

Workshop M3

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

BUILDING INFORMATION MODELING (BIM)

Presented by



Catha Pavloff
Senior Vice President
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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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Catha Pavloff
Senior Vice President
Marsh USA

Ms. Pavloff is one of the speakers for Workshop M3, "Building Information Modeling (BIM)," on Monday. She is a member of the Marsh National Construction Practice; is leader on the Marsh Green Team; and is a resource to Marsh and its clients on green design/construction and professional liability risk issues. She has 30 years' experience in the insurance industry—22 years with Marsh.

Her affiliations include AIA NYC/AIA New York State and she was selected by *Risk and Insurance Magazine* in 2006 as one of its Top 100 Power Brokers and Top 5 Construction Brokers. She holds a B.A. degree in English from Dickinson College and a Certificate in Construction Management from New York University.

Notes

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October 27, 2008

Building Information Modeling & The Commercial Insurance Marketplace

Catha G. Pavloff, SVP
Washington, DC

www.marsh.com

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THE PROCESS

- **ASSESS**
- **TREAT**
- **MITIGATE**

BIM Benefits vs. Risks

The Market's Current Perception



- | | |
|--|--|
| <ul style="list-style-type: none">▪ Conflict and code checking<ul style="list-style-type: none">– Increases consistency▪ Make changes more quickly▪ Reduce unintended consequences of design decisions▪ Catch design errors earlier: the impact lessens▪ Contractual risk allocation | <ul style="list-style-type: none">▪ Software reliance vs. professional judgment▪ Identifying responsibility/design elements delegated to unregulated parties▪ Coordinating the model and access to it▪ Inadvertent sharing of proprietary info, trade secrets, patented process▪ Contractual risk allocation vs. collaborative environment |
|--|--|



ASSESS, cont'd.

The Impact on Various Stakeholders

- **Design firms**
- **Contractors/Subcontractors**
- **Consultants that perform:**
 - Visualization studies
 - Cost analysis/scheduling
 - Energy audits
 - Post-construction advisory services
- **Integration consultant**
 - Manages model
 - Possible responsibility for security breaches/technology risks



ASSESS, cont'd

- **New/Emerging consulting services**
 - Software training
 - Hosting web-based systems
 - Leasing employees
 - Non-project-specific software



TREAT

Most Impact on Following Coverages/Products

- Professional Liability
- General Liability
- Technology Errors & Omissions
- Cyber Risk
- Surety



TREAT, cont'd

Professional Liability

- Blurred responsibility
 - Who was responsible?
- Design performed by unregulated parties
- Professional vs. Means and methods
- Clients expectations
- Emerging roles and services
 - EX: Model Manager
- Where "professional" begins and ends
 - Contractors input
 - Hosting web-based systems
 - Software & hardware problems
 - Software–Project-s pecific vs. A software product



TREAT, cont'd

General Liability

- Bodily Injury
- Property Damage
 - Tangible Property
- Personal Injury
- Advertising Liability
 - “In the Business” Exclusion
- Professional Services Exclusion



TREAT, cont'd

Technology Errors and Omissions

- Hardware & software coverage
- Includes business interruption and extra expense

Cyber Risk

- Business operations vs. “professional services”
- Third-party coverage includes website hosting and network security services
- Security breaches – unauthorized access
- Viruses
- Cyber extortion
- Loss of intellectual property
- Media liability – website hosting



TREAT, cont'd

Surety

- No clear stance, yet ...
- Underwriting concerns
 - BIM experience – yours and other team members
 - Contractual risk allocation
 - What insurance is in effect, especially professional
 - Who coordinates the model?
 - How do contractors manage risk?



MITIGATE

- Contractual risk allocation
 - Clear scope
 - Identifying roles
- Conduct thorough risk assessment
 - Professional
 - GL
 - Means & Methods
 - Products
 - Cyber risks/technology risks
- Carefully analyze scope of coverage
 - Carriers tackle this in varying ways
 - Make sure insurance addresses risks including contractual risk allocation where possible
- Identify “business” risks
 - Uninsurable
 - Selection of hardware/operating software packages
 - Server company




SUMMARY

- **ASSESS** evolving risks
 - Periodically

- **TREAT** risk
 - Avoid
 - Insurance
 - Contracts
 - Self-Fund

- **MITIGATE** potential for uninsured/unfunded losses



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