

Green Building: What are the Risks?

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Executive Summary

While the benefits of building 'green' can be debated, the risks associated with its construction are increasingly apparent and rapidly evolving. In a recent Marsh survey, construction industry executives identified five primary risk categories associated with green building projects that both construction companies and project owners should be aware of:

- **Financial risks:** The additional costs of green buildings may affect completing projects on time and on budget, but must be weighed against the cost of not going green.
- **Standard of Care/Legal:** Mandates regarding LEED certification bring an increased risk of legal liability for green building design and construction professionals.
- **Performance:** Project owners/develops are starting to require additional contract provisions and warranties regarding the energy efficiency of green buildings, causing increased exposure to potential liability for breach of contract or warranty.
- **Consultants/Subconsultants and Subcontractors:** Lack of experience by these parties in green construction can lead to problems obtaining LEED certification, delays and improper material specifications.
- **Regulatory:** New building codes and mandates associated with green construction can mean an increased liability to everyone involved in the green construction process.

Insurance companies are beginning to adapt their policies and developing new products to respond to risks.

Introduction

The goal of many green building projects is to attain so-called LEED certification. In 1998, the U.S. Green Building Council (USGBC) developed the Leadership in Energy and Environment Design (LEED) Green Building Rating System as a way of establishing a standard for the operation, construction and design of both new and renovated green buildings. With the rapid growth of green building projects, the industry has quickly identified the LEED certification system as the standard for evaluating the effectiveness of green design and construction. A building can achieve one of three levels of LEED certification – silver, gold or platinum.

In 2005, the green building market consisted of only 2 percent of all non-residential construction starts. By 2010 the number had grown to 28 - 35 percent. The trend does not show any signs of slowing with expectations that green construction will represent between 40 - 48 percent of all new nonresidential construction by 2015¹. Many opinions exist as to the cause for the increase in demand of green buildings but most would agree that new government mandates, long term cost savings and an increased sensitivity to leaving an environmental footprint are at the top. Because of this, the construction industry is working feverishly to stay ahead of the curve in terms of education, new product development, and the creation of new green building methods.

¹ McGraw Hill Construction (2010). Green Outlook 2011: Green Trends Driving Growth

The rapid growth and ever-changing world of green buildings has raised many questions as to the emerging risks associated with this type of construction. The potential liability of contractors, architects and engineers involved with green buildings has sparked concern from insurance brokers, underwriters and lawyers alike as they evaluate these new risks and determine how best to protect their clients. As more of these previously unforeseen risks continue to be identified and green building lawsuits become more prevalent, a thorough understanding of the exposures will be essential.

Why Green?

“Green design and construction enables us to look beyond the usual paradigms of time, money and quality by using the green-built environment as a way to work toward improving our planet” (Michael Fegin, Marsh Global Construction Practice Leader)². The evidence is clear that this opinion is shared by many as the number of green building projects continues to rise. In fact, according to the USGBC, the number of LEED certified projects increases daily with the current number being approximately 25,000.³

The continued growth of green construction is widely considered a result of four primary causes, 1) an increase in the number green building standards for both state and federal government projects, 2) an increase in the opinion that green buildings are more economical to operate, 3) an increase in awareness for both environmental and social reasons of the benefits of being “eco-friendly”, and 4) green building is viewed as a way to get more rent, increased occupancy and higher resale value.⁴

What are the Risks?

As the demand for green buildings grows, the risks associated with their construction will continue to evolve. In the future, courts are sure to test more and more legal cases pertaining to green building design, construction and ownership. As a result, insurance companies, insurance brokers and lawyers are attempting to stay ahead of the curve by identifying and addressing areas of potential liability.

Marsh recently conducted a series of four forums with 55 construction industry executives from around the country to identify the top risk categories associated with green building projects. While both insurance and legal professionals have many opinions as to what green building risks pose the biggest exposures and concerns, the consensus of this group of construction executives represents a good starting point for discussion. They identified financial, standard of care/legal, performance, consultants/subconsultants & subcontractors, and regulatory as the top five risk categories.

Financial

The consensus of the construction industry executives involved in the forum was that the financial risks pertaining to green construction represented the greatest area of concern. The additional costs associated with the design, construction and ownership of green buildings may prove to be too costly for some companies and therefore affect their ability to complete projects on time within a specified budget. Some examples of the financial risk issues discussed include, the cost justification of

² Marsh (2009) Green Building: Assessing the Risks, feedback from the construction industry

³ U.S. Green Building Council: <http://www.usgbc.org/>

⁴ Emily Holbrook “The Hidden Risks of Green Buildings” <http://www.rmmagazine.com/Magazine/PrintTemplate.cfm?AID=3998>

*Project owners/
developers are
commonly requiring
additional contract
provisions and
warranties regarding
the energy efficiency
of green buildings*

building green during an economic slowdown, the availability of reasonably priced insurance, the availability and cost of surety bonds, commodity price volatility and the cost of LEED certification process to name a few.⁵

Standard of Care/Legal

Increasingly the LEED certification is becoming the industry standard in the design and construction of green buildings. Many building owners, tenants, and other third parties such as the federal and state governments and municipalities, are increasingly mandating that buildings meet a certain level of LEED certification. With these mandates comes an increased risk of legal liability for green building design and construction professionals in the event that the building does not meet the specified LEED certification requirements.

An example of this can be seen in the case of, *Southern Builders v. Shaw Development*, one of the first cases of major green building litigation in the United States. In this case, Shaw Development was working on a condominium project that was required to obtain at least a LEED silver rating. The silver rating was essential due to a state program that offered an 8 percent green building tax credit for silver rated buildings. The owner charged that Southern Builders breached its contractual obligations when it failed to meet the LEED silver rating. The owner sued Shaw Development for \$635,000, which was the amount of the tax credit that it failed to obtain. This case was settled, however, many expect that this was just the beginning of an increase in disputes of this nature.⁶

Performance

Due to the fact that green construction requires an increased up-front cost and the importance of maintaining a certain level of LEED certification, many in the construction industry view the performance of green products, systems and buildings as a risk. Project owners/developers are commonly requiring additional contract provisions and warranties regarding the energy efficiency of green buildings. These new contract demands and requirements come with an increased exposure to potential liability for breach of contract or warranty if certain goals are not met.

Additionally, the performance of new products and technologies that are being developed for green construction can also pose a risk. Many of these products are being developed quickly and are not being properly field tested. This can lead to legal disputes over who is responsible if the product fails or does not perform to expectations. While the responsibility for product failure typically falls on the manufacturer the engineer may also find that they are liable for selecting the product.⁷

Consultants/Subconsultants & Subcontractors

The 55 construction industry executives involved in the Marsh study agreed that an area of concern was that many of the consultants/subconsultants & subcontractors are not experienced in green construction. The groups concern was that the lack of experience can result in problems obtaining LEED certification, delays and improper material specifications.

⁵ Marsh (2009) Green Building: Assessing the Risks, feedback from the construction industry

⁶ Global Climate Law Blog "Shaw Development v. Southern Builders: The First Green Building Litigation is Settled" (2009) <http://www.globalclimatelaw.com/2009/03/articles/environmental/shaw-development-v-southern-builders-the-first-green-building-litigation-is-settled/>

⁷ Russ A. Brinson and James B. Dolan, Jr. Structure Magazine 64 (June, 2008) "Emerging Risks of Green Construction" <http://www.structuremag.org/Archives/2008-6/D-LegalPerspectives-June08.pdf>

Regulatory

An increasing number of municipalities and states are incorporating building codes and mandates associated with green construction. While these new rules are typically accompanied by some sort of financial incentive, they can also represent increase in liability to everyone involved in the green construction process.

What are the Protections?

The world of green construction is still in its infancy and evolving rapidly.

In addition to trying to stay on top of the various green building exposures and implementing procedural processes to mitigate the risks, many contractors and architects are also looking to insurance as a means to provide protection.

Insurance companies are slowly adapting their policies and developing products to cover so-called "green-gaps".

For example, currently no coverage exists for claims alleging the failure of a project to achieve a specified LEED certification. However, coverage is available to repair a damaged building to meet LEED rating criteria, even if the standards have been upgraded since the building was constructed. Coverage also is available for debris recycling costs according to LEED criteria and for extra costs associated with LEED accredited engineer being required for repairing or rebuilding a green building.⁸

While these are property coverages rather than liability coverages, they are among the first examples of an insurer responding to specific exposures posed by green buildings.

As green construction continues to evolve, so do the risks associated with it. Insurers are bound to play an important role in helping to eliminate some of its uncertainty. The more the risks become a reality and green claims become commonplace in the courts, insurance companies undoubtedly will respond to the needs of architects, contractors and building product manufacturers with coverage tailored to their unique exposures.

⁸ Interview with Mike Halvey, "Green building insurance article," <http://www.zurichna.com/zna/realestate/greenbuildingsinsurancearticle.htm>

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