

LH-Emailed  
Kevin 7-13-20

one fl rise Certificate

Flood vents required @ elevated to 111'

Section 8.5.3(2)

App #: 44716

Columbia County New Building Permit Application

BP's

For Office Use Only Application # 1810-59 Date Received 10/19 By JN Permit # 39557  
Zoning Official LN Date 10-24 Flood Zone AE Land Use RLD Zoning RSF2  
FEMA Map # 0293D Elevation 110' MFE 111' River N/A Plans Examiner T.C. Date 10-24-18  
Comments Need elevation certificate at finished construction  
☒ NOC ☒ EH ☐ Deed or PA ☐ Site Plan ☐ State Road Info ☐ Well letter ☐ 911 Sheet ☐ Parent Parcel #  
☐ Dev Permit # ☐ In Floodway ☒ Letter of Auth. from Contractor ☐ F W Comp. letter  
☐ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ Ellisville Water ☒ App Fee Paid ☐ Sub VF Form

Septic Permit No. 18-0848 OR City Water ☐ Fax - 386 365.2096

Applicant (Who will sign/pickup the permit) Kevin Gray Phone 386-755-6449

Address 792 SW Bascom Norris Dr. Lake City, FL 32025

Owners Name GLENN ANDRUS Phone 865-299-9967

911 Address 559 SW Brothers LN Lake City, FL 32025

Contractors Name Donald Little Jr. Phone 386-961-0006

Address 631 SE Industrial circle Lake City, FL 32056

Contractor Email tubularbuildingystems@gmail.com Include to get updates on this job.

Fee Simple Owner Name & Address khgray418@gmail.com

Bonding Co. Name & Address

Architect/Engineer Name & Address WAYNE S. MOORE, PE 1009 E. AVE

Mortgage Lenders Name & Address North Augusta, SC 29841

Circle the correct power company ☒ FL Power & Light ☒ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy

Property ID Number 12-45-16-02942-002 Estimated Construction Cost \$13,437

Subdivision Name Cannon Creek Airport Lot Block Unit Phase

Driving Directions from a Major Road Hwy 90 to Sisters welcome Rd (South)

Left on SW Brothers LN house is down on right

Construction of Steel Storage Building Commercial OR Residential

Proposed Use/Occupancy Storage Building Number of Existing Dwellings on Property

Is the Building Fire Sprinkled? If Yes, blueprints included Or Explain

Circle Proposed ☐ Culvert Permit or ☐ Culvert Waiver or ☐ D.O.T. Permit or ☐ Have an Existing Drive

Actual Distance of Structure from Property Lines - Front Side Side Rear

Number of Stories Heated Floor Area Total Floor Area 900 Acreage 3.28

Zoning Applications applied for (Site & Development Plan, Special Exception, etc.) DP 20-002

SW STATE W/REVIEW 10.30.18

LH - Spoke to Kevin on 11-14-18 (Kevin said they would do flood vents)

**Columbia County Building Permit Application**

**CODE: Florida Building Code 2017 and the 2014 National Electrical Code.**

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

**TIME LIMITATIONS OF APPLICATION :** An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless pursued in good faith or a permit has been issued.

**TIME LIMITATIONS OF PERMITS:** Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

**FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment:** According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

**NOTICE OF RESPONSIBILITY TO CONTRACTOR AND AGENT:** YOU ARE HEREBY NOTIFIED as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

**OWNERS CERTIFICATION:** I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

**NOTICE TO OWNER:** There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. You must verify if your property is encumbered by any restrictions or face possible litigation and or fines.

GLENN D. ANDRUS  
Print Owners Name

[Signature]  
Owners Signature

**\*\*Property owners must sign here before any permit will be issued.**

**\*\*If this is an Owner Builder Permit Application then, ONLY the owner can sign the building permit when it is issued.**

**CONTRACTORS AFFIDAVIT:** By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

[Signature]  
Contractor's Signature

Contractor's License Number CBC1262211  
Columbia County  
Competency Card Number 2030

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 8 day of OCTOBER 2018.

Personally known ☐ or Produced Identification ☒

Heidi Moore  
State of Florida Notary Signature (For the Contractor)

SEAL:



HEIDI MOORE  
NOTARY PUBLIC  
STATE OF FLORIDA  
Comm# FF929829  
Expires 10/21/2019  
Revised 7-1-17

## SITE PLAN CHECKLIST

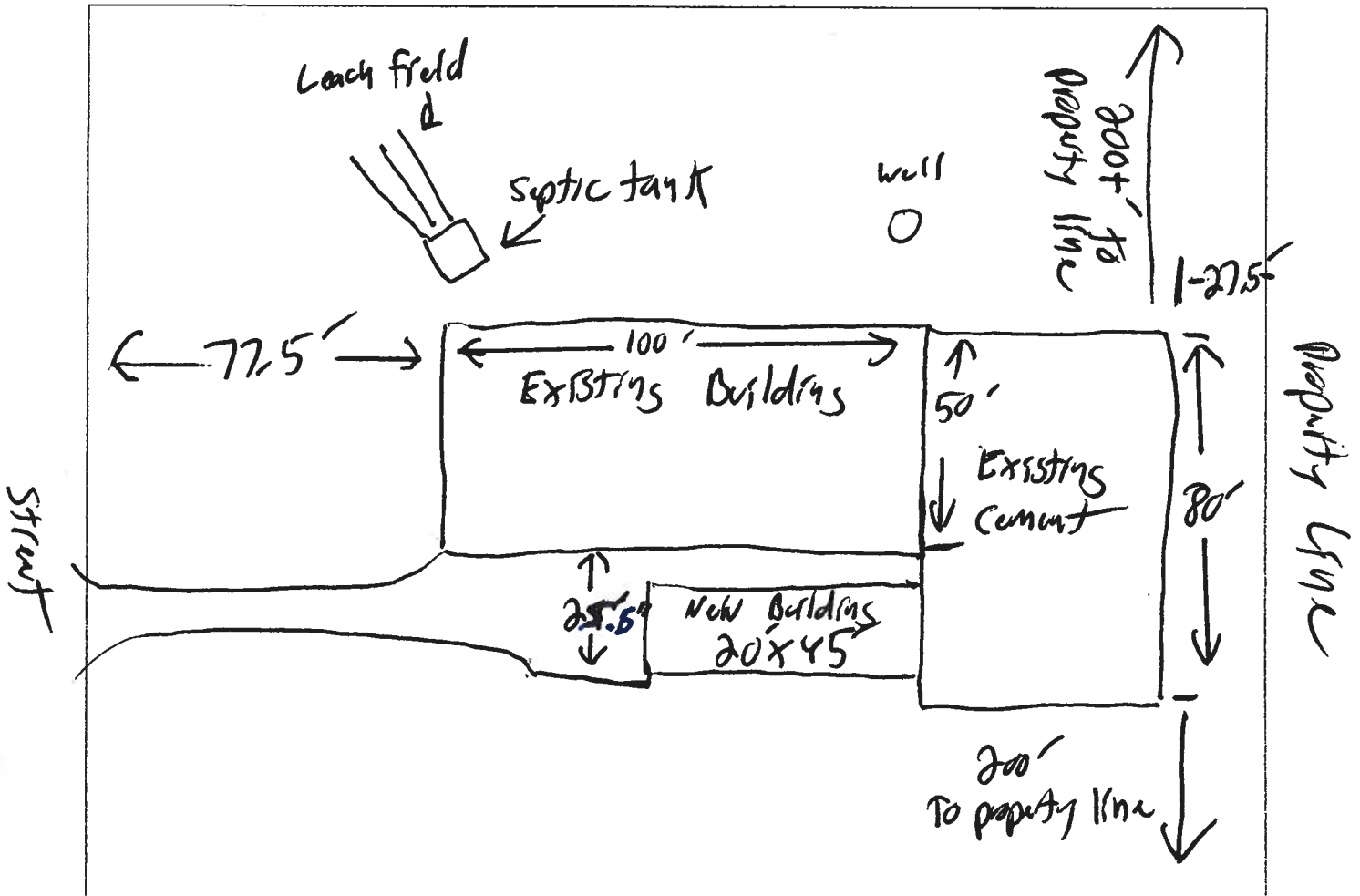
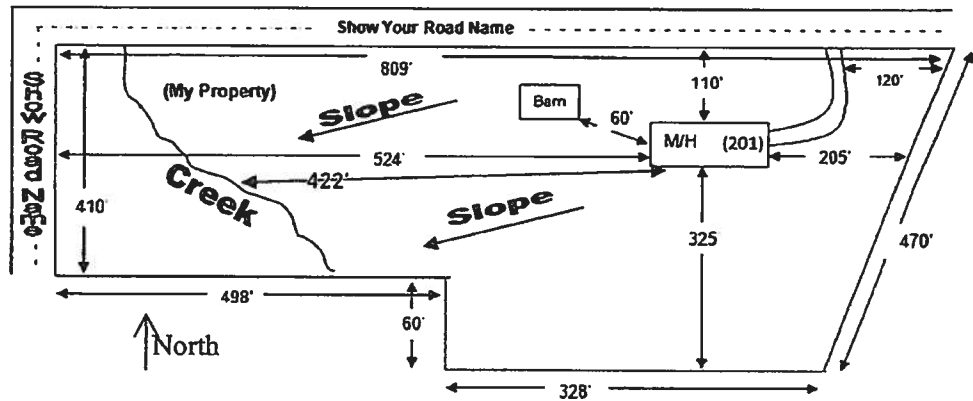
- \_\_\_ 1) Property Dimensions
- \_\_\_ 2) Footprint of proposed and existing structures (including decks), label these with existing addresses
- \_\_\_ 3) Distance from structures to all property lines
- \_\_\_ 4) Location and size of easements
- \_\_\_ 5) Driveway path and distance at the entrance to the nearest property line
- \_\_\_ 6) Location and distance from any waters; sink holes; wetlands; and etc.
- \_\_\_ 7) Show slopes and or drainage paths
- \_\_\_ 8) Arrow showing North direction

## SITE PLAN EXAMPLE

Revised 7/1/15

### NOTE:

This site plan can be copied and used with the 911 Addressing Dept. application forms.





# NOTICE OF COMMENCEMENT

Tax Parcel Identification Number:

12-45-16-02942-002

Clerk's Office Stamp


Inst: 201812021563 Date: 10/19/2018 Time: 8:35AM  
Page 1 of 1 B: 1370 P: 2463, P.DeWitt Cason, Clerk of Court  
Columbia, County, By: BD  
Deputy Clerk

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this NOTICE OF COMMENCEMENT.

1. Description of property (legal description): # 12-45-16-02942-002  
a) Street (job) Address: 559 SW Brothers LN Lake City, FL 32025
2. General description of improvements: Steel
3. Owner Information or Lessee Information if the Lessee contracted for the Improvements:  
a) Name and address: Glenn Andrews  
b) Name and address of fee simple titleholder (if other than owner)  
c) Interest in property
4. Contractor Information  
a) Name and address: Donald Little Jr 631 SE Industrial Circle Lake City, FL 32056  
b) Telephone No.: 386-961-0006
- X 5. Surety Information (if applicable, a copy of the payment bond is attached):  
a) Name and address:  
b) Amount of Bond:  
c) Telephone No.:
- X 6. Lender  
a) Name and address:  
b) Phone No.:
- X 7. Person within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes:  
a) Name and address:  
b) Telephone No.:
- X 8. In addition to himself or herself, Owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:  
a) Name: OF  
b) Telephone No.:
- X 9. Expiration date of Notice of Commencement (the expiration date will be 1 year from the date of recording unless a different date is specified):

**WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY; A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.**

STATE OF FLORIDA  
COUNTY OF COLUMBIA

10.   
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Office/Director/Partner/Manager

Printed Name and Signatory's Title/Office

The foregoing instrument was acknowledged before me, a Florida Notary, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by:

\_\_\_\_\_ as \_\_\_\_\_ for \_\_\_\_\_  
(Name of Person) (Type of Authority) (name of party on behalf of whom instrument was executed)

Personally Known \_\_\_\_\_ OR Produced Identification ☒ Type \_\_\_\_\_

Notary Signature  Notary Stamp or Seal:



HEIDI MOORE  
NOTARY PUBLIC  
STATE OF FLORIDA  
Comm# FF929829  
Expires 10/21/2019

**Columbia County Property Appraiser**

Jeff Hampton

**2017 Tax Roll Year**

updated: 8/1/2018

Parcel: &lt;&lt; 12-4S-16-02942-002 &gt;&gt;

**Owner & Property Info**

Result: 1 of 24

Owner	ANDRUS GLENN D & TERRY G 559 SW BROTHERS LN LAKE CITY, FL 32025		
Site	559 BROTHERS LN, LAKE CITY		
Description*	COMM NE COR OF SE1/4, RUN S 1411 FT FOR POB, CONT S 285.49 FT, W 524.82 FT, N 284.38 FT, E 524.86 FT TO POB, EX COMM AT NE COR OF SE1/4, RUN S 1411 FT FOR POB, CONT S 285.49 FT, W 46 FT, NW'RLY TO POB. ORB 808-1118, (GRANT OF ESMNTS IN ORB 1280-2100, 1280-...more>>>		
Area	3.28 AC	S/T/R	12-4S-16
Use Code**	SINGLE FAM (000100)	Tax District	2

\*The Description above is not to be used as the Legal Description for this parcel in any legal transaction.

\*\*The Use Code is a FL Dept. of Revenue (DOR) code and is not maintained by the Property Appraiser's office. Please contact your city or county Planning &amp; Zoning office for specific zoning information.

**Property & Assessment Values**

2017 Certified Values		2018 Working Values	
Mkt Land (1)	\$74,920	Mkt Land (1)	\$74,920
Ag Land (0)	\$0	Ag Land (0)	\$0
Building (1)	\$170,504	Building (1)	\$175,988
XFOB (1)	\$2,500	XFOB (1)	\$2,500
Just	\$247,924	Just	\$253,408
Class	\$0	Class	\$0
Appraised	\$247,924	Appraised	\$253,408
SOH Cap [?]	\$0	SOH Cap [?]	\$0
Assessed	\$247,924	Assessed	\$253,408
Exempt	\$0	Exempt	\$0
Total Taxable	county:\$247,924 city:\$247,924 other:\$247,924 school:\$247,924	Total Taxable	county:\$253,408 city:\$253,408 other:\$253,408 school:\$253,408

Aerial Viewer

Pictometry

Google Maps

2016 2013 2010 2007 2005 2004 1999 Sales

**▼ Sales History**

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
12/26/2014	\$270,000	1287/0398	WD	I	Q	01
7/25/1995	\$37,900	808/1118	WD	V	Q	
1/1/1978	\$11,400	394/0658	03	V	Q	

**▼ Building Characteristics**

Bldg Sketch	Bldg Item	Bldg Desc*	Year Blt	Base SF	Actual SF	Bldg Value
Sketch	1	SINGLE FAM (000100)	2000	2000	6448	\$175,988

\*Bldg Desc determinations are used by the Property Appraisers office solely for the purpose of determining a property's Just Value for ad valorem tax purposes and should not be used for any other purpose.

**▼ Extra Features & Out Buildings (Codes)**

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0166	CONC,PAVMT	2000	\$2,500.00	1.000	50 x 50 x 0	(000.00)

**▼ Land Breakdown**

Land Code	Desc	Units	Adjustments	Eff Rate	Land Value
000100	SFR (MKT)	3.280 AC	1.00/1.00 1.00/0.90	\$22,841	\$74,920

Search Result: 1 of 24

© Columbia County Property Appraiser | Jeff Hampton | Lake City, Florida | 386-758-1083

by: GrizzlyLogic.com

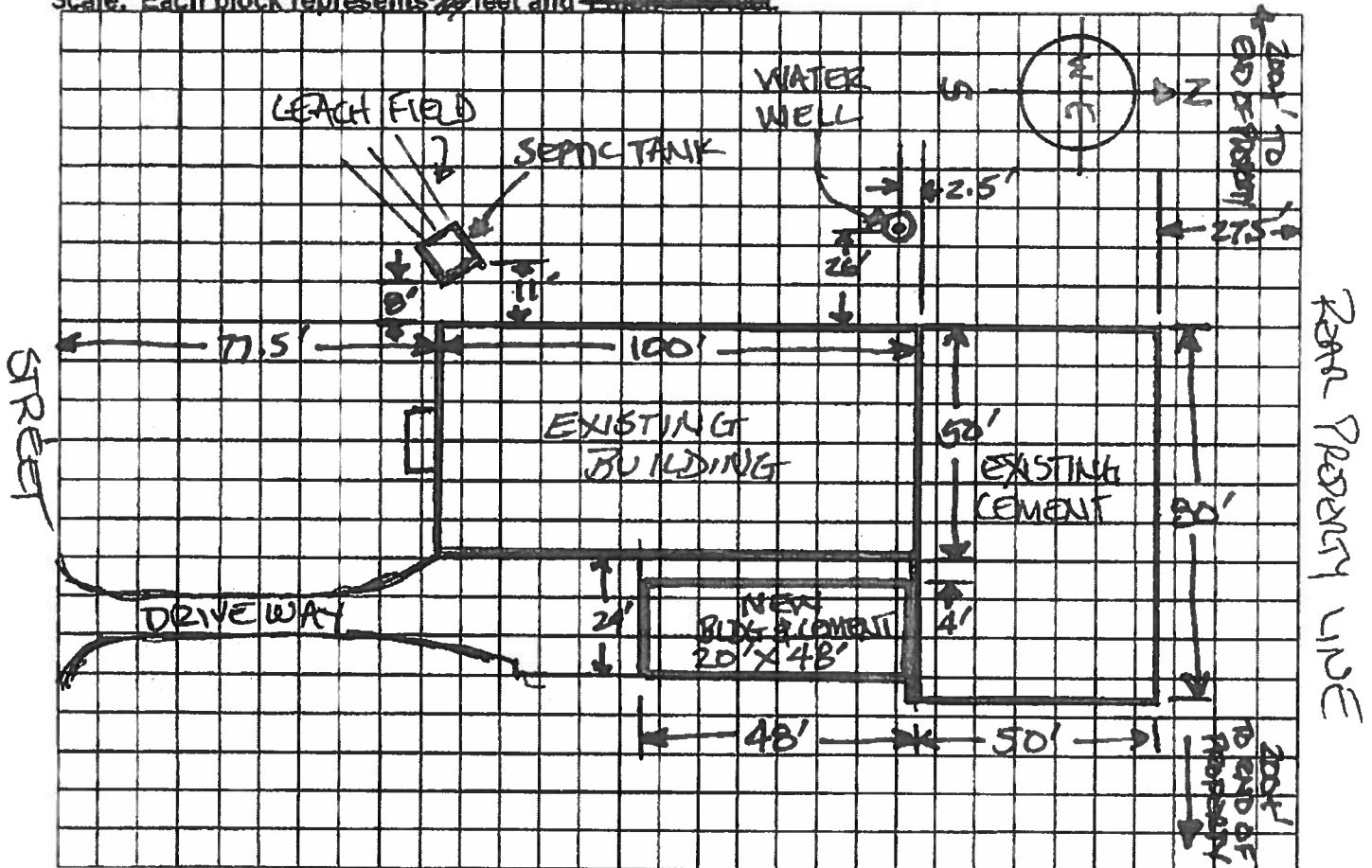


STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
APPLICATION FOR CONSTRUCTION PERMIT

Permit Application Number 18-8848

----- PART II - SITEPLAN -----

Scale: Each block represents <sup>8.2</sup>~~25~~ feet and ~~43~~<sup>11</sup> feet.



Notes: THIS PLAN ILLUSTRATES APPROX 1 ACRE OF 3.3 ACRE PROPERTY  
LOCATED AT 559 SW BROTHERS CAVE

\* Site Plan submitted by: [Signature]

Plan Approved ☒

Not Approved ☐

Date 10/24/18

By [Signature]

ES

Columbia

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

## Legend

2018Aerials

Parcels

Addresses

Roads

Roads

others

Dirt

Interstate

Main

Other

Paved

Private

2018 Flood Zones

0.2 PCT ANNUAL CHANCE

A

AE

AH

Addressing:2018 Base Flood Elevations Group

2018 Base Flood Elevations

DEFAULT

Base Flood Elevations

2018 Base Flood Elevation Zones

0.2 PCT ANNUAL CHANCE

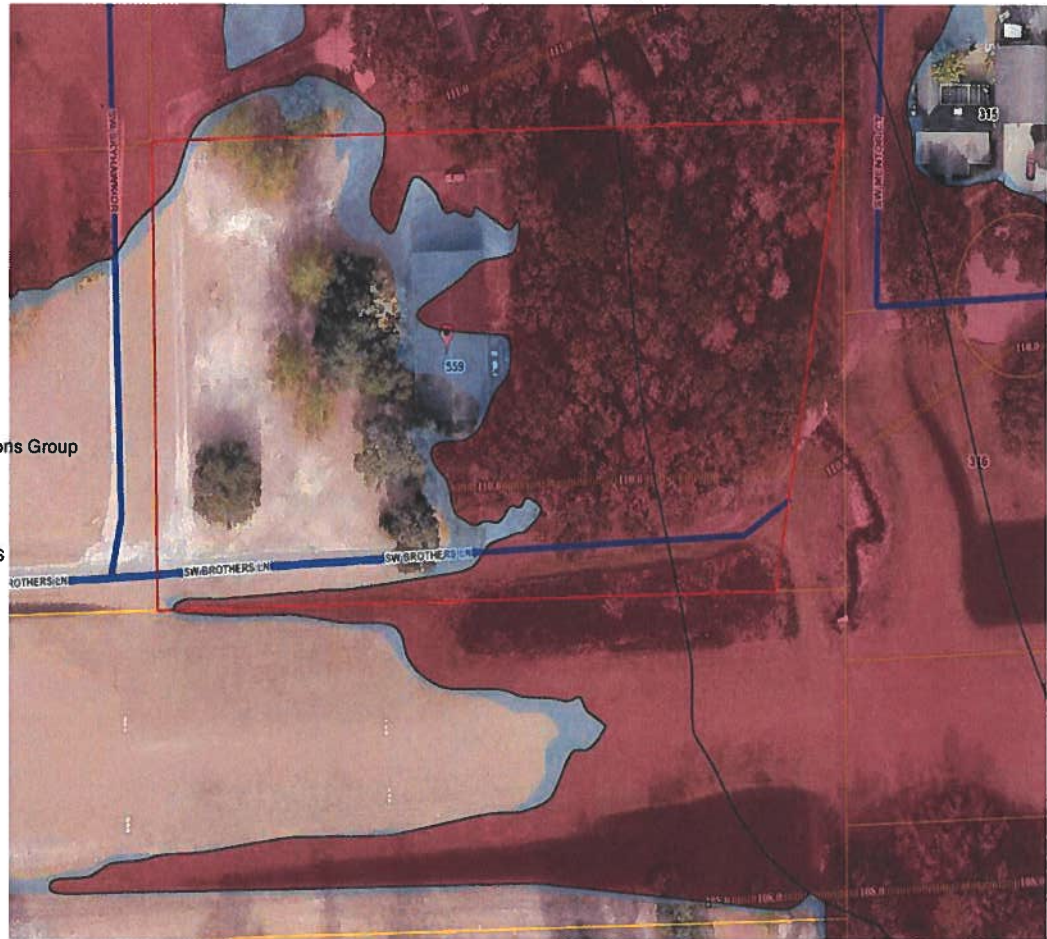
A

AE

AH

# Columbia County, FLA - Building & Zoning Property Map

Printed: Tue Feb 04 2020 12:17:23 GMT-0500 (Eastern Standard Time)



## Parcel Information

Parcel No: 12-4S-16-02942-002

Owner: ANDRUS GLENN D & TERRY G

Subdivision:

Lot:

Acres: 3.23822737

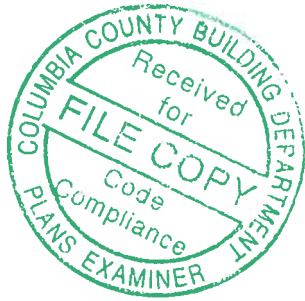
Deed Acres: 3.28 Ac

District: District 5 Tim Murphy

Future Land Uses: Residential - Low

Flood Zones: AE, 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Official Zoning Atlas: RSF-2



CAROL CHADWICK, P.E.

*Civil Engineer*

1208 S.W. Fairfax Glen

Lake City, FL 32025

307.680.1772

ccpeuyo@gmail.com

March 4, 2020

## ONE FOOT RISE CERTIFICATION

Owner: Glenn & Terry Andrus

Property Address: 559 S.W. Brothers Lane  
Lake City, FL 32025

Property Description: Section 12, Township 4 South, Range 16 East  
Columbia County, Florida

Proposed Structure in  
Floodway: 20' x 48' structure

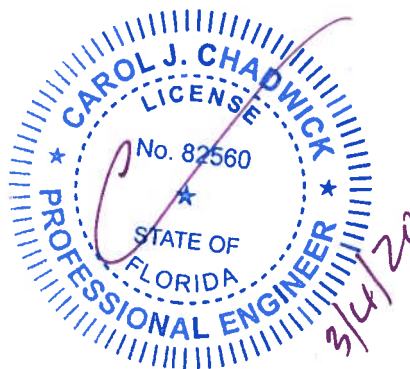
Elevation of 100-year flood: 111.1 feet (FEMA)

Community Panel: 12023 0293D

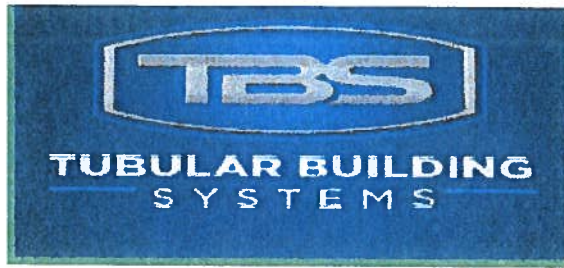
I hereby certify that the construction of the proposed structure will not obstruct flow or cause more than a 1.00 foot rise in the 100-year flood elevation.

Carol Chadwick, P.E.

CC Job FL20031







**STRUCTURAL DESIGN**

**ENCLOSED BUILDING**

**EXPOSURE B**

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

**18 December 2017**

**Revision 4**

**M&A Project No. 16022S/17300S**

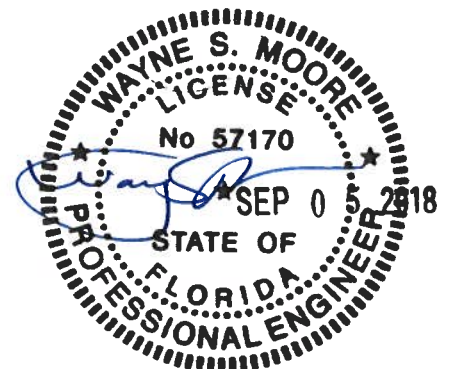
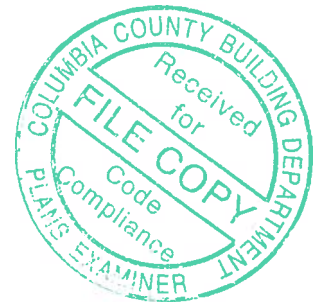
**Prepared for:**

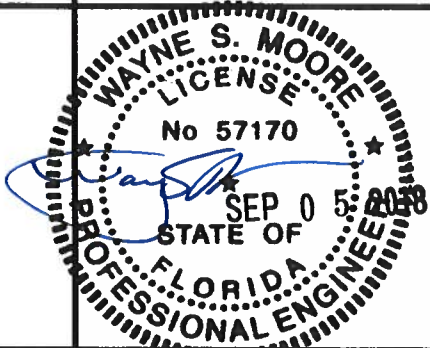
**Tubular Building Systems, LLC  
631 SE Industrial Circle  
Lake City, Florida 32025**

**Prepared by:**

**Moore and Associates Engineering and Consulting, Inc.  
1009 East Avenue  
North Augusta, SC 29841**

**401 S. Main Street, Suite 200  
Mount Airy, NC 27030**

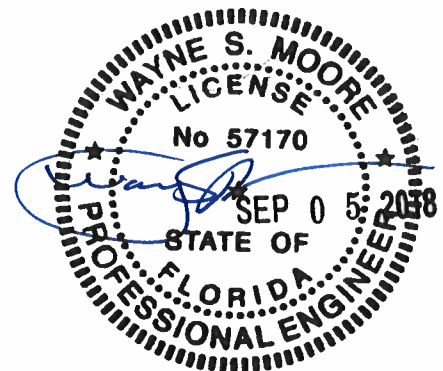


MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.  <small>THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.</small>	DRAWN BY: LT	TUBULAR BUILDING SYSTEMS 30'-0"x20'-0" ENCLOSED BUILDING EXP. B PE SEAL COVER SHEET			JOB NO: 16022S/17300S
	CHECKED BY: PDH				
	PROJECT MGR: WSH	DATE: 12-18-17	SCALE: NTS		
	CLIENT: TBS	SHT. 1	DWG. NO: SK-3	REV: 4	

# DRAWING INDEX

SHEET 1	PE SEAL COVER SHEET
SHEET 2	DRAWING INDEX
SHEET 3	INSTALLATION NOTES AND SPECIFICATIONS
SHEET 4	TYPICAL SIDE AND END ELEVATIONS
SHEET 5	TYPICAL RAFTER COLUMN END AND SIDE FRAMING SECTIONS (BOX EAVE RAFTER)
SHEET 6A	TYPICAL RAFTER COLUMN CONNECTION DETAILS (LACED COLUMN)
SHEET 6B	TYPICAL RAFTER COLUMN CONNECTION DETAILS (DOUBLE COLUMN)
SHEET 6C	TYPICAL RAFTER COLUMN CONNECTION DETAILS (SINGLE COLUMN)
SHEET 7	TYPICAL RAFTER COLUMN END AND SIDE FRAMING SECTIONS (BOW RAFTER)
SHEET 8A	TYPICAL RAFTER COLUMN CONNECTION DETAILS (DOUBLE COLUMN)
SHEET 8B	TYPICAL RAFTER COLUMN CONNECTION DETAILS (SINGLE COLUMN)
SHEET 9A	BASE RAIL ANCHORAGE OPTIONS
SHEET 9B	OPTIONAL FOUNDATION ANCHORAGE
SHEET 10	TYPICAL END WALL AND SIDE WALL OPENING FRAMING SECTIONS (BOX EAVE RAFTER)
SHEET 11	TYPICAL END WALL AND SIDE WALL OPENING FRAMING SECTIONS (BOW RAFTER)
SHEET 12	WALL OPENING DETAILS
SHEET 13	LEAN-TO OPTIONS (BOX EAVE RAFTER)
SHEET 14	LEAN-TO OPTIONS (BOW RAFTER)
SHEET 15	VERTICAL ROOF/SIDING OPTION END AND SIDE ELEVATION AND SECTION
SHEET 16	OPTIONAL DOOR HEADER



MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	TUBULAR BUILDING SYSTEMS 30'-0"x20'-0" ENCLOSED BUILDING EXP. B		
	CHECKED BY: PDH			
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.	PROJECT MGR: VSM	DATE: 12-18-17	SCALE: NTS	JOB NO: 16022S/17300S
	CLIENT: TBS	SHT. 2	DWG. NO: SK-3	REV: 4



## INSTALLATION NOTES AND SPECIFICATIONS

1. DESIGN IS FOR A MAXIMUM 30'-0" WIDE x 20'-0" EAVE HEIGHT ENCLOSED STRUCTURES.
2. DESIGN WAS DONE IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE (FBC) 6TH EDITION, 2012 INTERNATIONAL BUILDING CODE (IBC), AND 2015 IBC.
3. DESIGN LOADS ARE AS FOLLOWS:
  - A) DEAD LOAD = 1.5 PSF
  - B) LIVE LOAD = 12 PSF
  - C) GROUND SNOW LOAD = 10 PSF
4. LOW ULTIMATE WIND SPEED 105 TO 140 MPH (NOMINAL WIND SPEED 81 TO 108 MPH) MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET.
5. HIGH ULTIMATE WIND SPEED 141 TO 170 MPH (NOMINAL WIND SPEED 109 TO 132 MPH) MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET.
6. LOW HAZARD RISK CATEGORY I (WIND)
7. WIND EXPOSURE CATEGORY B.
8. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS. FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).
9. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9' OR END = 6', (MAX.)
10. FASTENERS CONSIST OF #12-14x3/4" 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.
11. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6' OF EACH RAFTER COLUMN ALONG SIDES.
12. GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/WELDED NUT x 30" LONG IN SUITABLE SOIL CONDITIONS MAY BE USED FOR LOW (< 108 MPH NOMINAL) WIND SPEEDS ONLY. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
13. OPTIONAL BASE RAIL ANCHORAGE MAY BE USED FOR LOW AND MUST BE USED FOR HIGH WIND SPEEDS.
14. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
 

SOIL SITE CLASS = D  
RISK CATEGORY I/II/III

R = 3.25      I<sub>e</sub> = 1.0  
S<sub>DS</sub> = 1.522      V = C<sub>s</sub>W  
S<sub>DI</sub> = 0.839



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

**PROJECT MGR: WSM**

**CLIENT: TBS**

**DATE: 12-18-17**

**SHT. 3**

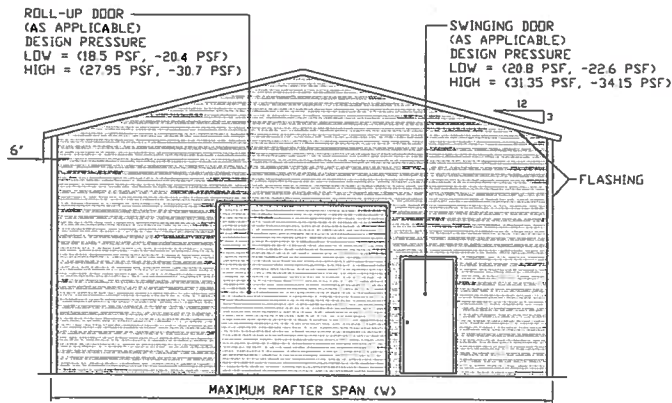
**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO:  
16022S/17300S**

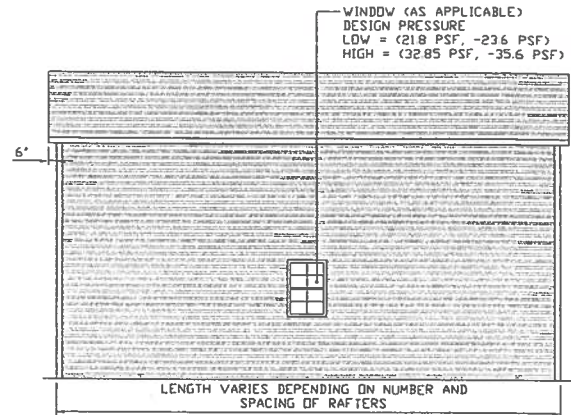
**REV: 4**

## BOX EAVE FRAME RAFTER ENCLOSED BUILDING



**TYPICAL END ELEVATION-HORIZONTAL ROOF**

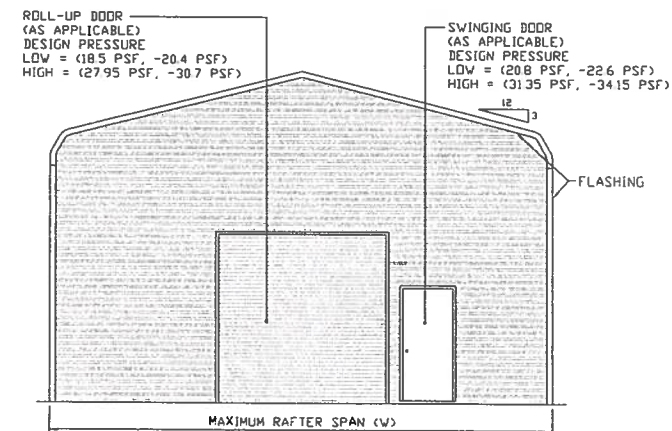
SCALE: NTS



**TYPICAL SIDE ELEVATION-HORIZONTAL ROOF**

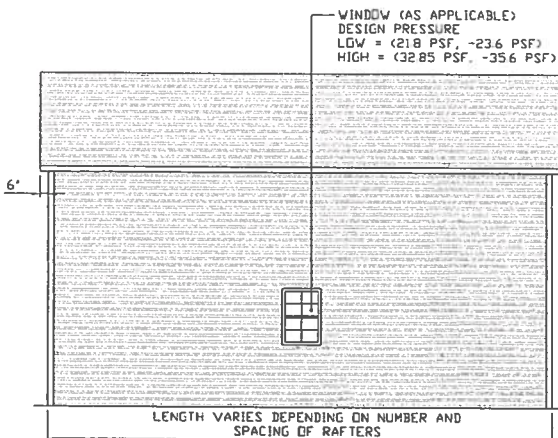
SCALE: NTS

## BOW FRAME RAFTER ENCLOSED BUILDING



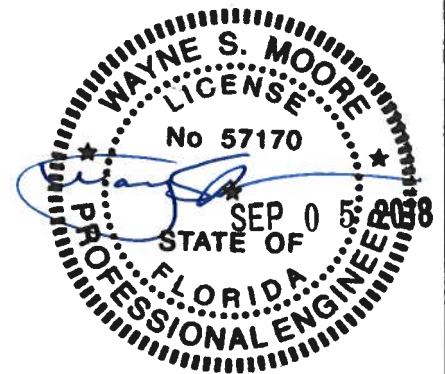
**TYPICAL END ELEVATION**

SCALE: NTS



**TYPICAL SIDE ELEVATION**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDM**

**PROJECT MGR: VSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

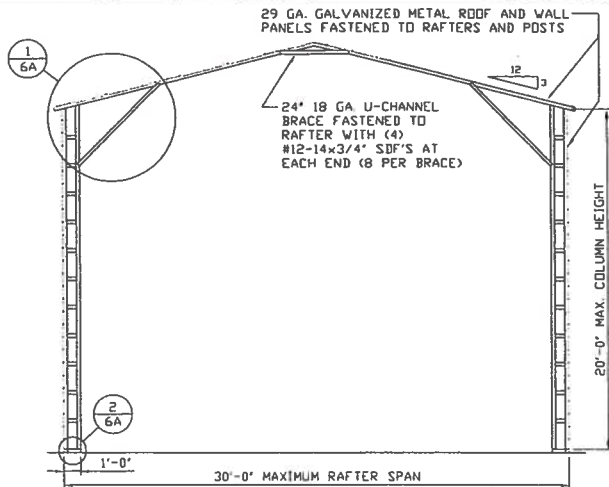
**JOB NO:  
160225/173005**

**SHT. 4**

**DWG. NO: SK-3**

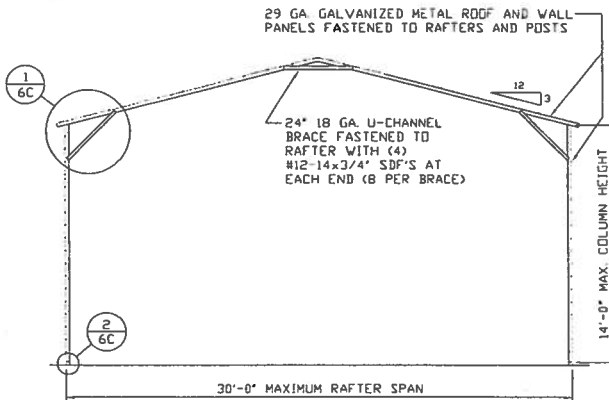
**REV: 4**

**THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.**



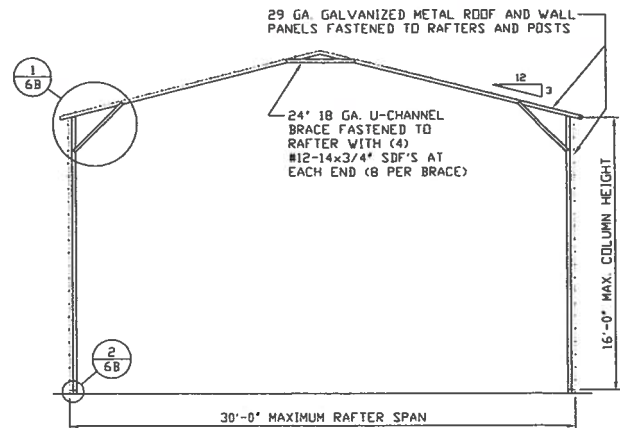
**TYPICAL RAFTER/COLUMN END FRAME SECTION**

SCALE: NTS



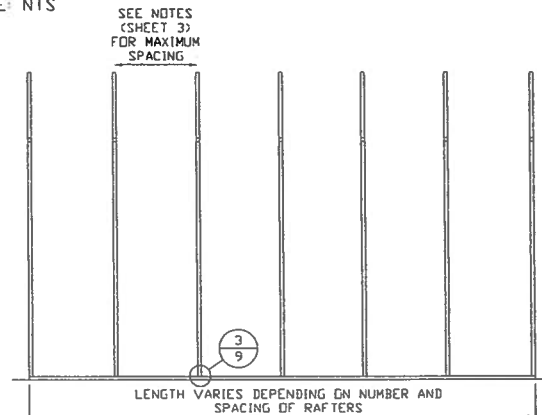
**TYPICAL RAFTER/COLUMN END FRAME SECTION**

SCALE: NTS



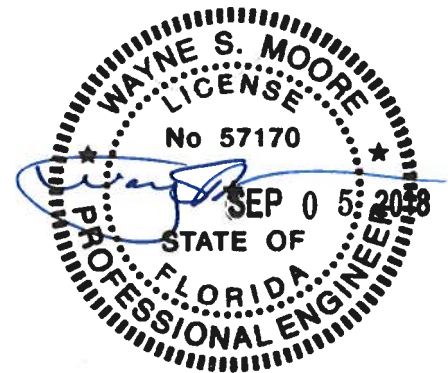
**TYPICAL RAFTER/COLUMN END FRAME SECTION**

SCALE: NTS



**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

**SHT. 5**

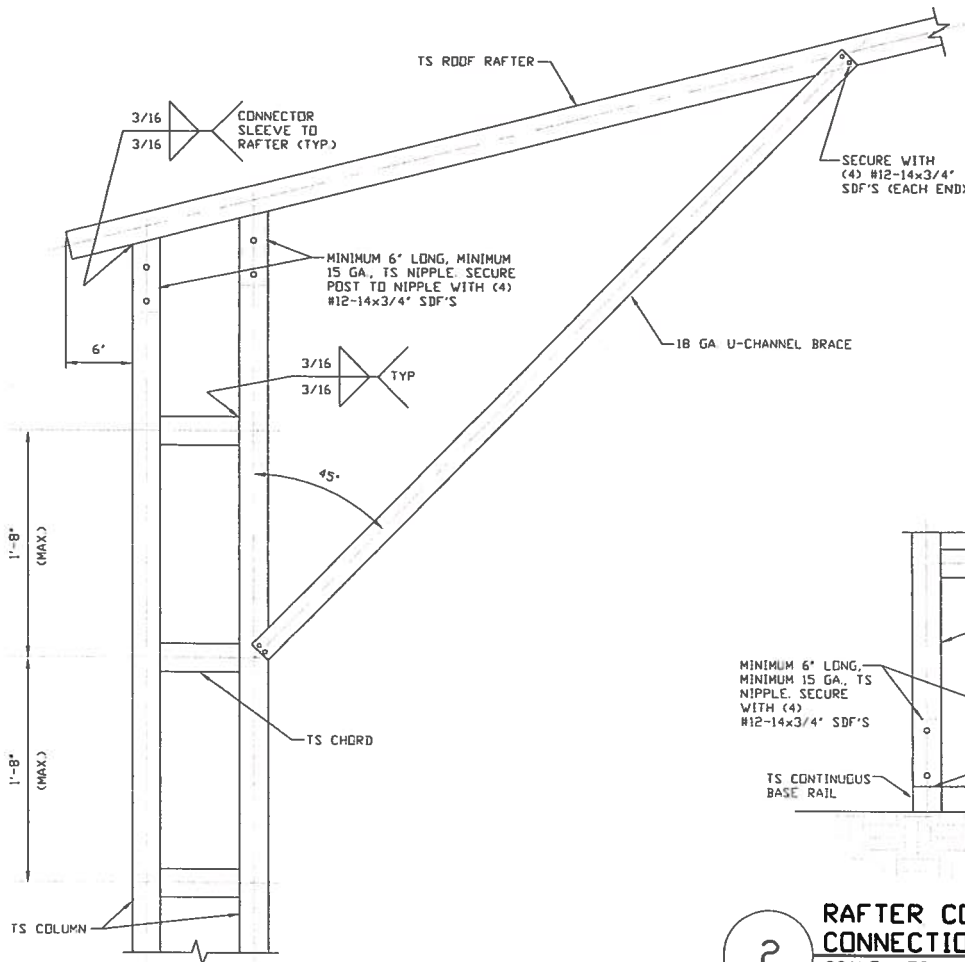
**DWG. NO: SR-3**

**JOB NO:  
16022S/17300S**

**REV: 4**

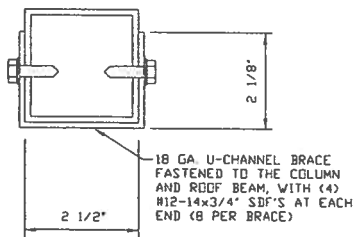
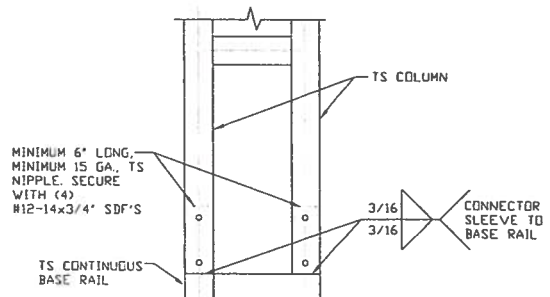
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



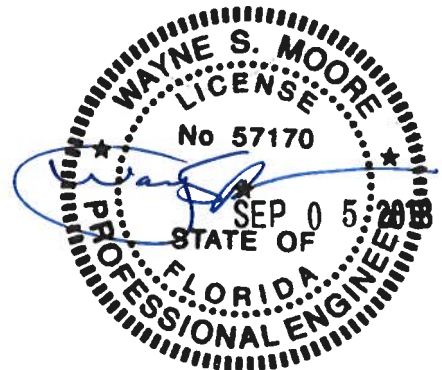


**BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL  
FOR HEIGHTS 16'-0" < TO ≤ 20'-0"**  
SCALE: NTS

**2 RAFTER COLUMN/BASE RAIL  
CONNECTION DETAIL**  
SCALE: NTS



**BRACE SECTION**  
SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PMH**

**PROJECT MGR: VSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SHT. 6A**

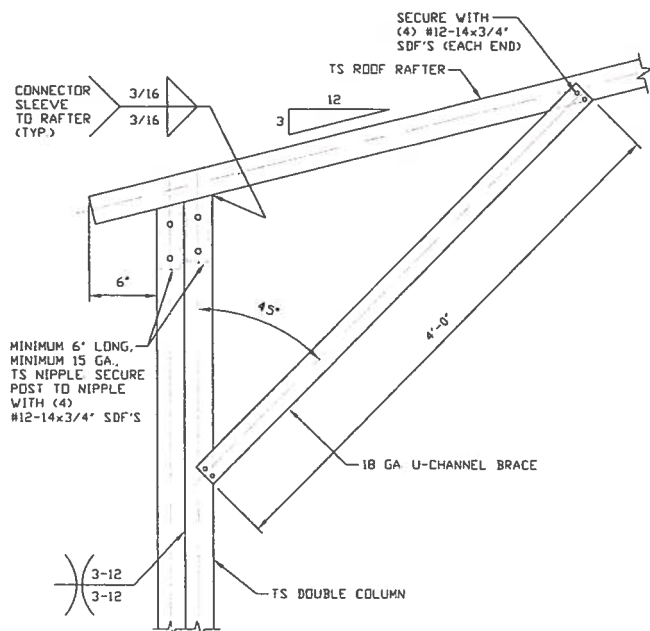
**SCALE: NTS**

**DWG. NO: SK-3**

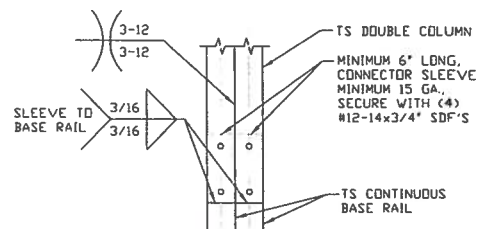
**JOB NO:  
16022S/17300S**

**REV: 4**

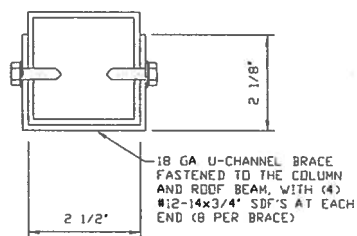
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



**1** BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL  
FOR HEIGHTS 14'-0" < TO ≤ 16'-0"  
SCALE: NTS



**2** RAFTER COLUMN/BASE RAIL  
CONNECTION DETAIL  
SCALE: NTS



**BRACE SECTION**  
SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: VSH**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

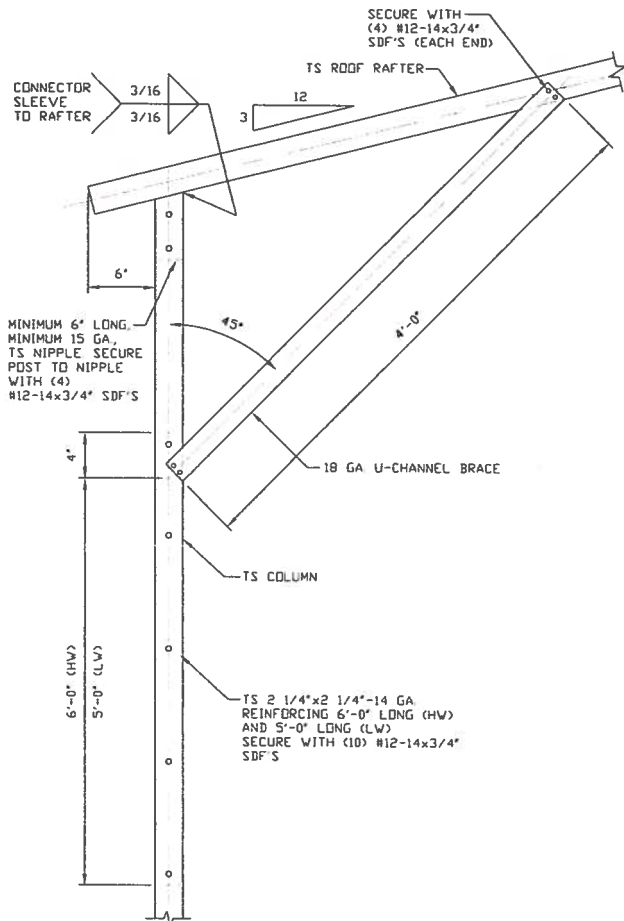
**SHT. 6B**

**DWG. NO: SK-3**

**JOB NO:  
16022S/17300S**

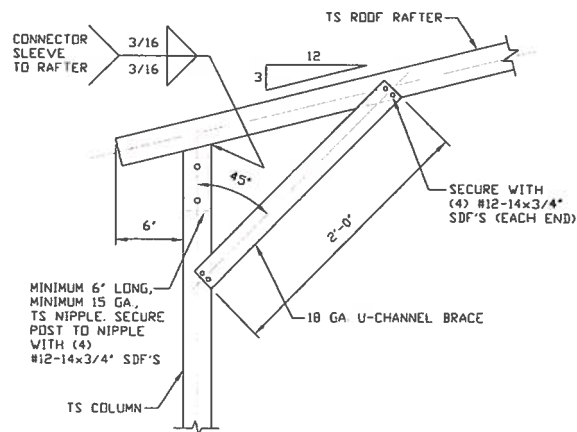
**REV: 4**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



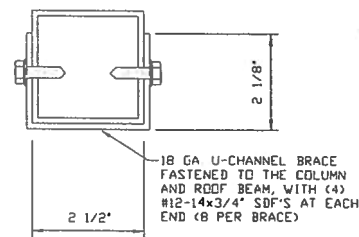
1A

**BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 14'-0"**  
SCALE: NTS

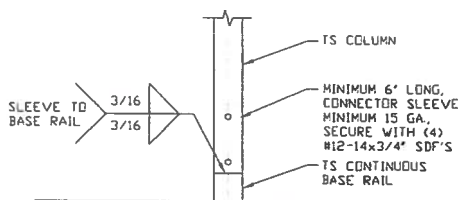


1B

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

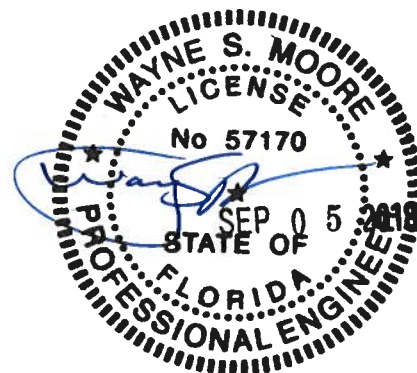


**BRACE SECTION**  
SCALE: NTS



2

**RAFTER COLUMN/BASE RAIL CONNECTION DETAIL**  
SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDM

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SCALE: NTS

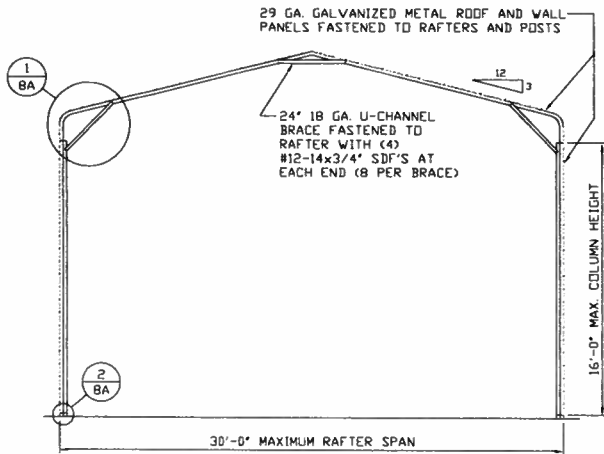
DWG. NO: SK-3

JOB NO:  
160225/17300S

REV: 4

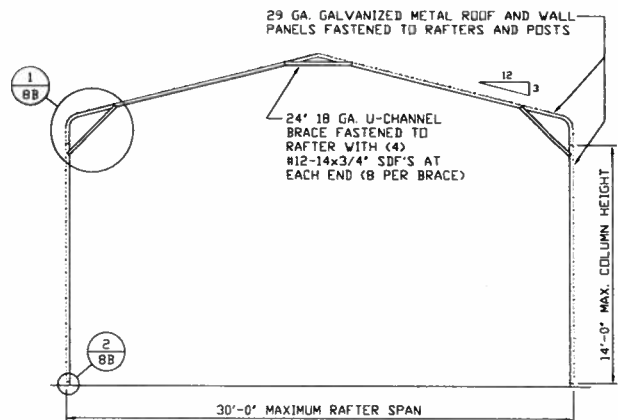
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.





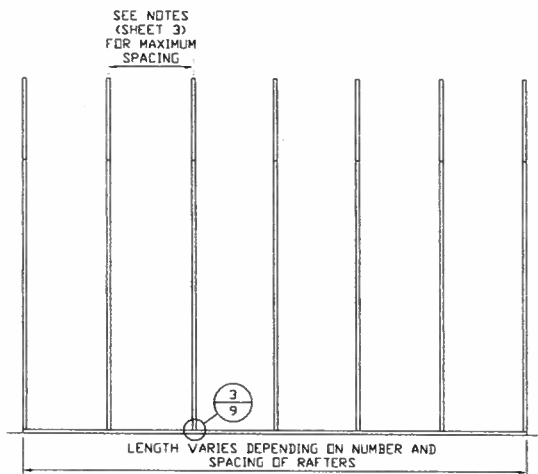
**TYPICAL RAFTER/COLUMN END FRAME SECTION**

SCALE: NTS



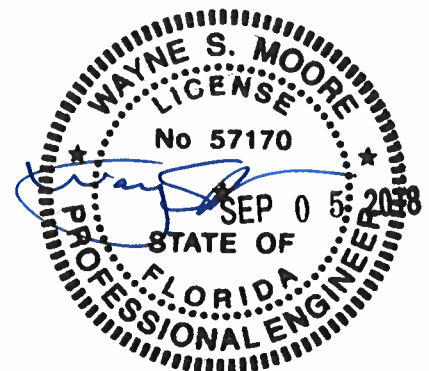
**TYPICAL RAFTER/COLUMN END FRAME SECTION**

SCALE: NTS



**TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDM

PROJECT MGR: VSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SHT. 7

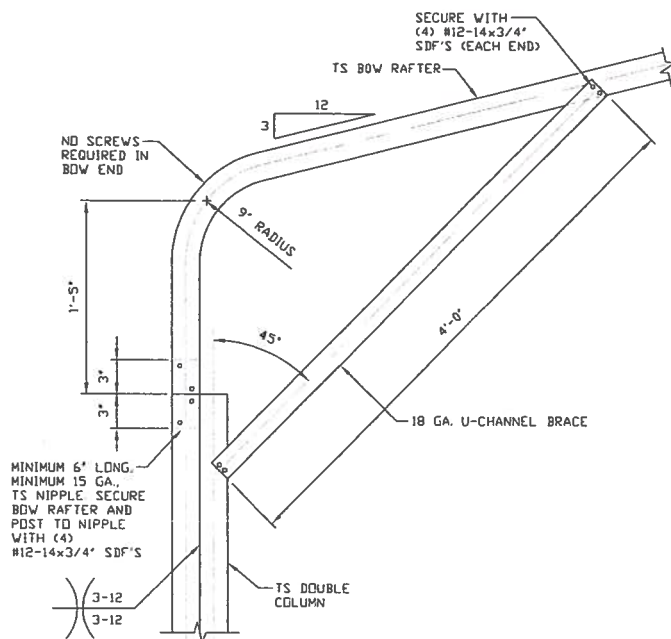
SCALE: NTS

DWG. NO: SK-3

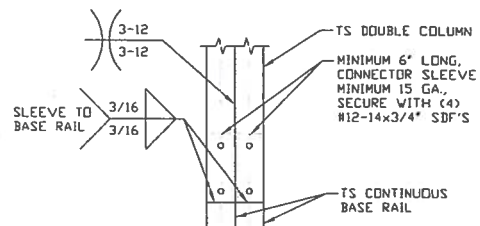
JOB NO:  
16022S/17300S

REV: 4

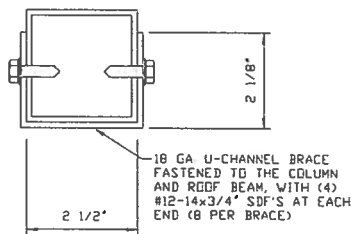
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



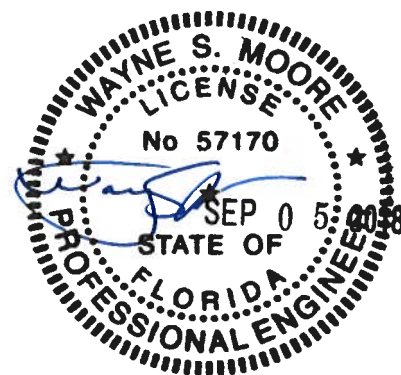
**1** BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL  
FOR HEIGHTS 14'-0" < TO ≤ 16'-0"  
SCALE: NTS



**2** RAFTER COLUMN/BASE RAIL  
CONNECTION DETAIL  
SCALE: NTS



**BRACE SECTION**  
SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SCALE: NTS

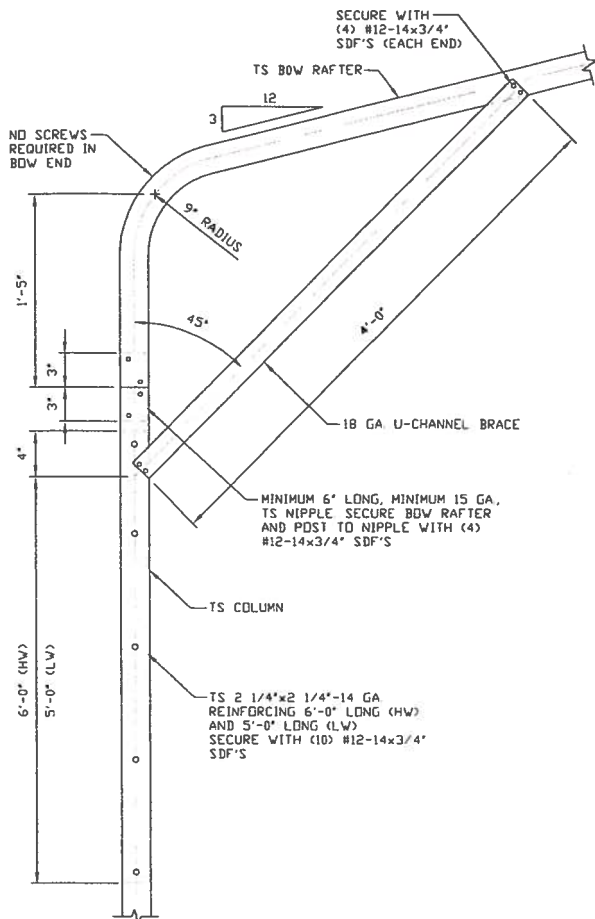
JOB NO:  
16022S/17300S

SHT. 8A

DWG. NO: SK-3

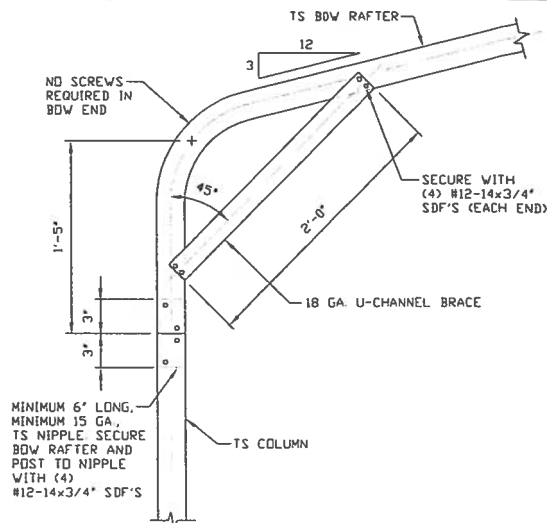
REV: 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



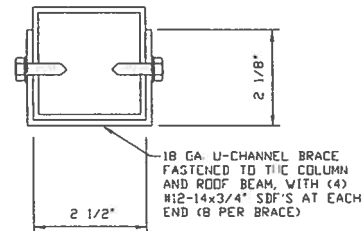
1A

**BOX EAVE RAFTER COLUMN  
CONNECTION DETAIL  
FOR HEIGHTS 10'-0" < TO ≤ 14'-0"**  
SCALE: NTS

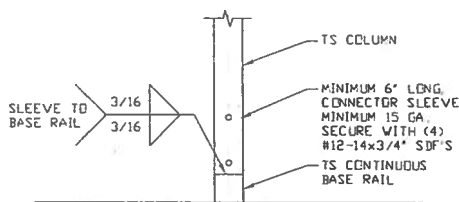


1B

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

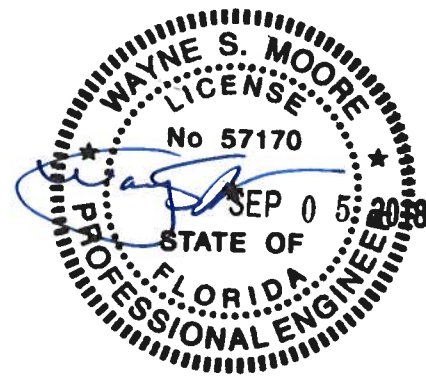


**BRACE SECTION**  
SCALE: NTS



2

**RAFTER COLUMN/BASE RAIL  
CONNECTION DETAIL**  
SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSH

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 12-18-17

SHT. 8B

SCALE: NTS

DWG. NO: SK-3

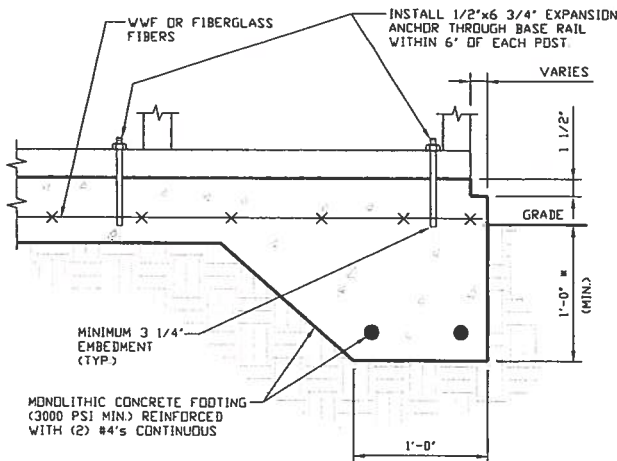
JOB NO:  
16022S/17300S

REV. 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



## BASE RAIL ANCHORAGE OPTIONS FOR LOW AND HIGH WIND SPEED

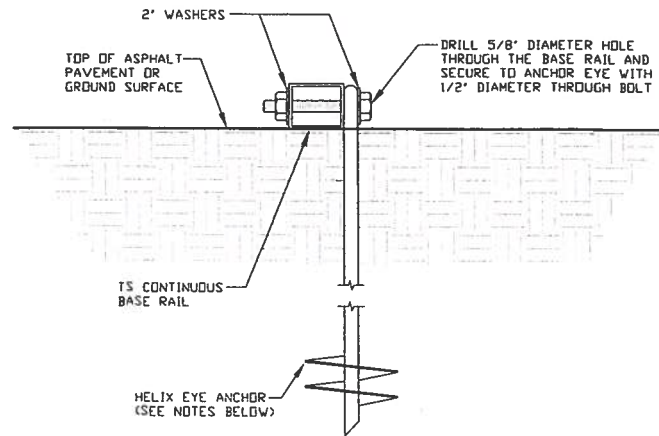


3A

### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS

(MINIMUM ANCHOR EDGE DISTANCE IS 4")  
\* COORDINATE WITH LOCAL CODES/ORD



3B

### GROUND BASE HELIX ANCHORAGE

SCALE: NTS

(CAN BE USED FOR ASPHALT)

## GENERAL NOTES

### 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 INCHES 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 INCHES ELSEWHERE.

### REINFORCING STEEL:

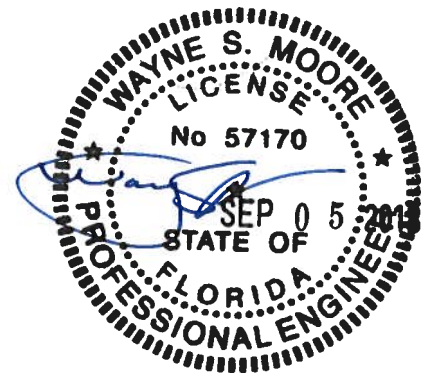
THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

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



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

**JOB NO:  
16022S/17300S**

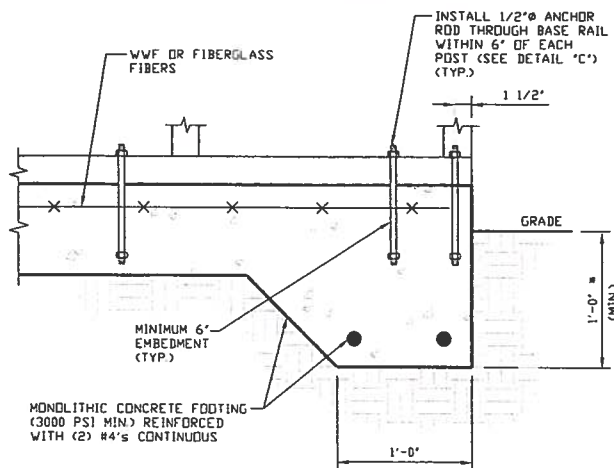
**SHT. 9A**

**DWG. NO: SK-3**

**REV: 4**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

## OPTIONAL FOUNDATION ANCHORAGE FOR LOW & HIGH WIND SPEED

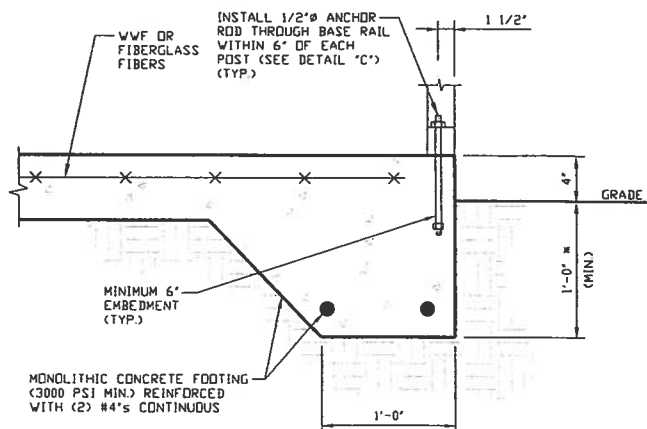


1A

### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS

(MINIMUM ANCHOR EDGE DISTANCE IS 1 1/2")  
\* COORDINATE WITH LOCAL CODES/ORD.



1B

### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS

(MINIMUM ANCHOR EDGE DISTANCE IS 1 1/2")  
\* COORDINATE WITH LOCAL CODES/ORD.

## GENERAL NOTES

### 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.

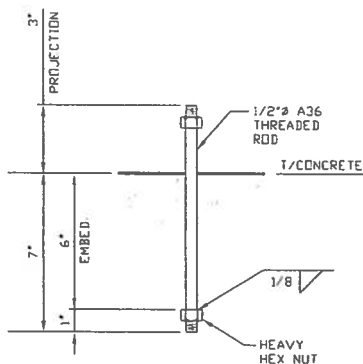
3 INCHES IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER, AND 1 1/2 INCHES ELSEWHERE.

### 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:

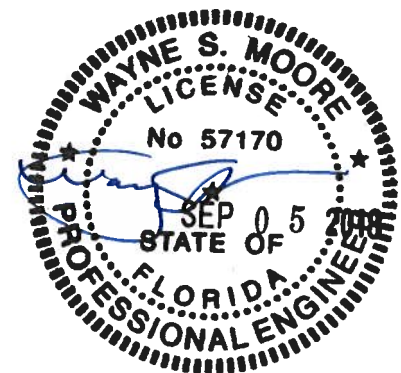
1. REINFORCEMENT IS BENT COLD.
2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



1C

### ANCHOR ROD THROUGH BASE RAIL DETAIL

SCALE: NTS



MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDM

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS  
30'-0" x 20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SCALE: NTS

JOB NO:  
160225/173005

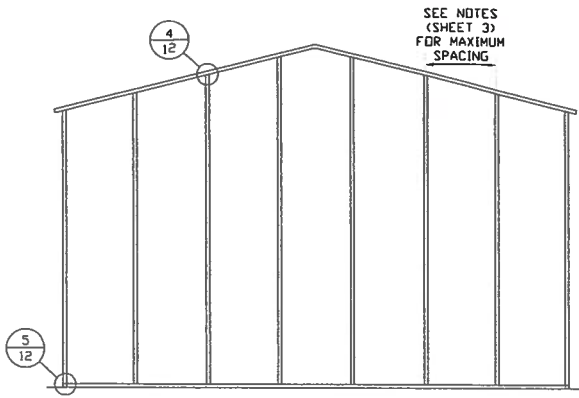
SHT. 9B

DWG. NO: SK-3

REV: 4

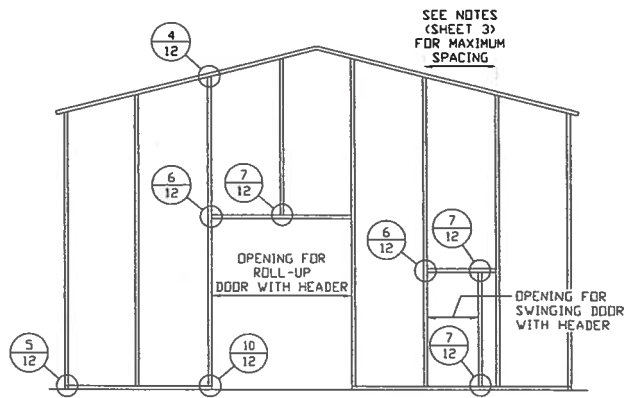
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

## BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



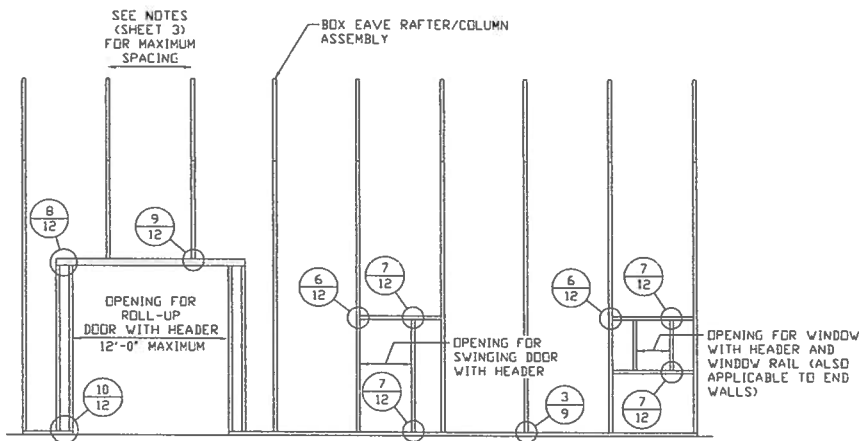
**TYPICAL BOX EAVE RAFTER  
END WALL FRAMING SECTION**

SCALE: NTS



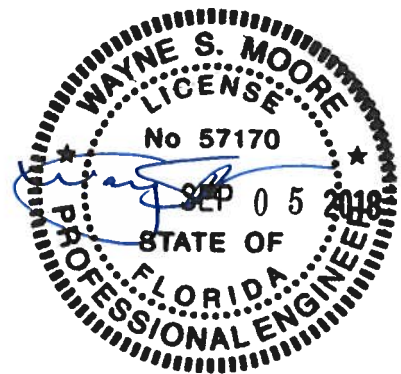
**TYPICAL BOX EAVE RAFTER END  
WALL OPENINGS FRAMING SECTION**

SCALE: NTS



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

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: VSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SHT. 10**

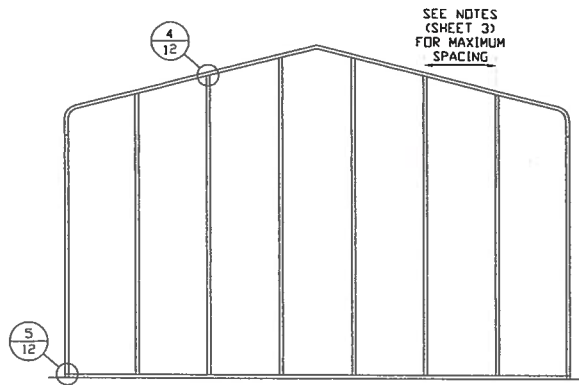
**SCALE: NTS**

**DWG. NO: SK-3**

**JOB NO:  
16022S/17300S**

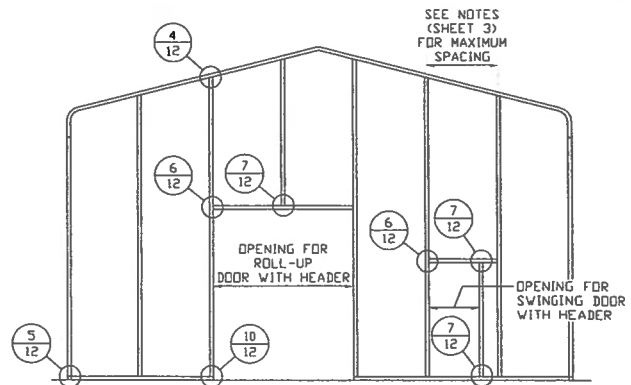
**REV: 4**

## BOW RAFTER END WALL AND SIDE WALL OPENINGS



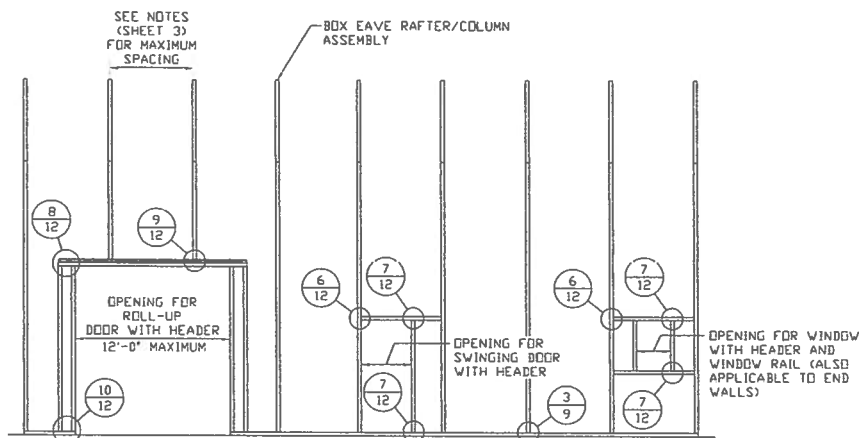
**TYPICAL BOX EAVE RAFTER  
END WALL FRAMING SECTION**

SCALE: NTS



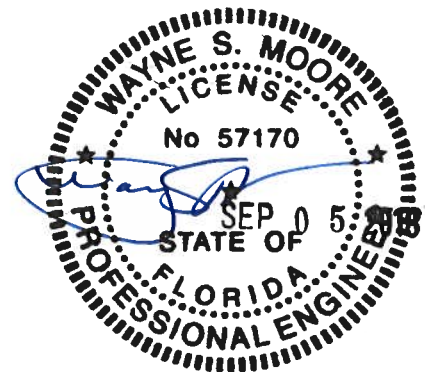
**TYPICAL BOX EAVE RAFTER END  
WALL OPENINGS FRAMING SECTION**

SCALE: NTS



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

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDH**

**PROJECT MGR: WSH**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0" x 20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

**JOB NO:  
16022S/17300S**

**SHT. 11**

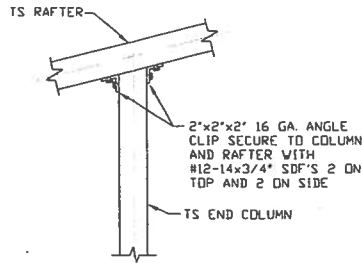
**DWG. NO: SK-3**

**REV: 4**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



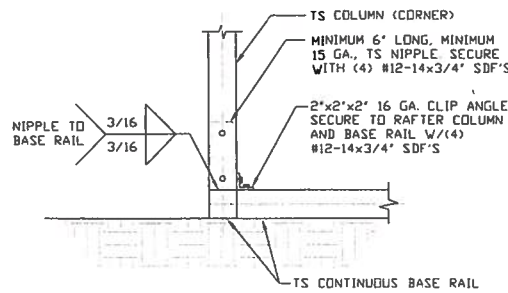
## BOW AND BOX EAVE RAFTER WALL OPENING DETAILS



4

### END COLUMN/RAFTER CONNECTION DETAIL

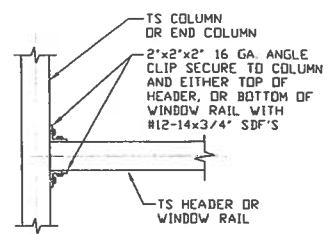
SCALE: NTS



5

### END COLUMN/BASE RAIL CONNECTION DETAIL

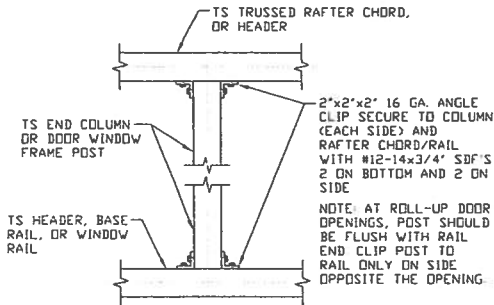
SCALE: NTS



6

### HEADER OR WINDOW RAIL TO COLUMN CONNECTION DETAIL

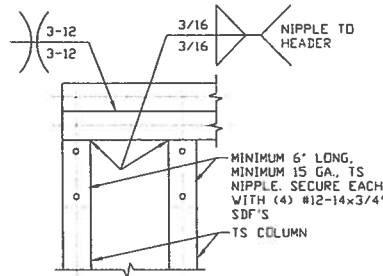
SCALE: NTS



7

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

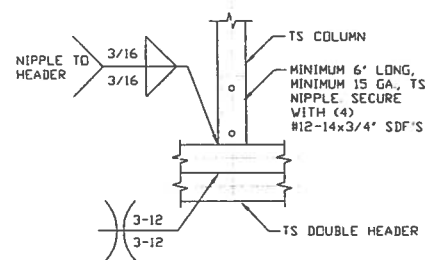
SCALE: NTS



8

### DOUBLE HEADER/COLUMN CONNECTION DETAIL

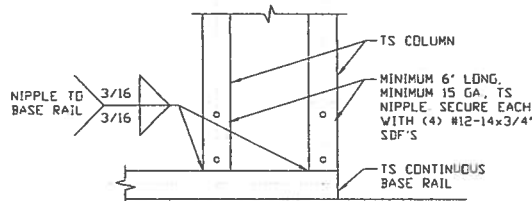
SCALE: NTS



9

### COLUMN/DOUBLE HEADER CONNECTION DETAIL

SCALE: NTS



10

### COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS  
30'-0" x 20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SHT. 12

SCALE: NTS

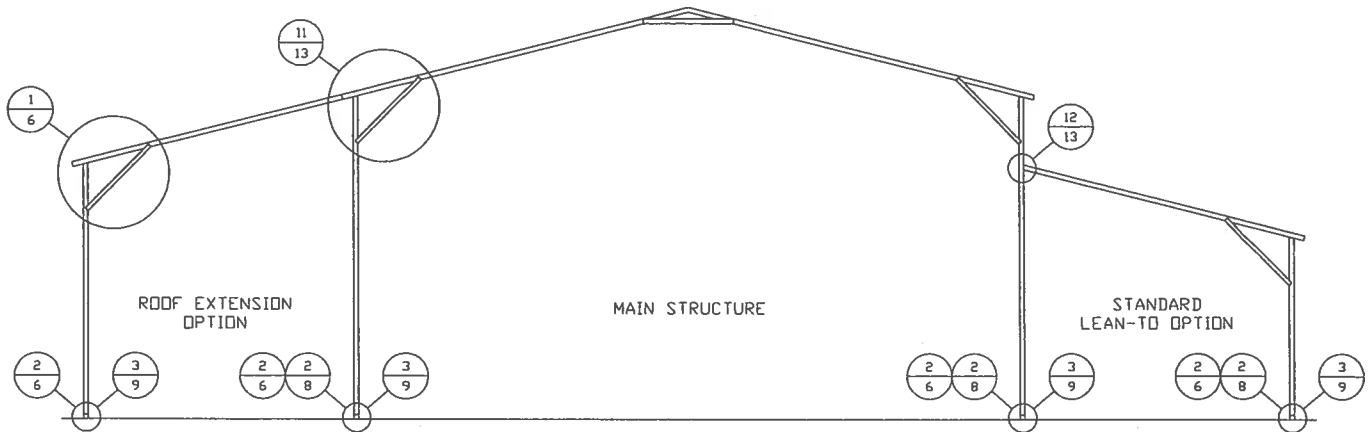
DWG. NO: SK-3

JOB NO:  
16022S/17300S

REV: 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

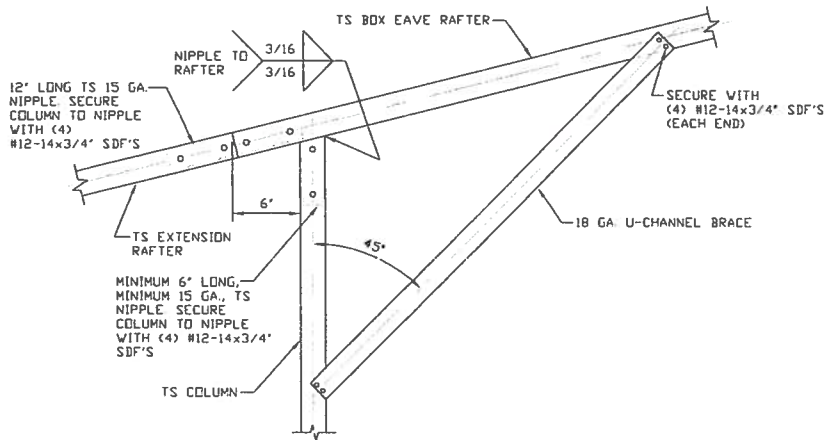
## BOX EAVE RAFTER LEAN-TO OPTIONS



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

SCALE: NTS

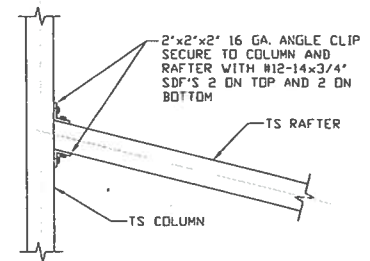
MAXIMUM WIDTH OF SINGLE MEMBER RAFTER LEAN-TO IS 16'-0".



11A

**SIDE EXTENSION RAFTER/COLUMN DETAIL**

SCALE: NTS



12

**LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SHT. 13

SCALE: NTS

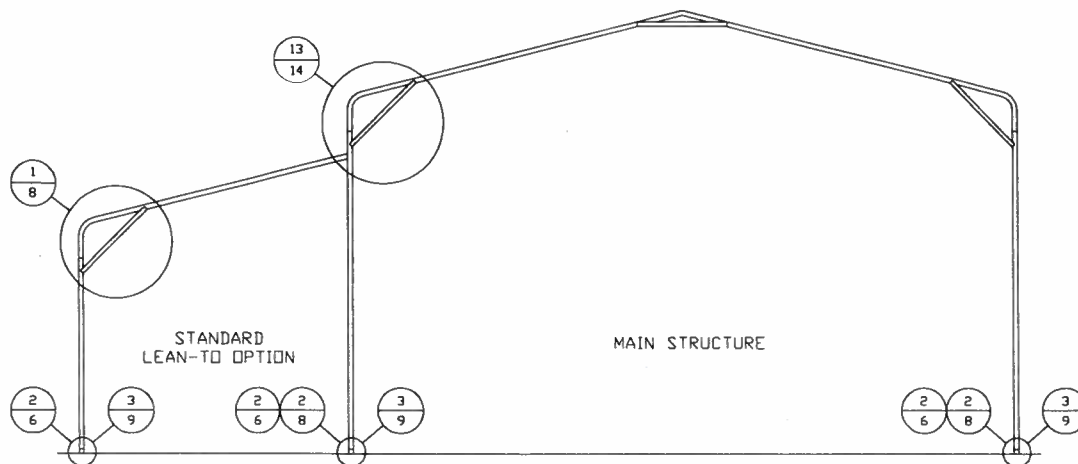
DWG. NO: SK-3

JOB NO:  
16022S/17300S

REV: 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

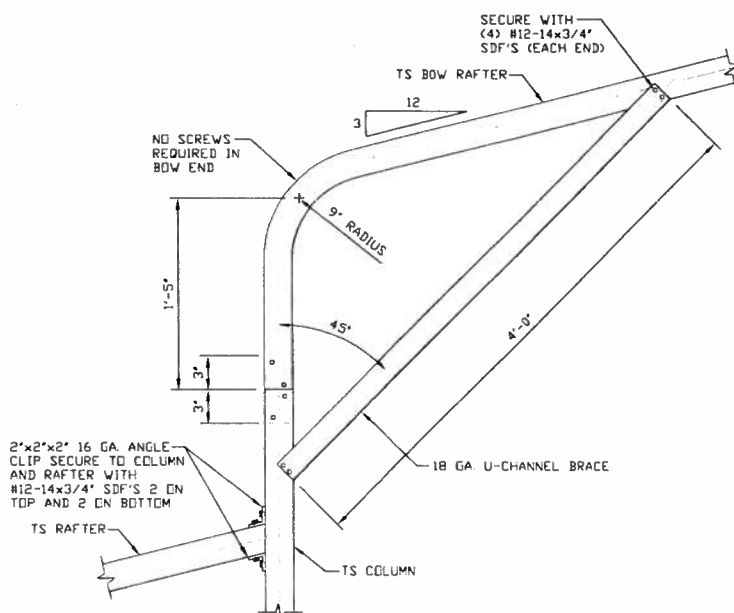
## BOW RAFTER LEAN-TO OPTIONS



**TYPICAL BOW RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)**

SCALE: NTS

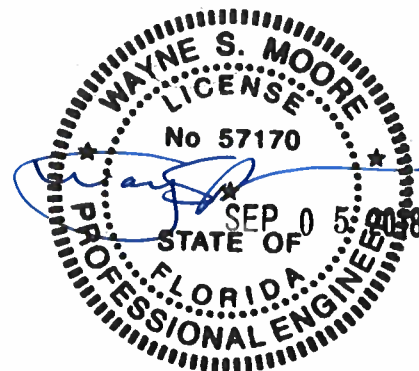
MAXIMUM WIDTH OF SINGLE MEMBER RAFTER LEAN-TO IS 16'-0".



13

**SIDE EXTENSION RAFTER/COLUMN DETAIL**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSH

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SCALE: NTS

DWG. NO: SK-3

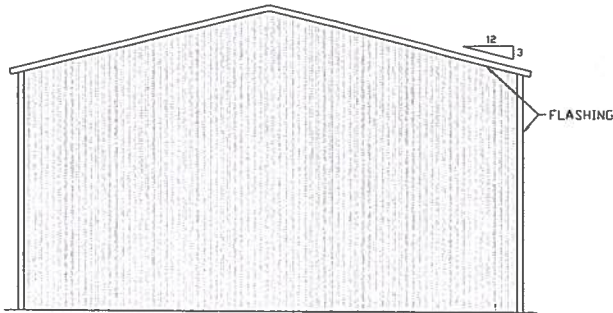
JOB NO:  
16022S/17300S

SHT. 14

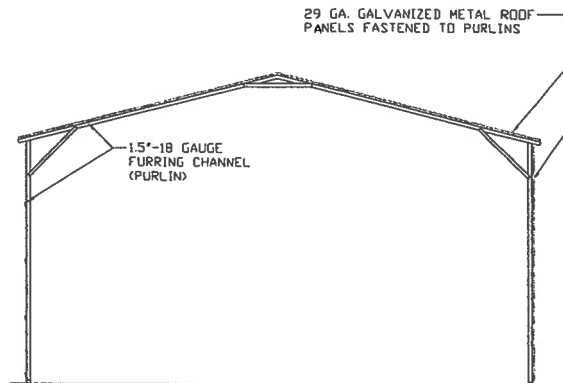
REV: 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

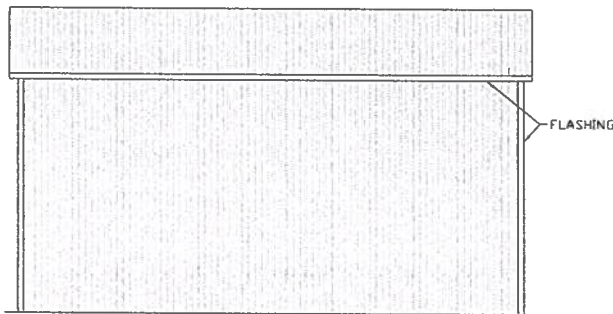
# BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



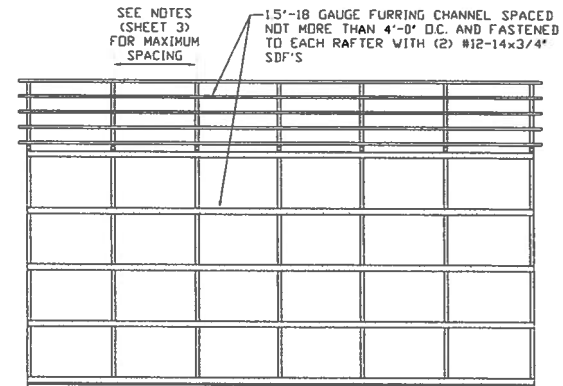
**TYPICAL END ELEVATION  
VERTICAL ROOF/SIDING OPTION**  
SCALE: NTS



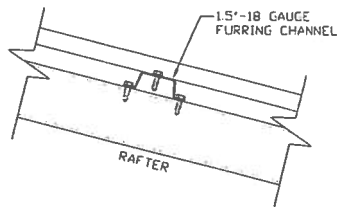
**TYPICAL SECTION VERTICAL  
ROOF/SIDING OPTION**  
SCALE: NTS



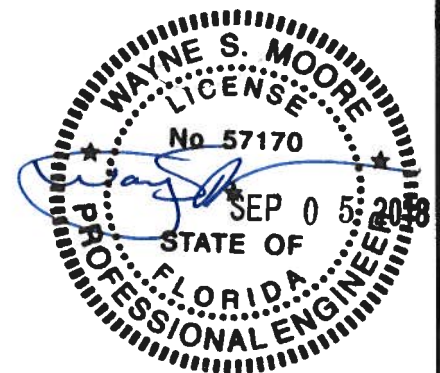
**TYPICAL SIDE ELEVATION  
VERTICAL ROOF/SIDING OPTION**  
SCALE: NTS



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



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



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

**DRAWN BY: LT**

**CHECKED BY: PDM**

**PROJECT MGR: WSM**

**CLIENT: TBS**

**TUBULAR BUILDING SYSTEMS  
30'-0" x 20'-0" ENCLOSED BUILDING EXP. B**

**DATE: 12-18-17**

**SCALE: NTS**

**DWG. NO: SK-3**

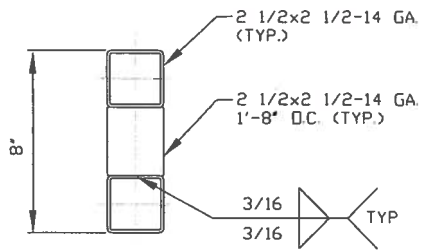
**JOB NO:  
160223/173005**

**REV: 4**

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

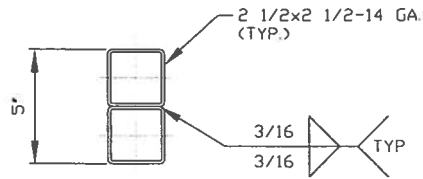


## OPTIONAL DOOR HEADER



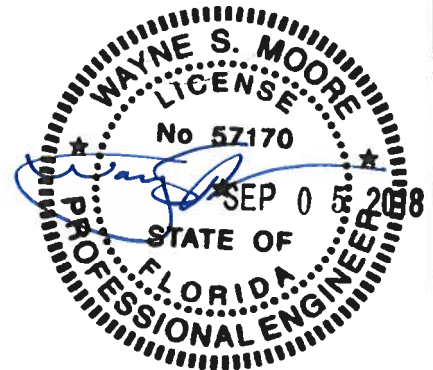
**HEADER DETAIL FOR DOOR  
OPENINGS 12'-0" < LENGTH ≤ 15'-0"**

SCALE: NTS



**HEADER DETAIL FOR DOOR  
OPENINGS LENGTH ≤ 12'-0"**

SCALE: NTS



**MOORE AND ASSOCIATES  
ENGINEERING AND CONSULTING, INC.**

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSH

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS**  
30'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 12-18-17

SCALE: NTS

SHT. 16

DWG. NO: SK-3

JOB NO:  
16022S/17300S

REV: 4

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.