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Productos de piel de mula Guía de instalación de campo de PVC Sistemas fijados mecánicamente y totalmente adheridos

Marzo de 2017

Parapeto

Desagües de tejado

Tapajuntas de tubería/penetración

Juntas de dilatación

Conexiones con PVC

Miscelánea

Tapajuntas de bordillo

Sellado de valle/cresta

Accesorio de aislamiento

Equipo necesario para instalar membranas de soldadura térmica para piel de mula

Introducción- Esta sección está destinada a servir como una guía general sobre el equipo que el contratista puede necesitar para instalar con éxito un sistema de cubierta de membrana con soldadura térmica de piel de mula.

General- La siguiente lista de herramientas manuales debe incluirse para una tripulación media de 4 a 6 hombres:

- Un soldador automático
- Cable de extensión sin asfalto (#10/3 cable, 220 voltios) con tapones de bloqueo macho y hembra de 220/30 amperios para uso con el soldador automático, no exceder los 100 pies de longitud
- 2 o 3 soldadoras manuales con toberas
- Cables de extensión sin asfalto (cable #14/3, 110 voltios)
- 3 o 4 rodillos manuales de goma
- 1 par de tijeras por hombre
- 3 pistolas de tornillo estándar con embrague de desacoplamiento (rango de revoluciones de 1800-2500 con pieza de morro ajustable)
- Cintas métricas y una cinta de 100 pies
- 2 o 3 extractores de pasadores de clavilla para sondear juntas
- Plumas de tinta no permanentes (solubles en agua)
- Líneas de tiza con tiza no permanente (tiza azul)
- Pinceles de 4 pulgadas de ancho
- Rodillos de pintura de media pulgada con núcleos y mangos resistentes a disolventes
- Limpiar trapos de algodón
- Pistolas de calafateo
- Empujar escobas
- Lona impermeable libre de asfalto u otro tipo de lona impermeable para cubrir productos y equipos de piel de mula

Equipamiento especializado: El sistema de tejado de piel de mula requiere 4 tipos de equipos especializados:

- Máquina automática de costura de aire caliente aprobada por Mule-Hide
- Máquina de costura manual aprobada por Mule-Hide
- Generador lo suficientemente grande para suministrar energía a soldador automático y pistolas.

ADVERTENCIA: Nunca toque la parte metálica de la carcasa del ventilador, el tubo del ventilador o la tobera del soplador del soldador automático o de las pistolas de calor de mano. Se calientan muchísimo y pueden causar quemaduras graves.

SOLDADURA POR MEMBRANA

Las membranas de soldadura térmica de piel de mula pueden fusionarse permanentemente consigo mismas mediante la aplicación de aire y presión sobrecalentados. Para proporcionar el calor y la presión necesarios, los Sistemas de Cubiertas de Membrana Soldadura por Calor de Mule-Hide especifican un soldador automático para hacer juntas de campo. Se especifica un soldador manual cuando no se puede usar un soldador automático (véase la siguiente sección).

Soldador automático

Descripción general: Un soldador automático es un dispositivo autopropulsado alimentado eléctricamente que utiliza calefacción por resistencia eléctrica y aire caliente forzado por ventilador en combinación con su propio peso (incluido el peso adicional montado en la carcasa exterior) para fusionar las membranas de soldadura por calor de piel de mulo entre sí.

Especificaciones técnicas

Las siguientes especificaciones son para información general. Consulta el manual que acompaña al equipo para más detalles.

- Requisitos eléctricos: 220V, 30A (fusible mínimo), 7500 W (potencia mínima recomendada disponible), corriente monofásica. Si usas un generador, asegúrate de que el generador tenga un tamaño suficiente para alimentar todas las herramientas de soldadura (pistola(s), soldadora automática) que funcionen desde el generador.
- Cable de alimentación y extensiones: el tipo #10, de 3 conductores, puede usarse para distancias de hasta 100 pies; para longitudes mayores, consulte a un electricista. Recomendamos el uso de cables eléctricos de la más alta calidad para prolongar la vida útil de su equipo y mejorar el rendimiento general.
- Peso suplementario: Al soldar la membrana de campo Mule-Hide, se debe fijar un peso adicional en la carcasa exterior sobre las ruedas del soldador automático. La mayoría de los soldadores automáticos tienen pesos externos extraíbles.
- Ajustes: alineación de seguimiento, alineación de toberas, velocidad hacia adelante, temperatura del elemento calefactor y persiana de flujo de aire (y por tanto salida de aire caliente).
- Velocidad de soldadura: La velocidad del soldador no debe ser superior a lo necesario para reproducir una buena soldadura con aire caliente y variará según las condiciones ambientales. Como regla general, entre 10 y 12 pies por minuto (fpm) es una velocidad típica en temperaturas cálidas de verano; 8 fpm o menos es típico en temperaturas frías.
- Oruga metálica (si el fabricante del soldador lo requiere): Varias longitudes, cada una de 8 pies, de metal galvanizado calibre 24-26 para usarse como oruga para el soldador automático. Las orugas metálicas pueden ser necesarias para minimizar las arrugas durante la soldadura.

NOTA: Las condiciones rara vez justifican el funcionamiento a velocidad máxima, lo que suele resultar en una calidad de costura inconsistente. A medida que las temperaturas ambientales cambian a lo largo del día, el operador debe confiar en su criterio para determinar la velocidad y temperatura óptimas de funcionamiento del soldador automático. Es buena práctica en cubiertas realizar las juntas de prueba antes de soldar las juntas del campo. Consulta la página 4 para las instrucciones de soldadura de prueba. Procedimiento - antes de conectarse a la corriente

Utiliza la soldadora automática de aire caliente para hacer todas las juntas de campo como práctica general; La tobera puede ajustarse para soldar juntas casi horizontales (juntas típicas de campo).

Asegúrate de seguir los siguientes pasos preliminares al usar una unidad automática.

1. Peso suplementario. Fija el peso suplementario a la carcasa exterior sobre las ruedas. Este peso asegurará que se aplique la presión adecuada sobre la junta que se va a soldar.
2. Comprobar la alineación de la boquilla de aire caliente y ajustarla si es necesario.
3. Puestos de soldadura y no soldadura. La tobera de aire caliente puede bloquearse en una posición no soldadura hacia arriba, o en sus posiciones de soldadura HACIA ABAJO. El conjunto de tobera y ventilador pueden levantarse libremente desde la posición de soldadura tras extraer el disparador de liberación de la carcasa del ventilador y deslizar todo el conjunto HACIA FUERA de la máquina. En esta posición HACIA FUERA, la tobera y el conjunto del ventilador escapan del tope que la bloquea en posición BAJA, y pueden girarse a la posición ARRIBA, donde se bloquearán cuando se suelte el gatillo. Coloca la boquilla de aire caliente en su posición de soldadura HACIA ABAJO y comprueba visualmente que la boquilla no dirija el aire caliente hacia la rueda o correa de silicona. Este aire sobrecalentado mal dirigido puede arruinar rápidamente la costosa tracción por rueda o correa. Cualquier desalineación de la boquilla debería corregirse en este momento. Después de asegurarse de que la boquilla está correctamente alineada, devuelva la boquilla de aire caliente a su posición ASCENDENTE, sin soldadura.

Asegúrate de que el ventilador y los interruptores de potencia de la transmisión estén APAGADOS y que el control de temperatura y velocidad del soplador estén configurados a CERO.

PUNTO DE CONTROL: En este punto, se asume que estás listo para soldar una junta de campo con aire caliente, y se han cumplido los siguientes requisitos:

- Se ha fijado un rollo de membrana de soldadura térmica para piel de mulo en la cubierta del techo, y se ha desenrollado un segundo rollo para proporcionar un solapamiento de 5 1/2 pulgadas para el montaje mecánico y un solapamiento de 3" para adherirlo completamente sobre el borde previamente colocado, según las especificaciones estándar de piel de mula.
- Las superficies que se van a soldar con aire caliente están limpias. Si estas superficies están sucias, deben limpiarse con trapo con Fantastik® (o un limpiador similar), luego limpiarlas con un trapo limpio y secarlas a fondo. La zona de la junta debe luego limpiarse con un trapo limpio humedecido con limpiador de membranas para piel de mulo para asegurar la eliminación de cualquier residuo de suciedad o película de jabón.
- Con la boquilla y el conjunto del ventilador en posición UP, el soldador automático se posiciona de modo que la rueda o correa de presión de silicona se coloque en el borde de la lámina superpuesta y la rueda guía bisejada delante esté en el borde de la lámina superior de piel de mula.
- Los interruptores de transmisión y ventilador están APAGADOS y los controles de velocidad y calefacción en CERO.

ADVERTENCIA: Nunca toques la parte metálica del tubo del ventilador en la carcasa del ventilador, ni la boquilla del ventilador. Se calientan muchísimo y pueden causar quemaduras graves.

Procedimiento - Conexión a la alimentación

Con los preliminares hechos, estás listo para soldar con aire caliente.

4. Conecta la máquina a la corriente.
5. Enciende el interruptor de encendido del calefactor/ventilador.
6. Ajusta el interruptor de temperatura al ajuste deseado (1004º F es un buen punto de partida).
7. Deja que la máquina se caliente (generalmente alrededor de 5 minutos).

NOTA: Las juntas de prueba deben hacerse al menos al inicio del trabajo cada mañana y tarde o en cualquier otro momento en que haya un cambio notable de temperatura. Las costuras de prueba deben hacerse usando material de retal. Después de que el material de recuerdo se haya enfriado, intenta desmontarlos físicamente y examinarlos para ver si hay una costura laminada consistente de 1 1/2 a 2 pulgadas de ancho.

8. Prepárate para poner la máquina en marcha.

- Si la temperatura ambiente es superior a 60 grados F, ajustar el interruptor de control de velocidad de la transmisión para que la máquina se mueva aproximadamente a un ritmo aproximado

  12 pies por minuto; Puede ser necesario un ajuste adicional una vez en marcha, dependiendo de la calidad de la costura producida.
- Si la temperatura ambiente es de 40-60 grados F, ajustar la máquina para que se mueva a unos 10 pies por minuto; Puede ser necesario un ajuste adicional, dependiendo de la calidad de la costura producida.
- Si la temperatura ambiente es inferior a 40 grados F, ajustar la máquina para que se mueva a menos de 8 pies por minuto; La mejor tasa tendrá que determinarse en función de la calidad de la costura producida. Como regla general, cuanto más baja sea la temperatura ambiente — y, por tanto, la membrana— más despacio tendrá que avanzar el soldador automático para conseguir buenas juntas.

NOTA: Como no existen condiciones de trabajo ideales y las temperaturas ambientales cambian a lo largo del día, el operador debe basarse únicamente en su propio criterio para determinar la velocidad de funcionamiento del soldador automático.

PRECAUCIÓN: el operador del equipo de soldadura debe asegurarse absolutamente de que la máquina está correctamente posicionada para comenzar la soldadura antes de pasar al siguiente paso. Recuerda que la maneta guía apunta EN LA DIRECCIÓN EN LA QUE SE MOVERÁ LA MÁQUINA.

9. Separa las hojas superpuestas. Coloca una mano con la palma hacia abajo sobre la carcasa del ventilador y pon el dedo índice en el gatillo de liberación. Con la otra mano, usa una sonda de costura (o herramienta similar) para separar las dos membranas solapadas de Mule-Hide Heat-Weld para que la boquilla pueda deslizarse entre ellas.
10. Inserta la boquilla del ventilador entre las láminas. Aprieta el gatillo y coloca la boquilla entre las láminas de membrana, bloqueándola en su posición de soldadura ABAJO. ¡Inmediatamente pasa al siguiente paso para evitar quemar la membrana!
11. Poner la máquina en marcha. Enciende rápidamente el interruptor de la transmisión. NOTA: Algunas máquinas arrancan automáticamente. La máquina empezará a mover y soldar la junta. Marca el inicio de la costura con un marcador soluble en agua.

12. Mantente en el rumbo. A medida que avanza el soldador automático, mantén la pequeña rueda guía en la parte delantera de la máquina, en el borde de la lámina superior. Dirige la máquina desde delante para minimizar el zigzag, que probablemente se produzca al girar desde atrás. Si te sales del camino, simplemente vuelve rápido al rumbo del camino. Las deficiencias en las costuras se repararán más adelante, con el soldador manual.

IMPORTANTE: Deja suficiente holgura en el cable de alimentación. Cualquier resistencia puede desviar la máquina de su curso.

Ajusta a la velocidad que produce la mejor soldadura. Las directrices establecidas en el Paso 8 ofrecen buenos puntos de partida. A medida que avance la soldadura, serán necesarios algunos ajustes por prueba y error. Por lo general, ajustar la velocidad será el medio más eficaz para "ajustar" la mejor producción de costura. Cuando la temperatura ambiente es muy alta, puede ser necesario bajarla.

Reglas generales para juzgar la calidad de las costuras

- La membrana juntada no está decolorada: Aumenta la velocidad si la membrana se decolora (amarillo/marrón). Si la temperatura ambiente es muy alta y la membrana se decolora incluso cuando la velocidad es máxima, baja el control de temperatura.
- Burbujeando. Si el montaje de la soldadura está ligeramente demasiado caliente, la superficie de la junta puede mostrar un ligero aspecto burbujeante.
- Vacíos y arrugas. Una buena costura no tiene huecos ni arrugas y mide 2 pulgadas de ancho con el borde expuesto bien ajustado. Si no, consulta "Reparando huecos y arrugas" y "Reparando agujeros en membranas".
- La resistencia de la costura puede probarse cuando está fría. Para obtener mejores resultados, prueba de costuras

8 recomienda la soldadura con aire caliente 8 horas después.

14. Completar una soldadura de prueba. Al final de una pasada, bloquea la boquilla en su posición ARRIBA, no soldadura, y apaga el interruptor de la transmisión para detener el movimiento de la máquina. NOTA: algunas máquinas se detienen automáticamente cuando se saca la boquilla de la junta. Marca el final de la costura con un marcador soluble en agua.
15. Limpia la boquilla con frecuencia. La boquilla debe cepillarse con alambre con frecuencia para eliminar partículas calientes del compuesto de soldadura térmica Mule-Hide. (Algunos aplicadores cepillan alambre tras cada soldadura de soldadura.) Si no se eliminan, es probable que dichas partículas sean depositadas por la boquilla, formando franjas marrones en el borde del regazo; Está en juego más que la estética: la presencia de tales partículas en la junta puede afectar la integridad de la junta.
16. Enfría el soldador. Al finalizar un periodo de soldadura, por ejemplo, a la hora de comer o al finalizar — con la tobera bloqueada en su posición hacia arriba— gira el perímetro de ajuste de temperatura a su nivel más bajo. El elemento calefactor se apagará, pero el ventilador seguirá funcionando, enfriando el elemento calefactor. Después de unos cinco minutos, apaga el interruptor de encendido. NOTA: algunas máquinas se apagan automáticamente tras pulsar solo un botón.

Precauciones

Como con cualquier equipo eléctrico de alta potencia utilizado en exteriores, utiliza la práctica aceptada y el sentido común para evitar lesiones. Algunas sugerencias:

- No operar ningún soldador térmico durante tormentas.
- Tener extrema precaución para evitar quemaduras. La temperatura del aire sobrecalentado en esta máquina puede alcanzar aproximadamente los 1200 grados F (645 grados C).
- Protege para que no se enganche el cable de alimentación.
- Si el cable de alimentación se desconecta mientras la máquina está en funcionamiento, es deseable volver a conectar lo antes posible, con especial atención a la seguridad, para evitar posibles daños por sobrecalentamiento. Apaga la máquina para evitar que haya arcos eléctricos al volver a conectarla a la corriente. Reconecta a la corriente. Enciende el interruptor de encendido para reanudar el funcionamiento normal.
- Inspeccionar el cable de alimentación y las conexiones antes de cada sesión de soldadura. Reparar o reemplazar rápidamente los cables y conectores desgastados o desgastados.
- Aunque la unidad pueda ser de diseño con doble aislamiento, se sigue recomendando un interruptor de fallo a tierra (G.F.I.) en la fuente de alimentación.

AVISO: Este equipo es solo para uso industrial. Estas instrucciones son solo para información general. Antes de la operación real del equipo de soldadura de aire caliente, consulte las instrucciones de funcionamiento proporcionadas por el fabricante. Dado que el manejo y uso de este equipo está fuera del control de Mule-Hide, no aceptaremos ninguna responsabilidad por los resultados obtenidos.

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Soldador manual

Descripción general: La soldadora de aire caliente portátil es un dispositivo eléctrico de mano que utiliza calefacción por resistencia eléctrica y aire sobrecalentado forzado por ventilador para calentar las membranas de soldadura térmica de piel de mula. Se utiliza un rodillo de goma manual junto con el soldador para aplicar la presión que fusiona las superficies calentadas de la membrana de soldadura térmica Mule-Hide entre sí.

La soldadora manual se utiliza como práctica habitual para retocar uniones imperfectas. También se utiliza cuando el modelo automático autopropulsado no es adecuado, como en detalles de cubiertas y en superficies muy inclinadas.

Especificaciones técnicas:

- Requisitos eléctricos: 115V, 15A (fusible mínimo), 2.500 W (potencia mínima recomendada disponible), corriente monofásica. Si se utiliza un generador, asegúrese de que el generador sea capaz de proporcionar la potencia adecuada para usar al mismo tiempo la soldadora automática y la pistola(s).
- Cable de alimentación y extensiones: el tipo #12, de 3 conductores, puede usarse para distancias de hasta 100 pies.
- Ajustes: Temperatura de las lamas de la resistencia y de flujo de aire (y por tanto la salida de aire caliente).
- Accesorios: 3/4 de pulgada. Boquilla (20 mm) (para detalles de soldadura), 1-1/2 pulgada. Boquilla (de 40 mm) (para soldadura recta, como al reparar juntas de campo), rodillo de caucho de silicona portátil.
- Velocidad de soldadura: La velocidad varía según las condiciones meteorológicas ambientales, los ajustes de control de elementos y la competencia del usuario.

Procedimiento - antes de conectarse a la corriente

Utiliza la soldadora de aire caliente de mano para reparar y/o hacer todas las juntas que los soldadores automáticos no pueden hacer. Asegúrate de seguir los siguientes pasos preliminares antes de enchufar el equipo:

1. Colocar la boquilla adecuada. En general, el de 1-1/2 pulgada. (40 mm) debe colocarse una tobera al soldador al realizar o reparar soldaduras rectas; El de 3/4 de pulgada. La boquilla de 20 mm debe ajustarse al soldar los detalles de la tapalanza.
2. Asegúrate de que la corriente esté APAGADA y que el interruptor de ajuste de calor esté en CERO.

PUNTO DE CONTROL: En este punto, se asume que está listo para soldar una junta con aire caliente y se han cumplido los siguientes requisitos:

- Todos los sujetadores están en su lugar y las dos superficies a soldar están en su sitio.
- Las superficies que se van a soldar con aire caliente están limpias, libres de adhesivo (un posible problema con los detalles de flasheo) y otros contaminantes. Si estas superficies están sucias o contaminadas, deben limpiarse con trapos con Fantastik® o un limpiador general similar, luego limpiarlas con un trapo limpio y secarlas bien. La zona de la junta debe luego limpiarse con un trapo limpio humedecido con limpiador de membranas para piel de mulo para asegurar la eliminación de cualquier residuo de suciedad o película de jabón.
- Durante su periodo de calentamiento, el aire caliente del soldador debe dirigirse en una dirección segura.
- Está disponible un rodillo de goma para la mano.

ADVERTENCIA: Nunca toques la parte metálica de la carcasa del ventilador, el tubo del ventilador o la boquilla del ventilador. Se calientan muchísimo y pueden causar quemaduras graves.

Procedimiento - Conexión a la alimentación

Con los preliminares hechos, estás listo para soldar con aire caliente.

1. Conectar la máquina a la corriente. Asegúrate de que el soldador esté orientado en una dirección segura y sin obstáculos.
2. Enciende la corriente. Enciende el interruptor de encendido y pon el interruptor de ajuste de calor en su posición más alta.
3. Arma el soldador durante 5 minutos.

NOTA: Al empezar o al soldar áreas de trabajo confinadas como esquinas y penetraciones de tuberías, es recomendable bajar un poco la temperatura para evitar aplicar calor más rápido de lo que puedes trabajar eficazmente.

4. Inserta la boquilla en el regazo aproximadamente a 2" del borde de la membrana para crear un amortiguador de aire. Coloca la boquilla entre las superficies a soldar y coloca rápidamente el rodillo manual sobre la membrana exterior a unos 1/8 a 1/4 de pulgada. desde el extremo de la boquilla.

NOTA: Se necesita más calor al comenzar una soldadura que después de que la soldadura esté en marcha, porque la membrana está fría. Además, el aire sobrecalentado puede escapar fácilmente antes de que se forme una junta. A medida que avanza la soldadura, la membrana se calienta y el aire caliente del soldador queda parcialmente atrapado por la junta. Prepárate para acelerar el ritmo a medida que avances.

5. Enrolla la costura. Cuando la membrana se ablande, aplica una presión firme sobre el rodillo y haz que se enrolle a lo largo de la junta en movimientos de unos 3 pulgadas. largo.
6. Tras completar la primera pasada por la junta para crear el amortiguador de aire, repite el proceso para completar la junta. Al hacer la pasada final por la junta, mantén una pequeña porción (1/8") de la punta expuesta más allá del borde de la membrana para asegurar una soldadura completa a lo largo de toda la junta.
7. Ajustar la velocidad de unión para lograr la mejor soldadura. A medida que continúa la costura, será necesario ajustar la velocidad de unión mediante prueba y error. Las superficies de la membrana deben calentarse lo suficiente para permitir que la presión del rodillo las fusione, pero la membrana no debe sobrecalentarse.

Reglas generales para juzgar la calidad de las costuras

- La membrana con costura no está decolorada: Aumentar la velocidad de costura si la membrana se decolora (marrón amarillo).
- Burbujas y adelgazamiento: El sobrecalentamiento de la membrana provoca pequeñas burbujas y un estiramiento excesivo hasta el punto de dejar un grosor de lámina muy escaso, especialmente al trabajar con material sin reforzar. Otra señal de sobrecalentamiento es una apariencia oscurecida y "manchada" en la junta.
- Vacíos y arrugas. Una buena costura no tiene huecos ni arrugas. Si hay huecos o arrugas, consulta "Reparación de vacíos y arrugas."

8. Limpia la boquilla con frecuencia. Al igual que en la máquina de soldadura automática, la tobera del soldador manual debe cepillarse con alambre con frecuencia para eliminar partículas calientes del compuesto de soldadura por calor Mule-Hide que puedan adherirse a ella. Si no se eliminan, es probable que dichas partículas sean depositadas por la boquilla; La presencia de tales partículas quemadas en la junta puede afectar la integridad de la junta.

9. Enfría el soldador. Cuando el soldador deba apagarse al finalizar un periodo de soldadura, gira el peril de ajuste de temperatura al nivel más bajo. El elemento calefactor se apagará, pero el ventilador seguirá funcionando, enfriando el elemento calefactor. Coloca la soldadora de modo que el aire caliente que sale se dirija en una dirección segura. Después de unos cinco minutos, apaga el interruptor de encendido.

Precauciones

Como con cualquier equipo eléctrico de alta potencia utilizado en exteriores, utiliza la práctica aceptada y el sentido común para evitar lesiones. Algunas sugerencias:

- No utilizar ningún equipo de soldadura por calor durante tormentas.
- Tener extrema precaución para evitar quemaduras. La temperatura del aire sobrecalentado en esta máquina puede alcanzar aproximadamente los 800 grados F (427 grados C).
- Protege para que no se enganche el cable de alimentación.
- Si el cable de alimentación se desconecta mientras la máquina está en funcionamiento, es deseable volver a conectar lo antes posible, con especial atención a la seguridad, para evitar posibles daños por sobrecalentamiento. Apaga la máquina para evitar que haya arcos eléctricos al volver a conectarla a la corriente. Reconecta a la corriente. Enciende el interruptor de encendido para reanudar el funcionamiento normal.

- Inspeccionar el cable de alimentación y las conexiones antes de cada sesión de soldadura. Reparar o reemplazar rápidamente los cables y conectores desgastados o desgastados.

- Se recomienda el uso de un interruptor de fallo a tierra (G.F.I.) en la fuente de alimentación.

AVISO: Este equipo es solo para uso industrial. Estas instrucciones son solo para información general. Antes de la operación real del equipo de soldadura portátil, consulte las instrucciones de funcionamiento proporcionadas por el fabricante. Dado que el manejo y uso de este equipo está fuera del control de Mule-Hide, no aceptaremos ninguna responsabilidad por los resultados obtenidos.

Todas las afirmaciones aquí contenidas son expresiones de opinión que, por su rendimiento y pruebas, se consideran precisas y fiables, y se presentan sin conocimiento de que tales usos recomendados puedan infringir alguna patente. No se otorga ni se pretende garantizar ninguna garantía, expresa o implícita.

Sondeo de costuras

Descripción general: la sondeación de juntas soldadas con aire caliente es un paso importante en la aplicación de un tejado de piel de mula, y es tu mejor seguro para una inspección exitosa.

LAS COSTURAS CON HUECOS Y ARRUGAS HAN SIDO LOS DEFECTOS MÁS COMUNES CITADOS POR LOS INSPECTORES DE PIELES DE MULA A LO LARGO DE LOS AÑOS.

Para asegurar una costura de alta calidad constante en tu trabajo, asegúrate de que TODAS las juntas se revisen con una herramienta adecuada cada día laboral, y que todas las deficiencias se señalen o marquen con un rotulador soluble en agua y se reparen lo antes posible con una soldadora de aire caliente manual. Mule-Hide recomienda explorar las costuras con un tirador de pasadores.

Procedimiento para sondear las juntas

El sondeo de las juntas no debe realizarse hasta que las soldaduras de aire caliente se hayan enfriado completamente. Como procedimiento general, se debe realizar sondeo de juntas y reparación de deficiencias en todas las juntas aproximadamente 8 horas después de su soldadura inicial.

ADVERTENCIA: Un sondeo prematuro puede abrir juntas cálidas que habrían sido perfectamente aceptables una vez enfriadas.

1. Dibuja la descripción emergente de la sondeo a lo largo de las juntas. Sujetando la herramienta de sondeo por el mango, dibuja la punta por el borde de la unión soldada a aire caliente. Aplica presión firme en la unión de la junta, no en la lámina inferior. La herramienta no debe penetrar en la zona del regazo.
2. Marcar deficiencias. Usando un rotulador soluble en agua, marca el principio y el final de cada vacío.
3. Reparar las deficiencias con prontitud. Utilizando un soldador de mano, repara todas las deficiencias en las costuras lo antes posible. Mule-Hide exige que las reparaciones se realicen el mismo día en que se descubran.
4. Revisa las reparaciones. Después de que las juntas reparadas se hayan enfriado completamente, vuelve a sondearlas. Si la reparación tiene éxito, elimina la línea de marcador soluble en agua; Si no, haz la reparación de nuevo.

NOTAS:

NOTAS:

NOTAS:

Requisitos mínimos de fijación de membrana de PVC
Velocidad estándar del viento (cobertura de 55 MPH)

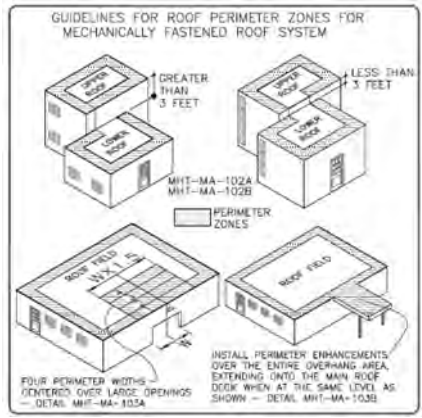
Cubierta del tejado	Altura del tejado	Ancho de la hoja de campo	Espaciado de sujetadores
Cubiertas de tejado de acero			
Acero Min calibre 22	Hasta 60'	10’	OC de 12"
		81”	OC de 12"
	61' a 100'	10’	6" OC
		81”	OC de 12"
Acero – Menos de calibre 22	0' a 100'	Se requiere prueba de tirón. Contacta con Mule-Hide para más información.	
Cubiertas de madera			
Contrachapado 2X Plank 3/4"	Hasta 60'	10’	OC de 12"
		81”	OC de 12"
	61' a 100'	10’	6" OC
		81”	OC de 12"
Contrachapado de 5/8"	Hasta 60'	10’	OC de 12"
		81”	OC de 12"
	61' a 100'	10'	6" OC
		81”	OC de 12"
1X Contrachapado de 1X 1/2"	Hasta 60'	10'	6" OC
		81”	OC de 12"
	61' a 100'	81”	6" OC
OSB	0' - 100'	Contacta con el Departamento Técnico de Mule-Hide antes de comenzar a trabajar	

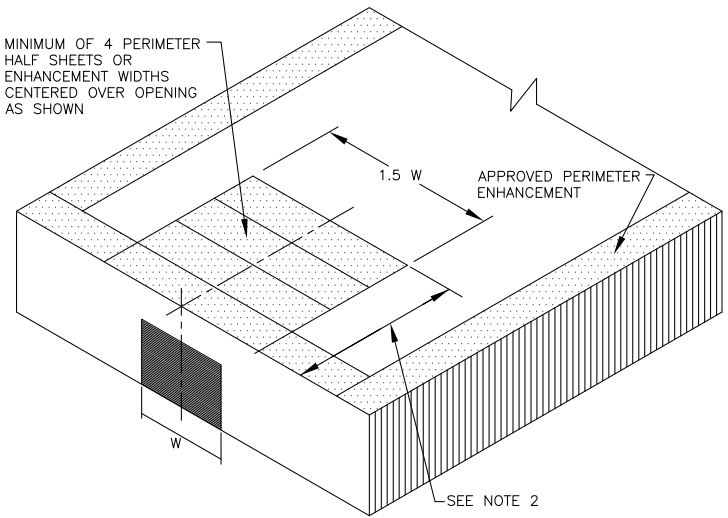
<table>
<tr><th colspan="4">Cubiertas de tejado de hormigón estructural</th></tr>
<tr><td rowspan="4">2500 psi 2" min para prefabricado dorado</td><td rowspan="2">Hasta 60'</td><td>10'</td><td>OC de 12"</td></tr>
<tr><td>81"</td><td>OC de 12"</td></tr>
<tr><td rowspan="2">61' a 100'</td><td>10'</td><td>6" OC</td></tr>
<tr><td>81"</td><td>OC de 12"</td></tr>
<tr><th colspan="4">Hormigón aislante (los sujetadores deben penetrar desde la plataforma)</th></tr>
<tr><td>Plataforma de Encofrado de Acero</td><td>0' a 100'</td><td colspan="2">Se requiere prueba de tirón.
Contacta con Mule-Hide para más información.</td></tr>
<tr><th colspan="4">Otras cubiertas de tejado</th></tr>
<tr><td>Hormigón de yeso
Fibra cementosa de madera</td><td>0' a 100'</td><td colspan="2">Se requiere prueba de tirón.
Contacta con Mule-Hide para más información.</td></tr>
</table>

Requisitos de mejora del perímetro Sistema acoplado mecánicamente con cobertura de viento de 55 mph

Altura del edificio	Mejora mínima del perímetro requerida
0 - 34 pies	1 Hoja perimetral
	1 Ancho de mejora perimetral
35 – 100 pies	2 planchas perimetrales (zonas de viento de hasta 100 mph)
	2 Anchos de mejora perimetral (zonas de viento de hasta 100 mph)
Zonas de viento superiores a 100 pies o superiores.	Contacta con Mule-Hide Tech. Departamento.

Ancho de la hoja de campo	Ancho de la hoja perimetral (2)	Ancho de mejora perimetral
		Placas/fijadores a través de la membrana
40.5”	N/A	2’
5’	N/A	3’
81”	4’	4’
10’	5’	5’

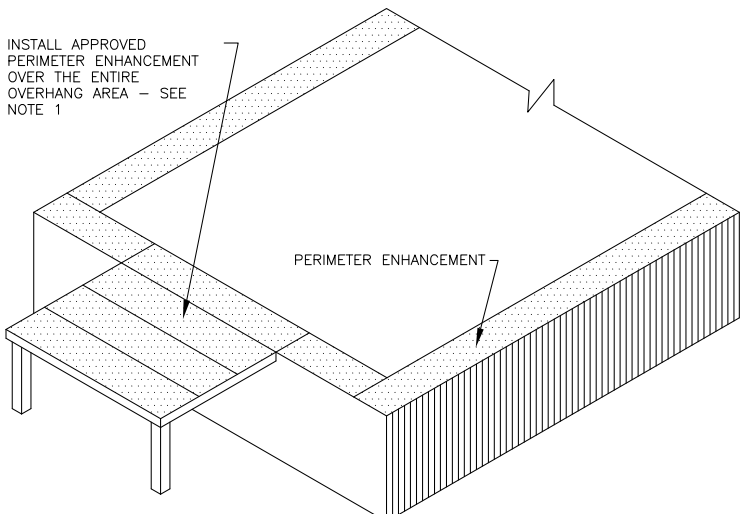




NOTES:

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.

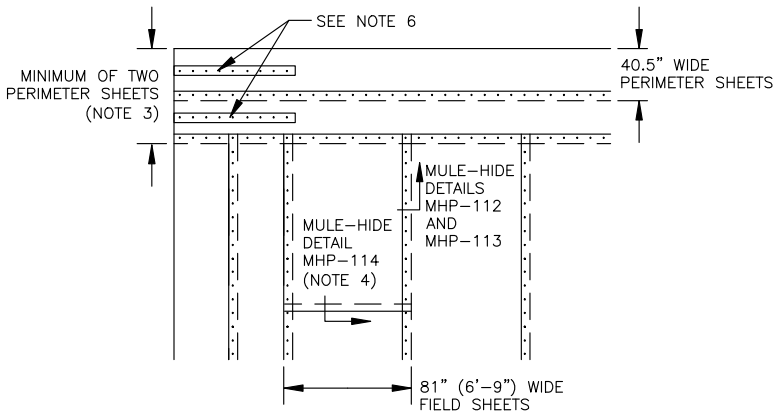
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

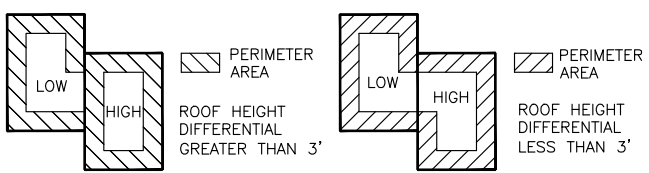
3. REFER TO SPECIFICATIONS FOR REQUIRED NUMBER OF PERIMETER SHEETS AND MEMBRANE FASTENING.

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

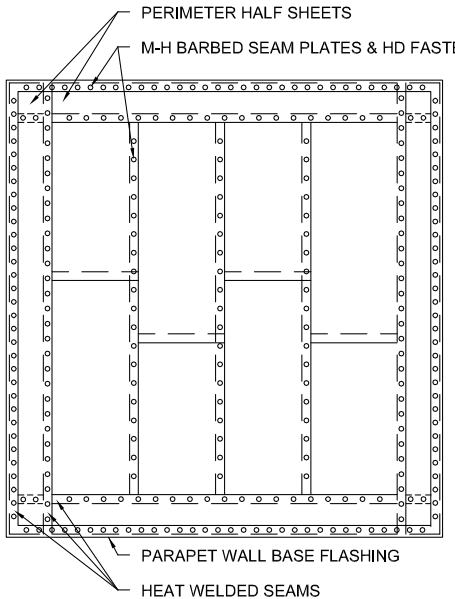
5. FOR INSULATION SECUREMENT, REFER TO MULE–HIDE DETAIL MHP–206.

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



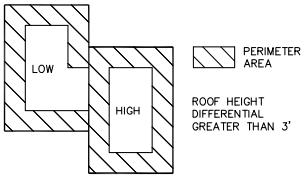


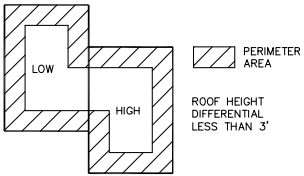
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	MEMBRANE SECUREMENT SYSTEMS: MECHANICALLY FASTENED PVC	DETAIL NO: MHP-186



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***





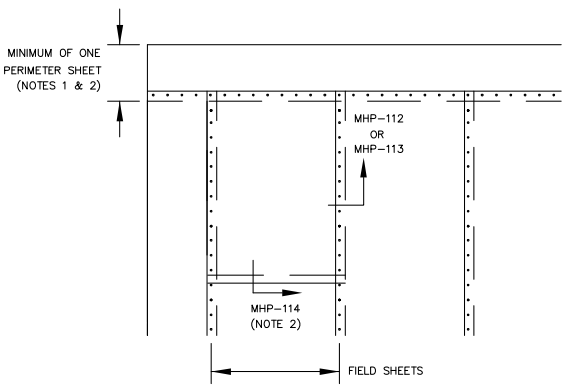
NOTES:

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.

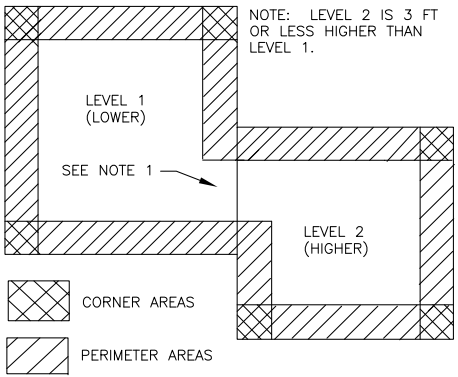
   FULLY ADHERED SYSTEMS
   ALL ROOF PERIMETER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 50%.

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.

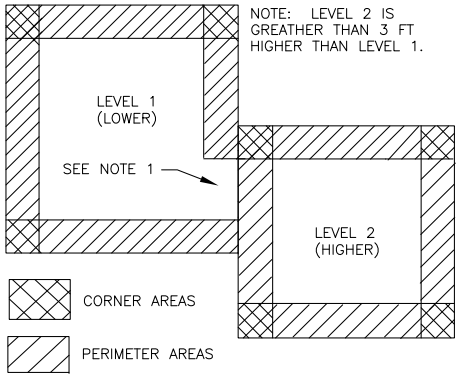
   FULLY ADHERED SYSTEMS
   ALL ROOF PERIMETER DIMENSIONS ARE TO BE A MINIMUM OF EIGHT (8) FEET AND INSULATION FASTENERS ARE INCREASED 50%.

4. ROOF CORNERS

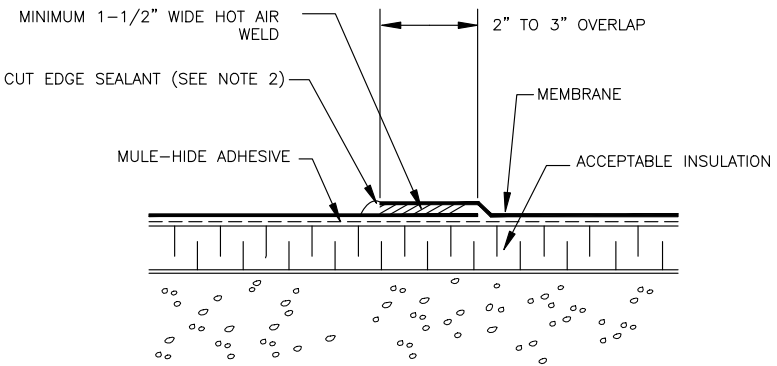
   MECHANICALLY ATTACHED SYSTEMS
   DISTANCE BETWEEN ROWS IS LESS THAN OR EQUAL TO 40% OF THE APPROVED ROOF FIELD SPACING OF THE FASTENER ROWS.

   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.

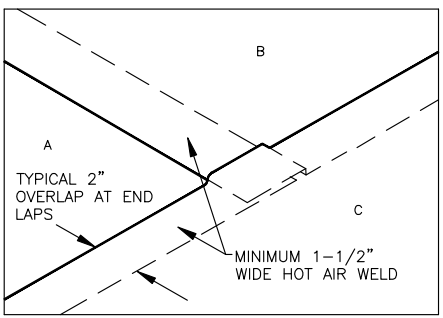
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

NOTES:

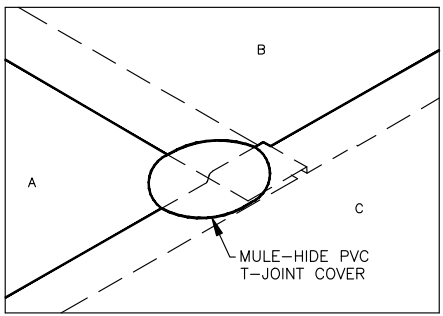
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

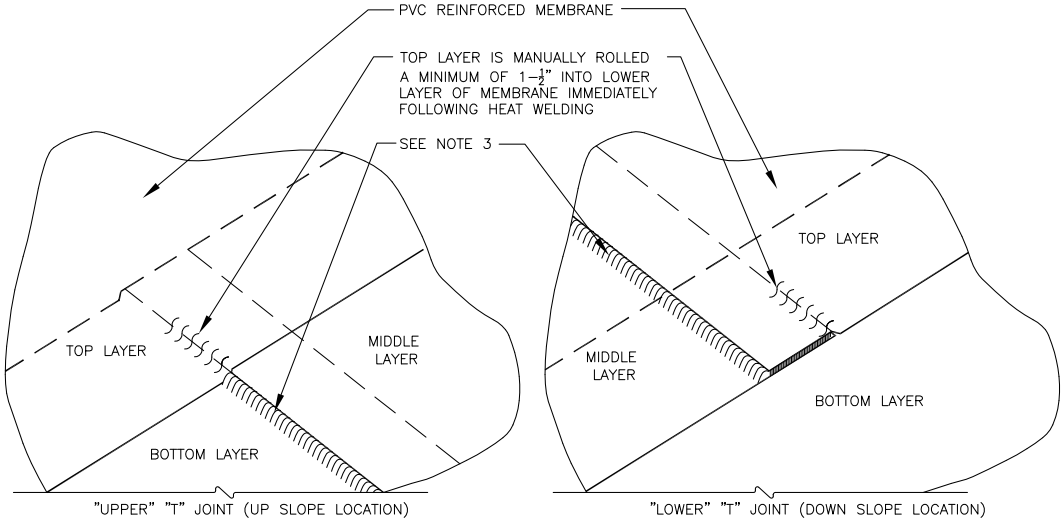
.050" (1.270 mm) OR .060" (1.524 mm) THICK MEMBRANES



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

.080" (2.032 mm) THICK MEMBRANE ONLY

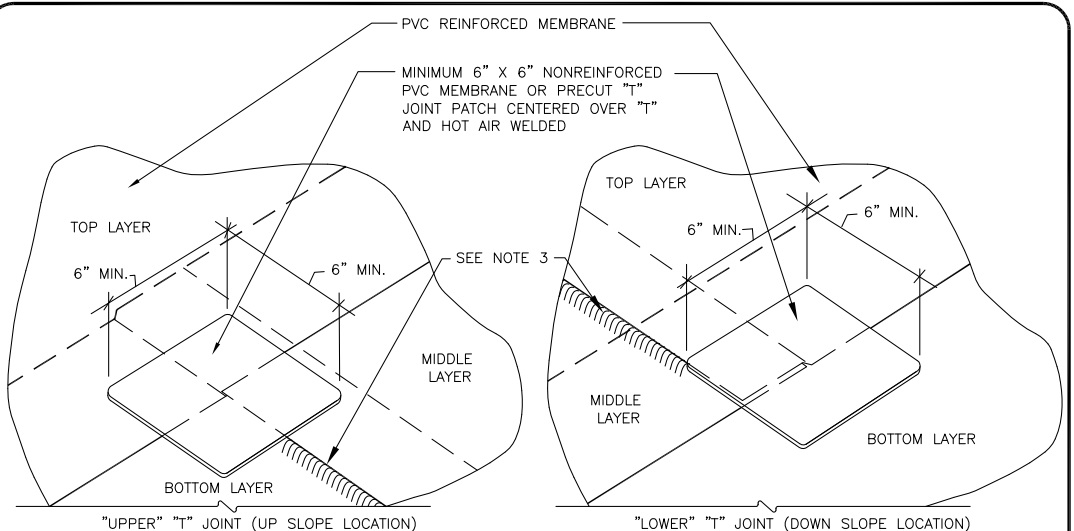
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SEAM INTERSECTION SYSTEMS: FULLY ADHERED PVC**	**DETAIL NO: MHP-111**



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.

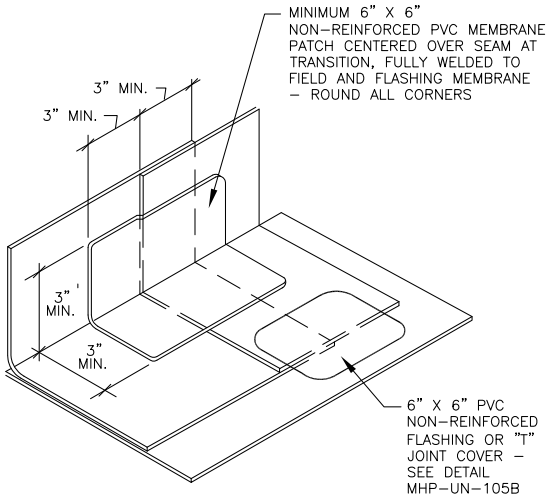
MULE-HIDE PRODUCTS CO., INC.	**"T" JOINT DETAIL .050" (50 MIL) THICK MEMBRANES**	**DETAIL NO.:**
	SYSTEMS:	**MHP-UN-115A**
	ALL PVC SYSTEMS	REVISION DATE: 05/2016



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.

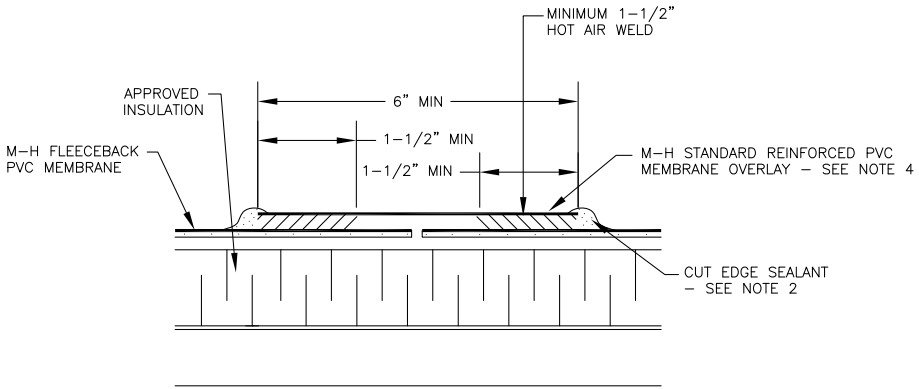
MULE-HIDE PRODUCTS CO., INC.	**"T" JOINT COVER PATCH .060" (60 MIL) OR THICKER MEMBRANES** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-UN-115B** REVISION DATE: 05/2016



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** **SYSTEMS:** **ALL PVC FLEECE BACK**	**DETAIL NO.:** **MHP-UN-116** REVISION DATE: 05/2016

NOTES:

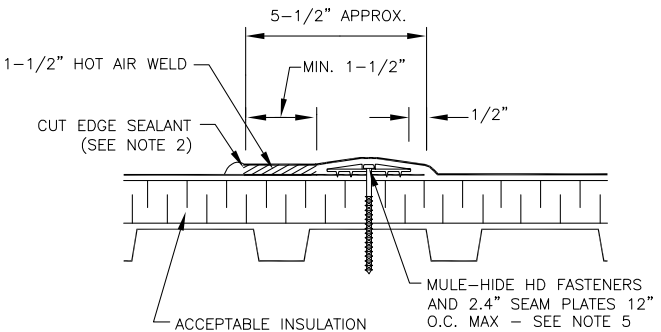
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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:

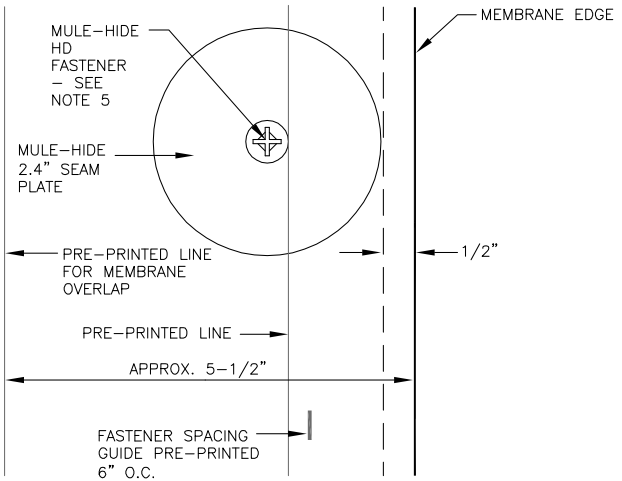
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

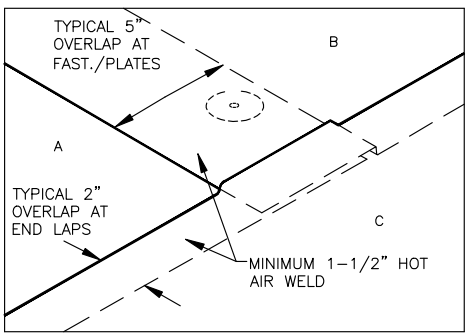
5. REFER TO MULE–HIDE UPLIFT RATINGS FOR APPROPRIATE FASTENER SIZE AND SPACING.



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

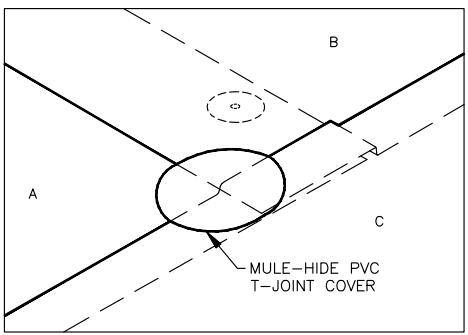
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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

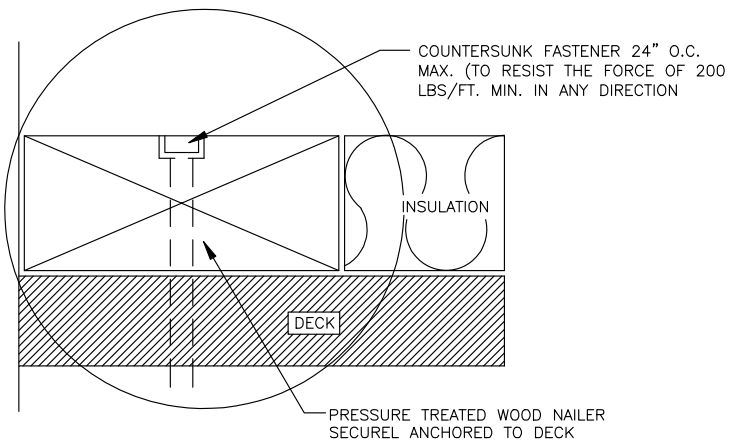
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SEAM INTERSECTION SYSTEMS: MECHANICALLY FASTENED PVC**	**DETAIL NO: MHP-114**

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**

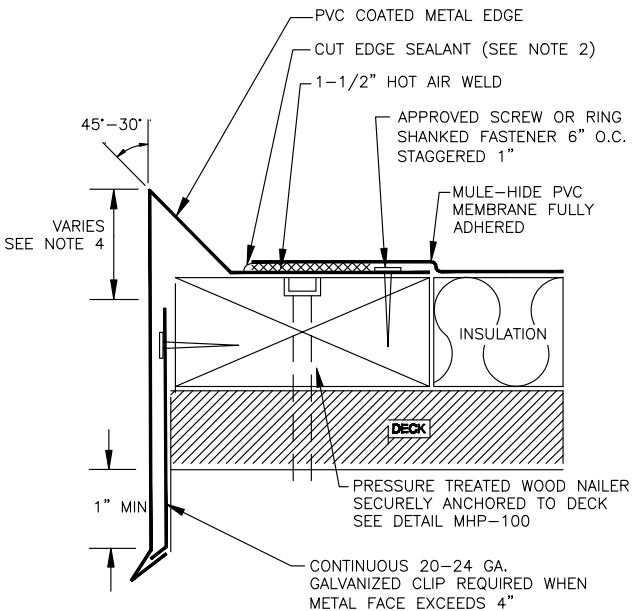
NOTES:

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**

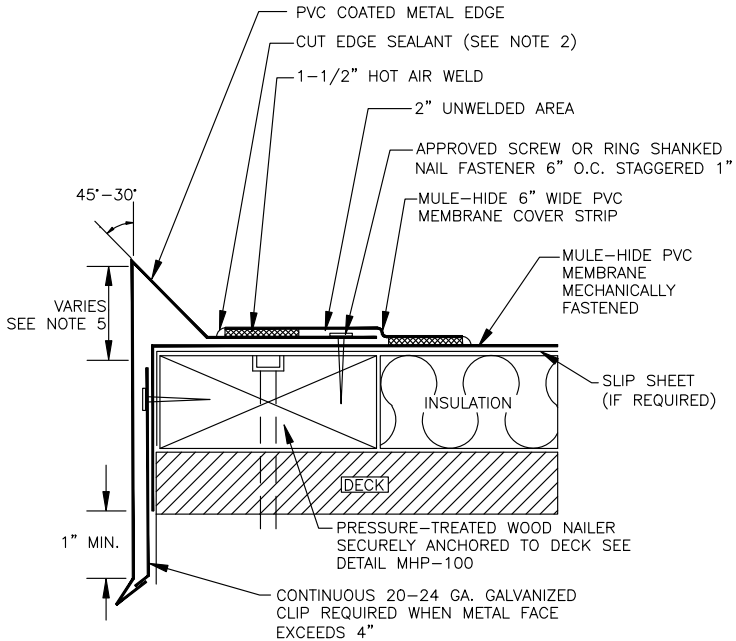
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

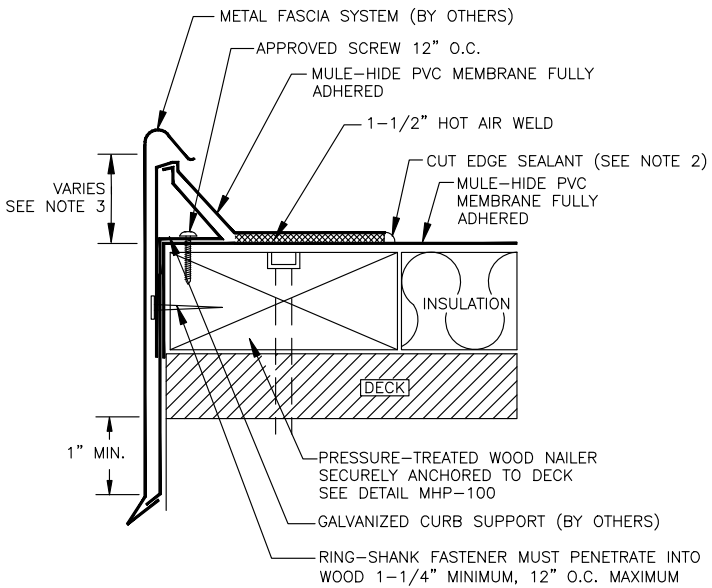


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	PVC COATED GRAVEL STOP SYSTEMS: MECHANICALLY FASTENED PVC	DETAIL NO: MHP-102

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.

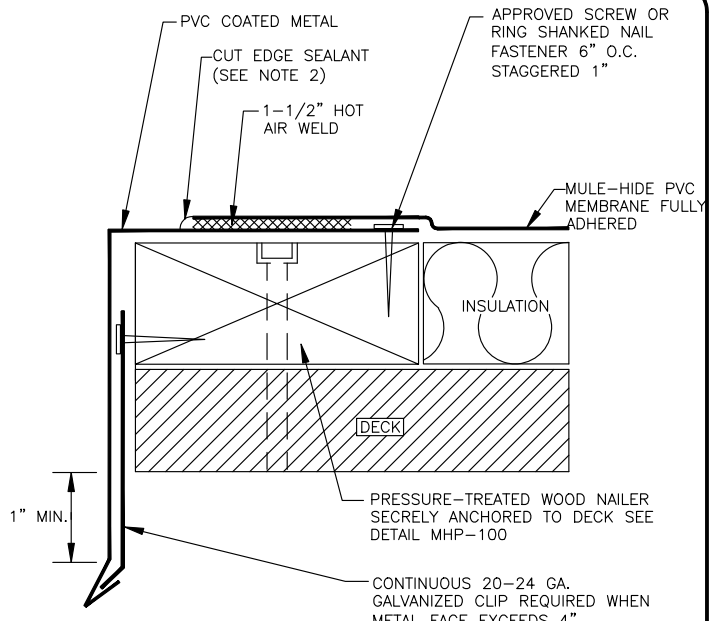


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**SNAP-ON FASCIA (BY OTHERS) SYSTEMS: FULLY ADHERED PVC**	**DETAIL NO: MHP-103**

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



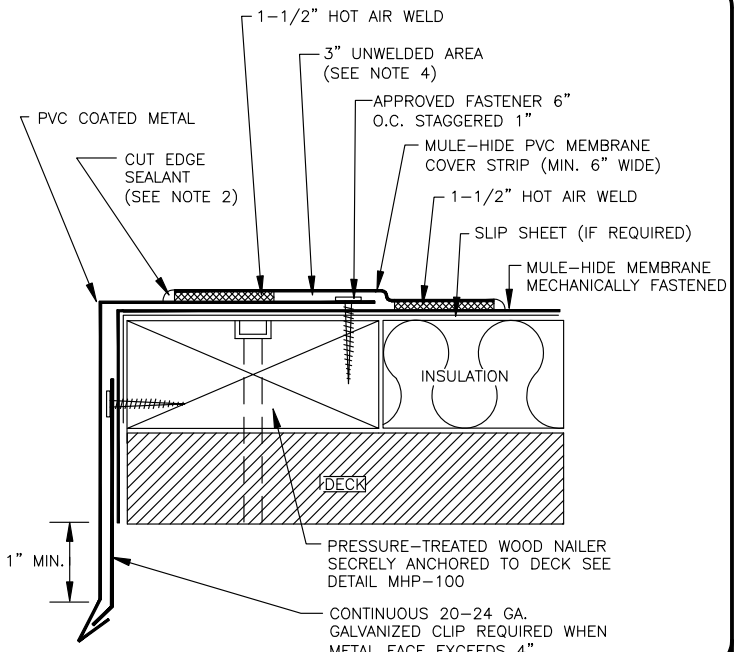
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	DRIP EDGE SYSTEMS: FULLY ADHERED PVC	DETAIL NO: MHP-104

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

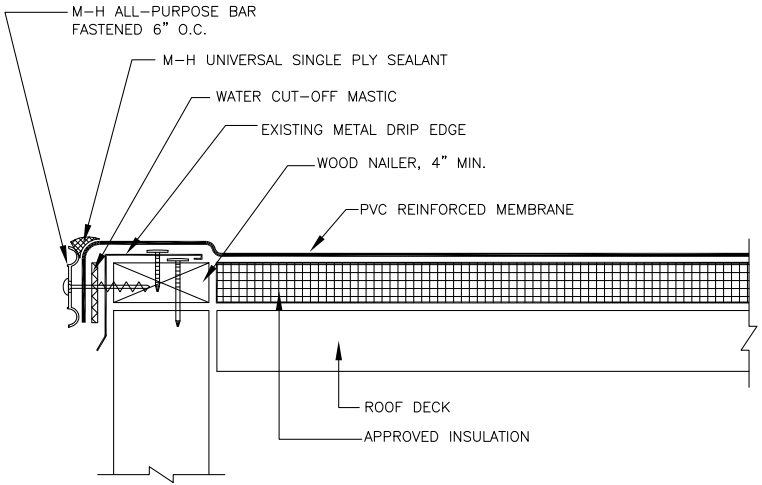
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

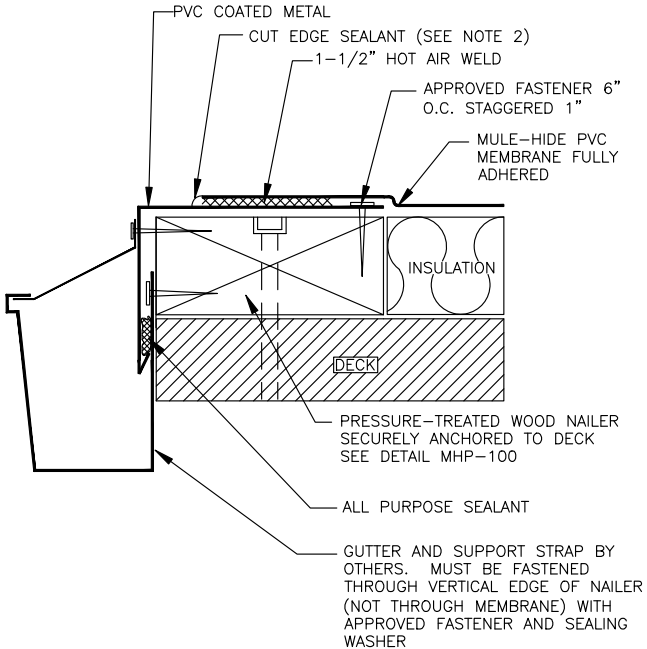
NOTES:

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

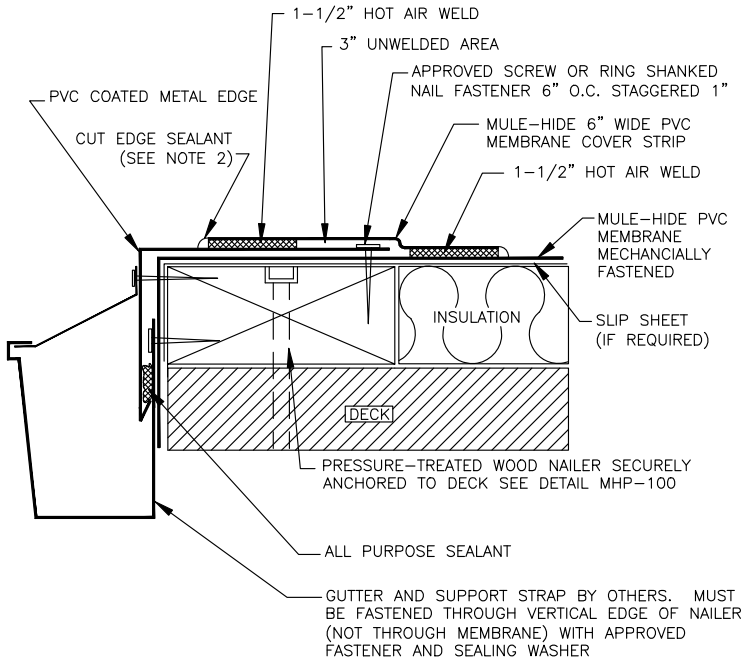
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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.

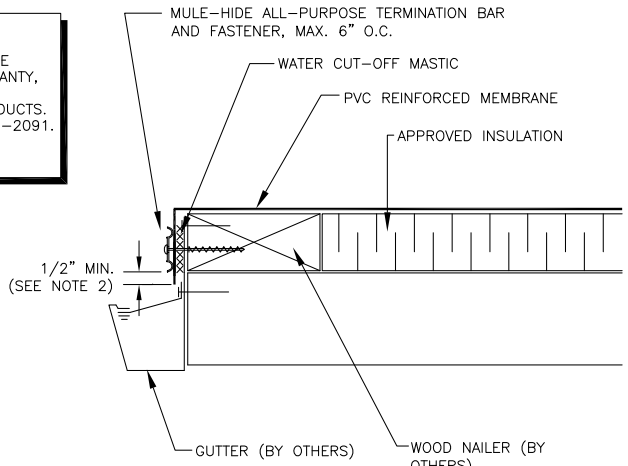
3. FOR COATED METAL JOINT SEE MULE–HIDE DETAIL MHP–109.

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

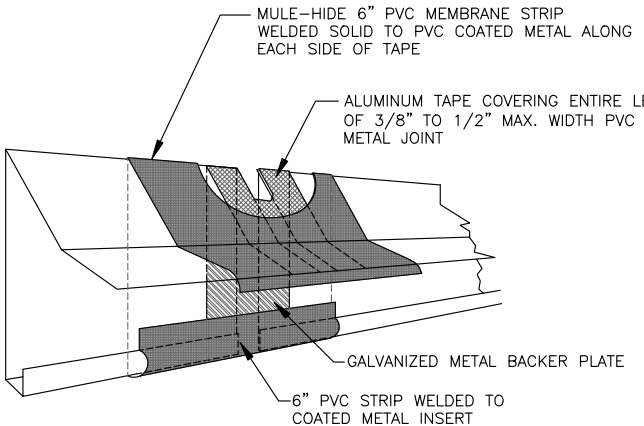
MULE-HIDE PRODUCTS CO., INC.	**ALL - PURPOSE BAR EDGE TERMINATION** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-107A** REVISION DATE: 10/2013

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:

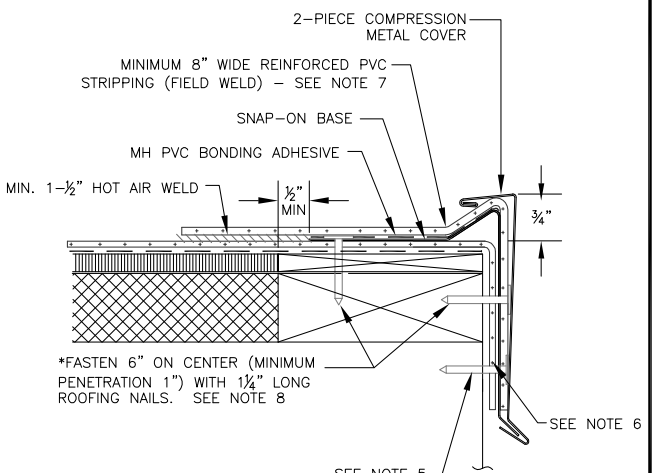
1. THE USE OF THIS DETAIL IS NOT TO EXCEED A 2" PER 12" SLOPE.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER IS TO BE FLUSH WITH TOP OF INSULATION. BE SURE THAT THE WOOD NAILER EXTENDS AT LEAST ½" BEYOND THE HORIZONTAL EDGE OF THE SNAP–ON BASE.
3. THE FASTENERS USED TO ATTACH THE BASE TO WOOD NAILERS, 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.



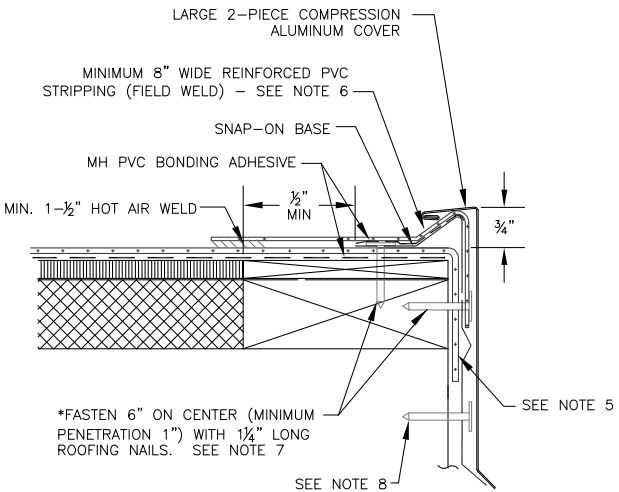
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED 2-PIECE COMPRESSION EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3110** REVISION DATE: 01/2013

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:

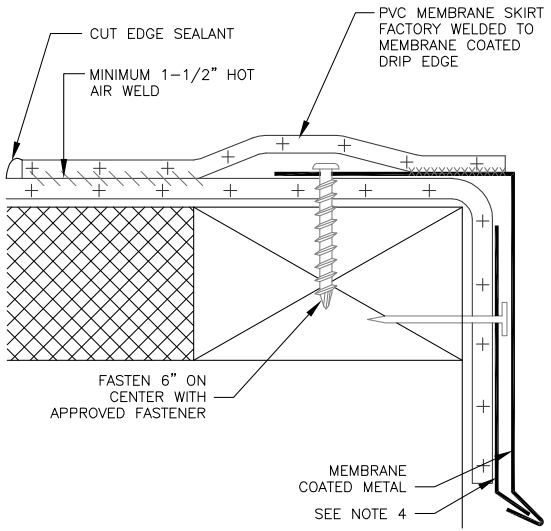
THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



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.

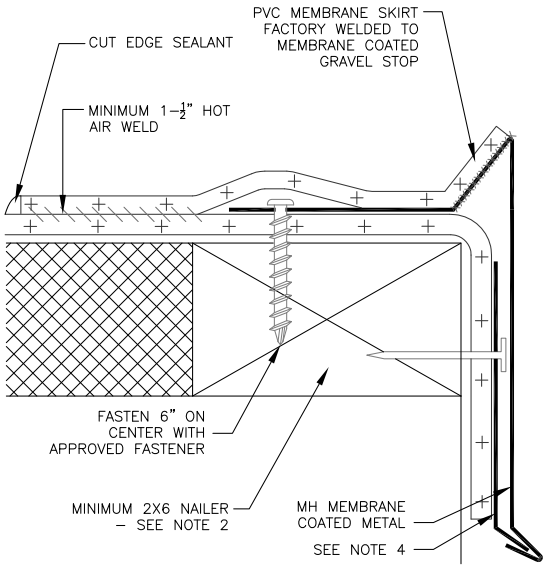
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED MEMBRANE COATED DRIP EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3120** REVISION DATE: 01/2013

NOTES:

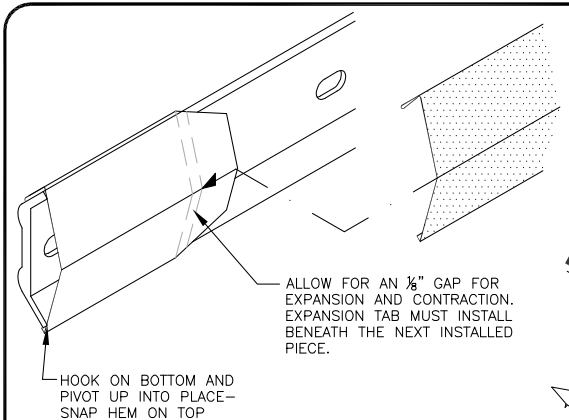
1. AN OVERLAP OF 1½" WILL BE REQUIRED BETWEEN SECTIONS OF MEMBRANE COATED METAL. A BEAD OF SEALANT IS REQUIRED IN EACH OVERLAP.
2. A WOOD NAILER IS REQUIRED. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. CUSTOM GRAVEL STOP PROFILES MUST HAVE MULE–HIDE APPROVAL TO ENSURE PROPER NAILER WIDTH IS 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.

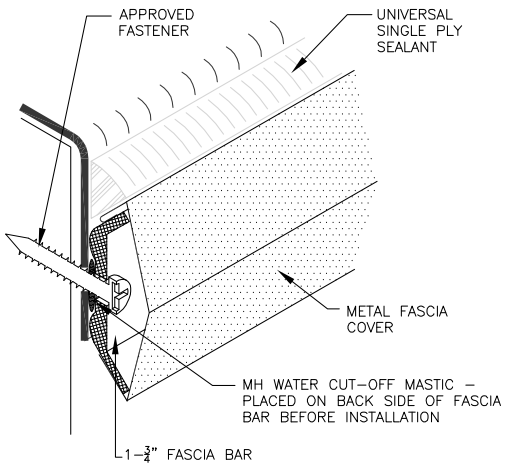


MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED MEMBRANE COATED GRAVEL STOP DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3130** REVISION DATE: 10/2013



NOTE:

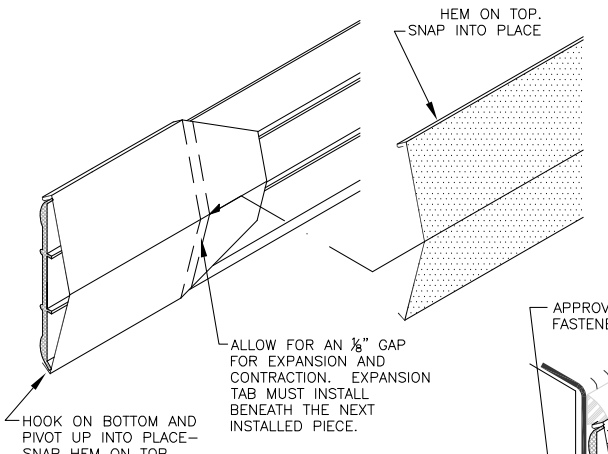
THIS DETAIL QUALIFIES TO BE INCLUDED IN ANY MULE–HIDE LABOR AND MATERIAL WARRANTY



NOTES:

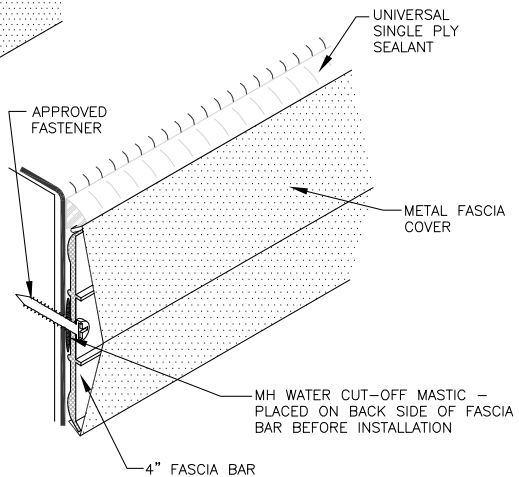
1. JOINTS ON THE FASCIA BAR MUST BE OFFSET BY A MINIMUM OF 12" FROM THE JOINTS IN THE FASCIA COVER.
2. THE FASCIA BAR MUST BE FASTENED 6" ON CENTER.
3. USE STAINLESS STEEL FASTENERS WHEN ATTACHING INTO ACQ TREATED WOOD.

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



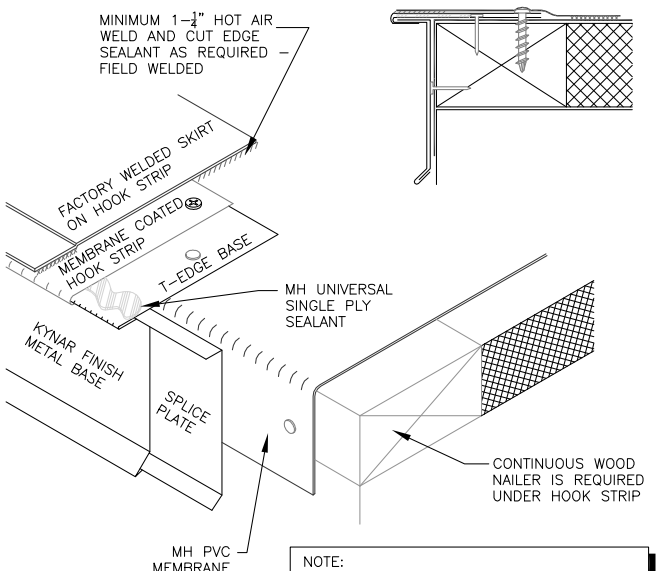
NOTES:

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.



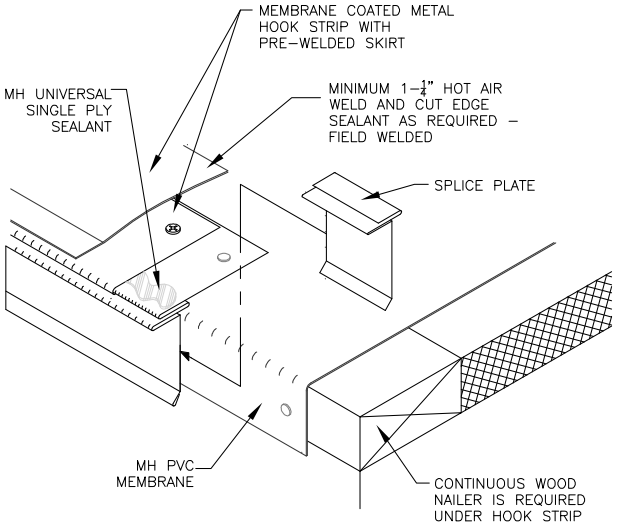
NOTE:

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 $1–\frac{3}{4}$" 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

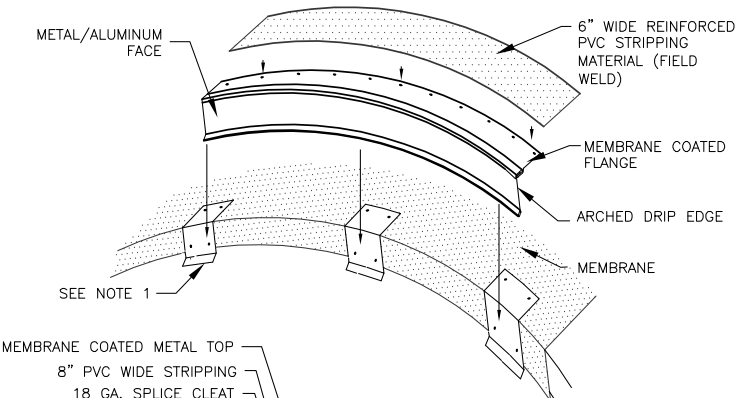
MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED T-EDGE PLUS METAL EDGE DETAIL** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-3555** REVISION DATE: 01/2013

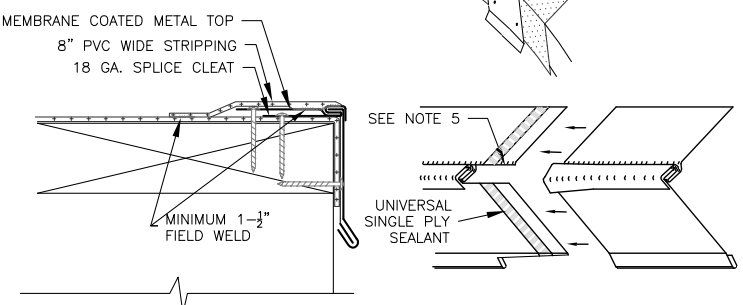
NOTES:

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

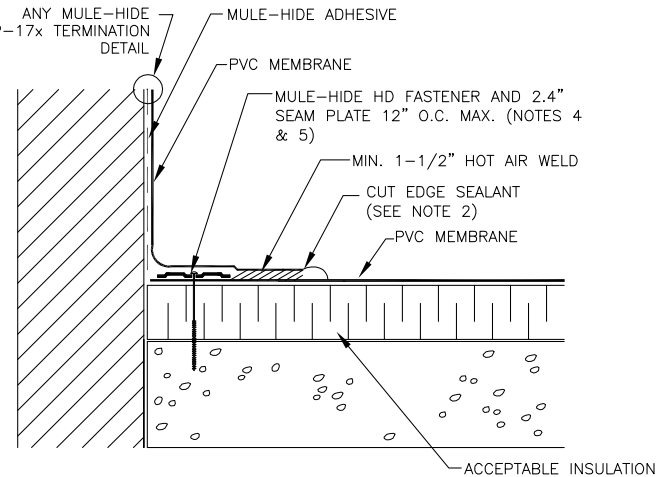




MULE-HIDE PRODUCTS CO., INC.	**MULE-HIDE PREMANUFACTURED ARCHED DRIP EDGE WITH SPLICE CLEAT** **SYSTEMS:** **ALL PVC SYSTEMS**	**DETAIL NO.:** **MHP-6040** REVISION DATE: 01/2013

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:

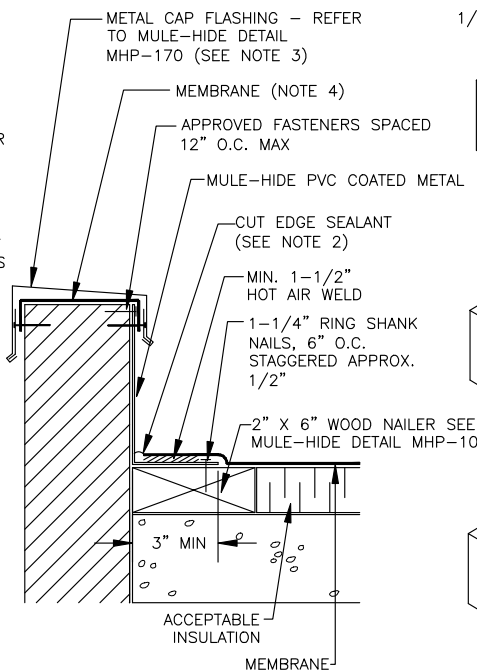
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

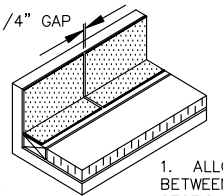
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

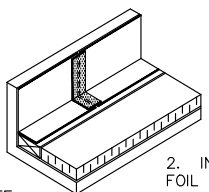
4. PLACE A LAYER OF MULE–HIDE PVC MEMBRANE UNDER THE METAL CAP TO PROTECT AGAINST MOISTURE INFILTRATION AT JOINTS.

5. DUCT TAPE MAY BE SUBSTITUTED FOR FOIL TAPE.

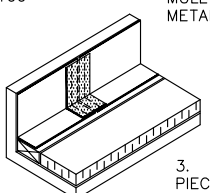




1. ALLOW 1/4" GAP BETWEEN ADJOINING SECTIONS OF MULE–HIDE PVC COATED METAL.



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**

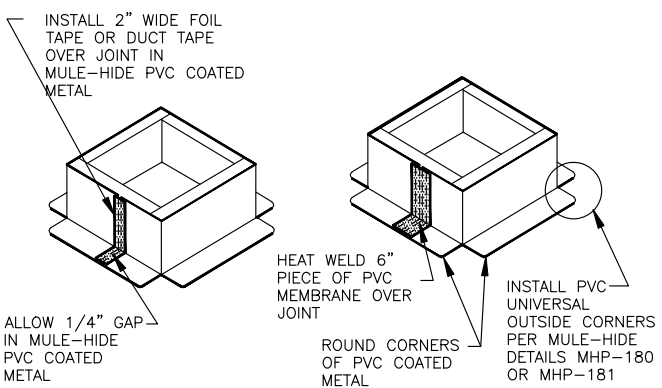
NOTE:

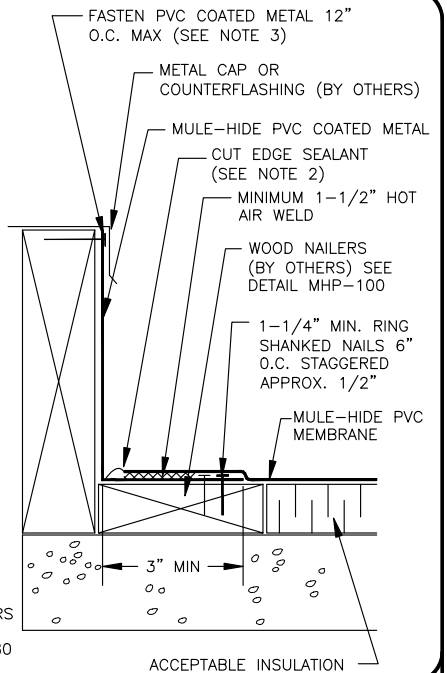
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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

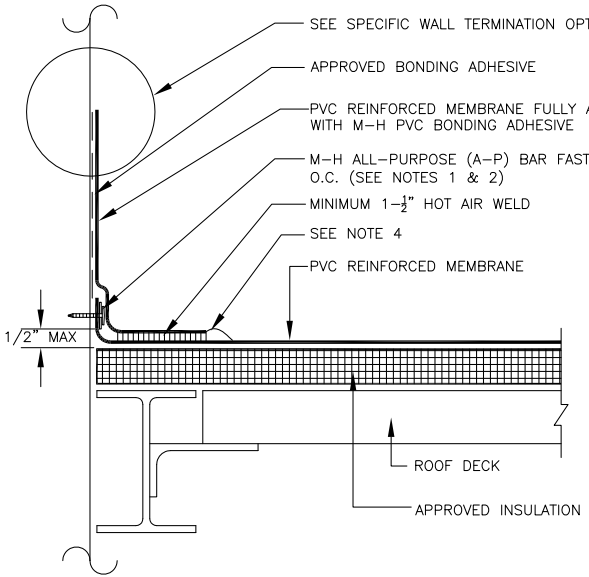
3. PVC COATED METAL FLASHING FASTENED APPROXIMATELY 12" ON CENTER UNDER COUNTERFLASHING. IF FASTENER PENETRATES METAL COUNTERFLASHING, USE NEOPRENE WASHER OR APPLY WATER CUT-OFF MASTIC UNDER COUNTERFLASHING OR CAULK FASTENER HEAD.

4. DUCT TAPE MAY BE SUBSTITUTED FOR FOIL TAPE.





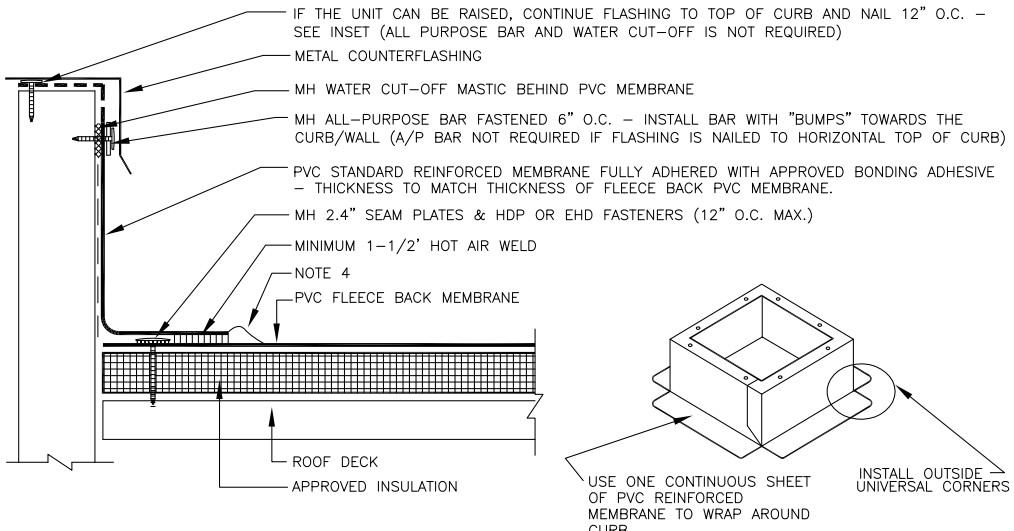
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PVC COATED METAL CURB FLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-123**



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



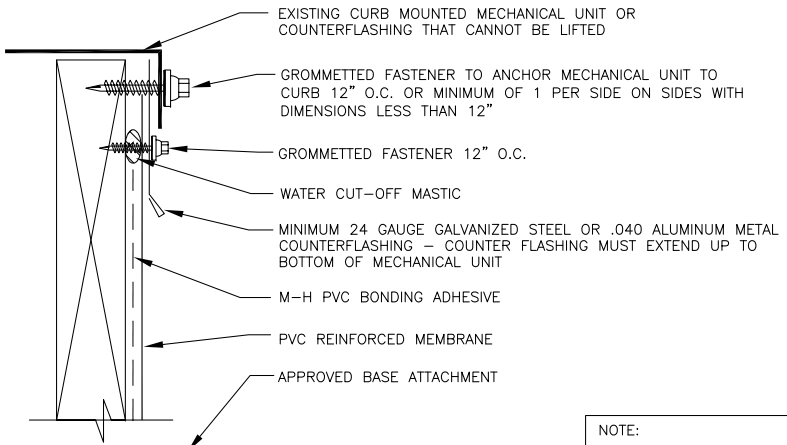
NOTES:

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

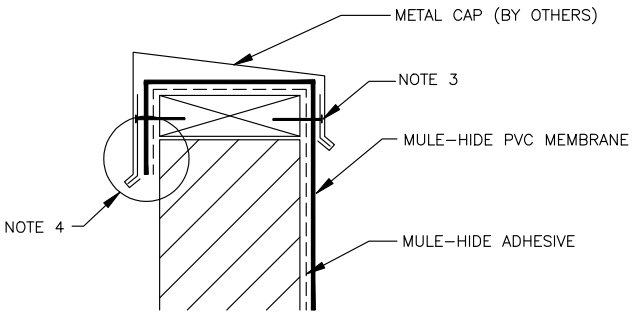
NOTES:

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

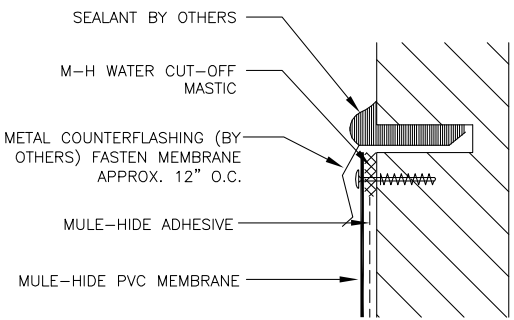
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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:

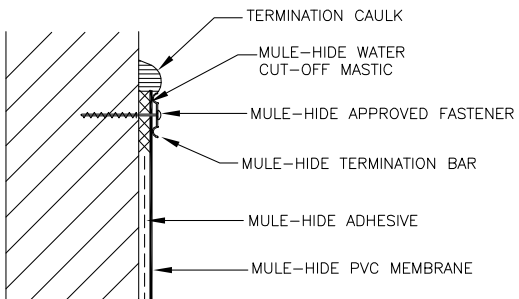
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

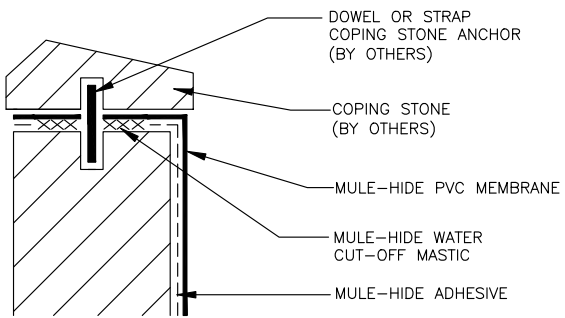
4. ALLOW 1/4" TO 1/2" SPACING BETWEEN CONSECUTIVE LENGTHS OF TERMINATION BAR.

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

NOTES:

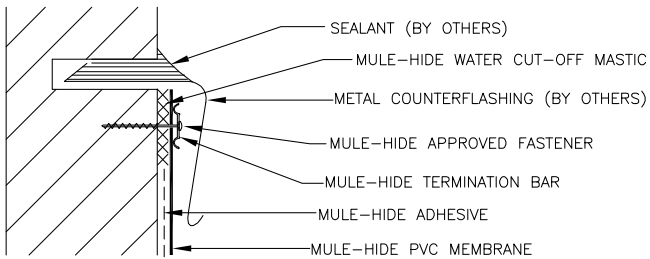
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

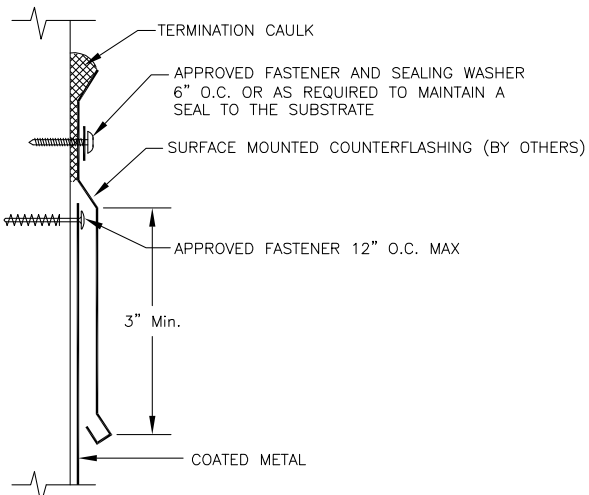
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**15 AND 20 YEAR WARRANTY MECHANICAL TERMINATION** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-174**

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.



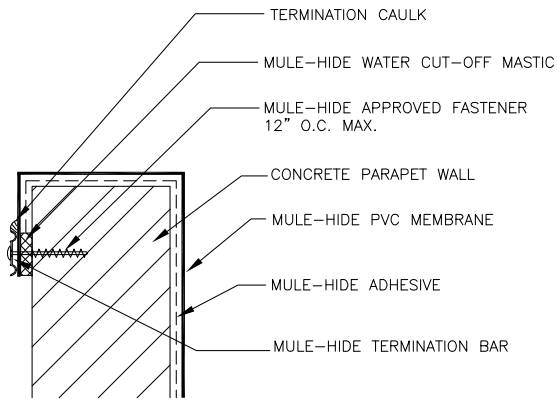
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	SURFACE MOUNTED METAL COUNTERFLASHING SYSTEMS: ALL PVC	DETAIL NO: MHP-175

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.

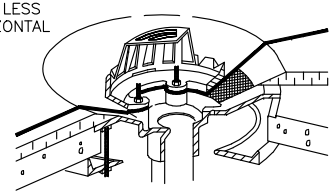
4. ALL BOLTS AND CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT–OFF MASTIC.

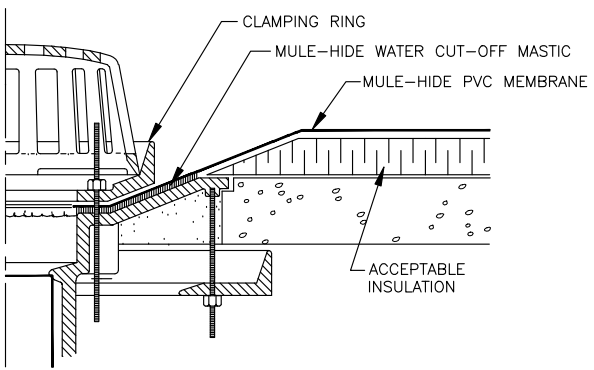
5. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.

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

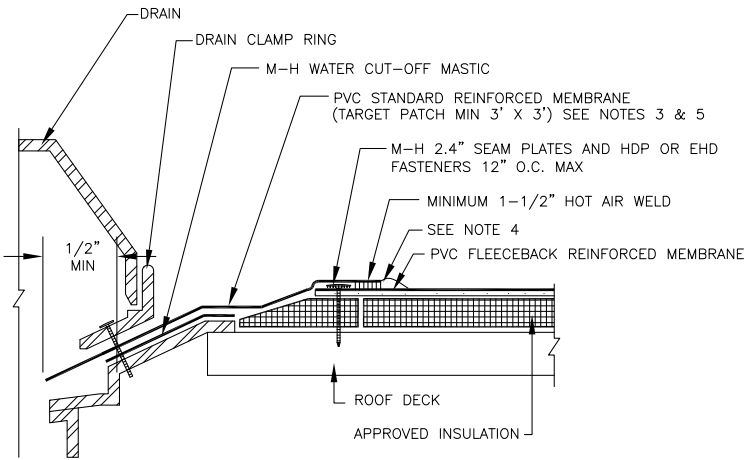




MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED LESS THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-130**

NOTES:

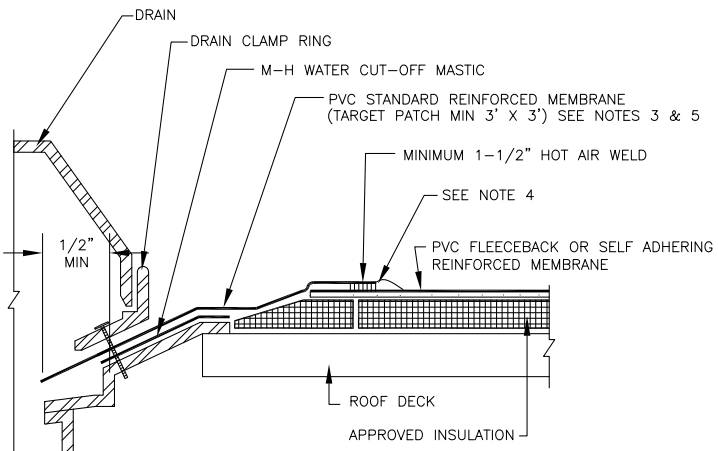
1. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
2. THE CLAMPING RING BOLT MUST PENETRATE THE MEMBRANE.
3. ALL FLASHINGS ON A PVC FLEECEBACK PROJECT MUST BE CONSTRUCTED WITH STANDARD REINFORCED PVC MEMBRANE.
4. APPROXIMATELY 1/8" BEAD OF CUT–EDGE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

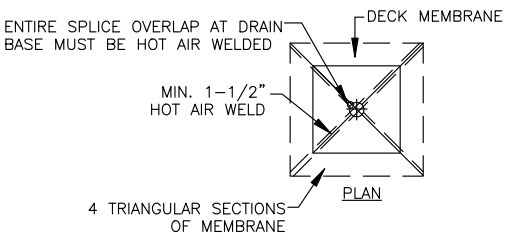
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

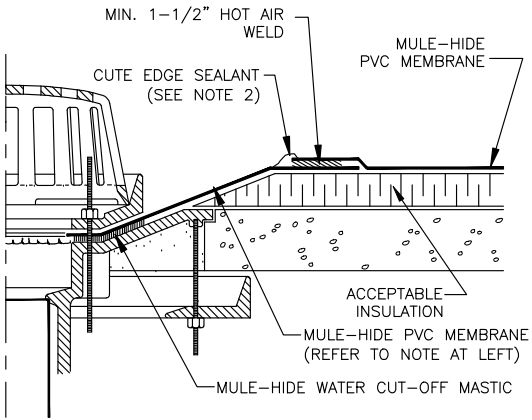
4. REMOVE ALL LEAD AND OTHER FLASHING.

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**

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

NOTES:

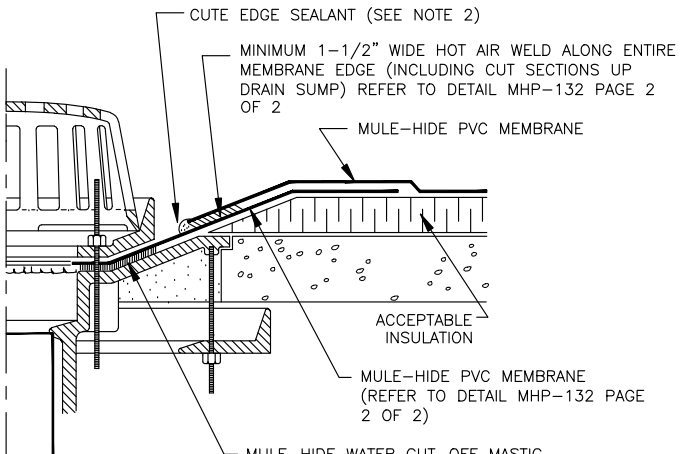
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

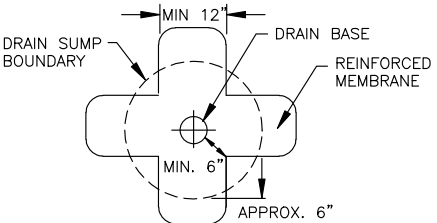
5. CUT MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" FROM ATTACHMENT POINTS OF THE CLAMPING RING.

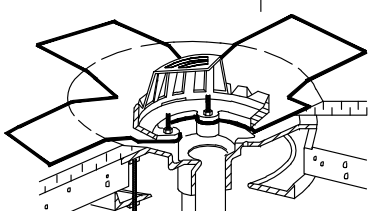


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-132** (PAGE 1 OF 2)

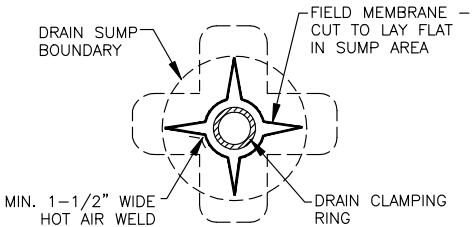
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

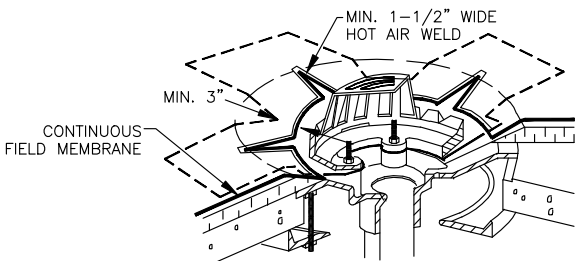
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.





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



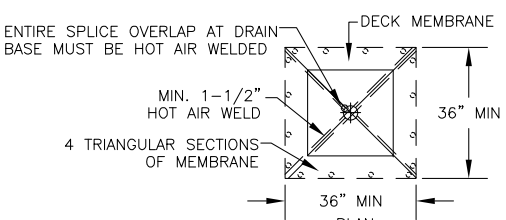


EXTEND FIELD MEMBRANE ONTO MEMBRANE SECTION POSITIONED AT DRAIN SUMP AND CUT AS SHOWN TO LAY FLAT IN SUMP. HOT AIR WELD A MINIMUM OF 1–1/2" COMPLETELY SURROUNDING AREA.

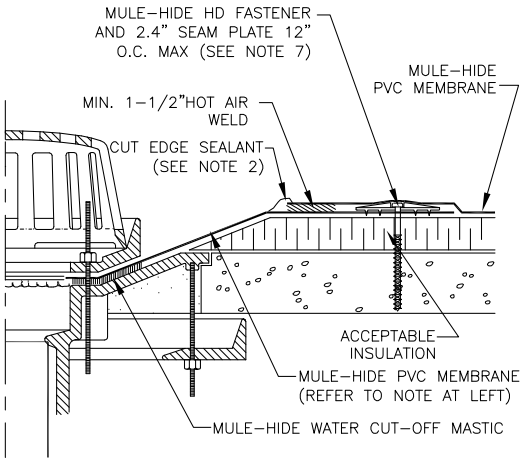
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-132** PAGE 2 OF 2

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

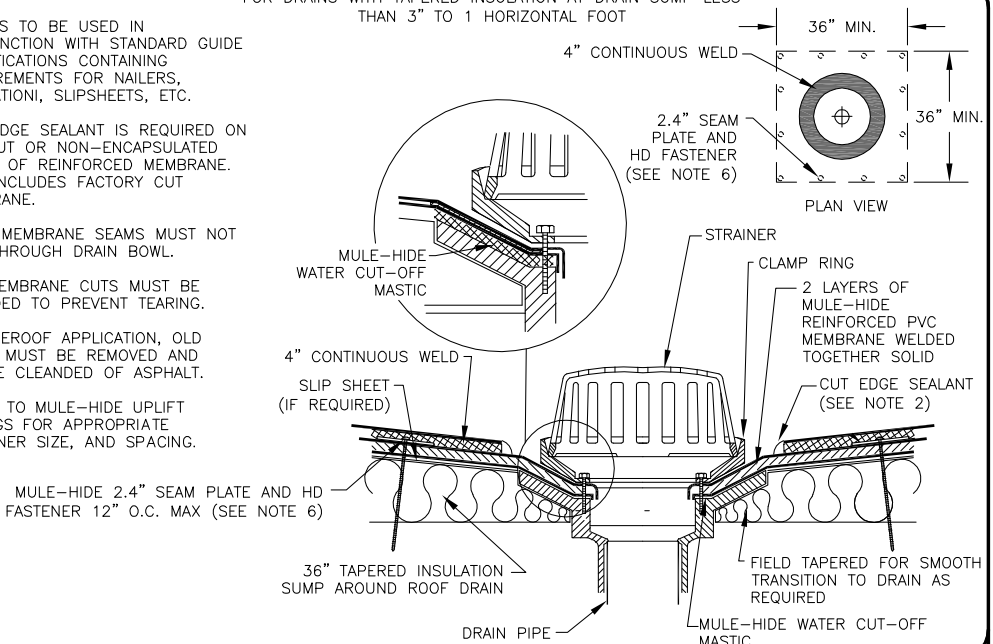


MULE-HIDE PRODUCTS CO., INC. 2010	***ROOF DRAIN FOR DRAIN SUMPS SLOPED MORE THAN 3" PER FOOT*** ***SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-135***

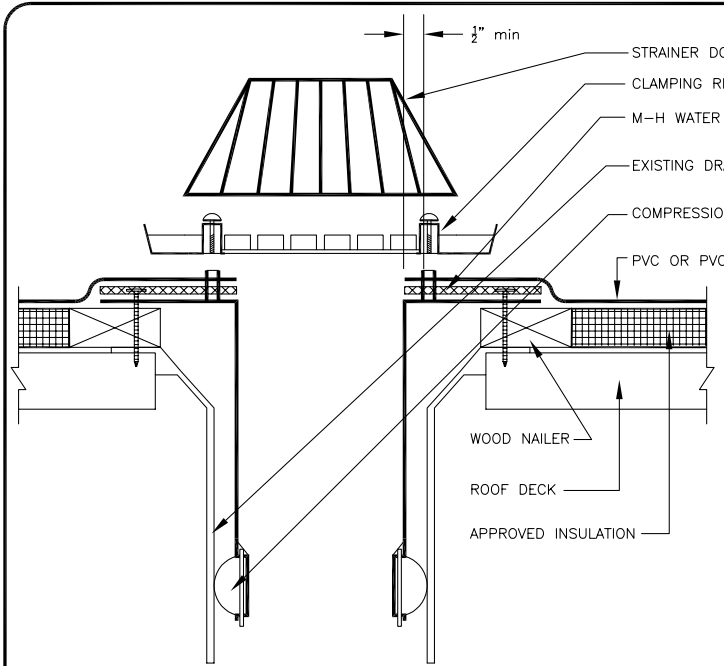
NOTES:

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.

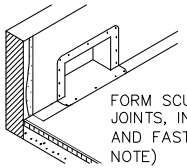
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

4. INSTALL WALL FLASHING PRIOR TO SCUPPER INSTALLATION.

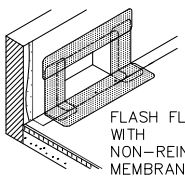
5. DISCONTINUE FASTENING PLATES AT SCUPPER OPENING AS SHOWN.

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

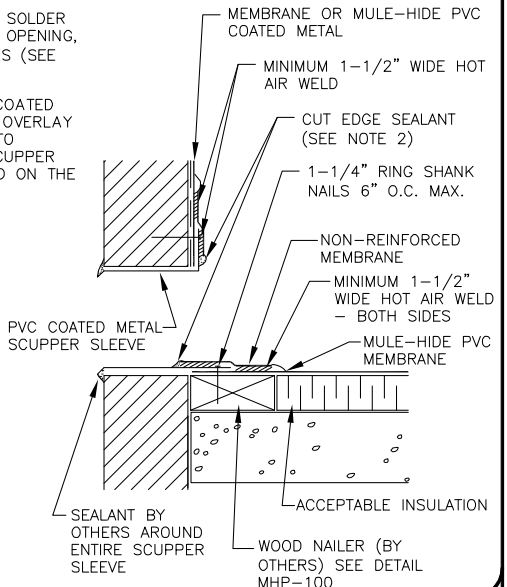


FORM SCUPPER AND SOLDER JOINTS, INSERT INTO OPENING, AND FASTEN FLANGES (SEE NOTE)

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.



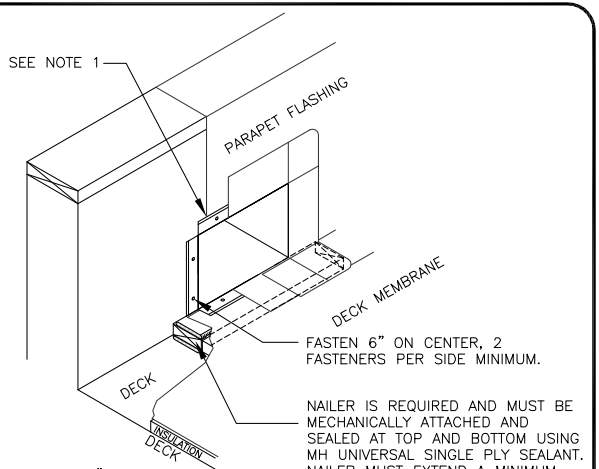
FLASH FLANGES WITH NON–REINFORCED MEMBRANE

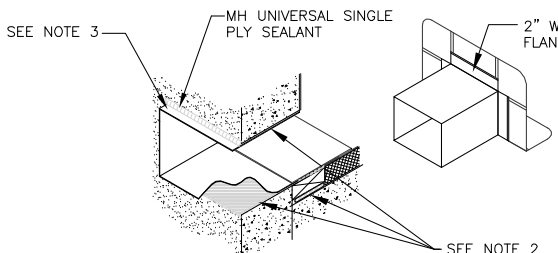


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**(SOLDERED JOINTS) SCUPPER WITH COATED METAL** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-136**

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.

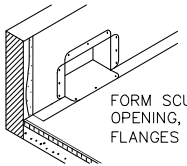
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

4. INSTALL WALL FLASHING PRIOR TO SCUPPER INSTALLATION.

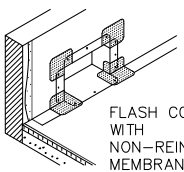
5. DISCONTINUE FASTENING PLATES AT SCUPPER OPENING AS SHOWN.

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

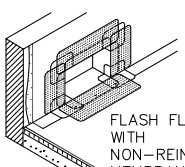


FORM SCUPPER, INSERT INTO OPENING, AND FASTEN FLANGES (SEE NOTE)

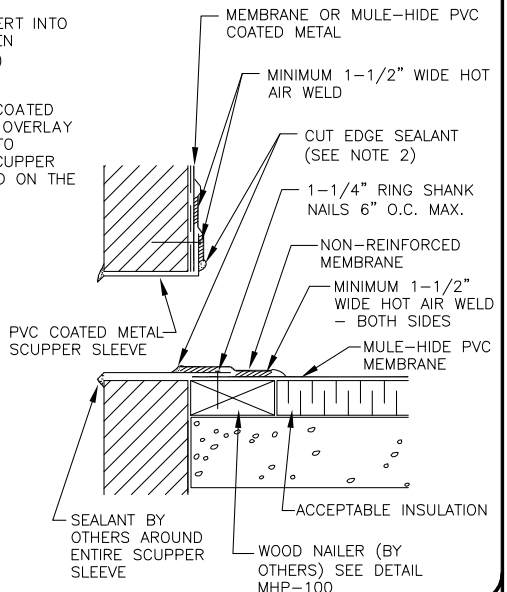
NOTE: FORM SCUPPER BOX OF PVC COATED METAL, TAPE THE METAL SEAM, AND OVERLAY WITH FLASHING BEFORE INSERTING INTO SCUPPER OPENING. POSITION THE SCUPPER BOX SO THE METAL SEAM IS LOCATED ON THE TOP OR SIDES OF THE SCUPPER.



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.

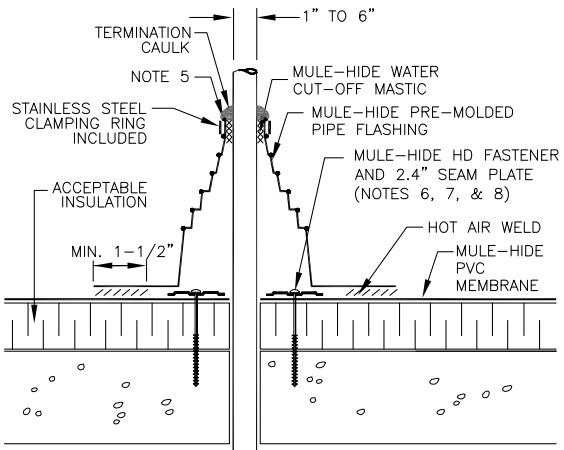
5. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.

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.

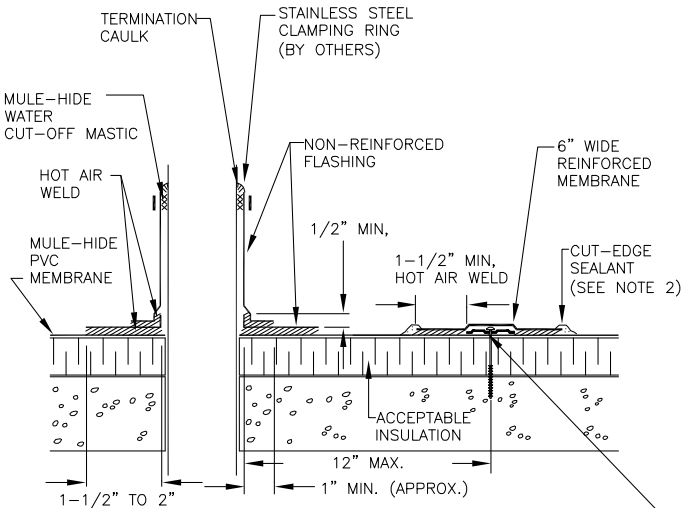


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	***PVC PRE-MOLDED PIPE FLASHING SYSTEMS: MECHANICALLY ATTACHED PVC***	***DETAIL NO: MHP-140***

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:

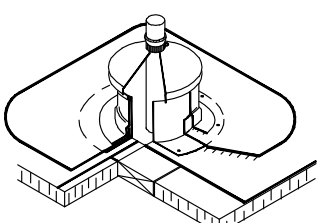
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

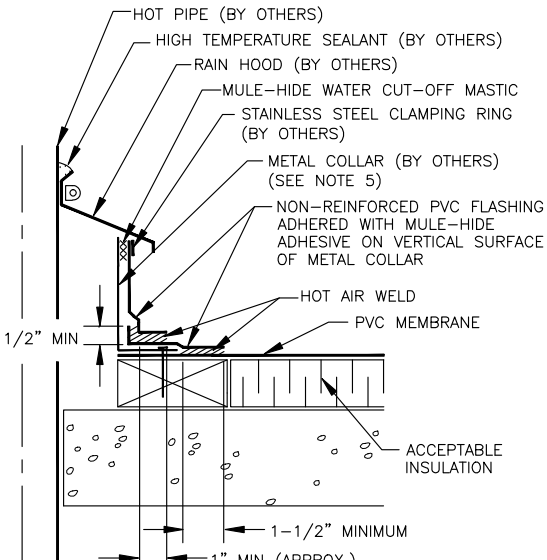
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

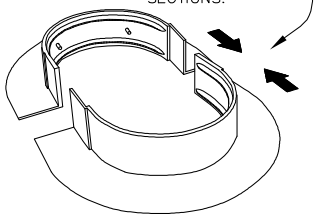
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**FIELD FABRICATED HOT PIPE SYSTEMS: ALL PVC**	**DETAIL NO: MHP-142**

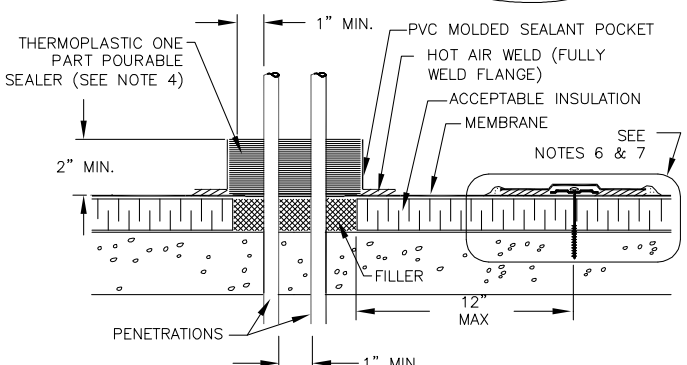
NOTES:

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





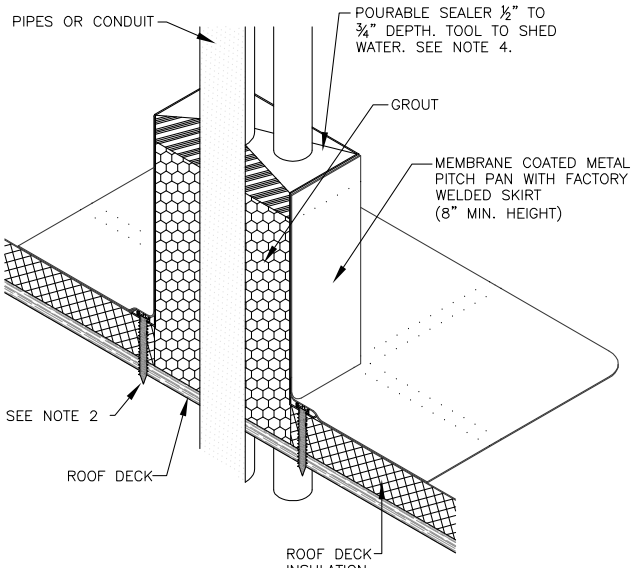
MULE-HIDE PRODUCTS CO., INC. 2010	***MOLDED SEALANT POCKET*** ***SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-143***

NOTES:

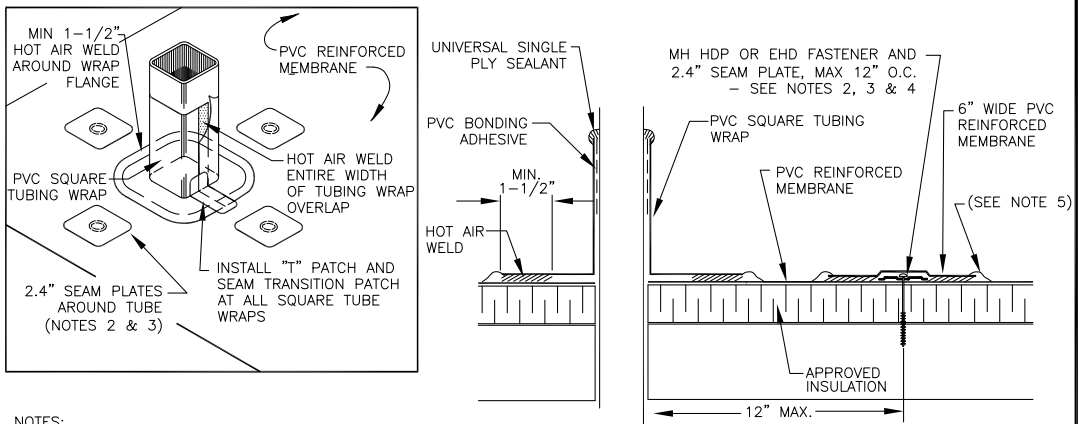
1. WATER MUST NOT BE ALLOWED TO POND WITHIN THE PITCH POCKET. BE SURE THAT THE POURABLE SEALER IS LEVEL WITH THE TOP OF THE PITCH PAN.
2. PITCH PAN MUST BE FASTENED 6" ON CENTER IN FLANGE WITH APPROVED FASTENERS, (1 PER SIDE MIN.).
3. PIPES OR CONDUIT MUST HAVE A MINIMUM 1" CLEARANCE BETWEEN OBJECTS 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



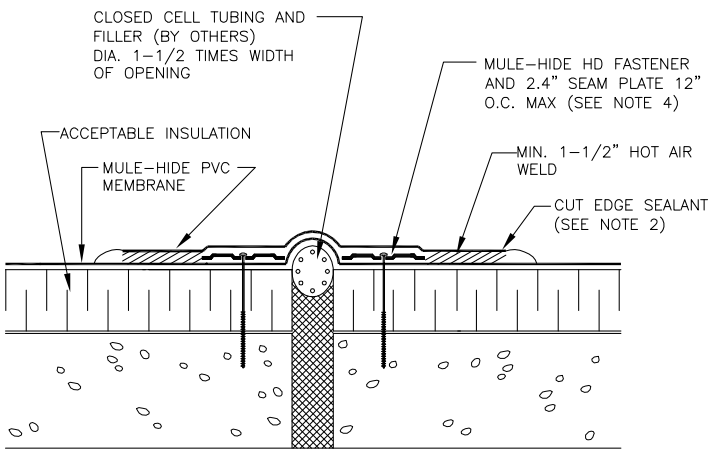
NOTES:

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:

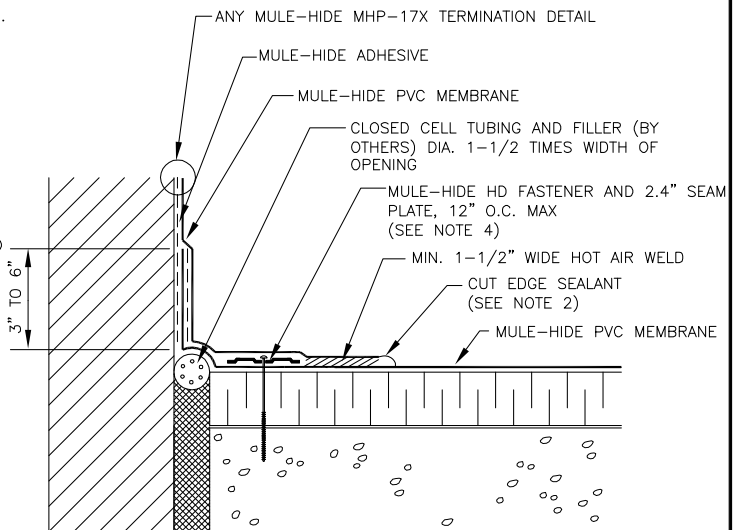
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION SEAM PLATES 1/2" MINIMUM 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 SYSTEMS: ALL PVC	DETAIL NO: MHP-150

NOTES:

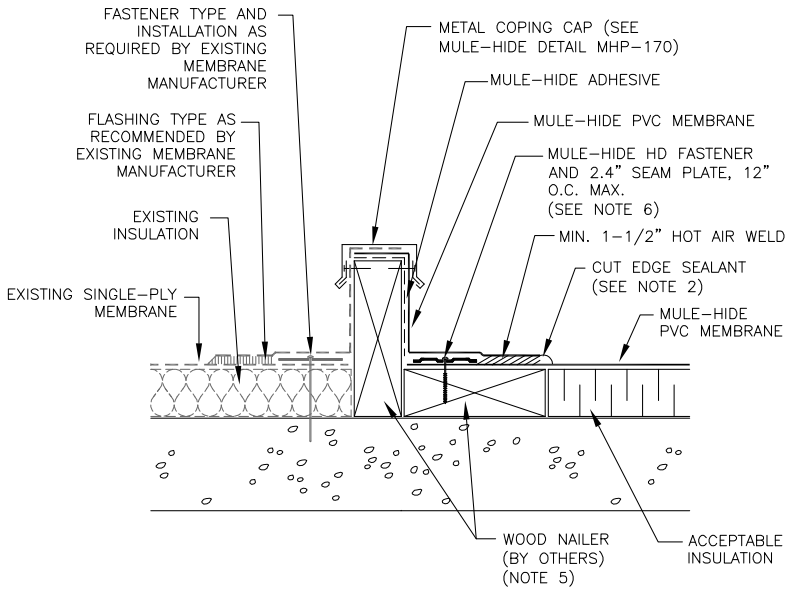
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.
3. POSITION SEAM PLATES 1/2" MINIMUM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

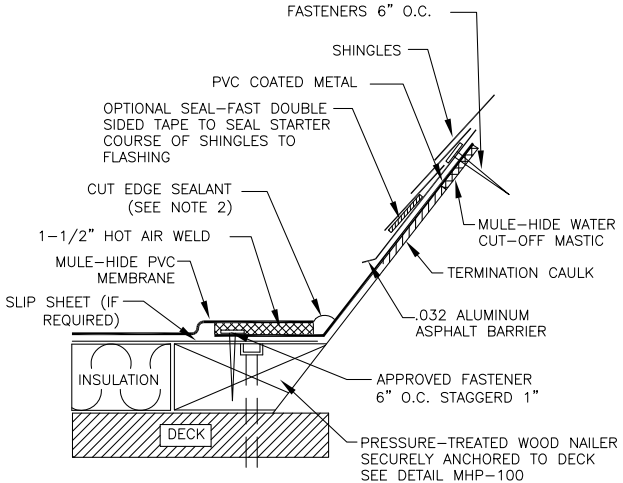
NOTES:
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

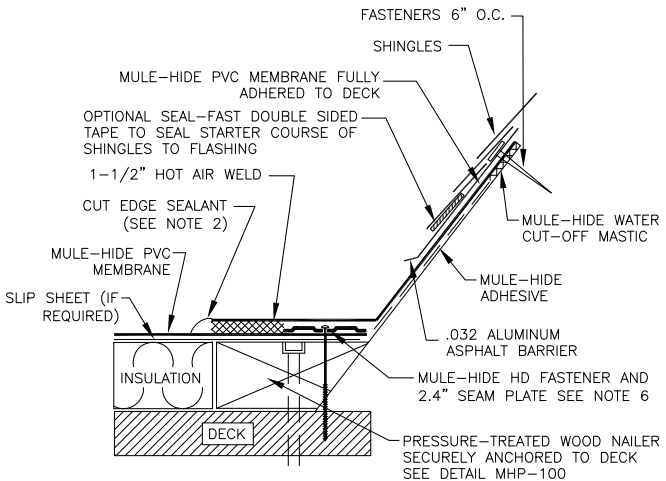
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT EDES OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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

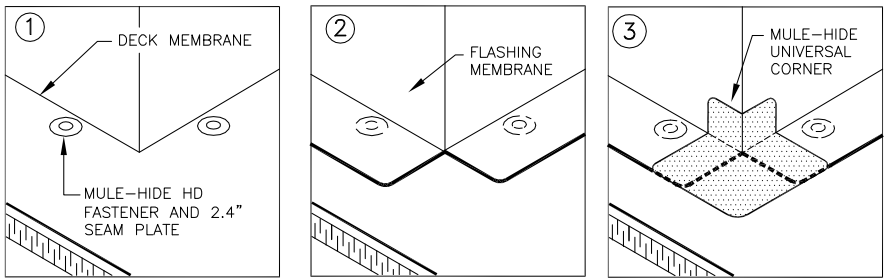
4. COATED METAL FLASHINGS MUST EXTEND UNDER A MINIMUM OF TWO (2) COURSES OF SHINGLES.

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.



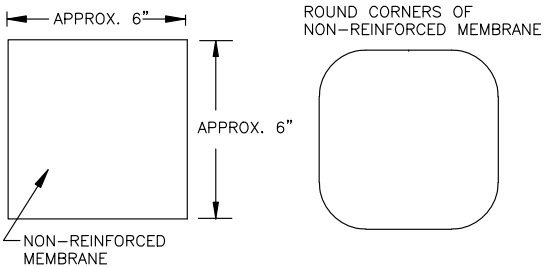
MULE-HIDE PRODUCTS CO., INC. 2010	MEMBRANE FLASHING TRANSITION TO SHINGLE ROOF SYSTEMS: ALL PVC	DETAIL NO: MHP-162

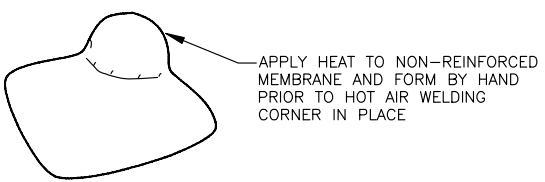


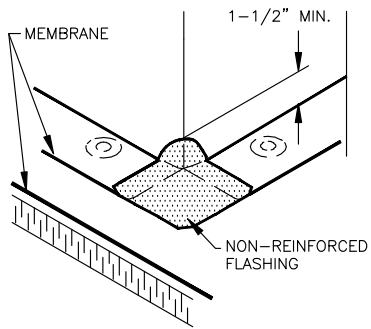
NOTES:

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***







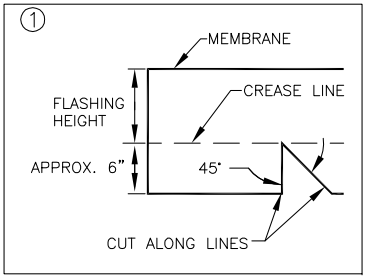
POSITION AND HEAT WELD
CORNER IN PLACE AS SHOWN

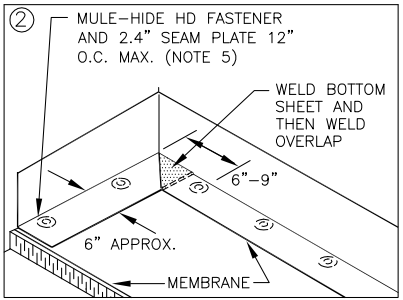
NOTES:

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.

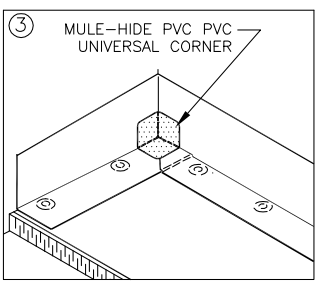
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**FIELD FABRICATED OUTSIDE CORNER** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-181**



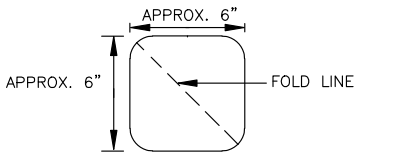


NOTES:

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.

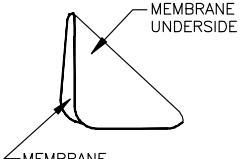


MULE-HIDE PRODUCTS CO., INC. 2010	***PRE-MOLDED INSIDE CORNER FLASHING*** ***SYSTEMS:*** ***ALL PVC***	***DETAIL NO:*** ***MHP-182***

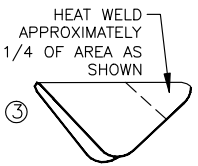


CUT A SECTION OF NON–REINFORCED MEMBRANE WITH ROUNDED CORNERS OR USE INSIDE/OUTSIDE CORNER; FOLD ALONG LINE AS INDICATED

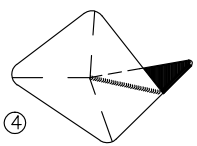
①



②



③



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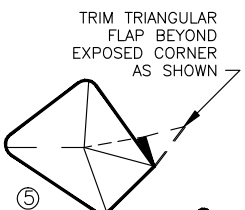
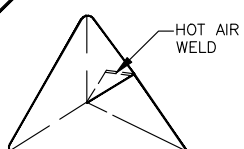
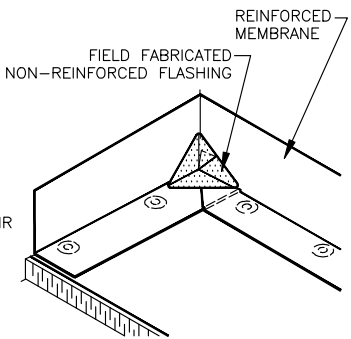


⑤



⑥ POSITION AND HEAT WELD CORNER IN PLACE AS SHOWN

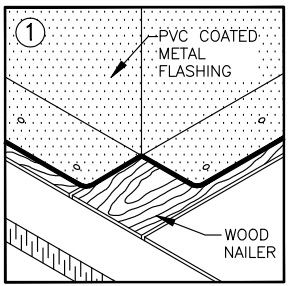


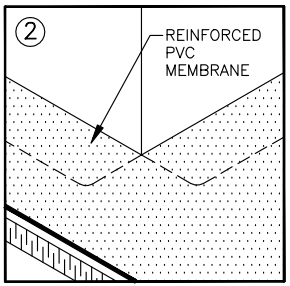
NOTES:

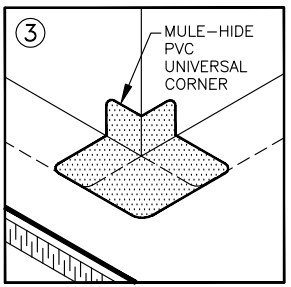
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFCIATIONS CONTAINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

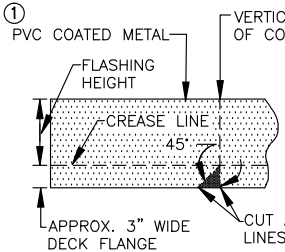
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

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.

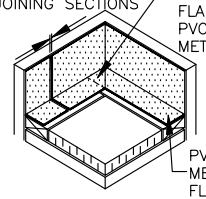
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**PRE-MOLDED OUTSIDE CORNER ON COATED METAL WALL FLASHING** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-184**

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



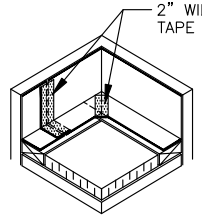
CREASE PVC COATED METAL FLASHING ALONG DASHED LINES AFTER CUTTING AND REMOVING SHADED TRIANGLE.

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



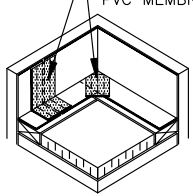
OVERLAP FLANGE AT CORNER AND FASTEN TO WOOD NAILERS USING 1–1/4" RING SHANK NAILS SPACED 6" O.C., STAGGERED 1/2".

③ 2" WIDE FOIL TAPE



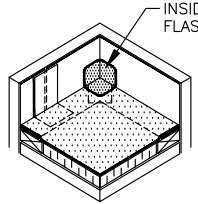
INSTALL 2" WIDE FOIL TAPE OVER VERTICAL JOINT IN PVC COATED METAL AND OVER CUT EDGE AT CORNER AS SHOWN.

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.

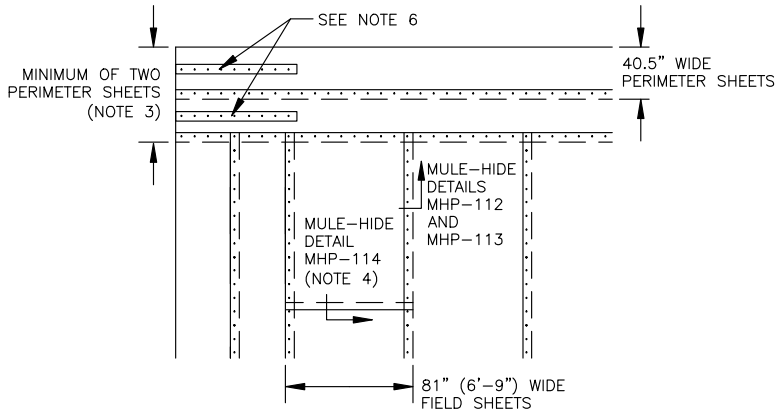
2. PVC EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORECED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE.

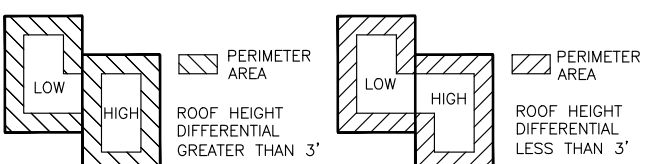
3. REFER TO SPECIFICATIONS FOR REQUIRED NUMBER OF PERIMETER SHEETS AND MEMBRANE FASTENING.

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.



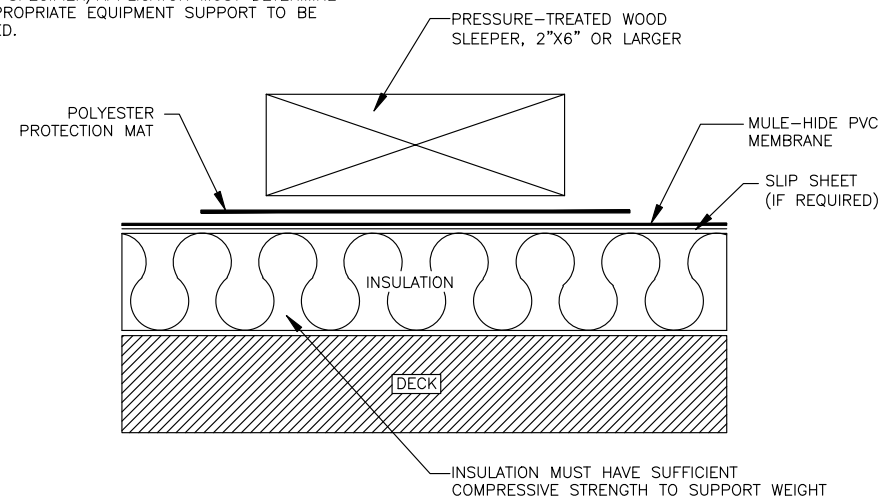


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	MEMBRANE SECUREMENT SYSTEMS: MECHANICALLY FASTENED PVC	DETAIL NO: MHP-186

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**

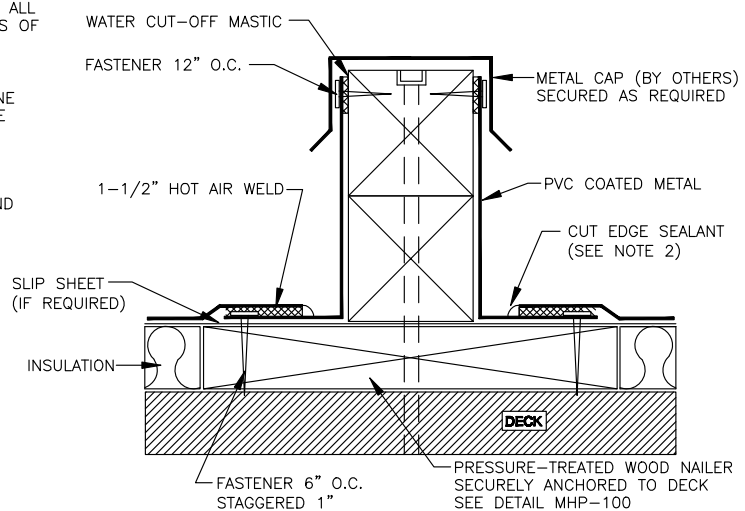
NOTES:

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.

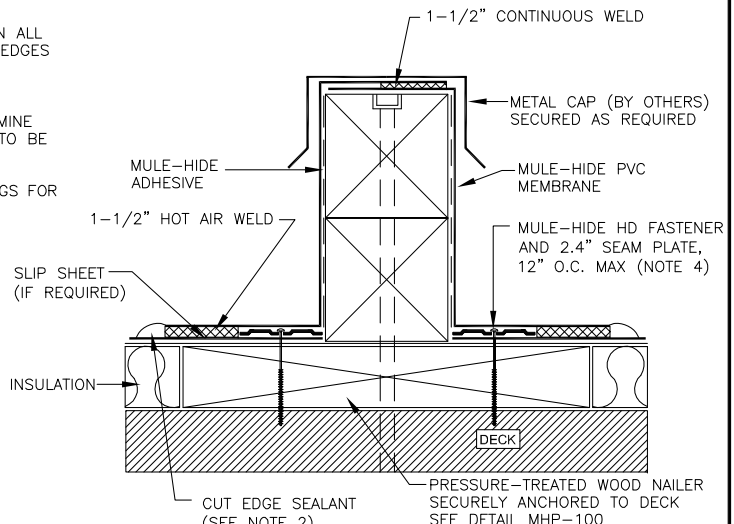
4. WHEN UTILIZING MULE–HIDE PVC MEMBRANE, THE ROOFING SHEET MAY BE ATTACHED WITH APPROVED FASTENERS AND PLATES AS A BASE TIE–IN. SEE DETAIL MHP–120



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:

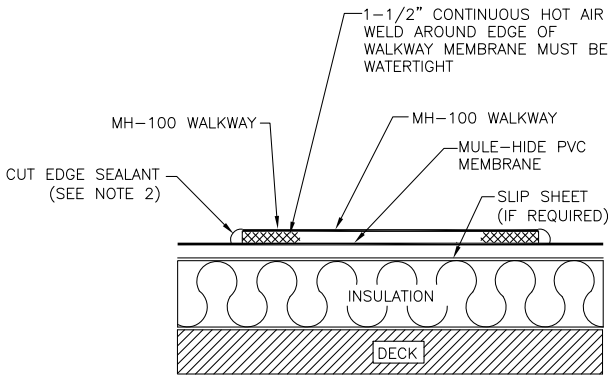
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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".

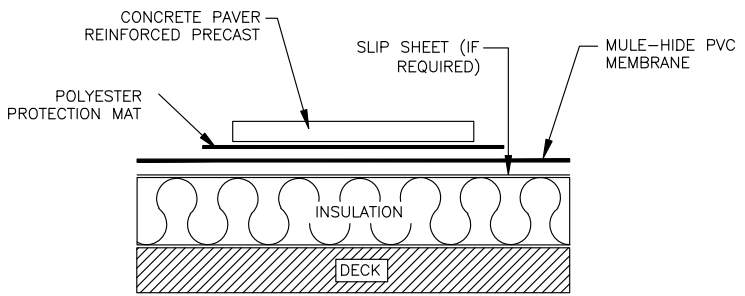
5. ALL ADJACENT AND ABUTTING WALKWAY RUNS MUST BE GAPPED A MINIUM OF 6" AND MUST NOT BE OVERLAPPED.



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.



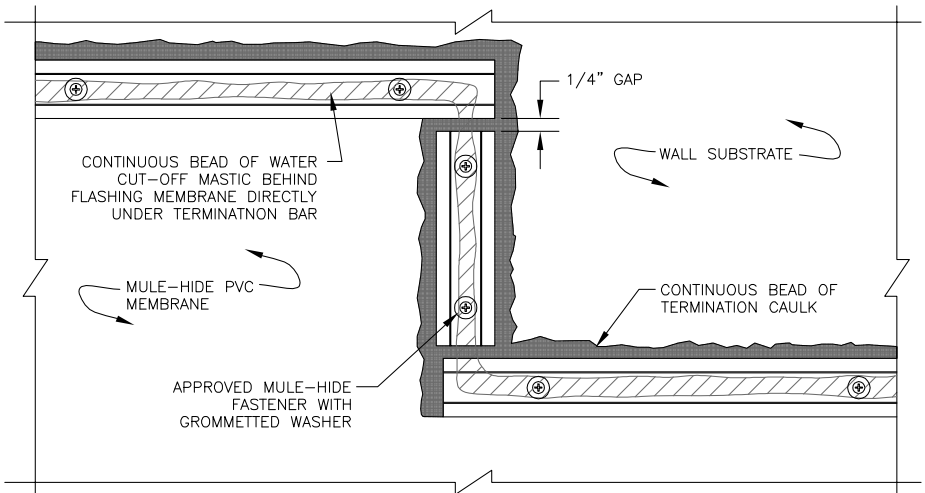
MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**CONCRETE PAVER WALKWAY SYSTEMS: ALL PVC**	**DETAIL NO: MHP-195**

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**

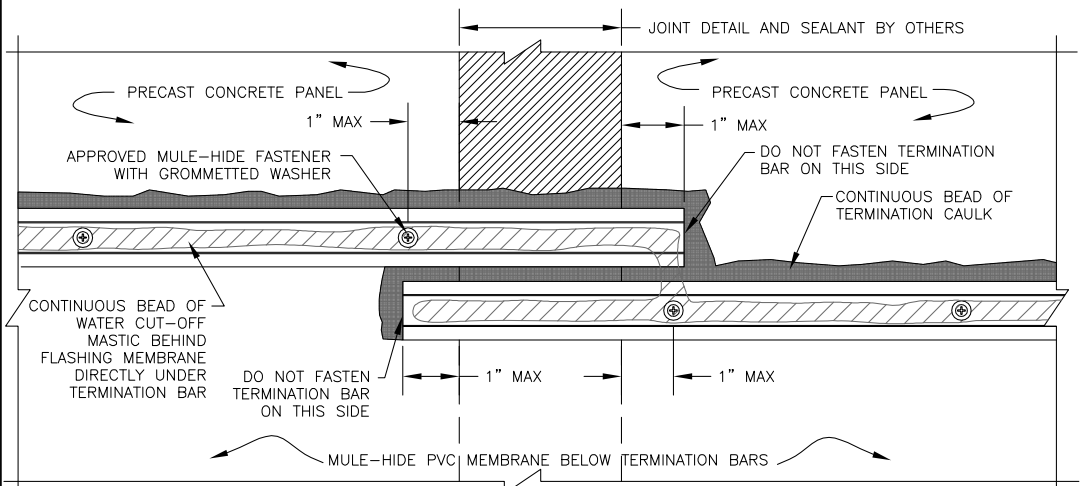
NOTES:

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:

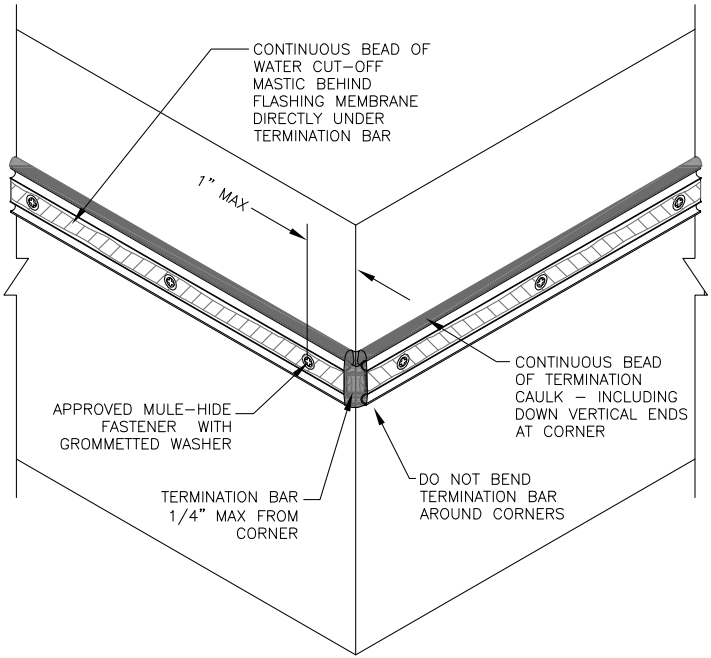
1. DETAILS TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATIONS CONTAIINING REQUIREMENTS FOR NAILERS, INSULATION, SLIPSHEETS, ETC.

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.

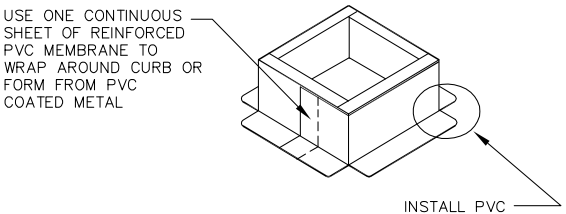
5. IF MASONRY FASTENERS ARE USED, FASTENER MAY BE MOVED TO 2" MAXIMUM FROM CORNER.

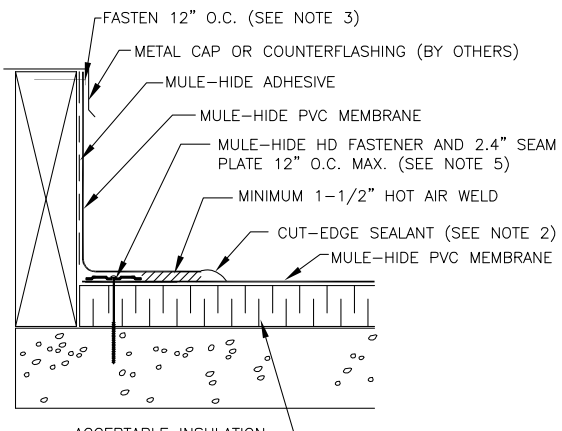


MULE-HIDE PRODUCTS CO., INC. 04/01/2007	**TERMINATION BAR AT CORNER** **SYSTEMS:** **ALL PVC**	**DETAIL NO:** **MHP-198**

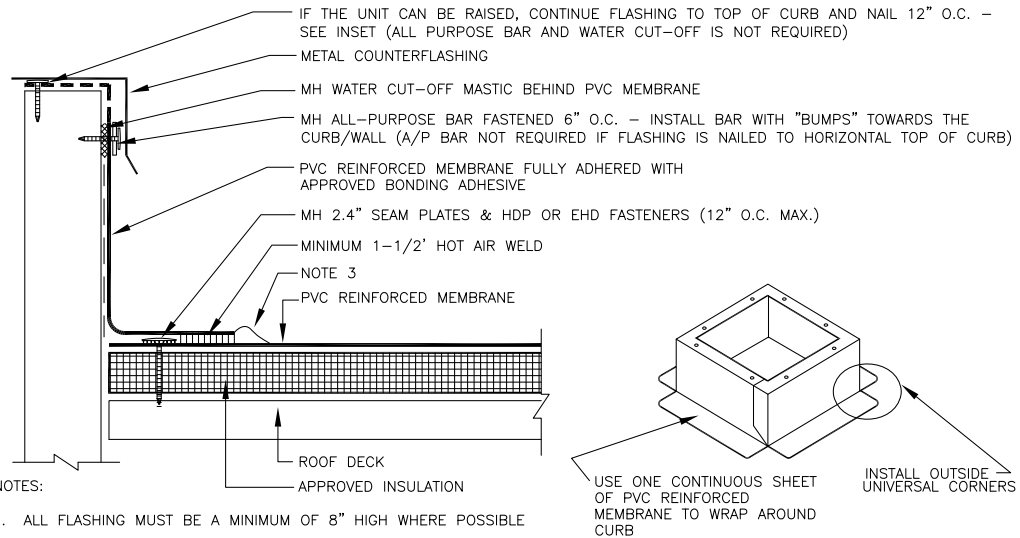
NOTES:

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***



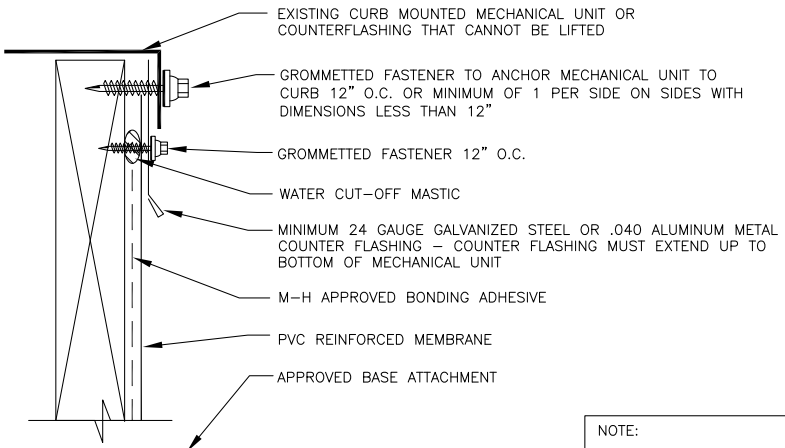
NOTES:

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



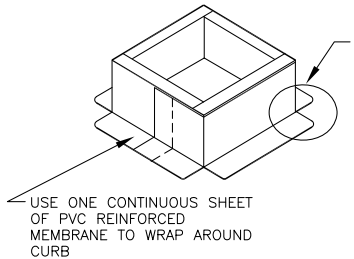
NOTE:

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

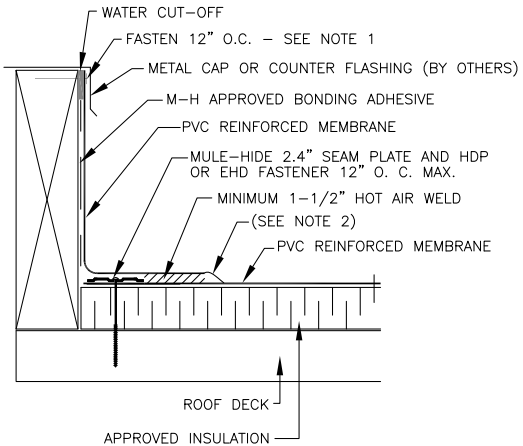
NOTES:

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:

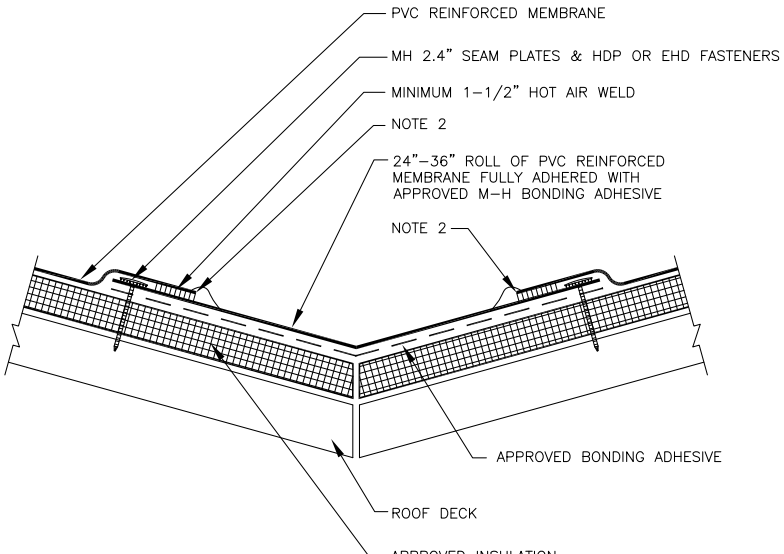
1. PVC REINFORCED MEMBRANE FASTENED APPROXIMATELY 12" ON CENTER. IF FASTENER PENETRATES METAL COUNTER FLASHING, USE NEOPRENE WASHER OR APPLY WATER CUT–OFF MASTIC UNDER COUNTER FLASHING OR CAULK FASTENER HEAD.
2. APPROXIMATELY 1/8" BEAD OF CUT–EDGE SEALANT IS REQUIRED ON CUT EDGES OF PVC REINFORCED MEMBRANE.

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



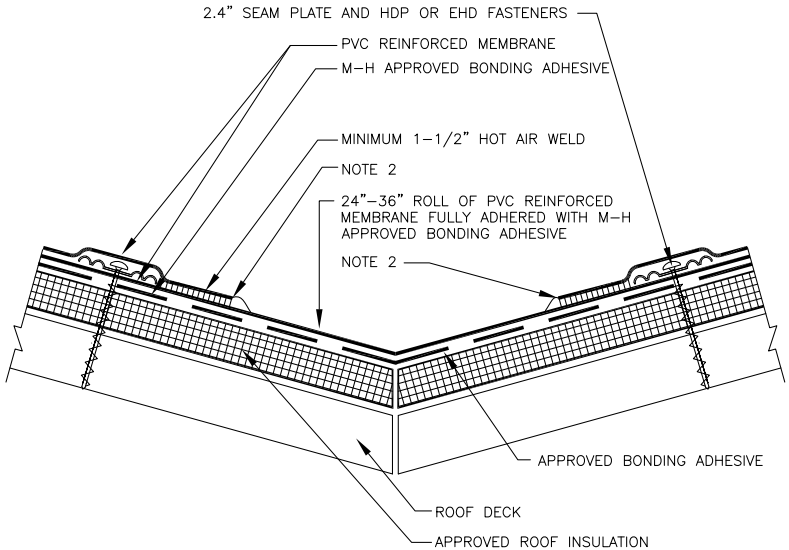
NOTES:

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.

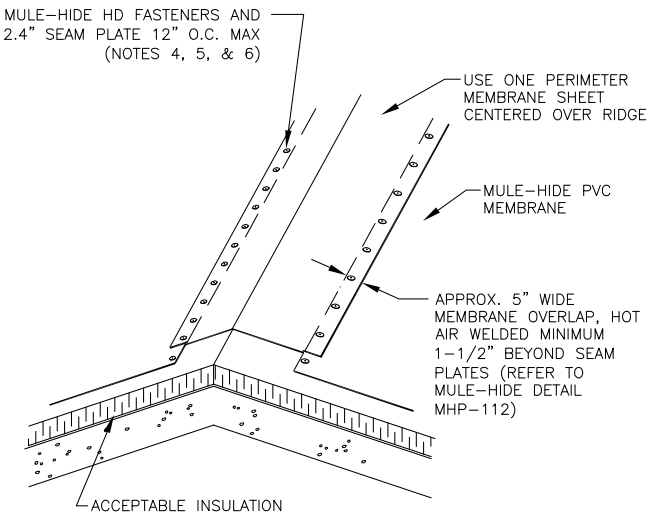
NOTE:

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

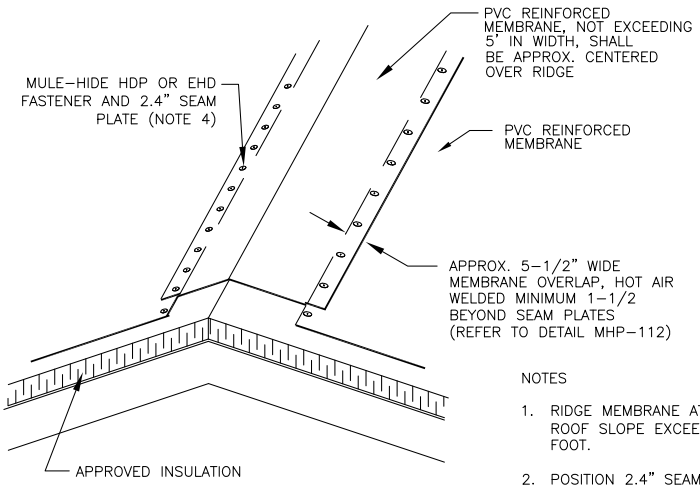
MULE-HIDE PRODUCTS CO., INC.	**VALLEY FLASHING** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHP-FA-601B** REVISION DATE: 01/2018

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.



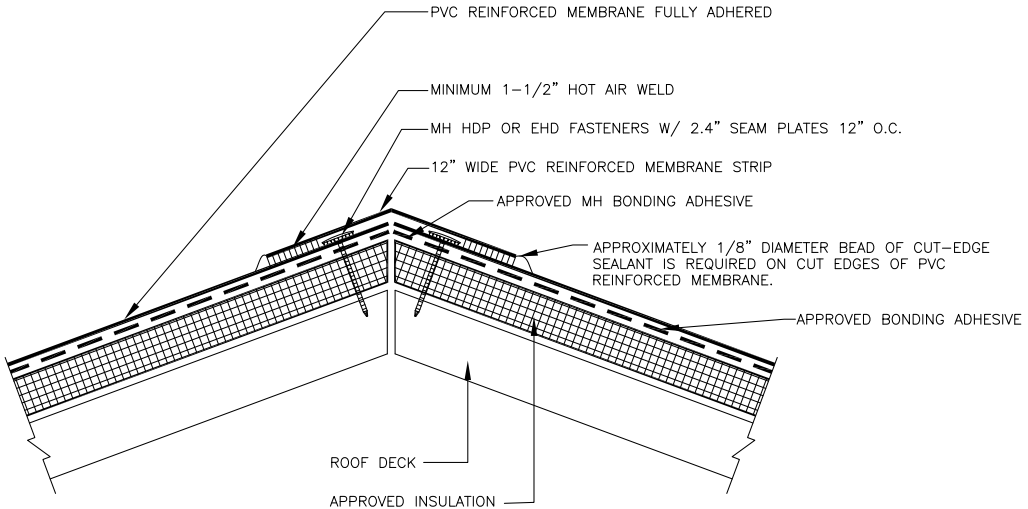
MULE-HIDE PRODUCTS CO., INC. 2010	***RIDGE MEMBRANE ATTACHMENT SYSTEMS:*** ***MECHANICALLY FASTENED PVC***	***DETAIL NO:*** ***MHP-190***



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

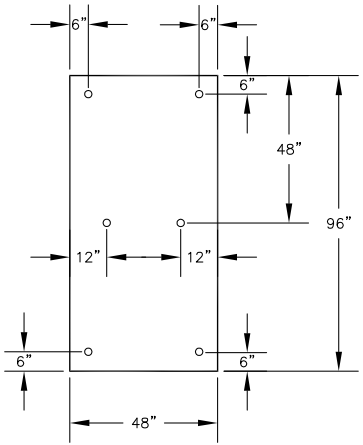


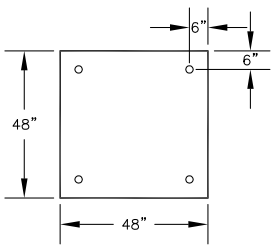
NOTES:

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

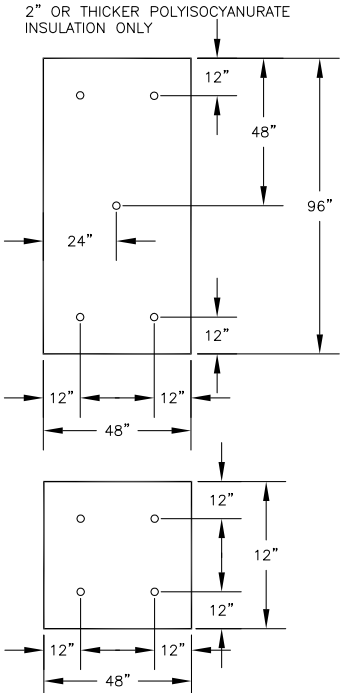


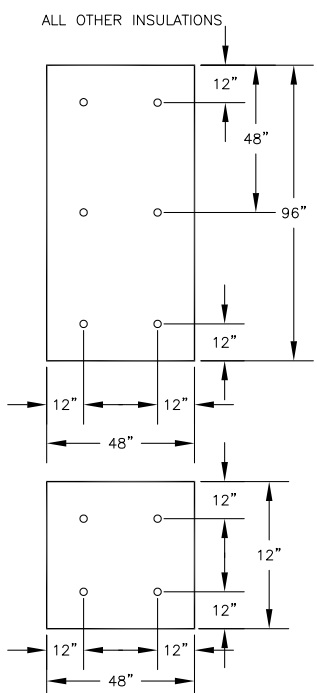


NOTES:

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

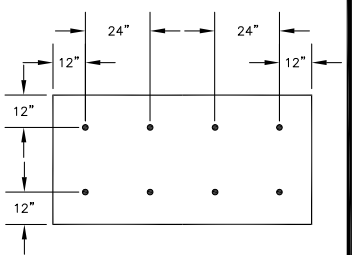
DETAIL NO.:

MHT-MA-701

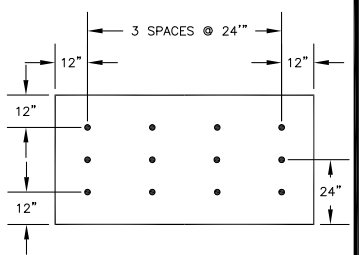
REVISION DATE: 10/2013

NOTES:

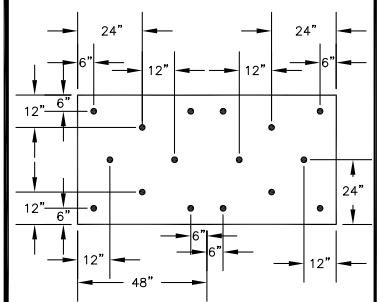
1. 8 FASTENERS PER 4' X 8' BOARDS (1 FASTENER EVERY 4 SQUARE FEET) IN THE FIELD IS APPROVED FOR INSULATIONS 2" OR MORE THICK WHEN USED AS THE TOP LAYER.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL 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.

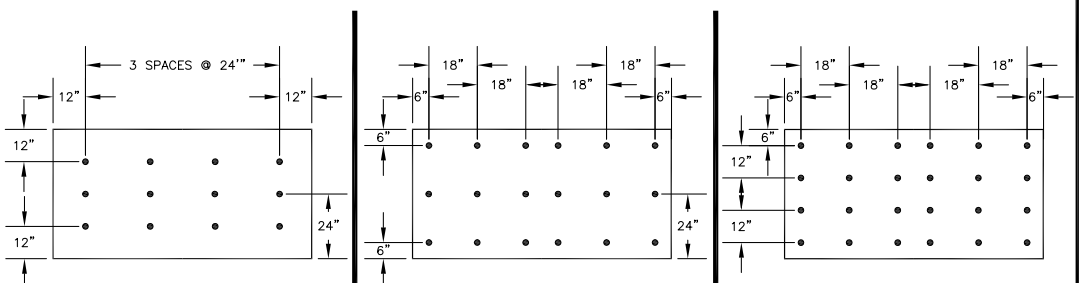


CORNERS (16)
1 FASTENER PER EVERY 2 SQ. FT.

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.

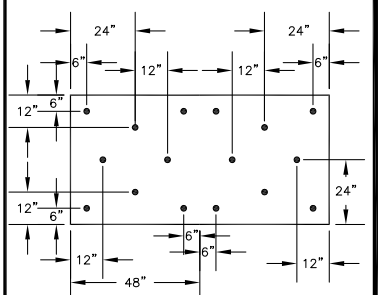
PERIMETER (18)
1 FASTENER PER EVERY 1.77 SQ. FT.

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

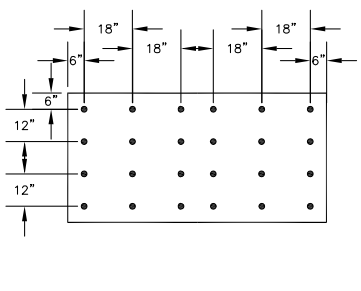
MULE-HIDE PRODUCTS CO., INC.	**INSULATION ATTACHMENT** **12 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-721** REVISION DATE: 10/2013

NOTES:

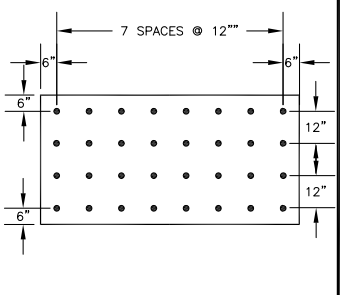
1. 16 FASTENERS PER 4' X 8' BOARD IN THE FIELD IS MULE-HIDE'S STANDARD FOR FULLY ADHERED TPO ROOFING SYSTEMS.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL REQUIREMENTS.
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.

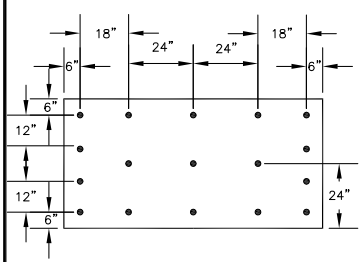


CORNERS (32)
1 FASTENER PER EVERY 1 SQ. FT.

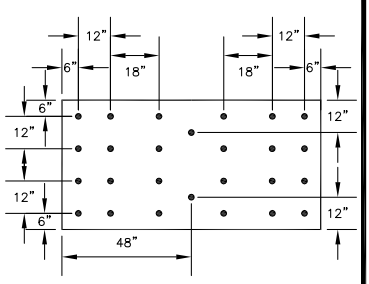
MULE-HIDE PRODUCTS CO., INC.	**INSULATION ATTACHMENT 16 FASTENERS PER 4' X 8' IN FIELD** **SYSTEMS:** **FULLY ADHERED**	**DETAIL NO.:** **MHT-FA-722** REVISION DATE: 10/2013

NOTES:

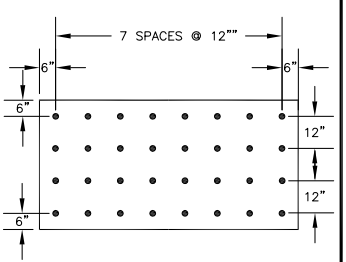
1. 17 FASTENERS PER 4' X 8' BOARD IN THE FIELD IS APPROVED FOR OSB COVER BOARDS OR OSB/POLYISOCYANURATE COMPOSITE INSULATION.
2. PERIMETER AND CORNER DIMENSIONS ARE TO BE A MINIMUM OF 8' WIDE UNLESS THE PROJECT REQUIRES FACTORY MUTUAL COMPLIANCE. CONTACT MULE-HIDE TECHNICAL DEPARTMENT FOR FACTORY MUTUAL 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

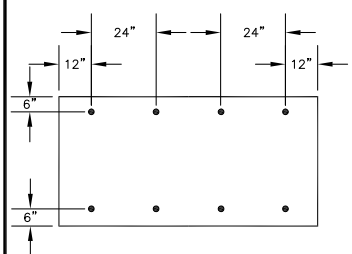
NOTES:

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.

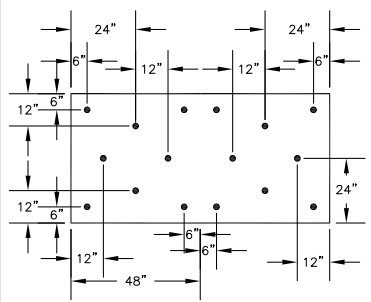
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

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

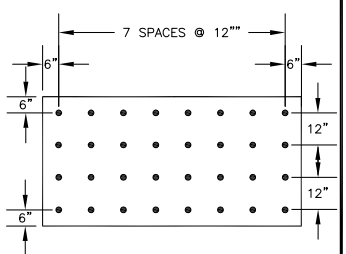
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



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

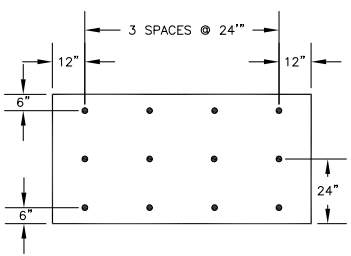
NOTES:

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.

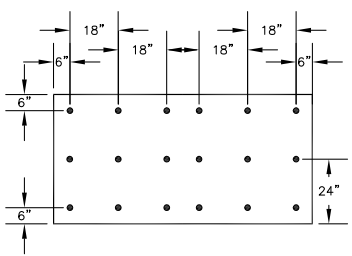
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

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

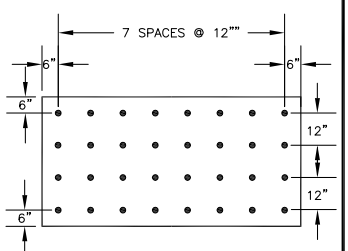
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



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

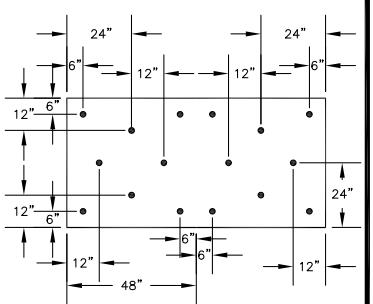
NOTES:

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.

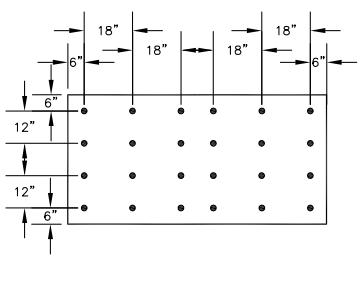
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

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

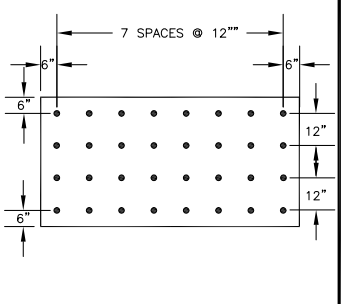
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



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

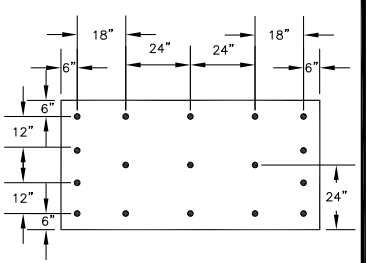
NOTES:

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.

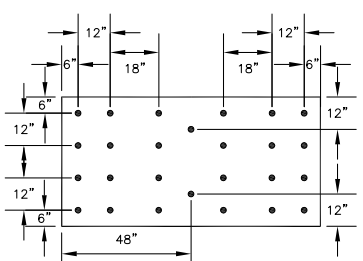
2. MULE–HIDE INSULATION FASTENERS AND 3" DIAMETER PLATES MUST BE USED FOR INSULATION ATTACHMENT.

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

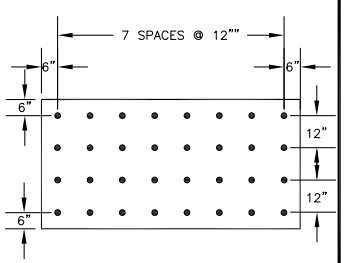
4. FASTENER DENSITY INCREASES BASED ON THE FOLLOWING:
   - 50% FOR PERIMETERS WITH A MINIMUM OF 1 FASTENER EVERY 2 SQUARE FEET NOT TO EXCEED 1 FASTENER EVERY 1 SQUARE FEET
   - CONSTANT DENSITY OF 1 FASTENER EVERY 1 SQUARE FEET FOR CORNERS.



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

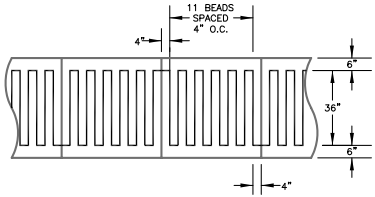


FIGURE 1
INSTALLATION USING 4" O.C. BEADS ON 4' X 4' BOARDS

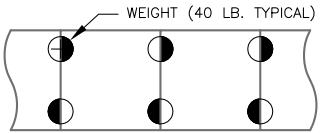


FIGURE 2
RECOMMENDED WEIGHT PLACEMENT ON 4' X 4' BOARDS

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'

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

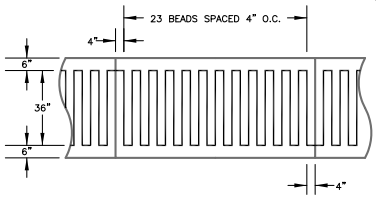


FIGURE 3
INSTALLATION USING 4" O.C. BEADS ON 4' X 8' BOARDS

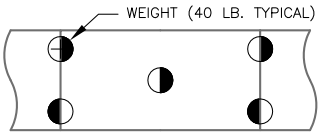


FIGURE 4
RECOMMENDED WEIGHT PLACEMENT ON 4' X 8' BOARDS

MULE-HIDE PRODUCTS CO., INC.®

HELIX FOAM ADHESIVE 4" RIBBON PATTERN

SYSTEMS:

ALL SYSTEMS

DETAIL NO.:

MHHA-UN-4

REVISION DATE: 03/2017

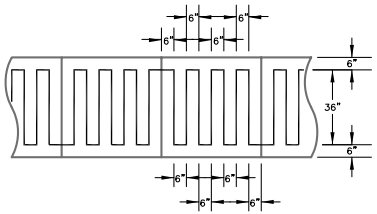


FIGURE 1
INSTALLATION USING 6" O.C.
BEADS ON 4' X 4' BOARDS

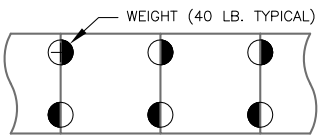


FIGURE 2
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 4' BOARDS

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

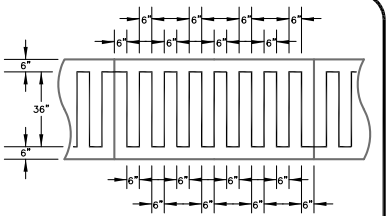


FIGURE 3
INSTALLATION USING 6" O.C.
BEADS ON 4' X 8' BOARDS

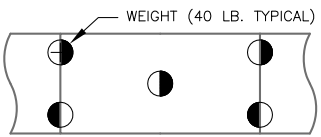


FIGURE 4
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 8' BOARDS

MULE-HIDE PRODUCTS CO., INC.

HELIX FOAM ADHESIVE
6" RIBBON PATTERN

SYSTEMS:

ALL SYSTEMS

DETAIL NO.:

MHHA-UN-6

REVISION DATE: 03/2017

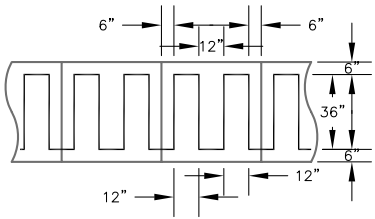


FIGURE 1
INSTALLATION USING 12" O.C.
BEADS ON 4' X 4' BOARDS

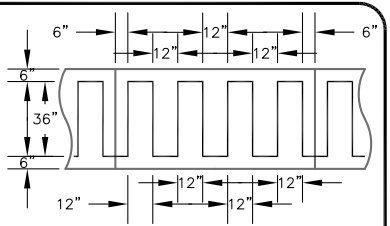


FIGURE 3
INSTALLATION USING 12" O.C.
BEADS ON 4' X 8' BOARDS

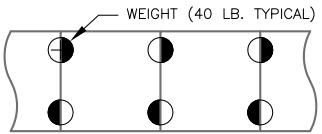


FIGURE 2
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 4' BOARDS

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

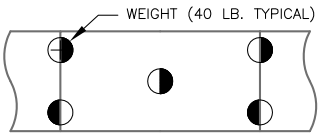


FIGURE 4
RECOMMENDED WEIGHT
PLACEMENT ON 4' X 8' BOARDS

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