

1. DESIGN IS FOR MAXIMUM 30'-0" WIDE X 20'-0" EAVE HEIGHT FULLY ENCLOSED STRUCTURES.
2. APPLICABLE CODES, REGULATIONS, & STANDARDS:
 - A. 2024 FLORIDA BUILDING CODE (8TH EDITION)
 - B. 2024 INTERNATIONAL BUILDING CODE
 - C. 2024 INTERNATIONAL RESIDENTIAL CODE
 - D. AISC STEEL CONSTRUCTION MANUAL (13TH EDITION)
 - E. ACI 318-19
 - F. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY CONCRETE
 - G. AWS D1.1: STRUCTURAL WELDING
3. EXPOSURE CATEGORY: C-2
4. MIN. ULTIMATE WIND SPEED: 105 TO 150 MPH (NOMINAL WIND SPEED 81 TO 116 MPH); MAXIMUM RAEFTER PITCH AND END POST SPACING = 5.0 FEET.
5. MIN. ULTIMATE WIND SPEED: 151 TO 180 MPH (NOMINAL WIND SPEED 117 TO 139 MPH); MAXIMUM RAEFTER PITCH AND END POST SPACING = 4.0 FEET.
6. DEAD LOAD = 10 PSF
7. LIVE LOAD = 10 PSF
8. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TYPE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE ATCH CHANNELS (UNLESS OTHERWISE NOTED).
9. OPTIONAL BASE RAIL ANCHORAGE MAY BE USED FOR LOW AND MUST BE USED FOR HIGH WIND SPEEDS.
10. FASTENERS CONSIST OF #12-14 x 3/4" SELF DRILLING FASTENER (SDF). USE CONTROL SEAL WASHERS WITH EXTERIOR FASTENERS SPECIFICATIONS APPLICABLE ONLY FOR 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.
11. AVERAGE FASTENER SPACING ON CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6" (MAX.).
12. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:

RISK CATEGORY: I/IIII	
R = 3.25	Ie = 1.0
S _{ds} = 0.087 g	V = CSW
S _{d1} = 0.084 g	
13. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.
14. 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. OPTIMAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
15. MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".
16. SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-95
17. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC.

PAGE NO.	DESCRIPTION
1	NOTES AND SPECIFICATIONS
2	BOX EAVE FRAME RAFTER ENCLOSED BUILDING
3	BOW EAVE FRAME RAFTER ENCLOSED BUILDING/WIND PRESSURES
4	BASE RAIL AND FOUNDATION ANCHORAGE
5	BOW/BOW EAVE VERTICAL, ROOF/SIDING OPTION
6	BOW/BOW EAVE RAFTER LEAN-TO OPTIONS
7	BOX EAVE RAFTER END WALL, SIDE WALL AND OPENING FRAMING
8	VENT AND CWJ STEM WALL DETAIL
9	OPTIONAL CONCRETE STRIP FOOTING

BOW FRAME RAFTER ENCLOSED BUILDING

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB ROOF PANEL	FL20147.2-R3 12/13/2023
STRUCTURAL COMPONENTS	STRUCTURAL WALL	CAPITAL METAL SUPPLY, INC. 29 GA. CAPITAL RIB WALL PANEL	FL20148.2-R3 12/13/2023
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 3652	FL14425.1-R6 12/15/21
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 750	FL21450.10-R11 10/17/23
EXTERIOR DOORS	ROLL-UP	JANUS INTERNATIONAL GROUP, LLC SERIES 3100	FL12765.4-R6 10/12/20
EXTERIOR DOORS	SWINGING	ELBIR DOOR AND METAL COMPANY SERIES 407	FL17996.5-R3 12/26/23
WINDOWS	SINGLE HUNG	KINHO, INC 9750 SH	FL993.5-R19 11/01/23
WINDOWS	VERTICAL SLIDING	KINHO, INC 18000-R VS	FL993.8-R19 11/01/23

DIGITAL CERTIFICATION NOTES:

1. THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR. THIS DOCUMENT AND ITS FORMAT SHALL BE VERIFIED BY THE CONTRACTOR'S PROJECT MANAGER. TWO COPIES OF THIS DOCUMENT ARE NOT SIGNED, SIGNED AND SEALED.

2. THIS DOCUMENT HAS BEEN CREATED BY FLORIDA ENGINEERING LLC FOR TUBULAR BUILDING SYSTEMS ONLY. IT SHALL NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF FLORIDA ENGINEERING LLC AND TUBULAR BUILDING SYSTEMS.

3. ALTERNATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THE DOCUMENT. ANY SUCH CHANGES SHALL BE REJECTED.

4. THESE PLANS ARE GENERIC AND DO NOT PROVIDE THE INFORMATION FOR SITE-SPECIFIC PROJECT WHERE THE SITE CONDITIONS DEVIATE FROM WHAT HAS BEEN CALLED OUT ON THESE PLANS.

5. CONTRACTOR MUST NOT DEVIATE FROM THE CONDITIONS DETAILED ON THESE PLANS.

6. CONSTRUCTION SAFETY AT THE SITE IS THE CONTRACTOR'S RESPONSIBILITY.

DESIGN DATE:	12/14/2023	PAGE:	1
REVISION 1:	DATE		
REVISION 2:	DATE		
SCALE:	NTS		

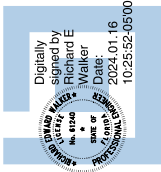
TRACTOR:
TUBULAR BUILDING SYSTEMS
631 SE INDUSTRIAL CIRCLE,
LAKE CITY, FL 32025

SUBJECT DESCRIPTION:

30' WIDE X 20' HIGH
ENCLOSED STRUCTURE



FLORIDA ENGINEERING LLC
4161 TAMAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
FLEng.com
Orders@FLEng.com
PROJECT NO. 2322771-30-E
VC CERT. #30782



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.

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.

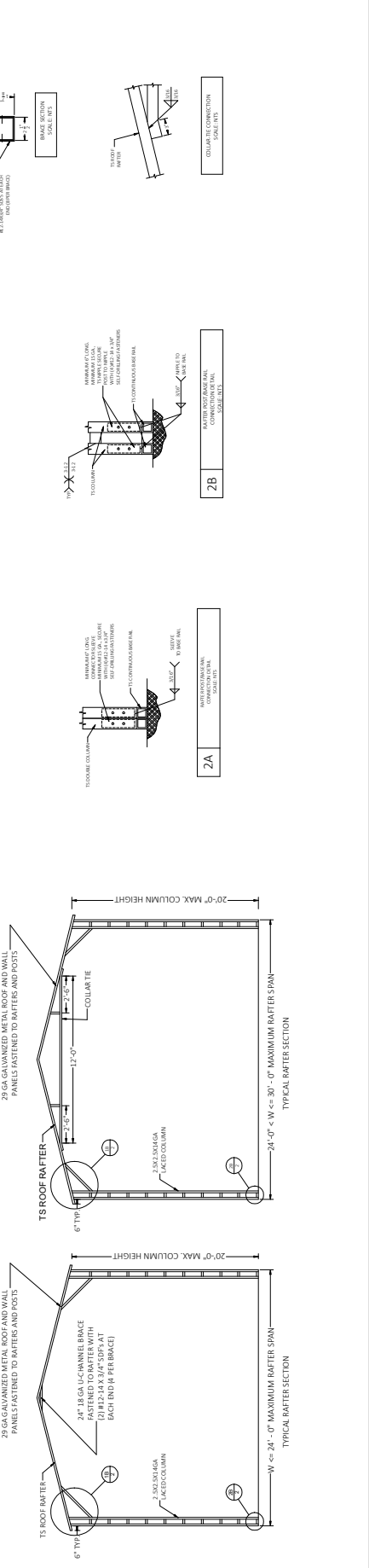
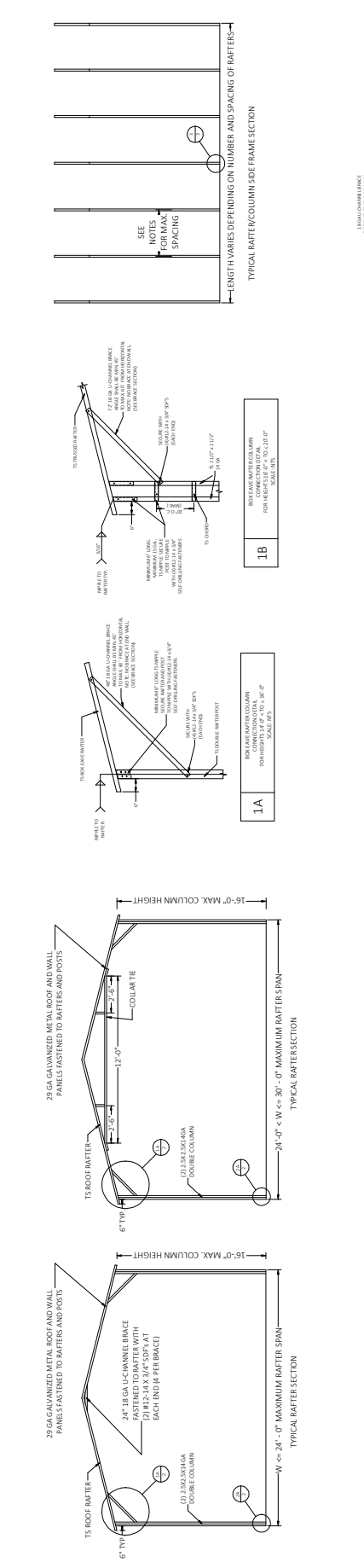
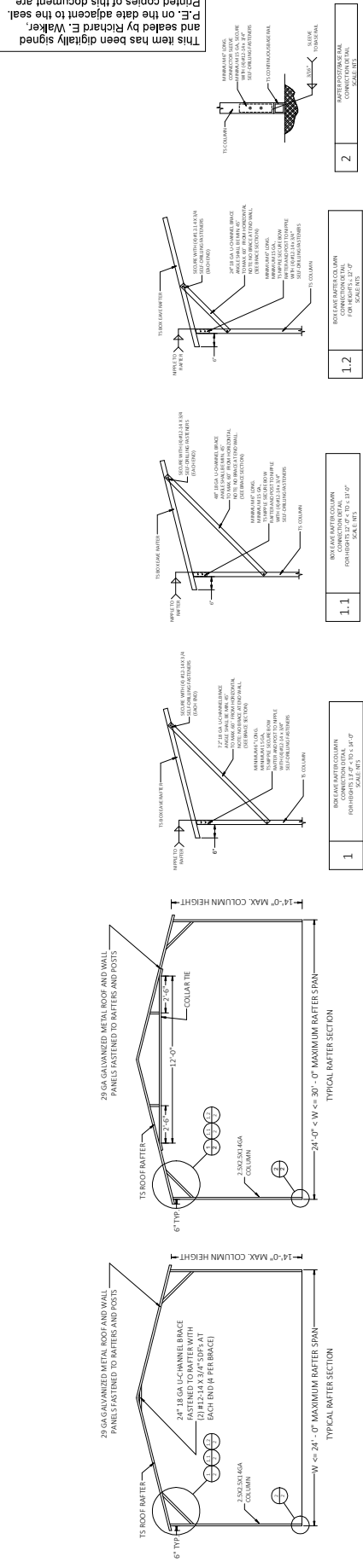
SEAL
FLORIDA
REGISTERED PROFESSIONAL ENGINEER
No. 81040
DATE OF EXPIRATION
7/2025
2025-01-16
10:25:54-0500

Digitally signed by Richard E. Walker
DN: cn=Richard E. Walker, o=FLORIDA ENGINEERING LLC, email=Richard.E.Walker@FLEng.com, c=US

FLORIDA ENGINEERING LLC
4161 TAMAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
FLEng.com
Orders@FLEng.com
CA CERT. #30782
PROJECT NO. 2322771-30-E

CONTRACTOR:
TUBULAR BUILDING SYSTEMS
631 SE INDUSTRIAL CIRCLE,
LAKE CITY, FL 32025
PROJECT DESCRIPTION:
30" WIDE X 20" HIGH
ENCLOSED STRUCTURE

DESIGN DATE: 12/14/2023
REVISION 1: DATE
REVISION 2: DATE
SCALE: NTS
PAGE: 2



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.

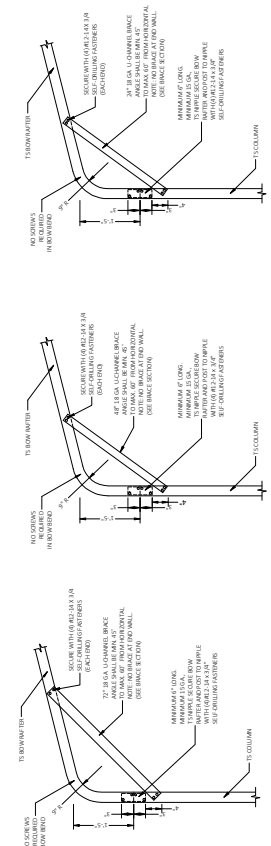
Digitally signed by Richard E. Walker
DN: cn=Richard E. Walker, o=FLORIDA ENGINEERING LLC, email=Richard.E.Walker@FLEng.com, c=US
Date: 2023.01.16 10:25:55-0500

FLORIDA ENGINEERING LLC
4161 TAMAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
FLEng.com
Orders@FLEng.com
CA CERT. #30782
PROJECT NO. 2322771-30-E

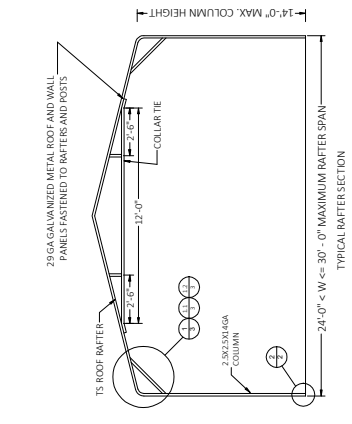
CONTRACTOR:
TUBULAR BUILDING SYSTEMS
631 SE INDUSTRIAL CIRCLE,
LAKE CITY, FL 32025
PROJECT DESCRIPTION:
30' WIDE X 20' HIGH
ENCLOSED STRUCTURE

DESIGN DATE: 12/14/2023
REVISION 1: DATE
REVISION 2: DATE
SCALE: NTS

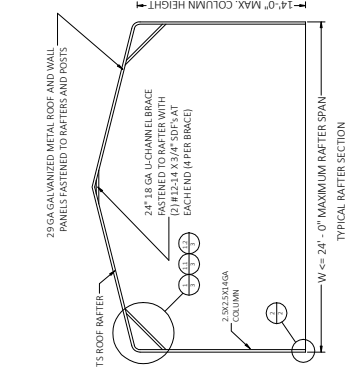
3



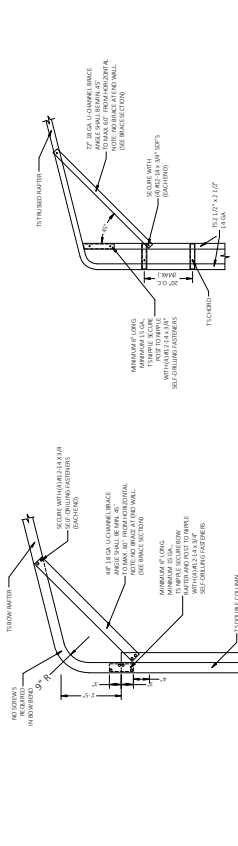
1
BOW EAVE AFTER COLUMN
FOR HEIGHTS 21'-0" TO 23'-0"
SCALE: NTS



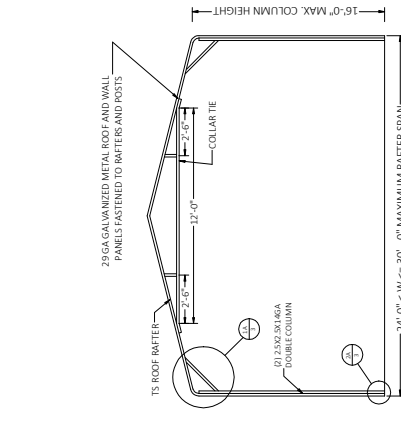
1.1
BOW EAVE AFTER COLUMN
FOR HEIGHTS 24'-0" TO 26'-0"
SCALE: NTS



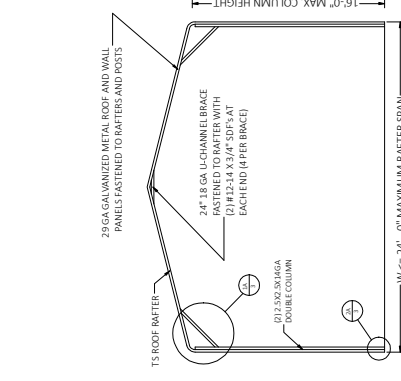
1.2
BOW EAVE AFTER COLUMN
FOR HEIGHTS 27'-0" TO 29'-0"
SCALE: NTS



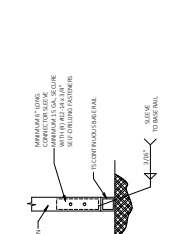
2
BOW EAVE AFTER COLUMN
FOR HEIGHTS 30'-0" TO 32'-0"
SCALE: NTS



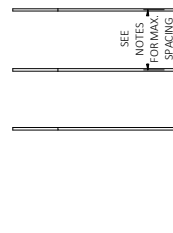
2A
BOW EAVE AFTER COLUMN
FOR HEIGHTS 33'-0" TO 35'-0"
SCALE: NTS



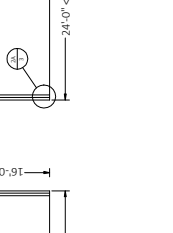
2B
BOW EAVE AFTER COLUMN
FOR HEIGHTS 36'-0" TO 38'-0"
SCALE: NTS



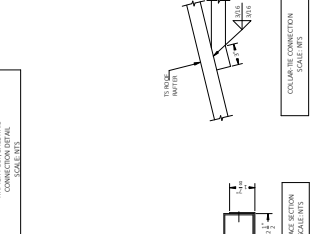
2C
BOW EAVE AFTER COLUMN
FOR HEIGHTS 39'-0" TO 41'-0"
SCALE: NTS



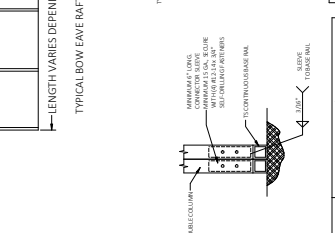
2D
BOW EAVE AFTER COLUMN
FOR HEIGHTS 42'-0" TO 44'-0"
SCALE: NTS



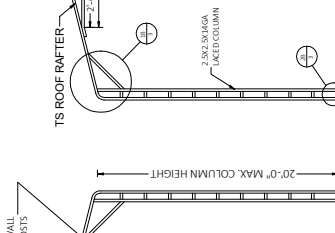
2E
BOW EAVE AFTER COLUMN
FOR HEIGHTS 45'-0" TO 47'-0"
SCALE: NTS



2F
BOW EAVE AFTER COLUMN
FOR HEIGHTS 48'-0" TO 50'-0"
SCALE: NTS



2G
BOW EAVE AFTER COLUMN
FOR HEIGHTS 51'-0" TO 53'-0"
SCALE: NTS



2H
BOW EAVE AFTER COLUMN
FOR HEIGHTS 54'-0" TO 56'-0"
SCALE: NTS



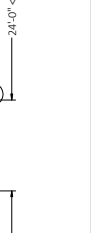
2I
BOW EAVE AFTER COLUMN
FOR HEIGHTS 57'-0" TO 59'-0"
SCALE: NTS



2J
BOW EAVE AFTER COLUMN
FOR HEIGHTS 60'-0" TO 62'-0"
SCALE: NTS



2K
BOW EAVE AFTER COLUMN
FOR HEIGHTS 63'-0" TO 65'-0"
SCALE: NTS



2L
BOW EAVE AFTER COLUMN
FOR HEIGHTS 66'-0" TO 68'-0"
SCALE: NTS



2M
BOW EAVE AFTER COLUMN
FOR HEIGHTS 69'-0" TO 71'-0"
SCALE: NTS



2N
BOW EAVE AFTER COLUMN
FOR HEIGHTS 72'-0" TO 74'-0"
SCALE: NTS



2O
BOW EAVE AFTER COLUMN
FOR HEIGHTS 75'-0" TO 77'-0"
SCALE: NTS



2P
BOW EAVE AFTER COLUMN
FOR HEIGHTS 78'-0" TO 80'-0"
SCALE: NTS



2Q
BOW EAVE AFTER COLUMN
FOR HEIGHTS 81'-0" TO 83'-0"
SCALE: NTS

2R
BOW EAVE AFTER COLUMN
FOR HEIGHTS 84'-0" TO 86'-0"
SCALE: NTS

2S
BOW EAVE AFTER COLUMN
FOR HEIGHTS 87'-0" TO 89'-0"
SCALE: NTS

2T
BOW EAVE AFTER COLUMN
FOR HEIGHTS 90'-0" TO 92'-0"
SCALE: NTS

2U
BOW EAVE AFTER COLUMN
FOR HEIGHTS 93'-0" TO 95'-0"
SCALE: NTS

2V
BOW EAVE AFTER COLUMN
FOR HEIGHTS 96'-0" TO 98'-0"
SCALE: NTS

2W
BOW EAVE AFTER COLUMN
FOR HEIGHTS 99'-0" TO 101'-0"
SCALE: NTS

2X
BOW EAVE AFTER COLUMN
FOR HEIGHTS 102'-0" TO 104'-0"
SCALE: NTS

2Y
BOW EAVE AFTER COLUMN
FOR HEIGHTS 105'-0" TO 107'-0"
SCALE: NTS

2Z
BOW EAVE AFTER COLUMN
FOR HEIGHTS 108'-0" TO 110'-0"
SCALE: NTS

2AA
BOW EAVE AFTER COLUMN
FOR HEIGHTS 111'-0" TO 113'-0"
SCALE: NTS

2AB
BOW EAVE AFTER COLUMN
FOR HEIGHTS 114'-0" TO 116'-0"
SCALE: NTS

2AC
BOW EAVE AFTER COLUMN
FOR HEIGHTS 117'-0" TO 119'-0"
SCALE: NTS

2AD
BOW EAVE AFTER COLUMN
FOR HEIGHTS 120'-0" TO 122'-0"
SCALE: NTS

2AE
BOW EAVE AFTER COLUMN
FOR HEIGHTS 123'-0" TO 125'-0"
SCALE: NTS

2AF
BOW EAVE AFTER COLUMN
FOR HEIGHTS 126'-0" TO 128'-0"
SCALE: NTS

2AG
BOW EAVE AFTER COLUMN
FOR HEIGHTS 129'-0" TO 131'-0"
SCALE: NTS

2AH
BOW EAVE AFTER COLUMN
FOR HEIGHTS 132'-0" TO 134'-0"
SCALE: NTS

2AI
BOW EAVE AFTER COLUMN
FOR HEIGHTS 135'-0" TO 137'-0"
SCALE: NTS

2AJ
BOW EAVE AFTER COLUMN
FOR HEIGHTS 138'-0" TO 140'-0"
SCALE: NTS

2AK
BOW EAVE AFTER COLUMN
FOR HEIGHTS 141'-0" TO 143'-0"
SCALE: NTS

2AL
BOW EAVE AFTER COLUMN
FOR HEIGHTS 144'-0" TO 146'-0"
SCALE: NTS

2AM
BOW EAVE AFTER COLUMN
FOR HEIGHTS 147'-0" TO 149'-0"
SCALE: NTS

2AN
BOW EAVE AFTER COLUMN
FOR HEIGHTS 150'-0" TO 152'-0"
SCALE: NTS

2AO
BOW EAVE AFTER COLUMN
FOR HEIGHTS 153'-0" TO 155'-0"
SCALE: NTS

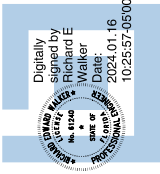
2AP
BOW EAVE AFTER COLUMN
FOR HEIGHTS 156'-0" TO 158'-0"
SCALE: NTS

2AQ
BOW EAVE AFTER COLUMN
FOR HEIGHTS 159'-0" TO 161'-0"
SCALE: NTS

2AR
BOW EAVE AFTER COLUMN
FOR HEIGHTS 162'-0" TO 164'-0"
SCALE: NTS

2AS
BOW EAVE AFTER COLUMN
FOR HEIGHTS 165'-0" TO 167'-0"
SCALE: NTS

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 TAMAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
FLeng.com
Orders@FLeng.com
CA CERT. #30782
PROJECT NO. 2322771-30-E



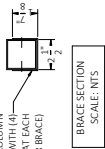
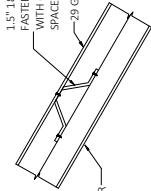
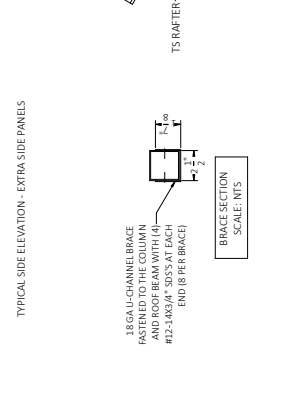
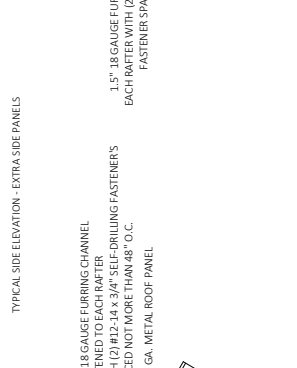
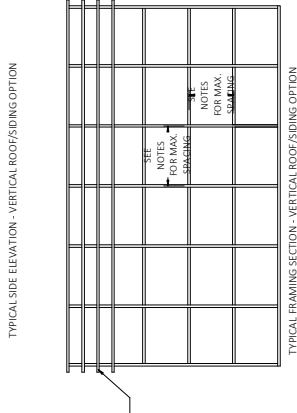
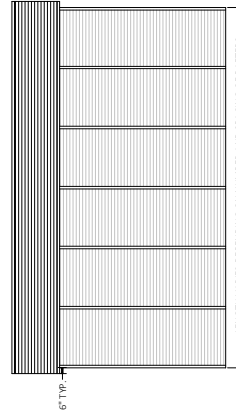
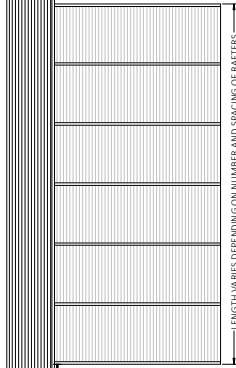
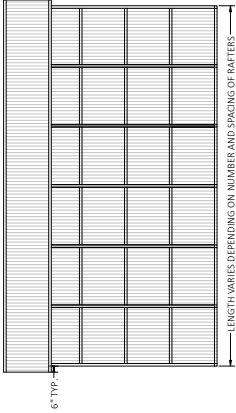
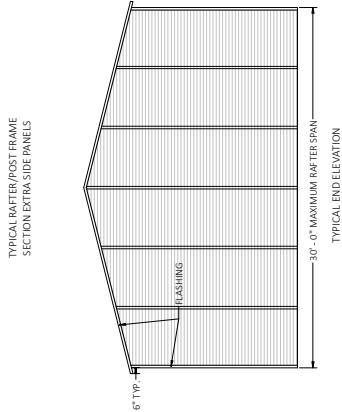
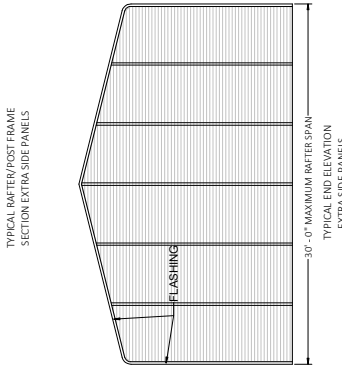
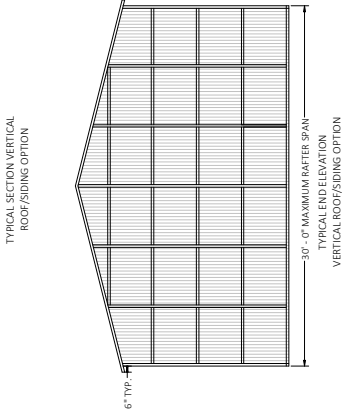
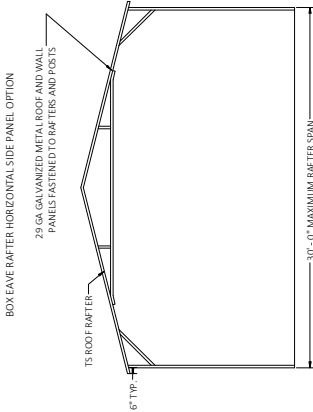
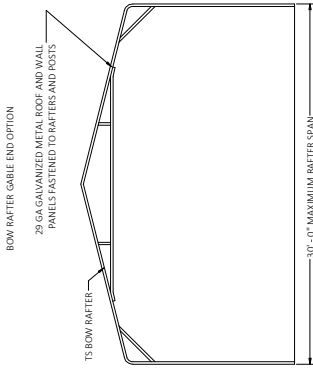
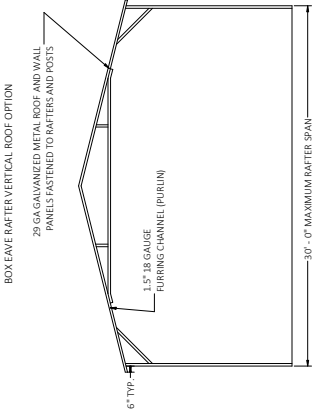
TUBULAR BUILDING SYSTEMS
631 SE INDUSTRIAL CIRCLE,
LAKE CITY, FL 32025

30' WIDE X 20' HIGH
ENCLOSED STRUCTURE

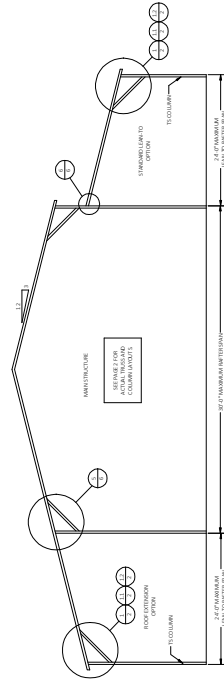
PROJECT DESCRIPTION:

DESIGN DATE:	12/14/2023
REVISION 1:	DATE
REVISION 2:	DATE
SCALE:	NTS

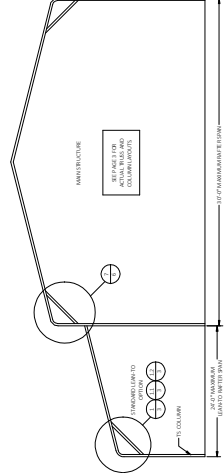
5



BOX LEAVE RAFTER LEAN-TO OPTIONS

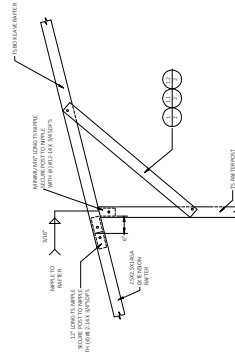


BOW RAFTER LEAN-TO OPTIONS



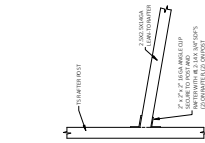
TYPICAL BOX LEAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

TYPICAL BOW RAFTER LEAN-TO OPTIONS FRAMING SECTION



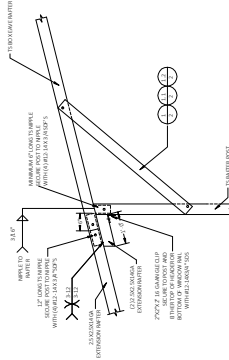
5A

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



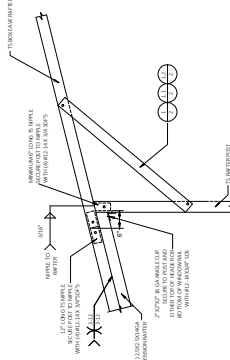
6A

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



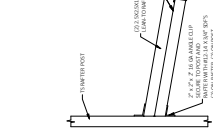
5B

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



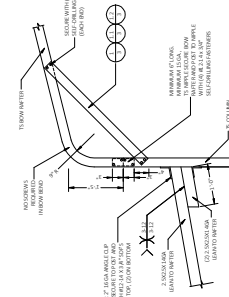
5C

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



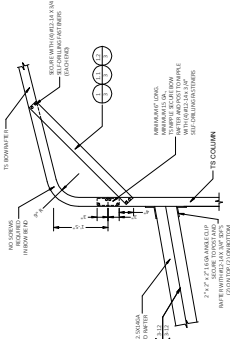
6C

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



7B

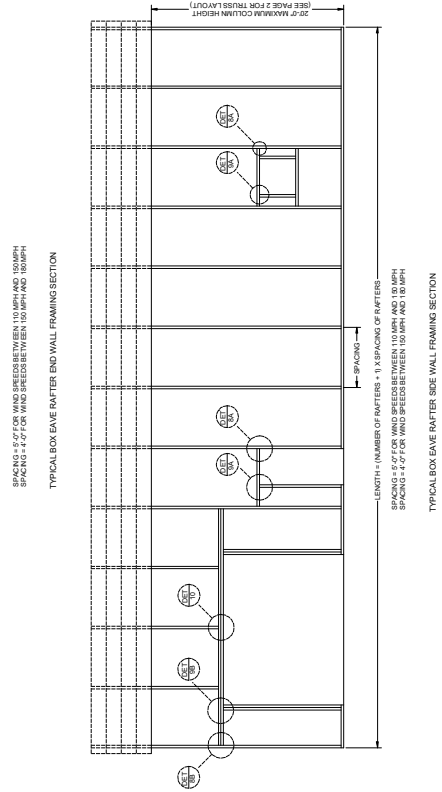
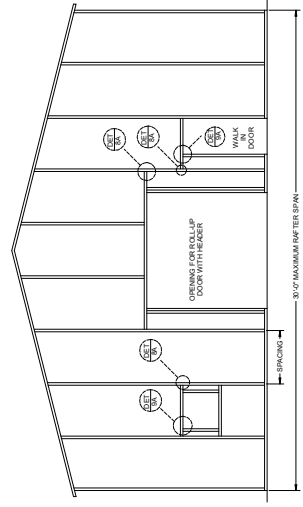
SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.



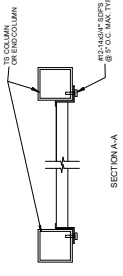
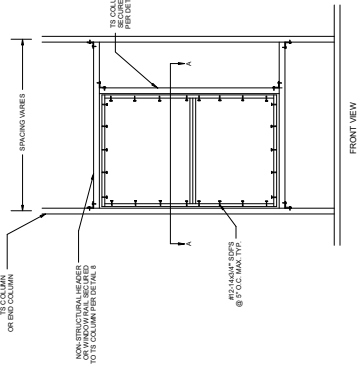
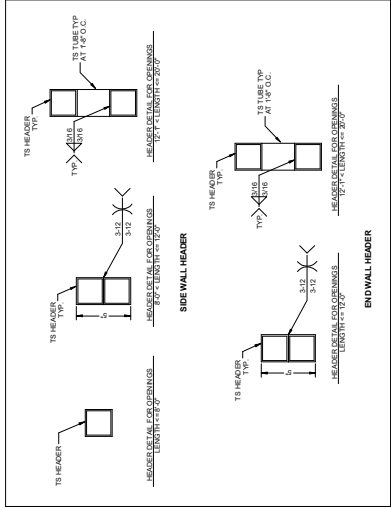
7C

SIZE: EXTENSION RAFTER COLUMN DETAIL
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.
FOR EXTENSION RAFTER SPAN $12' < W \leq 12' 0''$ OF THE RAFTER IS PER DETAIL 1.1.2.





TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION



11 WINDOW INSTALLATION DETAILS
SCALE: N.T.S.

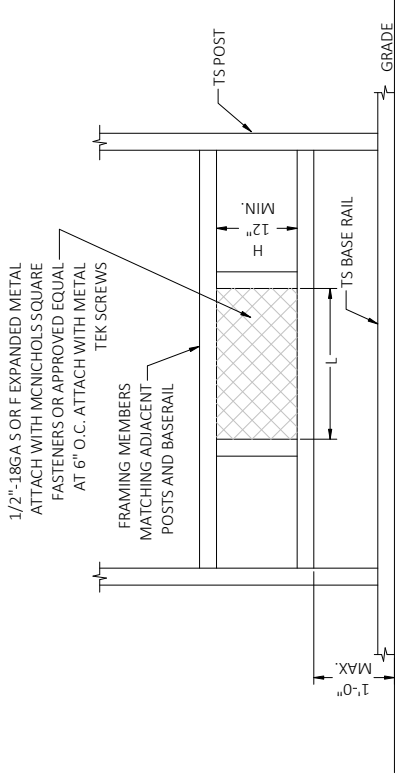
TUBULAR BUILDING SYSTEMS	
631 SE INDUSTRIAL CIRCLE,	
LAKE CITY, FL 32025	
PROJECT DESCRIPTION:	
30' WIDE X 20' HIGH	
ENCLOSED STRUCTURE	



PROJECT NO. 2322771-30-E		CA CERT. #30782
Orders@FLEng.com		
FLEng.com		
(941) 391-5980		
PORT CHARLOTTE, FLORIDA 33952		
4161 TAMAMI TRAIL, UNIT 101		
FLORIDA ENGINEERING LLC		

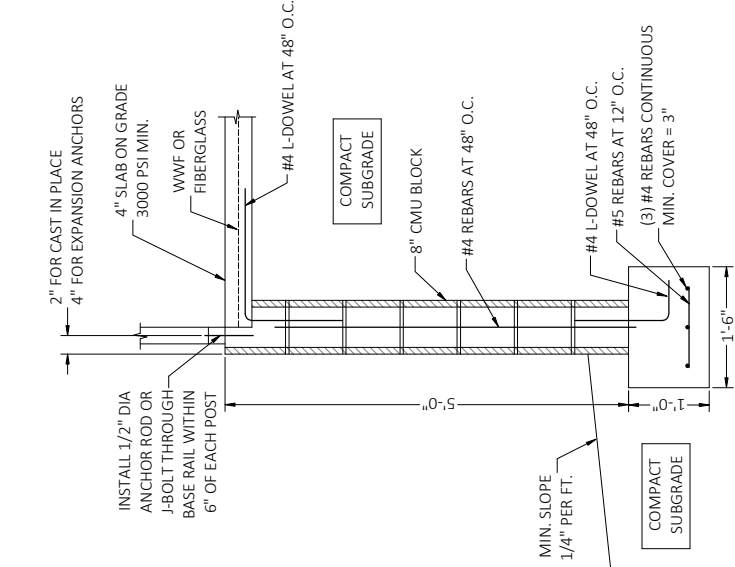
This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Richard E. Walker
DN: cn=Richard E. Walker, o=Florida Engineering LLC, ou=FLORIDA ENGINEERING LLC, email=Orders@FLEng.com, c=US
Date: 2023.01.16 10:25:59-0500



TYPICAL FLOOD VENT DETAIL

- NOTES:
1. MINIMUM VENT SPACE REQUIRED = 1 SQ. IN. OF OPEN VENT AREA PER SQ. FT. OF BUILDING AREA.
 2. PROVIDE A MINIMUM OF TWO OPENINGS ON DIFFERENT SIDES OF EACH ENCLOSED BUILDING.
 3. APPLY A 1.3 FACTOR WHEN CALCULATING TOTAL OPEN AREA WHEN USING 1/2"-18GA S OR F EXPANDED METAL.
 4. TOTAL OPEN AREA OF VENT = L X H (MIN. 12").
 5. FLOOD VENT DETAIL COMPLIES WITH FEMA/NFIP.
 6. PREFABRICATED FLOOD VENTS MEETING THE REQUIREMENTS OF FEMA/NFIP MAY BE USED.



STAND-ALONE CONCRETE MASONRY UNIT (CMU)
FOUNDATION STEM WALL DETAIL

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

CA CERT. #30782

PROJECT NO. 2322771-30-E

2024.01.16

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

CA CERT. #30782

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

CA CERT. #30782

CONTRACTOR:		TUBULAR BUILDING SYSTEMS		631 SE INDUSTRIAL CIRCLE,		LAKE CITY, FL 32025	
PROJECT DESCRIPTION:		30' WIDE X 20' HIGH		ENCLOSED STRUCTURE			
DESIGN DATE:	12/14/2023	REVISION 1:	DATE	DATE	DATE	DATE	DATE
REVISION 2:	DATE	REVISION 3:	DATE	REVISION 4:	DATE	REVISION 5:	DATE
SCALE:	NTS	SCALE:	NTS	SCALE:	NTS	SCALE:	NTS

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

CA CERT. #30782

PROJECT NO. 2322771-30-E

2024.01.16

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

CA CERT. #30782

FLORIDA ENGINEERING LLC

4161 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

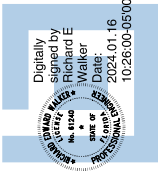
(941) 391-5980

FLeng.com

Orders@FLeng.com

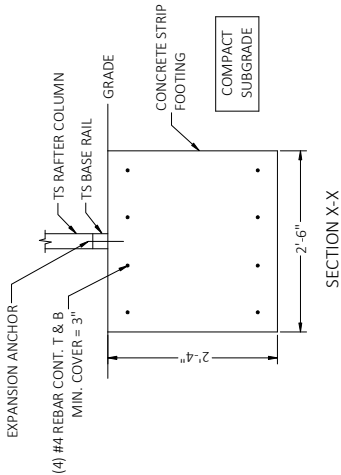
CA CERT. #30782

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.

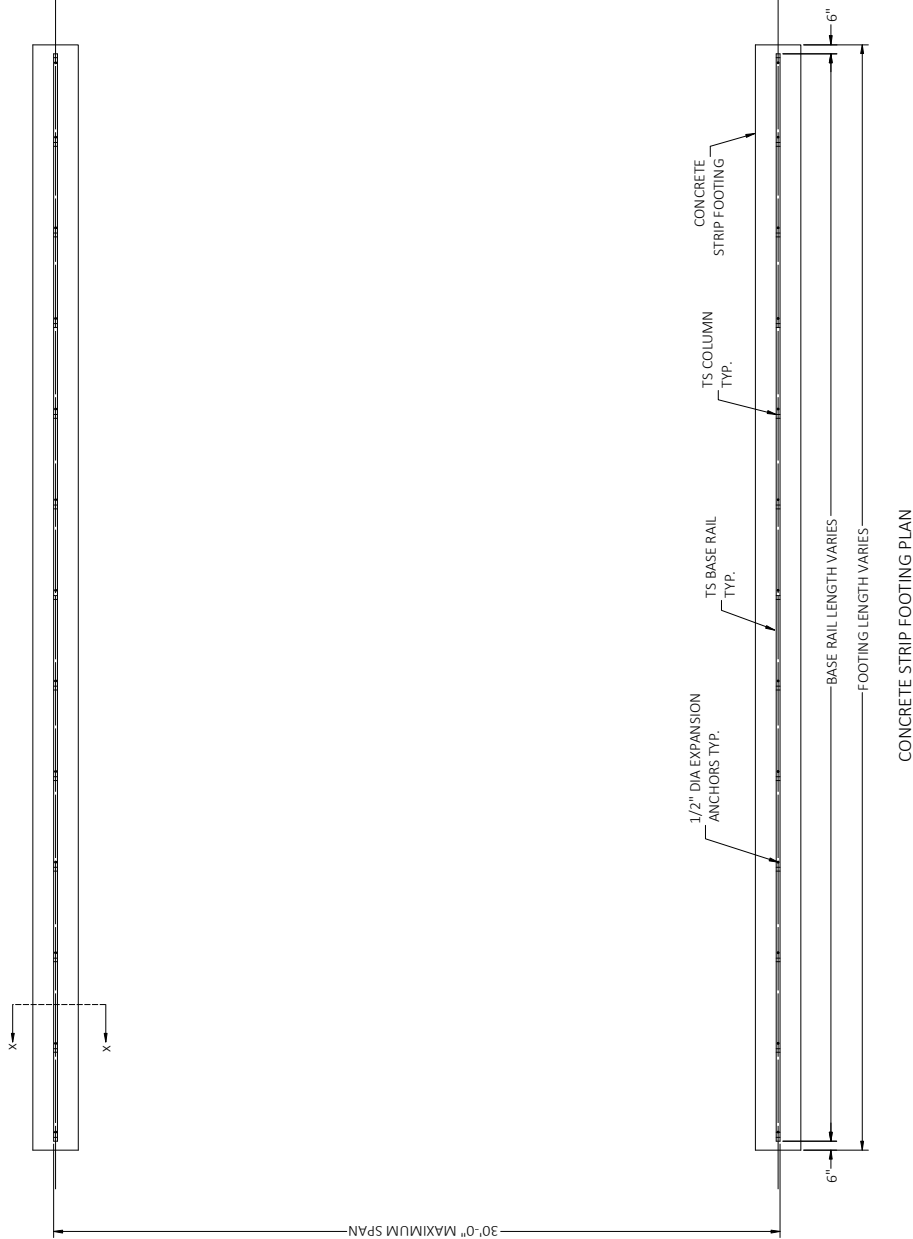


GENERAL NOTES:
CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 1500 PSF.

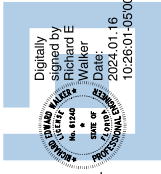
- CONCRETE:
MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH = 3000 PSI
- REINFORCING STEEL:
1. TURNDOWN REINFORCING STEEL = ASTM A615 GRADE 60
2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
3. REINFORCING STEEL COVER = 3" WHERE CASE AGAINST AND PERMANENTLY EXPOSED TO SOIL OR WATER, 1.5" EVERYWHERE ELSE.
4. REINFORCEMENT IS BENT COLD.
5. MINIMUM INSIDE DIAMETER OF BEND = (6) BAR DIAMETERS
6. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



OPTIONAL CONCRETE STRIP FOOTING



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 TAMAMI TRAIL, UNIT 101

PORT CHARLOTTE, FLORIDA 33952

(941) 391-5980

FLeng.com

Orders@FLeng.com

PROJECT NO. 2322771-30-E

CA CERT. #30782

TUBULAR BUILDING SYSTEMS

631 SE INDUSTRIAL CIRCLE,

LAKE CITY, FL 32025

CONTRACTOR:

PROJECT DESCRIPTION:

30" WIDE X 20" HIGH

ENCLOSED STRUCTURE

DESIGN DATE:	12/14/2023
REVISION 1:	DATE
REVISION 2:	DATE
SCALE:	NTS