

Green Design – What Can Go Wrong?

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In the last 25 years, one of the major advancements in the construction industry has been the growth of the green design movement. From the start, predictions were made of a flood of litigation and a drastic change in the design professional standard of care. This paper presents two studies of recent cases involving green buildings and reviews the movement's impact on the architect's standard of care.

The Rise and Impact of the Green Movement

The green movement, which started as design guidelines and voluntary incentive programs, has swept across the country and is now being incorporated into law and building codes as mandatory. ASHRAE, IBC and the International Conservation Code have increased requirements for energy efficiency. Further, according to the U.S. Green Building Council, its LEED program has been incorporated into law or policy in most states and at all levels of government. Green building is well-accepted, and the industry has grown rapidly despite challenges and risks.¹

Green buildings are sustainable, high-performance structures that (1) use environmentally friendly building materials; (2) use energy-efficient materials or processes; (3) reduce waste and environmental impact in the construction process; (4) reduce indoor toxins and enhance indoor air quality; and (5) incorporate water efficiency into the design.² Green design is considered unique in the industry because it is characterized by the convergence of three key factors: its dependence on emerging technologies; the level of required coordination between the owner, designer and contractor; and the rapid expansion of law in this area.³

Green design added to the complexity in an industry already characterized by ever-changing technology and methods in design, construction, materials, contract administration, and project oversight, testing and certification. The more complex the construction, the greater the risk of conflicts, failures and delays. The same traditional constraints of any project are paramount: budget and time. The same traditional concerns of any project exist: constructability, minimizing design conflicts between the various building systems, approval of submittals for material and equipment, adequately trained subcontractors, timely approval by third-party government or private building authorities, to name a few. Green design adds obligations and potential problems that may create uncertainty, and lead to disputes and increased liability risk.

In addition, many owners, developers and government agencies, although enthusiastic about achieving the goals of green construction, are nonetheless unfamiliar with it. They rely on architects to advise them on the green options, required features, initial construction costs, operation and maintenance costs, sustainability, expected long-term savings, and available incentives. This information may be presented as part of the architect's proposal, creating expectations that the designer can ensure the result of a building that mirrors the proposal.

The rapid growth of the green movement, at a pace beyond the industry's capability in technology and expertise, left many to predict a flood of litigation.⁴ Further, many industry commentators predicted a major impact to the standard of care. In its *Guide for Sustainable Projects*, the AIA stated that new codes and certification systems continue to create new responsibilities and risks for architects:

[a]s more jurisdictions institute green building standards by code, the Architect's standard of care may include requirements established by newly adopted code or practice. In other words, "standard of care" is an evolving concept; as design professionals begin incorporating sustainable design practices, the Architect's standard of care may eventually be construed to include those sustainable design practices as the accepted baseline standard of performance for the Architect.⁵

In contrast, the U.S. Green Building Council commented that the legal risks associated with green design is nothing more than "new wine in old bottles."⁶

New Risks Imposed by Green Design

Despite the initial predictions of expansive green litigation, green design has experienced widespread adoption, and to date, the flood of litigation does not appear to have hit.⁷ What appears clear however, is that design professionals now have an obligation to inform the owner of, and to implement, optional and mandatory green requirements. Green is becoming part of the standard for architects.

As with any risk assessment, the initial inquiry is the standard applicable to the designer's liability. Design professionals are held liable for damages incurred when their design falls below the standard of care exercised by others engaged in the same profession, but absent an express contractual provision to the contrary, a design professional's obligation does not guaranty a perfect set of plans or a satisfactory result.⁸

Outlined below are "new" risks for architects that may arise in green building.

Breach of Contract, Breach of Warranty or Guaranty

If the project fails to meet the owner's expectations or what the owner perceived as a promised result, a breach of contract, warranty and/or guaranty claim may follow. This

situation can arise, for example, if the contract documents state a requirement or objective that the building meet a certain green certification standard, or an energy consumption benchmark, or some other specific green goal, as shown in the first case study below. Another problem may arise if the contract is vague or insufficient to address the project responsibilities.

Code Violations

Design professionals are expected to comply with all applicable federal, state, and local laws, codes and ordinances. This task was already required and quite involved before the green movement. Adding more laws and regulations increases the complexity. Additionally, conflicts will inevitably exist between the various requirements, and interpretations may vary between authorities having jurisdiction and certifying the project.

Violations of Non-Governmental Agency Standards

With the advent of non-governmental, private, third-party agencies that set requirements and standards for green certification, architects face new challenges arising from failure to satisfy the certifying authority's requirements, delays in the certifying process, and conflicts with governmental authorities having jurisdiction. Additionally, because the green building industry is still relatively new and ever-evolving, enforcement agencies are not always equipped to timely and adequately handle the certification process. This added layer of complexity can lead to conflicts, delays, and new risks for the design professional.

Product Failures

Because of the growth of green construction, the industry is replete with new products to meet the requirements of the green specifications. Because the products are new and innovative, they have not yet undergone the test of time and experience to prove their durability and functionality. Yet designers must incorporate them into the design, which could increase the number of failed product claims,⁹ as illustrated in the second case study below.

Misrepresentation, Fraud and Other Claims

Misrepresentation, failure to warn, and even fraud claims can arise where the owner alleges that the outcome of the green project failed to meet the promised or expected result.¹⁰

For all the predictions of a flood of green litigation, there are not many recorded court decisions involving green construction. What is common among the few available case decisions is that the liability theories and applicable standards do not differ from traditional construction cases. In that respect, the standard of care has not changed. Instead, green construction adds new risks and complexity to the analysis.

Case Study #1

Southern Builders, Inc. v. Shaw Development,¹¹ filed in Maryland in 2007, was the first green building law suit in the country. The project was a new condominium designed to obtain a LEED Silver rating. The project was accepted to receive a green building tax credit under the state's incentive program, contingent on achieving the rating and reaching completion by the program deadline. The contractor failed to meet the deadline, and the owner did not get the LEED certification and thus lost the tax credit totaling \$635,000.

The developer filed a claim against the contractor for breach of contract and negligence alleging failure to meet the completion date and to construct the building in conformance with the LEED silver rating system. The developer cited the Project Manual provision stating the "project is designed to comply with a Silver Certification Level according to USGBC's LEED rating system..." The contractor failed to complete the project by the occupancy date required by the green building tax incentive program. However, the contract did not specifically require the contractor to achieve the rating and no construction deficiencies were alleged. The case settled.

The case illustrates the potential damages at issue in a green project and raises the issue of which parties have liability for failure of a project to achieve the specified green goals. Despite the "green" wrapper however, the heart of the case is a contract schedule issue. The case emphasizes the rule that the contract is critical in assessing liability and recoverable damages should expectations not be satisfied.

Case Study #2

The Chesapeake Bay Foundation, Inc. v. Weyerhaeuser Co. involved failure of an innovative green product in the world's first LEED Platinum building.¹² In 1999, the owner contracted for the design and construction of a green building on the Bay in Maryland. Consistent with its environmental mission and LEED requirements, the design called for the use of recycled, environmentally friendly materials. The structure was made of exposed wood members that spanned from the building exterior through the building envelope to the interior. The product supplied was manufactured by bonding wood strips made from wood waste. The finished beam had a rough-hewn appearance. Because it was exposed to the weather, to protect against rot, the members were to be preserved with an environmentally neutral coating. The wood members and the preservative were new products.



Aerial view of the Phillip Merrill Environmental Center
Photo Credit: Chesapeake Bay Foundation/cbf.org

Shortly after project completion, the building leaked. The leaks were traced to the exposed wood product. The investigation revealed that channels existed through the structural members, which allowed rain to infiltrate the building. The experts opined on the long-term durability and performance of the product, a key feature of a LEED building. They reported that the use of the wood product in an exterior environment was inappropriate because it was inherently difficult to seal, rendering it susceptible to rain water penetration and accelerated deterioration.

Several years of investigation and remedial efforts ensued. Wide-spread rot was found in the wood product. Further, it was discovered that the product had not been properly treated as certified by the contractor, and the preservative was an unapproved substitute, was ineffective, and did not comply with the green specifications.

The owner, architect and construction manager filed suit against the product manufacturer. The owner sought damages of \$6 million for the cost to investigate, remediation costs, and lost revenue from loss of facility use during the remediation. The manufacturer filed a counterclaim alleging negligence in designing a wood-exposed building for a seaside location, improper selection or approval of the sealant, improper installation of the wood product, and failure of the owner to properly maintain the product. The manufacturer settled the owner's claims.

The manufacturer also filed suit against the contractor hired to seal the wood members. At trial, the manufacturer successfully proved that the contractor breached its contract by failing to treat the product to the level specified in the contract. However, the court found in favor of the contractor after determining that all parties contributed to causing the damages and the contractor's fault was not a substantial cause.

The case illustrates the types of claims and liability exposure associated with green construction. The issues involved performance of innovative products, and misrepresentations, whether intentional or negligent, regarding the suitability of the new products for the application. However, these are not new issues in construction law.

Impact to the Standard of Care

The reported cases to date involving green building do not provide much insight into the impact of green design on the designer's standard of care. That standard requires architects to provide their services consistent with the degree of care and skill exercised by similar professionals practicing in the same area under similar circumstances. Given the imposed legal standard of care and the pervasion of green design in the industry, even in the absence of a contractual obligation or code requirement, an architect may be held to a standard that requires certain "green" obligations. Consider these facts:

- Currently approximately 200,000 design professionals have a LEED AP designation, and the number has steadily risen.¹³
- Certain industry guidelines incorporate green obligations. For example, the AIA Code of Ethics provides that members have a responsibility to promote sustainable design (Canon VI).

From a practical standpoint, what does the presumed change to the standard of care look like? That answer must come from those in the industry applying green design in their work. One veteran LEED AP architect interviewed for this paper provided some insight into the standard of care in Louisiana where I practice. Here, fewer mandatory green requirements have been incorporated into building codes than in many other states. She agreed that the architect has an obligation to advise the owner of green design options, and she acknowledged new obligations on the designer, such as review of submittals for compliance with green specifications to include recycle content, responsible harvesting and grower certification. However, her firm still espouses the same common-sense approach to design they have for decades. They assess life-cycle costs instead of focusing on initial costs, and consider basic design elements such as building orientation, heat gain considerations, building overhang, natural daylight, energy management systems and rainwater collection systems.

This narrow insight into the design practice in the context of the wide-ranging evolution in design professionals' knowledge and experience and expectations on the industry, suggests that a real change in the standard of care may be underway. Looking to the near future, some things are certain: More jurisdictions are adopting green codes and green design is becoming the standard. In addition, the continuing pace of advancement in the areas of building sustainability, energy usage, and trending considerations such as resilience, create the potential for even more impacts.¹⁴ Further, architects face the challenge of providing their design services under contracts that may not appropriately address the new risks. Whether a change in the standard of care actualizes and how that change might affect the design professional's liability in the context of litigation remain to be determined. Certainly, given the expansive and continuing nature of growth in the green design movement, this is an area to monitor in the short term for important developments.

Managing the Risk

The written contract can be the best means of mitigating risks. Architects must ensure that their contracts clearly define the scope and obligations, and do not make promises or representations regarding building performance or achievement of a certain result.

Contracts should include a waiver of consequential damages, to include lost tax credits, lost revenues, increased expenses or maintenance costs, delay damages and other damages resulting from failure to achieve the desired green rating or performance results.

A risk that is less obvious to designers perhaps, is making representations or certifications, before or after contracting, that could be interpreted as modifying the contract, assuming additional obligations, or making promises for which the designer may face liability.

AIA offers contractual tools to help manage the expectations related to sustainable design. The AIA E204 addresses numerous requirements and obligations that affect the architect's liability. These include: development of a sustainability plan that becomes part of the construction contract; responsibility for the use of new, unproven materials and equipment; handling of changes and substitutions during construction and the potential impact to the sustainability objectives of the project; compliance with the certifying authority's requirements for project registration, submission of documentation, and certification; and identification of and compliance with incentive programs for sustainable design. Perhaps most importantly from a liability perspective, the E204 includes a claims and disputes provision that specifically waives any consequential damages resulting from failure to achieve the project sustainability objectives.

END NOTES

¹ Ujjval K. Vyas, Edward B. Gentilcore, *Growing Demand for Green Construction Requires Legal Evolution*, *Construction Lawyer*, Summer 2010 at 1, 3, 10, 18. See Philip L. Bruner and Patrick J. O'Connor, 5 *Bruner & O'Connor Construction Law*, § 17:38.58 (August 2017 Update).

² Douglas J. Feichtner and Andrew R. Kuratowski, *Lead, Follow, or Get Out of the Way: New Developments in Green Buildings Present Litigation Risks to Building Industry*, 2011 WL 6740834 (December 2011), at 1-2.

³ Edward B. Gentilcore, *Through the Green Looking Glass, Part 1: Pursuing Successful Green/Sustainable Construction Without Falling into the Rabbit Hole*, *The Construction Lawyer*, Winter 2013 at 40.

⁴ *Growing Demand* at 1.

⁵ *Growing Demand* at 16 fn 10, citing Frederick F. Butters, *Greening the Standard of Care: Evolving Legal Standards of Practice for the Architect in a Sustainable World*, 33:2 *Real Estate Issues* 23 (Nov. 2008).

⁶ *Growing Demand* at fn 52, citing USGBC in *Building Green: The Legal Risk in "Building Green": New Wine in Old Bottles?*

⁷ *Through the Green Looking Glass, Part 1* at 42.

⁸ *Colbert v. B.F. Carvin Const. Co.*, 600 So. 2d 719 (La. App. 5 Cir. 1992); *Seiler v. Ostarly*, 525 So.2d 1207 (La. App. 5 Cir. 1988).

⁹ See Philip L. Bruner and Patrick J. O'Connor, 5 *Bruner & O'Connor Construction Law*, § 17:38.62 (August 2017 update).

¹⁰ See *Growing Demand* at 6.

¹¹ No. 19-C-07-11405 (Somerset Co. Md. Cir. Ct., Feb. 7, 2007). See Ujjval K. Vyas, Edward B. Gentilcore, *Growing Demand for Green Construction Requires Legal Evolution*, *Construction Lawyer*, Summer 2010.

¹² 580 Fed.Appx 203 (4 Cir. 2014); 848 F. Supp.2d 570 (MD So. Div. 2012); Tracy L. Steedman, *Green Construction*, *Maryland Construction Law Deskbook*, MD-CLE 313, 2017, at 6-7.

¹³ *Studies Reveal Growing Demand for LEED-Credentialed Professionals Across Building Sector*, www.usgbc.org (September 15, 2014).

¹⁴ See AIA's sustainability policy, 2030 commitment, and energy and resilience initiatives.