NORTHEDGE STEEL

STRUCTURAL DESIGN
ENCLOSED BUILDING

MAXIMUM 30'-0" WIDE X 16'- 0" EAVE HEIGHT- BOX EAVE FRAME AND BOW FRAME

14 April 2022
Revision 0
M&A Project No. 21204S

Prepared for:

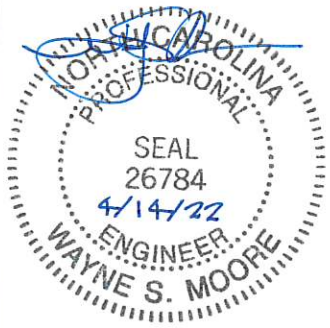
Northedge Steel, LLC
350 Forum Parkway
Rural Hall, NC 27045

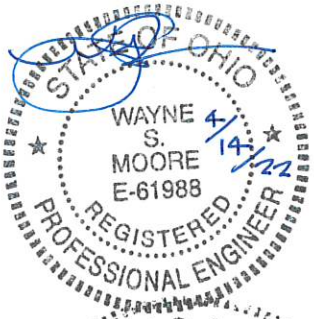
Prepared by:

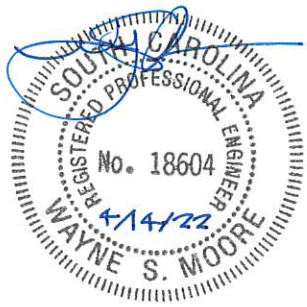
Moore and Associates Engineering and Consulting, Inc.
1009 East Avenue
North Augusta, SC 29841

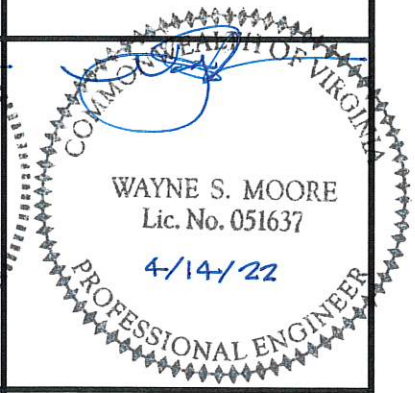
401 S. Main Street, Suite 200
Mount Airy, NC 27030

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING









MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT
CHECKED BY: PDH

NORTHEDGE STEEL, LLC
350 FORUM PARKWAY
RURAL HALL, NC 27045
30'-0"x16'-0" ENCLOSED STRUCTURE

PROJECT MGR: WSM | DATE: 4-14-22 | SCALE: NTS | JOB NO: 21204S

CLIENT: NORTHEDGE | SHT. 1 | DWG. NO: SK-3 | REV.: 0

DRAWING INDEX

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

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

NORTHEDGE STEEL, LLC
350 FORUM PARKWAY
RURAL HALL, NC 27045
30'-0"x16'-0" ENCLOSED STRUCTURE

DATE: 4-14-22 | SCALE: NTS | JOB NO: 21204S
SHT. 2 | DWG. NO: SK-3 | REV.: 0

INSTALLATION NOTES AND SPECIFICATIONS

1. DESIGN IS FOR MAXIMUM 30'-0" WIDE x 16'-0" EAVE HEIGHT ENCLOSED STRUCTURES.
2. DESIGN WAS DONE IN ACCORDANCE WITH ALL THE APPLICABLE BUILDING CODES LISTED ON SHEET 3A.
3. DESIGN LOADS ARE AS FOLLOWS:
   A) ROOF DEAD LOADS:
   SELF-WEIGHT = 1.5 PSF
   MEP = 0 PSF
   COLLATERAL = 0 PSF
   B) ROOF LIVE LOAD = 12 PSF
   C) FLOOR LIVE LOAD = 100 PSF (4" CONCRETE SLAB-ON-GRADE)
   D) GROUND SNOW LOAD = 60 PSF
   = 35 PSF
   = 30 PSF (W $\leq$ 24'-0"), WITH U-CHANNEL RAFTER TIE)
   NOTE: UNBALANCED LOADING DUE TO SNOW DRIFTING FROM AN ADJACENT TALLER STRUCTURE HAS NOT BEEN EVALUATED.
4. 3-SECOND GUST WIND SPEED = $\leq$ 115 MPH (NOMINAL WIND SPEED = $\leq$ 89 MPH).
5. MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 3.5 FEET FOR SL 35 PSF < TO $\leq$ 60 PSF AND 5.0 FEET FOR $\leq$ 35 PSF (UNLESS NOTED OTHERWISE).
6. END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL COLUMNS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE).
7. RISK CATEGORY I (NOT FOR HUMAN HABITATION).
8. WIND EXPOSURE CATEGORY B/C.
9. SPECIFICATIONS APPLICABLE TO 29 GAUGE (FOR SL $\leq$ 35 PSF) AND 26 GAUGE (FOR SL 35 PSF < TO $\leq$ 60 PSF) METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE), TS 2 1/4" x 2 1/4" - 12 GAUGE MAY BE USED AS AN OPTION.
9. CONNECTOR SLEEVES ARE MINIMUM 6" LONG, TS 2 1/4"x2 1/4"-14 GAUGE FOR 2 1/2"x2 1/2"-14 GAUGE AND TS 2"x2"-12 GAUGE FOR 2 1/4"x2 1/4"-12 GAUGE FRAMING MEMBERS (UNLESS NOTED OTHERWISE).
10. STRUCTURAL ANALYSIS/DESIGN IS BASED ON TS MEETING THE REQUIREMENTS OF ASTM A653 GRADE 50 WITH MINIMUM YIELD STRENGTH (Fy) OF 54 KSI AND GALVANIZING MEETING THE MINIMUM REQUIREMENTS OF G60.
11. AVERAGE PANEL FASTENER SPACING ON-CENTERS = 9" O.C. (MAX.)
12. 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. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
13. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.
14. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36" LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED. COORDINATE WITH LOCAL CODES/ORDINANCES REGARDING MINIMUM LENGTH FOR FROST DEPTH PROTECTION.
15. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE AND FOUNDATION ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND, THEREFORE, REQUIRE ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.
16. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
    SOIL SITE CLASS = D
    RISK CATEGORY I
    R = 3.25 I_E = 1.0
    S_{DS} = 2.625 g V = C_SW
    S_{D1} = 2.13 g
17. IF MORE THAN 50% OF COLUMN (LEG) ARE REMOVED IN ANY LONGITUDINAL (SIDE) WALLS OF A BUILDING, THE ENGINEER IS TO BE NOTIFIED TO DETERMINE WHETHER PORTAL FRAMES OR OTHER LONGITUDINAL STABILITY ELEMENTS WILL BE REQUIRED.
18. **THIS MASTER DESIGN IS A GENERIC MASTER DESIGN PRIMARILY INTENDED FOR PLANT FABRICATION AND ERECTION AKIN TO SHOP DRAWINGS. THE MASTER DESIGN IS NOT PRIMARILY INTENDED FOR CONSTRUCTION PERMIT. WHEN APPLYING FOR BUILDING PERMIT, THE CERTIFIED BUILDING OFFICIAL MUST BE CONSULTED TO VERIFY WHETHER THE USE OF THE MASTER DESIGN IS ADEQUATE OR IF A SITE-SPECIFIC DESIGN IS REQUIRED FOR BUILDING PERMIT. ANY VARIATION FROM THE ANALYSIS/DESIGN PARAMETERS OF THE MASTER DESIGN REQUIRES THE DEVELOPMENT OF A SITE-SPECIFIC DESIGN.**

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30'-0"x16'-0" ENCLOSED STRUCTURE

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LIST OF APPLICABLE BUILDING CODES

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

2015 INTERNATIONAL BUILDING CODE (IBC 2015)

2012 INTERNATIONAL BUILDING CODE (IBC 2012)

GEORGIA STATE MINIMUM STANDARD BUILDING CODE
(ADOPTS THE IBC 2018 WITH AMENDMENTS)

INDIANA BUILDING CODE, 2014 EDITION
(ADOPTS THE IBC 2012 WITH AMENDMENTS)

2018 KENTUCKY BUILDING CODE
(ADOPTS THE IBC 2015 WITH AMENDMENTS)

2015 MICHIGAN BUILDING CODE
(ADOPTS THE IBC 2015 WITH AMENDMENTS)

2018 NORTH CAROLINA BUILDING CODE
(ADOPTS THE IBC 2015 WITH AMENDMENTS)

OHIO BUILDING CODE 2017
(ADOPTS THE 2015 WITH AMENDMENTS)

2018 SOUTH CAROLINA BUILDING CODE
(ADOPTS THE IBC 2018 WITH AMENDMENTS)

BUILDING CODE 2012 OF TENNESSEE
(ADOPTS THE IBC 2012 WITH AMENDMENTS)
BUILDING CODE 2018 OF NASHVILLE AND DAVIDSON
COUNTY (ADOPTS THE IBC 2018 WITH AMENDMENTS)

2018 VIRGINIA CONSTRUCTION CODE
(ADOPTS THE IBC 2018 WITH AMENDMENTS)

BUILDING CODE 2015 OF WEST VIRGINIA
(ADOPTS THE IBC 2015 WITH AMENDMENTS)

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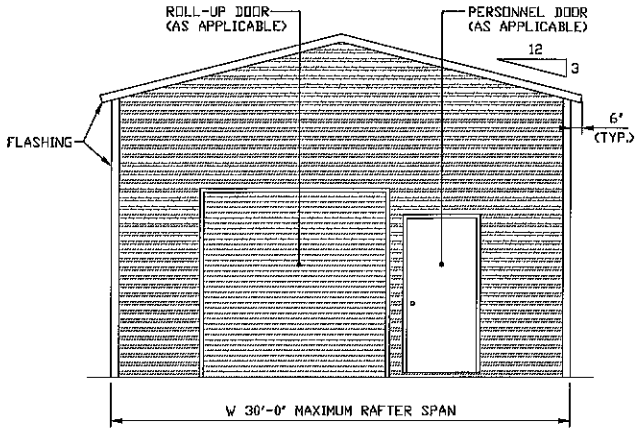
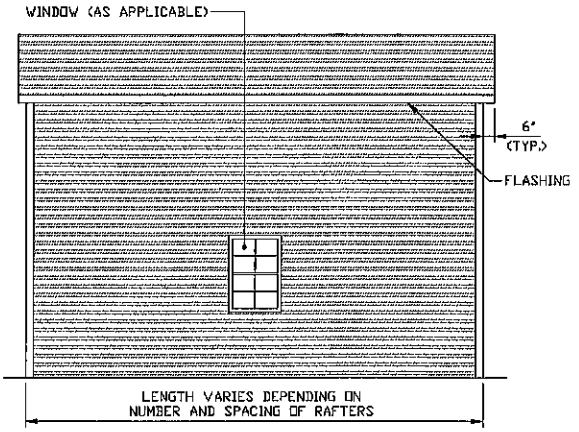
CLIENT: NORTHEDGE	SHT. 3A	DWG. NO: SK-3		REV: 0

BOX EAVE FRAME RAFTER STRUCTURE

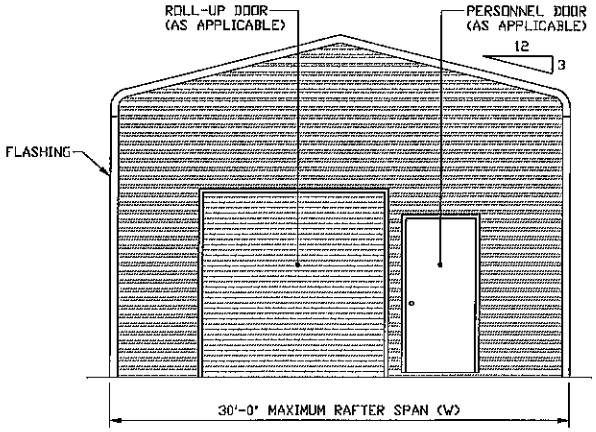


TYPICAL END ELEVATION
SCALE: NTS



TYPICAL SIDE ELEVATION
SCALE: NTS

BOW FRAME RAFTER STRUCTURE



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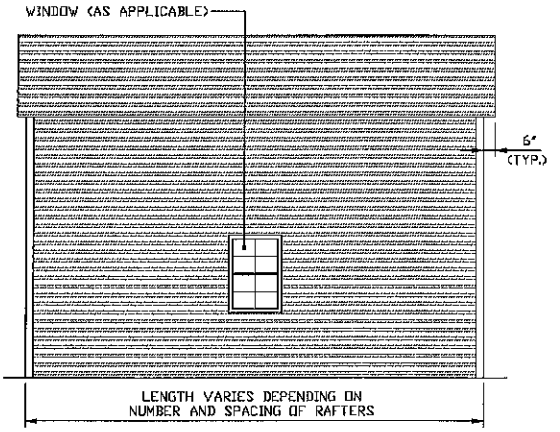

TYPICAL SIDE ELEVATION
SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
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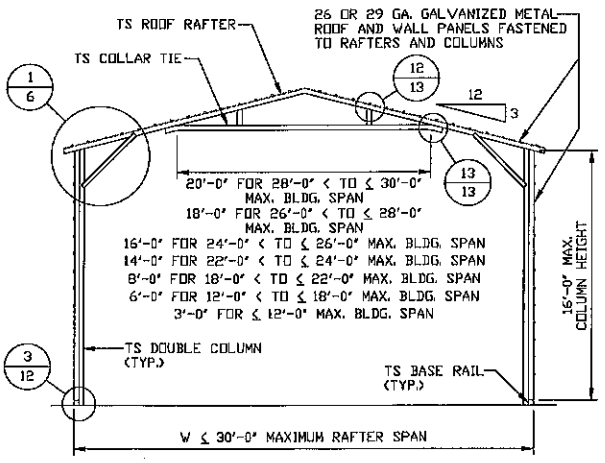
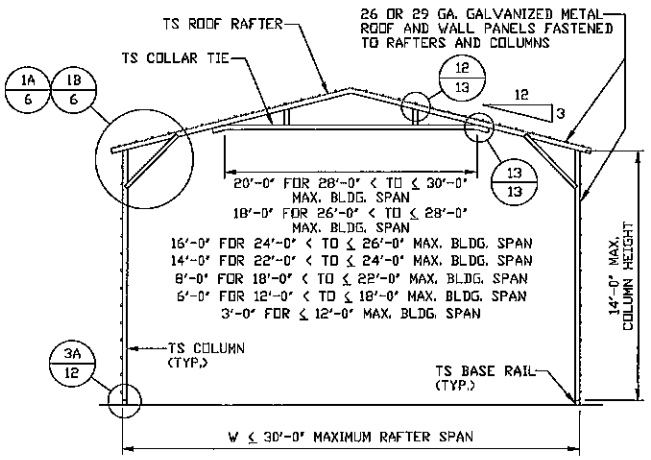
	CLIENT: NORTHEDGE	SHT. 4	DWG. NO: SK-3	REV: 0

35 PSF < TO ≤ 60 PSF SNOW LOAD



TYPICAL RAFTER/COLUMN FRAME SECTION

SCALE: NTS



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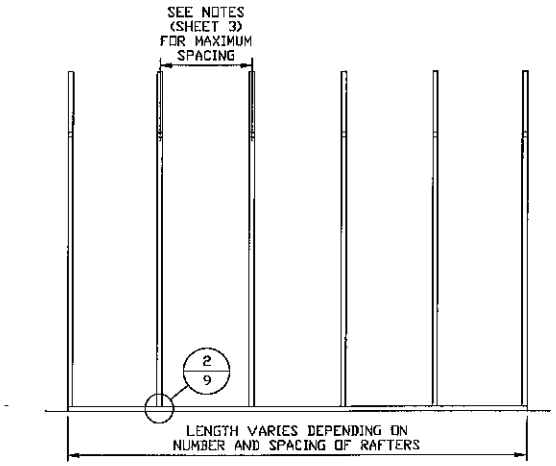

TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

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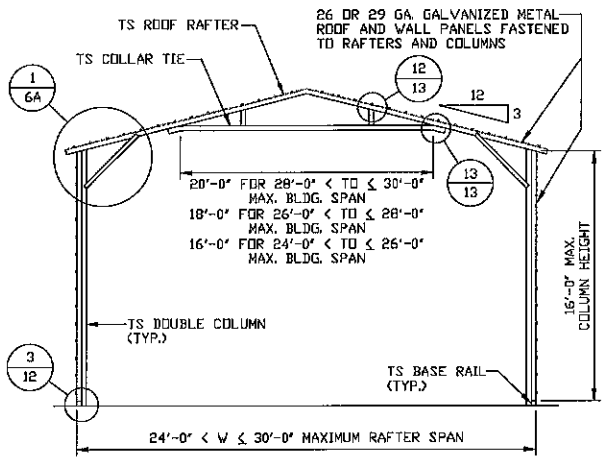
≤35 PSF SNOW LOAD



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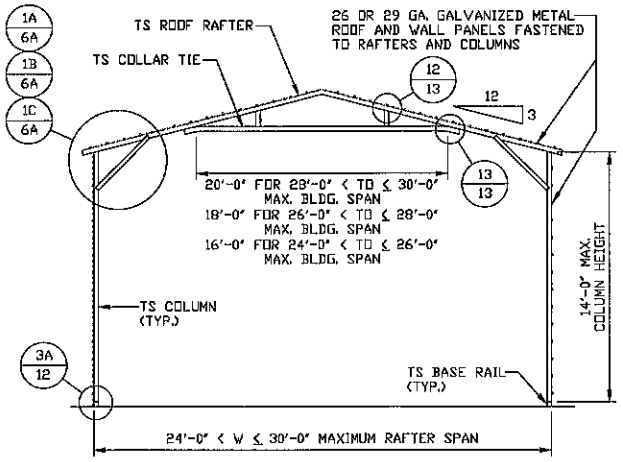

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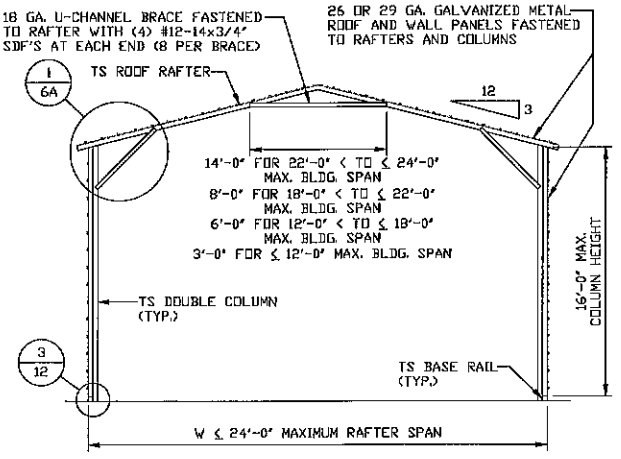

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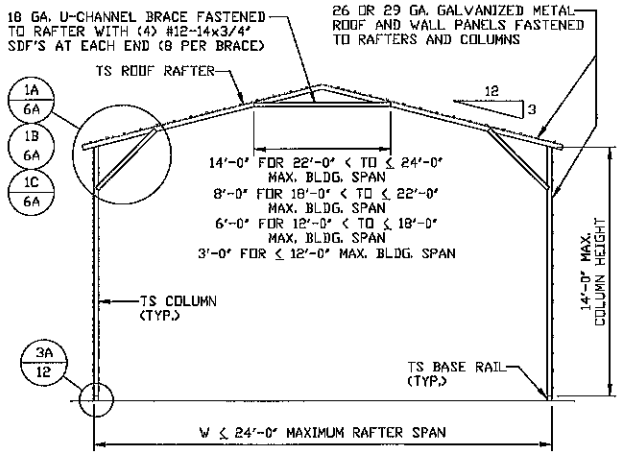

TYPICAL RAFTER/COLUMN FRAME SECTION

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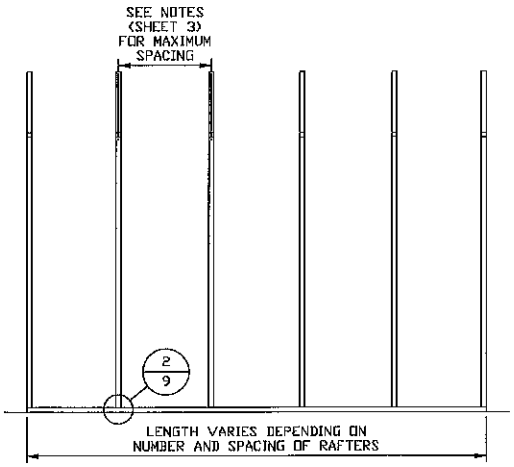

TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

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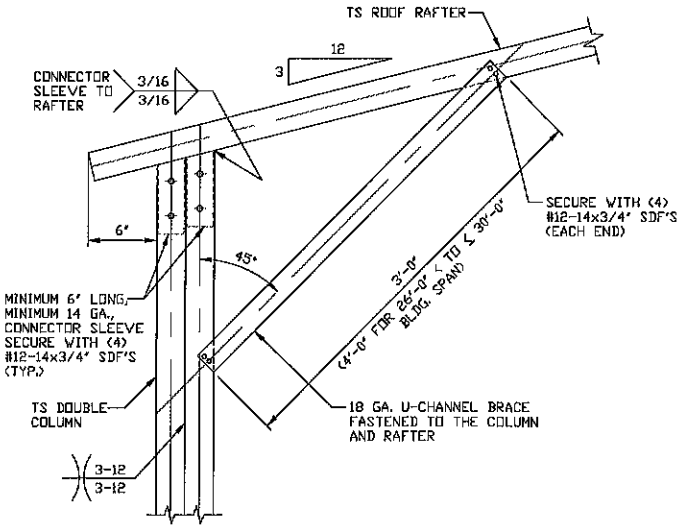
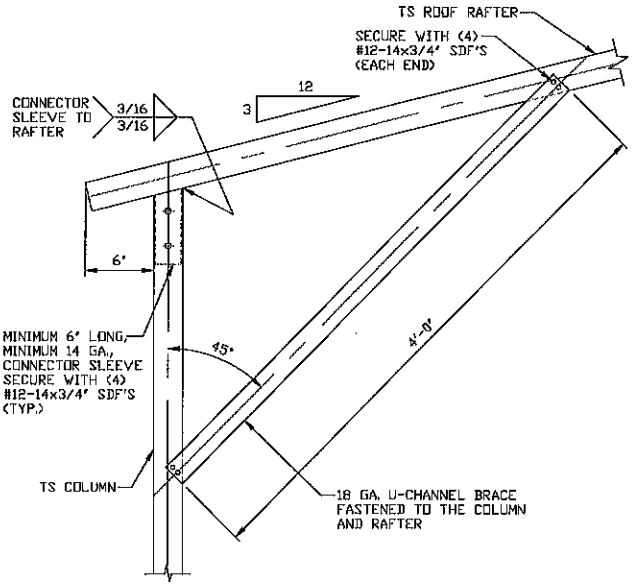
	CLIENT: NORTHEDGE	SHT. 5A	DWG. NO: SK-3 / REV: 0

35 PSF < TO ≤ 60 PSF SNOW LOAD



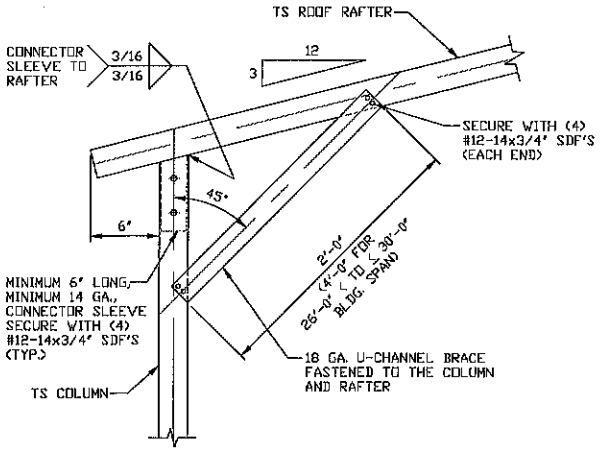
1 BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 14'-0" < TO ≤ 16'-0"

SCALE: NTS



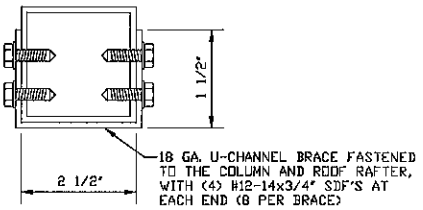
1A BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 14'-0"

SCALE: NTS



1B BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

SCALE: NTS



BRACE SECTION

SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
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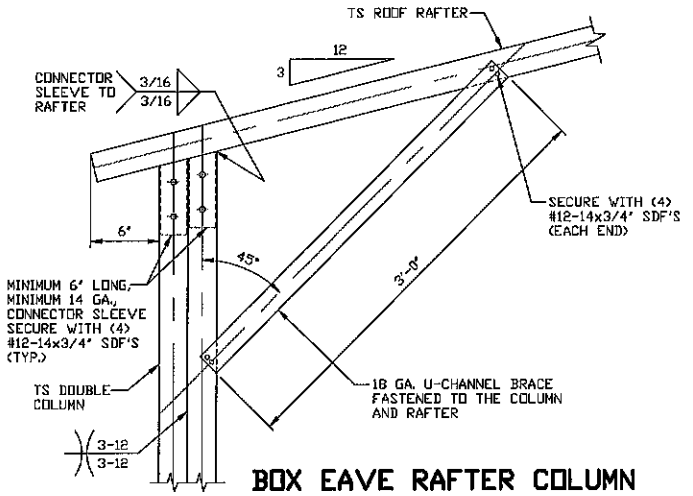
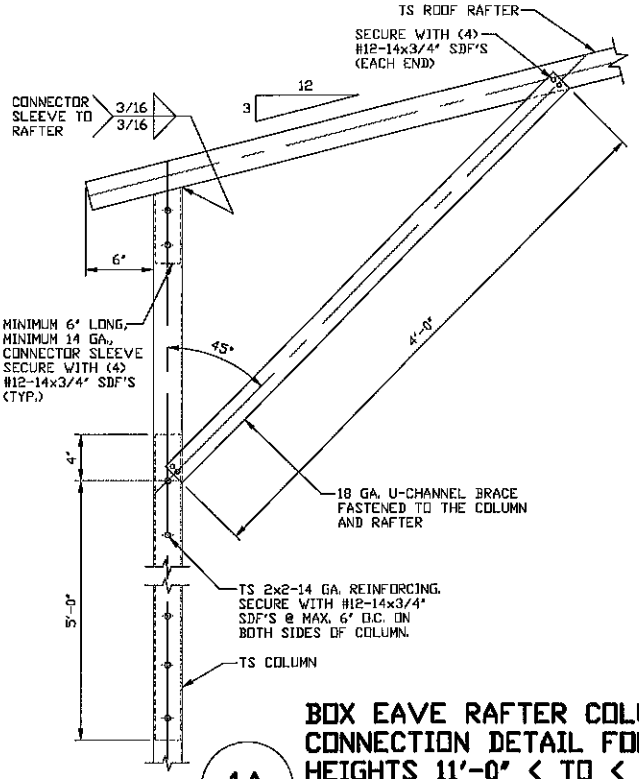
	CLIENT: NORTHEDGE	SHT. 6	DWG. NO: SK-3 / REV: 0

≤ 35 PSF SNOW LOAD



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 14'-0" < TO ≤ 16'-0"

1 SCALE: NTS



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 11'-0" < TO ≤ 14'-0"

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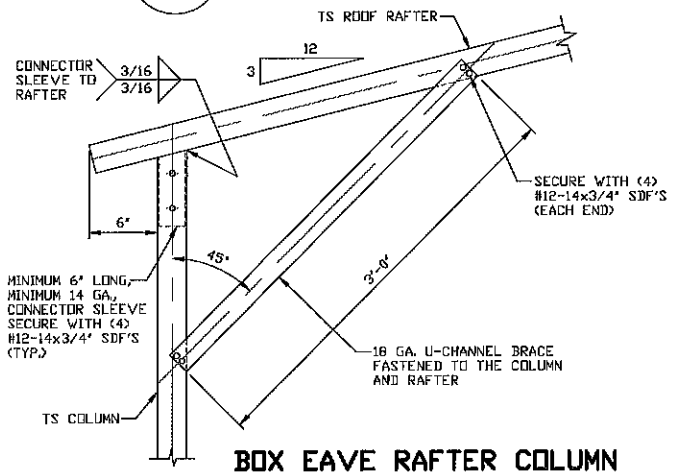
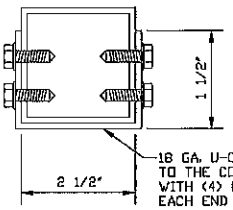


BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 11'-0"

1B SCALE: NTS



BRACE SECTION

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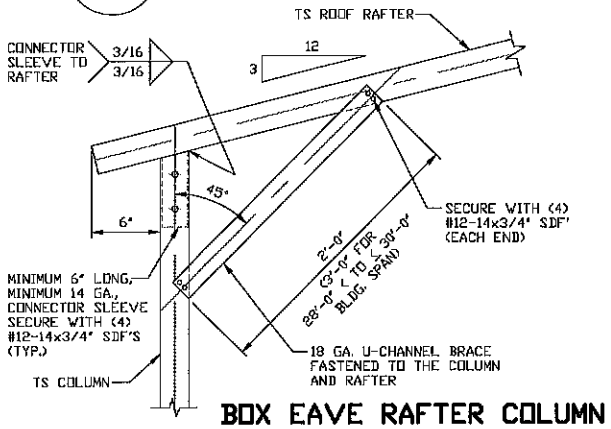

BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

1C SCALE: NTS

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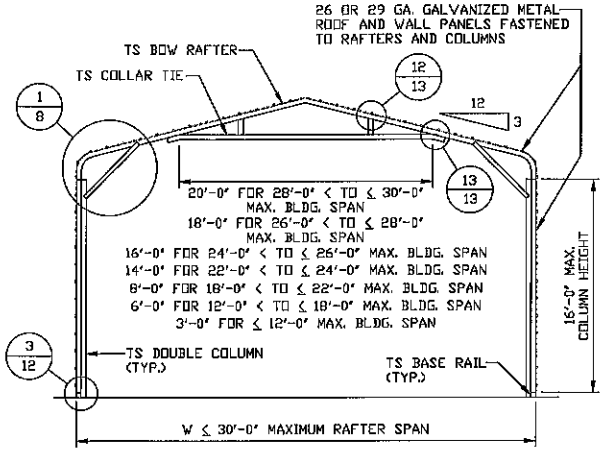
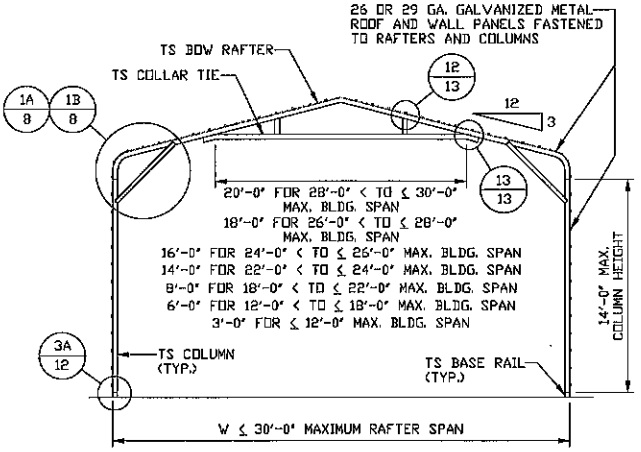
35 PSF < TO ≤ 60 PSF SNOW LOAD



TYPICAL RAFTER/COLUMN FRAME SECTION

SCALE: NTS



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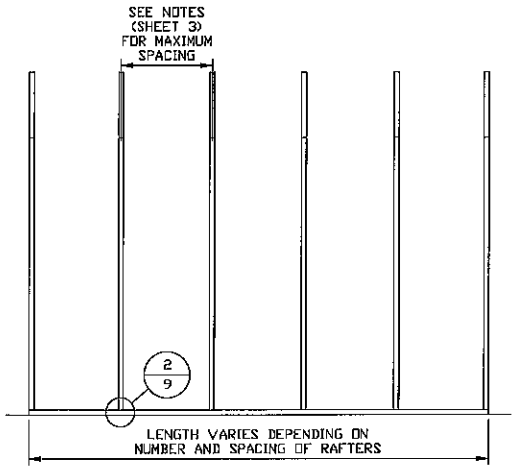

TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

SCALE: NTS

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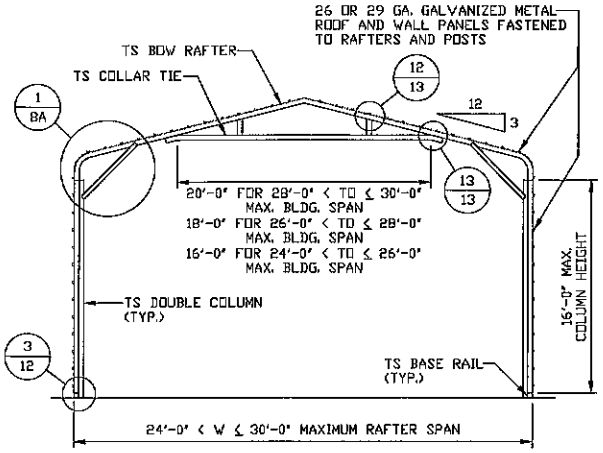
≤ 35 PSF SNOW LOAD



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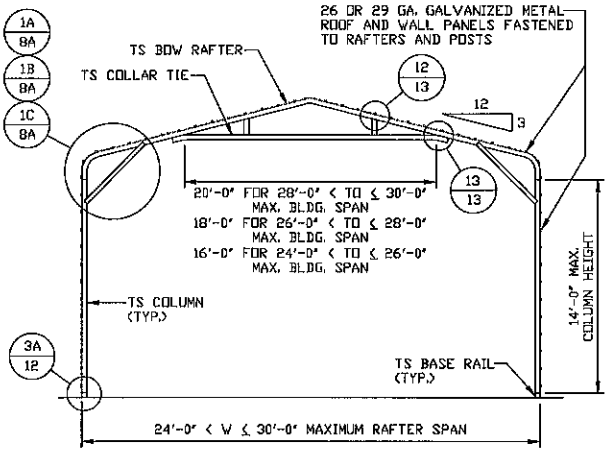
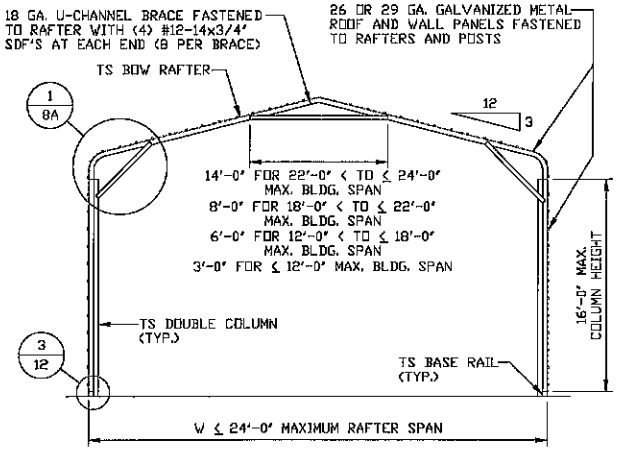


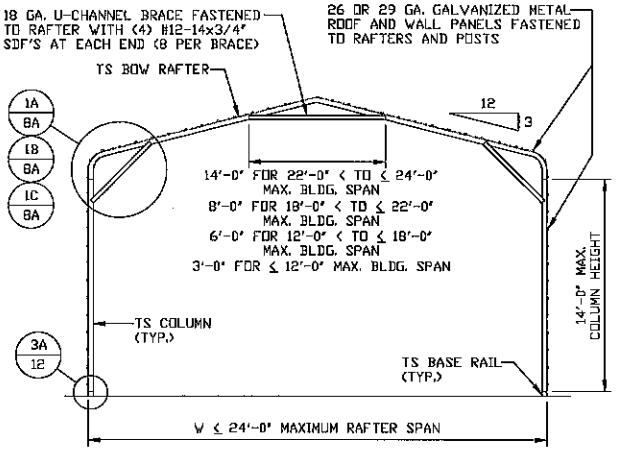
TYPICAL RAFTER/COLUMN FRAME SECTION

SCALE: NTS



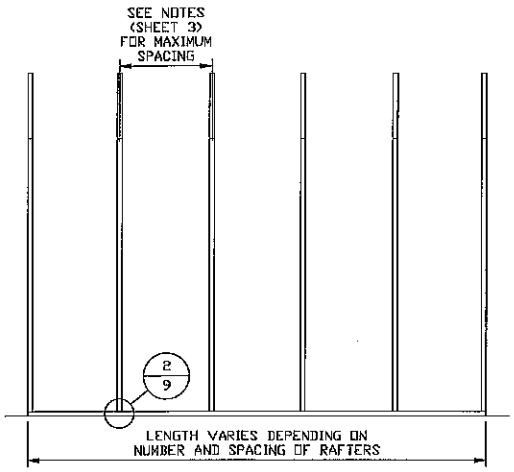
TYPICAL RAFTER/COLUMN FRAME SECTION

SCALE: NTS



TYPICAL RAFTER/COLUMN FRAME SECTION

SCALE: NTS

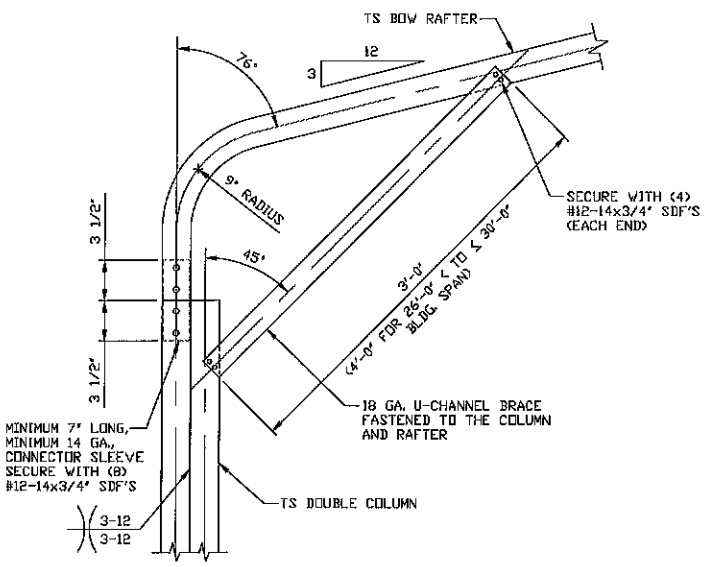


TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

SCALE: NTS

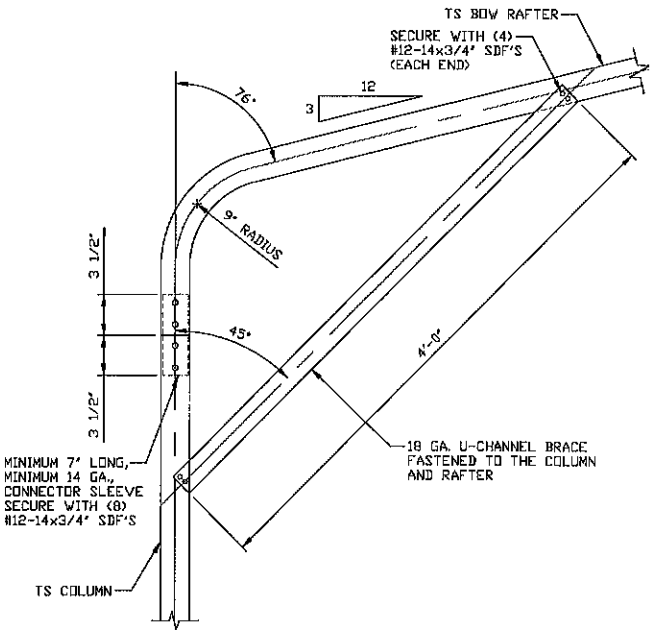
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 7A	DWG. NO: SK-3 / REV: 0

35 PSF < TO ≤ 60 PSF SNOW LOAD



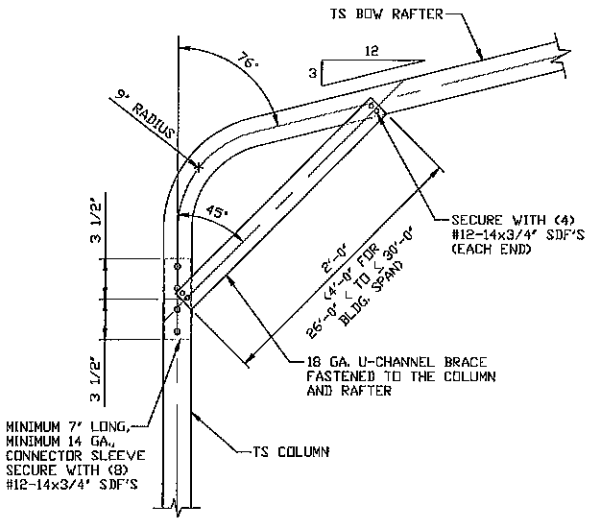
1 BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 14'-0" < TO ≤ 16'-0"

SCALE: NTS



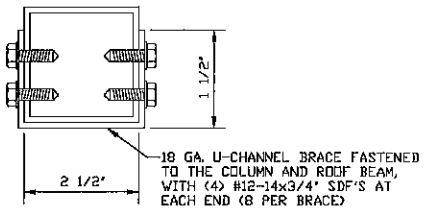
1A BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 14'-0"

SCALE: NTS



1B BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

SCALE: NTS

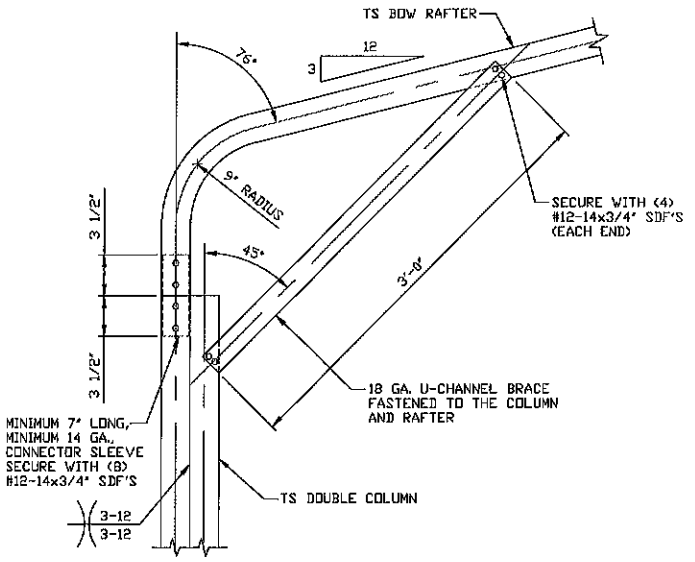


BRACE SECTION

SCALE: NTS

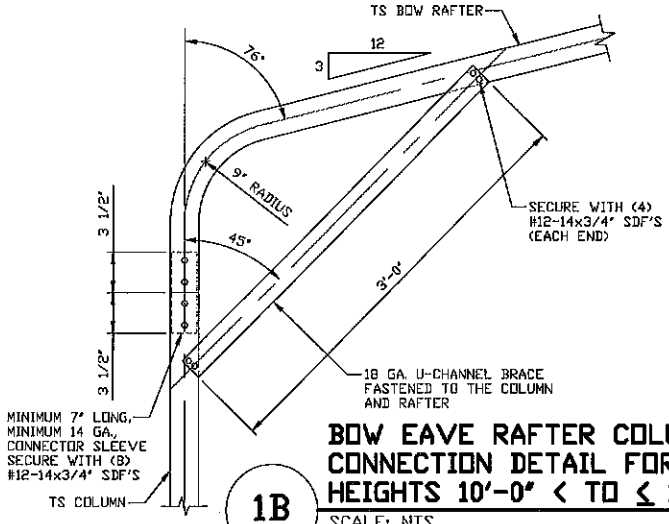
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 8	DWG. NO: SK-3 / REV.: 0

≤ 35 PSF SNOW LOAD



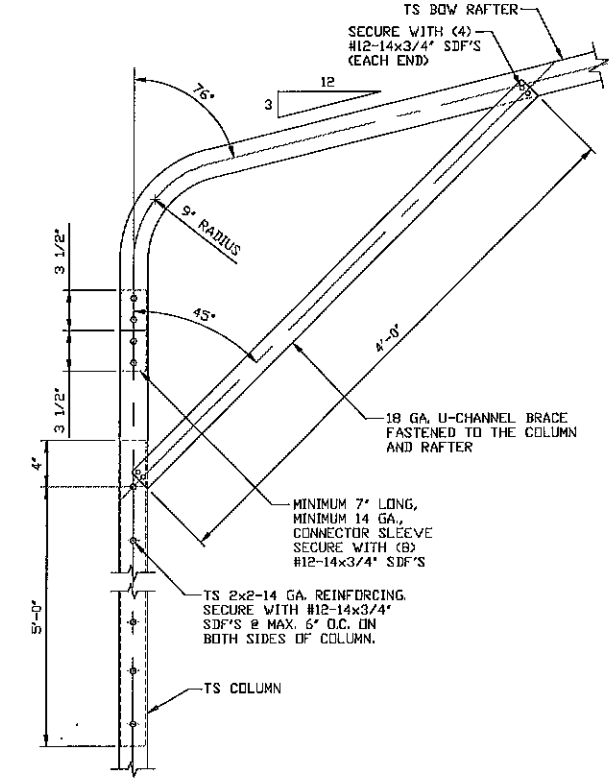
1 BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 14'-0" < TO ≤ 16'-0"

SCALE: NTS



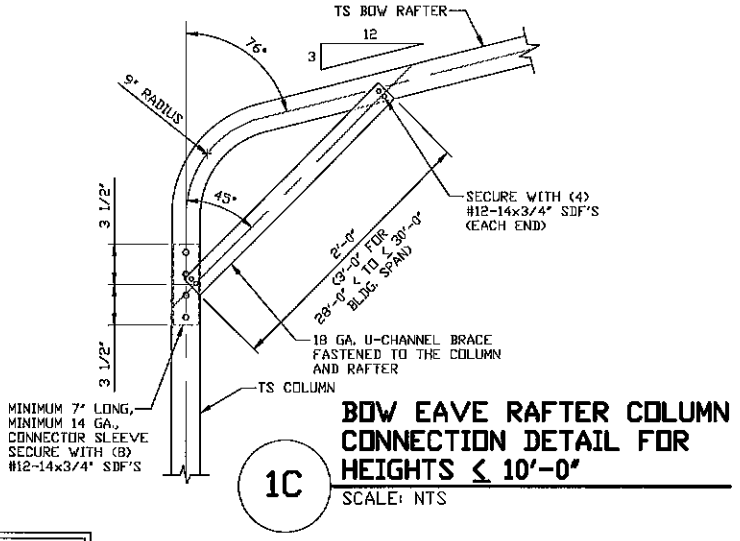
1B BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 11'-0"

SCALE: NTS



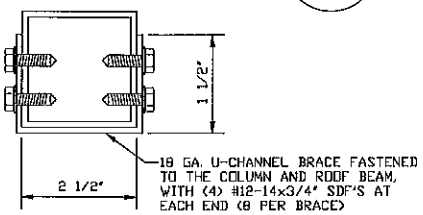
1A BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 11'-0" < TO ≤ 14'-0"

SCALE: NTS



1C BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 10'-0"

SCALE: NTS

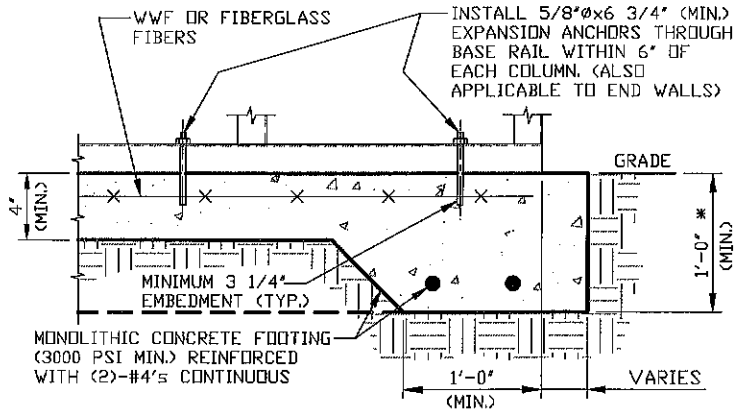


BRACE SECTION

SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	CHECKED BY: PDH			
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 8A	DWG. NO: SK-3	REV.: 0

BASE RAIL ANCHORAGE OPTIONS FOR 35 PSF < TO ≤ 60 PSF SNOW LOAD

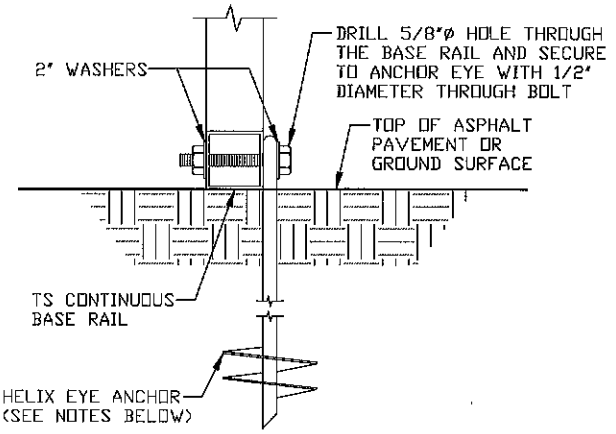


2 CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS

MINIMUM ANCHOR EDGE DISTANCE IS 4".

* COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH.



2A GROUND BASE HELIX ANCHORAGE

SCALE: NTS (CAN BE USED FOR ASPHALT)

GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF.

CONCRETE:

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

COVER OVER REINFORCING STEEL:

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

REINFORCING STEEL:

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

REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED:

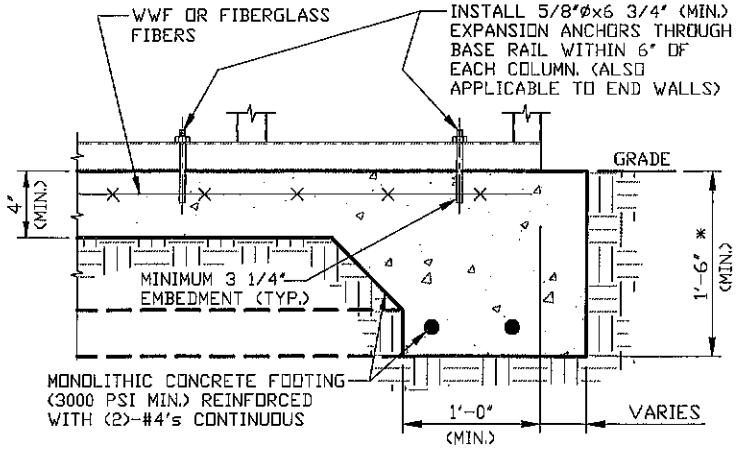
1. REINFORCEMENT IS BENT COLD.
2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.

HELIX ANCHOR NOTES:

1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
2. FOR CORAL USE MINIMUM (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
3. FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
4. FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT.
5. FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT.

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 9	DWG. NO: SK-3	REV: 0

BASE RAIL ANCHORAGE OPTIONS FOR ≤ 35 PSF SNOW LOAD

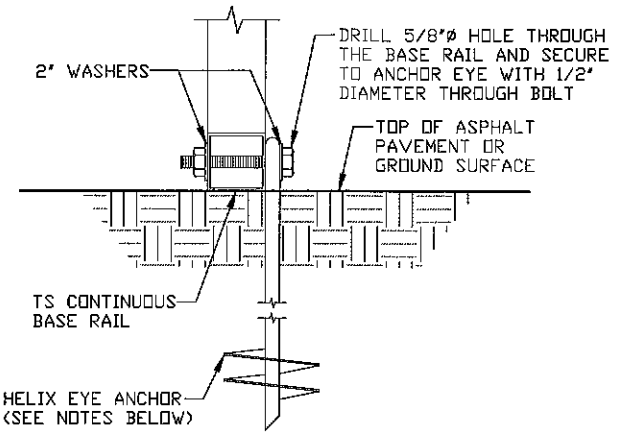


2 CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE

SCALE: NTS

MINIMUM ANCHOR EDGE DISTANCE IS 4".

* COORDINATE WITH LOCAL BUILDING CODE AND/OR BUILDING OFFICIAL REGARDING REQUIRED FOOTING DEPTH.



2A GROUND BASE HELIX ANCHORAGE

SCALE: NTS (CAN BE USED FOR ASPHALT)

GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF.

CONCRETE:

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COVER OVER REINFORCING STEEL:

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

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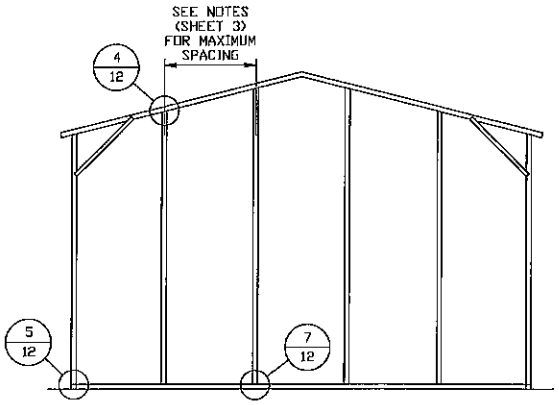
3. FOR MEDIUM DENSE COARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4" HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT.
4. FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM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

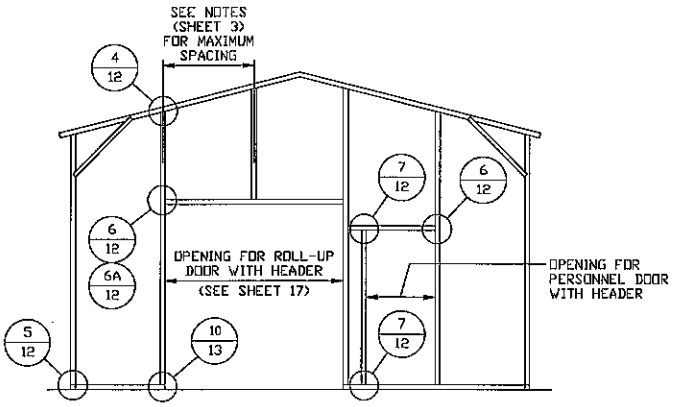
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	CHECKED BY: PDH			
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 9A	DWG. NO: SK-3	REV.: 0

BOX EAVE RAFTER END WALL AND SIDE WALL FRAMING SECTIONS



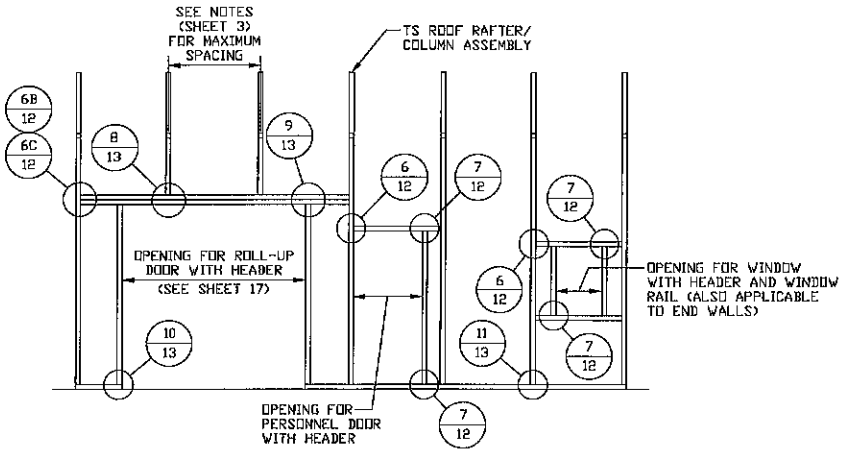
TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

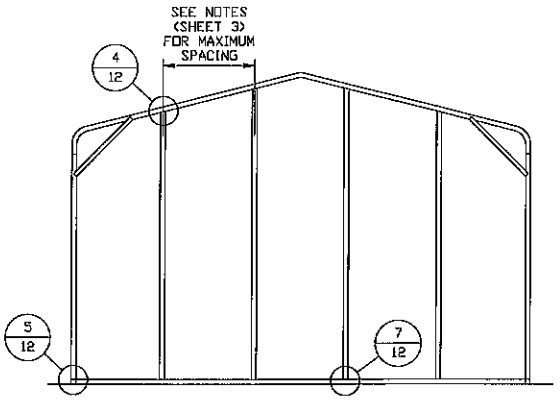


TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

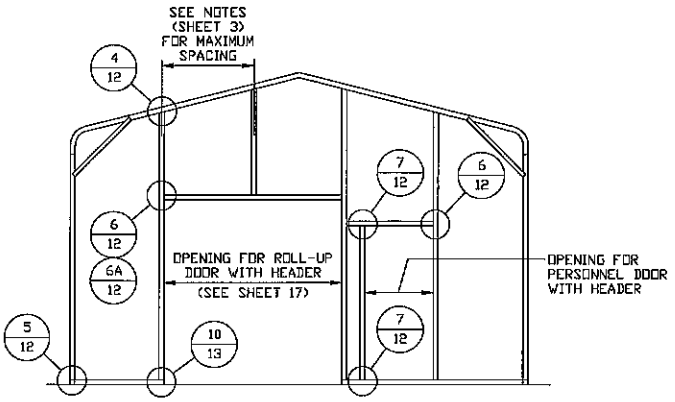
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 10	DWG. NO: SK-3 / REV.: 0

BOW RAFTER END WALL AND SIDE WALL FRAMING SECTIONS



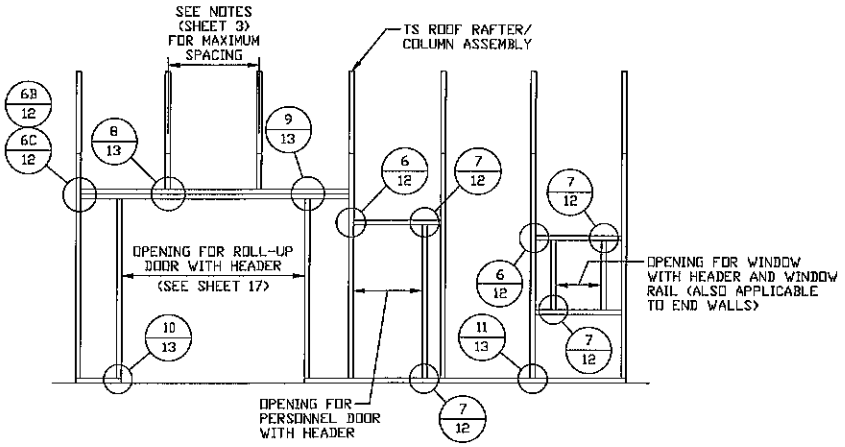
TYPICAL BOW RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOW RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

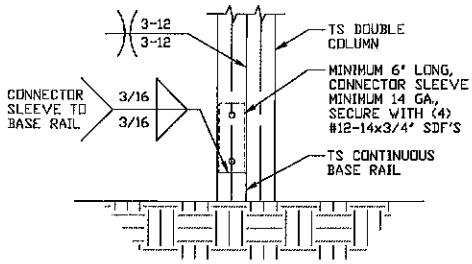


TYPICAL BOW RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

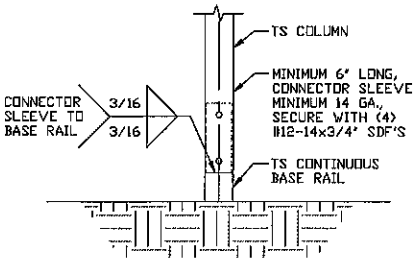
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 11	DWG. NO: SK-3 / REV: 0

CONNECTION DETAILS



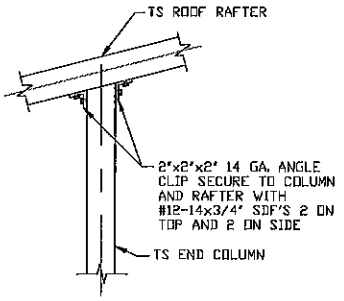
3 RAFTER COLUMN/ BASE RAIL CONNECTION DETAIL

SCALE: NTS



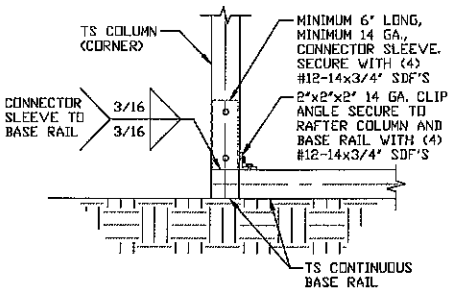
3A RAFTER COLUMN/ BASE RAIL CONNECTION DETAIL

SCALE: NTS



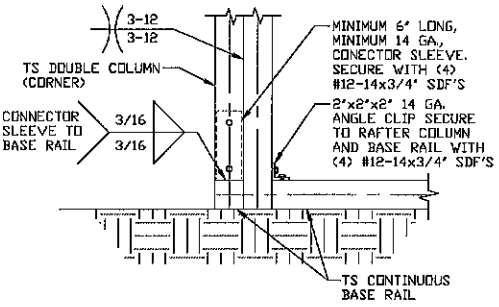
4 END COLUMN/RAFTER CONNECTION DETAIL

SCALE: NTS



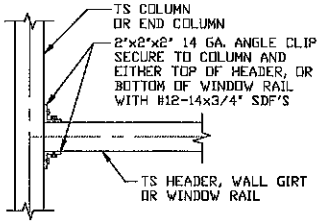
5 END COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



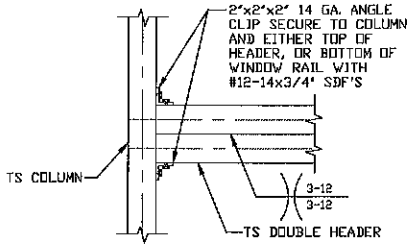
5A END COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



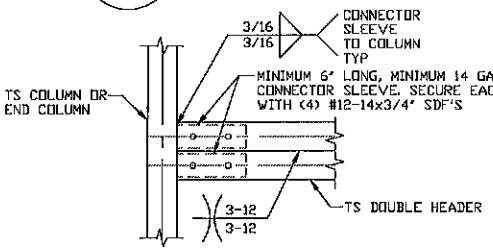
6 COLUMN OR WINDOW RAIL/GIRT TO POST CONNECTION DETAIL

SCALE: NTS



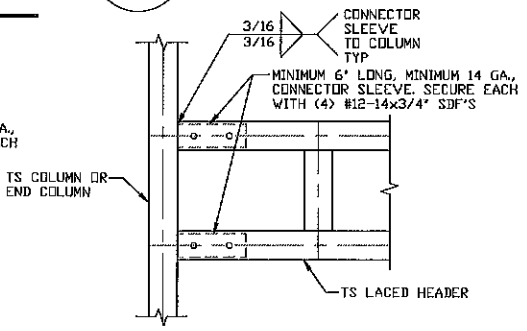
6A END WALL DOUBLE HEADER/COLUMN CONNECTION DETAIL

SCALE: NTS



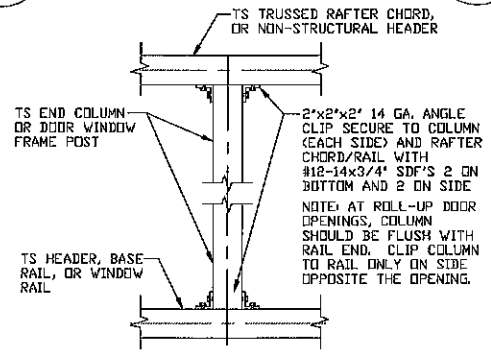
6B SIDE WALL DOUBLE HEADER/COLUMN CONNECTION DETAIL

SCALE: NTS



6C SIDE WALL LACED HEADER/COLUMN CONNECTION DETAIL

SCALE: NTS

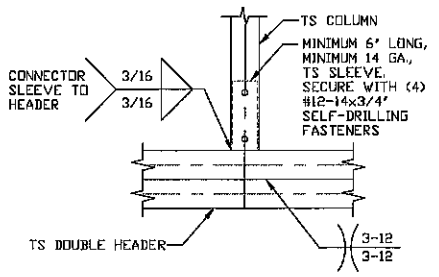


7 COLUMN TO WINDOW RAIL CONNECTION DETAIL

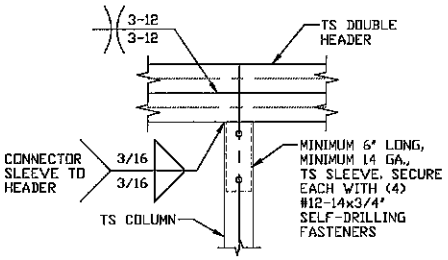
SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 12	DWG. NO: SK-3 / REV: 0

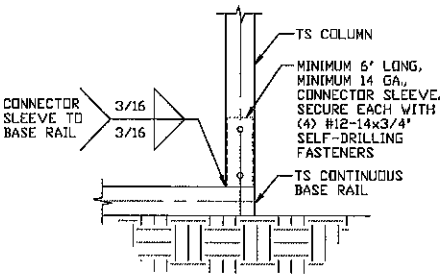
CONNECTION DETAILS



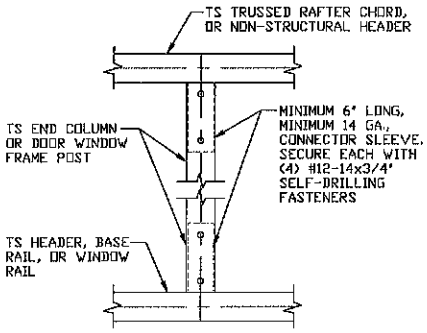
8 **COLUMN/DOUBLE HEADER CONNECTION DETAIL**
SCALE: NTS



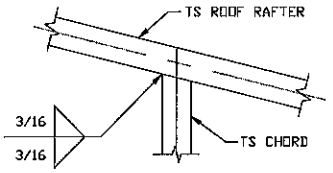
9 **DOUBLE HEADER/COLUMN CONNECTION DETAIL**
SCALE: NTS



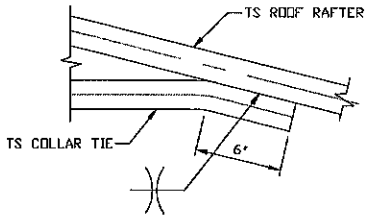
10 **COLUMN/BASE RAIL CONNECTION DETAIL**
SCALE: NTS



11 **COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL**
SCALE: NTS



12 **RAFTER TO CHORD CONNECTION DETAIL**
SCALE: NTS

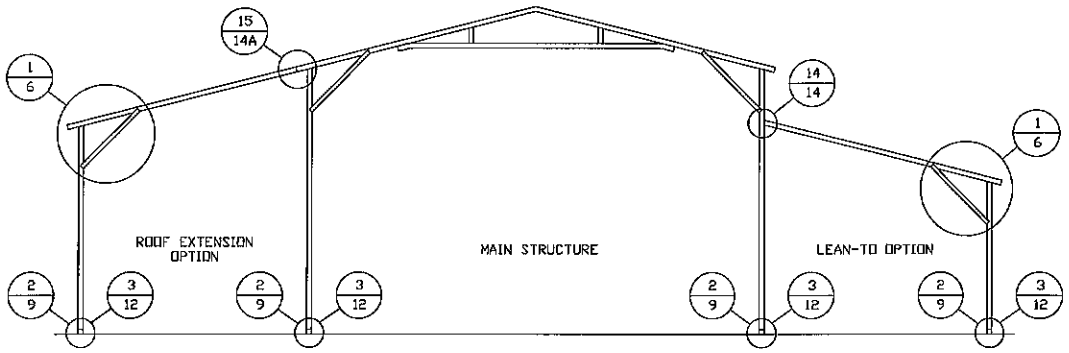


13 **COLLAR TIE CONNECTION DETAIL**
SCALE: NTS

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
CHECKED BY: PDH			
PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
CLIENT: NORTHEDGE	SHT. 13	DWG. NO: SK-3	REV.: 0

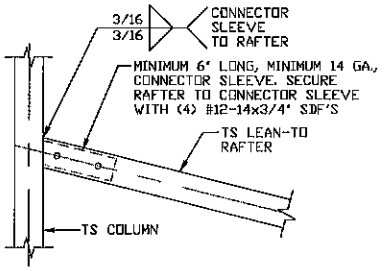
BOX EAVE RAFTER LEAN-TO OPTIONS



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

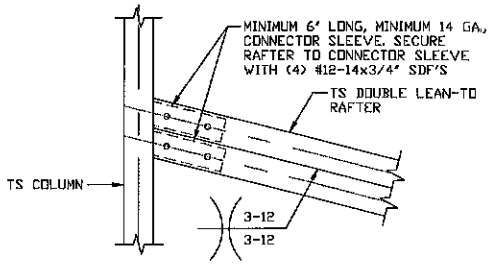
SCALE: NTS

MAXIMUM HEIGHT OF A MAIN STRUCTURE SINGLE COLUMN WITH LEAN-TO OR ROOF EXTENSION IS NOT APPLICABLE FOR 35 PSF < TO ≤ 60 PSF SL)
MAXIMUM HEIGHT OF A MAIN STRUCTURE SINGLE COLUMN WITH LEAN-TO OR ROOF EXTENSION IS 12'-0" FOR ≤ 35 PSF SL)
REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATION.
NOTE: LEAN-TO COLUMN SPACING MATCHES MAIN BUILDING COLUMN SPACING.



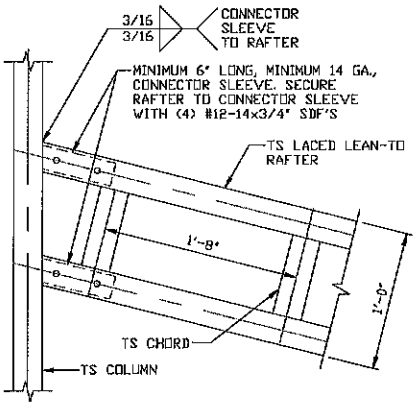
14 LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 10'-0" WITH 35 PSF < TO ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" WITH ≤ 35 PSF SL

SCALE: NTS



14A LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 10'-0" < TO ≤ 16'-0" WITH 35 PSF < TO ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" < TO ≤ 16'-0" WITH ≤ 35 PSF SL

SCALE: NTS

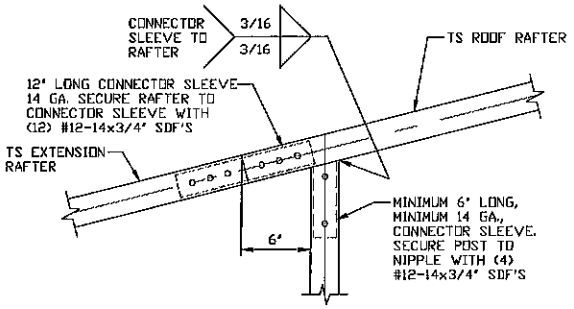


14B LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 16'-0"< TO ≤ 24'-0"

SCALE: NTS

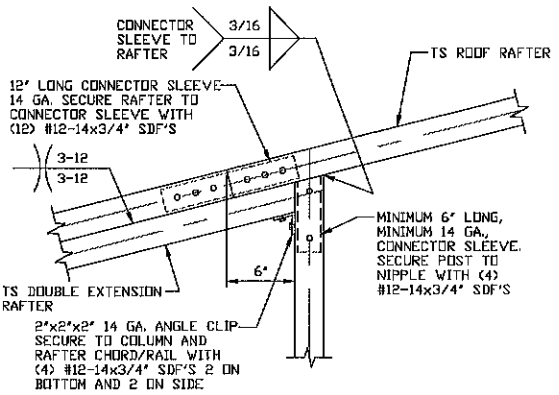
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT CHECKED BY: PDH	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 14	DWG. NO: SK-3	REV: 0

BOX EAVE RAFTER LEAN-TO OPTIONS



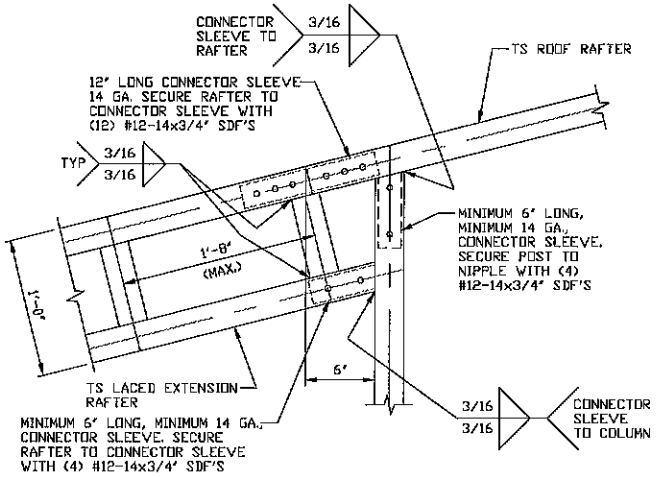
SIDE EXTENSION RAFTER/ COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 10'-0" WITH 35 PSF < TL ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" WITH ≤ 35 PSF SL

15 SCALE: NTS



SIDE EXTENSION RAFTER/COLUMN CONNECTION DETAIL FOR RAFTER SPANS 10'-0" < TL ≤ 16'-0" WITH 35 PSF < TL ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" < TL ≤ 16'-0" WITH ≤ 35 PSF SL

15A SCALE: NTS

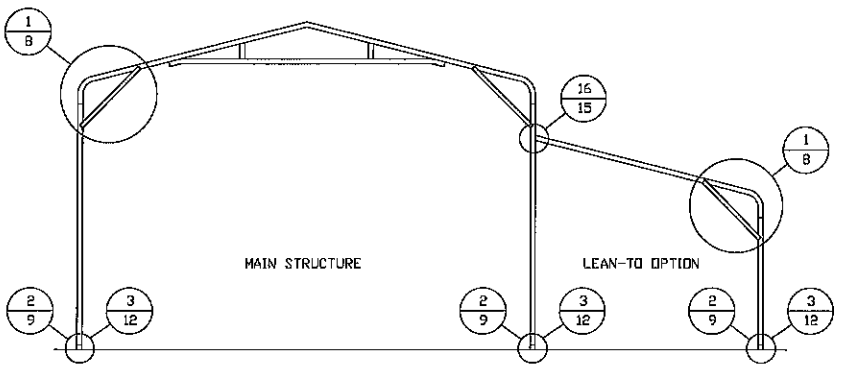


SIDE EXTENSION RAFTER/COLUMN DETAIL FOR RAFTER SPANS 16'-0" < TL ≤ 24'-0"

15B SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	CHECKED BY: PDH			
	PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 14A	DWG. NO: SK-3	REV.: 0

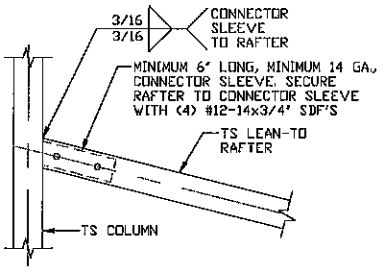
BOW EAVE RAFTER LEAN-TO OPTION



TYPICAL BOW RAFTER LEAN-TO OPTION FRAMING SECTION

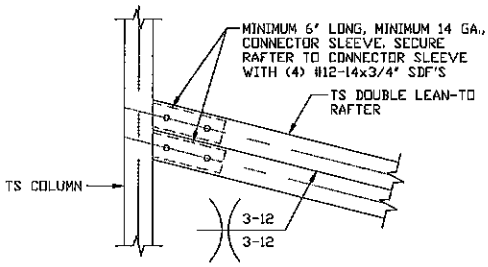
SCALE: NTS

MAXIMUM HEIGHT OF A MAIN STRUCTURE SINGLE COLUMN WITH LEAN-TO OR ROOF EXTENSION IS NOT APPLICABLE FOR 35 PSF < TO ≤ 60 PSF SL)
MAXIMUM HEIGHT OF A MAIN STRUCTURE SINGLE COLUMN WITH LEAN-TO OR ROOF EXTENSION IS 12'-0" FOR ≤ 35 PSF SL)
REFERENCE RAFTER COLUMN CONNECTION DETAILS FOR APPROPRIATE COLUMN HEIGHT AND TUBING SPECIFICATION.
NOTE: LEAN-TO COLUMN SPACING MATCHES MAIN BUILDING COLUMN SPACING.



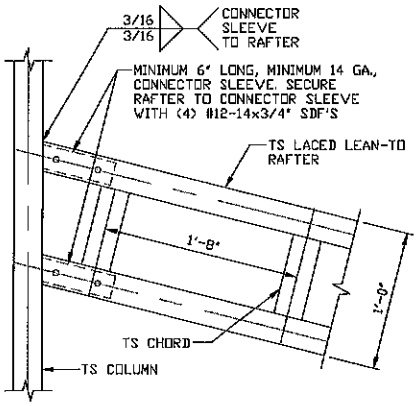
16 LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS ≤ 10'-0" WITH 35 PSF < TO ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" WITH ≤ 35 PSF SL

SCALE: NTS



16A LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 10'-0" < TO ≤ 16'-0" WITH 35 PSF < TO ≤ 60 PSF SL AND FOR RAFTER SPANS 12'-0" < TO ≤ 16'-0" WITH ≤ 35 PSF SL

SCALE: NTS

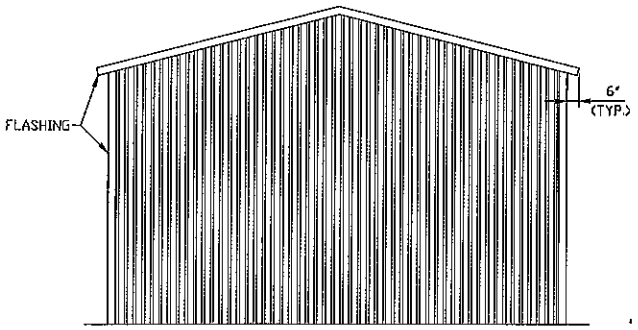


16B LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 16'-0"< TO ≤ 24'-0"

SCALE: NTS

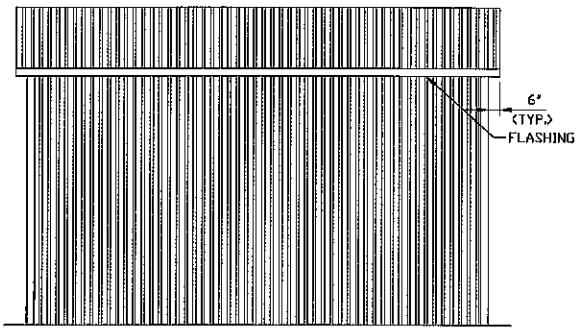
MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	CHECKED BY: PDH			
	PROJECT MGR: WSH	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 15	DWG. NO: SK-3	REV.: 0

BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION



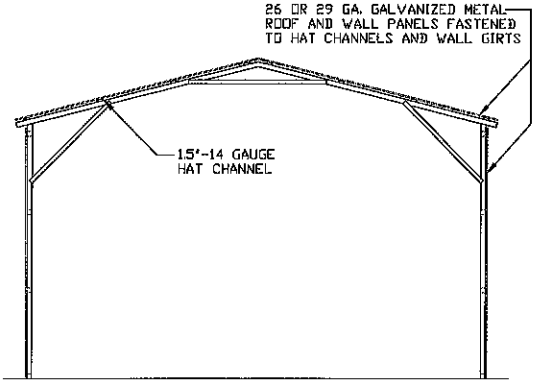
TYPICAL END ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



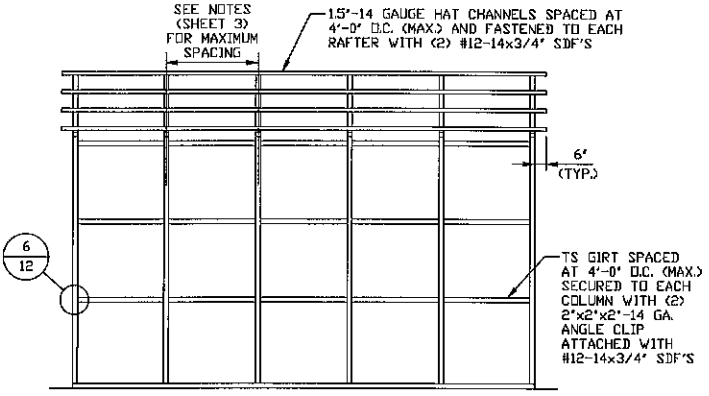
TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



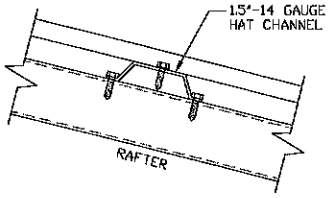
TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



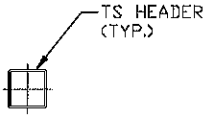
ROOF PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE	
	CHECKED BY: PDH		
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS / JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 16	DWG. NO: SK-3 / REV: 0

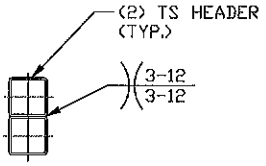
SIDE WALL HEADER OPTIONS

NOTE: HEADER DESIGN DOES NOT TAKE IN TO ACCOUNT ADDITIONAL ROOF LOADING FROM ATTACHED LEAN-TO STRUCTURES.



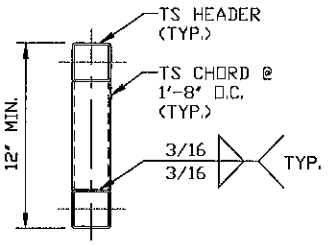
HEADER DETAIL FOR DOOR OPENINGS LENGTHS ≤ 5'-0"

SCALE: NTS



HEADER DETAIL FOR DOOR OPENINGS 5'-0" < LENGTHS ≤ 9'-0" WITH 35 PSF < TD ≤ 60 PSF SL AND 5'-0" < LENGHTS ≤ 10'-0" WITH SL ≤ 35 PSF

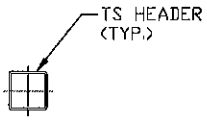
SCALE: NTS



HEADER DETAIL FOR DOOR OPENINGS 9'-0" < LENGTHS ≤ 16'-0" WITH 35 PSF < TD < 60 PSF SL AND 10'-0" < LENGHTS < 16'-0" WITH ≤ 35 PSF SL

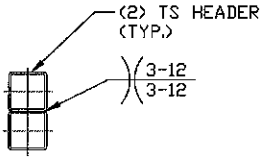
SCALE: NTS

END WALL HEADER OPTIONS



HEADER DETAIL FOR DOOR OPENINGS LENGTHS ≤ 14'-0"

SCALE: NTS



HEADER DETAIL FOR DOOR OPENINGS 14'-0" < LENGTHS ≤ 16'-0"

SCALE: NTS

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.	DRAWN BY: LT	NORTHEDGE STEEL, LLC 350 FORUM PARKWAY RURAL HALL, NC 27045 30'-0"x16'-0" ENCLOSED STRUCTURE		
	CHECKED BY: PDH			
	PROJECT MGR: WSM	DATE: 4-14-22	SCALE: NTS	JOB NO: 21204S
	CLIENT: NORTHEDGE	SHT. 17	DWG. NO: SK-3	REV: 0