

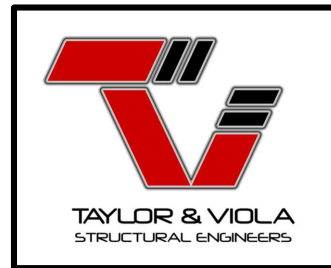
ENCLOSED GABLE END BUILDING

**12'-0" TO 30'-0" WIDE X 16'-0" EAVE HEIGHT WITH BOX FRAME /
(UP TO) 155 MPH (NON-WIND BORNE DEBRIS AREA) - 35 P.S.F. SNOW LOAD**

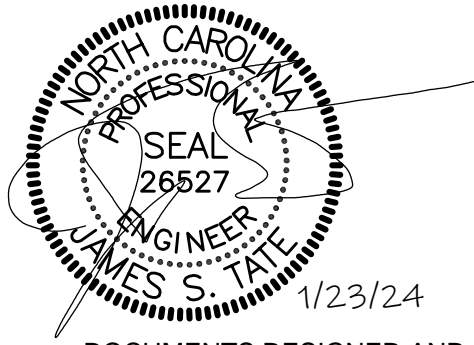
FOR:

NC CARPORTS & GARAGE
116 EAST MARKET STREET
ELKIN, NORTH CAROLINA
TELE: 336-368-0668

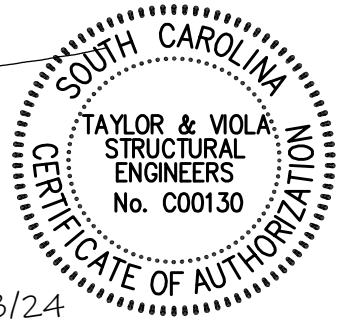
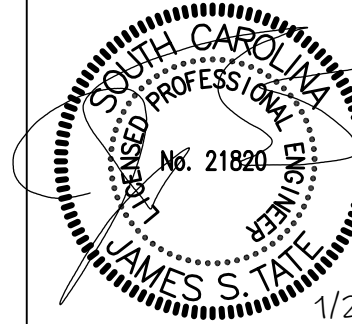
ISSUE DATE: 01.23.24



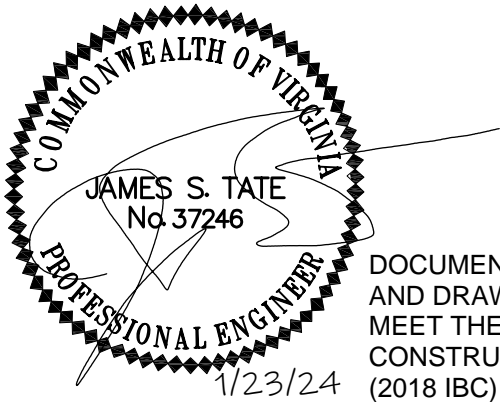
NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 NC BUILDING CODE (2015 IBC)



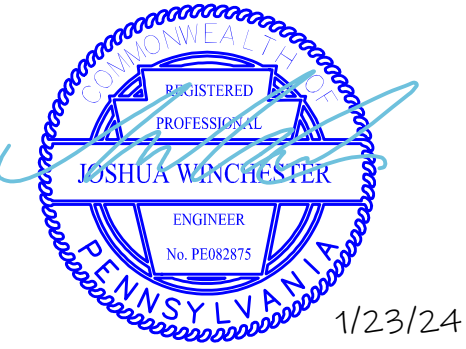
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DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 VA CONSTRUCTION CODE (2018 IBC)



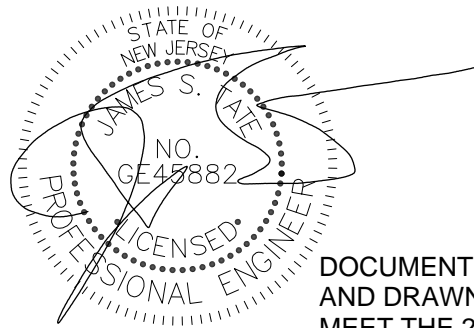
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2012 IBC



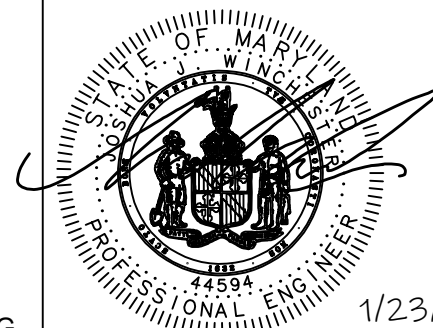
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2020 BUILDING CODE OF NEW YORK STATE (2018 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 20210 BUILDING CODENEW JERSEY EDITION (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



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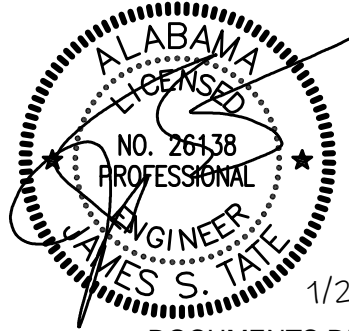
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1/23/24

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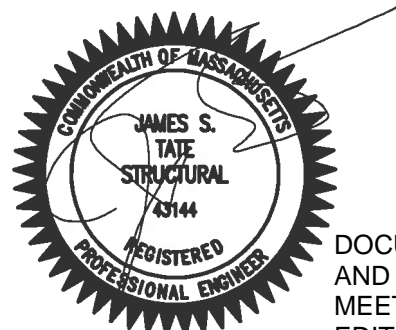
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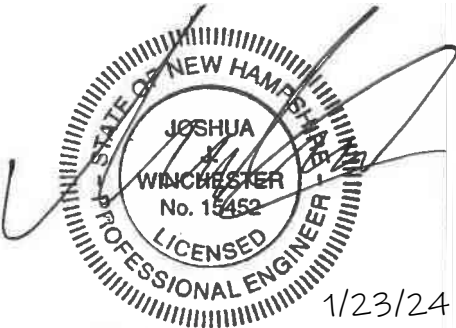
1/23/24

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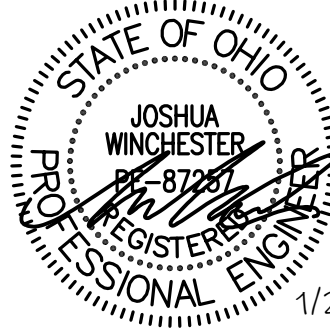
1/23/24

DOCUMENTS DESIGNED AND DRAWN TO MEET THE NINTH EDITION OF THE MA STATE BUILDING CODE



1/23/24

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



1/23/24

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2017 IBC



1/23/24

DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 KENTUCKY BUILDING CODE (2015 IBC)



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SHEET INDEX

SHEET NUMBER	SHEET TITLE
S0	SEALED COVER SHEET
S1	P.E. SEALS SHEET
S1A	P.E. SEALS SHEET
S2	DRAWING INDEX
S3	GENERAL NOTES AND SPECIFICATIONS
S4	SIDE AND END ELEVATIONS
S5	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5A	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5B	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5C	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5D	TYPICAL RAFTER / COLUMN SIDE FRAMING ELEVATION
S6	COLUMN CONNECTION DETAILS (LACED COLUMN)
S6A	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
S6B	COLUMN CONNECTION DETAILS (LACED COLUMN)
S6C	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
S7	BASE RAIL ANCHORAGE
S7A	BASE RAIL ANCHORAGE
S7B	BASE RAIL ANCHORAGE
S7C	BASE RAIL ANCHORAGE
S7D	BASE RAIL ANCHORAGE
S7E	BASE RAIL ANCHORAGE
S7F	BASE RAIL ANCHORAGE
S7G	BASE RAIL ANCHORAGE
S8	BASE RAIL ANCHORAGE
S8A	BASE RAIL ANCHORAGE
S9	TYPICAL END WALL OPENINGS FRAMING SECTIONS
S9A	TYPICAL SIDE WALL OPENINGS FRAMING SECTIONS
S10	CONNECTION DETAILS
S11	CONNECTION DETAILS
S12	CONNECTION DETAILS
S13	CONNECTION DETAILS
S14	CONNECTION DETAILS
S15	LEAN-TO OPTIONS
S15A	LEAN-TO CONNECTION DETAILS
S15B	LEAN-TO CONNECTION DETAILS
S15C	LEAN-TO CONNECTION DETAILS
S16	VERTICAL ROOF / SIDING OPTION END AND SIDE ELEVATION
S16A	VERTICAL ROOF / SIDING OPTION END SECTION
S16B	VERTICAL ROOF / SIDING OPTION SIDE SECTION
S17	SIDE WALL HEADER OPTIONS
S17A	END WALL HEADER OPTIONS



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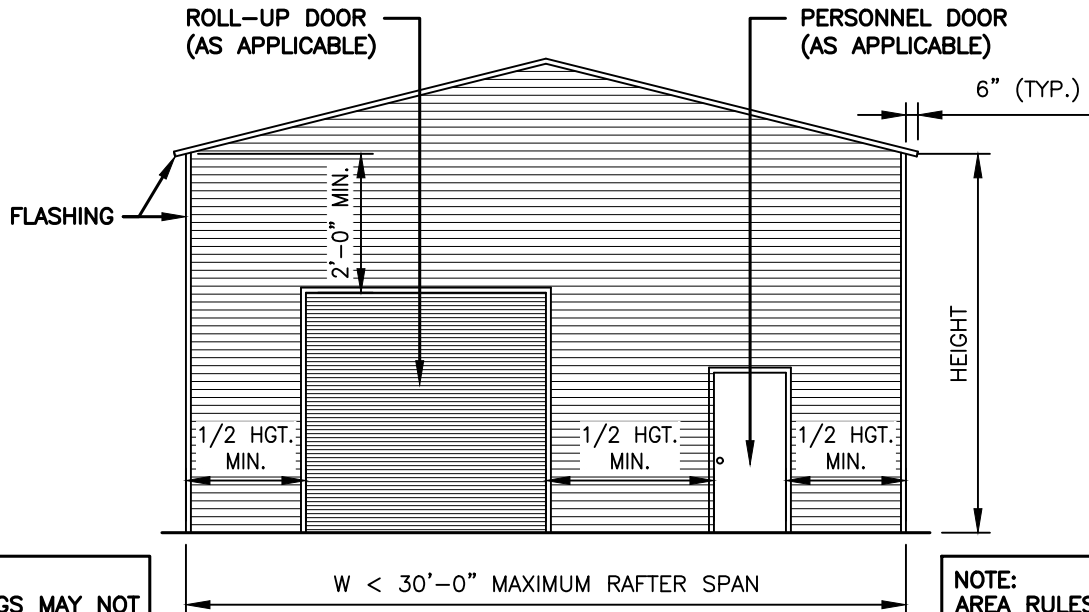
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S2

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BOX EVE FRAME RAFTER STRUCTURE OPENING CRITERIA

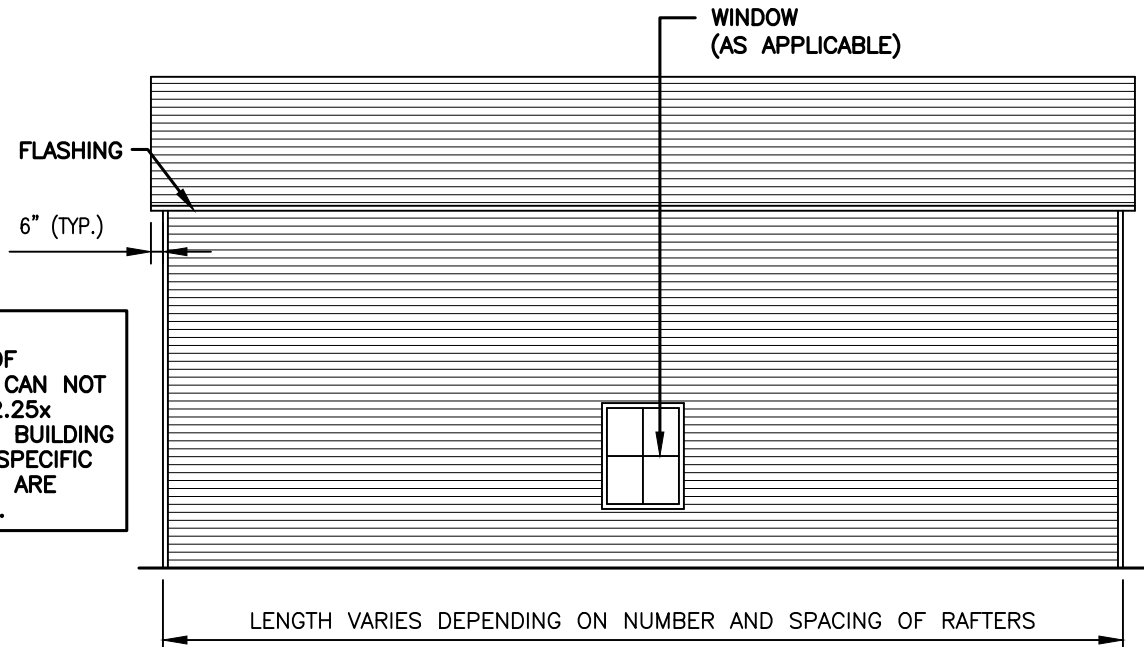


NOTE:
OPENINGS MAY NOT
EXCEED 40% OF
BUILDING WIDTH.

NOTE:
AREA RULES APPLY
TO ALL FACES OF
BUILDING

*** TYPICAL END ELEVATION**

* IF DIMENSIONS SHOWN ARE EXCEEDED, SITE SPECIFIC DRAWINGS ARE REQUIRED.



NOTE:
LENGTH OF
BUILDING CAN NOT
EXCEED 2.25x
WIDTH OF BUILDING
OR SITE SPECIFIC
DRAWINGS ARE
REQUIRED.

*** TYPICAL SIDE ELEVATION**



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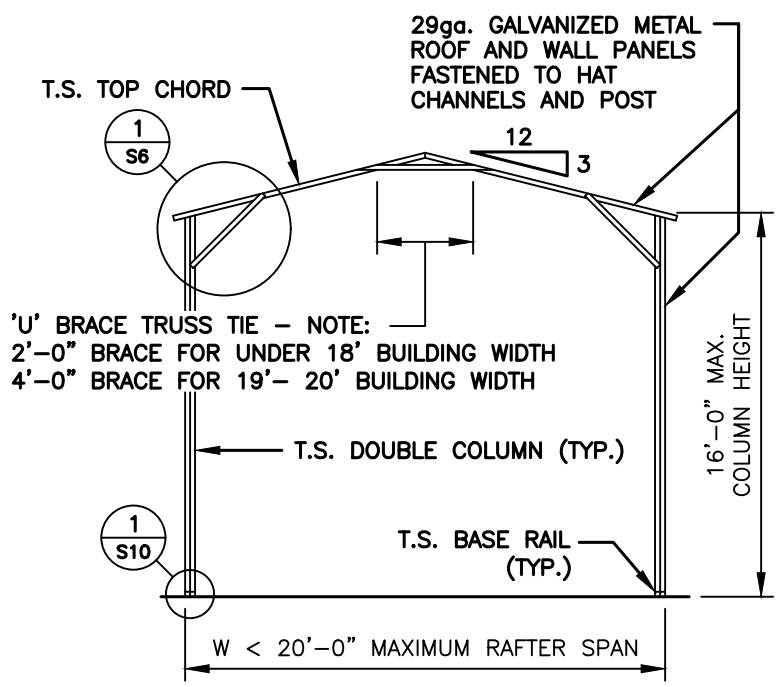
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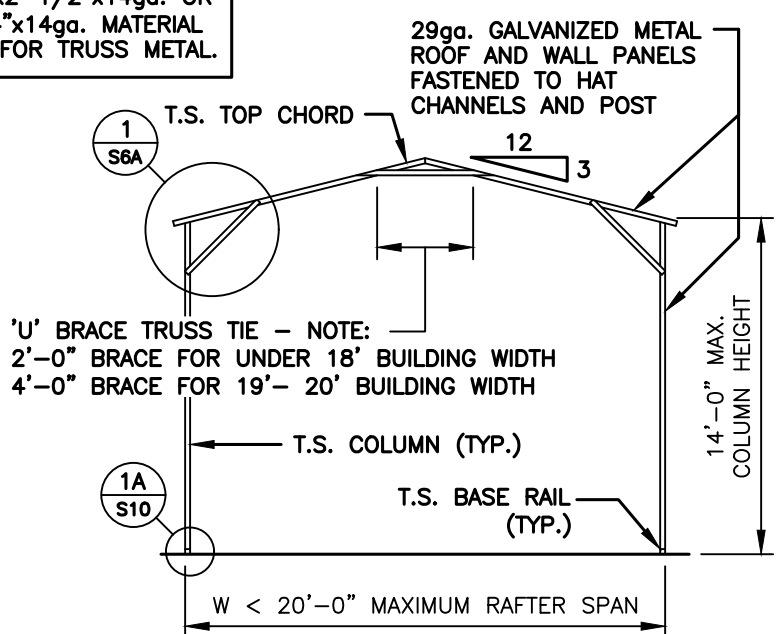
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S4

NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION



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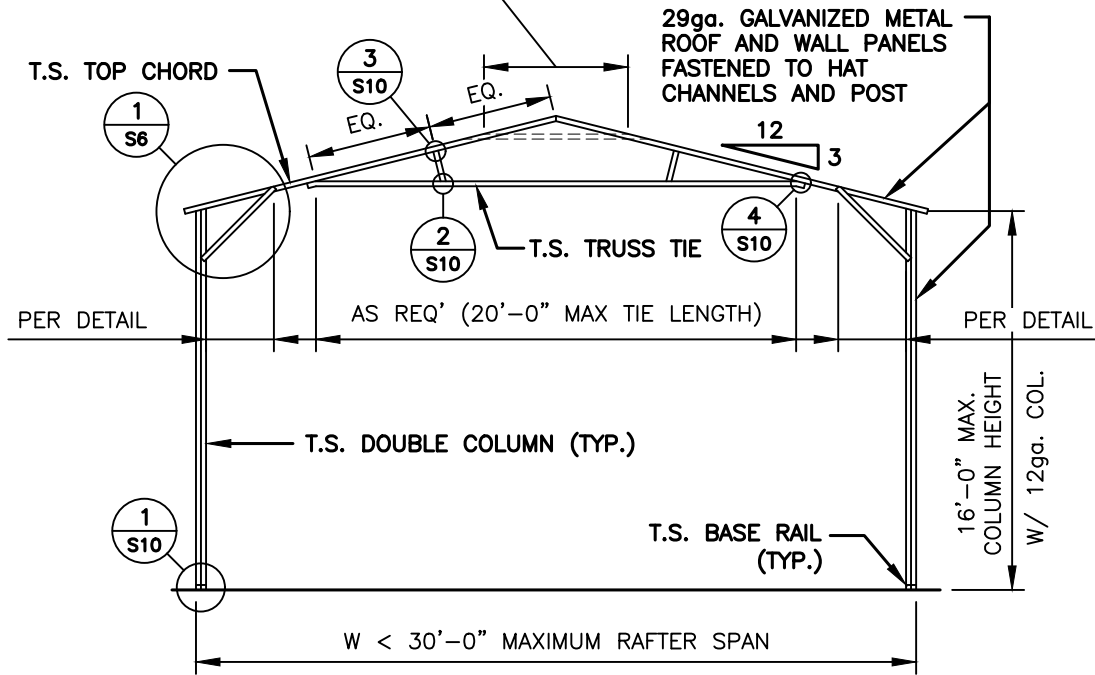
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DATE: 01.23.24	SHEET NO: S5

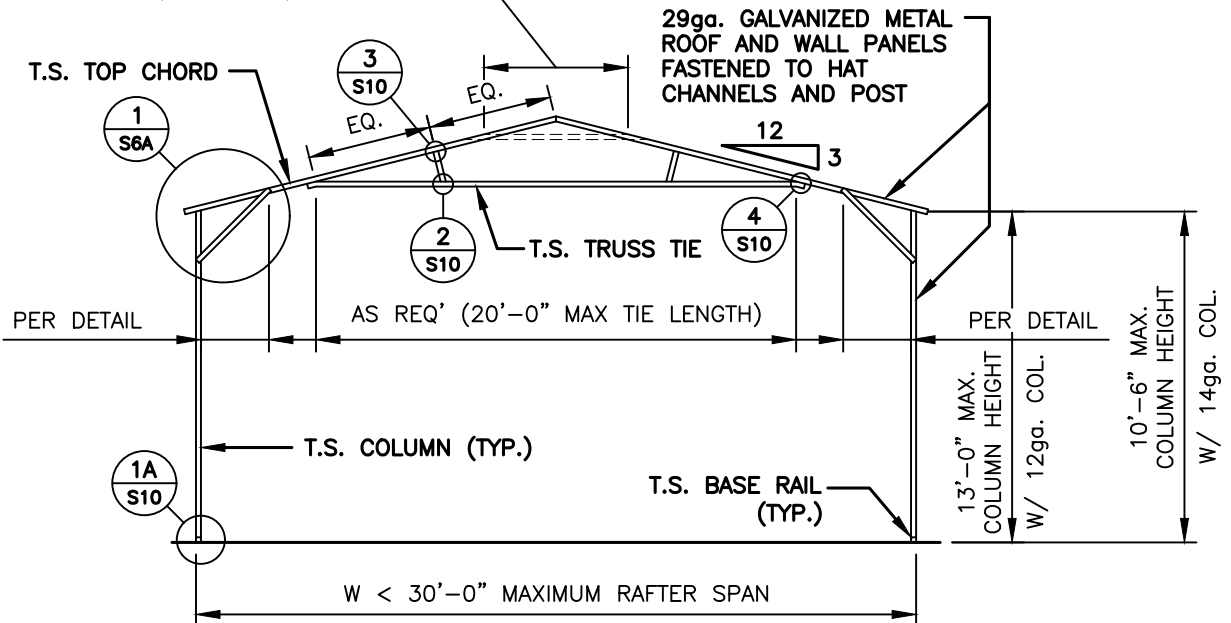
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'U' BRACE TRUSS TIE - NOTE:
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



TYPICAL RAFTER / COLUMN FRAME SECTION

'U' BRACE TRUSS TIE - NOTE:
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



TYPICAL RAFTER / COLUMN FRAME SECTION



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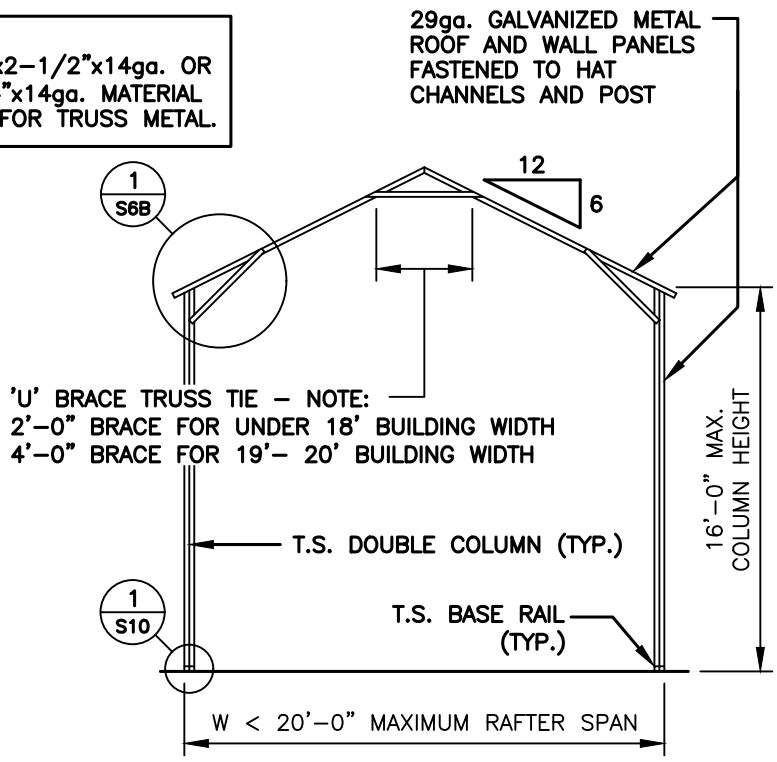
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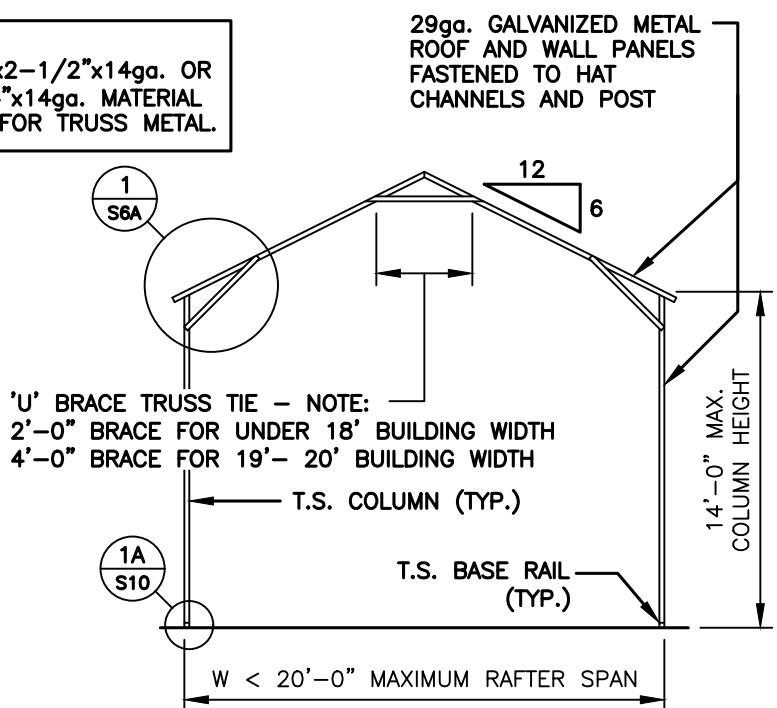
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NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

NOTE:
H.S.S. 2-1/2"x2-1/2"x14ga. OR
2-1/4"x2-1/4"x14ga. MATERIAL
MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION

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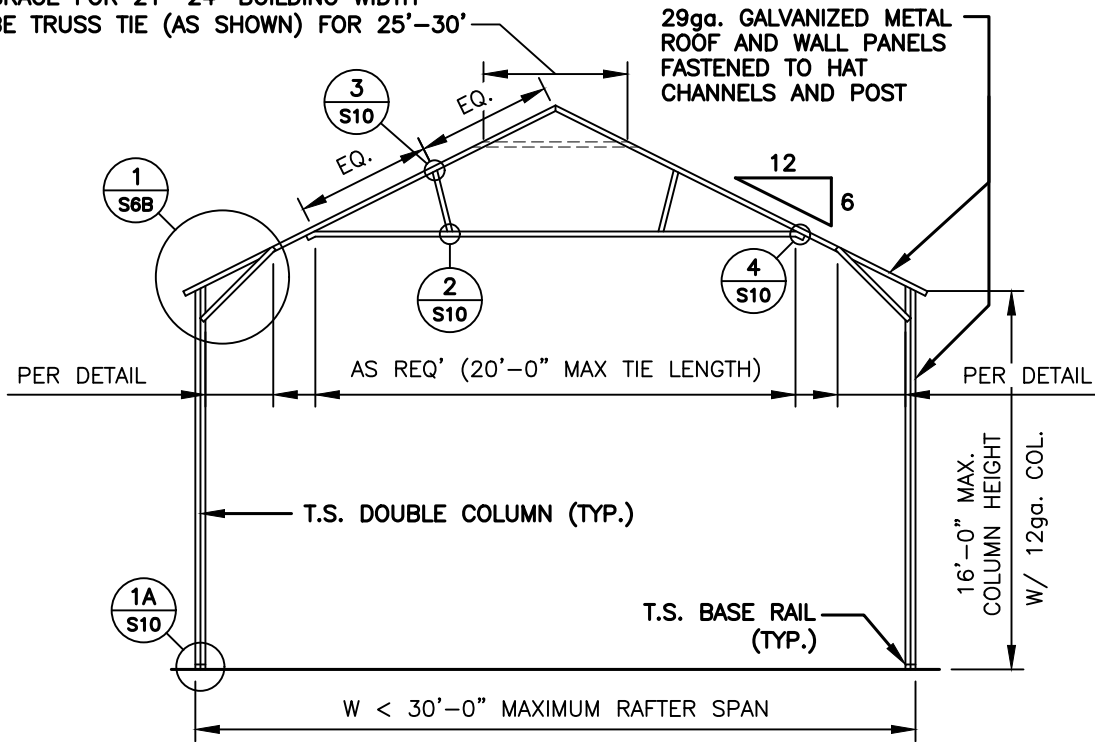
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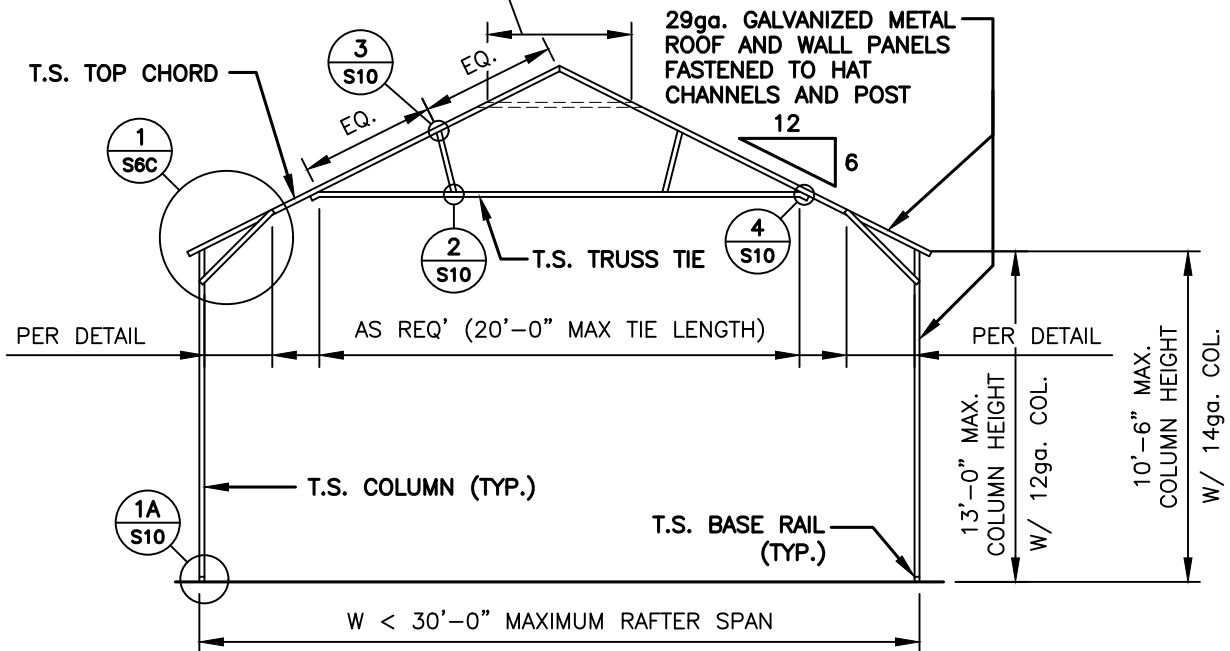
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'U' BRACE TRUSS TIE - NOTE:
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 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



TYPICAL RAFTER / COLUMN FRAME SECTION

'U' BRACE TRUSS TIE - NOTE:
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TYPICAL RAFTER / COLUMN FRAME SECTION



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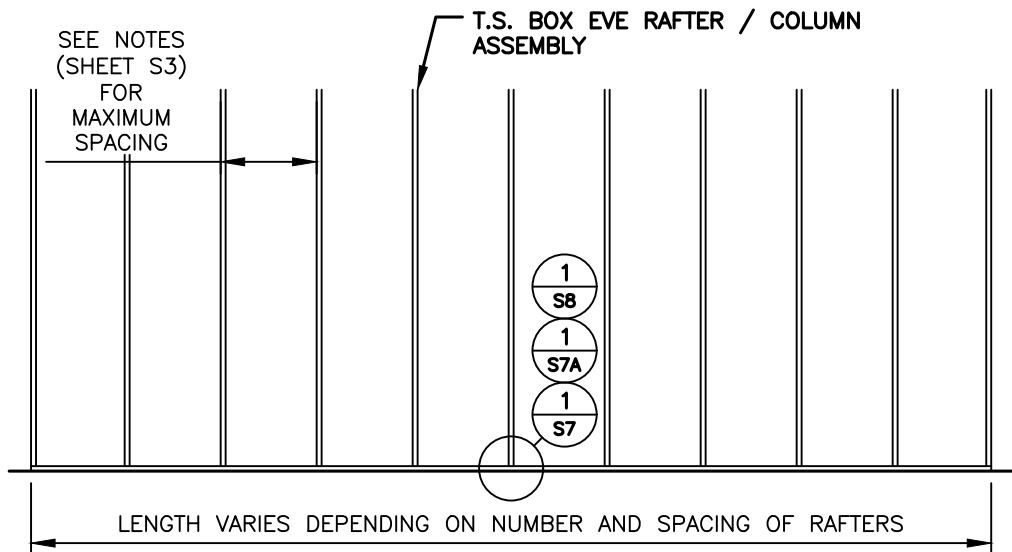
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S5C



TYPICAL RAFTER / COLUMN SIDE FRAME SECTION



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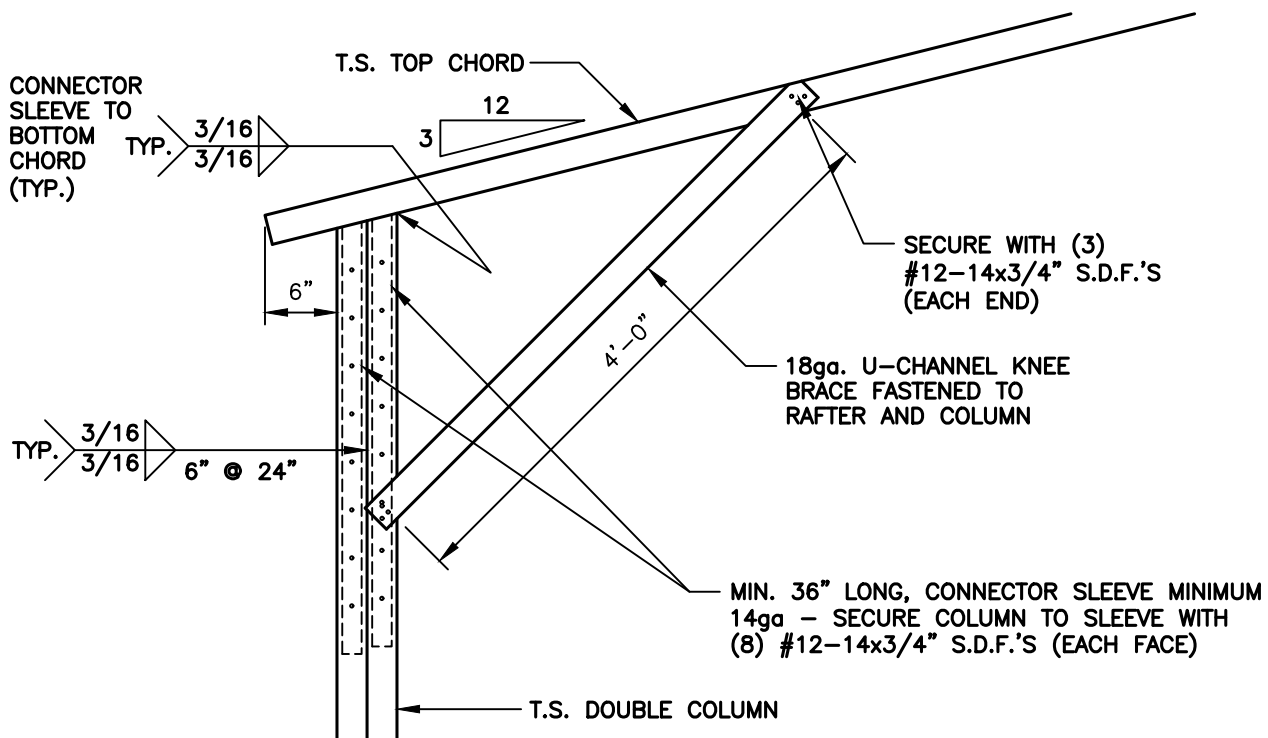
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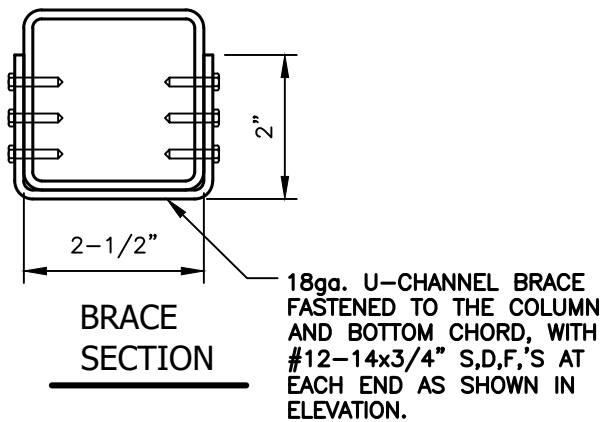
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01.23.24

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S5D

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1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHT.S. 13'-1" < TO
 S6 sc 1/16" = 1'-0"



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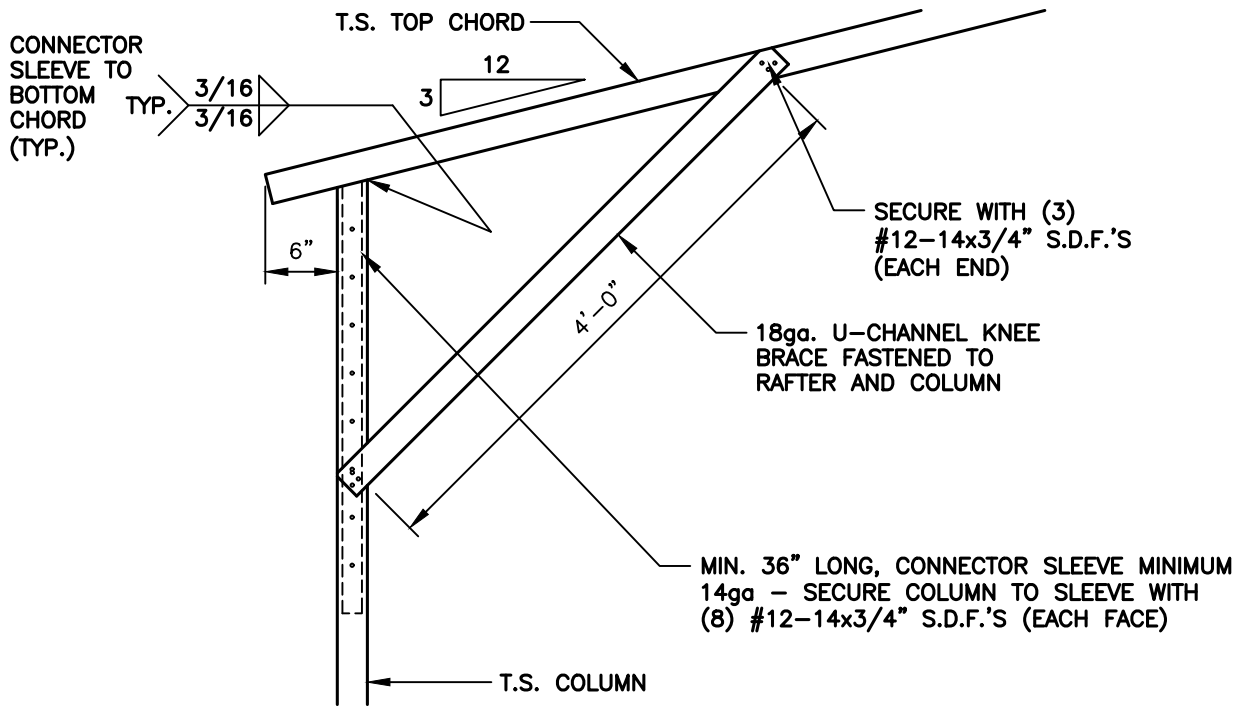
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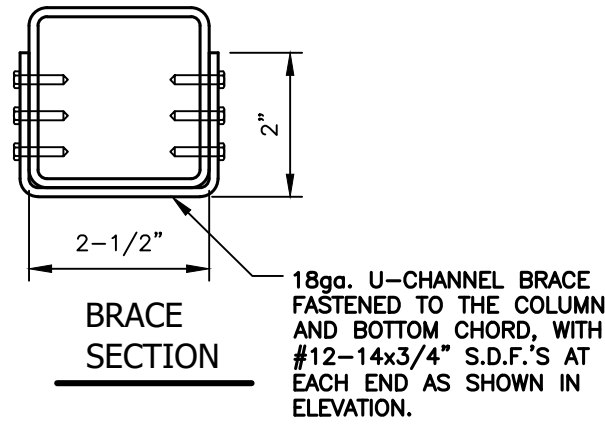
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DATE: 01.23.24	SHEET NO: S6

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1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHT.S. < 13'-0"

S6A SCALE: 3/4" = 1'-0"



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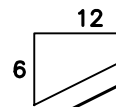
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DATE: 01.23.24	SHEET NO: S6A

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CONNECTOR SLEEVE TO BOTTOM CHORD (TYP.)

TYP. $\frac{3}{16}$ / $\frac{3}{16}$

T.S. TOP CHORD



SECURE WITH (3) #12-14x3/4" S.D.F.'S (EACH END)

18ga. U-CHANNEL KNEE BRACE FASTENED TO RAFTER AND COLUMN

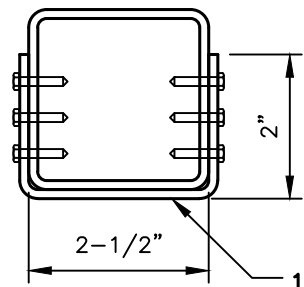
MIN. 36" LONG, CONNECTOR SLEEVE MINIMUM 14ga - SECURE COLUMN TO SLEEVE WITH (8) #12-14x3/4" S.D.F.'S (EACH FACE)

T.S. COLUMN

1
S6B

BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHT.S. 13'-1" < TO

SCALE: 1/16" = 1'-0"



BRACE SECTION

18ga. U-CHANNEL BRACE FASTENED TO THE COLUMN AND BOTTOM CHORD, WITH #12-14x3/4" S.D.F.'S AT EACH END AS SHOWN IN ELEVATION.



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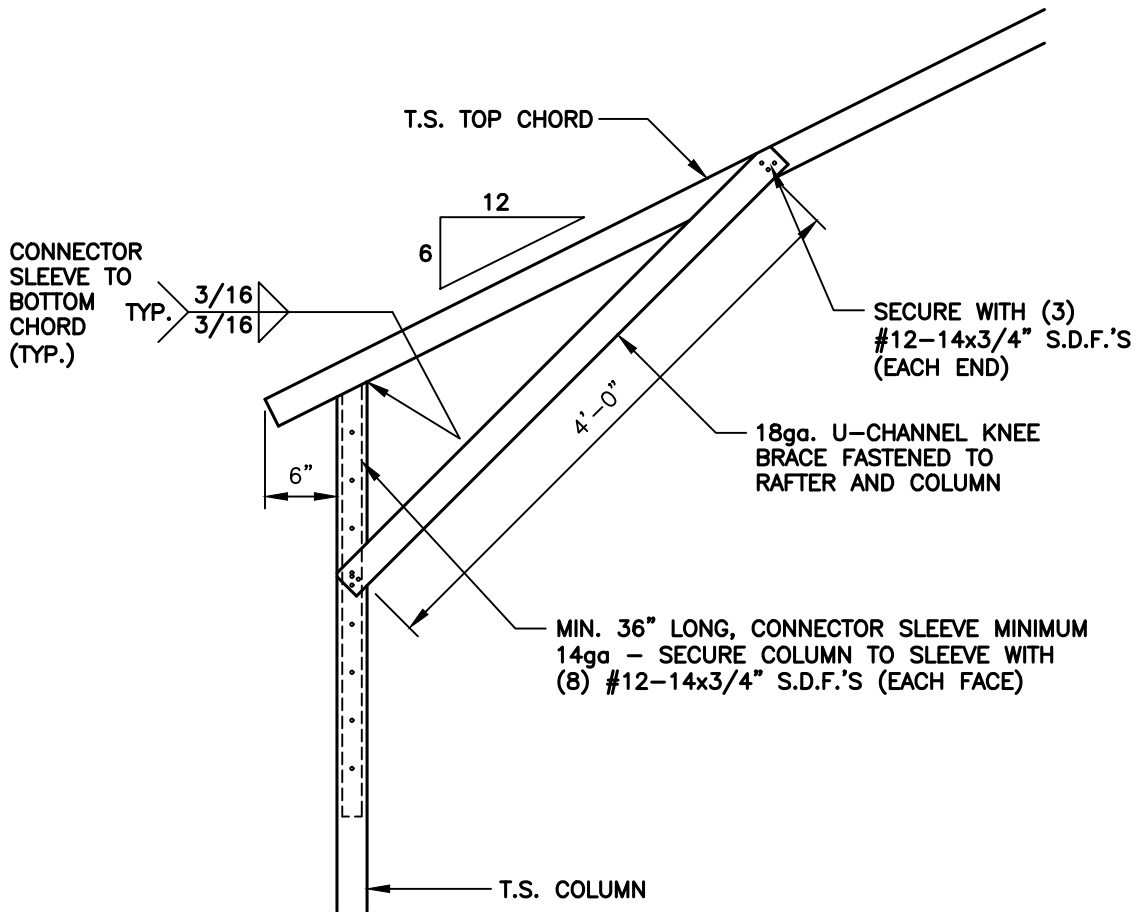
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SHEET NO:
S6B

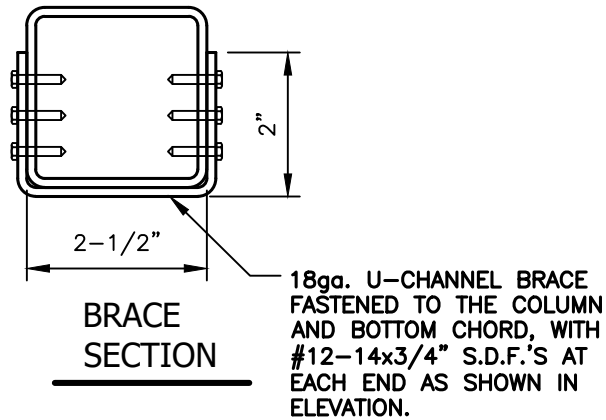
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1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHT.S. < 14'-0"

S6C

SCALE: 3/4" = 1'-0"



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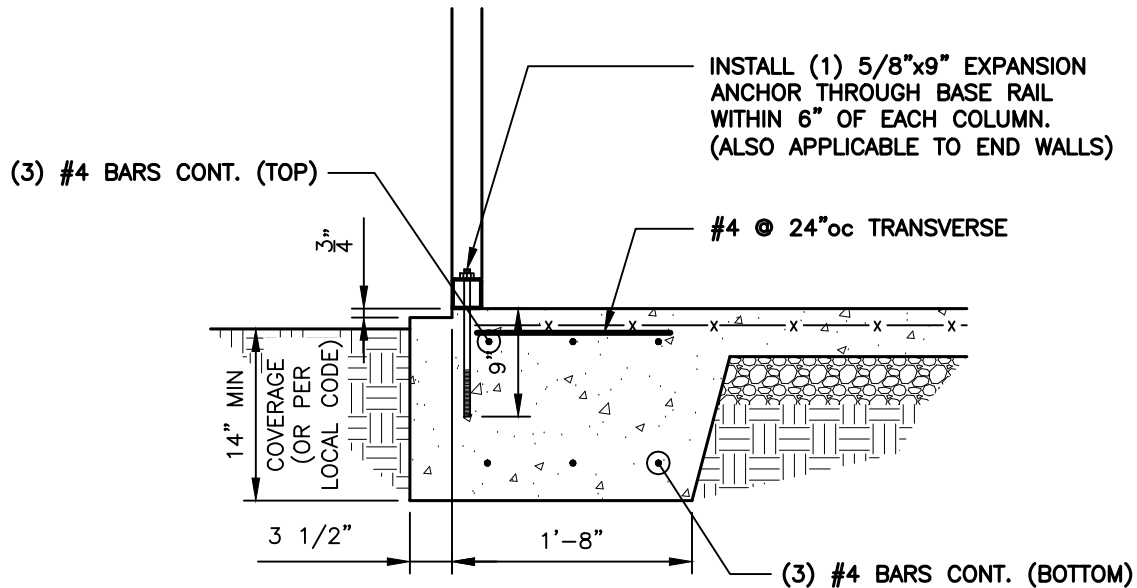
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01.23.24

SHEET NO:
S6C

CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

GENERAL NOTES:

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

CONCRETE:

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 P.S.I. AT 28 DAYS.

COVER OVER REINFORCING STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318: 3" IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH AND WEATHER AND 1-1/2" ELSEWHERE.

REINFORCING STEEL:

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REINFORCEMENT MAT BE BENT IN THE SHOP OF THE FIELD PROVIDED:

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



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TELE: 336-368-0668

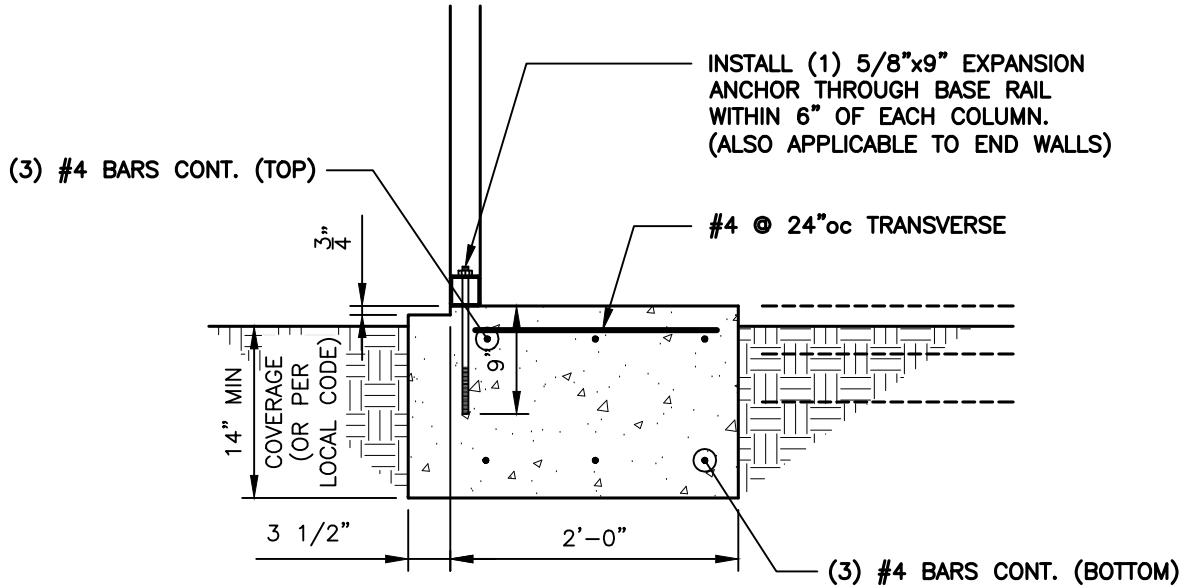
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22-512

DATE:
01.23.24

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CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

GENERAL NOTES:

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 P.S.F.

CONCRETE:

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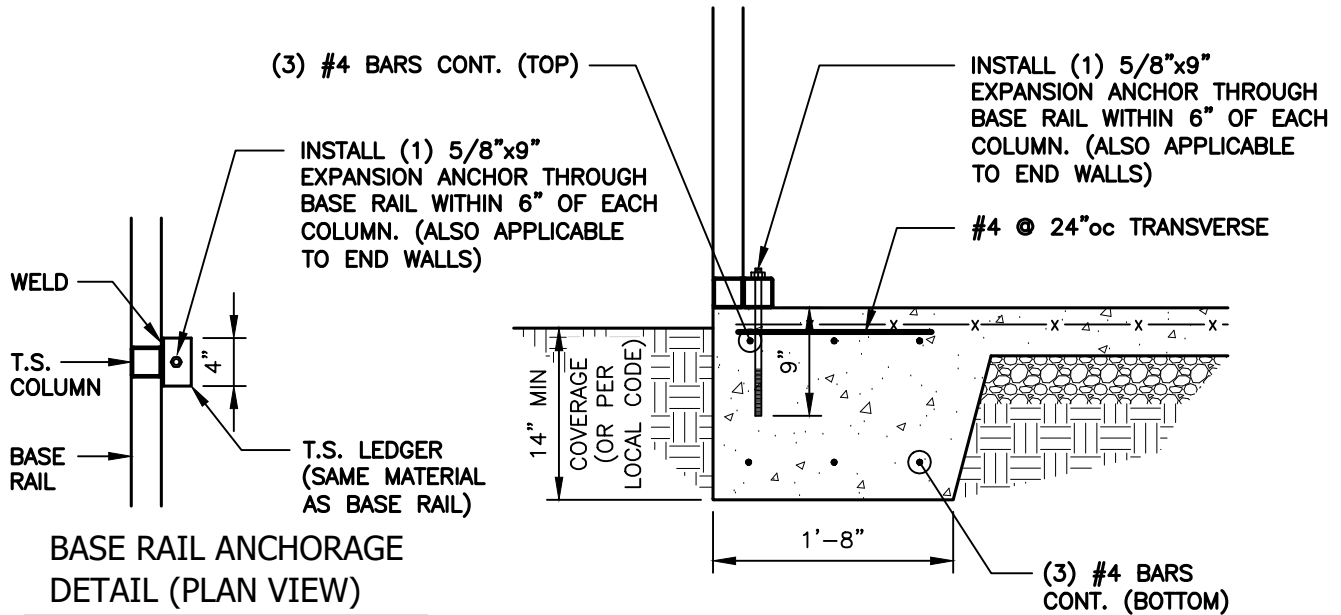
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CONCRETE BASE RAIL ANCHORAGE



SCALE: 3/4" = 1'-0"



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

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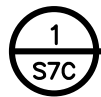
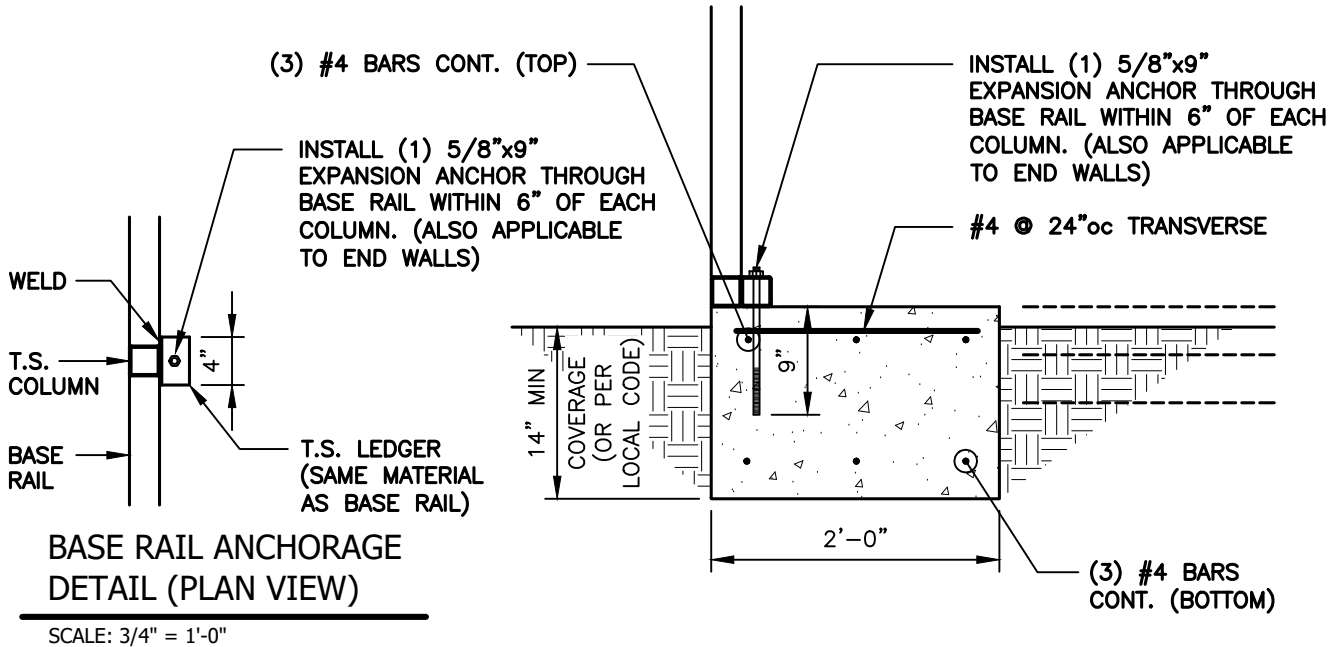
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CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

GENERAL NOTES:

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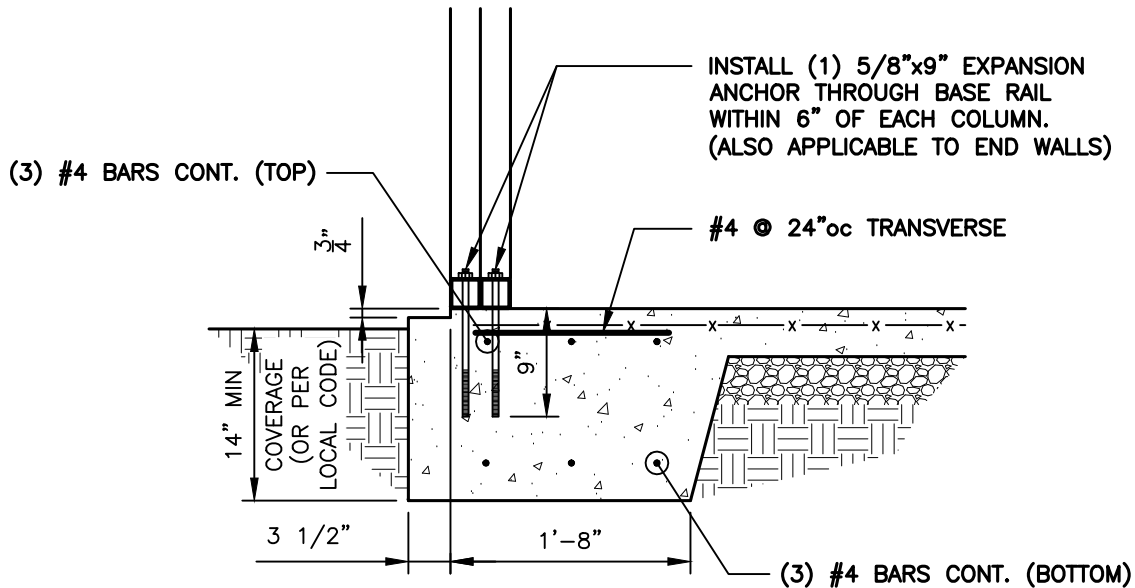
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CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

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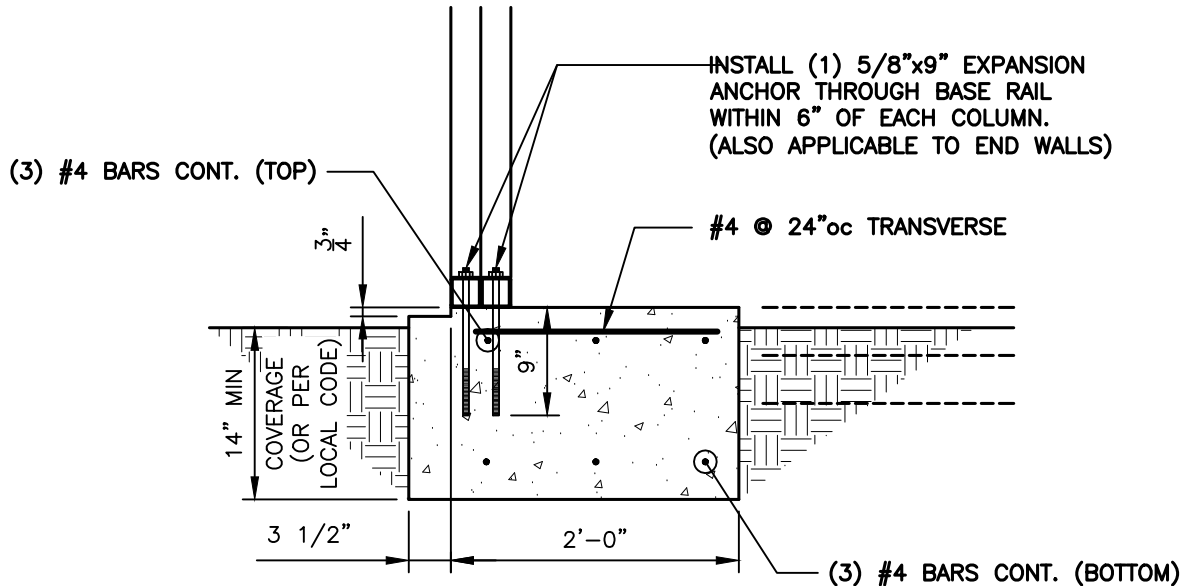
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NOTE: THESE DRAWINGS ARE VALID FOR (1) CALENDAR YEAR AFTER THE ISSUE DATE LISTED ON THIS SHEET.

CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

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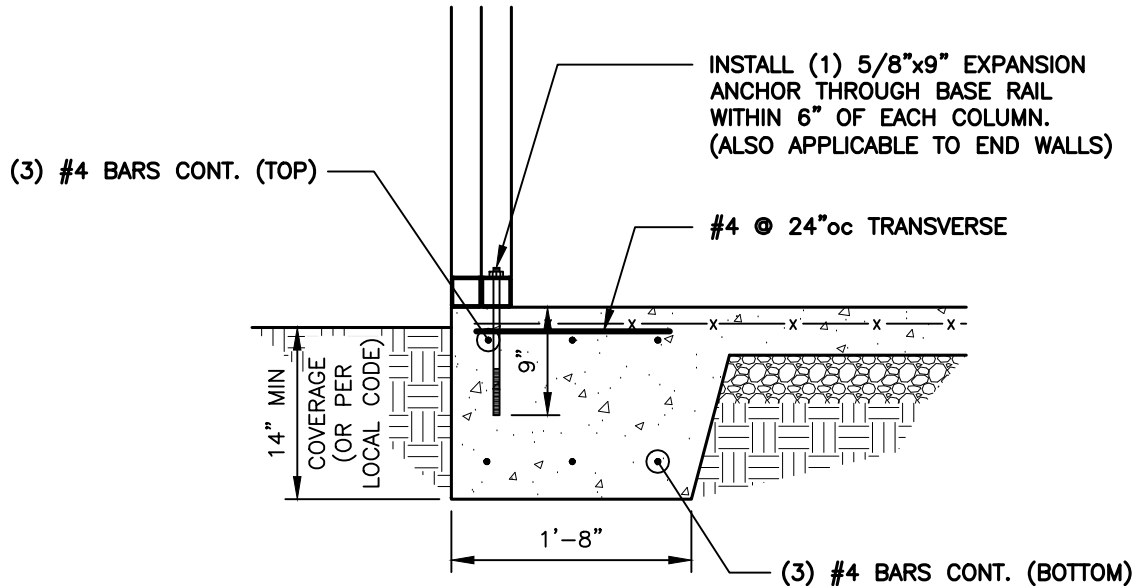
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S7E

CONCRETE BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

SCALE: 3/4" = 1'-0"

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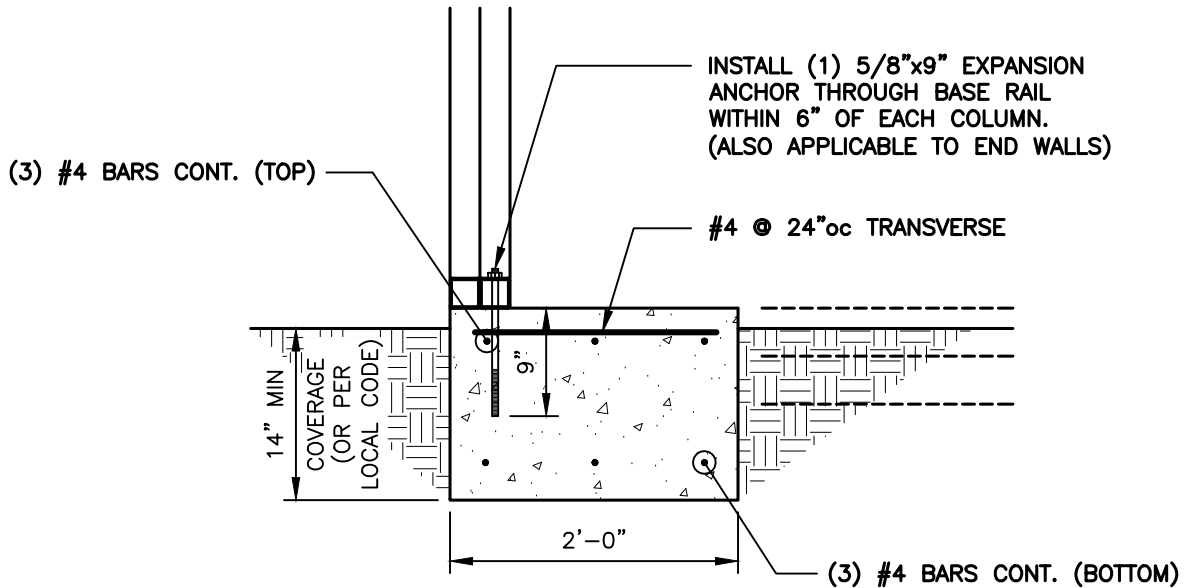
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CONCRETE BASE RAIL ANCHORAGE



1
S7G
BASE RAIL ANCHORAGE DETAIL
 SCALE: 3/4" = 1'-0"

GENERAL NOTES:

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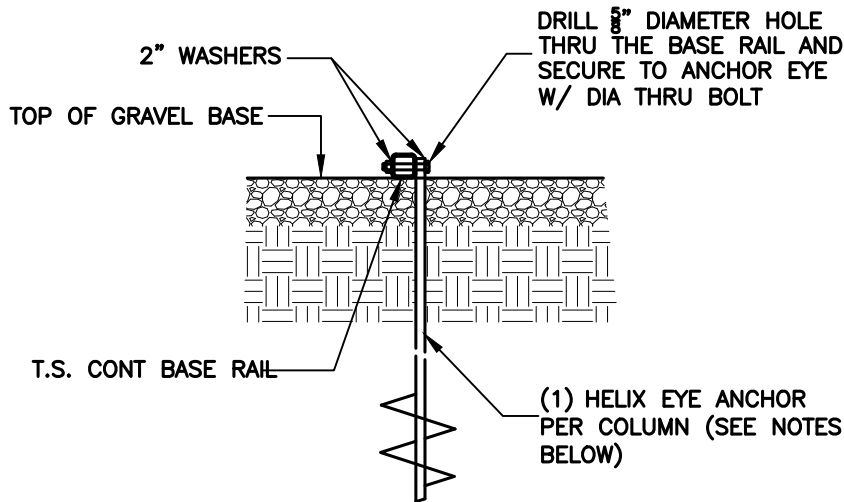
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SOIL NAIL BASE RAIL ANCHORAGE



1
S8
BASE RAIL ANCHORAGE DETAIL
 SCALE: 3/4" = 1'-0"

HELIX EMBEDMENT INFORMATION:

FOR VERY DENSE OR CEMENTED SANDS, COARSE GRAVEL, COBBLES, CALICHE, PRELOADED SILT.S. AND CLAYS, USE MIN. (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT – ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR CORAL, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT – ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR MED DENSE COARSE SANDS, SANDY GRAVEL, VERY STIFF SILT.S., AND CLAYS, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT – ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILT.S., USE MIN (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT – ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

FOR VERY LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILT.S. AND ALLUVIAL FILL, USE MIN (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT – ONE EACH END BASE RAIL AND 20'-0"oc MAX. WITH #4 REBAR AT 5'-0"oc BETWEEN.

NOTE:

IN ALL CASES, IF FROST DEPTH EXCEEDS STATED DEPTH, ANCHOR SHOULD EXTEND A MIN. OF 12" BELOW FROST LINE.



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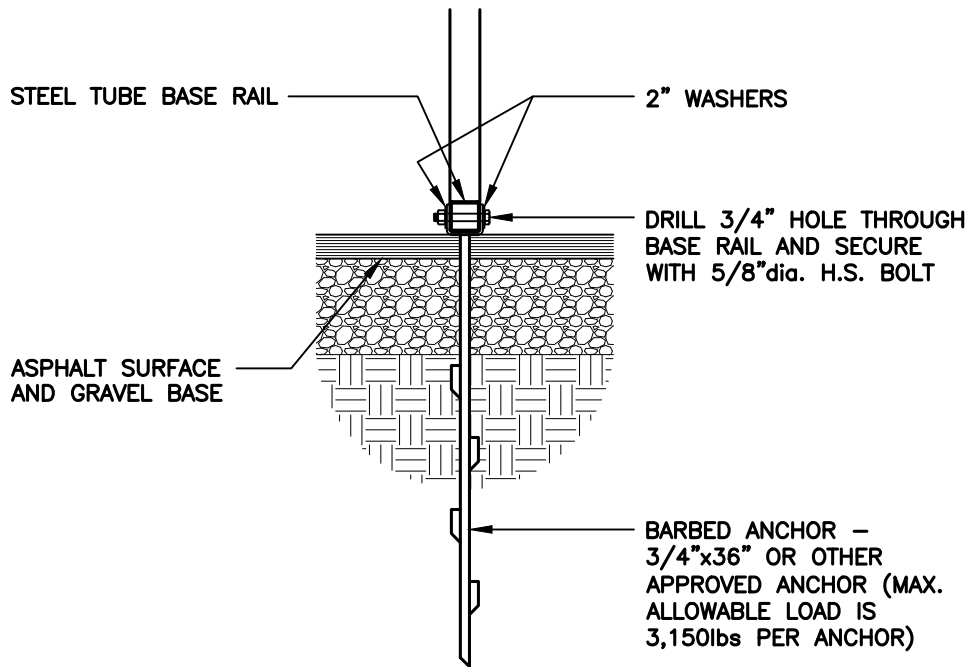
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ASPHALT ANCHOR BASE RAIL ANCHORAGE



1
S8A
ASPHALT / BASE RAIL ANCHORAGE DETAIL
 SCALE: 3/4" = 1'-0"



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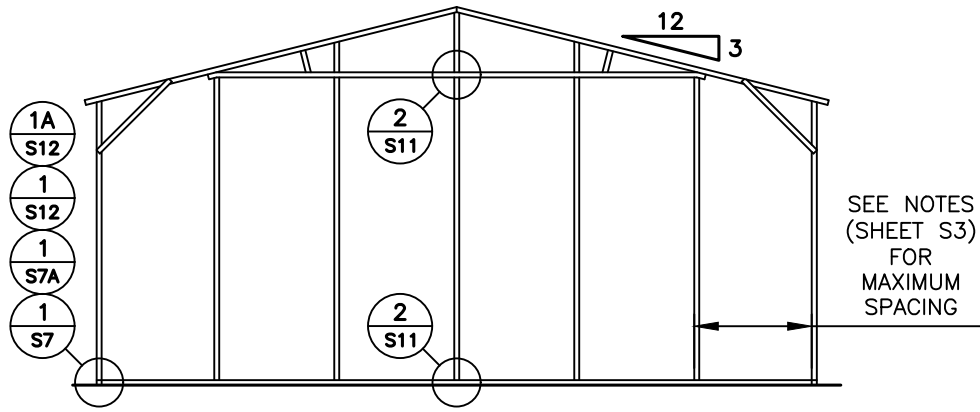
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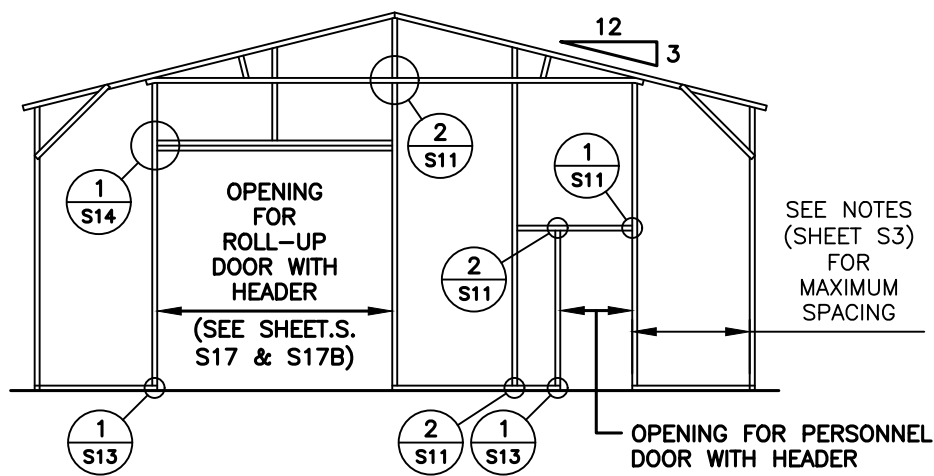
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BOX EVE RAFTER END WALL OPENINGS



TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

NOTE:
 ROLL UP DOORS SHALL
 HAVE ONE JAMB EACH
 SIDE + ONE FRAME
 COLUMN BETWEEN OR SITE
 SPECIFIC SHALL BE REQ'D.



TYPICAL BOX EVE RAFTER END WALL OPENINGS FRAMING SECTION

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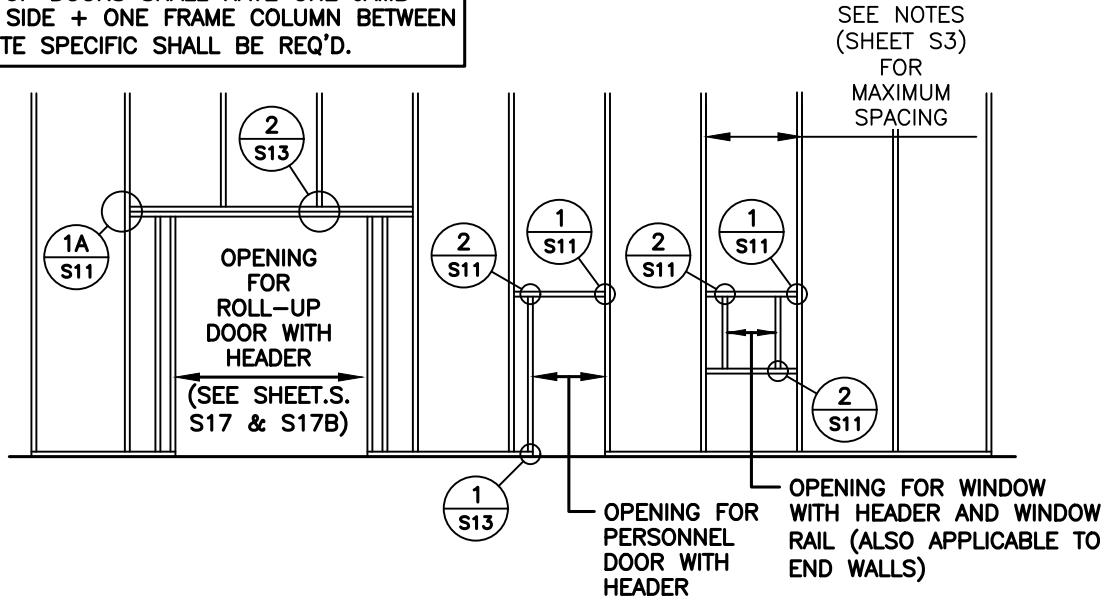
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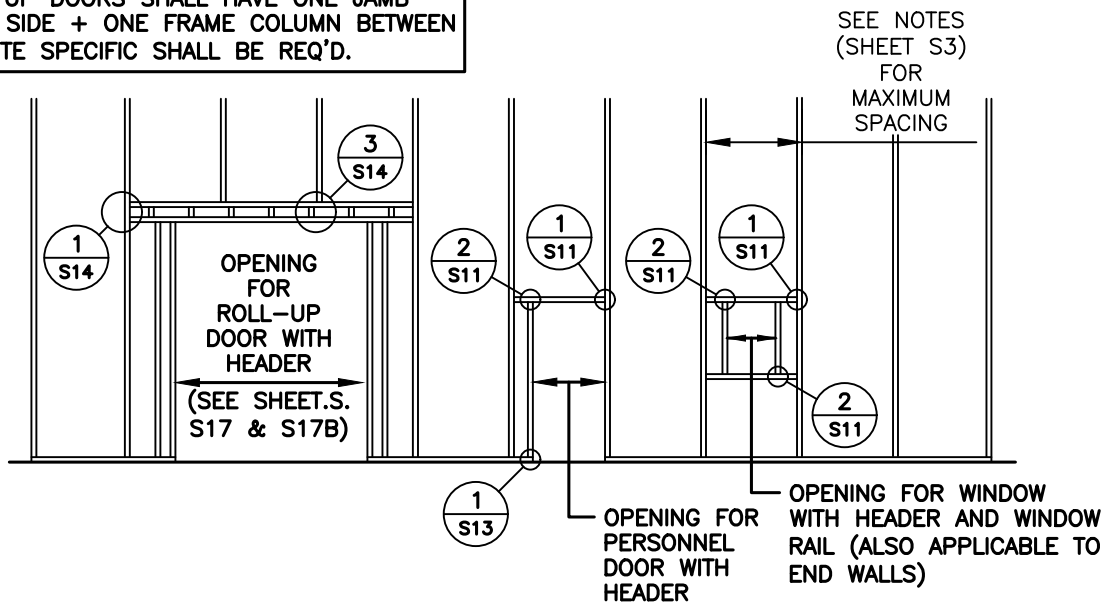
BOX EVE RAFTER END WALL AND SIDE WALL OPENINGS

NOTE:
ROLL UP DOORS SHALL HAVE ONE JAMB EACH SIDE + ONE FRAME COLUMN BETWEEN OR SITE SPECIFIC SHALL BE REQ'D.



TYPICAL END WALL OPENING FRAMING SECTION

NOTE:
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TYPICAL SIDE WALL OPENING FRAMING SECTION



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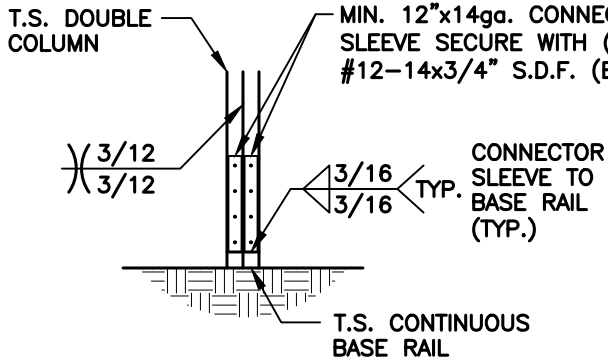
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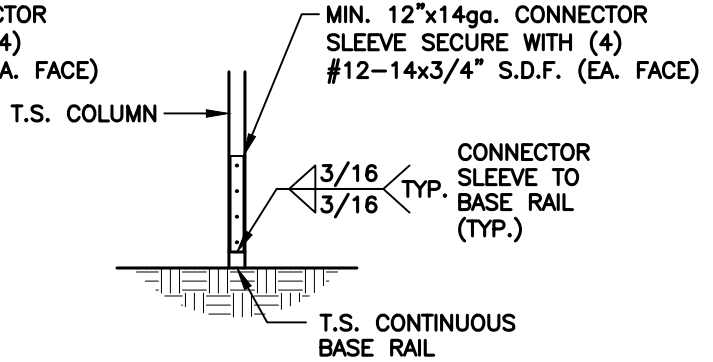
CONNECTION DETAILS



1
POST / BASE RAIL
CONNECTION DETAIL

S10

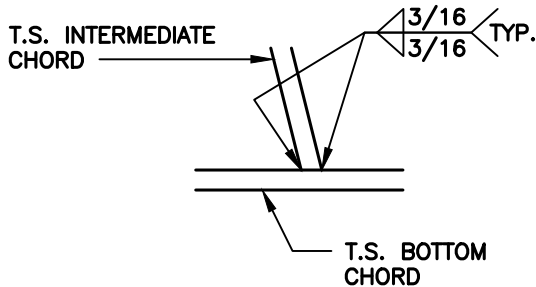
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1A
POST / BASE RAIL
CONNECTION DETAIL

S10

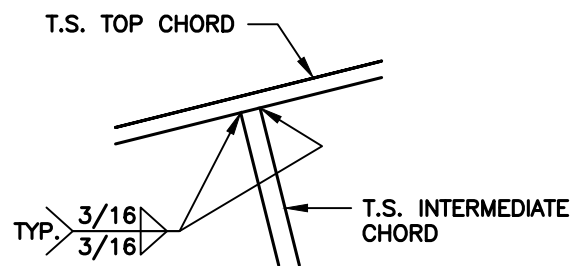
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2
INTERMEDIATE CHORD
TO BOTTOM CHORD
CONNECTION DETAIL

S10

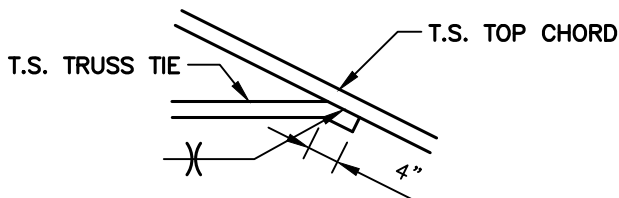
SCALE: 1/2" = 1'-0"



3
INTERMEDIATE CHORD TO TOP
CHORD CONNECTION DETAIL

S10

SCALE: 1/2" = 1'-0"



4
TRUSS TIE
CONNECTION DETAIL

S10

SCALE: 1/2" = 1'-0"



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& GARAGES**

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ELKIN, NORTH CAROLINA 28621
TELE: 336-368-0668

DRAWN BY:
BKS

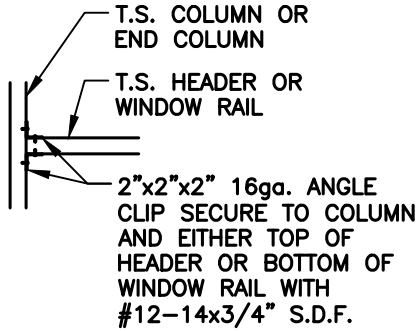
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22-512

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S10

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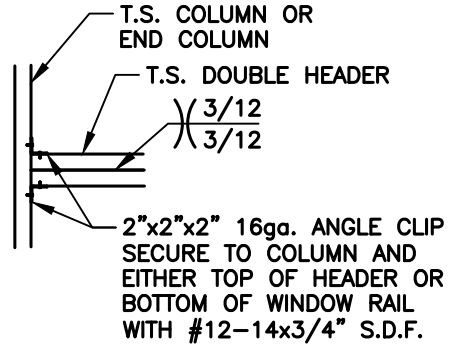
CONNECTION DETAILS



**COLUMN OR WINDOW
RAIL / WALL GIRT TO POST
CONNECTION DETAIL**

1
S11

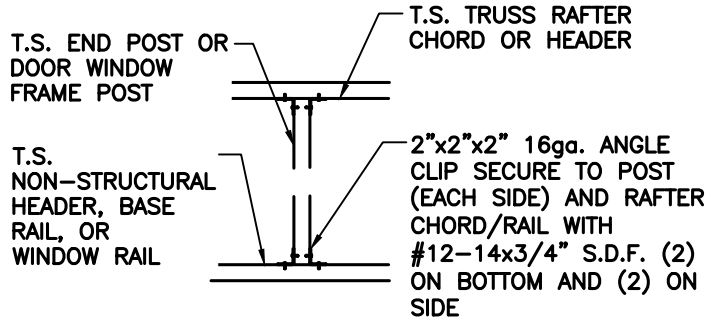
SCALE: 1/2" = 1'-0"



**COLUMN / DOUBLE HEADER
CONNECTION DETAIL**

1A
S11

SCALE: 1/2" = 1'-0"



**DOOR OR WINDOW HEADER
RAIL TO POST CONNECTION
DETAIL**

2
S11

SCALE: 1/2" = 1'-0"



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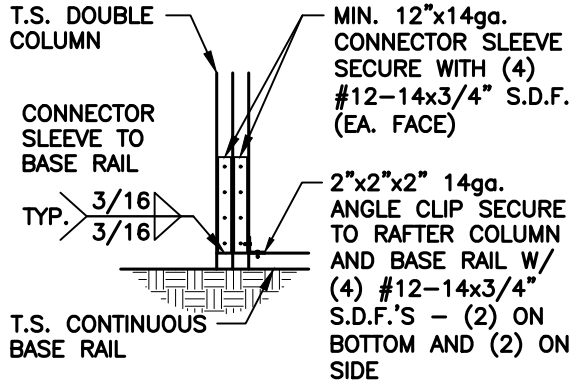
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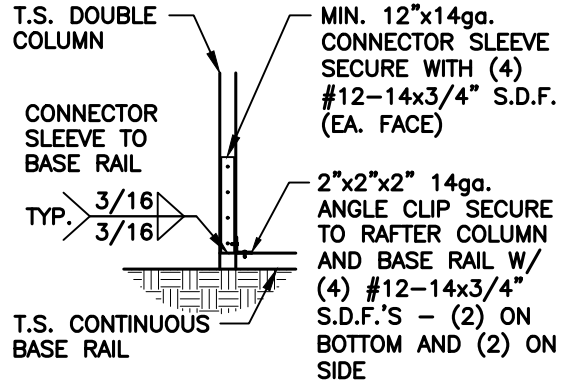
CONNECTION DETAILS



END COLUMN / BASE RAIL
CONNECTION DETAIL



SCALE: 1/2" = 1'-0"



END COLUMN / BASE RAIL
CONNECTION DETAIL



SCALE: 1/2" = 1'-0"



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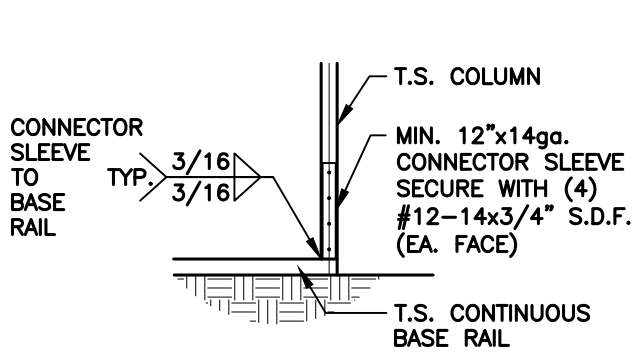
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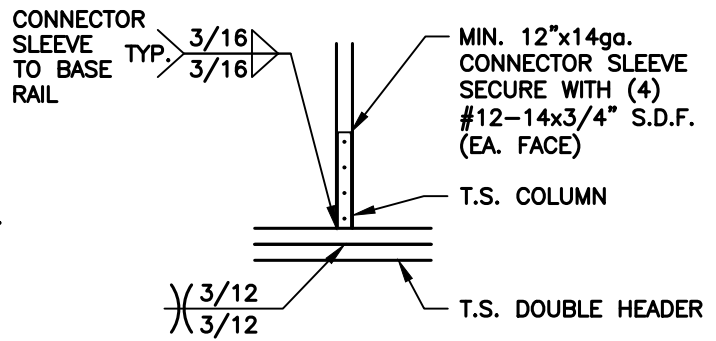
CONNECTION DETAILS



1
COLUMN / BASE RAIL
CONNECTION DETAIL

S13

SCALE: 1/2" = 1'-0"



2
COLUMN / DOUBLE HEADER
CONNECTION DETAIL

S13

SCALE: 1/2" = 1'-0"



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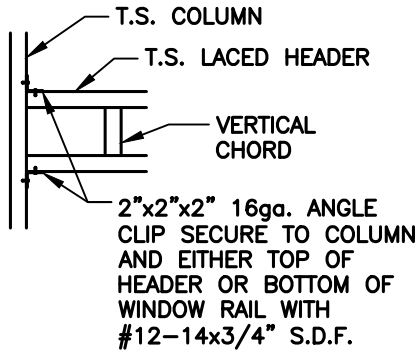
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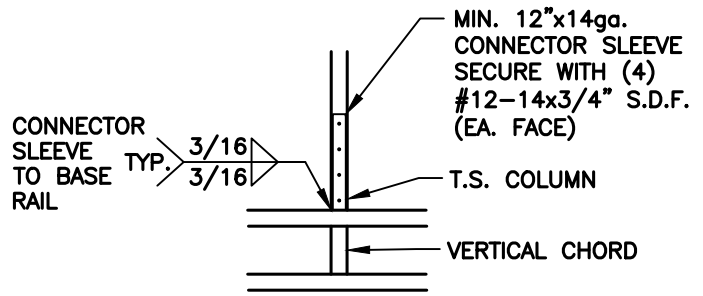
CONNECTION DETAILS



COLUMN / LACED HEADER CONNECTION DETAIL

1
S14

SCALE: 1/2" = 1'-0"



COLUMN / LACED HEADER CONNECTION DETAIL

2
S14

SCALE: 1/2" = 1'-0"



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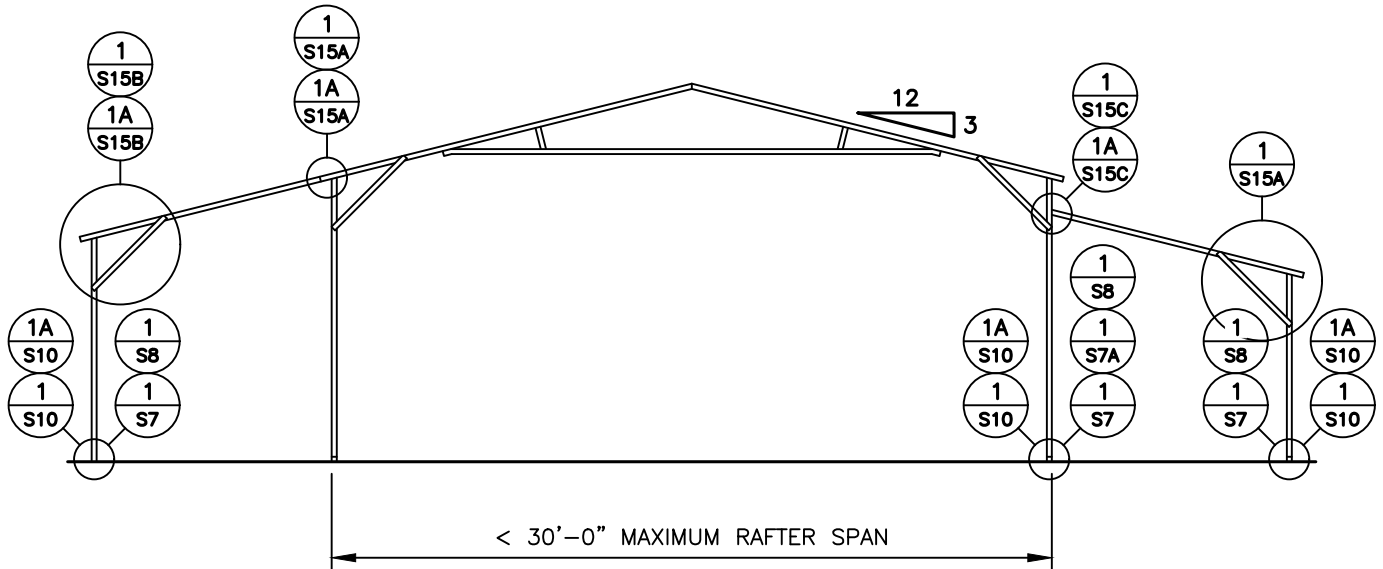
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S14

BOX EVE RAFTER LEAN-TO OPTIONS



TYPICAL LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0"
 MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO IS 15'-0"
 12'-0" MAX. LEAN-TO HEIGHT WITH SINGLE 12ga. COLUMN
 16'-0" MAX. LEAN-TO HEIGHT WITH DOUBLE 12ga. COLUMN



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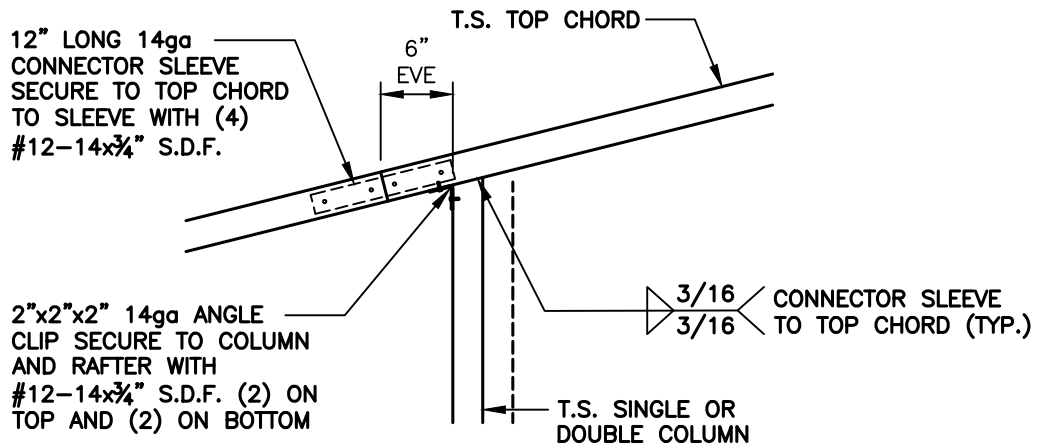
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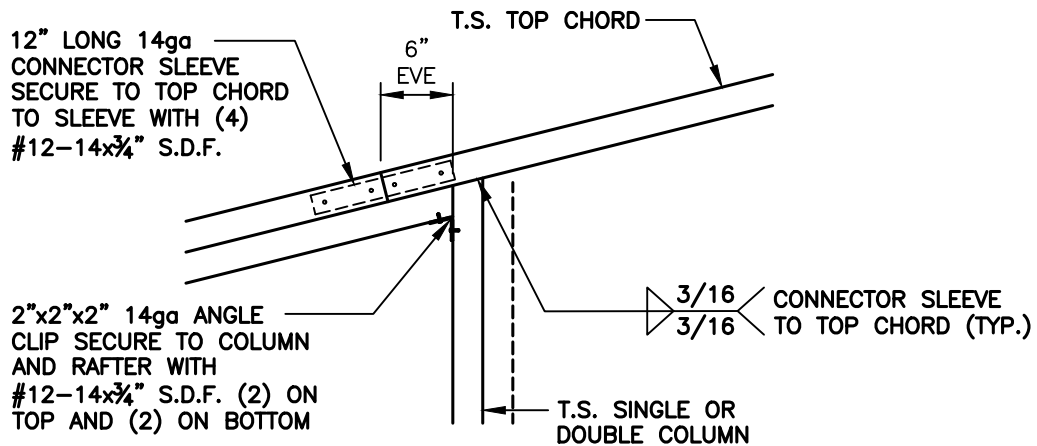
LEAN-TO CONNECTION DETAILS



ROOF EXTENSION RAFTER / CORNER POST DETAIL FOR WIDTHS < 12'-0"

1
S15A

SCALE: 3/4" = 1'-0"



ROOF EXTENSION RAFTER / CORNER POST DETAIL FOR WIDTHS < 15'-0"

1A
S15A

SCALE: 3/4" = 1'-0"



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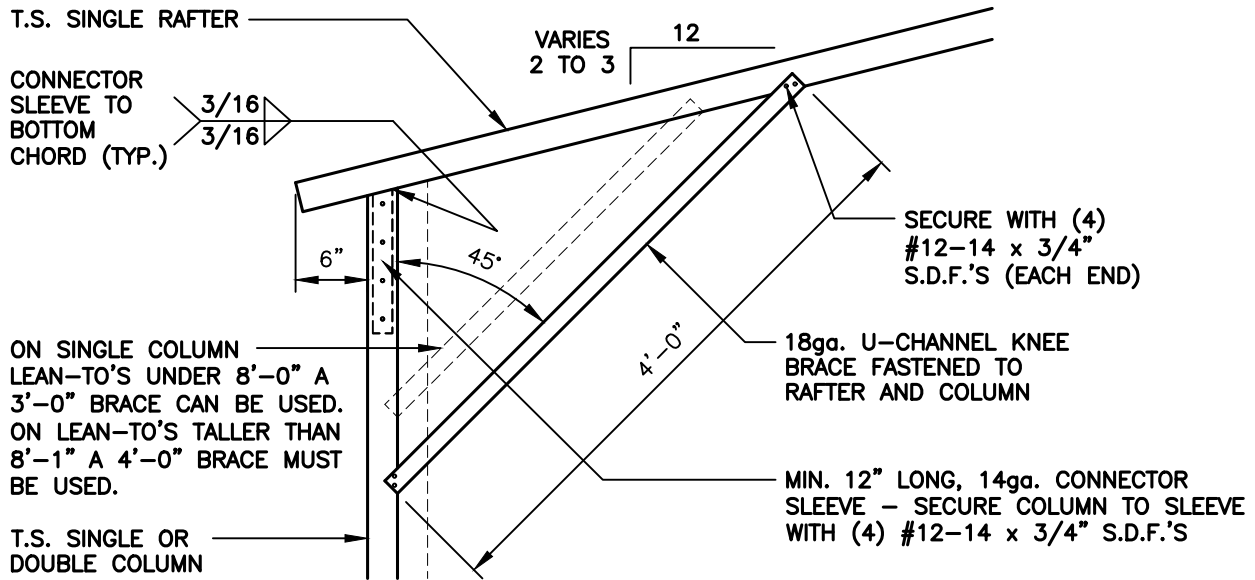
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DATE:
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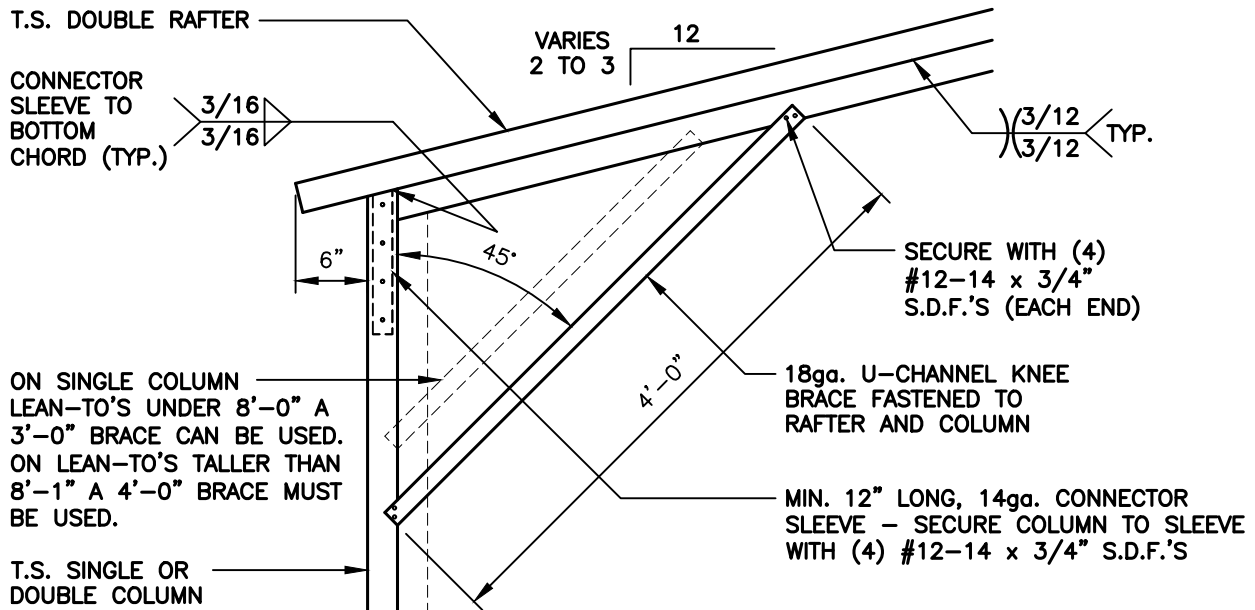
LEAN-TO CONNECTION DETAILS - SINGLE COLUMN



LEAN-TO SINGLE RAFTER / SINGLE COLUMN CONNECTION DETAIL

1
S15B

SCALE: 3/4" = 1'-0"



LEAN-TO DOUBLE RAFTER / SINGLE COLUMN CONNECTION DETAIL

1A
S15B

SCALE: 3/4" = 1'-0"



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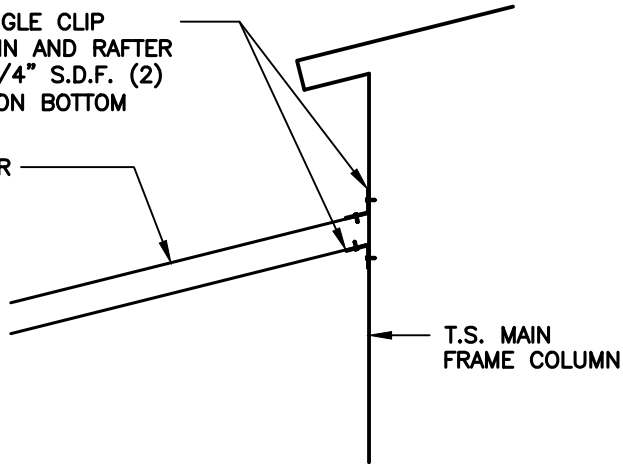
DATE:
01.23.24

SHEET NO:
S15B

LEAN-TO / MAIN FRAME CONNECTION DETAILS

2"x2"x2" 14ga. ANGLE CLIP
 SECURE TO COLUMN AND RAFTER
 WITH #12-14 x 3/4" S.D.F. (2)
 ON TOP AND (2) ON BOTTOM

T.S. SINGLE RAFTER



LEAN-TO SINGLE RAFTER / BUILDING FRAME
 CONNECTION DETAIL

1
 S15C

SCALE: 3/4" = 1'-0"

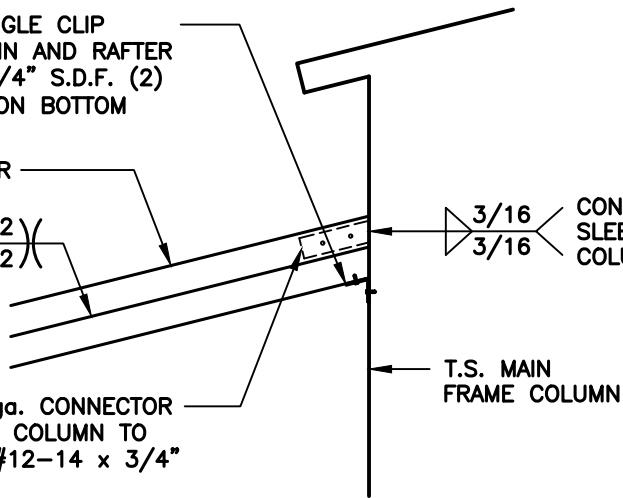
2"x2"x2" 14ga. ANGLE CLIP
 SECURE TO COLUMN AND RAFTER
 WITH #12-14 x 3/4" S.D.F. (2)
 ON TOP AND (2) ON BOTTOM

T.S. SINGLE RAFTER

TYP. $\frac{3}{12}$ / $\frac{3}{12}$

$\frac{3}{16}$ / $\frac{3}{16}$ CONNECTOR
 SLEEVE TO
 COLUMN

MIN. 6" LONG, 14ga. CONNECTOR
 SLEEVE - SECURE COLUMN TO
 SLEEVE WITH (4) #12-14 x 3/4"
 S.D.F.'S



LEAN-TO DOUBLE RAFTER / BUILDING FRAME
 CONNECTION DETAIL

1A
 S15C

SCALE: 3/4" = 1'-0"



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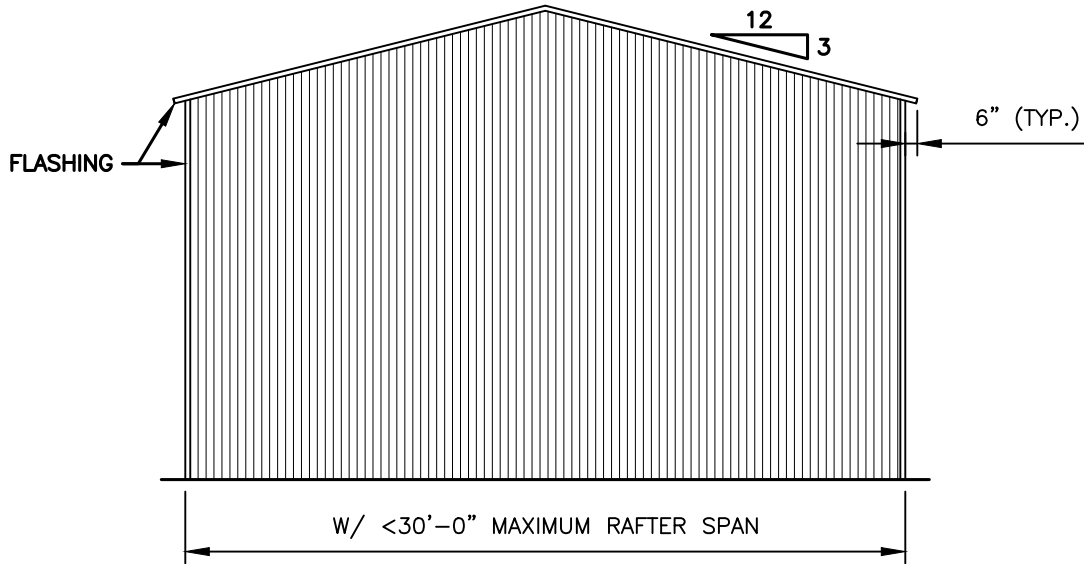
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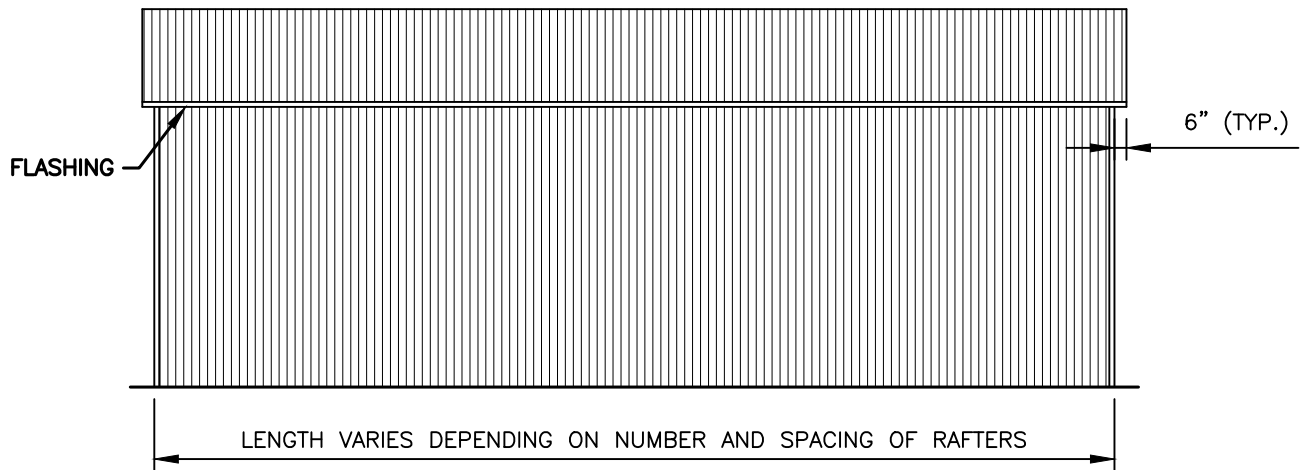
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S15C

VERTICAL ROOF / SIDING OPTION



TYPICAL END ELEVATION - VERTICAL ROOF / SIDING



TYPICAL SIDE ELEVATION - VERTICAL ROOF / SIDING



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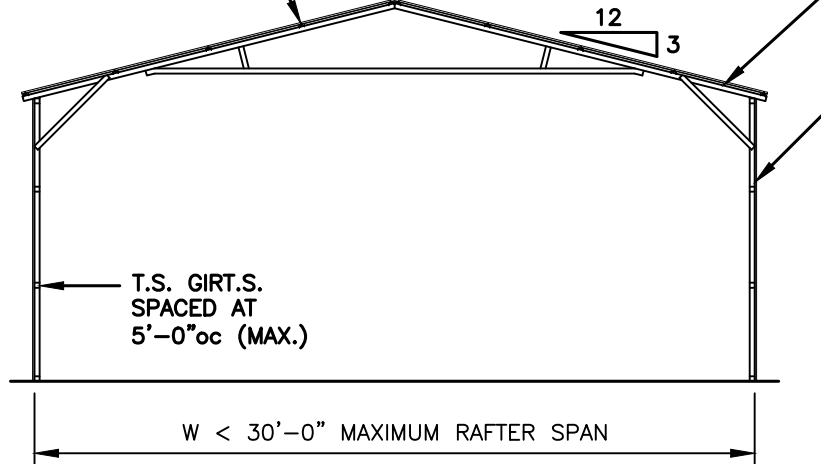
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S16

VERTICAL ROOF / SIDING OPTION

1.125"-18ga. HAT CHANNELS
FASTENED TO EACH RAFTER
WITH (2) #12-14x³/₄" S.D.F.
SPACED AT 4'-0"oc MAX.

29ga. GALVANIZED METAL
ROOF AND WALL PANELS
FASTENED TO HAT
CHANNELS AND GIRT.S.



T.S. GIRT.S.
SPACED AT
5'-0"oc (MAX.)

W < 30'-0" MAXIMUM RAFTER SPAN

TYPICAL SECTION VERTICAL ROOF / SIDING OPTION



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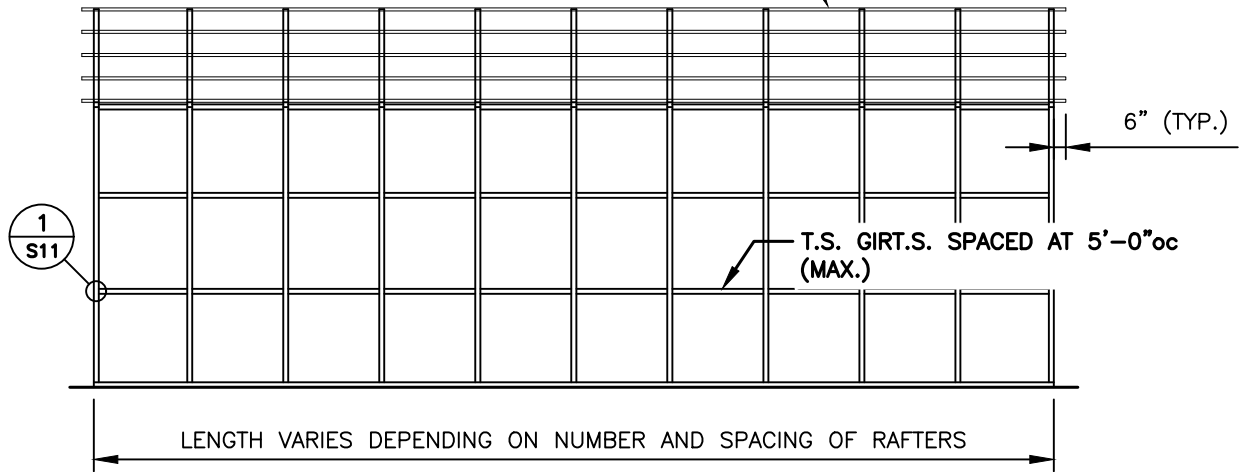
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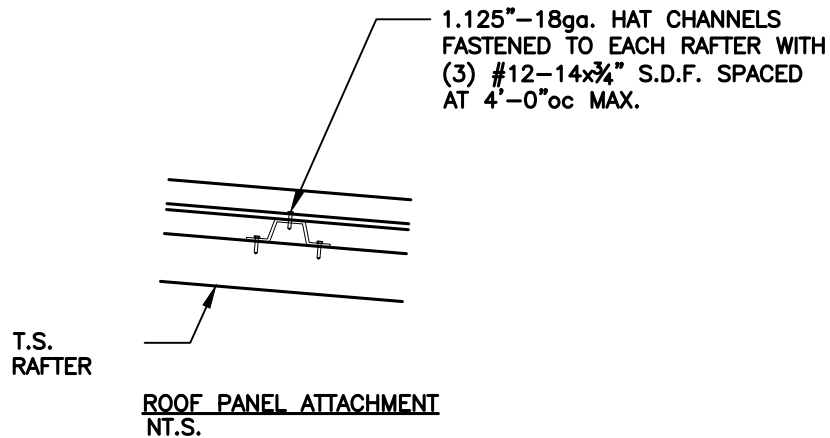
VERTICAL ROOF / SIDING OPTION

SEE NOTES
(SHEET S3)
FOR MAXIMUM
SPACING

1.125"-18ga. HAT CHANNELS
FASTENED TO EACH RAFTER
WITH (3) #12-14x3/4" S.D.F.
SPACED AT 4'-0"oc MAX.



TYPICAL SIDE FRAMING SECTION VERTICAL ROOF / SIDING OPTION



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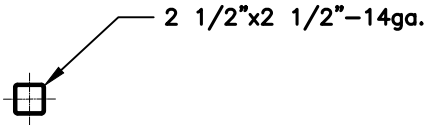
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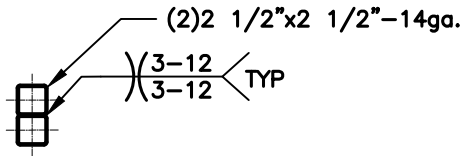
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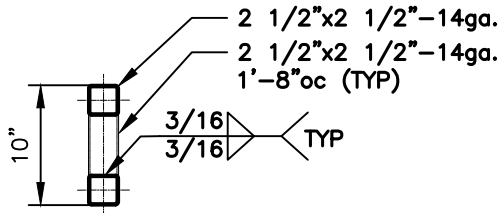
SIDE WALL HEADER OPTIONS



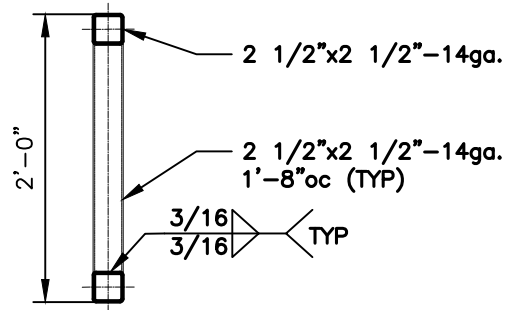
HEADER DETAIL FOR DOOR
OPENINGS < 4'-0"
 NT.S.



HEADER DETAIL FOR DOOR
OPENINGS 4'-1" < TO < 12'-0"
 NT.S.



LACED HEADER DETAIL FOR DOOR
OPENINGS 12'-1" < TO < 15'-0"
 NT.S.



LACED HEADER DETAIL FOR DOOR
OPENINGS 15'-1" < TO < 20'-0"

GENERAL NOTE:

PROVIDE DOUBLE WYTHE HEADER
 ON DOUBLE COLUMNS AND LACED
 COLUMNS



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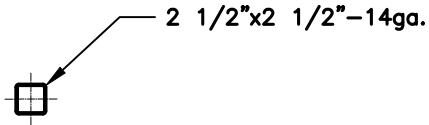
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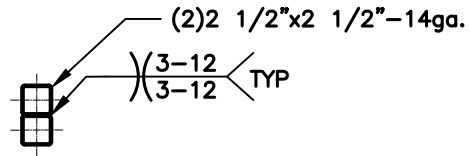
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S17

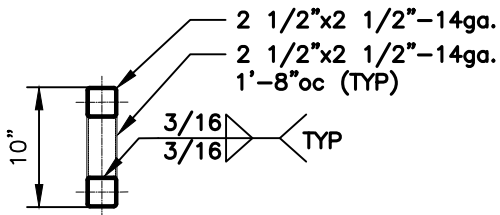
END WALL HEADER OPTIONS



HEADER DETAIL FOR DOOR
OPENINGS < 7'-0"
 NT.S.



HEADER DETAIL FOR DOOR
OPENINGS 7'-1" < TO < 16'-0"
 NT.S.



LACED HEADER DETAIL FOR DOOR
OPENINGS 16'-1" < TO < 20'-0"
 NT.S.

GENERAL NOTE:

PROVIDE DOUBLE WYTHE HEADER
 ON DOUBLE COLUMNS AND LACED
 COLUMNS



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