



# **STRUCTURAL DESIGN ENCLOSED BUILDING**

**MAXIMUM 30'-0" WIDE X 20'-0" EAVE HEIGHT-  
BOX EAVE FRAME AND BOW FRAME**

**11 December 2020**

**Revision 9**

**M&A Project No.**

**16062S/16155S/16207S/17155S/17200S/18068S/18156S/18290S/20019S/20324S**

**Prepared for:**

**Steel Buildings and Structures, Inc.  
P.O. Box 1287  
Mt. Airy, NC 27030**

**Prepared by:**

**Moore and Associates Engineering  
and Consulting, Inc.**

**1009 East Avenue  
North Augusta, SC 29841**

**401 S. Main St., Suite 200  
Mt. Airy, NC 27030**

**Wayne  
S Moore**

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by Wayne S  
Moore  
Date: 2021.10.21  
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**PROJECT MGR: VSM**

**CLIENT: SBSI**

**STEEL BUILDINGS AND STRUCTURES, INC.**  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0"x20'-0" ENCLOSED STRUCTURE

**DATE: 12-11-20**

**SCALE: NTS**

**JOB NO 18068S/1815  
18290S/20019S/2032**

**SHT. 1**

**DWG. NO SK-3**

**REV: 9**




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**DATE: 12-11-20**

**SHT. 1A**

**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO: 18068S/1811  
18290S/20019S/2032**

**REV. 9**

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<b>DATE:</b> 12-11-20	<b>SCALE:</b> NTS	<b>JOB NO:</b> 18068S/181 18290S/20019S/2036
<b>SHT.</b> 2	<b>DWG. NO:</b> SK-3	<b>REV.</b> 9

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## INSTALLATION NOTES AND SPECIFICATIONS

1. DESIGN IS FOR MAXIMUM 30'-0" WIDE x 20'-0" EAVE HEIGHT ENCLOSED STRUCTURES.
2. DESIGN WAS DONE IN ACCORDANCE WITH THE 2020 FLORIDA BUILDING CODE (FBC) 7TH EDITION, 2018 NORTH CAROLINA BUILDING CODE, 2006 INTERNATIONAL BUILDING CODE (IBC), 2009 IBC, 2012 IBC, 2015 IBC AND 2018 IBC.
3. DESIGN LOADS ARE AS FOLLOWS:
  - A) DEAD LOAD = 15 PSF
  - B) LIVE LOAD = 12 PSF
  - C) GROUND SNOW LOAD = 30 PSF ( $\leq 26'-0"$ ), 35 PSF ( $26'-0" < W < 30'-0"$ )

NOTE: UNBALANCED SNOW LOADS DUE TO DRIFTING HAVE NOT BEEN EVALUATED
4. 3-SECOND GUST ULTIMATE WIND SPEED ( $V_{ult}$ ) = 105 TO 145 MPH (NOMINAL WIND SPEED = 82 TO 112 MPH)
5. MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 50 FEET (UNLESS NOTED OTHERWISE)
6. END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL POSTS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE)
7. RISK CATEGORY I
8. WIND EXPOSURE CATEGORY B.
9. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE)
10. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR HAT CHANNELS, AND COLUMNS (INTERIOR OR END) = 8 INCHES
11. FASTENERS CONSIST OF 1/4"x3/4" SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14" (3:12 PITCH) OR LESS. SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT
12. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH COLUMN.
13. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
14. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
  - SOIL SITE CLASS = D
  - RISK CATEGORY I
  - R = 325  $I_E = 10$
  - $S_{DS} = 2039 g$   $V = C_S W$
  - $S_{D1} = 1258 g$
15. WINDOW AND DOOR DESIGN PRESSURES ARE APPLICABLE TO THE STATE OF FLORIDA ONLY



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SHT. 3

DWG. NO: SK-3

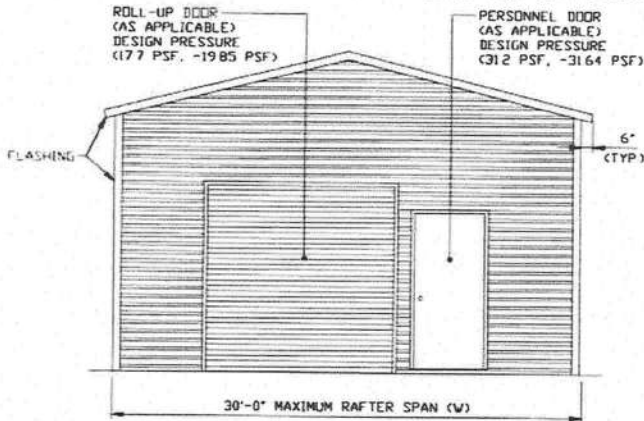
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18290S/20019S/20324

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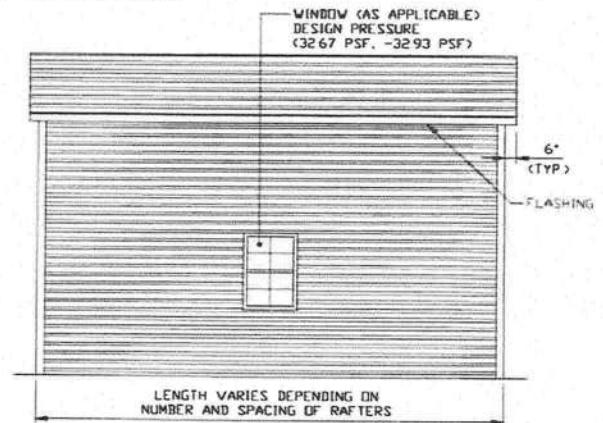


## BOX EAVE FRAME RAFTER STRUCTURE



**TYPICAL END ELEVATION**

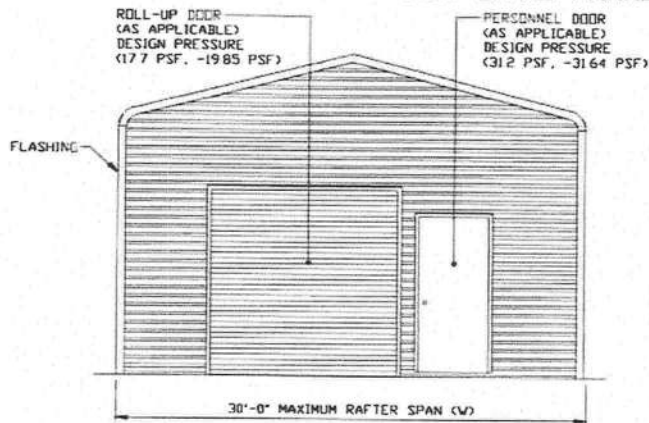
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**TYPICAL SIDE ELEVATION**

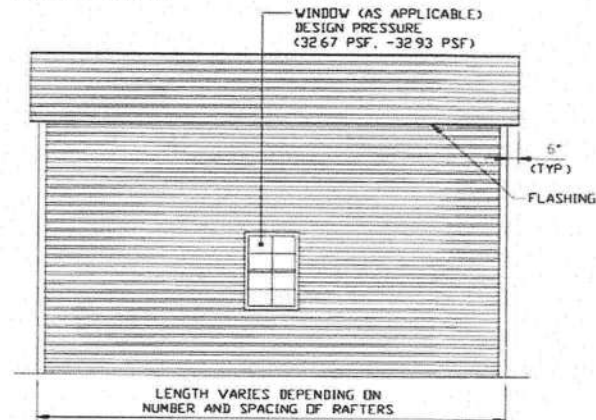
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## BOW EAVE FRAME RAFTER STRUCTURE



**TYPICAL END ELEVATION**

SCALE: NTS



**TYPICAL SIDE ELEVATION**

SCALE: NTS



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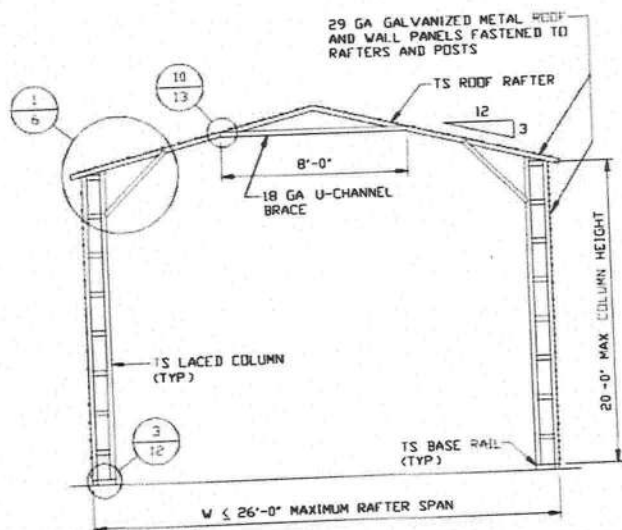
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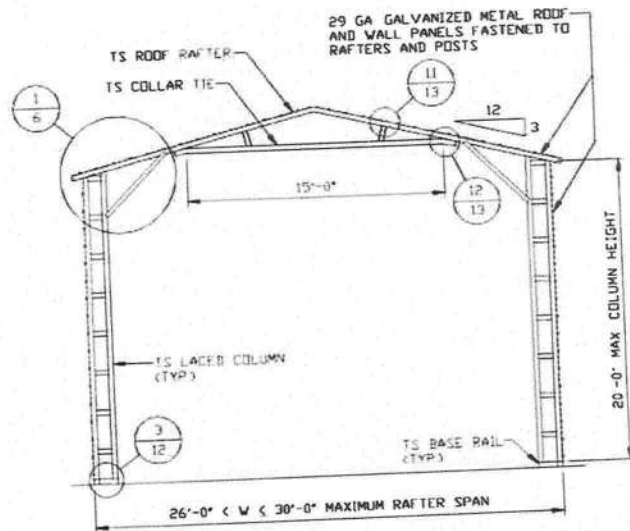
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REV: 9

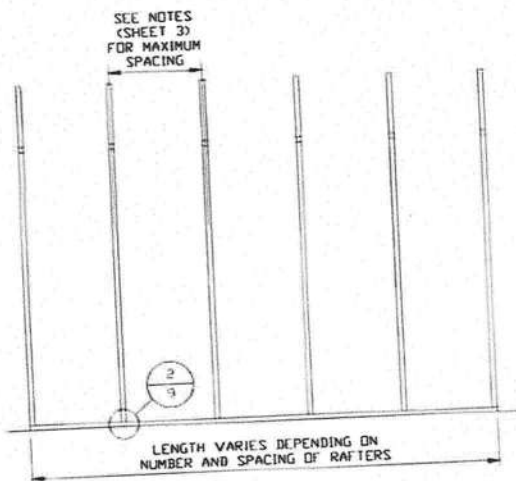
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**TYPICAL RAFTER/COLUMN FRAME SECTION**  
SCALE: NTS



**TYPICAL RAFTER/COLUMN FRAME SECTION**  
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**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**  
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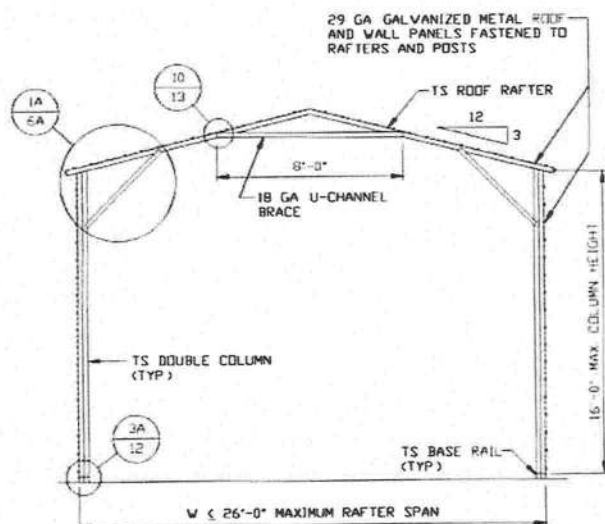
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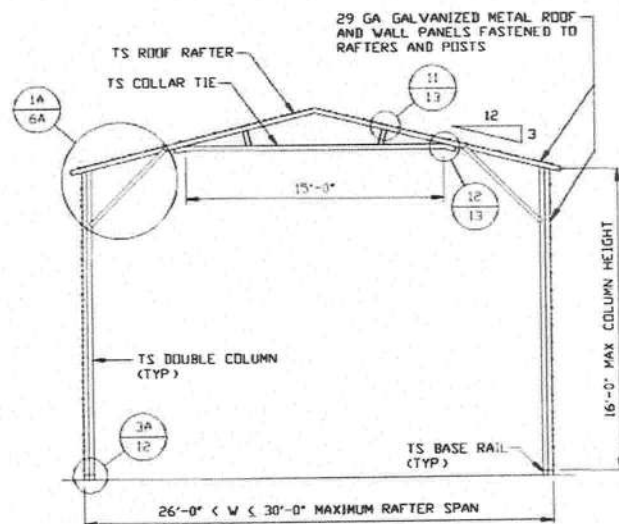
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JOB NO: 11  
18290S/20

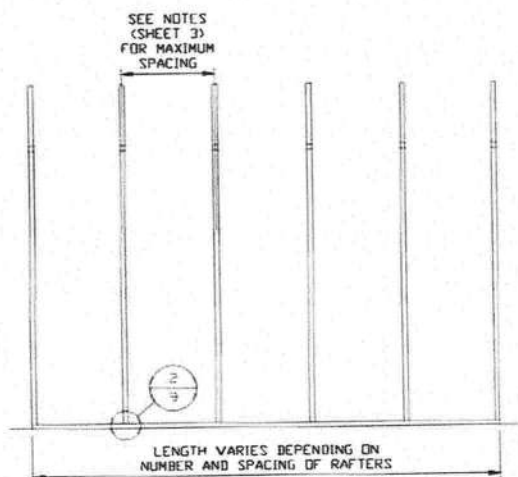
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**TYPICAL RAFTER/COLUMN FRAME SECTION**  
SCALE: NTS



**TYPICAL RAFTER/COLUMN FRAME SECTION**  
SCALE: NTS



**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**  
SCALE: NTS



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PROJECT MGR: WSM

CLIENT: SBSI

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P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0" x 20'-0" ENCLOSED STRUCTURE

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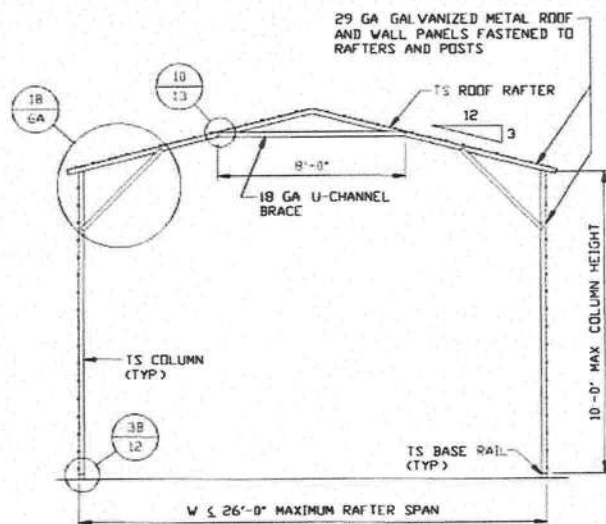
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JOB NO: 18068S,  
18290S/20019S/1

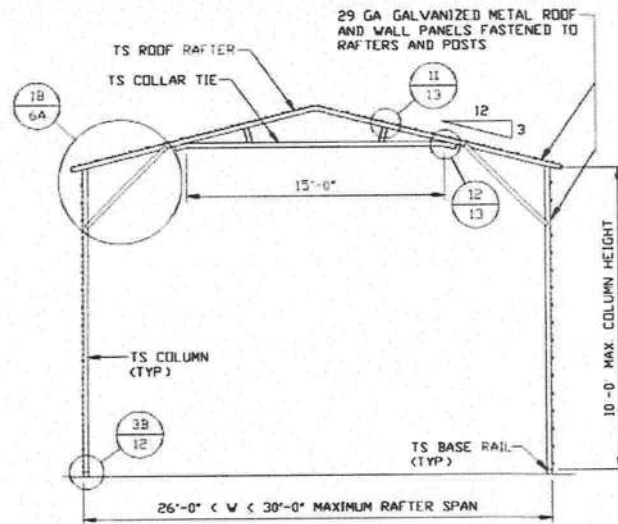
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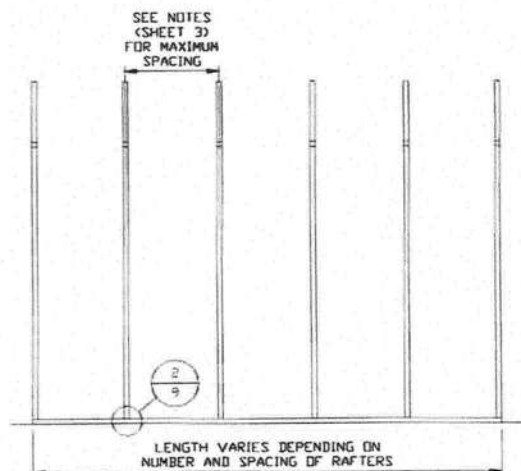
**TYPICAL RAFTER/COLUMN FRAME SECTION**

SCALE: NTS



**TYPICAL RAFTER/COLUMN FRAME SECTION**

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**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**

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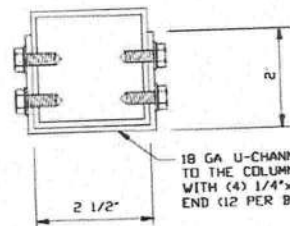
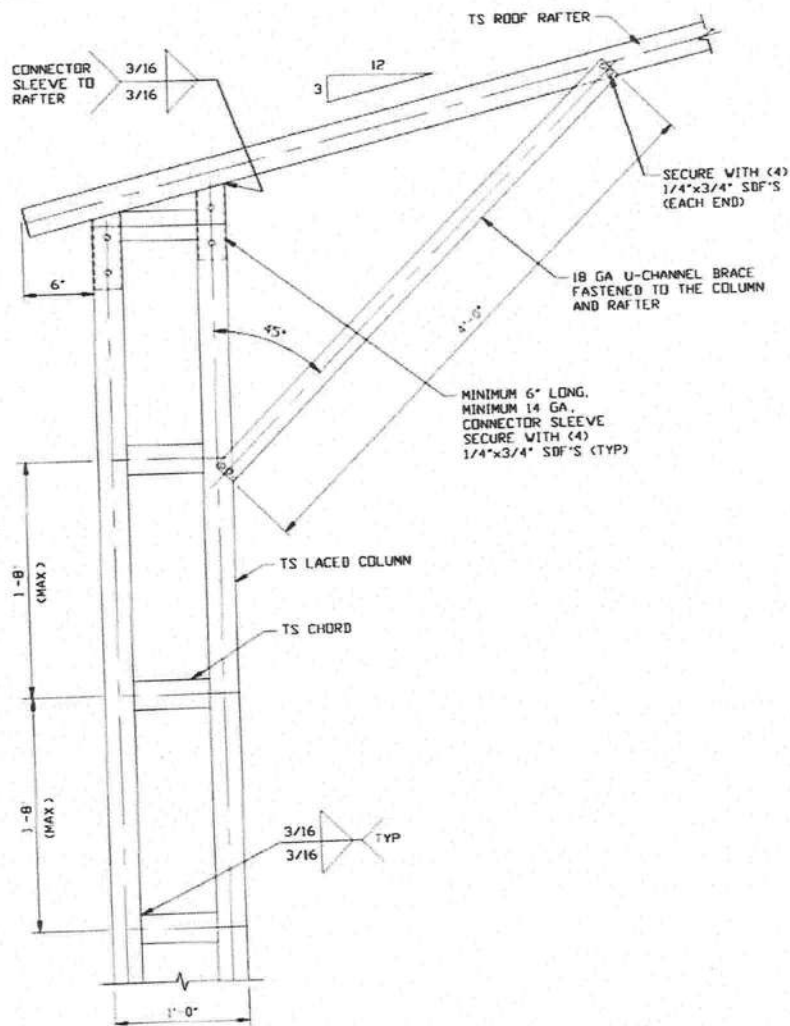
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**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO: 18068S/18  
18290S/20019S/20**

**REV: 9**



**BRACE SECTION**  
SCALE: NTS

**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL  
FOR HEIGHTS 16'-0\"/>**



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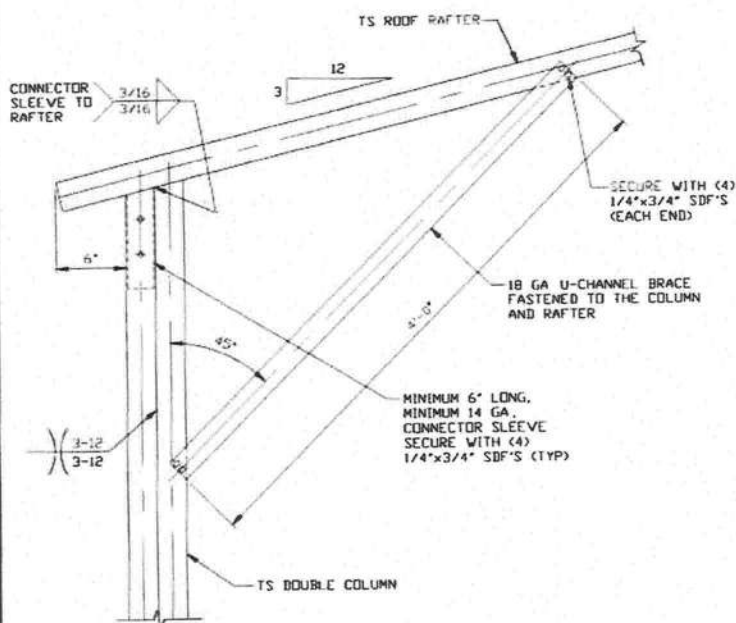
SHT. 6

SCALE: NTS

DWG. NO: SK-3

JOB NO: 18  
18290S/200

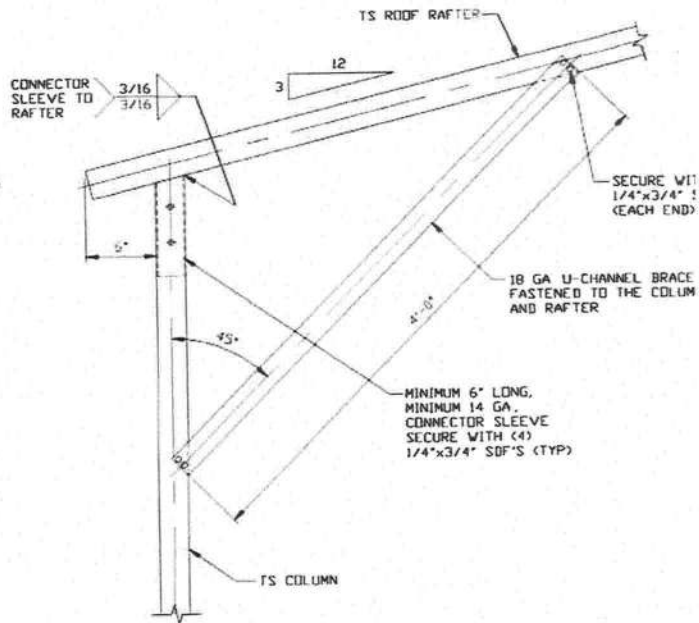
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**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL  
FOR HEIGHTS 10'-0" < TO ≤ 16'-0"**

1A

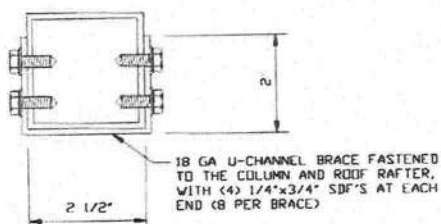
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**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL  
FOR HEIGHTS ≤ 10'-0"**

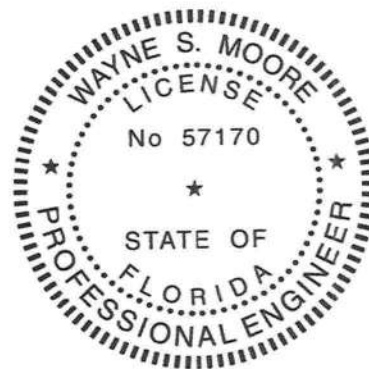
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SCALE: NTS



**BRACE SECTION**

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SHT. 6A

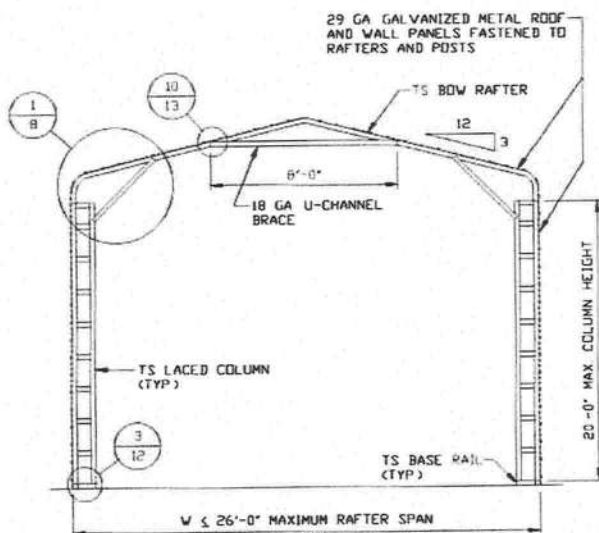
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JOB NO: 18068

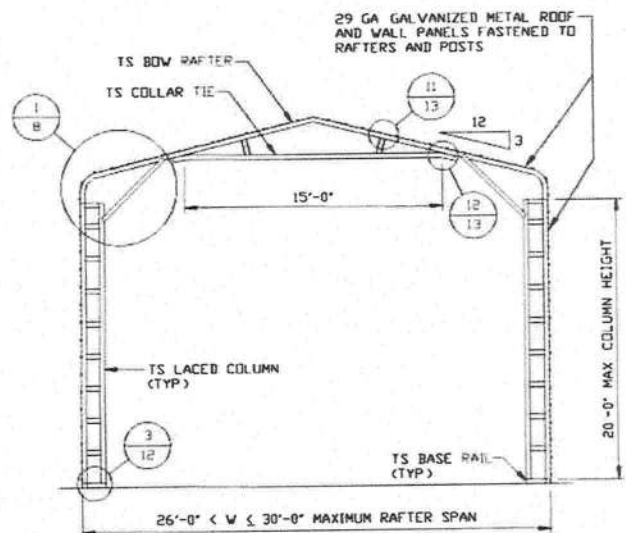
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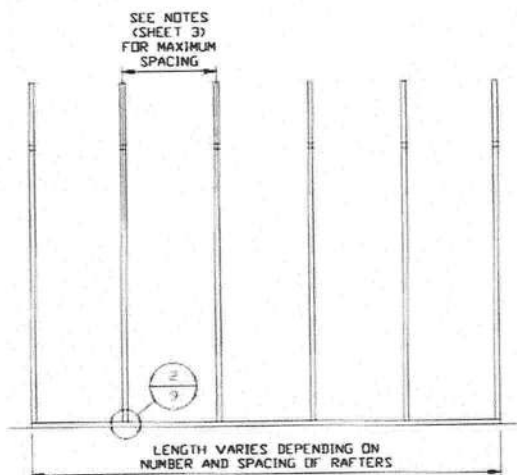
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**TYPICAL RAFTER/COLUMN FRAME SECTION**  
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**TYPICAL RAFTER/COLUMN FRAME SECTION**  
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**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**  
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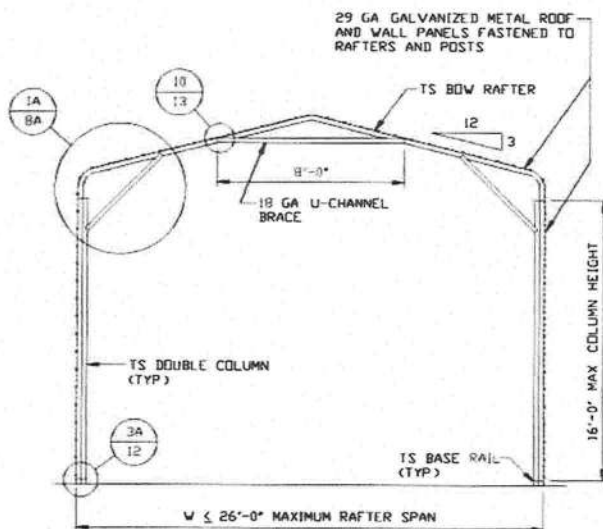
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SHT. 7

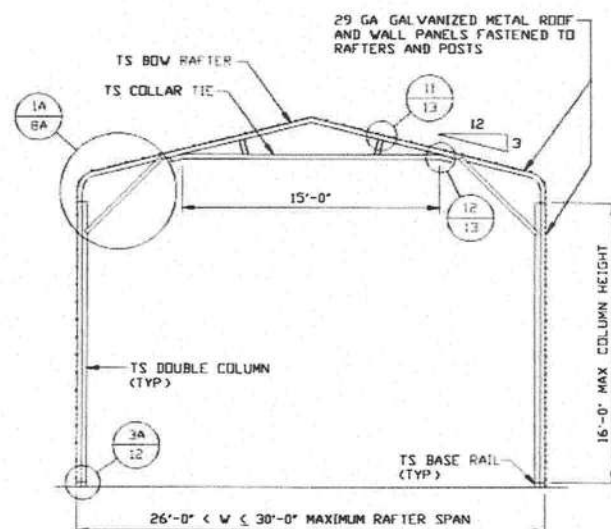
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18290S/20019S/2

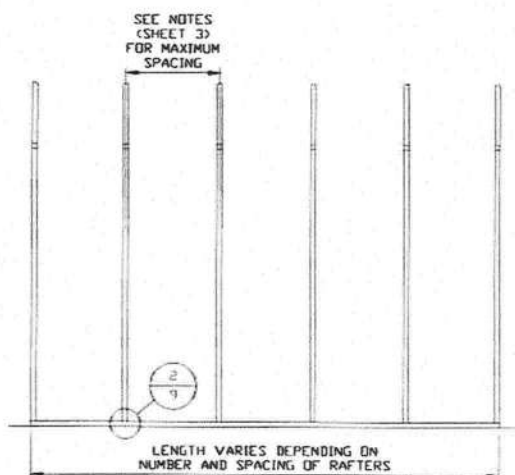
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SCALE: NTS

SHT. 7A

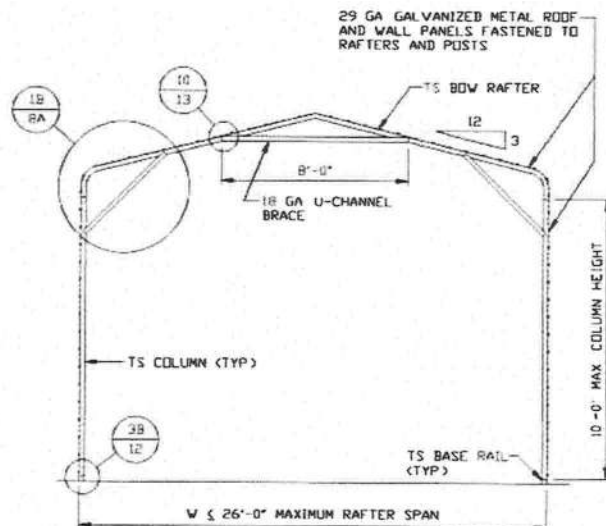
DWG. NO: SK-3

REV. 9

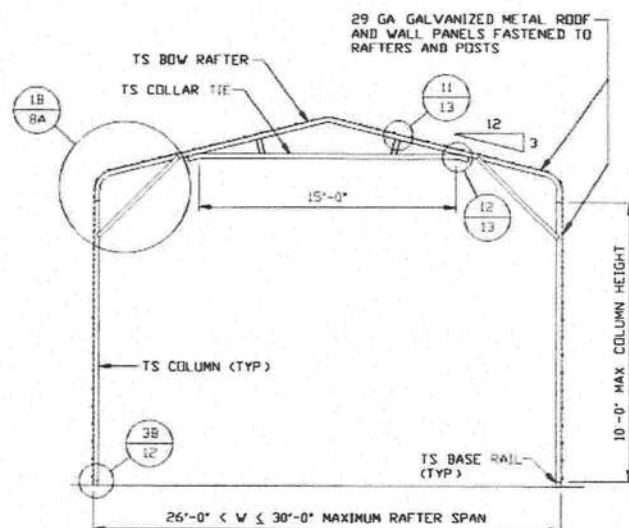
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18290S/20019S/20

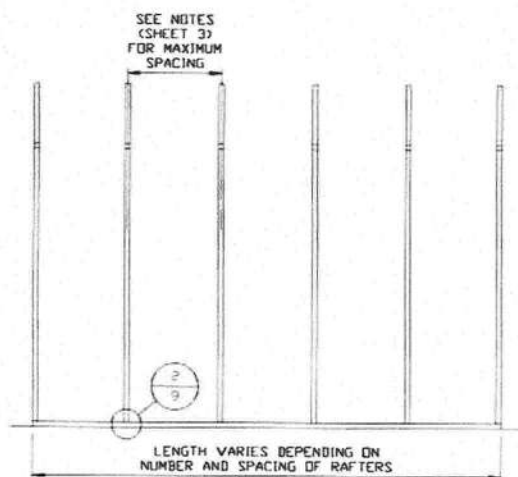




**TYPICAL RAFTER/COLUMN FRAME SECTION**  
SCALE: NTS



**TYPICAL RAFTER/COLUMN FRAME SECTION**  
SCALE: NTS



**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**  
SCALE: NTS



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CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: SBSI

STEEL BUILDINGS AND STRUCTURES, INC.

P.O. BOX 1287,

MOUNT AIRY, NC 27030

30'-0" x 20'-0" ENCLOSED STRUCTURE

DATE: 12-11-20

SCALE: NTS

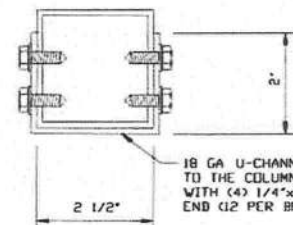
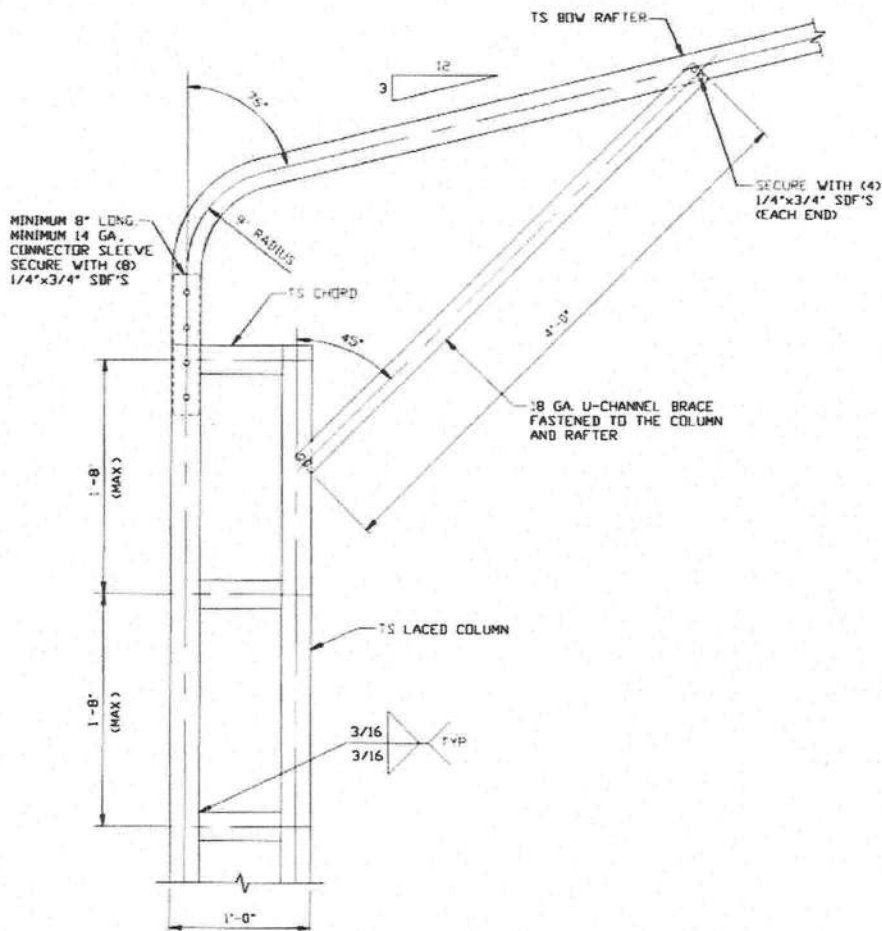
DWG. NO: SK-3

JOB NO: 18068S/181

18296S/20019S/203

SHT. 7B

REV: 9



**BRACE SECTION**  
SCALE: NTS

**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL**  
FOR HEIGHTS 16'-0" < TO ≤ 20'-0"  
SCALE: NTS

1



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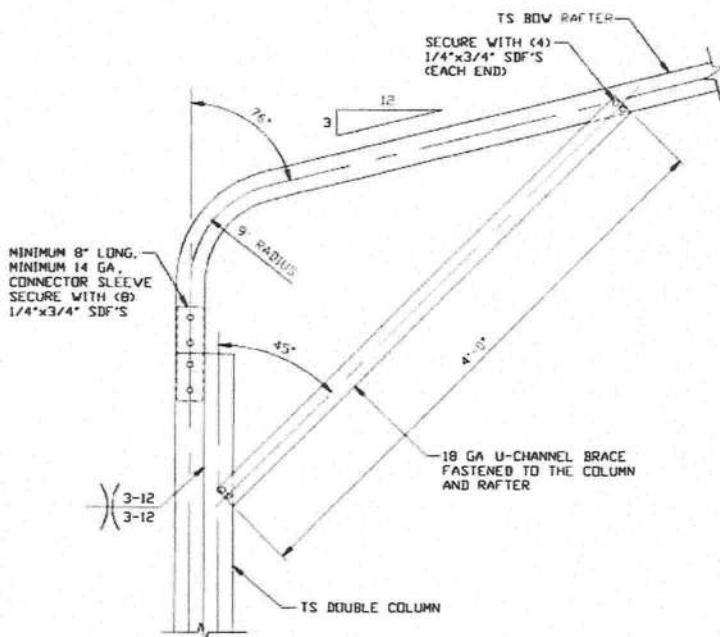
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SHT. 8

DWG. NO: SK-3

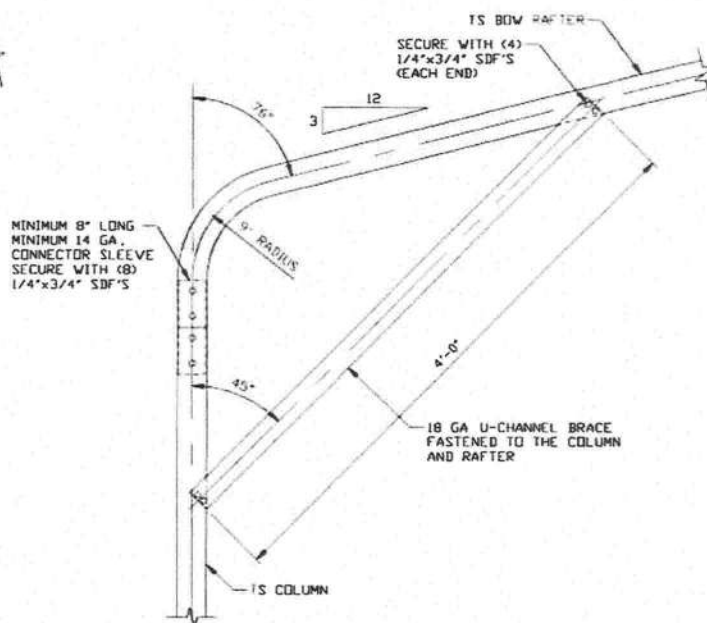
REV: 9

JOB NO: 18068S/181  
18290S/20019S/2032



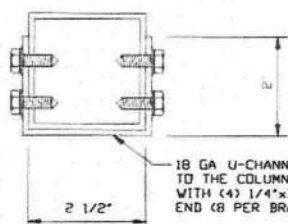
1A

**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL  
FOR HEIGHTS 10'-0" < TO ≤ 16'-0"**  
SCALE: NTS



1B

**BOX EAVE RAFTER/CORNER POST  
CONNECTION DETAIL  
FOR HEIGHTS ≤ 10'-0"**  
SCALE: NTS



**BRACE SECTION**  
SCALE: NTS



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**DATE: 12-11-20**

**SHT. 8A**

**SCALE: NTS**

**DWG. NO: SK-3**

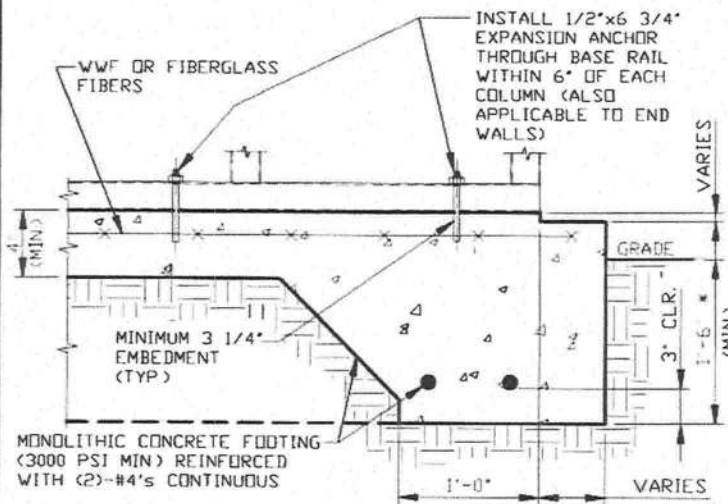
**JOB NO: 18068S/18**

**18290S/20019S/20**

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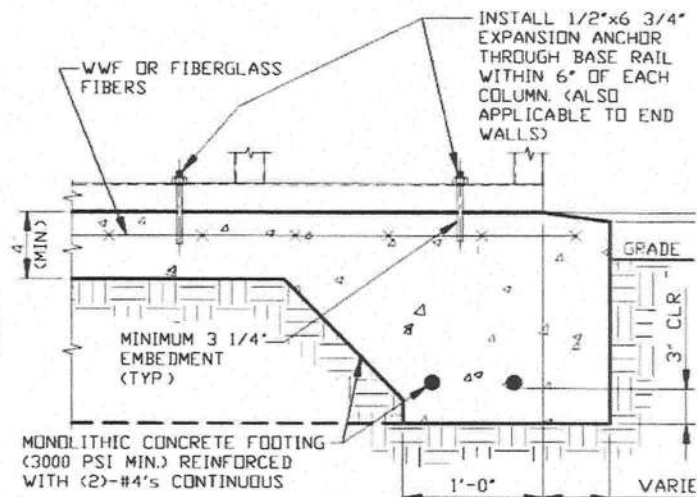
## BASE RAIL ANCHORAGE OPTIONS



2

### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS  
MINIMUM ANCHOR EDGE DISTANCE IS 4"  
\* COORDINATE WITH LOCAL CODES/ORD



2A

### CONCRETE SLAB BASE RAIL ANCHORAGE

SCALE: NTS  
MINIMUM ANCHOR EDGE DISTANCE IS 4"  
\* COORDINATE WITH LOCAL CODES/ORD

## GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 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 OR WEATHER, AND 1 1/2" ELSEWHERE

### REINFORCING STEEL:

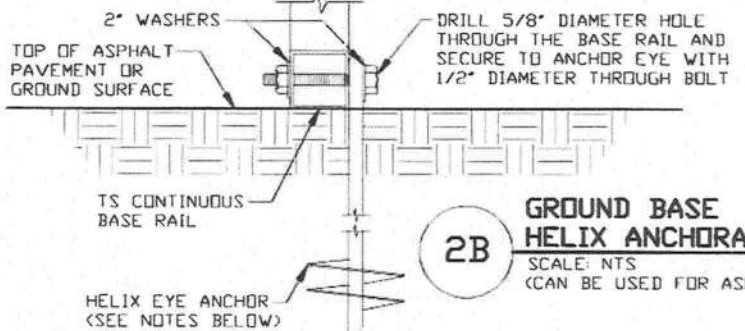
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60 THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT

### REINFORCEMENT MAY BE BENT IN THE SHOP OR 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

### 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" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- 2 FOR CORAL USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- 3 FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- 4 FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" 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" EMBEDMENT



2B

### GROUND BASE HELIX ANCHORAGE

SCALE: NTS  
(CAN BE USED FOR ASPH)



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PROJECT MGR: WSM

CLIENT: SBSI

STEEL BUILDINGS AND STRUCTURES, INC.  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0"x20'-0" ENCLOSED STRUCTURE

DATE: 12-11-20

SCALE: NTS

DWG. NO: SK-3

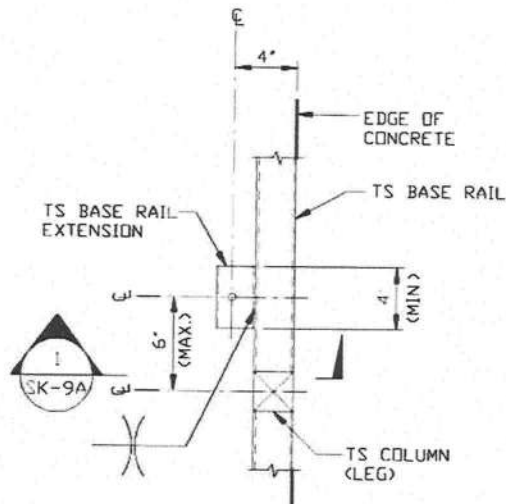
JOB NO: 18068S/11  
18290S/20019S/20

SHT. 9

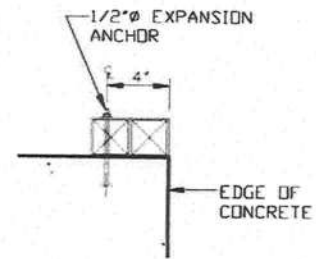
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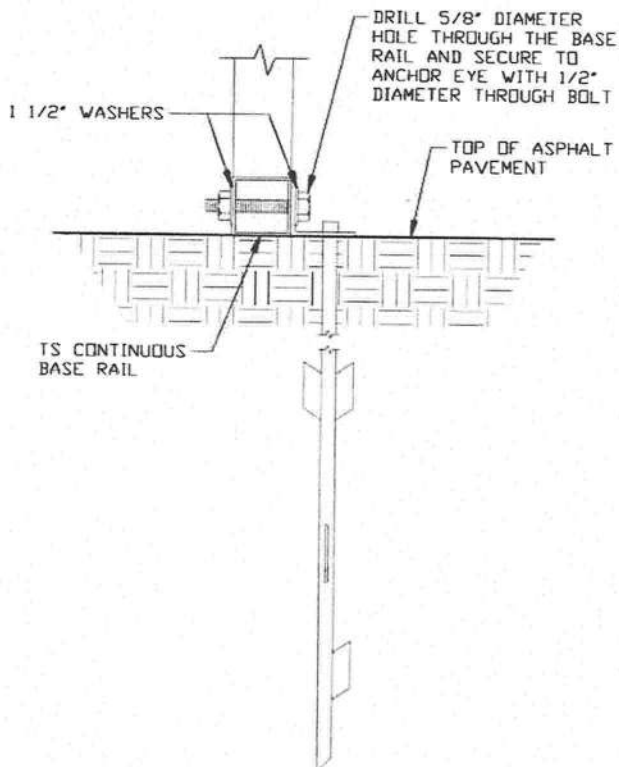
## ADDITIONAL BASE RAIL ANCHORAGE OPTION



**TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE**  
SCALE: NTS



**SECTION 1**  
SCALE: NTS



**2C ASPHALT BASE ANCHORAGE**  
SCALE: NTS



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SHT. 9A

SCALE: NTS

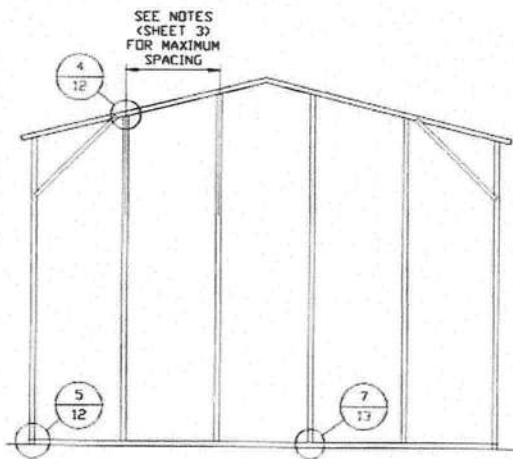
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JOB NO: 18068S/181  
18290S/20019S/2032

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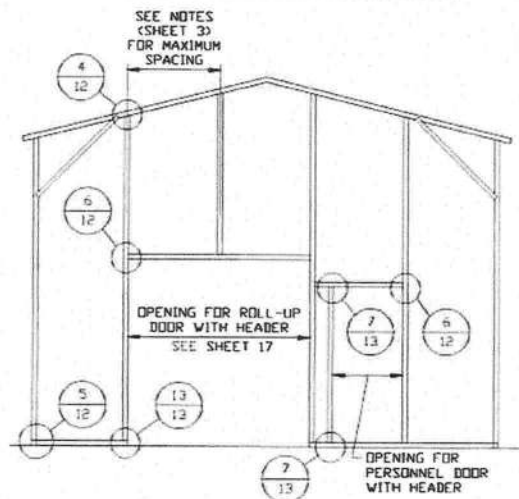


## BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



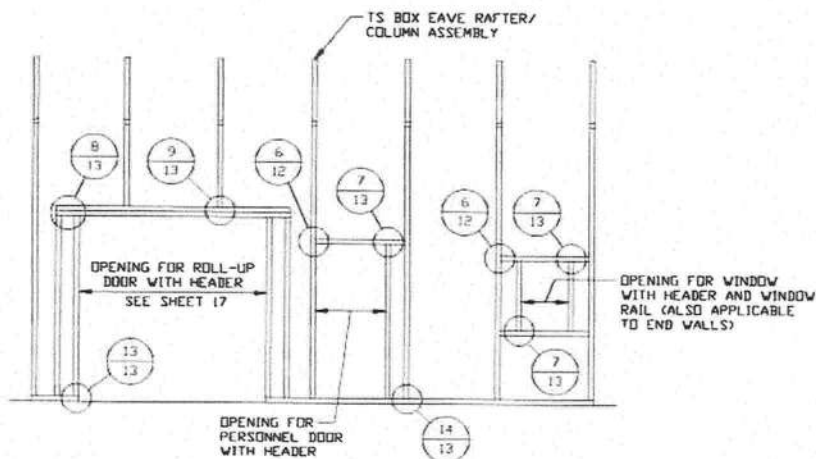
**TYPICAL BOX EAVE RAFTER  
END WALL FRAMING SECTION**

SCALE: NTS



**TYPICAL BOX EAVE RAFTER END  
WALL OPENINGS FRAMING SECTION**

SCALE: NTS



**TYPICAL BOX EAVE RAFTER  
SIDE WALL OPENINGS FRAMING SECTION**

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SCALE: NTS

SHT. 10

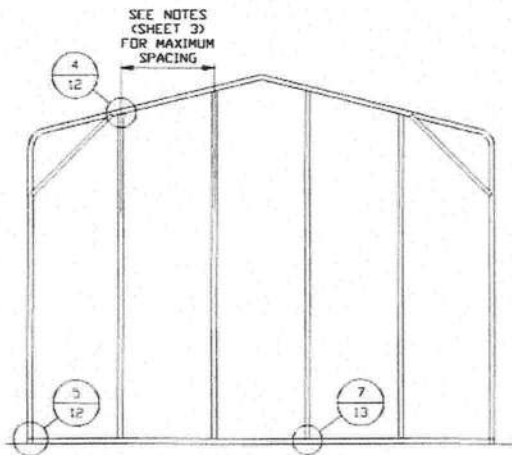
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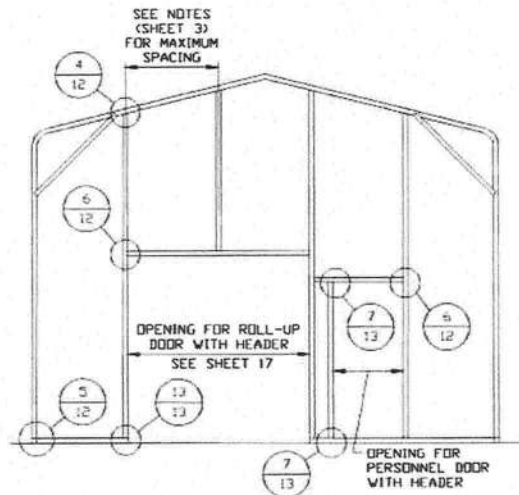
JDD NO: 18068S/181  
18290S/20019S/2032

## BOW EAVE RAFTER END WALL AND SIDE WALL OPENINGS



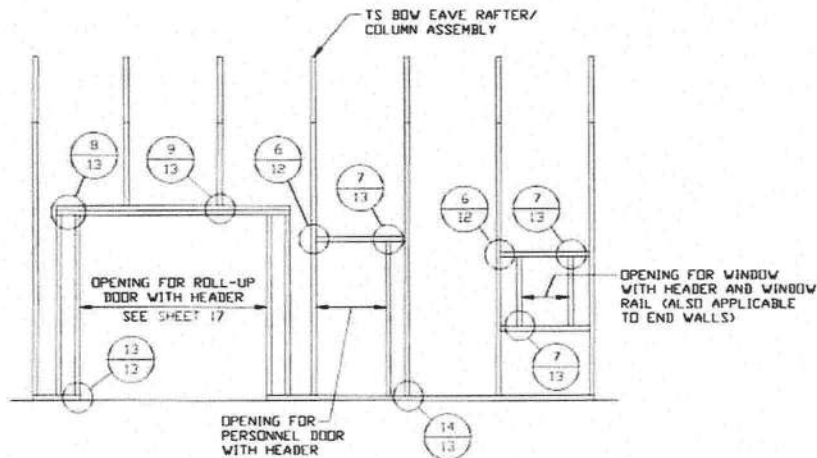
**TYPICAL BOX EAVE RAFTER  
END WALL FRAMING SECTION**

SCALE: NTS



**TYPICAL BOX EAVE RAFTER END  
WALL OPENINGS FRAMING SECTION**

SCALE: NTS



**TYPICAL BOX EAVE RAFTER  
SIDE WALL OPENINGS FRAMING SECTION**

SCALE: NTS



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CLIENT: SBSI

DATE: 12-11-20

SHT. 11

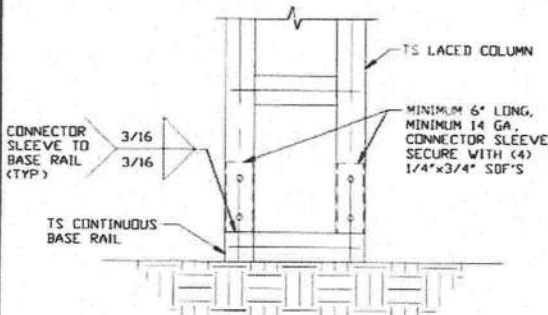
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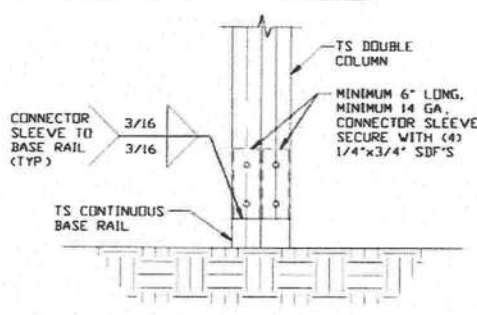
JTD NO: 18068S/18  
18290S/20019S/203

REV: 9

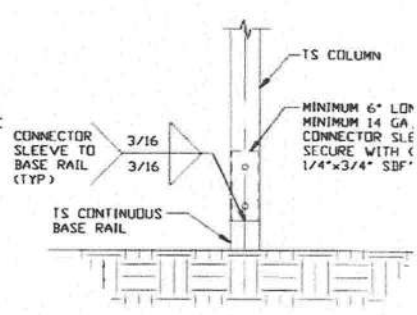
## CONNECTION DETAILS



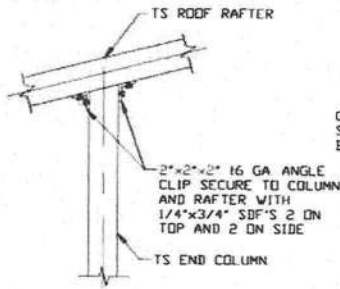
**3 POST/BASE RAIL CONNECTION DETAIL**  
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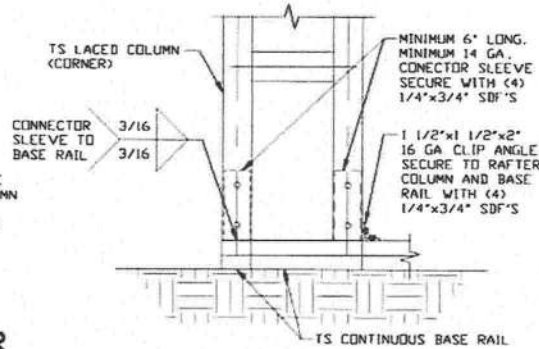
**3A POST/BASE RAIL CONNECTION DETAIL**  
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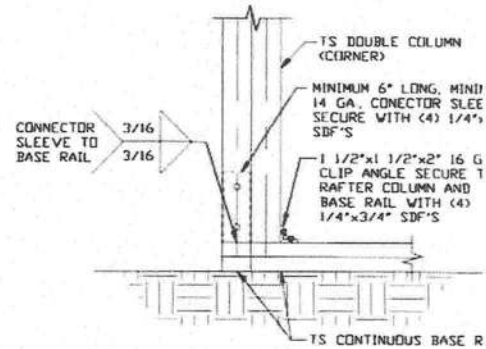
**3B POST/BASE RAIL CONNECTION DETAIL**  
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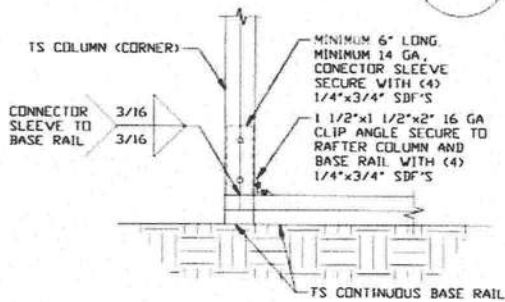
**4 END COLUMN/RAFTER CONNECTION DETAIL**  
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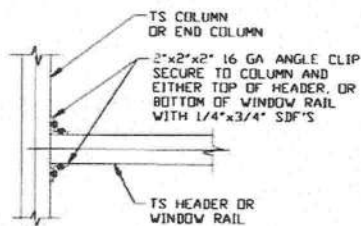
**5 END COLUMN/BASE RAIL CONNECTION DETAIL**  
SCALE: NTS



**5A END COLUMN/BASE RAIL CONNECTION DETAIL**  
SCALE: NTS



**5B END COLUMN/BASE RAIL CONNECTION DETAIL**  
SCALE: NTS



**6 COLUMN OR WINDOW RAIL/WALL GIRT TO POST CONNECTION DETAIL**  
SCALE: NTS



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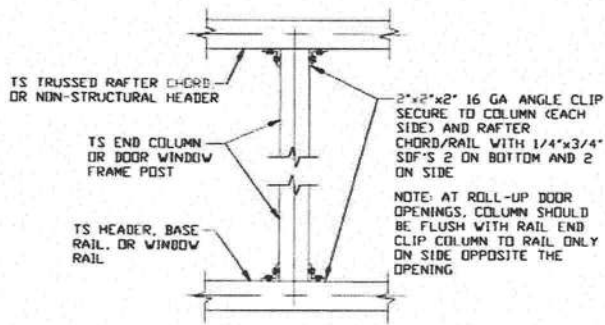
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<b>CHECKED BY:</b> PDH	P.O. BOX 1287, MOUNT AIRY, NC 27030			
<b>PROJECT MGR:</b> WSM	30'-0" x 20'-0" ENCLOSED STRUCTURE			
<b>CLIENT:</b> SBSI	<b>DATE:</b> 12-11-20	<b>SCALE:</b> NTS	<b>JOB NO:</b> 18060S/181	<b>18290S/20019S/203</b>
<b>SHT.</b> 12	<b>DWG. NO:</b> SK-3	<b>REV.</b> 9		

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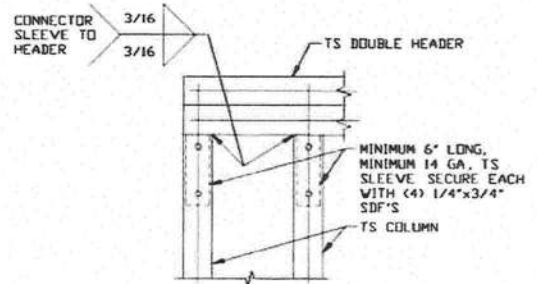
## CONNECTION DETAILS



7

### COLUMN TO HEADER, BASE RAIL, OR WINDOW RAIL CONNECTION DETAIL

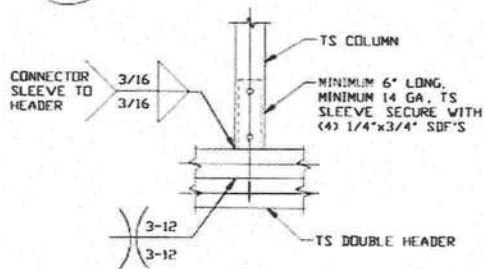
SCALE: NTS



8

### DOUBLE HEADER/COLUMN CONNECTION DETAIL

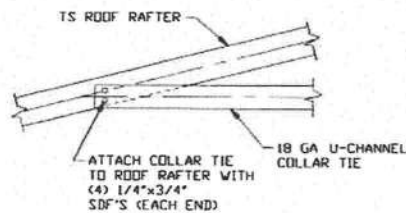
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9

### COLUMN/DOUBLE HEADER CONNECTION DETAIL

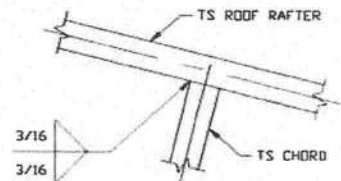
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10

### COLLAR TIE CONNECTION DETAIL

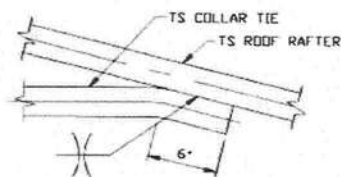
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11

### RAFTER TO CHORD CONNECTION DETAIL

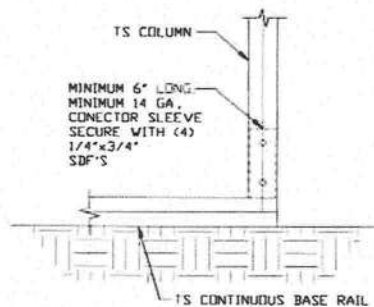
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12

### COLLAR TIE CONNECTION DETAIL

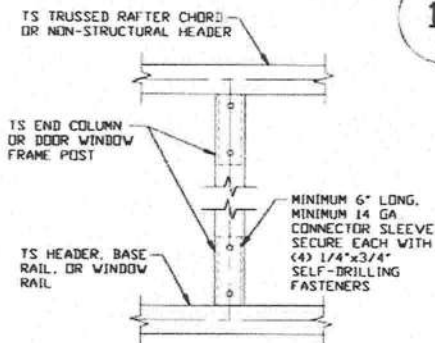
SCALE: NTS



13

### COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



14

### COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL

SCALE: NTS



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30'-0" x 20'-0" ENCLOSED STRUCTURE

DATE: 12-11-20

SCALE: NTS

SHT. 13

DWG. NO: SK-3

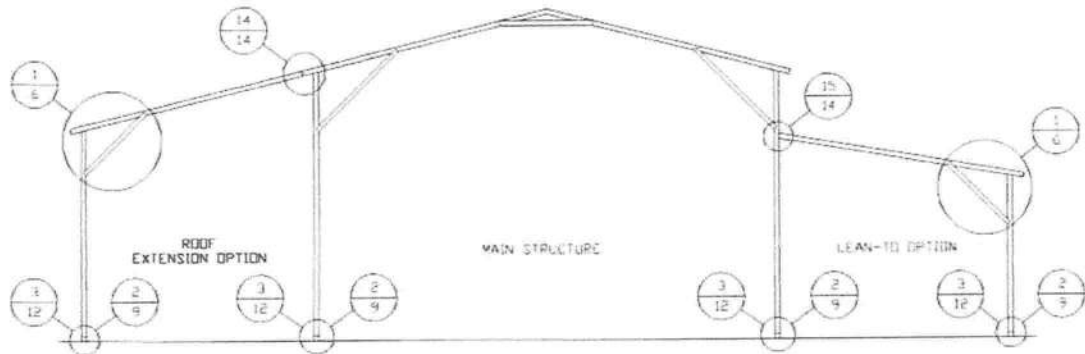
JOB NO: 18068S/18  
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## BOX EAVE RAFTER LEAN-TO OPTIONS



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

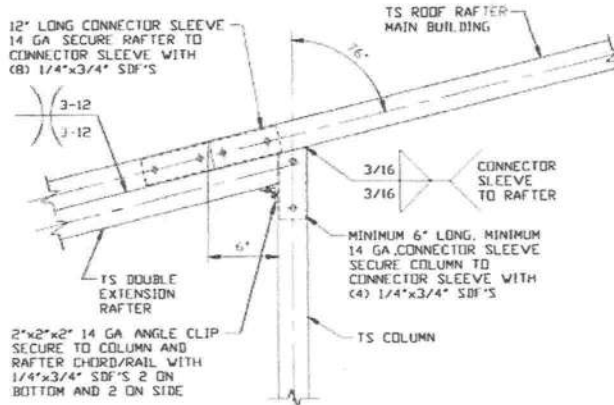
SCALE: NTS

MAXIMUM WIDTH OF SINGLE TS ROOF EXTENSION LEAN-TO IS 12'-0"

MAXIMUM WIDTH OF DOUBLE TS ROOF EXTENSION LEAN-TO IS 16'-0"

MAXIMUM SINGLE COLUMN HEIGHT FOR MAIN BUILDING WITH ROOF EXTENSION LEAN-TO ATTACHED IS 8'-0"

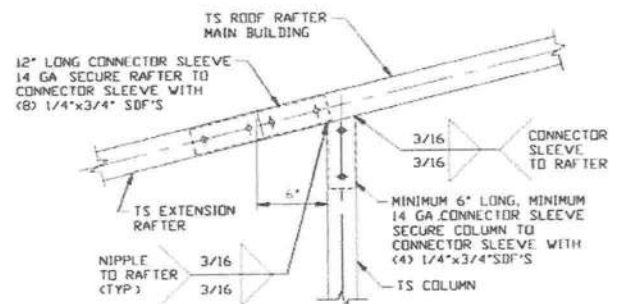
FOR COLUMN CONFIGURATIONS REFERENCE RAFTER COLUMN CONNECTION DETAILS.



#### SIDE EXTENSION RAFTER/ COLUMN DETAIL FOR RAFTER SPANS 12'-0" < TO < 16'-0"

14

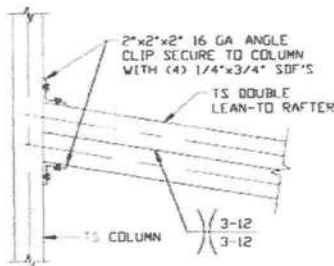
SCALE: NTS



#### SIDE EXTENSION RAFTER/ COLUMN DETAIL FOR RAFTER SPANS < 12'-0"

14A

SCALE: NTS

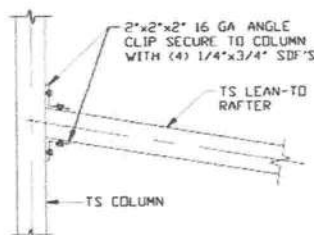


#### LEAN-TO RAFTER TO RAFTER POST CONNECTION DETAIL FOR WIDTHS

12'-0" < TO < 16'-0"

SCALE: NTS

15



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

SCALE: NTS

15A



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DRAWN BY: LT

CHECKED BY: PDH

PROJECT NO. 18068S/

CLEAR CRST

STEEL BUILDINGS AND STRUCTURES, IN  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0" x 20'-0" ENCLOSED STRUCTURE

DATE: 12-11-08

SHT. 14

SCALE: NTS

DWG. NO. SK-3

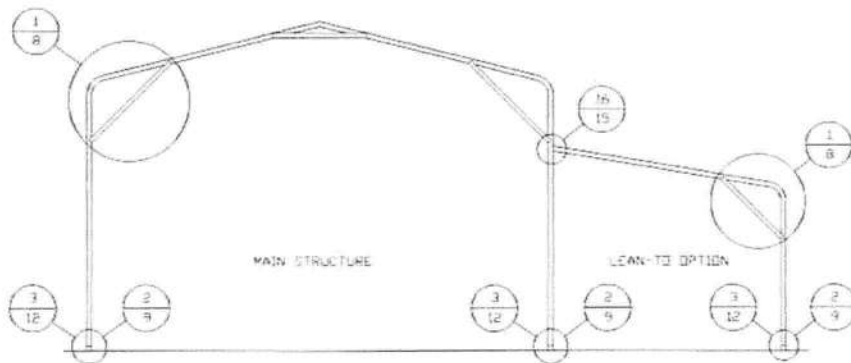
JOB NO. 18068S/  
18290S/20019S/2

REV: 9

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## BOW EAVE RAFTER LEAN-TO OPTIONS



### TYPICAL BOW EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION

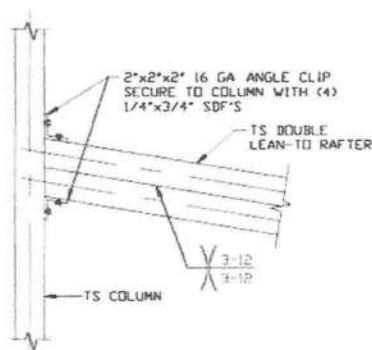
SCALE: NTS

MAXIMUM WIDTH OF SINGLE TS ROOF EXTENSION LEAN-TO IS 12'-0"

MAXIMUM WIDTH OF DOUBLE TS ROOF EXTENSION LEAN-TO IS 16'-0"

MAXIMUM SINGLE COLUMN HEIGHT FOR MAIN BUILDING WITH ROOF EXTENSION LEAN-TO ATTACHED IS 8'-0"

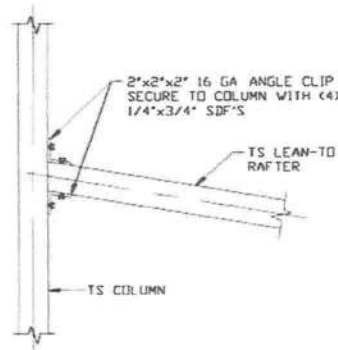
FOR COLUMN CONFIGURATIONS REFERENCE RAFTER COLUMN CONNECTION DETAILS.



**LEAN-TO RAFTER TO  
RAFTER POST CONNECTION  
DETAIL FOR WIDTHS  
12'-0" < TO ≤ 16'-0"**

SCALE: NTS

16



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

SCALE: NTS

16A



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**PROJECT MGR: VSM**

**CLIENT: SBSI**

**STEEL BUILDINGS AND STRUCTURES, INC**  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0"x20'-0" ENCLOSED STRUCTURE

**DATE: 12-11-20**

**SCALE: NTS**

**SHT. 15**

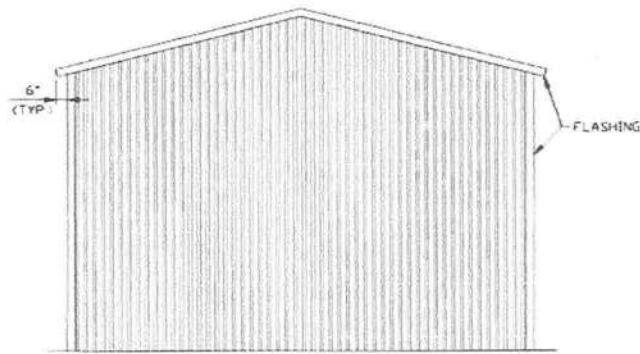
**DWG. NO SK-3**

**JOB NO: 18068S/18  
18290S/20019S/203**

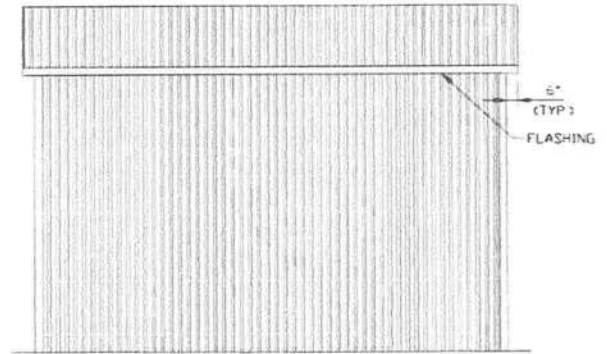
**REV: 9**

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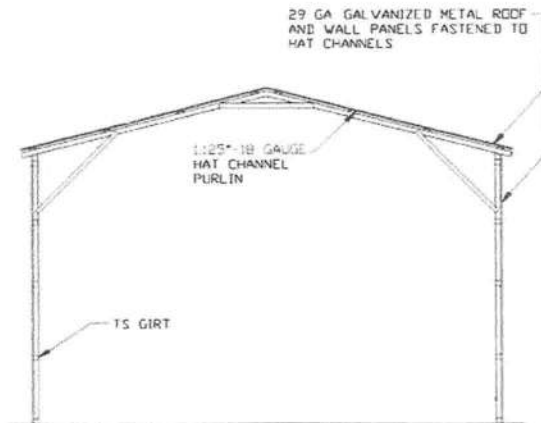
## BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



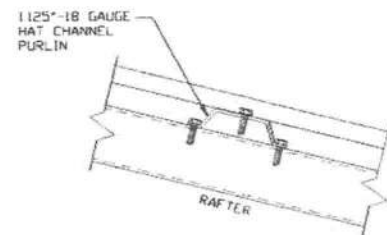
**TYPICAL END ELEVATION  
VERTICAL ROOF/SIDING**  
SCALE: NTS



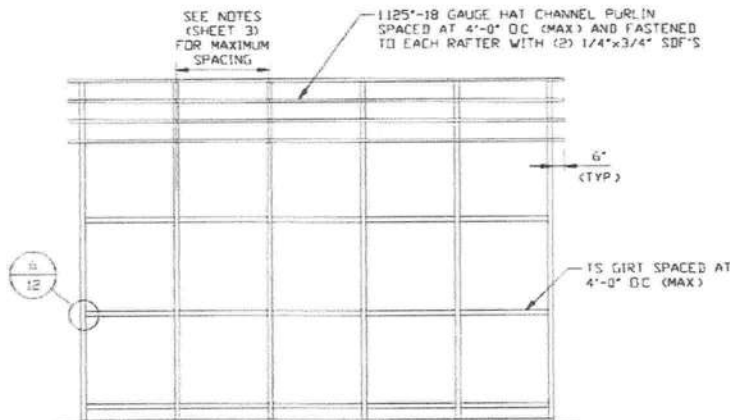
**TYPICAL SIDE ELEVATION  
VERTICAL ROOF/SIDING**  
SCALE: NTS



**TYPICAL SECTION  
VERTICAL ROOF/SIDING OPTION**  
SCALE: NTS



**PANEL ATTACHMENT**  
(ALTERNATE FOR VERTICAL ROOF PANELS)  
SCALE: NTS



**TYPICAL FRAMING SECTION  
VERTICAL ROOF/SIDING OPTION**  
SCALE: NTS



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**PROJECT MGR: WSM**

**CLIENT: SBSI**

**STEEL BUILDINGS AND STRUCTURES, INC.**  
P.O. BOX 1287,  
MOUNT AIRY, NC 27030  
30'-0"X20'-0" ENCLOSED STRUCTURE

**DATE: 12-11-20**

**SHT. 16**

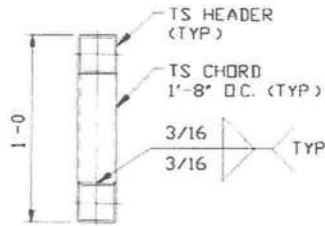
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**DWG. NO: SK-3**

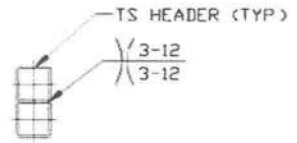
**JOB NO: 18068S/1  
18290S/20019S/20**

**REV: 9**

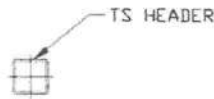
## SIDE WALL HEADER OPTIONS



**LACED HEADER DETAIL FOR DOOR OPENINGS 12'-0" < LENGTH ≤ 20'-0"**  
SCALE: NTS



**DOUBLE HEADER DETAIL FOR DOOR OPENINGS 7'-0" < LENGTH ≤ 12'-0"**  
SCALE: NTS



**SINGLE HEADER DETAIL FOR DOOR OPENINGS LENGTH ≤ 7'-0"**  
SCALE: NTS

## END WALL HEADER OPTIONS



**SINGLE HEADER DETAIL FOR DOOR OPENINGS LENGTH ≤ 12'-0"**  
SCALE: NTS



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CLIENT: SBSI

DATE: 12-11-20

SHT. 17

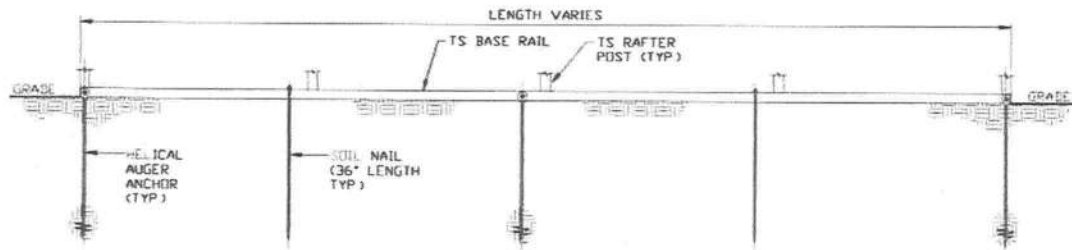
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DWG. NO: SK-3

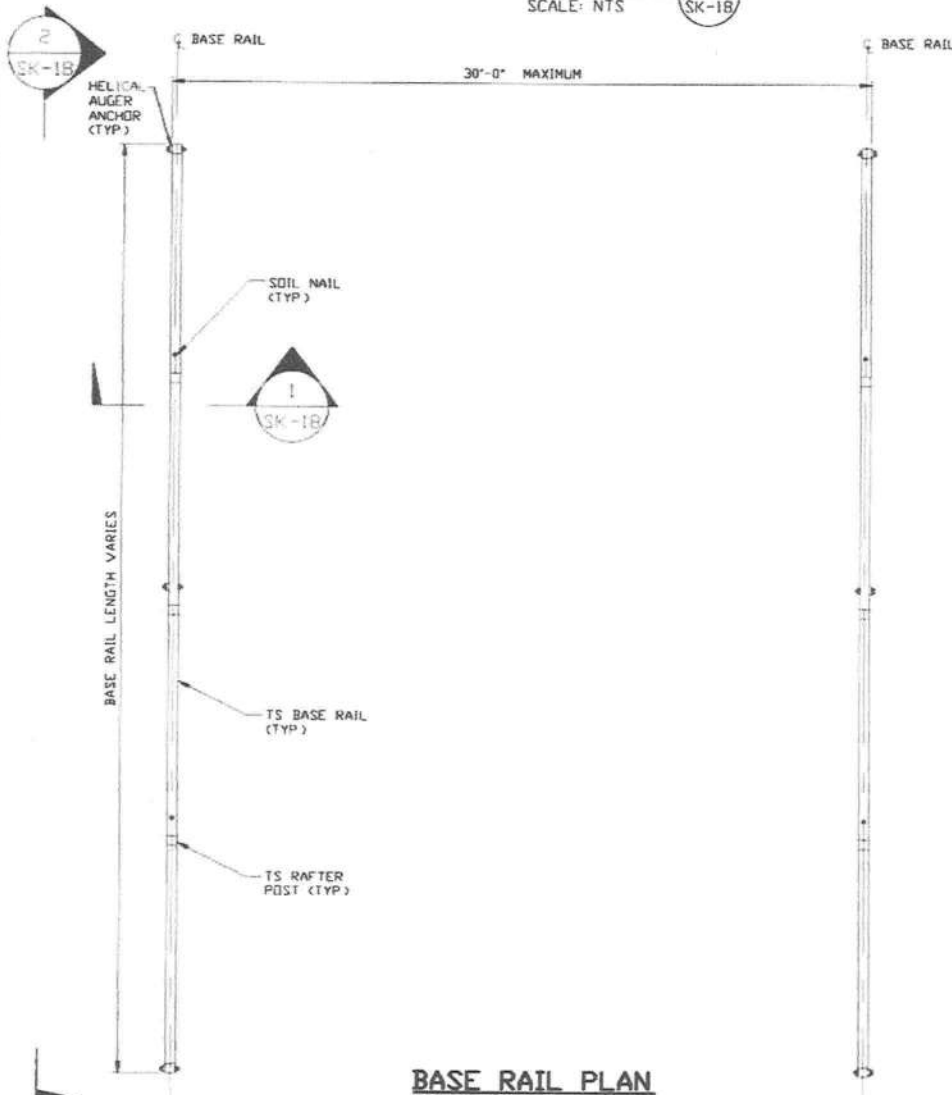
JOB NO: 18068S/181  
18290S/20019S/203

REV: 9

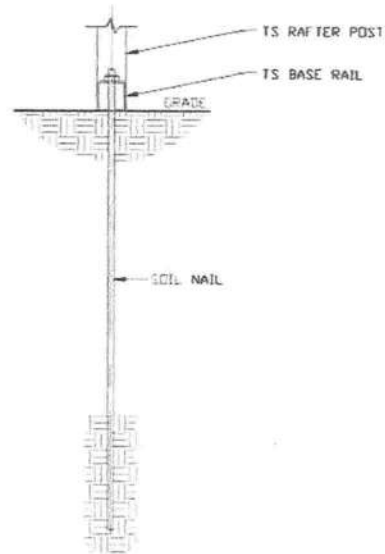
# OPTIONAL BASE RAIL ON GRADE APPLICATION



SECTION 2  
SCALE: NTS  
SK-18



BASE RAIL PLAN  
SCALE: NTS



SECTION 1  
SCALE: NTS  
SK-18

HELIX ANCHOR	
SIDE LENGTH	MAXIMUM SPACING
VARIES	10'-0" (EVERY OTHER POST)



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DATE: 12-11-20

SCALE: NTS

SHT. 18

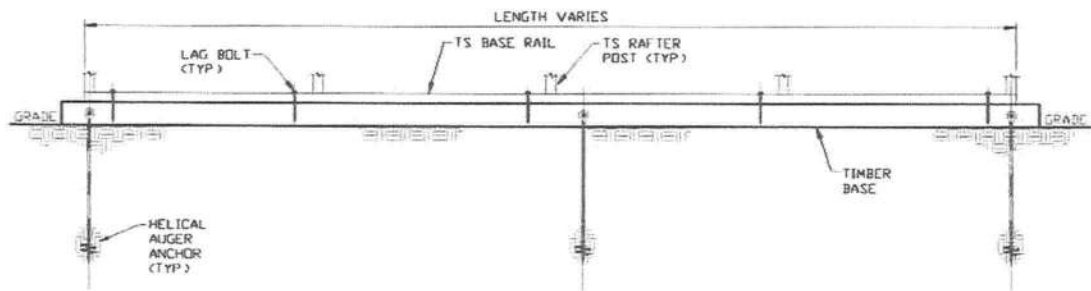
DWG. NO: SK-3

REV: 9

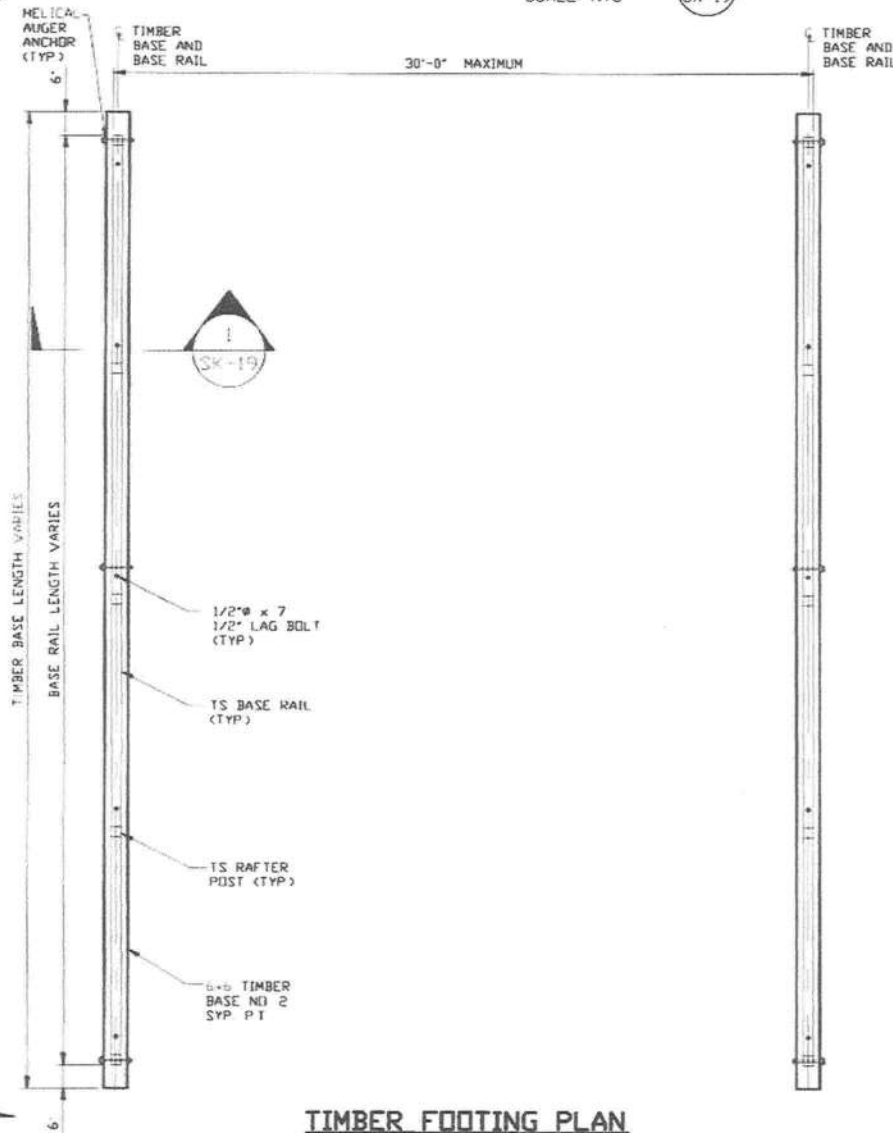
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JOB NO: 18068S/18  
18290S/20019S/203

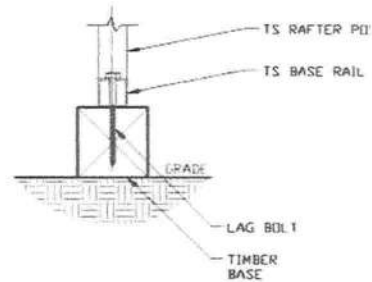
# OPTIONAL BASE RAIL ON TIMBER BEAM



SECTION 2  
SCALE: NTS



TIMBER FOOTING PLAN  
SCALE: NTS



SECTION 1  
SCALE: NTS



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HELIX ANCHOR	
SIDE LENGTH	MAXIMUM SPACING
VARIES	10'-0" (EVERY OTHER POST)

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30'-0"x20'-0" ENCLOSED STRUCTURE

DATE: 12-11-20

SCALE: NTS

SHT. 19

DWG. NO: SK-3

JOB NO: 18060S/1

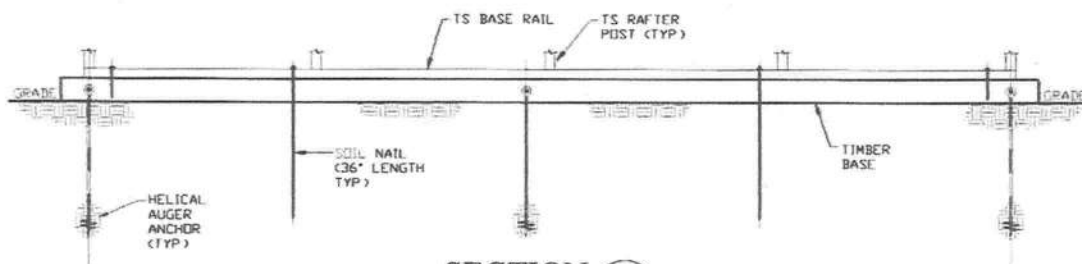
18290S/20019S/20

REV: 9

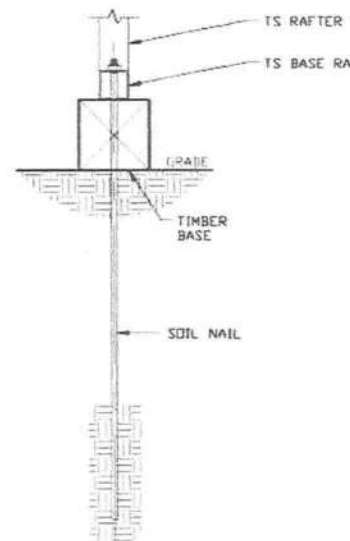
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# OPTIONAL BASE RAIL ON TIMBER BEAM WITH SOIL NAIL



SECTION 2  
SCALE: NTS

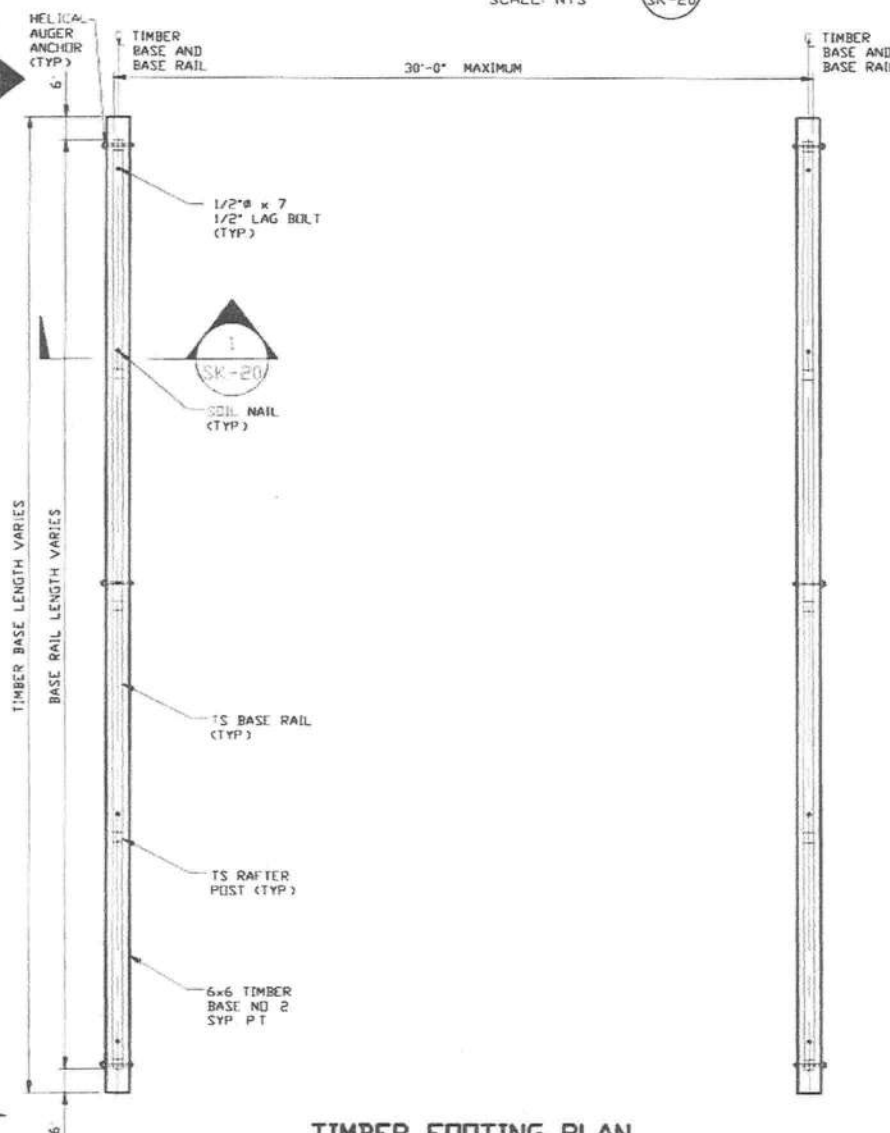


SECTION 1  
SCALE: NTS



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TIMBER FOOTING PLAN  
SCALE: NTS

HELIX ANCHOR	
SIDE LENGTH	MAXIMUM SPACING
VARIES	10'-0" (EVERY OTHER POST)

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30'-0"x20'-0" ENCLOSED STRUCTURE

DATE: 12-11-20

SHT. 20

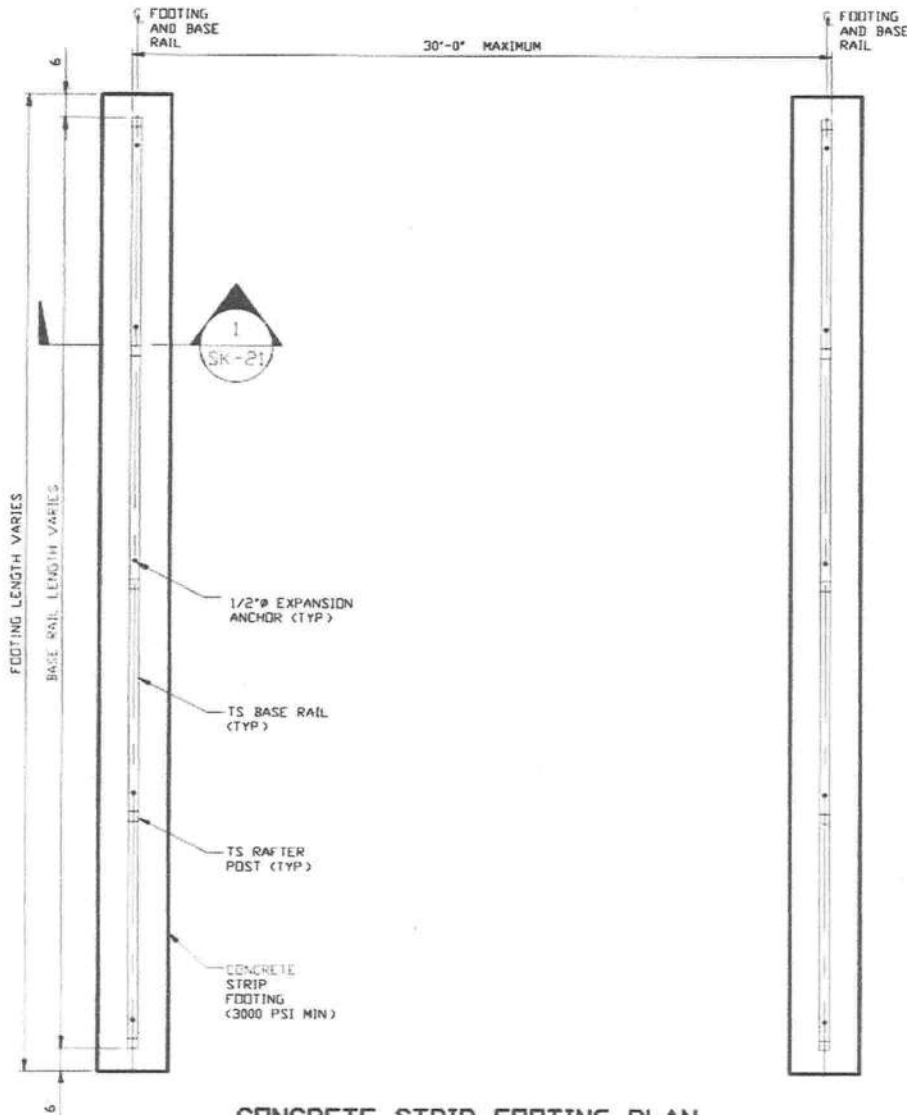
SCALE: NTS

DWG. NO: SK-3

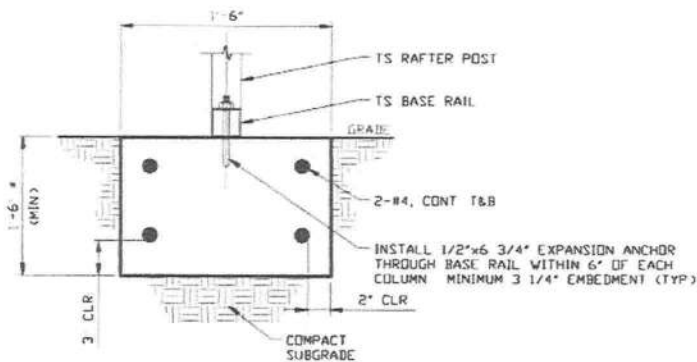
JOB NO: 18068S/1  
18290S/20019S/20

REV: 9

## OPTIONAL CONCRETE STRIP FOOTING



**CONCRETE STRIP FOOTING PLAN**  
SCALE: NTS



**SECTION 1**  
SCALE: NTS  
**SK-21**

\* COORDINATE WITH LOCAL CODES/ORD



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**CLIENT: SBSI**

**DATE: 12-11-20**

**SHT. 21**

**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO: 18068S/18  
18290S/20019S/20**

**REV: 9**