

APPLICABLE CODES AND STANDARDS

- 2023 FLORIDA BUILDING CODE (8TH EDITION)
- 2021 INTERNATIONAL BUILDING CODE
- ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
- AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
- ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- AWS D1.1: STRUCTURAL WELDING

INSTALLATION NOTES AND SPECIFICATIONS

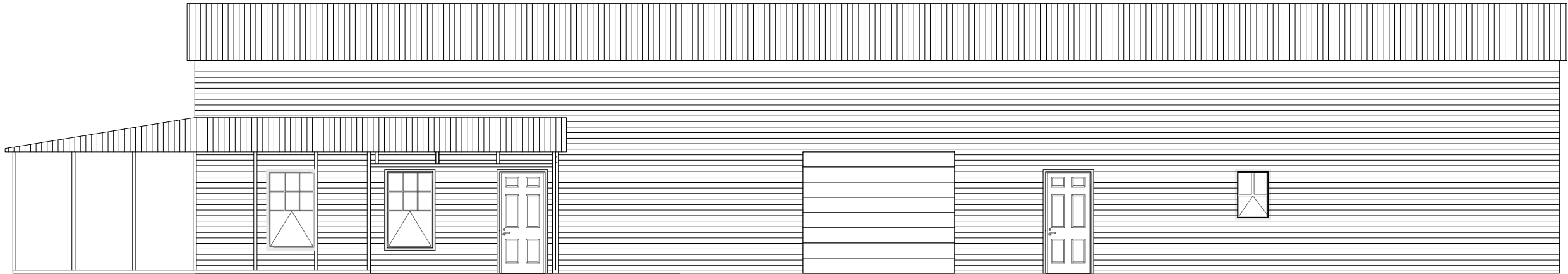
- END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE EQUIVALENT IN SIZE AND SPACING U.N.O.
- SPECIFICATIONS APPLICABLE TO 29 GA METAL PANELS FASTENED DIRECTLY TO 2.5"X2.5"X14 GA TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS. 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O.
- 18 GA HAT CHANNELS SHALL BE SPACED 48" O.C. UNLESS DESIGN PRESSURES FROM TABLE 2 EXCEED THE MAX ALLOWABLE PRESSURES IN TABLE 1. THEN THE SPACING SHALL BE 24" O.C. IN THE ZONES THAT EXCEED THE MAX PRESSURES.
- AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" AND END=6" MAX.
- FASTENERS CONSIST OF #12-14X3/4" SELF DRILLING SCREWS USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20'-0" OR LESS, AND ROOF SLOPES OF 14" (3:12 PITCH) OR LESS. SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
- ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
- STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBARS WITH WELDED NUT X 30" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED. SOIL NAILS MAY BE USED FOR WIND SPEEDS LESS THAN OR EQUAL TO 145 MPH.
- RAFTER SPACING IS 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH AND 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 180 MPH.
- WINDOWS AND DOORS SHALL BE INSTALLED AND FLASHED IN ACCORDANCE WITH THE FENESTRATION MANUFACTURER'S WRITTEN INSTRUCTIONS. WINDOW AND DOOR OPENINGS SHALL BE FLASHED IN ACCORDANCE WITH SECTION R703.4. WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED BY THE FENESTRATION MANUFACTURER FOR EACH WINDOW OR DOOR.
- THE WIND SPEED LISTED ON THE PLANS HAS BEEN INTERPOLATED PER FBC TABLE R301.2.1.3 FOOTNOTE a.
- TORNADO VELOCITY COMPLIANCE NOT REQUIRED FOR RISK CATEGORY I AND II STRUCTURES PER 2023 FBC RESIDENTIAL R301.2.1.1, BUILDING 1601.3.4, AND ASCE 7-22



DESIGN LOADS

- DEAD LOAD = 10 PSF
- LIVE LOAD= 20 PSF
- WIND LOAD (SEE TABLE 1)
- A. RISK CATEGORY = II
- B. WIND EXPOSURE CATEGORY = C
- C. ULTIMATE WIND SPEED = 130 MPH
- D. NOMINAL WIND SPEED = 101 MPH

R-3 OCCUPANCY



DRAWING INDEX	
SHEET NO.	SHEET TITLE
S-1	NOTES AND SPECIFICATIONS
S-2	FRAMING LAYOUT ELEVATIONS
S-2.1	FRAMING LAYOUT ELEVATIONS
S-3	FRAME RAFTER LEAN-TO DETAILS
S-4	FOUNDATION PLAN AND DETAILS
S-5	CONNECTION DETAILS (1 OF 2)
S-6	CONNECTION DETAILS (2 OF 2)
S-7	WALL AND CEILING DETAILS
0	INCIDENTALS
1	ELEVATIONS
2	FLOOR PLAN
3	ELECTRICAL

COMPONENTS AND CLADDING DESIGN PRESSURES MEAN ROOF HT 15 FT, EXPOSURE C (PSF)														
Zone	120		130		140		150		160		170		180	
	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG
1	8.7	-18.5	10.3	-21.8	11.9	-25.3	13.7	-29.0	15.6	-33.0	17.5	-37.3	19.7	-41.7
2	8.7	-25.0	10.3	-29.4	11.9	-34.1	13.7	-39.2	15.6	-44.5	17.5	-50.3	19.7	-56.4
3	9.9	-40.2	11.6	-47.2	13.4	-54.7	15.4	-62.8	17.5	-71.5	19.8	-80.7	22.1	-90.4
4	16.0	-17.5	18.8	-20.7	21.8	-24.0	25.0	-27.5	28.4	-31.2	32.1	-35.3	35.9	-39.6
5	16.8	-21.3	19.7	-24.9	22.9	-28.9	26.3	-33.2	29.9	-37.8	33.8	-42.6	37.9	-47.8

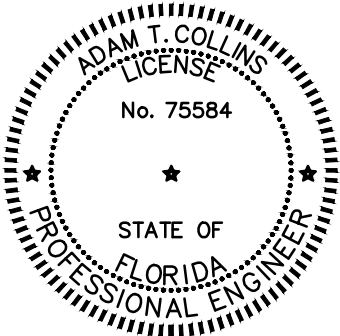
TABLE 1

MEMBER	PRODUCT APPROVAL NUMBER	MAX WIND DESIGN PRESSURES
ROOF PANELS	FL39466	+41.6 PSF / -31.2 PSF
WALL PANELS	FL39594	+55.4 PSF / -41.6 PSF
GARAGE DOOR	CTP	CTP
WALK-IN DOOR	CTP	CTP

CTP = CONTRACTOR TO PROVIDE 2023 FBC APPROVED PRODUCTS THAT MEET OR EXCEED DESIGN PRESSURES AS TABULATED.

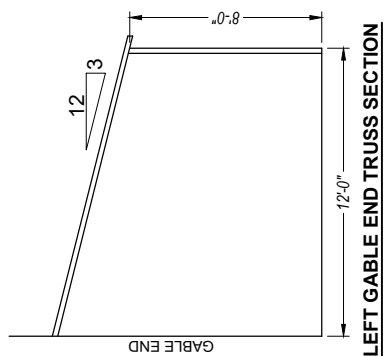
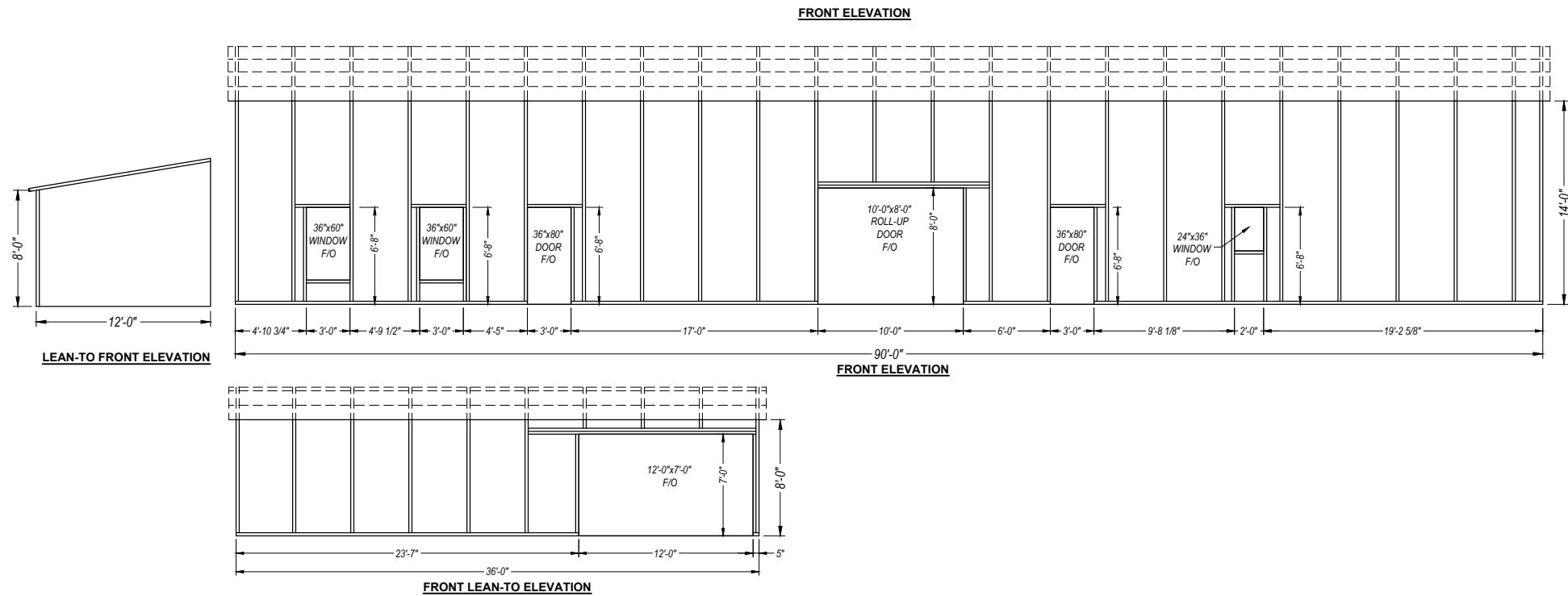
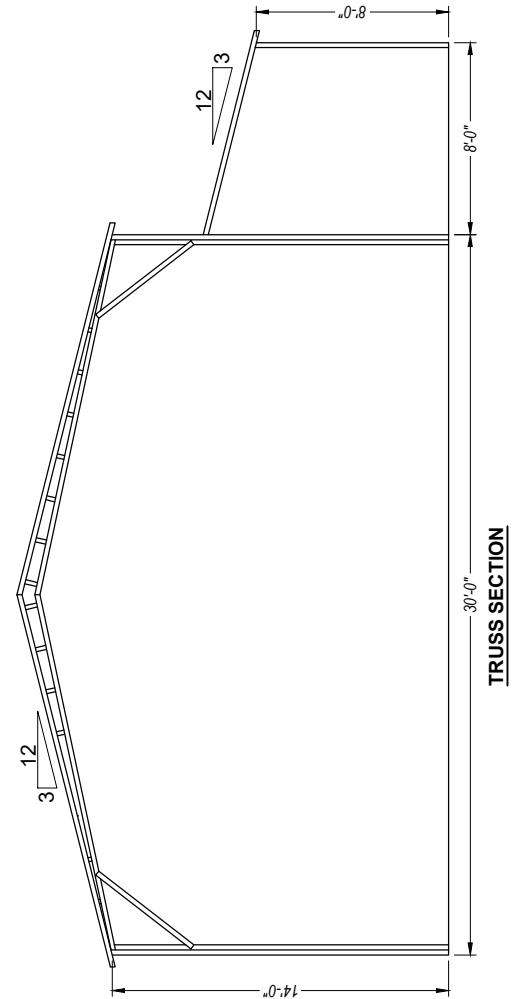
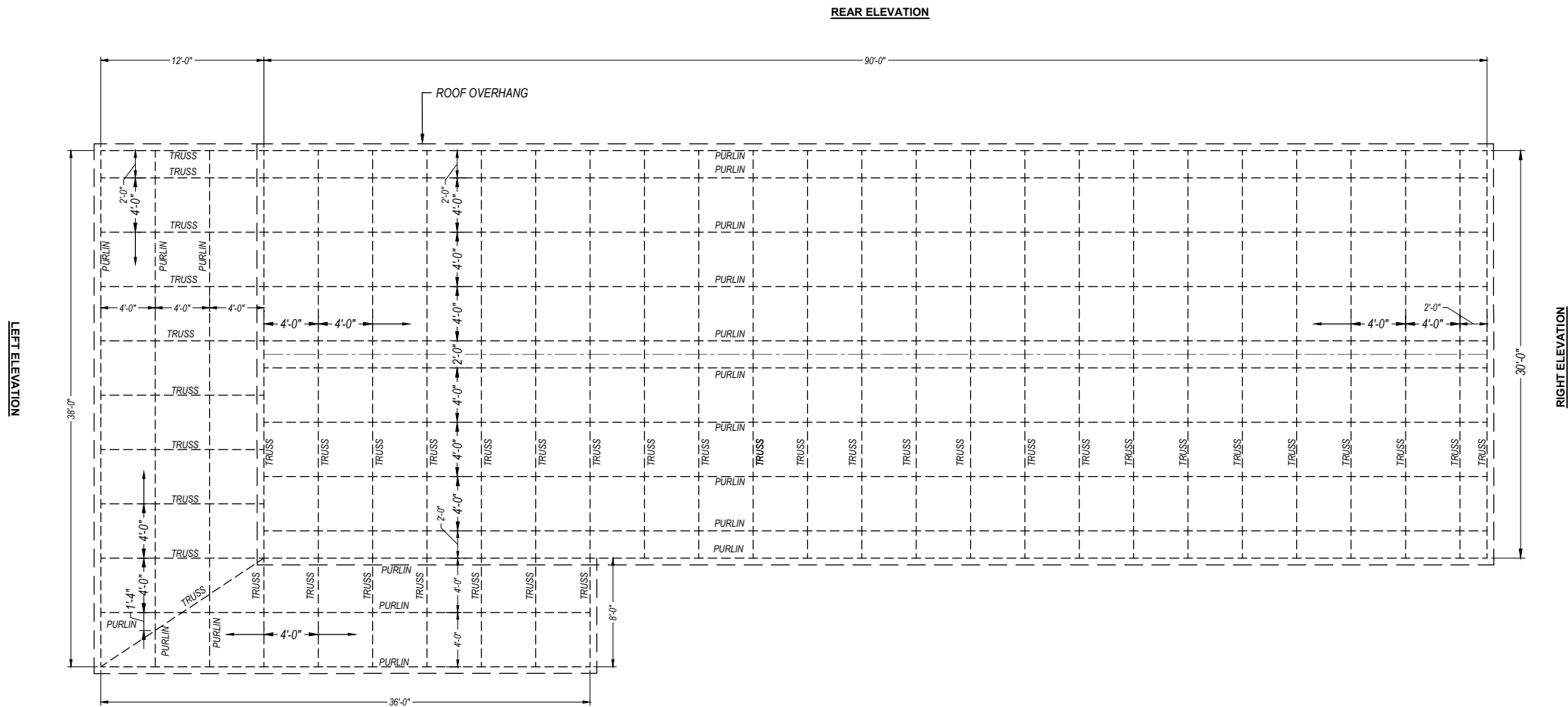
Digitally signed by Adam Collins  
DN: c=US, sn=Collins,  
givenName=Adam,  
email=adam@collinseng.com,  
cn=Adam Collins  
Date: 2025.01.16 10:31:05 -05'00'

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NO.	REVISIONS	DATE	DATE	2025-01-15	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	RBS			<b>ADAM COLLINS</b> ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	NOTES AND SPECIFICATIONS	SMITH RESIDENCE	S-1
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

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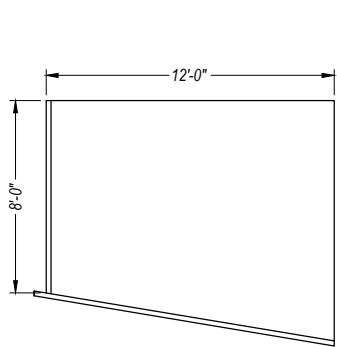


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			DRAWN	RBS			 <b>ADAM COLLINS</b> ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	FRAMING LAYOUT ELEVATIONS	SMITH RESIDENCE	S-2
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							

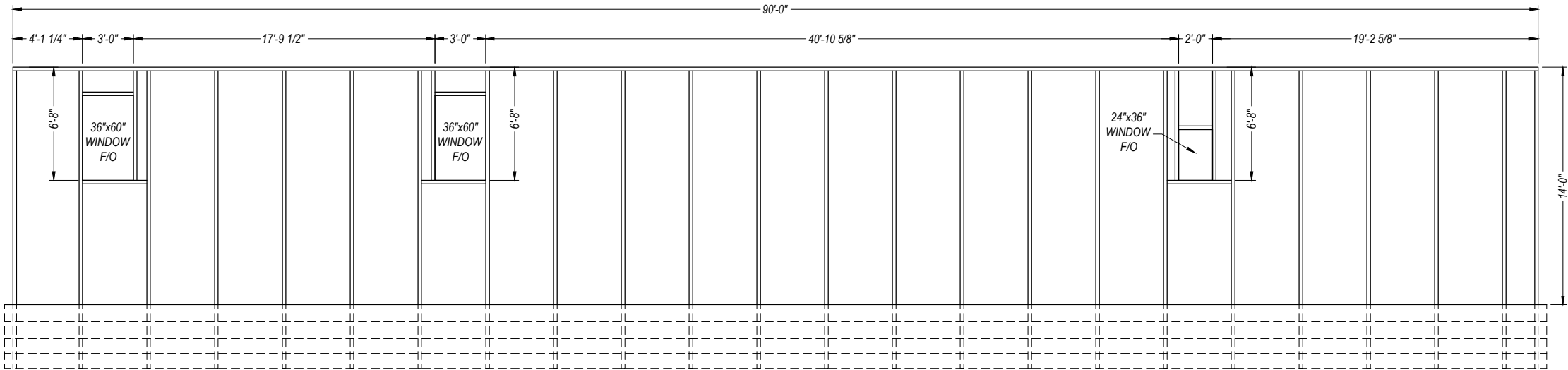
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**ADAM T. COLLINS**  
LICENSE  
No. 75584  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

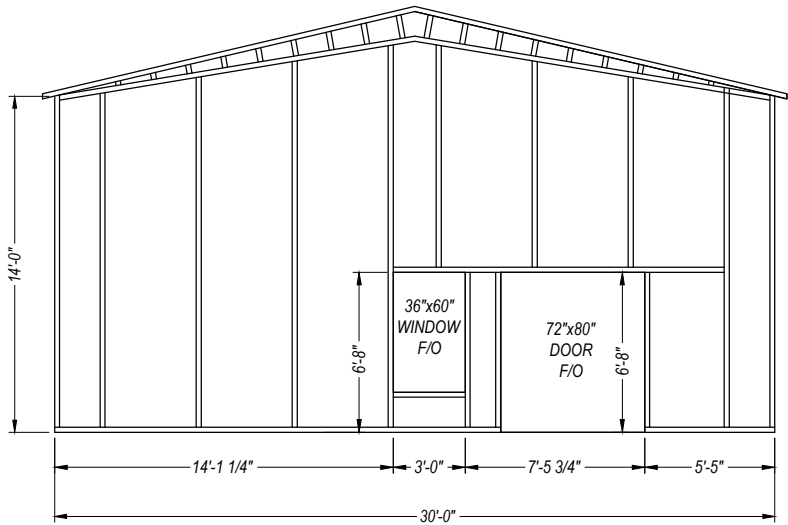
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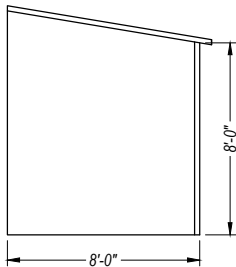
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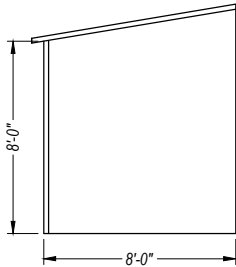
REAR ELEVATION



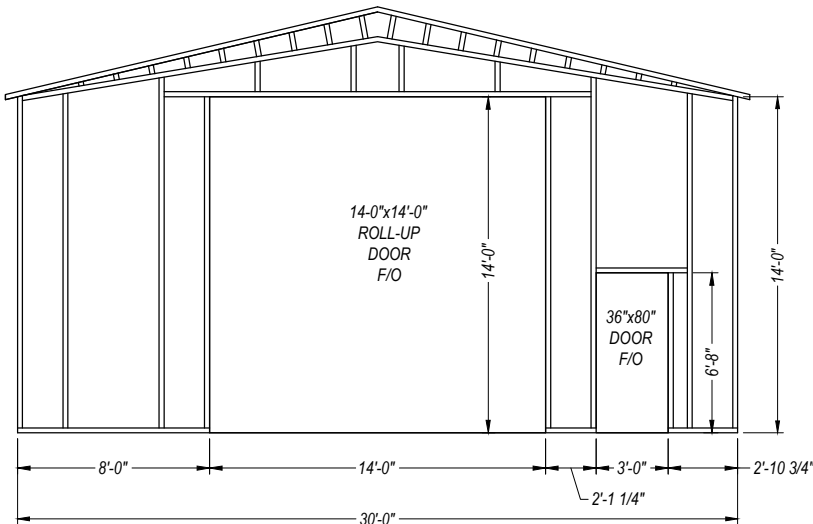
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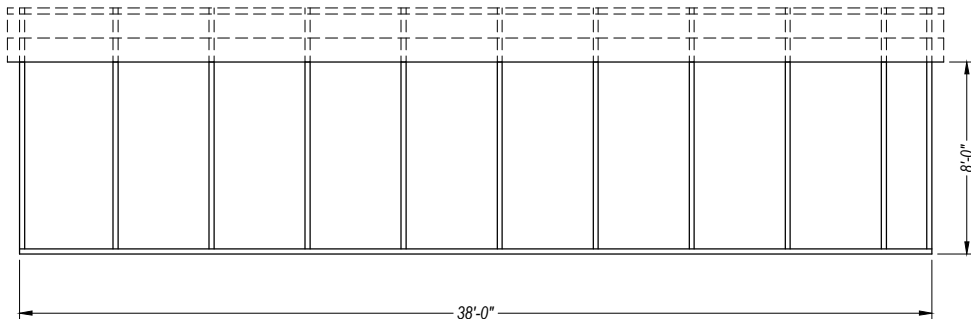
LEAN-TO LEFT ELEVATION



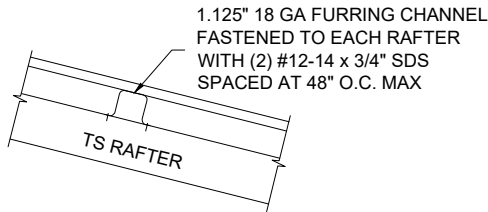
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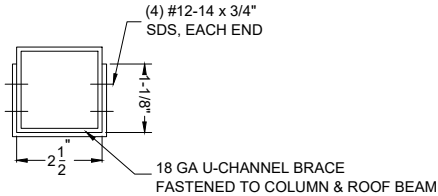
RIGHT ELEVATION



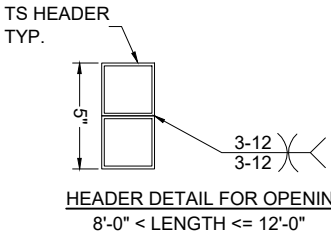
LEFT GABLE END LEAN-TO ELEVATION



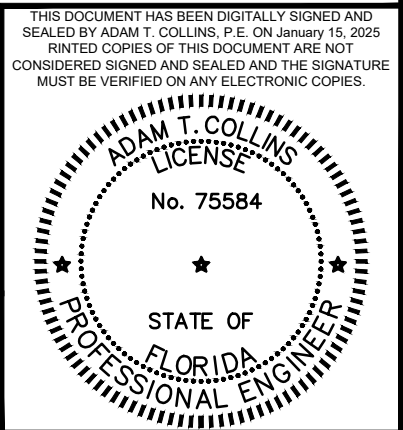
PANEL ATTACHMENT  
(ALTERNATE FOR VERTICAL ROOF PANELS)  
SCALE: NTS



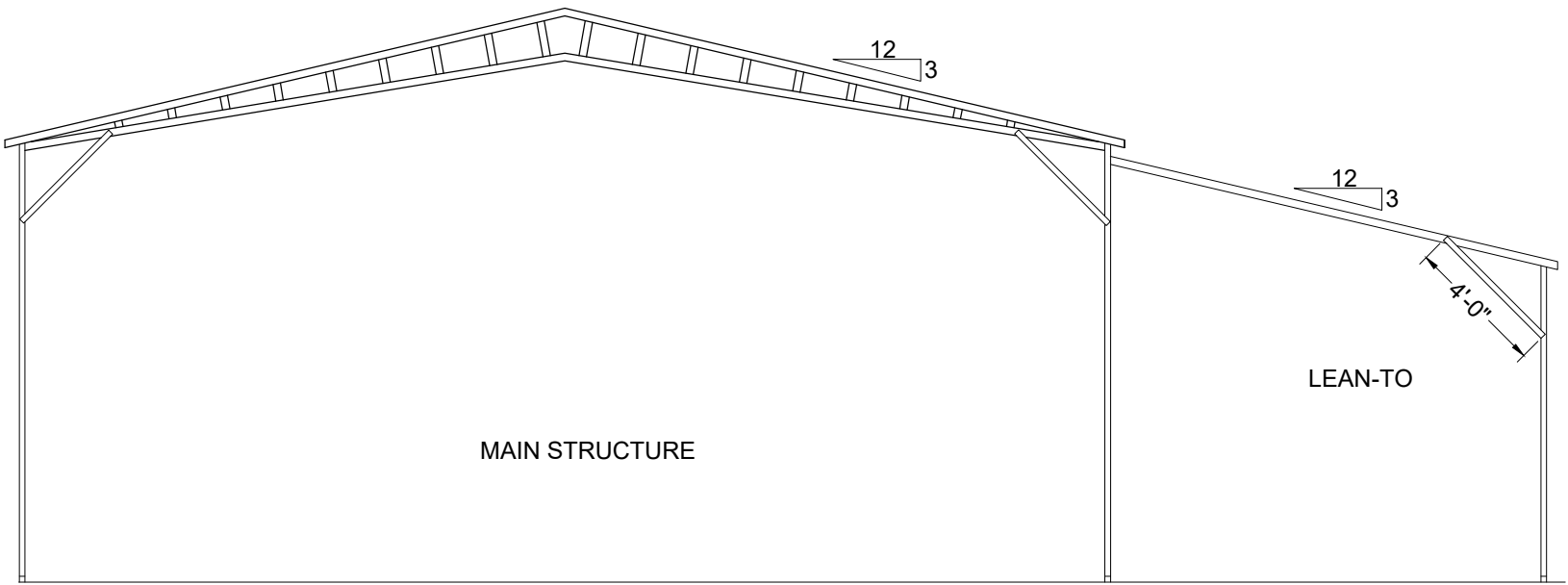
BRACE SECTION  
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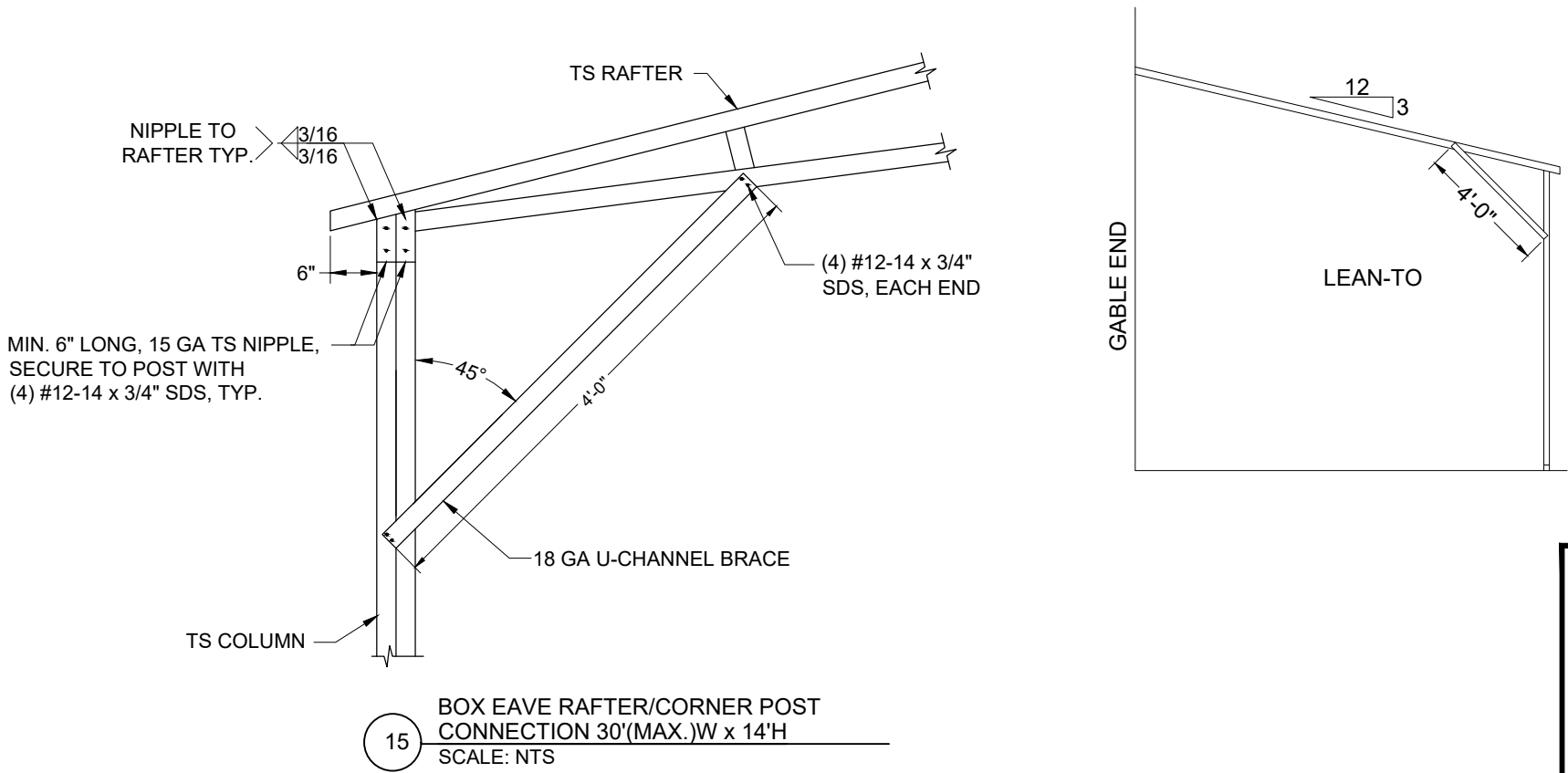
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			DRAWN	RBS			 CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	FRAMING LAYOUT ELEVATIONS	SMITH RESIDENCE	S-2.1
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							



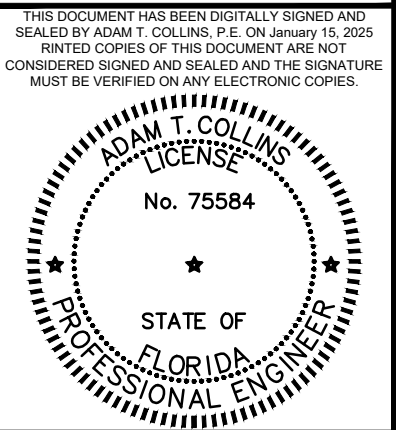
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**TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION**  
SCALE: NTS

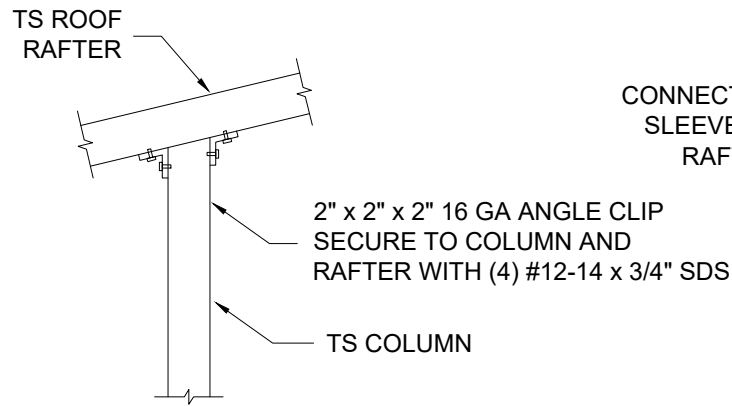


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			DRAWN	RBS			 CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	FRAME RAFTER LEAN-TO DETAILS	SMITH RESIDENCE	S-3
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

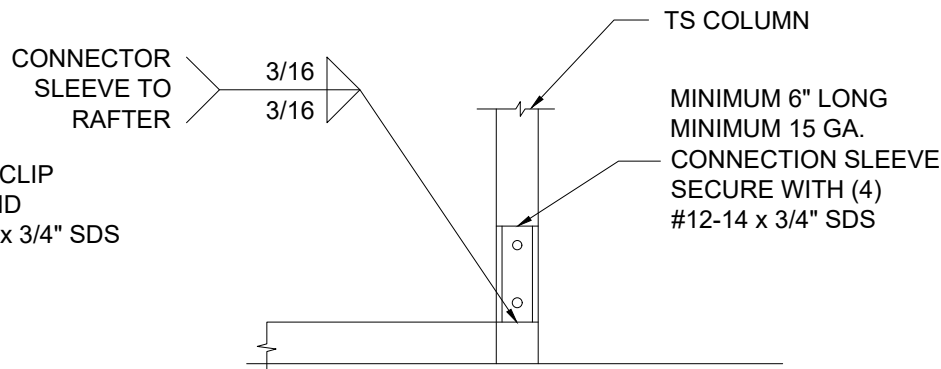




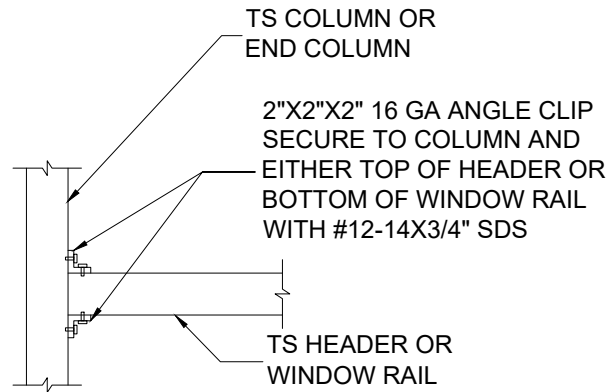
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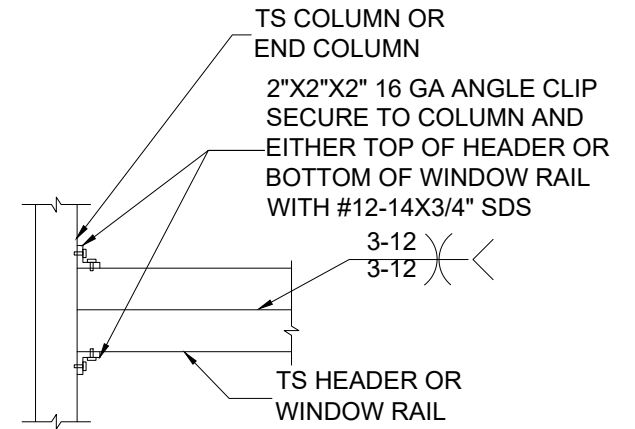
1 POST/RAFTER CONNECTION  
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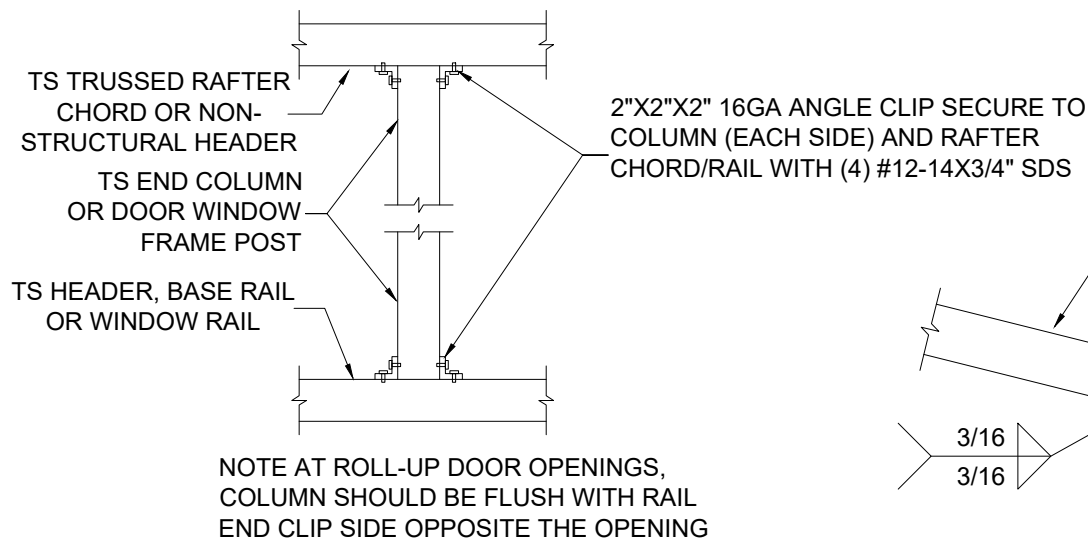
2 POST/BASE RAIL CONNECTION  
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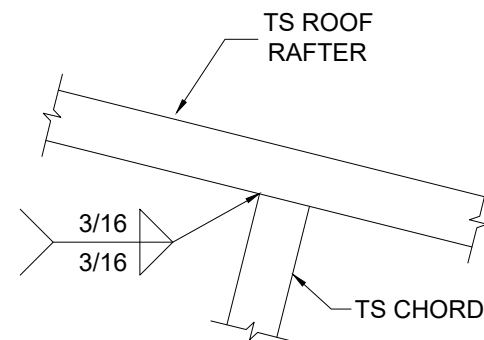
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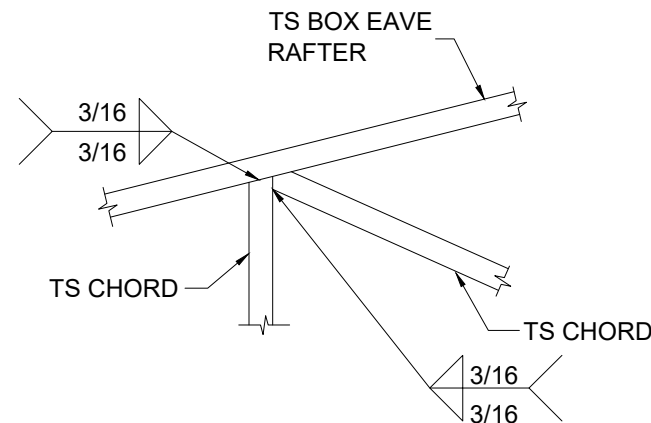
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SCALE: NTS



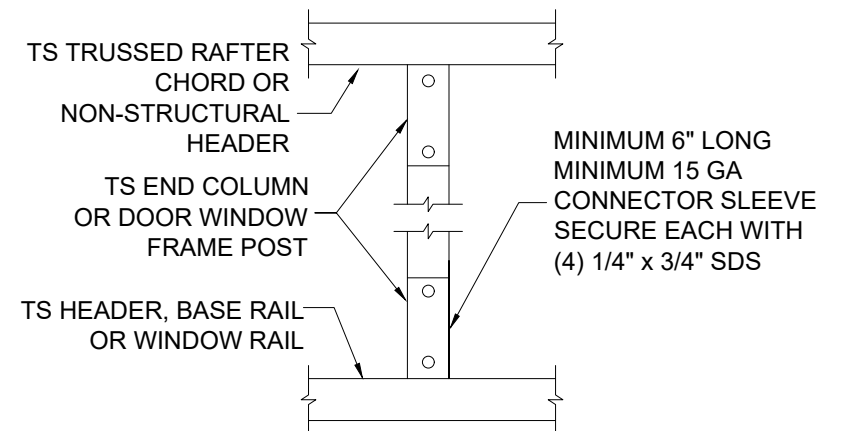
5 POST TO HEADER, BASE RAIL OR WINDOW RAIL CONNECTION  
SCALE: NTS



6 RAFTER TO CHORD CONNECTION  
SCALE: NTS

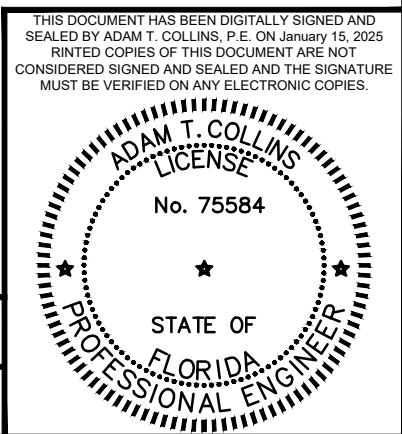


7 TRUSS POST AND CHORD TO RAFTER CONNECTION  
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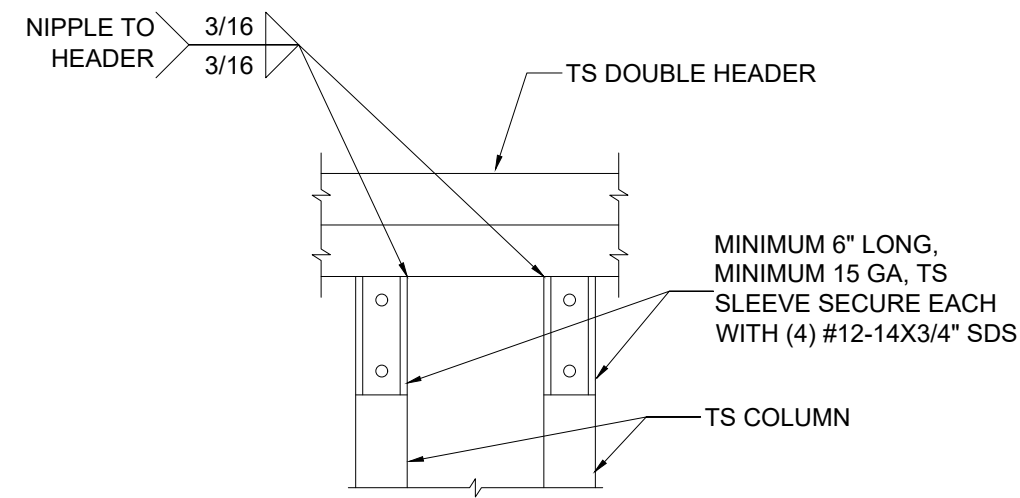


8 POST TO HEADER, BASE RAIL CONNECTION  
SCALE: NTS

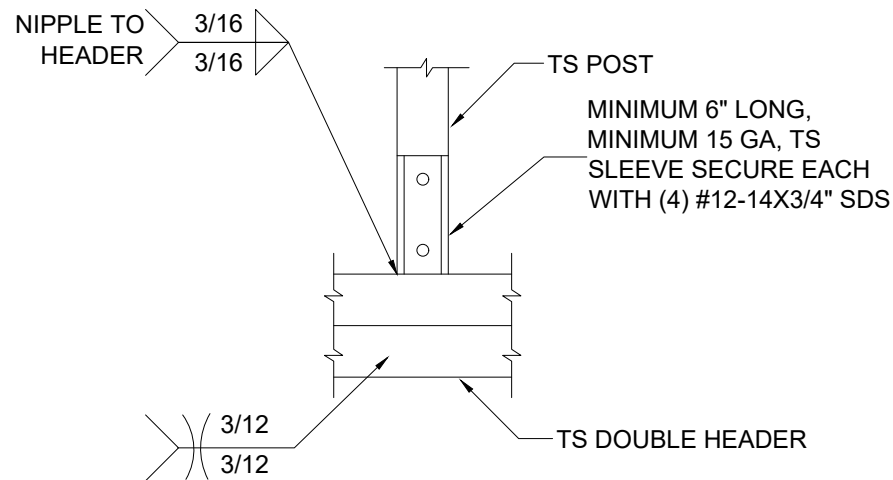
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			DRAWN	RBS			 <b>ADAM COLLINS</b> ENGINEERING INC. CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	CONNECTION DETAILS (1 OF 2)	SMITH RESIDENCE	S-5
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							



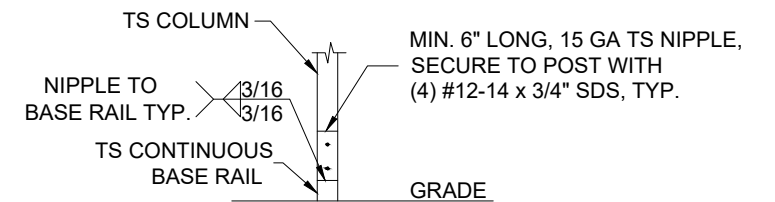
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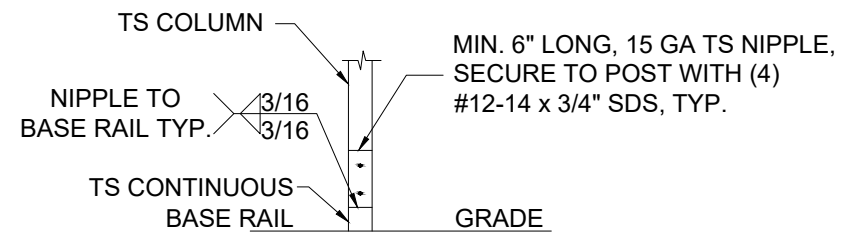
9 DOUBLE HEADER TO POST CONNECTION  
SCALE: NTS



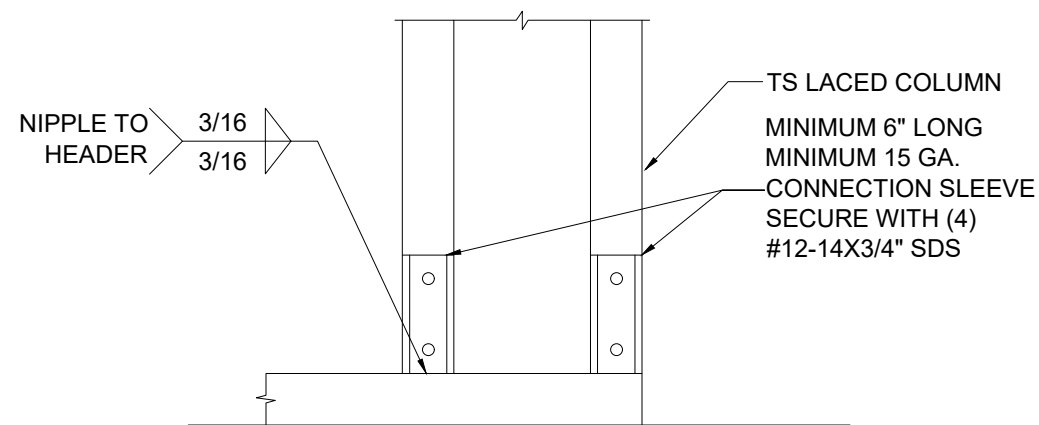
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SCALE: NTS



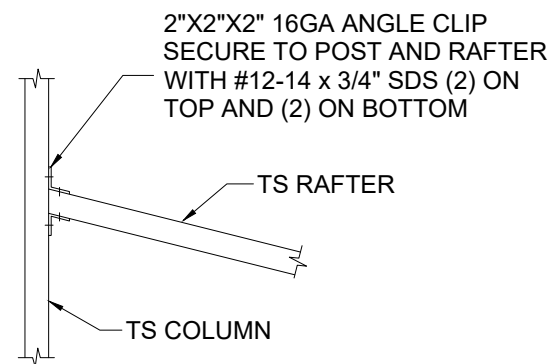
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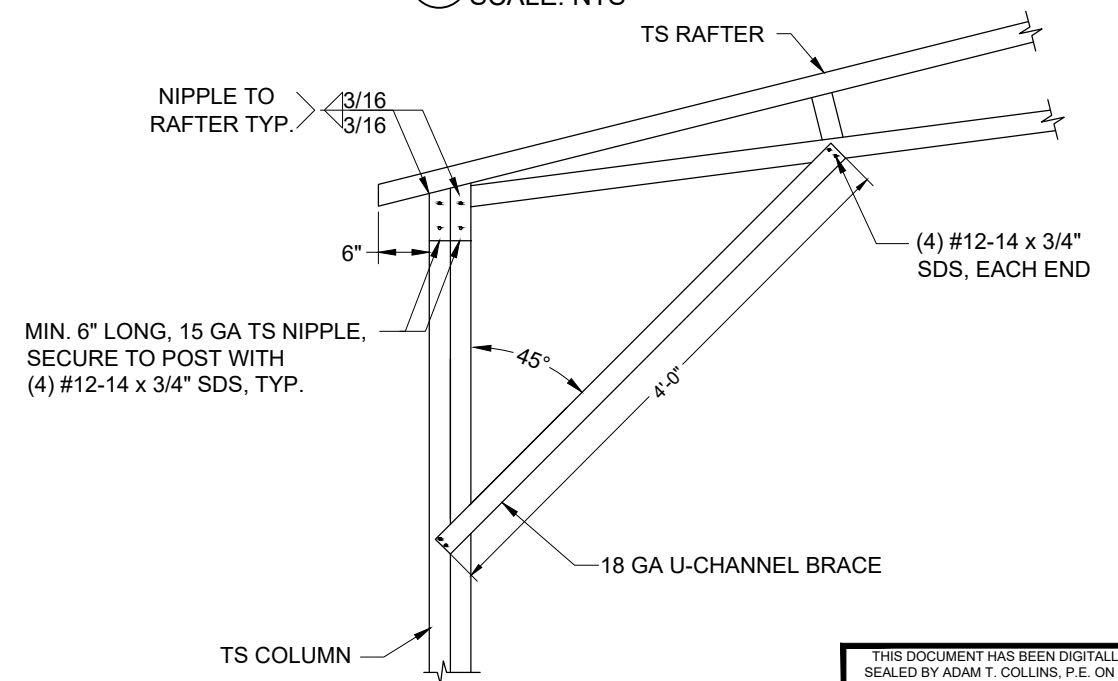
14 LEAN-TO POST CONNECTION  
SCALE: NTS




12 POST/BASE RAIL CONNECTION  
SCALE: NTS

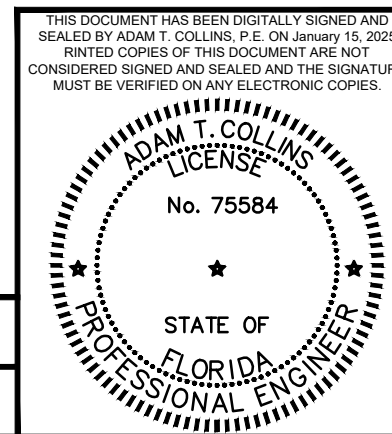


13 LEAN TO RAFTER/COLUMN CONNECTION  
RAFTER SPANLESS THAN 12'-0"  
SCALE: NTS

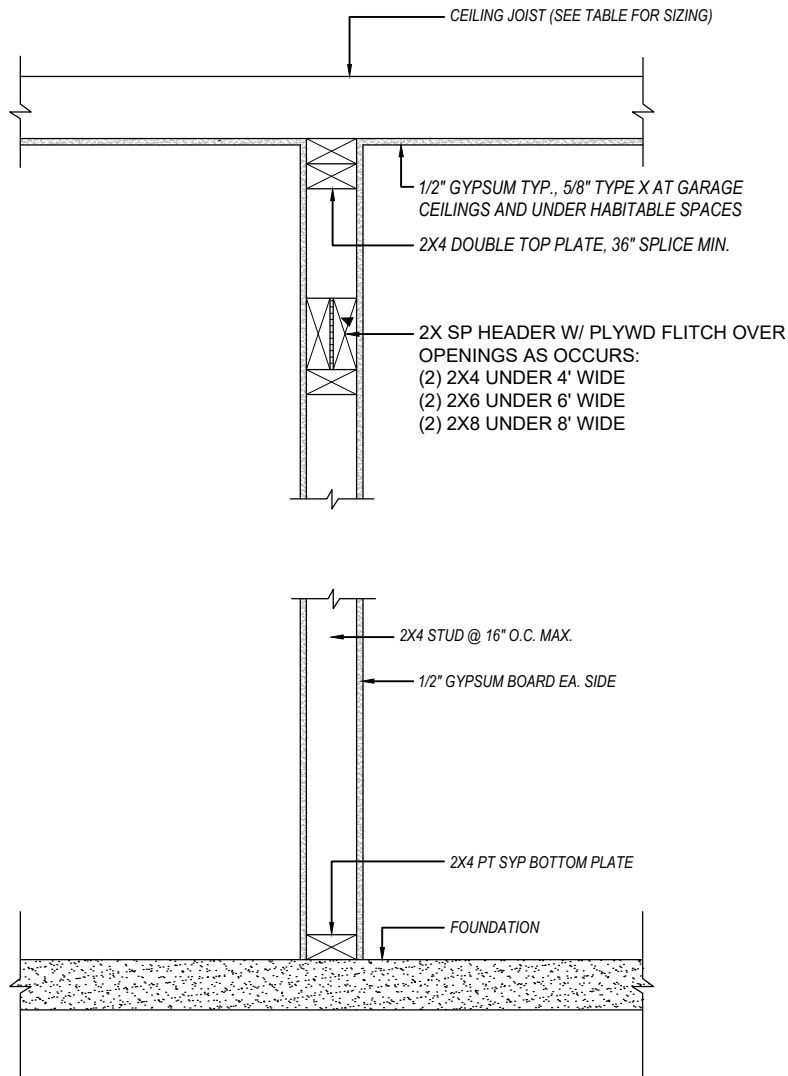


15 BOX EAVE RAFTER/CORNER POST  
CONNECTION 30'(MAX.)W x 14'H  
SCALE: NTS

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			DRAWN	RBS			 CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	CONNECTION DETAILS (2 OF 2)	SMITH RESIDENCE	S-6
			DESIGNED	DMC		SCALE					
			CHECKED	ATC		AS SHOWN					
			JOB No.	22047							



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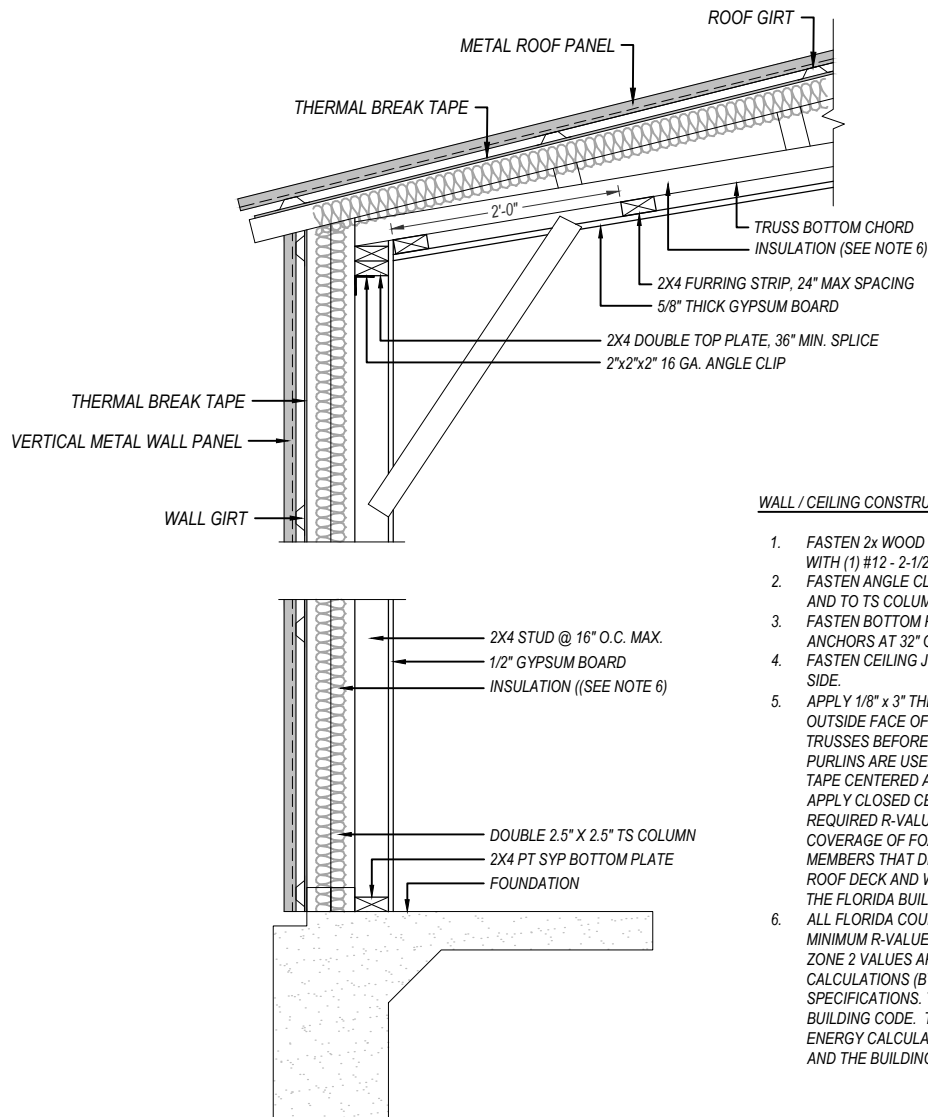


1

INTERIOR WALL SECTION

SCALE: NTS

CEILING JOIST SPAN TABLE (E = 1,400,000 P.S.I.)		
JOIST SIZE	SPACING	SPAN
2X4	12	11-10
	16	10-9
	19.2	10-2
	24	9-5
2X6	12	18-8
	16	16-11
	19.2	15-11
	24	14-9
2X8	12	24-7
	16	22-4
	19.2	21-0
	24	19-6
2X10	12	26-0
	16	26-0
	19.2	26-0
	24	24-10



2

EXTERIOR WALL SECTION

SCALE: NTS

WALL / CEILING CONSTRUCTION NOTES:

- FASTEN 2x WOOD FURRING STRIP TO METAL TRUSS BOTTOM CHORD WITH (1) #12 - 2-1/2 SELF-DRILLING SCREWS (SDS) PER TRUSS.
- FASTEN ANGLE CLIP TO TOP PLATE WITH (2) #12 - 1-1/2" WOOD SCREWS AND TO TS COLUMN WITH (2) #12 - 3/4" SDS AT EA. END AND 8' O.C. MAX
- FASTEN BOTTOM PLATE TO FOUNDATION WITH (1) 3/16" x 2-3/4" TAPCON ANCHORS AT 32" O.C. MAX.
- FASTEN CEILING JOISTS TO TOP PLATE WITH (2) 16D NAILS, TOENAIL EA SIDE.
- APPLY 1/8" x 3" THERMAL BREAK TAPE (ECOTAPE™ OR EQUAL) ALONG OUTSIDE FACE OF ALL TS COLUMNS AND THE TOP CHORD OF ALL TRUSSES BEFORE ATTACHING PURLINS AND/OR PANELS. WHEN PURLINS ARE USED, THE CONTRACTOR MAY APPLY (1) 12" STRIP OF TAPE CENTERED AT EACH PURLIN TO COLUMN CONNECTION. THEN APPLY CLOSED CELL SPRAY FOAM INSULATION TO ACHIEVE THE REQUIRED R-VALUE. CONTRACTOR SHALL ENSURE THAT COMPLETE COVERAGE OF FOAM IS APPLIED TO THE SURFACE OF ALL STRUCTURAL MEMBERS THAT DIRECTLY CONNECT TO PURLINS AND/OR SIDING. THE ROOF DECK AND WALL SECTION CREATED BY THIS METHOD SATISFIES THE FLORIDA BUILDING CODE UNDERLAYMENT REQUIREMENT.
- ALL FLORIDA COUNTIES ARE EITHER CLIMATE ZONE 1 OR 2. THE MINIMUM R-VALUES FOR ZONE 1 ARE (WALL = 13; CEILING = 30) AND ZONE 2 VALUES ARE (WALL = 13; CEILING = 38). REFER TO ENERGY CALCULATIONS (BY OTHERS) FOR ANY ADDITIONAL INSULATION SPECIFICATIONS. THE R-VALUES LISTED ARE CURRENT PER FLORIDA BUILDING CODE. THESE R-VALUES ARE SUBJECT CHANGE, IF THE ENERGY CALCULATIONS SHOW LESSER VALUES ARE APPROPRIATE AND THE BUILDING OFFICIAL APPROVES THE REDUCTION.

NO.	REVISIONS	DATE	DATE	2025-01-15	SUBMITTALS	DATE	PREPARED BY	CLIENT	SHEET TITLE	PROJECT	SHEET NO.
			DRAWN	RBS			<div>CA# 31728 ~ P: 386.320.7400 ~ WWW.COLLINSENG.COM</div> <div><div>AC</div><div>ADAM COLLINS</div><div>ENGINEERING INC.</div></div>	SMITH JR 434 S.W. SPARROW TERRACE LAKE CITY, FL 32055	WALL AND CEILING DETAILS	SMITH RESIDENCE	S-7
			DESIGNED	DMC							SCALE
			CHECKED	ATC							AS SHOWN
			JOB No.	22047							

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND  
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