

## 10. MB - SECTION 10 – RE-ROOFING

### 10.1. General

- 10.1.1. Re-roofing encompasses both membrane replacement and replacement in whole or in part of the roof assembly above the structural deck for both un-insulated and insulated roofing systems including protected membrane designs.
- 10.1.2. Due to the unique nature of re-roofing, relief from some of the Warranty Certificate application standards may be requested. When relief is requested, applications shall be made in a written submission to the ARCA Warranty Ltd. Technical Committee. This request for relief is termed a “Variance Request” and must contain all pertinent information explaining why relief is being requested.
- 10.1.3. The Warranty Certificate can only be issued on self-contained roof areas. Additional control joints may be required to create self-contained roof areas. Special attention to drainage may be necessary due to addition of the control joints.
- 10.1.4. In all cases, regardless of the insulation type or the presence of a coverboard, a new cover board meeting ARCA Warranty Certificate application standards is required to provide a preferred substrate for the application of the replacement membrane.

### 10.2. Installation

- 10.2.1. All Warranty Certificate requirements and application standards apply to re-roofing except existing conventional insulated membrane designs where the existing roof drainage slope may remain.
- 10.2.2. Wall, cap, edge and base sheet metal flashings adhered to the membrane shall be removed and replaced with new flashings.
- 10.2.3. Other miscellaneous sheet metal wall flashings fabricated to ARCA standards maybe reused provided they remain in good condition after tear-off and fit properly after reroofing.
- 10.2.4. Sleeper or curb mounted roof equipment may need to be removed to provide minimum height requirements.
- 10.2.5. Sleeper or curb mounted roof mounted equipment may need to be removed to facilitate re-roofing beneath them.
- 10.2.6. A minimum clearance of 100 mm (4”) shall be maintained between the underside of service lines and the surface of the completed roofing system.
- 10.2.7. When the existing roofing system is of a different membrane type care must be taken to ensure that no material incompatibility remains.
- 10.2.8. When two (2) membranes are present, both membranes shall be removed during tear-off.
- 10.2.9. Damaged or deteriorated structural decks, wood blocking, curbs and supporting substrates shall be repaired, rebuilt or replaced.
- 10.2.10. Flow control drains cannot be introduced on re-roofing projects. Insert drains shall include a mechanical back-flow preventer.<sup>125126</sup>
- 10.2.11. Cast internal roof drains in good condition may be reused. Installation of new drain assemblies, matching existing drain outlet size, are required for 15 year Warranty Certificate issuance.
- 10.2.12. Loose and deteriorated modified bituminous flashing membranes found at roof junctions shall be removed or covered with an accepted membrane flashing substrate.

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<sup>125</sup> MB 10.2.10 Revised October 13, 2021 (TB-2021-06)

<sup>126</sup> MB 10.2.10 Revised December 6, 2021 (TB-2021-07)

- 10.2.13. Existing modified bituminous flashing membranes in good condition, properly adhered and primed with a compatible primer may remain in place and serve as the substrate for the attachment of a replacement two (2) ply modified bituminous membrane flashing.
- 10.2.14. Existing metal roofs in good condition may remain and serve as a substrate for an ARCA accepted auxiliary leveling surface. All voids under the auxiliary leveling surface to be filled with an ARCA accepted insulation. A design professional should be consulted to certify the existing substrate will support the new roof assembly.<sup>127</sup>

### **10.3. Membrane Replacement**

#### **10.3.1. General**

- 10.3.1.1. When membrane replacement is being considered, uncorrected existing roof system defects hidden from view such as wet insulation or deteriorated decking could jeopardize the replacement roofing system's performance.
- 10.3.1.2. When evaluating an existing conventional insulated roofing system for membrane replacement the following factors should be considered:
- 10.3.1.2.1. The affect that the lack of an existing vapour retarder may have had on the failure of the previous membrane and its subsequent replacement.
- 10.3.1.2.2. The type, condition and thickness of the existing insulation and the amount of moisture that may have infiltrated it (dryness).
- 10.3.1.2.3. The existing roof deck condition and its structural integrity if moisture reached the decking.
- 10.3.1.2.4. The attachment of the roofing system components to their supporting substrate(s).
- 10.3.1.2.5. Roof drainage slope.
- 10.3.1.3. Care must be taken to locate and replace all wet and damaged roof insulation that must be removed and replaced with new insulation to match the existing insulation thickness.
- 10.3.1.4. Existing dry wood fiberboard, fibreglass and Stramit roof insulation may be left in place.

#### **10.3.2. Stramit and Rigid Fibreglass Roof Insulation**

- 10.3.2.1. Stramit and Fiberglass roof insulation may be encountered during re-roofing that incorporate a laminated facer that may be damaged during tear-off. Both roof insulation types are no longer manufactured or available.
- 10.3.2.2. Deterioration of structural Stramit will require its removal and suitable replacement.
- 10.3.2.3. To provide a acceptable substrate for the attachment of the replacement membrane, the exposed Stramit or fiberglass insulation shall be uniformly covered with an approved insulation or an approved coverboard. The first layer shall be mechanically fastened to the structural joists or decking over the Structural Stramit. The second layer may be mopped in hot bitumen or mechanically fastened with screws and plates to the structure.
- 10.3.2.4. Polyurethane foam insulation adhesive may NOT be used to adhere insulation or cover boards to existing fiberglass or Stramit insulation.

#### **10.3.3. Other Roof Insulation**

- 10.3.3.1. Under no circumstance shall phenolic resin roof insulation be left in place or reused.
- 10.3.3.2. Existing polyisocyanurate, urethane, foam glass, cork, expanded and extruded polystyrene roof insulation less than 38 mm (1-1/2") thick must be removed and replaced when not covered by a coverboard.

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<sup>127</sup> MB 10.2.14 Added December 4, 2024 (TB-2024-05)

## **10.4. Roofing System Replacement**

- 10.4.1. After tear-off the exposed decking and substrate shall be inspected for deterioration or damage and repairs undertaken prior to application of the replacement roofing system.
- 10.4.2. When a complete roofing system, including the insulation, is being replaced, a vapour retarder is required for both conventional and combination design insulated roofing systems.
- 10.4.3. An existing vapour retarder may be left in place if well adhered. Any wet or damaged vapour retarder membrane shall be removed and replaced with compatible materials.

## **10.5. Protected Membrane and Combination Designs**

### **10.5.1. General**

- 10.5.1.1. ARCA Warranty Certificate application standards, MB Section 9 Protected Membrane and Combination Design, apply to replacement roofs.
- 10.5.1.2. It is recommended that the Type 4 extruded polystyrene insulation be removed and replaced with new material.<sup>128</sup>
- 10.5.1.3. Gravel ballast may be re-used if it adheres to ASTM D7655 "Standard Classification for Size of Aggregate Used as Ballast for Membrane Roof Systems".
- 10.5.1.4. A five (5) year Warranty Certificate may be issued for Protected Membrane Design replacement when roof drainage slope is less than 1:50. To improve drainage, the field membrane shall be covered with Type 4 extruded polystyrene insulation incorporating drainage channels on its underside or covered by an accepted drainage mat placed between the membrane and the Type 4 extruded polystyrene insulation.
- 10.5.2. Existing BUR Protected Membranes as a Vapour Retarder
  - 10.5.2.1. An existing BUR protected membrane may be left in place and serve as the vapour retarder for a replacement conventional or combination roof design. The existing BUR membrane shall be repaired by removing any wet or deteriorated felt, dirt, dust and debris. The repaired surface shall be covered with a minimum of one (1) ply of No. 15 organic felt adhered in a full application of hot bitumen

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<sup>128</sup> MB 10.5.1.2 Revised June 11, 2020 (TB-2020-03)