

ENCLOSED GABLE END BUILDING

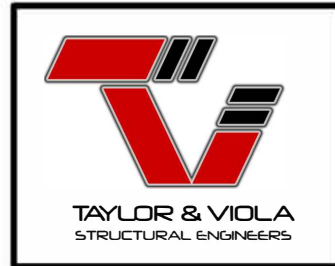
MAXIMUM 30'-0" WIDE X 16'-0" EAVE HEIGHT WITH BOX FRAME / (UP TO) 145 MPH WIND ZONE - 30 PSF SNOW LOAD

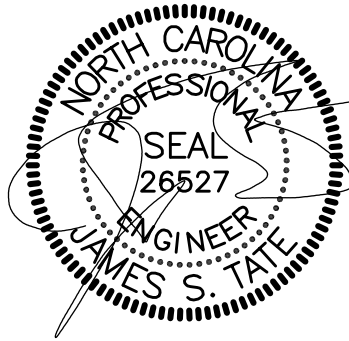
FOR:

5 STAR METAL BUILDINGS

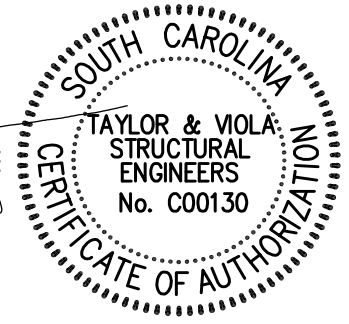
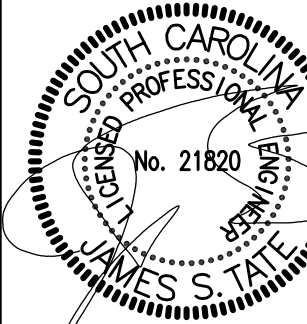
2425 OLD HIGHWAY 601 / MOUNT AIRY, NC. 27030

ISSUE DATE: JANUARY 16, 2023

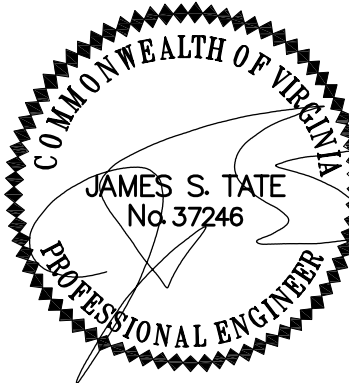




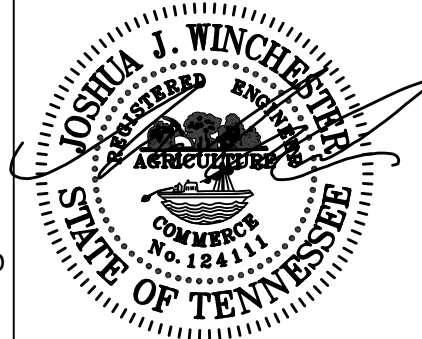
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 NC BUILDING CODE (2015 IBC)



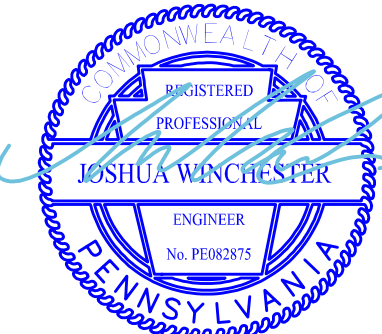
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 SC BUILDING CODE (2021 IBC)



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



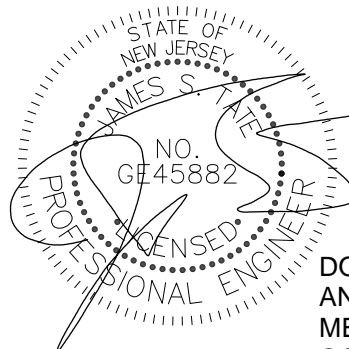
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2012 IBC



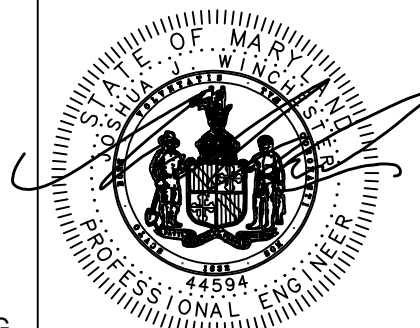
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



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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5 STAR METAL BUILDINGS

2425 OLD HIGHWAY 601
MOUNT AIRY, NORTH CAROLINA 27030
TELE: 844-308-9705

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BKS

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2023.01.16

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S1



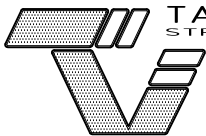
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 BUILDING CODE OF ALABAMA (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



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SHEET INDEX

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S1A	P.E. SEALS SHEET
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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 AND SIDE FRAMING SECTION
S6	COLUMN CONNECTION DETAILS (LACED COLUMN)
S6A	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
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S6C	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
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S17A	END WALL HEADER OPTIONS



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SHEET NO:
S2

DESIGN LOADS:

IMPORTANCE FACTORS	WIND	(1w)	1.00	
	SNOW	(1s)	1.00	
	SEISMIC	(1e)	1.00	
DEAD LOADS	ROOF	13	PSF	
	ROOF COLLATERAL	0	PSF	
LIVE LOADS	ROOF	20	PSF	
GROUND SNOW LOAD:		30	PSF	
GROUND LOAD:	BASIC WIND SPEED	V 145	mph (ASCE 7-10)	* DRIFT LOAD HAS NOT BEEN CALCULATED
	EXPOSURE CATAGORY	B		

SEISMIC DESIGN CATAGORY A

COMPLIANCE WITH SECTION 1616.4? NO YES

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

OCCUPANCY CATEGORY I

SPECTRAL RESPONSE ACCELERATION Ss 20.5 %g S1 8.8 %g

SITE CLASSIFICATION D FIELD TEST PRESUMPTIVE HISTORICAL DATA

BASIC STRUCTURAL SYSTEM (CHECK ONE)

<input type="checkbox"/>	BEARING WALL	<input type="checkbox"/>	DUAL W/ SPECTRAL MOMENT FRAME
<input checked="" type="checkbox"/>	BUILDING FRAME	<input type="checkbox"/>	DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL
<input type="checkbox"/>	MOMENT FRAME	<input type="checkbox"/>	INVERTED PENDULUM

ANALYSIS PROCEDURE SIMPLIFIED EQUIVALANT LATERAL FORCE MODAL

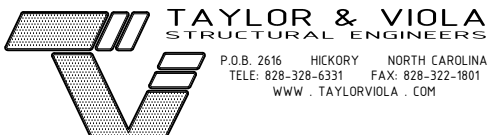
LATERAL DESIGN CONTROL? EARTHQUAKE WIND

SOIL BEARING CAPACITIES:

PRESUMPTIVE BEARING CAPACITIES: 2,000 PSF

GENERAL NOTES:

1. MAX FRAME SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
2. MAX. END-WALL COLUMN SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
3. TUBE MATERIAL SHALL BE 2-1/2" x 2-1/2" x 14 GA. 50 KSI MIN. UNLESS NOTED OTHERWISE.
4. ALL FASTENERS SHALL BE #12 SELF TAPPING AT 9"o.c. UNLESS NOTED OTHERWISE.
5. 2,000 PSF ASSUMED BEARING CAPACITY UNLESS NOTED OTHERWISE.



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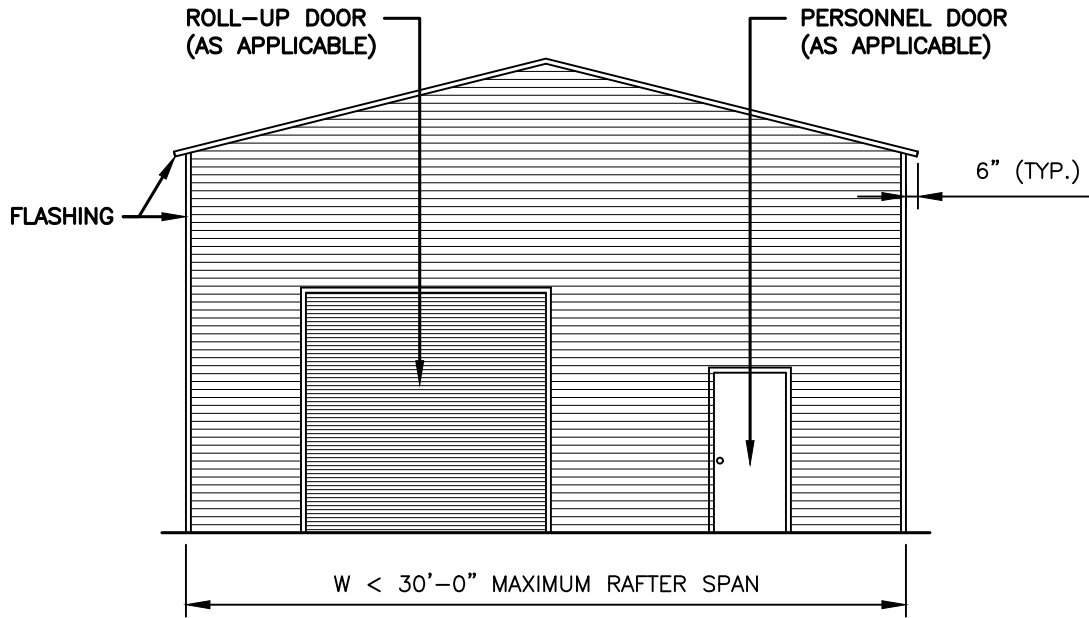
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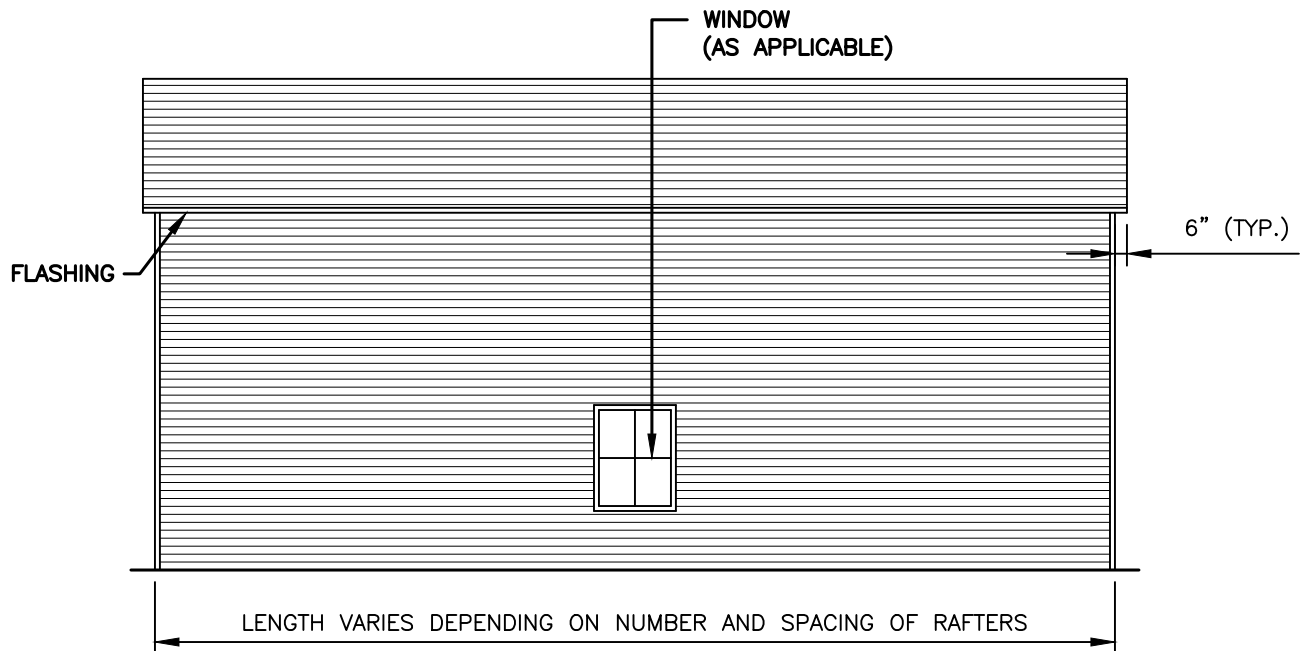
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S3

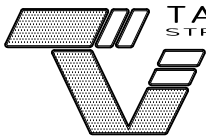
BOX EVE FRAME RAFTER STRUCTURE



TYPICAL END ELEVATION



TYPICAL SIDE ELEVATION



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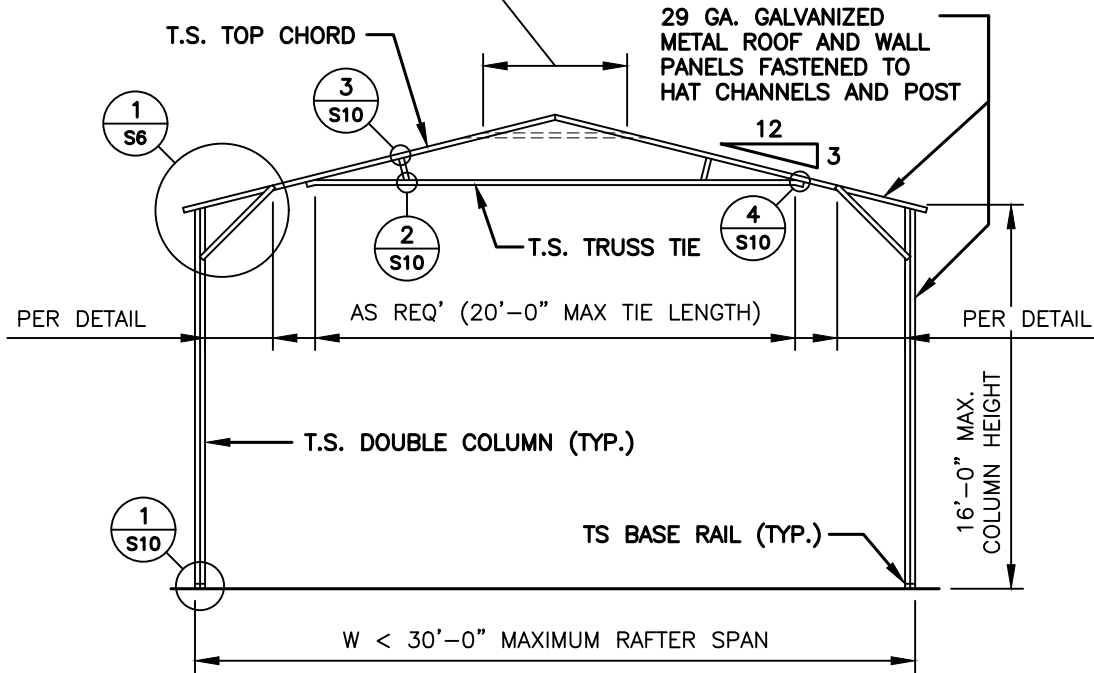
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SHEET NO:
S4

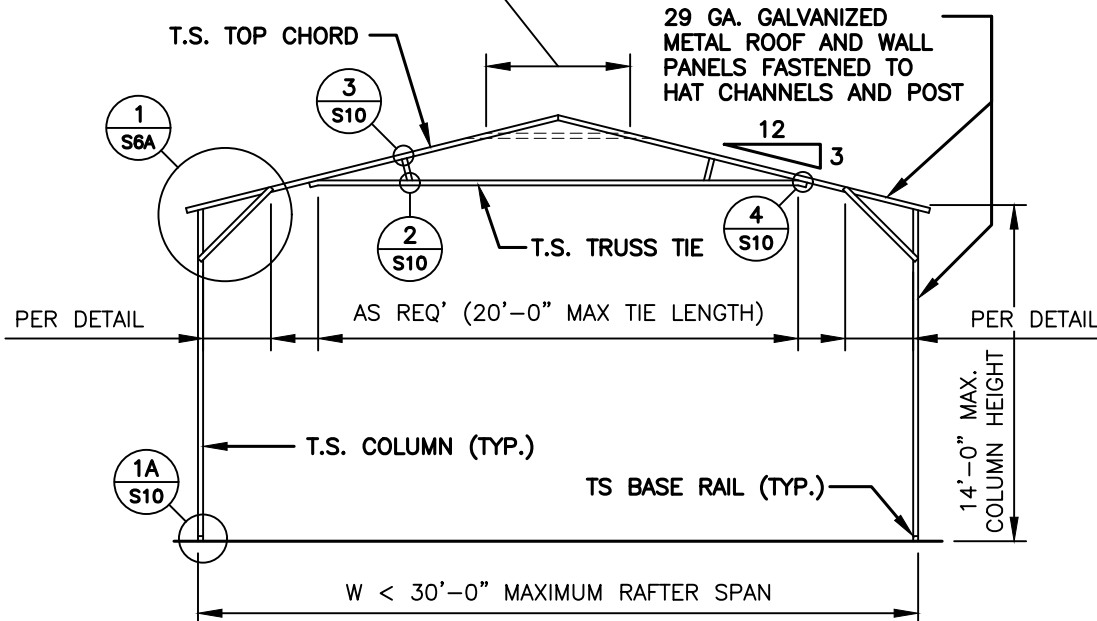
'U' BRACE TRUSS TIE - NOTE:
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



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'

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.



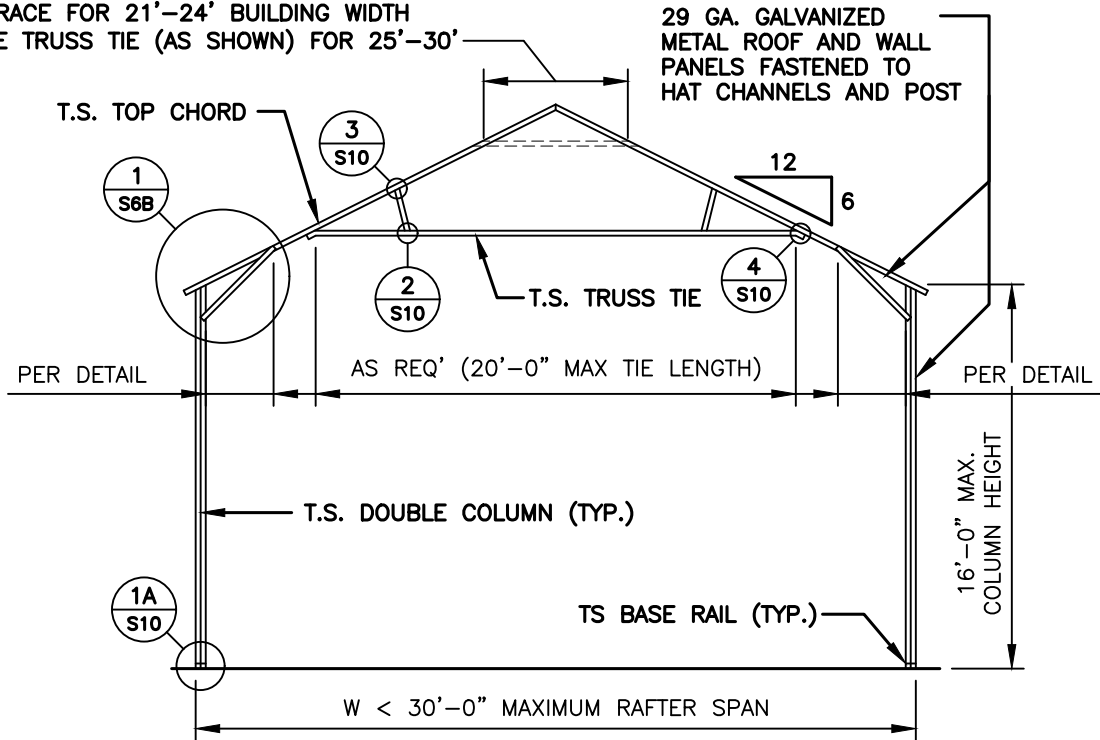
TYPICAL RAFTER / COLUMN FRAME SECTION



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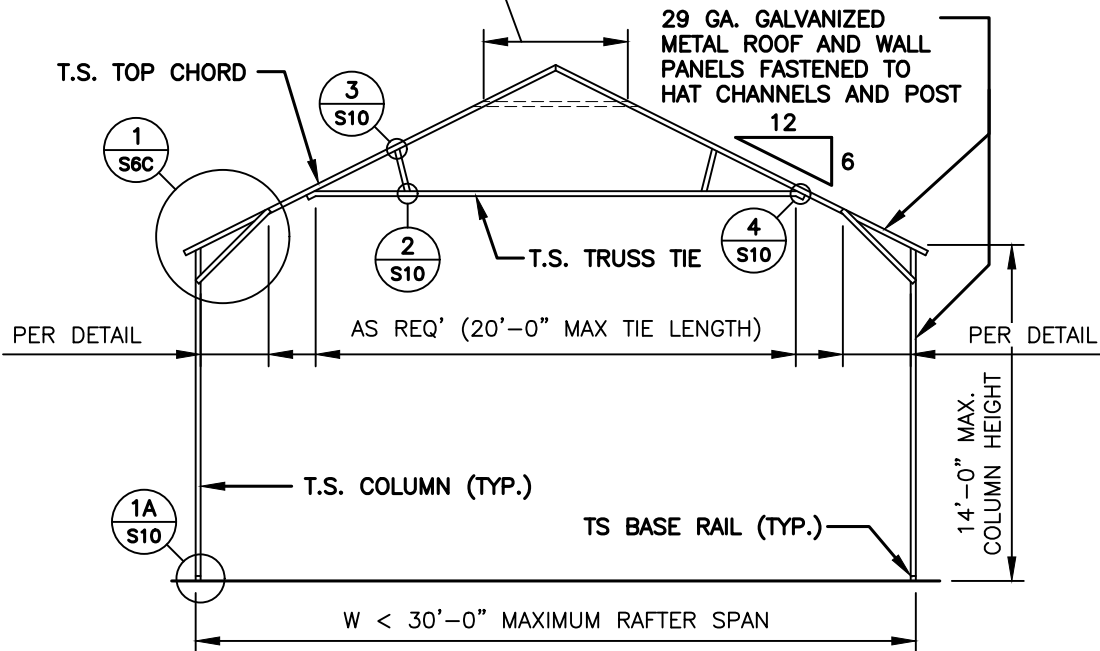
'U' BRACE TRUSS TIE - NOTE:
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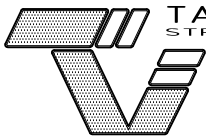
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NOTE:
 H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga.
 MATERIAL MAY BE USED FOR TRUSS METAL.



TYPICAL RAFTER / COLUMN FRAME SECTION



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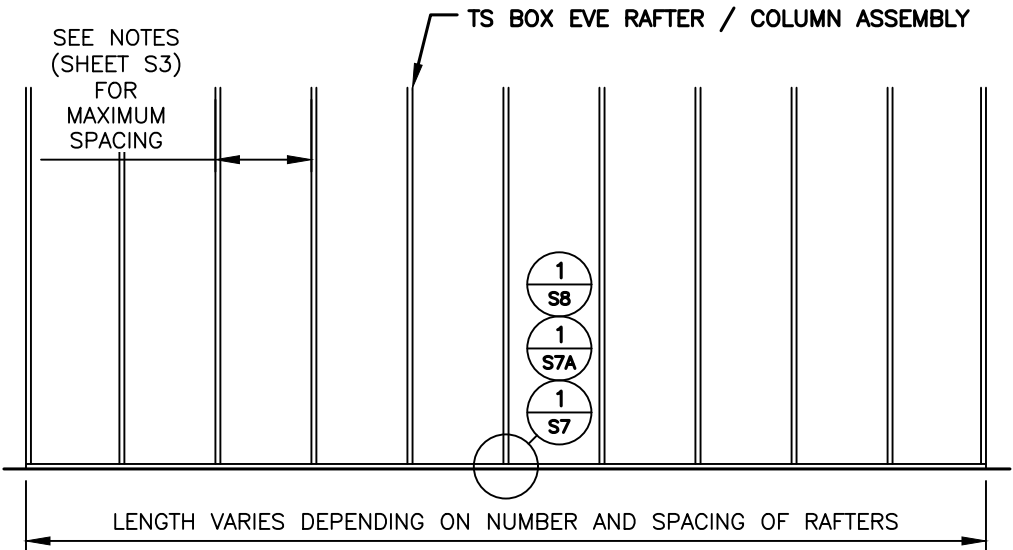
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SHEET NO:
SSA

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



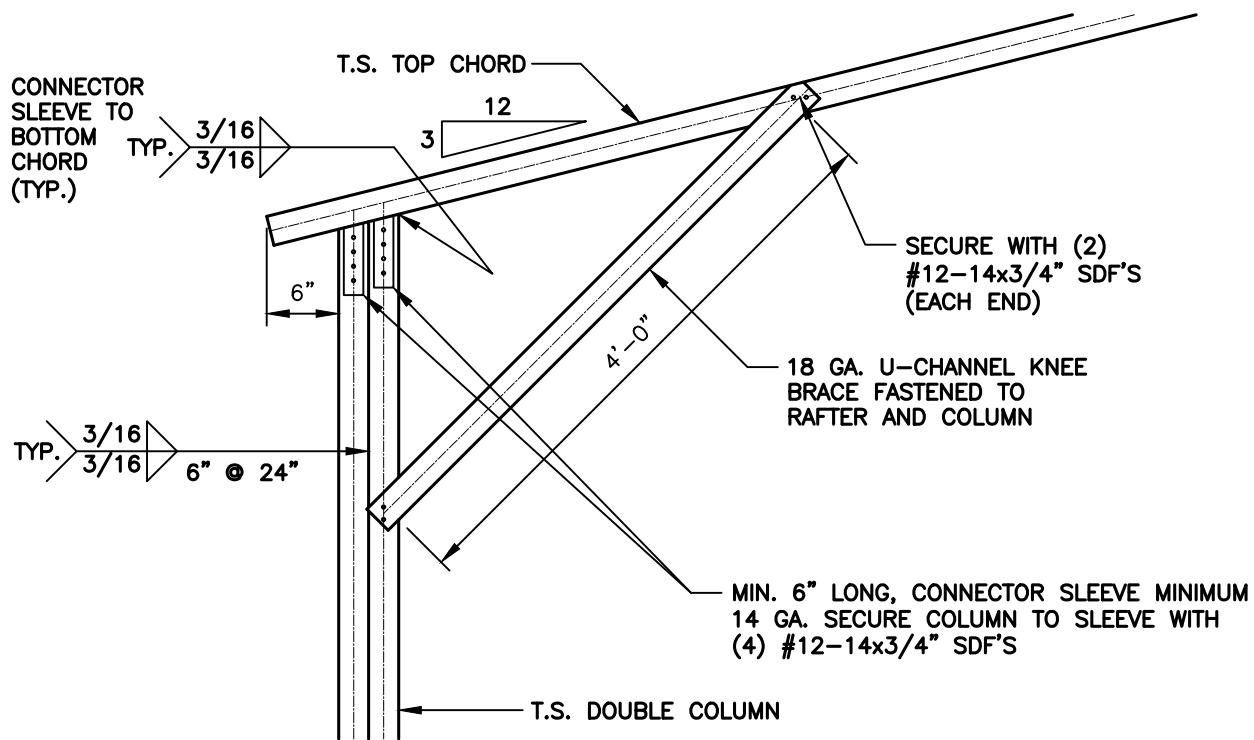
TYPICAL RAFTER / COLUMN SIDE FRAME SECTION



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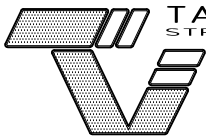
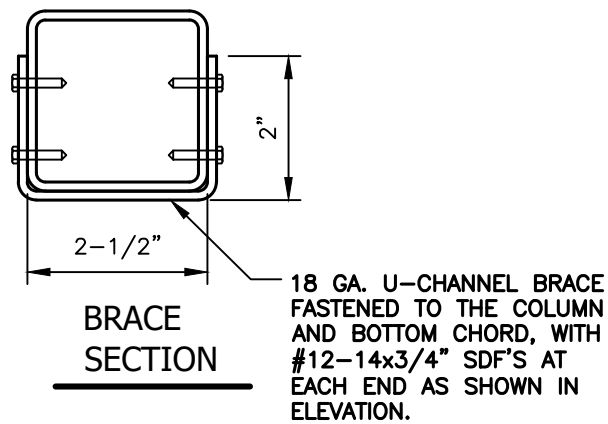
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1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"

S6 SCALE: 3/4" = 1'-0"



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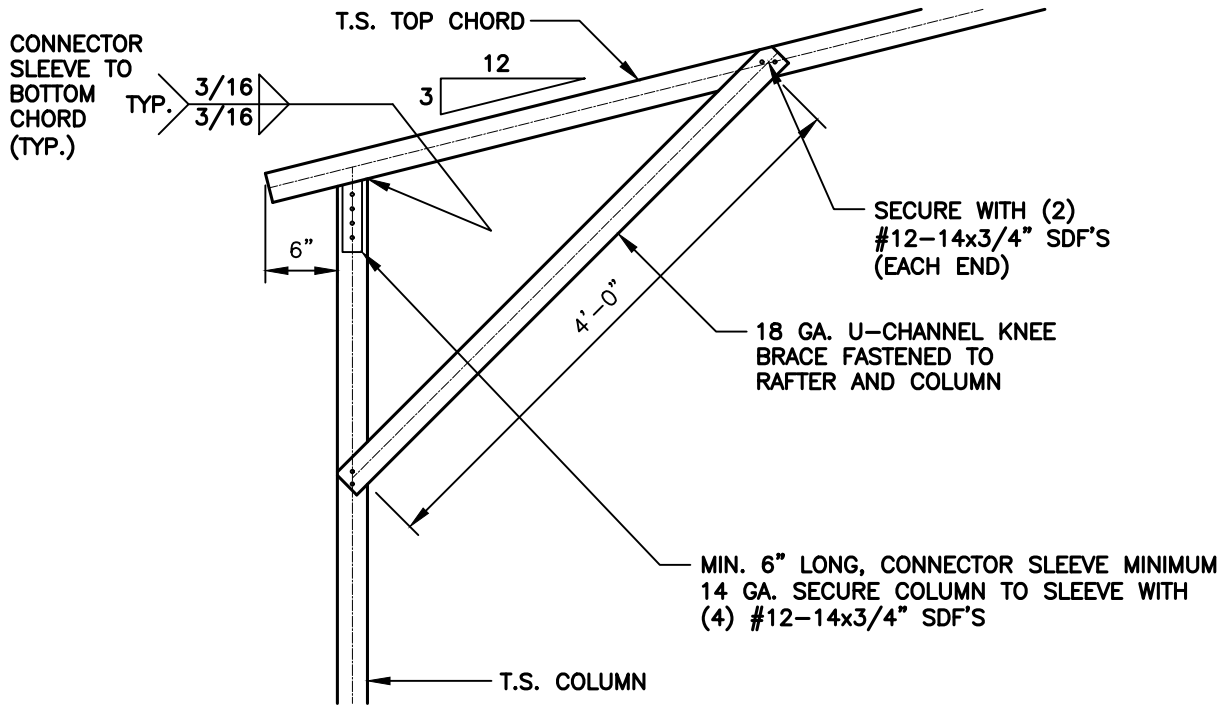
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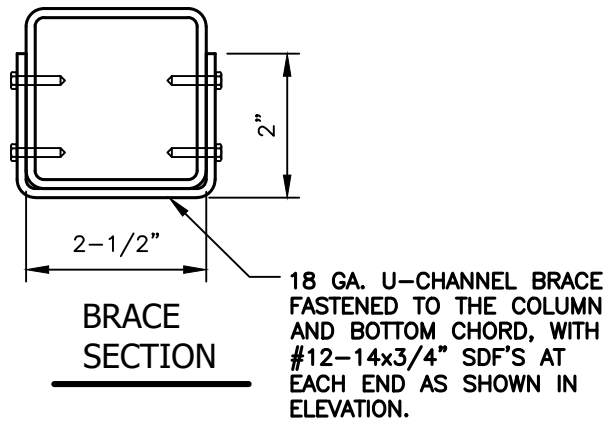
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S6



1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"

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



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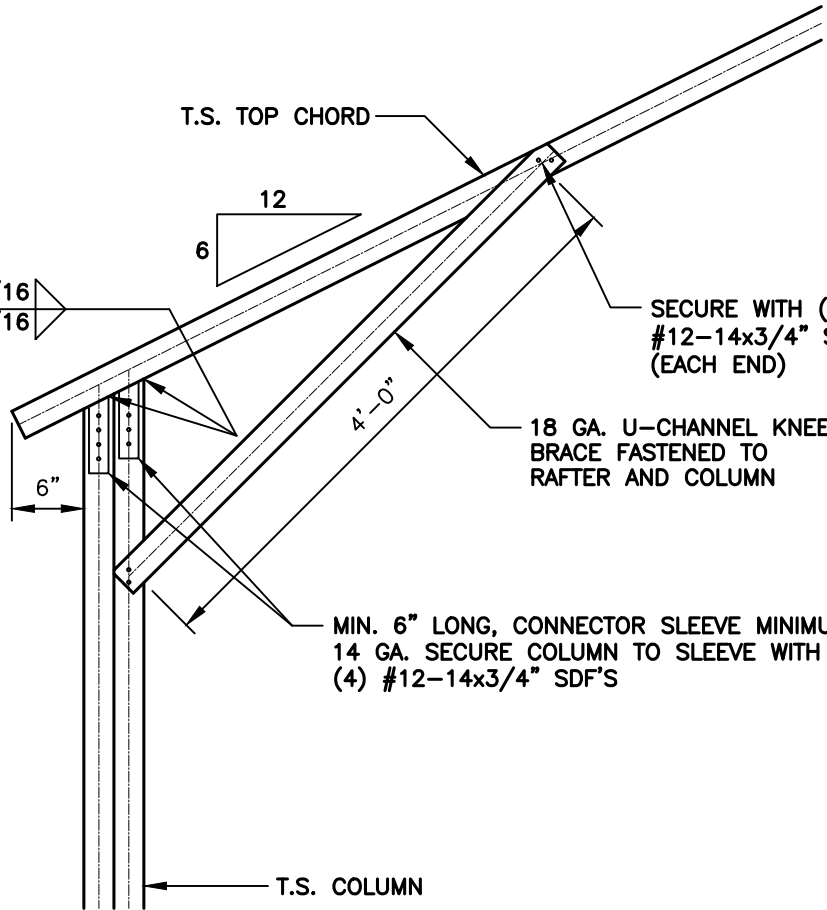
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S6A

CONNECTOR SLEEVE TO BOTTOM CHORD (TYP.)

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



SECURE WITH (2) #12-14x3/4" SDF'S (EACH END)

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

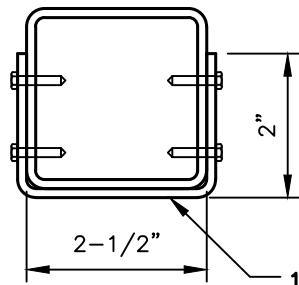
MIN. 6" LONG, CONNECTOR SLEEVE MINIMUM 14 GA. SECURE COLUMN TO SLEEVE WITH (4) #12-14x3/4" SDF'S

T.S. COLUMN

1
S6C

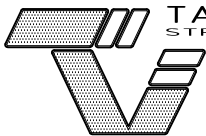
BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"

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



BRACE SECTION

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



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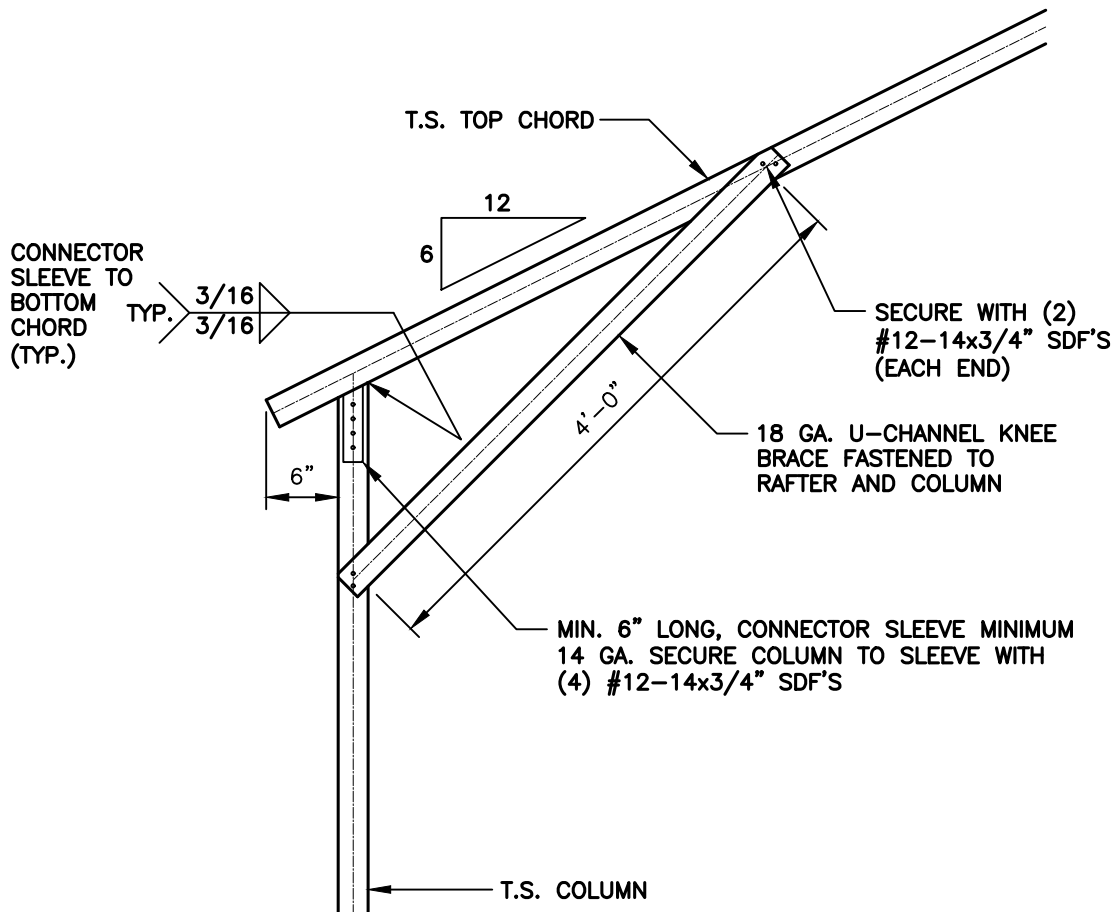
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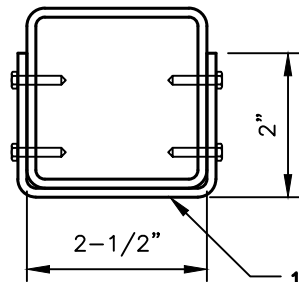
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S6B



1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"

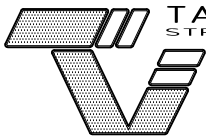
S6C

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



BRACE SECTION

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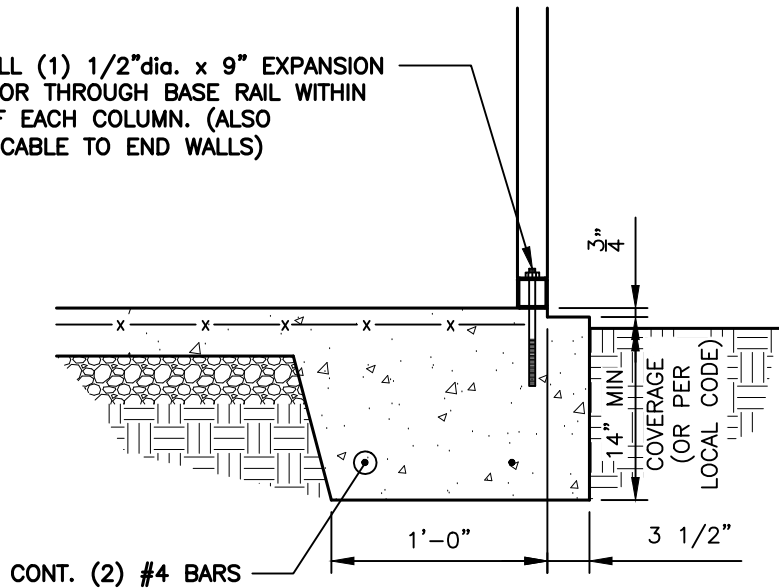
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S6C

CONCRETE BASE RAIL ANCHORAGE

INSTALL (1) 1/2" dia. x 9" EXPANSION ANCHOR THROUGH BASE RAIL WITHIN 6" OF EACH COLUMN. (ALSO APPLICABLE TO END WALLS)



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 PSF

CONCRETE:

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 PSI 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:

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 MAT BE BENT IN THE SHOP OF THE FIELD PROVIDED:

1. REINFORCEMENT IS BENT COLD.
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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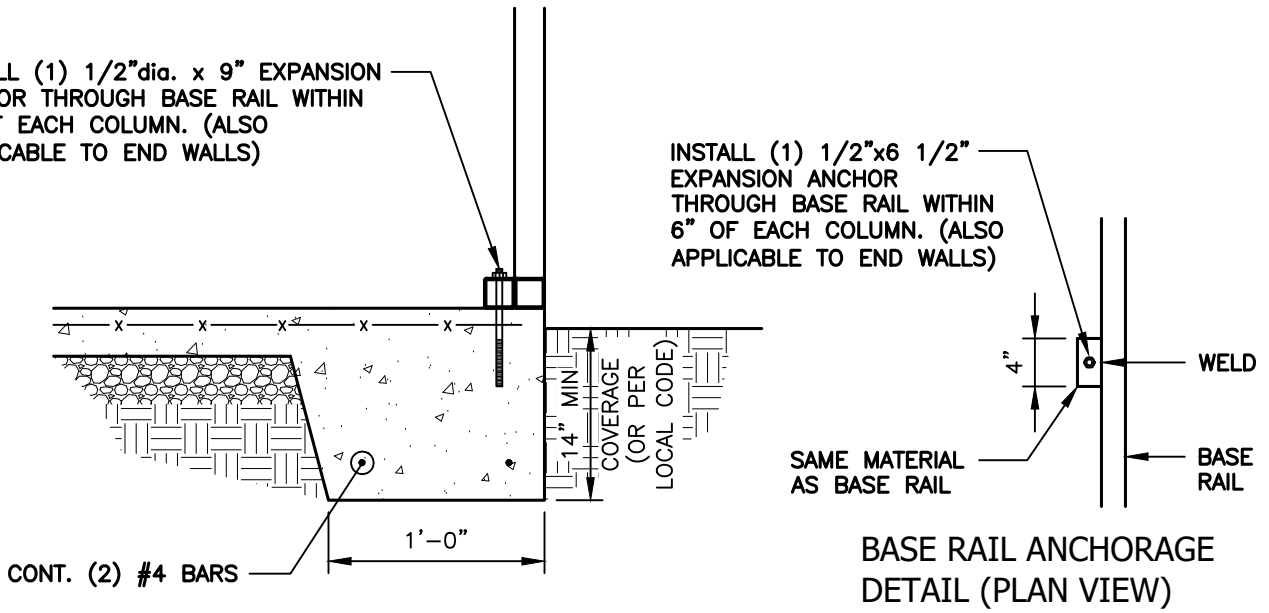
DATE:
2023.01.16

SHEET NO:
S7

CONCRETE BASE RAIL ANCHORAGE

INSTALL (1) 1/2" dia. x 9" EXPANSION ANCHOR THROUGH BASE RAIL WITHIN 6" OF EACH COLUMN. (ALSO APPLICABLE TO END WALLS)

INSTALL (1) 1/2"x6 1/2" EXPANSION ANCHOR THROUGH BASE RAIL WITHIN 6" OF EACH COLUMN. (ALSO APPLICABLE TO END WALLS)



**BASE RAIL ANCHORAGE
DETAIL (PLAN VIEW)**

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



1 BASE RAIL ANCHORAGE DETAIL

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

GENERAL NOTES:

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CONCRETE:

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COVER OVER REINFORCING STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318:

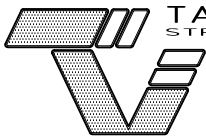
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5 STAR
METAL BUILDINGS

2425 OLD HIGHWAY 601
MOUNT AIRY, NORTH CAROLINA 27030
TELE: 844-308-9705

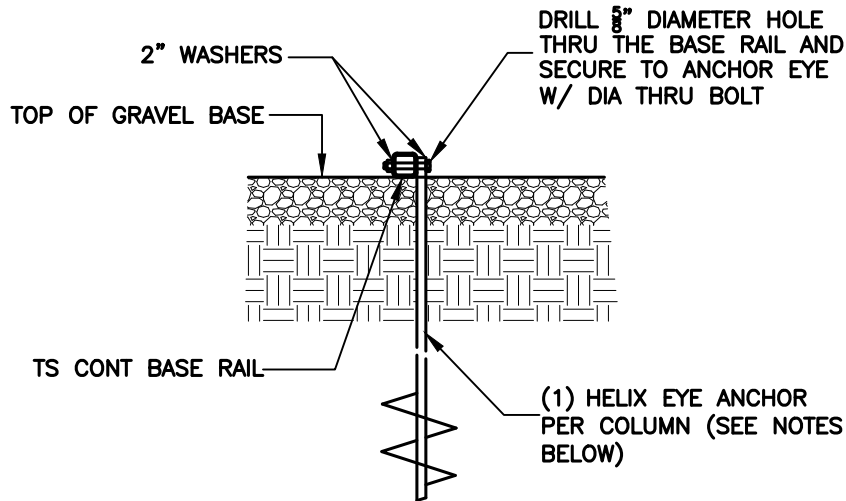
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BKS

PROJECT NO:
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DATE:
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SHEET NO:
S7A

SOIL NAIL BASE RAIL ANCHORAGE



BASE RAIL ANCHORAGE DETAIL

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

HELIX EMBEDMENT INFORMATION:

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

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

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

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



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TELE: 844-308-9705

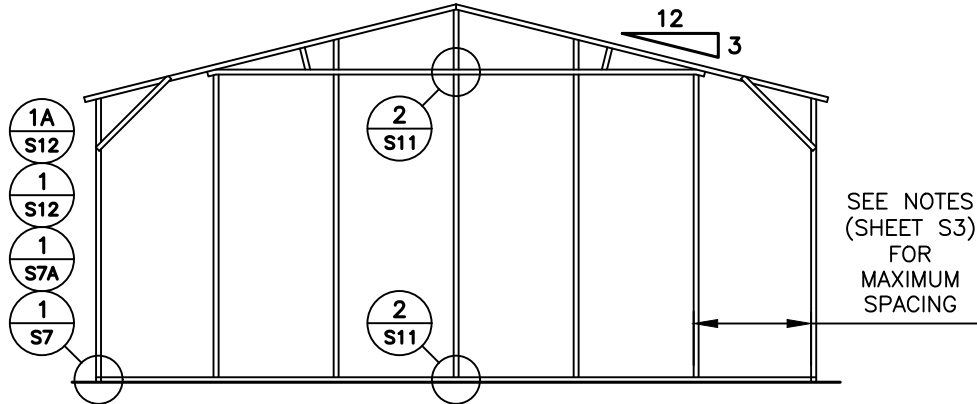
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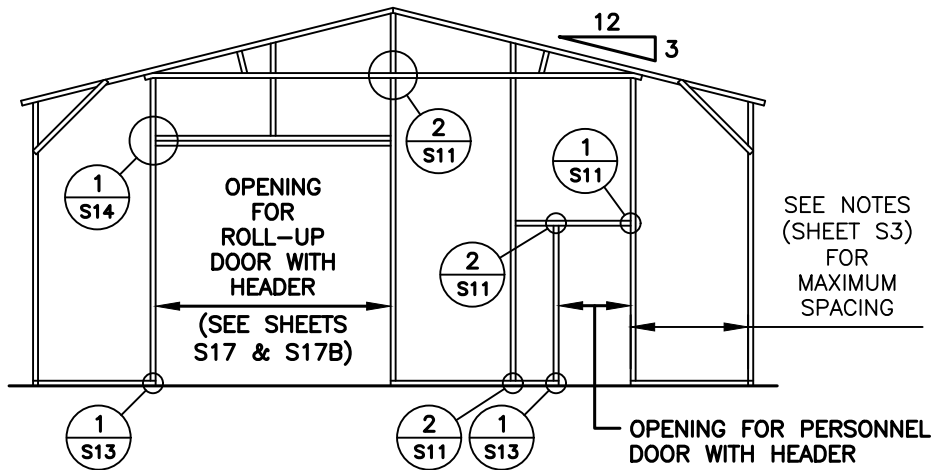
SHEET NO:
S8

BOX EVE RAFTER END WALL OPENINGS

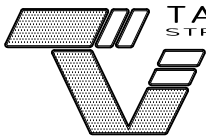


TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

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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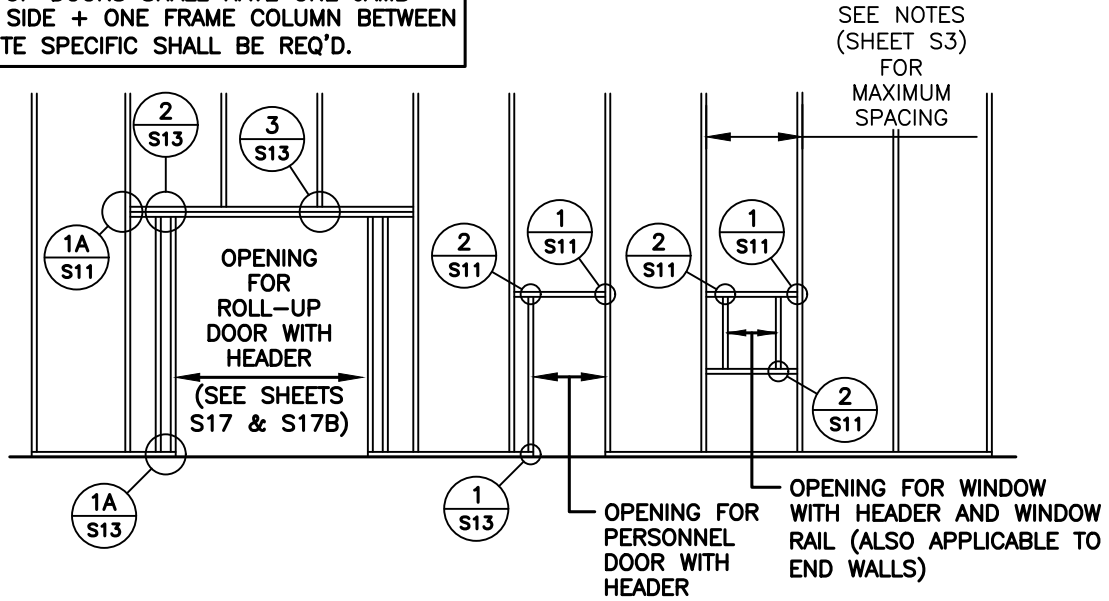
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S9

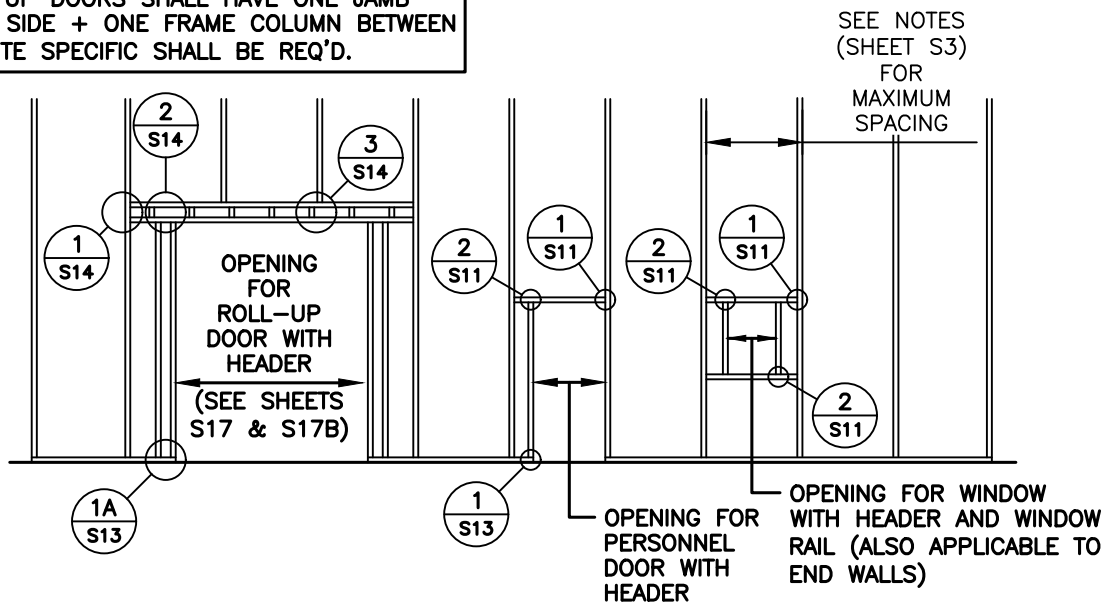
BOX EVE RAFTER END WALL AND SIDE WALL OPENINGS

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



TYPICAL SIDE WALL OPENING FRAMING SECTION



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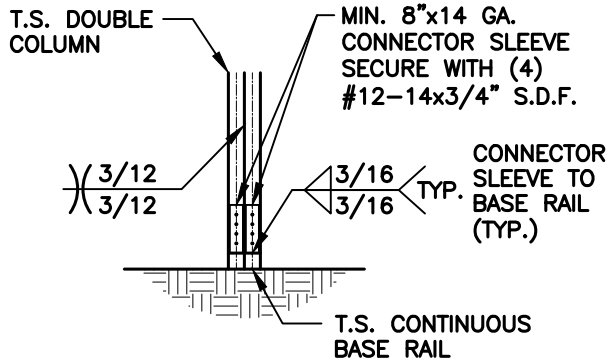
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S9A

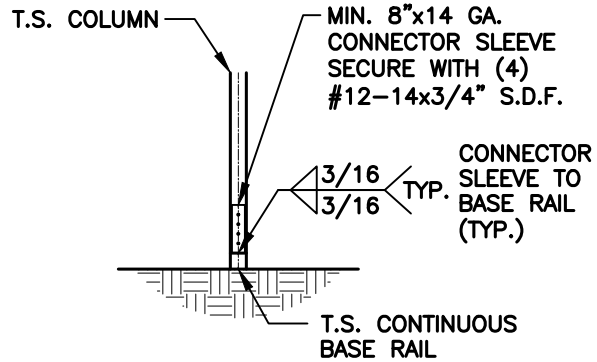
CONNECTION DETAILS



**POST / BASE RAIL
CONNECTION DETAIL**

1
S10

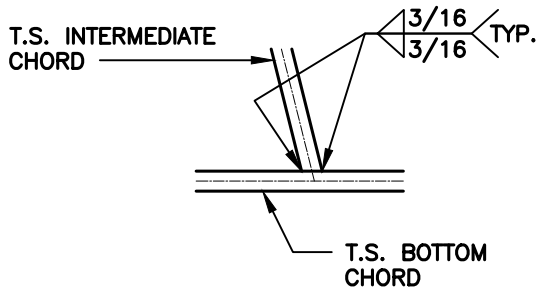
SCALE: 1/2" = 1'-0"



**POST / BASE RAIL
CONNECTION DETAIL**

1A
S10

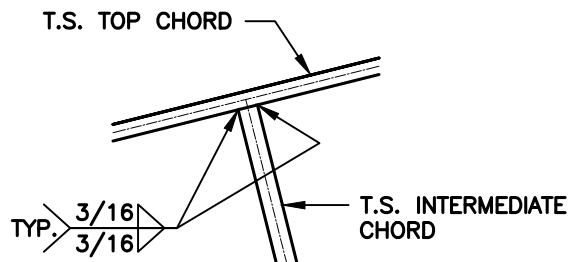
SCALE: 1/2" = 1'-0"



**INTERMEDIATE CHORD
TO BOTTOM CHORD
CONNECTION DETAIL**

2
S10

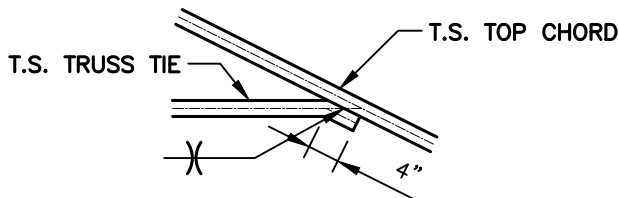
SCALE: 1/2" = 1'-0"



**INTERMEDIATE CHORD TO TOP
CHORD CONNECTION DETAIL**

3
S10

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



**TRUSS TIE
CONNECTION DETAIL**

4
S10

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



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METAL BUILDINGS**

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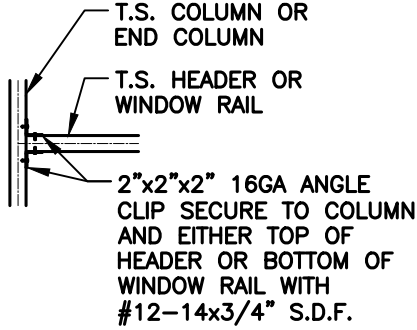
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S10

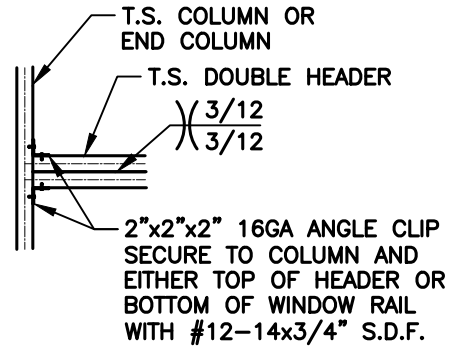
CONNECTION DETAILS



COLUMN OR WINDOW
RAIL / WALL GIRT TO POST
CONNECTION DETAIL

1
S11

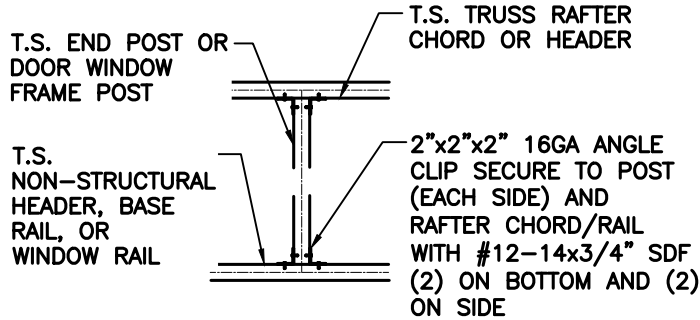
SCALE: 1/2" = 1'-0"



COLUMN / DOUBLE HEADER
CONNECTION DETAIL

1A
S11

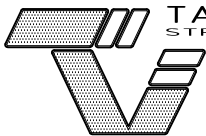
SCALE: 1/2" = 1'-0"



DOOR OR WINDOW HEADER
RAIL TO POST CONNECTION
DETAIL

2
S11

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



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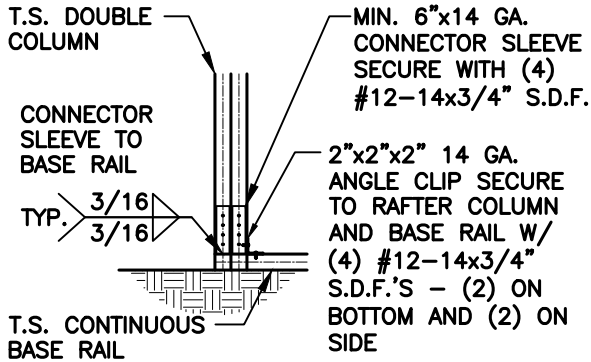
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S11

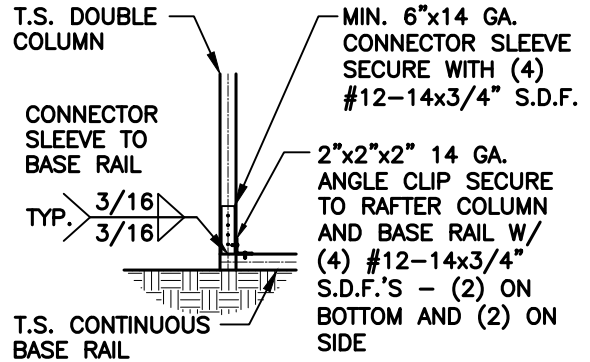
CONNECTION DETAILS



END COLUMN / BASE RAIL
CONNECTION DETAIL

1
S12

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



END COLUMN / BASE RAIL
CONNECTION DETAIL

1A
S12

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



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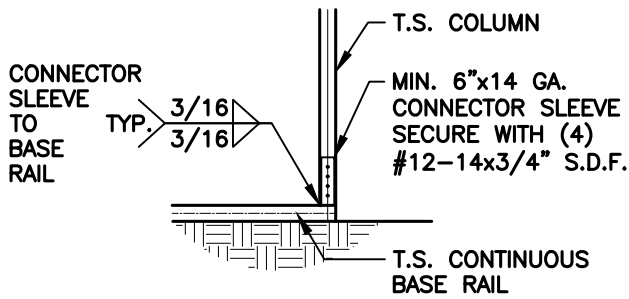
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S12

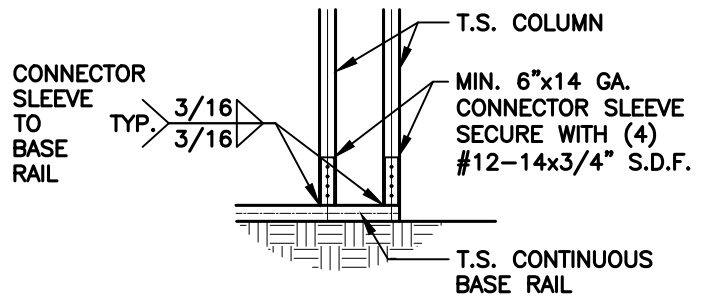
CONNECTION DETAILS



1
COLUMN / BASE RAIL
CONNECTION DETAIL

S13

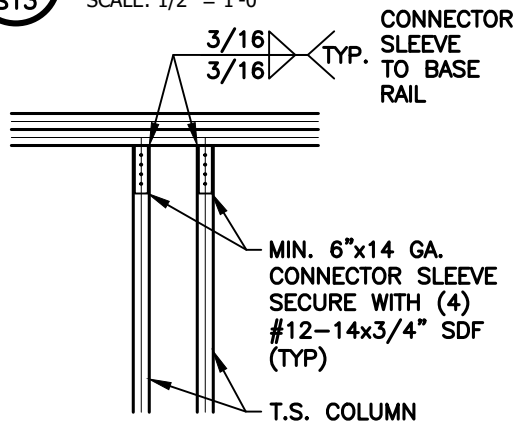
SCALE: 1/2" = 1'-0"



1A
COLUMN / BASE RAIL
CONNECTION DETAIL

S13

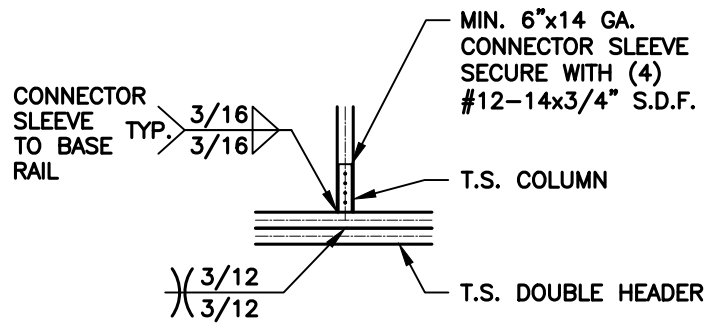
SCALE: 1/2" = 1'-0"



2
DOUBLE HEADER / COLUMN
CONNECTION DETAIL

S13

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



3
COLUMN / DOUBLE HEADER
CONNECTION DETAIL

S13

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



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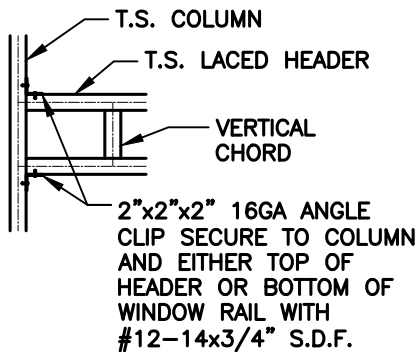
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S13

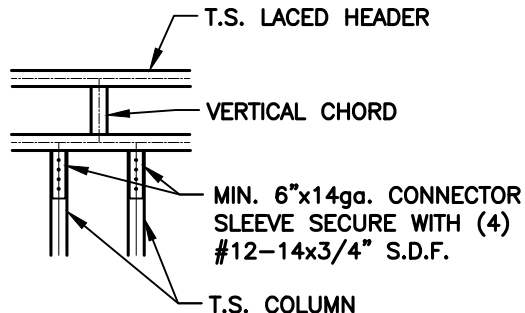
CONNECTION DETAILS



COLUMN / LACED HEADER
CONNECTION DETAIL

1
S14

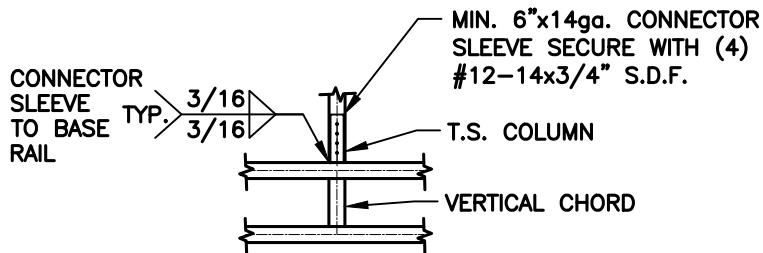
SCALE: 1/2" = 1'-0"



LACED HEADER / COLUMN
CONNECTION DETAIL

2
S14

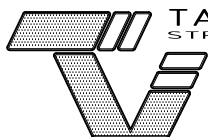
SCALE: 1/2" = 1'-0"



COLUMN / LACED HEADER
CONNECTION DETAIL

3
S14

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



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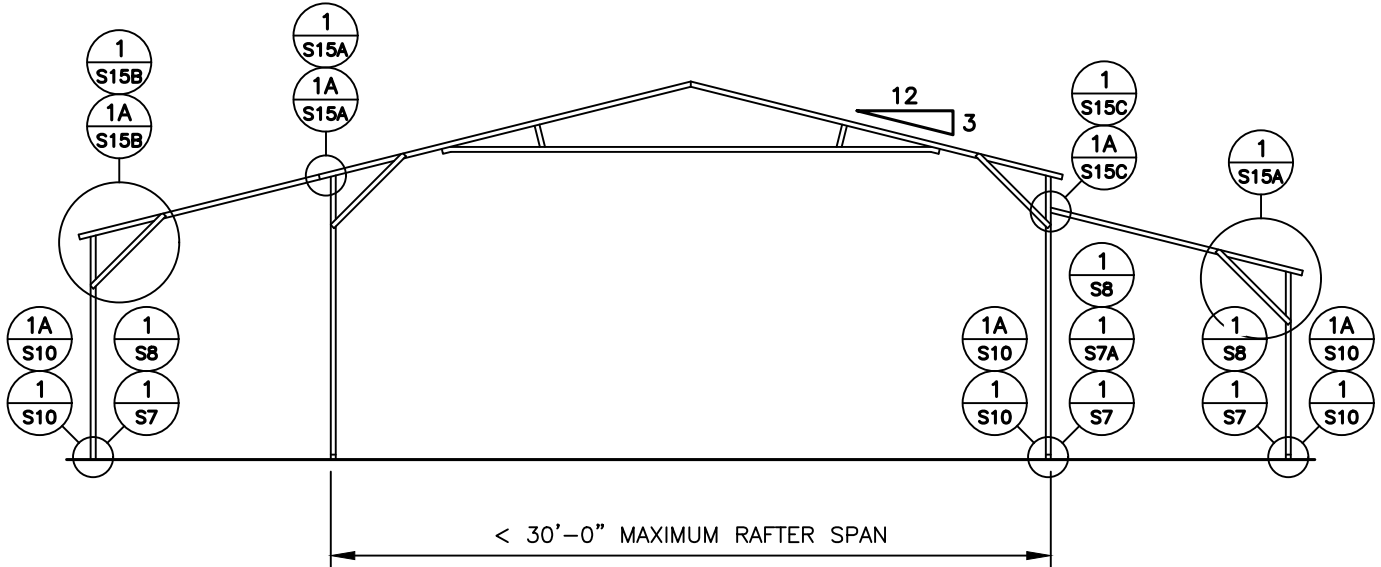
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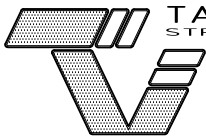
SHEET NO:
S14

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 COLUMN



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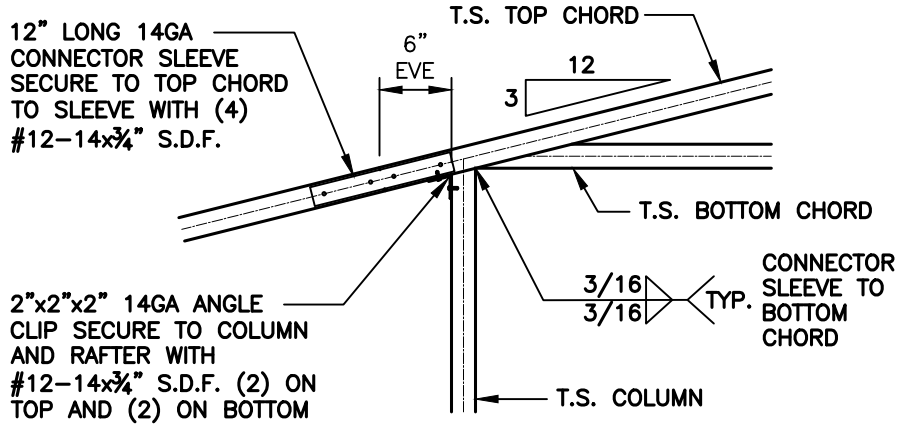
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S15

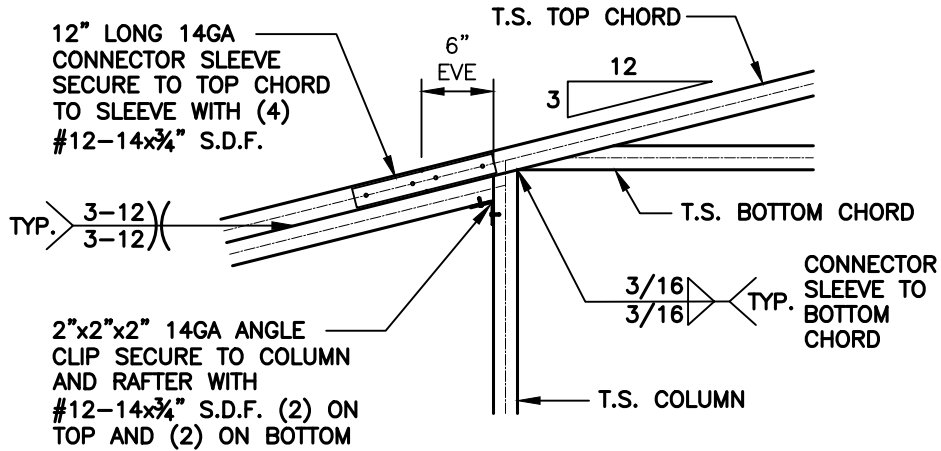
LEAN-TO CONNECTION DETAILS



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

1
S15A

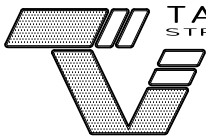
SCALE: 3/4" = 1'-0"



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

1A
S15A

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



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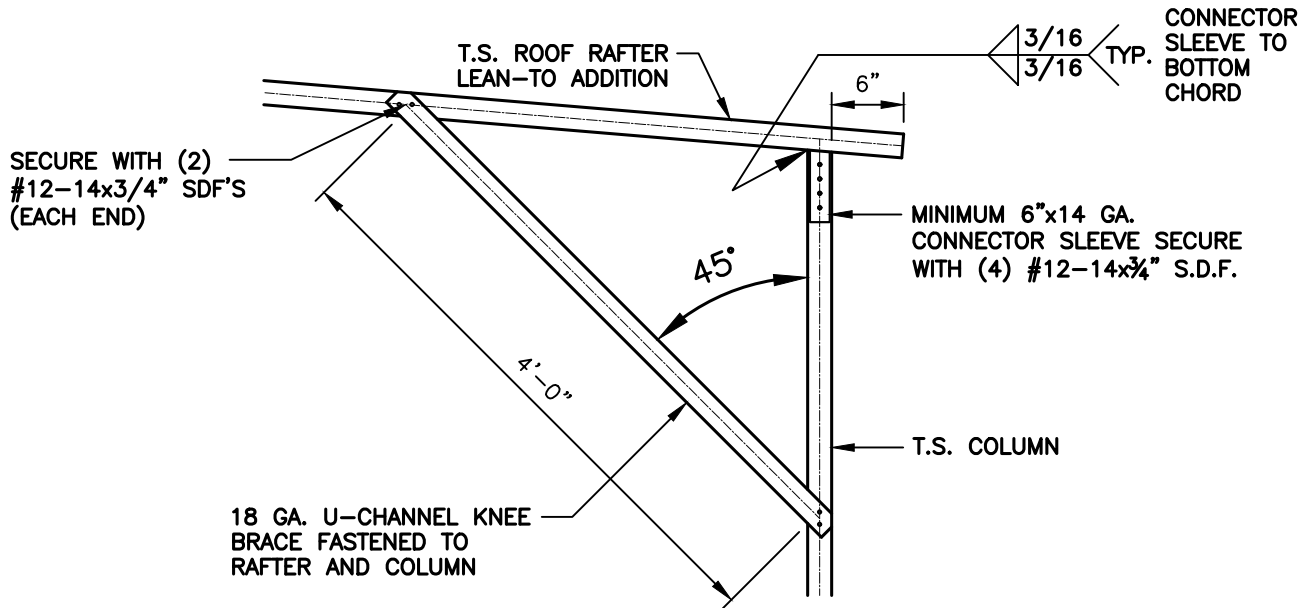
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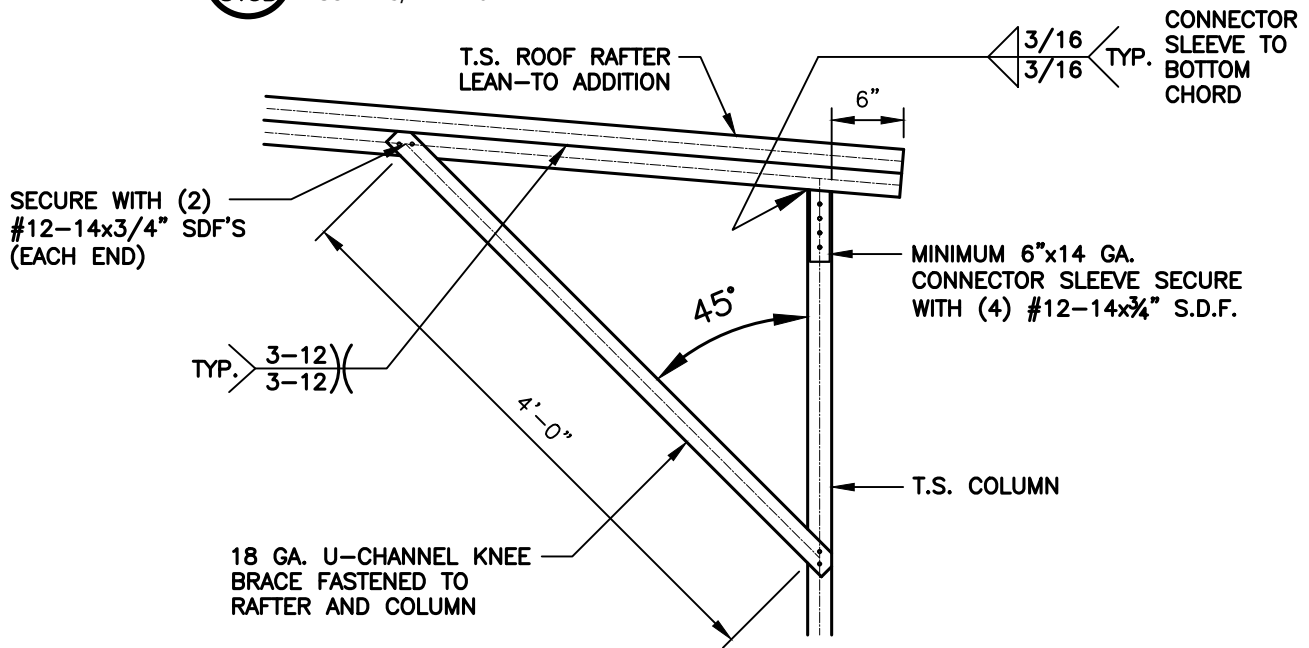
LEAN-TO CONNECTION DETAILS



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <12'-0"

1
S15B

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



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <15'-0"

1A
S15B

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



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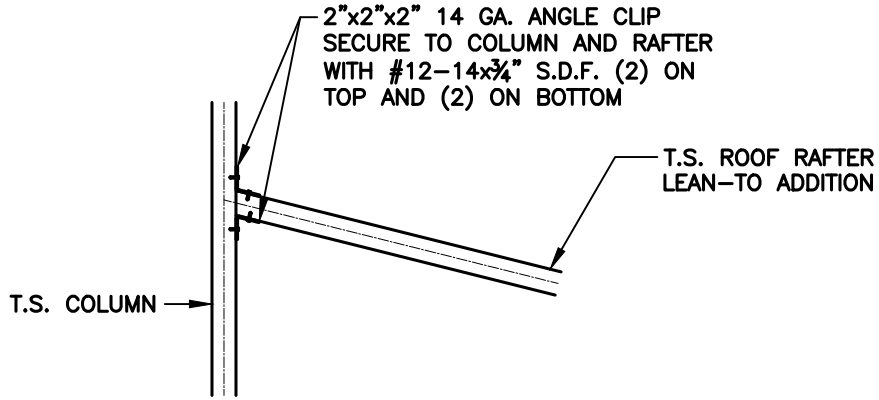
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SHEET NO:
S15B

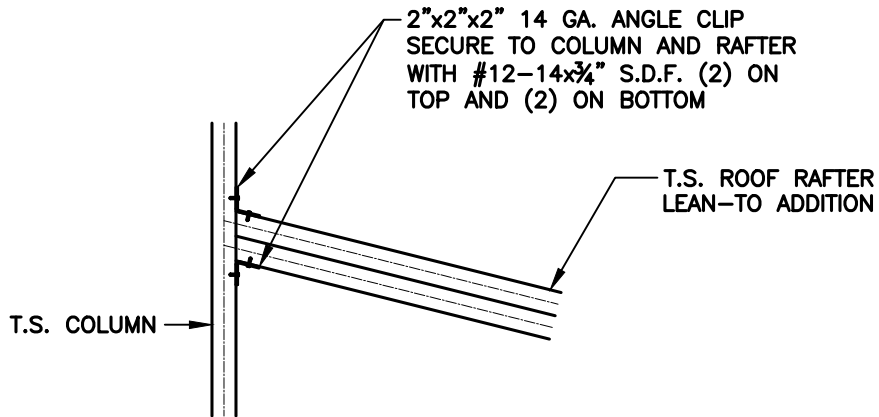
LEAN-TO CONNECTION DETAILS



LEAN-TO RAFTER TO RAFTER POST
CONNECTION DETAIL FOR WIDTHS < 12'-0"

1
S15C

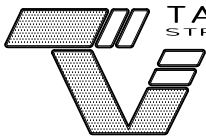
SCALE: 3/4" = 1'-0"



LEAN-TO RAFTER TO RAFTER POST
CONNECTION DETAIL FOR WIDTHS < 15'-0"

1A
S15C

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



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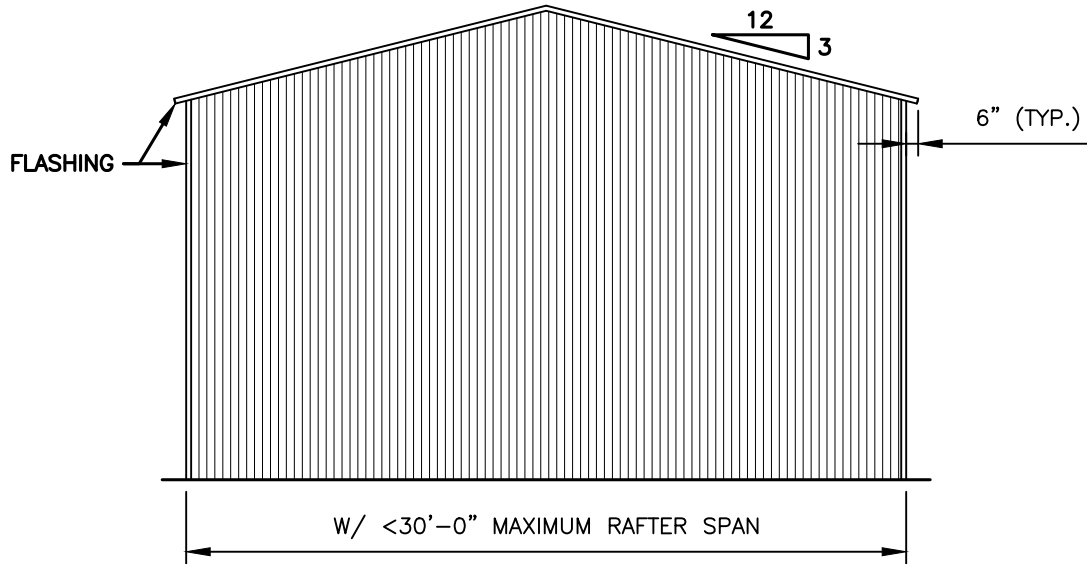
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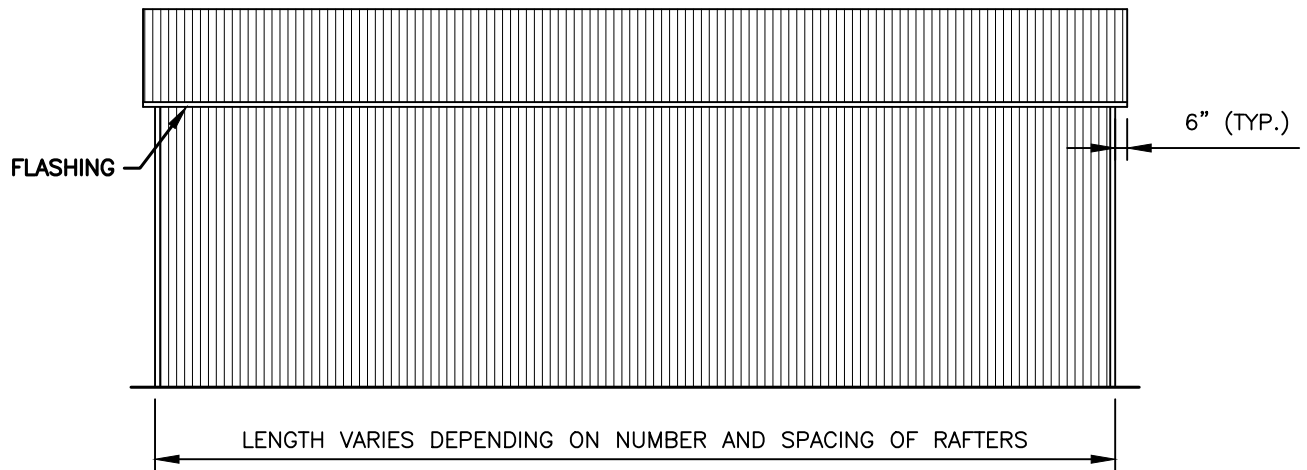
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SHEET NO:
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VERTICAL ROOF / SIDING OPTION



TYPICAL END ELEVATION - VERTICAL ROOF / SIDING



TYPICAL SIDE ELEVATION - VERTICAL ROOF / SIDING



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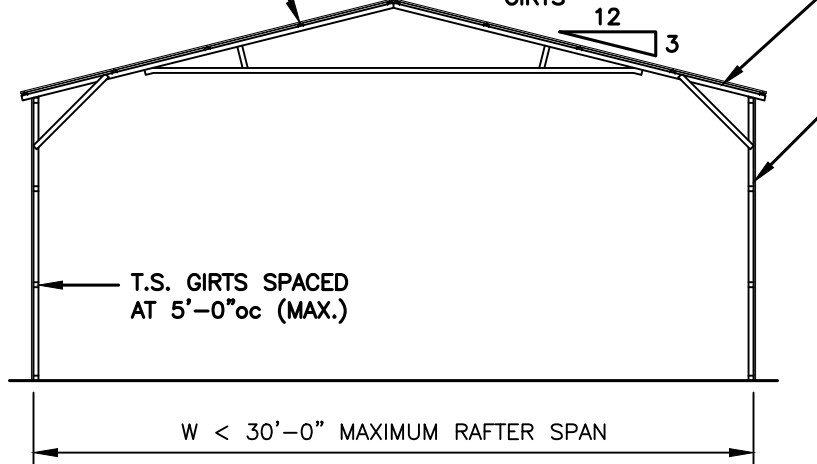
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SHEET NO:
S16

VERTICAL ROOF / SIDING OPTION

1.125"-18 GA. HAT CHANNELS
FASTENED TO EACH RAFTER
WITH (2) #12-14x $\frac{3}{4}$ " S.D.F.
SPACED AT 4'-0"oc MAX.

29 GA. GALVANIZED
METAL ROOF AND WALL
PANELS FASTENED TO
HAT CHANNELS AND
GIRTS



TYPICAL SECTION VERTICAL ROOF / SIDING OPTION

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.



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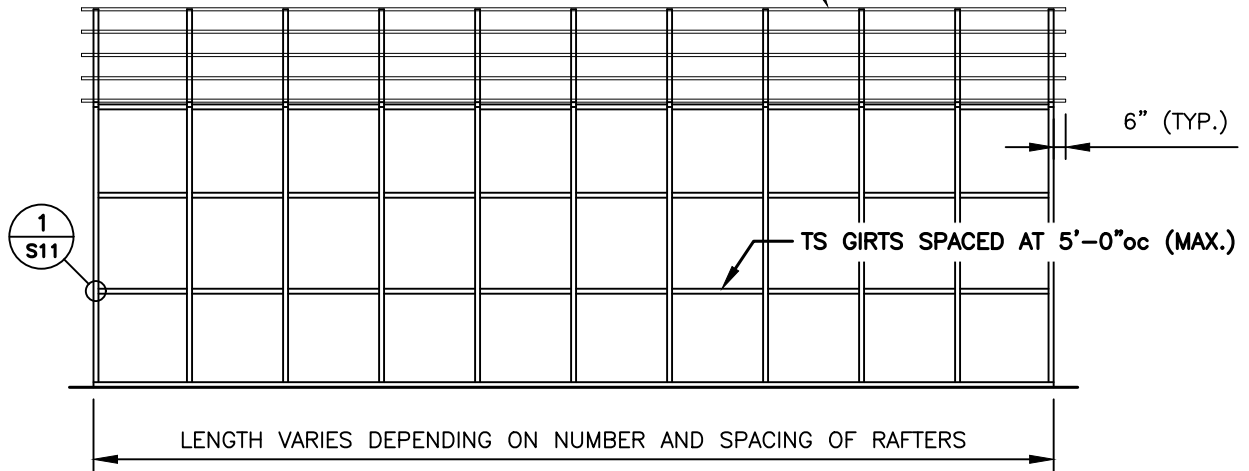
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SHEET NO:
S16A

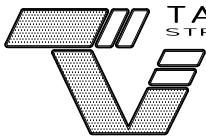
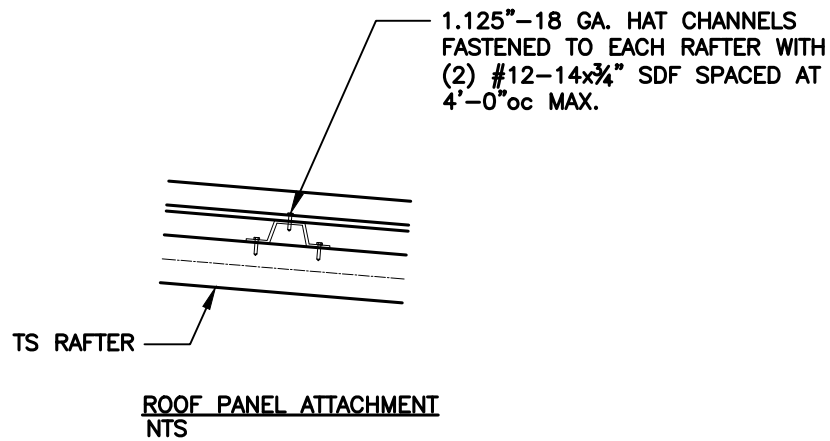
VERTICAL ROOF / SIDING OPTION

SEE NOTES
(SHEET S3)
FOR MAXIMUM
SPACING

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



TYPICAL SIDE FRAMING SECTION VERTICAL ROOF / SIDING OPTION



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WWW.TAYLORVIOLA.COM

5 STAR
METAL BUILDINGS

2425 OLD HIGHWAY 601
MOUNT AIRY, NORTH CAROLINA 27030
TELE: 844-308-9705

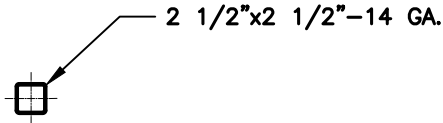
DRAWN BY:
BKS

PROJECT NO:
23-501

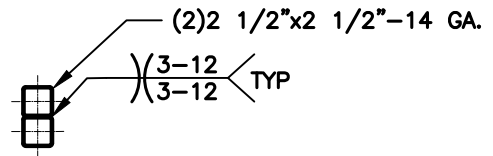
DATE:
2023.01.16

SHEET NO:
S16B

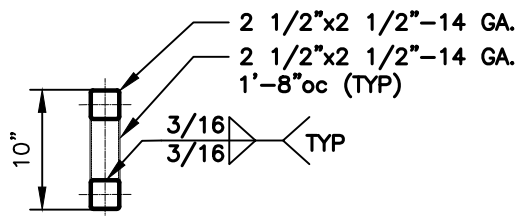
SIDE WALL HEADER OPTIONS



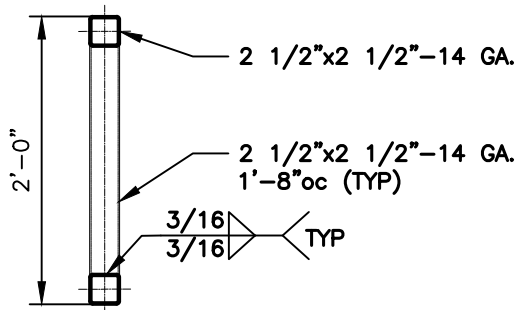
HEADER DETAIL FOR DOOR
OPENINGS < 4'-0"
 NTS



HEADER DETAIL FOR DOOR
OPENINGS 4'-1" < TO < 12'-0"
 NTS



LACED HEADER DETAIL FOR DOOR
OPENINGS 12'-1" < TO < 15'-0"
 NTS



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

GENERAL NOTE:

PROVIDE DOUBLE WYTHE HEADER
 ON DOUBLE COLUMNS AND LACED
 COLUMNS



5 STAR
 METAL BUILDINGS

2425 OLD HIGHWAY 601
 MOUNT AIRY, NORTH CAROLINA 27030
 TELE: 844-308-9705

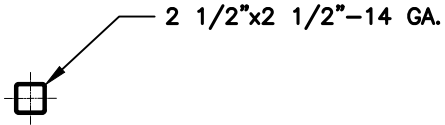
DRAWN BY:
 BKS

PROJECT NO:
 23-501

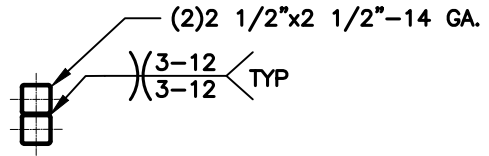
DATE:
 2023.01.16

SHEET NO:
S17

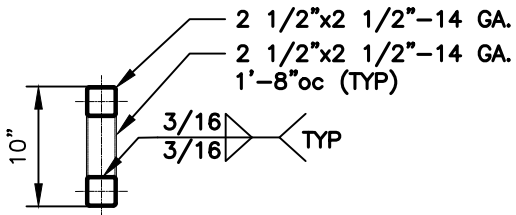
END WALL HEADER OPTIONS



HEADER DETAIL FOR DOOR
OPENINGS < 7'-0"
 NTS



HEADER DETAIL FOR DOOR
OPENINGS 7'-1" < TO < 16'-0"
 NTS



LACED HEADER DETAIL FOR DOOR
OPENINGS 16'-1" < TO < 20'-0"
 NTS

GENERAL NOTE:

PROVIDE DOUBLE WYTHE HEADER
 ON DOUBLE COLUMNS AND LACED
 COLUMNS



TAYLOR & VIOLA
 STRUCTURAL ENGINEERS

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PROJECT NO:
 23-501

DATE:
 2023.01.16

SHEET NO:
S17A