

# The Masonry Society

## Sustainability E-News

Resilient Construction

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### SPONSORED EDITION

#### From the Editor

As I viewed photos of the devastation from Hurricane Michael, one image in particular stood out. It was a beachfront home at ground-zero standing alone, surrounded by the debris of what was once an entire neighborhood of homes. The home was designed and constructed to survive a Category 5 storm and it did. To me, this is a stark reminder that achieving resilient designs is achievable, with current knowledge and techniques. And while it may require some initial expenditures beyond "typical" construction, it is worth it. In some cases the premium for a more resilient design is negligible when the goal is part of the initial design strategy. Such is often the case for masonry buildings designed to serve as storm shelters, as noted in the article linked below.

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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.*

#### RESILIENT CONSTRUCTION

Resilient design means designing for those natural disasters that seem to be more frequent than ever. The links below look at several elements important in resilient construction. Note that the webinar from NIBS is today, but they typically provide recordings for later viewing. ~Tina

#### **Tornado Sheltering in Schools and Other Essential Facilities**

##### **MASONRY DESIGN MAGAZINE**

Increases in population, urbanization and changes in climate have placed increasing numbers of the US population in areas that are subjected to higher and more damaging winds. This increase in risk has prompted a response by the building codes. In fact, the 2015 edition of the International Building Code (IBC) now requires that most schools and emergency facilities located in a significant portion of the Central US contain tornado shelters. In recognition of the fact that many of the schools and emergency facilities have, and continue to be constructed using masonry, a study of how masonry walls can be used to provide safe, practical and cost effective solutions for sheltering from tornadoes and high wind events was conducted. Masonry walls can be used to provide safe, practical and cost effective solutions for sheltering

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

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from tornadoes and high wind events. [Read more.](#)

## Durability Debate to Create New Engineering Discipline

### CONCRETE CONSTRUCTION ONLINE

As new infrastructure durability requirements arise, industry associations such as the American Concrete Institute are working to develop new codes and standards to help project planners better define expectations, says durability expert Jacques Marchand in [this article](#). As confusion begins to clear up over the 100-year service life, a new engineering discipline focusing on durability will emerge, he says.

## Michael Reveals Need for Tougher Fla. Panhandle Building Code

### TAMPA BAY TIMES

Florida's building codes were improved after Hurricane Andrew devastated South Florida in 1992, but the rules are not as strict on the Florida Panhandle, which is now reeling from Hurricane Michael. When the area's new regulations were implemented in 2002, the American Society of Civil Engineers' warned that the Panhandle was still susceptible to strong storms despite low historical precedence, and many homes there were built before the codes were adopted. [Read more.](#)

## Webinar on Case for Building Stronger, Smarter Infrastructure

### NIBS.ORG

The Pew Charitable Trusts and the National Institute of Building Sciences will host a joint webinar, [The Business Case for Building Stronger, Smarter Infrastructure](#), on Tuesday, October 30, from 11:00 am to 12:00 pm ET. The webinar will feature the release of the latest Interim Report of the Institute's "Mitigation Saves" multi-year study. The new report builds on the results presented earlier this year that every \$1 invested in disaster mitigation through federal grants saves society \$6 in future disaster costs.

## GREEN BUILDING NEWS

Embodied carbon is one of the more quantifiable aspects of sustainable design. The article below covers a new tool for tracking embodied carbon in construction. ~Tina

## Microsoft Tracks Construction-Related Carbon Emissions with New Tool

### CONSTRUCTION MANAGER MAGAZINE

Microsoft is the first sizable corporate user of the [Embodied Carbon in Construction Calculator](#), or EC3 tool, to trace carbon emissions related to raw building materials. Microsoft is using EC3, developed in part by Skanska, during the renovation its 72-acre Seattle complex. [Read more.](#)

## Green Globes New Multifamily Rating Systems Respond to the Market

### GREEN BUILDING LAW UPDATE

The Green Building Initiative recently launched the Green Globes Multifamily for New Construction and Green Globes Multifamily for Existing Buildings. While certainly there is a market in developers of newly constructed multifamily buildings, spending on multifamily construction was more than \$61 Billion in 2017, being 18% of all new residential construction spending. [Read more.](#)

## Platinum Level



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## Gold Level



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Institute of  
America  
\*\*\*

## Silver Level



Southeast  
Concrete  
Masonry  
Association \*



\*\*

## Bronze Level

## LEED Certification Update

### USGBC

The USGBC has published their second quarter update of LEED certifications. Check it out [here](#).



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## GREEN PROJECT CASE STUDIES

Masonry buildings are often great candidates for renovation or adaptive reuse. The first article below describes a case of an architect's office pushing the limits on passive design. ~Tina



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## Programming Historic Building for Comfort

### HPBMAGAZINE.ORG

A renovation of a 1948 bottling house saved a piece of Philadelphia history. An innovative approach to comfort conditioning saved energy by using twice daily occupancy surveys and temperature and humidity sensors. [Click here](#) to read more.



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To check out other examples of adaptive reuse, visit

<http://www.hpbmagazine.org/Adaptive-Reuse/>.



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## Wilmington's LEED Silver Fire Station Models Energy Efficiency

### USGBC NORTH CAROLINA

Features of the project focus on the triple bottom line and provide environmental, social and economic benefits. Read more about the project [here](#) and check out the [LEED summary](#).



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## EDUCATIONAL NEWS

### TMS Webinar Series Continues

#### MASONRYSOCIETY.ORG

The Masonry Society's 2018/2019 2nd-Thursday-of-the-Month Webinar Series are easy ways to learn more about various masonry topics while earning 1 hour of continuing education. Topics include:

- November 8, 2018 - Design of Movement and Control Joints for Masonry
- December 13, 2018 - Masonry Façade Inspections - Best Practices and Tips
- January 10, 2019 - Rational Design of Masonry Veneers & Shelf Angle Supports

Webinars will begin at 1 pm ET. For more information and to register for these seminars, visit the [TMS website](#).

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