

BIM Executive Roundtable

February 4, 2021 | Meeting Summary

INVITED EXECUTIVE PARTICIPANTS

Michael Kennerly, Director of the Design Bureau, Iowa
Department of Transportation

Lauren Frank, Interior Designer, Bureau of Overseas Buildings
Operations, U.S. Department of State

Sandra Benson, WW Head of Engineering and Construction,
Amazon Web Services

Salla Eckhardt, WW Construction Lead, Microsoft

Van Woods, BIM Program Manager, U.S. Army Corps of
Engineers and NIBS BIM Council Chair

Grace Wang, Sr. Technical Program Manager, Google

Hector Acevedo, Senior Director, Digital Innovation, McDermott

Jag Mallela, Senior Vice President, WSP USA Inc.

Will Sharp, Global Director of Highways, HDR

Andrew Friendly, VP of Government Affairs and Public Policy,
Autodesk

Russ Manning, Executive Director, Facility Operations &
Maintenance Center of Excellence, Kaiser Permanente

Kenneth Pimentel, AEC Industry Manager, Epic Games

Edmund Newman, National BIM Program Manager, GSA

Troy Gates, Director of Technology, U.S. CAD

Charles Hardy, Chief Architect (acting), GSA

Andy Blackmore, Design Manager, Bureau of Overseas
Buildings Operations, U.S. Department of State

John Messner, Charles & Elinor Matts Professor, Penn State
University

Elizabeth Yo, Architect/Planner, U.S. Department of Veterans
Affairs

Brian Garbecki, Vice President, Healthcare COE Leader,
Gilbane Building Company

Lance Marrano, Science & Technology Advisor for Tyndall AFB
Reconstruction, USACE – ERDC

Nancy Novak, CIO, Compass Datacenters

Vikram Dutt, VP, AEC Design and Building Strategy, AEC Design

Angel Dizon, Managing Director, OBO/PDCS, Bureau of
Overseas Buildings Operations, U.S. Department of State

James Timberlake, Partner, KieranTimberlake, NIBS Board
Vice Chair

Ken Adamson, VP, Design Integration, Bentley Systems, Inc.

Adam Matthews, Head of International, Centre for Digital Built
Britain

Nicolas Mangon, Vice President, Strategy, AEC Design

Jim Pattee, Vice President, M.C. Dean, Inc.

Marc Goldman, Director, AEC, Esri

Phillip Bernstein, Associate Dean/Professor Adjunct, Yale
School of Architecture

R. David Unkefer, Construction & Project Management Engineer,
Federal Highway Administration

Katherine Petros, Team Leader - Infrastructure Analysis &
Construction Team, Federal Highway Administration

Tomesha Thompson, Program Analyst, OBO/EA, U.S.
Department of State

Ivan Jaramillo, Sales Development Executive, Autodesk

Thomas Phoenix, Principal, CPL and NIBS Board Treasurer

Lakisha A. Woods, CAE, President & CEO, NIBS

Dominique Fernandez, Program Director, NIBS

Roger Grant, Executive Director BIM, NIBS

Drew Rouland, Vice President - Government Operations, NIBS

OVERVIEW

The National Institute of Building Sciences convened a virtual Building Information Management (BIM) Executive Roundtable on Feb. 4, 2021, with nearly 40 business and government leaders on the need to reimagine construction, with building information modeling and management paving the way for digital transformation of the U.S. design, construction and facility management industry.

NIBS President and CEO Lakisha A. Woods, CAE, kicked off the meeting with introductions, emphasizing the need to bring together key stakeholders. "The largest building owner in the U.S. is the federal government. We need to get them on board. We also need public and private companies to work together as a team. Today we are taking an important step in that direction with the impressive group we have assembled for this Workshop."

The Workshop went on to address how a National BIM Program would streamline digital work practices and data workflows and bring the industry together across the public and private sectors and building and infrastructure domains.

BIM IN THE UNITED KINGDOM

Adam Matthews, Head of the International Stream of the Centre for Digital Built Britain, spoke to the UK's BIM program that began in 2010 and came with an initial cost of \$5 million pounds over five years. The aim was to join government and private companies in a way that drove benefits to everyone. Did it at a challenging time for UK economy and worth noting we are in similar situation now. The program has led to 33 percent lower costs through a reduction in the initial cost of construction and the whole life cost of built assets and 50 percent faster delivery. We started off looking at how we can drive savings, Matthews said. An important goal was to drive better procurement and deliver practices and construction not just technology. Important to emphasize opportunity to increase value for funds available provide more infrastructure for the funding.

NIBS has been working closely with CDBB and plans to use the UK Program and materials they have developed as a guide with adaptations to fit the need for a collaborative public-private partnering approach needed to be successful here.

THE STATUS OF BIM IN THE UNITED STATES

Currently, construction comprises 13 percent of the global economy. And while the U.S. already plays a tremendous role in delivering innovative technology and design and construction services to a global marketplace, we lack the same leadership to tackle industry productivity and efficiency problems to benefit asset owners.

The U.S. National BIM Standard primarily has been developed through volunteer efforts with valuable content, but little coordination toward a comprehensive standard. According to Phillip Bernstein, Associate Dean and Professor Adjunct with Yale School of Architecture, said there has been varied levels of adoption across delivery and management processes as well as education and training. The U.S. faces continued challenges with data interoperability. The goal is to create a solution at a national scale to enable digital process standards that will streamline business, accelerate the effectiveness of the supply chain, provide predictable processes, improve project outcomes, and drive efficiency.

DIGITAL TRANSFORMATION ADOPTION ISN'T EASY BUT IT IS PROVEN EFFECTIVE

The challenge ahead is complex especially with companies and agencies working independently of each other.

For example, the U.S. Army Corps of Engineers currently has a \$50 billion medical construction program, which has taken advantage of BIM. The VA has its own BIM Standard. And there are numerous operating systems that read and write COBIE data across these and other BIM programs.

R. David Unkefer, Construction & Project Management Engineer with the Federal Highway Administration, mentioned that highways/horizontal construction may have some different visions for what they call BIM. Unkefer said he would like to hear more about how vertical and horizontal BIM can collaborate. Roger Grant, Executive Director BIM at NIBS responded that this is an important and planned component of a National BIM Program to bring together buildings and civil infrastructure, following the model of the UK BIM program.

All the pieces are in place for companies and agencies to work together to solve common issues. The issue is that we're trying to do things independently pointed out Van Woods, BIM Program Manager with the USACE and Chair of the NIBS BIM Council. We're all trying to reinvent the wheel, but we're only getting part of the wheel complete.

Relating the technology to objectives across the total life cycle is important said Russ Manning of Kaiser Permanente. We have seen some significant progress within highways for a more lifecycle data management approach and concept of the 'digital twin'. We are now working to integrate the workflows between the disciplines and leverage the digital aspect pointed out Will Sharp, Global Director of Highways at HDR. Added Sandra Benson, Worldwide Head of Design and Construction at AWS, we need a true operational twin, not just a digital twin. We need to keep in mind the outcomes we are looking to achieve ahead of the data and standard requirements pointed out Bernstein.

PREACHING TO THE CONVERTED

Andrew Friendly, VP of Government Affairs and Public Policy with Autodesk, said the group needs to engage the government to recognize the need for digital processes and standards and advance this program. We're preaching to the converted here, everyone on this call is already a believer, sees the impact that BIM makes, and all the benefits – the savings, efficiencies, you name it said Friendly. We need to let policymakers know, we already have part of the solutions to build back better. We know what works, we want to share that expertise with you.

Many on the call agreed with this as a next step. The U.S. is unique with the scale of our market and government. We will need a public – private coalition to make this successful here in the U.S., but the government can do a lot to coalesce government programs and pull suppliers to respond. Owners/clients need to identify exactly what information they require, for what purpose, what quality and when. This is the essence of the standard and procurement legal changes/updates the UK undertook said Matthews.

No one of us has the solution – we need a national program, said USACE's Woods. The first step is getting the right people to the table. We have an all-star team we need your help to expand it and get to work on this.

NIBS next step is to develop an operational plan for the U.S. National BIM Program. We are forming a leadership team to help guide the effort and identify resources to help us. For more information and to get involved, please contact Lakisha Woods, NIBS CEO.

For more information about the NIBS Building Information Management Council and its mission to help the North American real property industry become more efficient, visit nibs.org/bimc.

