

QUARTERLY **CONNECTION**

A NIBS MEMBER NEWSLETTER

OCTOBER 3, 2022

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Feature Story

Building Innovation 2022 Meets in Washington

Building Innovation – one of the premiere events for all who impact the built environment to meet and find solutions – took place last week in Washington, DC.

It was the first in-person annual meeting since 2019. BI2022 covered three days – September 26-28 – at the Mayflower Hotel.





Highlights included keynotes Kelly Alvarez Doran, Senior Director, Sustainability & Regenerative Design, MASS Design Group, and Director, Ha/f Research Studio, University of Toronto; Stacy Smedley, LEED AP BD+C, Executive Director, Building Transparency, and Senior Director, Sustainability, Skanska USA Building; and David Maurstad, Deputy Associate Administrator for Federal Insurance and Mitigation, Senior Executive of the National Flood Insurance Program, FEMA.

Conference programming was built around three tracks: resilience, technology, and building performance and sustainability.

In her keynote, Building Transparency's Smedley explained three scopes of carbon emissions – direct/owned, indirect purchased, and other indirect emissions.



"Forty percent of global carbon emissions is from the built environment," she said.

Smedley said: "Life is like an onion. You peel it back one layer at a time, and sometimes you weep."

The message: This is how you attack carbon.

BI2022 Session Highlights

Hundreds of BI2022 attendees networked in the Innovation Lounge and at breakfast and after-conference receptions.

Session highlights included:

- Efforts to Decarbonize the Building Sector are Scaling – Why and How Your Company Can Respond
- BIM Provides the Fuel for Data-Driven Change at the U.S. Department of State
- Data & AI in Construction
- Design for Resilience and Sustainability: Precast Protects Life and Resiliency and Zero Energy for Educational Facilities Case Study
- Resilient & Smart Interiors: Protecting Occupant Wellness and Reducing System Construction Costs
- Beyond Drawings: Engaging Owners and Users with Digital Twin & Mock-up Technologies
- Landscape of Federal and State Resilience Planning & Policies and the Role of Modern Codes and Standards
- Hazard Resilience & Building Codes in Action: Earthquake and Tornado Mitigation & Climate Change Adaptation Pathways

In his keynote entitled Half, Doran, with MASS Design Group and Ha/f Research Studio, University of Toronto, focused on the balance between building performance, material provenance, and whole life carbon.

The challenge? How to halve the emissions of new construction, renovation and maintenance, while also halving the emissions of existing buildings.

“We can’t just look at embodied, we have to look at operational carbon, and we have to look at them together,” Doran said. “How do we get to half: Through the lens of climate positive design.” Read more about [Day 1 highlights](#) and [Day 2 sessions and awards](#).

And The Award Goes To ...

NIBS was proud to recognize the 2022 built environment award recipients.

The 2022 recipients are:

- NIBS Distinguished Service – Bryan Koon, Vice President of Homeland Security and Emergency Management, IEM
- Exceptional Woman in Building – Cheryl J. Lyman, Executive Director, Ohio Facilities Construction Commission
- Future Leaders – Jamie Leigh Price, Mitigation Investment Lead, Federal Emergency Management Agency
- NIBS Innovator – Microsoft Silicon Valley Campus
- NIBS DEI Leadership – GEI Consultants, Inc.
- Mortimer M. Marshall Lifetime Achievement – Philip Schneider, retired

NIBS also named two recipients of the Betty and Mort Marshall Memorial Scholarship, which was established to promote diversity in the building sciences and benefit students pursuing a career in architecture and engineering at a historically Black college or university. The scholarship was started in 2020, in memory of the Marshalls. Mort was the first member of NIBS.



The 2022 scholarship recipients are Jose Portillo, a civil engineering student at Tennessee State University, and McKenzie Cleveland, an architecture student at Hampton University. Each student will receive \$5,000 toward their tuition.



NIBS leadership also recognized retiring board member Paul Bertram, president of consulting firm PRB Connect. Bertram has served the NIBS board since 2016.



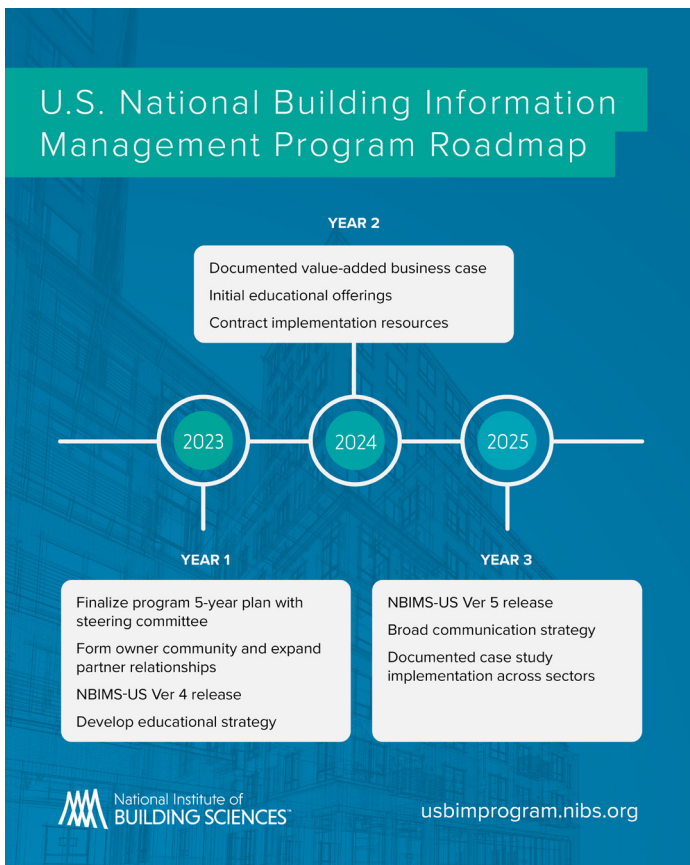
National BIM Program Launch

NIBS Launches U.S. National BIM Program to Transform Construction Industry

The National Institute of Building Sciences has developed [an implementation and launch plan](#) for the U.S. National Building Information Management (BIM) Program.

The aim: To achieve a new level of efficiency in the capital asset industry through digital transformation.

An overview of the launch plan was presented in September to industry leaders at an executive roundtable to accelerate ongoing efforts from innovative and forward-thinking organizations.



A critical issue in the U.S. construction industry is its low level of digitalization, which prevents it from transforming lifecycle work processes to be more efficient, less expensive, more resilient, and safer to build and maintain. The U.S. National BIM Program expands upon existing and ongoing work of the NIBS BIM Council as well as various other initiatives in the industry.

Many national and international initiatives focus on BIM standardization to support digital transformation throughout the entire life cycle of designing, constructing, and operating the built environment.

To aid in the implementation and launch of the U.S. National BIM Program, AEC subject matter expert Johnny Fortune joined NIBS in June. Fortune serves as Director of the National BIM Program. Fortune said next steps include securing resources and establishing workgroups to operationalize different aspects of the plan.

NIBS began the planning process for the U.S. National BIM Program in 2021, meeting and working with industry leaders. Since then, many volunteers and NIBS staff members have worked to develop the implementation plan, which includes key activities and an estimated budget for the first five years.

Infrastructure 2022

Infrastructure 2022: Essential Infrastructure: Lifelines and Access to Internet

This session of the Infrastructure 2022 series focused on clean water, electrical grid and powerline resiliency, and closing the digital divide as it pertains to the Infrastructure Investment and Jobs Act (IIJA).

According to the Environmental Protection Agency, there are an estimated six to 10 million lead service lines across the country. Cities have been taking measures to finance projects that identify and remove bad lines, but it hasn't been enough. The U.S. is ranked 26th in the world for safe drinking water and sanitation by the Environmental Performance Index. Knowing that access to clean drinking water is a basic human right, the IIJA allocated \$55 billion to further reach this goal.

In January 2022, the U.S. Department of Energy launched the Building a Better Grid Initiative to make the nation's power grid more resilient to the impacts of climate change and increase access to reliable and affordable clean energy. The IIJA earmarked \$28 billion for resiliency of powerlines and over \$60 billion total for clean energy.

Closing the digital divide is more important than ever in the wake of the COVID-19 pandemic. Americans need

access to high-speed internet for work, study, and play. Lack of access to broadband infrastructure has become an equality issue in the U.S. The IIJA will work to combat this by delivering more than \$60 billion in funds to expand access to high-speed networks throughout the nation.

On August 16, 2022, the National Institute of Building Sciences hosted the essential infrastructure installment of **Infrastructure 2022**. The series is sponsored by Procore Technologies.

The panel included Michelle L. Manary, Acting Deputy Assistant Secretary, Energy Resilience Division, U.S. Department of Energy; Christopher Lindsay, Vice President, Government Relations, IAPMO; and Sarah Morris, Senior Advisor, National Telecommunications and Information Administration. The webinar was moderated by Craig A. Davis, PhD, PE, GE, Los Angeles Department of Water and Power (Ret).

INFRASTRUCTURE 2022

August 16: Essential Infrastructure: Lifelines and Access to Internet

Access to clean drinking water is a basic human right, and the Infrastructure Investment and Jobs Act (IIJA) has allocated \$55 billion to reach this goal. This session also will focus on electrical grid and powerline resiliency and closing the digital divide.



Register at nibs.org/infrastructure-2022-webinar-series

The Water Delivery And Quality Challenge

IAPMO's Lindsay shared the diverse and complex challenges faced by the water/sanitation sector that impact homes and offices. These include aging infrastructure, water security, access and affordability, new contaminants, and a shortage of skilled labor.

Ten million American households are without safe drinking water.

Regarding aging infrastructure, much of the nation's water and wastewater infrastructure was built in the 1970s and 1980s. On average, 14 percent to 18 percent of total daily treated potable water in the United States is lost through leaks.

That's 6 billion gallons of treated drinking water lost by the water systems every day.

When it comes to water security, 42 percent of the U.S. recently was impacted by drought, affecting 128 million people.

Congress is working to meet these incredible challenges with resources like the IIJA, Chips and Science Act, and Inflation Reduction Act. IIJA authorizes \$550 billion in new spending with water as a core priority, with \$55 billion. Lindsay said this represents the single-largest investment in our nation's drinking water system ever.

The latter two recent actions particularly provide resources to the water and sanitation sector. Said Lindsay: "From an industry point of view, we see this as just a down payment and more still needs to be done to improve the quality of our infrastructure in the United States, particularly as it relates to water and sanitation," Lindsay said.

Read the [full webinar summary](#). The final Infrastructure 2022 webinar will cover preparedness and mitigating

the climate crisis. It takes place December 6. For more information, visit the [Infrastructure 2022 series](#).

BI2022 Highlights



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Columns



The NIBS Building Seismic Safety Council Provisions Update Committee (PUC) met in August in San Francisco to discuss the 2026 NEHRP Recommended Seismic Provisions.



NIBS team members Sarah Swango, Senior Director, Membership and Development, and Jennifer Hitzke, Manager, Executive Office, Board & Volunteer Relations, were at NIBS' booth 314 during the 2022 International Code Council Conference, Hearings and Expo in September.

Public Review Period for BSR/ASHRAE Standard 224P is Open

ASHRAE Draft Standard 224P, Standard for the Application of Building Information Modeling developed jointly with the National Institute of Building Sciences and based on the NIBS National BIM Guide for Owners is out for 45-day public review. The review period ends October 24, 2022. The Standard 224 is complementary to NIBS National BIM Standard-US. The intended audience for the standard is the building owner. The standard defines an approach to creating and fulfilling building information modeling requirements for a typical project from the owner's standpoint. Access the document at osr.ashrae.org. Please review and comment on this important new standard.

Get Involved in the Update of the United States National CAD Standard®

The NCS V7 Steering Committee is calling upon current owners and users of the United States National CAD Standard® (NCS) to participate in the development of the latest version of the nation's leading CAD standard.

Owners of the NCS V6 are encouraged to get involved in the development of the next edition by joining the NCS V7 Project Committee. The NCS V7 Steering Committee and NCS V7 Project Committee are committees of the NIBS Building Information Management Council.

Membership on the NCS Project Committee is open to all individuals with a knowledge of and interest in the subject matter of the NCS and have in their possession a license of the most recent version of the standard.

The NCS update cycle is the method by which additions and changes to the NCS are proposed, debated, and

ultimately voted upon to amend the current version of the NCS. Each update cycle actively engages the NCS Project Committee in a process designed to keep the NCS current and responsive to industry needs. During this update cycle, the steering committee will submit proposals to amend NCS V6, leading to the release of a reorganized standard.

The time to get involved is now. Become a member of the NCS V7 Project Committee today! Fill out the [NCS V7 Project Committee Application Form](#) to review, comment, and vote on the next edition of the standard.

From the Multi-Hazard Mitigation and Building Seismic Safety Councils

NIBS MMC and BSSC Executive Director Jiqiu Yuan helped author an August opinion piece in The Hill called [A Push for Wildfire Resistant Homes](#). NIBS also recently was featured in Structure Magazine in the article [Mitigating Seismic Risk](#).

NIBS joined many partners to support the [National Climate Adaptation and Resilience Strategy Act \(NCARS\)](#). The bill was first introduced by Senator Christopher A. Coons in January 2022. Yuan attended the Congressional staff briefing on August 2.

Also in August, the BSSC wrapped its 11-webinar series on the 2020 NEHRP Recommended Provisions: Design Examples and ASCE/SEI 7-22. The Design Examples were developed by BSSC for FEMA to illustrate and explain some of the new changes of the 2020 NEHRP Provisions, ASCE/SEI 7-22, and the material design standards referenced therein in design applications.

The BSSC 2026 NEHRP Provisions Update Committee (PUC) held its second meeting in San Francisco, where 13 Issue Teams (subcommittees) were formed, August 23-

25. The PUC officially kicked off the Functional Recovery Task Committee and its five Topic Subcommittees.

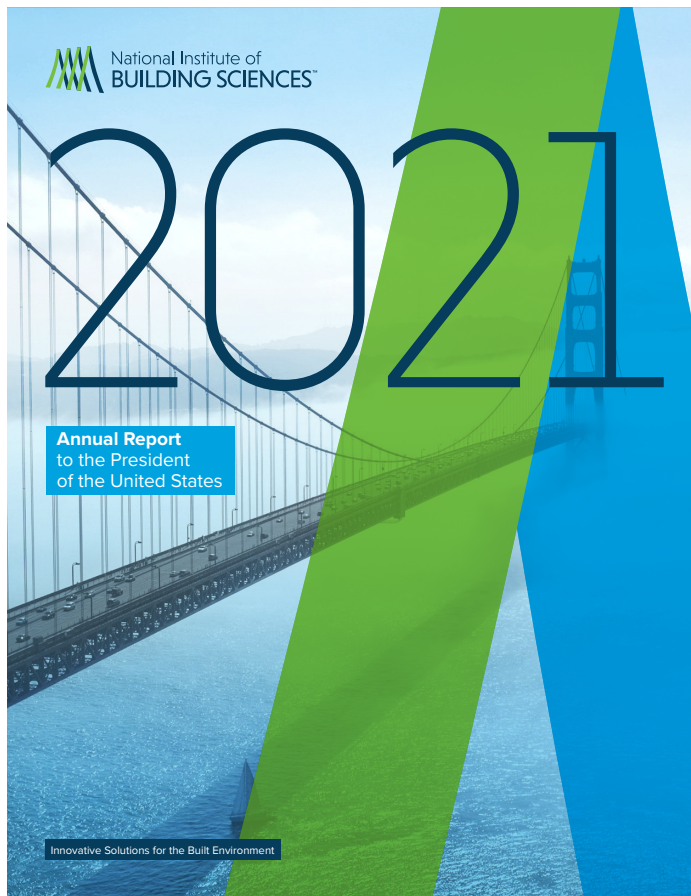
NIBS and Fannie Mae Kick Off Mitigation Investment Roadmap Project

Stemming from extensive mitigation research, NIBS is working with Fannie Mae to develop a roadmap on mitigation investment to help Americans and the nation's built environment prepare for and better respond to the devastating effects of climate change.

The Resilience Incentivization Roadmap 2.0 is being sponsored by Fannie Mae and supported by the MMC's [Committee on Finance, Insurance, and Real Estate \(CFIRE\)](#). NIBS has engaged Keith Porter, Michel Leonard, and Clifford Rossi as the project PIs.

The goal of the Resilience Incentivization Roadmap 2.0 is to identify pathways to work with lenders to explore financial products that support resilient buildings, help developers properly evaluate risk and recognize values of resilient buildings and lower the upfront cost, collaborate with insurers to promote insurance programs that reward safer structures, and support communities to develop layered mitigation investment packages.





View the 2021 Annual Report to the President of the United States

Remaining true to the objectives in our enabling legislation, NIBS convenes the leaders of our industry to look to the future and build alignment on topics challenging our future.

Our annual report highlights our work to improve the safety, performance, and resilience of the nation's buildings and communities; enable innovation across the industry; and ensure a competent and vibrant workforce.

This year, we covered industry solutions for natural hazards, technology and strategies to create efficiency, and DEI in the built environment. [READ THE ANNUAL REPORT>>](#)

We Need Your Feedback

NIBS routinely evaluates how it approaches its program and services so that we can continually meet your needs. As part of this regular evaluation, we are exploring the potential benefits of partnering with one or more other organizations for the annual conference and other events. The potential partnerships could include co-locating certain independent activities, as well as jointly developing and hosting other activities.

To better understand your interest in attending an event hosted by multiple organizations, we are conducting a short pulse survey of constituents. Whether you have attended a NIBS conference in the past or not, we want to hear from you. Please take five minutes to complete this survey.

Survey link: <https://www.surveymonkey.com/r/ZXK3B8K>





NIBS in the News

CONSTRUCTION DIVE

Building Group Launches National BIM Program

The National Institute of Building Sciences is targeting construction's stubborn productivity problem with an initiative to bring more digitization into the building process. The U.S. National Building Information Management Program aims to create a BIM standard throughout the entire life cycle of designing, constructing and operating in the built environment, NIBS said in a release. [READ MORE>>](#)

ENR

How Extreme Weather Has Created A Disaster For School Infrastructure

The White House is launching a multi-agency initiative aimed at modernizing state, local, tribal and territorial building codes and standards. The initiative is geared toward improving building energy performance as well as community resilience to extreme weather events and other effects of the climate crisis. [READ MORE>>](#)

FMLINK

Whole Building Design Guide Adds Building Commissioning Resources

The nonprofit National Institute of Building Sciences (NIBS) has partnered with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Building Commissioning Association (BCxA), the AABC Commissioning Group (ACG), and international certification association NEBB to advance and revise the Building Commissioning resources on the Whole Building Design Guide (WBDG). [READ MORE>>](#)

YAHOO

Digital Twin Consortium Signs Liaison With National Institute Of Building Sciences

The Digital Twin Consortium has announced a liaison agreement with the National Institute of Building Sciences (NIBS) to advance the use of digital twins in the building industry. [READ MORE>>](#)



ARCHITECT MAGAZINE

Michigan is Implementing Solutions For Infrastructure

The National Institute of Building Sciences Board of Directors is proud to announce the selection of AC Powell, JD, CPS as the new President and CEO. Powell officially joins NIBS on September 12, 2022. [READ MORE>>](#)

CRAIN'S NEW YORK BUSINESS

Op-Ed: Climate Change is Here – Let's Design And Retrofit Now

It's getting hotter. Floods are more frequent. New York City residents face escalating danger and life disruptions from climate change. We have no choice but to expedite climate action and prioritize a comprehensive resilience framework across government agencies and the private sector. [READ MORE>>](#)

RETROFIT MAGAZINE

NIBS Seeks To Make Construction Industry More Efficient Via Digitalization

The National Institute of Building Sciences (NIBS) has developed an implementation and launch plan for the U.S. National Building Information Management (BIM) Program. The aim: To achieve a new level of industrial efficiency through digitalization. [READ MORE>>](#)



Observances & Events

October 3 World Architecture Day

October 7 National LED Light Day

October 9 Fire Prevention Day

October 14 World Standards Day

October 17-21 Construction Inclusion Week

October 20 [Navigating the Hybrid Cloud: What to Look Out for When Transitioning Your Business to the Cloud](#)

December 6 [Infrastructure 2022: Mitigating the Climate Crisis](#)

Find us Online

NATIONAL INSTITUTE OF BUILDING SCIENCES NAMES NEW CEO AC POWELL

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NIBS LAUNCHES U.S. NATIONAL BIM PROGRAM TO TRANSFORM CONSTRUCTION INDUSTRY

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NIBS PARTNERS WITH CHICAGO BUILD

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BI2022 DAY 1 HIGHLIGHTS: DECARBONIZATION, BIM, CLIMATE RESILIENCY AND BUILDING CODES

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BI2022 DAY 2: HURRICANE IAN MOBILIZATION, BUILDING AWARDS, RESILIENCE, AND RISK MANAGEMENT

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