

- APPLICABLE CODES & STANDARDS
1. 2023 FLORIDA BUILDING CODE (8TH EDITION)
 2. ASCE/SEI 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
 3. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
 4. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 5. AWS D1.1: STRUCTURAL WELDING

STRUCTURAL DESIGN DATA

1. RISK CATEGORY = I
2. ENCLOSURE CLASSIFICATION = ENCLOSED / PARTIALLY OPEN
3. CONSTRUCTION TYPE = II-B
4. OCCUPANCY CLASSIFICATION = LOW-HAZARD STORAGE (S-2)

STRUCTURAL LOADS

1. DEAD LOAD = 5 PSF
2. ROOF LIVE LOAD = 12 PSF
3. WIND DATA
ULTIMATE/BASIC/LRFD WIND SPEED = 120 MPH
NOMINAL/ASD WIND SPEED = 94 MPH
EXPOSURE CATEGORY = C

MATERIALS AND ASSEMBLY TEST

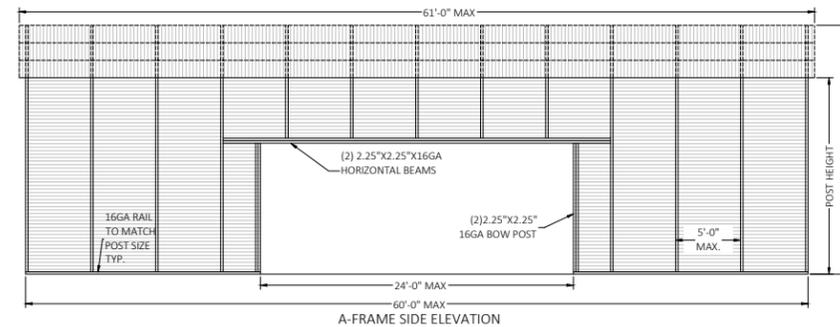
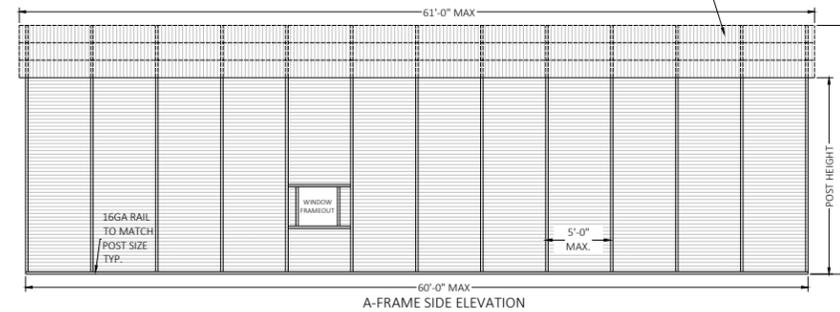
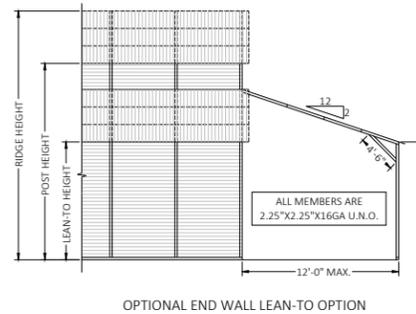
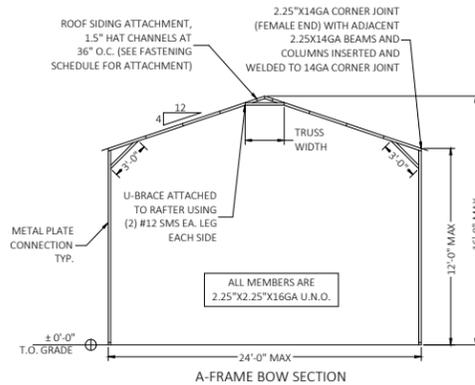
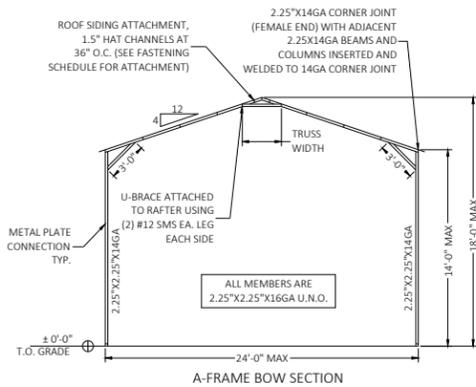
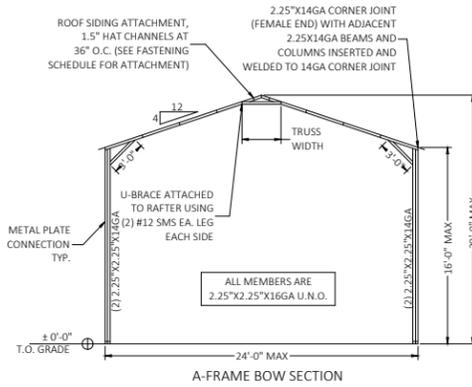
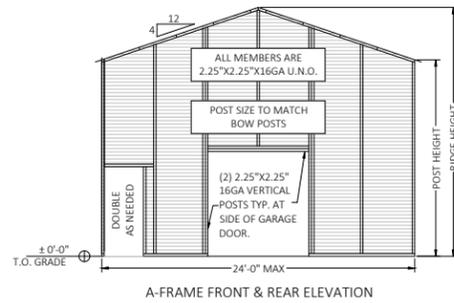
1. EXTERIOR WINDOWS, SLIDING AND PATIO GLASS DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT TESTING LABORATORY, AND SHALL BE LABELED WITH AN APPROVED LABEL IDENTIFYING THE MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED PRODUCT CERTIFICATION AGENCY, TESTING LABORATORY, EVALUATION ENTITY OR FLORIDA STATE-WIDE PRODUCT APPROVAL NUMBER TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS: ANSI/AAMA/NWDA 101/L.S. 2-97 OR TAS 202
2. EXTERIOR DOOR ASSEMBLIES SHALL BE TESTED FOR STRUCTURAL INTEGRITY IN ACCORDANCE WITH ASTM E330 AT A LOAD OF 1.5 TIMES THE REQUIRED DESIGN PRESSURE LOAD.
3. SECTIONAL GARAGE DOORS SHALL BE TESTED FOR DETERMINATION OF STRUCTURAL PERFORMANCE UNDER UNIFORM STATIC AIR PRESSURE DIFFERENCE IN ACCORDANCE WITH ANSI/DASMA 115 OR TAS 201,202 AND 203.

GENERAL NOTES

1. STEEL FRAMES SHALL BE SPACED NO MORE THAN 60" O.C. U.N.O. ON PLAN, ALL TUBE STEEL SHAPE STRENGTHS ARE 46 KSI STEEL. ALL CUPS ARE 36 KSI STEEL.
2. STEEL WELD STRENGTH SHALL BE 55 KSI TYP. ALL WELDS SHALL BE 1/8" MINIMUM FILLET WELDS.
3. ANCHORING DETAILS
A. BUILDING SHALL BE ATTACHED WITH HELICAL ANCHORS PER THE HELICAL ANCHOR DETAIL.
B. WHEN EMBEDDED INTO ASPHALT, USE HELICAL ANCHORS AS CALLED OUT IN THE HELICAL ANCHOR CONNECTION DETAIL, OR 30" LONG #5 REBAR WITH A NUT WELDED TO THE TOP, SHALL BE INSTALLED AT 12" ON CENTER FROM EACH SIDE AND THE BALANCE AT 56" O.C.
C. WHEN PLACED ON A 4" CONCRETE SLAB, A 1/2" EXPANSION ANCHOR WITH 2-1/2" OF EMBEDMENT SHALL BE INSTALLED 12" FROM EACH SIDE AND THE BALANCE AS SHOWN ON ELEVATION. CONCRETE SHALL BE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS.
4. ALL STEEL-TO-STEEL FASTENERS ARE TO BE 12-14 x 1/4 HWU ULTRA-2 TCP3 CS.
5. EACH LOCATION WHERE THE FRAME IS JOINED TOGETHER WILL HAVE 2 SCREWS ON EACH SIDE OF THE JOINT.

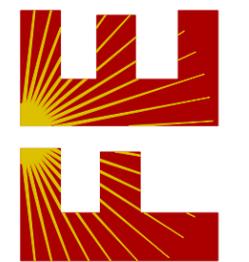
FRAMEOUT NOTES:

1. CONTRACTOR TO PROVIDE DOORS AND WINDOWS THAT ARE APPROVED BY THE BUILDING CODE AND CAPABLE OF RESISTING MINIMUM WIND DESIGN PRESSURES AS TABULATED.
 2. DOORS AND WINDOWS MAY BE RELOCATED TO ANY WALL AND REPOSITIONED ALONG ANY WALL BY THE CONTRACTOR IN FIELD.
 3. FRAMEOUT HEADERS MAY BE SINGLE TS FOR UP TO 5' LENGTH AND DOUBLE TS UP TO 24' LENGTH.
 4. FRAMEOUT HEADERS INTERCEPTING LOAD-BEARING UPRIGHTS MUST BE DOUBLE TS.
 5. DOOR JAMBS SUPPORTING HEADERS LONGER THAN 10' MUST BE DOUBLE TS.
 6. THE FOLLOWING STRUCTURAL DIMENSIONS (AS CALLED ON ON THESE ENGINEERING PLANS) ARE MAXIMUM ALLOWABLE.
A. WIDTH (HORIZONTAL DIMENSION OF GABLE WALL)
B. LENGTH (HORIZONTAL DIMENSION OF NON-GABLE WALL)
C. STRUCTURE HEIGHT (WITH THE LIMITATION THAT THE ROOF SLOPE AS CALLED OUT ON THE PLANS IS NOT EXCEEDED)
D. FRAME SPACING
THE STRUCTURAL DESIGN COVERED UNDER THE SCOPE OF WORK OF THESE ENGINEERING PLANS IS VALID FOR STRUCTURES THAT HAVE DIMENSIONS EQUAL TO OR LESS THAN THOSE CALLED OUT.
 7. CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS:
CONTRACTOR TO VERIFY THAT THE FINISHED FLOOR ELEVATION FOR THE PROPOSED STRUCTURE IS AT OR ABOVE THE GREATER OF THE FOLLOWING ELEVATIONS:
I) BFE (BASE FLOOD ELEVATION) + 2'-0"
II) DFE (DESIGN FLOOD ELEVATION)
III) THE MINIMUM ELEVATION MANDATED BY THE BUILDING CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
 8. TERMITE PROTECTION NOTE:
PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE BUILDING CODE (FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY).
- VAPOR BARRIER NOTE:
f. CONCRETE SLAB SHALL BE PLACED OVER A MIN. 6 MIL POLYETHYLENE VAPOR BARRIER (SLAB ONLY).



This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FLORIDA ENGINEERING LLC
4161 TAMiami TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
 (941) 391-5980
 FLEng.com
 Orders@FLEng.com



CA CERT. #30782

PROJECT NO. 2533837

LARRY ATCHINSON

PROJECT ADDRESS:
ATCHISON
240 SE MARINO WAY,
HIGH SPRINGS FL 32643

DESIGN DATE:	12/05/2025
REVISION 1:	DATE
REVISION 2:	DATE
SCALE:	NTS

THE ENGINEERING ON THESE PLANS IS FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS.

WALL AND OPENING PRESSURES
COMPONENTS AND CLADDING (ASD)

OPENING TYPE	HEIGHT	WIDTH	CODE	TYPE	MATERIAL	PRESSURE (PSF)
WINDOW	38.375"	37"	23	SINGLE HUNG	ALUM*	+17.6 / -23.6
DOOR	96"	36"	S-750	SINGLE CURTAIN	STEEL	+16.6 / -21.6
DOOR	96"	72"	S-750	SINGLE CURTAIN	STEEL	+15.8 / -20.0
DOOR	96"	104"	S-750	SINGLE CURTAIN	STEEL	+15.4 / -19.2
DOOR	96"	120"	S-750	SINGLE CURTAIN	STEEL	+15.3 / -18.8
DOOR	96"	144"	S-3100	SINGLE CURTAIN	STEEL	+15.0 / -18.4

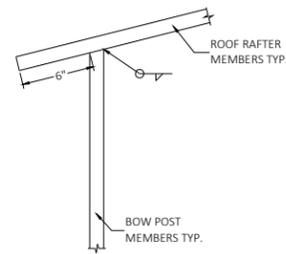
* PROVIDE BARRIER BETWEEN ALUMINUM
AND STEEL TO PREVENT CORROSION

CONNECTOR SCHEDULE

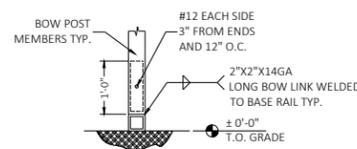
CONNECTION	Ø	LENGTH	TYPE
METAL SIDING ROOF	1/4"	3/4"	SELF-TAPPING
METAL SIDING WALL	1/4"	3/4"	SELF-TAPPING
TUBE TO TUBE	1/4"	3/4"	SELF-TAPPING
MATERIAL		SPACING	
GALV. METAL SCREW	1.5" FROM EACH CORNER, 10" O.C.		
GALV. METAL SCREW	1.5" FROM EACH CORNER, 10" O.C.		
GALV. METAL SCREW	(2) PER TUBE		

FLOOD SOLUTIONS STATIC FLOOD VENTS FL #17588.1-R4				
VENT MODEL	VENT SIZE (WIDTH x HEIGHT) (in.)	ROUGH OPENING SIZE (Width x Height) (in.)	ENCLOSED AREA COVERAGE (sq. Ft.)	NET FREE AREA (sq. in.)
FS-1608	18 1/2" X 10 1/2"	16 X 8	97	80.7
FS-1616	18 1/2" X 18 1/2"	16 X 16	191	158.2
FS-1412	17 1/2" X 14 1/2"	14 1/2" X 12"	129	106.7
FS-1608-HEX	18 1/2" X 10 1/2"	16 X 8	110	91.4

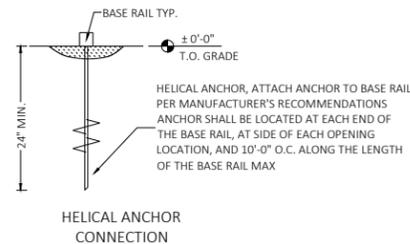
This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



TEE SPLICE CONNECTION



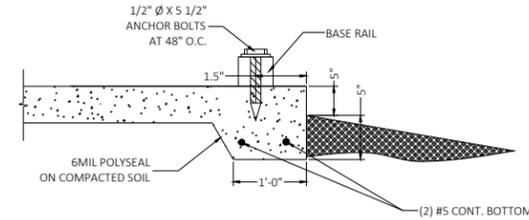
BOW/BASE RAIL SPLICE CONNECTION



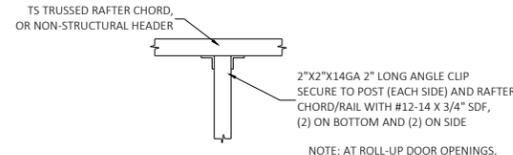
HELICAL ANCHOR CONNECTION



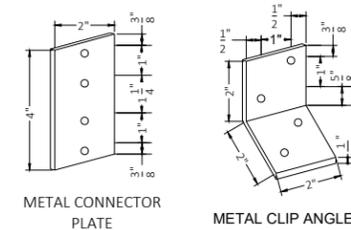
BOW SPLICE CONNECTION AT RIDGE



CONCRETE SLAB CONNECTION (WITH TURNDOWN FOOTER)

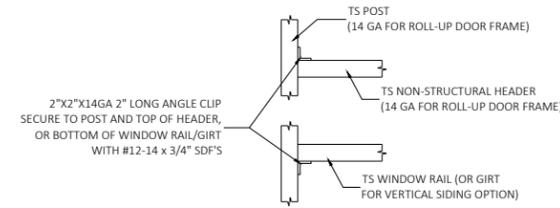


POST TO NON-STRUCTURAL HEADER, BASE, RAIL OR WINDOW RAIL CONNECTION DETAIL SCALE: NTS

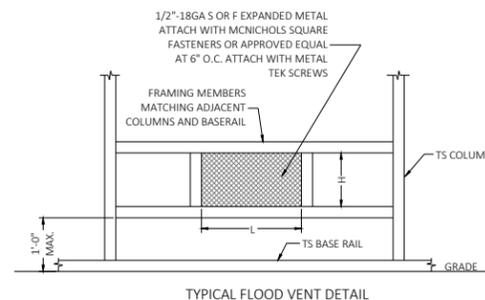


METAL CONNECTOR PLATE

METAL CLIP ANGLE



NON-STRUCTURAL HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL SCALE: NTS



TYPICAL FLOOD VENT DETAIL

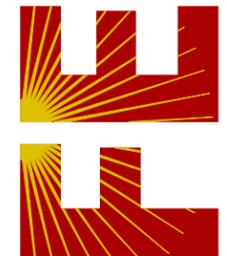
CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS:

- CONTRACTOR TO VERIFY THAT THE FINISHED FLOOR ELEVATION FOR THE PROPOSED STRUCTURE IS AT OR ABOVE THE GREATER OF THE FOLLOWING ELEVATIONS:
 - BFE (BASE FLOOD ELEVATION) + H
H = 1'-0" (RISK CATEGORY I & II BUILDINGS)
H = 2'-0" (RISK CATEGORY III & IV BUILDINGS)
 - DFE (DESIGN FLOOD ELEVATION)
 - THE MINIMUM ELEVATION MANDATED BY THE BUILDING CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- FLOOD VENTS ALONE ARE NOT SUFFICIENT TO MEET THE REQUIREMENTS FOR CONSTRUCTION WITHIN SPECIAL FLOOD HAZARD AREAS.

OPTIONAL FLOOD VENT INSTALLATION NOTES:

- MINIMUM VENT SPACE REQUIRED = 1 SQ. IN. OF OPEN VENT AREA PER SQ. FT. OF ENCLOSED AREA.
- PROVIDE A MINIMUM OF TWO OPENINGS ON DIFFERENT SIDES OF EACH ENCLOSED AREA.
- APPLY A 1.3 FACTOR WHEN CALCULATING TOTAL OPEN AREA WHEN USING 1/2"-18GA S OR F EXPANDED METAL.
- FLOOD VENT DETAIL COMPLIES WITH FEMA/NFIP.
- PREFABRICATED FLOOD VENTS MEETING THE REQUIREMENTS OF FEMA/NFIP MAY BE INSTALLED.

FLORIDA ENGINEERING LLC
4161 TAMiami TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
FLEng.com
Orders@FLEng.com



CA CERT. #30782

PROJECT NO. 2533837

LARRY ATCHINSON

PROJECT ADDRESS:

ATCHINSON
240 SE MARINO WAY,
HIGH SPRINGS FL 32643

DESIGN DATE: 12/05/2025

REVISION 1: DATE

REVISION 2: DATE

SCALE: NTS

PAGE :

2