

1305.1502 [Repealed, 39 SR 1605]

1305.1502 SECTION 1502, ROOF DRAINAGE.

Subpart 1. **IBC section 1502.1.** IBC section 1502.1 is amended and subsections are added to read as follows:

1502.1 Roof drainage. Design and installation of roof drainage systems shall comply with Minnesota Rules, chapter 4714, Minnesota Plumbing Code, and the following provisions:

1502.1.1 Where required. All roofs shall drain into a separate storm sewer system or to an approved place of disposal.

1502.1.2 Roof design. Roofs shall be structurally designed for the maximum possible depth of water that will pond thereon as determined by the relative levels of roof deck and overflow weirs, scuppers, edges, or serviceable drains in combination with the deflected structural elements. In determining the maximum possible depth of water, all primary roof drainage means shall be assumed to be blocked.

Subp. 1a. **IBC section 1502.2.** IBC section 1502.2 is amended and subsections and Table 1502.2.3 are added to read as follows:

1502.2 Secondary drainage required. Secondary (emergency) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason.

1502.2.1 Separate systems required. Secondary (emergency) roof drain systems shall have piping and point of discharge separate from the primary system. Discharge shall be above grade in a location which would normally be observed by the building occupants or maintenance personnel.

1502.2.2 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized to the same capacity as the primary roof drain areas in accordance with Minnesota Rules, chapter 4714, the Minnesota Plumbing Code.

1502.2.3 Sizing of scuppers. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by this code. Scuppers shall not have an opening weir length dimension of less than 4 inches (102 mm) and shall be sized in accordance with Table 1502.2.3. The flow through the primary system shall not be considered when sizing the secondary roof drainage system.

TABLE 1502.2.3 SCUPPER SIZING^a							
Square feet of Roof Area							
Head Height in inches ^b	Length of Weir in inches						
	4	6	8	12	16	20	24

1	273	418	562	851	1139	1427	1715
2	734	1141	1549	2365	3180	3996	4813
3	1274	2023	2772	4270	5768	7267	8766
4	1845	2999	4152	6460	8766	11073	13381
6	2966	5087	7204	11,442	15,860	19,918	24,160

^a Table based upon 4-inch-per-hour rainfall.

^b Minimum 1-inch vertical free space above Head (H) is required.

Subp. 2. **IBC section 1502.3.** IBC section 1502.3 is deleted in its entirety.

Statutory Authority: *MS s 16B.37; 16B.59 to 16B.76; 326B.101 to 326B.194*

History: *27 SR 1474; 32 SR 7; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64; 40 SR 71; 44 SR 609*

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