In 1882, the U.S. government began construction of the “new” U.S. Pension Building in Washington, D.C., which now houses the National Building Museum. The General Services Administration’s (GSA’s) description of this now-125-year-old building could stand as a model for many of the modern goals of “green” building. The GSA’s description went like this: “Numerous technological innovations were incorporated into the building’s design. A fresh-air ventilation system was based on the premise that the central atrium could act as a giant flue. The exposed roof structure, ornate fenestration, and the full height of the great hall acted as a chimney to exhaust unwanted heat. Air was automatically drawn from the perimeter of the building through the clerestory windows, which were opened by a mechanical system. The large central hall with perimeter offices ensured there were no dark corridors, with daylight and air permeating every space.” Clearly, green building is not new. Equally clearly, green building is not a passing fad.
What is green?
There are many shades of green in commercial/multifamily properties. And increasingly, being green comes with a grade.

The most frequently cited contemporary certification of a building’s “green-ness” is based on the Washington, D.C.—based U.S. Green Building Council’s (USGBC’s) Leadership in Energy and Environmental Design (LEED) Green Building Rating System™. The LEED system certifies buildings that have met certain environmental criteria as being at the Certified, Silver, Gold, or—for the highest-achieving properties—Platinum level. According to the USGBC, as of February 2008, 1,283 commercial projects had received LEED certification.

But LEED is not alone. Other certifications include ENERGY STAR by the U.S. Environmental Protection Agency (EPA) and Department of Energy; the Portland, Oregon—based Green Building Initiative’s Green Globes rating system; the California Energy Commission’s Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings; and other federal, state and local regulatory, certification and best-practices programs.

But even these certifications don’t capture the full range of how green U.S. buildings have become. Innovations in everything from insulation to windows to heating and cooling systems to water-control devices in restrooms mean that virtually every building is greener today than was its predecessor. A July 2007 report by London-based Davis Langdon LLP, The Cost of Green Revisited, found that most contemporary buildings that are not LEED-certified would earn 10 to 20 points toward LEED certification based solely on their baseline designs.

Why green?
A key driver of green development, as evidenced by the U.S. Pension Building in 1882 and certified green buildings today, is a motivated owner.

In 1881, it was Gen. Montgomery C. Meigs, who, as quartermaster of the U.S. Army, pushed for green elements to be incorporated into the U.S. Pension Building design. Today it is property developers, owners and tenants looking to build space that will attract and retain workers, decrease property operating expenses, increase the property’s value and—quite often—make a statement about the company or companies associated with it.

Perhaps not surprisingly, more than three-quarters of the Gold and Platinum LEED-certified buildings are owner-occupied. A review of these buildings shows that the corporate headquarters for the California Public Employees’ Retirement System (CalPERS) in Sacramento, California; RAND Worldwide in Santa Monica, California; Armstrong World Industries Inc. in Lancaster, Pennsylvania; the Chicago Transit Authority in Chicago; and the Society for Neuroscience in Washington, D.C., all have attained Gold or Platinum LEED certification.

These companies are certainly not alone. Bank of America, Charlotte, North Carolina; HSBC Finance Corporation, Prospect Heights, Illinois; LaSalle Bank Corporation, Chicago; Navy Federal Credit Union, Vienna, Virginia; PNC Financial Services Group Inc., Pittsburgh; and Wells Fargo & Co., San Francisco, each boast branches or banking centers that have been certified as Gold LEED. Also, the new headquarters building for the Mortgage Bankers Association (MBA), into which the association will be moving in the summer of 2008, has achieved a pre-certification Silver LEED rating for its shell, and is attempting to achieve a Gold rating for both its shell and its interior space.

Green drivers
According to New York—based McGraw-Hill Construction’s Green Building SmartMarket Report: 2006, architects, contractors and owners ranked lower operating costs as their No. 1 reason for going green, followed by higher building values, better 10-year costs, higher return on investment (ROI) and helping to transform the markets.

In many ways, green may also be the real estate industry’s new class-A space. Tenants, developers and owners are increasingly looking to “class-G” green buildings to deliver many of the same benefits they have traditionally sought in class-A properties—among them higher rents, higher occupancies, lower turnover rates and more. As LEED, ENERGY STAR and other certification programs have become more heavily branded, tenants are increasingly asking their leasing brokers specifically for green space (class G), reinforcing the idea that class G is different and preferable—for tenants and owners alike.

The decision to “go green” is that of the property developers and owners—but is also driven by the demand(s) of tenants. The developers/owners are the ones who must balance the benefits with any costs of the decisions to make a building green. They are the ones who will benefit from higher rents, lower expenses, increased property value and/or a greater “good will” brand associated with the property.

But the developer’s/owner’s decisions are not made in isolation. Increasingly, tenants are driving the decision—which is evident in the fact that the leading edge of green building is through owner-occupied real estate. These owner/tenants are looking to capture the benefits that improved design can have on productivity, sick days and employee retention.

As green space gets more traction, and as more tenants include green in their criteria to evaluate space to lease, the impetus to go green will gain even more momentum, and non-green buildings will stand a greater risk of being marginalized.

The green of green

Cost to build
Studies have estimated that building green may add to the cost of a new building, but the estimates vary widely. The early 2003 study Green Building Costs and Financial Benefits, by Gregory H. Kats, found that, at that time, LEED-certified offices and schools cost approximately 0.66 percent more than comparable non-LEED buildings, LEED Silver offices and schools cost 2.11 percent more than comparable buildings, LEED Gold offices and schools cost approximately 1.82 percent more, while LEED Platinum buildings cost 6.5 percent more.

The report also noted “the cost of green design has dropped in the last few years as the number of green buildings has risen.”

That drop in green costs has some observers seeing no current difference in costs between green and non-green building. New York—based Turner Construction Co.’s Market Barometer: 2005 Survey of Green Building report showed that properties with basic LEED certification cost just 0.8 percent more than those without it.

And in its The Cost of Green Revisited report, Davis Langdon
notes, “There is no significant difference in average costs for green buildings as compared to non-green buildings. Until design teams understand that green design is not additive, it will be difficult to overcome the notion that green costs more, especially in an era of rapid cost escalation.”

It is important to note that all of the costs mentioned here are “first costs”—that is, the initial cost to construct a building. A key element of green is the consideration of “life cycle” costs—the net present value of first costs, as well as operating costs, including items such as utilities, repairs and replacement costs.

To the degree that class-G green buildings really are the new class-A, developers going into a green project appear to be making a conscious decision to build a higher-quality class-G property in order to achieve ends such as higher rents, lower operating costs, higher “terminal” (eventual resale) values and/or greater good will. As mentioned previously, the commercial/multifamily lending community has a long history of experience decoding differences in costs and incomes, across different property types and different geographies. As a result, the underwriting a lender performs will generally complement an owner’s by putting project costs in the context of associated benefits.

**Net operating income**


Respondents to the McGraw-Hill survey expect green buildings to increase rents by 3 percent. They also see green buildings increasing occupancy rates by 3.5 percent. At the same time that green is seen driving property incomes up, it is also expected to bring property expenses—particularly utility expenses—down. The surveyed industry insiders expect green buildings to decrease operating costs between 8 percent and 9 percent.

To the degree that such assumptions—or realities, if they are seen in an individual property’s income statements—are incorporated into an underwriting decision, the resulting increase in net operating incomes will support a higher loan amount for a green building than would be available for a comparable non-green property. This, in turn, supports higher first costs and resale values for green buildings than for a non-green contemporary.

**Value**

The impacts of green on a building’s value can come in two forms.

A commonly cited example tracks green impacts on a property’s expenses (e.g., lower utilities, lower reserves) and applies a cap rate to the resulting green net operating income (NOI). By comparing the resulting property value to a comparable non-green value, a green building often supports a higher dollar value.

There is also the class-G branding impact, in which a property’s green-ness increases its desirability among tenants, leading to higher rents and lower vacancies. Once again, applying a cap rate to the resulting change in NOI supports a higher dollar value for the property.

It goes without saying that a class-A property has a higher relative value, and a lower relative cap rate, than does a class-B property. The class-A property may tend to be more expensive to build, but the value of the property—as a result of higher rents and occupancies as well as a higher retained value—will tend to compensate for any added cost. A building marketed as class-G likely enjoys similar benefits.

Given these two impacts, how much of a premium do green buildings command?

The limited number of sales of certified green buildings, along with the heterogeneity of the buildings themselves, may make that an impossible question to answer statistically. To the degree class-G green buildings join class-A as a (loosely defined) class of properties—for both economic and aesthetic reasons—it is likely there will be higher trading values for certified properties. But even without the marketing impacts of class-G buildings, a property’s energy efficiency and other green improvements will increase its bottom line and therefore its value.

**Green lending**

For most lenders, green lending is simply a new shade of their traditional lending programs.

As with any request for financing, a lender approaches the financing of a green building by developing an underwriting of the property that takes into account property-specific income, expenses, property value and costs. The extra challenge in financing green buildings has been the degree to which the underwriting assumptions associated with a building’s green features differ from those of a standard building.

But the commercial/multifamily lending industry is accustomed to heterogeneity in the properties it underwrites. No two properties have the same location, tenants, lease rolls, rents, expense mix, purchase price and cap rate—think, for example, 1970s New York office tower; 1980s Sacramento, California, industrial park; and 1990s Atlanta apartment building. The industry has become extremely adept at recognizing these differences through underwriting—a process in which a property’s unique circumstances are researched, assessed and factored in.

As a result, in most cases, the existing commercial/multifamily lending paradigm already takes into account a property’s green characteristics. When fully revealed, a full underwriting and appraisal discounted cash flow (DCF) takes into account, for example, that a green property’s initial cost may be higher, its rents higher, its utility expenses lower, its lease rollovers shorter and its terminal value higher. The result is that the economic costs and benefits inherent in a green building can be recognized in, and will generally flow through, its underwriting.

**Challenges facing green**

The fact that a building’s green-ness flows through a standard discounted cash-flow underwriting doesn’t mean there aren’t challenges to green lending and that lenders haven’t had to work hard to increase green’s footprint.

Lenders with experience in green buildings report it is not uncommon to see a building’s green benefits “haircut” by appraisers, underwriters or others who may not have experience working with (and are often provided less-than-perfect documentation of) the economics of green. To the degree standard market averages are applied to rents, occupancies, expenses and values, the economics and benefits of building green will not be recognized, and a building’s green-ness will be discounted.

Green experience among the design team is also a key factor, and sometimes a challenge. Architects, developers, contractors and others without experience in green building have to use an integrated
design technique to succeed in green. If they are not experienced in green design, they may need additional time to ramp up their planning and design work. On the other hand, as professionals become more accustomed to green building, the additional effort of being green drops quickly.

Even with these challenges, the expectation among many developers and lenders is that tenant demand is now beginning to push sustainable building to a tipping point in which green building becomes the market standard. Lenders are on the front lines of this change, pushing their own underwriting and lending programs to ensure they are a part of the latest wave of green activity.

**Pushing green**

With the growth of green development, commercial/multifamily lenders have begun to signal they are looking to green buildings as a growth business themselves, and in doing so are signaling both the economic and social benefits they see. Some of the companies that have made statements about green lending programs are identified in this section. The list is illustrative only, as new announcements are constantly being made and more lenders are formalizing their approaches to green.

**Bank of America**

In March 2006, as a part of its corporate $18 billion commitment “in lending, advice and market creation to help commercial clients finance the use and production of new products, services and technologies,” Bank of America announced its commercial real estate banking program “will build upon its expertise in financing environmentally-friendly development by creating customized solutions for clients who are developing and implementing environmentally sustainable designs. Areas of focus include financing real estate projects with LEED certification, improvements in energy efficiency, brownfield redevelopment, promotion of smart growth and the use of energy-related tax credits.”

**New Resource Bank**

In January 2007, New Resource Bank, San Francisco, announced a “program to offer financial incentives for green building projects. The bank will provide more money at a lower cost, with incentives that include lower interest rates and higher loan-to-value [LTV] to help developers and investors profit more from building green. The bank will provide a 1/8th percent discount on loans to green leadership projects in the commercial or multi-unit residential sectors. Even for a relatively small building, this could mean significant savings over the life of the loan. For a $5 million loan, this could translate to more than $60,000 of savings over 10 years and more over a longer period. This boosts returns for developers or investors in a sector where reducing costs is important to returns.”

**CB Richard Ellis**

In a May 2007 announcement of corporate plans to become carbon-neutral, El Segundo, California–based CB Richard Ellis Group Inc. tied its decision to a business as well as environmental ethic. “Our decision is driven by our desire to do the right thing, but is also a direct result of a rapidly evolving marketplace. A large number of our clients—both property owners and occupiers—are already actively working to reduce energy costs and create greener space,” said Brett White, president and chief executive officer of CB Richard Ellis.

“Our clients are driving toward energy savings and solid, sustainable environmental performance. We see a great opportunity to partner with them to improve their operational performance and help protect the climate at the same time,” White added.

**Wells Fargo**

On July 19, 2007, Wells Fargo & Co. announced it had surpassed $1 billion in loans for LEED-certified buildings.

“Since 2004, Wells Fargo has financed 19 LEED buildings in 10 states, with loans ranging from $10 million to $225 million for offices, apartments, condominiums and schools, representing a range of financing solutions. ‘Green’ features include: Green roofs covered with vegetation to help conserve energy, storm-water-management systems that collect and recycle rain or gray water, water-efficient landscaping, air-quality measures (more effective ventilation, using low-emitting materials), [and] built-in recycling areas in buildings, on-site renewable energy sources—solar or geothermal.”

“We can help protect the environment by supporting the development of energy-efficient buildings,” said Larry Chapman, head of commercial real estate at Wells Fargo, who attributes much of Wells Fargo’s success in this area to its experienced developer and investor customers. “Wells Fargo has set ambitious lending targets, and will continue to develop our expertise by training our lenders about green building practices.”

**Community Bank of Arizona**

Community Bank of Arizona, Phoenix, a wholly owned subsidiary of Community Bancorp, announced on July 24, 2007, “the first pilot program in the nation to leverage the U.S. Environmental Protection Agency’s (EPA) ENERGY STAR energy performance rating or other green-building criteria to provide discounted interest rates for commercial construction, development or remodeling loans of $100,000 or more. Qualified businesses (subject to credit approval) will benefit from a half-point interest-rate reduction based upon meeting standards for energy consumption and efficiency, sustainability and/or green architectural design. For the energy-specific criterion, eligible projects must meet at least a 75 rating on the EPA’s ENERGY STAR 1–100 rating scale, or earn the ‘designed for ENERGY STAR’ certification.”

**One final green thought**

The current phase of greening in the commercial/multifamily real estate industry is going strong. Thanks to continued innovations in building technologies, each generation of commercial/multifamily properties is greener than the last. Thanks to certification programs such as LEED and ENERGY STAR, developers, owners and lenders have criteria to use in planning and tracking their activities. Thanks to successful branding and a real demand from owners and tenants, class G is becoming the new class A. And thanks to a long history of flexibility and innovation, the commercial/multifamily real estate finance industry is making it all possible.

Green lending may not be brand-new to commercial/multifamily lenders, but neither is it a passing fad.

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