

# 2024 Waterford School District Kettering High School Roofing Replacement 2800 Kettering Drive Waterford Twp., Michigan 48329



Orientation	Scale
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Project  
**2024 WATERFORD SCHOOL DISTRICT  
KETTERING HIGH SCHOOL  
ROOFING REPLACEMENT**

Project Location  
**2800 KETTERING DR.,  
WATERFORD TWP., MI 48329**

Sheet Name  
**COVER SHEET**

Seal

REV	ISSUED FOR	DATE	BY
OWNER REVIEW		12-22-23	KMD
BIDS		11-26-24	KMD

Revisions

SME Project No.  
**094776.00**

Project Manager:  
**KMD**

Designer:  
**KMD**

CADD:  
**GUS**

Checked By:  
**KMD**

Reviewed By:  
**LD**

Sheet No.  
**G0.1**

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**GENERAL NOTES:**

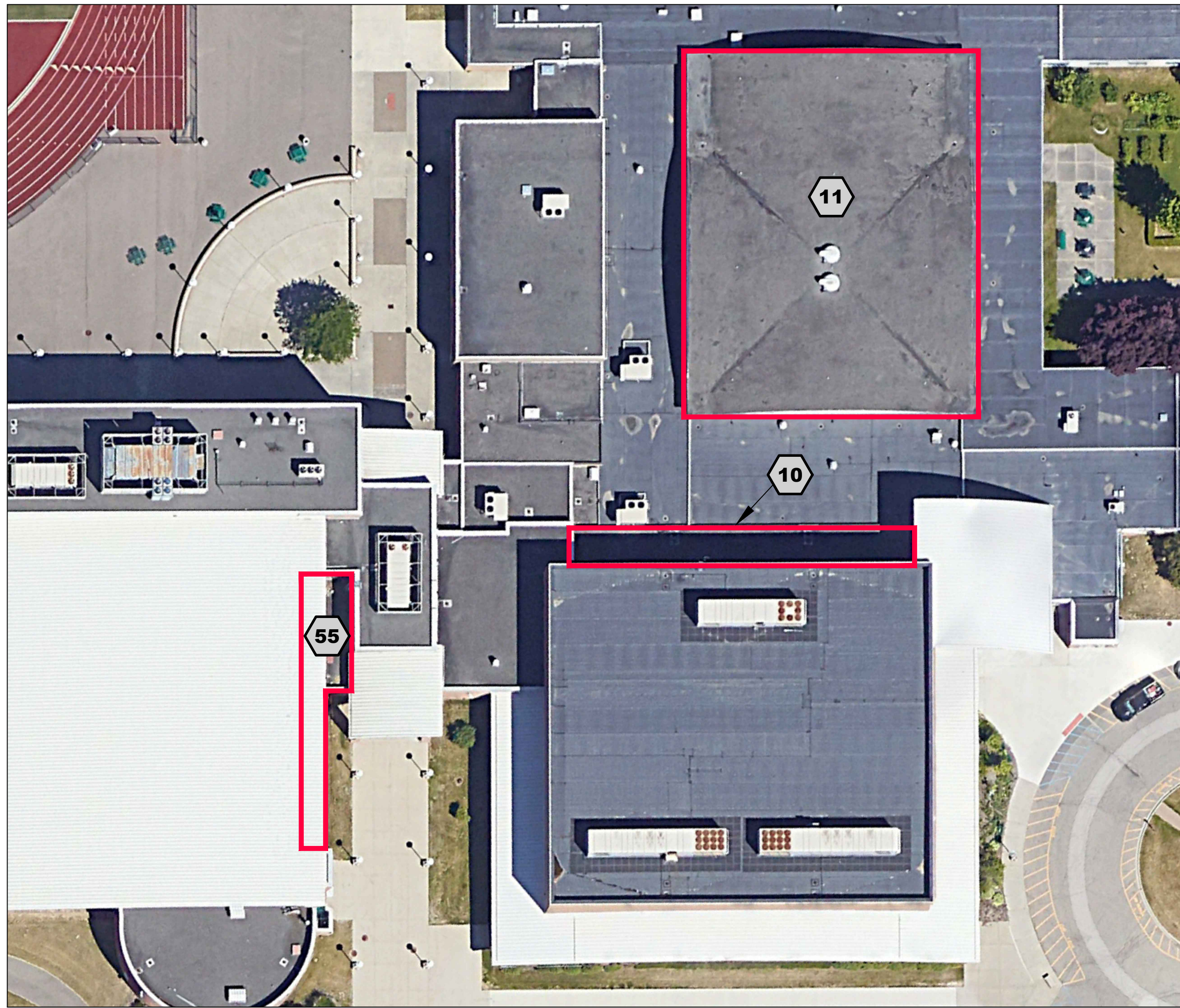
- THE SUMMARY OF WORK CONTAINED IN THESE NOTES AND SHOWN ON THE PLANS MAY NOT INCLUDE ALL ITEMS AND ACTIVITIES NECESSARY TO COMPLETE THE WORK. IN ADDITION TO THE REQUIREMENTS SHOWN IN THE DRAWINGS, TAKE MEASURES REASONABLY NECESSARY TO PROVIDE THE DESIRED WORK RESULT AND TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING SAFETY, AND PROTECTION OF PROPERTY AND PEDESTRIANS. PROVIDE AND MAINTAIN SAFETY DEVICES IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
- DO NOT SCALE DRAWINGS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. DIMENSIONS SHOWN ON DRAWINGS ARE BASED UPON LIMITED FIELD VERIFICATION, AND HAVE NOT BEEN COMPLETELY FIELD VERIFIED. THE OWNER AND ENGINEER TAKE NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING DIMENSIONS SHOWN ON THE DRAWINGS.
- NOTIFY THE OWNER AND ENGINEER OF ANTICIPATED CHANGES OR ADDITIONS TO THE WORK PRIOR TO THE START OF ACTIVITIES. THE GENERAL LIMITS OF THE WORK ARE NOTED ON THE PROJECT DRAWINGS WITH WORK BOUNDARIES TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- PROMPTLY REPORT UNANTICIPATED CONDITIONS UNCOVERED THAT ARE CONTRARY TO THE DRAWINGS OR WILL ADVERSELY IMPACT THE WORK TO THE OWNER AND ENGINEER FOR ADVISEMENT.
- PROVIDE TEMPORARY PROTECTION, BARRICADES, TEMPORARY STRUCTURES, AND OTHER MEASURES AS NEEDED TO PROTECT THE PEDESTRIAN AND VEHICULAR TRAFFIC ADJACENT TO AND IN THE VICINITY OF THE WORK AREA.
- PROVIDE TEMPORARY PROTECTION WATERPROOFING, TIE-INS, WATER BLOCKS, AND INTERIOR PROTECTION AS NEEDED DURING THE WORK TO PREVENT LEAKAGE INTO THE BUILDING AND WATER DAMAGE TO THE INTERIOR. PROVIDE TARPULAINS OR PLASTIC SHEETING FOR TEMPORARY PROTECTION INSIDE THE BUILDING AS NEEDED DURING CONSTRUCTION.
- PROVIDE TEMPORARY PROTECTION OF EXISTING EQUIPMENT DURING THE WORK, SATISFYING OWNER'S REQUIREMENTS. RESTORE EXISTING EQUIPMENT, BUILDING COMPONENTS, SIDEWALK, AND GROUNDS DAMAGED DURING THIS WORK TO ORIGINAL CONDITION OR REPLACE WITH NEW MATERIALS AS DIRECTED BY THE OWNER. DAMAGED EQUIPMENT/COMPONENTS WILL BE REPLACED AT NO COST TO THE OWNER.
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR DELIVERY, STORAGE, MIXING, SURFACE PREPARATION, APPLICATION, AND CURING OF MATERIALS USED FOR RESTORATION WORK.
- SECURE SITE STAGING AREA FOR STORAGE TO BE COORDINATED WITH OWNER PRIOR TO BEGINNING WORK.
- STORAGE OF MATERIALS INSIDE THE BUILDING IS PROHIBITED. DO NOT STORE FLAMMABLE MATERIALS ON THE ROOFS OR IN THE STAGING AREA. REMOVE FLAMMABLE MATERIALS FROM THE SITE AND SECURELY STORE THEM AT THE END OF EACH WORK DAY.
- TAKE DUE CARE AND CAUTION TO AVOID TRACKING DUST, DEBRIS, OR LOOSE MATERIALS TO AREAS OUTSIDE OF THE CONSTRUCTION AREA. REMOVE MATERIALS TRACKED TO AREAS OUTSIDE OF THE CONSTRUCTION AREA AS SOON AS POSSIBLE, AT NO ADDITIONAL COST TO THE OWNER. CONDUCT AN INSPECTION AT THE END OF EACH WORK DAY OF THE PROJECT AREA AND TAKE STEPS TO ENSURE THAT THE ENTIRE WORK AREA IS CLEAN. THIS REQUIREMENT INCLUDES DEBRIS FROM THE CONTRACTOR'S EMPLOYEES EATING LUNCH OR ON BREAKS.
- REMOVE WASTE MATERIALS AND DEBRIS RESULTING FROM THE WORK FROM THE SITE AND DISPOSE OF IN A LEGAL MANNER.
- REMOVE STAINING/CONTAMINANTS FROM BUILDING SURFACES AND THE GROUNDS, INCLUDING SPILLED AND SMEARED SEALANTS, BITUMINOUS MATERIALS, GASOLINE AND FUEL SPILLS, AND HYDRAULIC LEAKAGE FROM THE EQUIPMENT USED ONSITE.
- PROVIDE PROTECTION OF SIDEWALKS OR OTHER PAVEMENTS AGAINST BREAKAGE DUE TO MANLIFT USE OR OTHER EQUIPMENT. RESTORE DAMAGED SIDEWALKS AND PAVEMENTS TO PRE-PROJECT CONDITIONS.
- MAINTAIN UP-TO-DATE SET OF PROJECT DOCUMENTS AT THE JOB-SITE. KEEP ACCURATE AND LEGIBLE RECORDS OF CHANGES TO THE WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON 'AS-BUILT' EXISTING OR CONSTRUCTED CONDITIONS. KEEP RECORDS OF CHANGES AND AS-BUILT CONDITIONS DOCUMENTED ON A SET OF DRAWINGS TO BE PROVIDED TO THE ENGINEER AT CONSTRUCTION COMPLETION.
- UPON COMPLETION OF THE WORK, CLEAR THE ENTIRE SITE OF EQUIPMENT, UNUSED MATERIALS, AND RUBBISH. RESTORE DISTURBED AREAS TO THE SATISFACTION OF THE OWNER.

**SCOPE OF WORK:**

- REMOVE AND REPLACE ROOFING ASSEMBLY ON EACH ROOF WITH NEW FULLY ADHERED, BLACK, 60-MIL EPDM MEMBRANE, INSULATION, PERIMETER FLASHINGS, EDGE METAL FLASHINGS, 20-YEAR ROOFING MANUFACTURER'S WARRANTY, AND 2-YEAR CONTRACTOR'S WARRANTY. EDGE METAL TO BE INCLUDED IN ROOFING MANUFACTURER'S 20-YEAR WARRANTY.
- REPLACE EACH DRAIN AS INDICATED ON PROJECT DRAWINGS AND SPECIFICATIONS.
- REPLACE DETERIORATED WOOD BLOCKING TO MATCH EXISTING TYPE AND THICKNESS.
- ADD WOOD BLOCKING ON CURBS AND PERIMETERS TO ACCOMMODATE NEW INSULATION HEIGHTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE NUMBER OF NAILERS REQUIRED TO PROVIDE A MINIMUM OF 8-INCHES FLASHING HEIGHT.
- PROVIDE LICENSED ELECTRICAL, PLUMBING, OR HVAC SUBCONTRACTORS TO DISCONNECT AND RECONNECT MECHANICAL UNITS, ADJUST OR RELOCATE UTILITIES, RAISE CURBS, ABANDON DESIGNATED CURBS, RAISE DUCTWORK, INSTALL NEW DRAINS OR SCUPPER COMPONENTS, AND ABANDON DESIGNATED DRAINS AND PIPING. IN-PLACE SYSTEMS SHALL ACCOMMODATE NEW INSULATION THICKNESSES AND MEET WARRANTY REQUIREMENTS FOR FLASH HEIGHT BY ROOFING MANUFACTURER.
  - ALL MECHANICAL UNITS AND UTILITIES MUST BE OPERATIONAL AND DRAINS FREE-FLOWING AT THE COMPLETION OF THE PROJECT. THIS INCLUDES CONDUITS DAMAGED BY SCREWS OR OTHER ITEMS THAT MAY DAMAGE UTILITIES.
  - WORK TO BE COMPLETED IN ACCORDANCE WITH LOCAL CODES AND JURISDICTION(S) OF AUTHORITY. DO NOT SHUT OFF OR INHIBIT UTILITY SERVICES WITHOUT NOTIFYING OWNER'S REPRESENTATIVE IN ADVANCE.

**SYMBOL AND ABBREVIATION INDEX**

# A4.1	PARTIAL SECTION INDICATOR TYPICAL	EQ	EQUAL	OPT	OPTIONAL
ACC	ACCESSIBLE	EQL SP	EQUALLY SPACED	PROJ	PROJECT
ADDL	ADDITIONAL	EQUIP	EQUIPMENT	QTY	QUANTITY
ADH	ADHESIVE	EXT	EXTERNAL/EXTERIOR	SIM	SIMILAR
ADJ	ADJACENT	FIG	FIGURE	STD	STANDARD
ADMIN	ADMINISTRATION	FT	FEET	SYMM	SYMMETRICAL
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	GA	GAUGE	SYS	SYSTEM
ALT	ALTERNATE	GL	GROUND LEVEL	TYP	TYPICAL
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE	GR LN	GRADE LINE	UNO	UNLESS NOTED OTHERWISE
APPX	APPENDIX	GRAD	GRADIENT	VIF	VERIFY IN FIELD
REQD	REQUIRED	IBC	INTERNATIONAL BUILDING CODE		
ASYM	ASYMMETRICAL	INT	INTERIOR		
BLDG	BUILDING	KIP	THOUSAND POUNDS		
BLW	BELOW	KLF	KIP PER LINEAR FOOT		
BOT	BOTTOM	LBF	POUND FORCE		
BTWN	BETWEEN	LIN	LINEAR		
CL	CENTER LINE	LN	LINE		
CG	CENTER OF GRAVITY	LXR	LAYER		
CTRL	CONTROL	MAT	MATERIAL		
DEMO	DEMOLITION	MBR	MEMBER		
DIA	DIAMETER	MFR	MANUFACTURER		
DIM	DIMENSION	NBC	NATIONAL BUILDING CODE		
DWG	DRAWING	OC	ON CENTER		
EL	ELEVATION	OPNG	OPENING		
ELEM	ELEMENT	OPP	OPPOSITE		
ENCL	ENCLOSURE				



**OVERALL SITE AERIAL IMAGE**  
NOT TO SCALE



**LOCATION MAP**  
NOT TO SCALE

**ENGINEER**

SME  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170

CONTACT: KYLE DAMEROW, PE  
PHONE: 734-454-9900  
EMAIL: KYLE.DAMEROW@SME-USA.COM



**OWNER / CLIENT**

WATERFORD SCHOOL DISTRICT  
501 N. CASS LAKE ROAD  
WATERFORD, MICHIGAN 48328

OWNER REPRESENTATIVE: MR. SIDNEY TIPPETT  
PHONE: 248-674-3193  
EMAIL: TIPPES01@WSDMI.ORG



**APPLICABLE CODES**

2015 MICHIGAN REHAB CODE

**LIST OF DRAWINGS**

SHEET NO.	SHEET TITLE
G0.1	COVER SHEET
G1.1	ROOF AREA 10 WIND DESIGN LOADING / ZONE PLAN
G1.2	ROOF AREA 11 WIND DESIGN LOADING / ZONE PLAN
G1.3	ROOF AREA 55 WIND DESIGN LOADING / ZONE PLAN
A1.1	ROOF PLAN AREA 10
A1.2	ROOF PLAN AREA 11
A1.3	ROOF PLAN AREA 55
A4.1	FLASHING DETAILS
A4.2	FLASHING DETAILS

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Orientation	Scale
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**Project**  
2024 WATERFORD SCHOOL DISTRICT  
KETTERING HIGH SCHOOL  
ROOFING REPLACEMENT

**Project Location**  
2800 KETTERING DR.,  
WATERFORD TWP., MI 48329

**Sheet Name**  
ROOF AREA 10  
WIND DESIGN  
LOADING / ZONE PLAN

**Seal**

**Revisions**

REV	ISSUED FOR	DATE	BY
	OWNER REVIEW	12-22-23	KMD
	BIDS	1-16-24	KMD

**SME Project No.**  
094776.00

**Project Manager:**  
KMD

**Designer:**  
KMD

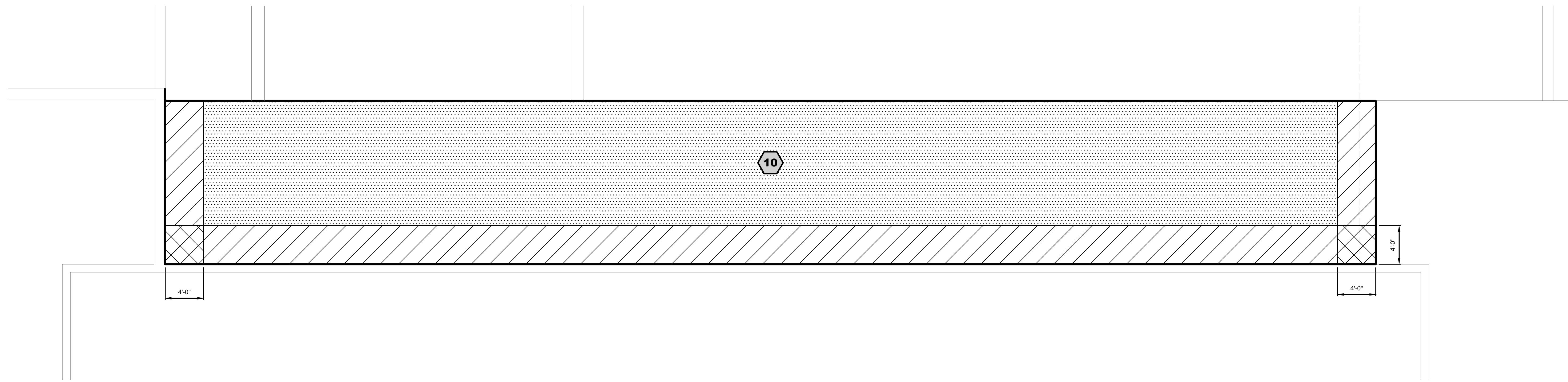
**CADD:**  
GUS

**Checked By:**  
KMD

**Reviewed By:**  
LD


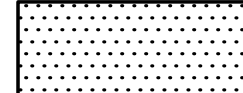


**Sheet No.**  
G1.1

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**ROOF AREA 10 WIND DESIGN LOADING / ZONE PLAN**  
SCALE: 3/16" = 1'-0"

**LEGEND**

-  ROOF AREA
-  ZONE 1
-  ZONE 2
-  ZONE 3

**WIND DESIGN CRITERIA (MBC 2015)**  
KETTERING HIGH SCHOOL  
ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH  
NOMINAL WIND SPEED = 93 MPH  
EXPOSURE CATEGORY = C  
RISK CLASSIFICATION = III  
INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING) = +/- 0.18

- NOTES:**
- WORK WIND DESIGN LOADING ZONE PLAN WITH TABLE 1, THIS SHEET.
  - WIND UPLIFT PRESSURE GIVEN IN TABLE 1 TO BE USED FOR DESIGN OF ROOFING FASTENING SYSTEM(S).
  - DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT<sup>2</sup> OR LESS.

**TABLE 1**

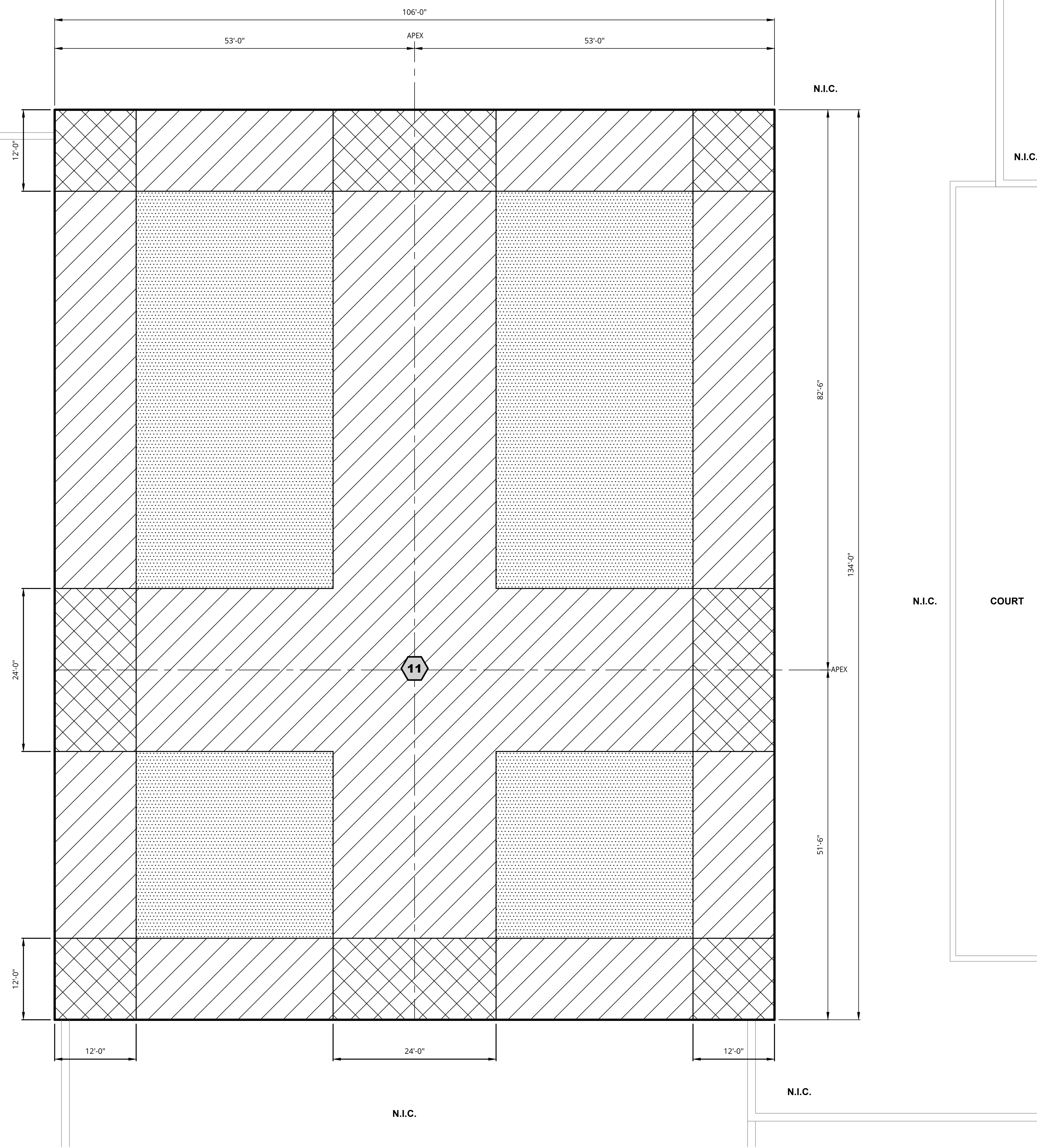
SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING	
ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	-24
ZONE 2 AND TOP/SIDE OF PARAPET	-40
ZONE 3 AND TOP/SIDE OF PARAPET	-59

**NOTE:**  
\*,- NEGATIVE SIGN INDICATES PRESSURE ACTING AWAY FROM THE ROOF SURFACE, I.E. SUCTION

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**Revisions**

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	OWNER REVIEW	12-22-23	KMD
	BIDS	11-26-24	KMD



**LEGEND**

- # ROOF AREA
- [Dotted Hatching] ZONE 1
- [Diagonal Hatching] ZONE 2
- [Cross Hatching] ZONE 3

**WIND DESIGN CRITERIA (MBC 2015)**  
 KETTERING HIGH SCHOOL  
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  - DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT<sup>2</sup> OR LESS.

TABLE 1  
SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING

ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	- 24
ZONE 2 AND TOP/SIDE OF PARAPET	- 40
ZONE 3 AND TOP/SIDE OF PARAPET	- 59

**NOTE:**  
 "- " NEGATIVE SIGN INDICATES PRESSURE ACTING AWAY FROM THE ROOF SURFACE, I.E. SUCTION

N.I.C.  
N.I.C.  
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N.I.C.  
N.I.C.  
COURT

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Revisions

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Project Manager: **KMD**

Designer: **KMD**

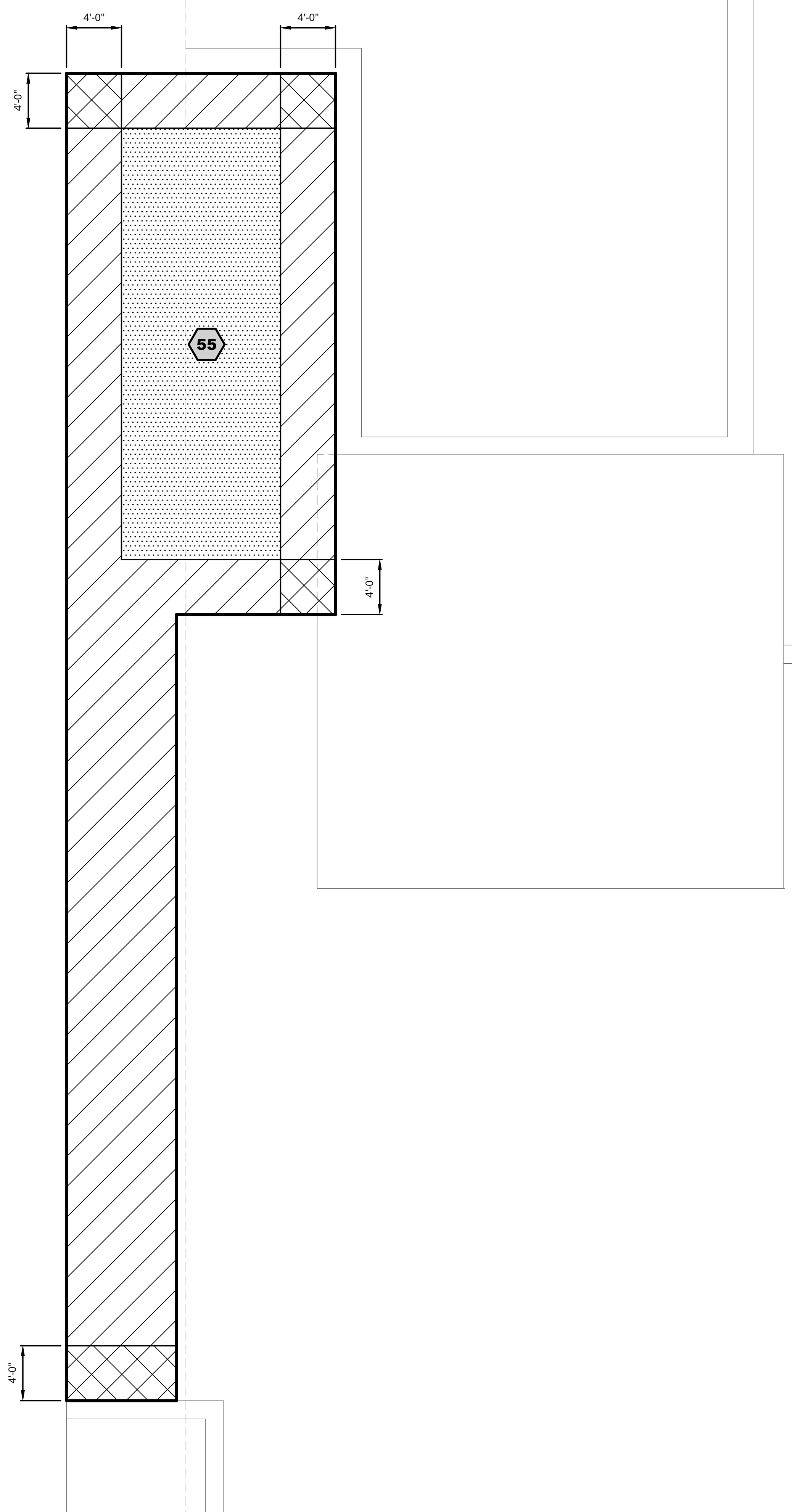
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Checked By: **KMD**


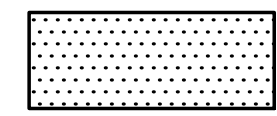
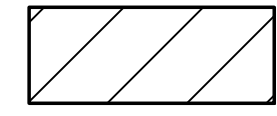
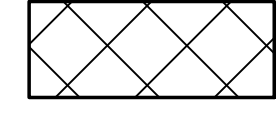
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Sheet No. **G1.3**

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**LEGEND**

-  ROOF AREA
-  ZONE 1
-  ZONE 2
-  ZONE 3

**WIND DESIGN CRITERIA (MBC 2015)**  
 KETTERING HIGH SCHOOL  
 ULTIMATE DESIGN (FACTORED) BASIC WIND SPEED (3 SECOND GUST) = 120 MPH  
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- NOTES:
1. WORK WIND DESIGN LOADING ZONE PLAN WITH TABLE 1, THIS SHEET.
  2. WIND UPLIFT PRESSURE GIVEN IN TABLE 1 TO BE USED FOR DESIGN OF ROOFING FASTENING SYSTEM(S).
  3. DESIGN PRESSURES BASED ON EFFECTIVE WIND AREA OF 10FT<sup>2</sup> OR LESS.

TABLE 1  
 SERVICE (UNFACTORED) DESIGN WIND LOADS - COMPONENTS AND CLADDING

ROOF SURFACE VERTICAL PRESSURE (PSF)	
ZONE 1	- 24
ZONE 2 AND TOP/SIDE OF PARAPET	- 40
ZONE 3 AND TOP/SIDE OF PARAPET	- 59

NOTE:  
 "- " NEGATIVE SIGN INDICATES PRESSURE ACTING AWAY FROM THE ROOF SURFACE, I.E. SUCTION

ROOF AREA(S)	ROOF ASSEMBLY (MEMBRANE TO DECK)
10	MEMBRANE: BLACK, 60-MIL, REINFORCED EPDM MEMBRANE AS SPECIFIED, FULLY ADHERED IN BONDING ADHESIVE COVER BOARD: 1/2" DENSDECK PRIME COVER BOARD, ADHERED IN LOW-RISE FOAM BASE INSULATION: 2 LAYERS OF 2.6" POLYISOCYANURATE INSULATION, ADHERED IN LOW-RISE FOAM VAPOUR RETARDER: VAPOUR RETARDER ADHERED IN PRIMER, AS SPECIFIED SUBSTRATE BOARD: 1/2" DENSDECK PRIME BOARD, MECHANICALLY ATTACHED



Orientation	Scale
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Project  
**2024 WATERFORD SCHOOL DISTRICT KETTERING HIGH SCHOOL ROOFING REPLACEMENT**

Project Location  
**2800 KETTERING DR., WATERFORD TWP., MI 48329**

Sheet Name  
**ROOF PLAN AREA 10**

Seal

Revisions			
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	OWNER REVIEW	12-22-23	KMD
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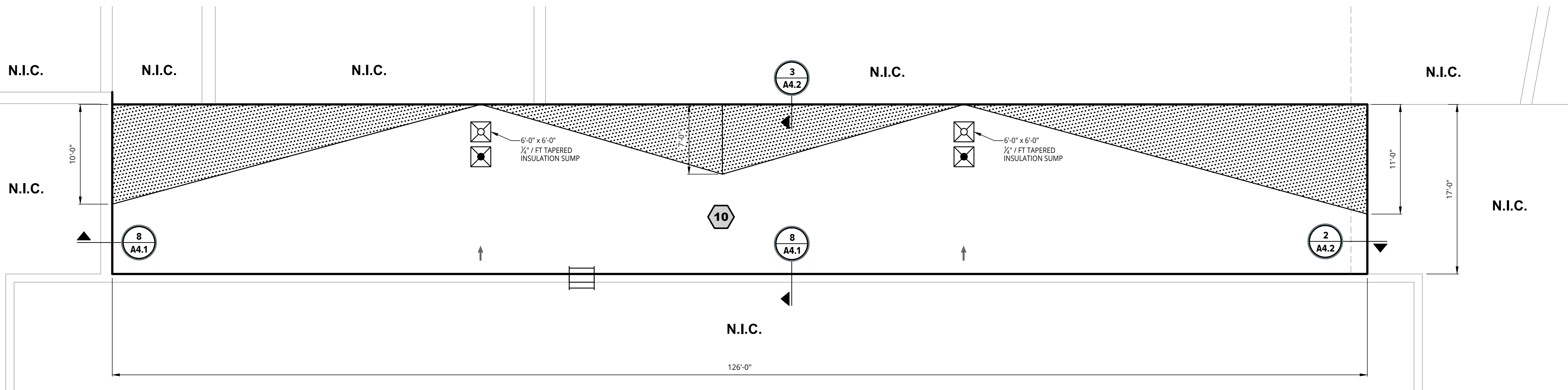
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Sheet No.  
**A1.1**

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**ROOF PLAN AREA 10**  
 SCALE: 3/16" = 1'-0"

**LEGEND**

- # ROOF AREA
- EXISTING ROOF DRAIN, REFER TO DETAIL 1 ON SHEET A4.1
- EXISTING ROOF OVERFLOW DRAIN, REFER TO DETAIL 1 ON SHEET A4.1
- EXISTING LADDER MOUNTED TO WALL
- WATER SHED DIRECTION
- N.I.C. ROOF AREA NOT IN CONTRACT
- 1/2" PER FOOT TAPERED SADDLE
- # A4.1 DETAIL CALL OUT

NOTES:  
 1. FIELD VERIFY ALL DIMENSIONS.

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 PLOT DATE:

ROOF AREA(S)	ROOF ASSEMBLY (MEMBRANE TO DECK)
11	MEMBRANE: BLACK, 60-MIL, UNREINFORCED EPDM MEMBRANE AS SPECIFIED, FULLY ADHERED IN BONDING ADHESIVE COVER BOARD: 1/2" DENSDECK PRIME COVER BOARD, MECHANICALLY ATTACHED BASE INSULATION: 2 LAYERS OF 2.6" POLYISOCYANURATE INSULATION, MECHANICALLY ATTACHED VAPOR RETARDER: VAPOR RETARDER ADHERED IN PRIMER, AS SPECIFIED SUBSTRATE BOARD: 1/2" DENSDECK PRIME BOARD, MECHANICALLY ATTACHED



Orientation	Scale
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Project  
**2024 WATERFORD SCHOOL DISTRICT  
 KETTERING HIGH SCHOOL  
 ROOFING REPLACEMENT**

Project Location  
**2800 KETTERING DR.,  
 WATERFORD TWP., MI 48329**

Sheet Name  
**ROOF PLAN  
 AREA 11**

Seal
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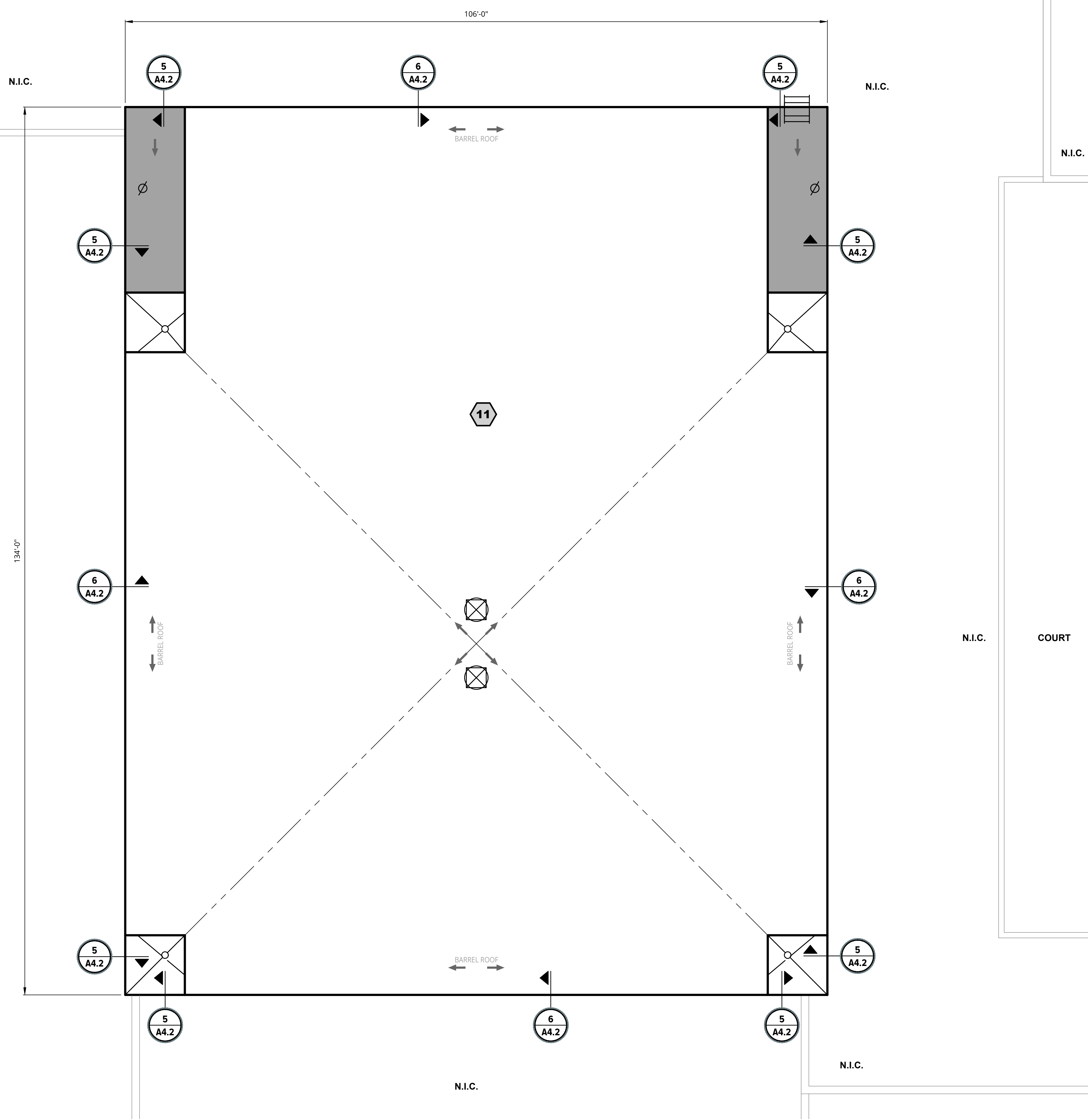
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Sheet No.  
**A1.2**

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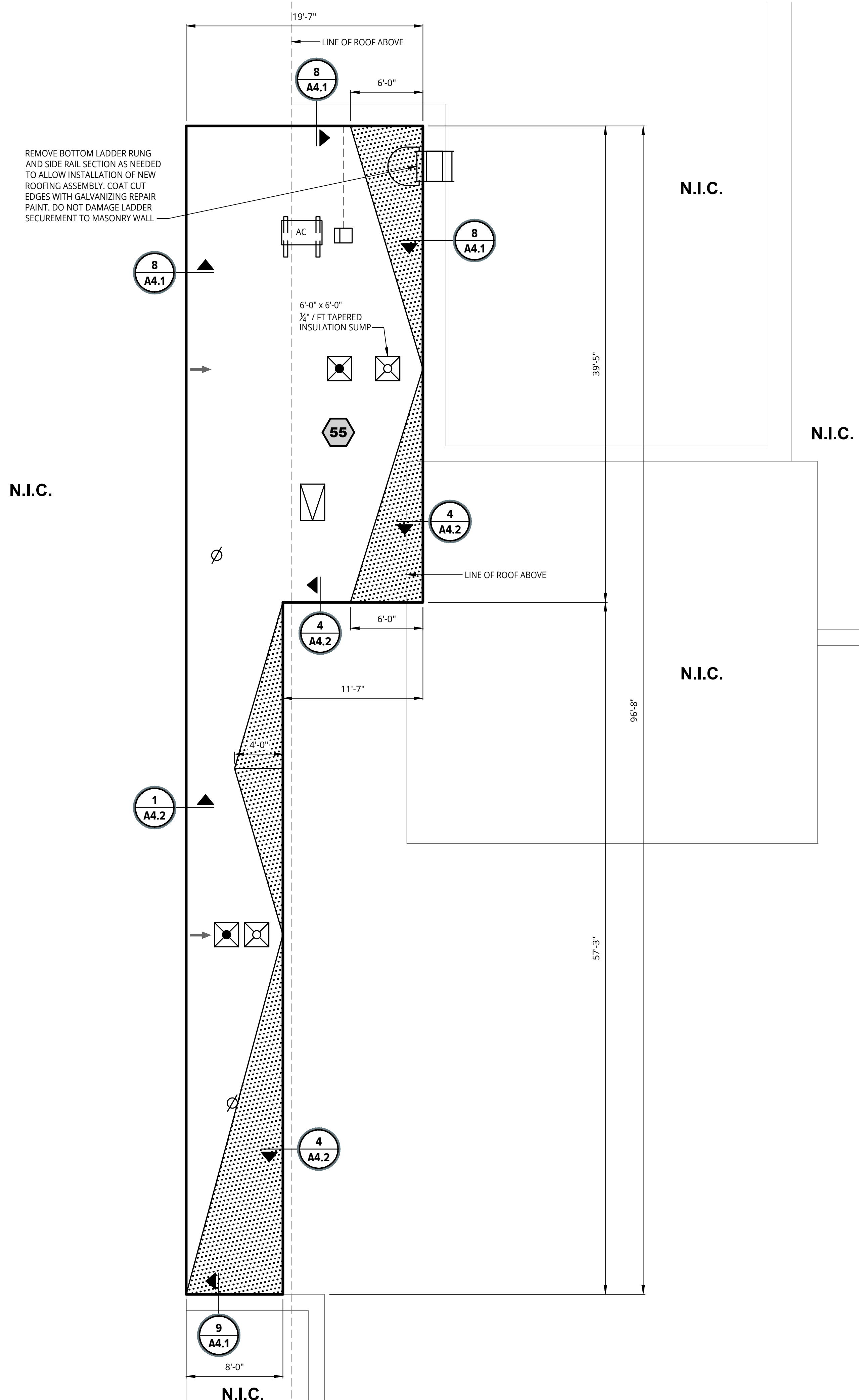
**LEGEND**

- ROOF AREA
- EXISTING ROOF DRAIN, WITH 1/2" / FT 9'-0" x 9'-0" TAPERED INSULATION SUMP PER DETAIL 1 ON SHEET A4.1
- SOIL VENT PIPE, PER DETAIL 2 ON SHEET A4.1
- CURBED MOUNT POWERED VENT, PER DETAIL 3 ON SHEET A4.1
- REMOVE AND REPLACE EXISTING MOUNTED LADDER WITH NEW FIXED PREFINISHED STEEL WALKTHROUGH LADDER WITH INTEGRATED HAND RAILS. SECURE TO EXISTING WALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. COMPLETED INSTALLATION TO BE OSHA COMPLIANT
- WATER SHED DIRECTION
- N.I.C.** ROOF AREA NOT IN CONTRACT
- 1/8" PER FOOT TAPERED SYSTEM
- DETAIL CALL OUT
- VALLEY

NOTES:  
 1. FIELD VERIFY ALL DIMENSIONS.

**ROOF PLAN AREA 11**  
 SCALE: 1/8" = 1'-0"

Jan 10, 2024 - 11:38am - bryana.kerdf@e Location: \\sme-hq\p1\WP\094776.00\CAD\Design Files\MA\REV 1 - BIDS\094776-00-ROOF PLANS.dwg  
 PLOT DATE:



ROOF AREA(S)	ROOF ASSEMBLY (MEMBRANE TO DECK)
55	MEMBRANE: BLACK, 60-MIL, REINFORCED EPDM MEMBRANE AS SPECIFIED, FULLY ADHERED IN BONDING ADHESIVE COVER BOARD: 1/2" DENSDECK PRIME COVER BOARD, ADHERED IN LOW-RISE FOAM BASE INSULATION: 2 LAYERS OF 2.6" POLYISOCYANURATE INSULATION, ADHERED IN LOW-RISE FOAM VAPOR RETARDER: VAPOR RETARDER ADHERED IN PRIMER, AS SPECIFIED SUBSTRATE BOARD: 1/2" DENSDECK PRIME BOARD, MECHANICALLY ATTACHED

**LEGEND**

- # ROOF SECTIONS
- EXISTING ROOF DRAIN, REFER TO DETAIL 1 ON SHEET A4.1
- EXISTING ROOF OVERFLOW DRAIN, REFER TO DETAIL 1 ON SHEET A4.1
- SOIL VENT PIPE, REFER TO DETAIL 2 ON SHEET A4.1
- EXISTING ROOF ACCESS HATCH, REFER TO DETAIL 5 ON SHEET A4.1
- AC ON SLEEPERS REFER TO DETAIL 6 ON SHEET A4.1
- SHEET METAL ENCLOSURE, REFER TO DETAIL 7 ON SHEET A4.1
- EXISTING LADDER MOUNTED TO WALL
- ELECTRICAL CONDUIT, REFER TO DETAIL 7 ON SHEET A4.2
- ← WATER SHED DIRECTION
- N.I.C. ROOF AREA NOT IN CONTRACT
- 1/2" PER FOOT TAPERED SADDLE
- # A4.1 DETAIL CALL OUT

NOTES:  
1. FIELD VERIFY ALL DIMENSIONS.



Orientation	Scale
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Project  
**2024 WATERFORD SCHOOL DISTRICT  
KETTERING HIGH SCHOOL  
ROOFING REPLACEMENT**

Project Location  
**2800 KETTERING DR.,  
WATERFORD TWP., MI 48329**

Sheet Name  
**ROOF PLAN  
AREA 55**

Seal

Revisions

REV	ISSUED FOR	DATE	BY
	OWNER REVIEW	12-22-23	KMD
	BIDS	1-16-24	KMD

SME Project No.  
**094776.00**

Project Manager:  
**KMD**

Designer:  
**KMD**

CADD:  
**GUS**

Checked By:  
**KMD**

Reviewed By:  
**LD**

Sheet No.  
**A1.3**

**ROOF PLAN AREA 55**  
SCALE: 3/16" = 1'-0"

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Orientation	Scale
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**Project**  
2024 WATERFORD SCHOOL DISTRICT  
KETTERING HIGH SCHOOL  
ROOFING REPLACEMENT

**Project Location**  
2800 KETTERING DR.,  
WATERFORD TWP., MI 48329

**Sheet Name**  
FLASHING DETAILS

**Seal**

**Revisions**

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OWNER REVIEW		12-22-23	KMD
BIDS		1-16-24	KMD

**SME Project No.**  
094776.00

**Project Manager:**  
KMD

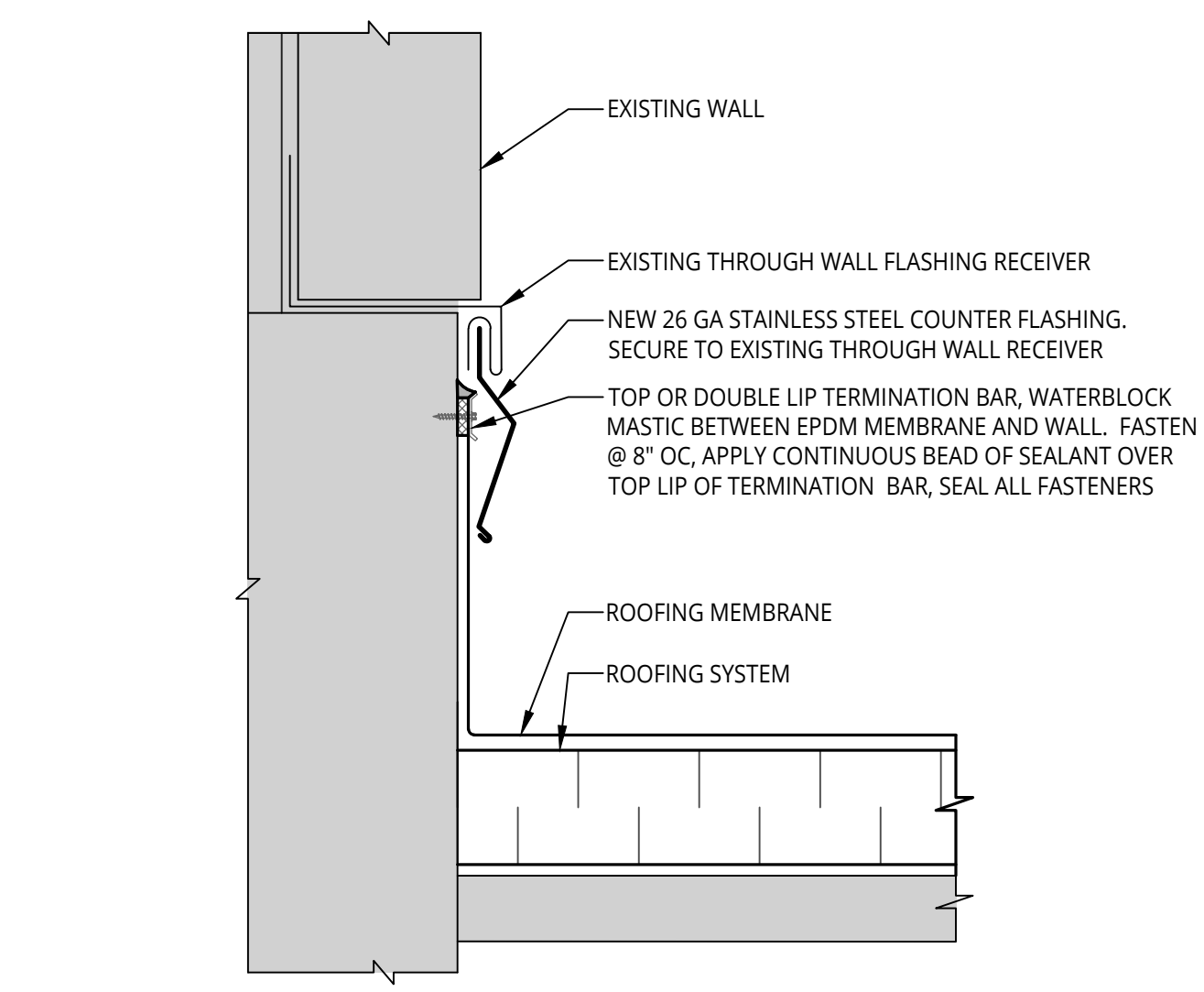
**Designer:**  
KMD

**CADD:**  
GUS

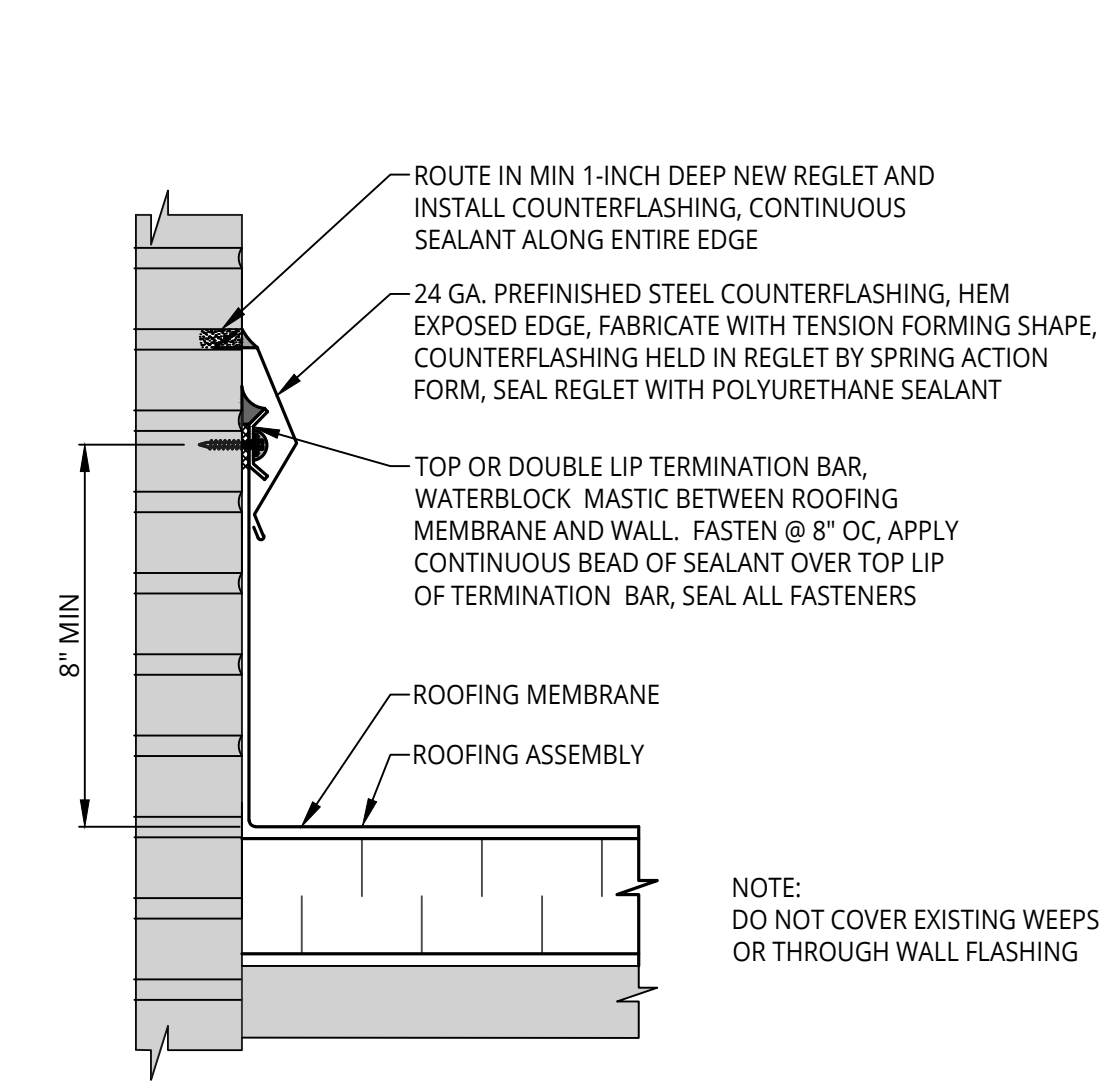
**Checked By:**  
KMD

**Reviewed By:**  
LD

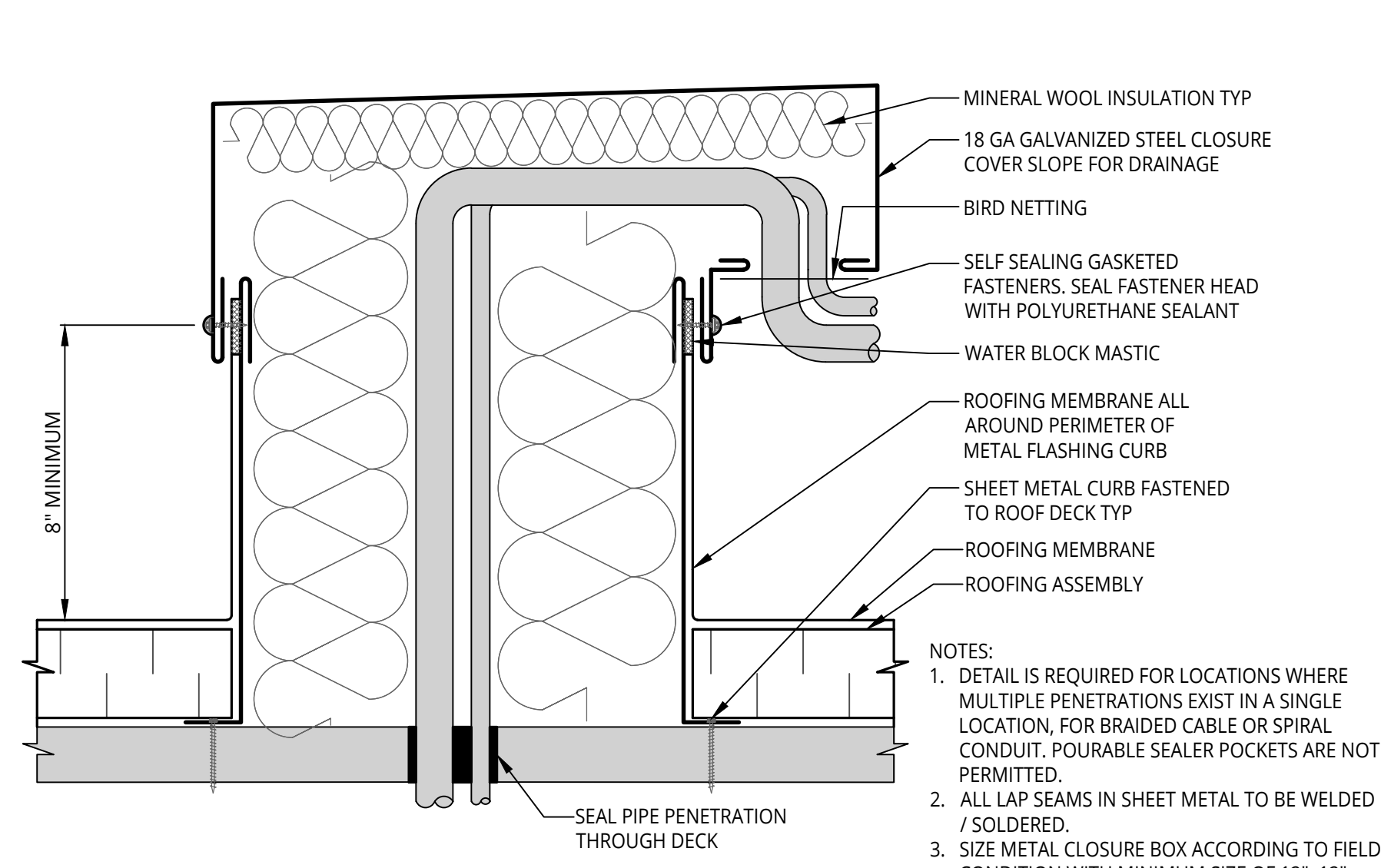
**Sheet No.**  
A4.1



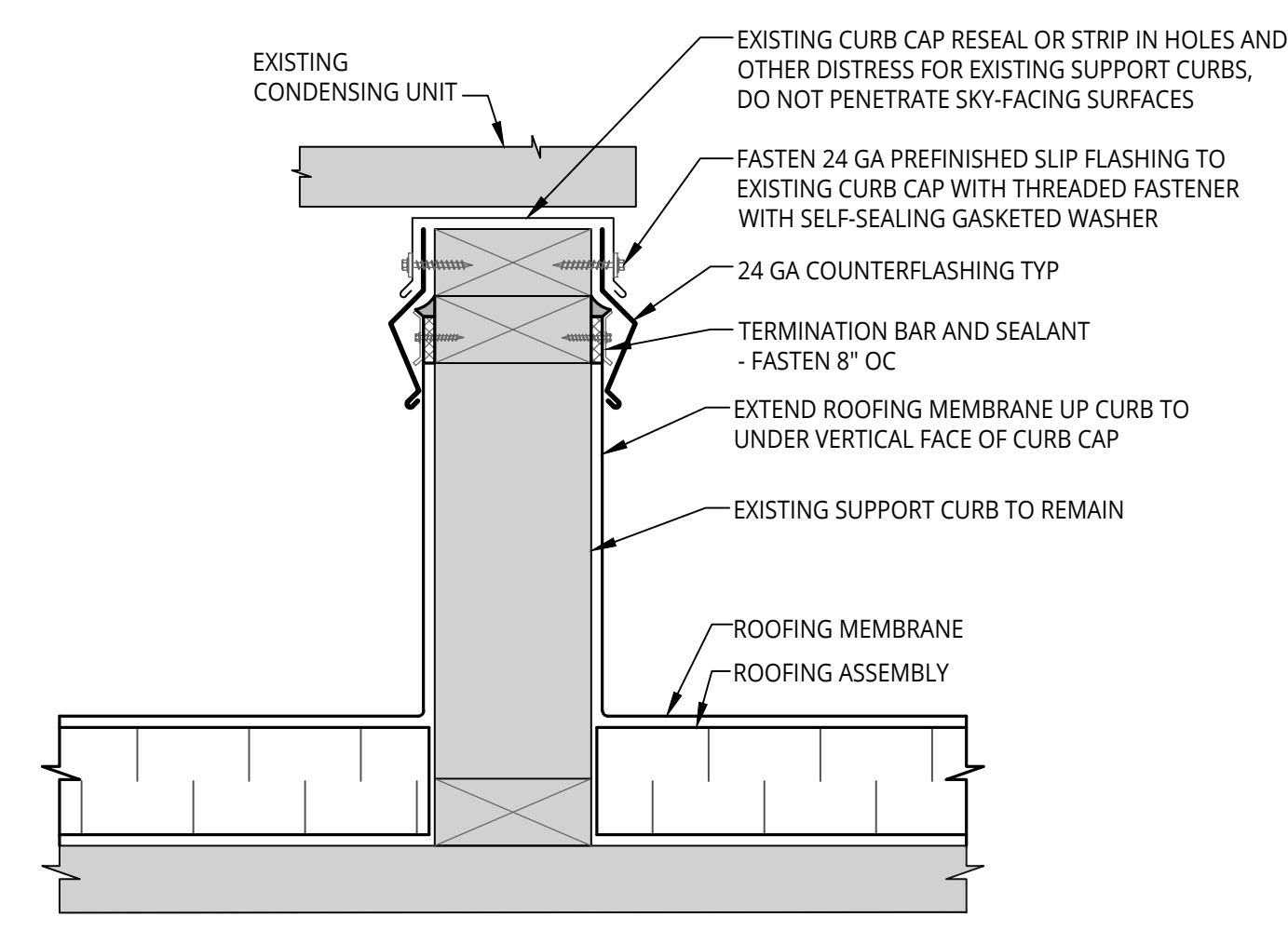
**9 COUNTERFLASHING AT EXISTING RECEIVER**  
A1.1 NOT TO SCALE



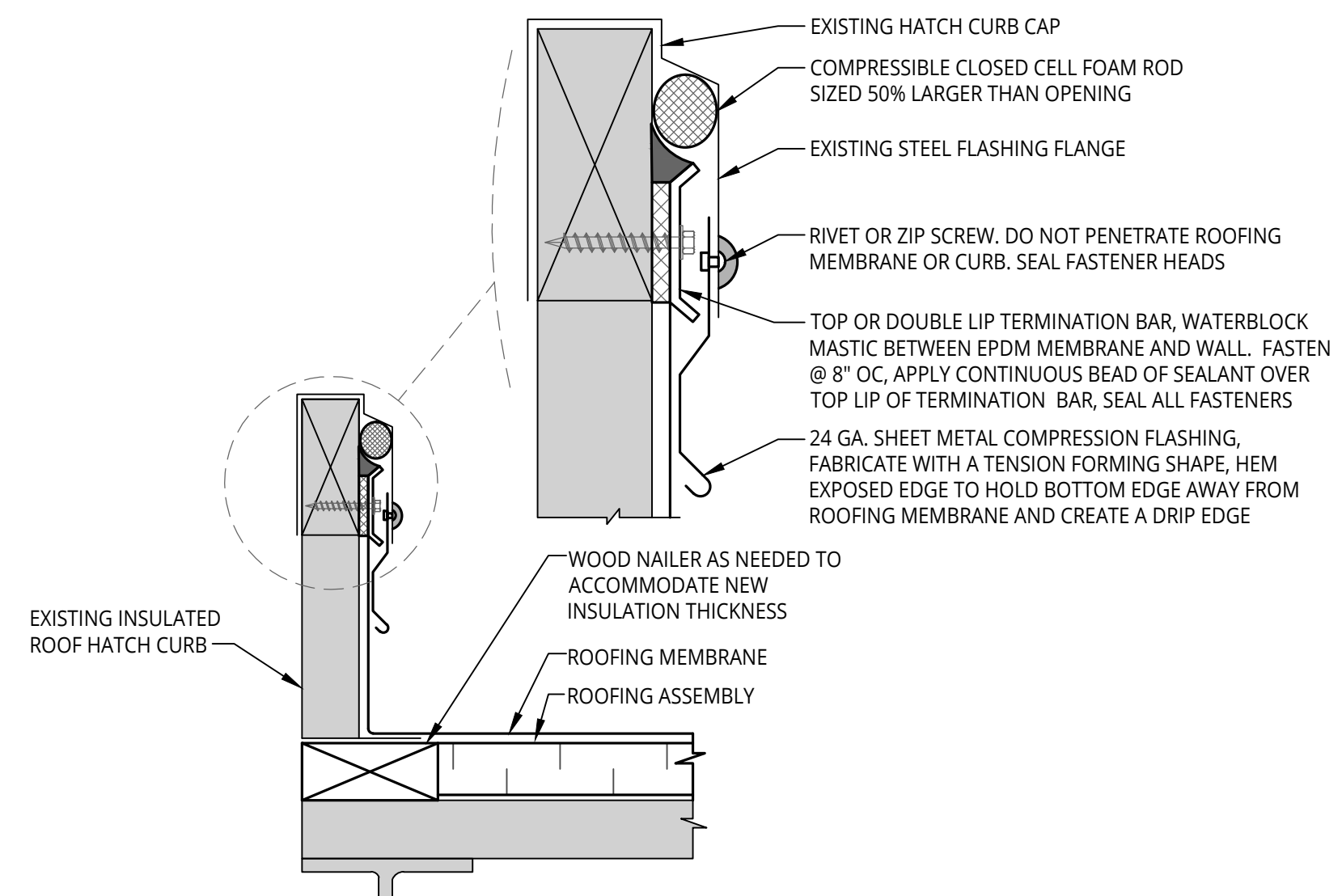
**8 BASE FLASHING - REGLET COUNTERFLASHING**  
A1.1 NOT TO SCALE



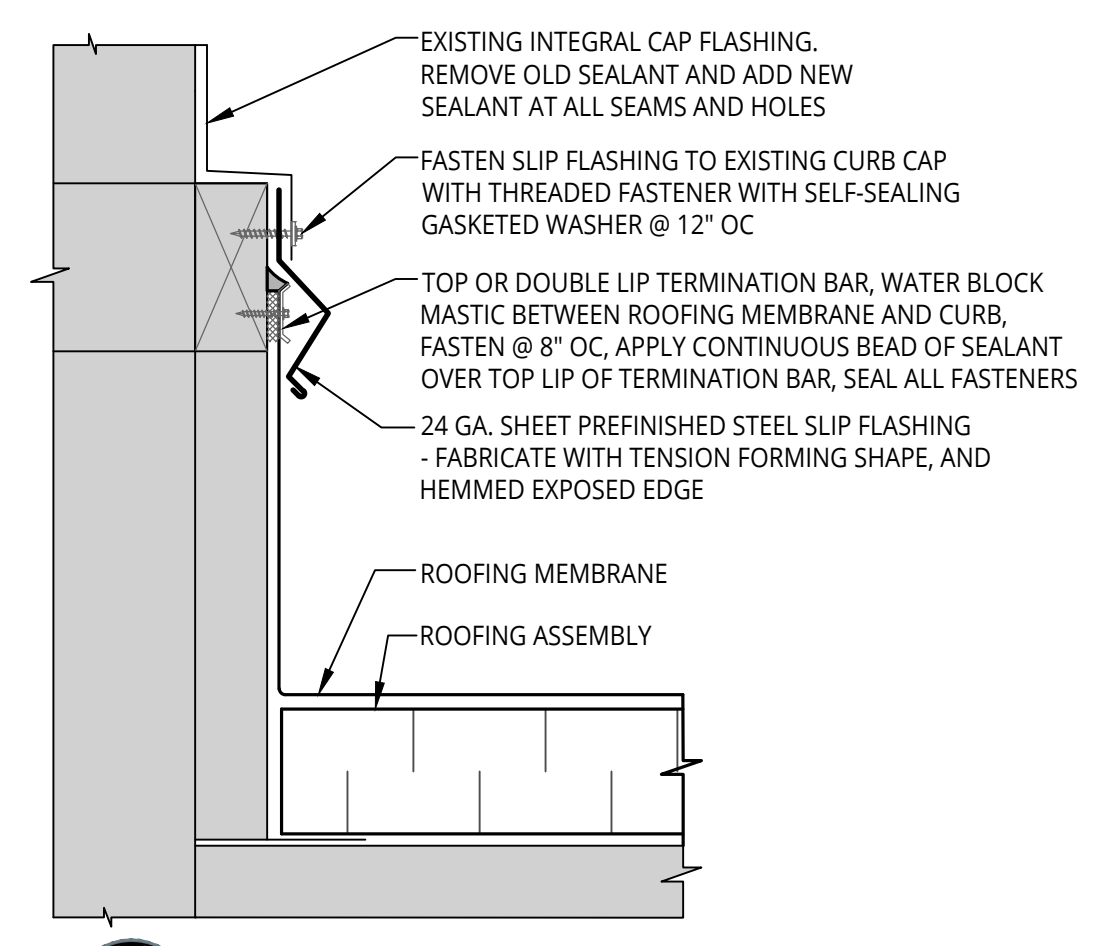
**7 PENETRATION FLASHING BOX WITH HOOD**  
A1.3 NOT TO SCALE



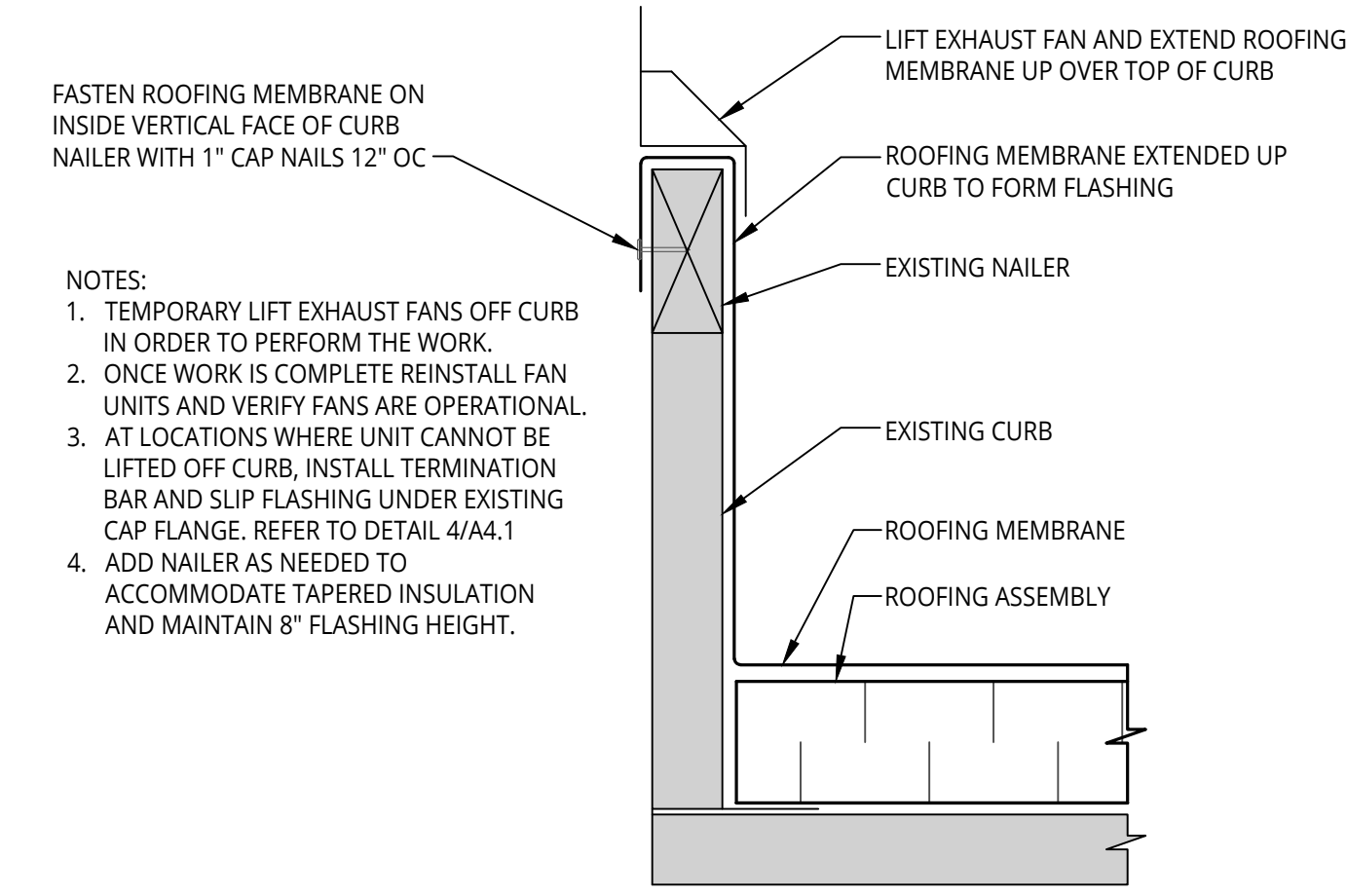
**6 SUPPORT CURB FLASHING**  
A1.1 NOT TO SCALE



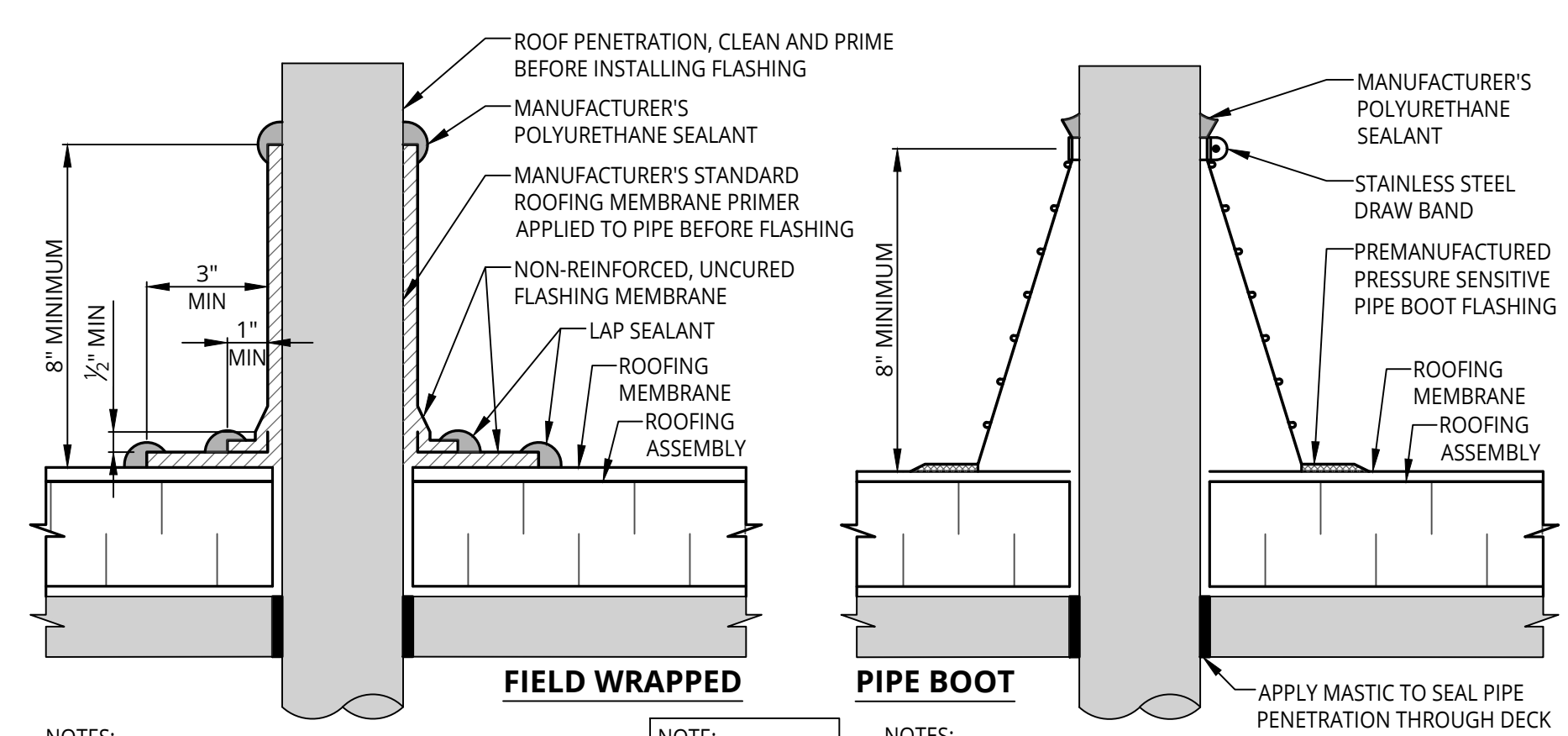
**5 ROOF HATCH FLASHING**  
A1.3 NOT TO SCALE



**4 TYPICAL CURB WITH SLIP FLASHING**  
A1.5 NOT TO SCALE



**3 TYPICAL CURB UP AND OVER FLASHING**  
A1.2 NOT TO SCALE

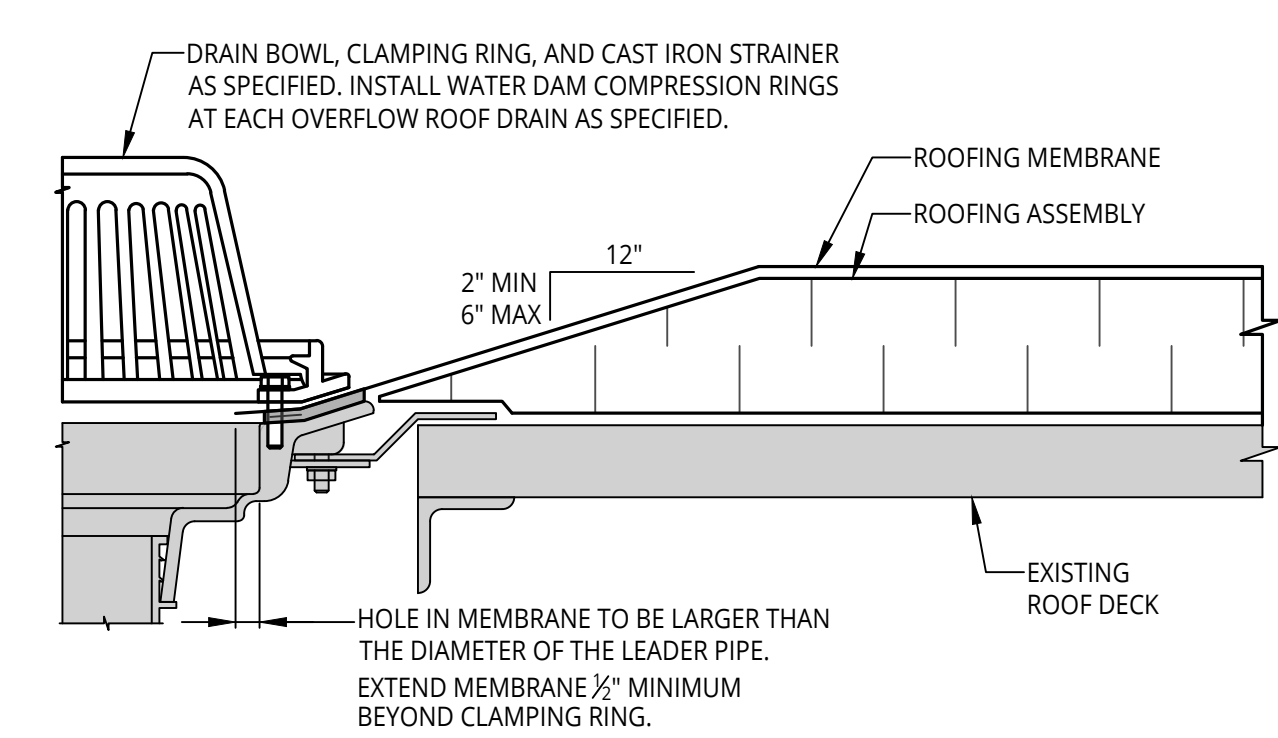


**NOTES:**  
1. REMOVE ALL EXISTING FLASHING BEFORE INSTALLING FIELD-FABRICATED PIPE SEAL.  
2. NAILER REQUIRED TO STABILIZE STEEL DECK AROUND ALL PIPES GREATER THAN 12" DIA.  
3. MANUFACTURER'S PREFABRICATED PIPE BOOT MAY BE INSTALLED IN LIEU OF THIS DETAIL WHERE APPLICABLE.  
4. DO NOT USE FOR HOT EXHAUST STACKS.  
5. FASTENERS AROUND PIPES 4" DIA MAY BE OMITTED IF APPROVED BY ROOFING MANUFACTURER.

**NOTE:**  
CAN USE EITHER OF THESE DETAILS

**NOTES:**  
1. THE USE OF LAP SEALANT TO SEAL TOP EDGE OF PIPE BOOT IS NOT PERMITTED. CONTRACTOR SHALL USE ROOFING MANUFACTURER'S MULTIPURPOSE POLYURETHANE SEALANT.  
2. PIPE BOOTS ARE NOT TO BE APPLIED DIRECTLY TO HOT VENTS.  
3. NAILERS REQUIRED TO STABILIZE STEEL DECK AT PENETRATIONS LARGER THAN 12" DIA.  
4. FASTENERS MAY BE OMITTED AT PENETRATIONS LESS THAN 18" DIA OR AS OTHERWISE INDICATED BY THE ROOFING MANUFACTURER.

**2 ROUND PENETRATION FLASHING**  
A1.2 NOT TO SCALE



**NOTES:**  
1. DO NOT RUN SEAMS THROUGH DRAINS OR SUMPS.  
2. WHERE FIELD SEAMS ARE WITHIN 18" OF DRAINS, THEY SHALL BE STRIPPED IN WITH 5" WIDE UNCURED EPDM.  
3. DRAIN AND OVERFLOW DRAIN HEIGHTS TO REMAIN AS-IS. INSTALL TAPERED INSULATION TO CREATE A 4' x 4' SUMP UNDO AROUND EACH ROOF DRAIN WITH MODIFICATIONS AS NEEDED TO EXPANSION JOINTS AND TIGHT SPACES. NEW INSULATION MAY NEED TO BE OMITTED TO ALLOW SUMPED AREA.  
4. AT EXISTING DRAIN LOCATIONS, REPLACE DRAIN PIPING TO FIRST CONTINUOUS STRETCH. DIAMETER TO MATCH EXISTING.

**1 ROOF DRAIN**  
A1.1 NOT TO SCALE

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Orientation	Scale
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**Project**  
**2024 WATERFORD SCHOOL DISTRICT KETTERING HIGH SCHOOL ROOFING REPLACEMENT**

**Project Location**  
**2800 KETTERING DR., WATERFORD TWP., MI 48329**

**Sheet Name**  
**FLASHING DETAILS**

**Seal**

**Revisions**

REV	ISSUED FOR	DATE	BY
OWNER REVIEW		12-22-23	KMD
BIDS		1-16-24	KMD

**SME Project No.**  
**094776.00**

**Project Manager:**  
**KMD**

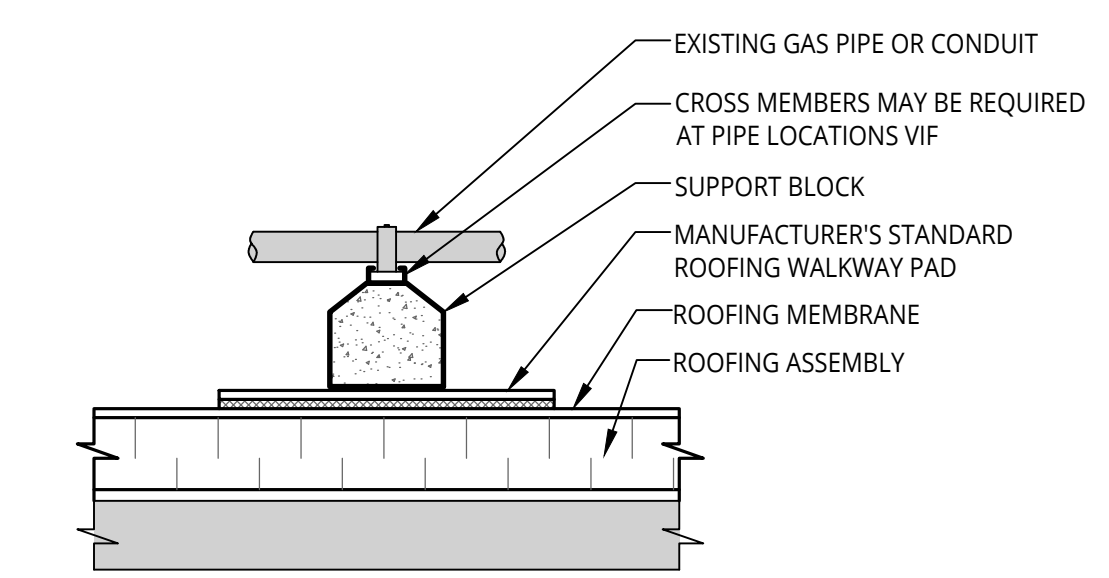
**Designer:**  
**KMD**

**CADD:**  
**GUS**

**Checked By:**  
**KMD**

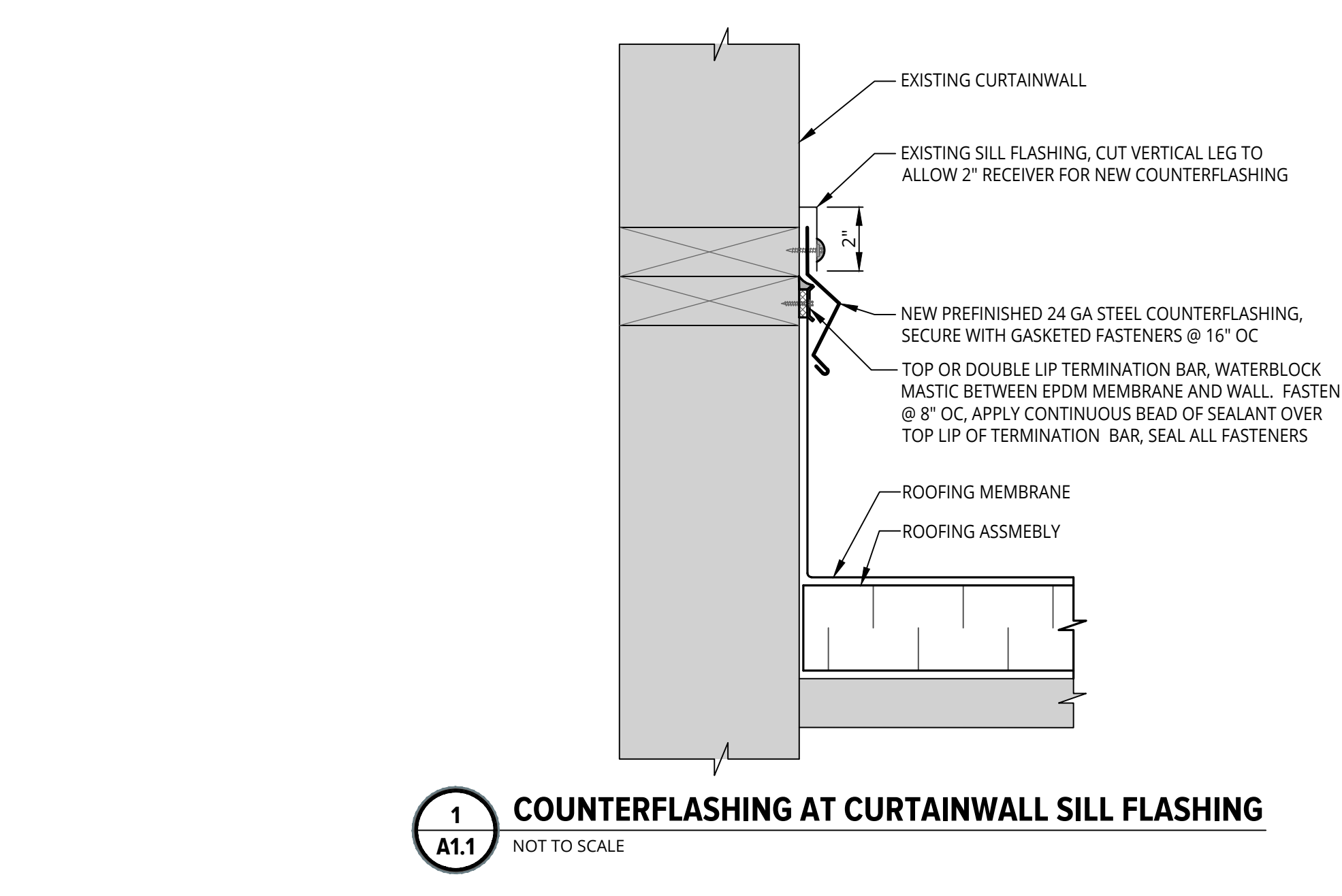
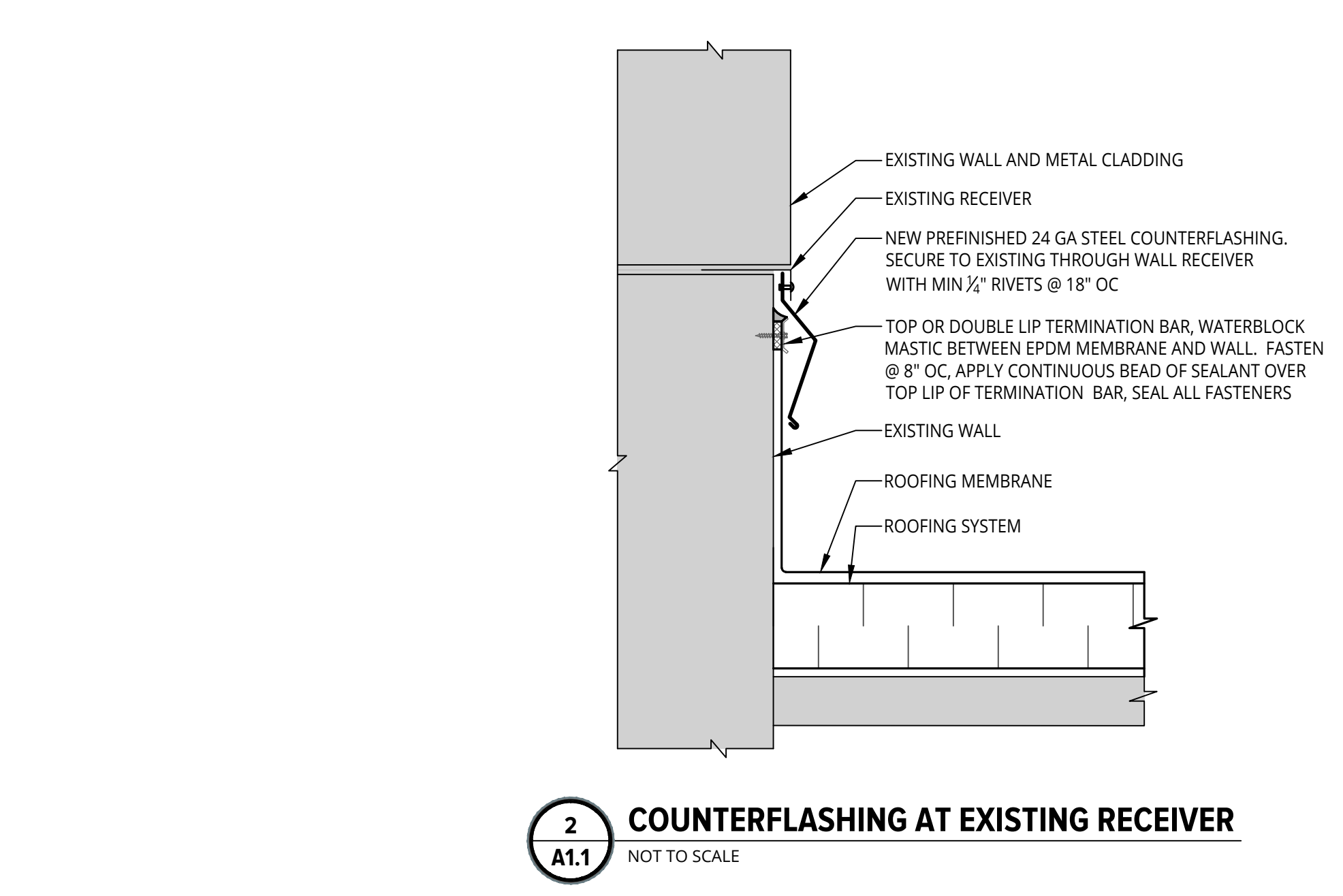
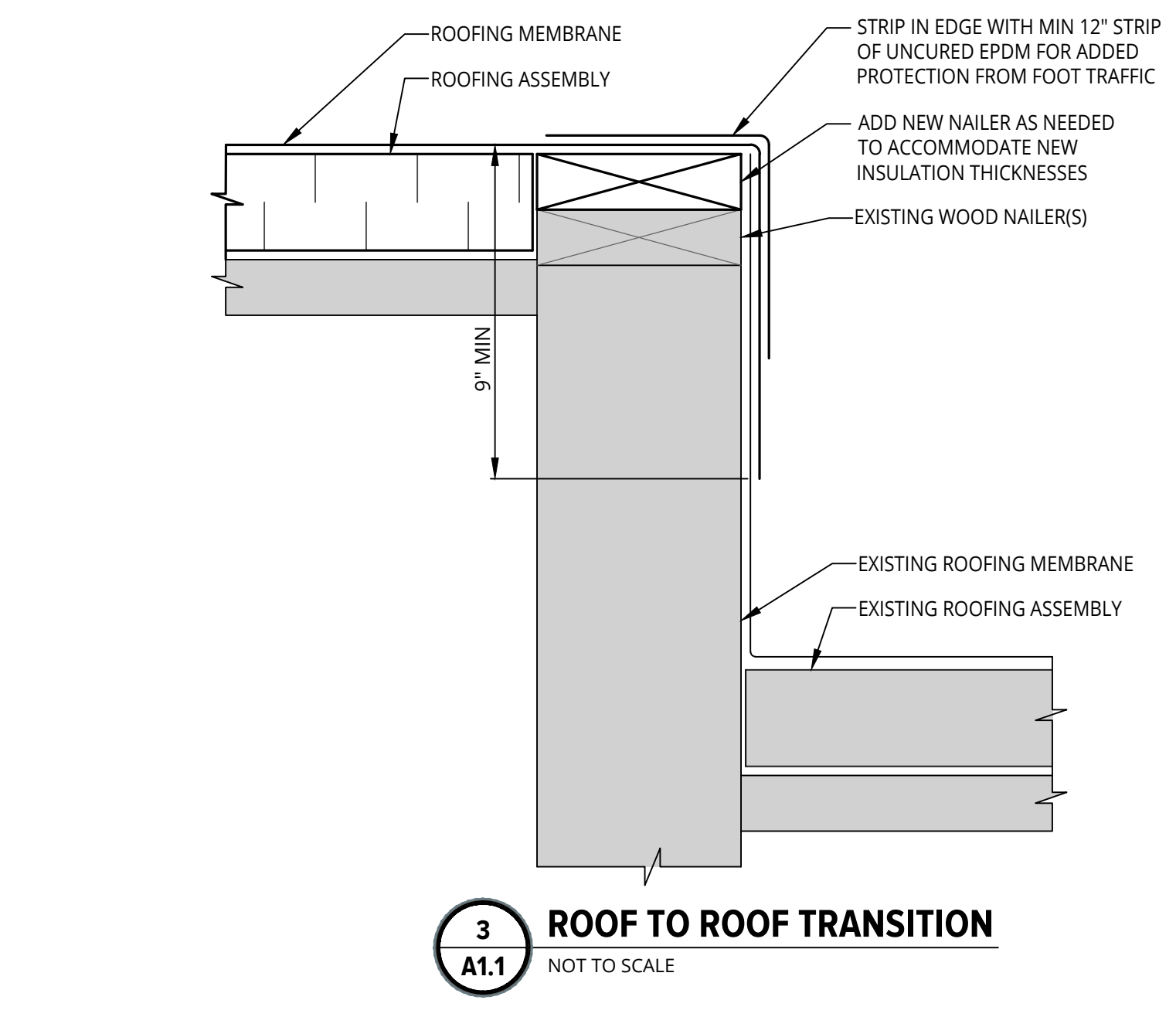
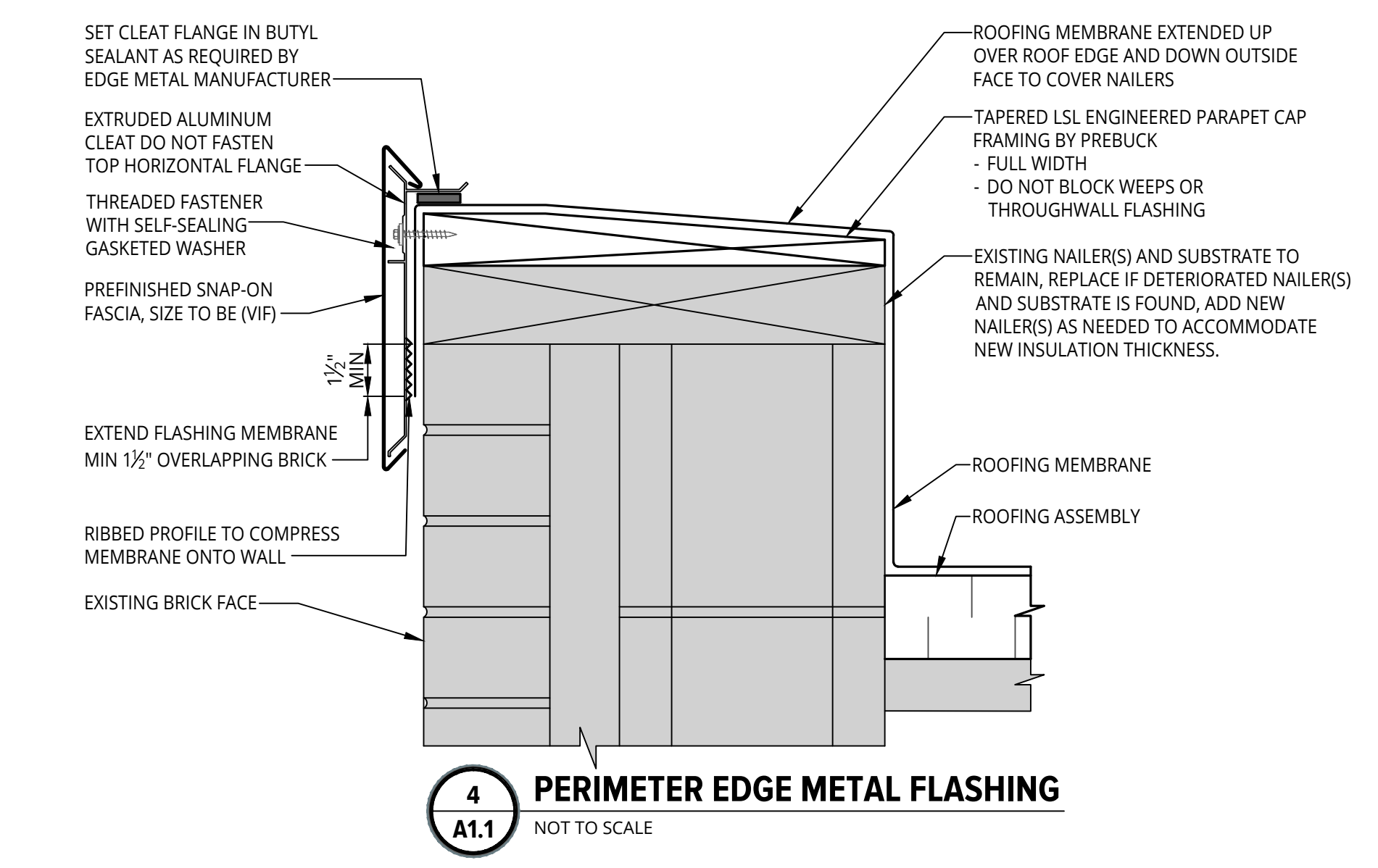
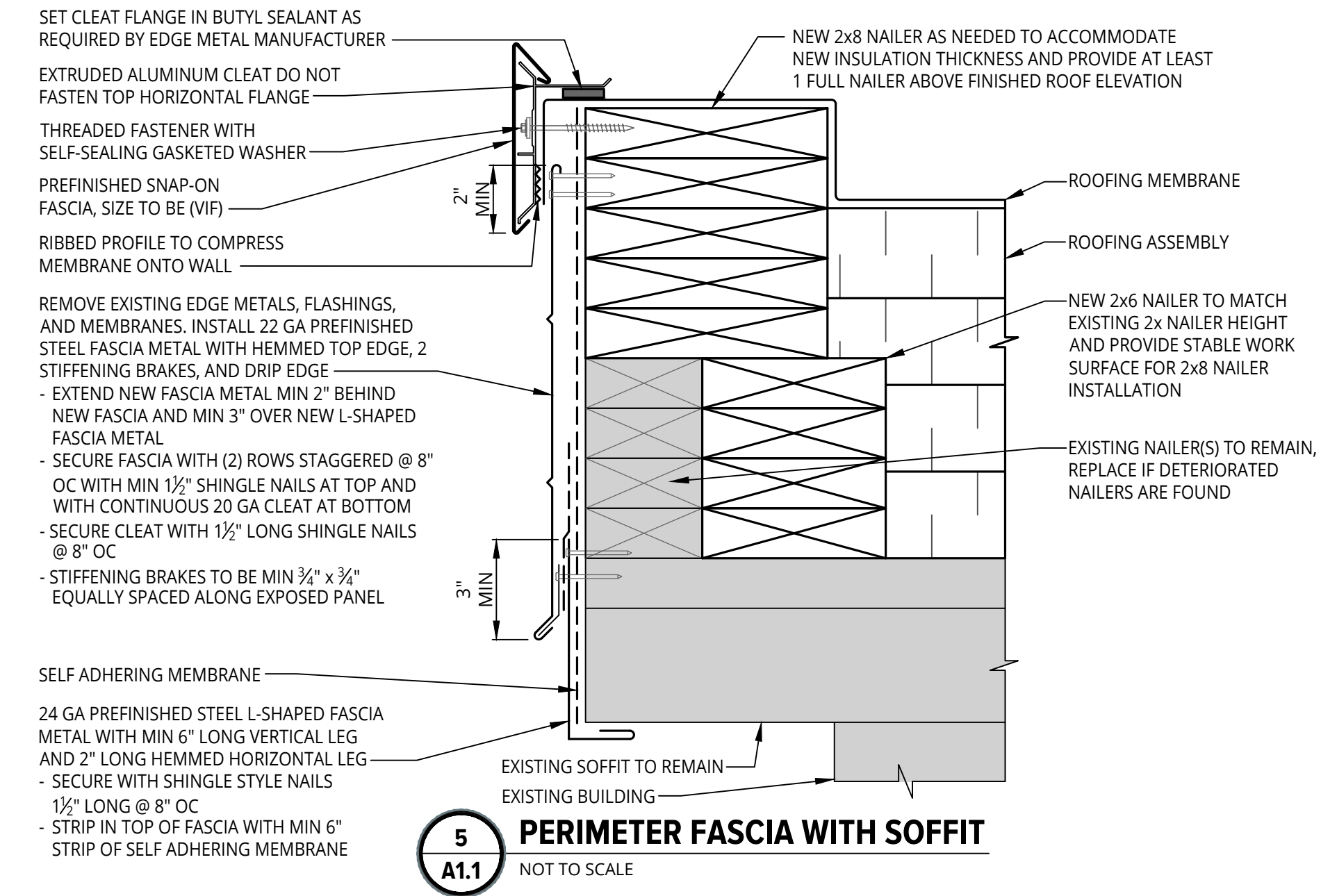
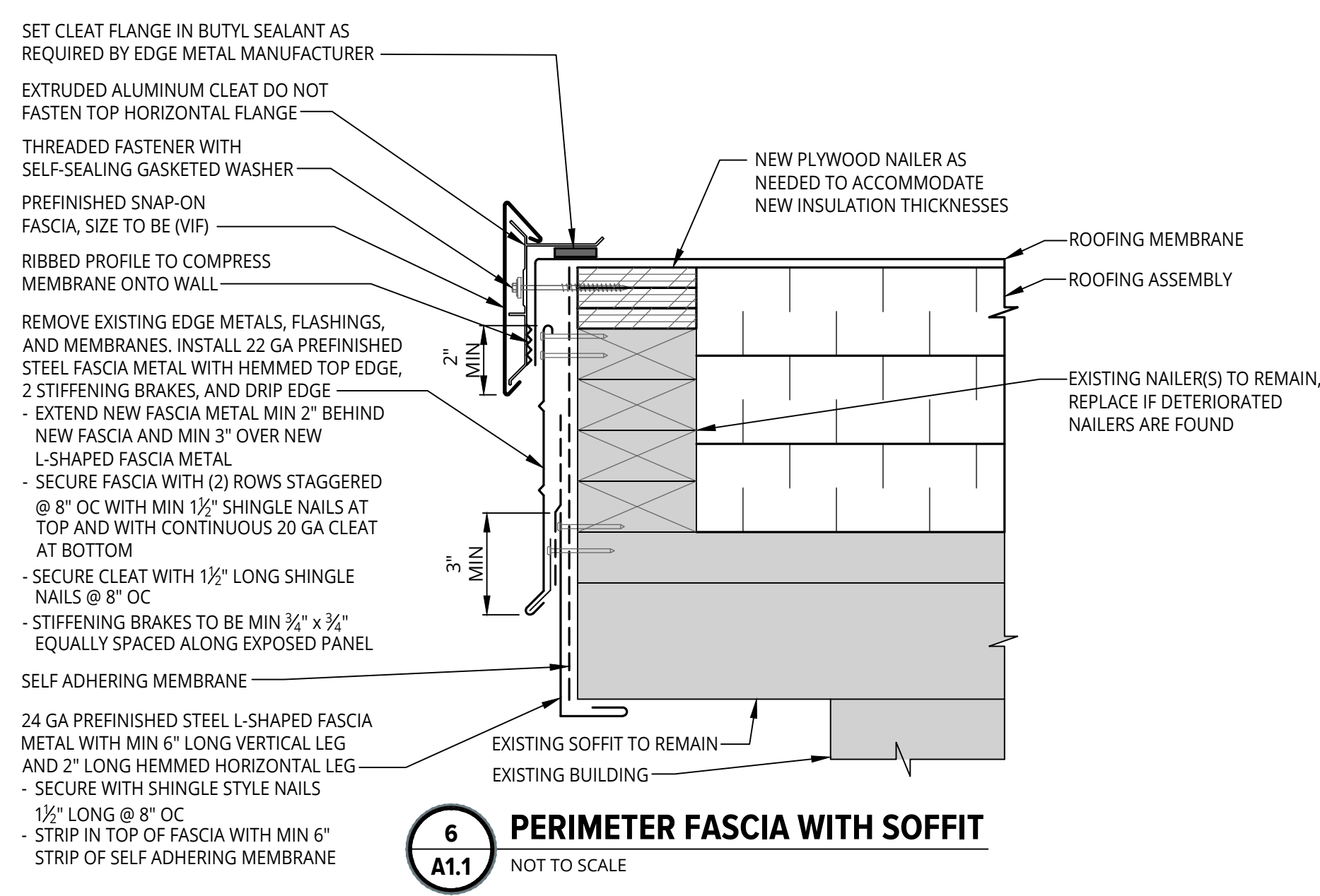
**Reviewed By:**  
**LD**

**Sheet No.**  
**A4.2**



- NOTES:**
- EQUIPMENT SUPPORTS OVER WALKWAY PADS MAY VARY BASED ON USE. SEVERAL WALKWAY PADS MAY BE REQUIRED AT SUPPORTS.
  - THIS ROOF PROTECTION AND SUPPORT DETAIL SHALL NOT BE USED FOR HVAC EQUIPMENT SUPPORT CURBS THAT REQUIRE ATTACHMENT TO THE ROOF DECK FOR PROPER INSTALLATION.
  - WALKWAY PADS SHALL BE APPLIED IN WHOLE UNITS UNLESS SPECIFIC CONDITIONS REQUIRE SMALLER PIECES.
  - THE USE OF WOOD BLOCKING FOR PIPE OR CONDUIT IS NOT PERMITTED.

**7 CONDUIT / GAS PIPE SUPPORT BLOCK**  
 A1.5 NOT TO SCALE



**3 ROOF TO ROOF TRANSITION**  
 A1.1 NOT TO SCALE

**2 COUNTERFLASHING AT EXISTING RECEIVER**  
 A1.1 NOT TO SCALE

**1 COUNTERFLASHING AT CURTAINWALL SILL FLASHING**  
 A1.1 NOT TO SCALE

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