THE ECONOMICS OF GREEN REAL ESTATE

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Commercial Real Estate Financing 2009:
How The World Has Changed

The Economics of Green Real Estate

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With more than 20 years as a real estate executive and attorney and as a LEED® Accredited Professional, Ellen Sinreich is well-versed in green building practices and knows how to balance the need for sustainability with hands-on, bottom-line-oriented solutions. As President and CEO of Green Edge LLC, Ms. Sinreich dedicates her expertise to helping real estate companies create value through sustainability measures now mandated by the marketplace at the enterprise, portfolio, and property levels.

After graduating from Columbia Law School as a Stone Scholar, Ms. Sinreich practiced law at Paul, Weiss, Rifkind, Wharton & Garrison in NYC before founding her own transactional real-estate law firm, Sinreich & Associates. As Managing Partner, she represented Fortune 500 companies, national developers, government agencies, and local businesses in acquiring, leasing, financing, and disposing of over $2 billion of real property throughout the country. As head of her own company, Ms. Sinreich also represented DLC Management Corp., a firm she later joined as Vice President and General Counsel. While at DLC, Ms. Sinreich had primary responsibility for all legal matters affecting the company’s 15 million square foot shopping center portfolio.

Ms. Sinreich is the Chair of the Urban Land Institute’s CRC Gold Council, a member of the Environmental Committee of the International Council of Shopping Centers and former New York State Government Affairs Chair of the ICSC. Ms. Sinreich is also a member of the U.S. Green Building Council and The Association of the Bar of the City of New York. Her publications include: Land Use and Greenhouse Gas Emissions: Navigating a Changing Regulatory Landscape; Greening the Office Lease; The Business Case for Sustainable Real Estate; The Greening of Retail: What’s the Bottom Line?; The ABC’s of REITs; Exclusive Use Protection in Retail Leases: Take a Long Term Perspective; After the Fall: The Deconversion of Cooperative Corporations After Mortgage Foreclosure and Cooperatives, Condominiums and Bankruptcy.
As the real estate industry struggles to come to terms with current economic realities, the value creation possibilities that green building features and attributes offer can’t be ignored. Whether the focus is on managing an existing portfolio or developing new property (admittedly less common these days), every real estate professional should be factoring in the costs and benefits of increased sustainability. In fact, it is almost impossible not to: pick up any real estate publication or attend any real estate related conference, and “Green” topics head the agenda and table of contents, be it the tidal wave of green building regulatory changes at every level of government or the newest green building features that have been adapted somewhere in the global marketplace.

Although many of us in the real estate industry are concerned about global warming, our collective effort to make our development projects and portfolio’s greener and more sustainable has as much to do with improving our competitive standing as it has to do with concern for the world we are passing on to our children. Be that as it may, buildings are big contributors to the overall emission of greenhouse gases and our collective efforts to reduce greenhouse gas emissions could have a significant impact on global warming. Below are some statistics that demonstrate the impact of office buildings, shopping centers, industrial spaces and residential properties on the environment.

In the United States alone, buildings account for:

- 65% of electricity consumption,
- 36% of energy use,
- 30% of greenhouse gas emissions,
- 30% of raw materials use,
- 30% of waste output (136 million tons annually), and
- 12% of potable water consumption

If we can reduce the need in buildings for the generation, transmission and consumption of energy and electricity, for the harvesting, transportation and transformation of raw materials into installed finished building products, for the transportation and disposal of waste and for the consumption of fresh water, not only will the built environment will move a long way toward being a part of the global warming solution, but those buildings that achieve these goals will be more valuable buildings than their more traditional twins.

Many in the real estate industry have begun to take action to achieve these goals and 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 BUSINESSS!

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1 Source: US Green Building Council
THE BUSINESS CASE FOR 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, 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, reduced water consumption and minimize their burden on aging, overtaxed municipal water systems are more valuable buildings than they would otherwise be. This translates into an increased bottom line. How can anyone argue with the benefits of a building that conserves the earth’s natural resources, is healthier to occupy and costs less to operate and maintain?

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. Payback, a term that is often associated with evaluating the potential green features of any real estate asset, is key to determining whether any particular green feature is a worthwhile addition to or inclusion in a building. Payback refers to how long it will take to recoup the incremental cost of a green feature. In some cases there is no incremental cost, in other cases the incremental cost is significant but the payback is relatively short, thus justifying the additional expense, and in still other cases the payback would take so long that the incremental cost is not justifiable.

None of us in the industry would be doing our jobs of developing or demolishing, leasing, managing, financing, buying or selling property responsibly if we did not consider how “green” enters into the equation. And the same goes for those of us who represent these players in the world of real estate. 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.

MARKET FACTORS

Let’s start with just one of the market factors: lower operating and maintenance costs. Consider reduced energy consumption. Given today’s technology, there should not be significant incremental cost involved in designing and building a high rise office or residential building that is 15% more energy efficient than a “traditional” building. And by traditional, I mean a building that meets minimum ASHRAE requirements. A 15% savings in energy costs, which could be nickels and dimes per square foot, can lead to millions of dollars in additional asset value. Here’s how: Assume that energy costs are $3.00 per square foot for a typical first class office building in Alexandria, VA. Your client builds a new office building in Alexandria which is 15% more energy efficient than a traditional building. This means that your client is saving 45¢ per square foot in energy costs and if the building is 500,000 square feet, they are saving $225,000 per year. Going one step further, assuming an 8% cap rate, this savings of 45¢ per foot in energy

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.
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.

The trickier payback analysis is the evaluation of increasing energy efficiency in an existing, multi-tenant occupied building. Once an energy efficiency initiative has been evaluated from a technological perspective and a determination has been made that significant savings can be achieved in terms of on-going energy usage and costs (which some experts predict will increase, on average, 20% per year), a further analysis must be undertaken to see how the money will flow. The existing leases will determine how the financial costs and benefits of the initiative will be allocated between the owner of the building and the tenants who occupy the building. Often there is a “split incentive”: the landlord bears the capital costs of the energy efficiency upgrade and the tenants reap the rewards of lower operating costs. Progressive landlords would be well advised to approach existing tenants to negotiate a more balanced result. With respect to new leases, building owners and managers should consider and incorporate leasehold strategies that properly incentivize the parties for future “green” building upgrades.

Green buildings should enjoy other value add opportunities. In addition to reduced energy costs, there is the potential for lower insurance premiums, lower waste disposal fees, income from recycling, 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 increased rental rates.

Evidence of higher rental rates for green buildings is just beginning to be documented.\(^3\) Strong, conclusive data confirming that rents in green buildings with lower occupancy and operating costs and superior indoor environmental quality are greater than rents in traditional buildings may take time to gather given the global economic slowdown. In the meantime, consider the following: 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. This should translate into higher rental rates and lower vacancy rates for green buildings with superior indoor environmental quality. That means higher revenue for the building owner, and a building that generates higher revenue is a more valuable building than it would otherwise be.

GOVERNMENTAL INCENTIVES

The other key value creation factors are those regulatory factors that are designed to incentivize green building features.\(^4\) Regulatory incentives can be divided into four categories:

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\(^4\) 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 examples, building codes, with which compliance is mandatory, are increasingly incorporating aspects of LEED® (see the definition in the body of this article). It is important for the real estate industry to collectively participate in the legislative process so that new regulations are practical and sustainable, and by this I mean that they don’t involve costs that businesses can’t sustain.
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 incentives which can be monetized for green building features.

There is a terrific web site that describes and summarizes federal, state, local, utility and not for profit rules, regulations and incentives for various aspects of green buildings, entitled the Database of State Incentives for Renewables & Efficiency: www.dsireusa.org. The DSIRE website provides a fast and convenient method for accessing information about renewable energy and energy efficiency incentives and regulatory policies administered by federal and state agencies, utilities, and local organizations.

In Chicago and Portland, Oregon, which were two of the first cities in the United States to embrace an incentive based approach to green buildings, there are a myriad of incentives for green buildings, ranging from the Green Roof Improvement Fund in Chicago, which provides matching funds of up to $100,000 for putting a green roof on any downtown building, to Portland’s green investment grants of up to $200,000 per project.

In New York City the public financial incentives available for the latest state of the art green high rise office tower include over $8,000,000 in funding benefits attributable to New York State Green Building Tax Credits and New York State Energy Research and Development Authority funding. In addition, the Empire Development Corporation provided the land.

In Austin Texas, where green buildings are eligible for expedited permitting: a “big box” store that was designed to use 40 to 70 % less energy and 50% less water was permitted in 3 months, vs. the typical 15 months. Given profits of $85,000 a day from that store, there was a $3,000,000 savings as a result of incorporating green features into the store.

HOW GREEN IS A BUILDING?

Once the business decision has been made to consider incorporating sustainable features into an existing or a “to be developed” building, how do you determine how green a building is and who makes that determination? After all, if you can’t measure it, you can’t determine if you are saving energy and water or reducing waste, pollution or greenhouse gas emissions.

The most widely accepted and frequently used method to determine whether a building is sustainable and how sustainable it is, is the LEED® rating system, which was developed jointly by the U.S. Green Building Council (“USGBC”) and the United States Department of Energy.

LEED, which stands for Leadership in Energy & Environmental Design, is a rating system that awards points to both new and existing buildings in six different categories. These categories are Site Selection, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality and Innovation & Design. Because each building is different, you

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5 Established in 1995, the Database of State Incentives for Renewables & Efficiency is an ongoing project of the North Carolina Solar Center and the Interstate Renewable Energy Council (IREC) funded by the U.S. Department of Energy.
can mix and match points differently for each project. There are four levels of certification, beginning with the most basic, the certified level and moving to silver, gold and finally, platinum.

Every certified building must achieve certain mandated points, which are referred to as prerequisites. The prerequisites are spread throughout most of the categories and include such things as making sure non-smokers are not exposed to second hand smoke, setting aside an area for collecting recycled materials, and ensuring minimum levels of energy efficiency and indoor air quality are achieved.

The process of obtaining LEED certification for a building can now be done online and involves three basic steps. The first is registering the project with the USGBC. A nominal fee is required to complete the registration. Once a project is registered, the development team is given online access to a wide variety of resources that the USGBC offers, including software, templates (which are forms for almost everything that must be submitted) and reference guides, to make the process as smooth and easy as possible.

Once the project is registered, the project team works on the second step, which involves assembling the data and documentation required for the points they intend to pursue. After the project has been completed, the third step is the online submission to the USGBC of the required documentation and backup for the technical review process. The USGBC performs the review, makes sure that all the prerequisites have been met and confers a LEED rating — certified, silver, gold or platinum — based upon the number of points the project earned. After the project team has been notified of the level of certification to be awarded, there is a 30 day period during which the project team can appeal the award if they are not satisfied. An additional fee is charged for every point that is appealed. Once the level of certification is final the building owner receives a plaque confirming that LEED certification has been awarded.

There are different LEED products for different types of real estate. For example the LEED-NC rating system covers new construction and major renovations. There is a LEED-EB product that applies to existing buildings, LEED-CI that applies to interior renovations of a particular tenant’s space within a larger building and LEED-CS or LEED Core and Shell, which applies to a new development where the tenants will ultimately finish their space, rather than the developer. In addition, there is LEED for retail that applies to retail projects, LEED – Schools and so on. All of these different LEED rating systems are described on the USGBC web site: www.USGBC.org.

As green buildings become more widely accepted and are more the norm, the incremental cost, if any, of green building features will continue to decrease. Even now, as the real estate industry is just beginning to embrace high performance buildings, the options for green materials is increasing as the cost for these materials go down. The number of architects, engineers, contractors and trade people with green expertise is on the rise. The recycling options are expanding. Developers and tenants are beginning to integrate sustainability into the construction or renovation process from the start - that way they are not redoing and undoing things already done and in most cases paid for.

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.