

P.L. 2023-01-14, 11:28:30 AM
 C:\Users\jdammon\OneDrive\Documents\Projects\2023\2023-01-14\2023-01-14.dwg
 2023-01-14 11:28:30 AM
 J. DAMMON & ASSOCIATES, INC.
 ENGINEERING, ARCHITECTURE & INTERIOR DESIGN
 554 Old Spanish Trail
 Slidell, LA 70458
 PH: 985.649.8832

DESIGN CRITERIA

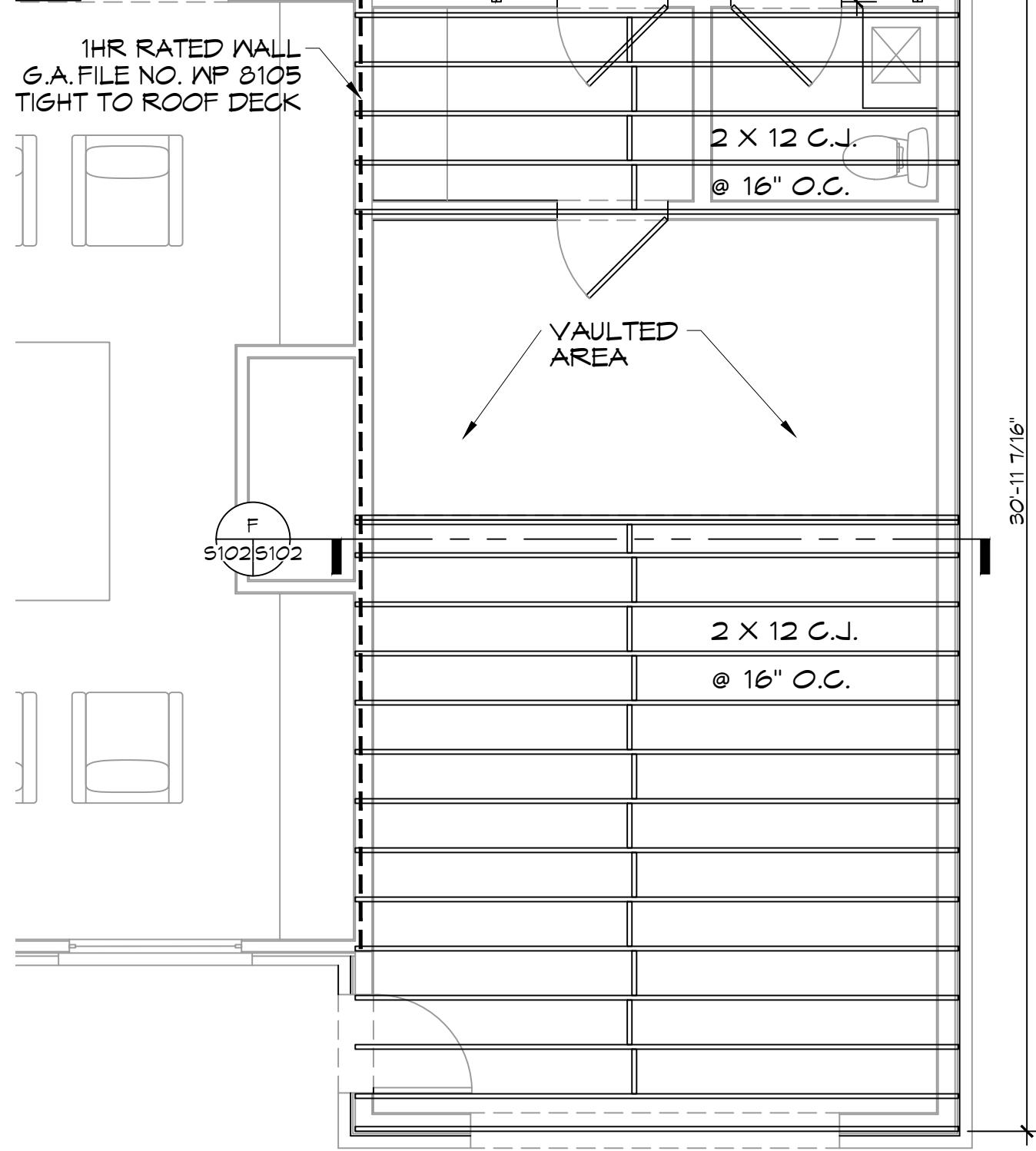
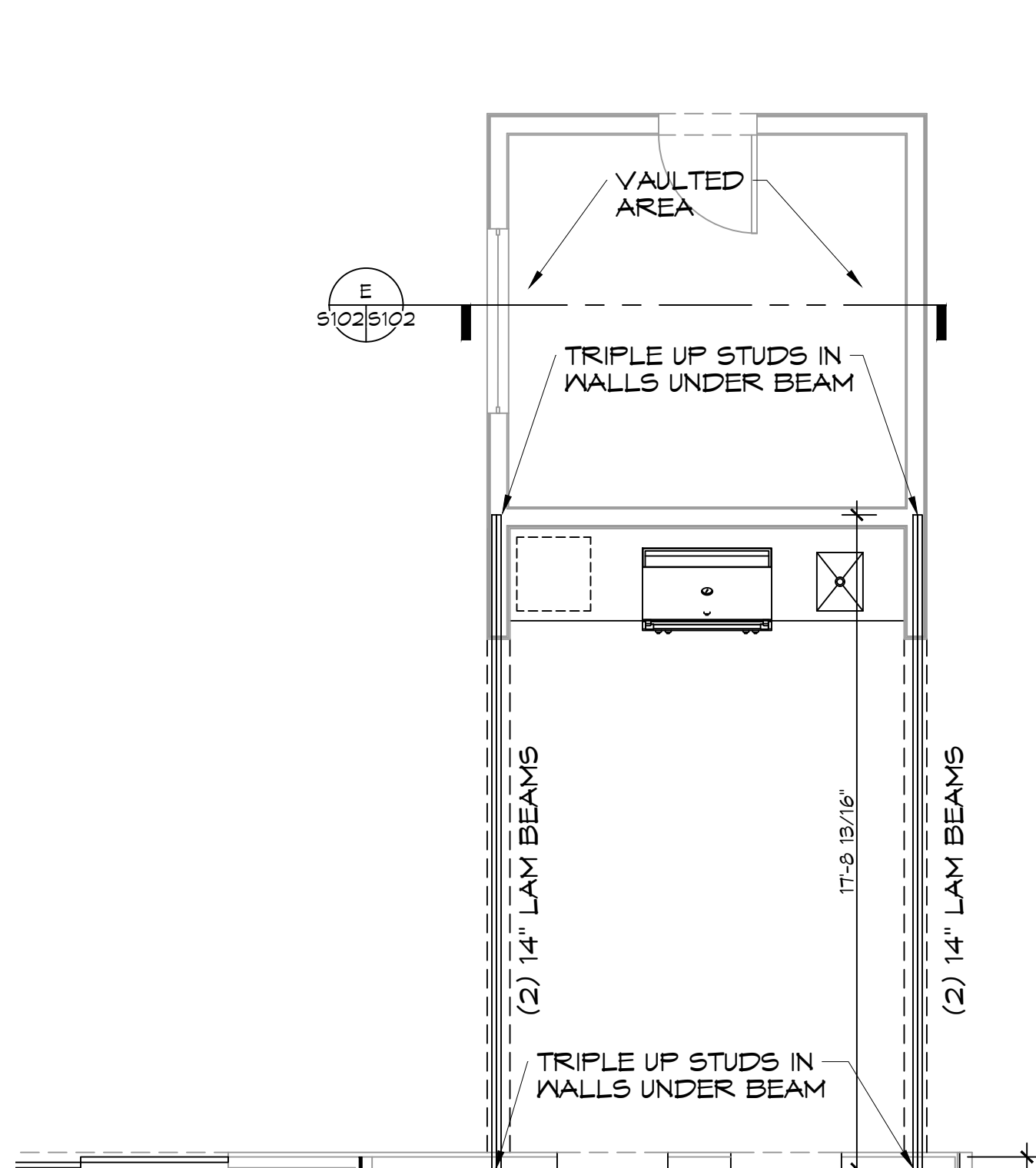
THE CONSTRUCTION FOR SAID RESIDENCE, WHERE WIND SPEED IS 140 MILES PER HOUR AND V₈₅₀ WIND SPEED IS 130 MPH, WIND EXPOSURE ZONE C, IS DESIGNED IN ACCORDANCE WITH: AMERICAN FOREST AND PAPER ASSOCIATION (AF&PA) WOOD FRAME CONSTRUCTION MANUAL FOR ONE AND TWO FAMILY DWELLINGS (WFCM) 2001 EDITION AS WELL AS THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2021 EDITION. STRUCTURE SHALL BE BUILT TO THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (2021 IECC) AND STATE AMENDMENTS ADOPTED JULY 1, 2023.

- ROOF NOTES**
1. ALL JOIST SPANS, HEADERS AND GIRDERS REVIEWED AS #2 SOUTHERN YELLOW PINE.
 2. ANY CHANGES IN THE SPECIES OR GRADE SHALL CONFORM TO THE APPROPRIATE SPAN TABLES, FLOOR JOIST CHAPTER 5, RAFTERS & CEILING JOIST CHAPTER 6, UNLESS NOTED ON THE CONSTRUCTION PLANS.
 3. ALL JOIST, BEAMS, HEADERS, HIP, VALLEYS, AND PURLINS SHALL BE SUPPORTED AND BRACED TO LOAD BEARING WALLS AS REQUIRED BY THE INTERNATIONAL RESIDENTIAL BUILDING CODE.
 4. ALL SHALL BE SIZED FOR SPAN AND FOR ALL LOADS THAT WILL BE APPLIED.
 5. CEILING JOISTS SPANS ARE BASED ON INTERNATIONAL RESIDENTIAL CODE (I.R.C.) SOUTHERN YELLOW PINE #2 LUMBER SPANS.
 6. HEADER SIZES SHOULD BE BASED ON I.R.C. - TABLE R502.5
 7. DESIGN AND LAYOUT OF TRIM JOISTS TO BE PROVIDED BY TRIM JOIST MANUFACTURER.
 8. ALL LUMBER TO BE #2 SOUTHERN PINE.
 9. TRIPLE UP ALL STUDS AT END OF BEAMS.

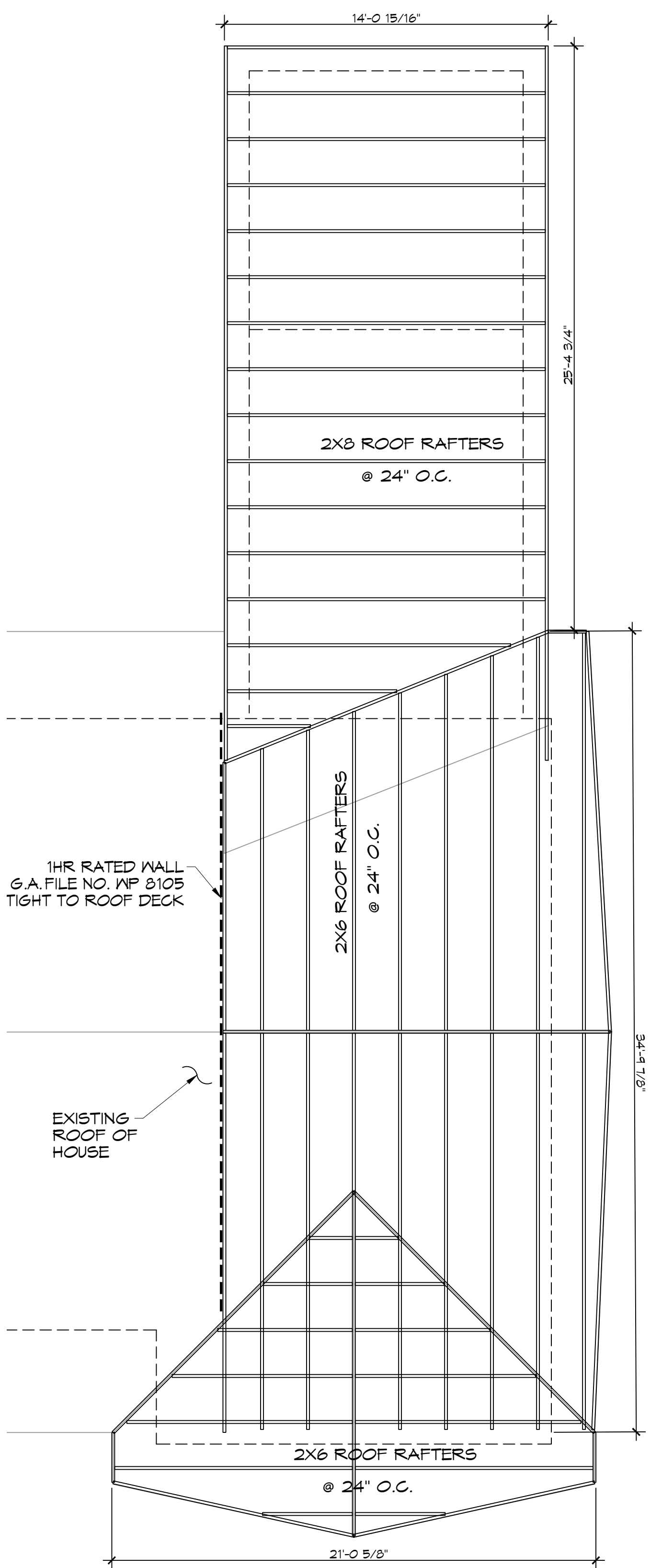
NOTE: PRE-ENGINEERED LVL BEAM & GLUE LAM SHALL BE SIZED PER MANUFACTURER RECOMMENDATION

DAMMON ENGINEERING, INC.
 LOUISIANA & MISSISSIPPI

Chief Engineer: Brian Mistich, PE
 554 Old Spanish Trail
 Slidell, LA 70458
 www.dammonengineering.com
 info@dammonengineering.com
 PH: 985.649.8832



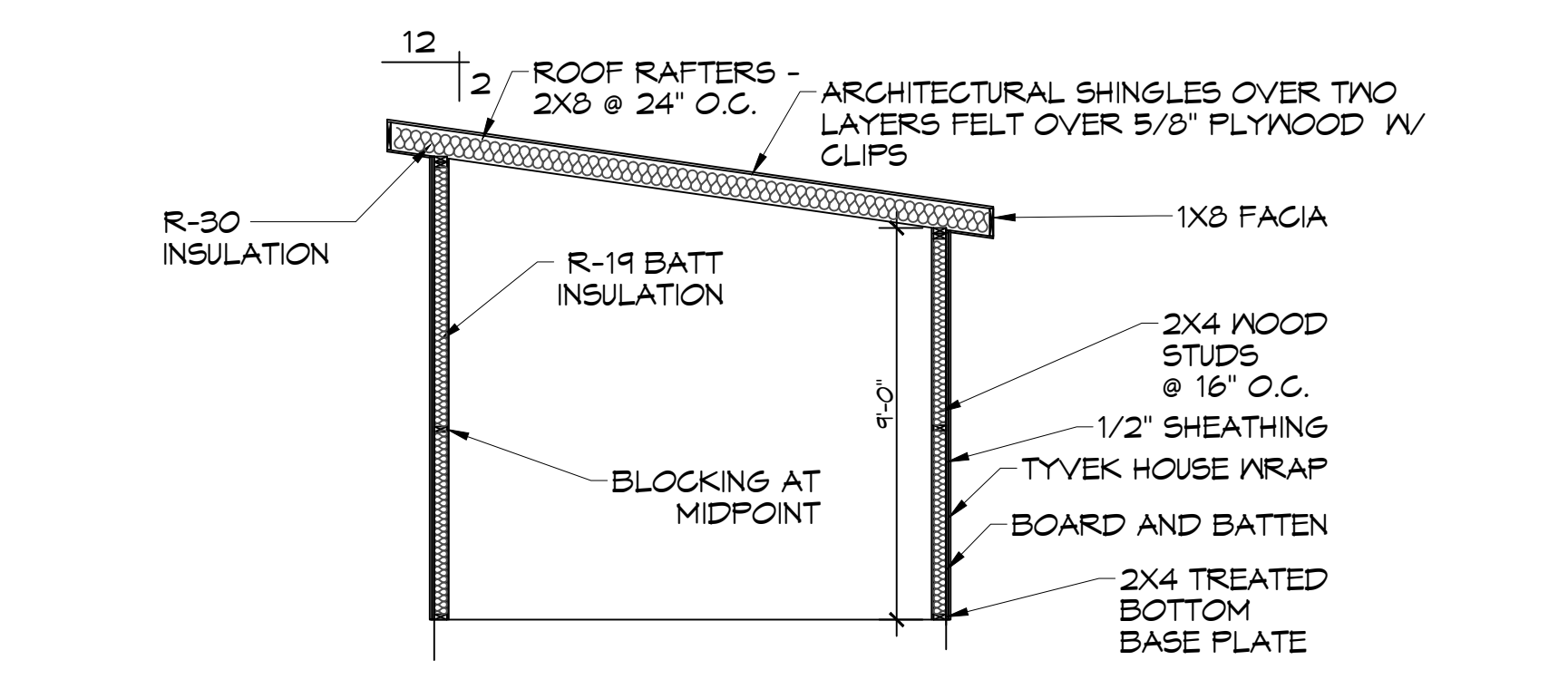
2 GARAGE CEILING JOIST PLAN
 SCALE: 1/4" = 1'-0"



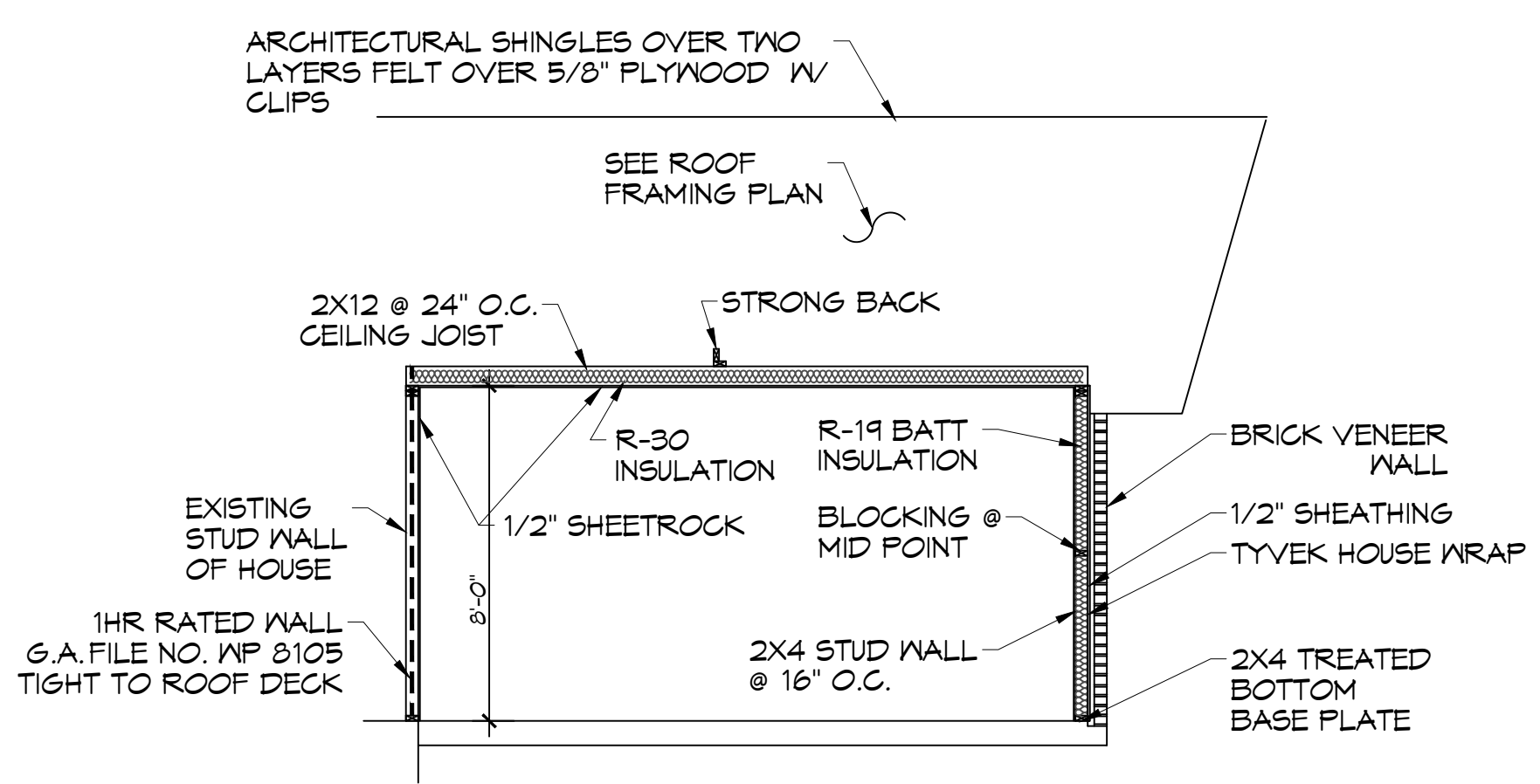
3 GARAGE ROOF RAFTER PLAN
 SCALE: 1/4" = 1'-0"

EXTERIOR WALLS

GA FILE NO. WP 8105	GENERIC	1 HOUR FIRE
GYPSON WALLBOARD, GYPSON SHEATHING, WOOD STUDS		
EXTERIOR SIDE: One layer 48" wide 5/8" type X gypsum sheathing applied parallel to 2 x 4 wood studs 24" o.c. with 1 3/4" galvanized roofing nails 4" o.c. at vertical joints and 7" o.c. at intermediate studs and top and bottom plates. Joints of gypsum sheathing may be left untreated. Exterior cladding to be attached through sheathing to studs.		
INTERIOR SIDE: One layer 5/8" type X gypsum wallboard, water-resistant gypsum backing board, or gypsum veneer base applied parallel or at right angles to studs with 6d coated nails 1 7/8" long, 0.0915" shank, 1/4" heads 7" o.c. (LOAD-BEARING)		
Thickness:	Varies	
Approx. Weight:	7 psf	
Fire Test:	See WP 3510 (UL R3501-47, -48, 9-17-65, UL Design U309; UL R1319-129, 7-22-70, UL Design U314)	

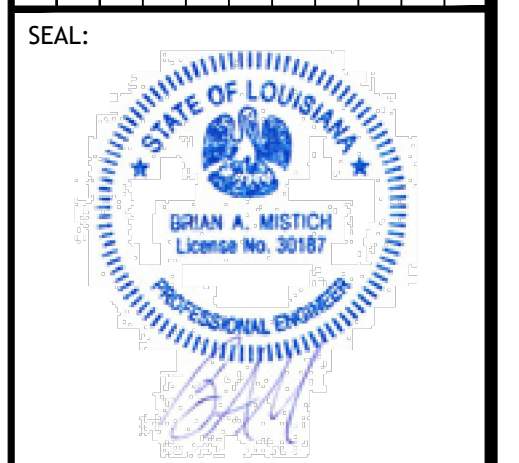


E GARDEN ROOM FRAMING SECTION
 SCALE: 1/4" = 1'-0"



F GARAGE FRAMING SECTION
 SCALE: 1/4" = 1'-0"

REVISIONS	DATE
#	DESCRIPTION



JIM SMITH

6386 PRATT DRIVE
 NEW ORLEANS, LA 70122
 JOB No: 04-14-2026
 DATE: 04-14-2026
 DRAWN BY: CKD
 CHECKED BY: BAM

SHEET TITLE:
GARAGE, PATIO & SHED FRAMING PLAN

SHEET TITLE:
GARAGE CEILING JOIST AND ROOF RAFTER PLAN WITH SECTIONS

DRAWING NUMBER:
S102

SHEET No: 2 of 3

TABLE S601.7 - UPLIFT CONNECTIONS - 140 MPH WINDS EXP "B"
NFCM 2015 TABLE 3.2

CONNECTION	FRAMING SPACING (INCHES)	ROOF SPAN (FEET)	UPLIFT	LATERAL	SHEAR	NUMBER OF 8d COMMON NAILS OR 10d BOX NAILS IN EACH END OF 1-1/4" X 20" GAGE STRAP
ROOF ASSEMBLY TO WALL ASSEMBLY	16" OC	16	401	292	152R	4
WALL ASSEMBLY TO FOUNDATION	16" OC	16	224	219	436	4

TABLE S601.8 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING UPLIFT LOADS - 140 MPH WIND EXP "B"
NFCM 2015 TABLE 3.2C

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)	
		8' END ZONES	INTERIOR ZONES
UPLIFT LOADS	1 - 3 STORIES	25 INCHES ON CENTER	30 INCHES ON CENTER

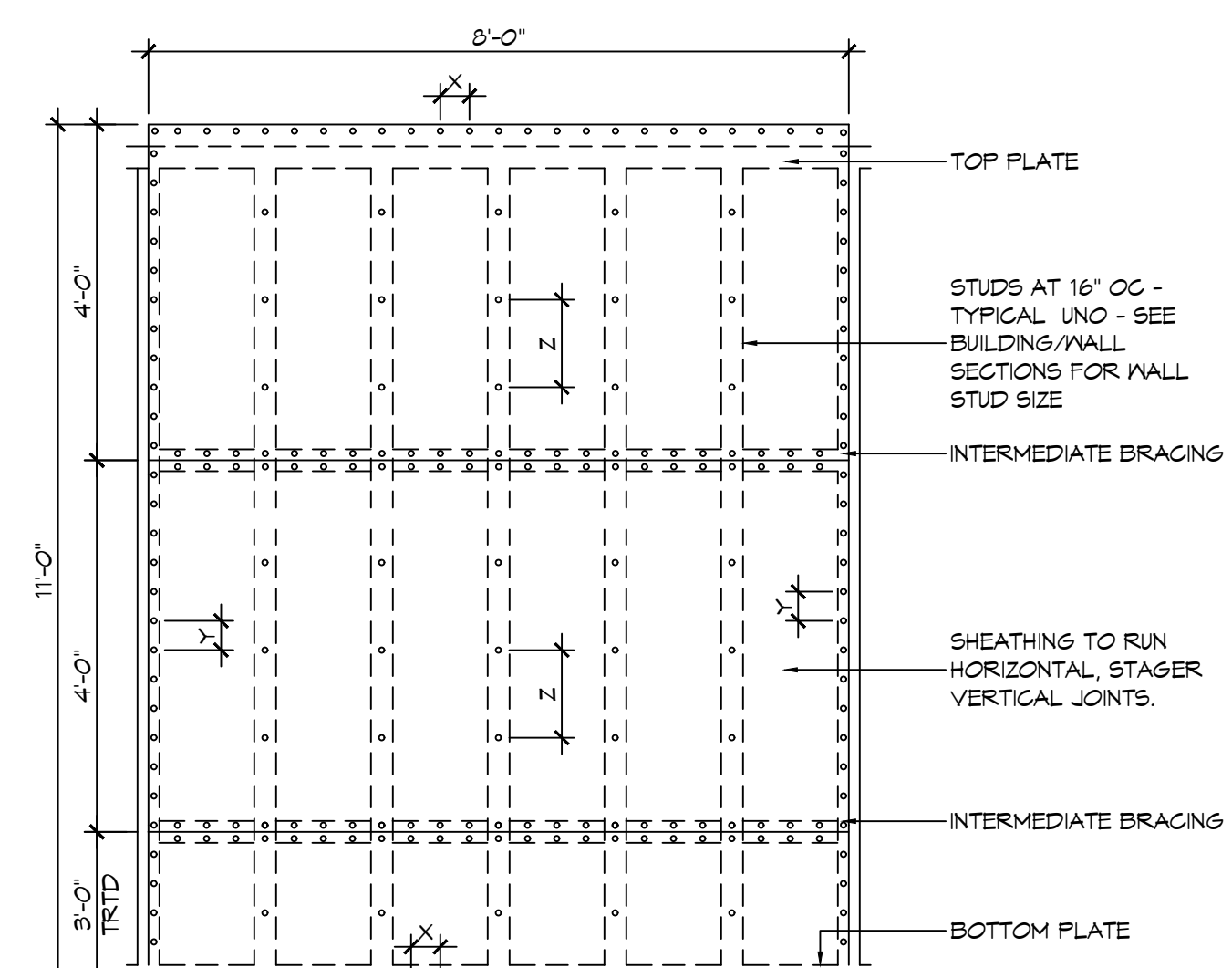
NOTE: A MINIMUM OF ONE ANCHOR BOLT SHALL BE PROVIDED WITHIN 6 TO 12 INCHES OF EACH END OF EACH PLATE

TABLE S601.9 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING SHEAR LOADS - 140 MPH WIND EXP "B"
NFCM 2015 TABLE 3.2B

BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING	FOUNDATION SUPPORTING	MAXIMUM ANCHOR BOLT SPACING (INCHES)	
		5/8" Ø ANCHOR BOLTS	48 INCHES ON CENTER W/3X3X1/4" WASHER
UPLIFT LOADS	4 STORY		

TABLE S601.10 - FULL HEIGHT STUD REQUIREMENT FOR HEADERS OR WINDOW SILL PLATES IN EXTERIOR WALLS EXPOSURE "B"
NFCM 2015 TABLE 3.23C

HEADER SPAN (FEET)	WALL SPACING (INCHES)		
	12" O.C.	16" O.C.	24" O.C.
2	1	1	1
4	2	2	1
6	3	3	2
8	4	3	2



NAIL SPACING
X = 4" OC
Y = 4" OC
Z = 12" OC

X = PLATE EDGE NAIL SPACING
Y = LONG EDGE NAIL SPACING
Z = FIELD NAIL SPACING

INTERIOR SHEATHING
1/2" PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @ 4" O.C. FASTENING @ PANEL EDGES 8d NAILS @ 12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

EXTERIOR SHEATHING
5/8" PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @ 4" O.C. FASTENING @ PANEL EDGES 8d NAILS @ 12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

H SHEAR WALL EXTERIOR SHEATHING NAILING PATTERN

TABLE S601.5 - JACK STUD REQ - INT LOADBEARING WALLS

HEADER SUPPORTING	HEADER SPAN (FT)	ROOF SPAN (FEET)											
		12 FEET				24 FEET				36 FEET			
		3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"	3"	4.5"	5"	6"
ONE FLOOR ONLY (CENTER BEARING)	2	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1	1	1	1	1
	6	1	1	1	1	1	1	1	1	2	1	1	1
	8	1	1	1	1	2	1	1	1	2	2	2	1
	10	1	1	1	1	2	2	1	1	3	2	2	2
	12	1	1	1	1	2	2	2	1	3	2	2	2
TWO FLOORS (CENTER BEARING)	2	2	2	1	1	3	2	2	2	4	3	3	2
	4	1	1	1	1	2	1	1	1	3	2	2	2
	6	2	1	1	1	3	2	2	2	4	3	2	2
	8	2	2	1	1	3	2	2	2	5	3	3	3
	10	2	2	2	1	4	3	3	2	6	4	4	3
	12	3	2	2	2	5	3	3	3	7	5	4	4
14	3	2	2	2	6	4	4	3	8	5	5	4	
16	4	3	2	2	6	4	4	3	9	6	6	5	

TABLE S601.6 - JACK STUD REQ - EXTERIOR LOADBEARING WALLS
NFCM 2021 TABLE 3.22F

HEADER WIDTH - 3" (2-2X), 4.5" (3-2X), 5", 6.5" (4-2X) EACH 1/12" PLYWOOD SPACER BETWEEN	ROOF LIVE LOAD 20 PSF				ROOF LIVE LOAD 30 PSF				
	3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"	
	NUMBER OF JACK STUDS REQUIRED								
ROOF AND CEILING	2	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1
	6	2	1	1	1	2	1	1	1
	8	2	2	2	1	2	2	2	1
	10	3	2	2	2	3	2	2	2
	12	3	2	2	2	3	2	2	2
ROOF, CEILING, AND ONE CENTER BEARING FLOOR	2	1	1	1	1	1	1	1	1
	4	2	1	1	1	2	1	1	1
	6	2	2	2	1	3	2	2	2
	8	3	2	2	2	3	2	2	2
	10	4	3	2	2	4	3	3	2
	12	4	3	3	2	5	3	3	3
14	5	4	3	3	5	4	3	3	
16	6	4	4	3	6	4	4	3	

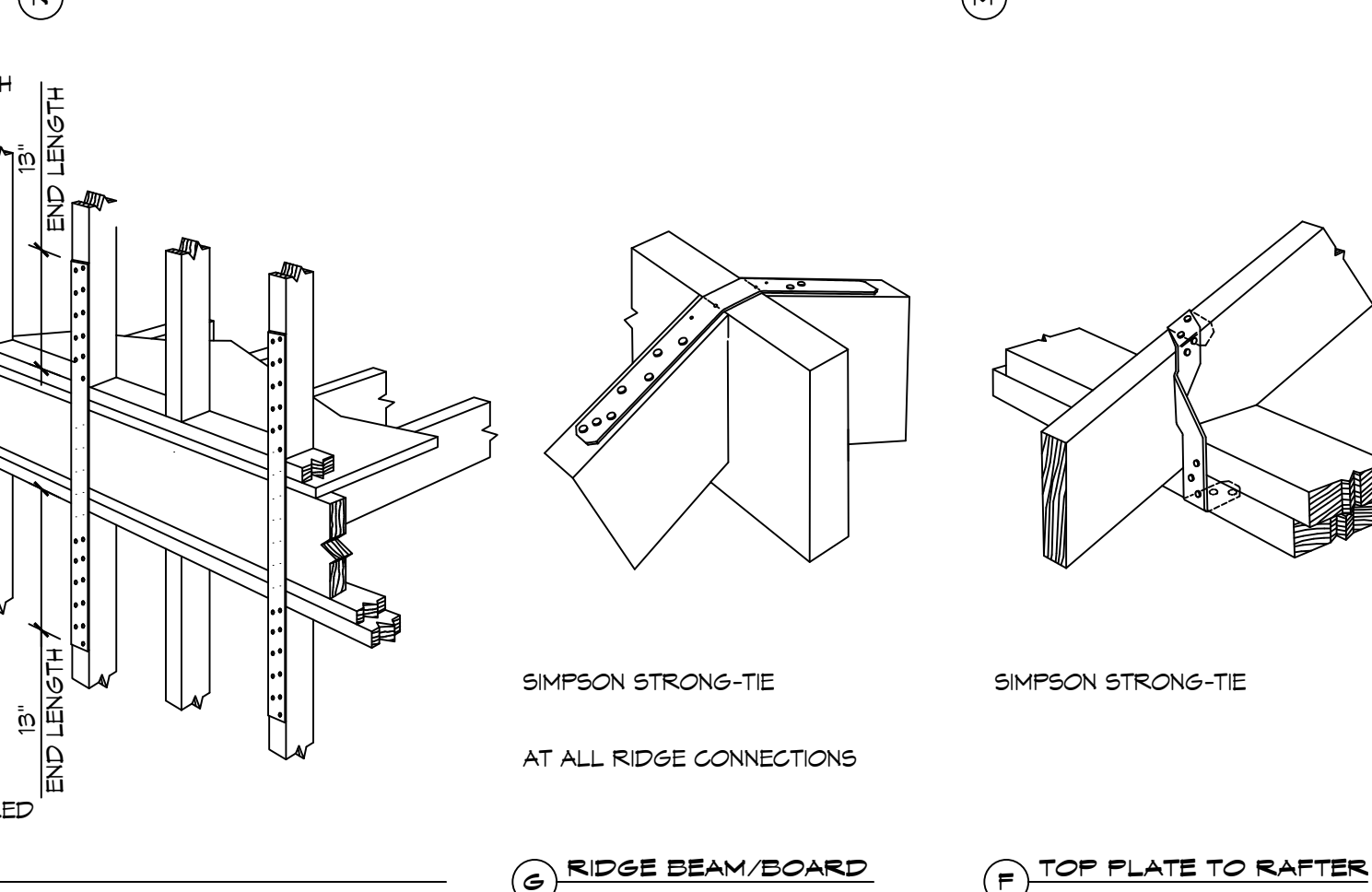
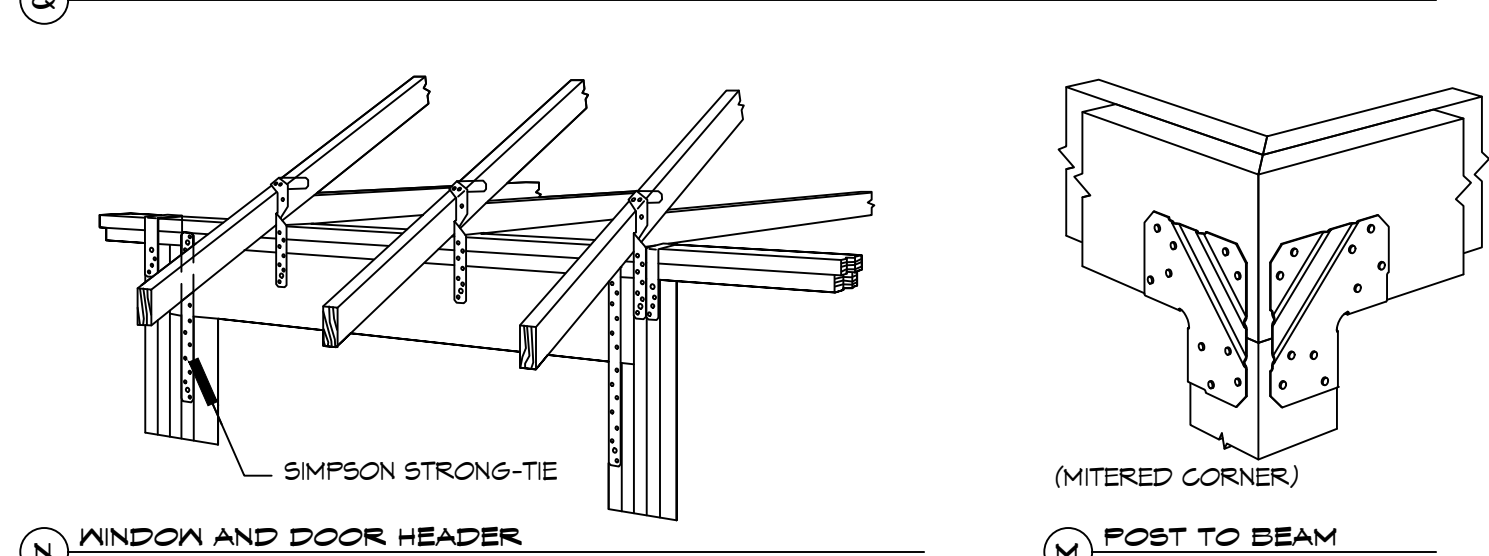
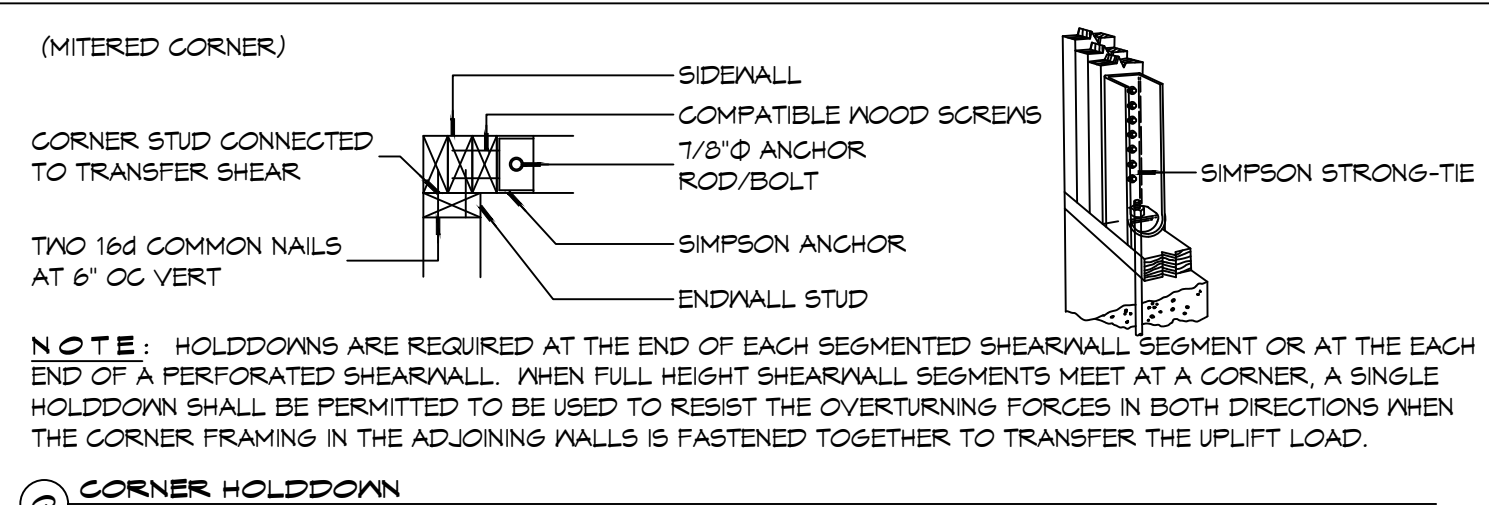
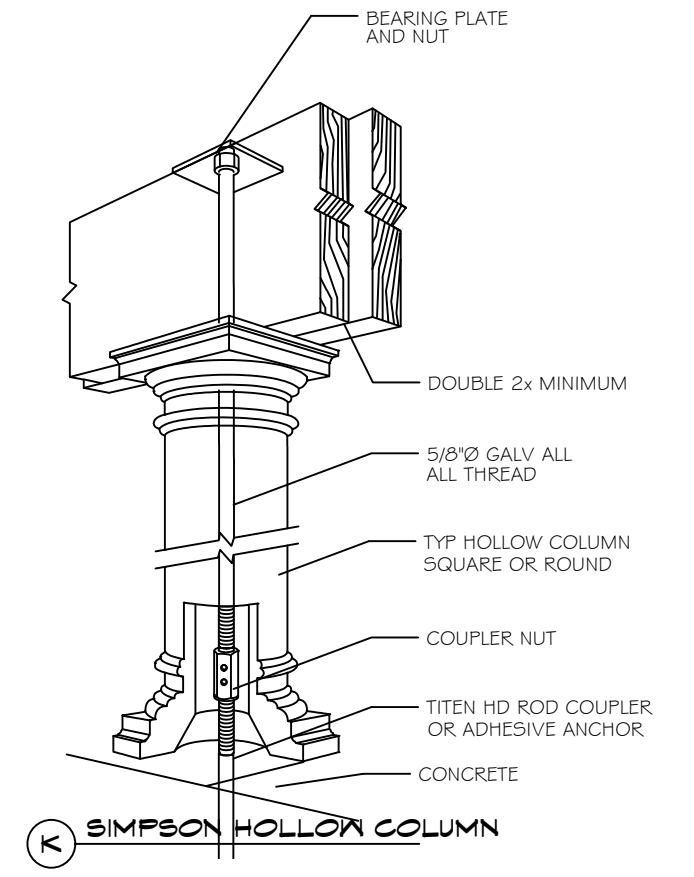


TABLE S601.3 - NAILING SCHEDULE
NFCM 2015 TABLE 3.1

DESCRIPTION	NUMBER OF COMMON NAILS	NUMBER OF BOX NAILS	SPACING
HEADER TO HEADER (FACE NAILED)	16d	16d	16" OC EDGES

TABLE S601.4 - BUILDING ENVELOPE REQUIREMENTS

ROOFS	OPAQUE ELEMENTS	ASSEMBLY MAXIMUM	INSULATION MIN. R-VALUE
METAL BUILDING	INSULATION ENTIRELY ABOVE DECK	U-0.048	R-20.0 c.i.
ATTIC AND OTHER		U-0.027	R-38
MASS		U-0.151	R-5.7 c.i.
METAL BUILDING		U-0.113	R-19.0
STEEL-FRAMED		U-0.124	R-19.0
WOOD-FRAMED AND OTHER		U-0.089	R-19.0
MASS		U-0.107	R6-3 c.i.
STEEL JOIST		U-0.052	R-19.0
WOOD FRAMED AND OTHER		U-0.051	R-19.0
SLAB-ON-GRADE	UN-HEATED	F-0.150	NR
OPAQUE DOORS	SWINGING	U-0.700	NR
	NON-SWINGING	U-1.450	NR



METAL ROOF APPLICATION & FASTENING NOTES

1. INSTALL 26 GAUGE METAL ROOF PER MANUFACTURER'S RECOMMENDATIONS FOR 140 MPH WIND SPEED.

GENERAL UPLIFT CONNECTION NOTES

ROOF ASSEMBLY TO WALL ASSEMBLY:
UPLIFT CONNECTIONS SHALL BE FROM RAFTER OR TRUSS TO WALL STUD. WHEN RAFTERS OR TRUSSES ARE NOT LOCATED DIRECTLY ABOVE STUDS, RAFTERS SHALL BE ATTACHED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.10.

WALL ASSEMBLY TO WALL ASSEMBLY:
STORY TO STORY UPLIFT CONNECTIONS FROM UPPER STORY WALL STUD TO LOWER STORY WALL STUD. WHEN UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS, THE STUDS SHALL BE ATTACHED TO A COMMON MEMBER IN THE FLOOR ASSEMBLY BY UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.11.

WALL ASSEMBLY TO FOUNDATION:
FIRST FLOOR WALL STUDS SHALL BE CONNECTED TO THE FOUNDATION, SILL PLATE, OR BOTTOM PLATE. A MINIMUM OF A 1-1/4" X 20" GA. ASTM A653 GRADE 53B STEEL STRAP SHALL BE NAILED TO THE WALL STUD. WALL STUDS HAVE A MINIMUM EMBEDMENT OF 1 INCHES IN CONCRETE FOUNDATIONS AND SLABS-ON-GRADE, 15 INCHES IN MASONRY BLOCK FOUNDATIONS, OR BE LAPPED UNDER THE BOTTOM PLATE. 3 INCH SQUARE WASHERS SHALL BE USED ON THE ANCHOR BOLTS AND ANCHOR BOLT SPACINGS SHALL NOT EXCEED THE REQUIREMENTS. STEEL STRAPS EMBEDDED IN OR IN CONTACT WITH SLAB-ON-GRADE OR MASONRY BLOCK FOUNDATIONS SHALL BE HOT-DIPPED GALV. AFTER FABRICATION, OR MANUF. FROM S185 OR S450 GALV. STL. CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE S601.12.

TABLE S601.1 - ROOF SHEATHING ATTACHMENT REQUIREMENT - WIND LOAD EXP "B"

SHEATHING LOCATION	RAFTER / TRUSS SPACING	E F	
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
PERIMETER EDGE ZONE	12" OC	6	6
	16" OC	4	4
	24" OC	3	3

TABLE S601.1 - WALL SHEATHING AND CLADDING REQUIREMENT - WIND LOAD EXP "B"

SHEATHING LOCATION	RAFTER / TRUSS SPACING	E F	
		MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC)	
INTERIOR ZONE	12" OC	6	12
	16" OC	6	12
PERIMETER EDGE ZONE	12" OC	6	12
	16" OC	6	12
	24" OC	6	6

DESIGN CRITERIA

THE CONSTRUCTION FOR SAID RESIDENCE, WHERE WIND SPEED IS 140 MILES PER HOUR AND VASD WIND SPEED IS 130 MPH, WIND EXPOSURE ZONE G, IS DESIGNED IN ACCORDANCE WITH: AMERICAN FOREST AND PAPER ASSOCIATION (AF&PA) WOOD FRAME CONSTRUCTION MANUAL FOR ONE AND TWO FAMILY DWELLINGS (WFCM) 2001 EDITION AS WELL AS THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2021 EDITION. STRUCTURE SHALL BE BUILT TO THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (2021 IEC) AND STATE AMENDMENTS ADOPTED JULY 1, 2023.

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI

Chief Engineer: Brian M. Misch
554 Old Spanish Trail
Slidell, LA 70458
www.dammonengineering.com
info@dammonengineering.com
PH: 985-649-5832

STATE OF LOUISIANA
BRIAN A. MISCH
Louisia No. 30187
Professional Engineer

JIMMY

Garage, Patio & Shed Framing Plan

6836 PRATT DRIVE
IRMA ORLEANS, LA 70122
JOB No: 04-14-2026
DRAWN BY: CKD
CHECKED BY: BAKY

SHEET TITLE: TYPICAL CONNECTION DETAILS, SCHEDULES, AND NOTES

DRAWING NUMBER: **S103**

SHEET No: 3 of 3