

# What's Happening in Masonry

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## Wisdom in Building Codes

A recent trip to my favorite Caribbean beach resort reminded me of the wisdom in the building codes.

We stayed in a 3rd floor condo. A slow and hot elevator or the beautiful open concrete stair were the means of egress to the beach. Each day we used the stair and I almost slipped on the first step down at the second floor, for the first two days!

I did not have my tape measure, so I used a notebook to measure the distance for the “run”. The first step was 9-1/4”. This turns out to be about an inch shorter than the rest of the “run” dimensions (10-1/8”) for the stair. So when I stepped down on that first step, being 1” shorter than all the rest, I almost went flying! The 9-1/4” run is even too short to comply with the International Residential Building Code.

In stair design, there are rules to follow to build comfortable stairs. The sum of the rise and the run should total 18”. If the total of the rise and run approaches 17” or 19”, your stair will be less comfortable for a person to climb or descend.

I once missed the two bottom steps to my basement stair that resulted in a complete tear of the patella tendon. This misstep has made me a lifelong stair critic and I have gained some wisdom from my experience.

There is wisdom in the International Building Code, which says:  
Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 0.375 inch (9.5 mm) in any flight of stairs.

Additional requirements of the code. The International Residential Building Code calls for risers to be 4” to 7-3/4” with a run of at least 10”. The International Building Code for commercial buildings calls for the risers to be from 4” to 7” and the run needs to be at least 11”. Slightly different requirements for commercial structures.

The resort where I stayed have, at least, this one non-compliant stair that does not exhibit this uniformity or compliance to the code. I almost fell not once but twice. I wonder how many other folks have had a near miss, a slip or a complete fall.

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## Wisdom in Building Codes (cont.)



Measuring stair without a measuring tape



Measuring stair with a measuring tape

This experience deals with not only with the code but compliance to the code. From my Masonry Advisory Council background it has reminded me of the importance of The Masonry Society (TMS) which is a dedicated group of professors, structural, civil engineers and masonry experts who develop the codes for masonry that the International Building Code (IBC) adopts. These codes take a lot of collaborative work and wisdom to develop. Sometimes years and many meetings to define and refine. But they exist to protect the public safety and create the standards for masonry design.