

## The Value of Green

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*“To begin with there is no such thing as ‘value,’ except in the eyes of the beholder.  
And one must understand where the beholder is coming from.”*

- Bertram Lewis, “Do Syndicators Overpay?” The Appraisal Journal, April 1985.

Net present value? Social value? Market value? Investment value? Just which value are you talking about? When it comes to “green” development, you could be talking about any of the above – or more. The definition of value itself is so complex and varied that five investors in a room could debate it for days. When assessing the costs and benefits of green/sustainable development, the time frame would more likely be months.

However, with the ever-increasing number of adopters of the principles, practices and products involved in this building methodology, the perception is growing that there is, in fact, tangible, quantifiable benefits to building “green” While there are a number of rating systems that define the level of green or sustainable features in any given project, the most widely accepted appears to be LEED, the one created by the US Green Building Council (USGBC).

According to the USGBC, as of April 2006, the sixth year LEED certification (the acronym for Leadership in Environmental and Energy Design) has been possible, there are some 3,638 buildings, comprising approximately 490 million square feet registered in the various LEED categories for certification. There are an additional 434 buildings, totaling about 58 million square feet that have already been certified. This is not an insignificant amount of real estate, and the number of adopters is growing.

Numerous municipalities now require that new public buildings falling within specific size and/or value ranges be built to a certain LEED certification. New York City, Portland, OR and Phoenix are just a few. Other examples include:

- Honolulu where the City and County passed an ordinance in February 2006 requiring new city facilities over 5,000 SF to meet LEED Silver requirements by FY 2008.
- Suffolk County, NY passed a resolution in February 2006 requiring all new construction projects over \$1M undertaken by the Department of Public Works to achieve LEED certification.
- The US Army issued a memorandum in January 2006 that it will transition to LEED Silver certification for all vertical construction projects beginning in FY 2008 and will adopt LEED Homes when it is released.

In addition to the public sector adopters listed above, there are a growing number of private groups adopting LEED/sustainable development guidelines in some of their investment decisions: developers and builders including Hines, Swinerton, and Turner and investors like Goldman Sachs. CalPERS, one of the largest pension funds in the US has initiated a \$1B+ “green initiative” in its investing policies, including auditing investments for energy practices.

What is it these groups are hoping to gain? What is the value of this type of decision and what are the costs versus the benefits? According to the principles of sustainability, there is not one bottom line dictating the decisions to be made with regard to this type of development, but three:

- Economic
- Social
- Environmental

Though interrelated, let's first address each of these individually. As track records for sustainable building performance has increased, so have the data upon which cost/benefit assessments can be derived. In one of the largest studies of its kind to date, *The Costs and Financial Benefits of Green Building*, commissioned in 2003 by California's Sustainable Building Task Force (a group of more than 40 state agencies, principle author Greg Kats) concluded that the average initial cost premium for the 33 buildings in that survey was approximately 2 percent.

In a more recent study, *Costing Green: A Comprehensive Cost Database and Budgeting Methodology*, July 2004, Lisa Matthiessen and Peter Morris of Davis Langdon (nationally known and respected cost estimators) found that the first costs for buildings seeking basic LEED certification fall within the typical range of costs associated with comparable buildings and hence require no additional upfront expenditures.

As builders become more familiar with the methodology, first costs have come more in line with traditional construction. Quoted in an article entitled "Sustainability" by Robin Suttell, in Buildings April 2006 issue, Greg Kats notes, "*More and more buildings can be built at the LEED-certified level for little or no cost premium You can easily get at least half-way to certified at a zero-cost premium.*"

If costs are equal or the premium is as little as 2 percent over conventional buildings, how do the benefits of using sustainable buildings practices stack up? A growing trend toward referencing LEED-certified and other buildings constructed using sustainable practices as "high performance" versus "green" reflects the real reason many investors and developers are adopting these practices.

The trend is a result of the growing amount of documentation on savings in energy costs and water usage, as well as increases in worker productivity, that have been associated with sustainable design. Examples include:

- Phillips Eco-Enterprise Center, Minneapolis – Completed in 1999, this 64,000 SF building was developed on behalf of the non-profit Green Institute by Mr. Corey Brinkema. According to data reported in *Green Value*, a two-year study of the costs and benefits of sustainable practices headed by principal author Chris Corps, RICS, the performance enhancements included in the design of this building have resulted in savings of approximately \$60,000 per year and a 39% return on investment.
- The Solaire, New York City – This 27-storey apartment building has 293 units and is located in Battery Park in New York City. It has been certified LEED Gold. The building specifications were designed to:
  - Reduce peak demand for electricity by 65%
  - Consume 35% less energy
  - Use 35% less potable water than a conventional high-rise apartment building
- 260 Townsend Street, San Francisco – An existing building that was refurbished to a LEED-EB (Existing Building) Gold certification by Swinerton Builders and which is expected to receive a 20-30% improvement in energy usage.

All of the foregoing reflect obvious economic benefits. Add to these the more difficult to quantify attributes of:

- Better air quality in both residential and commercial spaces
- Longer term health benefits achieved through improved ventilation systems
- Reduced environmental impact from greater focus on the use of natural materials and better water/waste management

That's how you arrive at the triple bottom line, and that's where the discussion begins. Economic values are pretty clear, but how do you quantify the social and environmental benefits of sustainable development practices? There are anecdotal data that suggest worker productivity is increased through day lighting and better indoor air quality. If this can be documented, the value proposition becomes even more interesting. Not only can one effect cost savings, but if worker productivity can be increased, then building owners are looking at significant revenue enhancement as well – not to mention healthier workers and less absenteeism.

But how does one quantify – or “value” - the long-term benefits of a “smaller environmental footprint?” What value do you place on a healthier work place? The costs can be specifically quantified, but the “value” - to an investor? An owner? An employer? An employee? A developer? That is truly where the discussion begins – and continues.

#### **About The Author**

Theddi Wright Chappell is Managing Director of Pacific Security Capital's Advisory Services group. She is a LEED Accredited Professional who holds the CRE, MAI, FRICS and AAPI designations. Theddi has extensive experience in both national and international investment analysis and consulting services. Areas of specialization include mixed-use, sustainable and infill development, master planned communities and smart growth practices. Her practice focuses on assessing the costs vs. benefits of sustainable development for corporations, developers and investors.

#### **About Pacific Security Capital:**

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