Introduction to the National BIM Guide for Owners
Overview

• A team of building owners, BIM experts, and facilities management professionals has worked for the past year to create the *National BIM Guide for Owners (NBGO)*. The session will showcase how the NBGO works and its backstory of encouraging building owners to assume their role as active members of the integrated BIM team. Attendees will learn the major construct and key principles of the NBGO. NBGO is a product of buildingSMART alliance; a council of the National Institute of Building Sciences.
Speaker – Johnny Fortune

• BIM Director, Bullock Tice Associates, Pensacola, Florida.
• Past Chair, buildingSMART alliance
• US National CAD Standards
• US National BIM Standard
• USACE/Industry BIM/CIM Consortium
• Technical Writer & Subject Matter Expert VA’s BIM documents
  • VA BIM Manual 2.0
  • Drawing Deliverable Requirements (formerly CAD Standards)
  • A/E Submission Guidelines (PG 18-15)
• Speaker
  • Autodesk University, NIBS Building Innovation Conference & Expo, GeoBuiz, and various S.A.M.E. & CSI chapter events.
Learning Objectives

• Understand the need for a BIM guide for owners and why an integrated team of building owners, Building Information Modeling (BIM) professionals, and facilities management professionals has worked for the past year to develop one.

• Find out how the National BIM Guide for Owners can be used to encourage building owners to assume their rightful role as active members of the BIM team.

• Understand the approach the team used to create and fulfill BIM requirements for a typical project from the owner’s standpoint.
Session Objectives - Simplified

During this conference you are presented with several examples of BIM implementation – which prompts two basic questions to consider...

• What do YOU want to implement?
• How do YOU get started?

This presentation aims to equip you with a tool to apply what you are learning from the presentations in this series. It is intended to help you establish your organization-specific BIM requirements.
Analogy of Complexity

Implementing BIM is like learning a new math concept...

When the expert is explaining it...     When you first try it on your own...

NBGO is like a tutor to guide you through the BIM process

Image Sources: bestdegreeprograms.org (teacher) & lifehealthpro.com (student)
Why NBGO?

...to assist Owners in working with the other members of the building team to maximize the potential of BIM on their projects.
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<tr>
<th>Development</th>
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| Dan Chancey, Chair  
VP, Sr. Asset Mgr Commercial Advisors Asset Services | Henry Green  
President, CEO | DHA | Turner Construction |
| Ernie Conrad, PE  
Principal, Conrad Engineers | Dominique Fernandez  
bSa Program Director | VA | RICS |
| Carrie Dossick, PhD, PE  
Assoc. Prof., Univ. of Washington | Stephanie Stubbs  
Technical Editor | GSA | Gehry Tech. |
| Craig Dubler, PhD  
Office of Physical Plant Penn State University | Earle Kennett  
Consultant | NAVFAC | APRA |
| Dennis Knight, PE  
CEO, Whole Building Systems LLC | | USACE | |
| Johnny Fortune  
BIM/IT Director, Bullock Tice Associates | | | States of: WS & TN |
| John Messner, PhD  
Prof., Arch Engineering, Penn State University | | | West. Mich. University |
Goal: *BIM Done Right*

BIM has many applications. How is *BIM Done Right* achieved? Merely requiring BIM is not enough.

1. Owner’s goals for the project must be clearly defined and documented
2. BIM requirements must correlate to achieving those goals

*BIM, in and of itself, is not the end but rather the means to a number of potentially valuable project delivery outcomes for the Owner.*

*Tice, John, Bullock Tice Associates BIM DONE RIGHT, a BIM-enabled, client-focused delivery approach and strategy (2015).*
## NBGO Contents

### Introduction
- Foreword, Purpose, Scope

### Process
- Define BIM Requirements, Team Roles and Responsibilities, BIM PxP, & Managing Project Requirements and Deliverables

### Infrastructure and Standards
- Technology Infrastructure, Standards, Space and Drawing Standards, File Structure, Model Structures, & Modeling Requirements

### Execution
- BIM Execution Plan (PxP), BIM Uses, & Model Deliverables
Process

How do you start? *Begin with the end[s] in mind*. What relevant outcomes will BIM Done Right achieve?

- Although the technology across multiple projects/teams may be similar the goals can be different
- Different project stakeholders have different goals
- Owner has specific long-term goals

*Covey, Stephen R., The 7 Habits Of Highly Effective People. Habit 2: Begin With The End In Mind (2006).*
Process

BIM processes must be **defined and documented** to enable success. Consider these aspects of information...

- What is being captured?
- Who is responsible?
- How is it transferred?
- How is it checked?
- How is it updated?
- How will it be used?
As project progresses, information *grows both in quantity and specificity*...

*The process for enabling BIM...*

1. **Define** minimum BIM requirements ...
2. **Identify** the roles and responsibilities...
3. **Collaboratively** create a BIM (PxP)...
4. **Manage** the project for compliance...

**WHY?**
*Stay on top of the information*
Infrastructure and Standards

...the Project BIM Team [must] adhere to a framework of standards and structures from the project’s onset.

NBGO references standards within NBIMS-US™ V3: NCS, LOD spec, COBie, USACE BIM Requirements
Infrastructure and Standards

Technology Infrastructure - the entire technology system used for a BIM project...

The Owner should consider three broad categories of BIM standards: Organizational (internal) Standards, Primary Standards, and Reference Standards.

WHY?
Standards ensure the owner receives functional data.
Execution

Project Execution Plan (PxP), a master plan for how information modeling will be done and managed, at the inception of a project. The PxP documents the Owner’s and the Project BIM Team’s mutual agreement on how, by whom, when, why, to what level, and for what project outcomes (called “BIM Uses”) information modeling will be used.
Execution

- BIM PxP
- BIM Uses
- Model Deliverables

NBGO adopts NBIMS (PSU’s) approach to BIM Project Execution Planning

### BIM Uses

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<th>Enhanced</th>
<th>Owner-Specified</th>
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<td>• Design Review</td>
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<td>• Codes and Standards</td>
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<td>• Construction Systems Design</td>
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**NBGO classifies common BIM Uses**

**Execution**

- BIM PxP
- BIM Uses
- Model Deliverables

**Essential... Defines the Minimum Expectations**
Execution

- BIM PxP
- BIM Uses
- Model Deliverables

These deliverables may include a design intent model in both native and open standard format; a construction model; and operations and maintenance data.
To achieve *BIM Done Right*...
NBGO suggest designating an Owner’s BIM Agent to help properly **plan, execute**, and **manage** BIM for any given project.

A BIM Agent is...
- A Planner
- An Integrator
- A Manager

Not merely a...
- Modeler
- Software Spec
- Tech person

National BIM Guide for Owners, January 2017
NBGO contains 5 key concepts that every BIM-enabled project should have to achieve *BIM Done Right*...

- Outcome Driven Processes
- Framework of Standards
- Owner’s BIM Agent
- BIM Project Execution Plan
- Quality Management
Conclusion

Recall these two questions...
What do YOU want to implement and how do YOU get started?

• Download and read the NBGO: [https://www.nibs.org/nbgo](https://www.nibs.org/nbgo)
• Select an Owner’s BIM Agent
• Execute a discovery process to identify your specific objectives, desired outcomes, and needs
• Develop and Execute the BIM PxP with specific BIM Uses
• Manage the Information
Contact

For more information about NBGO or BIM Done Right

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Download the NBGO: [https://www.nibs.org/nbgo](https://www.nibs.org/nbgo)