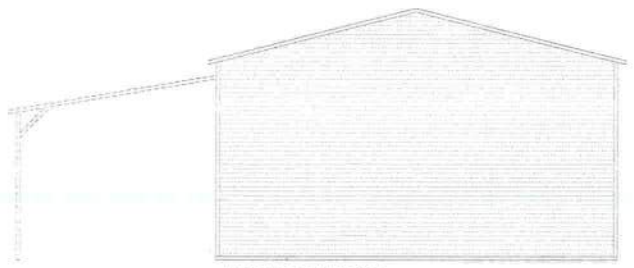
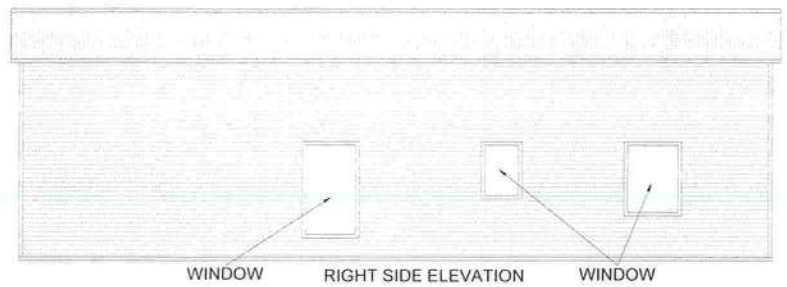
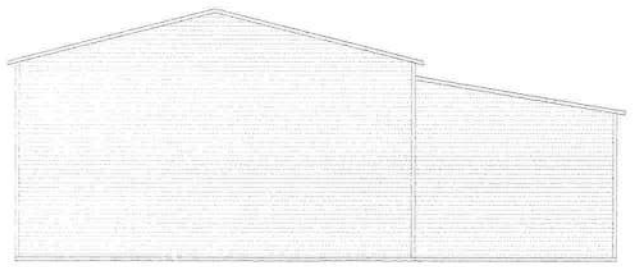
RISK CATEGORY:	II
MAXIMUM DISPLACEMENT :	L/240
ULTIMATE WIND SPEED (MPH):	120
NOMINAL DESIGN WIND SPEED (MPH):	93
WIND EXPOSURE CATEGORY:	C
BUILDING ENCLOSURE TYPE:	ENCLOSED
ROOF ANGLE (DEGREES):	14.0
MEAN ROOF HEIGHT (FEET):	13.5
DEAD LOAD	7.7 KIP
LIVE LOAD	20.0 PSF
DESIGN PRESSURES (PSF):	
MAIN BUILDING:	
ROOF:	
ZONE 1:	+10.9 / -17.2
ZONE 2:	+10.9 / -30.0
ZONE 3:	+10.9 / -44.4
DESIGN ROOF PRESSURES:	+10.9 / -25.2
WALLS:	
ZONE 4:	+18.8 / -20.4
ZONE 5:	+18.8 / -25.2
DESIGN WALL PRESSURES:	+18.8 / -21.6
SWINGING DOOR:	+18.1 / -19.6
WINDOW:	+18.8 / -20.4
OPEN LEAN TO:	
ROOF:	
CLEAR WIND FLOW:	
ZONE 1:	+24.5 / -25.8
ZONE 2:	+36.7 / -39.4
ZONE 3:	+36.7 / -39.4
DESIGN ROOF PRESSURES:	+36.7 / -39.4
OBSTRUCTED WIND FLOW:	
ZONE 1:	+16.3 / -28.5
ZONE 2:	+24.5 / -43.5
ZONE 3:	+24.5 / -43.5
DESIGN ROOF PRESSURES:	+24.5 / -43.5



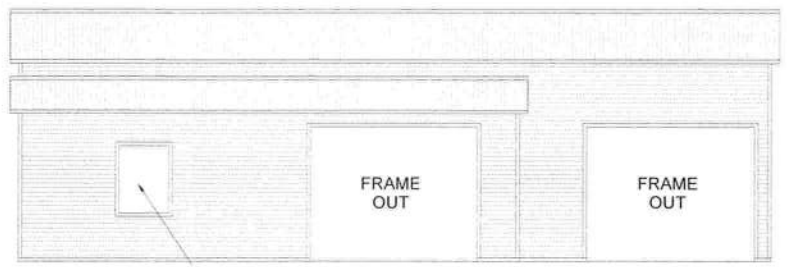
FRONT ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION

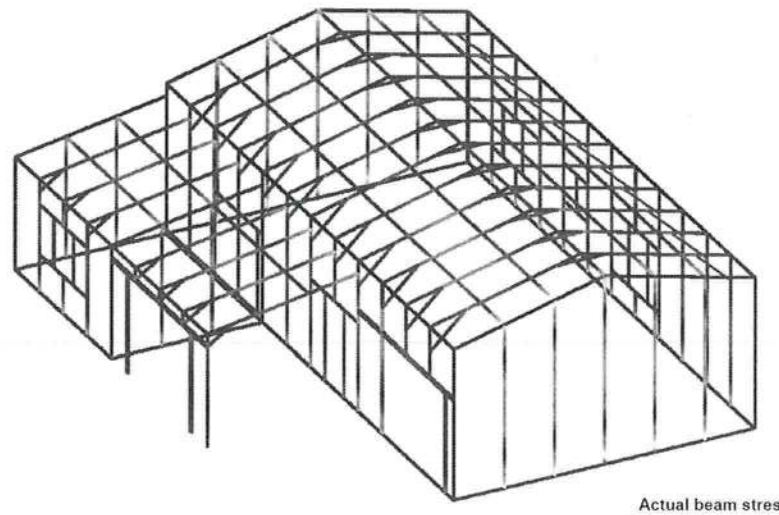


LEFT SIDE ELEVATION

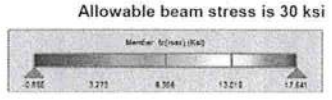
3-D FINITE ELEMENT ANALYSIS PERFORMED
STRUCTURE COMPLIES w/ FBC 2020 7th EDITION

PROPOSED METAL BUILDING FOUNDATION & SHELL STRUCTURAL DESIGN ONLY. ALL OTHER REQUIRED PERMITS TO BUILD OUT TO A HABITABLE LIVING SPACE ARE TO BE BY OTHERS/ PER SEPERATE CERTIFICATE, INCLUDING BUT NOT LIMITED TO, ELECTRICAL, PLUMBING, ENERGY CALCS,. ETC. FOR MORE INFORMATION VISIT: https://flengineeringllc.com/order/ OR SCAN QR CODE.

STRESS



Actual beam stress is 17.6 ksi
Allowable beam stress is 30 ksi



The most dangerous load combination is D+0.6W

GENERAL NOTES

0. APPLICABLE CODES, REGULATIONS, & STANDARDS
   A. THE 2020 FLORIDA BUILDING CODE, 7TH EDITION
   B. ASCE 7-16 & SEI 7
   C. ACI318 CONCRETE REFRENCE MANUAL
1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET-BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND ELEVATIONS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE LIABILITY OF OTHERS.
2. THESE STRUCTURES ARE ENGINEERED AS (RISK CATEGORY 2) CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND LIVE AND WIND LOADS. UPGRADES NOT SPECIFICALLY ADDRESSED HEREIN, SUCH AS WINDOWS, DOORS, OR ANOTHER COMPONENT NOT LISTED IN THE FLORIDA BUILDING CODE APROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY TUBULAR BUILDING SYSTEMS, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. FLORIDA ENGINEERING LLC, SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.
3. LOW ULTIMATE WIND SPEED 105 TO 140 MPH (NOMINAL WIND SPEED 81 TO 108 MPH). MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET.
4. HIGH ULTIMATE WIND SPEED 141 TO 170 MPH (NOMINAL WIND SPEED 109 TO 132 MPH). MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET.
5. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.
6. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).
7. FASTENERS CONSIST OF #12-14 x 3/4" SELF DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
8. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6", (MAX.).
9. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
   SOIL SITE CLASS = D
   RISK CATEGORY I/II/III
   R = 3.25 Ie = 1.0
   Sds = 0.087 g V = CsW
   Sdi = 0.084 g
10. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.
11. GROUND ANCHOR (SOIL NAILS) CONSIST OF #5 REBAR W/ WELDED NUT X 30" LONG IN SUITABLE SOIL CONDITIONS MAY BE USED FOR LOW (≤ 108 MPH NOMINAL) WIND SPEEDS ONLY. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USE IN UNSUITABLE SOILS AS NOTED.
12. MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".
13. SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-93
14. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC. FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.
15. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.
16. A LANDING OF MIN. 36" WIDTH IN THE DIRECTION OF TRAVEL SHALL BE PROVIDED AT THE EXTERIOR DOORS. SLOPE OF LANDING NOT TO EXCEED 1/4"-1'. LANDING LEVEL NOT TO BE LOWER THAN 1-1/2" (FOR EGRESS DOORS)

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB ROOF PANEL	FL20147.2-R2 10/13/20
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB WALL PANEL	FL20148.2-R2 10/13/20
EXTERIOR DOORS	SWINGING	JELD-WEN A. DESIGN PRO / SMOOTH PRO / STUDIO FIBERGLASS	FL13541.1-R18 12/17/20
WINDOWS	SINGLE HUNG	YKK AP AMERICA YVS 400 TU SINGLE HUNG / DOUBLE HUNG WINDOW (NON-HVHZ) (NON-IMPACT)	FL12878.1-R4 12/15/20

This item has been electronically signed and sealed by Craig E. Gunderson, P.E. on date below using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2023.01.13 15:46:10 -05'00'

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

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. 2301065

CONTRACTOR: TUBULAR BUILDING SYSTEMS

PROJECT ADDRESS:
VIDAL
475 SW BLAYLOCK CT
LAKE CITY, FL 32024

DESIGN DATE:	01/13/2023	
REVISION 1:	DATE	
REVISION 2:	DATE	SHEET:
DRAWN BY:	MBG	