

The Masonry Society

Sustainability E-News

November 15, 2011

Volume 3, Number 21

SPONSORED EDITION

From the Editor

As I write this the TMS Annual Meetings are underway. From the various committee meetings to the outstanding presentations at the General Session on Saturday there have been lots valuable discussions and information exchanged. The General Session included a presentation by Dr. J. Patrick Rand on the embodied energy and maintenance of buildings on N.C. State University's campus. This type of research, that provides hard evidence of masonry's durability, is essential in making meaningful statements on the sustainability of masonry. Also at these meetings, the TMS Board of Directors expressed continuing support of the TMS Sustainability E-News for the 2013 calendar year, subject to adequate sponsorship. If you've been enjoying this e-newsletter for the past year, but haven't supported it financially, I urge you to become a leader and pledge your support for 2013. Sponsorships are available in amounts from as little as \$100 to over \$1000. For those of you that have made this newsletter possible in the past, THANK YOU! I hope you will consider renewing or increasing your support. For more information, [contact the TMS office](#).

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GREEN BUILDING

The best of sustainable buildings help conserve resources, reduce pollution, provide a superior indoor environment, and are durable. LEED and other rating programs try to achieve these goals, but a rating doesn't guarantee performance in most cases. And which strategies are worthwhile? Read more from both sides of the spectrum. ~Tina

Reducing Use of Glass in Buildings is a Sustainable Strategy

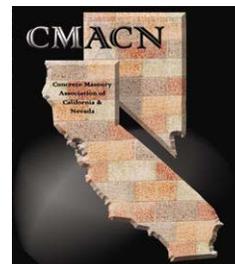
[Editor's note: though this article features an extreme desert environment, it makes a good point about the shortcomings of too much glazing that is relevant everywhere.] To encourage more energy-efficient building in the United Arab Emirates, new rules have been set to limit the amount of glass used on buildings. The goal is to restrict solar heat gain and decrease demand for internal cooling. "The growth of glass buildings in the UAE has forced the development of HVAC systems," says Matthew Plumbridge of Abu Dhabi's Environmental and Sustainability Planning Department in this [Construction Week](#) article.

Net Zero Energy Building Certification

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Program Launched

A new program from the International Living Future Institute is linked to the Living Building Challenge. [Read more.](#)

Why Buildings Can Be the Solution, Not the Problem

Green building is gathering momentum, says architect Ed Mazria, winner of the 2011 Purpose Prize for social entrepreneurship after age 60. Mazria was recognized for his work encouraging architects, engineers and construction teams to aim for "net zero" energy use and emissions by 2030. "A transformation is now under way, and it's exhilarating to witness," Mazria says in this [Forbes](#) article. "We are moving the built environment from the major contributor to the most effective solution to the energy and climate change crises."

Is Green Architecture a Good Thing?

Buildings which received the highest green marks, such as "Platinum", from American green building standards of LEED, do not necessarily succeed in reducing CO2 emissions, according to [this article](#).

LEED Registration to Increase at a Slow Pace, Report Says

The use of LEED standards across the U.S. and in overseas markets is growing, but not as quickly as in previous years, according to the latest Green Building Market and Impact Report. [GreenBiz.com](#) reports that the report "charts the progress of registration and certification under" LEED.

GSA Finds Green-Building Practices Pay Off

A white paper details a post-occupancy evaluation study of 22 federal buildings and finds that green-building investments pay off in lower maintenance costs, energy and water use, and carbon dioxide emissions. To read more, click [here](#).

PRODUCT NEWS

This edition includes a couple of articles on concrete again. Because of the similarities in raw materials in concrete and concrete masonry and grout, it's important to learn what we can from the research being done on concrete and apply it to masonry. ~Tina

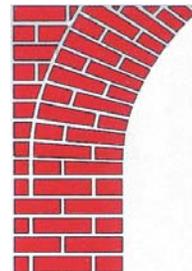
EPA Launches Green Products Web Portal

The U.S. Environmental Protection Agency (EPA) is launching a new tool designed to provide Americans easy access to information about everyday products like home appliances,

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electronics and cleaning products that can save money, prevent pollution and protect people's health. The new green products web portal is available at www.epa.gov/greenerproducts.

Report: Manufacturers are Going Green

Sustainability is emerging as a strategic priority for manufacturers, according to a report from the American Small Manufacturers Coalition. More than 59% of manufacturers say sustainability is tied to success, compared with 35% in 2009, according to this [Environmental Leader article](#).

New Concrete Mix Nearly Doubles Solar Reflectance

High Concrete Group and BASF have developed a new concrete mix that is confirmed to have a solar reflectance index of 82, about double that of regular gray concrete, according to this [article](#). The new mix consists of 75% white cement and 25% ground granulated blast furnace slag and is available for specification in High Concrete's precast concrete wall panels and two of its double tees. This mix allows structures to reflect instead of absorb solar radiation, and thus minimize the urban heat island effect.

New Concrete Mix Wins Innovation Award

Two Minneapolis companies that developed a recycled concrete aggregate mix containing "fly ash, slag, crushed recycled concrete for both coarse aggregate and sand, recycled concrete water, and admixtures" and only 2% Portland cement were given the Charles Pankow Award for Innovation by the American Society of Civil Engineers. The new product was found to have improved fluidity, increased strength gain and paste density and greater resistance to "alkali-aggregate reactivity." [Read more.](#)

BIM

A few more articles on Building Information Modeling. The first provides a good overview of what BIM is. ~Tina

BIM is "Here to Stay," Writes Architect Arno Sandoval

The use of building information modeling is growing as its benefits -- such as improved visualization, ease of information retrieval, and reduction of errors -- become more apparent. BIM aids in collaboration among different parties and, when using integrated project delivery, BIM can be levered to be even more useful. There is also a new tool for



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contractors in the form of Kai's Build Before You BuildSM. According to a general contractor using BBYB, "1 hour of BIM saves 10 hours in the field."
[Read more.](#)

The More You Use BIM, the Greater Your ROI

Continued use of building information modeling can improve your return on investment, according to this piece. For instance, a large contractor and subcontractors at work on a hospital project with complex MEP systems used Google SketchUp and technology from Autodesk and were able to shave \$14.5 million of the targeted budget, according to this [Constructech](#) article. The best way to understand, evaluate and make decisions at each critical point is through the use of BIM, according to Jim Bostic in the AVP Construction Division of the St. Joseph Health System.

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