



August 14, 2015

Technical Advisory Chairpersons
Florida Building Commission
Florida Building Codes and Standards
1940 North Monroe Street
Tallahassee, FL 32399

Ladies and Gentlemen:

The American Society of Plumbing Engineers Research Foundation (ASPE RF) conducted research into the performance of roof drains as a part of the storm drainage system. The initial research was published in a peer review paper entitled, “Storm Drainage System Research Project, Flow Through Roof Drains.”

What this research uncovered was some of the root causes for failure of storm drainage systems. The types of failures encountered are outlined in this report. The report also found how efficient certain roof drains were, other drains, not performing as well.

Like many research project, we ran out of money before being able to complete some of the testing. Please realize that the cost are all associated with laboratory testing. The drafting of the report and peer review were all done by volunteers at no cost to ASPE RF.

ASPE RF would like to continue testing, whereby tests can be conducted with roof drains of one size connecting to pipe of a larger size. We believe this information is necessary to properly design a storm drainage system. For example, if a 4 inch roof drain flows too much water for a 4 inch pipe, we would like to know the impact of connecting that 4 inch roof drain to a 6 inch conductor.

We also uncovered that large size roof drains do not perform as well as, smaller sized roof drains 6 inch or less in diameter. This has serious repercussions with large flat roof buildings relying on 8, 10, or 12 inch roof drains. Our funding could only test roof drains from 2 inch to 6 inch in size. Only preliminary testing was done on larger drains.

It should be noted that the initial research was paid by ASPE RF from donation received from ASPE members and ASPE Chapters. There was no outside funding. We have sought additional funding to continue the testing. However, to date, we have been unsuccessful in raising those funds.




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Since storm drainage design has a major impact on buildings in Florida, we would ask you to consider funding the continuation of research on storm drainage systems. The major impact to storm drainage systems are hurricanes and microbursts. Florida is known to have both.

A copy of the research paper is available on-line at www.aspe.org. Under the Research Foundation tab, you can download the paper. All ASPE RF research paper are made available free to the public.

If you have any questions, feel free to ask.

Cordially yours,



Julius Ballanco, P.E., CPD, FASPE
President