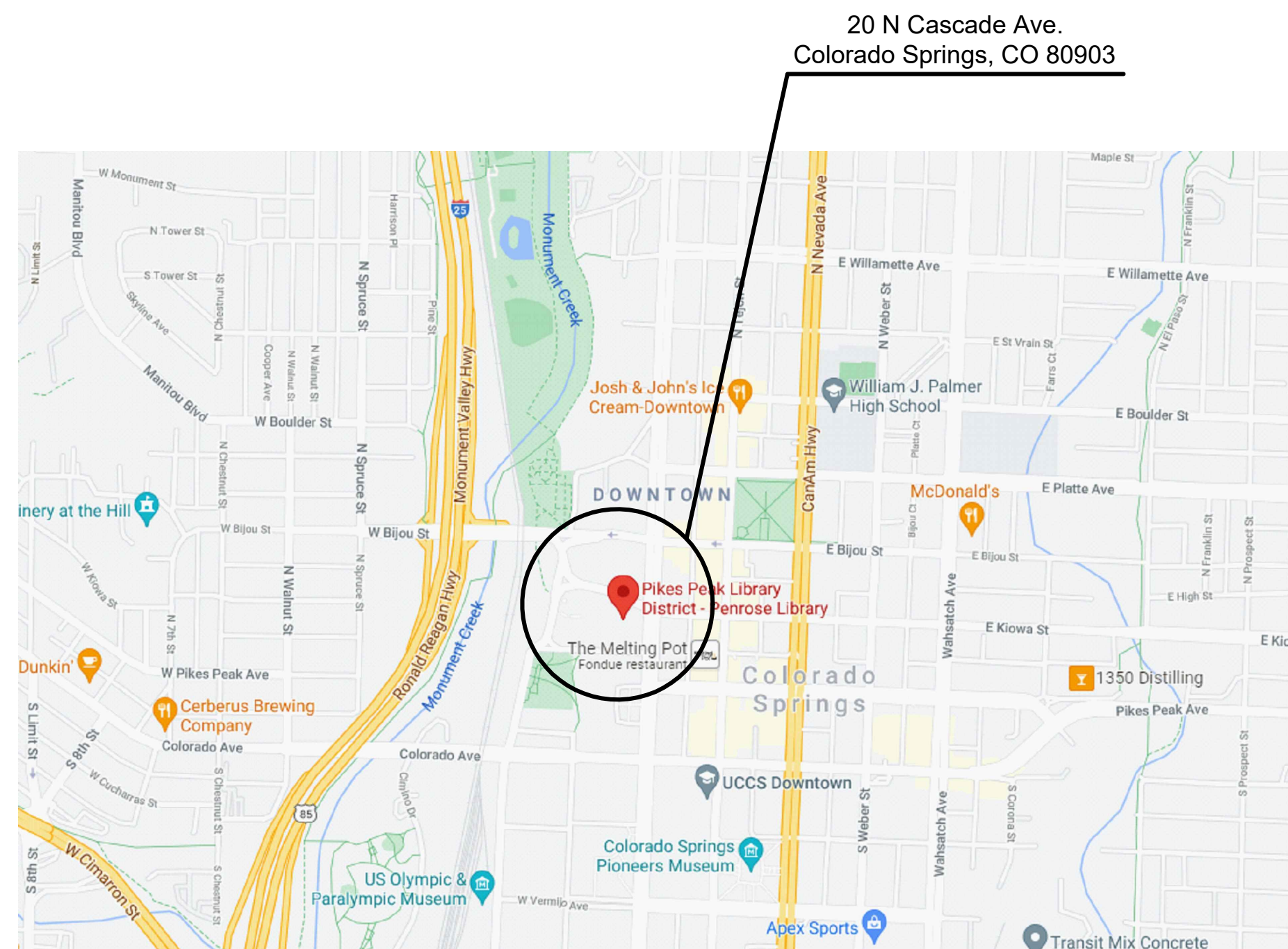
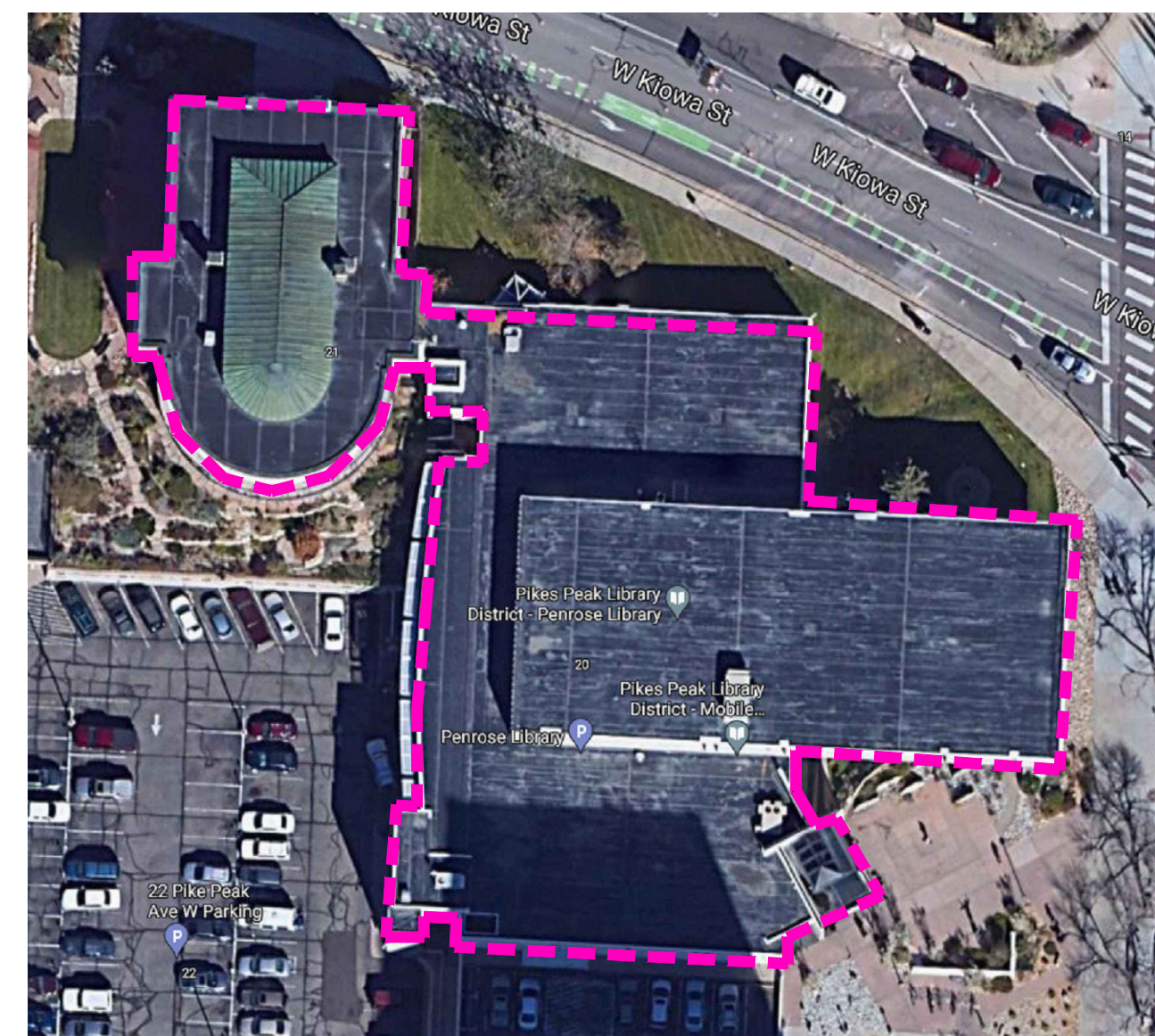


# PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY

PIKES PEAK LIBRARY DISTRICT  
  
ROOFING CONSULTANT  
  
**RoofTech Consultants, Inc.**  
14828 W. 6TH Avenue, Unit B-8  
Golden, Colorado 80401  
Phone: (303) 233-1092  
Fax: (303) 233-2205



VICINITY MAP



SATELLITE PHOTO

**Applicable Codes:**

- 2018 International Mechanical Code (IMC)
- 2018 International Building Code (IBC)
- 2018 International Plumbing Code (IPC)
- 2018 International Fuel Gas Code (IFGC)
- 2018 International Energy Conservation Code (IECC)

SHEET INDEX	
NUMBER	DESCRIPTION
ARCHITECTURAL	
G1.0	COVER SHEET
R1.0	ROOF PLAN
R2.0	ROOF DETAILS
R2.1	ROOF DETAILS
R2.2	ROOF DETAILS
R2.3	ROOF DETAILS

**Design Parameters**

- Roof Insulation Value Deck 1: R-19.9
- Roof Insulation Value Decks 2 - 8: R-31.3 Minimum
- Existing Roof Weight: 3-8 psf
- New Roof Weight: 3-4 psf
- Design Wind Speed: 130 mph (Ultimate)
- Special Wind Zone: Yes
- Wind Uplift Approval Rating: FM 1-90
- Fire Resistance Rating: UL Class A
- Roof Slope Deck 1-3 & 4A: 0.25"/ft or Better Built Into Roof Decks
- Roof Slope Decks 4, 5-8: 0.125"/ft Built Into Roof Insulation
- Roof Recover Project: Yes at Deck 1

REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: LN
DRAWN BY: LR	PROJECT #:
CHECKED BY: GT	DATE: 8/10/2021

**PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY**

20 N Cascade Ave.  
Colorado Springs, CO 80903

CADD FILE:  
PCL G1-0.DWG

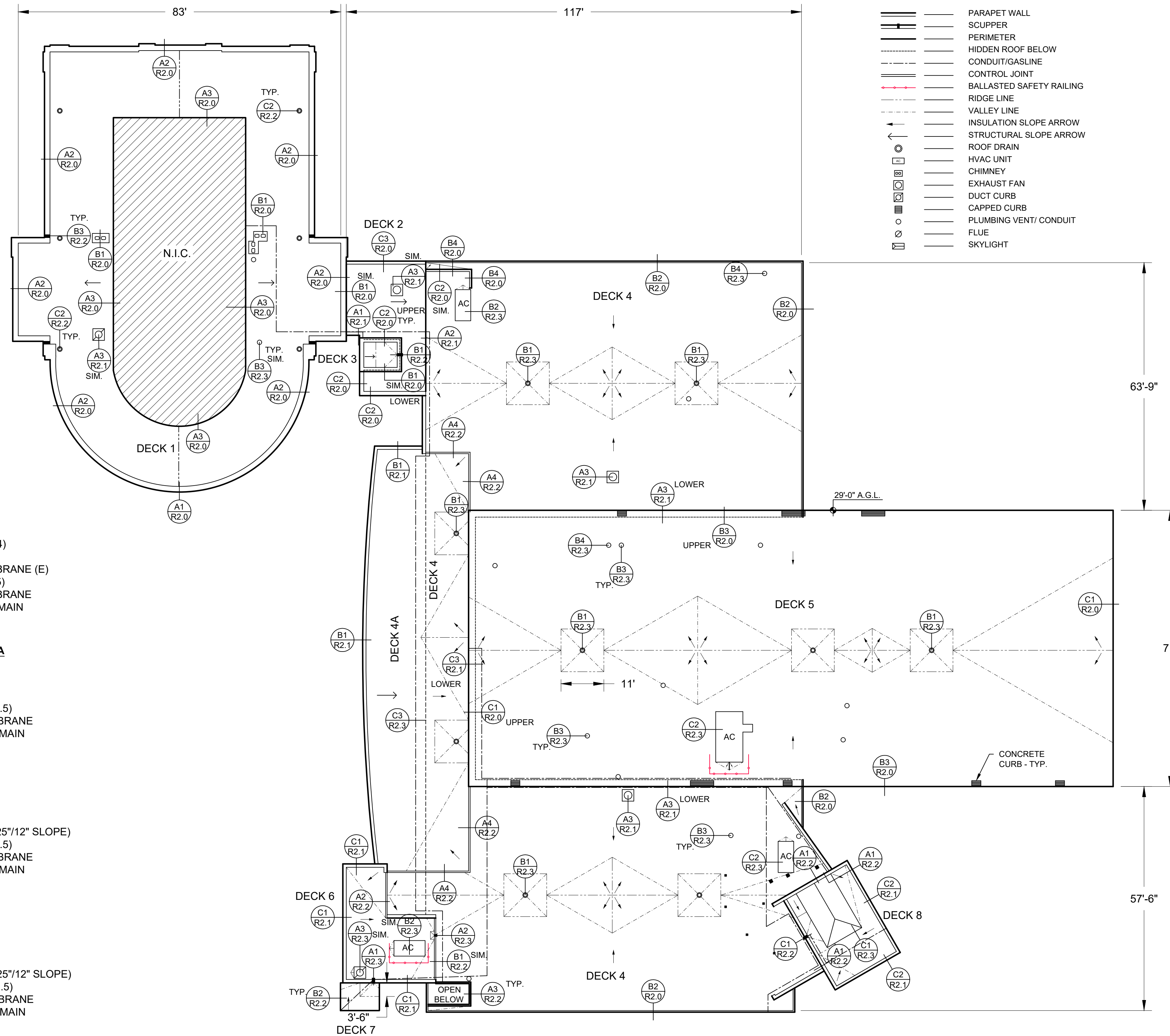
**COVER SHEET**

DRAWING SCALE:  
NO SCALE

DRAWING #:  
G1.0

**CONSTRUCTION NOTES:**

- LIFT & RESET CONDUIT AS NECESSARY TO INSTALL NEW ROOFING. CONDUIT SHALL SIT 10" ABOVE FINISHED ROOF SURFACE. PROVIDE DURA BLOCK SUPPORTS 10' O.C. TO SUPPORT CONDUIT IF OLD SUPPORTS ARE MISSING OR CAN'T BE REUSED.
- LIFT & RESET CONDUIT/SECURITY CAMERAS ON PARAPET WALLS AS NECESSARY TO INSTALL NEW ROOFING/COPING CAP. COORDINATE WITH OWNER.
- CONTRACTOR WILL NEED TO VERIFY AND MAP OUT ANY CONDUIT, OR OTHER OBSTRUCTIONS THAT MAY EXIST THAT ARE TIGHT TO THE BOTTOM SIDE OF THE STRUCTURAL METAL DECK THROUGHOUT THE BUILDING.
- THE BALLASTED SAFETY RAILINGS SHOWN ON THE PLAN SHALL BE 10' IN LENGTH WITH 5' LONG EXTENSIONS BACK TOWARD FIELD OF ROOF. LADDERS FROM DECK 1 TO DECK 2 AND DECK 2 TO DECK 5 WILL NEED TO BE LIFTED AND RESET TO INSTALL NEW ROOFING. THESE LADDERS WILL ALSO NEED TO BE TRIMMED TO ACCOMMODATE NEW INSUL. HT.
- THE CONCRETE CURBS ON DECK 5 WILL BE BURIED BY THE NEW INSULATION, SET NEW WOOD NAILERS AND DRIP EDGE SIM. TO B3/R2.0.
- REMOVE 5 EA MOISTURE RELIEF VENTS ON DECK 4.



**SYMBOL LEGEND**

- PARAPET WALL
- SCUPPER
- PERIMETER
- HIDDEN ROOF BELOW
- CONDUIT/GASLINE
- CONTROL JOINT
- BALLASTED SAFETY RAILING
- RIDGE LINE
- VALLEY LINE
- INSULATION SLOPE ARROW
- STRUCTURAL SLOPE ARROW
- ROOF DRAIN
- HVAC UNIT
- CHIMNEY
- EXHAUST FAN
- DUCT CURB
- CAPPED CURB
- PLUMBING VENT/ CONDUIT
- FLUE
- SKYLIGHT

**EXISTING ROOF SYSTEM DECK 1**

WOOD DECK  
 3.0" ISO. FOAM INSUL. BD.  
 0.5" DENS DECK COVER BD.  
 ADHERED 60 MIL EPDM ROOF MEMBRANE

**EXISTING ROOF SYSTEM DECKS 2 & 3**

METAL DECK  
 1.5" ISO. FOAM INSUL. BD.  
 0.5" PERLITE INSUL. BD.  
 .75" ASPHALT BUR (SMOOTH SURFACE)  
 0.5" WOOD FIBER COVER BD.  
 ADHERED 45 MIL FLEECEBACK EPDM ROOF MEMBRANE

**EXISTING ROOF SYSTEM DECKS 4 & 5**

CONCRETE DECK  
 TAPERED EPS INSUL. BD.  
 0.5" WOOD FIBER BD.  
 ASPHALT BUR (SMOOTH SURFACE)  
 0.5" WOOD FIBER COVER BD.  
 ADHERED 45 MIL FLEECEBACK EPDM ROOF MEMBRANE

**EXISTING ROOF SYSTEM DECK 4A**

METAL DECK  
 6.5" ISO. FOAM INSUL. BD.  
 0.5" WOOD FIBER COVER BD.  
 ADHERED 60 MIL EPDM ROOF MEMBRANE

**EXISTING ROOF SYSTEM DECKS 6 & 7**

METAL DECK  
 TAPERED ISO. FOAM INSUL. BD. (7.5" MAX DEPTH)  
 0.5" WOOD FIBER COVER BD.  
 ADHERED 60 MIL EPDM ROOF MEMBRANE

**EXISTING ROOF SYSTEM DECK 8**

METAL DECK  
 5.5" ISO. FOAM INSUL. BD.  
 TAPERED ISO. FOAM INSUL. BD. (3.5" MAX DEPTH)  
 0.5" PERLITE COVER BD.  
 ASPHALT BUR (SMOOTH SURFACE).  
 ADHERED 45 MIL EPDM ROOF MEMBRANE

**NEW ROOF SYSTEM DECK 1**

WOOD DECK (E)  
 3.0" ISO. FOAM INSUL. BD. (E) (R-17.4)  
 0.5" DENS DECK COVER BD. (E)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 0.5" HD. ISO. FOAM COVER BD. (R-2.5)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 (E) DENOTES EXISTING ITEM TO REMAIN  
 TOTAL THERMAL R-VALUE: R-19.9

**NEW ROOF SYSTEM DECKS 2-3 & 4A**

METAL DECK (E)  
 2.0" ISO. FOAM INSUL. BD. (R-11.4)  
 3.0" ISO. FOAM INSUL. BD. (R-17.4)  
 0.5" HD. ISO. FOAM COVER BD. (R-2.5)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 (E) DENOTES EXISTING ITEM TO REMAIN  
 TOTAL THERMAL R-VALUE: R-31.3

**NEW ROOF SYSTEM DECKS 4 & 5**

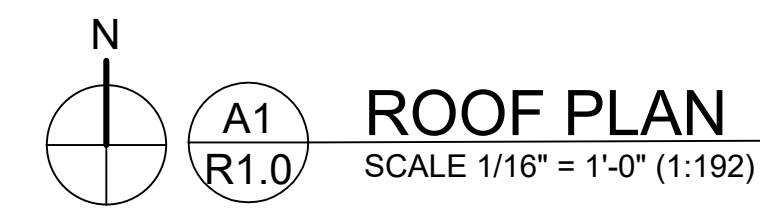
CONCRETE DECK (E)  
 2.0" ISO. FOAM INSUL. BD. (R-11.4)  
 3.0" ISO. FOAM INSUL. BD. (R-17.4)  
 TAPERED ISO. FOAM INSUL. BD. (.125"/12" SLOPE)  
 0.5" HD. ISO. FOAM COVER BD. (R-2.5)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 (E) DENOTES EXISTING ITEM TO REMAIN  
 TOTAL THERMAL R-VALUE: R-31.3

**NEW ROOF SYSTEM DECKS 6-7**

METAL DECK (E)  
 2.0" ISO. FOAM INSUL. BD. (R-11.4)  
 3.0" ISO. FOAM INSUL. BD. (R-17.4)  
 TAPERED ISO. FOAM INSUL. BD. (.125"/12" SLOPE)  
 0.5" HD. ISO. FOAM COVER BD. (R-2.5)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 (E) DENOTES EXISTING ITEM TO REMAIN  
 TOTAL THERMAL R-VALUE: R-31.3

**NEW ROOF SYSTEM DECK 8**

METAL DECK (E)  
 3.0" ISO. FOAM INSUL. BD. (R-17.4)  
 3.0" ISO. FOAM INSUL. BD. (R-17.4)  
 TAPERED ISO. FOAM INSUL. BD. (.125"/12" SLOPE)  
 0.5" HD. ISO. FOAM COVER BD. (R-2.5)  
 ADHERED 60 MIL EPDM ROOF MEMBRANE (E)  
 (E) DENOTES EXISTING ITEM TO REMAIN  
 TOTAL THERMAL R-VALUE: R-37.3



**TAPERED INSULATION NOTES:**

- TAPERED INSULATION USED IN FIELD OF ROOF TO HAVE 1/8" PER FOOT OF SLOPE (0.125/12) AT ALL INDICATED TAPERED INSULATION LOCATIONS.
- TAPERED INSULATION USED AT CRICKETS TO HAVE 0.5/12 SLOPE WHERE THE FIELD OF THE ROOF HAS TAPERED INSULATION WITH A SLOPE OF 0.125/12.
- TAPERED INSULATION USED AT DRAIN SUMPS TO HAVE 1" PER FOOT OF SLOPE (1/12).
- USE TAPERED EDGE STRIP W/ 1/12 SLOPE TO CREATE SMOOTH TRANSITION BETWEEN ROOF AND TOP OF PERIMETER CURBS WHERE SHOWN.

ROOFING CONSULTANT

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 Golden, Colorado 80401  
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REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: LN
DRAFTER: LR	PROJECT #:
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**PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY**

20 N Cascade Ave.  
 Colorado Springs, CO 80903

CADD FILE:  
 PCL R1-0.DWG

ROOF PLAN

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

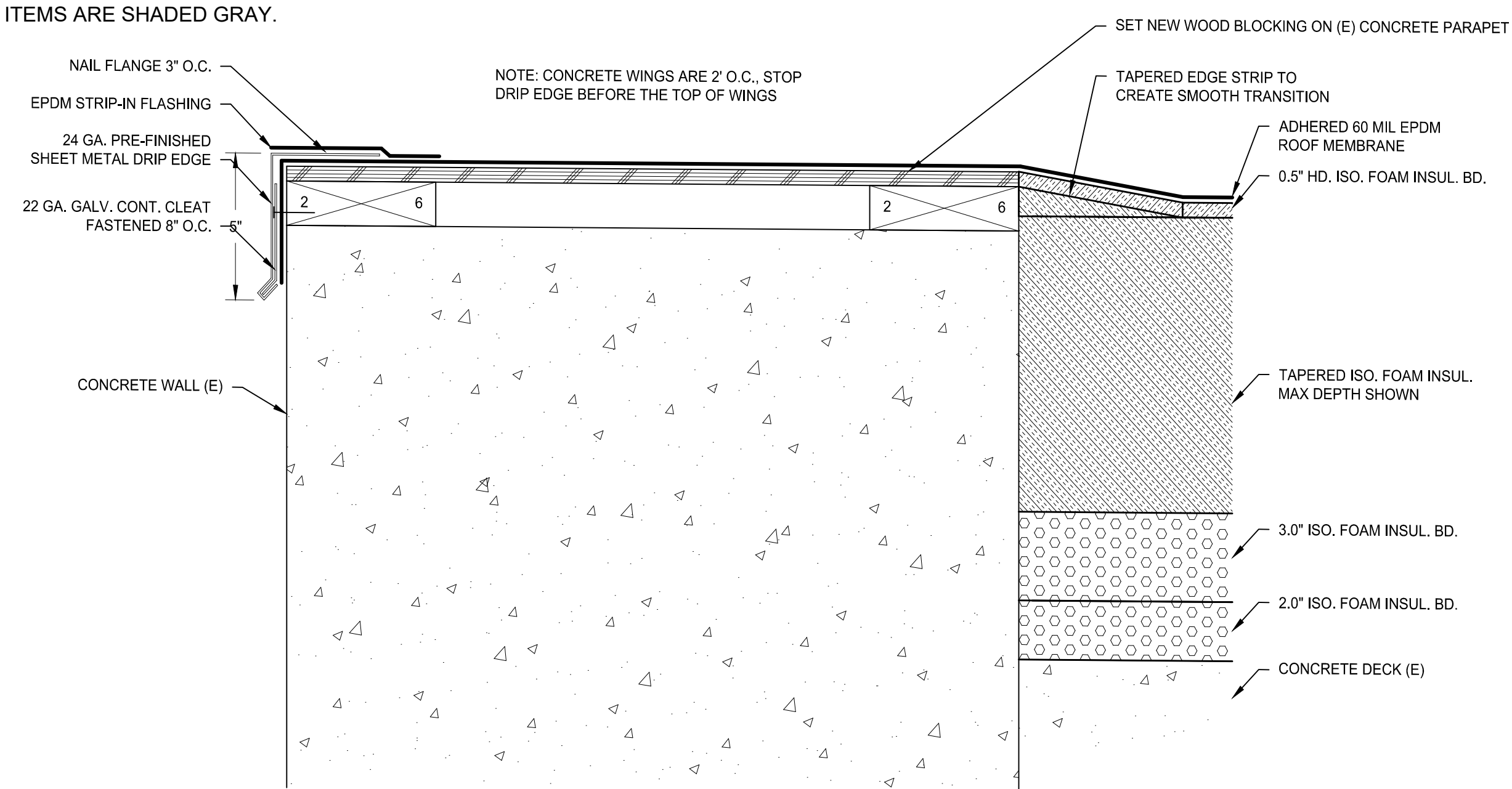
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R1.0

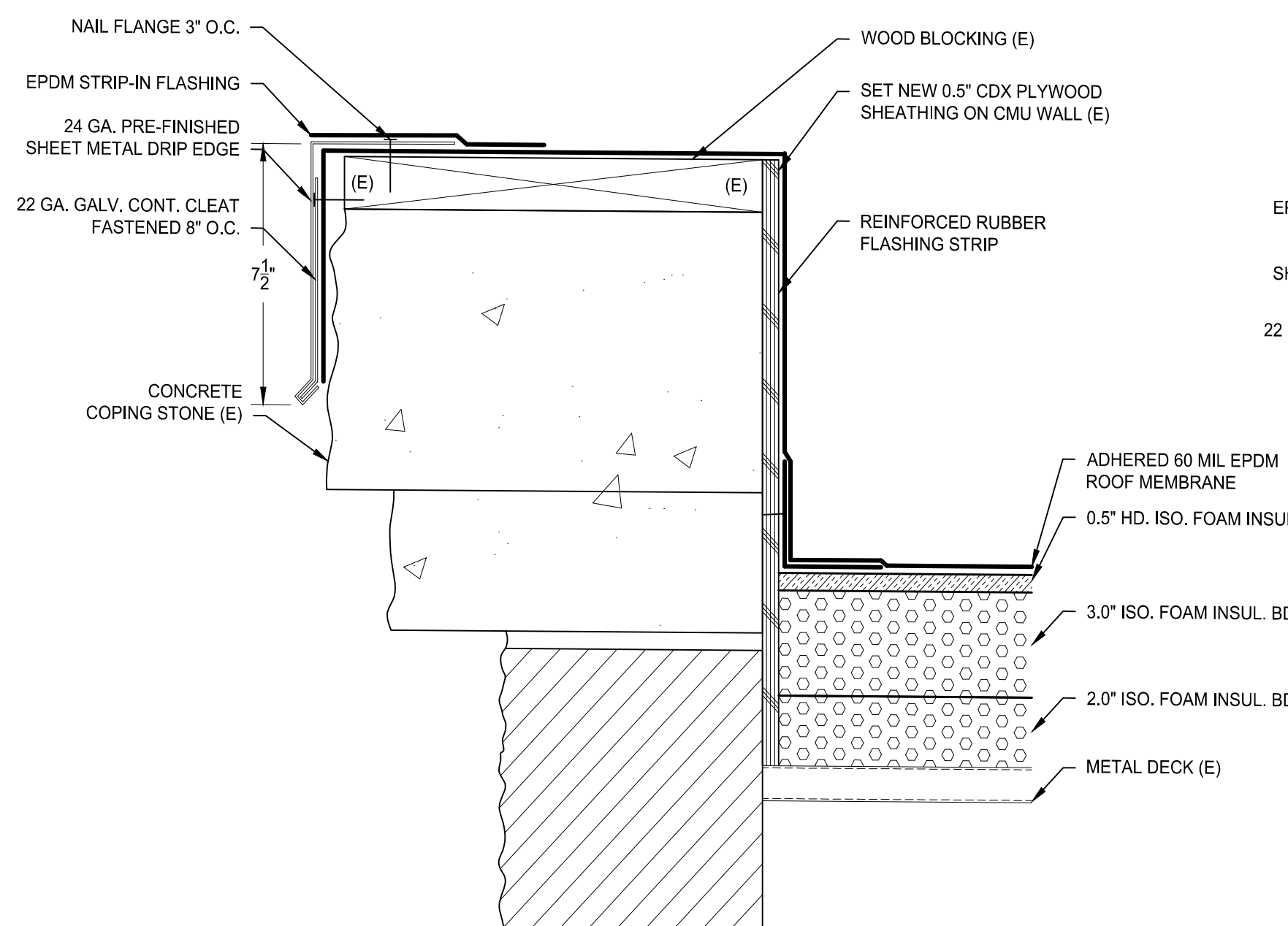
SHEET 2	OF 6
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DETAILS NOTES:

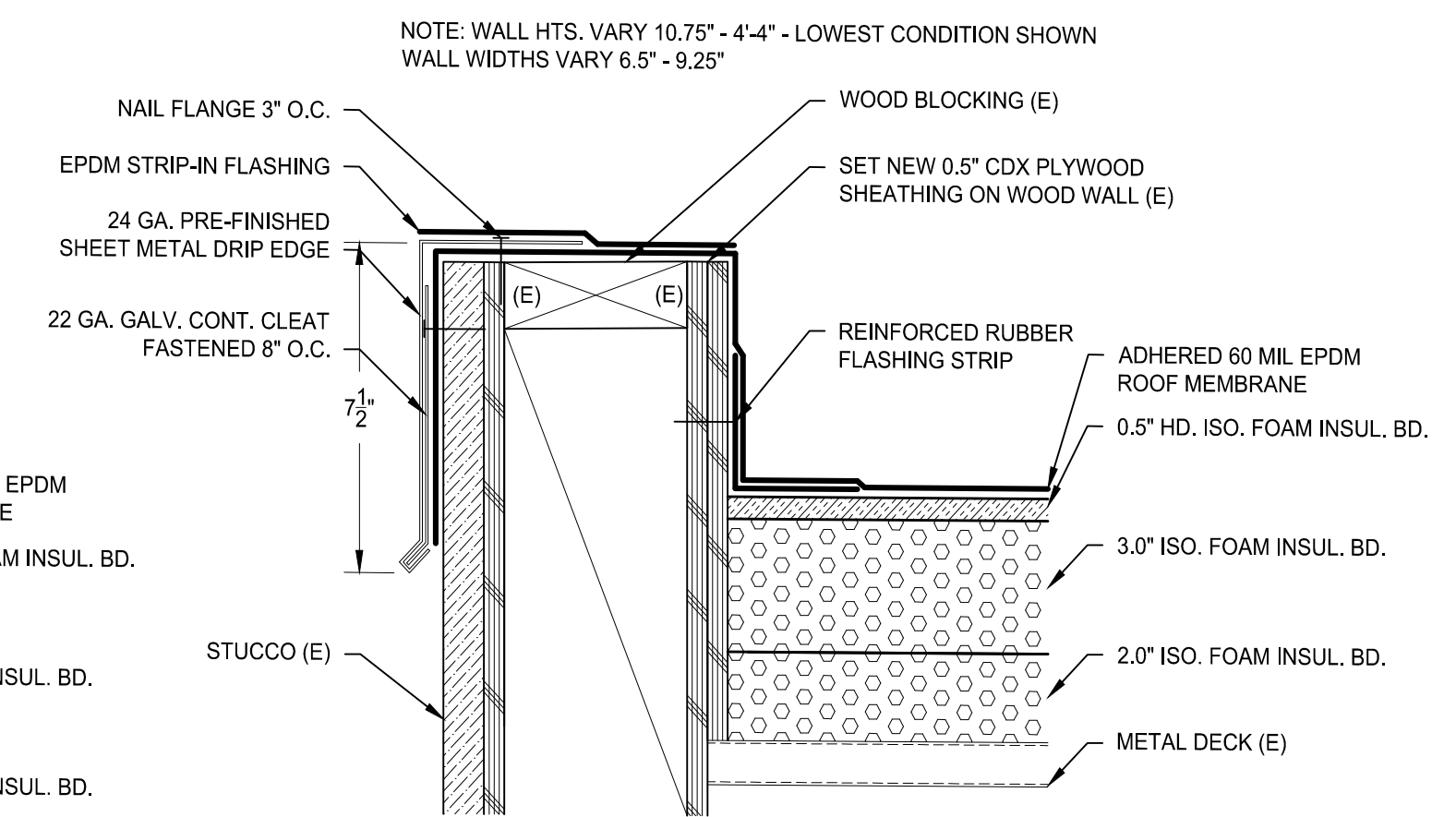
1. DETAILS ARE ENLARGED FOR CLARITY. MAKE ALL CONNECTIONS WATERTIGHT.
2. LAP SEALANT NOT SHOWN. REFER TO MFR FOR LOCATIONS.
3. (E) DENOTES EXISTING ITEM TO REMAIN.
4. EXISTING ITEMS ARE SHADED GRAY.



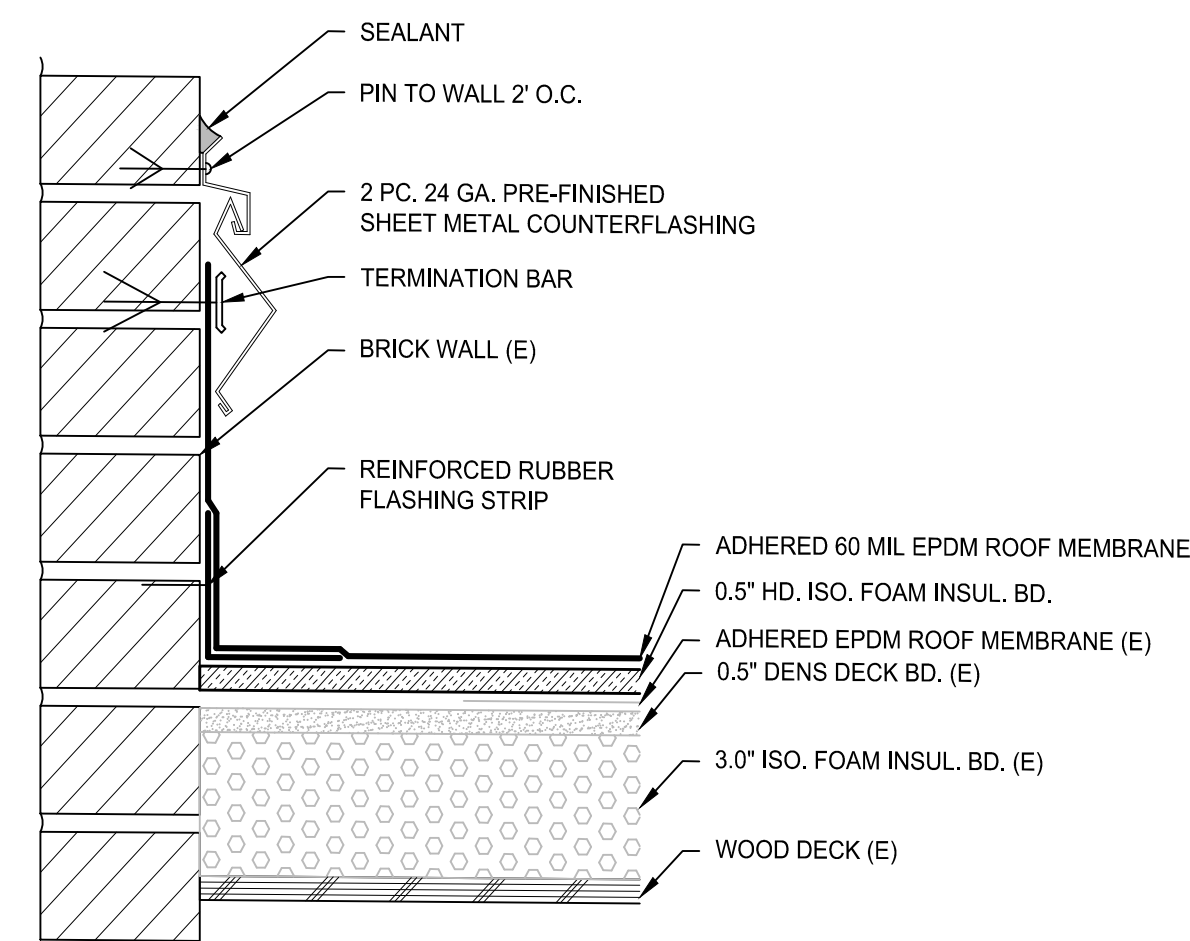
**C1**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



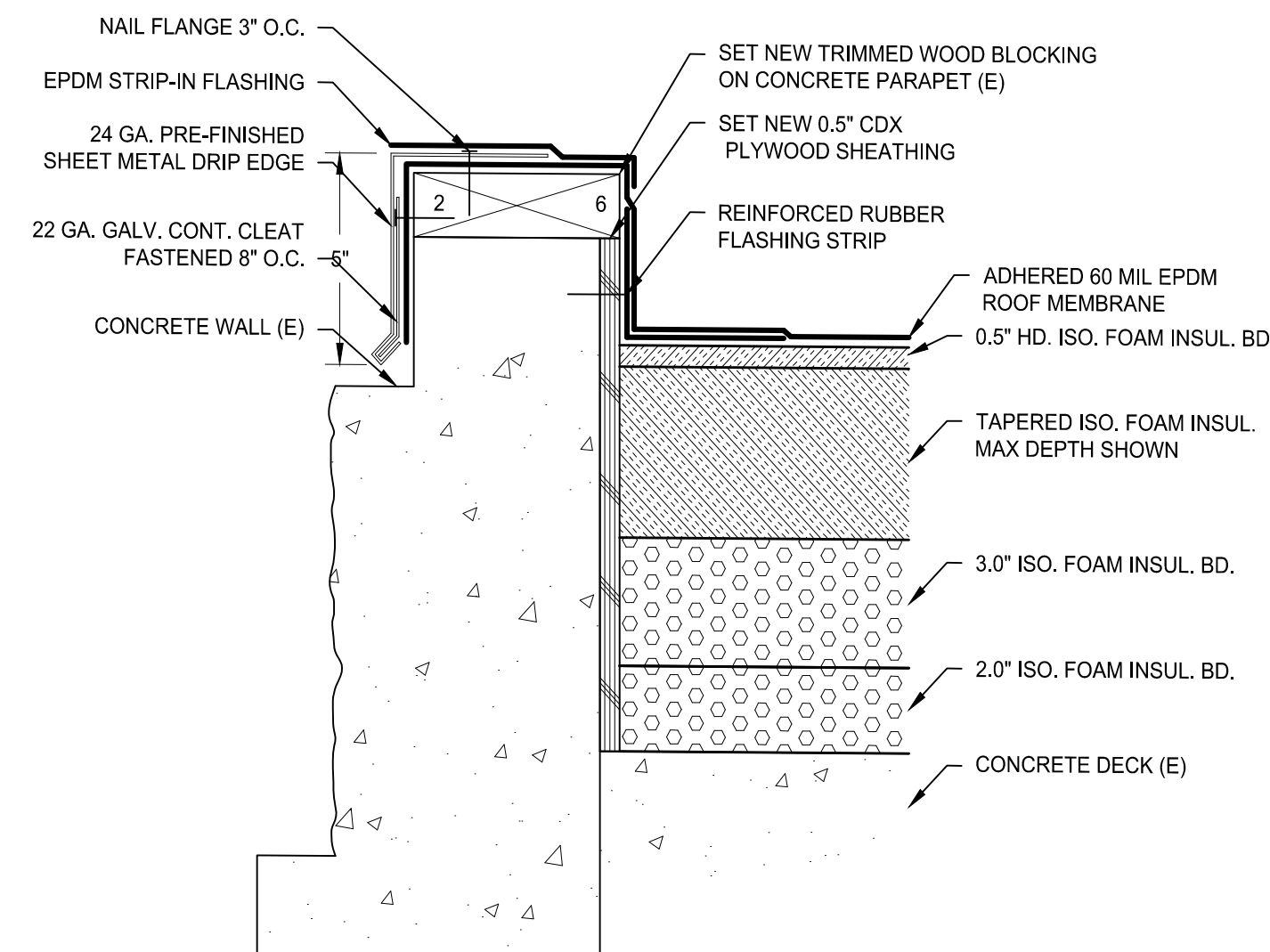
**C2**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



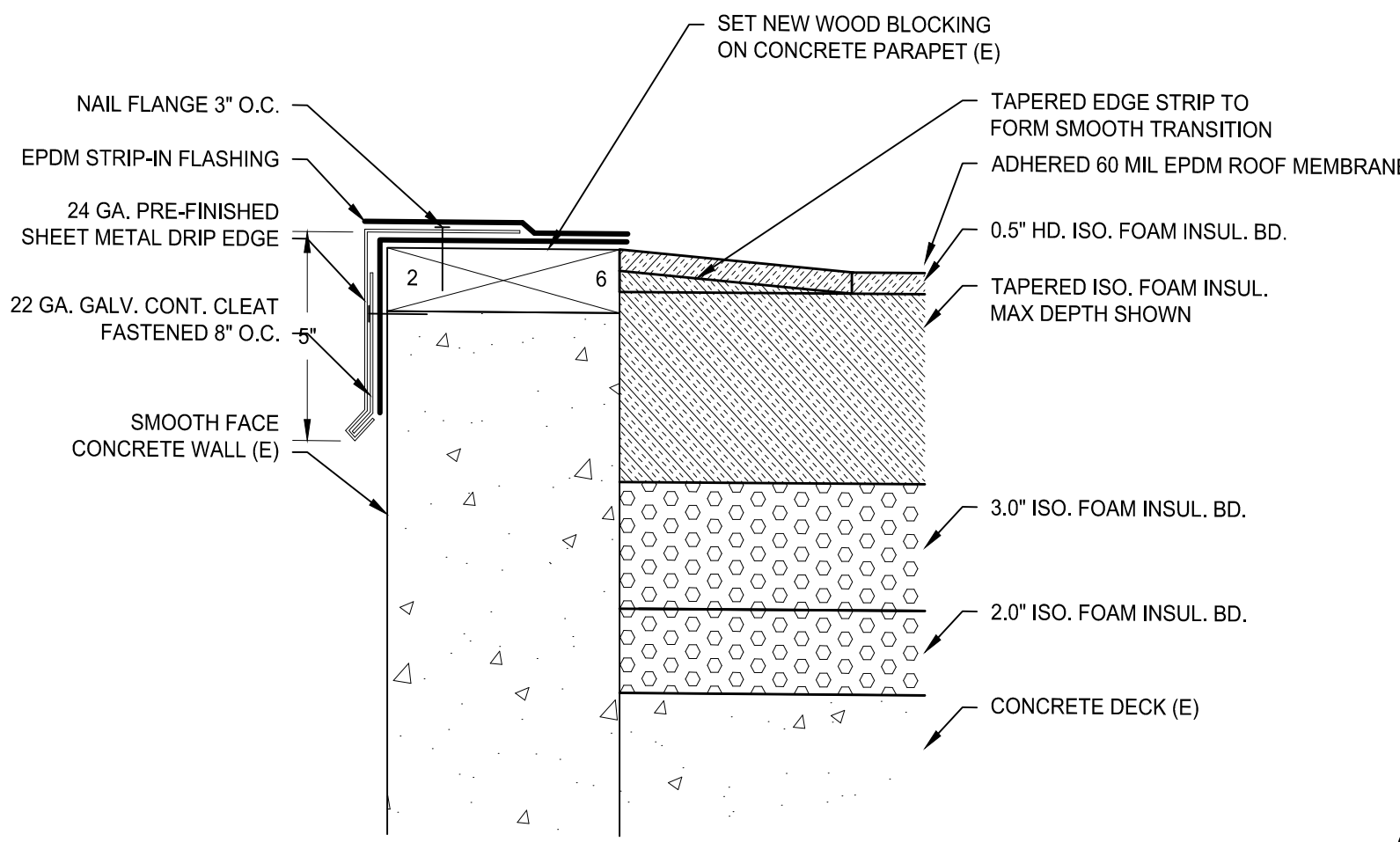
**C3**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



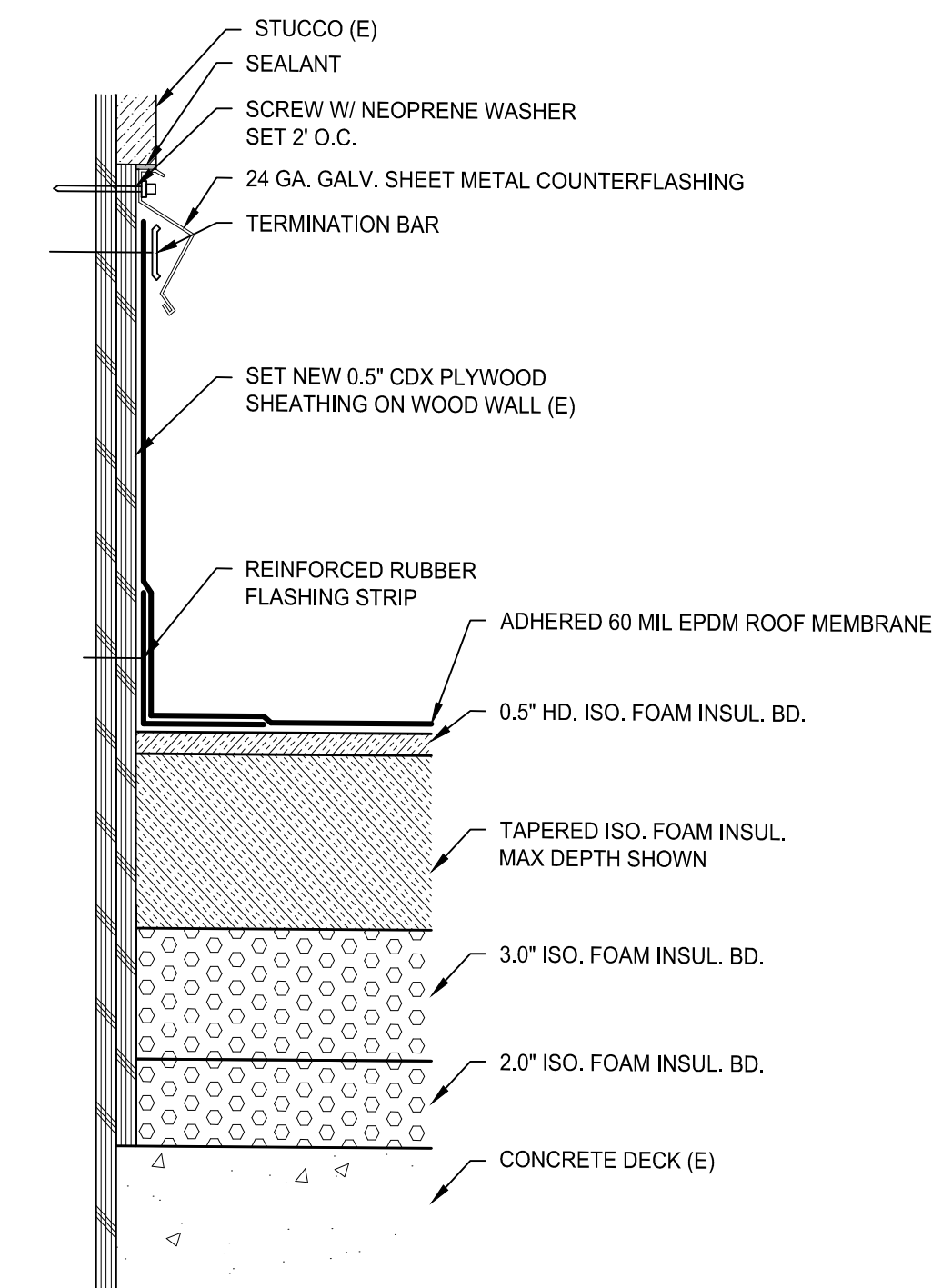
**B1**  
**R2.0** WALL BASE FLASHING  
SCALE 3" = 1'-0" (1:4)



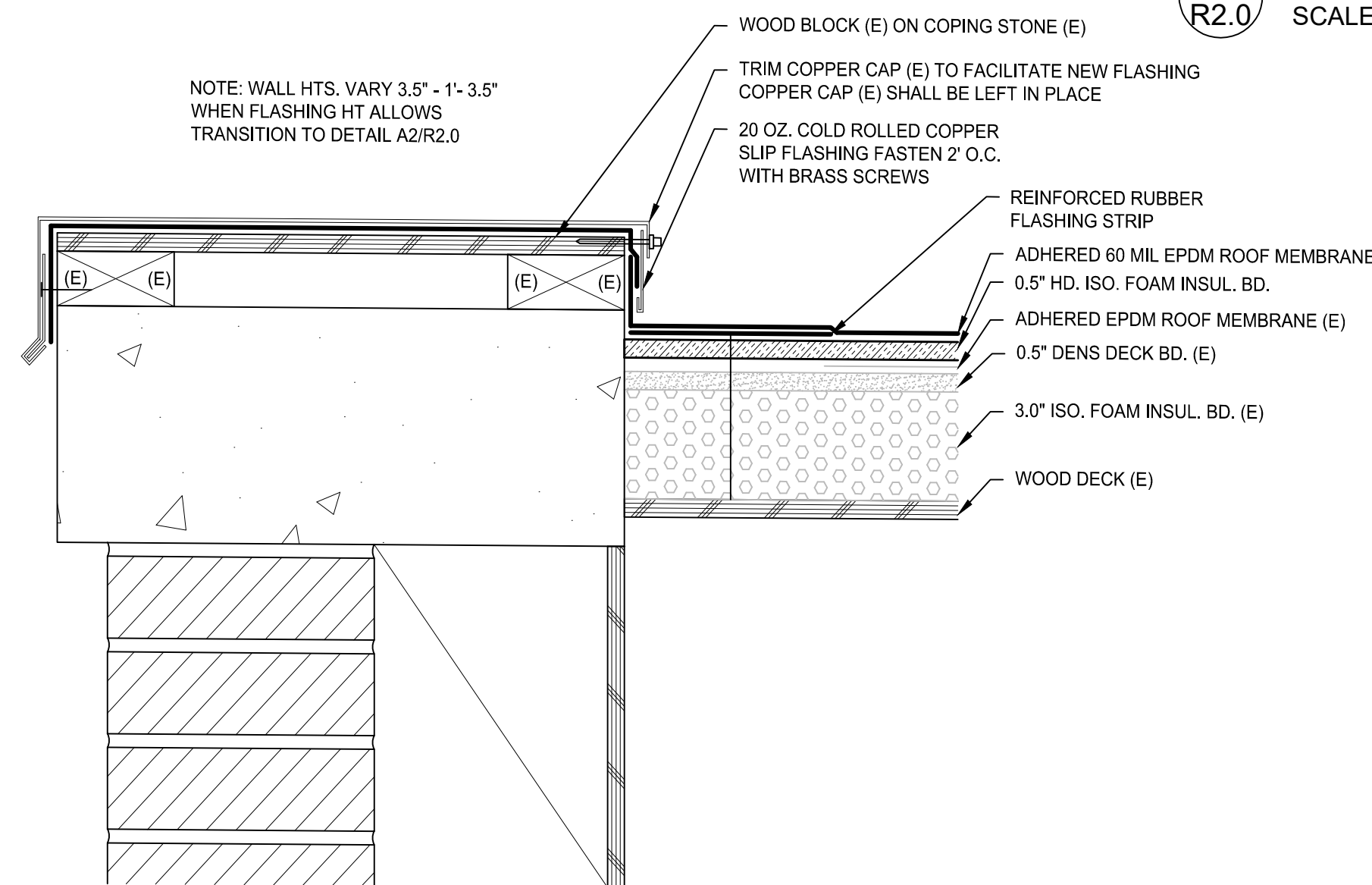
**B2**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



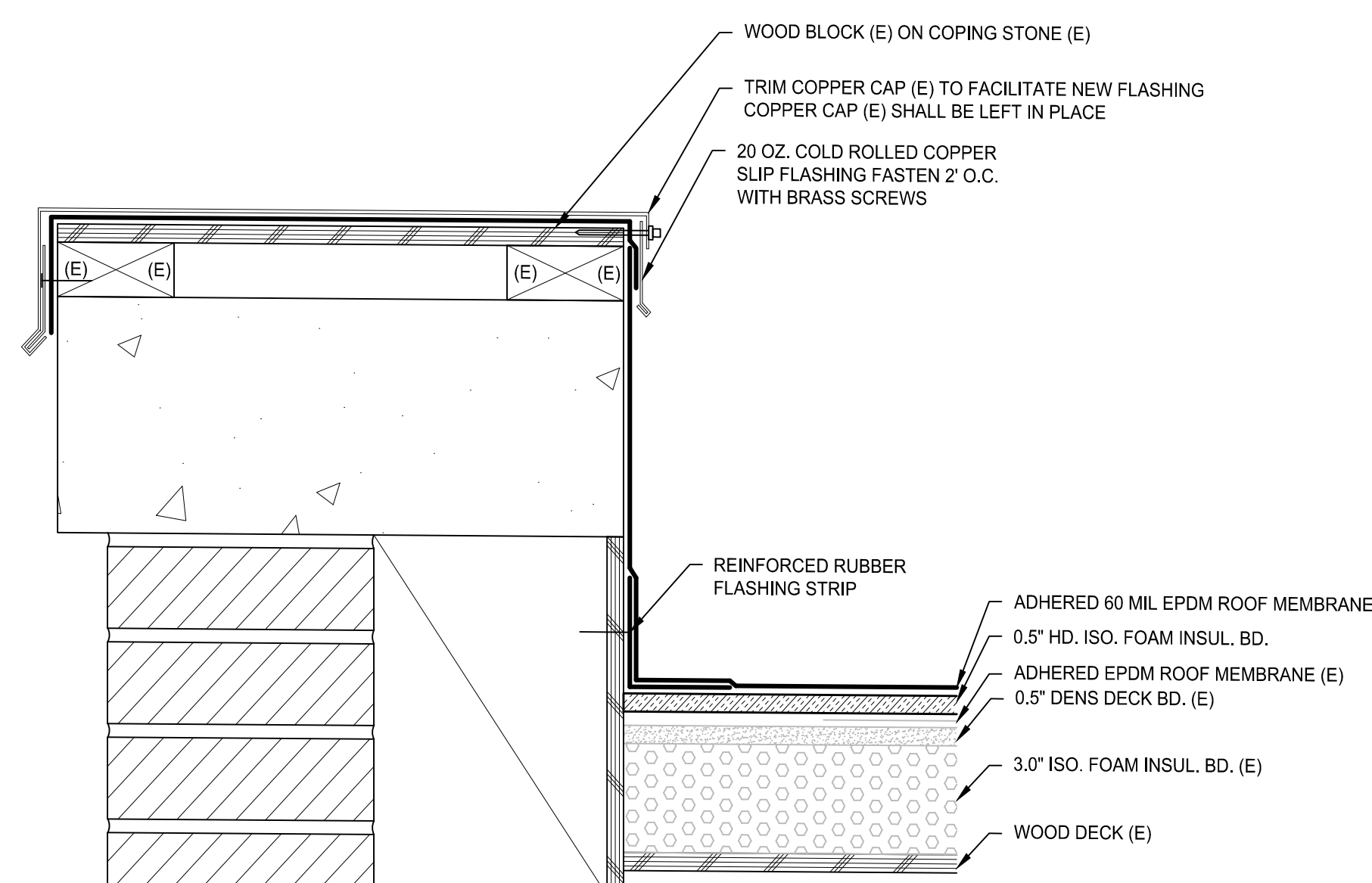
**B3**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



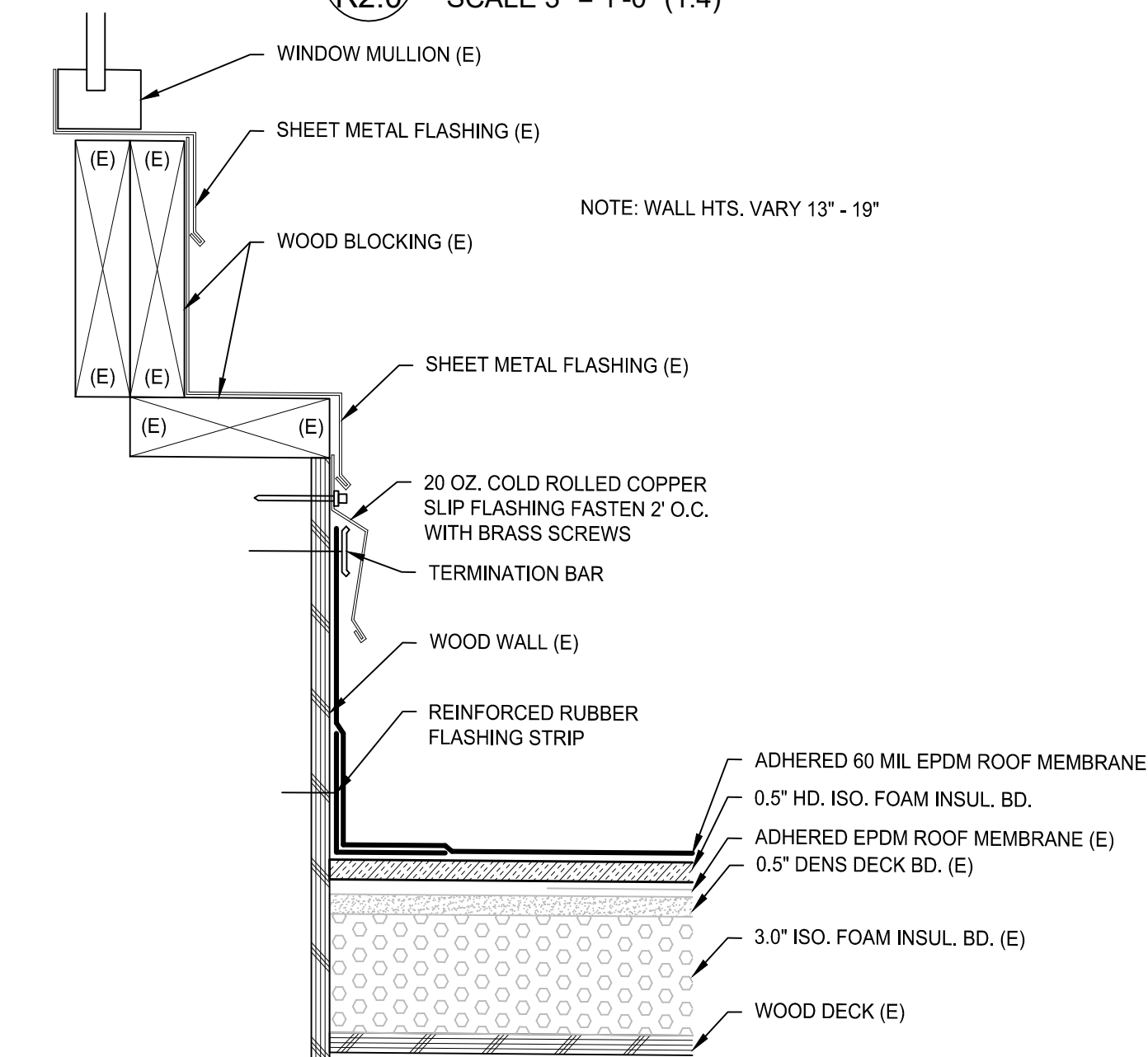
**B4**  
**R2.0** WALL BASE FLASHING  
SCALE 3" = 1'-0" (1:4)



**A1**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



**A2**  
**R2.0** PARAPET WALL FLASHING  
SCALE 3" = 1'-0" (1:4)



**A3**  
**R2.0** WINDOW BASE FLASHING  
SCALE 3" = 1'-0" (1:4)

PIKES PEAK LIBRARY DISTRICT  
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REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: LN
DRAFTER: LR	PROJECT #:
CHECKED BY: GT	DATE: 8/10/2021

PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY  
20 N Cascade Ave.  
Colorado Springs, CO 80903

CADD FILE:  
PCL R2-0.DWG

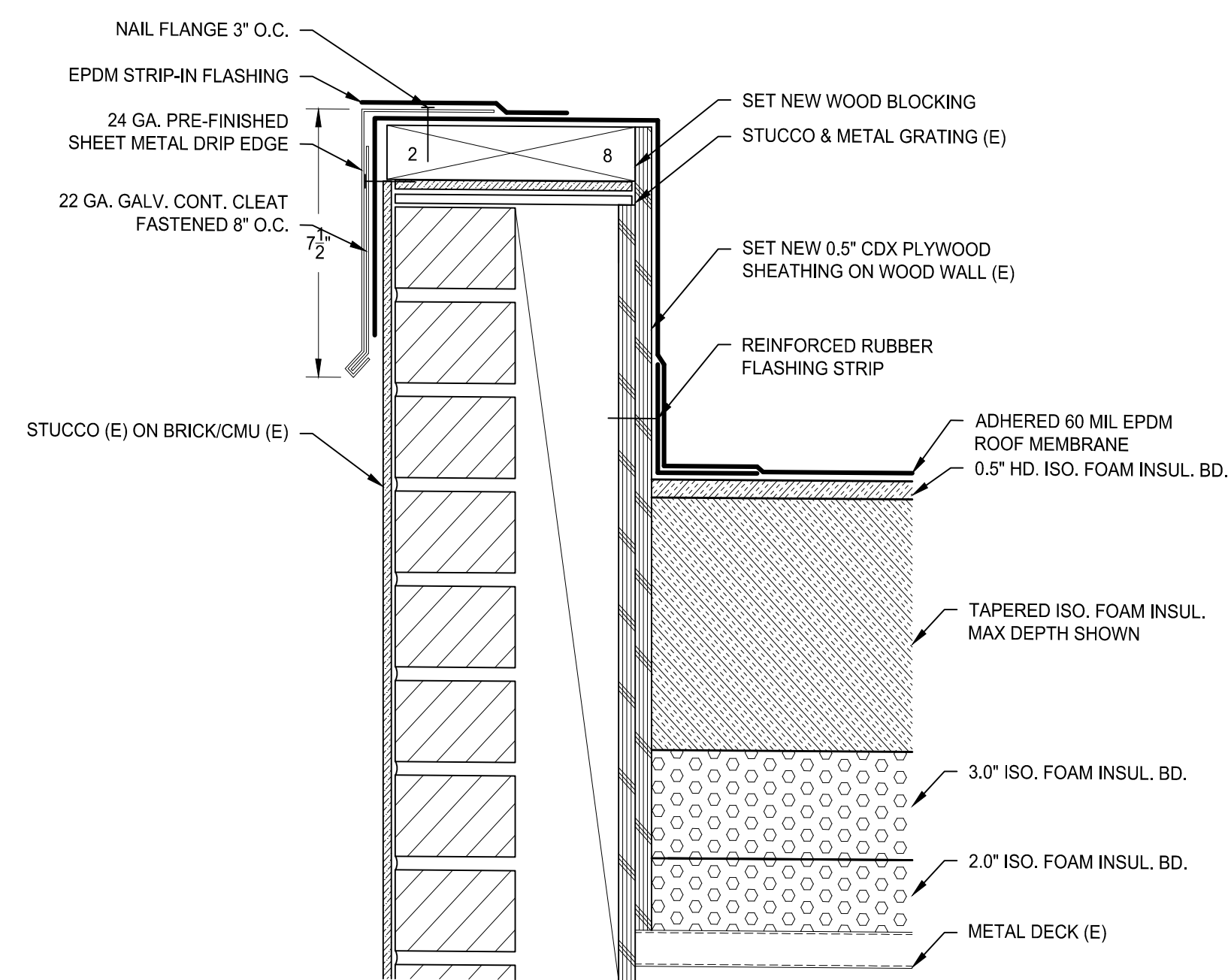
ROOF DETAILS

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3" = 1'-0"

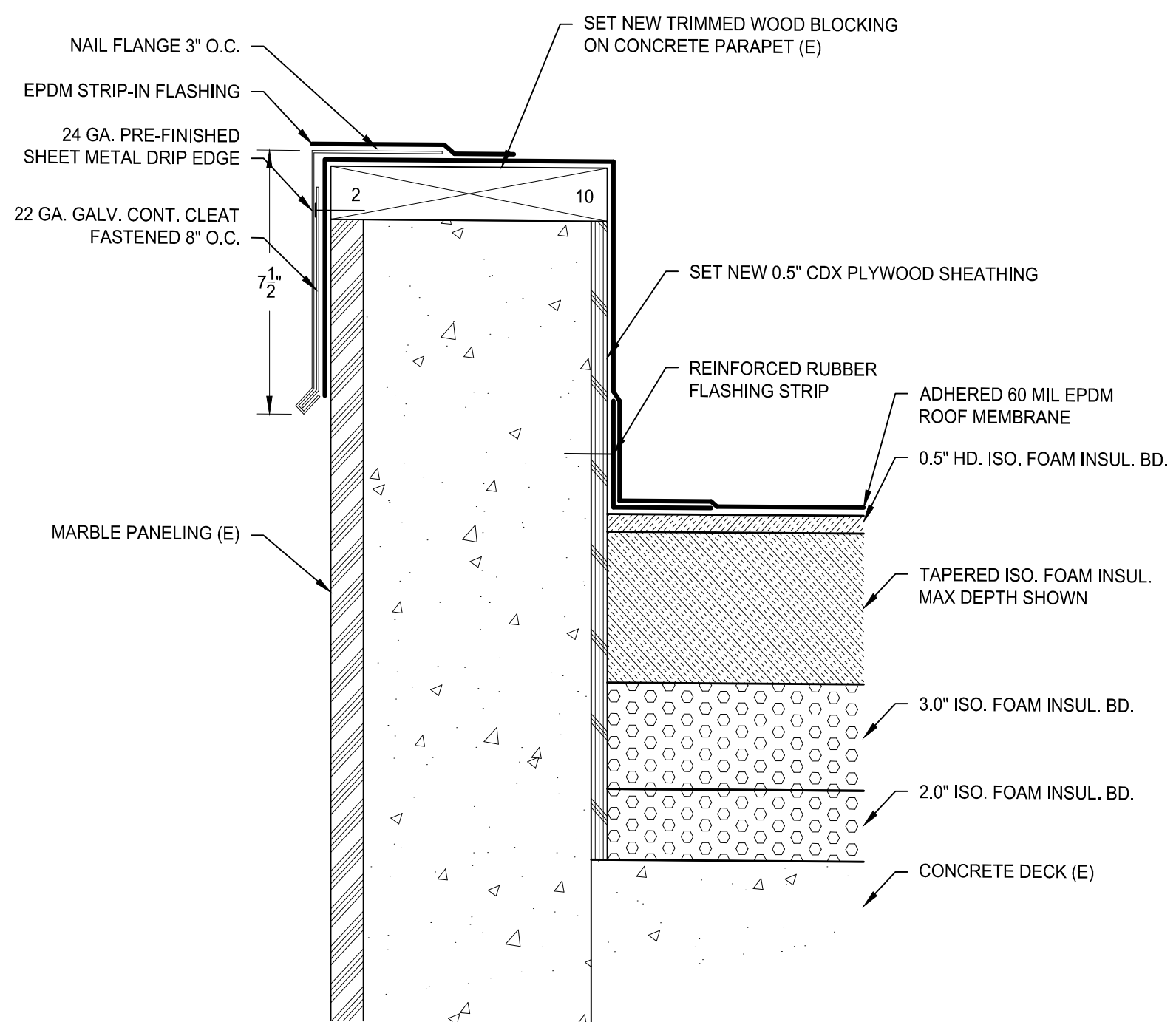
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R2.0

DETAILS NOTES:

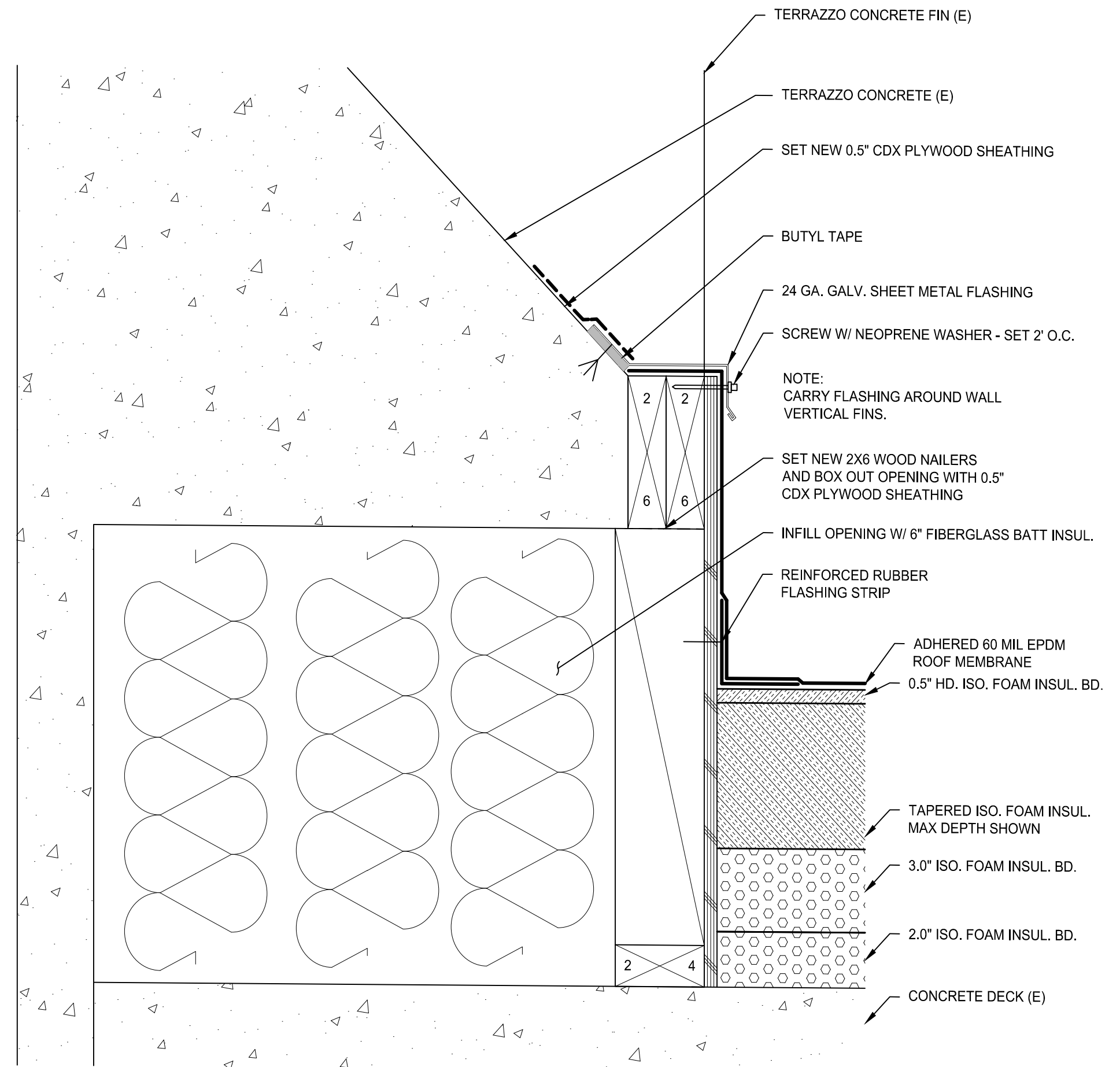
1. DETAILS ARE ENLARGED FOR CLARITY. MAKE ALL CONNECTIONS WATERTIGHT.
2. LAP SEALANT NOT SHOWN. REFER TO MFR FOR LOCATIONS.
3. (E) DENOTES EXISTING ITEM TO REMAIN.
4. EXISTING ITEMS ARE SHADED GRAY.



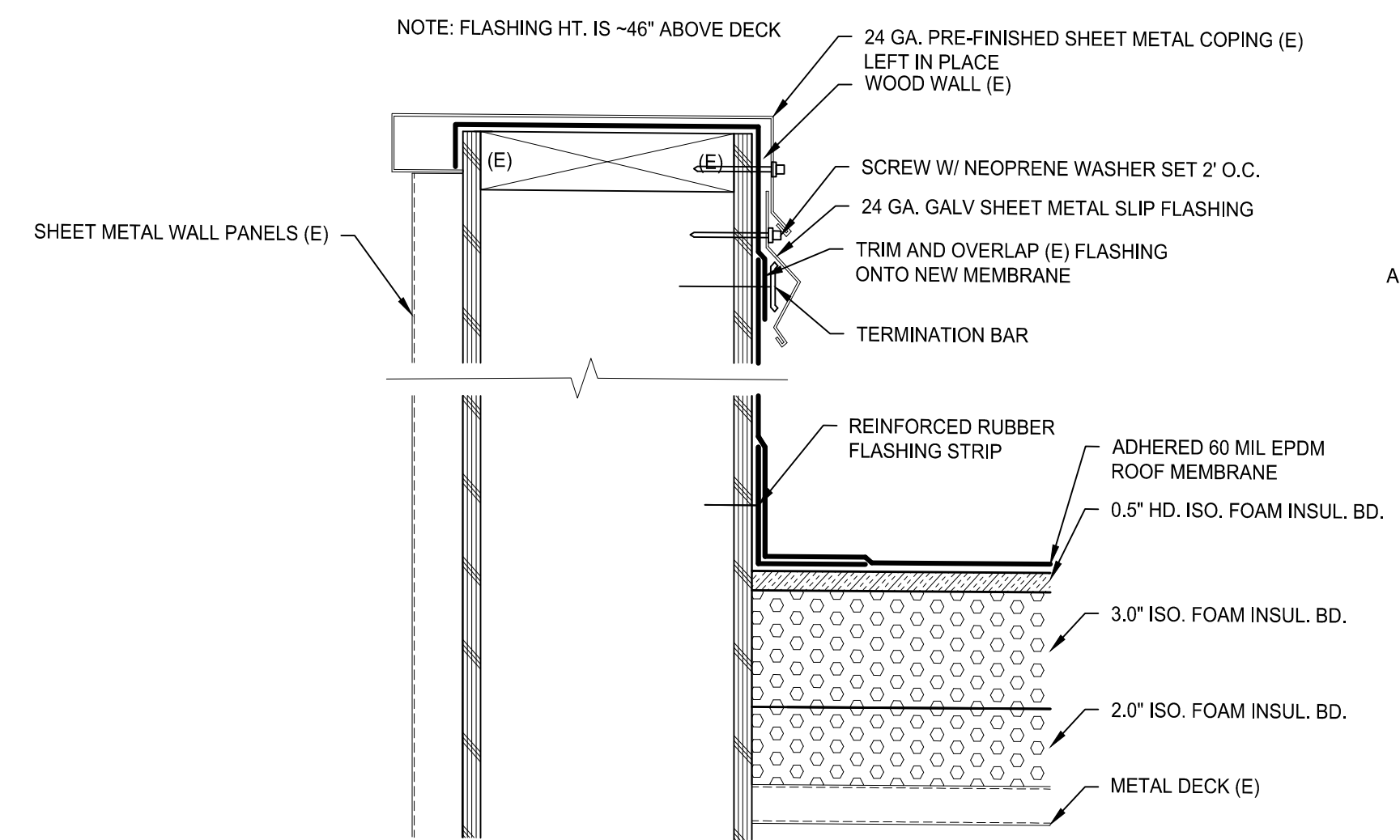
**C1** PARAPET WALL FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



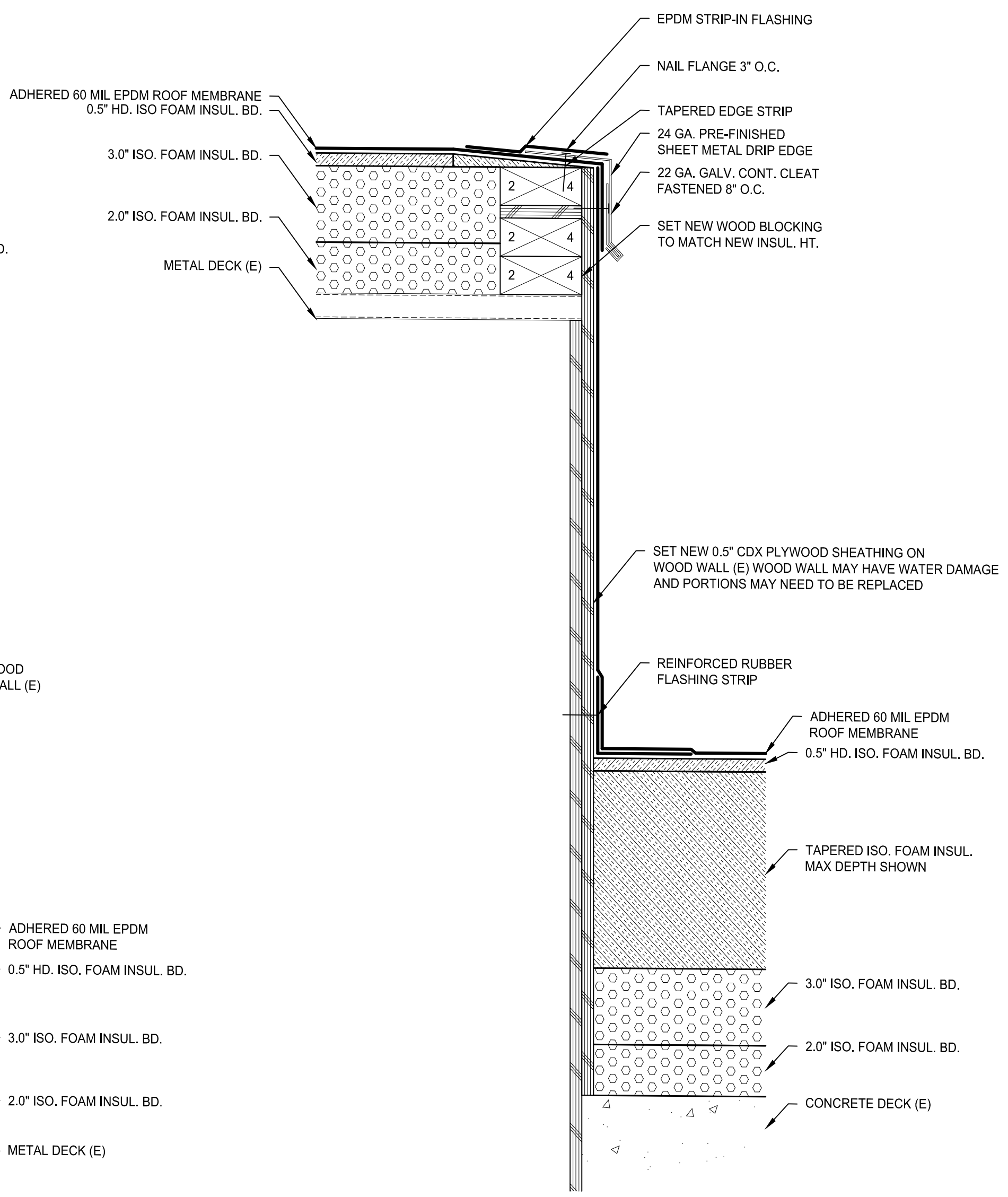
**C2** PARAPET WALL FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



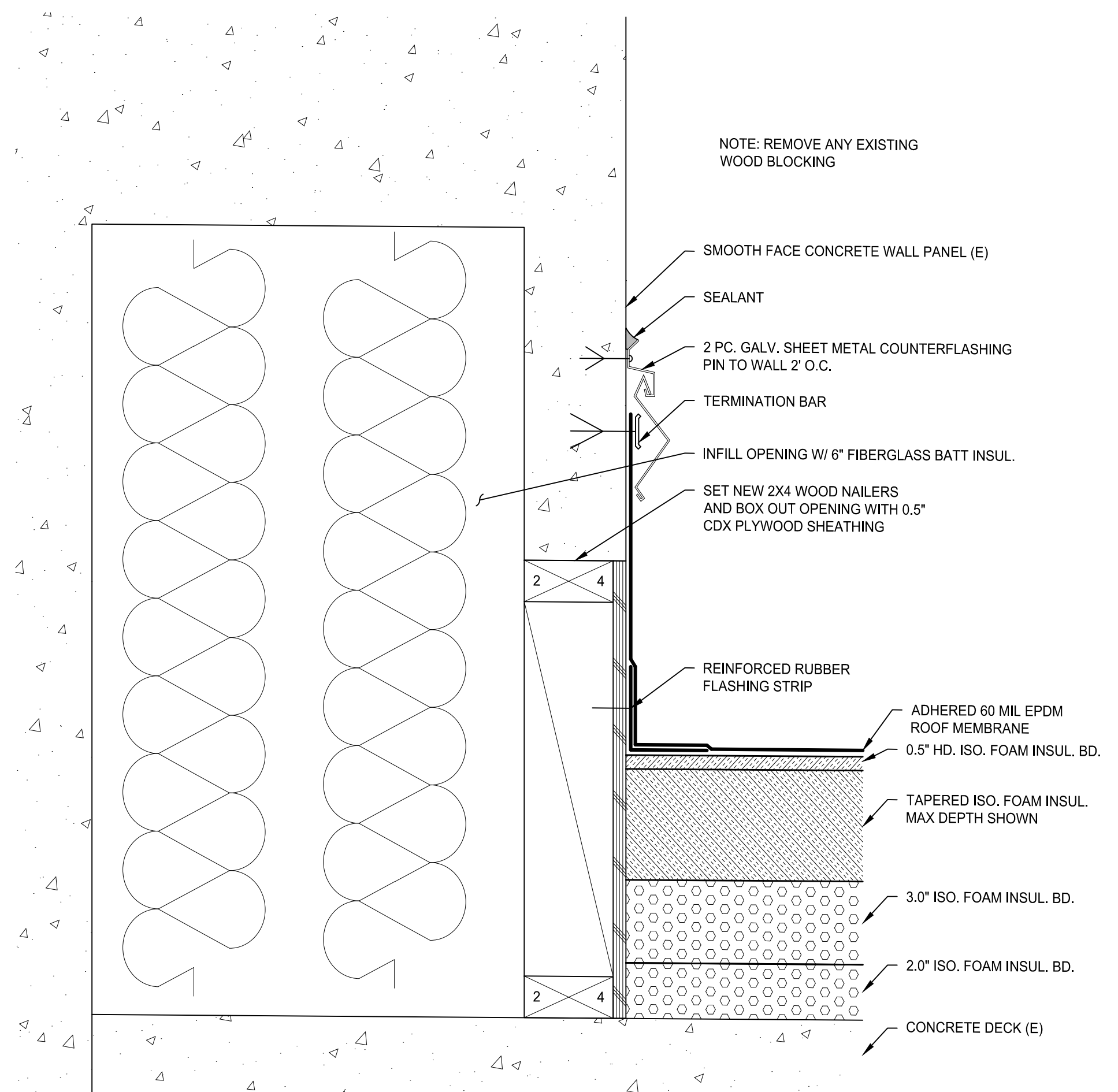
**C3** WALL BASE FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



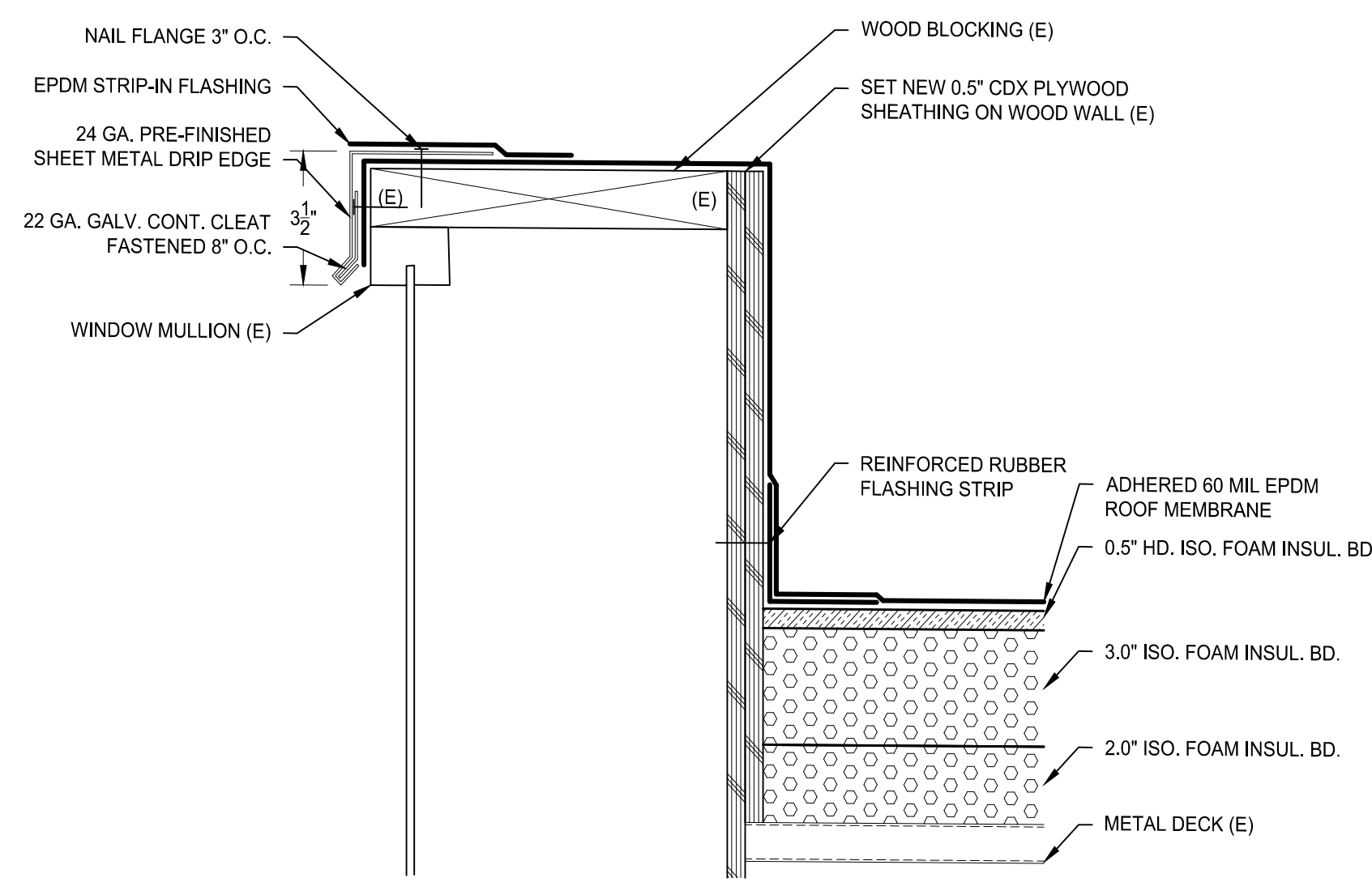
**B1** PARAPET WALL FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



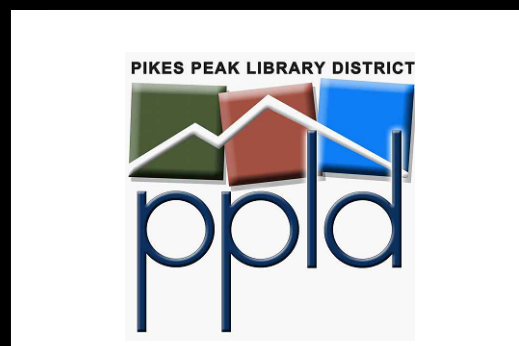
**A2** DECK TRANSITION FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



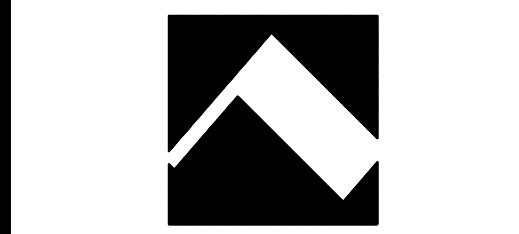
**A3** WALL BASE FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



**A1** PARAPET WALL FLASHING  
R2.1 SCALE 3" = 1'-0" (1:4)



ROOFING CONSULTANT



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REVISION	BY/DATE

DESIGNER: <b>RDS</b>	PROJ. MGR: <b>LN</b>
DRAFTER: <b>LR</b>	PROJECT #:
CHECKED BY: <b>GT</b>	DATE: <b>8/10/2021</b>

**PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY**

20 N Cascade Ave.  
Colorado Springs, CO 80903

CADD FILE:  
PCL R2-1.DWG

**ROOF DETAILS**

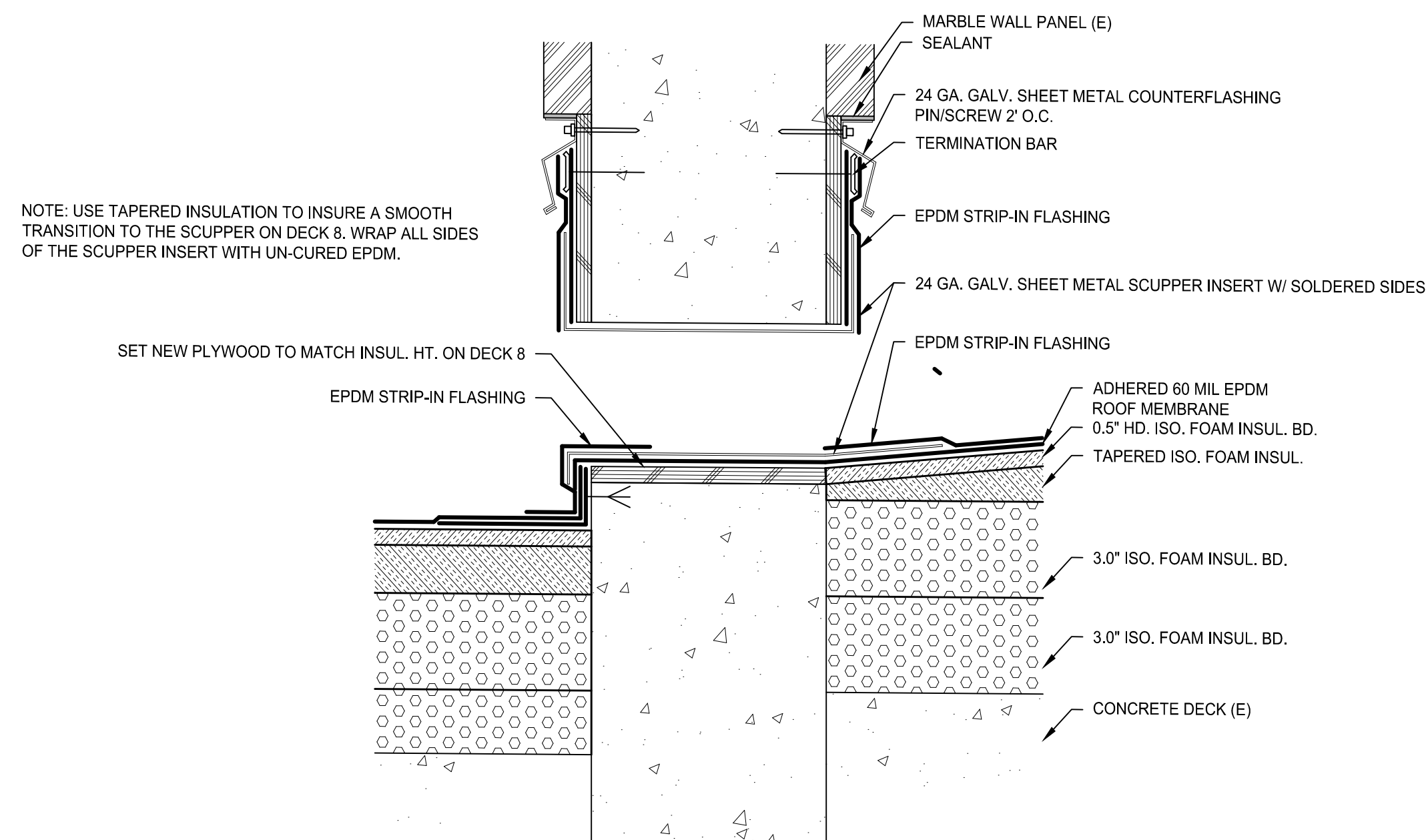
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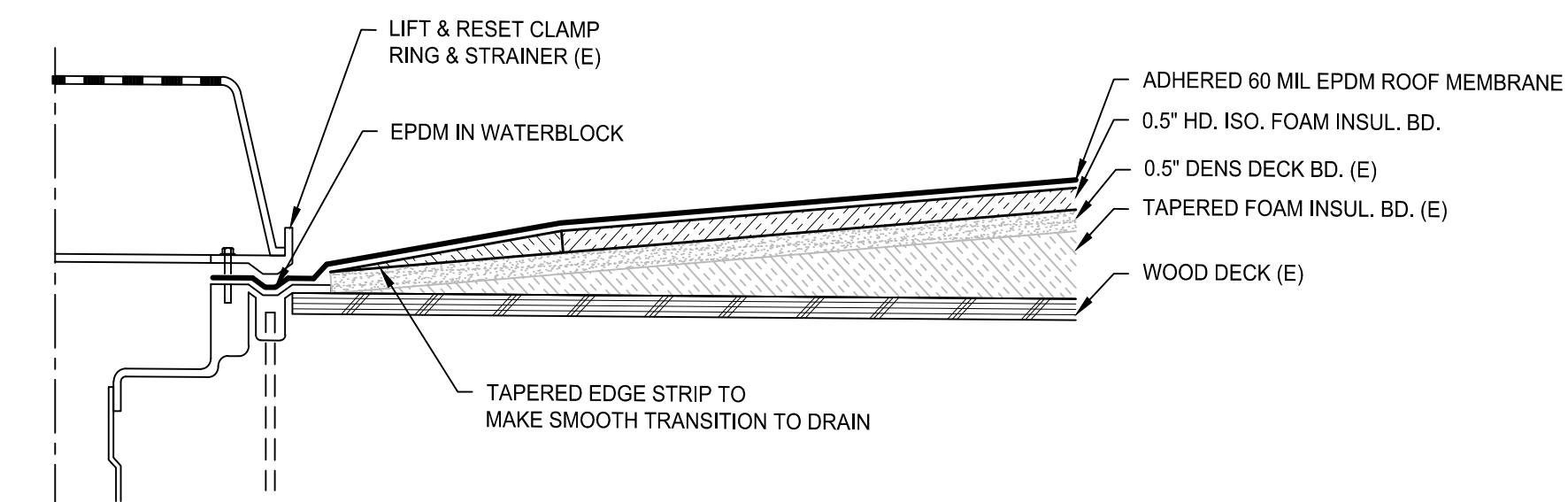
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DETAILS NOTES:

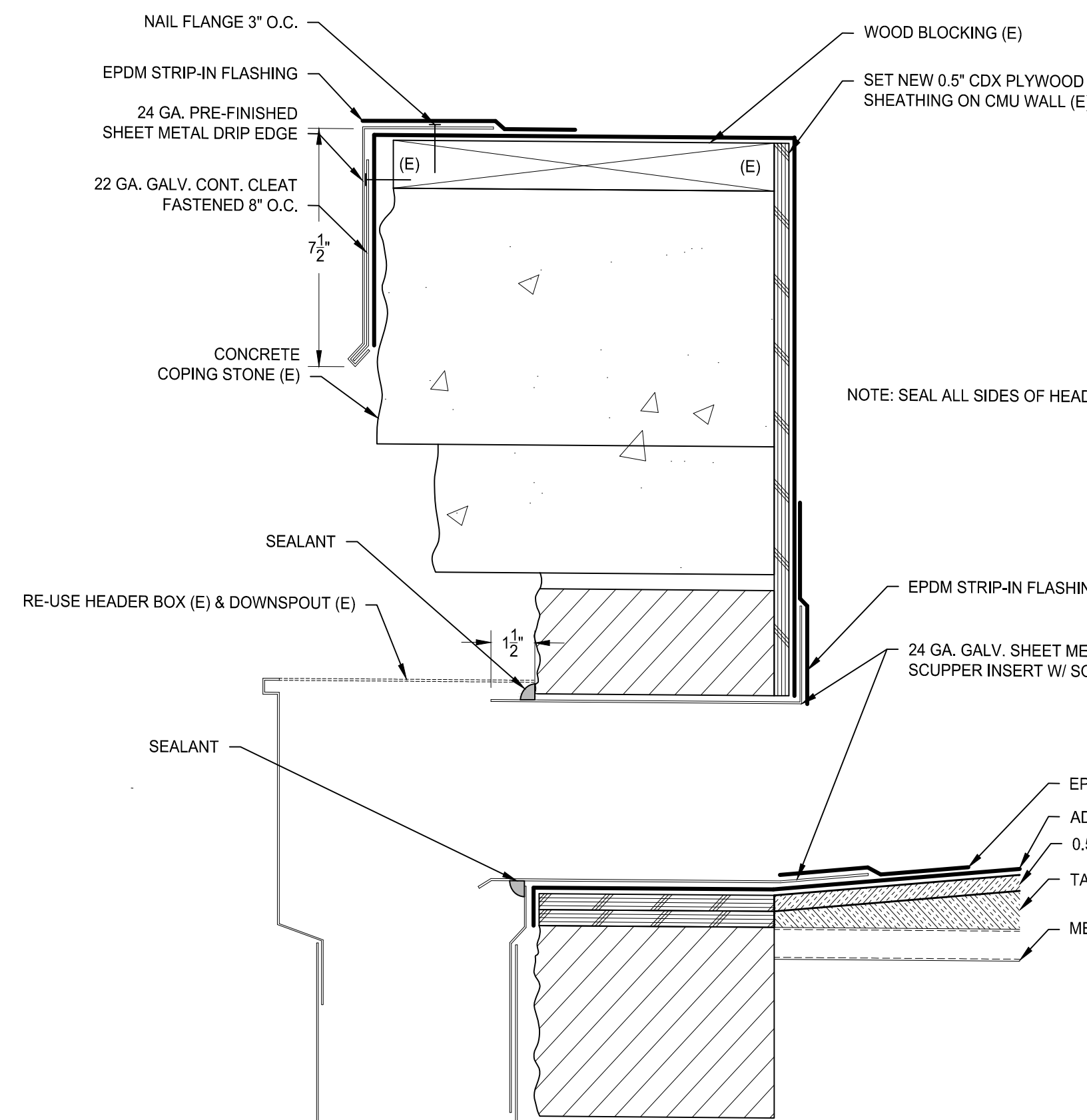
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3. (E) DENOTES EXISTING ITEM TO REMAIN.
4. EXISTING ITEMS ARE SHADED GRAY.



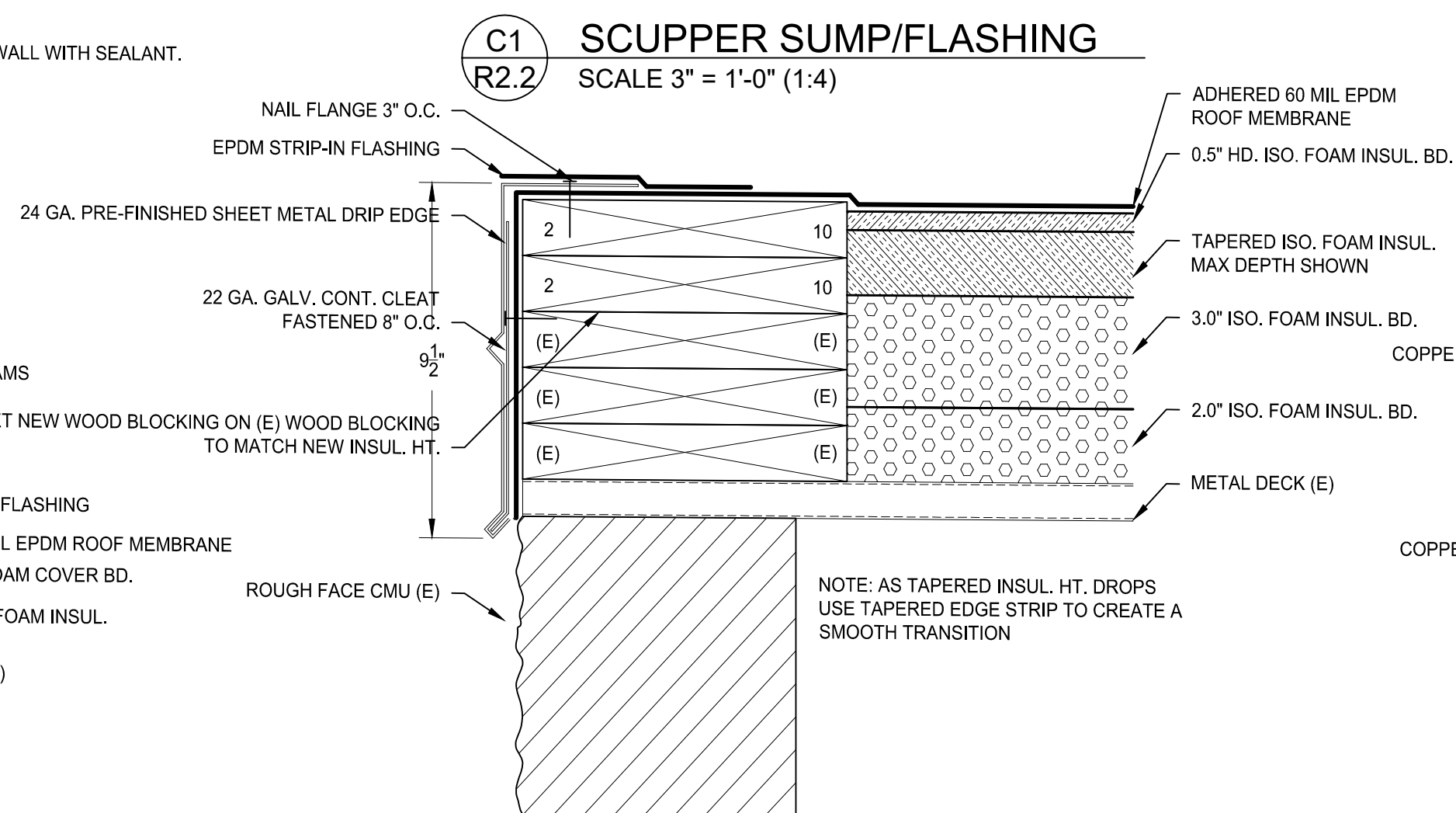
**C1**  
**R2.2** SCUPPER SUMP/FLASHING  
SCALE 3" = 1'-0" (1:4)



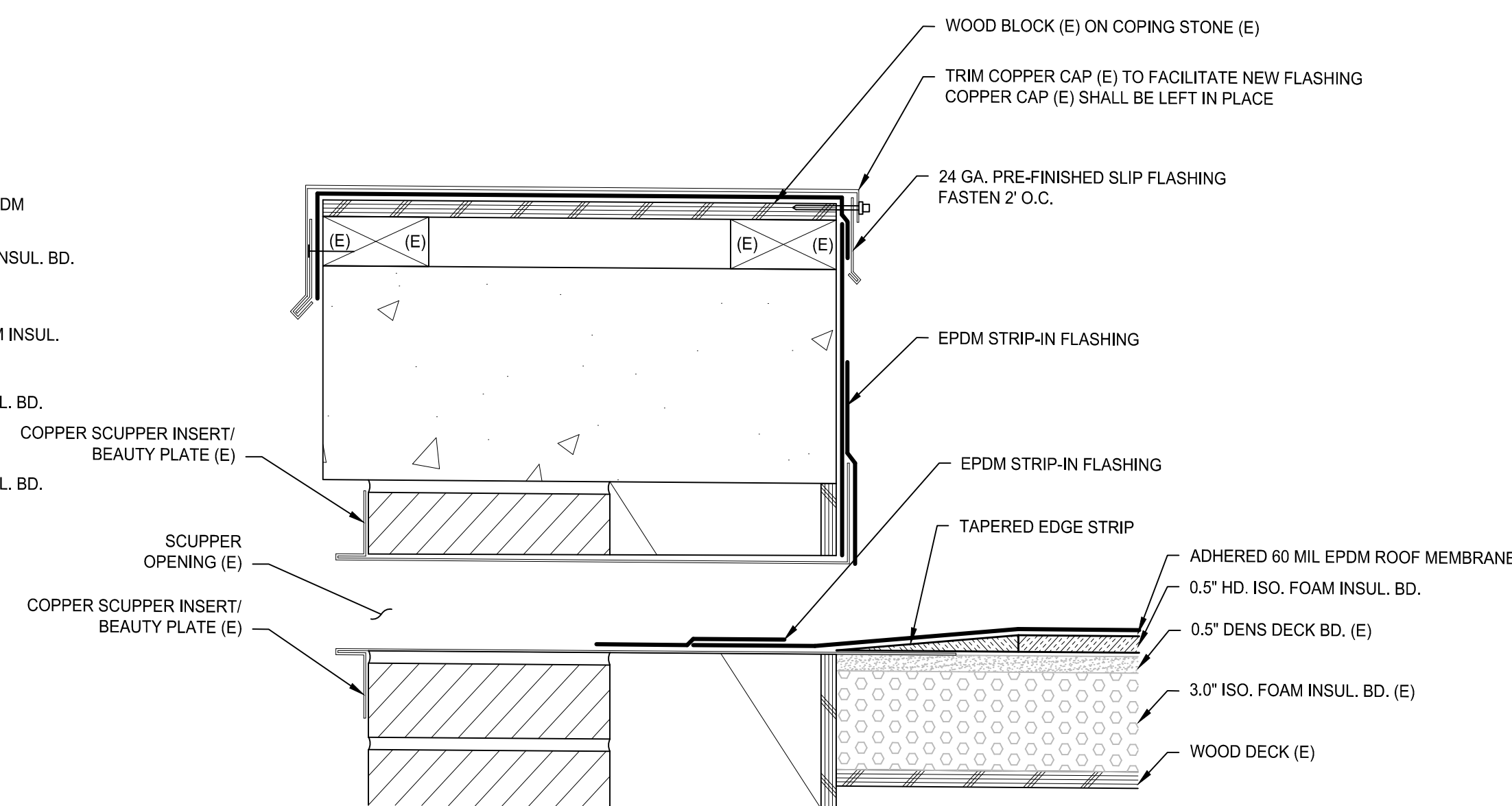
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**R2.2** DRAIN SUMP/FLASHING  
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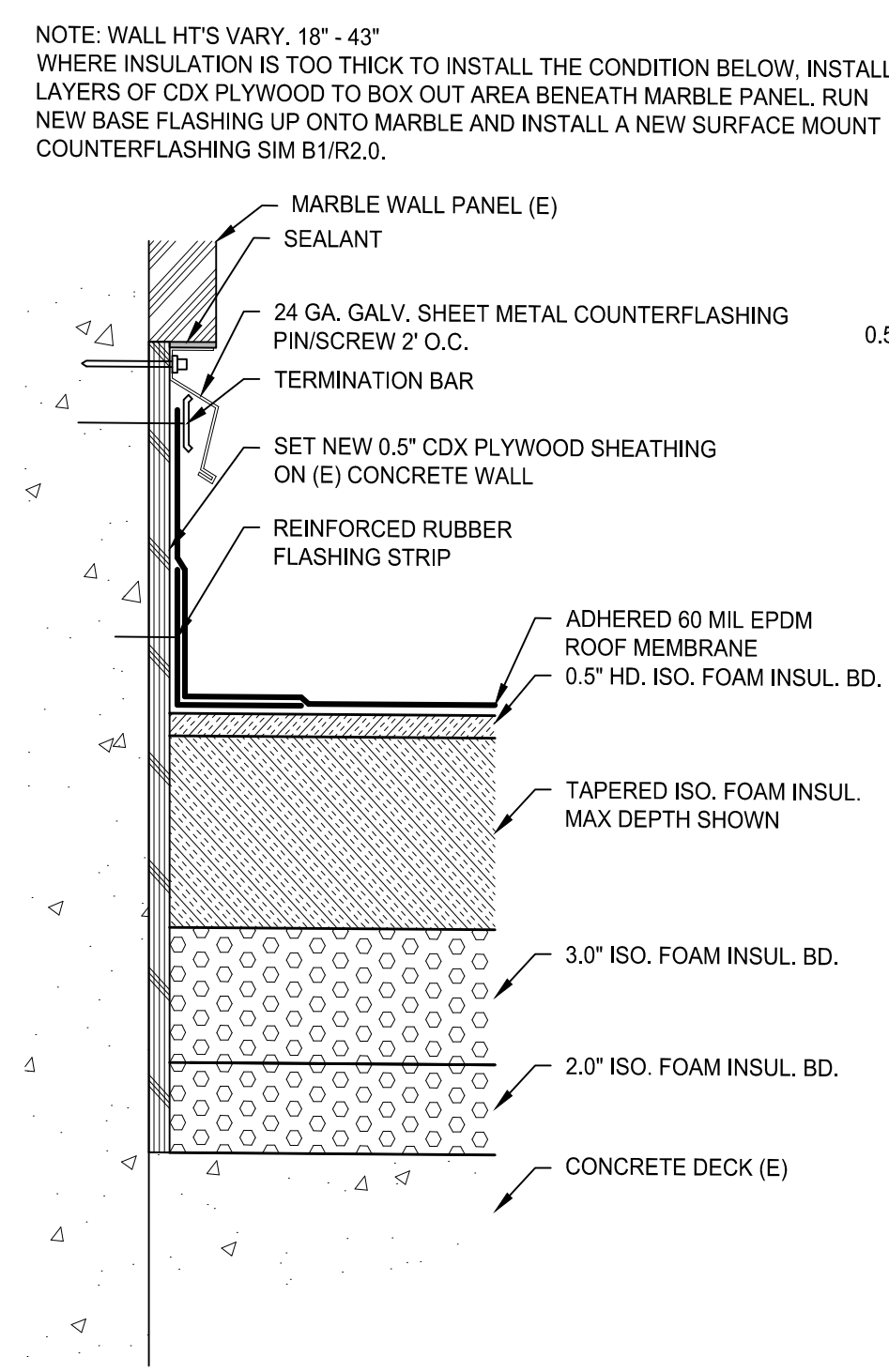
**B1**  
**R2.2** SCUPPER SUMP/FLASHING  
SCALE 3" = 1'-0" (1:4)



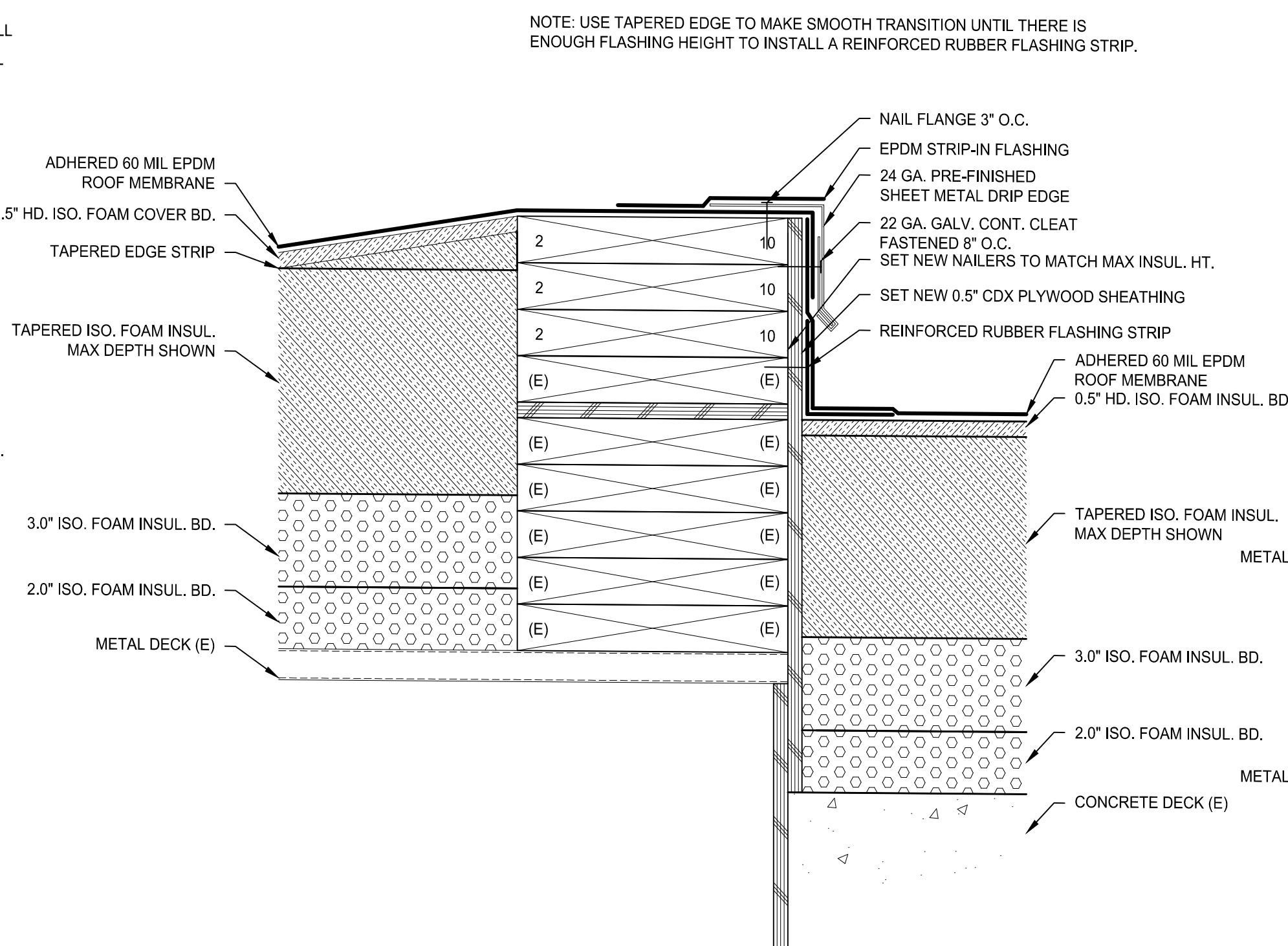
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**R2.2** PERIMETER FLASHING  
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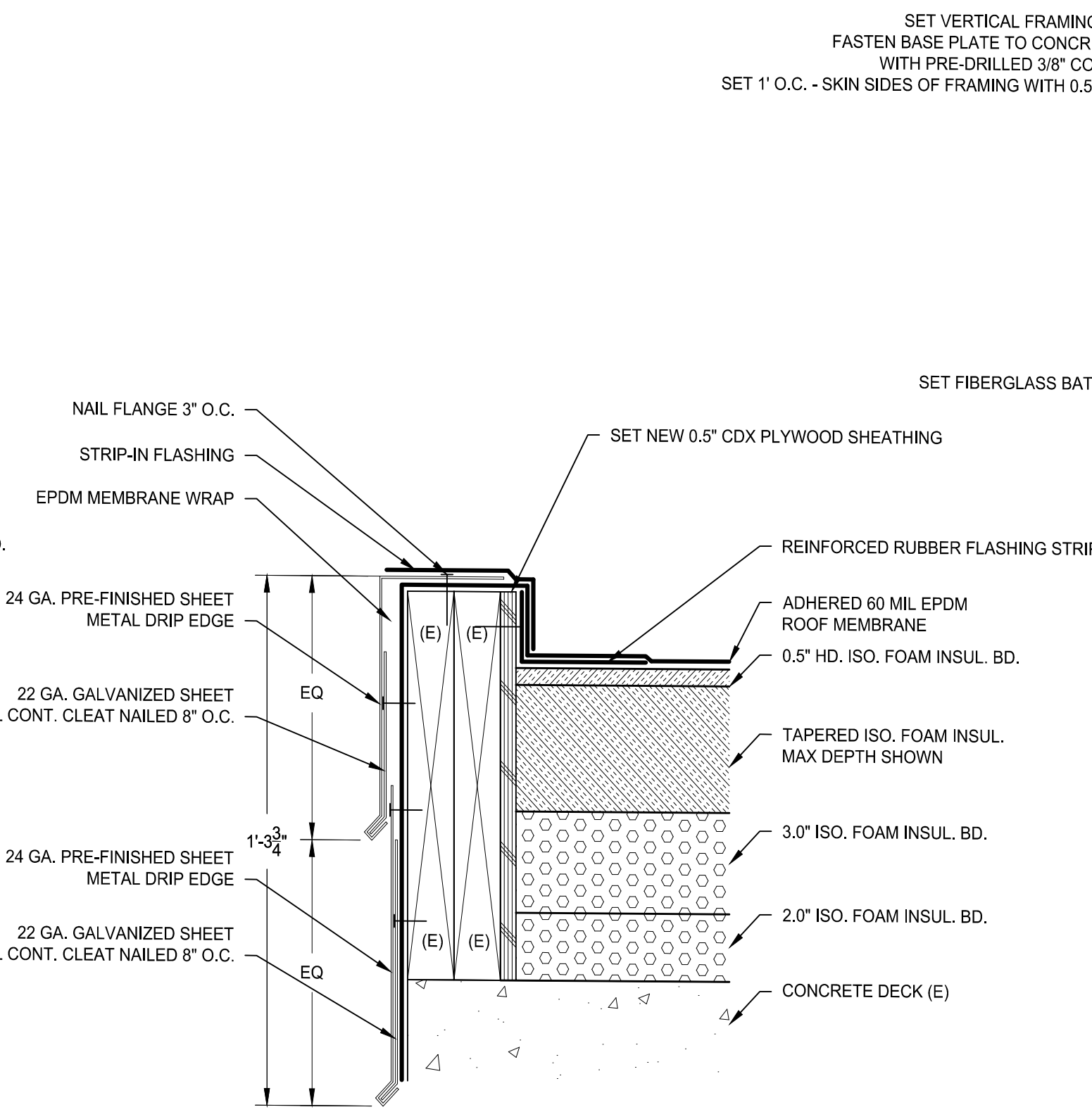
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**R2.2** OVERFLOW SCUPPER FLASHING  
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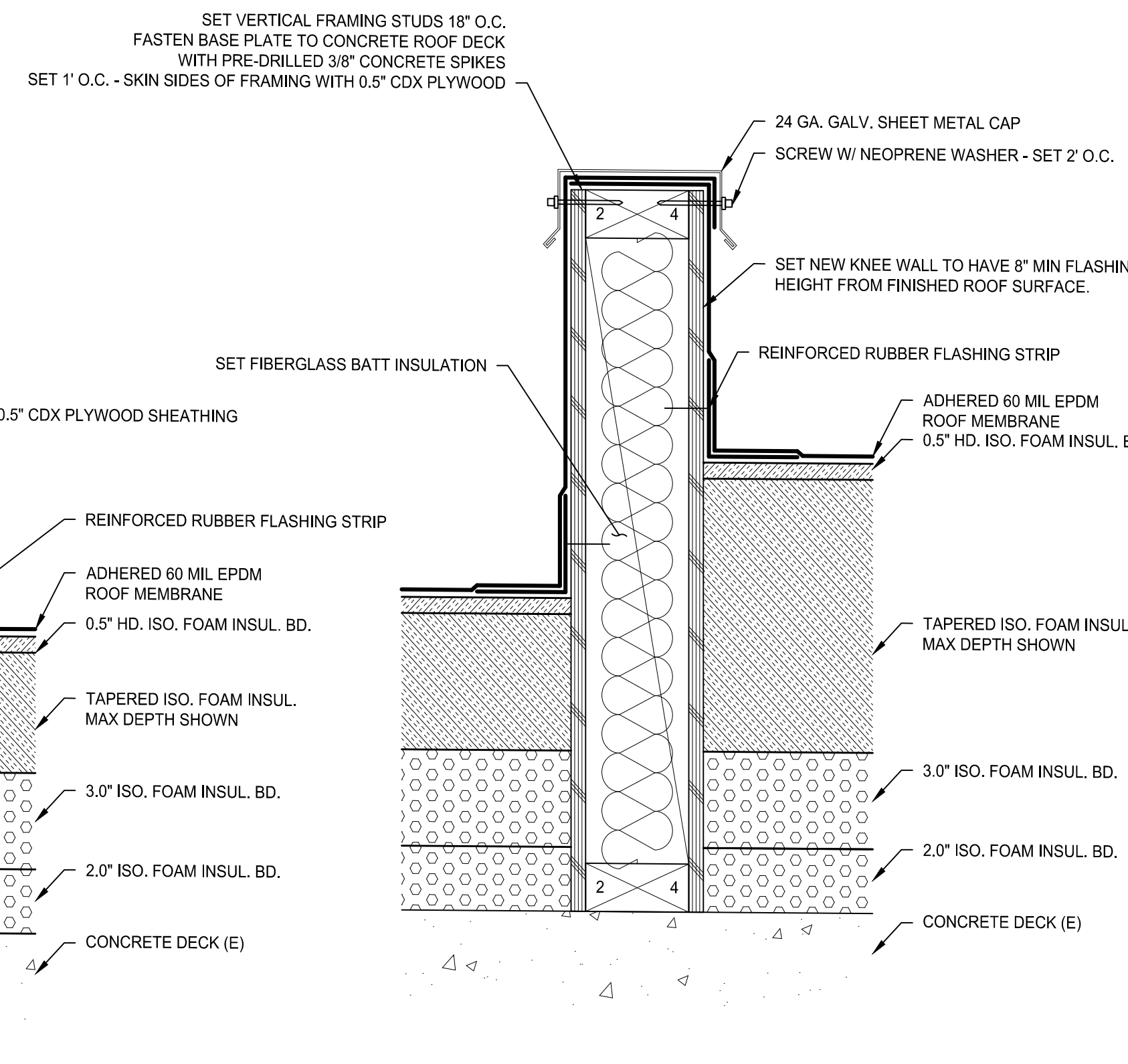
**A1**  
**R2.2** WALL BASE FLASHING  
SCALE 3" = 1'-0" (1:4)



**A2**  
**R2.2** TRANSITION FLASHING  
SCALE 3" = 1'-0" (1:4)



**A3**  
**R2.2** PERIMETER FLASHING  
SCALE 3" = 1'-0" (1:4)



**A4**  
**R2.2** CONTROL JOINT FLASHING  
SCALE 3" = 1'-0" (1:4)

PIKES PEAK LIBRARY DISTRICT  
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CADD FILE:  
PCL R2-2.DWG

ROOF DETAILS

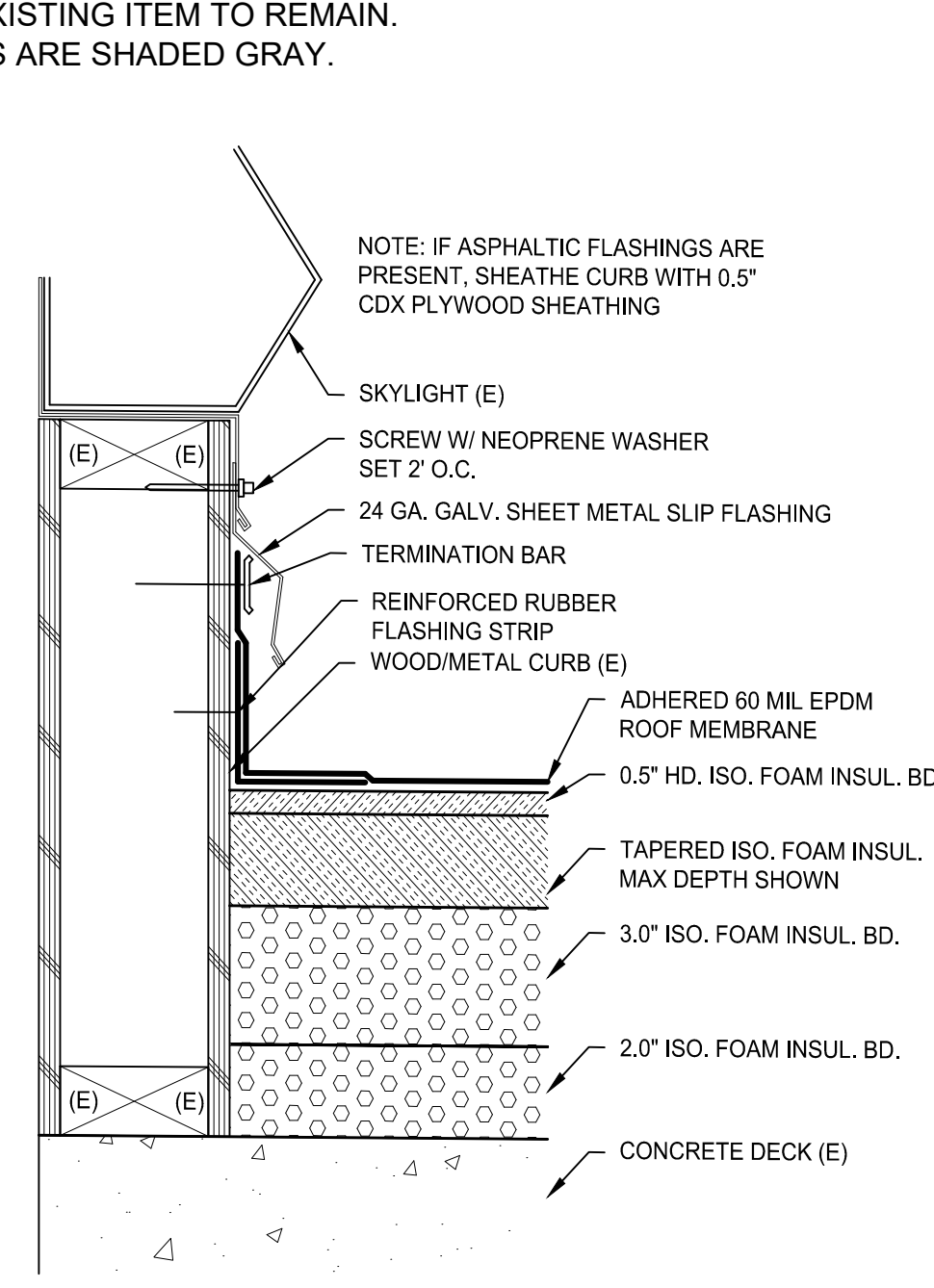
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DRAWING #:  
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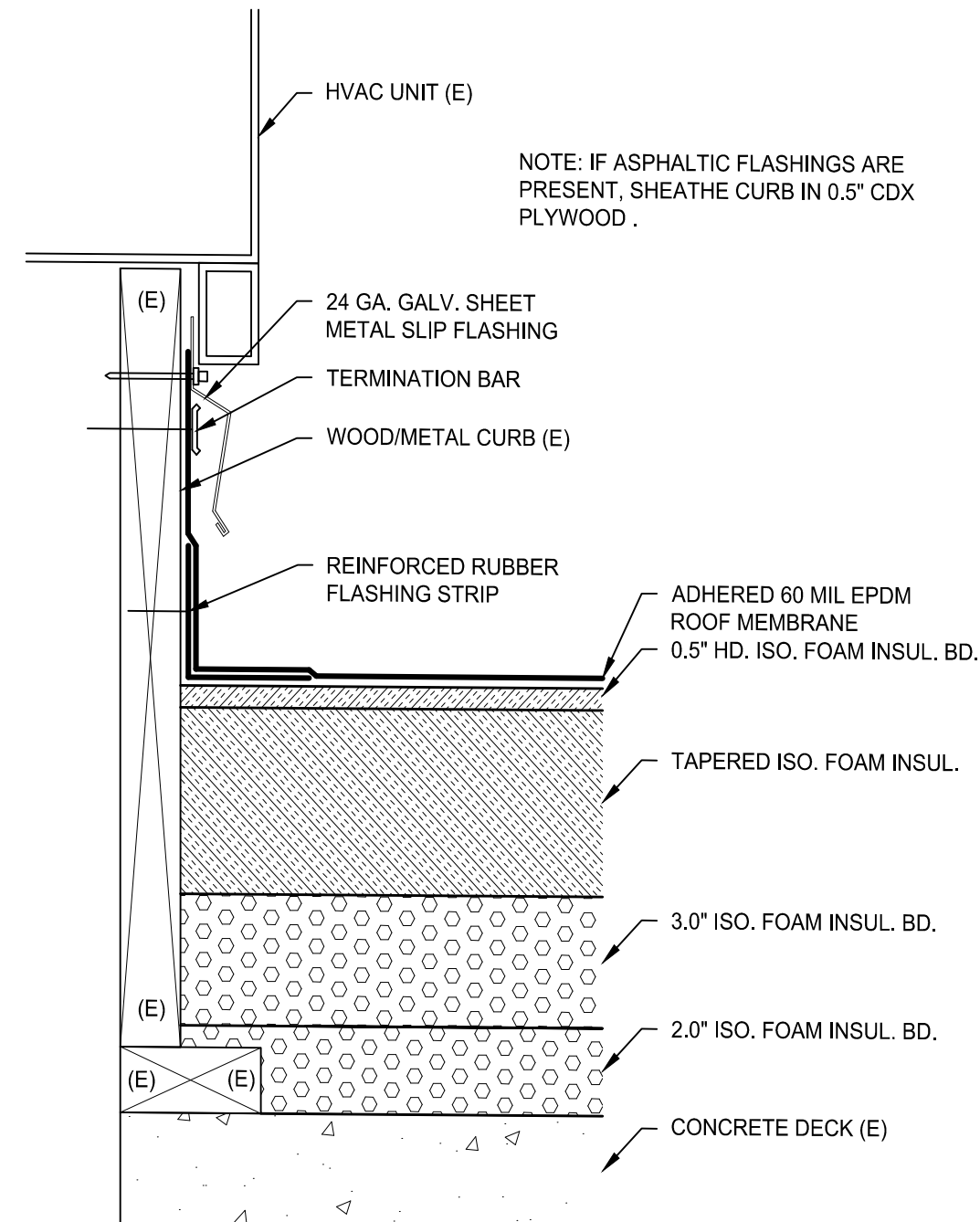
SHEET 5 OF 6

DETAILS NOTES:

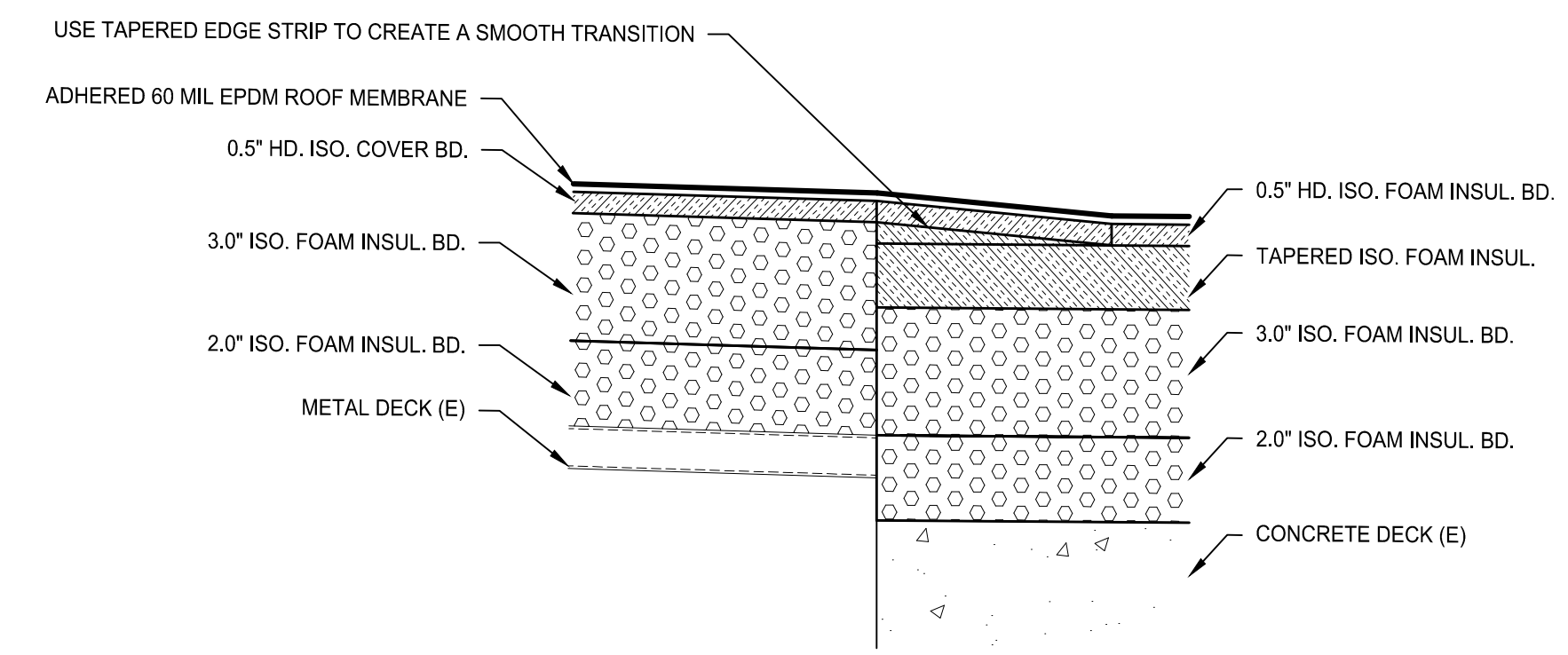
1. DETAILS ARE ENLARGED FOR CLARITY. MAKE ALL CONNECTIONS WATERTIGHT.
2. LAP SEALANT NOT SHOWN. REFER TO MFR FOR LOCATIONS.
3. (E) DENOTES EXISTING ITEM TO REMAIN.
4. EXISTING ITEMS ARE SHADED GRAY.



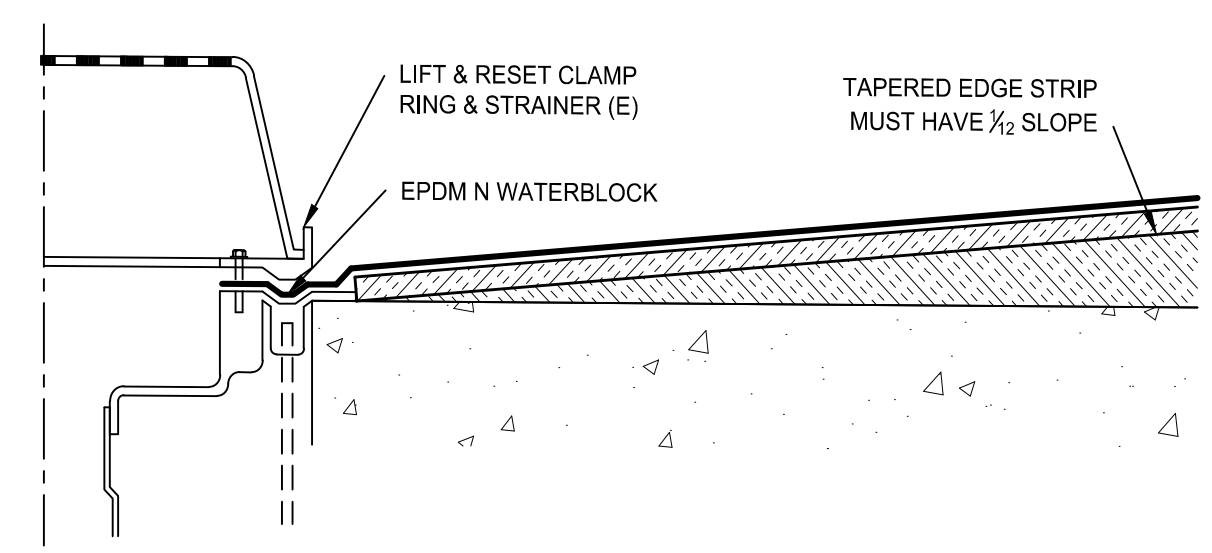
**C1**  
R2.3 SKYLIGHT CURB FLASHING  
SCALE 3" = 1'-0" (1:4)



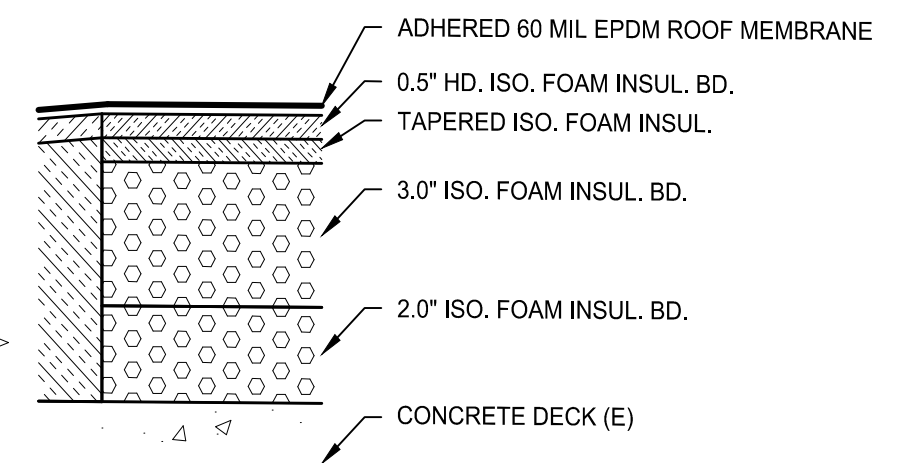
**C2**  
R2.3 HVAC CURB FLASHING  
SCALE 3" = 1'-0" (1:4)



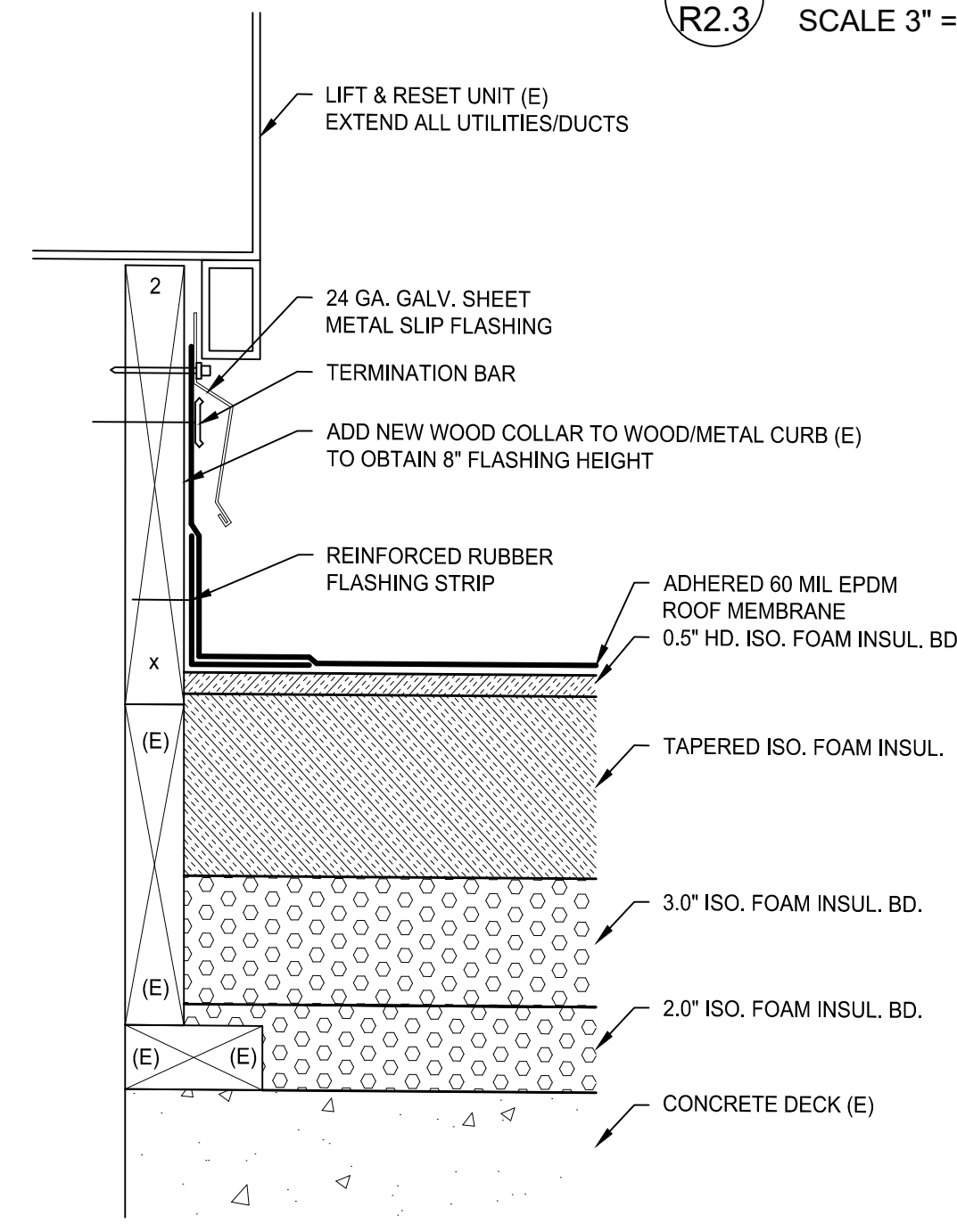
**C3**  
R2.3 DECK TRANSITION  
SCALE 3" = 1'-0" (1:4)



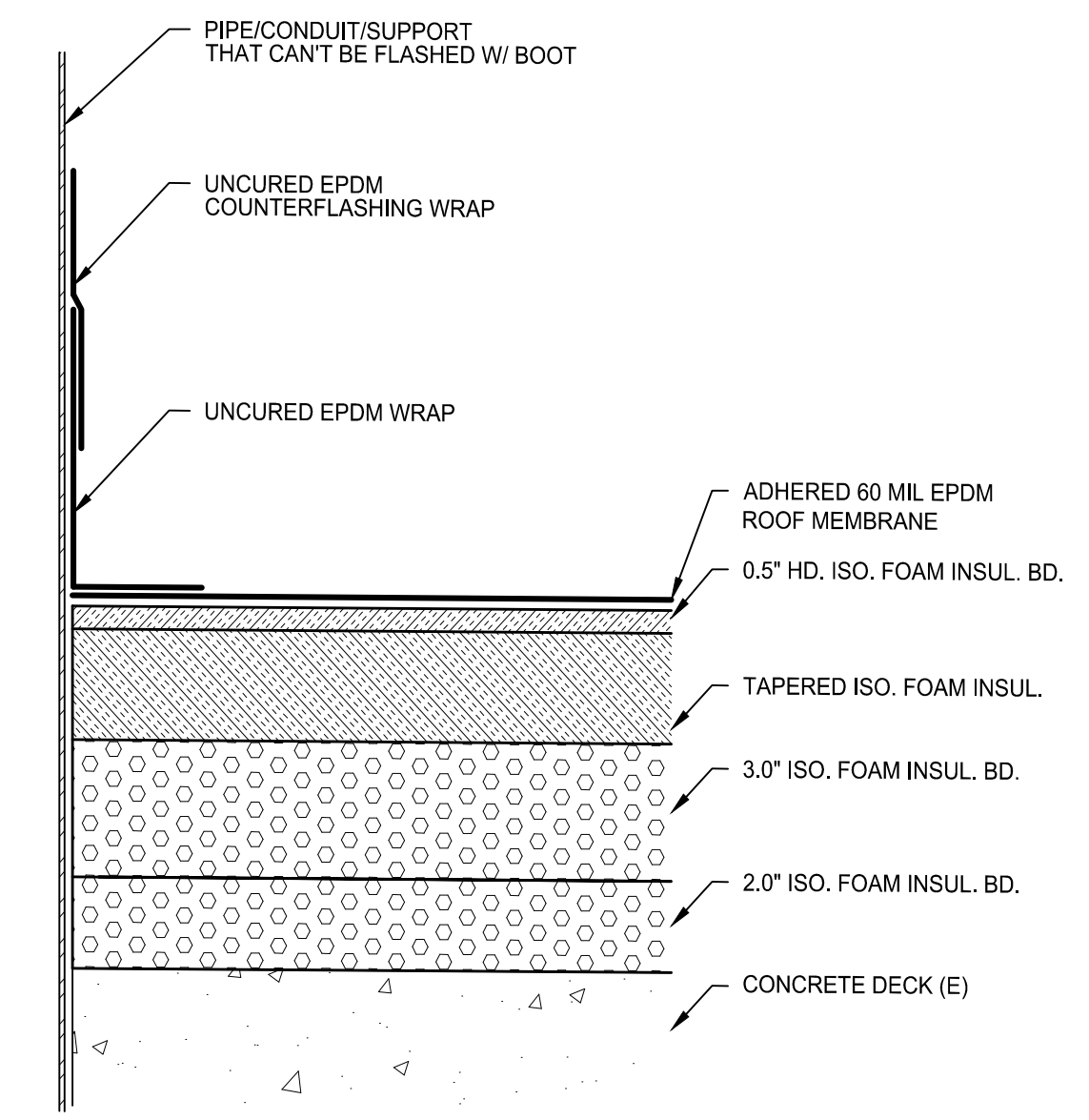
**B1**  
R2.3 DRAIN SUMP/FLASHING  
SCALE 3" = 1'-0" (1:4)



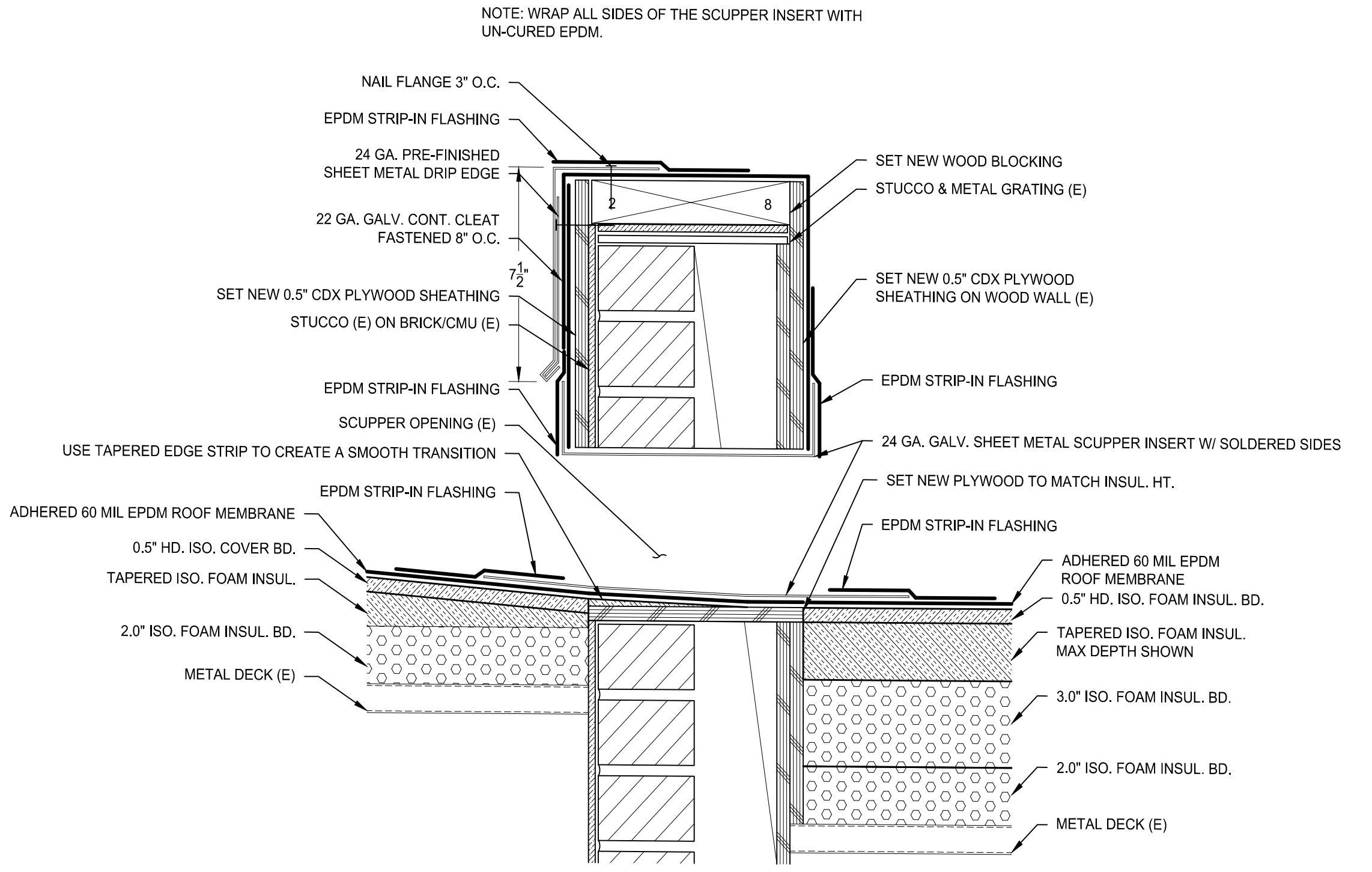
**B2**  
R2.3 HVAC CURB FLASHING  
SCALE 3" = 1'-0" (1:4)



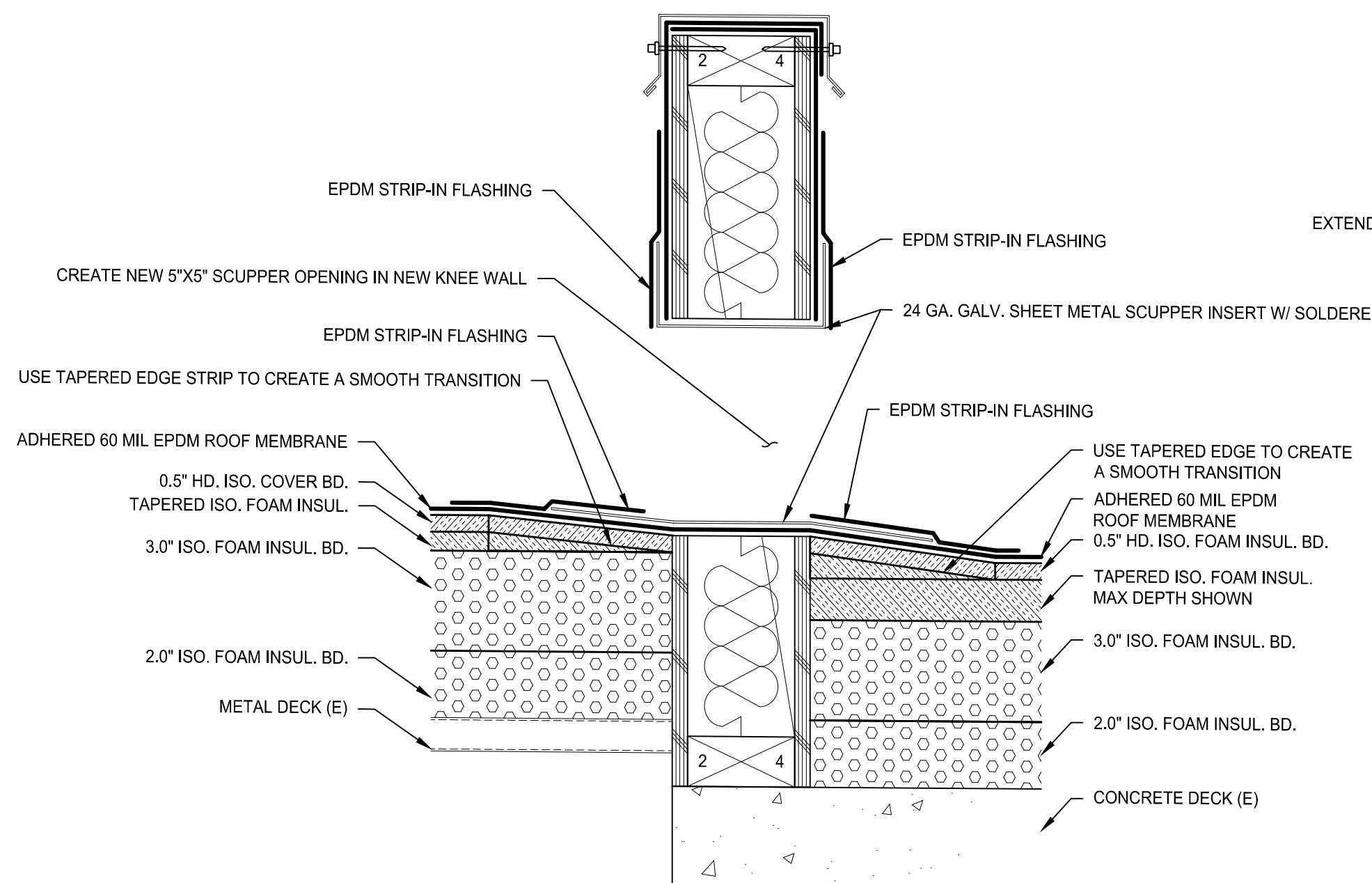
**B3**  
R2.3 PLUMBING VENT FLASHING  
SCALE 3" = 1'-0" (1:4)



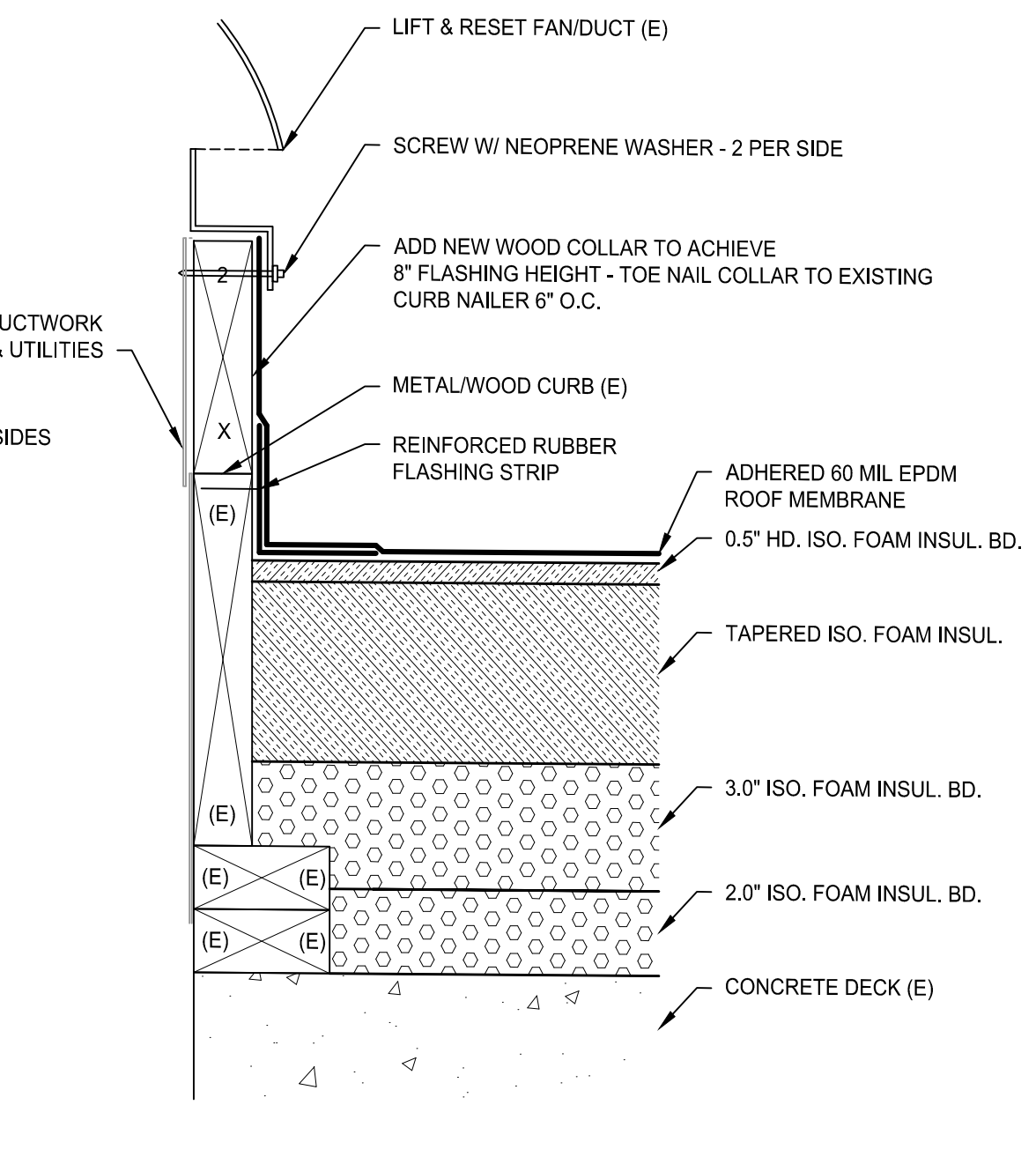
**B4**  
R2.3 FIELD WRAP FLASHING  
SCALE 3" = 1'-0" (1:4)



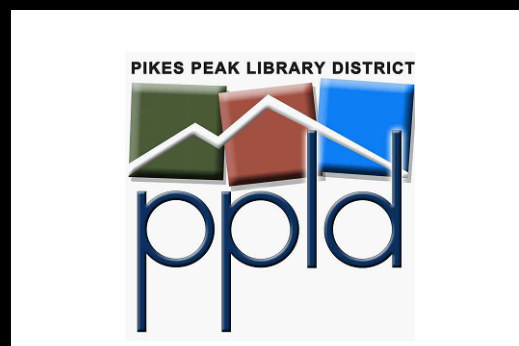
**A1**  
R2.3 SCUPPER SUMP/FLASHING  
SCALE 3" = 1'-0" (1:4)



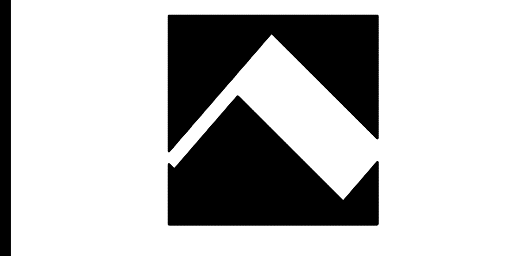
**A2**  
R2.3 SCUPPER SUMP/FLASHING  
SCALE 3" = 1'-0" (1:4)



**A3**  
R2.3 MECHANICAL CURB FLASHING  
SCALE 3" = 1'-0" (1:4)



ROOFING CONSULTANT



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REVISION	BY/DATE

DESIGNER: RDS	PROJ. MGR: LN
DRAFTER: LR	PROJECT #:
CHECKED BY: GT	DATE: 8/10/2021

PIKES PEAK LIBRARY DISTRICT REPLACE ROOFING PENROSE/CARNEGIE LIBRARY

20 N Cascade Ave.  
Colorado Springs, CO 80903

CADD FILE:  
PCL R2-3.DWG

ROOF DETAILS

DRAWING SCALE:  
3" = 1'-0"

DRAWING #:  
**R2.3**

SHEET 6 OF 6