THERMOPLASTIC ROOFING

SECTION 7 - MEMBRANE FLASHING

7.1 GENERAL

.1 To ensure protection against water entry into a newly installed roofing system, membrane flashing shall be installed at all primary membrane terminations (i.e. roof drains, curbs, roof/wall junctions, parapets etc.) as the application of the primary membrane progresses.

.2 The use of cant strips at roof junctions is not required for thermoplastic membrane systems.

Revised Aug 18, 2009

.3 The membrane flashing shall be uniformly supported by and secured to an acceptable, solid substrate. Acceptable substrates consist of minimum 13 mm (1/2") thick plywood, minimum 11 mm (7/16") thick oriented strand board, smooth concrete, smooth surfaced concrete block or masonry and minimum 22 gauge flat sheet metal.

.4 Gypsum board, stucco, cobblestone, textured masonry, corrugated metal panels are not acceptable substrate for the application of thermoplastic membrane flashing and must be covered by minimum 16 mm (5/8") thick mechanically fastened exterior grade plywood.

.5 The minimum membrane flashing height is 200 mm (8") above the primary membrane surface in a conventional design and 75 mm (3") above the insulation or concrete paver ballast for loose-laid ballasted design.

.6 The maximum membrane flashing height is 1100 mm (42") above the primary membrane surface. A variance request must be submitted to the Technical Committee when membrane flashing height is to exceed 1100 mm (42").

.7 Where the upper termination of the membrane flashing on a vertical surface is exposed to water entry, the edge shall be protected with a continuous sheet metal flashing and termination bar.

.8 The tops of parapet walls not covered by membrane flashing shall be covered with a water resistant sheet extending down from the top of the blocking a minimum distance of 50 mm (2") on each side.

.9 Sheet metal flashings shall be installed to cover and protect the top (horizontal) membrane-flashing surface unless otherwise approved.

.10 Where required by the building code, metal flashings shall cover the vertical surface of the membrane flashing.

.11 Thermoplastic membrane flashing materials and accessories shall be from the same manufacturer as the primary membrane materials.

.12 P.V.C. membrane flashing shall comply with the requirements of CGSB 37-GP-54M.

.13 T.P.O. membrane flashing shall comply with the requirements of ASTM D-6878.

.14 The use of unreinforced thermoplastic membrane is restricted to the fabrication of field wrapped roof penetration flashing, such as circular pipe vents.

.15 Thermoplastic adhesives and primers are temperature sensitive and should be stored and maintained at all times at temperatures between 15 - 27°C, (60 - 80°F).

.16 The membrane manufacturer's cold weather requirements must be followed for thermoplastic membrane applications below 10°C (50°F).

.17 When preservative treated wood components are incorporated into a roof assembly, the potential for corrosion of the some metal fasteners, sheet metal and roof decking exists when in direct contact with non C.C.A. (Chromate Copper Arsenate) preservatives.

.18 Added June 2010

.18 Exposed penetrations through the membrane flashing shall be placed no lower than 200 mm (8") above the finished roof surface.

7.2 INSTALLATION PROCEDURE

7.2.1 Parapets and Vertical Junctions (See Figure 1, with cap flashing)

.1 The membrane flashing shall be comprised of a single ply of thermoplastic membrane adhered with an approved adhesive to an ARCA Warranty Ltd. accepted substrate.

.2 The membrane flashing may incorporate prefabricated thermoplastic flashing corners and pre-molded penetration boots. The membrane manufacturer should be consulted for specific membrane flashing application requirements.

.3 Membrane flashing sections shall be cut into workable widths to cover the vertical substrate, wood blocking and to extend out over the primary membrane a minimum distance of 125 mm (5"), measured from the base of the vertical substrate.

.4 Membrane flashing seams and laps shall be sealed with an approved hand held heat gun and silicone roller. Membrane flashing side laps shall be minimum 100 mm (4") wide, unless otherwise approved by the membrane manufacturer. A minimum 37 mm (11/2") wide weld width shall be maintained for all other heat welded seams.

.5 Heat welded membranes mating surfaces shall be cleaned and be free of bonding adhesive prior to welding.

.6 Welded seams shall be checked for completeness and continuity and re-welded as necessary.

.7 A continuous termination bar or sheet metal flashing shall finish the upper termination of the membrane flashing.

.8 For parapets finished with cap flashing, the flashing membrane shall be bonded to the top of the parapet, be turned down and mechanically fastened to the exterior face of the wood blocking.

.9 For parapets without cap flashing, the flashing membrane shall be bonded to the top of the parapet and maybe terminated to a minimum 26 ga. continuous, thermoplastic coated, sheet metal edge flashing. The edge flashing shall be placed at the exterior face of the parapet, in corporate a drip and be fully supported by and mechanically attached to the wood blocking. The membrane flashing termination shall be in accordance with the manufacture's approved detail.

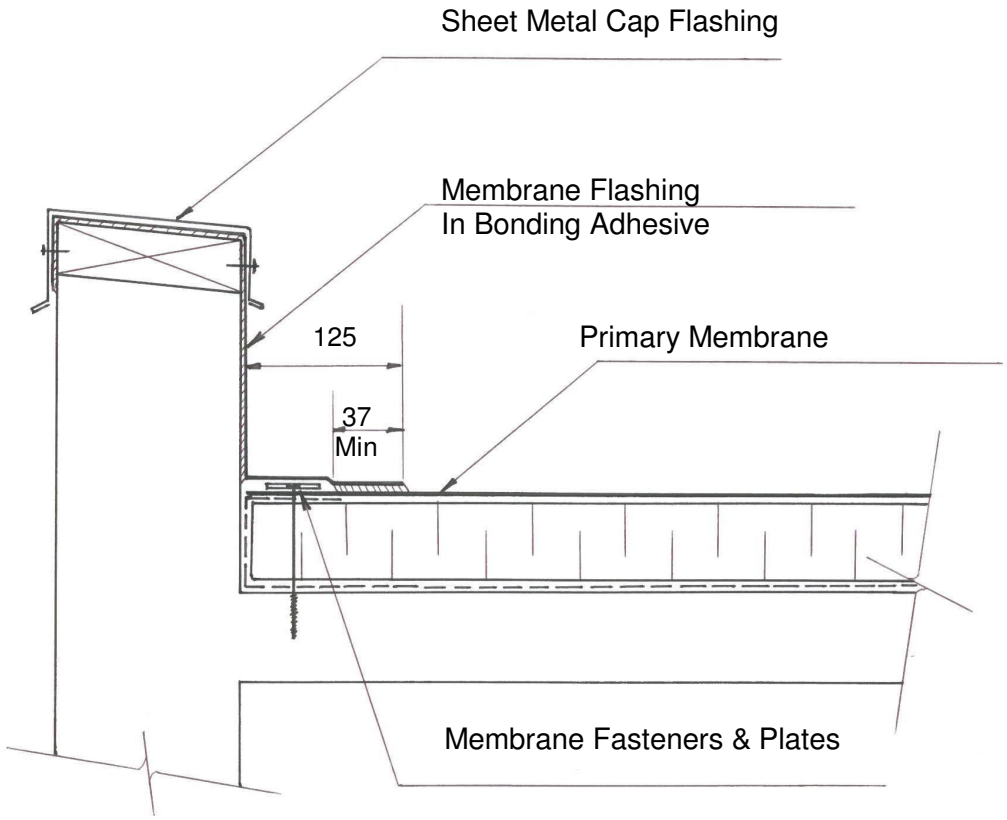

FIGURE 1

7.2.2 SHEET METAL FLANGES

.1 Thermoplastic membranes shall not be adhered directly to prefinished or galvanized sheet metal for a waterproofing detail.

.2 Thermoplastic membranes may only be adhered by hot welding to factory thermoplastic coated galvanized metal sheet.

.3 The thermoplastic coated sheet metal can be cut and bent to form a waterproof membrane flashing termination detail such as those found at eave edges, roof penetrations and scupper drains.

.4 The membrane manufacturer should be consulted for specific fabrication requirements when using thermoplastic coated sheet metal for roofing details.

7.2.3. Cast Roof Drains (See Figure 2)

.1 Locate the roof drain hopper so that its flange is a minimum distance of 150 mm (6") away from the nearest primary membrane field splice.

.2 Clean both the hopper flange and drain clamping ring mating surfaces

.3 Cut an opening in the primary membrane above the drain hopper that extended approximately 12.7 mm (1/2") beyond the interior edge of the clamping ring. Ensure that the size of the membrane opening exceeds the size of the drain opening.

.4 Seal the membrane termination at the drain by placing a continuous bead of manufacturer approved water cut-off mastic around the drain hopper beneath the primary membrane.

.5 Place the clamping ring over the primary membrane and fasten it to the drain hopper, securing the thermoplastic membrane in place around the drain.

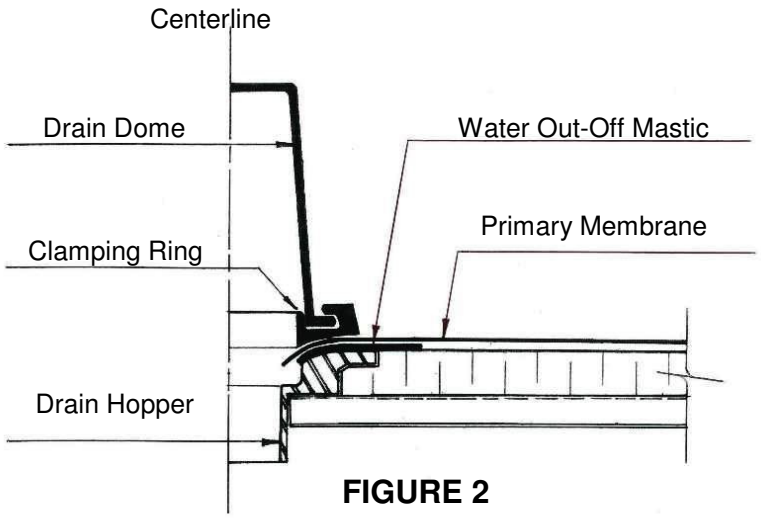

FIGURE 2

7.2.4 Scupper Drains

.1 At scupper drains, the membrane flashing shall cover the thermoplastic coated sheet metal scupper flanges and shall extend past the scupper drain opening to terminate inside a minimum distance of 75 mm (3") measured from the interior face of the parapet or wall.