

# STRUCTURAL DESIGN ENCLOSED BUILDING

# MAXIMUM 24'- 0" WIDE X 12'- 0" HEIGHT-BOX EAVE FRAME AND BOW FRAME

28 January 2025 Revision 0 M&A Project No. 24344S Prepared for:

Newmart Builders 1000 Cycle Lane South Hill, VA 23970

Prepared by:

Moore and Associates Engineering and Consulting, Inc.

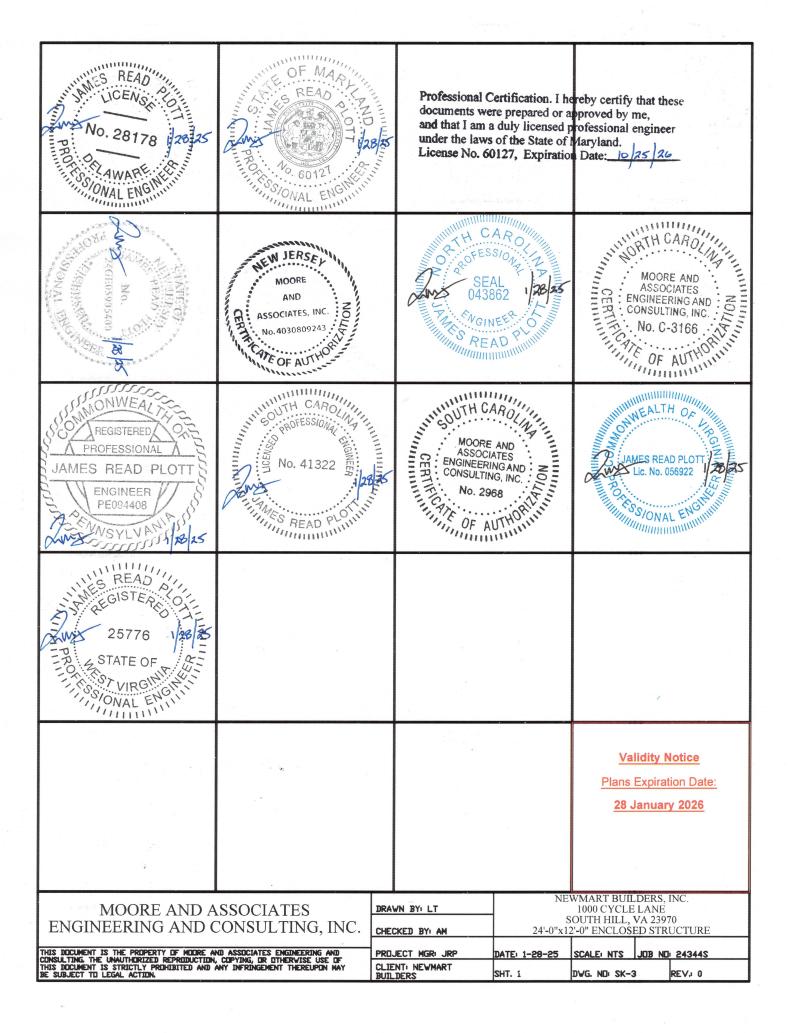
1009 East Avenue North Augusta, SC 29841

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



Validity Notice
Plans Expiration Date: 28 January 2026
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#### INSTALLATION NOTES AND SPECIFICATIONS

- 1. DESIGN IS FOR MAXIMUM 24'-0" WIDE x 12'-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 = 45 PSF

= 35 PSF (FOR U-CHANNEL RAFTER TIE)

NOTE: UNBALANCED LOADING DUE TO SNOW DRIFT/SLIDING FROM AN ADJACENT TALLER STRUCTURE HAS NOT BEEN EVALUATED. DROP-DOWN LEAN-TO'S (THOSE CAUSING A HEIGHT DIFFERENTIAL FROM THE MAIN STRUCTURE) SHALL BE LIMITED TO GROUND SNOW LOADS ≤ 30 PSF DUE TO ADDITIONAL SNOW DRIFT LOADING.

- 4. MAXIMUM ULTIMATE WIND SPEED 130 MPH (NOMINAL WIND SPEED 101 MPH).
- 5. END WALL COLUMNS (POSTS) ARE SIMILAR TO SIDE WALL COLUMNS (POSTS) IN SIZE AND SPACING (UNLESS NOTED OTHERWISE).
- 6. MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET (UNLESS NOTED OTHERWISE).
- 7. RISK CATEGORY I (NOT FOR HUMAN OCCUPANCY).
- 8. WIND EXPOSURE CATEGORY B.
- 9. STRUCTURAL ANALYSIS/DESIGN IS BASED ON TS MEETING THE REQUIREMENTS OF ASTM A653 TYPE SS GRADE 50 WITH MINIMUM YIELD STRENGTH (Fy) OF 50 KSI AND GALVANIZING MEETING THE MINIMUM REQUIREMENTS OF G60.
- 10. USE E70 ELECTRODES FOR WELDED CONNECTIONS, ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF AWS D1.3.
- 11. SPECIFICATIONS APPLICABLE TO 29 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/4"x2 1/4"-14 GAUGE TUBE STEEL (TS) OR 2 1/4"x2 1/4"-12 GAUGE TS FRAMING MEMBERS (UNLESS NOTED OTHERWISE).
- 12. CONNECTOR SLEEVES ARE MINIMUM 8" LONG, TS 2"x2"-14 GAUGE (UNLESS NOTED OTHERWISE).
- 13. AVERAGE FASTENER SPACING DN-CENTERS = 10" D.C. (MAX.)
- 14. FASTENERS CONSIST OF 1/4"x3/4" SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR ROOF SLOPES OF 14° (3:12 PITCH) OR LESS. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
- 15. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL AT OR WITHIN 6" OF EVERY RAFTER COLUMN.
- 16. 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.
- 17. WIND FORCES GOVERN OVER SEISMIC FORCES, SEISMIC PARAMETERS ANALYZED ARE:

SDIL SITE CLASS = D RISK CATEGORY I

R = 3.25  $I_E = 1.0$   $V = C_S W$ 

 $S_{D1} = 2.13 g$ 

- 18. IF MORE THAN 50% OF COLUMNS (LEGS) 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.
- 19. ANALYSIS/DESIGN OF THIS STRUCTURE WAS BASED ON THE LOADS, BUILDING CODE, AND STRUCTURAL GEOMETRY NOTED HEREIN. NO CHANGES SHALL BE MADE TO THE STRUCTURE WITHOUT EXPRESS WRITTEN PERMISSION FROM THE DESIGN ENGINEER. ANY CHANGES IN THE USE OR GEOMETRY OF THE STRUCTURE IN ANY MANNER IS A VIOLATION OF THE BUILDING CODE AND NEGATES ANY LIABILITY ON THE PART OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.
- 21. WHEN USING GENERIC MASTER DESIGNS TO OBTAIN BUILDING PERMIT, IT MUST BE ACCOMPANIED BY SUFFICIENT ADDITIONAL INFORMATION TO INDICATE THE LOCATION, NATURE, AND EXTEND OF THE CONSTRUCTION AND SHOW IN DETAIL THAT IT WILL CONFORM TO ALL APPLICABLE CODES, LAWS, ORDINANCES, RULES, AND REGULATIONS.
- 22. WHEN APPLYING FOR BUILDING PERMIT, THE 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 OBTAINING A BUILDING PERMIT. GENERIC MASTER DESIGNS CAN NOT BE USED WHERE A SITE-SPECIFIC DESIGN IS REQUIRED.
- 23. ANY VARIATION FROM THE ANALYSIS/DESIGN PARAMETERS OF THE MASTER DESIGN REQUIRES THE DEVELOPMENT OF A SITE-SPECIFIC DESIGN.

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28 January 2026

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DRAWN BY: LT

CHECKED BY: AM

NEWMART BUILDERS, INC. 1000 CYCLE LANE SOUTH HILL, VA 23970 24'-0"x12'-0" ENCLOSED STRUCTURE

PROJECT MGR: JRP DATE: 1-28-25 SCALE: NTS JOB NO: 24344S
CLIENT: NEWMART
BUILDERS SHT. 3 DWG. NO: SK-3 REV.: 0

### LIST OF APPLICABLE BUILDING CODES

2021 INTERNATIONAL BUILDING CODE (IBC 2021)

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

2015 INTERNATIONAL BUILDING CODE (IBC 2015)

2012 INTERNATIONAL BUILDING CODE (IBC 2012)

DELAWARE BUILDING CODE
(IBC 2012, IBC 2015, IBC 2018, IBC 2021
(DEPENDENT UPON LOCAL JURISDICTION))

MARYLAND BUILDING CODE 2021 (ADDPTS THE IBC 2021 WITH AMENDMENTS) BALTIMORE CITY BUILDING CODE (ADDPTS THE IBC 2021 WITH AMENDMENTS) (IBC 2018, IBC 2021 (DEPENDENT UPON LOCAL JURISDICTION))

NEW JERSEY UCC BUILDING SUBCODE 2021 (ADOPTS THE IBC 2021 WITH AMENDMENTS)

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

PENNSYLVANIA BUILDING CODE 2018
(ADOPTS THE IBC 2018 WITH AMENDMENTS)
PHILADELPHIA BUILDING CODE 2018
(ADOPTS THE IBC 2018 WITH AMENDMENTS)

SOUTH CAROLINA BUILDING CODE 2021 (ADOPTS THE IBC 2021 WITH AMENDMENTS)

VIRGINIA UNIFORM STATEWIDE BUILDING CODE, PART I, CONSTRUCTION/VIRGINIA CONSTRUCTION CODE (VCC) (ADOPTS THE IBC 2021 WITH AMENDMENTS)

WEST VIRGINIA BUILDING CODE 2018 (ADOPTS THE IBC 2018 WITH AMENDMENTS)

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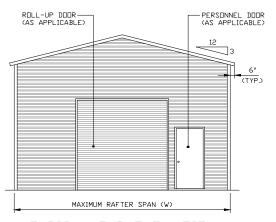
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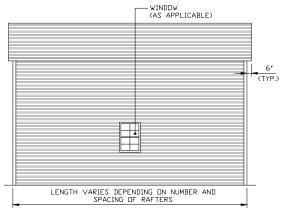
# TYPICAL SIDE AND END ELEVATIONS

#### BOX EAVE FRAME RAFTER STRUCTURE



TYPICAL END ELEVATION

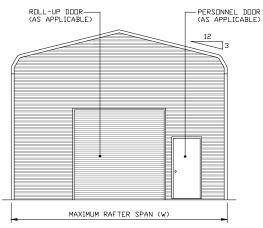
SCALE: NTS



TYPICAL SIDE ELEVATION

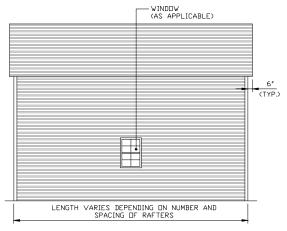
SCALE: NTS

#### BOW EAVE FRAME RAFTER STRUCTURE



TYPICAL END ELEVATION

SCALE: NTS



TYPICAL SIDE ELEVATION

SCALE: NTS

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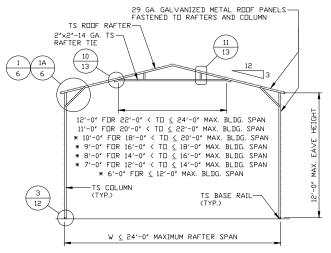
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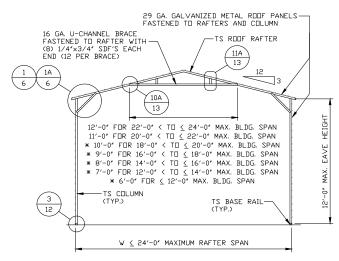
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PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO	· 24344S				
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# TYPICAL INTERIOR RAFTER/COLUMN AND SIDE FRAMING SECTIONS (BOX EAVE RAFTER)



# TYPICAL INTERIOR RAFTER/COLUMN FRAMING SECTION

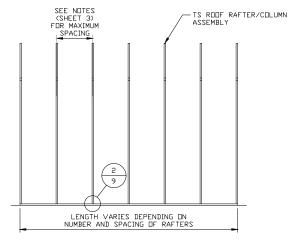
SCALE: NTS
\* NOTE: VERTICAL STRUT NOT REQUIRED FOR THESE TIE LENGTHS.



# ALTERATE INTERIOR RAFTER/COLUMN FRAMING SECTION

SCALE: NTS

\* NOTE: VERTICAL STRUT NOT REQUIRED FOR THESE TIE LENGTHS.



#### TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

SCALE: NTS

#### Validity Notice

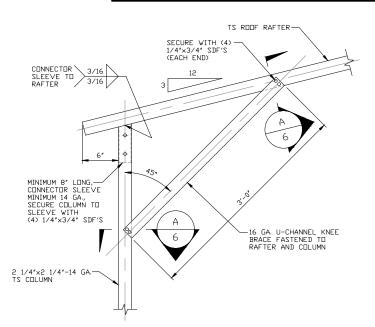
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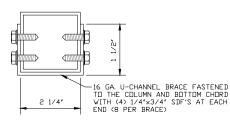
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# **COLUMN CONNECTION DETAIL (BOX EAVE RAFTER)**

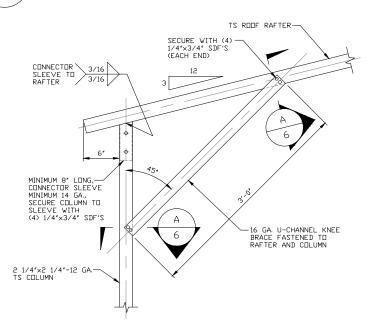




A BRACE SECTION
SCALE: NTS

BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS & 10'-0" @ 4'-0" D.C. FRAME SPACING SCALE: NTS

1



BDX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS < 12'-0" @ 3'-6" D.C. FRAME SPACING HEIGHTS < 11'-0" @ 4'-0" D.C. FRAME SPACING

SCALE: NTS

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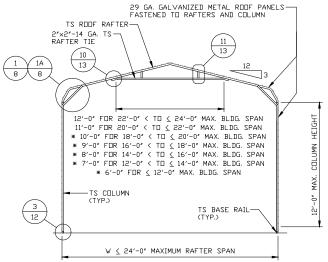
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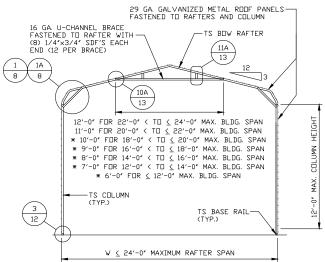
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# TYPICAL INTERIOR RAFTER/COLUMN AND SIDE FRAMING SECTIONS (BOW EAVE RAFTER)



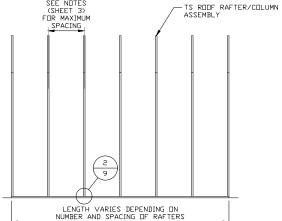
3 12 TYPICAL INTERIOR RAFTER/ COLUMN FRAMING SECTION \* NOTE: VERTICAL STRUT NOT REQUIRED FOR THESE TIE LENGTHS. SEE NOTES (SHEET 3) FOR MAXIMUM SPACING TS ROOF RAFTER/COLUMN
ASSEMBLY



#### ALTERNATE INTERIOR RAFTER/ COLUMN FRAMING SECTION

SCALE: NTS

\* NOTE: VERTICAL STRUT NOT REQUIRED FOR THESE TIE LENGTHS.



#### TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

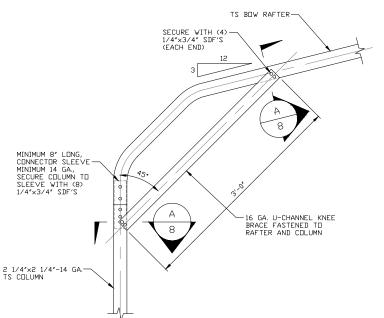
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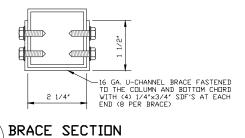
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# **COLUMN CONNECTION DETAIL (BOW EAVE RAFTER)**





SCALE: NTS

BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS & 10'-0" @ 4'-0" D.C. FRAME SPACING

MINIMUM 8' LDNG,
CDNNECTDR SLEEVE
MINIMUM 14 GA,
SECURE WITH (4)
1/4'x3/4' SDF'S

(EACH END)

12

3

MINIMUM 14 GA,
SECURE WITH (8)
1/4'x3/4' SDF'S

A

16 GA. U-CHANNEL KNEE
BRACE FASTENED TD
RAFTER AND COLUMN

2 1/4'x2 1/4'-12 GA.

TS CDLUMN

BOW EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS ≤ 12'-0" @ 3'-6" D.C. FRAME SPACING HEIGHTS ≤ 11'-0" @ 4'-0" D.C. FRAME SPACING

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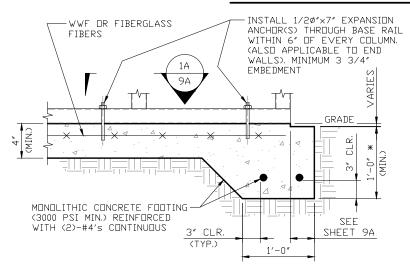
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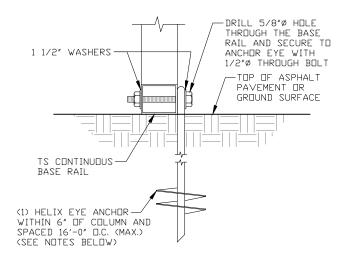
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# **BASE RAIL ANCHORAGE OPTIONS**



CONCRETE MONOLITHIC SLAB BASE RAIL ANCHORAGE SCALE: NTS

NOTE: MIN. ANCHOR EDGE DISTANCE IS 4" \* COORDINATE WITH LOCAL BUILDING CODES/ORD. REGARDING REQUIRED FOOTING DEPTH.



#### GROUND BASE HELIX ANCHORAGE

SCALE: NTS (CAN BE USED FOR ASPHALT) \* COORDINATE WITH LOCAL CODES/ORD. REGARDING REQUIRED ANCHOR LENGTH.

#### GENERAL NOTES

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

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:

- REINFORCEMENT IS BENT COLD.
  THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
  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 CHARSE 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 LODSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM (2) 6" HELICES WITH MINIMUM 50" 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" EMBEDMENT.

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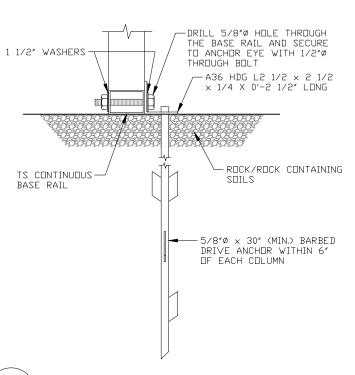
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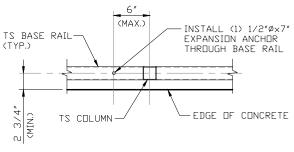
### **BASE RAIL ANCHORAGE OPTION**



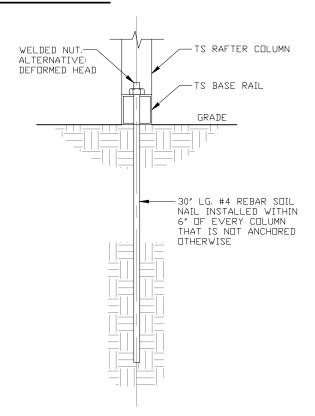
ALTERNATE GROUND BASED ANCHORAGE

SCALE: NTS \* COORDINATE WITH LOCAL CODES/ORD. REGARDING REQUIRED ANCHOR LENGTH.

2B



SECTION SCALE: NTS



2C GROUND BASE SOIL NAIL ANCHORAGE

**Validity Notice** 

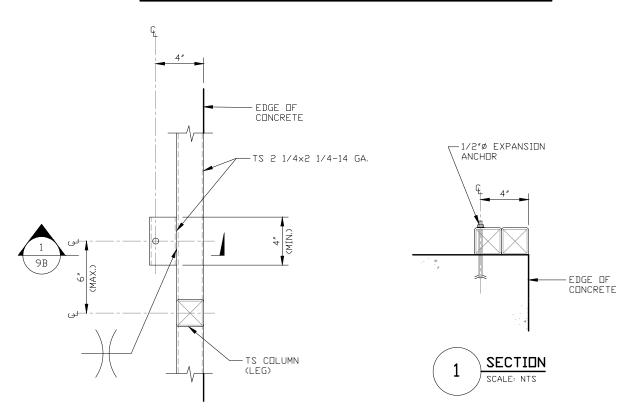
Plans Expiration Date:

28 January 2026

MOORE AND ASSOCIATES
ENGINEERING AND CONSULTING, INC.

CLIENT: NEWMART		DWG. NO: SK-3		REV.: 0
PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	ІПР МП	. 242445
CHECKED BY: AM		OUTH HILL, \ 2'-0" ENCLOSE		
DRAWN BY: LT	NEV	WMART BUIL 1000 CYCLE		INC.

# ADDITIONAL BASE RAIL ANCHORAGE OPTION



TYPICAL ANCHOR DETAIL WHEN BASE RAIL IS NEAR EDGE OF CONCRETE

SCALE: NTS

**Validity Notice** 

Plans Expiration Date:

28 January 2026

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ENGINEERING AND CONSULTING, INC.

	DRAWN BY: LT			
, INC.	CHECKED BY: AM			
G AND	PROJECT MGR: JRP			

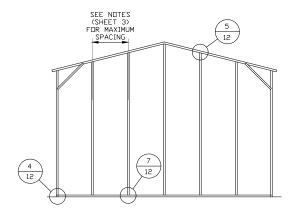
NEWMART BUILDERS, INC. 1000 CYCLE LANE SOUTH HILL, VA 23970 24'-0"x12'-0" ENCLOSED STRUCTURE

AND	PROJECT	MGR:	JRI
E OF N MAY	CLIENT: 1 BUILDERS	NEWMA	ART

DATE: 1-28-25 | SCALE: NTS |
SHT. 9B | DWG. ND: SK-3

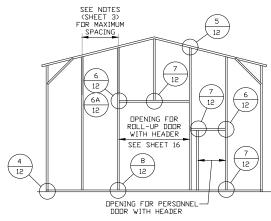
3 REV. 0

### BOX EAVE RAFTER END WALL AND SIDE WALL OPENINGS



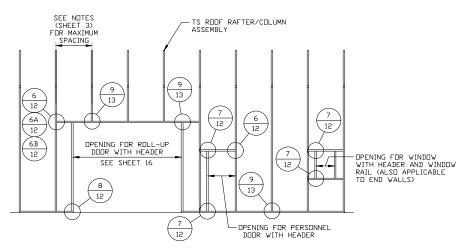
# TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



# TYPICAL BOX EAVE RAFTER END WALL OPENING FRAMING SECTION

SCALE: NTS



# TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

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REV. 0

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BE SUBJECT TO LEGAL ACTION.	

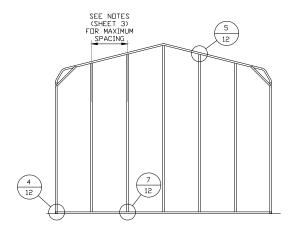
PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO: 24344S	
CHECKED BY: AM		OUTH HILL, ' 2'-0" ENCLOSI	VA 23970 ED STRUCTURE	
DRAWN BY: LT	NEWMART BUILDERS, INC. 1000 CYCLE LANE			

DWG. NO: SK-3

SHT. 10

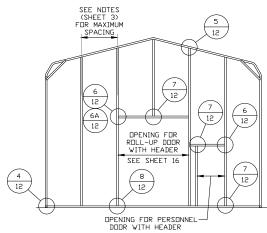
CLIENT: NEWMART BUILDERS

# BOW EAVE RAFTER END WALL AND SIDE WALL OPENINGS



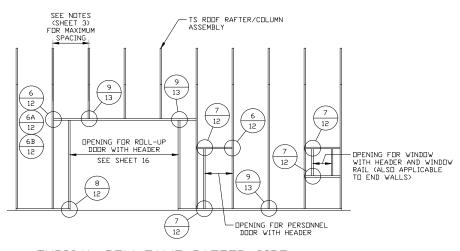
TYPICAL BOW EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



TYPICAL BOW EAVE RAFTER END WALL OPENING FRAMING SECTION

SCALE: NTS



TYPICAL BOW EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

SCALE: NTS

**Validity Notice** 

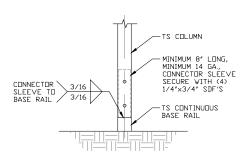
Plans Expiration Date:

28 January 2026

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		NE	NEWMART BUILDERS, INC.			
	DRAWN BY: LT	1000 CYCLE LANE				
			SOUTH HILL, VA 23970			
•	CHECKED BY: AM	24'-0"x12	24'-0"x12'-0" ENCLOSED STRUCTURE			
	PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO	243448	
	CLIENT: NEWMART BUILDERS	SHT. 11	DWG. ND: SK-3	3	REV₁ 0	

### **CONNECTION DETAILS**

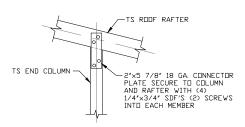


RAFTER COLUMN/BASE RAIL
CONNECTION DETAIL
SCALE: NTS

CONNECTOR 3/16

4 END COLUMN/BASE RAIL CONNECTION DETAIL

SCALE: NTS



DR END COLLUMN
2'x2'x2' 14 GA, ANGLE
CLIP SECURE TO COLLUMN
AND HEADER/RAIL WITH
(4) #12-14x3/4' SDF'S

TS HEADER OR
WINDOW RAIL

TS COLUMN

2'x2'x2' 14 GA. ANGLE CLIP SECURE TO COLUMN AND HEADER WITH (4) #12-14x3/4' SDF'S

TS END COLUMN

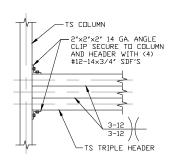
5 END COLUMN/RAFTER CONNECTION DETAIL

SCALE: NTS

COLUMN OR WINDOW RAIL TO COLUMN CONNECTION DETAIL

6 SCALE: NTS

DOUBLE HEADER
TO COLUMN
CONNECTION DETAIL
SCALE: NTS



TRIPLE HEADER
TO COLUMN
6B CONNECTION DETAIL
SCALE: NTS

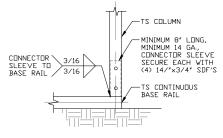
TS HEADER

2'x5 7/8' 18 GA. CONNECTOR
PLATE SECURE TO COLUMN
AND RAFTER WITH (4)
1/4'x3/4' SDF'S (2) SCREWS
INTO EACH MEMBER

NDTE: AT ROLL-UP DODR
OPENINGS, COLUMN SHOULD
BE FLUSH WITH RAIL END.
CLIP COLUMN TO RAIL DNLY
ON SIDE OPPOSITE THE
OPENING.

7 COLUMN OR WINDOW RAIL TO COLUMN CONNECTION DETAIL

SCALE: NTS



8 COLUMN/BASE RAIL CONNECTION DETAIL

#### **Validity Notice**

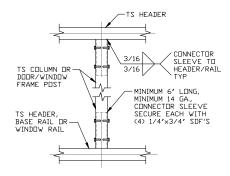
Plans Expiration Date:

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,		SOUTH HILL, VA 23970			
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	PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO	: 24344S
	CLIENT: NEWMART BUILDERS	SHT. 12	DWG. ND: SK-3		REV.₁ 0

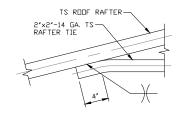
# **CONNECTION DETAILS**



COLUMN TO HEADER OR BASE RAIL CONNECTION DETAIL

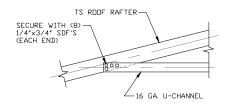
SCALE: NTS

9

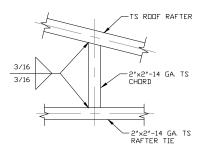


ROOF RAFTER TIE CONNECTION DETAIL

SCALE: NTS



10A ROOF RAFTER TIE CONNECTION DETAIL SCALE: NTS



RAFTER TIE TO CHORD CONNECTION DETAIL

SCALE: NTS

2'x2'x2' 14 GA. ANGLE
CLIP SECURE TD
CDLUMN (EACH SIDE)
AND RAFTER
CHURD/RAIL WITH (4)
#12-14x3/4' SDF'S,
(2) DN SIDE

18 GA. U-CHANNEL BRACE FASTENED
TD CHURD WITH (2) #12-14x3/4'
SDF'S EACH END (4 PER BRACE)

RAFTER/U-CHANNEL TO CHORD CONNECTION DETAIL

SCALE: NTS

**Validity Notice** 

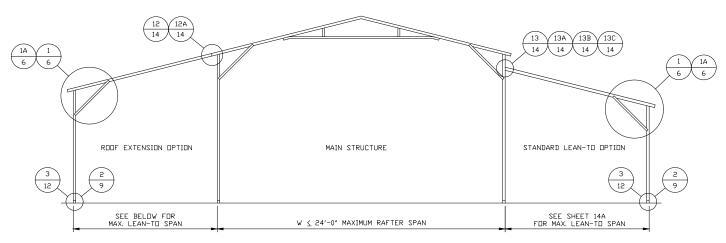
Plans Expiration Date:

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,			SOUTH HILL, VA 23970			
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	PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO	24344\$	
	CLIENT: NEWMART BUILDERS	SHT. 13	DWG. ND: SK-3	l	REV.₁ 0	

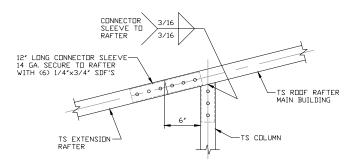
# **BOX EAVE RAFTER LEAN-TO OPTIONS**



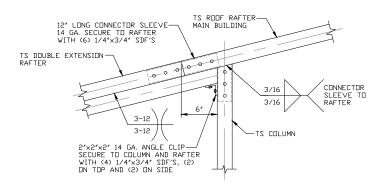
#### TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE: NTS

NOTES: 1. REFER TO SHEET 6 FOR MAIN BUILDING COLUMNS HEIGHTS AND TYPES. 2. LEAN-TO COLUMN SPACING SHALL MATCH MAIN BUILDING.



SIDE EXTENSION RAFTER/COLUMN DETAIL FOR WIDTHS ≤ 11'-0" 12 SCALE: NTS



SIDE EXTENSION RAFTER/ COLUMN DETAIL FOR WIDTHS 11'-0" < T□ < 14'-0" 12A SCALE: NTS

**Validity Notice** 

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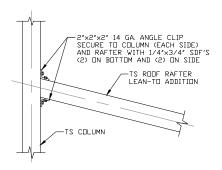
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NEWMART BUILDERS, INC. 1000 CYCLE LANE SOUTH HILL, VA 23970

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CLIENT: NEWMART BUILDERS	SHT. 14	DWG. ND: SK-3	REV. 0				

# **BOX EAVE RAFTER LEAN-TO OPTIONS**



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR WIDTHS ≤ 11'-0"

SCALE: NTS

13

2"x2"x2" 14 GA. ANGLE CLIP SECURE TO COLUMN (EACH SIDE) AND RAFTER WITH 1/4"x3/4" SDF'S (2) ON BOTTOM AND (2) ON SIDE -TS DOUBLE ROOF RAFTER LEAN-TO ADDITION 3-12 TS COLUMN

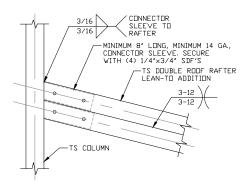
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR WIDTHS 11'-0" < T□ ≤ 14'-0"

13B SCALE: NTS

CONNECTOR SLEEVE TO RAFTER 3/16 3/16 MINIMUM 8" LONG, MINIMUM 14 GA., CONNECTOR SLEEVE. SECURE WITH (4) 1/4"x3/4" SDF'S -TS ROOF RAFTER LEAN-TO ADDITION TS COLUMN

LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR WIDTHS ≤ 11'-0" 13A

SCALE: NTS



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR WIDTHS 11'-0" < T□ ≤ 14'-0" 13C

SCALE: NTS

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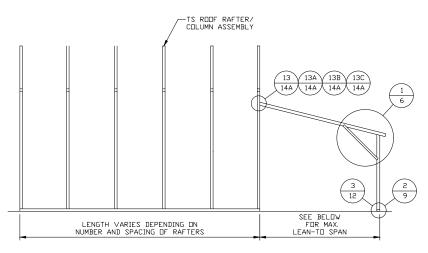
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CLIENT: NEWMART BUILDERS	SHT. 14A	DWG. ND: SK-3	}	REV₁ 0		

# **BOX EAVE END WALL LEAN-TO OPTIONS**



#### TYPICAL BOX EAVE RAFTER END WALL LEAN-TO OPTIONS FRAMING SECTION

SCALE: NTS

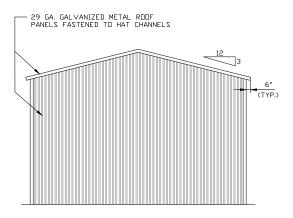
NDTES: 1. REFER TO SHEET 6 FOR MAIN BUILDING COLUMNS HEIGHTS AND TYPES. 2. LEAN-TO COLUMN SPACING SHALL MATCH MAIN BUILDING.

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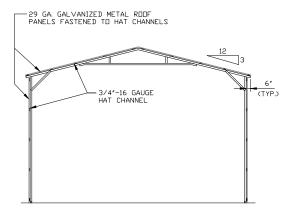
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# **BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION**



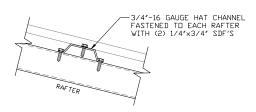
# TYPICAL END ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



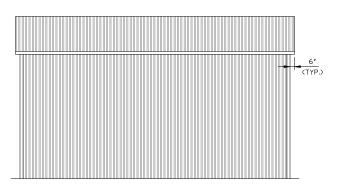
# TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



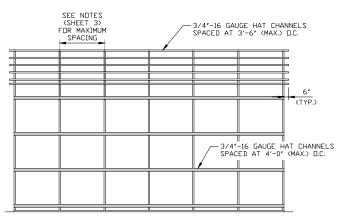
### PANEL ATTACHMENT

(ALTERNATE FOR VERTICAL ROOF PANELS) SCALE: NTS



# TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



# TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS

**Validity Notice** 

Plans Expiration Date:

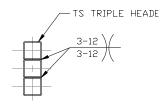
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	SOUTH HILL, VA 23970						
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PROJECT MGR: JRP	DATE: 1-28-25	SCALE: NTS	JOB NO	243448			
CLIENT: NEWMART BUILDERS	SHT. 15	DWG. NO: SK-3	}	REV.⊨0			

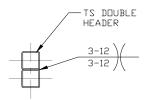
### SIDE WALL HEADER OPTIONS

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



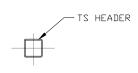


SCALE: NTS



HEADER DETAIL FOR 5'-0" < LENGTH ≤ 8'-0"

SCALE: NTS

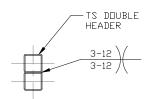


HEADER DETAIL FOR LENGTH <u>⟨</u> 5'-0"

SCALE: NTS

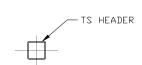
### END WALL HEADER OPTIONS

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



HEADER DETAIL FOR 8'-0" < LENGTH <u>≤</u> 12'-0"

SCALE: NTS



HEADER DETAIL FOR LENGTH < 8'-0"

SCALE: NTS

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CLIENT: NEWMART BUILDERS	SHT. 16	DWG. ND: SK-3	REV.₁ 0