

YORK SCHOOL DISTRICT 1

JEFFERSON ELEMENTARY SCHOOL

METAL ROOF RE-COVER

1543 CHESTER HWY
YORK, SC 29745

REI PROJECT NO. 024CLT-079

DATE: 01-28-25



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SEALS:



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DISTRICT 1
JEFFERSON
ELEMENTARY SCHOOL
METAL ROOF
RE-COVER

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CD	01-28-25	CONTRACT DOCUMENTS

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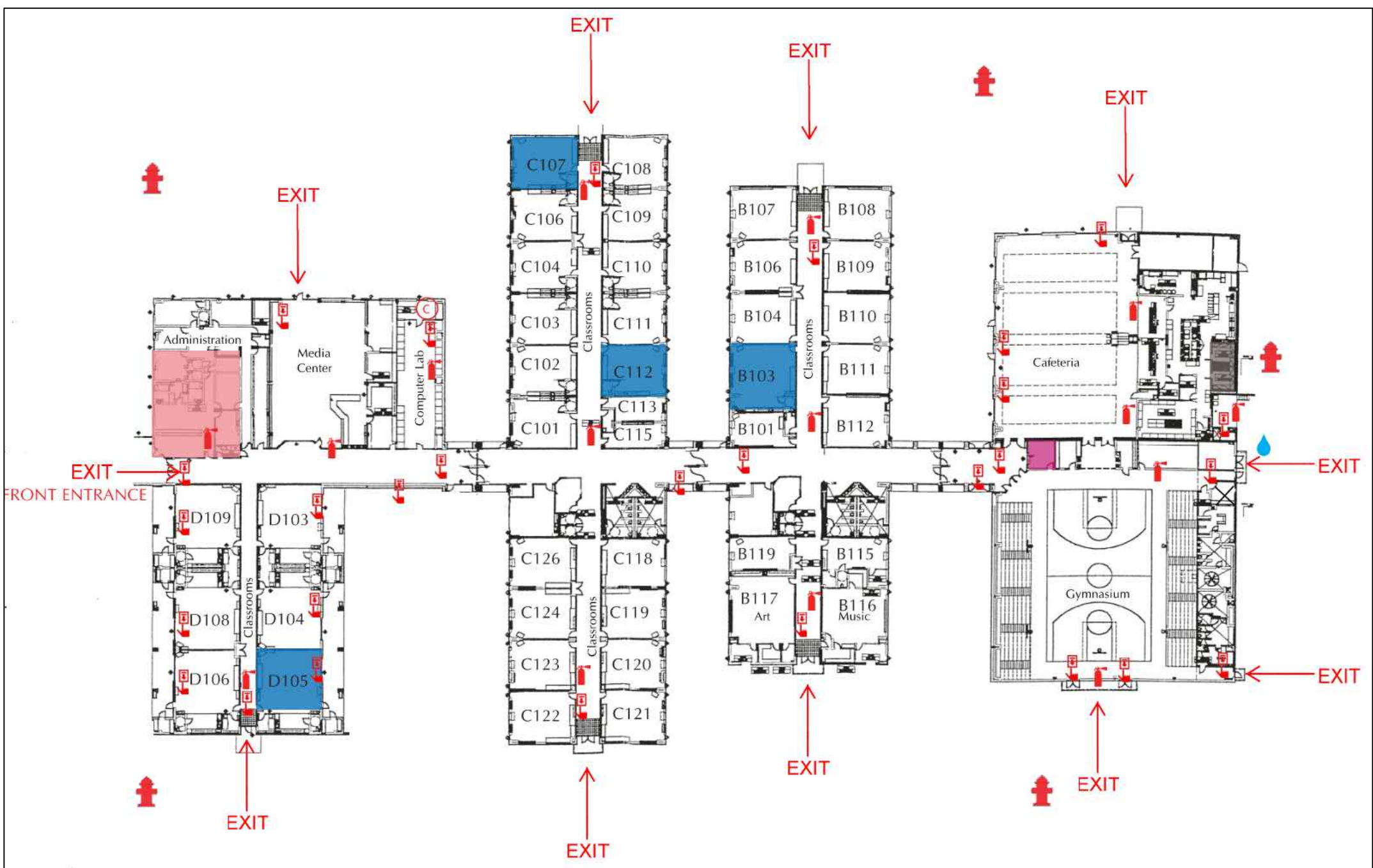
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SCALE DRAWING ACCORDINGLY.

SHEET TITLE:

COVER

DRAWING:

G-001



A LIFE SAFETY PLAN
SCALE: N.T.S.



B SITE PLAN
SCALE: N.T.S.

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- NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.

DETAIL NOTES

- LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED.

ELEVATION NOTES

- ELEVATIONS ARE PROVIDED FOR REFERENCE. ACTUAL CONDITIONS MAY VARY ON EACH BUILDING ELEVATION. CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRESENT ON EACH ELEVATION.

ABBREVIATION LIST:		MIN.	MINIMUM
AB	ABANDONED	N.I.C.	NOT IN CONTRACT
ALUM.	ALUMINUM	NOM.	NOMINAL
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
CJ	CONTROL JOINT	O.C.	ON CENTER
DS	DOWNSPOUT	OF	OVERFLOW
EJ	EXPANSION JOINT	PS	PRESSURE SENSITIVE
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	PVC	POLYVINYL CHLORIDE
EX	EXISTING	RPLC.	REPLACEMENT
GALV.	GALVANIZED	SF	SQUARE FEET
GA.	GAUGE	S.S.	STAINLESS STEEL
HT	HEIGHT	SIM.	SIMILAR
MAX.	MAXIMUM	TERM.	TERMINATE/TERMINATION
		TYP.	TYPICAL

DRAWING INDEX:

- G-001 COVER
- XR101 ROOF PLAN
- XR001 ROOF SYSTEMS
- XR001 DETAILS
- XR002 DETAILS

BUILDING CODE REFERENCE:

- 2021 SC BUILDING CODE
- 2009 IECC
- 2021 SC EXISTING BUILDING CODE
- 2021 SC FIRE CODE
- 2021 SC FUEL GAS CODE
- 2021 SC MECHANICAL CODE
- 2021 SC PLUMBING CODE
- NFPA 70 WITH SC MODIFICATIONS

C GENERAL NOTES & INFORMATION
SCALE: N.T.S.



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SEALS:



ROOF SECTOR	AREA	HEIGHT (FT.)
A1	±14,216 SQ. FT.	39
A2	±210 SQ. FT.	12
A3	±84 SQ. FT.	12
B	±12,000 SQ. FT.	22
C1	±17,806 SQ. FT.	22
C2	±84 SQ. FT.	12
D1	±23,348 SQ. FT.	22
D2	±84 SQ. FT.	12
E	±24,240 SQ. FT.	22
F1	±1,638 SQ. FT.	12
F2	±1,092 SQ. FT.	12
F3	±1,105 SQ. FT.	12
F4	±1,001 SQ. FT.	12
CANOPY 1	±5,882 SQ. FT.	12
CANOPY 2	±1,675 SQ. FT.	12

WIND UPLIFT SUMMARY

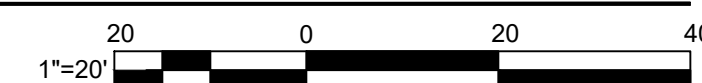
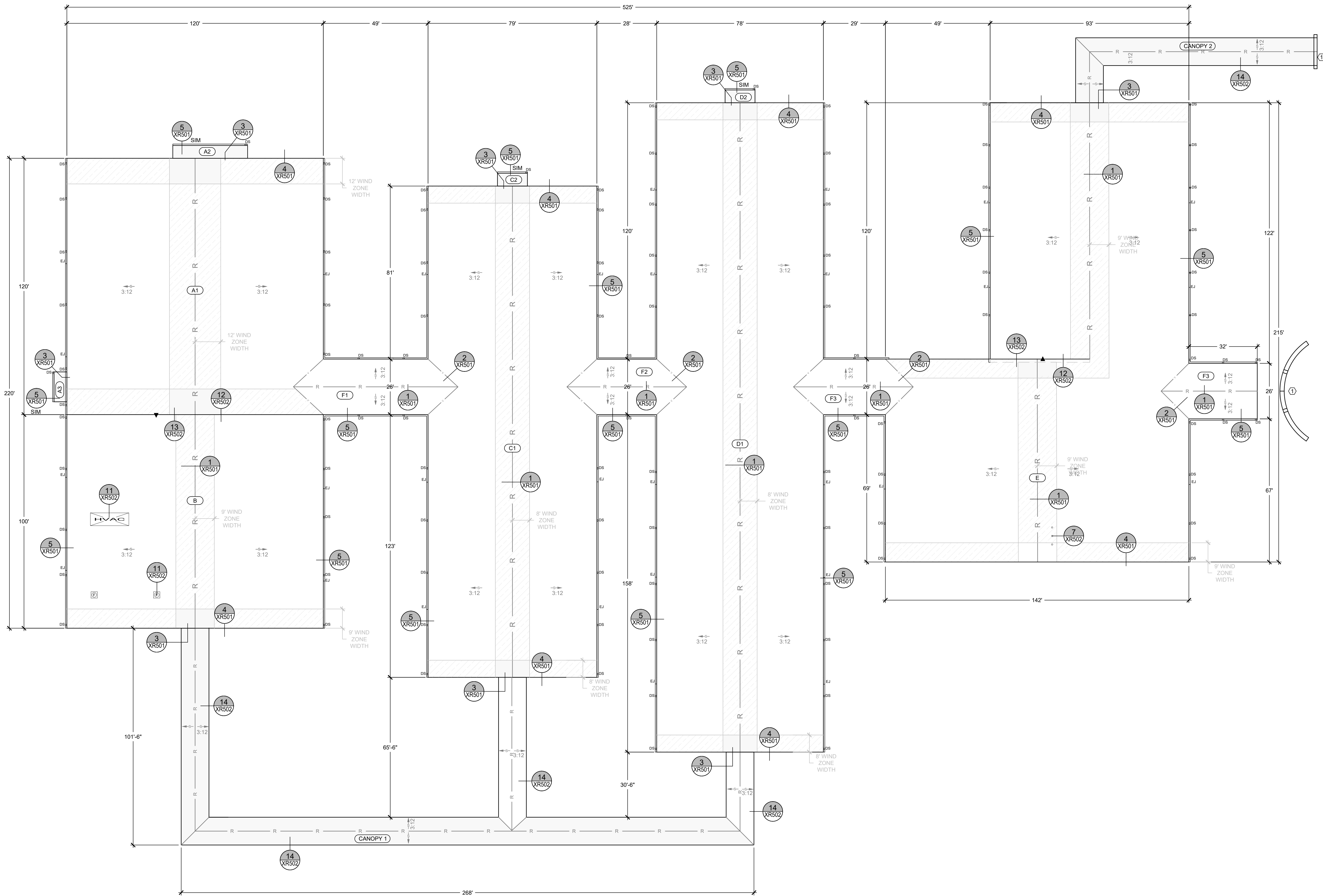
ASCE 7 - 16

ULTIMATE DESIGN WIND SPEED	120 MPH
RISK CATEGORY	III
EXPOSURE	C
ENCLOSURE	ENCLOSED
ZONE 1 - FIELD	-61 PSF
ZONE 2 - PERIMETER	-88 PSF
ZONE 3 - CORNER	-105 PSF

WIND ZONES
ZONE 1 (FIELD)
ZONE 2 (PERIMETER)
ZONE 3 (CORNER)

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4. NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.
SHEET NOTES:
1. REPLACE SHEET METAL COPINGS.

KEY
— ROOF EDGE
— GUTTER EDGE
— RIDGE
— VALLEY
— STRUCTURAL SLOPE
— CONDUIT
— ROOF OVERHANG
— PIPE PENETRATION
— HVAC UNIT
— EXHAUST FAN
— GRAVITY VENT
— NOT IN CONTRACT
— ELEVATION CHANGE
— ROOF AREA INDICATOR
— NOTE NO.
— DETAIL INDICATOR



ROOF PLAN

SCALE: 1"=20'

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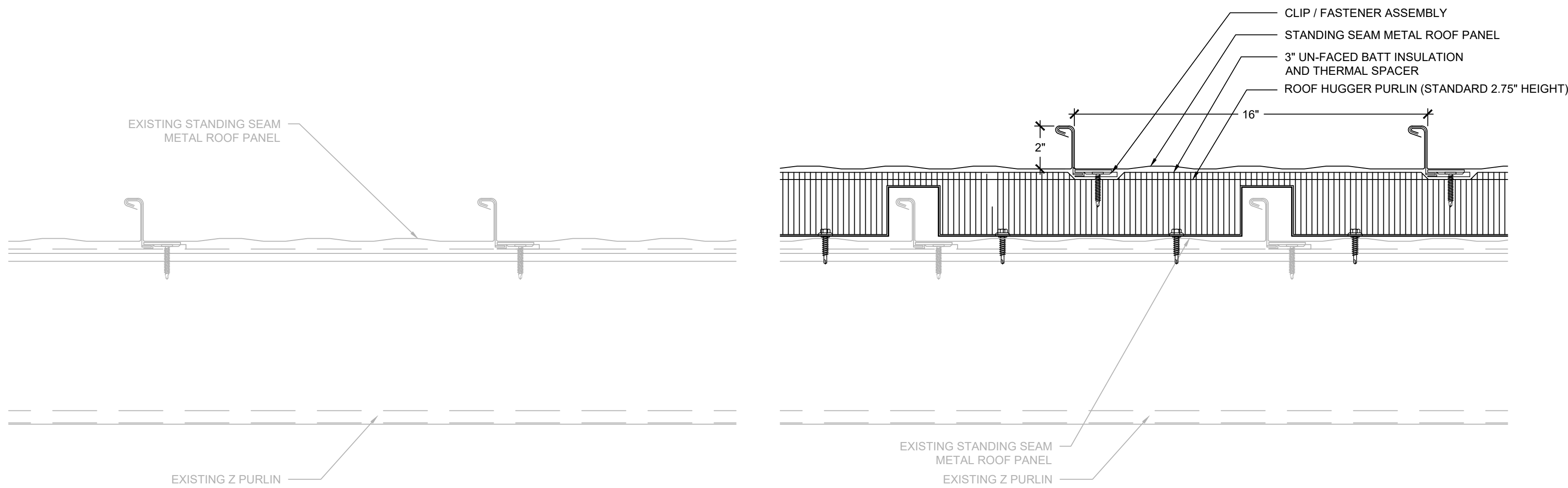
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SHEET TITLE:

ROOF PLAN

DRAWING:

XR101



- NOTES:
- EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING.
 - CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED.
 - REMOVE COMPONENTS DOWN TO THE EXISTING METAL ROOF DECK TO REMAIN.

- NOTES:
- PROVIDE AN APPROVED, TESTED ROOF ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE MINIMUM REQUIRED WIND UPLIFT STRENGTH SPECIFIED ON DRAWING XR101. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.

A EXISTING ROOF SYSTEM

SCALE: 3" = 1'-0"

B RPLC. ROOF SYSTEM

SCALE: 3" = 1'-0"

Form F3 – Re-Roofing Analysis

Date: February 7, 2025

SUBMITTAL: ☐ Schematic ☐ Design Development ☒ Construction Document

SC CODE EDITION: 2018 ICC CODE EDITION: 2018 ICC A117.1 EDITION: N/A OSF GUIDE EDITION: 2023

OTHER CODES/STANDARDS & EDITIONS:
2009 International Energy Conservation Code
2018 International Existing Building Code, Level 1 Alteration

PROJECT DESCRIPTION: [Brief Scope of Work & Include project delivery method (i.e. CMR, etc.)]
Single prime construction for Jefferson Elementary School Roof Re-cover

BASIC RE-ROOFING CODE INFORMATION

DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
CONSTRUCTION CLASSIFICATION TYPE	Section 602	IIB				
Roof Construction including supporting beams & joist	Table 601	-	-	-	-	-
As Required, Hrs		0 hr.				
As Designed, Hrs		0 hr.				
Testing Agency & Design No. (UL, FM, etc.)		N/A				
Wall/Partition Key Code		N/A				

1 of 2

Version May 2021

Form F3 – Re-Roofing Analysis

STRUCTURAL DESIGN INFORMATION, BUILDING

WIND LOADS	Analysis Procedure (ASCE 7 or SCBC 1609.6)	ASCE 7-16
	Basic design Wind Speed, MPH (3 sec gust IBC Fig 1609.3)	120 = V
	Exposure Category	
	Wind Importance Factor (ASCE 7 Table 1.5-2)	1.15 = Iw
	Internal Pressure Coefficient (ASCE 7)	-1.18 = GCpi
	External Pressure Coefficient (ASCE 7)	-1.00 = GCp

CONSTRUCTION DOCUMENTS

- Signed, sealed and dated drawings
- Fully coordinated within and with the Project Manual.

PROJECT MANUAL

- Signed, sealed and dated
- Fully coordinated within and with the Construction Documents
 - This information shall be part and within the drawing sheet set.

ADDITIONAL QUESTIONS

1. Prepare a site plan showing the life safety plan during construction and any additional details on how the contractor will keep the school administration informed about issues that may affect daily operations in the building.	Included
2. Will there be additional weight added to the existing structure?	No
3. What will the insulation values be in areas being re-roofed? Confirm the insulation will meet current energy codes.	R-20 minimum
4. Will the existing roof drainage stay the same and meet current code?	Yes
5. What will the new roof assembly consist of?	Standing seam metal roof panels over batt insulation and roof hugger system attached to existing roof assembly
6. What type of inspections will be performed?	REI will perform weekly quality assurance observation site visits
7. Once the project is complete send a copy of the Warranty Letter to OSF.	Agreed
8. Is there roof mounted equipment (mechanical or other) and if new equipment curbs or curb adaptors would be needed.	No

2 of 2

Version May 2021

C RE-ROOF ANALYSIS

SCALE: 3" = 1'-0"



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SHEET TITLE:

ROOF SYSTEMS

DRAWING:

XR301



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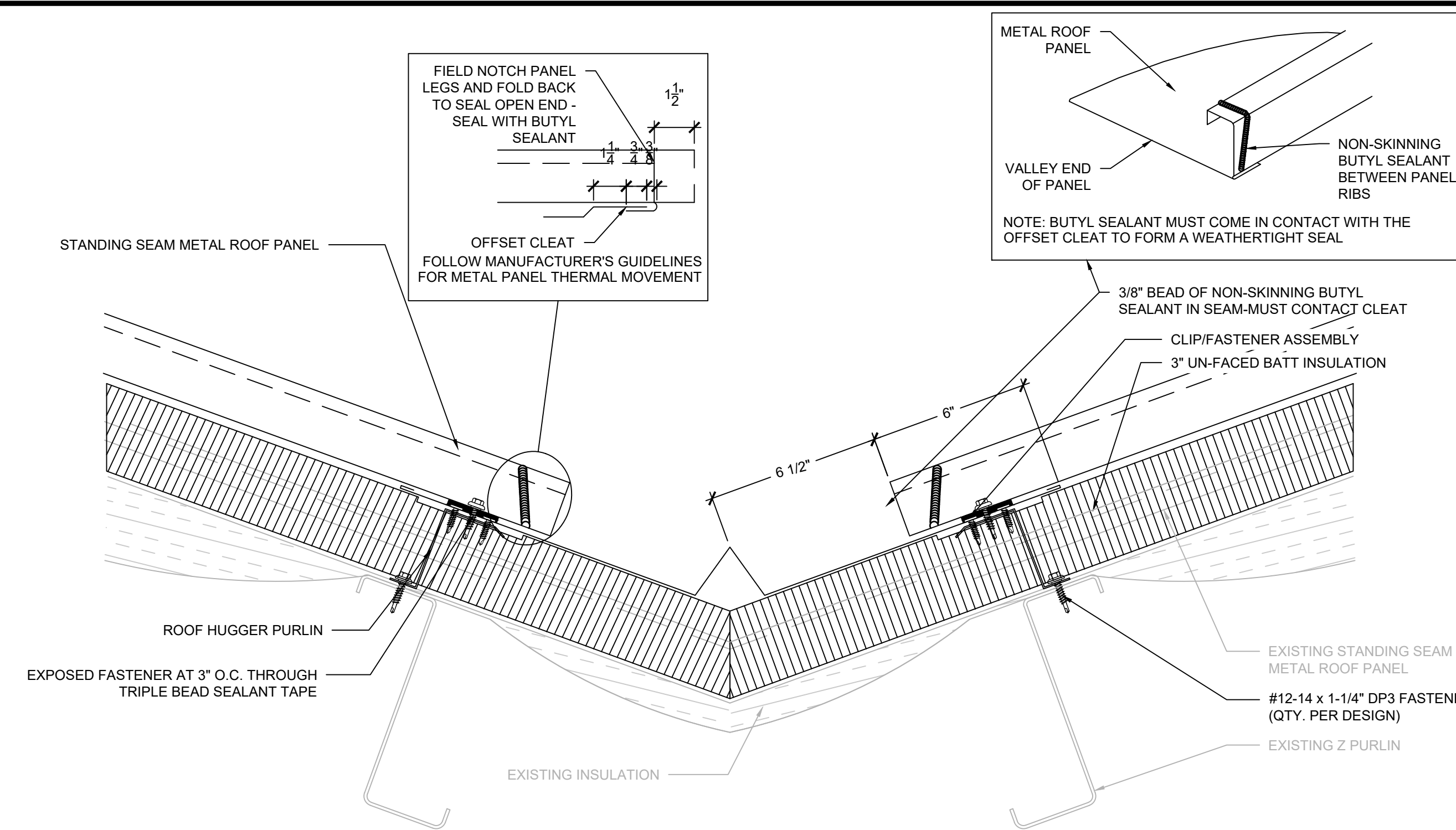
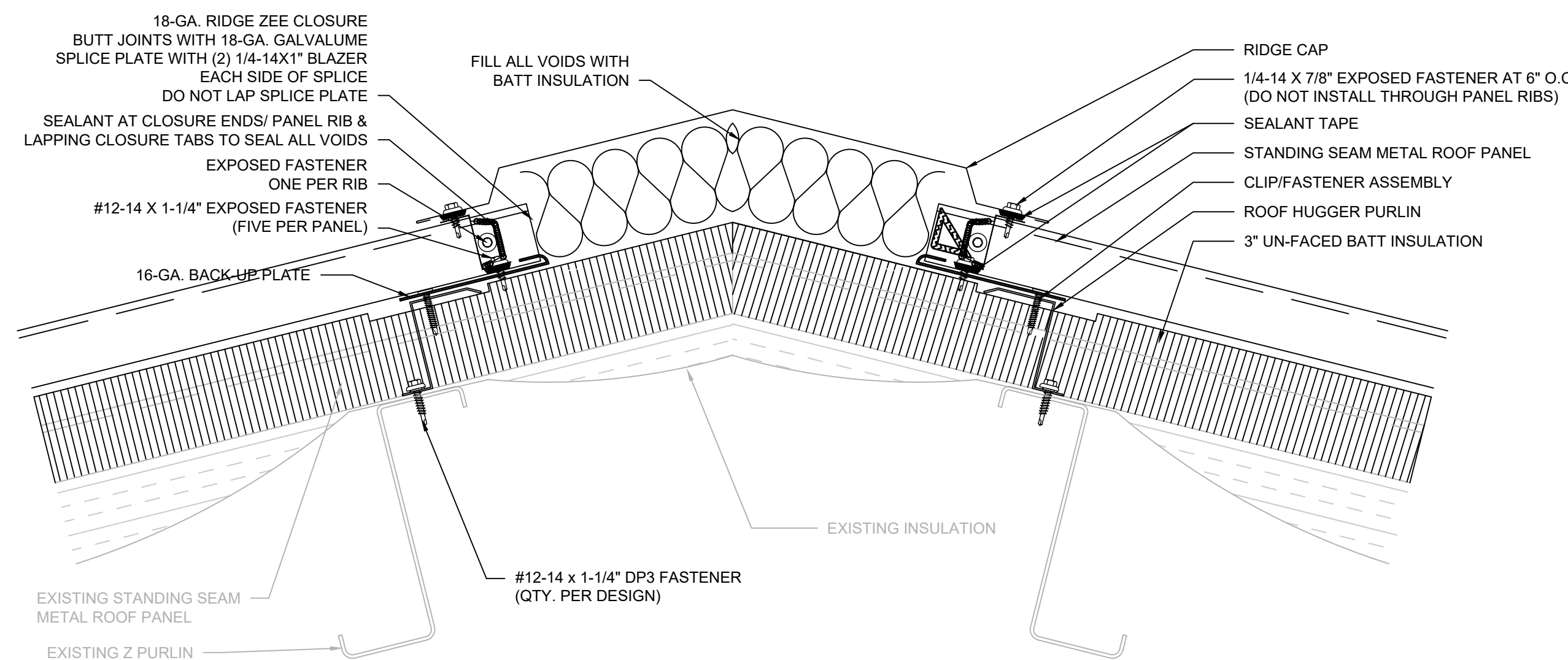
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SHEET TITLE:

DETAILS

DRAWING:

XR501



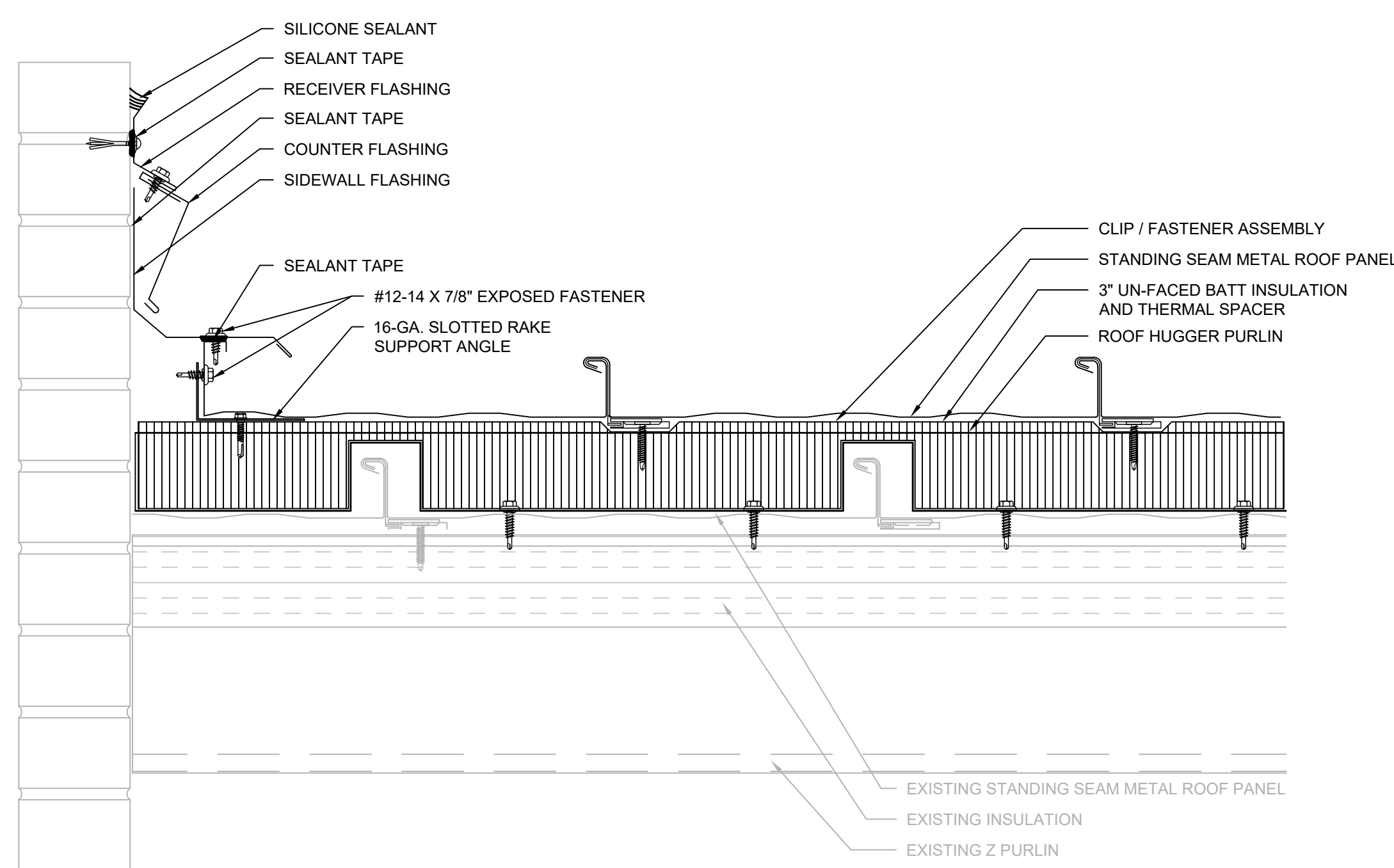
NOTES:
1. INSULATION AND THERMAL BLOCKS NOT SHOWN FOR CLARIFY. PROVIDE AS SPECIFIED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

1 RIDGE

SCALE: 1/4" = 1'

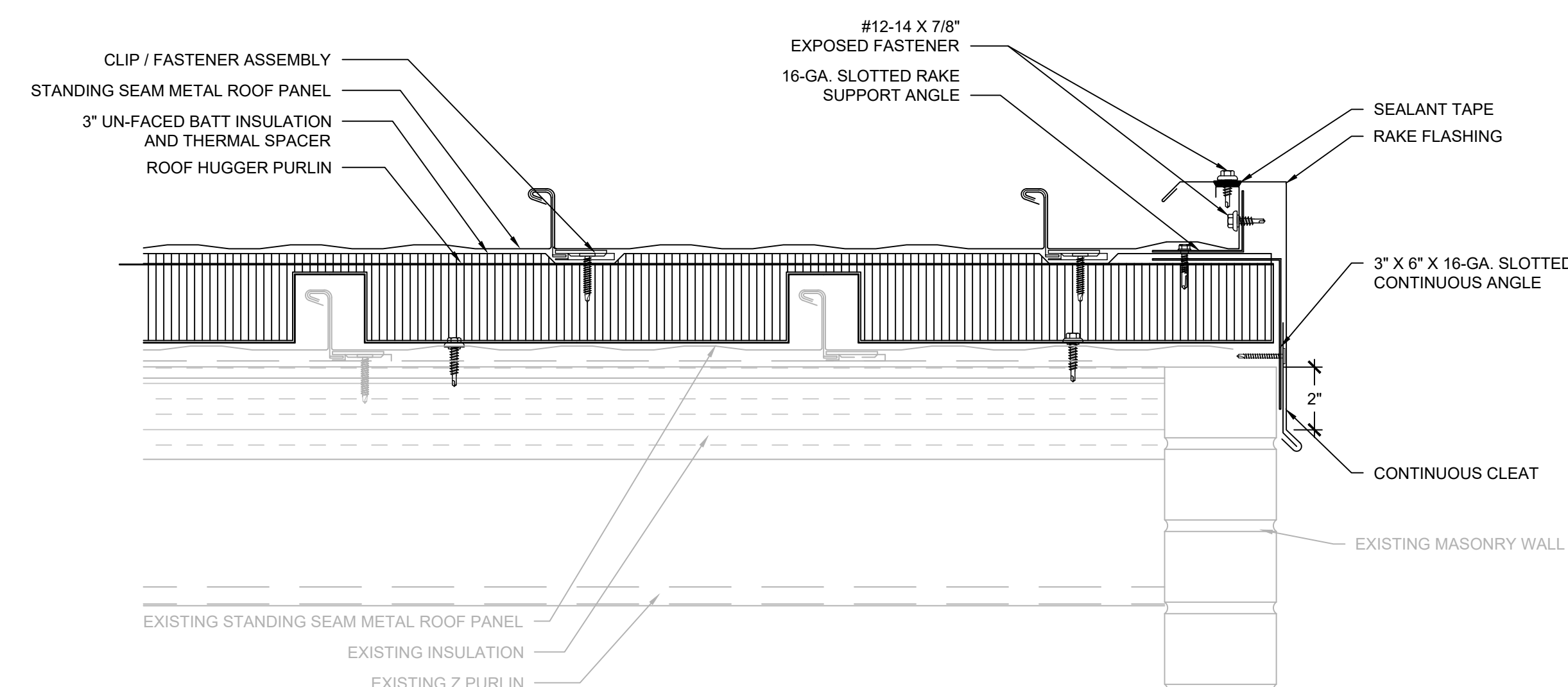
2 VALLEY

SCALE: 3" = 1'-0"



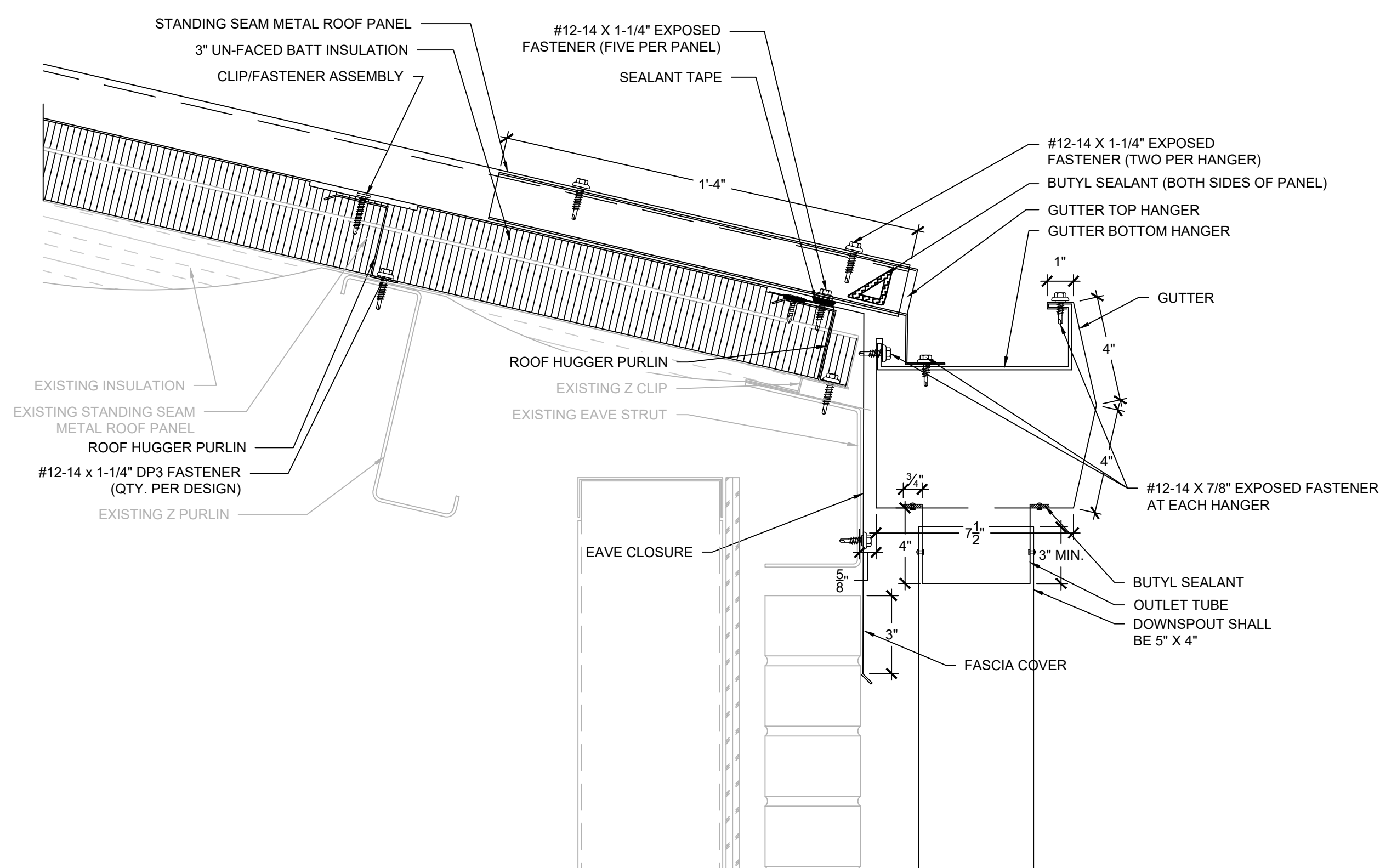
3 SIDEWALL FLASHING

SCALE: 1/4" = 1'



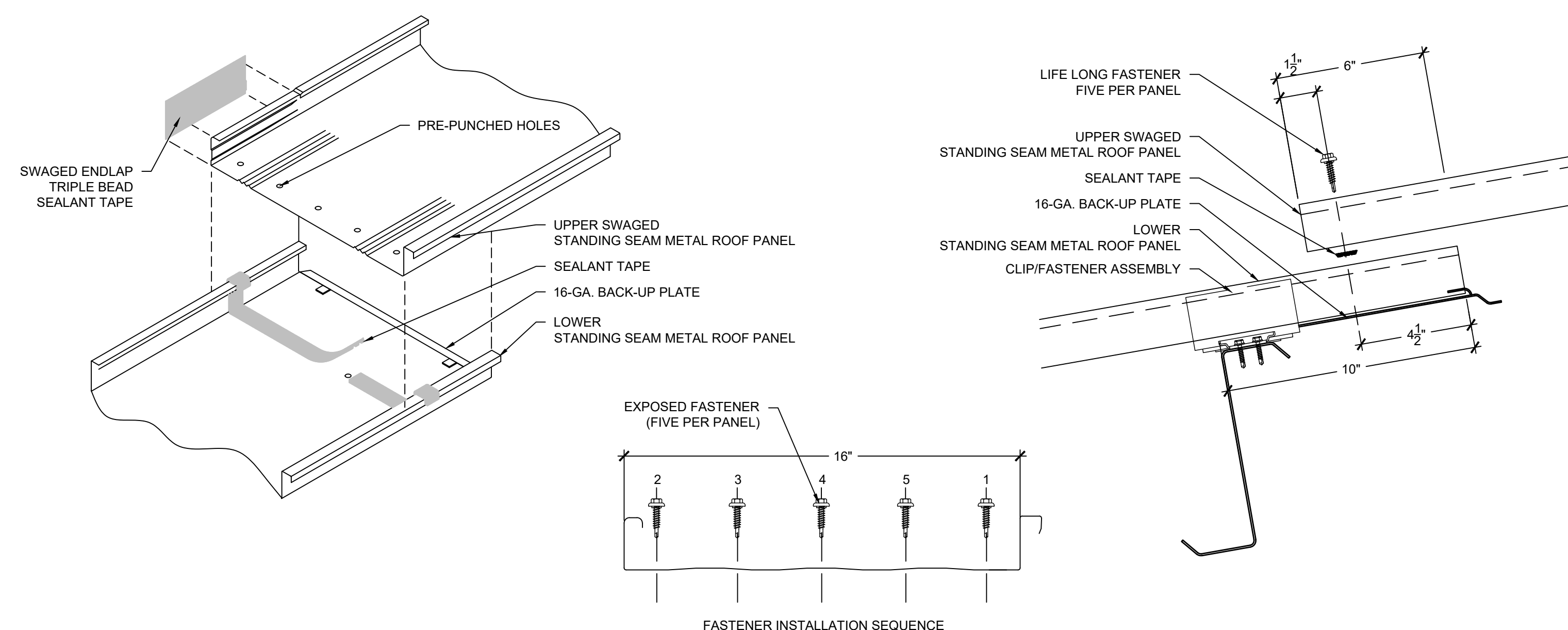
4 RAKE EDGE

SCALE: 1/4" = 1'



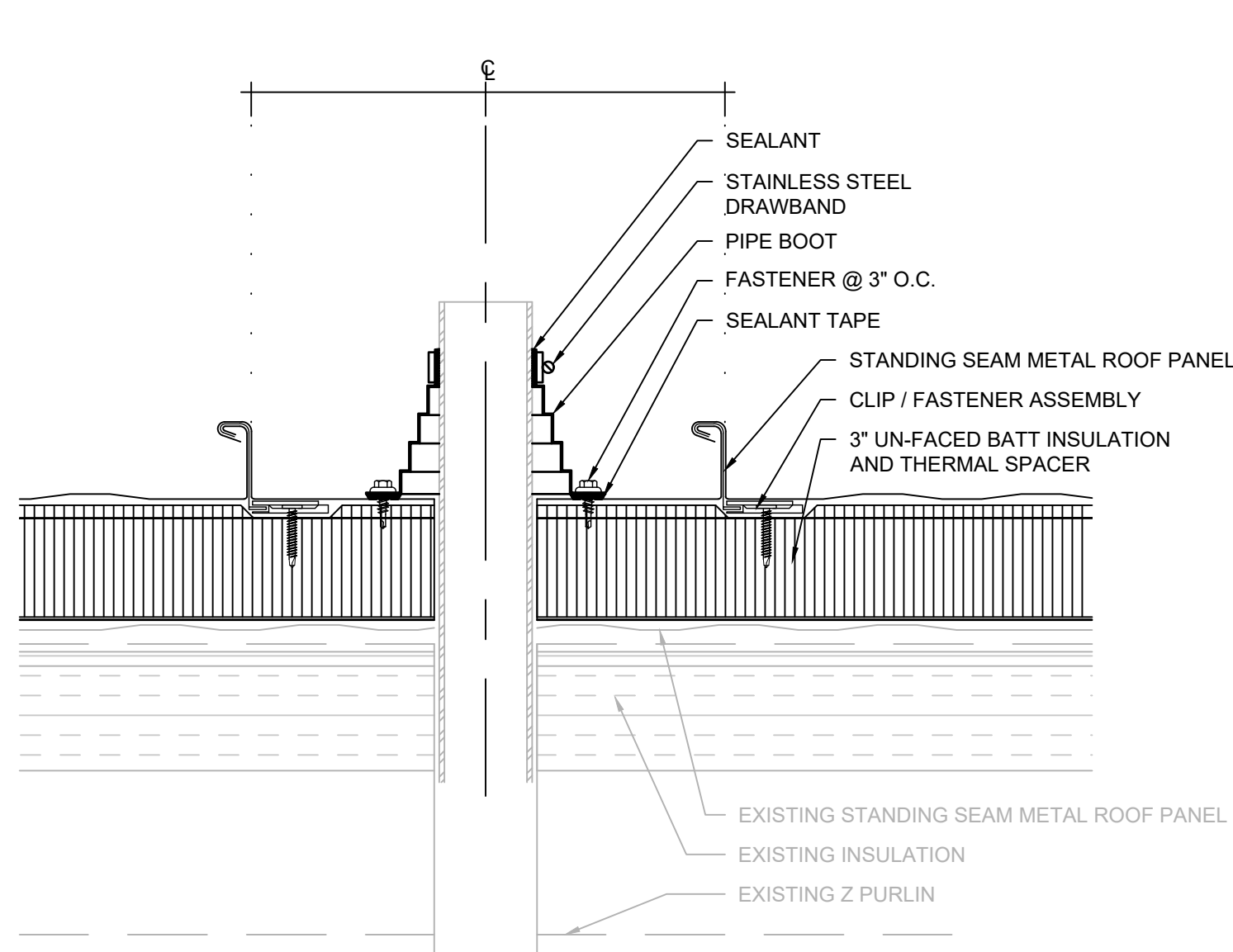
5 GUTTER EDGE

SCALE: 1/4" = 1'



6 STANDING SEAM METAL ROOF PANEL END LAP

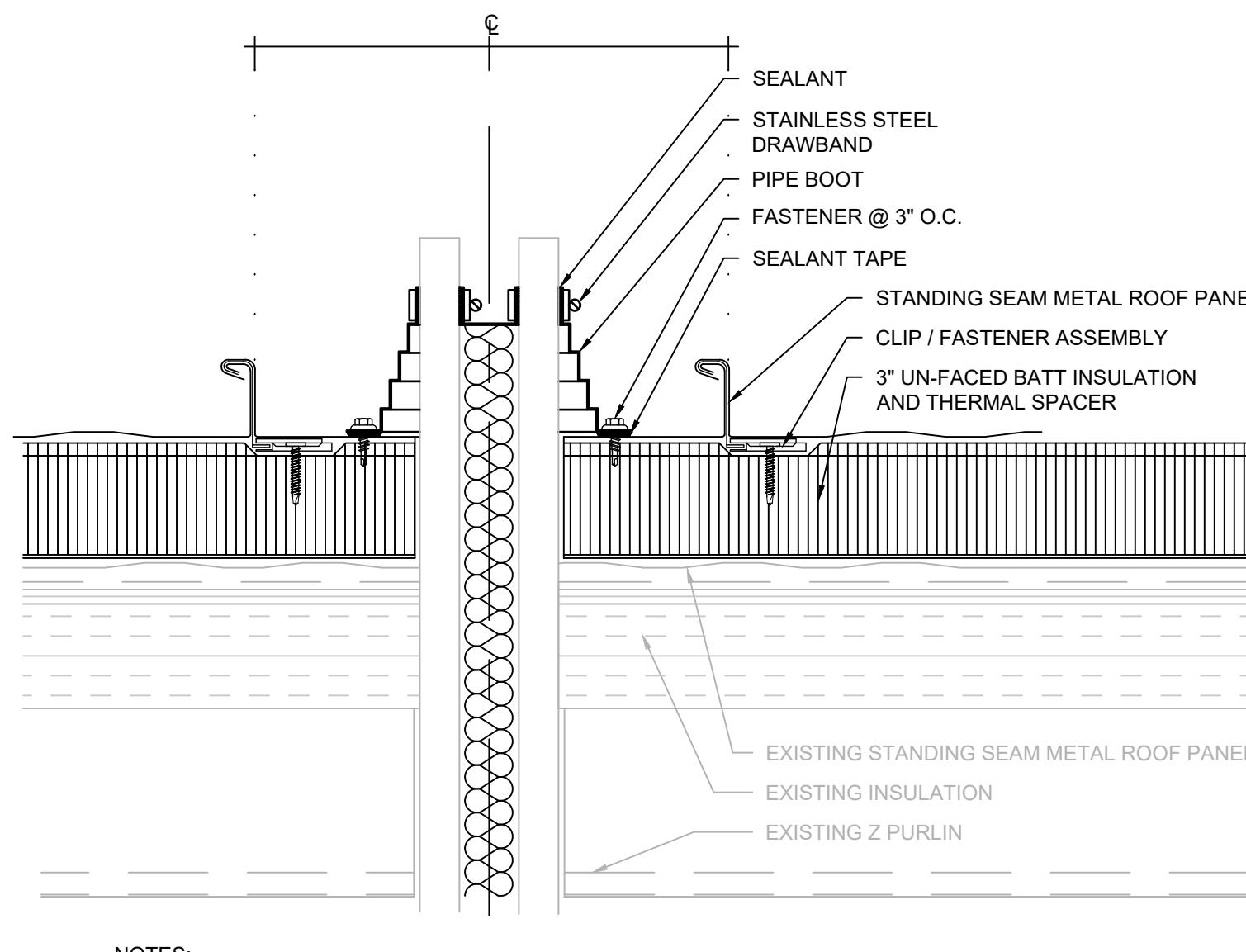
SCALE: 3" = 1'-0"



NOTES:
1. RELOCATE PIPE PENETRATION TO CENTER OF PANEL TO PROVIDE PIPE BOOT. ALTERNATIVELY, PROVIDE FLAT CURB ACROSS TWO PANELS TO PROVIDE PIPE BOOT FLASHING WITHOUT INTERFERENCE WITH STANDING SEAM METAL ROOF PANEL SEAM.

7 PIPE PENETRATION

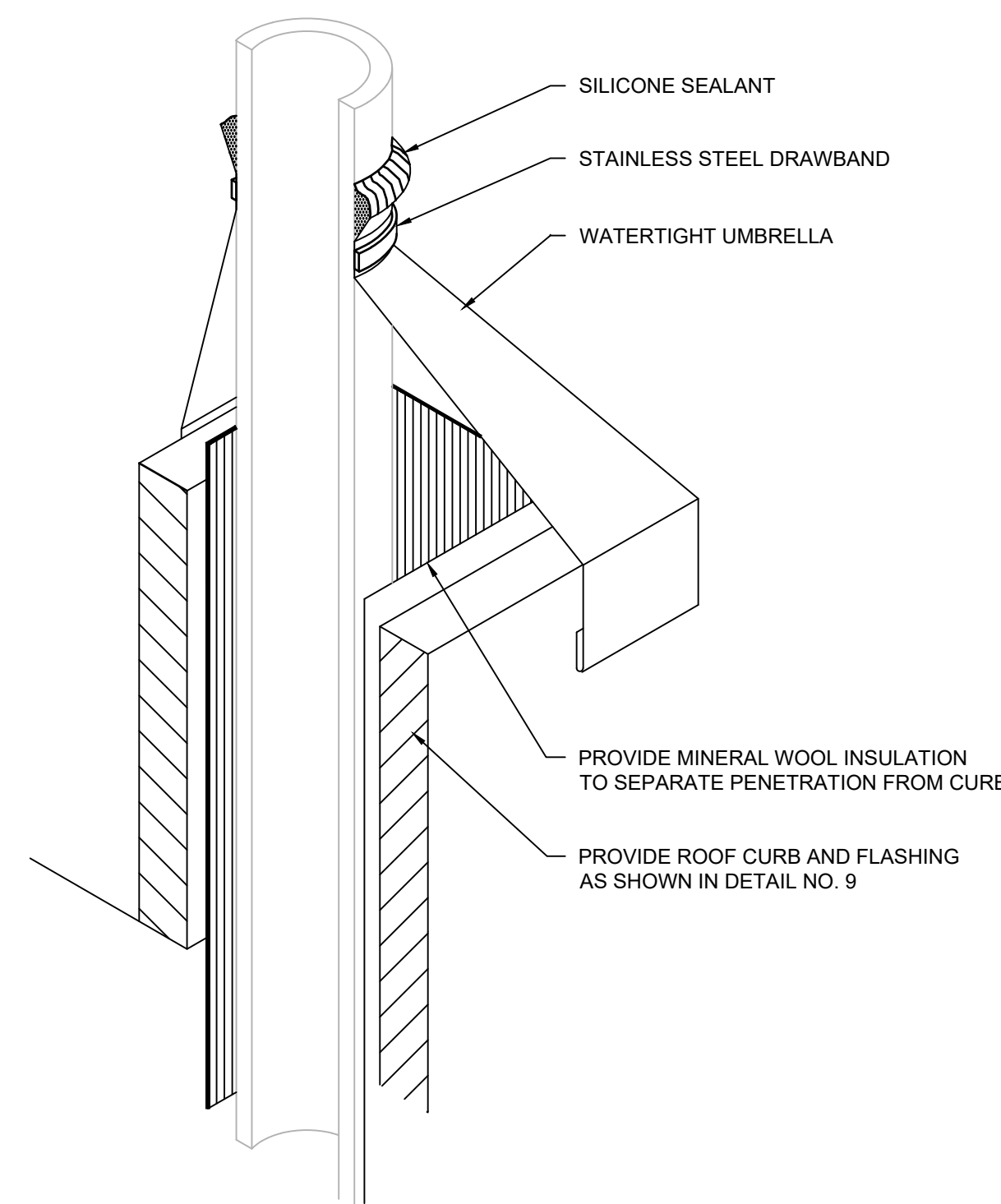
SCALE: 3" = 1'-0"



NOTES:
1. RELOCATE PIPE PENETRATIONS TO CENTER OF PANEL WITH 1" MINIMUM CLEARANCE BETWEEN PIPES IN ORDER TO PROVIDE PIPE BOOT. ALTERNATIVELY, PROVIDE FLAT CURB ACROSS TWO PANELS TO PROVIDE PIPE BOOT FLASHING WITHOUT INTERFERENCE WITH STANDING SEAM METAL ROOF PANEL SEAM.

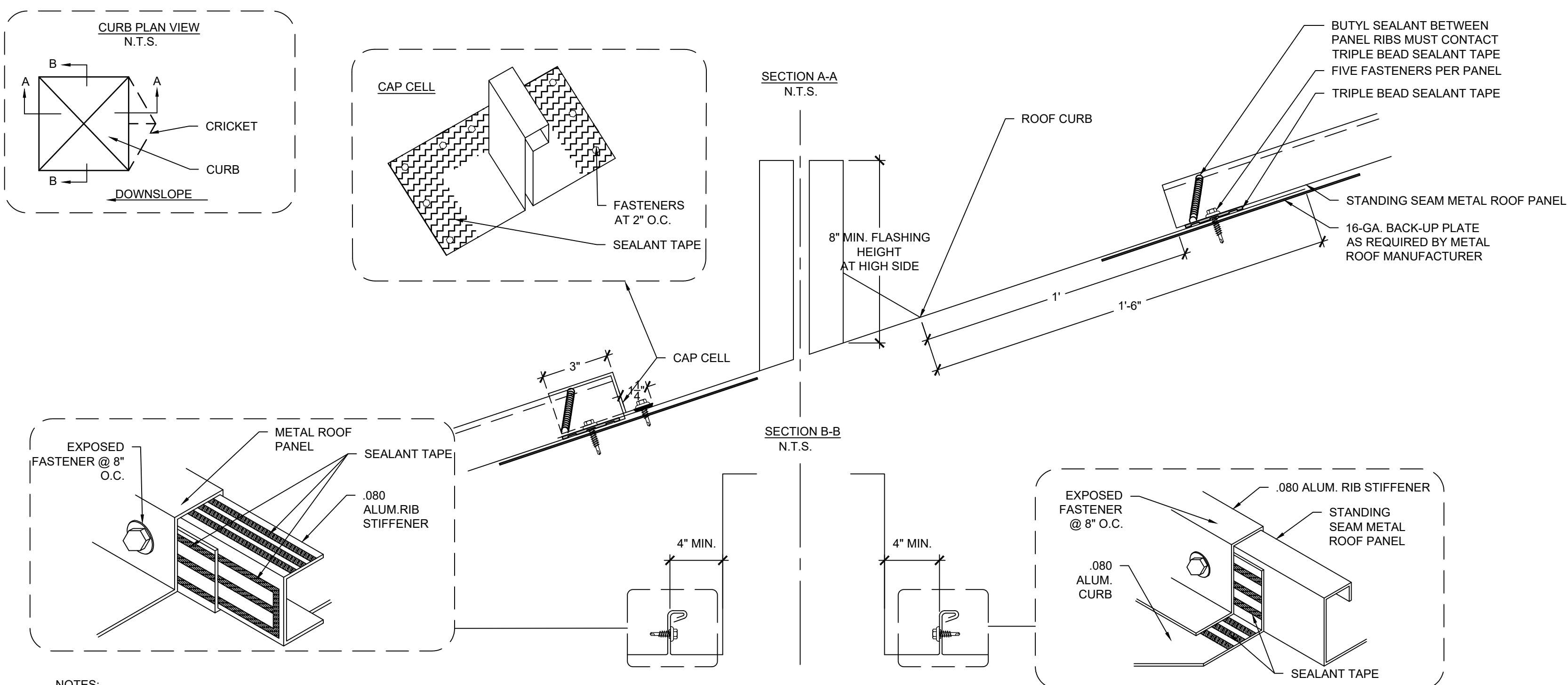
8 MULTIPLE PIPE PENETRATION

SCALE: 3" = 1'-0"



9 HIGH HEAT CURB

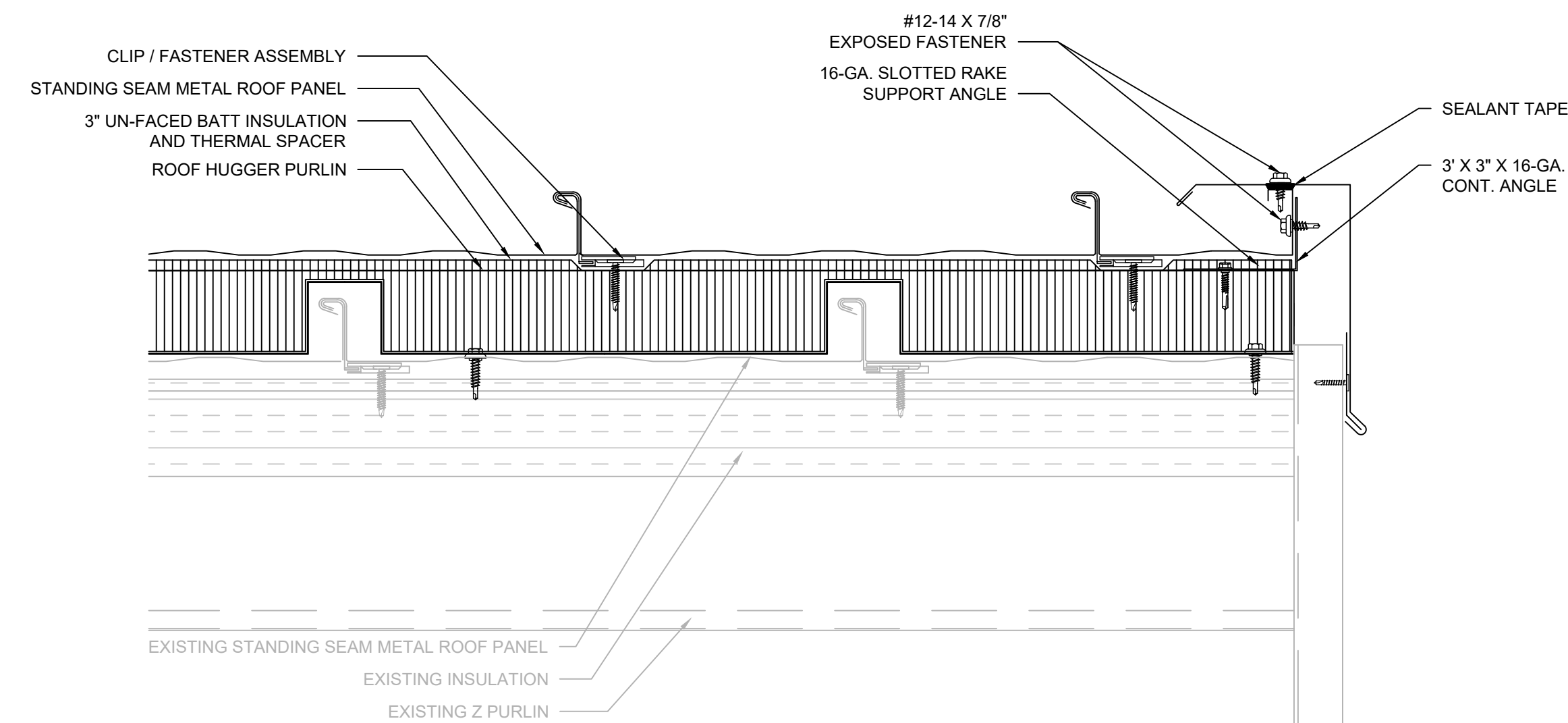
SCALE: 3" = 1'-0"



NOTES:
1. ROOF RETROFIT FRAMING NOT SHOWN FOR CLARITY. REFER TO ACCEPTED SHOP DRAWINGS.

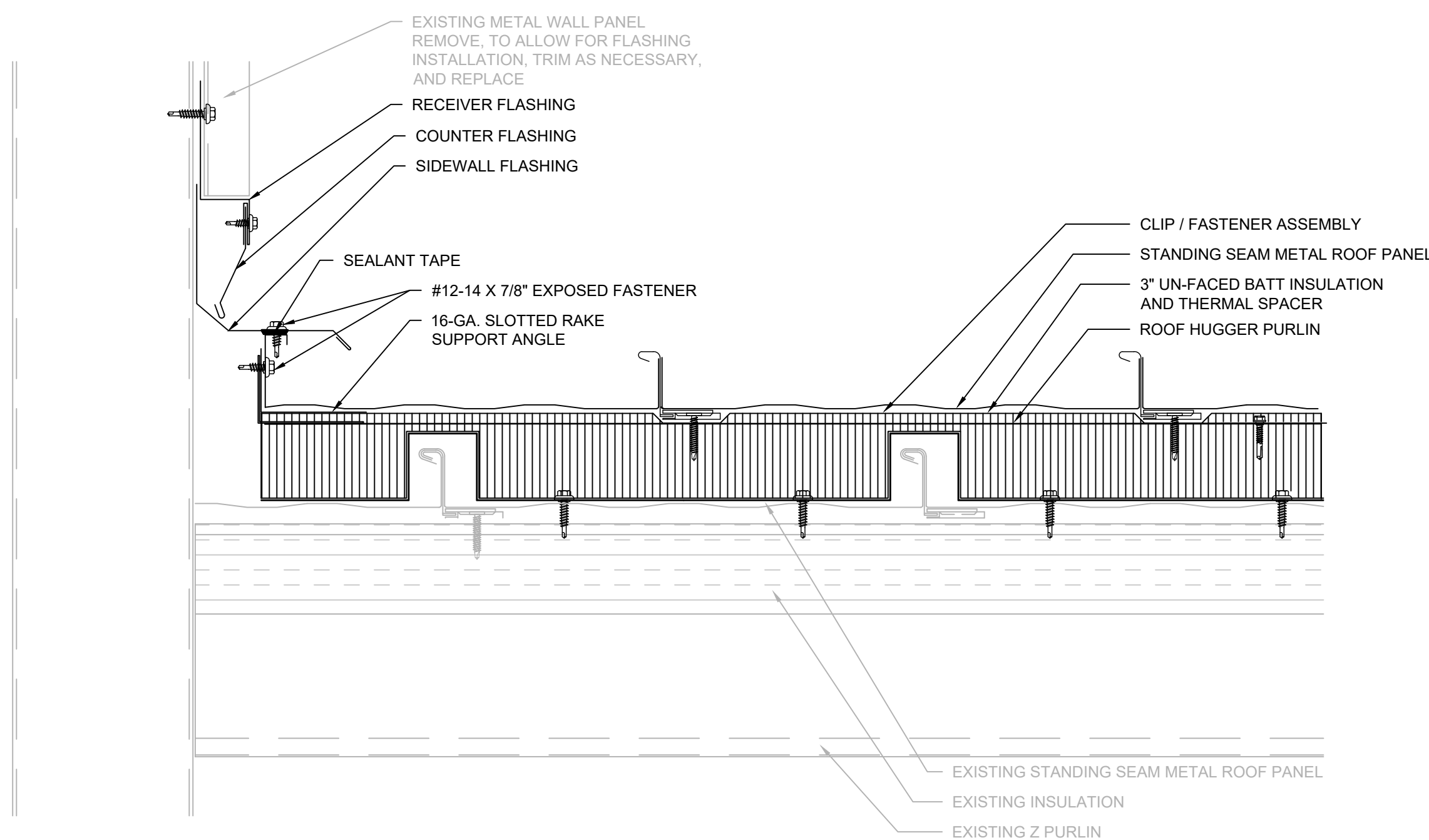
11 MECHANICAL CURB

SCALE: 3" = 1'-0"



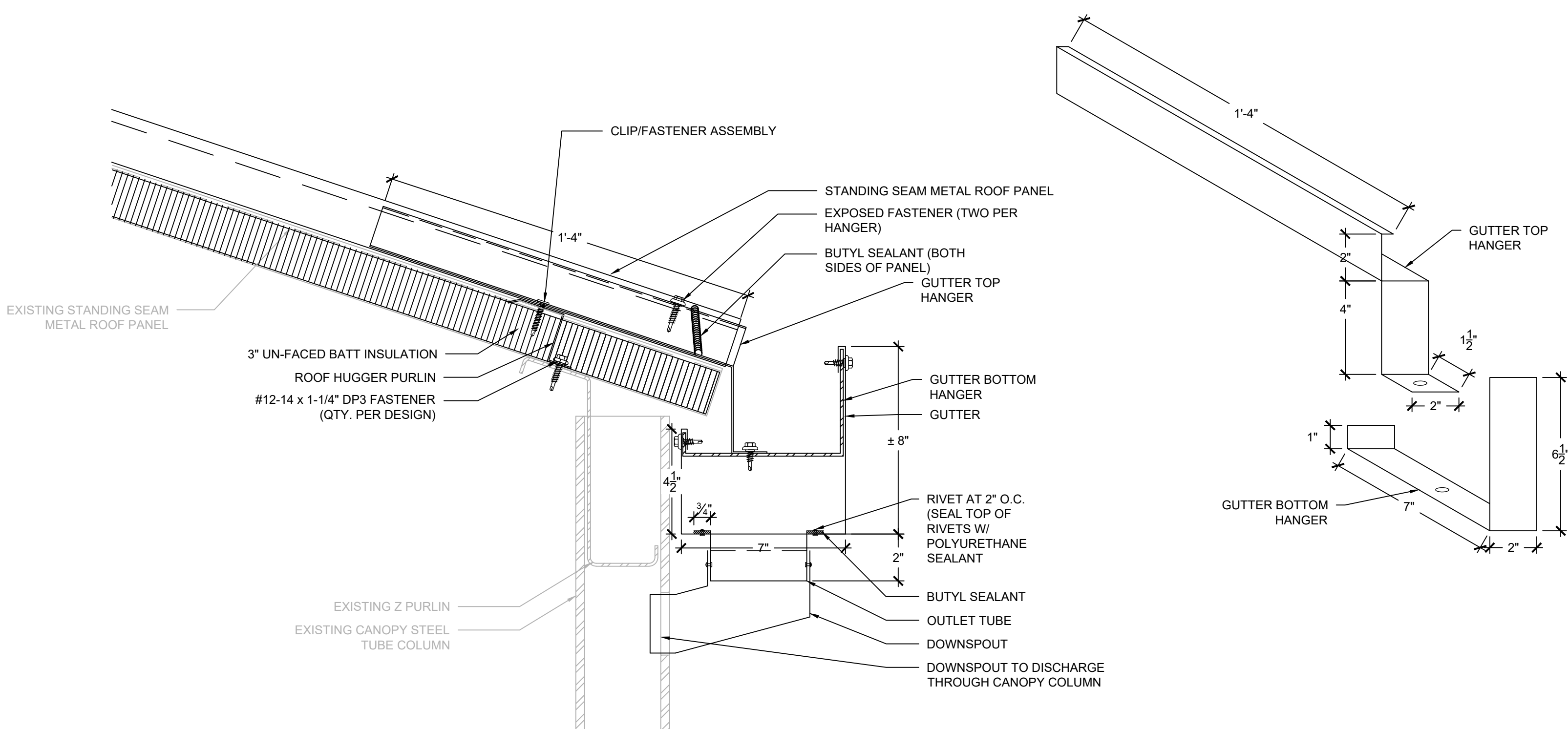
12 RAKE EDGE

SCALE: 1/4" = 1"



13 SIDEWALL FLASHING

SCALE: 1/4" = 1"



14 GUTTER EDGE CANOPIES 1 & 2

SCALE: 1/4" = 1"



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