## **ENGINEERING**





MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

July 24, 2019

James Rhodes City of Winston-Salem Bryce A. Stuart Municipal Building 100 E. First Street, Suite 328 Winston-Salem, NC 27101

RE: 2018 NC Plumbing Code, Section 1108

Separation of Primary and Secondary Roof Scuppers and Drains

Mr. Rhodes:

This letter is in response to your undated request for formal interpretation that I received on July 19, 2019. You asked in your letter:

Can a singular roof scupper or a singular roof drain be both the primary and secondary roof drainage system(s) and still be deemed separate system(s) as required by section 1108 in the (2018) NC Plumbing Code.

As you know, the intent of the secondary roof drain is to provide a means of discharging roof water from the roof surface when the primary roof drain system is blocked or is beyond its designed capacity so that the building roof structure is not overloaded from ponding water and the roofing material is not damaged or compromised from excessive water on its surface. To that end Section 1108.1 requires secondary roof drains or scuppers to handle the excess water and 1108.2 requires a separate roof drain system for the secondary roof drains or scuppers. 1108.2 also requires the discharge from the secondary system be located above grade so that occupants can see that the overflow system is being utilized which could mean the primary roof drain system is blocked and needs maintenance.

## Conclusions:

When roof drains or scuppers are provided secondary roof drains or scuppers are required. Secondary roof drains or scuppers are required to be located such that ponding on the roof does not exceed the designed roof live load; therefore, the intent of the secondary roof drain or scupper is to provide roof drainage when the intake point of the primary roof drain or scupper is blocked. To that end the primary roof drain or scupper and secondary roof drain or scupper must have separate intake points. The secondary roof drain or scupper must also have a separate leader and discharge point. The discharge point must be located where it is obvious to the building occupants or maintenance staff when the secondary roof drain or scupper is discharging.

Although a primary roof scupper catch basin could be located such that it would overflow and make it known to the building occupants or maintenance staff that a leader is blocked, a single scupper parapet opening for both primary and secondary roof drainage would not provide access to the secondary roof drainage system if the opening is blocked and does not, therefore, comply with Section 1108.1 for separate intakes.

As a matter of reference, a copy of your letter requesting a formal interpretation and all attachments you submitted with that request are included with this letter.

Please call if you have comments or questions.

Sincerely,

Carl Martin, RA

**Chief Code Consultant** 

cc: File

Robbie Davis, Chairman – BCC

Keith Rogers, BCC - Chairman Mechanical Code Standing Committee

Link to letter of request for formal interpretation:



NCPC James Rhodes - 1108 Secor