

Real Property Administration
DESIGN GUIDELINES

07 00 00 DIVISION 7 Thermal and Moisture Protection - ROOFING & RE-ROOFING

- A.** RPA intends to provide roofing products that maximize the life of State roofs. Products alone do not make a good roof. A good roof requires: appropriate design; suitable materials (vapor retarders, insulations, fasteners, membranes, flashings, accessories, perimeter metal); an adequate budget; a qualified, well-financed, trained applicator knowledgeable and experienced with the system specified; field quality assurance; and, a solid relationship between roof manufacturer and applicator.
- B.** To facilitate the above stated intent, RPA has developed the following design guidelines:
1. Provide one-eighth inch per foot or greater slope for drainage **on existing structures**. One-quarter inch per foot or greater is **required on new construction**. **Crickets shall be two (2) times height of slope.**
 2. Ensure that roof drains are located at low points in the roof and not adjacent to columns, particularly for steel deck construction.
 3. Wherever possible slope the structural elements rather than using tapered insulation. If re-roofing existing structure and positive slope is not present, consider tapered insulation and/or crickets.
 4. Whenever a roof plane intersects a vertical wall or other vertical surface, or an expansion joint is required a minimum of an eight inch rise in height is required, and a twelve inch rise is preferred.
 5. The following roofing products are preferred, though other types can be submitted for evaluation with formation and recommendations:
 - a. Shingles or metal on adequately sloped roof befitting the overall building design;
 - b. Fully adhered 60 mil EPDM single membrane roof system;
 - c. Mechanically fastened 60 mil EPDM single membrane roof system;
 - d. Ballasted 45 mil EPDM single membrane roof system
(must be checked for additional roof load and wind velocities must be checked to prevent the ballast from becoming air born); or,
 - e. Modified Bitumen Roof System
(two ply system with a heavy base sheet and Class "A" granulated or metal-surfaced cap sheet.)
 - f. **Coal Tar**
 6. Ensure that parapet walls are watertight and roof scuppers are provided for emergency relief in accordance with SBCCI 1406.
- C.** To facilitate the above stated intent, RPA has developed the following contractor qualifications guidelines:
1. The roofing (sub)contractor and the manufacturer must work together and be considered as one and the same certifying and providing:
 - a. Roofing products for the purpose of designing, developing and marketing a complete roofing system.
 - b. Recommendations, specifications, and details for the roofing system materials and installation.
 - c. Training for and approval of applicators of the roof system.
 - d. Technical assistance to applicators during the application of the roof.
 - e. Approval and preparation of shop drawings for the roof system.
 - f. A qualified technical representative employed by the Manufacturer for the final inspection, and all inspections required by the Roofing System Warranty.
 - g. All materials used with the roof system must be approved by or purchased from the roof manufacturer.



2. In order to meet the above criteria roofing manufacturers must submit the following information for approval by the Designer in order to be considered as an approved equal:
- a. A list of approved applicators indicating name, address, phone number, and year first licensed as an applicator.
 - b. Application form, required by the Manufacturer, establishing the past experience, reputation, and financial stability of the roofing (sub)contractor.
 - c. Training session(s) taught by the manufacturer and certification that the installers have attended and passed the training program.
 - d. Indication that the roofing (sub)contractor has displayed adequate experience and knowledge to be licensed by the manufacturer to install the roofing system. The license must be renewed annually. The on-the-job superintendent must be licensed as a qualified installer.
 - e. A comprehensive list of references indicating the name, location, address, phone number approximate number of square feet and name of **Designer** and or owner of the project.
 - f. Certification that the company has been manufacturing the considered product for 5 years or more.

