



QUARTERLY CONNECTION

A NIBS MEMBER NEWSLETTER

OCTOBER 01, 2020

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[NIBS.ORG](https://www.nibs.org)

NEWS HIGHLIGHT

U.S. Cement CEO on Working in a Man's World: "If You Are Driven, You Can Go Anywhere."

NIBS Member Jamie Gentoso was young when she got her first taste of construction.

It was her architecture class at East Lansing High School in Michigan. One of the class projects involved designing a home for a family on a specific plot of land, using a set budget. She loved solving a complex problem with various constraints and thought architecture would be a great career path. However, her school counselor spotted her aptitude for math and science and suggested Gentoso might consider a career in engineering.



Even in college, as she was pursuing a major civil engineering at the University of Michigan, Gentoso wasn't entirely sold on being an engineer. She feared having to sit behind a desk day after day with little human interaction. But by her sophomore year, she'd landed an internship with construction firm, The Christman Company. She had a great boss, and the company employed Gentoso through the rest of her college career working part time through the school year and full time in the summers. Gentoso earned the title project manager, and she enjoyed her work. The job site, people, materials, contractors were ever changing, and there were new problems to solve every day.

"I wanted to dive into everything," she said. "I didn't have to sit behind a desk. I was out on the site, watching the building rise out of the ground working with the architect, engineer, building owner and different tradesman. Every day was different, challenging in its own way. I had a great boss who gave me a lot of opportunity, allowing me to learn every aspect of construction and the job."

Gentoso says her career mantra could be summed up in these words: "Ask for more!"

She learned that there will always be a first time and it won't be easy, but you learn from every single experience and situation. She loved construction management but knew she owed it to herself to see what was out there after graduation.

A DRIVING FORCE IN THE BUILT ENVIRONMENT

After Christman, Gentoso took a role with Holcim in its New College Grad Program, essentially a training role that gave graduates exposure to various aspects of the business. However, the company had an open spot for a technical service engineer and after several months, Gentoso worked up the nerve to say, "Don't hire anyone. I want that role."

She worked hard, and she earned it.

Gentoso was the lone female on a team with six male cement sales reps. Her role was to support them and customers throughout the North Central region, where the company sold nearly two million tons of cement, fly ash and slag. Admittedly, it took the team some time to accept her. If the job required her to be on site at 3am and work until midnight, Gentoso was there. She quickly earned their trust by continuously jumping right in to each opportunity or problem.

She wasn't afraid to say she didn't have all the answers, but she knew where to find them. So when a position opened with St. Lawrence Cement on the east coast – a company that was part of the Holcim enterprise – Gentoso's boss went to bat for her.

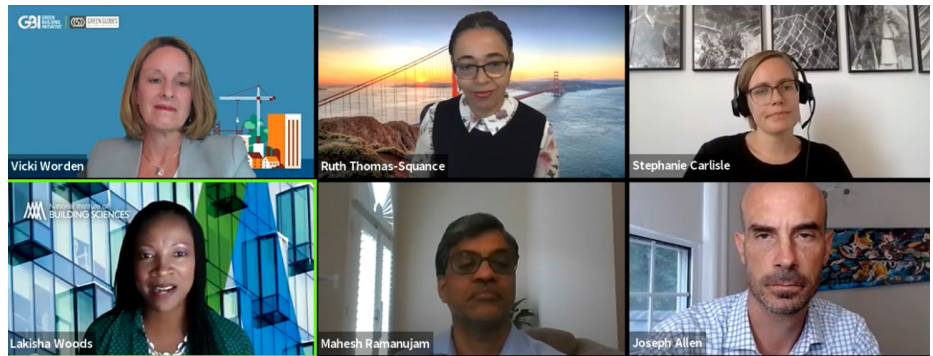
"I had to prove myself," she said. [READ MORE >>](#)

COVID-19 Virtual Town Hall Series

Healthy Buildings & the Effect on Public Health During the Pandemic | August 25, 2020

MODERATOR: Vicki Worden, President & CEO, Green Building Initiative

PANEL: Mahesh Ramanujam, President & CEO, U.S. Green Building Council and Green Business Certification, Inc. (GBCI); Stephanie Carlisle, Research Scientist, Carbon Leadership Forum; Ruth Thomas-Squance, PhD, MPH, Director of Field Building, Build Healthy Places Network; Joseph G. Allen, Assistant Professor, Harvard T.H. Chan School of Public Health



COVID-19 VIRTUAL TOWN HALL: HEALTHY BUILDINGS OVERVIEW

On August 25, 2020, the National Institute of Building Sciences held its fourth in a series of COVID-19 virtual town halls, brought to you by the NIBS Consultative Council. The town hall received more than 855 registrants from across the building industry, universities, officials representing the federal, local, and state governments and more.

During this town hall, we learned that healthy buildings and resilience are intertwined. More than ever, as COVID-19 changes our life and ways of doing business, health and resilience are more important to our nation and communities.

“Everyone is concerned about reopening schools and all establishments in a safe way,” says NIBS President & CEO Lakisha A. Woods. “It is the people who have engaged in these calls who will take the new normal and turn it into a positive.” The panel also covered racial inequity

and disparities between communities with vulnerable populations and those that can afford and do invest in healthier buildings and greener living standards.

This virtual town hall was sponsored by Dell Technologies.

Site reference:

- NIBS COVID-19 Virtual Town Hall Series: <https://www.nibs.org/page/covid-19-webinar-series>

LEED AS A LIVING STANDARD – NOT JUST AN ENERGY STANDARD

The U.S. Green Building Council is committed to a sustainable future through LEED, the leading program for green buildings and communities worldwide.

The impact of this pandemic will be felt for years to come, says Mahesh Ramanujam, President and CEO of the U.S. Green Building Council and Green Business Certification, Inc. (GBCI).

Remaining resilient in business and in life is an opportunity to form a resilient society.

“There is still much work to be done to effect a global change,” he said. “We have an epidemic of natural disasters in this decade.”

What's currently playing out in California – and its fierce wildfire season – is a clear picture of needing all hands-on deck with regard to climate change and reducing emissions.

According to the National Oceanic and Atmospheric Administration's National Centers for Environmental Information, the U.S. has sustained 273 weather and climate disasters since 1980 where overall damages/costs reached or exceeded \$1 billion. The total cost of these 273 events exceeds \$1.790 trillion.

"We must face a new reality," Ramanujam said. "The world may not look like anything we've left behind. Because of the pandemic, the most vulnerable among us will feel the greatest impact. In fact, they already do. Healthy people in healthy places is the fastest way to build a healthy economy."

Site references:

- U.S. Green Building Council: USGBC shares the actions and priorities that will shape a healthier future for all: <https://www.usgbc.org/articles/healthy-people-healthy-places-equals-healthy-economy>
- National Oceanic and Atmospheric Administration BillionDollar Weather and Climate Disasters: Overview: <https://www.ncdc.noaa.gov/billions>

WHAT DOES GREEN RECOVERY LOOK LIKE?

Recovery and safely getting back into schools and work is much bigger than space planning and systems design.

"Public health is a powerful lens through which we can work for change," said Stephanie Carlisle, Research Analyst with the Carbon Leadership Forum.

COVID-19 is disproportionately affecting Black communities, who must face environmental racism as many of these communities are close to fossil fuel power plants and

other sources of air pollution. In the U.S. Mid-Atlantic, half of minorities can't pay their utility bills, Carlisle added.

"These are not new problems, they are systemic problems," she said. "They define how we define green buildings."

It's with this mindset that school officials, communities, and building officials consider social injustice and sustainability when reopening the nation's schools. **Read the full session overview:** <https://www.nibs.org/page/covid-19-virtual-town-hall-082520>

Council Columns

We've Got Some Reports for You



Have you seen the 2019 NIBS Annual Report? We recently completed the report, adding our 2019 financial statements. The report also covers the four major categories of the NIBS Strategic Plan, Industry Solutions, Women Executives in Building Summit, 2019

Annual Conference, and the Moving Forward report from the Consultative Council. Visit the annual report:

[DOWNLOAD](#)

Also, we released a new report in August: **A Roadmap to Resilience Incentivization**. Produced by the Multi-Hazard Mitigation Council's subcommittee on Finance, Insurance, and Real Estate, the roadmap proposes to develop and demonstrate a set of public and private incentives to owners of buildings and other infrastructure. Visit the report now:

[DOWNLOAD](#)

OFF-SITE CONSTRUCTION COUNCIL WORK

By Kyle Barry, PMP, Project Manager

The Off-Site Construction Council is focused on industry awareness and education as we work to assist stakeholders in the AECO community to reach an optimal level of understanding about volumetric modular construction, benefits and best practices.

To that end, we completed work with member contributions to the AIA Design Guide for Architects last year and from there, rolled in to helping Fannie Mae define modular construction as a project delivery method for lenders with member contributions to its Multi-Family Toolkit.

Another project that traces its origins to the OSCC is a new consensus doc created by Associated General Contractors (AGC). This new template contract will help make it easier to identify the respective scopes of work between a general contractor and modular manufacturer as a subcontractor.

Various members of the OSCC are also actively involved in the development of three new industry standards. Two of these standards are being developed by the International Code Council and the Modular Building Institute, under ANSI standards procedures. ICC 1200 and ICC 1205 will address various aspects of off-site construction, including plan review and approvals, quality control, third-party inspections, transportation, staging, and installation. The third standard is under the direction of the Facilities Guidelines Institute (FGI). This standard will create a rapidly deployable modular medical unit that can be used in times of emergencies. All three standards are expected to be available to the public in 2021.

The OSCC has a lot of work ahead as we continue to explore the industry's challenges and opportunities and

align our initiatives with how best to bring information and innovation in construction to the market through off-site construction strategies and technologies.

Introducing The Building Information Management Council

By Dr. Carrie Sturts Dossick, P.E., Chair, National BIM Standard-US Planning Committee, NIBS BIM Council, and Dr. John Messner, Chair, NIBS BIM Council, Board of Direction; Vice Chair, National BIM Standard-US Planning Committee

The Building Information Modeling (BIM) Council is one of eight NIBS councils and was previously the buildingSMART alliance. The NIBS BIM Council mission is to lead the development and deployment of broadly adopted national information management standards and processes. The three main products include the US National CAD Standard, the National BIM Standard-US, and the National BIM Guide for Owners. The focus for this coming year will be an update to the National BIM Standard-US (NBIMS-US). This article focuses on those activities.

NATIONAL BIM STANDARDS

The challenge that has been driving the NBIMS-US effort since its inception is the industry's challenges around information management in a fragmented networked industry. Emerging database technology such as BIM enable designers, contractor, and owners to create and exchange information in unprecedented ways. However, to implement these technologies in practice the construction industry needs to be able to specify the data structure and content as well as establish coordination processes and practices across the industry network. This is where the standard plays a role – to create standard data requirement specifications and structures for BIM uses and information exchange.

BIM has been in the U.S. building construction market for about 20 years and more heavily in use for 10 years. At this point, the challenge is a proliferation of standards in the industry. Each owner, federal, state, and private, has developed their own BIM standards documents with variations between them. One example of this is the Level of Development standards. In her study published in 2016, Marzia Bolpagni identified 28 different LOD standards internationally. Even within the current NBIMS-US, we have incorporated or referenced three of these 28 standards. The challenge for the next version of the NBIMS-US is to reconcile variations across standards and create a unified core standard for our industry. Consequently, we seek to develop a standard:

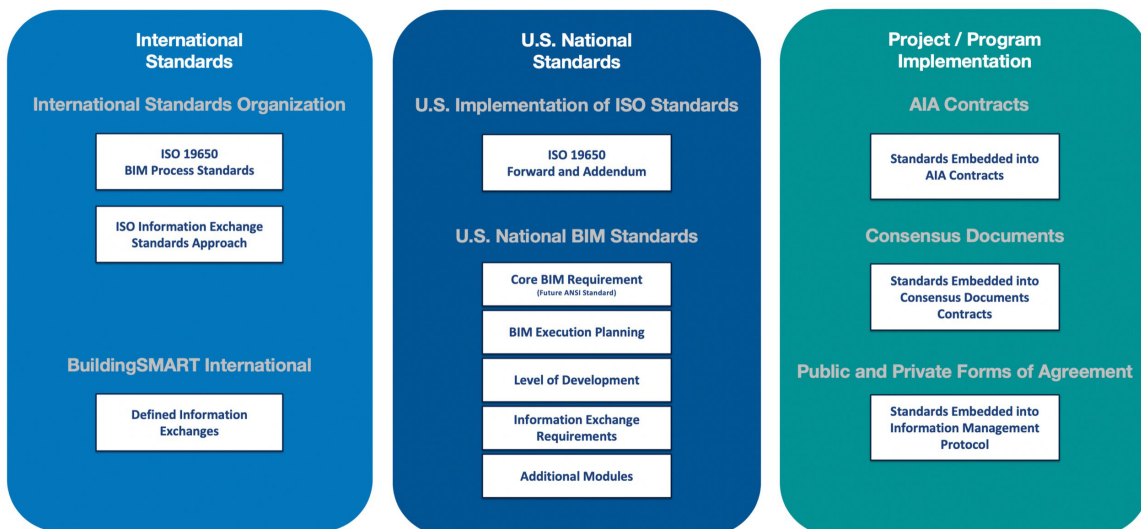
1. To coordinate different BIM practices to make it more efficient to implement on projects
2. To make it easier for the AEC industry to implement BIM
3. To ensure that owners and team members receive the information needed for better facility performance
4. To facilitate the development of comprehensive data for operating and maintaining facilities
5. To coordinate with international standards

The NIBS BIM Council is one of several significant BIM standardization efforts underway. Going forward, we will be in close coordination with and in some cases seeking partnership with:

- BuildingSMART International
- BIM Forum
- UK British Standards Organizations
- International Standards Organization (ISO)
- ASHRAE
- AIA
- Consensus Docs

The current NBIMS Version 3 includes several core items that people use, including the information exchange standards such as COBie (Construction to Operations Building Information Exchange) and Spatial Program Validation), the BIM Project Execution Planning Guide and Templates, the definitions of model uses, and BIM contracting framework. Since its publication in 2015, however, many have had concerns about the challenges of referencing this content directly within a contract. Also, we recognize that as it is today, NBIMS-US v.3 is not comprehensive, but a collection of useful material that can be individually used and referenced.

US BIM Standards, Guidelines and Contracts Framework



NBIMS-US NEXT STEPS

The goal for the next iterations of the NBIMS-US is to create a collection of standards and guidelines that support the implementation of building information modeling in planning, design, construction, and operations of buildings and infrastructure in the U.S. and beyond. To this end, the NIBS BIM Council stood up the NBIMS-US Planning Committee to oversee the content and development of NBIMS-US version 4 and beyond. This committee established focus areas which include:

- Develop and manage content within NIBS BIM Council Working Groups
- Convert the NBIMS-US to online delivery (currently pdf)
- Create a clear distinction between standards and guidelines
- Create the ability to reference individual sections in the contract
- Update modules independently and more frequently
- Consider candidate standards

Getting Involved

Building a national standard takes a large group of volunteers. We encourage everyone to get involved in some levels. Everyone is welcome to join the NBIMS Project Committee. This committee will be the final step in the approval process for any of the standard content generated by the Working Groups and the PLC. If you want an active part in creating NBIMS-US content, consider joining a Working Group.

You also could make a donation to the National Institute of Building Sciences. NIBS serves the public interest through research, advancing building science and coordinating the talent and expertise necessary to overcome challenges in the built environment. The solutions we come up with and the people we bring together is the result of your hard

work and dedication. We serve the built environment at the pleasure of those who created us: Congress. But we receive no Congressional funding. We need your help. Every dollar that is donated to the National Institute of Building Sciences supports our mission, cause and the U.S. built environment. Please consider donating to NIBS today.

NIBS IN THE NEWS

THE WASHINGTON POST

WHY CLIMATE CHANGE IS ABOUT TO MAKE YOUR BAD COMMUTE WORSE

Something remarkable happened on American roadways during the early days of the coronavirus pandemic: In even the most congested cities, traffic started moving again. With Americans staying home, cars suddenly rolled over highways like water through a freshly unclogged pipe. By mid-April, traffic had fallen to just 52 percent of pre-pandemic levels, according to traffic research firm INRIX. But the reprieve was short-lived. [READ MORE>>](#)

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BUILDING INNOVATION 2020 RESILIENCE SESSIONS TO COVER ZERO ENERGY, HOUSING AFFORDABILITY

Resilience is a national issue. Natural disasters like wildfires and floods are only increasing in frequency and volume, costing the U.S. an average of \$100 billion annually. This is part of the reason building resilience will be prominently featured during Building Innovation 2020: Virtual Edition. [READ MORE>>](#)

THE ST. AUGUSTINE RECORD

LETTER TO THE EDITOR: FIGHT FLOODING

This week, the St. Augustine Record gave front page attention to a report detailing flooding on residents of

the Ocean Walk neighborhood in St. Augustine Beach. These families are among millions of Floridians facing the increasing threat of damaging floods. With disaster-related impacts and costs on the rise, innovative solutions to reduce the systemic risk flooding poses to our communities, infrastructure, and financial and social wellbeing are needed. Now is the time to make smarter investments in pre-disaster mitigation projects that better protect life and property. [READ MORE>>](#)

LEXOLOGY

FEDERAL AGENCIES HIGHLIGHT COVID-19 BEST PRACTICES FOR HVAC SYSTEMS

As businesses and commercial buildings reopen following shutdowns due to the coronavirus pandemic, the Federal Interagency Committee on Indoor Air Quality used their June 26 meeting to highlight recommendations on heating, ventilation, and air conditioning (HVAC) system operation. Particular interest in these systems has increased due to the potential ability for the coronavirus to be transmitted through HVAC systems via droplets in the air. Most recently, Governor Cuomo suggested that New York would make it “mandatory that” malls “have air filtration systems that can filter out the Covid virus” before they may reopen. [READ MORE>>](#)

CONSTRUCTION DIVE

RACISM SAPS SAFETY AND PROFITS FROM CONSTRUCTION, OWNERS SAY

Two of the construction industry’s most high-profile customers delivered a call to action to root out hate from jobsites during the closing keynote address of the National Institute of Building Sciences’ Building Innovation Conference this week.

Compass Datacenter’s Nancy Novak and Microsoft’s Doug Mouton told attendees of the virtual conference that safety,

productivity and profits were directly related to promoting an inclusive and diverse environment in the field.

[READ MORE>>](#)

THE PEW CHARITABLE TRUSTS

HOW STATES CAN MANAGE THE CHALLENGES OF PAYING FOR NATURAL DISASTERS

From wildfires in the West to hurricanes in the Gulf of Mexico and along the Eastern Seaboard, natural disasters are becoming more frequent and more severe throughout the United States. Ensuring that public funding is available to respond to, recover from, mitigate against, and prepare for these events involves a complex relationship across all levels of government: federal, state, and local. The rising cost and frequency of disasters, as well as the fiscal impacts of the COVID-19 pandemic, are putting pressure on budgets at all three levels, fueling debates that could affect the intergovernmental dynamics of the disaster funding system. [READ MORE>>](#)

OBSERVANCES

- October 4-10** Fire Prevention Week
- October 4-10** World Space Week
- October 5** Astronomy Day
- October 5** World Architecture Day
- October 11-17** Earth Science Week
- December 1** Giving Tuesday

EVENTS

- October 23** Virtual Leadership Summit – Social Equity and Workforce Development in the Built Environment
- January 12, 2021** NIBS Board Meeting



National Institute of Building Sciences
BUILDING INNOVATION
Virtual Edition

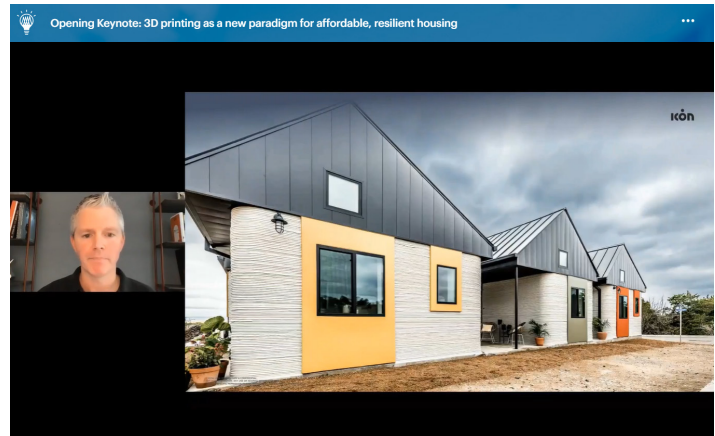
BUILT ENVIRONMENT SHOWS ITS STRENGTH AT BUILDING INNOVATION

Day 1 of Building Innovation 2020: Virtual Edition conference kicked off strong with more than 1,000 registrants.

National Institute of Building Sciences CEO Lakisha A. Woods, CAE, opened the show August 18, 2020, with some encouraging words about the built environment and NIBS' position as a convener of individuals and organizations across the building industry.

“Choosing to be a convener is no longer just a nice to have,” Woods said. “It’s an essential action not only for a healthy economy, but also a healthy citizen. Strong relationships and the pursuit of knowledge are powerful currency. [They] fund our humanity, our togetherness, and our future.”

The rest of the first day of BI2020 was filled with educational sessions that covered a wide range of resilience, technology, and workforce material. These include extending virtual design and construction for facilities management, opportunities and training for green jobs, and zero energy, which looked closely a case study in Florida of its first zero-energy school. This school is expected to save the school district of Osceola County, Florida over \$115,000 annually on energy costs and was constructed within the state-mandated budget.



NIBS AWARDS HONORS LIFETIME ACHIEVEMENT AND TWO HBCU STUDENTS

The afternoon of Day 1 closed with an awards ceremony, honoring architect Stephen T. Ayers, FAIA, LEED AP, who served as the 11th Architect of the Capitol.

Ayers was awarded NIBS' highest honor – the Mortimer M. Marshall Lifetime Achievement Award. The award is always given to a person who has demonstrated a lifetime of dedication to the mission and goals of NIBS. The award is named after our very first member; it was established in 2011.

Also, two students of architecture and engineering studying at a historically black college or university (HBCU) were honored with scholarships.

The Betty and Mort Marshall Memorial Scholarship Fund was established to promote diversity in the building sciences. The winners were Jenna Greer, an architecture student at Howard University, and Tanaka Chakanyuka, a civil engineering student at Southern University.

Chakanyuka said she believes engineering can make the world a better place.

“With the depletion of resources and pollution to the planet, I believe responsible engineering will help

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secure the planet for future generations,” she said.

[READ MORE >>](#)

Day 2 of the meeting kicked off with Billie Faircloth, partner with KieranTimberlake, whose opening Resilience keynote, How We See Now, covered adaptive architecture, building types, design strategies, and several case studies.

The afternoon was peppered with more educational sessions on a national BIM standard and roadmap, mitigation, housing affordability, workforce development, and diversity and inclusion.

IMPROVING CONSTRUCTION SAFETY TO RECRUIT A STRONGER AND MORE DIVERSE WORKFORCE

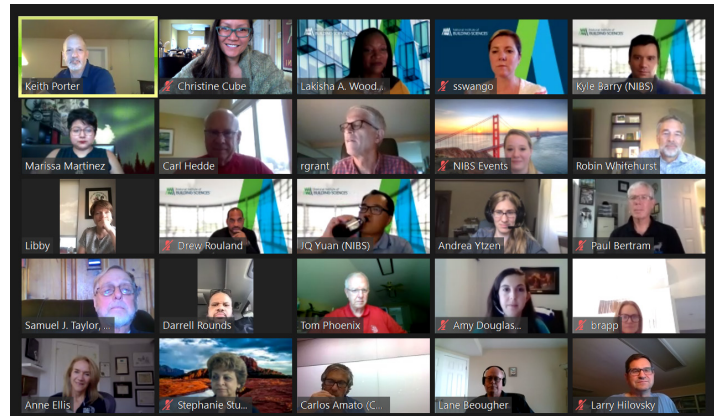
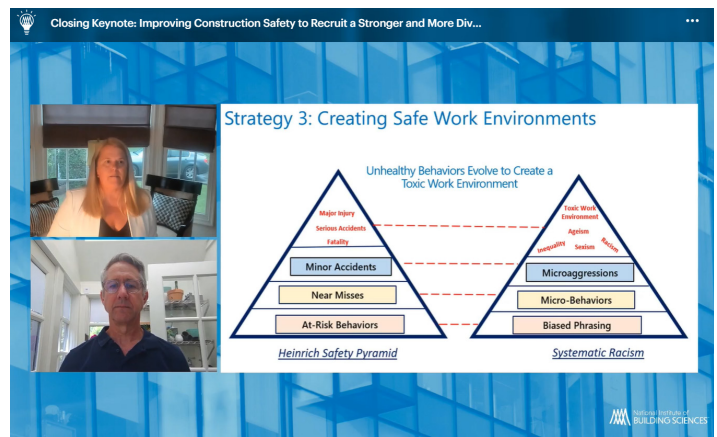
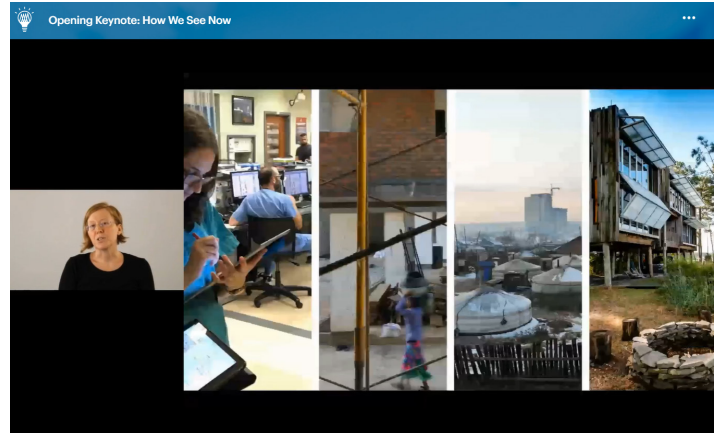
The closing Workforce keynote on Day 2 was given by Nancy Novak, chief innovation officer with Compass Datacenters, and Doug Mouton, general manager of Global Datacenter Procurement & Construction with Microsoft. The two discussed construction safety and how it leads to stronger recruiting and a more competitive environment. “To get safety right, you’ve got to be a good planner,” Mouton said, adding that there’s a discernible pattern that projects with excellence in safety also improve in quality, schedule, and cost.

Novak said unhealthy behaviors can evolve to create to create a toxic work environment.

“Sometimes the hard conversations need to happen for meaningful change,” she said.

Some calls to action include creating a safe environment on sites for all workers, leadership must embrace the obligation to maintain safe and inclusive work sites, and intentional hiring and development of diverse talent.

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BI2020 DAY 1: BUILT ENVIRONMENT SHOWS ITS STRENGTH AT BUILDING INNOVATION CONFERENCE
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BI2020 DAY 2: RESILIENCE, MITIGATION AND TECHNOLOGY KEEP THE BUILDING INDUSTRY MOVING FORWARD
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COVID-19 TOWN HALL PANEL: HEALTHY BUILDINGS PLAY CRITICAL ROLE IN PUBLIC HEALTH
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