



DENVER AMENDMENT PROPOSAL FORM FOR PROPOSALS TO THE 2019 DENVER BUILDING CODE AMENDMENTS AND THE 2021 INTERNATIONAL CODES

DENVER
THE MILE HIGH CITY

2021 CODE DEVELOPMENT CYCLE

1) **Name:** CCD Staff **Date:** 06/30/2021
Email: Charles.bartel@denvergov.org **Representing (organization or self):** CCD

2) One proposal per this document is to be provided with clear and concise information.

Is a separate graphic file provided (“X” to answer): ___ Yes or _x_ No

3) Highlight the code and acronym that applies to the proposal

<u>Acronym</u>	<u>Code Name</u>	<u>Acronym</u>	<u>Code Name</u>
DBC-AP	Denver Building Code–Administrative Provisions	IPC	International Plumbing Code
IBC	International Building Code	IRC	International Residential Code
IECC	International Energy Conservation Code	IFGC	International Fuel Gas Code
IEBC	International Existing Building Code	IMC	International Mechanical Code
IFC	International Fire Code	DGC	Denver Green Code

AMENDMENT PROPOSAL

Please provide all the following items in your amendment proposal.

Code Sections/Tables/Figures Proposed for Revision:
1106.5 and subsections

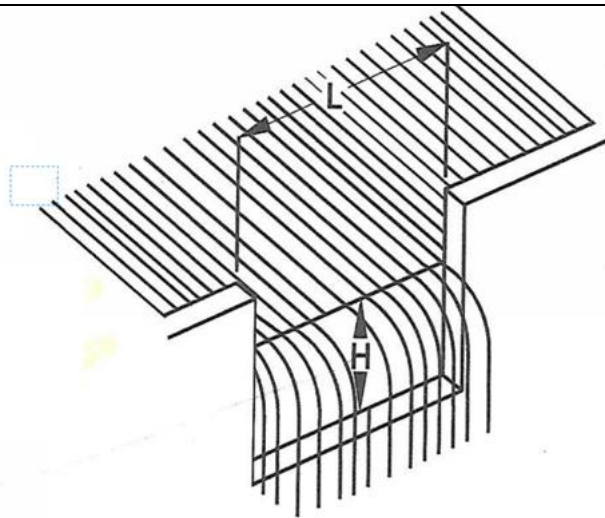
Proposal:
Revision ___ New Text Delete/Substitute ___ Deletion

Section IPC 1106.5 Parapet wall Scuppers *is replaced in its entirety as follows:*

1106.5 Parapet wall scuppers. Where scuppers are used for primary roof drainage or for secondary (emergency over-flow) roof drainage or both, the quantity, size, location, and inlet elevation of the scuppers shall be chosen to prevent the depth of ponding water on the roof from exceeding the maximum water depth that the roof was designed for as determined by Section 1611.1 of the International Building Code. Scuppers shall have an opening height of not less than 4 inches (102 mm), a width of not less than 4 inches (102 mm) and shall be sized in accordance with 1106.5.1 or 1106.5.2. The flow through the primary system shall not be considered when locating and sizing secondary scuppers.

1106.5.1 Equivalent circumference. The scupper width shall be equal to or greater than the strainer circumference of a roof drain sized for the same roof area.

1106.5.2 Francis formula. The scupper shall be sized by the Francis formula given in Figure 1106.5.



HEAD (H) (inches)	CAPACITY OF SCUPPER (gallons per minute)									
	Length (L) of scupper (inches)									
	4	6	8	10	12	18	24	30	36	48
1	10.7	17.4	23.4	29.3	35.4	53.4	71.5	89.5	107.5	143.7
2	30.5	47.5	64.4	81.4	98.5	149.4	200.3	251.1	302.1	404.0
3	52.9	84.1	115.2	146.3	177.8	271.4	364.9	458.5	552.0	739.0
4	76.7	124.6	172.6	220.5	269.0	413.3	557.5	701.8	846.0	1135.0
6	123.3	211.4	299.5	387.5	476.5	741.1	1005.8	1270.4	1535.0	2067.5

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.
Based on the Francis formula:

Figure 1106.5

Supporting Information (Required):

What circumference of the roof drain is to be used in determining the width of the scupper? The internal diameter of the roof drain piping? The diameter of the guard? Since roof drains are now sized based on the manufacturer's flow rate, the roof drain size (guard diameter and pipe diameter) can vary by manufacturer, which in turn, could change the minimum width of the scupper.

This revision clarifies that it is the size of the strainer circumference of the roof drain. An alternate method of using the well-known Francis Formula has been added as an option.

Other Regulations Proposed to be Affected

N/A

Referenced Standards:

N/A

Impact:

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

Cost of construction: ___ Increase ___ Decrease No Impact
 Cost of design: ___ Increase ___ Decrease No Impact
 Restrictiveness: ___ Increase ___ Decrease No Impact

Departmental Impact (City use only):

This amendment proposal increases/decreases/is neutral to the cost of plans review. Neutral unless alternate design is received
 This amendment increases/decreases/is neutral to the cost of inspections. Neutral

