The Masonry Society

Sustainability E-News

Reducing Carbon Impacts

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SPONSORED EDITION

From The Editor

As I was pulling together the articles for this edition, I was struck by how many of them relate to reducing carbon impacts, but in very different ways. Building more resilient structures reduces the carbon impacts of having to repair and rebuild. Reducing operational energy in buildings reduces carbon impacts for the lifespan of the building. Changing building products, either through raw materials used or production methods, can reduce initial embodied carbon impacts. Each has a role to play. Of course, carbon impacts to our environment come from many sources beyond building construction, including agriculture, transportation, and industry to name a few. And as consumers, we can reduce our personal carbon footprint. There are many websites that can help you calculate your personal footprint and suggest ways to reduce it, including <u>one from the U.S. EPA</u> and this one from Carbon Footprint. What steps have you taken?

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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.

GREEN BUILDING NEWS

Last month we shared an article that talked about the carbon uptake that occurs in concrete as being unaccounted for. This month we share an article from a researcher with a different point of view. ~Tina

New resource released for FEMA resilience program ASCE

The BuildStrong Coalition partnered with the Federal Emergency Management Agency (FEMA), Building Resilient Infrastructure and Communities (BRIC) and the National Association of Mutual Insurance Companies program to release a Pocket Guide on the BRIC program. The <u>BRIC Pocket Guide</u> is designed to help communities with assessing risks, collaborating with both government and non-government stakeholders, and making use of the numerous tools available to maximize a mitigation project's effectiveness. TMS's Sustainability E-Newsletter Sponsors

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Concrete Masonry Association of California & Nevada ***

Burning communities call for building changes CONSTRUCT CONNECT (Canada)

The products are out there to make buildings more fire resilient, say product manufacturers, but it means moving away from low-ball building solutions and making code changes. Canada's insurance sector is pushing for change as it shoulders burgeoning claim costs such as the \$3.7 billion in the Fort McMurray wildfire. Andrea McChesney, executive director of the Canadian Concrete Masonry Producers Association (CCMPA) said her organization continues to lobby for building code changes that use concrete masonry products over wood to make buildings more fire-resistant. The CCMPA has advocated what it calls balanced design, a four-legged chair that promotes education on fire prevention and safety, detection, suppression (i.e., sprinklers) and containment through fire resistant, non-combustible masonry walls. <u>Read more</u>.

Net-zero buildings: Where do we stand?

The building industry is responsible for 38% of all energy-related greenhouse gas (GHG) emissions. To reach net-zero, we need to understand the full carbon footprint of buildings. World Business Council for Sustainable Development (WBCSD) has published a report with whole life carbon assessment of six building projects to evaluate where we stand in relation to global climate targets. The report points way we can cut our emissions from global construction in half by 2030 - with measurement and clear targets. Learn more here.

Report: Existing resources can curtail carbon CANARY MEDIA

Architects, engineers and contractors have access to resources that could reduce embodied carbon in typical buildings by nearly 50%, according to a new report by Skanska and RMI. However, significant savings would require major changes in materials planning and better coordination along the supply chain, as well as further development of embodied carbon measurement standards. The top categories for reducing embodied carbon were cement, rebar, insulation, glazing, and finish materials. <u>Read more</u>.

Materials scientist skeptical of "carbon sink"

DEZEEN

A researcher from the University of Cambridge has disputed the messaging in a section of a recent report from the Intergovernmental Panel on Climate Change that claimed cementitious infrastructure acts as a "carbonation sink" that offsets roughly half the emissions from cement production. The researcher said that carbonation actually only absorbs around one-quarter of total emissions from production, and that cement carbonation requires very specific conditions to occur. <u>Read the full story</u>.

CODES and STANDARDS NEWS

As buildings get more energy efficient the effect of plug loads becomes even more pronounced. It is a good thing ASHRAE Standard 90.1 is beginning to address them, and it is something that designers and building owners should consider. ~Tina

Putting plug and process loads in context BUILDING ENCLOSURE ONLINE

The U.S Department of Energy recently issued a determination regarding the latest edition of ANSI/ASHRAE/IES STANDARD 90.1 - Energy Standard for Buildings Except Low-Rise Residential



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Buildings. With new rules in Appendix G for modeling the impact of automatic receptacle controls, among other changes, Standard 90.1-2019 continues to refine the standard to better address plug and process loads. Plug and process loads (PPLs) constitute the "other" category that we tend to lump a variety of energy loads into—and with the increase in the number of electrical devices we use in our buildings today, PPLs have quietly become a greater proportion than they once were of our buildings' overall energy load. Read more here.

New ASTM committee tackles issues of climate and community

ASTM

A new subcommittee, E50.07, has started work on standards needed to address the connections between climate and community. Part of the committee on environmental assessment, risk management and corrective action, it has task groups working on terminology, mapping, and ESG (environmental, social, governance). <u>Read more</u>.

GREEN PRODUCT NEWS

USACE, Holcim to explore C&D recycling

RECYCLING TODAY ONLINE

The potential for energy recovery and mineral recycling from construction and demolition materials will be the subject of a study by the US Army Corps of Engineers working with Holcim and its Geocycle unit. The study will begin with a waste characterization analysis. <u>Read more</u>.

Recycled glass made into aggregate for concrete block CONCRETE PRODUCTS

AeroAggregates, a producer of low-density, foamed glass aggregates, has begun building a facility in Dunnellon, Florida, that will transform post-consumer recycled glass into a graded material for concrete block mixes. Read more <u>here</u>.

EDUCATIONAL NEWS

Act fast! Early-bird rates for the upcoming Annual Meeting end September 21st. ~Tina

Register Now for The Masonry Society Annual Meetings

MASONRYSOCIETY

Experience Southern Hospitality in Nashville, TN as TMS returns to in person meetings! The Masonry Society's 2021 Annual Meeting will be held at the Millennium Maxwell House, in the heart of Music City, October 13 – 16. A number of educational programs will be presented in between business meetings and enjoyable social events. But perhaps of most importance, come back to see your TMS friends and to make new ones! We hope to see you there! Visit the <u>Annual Meeting page</u> for information on presentations, Committee Meetings, and Social Events.

Achieving Resilience - How Masonry Supports Resilient Designs MASONRYSOCIETY

<u>Register now</u> for this webinar on November 9th at 1 pm ET. Learn about resilient design and how masonry can be used to enhance the resilience of buildings. During this webinar, Christine "Tina" A. Subasic, P.E., LEED A.P. will review the use of 'above-code'



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standards to strengthen buildings and the role of masonry construction in meeting resilient design goals.

TMS Night School Resumes with series on Existing Masonry

MASONRYSOCIETY

Learn from the experts as TMS's Existing Masonry Committee presents seven (7) one-hour sessions weekly at 7 pm ET from October 27 though December 16 discussing the most common issues in assessing, maintaining, and, where needed, repairing masonry cladding systems constructed in North America between the 1880 and 1945. For more information, visit the <u>TMS Night School website</u>.

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