

# The Masonry Society

## Sustainability E-News

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### SPONSORED EDITION

#### From the Editor

This edition is coming to you a little later than normal because the last week and a half was spent at The Masonry Society's Annual Meeting in Scottsdale, AZ. Committees met, including the TMS Sustainability Committee and Existing Masonry Committee, and of course, the TMS 402 Committee (formerly known as the MSJC committee) met to update the *Building Code Requirements and Specifications for Masonry Structures*. TMS also conducted training and testing for masonry laboratory testing technicians and masonry field testing technicians. This [new program](#) teaches the proper procedures for testing masonry and is highly recommended.

One of the highlights for the Sustainability Committee was final publication of a new brochure, "Masonry Is Sustainable" that discusses the many "green" aspects of masonry, beyond just LEED requirements. A link to the new brochure can be found [here](#). We hope you find it useful.

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*NOTE: Inclusion in this newsletter is not an endorsement of the products and materials featured, nor have these products been evaluated by TMS or the editor. Furthermore, the views expressed in the articles featured are those of the article authors.*

### **CODES and STANDARDS NEWS**

One of the keys to developing sustainable building designs efficiently is to start examining sustainability early-on in the design process. NIST has recently developed software to help designers evaluate the benefits of exceeding the energy code in their designs. The tool draws on a database of building energy use and evaluates several editions of the model energy code. It is another tool for the toolbox for looking at pros and cons of design decisions. Check out the article below for more information. ~Tina

### **New DOE Regulation Sets Green-building Standards for Federal Agencies**

THE HILL

A new regulation by the Department of Energy dictates which private-sector green building certifications can be used in federal buildings to meet energy-efficiency standards. Under the rule, federal agencies "must choose a system that verifies enhanced energy and water efficiency," said the DOE. Leadership in Energy and Environmental Design's Silver level may be used, and in some instances, the Green Globes program may be

### **Sponsors of TMS's Sustainability E-Newsletter**

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#### **Platinum Level**

substituted. The rule takes effect on Nov. 13. [Read more.](#)

## New Tool to Evaluate Commercial Buildings' Energy Performance

NIST

Now, building professionals in more than 200 U.S. cities can use a new database developed by the National Institute of Standards and Technology (NIST) to evaluate whether it pays to exceed code requirements for energy efficiency by tallying expected costs, kilowatts expended, carbon emissions and other impacts over a planned commercial building's lifetime. Called [BIRDS \(Building Industry Reporting and Design for Sustainability\)](#), NIST's new database and software tools are designed to assess three major determinants of building sustainability: energy, environmental and cost performance. To learn more, [click here](#).

## Japan Pushes for Net Zero Standard on New Buildings

CLEAN TECHNICA

With the rapid pace of advancement from energy efficient smart homes, to passive homes, to energy plus homes, the architecture and construction industries are leading the way in terms of building a sustainable future. Japan, however, is hoping to ensure that sustainable design doesn't become a passing fad by pushing for all public buildings to be "net zero" (that is, "passive plus") by the year 2020. [Read more.](#)

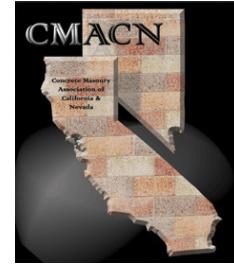
## USGBC Rolls Out LEED Dynamic Plaque, Amid Debate

LEEDUSER.COM

For those who never felt that a static LEED plaque adequately captured the performance of a building in all its complexity, the U.S. Green Building Council (USGBC) has an answer: the LEED Dynamic Plaque. The flatscreen hardware, bolstered by a back end that crunches data, loads up occupancy surveys, and reports back to USGBC, is the result of years of work by USGBC staff on a tool that could engage buildings after their initial LEED certification, and orient all buildings toward measured performance. To learn more about the pros and cons of the new plaque, [click here](#).

## GREEN BUILDING NEWS

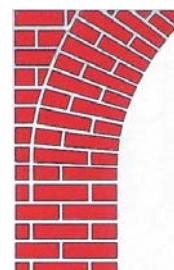
The first article below talks about something you might never have heard of - an environmental building



[Concrete Masonry Association of California and Nevada\\*\\*\\*](#)



National Concrete Masonry Association  
**FOUNDATION**



[Western States Clay Products Association\\*\\*\\*](#)

Gold Level



[Masonry Institute of America\\*\\*\\*](#)



America's Cement Manufacturers™\*\*

declaration (EBD). Similar to an environmental product declaration (EPD), an EBD takes a life cycle assessment of a building and reports it in a format similar to an EPD. Check out the link below for more information. ~Tina

## Lafarge Publishes Environmental Building Declaration

ATHENASMI.ORG

Lafarge has published an Environmental Building Declaration (EBD) for its new Innovation Hub in Edmonton, Alberta. Lafarge set the bar high for other building owners by commissioning the Athena Institute to conduct a life cycle assessment (LCA) of the building and transparently disclosing the results in one of the first EBDs in North America. Lafarge then took the groundbreaking step of summarizing the building's embodied footprint data and displaying it in an environmental label in the lobby. Read the full story [here](#).

## Thermal Bridging Can Degrade Wall Performance 70%

BUILDING GREEN

The Devil is in your details, and he's letting staggering amounts of energy escape. Designers routinely underestimate total heat flow through their wall assemblies by 20% to 70%, according to a new report prepared by the engineering firm Morrison Hershfield and sponsored by several other Canada-based partners. The good news? Tweaking envelope details may be more effective than adding another inch of insulation. [Read more](#).

## Entry-Level Green Doesn't Cost Extra, U.K. Report Finds

BUILDING GREEN

The Building Research Establishment (BRE), publishers of the most popular sustainable building rating system in the U.K., say basic green buildings now cost the same as conventional buildings according to [this article](#). In a recent cost analysis, BRE researchers selected three case-study buildings to evaluate as representative building types—an office, a secondary school, and a community healthcare center. Sweett Group, a U.K.-based construction firm, then provided cost estimates for various designs that would achieve each level of Building Research Establishment Environmental Assessment Method (BREEAM) certification: Pass, Good, Very Good, Excellent, and Outstanding. This analysis showed all three building types could achieve "Pass" for the same price as building to code.



\*\*

Silver Level



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EXPERIENCED | INNOVATIVE | AUTHENTIC

\*\*



\*

Bronze Level



\*\*\*

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## **PRODUCT NEWS**

### **Less Calcium in New Cement Mix Reduces GHG Emissions by 60%**

SCIENTIFIC AMERICAN

A [report](#) by researchers at the Massachusetts Institute of Technology indicates that lowering the ratio of calcium in cement makes the material stronger and reduces greenhouse gas emissions by as much as 60%, according to Roland Pellenq, MIT senior scientist and one of the report's authors. The new formula also yields a material that is "glassier and [has] less crystalline structure," thus making it more fracture-resistant, [this article](#) notes.

### **Cement Plant Tests Carbon-scrubbing Technology**

MIT TECHNOLOGY REVIEW

Norway's Norcem Brevik cement works has begun using its waste heat to power an amine scrubbing system capable of eliminating up to 40% of emissions from the factory's chimneys. That's potentially a big deal, since cement production accounts for about 5% of all anthropogenic greenhouse emissions. [Read more](#).

## **GREEN BUSINESS NEWS**

As product transparency continues to expand, designers/specifiers will soon find themselves with a lot of environmental information to sort through. How do you evaluate all this information? In the case of at least one architectural firm, their approach has been to hire a chemist to make sense of it all. Not surprising given the type of information being reported. Check out the link below to learn more. ~Tina

### **Perkins+Will Hired a Chemist. Should Your Firm?**

EcoBuilding Pulse

Understanding a product's environmental impact is a challenge that extends beyond the availability of Health Product Declarations and life cycle assessments. Even with those disclosure documents in hand, specifiers and clients must interpret often-complex information. For help, Perkins+Will opened a part-time fellowship position with the task of educating the firm on material-health issues. [Read more](#) about what Michael Dedeo, who holds a PhD in chemistry from the University of California, Berkeley, has to say about specifying healthier products.

## Sustainability Creates Value, Says BASF Exec

MIT SLOAN MANAGEMENT REVIEW ONLINE

BASF sees sustainability as an extension of its long-standing culture of risk mitigation, says Dirk Voeste, vice president of sustainability strategy in [this article](#). But the company's CSR efforts have since emerged as a driver of new market solutions. "It's not enough to take care of the risks and drive sustainability. We need to drive value," he says.

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