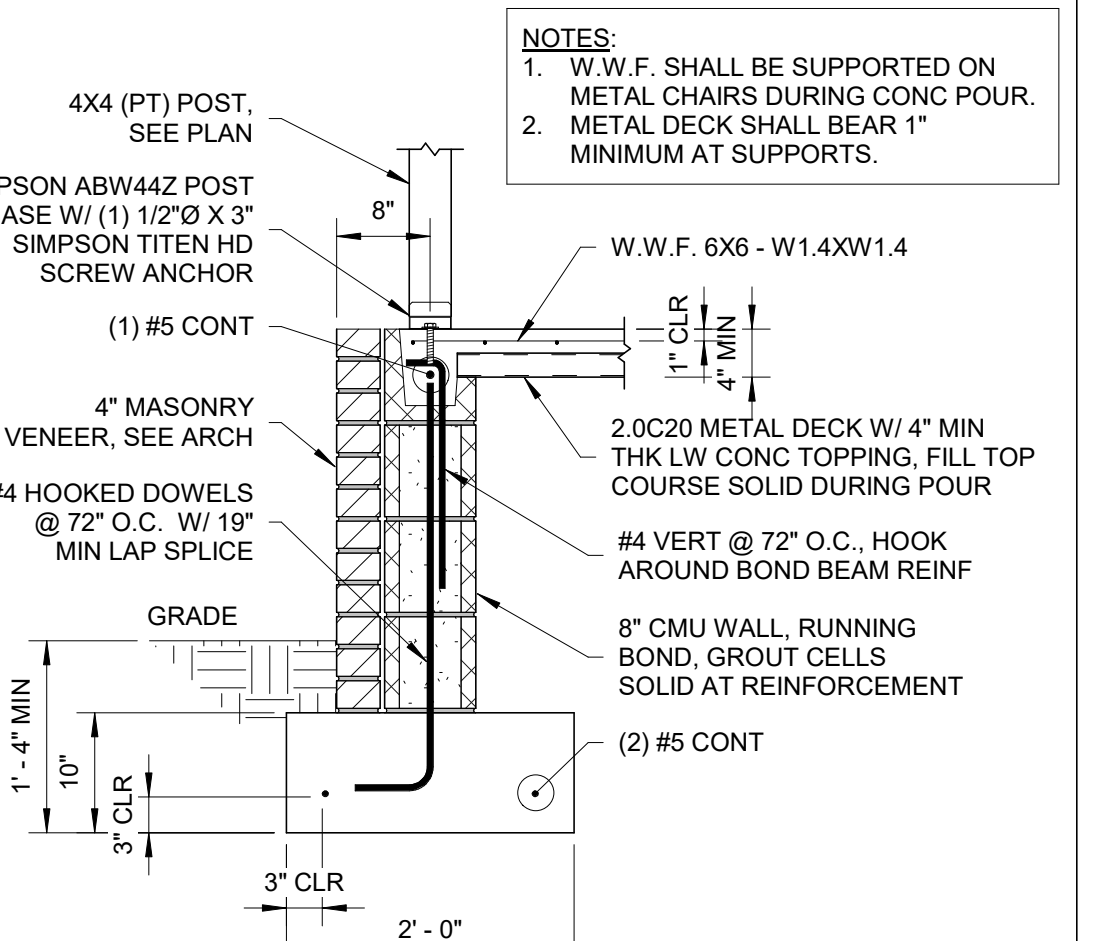
12 OPTIONAL RAMP HANDRAIL SECTION NTS



9 OPTIONAL RAMP LEDGER SECTION NTS



6 TYPICAL TRUSS BEARING SECTION NTS



3 TYPICAL PORCH STEM WALL SECTION NTS

NOTE: MASONRY SCREWS SHALL NOT BE INSTALLED AT MORTAR JOINTS.

NOTE: AS REQUIRED AT BEARING, BRIDGING OR BLOCKING BETWEEN TRUSSES BY MNFR.

NOTES:  
 1. W.W.F. SHALL BE SUPPORTED ON METAL CHAIRS DURING CONC POUR.  
 2. METAL DECK SHALL BEAR 1" MINIMUM AT SUPPORTS.

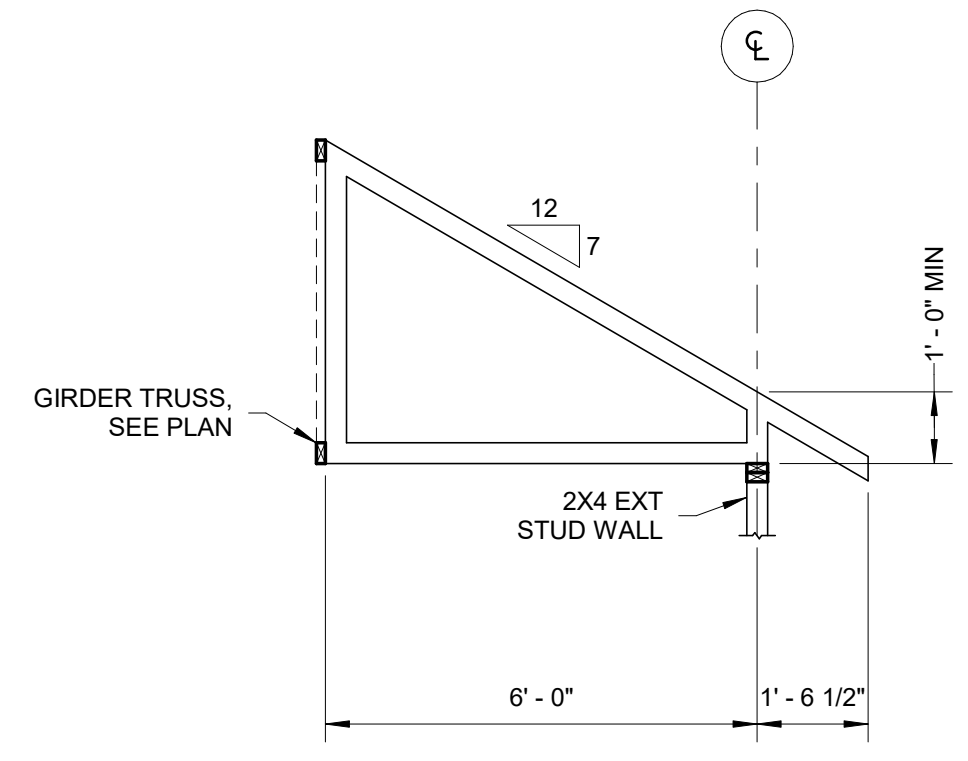


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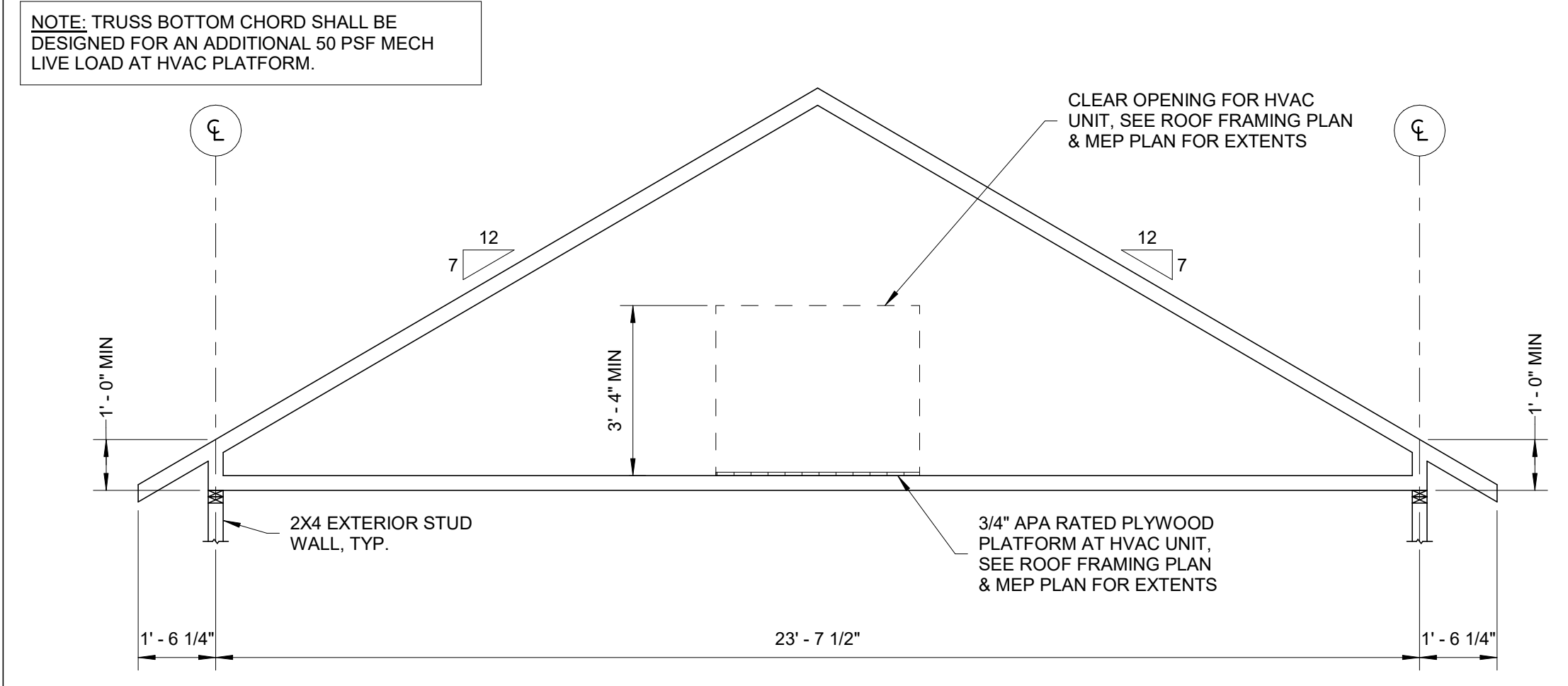
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**20-0170.400**

DETAILS

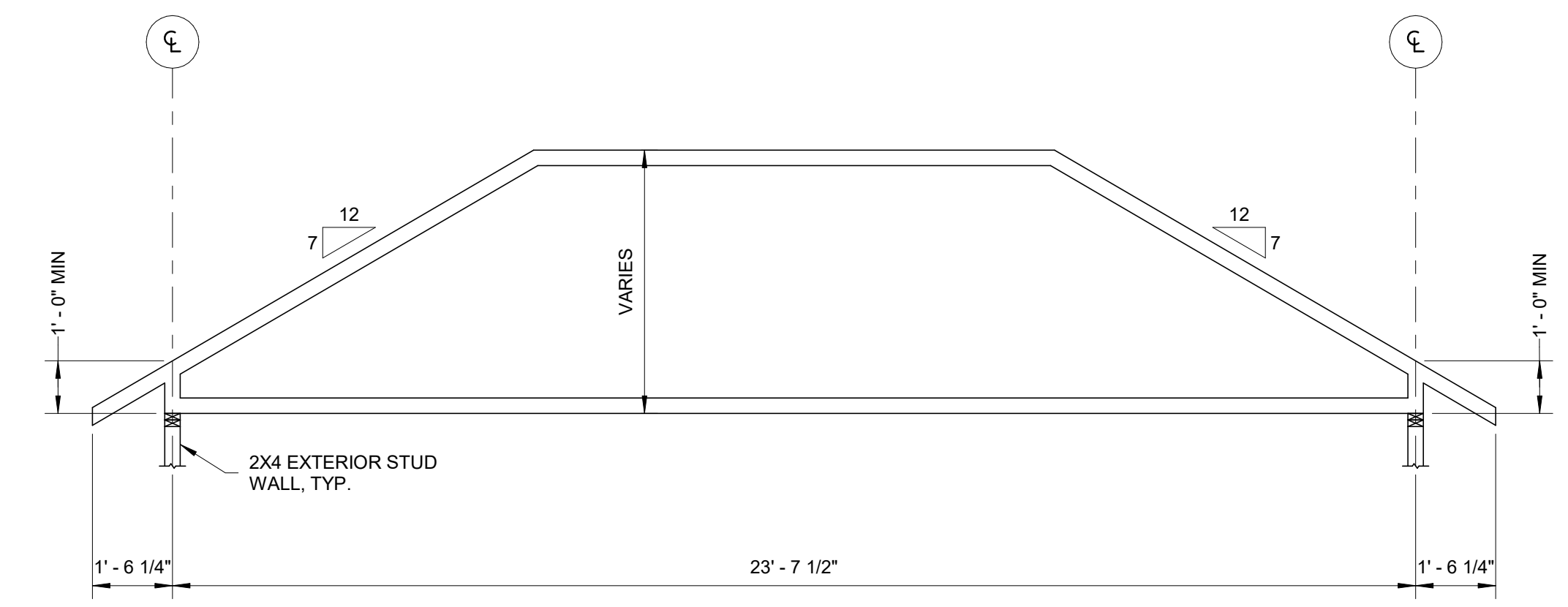




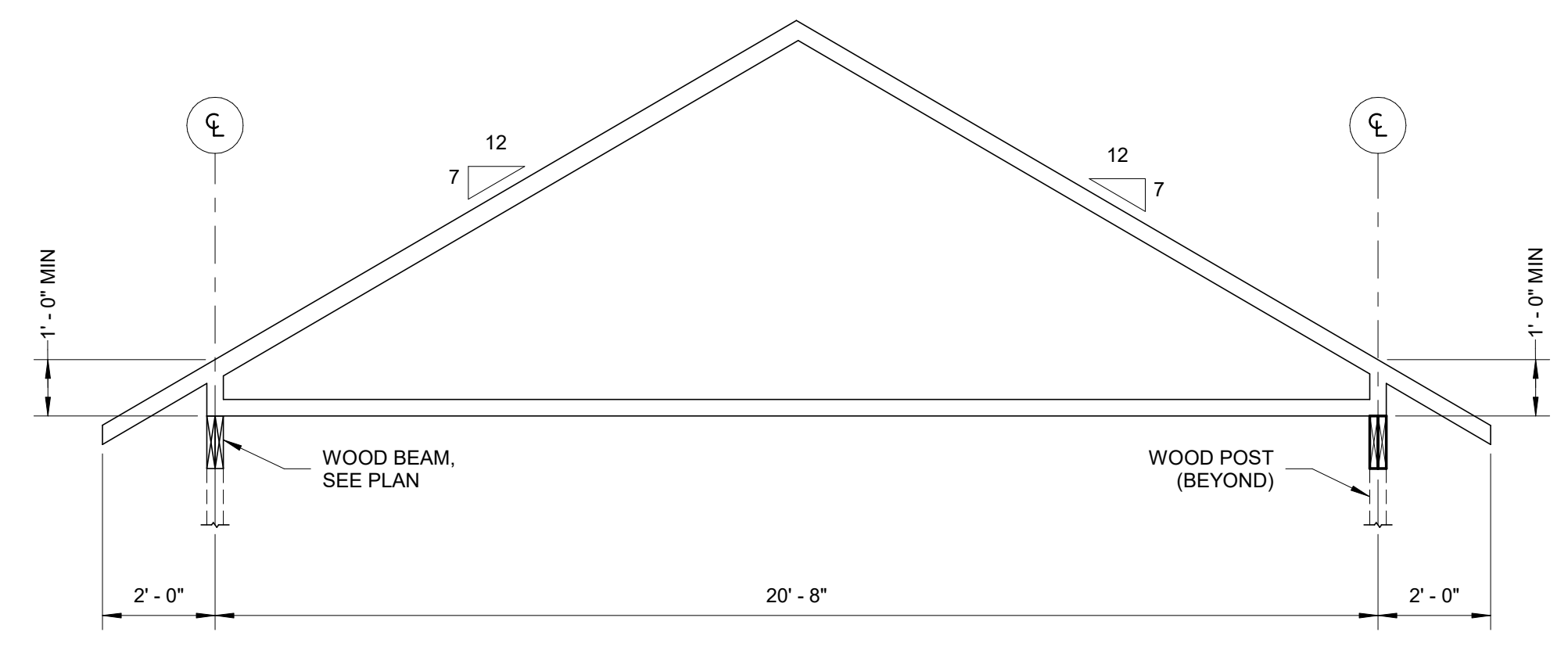
④ HIP TRUSS PROFILE, T-4  
3/8" = 1'-0"



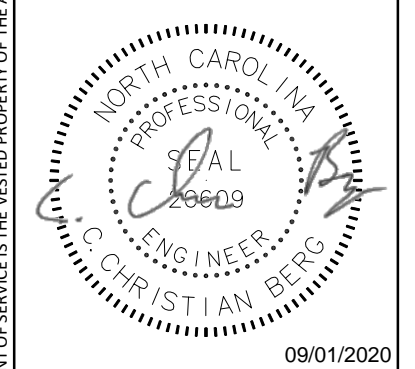
① GABLE TRUSS PROFILE, T1  
3/8" = 1'-0"



② STEP DOWN TRUSS PROFILE, T-2  
3/8" = 1'-0"



③ GABLE TRUSS PROFILE, T-3  
3/8" = 1'-0"



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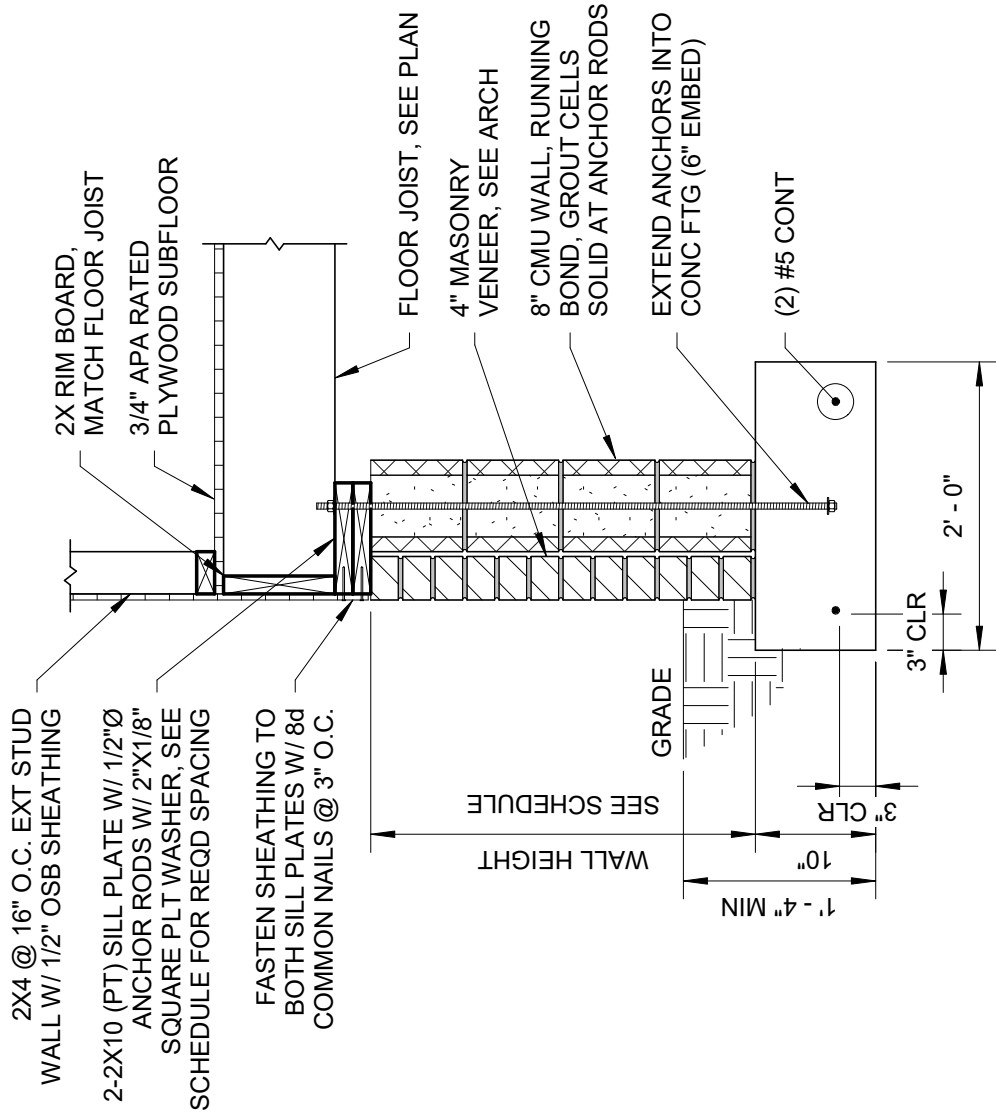
TRUSS PROFILES





| ANCHOR ROD SCHEDULE |              |
|---------------------|--------------|
| WALL HEIGHT         | MAX. SPACING |
| ≤ 8-FT              | 72"          |
| > 8-FT              | 40"          |

NOTE: WALL NOT TO EXCEED 10-FEET IN HEIGHT.



State License #: P-0339  
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 Fax: (919) 322-0116  
 www.SummitDE.net



07/08/2022

REBUILD NC  
**ALTERNATE STEM  
 WALL SECTION**  
 APPLICABLE TO ALL PROTOTYPE  
 NC CORR PLANS.

PROJECT NO.: N/A

ISSUE DATE: 07/08/2022

DRAWN BY: JWB

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SHEET

**RS1**