



2002 ION AVE.
SULLIVAN'S ISLAND, SC

- GENERAL NOTES:
1. CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO START OF WORK
 2. USE OF SAFE METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS IS CONTRACTORS RESPONSIBILITY.
 3. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90 GRADE N-1, TYPE 1. COMPRESSIVE STRENGTH OF MASONRY SHALL BE 1000 PSI (MIN.) OF THE GROSS AREA.
 4. PIER MASONRY CORES SHALL BE FILLED WITH 3000 PSI GROUT AND SHALL CONFORM TO ASTM C476. GROUT MIX SHALL HAVE 3/8" MIN. SIZE AGGREGATE WITH A MAX. SLUMP OF 8". (MORTAR MAY NOT BE USED)
 5. ALL REINFORCING BARS SHALL CONFORM TO ASTM SPEC. A615 GRADE 60.
 6. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MIN COMPRESSIVE STRENGTH OF 3000 PSI. AT 28 DAYS. LIMIT SLUMP TO 4" MAX. MINIMUM COVER FOR REBARS SHALL BE 3".
 7. PROVIDE METAL FLASHING AT ALL TYPICAL FLASHING LOCATIONS.
 8. ALL STRUCTURAL WOOD TO BE #2 SR SOUTHERN PINE (19%MC) WITH Fb=1400 PSI, Fc=375 PSI, AND E=1,400,000 PSI UNLESS OTHERWISE NOTED.
 9. ALL FASTENERS SHALL BE COMMON OR HOT DIPPED GALVANIZED BOX NAILS. NAILING PATTERNS SHALL CONFORM TO STANDARD BUILDING CODE REQUIREMENTS FOR FLOOD AREA. STEEL PLATES SHALL BE ASTM A-36 AND BOLTS SHALL BE A-325.
 10. ALL WINDOWS, DOORS, & VENTS TO MEET WIND LOAD REQUIREMENTS AND BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
 11. ALL WALLS, STEPS, AND GARAGE DOORS BELOW FLOOD LEVEL TO BE CLASS 4 OR 5.
 12. ALL DOORS AND WINDOWS ARE TO BE INSTALLED PER MANUFACTURE SPECS. SEE MANUFACTURE'S SHOP DRAWINGS FOR INSTALLATION AND FLASHING DETAILS.
 13. ALL EXTERIOR MATERIALS- SIDING AND TRIM, STUCCO CONVENTIONAL OR SYNTHETIC, AND ROOFING - SHALL BE INSTALLED PER MANUFACTURE'S SPECS AND RECOMMENDATION. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE SHOP DRAWINGS AND MANUFACTURE SPECIFICATION FOR INSTALLATION, AS WELL AS OVERSEEING THE INSTALLATION AND OR APPLICATION.
 14. PROVIDE DBL. JSTS. UNDER WALLS.
 15. PARALAM BEAMS (P-LAM) TO BE SIZED BY MNFR.
 16. WINDOW AND DOOR HEADERS TO BE 2- SYP #2 2x10's W/ 1/2" PLYWOOD BETWEEN, GLD. & NLD. (UNLESS OTHERWISE NOTED.)
 17. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS INSTALLED. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE SHOP DRAWINGS FOR ALL INSTALLED ITEMS.

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DATE
5-6-16

THIS PLAN IS PROPERTY OF M3 DESIGNS LLC. UNAUTHORIZED USE IS PROHIBITED

REVISIONS
6-20-16 revisions per ddb

SQUARE FOOTAGE
FIRST FLOOR 2560 sq.ft.
SECOND FLOOR 1107 sq.ft.
STUDIO 835 sq.ft.
TOTAL HEATED 4502 sq.ft.

M3 DESIGNS INC.
CARL MCANITT III
843 - 971 - 1751
mc3designs@comcast.net

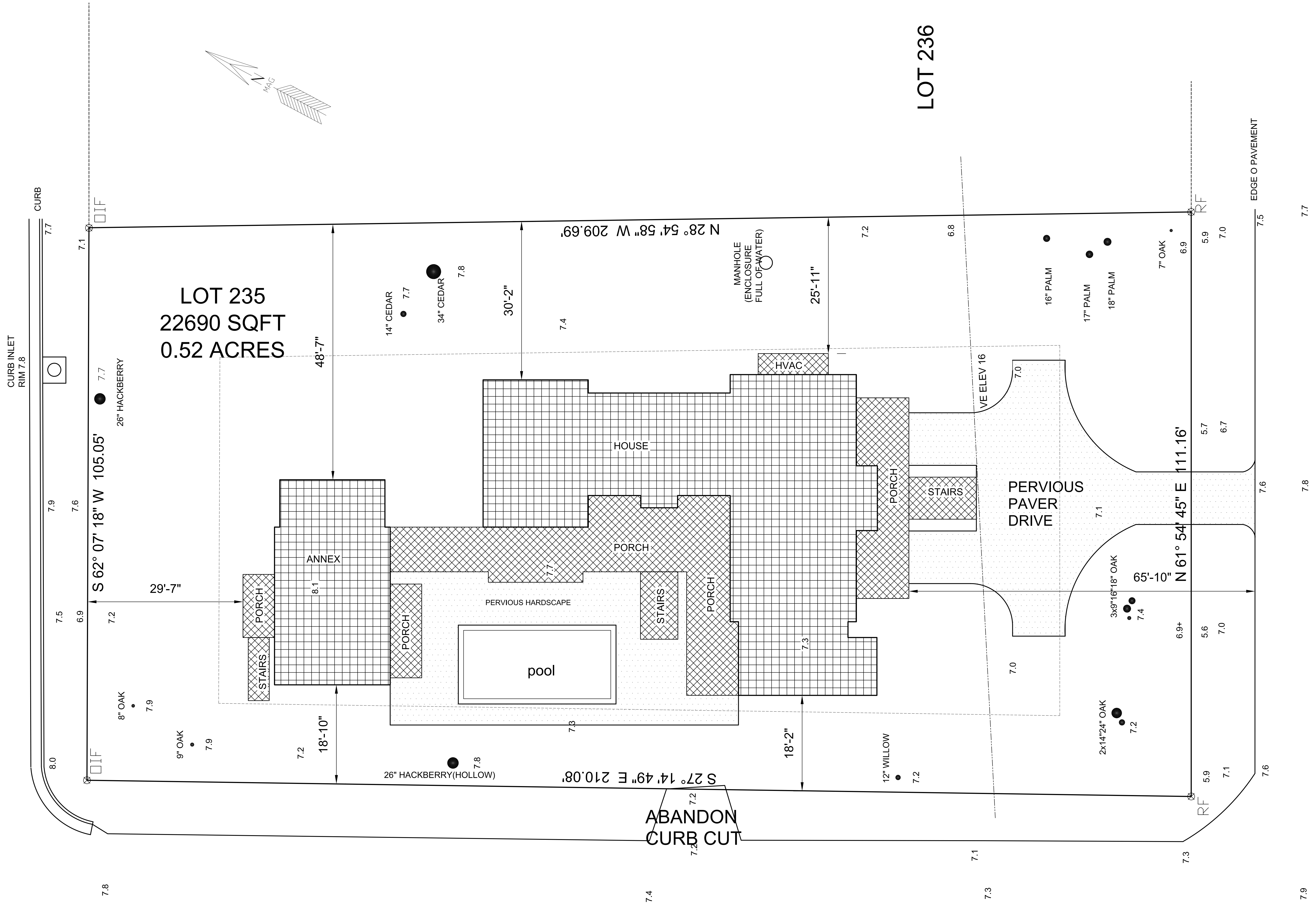
THIS DRAWING IS A PART OF A SET OF 24" x 36" DRAWINGS AND SHALL NOT BE USED WITH OUT ALL OTHER DRAWINGS IN THE SET

PROJECT
2002 ION AVE.
SULLIVAN'S ISLAND, SC
SHEET NAME
0000000

SHEET
1


 BENCH MARK
 NAIL & CAP
 ELEV 7.98 NGVD29

MIDDLE STREET 60' R/W



LOT COVERAGE LOT SIZE - 22,690 SQ.FT. SEC. 21-25 PRINCIPAL BUILDING COVERAGE AREA ALLOWED 15% = 3403.5 SQ.FT. PROPOSED 14% = 3341 SQ.FT. (DRB CAN GRANT 20% - 4084 SQ.FT.) SEC. 21-26 IMPERVIOUS COVERAGE AREA ALLOWED 30% = 8807 SQ.FT. PROPOSED 24% = 5662 SQ.FT. (HOUSE 2550 SQ.FT., DRIVEWAY 1140 SQ.FT.) SEC. 21-27 PRINCIPAL BUILDING SQUARE FOOTAGE ALLOWED 4169 SQ.FT. PROPOSED 4502 SQ.FT. (DRB CAN GRANT 25% - 5672 SQ.FT.)

STATION 20 40' R/W

LOT 236

ION AVENUE 40' R/W

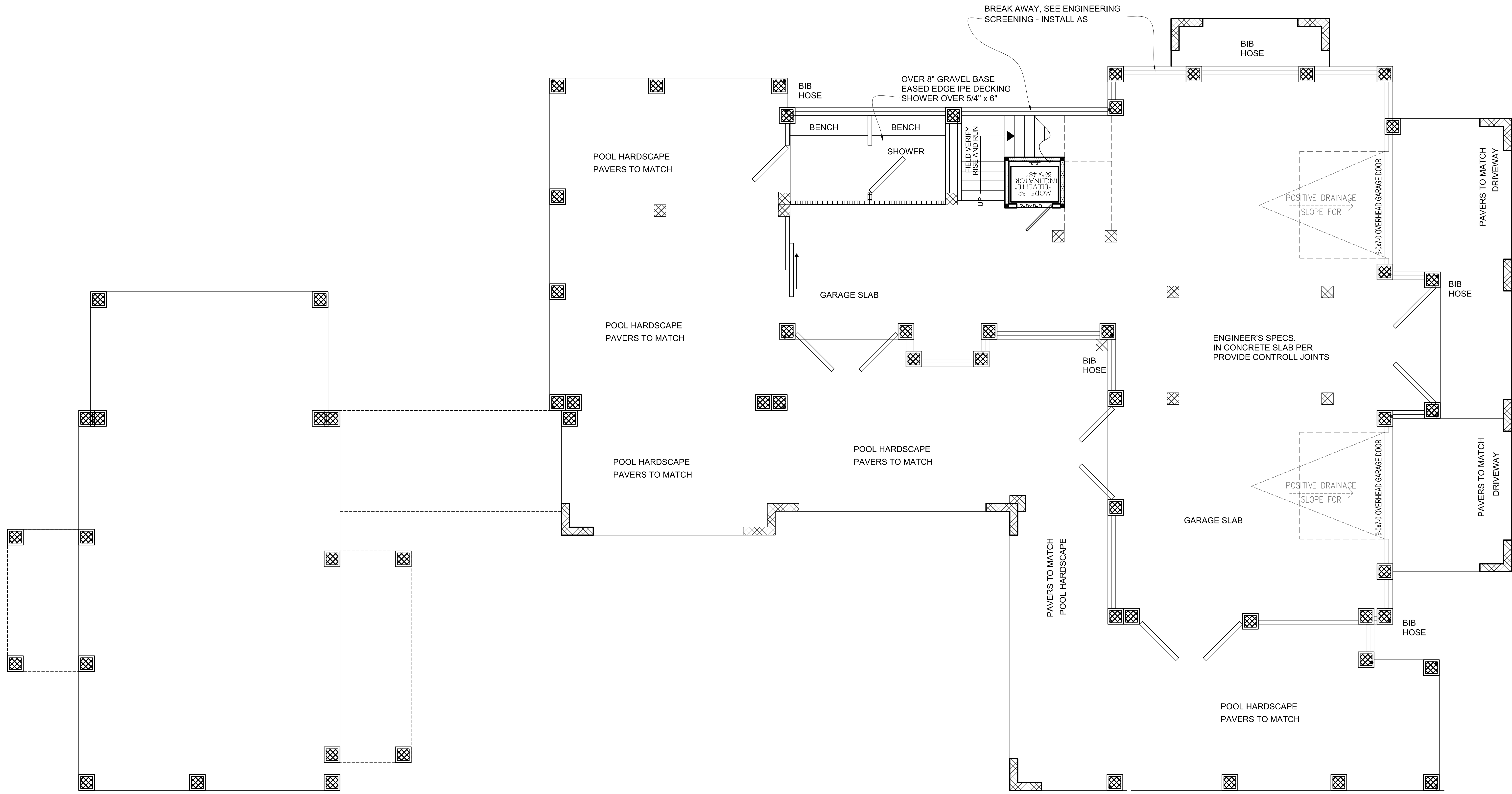
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PROJECT 2002 ION AVE. SULLIVAN'S ISLAND, SC SHEET NAME 00000000	SQUARE FOOTAGE FIRST FLOOR 2560 sq.ft. SECOND FLOOR 1107 sq.ft. STUDIO 835 sq.ft. TOTAL HEATED 4502 sq.ft.	REVISIONS 6-20-16 REVISIONS PER DRB	DATE 5-6-16
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2

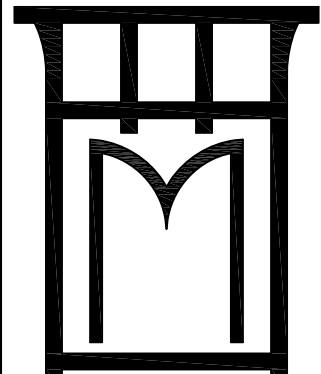


GARAGE PLAN
 1/4" = 1'-0"

★ DATE
 ★ 5-6-16
 ★

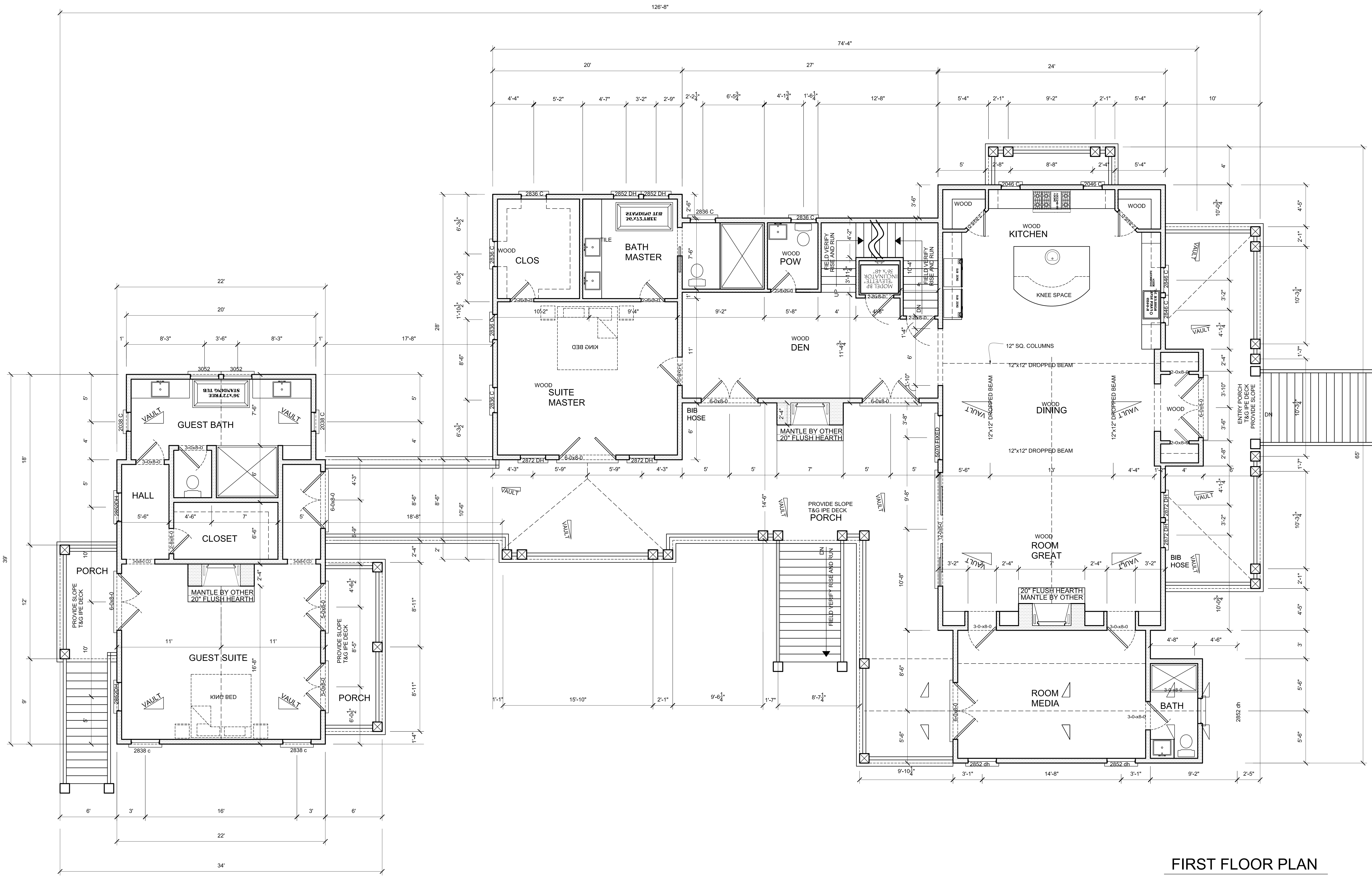
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 ★ SULLIVAN'S ISLAND, SC
 ★ SHEET NAME
 ★ GARAGE PLAN

★ SHEET
 ★ 3



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

DATE
5-6-16

REVISIONS
6-20-16 revisions per drb

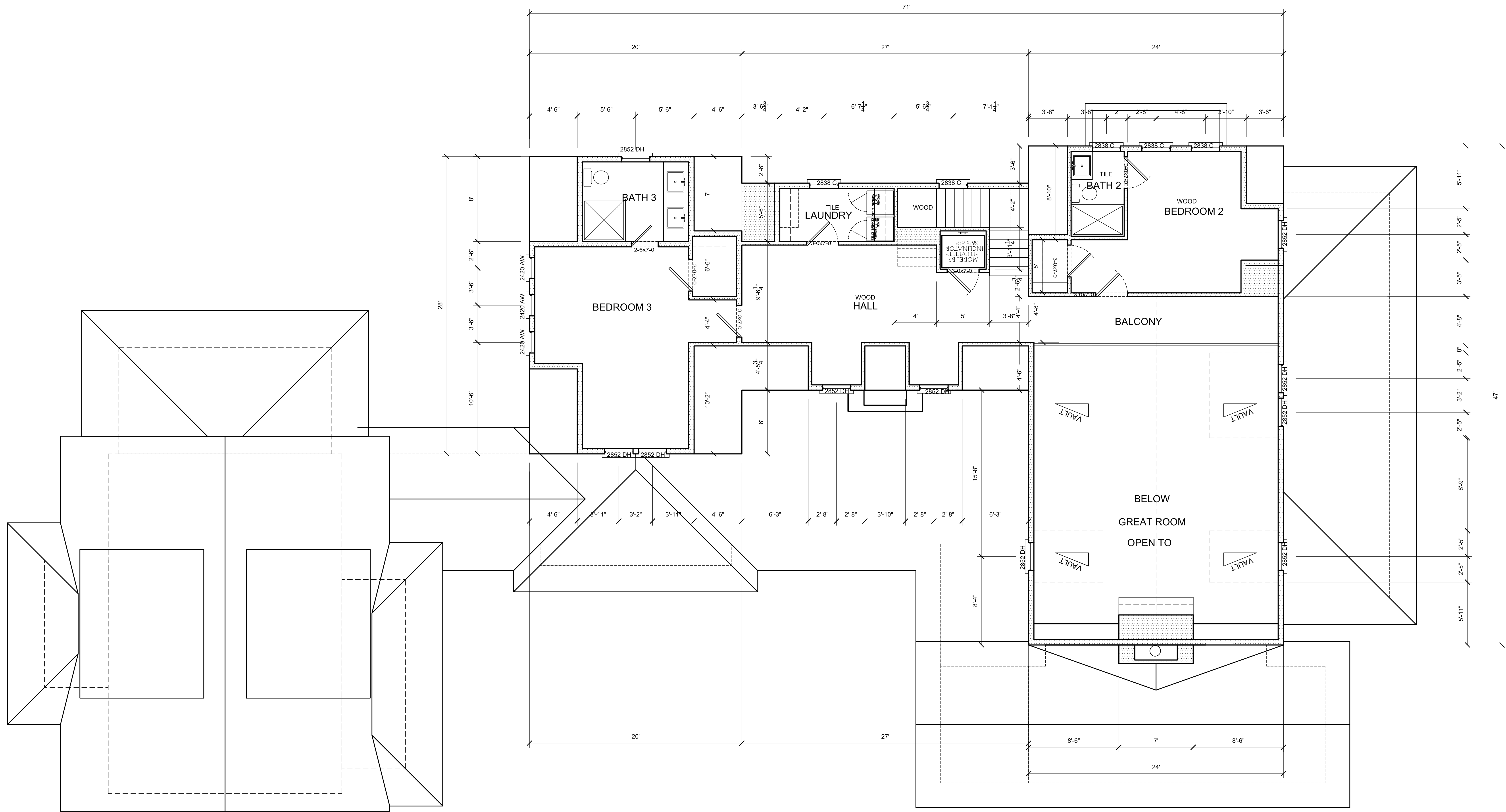
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4

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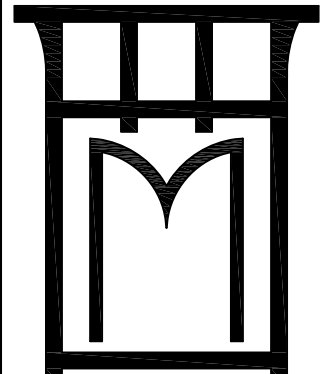


SECOND FLOOR PLAN
1/4" = 1'-0"

★ DATE
★ 5-6-16

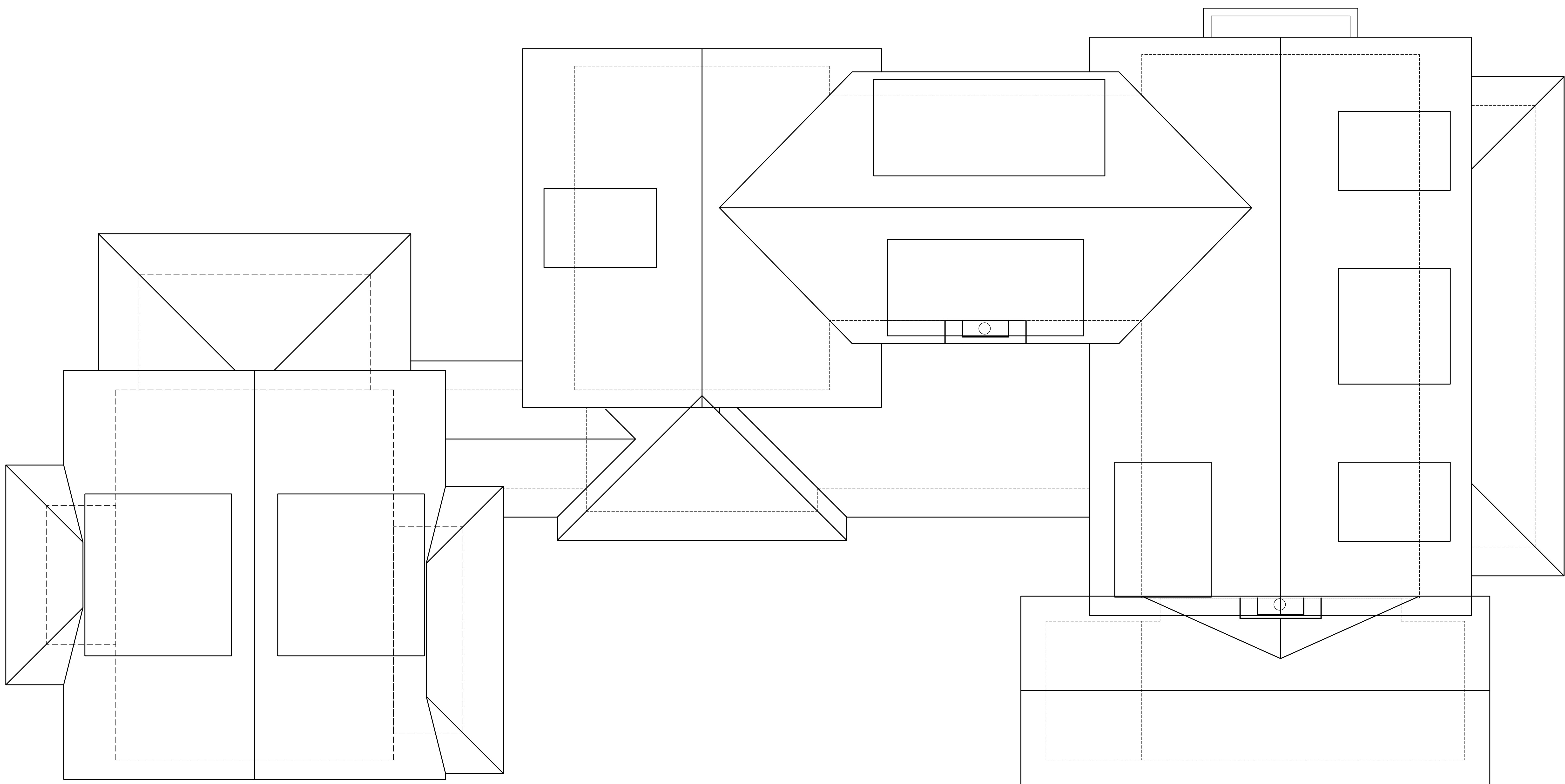
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★ SHEET NAME
★ SECOND FLOOR PLAN

★ SHEET
★ 5

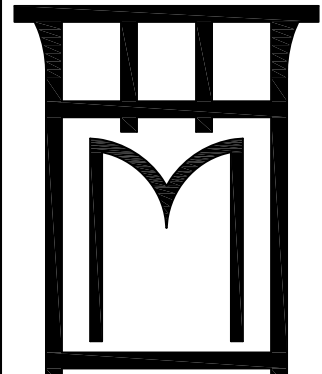


ROOF PLAN
1/4" = 1'-0"

★ DATE
★ 5-6-16
★

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★ REVISIONS ★
★ 6-20-16 revisions per drb ★

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★ SULLIVAN'S ISLAND, SC ★
★ SHEET NAME ★
★ ROOF PLAN ★

★ SHEET ★
★ 6 ★



front elevation
1/4" = 1'-0"

DATE
5-6-16

REVISIONS
6-20-16 revisions per drb

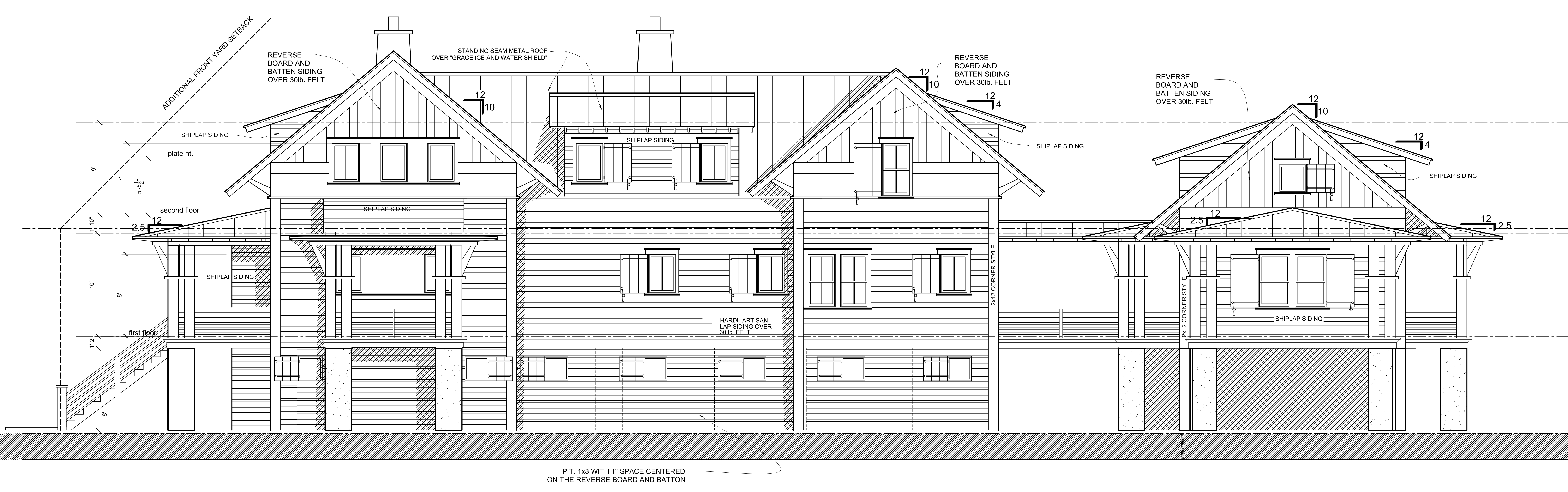
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PROJECT
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SULLIVAN'S ISLAND, SC
SHEET NAME
FRONT ELEVATION

SHEET
7

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P.T. 1x8 WITH 1" SPACE CENTERED ON THE REVERSE BOARD AND BATTON

right elevation
1/4" = 1'-0"

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rear elevation
1/4" = 1'-0"



rear elevation - shown without annex
1/4" = 1'-0"

DATE
5-6-16

REVISIONS
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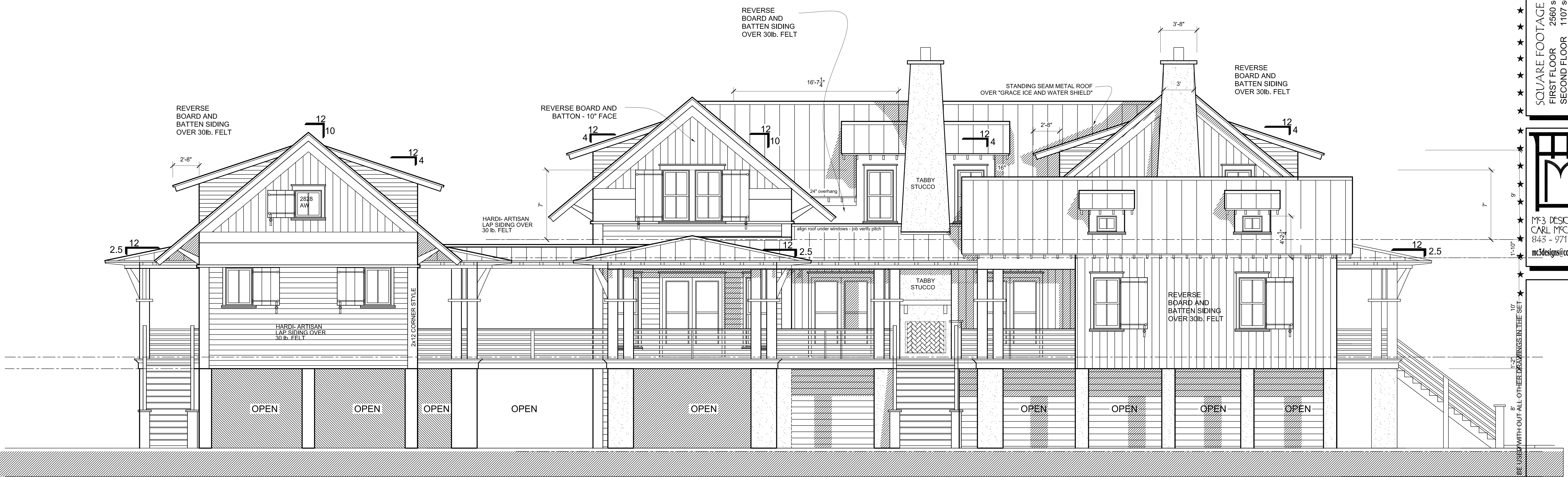
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PROJECT
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SULLIVAN'S ISLAND, SC
SHEET NAME
REAR ELEVATION

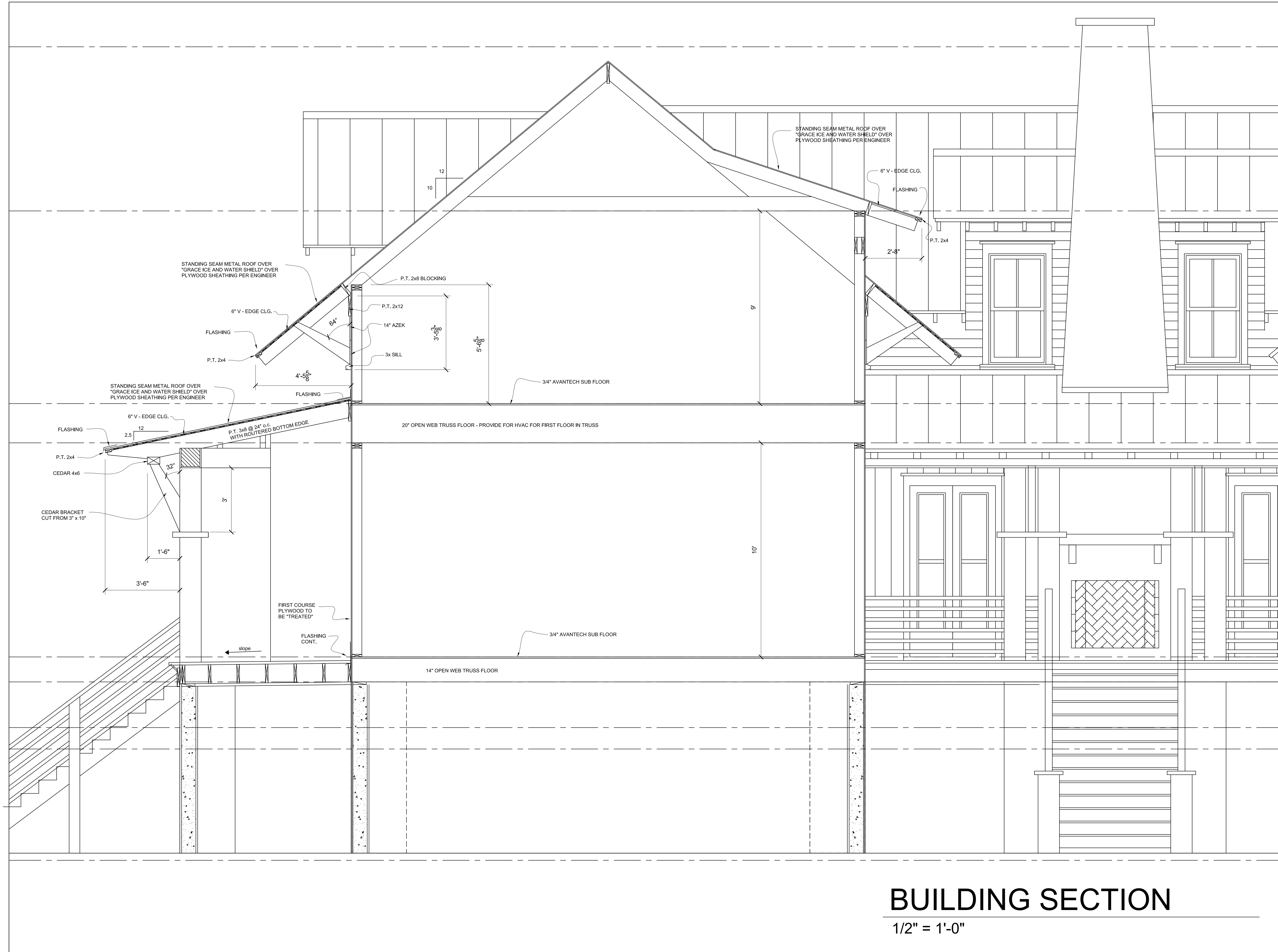
SHEET
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left elevation
1/4" = 1'-0"

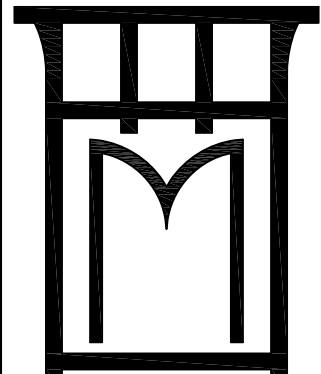


BUILDING SECTION
 1/2" = 1'-0"

★ DATE
 ★ 5-6-16
 ★

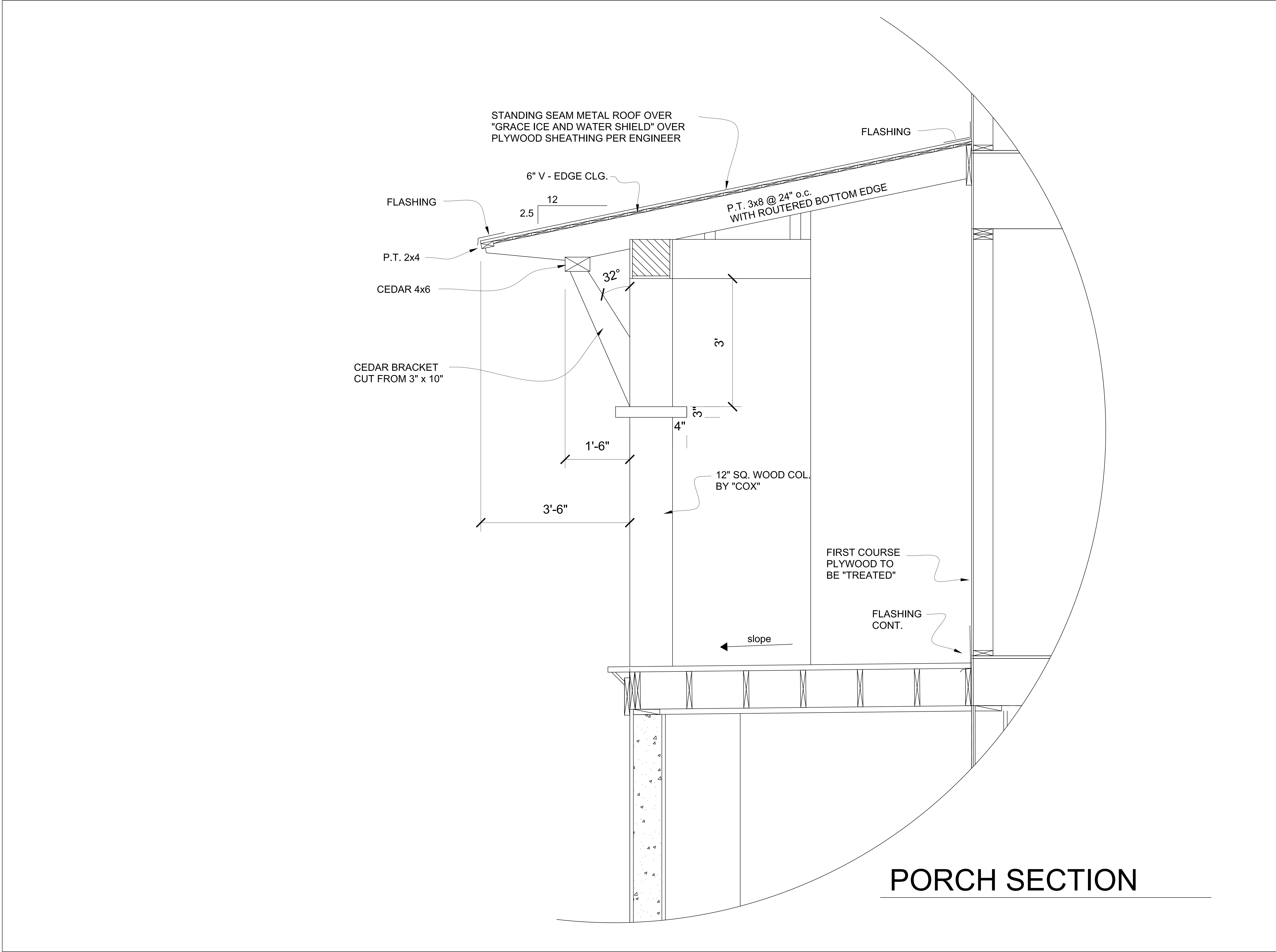
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★ SQUARE FOOTAGE

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 ★ SHEET NAME
 ★ BLDG. SECTION

★ SHEET
 ★ 11



★ DATE
★ 5-6-16

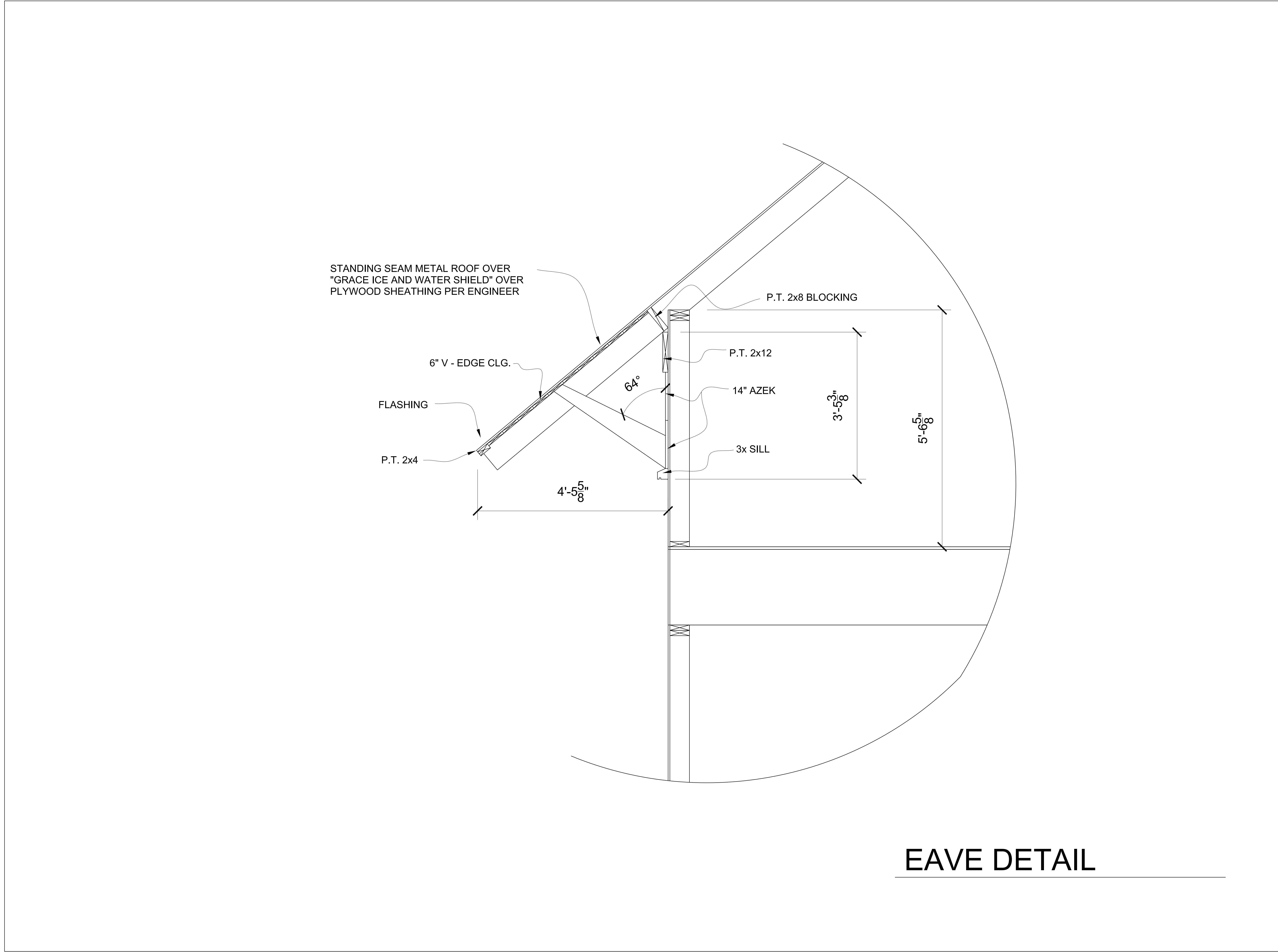
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★ SQUARE FOOTAGE

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★ SHEET NAME
★ PORCH SECTION

★ SHEET
★ 12

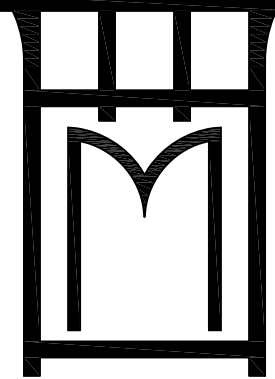


EAVE DETAIL

★ DATE
★ 5-6-16

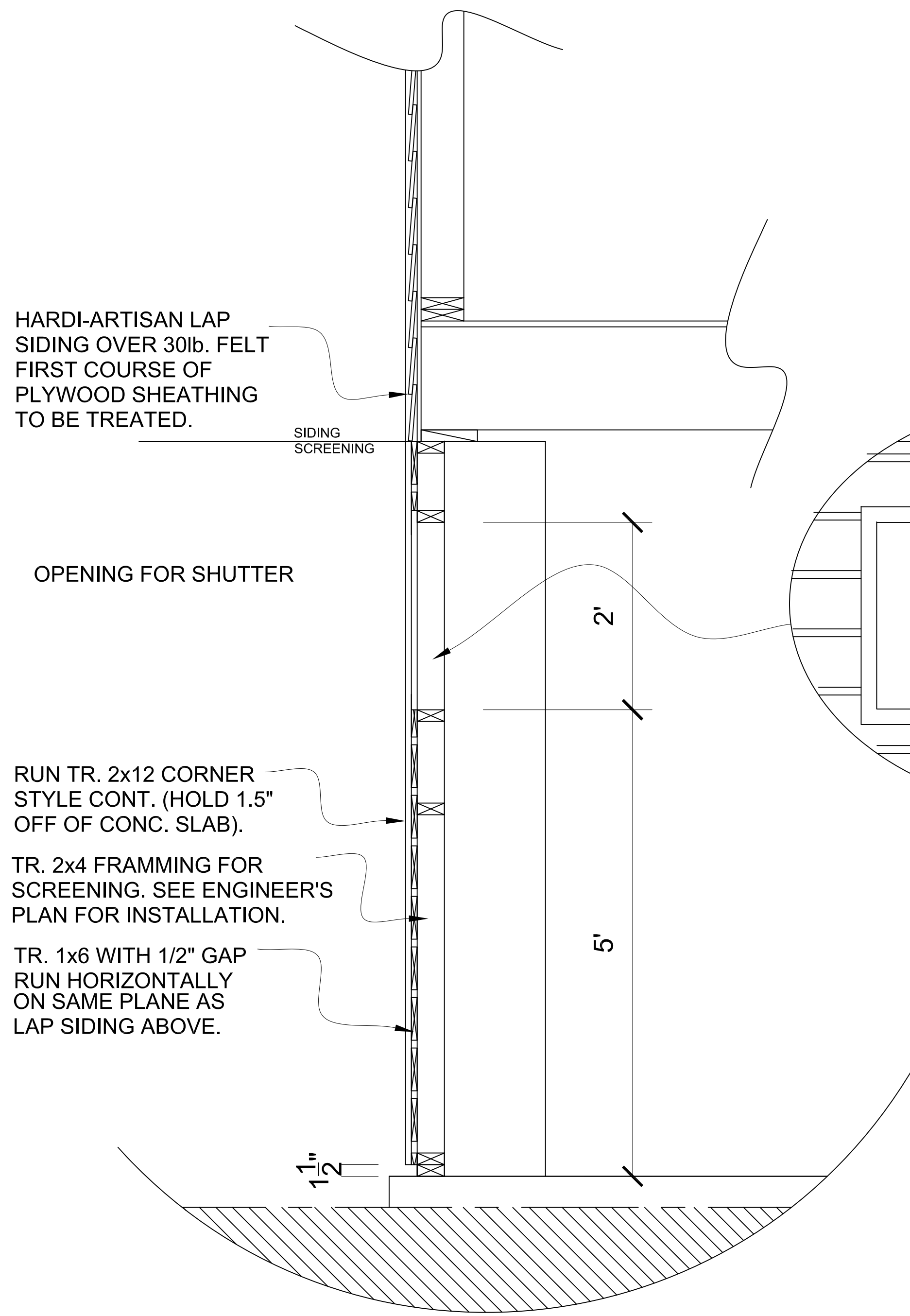
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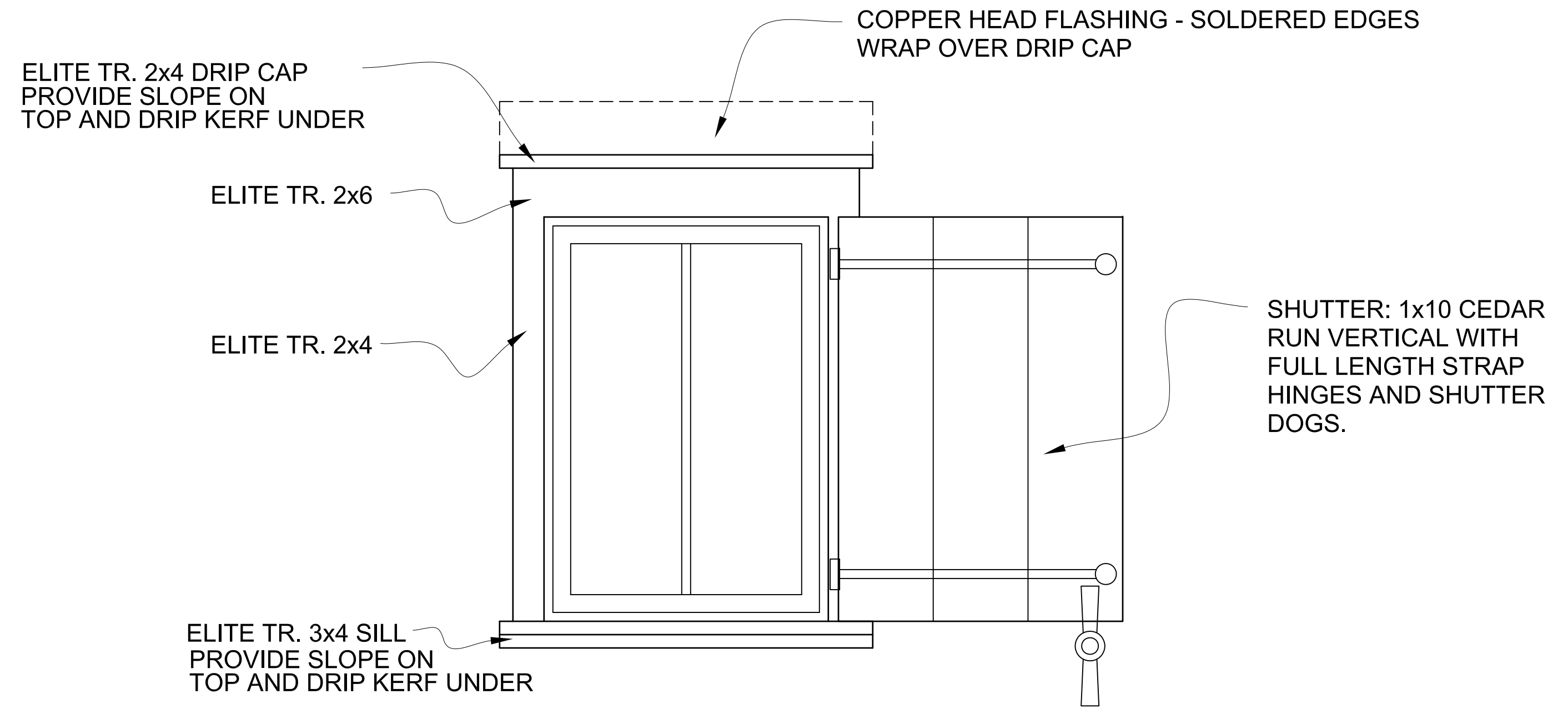
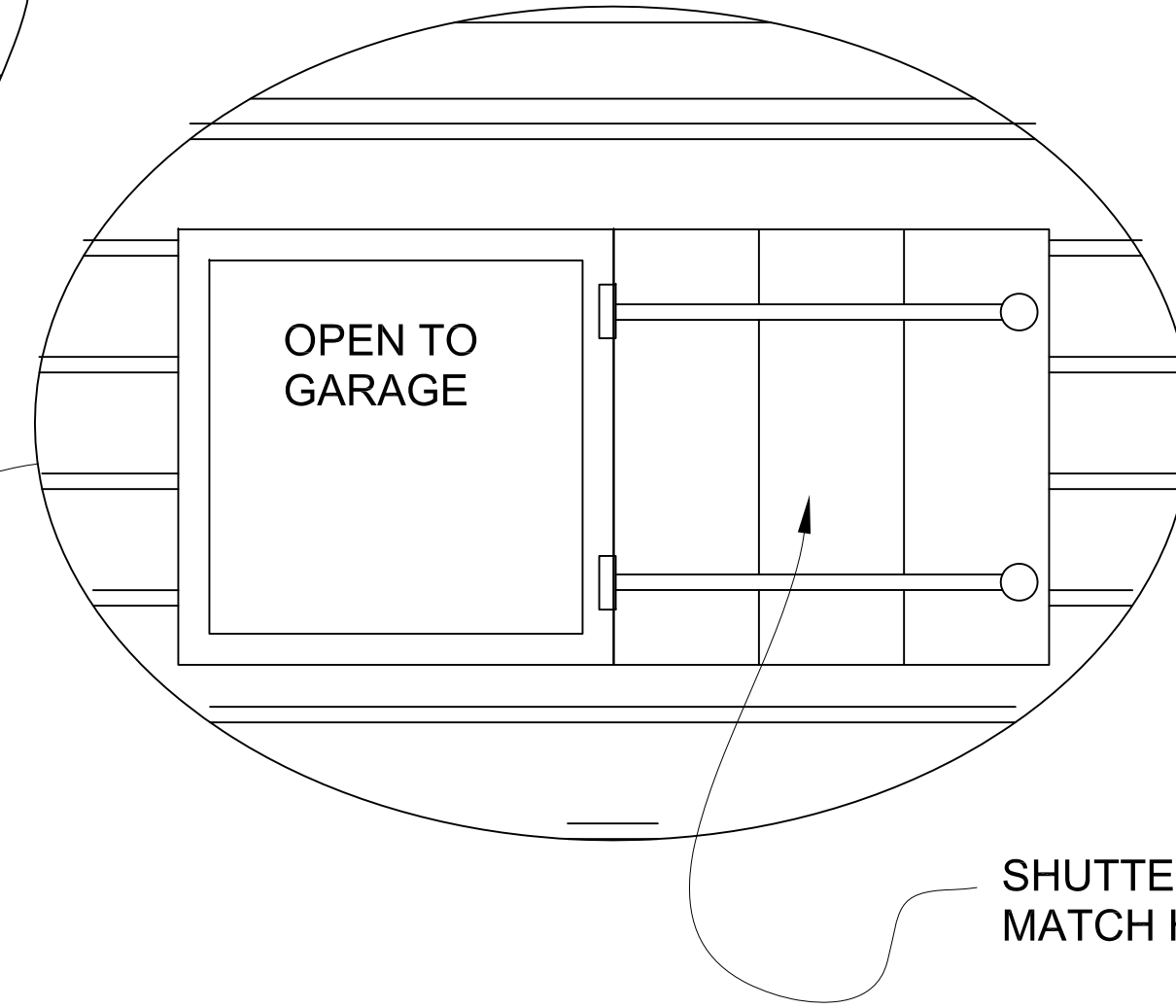
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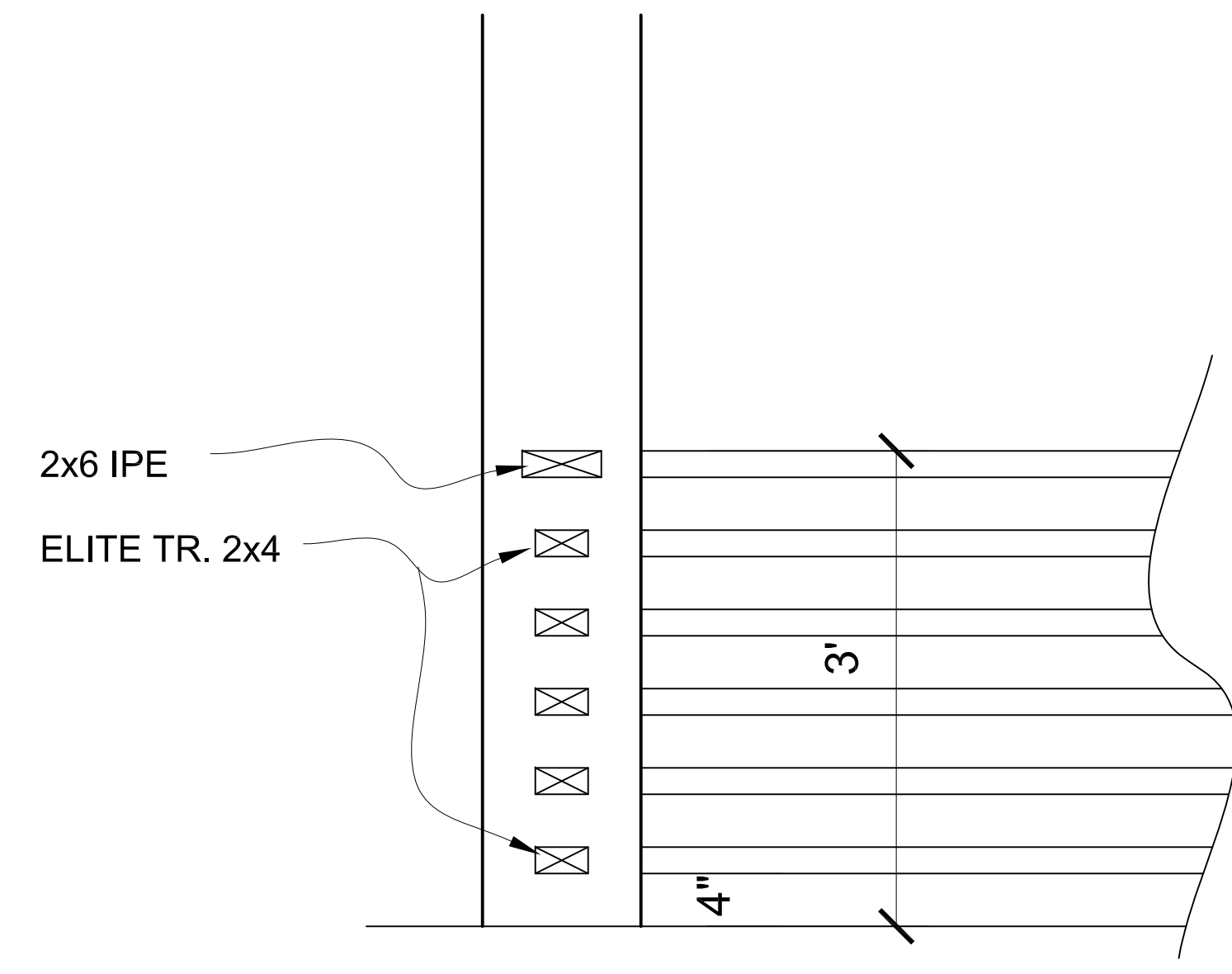
★ SHEET
★ 13



SIDING TO SCREENING DETAIL



EXT. WINDOW AND DOOR TRIM



EXT. HANDRAIL

★ DATE
★ 5-6-16
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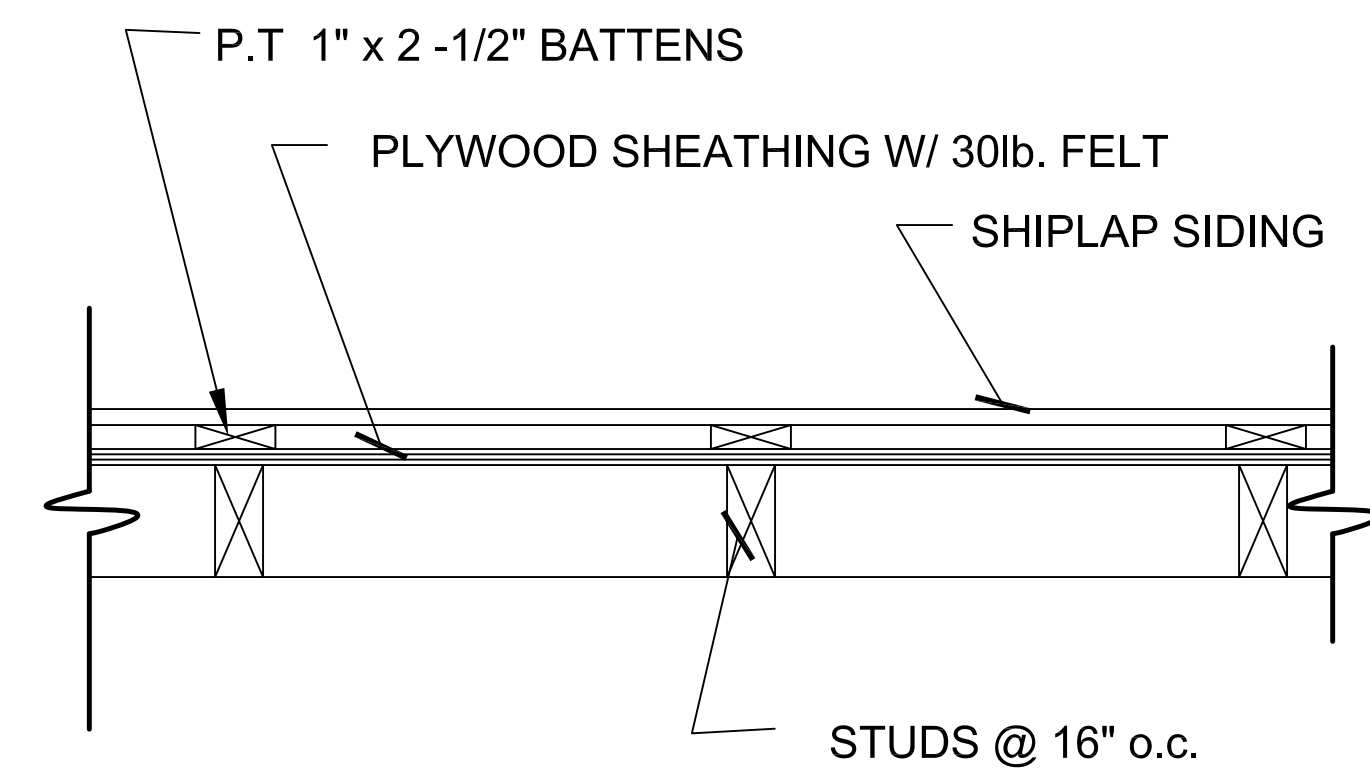
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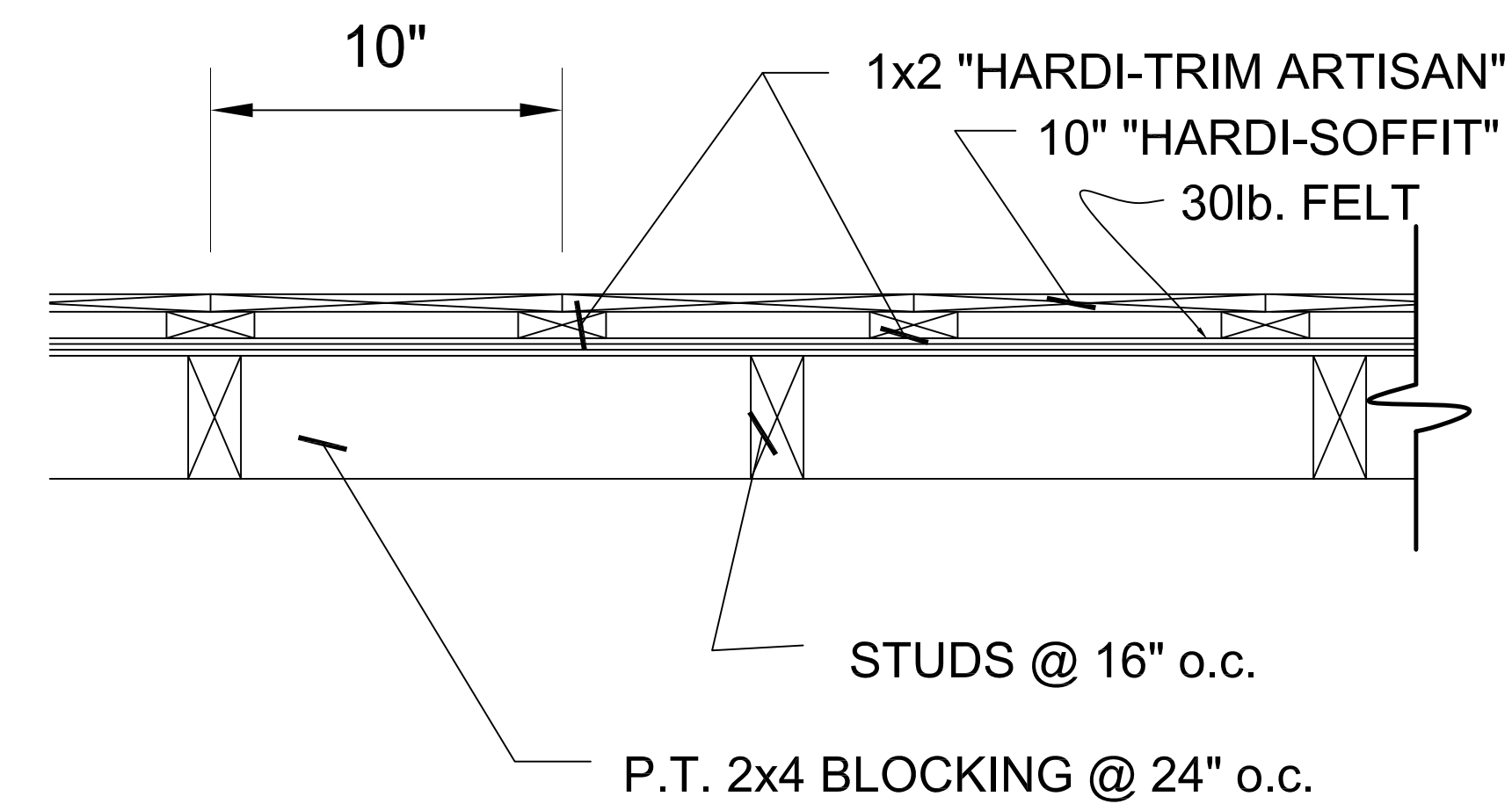
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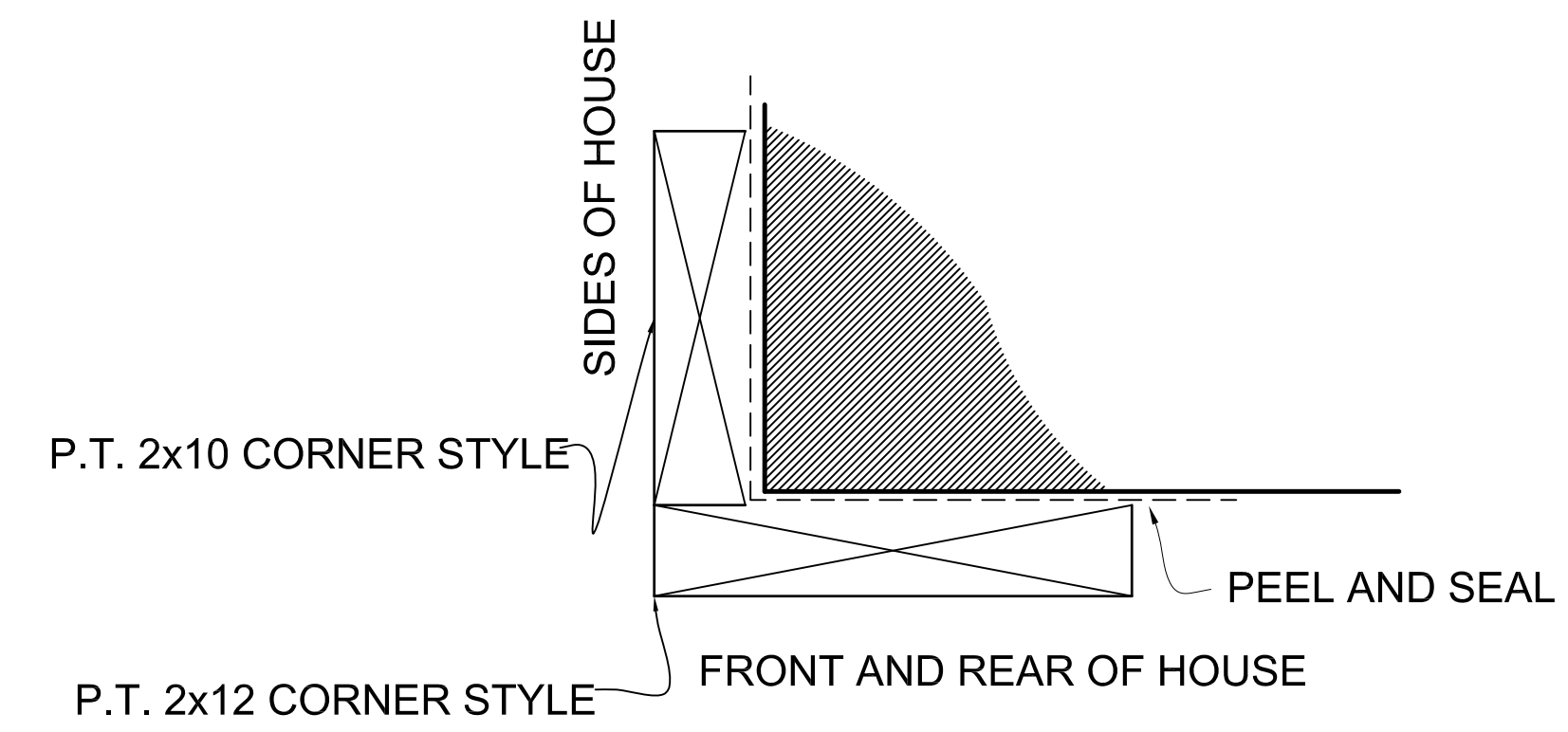
★ SHEET
★ 14



SHIPLAP SIDING DETAIL
NTS

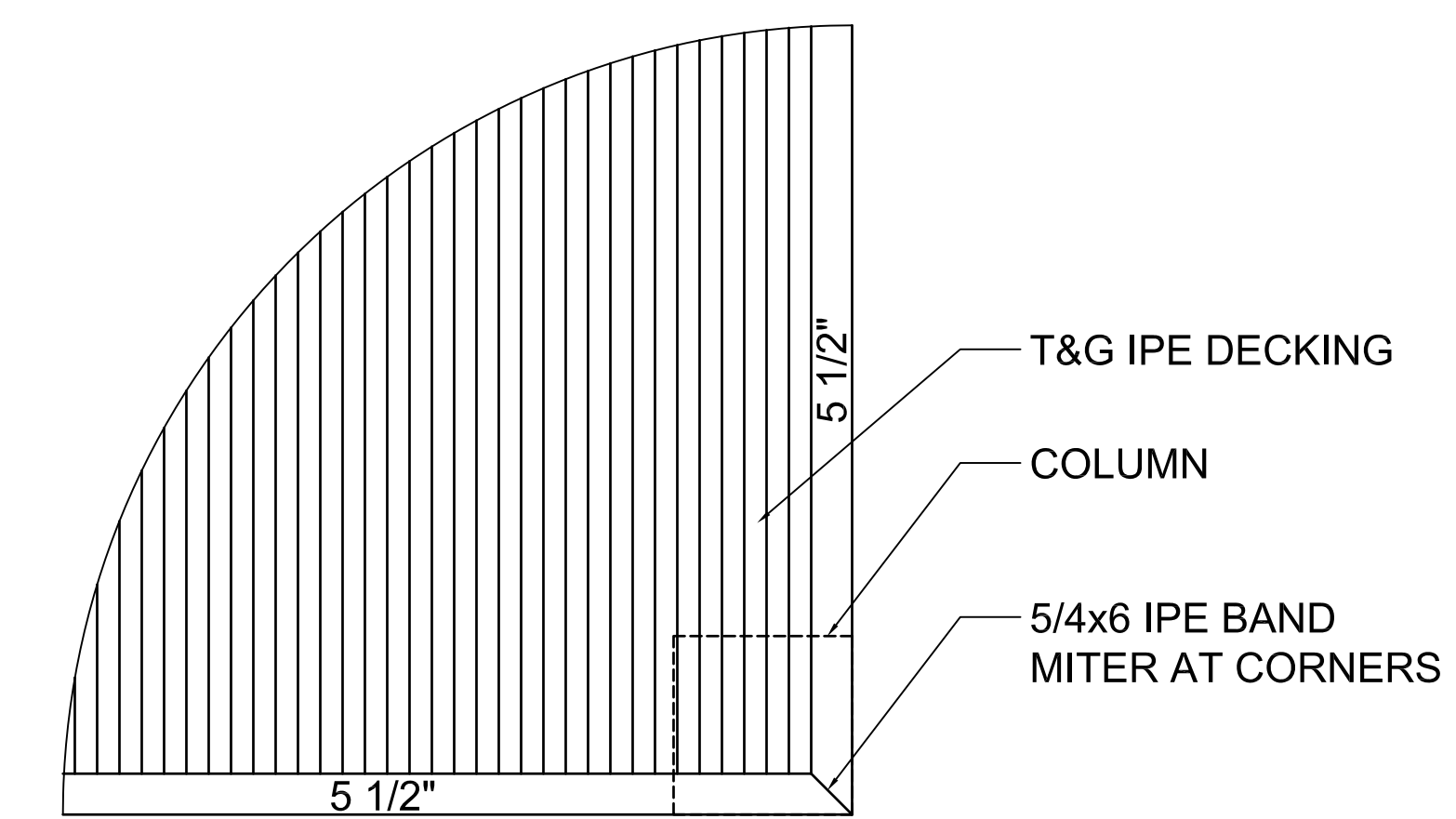


REVERSE BOARD & BATTON WALL SECTION
NTS

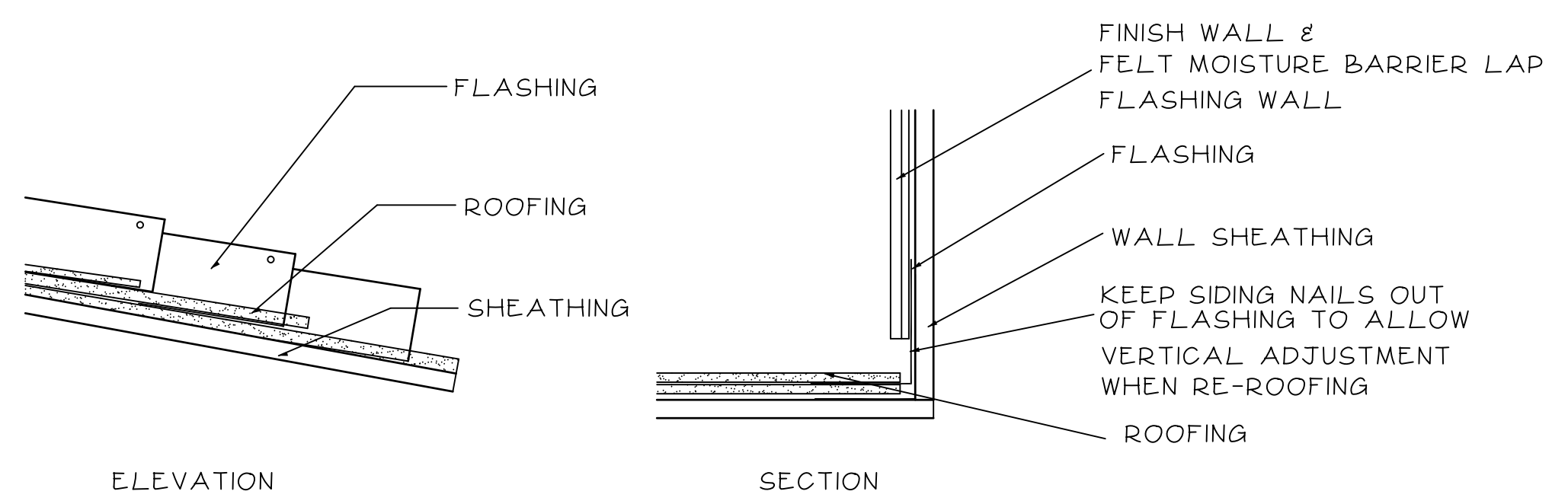
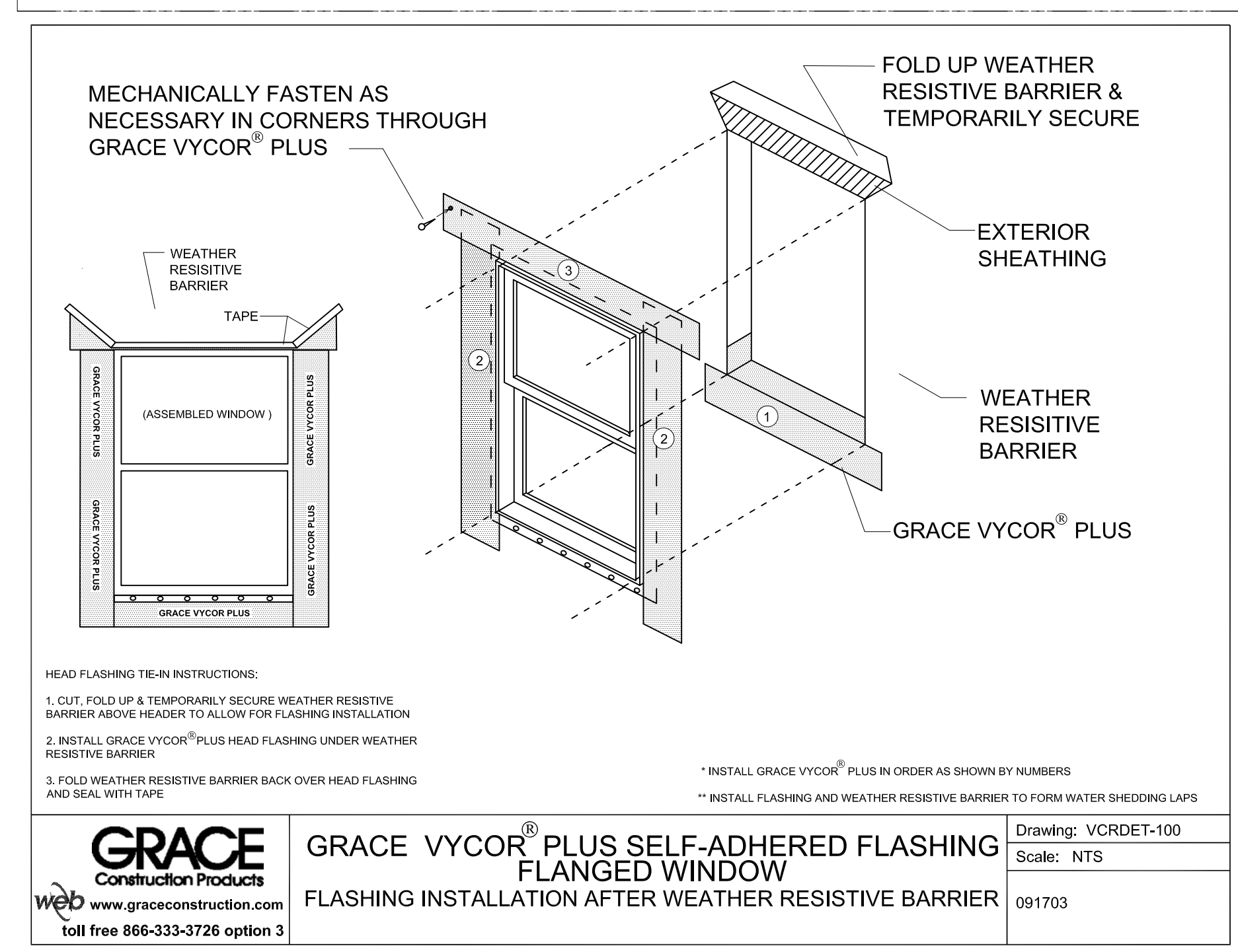
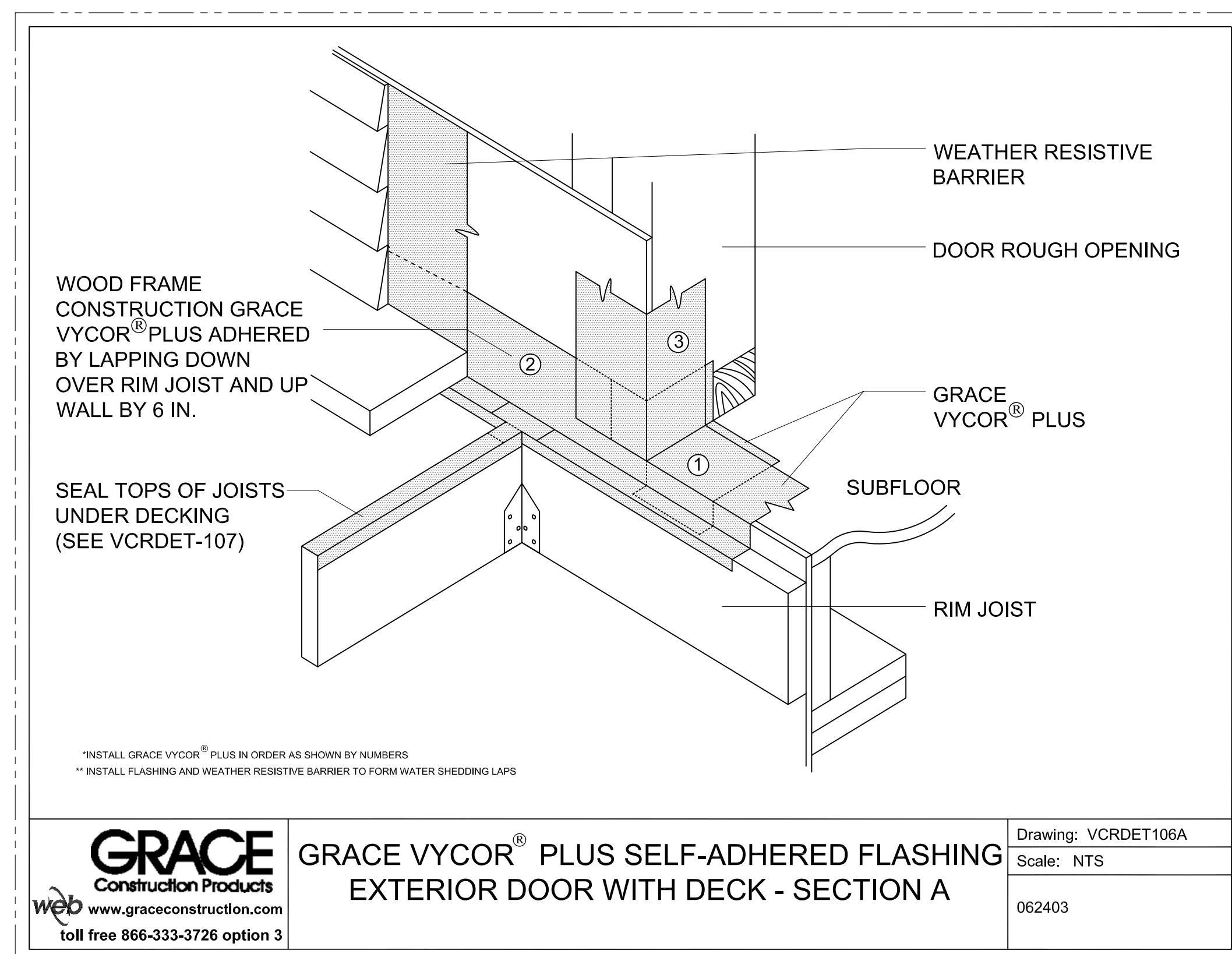


WRAP ALL CORNERS (POSITIVE AND NEGATIVE CORNERS)
TOP TO BOTTOM WITH "PEEL AND SEAL"

CORNER STYLE DETAIL
NTS

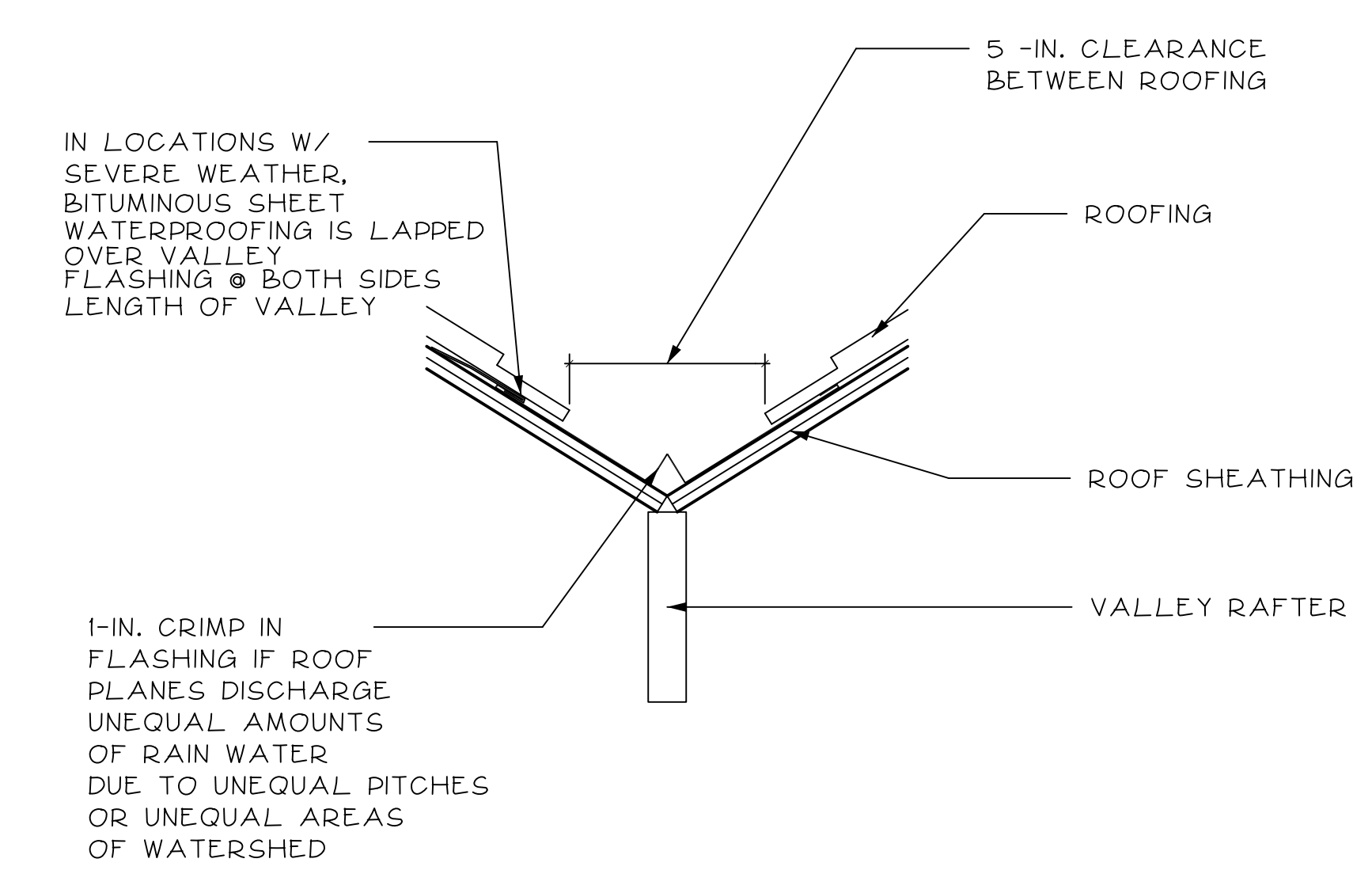


DETAIL @ PORCH DECKING
1/2" = 1'-0"

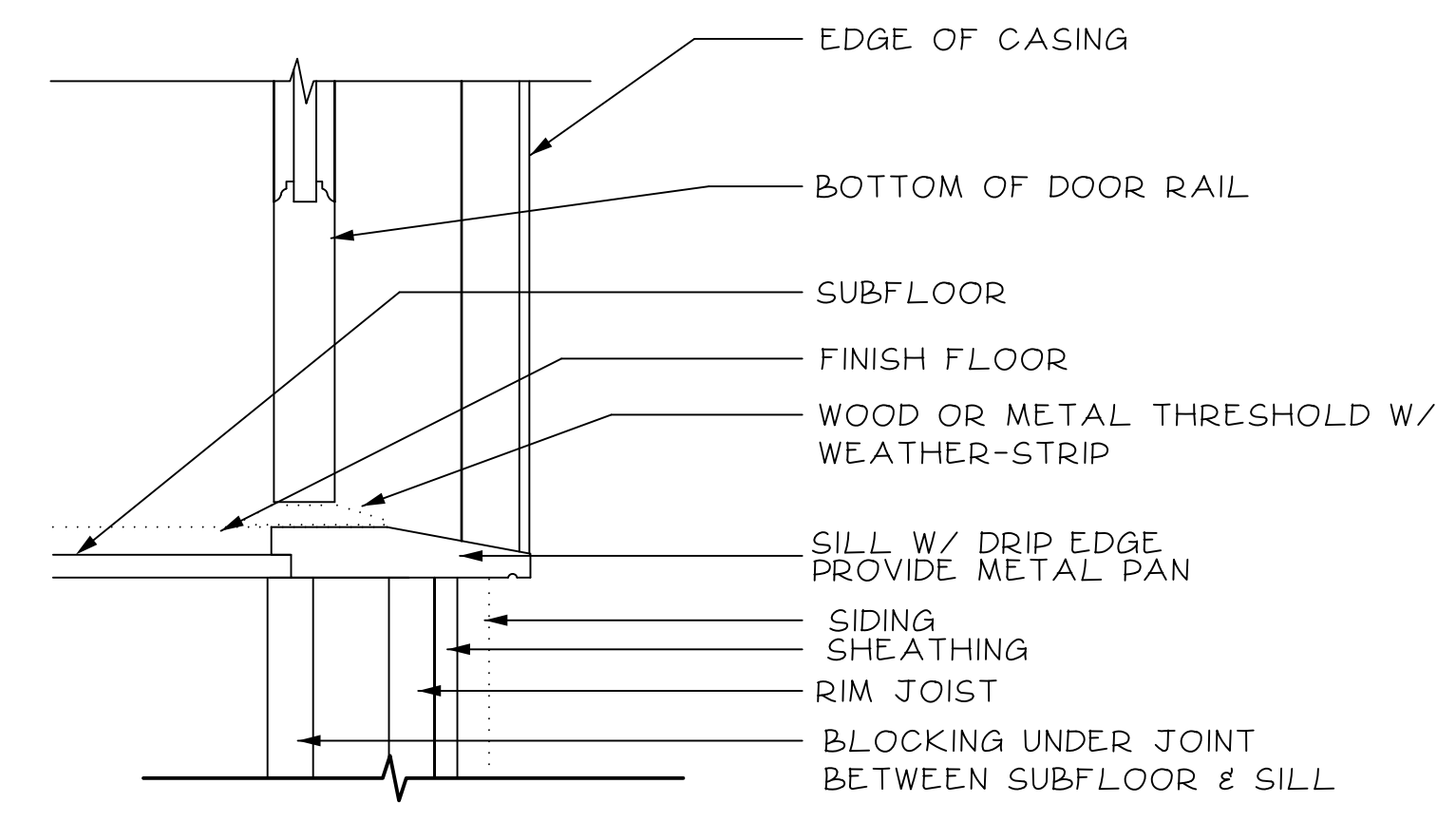


SIDEWALL FLASHING

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 15. PARALAM BEAMS (P-LAM) TO BE SIZED BY MNFR.
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VALLEY FLASHING



NOTE:
FINISH ALL EDGES OF EXTERIOR DOORS TO PREVENT SWELLING

SILL

NOTES

GENERAL

- ENGINEER'S DESIGN APPLIES TO DRAWINGS AS STAMPED. DESIGN ARE FOR STRUCTURAL SYSTEM ONLY. ANY ALTERATIONS SHALL BE THE RESPONSIBILITY OF THE PARTIES INVOLVED AND MAY VOID ENGINEERED DESIGN.
- ERECTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO INSTALLATION. DISCREPANCIES SHALL BE RESOLVED AS NEEDED WITH ENGINEER BEFORE PROCEEDING.
- ERECTOR SHALL FOLLOW STANDARD CONSTRUCTION PRACTICES DICTATED BY 2015 ISSUE OF THE "RESIDENTIAL BUILDING CODE" (IRC) EXCEPT AS NOTED.
- ALL EXPOSED WOOD SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) GUIDELINES. WOOD SHALL BE TREATED FOR ABOVE OR BELOW GRADE USE, WHICHEVER APPLIES.
- ALL HARDWARE SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 OR 153
- CONNECTORS AND ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. ANCHOR BOLTS SHALL BE MINIMUM ASTM A36; THREADED FASTENERS SHALL BE MIN. ASTM A307
- DESIGN VALUES ARE AS FOLLOWS:
--WIND: 130 MPH, W/ 3 SEC. GUST, EXPOSURE B (2015 IRC) ASCE-7
NOTE: WIND LOAD DESIGNS ARE BASED ON INTACT ENCLOSED STRUCTURE EXCEPT FOR COMPONENTS NORMALLY OPEN (DECKS, PORCHES, ETC.)
- ALL EXTERIOR SYSTEMS (ROOFING, STRUCTURE, ETC.) SHALL BE RATED FOR 130 MPH IN ACCORDANCE WITH 2015 ISSUE OF IRC. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
- REFER TO GYPSUM ASSOCIATION GA-216-96 TABLE 1 FOR MAXIMUM FRAMING SPACING OF SINGLE LAYER GYPSUM BOARD WITH VARIOUS TEXTURES.
- DESIGN BASED ON PLANS BY (See Note at bottom of each page)
- ABBREVIATIONS USED THROUGH DETAILS
C-C = CENTER-TO-CENTER
MAX = MAXIMUM
MIN = MINIMUM
TYP = TYPICAL
UNO = UNLESS NOTED OTHERWISE
ALT = ALTERNATE
- IN CASE OF CONFLICT BETWEEN DRAWING OR SPECIFICATIONS, THE MORE RIGID REQUIREMENTS SHALL BE ASSUMED TO GOVERN UNTIL A RULING IS MADE BY THE ENGINEER.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND SHALL NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING SITE CONDITIONS THAT ARE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND ERECTION OF TEMPORARY BRACING AND SHORING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
- THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ANY ARCHITECTURAL AND DRAWING/DOCUMENTS RELATING TO OTHER TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN CHECK AND COORDINATION OF DIMENSIONS, CLEARANCES, ETC. WITH THE WORK OF THE OTHER TRADES. IN CASE OF CONFLICT, CONTACT ENGINEER.
- WORK NOT INDICATED AS PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT AT CORRESPONDING PLACES SHALL BE REPEATED.
- ALL SECTIONS AND DETAILS ARE TYPICAL AT SIMILAR LOCATIONS AND WHERE APPLICABLE.
- THE DESIGN PROFESSIONALS SHALL HAVE NO CONTROL OVER NOR RESPONSIBILITY FOR THE CONTRACTOR'S MEANS, METHODS, SEQUENCE, TECHNIQUES, OR PROCEDURES IN PERFORMING THE WORK, SITE SAFETY, OR SAFETY PROGRAMS IN CONNECTION WITH THE WORK. THESE ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR, WHO IS ALSO RESPONSIBLE FOR COMPLYING WITH ALL HEALTH AND SAFETY PRECAUTIONS AS REQUIRED BY ANY REGULATORY AGENCIES.
- THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR WALL AND DOOR OPENINGS. REFER TO ELECTRICAL AND PLANS FOR SIZE AND LOCATION OF ALL OPENINGS FOR DUCTS, PIPING, CONDUCTS, ETC. NOT SHOWN.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF DEPRESSED FLOOR AREAS, FLOOR DRAINS, CMU COURSING AND ANY OTHER DETAILS NOT SHOWN ON THESE DRAWINGS.
- CONTRACTOR TO COORDINATE LOCATION OF ALL LOAD BEARING WALLS WITH FOUNDATION PLAN PROVIDED BY ENGINEER. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN FOUNDATION PLAN AND LOCATION OF INTERIOR AND EXTERIOR LOAD BEARING WALLS.
- CONTRACTOR TO NOTIFY ENGINEER OF ADDITIONAL FRAMING TO BE PROVIDED.

STRUCTURAL FRAMING NOTES:

- FLOOR, CEILING, ROOF, AND WALL FRAMING SHALL BE SYP. OR SPF., GRADE 2 OR BETTER. SIZE AND SPACING AS SHOWN ON ARCHITECTURAL DRAWINGS UNLESS NOTED OTHERWISE. EXTERIOR WALLS SHALL BE A MINIMUM OF 2X4@16" (TO 10'-4 1/2" CEILING HEIGHT), 2X4@12"/2X6@16" (TO 12'-4 1/2" CEILING HEIGHT), 2X4@8"/2X6@16" (TO 14'-4 1/2" CEILING HEIGHT), AND 2X4 SYP, SS@8"/2X6@8"/2X6,SS@12" (TO 18'-4 1/2" CEILING HEIGHT). UNLESS OTHERWISE NOTED.
- CONNECTIONS SHALL BE PER IRC STANDARD FASTENING SCHEDULE UNLESS NOTED OTHERWISE.
- FLOOR OPENINGS, WALL PENETRATIONS, AND OTHER FRAMING TO BE IN ACCORDANCE WITH IRC STANDARD PRACTICES IF NOT NOTED OTHERWISE.
- TRUSSES (WHERE SUPPLIED) SHALL BE DESIGNED BY MANUFACTURER. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH ANSITPI 1 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION." MANUFACTURER TO SUBMIT DESIGN SPECIFICATION INDICATING DESIGN WIND SPEED(MIN. 130 MPH PER IRC), HEIGHT ABOVE GROUND, AND AMOUNT OF UPLIFT AT BEARING POINTS. TRUSSES SHALL BE SPACED NO FARTHER THE 16" ON CENTER AND SHALL BE DESIGNED FOR AN ENCLOSED BUILDING PER 2015 IRC. ADJUST CONNECTOR TYPE AND CAPACITY PER MANUFACTURER'S DESIGN IF MORE RESTRICTIVE THAN TRUSS CONNECTOR DETAIL SHOWN.
- NAILS SPECIFIED SHALL BE COMMON WIRE NAILS OR EQUIVALENT PNEUMATIC(GUN) NAILS UNLESS NOTED OTHERWISE. FOR EXAMPLE, 10d PNEUMATIC NAILS WITH 0.131" SHANK DIAMETER AND 2 1/2" OR GREATER LENGTH SHALL BE EQUIVALENT TO 8d COMMON WIRE NAILS WITH 0.131" SHANK AND 2 1/2" LENGTH.
- STRUCTURAL TIMBERS SHALL BE #2 KILN DRIED SOUTHERN YELLOW PINE.
- ALL POSTS, GIRDERS AND OTHER LUMBER SHALL BE CONTINUOUS WITHOUT SPLICES EXCEPT AS NOTED ON THE DRAWINGS
- ALL CONNECTORS SHALL BE "STRONG-TIE" AS MANUFACTURED BY THE SIMPSON COMPANY.
- ALL NAILS FOR FIELD CARPENTRY SHALL BE 16d GALVANIZED NAILS AT 6" O.C. UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, ALL GIRDERS, JOISTS, RAFTERS, ETC. SHALL BE SUPPORTED BY JOIST HANGERS OR SUPPORTED ON TOP OF WOOD MEMBERS AND ANCHORED WITH HURRICANE TIES OR STRAPS.
- ALL JOIST HANGERS, BOLTS, ANCHOR BOLTS, HURRICANE TIES, NAILS, AND OTHER METAL CONNECTORS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
- DESIGN, FABRICATION AND ERECTION OF STRUCTURAL WOOD SHALL FOLLOW THE AITC TIMBER CONSTRUCTION MANUAL, LATEST EDITION, AND AITC 115.
- STRUCTURAL TIMBERS SHALL BE 32 KILN-DRIED SOUTHERN YELLOW PINE WITH MINIMUM PROPERTY VALUES: Fb=1300psi, Fv=95psi, Ft=675psi Fc=1200psi, E=1,600,00psi.
- ALL PARALLAM MEMBERS SHALL HAVE THE MINIMUM PROPERTY VALUES: Fb=2900psi, Fv=250psi, Ft=2600psi, Fc=2400psi, E=2,000,00psi.
- ALL WOOD MEMBERS EXPOSED TO THE WEATHER OR EARTH OR CONNECTED TO CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED. AWPB STANDARDS LP-22 OR BETTER.
- ALL PLYWOOD WALL AND ROOF SHEATHING SHALL BE APA RATED SHEATHING, EXPOSURE 1. ALL PLYWOOD SUBFLOORING SHALL BE TONGUE & GROOVE APA RATED STURDI-FLOOR, 16" O.C., EXPOSURE 1.
- ALL PLYWOOD PERMANENTLY EXPOSED TO THE WEATHER SHALL BE APA RATED SHEATHING, EXTERIOR USE.
- ALL WOOD MEMBERS EXPOSED TO THE WEATHER OR EARTH OR CONNECTED TO CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED, AWPB STANDARD PS 1-83.
- ALL JOIST HANGERS, BOLTS, ANCHOR BOLTS, HURRICANE TOES, NAILS AND OTHER METAL CONNECTORS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
- ALL BOLTED CONNECTIONS BELOW GRADE SHALL BE PAINTED WITH TWO COATS OF BITUMINOUS PAINT UNLESS OTHERWISE EMBEDDED IN CONCRETE.
- PROVIDE CONTINUOUS BLOCKING OR BRIDGING BETWEEN ALL JOISTS AND RAFTERS, AT THEIR SUPPORTS, AT MIDSPAN, AND AT 8'-0" O.C.
- PROVIDE DOUBLE STUDS IN THE STUD WALLS UNDERNEATH EACH END OF ALL BEAMS AND LINTELS SPANNING 6 FEET OR LESS. FOR SPANS IN EXCESS OF 6 FEET, PROVIDE TRIPLE STUDS AT EACH END.

FLOOR NOTES:

- TYPICAL INTERIOR STRUCTURAL FLOOR FRAMING SHALL BE 3/4" TONGUE AND GROOVE PLYWOOD SUBFLOOR, GLUED AND NAILED ON TOP OF FLOOR JOISTS AND STRUCTURAL MEMBERS AS SHOWN ON THE DRAWINGS.
- ALL PLYWOOD PANELS SHALL BE STAGGERED AND SHALL BE NAILED AT 6" ON CENTER AT PERIMETERS AND AT 12" ON CENTER ELSEWHERE. PROVIDE SOLID BLOCKING AT ALL UNSUPPORTED EDGES WHERE NOT TONGUE AND GROOVE.
- UNLESS OTHERWISE NOTED, AT ALL EXTERIOR DECKS AND BALCONIES, DROP THE FINISHED FLOOR ELEVATION AND SLOPE TO THE EXTERIOR AS SHOWN ON THE ARCHITECTURAL DRAWINGS.

WALL NOTES:

- TYPICAL WALL SHEATHING SHALL BE 1/2" PLYWOOD SHEATHING ON TOP OF WALL STUDS AND STRUCTURAL MEMBERS AS SHOWN ON THE DRAWINGS.
- SPACING OF WALL STUDS SHALL BE 16" ON CENTER, UNLESS NOTED OTHERWISE.
- ALL PLYWOOD SHEATHING PANELS SHALL BE STAGGERED OVER SUPPORTING MEMBERS. PANELS SHALL BE NAILED DIRECTLY TO THE SUPPORTING MEMBERS WITH 8d GALVANIZED NAILS AT 4" ON CENTER AT THE PERIMETER AND AT 8" ON CENTER AT INTERMEDIATE SUPPORTS.
- UNLESS NOTED OTHERWISE, PROVIDE CONTINUOUS BLOCKING AT MID HEIGHT OF WALL UNLESS THE WALL IS INDICATED AS A SHEAR WALL. SHEAR WALLS REQUIRE BLOCKING AT ALL UNSUPPORTED EDGES OF THE PLYWOOD PANELS. SEE SHEAR WALL NOTES ELSEWHERE.

ROOF NOTES:

- TYPICAL ROOF FRAMING SHALL BE 5/8" PLYWOOD SHEATHING ON TOP OF RAFTERS AND STRUCTURAL MEMBERS AS SHOWN ON THE DRAWINGS.
- SPACING OF ROOF TRUSSES, RAFTERS, AND CEILING JOISTS SHALL BE 16" ON CENTER, UNLESS NOTED OTHERWISE.
- ALL PLYWOOD SHEATHING PANELS SHALL BE STAGGERED OVER SUPPORTING MEMBERS. PANELS SHALL BE NAILED DIRECTLY TO THE SUPPORTING MEMBERS WITH 8d GALVANIZED NAILS AT 4" ON CENTER AT THE PERIMETER AND AT 8" ON CENTER AT INTERMEDIATE SUPPORTS.
- BRACE ROOF FRAMING ONLY ON LOAD BEARING WALLS. CONSULT ENGINEER IN THE FIELD FOR LOCATIONS IF UNSURE OF ROOF BRACING LOCATIONS.

DESIGN CRITERIA:

DEAD LOADS	ACTUAL SELF WEIGHT
ROOF LIVE LOADS	10 PSF
ATTIC LIVE LOADS	20 PSF
FLOOR LIVE LOADS	40 PSF
DESIGN WIND SPEEDS	
144 MPH (ULTIMATE)	
112 MPH (ASD - ULTIMATE)	
ASCE 7 RISK CATEGORY II	
EXPOSURE B	
ENCLOSED STRUCTURE	
SEISMIC CATEGORY = D2	
Ss - 0.2 SEC PERIOD = 1.47	
S1 - 1.0 SEC PERIOD = 0.417	
CONCRETE STRENGTH	3,000 PSI MIN.
CODE = 2015 IRC & ASCE 7-10	
ASSUMED SOIL BEARING = 2,000 PSF	
ALL DOORS AND WINDOWS TO BE RATED DP50 OR GREATER	

Structural Drawing Index	
S-1:	Structural Notes and Specifications
S-2:	Structural Foundation Plan, Notes, Specs
S-3:	Structural Foundation Framing Plan
S-4:	Structural 2nd Floor Framing Plan
S-5:	Structural 2nd Ceiling Framing Plan
S-6:	Structural Roof Framing Plan
S-7:	Structural Wall Sections/Pier Details
S-8:	Structural Details
S-9:	Breakaway Wall Details
S-10:	V-ZONE Precon Certs

V-ZONE DESIGN

CORROSION INFORMATION ALL CONNECTORS AND NAILS THAT ARE EXPOSED TO THE WEATHER OR IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED (G185 HDG PER ASTM A653).	SIMPSON PRODUCTS: ZMAX (G185) POST HOT-DIP GALVANIZED (HDG) STAINLESS STEEL (S51300) USP PRODUCTS: TRIPLE ZINC (TZ) HOT-DIP GALVANIZED (HDG) STAINLESS STEEL (SS)
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STRUCTURAL CONCRETE NOTES:

- CONCRETE WORK SHALL MEET THE REQUIREMENTS OF ACI 318. LATEST REV., "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
- REBAR SHALL MEET THE REQUIREMENTS OF ASTM A615, GRADE 60 OR 40. WELDED WIRE REINFORCEMENT SHALL MEET THE REQUIREMENTS OF ASTM A82/A185. MINIMUM COVER ON REBAR IS 3" UNLESS NOTED OTHERWISE.
- PROVIDE WARRANTED TERMITE TREATMENT PER IRC PRIOR TO CONCRETE PLACEMENT.
- CONTRACTOR TO ADHERE TO THE REQUIREMENTS OF ACI-318 FOR DETAILING, FABRICATION AND PLACEMENT OF CONCRETE REINFORCEMENT
- CONCRETE SHALL ACHIEVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- REINFORCING STEEL SHALL BE DEFORMED BARS ASTM A-615 GRADE 60.
- WELDED WIRE MESH SHALL CONFORM TO ASTM-185
- SAW CUT CONTROL JOINTS WITHIN 8 HRS. OF SLAB PLACEMENT.
- CONCRETE SHALL CONFORM TO ACI-318.
- MATERIAL FOR GROUTING REINFORCING BARS SHALL BE FLUID, NON-SHRINK AND HIGH STRENGTH IN CONFORMANCE WITH CRD-C621.
- WHERE CALLED FOR ON THE DRAWINGS, SLABS-ON-GRADE ARE TO BE REINFORCED WITH WELDED WIRE FABRIC WHICH SHALL BE PLACED IN FLAT SHEETS (NOT ROLLS), AND SHALL BE LAPPED TWO FULL MESHES, WHERE REQUIRED. THE CONTRACTOR HAS THE OPTION OF PROVIDING FIBERMESH CONCRETE INSTEAD OF INSTALLING THE WWF.
- ALL SLABS ON GRADE ARE TO BEAR ON COMPACTED STRUCTURAL BACKFILL, AND ARE TO BE UNDERLAIN WITH A 4" LAYER OF CLEANED, WASHED, COMPACTED, GRANULAR STRUCTURAL SUBFILL (I.E. STRUCTURAL GRADE SAND). ALL FOUNDATION FOOTINGS ARE TO BEAR ON IMPROVED SUBGRADE, OR COMPACTED STRUCTURAL BACKFILL. BACKFILL SHOULD BE PLACED IN UNIFORM LIFTS OF (10) IN. OR LESS, AND BE COMPACTED TO MEET A 95% MODIFIED PROCTOR VALUE, AS PER ASTM D-1557. BACKFILL MUST BE TESTED AFTER COMPACTION BY A GEOTECHNICAL ENGINEERING TECHNICIAN TO VERIFY THAT THE COMPACTION IS ACHIEVED.
- THE FOUNDATION DESIGN OF THIS STRUCTURE IS BASED UPON AN ASSUMED ALLOWABLE MINIMUM SOIL BEARING PRESSURE OF (2000)PSF. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THIS MINIMUM BEARING VALUE VERIFIED PRIOR TO CONSTRUCTION BY A LICENSED GEOTECHNICAL ENGINEER.

STRUCTURAL MASONRY NOTES:

- MASONRY UNITS SHALL BE TWO CELL UNITS CONFORMING TO ASTM C-90.
- CELLS SHALL BE FILLED WITH 3000 PSI PEA GRAVEL CONCRETE OR MASONRY GROUT CONFORMING TO ASTM C-476.
- REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
- MASONRY MORTAR SHALL CONFORM TO ASTM C270, AND SHALL BE SUPPLIED IN PRE-PACKAGED, PRE-MIXED BATCHES. MORTAR IS TO BE MIXED IN A MECHANICAL MIXER. MORTAR SHALL BE TYPE "S" WHEN IT WILL BE IN CONTACT WITH EARTH (BELOW GRADE), & TYPE "M" FOR ALL OTHER APPLICATIONS
- UNLESS OTHERWISE SPECIFIED, CMU CELLS CONTAINING VERTICAL REINFORCING DOWELL(S) SHALL BE FILLED SOLID WITH GROUT. VOIDS AT DOOR JAMBS, & ANY OTHER SPACES INDICATED, SHALL BE FILLED SOLID WITH GROUT. CELLS UNDER LINTEL BEAM BEARING POINTS AT SIDES OF MASONRY OPENINGS SHALL BE FILLED SOLID WITH GROUT FOR FULL HEIGHT OF OPENINGS. LINTEL & BOND BEAMS SHALL BE FILLED SOLID WITH GROUT.
- VERTICAL BARS SHALL BE ACCURATELY PLACED WITHIN THE CMU CELLS, WITH A MINIMUM CLEARANCE OF (1/2) IN. MAINTAINED BETWEEN THE BARS & THE CMU SURFACES. THE MINIMUM CLEARANCE BETWEEN PARALELL BARS SHALL BE (1) BAR DIAMETER. VERTICAL BARS MAY BE HELD IN PLACE USING BAR POSITIONERS LOCATED NEAR THE ENDS OF EACH BAR, & AT INTERMEDIATE INTERVALS OF NOT MORE THAN (192) BAR DIAMETERS.

HEADERS OVER OPENINGS

TYPICAL MAX. TIMBER HEADER SPANS FOR (2)--STORY STRUCTURE

QTY	HEADER MEMBER	MAX CLEAR SPAN OVER OPENING	# Jacks/King Studs
2	2X6	UP TO 4'-0"	1/1
2	2X8	3'7" TO 4'-6"	1/1
2	2X10	4'-6" TO 5'-6"	1/1
2	2X12	5'-6" TO 6'-5"	2/2
2	1 3/4" x 11 7/8" LVL	6'-5" TO 10'-0"	2/2

NOTE: IF REQUIRED FOR 2X6 FRAMED WALLS, OR OTHER WALLS WITH AN AIR SPACE WIDER THAN 3 1/2" NOM., BUILD THE HEADERS OUT WITH 1x's, 2x's, PLYWOOD, ETC., FOR THE FULL LENGTH OF THE HEADER, IN ORDER TO CLOSELY MATCH THE WIDTH OF THE WALL AIR-SPACE. FASTEN THESE COMPOSITE-TYPE HEADERS TOGETHER WITH (2) 16d NAILS SP. @ 12" O.C., STAGGERED.

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REVISIONS

DATE

NO.

SEAL



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PROJECT
2002 ION AVE
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S1

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LEGEND:

- ☒ DENOTES LOAD-BEARING 12" SQUARE CMU PIERS.
- ☒ DENOTES LOAD-BEARING 16" SQUARE CMU PIERS.
- ▨ DENOTES 8" CONTINUOUS CMU WALL W/#5 REINF STEEL @32" O.C. AND WITHIN 1'-0" OF THE CORNERS. TOP COURSE TO BE BOND BEAM
- HD DENOTES LOCATION OF CORNER HOLD-DOWN BRACKETS BETWEEN WALLS & PIERS. SEE DETAIL "K" Use SIMPSON HDU5-SDS2.5
- DENOTES OUTSIDE EDGE OF FOOTING
- DENOTES CONTINUOUS FOOTING 2'-0" WIDE 1'-0" DEEP

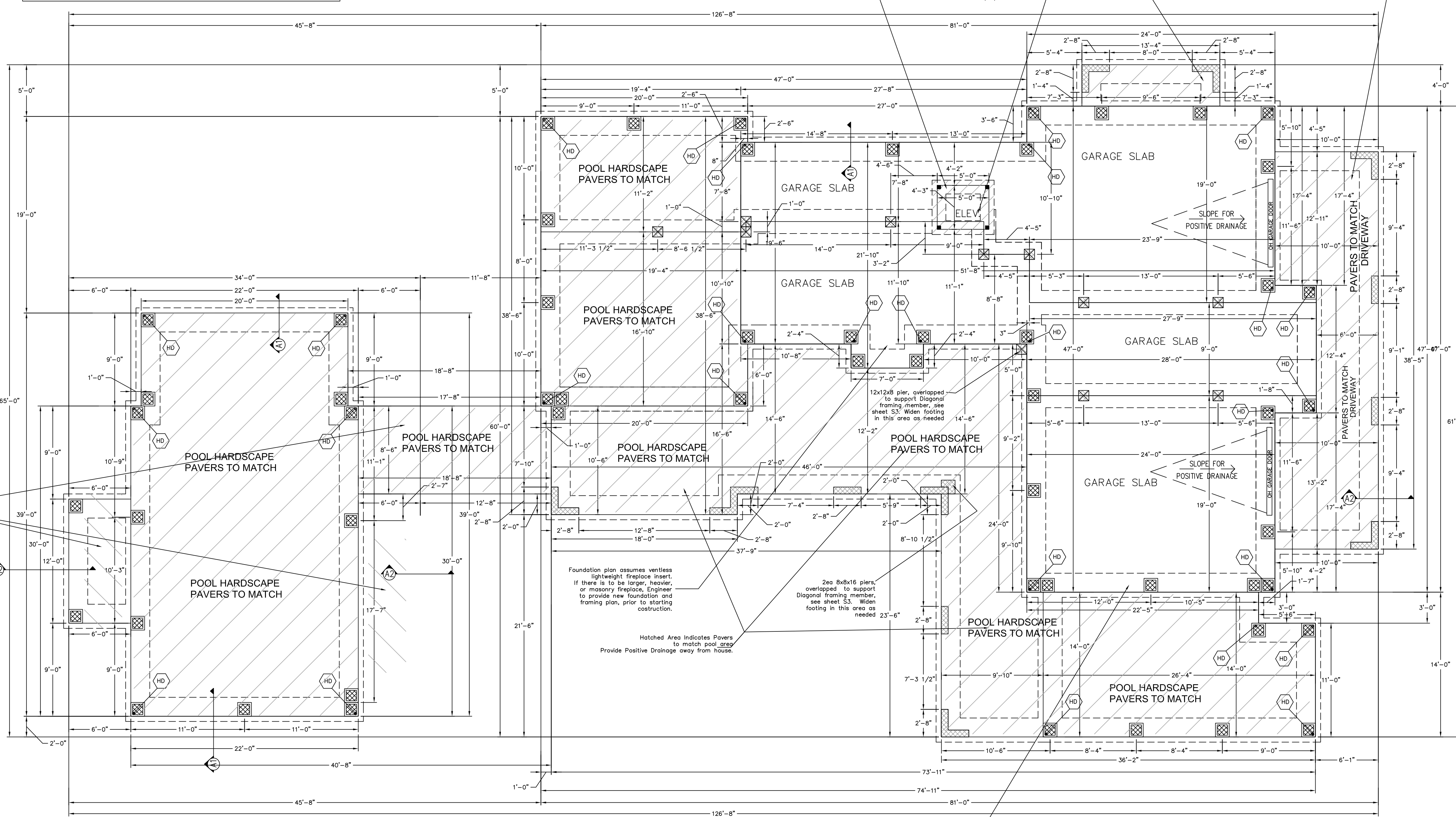
NOTES:

1. PROVIDE SIMPSON PA51 FOUNDATION STRAPS AT EVERY PIER, INTERIOR AND EXTERIOR. FASTEN STRAPS TO GIRDER/BEAMS IAW SIMPSON MANUF. SPECS. FOR CONTINUOUS 8" CMU WALL, PROVIDE PA51 STRAPS WITHIN 1' OF THE CORNERS AND AT 4' O.C. AROUND THE FOUNDATION.
2. STRAP FRONT AND REAR PORCH COLUMNS CONTINUOUSLY FROM PORCH BAND TO TOP BAND OF PORCH ROOF WITH CS16 Straps.
3. INSTALL ALL SIMPSON STRAPS IAW MANUF. RECOMMENDATIONS.
4. PROVIDE HYDROSTATIC VENTING AS REQUIRED BY CODE FOR THIS FLOOD ZONE.
5. DOOR, VENT, AND WINDOW OPENINGS TO BE SPANNED WITH PRE-CAST CONCRETE OR POWERSTEEL LINTELS, UNLESS THERE IS A MULTI PLY LVL OR PORCH BEAM ABOVE THE OPENING, SEE SHEET S3

DETAIL ON THIS PAGE POURING SLAB. SEE ELEVATOR BEFORE DIMENSIONS OF BUILDER TO VERIFY IN THIS AREA. ELEVATOR TO BE LOCATED

Elevator Shaft framing above to be supported by 4x4 PT 4x4 POSTS on the corners of the shaft per detail on this page. Builder to verify that PT4x4 POST frames load bearing walls for this elevator shaft with this municipality prior to construction. If these walls need to be supported by CMU Block, work with Elevator supplier and Architect to develop a new plan that allows for 12" block columns, and allows for the clearance needed for the elevator. Adjust dimensions of pit as needed to allow for the proper shaft size.

Hatched Area Indicates Pavers to match driveway Provide Positive Drainage away from house.

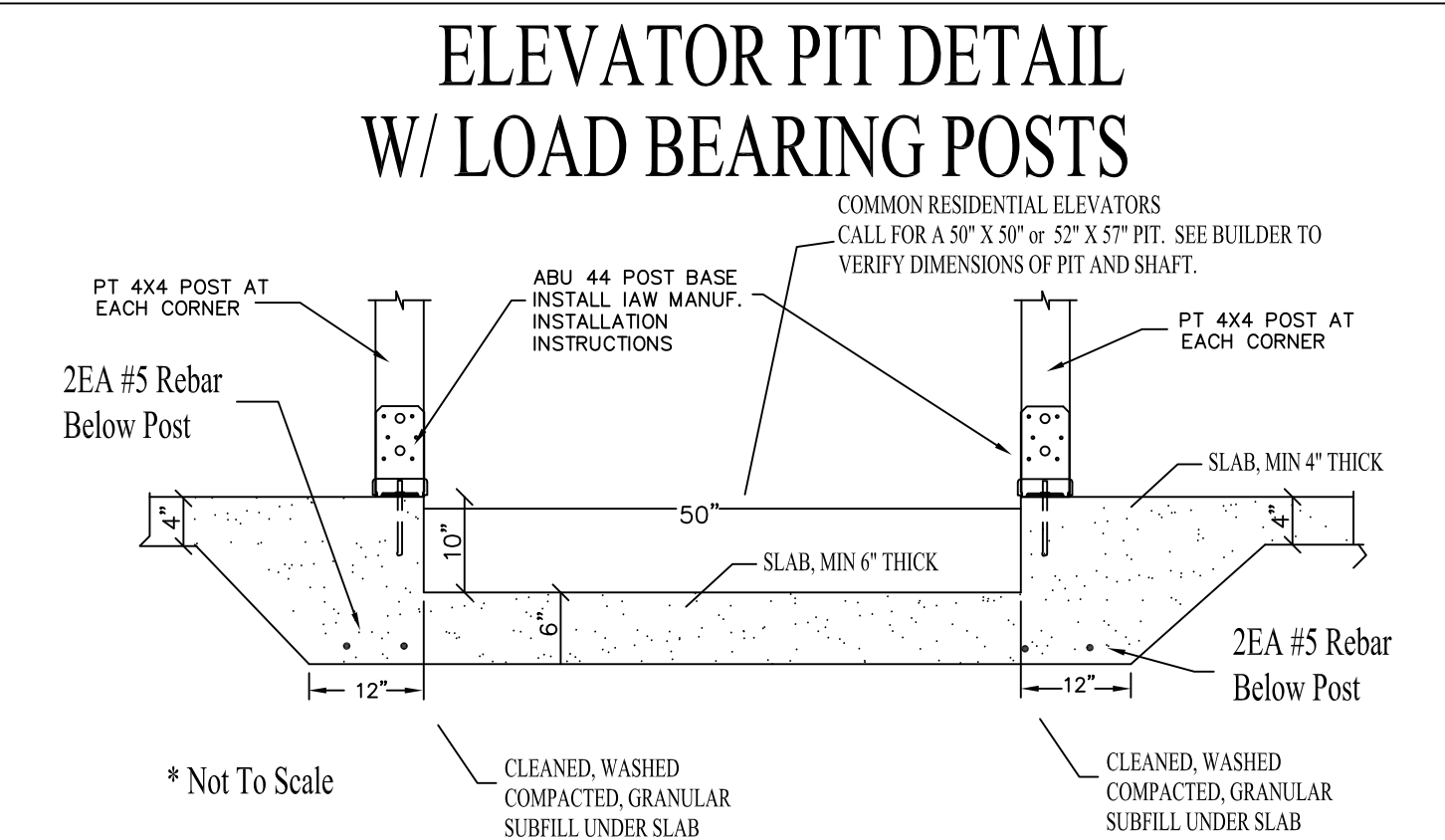
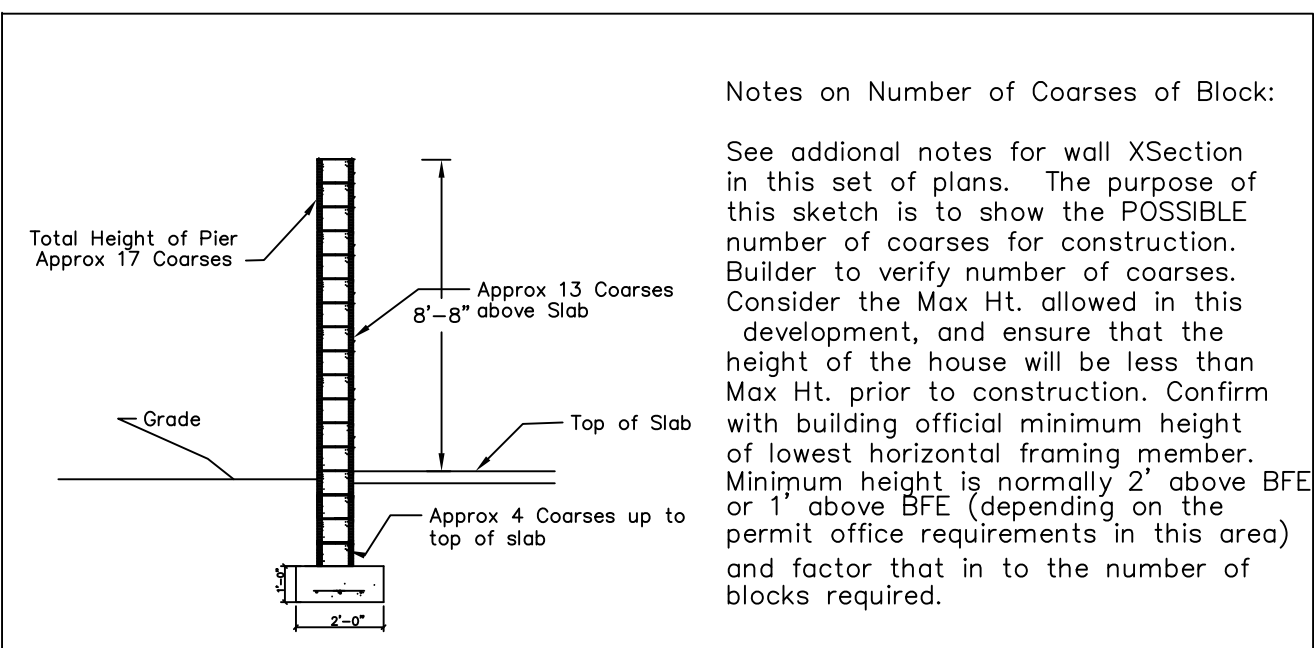


Hatched Area Indicates Pavers to match pool area Provide Positive Drainage away from house.

Foundation plan assumes ventless lightweight fireplace insert. If there is to be larger, heavier, or masonry fireplace, Engineer to provide new foundation and framing plan, prior to starting construction.

Hatched Area Indicates Pavers to match pool area Provide Positive Drainage away from house.

Foundation plan assumes ventless lightweight fireplace insert. If there is to be larger, heavier, or masonry fireplace, Engineer to provide new foundation and framing plan, prior to starting construction.



FOUNDATION PLAN SCALE 3/16" = 1'

V-ZONE DESIGN

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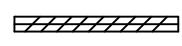
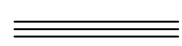
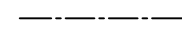


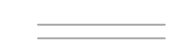
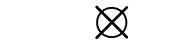
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- LEGEND:**
-  DENOTES 20" MULTI-PLY GFLM LVL BEAM
SEE PLAN FOR NUMBER OF PLY
BOLT TOGETHER AS PER LVL FASTENING CHART
 -  DENOTES DBL 20" OPEN WEB TRUSSES
 -  DENOTES 20" OPEN WEB TRUSSES
@ 16" O.C.
 -  DENOTES LOAD BEARING PERPENDICULAR
CROSSING WALL FROM ABOVE, TRUSS SUPPLIER
TO ACCOUNT FOR THIS LINE LOAD IN DESIGN
 -  DENOTES 20" RIM BOARD
 -  DENOTES OUTSIDE EDGE OF
WALLS BELOW
 -  DENOTES LOCATION OF POINT LOAD
FROM ABOVE.

FOR MULT PLY JOIST HANGER CONNECTIONS, USE THE FOLLOWING UNLESS NOTED OTHERWISE

FOR TRUSSES & TOLs - TRUSS SUPPLIER TO CHOOSE, THEN SUBMIT TO EOR FOR APPROVAL

FOR 14" & 16" LVL MEMBERS -
2 PLY - SIMPSON HGUS-414
3 PLY - SIMPSON HGUS 5.50/14
4 PLY - SIMPSON HGUS 7.25/14

FOR 11-7/8" LVL MEMBERS -
2 PLY - SIMPSON HGUS 412
3 PLY - SIMPSON HGUS 5.50/12

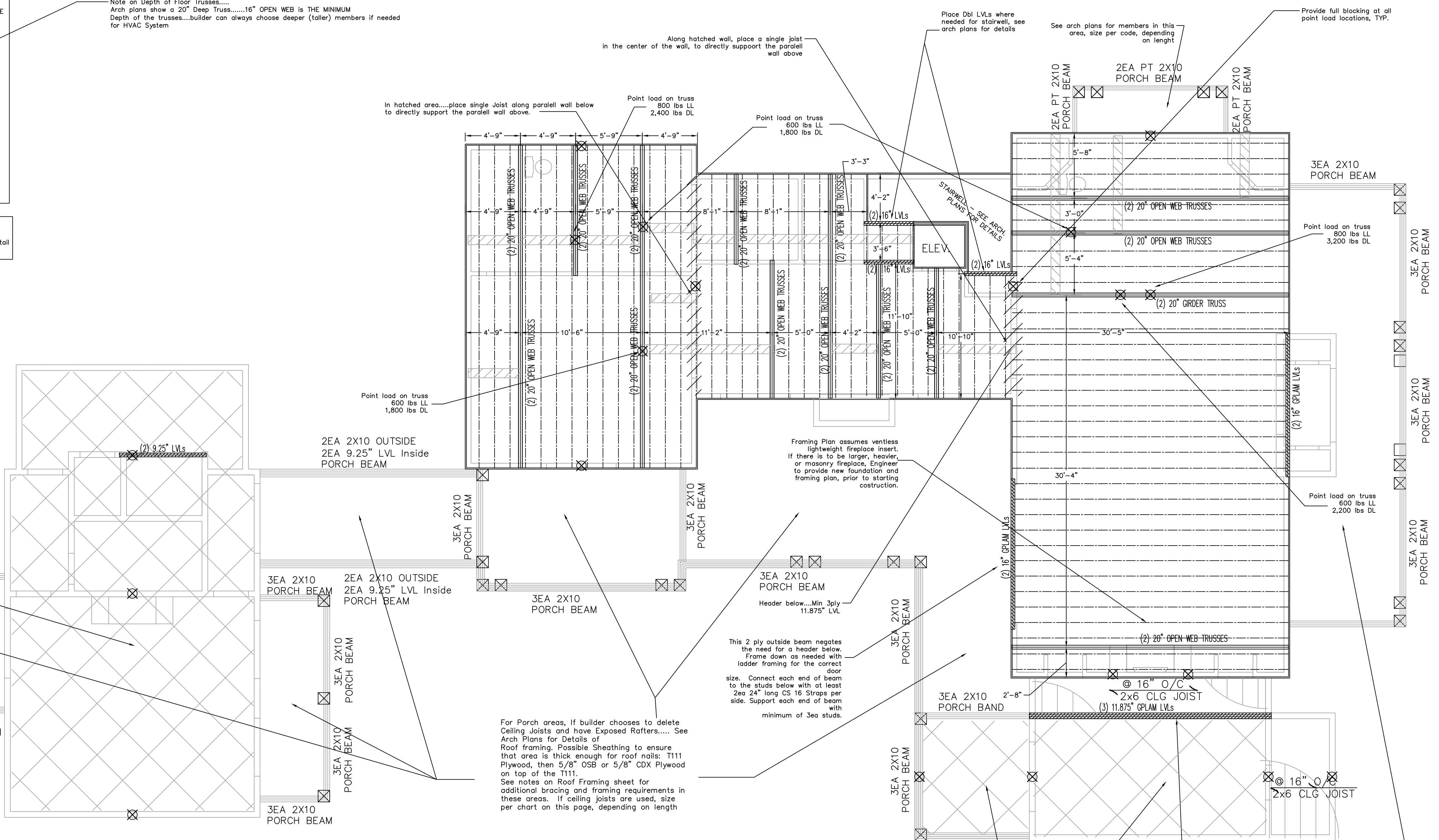
FOR 9.25" LVL MEMBERS -
2 PLY - SIMPSON HGUS 410
3 PLY - SIMPSON HGUS 5.50/10

FOR 2X12 DECK MEMBERS -
2 PLY - SIMPSON HUS 212-2
3 PLY - SIMPSON HUS 212-3
4 PLY - SIMPSON HUS 212-4

FOR 2X10 DECK MEMBERS -
2 PLY - SIMPSON HUS 210-2
3 PLY - SIMPSON HUS 310-2

Bolt 3 Ply members together per detail "C" on LVL Fastening Chart
Bolt 4/5 Ply members together per detail "D" on LVL Fastening Chart

Note on Depth of Floor Trusses.....
Arch plans show a 20" Deep Truss.....16" OPEN WEB IS THE MINIMUM
Depth of the trusses...builder can always choose deeper (taller) members if needed
for HVAC System



For Ceiling in hatched areas - See arch plans for guidance on Ceiling joists. The following are various Structural Options for these areas.

- In Gable areas, Provide collar ties at every rafter pair in the upper one third of the attic space size per chart on this page, depending on length.
- If no collar ties are used (gable areas), then builder must connect every rafter to the LVL ridge with a LRU rafter hanger. Then install a 30" Long strap over the ridge to tie the rafters on either side of the ridge together. Builder to get written permission from the EOR before the decision to delete collar ties can be made in any of the areas.
- If Ceiling joists are used, size per chart on this page.
- If a "False Vault" is installed...Hang the "false" ridge from the Rafters or ridge above with CS16 Straps, spaced at 32" OC. Size Hips and Rafters/Ceiling joists of false vault per Ceiling Joist chart on this page, depending on length.

See notes on Roof Framing sheet for additional bracing and framing requirements in these areas.

For Porch areas, If builder chooses to delete Ceiling Joists and have Exposed Rafters..... See Arch Plans for Details of Roof framing. Possible Sheathing to ensure that area is thick enough for roof nails: T111 Plywood, then 5/8" OSB or 5/8" CDX Plywood on top of the T111.

See notes on Roof Framing sheet for additional bracing and framing requirements in these areas. If ceiling joists are used, size per chart on this page, depending on length

For Ceiling in hatched areas - See arch plans for guidance on Ceiling joists. The following are various Structural Options for these areas.

- In Gable areas, Provide collar ties at every rafter pair in the upper one third of the attic space size per chart on this page, depending on length.
- If no collar ties are used (gable areas), then builder must connect every rafter to the LVL ridge with a LRU rafter hanger. Then install a 30" Long strap over the ridge to tie the rafters on either side of the ridge together. Builder to get written permission from the EOR before the decision to delete collar ties can be made in any of the areas.
- If Ceiling joists are used, size per chart on this page.
- If a "False Vault" is installed...Hang the "false" ridge from the Rafters or ridge above with CS16 Straps, spaced at 32" OC. Size Hips and Rafters/Ceiling joists of false vault per Ceiling Joist chart on this page, depending on length.

See notes on Roof Framing sheet for additional bracing and framing requirements in these areas.

For Porch areas, If builder chooses to delete Ceiling Joists and have Exposed Rafters..... See Arch Plans for Details of Roof framing. Possible Sheathing to ensure that area is thick enough for roof nails: T111 Plywood, then 5/8" OSB or 5/8" CDX Plywood on top of the T111.

See notes on Roof Framing sheet for additional bracing and framing requirements in these areas. If ceiling joists are used, size per chart on this page, depending on length

COLLAR TIE FRAMING MEMBER SCHEDULE (Uninhabited Attics with Limited Storage)	
SPAN	SPECIFICATIONS
UP TO 16'	2x10's Collar ties @ 16" OC, UNO
UP TO 14'	2x8's Collar ties @ 16" OC, UNO
UP TO 10'	2x6's Collar ties @ 16" OC, UNO

CEILING JOIST FRAMING MEMBER SCHEDULE (Uninhabited Attics with Limited Storage)	
SPAN	SPECIFICATIONS
UP TO 21'	2x12's Ceiling Joists @ 16" OC, UNO
UP TO 19'	2x10's Ceiling Joists @ 16" OC, UNO
UP TO 16'	2x8's Ceiling Joists @ 16" OC, UNO
UP TO 12'	2x6's Ceiling Joists @ 16" OC, UNO

- FRAMING PLAN NOTES:**
- ALL DIMENSIONS SHOWN ON FRAMING PLANS ARE FROM THE OUTSIDE OF THE STUD WALL TO THE CENTER OF THE MEMBER.
 - INSTALL FLOOR JOISTS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDED INSTALLATION INSTRUCTIONS. SEE MANUF. LITERATURE FOR FRAMING DETAILS.
 - USE JOIST HANGERS FOR ALL FLOOR JOISTS AND CEILING JOIST CONNECTIONS, NO LEDGERS.
 - NO CHANGES CAN BE MADE TO THIS FRAMING PLAN, WITHOUT WRITTEN PERMISSION FROM THE ENGINEER OF RECORD.
 - REVIEW THE NOTES ON PAGE S1 OF THE DRAWINGS PRIOR TO START OF CONSTRUCTION. CONTACT THE ENGINEER OF RECORD IF YOU HAVE ANY QUESTIONS.
 - REVIEW WALL CROSS SECTION DETAILS PRIOR TO START OF CONSTRUCTION.
 - PROVIDE SIMPSON PA 51 FOUNDATION STRAPS AT EVERY PIER. FOR CONTINUOUS WALLS, PROVIDE STRAPS AT EVERY 4' OC AND WITHIN 1' OF CORNERS. FASTEN STRAPS TO GIRDERS/BEAMS IAW SIMPSON MANUF. SPECIFICATIONS.
 - STRAP FRONT AND REAR PORCH COLUMNS CONTINUOUSLY FROM PORCH FLOOR BAND TO TOP BAND OF PORCH ROOF W/ SIMPSON CS16 COIL STRAP.
 - CONTRACTOR AND TRUSS SUPPLIER TO ENSURE THAT WALLS RUNNING PARALLEL TO JOISTS ABOVE ARE SUPPORTED WITH MINIMUM 2EA FLOOR JOISTS DIRECTY BELOW.
 - FRAMING PLAN DOES NOT SIZE HEADERS OVER DOORS OR DROPPED HEADERS, SEE HEADER SIZING CHART FOR SIZING OF HEADERS UP TO 10'-0".
 - ALL FRAMING SHOWN IS TO BE FLUSH FRAMING.
 - INSTALL ALL SIMPSON STRAPS IAW. MANUF. RECOMMENDATIONS.
 - INSTALL BRICK IN ACCORDANCE WITH BUILDING CODES AND THE BRICK INSTITUTE OF AMERICA RECOMMENDED INSTALLATION PROCEDURES. GO TO THE WEBSITE AT WWW.BIA.ORG TO DOWNLOAD BRICK SPECIFICATIONS AND INSTALLATION PROCEDURES.
 - PROVIDE SOLID BLOCKING UNDER ALL STUD COLUMNS (POINT LOADS).
 - PROVIDE MINIMUM 2PLY STUD COLUMNS (OR 5 PLY STUDS FOR 4 PLY GIRDER, OR 4 PLY STUDS FOR A 3 PLY GIRDER) UNDER ALL GIRDER/BEAMS AT EACH END UNLESS NOTED OTHERWISE.

2ND FLOOR FRAMING PLAN
1ST FLOOR CEILING PLAN
SCALE 3/16" = 1'

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843-514-1790

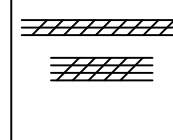
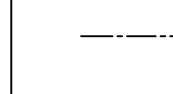





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BRIAN R. WELLS, PE
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Mount Pleasant, SC 29464

PROJECT
2002 ION AVE
Rhodes Residential Builders, LLC
Sullivan's Island, SC

SHEET NO.
S4
DATE
8/4/2016

LEGEND:

-  DENOTES MULTI-PLY BEAM
SEE PLAN FOR SIZE AND NUMBER OF PLY
BOLT TOGETHER AS PER LVL FASTENING CHART
-  DENOTES 2X8 CEILING JOISTS OR COLLAR TIES
@ 16" O.C. (Collar tie areas <14')
-  DENOTES 2X10 CEILING JOISTS OR COLLAR TIES
@ 16" O.C. (Collar tie areas >14')
-  DENOTES OUTSIDE EDGE OF
WALLS BELOW
-  DENOTES LOCATION OF POINT LOAD
FROM ABOVE

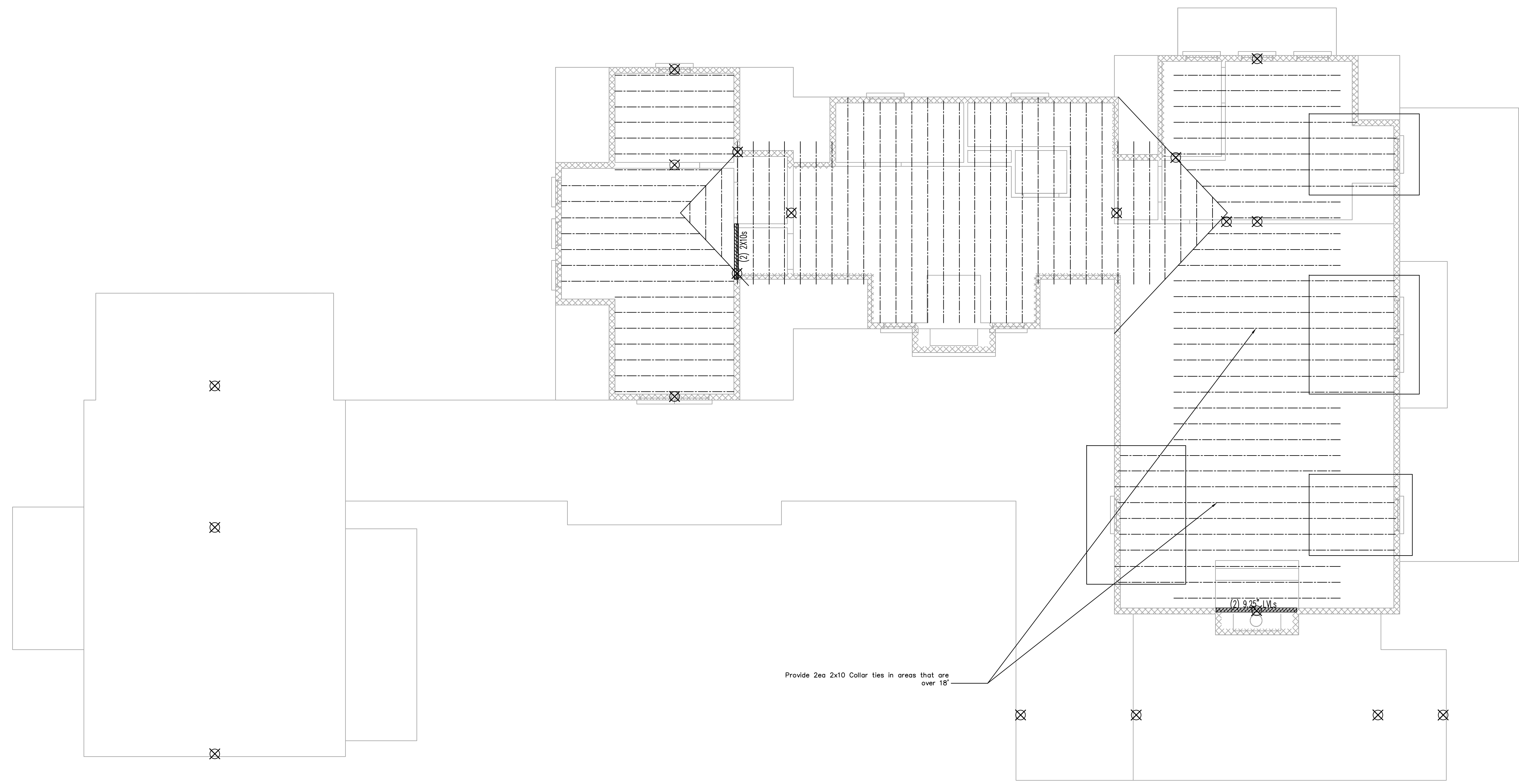
ATTIC ACCESS:
1. SEE BUILDER FOR SIZE AND
LOCATION OF ATTIC ACCESS

COLLAR TIE FRAMING MEMBER SCHEDULE (Uninhabited Attics with Limited Storage)	
SPAN	SPECIFICATIONS
UP TO 16'	2x10's Collar ties @ 16" OC, UNO
UP TO 14'	2x8's Collar ties @ 16" OC, UNO
UP TO 10'	2x6's Collar ties @ 16" OC, UNO

CEILING JOIST FRAMING MEMBER SCHEDULE (Uninhabited Attics with Limited Storage)	
SPAN	SPECIFICATIONS
UP TO 21'	2x12's Ceiling Joists @ 16" OC, UNO
UP TO 19'	2x10's Ceiling Joists @ 16" OC, UNO
UP TO 16'	2x8's Ceiling Joists @ 16" OC, UNO
UP TO 12'	2x6's Ceiling Joists @ 16" OC, UNO

CEILING AND ROOF FRAMING PLAN NOTES:

1. THROUGHOUT THIS HOUSE, THERE ARE CERTAIN AREAS THAT ARE VAULTED AND SOME AREAS THAT ARE FLAT.
2. SEE ARCH PLAN FOR CLEAR UNDERSTANDING OF WHERE THE VAULTED AREAS ARE, AND WHERE THE FLAT CEILINGS ARE LOCATED.
3. FOR AREAS THAT ARE FLAT CEILINGS, DEFAULT SIZE FOR CEILING JOISTS ARE 2X8s @ 16" OC, UNLESS NOTED OTHERWISE ON DRAWINGS, OR SIZE DEPENDING ON LENGTH, USING THE CHART ON THIS PAGE.
4. IF THE BUILDER HAS A CERTAIN AREA WITH COLLAR TIES IN A VAULTED CEILING, THEN SIZE THE COLLAR TIES PER THE CHART ON THIS PAGE, DEPENDING ON THE HEIGHT OF THE CEILING AND LENGTH OF THE COLLAR TIES. BUILDER TO INSTALL COLLAR TIES AT EVERY RAFTER PAIR.
5. IF THE BUILDER WOULD LIKE TO DELETE THE COLLAR TIES, THEN HE WILL NEED TO CONNECT EACH RAFTER TO THE RIDGE WITH A SIMPSON LRU28 HANGER. HE SHOULD ALSO INSTALL A 30" LONG CS16 STRAP ACROSS THE RIDGE TO CONNECT EACH RAFTER PAIR TOGETHER. BUILDER MUST GET WRITTEN PERMISSION FROM THE EOR BEFORE COMPLETELY ELIMINATING THE COLLAR TIES IN ANY PARTICULAR AREA, UNLESS SPECIFICALLY CITED ON THIS PLAN.
6. IN VAULTED AREAS, INSTALL RAFTERS AND ROOF SYSTEM IN AREAS WHERE COLLAR TIES ARE CALLED OUT PRIOR TO INSTALLING COLLAR TIES/CEILING JOISTS.
7. IN AREAS WHERE CEILING JOISTS TO BE COLLAR TIES, BRACE RIDGE BEAM DOWN TO COLLAR TIES AS NEEDED FOR STRUCTURAL SUPPORT.
8. NO CHANGES CAN BE MADE TO THIS FRAMING PLAN, WITHOUT WRITTEN PERMISSION FROM THE ENGINEER OF RECORD.
9. REVIEW THE NOTES ON PAGE S1 OF THE DRAWINGS PRIOR TO START OF CONSTRUCTION. CONTACT THE ENGINEER OF RECORD IF YOU HAVE ANY QUESTIONS.
10. REVIEW WALL CROSS SECTION DETAILS PRIOR TO START OF CONSTRUCTION.
11. IF RAFTER TAILS ARE USED, ENSURE THAT THE HURRICANE TIE DOWN STRAPS ARE CONNECTED TO THE MAIN RAFTER, NOT THE TAILS.
12. INSTALL ALL SIMPSON STRAPS HAW MANUF. RECOMMENDATIONS.
13. BUILDER TO ONLY BRACE MEMBERS AS INDICATED ON DRAWINGS, IF ADDITIONAL BRACING IS REQUIRED, CONSULT EOR FOR GUIDANCE.
14. BUILDER TO PROVIDE DOUBLE RAFTERS ON BOTH SIDES OF OPENING AT DORMER BREAK LOCATIONS AT DORMERS UP TO 10' IN WIDTH... TRIPLE RAFTERS ON SIDES OF OPENINGS TO DORMERS UP TO 13' IN WIDTH, FOR OVER 13' WIDE DORMER OPENINGS, SEE EOR FOR GUIDANCE IF NOT INDICATED ON PLANS.



2ND FLOOR CEILING FRAMING PLAN
SCALE 3/16" = 1'

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PROJECT
2002 ION AVE
Rhodes Residential Builders, LLC
Sullivan's Island, SC

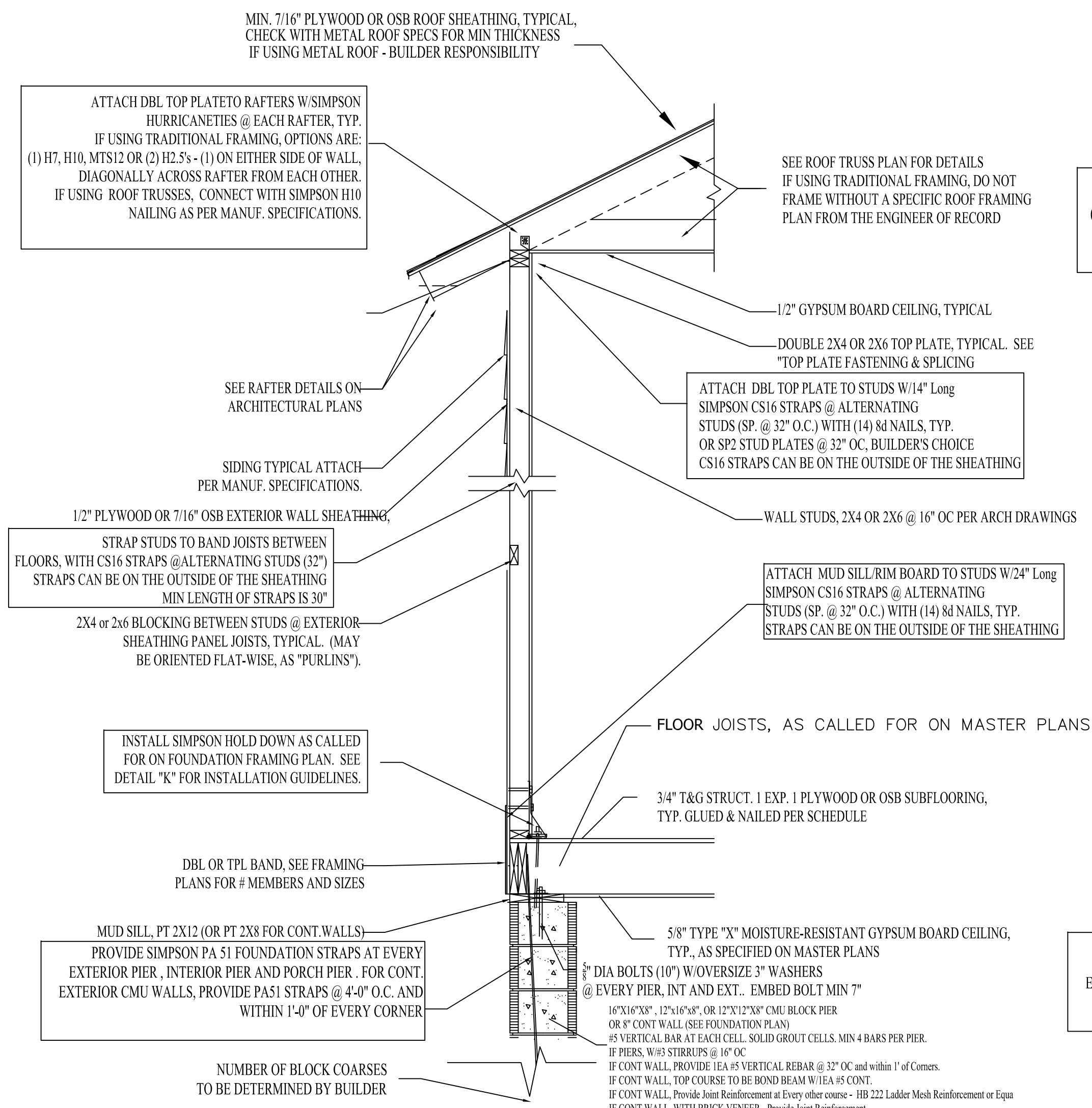
SHEET NO.

S5

DATE
8/4/2016

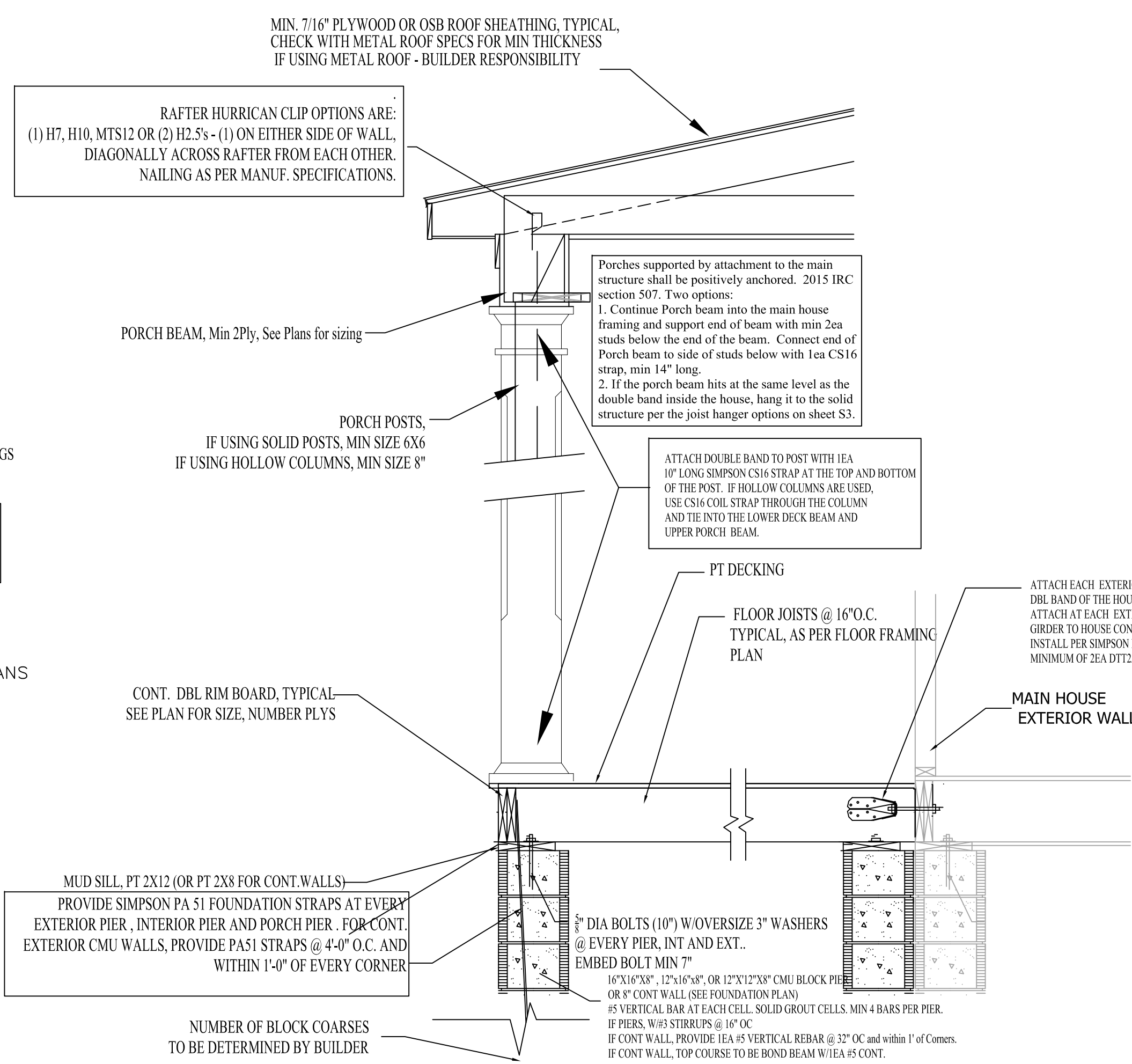
REVISIONS

NO. DATE



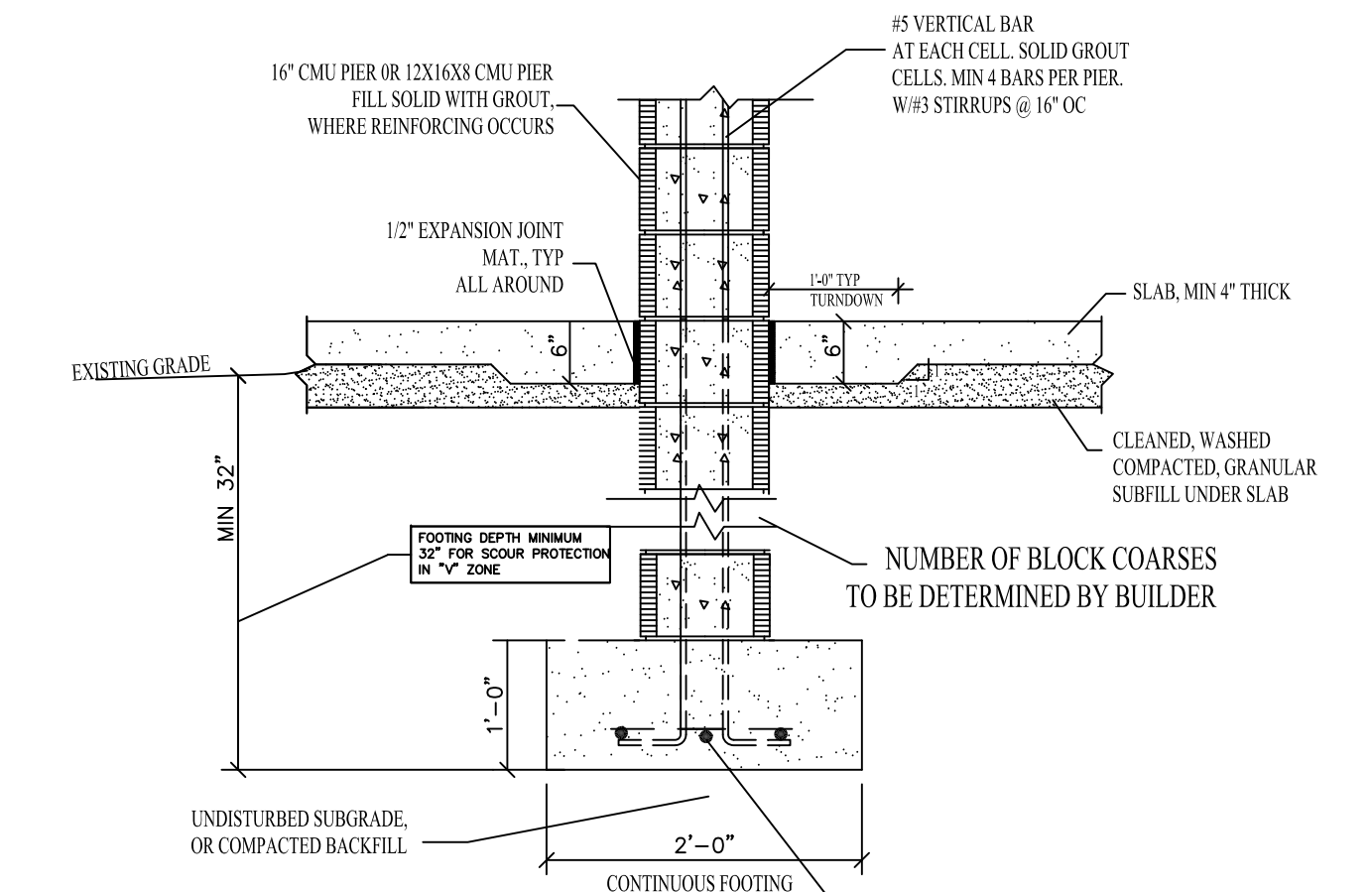
DETAIL "A1" TYPICAL EXTERIOR WALL SECTION

SCALE: NOT TO SCALE



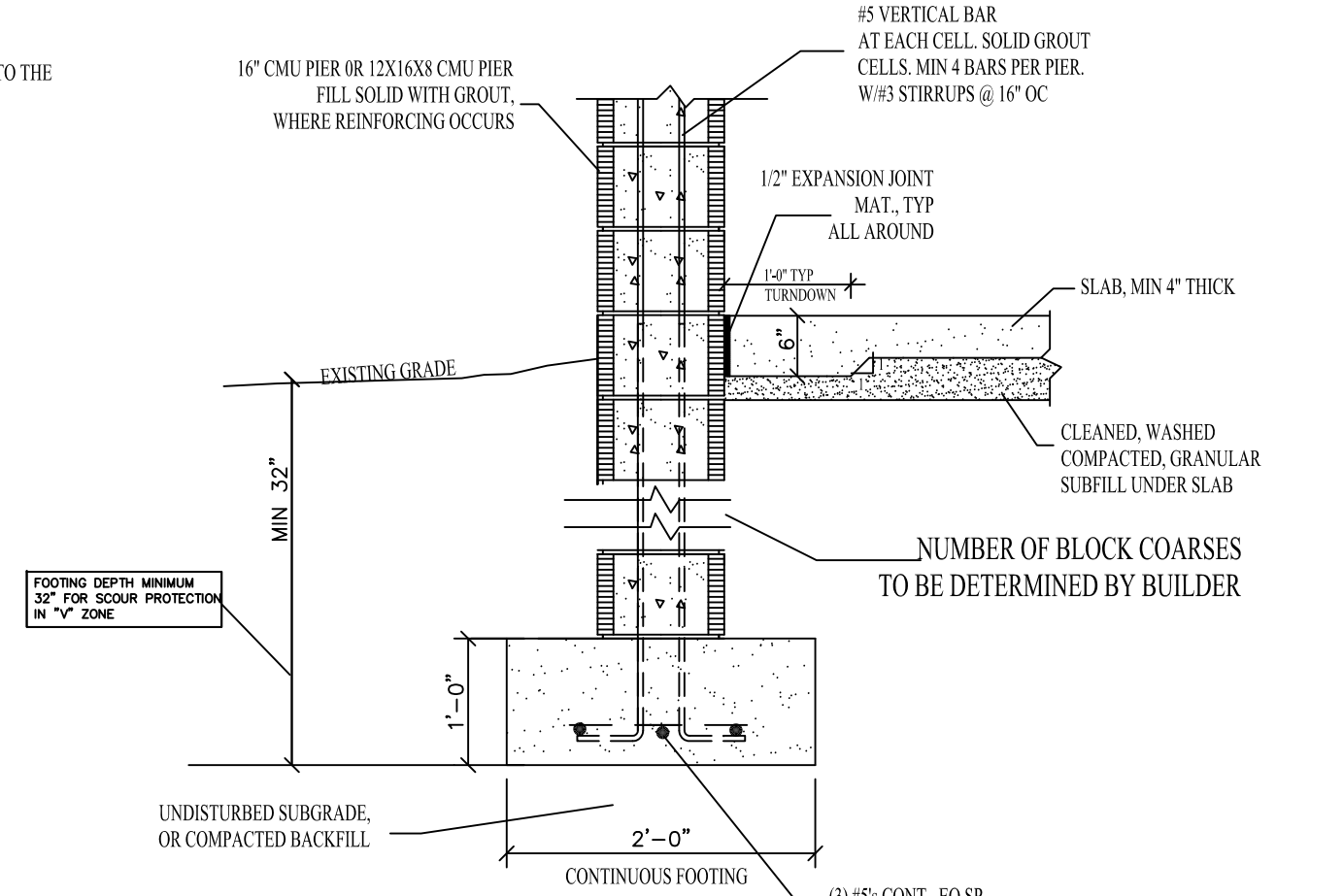
DETAIL "A2" TYPICAL PORCH SECTION

SCALE: NOT TO SCALE



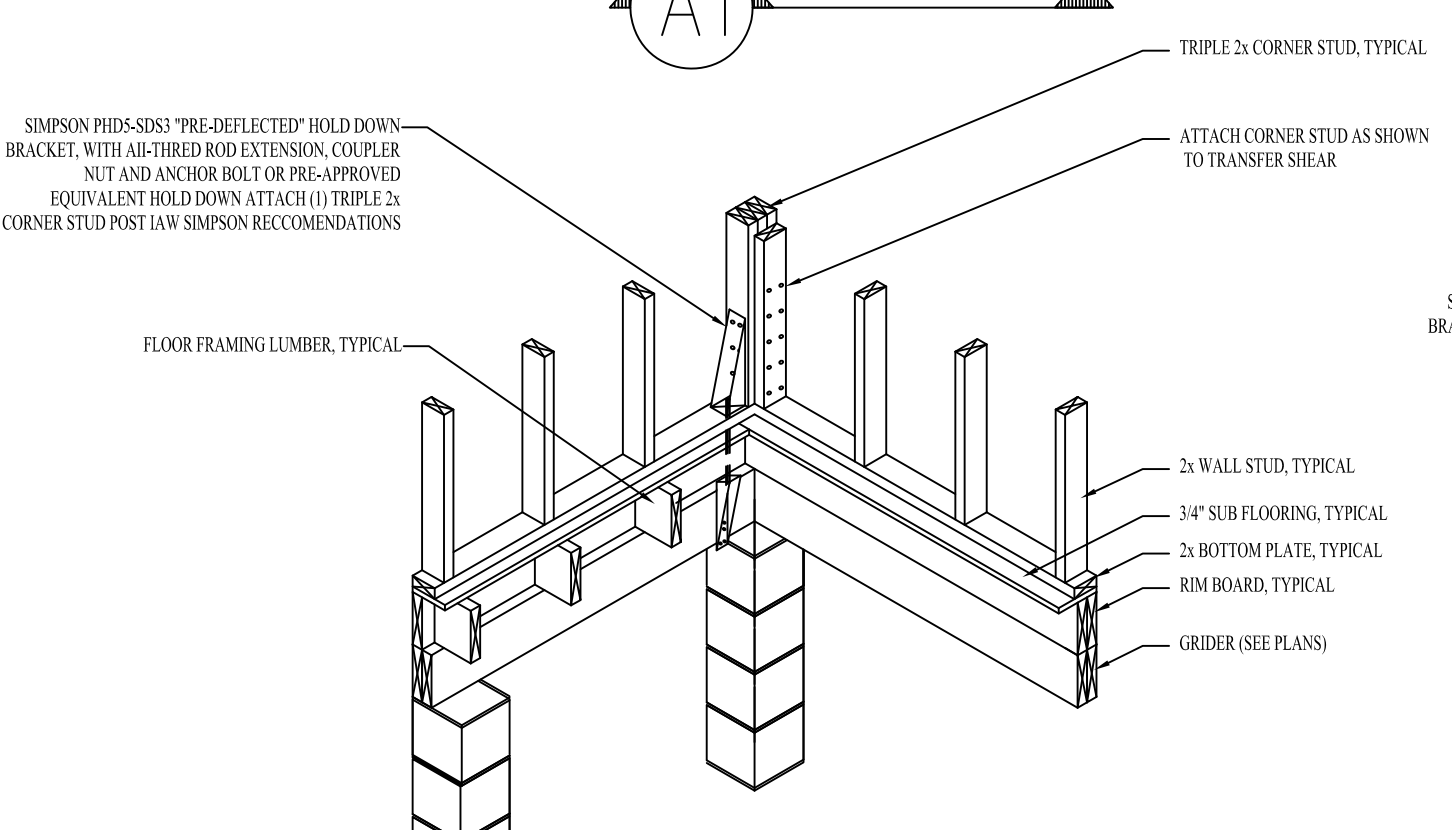
DETAIL "B" TYPICAL SECTION @ INTERIOR CMU PIER

SCALE: NOT TO SCALE



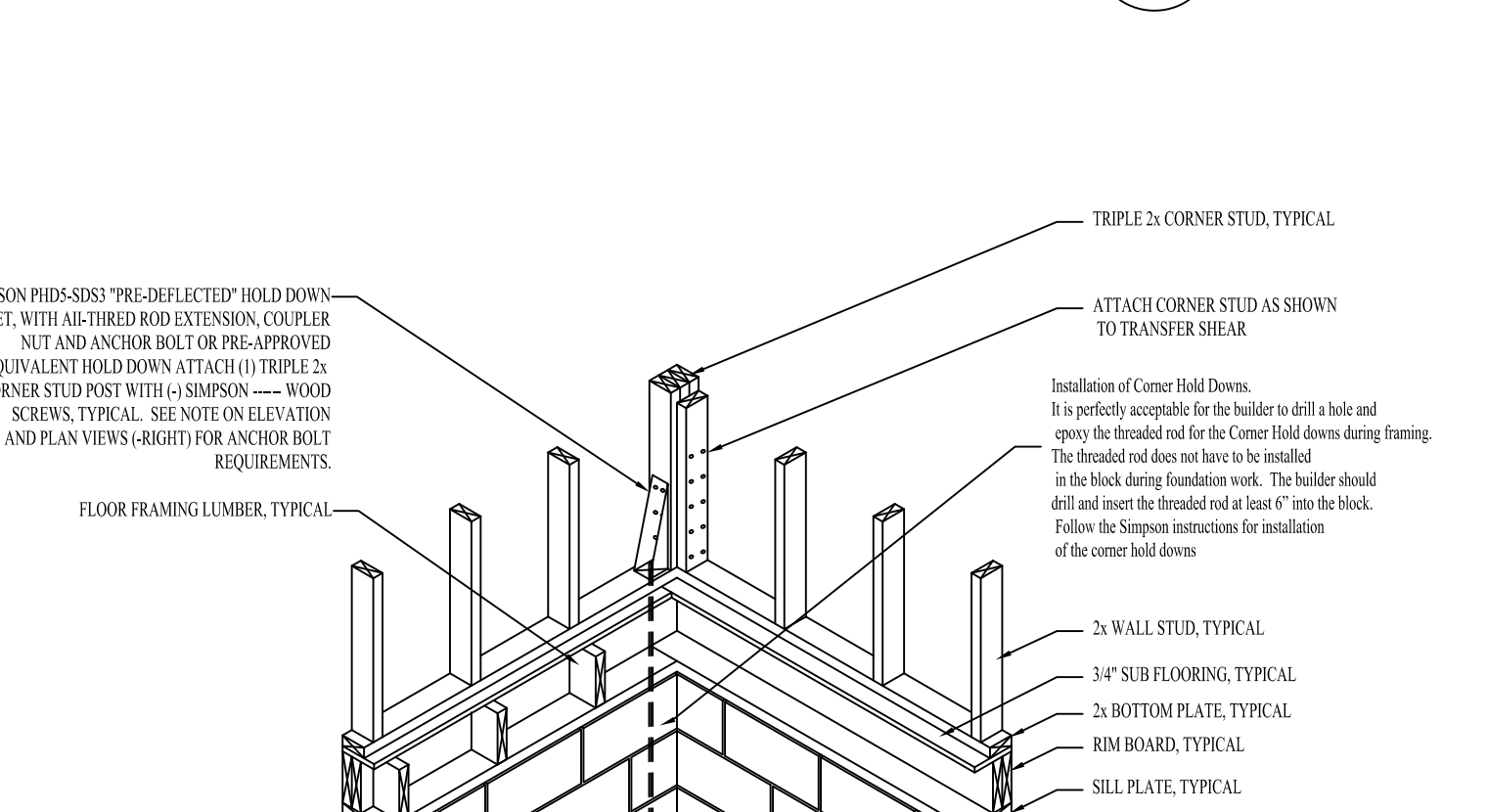
DETAIL "C" TYPICAL SECTION @ EXTERIOR CMU PIER

SCALE: NOT TO SCALE



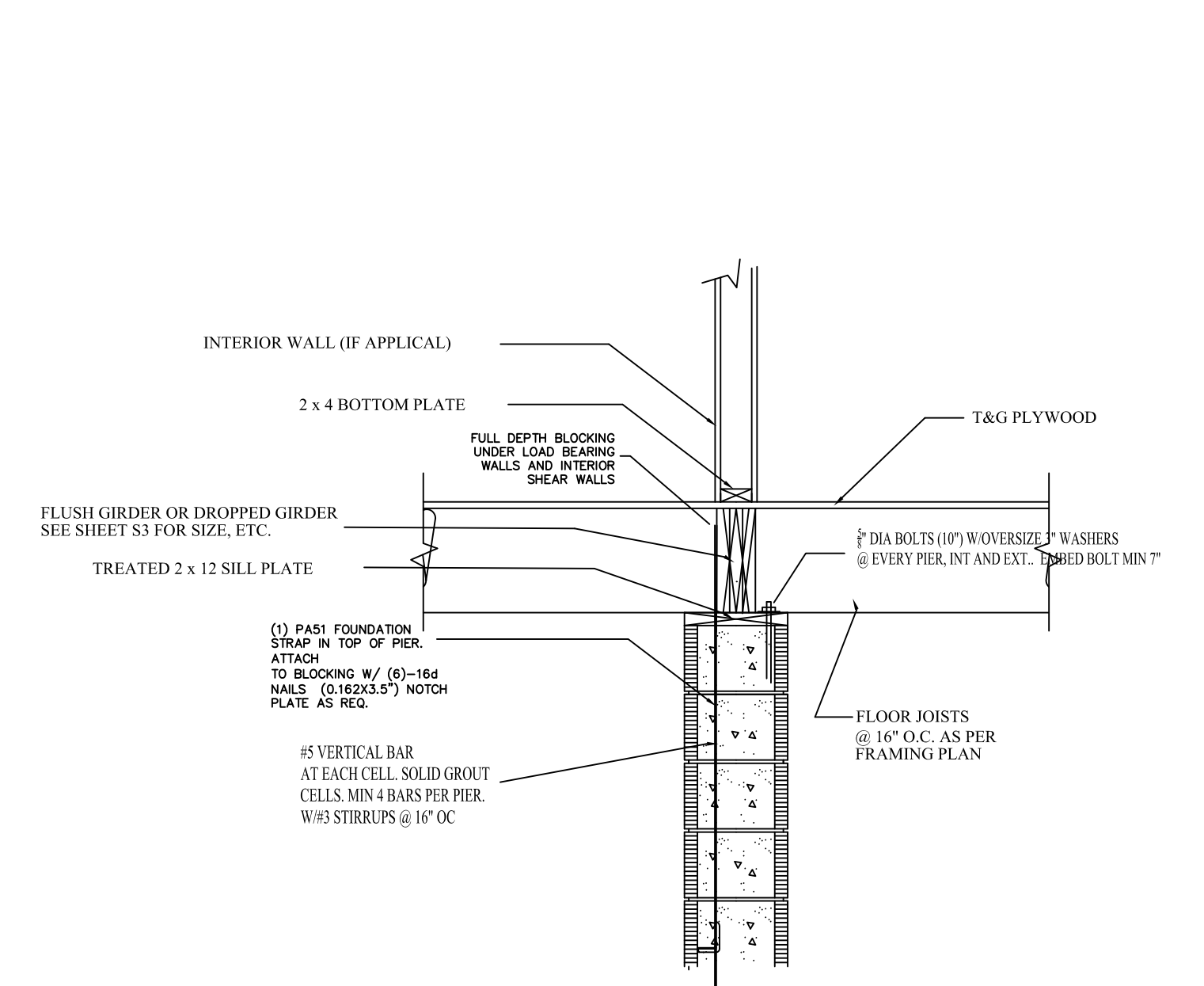
ALTERNATIVE INSTALLATION METHOD #1

SCALE: NOT TO SCALE



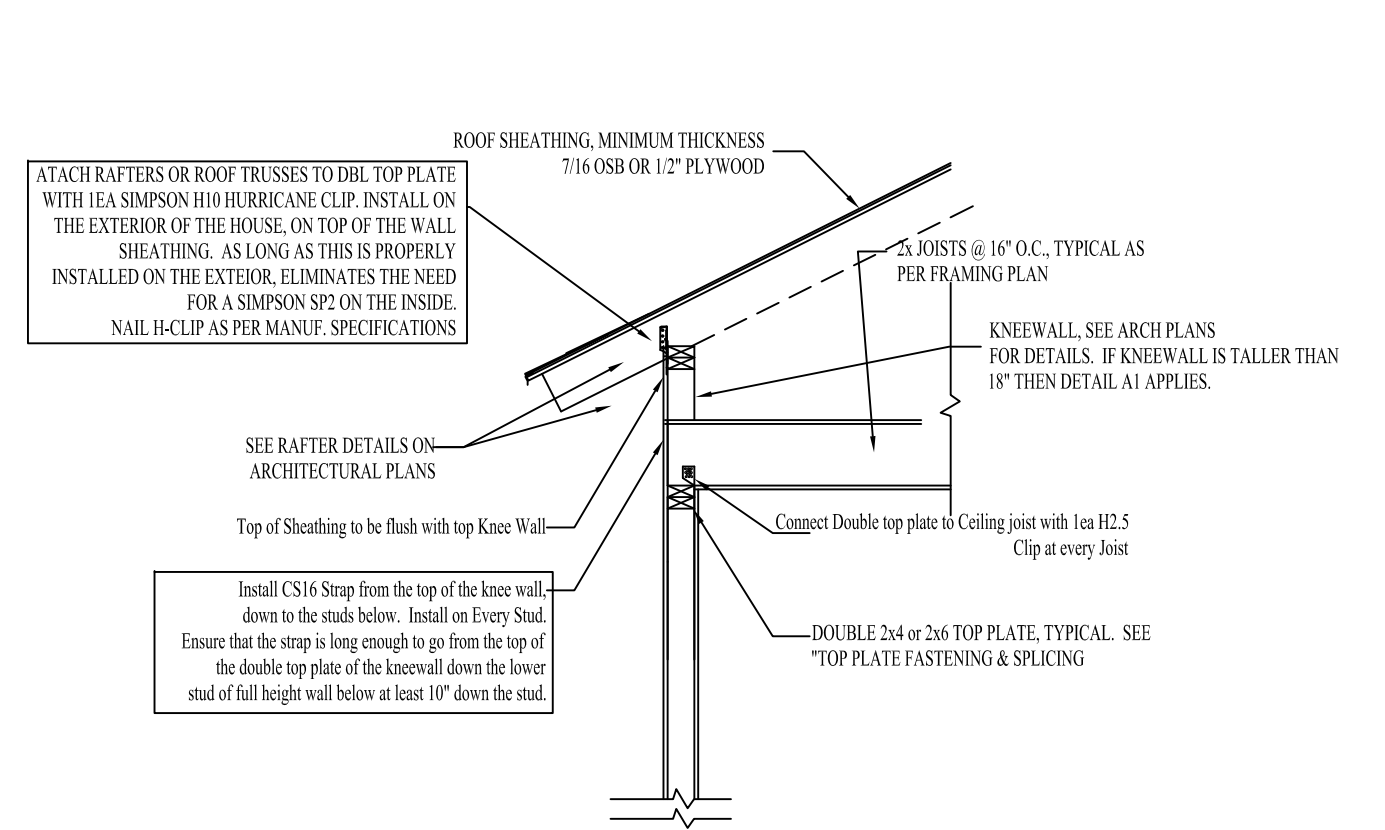
ALTERNATIVE INSTALLATION METHOD #2

SCALE: NOT TO SCALE



DETAIL "B" TYPICAL INTERIOR PIER DETAIL

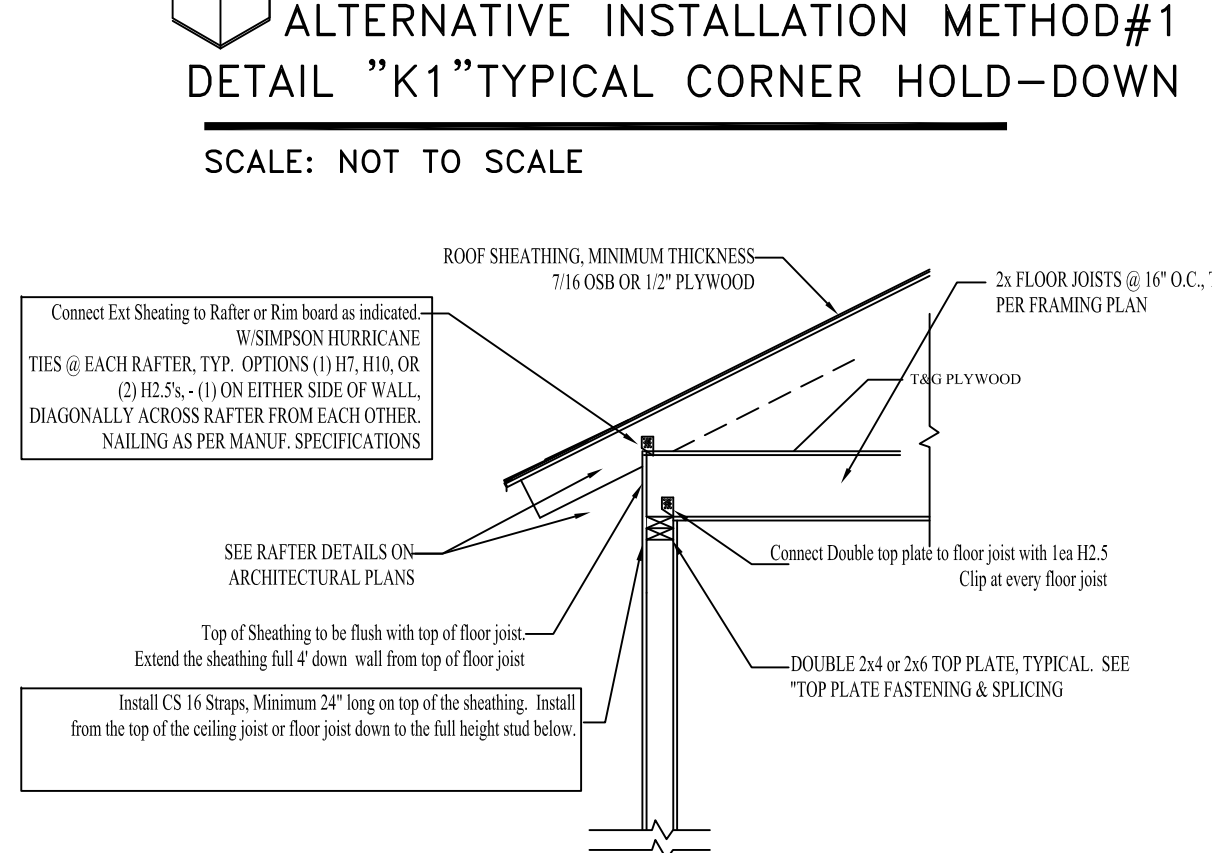
SCALE: NOT TO SCALE



DETAIL "A4" TYPICAL EXTERIOR WALL SECTION

Alterate Rafter Detail (When Rafters fall on 18" or shorter Kneewall above Joists) (When kneewalls are 18" or higher, revert back to strapping details on A1)

SCALE: NOT TO SCALE



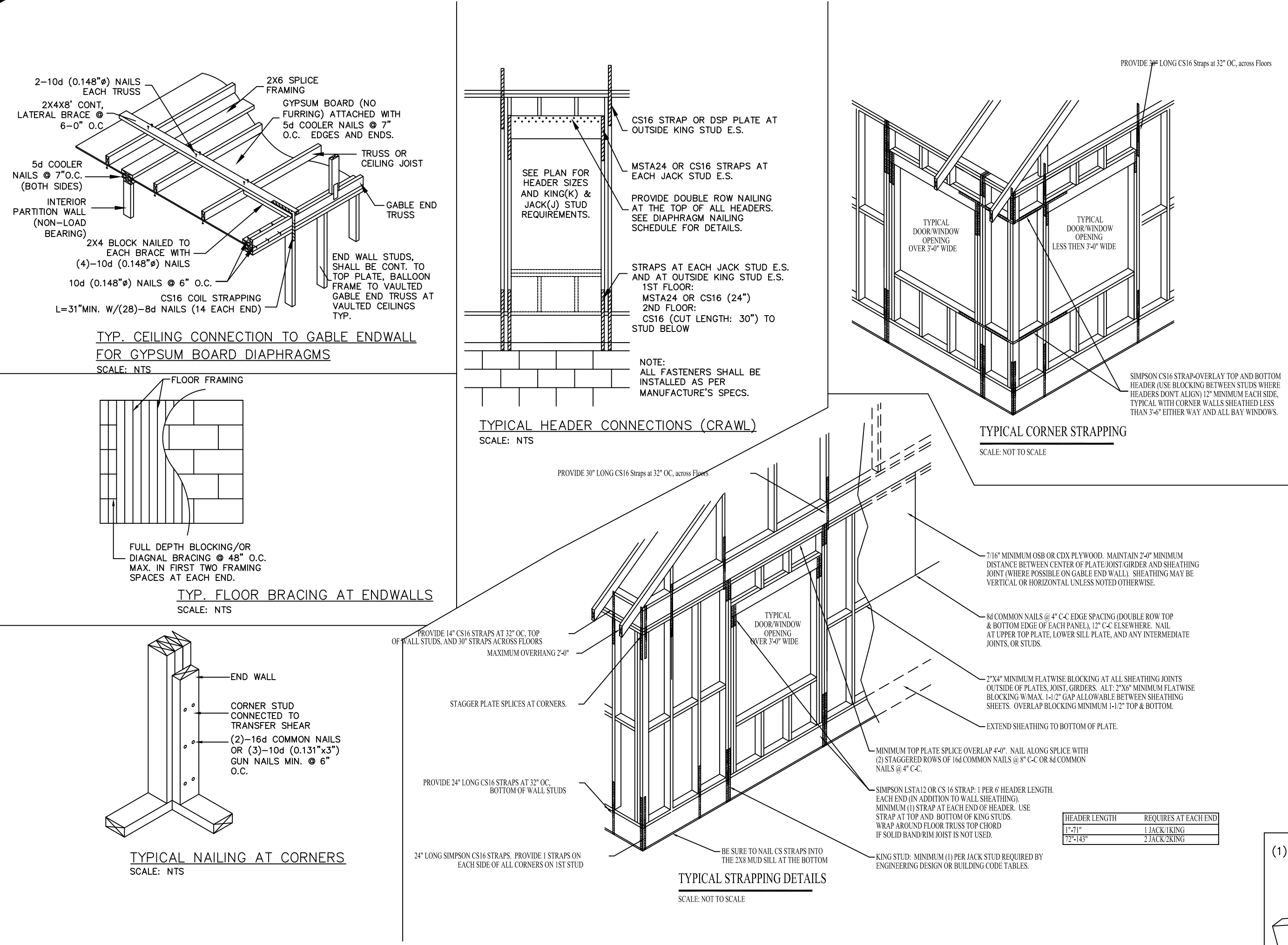
DETAIL "A3" TYPICAL EXTERIOR WALL SECTION

Alterate Rafter Detail (When Rafters fall on Floor Joists)

SCALE: NOT TO SCALE

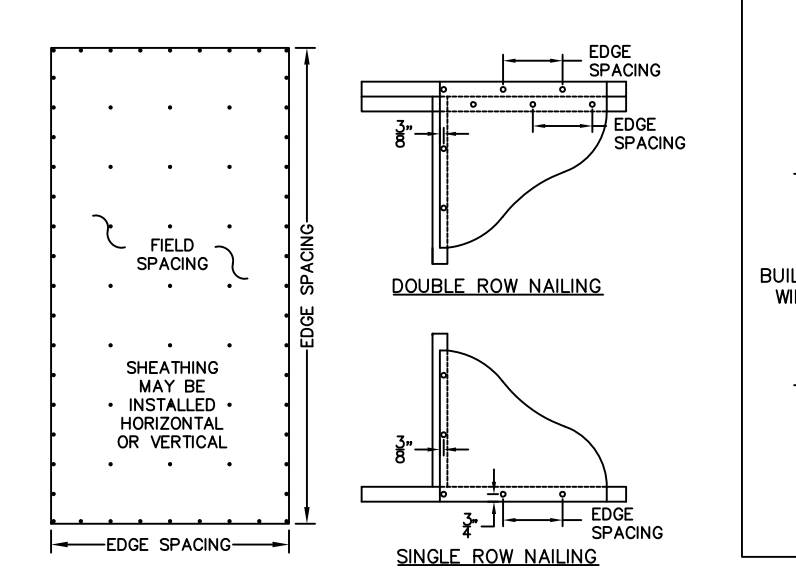
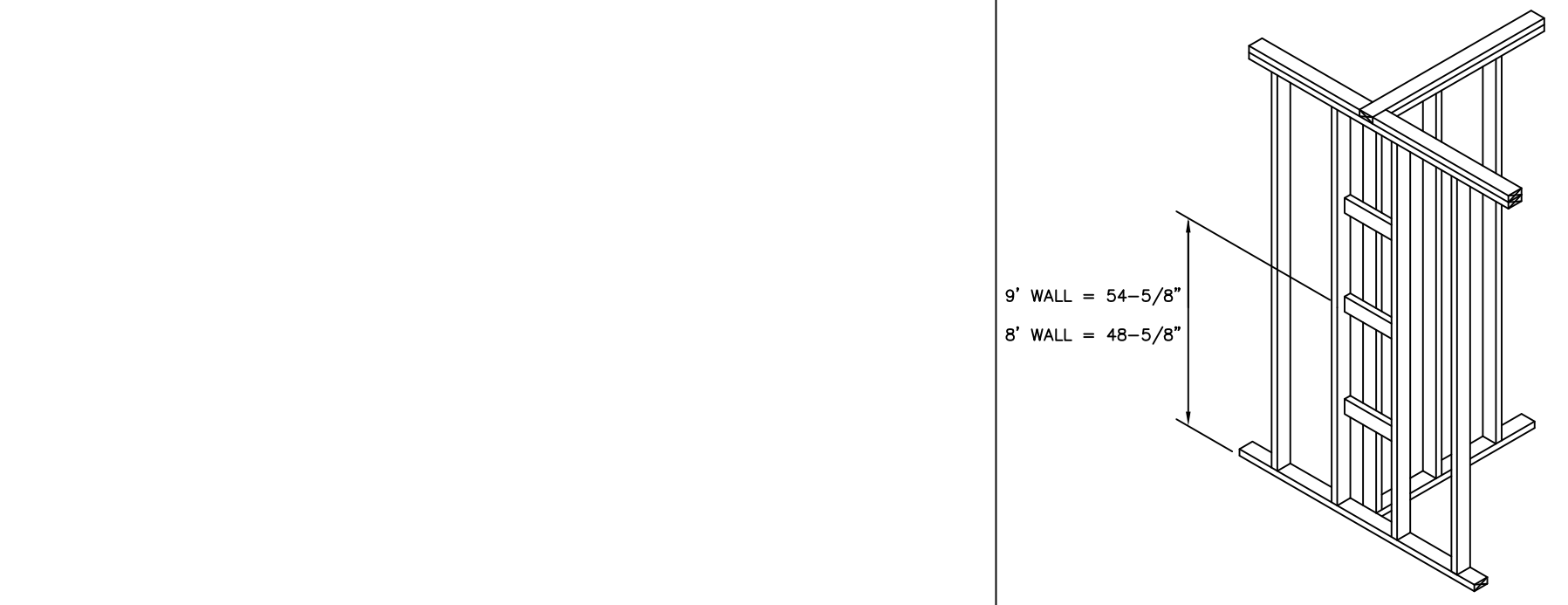
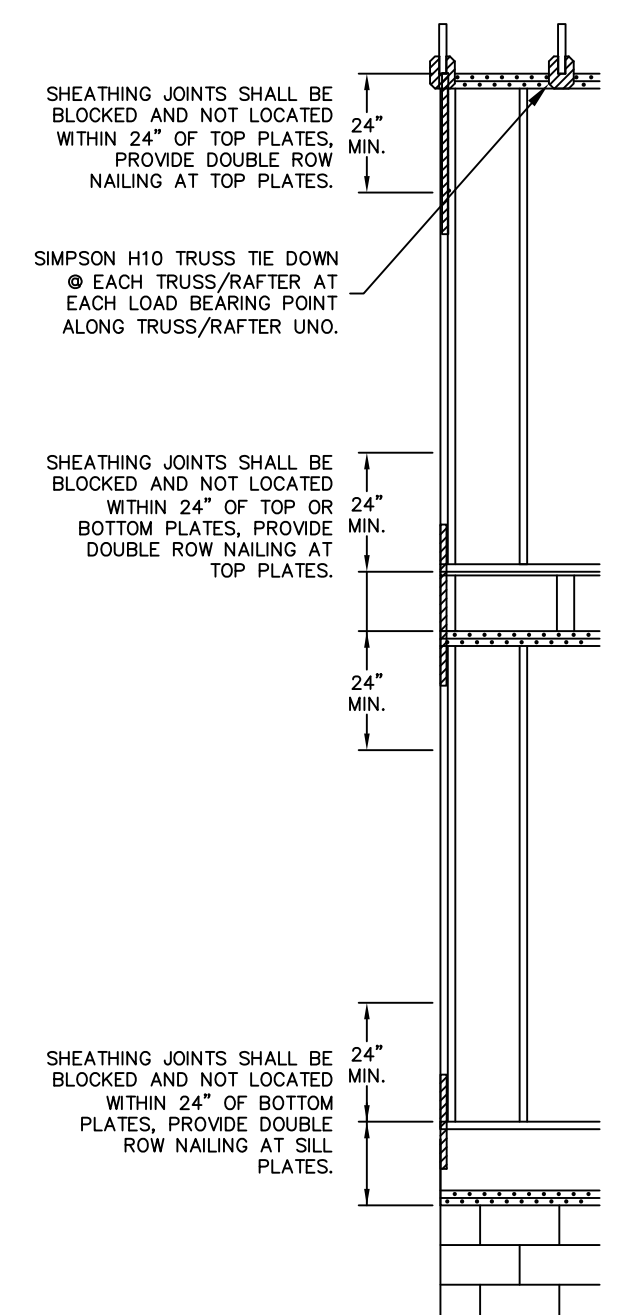
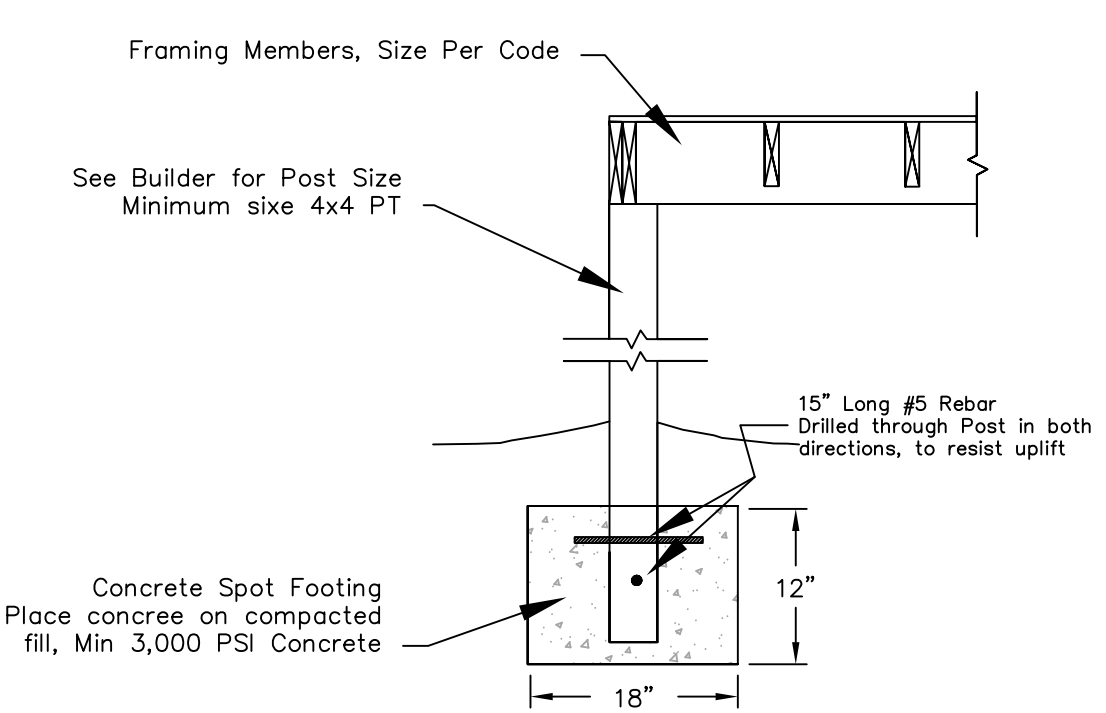
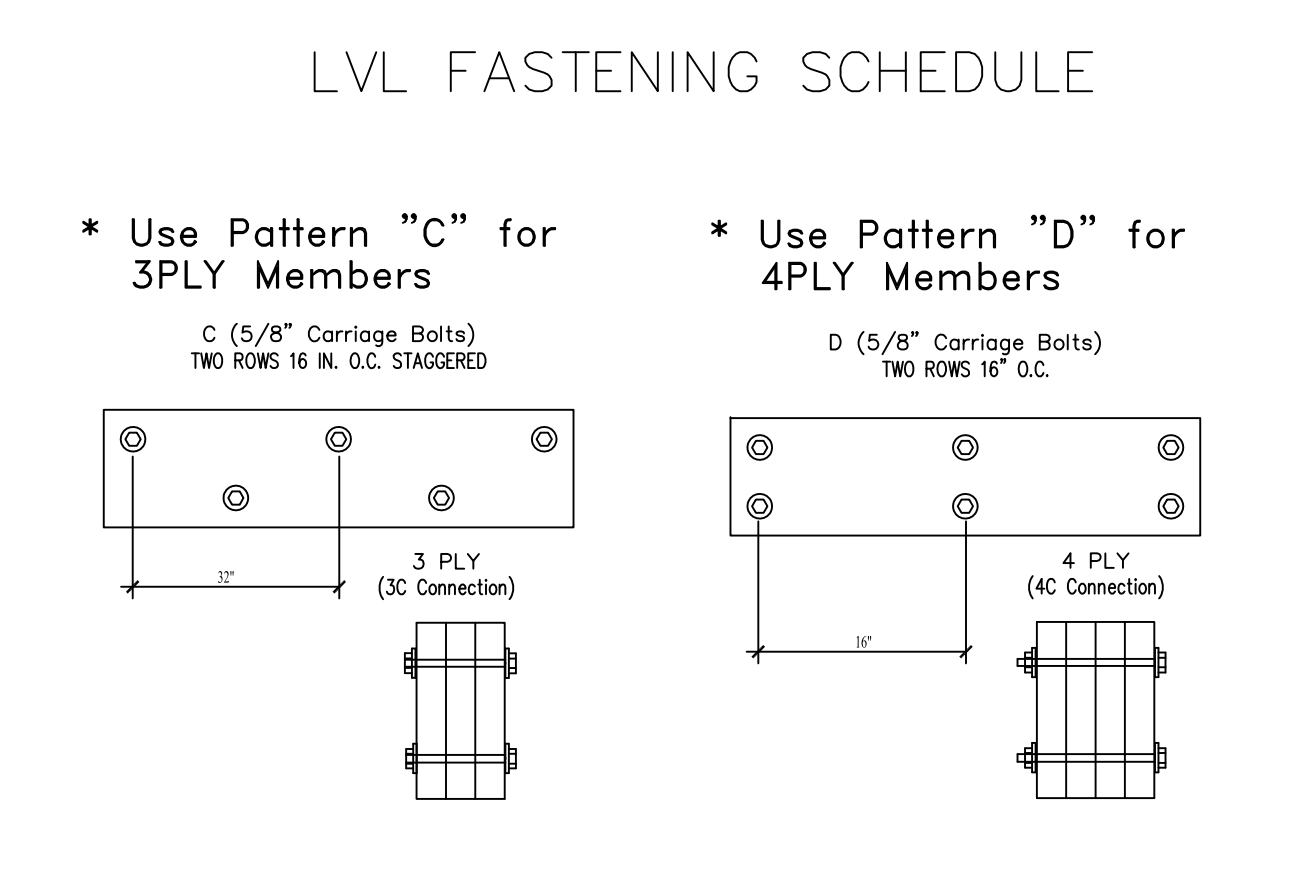
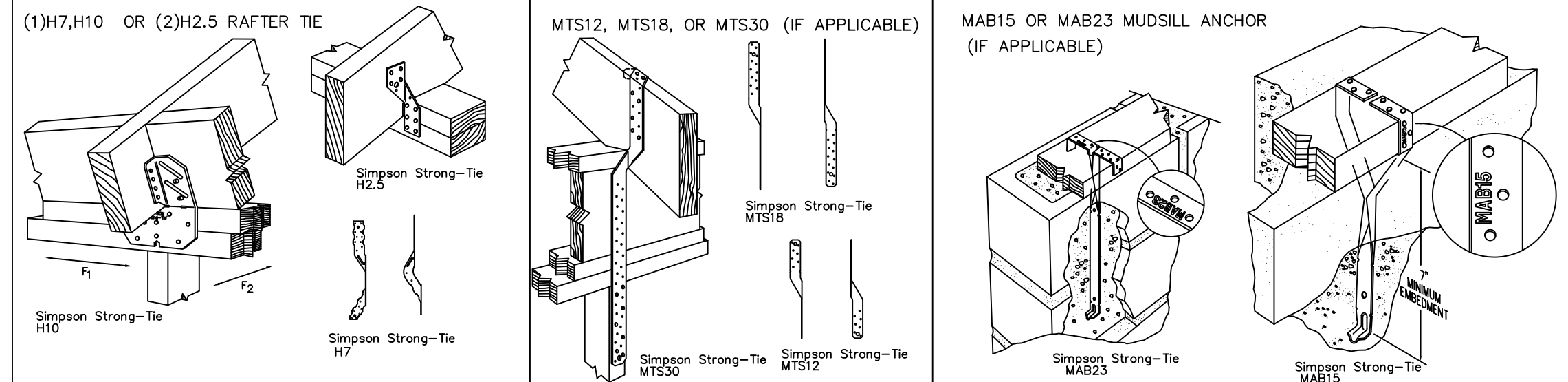
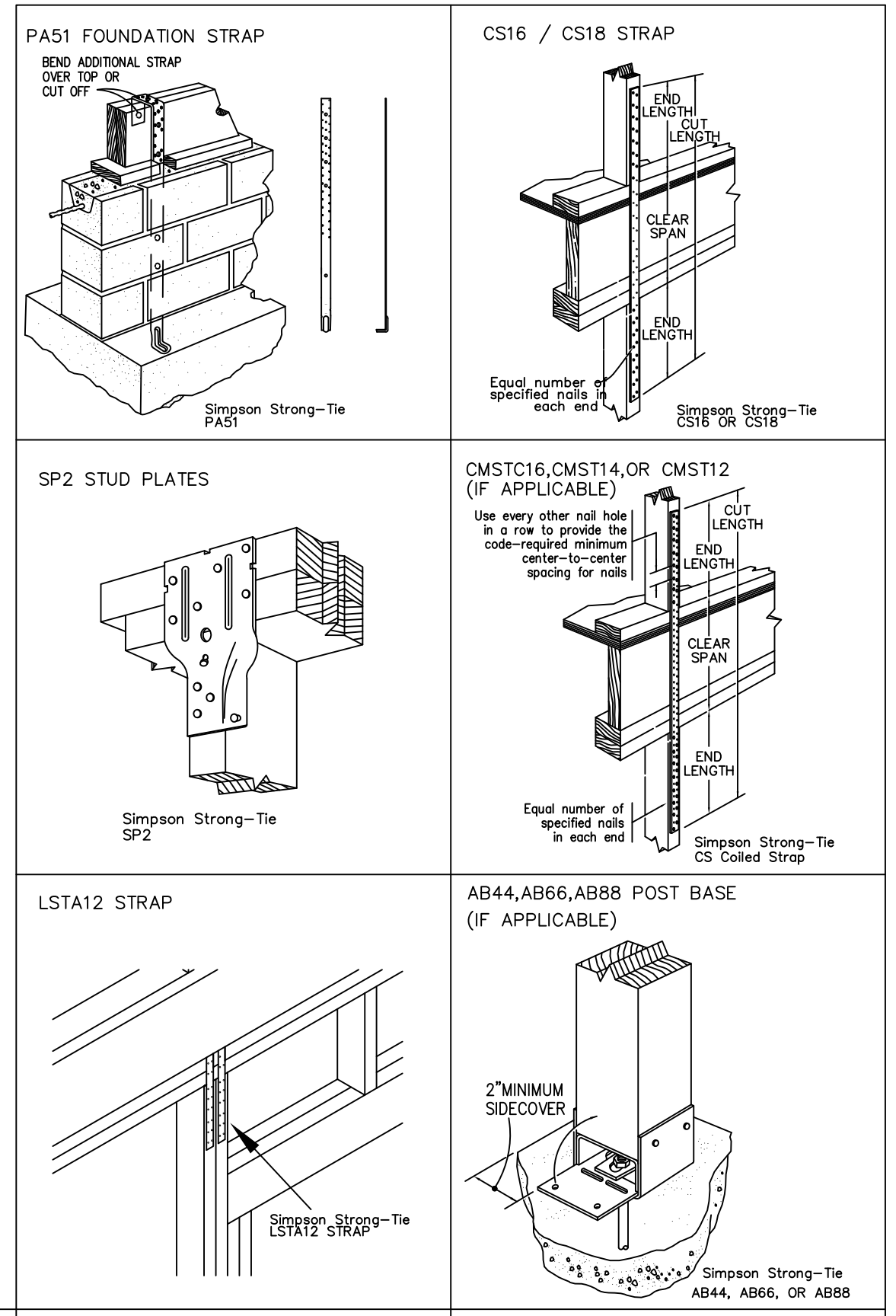
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PROJECT		2002 ION AVE	
SHEET NO.		S7	
DATE		8/4/2016	
REVISIONS		NO. DATE	
SEAL			
BRIAN R. WELLS, PE		BRIAN R. WELLS, PE	
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843-514-1790		Mount Pleasant, SC 29464	
BRIAN R. WELLS, PE, LLC		Rhodes Residential Builders, LLC	
Sullivan's Island, SC			



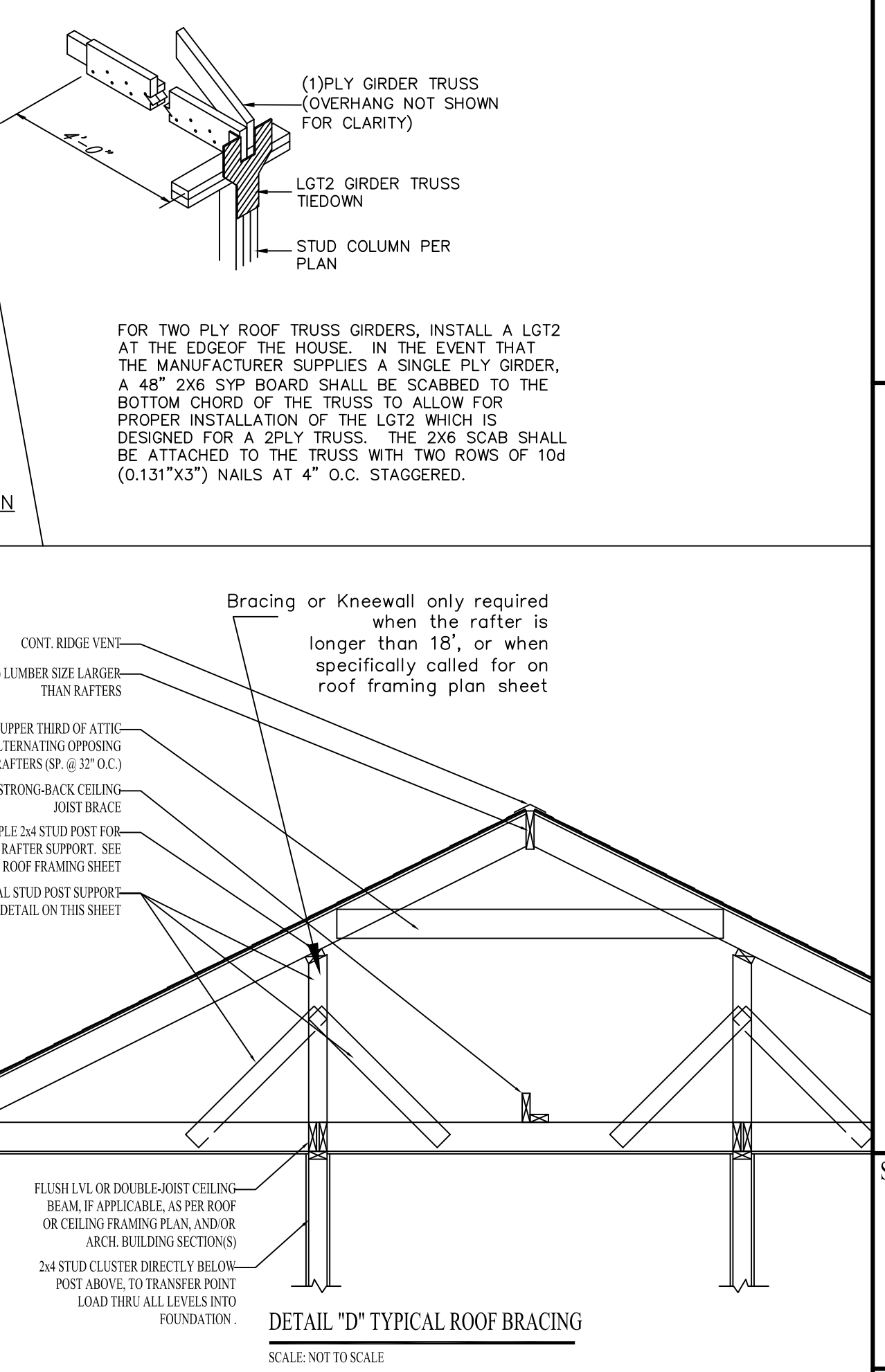
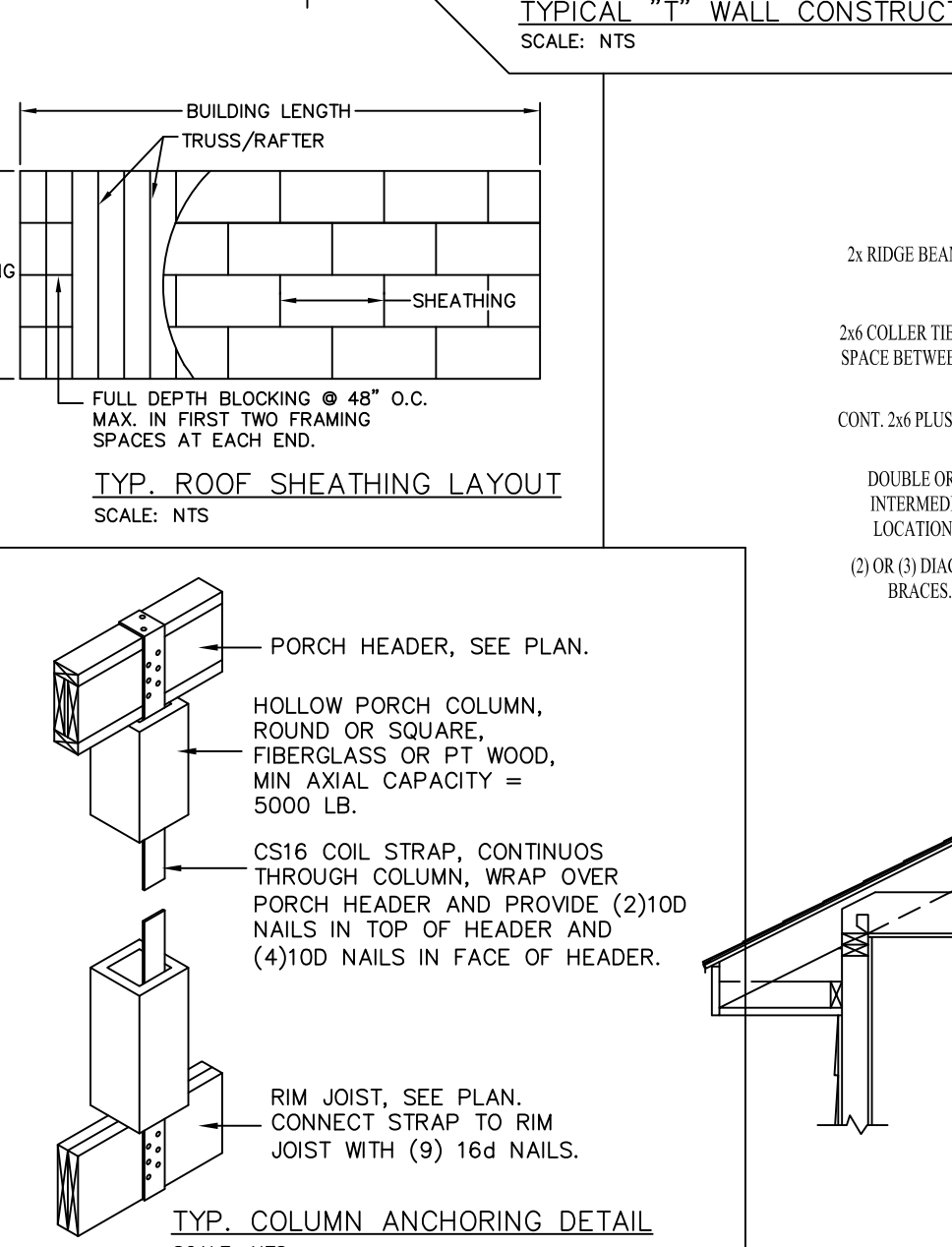
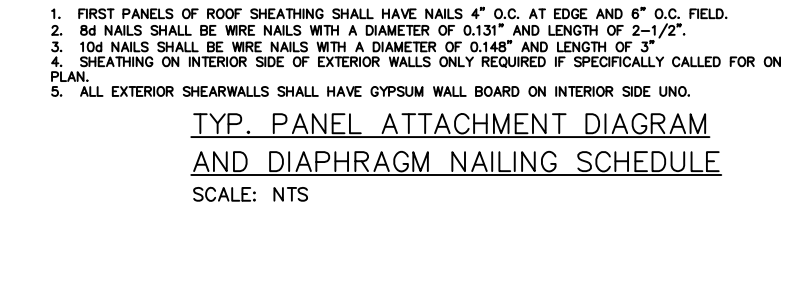
SIMPSON PRODUCTS – INSTALLATION LOCATIONS

TYPE OF SIMPSON PRODUCT	LOCATION	MORE INFORMATION ON DETAIL:	QUANTITY
PA51 FOUNDATION STRAP	CMU WALL, INTERIOR AND EXTERIOR PIERS	DETAIL "A" WALL SECTIONS DETAIL "B" INTERIOR PIER DETAIL DETAIL "C" WALL PILASTER DETAIL	
CS16 STRAP	ACROSS FLOORS, DBL TOP PLATE TO STUDS STUDS/PORCH POSTS TO BAND JOIST	DETAIL "A" WALL SECTIONS	
CS18 STRAP	CORNER REINFORCEMENT (IF APPLICABLE) TOP OF RIDGE (RAFTER TO RAFTER) PIGGY BACK RAFTERS	DETAIL "E" CORNER REINFORCEMENT DETAIL "G" ROOF/RAFTER TRUSS CONNECTOR	
SP2 STUD PLATES	TOP PLATES TO STUD (CAN SUBSTITUTE WITH MTS12, MTS18, OR MTS30 IF RAFTERS LINE UP WITH STUDS). NOT NEEDED IF H10s are installed	DETAIL "A" WALL SECTIONS	
LSTA12 STRAP	HEADER TO JACK / KING STUD TO BAND EACH SIDE OF CORNER ON 1ST 2 STUDS	DETAIL "F" FRAMING DETAIL	
MTS12, MTS18, OR MTS30	VALLEY RAFTERS CAN REPLACE H CLIPS AND SP2 STUD PLATES IF RAFTERS LINE UP WITH STUDS	DETAIL "G" ROOF/RAFTER TRUSS CONNECTOR DETAIL "A" WALL SECTIONS	
(1)H7,H10,MTS12 OR (2)H2.5 RAFTER TIE	TRUSS/RAFTER TO WOOD DOUBLE TOP PLATE	DETAIL "A" WALL SECTIONS	
H2.5 CLIP	GARAGE WALL – STUD TO SILL PLATE DROPPED BEAM TO JOIST	DETAIL "A1" GARAGE WALL SECTION DETAIL "B" INTERIOR PIER DETAIL DETAIL "C" WALL PILASTER DETAIL	
MAB15 OR MAB23 MUDDSILL ANCHOR	GARAGE WALL – SILL PLATE TO FOUNDATION	DETAIL "A1" GARAGE WALL SECTION	
HDU5–SDS2.5 CORNER HOLDOWN	CORNER HOLD DOWN BETWEEN GARAGE DOORS TO WALL STUDS (IF APPLICABLE)	DETAIL "K" CORNER HOLD DOWN DETAIL	
AB44,AB66,AB88 POST BASE (IF APPLICABLE)	CMU BLOCK TO 4X4,6X6,OR 8X8 POST	IF APPLICABLE – LOCATION DENOTED ON PLANS	
CMSTC16,CMST14,OR CMST12 (IF APPLICABLE)	CONTINUOUS STRAPPING FROM RIM BOARD TO TOP PLATE FOR EXTERIOR HOLLOW COLUMNS	IF APPLICABLE – FOR ALL COLUMNS	
JOIST HANGERS (IF APPLICABLE)	JOIST HANGERS NEEDED IF NOT USING DROPPED GIRDERS.	IF APPLICABLE – FOR ALL CONNECTIONS	



DIAPHRAGM NAILING SCHEDULE

BUILDING LEVEL	PANEL GRADE	PANEL THICKNESS	NAIL/SIZE TYPE	NAIL SPACING	EDGE FIELD
ROOF 1	APA RATED EXPOSURE 1	7/16"	8d ² RING SHANK	6"	12"
1ST & 2ND FLOOR	APA RATED EXPOSURE 1	3/4"	10d ³ COMMON	6"	12"
EXTERIOR WALLS (EXTERIOR SIDE)	APA RATED EXPOSURE 1	7/16"	8d ² COMMON	3"	12"
EXTERIOR WALLS (INT. SIDE IF REQ.)	APA RATED EXPOSURE 1	7/16"	8d ² COMMON	3"	12"
EXTERIOR WALLS (EXTERIOR SIDE)	GYPSUM WALLBOARD	1/2"	5d ¹ COOLER	7"	10"



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PROJECT
2002 ION AVE
Rhodes Residential Builders, LLC
Sullivan's Island, SC

SHEET NO.
S8


DATE
8/4/2016

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843-514-1790

SEAL
SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 228
BRIAN R. WELLS

REVISIONS

NO.	DATE	REVISIONS


 Town of Sullivan's Island, South Carolina
 2050-B Middle Street/PO Box 427, Sullivan's Island, SC 29482
 (843) 883-3198; Fax (843) 883-3009

S.I. COASTAL A-ZONE DESIGN CERTIFICATE
 PRE-CONSTRUCTION AS-BUILT

Name of Property Owner Rhodes Permit # _____
 Street Address 2002 Ion Ave TMS# 529-09-00-011
 City Sullivan's Island State SC Zip Code 29482
 Contact: (phone) 843-514-1790 Email: wellsbri@bellsouth.net

FLOOD INSURANCE RATE MAP INFORMATION

Community # 455418 Map and Panel # 45019C-0539 Suffix J
 Firm Index Date 11/17/04


ELEVATION INFORMATION


Required Base Flood Elevation (BFE) 15 Ft.
 Finished first floor 17.6 Ft.
 Bottom of lowest horizontal structural member 17.4 Ft.
 Elevation of slab below Base Flood Elevation 9.0 Ft.
 Elevation of mechanical/electrical equipment below structure 17.0 Ft.
 Elevation of lowest adjacent grade 7.0 Ft. Highest adjacent grade 7.9 Ft.
 Elevation of existing grade (Measured at center of structure) 7.7 Ft.
 Elevation of highest ridge 7.9 Ft.
 Datum used: NGVD29 NAVD88

STRUCTURAL INFORMATION

Building code used to develop and/or review structure 2015 IRC
 Basic wind speed 144 MPH (ult) Exposure Category B
 Seismic design category D2

Certifier's name Brian Wells
 Signature [Signature] Date 8/4/16


 Page 1 of 5 (This documents must appear on all plans)


 Town of Sullivan's Island, South Carolina
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S.I. COASTAL A-ZONE DESIGN CERTIFICATE
 PRE-CONSTRUCTION AS-BUILT

Name of Property Owner Rhodes Permit # _____
 Street Address 2002 Ion Ave TMS# 529-09-00-011
 City Sullivan's Island State SC Zip Code 29482
 Contact: (phone) 843-514-1790 Email: wellsbri@bellsouth.net

COASTAL A-ZONE CERTIFICATION STATEMENT


NOTE: Certificate must be signed and sealed by a registered professional engineer or architect.


I certify that based upon development and/or review of structural design specifications and plans for construction including consideration of the hydrostatic, Hydrodynamic, impact and wind loading involved, the design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

- The finished first floor and all mechanical equipment are elevated to or above the base flood elevation.
- The pile or column foundation and structure is anchored to prevent flotation, or collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values are those associated with the base flood. Wind loading values are those required by the International Residential Code 2012 Edition as adopted by the Town of Sullivan's Island. The potential for scour has been considered for conditions associated with the base flood.

For "As Built" certifications, I am certifying that the construction has been done in accordance with the design parameters indicated above.

Certifiers Name Brian Wells
 Signature [Signature] Date 8/4/16


 Page 2 of 5 (This documents must appear on all plans)


 Town of Sullivan's Island, South Carolina
 2050-B Middle Street/PO Box 427, Sullivan's Island, SC 29482
 (843) 883-3198; Fax (843) 883-3009

S.I. COASTAL A-ZONE BREAKAWAY WALL CERTIFICATION
 PRE-CONSTRUCTION AS-BUILT

Name of Property Owner Rhodes Permit # _____
 Street Address 2002 Ion Ave TMS# 529-09-00-011
 City Sullivan's Island State SC Zip Code 29482
 Contact: (phone) 843-514-1790 Email: wellsbri@bellsouth.net


BREAKAWAY WALL CERTIFICATION STATEMENT


I certify that I have developed or reviewed the design, plans and specifications for construction of the breakaway walls for the structure noted above. The design and methods of construction are in accordance with meeting the accepted standards of practice with the following provisions:

- Breakaway walls have a design safe loading resistance of not less than 10 lbs. and no more than 25 lbs.
- Breakaway wall collapse shall result from a water load less than that which would occur during the base flood.
- The elevated portion of the structure and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the combined effects of wind and water loads acting simultaneously on all building components, structural and non-structural. Wind loading values used shall be those stated in International Residential Code 2012 Edition. Water loading values shall be those associated with the base flood.

Certifier's Name: Brian Wells
 Company Name Brian R. Wells, PE, LLC
 Certifier's Address 893 Tupelo Bay Dr.
 City Mount Pleasant State SC Zip Code 29464
 Telephone 843-514-1790 Email wellsbri@bellsouth.net
 License # 22842

Signature [Signature] Date 8/4/16


 Page 3 of 5 (This documents must appear on all plans)


 Town of Sullivan's Island, South Carolina
 2050-B Middle Street/PO Box 427, Sullivan's Island, SC 29482
 (843) 883-3198; Fax (843) 883-3009


S. I. COASTAL A-ZONE BREAKAWAY WALL CERTIFICATION
 PRE-CONSTRUCTION AS-BUILT

NOTES

See Attached Plans

Signature [Signature] Date 8/4/16

Page 4 of 5 (This documents must appear on all plans)


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S.I. COASTAL A-ZONE CERTIFICATION INFORMATION AND REQUIRED DOCUMENTATION

- Sullivan's Island requires basically the same documentation for A-Zones as it does for V-Zones.
- All solid walls below base flood elevation must be constructed of a breakaway design certified by a certified design professional, be of Class 4 or 5 materials and must have vents to allow the free flow of water into and out of the enclosed area. Vents must equal 1 sq. inch for every square foot (sf) of enclosed area and be no more than 12 inches above grade. **Total enclosed area must not exceed 200 sq. feet** of solid breakaway walls. The remaining area below a structure may only be enclosed with lattice of an open design (1 inch gaps) and it must also be of a breakaway design certified by a certified design professional.
- Certifications must appear on the plans as well as a breakaway wall sections** reflecting what are to be built. Both solid wall and lattice wall details must be provided.

Note:

- A Certificate of Occupancy will not be issued without an AS-BUILT certification. Please advise the owner or builder that an inspection of the framing, strapping, etc. will be required by the engineer in order for the engineer to sign off on the AS-BUILT.
- All provided documentation must have original seals and signatures.
- It is understood that some of the information on these forms must be verified or derived from information provided by a surveyor. Please attach a copy of any documentation used or reference this information in the note section (Page 4) of this document.

Page 5 of 5 (This documents must appear on all plans)

PROJECT 2002 ION AVE Rhodes Residential Builders, LLC Sullivan's Island, SC	SHEET NO. <h1 style="margin: 0;">S10</h1> DATE 8/4/2016										
Brian R. Wells, PE, LLC BRIAN R. WELLS, PE 893 Tupelo Bay Drive Mount Pleasant, SC 29464	SEAL 										
BRIAN R. WELLS, PE wellsbri@bellsouth.net 843-514-1790	REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 5%;">DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE								
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