



# **BIM Unit 1:**

# An Introduction to Building Information Modeling

Thursday, March 10, 2016 • Elk Grove Village, IL

## Your Resource for Successful BIM Implementation

Building Information Modeling (BIM) is changing the way projects are constructed. Whether you are a prime contractor using BIM across an entire project or a subcontractor impacted by a specific BIM implementation, this emerging practice requires new mindsets and technological know-how in order to achieve significant improvements in efficiency and cost control.

AGC's BIM Education Program—developed in conjunction with leading BIM practitioners, technology firms and educators—is designed to prepare construction professionals at all experience levels to successfully implement BIM on a construction project.

The highly interactive program provides 32 hours of instruction and training:

# **Unit 1: An Introduction to Building Information**

Unit 2: BIM Technology Unit 3: BIM Contract Negotiation and Risk Allocation Unit 4: BIM Process, Adoption, and Integration

#### EARN YOUR CERTIFICATE OF MANAGEMENT (CM-BIM)

AGC's Certificate of Management—Building Information Modeling program is the construction industry's first and only certificate program that teaches the practical application of the building information modeling process for commercial construction firms.

**Builders Education & Training Foundation** 5440 N. Cumberland Ave. #302 Chicago, IL 60656 773.444.0465 info@bldrs.org









# **Unit 1: An Introduction to Building Information Modeling**

Thursday, March 10, 2016 • 7:30 a.m. - 5:00 p.m.

Carpenters Training Facility

1256 Estes Ave., Elk Grove Village, IL

## An Introduction to Building Information Modeling

*Unit 1* is designed specifically for construction professionals eager to learn the essential concepts of BIM. Those who will benefit include building directors, owners, managers, supervisors, architects, engineers and construction product manufacturers. Students in the A/E/C industry will also benefit tremendously from this training.

The full-day course will give participants a comprehensive overview of BIM, supported by case studies to help illustrate each session's learning objectives. BIM Unit 1 introduces important concepts necessary for BIM Units 2, 3 and 4.

#### **Course Sessions:**

- Session 1—What is BIM?
- Session 2—BIM Visualization Uses and Spatial Coordination
- Session 3—BIM Scheduling, Estimating and Facility Management
- Session 4—Getting Started with BIM

#### Course Learning Objectives:

#### Following completion of BIM Unit 1, participants will be able to:

- Recognize the importance of BIM
- Define common BIM terminology
- Discuss how BIM can be used as a communication and collaboration tool
- Explain the benefits of BIM
- Compare examples of successful BIM usage
- Discuss issues associated with starting BIM
- Create a BIM Action Plan

#### **INSTRUCTOR:**

Arthur G. Theusch, Owner, Collaborative CG, Lansing, MI

Collaborative Construction Group provides BIM services to construction management firms including modeling for marketing through project close-out and facility management. Mr. Theusch has developed and coordinated 3-D construction models for projects ranging from \$1 million to \$180 million with total projects executed exceeding \$1 billion. Art was one the first individuals to earn the CM-BIM credential.

SCHEDULE:

Thursday, March 10: 7:15 am – 7:30 am 7:30 am - 5:00 pm Check-In Program (includes breakfast, lunch, breaks)

\$375 members / \$700 nonmembers (includes all instruction materials and refreshments)





# **BIM Unit 2: BIM Technology**

Friday, March 11, 2016 • Elk Grove Village, IL

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The highly interactive program provides 32 hours of instruction and training:

Unit 1: An Introduction to Building Information Modeling

## **Unit 2: BIM Technology**

Unit 3: BIM Contract Negotiation and Risk Allocation Unit 4: BIM Process, Adoption, and Integration

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# BIM Unit 2: BIM Technology Friday, March 11, 2016 • 7:30 a.m. - 5:00 p.m. Carpenters Training Facility 1256 Estes Ave., Elk Grove Village, IL

## **BIM Technology**

BIM technology explores the major applications and classes of BIM tools across all project phases; how BIM processes for QTO, shop drawing and fabrication, and construction scheduling can improve projects, and the impact models have for improving estimating, scheduling and coordinating. This full-day course is designed specifically for construction professionals to establish a solid process for selecting BIM tools and to investigate the significant impact models have for improving estimating, scheduling and coordinating.

#### **Course Sessions:**

- Session 1—Technology Overview And Definitions
- Session 2—Tools
- Session 3—Technology Selection
- Session 4—File Formats and BIM Execution Plan

#### **Course Learning Objectives:**

#### Following completion of BIM Unit 2, participants will be able to:

- Explain the phased structure of a BIM Project
- Discuss the classes of BIM tools
- List the more common BIM applications
- Describe how the use of BIM tools needs to be planned and organized
- Explain the need to embed tools into processes
- Develop a process for identifying and selecting BIM tools

#### **INSTRUCTOR:**

#### Arthur G. Theusch, Owner, Collaborative CG, Lansing, MI

Collaborative Construction Group provides BIM services to construction management firms including modeling for marketing through project close-out and facility management. Mr. Theusch has developed and coordinated 3-D construction models for projects ranging from \$1 million to \$180 million with total projects executed exceeding \$1 billion. Art was one the first individuals to earn the CM-BIM credential.

SCHEDULE:

Friday, March 11, 2016:

7:15 am - 7:30 am 7:30 am - 5:00 pm

Check-In Program (includes breakfast, lunch and breaks)





# BIM Unit 3: BIM Contract Negotiation and Risk Allocation

Friday, April 29, 2016 • Elk Grove Village, IL

## Your Resource for Successful BIM Implementation

Building Information Modeling (BIM) is changing the way projects are constructed. Whether you are a prime contractor using BIM across an entire project or a subcontractor impacted by a specific BIM implementation, this emerging practice requires new mindsets and technological know-how in order to achieve significant improvements in efficiency and cost control.

AGC's BIM Education Program—developed in conjunction with leading BIM practitioners, technology firms and educators—is designed to prepare construction professionals at all experience levels to successfully implement BIM on a construction project.

The highly interactive program provides 32 hours of instruction and training:

Unit 1: Introduction to Building Information Modeling Unit 2: Technology **Unit 3: BIM Contract Negotiation** and Risk Allocation

Unit 4: BIM Process, Adoption, and Integration

**EARN YOUR CERTIFICATE OF MANAGEMENT (CM-BIM)** AGC's Certificate of Management—Building Information Modeling program is the construction industry's first and only certificate program that teaches the practical application of the building

information modeling process for commercial construction firms.

Builders Education & Training Foundation 5440 N. Cumberland Avenue #302 Chicago, IL 60656 773.444.0465 info@bldrs.org







# **BIM Unit 3: BIM Contract Negotiation and Risk Allocation**

Friday, April 29, 2016 \* 7:30 a.m. - 5:00 p.m.

Carpenters Training Facility

1256 Estes Ave., Elk Grove Village, IL

### **BIM Contract Negotiation and Risk Allocation**

*BIM Contract Negotiation and Risk Allocation* is a full-day course that examines BIM and contract terminology to determine best practices for integrating BIM into project contracts. Critical issues such as standard of care, intellectual property rights, and insurance and surety bonding coverage are discussed to help participants successfully prepare for BIM implementation.

It is assumed that all participants have had exposure to basic BIM concepts and terminology through attendance in *BIM 101*. This course relies on a highly participatory learning environment including activities, classroom discussions, and instructor-led discussions.

#### **Course Sessions:**

- Session 1—Introduction to BIM Contract Negotiation
- Session 2—Contract Liabilities and Standard of Care
- Session 3—BIM Execution Plan Contract Terms
- Session 4—Model Intellectual Property Rights
- Session 5—Insurance and Surety Bonding Issues
- Session 6—Risk Allocation and Management

#### **Course Learning Objectives:**

Following this course, participants will be able to:

- Explain contract liability and standards of care related to BIM
- Negotiate BIM Addendum terms for BIM Execution Plan development
- Use BIM contract negotiation to establish proactive collaborative BIM
- Identify intellectual property rights and licensing issues related to Model use
- Recognize BIM coverage limitations in existing insurance and bond products
- Devise fair risk allocation and management responsibility provisions on BIM projects

#### **CO-INSTRUCTORS:**

#### Arthur G. Theusch, Owner, Collaborative CG, Lansing, MI

Collaborative Construction Group provides BIM services to construction management firms including modeling for marketing through project close-out and facility management. Mr. Theusch has developed and coordinated 3D construction models for many projects whose overall total exceeds \$1 billion.

#### Ben Hammond, Attorney, Hilger Hammond, Grand Rapids, MI

A significant portion of Ben's practice concerns construction law, where he is routinely engaged in complex litigation. His clients represent all parties involved in construction, including owners, design professionals, GCs, subcontractors, and suppliers. The remainder of Ben's practice involves commercial and residential real estate transactions, business law, and commercial litigation.

SCHEDULE: Friday, April 29: 7:15 am – 7:30 am Check-Ir 7:30 am - 5:00 pm Program	(includes breakfast, lunch and breaks)
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FEE:

\$375 members / \$700 nonmembers (includes all instruction materials and refreshments)





# BIM Unit 4: BIM Process, Adoption, and Integration

Friday, May 6, 2016 + Elk Grove Village, IL

## Your Resource for Successful BIM Implementation

Building Information Modeling (BIM) is changing the way projects are constructed. Whether you are a prime contractor using BIM across an entire project or a subcontractor impacted by a specific BIM implementation, this emerging practice requires new mindsets and technological know-how in order to achieve significant improvements in efficiency and cost control.

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Unit 1: Introduction to Building Information Modeling Unit 2: BIM Technology Unit 3: BIM Contract Negotiation and Risk Allocation

Unit 4: BIM Process, Adoption, and Integration

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# BIM Unit 4: BIM Process, Adoption, and Integration

Friday, May 6, 2016 • 7:30 a.m. - 5:00 p.m.

1256 Estes Ave., Elk Grove Village, IL

## **BIM Process, Adoption, and Integration**

*BIM Process, Adoption, and Integration* is a full-day course that provides a foundation for participants to establish and execute the BIM process, facilitate its adoption, and achieve integration on a single project and at a company level to execute multiple BIM projects simultaneously.

This course is developed for those who have had significant exposure to BIM tools, mechanics, theory and processes and want to learn best practices to implement it into construction projects and firms. This course relies on a highly participatory learning environment including case studies, classroom discussions, and instructor-led discussions.

#### **Course Sessions:**

- Session 1—Introduction to BIM Process, Adoption, and Integration
- Session 2—Project-Level BIM Implementation
- Session 3—Company-Level BIM Implementation

#### **Course Learning Objectives:**

Following this course, participants will be able to:

- Define process, adoption, and integration as related to BIM implementation
- Describe why BIM is a disruptive practice today
- Identify reactive and proactive BIM outcomes
- Evaluate and select process options for a specific BIM project
- Describe the roles and responsibilities of participants in the BIM process
- Identify consistent factors influencing BIM Return on Investment (ROI) at the project and the company levels
- Communicate the BIM process to management, colleagues, and project stakeholders
- Outline a process for BIM adoption and implementation at the project and the company levels

#### **INSTRUCTOR:**

Arthur G. Theusch, Owner, Collaborative CG, Lansing, MI

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SCHEDULE:	Friday, May 6:	7:15 am – 7:30 am 7:30 am - 5:00 pm	Check-In Program (includes breakfast, lunch and breaks)
FEE:	\$375 members / \$700 nonmembers (includes all instruction materials and refreshments)		





# 2016 BIM Education Registration Form Builders Education & Training Foundation

All courses will be held at Carpenters Training Facility 1256 Estes Ave., Elk Grove Village, IL

REGISTER ONLINE AT www.bldrs.org OR RETURN THIS COMPLETED FORM - PLEASE USE A SEPARATE SHEET FOR EACH REGISTRANT:

Name	Title				
Company					
Address					
City	State	Zip			
Phone	Email				
Please enroll me in the following courses (pricing includes all materials and refreshments):					
UNIT 1: Introduction to BIM (3/10)	\$375 member	\$700 nonmember			
UNIT 2: BIM Technology (3/11)	\$375 member	\$700 nonmember			
UNIT 3: BIM Contract Negotiation & Risk Allocation (4)	/29) \$375 member	\$700 nonmember			
UNIT 4: BIM Process, Adoption & Integration (5/6)	\$375 member	\$700 nonmember			
Payment Information:					
<b>Check</b> made payable to Builders Education & Training Foundation in the amount of \$					
Credit Card (circle one): AmEx Discover MC Visa					
Credit Card# Name as shown on card	Exp Date				
MAIL TO: BETF, 5440 N. Cumberland Ave., #302, Chicago, IL 60656 or fax (773) 444-0469 or email to info@bldrs.org Online registration available at www.bldrs.org Questions? Please contact Stacey Kelly at (773) 444-0465					