APPLICABLE CODES, REGULATIONS, & STANDARDS

A. THE 2023 FLORIDA BUILDING CODE, 8TH EDITION
B. ASCE/SEI 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
C. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
D. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
E. AWS D1.1: STRUCTURAL WELDING

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 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 26 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 26 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 18° (4:12 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) & 7-3/4" (FOR OTHER EXTERIOR DOORS) BELOW THE TOP OF THRESHOLD.

SHEET NO.	DRAWING INDEX
S/01	GENERAL NOTES
S/02	PLAN/ ELEVATIONS
S/03	FOUNDATION PLAN
S/04	DETAILS

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

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.

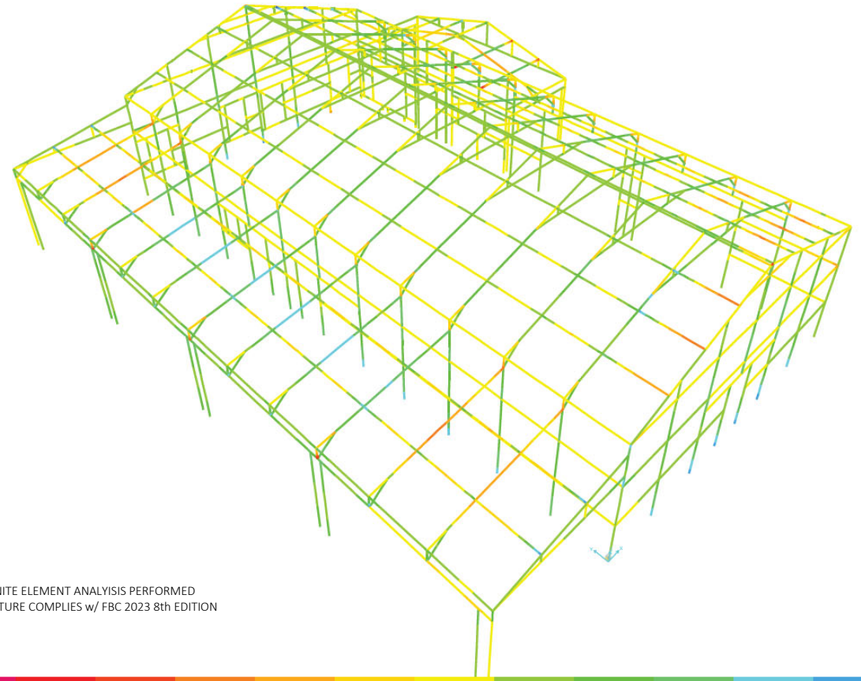
DESIGN DATA	
DESIGN CRITERIA :	ASCE/SEI 7
RISK CATEGORY :	II
OCCUPANCY CLASSIFICATION :	R3
CONSTRUCTION TYPE :	II-B
DEFLECTION LIMIT =	L/240
ULTIMATE DESIGN WIND SPEED (MPH) VULT =	120
NOMINAL DESIGN WIND SPEED (MPH) VASD =	93
EXPOSURE CATEGORY :	C
MEAN BUILDING HEIGHT (FT) =	14.50
MINIMUM BUILDING PLAN DIMENSION (FT) =	30.00
END ZONE DIMENSION (FT) a =	3.00
ROOF STYLE :	GABLE
ROOF PITCH (IN 12) :	4
OCCUPANCY CLASSIFICATION :	PARTIALLY ENCLOSED
DEAD LOAD (DUE TO SELF-WEIGHT) =	4 PSF
ROOF LIVE LOAD =	12 PSF
GROUND SNOW LOAD =	4 PSF
ADJUSTED C & C WIND PRESSURES (ASD) (PSF)	
EFFECTIVE WIND AREA FOR ROOF (SQ. FT) :	75.00
ZONE 1' (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA
ZONE 1 (POSITIVE) =	15.2
ZONE 1 (NEGATIVE) =	-26.6
ZONE 1 (OVERHANG) =	-40.1
ZONE 2 (POSITIVE) =	15.2
ZONE 2 (NEGATIVE) =	-33.8
ZONE 2 (OVERHANG) =	-47.2
ZONE 3 (POSITIVE) =	15.2
ZONE 3 (NEGATIVE) =	-41.2
ZONE 3 (OVERHANG) =	-54.8
EFFECTIVE WIND AREA FOR WALLS (SQ. FT) :	48.00
ZONE 4 (POSITIVE) =	22.9
ZONE 4 (NEGATIVE) =	-24.5
ZONE 5 (POSITIVE) =	22.9
ZONE 5 (NEGATIVE) =	-27.4

CONTRACTOR TO PROVIDE BUILDING CODE APPROVED PRODUCTS TO MEET OR EXCEED THE DESIGN PRESSURES AS TABULATED.

ADJUSTED C & C WIND PRESSURES (ASD) (PSF) FOR OPENINGS	
SWING DOOR	
EFFECTIVE WIND AREA (SQ. FT) =	20.00
ZONE 4 (POSITIVE) =	24.0
ZONE 4 (NEGATIVE) =	-25.6
ZONE 5 (POSITIVE) =	24.0
ZONE 5 (NEGATIVE) =	-29.5
ROLL-UP DOOR	
EFFECTIVE WIND AREA (SQ. FT) =	100.00
ZONE 4 (POSITIVE) =	22.0
ZONE 4 (NEGATIVE) =	-23.6
ZONE 5 (POSITIVE) =	22.0
ZONE 5 (NEGATIVE) =	-25.6
WINDOW	
EFFECTIVE WIND AREA (SQ. FT) =	6.00
ZONE 4 (POSITIVE) =	24.8
ZONE 4 (NEGATIVE) =	-26.5
ZONE 5 (POSITIVE) =	24.8
ZONE 5 (NEGATIVE) =	-31.3

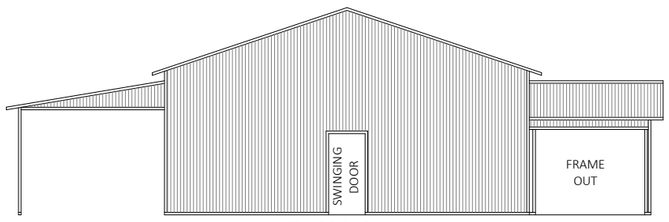
PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC. 26 GA. CAPITAL RIB ROOF PANEL	FL20147.2-R3 12/13/23
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB WALL PANEL	FL20148.2-R3 12/13/23
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC. SERIES 3652	FL21450.6-R11 10/17/23
EXTERIOR DOORS	SWINGING	PGT INDUSTRIES FD-5555	FL331.3-R22 06/18/24
WINDOWS	SINGLE HUNG	PGT INDUSTRIES CA-5440 (NON-IMPACT)	FL245.3-R16 10/13/23

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

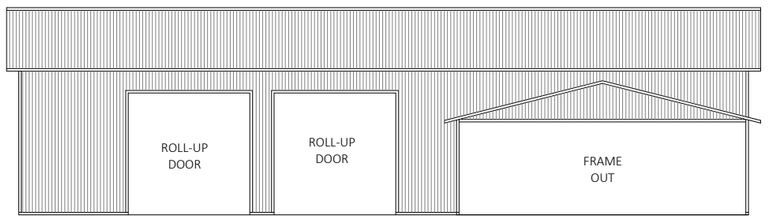


3-D FINITE ELEMENT ANALYISIS PERFORMED
STRUCTURE COMPLIES w/ FBC 2023 8th EDITION

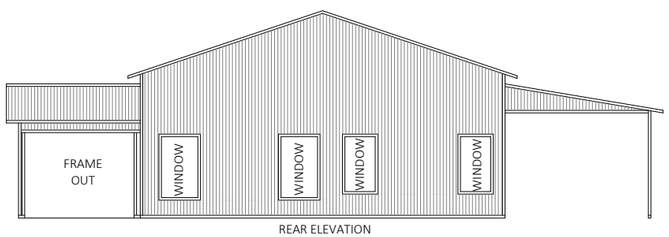
Stress S11 Max/Min Diagram (D+0.6Wya) Kip, in, F



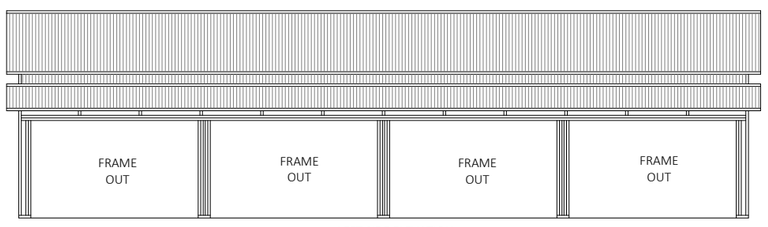
FRONT ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION



LEFT SIDE ELEVATION

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.

RICHARD EDWARD WALKER LICENSE No. 61240 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Richard E Walker
Date: 2024.12.09 10:00:08-05'00'

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PROJECT NO. 2432306

CONTRACTOR:
TUBULAR BUILDING SYSTEMS
P.O. BOX. 2254
LAKE CITY, FL 32056

PROJECT ADDRESS:
CJ CUSTOM CARPENTRY INC
545 SW LEGION DR
LAKE CITY, FL 32024

DESIGN DATE:	12/03/2024
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	TCP
SCALE:	NTS

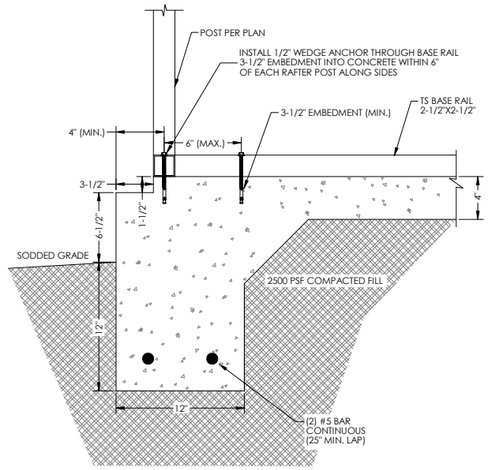
SHEET: 01

GENERAL NOTES

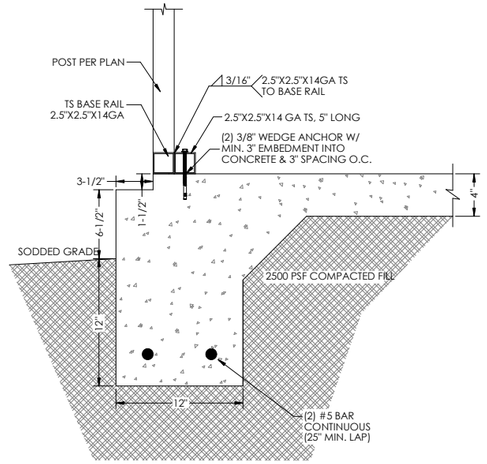
CONCRETE:
1. CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 PSF.
3. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.
4. WHERE CONCRETE SPECIFICATIONS ARE REQUIRED, BY ONE OR MORE REGULATORY AGENCY, THE FOLLOWING SPECIFICATIONS ARE APPLICABLE:
a. CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING COMPONENTS:
i. PORTLAND CEMENT TYPE 1 - ASTM C 150
ii AGGREGATES - LARGE AGGREGATE 3/4 MAX. - ASTM C 33
iii. AIR ENTRAINING +/- 1 % - ASTM C 260
iv. WATER REDUCING AGENT - ASTM C 494
v. CLEAN POTABLE WATER
vi. OTHER ADMIXTURES NOT PERMITTED
b. CONCRETE SLUMP AT DISCHARGE CHUTE NOT LESS THAN 3" OR MORE THAN 5". WATER ADDED AFTER BATCHING IS NOT PERMITTED.
c. PREPARE & PLACE CONCRETE PER AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE, PART 1, 2, & 3 INCLUDING HOT WEATHER RECOMMENDATIONS.
d. MOIST CURE OR POLYETHYLENE CURING PERMITTED.
e. 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).
f. CONCRETE SLAB SHALL BE PLACED OVER A MIN. 6 MIL POLYETHYLENE VAPOR BARRIER (SLAB ONLY).
5. CONTROL JOINTS SHALL BE PROVIDED AT EVERY 12' O.C. OR 18' O.C. FOR 4" THICK OR 6" THICK CONCRETE SLAB RESPECTIVELY.

REINFORCING STEEL:
1. THE REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.
2. REINFORCEMENT MAY BE BENT IN THE FIELD OR SHOP AS LONG AS:
a. IT IS BENT COLD;
b. REINFRCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT;
c. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. 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.

FROST PROTECTION:
1. FOUNDATION SHALL BE PROTECTED AGAINST FROST USING RIGID FOAM INSULATION (EPS OR EQUIVALENT). FOR NO FROST PROTECTION OPTION, COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH BASED ON FROST LINE DEPTH.

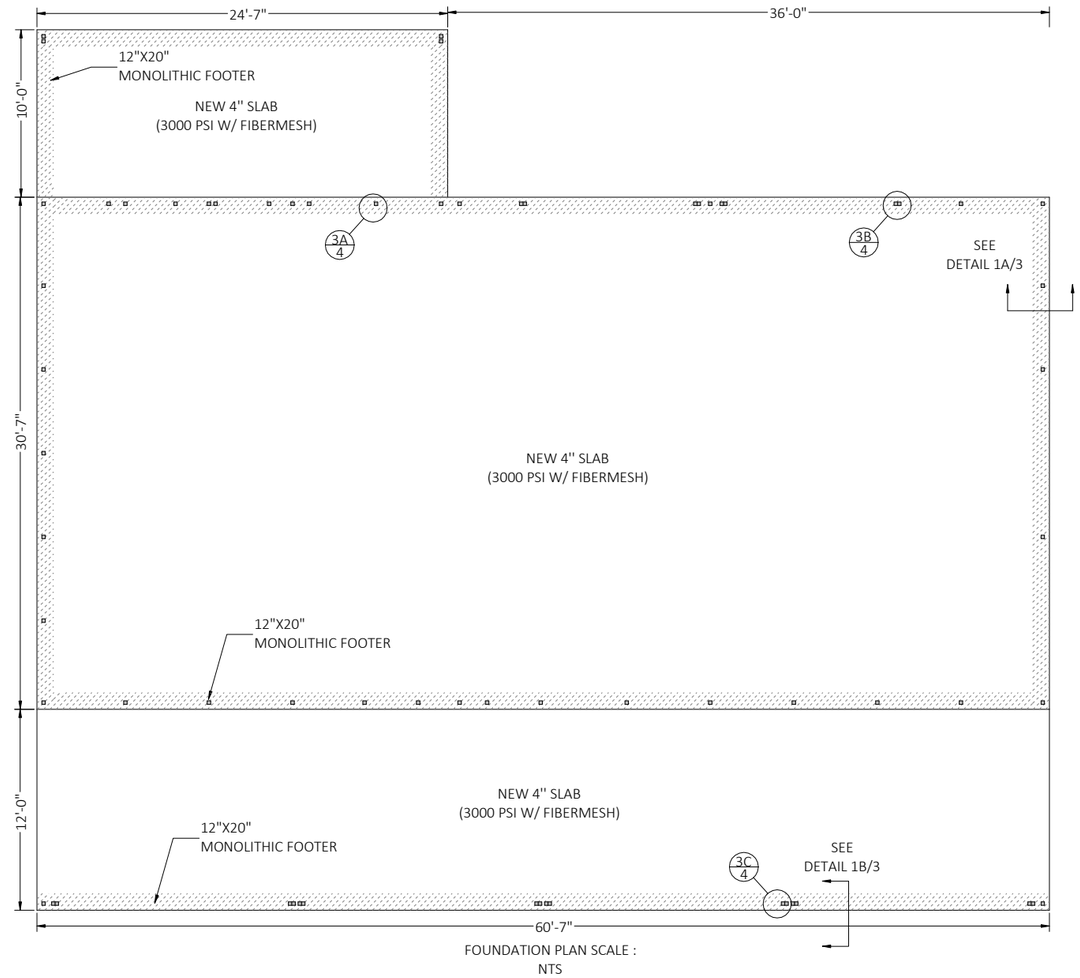


1A 12"X20" MONO. FOOTER BASE RAIL ANCHORAGE
SCALE: NTS



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

- 2.5X2.5X14GA COLUMN
- (2) 2.5X2.5X14GA COLUMN



FOUNDATION PLAN SCALE :
NTS

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