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SUSTAINABLE INNOVATION: PLANNING, PRACTICE & PROTECTION

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Over the last five years, perhaps no issue has inspired more political, popular, or moral attention than “green” or “sustainable” policy, design, and development. An internet search for “sustainable design” leads to over 17 million site references. It is both a national and international issue. In his January 2009 Inaugural Address President Barack Obama declared, “[E]ach day brings further evidence that the ways we use energy strengthen our adversaries and threaten our planet.” Countries across the globe are already leading or rapidly joining the popular campaign for “green”. However, there have been as many definitions, standards, and models as there are countries. There is no “standard” model or approach.

The mixture of public popularity, politics, and practical reality has led to aspirations and expectations that do not necessarily conform to reality. Moreover, “sustainable” design has aspirations of performance which extend far into an undefined future. As a result, design professionals are inherently at the center of and the inevitable conscience of these conflicts. Design professionals aspire to and are constantly asked to fulfill “green” dreams, often using products or technology without a proven track record or well developed design history. At the same time, they must be practical and realistic, temper unrealistic expectations and, ultimately, care for the long-term success of their projects and practices.

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These “opportunities of innovation” (better characterized as “crises of necessity”) put design professionals in an extremely difficult position. Modern day design professionals are constantly expected to find new ways of building projects better, faster, cheaper, and greener, while at the same time they are too often viewed as professionally and financially responsible if those new methodologies and materials do not succeed to the full extent of client aspirations. When the claim comes from a disgruntled client who is dissatisfied with the results of the innovation, they will necessarily allege a failure to meet the standard of care, but what is that standard where there is no precedent and no clear standard for what others have done with the innovation or requirement in question?

When faced with the challenge of change, design professionals cannot simply adopt the “industry standard” of common practice. Instead, they must define the boundaries of their commitments consistent with their capacity to fulfill those commitments. This paper seeks to provide a framework to analyze these questions, provide practice management tools to manage the communications, performance, and related risks proactively and, finally, to establish a methodology of defense of such claims. It will do so by:

- Re-casting the standard of care in an age of change to focus on process over product;
- Providing a model of practice to manage responsibilities for innovation; and
- Developing a process model specifically applicable to the demand for green and sustainable design.

THE STANDARD OF CARE

The professional standard of care is at the center of nearly any claim of negligence against a design professional. Generally speaking, professional errors and omissions insurance covers and protects a design professional for a professional “error, omission or other act that causes liability.” For these purposes, “liability” does not exist without negligence, which equates to a failure to meet the professional standard of care. While the standard has become more refined over time, it has been widely recognized by Courts in the United States for well over 100 years. In 1896, the Maine Supreme Judicial Court provided the classic statement:

The undertaking of an architect implies that he possesses skill and ability, including taste, sufficient to enable him to perform the required services at least *ordinarily and reasonably* well; and that he will exercise and apply in the given case his skill and ability, judgment and taste, reasonably and without neglect.¹
(Emphasis added.)

These and similar decisions established the seemingly easily-attainable standards associated with “ordinary” and “reasonable”. No excellence. No perfection. No guarantee. As time went by, most Courts and legislatures went even farther to narrow the reach of inquiry by refining the design professional’s standard of care as limited not just by the “ordinary”, but also by locality and circumstance. A commonly stated judicial standard today provides:

In performing professional services for a client, an engineer has the duty to have that degree of learning and skill *ordinarily* possessed by *reputable* engineers, practicing in the *same or similar* locality and under *similar* circumstances.

It is his further duty to use the care and skill *ordinarily* used in like cases by *reputable* members of his profession practicing in the *same or similar* locality under *similar* circumstances, and to use *reasonable* diligence and his *best* judgment in the exercise of his professional skill and in the application of his learning, in an effort to accomplish the purpose for which he was employed.ⁱⁱ
(Emphasis added.)

As a result of these and similar decisions, and despite even the occasional introduction of an exemplary word such as “best”, the prevailing standard of care for design professionals in the United States has become an external measure based on the “reputable, but ordinary” colleague at the same time and place. Commonly, this is referred to as the “average” practitioner.

While sometimes an elusive concept in the Courtroom before a jury burdened by expectations arising from a design professional’s education, training, and credentials, the standard of care has been central to the design practice and its insurance for many years. As a result, it is surprising and perplexing that few (if any) design professional service agreements published by professional societies and organizations have included the standard of care as a part of their standard terms and conditions. Perhaps the design professionals feared inconsistencies with some variations in the interpretations between State Courts. Perhaps they feared that they would create a moment of disillusionment by clients, who would then be compelled to seek and demand higher standards and assurances. However, this historic silence has also had a downside, as the lack of a clear statement regarding the standard of care has opened the door for opportunistic claimants to construe other contract provisions into an actual or *de facto* guarantee, warranty, or elevated duty or promise.

This historic silence was dramatically and forcefully broken with the introduction of the AIA B101 Standard Form of Agreement Between Owner and Architect in late 2007. That document introduced a formal standard of care provision that roughly approximated the standard applied by Courts throughout the Country, and was consistent with the standards typically covered by professional liability insurers. The AIA B101 states:

The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.ⁱⁱⁱ

With this simple provision, the AIA declared the core components of the professional standard of care:

- Ordinary, not superior;
- Geographically limited; and
- Limited by similar circumstance (this is most often project type, delivery model, and corresponding time period).

Despite the progress exemplified by the inclusion of this simple standard of care provision, the AIA B101 included other provisions which referenced, but did not solve, the innovative evolutions within the design and construction industry. Specifically, the B101 references, but does not resolve, “environmentally responsible design approaches”,^{iv} “performance of equipment or systems”,^v “building information modeling”,^{vi} “extensive environmentally responsible design”,^{vii} “LEED Certification”,^{viii} and “digital data for transmission to the Owner’s consultants and contractors, or to other Owner authorized recipients.”^{ix} In doing so, the AIA intentionally (or accidentally) illustrated the dichotomy of a design industry measuring itself by references to “historic” and “ordinary”, while at the same time embracing and pursuing innovative products, processes, and performance standards which are decidedly neither historic nor ordinary. Where these revolutionary and innovative products, processes, and performance criteria are part of a project, the standard of care must necessarily exist and be definable, but it is not “business as usual.” In this context, the standard of care must inevitably be defined by the scope of responsibility and the procedures employed to fulfill that responsibility. The remainder of this paper examines that standard of care within the innovation and expectation associated with sustainable design.

INNOVATIVE PRODUCTS, MATERIALS, & APPLICATIONS

Since it is premised upon a “new” approach to design and construction, green and sustainable design is inherently based on innovation. However, innovation is really not a new concept to design professionals. By their very nature, design professionals are among the most creative and innovative members of society. As a result, they are often instinctively drawn to new technology, products and methods, much as a moth is drawn to the flame. Other times, they are led to new technology and products by client demands or the need to appear to be “cutting edge” in order to secure that client’s business. In doing so, design professionals often agree to

incorporate an “unproven” product, application, or method which, virtually by definition, is not a standard practice and therefore not consistent with the “standard of care”. In the process, design professionals have repeatedly become professionally and financially vulnerable. Despite any disclaimers or protests by the design professional and however unrealistic their expectations, most owners will look to the design professional first, last, and always if their expectations and hopes are not fully realized.

To make matters worse, design professionals seldom receive any compensation, much less *fair* compensation, for this “opportunity” to be either the owner’s unacknowledged hero or demonized culprit. As with many situations in any design professional’s experience, the financial upside remains almost solely with the owner, while the design professional toils for its hourly fee or bare bones, lump sum fee. The disparity of risks and rewards with respect to innovative products and processes is exacerbated even further because the prospective risk of failure, or even simple client dissatisfaction, is greatly enhanced.

Does this mean that design professionals should not use new products or apply existing products in new ways? Absolutely not. That is unrealistic. Client demands, progress, and even the standard of care dictate otherwise. Design practice and the construction industry always have and must move forward by accepting and embracing new products and opportunities. However, that does not mean design professionals can approach such situations as “business as usual” without appropriate procedures and protections. Where the product or application is neither “ordinary” nor “similar”, the standard of care must become more about expectations, communications, and a diligent process than it is technical outcomes. Such is the performance expectation for the “ordinary, but reputable” design professional. By definition, the use of innovative “and unproven” products involves equal parts of investigation, reliance, hope and risk.

The following sub-sections set forth a strategy for design services implementing new products and product applications. This strategy is intended to maintain a fair balance of risks and rewards, while simultaneously protecting the design professional’s professional practices and economic survival. This strategy is drawn from numerous experiences in projects gone awry in conjunction with many successful contract negotiations that have prepared for the appropriate implementation of innovative technologies.

Client Expectations

One of the most frequent sources of failed client relationships and litigation is unrealistic, inappropriate, or uncommunicated client expectations. The threat of such expectations is significantly increased where a new and/or innovative product or application is considered for the project. Most owners (at least in retrospect) seem to focus solely on the potential for an enhanced outcome without any recognition of the potential for failure or shortcomings. Even

when they recognize the risks, they usually regard those risks as belonging to the design professional. Clients generally will claim to be unsophisticated and relegated to almost blind reliance on the design professional. Although this is an all too common experience, it is not fair or consistent with the design professional's common intentions.

The only way to control this risk is to educate and shape client expectations. Whenever using a new or innovative product or technology, or using an existing product or technology in a new or innovative way, the design professional should and must devote a significant effort to the education of the client. Unfortunately, there is no bright line rule to distinguish when this discussion is required. However, these concerns are not limited to products and technologies being used for the first time. In reality, these considerations should come into play any time a design professional cannot characterize some component of the design as "standard practice".

Of course, the process of educating and shaping client expectations will vary by project, client, and application. However, some elements will consistently apply, or at least be worthy of, consideration:

- Affirmative acknowledgement that the product or application is not the standard or traditional approach. In doing so, state that this means it has *not* been tested or proven;
- Express identification of the objectives of the product or application, and why they are being proposed over traditional products or applications;
- Express acknowledgement that there is the possibility that the product or application will not achieve the objectives; and
- Seek the client's affirmation that, given all of these considerations and the related risks, it elects to proceed as proposed. In many ways, this is the construction equivalent of "informed consent" in the medical community.

To any extent possible, each of the foregoing steps should be documented. Ideally, this documentation will take the form of correspondence or Meeting Minutes conveyed to the client. The issue can also be addressed by generic or very specific contract provisions, as set forth below.

Scope of Investigation/Analysis

The single and most critical strategic decision with respect to a new product, technology, or application is to determine what level of investigation into and analysis of the product or application the design professional will undertake. The strategic considerations and limitations

are probably most acute with respect to the use of new products or patented processes. This is because the scope of investigation or analysis may run the gamut from rote incorporation of the product or process following the manufacturer's directions, to a virtual re-design validating or even enhancing the product or process. As a result of this spectrum, the strategic options may be best assessed on a progressive basis.

At one end of the spectrum is the option of incorporating the product or process by simply adhering to the manufacturer's instructions and guidelines without anything more. The more innovative the product or process, the more appropriate this approach. Recent examples of such products and processes include advances in water treatment technology and reinforcement methods for structural concrete. If this is the chosen approach to the use of the product or process, it is best to be absolutely clear with the client that this is the method of evaluation and to confirm that approach in writing either by correspondence, memo, or in the actual contract. When using this approach, the design professional should refer the contractor to the actual manufacturer's instructions and guidelines as much as possible, rather than trying to selectively reinterpret the instructions and guidelines.

The next step in the progression of investigation would be to conduct a review of the development of the product or process, its testing, and any applications to date. Most experts agree that this approach best approximates the "standard of care" for the use of new products. It occupies an appropriate middle ground wherein the design professional does not seek to "re-engineer" the innovation, but does attempt to verify that the innovation was the result of a reasoned process and has not already been exposed as being prone to failure or disappointment. The simplest steps towards accomplishing these ends is to contact and interview the manufacturer, contact references for past applications, and review the available literature (e.g., journals and the internet). If this is the selected approach, both the approach and the results of the investigation should be shared with the client.

Before proceeding beyond the foregoing and actually conducting its own analysis or modifications, any design professional should carefully consider the practicalities. The more independent analysis is performed by the design professional, the greater the design professional's potential responsibility for the ultimate performance (and/or failure) of the product or process. Moreover, the design professional's capacity to conduct a useful analysis is often limited. Most often, the creators of innovative products or processes will defend much of the relevant information as proprietary. Therefore, any analysis is necessarily based on partial information. In addition, it is not realistic to think that any analysis of such a product could be as thorough as that performed by the creator or manufacturer. Finally, to the extent the analysis leads to any variation in the application, such a variation may unintentionally void any applicable warranties or other responsibilities of the manufacturer and thereby make the design professional solely responsible.

Before proceeding with the project and the application of the new product or process, the design professional should consider the range of options for investigation and analysis, and make the strategic decision which is best for both the design professional and the project. That decision should then be shared with the client and confirmed in writing. Since this is truly a strategic decision driven by pragmatic realities of design options, the client should generally *not* have access to all options.

Contractual Affirmation

All of the foregoing is typically preparatory to execution of the client contract. As with any discussions and decisions which precede the actual contract, they are meaningless if not incorporated into the contract itself. Although they will vary by project and application, the key provisions for incorporation into the project are as follows:

- Confirmation that new or innovative products, technologies, or methods may be used on the project;
- Acknowledgement that, as such, the new or innovative products, technologies, or methods lack a proven history of successful application;
- Acknowledgement that, as such, the new or innovative products, technologies, or methods are being incorporated into the project in order to accomplish recognized objectives, but that due to their innovative nature, there is a significant possibility that they will not realize those objectives or have collateral consequences;
- Verification of the level of investigation and analysis, and a statement that this is the limitation of the design professional's obligation for the performance; and
- Confirmation that the client has or will weigh the relative risks and rewards, and will accept the risks in order to incorporate the innovation into the project.

Such a provision may be either an all-inclusive provision incorporated into all agreements, or a specially-modified provision applicable only to a specific project and application.

The use of new products and processes will not always be apparent prior to contract execution, and will sometimes come into consideration as the project evolves. In these situations, the best approach is to execute a contract addendum reflecting the change in the project and incorporating the equivalent of the provisions set forth above. Sometimes, this is

the best of all possible options because it truly focuses attention and direct communication on the use of unproven products and processes. Where such an addendum is not possible, the move toward a new product or process should be verified in writing with an appropriate explanation that it is a new product, that its results cannot be guaranteed, the level of investigation required, and the client's acceptance of the possible risks as a part of the project.

Project Delivery

Once the foregoing preparations are complete, the final step is to deliver a project consistent with the strategic approach selected by the design professional. In doing so, the design professional should seek out and exploit every opportunity to reinforce the strategic approach. Two of the most effective means of doing so are (1) frequent references to and incorporation of the manufacturer's instructions and guidelines in the design documents; and (2) validation of the design approach by the manufacturer itself. Many proponents of innovative products and processes are more than willing to become involved in the process and validate the application. Such a validation (ideally verified in writing) is often the single best risk management practice available to a design professional in using a new product or process.

Finally, even though the "official" project scope should be limited, a design professional using a new or innovative product or process should consider undertaking a thorough investigation, but solely for its internal purposes. For example, even if not required by its scope, the design professional should investigate the development and history of a new product before incorporating it into a project. However, where not required by the written scope, this "enhanced" investigation should be maintained as internal and not shared with others (and, particularly, the client). If shared with a client, it may create an enhanced duty through reliance.

SUSTAINABLE MODELS & STANDARDS

With the introduction of social, political, and client demands for "green" or "sustainable" projects, design and construction projects are no longer necessarily "business as usual" with traditional, quantifiable, and verifiable objectives. Instead, varied, secondary, and more qualitative performance and utility standards are increasingly driving project designs. When they do, varying issues of product innovation, innovative systems, and long-term performance become relevant.

Traditionally, design professionals' work product has been evaluated on no more than five largely quantifiable criteria:

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- Technical accuracy and completeness;
- Aesthetics;
- Cost of construction;
- Stability; and
- Function for intended purpose.

Those limited criteria have now been joined, and even supplanted, by far more intangible objectives most often tied to some less immediate and concrete performance standard. For example, the United Nations' Bruntland Commission has defined "sustainable" design and construction as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Where and how does such a duty end? How is it measured? Clearly, green or sustainable design is by far the most significant and prevalent performance standard which is dramatically affecting and influencing design professionals.

The demand for sustainable, green design projects is unmistakable. Since 2003, the General Services Administration of the United States Government has required all of its construction projects to be certified through the Leadership in Energy and Environmental Design ("LEED") Green Building Rating System of the U.S. Green Building Council. Similarly, with a benchmark of 2007, California Executive Order S-20-04 requires all significant State buildings to be LEED-certified and retrofitted for sustainable performance, while at the same time reducing overall energy consumption by State operations by 20% within eight years. As of July 2008, *Engineering News Record* reported that nearly 70 jurisdictions in 28 States had enacted some form of "green building" requirement.^x Those figures continue to grow.

In response to these market forces, as well as its own collective social conscience by both implication and express obligations, the AIA has now made "environmentally responsible design" a primary consideration and focal point for all of its members and, by extension, the design community as a whole. During the Schematic Design Phase, the standard terms of the AIA B101 now require:

The Architect shall present its preliminary evaluation to the Owner and shall discuss with the Owner alternative approaches to design and construction of the Project, including the feasibility of incorporating environmentally responsible design approaches.^{xi}

By this provision, the architect becomes in equal parts a sustainability conscience and resource to its client. However, it is very clear that even the AIA is uncomfortable with the extent and implications of this obligation since “extensive environmentally responsible design” and “LEED Certification” are later expressly characterized as additional services not included in the Agreement.

The National Society of Professional Engineers (“NSPE”) has taken an even more proactive approach which moves the sustainability issue beyond mere discussion and closer to action. In the “Professional Obligations” section of NSPE’s current Code of Ethics, NSPE states:

Engineers are encouraged to adhere to the principles of sustainable development in order to protect the environment for future generations.^{xii}

NSPE then takes the concept even further beyond the AIA by defining “sustainable development” as:

... the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting the environmental quality and the natural resource base essential for future development.^{xiii}

As a result, it is now difficult to imagine any design professional who would not be compelled to at least explore the sustainable requirements for a project on both the client interest level and the governmental requirement level. Based on the admonitions of the design professional societies, it is easy to argue that this now is the new minimum standard of care.

The great challenge is what professional obligation follows the exploratory discussion. The threshold question is easy and focuses on whether or not some element of sustainable design or project performance is required by regulation or statute. If so, the sustainable elements of the project design almost rise to the level of the Uniform Building Code, but with very important limitations and caveats. Some regulatory requirements can be accomplished and satisfied by design (*e.g.*, sustainable building products, recycled content, and hazardous materials). Others are often a function of project maintenance and operation (*e.g.*, energy consumption). Design professionals should appropriately limit their obligations to a standard based on reasonable expectations of product performance and project maintenance and operation, with an appropriate disclaimer of any performance guarantee.

Where a sustainable design and project is only governmentally incentivized or encouraged and therefore not required, or is only a product of an owner’s desire or conscience, the design professional obligations are much less clear. Neither AIA nor NSPE standards

presents a clear standard that can be definitively achieved. Similarly, individual and even corporate perspectives can and do vary widely. The lack of any reasonable or recognizable boundary for the opportunities and obligations of a “green” project is the single greatest obstacle to the defense of a design claim based on “sustainability” issues. Even judges’ and juries’ interpretations and applications of “green” standards of care and design obligations will likely vary widely as a function of personal taste and perspective.

For this reason, design professionals will be best served by avoiding broad use of the generic terms “green”, “sustainable”, “environmentally responsible”, and “sustainable development” in their own Agreements, documentation, and work product. Instead, wherever possible, the sustainability references and discussions should be reduced to more definitive concepts and clearly expressed goals, expectations, and commitments. Similarly, attorneys and insurance companies defending design professional “green” claims should seek to move beyond the platitudes and buzz words to find a more concrete level of roles, decisions, and responsibilities with respect to sustainability issues as a means of creating definition to and, hopefully, boundaries to the green design-related standard of care and responsibility. Such defining limitations and warnings may sometimes be found in scopes of work, submittals, Meeting Minutes, correspondence, project management plans, product analyses and recommendations, value engineering proposals, manufacturer information and product data sheets, and more.

However, even this approach may lead to the Pandora’s box most feared by design professional insurance carriers and public commentators. That is the fear that design professional participation in and commitment to the “green” process will be transformed into express or implied guarantees or warranties of project performance or environmental certification. Both issues may be outside of traditional understandings of the standard of care and design professional errors and omissions insurance coverage. Therefore, they present a concern for conflict between design professionals and their carriers and significant uncovered liability risk. In fact, claims based on failed or substandard environmental certifications or projects failing to meet performance expectations (especially with respect to energy usage) represent the majority of significant claims against design professionals to date with respect to “green” design issues.^{xiv}

As a result, the introduction of the green or sustainable design imperative, as articulated by both design professional organizations and the many regulatory programs promoting or requiring “green” projects, presents a complex and non-traditional project delivery challenge for the design professional on at least three levels:

- 1. Performance Standards.** Instead of the traditional five objectives referenced above, many “sustainable” projects introduce competing standards and criteria which may actually adversely impact some of the traditional standards and how the building ultimately

comes together and performs. Either the failure to meet such standards or the collateral impacts of doing so has been among the most common “green” design claims.^{xv} The unforeseen collateral impacts often come as an unwelcome surprise to project owners who respond with claims against the design team as a solution to their dissatisfaction. One such common surprise is the basic cost of construction. Even though there may be long-term cost savings, higher initial costs are a frequent source of complaints. However, this need not and should not be a surprise insofar as most industry reports indicate that a “green” project typically costs 20% more for original construction and equipment. Even where the “performance” standard or rating is achieved, many owners have been dissatisfied with other operational issues in the project or its aesthetics, and have pursued their design team as a result. Even when the only objective is a certification such as LEED, ultimately attaining that goal may rest on issues in the future and outside of the design professional’s control.

2. Design Limitations. Environmentally-sensitive designs and projects often limit the resources that can be used on the project. If so, there is typically a tradeoff of performance, cost, or implementation.

3. New & Innovative Products, Systems, & Applications. Often, a sustainable design depends on newly-created products, systems, or applications that lack a proven track record for success. As a result, the goals may not be achieved and there may actually be adverse side effects. To satisfy the standard of care, the design professional must manage each of these issues through client communication and education, documentation, research, and performance. For these purposes, the design professional standard of care becomes as much or more about process, communication, and definition as it does about the actual work product delivered.

The successful management of a sustainable design project and the related standard of care is therefore a process to manage the three challenges referenced above. The four primary sequential steps to facilitate this process may be as follows:

1. Regulatory Incentives & Obligations. As indicated above, sustainable/green project design performance necessarily begins with an understanding of the governmental requirements and opportunities. Unfortunately, this is not a simple process and the range of potential issues is constantly shifting and expanding. The process is not as simple as merely checking with the local building official. It may also extend to review of public utility issues, potential tax credits, land use and zoning enhancements and limitations, and more. It may involve local, State, and Federal issues. As a result, this process should be documented both internally and for the benefit of the client, with an express disclaimer of any further duties of related investigation. Oftentimes, additional services provisions can be a helpful tool in limiting the obligatory extent of such an investigation.

2. Communication & Education. With the governmental and regulatory framework in place, the next and most important step is to reach a mutual understanding with the client as to the client's desires, objectives, and tolerances. Ultimately, they must be realistic and achievable. This often comes down to a matter of examination, education, testing of boundaries, and ultimately drawing lines. Many clients want a sustainable or environmentally-sensitive design without really understanding the implications. Client expectations may not be fully developed, realistic, or even feasible. In addition, electing to make a project sustainable, environmentally sensitive, or LEED-certified will have impacts that the client needs to understand and accept as its choice and risk and *not* that of the design professional. For that reason, the impacts of the sustainable election should be clearly documented and, ideally, in the contract itself.

At the outset, this paper extolled the "wisdom" of learning from the mistakes of others. On that basis, some of the green issues that have been the focal point of prior design-based claims which should be considered as a part of the education and reality process include the following:^{xvi}

- LEED or similar certification is uncertain, time consuming, and expensive;
- Green or sustainable projects do not have long-standing performance records, if any.¹ Actual performance may not meet expectations;
- Sustainable products may extend construction schedules;
- Green or sustainability standards and available products should be expected to change over time;
- Sustainable construction requires participation by others, including contractors; and
- Sustainable projects require sustainable actions in operation and maintenance which are *post*-construction and not the design team's responsibility.

3. Contractual & Project Documentation of Limitations & Responsibilities.

All of the foregoing education and establishment of realistic expectations and goals is virtually worthless if not appropriately documented. Ideally, it will be predicted and, therefore, provided for in the contract. Such a provision might provide:

Client has elected to pursue this project applying principles of sustainable design consistent with the standards published by <insert name of entity>. Client has established this as a primary project objective and recognizes that in doing so, it has limited the available design and product options. These limitations may impact the overall project cost, schedule, and performance. Client has accepted these potential impacts in recognition of the importance it has placed on the values of sustainable design.

Where the discretionary limitations cannot be fully anticipated in advance of the project (e.g., value engineering), they must be dealt with as the project proceeds. Here, the objectives are to essentially accomplish the ends of the provision set forth above. That is:

- Affirmative identification of the bases of selection (e.g., cost, schedule, appearance, etc.) that should be disclosed in writing; and
- Affirmation that these bases have been given priority over other considerations, including possible variations in performance, cost, schedule, appearance, and operation.

4. Product Selection & Application & Certification Processing. Where the goal is not just an “environmentally sensitive design”, but an actual certification through a program such as LEED, the design professional should avoid any guarantee or promise that that goal will be achieved because such ratings often depend on factors far outside of the design professional’s control. Such a provision might provide:

While Client has identified a desire to secure a LEED rating of Silver or better for the Project and Consultant has committed to work in good faith and consistent with professional standards towards that goal, Consultant cannot and does not control all elements necessary for that rating (e.g., maintenance, operation, system performance) and therefore cannot guarantee such a rating will be achieved.

If the proposed design includes a new and innovative “sustainable” product, the design professional will have two concerns for the standard of care. The first is to apply some of the principles discussed above with respect to innovative products. The second will be to make sure that there is no guarantee as to the actual performance of the product. That obligation should appropriately remain with the manufacturer or proponent of the product, system, or application.

Finally, even though there are now nearly 50,000 LEED-certified professionals in the United States, LEED certification does not necessarily equate to a professional capacity to create a sustainable, environmentally sensitive project for all purposes. As stated above, the

threshold issue for any design professional standard of care focuses education, training and skill. Specifically, the design professional must generally

“have that degree of *learning and skill* ordinarily possessed by reputable [professionals], practicing in the *same or* similar locality and under similar circumstances”.

In the field of sustainable design, the requisite learning and skill will always be a moving and advancing target. As a result, the design professional should conduct a realistic assessment of its capabilities and seek outside assistance where appropriate.

CONCLUSION

The new opportunities and evolving products, processes, and performance standards are unlikely to slow down, and will only continue to challenge design professionals in more intense and rapid ways in the future. Under those circumstances, the traditional external standard of care based on how others have performed falls away in favor of standards for communications regarding expectations, realities, reliance, and investigation, along with a process of implementation. This will become the defining standard for the “ordinary, but reputable” design professional. The hope is that the principles discussed above will provide the bases of a strategy to keep pace with these changes for the mutual benefit of design professionals, their colleagues, clients, and insurers.

ⁱ *Coombs v. Beede*, 89 Me. 187 (1896).

ⁱⁱ *Clark v. City of Seward*, 659 P.2d 1227 (Alaska 1983)

ⁱⁱⁱ AIA B101 2007, Article 2.2.

^{iv} AIA, B101 2007, Article 3.2.3.

^v AIA B101 2007, Article 3.6.4.2.

^{vi} AIA B101 2007, Article 4.1.6.

^{vii} AIA B101 2007, Article 4.1.23.

^{viii} AIA B101 2007, Article 4.1.24.

^{ix} AIA B101 2007, Article 4.3.1.5.

^x “Insurers Worry About Green-Building Risks”, *Engineering News Record*, July 9, 2009.

^{xi} AIA B101 2007, Article 3.2.3

^{xii} National Society of Professional Engineers *Code of Ethics for Engineers*, Section III, Subsection 2d.

^{xiii} National Society of Professional Engineers *Code of Ethics for Engineers*, Section III, Footnote 1.

^{xiv} See “green” based design claims summary by Frank D. Musica of Victor O. Schinnerer & Co., Inc., delivered to the 2007 National AIA Meeting in San Antonio, Texas under the title, “Don’t Let Green Design Cause Red Ink.”

^{xv} Id.

^{xvi} Many of these educational points are drawn from the Musica presentation referenced above as well as from cases in the author’s own experience.