

Workshop M3

Monday, October 27, 9:00 a.m.-noon and 1:30-4:30 p.m.

BUILDING INFORMATION MODELING (BIM)

Presented by



Douglas C. Green
Vice President
Marsh USA National
Construction Industry Practice

Building information modeling (BIM) has emerged as an exciting new technology for improving the way construction projects are built. While most construction and design professionals have heard of BIM, many are still trying to get their arms around what exactly it is; how it impacts their work as a designer, contractor, or project owner; and what its implications are for their risk and insurance programs. This workshop will get you up to speed on all of these aspects of BIM technology.

- Provides a baseline overview of BIM, including benefits and risks for participants, how the technology is evolving, and a demonstration of how BIM facilitates the construction process.
- Examines legal issues associated with BIM, including contractual risks, and a review of how well standard contracts address these risks.
- Discusses insurance coverage issues, including general and professional liability exposures, and how insurance markets are responding to these risks.

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Douglas C. Green
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Mr. Green is one of the presenters for Workshop M3, "Building Information Modeling (BIM)," on Monday. He is a member of Marsh's National Construction Practice with a focus on the identification and management of existing and emerging industry business risk. He has spoken regularly at industry events, most recently at the AIA Minnesota 2007 annual convention on BIM and the AIA Spring 2008 Large Firm Legal Roundtable on BIM.

Mr. Green has been with Marsh for 4 years. He came to Marsh after 11 years as a practicing attorney and 14 years as general counsel of Ellerbe Becket, an international design and construction services firm.

While at Ellerbe Becket, Mr. Green was responsible for legal affairs including employment law, contract systems, negotiating principles and systems, insurance, entity licensing and registration, international structure, contracting, and regulatory compliance (Egypt, Germany, Holland, Ireland, Japan, Russia, Singapore, South Korea, United Kingdom, and United Arab Emirates), and risk management issues generally for Ellerbe Becket. He has served the following professional organizations: American Bar Association Forum on the Construction Industry (Corporate Counsel Division Steering Committee 1995-2001, Division Chair 1997-2000; Forum Governing Committee 2001-2004; Forum Membership Committee 2001-present). He also served on the Federal Publications Advisory Board (1991-2006).

Notes

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IRMI CONSTRUCTION RISK CONFERENCE

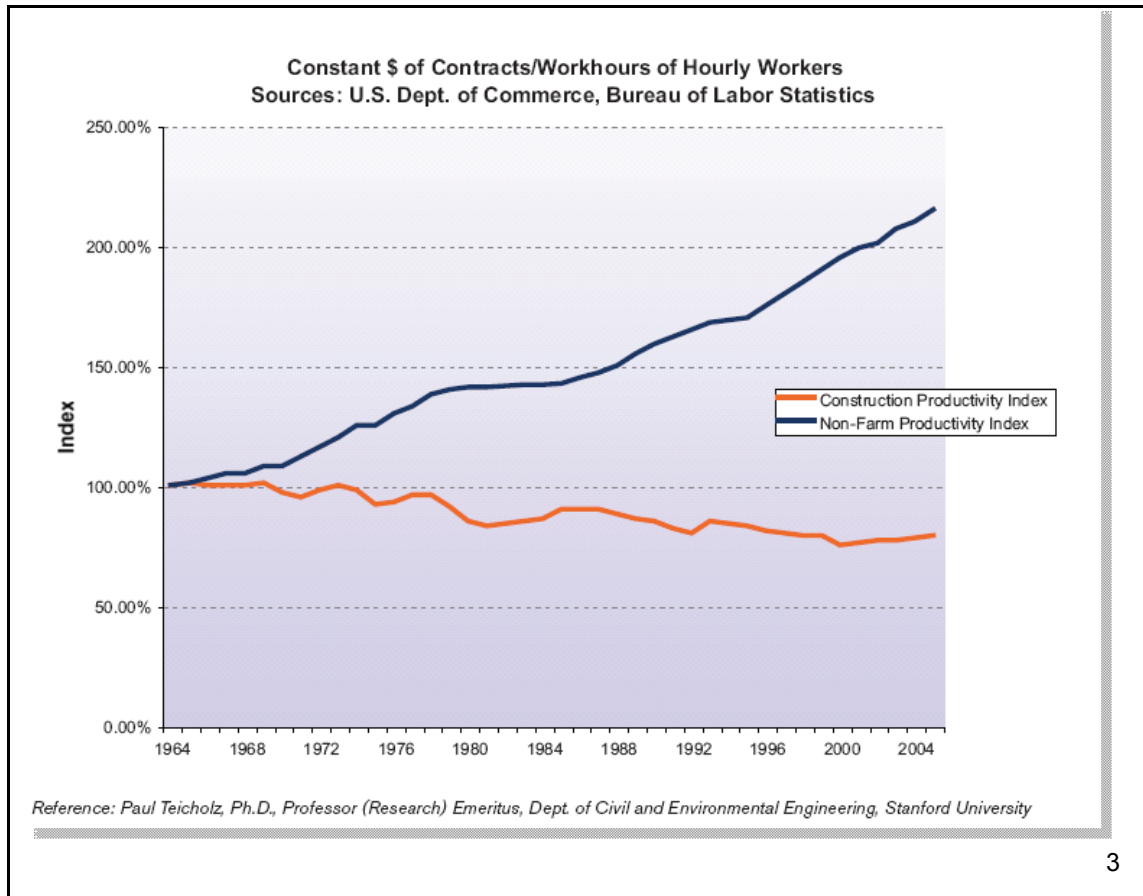
Strategic Risk Management Issues for
Building Information Modeling
October 27, 2008

Douglas C. Green, JD, LEED AP
Marsh Construction Practice
333 South 7th Street, Suite 1600
Minneapolis, Minnesota 55402
Phone: 612-692-7493
Email: Douglas.C.Green@marsh.com

Why BIM?

- Goal—productivity and enhanced profitability
- Consequence—reduction in project risk profile and claims

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BIM “Creative Tensions”

- Assumes collaborative behavior
- Assumes reliability of electronic data
- Traditional risk avoidance in tension with risk acceptance and management
- Importance of defining responsibilities which are in tension with the need to collaborate
- Importance of discipline in the exchange of information—change tracking and authorization — “who” can change “what”

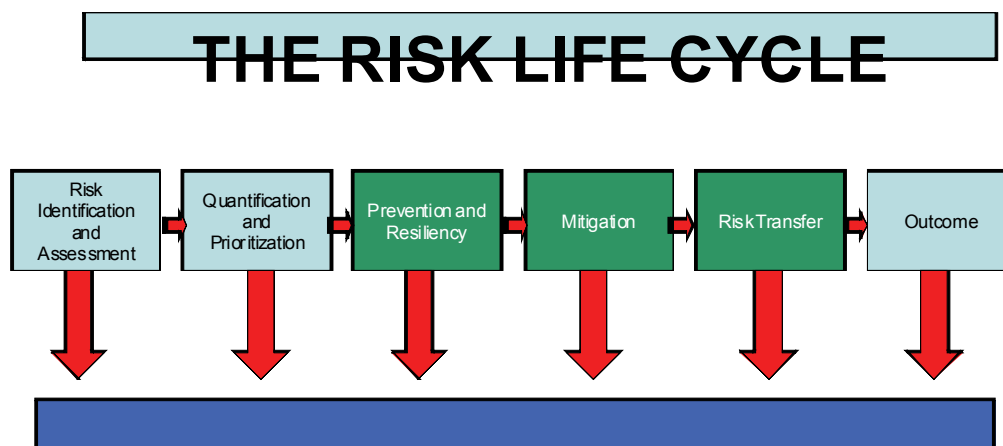
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BIM and “Integrated Project Delivery”

- Two uses of the term “Integrated Project Delivery”—significant difference
 - Legal and risk management use
 - BIM use
- Legal and risk management
 - Formal contracting pattern where the owner, designer, and contractor all sign the same agreement
 - Sharing of economic risks and reward, with various levels of liability caps
- BIM takes you to the threshold of significant change—IPD takes you across the threshold

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Construction and Design Risk Assessment



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Risk Management Issues and Strategies

- Risk at the intersections of knowledge transfer
- BIM “Risk Grid”
- Evolution in standard of care
- Ownership of the design
- Design responsibility vs. responsibility for model functionality
- Who hosts the model?
- Ineffective disclaimers since reliance is implicit
- No consensus on legal interpretations—ambiguities

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Selected Issues

- Who will own the model?
- Develop an access protocol that allows access to the model, but ensures that access does not supersede ownership rights.
- Distinguish between the designer and the “host” organization if different.
- Identify who is “responsible for administering the model and providing the technical resources to enable connectivity, host the files, manage access, and assure security.”
- Third-party host? Deal with who pays for it and role and responsibilities.
- Require the host to maintain insurance against loss or damage to the model.
- Identify who is responsible for deciding what information is permitted into the model and how conflicting information will be reconciled.
- Maintain printed design documents as the official contract documents for archival purposes and regulatory review.

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Selected Issues (cont.)

- Make electronic “snapshots” of the model at key milestones, and preserve the electronic information at each major milestone event.
- How will BIM be used on the project, and by whom?
- Who is the “designer,” and what is the “design”?
- When is the design in its final form at various stages?
- Who owns the copyright to which part of the design and the database?
- Who will be responsible for BIM errors?
- An “evolving technologies” paragraph?
- Limitation of liability?
- A BIM contingency?

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Selected Issues (cont.)

- Archiving responsibility
- Define what is placed in the model and the extent to which it can be relied upon by others
- Resolution of conflicts between federated models
- Waiver of consequential damages arising from use of the BIM process
- Liability for translation errors

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Selected Issues (cont.)

WHO WILL LEAD YOUR BIM INITIATIVE?

- Meet and collaborate with HR in the selection
- Designer background
- Deep interest and background in IT
- Solution seeker
- Ability to manage collaborative behavior

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Closing Comments

BIM:

- Calls for the inside counsel as counselor more than advocate;
- Requires the discipline of clarity in contracts and the management of expectations with owners;
- Of necessity requires a collaborative environment and collaborative behaviors;
- Can be used in any type of project delivery system;
- Takes participants to the threshold of, but is NOT, Integrated Project Delivery;
- Requires participants, to lessen the chance of liability, to focus on protocols and remember their fundamental roles and responsibilities (e.g., design vs. means and methods); and
- Is a great opportunity to increase efficiency and reduce the risk profile of a project.

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