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## MEMO

**TO: All Building Officials in Miami-Dade County**

**FROM: Francisco J. Quintana, R.A.,  
Director Building Code Compliance**

**DATE: May 2, 2002**

**SUBJECT: Roof Drainage, Plumbing and Structural Requirements**

It is important that both the plumbing and structural requirements of the Florida Building Code be complied with when verifying the roof drainage requirements. Information regarding drainage issues shall be shown in the framing plan, as required by, Chapter 8 of the Miami-Dade County Code.

The necessary roof drainage may be accomplished through the use of primary roof drains and/or secondary drains, primary scuppers and/or secondary scuppers or any combination. The Florida Building Code (FBC) provides guidance as to when secondary drainage is required and the maximum depth of water that is allowed to accumulate on any portion of the roof.

*1616.1 Roof drainage. Where parapets or curbs are constructed above the level of the roof, provision shall be made to prevent rain water from accumulating on the roof in excess of that considered in the design, in the event the rain water drains or leaders become clogged.*

*1616.2 Where roofs are not designed in accordance with 1616.1, overflow drains or scuppers shall be placed to prevent an accumulation of more than 5 inches (927 mm) of water on any portion of the roof. In determining the load that could result should the primary drainage system be blocked, the loads caused by the depth of water (i.e., head) needed to cause the water to flow out the scuppers or secondary drainage system shall be included.*

It is important to note that even if the FBC plumbing drain sizing requirements are complied with, it is possible that the structural requirements will not be in compliance.

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The depth of water that could accumulate on the roof must be determined with the assumption that the primary drain/scupper is blocked. Then the total depth of water that could accumulate on the roof can be established as a combination of the depth of water up to the inlet of the secondary drain/scupper added to the depth of water above the secondary drain/scupper at its design flow. In this way it can be established that the depth of water will not exceed the maximum depth considered in the design of the structure.

If you have any questions you may contact Michael L. Goolsby, RRC or Jorge Gamoneda of my staff, (305) 375-2901.