


DORCHESTER SCHOOL DISTRICT TWO

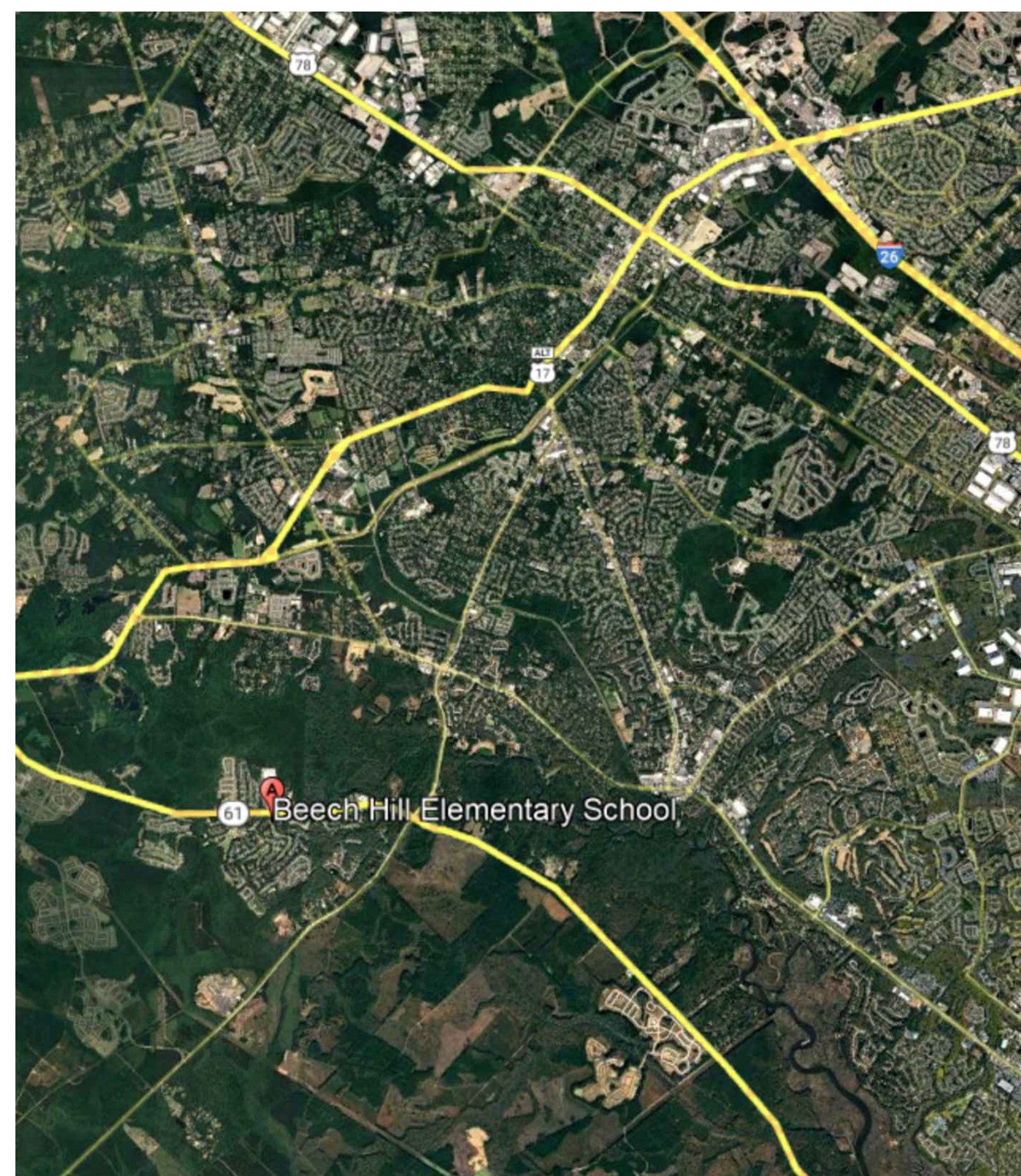
BEECH HILL ES SECTIONS 1 AND 3 ROOF REPLACEMENT

1001 BEECH HILL RD
SUMMERVILLE, SC 29485

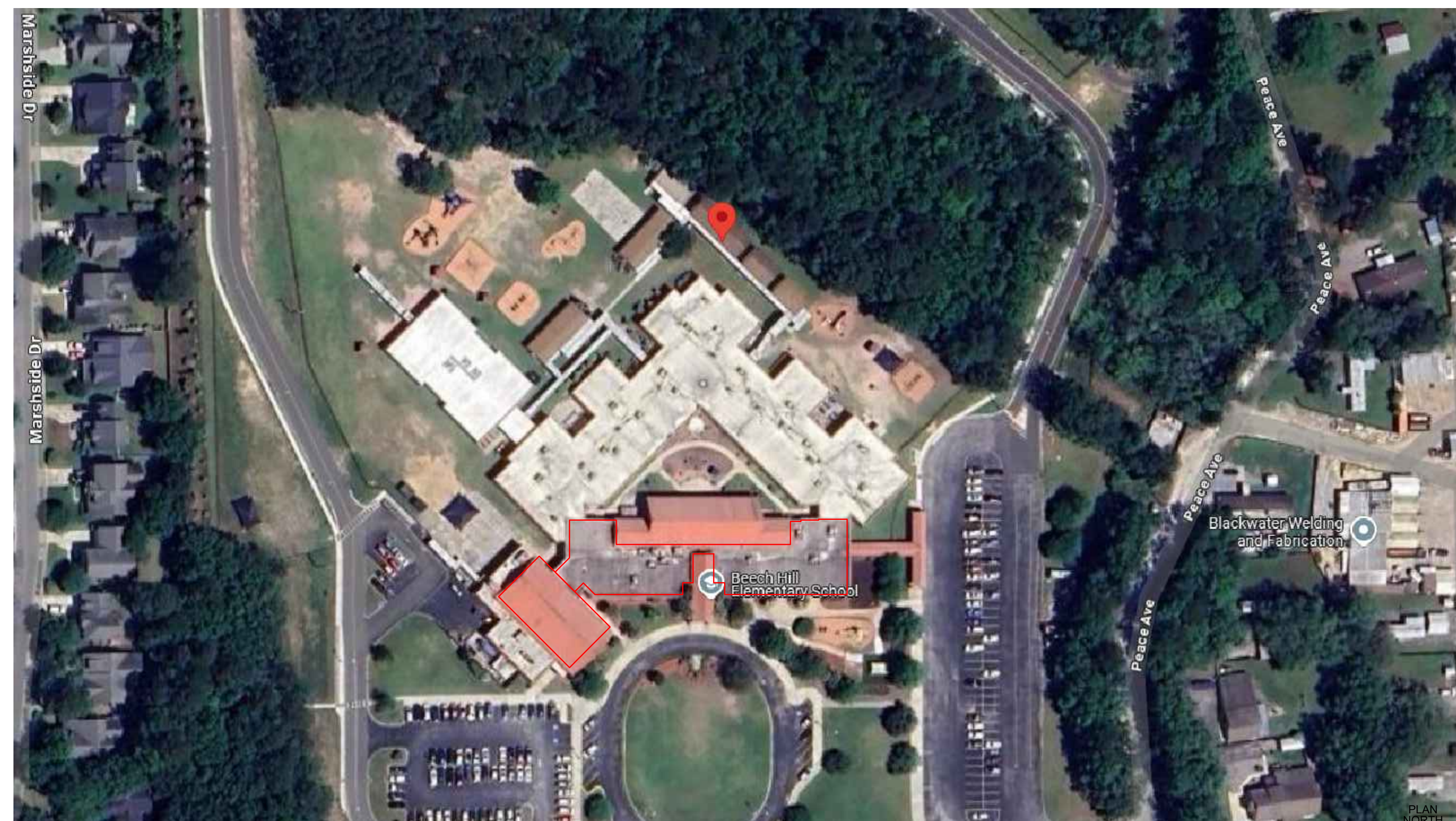
REI PROJECT NO. R25CHS-031

DATE: 10-10-25

KEY	
	INCLUDED IN CONTRACT



A VICINITY MAP
SCALE: N.T.S.



B SITE PLAN
SCALE: N.T.S.

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 4. NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE CONTRACTORS RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.

DETAIL NOTES
 1. LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED.

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

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

DRAWING INDEX:
 G-001 COVER
 XR101 EXISTING ROOF PLAN
 XR102 NEW ROOF PLAN
 XR103 WIND UPLIFT PLAN
 XR301 ROOF SYSTEMS
 XR501 DETAILS
 XR502 DETAILS
 XR503 DETAILS
 XR504 DETAILS
 XR505 DETAILS

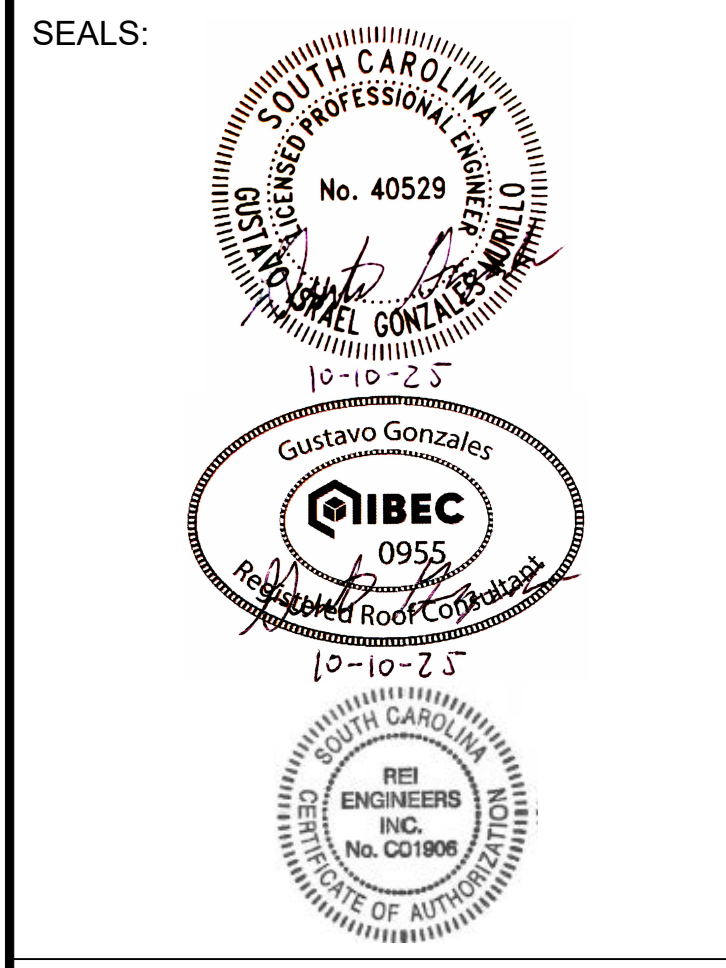
BUILDING CODE REFERENCE:
 2021 SC BUILDING CODE
 2009 IECC
 2021 SC EXISTING BUILDING CODE
 2021 SC FIRE CODE
 2021 SC FUEL GAS CODE
 2021 SC MECHANICAL CODE
 2021 SC PLUMBING CODE



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PROJECT NAME:
DORCHESTER SCHOOL DISTRICT TWO
BEECH HILL ES SECTIONS 1 AND 3 ROOF REPLACEMENT
 1001 BEECH HILL RD
 SUMMERVILLE, SC 29485

PROJECT NO:
R25CHS-031

ISSUE:

NO.	DATE	DESCRIPTION
CD	10-10-25	CONTRACT DOCUMENTS

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SHEET TITLE
COVER

DRAWING
G-001



ENGINEERS

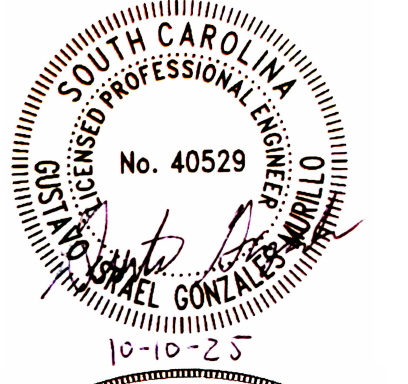
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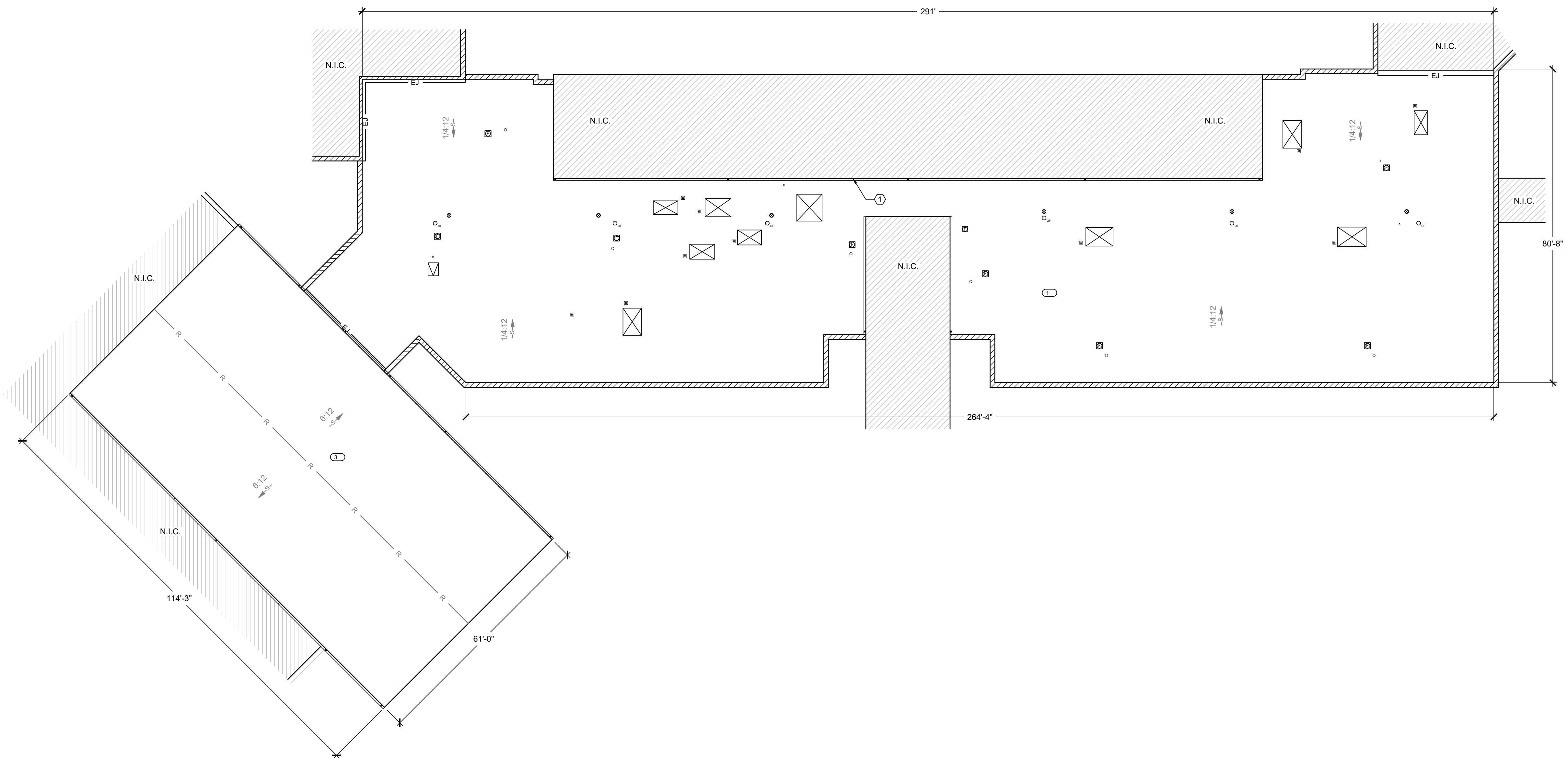
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SHEET TITLE

ROOF PLAN

DRAWING

XR101



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SHEET NOTES:
 1. REMOVE AND DISPOSE OF CONDUIT THROUGH BASE FLASHING.

KEY

—	ROOF EDGE
▨	PARAPET WALL
-EJ-	EXPANSION JOINT
▨	WALL EXPANSION JOINT
▨	GUTTER EDGE
-R-	RIDGE
-S>	STRUCTURAL SLOPE
⊙	ROOF DRAIN
⊙ _{ov}	OVERFLOW DRAIN
○	PIPE PENETRATION
⊠	MECHANICAL CURB
⊠	EXHAUST FAN
⊠	ROOF HATCH
⊠	PITCH PAN
▨	NOT IN CONTRACT
⊠	ROOF AREA INDICATOR
⊠	NOTE NO.

A EXISTING ROOF PLAN

SCALE: 1/16" = 1'-0"





ENGINEERS

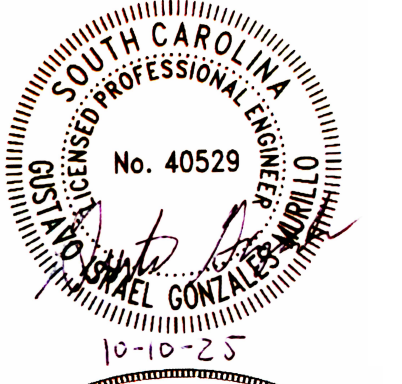
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SHEET TITLE

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DRAWING

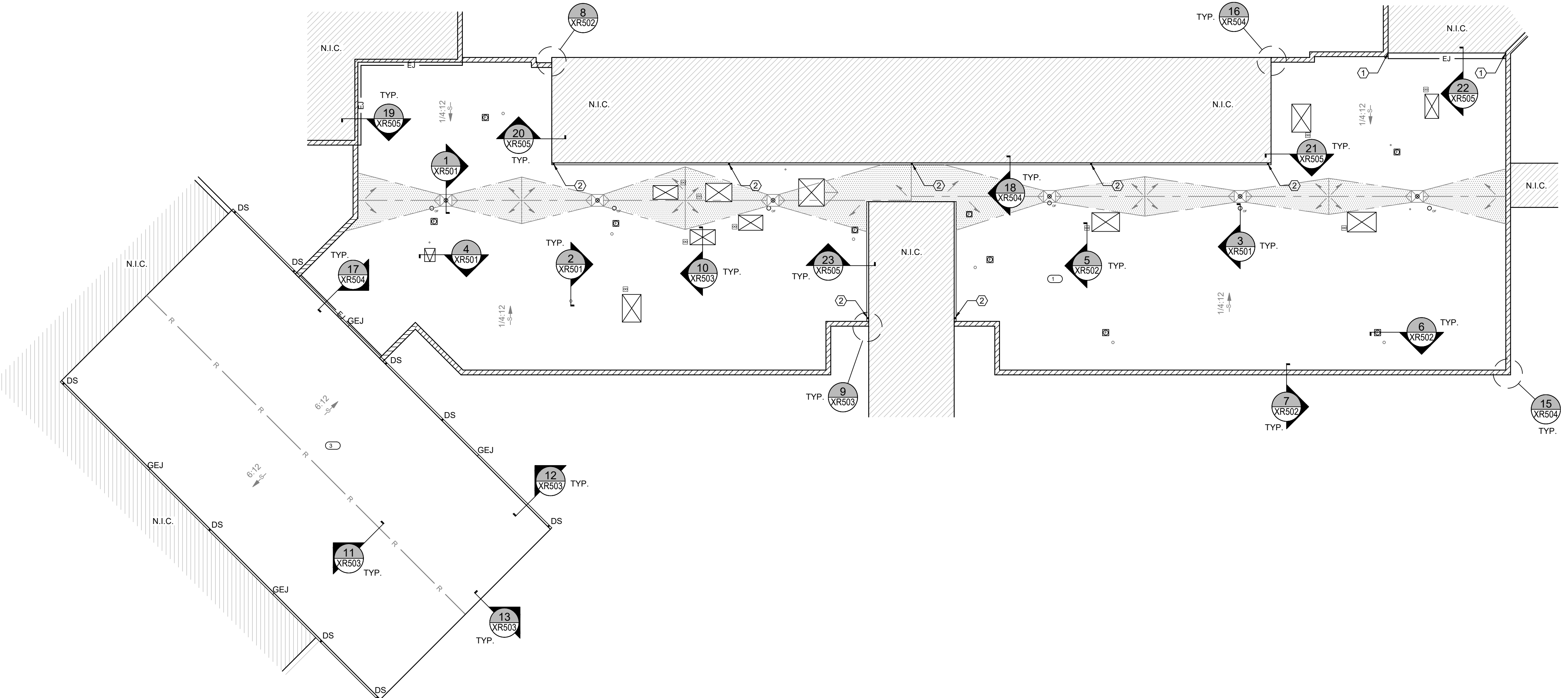
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 5. PROVIDE CRICKETS AT UPSLOPE SIDE OF CURBS WIDER THAN 12 INCHES.

SHEET NOTES:
 1. TURN MEMBRANE UP PARAPET WALL AND TERMINATE UNDER COPING CAP. PROVIDE COUNTERFLASHING SECURED UNDER COPING TO COVER OVER FLASHING MEMBRANE.
 2. PROVIDE SPLASH PAN WITH WALKPAD WHERE DOWNSPOUTS DRAIN ONTO ROOF. RESECURE DOWNSPOUTS STRAP WHERE PENETRATING THROUGH WALL FLASHING. INSTALL FLUID APPLIED FLASHING OVER DOWNSPOUT STRAP PENETRATIONS.

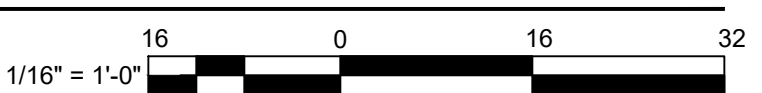
KEY

- ROOF EDGE
- ▤▤▤▤ PARAPET WALL
- EJ- EXPANSION JOINT
- ▤▤▤▤ WALL EXPANSION JOINT
- ▤▤▤▤ GUTTER EDGE
- R- RIDGE
- TAPERED INSULATION
- ▤▤▤▤ TAPERED INSULATION
- S- STRUCTURAL SLOPE
- ▤▤▤▤ TAPERED INSULATION SLOPE
- ▤▤▤▤ CRICKET SLOPE
- ⊙ ROOF DRAIN
- ⊙ OVERFLOW DRAIN
- PIPE PENETRATION
- ⊠ MECHANICAL CURB
- ⊠ MULTIPLE PIPE PENETRATION
- ⊠ EXHAUST FAN
- ⊠ ROOF HATCH
- ▤▤▤▤ NOT IN CONTRACT
- ⊠ ROOF AREA INDICATOR
- ⊠ NOTE NO.
- ⊠ DETAIL INDICATOR



NEW ROOF PLAN

SCALE: 1/16" = 1'-0"





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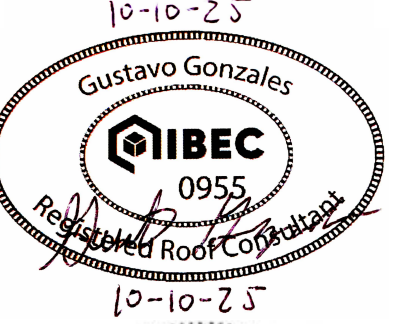
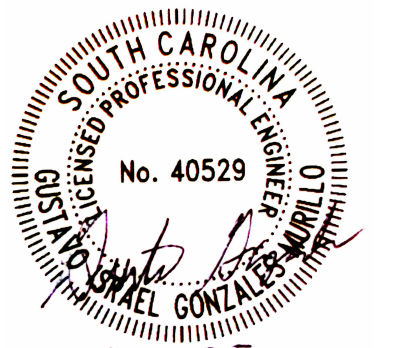
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SHEET TITLE

WIND UPLIFT PLAN

DRAWING

XR103

**WIND UPLIFT
SUMMARY-AREA 3**

ASCE 7 - 16

ULTIMATE DESIGN WIND SPEED	152 MPH
RISK CATEGORY	III
EXPOSURE	B
ENCLOSURE	ENC.

	ULTIMATE WIND UPLIFT PRESSURES (PUI)	MIN. REQUIRED WIND UPLIFT STRENGTH (S _{WS} = P _{UI} X 1.25 SF)
ZONE 1 & 2e	-57 PSF	-72 PSF
ZONE 2n, 2r & 3e	-91 PSF	-114 PSF
ZONE 3r	-128 PSF	-161 PSF

**WIND UPLIFT
SUMMARY-AREA 1**

ASCE 7 - 16

ULTIMATE DESIGN WIND SPEED	152 MPH
RISK CATEGORY	III
EXPOSURE	B
ENCLOSURE	ENC.

	ULTIMATE WIND UPLIFT PRESSURES (PUI)	MIN. REQUIRED WIND UPLIFT STRENGTH (S _{WS} = P _{UI} X 1.25 SF)
ZONE 1 - INTERIOR	-32 PSF	-40 PSF
ZONE 1 - FIELD	-55 PSF	-69 PSF
ZONE 2 - PERIMETER	-72 PSF	-90 PSF
ZONE 3 - CORNER	-98 PSF	-123 PSF

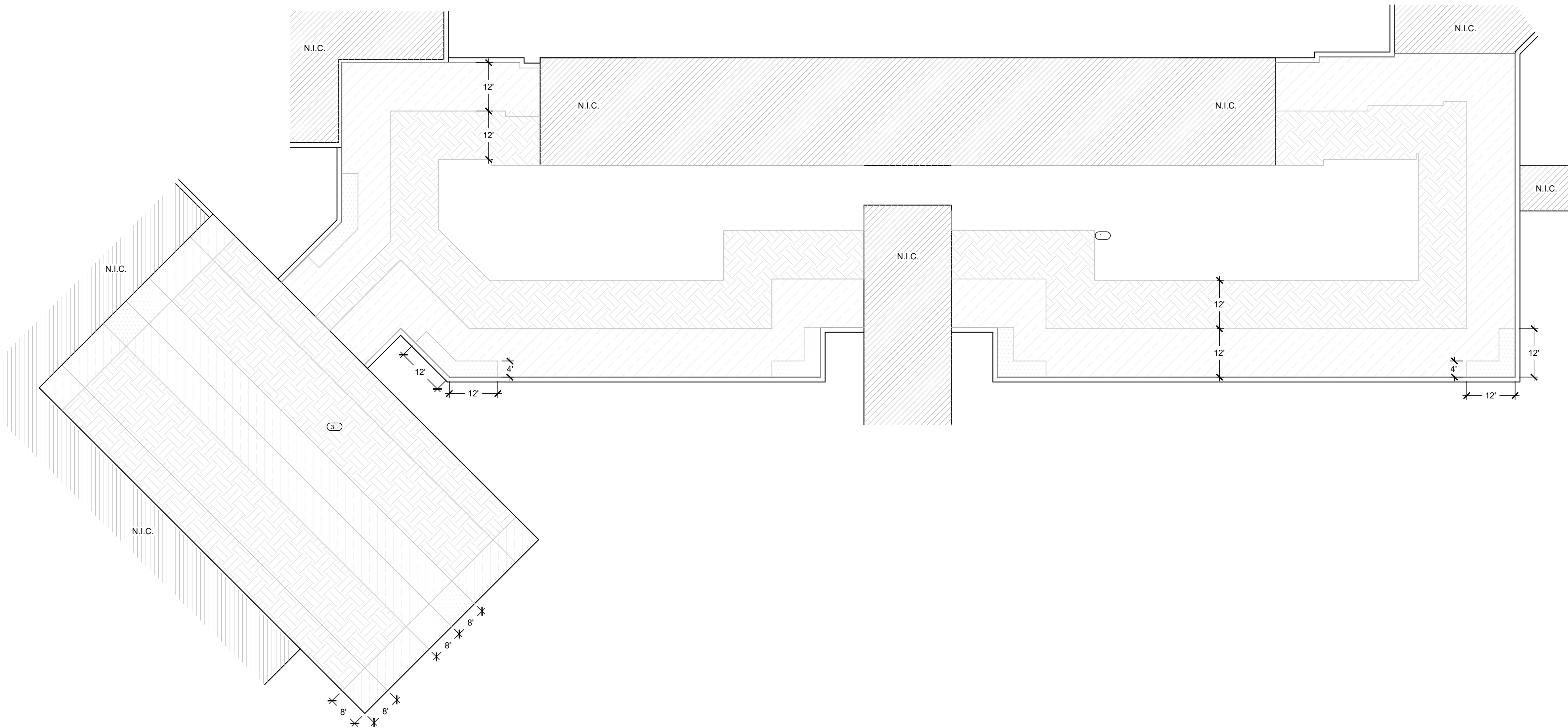
WIND ZONES

- ZONE 1 (INTERIOR)
- ZONE 1 (FIELD)
- ZONE 2 (PERIMETER)
- ZONE 3 (CORNER)

GENERAL NOTES:

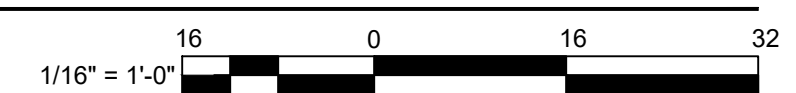
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SHEET NOTES:
NOT USED.



WIND UPLIFT PLAN

SCALE: 1/16" = 1'-0"





ENGINEERS

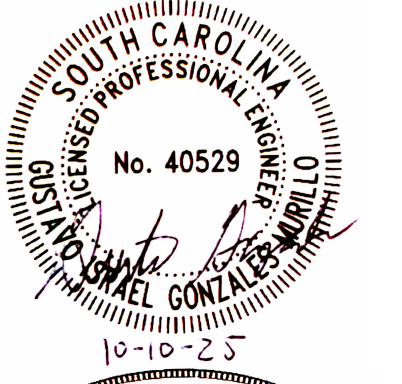
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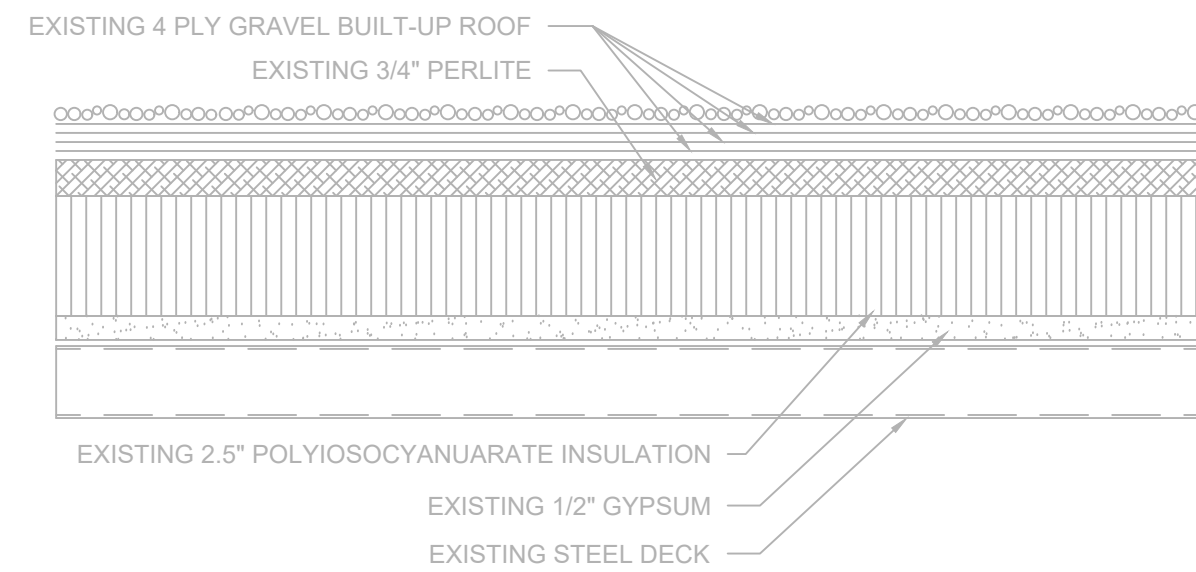
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SHEET TITLE

ROOF SYSTEMS

DRAWING

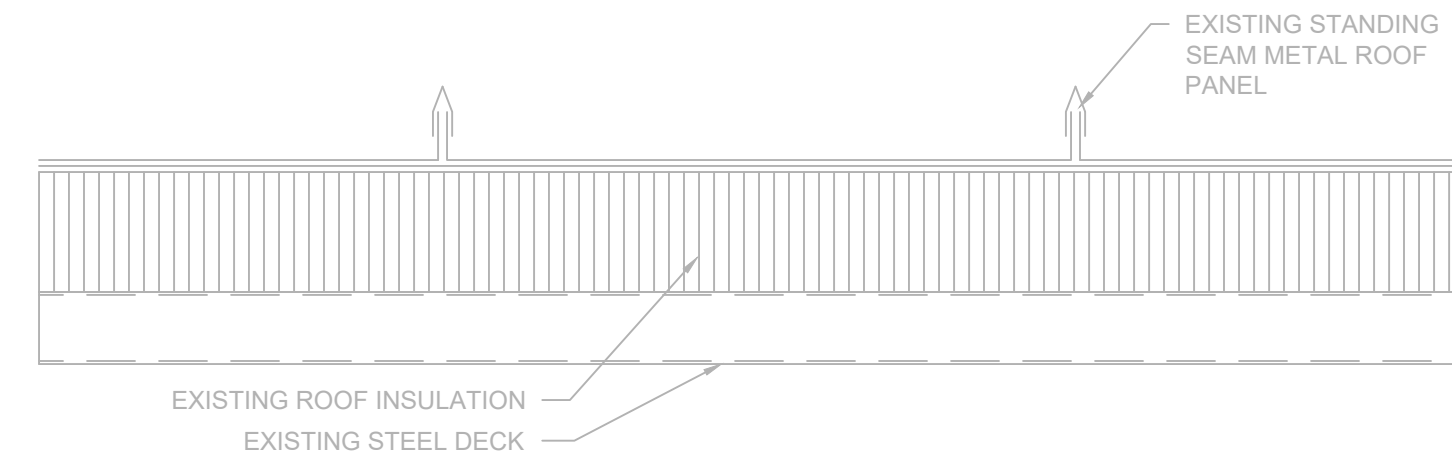
XR301



NOTES:

- EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING AT TEST CUT LOCATIONS.
- CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED.
- REMOVE COMPONENTS DOWN TO THE EXISTING STEEL DECK TO REMAIN.

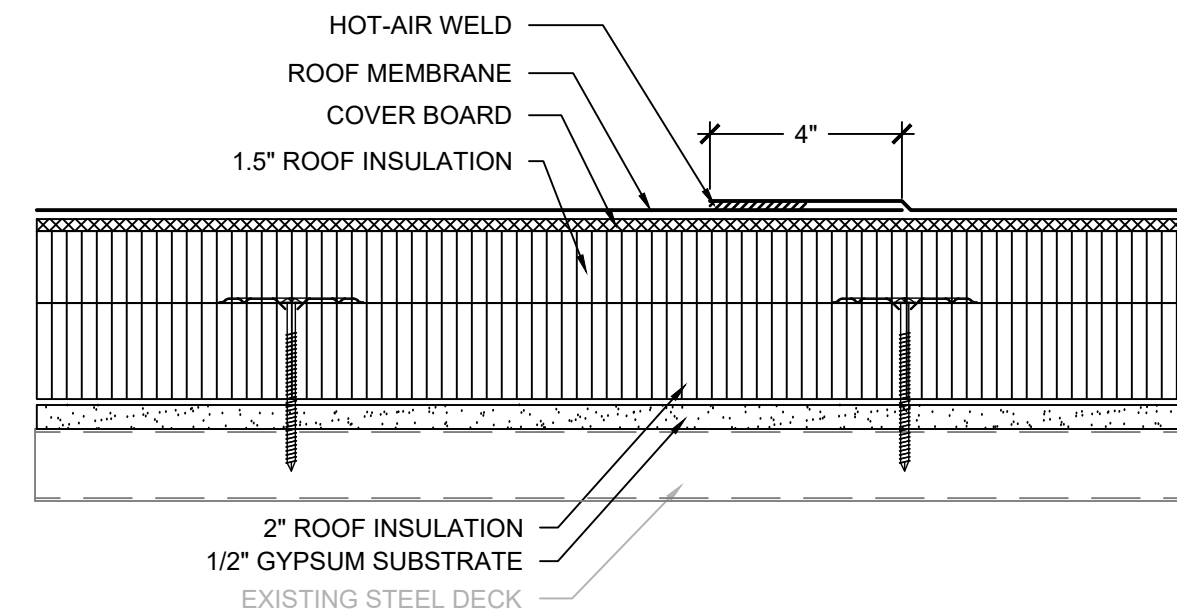
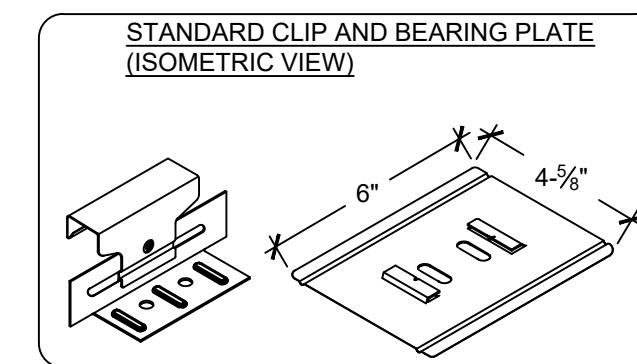
A1 EXISTING ROOF SYSTEM-SECTOR 1
SCALE: 3" = 1'-0"



NOTES:

- EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING AT TEST CUT LOCATIONS.
- CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED.
- REMOVE COMPONENTS DOWN TO THE EXISTING PURLINS TO REMAIN.

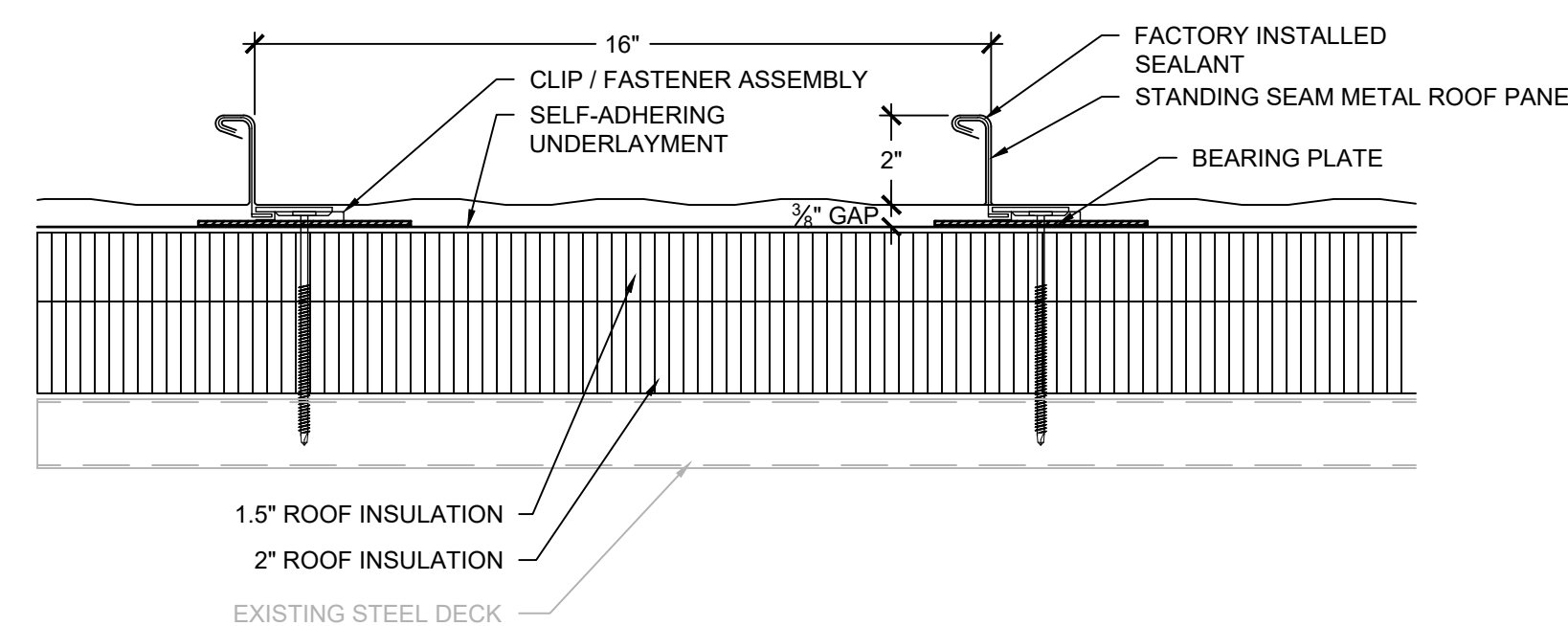
A2 EXISTING ROOF SYSTEM-SECTOR 3
SCALE: 3" = 1'-0"



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 XR103. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.
- ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.

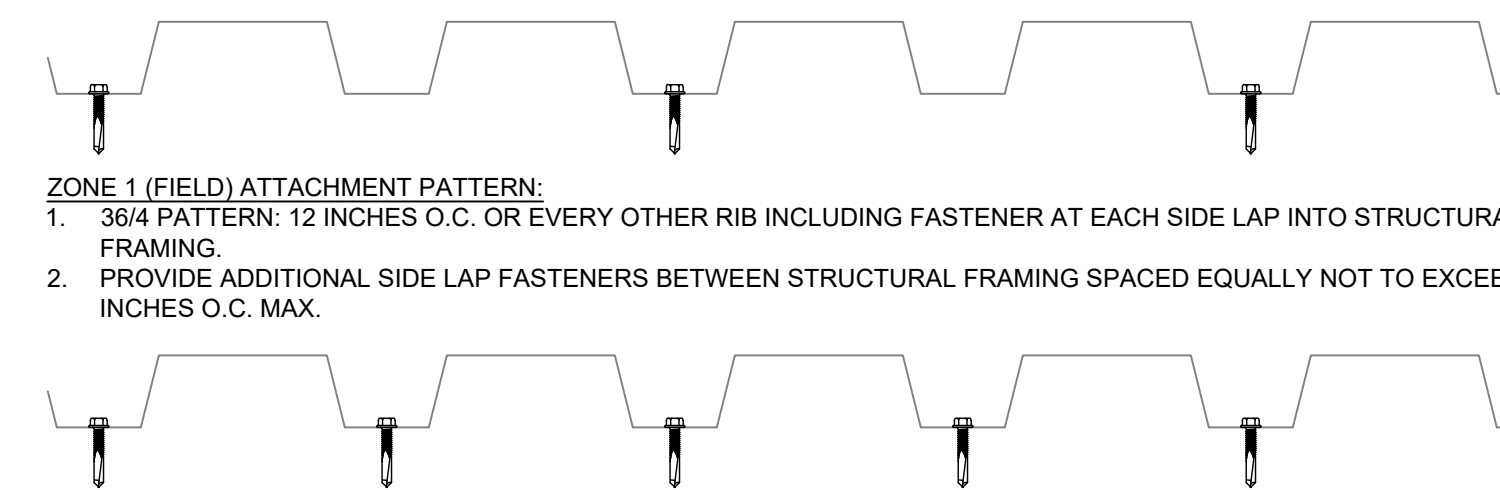
B1 RPLC. ROOF SYSTEM-SECTOR 1
SCALE: 3" = 1'-0"



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 XR103. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.

B2 RPLC. ROOF SYSTEM-SECTOR 3 (ALT. 1)
SCALE: 3" = 1'-0"



ZONE 1 (FIELD) ATTACHMENT PATTERN:

- 36/4 PATTERN: 12 INCHES O.C. OR EVERY OTHER RIB INCLUDING FASTENER AT EACH SIDE LAP INTO STRUCTURAL FRAMING.
- PROVIDE ADDITIONAL SIDE LAP FASTENERS BETWEEN STRUCTURAL FRAMING SPACED EQUALLY NOT TO EXCEED 36 INCHES O.C. MAX.

ZONE 2 (PERIMETER) AND ZONE 3 (CORNER) ATTACHMENT PATTERN:

- 36/7 PATTERN: 6 INCHES O.C. OR EVERY RIB INCLUDING FASTENER AT EACH SIDE LAP INTO STRUCTURAL FRAMING.
- PROVIDE ADDITIONAL SIDE LAP FASTENERS BETWEEN STRUCTURAL FRAMING SPACED EQUALLY NOT TO EXCEED 30 INCHES O.C. MAX.

NOTES:

- REFER TO SPECIFICATION SECTION 05 01 30 "STEEL ROOF DECK REPAIR AND SECUREMENT" FOR FASTENER SPECIFICATIONS AND ADDITIONAL ATTACHMENT INFORMATION.

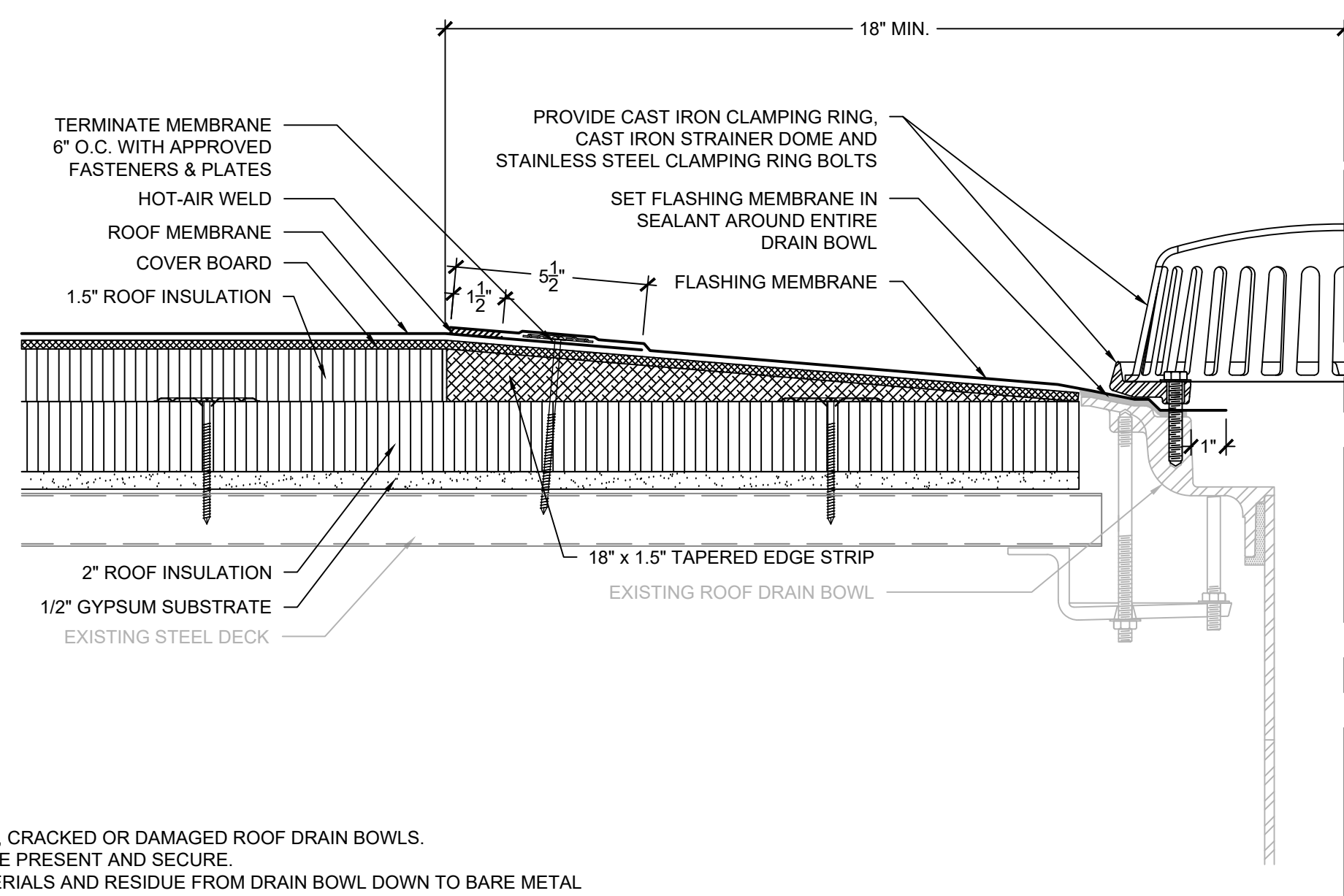
B3 STEEL DECK SECUREMENT
SCALE: 3" = 1'-0"

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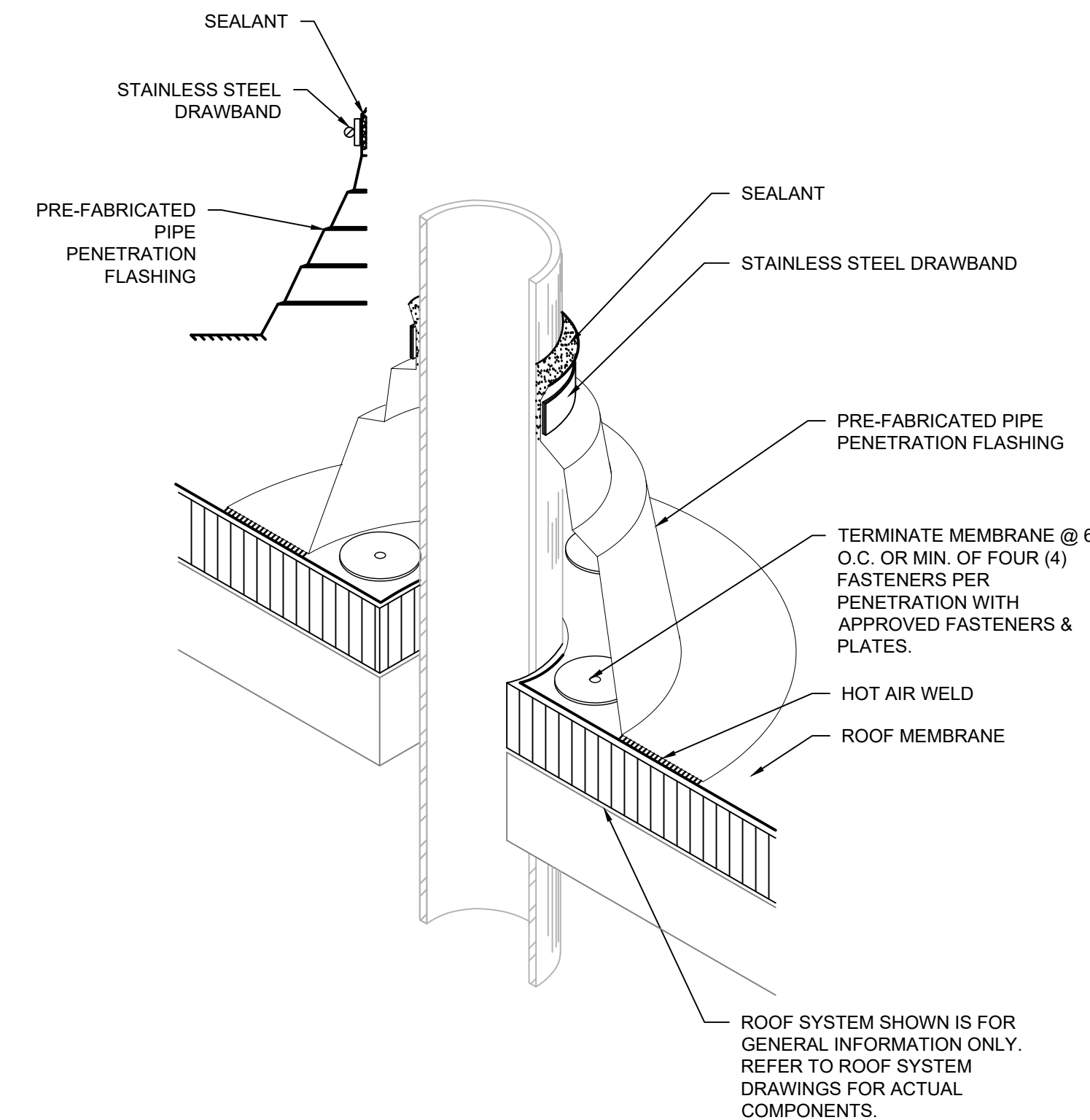
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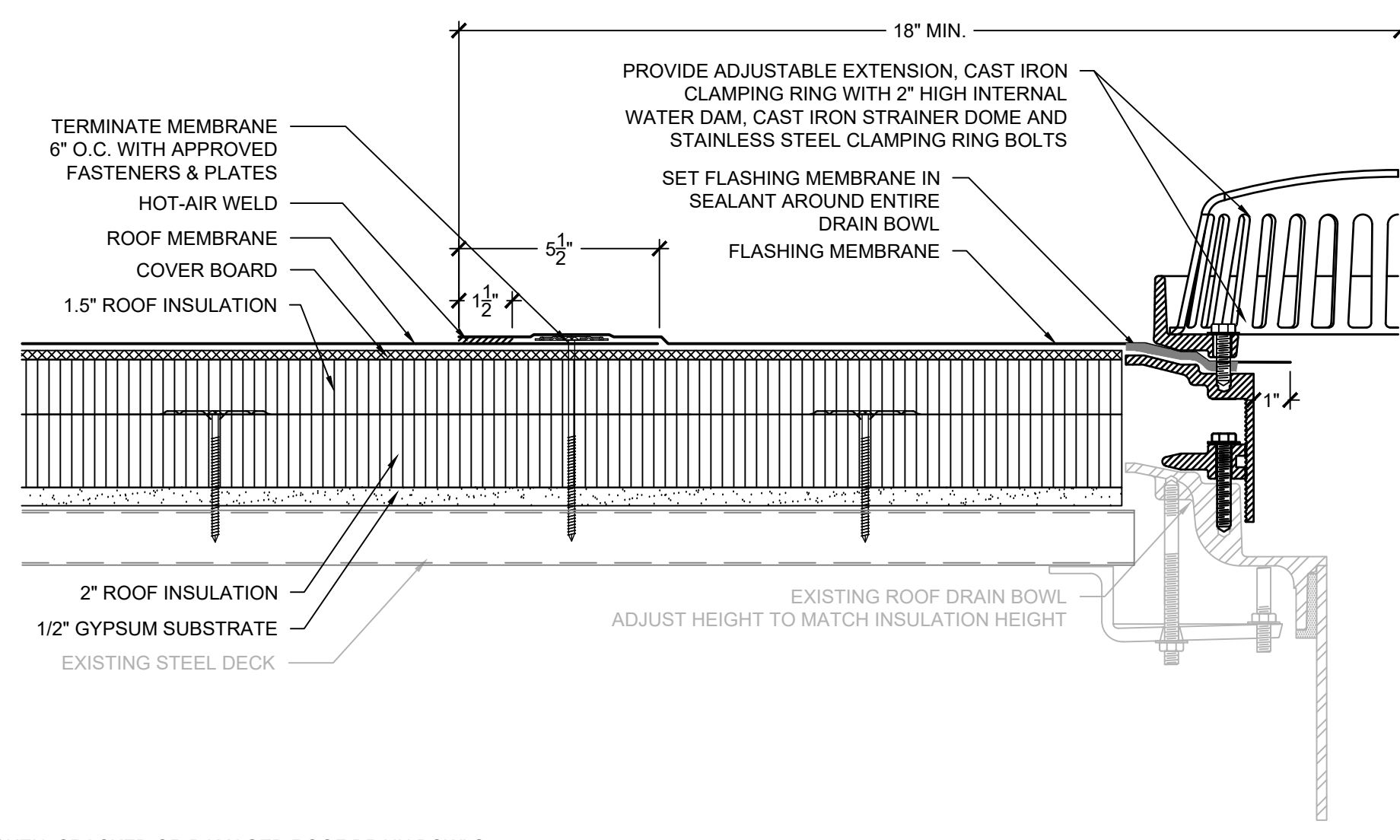
- NOTES:
1. NOTIFY ENGINEER OF ANY BROKEN, CRACKED OR DAMAGED ROOF DRAIN BOWLS.
 2. ALL CLAMPING RING BOLTS MUST BE PRESENT AND SECURE.
 3. PROPERLY CLEAN ASPHALTIC MATERIALS AND RESIDUE FROM DRAIN BOWL DOWN TO BARE METAL PRIOR TO FLASHING MEMBRANE INSTALLATION.

1 ROOF DRAIN
SCALE: 3" = 1'-0"



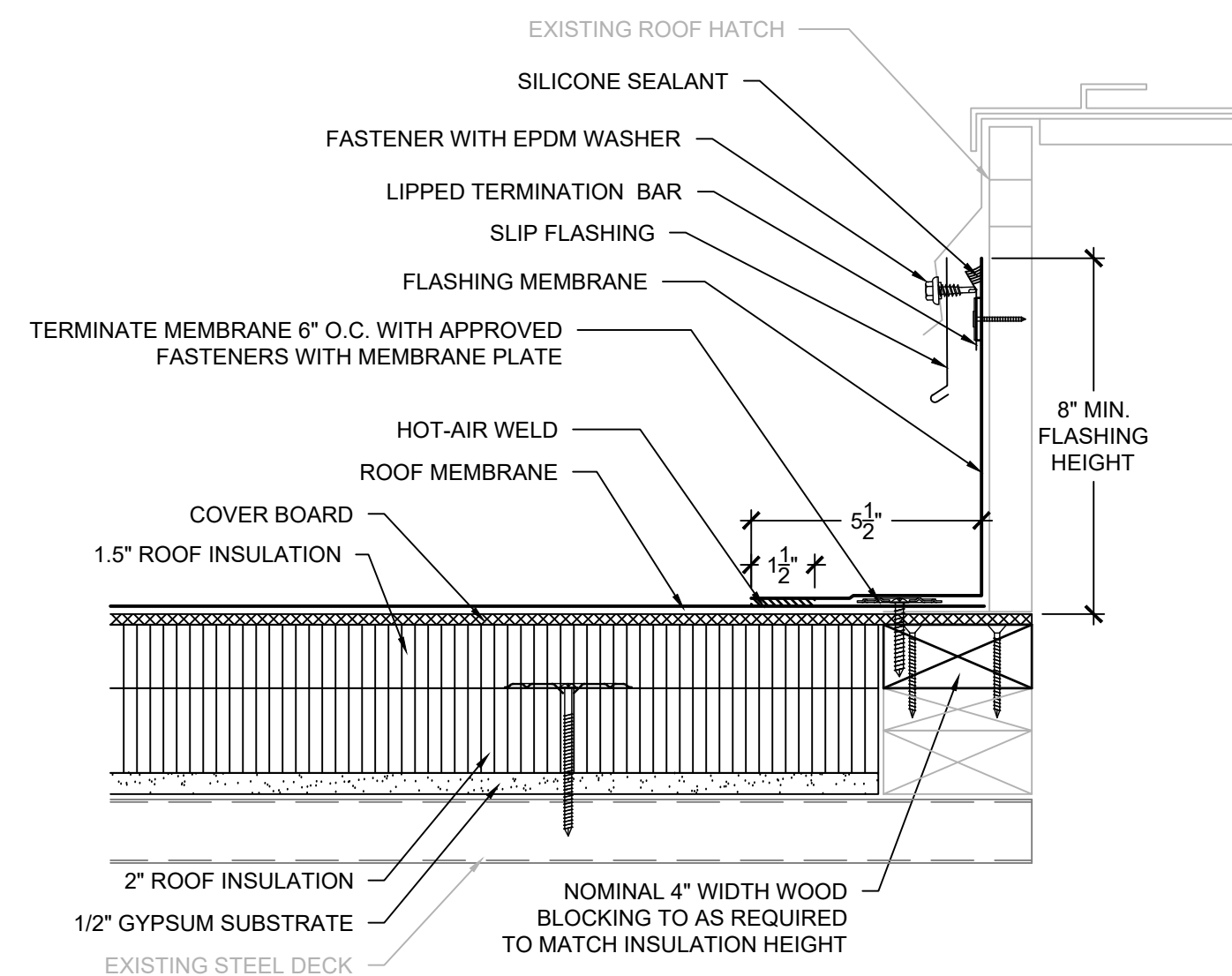
- NOTES:
1. EXTEND PIPE PENETRATION TO PROVIDE MINIMUM 8" FLASHING HEIGHT.
 2. SLOPE IN EXISTING ROOF DECK MAY NOT BE SHOWN.

2 PIPE PENETRATION
SCALE: 3" = 1'-0"



- NOTES:
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 2. ALL CLAMPING RING BOLTS MUST BE PRESENT AND SECURE.
 3. PROPERLY CLEAN ASPHALTIC MATERIALS AND RESIDUE FROM DRAIN BOWL DOWN TO BARE METAL PRIOR TO FLASHING MEMBRANE INSTALLATION.

3 OVERFLOW ROOF DRAIN
SCALE: 3" = 1'-0"



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4 ROOF HATCH
SCALE: 3" = 1'-0"



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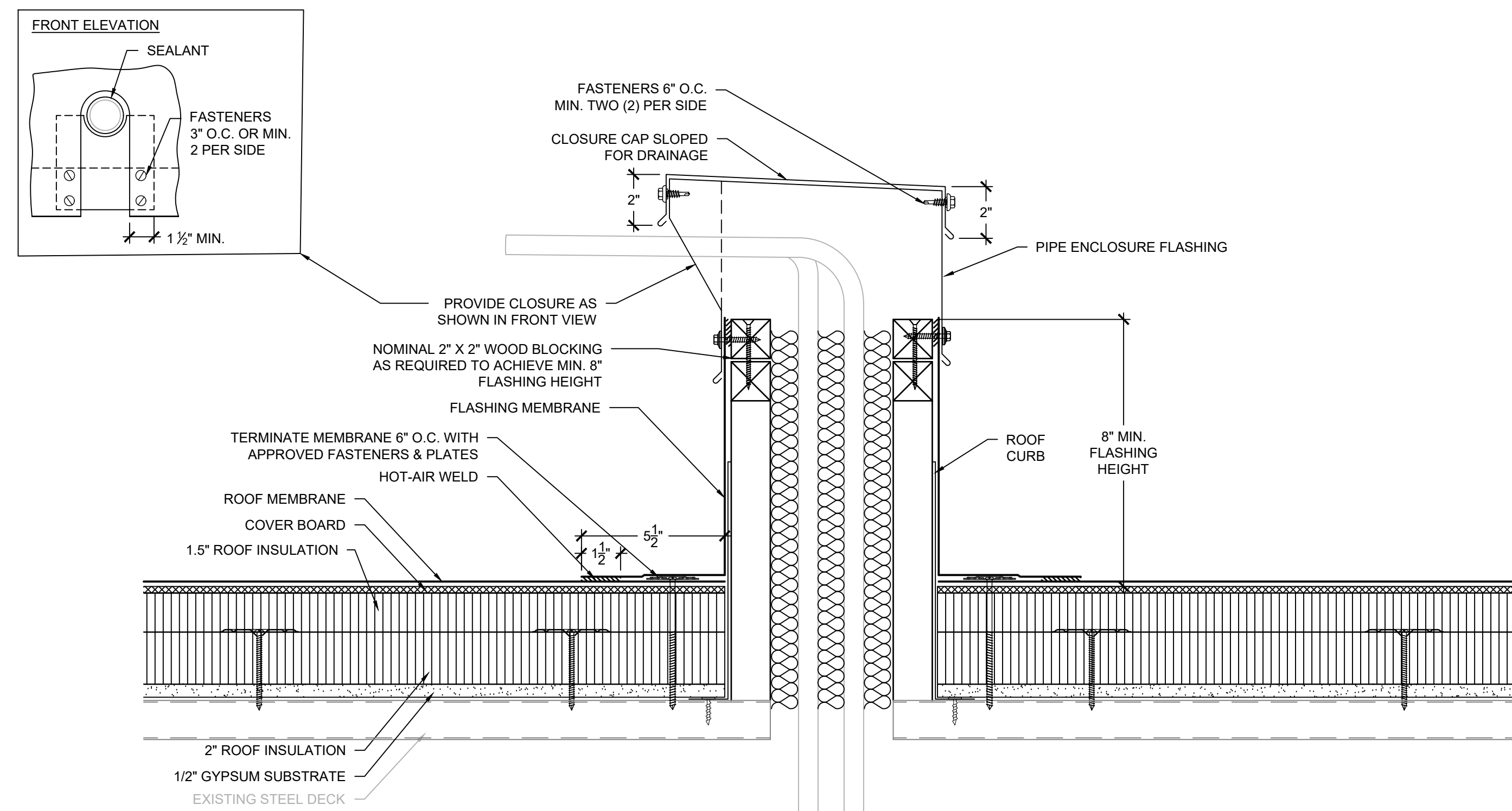
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DETAILS

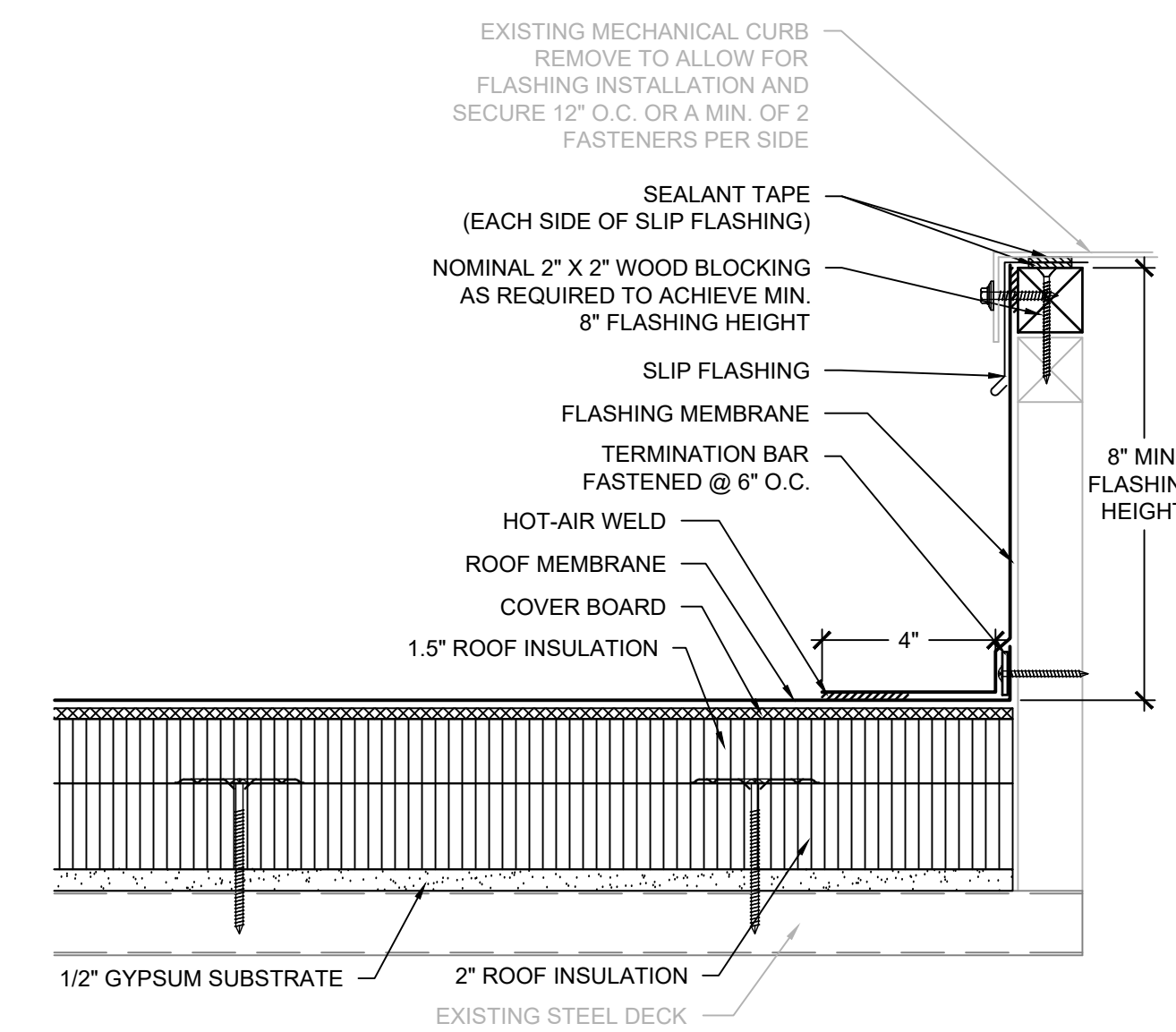
DRAWING

XR501



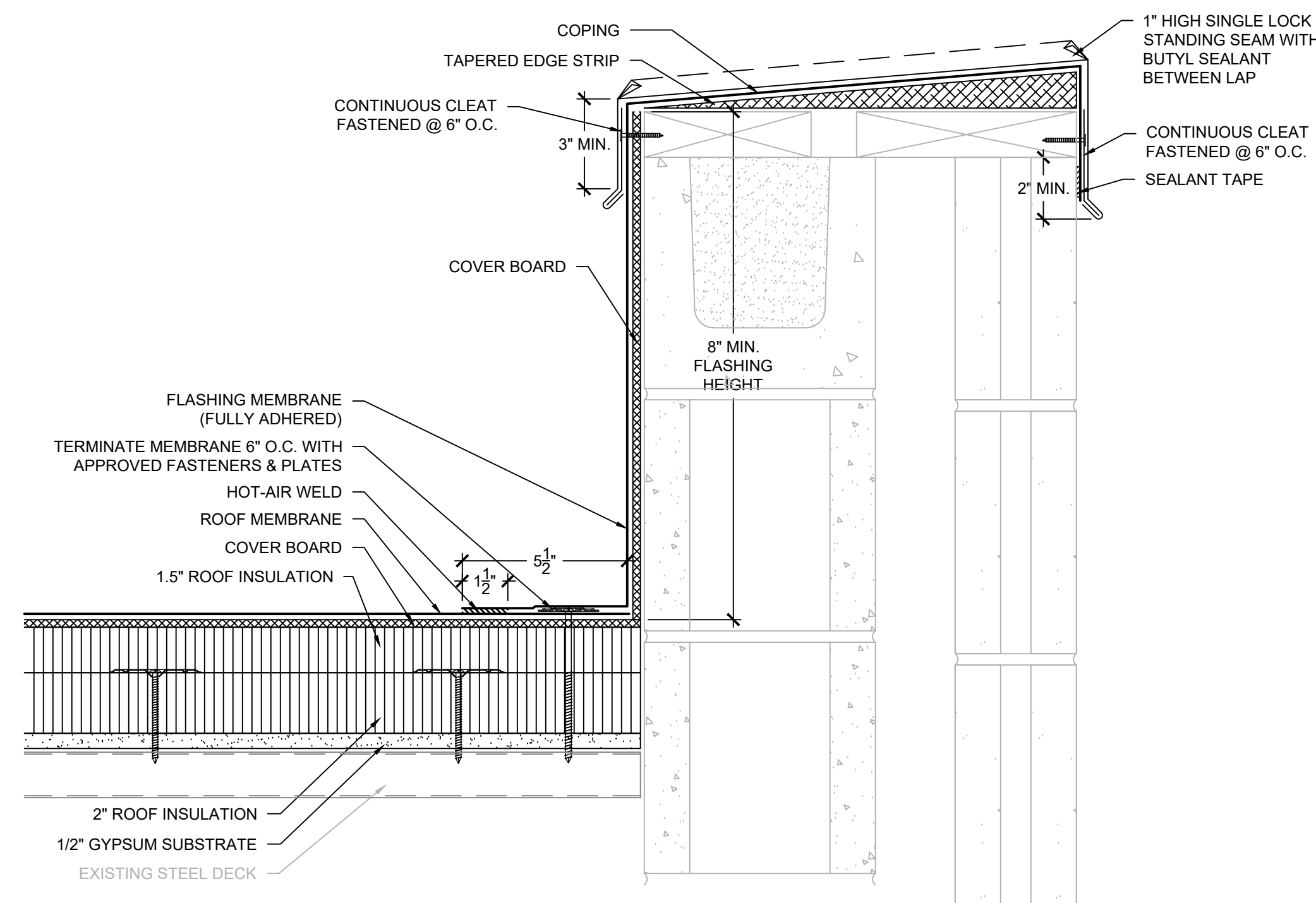
NOTES:
1. DEMOLISH AND DISPOSE OF EXISTING PITCH PAN AND FLASHING COMPONENTS.

5 MULTIPLE PIPE PENETRATION CURB
SCALE: 3" = 1'-0"



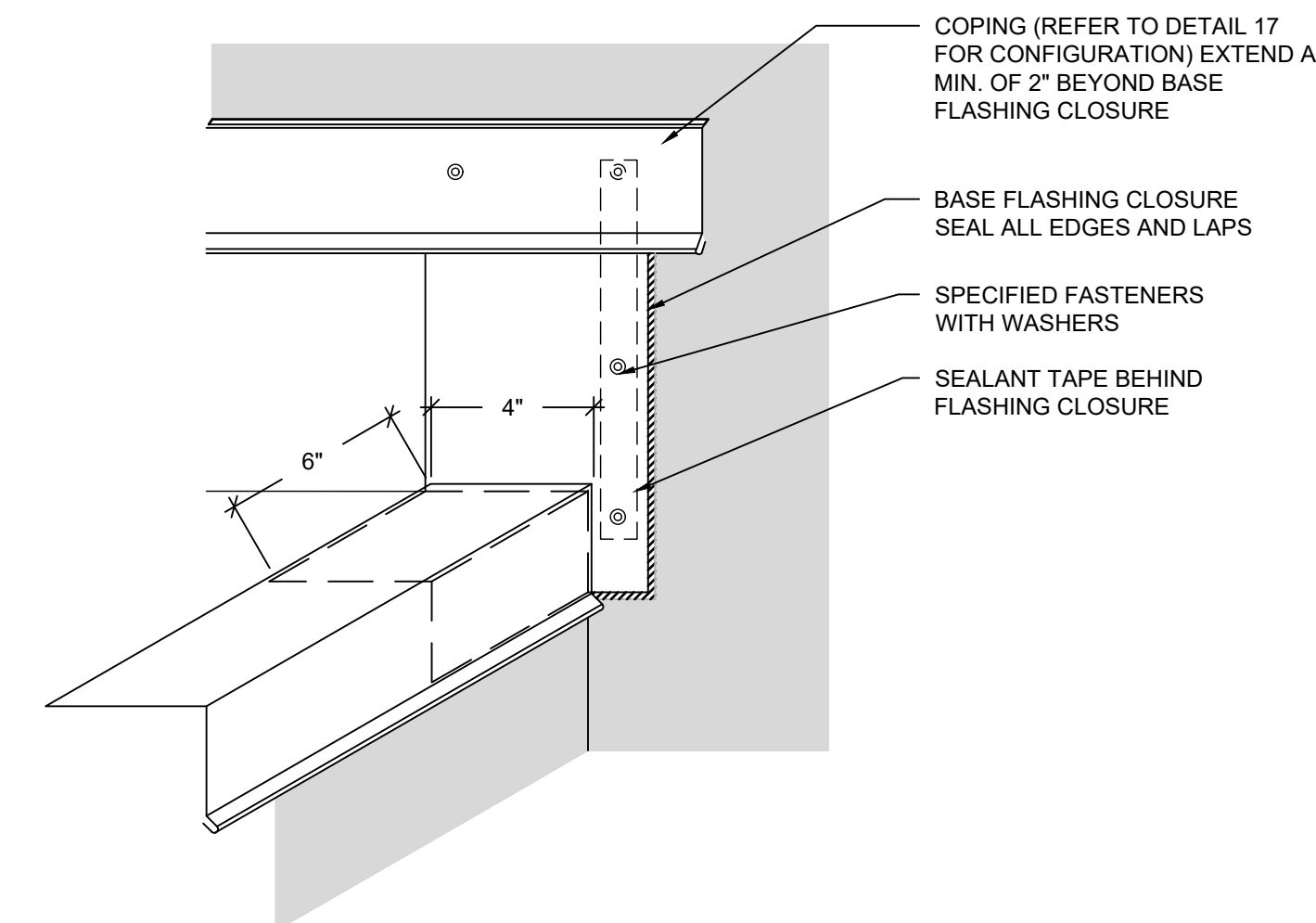
NOTES:
1. PROPERLY DISCONNECT UNIT TO RAISE AND ALLOW FLASHING INSTALLATION THEN PROPERLY REINSTALL AND CONNECT.
2. EXTEND CURB HEIGHT AND/OR PROVIDE WOOD NAILERS TO PROVIDE MINIMUM 8" FLASHING HEIGHT.

6 MECHANICAL CURB
SCALE: 3" = 1'-0"



NOTES:
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONSTRUCTION AND COMPONENTS PRIOR TO SHEET METAL FABRICATION.
2. COPING SHALL BE TESTED FOR RESISTANCE TO WIND UPLIFT PRESSURES SPECIFIED IN ACCORDANCE WITH ANS/SPRI ES-1 TEST METHOD RE-3. CONTRACTOR SHALL PROVIDE SHOP DRAWING DEPICTING SHEET METAL COMPONENTS WITH DIMENSIONS AND PROVIDE EVIDENCE OF TESTING TO RESIST THE SPECIFIED WIND UPLIFT PRESSURES.
3. MATCH EXISTING COPING EXTERIOR, VERTICAL FACE HEIGHT.
4. SHEET METAL COPING SHALL BE SLOPED A MINIMUM OF 1/1" TOWARDS ROOF SURFACE.

7 PARAPET WALL
SCALE: 3" = 1'-0"



NOTES:
1. MEMBRANE AND FLASHING/STRIPPING MEMBRANE NOT SHOWN FOR CLARITY.
2. BASE FLASHING CLOSURE TO BE INSTALLED CONCURRENTLY WITH METAL EDGE AND STRIPPED INTO MEMBRANE WITH HOT-AIR WELDED STRIPPING PLY.

8 BASE FLASHING CLOSURE
SCALE: 3" = 1'-0"

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SEALS:



PROJECT NAME:

**DORCHESTER
SCHOOL DISTRICT
TWO
BEECH HILL ES
SECTIONS 1 AND 3
ROOF REPLACEMENT**

1001 BEECH HILL RD
SUMMERVILLE, SC 29485

PROJECT NO:

R25CHS-031

ISSUE:

NO.	DATE	DESCRIPTION
CD	10-10-25	CONTRACT DOCUMENTS

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SHEET TITLE

DETAILS

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XR502



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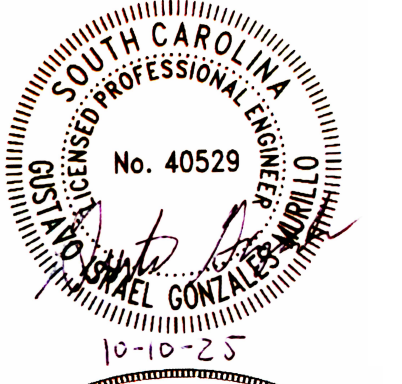
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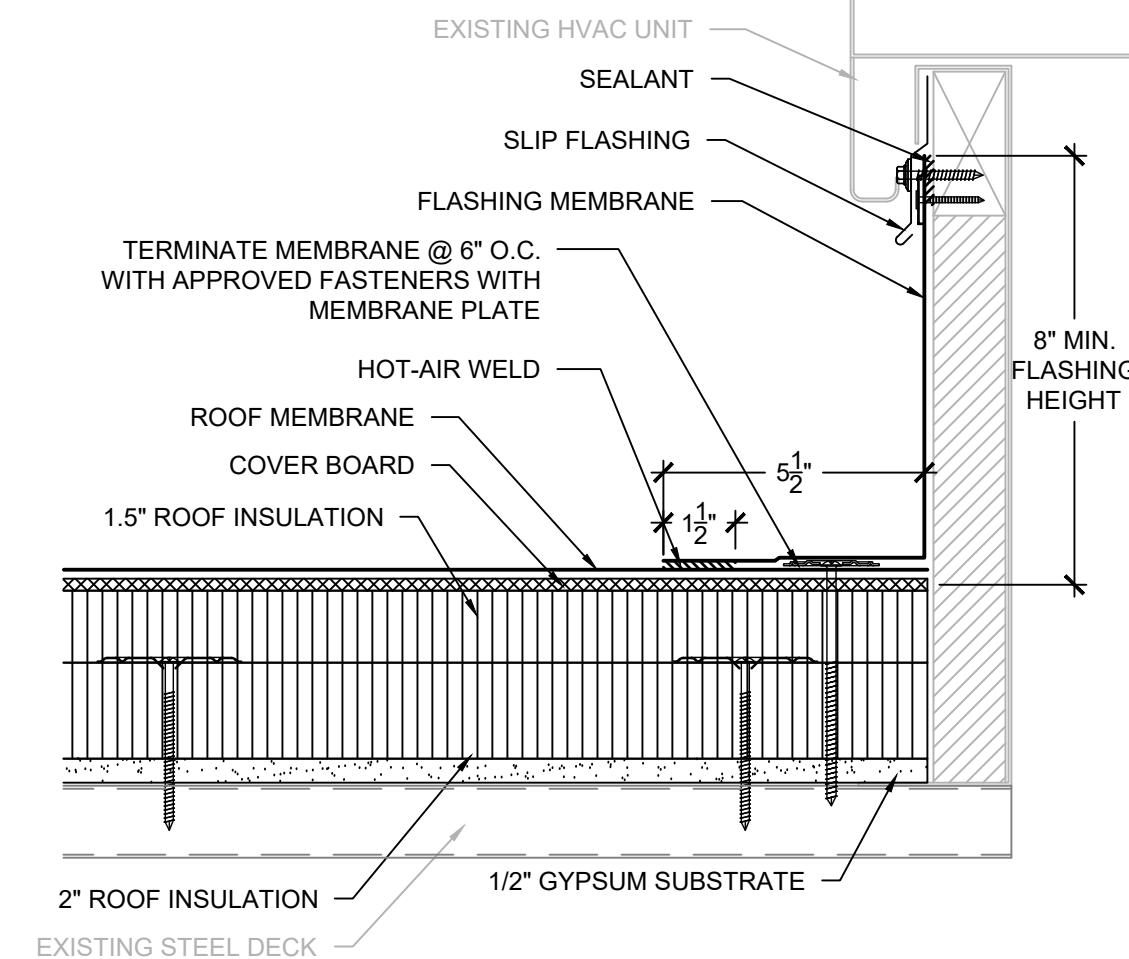
XR503



- NOTES:
- COMPONENTS SHOWN ARE FOR GENERAL INFORMATION ONLY AND MAY NOT DEPICT ACTUAL CONFIGURATION OF COMPONENTS. REFER TO THE SPECIFIED DETAIL FOR ACTUAL CONFIGURATION OF COMPONENTS.
 - REMOVE OR MODIFY WALL PANEL AS REQUIRED TO TURN COPING UP BEHIND WALLS. PROPERLY REINSTALL AND SECURE WALL PANELS AFTER COPING INSTALLATION.

9 COPING TERMINATION @ WALL PANEL

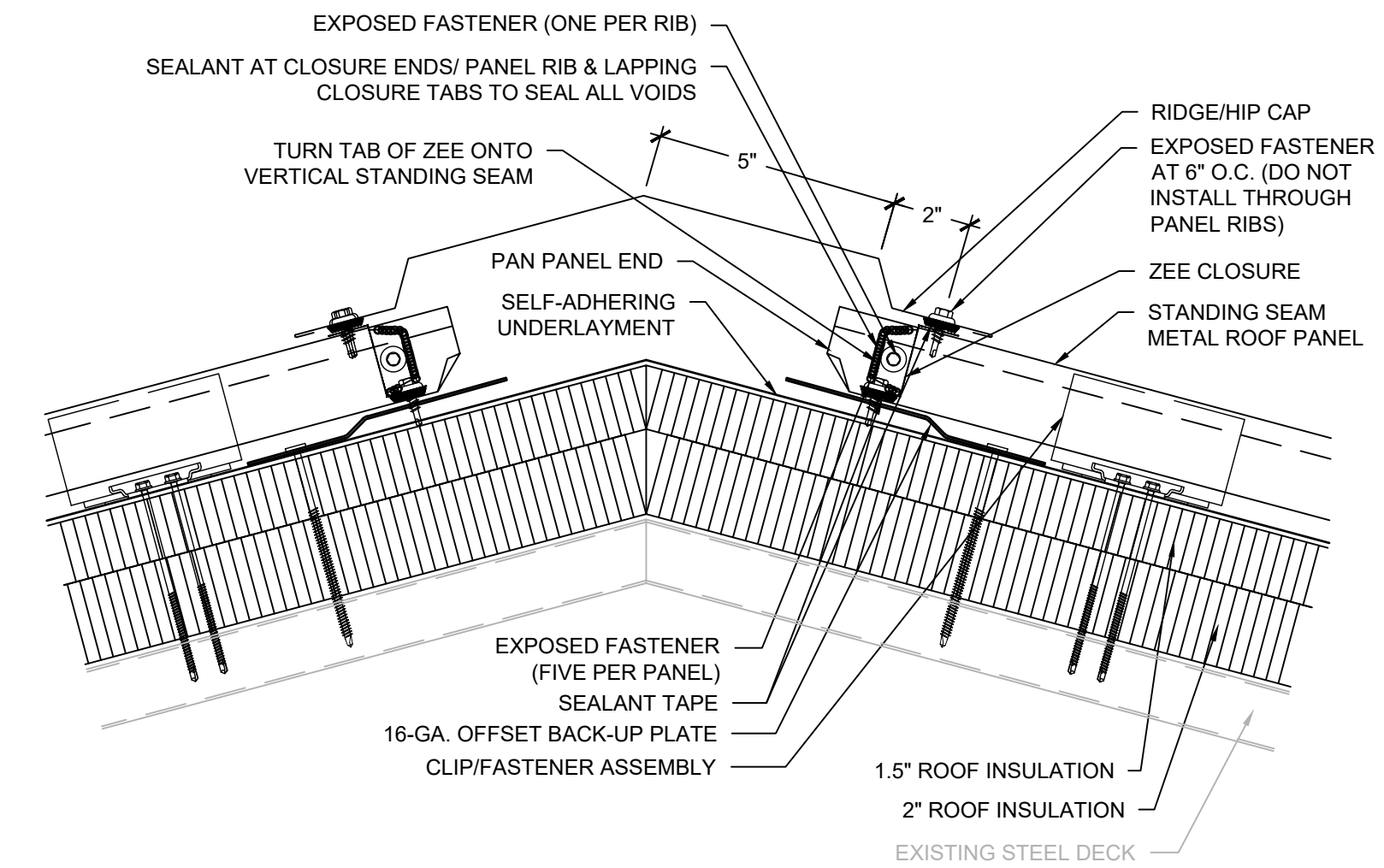
SCALE: 3" = 1'-0"



- NOTES:
- PROVIDE FLUID APPLIED FLASHING AT LOCATIONS WHERE FLASHING HEIGHT IS LESS THAN 8".

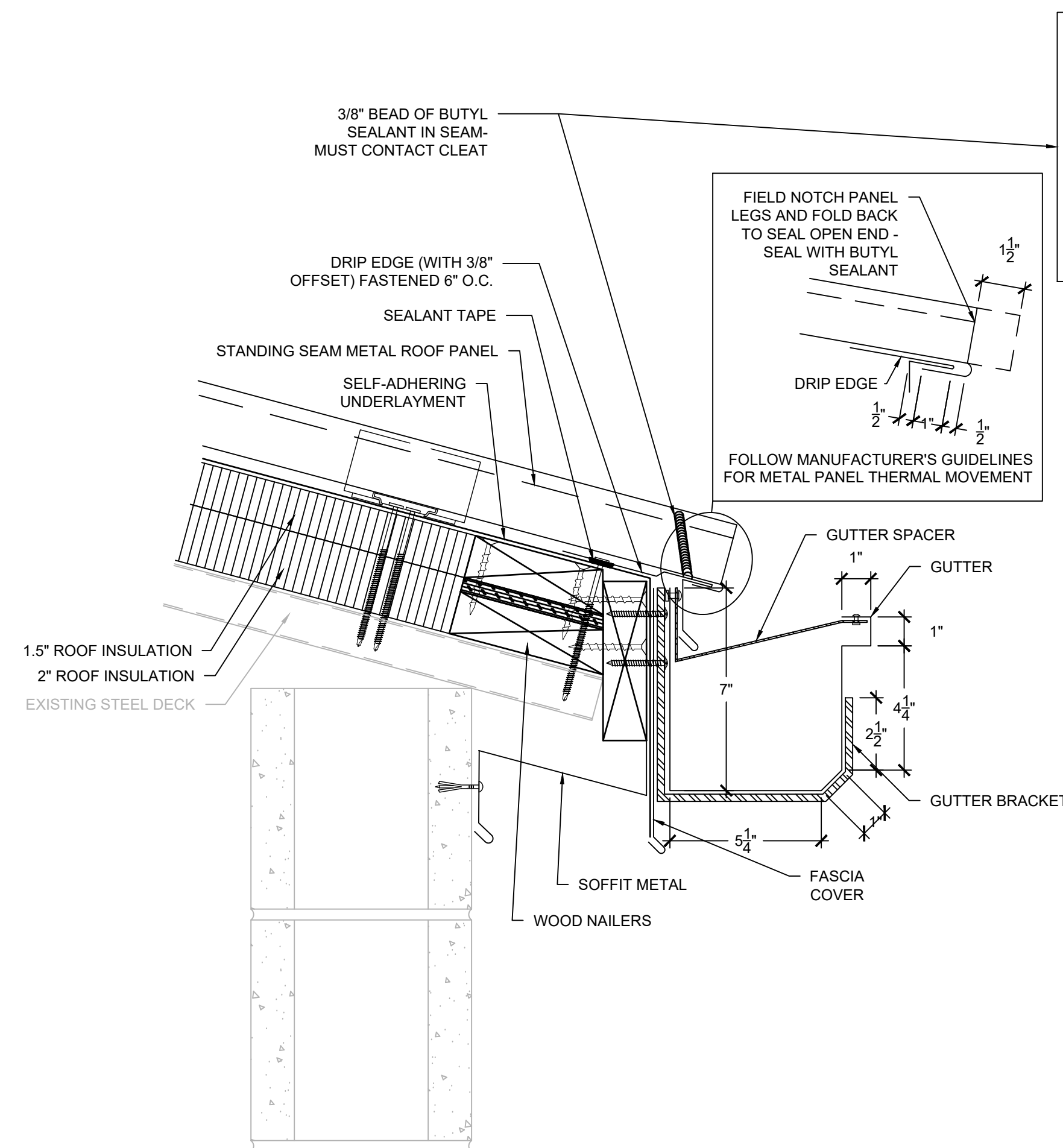
10 HVAC UNIT

SCALE: 3" = 1'-0"



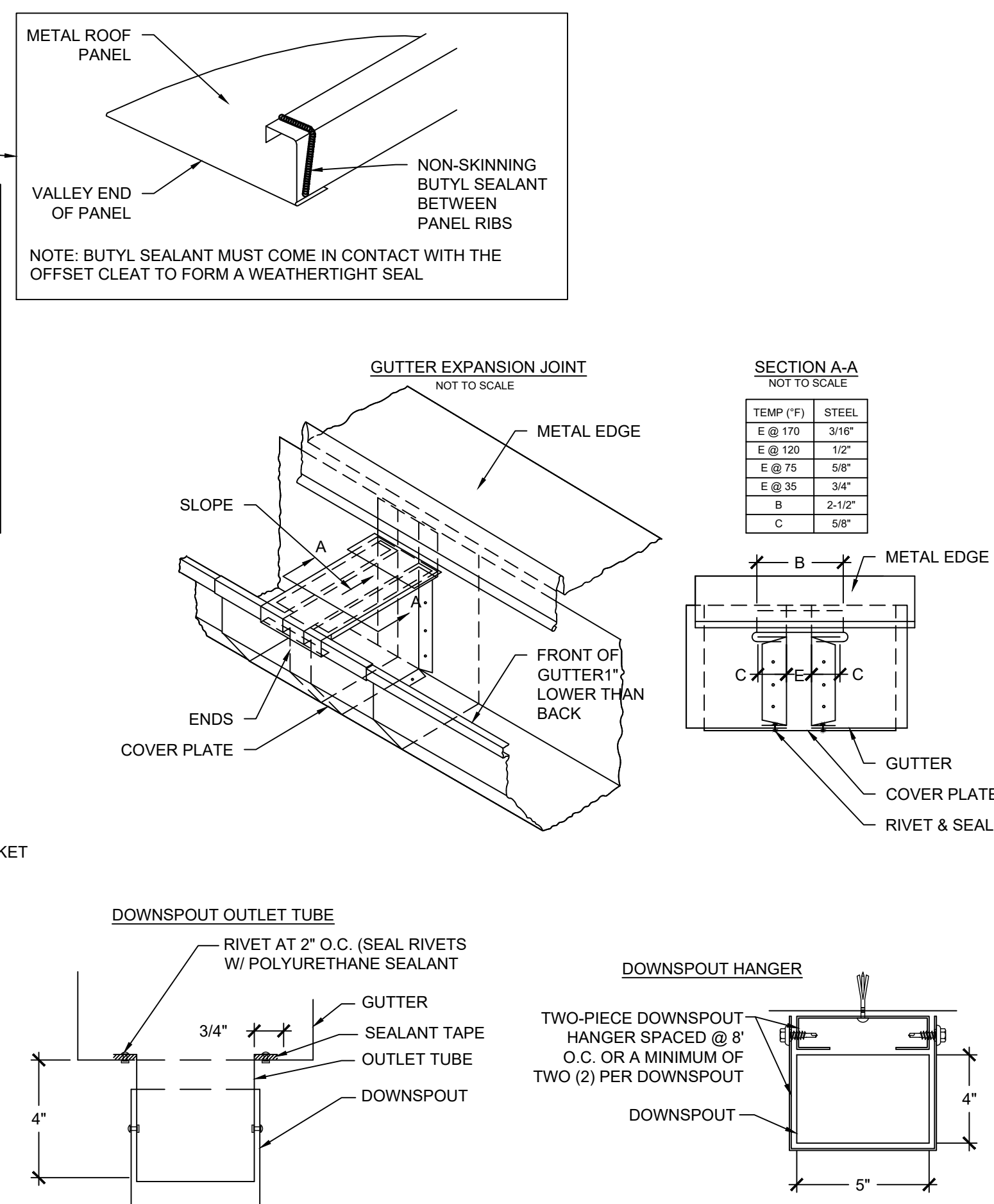
11 NON-VENTED RIDGE (FIXED)

SCALE: 3" = 1'-0"



12 GUTTER EDGE (FLOATING)

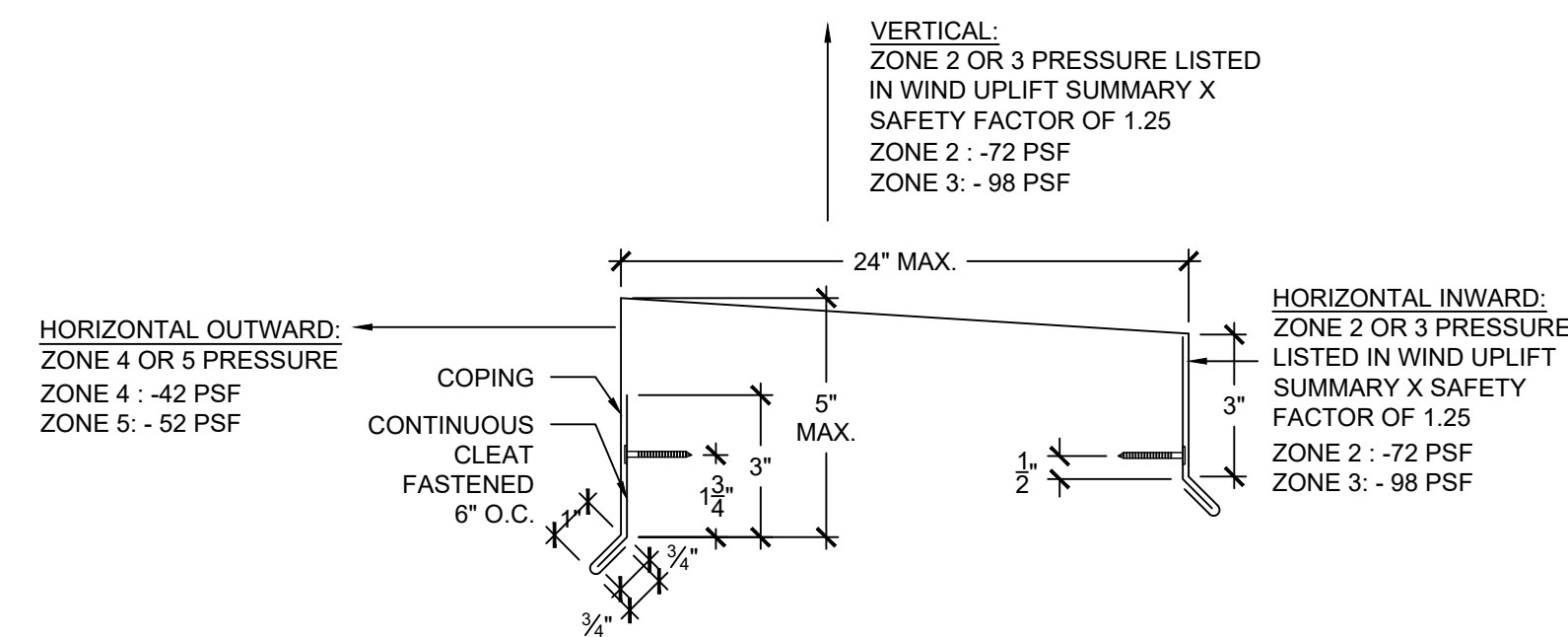
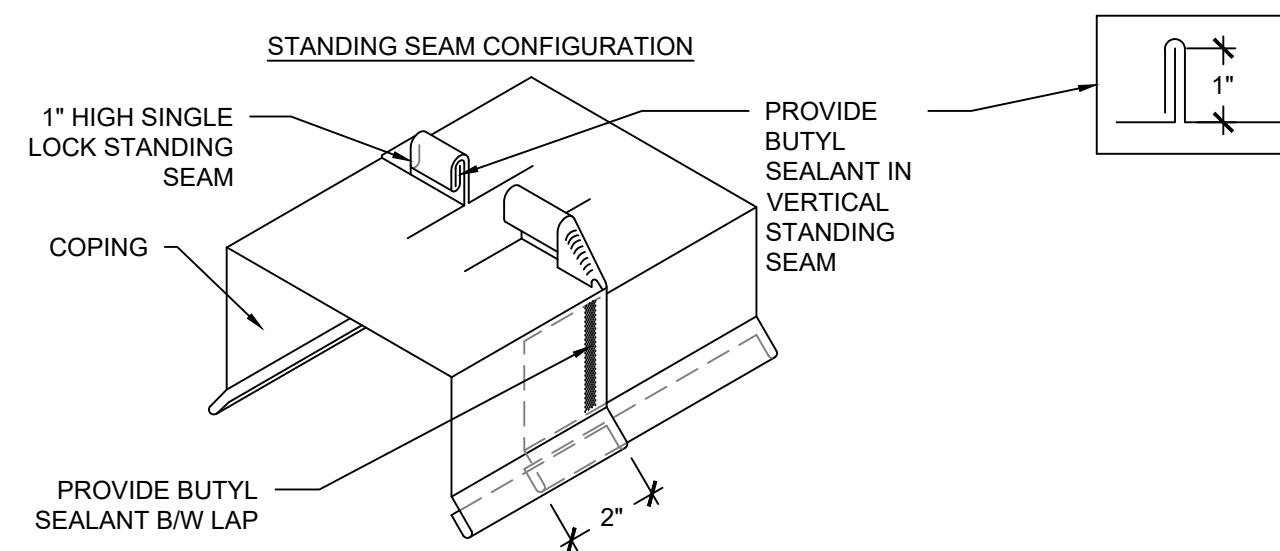
SCALE: 3" = 1'-0"



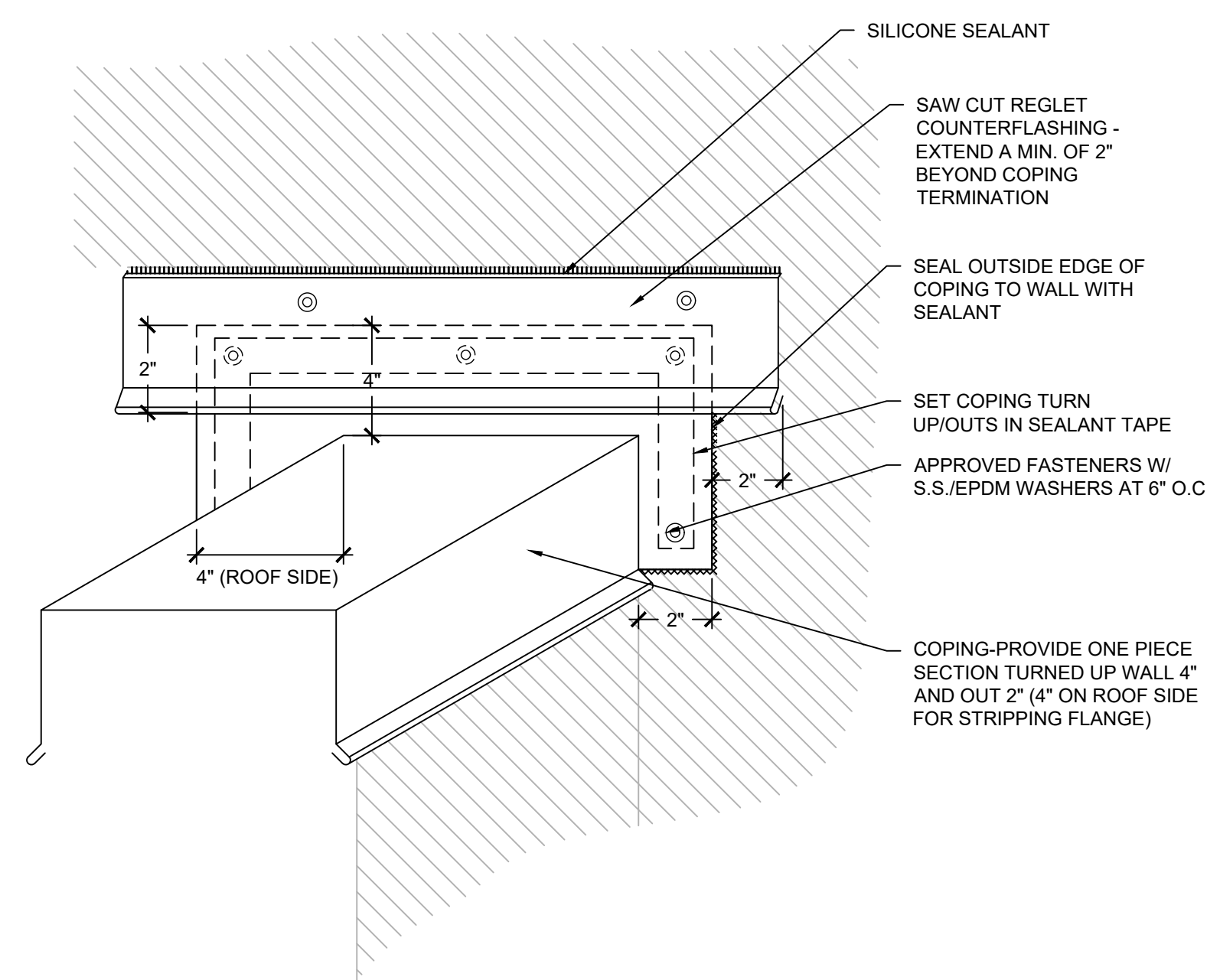
13 RAKE EDGE

SCALE: 1/4" = 1"

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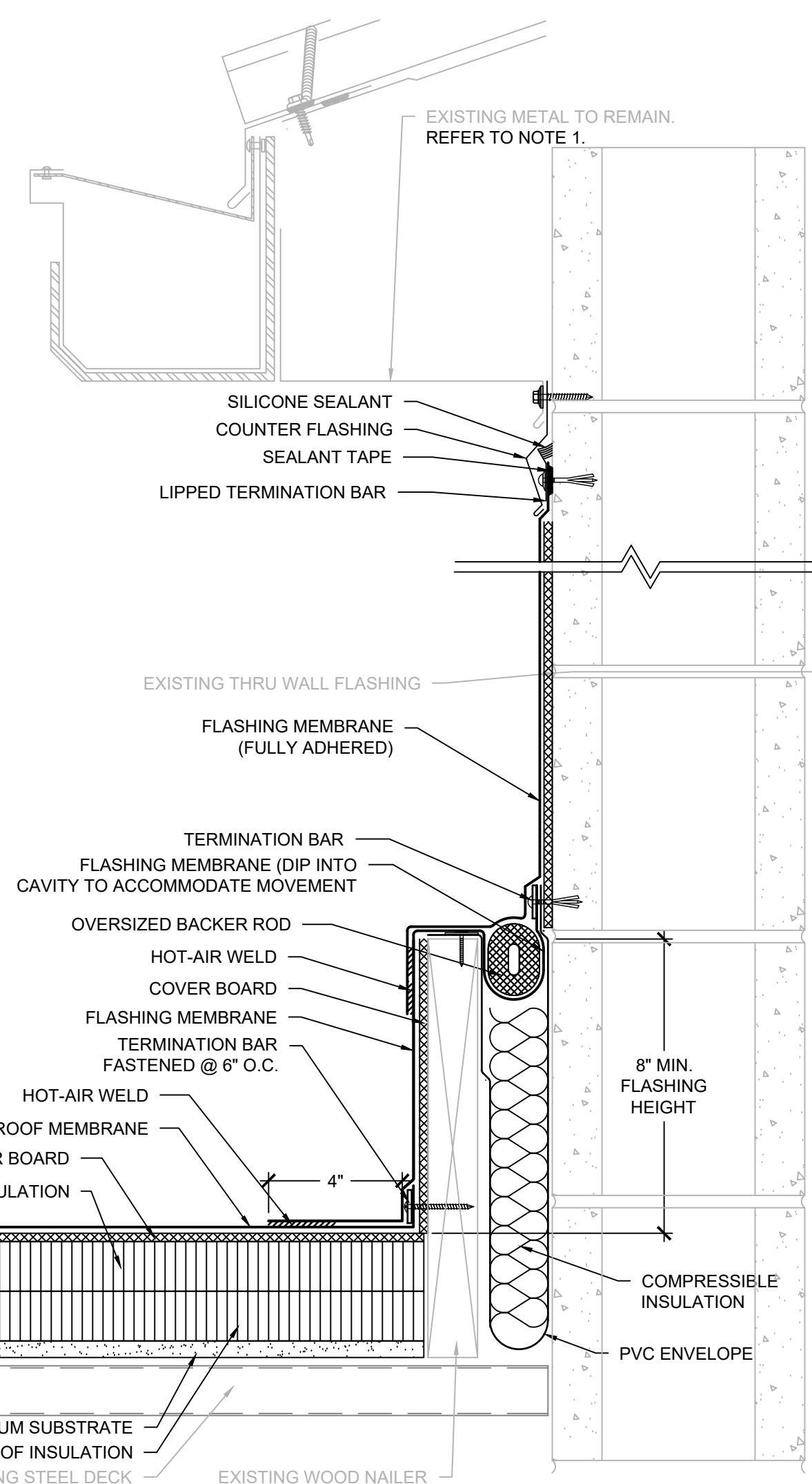


14 STANDING SEAM
SCALE: 3" = 1'-0"



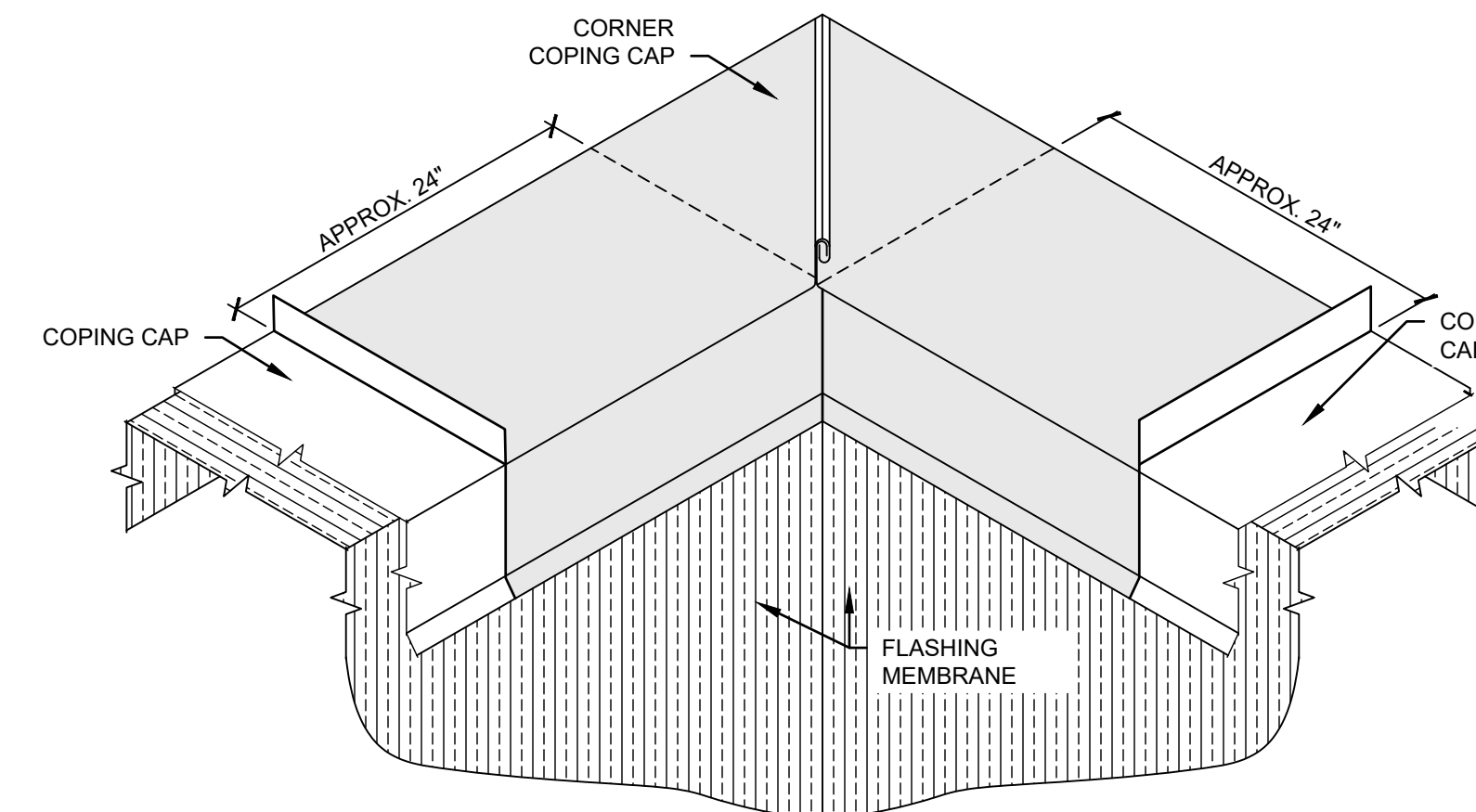
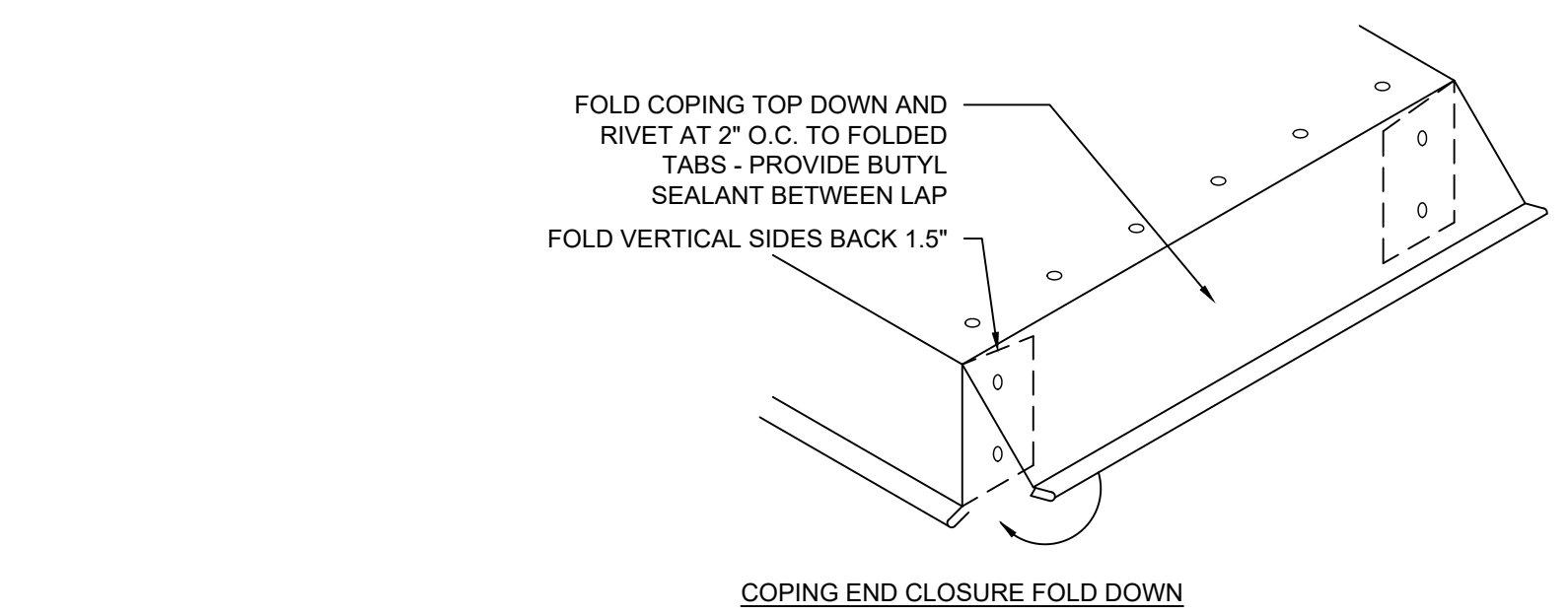
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16 COPING TERMINATION @ WALL
SCALE: 3" = 1'-0"



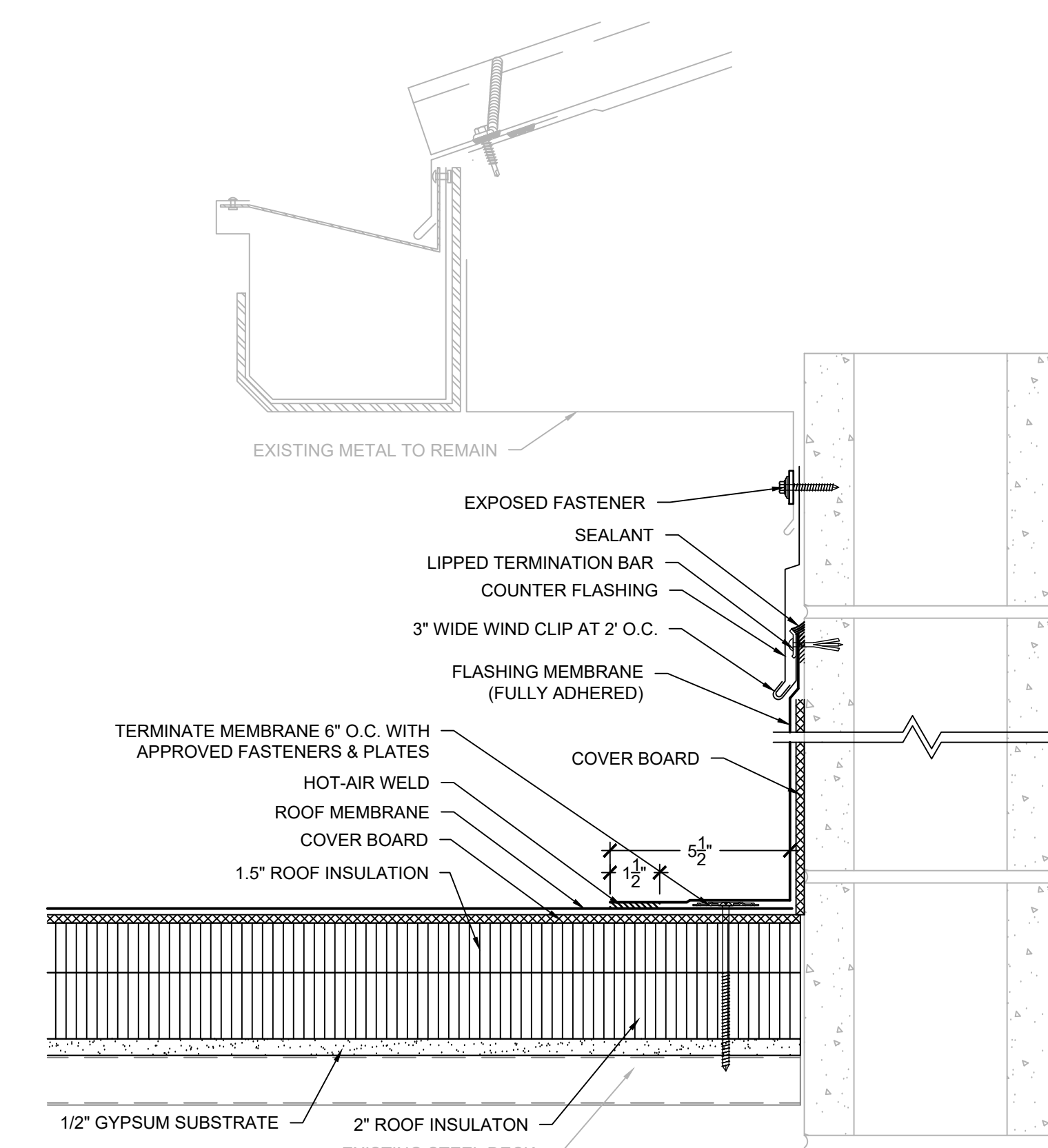
NOTES:
1. EXISTING METAL TO BE DISPOSED IF ALTERNATE ONE IS ACCEPTED. REFER TO DETAIL 12 FOR METAL ROOF AND GUTTER CONFIGURATION IF ALTERNATE ONE IS ACCEPTED.

17 ELEVATION WALL FLASHING
SCALE: 3" = 1'-0"



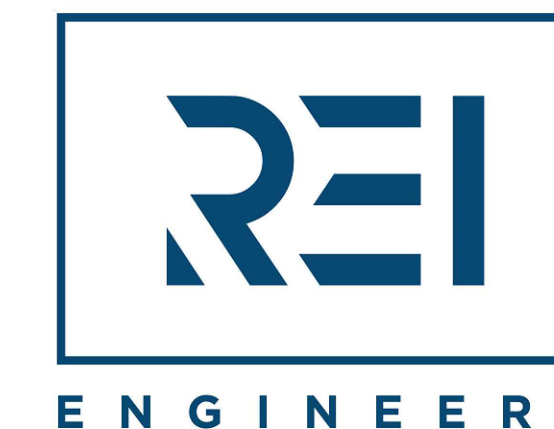
NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS. CONDITIONS AND HEIGHTS MAY VARY, FLASH SIMILARLY.
2. COPING CORNER SECTION WITH BUTYL TAPE IN SEAMS (NOT SHOWN FOR CLARITY).
3. ROOF AND WALL ASSEMBLY NOT SHOWN FOR CLARITY, REFER TO PARAPET DETAIL SHOWN ON ROOF PLAN.
4. INTERIOR CORNER COPING CAPS TO BE FLASHED OPPOSITE TO EXTERIOR CORNER COPING CAPS.

15 COPING CORNER
SCALE: 3" = 1'-0"



18 ELEVATION WALL FLASHING
SCALE: 3" = 1'-0"

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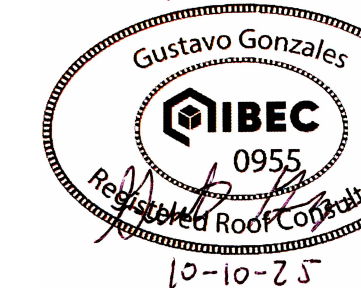
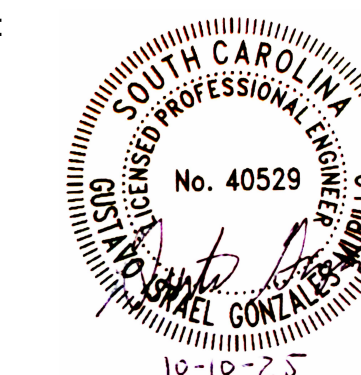
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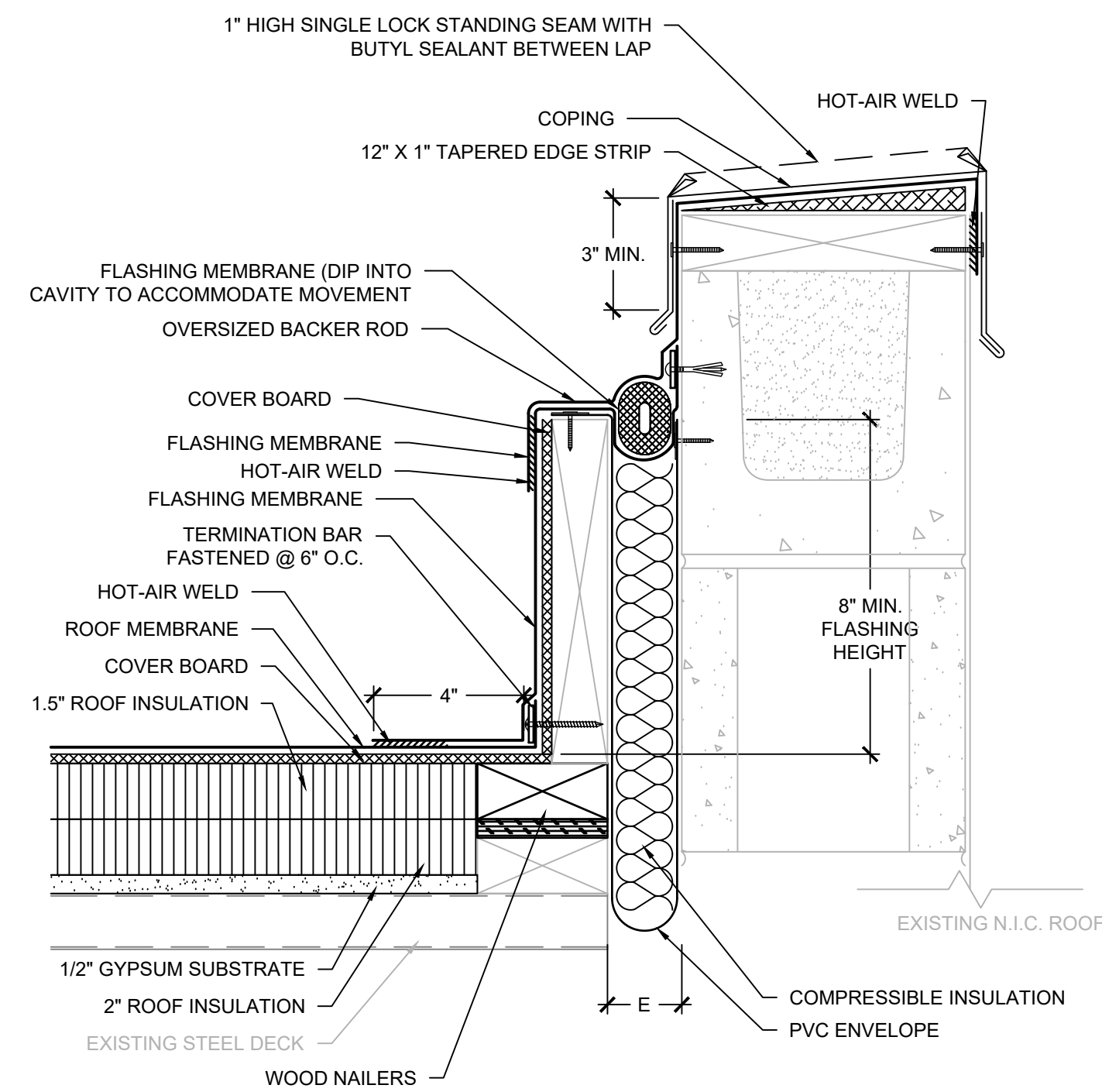
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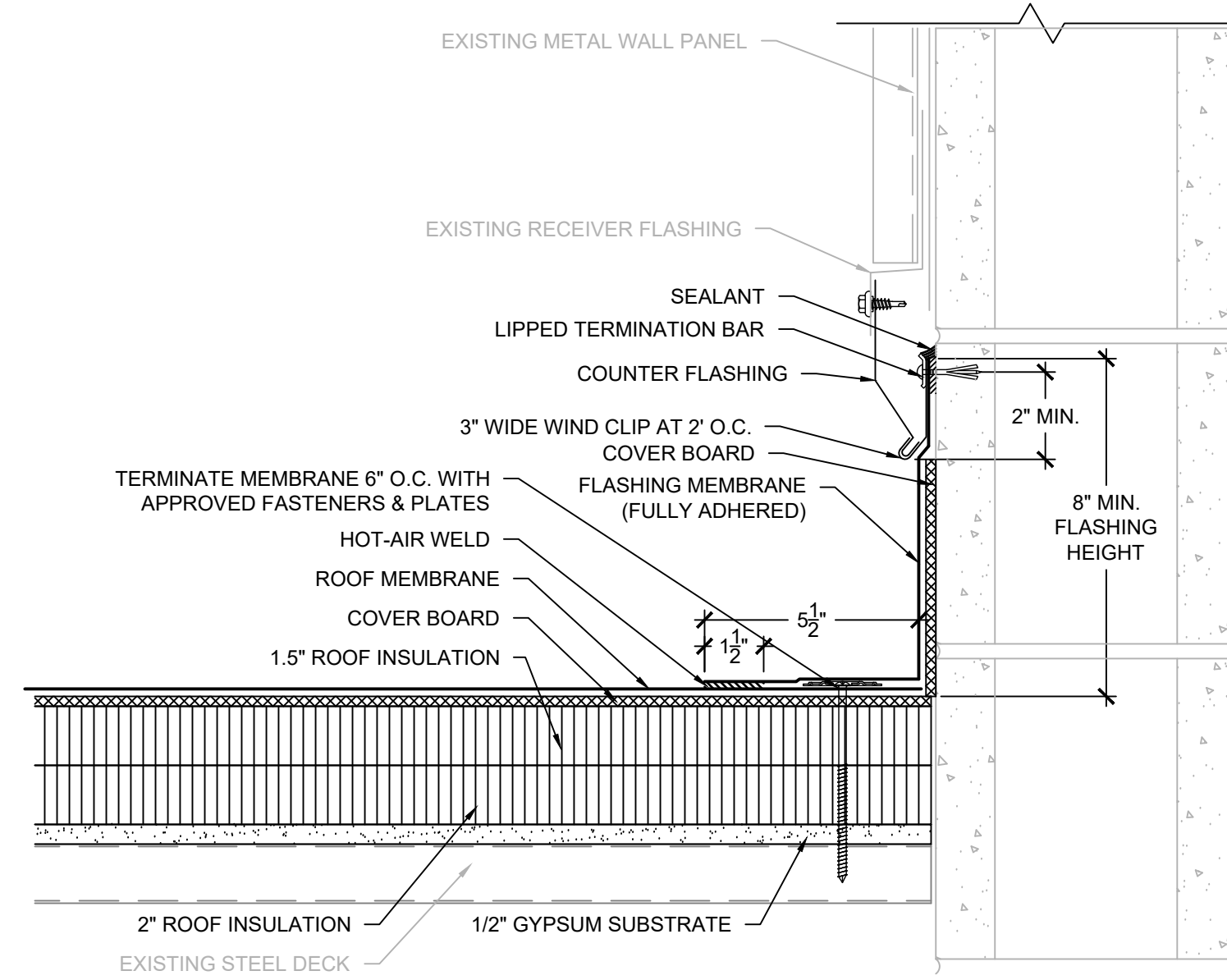
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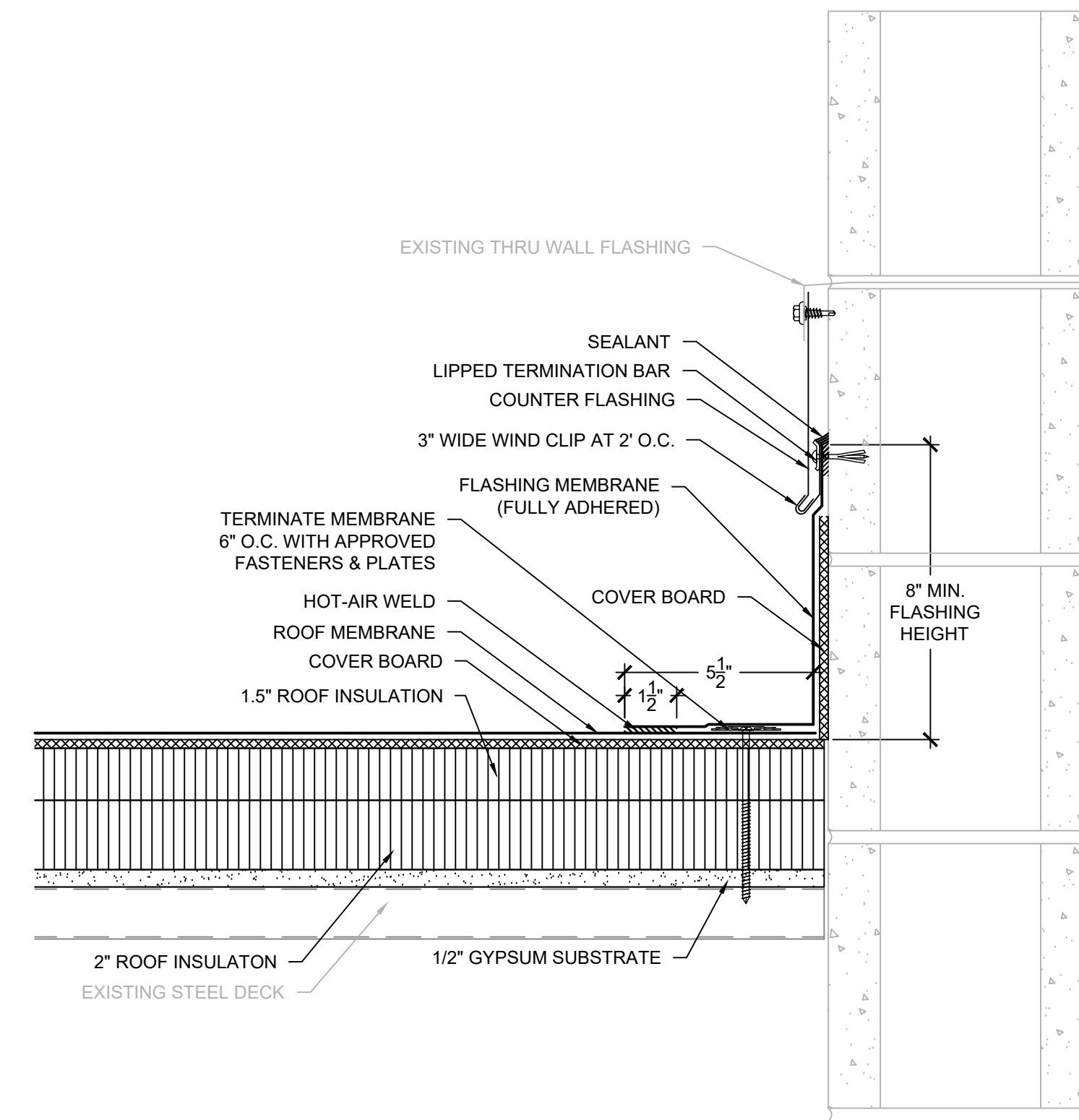
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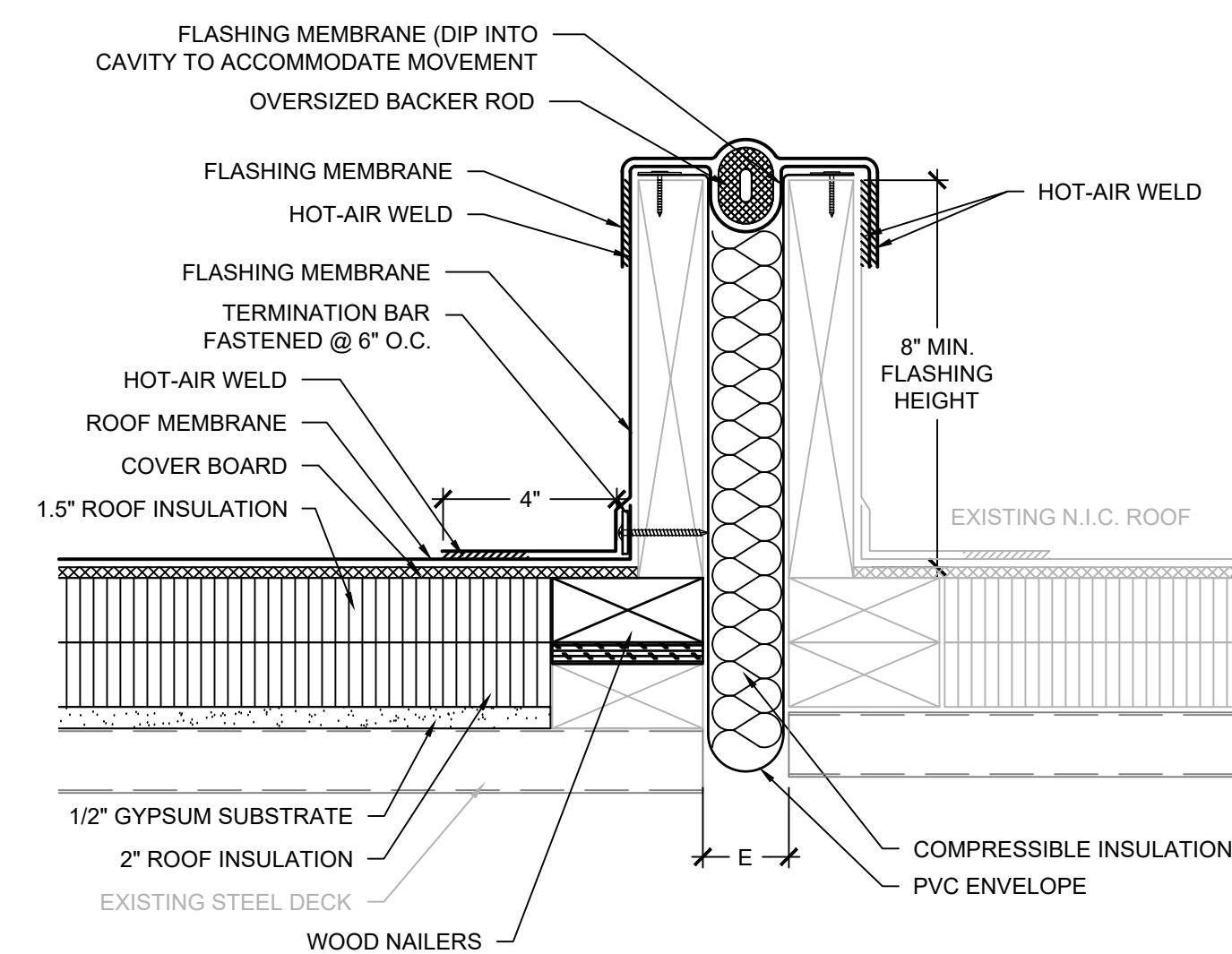
19 ROOF TO EXP JT TO N.I.C ROOF
SCALE: 3" = 1'-0"



20 ROOF TO METAL WALL PANELS
SCALE: 3" = 1'-0"

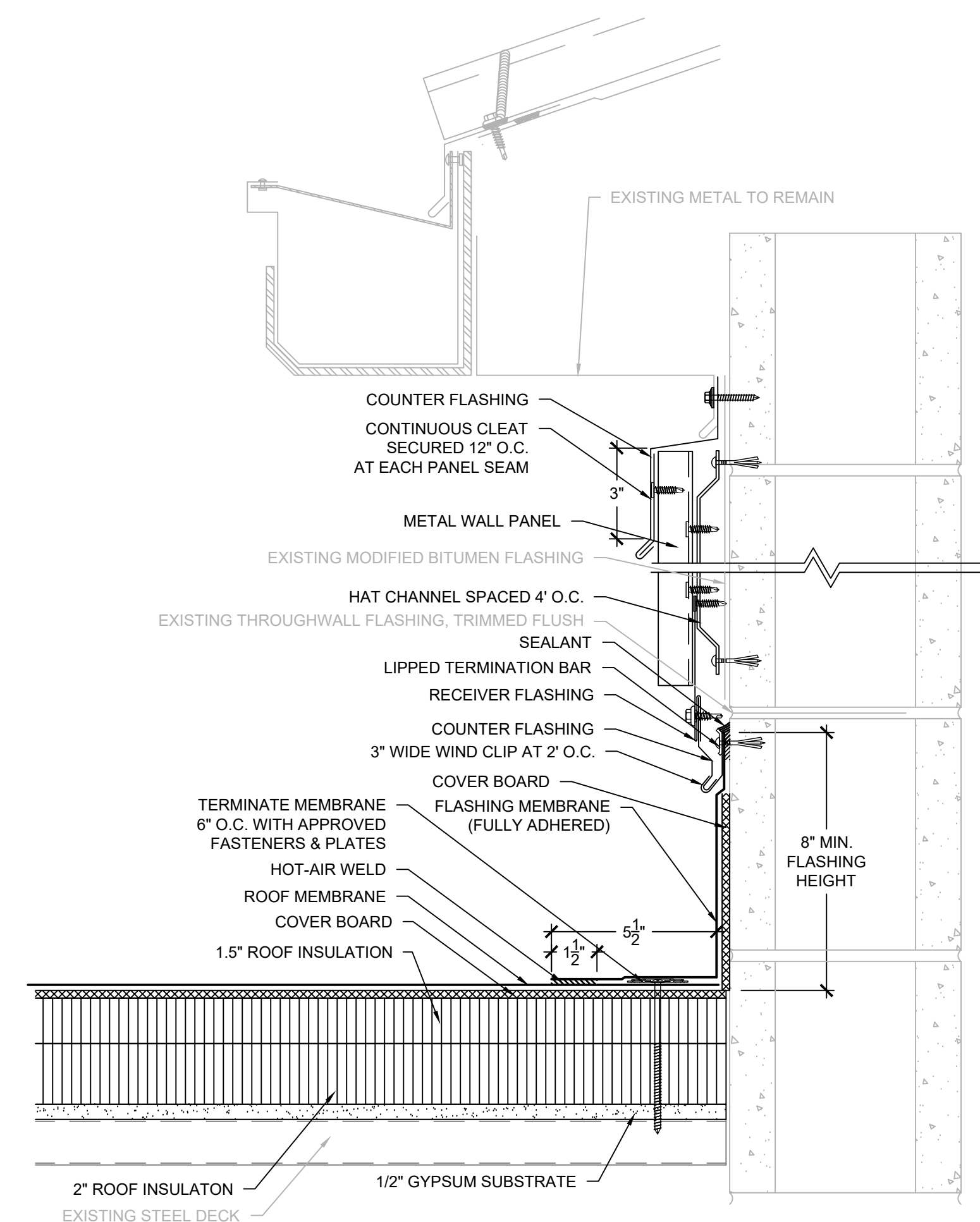


21 ELEVATION WALL FLASHING
SCALE: 3" = 1'-0"



NOTES:
1. IF EXISTING FLASHING MEMBRANE IS NOT COMPATIBLE FOR HOT-AIR WELDING FLASHING MEMBRANE, PROVIDE POLYMER CLAD COUNTERFLASHING SECURED TO VERTICAL NAILER.

22 ROOF TO EXP JT TO N.I.C ROOF
SCALE: 3" = 1'-0"



23 ELEVATION WALL FLASHING
SCALE: 3" = 1'-0"

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