

Base flashing height requirements

by **Tom Bollnow**

Each month in this column, one of NRCA's technical services staff members will answer readers' technical questions. If you have a specific question you would like answered in this column, send it to Professional Roofing magazine, 10255 W. Higgins Road, Suite 600, Rosemont, IL 60018-5607.

Q: What is the origin of the 8-inch (200-mm) minimum vertical height recommendation for base flashings, and does it apply to single-ply roofing materials?

A: The recommendation for vertical base flashings to be a minimum of 8 inches (200 mm) above a roof membrane's waterline can be traced to early built-up roof (BUR) system details.

Before the advent of reinforced base flashing materials (e.g., combination base flashings, polymer-modified bitumen sheets), typical vertical base flashings for BUR systems consisted of three plies of 15-pound felt flashing strips feathered above and below cant intersections with a vertical wall and

flat roof surface. Plies were covered with a coated or granular-surfaced organic or inorganic base flashing. The three plies feathered above the cant and the base flashing created an 8- to 12-inch (200- to 300-mm) vertical height above a roof membrane's surface depending on the size of the cant and spacing of the feathered plies (see Figure).

There are several reasons for establishing an 8-inch (200-mm) minimum vertical height above an anticipated waterline. One reason is to protect a flashed joint at a wall or curb from moisture infiltration caused by driving rain or snow buildup. The 8-inch (200-mm) height also provides sufficient work space when applying a base flashing and fastening the flashing's top edge to a vertical surface. The height also allows a minimum 4-inch (100-mm) overlap for counterflashing over the top edge of a base flashing termination.

Base flashings are required at parapets, walls and curbs. They also are required at roof penetrations, such as vents; skylights; scuttles; and heating,

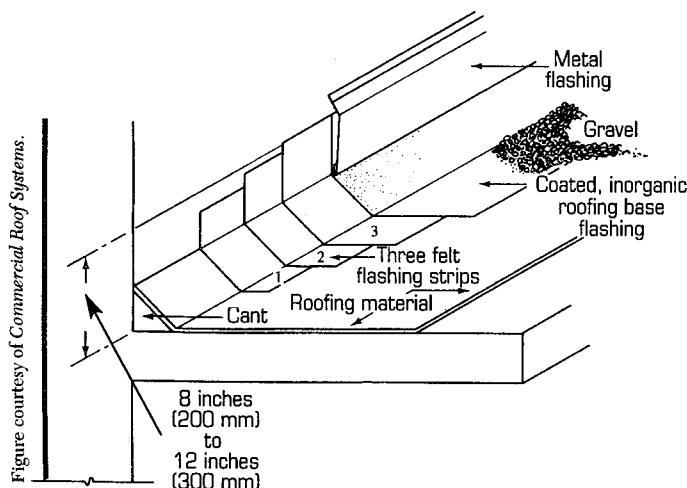
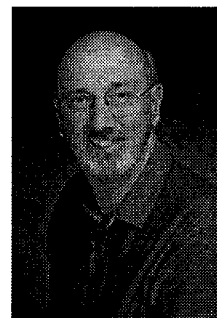
ventilating and air-conditioning equipment. Individual pipes, sleeves and support columns can be wrapped with base flashing material or flashed with premolded boots. Note that premolded boots are not true base flashings and often extend less than

8 inches (200 mm) above a roof membrane's surface when trimmed to fit a penetration. This height variance is subject to approval by a building owner, roof system designer, roofing contractor and roof system manufacturer.

Single-ply membrane base flashings do not use a cant at a flat-to-vertical surface interface—they are mechanically fastened at a base joint's horizontal or vertical surface, and the vertical portion may be fully adhered or loose-laid. Although the recommended minimum vertical height for base flashings in single-ply membrane roof systems also is 8 inches (200 mm), many roofing professionals support lowering the acceptable height to 6 inches (150 mm).

NRCA recognizes that there are instances in new roof system construction and reroofing (e.g., sill flashings; individual pipes, ducts and equipment supports; low-rise parapet walls) where a base flashing detail does not allow a vertical portion to attain the 8-inch (200-mm) minimum height recommendation. In these cases, a building owner, roof system designer, roofing contractor or roof system manufacturer should determine specific details based on job specifications. However, NRCA recommends using an 8-inch (200-mm) minimum height for base flashings in built-up, modified bitumen and single-ply roof systems.

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Three felt flashing strips and a base flashing create an 8- to 12-inch (200- to 300-mm) vertical height at this flat-to-wall intersection.