



STRUCTURAL DESIGN

ENCLOSED BUILDING EXPOSURE B

**MAXIMUM 40'-0" WIDE X 20'-0" EAVE HEIGHT- BOX EAVE
FRAME**

15 January 2021

Revision 5

M&A Project No. 16022S/16072S/16073S/17301S/20352S

Prepared for:

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

Prepared by:

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

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

Digitally signed
by Wayne S
Moore
Date: 2021.01.15
12:14:37 -05'00'



This item has been electronically signed and sealed by Wayne S. Moore, PE. using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



This item has been electronically signed and sealed by Wayne S. Moore, PE. using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT		TUBULAR BUILDING SYSTEMS 40'-0"x20'-0" ENCLOSED BUILDING EXP. B	
	CHECKED BY: PDH			
<small>THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.</small>	PROJECT MGR: WSM	DATE: 1-15-21	SCALE: NTS	JOB NO: 16022S/17301S/20352S
	CLIENT: TBS	SHT. 1	DWG. NO: SK-3	REV: 5

DRAWING INDEX

SHEET 1	PE SEAL COVER SHEET
SHEET 2	DRAWING INDEX
SHEET 3	INSTALLATION NOTES AND SPECIFICATIONS
SHEET 4	TYPICAL END ELEVATIONS
SHEET 4A	TYPICAL SIDE ELEVATIONS
SHEET 5	TYPICAL RAFTER/POST FRAME AND SIDE FRAMING SECTION
SHEET 5A	TYPICAL RAFTER/POST FRAME AND SIDE FRAMING SECTION
SHEET 6	TYPICAL RAFTER/POST CONNECTION DETAILS
SHEET 6A	TYPICAL RAFTER/POST CONNECTION DETAILS
SHEET 7	BASE RAIL ANCHORAGE OPTIONS FOR LOW AND HIGH WIND SPEED
SHEET 7A	OPTIONAL FOUNDATION ANCHORAGE FOR LOW AND HIGH WIND SPEED
SHEET 7B	BASE RAIL ANCHORAGE OPTION
SHEET 8	BOX EAVE RAFTER END WALL AND WALL OPENINGS
SHEET 8A	BOX EAVE RAFTER END WALL AND WALL OPENINGS
SHEET 9	BOX EAVE RAFTER SIDE WALL AND WALL OPENINGS
SHEET 10	CONNECTION DETAILS
SHEET 11	CONNECTION DETAILS
SHEET 12	BOX EAVE RAFTER LEAN-TO OPTIONS
SHEET 12A	BOX EAVE RAFTER LEAN-TO OPTIONS
SHEET 13	BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION
SHEET 13A	BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION
SHEET 14	SIDE WALL AND END WALL OPTIONAL HEADERS
SHEET 15	FLOOD VENT DETAIL
SHEET 16	STAND-ALONE STEM WALL DETAIL
SHEET 17	VERTICAL SLIDING WINDOW DETAIL
SHEET 18	STRIP FOOTING OPTION



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SCALE: NTS

DWG. NO: SK-3

**JOB NO:
16022S/17301S/20352S**

REV: 5

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

INSTALLATION NOTES AND SPECIFICATIONS

1. DESIGN IS FOR A MAXIMUM 40'-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 INTERNATIONAL BUILDING CODE (IBC), 2015 IBC AND 2012 IBC.
3. DESIGN LOADS ARE AS FOLLOWS:
 - A) DEAD LOAD = 15 PSF
 - B) LIVE LOAD = 12 PSF
 - C) GROUND SNOW LOAD = 10 PSFNOTE: UNBALANCED SNOW LOAD DUE TO DRIFTING HAS NOT BEEN EVALUATED.
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. END WALL COLUMNS (POSTS) AND SIDE WALL COLUMNS ARE EQUIVALENT 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. FOR VERTICAL PANELS, 29 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (U.N.D.).
10. AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" AND END = 6" (MAX.).
11. 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.
12. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES AND ENDS.
13. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 30" 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. SOIL NAILS MAY BE USED FOR WIND SPEEDS ≤ 145 MPH. COORDINATE WITH LOCAL CODES/ORDINANCES REGARDING MINIMUM LENGTH FOR FROST DEPTH PROTECTION.
14. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY I
 $R = 325$ $I_E = 1.0$
 $S_{DS} = 2.039 g$ $V = C_S W$
 $S_{D1} = 1.258 g$



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SCALE: NTS

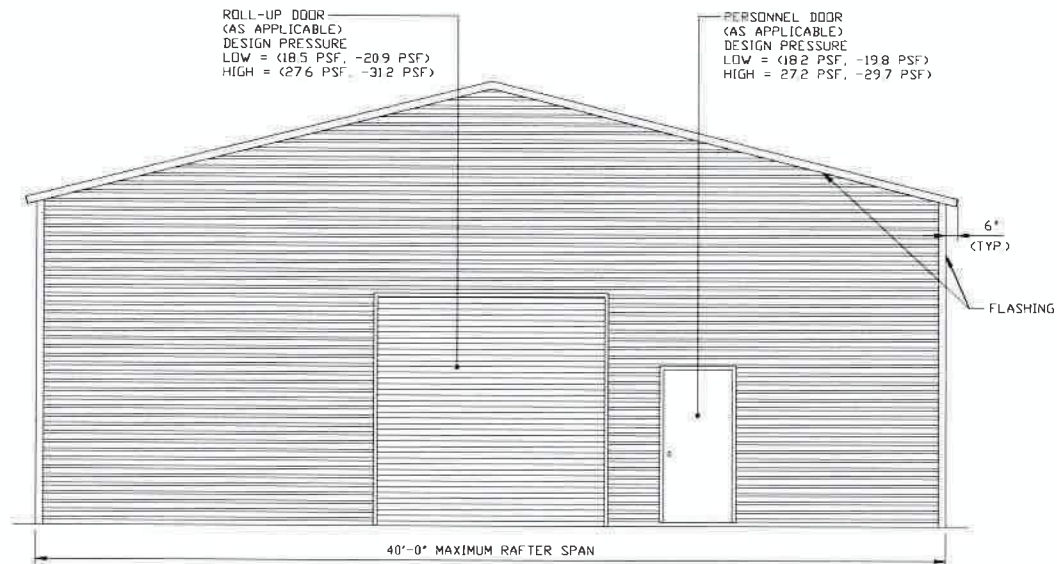
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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 FRAME RAFTER ENCLOSED BUILDING



TYPICAL END ELEVATION-HORIZONTAL ROOF

SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT
CHECKED BY: PDH
PROJECT MGR: WSM
CLIENT: TBS

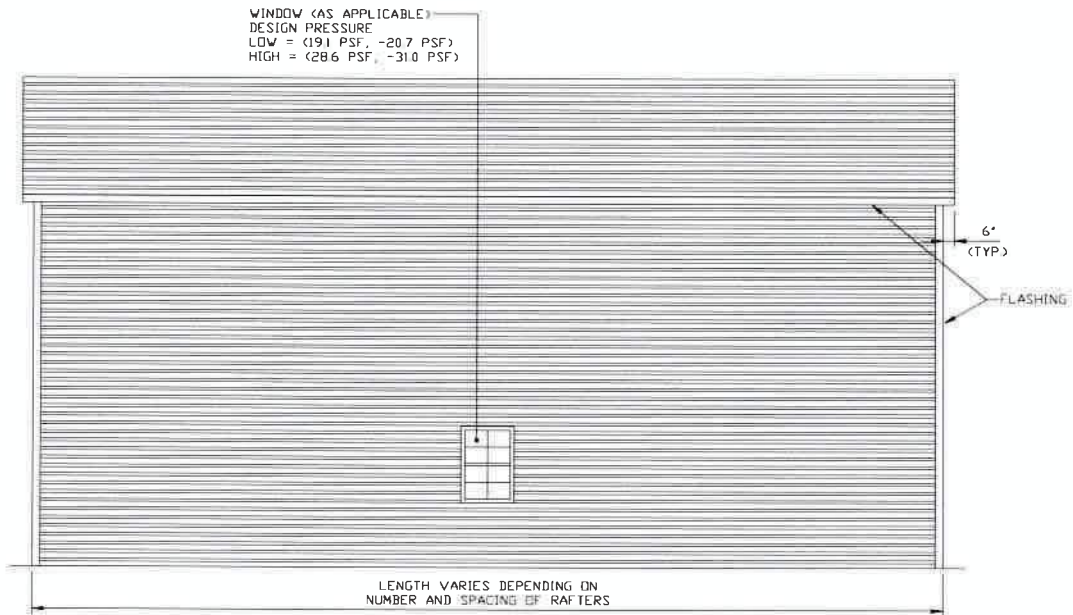
TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

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

DATE: 1-15-21
SHT. 4
SCALE: NTS
DWG. NO: SK-3
JOB NO: 16022S/17301S/20352S
REV: 5



BOX EAVE FRAME RAFTER ENCLOSED BUILDING



TYPICAL SIDE ELEVATION-HORIZONTAL ROOF

SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SCALE: NTS

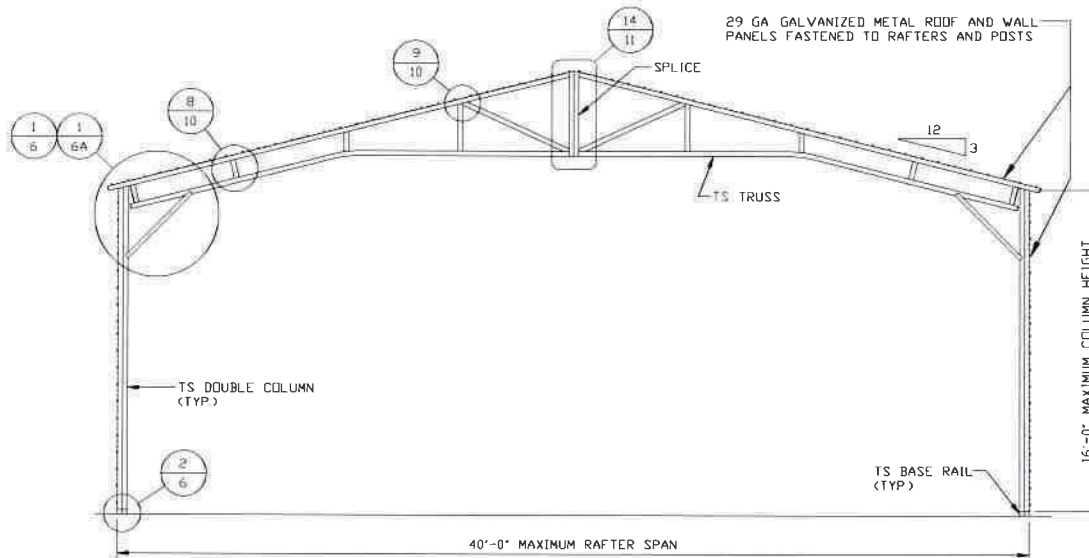
JOB NO:
16022S/17301S/20352S

SHT. 4A

DWG. NO: SK-3

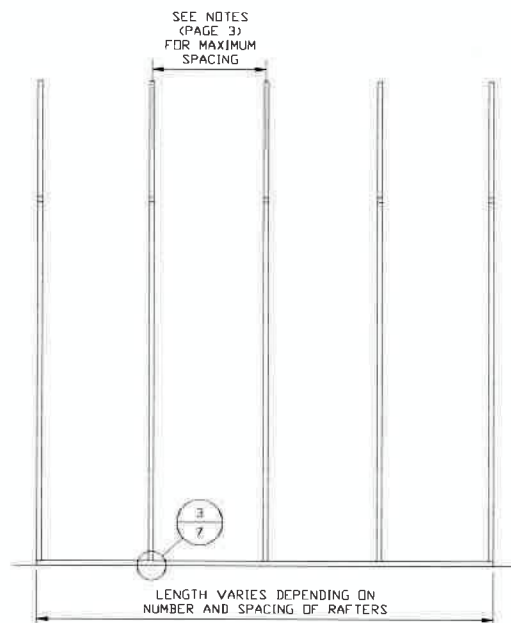
REV: 5

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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/POST FRAME SECTION

SCALE: 1/8" = 1'-0"



TYPICAL RAFTER/POST SIDE FRAMING SECTION

SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SCALE: NTS

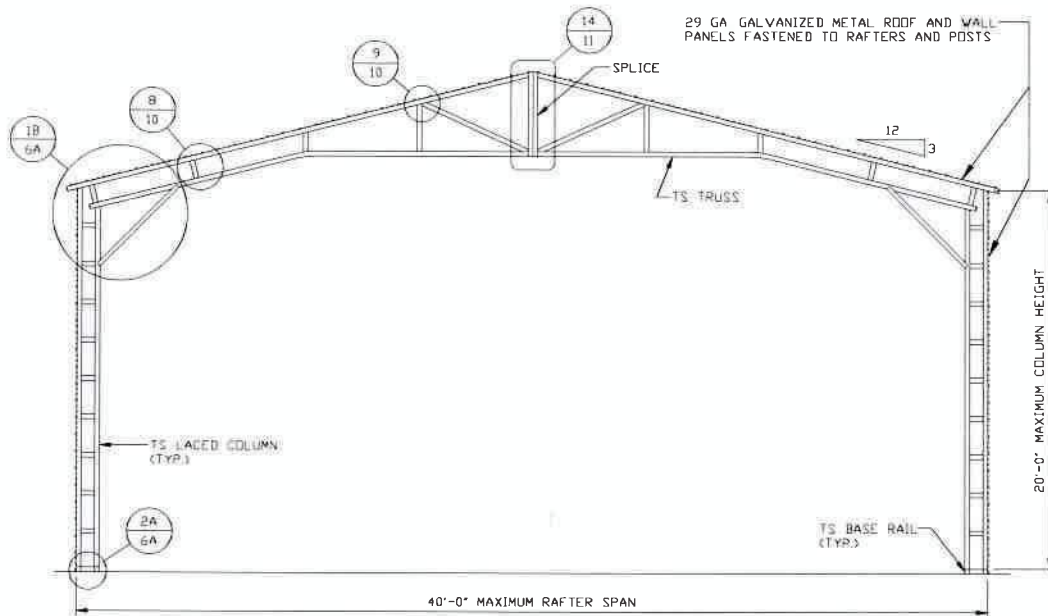
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

SHT. 5

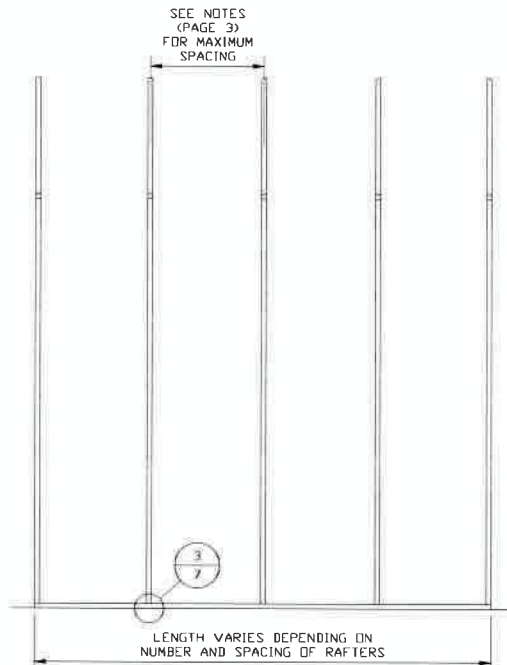
REV: 5

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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/POST FRAME SECTION

SCALE: 1/8" = 1'-0"



TYPICAL RAFTER/POST SIDE FRAMING SECTION

SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT: 5A

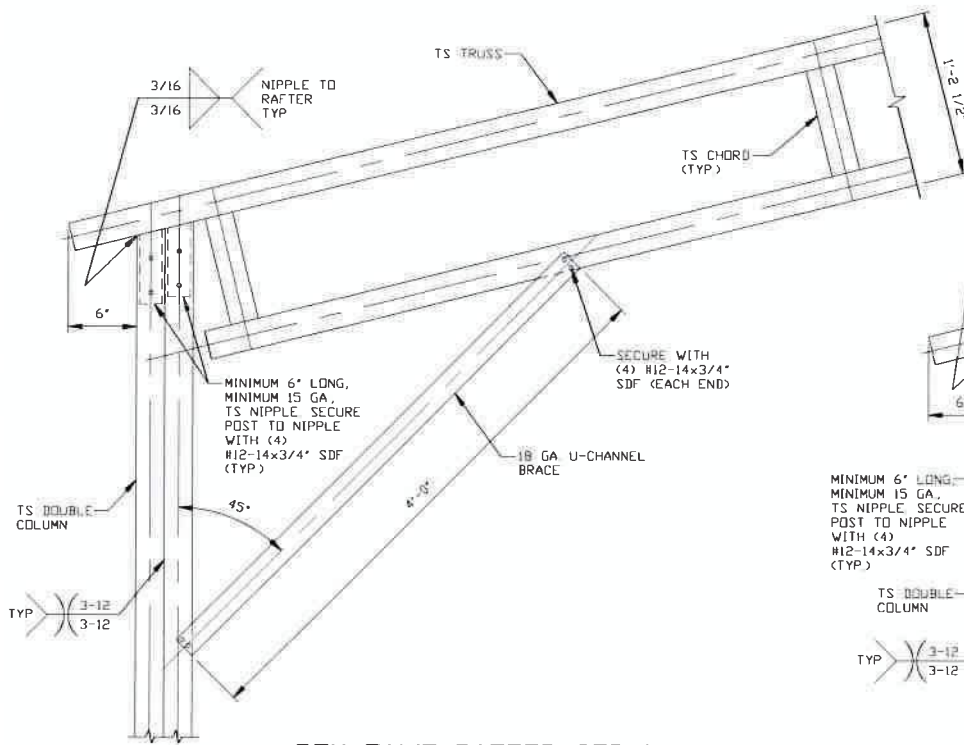
SCALE: NTS

DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

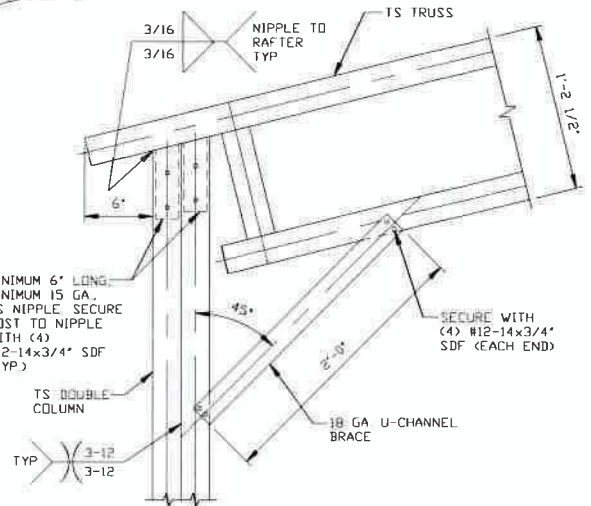
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



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

1

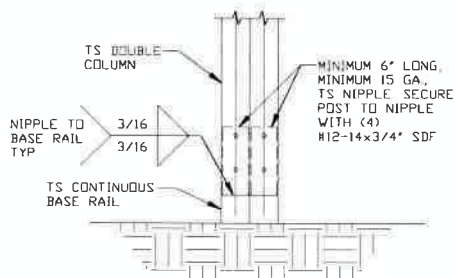
SCALE: NTS



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

1A

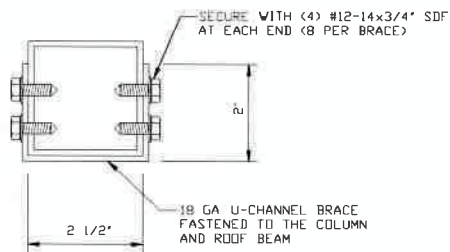
SCALE: NTS



2

POST/BASE RAIL CONNECTION DETAIL

SCALE: NTS



BRACE SECTION

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 6

SCALE: NTS

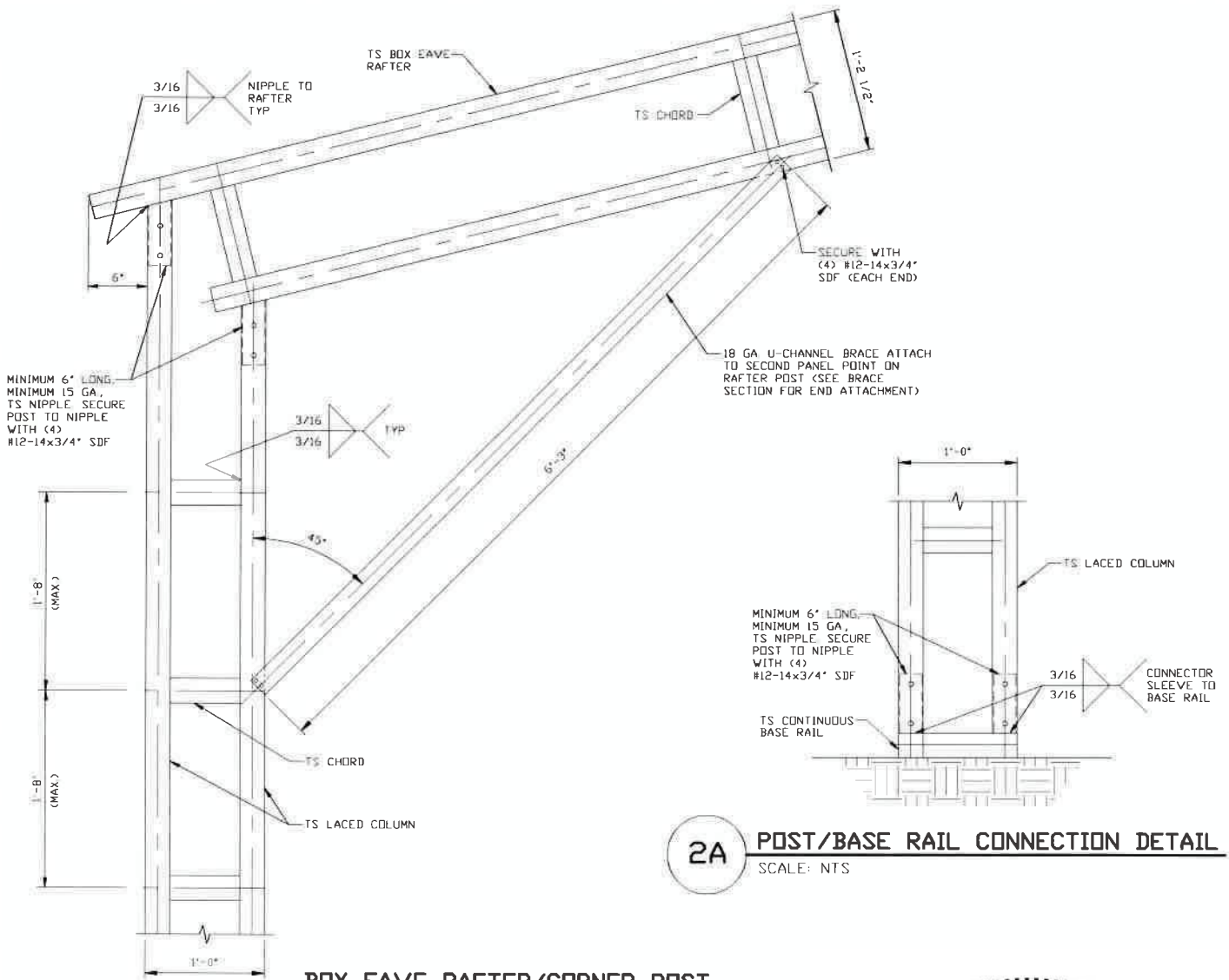
DWG. NO: SK-3

JOB NO:

16022S/17301S/20352S

REV: 5

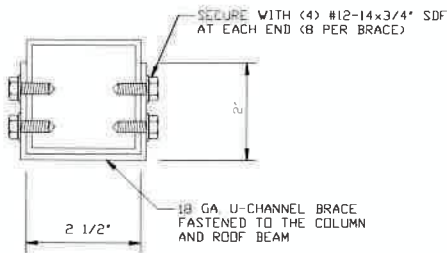
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.



1B

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

SCALE: NTS



BRACE SECTION

SCALE: NTS

2A

POST/BASE RAIL CONNECTION DETAIL

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 6A

SCALE: NTS

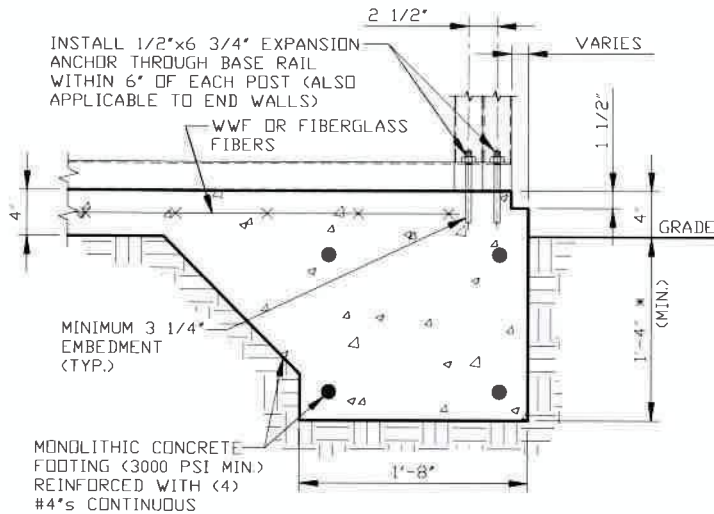
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

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

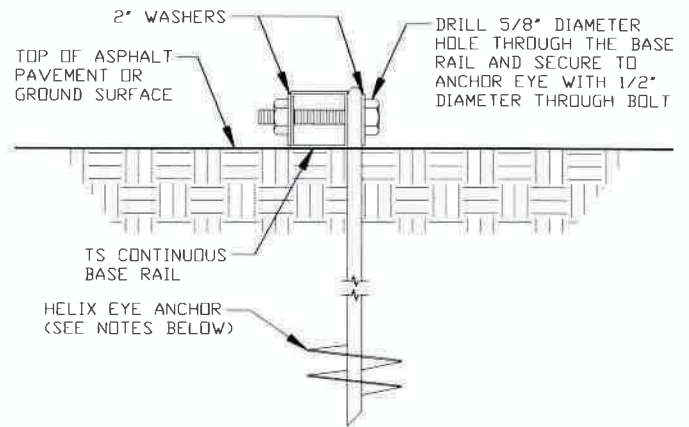
BASE RAIL ANCHORAGE OPTIONS FOR LOW AND HIGH WIND SPEED



3

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

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



3A

GROUND BASE HELIX ANCHORAGE

SCALE: NTS
(CAN BE USED FOR ASPHALT)
* COORDINATE WITH LOCAL CODES/ORD.
REGARDING MINIMUM FROST DEPTH REQ.

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 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 LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL USE MINIMUM (2) 8" HELICES WITH MINIMUM 60 INCH EMBEDMENT.



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SCALE: NTS

DWG. NO: SK-3

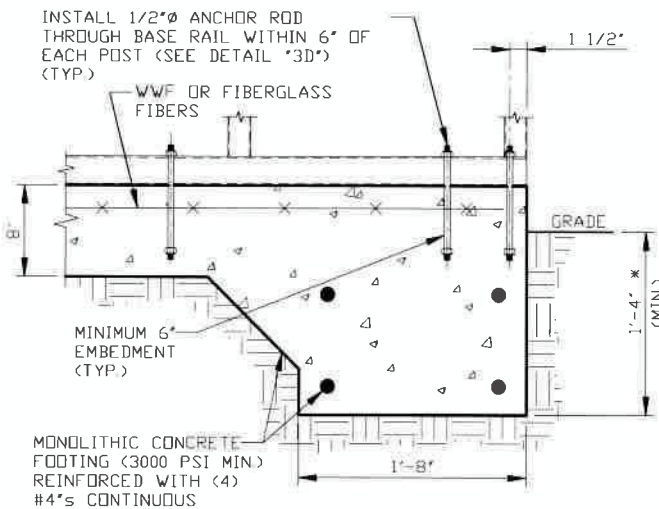
JOB NO:
16022S/17301S/20352S

SHT. 7

REV: 5

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

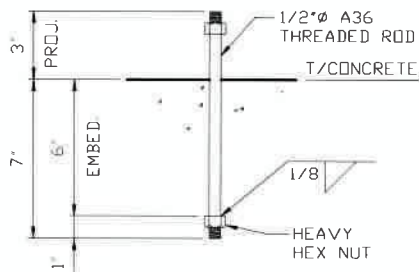
OPTIONAL FOUNDATION ANCHORAGE FOR LOW AND HIGH WIND SPEED



3B

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

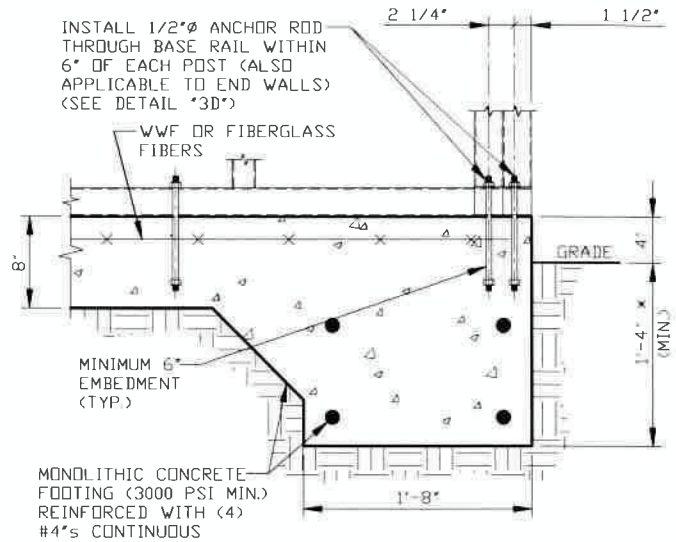
SCALE: NTS
(MINIMUM ANCHOR EDGE DISTANCE IS 1 1/2")
* COORDINATE WITH LOCAL CODES/ORD.



3D

ANCHOR ROD THROUGH BASE RAIL DETAIL

SCALE: NTS



3C

CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS
(MINIMUM ANCHOR EDGE DISTANCE IS 1 1/2")
* 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 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.



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 7A

SCALE: NTS

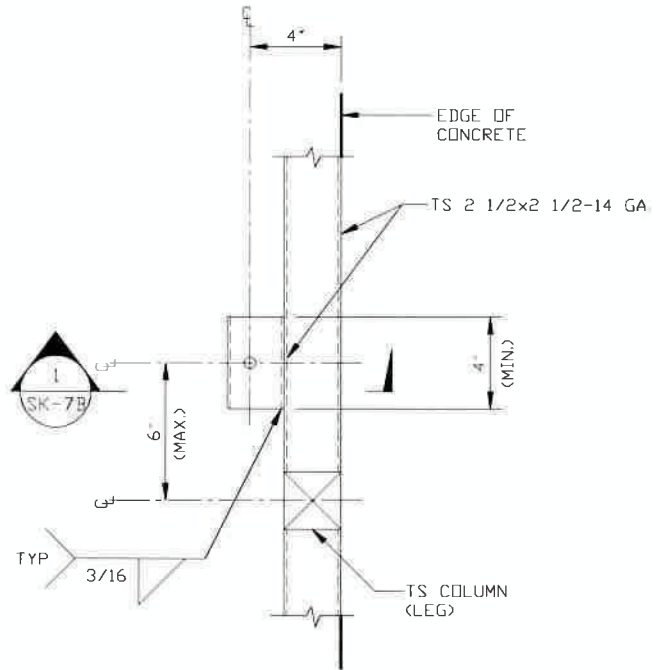
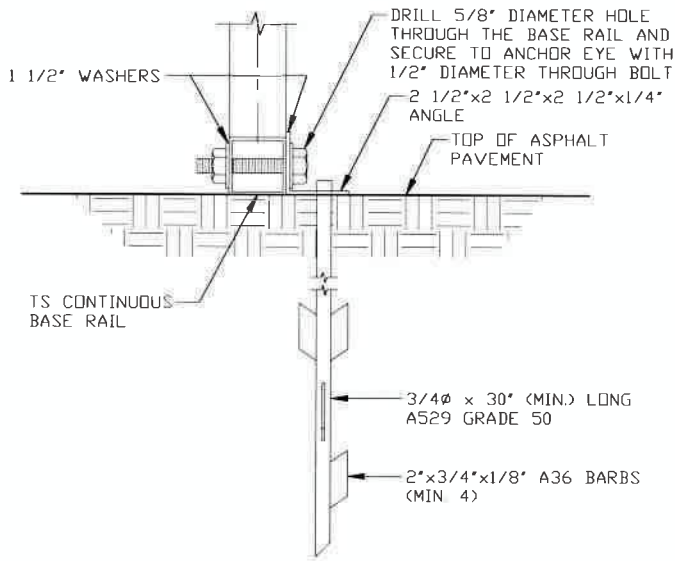
DWG. NO: SK-3

JOB NO.
16022S/17301S/20352S

REV. 5

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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 OPTION



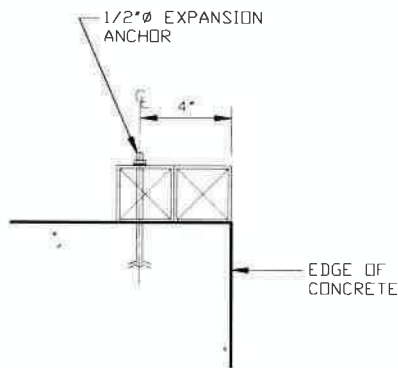
3E

ASPHALT BASE ANCHORAGE (HP 9 BARBED DRIVE ANCHOR)

SCALE: NTS
(CAN BE USED FOR ASPHALT)
* COORDINATE WITH LOCAL CODES/ORD
REGARDING MINIMUM FROST DEPTH REQ

TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE

SCALE: NTS



SECTION 1
SCALE: NTS SK-7B



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 7B

SCALE: NTS

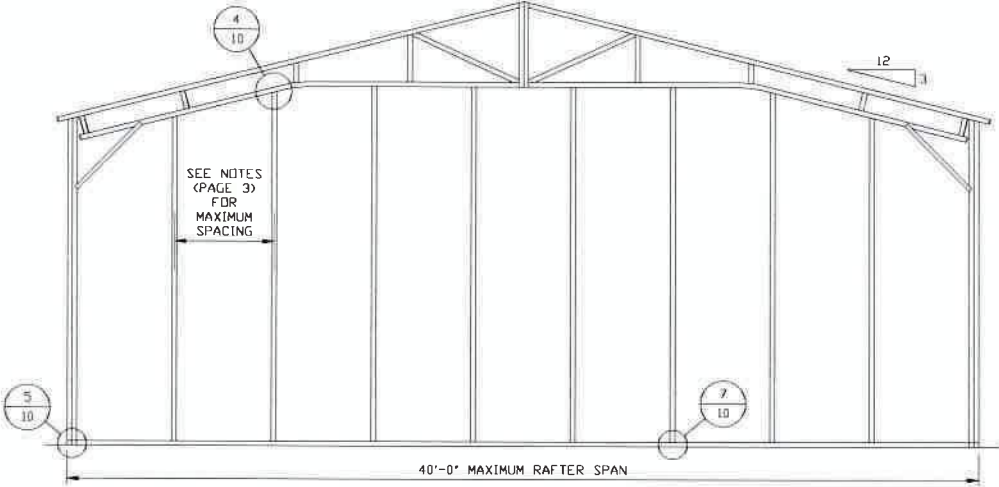
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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 WALL OPENINGS



TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION
SCALE: 1/8" = 1'-0"

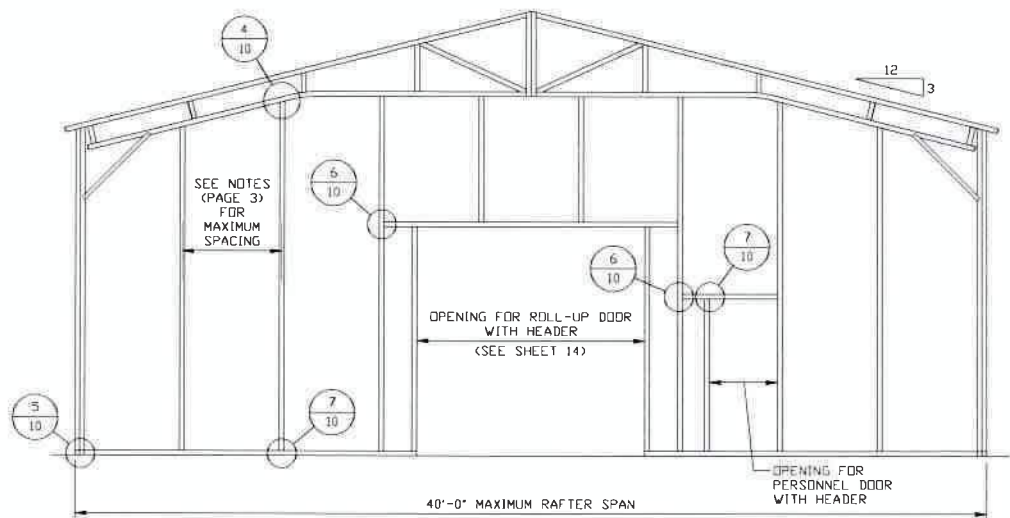


This item has been electronically signed and sealed by Wayne S. Moore, PE. using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT		TUBULAR BUILDING SYSTEMS 40'-0"x20'-0" ENCLOSED BUILDING EXP. B		
	CHECKED BY: PDH				
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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	DATE: 1-15-21	SCALE: NTS	JOB NO: 16022S/17301S/20352S	
	CLIENT: TBS	SHT. 8	DWG. NO: SK-3		REV: 5

BOX EAVE RAFTER END WALL AND WALL OPENINGS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION
SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 8A

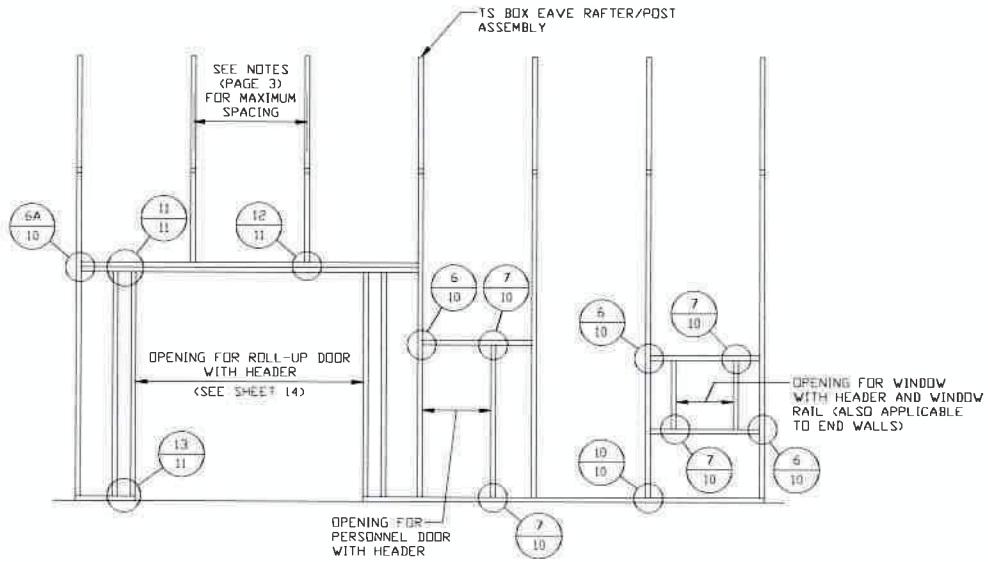
SCALE: NTS

DWG. NO: SK-3

JOB NO: 16022S/17301S/20352S

REV: 5

BOX EAVE RAFTER SIDE WALL AND WALL OPENINGS



TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: $1/8" = 1'-0"$



This item has been electronically signed and sealed by Wayne S. Moore, PE.
using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. 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: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

ЗНАЧ. 9

SCALE: NTS

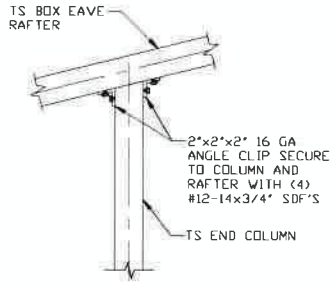
DWG. NO. SK-3

JOB NO: 160000-170010-1000000

[illegible]

REV. 5

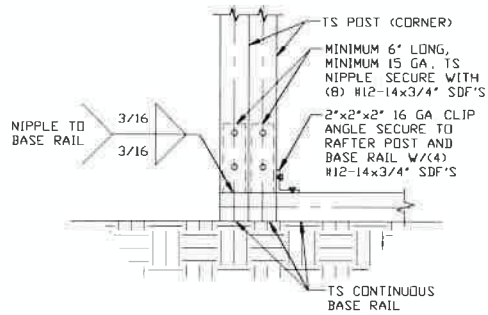
CONNECTION DETAILS



4

END POST/RAFTER CONNECTION DETAIL

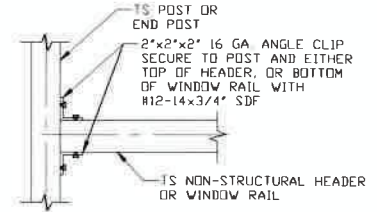
SCALE: NTS



5

END POST/BASE RAIL CONNECTION DETAIL

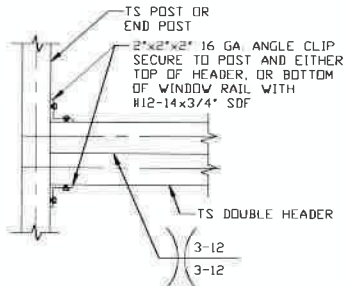
SCALE: NTS



6

HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL

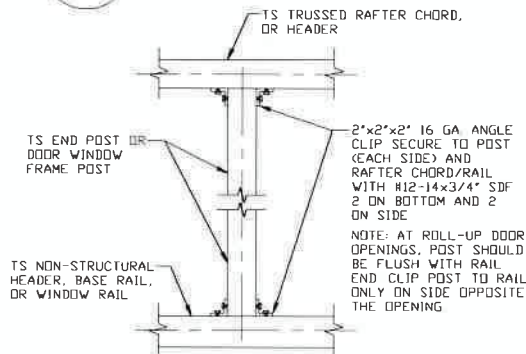
SCALE: NTS



6A

DOUBLE HEADER TO COLUMN CONNECTION DETAIL

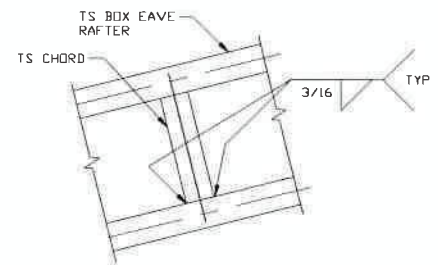
SCALE: NTS



7

POST TO HEADER, BASE RAIL OR WINDOW RAIL CONNECTION DETAIL

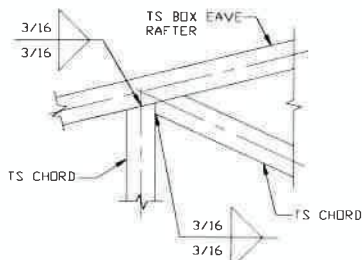
SCALE: NTS



8

CHORD/RAFTER CONNECTION DETAIL

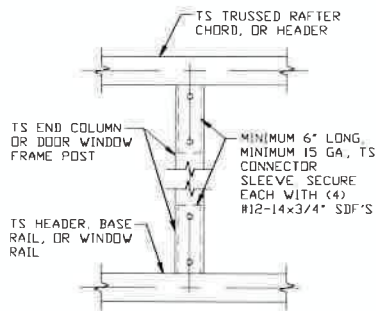
SCALE: NTS



9

TRUSS POST AND CORD TO RAFTER CONNECTION DETAIL

SCALE: NTS



10

COLUMN TO HEADER/ BASE RAIL CONNECTION DETAIL

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 10

SCALE: NTS

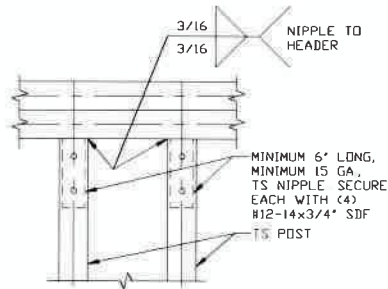
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

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

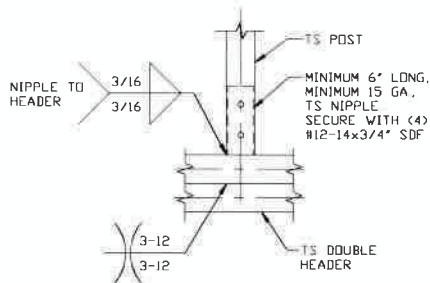
CONNECTION DETAILS



11

DOUBLE HEADER/POST CONNECTION DETAIL

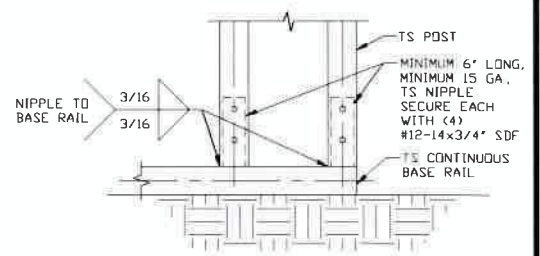
SCALE: NTS



12

POST/DOUBLE HEADER CONNECTION DETAIL

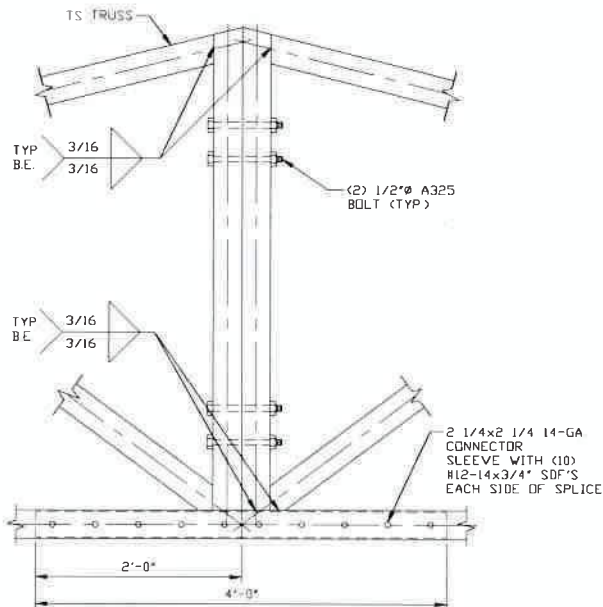
SCALE: NTS



13

POST/BASE RAIL CONNECTION DETAIL

SCALE: NTS



14

SPLICE CONNECTION DETAIL

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 11

SCALE: NTS

DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

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

The diagram illustrates a roof structure with three main sections: a central 'MAIN STRUCTURE', a 'ROOF EXTENSION OPTION' on the left, and a 'STANDARD LEAN-TO OPTION' on the right. The main structure is a gabled roof with a pitch of 12/3. The roof extension option shows a circular detail of a roof joint. The standard lean-to option shows a circular detail of a roof joint. Various callouts (12, 12A, 12B, 15, 16, 16A, 16B, 17, 17A, 17B, 18, 18A, 18B, 19, 19A, 19B, 20, 20A, 20B, 21, 21A, 21B, 22, 22A, 22B, 23, 23A, 23B, 24, 24A, 24B, 25, 25A, 25B, 26, 26A, 26B, 27, 27A, 27B, 28, 28A, 28B, 29, 29A, 29B, 30, 30A, 30B, 31, 31A, 31B, 32, 32A, 32B, 33, 33A, 33B, 34, 34A, 34B, 35, 35A, 35B, 36, 36A, 36B, 37, 37A, 37B, 38, 38A, 38B, 39, 39A, 39B, 40, 40A, 40B, 41, 41A, 41B, 42, 42A, 42B, 43, 43A, 43B, 44, 44A, 44B, 45, 45A, 45B, 46, 46A, 46B, 47, 47A, 47B, 48, 48A, 48B, 49, 49A, 49B, 50, 50A, 50B, 51, 51A, 51B, 52, 52A, 52B, 53, 53A, 53B, 54, 54A, 54B, 55, 55A, 55B, 56, 56A, 56B, 57, 57A, 57B, 58, 58A, 58B, 59, 59A, 59B, 60, 60A, 60B, 61, 61A, 61B, 62, 62A, 62B, 63, 63A, 63B, 64, 64A, 64B, 65, 65A, 65B, 66, 66A, 66B, 67, 67A, 67B, 68, 68A, 68B, 69, 69A, 69B, 70, 70A, 70B, 71, 71A, 71B, 72, 72A, 72B, 73, 73A, 73B, 74, 74A, 74B, 75, 75A, 75B, 76, 76A, 76B, 77, 77A, 77B, 78, 78A, 78B, 79, 79A, 79B, 80, 80A, 80B, 81, 81A, 81B, 82, 82A, 82B, 83, 83A, 83B, 84, 84A, 84B, 85, 85A, 85B, 86, 86A, 86B, 87, 87A, 87B, 88, 88A, 88B, 89, 89A, 89B, 90, 90A, 90B, 91, 91A, 91B, 92, 92A, 92B, 93, 93A, 93B, 94, 94A, 94B, 95, 95A, 95B, 96, 96A, 96B, 97, 97A, 97B, 98, 98A, 98B, 99, 99A, 99B, 100, 100A, 100B, 101, 101A, 101B, 102, 102A, 102B, 103, 103A, 103B, 104, 104A, 104B, 105, 105A, 105B, 106, 106A, 106B, 107, 107A, 107B, 108, 108A, 108B, 109, 109A, 109B, 110, 110A, 110B, 111, 111A, 111B, 112, 112A, 112B, 113, 113A, 113B, 114, 114A, 114B, 115, 115A, 115B, 116, 116A, 116B, 117, 117A, 117B, 118, 118A, 118B, 119, 119A, 119B, 120, 120A, 120B, 121, 121A, 121B, 122, 122A, 122B, 123, 123A, 123B, 124, 124A, 124B, 125, 125A, 125B, 126, 126A, 126B, 127, 127A, 127B, 128, 128A, 128B, 129, 129A, 129B, 130, 130A, 130B, 131, 131A, 131B, 132, 132A, 132B, 133, 133A, 133B, 134, 134A, 134B, 135, 135A, 135B, 136, 136A, 136B, 137, 137A, 137B, 138, 138A, 138B, 139, 139A, 139B, 140, 140A, 140B, 141, 141A, 141B, 142, 142A, 142B, 143, 143A, 143B, 144, 144A, 144B, 145, 145A, 145B, 146, 146A, 146B, 147, 147A, 147B, 148, 148A, 148B, 149, 149A, 149B, 150, 150A, 150B, 151, 151A, 151B, 152, 152A, 152B, 153, 153A, 153B, 154, 154A, 154B, 155, 155A, 155B, 156, 156A, 156B, 157, 157A, 157B, 158, 158A, 158B, 159, 159A, 159B, 160, 160A, 160B, 161, 161A, 161B, 162, 162A, 162B, 163, 163A, 163B, 164, 164A, 164B, 165, 165A, 165B, 166, 166A, 166B, 167, 167A, 167B, 168, 168A, 168B, 169, 169A, 169B, 170, 170A, 170B, 171, 171A, 171B, 172, 172A, 172B, 173, 173A, 173B, 174, 174A, 174B, 175, 175A, 175B, 176, 176A, 176B, 177, 177A, 177B, 178, 178A, 178B, 179, 179A, 179B, 180, 180A, 180B, 181, 181A, 181B, 182, 182A, 182B, 183, 183A, 183B, 184, 184A, 184B, 185, 185A, 185B, 186, 186A, 186B, 187, 187A, 187B, 188, 188A, 188B, 189, 189A, 189B, 190, 190A, 190B, 191, 191A, 191B, 192, 192A, 192B, 193, 193A, 193B, 194, 194A, 194B, 195, 195A, 195B, 196, 196A, 196B, 197, 197A, 197B, 198, 198A, 198B, 199, 199A, 199B, 200, 200A, 200B, 201, 201A, 201B, 202, 202A, 202B, 203, 203A, 203B, 204, 204A, 204B, 205, 205A, 205B, 206, 206A, 206B, 207, 207A, 207B, 208, 208A, 208B, 209, 209A, 209B, 210, 210A, 210B, 211, 211A, 211B, 212, 212A, 212B, 213, 213A, 213B, 214, 214A, 214B, 215, 215A, 215B, 216, 216A, 216B, 217, 217A, 217B, 218, 218A, 218B, 219, 219A, 219B, 220, 220A, 220B, 221, 221A, 221B, 222, 222A, 222B, 223, 223A, 223B, 224, 224A, 224B, 225, 225A, 225B, 226, 226A, 226B, 227, 227A, 227B, 228, 228A, 228B, 229, 229A, 229B, 230, 230A, 230B, 231, 231A, 231B, 232, 232A, 232B, 233, 233A, 233B, 234, 234A, 234B, 235, 235A, 235B, 236, 236A, 236B, 237, 237A, 237B, 238, 238A, 238B, 239, 239A, 239B, 240, 240A, 240B, 241, 241A, 241B, 242, 242A, 242B, 243, 243A, 243B, 244, 244A, 244B, 245, 245A, 245B, 246, 246A, 246B, 247, 247A, 247B, 248, 248A, 248B, 249, 249A, 249B, 250, 250A, 250B, 251, 251A, 251B, 252, 252A, 252B, 253, 253A, 253B, 254, 254A, 254B, 255, 255A, 255B, 256, 256A, 256B, 257, 257A, 257B, 258, 258A, 258B, 259, 259A, 259B, 260, 260A, 260B, 261, 261A, 261B, 262, 262A, 262B, 263, 2

MAIN BUILDING EAVE HEIGHTS	COLUMNS WITH LEAN-TO OR ROOF 16'-0" < TO ≤ 20'-0"	EXTENSION ATTACHED ARE REQUIRED TO BE LACED COLUMNS FOR
MAIN BUILDING EAVE HEIGHTS	COLUMNS WITH LEAN-TO OR ROOF 11'-0" < TO ≤ 16'-0"	EXTENSION ATTACHED ARE REQUIRED TO BE DOUBLE COLUMNS FOR
MAIN BUILDING EAVE HEIGHTS	COLUMNS WITH LEAN-TO OR ROOF ≤ 10'-0"	EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS FOR



SCALE: NTS



SCALE: NTS



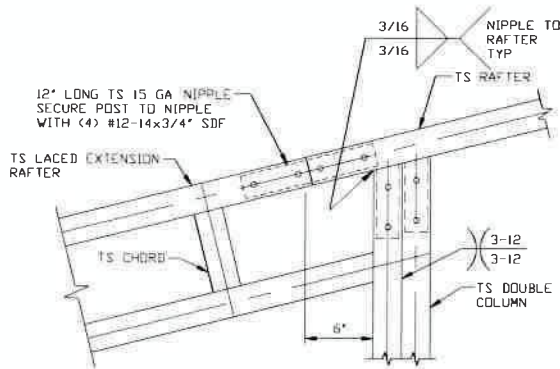
SCALE: NTS



Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

REV. 5

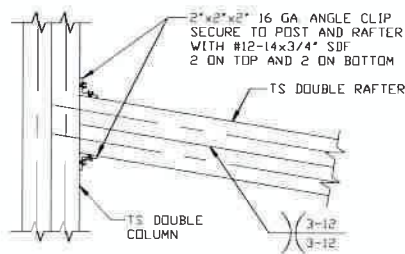
BOX EAVE RAFTER LEAN-TO OPTIONS



16B

**SIDE EXTENSION RAFTER/COLUMN DETAIL
FOR RAFTER SPANS 16'-0" < L ≤ 24'-0"**

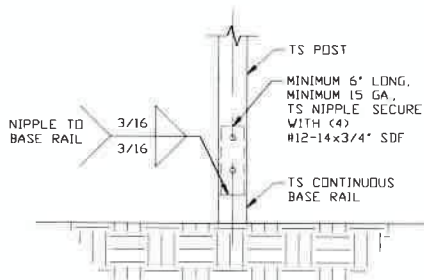
SCALE: NTS



17A

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL FOR
RAFTER SPANS 12'-0" < L ≤ 16'-0"**

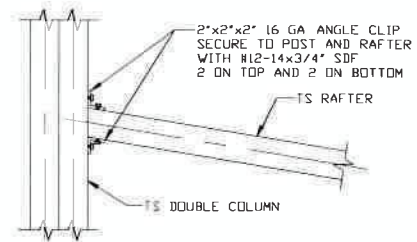
SCALE: NTS



18

**LEAN-TO POST
CONNECTION DETAIL**

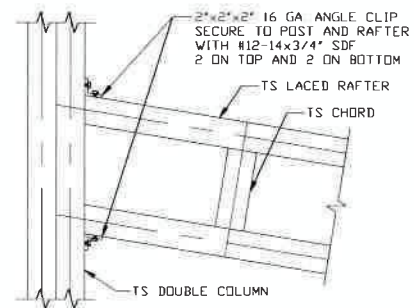
SCALE: NTS



17

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS 12'-0"**

SCALE: NTS



17B

**LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL FOR
RAFTER SPANS 16'-0" < L ≤ 24'-0"**

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 12A

SCALE: NTS

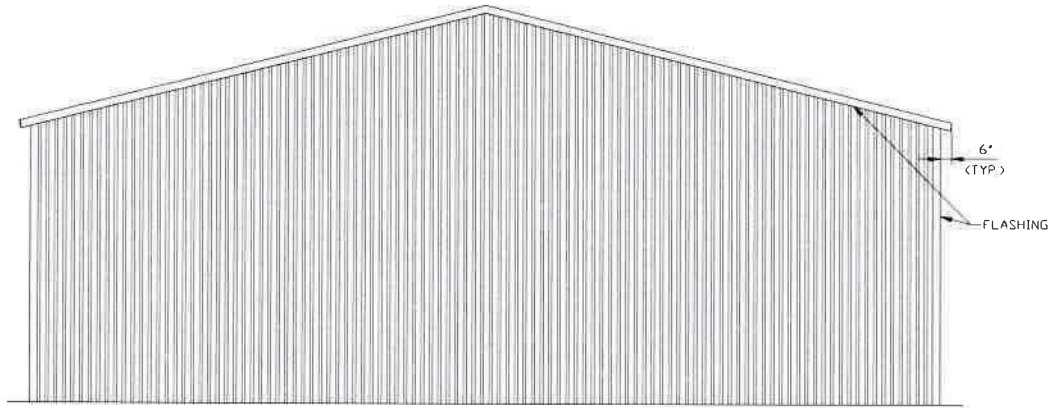
DWG. NO: SK-3

**JOB NO:
16022S/17301S/20352S**

REV: 5

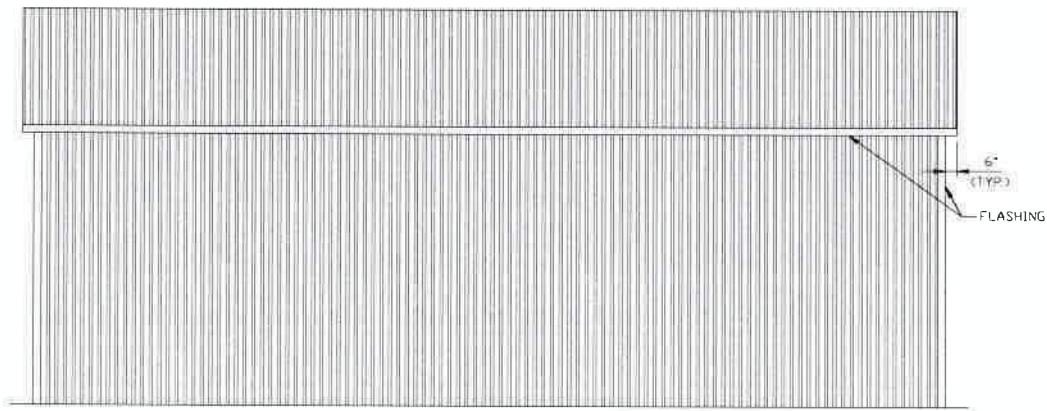
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



TYPICAL END ELEVATION VERTICAL ROOF/SIDING

SCALE: 1/8" = 1'-0"



TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: 1/8" = 1'-0"



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SHT. 13

SCALE: NTS

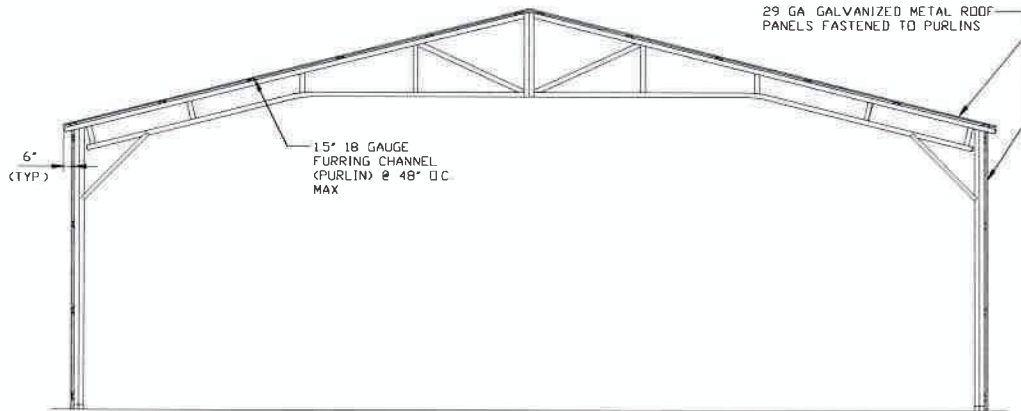
DWG. NO: SK-3

JOB NO:
16022S/17301S/20352S

REV: 5

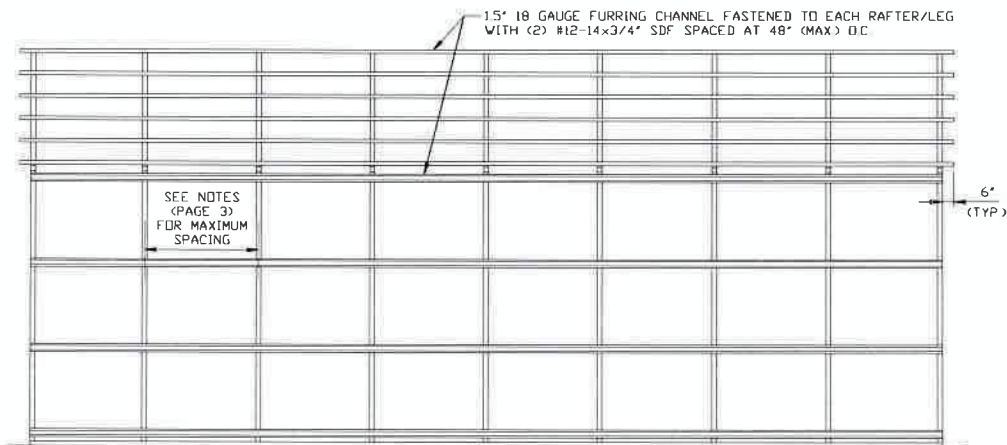
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

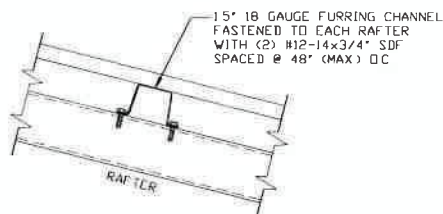
SCALE: 1/8" = 1'-0"



TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

SCALE: 1/8" = 1'-0"

NOTE: TS 2 1/2"x2 1/2"-14 GA. WALL GIRTS CAN BE USED AS AN OPTION IN PLACE OF HAT CHANNELS. TS GIRTS MUST BE SPACED AT 4'-0" (MAX) O.C.



PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS)



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B

DATE: 1-15-21

SCALE: NTS

JOB NO:
16022S/17301S/20352S

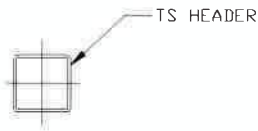
SHT. 13A

DWG. NO: SK-3

REV: 5

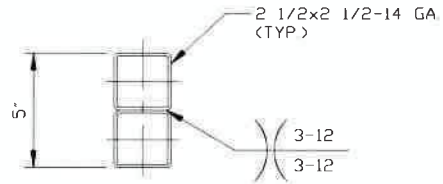
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

SIDE WALL OPTIONAL HEADER



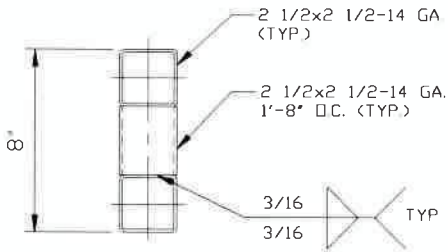
**HEADER DETAIL FOR
OPENINGS LENGTH $\leq 8'-0"$**

SCALE: NTS



**HEADER DETAIL FOR OPENINGS
 $8'-0" < \text{LENGTH} \leq 10'-0"$**

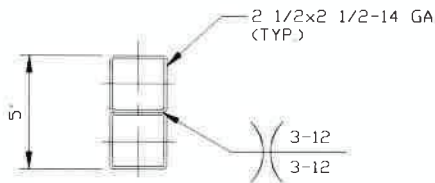
SCALE: NTS



**HEADER DETAIL FOR OPENINGS
 $10'-0" < \text{LENGTH} \leq 15'-0"$**

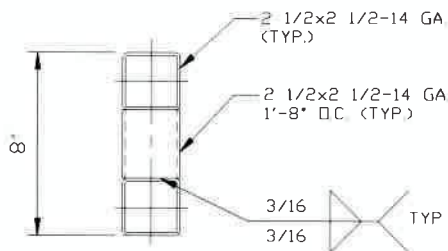
SCALE: NTS

END WALL OPTIONAL HEADER



**HEADER DETAIL FOR
OPENINGS LENGTH $\leq 10'-0"$**

SCALE: NTS



**HEADER DETAIL FOR OPENINGS
 $10'-0" < \text{LENGTH} \leq 15'-0"$**

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SCALE: NTS

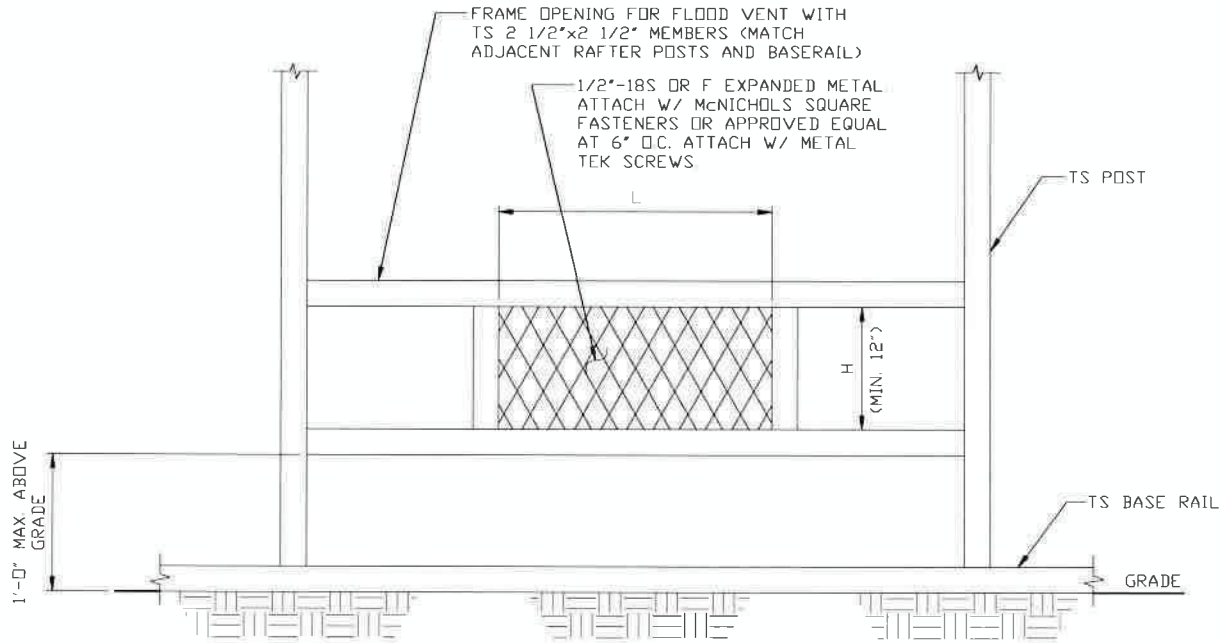
DWG. NO: SK-3

JOB NO: 16022S/17301S/20352S

REV: 5

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

FLOOD VENT DETAIL



TYPICAL FLOOD VENT DETAIL

SCALE: NTS

1. MINIMUM VENT SPACE REQUIRED = 1 SQ. INCH OF OPEN VENT AREA PER SQ. FOOT OF BUILDING AREA.
2. THERE SHALL BE A MINIMUM OF TWO OPENINGS ON DIFFERENT SIDES FOR EACH ENCLOSED BUILDING.
3. APPLY 1.3 FACTOR WHEN CALCULATING TOTAL OPEN AREA WHEN USING 1/2"-18GA S OR F EXPANDED METAL.
4. TOTAL OPEN AREA OF VENT = $L \times H (\text{MIN } 12")$.
5. FLOOD VENT DETAIL COMPLIES WITH FEMA/NFIP.
6. PREFABRICATED FLOOD VENTS MEETING THE REQUIREMENTS OF FEMA/NFIP MAY BE USED.



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0" x 20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 15

SCALE: NTS

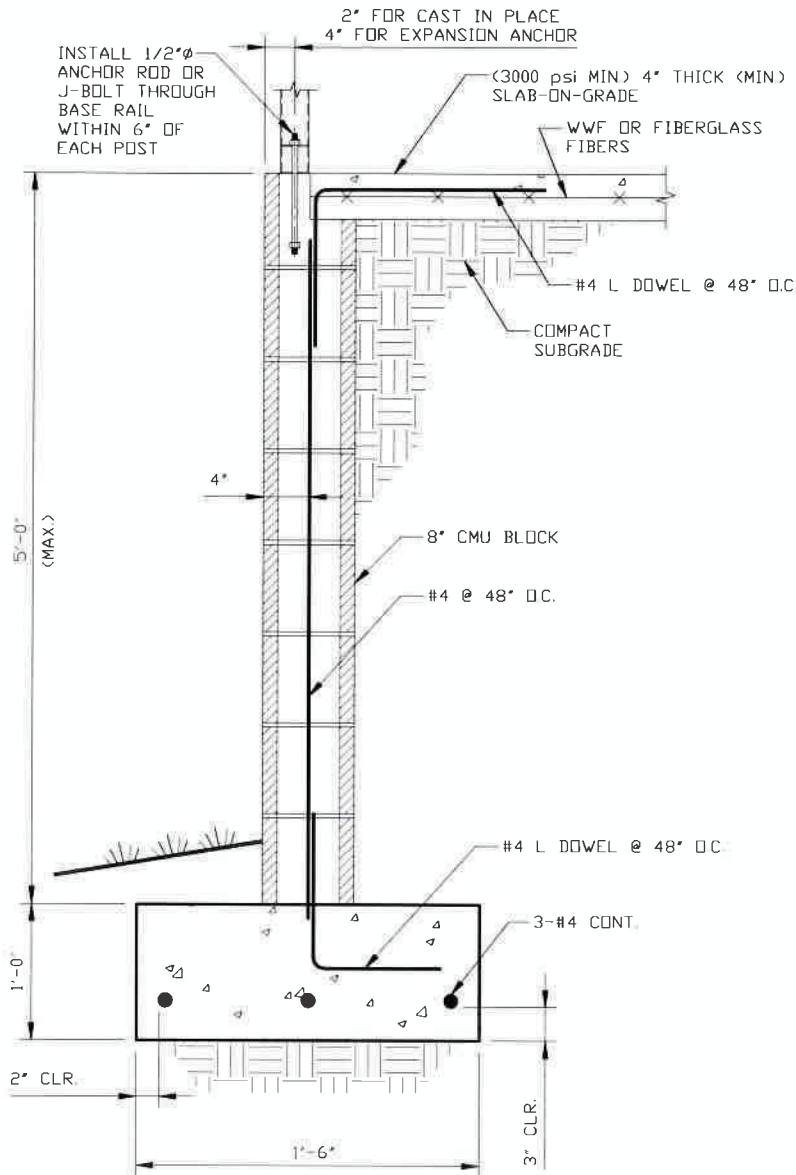
DWG. NO: SK-3

JOB NO: 16022S/17301S/20352S

REV: 5

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

STAND-ALONE STEM WALL DETAIL



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

SCALE: NTS



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SCALE: NTS

DWG. NO: SK-3

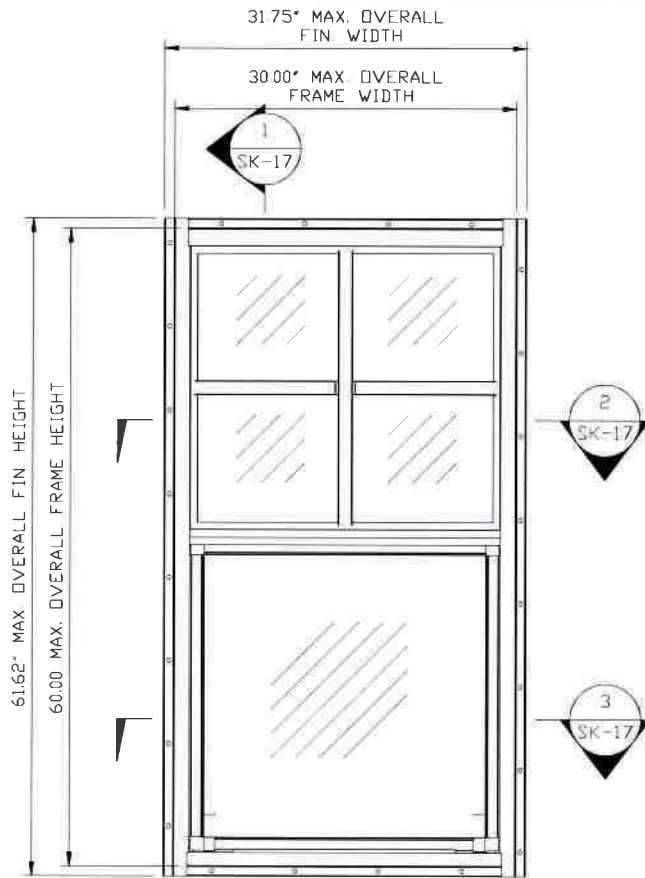
**JOB NO:
16022S/17301S/20352S**

SHT. 16

REV: 5

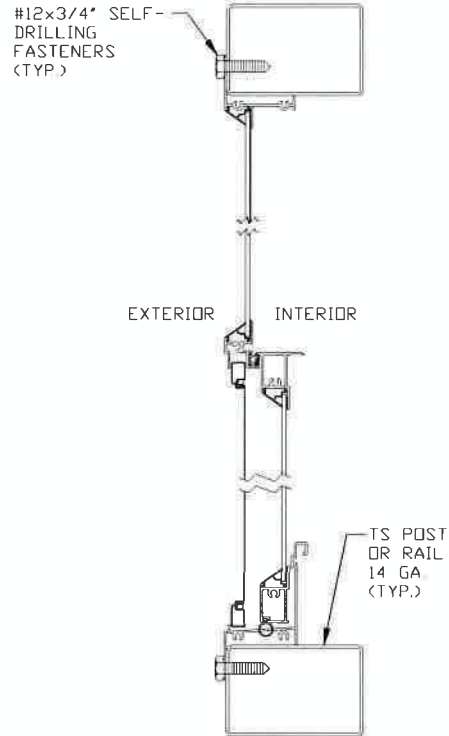
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

VERTICAL SLIDING WINDOW DETAIL



ELEVATION VIEW

SCALE: NTS

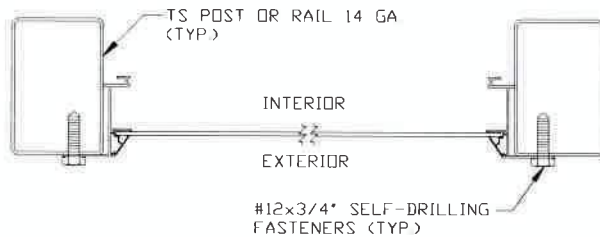


SECTION

SCALE: 3"=1'-0"

NOTE: KINRD SERIES 18000-R VS OR EQUIVALENT WINDOW IS REQUIRED

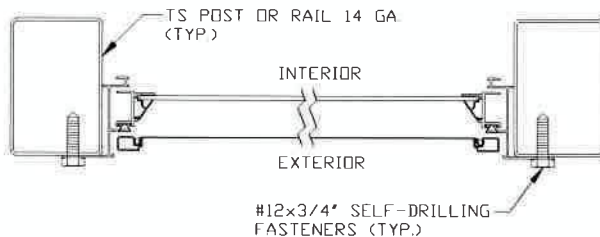
POSITIVE WALL PRESSURE: +40.0 PSF
NEGATIVE WALL PRESSURE: -40.0 PSF



SECTION

SCALE: 3"=1'-0"

2
SK-17



SECTION

SCALE: 3"=1'-0"

3
SK-17



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: WSH

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 17

SCALE: NTS

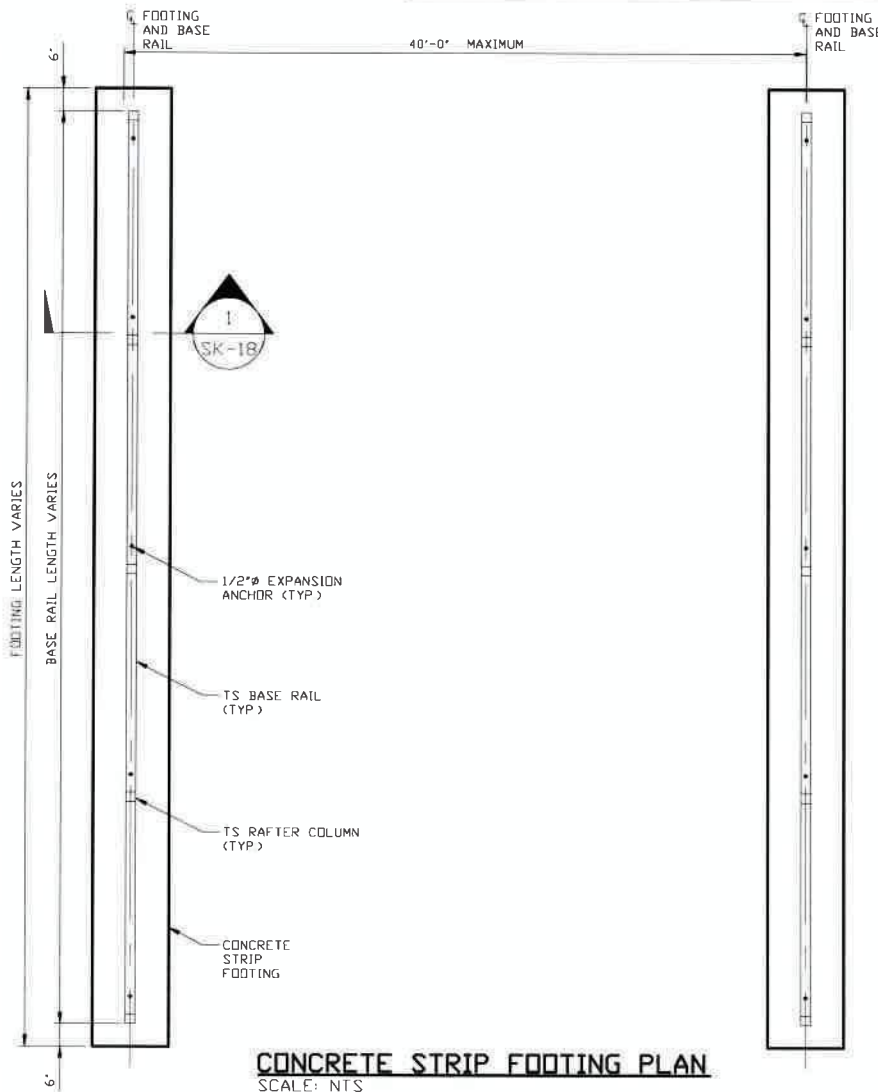
DWG. NO: SK-3

JOB NO: 16022S/17301S/20352S

REV: 5

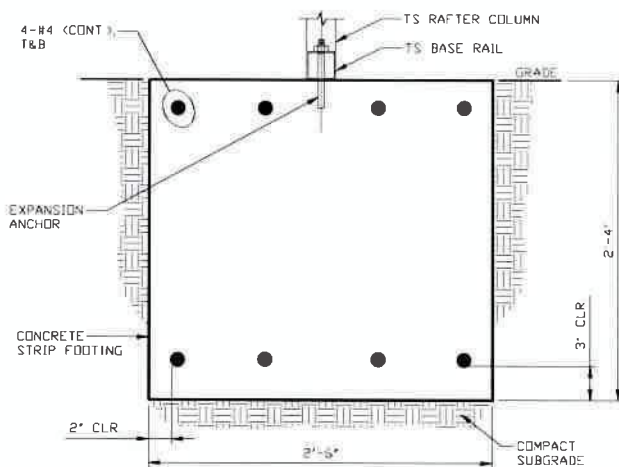
THIS DOCUMENT IS THE PROPERTY OF MOORE AND ASSOCIATES, INC. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

OPTIONAL CONCRETE STRIP FOOTING



CONCRETE STRIP FOOTING PLAN

SCALE: NTS



SECTION 1

SCALE: NTS

1 SK-18

✱ 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 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.



This item has been electronically signed and sealed by Wayne S. Moore, PE, using a Digital Signature and date.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

DRAWN BY: LT

CHECKED BY: PDH

PROJECT MGR: VSM

CLIENT: TBS

**TUBULAR BUILDING SYSTEMS
40'-0"x20'-0" ENCLOSED BUILDING EXP. B**

DATE: 1-15-21

SHT. 18

SCALE: NTS

DWG. NO: SK-3

JOB NO: 16022S/17301S/20352S

REV: 5

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