

GENERAL NOTES

1. DESIGN IS FOR MAXIMUM 60'-0" WIDE X 20'-0" EAVE HEIGHT FULLY ENCLOSED STRUCTURES.
2. APPLICABLE CODES, REGULATIONS, & STANDARDS:

A. 2023 FLORIDA BUILDING CODE (8TH EDITION)

B. 2024 INTERNATIONAL BUILDING CODE

C. ASCE 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES

D. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)

E. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

F. TMS 402-16: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES

G. AWS D1.1: STRUCTURAL WELDING
3. RISK CATEGORY: I
4. EXPOSURE CATEGORY: C
5. LOW ULTIMATE WIND SPEED 105 TO 150 MPH (NOMINAL WIND SPEED 81 TO 116 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET U.N.O.

HIGH ULTIMATE WIND SPEED 151 TO 180 MPH (NOMINAL WIND SPEED 117 TO 139 MPH): MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET. U.N.O.
6. DEAD LOAD = 5 PSF
7. ROOF LIVE LOAD = 12 PSF
8. SPECIFICATIONS APPLICABLE TO 29/26 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS FOR VERTICAL PANELS, 29/26 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).
9. BASE RAIL ANCHORAGE OPTIONS FOR VARYING WIND SPEEDS ARE PROVIDED IN PAGE 3.
10. 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 25 FEET OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH)/18.434° (4:12 PITCH).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.). THIS CONNECTION PATTERN SHALL BE SUPERCEDED BY THE PANEL MANUFACTURER'S INSTALLATION INSTRUCTIONS.
12. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:

SOIL SITE CLASS = D

R = 3.25 Ie = 1.0

Sds = 0.087 g V = CsW

Sdi = 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. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USE 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 D1557-93
17. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC.
18. 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.
19. CONTRACTOR TO PROVIDE APPROVED PRODUCTS THAT MEET OR EXCEED WIND DESIGN PRESSURES.
20. CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS:

CONTRACTOR TO VERIFY THAT THE FINISHED FLOOR ELEVATION FOR THE PROPOSED STRUCTURE IS AT OR ABOVE THE GREATER OF THE FOLLOWING ELEVATIONS:

I) BFE (BASE FLOOD ELEVATION) + H

H = 1'-0" (RISK CATEGORY I & II BUILDINGS)

H = 2'-0" (RISK CATEGORY III & IV BUILDINGS)

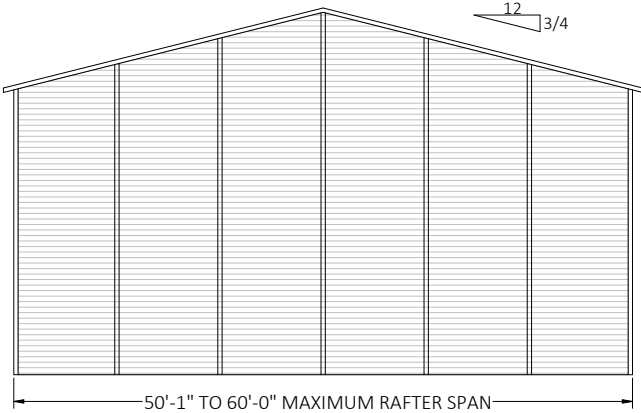
II) DFE (DESIGN FLOOD ELEVATION)

III) THE MINIMUM ELEVATION MANDATED BY THE BUILDING CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.

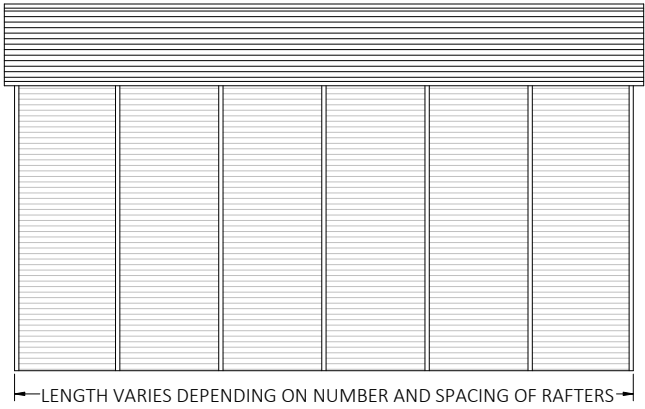
DRAWING INDEX

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1	NOTES AND SPECIFICATIONS
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7	VENT AND CMU STEM WALL DETAIL
8	OPTIONAL CONCRETE STRIP FOOTING

ENCLOSED METAL BUILDING DESIGN
MAXIMUM 60'-0" WIDE X 20'-0" EAVE HEIGHT
BOX EAVE FRAME



TYPICAL END ELEVATION - HORIZONTAL ROOF



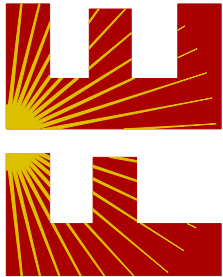
TYPICAL SIDE ELEVATION - HORIZONTAL ROOF

BOX EAVE FRAME RAFTER ENCLOSED BUILDING

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CA CERT. #30782

PROJECT NO. 2535001-60-E

CONTRACTOR:

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

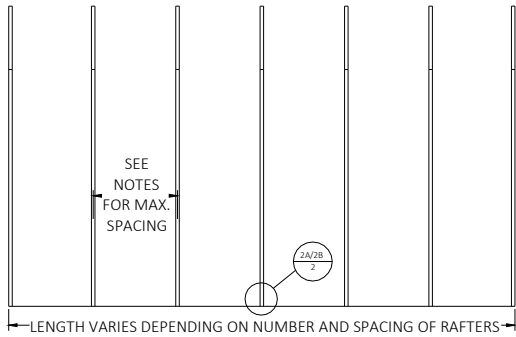
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60' WIDE X 20' HIGH
ENCLOSED STRUCTURE

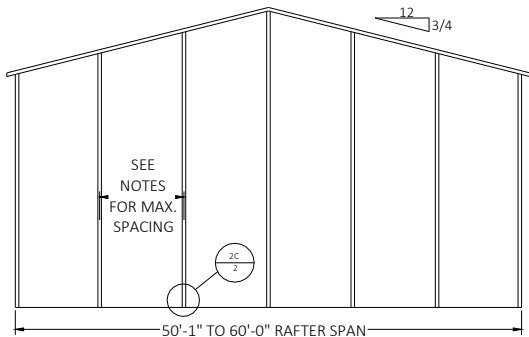
DESIGN DATE:		12/26/2025
REVISION 1:	DATE	P
REVISION 2:	DATE	
SCALE:	NTS	

- SITE SPECIFIC ENGINEERING NOTES:
- 1- ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.
- 2- THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES).
- 3- TUBULAR BUILDING SYSTEMS MAY RETAIN COPIES NOT REQUIRED FOR PERMITTING.

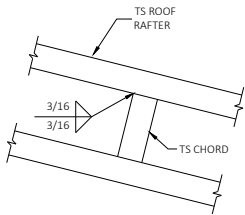
GENERIC PLANS ARE NOT
VALID WITHOUT A RAISED
SEAL & BLUE INK SIGNATURE.



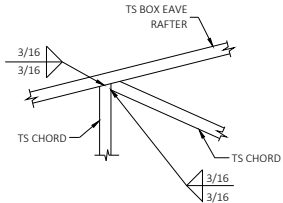
TYPICAL RAFTER/COLUMN SIDE WALL FRAME SECTION



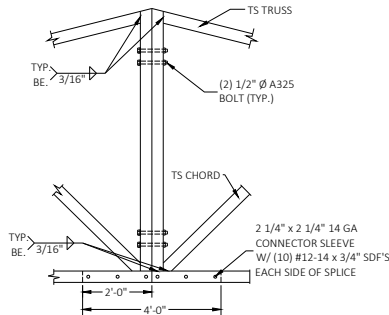
TYPICAL RAFTER/COLUMN ENDWALL FRAME SECTION



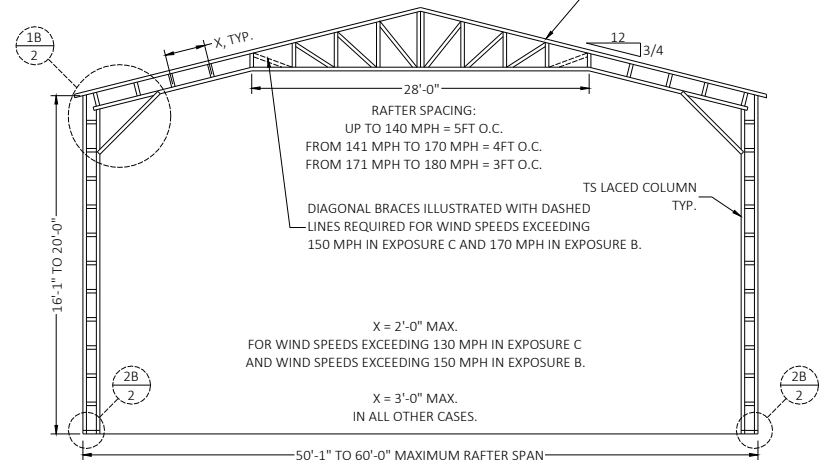
3 RAFTER TO CHORD CONNECTION
SCALE: NTS



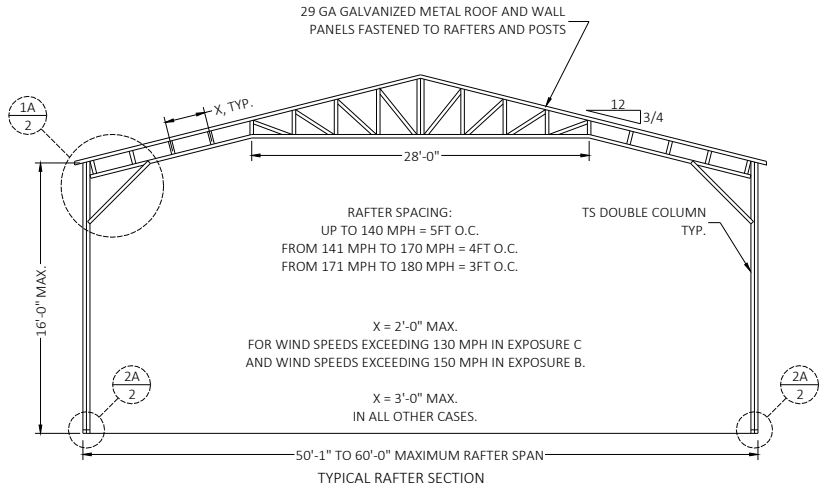
4 TRUSS POST AND CHORD
TO RAFTER CONNECTION
SCALE: NTS



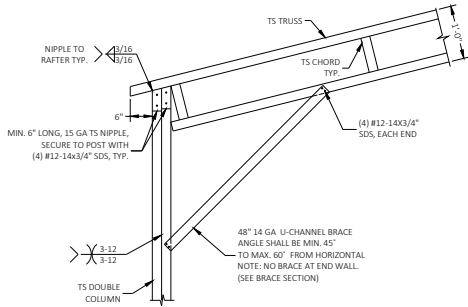
5 SPLICE CONNECTION
SCALE: NTS



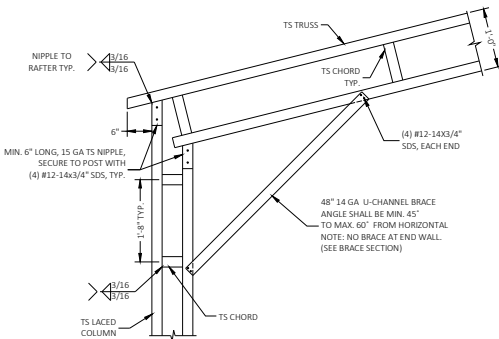
TYPICAL RAFTER/POST FRAME SECTION



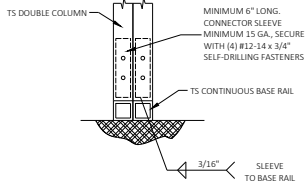
DESIGN NOTE:
1) ALL END WALL MEMBERS ARE 2.5X2.5X14GA TS LADDER LEGS U.N.O.
2) 12GA TS MEMBERS CAN BE USED IN LIEU OF 14GA TS MEMBERS FOR WIND SPEEDS FROM 171 MPH TO 180 MPH WITH MAXIMUM RAFTER SPACING OF 4FT O.C.



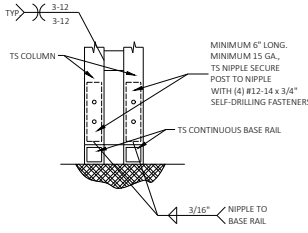
1A BOX EAVE RAFTER COLUMN
CONNECTION DETAIL
FOR HEIGHTS <= 16'-0"
SCALE: NTS



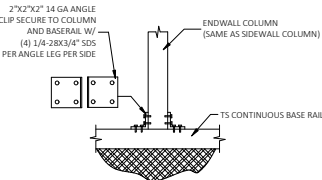
1B BOX EAVE RAFTER COLUMN
CONNECTION DETAIL
FOR HEIGHTS 16'-0" < TO <= 20'-0"
SCALE: NTS



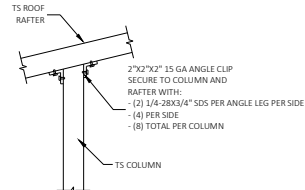
2A RAFTER POST/BASE RAIL
CONNECTION DETAIL
SCALE: NTS



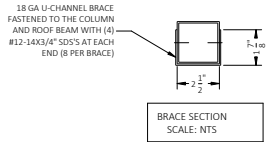
2B RAFTER POST/BASE RAIL
CONNECTION DETAIL
SCALE: NTS



2C ENDWALL COLUMN/BASE RAIL CONNECTION DETAIL
SCALE: NTS



END COLUMN/RAFTER CONNECTION
SCALE: NTS



BRACE SECTION
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CONTRACTOR:
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P.O. BOX 2254
LAKE CITY, FL 32056

PROJECT DESCRIPTION:
60' WIDE X 20' HIGH
ENCLOSED STRUCTURE

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PROJECT NO. 2535001-60-E

CA CERT. #30782

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PAGE :
2

BASE RAIL ANCHORAGE OPTIONS

GENERAL NOTES

CONCRETE:

- 1. CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- 2. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC.
- 3. MINIMUM SOIL BEARING CAPACITY OF COMPACTED GRADE= 2000 PSF

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.

REINFORCING STEEL:

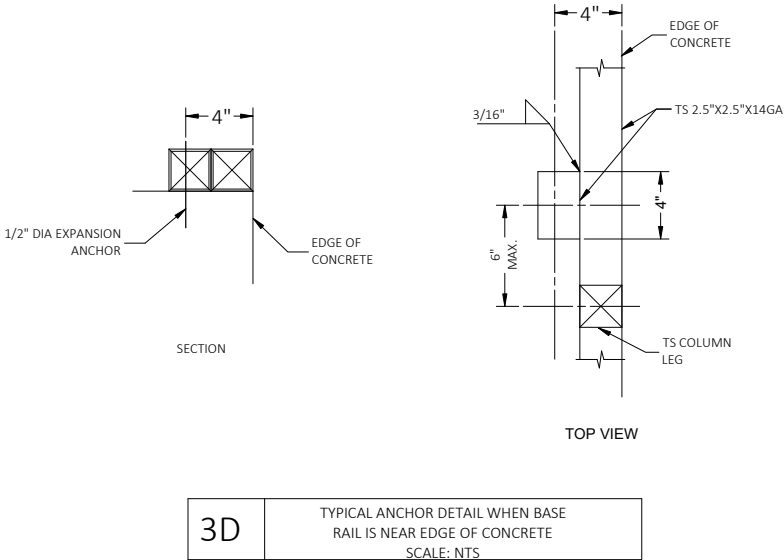
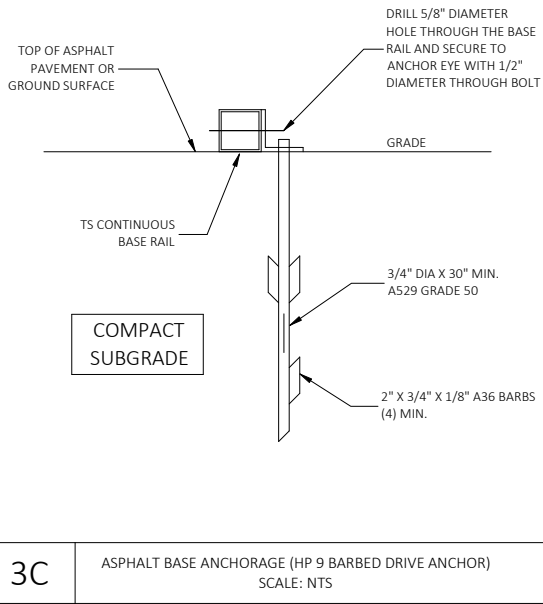
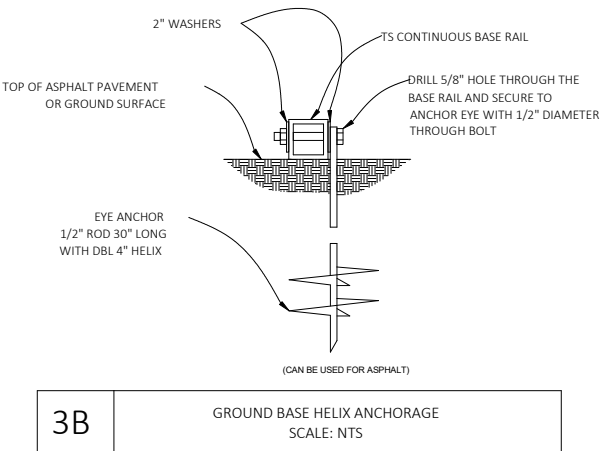
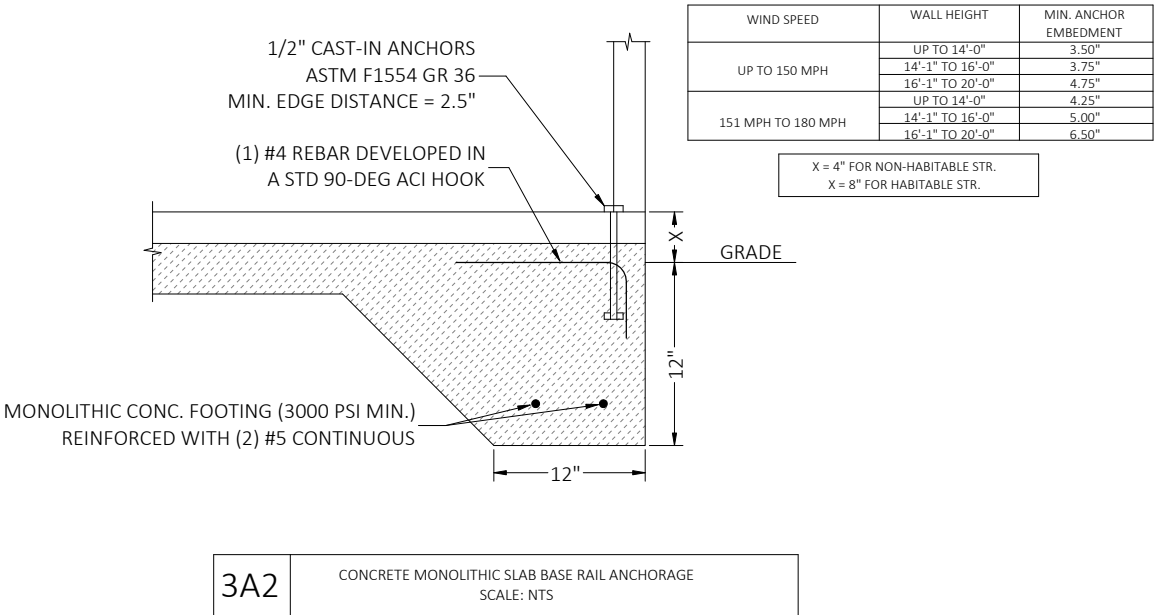
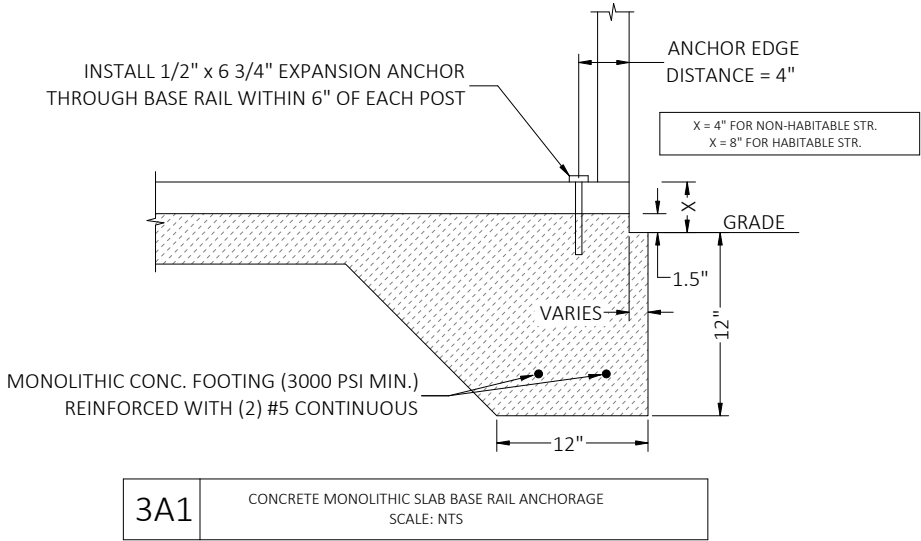
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

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.
- 4. MINIMUM REQUIRED LAP LENGTH SHALL NOT BE LESS THAN 57-BAR DIAMETERS.

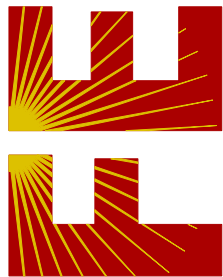
HELIX ANCHOR NOTES

- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT.
- 2. FOR CORAL USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT.
- 3. FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT.
- 4. FOR LOOSE TO MEDIUM DENSE COARSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL USE MINIMUM (2) 6" HELICES WITH MINIMUM 50 INCH EMBEDMENT.
- 5. FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL USE MINIMUM (2) 8" HELICES WITH MINIMUM 60 INCH EMBEDMENT.



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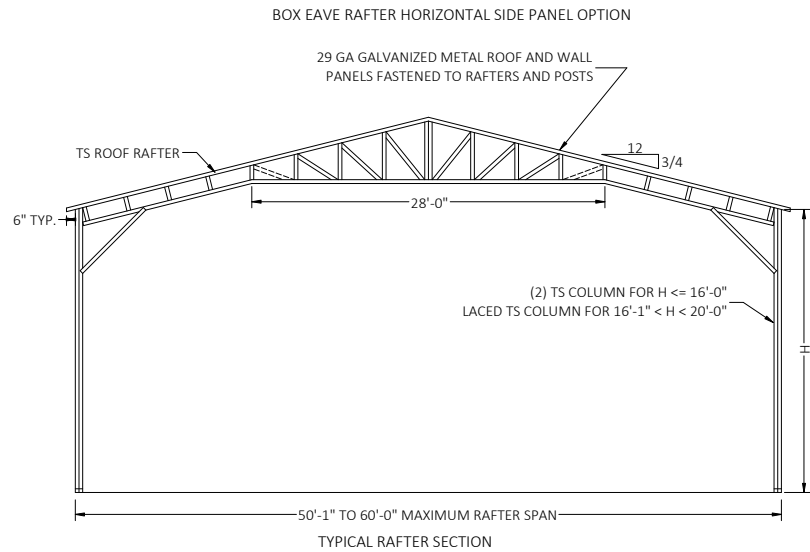
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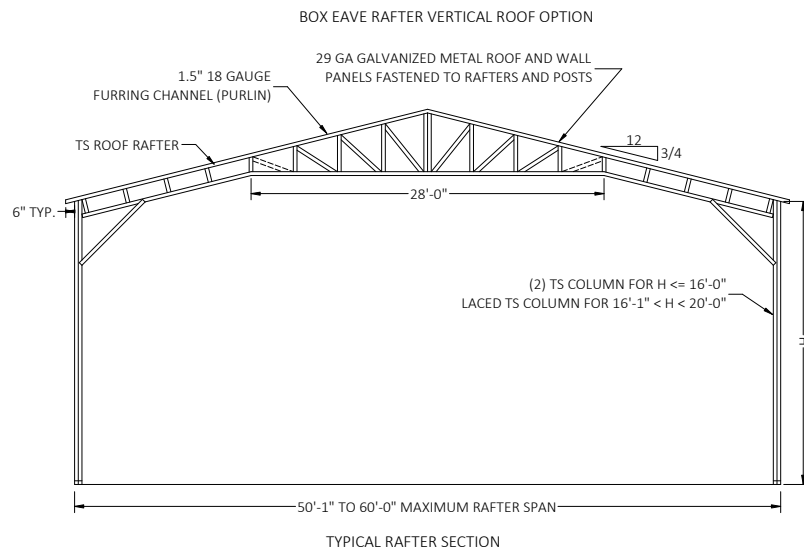
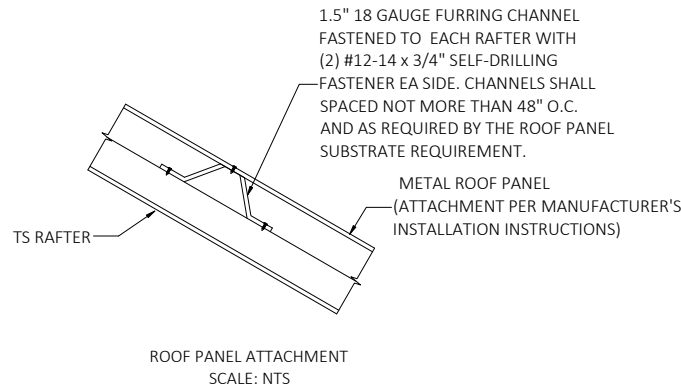
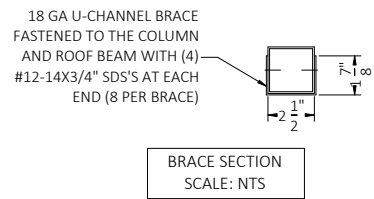
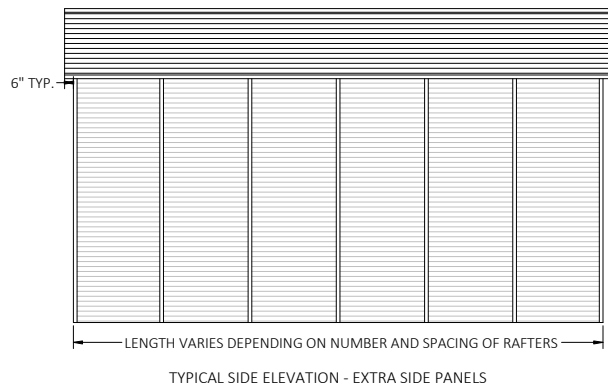
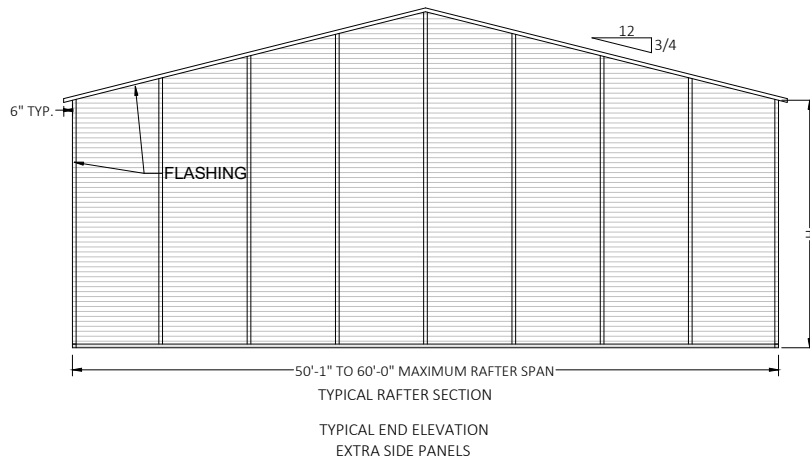
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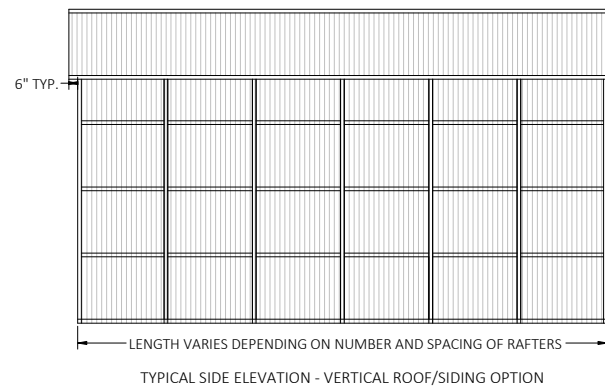
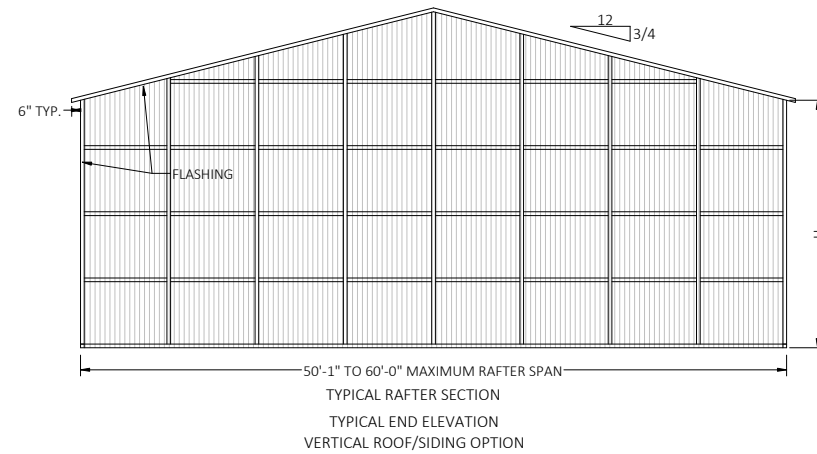
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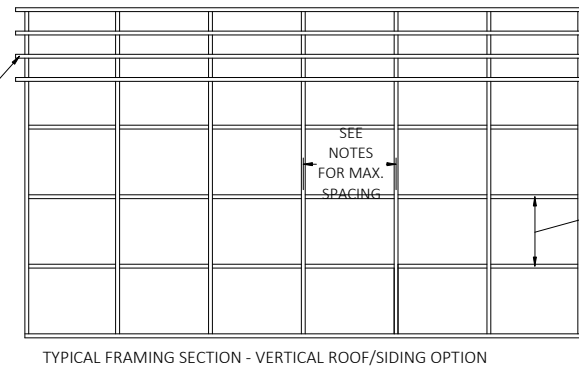
TYPICAL RAFTER/POST FRAME SECTION
EXTRA SIDE PANELS



TYPICAL RAFTER/POST FRAME SECTION
EXTRA SIDE PANELS

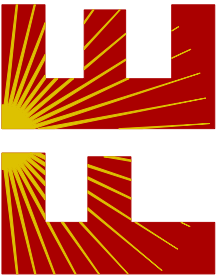


1.5" 18 GAUGE FURRING CHANNEL
FASTENED TO EACH RAFTER WITH
(2) #12-14 x 3/4" SELF-DRILLING
FASTENER EA SIDE. CHANNELS SHALL
SPACED NOT MORE THAN 48" O.C.
AND AS REQUIRED BY THE ROOF PANEL
SUBSTRATE REQUIREMENT.



1.5" 18 GAUGE FURRING CHANNEL
FASTENED TO EACH POST WITH
(2) #12-14 x 3/4" SELF-DRILLING
FASTENER EA SIDE. CHANNELS SHALL
SPACED NOT MORE THAN 48" O.C.
AND AS REQUIRED BY THE WALL PANEL
SUBSTRATE REQUIREMENT.

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Technical drawing illustrating the connection between a TS Box Eave Rafter and a TS Rafter Post. The drawing shows the following components and dimensions:

- TS BOX EAVE RAFTER**: The upper rafter member.
- TS RAFTER POST**: The vertical support member.
- 12" LONG TS NIPPLE SECURE POST TO NIPPLE WITH (4) #12-14 X 3/4"SDF'S**: The vertical connection piece.
- 2 SX2.5X14GA EXTENSION RAFTER**: The lower rafter member.
- MINIMUM 6" LONG TS NIPPLE SECURE POST TO NIPPLE WITH (4) #12-14 X 3/4"SDF'S**: The horizontal connection piece.
- 3/16"**: Dimension for the vertical connection piece.
- 6"**: Dimension for the horizontal connection piece.
- 1A** and **1B**: Callouts for the connection details.

SIDE EXTENSION RAFTER/COLUMN DETAIL

FOR EXTENSION RAFTER SPANS $W' < 12'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7A/5.

FOR EXTENSION RAFTER SPANS $W' < 13'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7B/5.

FOR EXTENSION RAFTER SPANS $W' < 15'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7C/5.

SCALE: NTS

Technical drawing of a window header assembly. The drawing shows a cross-section of the assembly with various components and dimensions labeled.

- 3/16"**: Dimension for the thickness of the header.
- NIPPLE TO RAFTER**: Label for the connection between the nipple and the rafter.
- 12" LONG TS NIPPLE SECURE POST TO NIPPLE WITH (4) #12-14 X 3/4"SDF'S**: Label for the nipple and its securing screws.
- MINIMUM 6" LONG TS NIPPLE SECURE POST TO NIPPLE WITH (4) #12-14 X 3/4"SDF'S**: Label for the minimum length nipple and its securing screws.
- TS BOX EAVE RAFTER**: Label for the top eave rafter.
- 2 5K2.5K14GA EXTENSION RAFTER**: Label for the extension rafter.
- (2) 2.5K2.5K14GA EXTENSION RAFTER**: Label for the two extension rafters.
- 2"x2"x2" 16 GA. ANGLE CLIP SECURE TO POST AND EITHER TOP OF HEADER OR BOTTOM OF WINDOW RAIL WITH #12-14X3/4" SDFS**: Label for the angle clip and its securing screws.
- 1A** and **1B**: Labels for the two extension rafters.
- TS RAFTER POST**: Label for the rafter post.

SIDE EXTENSION RAFTER/COLUMN DETAIL

FOR EXTENSION RAFTER SPANS 16'-0" 0° $W < 24^{\circ}$ -0", IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7A/5.

FOR EXTENSION RAFTER SPANS 18'-0" 0° $W < 24^{\circ}$ -0", IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7B/5.

FOR EXTENSION RAFTER SPANS 19'-0" 0° $W < 24^{\circ}$ -0", IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7C/5.

SCALE: NTS

LEARN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL

FOR LEAN-TO RAFTER SPANS $W' < 12'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7A/5
FOR LEAN-TO RAFTER SPANS $W' < 13'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7B/5
FOR LEAN-TO RAFTER SPANS $W' < 15'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7C/5

SCALE: NTS

TS RAFTER POST

2" x 2" x 2" 16 GA ANGLE CLIP
SECURE TO POST AND

RAFTER WITH #12-14 x 3/4" SDFS
(2) ON RAFTER, (2) ON POST

3'-12"

3/12

2.5K2.5X14GA
LEAN-TO RAFTER

1'-0"

(2) 2.5K2.5X14GA
LEAN-TO RAFTER

LEARN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL

FOR LEAN-TO RAFTER SPANS $16'-0" < W' < 24'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7A/5.

FOR LEAN-TO RAFTER SPANS $18'-0" < W' < 24'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7B/5.

FOR LEAN-TO RAFTER SPANS $19'-0" < W' < 24'-0"$, IF THE KNEE BRACE ON THE OTHER END OF THE RAFTER IS PER DETAIL 7C/5.

SCALE: NTS

TS BOV EXIST RAFTER

NIPPLE TO RAFTER

6"

SECURE WITH (4) #12-14 X 3/4 SELF-DRILLING FASTENERS (EACH END)

24" 18 GA U-CHANNEL BRACE
ANGLE SHALL BE MIN. 45°
TO MAX. 60° FROM HORIZONTAL
NOTE: NO BRACE AT END WALL.
(SEE BRACE SECTION)

MINIMUM 6" LONG.

MINIMUM 15 GA.

TS NIPPLE SECURE BOW
RAFTER AND POST TO NIPPLE
WITH (4) #12-14 x 3/4"
SELF-DRILLING FASTENERS

TS COLUMN

TS BOX EAVE RAFTER

NIPPLE TO RAFTER

6"

48" 18 GA U-CHANNEL BRACE
ANGLE SHALL BE MIN. 45°
TO MAX. 60° FROM HORIZONTAL
NOTE: NO BRACE AT END WALL.
(SEE BRACE SECTION)

MINIMUM 6' LONG.
MINIMUM 15 GA.
TS NIPPLE SECURE BOW
RAFTER AND POST TO NIPPLE
WITH (4) #12-14 x 3/4"
SELF-DRILLING FASTENERS

TS COLUMN

SECURE WITH (4) #12-14 X 3/4"
SELF-DRILLING FASTENERS
(EACH END)

TS BOX EAVE RAFTER

NIPPLE TO RAFTER

6"

72" 18 GA U-CHANNEL BRACE
ANGLE SHALL BE MIN. 45°
TO MAX. 60° FROM HORIZONTAL
NOTE: NO BRACE AT END WALL.
(SEE BRACE SECTION)

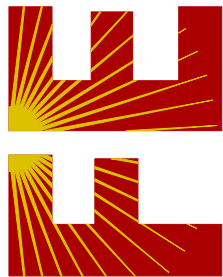
SECURE WITH (4) #12-14 x 3/4"
SELF-DRILLING FASTENERS
(EACH END)

MINIMUM 6" LONG.
MINIMUM 15 GA.,
TS NIPPLE SECURE BOW
RAFTER AND POST TO NIPPLE
WITH (4) #12-14 x 3/4"
SELF-DRILLING FASTENERS

TS COLUMN

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

(941) 391-5980

FLEng.com
Orders@FLEng.com

PROJECT NO. 2535001-60-E

CA CERT. #30782

CONTRACTOR:

PROJECT DESCRIPTION:

60" WIDE X 20" HIGH
ENCLOSED STRUCTURE

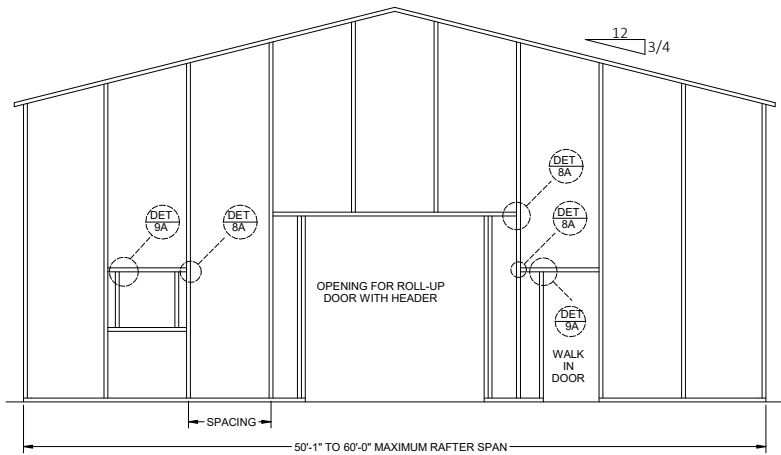
DESIGN DATE: 12/26/2025

REVISION 1: DATE

REVISION 2: DATE

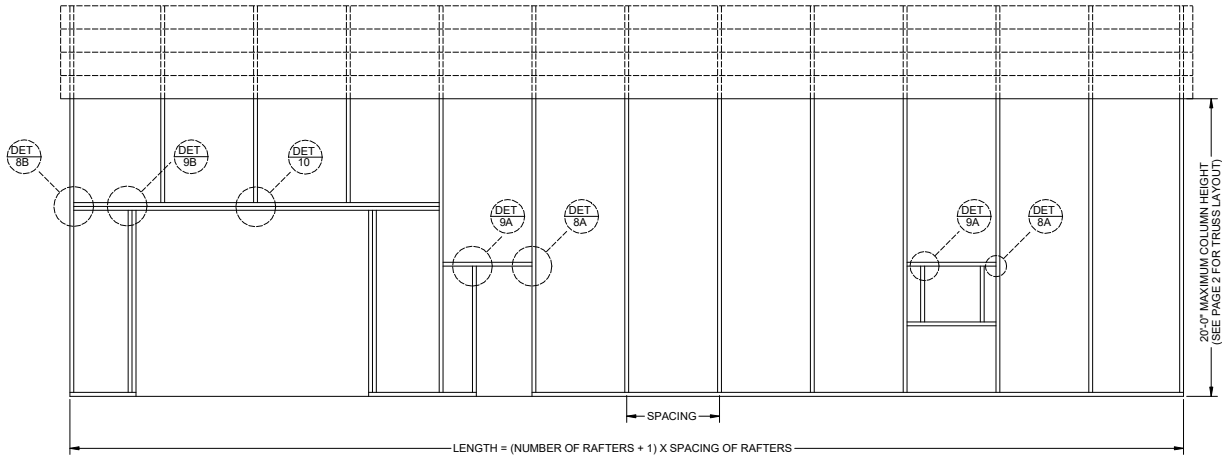
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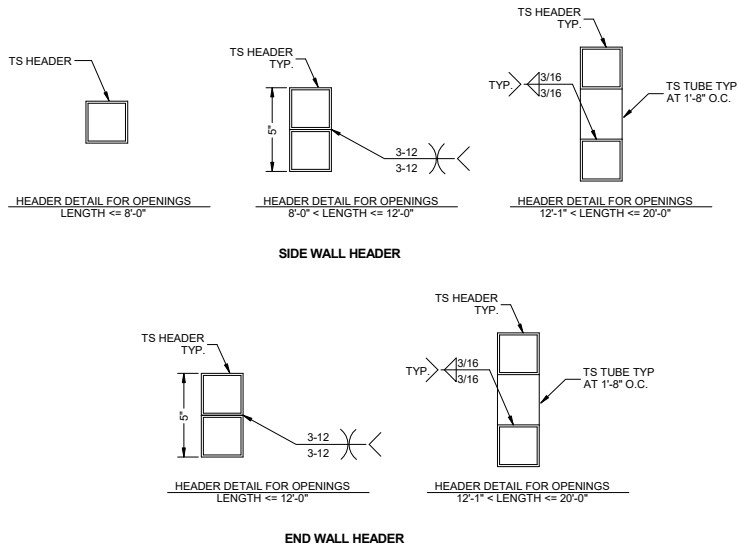
SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH U.N.O.
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 150 MPH AND 180 MPH U.N.O.

TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION



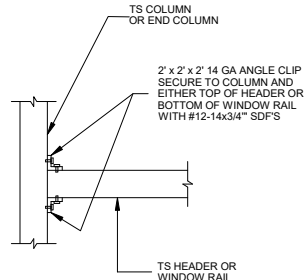
SPACING = 5'-0" FOR WIND SPEEDS BETWEEN 110 MPH AND 150 MPH U.N.O.
SPACING = 4'-0" FOR WIND SPEEDS BETWEEN 150 MPH AND 180 MPH U.N.O.

TYPICAL BOX EAVE RAFTER SIDE WALL FRAMING SECTION

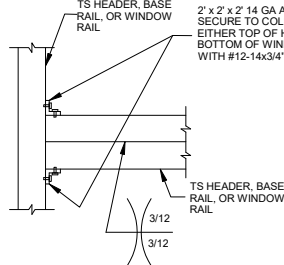


SIDE WALL HEADER

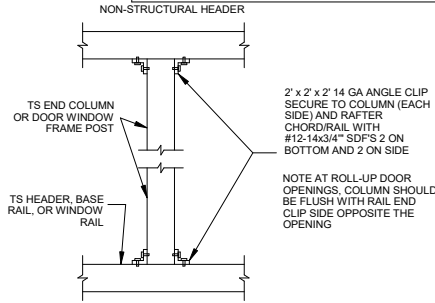
END WALL HEADER



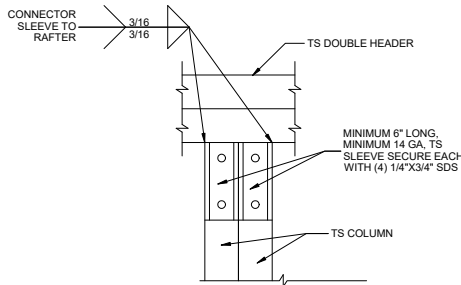
8A NON-STRUCTURAL HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL SCALE: N.T.S.



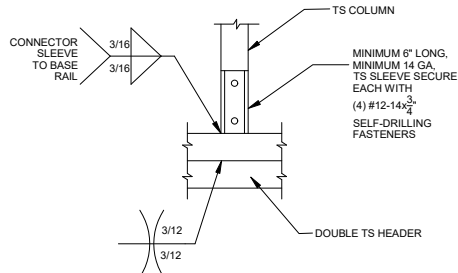
8B DOUBLE HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL SCALE: N.T.S.



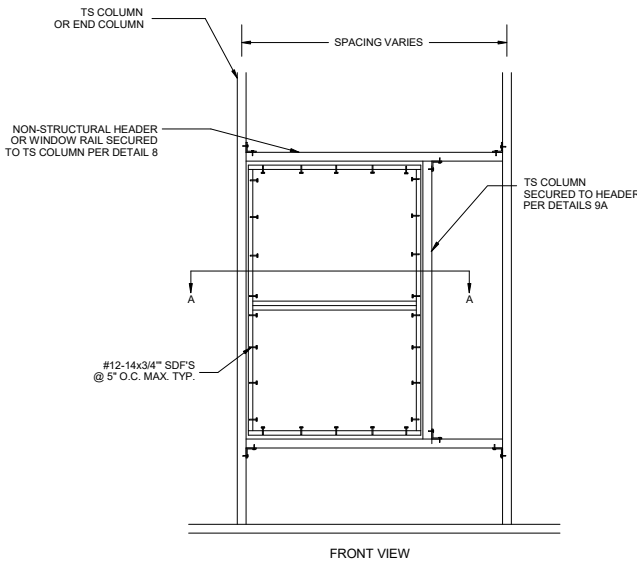
9A POST TO NON-STRUCTURAL HEADER, BASE RAIL OR WINDOW RAIL CONNECTION DETAIL SCALE: N.T.S.



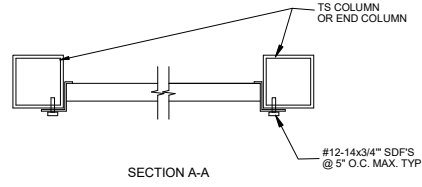
9B DOUBLE HEADER/COLUMN CONNECTION SCALE : N.T.S.



10 POST TO DOUBLE HEADER, BASE RAIL OR WINDOW RAIL CONNECTION DETAIL SCALE: N.T.S.



FRONT VIEW

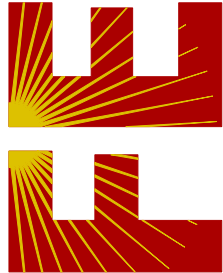


SECTION A-A

11 WINDOW INSTALLATION DETAILS N.T.S.

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CA CERT. #30782

PROJECT NO. 2535001-60-E

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

PROJECT DESCRIPTION:
60' WIDE X 20' HIGH
ENCLOSED STRUCTURE

DESIGN DATE: 12/26/2025

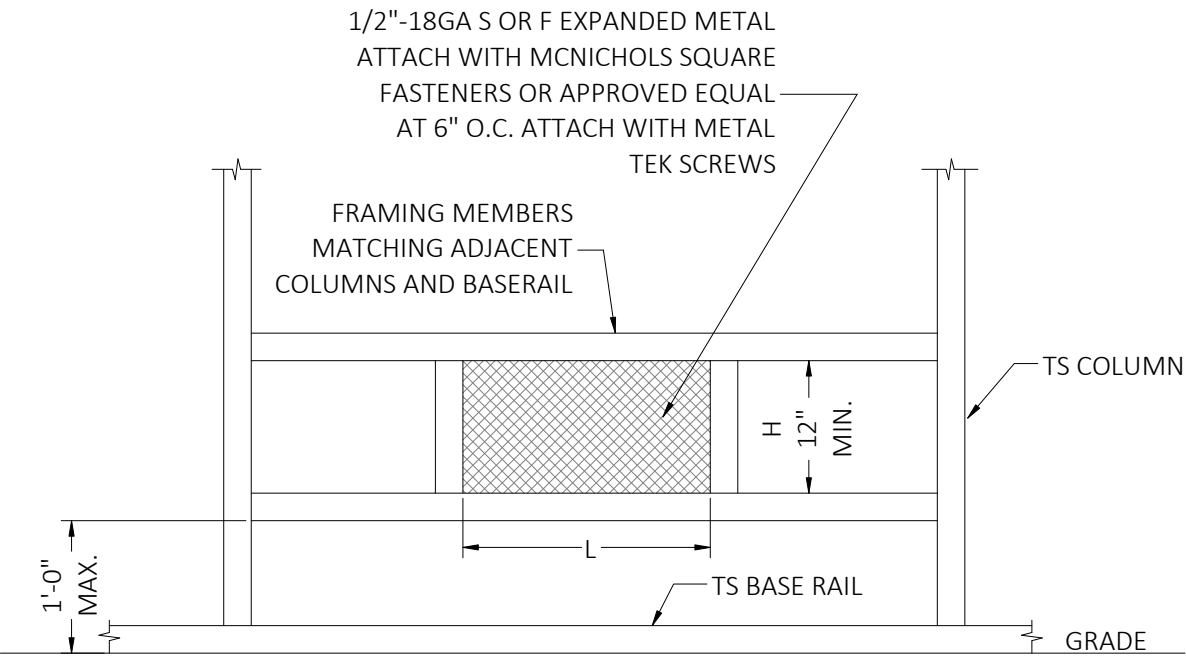
REVISION 1: DATE

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SCALE: N.T.S.

PAGE :

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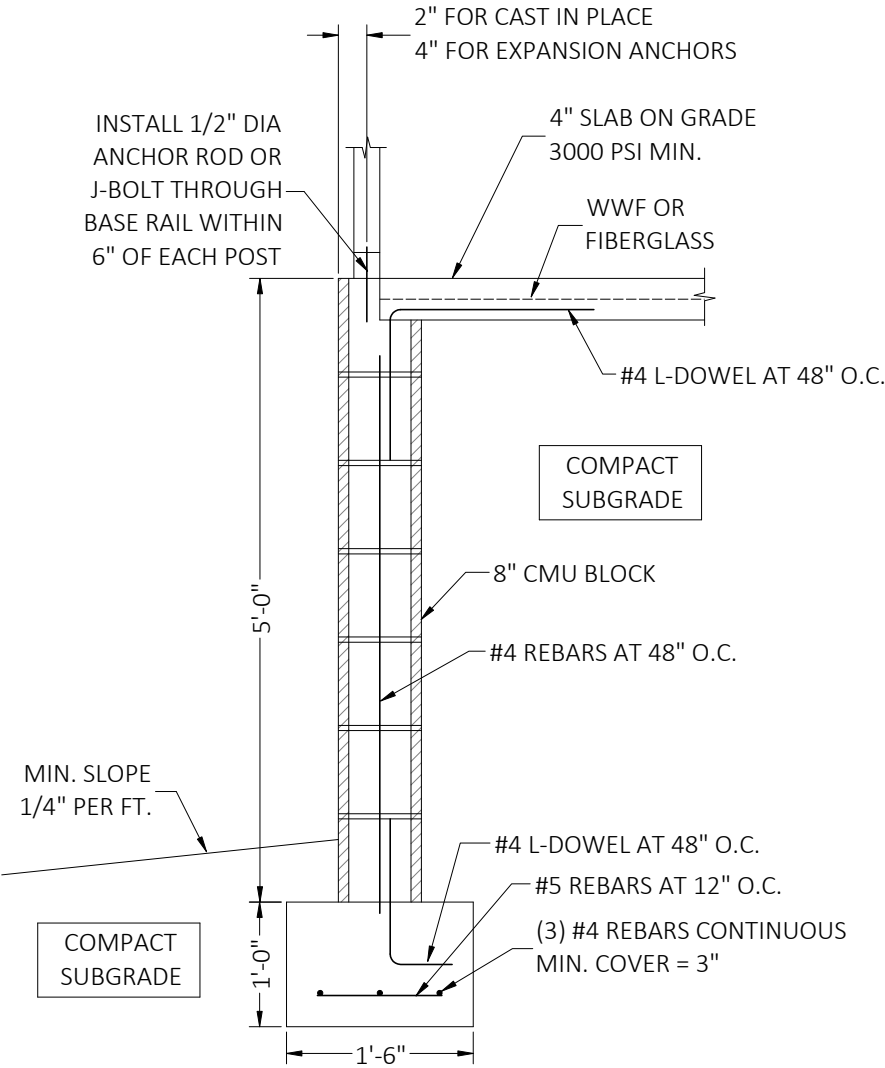


TYPICAL FLOOD VENT DETAIL

CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS:
CONTRACTOR TO VERIFY THAT THE FINISHED FLOOR ELEVATION FOR THE PROPOSED STRUCTURE IS AT OR ABOVE THE GREATER OF THE FOLLOWING ELEVATIONS:
I) BFE (BASE FLOOD ELEVATION) + 2'-0"
II) DFE (DESIGN FLOOD ELEVATION)
III) THE MINIMUM ELEVATION MANDATED BY THE BUILDING CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.

- FLOOD VENT INSTALLATION NOTES:
- 1. MINIMUM VENT SPACE REQUIRED = 1 SQ. IN. OF OPEN VENT AREA PER SQ. FT. OF ENCLOSED AREA.
 - 2. PROVIDE A MINIMUM OF TWO OPENINGS ON DIFFERENT SIDES OF EACH ENCLOSED AREA.
 - 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 INSTALLED.

FLOOD SOLUTIONS STATIC FLOOD VENTS FL #17588.1-R4				
VENT MODEL	VENT SIZE (WIDHT x HEIGHT) (in.)	ROUGH OPENING SIZE (Width x Height) (in.)	ENCLSOED AREA COVERAGE (sq. ft.)	NET FREE AREA (sq. in.)
FS-1608	18 ¹ / ₂ " X 10 ¹ / ₂ "	16 X 8	97	80.7
FS-1616	18 ¹ / ₂ " X 18 ¹ / ₂ "	16 X 16	191	158.2
FS-1412	17 ¹ / ₂ " X 14 ¹ / ₂ "	14 ¹ / ₂ " X 12"	129	106.7
FS-1608-HEX	18 ¹ / ₂ " X 10 ¹ / ₂ "	16 X 8	110	91.4

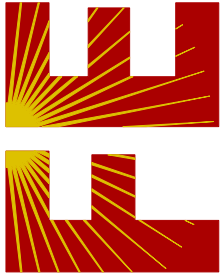


STAND-ALONE CONCRETE MASONRY UNIT (CMU)
FOUNDATION STEM WALL DETAIL

GENERIC PLANS ARE NOT
VALID WITHOUT A RAISED
SEAL & BLUE INK SIGNATURE.

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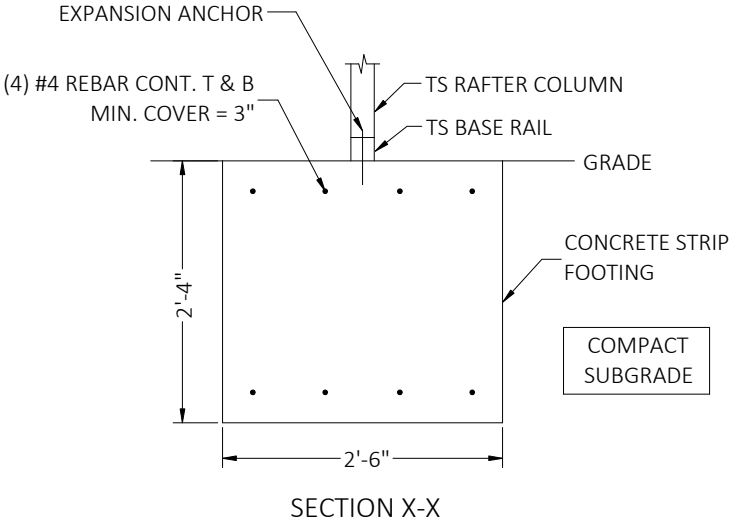
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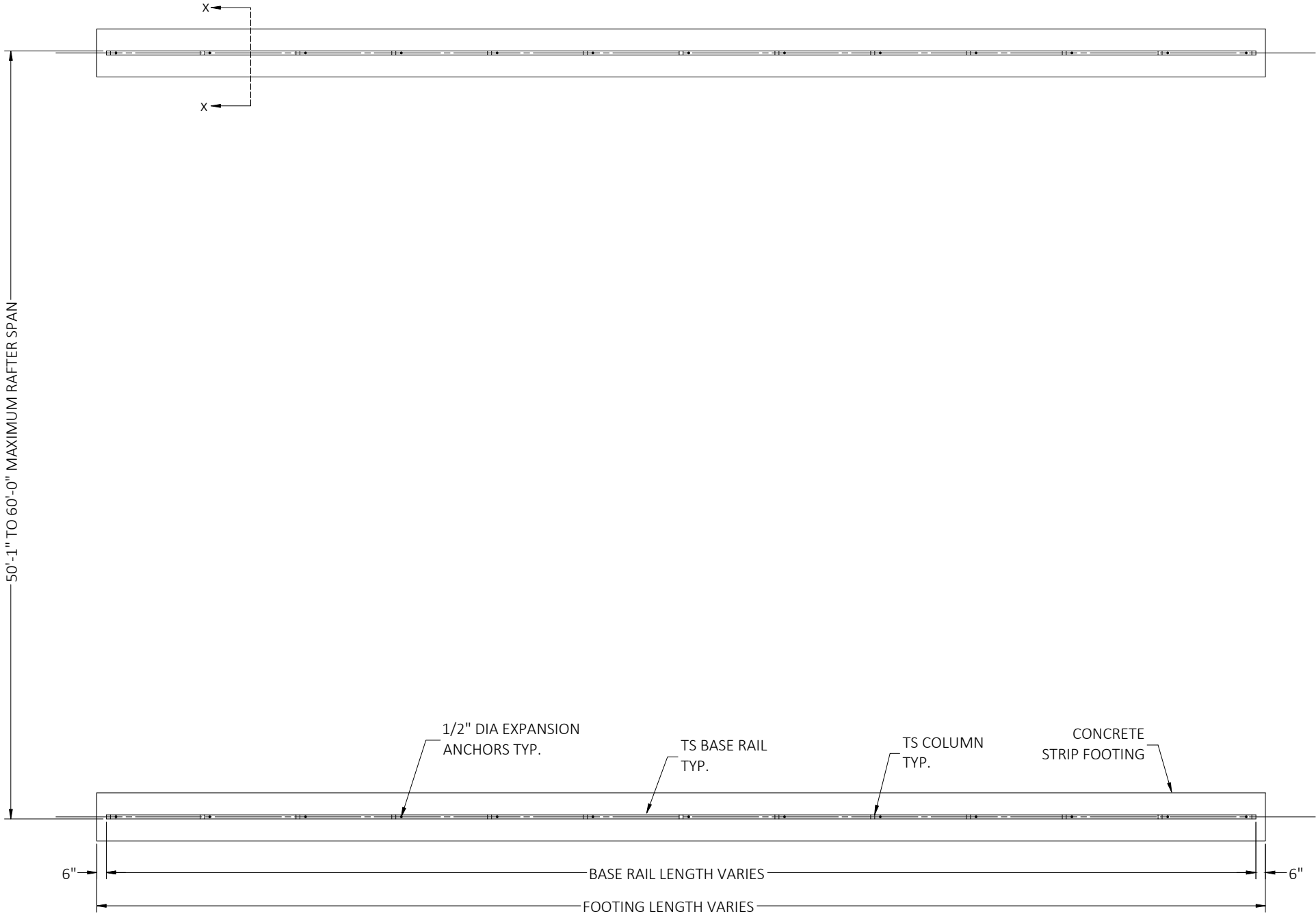
GENERAL NOTES
CONCRETE MONOLITHIC SLAB DESIGN IS BASED ON A MINIMUM SOIL BEARING CAPACITY OF 2000 PSF.

CONCRETE
MINIMUM 28-DAY SPECIFIED COMPRESSIVE STRENGTH = 3000 PSI

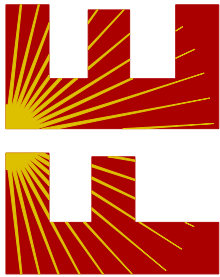
- REINFORCING STEEL
1. TURNDOWN REINFORCING STEEL = ASTM A615 GRADE 60
 2. SLAB REINFORCEMENT = WELDED WIRE FABRIC PER ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT
 3. REINFORCING STEEL COVER = 3" WHERE CASE AGAINST AND PERMENTLY EXPOSED TO SOIL OR WATER, 1.5" EVERYWHERE ELSE.
 4. REINFORCEMENT IS BENT 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



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REVISION 1:	DATE	PAGE : 8
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SCALE:	NTS	