



The business case for sustainable real estate

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Whether or not you believe that global warming is real or is a result of human action, it is hard to dispute that it is less risky to take action to reduce green house gases than to do nothing. The ancillary benefits of taking action are numerous: increased efficiency, fresh air and fresh water, reduced waste, pollution and dependence on fossil fuels, to name a few.

Buildings are big contributors to the overall emission of greenhouse gases. In the United States alone, buildings account for:

- * 65% of electricity consumption,
- * 30% of greenhouse gas emissions,
- * 30% of raw materials use, and
- * 30% of waste output

If we can reduce the need in buildings for the generation, transmission and consumption of electricity, for the harvesting, transportation and transformation of raw materials into installed finished building products and for the transportation and disposal of waste, the built environment will move a long way on the spectrum toward being a part of the solution.

Many in the real estate industry have begun to take action to increase the sustainability of their buildings. The impetus behind this ever expanding embrace of green buildings goes beyond the statistics above and the motivation these statistics suggest. The tipping point for the real estate industry's embrace of green has occurred because green is good for business!

Why Go Green?

What is often referred to as the "business case" for green real estate is beginning to be understood, documented and quantified. Intuitively, it makes sense: buildings that use minimal amounts of energy and that have highly efficient and appropriately sized mechanical systems, that feel better to be in, incorporate recycled, rapidly renewable and regional materials, make the most of sun, wind and storm water patterns, contribute to diversifying natural ecosystems, allow for more open green space and reduced water consumption and minimize their burden on aging, overtaxed municipal water systems are more valuable buildings than they would otherwise be.

The hitch is understanding the cost involved in order to get to this increased bottom line and more valuable, green asset. Value creation can only occur if the cost of green does not overwhelm the benefit derived from green. Because "green building" does not mean any one particular thing and every green building has its own unique green features and therefore its own unique green cost, the cost/benefit analysis of developing or renovating a green building must be made on a case by case basis.

The Business Case for Green - Market Factors

A good place to start is to understand the financial benefits of potential green features and how they could result in value creation. There are two types of factors to evaluate: market factors and

regulatory factors.

Let's start with just one of the market factors: lower operating costs. Given today's technology, there should not be significant incremental cost involved in developing a high rise office or residential building that is 15% more energy efficient than a "traditional" building which meets minimum ASHRAE requirements. A 15% savings in energy costs can lead to millions of dollars in additional asset value. Here's how: Assume that energy costs are \$3 per s/f. A building which is 15% more energy efficient means saving 45¢ per square foot in energy costs. If the building is 500,000 square feet, total savings would equal \$225,000 per year. Going one step further, assuming an 8% cap rate, saving 45¢ per foot in energy costs translates into a \$2,812,500 increase in the value of the building. Spread that savings and increased asset value over a portfolio and the value creation proposition is hard to resist.

Higher rental rates for green buildings are just beginning to be realized in the office arena. According to the U.S. Green Building Council, tenants of green office buildings experience a 2-16% increase in productivity. For most commercial tenants, their greatest expense is their labor cost. If their employees are more productive - because they are more comfortable in buildings with fresh, filtered air (vs. the recycled air that makes us prone to catch each other's colds), more daylight and views and less - or no - toxins from the carpeting, furniture and paint, that has to impact their bottom line and thus the amount of rent that they can and will pay for a green office.

Add to reduced energy costs and higher rental rates the potential for lower insurance premiums, lower waste disposal fees, reduced water and sewer charges, lower replacement costs resulting from longer life cycles of certain building components, increased rentable square footage resulting from smaller mechanical systems and what you have is an even stronger value creation proposition.

Governmental Incentives

The other key value creation factors are those regulatory factors that are designed to incentivize green building features. Regulatory incentives can be divided into four categories:

- * Outright grants,
- * Tax incentives,
- * Increased density and
- * Expedited permitting.

In practically every state, there is some state, local or utility program or a combination of programs that offers financial incentives (or incentives that can lead to financial gain) for building green. There are more than 22 cities that offer one or both of accelerated permitting and density bonuses.

One way or another, there is no turning back: the tipping point has occurred and green, sustainable real estate is here to stay. In fact, as time goes by, there will be no choice, as the business case for green becomes even more compelling than it is today and better documented and as regulatory mandates become the norm. In time, buildings that are not "green" will become obsolete and we in the real estate industry will take sustainability for granted.

(Endnotes)

1 Source: US Green Building Council

2 ASHRAE stands for the American Society of Heating, Refrigeration and Air Conditioning Engineers, which has established widely accepted minimum energy performance standards for buildings of all types.

3 Not all regulatory factors are designed to incentivize green building, some are mandatory, thus they may add cost, but without a direct benefit that can be monetized. For example, building codes, with which compliance is mandatory, are increasingly incorporating aspects of LEED (Leadership in Energy and Environmental Design), the green building rating system administered by the U.S. Green Building Council.

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