## SUSTAINABILITY: CHALLENGING THE VALUATION PARADIGM

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Thomas A. Dorsey, MAI, FRICS

9701 Grasmere Drive Charlotte, NC 28270-0291 Telephone: (704) 383-6836 E-mail: tom.dorsey@wellsfargo.com

### SUMMARY

The 21<sup>st</sup> century is green, and the global market is committing itself to the principles of sustainability. Valuation professionals are only beginning to understand the concept and its place in the real estate market. There are opportunities and there are challenges – for investors, owners, and for appraisers. We are experiencing a fundamental shift in underlying values and priorities. A whole industry has grown up around us, dedicated to promoting environmental objectives – including many that affect the financial performance of real estate. This paper reviews some of the concepts and motivations evolving in the marketplace, and questions that the professional appraiser must address.

### INTRODUCTION

Professionals in property valuation are trained in market analysis, in property inspection techniques, and in approaches to estimating value. Training is based on years of experience by practitioners in the field. However, some of our underlying assumptions – our paradigms – have changed. We must step out of our comfort zone to take a fresh look as a commitment to sustainability takes hold across the world.

*Green* is the color of the millennium. Media reports of air and water quality, and the quest for renewable energy, are everyday occurrences. Ironically, a familiar adage applies to today's discussions of the environment and sustainability: *what was old is new again.* 

Ancient philosophers identified five elements as essential to our individual well-being and collective survival. Earth, water, and fire, followed in some cultures by wood and metal, in others by air and ether. Humankind existed in harmony with nature, enjoying a seemingly inexhaustible bounty of natural resources, while conscious of the intricate pattern of interrelationships.

Fast forward to 2010, where we appreciate that all resources are scarce, and acknowledge that there are consequences to ignoring the delicate balance of nature. The real estate industry finds itself at the center of this renewed awarenes, because buildings have a substantial impact on the environment, from their inception and throughout their life cycles. Coincidentally, widely used rating systems for sustainable buildings have areas of focus similar to the five elements of old: site planning, water management, energy, materials use, and indoor environmental quality.<sup>1</sup>

Taking note of trends in building design and construction, one leading group of real estate professionals makes the following observation:

<sup>&</sup>lt;sup>1</sup> The U.S. Green Building Council, through its Leadership in Energy and Environmental Design (LEED) criteria, is one of several credible third-party assessment or rating systems.

The earth's capacity is finite. Unsustainable land-use practices, buildings and construction coupled with an ever-growing population are responsible for the depletion of natural resources and loss of biodiversity and habitat.<sup>2</sup>

This bold statement evidences a widespread change in attitudes, one which is beginning to influence the behaviors of participants in the real estate market. And, that is key. Regardless of what each one of us chooses to believe of the *if*, *when*, or *how* of environmental issues, the reality is that the marketplace is taking note. As professionals in valuation, we must be aware of all matters that influence behavior of all market participants - of buyers and sellers, of landlords and tenants. Yet, when it comes to understanding sustainability, appraisers are playing catch-up.

#### SUSTAINABLE DEVELOPMENT

Twenty-seven years ago, the United Nations convened the World Commission on Environment and Development, better known today as The Brundtland Commission.<sup>3</sup> Its report, completed in 1987, includes the internationally-recognized definition:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Today, green and sustainable are often used interchangeably.

Interest in green building is a global phenomenon that has given birth to new organizations. One example is the World Green Building Council.<sup>4</sup> Founded in 1999, it now includes 72 countries that have established green building councils or organizing

<sup>&</sup>lt;sup>2</sup>" Sustainability at RICS - managing change in a changing world," Royal Institution of Chartered Surveyors, http://www.rics.org/sustainability, c. 2010.

<sup>&</sup>lt;sup>3</sup> The World Commission on Environment and Development was chaired by Gro Harlem Brundtland.

<sup>&</sup>lt;sup>4</sup> See www.worldgbc.org; Tony Arnel of Australia currently serves as chair of the 10member board that includes representatives of Canada, Japan, Mexico, Taiwan, the United Kingdom, and the United States.

groups actively working towards that goal. Sixteen are countries in the Americas.<sup>5</sup> These organizations are non-governmental entities, and their proliferation and rapid growth is another indication of the public's growing interest and support.

Renewable resources and the environment are topics of concern in the global marketplace. Members of the real estate segment are influenced by, and are acting in response to, a new set of motivations and behaviors. Concurrently, professionals in the field are working to understand the drivers and the future of sustainability. More particularly, valuation practitioners are seeking to identify the value<sup>6</sup> proposition for green buildings. Do they add value, and, if so, why?

This is a conundrum. It requires at the same time both a broader and a narrower view of properties and their surroundings, along with an increased awareness of emerging trends and of forces that may be affecting property values.

The focus on sustainability challenges the valuation paradigm. It presents opportunities for additional research and education. Valuation professionals must acquire the knowledge and skills necessary to accept and complete assignments in a competent and professional manner. A uniform set of standards and a common set of metrics have yet to be developed. Likewise, the data base for comparable costs, sales, and rental information is not comprehensive, and – for the most part – published analyses are general in nature, lacking the specificity necessary to support conclusions in individual circumstances.

### **GREEN BUILDINGS**

Real estate has become a major focus of sustainability simple because of the magnitude of its effect on the environment. In the United States, as one example, buildings account for:

<sup>&</sup>lt;sup>5</sup> In the Americas, the World Green Building Council has: (1) prospective councils in Chile, Costa Rica, Guatemala, Panama, Peru, and Uruguay; (2) associated groups in the Dominican Republic, Ecuador, Paraguay, and Venezuela; and (3) established councils in Argentina, Brazil, Canada, Columbia, Mexico, and the United States.

<sup>&</sup>lt;sup>6</sup> Market value, as defined in <u>International Valuation Standards</u>, 8<sup>th</sup> edition, 2007.

- 39 percent of the nation's total energy use,
- 12 percent of total water consumption,
- 68 percent of total electricity consumption, and
- 38 percent of carbon dioxide emissions.<sup>7</sup>

Buildings produce more  $CO_2$  emissions than either the transportation or industrial sectors. In addition, building-related construction and demolition debris in the U.S. represent nearly 26 percent of the country's non-industrial waste generation. If you want to make a difference, buildings are the proverbial low-hanging fruit.

Green building is concerned not only with energy, water, and air, but with every way in which our office and residential and commercial structures impact the environment. It is also focused on how these improvements serve their users, and this quickly segues into a discussion of property valuation. First, we need to understand what makes a building green, and what about this condition is attractive to building occupants.

Training opportunities for real estate appraisers are already available<sup>8</sup>, and more are under development. Restating would take volumes, rather than pages. For purposes of this discussion, and using the LEED categories as an outline, some of the more visible indications of a commitment and contribution to sustainability include:

- Redeveloped sites (i.e., previously improved) in proximity to public transportation, retail and other services; a site plan that maximizes open space; and a development plan that encourages alternative transportation.
- 2. Water efficient fixtures and landscaping plans; a design that provides for the capture and reuse of rainwater.
- 3. Energy efficient building specifications and equipment; use of renewable energy.
- 4. Materials from regionally-produced renewable sources; reuse of materials and use of materials with recycled content; on-site collection of recyclable materials.

<sup>&</sup>lt;sup>7</sup> See www.epa.gov, United States Environmental Protection Agency.

<sup>&</sup>lt;sup>8</sup> As an example, the Appraisal Institute's "An Introduction to Valuing Commercial Green Buildings," developed by Theddi Wright Chappell, MAI, and Timothy R. Lowe, MAI, was introduced in 2008.

5. Use of low-emitting materials<sup>9</sup>, high standards for indoor air quality and localized comfort settings; reliance on outdoor lighting for a large part of daytime needs.

Each of these can help to reduce operating expenses, and each can contribute to the well-being of those who work at or visit the premises. These betterments help in attracting and retaining tenants, and work together to meet the objectives of the investor/owner.

## **CERTIFYING GREEN**

Before going further, it is appropriate to address the process of certification. Virtually anyone with something to sell would like to characterize their product or project as *green*. One financial service company described the term as follows:

Green, at its core...has to do with reducing excess natural resource consumption, reusing resources, and recycling end-products when reuse is no longer viable.<sup>10</sup>

A worthy objective, and one that is easily understood and accepted. But, use – or misuse – of the word is so widespread, that it has given rise to another new term: "greenwashing." This is the practice of labeling something as green, regardless of the magnitude or significance of its environmental impact. The obvious need for objective rating systems has contributed to the formation and growth of organizations offering independent, third-party assessments. Among the more widely known are BREEAM<sup>11</sup> and LEED<sup>12</sup>. Each employs a rating point system. Both share common goals, with differences in approach and emphasis that are, in part, reflective of their localities and constituencies.

<sup>&</sup>lt;sup>9</sup> Volatile organic compounds (VOCs) are included in many building materials, including paint, caulking, and carpet; off-gassing can contribute to health problems, especially for persons who suffer from allegies.

<sup>&</sup>lt;sup>10</sup> "The Greening of America," Wachovia Capital Markets, LLC, March 2008.

<sup>&</sup>lt;sup>11</sup> See www.breeam.org; the Building Research Establishment Environmental Assessment Method has specific rating criteria for the United Kingdom, the Gulf, and Europe, and also has international variations.

<sup>&</sup>lt;sup>12</sup> See www.usgbc.org and www.gbci.org; Leadership in Energy and Environmental Design is employed in the U.S. and around the world.

These rating systems fulfill an important need for the public, as well as for professionals in the field of property valuation. For the public good, they serve as an independent source of validating that a property meets stated standards of sustainability. For valuation professionals, the rating systems serve a dual purpose, first, as a reliable assessment of a property's design and performance, and second, as a credible source of specific information relative to advantages in energy and water consumption.

#### VALUE

As a general observation, green buildings might be described as *state of the art*. Often, their features may be on the leading edge of the continuing evolution of design and construction standards. But, as the world focuses more on sustainability, our existing building stock, e.g., properties which do not benefit from sustainable design and construction standards, is in danger of moving higher on the obsolescence curve.

Think of what must have happened to the values of existing mid and high-rise buildings when elevators were invented, or when central air conditioning became the norm. It has always been the case that properties that are not maintained and updated periodically become less competitive – less valuable – in the market.

Green buildings are high performance buildings. They are more efficient in terms of energy and water consumption. That is fairly straightforward and the associated financial benefits are easily understood. What is less obvious – and difficult to measure – are the motivations of buyers and sellers around sustainability.

We know that cost and value sometimes differ. There is a widespread perception that sustainable buildings require a greater investment, a higher cost of development. This is not true – or, at least, it does not have to be true. Certainly, they can, and often do, cost more. However, RSMeans, a firm specializing in cost estimating, makes the following observation:

The commonly held belief that green building necessitated higher initial costs has proven a false assumption, as design and building professionals, together with product manufactures, have found ways to achieve savings in up-front costs.<sup>13</sup>

Where cost exceeds what experience and market sources suggest should be the norm, we need to look further in order to understand whether or not the additional investment is justified in terms of value-added. There are times when expenses rise because of poor planning, or because of an inexperienced project team. Green buildings are, perhaps, more susceptible to these risks, since their design is more integrated and complex.

The design of a sustainable building is a complex undertaking requiring, from the outset, a collaborative and diverse team of professionals. Arguably, experts in valuation should be at the table with architects, engineers, and property managers. Professionals must work together, rather than completing their work in a vacuum. This helps to assure that the final product will not be burdened by either functional inadequacies or superadequacies, and early involvement by the valuation professional helps to assure the owner/investor that the consequences of design and specifications will be identified and fully considered.

Value is a term that can have different meanings, depending on the application. Among the more succinct definitions is one offered by an American jurist in 1888: "All values are anticipations of the future."<sup>14</sup> In the context of green buildings, appraisers need to have a deeper understanding of building systems in order to be able to make a credible forecast of future expense and income events. More important than what an item costs is what it will do, what is required in terms of maintenance and repair, how long it will last, and how it is perceived by owners and occupants of the property.

<sup>&</sup>lt;sup>13</sup> <u>Green Building: Project Planning & Cost Estimating</u>, Second Edition, RSMeans, Reed Construction Data, c. 2006.

<sup>&</sup>lt;sup>14</sup> U.S. Supreme Court Justice Oliver Wendell Holmes, 1888.

### MOTIVATIONS

Deloitte surveyed firms in 2007 to determine their motivations for incorporating green features into existing properties and qualifying them as *green*.<sup>15</sup> Interestingly, they found that less than 50% of respondents identified increased building value or reduction of greenhouse gases as drivers. At the top were corporate environmental commitment and greater indoor air quality, each listed by 88% of respondents. Close behind, at 75%, were (1) value of public relations and free publicity, (2) greater workforce productivity, and (3) operational cost savings from energy efficiency. Aside from cost savings, valuation professionals would not normally be aware of the other factors as motivators. One conclusion of the report:

We believe that within the next three years, companies that do not have green workplaces will be at a competitive disadvantage from higher operating costs, lower productivity, declining attraction and retention of skilled workers, and an increasingly negative brand image.

To be sure, there are some market participants who are motivated simply by the desire to do what they view as the right thing and the smart thing in terms of addressing environmental challenges. There are also those whose decision process is wrapped around how being green reflects positively, or provides a financial return, to themselves. In between, there are innumerable forces at work. Among these are the following:

 <u>Government mandates and incentives</u>. Countries around the world have varying degrees of support and endorsement of sustainable building policies. Some approach the issue through more stringent building code requirements, others require specific green building criteria. Governments increasingly mandate thirdparty certified ratings for their own<sup>16</sup> or for private sector buildings<sup>17</sup>.

<sup>&</sup>lt;sup>15</sup> "The dollars and sense of green retrofits – Sooner is better than later, and it could cost less than you think," Deloitte and Charles Lockwood, c. 2008.

<sup>&</sup>lt;sup>16</sup> In the U.S., the General Services Administration began requiring LEED Silver certification for new construction in 2003, and in 2008 extended the requirement to include lease construction; as a result, speculative developers are now faced with a

- <u>Corporate commitments</u>. Major corporations in virtually all sectors have embraced the principles of sustainability. Regardless of whether their commitment is for altruistic or self-serving reasons, one effect is to increase marketplace awareness and demand for sustainable buildings.
- 3. <u>Financing opportunities</u>. Investment in green buildings is an objective of a large number of pension funds and institutional investors<sup>18</sup>. Buildings built to sustainable standards are viewed as properties with lower risk. They are high performance buildings, better protected from increases in utility expenses, more attractive to potential users, and, in the near term, less likely to experience obsolescence.
- 4. <u>Generational attitudes and preferences</u>. While each generation has its own set of experiences and values, those who have grown up during recent decades are increasingly aware of environmental issues. Their decision processes are influenced by what they believe. It is not inconceivable that, when in a position to do so, they will exhibit a preference for properties with sustainable attributes and ratings.
- 5. <u>Workplace productivity</u>. Studies over the past century suggest that the quality of the workplace environment has a positive influence on productivity. Green building standards provide for an improved level of interior air quality<sup>19</sup> and reward designs include a higher degree of reliance on interior lighting. These are among the features that attract and retain corporate tenants.

choice of building a green building or intentionally excluding federal government agencies as prospective tenants.

<sup>&</sup>lt;sup>17</sup> In England, effective May 1, 2008, new home construction must conform to the Code for Sustainable Homes.

<sup>&</sup>lt;sup>18</sup> See Responsible Property Investing Center (www.responsibleproperty.net); Socially Responsible Investing (www.socialinvest.org); and RREEF Research's "Globalization and Global Trends in Green Real Estate Investment," Andrew J. Nelson, September 2008 (RREEF is a member of Deutsche Bank Group).

<sup>&</sup>lt;sup>19</sup> Arguably, volatile organic components contribution to "sick building syndrome." See http://www.epa.gov/iaq/pubs/sbs.html

The commitment to the principles of sustainability is evidenced by a focus on the socalled triple bottom line<sup>20</sup>, addressing social, environmental, and economic objectives, or people, planet, and profit.

### THE LANDSCAPE

Throughout the Americas and around the world, a commitment to sustainability has taken hold.<sup>21</sup> Visible through international agreements such as the Kyoto Protocol and the Copenhagen Accords,<sup>22</sup> there is a growing belief that controllable behavior affects our environment.

Individuals and corporations are acting this out for a variety of reasons. Regardless of their motivation, the result is a positive effect on the demand for green buildings.

Governments are providing incentives, while at the same time mandating compliance with new and advanced standards. Lenders recognize green buildings as ones with lower risk to energy costs and more protection from obsolescence, and attractive funding options are becoming available. Corporations are making public commitments, exercising social responsibility and responding to shareholders, while at the same time taking steps that provide a financial return. Individuals are choosing green. Some, because it supports their personal values, others, because they believe

<sup>&</sup>lt;sup>20</sup> A phrase coined by John Elkington in his <u>Cannibals with Forks: the Triple Bottom</u> <u>Line of 21<sup>st</sup> Century Business</u>, c. 1998. See also, "Why Build Green," at www.epa.gov/greenbuilding/pubs/whybuild.htm.

<sup>&</sup>lt;sup>21</sup> Likewise, there is universal agreement on the meaning of value in the context of real estate. The International Valuation Standards Committee, founded in 1981, is a non-governmental member of the United Nations. Its membership includes organizations from 41 different countries, including, in the Americas: Instituto Argentino de Tasaciones (Argentina), Instituto Brasileiro Avaliacoes (Brazil), Appraisal Institute of Canada (Canada), Registro Nacional de Avaluadores (Columbia), National Association of Mexican Valuation Institutes (Mexico), the Appraisal Institute and the American Society of Appraisers (United States), and Sociedad de Ingenieria de Tasaciones de Venezuel (Venezuela).

<sup>&</sup>lt;sup>22</sup> The Kyoto Protocol, adopted in 1997, commits its signatories to take steps to reduce greenhouse gases; the Copenhagen Accords, completed in 2009, endorses the Kyoto Protocol, but is not legally binding. Each of these undertakings was completed under the auspices of the United Nations Framework Convention on Climate Change.

that a sustainable design is more advanced and represents a healthier choice, and still others because they want to be associated with sustainability for a variety of reasons.

These properties tend to be high performance buildings, and there is a bottom-line incentive for investing in *green*. Savings in utility expenses increase the net operating income, and design innovations enhanced by computer modeling contribute to more efficient building envelopes and systems. Technologically advanced systems not only result in smart buildings, they help to position the property as one which is less likely to suffer from obsolescence during the holding period.

Increasingly, those entering the workforce are attracted to situations where a commitment to sustainability is evident. And, the amenities encourage by a sustainable design are believed to be important factors and attracting and retaining a quality workforce. This becomes another motivator for large employers to go green.

Rating systems employed by third-party assessment organizations provide a scorecard and a checklist that bring it all together. Credible programs are science-based, transparent, objective, and progressive.<sup>23</sup> The certification that they provide is recognized in the marketplace, and higher levels of certification are the reward for a greater commitment to sustainability.

The landscape is clearly *green*. This is not a fad that will soon be out of favor.<sup>24</sup> An increasing population matched with declining natural resources requires that alternate materials and energy sources be identified and employed. There is the matter of global warming. While some choose to debate, it is generally accepted that the industrial revolution has contributed to a decrease in air quality – evidenced by the smog that surrounds major metropolitan areas – and, independent of the contribution to greenhouse gases, this negatively affects our quality of life. These are important considerations, but, our focus is real estate values and how they are affected by sustainability.

<sup>23</sup> Eco-structure Magazine, Jeff Stephens, November/December 2004.

<sup>&</sup>lt;sup>24</sup> A January 2008 survey by Allianz Global Investors of 1,000 individuals found that more than half of the respondents believe that investing in the environment was an "important focus."

# THE CONUNDRUM

A conundrum is a puzzle or a riddle. In the case of sustainability and property valuation, this puzzle might be described by a series of questions.

1. Does the investment in sustainable design provide cost-savings or income opportunities or both? In order to answer, we need the customary access to operating statements and to lease and/or sales agreements. But, we must also look behind the data to understand performance benefits. Here, the third-party assessment organizations are invaluable.

As a part of obtaining a green certification, building owners – through their design and engineering teams – must complete a series of studies and use of computer modeling techniques. Their applications include estimates of energy and water savings, attested to by professionals in the field. Obtaining a copy of the application package is as important to an appraisal of a certified green building as inspecting restrictive covenants and declarations is to the appraisal of a condominium.

In addition, appraisers will want to understand if or how a premium for any building component might be paid for in savings in another area. For instance, added insulation and reflective exteriors can save not only on energy consumption, but on the initial investment in heating and cooling equipment. Identifying these relationships requires extensive investigation, and would be facilitated or expedited by early involvement in the project (if new) or meetings with the original design team.

2. Is the use of low-VOC products<sup>25</sup> an expectation of any segment of the market?

Arguably, all occupants expect to experience the interior of any building in a way that does not include unpleasantries in the form or odors or allergic reactions. Among the unknowns is the question of whether the knowledge that

<sup>&</sup>lt;sup>25</sup> Volatile organic compounds; see footnote no. 9.

low-VOC products have been specified impacts desirability and demand. It may prove difficult to isolate this from other green components in the valuation process.

3. Is corporate support of sustainability a true indication of demand for green buildings, or is it indicative of the price that a limited class of market participants might pay?

Most major companies in the world today include a reference to sustainability in their statement of corporate values. For these companies, it is simply the right thing and the smart thing to do – and it is expected by their investors and shareholders. Not to embrace sustainability could, in itself, result in negative publicity. Conversely, in working to become green, they realize savings and income opportunities, and they are perceived as leaders. To the extent that they act on their commitment, they will add demand that will contribute to the objectives of sustainability advocates.

Yet to be determined is whether the actions of these firms can be considered a market indicator or simply independent and personal decisions that are an anomaly. Time will tell.

4. Is there value in the brand? In other words, if a property is awarded a green certification by a credible third-party assessment organization, does that enhance the property's marketability, and, thus, its value? If a building is green, but does not have a credible certification, is it competitive with a property that has a credible certification?

Intuitively, if two properties are alike in all respects, but one has a certification and the other does not, the building with the certification should be worth more. This is a new concept for valuation professionals.

Why might it be true? Green has value in the marketplace. The independent certification provides a credible testament to a property's status. The owner of a building that does not have that certification will have to explain or prove it's "greenness," while one that does have the label will be accepted as green.

This leads to at least two other areas of analysis. First, since certification status is often awarded by accumulating points in specified categories of sustainability, where were the points earned? If most were earned for innovation and design, rather than for performance, what is the real long-term benefit? And, since the requirements of certification are always changing, how might (or should) one compare properties certified under different criteria, or, for that matter, properties that have different levels of certification, or even certification from different bodies? Again, time will tell.

5. Do certain components of sustainable design provide an amenity value? For instance, does a green roof add to the enjoyment of building occupants? Are preferred parking spaces for alternative fuel vehicles valued by tenants? Is there value added by including bicycle racks and shower facilities for cyclists in the building design?

This is an area where the participation of valuation professionals in the design process is extremely valuable. But where are the appraisers? LEED<sup>26</sup>, as an example, prides itself on being an inclusive and cross-functional organization. Yet, similar to other third-party assessment organizations, its list of participants includes architects, contractors, engineers, property managers, and many others – but, not appraisers.

There are numerous opportunities to marry the objectives of sustainability with the financial objectives of the owner. Professionals in real property valuation need to be at the table, and this practice area will be one of growth over the next decade.

6. How do appraisers gain the necessary understanding of the complex interaction of advanced design techniques? Where can they obtain reliable data regarding the proposed or historic benefits accrued from the sustainable design?

<sup>&</sup>lt;sup>26</sup> Leadership in Energy and Environmental Design (LEED) is trademarked by the U.S. Green Building Council.

As noted earlier, the application package for certification is an invaluable source of information. Likewise, conversations with members of the design team are extremely beneficial. But, the third party assessment organizations themselves include a wealth of information.

Most of these organizations have on-line listings of properties that have applied for or have received certification. They also include case studies, and some are accumulating performance data – on an ongoing basis – for buildings qualified as sustainable.

7. As more properties are built to sustainable standards, does the non-green inventory begin to suffer from some form of obsolescence?

The answer to this is more a matter or *when* than *if*. If we think of green buildings simply as high-performance buildings, then it might be expected that properties constructed to lesser or dated standards will be less competitive and less attractive. But, market evidence is required to support any conclusion.

8. How are government incentives and access to additional funding sources reflected in the valuation model? What happens to the value of the property if an assumed certification level is not obtained?

Some incentives are provided at the front end, in order to alleviate construction costs. Others – such as a density bonus in return for a sustainable design – are ongoing. Still others, like tax abatements, may be provided for a specified duration of time. The valuation professional will have to investigate and support any assumed contribution to value.

At the same time, there are risks which must be clearly identified in the assumptions. Failure to meet an assumed level of certification can result in severe consequences, detrimental to the financial interests of the owner and lender. These might range from inability to receive a certificate of completion to default under lease obligations and loss of tenants. While this may be an opportunity for attorneys, it is a concern for appraisers.

9. If individuals or corporations believe that green homes and workspaces are more healthy or productive, is their resulting behavior in the market indicative of real or personal property value?

Studies dating to the beginning of the last century, and perhaps earlier, suggest a positive association between the quality of the indoor environment and the productivity, health, and general attractiveness of enclosed spaces. Whether it is comfortable air quality or the adequacy of lighting – and, particularly, a high percentage of natural light – the net result in the workplace seems to be more productivity on site and less tardiness or absenteeism due to illness. Since salary expenses far outweigh the costs of occupancy, the theory is that this is another justification for going green. This may or not be a demand factor, but it is one more thing to be on the lookout for.

10. Where can we obtain data regarding the performance of existing green properties, and of differences in rental income or sales prices?

The quest for reliable date is <u>the</u> key need. As noted earlier, the third-party certification organizations are a good starting place for performance, as are property managers and members of design teams associated with green projects. Capturing and sharing specific data is a work in process. Eventually, multiple listing systems and expense-sharing services will have some of this information. The burden, however, rests with the individual valuation professional. As we learn more about the features of sustainable design, and as more properties are completed or retrofitted and leased or sold, we will be better able to support estimates of value for green buildings.

#### **OUR REALITY – OUR PARADIGM**

At the outset, most professionals have an ethical challenge. Provisions of reputable appraisal organizations often include a requirement that valuers have experience or training in any assignment that they accept.<sup>27</sup> This can be a challenge in approaching a valuation assignment for a green building.

The good news is that the principles and the approaches have not changed. The same concerns of the marketplace participants hold true for all properties, whether or not of a sustainable design. There are, however, additional questions to be asked and some adjustments to how we might otherwise approach an assignment.

This begins with the description of the market. It is, after all, the market which will determine if there is any lift to value associated with a property's sustainable design. One of the first steps is to survey the market to identify (1) other green properties and (2) users who might fit the profile of those motivated to go green – government entities and major corporations, as one example.

Another area of difference might be the investment horizon. Often, apprasers focus on a typical holding period. The challenge with sustainable building is that there are new components – some, long-lived, and others, short-lived – that may not fit into our model. These must be identified and understood as a part of the valuation assignment, just as, presumably, an informed investor would consider this information as a part of the decision process.

So, back to competency, there is a need for valuation professionals to be informed and involved. That is the only way for appraisers to gain the knowledge and develop

<sup>&</sup>lt;sup>27</sup> As an example, the Competency Rule of the Uniform Standards of Professional Appraisal Practice requires that appraisers have the requisite knowledge and experience, or, alternatively, disclose any shortcomings, take the steps necessary to be able to perform in a competent matter, and disclose both in the report. (USPAP, copyright, The Appraisal Foundation)

the skills necessary to understand the intricacies of green buildings. The irony is that, while we may have the interest and recognize the necessity, opportunities are limited.

There is an unrecognized or under-appreciated need for the expertise that appraisers can bring to discussions of sustainable projects. During the planning process, this profession is well-qualified to offer the advice required to match the financial feasibility with the objectives of sustainable development. And, again, the valuation assignment itself, whether as a proposed or completed project, cannot be completed competently without knowledge and experience.

A healthy degree of initiative is needed. By taking a proactive approach to seeking out situations to participate, by enrolling in courses and seminars, and by building relationships with professionals in the field of sustainable design and construction, valuation professionals will learn. As important, appraisers will survive and thrive.

The famous naturalist, Charles Darwin, is often quoted as saying "survival of the fittest." In fact, a more accurate recitation of his remarks may be the following:

In the struggle for survival, the fittest win out at the expense of their rivals because they succeed in adapting themselves best to their environment.

The world is changing, and we must change with it. The key is not in being the most fit, it is being willing and able to learn, innovate, and adapt. As Darwin would add, survive. And that is what sustainability is all about.

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## ADDITIONAL REFERENCES

## WORLD BUILDING COUNCIL'S Americas/Caribbean membership:

**Argentina**: Argentina Green Building Council (established GBC); www.argentinagbc.org.ar/

Brazil: Green Building Council Brazil (established GBC); www.gbcbrasil.org.br

Canada: Canada Green Building Council (established GBC); www.cagbc.org

Chile: Chile (prospective GBC); www.chilegbc.cl

**Colombia**: Colombia Green Building Council (established GBC); www.cccs.org.co

Costa Rica: Costa Rica (prospective GBC); www.crgbc.org/

**Dominican Republic**: Dominican Republic Green Building Council (associated group); www.worldgbc.org/green-building-councils/gbc-directory/country/DO

Ecuador: Ecuador GBC (associated group); www.ecuadorgbc.org

**Guatemala**: Guatemala Green Building Council (prospective GBC); www.guatemalagbc.org

Mexico: Mexico Green Building Council (established GBC); www.mexicogbc.org

**Panama**: Panama Green Building Council (prospective GBC); www.panamagbc.org

**Paraguay**: Paraguay Green Building Council (associated group); www.worldgbc.org/green-building-councils/gbc-directory/country/PY

**Peru**: Peru Green Building Council (prospective GBC); www.worldgbc.org/greenbuilding-councils/gbc-directory/country/PE

**United States of America**: U.S. Green Building Council (established GBC); www.usgbc.org

Uruguay: Uruguay (prospective GBC); www.uygbc.org

**Venezuela**: Venezuela Green Building Council (associated group); www.worldgbc.org/green-building-councils/gbc-directory/country/VE