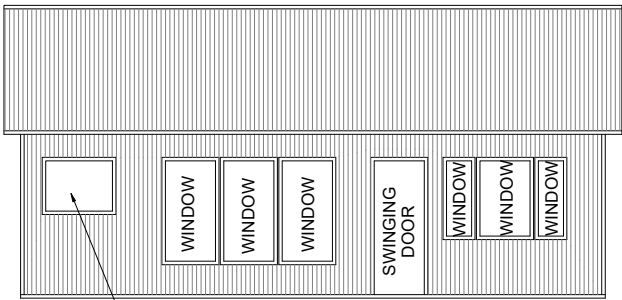
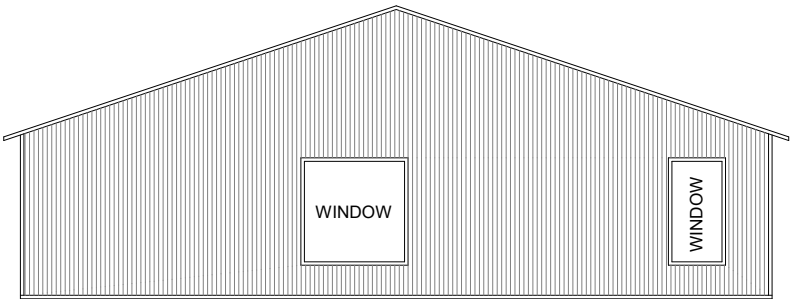


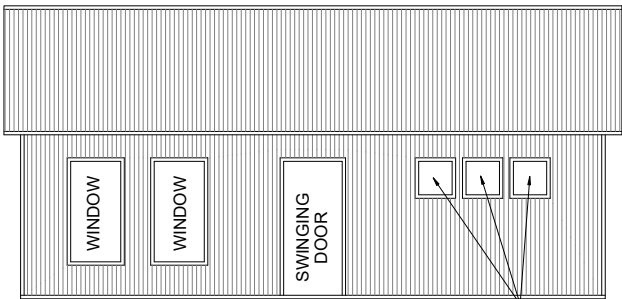
FRONT ELEVATION



WINDOW RIGHT SIDE ELEVATION



REAR ELEVATION



LEFT SIDE ELEVATION WINDOW

RISK CATEGORY:

II

BUILDING CLASSIFICATION: GROUP R-3

CONSTRUCTION TYPE: 2-B

MAXIMUM DISPLACEMENT : L/240

ULTIMATE WIND SPEED (MPH): 120

NOMINAL DESIGN WIND SPEED (MPH): 93

WIND EXPOSURE CATEGORY: B

BUILDING ENCLOSURE TYPE: ENCLOSED

ROOF ANGLE (DEGREES): 18.0

MEAN ROOF HEIGHT (FEET): 13.75

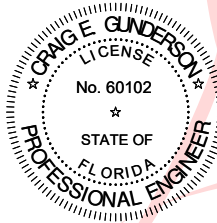
DEAD LOAD 7.2 PSF

LIVE LOAD 20.0 PSF

DESIGN PRESSURES (PSF):

ROOF:  
ZONE 1: +8.9 / -14.2  
ZONE 2: +8.9 / -24.7  
ZONE 3: +8.9 / -36.6  
DESIGN ROOF PRESSURES: +8.9 / -20.3  
WALLS:  
ZONE 4: +15.5 / -16.8  
ZONE 5: +15.5 / -20.8  
DESIGN WALL PRESSURES: +15.5 / -17.7  
  
SWINGING DOOR: +15.5 / -16.8  
  
WINDOW: +15.5 / -16.8

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.



Digitally signed  
by Craig E  
Gunderson  
Date:  
2023.08.01  
14:46:27 -04'00'



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.

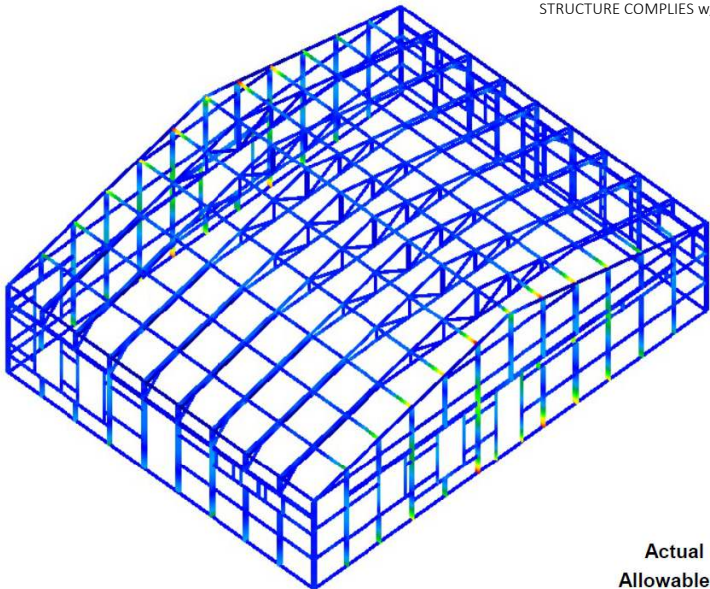


GENERAL NOTES

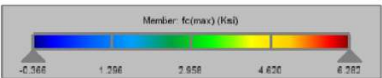
- APPLICABLE CODES, REGULATIONS, & STANDARDS  
A. THE 2020 FLORIDA BUILDING CODE, 7TH EDITION  
B. ASCE 7-16 & SEI 7  
C. ACI318 CONCRETE REFERENCE MANUAL
- THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL 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.
- 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 APPROVED 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.
- 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.
- 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.
- ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.
- 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).
- 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.
- AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6", (MAX.).
- 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
- GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.
- GROUND ANCHOR (SOIL NAILS) CONSIST OF #5 REBAR W/ WELDED NUT X 30" LONG IN SUITABLE SOIL CONDITIONS MAY BE USED FOR LOW ( $\leq$  108 MPH NOMINAL) WIND SPEEDS ONLY. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USE IN UNSUITABLE SOILS AS NOTED.
- MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".
- SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-93
- PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC. FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.
- ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.
- 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) & 7-3/4" (FOR OTHER EXTERIOR DOORS) BELOW THE TOP OF THRESHOLD.

STRESS

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



Actual beam stress is 6.3 ksi  
Allowable beam stress is 30 ksi



The most dangerous load combination is D+0.6W

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	MI WINDOWS AND DOORS 3540 SH	FL17676.1-R21 05/19/22

CTP = CONTRACTOR TO PROVIDE APPROVED PRODUCTS THAT MEET OR EXCEED WIND DESIGN PRESSURES.

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. 2320026

CONTRACTOR:  
TUBULAR BUILDING SYSTEMS

PROJECT ADDRESS:

SANDRA TAN  
429 SW RIVERSIDE AVE  
FORT WHITE, FL 32038

DESIGN DATE: 07/31/2023

REVISION 1: DATE

REVISION 2: DATE

DRAWN BY: TCP

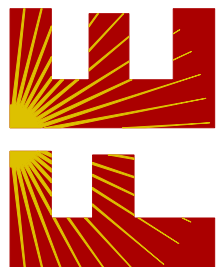
SCALE: NTS

SHEET:

01

A circular professional engineer seal for Craig E. Gunderson. The outer ring contains the text "CRAIG E. GUNDERSON" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 60102" is in the center, a single star is below the number, "STATE OF" is below the star, and "FLORIDA" is at the bottom. The seal is surrounded by a dashed circular border.

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**(941) 391-5980**  
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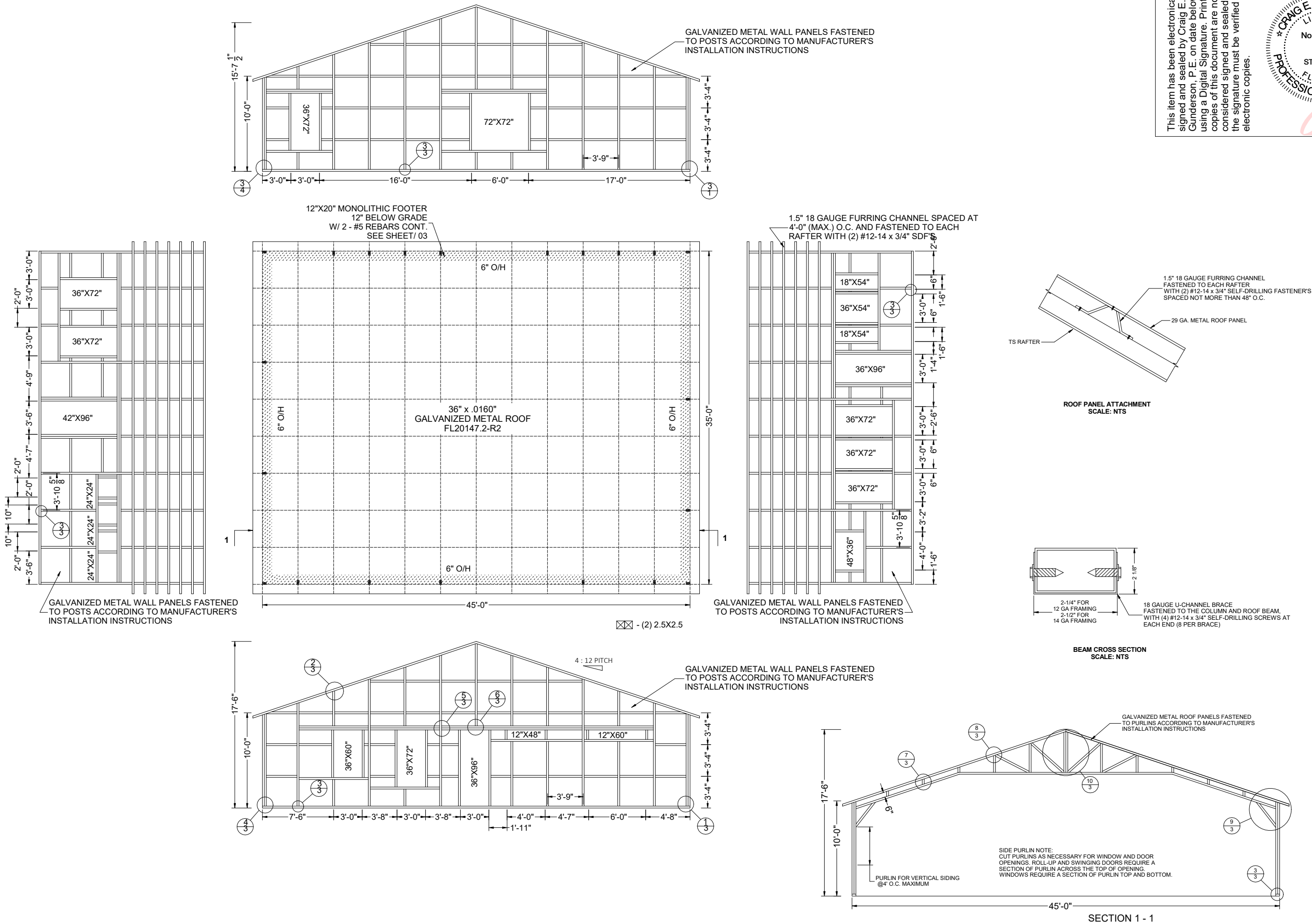
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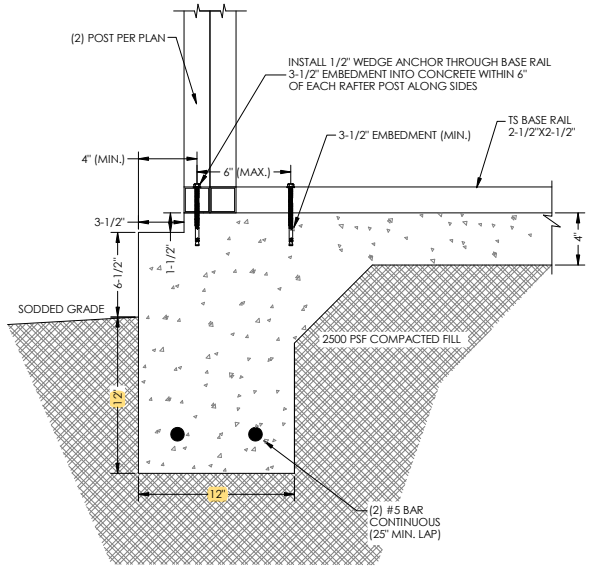
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DRAWN BY: TCP

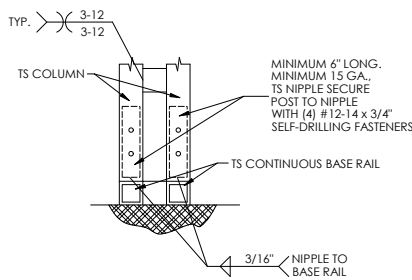
SHEET:

02

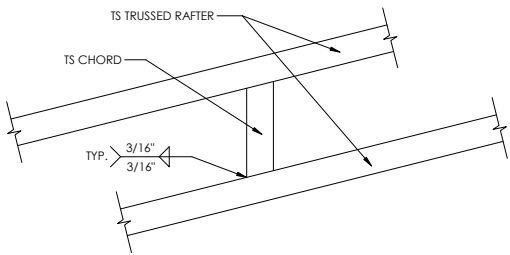




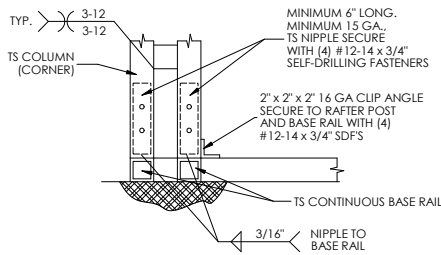
1 12'X20" MONO. FOOTER BASE RAIL ANCHORAGE  
SCALE: NTS



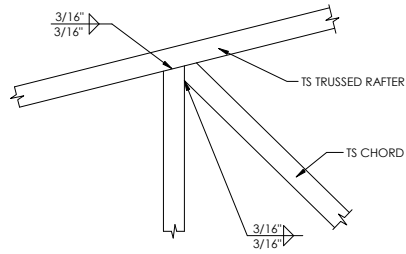
3 RAFTER POST/BASE RAIL  
CONNECTION DETAIL  
SCALE: NTS



7 CHORD/RAFTER  
CONNECTION DETAIL  
SCALE: NTS



4 END POST/BASE RAIL  
CONNECTION DETAIL  
SCALE: NTS



8 TRUSS POST AND CORD  
TO RAFTER CONNECTION DETAIL  
SCALE: NTS

#### GENERAL NOTES

##### CONCRETE:

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.

##### COVERAGE OF THE REINFORCED STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318: 3 INCHES WHERE THE CONCRETE IS POURED AGAINST AND TEMPORARY IN CONTACT WITH THE EARTH OR UNPROTECTED FROM THE EARTH OR WEATHER, OTHERWISE 1-1/2 INCHES.

##### CONCRETE NOTE:

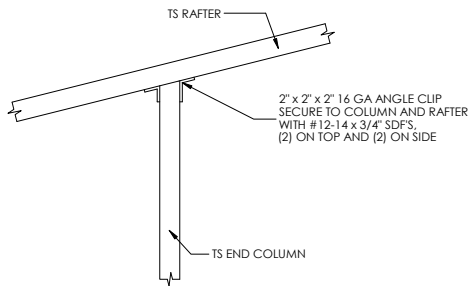
ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE

##### REINFORCING STEEL:

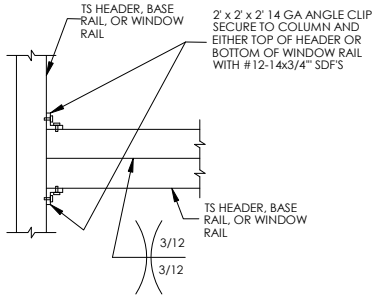
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

REINFORCEMENT MAY BE BENT IN THE FIELD OR SHOP AS LONG AS:

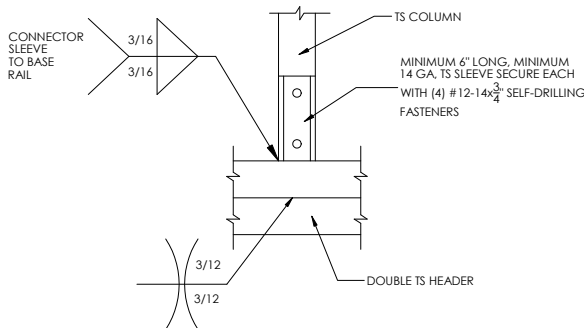
1. IT IS BENT COLD;
2. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT;
3. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.



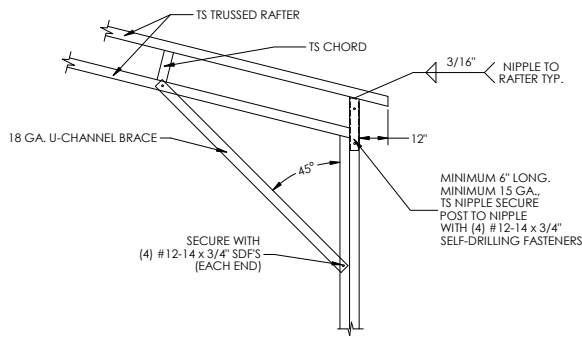
2 END POST/RAFTER  
CONNECTION DETAIL  
SCALE: NTS



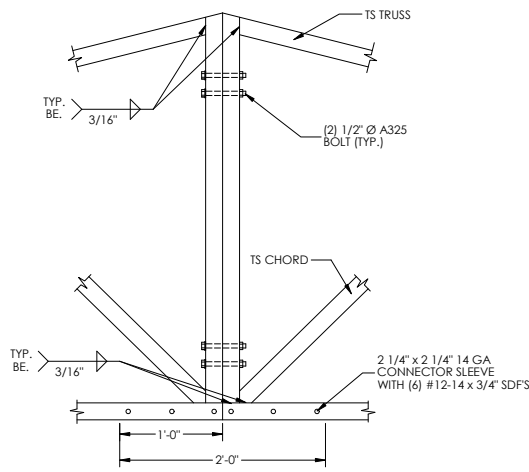
5 COLUMN OR WINDOW  
RAIL TO POST CONNECTION DETAIL  
SCALE: NTS



6 COLUMN/DOUBLE HEADER  
CONNECTION DETAIL  
SCALE: NTS

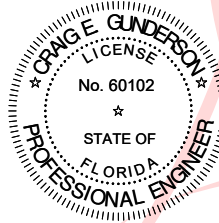


9 RAFTER/LEG ASSEMBLY  
CONNECTION DETAIL  
SCALE: NTS



10 SPLICE  
CONNECTION DETAIL  
SCALE: NTS

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