PVC
POCKET GUIDE

MULEHIDE

"The name trusted in roofing since 1906"

Mule Hide Products PVC Field Installation Guide
Mechanically Fastened and Fully Adhered Systems
March 2017

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Equipment Needed to Install Mule-Hide Heat-Weld Membranes

Introduction - This section is intended to serve as a general guideline of the equipment that the contractor may need to successfully install a Mule-Hide Heat-Weld Membrane Roofing System.

General - The following list of hand tools should be included for an average crew of 4 to 6 men:

- One automatic welder
- Asphalt-free extension cord (#10/3 wire, 220 volt) with 220/30 amp male-female twist lock plugs for use with the automatic welder, not to exceed 100 feet in length
- 2 or 3 hand welders with nozzles
- Asphalt-free extension cords (#14/3 wire, 110 volts)
- 3 or 4 rubber hand rollers
- 1 pair of scissors per man
- 3 standard screw guns with disengaging clutch (RPM range of 1800-2500 with adjustable nose piece)
- Tape measures and one 100-foot tape
- 2 or 3 cotter pin extractors for probing seams
- Non-permanent ink pens (water soluble)
- Chalk lines with non permanent chalk (blue chalk)
- 4-inch wide paint brushes
- One-half inch nap paint rollers with solvent-resistant cores and handles
- Clean cotton rags
- Caulking guns
- Push Brooms
- Asphalt free waterproof canvas or other type of waterproof tarp for covering Mule-Hide products and equipment

Specialized Equipment - The Mule-Hide Roofing System requires 4 types of specialized equipment:

- Mule-Hide-approved automatic hot air seaming machine
- Mule-Hide-approved hand-held seaming machine
- Generator large enough to provide power to automatic welder and hand gun(s)

WARNING: Never touch the metal portion of the fan housing, blower tube or blower nozzle of the automatic welder or hand held heat guns. They become extremely hot and can cause severe burns.

MEMBRANE WELDING

The Mule-Hide Heat-Weld Membranes can be permanently fused to itself by the application of super-heated air and pressure. To provide the required heat and pressure, Mule-Hide Heat-Weld Membrane Roofing Systems specifies an automatic welder for making field seams. A hand welder is specified when an automatic welder cannot be used (see next Section).

Automatic Welder

General Description: An automatic welder is an electrically powered, self-propelled device that utilizes electrical resistance heating and fan-forced hot air in combination with its own weight (including additional weight mounted on the exterior housing) to fuse the Mule-Hide Heat-Weld Membranes to themselves.

Technical Specifications

The following specifications are for general information. Consult the manual accompanying the equipment for additional details.

- **Electrical requirements:** 220V, 30A (minimum fused), 7500 W (minimum recommended available power), single-phase current. If using a generator, ensure generator is of sufficient size to power all welding tools (hand gun(s), automatic welder) run from generator.
- **Power cord and extensions:** #10, 3-conductor type may be used for distances up to 100 ft.; for longer lengths, consult an electrical contractor. We suggest the use of the highest quality electrical cords to extend the life of your equipment and improve overall performance.
- **Supplemental weight:** When welding Mule-Hide field membrane, an additional weight is to be fixed on the exterior housing over the wheels of the automatic welder. Most automatic welders have removable external weights.
- **Adjustments:** Tracking alignment, nozzle alignment, forward speed, temperature of heating element and airflow louver (and therefore hot air output).
- Welding speed: The speed of the welder must be no faster than necessary to reproduce good hot air weld and will vary according to environmental conditions. As a general rule, 10 to 12 feet per minute (fpm) is a typical speed in warm summer temperatures; 8 fpm or less is typical in cold weather temperatures.
- **Metal track (if required by welder manufacturer):** Several lengths, 8 foot each of 24-26 gauge galvanized metal for use as a track for the automatic welder. The metal tracks may be necessary to minimize wrinkles during welding.

NOTE: Conditions seldom justify running at maximums speed, which usually result in inconsistent seam quality. As ambient temperatures change throughout the day, the operator must rely on his judgment to determine the optimum operating speed and temperature of the automatic welder. It is good roofing practice to conduct test seaming before welding the field seams. See page 4 for test welding instructions.

Procedure - Before Connecting to Power

Use the automatic hot-air welder to make all field seams as general practice; the nozzle can be adjusted to weld near-horizontal seams (typical field seams).

Be sure to take the following preliminary steps when using an automatic unit.

1. Supplemental weight. Fix the supplemental weight to the exterior housing over the wheels. This weight will ensure that the proper pressure is applied to the seam being welded.
2. Check hot-air nozzle alignment and adjust if required.
3. Welding and non-welding positions. The hot-air nozzle can be locked into an UPWARD non-welding position, or into its DOWNWARD welding positions. The nozzle and blower assembly can be freely raised from the welding position after the release trigger on the blower housing is pulled and the entire assembly is slid OUTWARD from the machine. In this OUTWARD position, the nozzle and blower assembly escapes the detent that locks it into the DOWN position, and can be rotated to the UP position, where it will lock when the trigger is released. Position the hot-air nozzle so that it is in its DOWNWARD welding position and visually check to ensure that the nozzle will not direct the hot air into the silicone drive wheel or belt. Such misdirected super-heated air can quickly ruin the expensive wheel or belt drive. Any misalignment of the nozzle should be corrected at this time. After ensuring that the nozzle is properly aligned, return the hot-air nozzle to its UPWARD, non-welding position.

Be sure that the blower and transmission power switches are OFF and that the blower temperature control and speed control are set to ZERO.

CHECKPOINT: At this point, it is assumed that you are ready to hot-air weld a field seam, and the following requirements have been met:

- A roll of Mule-Hide Heat-Weld Membrane has been attached to the roof deck, and a second roll has been unrolled to provide a 5-1/2-inch overlap for mechanically attached and a 3" overlap for fully adhered over the previously attached edge, per Standard Mule-Hide Specifications.
- The surfaces to be hot-air welded are clean. If these surfaces are dirty, they must be rag-wiped clean with Fantastik® (or similar cleaner), then wiped with a clean rinse rag and thoroughly dried. The seam area should then be wiped with a clean rag dampened with Mule-Hide Membrane Cleaner to ensure removal of any remaining dirt or soap film.
- With the nozzle and blower assembly in the UP position, the automatic welder is positioned so that the silicone pressure wheel or belt is placed at the edge of overlapping sheet and the beveled guide wheel in front is at the edge of the top Mule-Hide sheet.
- Transmission and blower switches are OFF and speed and heat controls are set to ZERO.

WARNING: Never touch the metal portion of the fan housing blower tube, or blower nozzle. They become extremely hot and can cause severe burns.

Procedure - Connecting to Power

With the preliminaries done, you are ready to hot-air weld.

4. Connect the machine to power.
5. Turn the heater/blower power switch ON.
6. Set the temperature switch to the desired setting (1004º F is a good starting point).
7. Allow the machine to warm up (generally around 5 minutes).

NOTE: Test seams should be made at least at the start of work each morning and afternoon or any other time there is a noticeable change in temperature. Test seams should be made on use scrap material. After scrap material has cooled, attempt to physically tear them apart and examine them for consistent 1-1/2 to 2-inch-wide fully laminated seam.

8. Prepare to set the machine in motion.

    - If ambient temperature is higher than 60 degrees F, adjust the transmission speed control switch so that the machine will move at about 12 fpm; further adjustment may be required once you are underway, depending on the quality of the seam produced.
    - If ambient temperature is 40-60 degrees F, adjust the machine to move at about 10 fpm; further adjustment may be required, depending on the quality of the seam produced.
    - If ambient temperature is less than 40 degrees F, adjust the machine to move at less than 8 fpm; the best rate will have to be determined based on the quality of the seam produced. As a general rule, the colder the ambient temperature - and, hence, the membrane - the more slowly the automatic welder will have to proceed in order to produce good seams.

NOTE: As there are no ideal working conditions and ambient temperatures change throughout the day, the operator must rely solely on his own judgment to determine the operating speed of the automatic welder.

CAUTION: the operator of the welding equipment should be absolutely sure that the machine is positioned properly to begin welding before proceeding to the next step. Remember that the guide handle points IN THE DIRECTION THAT THE MACHINE WILL MOVE.

9. Separate the overlapping sheets. Place one hand palm-down on the blower housing, and put your index finger on the release trigger. With your other hand, use a seam probe (or similar tool) to separate the two overlapping Mule-Hide Heat-Weld Membranes so that the nozzle can be slid between them.
10. Insert the blower nozzle between the sheets. Pull the trigger, and position the nozzle between the membrane sheets, locking it in its DOWN welding position. Immediately proceed to the next step to prevent burning the membrane!
11. Start the machine moving. Quickly turn the transmission switch ON. NOTE: Some machines start automatically. The machine will start moving and welding the seam. Mark the start of the seam with a water-soluble marker.

12. Stay on course. As the automatic welder proceeds, keep the small guide wheel at the front of the machine at the edge of the top sheet. Steer the machine from the front to minimize zigzagging, which is likely to result from steering from the rear. If you go off-course, simply get back on course quickly. Seam deficiencies will be repaired later, with the hand welder.

IMPORTANT: Keep plenty of slack in the power cord. Any drag can pull the machine off-course.

Adjust to the speed that produces the best weld. The guidelines set in Step 8 provide good starting points. As welding proceeds, some trial-and-error adjustments will be required. Generally, adjusting the speed will be the most effective means of "dialing in" the best seam production. When the ambient temperature is very high, it may be necessary to turn the temperature down.

Rules-of-Thumb for Judging Seam Quality

- The seamed membrane is not discolored: Increase speed if membrane discolors (yellow/brown). If ambient temperature is very high and membrane discolors even when speed is at maximum, turn down the temperature control.
- Bubbling. If welder setup is marginally too hot, the seam surface may exhibit a slight bubbling appearance.
- Voids and wrinkles. A good seam has no voids or wrinkles and is 2 inches wide with the exposed edge tight. If not, see "Repairing Voids and Wrinkles," and "Repairing Holes in Membranes."
- Seam strength may be tested when cool. For best results, testing seams 8 hours after hot-air welding is recommended.

14. Completing a welding run. At the end of a run, lock the nozzle in it's UP, non-welding position and turn the transmission switch OFF to stop the machine's movement. NOTE: some machines stop automatically when the nozzle is taken out of the seam. Mark the end of the seam with a water-soluble marker.

15. Clean the nozzle frequently. The nozzle should be wire-brushed frequently to remove hot particles of the Mule-Hide Heat-Weld compound. (Some applicators wire-brush after each welding run.) If not removed, such particles are likely to be deposited by the nozzle, forming brown streaks at the edge of the lap; more than aesthetics is at stake - the presence of such particles in the seam can affect seam integrity.
16. Cool the welder down. At the completion of a period of welding for example, at lunchtime or quitting time - with the nozzle locked in its UPWARD position, turn the temperature adjustment dial to its lowest setting. The heating element will shut off, but the blower will continue to operate, cooling the heating element. After about five minutes, turn the power switch OFF. NOTE: some machines will shut down automatically after pushing only one button.

Precautions

As with any high power electrical equipment used outdoors, use accepted practice and common sense to avoid injury. Some suggestions:

- Do not operate any heat welder during storms.
- Use extreme caution to avoid burns. The temperature of the super-heated air in this machine can reach approximately 1200 degrees F (645 degrees C).
- Guard against snagging the power cord.
- If the power cord should become disconnected while the machine is operating, it is desirable to reconnect as quickly as possible, with careful attention to safety, to avoid possible damage from overheating. Switch the machine OFF to avoid arcing when reconnecting to power. Reconnect to power. Turn the power switch ON to resume normal operation.
- Inspect the power cord and connections before each welding session. Repair or replace worn or frayed cords and connectors promptly.
- Although the unit may be a double-insulated design, a ground fault interrupter (G.F.I.) at the power source is still recommended.

NOTICE: This equipment is for industrial use only. These instructions are for general information only. Prior to actual operation of the hot-air welding equipment, refer to the operating instructions that are provided by the manufacturer. Because the handling and use of this equipment is beyond Mule-Hide's control, we will not accept any liability for the results obtained.

All statements herein are expressions of opinion, which by performance and testing are believed to be accurate and reliable, and are presented without any knowledge that such recommended uses may infringe any patent. No warranty of any kind whatsoever, expressed or implied, is made or intended.

Hand Welder

General Description: The hand-held hot-air welder is an electrical powered, hand-held device that utilizes electrical resistance heating and fan-forced super-heated air to heat Mule-Hide Heat-Weld Membranes. A hand-held rubber roller is used in conjunction with the welder to apply the pressure that fuses the heated Mule-Hide Heat-Weld Membrane surfaces to each other.

The hand-Held welder is used as general practice to touch up imperfect seams. It is also used when the self-propelled automatic model is inappropriate, such as in roofing details and on highly sloped surfaces.

Technical Specifications:

- **Electrical requirements:** 115V, 15A (minimum fused), 2,500 W (minimum recommended available power), single-phase current. If using a generator, ensure generator is capable of providing adequate wattage for using the automatic welder and hand gun(s) at the same time.
- **Power cord and extensions:** #12, 3-conductor type may be used for distances up to 100 ft.
- **Adjustments:** Temperature of heating element and air flow louvers (and therefore hot air output).
- **Accessories:** 3/4-in. (20-mm) nozzle (for welding details), 1-1/2-in. (40-mm) nozzle (for straight welding, as when repairing field seams), hand-held silicone rubber roller.
- **Welding speed:** Speed will vary according to ambient weather conditions, element control settings, and user proficiency.

Procedure - Before Connecting to Power

Use the hand-held hot-air welder to repair and/or make all seams that cannot be made by the automatic welders. Be sure to take the following preliminary steps before plugging in the equipment:

1. Fit the appropriate nozzle. In general, the 1-1/2-in. (40 mm) nozzle should be fitted to the welder when making or repairing straight welds; the 3/4-in. (20 mm) nozzle should be fitted when welding flashing details.
2. Be sure the power is OFF and the heat adjustment switch is set to ZERO.

CHECKPOINT: At this point, it is assumed that you are ready to hot-air weld a seam, and the following requirements have been met:

- All fasteners are in place and the two surfaces to be welded are in position.
- The surfaces to be hot-air welded are clean, free of adhesive (a potential problem with flashing details) and other contaminants. If these surfaces are dirty or contaminated, they must be rag-wiped clean with Fantastik® or similar general cleaner, then wiped with a clean rinse rag and dried thoroughly. The seam area should then be wiped with a clean rag dampened with Mule-Hide Membrane Cleaner to ensure removal of any remaining dirt or soap film.
- During its warm-up period, hot air from the welder should be directed in a safe direction.
- A rubber hand roller is available.

WARNING: Never touch the metal portion of the fan housing, blower tube, or blower nozzle. They become extremely hot and can cause severe burns.

Procedure - Connecting to Power

With the preliminaries done, you are ready to hot-air weld.

1. Connect the machine to power. Ensure that the welder is pointed in a safe, unobstructed direction.
2. Switch the power on. Turn the power switch ON and turn the heat adjustment switch to its highest position.
3. arm-up the welder for 5 minutes.

NOTE: When first starting out or when welding confined work areas such as corners and pipe penetrations, it is advisable to turn the heat setting down a few notches to avoid applying heat faster than you can work effectively.

4. Insert the nozzle into the lap approximately 2" back from the edge of the membrane to create an air dam. Position the nozzle between the surfaces to be welded and quickly position the hand roller on the outer membrane about 1/8 to 1/4 in. from the end of the nozzle.

NOTE: More heat is needed when beginning a weld than after a weld is underway, because the membrane is cool. In addition, the super-heated air has an easy escape before a seam is formed. As welding proceeds, the membrane warms up and the hot air from the welder is partially trapped by the seam. Be prepared to pick up the pace as you proceed.

5. Roll the seam. When the membrane becomes softened, apply a firm pressure to the roller and roll it across the seam in strokes about 3 in. long.
6. After finishing the first pass down the seam to create the air dam, repeat the process to complete the seam. When making the final pass down the seam, keep a small (1/8") portion of the tip exposed beyond the edge of the membrane to ensure a complete weld all the way across the seam.
7. Adjust seaming speed to produce the best weld. As the seaming continues, some trial-and-error adjustment of seaming speed will be required. The membrane surfaces must be heated sufficiently to permit the roller pressure to fuse them together, yet the membrane must not be overheated.

Rules-of-Thumb for Judging Seam Quality

- The seamed membrane is not discolored: Increase seaming speed if membrane discolors (yellow-brown).
- Bubbles and thinning: Overheating the membrane causes small bubbles and overstretching to the point of leaving too little sheet thickness, especially when working with unreinforced material. Another sign of overheating is a darkened "smeared" appearance on the seam.
- Voids and wrinkles. A good seam has no voids or wrinkles. If voids or wrinkles are present, see "Repairing Voids and Wrinkles."

8. Clean the nozzle frequently. As with the automatic welding machine, the nozzle of the hand welder should be wire-brushed frequently to remove hot particles of the Mule-Hide Heat-Weld compound that may adhere to it. If not removed, such particles are likely to be deposited by the nozzle; the presence of such burned particles in the seam can affect seam integrity.
9. Cool the welder down. When the welder is to be shut down at the completion of a period of welding - turn the temperature adjustment dial to its lowest setting. The heating element will shut off, but the blower will continue to operate, cooling the heating element. Set the welder down so that hot air from the welder is pointed in a safe direction. After about five minutes, turn the power switch OFF.

Precautions

As with any high power electrical equipment used outdoors, use accepted practice and common sense to avoid injury. Some suggestions:

- Do not operate any heat welding equipment during storms.
- Use extreme caution to avoid burns. The temperature of the super-heated air in this machine can reach approximately 800 degrees F (427 degrees C).
- Guard against snagging the power cord.
- If the power cord should become disconnected while the machine is operating, it is desirable to reconnect as quickly as possible, with careful attention to safety, to avoid possible damage from overheating. Switch the machine OFF to avoid arcing when reconnecting to power. Reconnect to power. Turn the power switch ON to resume normal operation.
- Inspect the power cord and connections before each welding session. Repair or replace worn or frayed cords and connectors promptly.
- Use of a ground fault interrupter (G.F.I.) at the power source is recommended.

NOTICE: This equipment is for industrial use only. These instructions are for general information only. Prior to actual operation of the hand-held welding equipment, refer to the operating instructions that are provided by the manufacturer. Because the handling and use of this equipment is beyond Mule-Hide's control, we will not accept any liability for the results obtained.

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Seam Probing

General Description: the probing of hot-air welded seams is an important step in the application of a Mule-Hide roof, and is your best insurance for successful inspection. **SEAMS WITH VOIDS AND WRINKLES HAVE BEEN THE MOST COMMON DEFECTS CITED BY MULE-HIDE INSPECTORS OVER THE YEARS.**

To ensure consistently high-quality seaming on your job, be sure that ALL seams are probed with an appropriate seam probing tool each work day, and all deficiencies noted/marked with a water-soluble marker and repaired as promptly as possible with a hand-held hot-air welder. Mule-Hide recommends that you probe seams with a cotter pin puller.

Procedure for Probing the Seams

The probing of seams should not be done until the hot-air welds have thoroughly cooled. As a general procedure, seam probing and repair of deficiencies should be done for all seams approximately 8 hours after they are initially welded.

WARNING: Premature probing can open warm seams that would have been perfectly acceptable once they had cooled.

1. Draw probing tool tip along seams. Gripping the probing tool by its handle, draw its tip along the edge of the hot-air welded seam. Apply firm pressure into the seam junction - not into the bottom sheet. The tool should not penetrate into the lap area.
2. Mark deficiencies. Using a water-soluble marker, mark off the beginning and end of each void.
3. Repair deficiencies promptly. Using a hand-held welder, repair all seam deficiencies as quickly as possible. It is required by Mule-Hide that repairs be made the same day that they are discovered.
4. Check repairs. After the repaired seams have cooled completely, probe them again. If the repair is successful, wipe off the water-soluble marker line; if not, do the repair over.

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PVC Minimum Membrane Fastening Requirements
Standard Wind Speed (55 MPH coverage)

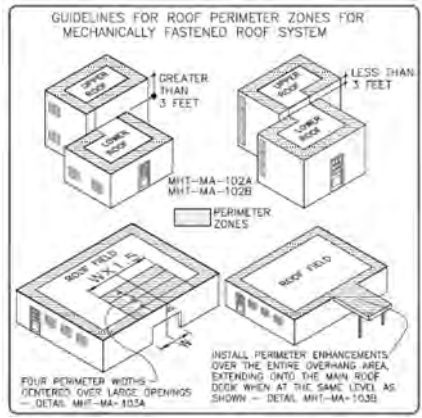
Roof Deck	Roof Height	Width of Field Sheet	Fastener Spacing
Steel Roof Decks			
Steel Min 22 gauge	Up to 60’	10’	12” oc
		81”	12” oc
	61’ to 100’	10’	6” oc
		81”	12” oc
Steel – Less than 22 gauge	0’ to 100’	Pull test required. Contact Mule-Hide for additional information.	
Wood Roof Decks			
2X Plank ¾” Plywood	Up to 60’	10’	12” oc
		81”	12” oc
	61’ to 100’	10’	6” oc
		81”	12” oc
5/8" Plywood	Up to 60’	10’	12” oc
		81”	12" oc
	61' to 100'	10'	6" oc
		81”	12" oc
1X Plank 1/2" Plywood	Up to 60'	10'	6" oc
		81”	12" oc
	61' to 100'	81”	6" oc
OSB	0' - 100'	Contact Mule-Hide Technical Department prior to starting work	

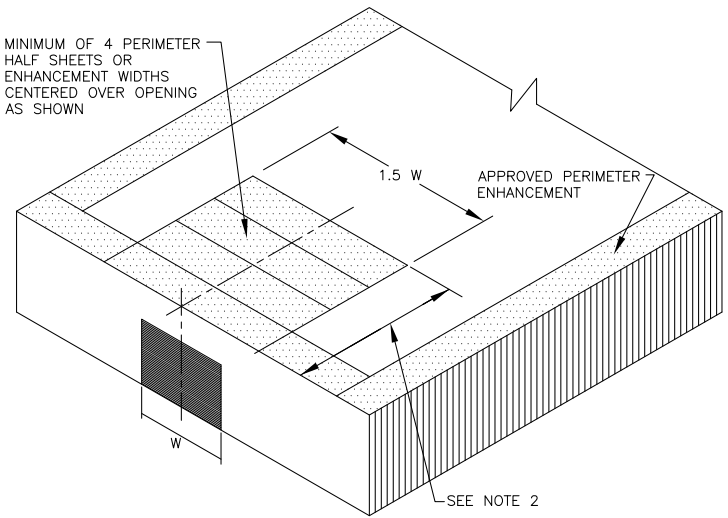
Structural Concrete Roof Decks			
2500 psi 2" min pour or precast	Up to 60'	10'	12" oc
		81"	12" oc
	61' to 100'	10'	6" oc
		81"	12" oc
Insulating Concrete (Fasteners must penetrate from deck)			
Steel Form Deck	0' to 100'	Pull test required. Contact Mule-Hide for additional information.	
Other Roof Decks			
Gypsum Concrete Cementitous Wood Fiber	0' to 100'	Pull test required. Contact Mule-Hide for additional information.	

Perimeter Enhancement Requirements Mechanically Attached System With 55-MPH Wind Speed Coverage

Building Height	Minimum Perimeter Enhancement Required
0 - 34 feet	1 Perimeter sheet
	1 Perimeter enhancement width
35 – 100 ft	2 Perimeter sheets (wind zones up to 100 mph)
	2 Perimeter Enhancement Widths (wind zones up to 100 mph)
Higher than 100 ft. or higher wind zones.	Contact Mule-Hide Tech. Dept.

Width of Field Sheet	Perimeter Sheet Width (2)	Perimeter Enhancement Width
		Plates/Fasteners Through Membrane
40.5”	N/A	2’
5’	N/A	3’
81”	4’	4’
10’	5’	5’

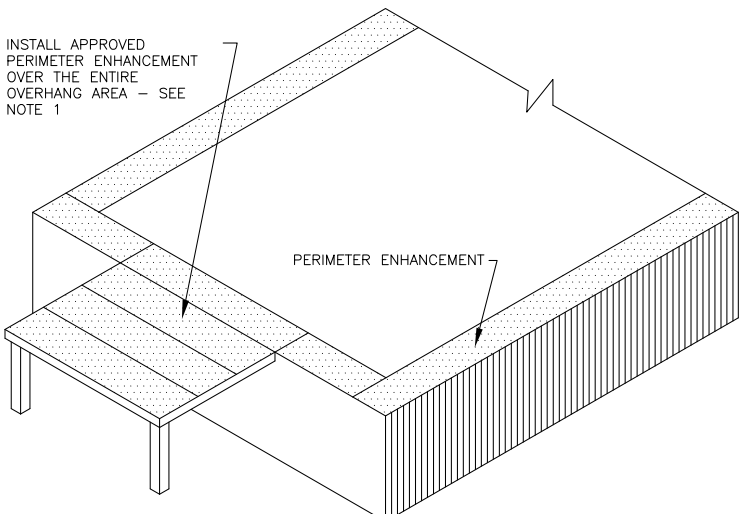




NOTES:

1. WHEN ANY WALL CONTAINS MAJOR OPENINGS WITH A COMBINED AREA WHICH EXCEEDS 10% OF THE TOTAL WALL AREA ON WHICH THE OPENINGS ARE LOCATED, A MINIMUM OF 4 PERIMETER HALF SHEETS OR ENHANCEMENT WIDTHS MUST BE CENTERED OVER THE OPENING.
2. THE DEPTH OF THE PERIMETER ENHANCEMENT MUST BE A MINIMUM OF 2.5 TIMES THE WIDTH OF THE OPENING OR 4 PERIMETER HALF SHEETS/ENHANCEMENT WIDTHS, WHICHEVER IS LARGER.
3. AS AN OPTION, AN ADHERED MEMBRANE SECTION MAY BE USED IN LIEU OF THE MECHANICALLY FASTENED MEMBRANE AT LARGE OPENINGS IN ACCORDANCE WITH THE MULE–HIDE FULLY ADHERED TPO ROOF YSTEM SPECIFICATION.
4. REFER TO TECHNICAL BULLETIN #TPO–MA02–2006 FOR PERIMETER ENHANCEMENT REQUIREMENTS.

MULE-HIDE PRODUCTS CO., INC.	**SHEET LAYOUT ON BUILDINGS WITH LARGE OPENINGS** **SYSTEMS:** **MECHANICALLY ATTACHED**	**DETAIL NO.:** **MHT-MA-103A** REVISION DATE: 10/2013



NOTES:

1. THE MEMBRANE MUST BE SPECIFIED WITH PERIMETER ENHANCEMENT INSTALLED OVER THE ENITIRE OVERHANG AREA. WHEN THE OVERHANG IS AT THE SAME LEVEL AS THE MAIN ROOF, EXTEND THE PERIMETER ENHANCEMENT ONTO THE MAIN ROOF LEVEL AS SHOWN.
2. AS AN OPTION, AN ADHERED MEMBRANE SECTION MAY BE USED IN LIEU OF THE MECHANICALLY FASTENED MEMBRANE AT BUILDING OVERHANGS IN ACCORDANCE WITH THE MULE–HIDE FULLY ADHERED TPO ROOF YSTEM SPECIFICATION.
3. REFER TO TECHNICAL BULLETIN #TPO–MA02–2006 FOR PERIMETER ENHANCEMENT REQUIREMENTS.

MULE-HIDE PRODUCTS CO., INC.	**SHEET LAYOUT ON BUILDINGS WITH OVERHANGS** **SYSTEMS:** **MECHANICALLY ATTACHED**	**DETAIL NO.:** **MHT-MA-103B** REVISION DATE: 10/2013

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

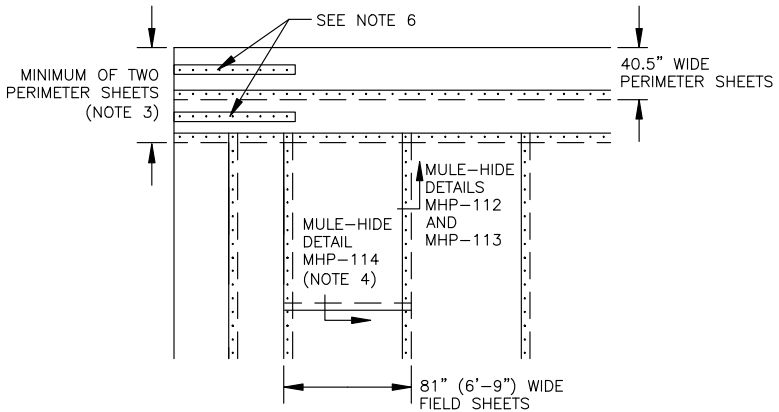
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

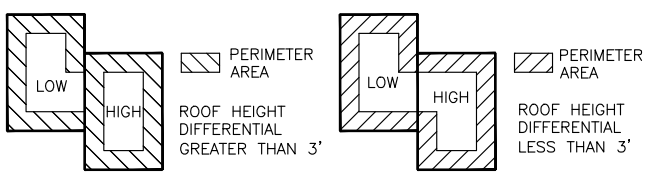
3. REFER TO SPECIFICATIONS FOR REQUIRED NUMBER OF PERIMETER SHEETS AND MEMBRANE FASTENING.

4. SECUREMENT NOT REQUIRED AT END ROLL SECTIONS; OVERLAP MEMBRANE 2" TO 3". REFER TO MULE–HIDE DETAIL MHP–110.

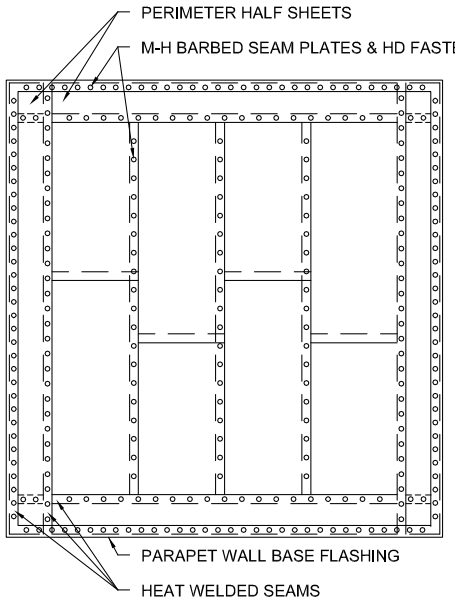
5. FOR INSULATION SECUREMENT, REFER TO MULE–HIDE DETAIL MHP–206.

6. MEMBRANE ATTACHMENT IN CORNERS MUST BE INCREASED ABOVE PERIMETER ATTACHMENT REQUIREMENTS TO COMPENSATE FOR THE HIGHER UPLIFT PRESSURES PRESENT AT BUILDING CORNERS.



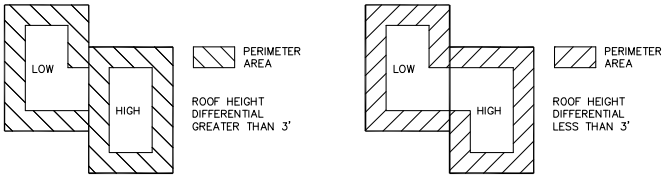


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	MEMBRANE SECUREMENT SYSTEMS: MECHANICALLY FASTENED PVC	DETAIL NO: MHP-186



NOTE: SEE PVC 10 OR 15 YR WARRANTY DESIGN SUMMARY FOR APPROPRIATE FASTENER SPACING FOR VARIOUS DECK TYPES AND WIND UPLIFT REQUIRMENTS

MULE-HIDE PRODUCTS CO., INC. 2010	***FIELD MEMBRANE LAYOUT SYSTEMS: MECHANICALLY ATTACHED PVC***	***DETAIL NO: MHP-300***



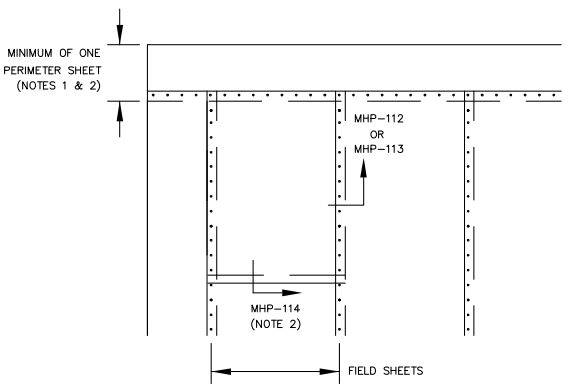
NOTES:

1. CONTACT MULE–HIDE FOR FM OR CODE COMPLIANCE FOR REQUIRED NUMBER OF PERIMETER SHEETS AND MEMBRANE FASTENING.

2. SECUREMENT NOT REQUIRED AT END ROLL SECTIONS; OVERLAP MEMBRANE 2" TO 3" (50 TO 75 mm). REFER TO DETAIL MHP–114.

3. FOR INSULATION SECUREMENT, REFER TO DETAIL MHP–200.

4. IF A FACTORY MUTUAL RATING IS REQUIRED, MEMBRANE FASTENING AT CORNERS MUST EXTEND TO ROOF EDGES IN BOTH DIRECTIONS.



MULE-HIDE PRODUCTS CO., INC. 2010	***PERIMETER ATTACHMENT SYSTEMS:*** ***MECHANICALLY ATTACHED PVC***	***DETAIL NO:*** ***MHP-301***

NOTES:

1. WHERE MULTI–LEVEL ROOFS MEET AT A COMMON WALL AND THE DIFFERENCE IN HEIGHT IS LESS THAN 3 FT, THE ROOF STRIP OF THE UPPER ROOF AND THE ROOF STRIP OF THE LOWER ROOF ARE EACH TREATED AS FIELD AREAS, EXCEPT FOR THE SQUARE AREAS AT EACH END, WHICH ARE TREATED AS PERIMETER AREAS.

2. FOR FACTORY MUTUAL PROJECTS, THE WIDTH OF THE ROOF PERIMETER AND CORNER AREAS IS DEFINED AS THE SMALLER OF 0.1 TIMES THE BUILDING LESSER PLAN DIMENSION OR 0.4 TIMES THE EAVE HEIGHT (MEAN ROOF HEIGHT FOR SLOPES GREATER THAN 2"/12" SLOPE), EXCEPT FOR HEIGHTS GREATER THAN 60 FT.

3. ROOF PERIMETER

   MECHANICALLY ATTACHED SYSTEMS
   DISTANCE BETWEEN ROWS IS LESS THAN OR EQUAL TO 60% OF THE APPROVED ROOF FIELD SPACING OF THE FASTENER ROWS.

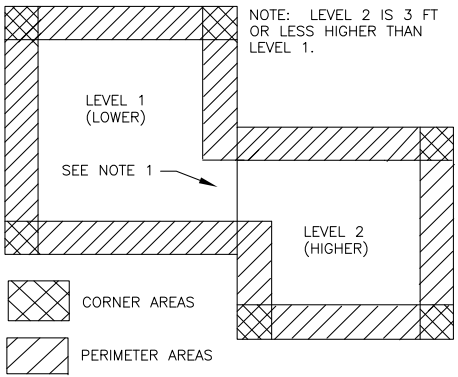
   FULLY ADHERED SYSTEMS
   ALL ROOF PERIMETER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 50%.

4. ROOF CORNERS

   MECHANICALLY ATTACHED SYSTEMS
   DISTANCE BETWEEN ROWS IS LESS THAN OR EQUAL TO 40% OF THE APPROVED ROOF FIELD SPACING OF THE FASTENER ROWS.

   FULLY ADHERED SYSTEMS
   ALL ROOF CORNER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET BY EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 100%.

5. INCREASED FASTENING IN THE PERIMETERS AND CORNERS IS REQUIRED ON ALL WARRANTED JOBS, BOTH MECHANICALLY ATTACHED AND FULLY ADHERED.



MULE-HIDE PRODUCTS CO., INC.	ROOF PERIMETER / CORNER CALCULATION ELEVATION DIFFERENCE 3' OR LESS SYSTEMS: ALL PVC SYSTEMS	DETAIL NO.: MHP-302 REVISION DATE: 08/2016

NOTES:

1. WHERE MULTI–LEVEL ROOFS MEET AT A COMMON WALL AND THE DIFFERENCE IN HEIGHT IS GREATER THAN 3 FT, THE EDGE OF THE UPPER ROOF IS TREATED AS ROOF PERIMETER AND CORNERS. THE LOWER ROOF STRIP WHERE IT MEETS A HIGHER WALL IS TREATED AS FIELD AREA, EXCEPT FOR THE SQUARE AREAS AT EACH END WHICH ARE TREATED AS PERIMETER AREAS.

2. FOR FACTORY MUTUAL PROJECTS, THE WIDTH OF THE ROOF PERIMETER AND CORNER AREAS IS DEFINED AS THE SMALLER OF 0.1 TIMES THE BUILDING LESSER PLAN DIMENSION OR 0.4 TIMES THE EAVE HEIGHT (MEAN ROOF HEIGHT FOR SLOPES GREATER THAN 2"/12" SLOPE), EXCEPT FOR HEIGHTS GREATER THAN 60 FT.

3. ROOF PERIMETER

   MECHANICALLY ATTACHED SYSTEMS
   DISTANCE BETWEEN ROWS IS LESS THAN OR EQUAL TO 60% OF THE APPROVED ROOF FIELD SPACING OF THE FASTENER ROWS.

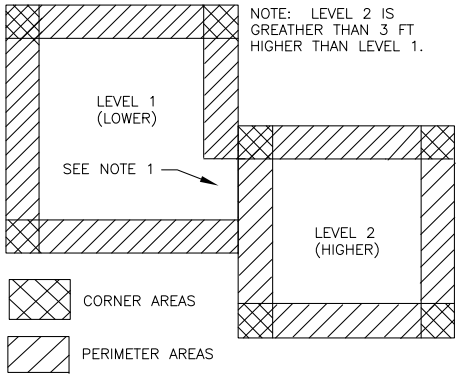
   FULLY ADHERED SYSTEMS
   ALL ROOF PERIMETER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 50%.

4. ROOF CORNERS

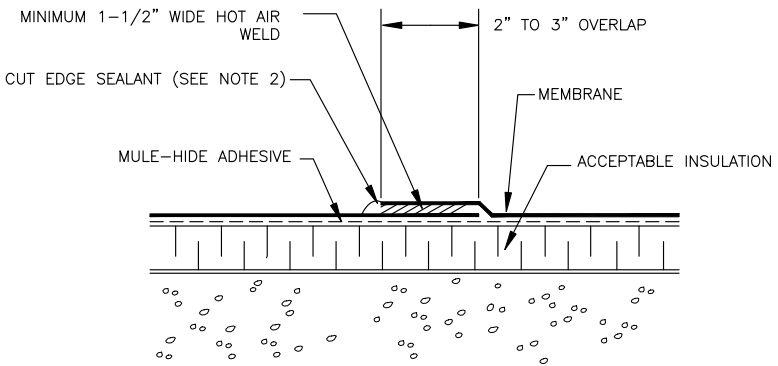
   MECHANICALLY ATTACHED SYSTEMS
   DISTANCE BETWEEN ROWS IS LESS THAN OR EQUAL TO 40% OF THE APPROVED ROOF FIELD SPACING OF THE FASTENER ROWS.

   FULLY ADHERED SYSTEMS
   ALL ROOF CORNER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET BY EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 100%.

5. INCREASED FASTENING IN THE PERIMETERS AND CORNERS IS REQUIRED ON ALL WARRANTED JOBS, BOTH MECHANICALLY ATTACHED AND FULLY ADHERED.



MULE-HIDE PRODUCTS CO., INC.	**ROOF PERIMETER / CORNER CALCULATION ELEVATION DIFFERENCE GREATER THAN 3'** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-303** REVISION DATE: 08/2016



NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

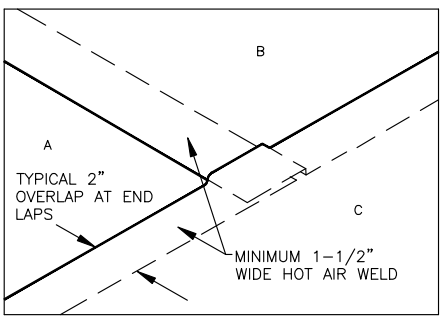
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**LAP CROSS SECTION** **SYSTEMS:** **FULLY ADHERED PVC**	**DETAIL NO:** **MHP-110**

NOTES:

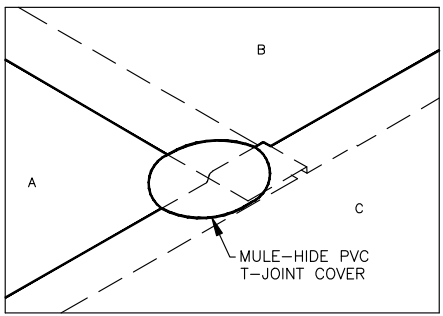
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.



POSITION SHEETS AND HOT AIR WELD THE MEMBRANE A MINIMUM OF 1–1/2" INCHES.

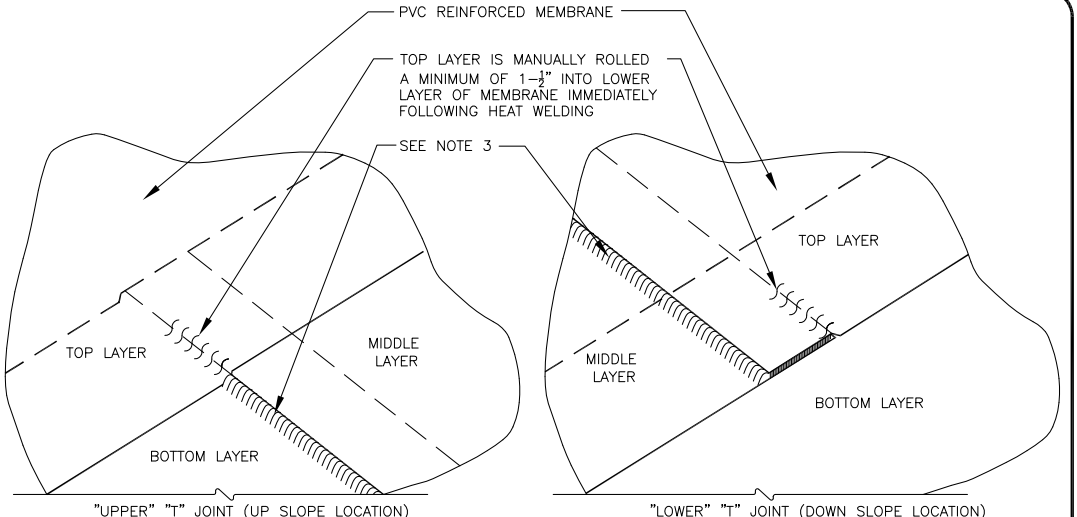
.050" (1.270 mm) OR .060" (1.524 mm) THICK MEMBRANES



INSTALL A MULE–HIDE T–JOINT COVER CENTERED OVER SPLICE INTERSECTION ("T–JOINT") AS SHOWN.

.080" (2.032 mm) THICK MEMBRANE ONLY

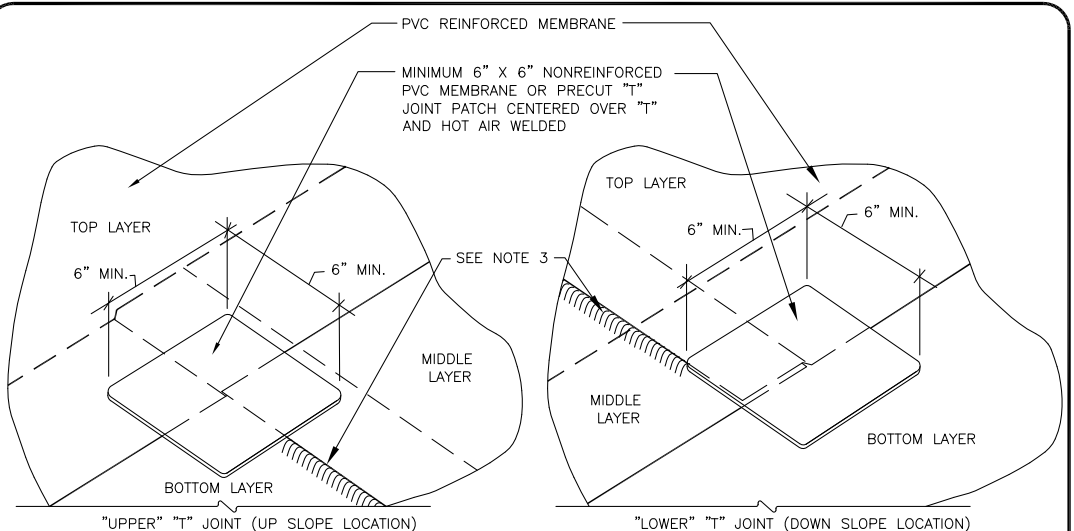
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SEAM INTERSECTION SYSTEMS: FULLY ADHERED PVC**	**DETAIL NO: MHP-111**



NOTES:

1. DETAIL TO BE USED IN CONJUCTION WITH STANDARD GUIDE SPECIFICATION CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, ETC.
2. HEAT GUN MUST BE USED TO FORM MEMBRANE CREASE.
3. APPROXIMATELY ⅛" DIAMETER BEAD OF CUT EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
4. THIS DETAIL IS NOT APPROVED FOR USE IN WARRANTIES LONGER THAN 15 YEARS.

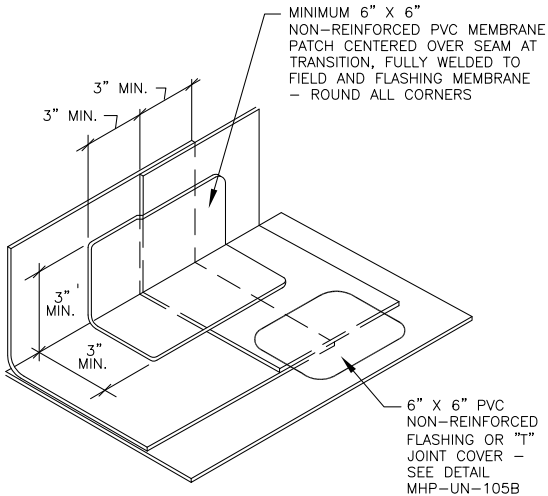
MULE-HIDE PRODUCTS CO., INC.	**"T" JOINT DETAIL .050" (50 MIL) THICK MEMBRANES**	**DETAIL NO.:**
	SYSTEMS:	**MHP-UN-115A**
	ALL PVC SYSTEMS	REVISION DATE: 05/2016



NOTES:

1. DETAIL TO BE USED IN CONJUCTION WITH STANDARD GUIDE SPECIFICATION CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, ETC.
2. "T" PATCHES ARE REQUIRED ON ALL .060" AND .080" MEMBRANES AND ON ALL PROJECTS WITH WARRANTIES LONGER THAN 15 YEARS.
3. APPROXIMATELY ⅛" DIAMETER BEAD OF CUT EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

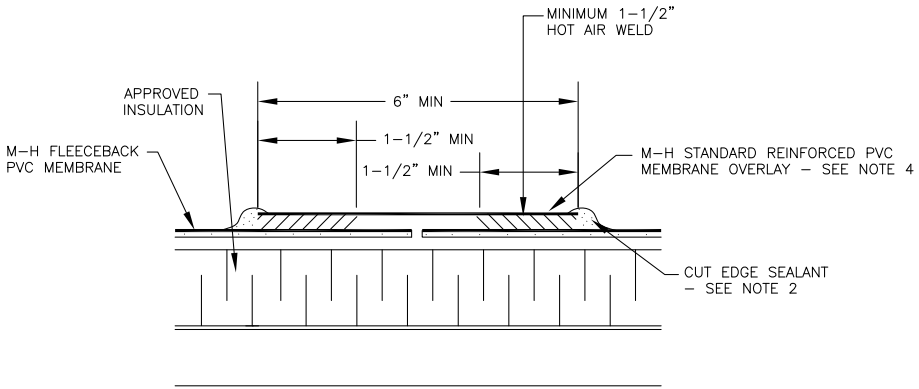
MULE-HIDE PRODUCTS CO., INC.	**"T" JOINT COVER PATCH .060" (60 MIL) OR THICKER MEMBRANES** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-115B** REVISION DATE: 05/2016



NOTES:

1. DETAIL TO BE USED IN CONJUCTION WITH STANDARD GUIDE SPECIFICATION CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, ETC.
2. FIELD / WALL TRANSITION PATCHES ARE REQUIRED ON ALL JOBS.

MULE-HIDE PRODUCTS CO., INC.	**SEAM PATCH AT FIELD / WALL TRANSITION** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-115C** REVISION DATE: 07/2017



NOTE:

1. IT IS NOT NECESSARY TO FASTEN MEMBRANE AT END LAPS.
2. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
3. A ROBOTIC WELDER MUST BE USED TO COMPLETE ALL FIELD SEAMS ON ALL WARRANTED PROJECTS.
4. THICKNESS OF STANDARD REINFORCED PVC MEMBRANE TO MATCH THICKNESS OF FLEECEBACK MEMBRANE.

MULE-HIDE PRODUCTS CO., INC.	**FLEECE BACK END LAPS**	**DETAIL NO.:**
	SYSTEMS:	**MHP-UN-116**
	ALL PVC FLEECE BACK	REVISION DATE: 05/2016

NOTES:

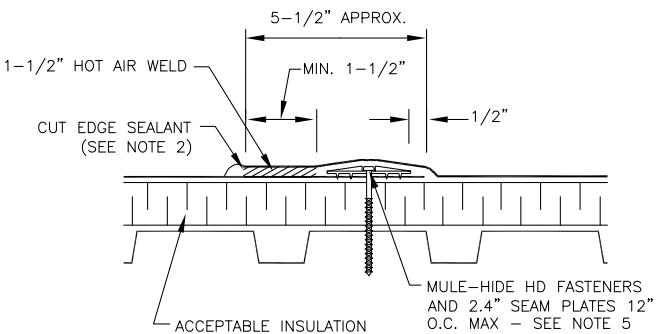
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. REFER TO SPECIFICATIONS FOR ACCEPTABLE FASTENERS FOR OTHER DECK TYPES. IF A FACTORY MUTUAL RATING IS REQUIRED, REFER TO MULE–HIDE CODE APPROVAL GUIDE FOR SPECIFIC REQUIREMENTS.

4. POSITION 2.4" SEAM PLATES BEYOND NON–REINFORCED ENCAPSULATED EDGE.

5. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***LAP CROSS SECTION*** ***SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-112***

NOTE:

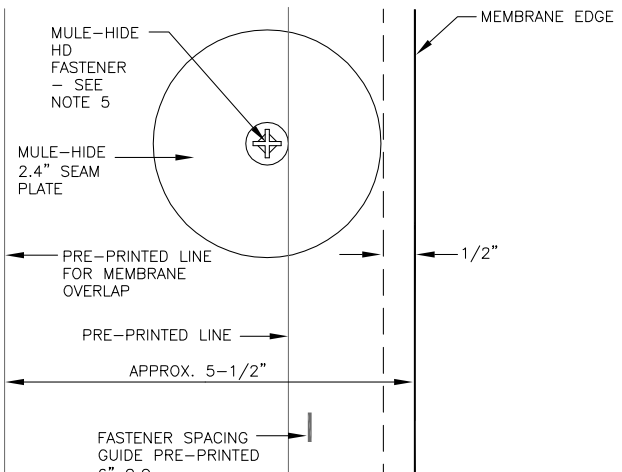
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. MULE–HIDE HD FASTENERS AND 2.4" SEAM PLATES ARE REQUIRED OVER STEEL, CONCRETE, AND WOOD DECKS. REFER TO SPECIFICATIONS FOR ACCEPTABLE FASTENERS AND PLATES FOR OTHER DECK TYPES.

4. POSITION SEAM FASTENING PLATES BEYOND NON–REINFORCED ENCAPSULATED EDGE.

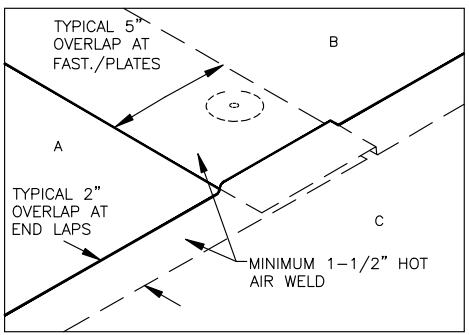
5. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***PLATE AND FASTENER PLACEMENT*** ***SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-113***

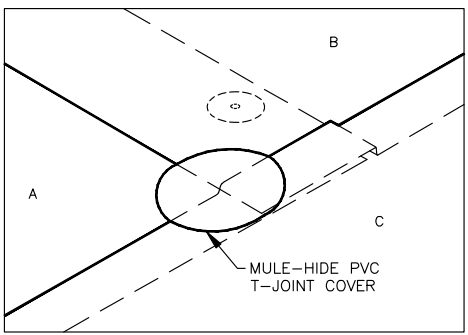
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.



POSITION SHEETS AND HOT AIR WELD THE MEMBRANE A MINIMUM OF 1–1/2".

.050" (1.270 mm) OR .060" (1.524 mm) THICK MEMBRANES



INSTALL A MULE–HIDE PVC T–JOINT COVER CENTERED OVER SPLICE INTERSECTION ("T–JOINT") AS SHOWN.

.080" (2.032 mm) THICK MEMBRANE ONLY

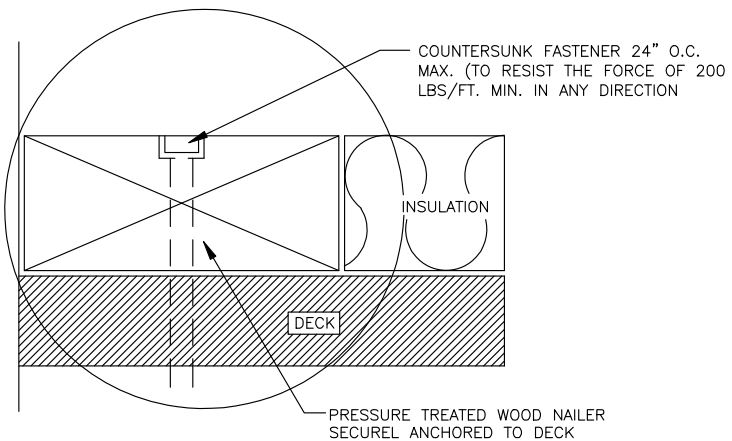
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SEAM INTERSECTION**	**DETAIL NO:**
	SYSTEMS:	**MHP-114**
	MECHANICALLY FASTENED PVC	

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THE APPROPRIATE METHOD TO SECURE THE WOOD NAILER, SO AS TO MEET MULE–HIDE SPECIFICATIONS AND COMPLY WITH CURRENT FM LOSS PREVENTIONS DATA SHEET I–49.

3. SUBSTRATE STRUCTURE TO WHICH NAILER IS ATTACHED MUST BE ABLE TO RESIST A FORCE OF 200 LBS/FT. MINIMUM IN ALL DIRECTIONS.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**WOOD NAILER ATTACHMENT SYSTEMS: ALL PVC**	**DETAIL NO: MHP-100**

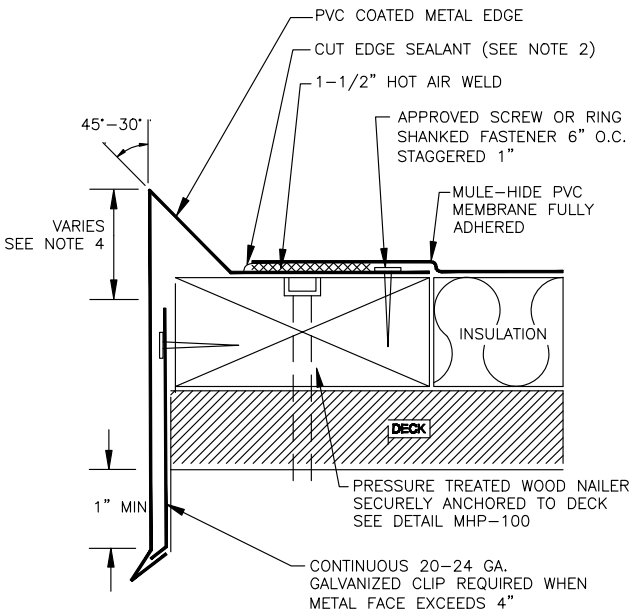
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FOR COATED METAL JOINT SEE MULE–HIDE DETAIL MHP–109.

4. APPLICATOR/SPECIFIER TO DETERMINE HEIGHT REQUIRED TO PREVENT WATER FROM CASCADING OVER BUILDING EDGE.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PVC COATED METAL GRAVEL STOP SYSTEMS: FULLY ADHERED PVC**	**DETAIL NO: MHP-101**

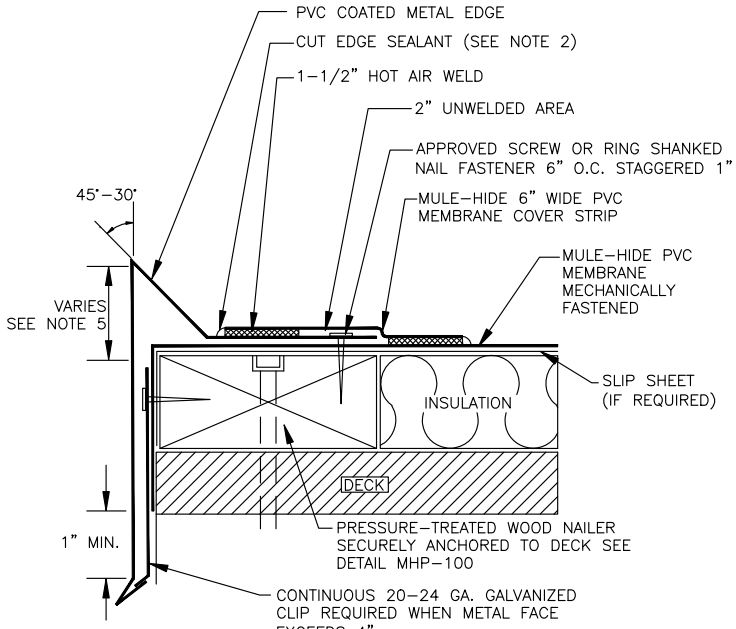
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FOR COATED METAL JOINT, SEE DETAIL MHP-109.

4. PRECAUTIONS MUST BE TAKEN TO ASSURE THAT THE MINIMUM 6" WIDE MEMBRANE COVER STRIP IS NOT WELDED SOLID. A 2" WIDE UNWELDED AREA MUST BE MAINTAINED BETWEEN THE 2 WELDED EDGES OF THE COVER STRIP.

5. APPLICATOR/SPECIFIER TO DETERMINE HEIGHT REQUIRED TO PREVENT WATER FROM CASCADING OVER BUILDING EDGES.

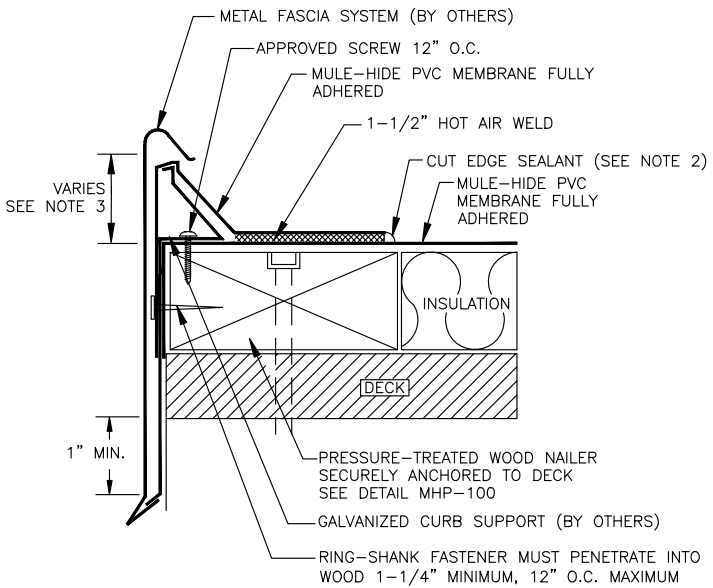


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	PVC COATED GRAVEL STOP SYSTEMS: MECHANICALLY FASTENED PVC	DETAIL NO: MHP-102

NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. APPLICATOR/SPECIFIER TO DETERMINE HEIGHT REQUIRED TO PREVCENT WATER FROM CASCADING OVER BUILDING EDGE.

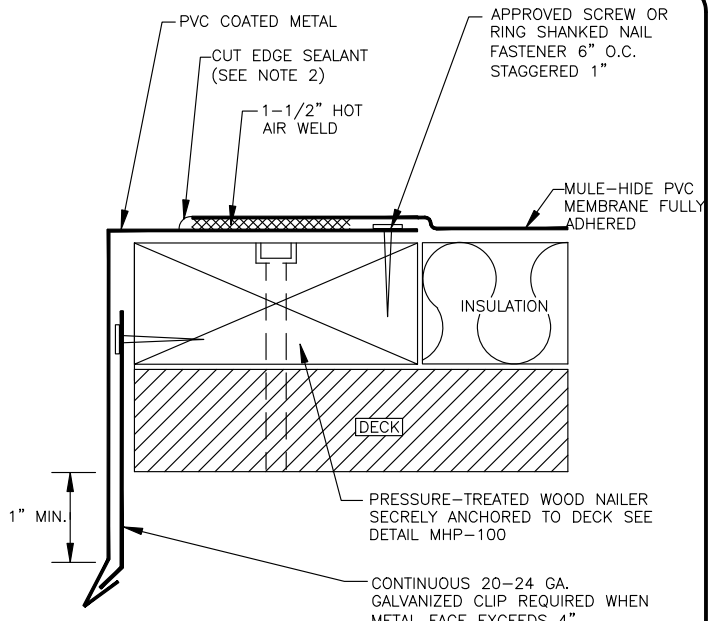


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	SNAP-ON FASCIA (BY OTHERS) SYSTEMS: FULLY ADHERED PVC	DETAIL NO: MHP-103

NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FOR COATED METAL JOINT, SEE DETAIL MHP–109



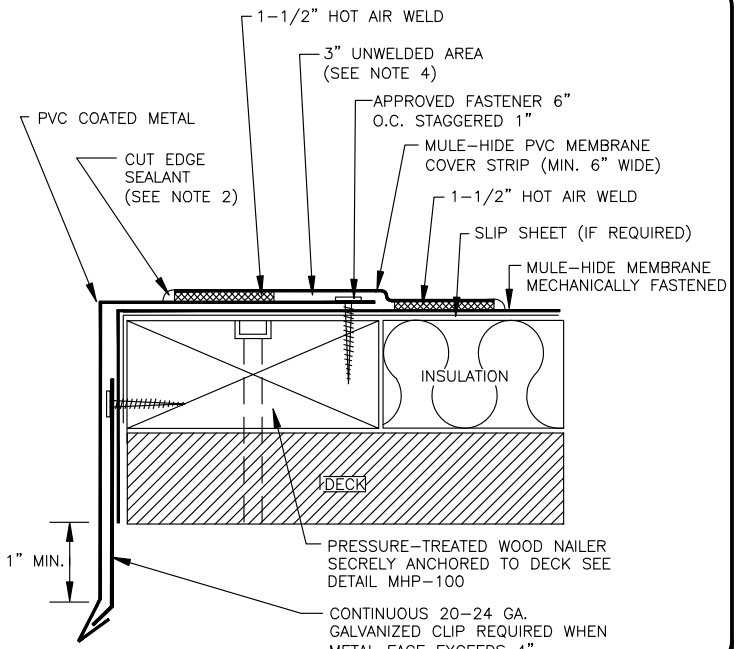
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	DRIP EDGE SYSTEMS: FULLY ADHERED PVC	DETAIL NO: MHP-104

NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

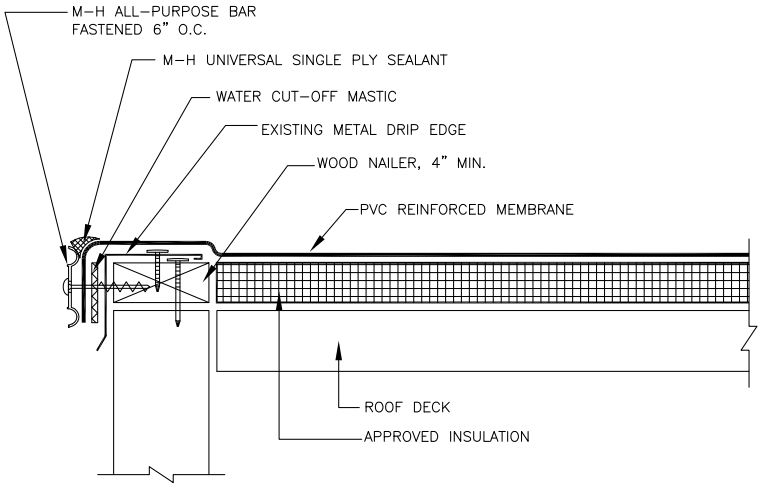
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FOR COATED METAL JOINT, SEE DETAIL MHP–109.

4. PRECAUTIONS MUST BE TAKEN TO ASSURE THAT THE MINIMUM 6" WIDE MEMBRANE COVER STRIP IS NOT WELDED SOLID. A 3" WIDE UNWELDED AREA MUST BE MAINTAINED BETWEEN THE 2 WELDED EDGES OF THE COVER STRIP.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**DRIP EDGE SYSTEMS: MECHANICALLY FASTENED PVC**	**DETAIL NO: MHP-105**



NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

MULE-HIDE PRODUCTS CO., INC.	**EDGE TERMINATION ALL-PURPOSE BAR** **SYSTEMS:** **ALL RECOVER PVC SYSTEMS**	**DETAIL NO.:** **MHP-105A** REVISION DATE: 01/2013

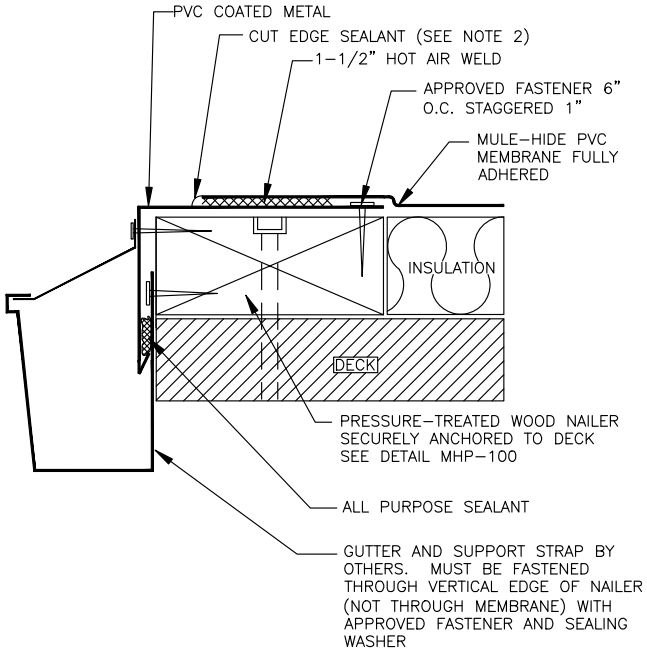
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

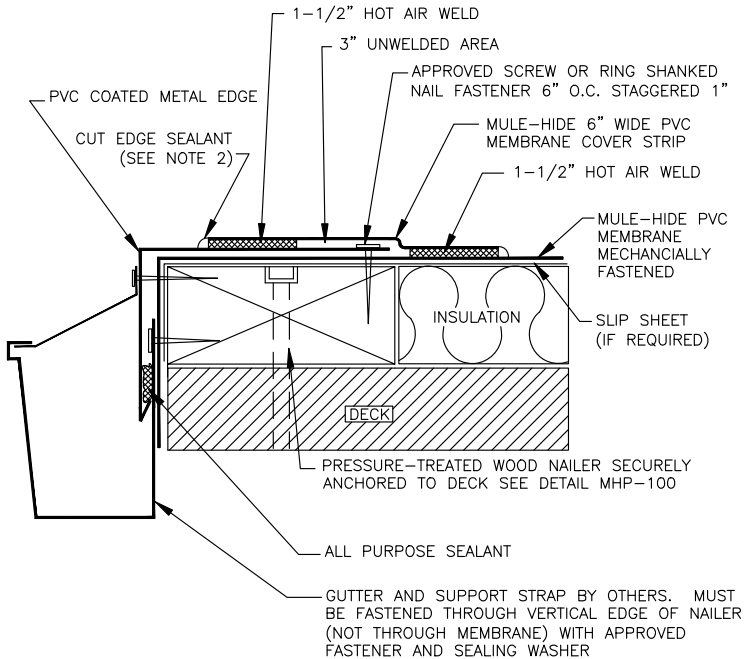
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FOR COATED METAL JOINT SEE MULE–HIDE DETAIL MHP–109.

4. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THE APPROPRIATE GUTTER DESIGN AND SECUREMENT METHOD.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**GUTTER TERMINATION SYSTEMS: FULLY ADHERED PVC**	**DETAIL NO: MHP-106**



NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

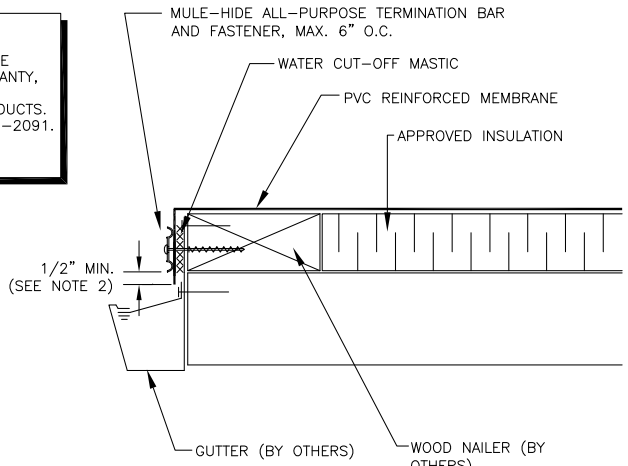
3. FOR COATED METAL JOINT SEE MULE–HIDE DETAIL MHP–109.

4. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THE APPROPRIATE GUTTER DESIGN AND SECUREMENT METHOD.

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**GUTTER TERMINATION SYSTEMS: MECHANICALLY FASTEND PVC**	**DETAIL NO: MHP-107**

NOTE:

IF SHEETMETAL IS TO BE INCLUDED IN THE WARRANTY, CONTRACTOR MUST USE MULE–HIDE METAL PRODUCTS. REFER TO DETAIL MHSM–2091.



NOTES:

1. FASTENING OF ALL–PURPOSE BAR MUST PROVIDE CONSTANT COMPRESSION ON WATER CUT–OFF MASTIC.
2. ALL PURPOSE BAR IS INSTALLED WITH "BUMPS" DOWN, FACING THE MEMBRANE.
3. ALLOW MEMBRANE SHEET TO EXTEND 1/2" MINIMUM BELOW ALL–PURPOSE BAR TO ENSURE FASTENER PENETRATION THROUGH SCRIM REINFORCEMENT.

NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

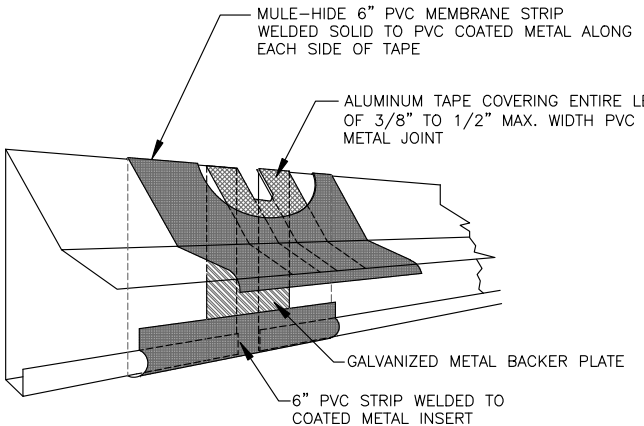
MULE-HIDE PRODUCTS CO., INC.	**ALL - PURPOSE BAR EDGE TERMINATION** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-107A** REVISION DATE: 10/2013

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. A HEAT GUN WILL FACILITATE WELDING AT THE METAL BENDS



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**COATED METAL BUTT JOINT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-108**

NOTES:

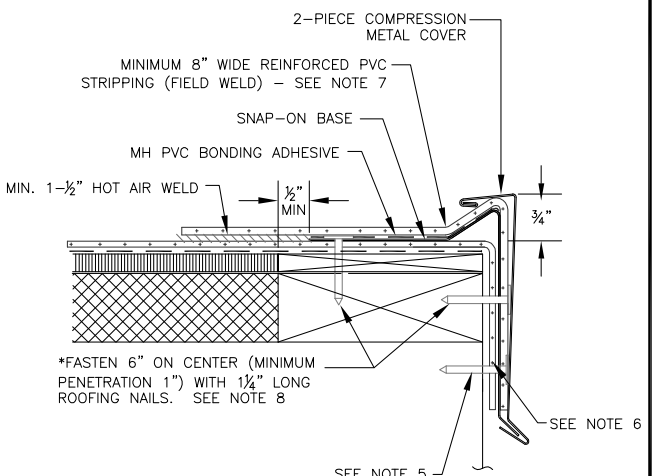
1. THE USE OF THIS DETAIL IS NOT TO EXCEED A 2" PER 12" SLOPE.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER IS TO BE FLUSH WITH TOP OF INSULATION. BE SURE THAT THE WOOD NAILER EXTENDS AT LEAST ½" BEYOND THE HORIZONTAL EDGE OF THE SNAP–ON BASE.
3. THE FASTENERS USED TO ATTACH THE BASE TO WOOD NAILERS, AND THE MEMBRANE TO THE FACE OF THE NAILERS, MUST BE SPACED NO GREATER THAN 6" ON CENTER.
4. ALLOW FOR ⅛" EXPANSION GAP BETWEEN 10' LENGTHS OF SNAP–ON BASE. OVERLAP THE SNAP–ON COVERS 2" BETWEEN 10' LENGTHS.
5. WHEN INSTALLING THIS DETAIL WITH A 6" OR GREATER VERTICAL SURFACE, ADDITIONAL MECHANICAL ATTACHMENT IS REQUIRED ON THE SNAP–ON BASE. THE ADDITIONAL FASTENERS MUST BE WITHIN 1–¾" OF THE BOTTOM EDGE.
6. MEMBRANE SHOULD EXTEND BEYOND WOOD NAILER BY MINIMUM 1"
7. MAXIMUM MEMBRANE STRIPPING THICKNESS ON THIS DETAIL IS:
   - PVC – 50 MIL
8. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY

NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN ALL EXTENDED WARRANTIES AND HIGH WIND ZONES.



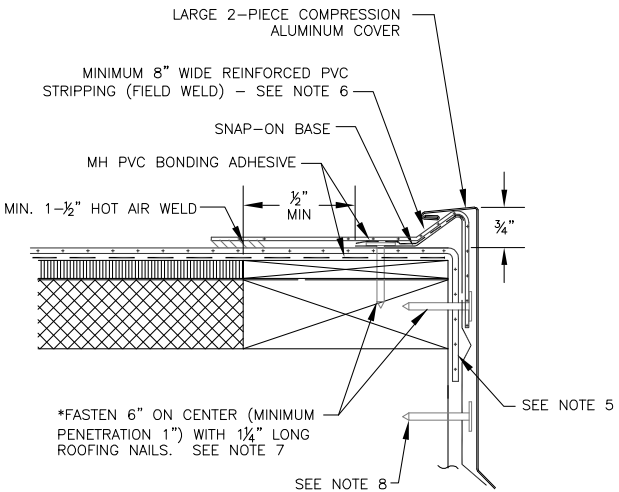
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED 2-PIECE COMPRESSION EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3110** REVISION DATE: 01/2013

NOTES:

1. THE USE OF THIS DETAIL IS NOT TO EXCEED A 2" PER 12" SLOPE.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER IS TO BE FLUSH WITH TOP OF INSULATION. BE SURE THAT THE WOOD NAILER EXTENDS AT LEAST ½" BEYOND THE HORIZONTAL EDGE OF THE SNAP–ON BASE.
3. THE FASTENERS USED TO ATTACH THE BASE TO WOOD NAILERS, AND THE MEMBRANE TO THE FACE OF THE NAILERS, MUST BE SPACED NO GREATER THAN 6" ON CENTER.
4. ALLOW FOR ⅛" EXPANSION GAP BETWEEN 10' LENGTHS OF SNAP–ON BASE. OVERLAP THE SNAP–ON COVERS 2" BETWEEN 10' LENGTHS.
5. MEMBRANE SHOULD EXTEND BEYOND WOOD NAILER BY MINIMUM 1"
6. MAXIMUM MEMBRANE STRIPPING THICKNESS ON THIS DETAIL IS:
   - PVC – 50 MIL
7. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.
8. THE ADDITIONAL FASTENERS MUST BE WITHIN 1–¾" OF THE BOTTOM EDGE.

NOTE:

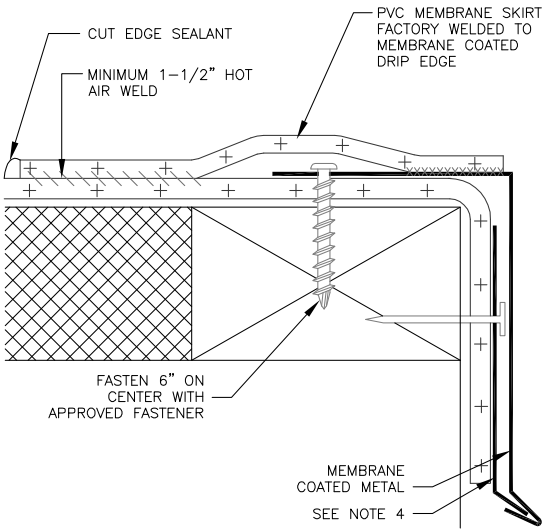
THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED 2-PIECE COMPRESSION LARGE EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3115** REVISION DATE: 01/2013

NOTES:

1. AN OVERLAP OF 1½" WILL BE REQUIRED BETWEEN SECTIONS OF MEMBRANE COATED METAL. A BEAD OF SEALANT IS REQUIRED IN EACH OVERLAP.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION.
3. DRIP EDGE MUST BE FASTENED 6" ON CENTER.
4. A CLEAT MUST BE INSTALLED ON ALL DRIP EDGE WITH A FACE OF 4" OR GREATER. CLEAT MUST BE FASTENED 6" ON CENTER. ALL FASTENERS ON THE CLEAT MUST BE WITHIN 1–¾" OF THE BOTTOM EDGE.
5. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.



NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY ONLY IF THE FORMED DRIP EDGE AND CLEATS ARE MANUFACTURED BY MULE–HIDE.

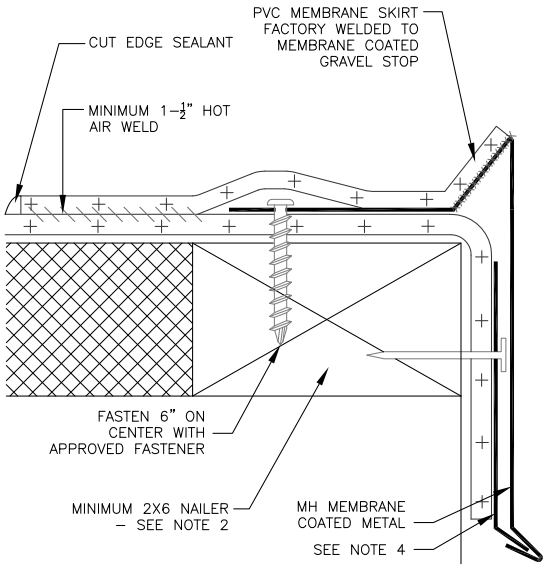
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED MEMBRANE COATED DRIP EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3120** REVISION DATE: 01/2013

NOTES:

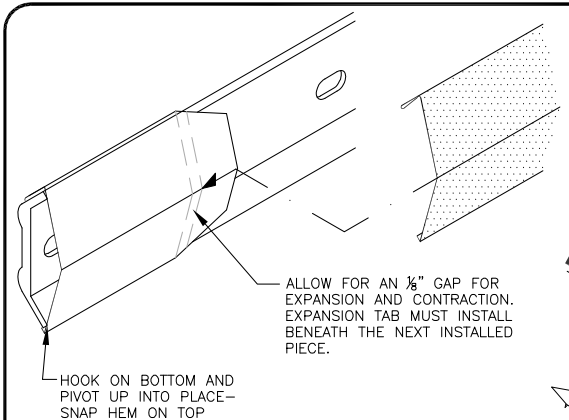
1. AN OVERLAP OF 1½" WILL BE REQUIRED BETWEEN SECTIONS OF MEMBRANE COATED METAL. A BEAD OF SEALANT IS REQUIRED IN EACH OVERLAP.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. CUSTOM GRAVEL STOP PROFILES MUST HAVE MULE–HIDE APPROVAL TO ENSURE PROPER NAILER WIDTH IS INSTALLED.
3. GRAVEL STOP MUST BE FASTENED 6" ON CENTER.
4. A CLEAT MUST BE INSTALLED ON ALL DRIP EDGE WITH A FACE OF 4" OR GREATER. CLEAT MUST BE FASTENED 6" ON CENTER. ALL FASTENERS ON THE CLEAT MUST BE WITHIN 1–¾" OF THE BOTTOM EDGE.
5. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY ONLY IF THE FORMED DRIP EDGE AND CLEATS ARE MANUFACTURED BY MULE–HIDE.

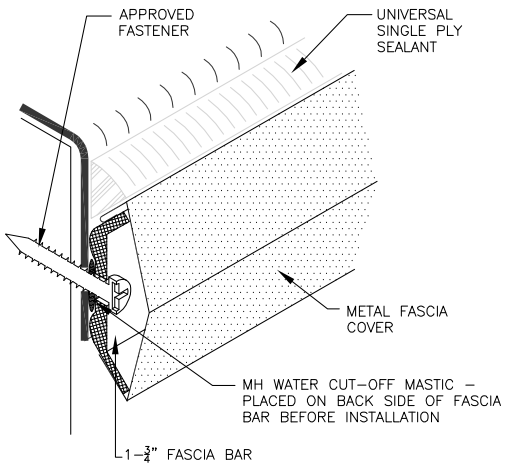


MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED MEMBRANE COATED GRAVEL STOP DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3130** REVISION DATE: 10/2013



NOTE:

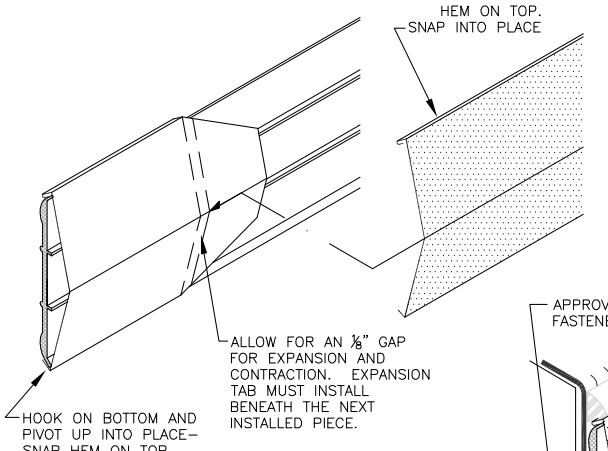
THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



NOTES:

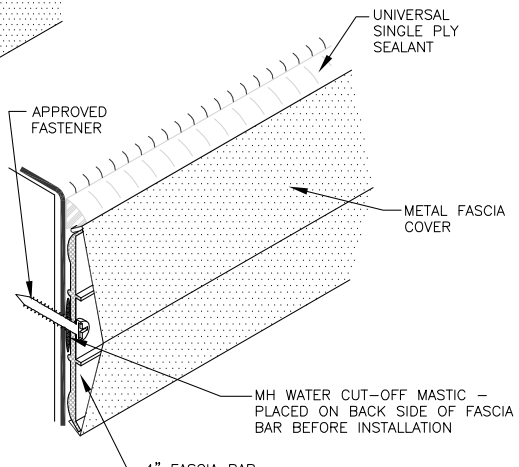
1. JOINTS ON THE FASCIA BAR MUST BE OFFSET BY A MINIMUM OF 12" FROM THE JOINTS IN THE FASCIA COVER.
2. THE FASCIA BAR MUST BE FASTENED 6" ON CENTER.
3. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED 1-3/4" METAL FASCIA SYSTEM** **SYSTEMS:** **ALL SYSTEMS**	**DETAIL NO.:** **MHSM-3500** REVISION DATE: 01/2013



NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



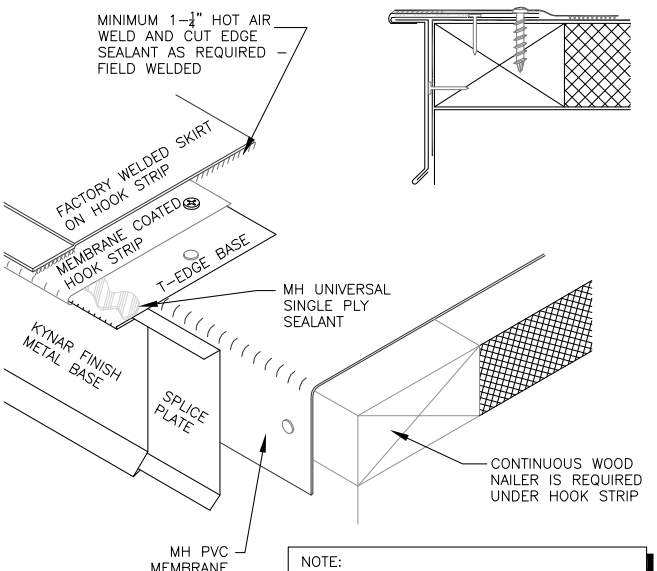
NOTES:

1. JOINTS ON THE FASCIA BAR MUST BE OFFSET BY A MINIMUM OF 12" FROM THE JOINTS IN THE FASCIA COVER.
2. THE FASCIA BAR MUST BE FASTENED 6" ON CENTER
3. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED 4" METAL FASCIA SYSTEM** **SYSTEMS:** **ALL SYSTEMS**	**DETAIL NO.:** **MHSM-3510** REVISION DATE: 01/2013

NOTES:

1. FASTEN THE T–EDGE BASE TO THE WOOD NAILER (ENOUGH TO HOLD IN PLACE) WITH GALVANIZED NAILS. BE SURE TO INSTALL A SPLICE PLATE BEHIND EACH SECTION OF T–EDGE.
2. ATTACH THE MEMBRANE COATED METAL HOOK STRIP TO THE T–EDGE BASE AND FASTEN IT 6" ON CENTER WITH APPROVED FASTENERS. BE SURE THAT THIS ROW OF FASTENERS ALSO PENETRATES THROUGH THE T–EDGE BASE. HOOK STRIPS MUST OVERLAP EACH OTHER BY 1". ALLOW FOR A $\frac{1}{8}$" GAP BETWEEN INDIVIDUAL SECTIONS OF THE T–EDGE BASE. STAGGER THE SEAMS BETWEEN THE BASE AND THE HOOK STRIP 12" MINIMUM.
3. A CONTINUOUS BEAD OF SEALANT IS REQUIRED BETWEEN THE MEMBRANE COATED METAL HOOK STRIP AND THE T–EDGE BASE.
4. A CLEAT IS REQUIRED ON FACES THAT ARE 4" OR GREATER IN SIZE. ALL FASTENERS IN THE CLEAT MUST BE WITHIN $1–\frac{3}{4}$" OF THE BOTTOM EDGE.
5. WELD THE SKIRT OF THE HOOK STRIP TO THE ROOF MEMBRANE.
6. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.



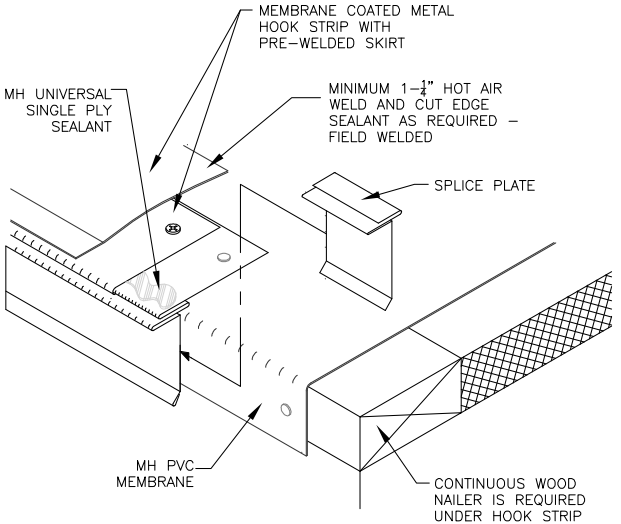
NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY

MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED T-EDGE METAL EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3550** REVISION DATE: 01/2013

NOTES:

1. FASTEN THE T–EDGE BASE TO THE WOOD NAILER (ENOUGH TO HOLD IN PLACE) WITH GALVANIZED NAILS. BE SURE TO INSTALL A SPLICE PLATE BEHIND EACH SECTION OF T–EDGE.
2. ATTACH THE MEMBRANE COATED METAL HOOK STRIP TO THE T–EDGE BASE AND FASTEN IT 6" ON CENTER WITH APPROVED FASTENERS. BE SURE THAT THIS ROW OF FASTENERS ALSO PENETRATES THROUGH THE T–EDGE BASE. HOOK STRIPS MUST OVERLAP EACH OTHER BY 1". ALLOW FOR A $\frac{1}{8}$" GAP BETWEEN INDIVIDUAL SECTIONS OF THE T–EDGE BASE. STAGGER THE SEAMS BETWEEN THE BASE AND THE HOOK STRIP 12" MINIMUM.
3. A CONTINUOUS BEAD OF SEALANT IS REQUIRED BETWEEN THE MEMBRANE COATED METAL HOOK STRIP AND THE T–EDGE BASE.
4. A CLEAT IS REQUIRED ON FACES THAT ARE 4" OR GREATER IN SIZE. ALL FASTENERS ON THE CLEAT MUST BE WITHIN $1\text{–}\frac{3}{4}$" OF THE BOTTOM EDGE.
5. WELD THE SKIRT OF THE HOOK STRIP TO THE ROOF MEMBRANE.
6. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.



NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY

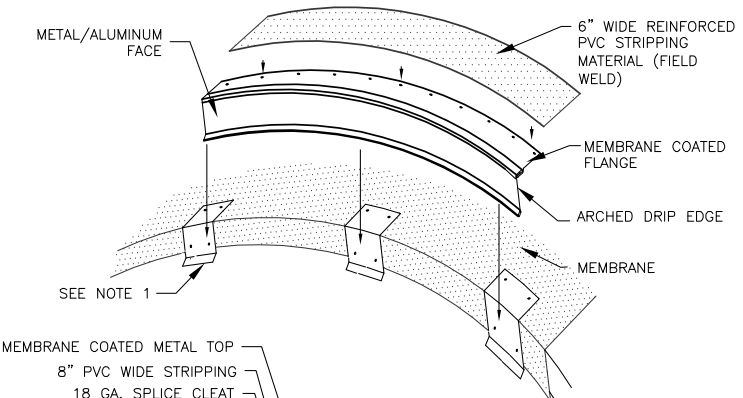
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED T-EDGE PLUS METAL EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3555** REVISION DATE: 01/2013

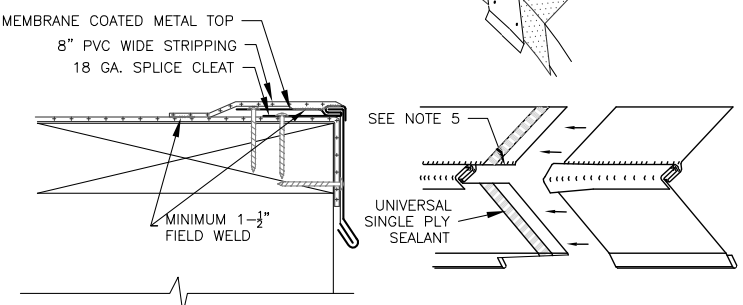
NOTES:

1. SPLICE CLEATS ARE REQUIRED WHEN FACE SIZE IS 4" OR GREATER. SPLICE CLEATS ARE INSTALLED 24" ON CENTER USING FOUR APPROVED FASTENERS. (MUST POSITION A CLEAT AT EACH JOINT)
2. FASTENERS ARE SPACED NO GREATER THAN 6" ON CENTER.
3. WHEN MORE THAN ONE ARCHED DRIP EDGE IS USED, INSTALL THE DRIP EDGE TO SHED WATER DOWN THE ARCH BY CENTERING ONE SECTION AT THE TOP OF THE ARCH.
4. THIS DETAIL REQUIRES THE 8" WIDE STRIPPING TO BE FIELD WELDED.
5. EDGES PRE–NOTCHED FOR AN OVERLAPPED JOINT. APPLY AN APPROVED SEALANT AT ALL JOINTS.
6. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY





MULE-HIDE PRODUCTS CO., INC.

MULE-HIDE PREMANUFACTURED ARCHED DRIP EDGE WITH SPLICE CLEAT

SYSTEMS:

ALL PVC SYSTEMS

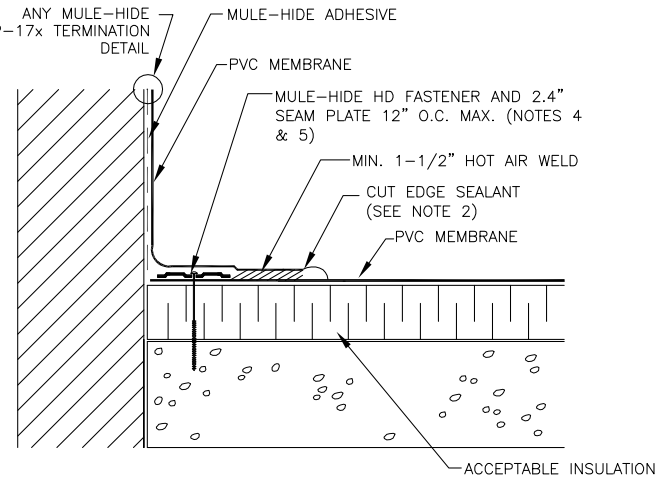
DETAIL NO.:

MHP-6040

REVISION DATE: 01/2013

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION SEAM PLATES 1/2" TO 1" FROM EDGE OF DECK MEMBRANE.
4. SEAM PLATES CAN BE INSTALLED VERTICALLY.
5. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***PARAPET FLASHING SYSTEMS: ALL PVC***	***DETAIL NO: MHP-120***

NOTES:

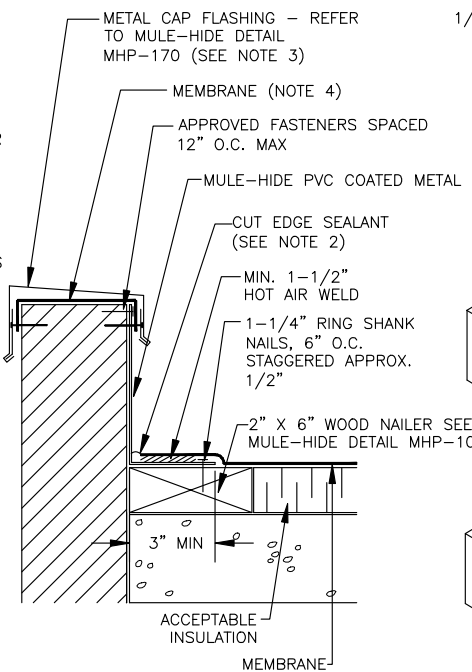
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

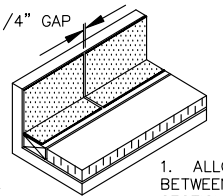
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. A COUNTERFLASHING TERMINATION MAY BE USED IN LIEU OF METAL CAP FLASHING. REFER TO MULE–HIDE DETAIL MHP–171.

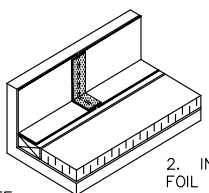
4. PLACE A LAYER OF MULE–HIDE PVC MEMBRANE UNDER THE METAL CAP TO PROTECT AGAINST MOISTURE INFILTRATION AT JOINTS.

5. DUCT TAPE MAY BE SUBSTITUTED FOR FOIL TAPE.

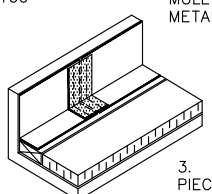




1. ALLOW 1/4" GAP BETWEEN ADJOINING SECTIONS OF MULE–HIDE PVC COATED METAL.



2. INSTALL 2" WIDE FOIL TAPE OR DUCT TAPE OVER JOINT IN MULE–HIDE PVC COATED METAL.



3. HEAT WELD 6" WIDE PIECE OF NON–REINF. PVC MEMBRANE OVER JOINT.

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PVC COATED WALL FLASHING SYSTEMS: ALL PVC**	**DETAIL NO: MHP-121**

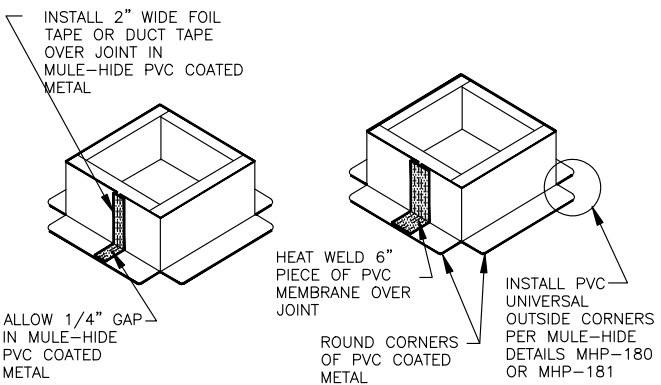
NOTE:

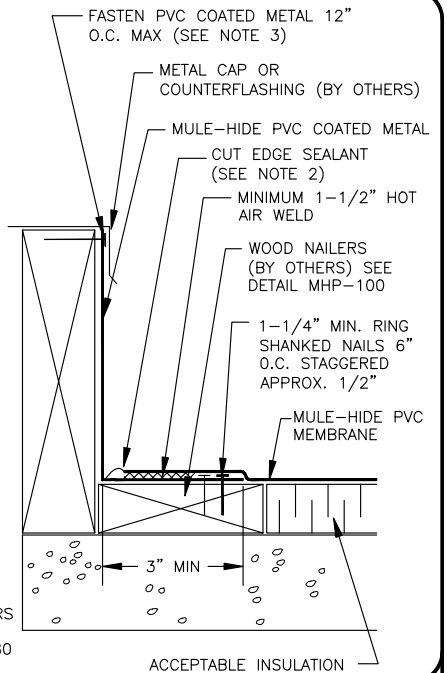
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

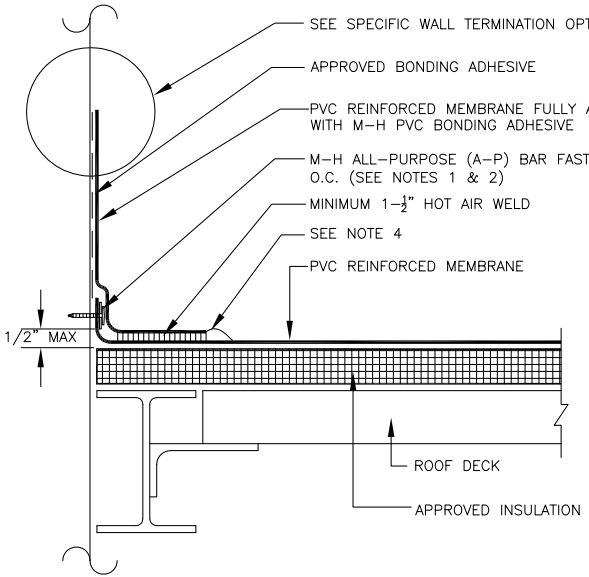
3. PVC COATED METAL FLASHING FASTENED APPROXIMATELY 12" ON CENTER UNDER COUNTERFLASHING. IF FASTENER PENETRATES METAL COUNTERFLASHING, USE NEOPRENE WASHER OR APPLY WATER CUT-OFF MASTIC UNDER COUNTERFLASHING OR CAULK FASTENER HEAD.

4. DUCT TAPE MAY BE SUBSTITUTED FOR FOIL TAPE.





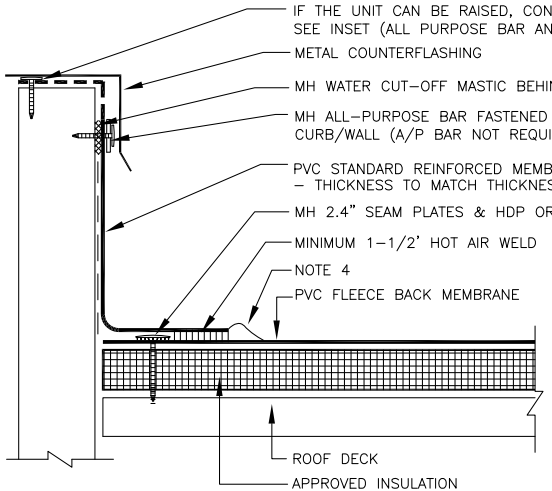
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PVC COATED METAL CURB FLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-123**

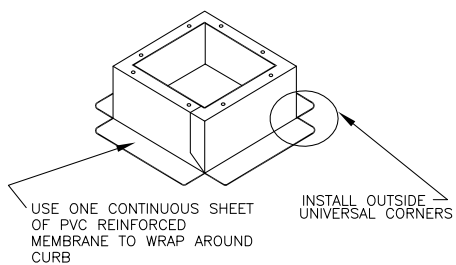


NOTES:

1. USE ONLY WHEN IT IS NOT POSSIBLE TO FASTEN HORIZONTALLY AT BASE OF PARAPET. M–H 2.4" SEAM PLATES MAY BE INSTALLED VERTICALLY AS AN OPTION TO USING THE ALL–PURPOSE BAR. PLATES MUST NOT EXCEED 12" O.C. BOTTOM OF AP BAR OR 2.4" PLATES MUST BE WITHIN 1/2" OF ANGLE CHANGE.
2. WHEN AP BAR IS USED IN LIEU OF 2.4" SEAM PLATES AND HDP OR EHD FASTENERS, THE "BUMPS" ARE INSTALLED UP.
3. WALL FASTENERS MUST ACHIEVE MINIMUM PULLOUT RESISTANCE OF 250 LBS.
4. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
5. ALL EXISTING FLASHINGS AND CANTS MUST BE REMOVED DOWN TO THE SUBSTRATE.

MULE-HIDE PRODUCTS CO., INC.	**BASE ATTACHMENT ALL-PURPOSE BAR** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-124** REVISION DATE: 05/2016





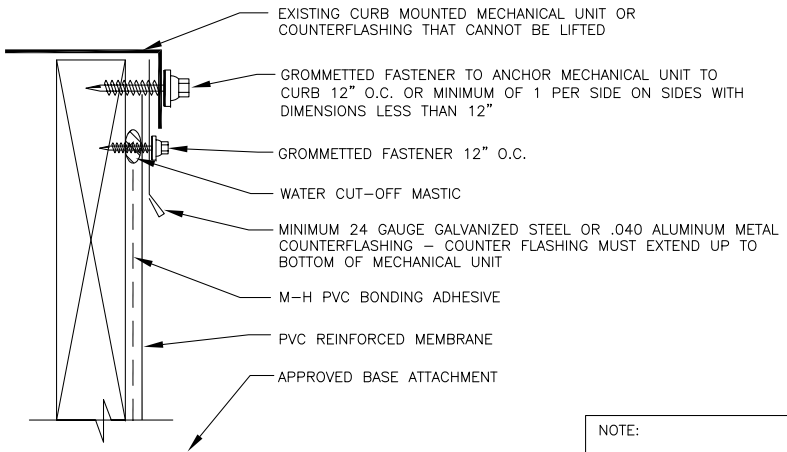
NOTES:

1. ALL FLASHING MUST BE A MINIMUM OF 8" HIGH WHERE POSSIBLE
2. DO NOT COVER WEEP HOLES OR THRU–WALL COUNTERFLASHINGS
3. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

MULE-HIDE PRODUCTS CO., INC.	**CURB / WALL FLASHING WITH M-H ALL-PURPOSE BAR** **SYSTEMS:** **ALL PVC FLEECE BACK**	**DETAIL NO.:** **MHP-UN-125** REVISION DATE: 05/2016



NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

NOTES:

1. ALL FLASHING MUST BE A MINIMUM OF 8" HIGH WHERE POSSIBLE
2. WHEN COUNTERFLASHING IS USED FOR TERMINATION, BONDING ADHESIVE IS NOT REQUIRED WHEN FLASHING HEIGHT IS 12" OR LESS.

MULE-HIDE PRODUCTS CO., INC.	**CURB / WALL FLASHING WITH COUNTERFLASHING** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-126** REVISION DATE: 02/2017

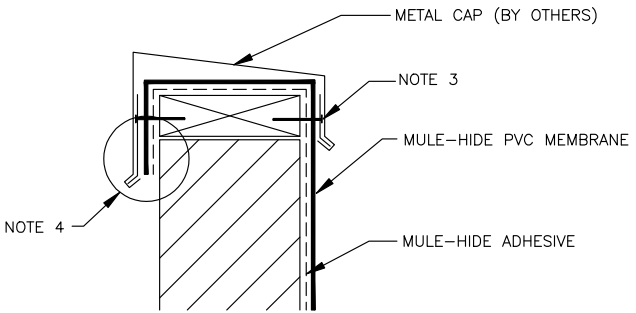
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

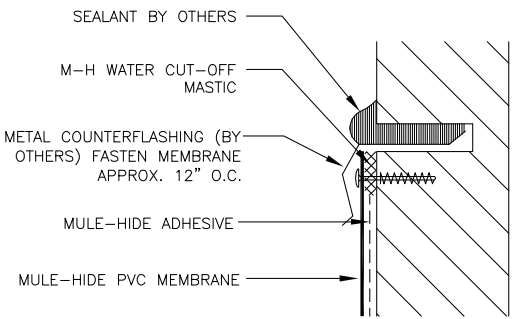
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FACE FASTENING WITH GROMMETTED FASTENERS SPACED 18" O.C. MAX ON INSIDE FACE OF METAL CAP IS ACCEPTABLE IN LIEU OF CONCELED CLIP.

4. OUTSIDE FACE OF METAL CAP AND PVC MEMBRANE TO EXTEND DOWN BELOW BOTTOM EDGE OF WOOD NAILER MINIMUM OF 1–1/2".



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**METAL CAP TERMINATION SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-170**



NOTES:

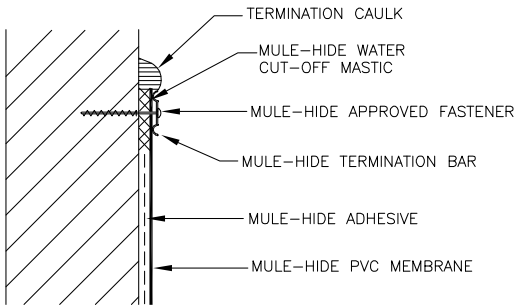
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. COUNTERFLASHING SHALL BE ELEVATED ABOVE PONDED WATER.

4. NOT FOR USE ON 15 OR 20 YEAR WARRANTY PROJECTS (REFER TO MULE–HIDE DETAIL MHP–174).

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**REGLET COUNTERFLASHING TERMINATION**	**DETAIL NO:**
	SYSTEMS:	**MHP-171**
	ALL PVC	



NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FASTENERS OF METAL BAR MUST PROVIDE CONSTANT COMPRESSION ON WATER CUT–OFF MASTIC.

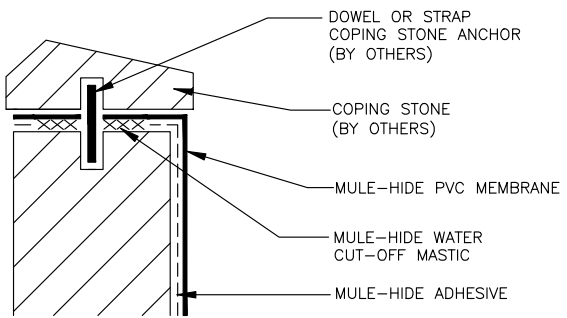
4. ALLOW 1/4" TO 1/2" SPACING BETWEEN CONSECUTIVE LENGTHS OF TERMINATION BAR.

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**TERMINATION BAR** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-172**

NOTES:

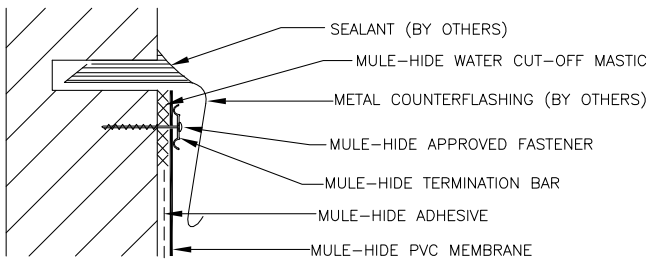
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**COPING STONE SYSTEMS: ALL PVC**	**DETAIL NO: MHP-173**

FOR USE ON 15 AND 20 YEAR WARRANTY PROJECTS. TERMINATION BAR IS NOT REQUIRED ON 10 YEAR WARRANTY PROJECTS (REFER TO MULE–HIDE DETAIL MHP–171)



NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. APPLY ON HARD SMOOTH SURFACE ONLY; NOT FOR USE ON WOOD.

4. DO NOT WRAP COMPRESSION TERMINATION AROUND CORNERS.

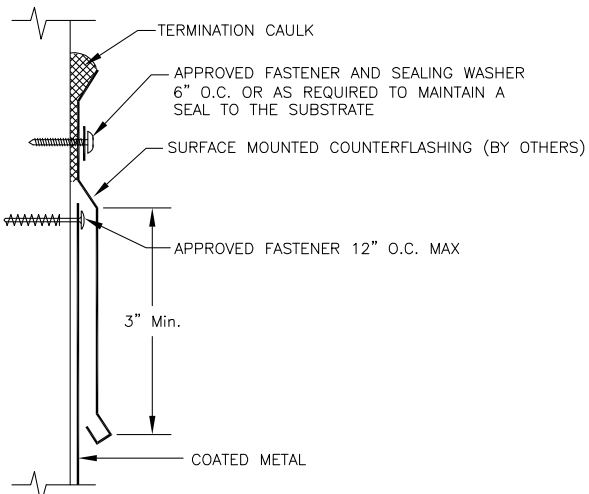
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**15 AND 20 YEAR WARRANTY MECHANICAL TERMINATION** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-174**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIP SHEETS, ETC.

2. SURFACE MOUNTED COUNTERFLASHING MUST BE INSTALLED TO HARD, SMOOTH NON–POROUS SUBSTRATE.

3. DO NOT APPLY ALL PURPOSE SEALANT OVER ASPHALT OR OTHER MATERIALS THAT WILL PREVENT PROPER ADHESION.



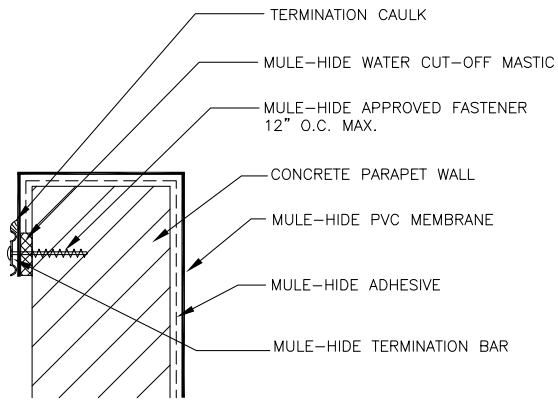
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SURFACE MOUNTED METAL COUNTERFLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-175**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. MEMBRANE TO EXTEND OUNTO OUTSIDE FACE OF WALL MINIMUM OF 2" TO PREVENT SPALLING OF CONCRETE WHILE DRILLING.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**CONCRETE PARAPET WALL WITH TERMINATION BAR** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-176**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. REMOVE ALL LEAD AND OTHER FLASHING.

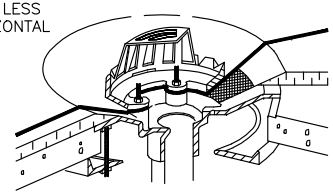
4. ALL BOLTS AND CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT–OFF MASTIC.

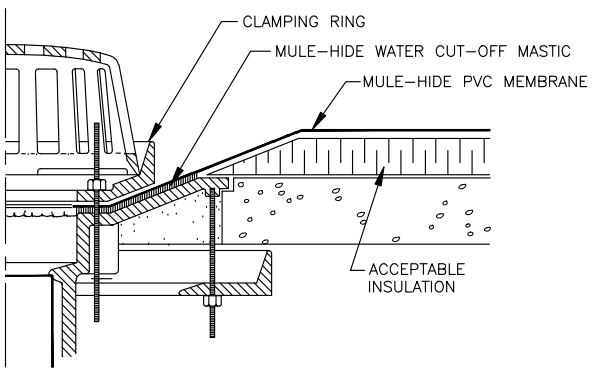
5. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.

6. FOR DRAIN SUMPS WITH SLOPES GREATER THAN 3" IN 12" REFER TO MULE–HIDE DETAIL MHP–131 OR MHP–132.

7. IT IS PREFERRED TO LOCATE SPLICES AT LEAST 6" OUTSIDE DRAIN SUMP. IF SPLICES EXTEND UNDER CLAMPING RING, ENTIRE SPLICE OVERLAP MUST BE HOT AIR WELDED.

FOR DRAINS WITH TAPERED INSULATION AT DRAIN SUMP LESS THAN 3 INCHES TO 1 HORIZONTAL FOOT

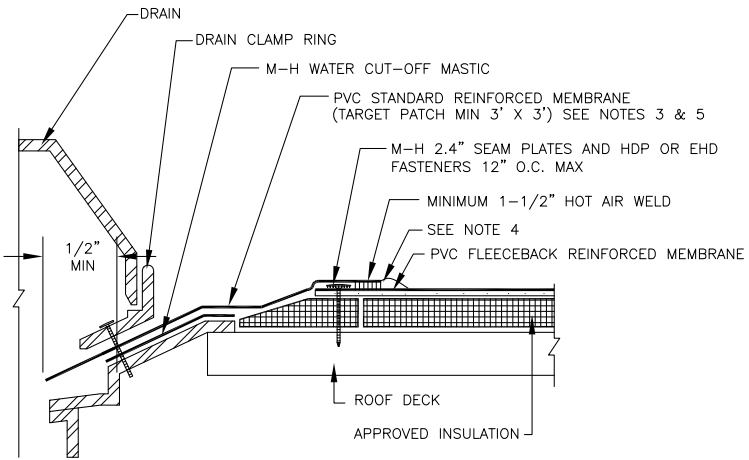




MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED LESS THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-130**

NOTES:

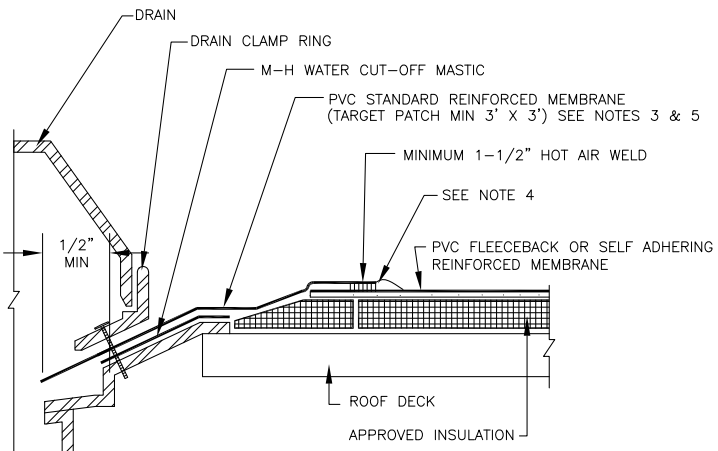
1. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
2. THE CLAMPING RING BOLT MUST PENETRATE THE MEMBRANE.
3. ALL FLASHINGS ON A PVC FLEECEBACK PROJECT MUST BE CONSTRUCTED WITH STANDARD REINFORCED PVC MEMBRANE.
4. APPROXIMATELY 1/8" BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
5. THICKNESS OF STANDARD PVC MEMBRANE TO MATCH THICKNESS OF FLEECEBACK PVC MEMBRANE.



MULE-HIDE PRODUCTS CO., INC.	**DRAIN FLASHING WITH TARGET** **SYSTEMS: MECHANICALLY ATTACHED PVC FLEECE BACK**	**DETAIL NO.:** **MHP-MA-130A** REVISION DATE: 05/2016

NOTES:

1. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
2. THE CLAMPING RING BOLT MUST PENETRATE THE MEMBRANE.
3. ALL FLASHINGS ON A PVC FLEECEBACK PROJECT MUST BE CONSTRUCTED WITH STANDARD REINFORCED PVC MEMBRANE.
4. APPROXIMATELY 1/8" BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
5. THICKNESS OF STANDARD PVC MEMBRANE TO MATCH THICKNESS OF FLEECEBACK PVC MEMBRANE.



MULE-HIDE PRODUCTS CO., INC.	**DRAIN FLASHING WITH TARGET** **SYSTEMS: FULLY ADHERED PVC FLEECE BACK**	**DETAIL NO.:** **MHP-FA-130B** REVISION DATE: 05/2016

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

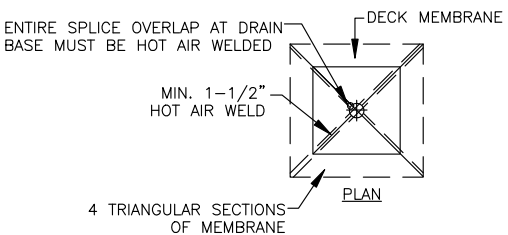
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. EXTEND THE REINFORCED MEMBRANE APPROXIMATELY 5–1/2" OUT OF THE SUMP AREA.

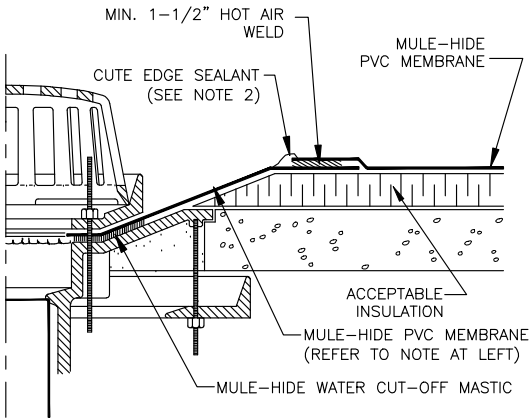
4. REMOVE ALL LEAD AND OTHER FLASHING.

5. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE COMPRESSION ON WATER CUT–OFF MASTIC.

6. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.



FOR DRAINS WITH TAPERED INSULATION AT DRAIN SUMP GREATER THAN 3" TO 1 HORIZONTAL FOOT



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT** **SYSTEMS:** **FULLY ADHERED PVC**	**DETAIL NO:** **MHP-131**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

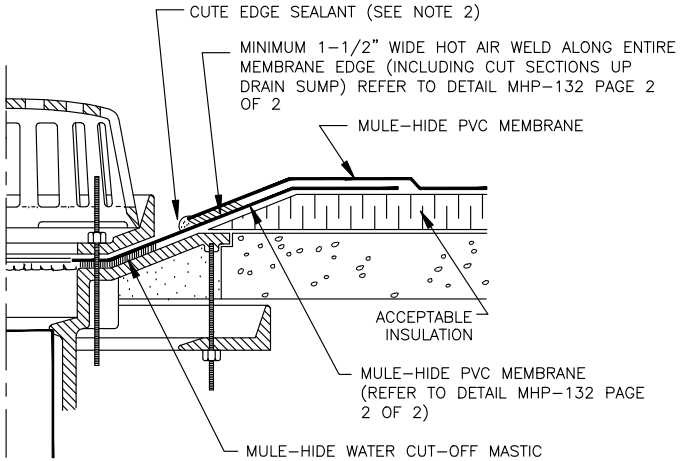
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. REMOVE ALL LEAD AND OTHER FLASHING.

4. ALL DRAIN BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE COMPRESSION ON WATER CUT–OFF MASTIC.

5. CUT MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM ATTACHMENT POINTS OF THE CLAMPING RING.

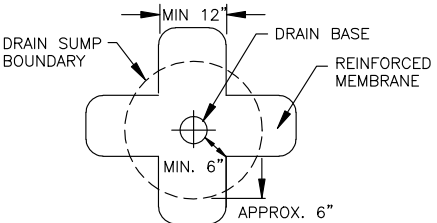
FOR DRAINS WITH TAPERED INSULATION AT DRAIN SUMP GREATER THAN 3" TO 1 HORIZONTAL FOOT

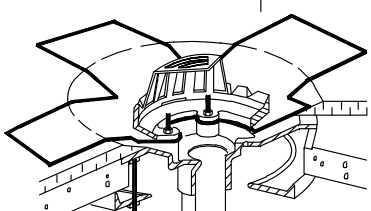


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-132** (PAGE 1 OF 2)

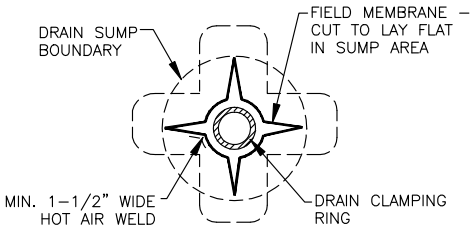
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

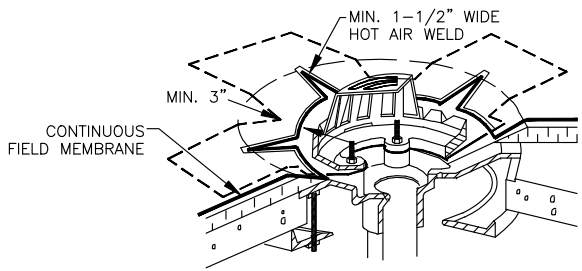
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.





CUT SECTION OF REINFORCED MEMBRANE AS SHOWN AND POSITION INTO DRAIN SUMP. EXTEND MEMBRANE OUT OF DRAIN SUMP APPROXIMATELY 6" AND ROUND CORNERS.



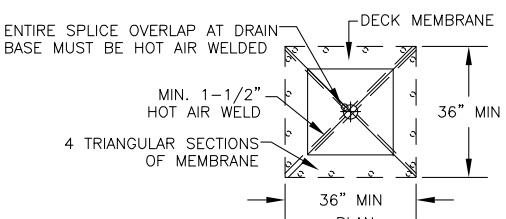


EXTEND FIELD MEMBRANE ONTO MEMBRANE SECTION POSITIONED AT DRAIN SUMP AND CUT AS SHOWN TO LAY FLAT IN SUMP. HOT AIR WELD A MINIMUM OF 1–1/2" COMPLETELY SURROUNDING AREA.

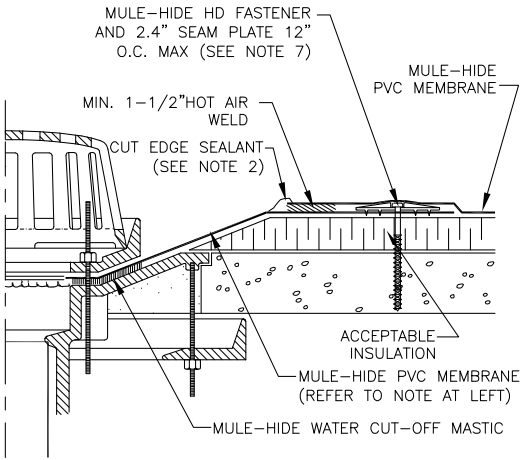
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-132** PAGE 2 OF 2

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. EXTEND THE REINFORCED MEMBRANE APPROXIMATELY 5–1/2" OUT OF THE SUMP AREA.
4. REMOVE ALL LEAD AND OTHER FLASHING.
5. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE COMPRESSION ON WATER CUT–OFF MASTIC.
6. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
7. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



FOR DRAINS WITH TAPERED INSULATION AT DRAIN SUMP GREATER THAN 3" TO 1 HORIZONTAL FOOT

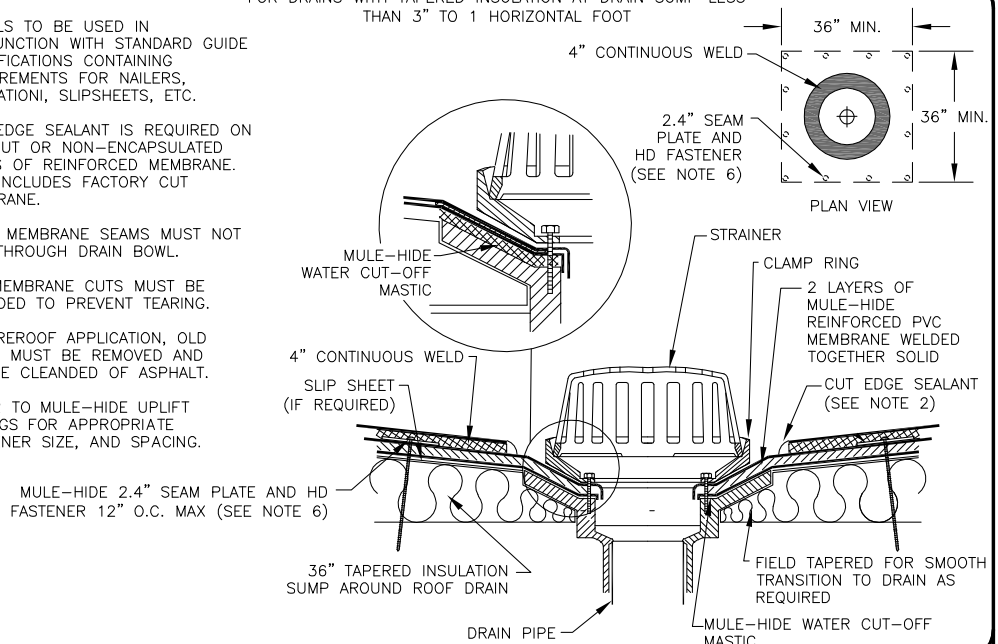


MULE-HIDE PRODUCTS CO., INC. 2010	***ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT*** ***SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-135***

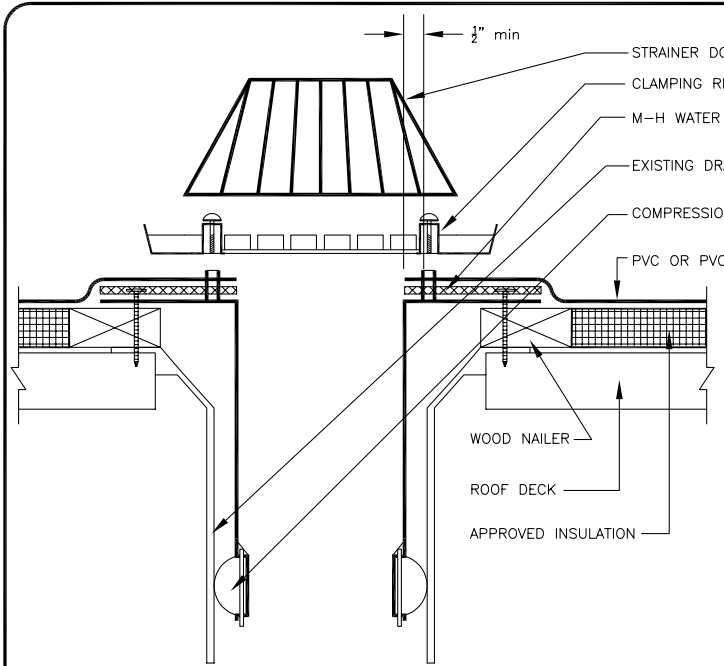
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATIONI, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. FIELD MEMBRANE SEAMS MUST NOT RUN THROUGH DRAIN BOWL.
4. ALL MEMBRANE CUTS MUST BE ROUNDED TO PREVENT TEARING.
5. FOR REROOF APPLICATION, OLD LEADS MUST BE REMOVED AND FLANGE CLEANDED OF ASPHALT.
6. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.

FOR DRAINS WITH TAPERED INSULATION AT DRAIN SUMP LESS THAN 3" TO 1 HORIZONTAL FOOT



MULE-HIDE PRODUCTS CO., INC. 2010	***MECHANICALLY FASTENED TARGET ROOF DRAIN***	***DETAIL NO:***
	SYSTEMS:	***MHP-134***
	MECHANICALLY FASTENED PVC	



NOTES:

1. ALL BOLTS AND CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
2. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
3. FOR DRAIN SUMPS WITH SLOPES GREATER THAN 3" IN 12" REFER TO DETAIL MHP-135.
4. DO NOT LOCATE FIELD SEAM WITHIN THE DRAIN OR DRAIN SUMP. IF FIELD SEAM OCCURs IN DRAIN OR DRAIN SUMP, A TARGET PATCH MUST BE INSTALLED. SEE APPROPRIATE TARGET PATCH DETAIL.

MULE-HIDE PRODUCTS CO., INC.	**RETROFIT ROOF DRAIN COMPRESSION TYPE INSERT** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-137** REVISION DATE: 10/2017

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

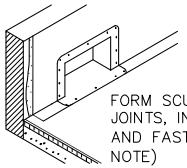
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF DECK FLANGE.

4. INSTALL WALL FLASHING PRIOR TO SCUPPER INSTALLATION.

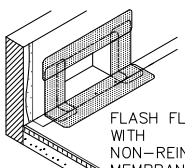
5. DISCONTINUE FASTENING PLATES AT SCUPPER OPENING AS SHOWN.

6. MINIMUM 1–1/2" HOT AIR WELD FROM NAIL HEAD.

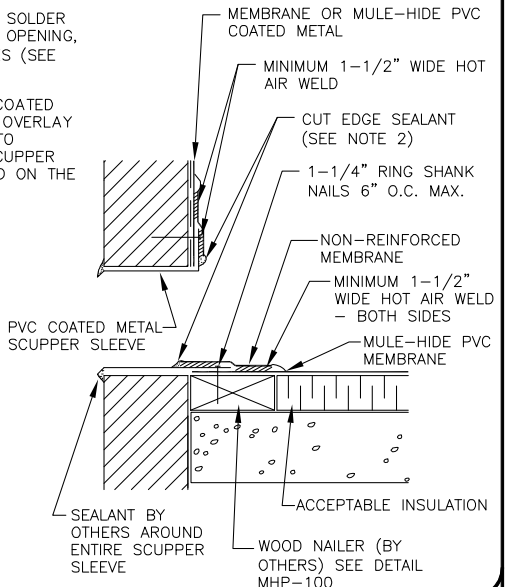


FORM SCUPPER AND SOLDER JOINTS, INSERT INTO OPENING, AND FASTEN FLANGES (SEE NOTE)

NOTE: FORM SCUPPER BOX OF PVC COATED METAL, TAPE THE METAL SEAM, AND OVERLAY WITH FLASHING BEFORE INSERTING INTO SCUPPER OPENING. POSITION THE SCUPPER BOX SO THE METAL SEAM IS LOCATED ON THE TOP OR SIDES OF THE SCUPPER.



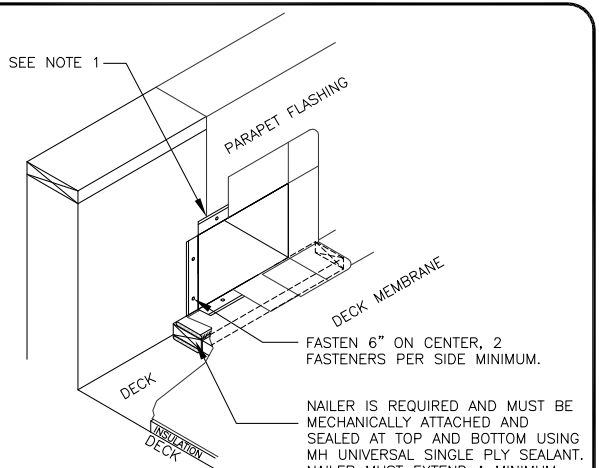
FLASH FLANGES WITH NON–REINFORCED MEMBRANE

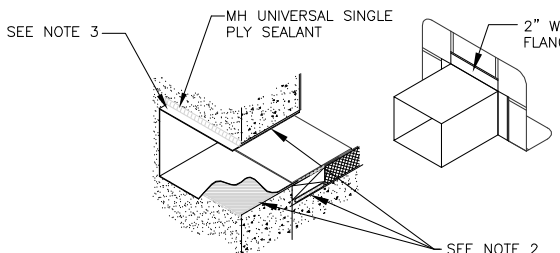


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**(SOLDERED JOINTS) SCUPPER WITH COATED METAL** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-136**

NOTES:

1. BACK–SEAL THE PARAPET FLASHING WITH MH WATER CUT–OFF MASTIC WHERE THE FLANGE IS FASTENED TO THE WALL.
2. APPROVED SEALANT MUST BE APPLIED AROUND THE INTERIOR OF THE SCUPPER BEFORE INSTALLING THE SCUPPER LINER.
3. THIS SINGLE SKIRT SCUPPER CAN BE ORDERED WITHOUT A METAL FLANGE ON THE INSIDE WALL. IN THIS CASE, THE SKIRT MUST BE TERMINATED.
4. SINGLE SKIRT SCUPPER MUST EXTEND 1" BEYOND THE FACE OF THE WALL.
5. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.





NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY

MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED SINGLE SKIRTED SCUPPER DRAINAGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-2061** REVISION DATE: 01/2013

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

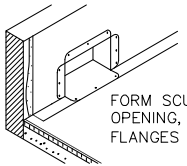
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF DECK FLANGE.

4. INSTALL WALL FLASHING PRIOR TO SCUPPER INSTALLATION.

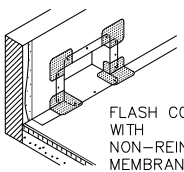
5. DISCONTINUE FASTENING PLATES AT SCUPPER OPENING AS SHOWN.

6. MINIMUM 1–1/2" HOT AIR WELD FROM NAIL HEAD.

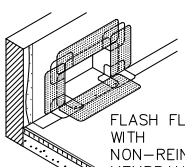


FORM SCUPPER, INSERT INTO OPENING, AND FASTEN FLANGES (SEE NOTE)

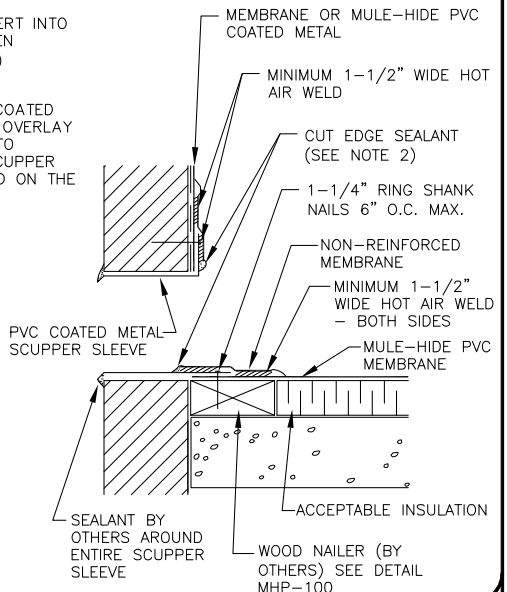
NOTE: FORM SCUPPER BOX OF PVC COATED METAL, TAPE THE METAL SEAM, AND OVERLAY WITH FLASHING BEFORE INSERTING INTO SCUPPER OPENING. POSITION THE SCUPPER BOX SO THE METAL SEAM IS LOCATED ON THE TOP OR SIDES OF THE SCUPPER.



FLASH CORNERS WITH NON–REINFORCED MEMBRANE



FLASH FLANGES WITH NON–REINFORCED MEMBRANE



MULE-HIDE PRODUCTS CO., INC. **04/01/2007**	**SCUPPER WITH COATED METAL** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-133**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. REMOVE ALL LEAD AND OTHER FLASHING.

4. TEMPERATURE OF PIPE MUST NOT EXCEED 180° F.

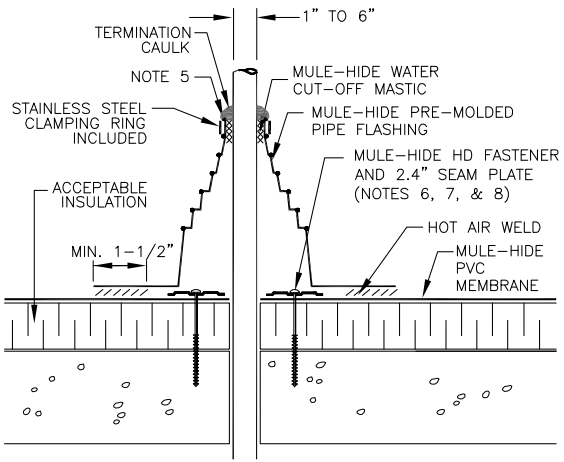
5. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.

6. INSTALL 3 FASTENERS AND SEAM PLATES AROUND PIPE EQUALLY SPACED. FASTENERS MAY ALSO BE POSITIONED MAXIMUM 12" FROM PIPE, FASTENED 12" ON CENTER AND FLASHED WITH MULE–HIDE PVC REINFORCED MEMBRANE.

   FASTENERS/PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18".

7. IF PLATES CANNOT BE INSTALLED AS SHOWN THEY CAN BE POSITIONED OUTSIDE THE PIPE FLASHING FLANGE AND FLASHED WITH 6" WIDE REINFORCED MEMBRANE.

8. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.

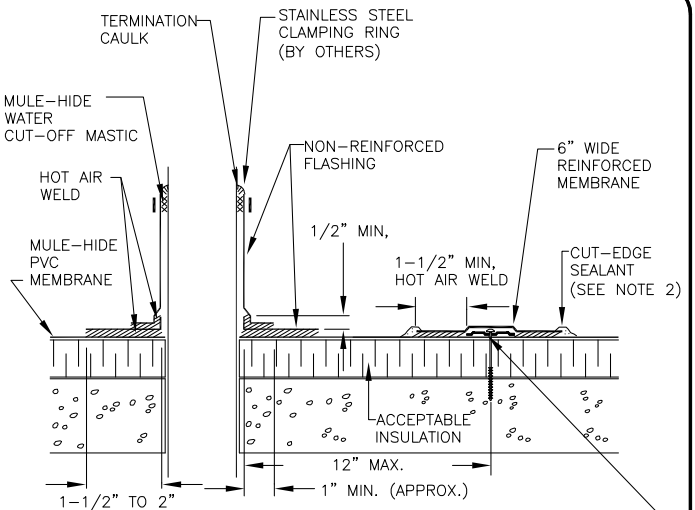


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	***PVC PRE-MOLDED PIPE FLASHING SYSTEMS:*** ***MECHANICALLY ATTACHED PVC***	***DETAIL NO:*** ***MHP-140***

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING FIELD FABRICATED PIPE SEAL.
4. TEMPERATURE OF PIPE MUST NOT EXCEED 180° F.
5. NON–REINFORCED MEMBRANE WRAPPED AROUND PIPE SHALL HAVE MINIMUM 1–1/2" VERTICAL HOT AIR WELD.
6. INSTALL A MINIMUM OF 4 2.4" SEAM PLATES AROUND PIPES WITH A DIAMETER UP TO 6". ADDITIONAL SEAM PLATES WILL BE REQUIRED FOR PIPES GREATER THAN 6" IN DIAMETER AND SHALL BE SPACED 12" ON CENTER MAXIMUM.

   FASTENERS/PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18".
7. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



APPLY HEAT TO FLASHING AND FORM BY HAND PRIOR TO HOT AIR WELDING

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	***FIELD FABRICATED PIPE FLASHING SYSTEMS: FULLY ADHERED AND MECHANICALLY ATTACHED PVC***	***DETAIL NO: MHP-141***

NOTES:

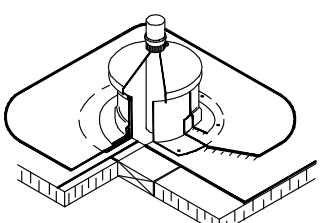
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

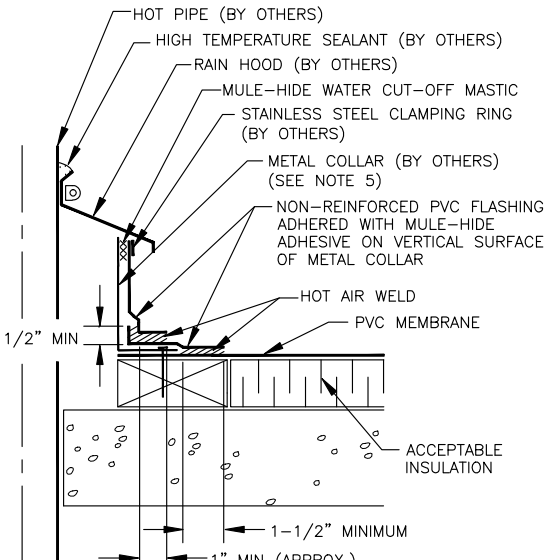
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FIELD–FABRICATED PIPE SEAL FOR USE WITH HOT PIPE, 120° F OR HOTTER.

4. NON–REINFORCED MEMBRANE WRAPPED AROUND PIPE SHALL HAVE MINIMUM 1–1/2" VERTICAL HOT AIR WELD.

5. TEMPERATURE OF METAL COLLAR MUST NOT EXCEED 120° F.





APPLY HEAT TO FLASHING AND FORM BY HAND PRIOR TO HOT AIR WELDING

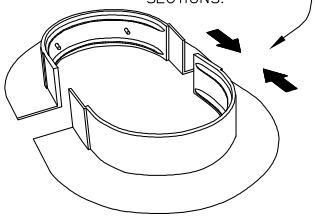
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**FIELD FABRICATED HOT PIPE SYSTEMS: ALL PVC**	**DETAIL NO: MHP-142**

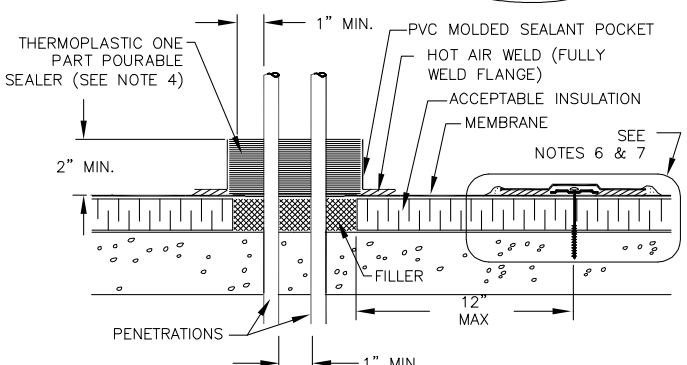
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. TEMPERATURE OF PIPE MUST NOT EXCEED 180° F.
4. FILL POCKET COMPLETELY WITH THERMOPLASTIC ONE PART POURABLE SEALER UNTIL RIM IS COVERED WITH SEALANT; ENSURE ALL VOIDS ARE FILLED.
5. SEALANT POCKET TO BE MINIMUM 1" FROM PENETRATION ON ANY SIDE.
6. ON MECHANICALLY–FASTENED SYSTEMS, INSTALL A MINIMUM OF 4 2.4" SEAM PLATES AROUND SEALANT POCKETS. FASTENERS/PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS.
7. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.

PLACE PVC MOLDED SEALANT POCKET AROUND PENETRATION AND OVERLAP THE TWO SECTIONS.

REFER TO TECHNICAL DATA BULLETIN (TDB) FOR STEP–BY–STEP INSTALLATION PROCEDURES





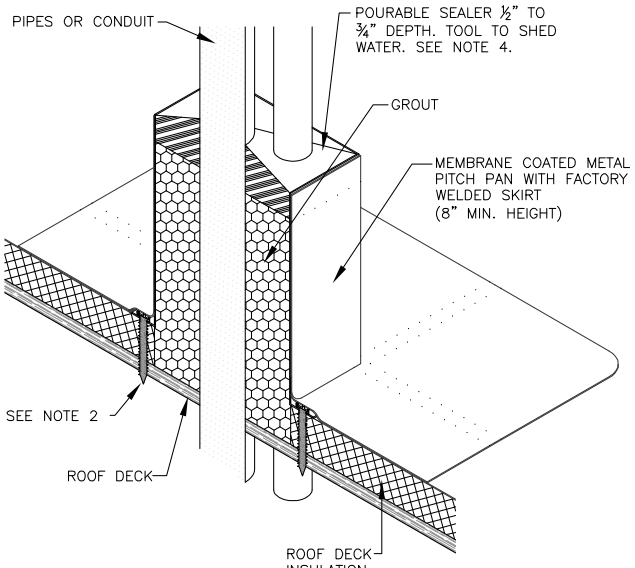
MULE-HIDE PRODUCTS CO., INC. 2010	***MOLDED SEALANT POCKET SYSTEMS: ALL PVC***	***DETAIL NO: MHP-143***

NOTES:

1. WATER MUST NOT BE ALLOWED TO POND WITHIN THE PITCH POCKET. BE SURE THAT THE POURABLE SEALER IS LEVEL WITH THE TOP OF THE PITCH PAN.
2. PITCH PAN MUST BE FASTENED 6" ON CENTER IN FLANGE WITH APPROVED FASTENERS, (1 PER SIDE MIN.).
3. PIPES OR CONDUIT MUST HAVE A MINIMUM 1" CLEARANCE BETWEEN OBJECTS OR THE EDGE OF THE PAN.
4. APPLY TAPE PRIMER TO INSIDE OF PITCH PAN AND OUTSIDE OF SURFACE OF PROJECTION(S) PRIOR FILLING WITH POURABLE SEALER.

NOTE:

THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



MULE-HIDE PRODUCTS CO., INC.

MULE-HIDE PREMANUFACTURED MEMBRANE COATED METAL PITCH PAN

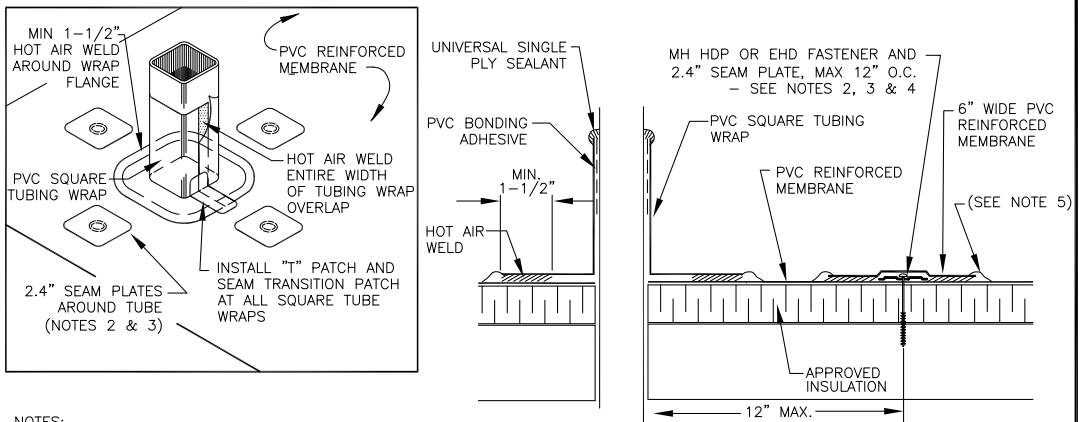
SYSTEMS:

ALL PVC SYSTEMS

DETAIL NO.:

MHP-4045

REVISION DATE: 01/2013



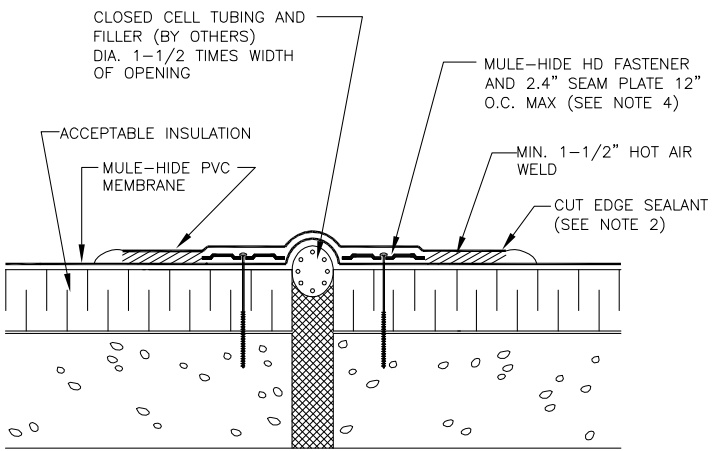
NOTES:

1. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING FIELD FABRICATED PIPE SEAL.
2. ON MECHANICALLY FASTENED SYSTEMS, INSTALL A MINIMUM OF FOUR (4) 2.4" SEAM PLATES AROUND PROJECTIONS WITH A DIMENSION UP TO 6". ADDITIONAL SEAM PLATES WILL BE REQUIRED FOR PROJECTIONS WITH DIAMETERS GREATER THAN 6" AND SHALL BE SPACED 12" ON CENTER MAX.
3. FASTENERS AND SEAM PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PROJECTION DIAMETER EXCEEDS 18".
4. APPROXIMATELY ⅛" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
5. SQUARE TUBING WRAP IS NOT TO BE USED AS A PITCH PAN.

MULE-HIDE PRODUCTS CO., INC.	**PREFABRICATED SQUARE TUBING WRAP** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-144** REVISION DATE: 1/2016

NOTES:

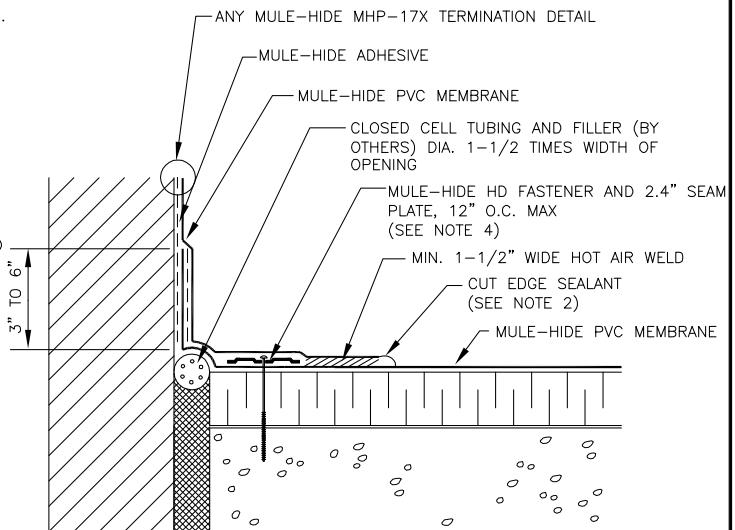
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION SEAM PLATES 1/2" MINIMUM TO 1" MAXIMUM FROM EDGE OF FIELD MEMBRANE.
4. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***EXPANSION JOINT DECK TO DECK***	***DETAIL NO:***
	SYSTEMS:	***MHP-150***
	ALL PVC	

NOTES:

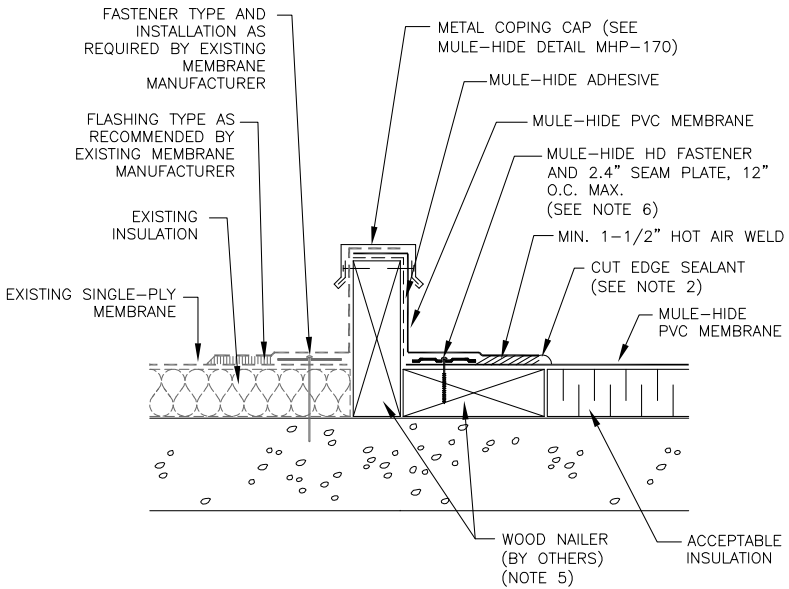
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION SEAM PLATES 1/2" MINIMUM TO 1" MAXIMUM FROM EDGE OF DECK FLANGE.
4. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTNER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***EXPANSION JOINT AT JUNCTION OF DECK AND WALL*** ***SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-151***

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION 2.4" SEAM PLATES 1/2" TO 1" FROM EDGE OF FIELD MEMBRANE.
4. SEAM PLATES CAN BE INSTALLED VERTICALLY.
5. IF A WOOD NAILER IS NOT PRESENT, THE FASTENER MUST ENGAGE THE STRUCTURAL ROOF DECK.
6. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***TIE-IN TO EXISTING SINGLE-PLY SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-160***

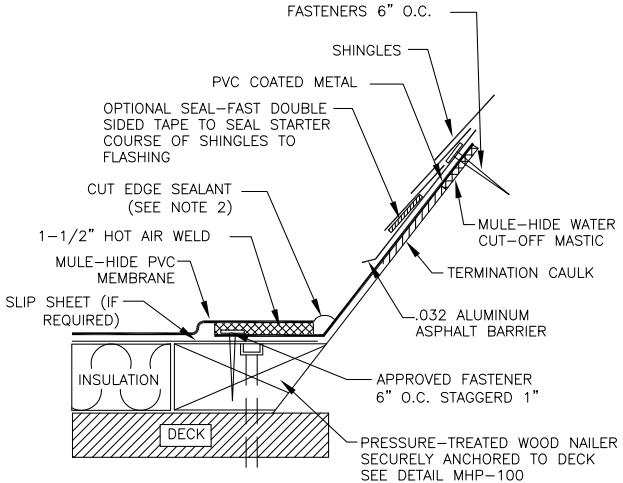
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT EDES OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THE REQUIRED VERTICAL FLASHING HEIGHT BASED ON REGIONAL CLIMATIC CONDITIONS.

4. COATED METAL FLASHINGS MUST EXTEND UNDER A MINIMUM OF TWO (2) COURSES OF SHINGLES.

5. THE ROOFING SHEET MAY BE ATTACHED WITH APPROVED FASTENERS AND PLATES AS A BASE TIE–IN. SEE DETAIL MHP–120.



MULE-HIDE PRODUCTS CO., INC. 10/2016	**COATED METAL TRANSITION TO SHINGLE ROOF** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-161**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

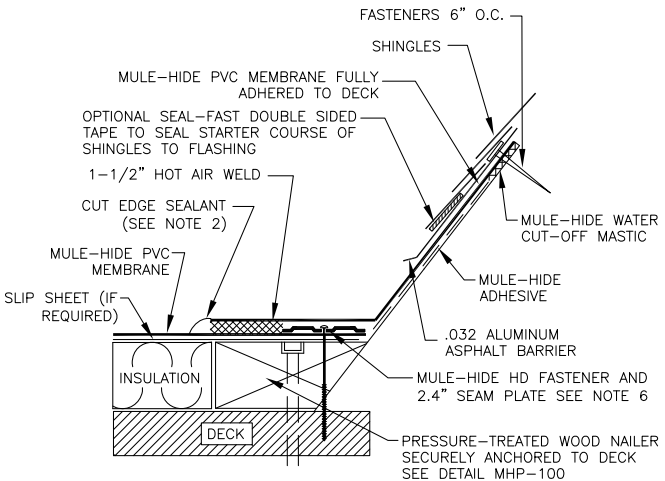
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT EDES OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. ACCORDING TO PROJECT CONDITIONS, THE SPECIFIER AND/OR APPLICATOR MUST DETERMINE THE REQUIRED VERTICAL FLASHING HEIGHT BASED ON REGIONAL CLIMATIC CONDITIONS.

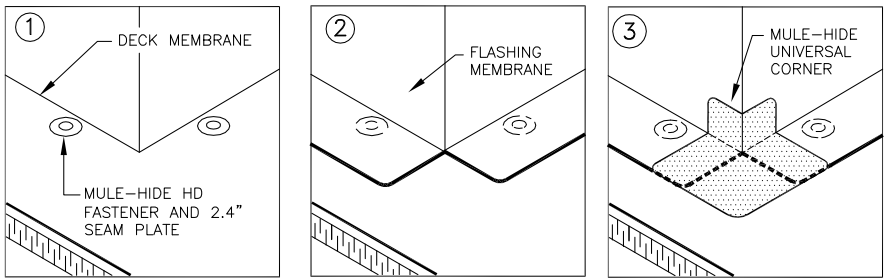
4. COATED METAL FLASHINGS MUST EXTEND UNDER A MINIMUM OF TWO (2) COURSES OF SHINGLES.

5. THE ROOFING SHEET MAY BE ATTACHED WITH APPROVED FASTENERS AND PLATES AS A BASE TIE–IN. SEE DETAIL MHP–120.

6. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



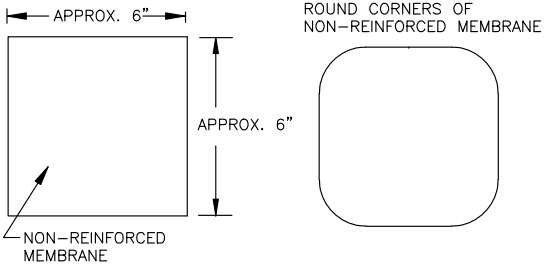
MULE-HIDE PRODUCTS CO., INC. 2010	MEMBRANE FLASHING TRANSITION TO SHINGLE ROOF SYSTEMS: ALL PVC	DETAIL NO: MHP-162

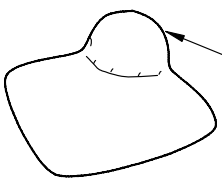


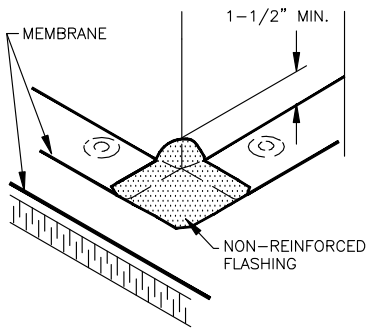
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. BEGIN INSTALLATION OF SEAM PLATES APPROXIMATELY 6" FROM CORNER.
4. POSITION SEAM PLATES 1/2" TO 1" FROM EDGE OF FIELD MEMBRANE.

MULE-HIDE PRODUCTS CO., INC. 2010	***PRE-MOLDED OUTSIDE CORNER SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-180***







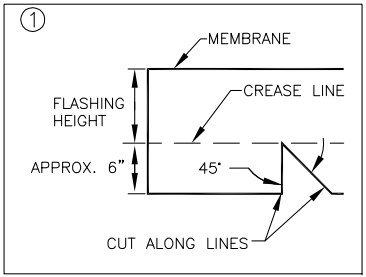
POSITION AND HEAT WELD
CORNER IN PLACE AS SHOWN

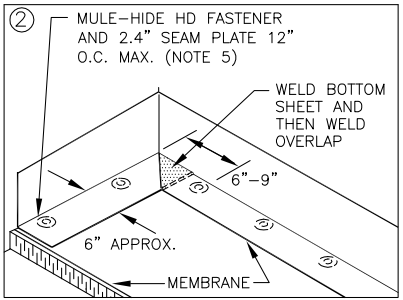
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

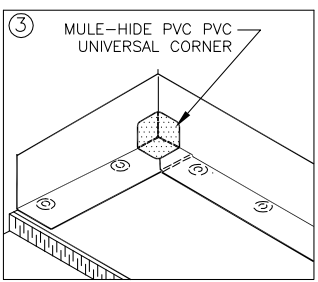
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**FIELD FABRICATED OUTSIDE CORNER** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-181**



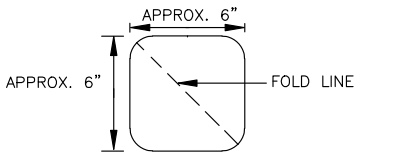


NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. BEGIN INSTALLATION OF SEAM PLATES 6" TO 9" FROM THE CORNER.
4. POSITION SEAM PLATES 1/2" TO 1" FROM EDGE OF MEMBRANE.
5. REFER TO MULE-HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.

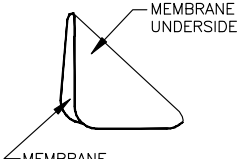


MULE-HIDE PRODUCTS CO., INC. 2010	***PRE-MOLDED INSIDE CORNER FLASHING*** ***SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-182***

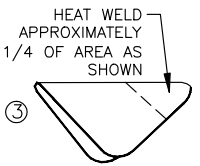


CUT A SECTION OF NON–REINFORCED MEMBRANE WITH ROUNDED CORNERS OR USE INSIDE/OUTSIDE CORNER; FOLD ALONG LINE AS INDICATED

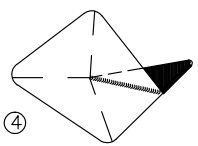
①



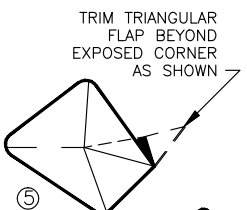
②



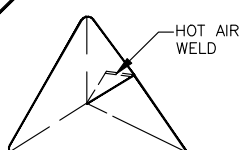
③



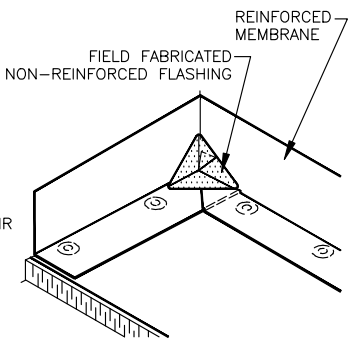
④



⑤



⑥ POSITION AND HEAT WELD CORNER IN PLACE AS SHOWN

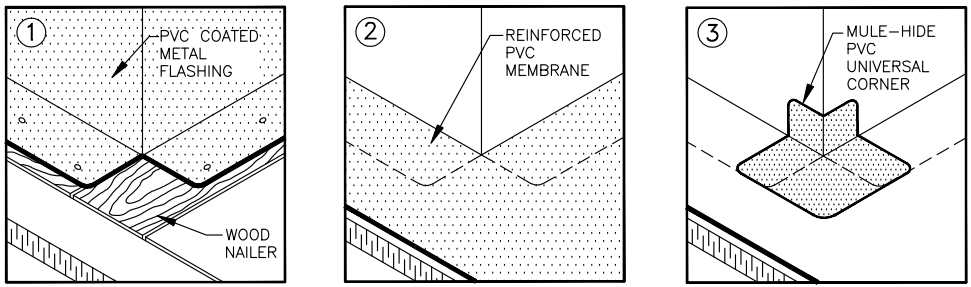


NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**FIELD FABRICATED INSIDE CORNER** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-183**



NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

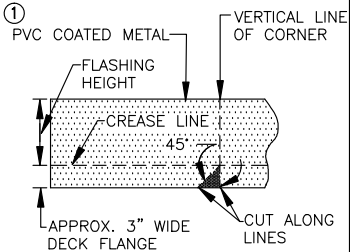
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. FASTEN COATED METAL FLASHING TO WOOD NAILERS USING RINK SHANK NAILS SPACED 6 INCHES O.C., STAGGERED 1/2".

REFER TO MULE–HIDE DETAIL MHP–185 FOR FLASHING VERTICAL JOINTS IN COATED METAL.

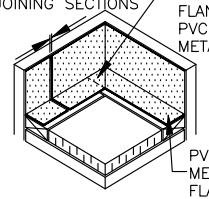
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PRE-MOLDED OUTSIDE CORNER ON COATED METAL WALL FLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-184**

① PVC COATED METAL — VERTICAL LINE OF CORNER — FLASHING HEIGHT — CREASE LINE — 45° — APPROX. 3" WIDE DECK FLANGE — CUT ALONG LINES



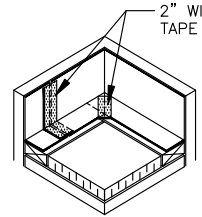
CREASE PVC COATED METAL FLASHING ALONG DASHED LINES AFTER CUTTING AND REMOVING SHADED TRIANGLE.

② 1/4" GAP AT ADJOINING SECTIONS — OVERLAP FLANGE OF PVC COATED METAL — PVC COATED METAL FLASHING



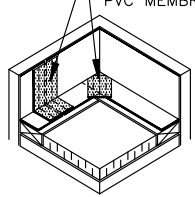
OVERLAP FLANGE AT CORNER AND FASTEN TO WOOD NAILERS USING 1–1/4" RING SHANK NAILS SPACED 6" O.C., STAGGERED 1/2".

③ 2" WIDE FOIL TAPE



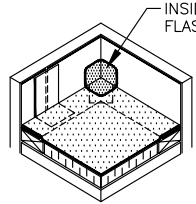
INSTALL 2" WIDE FOIL TAPE OVER VERTICAL JOINT IN PVC COATED METAL AND OVER CUT EDGE AT CORNER AS SHOWN.

④ 6" WIDE NON–REINFORCED PVC MEMBRANE



HEAT WELD 6" WIDE PIECE OF REINFORCED PVC MEMBRANE OVER FOIL TAPE.

⑤ INSIDE CORNER FLASHING



INSTALL PVC FIELD MEMBRANE AND HEAT WELD TO FLANGE OF PVC COATED METAL. ALSO INSTALL INSIDE CORNER FLASHING PER MULE–HIDE DETAILS MHP–182 OR MHP–183.

NOTE:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. DUCT TAPE MAY BE SUBSTITUTED FOR FOIL TAPE.

MULE-HIDE PRODUCTS CO., INC. **04/01/2007**	**INSIDE CORNER WITH COATED METAL WALL FLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-185**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

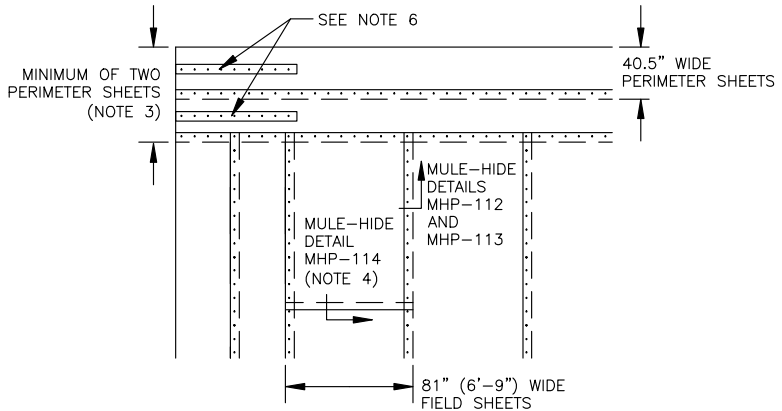
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

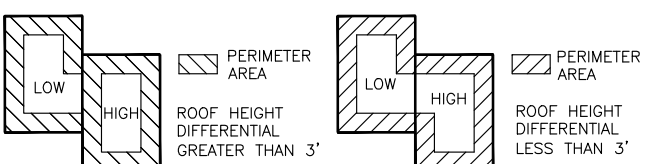
3. REFER TO SPECIFICATIONS FOR REQUIRED NUMBER OF PERIMETER SHEETS AND MEMBRANE FASTENING.

4. SECUREMENT NOT REQUIRED AT END ROLL SECTIONS; OVERLAP MEMBRANE 2" TO 3". REFER TO MULE–HIDE DETAIL MHP–110.

5. FOR INSULATION SECUREMENT, REFER TO MULE–HIDE DETAIL MHP–206.

6. MEMBRANE ATTACHMENT IN CORNERS MUST BE INCREASED ABOVE PERIMETER ATTACHMENT REQUIREMENTS TO COMPENSATE FOR THE HIGHER UPLIFT PRESSURES PRESENT AT BUILDING CORNERS.



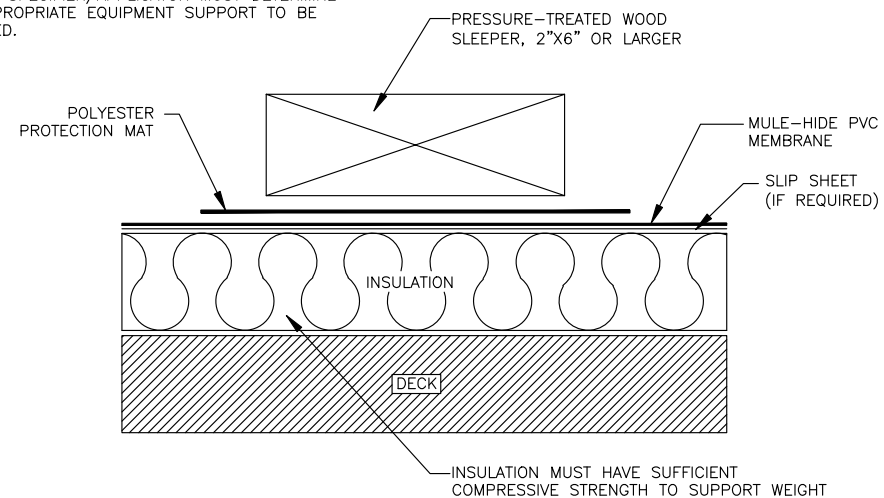


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**MEMBRANE SECUREMENT SYSTEMS:** **MECHANICALLY FASTENED PVC**	**DETAIL NO:** **MHP-186**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. SPECIFIER/APPLICATOR MUST DETERMINE APPROPRIATE EQUIPMENT SUPPORT TO BE USED.



MULE-HIDE PRODUCTS CO., INC. **04/01/2007**	**SLEEPER SUPPORT (LIGHT WEIGHT)** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-191**

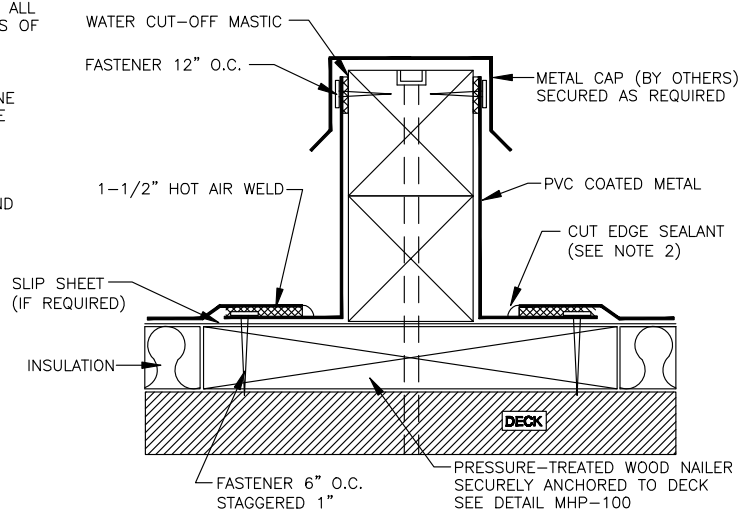
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT EDES OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. SPECIFIER/APPLICATOR MUST DETERMINE APPROPRIATE EQUIPMENT SUPPORT TO BE USED.

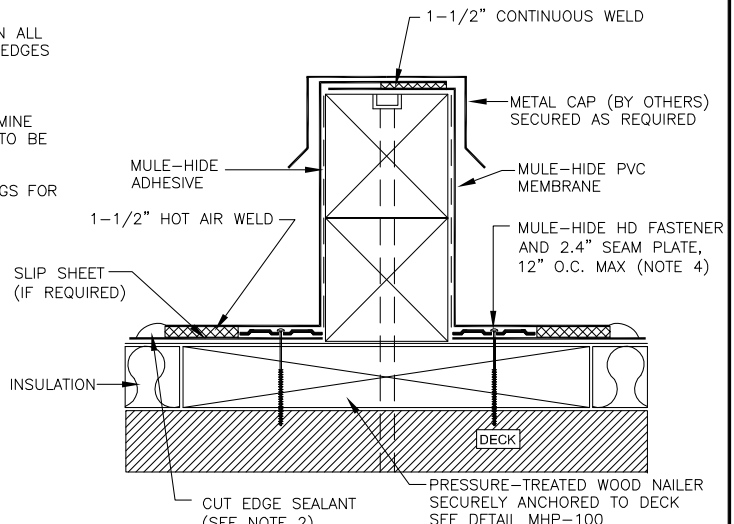
4. WHEN UTILIZING MULE–HIDE PVC MEMBRANE, THE ROOFING SHEET MAY BE ATTACHED WITH APPROVED FASTENERS AND PLATES AS A BASE TIE–IN. SEE DETAIL MHP–120



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	SLEEPER SUPPORT (HEAVY WEIGHT) SYSTEMS: ALL PVC	DETAIL NO: MHP-192

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT EDES OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. SPECIFIER/APPLICATOR MUST DETERMINE APPROPRIATE EQUIPMENT SUPPORT TO BE USED.
4. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



MULE-HIDE PRODUCTS CO., INC. 2010	***SLEEPER SUPPORT (HEAVY WEIGHT)*** ***SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-193***

NOTES:

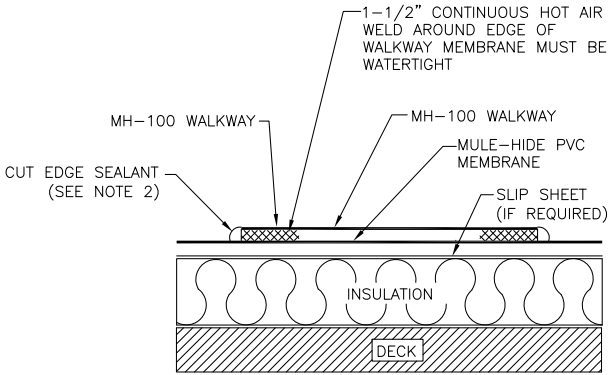
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

3. MH–100 WALKWAY IS NOT INTENDED FOR USE IN HEAVY TRAFFIC AREAS.

4. THE MH–100 WALKWAY MUST NOT BE INSTALLED OVER FIELD SEAMS AND FASTENER ROWS AND MUST BE GAPPED FROM THESE AREAS A MINIMUM OF 6".

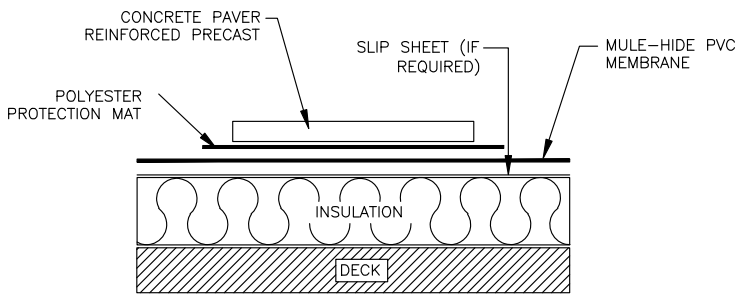
5. ALL ADJACENT AND ABUTTING WALKWAY RUNS MUST BE GAPPED A MINIUM OF 6" AND MUST NOT BE OVERLAPPED.



MULE-HIDE PRODUCTS CO., INC. 10/17/2017	**MH-100 PVC WALKWAY**	**DETAIL NO:**
	SYSTEMS:	**MHP-194**
	ALL PVC	

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.



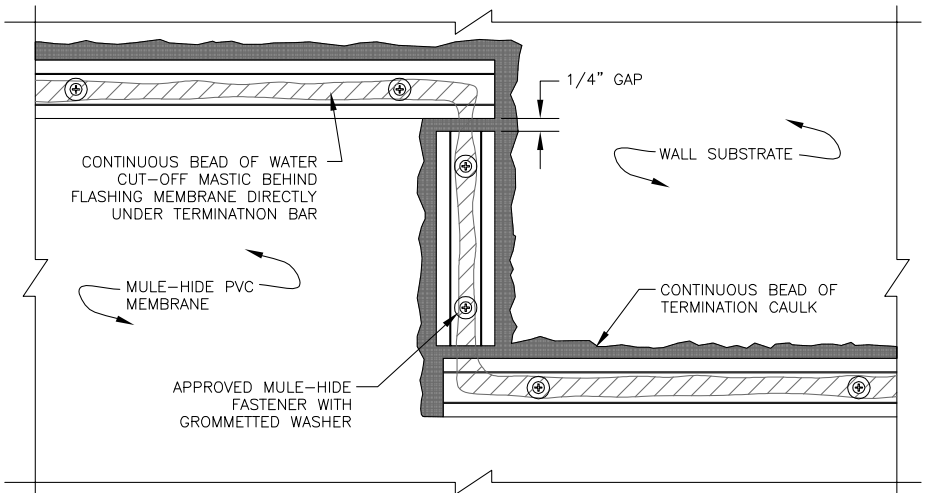
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**CONCRETE PAVER WALKWAY SYSTEMS: ALL PVC**	**DETAIL NO: MHP-195**

NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. TERMINATION BAR MUST BE INSTALLED TO HARD, SMOOTH NON–POROUS SUBSTRATE.

3. DO NOT APPLY TERMINATION CAULK OVER ASPHALT OR OTHER MATERIALS THAT WILL PREVENT PROPER ADHESION.



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	TERMINATION ELEVATION CHANGE SYSTEMS: ALL PVC	DETAIL NO: MHP-196

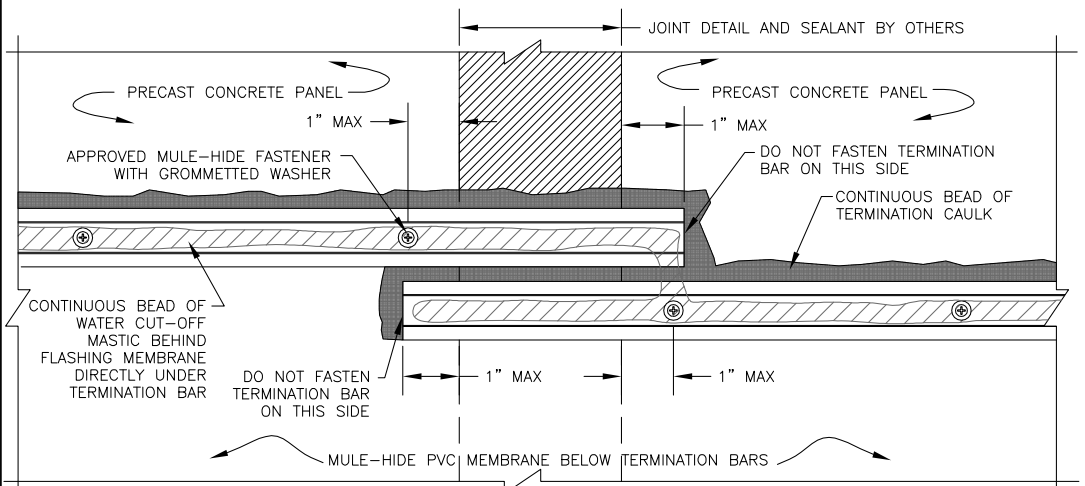
NOTES:

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIP SHEETS, ETC.

2. TERMINATION BAR MUST BE INSTALLED TO HARD, SMOOTH NON–POROUS SUBSTRATE.

3. DO NOT APPLY TERMINATION CAULK OVER ASPHALT OR OTHER MATERIALS THAT WILL PREVENT PROPER ADHESION.

4. TERMINATION BAR MUST BE CUT AT EACH WALL JOINT



MULE-HIDE PRODUCTS CO., INC. 04/01/2007	TERMINATION BAR AT TILT-UP WALL JOINT SYSTEMS: ALL PVC	DETAIL NO: MHP-197

NOTES:

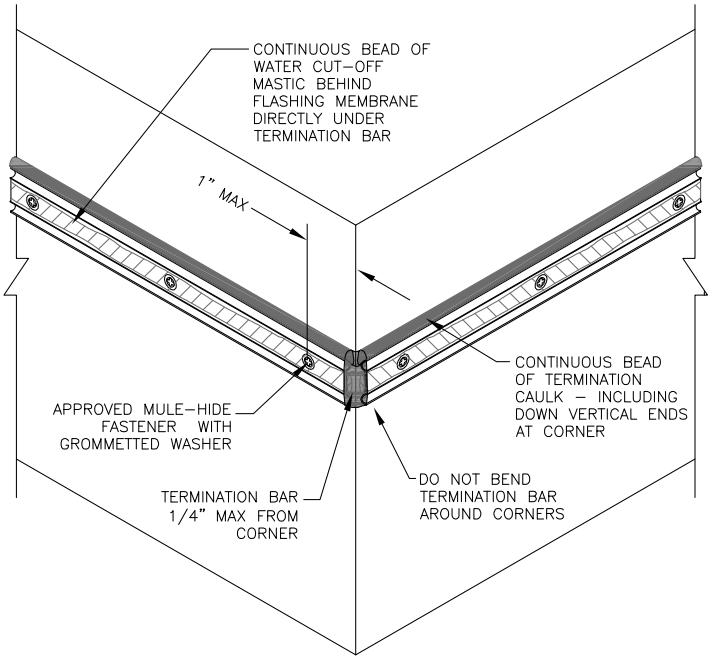
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

2. TERMINATION BAR MUST BE INSTALLED TO HARD, SMOOTH NON–POROUS SUBSTRATE.

3. DO NOT APPLY TERMINATION CAULK OVER ASPHALT OR OTHER MATERIALS THAT WILL PREVENT PROPER ADHESION.

4. A MINIMUM OF 2 FASTENERS IS REQUIRED FOR EACH PIECE OF TERMINATION BAR OR 12" O.C. MAX.

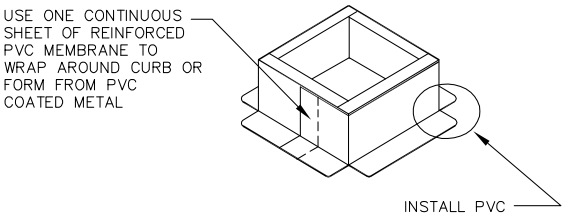
5. IF MASONRY FASTENERS ARE USED, FASTENER MAY BE MOVED TO 2" MAXIMUM FROM CORNER.

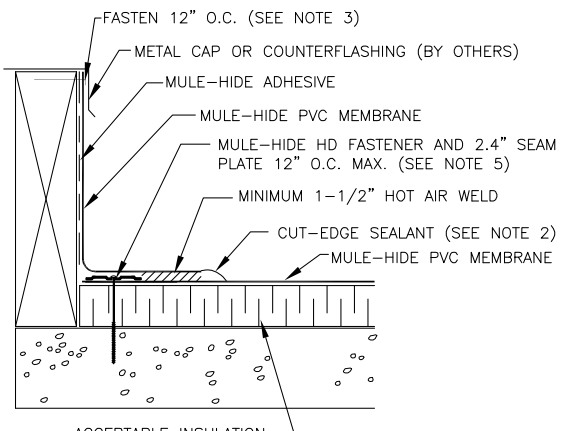


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**TERMINATION BAR AT CORNER** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-198**

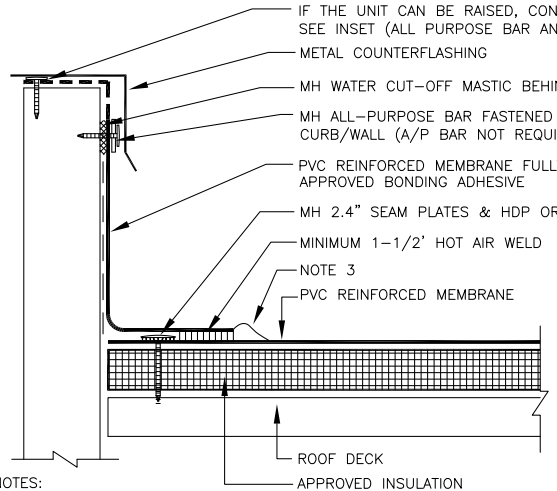
NOTES:

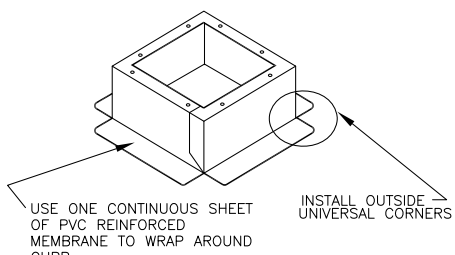
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. FLASHING MEMBRANE FASTENED APPROXIMATELY 12" ON CENTER UNDER COUNTERFLASHING. IF FASTENER PENETRATES METAL COUNTERFLASHING, USE NEOPRENE WASHER OR APPLY WATER CUT–OFF MASTIC UNDER COUNTERFLASHING OR CAULK FASTENER HEAD.
4. FOR CORNER FLASHING, REFER TO APPLICABLE MULE–HIDE DETAIL MHP–180 OR MHP–181.
5. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.





MULE-HIDE PRODUCTS CO., INC. 2010	***CURB FLASHING SYSTEMS: ALL PVC***	***DETAIL NO: MHP-122***





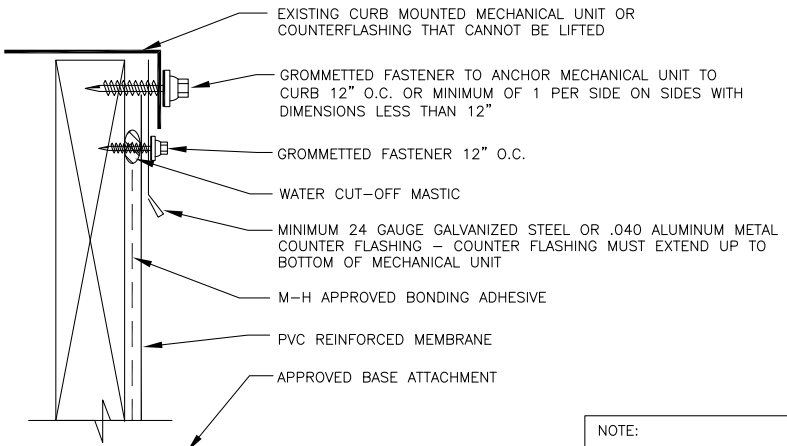
NOTES:

1. ALL FLASHING MUST BE A MINIMUM OF 8" HIGH WHERE POSSIBLE
2. DO NOT COVER WEEP HOLES OR THRU–WALL COUNTERFLASHINGS
3. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

MULE-HIDE PRODUCTS CO., INC.	**CURB / WALL FLASHING WITH M-H ALL-PURPOSE BAR** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-502** REVISION DATE: 1/2018



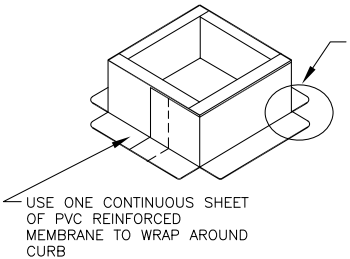
NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20-YEAR WARRANTED SYSTEM

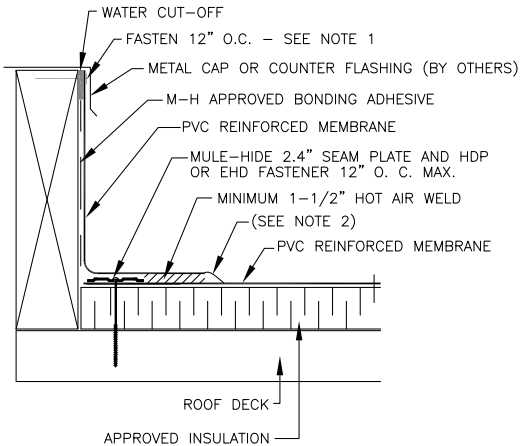
NOTES:

1. ALL FLASHING MUST BE A MINIMUM OF 8" HIGH WHERE POSSIBLE

MULE-HIDE PRODUCTS CO., INC.	**CURB / WALL FLASHING WITH COUNTERFLASHING** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-502A** REVISION DATE: 01/2018



CREASE MEMBRANE AT ANGLE CHANGE TO LIMIT BRIDGING TO 3/4" MAXIMUM



NOTES:

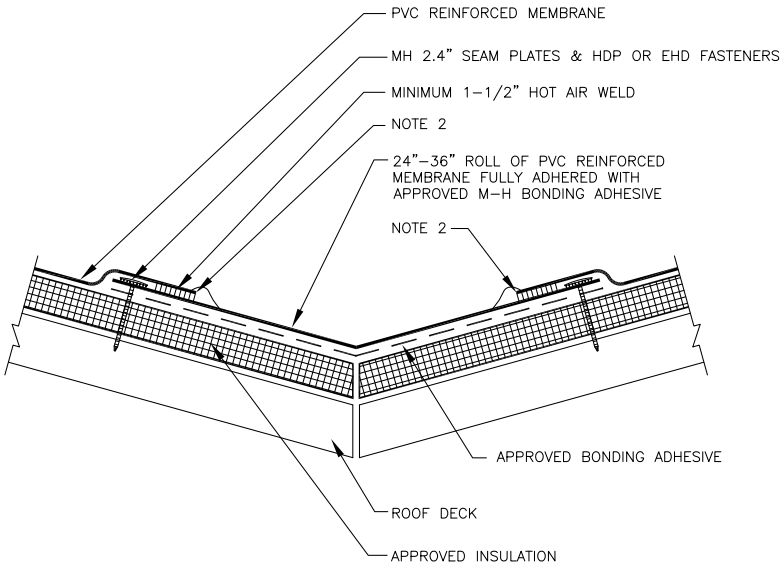
1. PVC REINFORCED MEMBRANE FASTENED APPROXIMATELY 12" ON CENTER. IF FASTENER PENETRATES METAL COUNTER FLASHING, USE NEOPRENE WASHER OR APPLY WATER CUT–OFF MASTIC UNDER COUNTER FLASHING OR CAULK FASTENER HEAD.
2. APPROXIMATELY 1/8" BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

NOTE:

THIS DETAIL IS NOT ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM.

TO BE ELIGIBLE FOR A 20–YEAR WARRANTY A COMPRESSION SEAL WITH WATER CUT–OFF IS REQUIRED AS SHOWN IN DETAIL MHP–502.

MULE-HIDE PRODUCTS CO., INC.	**CURB FLASHING**	**DETAIL NO.:** **MHP-503**
	SYSTEMS: **ALL PVC SYSTEMS**	REVISION DATE: 01/2018



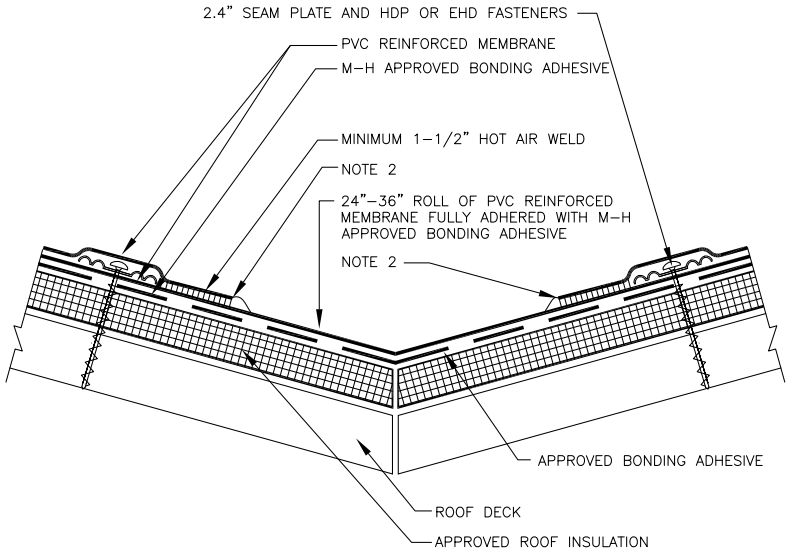
NOTES:

1. MEMBRANE FASTENER SPACING NOT TO EXCEED 12" O.C.
2. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

MULE-HIDE PRODUCTS CO., INC.	**VALLEY FLASHING**	**DETAIL NO.:**
	SYSTEMS:	**MHP-MA-601A**
	MECHANICALLY ATTACHED	REVISION DATE: 01/2018



NOTES:

1. MEMBRANE FASTENER SPACING NOT TO EXCEED 12" O.C.
2. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

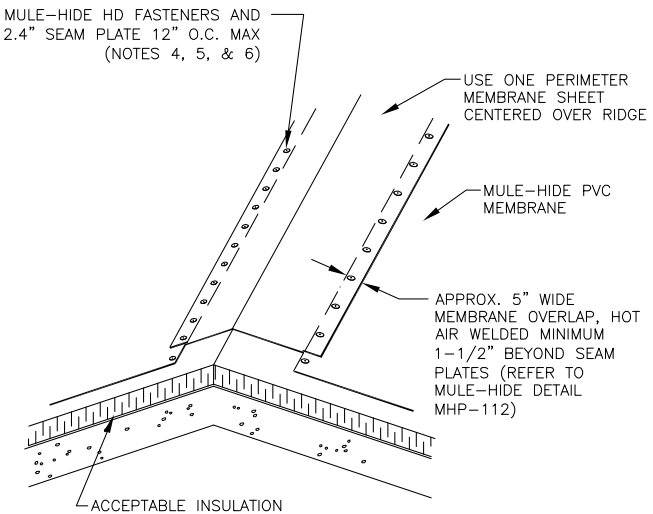
NOTE:

THIS DETAIL IS ACCEPTABLE FOR USE IN A 20–YEAR WARRANTED SYSTEM

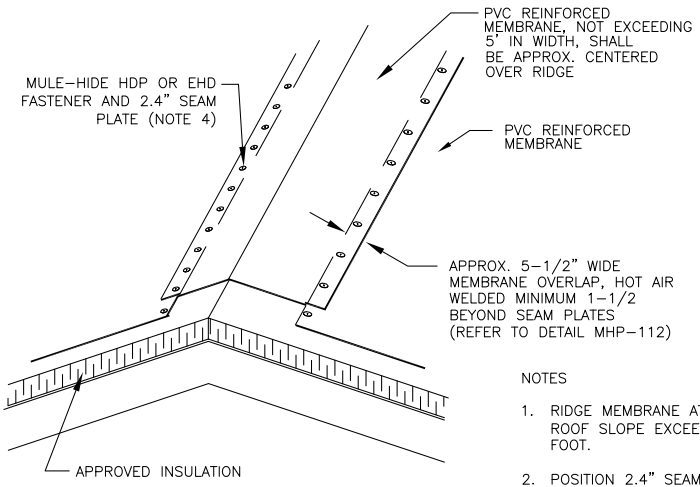
MULE-HIDE PRODUCTS CO., INC.	**VALLEY FLASHING** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHP-FA-601B** REVISION DATE: 01/2018

NOTES

1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. RIDGE MEMBRANE ATTACHMENT IS ONLY REQUIRED WHEN ROOF SLOPE EXCEEDS 3" TO ONE HORIZONTAL FOOT.
4. POSITION 2.4" SEAM PLATES 1/2" MINIMUM TO 1" MAXIMUM FROM THE EDGE OF THE DECK MEMBRANE.
5. REFER TO SPECIFICATION FOR ACCEPTABLE MULE–HIDE FASTENERS AND PLATES AND OTHER FASTENING DENSITIES.
6. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE, AND SPACING.



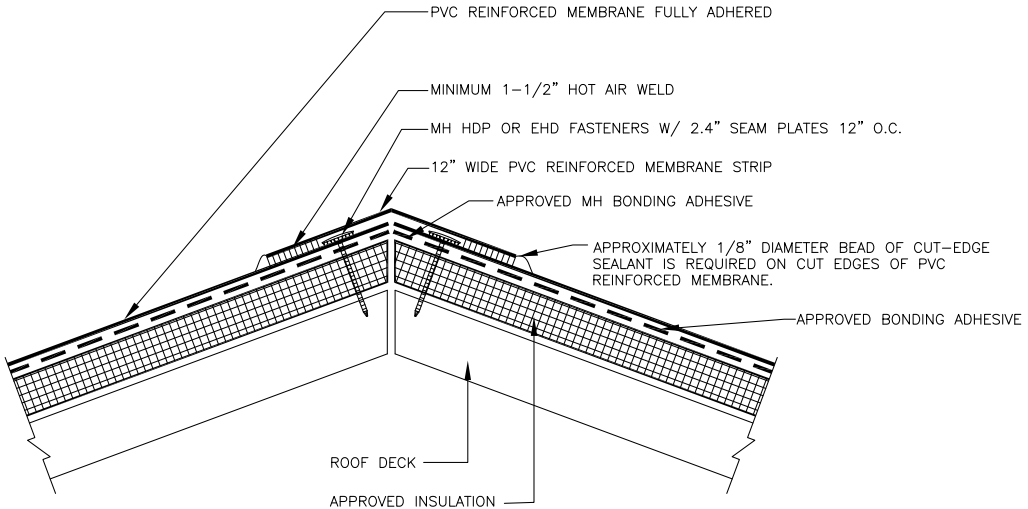
MULE-HIDE PRODUCTS CO., INC. 2010	***RIDGE MEMBRANE ATTACHMENT SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-190***



NOTES

1. RIDGE MEMBRANE ATTACHMENT IS ONLY REQUIRED WHEN ROOF SLOPE EXCEEDS 1-1/2" TO ONE HORIZONTAL FOOT.
2. POSITION 2.4" SEAM PLATES 1/2" MINIMUM TO 1" MAXIMUM FROM THE EDGE OF THE DECK MEMBRANE.
3. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.
4. REFER TO SPECIFICATION FOR ACCEPTABLE MULE-HIDE FASTENERS AND FASTENING DENSITY.

MULE-HIDE PRODUCTS CO., INC.	**RIDGE SHEET LAYOUT** **SYSTEMS:** **MECHANICALLY ATTACHED**	**DETAIL NO.:** **MHP-MA-602A** REVISION DATE: 01/2018

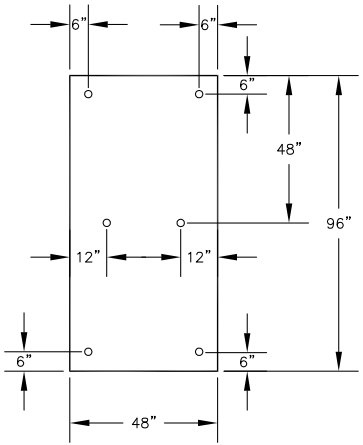


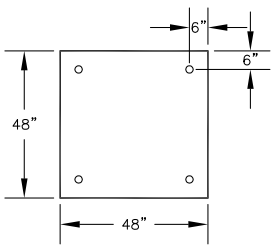
NOTES:

MEMBRANE FASTENER SPACING NOT TO EXCEED 12" O.C.

MULE-HIDE PRODUCTS CO., INC.	**RIDGE FLASHING** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHP-FA-602B** REVISION DATE: 01/2018

FASTENING PATTERNS FOR EXTRUDED POLYSTYRENE INSULATION FOR USE DIRECTLY UNDER MECHANICALLY ATTACHED WHITE TPO REINFORCED MEMBRANE ONLY

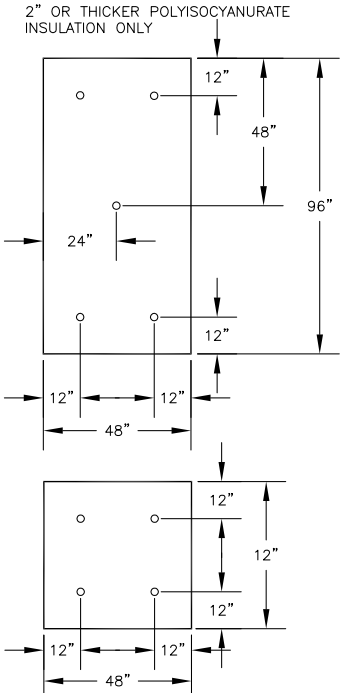


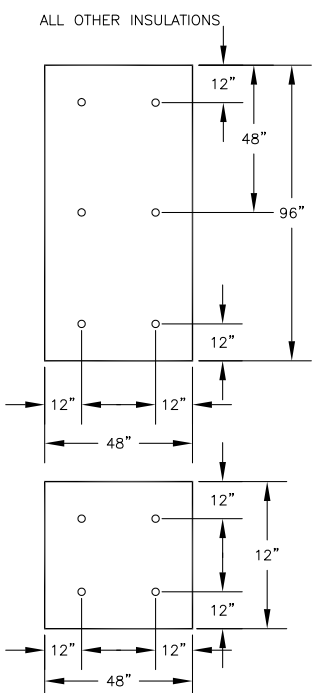


NOTES:

1. MULE–HIDE 3" METAL STRESS PLATES MUST BE USED WITH MULE–HIDE FASTENERS FOR INSULATION ATTACHMENT.
2. FASTENER TOLERANCE SHALL BE ±1 INCH.

MULE-HIDE PRODUCTS CO., INC.	**EXTRUDED POLYSTYRENE INSULATION ATTACHMENT FASTENING PATTERNS** **SYSTEMS:** **MECHANICALLY ATTACHED**	**DETAIL NO.:** **MHT-MA-700** REVISION DATE: 10/2013





NOTES:

1. MULE–HIDE 3" METAL STRESS PLATES MUST BE USED WITH MULE–HIDE FASTENERS FOR INSULATION ATTACHMENT.
2. FASTENER TOLERANCE SHALL BE +1 INCH.

MULE-HIDE PRODUCTS CO., INC.

INSULATION ATTACHMENT PATTERNS

SYSTEMS:

MECHANICALLY ATTACHED

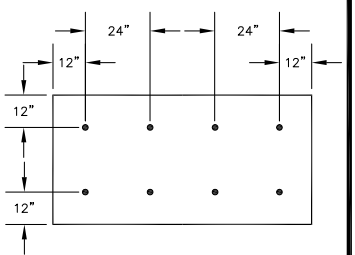
DETAIL NO.:

MHT-MA-701

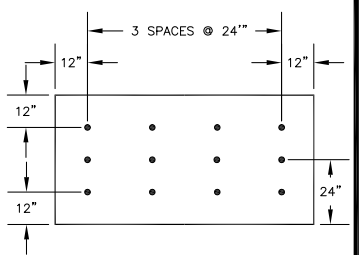
REVISION DATE: 10/2013

NOTES:

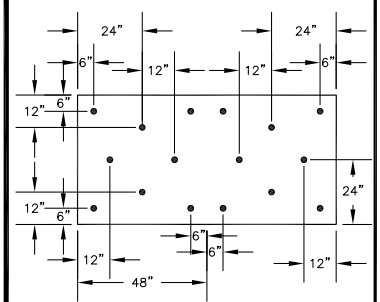
1. 8 FASTENERS PER 4' X 8' BOARDS (1 FASTENER EVERY 4 SQUARE FEET) IN THE FIELD IS APPROVED FOR INSULATIONS 2" OR MORE THICK WHEN USED AS THE TOP LAYER.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL REQUIREMENTS.
3. MULE-HIDE FASTENERS AND 3" STRESS PLATES MUST BE USED FOR INSULATION ATTACHMENT.
4. REFER TO MULE-HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.
5. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS
   - 100% FOR CORNERS



FIELD (8)
1 FASTENER PER EVERY 4 SQ. FT.



PERIMETER (12)
1 FASTENER PER EVERY 2.66 SQ. FT.

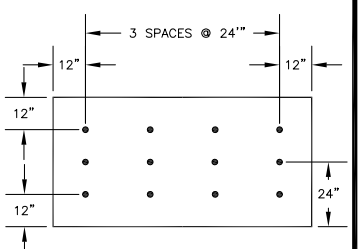


CORNERS (16)
1 FASTENER PER EVERY 2 SQ. FT.

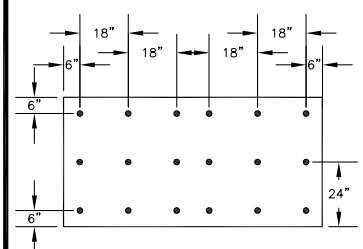
MULE-HIDE PRODUCTS CO., INC.	**2" OR THICKER INSULATION ATTACHMENT 8 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-720** REVISION DATE: 10/2013

NOTES:

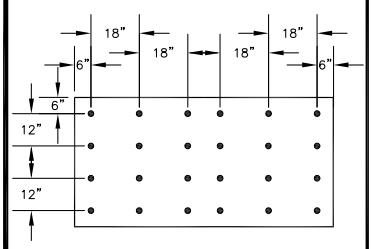
1. 12 FASTENERS PER 4' X 8' BOARD IN THE FIELD IS APPROVED FOR 1–1/2" TO 2" THICK POLYISOCYANURATE INSULATIONS WHEN USED AS THE TOP LAYER OR ¼" DENS DECK INSTALLED AS A COVER BOARD.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE–HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL REQUIREMENTS.
3. MULE–HIDE FASTENERS AND 3" STRESS PLATES MUST BE USED FOR INSULATION ATTACHMENT.
4. REFER TO MULE–HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.
5. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS
   - 100% FOR CORNERS



FIELD (12)
1 FASTENER PER EVERY 2.66 SQ. FT.



PERIMETER (18)
1 FASTENER PER EVERY 1.77 SQ. FT.

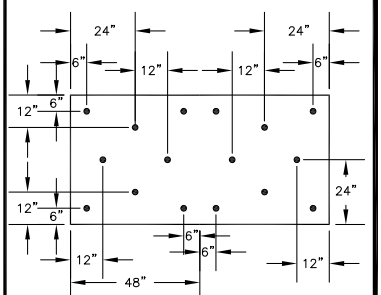


CORNERS (24)
1 FASTENER PER EVERY 1.33 SQ. FT.

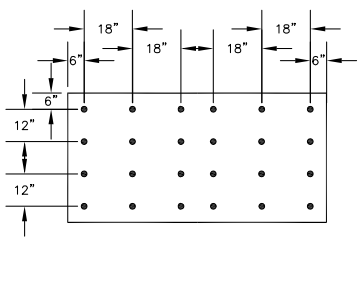
MULE-HIDE PRODUCTS CO., INC.	**INSULATION ATTACHMENT** **12 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-721** REVISION DATE: 10/2013

NOTES:

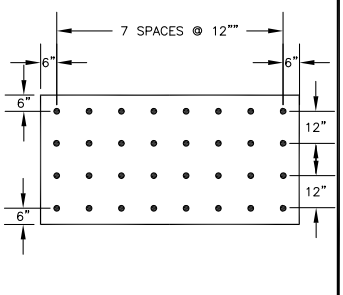
1. 16 FASTENERS PER 4' X 8' BOARD IN THE FIELD IS MULE-HIDE'S STANDARD FOR FULLY ADHERED TPO ROOFING SYSTEMS.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL REQUIREMENTS.
3. MULE-HIDE FASTENERS AND 3" STRESS PLATES MUST BE USED FOR INSULATION ATTACHMENT.
4. REFER TO MULE-HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.
5. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS
   - 100% FOR CORNERS



FIELD (16)
1 FASTENER PER EVERY 2 SQ. FT.



PERIMETER (24)
1 FASTENER PER EVERY 1.33 SQ. FT.

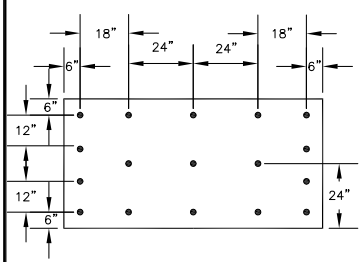


CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

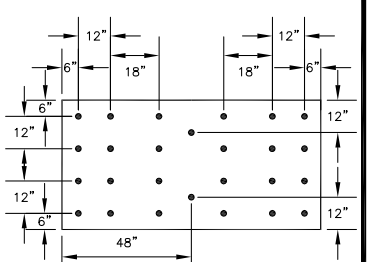
MULE-HIDE PRODUCTS CO., INC.	**INSULATION ATTACHMENT 16 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-722** REVISION DATE: 10/2013

NOTES:

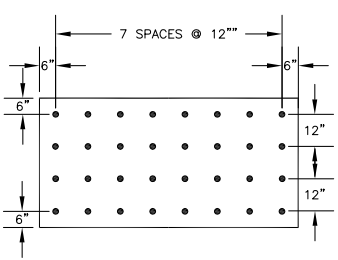
1. 17 FASTENERS PER 4' X 8' BOARD IN THE FIELD IS APPROVED FOR OSB COVER BOARDS OR OSB/POLYISOCYANURATE COMPOSITE INSULATION.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL REQUIREMENTS.
3. MULE-HIDE FASTENERS AND 3" STRESS PLATES MUST BE USED FOR INSULATION ATTACHMENT.
4. REFER TO MULE-HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.
5. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS
   - 100% FOR CORNERS



FIELD (17)
1 FASTENER PER EVERY 1.88 SQ. FT.



PERIMETER (26)
1 FASTENER PER EVERY 1.23 SQ. FT.



CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

MULE-HIDE PRODUCTS CO., INC.	**INSULATION ATTACHMENT 17 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-723** REVISION DATE: 10/2013

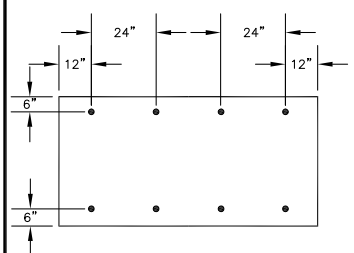
NOTES:

1. THESE FASTENING PATTERNS ARE TO BE USED WHEN THE PROJECT REQUIRES A FACTORY MUTUAL RATED SYSTEM. CONTACT MULE–HIDE TECHNICAL DEPARTMENT FOR APPROPRIATE USE OF THESE PATTERNS.

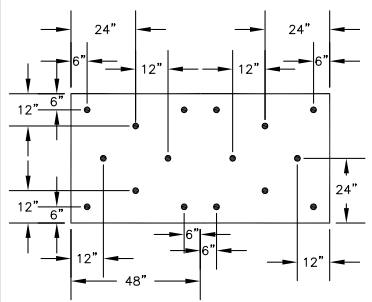
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

3. REFER TO MULE–HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.

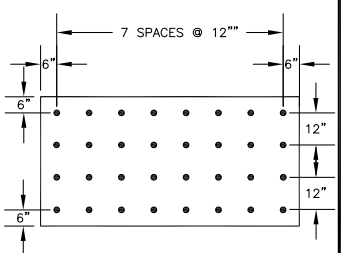
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



FIELD (8)
1 FASTENER PER EVERY 4 SQ. FT.



PERIMETER (16)
1 FASTENER PER EVERY 2 SQ. FT.



CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

MULE-HIDE PRODUCTS CO., INC.	**FM - 8 FIELD FASTENERS PER 4' X 8' BOARD PATTERN LAYOUT** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FM-724** REVISION DATE: 06/2015

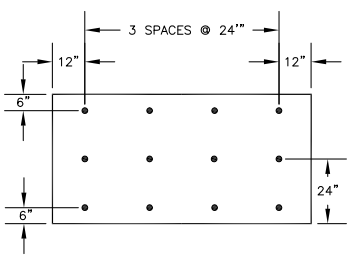
NOTES:

1. THESE FASTENING PATTERNS ARE TO BE USED WHEN THE PROJECT REQUIRES A FACTORY MUTUAL RATED SYSTEM. CONTACT MULE–HIDE TECHNICAL DEPARTMENT FOR APPROPRIATE USE OF THESE PATTERNS.

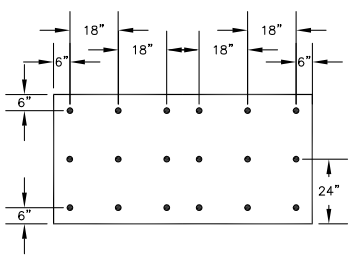
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

3. REFER TO MULE–HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.

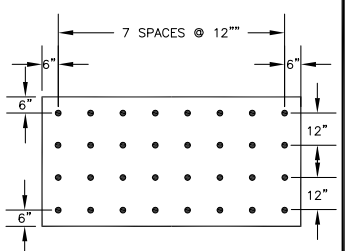
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



FIELD (12)
1 FASTENER PER EVERY 2.66 SQ. FT.



PERIMETER (18)
1 FASTENER PER EVERY 1.77 SQ. FT.



CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

MULE-HIDE PRODUCTS CO., INC.	**FM - 12 FIELD FASTENERS PER 4' X 8' BOARD PATTERN LAYOUT** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FM-725** REVISION DATE: 06/2015

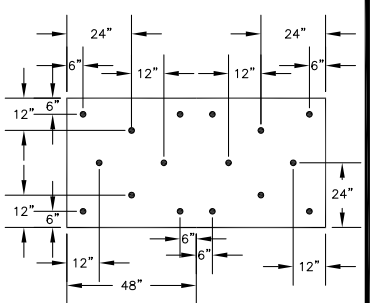
NOTES:

1. THESE FASTENING PATTERNS ARE TO BE USED WHEN THE PROJECT REQUIRES A FACTORY MUTUAL RATED SYSTEM. CONTACT MULE–HIDE TECHNICAL DEPARTMENT FOR APPROPRIATE USE OF THESE PATTERNS.

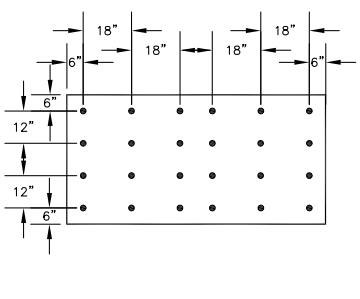
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

3. REFER TO MULE–HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.

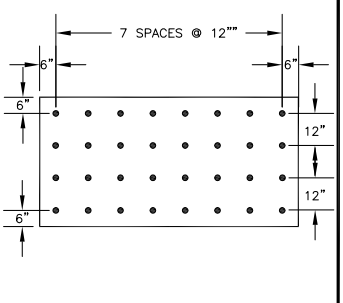
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



FIELD (16)
1 FASTENER PER EVERY 2 SQ. FT.



PERIMETER (24)
1 FASTENER PER EVERY 1.33 SQ. FT.



CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

MULE-HIDE PRODUCTS CO., INC.	**FM - 16 FIELD FASTENERS PER 4' X 8' BOARD PATTERN LAYOUT** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FM-726** REVISION DATE: 10/2013

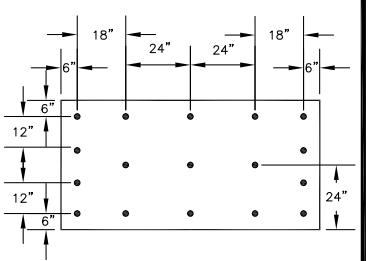
NOTES:

1. THESE FASTENING PATTERNS ARE TO BE USED WHEN THE PROJECT REQUIRES A FACTORY MUTUAL RATED SYSTEM. CONTACT MULE–HIDE TECHNICAL DEPARTMENT FOR APPROPRIATE USE OF THESE PATTERNS.

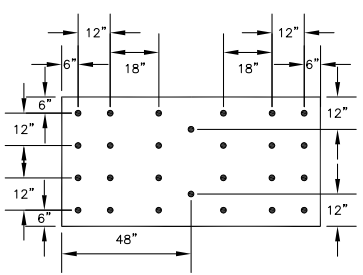
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

3. REFER TO MULE–HIDE WIND UPLIFT RATINGS FOR APPROPRIATE FASTENER DENSITY REQUIRED.

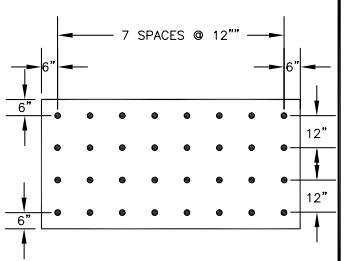
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



FIELD (17)
1 FASTENER PER EVERY 1.88 SQ. FT.



PERIMETER (26)
1 FASTENER PER EVERY 1.23 SQ. FT.



CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

MULE-HIDE PRODUCTS CO., INC.	**FM - 17 FIELD FASTENERS PER 4' X 8' BOARD PATTERN LAYOUT** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FM-727** REVISION DATE: 10/2013

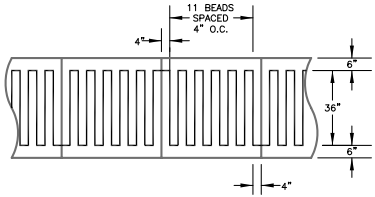


FIGURE 1
INSTALLATION USING 4" O.C. BEADS ON 4' X 4' BOARDS

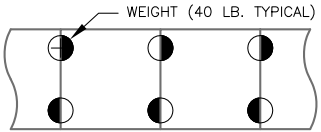


FIGURE 2
RECOMMENDED WEIGHT PLACEMENT ON 4' X 4' BOARDS

INSULATION TYPE	MAXIMUM BOARD SIZE
HIGH DENSITY WOOD FIBERBOARD	4' X 4'
POLYISOCYANURATE	4' X 4'
EXTRUDED POLYSTYRENE (XPS)	2' X 8'
EXPANDED POLYSTYRENE (EPS)	4' X 4'
DENS DECK PRIME	4' X 8'
SECUROCK	4' X 8'
ORIENTED STRAND BOARD (OSB)	4' X 8'

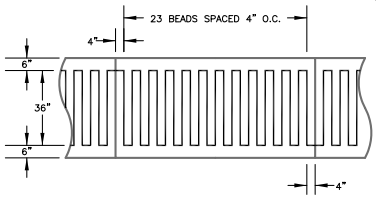


FIGURE 3
INSTALLATION USING 4" O.C. BEADS ON 4' X 8' BOARDS

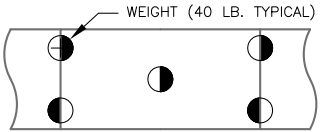


FIGURE 4
RECOMMENDED WEIGHT PLACEMENT ON 4' X 8' BOARDS

COVERAGE RATES	CARTRIDGES*	TANKS
3/4" BEADS 12" O.C.	600 S.F.	3,000 S.F.
3/4" BEADS 6" O.C.	300 S.F.	1,500 S.F.
3/4" BEADS 4" O.C.	200 S.F.	1,000 S.F

* COVERAGE RATES FOR CARTRIDGES ARE BASED ON CARTON QUANTITIES, 4 CARTRIDGES PER CARTON

MULE-HIDE PRODUCTS CO., INC.

HELIX FOAM ADHESIVE 4" RIBBON PATTERN

SYSTEMS:

ALL SYSTEMS

DETAIL NO.:

MHHA-UN-4

REVISION DATE: 03/2017

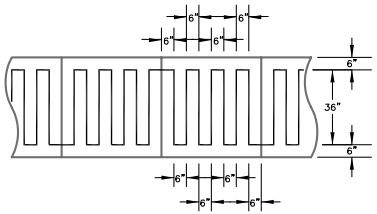


FIGURE 1
INSTALLATION USING 6" O.C.
BEADS ON 4' X 4' BOARDS

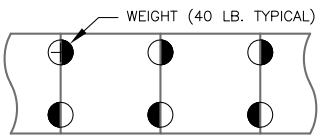


FIGURE 2
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 4' BOARDS

INSULATION TYPE	MAXIMUM BOARD SIZE
HIGH DENSITY WOOD FIBERBOARD	4' X 4'
POLYISOCYANURATE	4' X 4'
EXTRUDED POLYSTYRENE (XPS)	2' X 8'
EXPANDED POLYSTYRENE (EPS)	4' X 4'
DENS DECK PRIME	4' X 8'
SECUROCK	4' X 8'
ORIENTED STRAND BOARD (OSB)	4' X 8'

COVERAGE RATES	CARTRIDGES*	TANKS
3/4" BEADS 12" O.C.	600 S.F.	3,000 S.F.
3/4" BEADS 6" O.C.	300 S.F.	1,500 S.F.
3/4" BEADS 4" O.C.	200 S.F.	1,000 S.F

* COVERAGE RATES FOR CARTRIDGES ARE BASED ON CARTON QUANTITIES, 4 CARTRIDGES PER CARTON

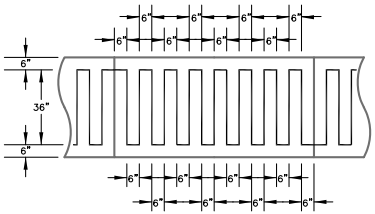


FIGURE 3
INSTALLATION USING 6" O.C.
BEADS ON 4' X 8' BOARDS

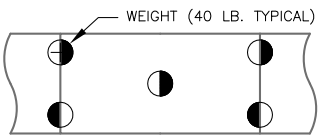


FIGURE 4
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 8' BOARDS

MULE-HIDE PRODUCTS CO., INC.

HELIX FOAM ADHESIVE 6" RIBBON PATTERN

SYSTEMS:

ALL SYSTEMS

DETAIL NO.:

MHHA-UN-6

REVISION DATE: 03/2017

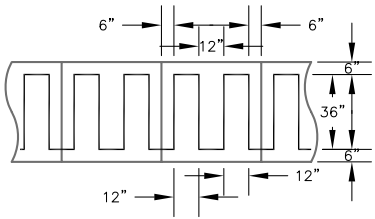


FIGURE 1
INSTALLATION USING 12" O.C.
BEADS ON 4' X 4' BOARDS

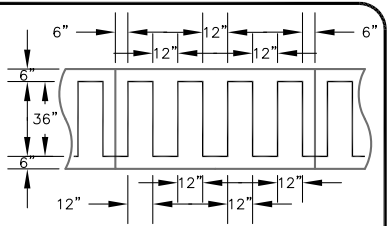


FIGURE 3
INSTALLATION USING 12" O.C.
BEADS ON 4' X 8' BOARDS

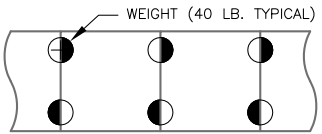


FIGURE 2
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 4' BOARDS

INSULATION TYPE	MAXIMUM BOARD SIZE
HIGH DENSITY WOOD FIBERBOARD	4' X 4'
POLYISOCYANURATE	4' X 4'
EXTRUDED POLYSTYRENE (XPS)	2' X 8'
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DENS DECK PRIME	4' X 8'
SECUROCK	4' X 8'
ORIENTED STRAND BOARD (OSB)	4' X 8'

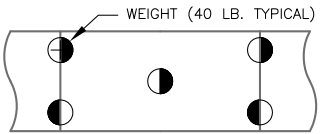

FIGURE 4
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 8' BOARDS

COVERAGE RATES	CARTRIDGES*	TANKS
3/4" BEADS 12" O.C.	600 S.F.	3,000 S.F.
3/4" BEADS 6" O.C.	300 S.F.	1,500 S.F.
3/4" BEADS 4" O.C.	200 S.F.	1,000 S.F

* COVERAGE RATES FOR CARTRIDGES ARE BASED ON CARTON QUANTITIES, 4 CARTRIDGES PER CARTON

MULE-HIDE PRODUCTS CO., INC.

HELIX FOAM ADHESIVE
12" RIBBON PATTERN

SYSTEMS:

ALL SYSTEMS

DETAIL NO.:

MHHA-UN-12

REVISION DATE: 03/2017

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