

The Masonry Society

Sustainability E-News

The Carbon Issue

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SPONSORED EDITION

From The Editor

With a nod to *Architect Magazine*, I titled this edition the Carbon Issue because my inbox was overflowing with articles about carbon emissions, embodied carbon, and the like. There are a number of good articles here, including this rather lengthy [article in Canadian Architect magazine](#) by Jennifer O'Conner, president of the Athena Sustainable Materials Institute. While I highly encourage you to read the entire piece, some of the key take-aways include a reminder that **life cycle assessment is only as good as the data and assumptions it is based on**, use of higher-embodied carbon products should be optimized, and **keeping existing buildings around longer helps avoid new carbon emissions**. And she concludes, "The bottom line: **no single material will solve the embodied carbon problem**, and designers need to choose all materials carefully."

Christine "Tina" Subasic, PE, LEED AP
CSubasicPE@aol.com

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

The first two links below are full of information related to carbon emissions. The first article is a robust discussion of the benefits and shortcomings of many of the tools and information related to embodied carbon. The second links to an online magazine with several articles related to carbon, some more balanced than others, but informative nonetheless. As always, it's important to remember that every issue has pros and cons. ~Tina

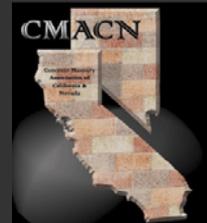
What can we do about embodied carbon?

CANADIAN ARCHITECT

The architecture community is abuzz with talk about reducing embodied carbon in buildings. Jennifer O'Connor, president of the Athena Sustainable Materials Institute, gives a primer in [this article](#). Of note, she cautions "[E]mbodied carbon calculations are estimates, not absolutes. While LCA is a well-established, rigorous science guided by international standards, it is inexact... The uncertainty in

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results increases with long-lived and complicated products like buildings.”

Architect magazine: The Carbon Issue

ARCHITECT MAGAZINE

[This issue](#) of Architect magazine is called The Carbon Issue and was guest edited by Architecture 2030. It includes a number of articles on topics including a Carbon Glossary, recommended details, adaptive reuse, and more.

Tech firms push wider use of carbon calculator

ENGINEERING NEWS-RECORD

Tech giants Amazon, Facebook, Google, Microsoft and Salesforce are part of a team pushing for wider use of a tool to gauge the embodied carbon in buildings. The team held its initial meeting last week to seek a fuller commitment from construction and other industries to use the Embodied Carbon in Construction Calculator. Read the [full story](#).

CODES and STANDARDS NEWS

LEED is adapting to recent developments with two new pilot credits and a call for proposals. ~Tina

LEED call for proposals

USGBC

USGBC has opened a call for proposals for LEED and encourages project teams to submit ideas and proposals for current and future LEED development. Continuous improvement has always been a hallmark of LEED. With each new version of the rating system, we are challenging the building sector to be more resource-efficient and sustainable, but also to evolve to meet the market where it is. Today, we find ourselves in a period of change that is beyond anything that we could have imagined, but that dedication to flexibility remains. For more information on how you can participate in strengthening LEED v4.1 and advancing the vision of healthy people in healthy places for a healthy economy, [click here](#).

Two New LEED Pilot Credits Respond to COVID-19

GREEN BUILDING LAW UPDATE

America is reopening including physically opening its buildings and the U.S. Green Building Council has announced that LEED will play a role in confronting risk in the post coronavirus pandemic era. Mahesh Ramanujam, the President & CEO of USGBC announced in a published letter that the “second generation at USGBC will focus on our relevant and reimagined vision: Healthy people in healthy places equals a healthy economy.” He acknowledged that in a post pandemic world, “unlike any other moment in the history of this organization, this crisis will require us to fully reimagine the spaces where we live, learn, work and play.” In outlining a series of actions that the organization would undertake, “on an emergency basis, we will promptly release LEED pilot credits to support social distancing, nontoxic surface cleaning, air quality and infection monitoring.” Read more [here](#).

GREEN PRODUCTS NEWS

Advances in sustainability of masonry are not limited to the materials themselves, but can include tools to benefit people too, as demonstrated by the articles below. ~Tina

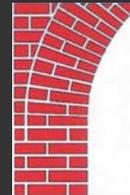
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Exoskeletons for bricklayers: science fiction is now reality

MASONRY MAGAZINE

When we think of exoskeletons, the image of Iron Man might be the first thing that comes to mind...of course, who wouldn't want to try out a suit like that! But the exoskeleton for the masonry industry didn't come out of a movie script. Created specifically for bricklayers, this hybrid system combines passive and quasi-passive actuation to support and assist the worker in lifting and placing masonry blocks as well as manipulation of masonry tools. It does not restrict the mason's ease and range of motion when using the trowel to apply mortar and it reduces muscle fatigue during various tasks involving the bricklayers' upper limbs. [Read more.](#)

FBR robot can lay 200 blocks per hour

THE CONSTRUCTION INDEX (UK)

Australian technology company FBR has unveiled its second Hadrian X construction robot, H02, which can place more than 200 concrete masonry blocks per hour. The laying rate is about 300% faster the first iteration of the robot achieved last year. Read more [here.](#)

Concrete Embodied Carbon Footprint Calculator

CIRCULAR ECOLOGY

Circular Ecology has created an embodied carbon calculator for concrete as part of the free embodied carbon database for materials known as the ICE database. The ICE database was originally created as a research project at the University of Bath by Dr. Craig Jones, Circular Ecology, and Professor Geoffrey Hammond. You can find the latest version of the ICE database, V3, and the calculator [here.](#)

EDUCATIONAL NEWS

Webinar: Reducing Your Footprint: Lowering Embodied Carbon in Construction Materials

ENGINEERING NEWS-RECORD

[This webinar](#), on June 25, 2020 at 2 PM ET, will tackle the concept of reducing carbon emissions related to buildings by specifying lower-carbon concrete, steel, wood, and other materials, and review how to use the Embodied Carbon tool in Construction Calculator to help shrink the embodied carbon footprints of buildings.

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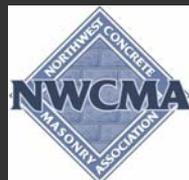
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