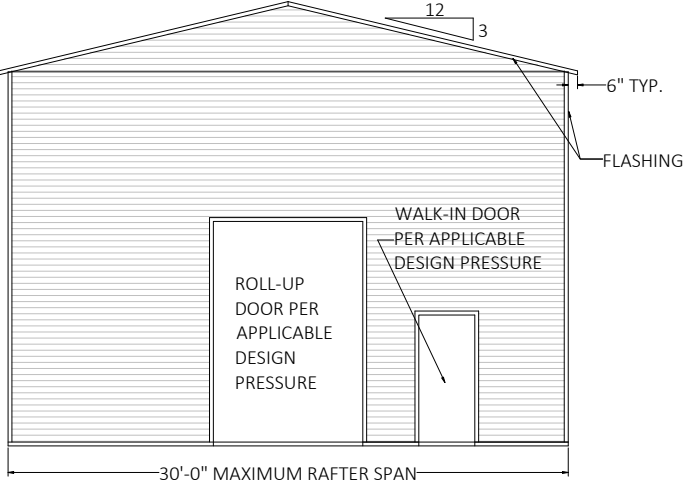


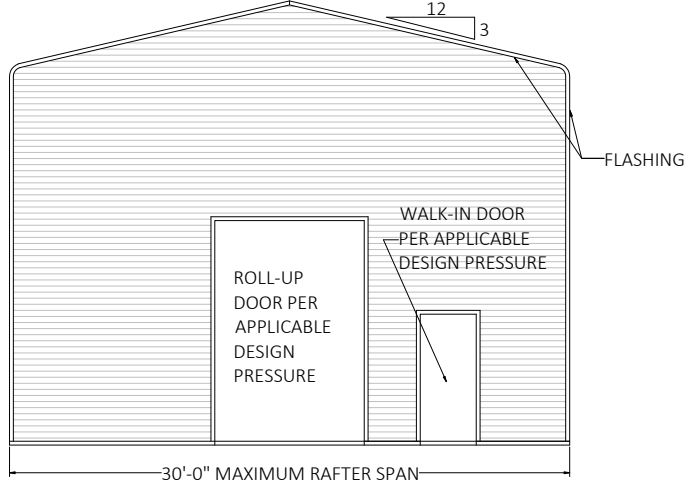
- APPLICABLE CODES
1. 2023 FLORIDA BUILDING CODE
- APPLICABLE STANDARDS
1. ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
2. AISC STEEL CONSTRUCTION MANUAL (17TH EDITION)
3. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
4. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
5. AWS D1.1: STRUCTURAL WELDING

- DESIGN LOADS
1. DEAD LOAD = 1.5 PSF
2. ROOF LIVE LOAD = 12 PSF
3. WIND LOAD
- A. RISK CATEGORY = II
- B. WIND EXPOSURE CATEGORY = C
- C. ULTIMATE WIND SPEED = 120 MPH
- NOMINAL WIND SPEED = 94 MPH

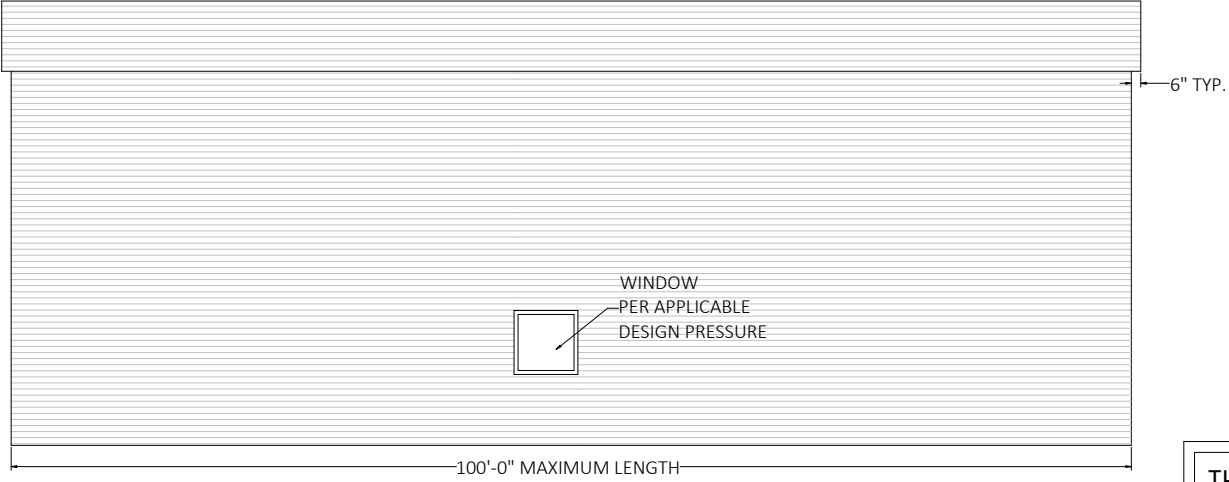
- INSTALLATION NOTES AND SPECIFICATIONS
1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MWFRS), COMPONENTS AND CLADDING (C&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET-BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, 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 BUILDING CODE APPROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY THE CONTRACTOR, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.
3. ALL STEEL TUBING SHALL BE 50 KSI GALVANIZED STEEL WITH MINIMUM YIELD STRENGTH OF 54 KSI. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.
4. END WALL COLUMNS (POST) AND SIDE WALL COLUMNS ARE EQUIVALENT IN SIZE AND SPACING U.N.O.
5. SPECIFICATIONS APPLICABLE TO 29 GA METAL PANELS FASTENED DIRECTLY TO 2.5"x2.5"x14 GA/2.5"x2.5"x12GA TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS. 29 GA METAL PANELS SHALL BE FASTENED DIRECTLY TO 18 GA HAT CHANNELS U.N.O.
6. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" AND END = 6" MAX.
7. FASTENERS CONSIST OF #12-14X3/4" SELF-DRILLING SCREWS (SDS), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20'-0" OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS. SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.
8. ANCHORS SHALL BE INSTALLED THROUGH THE BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
9. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBARS WITH WELDED NUT X 36" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED. SOIL NAILS MAY BE USED FOR WIND SPEEDS LESS THAN OR EQUAL TO 145 MPH.
10. RAFTER SPACING IS 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 140 MPH AND 4'-0" FOR WIND SPEEDS BETWEEN 140 MPH AND 170 MPH.
11. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY II
R = 3.25 Ie = 1.0 Sds = 0.075 g V = CsW Sd1 = 0.051 g



TYPICAL END ELEVATION - BOX EAVE



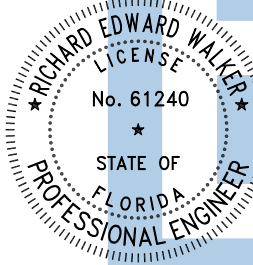
TYPICAL END ELEVATION - BOW EAVE



TYPICAL SIDE ELEVATION - HORIZONTAL ROOF

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

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FLORIDA ENGINEERING LLC
4161 TAMiami TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952

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Orders@FLEng.com

LICENSE #30782



PROJECT NO. 2410955-3

CONTRACTOR:
BEST METAL BUILDINGS LLC
484 NW TURNER AVE
LAKE CITY FL 32055

PROJECT ADDRESS:
ARCHITECTURAL ARTS STUDIO
143 SW. MEADOWLAND, DR.
LAKE CITY, FL. 32024

DESIGN DATE: 04/25/2024

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DRAWN BY: JS

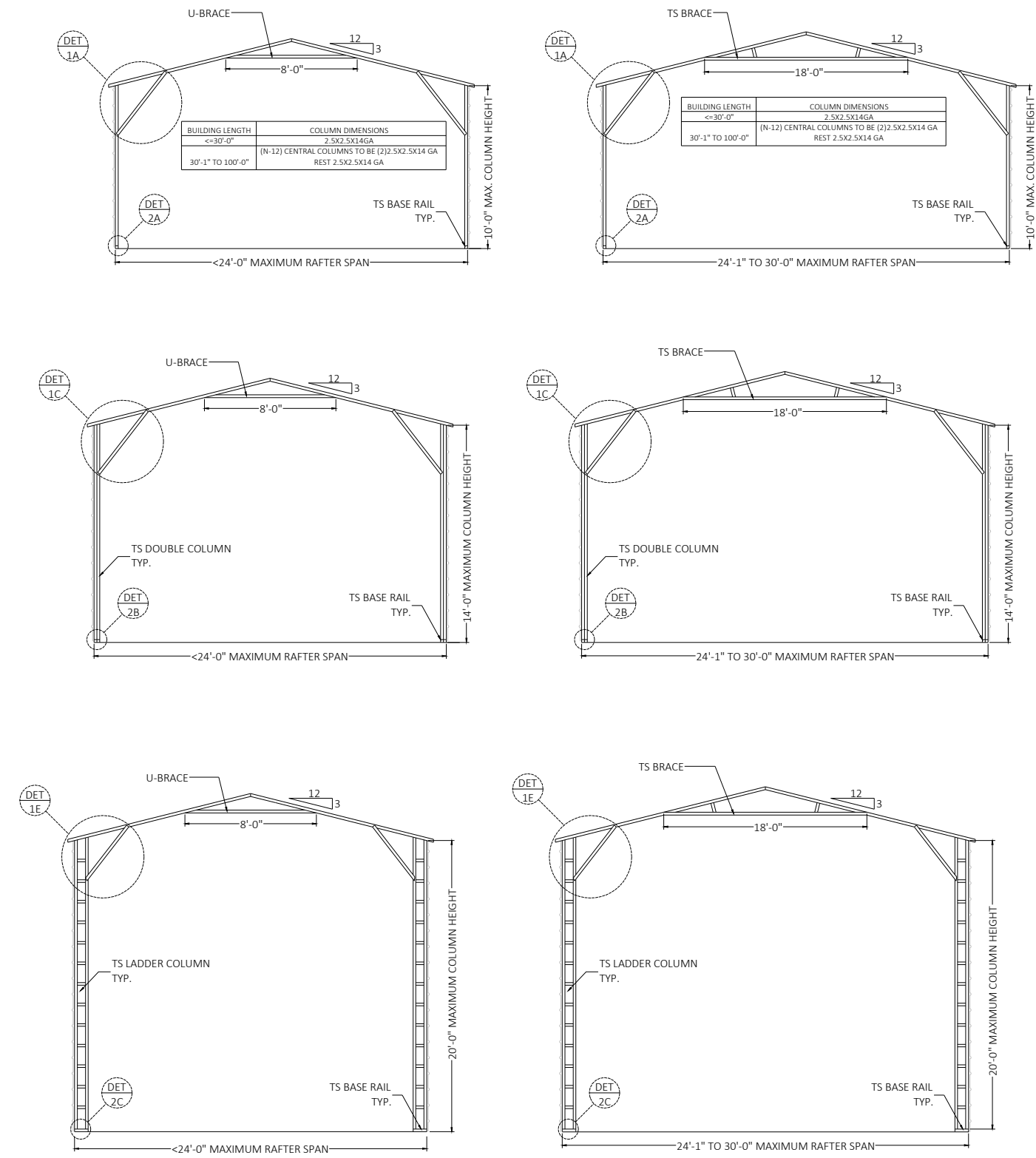
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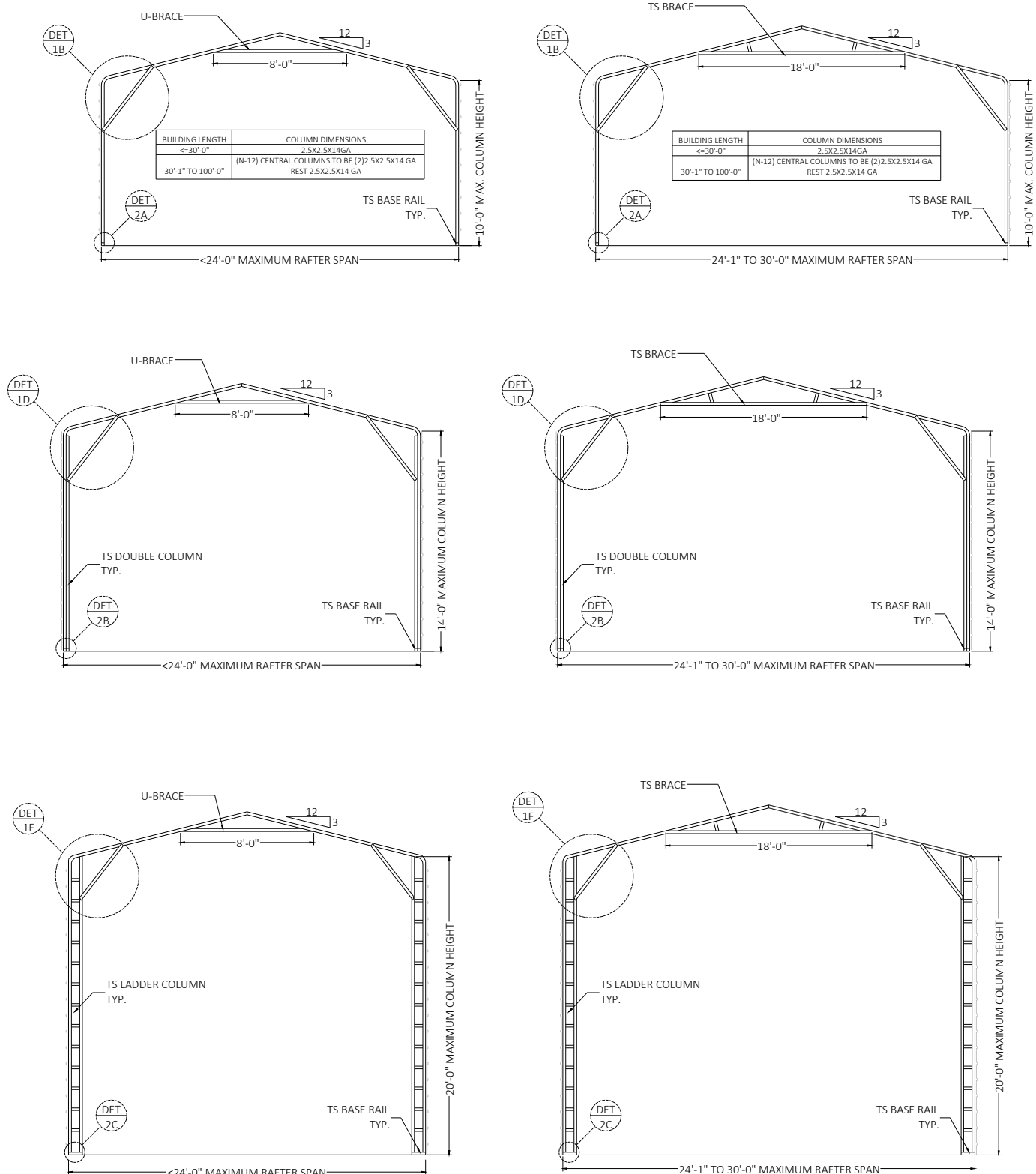
1 OF 10

- MEMBER LEGEND:
- 1. TS COLUMN = 2.5X2.5X14 GA U.N.O.
 - 2. TRUSS MEMBERS = 2.5X2.5X14 GA U.N.O.
 - 3. KNEE-BRACE = 2.5"X2"X18GA CHANNEL
 - 4. PURLIN = 1.125"X18GA HAT CHANNEL
 - 5. TS BRACE = 2.5"X2.5"X14GA TUBE
 - 6. U-BRACE = 2.5"X2"X18GA CHANNEL
 - 7. END WALL COLUMN = (2)2.5X2.5X14GA U.N.O.

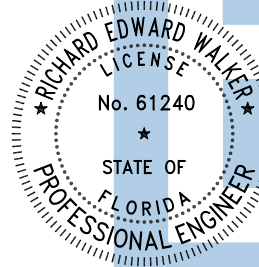
TRUSS LAYOUT- BOX EAVE



TRUSS LAYOUT- BOW EAVE



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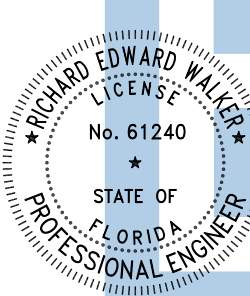
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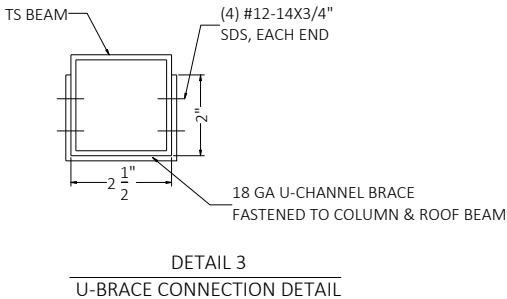
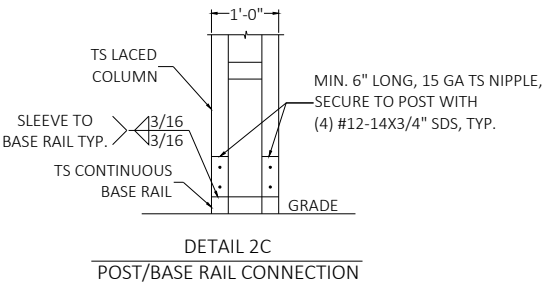
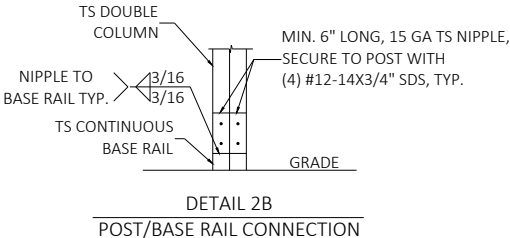
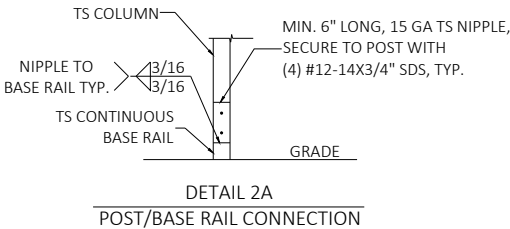
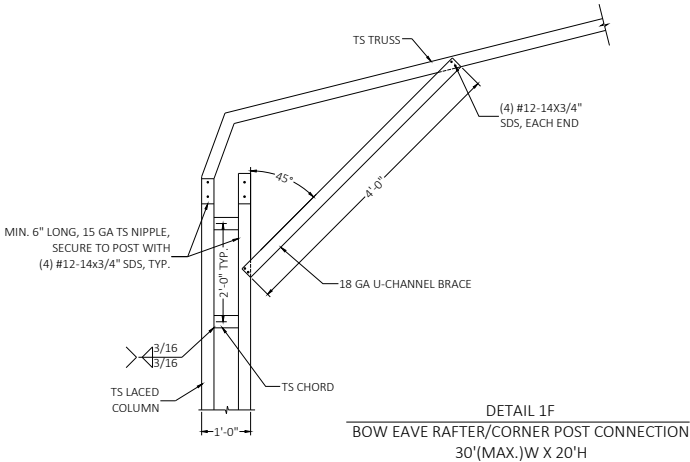
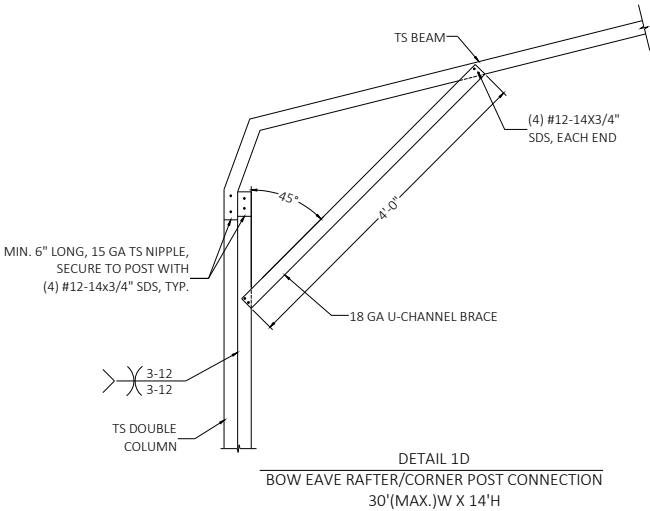
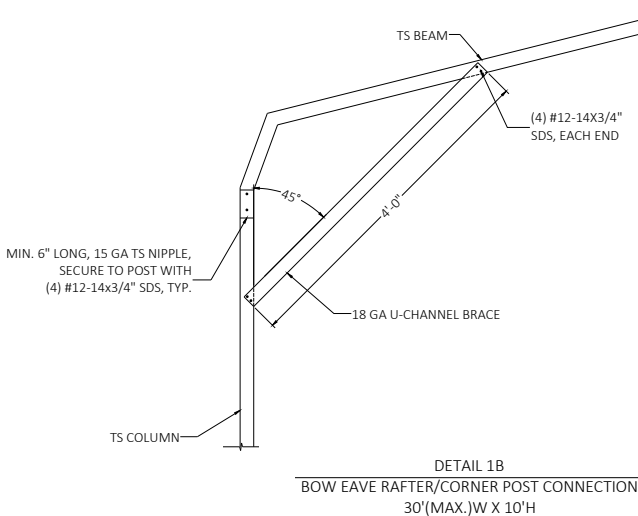
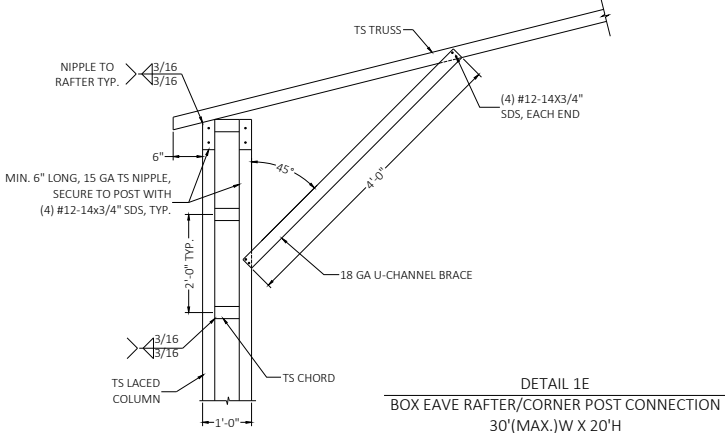
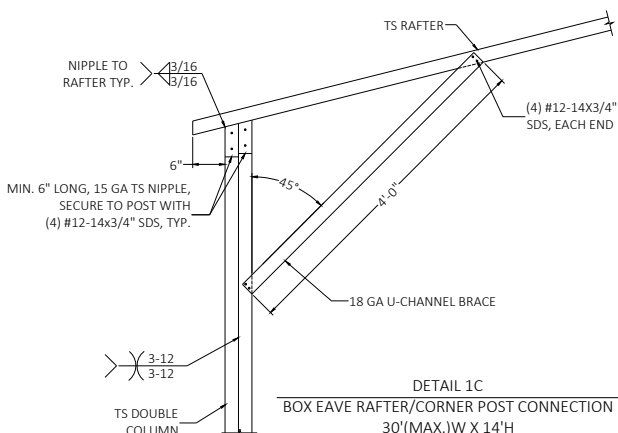
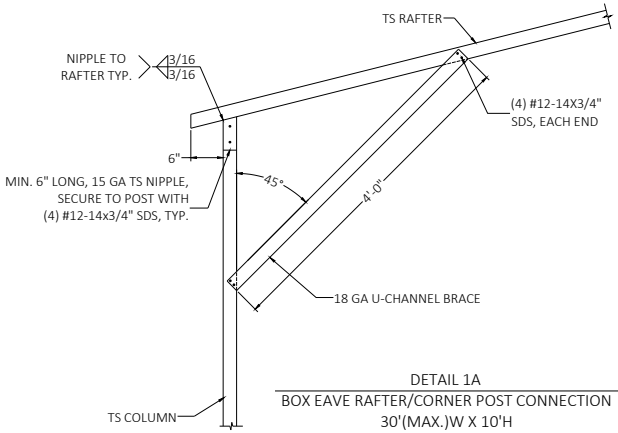
2

OF 10

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3 OF 10

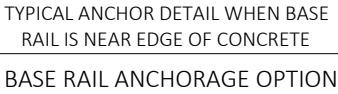
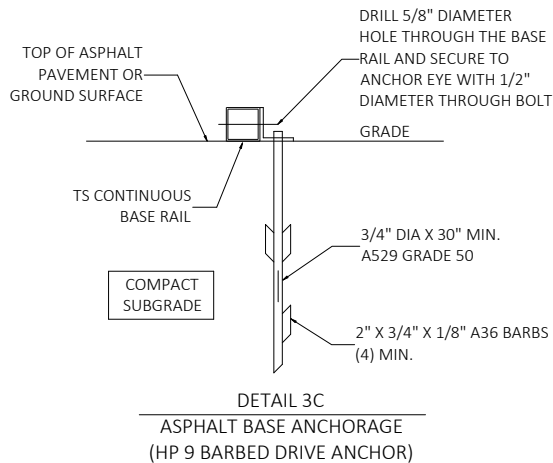
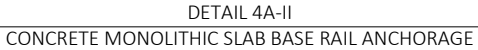
CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2500 PSF.

MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH = 3000 PSI

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.

1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 10'.
2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 5' OR EVERY POST (LEG).
3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.

1. ANCHOR TO BE 3/4" DIA (A529 GRADE 50) WITH 30" MIN. EMBEDMENT & (4) MIN. BARBS AS SHOWN IN DETAIL 3C.
2. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, MAXIMUM SPACING TO BE 10'.
2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, MAX. SPACING TO BE 5' OR EVERY POST (LEG).
3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.



A circular professional engineer seal for Richard Edward Walker. The outer ring contains the name "RICHARD EDWARD WALKER" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner circle contains the word "LICENSE" at the top, the license number "No. 61240" in the center, a single star below the number, and the words "STATE OF FLORIDA" at the bottom. The seal is set against a background of blue and white vertical stripes.

Digitally signed
by Richard E
Walker
Date:
2024.07.23
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LICENSE #30782

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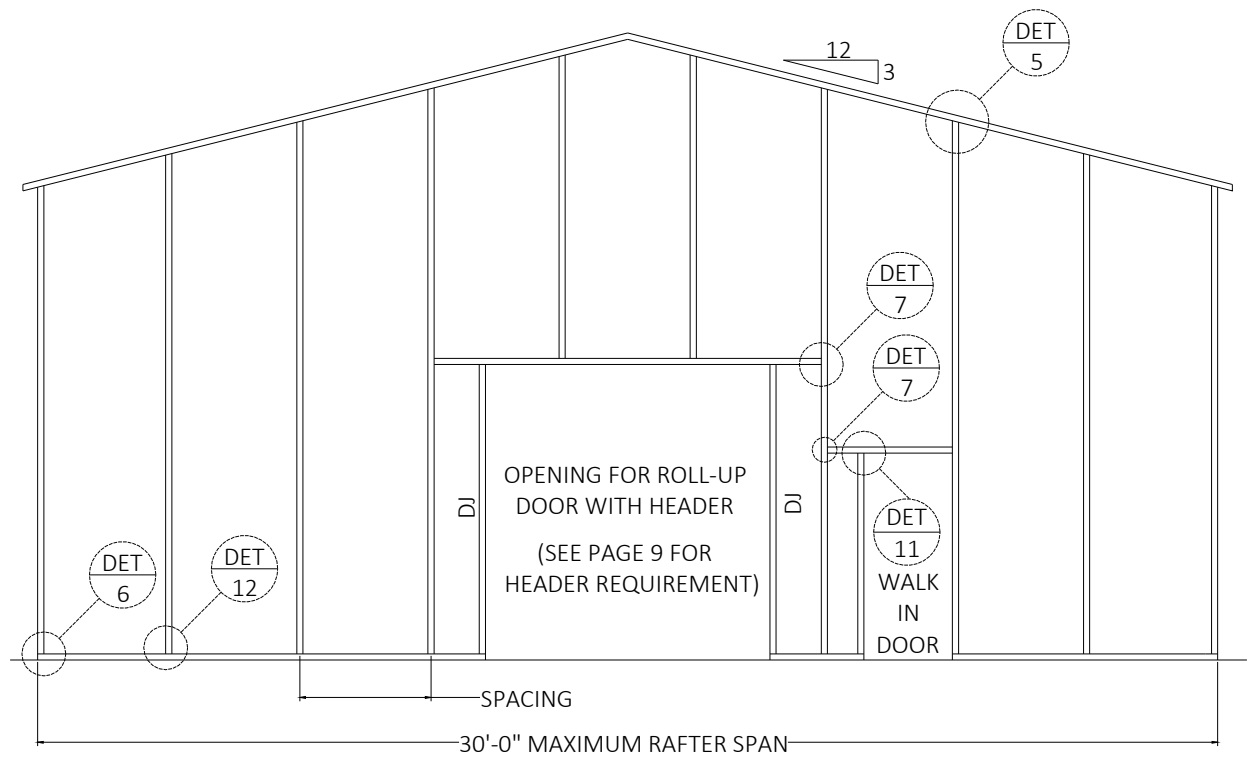
PROJECT ADDRESS:
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143 SW. MEADOWLAND, DR.
LAKE CITY, FL. 32024

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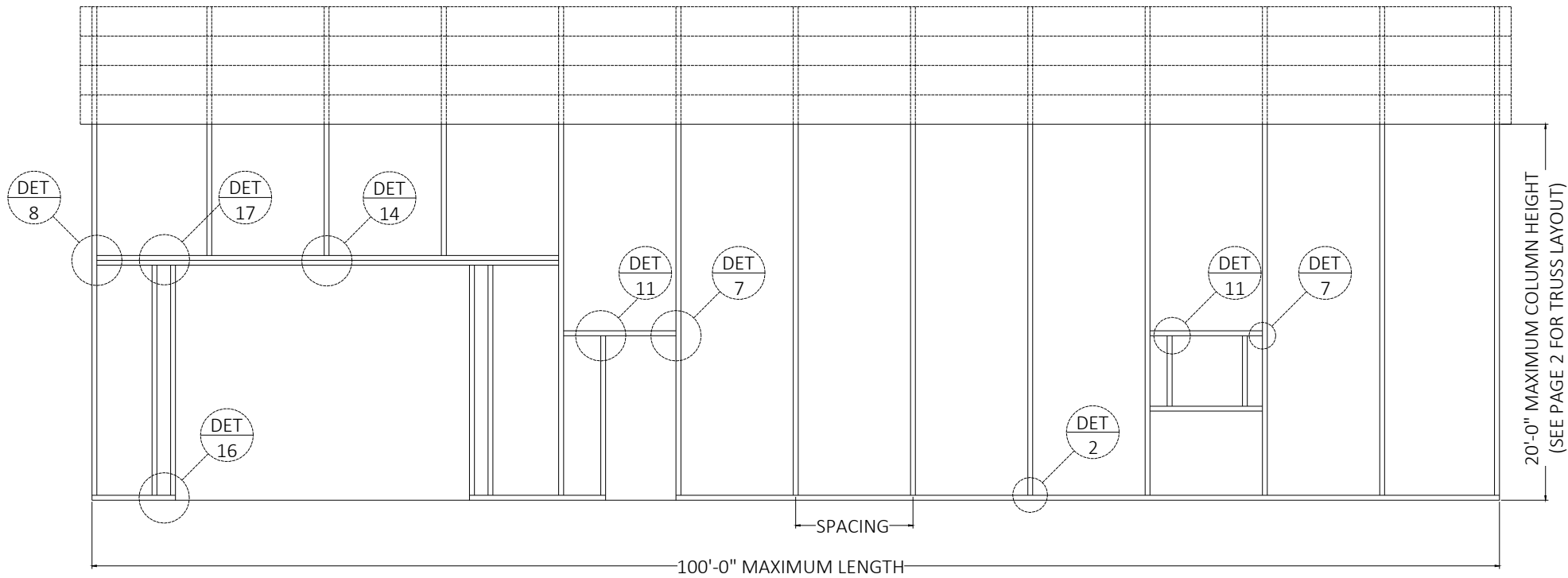
REVISION 2: DATE | SHEET:

DRAWN BY:	JS
SCALE:	NTS



TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

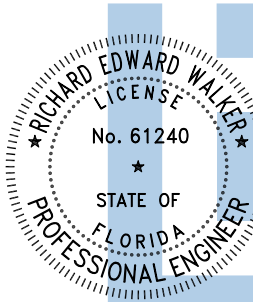
SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH



TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION

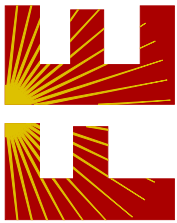
SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH

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(SEE PG-09 FOR HEADER DETAILS)



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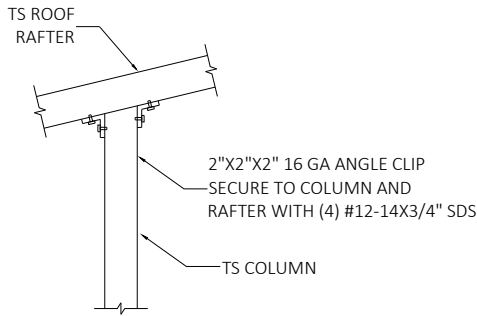
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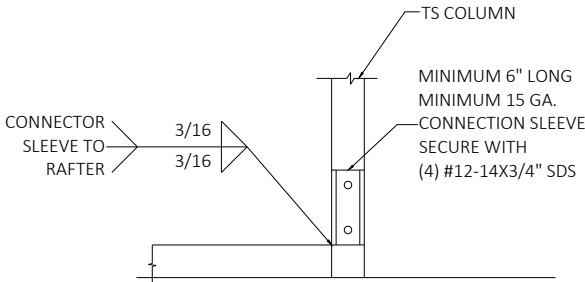
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OF 10

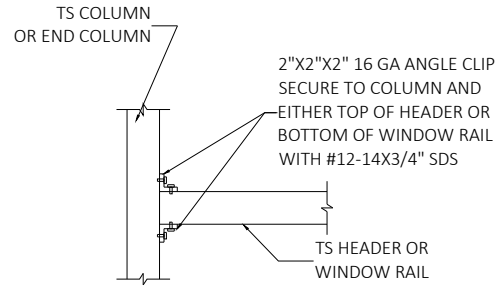
CONNECTION DETAILS



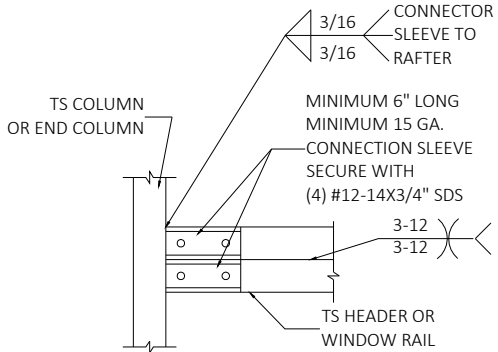
DETAIL 5
END COLUMN/RAFTER CONNECTION



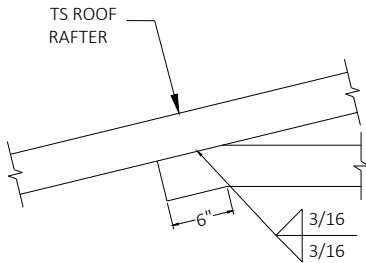
DETAIL 6
END POST/BASE RAIL CONNECTION



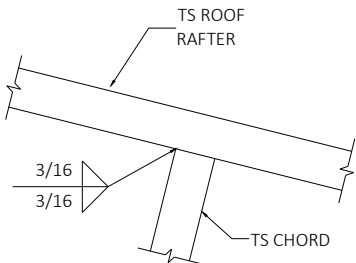
DETAIL 7
HEADER TO COLUMN CONNECTION



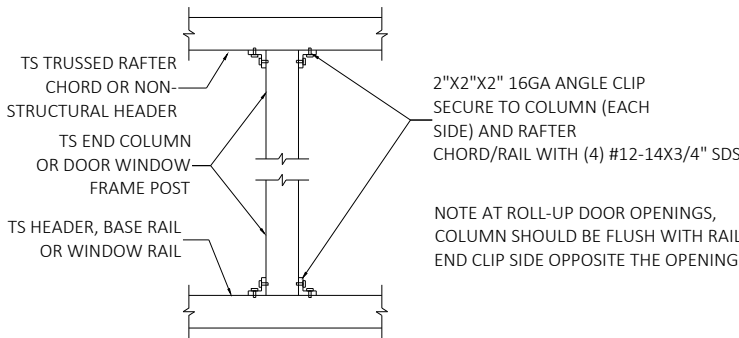
DETAIL 8
DOUBLE HEADER TO COLUMN CONNECTION



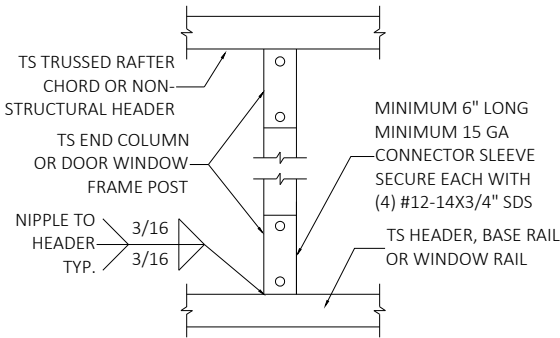
DETAIL 9
COLLAR TIE CONNECTION



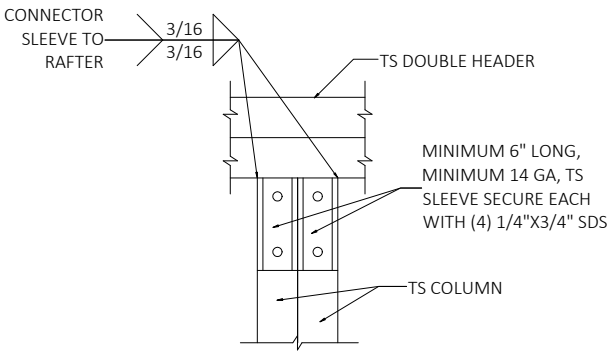
DETAIL 10
RAFTER TO CHORD CONNECTION



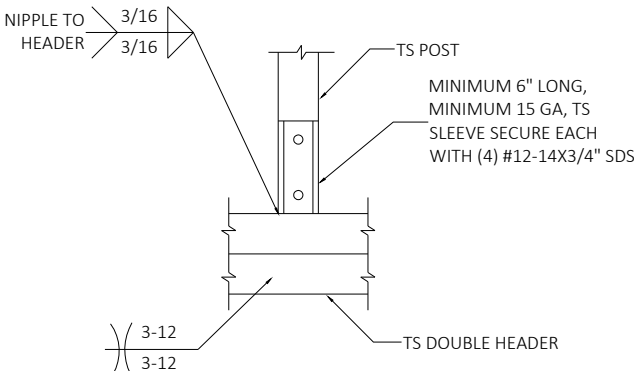
DETAIL 11
POST TO HEADER, BASE RAIL OR WINDOW RAIL CONNECTION
(OPTION-1)



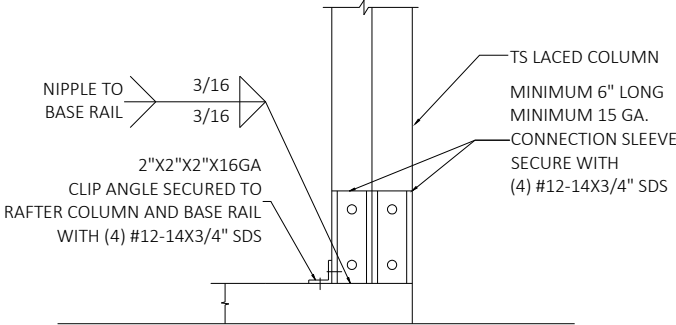
DETAIL 12
POST TO HEADER, BASE RAIL CONNECTION
(OPTION-2)



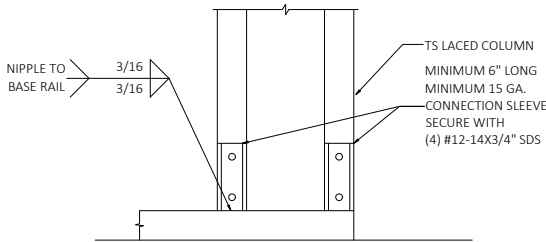
DETAIL 13
DOUBLE HEADER TO COLUMN CONNECTION



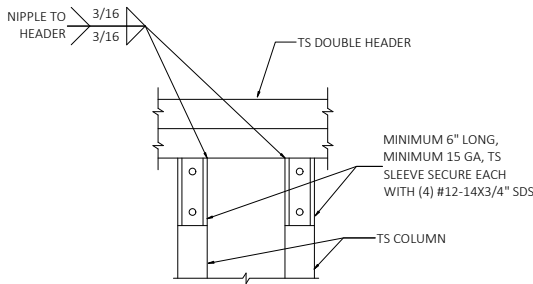
DETAIL 14
POST/DOUBLE HEADER CONNECTION



DETAIL 15
POST/BASE RAIL CONNECTION

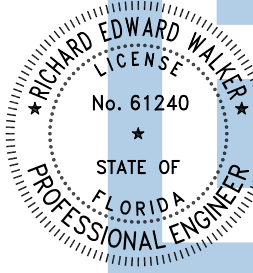


DETAIL 16
POST/BASE RAIL CONNECTION



DETAIL 17
POST/BASE RAIL CONNECTION

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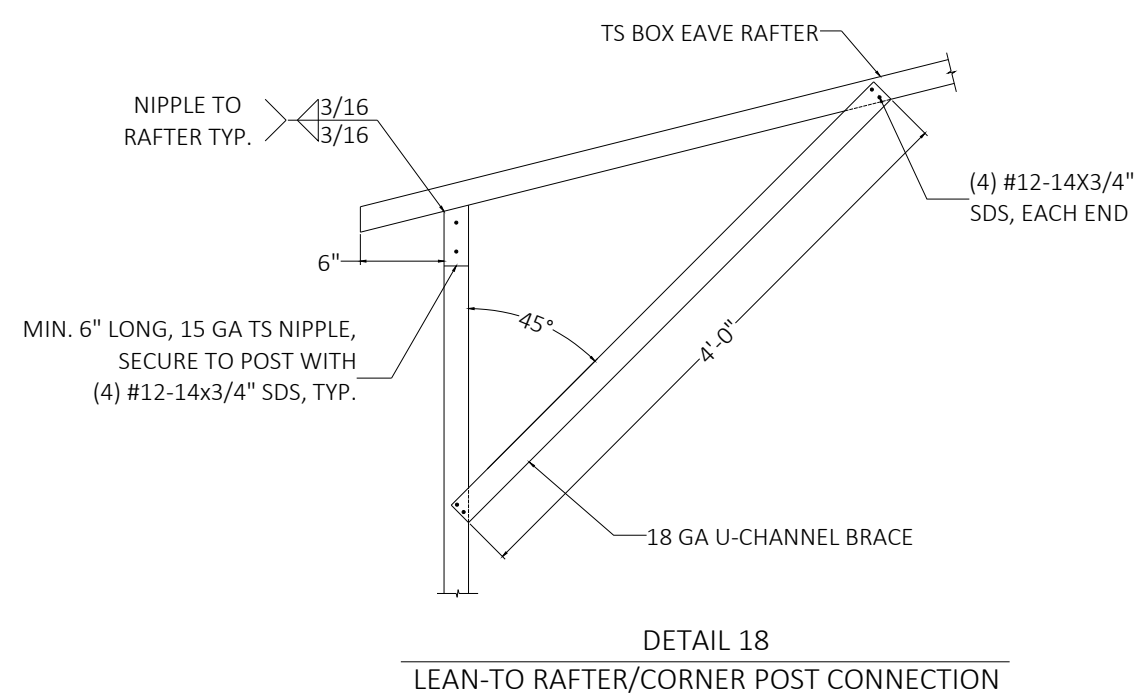
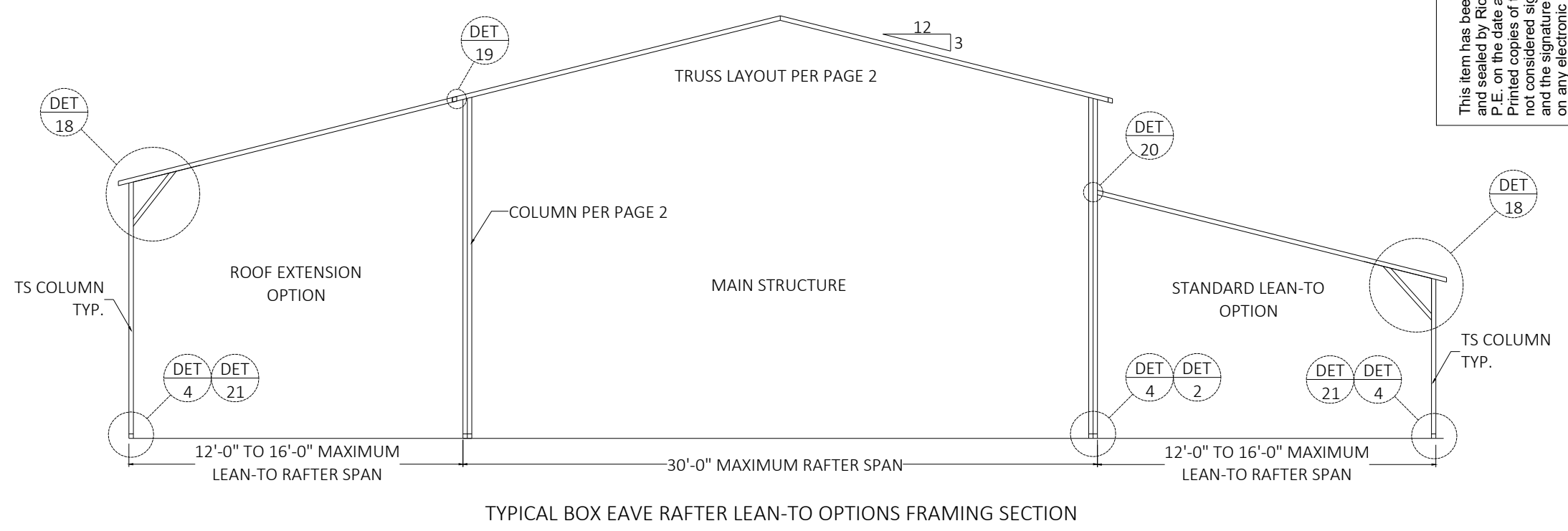
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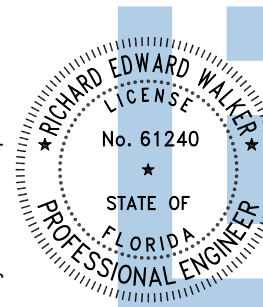
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6 OF 10

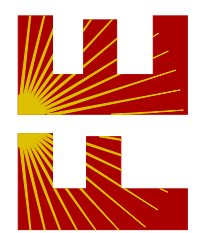


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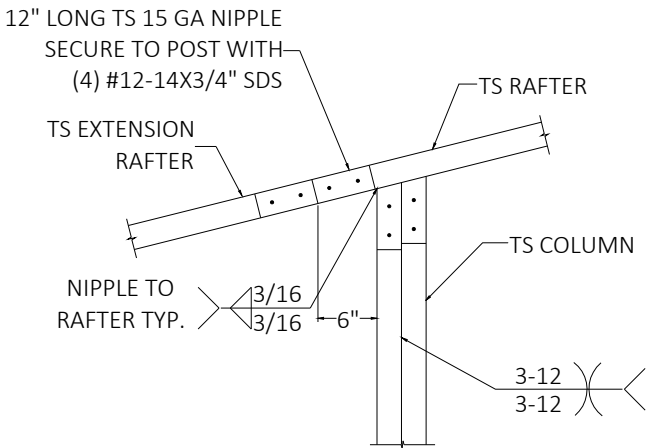
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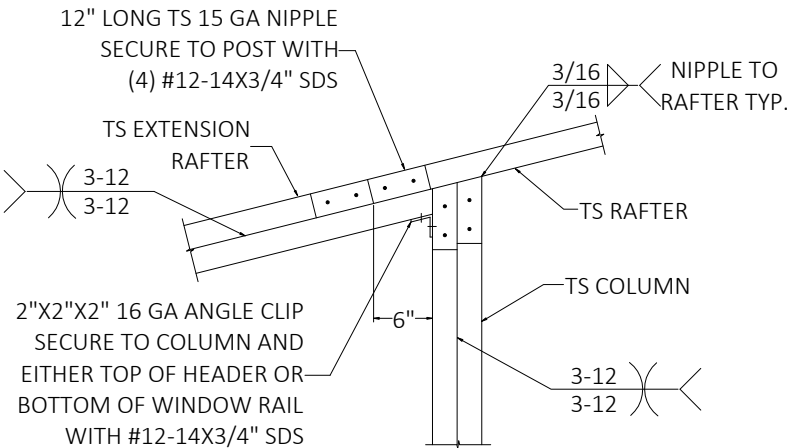
PROJECT NO. 2410955-3
LICENSE #30782

CONTRACTOR: BEST METAL BUILDINGS LLC 484 NW TURNER AVE LAKE CITY FL 32055	PROJECT ADDRESS: ARCHITECTURAL ARTS STUDIO 143 SW MEADOWLAND, DR. LAKE CITY, FL. 32024	
	DESIGN DATE:	04/25/2024
	REVISION 1:	DATE
	REVISION 2:	DATE
DRAWN BY:	JS	SHEET: 7 OF 10
SCALE:	NTS	

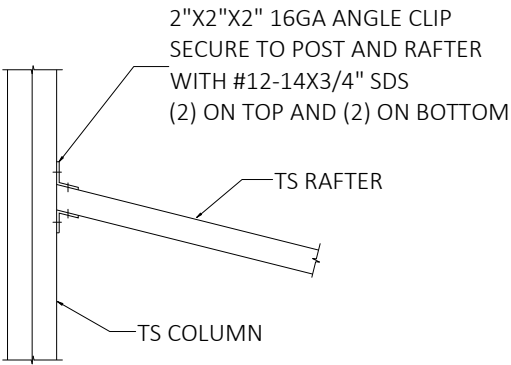
CONNECTION DETAILS



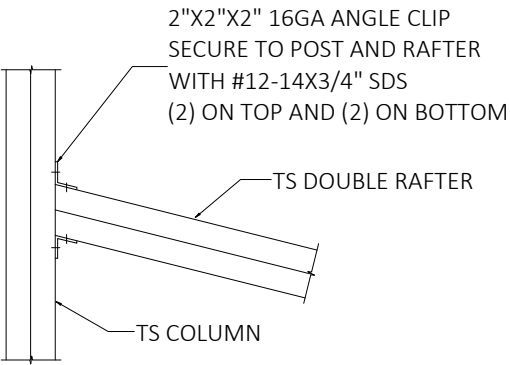
DETAIL 19A
SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"



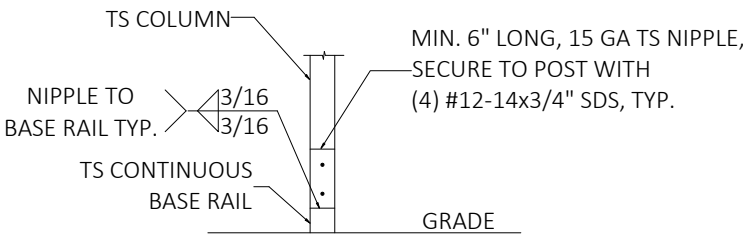
DETAIL 19B
SIDE EXTENSION RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"



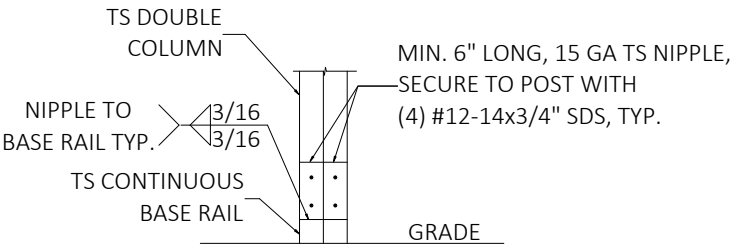
DETAIL 20A
LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS LESS THAN 12'-0"



DETAIL 20B
LEAN TO RAFTER/COLUMN CONNECTION
FOR RAFTER SPANS BETWEEN 12'-0" AND 16'-0"

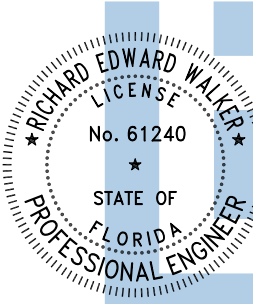


DETAIL 21A
LEAN-TO POST CONNECTION



DETAIL 21B
LEAN-TO DOUBLE POST CONNECTION

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by Richard E Walker
Date:
2024.07.23
16:01:33-04'00'

FLORIDA ENGINEERING LLC
4161 TAMiami TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952



(941) 391-5980
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LICENSE #30782

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LAKE CITY FL 32055

PROJECT ADDRESS:
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LAKE CITY, FL. 32024

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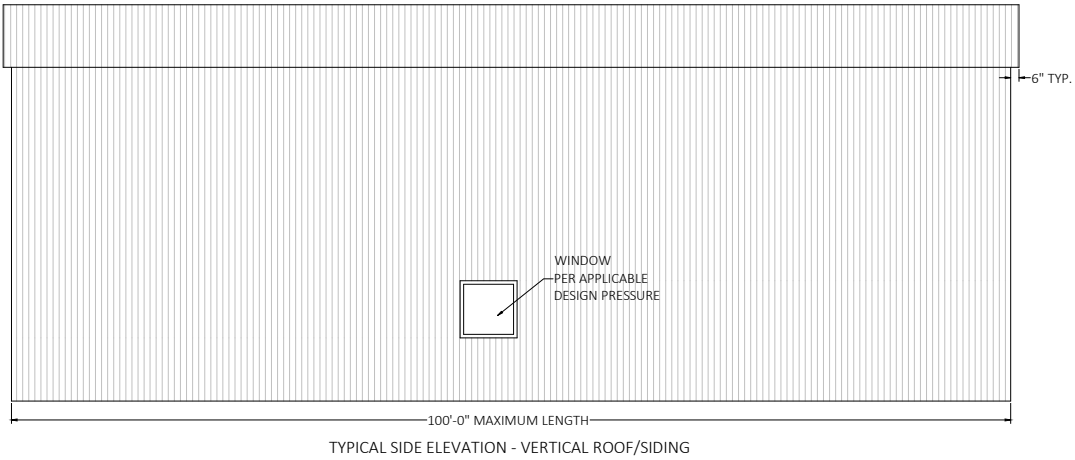
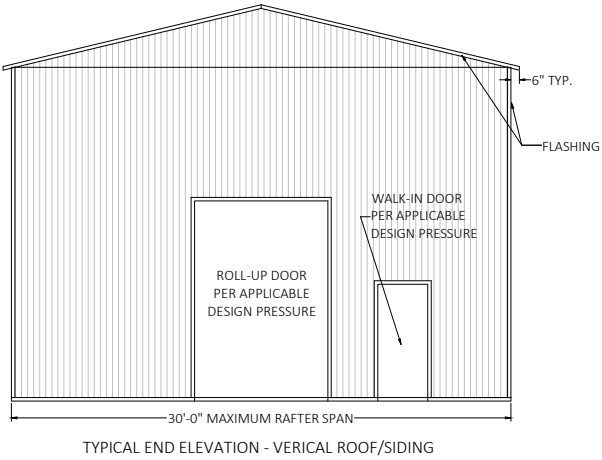
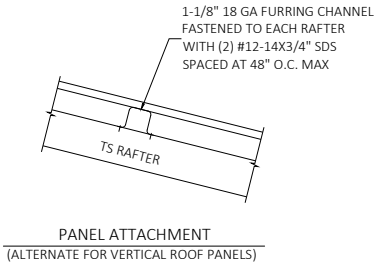
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SCALE: NTS

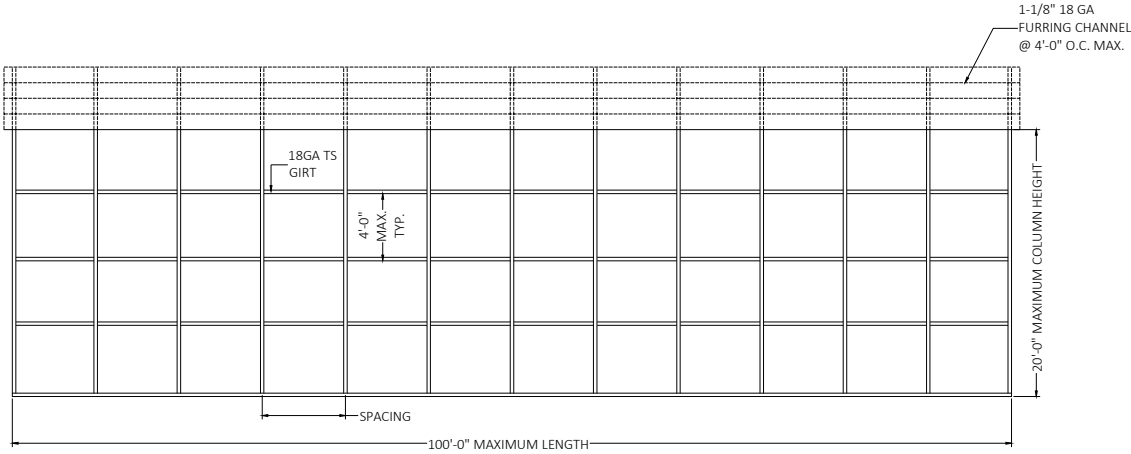
SHEET:

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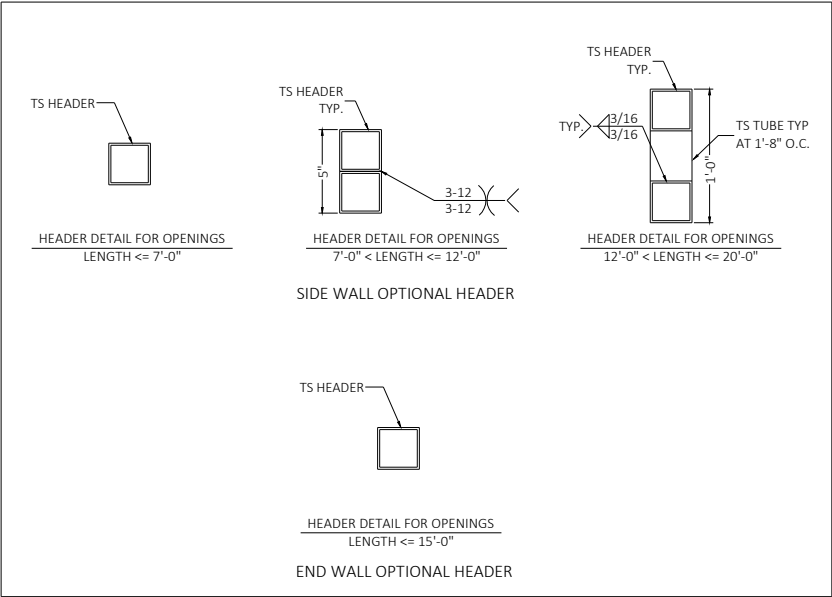
OF 10



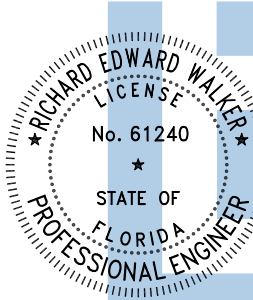
BOX EAVE FRAME RAFTER ENCLOSED BUILDING



SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 151 MPH AND 170 MPH



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Walker
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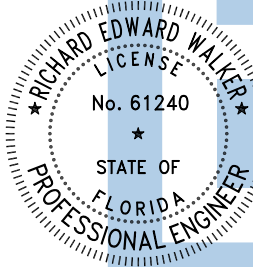
SHEET:

9 OF 10

- HELIX ANCHOR NOTES
1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, CORALS, MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 10'.
 2. FOR MEDIUM TO VERY LOOSE DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT EVERY 5' OR EVERY POST (LEG).
 3. THE UPLIFT/BEARING CAPACITY OF EACH ANCHOR MUST BE EQUAL TO OR GREATER THAN 8.5 KIPS.

OPTIONAL HELICAL ANCHORING ON GRADE DETAIL

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10 OF 10

