

MOD BIT

POCKET GUIDE



"The name trusted in roofing since 1906"

Mule Hide Products Modified Bitumen Field Installation Guide
Fully Adhered Systems
July, 2018

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Installation Guidelines for Mule-Hide Self-Adhered Modified Bitumen (SAMB) Membranes

- A. Store membranes at room temperature whenever possible until just prior to installing the rolls. Materials shall be stored in a tidy and safe manner to avoid exceeding the allowable live load of the storage area. Do not double stack pallets of Mule-Hide self-adhering modified bitumen membrane.
- B. Rolls must be stored on ends. If stored on sides the roll can become distorted (egg shaped) and difficult to install.
- C. The minimum application temperature for Mule-Hide SAMB materials is 40°F and rising for 48 consecutive hours.
 - a. In order to perform properly, Mule-Hide SAMB materials require a minimum application temperature of 40°F and rising for 48 consecutive hours. This applies to the roofing materials and approved substrate. During installation, the membrane must be promptly rolled with a minimum 75# roller. Failure to abide by these requirements may result in poor adhesion or cracking issues.
 - b. During periods of colder weather, the Mule-Hide SAMB materials should always be stored at room temperature (60° to 80° F) until just prior to use. Materials that are not stored at room temperature (or not used within 4 hours) should be restored to room temperature prior to use.
- D. The following insulation/cover boards are acceptable for use with a self-adhering modified bitumen roofing system:
 - a. Mule-Hide Poly ISO 1 or Mule-Hide Poly ISO 2 polyisocyanurate insulation.
 - b. High Density (HD) Wood Fiberboards
 - i. Structodek® HD with Primed Red Coating wood fiberboard by Blue Ridge - may be used as an overlay over other insulations. 1/2-inch thick is the minimum requirement when used as an overlay.
 - ii. HD Wood Fiberboard – Asphalt impregnated, coated six sides.
 - c. DensDeck Prime or Securock – A minimum 1/4" thick layer of DensDeck Prime or Securock Gypsum-Fiber Roof Board may be used as an overlay over an approved insulation or as a thermal barrier over a combustible deck. Priming of DensDeck Prime with Mule-Hide #121 Asphalt Primer is not required (unless contaminants such as gypsum dust are present), but if primer is applied it will enhance adhesion.

- E. Application over new Plywood (minimum 15/32" CDX grade) or new Oriented Strand Board (OSB) as a deck or substrate. On new construction, insulation board or Nail Base is recommended, however adhering directly to new plywood or OSB deck is acceptable if the decking is secured with screws or back-out resistant fasteners. OSB must be installed with the rough side up. Decks attached with common or cement coated nails or staples shall be covered with an approved insulation. Marine grade or "Green treated" plywood are not recommended. Check with local building code requirements as adhering a Self-Adhering Modified Bitumen membrane direct to a wood deck may not meet local fire codes.
- F. When adhering directly to an existing plywood or OSB deck Mule-Hide #121 Asphalt Primer must be used.
- G. After adhering the sheet, it is required that uniform pressure be applied to the entire roll area by using a minimum 75# linoleum roller, water filled lawn roller or similar weighted roller.
 - a. Sheet should be rolled in the short dimension first and long dimension second.
 - b. Care must be taken to prevent injury when rolling membrane, especially on sloped surfaces.
- H. When completing end laps, cut the top corner of the top sheet on a 45-degree angle (start the cut approximately 3 inches in from the top edge and finishing down 3 inches from the top edge), also applying Mule-Hide #271 or #421 Mod Bit sealant to the 45-degree cuts. Align the next sheet so the end of the sheet covers the **FASTLap®**. Remove the protective release film from the **FASTLap®** and apply firm even pressure to the seam area. Thoroughly roll the end lap with a silicone roller. End laps should be staggered approximately 3 feet apart.

Refer to Mule-Hide's full specifications for additional requirements, this guide does not replace the Mule-Hide specifications.

Installation Guidelines for Mule-Hide APP (Torch) Modified Bitumen Membranes

The roofing contractor must ensure that all applicators with the application of heat welded modified bitumens are properly trained and carry a valid Certified Roofing Torch Applicator card (**CERTA**) as evidence of training. All applicators must carry, review, understand and adhere to the safety information and guidelines contained in the “Torch Applied/Dos and Don’ts” as published and supplied by the Asphalt Roofing Manufacturers Association from time to time. After installation, to minimize the risk of fire, applicators should thoroughly inspect all areas of the roof where torches have been used (preferably with thermometers), as well as all return air ducts and cross beams. Applicators should provide a minimum of a four-hour fire watch after torching to minimize the risk of fire. Applicators must keep fire extinguishers readily available on site and must follow all relevant federal, state and local laws and rules applicable to the project and the product(s) being used, particularly those relating to safety and fire prevention.

The following is a list of approved cover boards/thermal barriers that may be used in the Mule-Hide APP Torch MB Roof Systems:

1. **Dens Deck Prime by Georgia-Pacific (GP)** – APP Torch and SA Base Sheets may be applied directly to the surface. Minimum thickness of the Dens-Deck Prime is dependent on local wind conditions. Priming of DensDeck Prime with Mule-Hide #121 Asphalt Primer is not required (unless contaminants such as gypsum dust are present), but if primer is applied it will enhance adhesion. Contact the Mule-Hide Technical Service Department for details regarding acceptable thicknesses and fastening patterns.
2. **Securock Gypsum-Fiber Roof Board by United States Gypsum (USG)** Field priming of this product is not required. APP Torch Base Sheet may be heat-welded (torch applied) directly to the surface.
3. SA Base Sheet may also be applied directly an approved substrate.
4. G2 base Sheet or Mule-Hide Nail Base may also be attached with appropriate fasteners directly to the substrate.

When attempting to install Mule-Hide Modified Bitumen membranes to a non-acceptable substrate/insulation, Mule-Hide requires the installation of an acceptable material as an overlay before the installation of an appropriate Mule-Hide base sheet.

Do not install modified bitumen membranes at temperatures lower than 40-45 degrees F wherever practicable. Where work is unavoidable at such temperatures the following precautions be taken:

- A. Take extra care during cold weather installation at ambient temperatures of 40-45 degrees F or below and when ambient temperatures are affected by wind or humidity to ensure adequate bonding is achieved between the surfaces to be joined. This applies to both material seam welds and adhesion of the applied product to the appropriately prepared substrate as the substrate can be affected by such temperature constraints as well.
- B. In addition, unrolling of cold materials under very low ambient conditions must be avoided to prevent the likelihood of unnecessary stress cracking. Rolls must be at least 40 degrees F at the time of application. Should the membrane roll become stiff or difficult to install, it should be replaced with a new roll from the heated storage area.
- C. When installing a Mule-Hide APP Modified System Roof System in cooler weather, it is recommended that liquids such as solvents, sealants, etc. be stored at warmer temperatures (60°F or more but not exceeding 80°F) until just prior to use in order to facilitate the installation.
- D. If using the SA Base Sheet, it must be installed in temperatures above 50°F. Temperatures must be 50° F and rising for 48 consecutive hours.

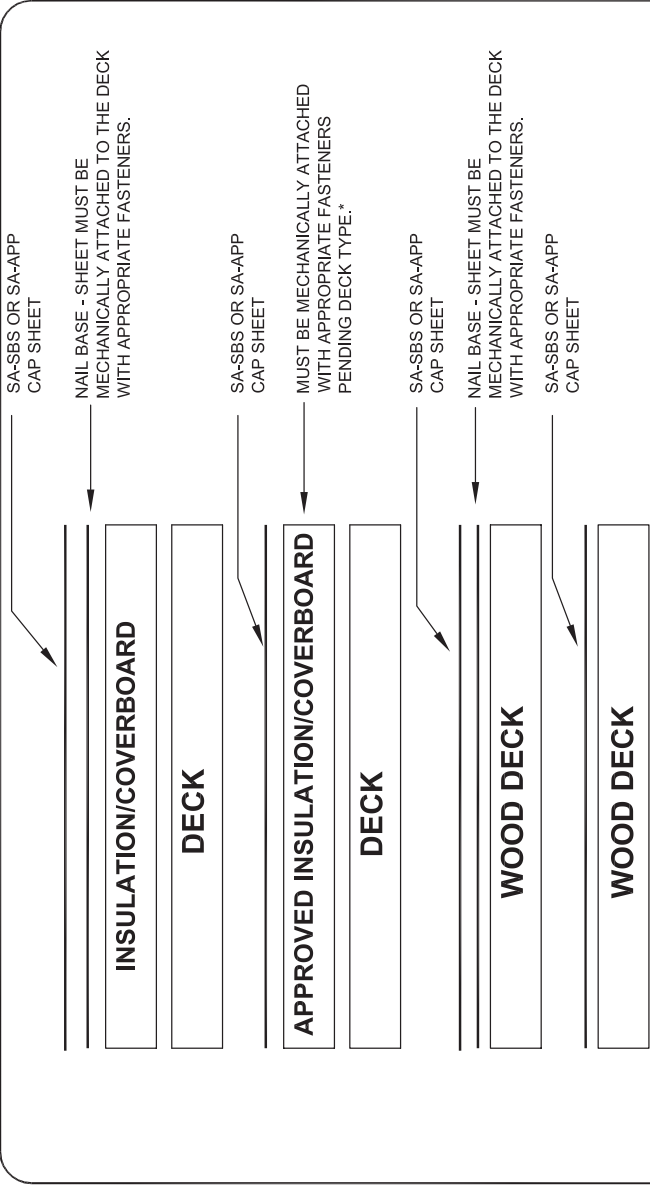
Basic installation guidelines are as follows:

- A. Start at the low point of the roof. The APP Torch Base Sheet is specifically designed to apply direct to approved substrates (cover boards, nailable base sheets, approved deck materials, and overlay materials). Note: some substrates may require priming with Mule-Hide #121 Asphalt Primer.
- B. Application direct to structural concrete, metal, metallic surfaces, smooth BUR, smooth Modified Bitumen and Dens-Deck Prime require the application of Mule-Hide #121 Asphalt Primer prior to application of the APP Torch Base Sheet. Primer must be allowed to dry thoroughly.
- C. Application directly to wood decking is not permitted and requires the installation of an approved base sheet or cover board as a substrate.
- D. When completing end laps, cut the top corner of the top sheet on

a 45-degree angle (start the cut approximately 3 inches in from the top edge and finishing down 3 inches from the top edge). Torch the top sheet down and roll thoroughly with a silicone roller. End laps should be staggered approximately 3 feet apart.

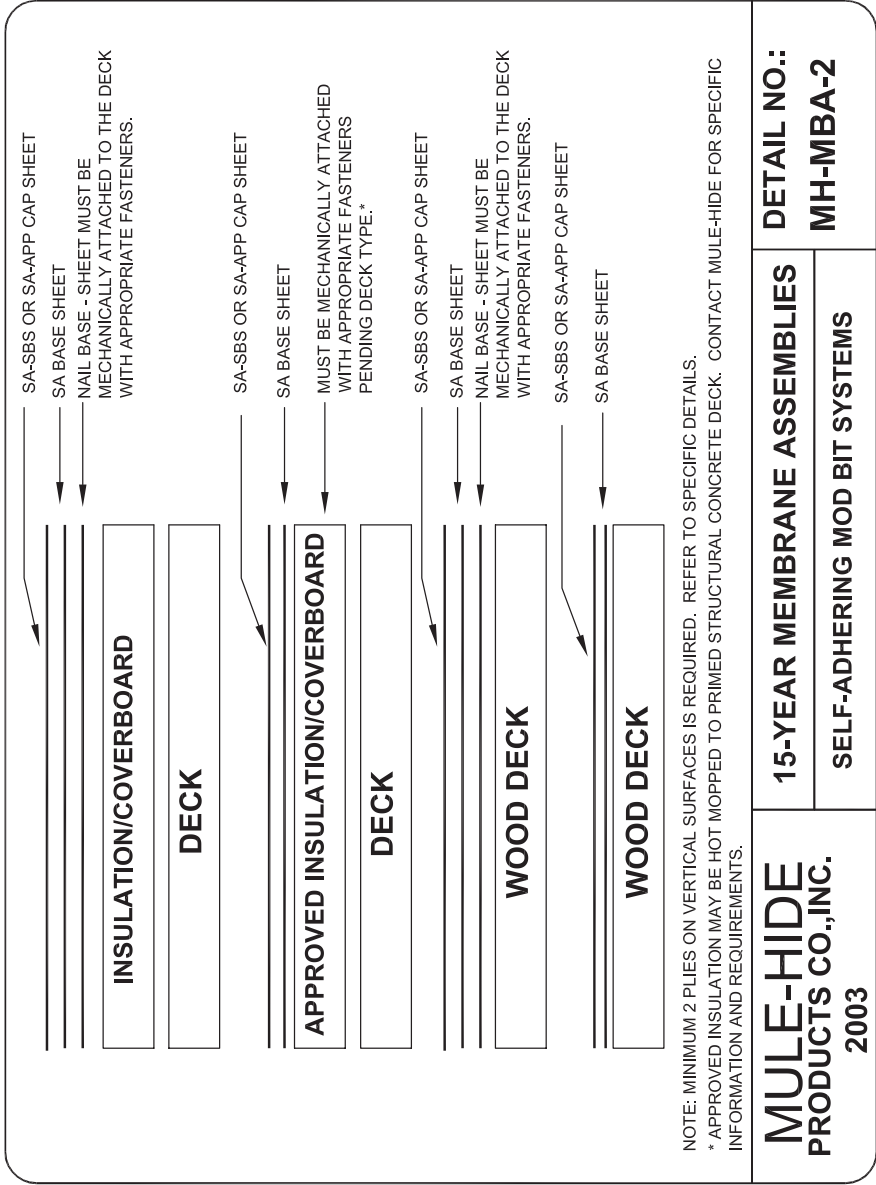
- E. Do not heat the substrate.
- F. Position successive rolls providing a minimum 6" end lap and 3" side lap. Asphalt bleed out shall be 1/4" to 3/8" on all seams.
- G. Laps shall be rolled with a 6" wide roller immediately after heat welding.
- H. APP Torch Base Sheet must be turned up to the top of the cant.

Refer to Mule-Hide's full specifications for additional requirements, this guide does not replace the Mule-Hide specifications.



NOTE: MINIMUM OF ONE PLY CAP SHEET ON VERTICAL SURFACES IS REQUIRED. REFER TO SPECIFIC DETAILS.
* APPROVED INSULATION MAY BE HOT MOPPED TO PRIMED STRUCTURAL CONCRETE DECK. CONTACT MULE-HIDE FOR SPECIFIC INFORMATION AND REQUIREMENTS.

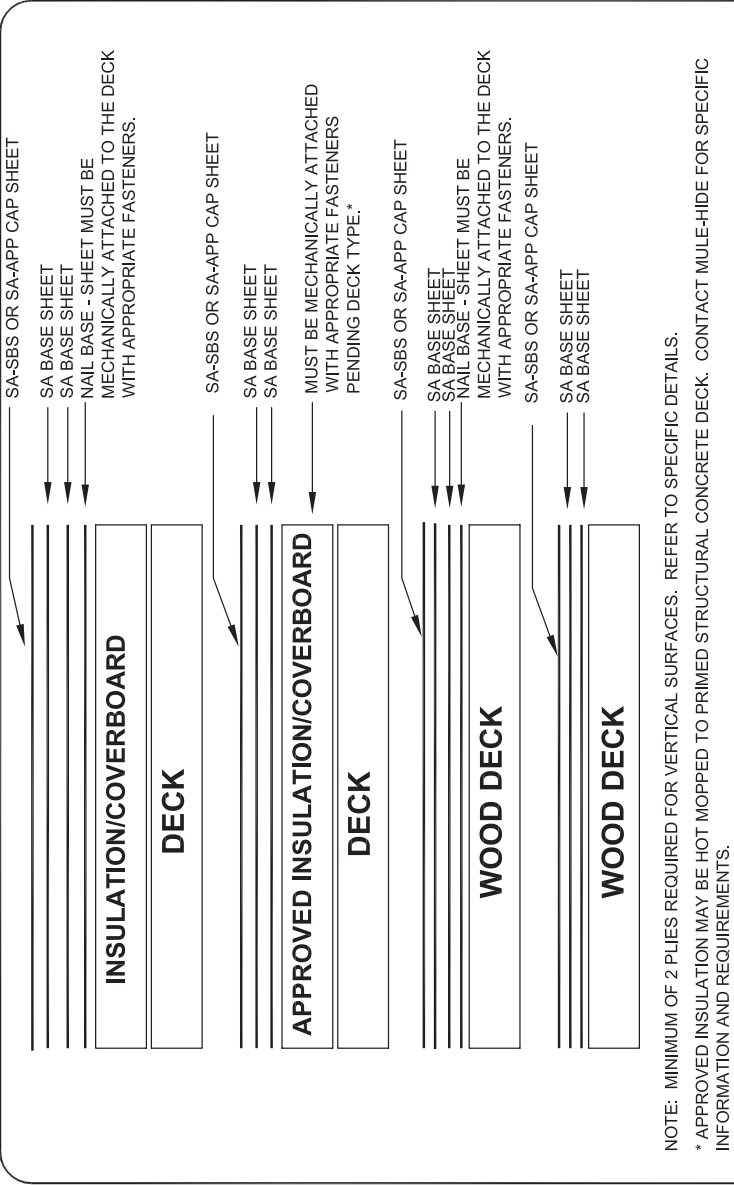
MULE-HIDE PRODUCTS CO.,INC. 2003	10-YEAR MEMBRANE ASSEMBLIES		DETAIL NO.: MH-MBA-1
	SELF-ADHERING MOD BIT SYSTEMS		



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15-YEAR MEMBRANE ASSEMBLIES
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MBA-2

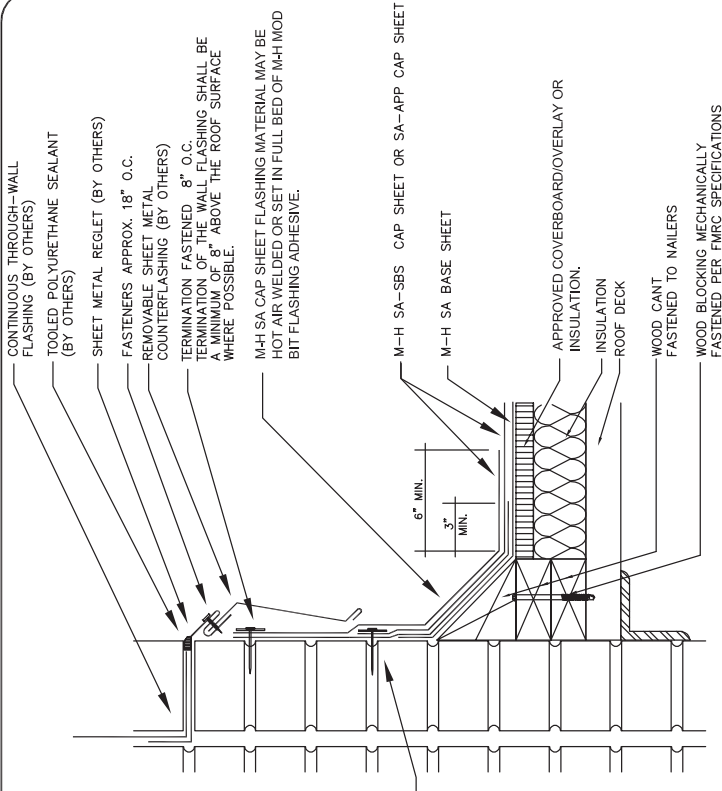


MULE-HIDE PRODUCTS CO.,INC. 2003	20-YEAR MEMBRANE ASSEMBLIES	DETAIL NO.: MH-MBA-3
	SELF-ADHERING MOD BIT SYSTEMS	

NOTES:

1. ACCEPTABLE MASONRY, METAL & WOOD SUBSTRATES MUST BE PRIMED WITH MH # 121 ASPHALT PRIMER PRIOR TO APPLICATION OF SELF-ADHERING MEMBRANES.
2. FLASHING PLIES INSTALLED OVER GRANULAR FIELD SHEET MUST BE SET IN A FULL BEDDING OF M-H MOD BIT FLASHING ADHESIVE OR HOT AIR WELDED.
3. ALL WOOD BLOCKING TO BE ATTACHED PER FMRC GUIDELINES.
4. IF USING A NON-ACCEPTABLE COVERBOARD/OVERLAY OR INSULATION, THE M-H NAIL BASE MUST BE INSTALLED AND MECHANICALLY ATTACHED TO THE DECK PRIOR TO THE INSTALLATION OF EITHER THE SA BASE SHEET OR SA CAP SHEETS.
5. METAL FLASHING (BY OTHERS) SHALL BE INSTALLED FOLLOWING NRCA & SMACNA GUIDELINES.

EXTENSION OF FIELD PLIES ABOVE TOP OF CANT REQUIRED, 1" ABOVE FOR SA BASE SHEET AND 2" ABOVE FOR SA CAP SHEETS.
FIELD CAP SHEET TO BE MECHANICALLY ATTACHED 8" ON CENTER.



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BASE FLASHING W/CANT - OPTION 1

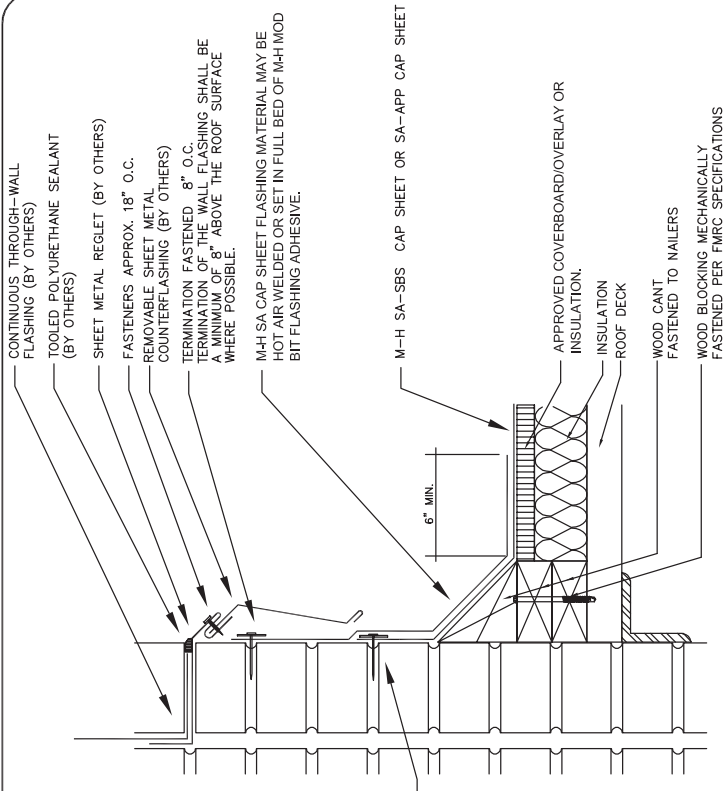
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-C1

NOTES:

1. ACCEPTABLE MASONRY, METAL & WOOD SUBSTRATES MUST BE PRIMED WITH MH # 121 ASPHALT PRIMER PRIOR TO APPLICATION OF SELF-ADHERING MEMBRANES.
2. FLASHING PILES INSTALLED OVER GRANULAR FIELD SHEET MUST BE SET IN A FULL BEDDING OF M-H MOD BIT FLASHING ADHESIVE OR HOT AIR WELDED.
3. ALL WOOD BLOCKING TO BE ATTACHED PER FMRC GUIDELINES.
4. IF USING A NON-ACCEPTABLE COVERBOARD/OVERLAY OR INSULATION, THE M-H NAIL BASE MUST BE INSTALLED AND MECHANICALLY ATTACHED TO THE DECK PRIOR TO THE INSTALLATION OF EITHER THE SA BASE SHEET OR SA CAP SHEETS.
5. METAL FLASHING (BY OTHERS) SHALL BE INSTALLED FOLLOWING NRCA & SMACNA GUIDELINES.

EXTENSION OF FIELD CAP SHEET ABOVE TOP OF CANT REQUIRED, 2" ABOVE FOR SA CAP SHEETS. FIELD CAP SHEET TO BE MECHANICALLY ATTACHED 8" ON CENTER.



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BASE FLASHING W/CANT - OPTION 2

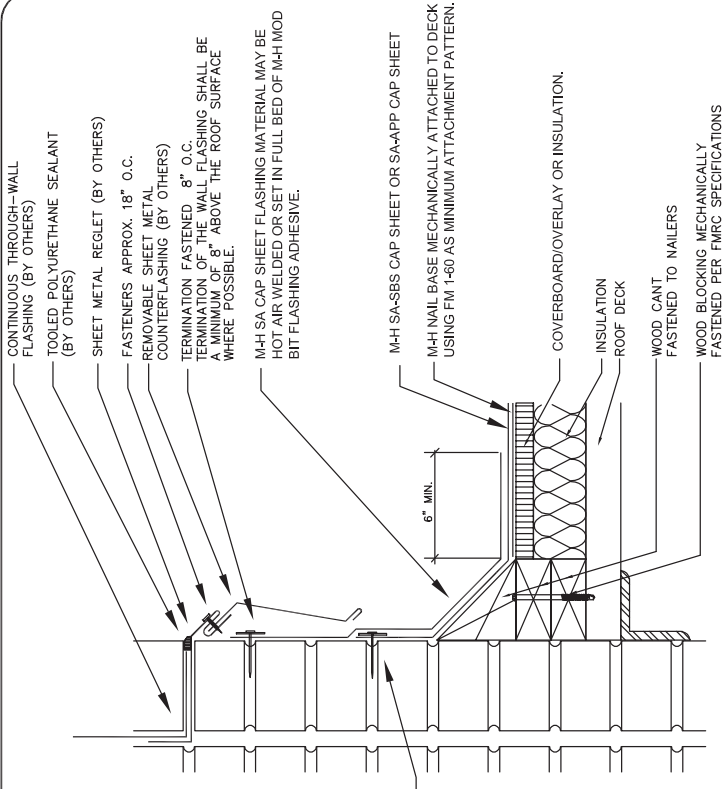
SELF-ADHERING MOD BIT SYSTEMS

**DETAIL NO.:
MH-MB-C2**

NOTES:

1. ACCEPTABLE MASONRY, METAL & WOOD SUBSTRATES MUST BE PRIMED WITH MH # 121 ASPHALT PRIMER PRIOR TO APPLICATION OF SELF-ADHERING MEMBRANES.
2. FLASHING PILES INSTALLED OVER GRANULAR FIELD SHEET MUST BE SET IN A FULL BEDDING OF M-H MOD BIT FLASHING ADHESIVE OR HOT AIR WELDED.
3. ALL WOOD BLOCKING TO BE ATTACHED PER FMRC GUIDELINES.
4. IF USING A NON-ACCEPTABLE COVERBOARD/OVERLAY OR INSULATION, THE M-H NAIL BASE MUST BE INSTALLED AND MECHANICALLY ATTACHED TO THE DECK PRIOR TO THE INSTALLATION OF EITHER THE SA BASE SHEET OR SA CAP SHEETS.
5. METAL FLASHING (BY OTHERS) SHALL BE INSTALLED FOLLOWING NRCA & SMACNA GUIDELINES.

EXTENSION OF FIELD CAP SHEET ABOVE TOP OF CANT REQUIRED, 2" ABOVE FOR SA CAP SHEETS. FIELD CAP SHEET TO BE MECHANICALLY ATTACHED 8" ON CENTER.



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BASE FLASHING W/CANT - OPTION 3

SELF-ADHERING MOD BIT SYSTEMS

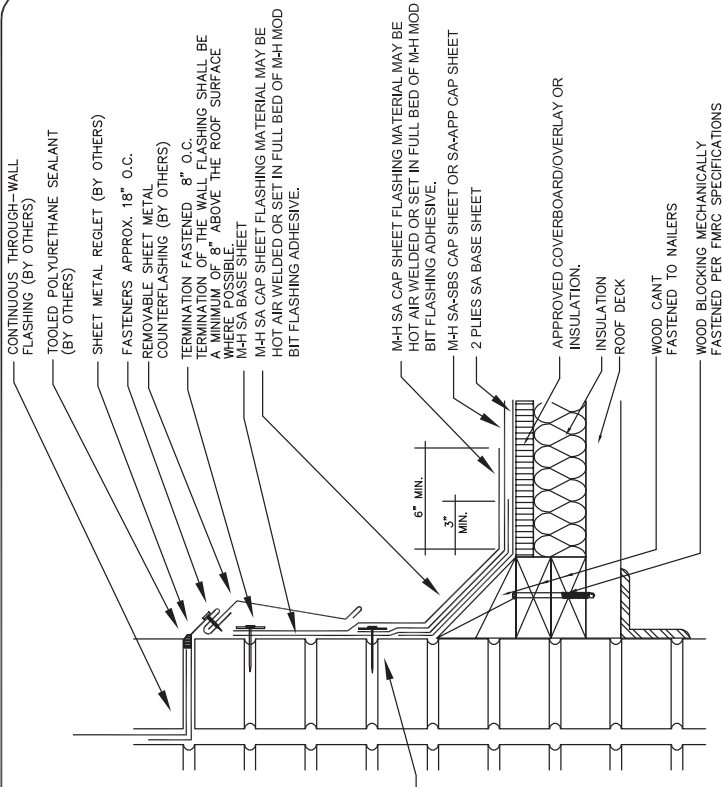
DETAIL NO.:
MH-MB-C3

NOTES:

1. ACCEPTABLE MASONRY, METAL & WOOD SUBSTRATES MUST BE PRIMED WITH MH # 121 ASPHALT PRIMER PRIOR TO APPLICATION OF SELF-ADHERING MEMBRANES.
2. FLASHING PLIES INSTALLED OVER GRANULAR FIELD SHEET MUST BE SET IN A FULL BEDDING OF M-H MOD BIT FLASHING ADHESIVE OR HOT AIR WELDED.
3. ALL WOOD BLOCKING TO BE ATTACHED PER FMRC GUIDELINES.
4. IF USING A NON-APPROVED COVERBOARD/OVERLAY OR INSULATION, THE M-H NAIL BASE MUST BE INSTALLED AND MECHANICALLY ATTACHED TO THE DECK PRIOR TO THE INSTALLATION OF THE SA BASE SHEETS.
5. METAL FLASHING (BY OTHERS) SHALL BE INSTALLED FOLLOWING NRCA & SMACNA GUIDELINES.

EXTENSION OF FIELD PLIES ABOVE TOP OF CANT REQUIRED, 1" ABOVE FOR SA BASE SHEET AND 2" ABOVE FOR SA CAP SHEETS.
FIELD CAP SHEET TO BE MECHANICALLY ATTACHED 8" ON CENTER.

NOTE:
20-YR WARRANTIES REQUIRE 2 PLIES OF SA BASE SHEET ON THE FIELD OF THE ROOF.

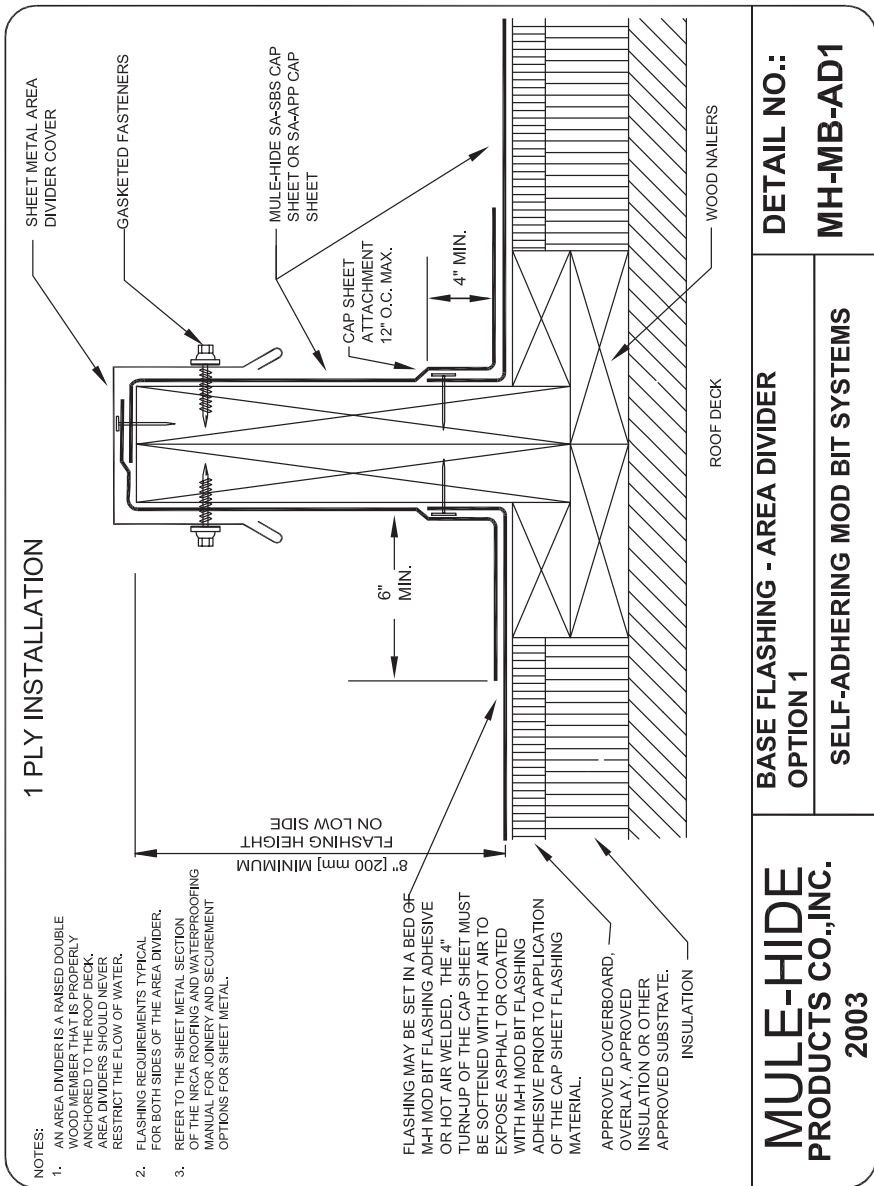


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BASE FLASHING W/CANT - OPTION 4

SELF-ADHERING MOD BIT SYSTEMS

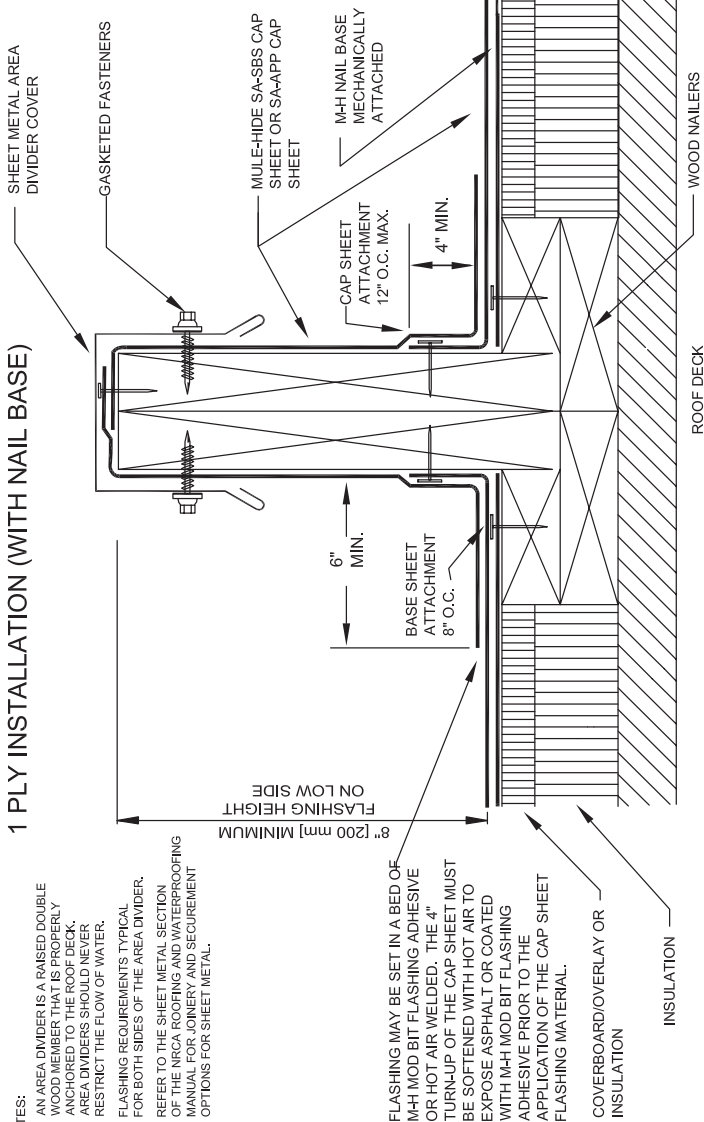
DETAIL NO.:
MH-MB-C4



1 PLY INSTALLATION (WITH NAIL BASE)

NOTES:

1. AN AREA DIVIDER IS A RAISED DOUBLE GASKETED JOINT PROPERLY ANCHORED TO THE ROOF DECK. AREA DIVIDERS SHOULD NEVER RESTRICT THE FLOW OF WATER.
2. FLASHING REQUIREMENTS TYPICAL FOR BOTH SIDES OF THE AREA DIVIDER. REFER TO THE SHEET METAL SECTION OF THE NRCA ROOFING AND WATERPROOFING MANUAL FOR JOINERY AND SECUREMENT OPTIONS FOR SHEET METAL.
- 3.



FLASHING MAY BE SET IN A BED OF MH MOD BIT FLASHING ADHESIVE OR HOT AIR WELDED. THE 4" TURN-UP OF THE CAP SHEET MUST BE SOFTENED WITH HOT AIR TO EXPOSE ASPHALT OR COATED WITH MH MOD BIT FLASHING ADHESIVE PRIOR TO THE APPLICATION OF THE CAP SHEET FLASHING MATERIAL.

COVERBOARD/OVERLAY OR INSULATION

INSULATION

WOOD NAILERS

BASE FLASHING - AREA DIVIDER
OPTION 2

SELF-ADHERING MOD BIT SYSTEMS

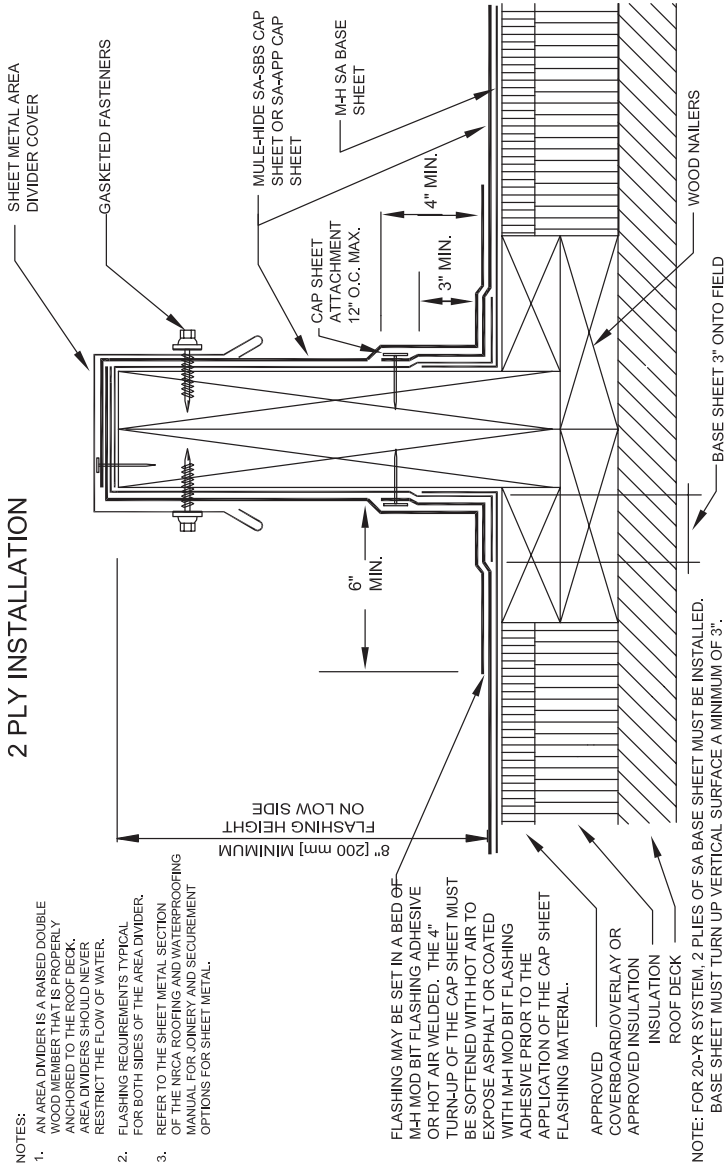
DETAIL NO.:

MH-MB-AD2

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NOTES:

1. AN AREA DIVIDER IS A RAISED DOUBLE WOOD MEMBER THAT IS PROPERLY ANCHORED TO THE ROOF DECK. AREA DIVIDERS SHOULD NEVER RESTRICT THE FLOW OF WATER.
2. FLASHING REQUIREMENTS TYPICAL FOR BOTH SIDES OF THE AREA DIVIDER.
3. REFER TO THE SHEET METAL SECTION OF THE NRCA ROOFING AND WATERPROOFING MANUAL FOR JOINERY AND SECUREMENT OPTIONS FOR SHEET METAL.



NOTE: FOR 20-YR SYSTEM, 2 PLYS OF SA BASE SHEET MUST BE INSTALLED.

SHEET MUST TURN UP VERTICAL SURFACE A MINIMUM OF

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BASE FLASHING - AREA DIVIDER
OPTION 3

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-AD3

ANY APPROVED TERMINATION.

SA-SBS CAP SHEET —
OR SA-APP CAP SHEET
ADHERED TO PRIMED
SURFACE.

SA-SBS CAP SHEET —
OR SA-APP CAP SHEET

SEE NOTE #2.-

— 6" MIN.

APPROVED INSULATION MECHANICALLY ATTACHED FOLLOWING FM GUIDELINES

1. VERTICAL SURFACES SUCH AS MASONRY, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER.

- 2. FLASHING MATERIAL MAY BE SET IN A BED OF MULE-HIDE MOD BIT FLASHING ADHESIVE OR MAY BE HOT AIR WELDED TO FIELD SHEET. IF HOT AIR WELDING, ENTIRE 6" WIDE SEAM MUST BE SEALED.**

MULE-HIDE DOES NOT REQUIRE BUT RECOMMENDS CANT STRIPS (CANTS ARE OPTIONAL). THE VERTICAL SURFACE OF THE CAP SHEET MUST BE SOFTENED OR MUST BE COATED WITH MOD BIT FLASHING ADHESIVE PRIOR TO INSTALLING FLASHING MATERIAL.

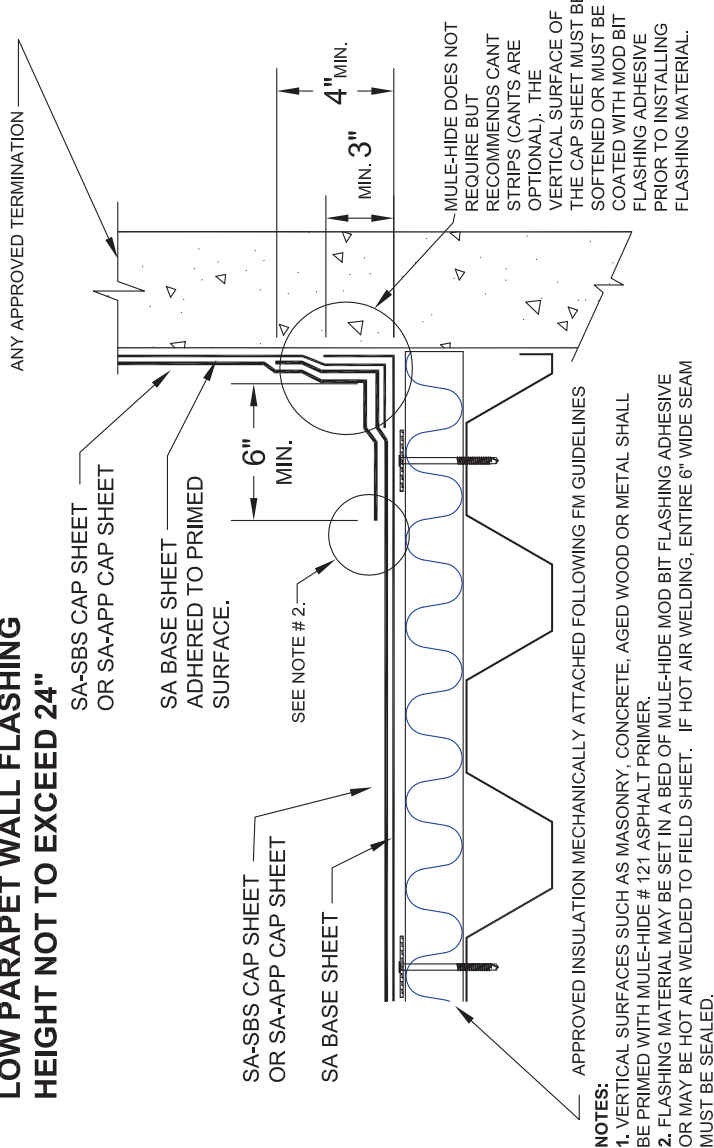
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BASE FLASHING - OPTION 1

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF1

LOW PARAPET WALL FLASHING **HEIGHT NOT TO EXCEED 24"**



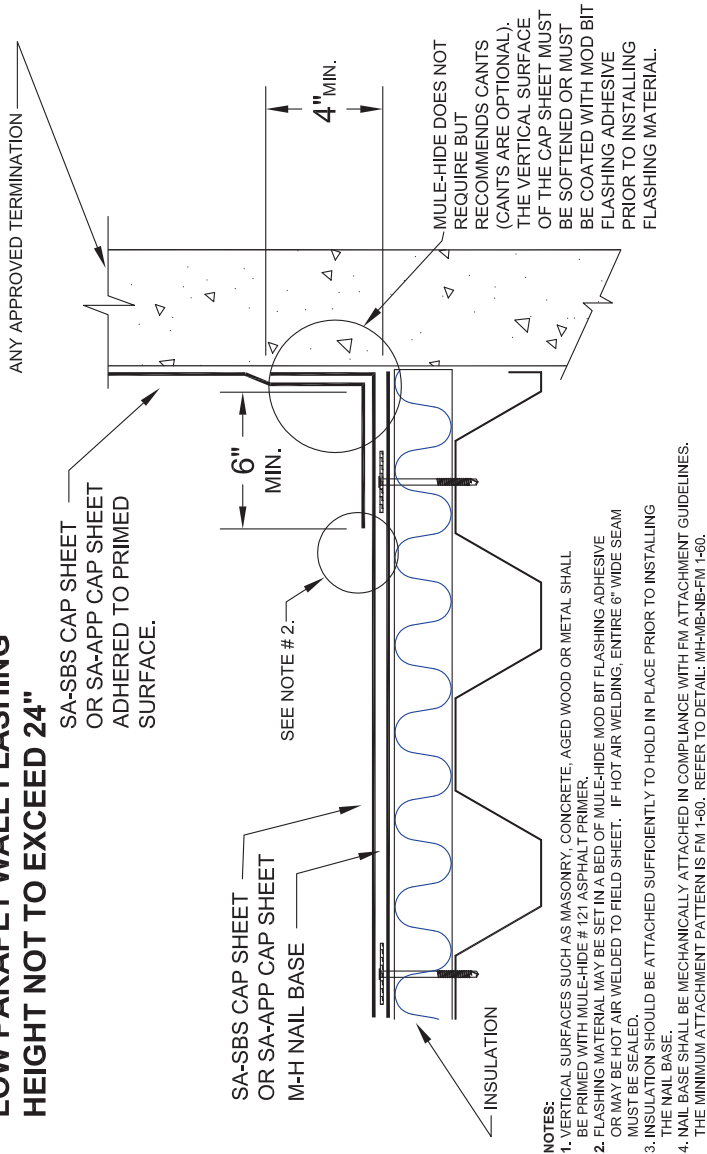
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BASE FLASHING - OPTION 2

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF2

LOW PARAPET WALL FLASHING HEIGHT NOT TO EXCEED 24"



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PRODUCTS CO.,INC.
2014

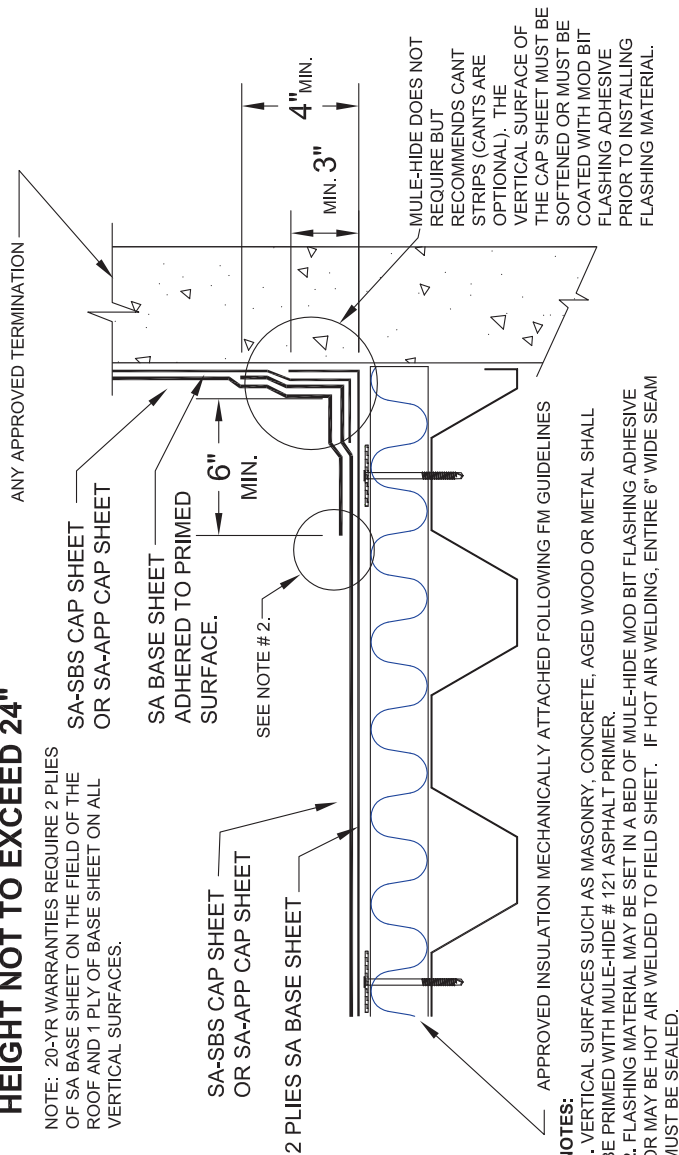
BASE FLASHING - OPTION 3

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF3

LOW PARAPET WALL FLASHING HEIGHT NOT TO EXCEED 24"

NOTE: 20-YR WARRANTIES REQUIRE 2 PLIES OF SA BASE SHEET ON THE FIELD OF THE ROOF AND 1 PLY OF BASE SHEET ON ALL VERTICAL SURFACES.



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER.
2. FLASHING MATERIAL MAY BE SET IN A BED OF MULE-HIDE MOD BIT FLASHING ADHESIVE OR MAY BE HOT AIR WELDED TO FIELD SHEET. IF HOT AIR WELDING, ENTIRE 6" WIDE SEAM MUST BE SEALED.

MULE-HIDE
PRODUCTS CO.,INC.
2014

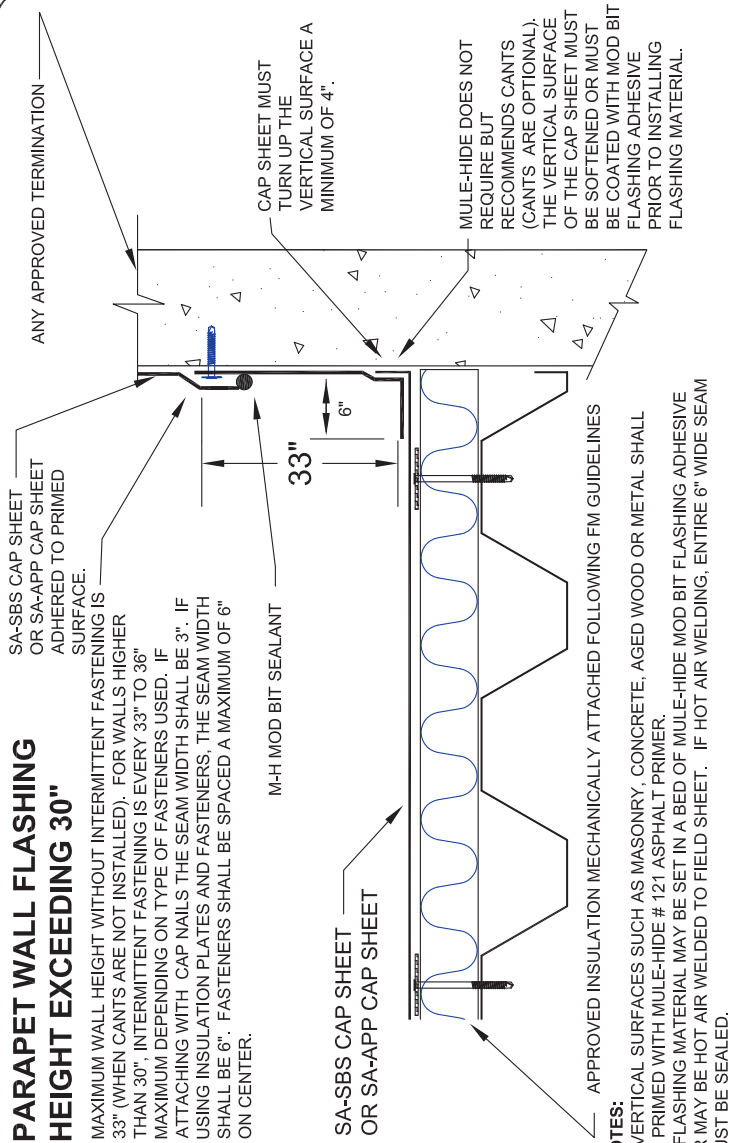
BASE FLASHING - OPTION 4

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF4

PARAPET WALL FLASHING HEIGHT EXCEEDING 30"

MAXIMUM WALL HEIGHT WITHOUT INTERMITTENT FASTENING IS 33" (WHEN CANTS ARE NOT INSTALLED). FOR WALLS HIGHER THAN 30", INTERMITTENT FASTENING IS EVERY 33" TO 36" MAXIMUM DEPENDING ON TYPE OF FASTENERS USED. IF ATTACHING WITH CAP NAILS THE SEAM WIDTH SHALL BE 3". IF USING INSULATION PLATES AND FASTENERS, THE SEAM WIDTH SHALL BE 6". FASTENERS SHALL BE SPACED A MAXIMUM OF 6" ON CENTER.



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER.
2. FLASHING MATERIAL MAY BE SET IN A BED OF MULE-HIDE MOD BIT FLASHING ADHESIVE OR MAY BE HOT AIR WELDED TO FIELD SHEET. IF HOT AIR WELDING, ENTIRE 6" WIDE SEAM MUST BE SEALED.

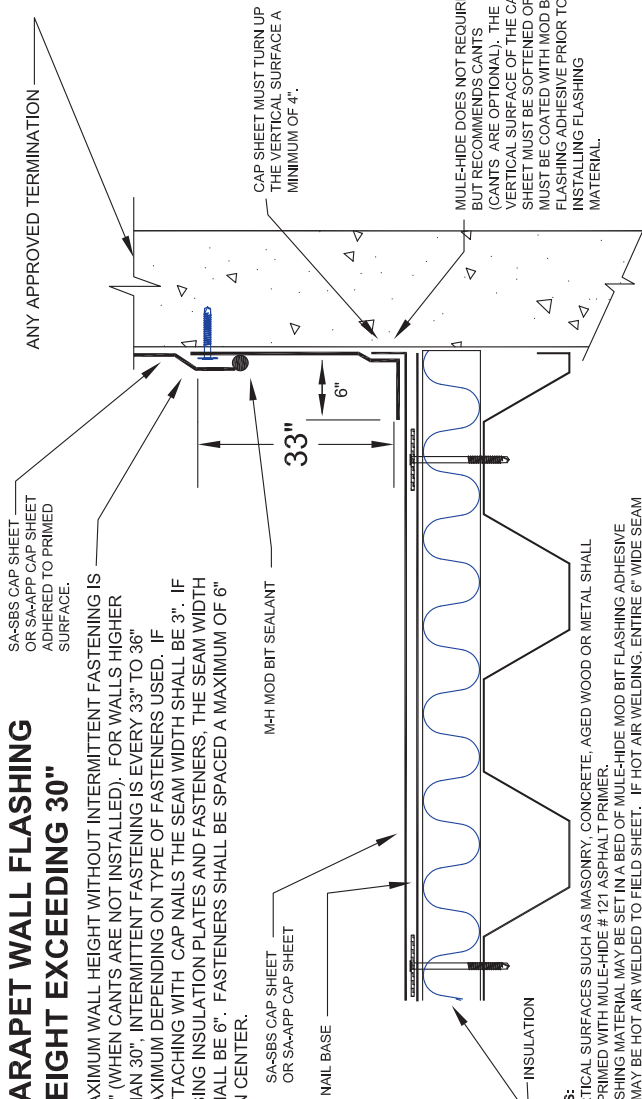
MULE-HIDE
PRODUCTS CO.,INC.
2014

BASE FLASHING - OPTION 5

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF5

PARAPET WALL FLASHING HEIGHT EXCEEDING 30"



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER.
2. FLASHING MATERIAL MAY BE SET IN A BED OF MULE-HIDE MOD BIT FLASHING ADHESIVE OR MAY BE HOT AIR WELDED TO FIELD SHEET. IF HOT AIR WELDING, ENTIRE 6" WIDE SEAM MUST BE SEALED.
3. INSULATION SHOULD BE MECHANICALLY ATTACHED SUFFICIENTLY TO HOLD IN PLACE PRIOR TO INSTALLING THE NAIL BASE.
4. NAIL BASE SHALL BE MECHANICALLY ATTACHED IN COMPLIANCE WITH FM ATTACHMENT GUIDELINES. THE MINIMUM ATTACHMENT PATTERN IS FM 1-60. REFER TO DETAIL: MH-MB-NB-FM 1-60.

MULE-HIDE
PRODUCTS CO.,INC.
2014

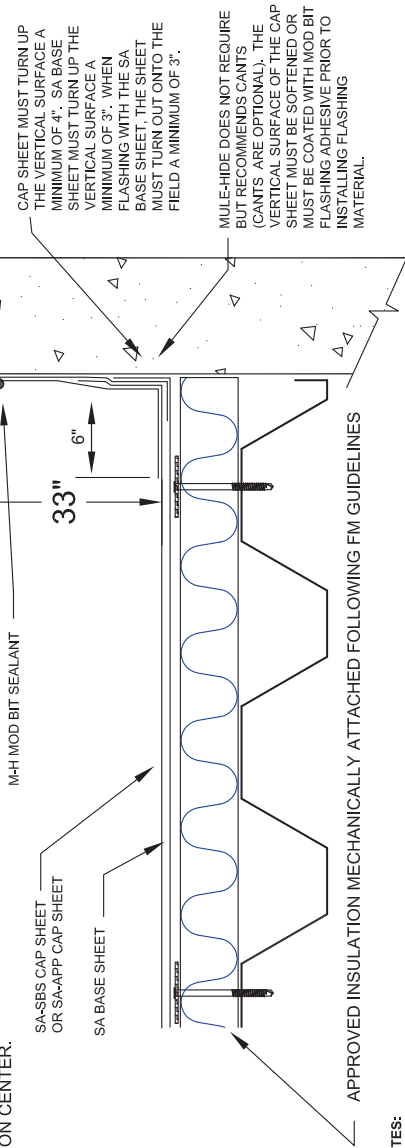
BASE FLASHING - OPTION 6

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF6

PARAPET WALL FLASHING HEIGHT EXCEEDING 30"

MAXIMUM WALL HEIGHT WITHOUT INTERMITTENT FASTENING IS 33" (WHEN CANTS ARE NOT INSTALLED). FOR WALLS HIGHER THAN 30", INTERMITTENT FASTENING IS EVERY 33" TO 36" MAXIMUM DEPENDING ON TYPE OF FASTENERS USED. IF ATTACHING WITH CAP NAILS THE SEAM WIDTH SHALL BE 3". IF USING INSULATION PLATES AND FASTENERS, THE SEAM WIDTH SHALL BE 6". FASTENERS SHALL BE SPACED A MAXIMUM OF 6" ON CENTER.



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER.
2. FLASHING MATERIAL MAY BE SET IN A BED OF MULE-HIDE MOD BIT FLASHING ADHESIVE OR MAY BE HOT AIR WELDED TO FIELD SHEET. IF HOT AIR WELDING, ENTIRE 6" WIDE SEAM MUST BE SEALED.

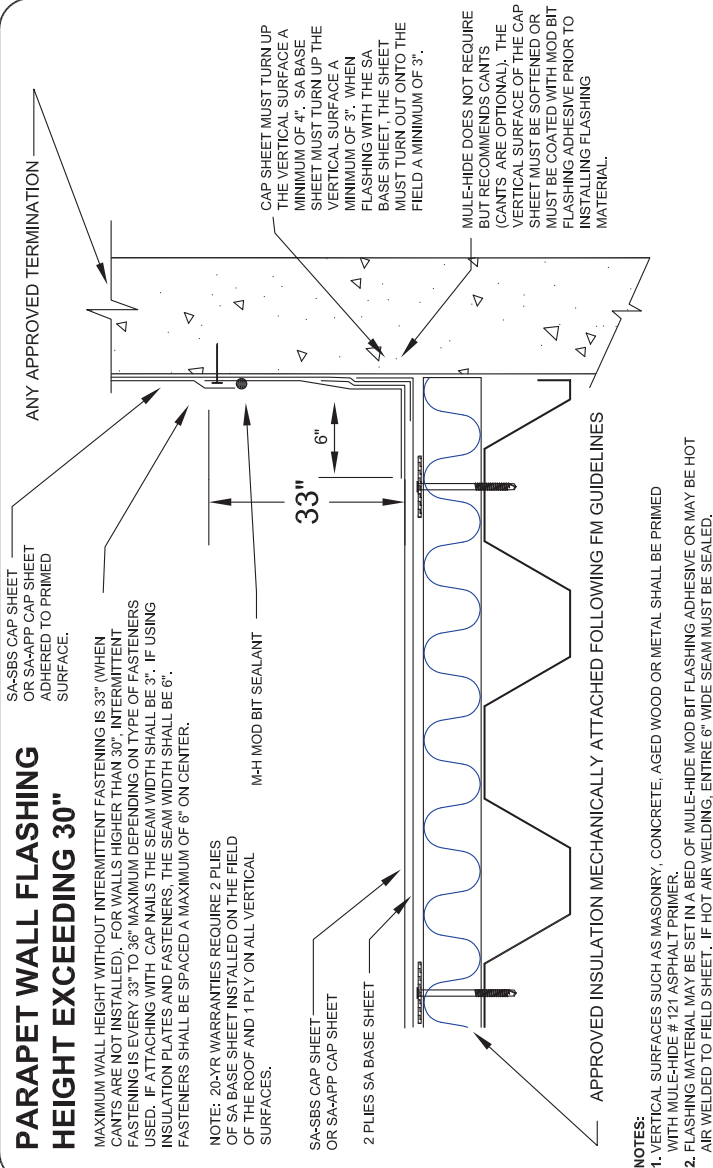
MULE-HIDE
PRODUCTS CO.,INC.
2003

BASE FLASHING - OPTION 7

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-BF7

PARAPET WALL FLASHING HEIGHT EXCEEDING 30"



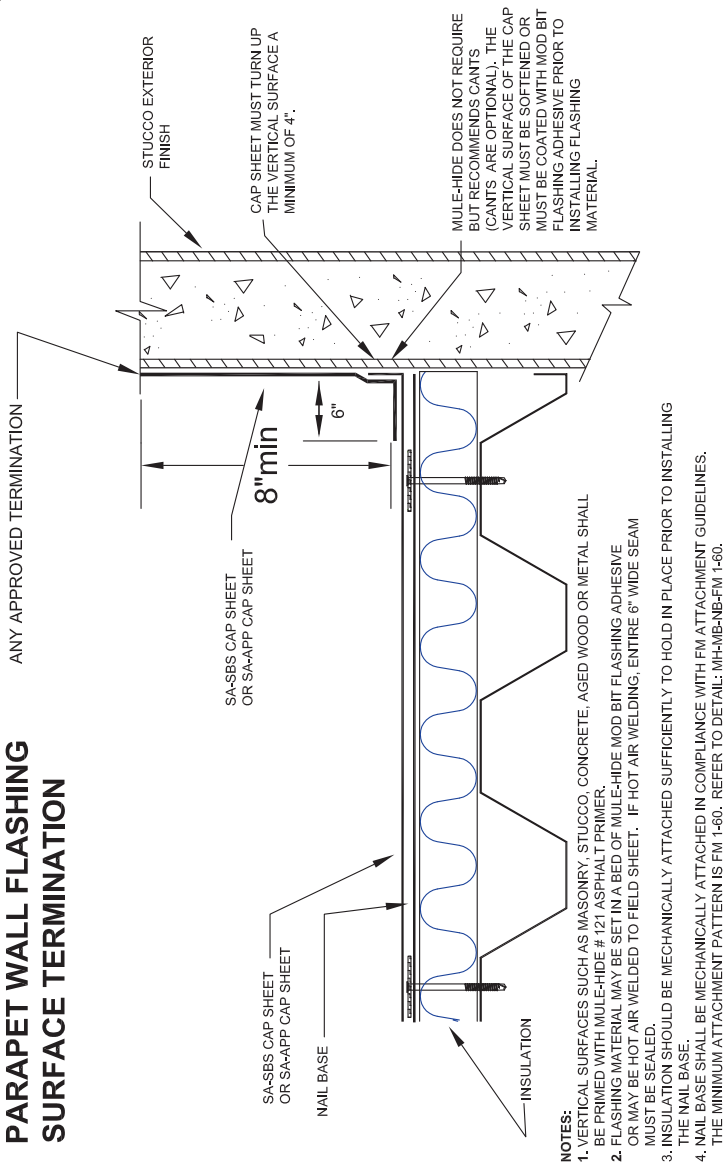
DETAIL NO.:
MH-MB-BF8

BASE FLASHING - OPTION 8

SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003

PARAPET WALL FLASHING SURFACE TERMINATION



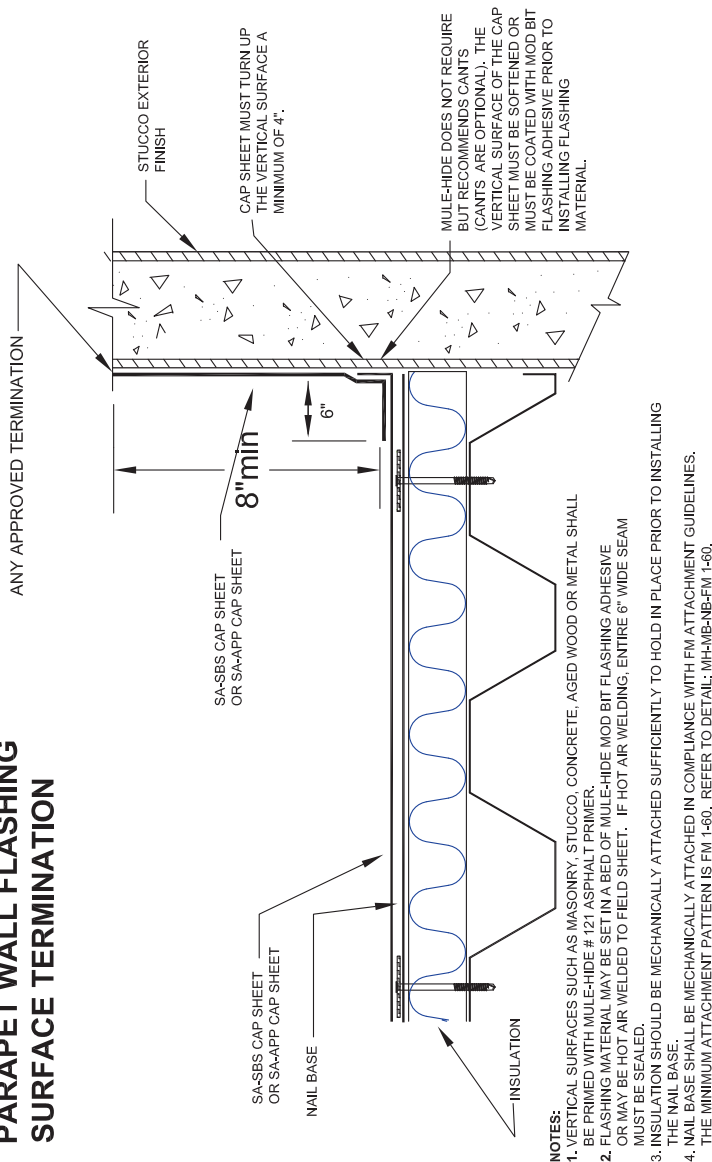
DETAIL NO.:
MH-MB-BF9

BASE FLASHING - OPTION 9

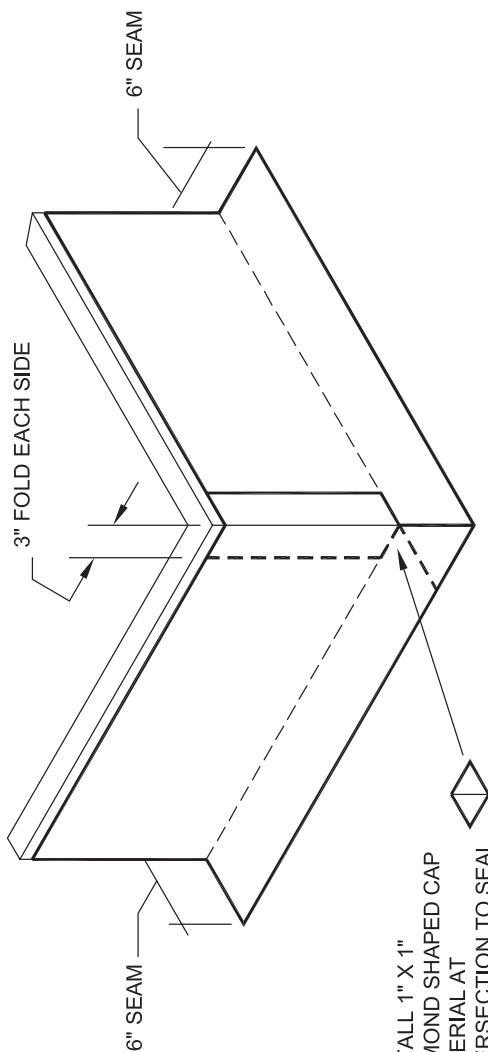
SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003

PARAPET WALL FLASHING SURFACE TERMINATION



MULE-HIDE PRODUCTS CO.,INC. 2014	BASE FLASHING - OPTION 10	DETAIL NO.: MH-MB-BF10
	SELF-ADHERING MOD BIT SYSTEMS	



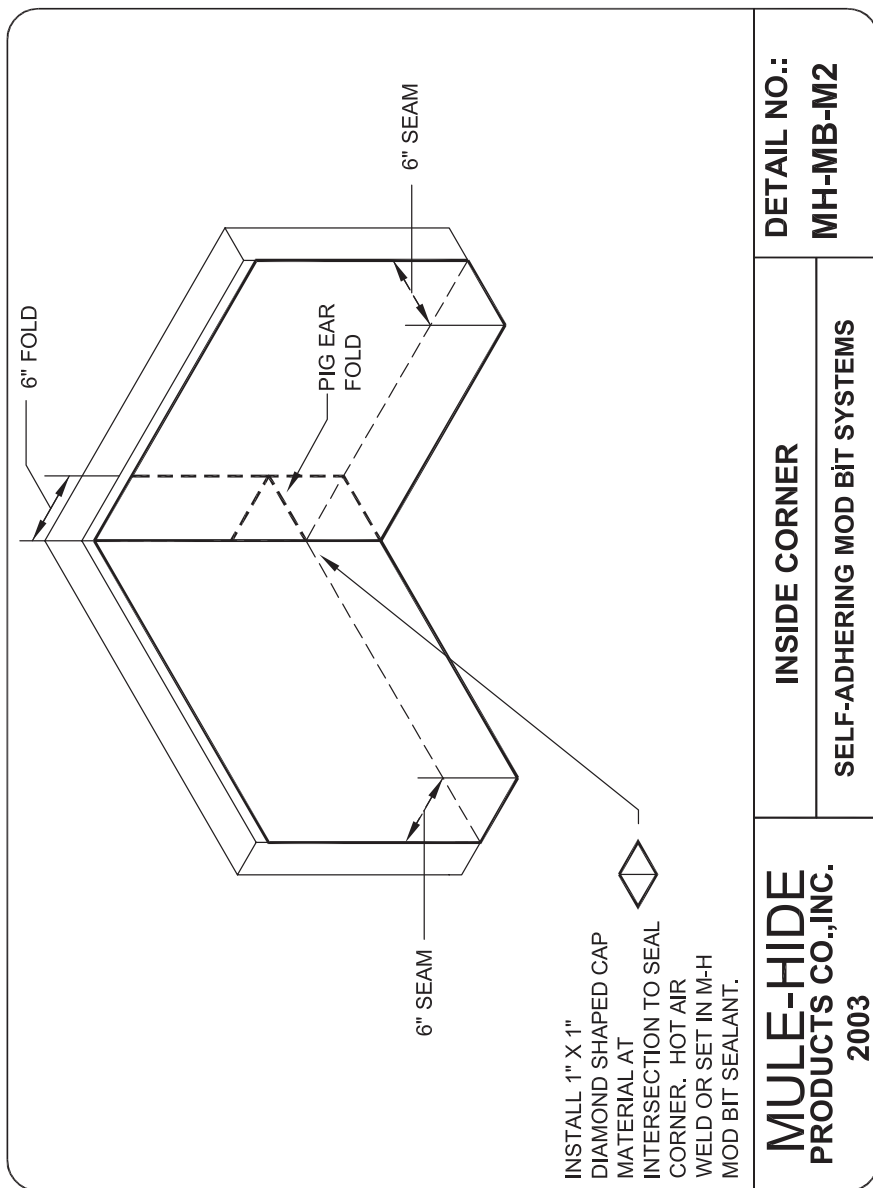
INSTALL 1" X 1"
DIAMOND SHAPED CAP
MATERIAL AT
INTERSECTION TO SEAL
CORNER. HOT AIR
WELD OR SET IN M-H
MOD BIT SEALANT.

MULE-HIDE
PRODUCTS CO.,INC.
2003

OUTSIDE CORNER

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-M1



PARAPET WALL FLASHING SURFACE TERMINATION

TOP OF FLASHINGS MUST BE MECHANICALLY TERMINATED WITH TERMINATION BAR AND APPROPRIATE FASTENERS SPACED 6" ON CENTER. THE WALL (CONCRETE, WOOD, ETC.) THE TOP OF THE TERMINATION BAR MUST BE SEALED WITH AN APPROVED CAULK. IF NOT INSTALLING A TERMINATION BAR, THE FLASHING MUST BE MECHANICALLY ATTACHED 8" O.C. AND A METAL COUNTERFLASHING MUST BE INSTALLED TO COVER THE TOP OF THE MOD BIT FLASHING MATERIAL.

MULE-HIDE ALL-PURPOSE
SEALANT, NP1, GEOCEL
2300 OR OSI PR-255

SA-SBS CAP SHEET
OR SA-APP CAP SHEET

8" min

6"

CAP SHEET MUST TURN UP
THE VERTICAL SURFACE A
MINIMUM OF 4".

MULE-HIDE DOES NOT REQUIRE
BUT RECOMMENDS CANTS
(CANTS ARE OPTIONAL). THE
VERTICAL SURFACE OF THE CAP
SHEET MUST BE SOFTENED OR
MUST BE COATED WITH MOD BIT
FLASHING ADHESIVE PRIOR TO
INSTALLING FLASHING
MATERIAL.

NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, STUCCO, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. PRIMER MUST BE THOROUGHLY DRY BEFORE APPLICATION OF SELF-ADHERING MEMBRANES.

MULE-HIDE
PRODUCTS CO.,INC.
2003

WALL FLASHING TERMINATION - 1

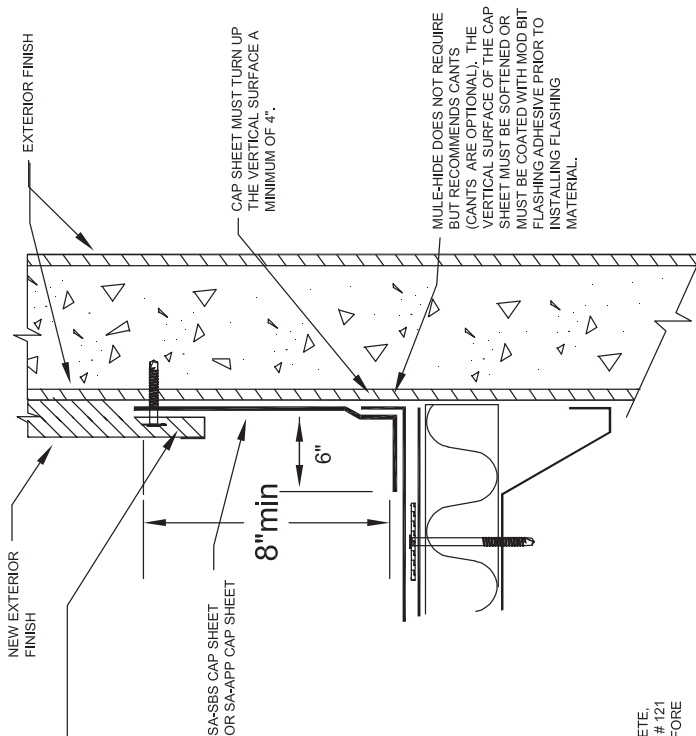
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:

MH-MB-WFT01

PARAPET WALL FLASHING SURFACE TERMINATION

TOP OF FLASHINGS MUST BE MECHANICALLY TERMINATED. "J" STYLE METAL/MATERIAL USED IN CONJUNCTION WITH AN EXTERIOR FINISH MATERIAL (NEW STUCCO OR SIDING) MAY BE INSTALLED OVER THE FLASHINGS (ACTING AS A TERMINATION BARRIER) WITH APPROPRIATE FASTENERS SPACED 8" ON CENTER. THE FASTENERS MUST PENETRATE AND ANCHOR INTO THE STRUCTURAL WALL (CONCRETE, WOOD, BLOCK, ETC.)



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, STUCCO, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. PRIMER MUST BE THOROUGHLY DRY BEFORE APPLICATION OF SELF-ADHERING MEMBRANES.

MULE-HIDE
PRODUCTS CO.,INC.
2003

WALL FLASHING TERMINATION - 2

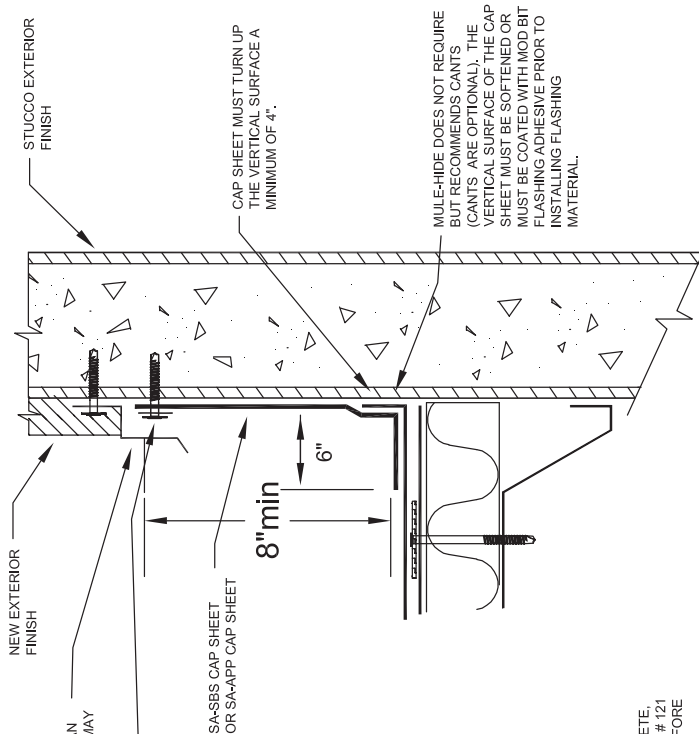
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-WFT02

PARAPET WALL FLASHING SURFACE TERMINATION

"Z" STYLE METAL MATERIAL USED IN CONJUNCTION WITH AN EXTERIOR FINISH MATERIAL (NEW STUCCO, SIDING, ETC.) MAY BE INSTALLED OVER THE FLASHINGS.

THE TOP OF THE SELF-ADHERING MOD BIT FLASHINGS MUST BE MECHANICALLY ATTACHED WITH APPROPRIATE FASTENERS SPACED A MAXIMUM OF 8" ON CENTER. THE FASTENERS MUST PENETRATE AND ANCHOR INTO THE STRUCTURAL WALL (CONCRETE, WOOD, BLOCK, ETC.).



MULE-HIDE DOES NOT REQUIRE BUT RECOMMENDS CANTS (CANTS ARE OPTIONAL). THE VERTICAL SURFACE OF THE CAP SHEET MUST BE SOFTENED OR MUST BE COATED WITH MOD BIT FLASHING ADHESIVE PRIOR TO INSTALLING FLASHING MATERIAL.

NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, STUCCO, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. PRIMER MUST BE THOROUGHLY DRY BEFORE APPLICATION OF SELF-ADHERING MEMBRANES.

MULE-HIDE
PRODUCTS CO.,INC.
2003

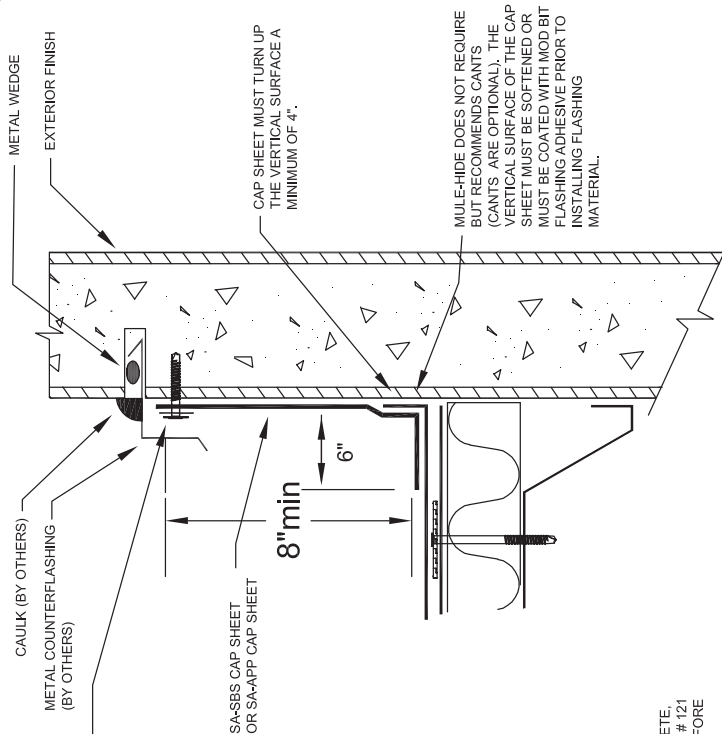
WALL FLASHING TERMINATION - 3

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-WFT03

PARAPET WALL FLASHING REGLET TERMINATION

TOP OF FLASHINGS MUST BE MECHANICALLY TERMINATED. SELF-ADHERING MOD BIT FLASHINGS MUST BE FASTENED WITH APPROPRIATE FASTENERS SPACED A MAXIMUM OF 8" ON CENTER. THE FASTENERS MUST PENETRATE AND ANCHOR INTO THE STRUCTURAL WALL (CONCRETE, WOOD, BLOCK, ETC.)



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, STUCCO, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. PRIMER MUST BE THOROUGHLY DRY BEFORE APPLICATION OF SELF-ADHERING MEMBRANES.

MULE-HIDE
PRODUCTS CO., INC.
2003

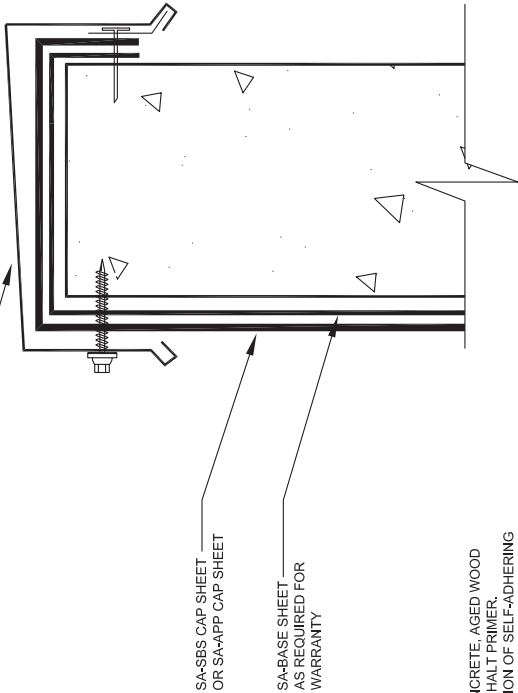
WALL FLASHING TERMINATION - 4

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-WFT04

PARAPET WALL FLASHING
COPING CAP TERMINATION

OUTSIDE FACE OF FLASHINGS MUST BE MECHANICALLY
TERMINATED UNDER THE COPING CAP. CONTINUOUS CLEAT
FASTENED 12" O.C., MAX. MUST BE USED WHENEVER OUTSIDE
FACE DIMENSION IS 4" OR MORE. FASTEN INSIDE FACE OF
COPING 24" ON CENTER WITH GROMMETTED FASTENERS.



NOTES:

1. VERTICAL SURFACES SUCH AS MASONRY, STUCCO, CONCRETE, AGED WOOD OR METAL SHALL BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. PRIMER MUST BE THOROUGHLY DRY BEFORE APPLICATION OF SELF-ADHERING MEMBRANES.

MULE-HIDE
PRODUCTS CO.,INC.
2003

WALL FLASHING TERMINATION - 5

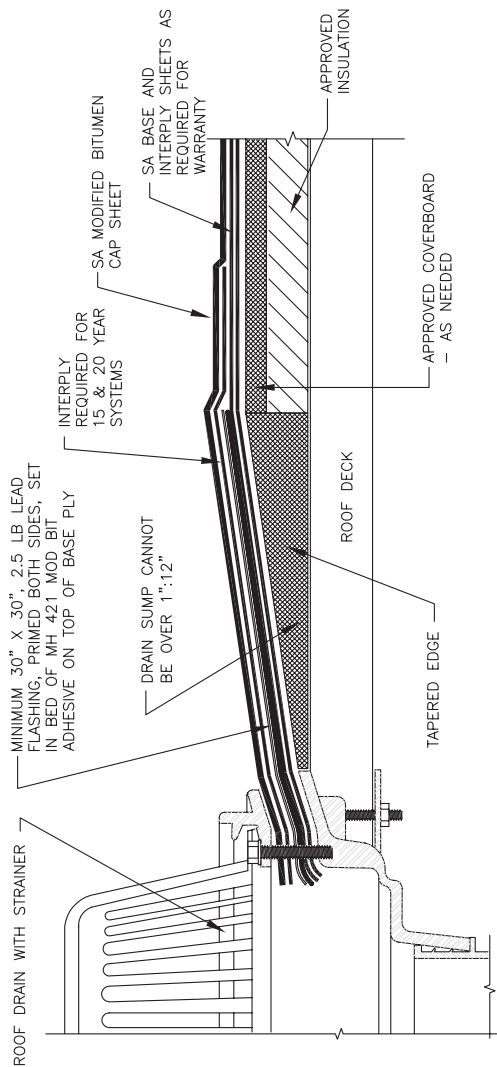
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:

MH-MB-WFT05

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS
2. IF DRAIN SUMP IS GREATER THAN 1":12", A RETROFIT DRAIN INSERT MUST BE USED
3. A TARGET PATCH OF SA BASE IS REQUIRED IF A FIELD SEAM IS WITHIN 6" – 9" OF CLAMPING RING
4. NO SEAM CAN BE LESS THAN 6" FROM THE DRAIN CLAMPING RING



ROOF DRAIN

SYSTEMS:

SELF-ADHERING MODIFIED BITUMEN

DETAIL NO.:

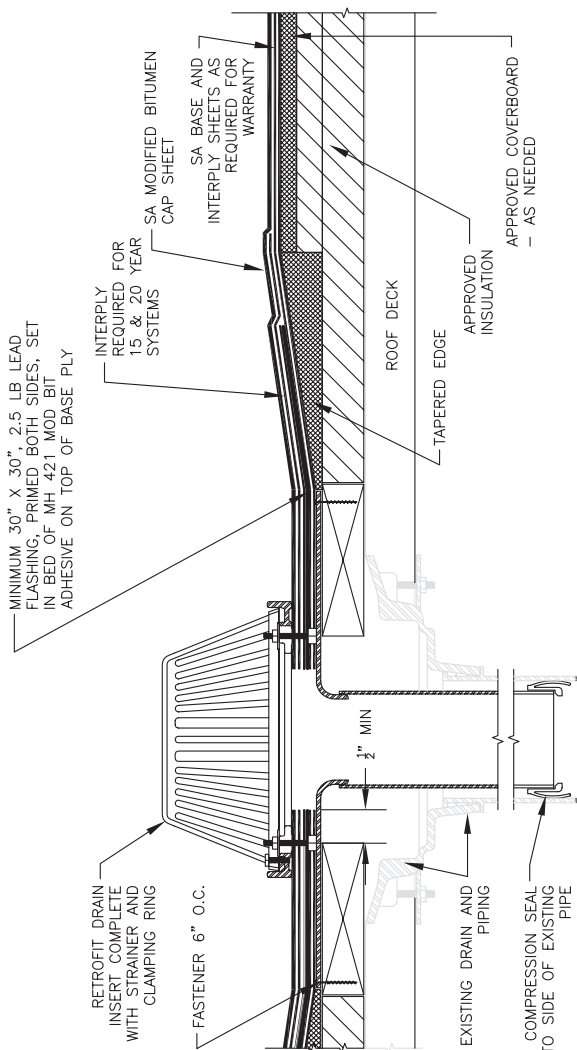
MH-MB-D1

REVISION DATE: OCTOBER 2015

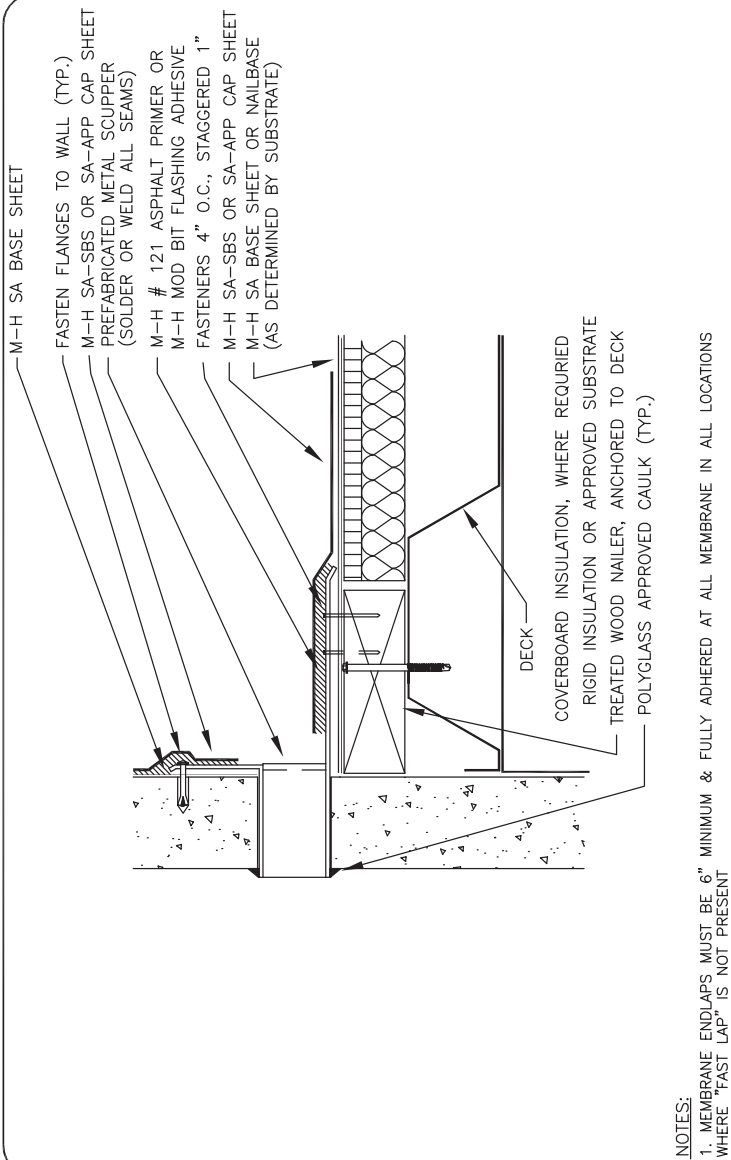
**MULE-HIDE
PRODUCTS CO., INC.**

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS
2. WOOD NAILERS MUST BE INSTALLED AROUND DRAIN
3. A TARGET PATCH OF SA-BASE MODIFIED BITUMEN IS REQUIRED IF A FIELD SEAM IS WITHIN 6" - 9" OF CLAMPING RING
4. NO SEAM CAN BE LESS THAN 6" FROM THE DRAIN CLAMPING RING



MULE-HIDE PRODUCTS CO., INC.	SELF-ADHERING MODIFIED BITUMEN	
	RETROFIT DRAIN INSERT SYSTEMS:	DETAIL NO.: MH-MB-D2 REVISION DATE: MARCH 2015

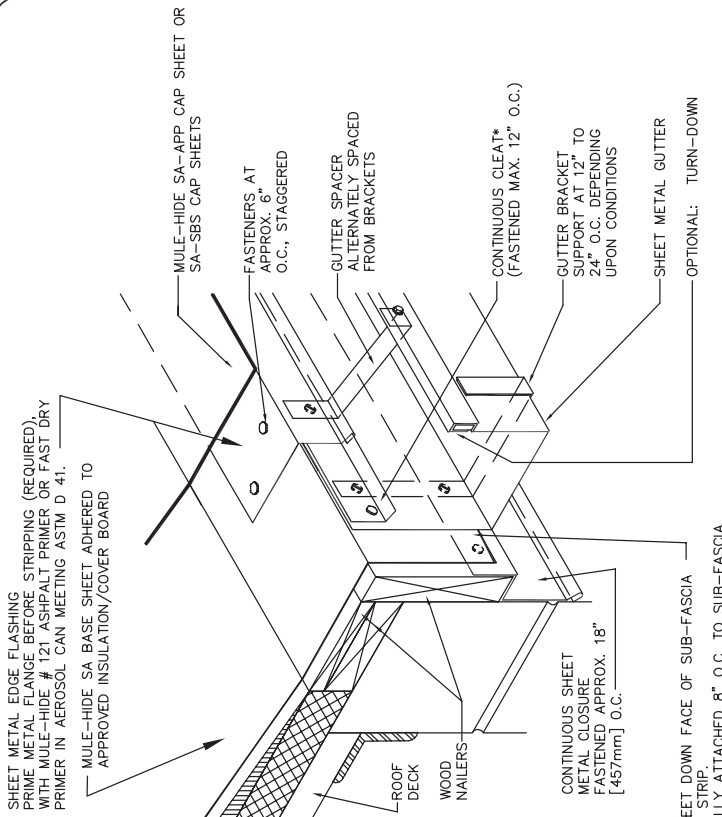


MULE-HIDE PRODUCTS CO.,INC. 2003	SCUPPER - OPTION 1		DETAIL NO.: MH-MB-S1
	SELF-ADHERING MOD BIT SYSTEMS		

NOTES:

1. ATTACH WOOD NAILER TO WALL/DECK IN ACCORDANCE WITH FMRC GUIDELINES PER SECTION 4.26.1. FLASHING WITH MULE-HIDE SA-BASE SHEET ADHERED TO DECK. RESIST WIND LOADS TO ROOF SYSTEMS & WET-FILL DECKS OR OTHER APPLICABLE CONSTRUCTIONS.
2. WOOD BLOCKING MAY BE SLOTTED FOR VENTING OF WET-FILL DECKS OR OTHER APPLICABLE CONSTRUCTIONS.
3. THIS DETAIL SHOULD BE USED ONLY WHERE THE DECK IS SUPPORTED BY THE OUTSIDE WALL.
4. REFER SMACNA RECOMMENDATIONS & DETAILS REGARDING METAL THICKNESS & CLEAT REQUIREMENTS.
5. MEMBRANE ENDLAPS MUST BE 6" MINIMUM & FULLY ADHERED TO THE MEMBRANE AT ALL LOCATIONS WHERE "FASTLAP" IS NOT PRESENT.

* CONTINUOUS CLEAT IS RECOMMENDED TO BE AT LEAST ONE GAUGE HEAVIER THAN EDGE FLASHING METAL.



EXTEND SA BASE SHEET DOWN FACE OF SUB-FASCIA TO COVER METAL "Z" STRIP.
"Z" STRIP MECHANICALLY ATTACHED 8" O.C. TO SUB-FASCIA

MULE-HIDE
PRODUCTS CO.,INC.
2003

GUTTER DETAIL - OPTION 1

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-G1

1. ATTACH WOOD NAILER TO WALL/DECK IN ACCORDANCE WITH FMRC GUIDELINES PER SECTION 1-28. REGARDING WIND LOADS TO ROOF SYSTEMS & DECK SEGMENT.
2. WOOD BLOCKING MAY BE SLOTTED FOR VENTING OF WET-FILL DECKS OR OTHER APPLICABLE CONSTRUCTIONS.

3. THIS DETAIL SHOULD BE USED ONLY WHERE THE DECK IS SUPPORTED BY THE OUTSIDE WALL.

4. REFER SMACNA RECOMMENDATIONS & DETAILS REGARDING METAL THICKNESS & CLEAT

REQUIREMENTS.

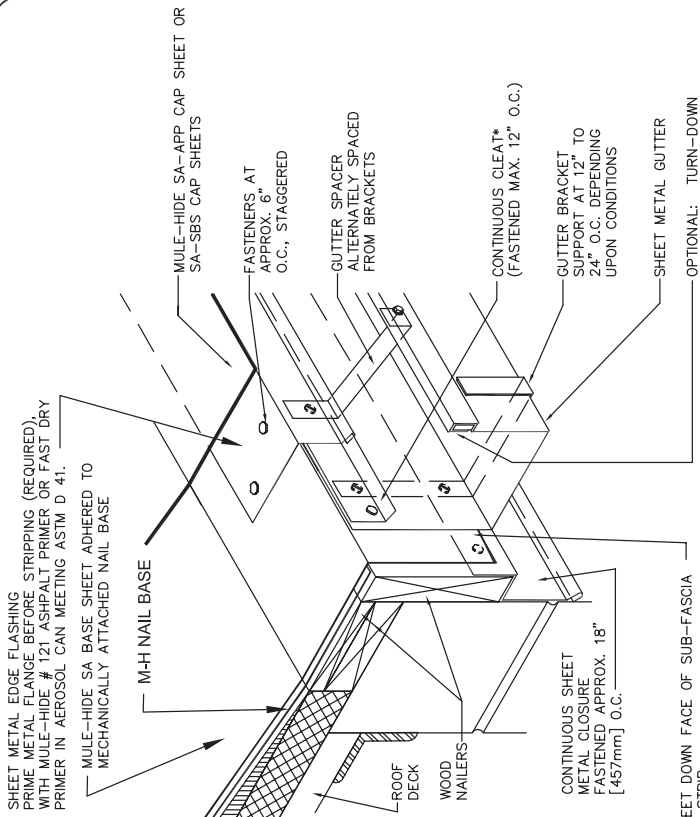
5. MEMBRANE ENDLAPS MUST BE 6" MINIMUM & FULLY ADHERED TO THE MEMBRANE AT ALL

LOCATIONS WHERE "FASTLAP" IS NOT PRESENT.

6. THE INITIAL BASE MUST BE INSTALLED AND MECHANICALLY ATTACHED AS THE INITIAL BASE PLY WHEN INSTALLING THE SELF-ADHERING MEMBRANES OVER NON-APPROVED INSULATIONS, COVERBOARDS OR OVERLAYS.

* CONTINUOUS CLEAT IS RECOMMENDED TO BE AT LEAST ONE GAUGE HEAVIER THAN EDGE FLASHING METAL.

EXTEND SA BASE SHEET DOWN FACE OF SUB-FASCIA
TO COVER METAL "Z" STRIP.
"Z" STRIP MECHANICALLY ATTACHED 8" O.C. TO SUB-FASCIA

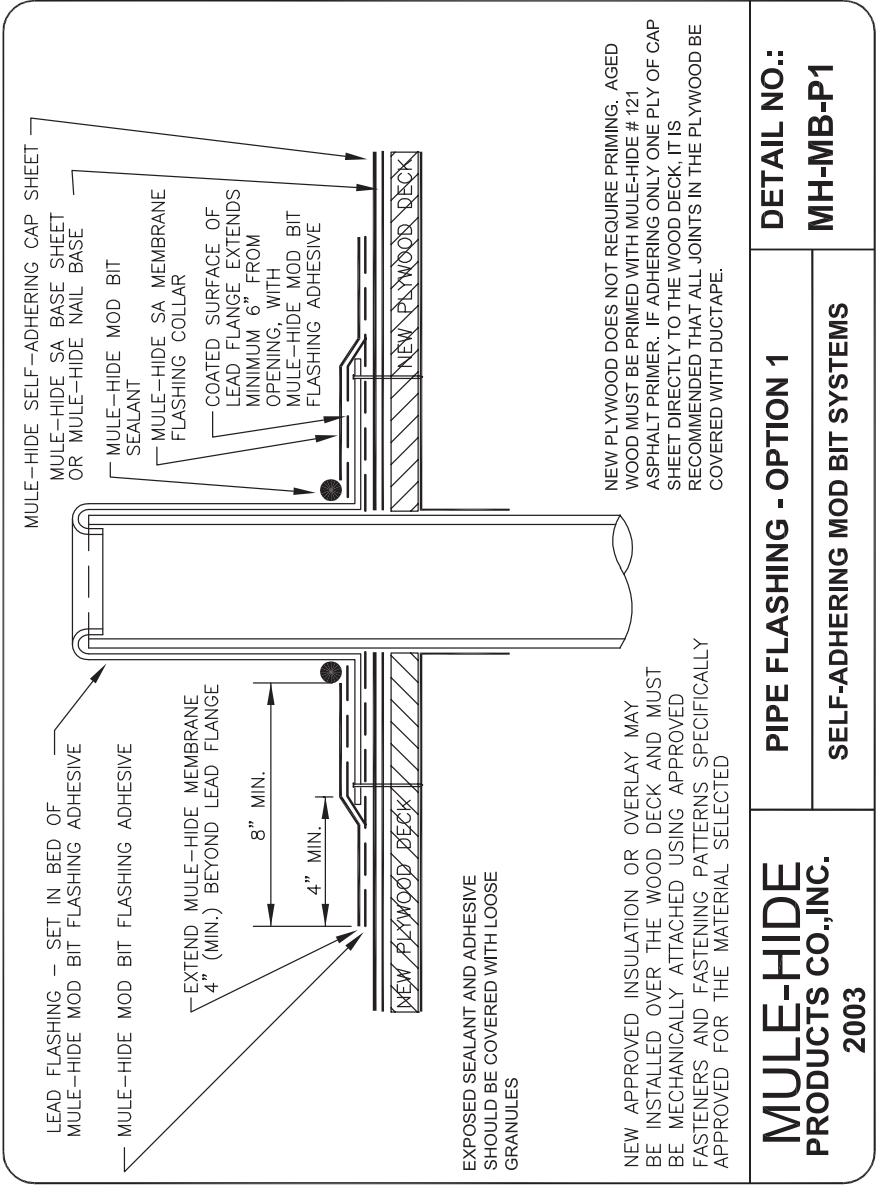


**MULE-HIDE
PRODUCTS CO., INC.
2003**

GUTTER DETAIL - OPTION 2

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-G2



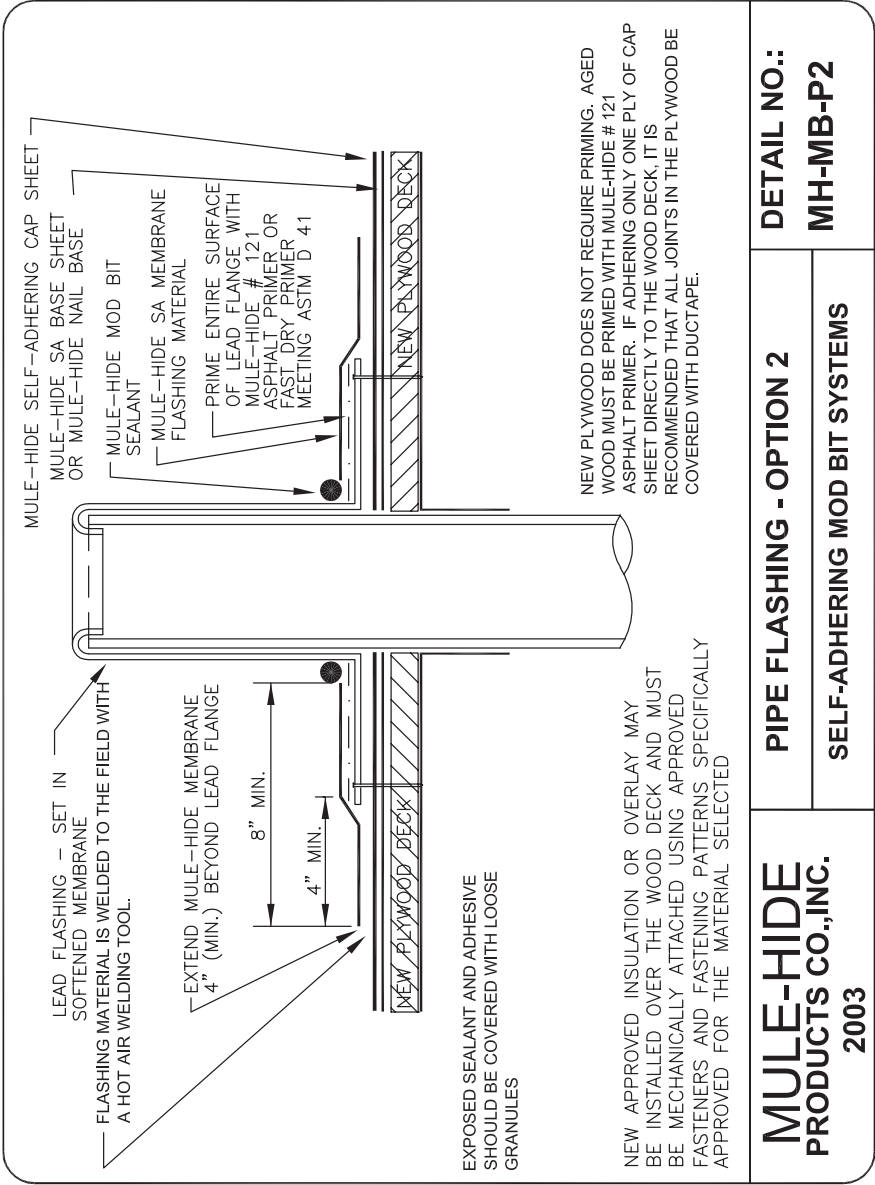
NEW PLYWOOD DOES NOT REQUIRE PRIMING. AGED WOOD MUST BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER. IF ADHERING ONLY ONE PLY OF CAP SHEET DIRECTLY TO THE WOOD DECK, IT IS RECOMMENDED THAT ALL JOINTS IN THE PLYWOOD BE COVERED WITH DUCTAPE.

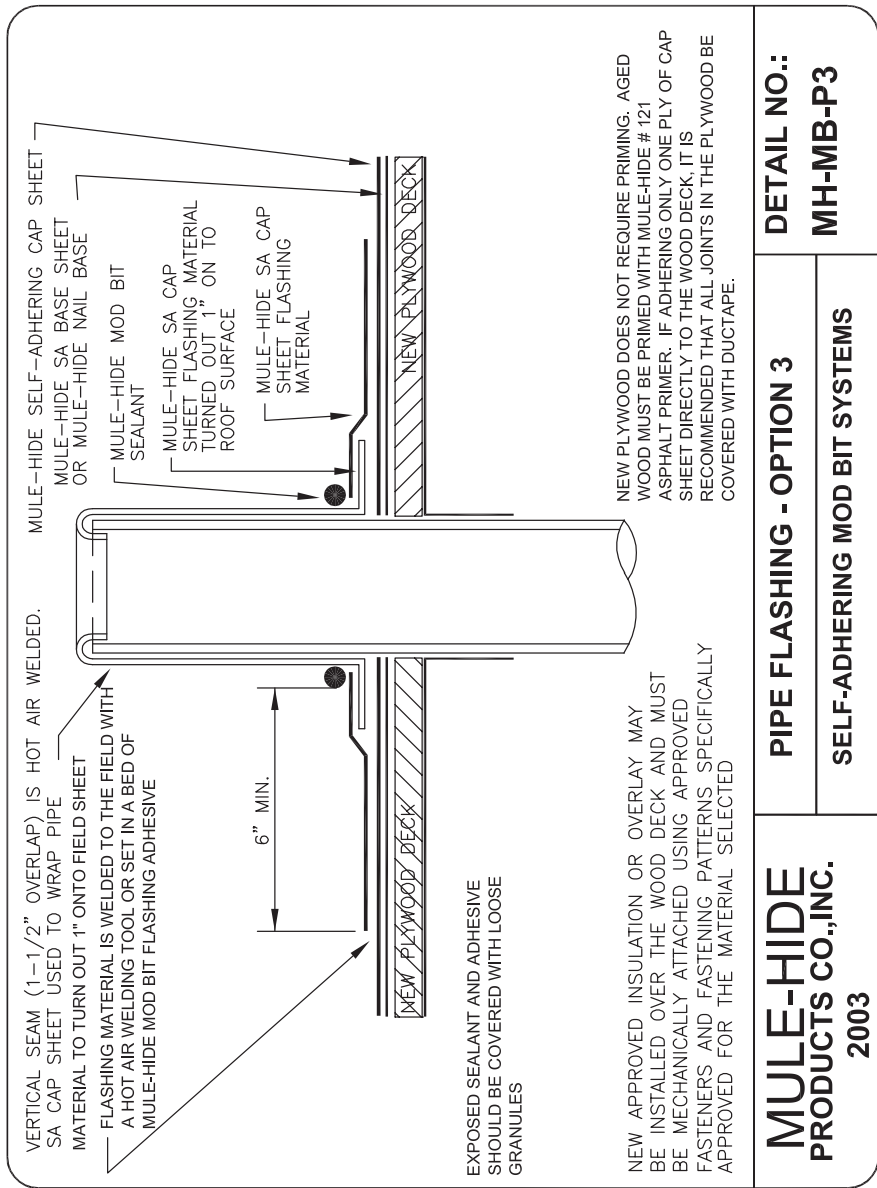
NEW APPROVED INSULATION OR OVERLAY MAY BE INSTALLED OVER THE WOOD DECK AND MUST BE MECHANICALLY ATTACHED USING APPROVED FASTENERS AND FASTENING PATTERNS SPECIFICALLY APPROVED FOR THE MATERIAL SELECTED

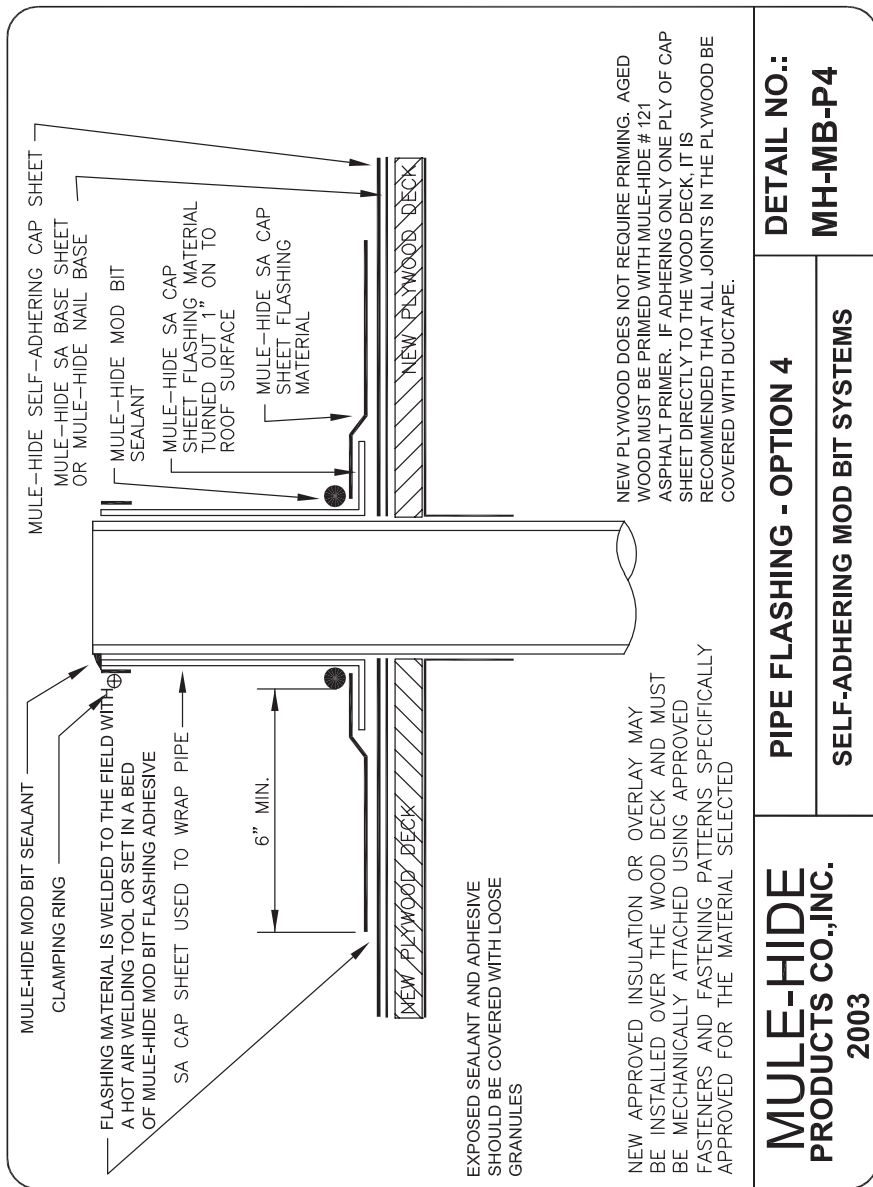
DETAIL NO.:
MH-MB-P1

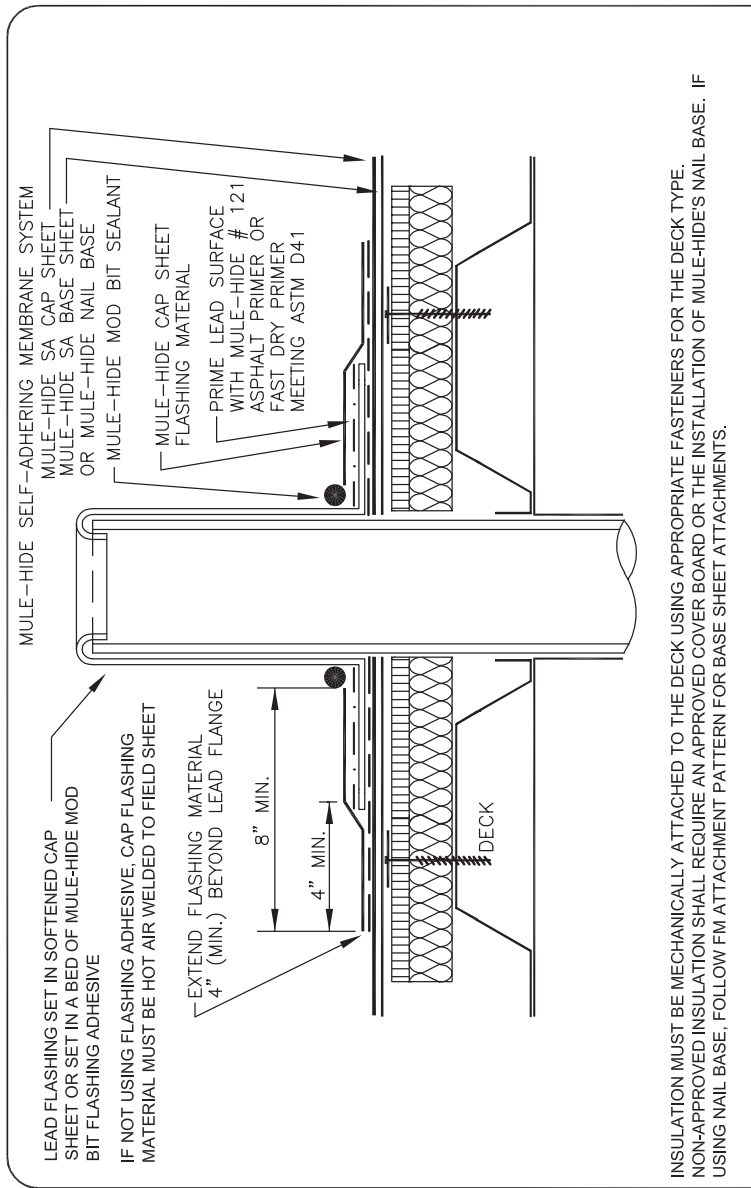
PIPE FLASHING - OPTION 1
SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003







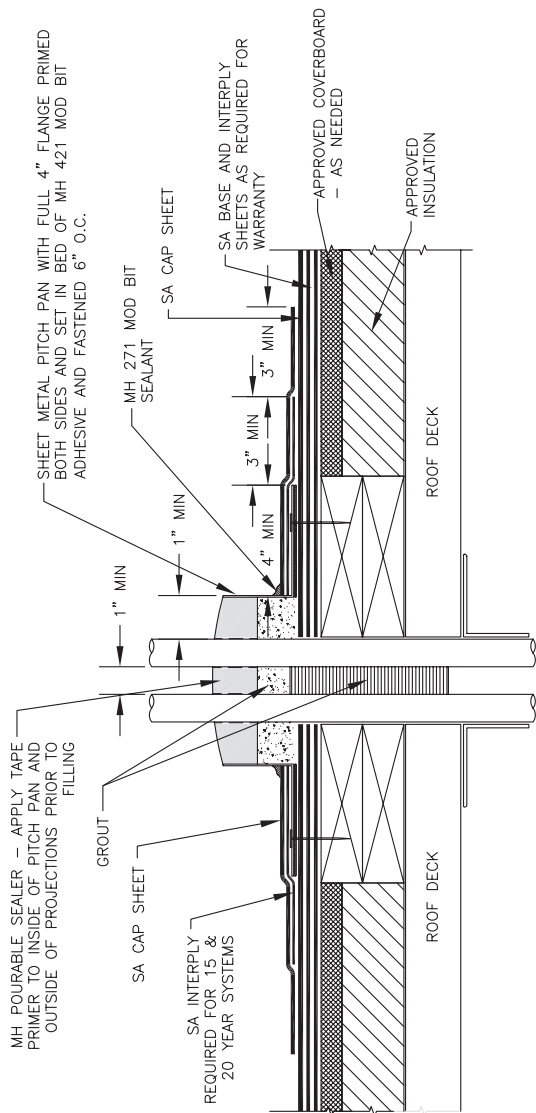


INSULATION MUST BE MECHANICALLY ATTACHED TO THE DECK USING APPROPRIATE FASTENERS FOR THE DECK TYPE. NON-APPROVED INSULATION SHALL REQUIRE AN APPROVED COVER BOARD OR THE INSTALLATION OF MULE-HIDE'S NAIL BASE. IF USING NAIL BASE, FOLLOW FM ATTACHMENT PATTERN FOR BASE SHEET ATTACHMENTS.

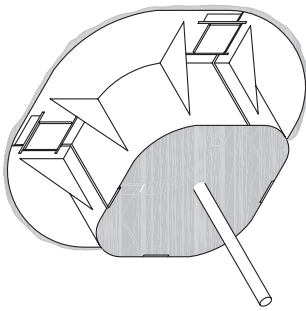
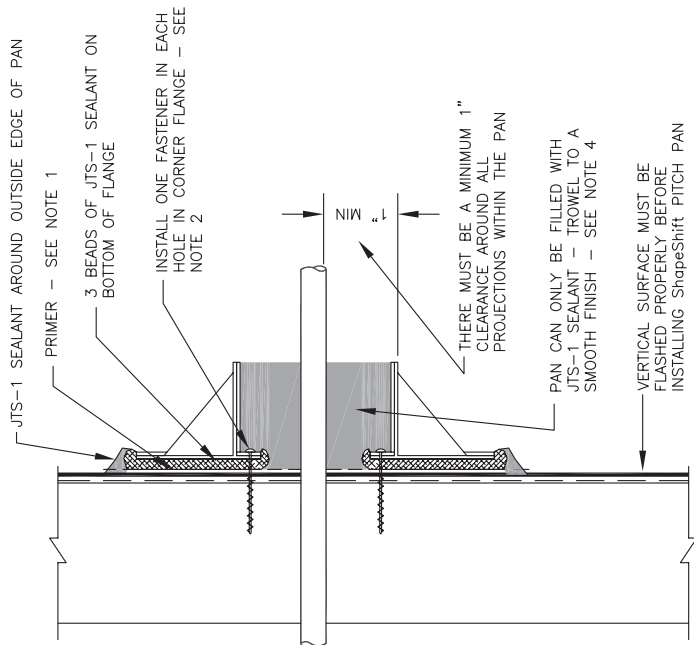
MULE-HIDE PRODUCTS CO.,INC. 2003	PIPE FLASHING - OPTION 5		DETAIL NO.: MH-MB-P5
	SELF-ADHERING MOD BIT SYSTEMS		

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MATCHING THE INSULATION THICKNESS AND EXTENDING BEYOND THE FLANGE ARE REQUIRED.
3. ALL SEAMS OVER GRANULATED SURFACES MUST BE COMPLETED WITH EITHER HOT AIR WELDING OR MH 421 MOD BIT ADHESIVE.



MULE-HIDE PRODUCTS CO., INC.	DETAIL NO.: MHMB-141	
	SYSTEMS: SELF-ADHERING MODIFIED BITUMEN	REVISION DATE: MARCH 2017



NOTES:

1. MOD BIT MEMBRANE MUST BE PRIMED WITH 2-PART EPOXY PRIMER BEFORE SETTING FLANGE ON WALL.
2. PITCH PAN MUST BE FASTENED TO SUBSTRATE WITH 1 FASTENER IN EACH CORNER PIECE. PLACE FASTENER IN HOLE FOUND ON INSIDE FLANGE.
3. ShapeShift PITCH PANS CAN BE CONFIGURED INTO THE SHAPE NEEDED BY USING ANY COMBINATION OF CORNER AND STRAIGHT PIECES.
4. VERTICAL PITCH PANS CAN ONLY BE FILLED WITH JTS-1 SEALANT BECAUSE IT DOES NOT SHRINK OR SAG. NO OTHER SEALANTS ARE APPROVED.

**MULE-HIDE
PRODUCTS CO., INC.**

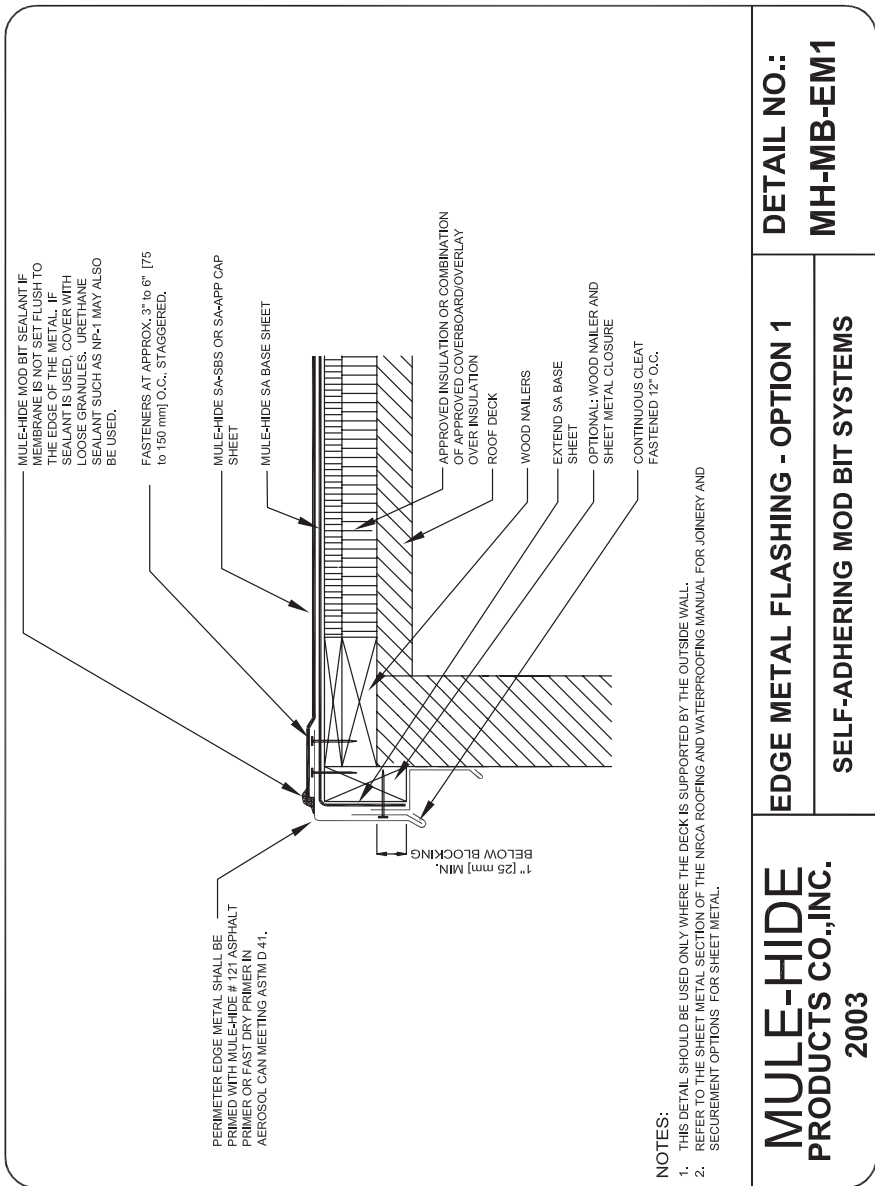
**ShapeShift
VERTICAL SEALANT POCKET
SYSTEMS:**

ALL MOD BIT SYSTEMS

DETAIL NO.:

MHMB-142

REVISION DATE: 05/2018

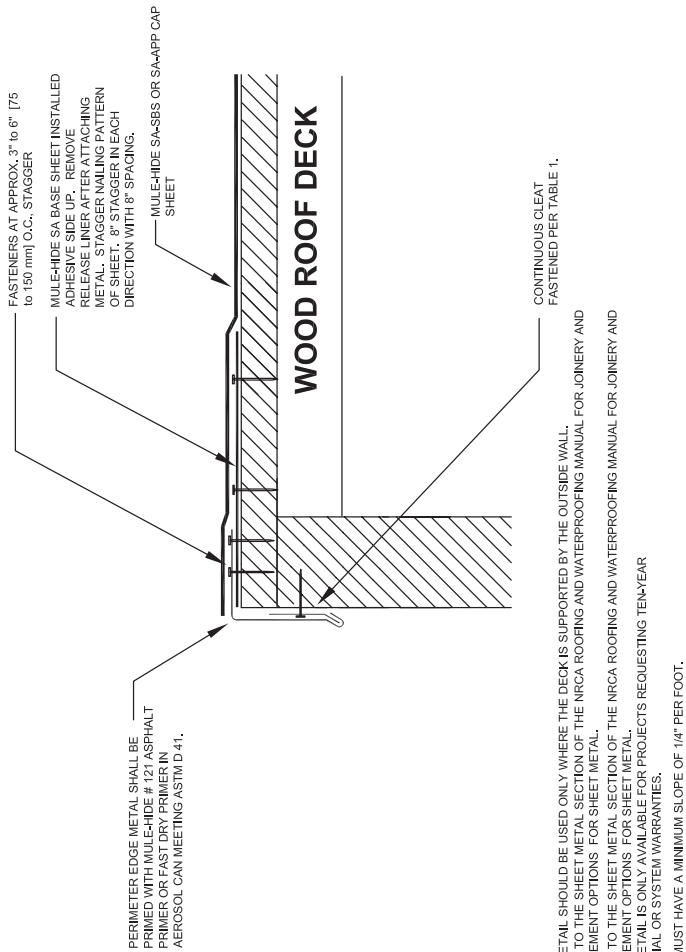


DETAIL NO.:
MH-MB-EM1

EDGE METAL FLASHING - OPTION 1

SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003

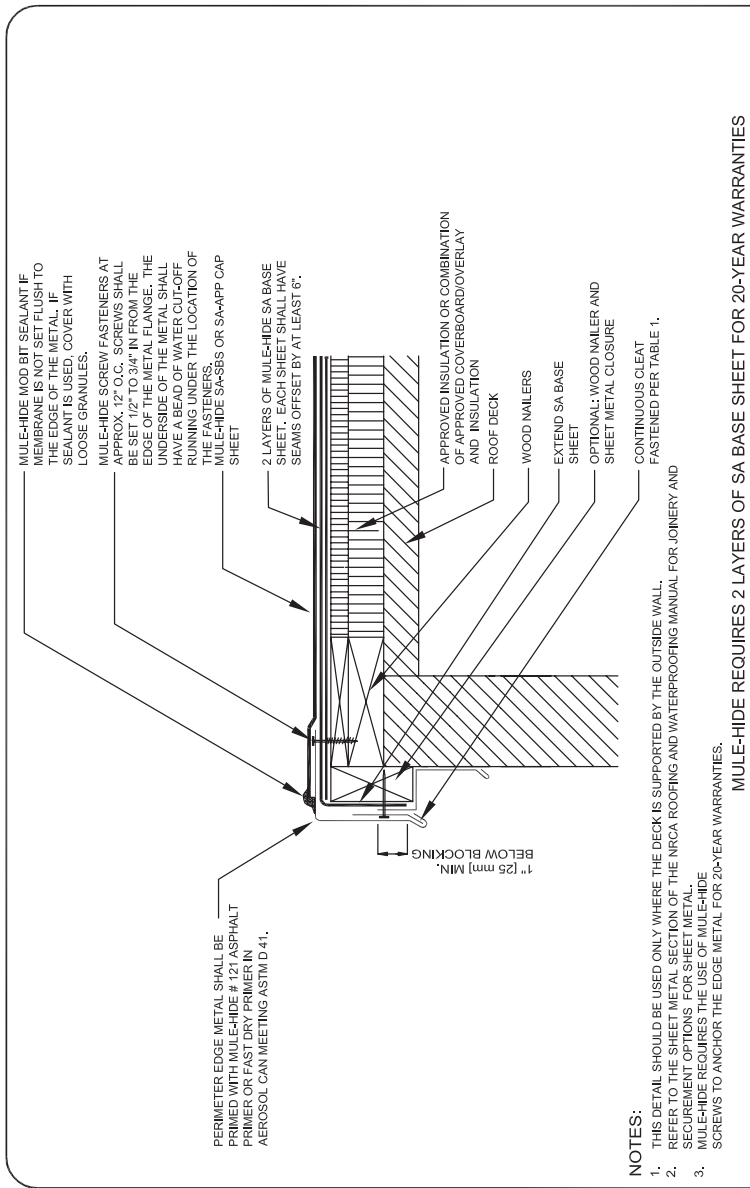


MULE-HIDE
PRODUCTS CO.,INC.
2003

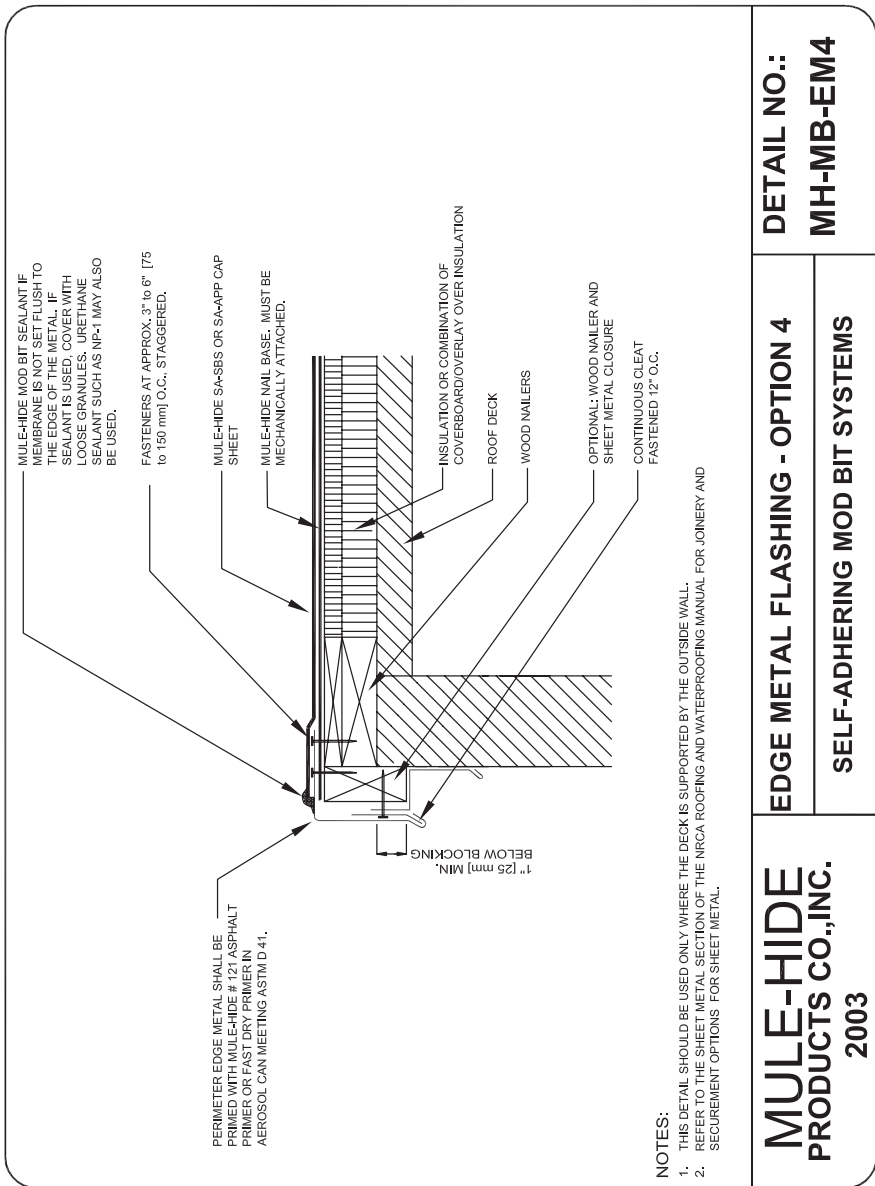
EDGE METAL FLASHING - OPTION 2

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-EM2



MULE-HIDE PRODUCTS CO.,INC. 2003	EDGE METAL FLASHING - OPTION 3		DETAIL NO.: MH-MB-EM3
	SELF-ADHERING MOD BIT SYSTEMS		



DETAIL NO.:
MH-MB-EM4

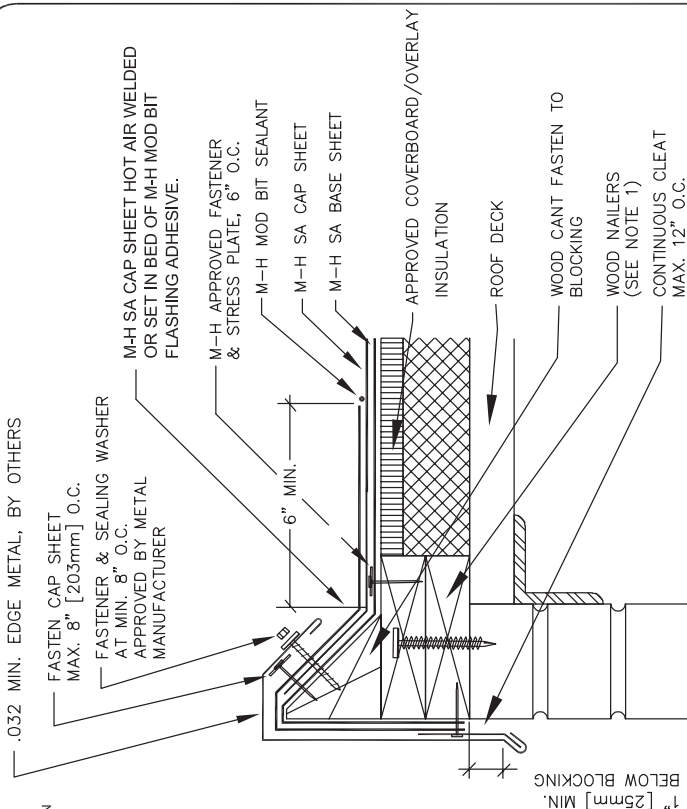
EDGE METAL FLASHING - OPTION 4

SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003

NOTES:

1. ATTACH WOOD NAILER TO WALL/DECK IN ACCORDANCE WITH FMRC GUIDELINES AS PER SECTION 1-28, REGARDING WINDLOADS TO ROOF SYSTEMS & DECK SECUREMENT.
2. REFER TO SMACNA RECOMMENDATIONS & DETAILS REGARDING METAL THICKNESS & CLEAT REQUIREMENTS.
3. MEMBRANE ENDLAPS MUST BE 6" MINIMUM & FULLY ADHERED TO MEMBRANE IN ALL LOCATIONS WHERE "FASTLAP" IS NOT PRESENT.
4. ALL ACCEPTABLE MASONRY, CONCRETE, METAL & AGED WOOD SUBSTRATES MUST BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER (ASTM D 41).
5. REFER TO MULE-HIDE APPLICATION GUIDELINES AND PRODUCT DATA SHEETS FOR SUITABLE INSULATION TO ACCEPT MULE-HIDE SELF-ADHERING MEMBRANES.
6. INSULATION MUST BE ATTACHED IN ACCORDANCE WITH MULE-HIDE MINIMUM REQUIREMENTS.
7. NON-COMPATIBLE INSULATION SHALL REQUIRE AN APPROVED COVERBOARD TO WHICH THE SA BASE SHEET MAY BE ADHERED. CERTAIN APPROVED COVERBOARDS (UNDERLAYMENTS) MAY REQUIRE PRIMING WITH MULE-HIDE # 121 ASPHALT PRIMER.
8. IF INSTALLING A 20-YR SYSTEM, 2 PILES OF SA BASE SHEET ARE REQUIRED.



MULE-HIDE
PRODUCTS CO.,INC.
2003

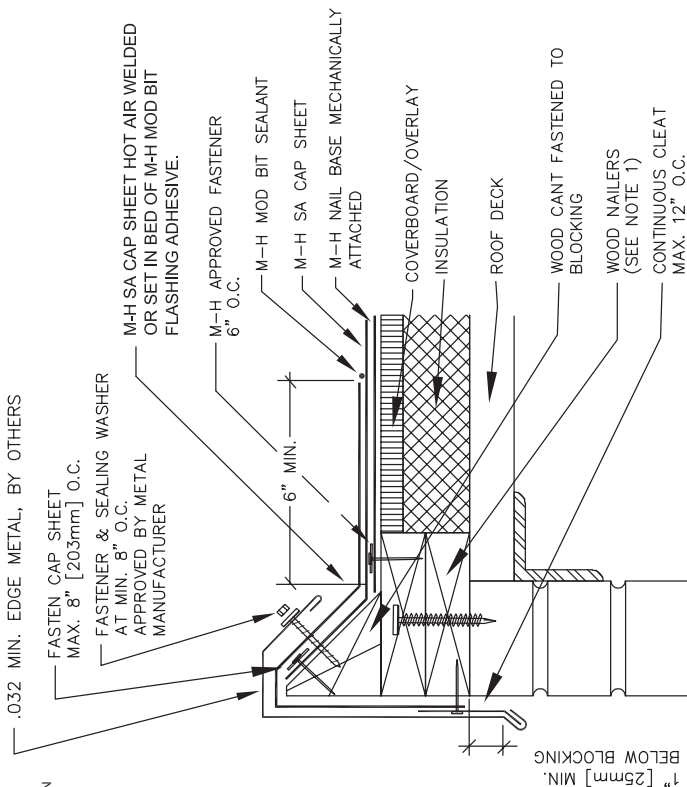
GRAVEL STOP - OPTION # 1

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-GS1

NOTES:

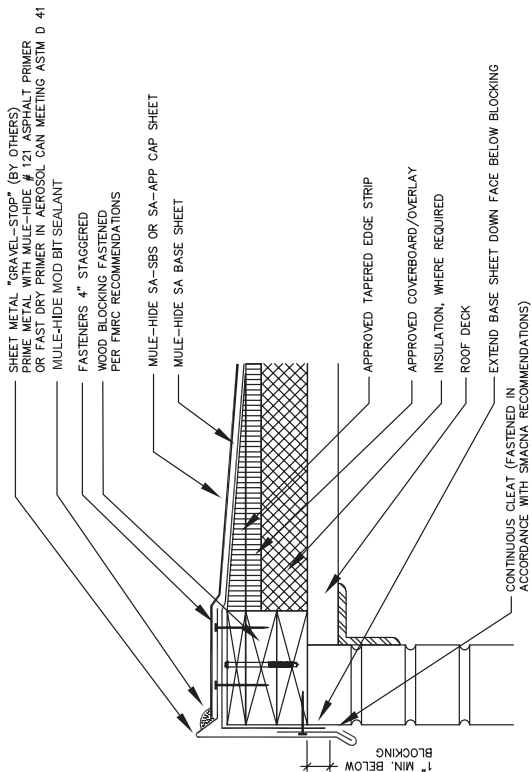
1. ATTACH WOOD NAILER TO WALL/DECK IN ACCORDANCE WITH FMRC GUIDELINES AS PER SECTION 1-28, REGARDING WINDLOADS TO ROOF SYSTEMS & DECK SECUREMENT.
2. REFER TO SMACNA RECOMMENDATIONS & DETAILS REGARDING METAL THICKNESS & CLEAT REQUIREMENTS.
3. MEMBRANE ENDLAPS MUST BE 6" MINIMUM & FULLY ADHERED TO MEMBRANE IN ALL LOCATIONS WHERE "FASTLAP" IS NOT PRESENT.
4. ALL ACCEPTABLE MASONRY, CONCRETE, METAL & AGED WOOD SUBSTRATES MUST BE PRIMED WITH MULE-HIDE # 121 ASPHALT PRIMER (ASTM D 41).
5. INSULATION MUST BE ATTACHED IN ACCORDANCE WITH MULE-HIDE MINIMUM REQUIREMENTS.
6. IF INSTALLING A 15-YR SYSTEM, 1 PLYS OF SA BASE SHEET IS REQUIRED OVER THE NAIL BASE.
7. IF INSTALLING A 20-YR SYSTEM, 2 PLYS OF SA BASE SHEET ARE REQUIRED OVER THE NAIL BASE.



MULE-HIDE
PRODUCTS CO.,INC.
2003

GRAVEL STOP - OPTION 2
SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-GS2



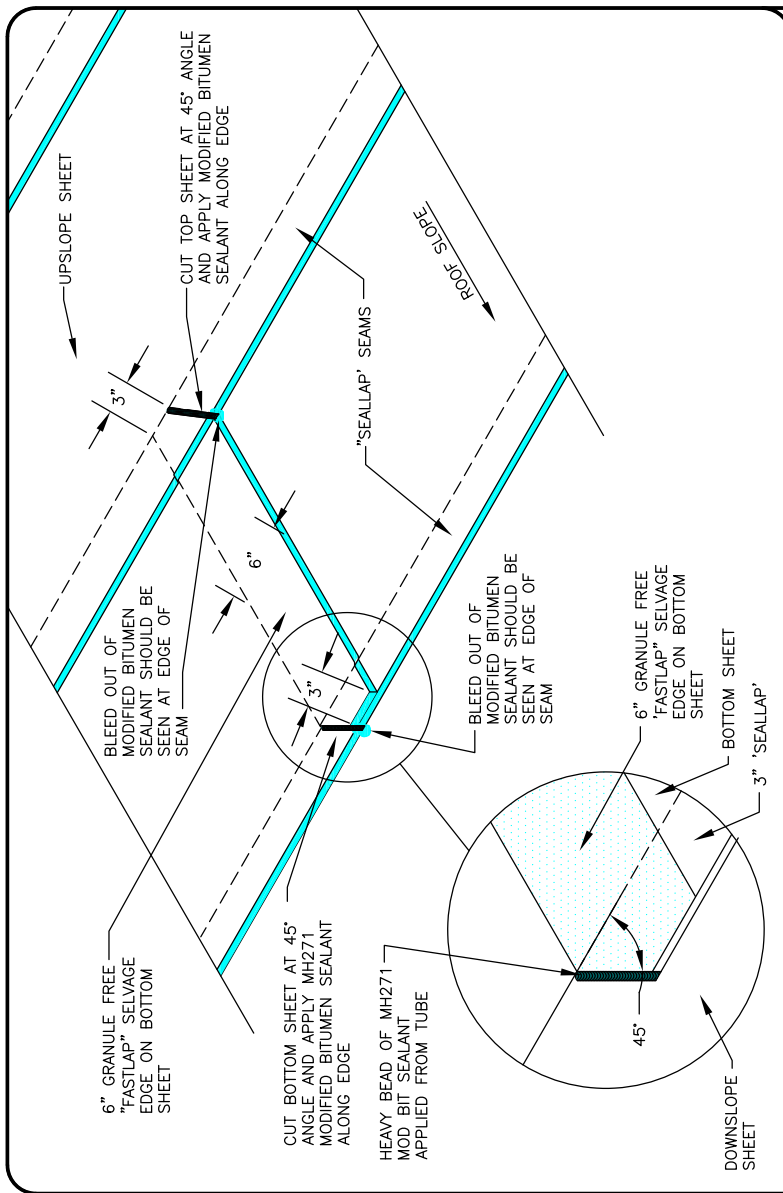
- NOTES:
1. ATTACH WOOD NAILER TO WALL/DECK IN ACCORDANCE WITH FMRC GUIDELINES, AS PER SECTION 1-28, REGARDING WINDLOADS TO ROOF SYSTEMS & DECK SECUREMENT.
 2. WOOD BLOCKING MAY BE SLOTTED FOR VENTING OF WET-FILL DECKS OR OTHER APPLICABLE CONSTRUCTIONS
 3. THIS DETAIL SHOULD BE USED ONLY WHERE THE DECK IS SUPPORTED BY THE OUTSIDE WALL
 4. REFER TO SMACNA RECOMMENDATIONS & DETAILS REGARDING METAL THICKNESS & CLEAT REQUIREMENTS
 5. MEMBRANE ENDLAPS MUST BE 6" MINIMUM & FULLY ADHERED AT ALL MEMBRANE IN LOCATIONS WHERE "FAST LAP" IS NOT PRESENT
 6. IF INSTALLING A 20-YR SYSTEM, 2 PLYS OF SA BASE SHEET MUST BE INSTALLED.

MULE-HIDE
PRODUCTS CO.,INC.
2003

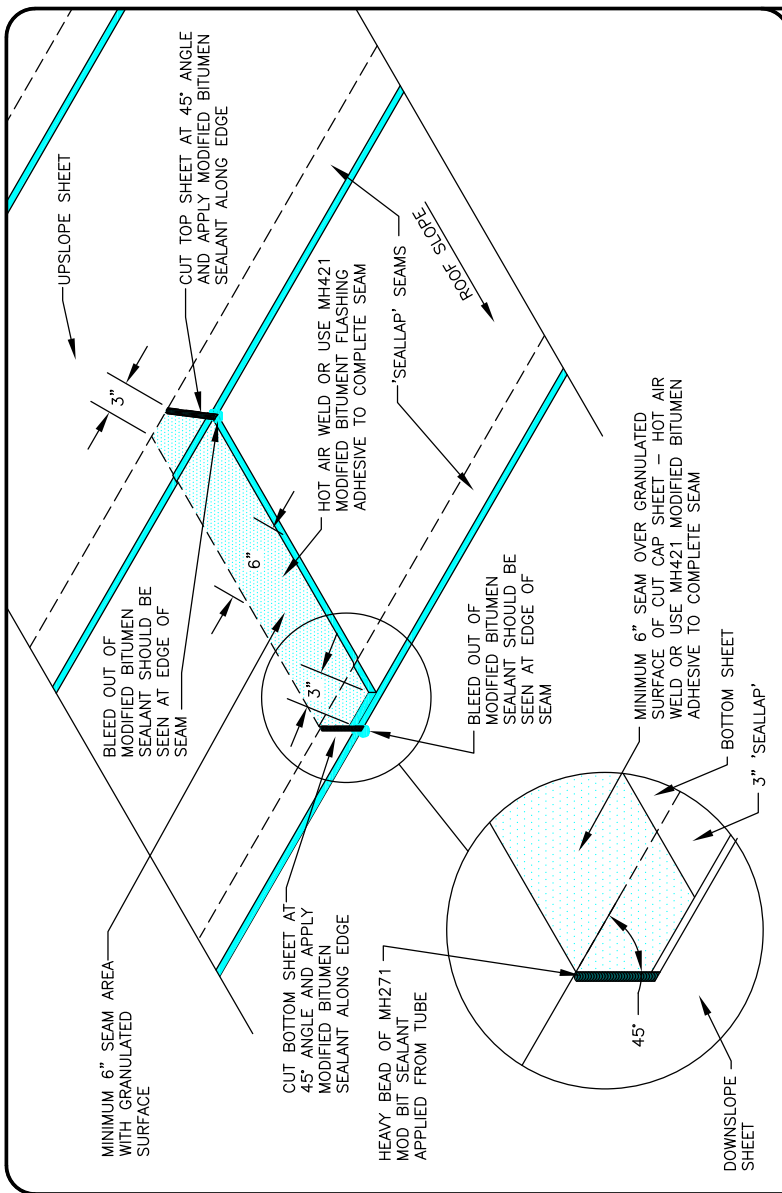
GRAVEL STOP - OPTION 3

SELF-ADHERING MOD BIT SYSTEMS

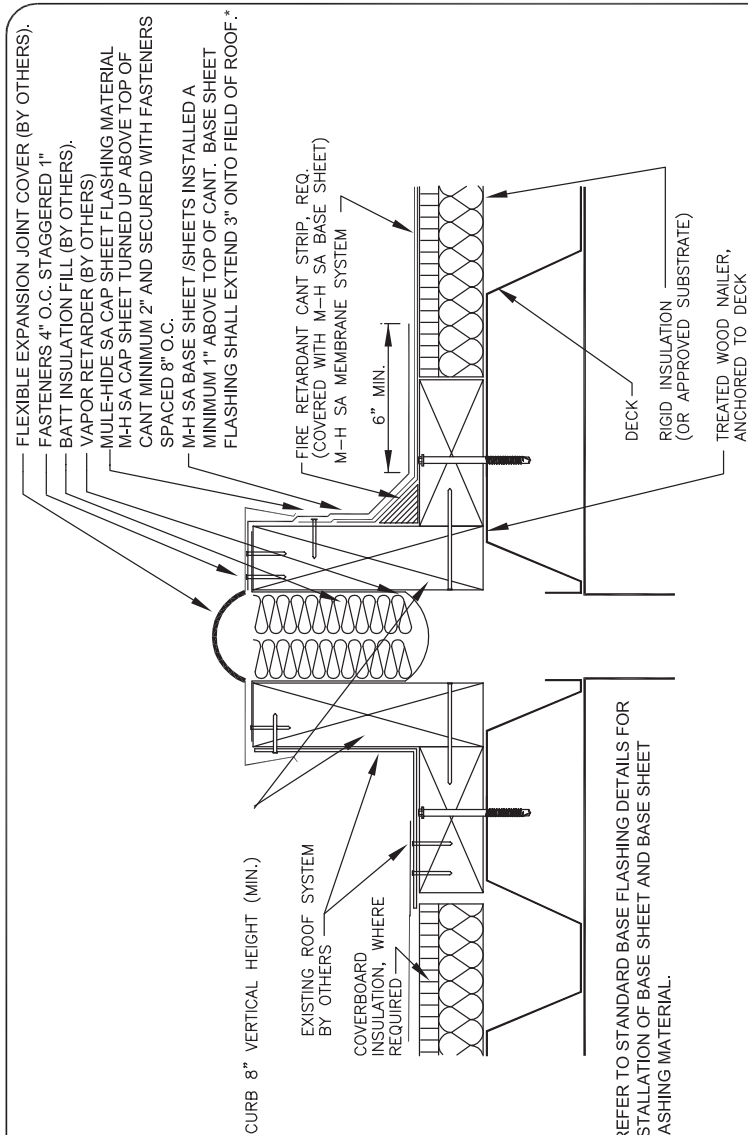
DETAIL NO.:
MH-MB-GS3



MULE-HIDE PRODUCTS CO., INC. 2010	'FASTLAP' END LAPS - 45 DEGREE CUT SYSTEMS:	DETAIL NO.: MHMB-110
	SELF-ADHERING MODIFIED BITUMEN	

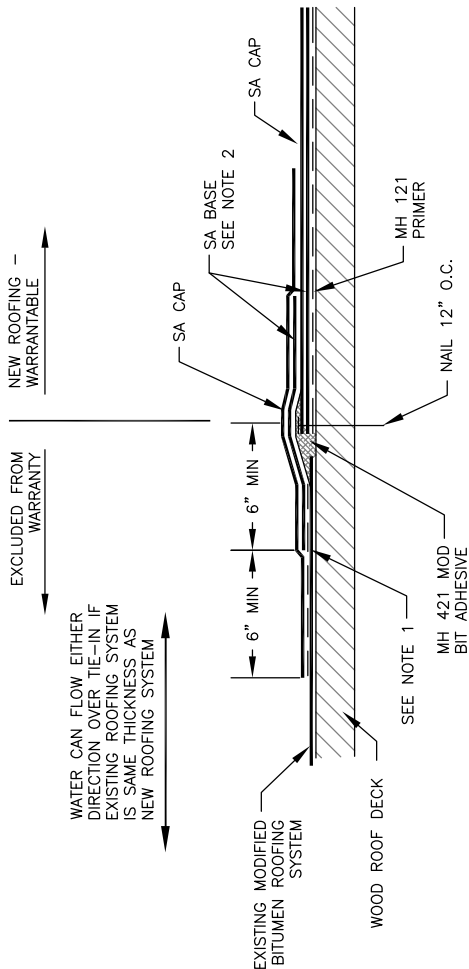


MULE-HIDE PRODUCTS CO., INC. 2010	DETAIL NO.: MHMB-111	
	CUT CAP SHEET END LAPS - 45 DEGREE CUT SYSTEMS:	SELF-ADHERING MODIFIED BITUMEN



* REFER TO STANDARD BASE FLASHING DETAILS FOR INSTALLATION OF BASE SHEET AND BASE SHEET FLASHING MATERIAL.

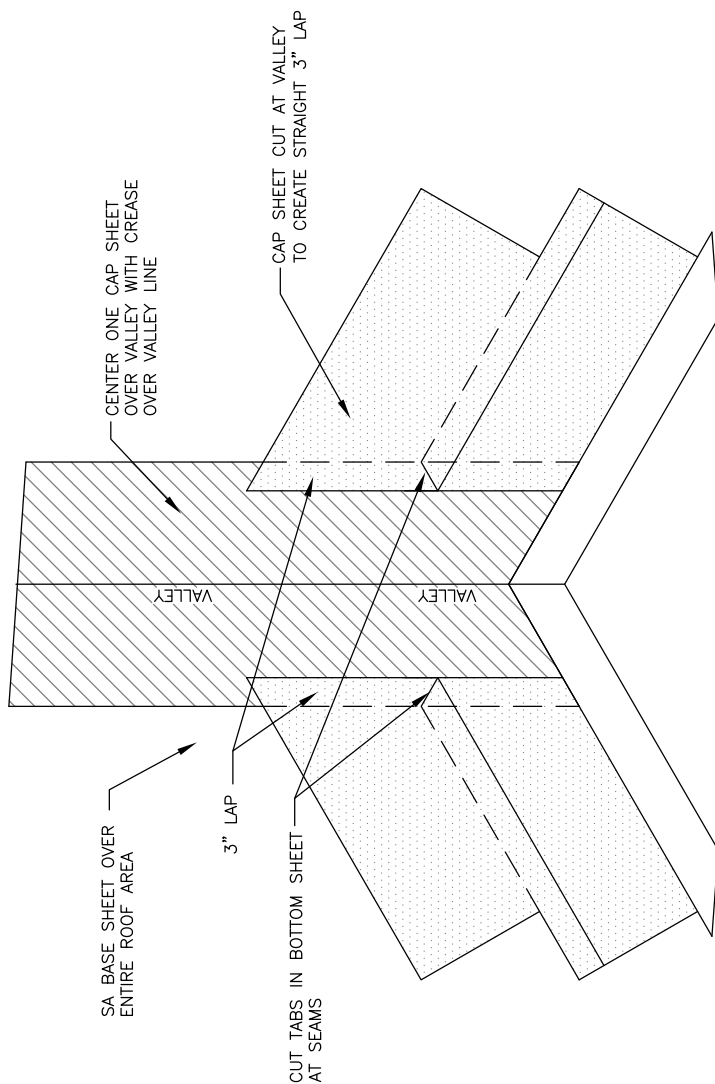
MULE-HIDE PRODUCTS CO.,INC. 2003	EXPANSION JOINT - OPTION 1		DETAIL NO.: MH-MB-EJ1
	SELF-ADHERING MOD BIT SYSTEMS		



NOTES:

1. EXISTING MEMBRANE MUST BE PRIMED WITH MH 121 PRIMER. IF EXISTING MOD. BIT. IS GRANULAR SURFACED, MH 421 MOD BIT ADHESIVE MUST BE USED TO COMPLETE SEAM. IF EXISTING MOD BIT IS SMOOTH SURFACED, ADHERING DIRECTLY TO THE PRIMED SURFACE IS ACCEPTABLE.
2. 20-YR WARRANTIES REQUIRE 2 PLYS OF SA BASE SHEET ON THE FIELD OF THE ROOF PRIOR TO INSTALLING CAP SHEETS.

MULE-HIDE PRODUCTS CO., INC.	TIE-IN TO EXISTING SMOOTH MOD. BIT. WITH TEAR-OFF SYSTEMS:		DETAIL NO.: MHMB-162
	SELF-ADHERING MODIFIED BITUMEN		REVISION DATE: 03/2017



**MULE-HIDE
PRODUCTS CO., INC.
2010**

OPEN VALLEY
SYSTEMS:

SELF-ADHERING MODIFIED BITUMEN

DETAIL NO.:
MHMB-180

Technical drawing of a rectangular plate with dimensions and hole locations. The overall dimensions are 48" (width) by 96" (height). The drawing shows a grid of holes with the following dimensions:

- Overall width: 48"
- Overall height: 96"
- Top edge dimensions (from left to right): 6", 12", 24", 48"
- Right edge dimensions (from top to bottom): 6", 12", 24", 48"
- Bottom edge dimensions (from left to right): 6", 12", 24", 48"
- Left edge dimensions (from top to bottom): 6", 12", 24", 48"

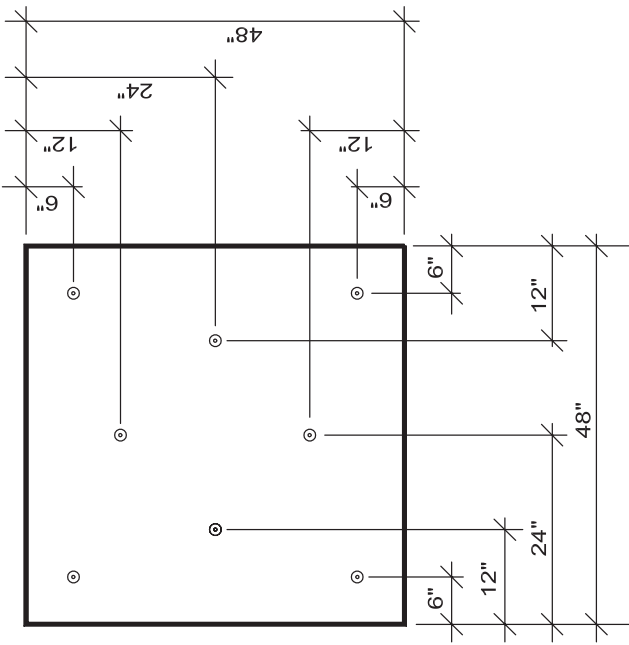
The drawing includes a grid of holes with the following locations (relative to the top-left corner):

- Hole 1: 6" from top, 6" from left
- Hole 2: 12" from top, 12" from left
- Hole 3: 24" from top, 24" from left
- Hole 4: 48" from top, 48" from left
- Hole 5: 6" from top, 48" from left
- Hole 6: 12" from top, 48" from left
- Hole 7: 24" from top, 48" from left
- Hole 8: 48" from top, 48" from left

MULE-HIDE
PRODUCTS CO., INC.
2003

DETAIL NO.:
MH-MB-INS-1

THE ATTACHMENT PATTERN SHOWN IS THE STANDARD PATTERN FOR FIELD ATTACHMENT REQUIRED BY MULE-HIDE. THE ATTACHMENT IN THE PERIMETER AREA IS INCREASED 50% AND 75% IN THE CORNERS.



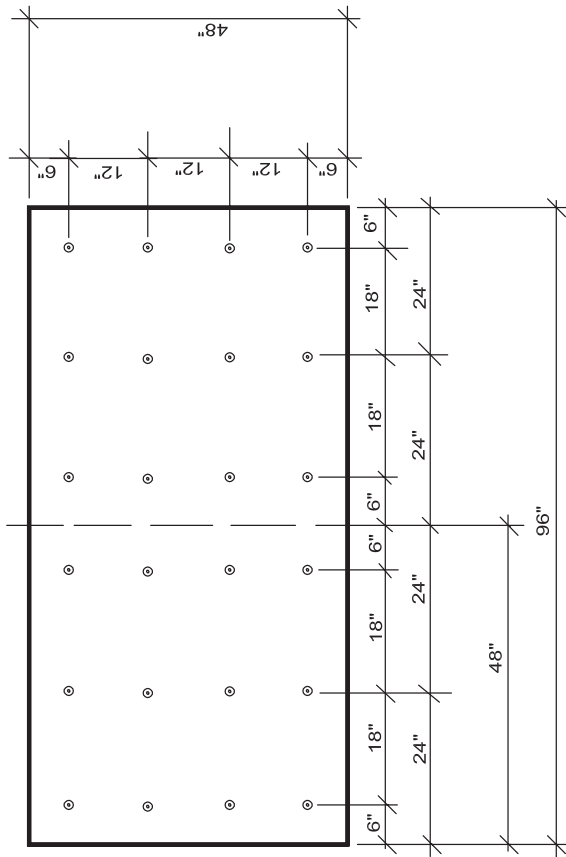
4' X 4' INSULATION ATTACHMENT (1 PER 2 SF.)
STANDARD ATTACHMENT

MULE-HIDE
PRODUCTS CO.,INC.
2003

INSULATION ATTACHMENT - OPTION 2

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-INS-2



4' X 8' INSULATION ATTACHMENT (1 PER 1.33 SF)
STANDARD ATTACHMENT (24 PER BOARD)

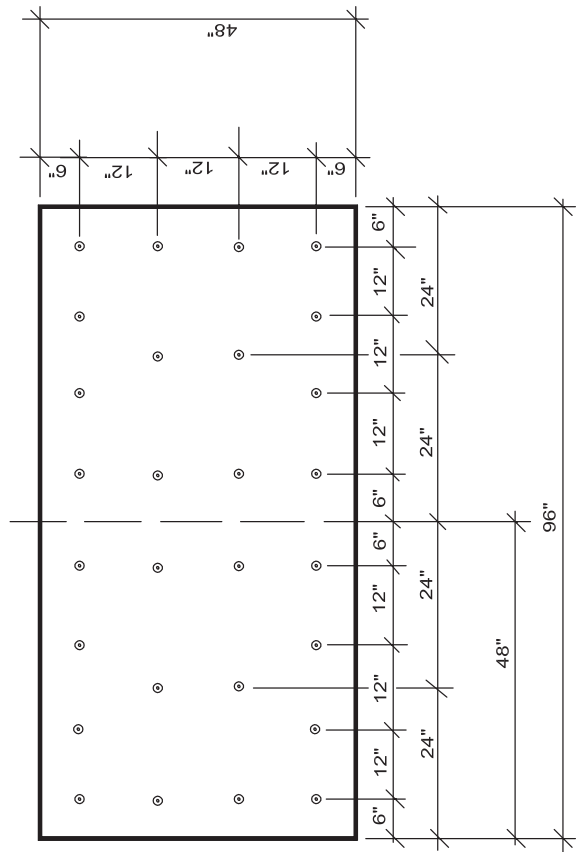
MULE-HIDE
PRODUCTS CO.,INC.
2003

INSULATION ATTACHMENT - OPTION 3

SELF-ADHERING MOD BIT SYSTEMS

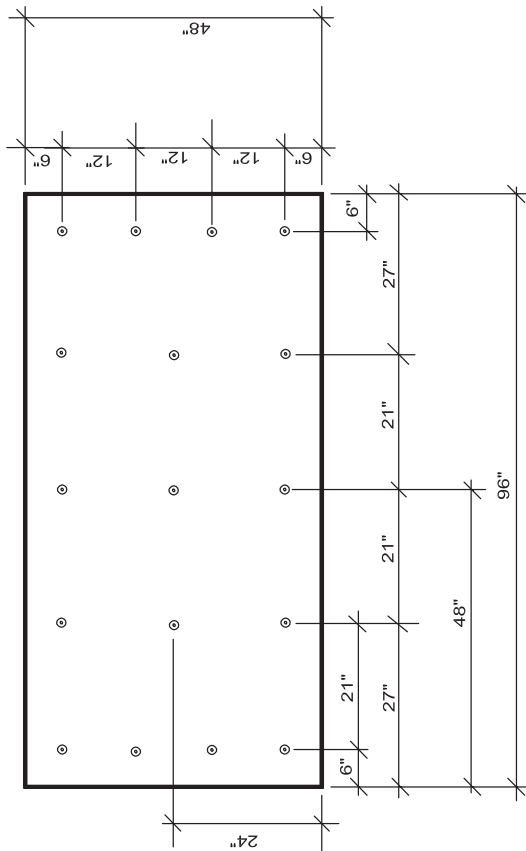
DETAIL NO.:

MH-MB-INS-3



4' X 8' INSULATION ATTACHMENT (1 PER 1.14 SF)
STANDARD ATTACHMENT (28 PER BOARD)

MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 4		DETAIL NO.: MH-MB-INS-4
	SELF-ADHERING MOD BIT SYSTEMS		



4' X 8' ORIENTED STRAND BOARD ATTACHMENT (1 PER 1.88 SF)
STANDARD ATTACHMENT (MINIMUM 7/16" THICK)

MULE-HIDE
PRODUCTS CO.,INC.
2003

INSULATION ATTACHMENT - OPTION 5

SELF-ADHERING MOD BIT SYSTEMS

DETAIL NO.:
MH-MB-INS-5

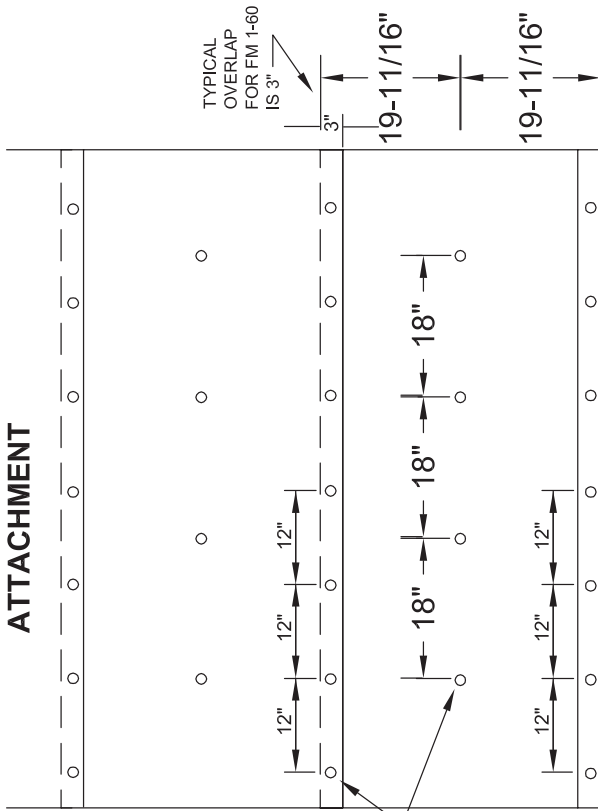
FIELD FASTENING
PATTERN FOR NAIL
BASE

NOTE: TYPICALLY, CORNERS
REQUIRE 100% INCREASE OF
FASTENERS AND PERIMETERS
REQUIRE 50% INCREASE.

FASTENER PLACEMENT;
12" O.C. @ SEAMS
18" O.C. @ CENTER OF ROLLS

FACTORY MUTUAL APPROVED
FASTENERS AND PLATES

TYPICAL FM 1-60
ATTACHMENT



39-3/8" WIDE NAIL BASE ROLLS

MULE-HIDE
PRODUCTS CO.,INC.
2003

NAIL BASE FASTENING PATTERN

SELF-ADHERING MOD BIT SYSTEMS

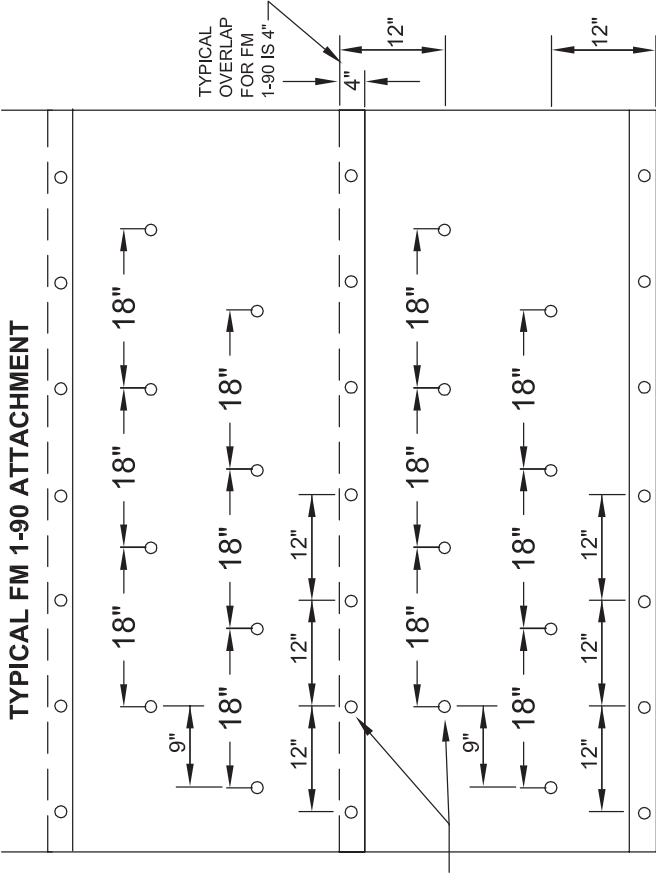
DETAIL NO.:
MH-MB-NB
FM 1-60

**FIELD FASTENING
PATTERN FOR NAIL
BASE SHEET**

NOTE: TYPICALLY, CORNERS
REQUIRE 100% INCREASE OF
FASTENERS AND PERIMETERS
REQUIRE 50% INCREASE.

FASTENER PLACEMENT:
12" O.C. @ SEAMS
18" O.C. @ FIELD, 2 ROWS
SPACED 12" APART AND FROM
SHEET EDGE AND STAGGERED
9"

**FACTORY MUTUAL APPROVED
FASTENERS AND PLATES**



**MULE-HIDE
PRODUCTS CO.,INC.
2003**

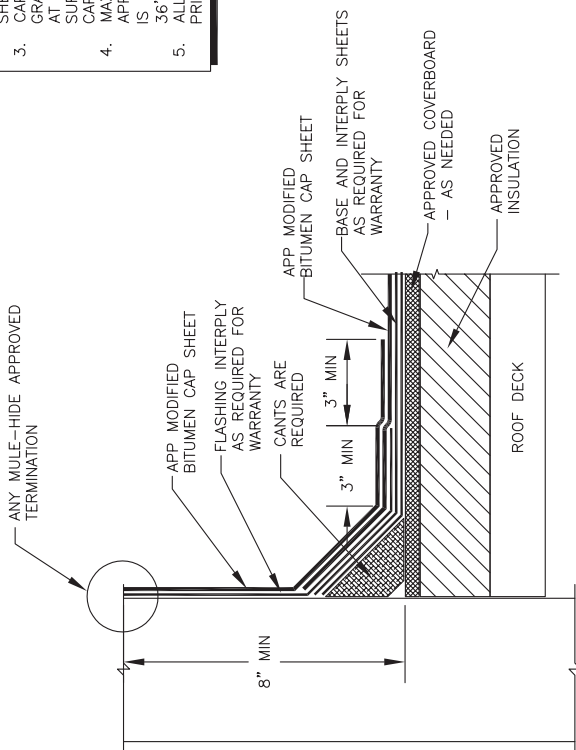
NAIL BASE FASTENING PATTERN

SELF-ADHERING MOD BIT SYSTEMS

**DETAIL NO.:
MH-MB-NB
FM 1-90**

NOTES:

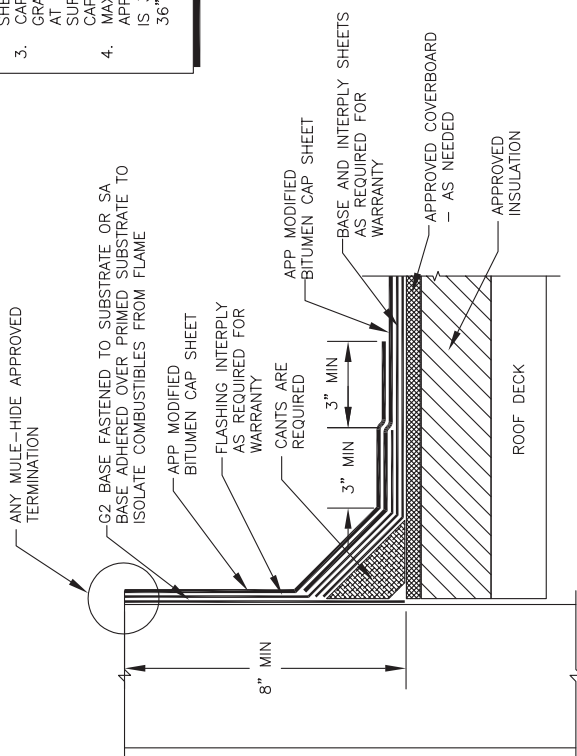
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW07T.
5. ALL VERTICAL SURFACES MUST BE PRIMED



MULE-HIDE PRODUCTS CO., INC.	BASE FLASHING NONCOMBUSTIBLE SUBSTRATE SYSTEMS:		DETAIL NO.: MHMB-UN-CW01T
	APP MODIFIED BITUMEN		REVISION DATE: MARCH 2015

NOTES:

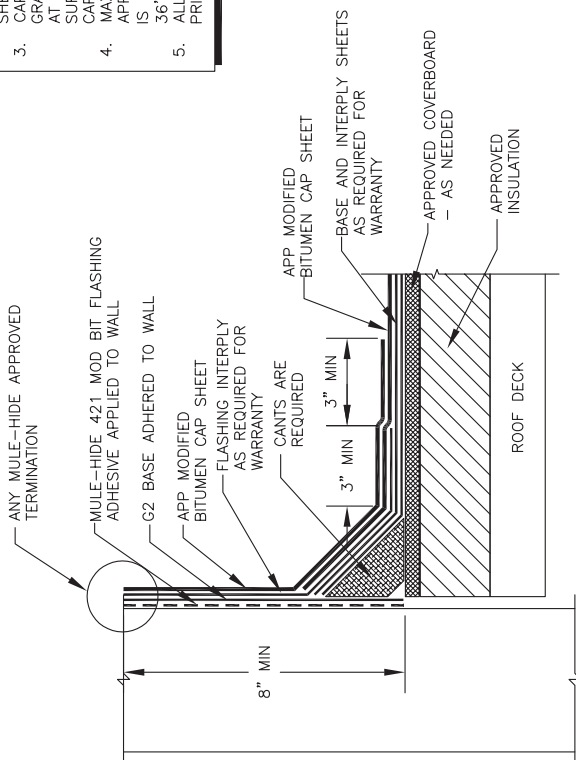
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW07T



MULE-HIDE PRODUCTS CO., INC.	BASE FLASHING COMBUSTIBLE SUBSTRATE SYSTEMS:		DETAIL NO.: MHMB-UN-CW11T
	APP MODIFIED BITUMEN		REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW07T.
5. ALL VERTICAL SURFACES MUST BE PRIMED.



**MULE-HIDE
PRODUCTS CO., INC.**

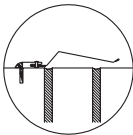
**BASE FLASHING
WITH MASTIC
SYSTEMS:**

APP MODIFIED BITUMEN

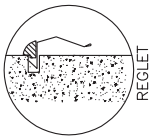
DETAIL NO.:

MHMB-UN-CW02T

REVISION DATE: MARCH 2015



NOTE:
SCREWS THROUGH
COUNTERFLASHING TO
ACT AS TERMINATION
ARE NOT APPROVED



2-PIECE REGLET

"3" COURSE WITH MOD BIT SEALANT,
FABRIC, AND MOD BIT SEALANT

APP MODIFIED
BITUMEN CAP SHEET

FLASHING INTERPLY
AS REQUIRED FOR
WARRANTY

CANTS ARE
REQUIRED

APP MODIFIED
BITUMEN CAP SHEET

BASE AND INTERPLY SHEETS
AS REQUIRED FOR
WARRANTY

APPROVED COVERBOARD
— AS NEEDED

APPROVED
INSULATION

ROOF DECK

8" MIN

3" MIN

3" MIN

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW06T. ALL VERTICAL SURFACES TO BE PRIMED.
5. IF FLASHING SUBSTRATE IS COMBUSTIBLE, REFER TO DETAIL MHMB-UN-CW11T OR MHMB-UN-CW02T.

**MULE-HIDE
PRODUCTS CO., INC.**

**BASE FLASHING
WITH METAL COUNTERFLASHING
SYSTEMS:**

APP MODIFIED BITUMEN

DETAIL NO.:

MHMB-UN-CW03T

REVISION DATE: MARCH 2015



1. REFER TO SPECIFICATIONS FOR FLASHING-MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW06T

**MULE-HIDE
PRODUCTS CO., INC.**

BASE FLASHING FOR VENTED PERIMETER

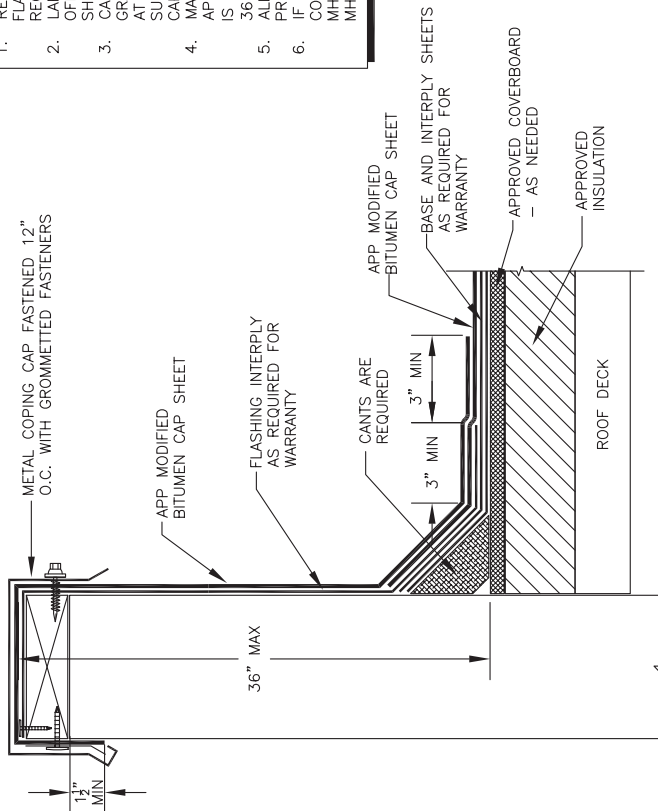
DETAIL NO.:

MHMB-UN-CW04T

REVISION DATE: MARCH 2015

NOTES:

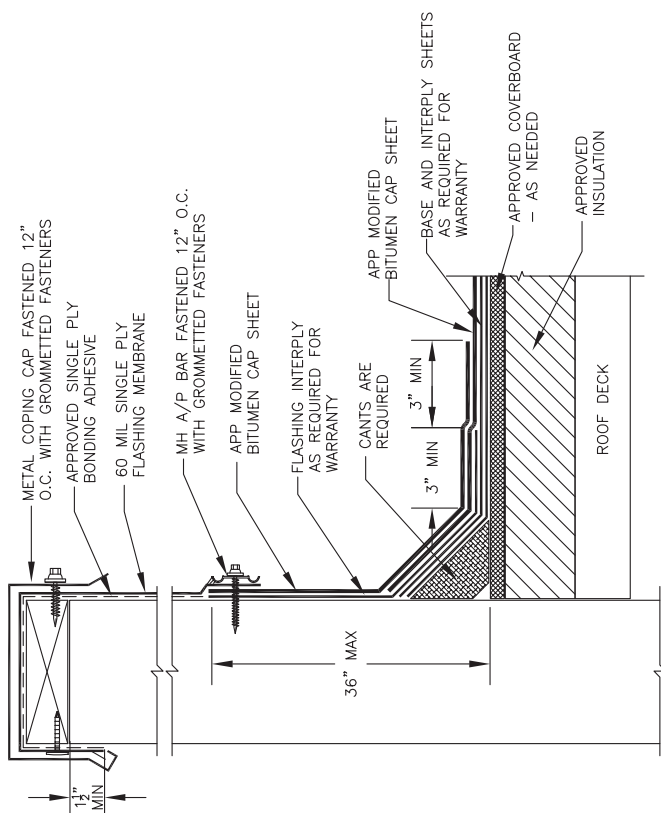
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW06T.
5. ALL VERTICAL SURFACES TO BE PRIMED.
6. IF FLASHING SUBSTRATE IS COMBUSTIBLE, REFER TO DETAIL MHMB-UN-CW11T OR MHMB-UN-CW02T.



MULE-HIDE PRODUCTS CO., INC.	PARAPET WALL WITH METAL COPING SYSTEMS:	DETAIL NO.: MHMB-UN-CW05T
	APP MODIFIED BITUMEN	REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36" SEE DETAIL MHMB-UN-CW06T SINGLE PLY MEMBRANE.
5. MUST OVERLAP TOP OF MODIFIED BITUMEN FLASHING PRIOR TO INSTALLING A/P BAR.
6. ALL VERTICAL SURFACES AT APP FLASHINGS TO BE PRIMED.
7. IF FLASHING SUBSTRATE IS COMBUSTIBLE, REFER TO DETAIL MHMB-UN-CW11T OR MHMB-UN-CW02T.



**MULE-HIDE
PRODUCTS CO., INC.**

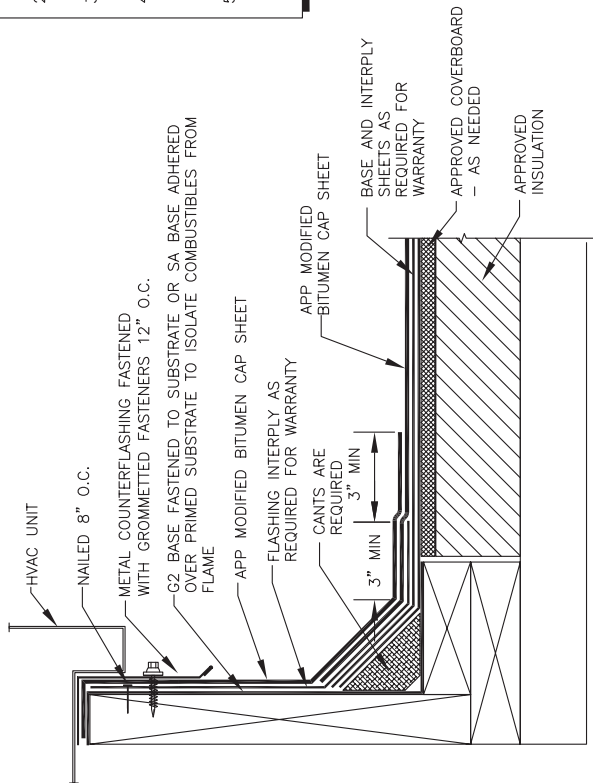
**HIGH WALL
PARAPET FLASHING
SYSTEMS:**

APP MODIFIED BITUMEN

DETAIL NO.:

MHMB-UN-CW06T

REVISION DATE: MARCH 2015



NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.
3. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
4. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
5. INSTALL HVAC UNITS AFTER THE ROOF MEMBRANE AND FLASHINGS HAVE BEEN INSTALLED, IF POSSIBLE.

**MULE-HIDE
PRODUCTS CO., INC.**

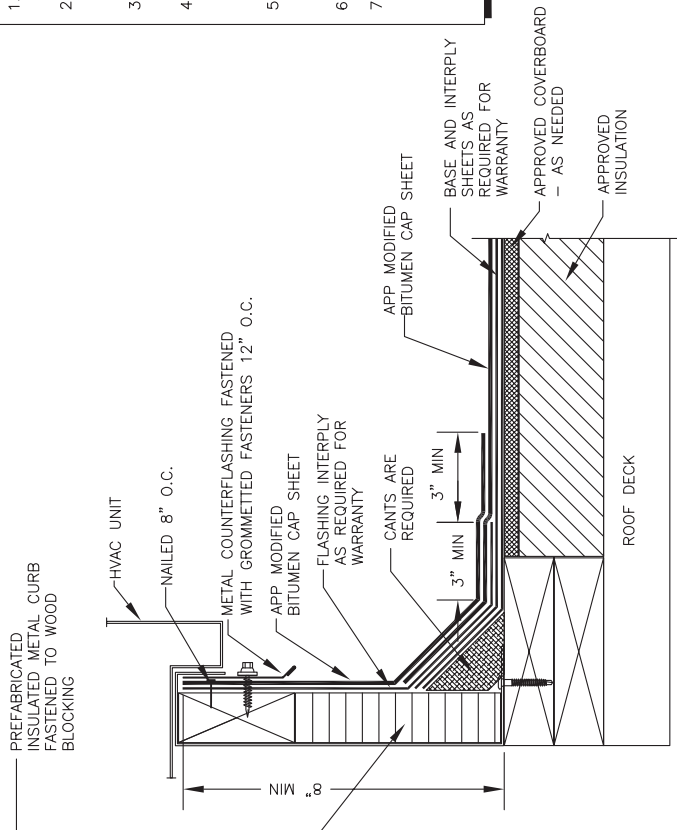
**HVAC CURB
WOOD
SYSTEMS:**

APP MODIFIED BITUMEN

DETAIL NO.:

MHMB-UN-CW07T

REVISION DATE: MARCH 2015



NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.
3. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
4. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
5. INSTALL HVAC UNITS AFTER THE ROOF MEMBRANE AND FLASHINGS HAVE BEEN INSTALLED, IF POSSIBLE.
6. VERTICAL SURFACES MUST BE PRIMED.
7. ANY COMBUSTIBLE MATERIALS ON PREFABRICATED CURB MUST BE PROTECTED WITH A G2 BASE NAILED IN PLACE OR A SA BASE ADHERED TO A PRIMED SURFACE.

DETAIL NO.:
MHMB-UN-CW08T
 REVISION DATE: MARCH 2015

PREFABRICATED METAL CURB

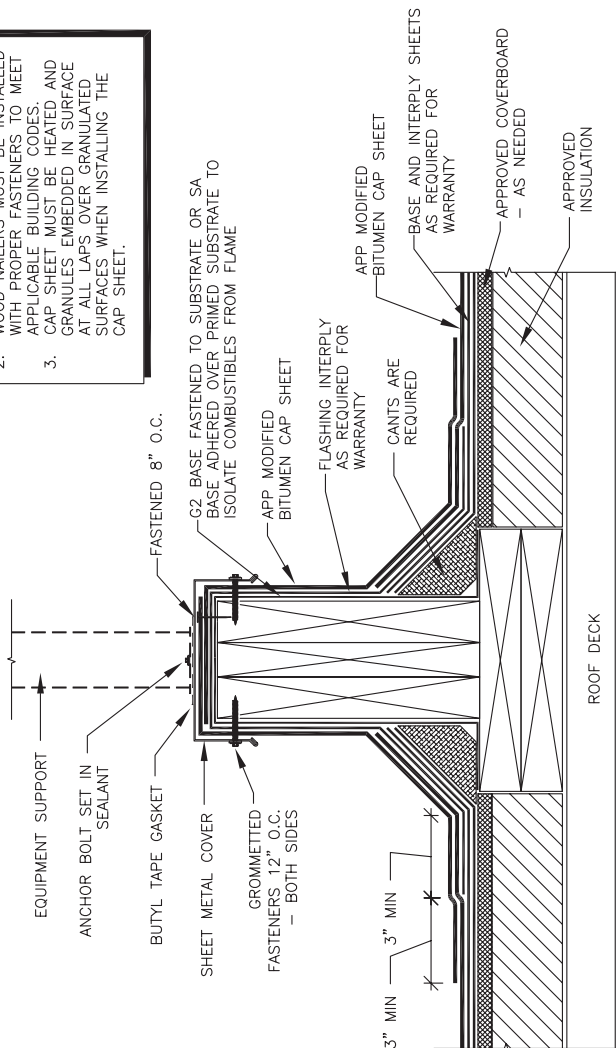
SYSTEMS:

APP MODIFIED BITUMEN

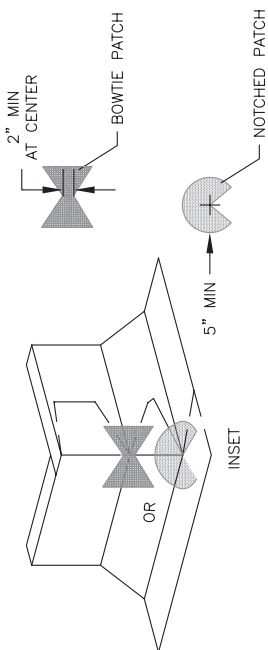
**MULE-HIDE
 PRODUCTS CO., INC.**

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.

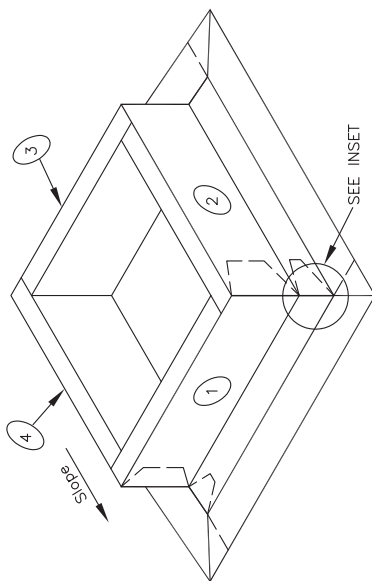


MULE-HIDE PRODUCTS CO., INC.	AREA DIVIDER / EQUIPMENT SUPPORT WOOD CURB SYSTEMS:		DETAIL NO.: MHMB-UN-CW10T
	APP MODIFIED BITUMEN		REVISION DATE: MARCH 2015



NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. CUT MEMBRANE AND WRAP CORNERS AS SHOWN.
3. INSTALL BOWTIE OR NOTCHED PATCHES AS SHOWN IN INSET TO MAKE CORNERS WATER TIGHT.
4. FLASHING MAY BE CUT FLUSH WITH EDGE OF CURB (AS SHOWN) OR DOUBLE WRAPPED AROUND CORNERS.



**OUTSIDE CORNER
ISOMETRIC
SYSTEMS:**

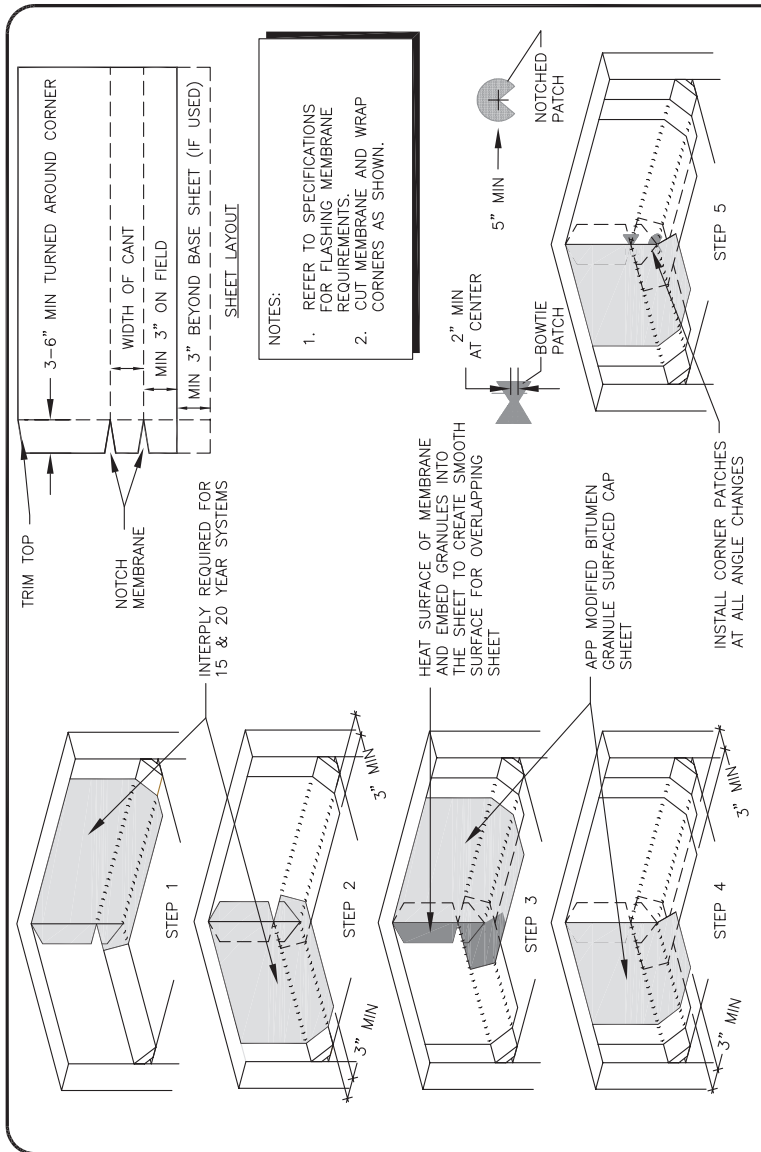
APP MODIFIED BITUMEN

DETAIL NO.:

MHMB-UN-CR01T

REVISION DATE: MARCH 2015

**MULE-HIDE
PRODUCTS CO., INC.**

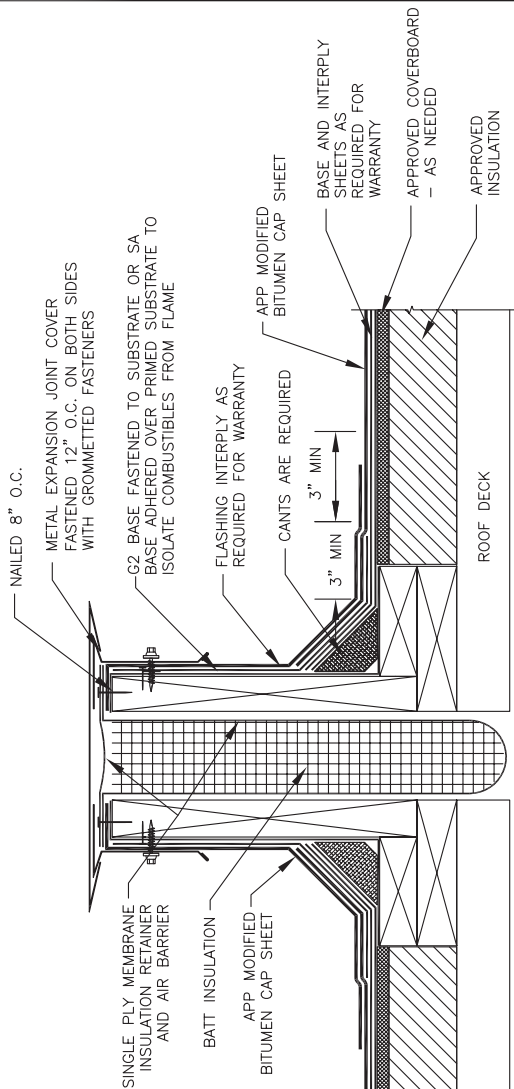


MULE-HIDE PRODUCTS CO., INC.	DETAIL NO.: MHMB-UN-CR02T	
	INSIDE CORNER ISOMETRIC SYSTEMS:	REVISION DATE: MARCH 2015
	APP MODIFIED BITUMEN	



PREFABRICATED EXPANSION JOINT COVER

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.
3. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
4. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



**MULE-HIDE
PRODUCTS CO., INC.**

EXPANSION JOINT CURB

SYSTEMS:
APP MODIFIED BITUMEN

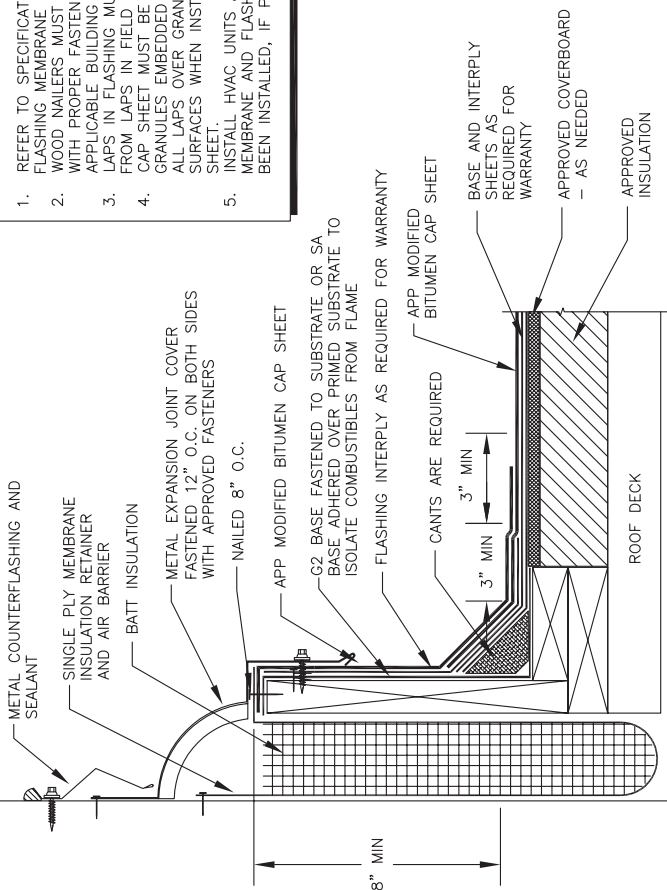
DETAIL NO.:

MHMB-UN-XJ01T

REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.
3. LAPS IN FLASHING MUST BE OFFSET LAPS IN FIELD SHEET.
4. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
5. INSTALL HVAC UNITS AFTER THE ROOF MEMBRANE AND FLASHINGS HAVE BEEN INSTALLED, IF POSSIBLE.



EXPANSION JOINT
WALL

SYSTEMS:

APP MODIFIED BITUMEN

DETAIL NO.:

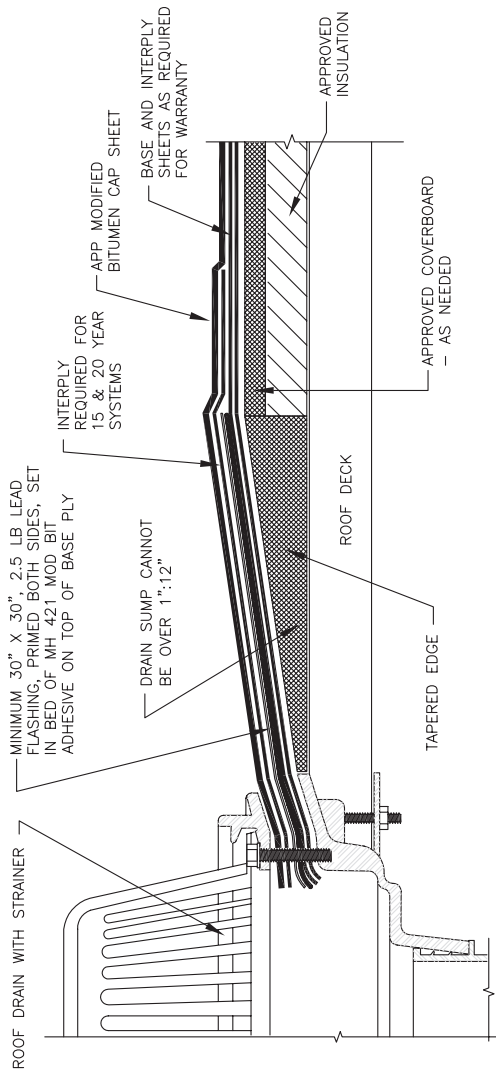
MHMB-UN-XJ02T

REVISION DATE: MARCH 2015

**MULE-HIDE
PRODUCTS CO., INC.**

NOTES:

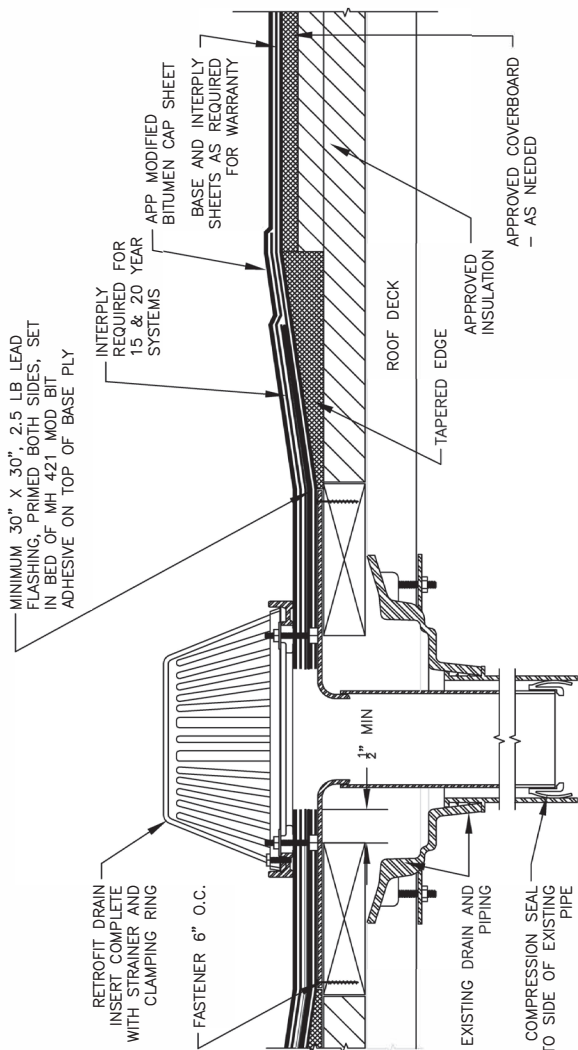
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS
2. IF DRAIN SUMP IS GREATER THAN 1":12", A RETROFIT DRAIN INSERT MUST BE USED
3. A TARGET PATCH OF SMOOTH SURFACED MODIFIED BITUMEN IS REQUIRED IF A FIELD SEAM IS WITHIN 6" – 9" OF CLAMPING RING
4. NO SEAM CAN BE LESS THAN 6" FROM THE DRAIN CLAMPING RING



MULE-HIDE PRODUCTS CO., INC.	DETAIL NO.: MHMB-UN-DR01T	
	ROOF DRAIN	REVISION DATE: MARCH 2015
SYSTEMS: APP MODIFIED BITUMEN		

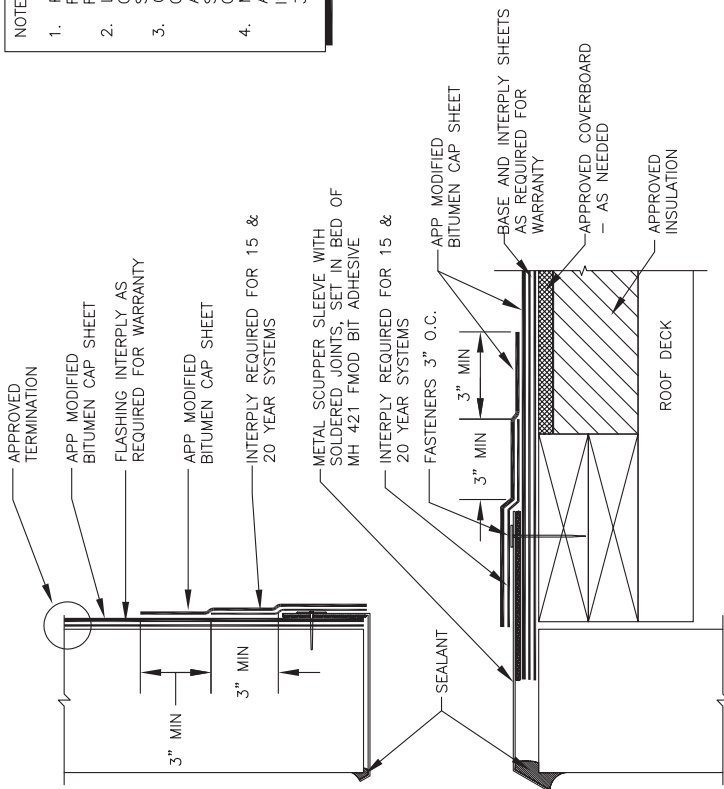
NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS
2. WOOD NAILERS MUST BE INSTALLED AROUND DRAIN
3. A TARGET PATCH OF SMOOTH SURFACED MODIFIED BITUMEN IS REQUIRED IF A FIELD SEAM IS WITHIN 6" - 9" OF CLAMPING RING
4. NO SEAM CAN BE LESS THAN 6" FROM THE DRAIN CLAMPING RING



MULE-HIDE PRODUCTS CO., INC.	RETROFIT DRAIN INSERT SYSTEMS: APP MODIFIED BITUMEN	DETAIL NO.: MHMB-UN-DR02T REVISION DATE: MARCH 2015

- NOTES:
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
 2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
 3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
 4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW06T



THROUGH WALL SCUPPER

**MULE-HIDE
PRODUCTS CO., INC.**

DETAIL NO.:

MHMB-UN-DR03T

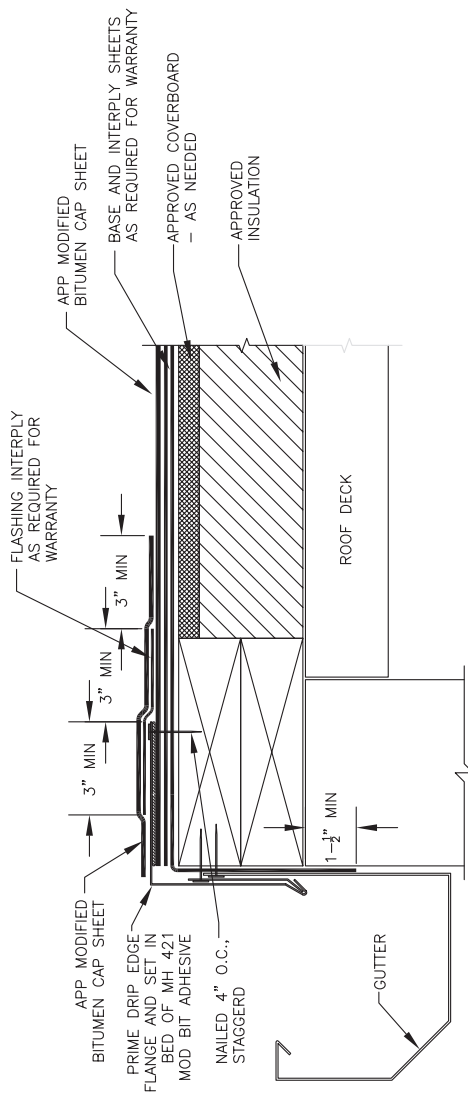
SYSTEMS:

APP MODIFIED BITUMEN

REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES AND EXTEND BEYOND THE METAL FLANGE.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



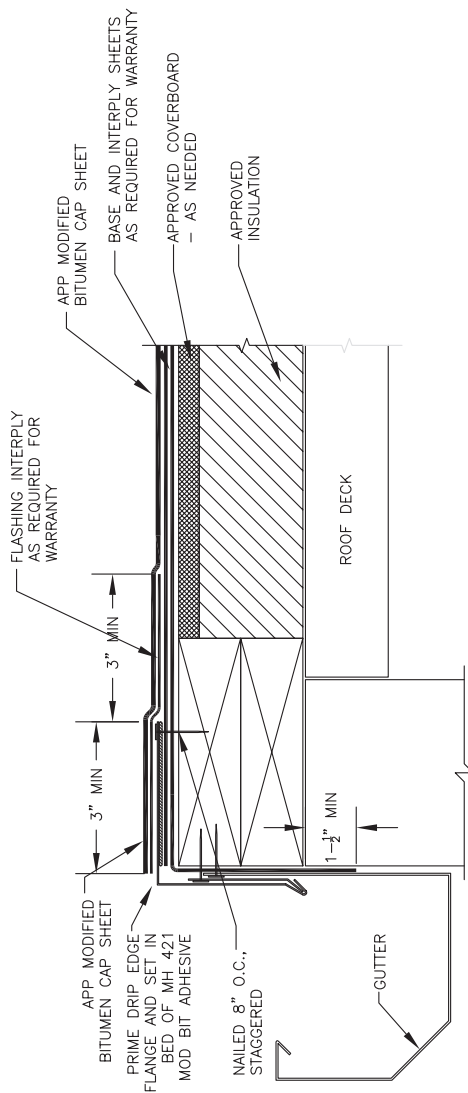
DETAIL NO.:
MHMB-UN-DR04T
REVISION DATE: MARCH 2015

GUTTER
WITH DRIP EDGE
SYSTEMS:
APP MODIFIED BITUMEN

**MULE-HIDE
PRODUCTS CO., INC.**

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES AND EXTEND BEYOND THE METAL FLANGE.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



**MULE-HIDE
PRODUCTS CO., INC.**

**GUTTER WITH DRIP EDGE
OPTION 2**

SYSTEMS:

APP MODIFIED BITUMEN

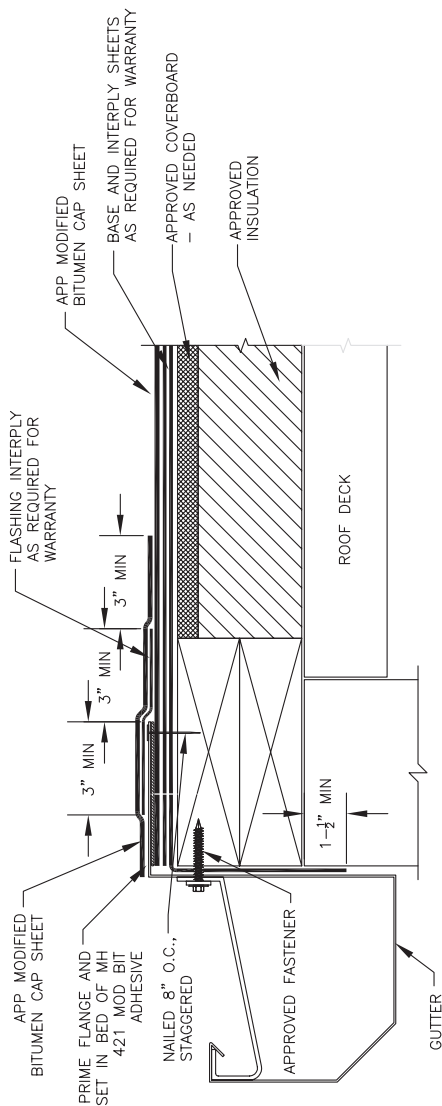
DETAIL NO.:

MHMB-UN-DR05T

REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES AND EXTEND BEYOND THE METAL FLANGE.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



FLANGED GUTTER
WITHOUT DRIP EDGE
SYSTEMS:

APP MODIFIED BITUMEN

DETAIL NO.:

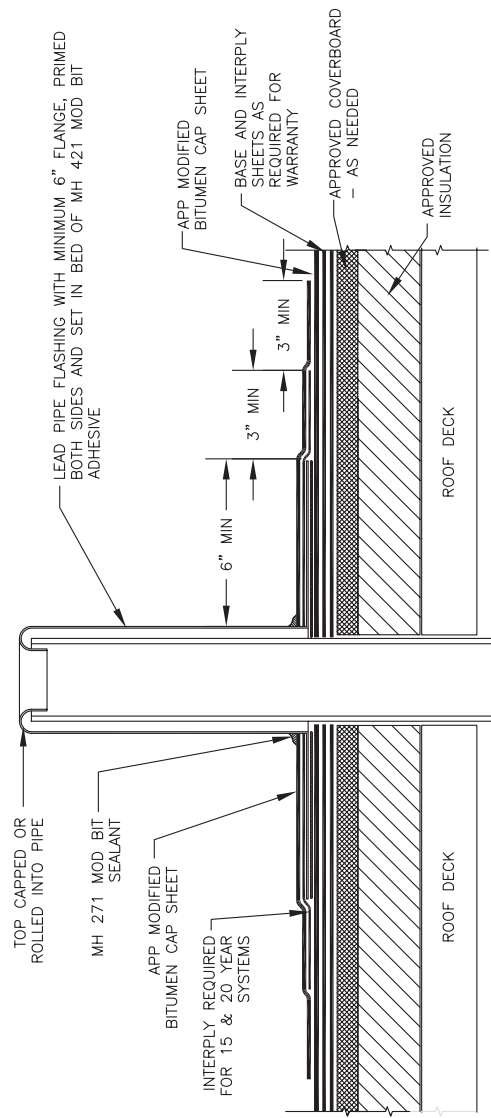
MHMB-UN-DR06T

REVISION DATE: MARCH 2015

**MULE-HIDE
PRODUCTS CO., INC.**

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



**MULE-HIDE
PRODUCTS CO., INC.**

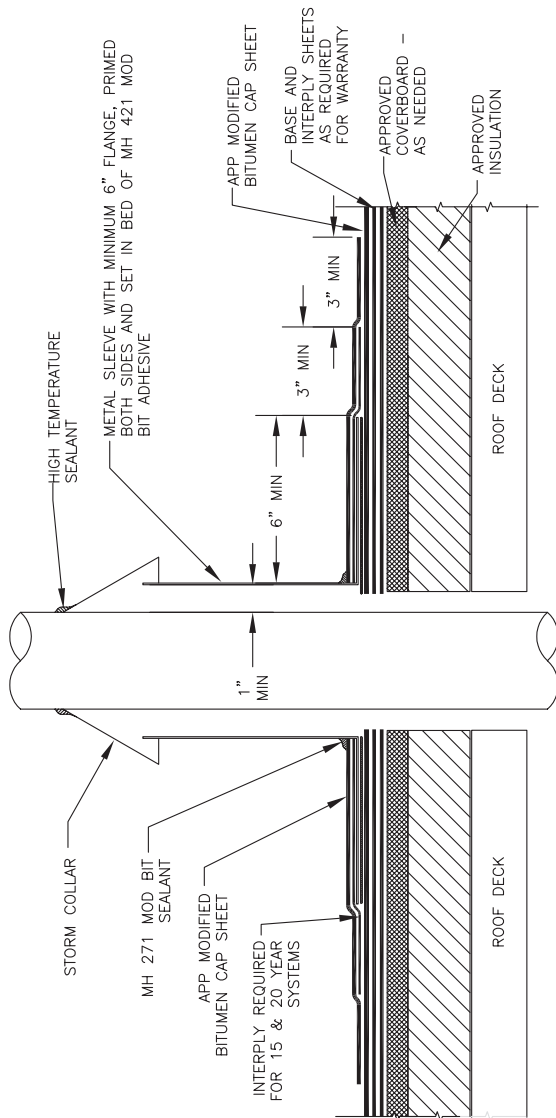
VENT PIPE

**SYSTEMS:
APP MODIFIED BITUMEN**

**DETAIL NO.:
MHMB-UN-PP01T**
REVISION DATE: MARCH 2015

NOTES:

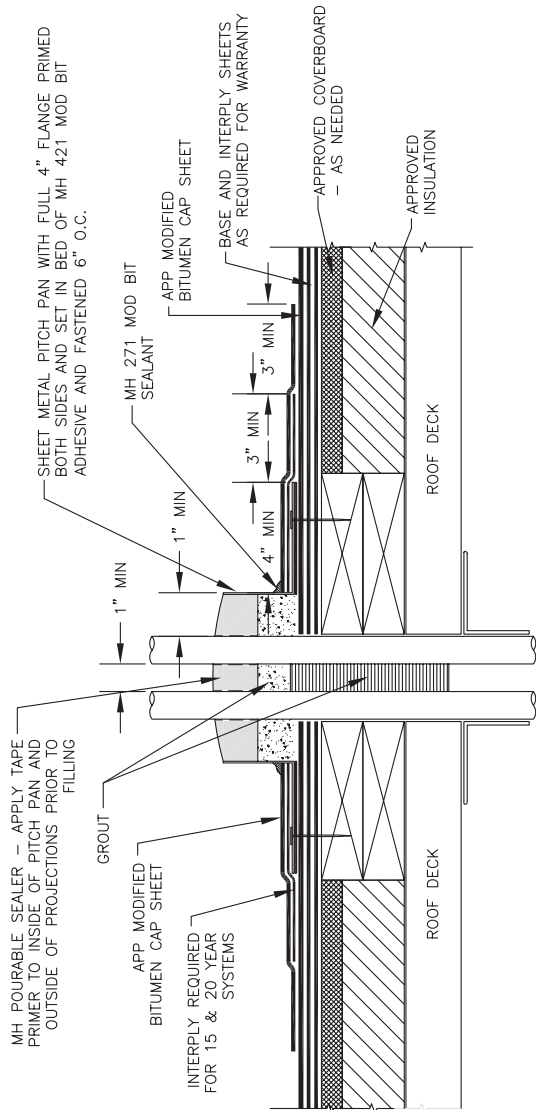
1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. TEMPERATURE OF METAL SLEEVE MUST NOT EXCEED 160° F.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



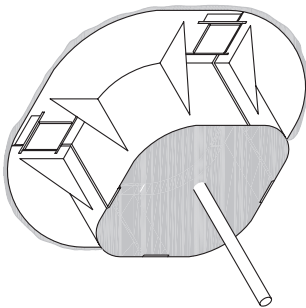
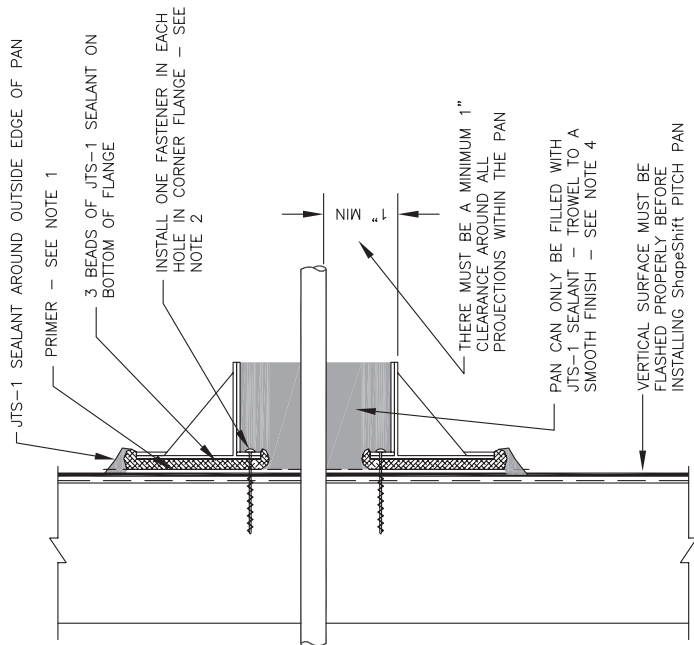
MULE-HIDE PRODUCTS CO., INC.	HOT STACK SYSTEMS: APP MODIFIED BITUMEN	DETAIL NO.:
		MHMB-UN-PP02T REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MATCHING THE INSULATION THICKNESS AND EXTENDING BEYOND THE FLANGE ARE REQUIRED.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



MULE-HIDE PRODUCTS CO., INC.	PENETRATION POCKET	DETAIL NO.:
	SYSTEMS: APP MODIFIED BITUMEN	MHMB-UN-PP03T REVISION DATE: MARCH 2015



NOTES:

1. MOD BIT MEMBRANE MUST BE PRIMED WITH 2-PART EPOXY PRIMER BEFORE SETTING FLANGE ON WALL.
2. PITCH PAN MUST BE FASTENED TO SUBSTRATE WITH 1 FASTENER IN EACH CORNER PIECE. PLACE FASTENER IN HOLE FOUND ON INSIDE FLANGE.
3. ShapeShift PITCH PANS CAN BE CONFIGURED INTO THE SHAPE NEEDED BY USING ANY COMBINATION OF CORNER AND STRAIGHT PIECES.
4. VERTICAL PITCH PANS CAN ONLY BE FILLED WITH JTS-1 SEALANT BECAUSE IT DOES NOT SHRINK OR SAG. NO OTHER SEALANTS ARE APPROVED.

**MULE-HIDE
PRODUCTS CO., INC.**

**ShapeShift
VERTICAL SEALANT POCKET
SYSTEMS:**

ALL MOD BIT SYSTEMS

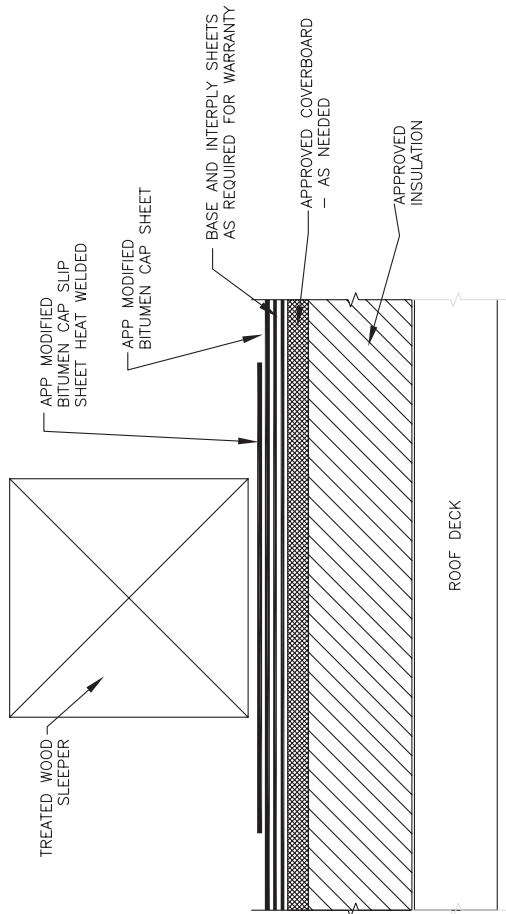
DETAIL NO.:

MHMB-142

REVISION DATE: 05/2018

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. DO NOT INSTALL SLEEPERS OVER FASTENER PLATES OR SEAMS.
3. WOOD NAILERS MATCHING THE INSULATION THICKNESS IS REQUIRED WHEN THE WEIGHT SUPPORTED BY THE SLEEPER WILL CRUSH THE INSULATION.
4. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



**MULE-HIDE
PRODUCTS CO., INC.**

SLEEPER

SYSTEMS:

APP MODIFIED BITUMEN

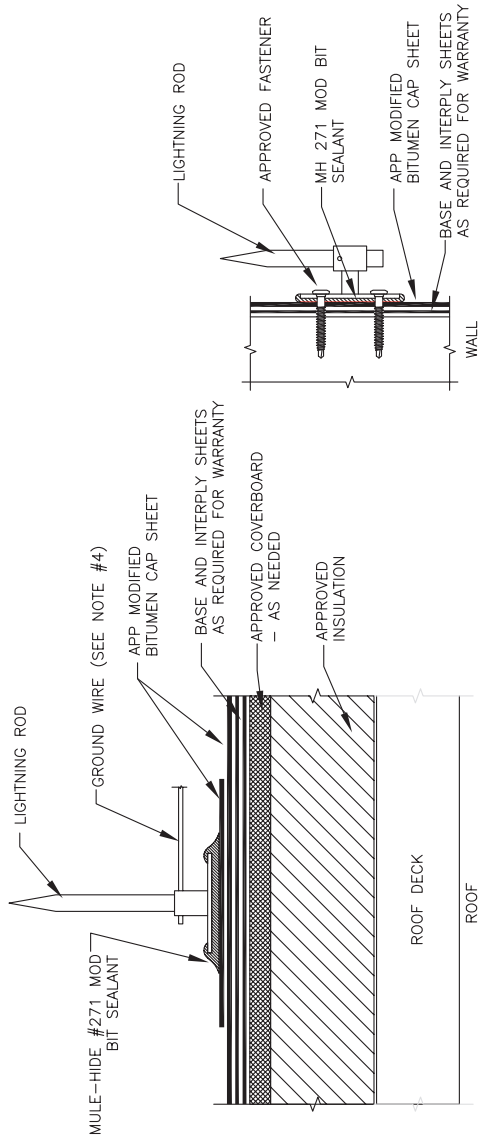
DETAIL NO.:

MHMB-UN-PP05T

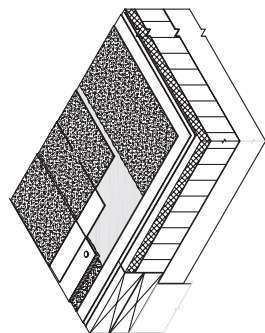
REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. GROUND WIRE SUPPORTS ARE TO BE FLASHED IN A SIMILAR MANNER.
3. GROUND WIRE MUST BE ANCHORED SUFFICIENTLY TO PREVENT CONTACT WITH FIELD OR FLASHING MEMBRANE.
4. INSTALL ANOTHER LAYER OF CAP SHEET IF GROUND WIRE MUST COME IN CONTACT WITH FIELD OR FLASHING MEMBRANE.
5. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.

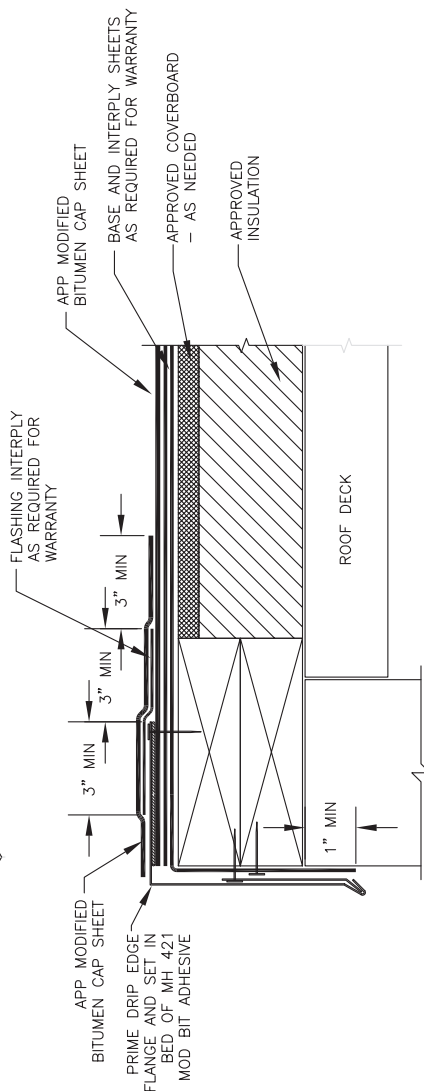


MULE-HIDE PRODUCTS CO., INC.	LIGHTNING ROD	
	DETAIL NO.: MHMB-UN-PP06T	REVISION DATE: MARCH 2015
SYSTEMS: APP MODIFIED BITUMEN		



NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES AND EXTEND BEYOND THE METAL FLANGE.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



**MULE-HIDE
PRODUCTS CO., INC.**

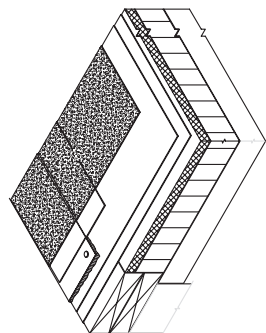
DRIP EDGE

**SYSTEMS:
APP MODIFIED BITUMEN**

DETAIL NO.:

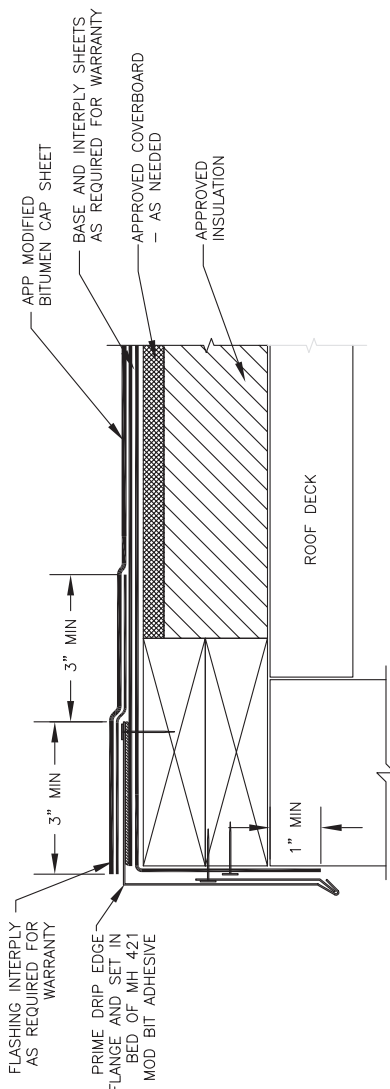
MHMB-UN-RE01T

REVISION DATE: MARCH 2015

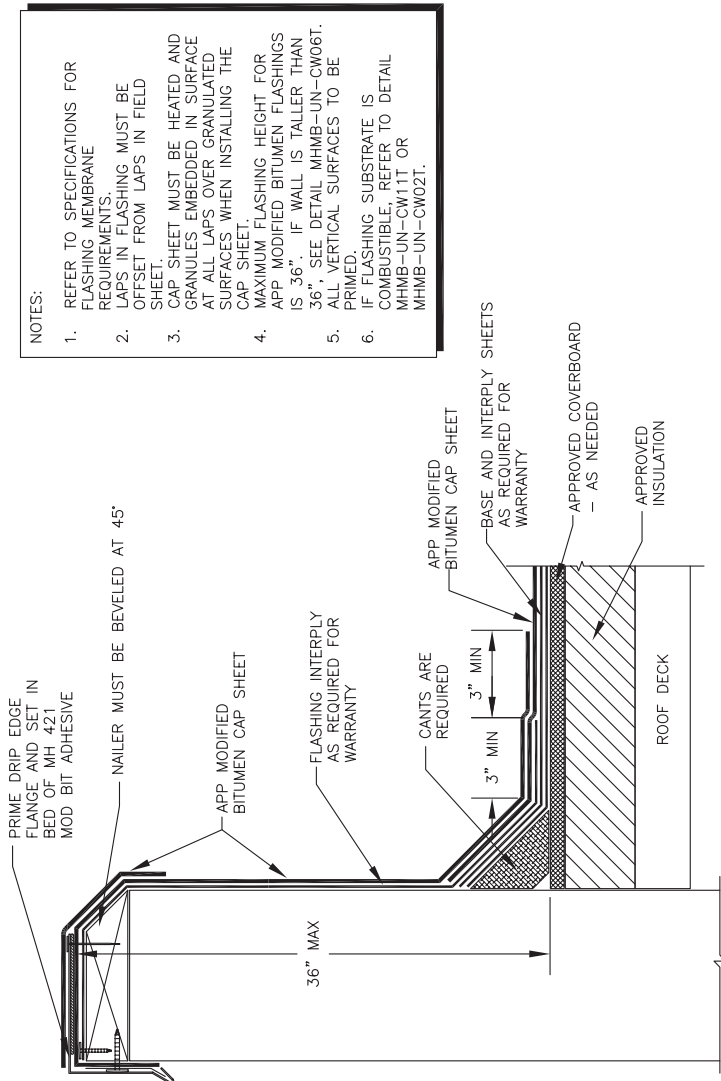


NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES AND EXTEND BEYOND THE METAL FLANGE.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



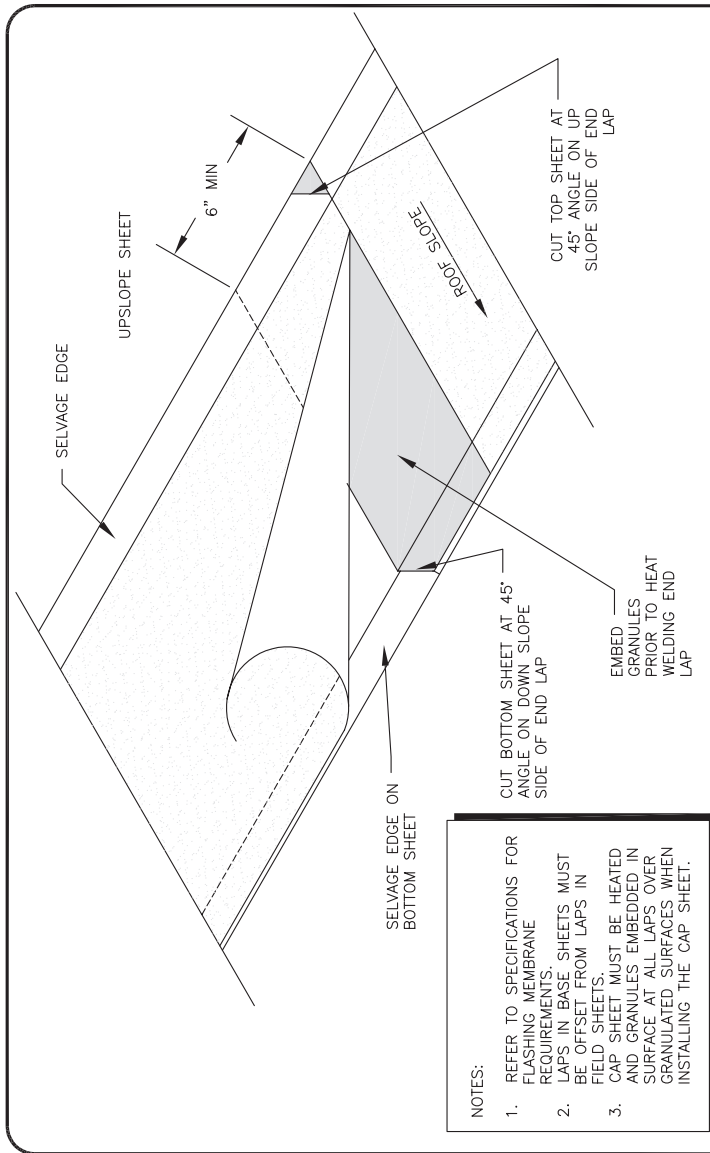
MULE-HIDE PRODUCTS CO., INC.	DRIP EDGE OPTION 2 SYSTEMS:	DETAIL NO.: MHMB-UN-RE02T
	APP MODIFIED BITUMEN	REVISION DATE: MARCH 2015



NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN FLASHING MUST BE OFFSET FROM LAPS IN FIELD SHEET.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.
4. MAXIMUM FLASHING HEIGHT FOR APP MODIFIED BITUMEN FLASHINGS IS 36". IF WALL IS TALLER THAN 36", SEE DETAIL MHMB-UN-CW06T.
5. ALL VERTICAL SURFACES TO BE PRIMED.
6. IF FLASHING SUBSTRATE IS COMBUSTIBLE, REFER TO DETAIL MHMB-UN-CW11T OR MHMB-UN-CW02T.

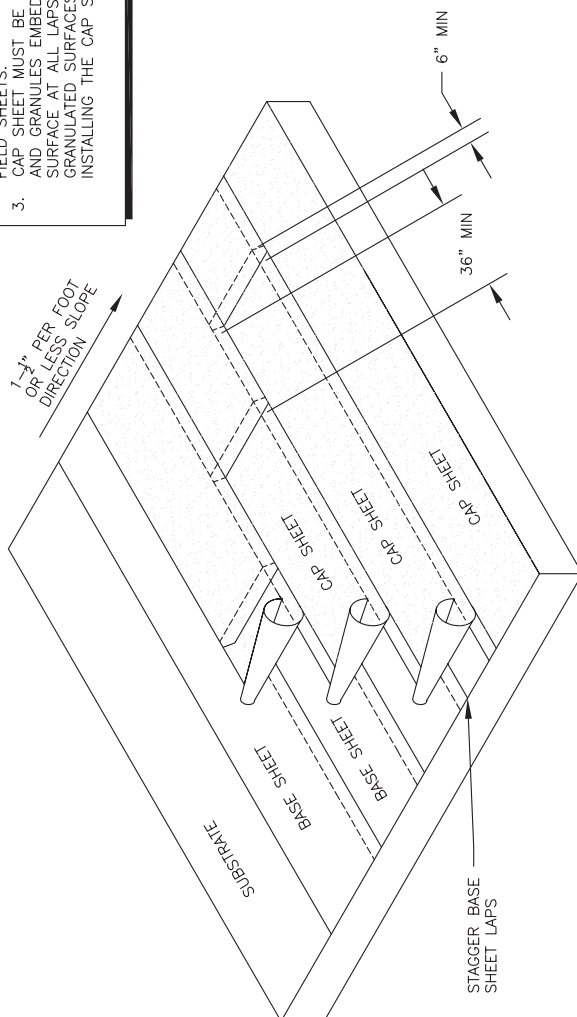
MULE-HIDE PRODUCTS CO., INC.	ROOF EDGE ON PARAPET SYSTEMS:	DETAIL NO.: MHMB-UN-RE03T
	APP MODIFIED BITUMEN	REVISION DATE: MARCH 2015



MULE-HIDE PRODUCTS CO., INC.	END LAP	
	DETAIL NO.: MHMB-UN-SE01T	REVISION DATE: MARCH 2015
SYSTEMS: APP MODIFIED BITUMEN		

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN BASE SHEETS MUST BE OFFSET FROM LAPS IN FIELD SHEETS.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



END LAPS
OPTION 1

SYSTEMS:

APP MODIFIED BITUMEN

DETAIL NO.:

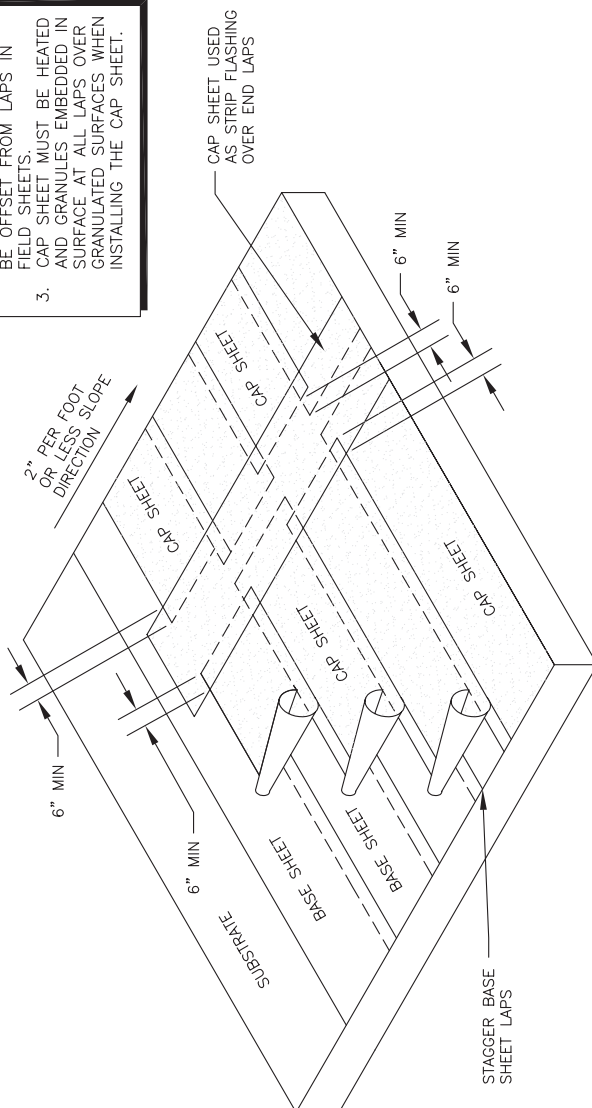
MHMB-UN-SE02T

REVISION DATE: MARCH 2015

**MULE-HIDE
PRODUCTS CO., INC.**

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. LAPS IN BASE SHEETS MUST BE OFFSET FROM LAPS IN FIELD SHEETS.
3. CAP SHEET MUST BE HEATED AND GRANULES EMBEDDED IN SURFACE AT ALL LAPS OVER GRANULATED SURFACES WHEN INSTALLING THE CAP SHEET.



END LAPS
OPTION 2
SYSTEMS:

APP MODIFIED BITUMEN

**MULE-HIDE
PRODUCTS CO., INC.**

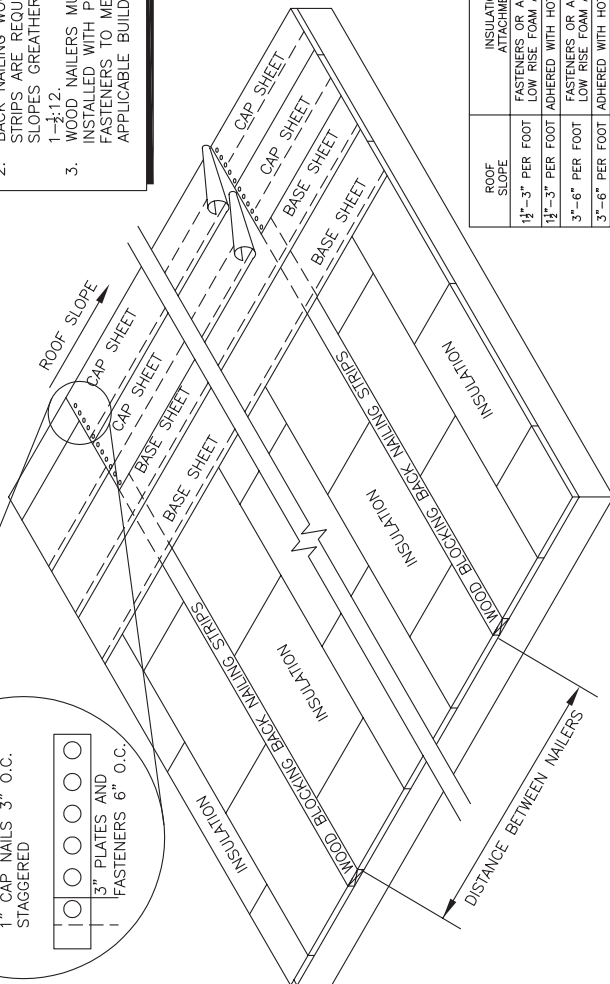
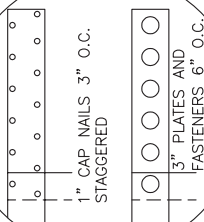
DETAIL NO.:

MHMB-UN-SE03T

REVISION DATE: MARCH 2015

NOTES:

1. REFER TO SPECIFICATIONS FOR FLASHING MEMBRANE REQUIREMENTS.
2. BACK NAILING WOOD BLOCKING STRIPS ARE REQUIRED ON ALL SLOPES GREATER THAN 1 $\frac{1}{2}$ -12.
3. WOOD NAILERS MUST BE INSTALLED WITH PROPER FASTENERS TO MEET APPLICABLE BUILDING CODES.



ROOF SLOPE	INSULATION ATTACHMENT	DISTANCE BETWEEN NAILERS
1 $\frac{1}{2}$ "-3" PER FOOT	FASTENERS OR APPROVED LOW RISE FOAM ADHESIVE	32'-0"
1 $\frac{1}{2}$ "-3" PER FOOT	ADHERED WITH HOT ASPHALT	16'-0"
3"-6" PER FOOT	FASTENERS OR APPROVED LOW RISE FOAM ADHESIVE	16'-0"
3"-6" PER FOOT	ADHERED WITH HOT ASPHALT	8'-0"

BACK NAILING
PARALLEL WITH SLOPE
SYSTEMS:

APP MODIFIED BITUMEN

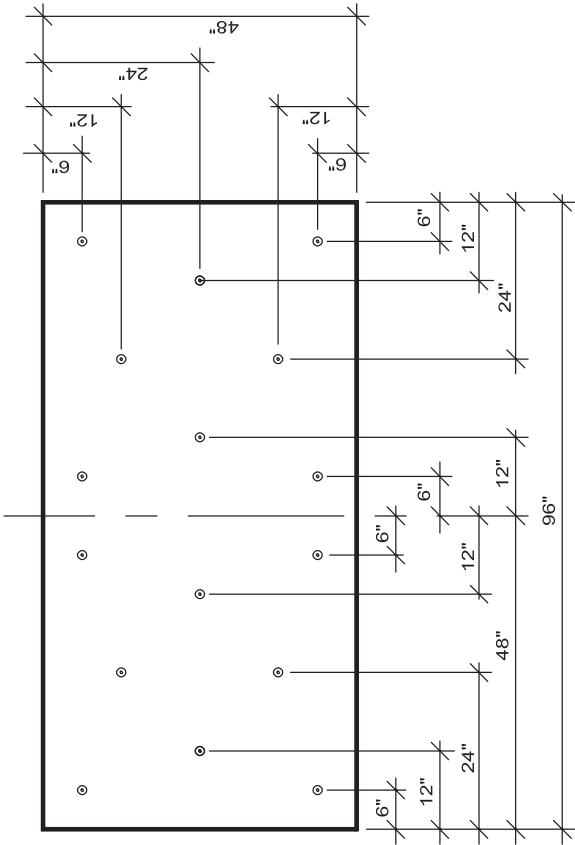
**MULE-HIDE
PRODUCTS CO., INC.**

DETAIL NO.:

MHMB-UN-SE04T

REVISION DATE: MARCH 2015

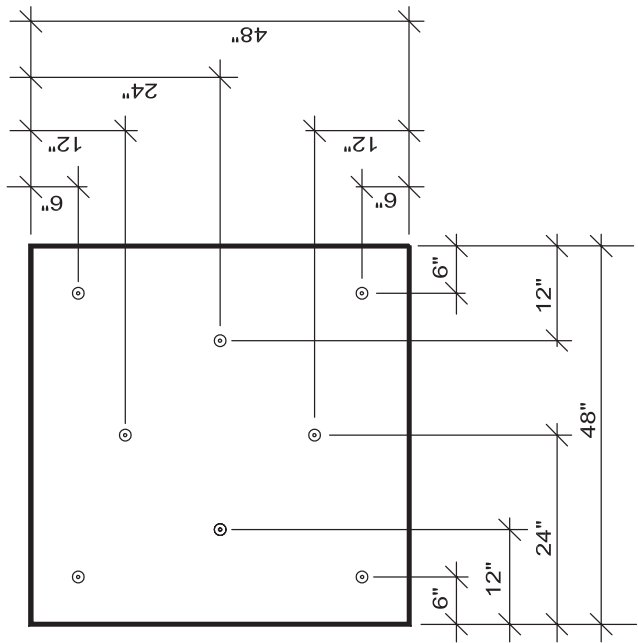
THE ATTACHMENT PATTERN SHOWN IS THE STANDARD PATTERN FOR FIELD ATTACHMENT REQUIRED BY MULE-HIDE. THE ATTACHMENT IN THE PERIMETER AREA IS INCREASED 50% AND 75% IN THE CORNERS.



4' X 8' INSULATION ATTACHMENT (1 PER 2 SF.)
STANDARD ATTACHMENT

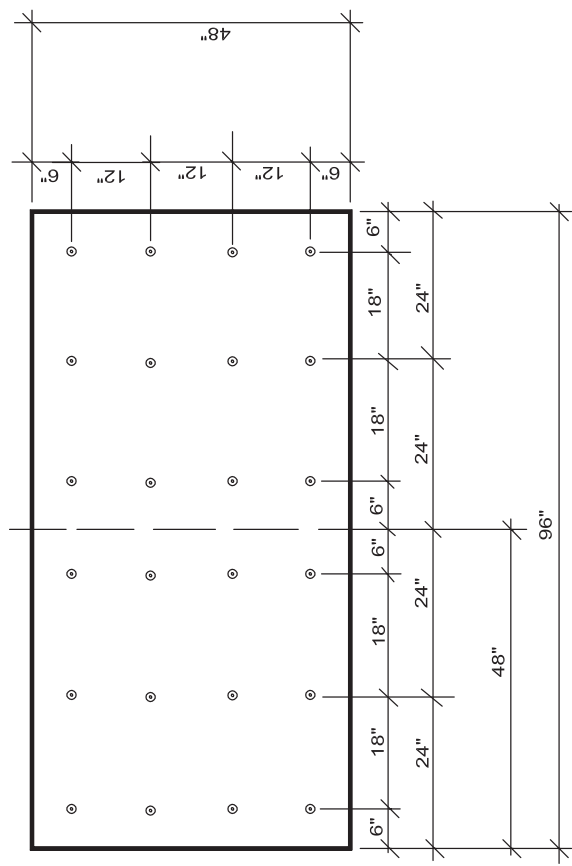
MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 1		DETAIL NO.:
	SELF-ADHERING MOD BIT SYSTEMS		MH-MB-INS-1

THE ATTACHMENT PATTERN SHOWN IS THE STANDARD PATTERN FOR FIELD ATTACHMENT REQUIRED BY MULE-HIDE. THE ATTACHMENT IN THE PERIMETER AREA IS INCREASED 50% AND 75% IN THE CORNERS.



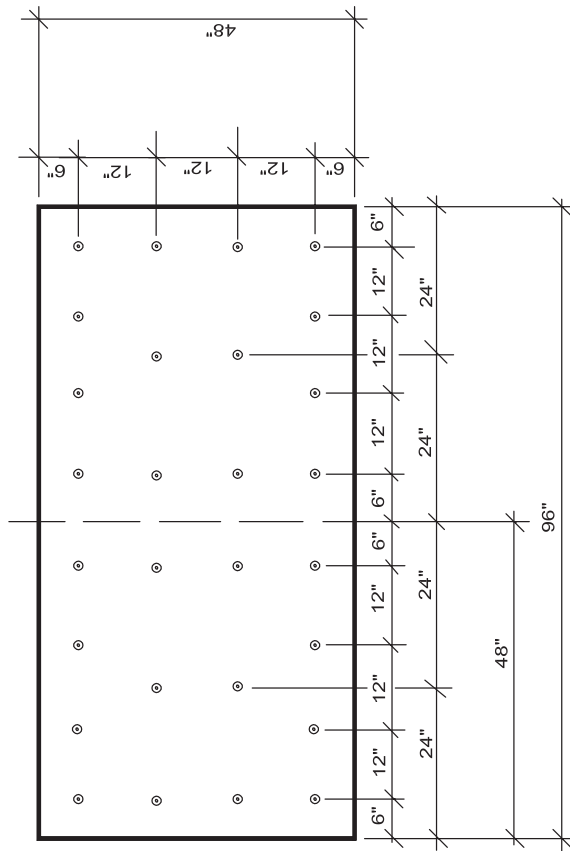
4' X 4' INSULATION ATTACHMENT (1 PER 2 SF.)
STANDARD ATTACHMENT

MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 2	DETAIL NO.:
	SELF-ADHERING MOD BIT SYSTEMS	MH-MB-INS-2



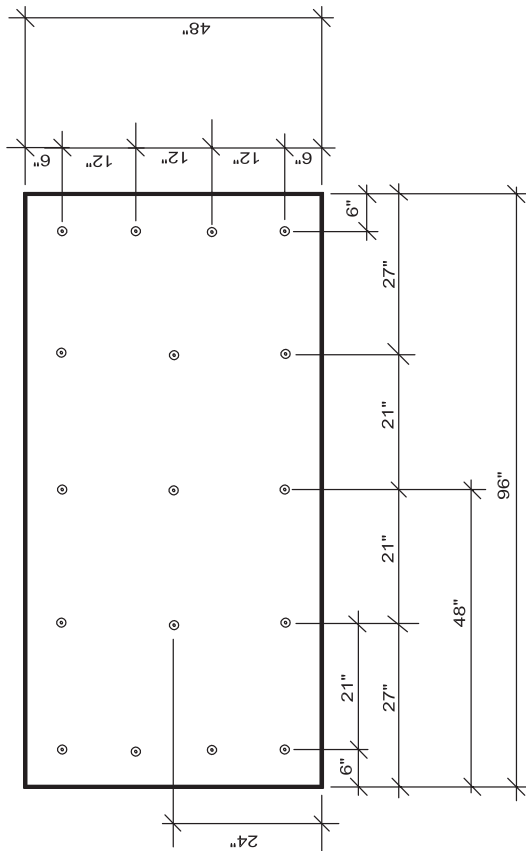
4' X 8' INSULATION ATTACHMENT (1 PER 1.33 SF)
STANDARD ATTACHMENT (24 PER BOARD)

MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 3		DETAIL NO.: MH-MB-INS-3
	SELF-ADHERING MOD BIT SYSTEMS		



4' X 8' INSULATION ATTACHMENT (1 PER 1.14 SF)
STANDARD ATTACHMENT (28 PER BOARD)

MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 4		DETAIL NO.: MH-MB-INS-4
	SELF-ADHERING MOD BIT SYSTEMS		



4' X 8' ORIENTED STRAND BOARD ATTACHMENT (1 PER 1.88 SF)
STANDARD ATTACHMENT (MINIMUM 7/16" THICK)

MULE-HIDE PRODUCTS CO.,INC. 2003	INSULATION ATTACHMENT - OPTION 5		DETAIL NO.: MH-MB-INS-5
	SELF-ADHERING MOD BIT SYSTEMS		

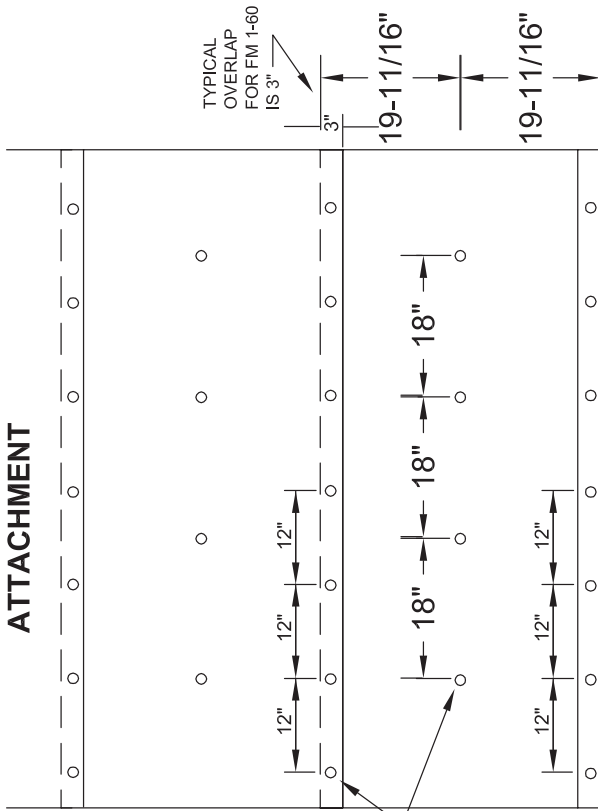
**FIELD FASTENING
PATTERN FOR NAIL
BASE**

NOTE: TYPICALLY, CORNERS
REQUIRE 100% INCREASE OF
FASTENERS AND PERIMETERS
REQUIRE 50% INCREASE.

FASTENER PLACEMENT;
12" O.C. @ SEAMS
18" O.C. @ CENTER OF ROLLS

FACTORY MUTUAL APPROVED
FASTENERS AND PLATES

**TYPICAL FM 1-60
ATTACHMENT**



39-3/8" WIDE NAIL BASE ROLLS

**MULE-HIDE
PRODUCTS CO.,INC.
2003**

NAIL BASE FASTENING PATTERN

SELF-ADHERING MOD BIT SYSTEMS

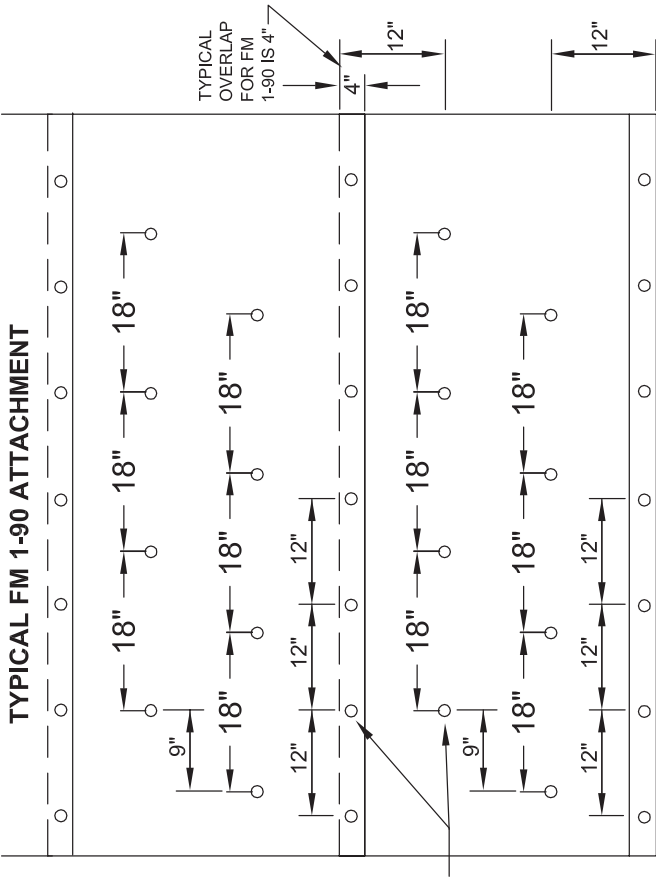
**DETAIL NO.:
MH-MB-NB
FM 1-60**

FIELD FASTENING PATTERN FOR NAIL BASE SHEET

NOTE: TYPICALLY, CORNERS
REQUIRE 100% INCREASE OF
FASTENERS AND PERIMETERS
REQUIRE 50% INCREASE.

FASTENER PLACEMENT:
12" O.C. @ SEAMS
18" O.C. @ FIELD, 2 ROWS
SPACED 12" APART AND FROM
SHEET EDGE AND STAGGERED
9"

**FACTORY MUTUAL APPROVED
FASTENERS AND PLATES**



39-3/8" WIDE NAIL BASE ROLLS

DETAIL NO.:
MH-MB-NB
FM 1-90

NAIL BASE FASTENING PATTERN

SELF-ADHERING MOD BIT SYSTEMS

MULE-HIDE
PRODUCTS CO.,INC.
2003



National Support Center • 1195 Prince Hall Drive • Beloit, WI 53511

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