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**Compass**  
Let Us Help Set Your Course For Navigating  
Water Intrusion Problems

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**SEMINARS**  
on green roofing and  
sustainability



Mortar Net USA has won top awards for its innovative products for controlling moisture in masonry construction, but their patented new **TOTALFlash** may be their most ingenious idea yet. They've taken all the most effective moisture-control methods used in cavity-wall construction, plus all the necessary installation equipment and pre-assembled them right into handy, pre-cut panels of flexible flashing.

Product review is for information only and is not an endorsement from HCI.

## Green Jobs with Lasting Value

Part III By: Ben Hixson

In almost every construction related magazine and e-zine we read of technological advances made by Canadians and by western Europeans. Many enhancements to our standard of living in a sustainable building are pouring in from those countries and we need to pay attention. Why are so many technological breakthroughs coming from Canada and Europe? Advancements are being made because in many ways those countries are ahead of us in identifying building envelope and MEP performance over the expected life span of facilities. Given the big picture with their much higher costs of electricity and petroleum products, they have been forced to focus more on sustainable design and construction. As good stewards of the resources afforded us and protective of resources to be available to future generations, we all need to embrace moving rapidly toward sustainable designing, constructing and maintaining our built environment.

To begin to envision career opportunities in green jobs creating and maintaining sustainable construction, we need to start with exploring the opportunities in systems testing and documenting performance for comparison purposes. Testing careers can be in the laboratory, in the fabrication and production line and in the field for installation and follow-up performance. Benchmarks need to be established and published for acceptable criteria and standards contributing to realistically obtainable energy efficiency goals. Presently, some very reputable, well-meaning large companies have publicly announced what many consider to be unobtainable or unrealistic short-term goals. While we applaud the sentiment

and desire, moving forward to implement green design, construction and maintenance with real success to achieve published goals is the only way our construction community is going to convince our somewhat skeptical nation to join in the sustainability movement. We each need to contribute to the best of our ability so that realistic short-term goals are achieved and that success shared with the construction community and public at large.

Testing and subsequent verification and documentation ensure that stated quality or sustainability goals are obtained with what we have now and what is brought to or created by design, build and maintenance entities. Given today's difficulties in obtaining the desired and intended performance from many building systems, greater career emphasis needs to be given to commissioning those systems. That means there should be many career opportunities in the very near future for peer reviews of plans and specifications, verification of test and balance results, and determination and documentation of installed performance at least into the second year of service. Like the building science, applied technical services provided by Hixson Consultants, Inc., review of conceptual project documents in the early stages for example can prove most beneficial in avoiding moisture intrusion and better ensuring energy efficiency during construction and following.

Tremendous advancements have been made regarding non-destructive testing, and we are seeing individuals becoming knowledgeable and performing infrared thermography, nuclear density, dielectric capacitance

and EFVM testing. These technologies can detect thermal resistance and moisture intrusion avoidance performance issues with conventional construction and enhancements such as the new emphasis on proper air and vapor barrier systems and their placement and installation. Every year we are seeing advancements in BIM, project management and project delivery options that mean top quality career opportunities contributing in a meaningful manner to sustainable design, construction and maintenance. Those same criteria and options are being applied to the design, fabrication and production of building components and systems necessary for top quality construction. More sustainable design and construction related jobs are created.

With the resulting enhanced integrity to the built environment's energy use realized by lower energy bills, fewer moisture intrusion issues and greater inhabitant, tenant and production line employee enjoyment and appreciation, more focus and resources can be placed upon interests and pressing needs.



**Remember:**  
April showers  
bring  
May flowers  
...and sometimes,  
water intrusion.

We want to share our Building Envelope observations with our valued clients and other individuals who may be interested in receiving our monthly publication. Call HCI today for cost effective solutions customized for your project.