

Is LEED Certification Worth It?

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According to the U.S. Green Building Council, studies indicate that the return on investment is 6.6 percent higher for green commercial buildings than for conventional structures. The data on residential construction, however, are not yet in.

LEADERSHIP IN ENERGY AND ENVIRONMENTAL

Design (LEED)—a green building rating system developed in 2000 by the U.S. Green Building Council (USGBC), a not-for-profit membership organization based in Washington, D.C.—is an internationally accepted benchmark for the design, construction, and operation of high-performance green buildings. It promotes a whole-building approach to sustainability by providing criteria to measure and document performance related to human and environmental health. More than 1,228 projects, including some multifamily buildings, had earned LEED certification as of January. LEED projects are progressing in 26 countries, mainly in the United States and Canada.

LEED certification provides third-party validation of building performance by green-building specialists selected by USGBC. These experts review documentation for projects in their regions but do not conduct on-site testing or reviews. To earn LEED certification, a project must meet certain prerequisites and performance benchmarks and accrue credits on a criteria checklist. Depending on the number of points earned, projects are awarded certification at one of four progressive levels: Certified, Silver, Gold, and Platinum.

The LEED Smorgasbord of Programs

LEED was initially created for new commercial construction. As USGBC expanded the program, it cre-



All 180 units of the LEED Gold-certified Eleven, a 13-story condominium in downtown Los Angeles developed by South Group, were sold before opening in 2006.

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ated multiple rating systems to better address the unique demands of different types of construction and building functions. Rating systems now exist for six categories: new construction (LEED-NC), existing buildings (EB), commercial interiors (CI), core and shell development (CS), schools, and homes (LEED-H). LEED programs for neighborhood development (ND), retail space, and health care facilities are in pilot phases, as is a version of LEED for Homes for mid-rise multifamily buildings. LEED-NC, the original and broadest system, has been applied to a wide range of projects, including office buildings, high-rise residential space, mixed-use projects, supermarkets, and manufacturing plants.

As of this January, USGBC had certified 36 multi-unit residential projects as meeting LEED standards, including apartment houses and condominiums, as well as college dormitories and group homes. Because multifamily projects do not yet have their own LEED rating system, developers register projects in the closest applicable category. Of the 36 certified multiunit residential projects, one registered in LEED-CI and the rest in LEED-NC. Of this same group, 23 projects earned Certified status, six Silver, five Gold, and two Platinum. As of January, the vast majority of the 189 multiunit projects in the LEED pipeline—those registered but not yet certified—had applied for LEED-NC.

Zocalo Community Development is on track to earn LEED Silver certification for the six-story, 60-unit RiverClay Condominiums, a mixed-use project in Denver.

The LEED-H rating system, introduced in December, was designed for single-family homes and is limited to construction of up to three stories. The LEED-H pilot program for mid-rise multifamily buildings, which runs through this year, is intended for residential buildings of four to six stories. In contrast with the standard LEED-H rating system, the mid-rise version offers lower certification fees; credits customized to address energy systems, indoor air quality, and bike storage within the context of multifamily housing; and third-party verification that accepts the testing of a sampling of identical units rather than requiring data from all units.

Developed and updated through a consensus-based process involving experts in various design and building fields, the LEED rating system has become the standard of choice in the United States for federal agencies and many state and local governments. But it is not the only rating system.

In recent years, for example, Green Globes, a rating system that offers an online assessment tool, has attracted interest in Canada and the United States, and the National Association of Home Builders (NAHB) in February began providing certification through its National Green Building Program; the NAHB program also offers building guidelines and education programs. In addition, a plethora of checklists and guidelines exist to help developers and designers consider a variety of ecofriendly strategies, whether or not they try to get their projects certified. The USGBC Web site, www.usgbc.org, lists dozens of regional and local green building guidelines. Developers of affordable housing may find the Green Communities Criteria Checklist—aligned with LEED and also online—to be helpful.

The Value of LEED Certification

Chris Achenbach, partner and construction manager for Zocalo Community Development Inc. in Denver, says the firm considered other criteria, but chose



LEED “because it is a national standard, and the rigor was appealing. It separated the real from the ‘green-wash.’” The firm is on track to earn LEED-NC certification for two multifamily projects: the six-story, 60-unit RiverClay Condominiums, scheduled for completion this June, is working toward Silver certification, and the eight-story, 60-unit 20/20 Lawrence condominium project, which will break ground this spring, is earmarked for Gold. Both Denver projects have mixed uses, with two commercial units apiece.

Many developers of LEED buildings say certification helps attract buyers and renters because of a growing interest in sustainable lifestyles. “We’ve found there’s a strong following in the market,” says Achenbach. “Buyers are interested in doing the right thing. They recognize that LEED translates into lower energy costs, and they know a lot of extra scrutiny goes into design and construction, which leads to a higher-quality project.” By mid-January, in an otherwise tough market, 42 of the 60 RiverClay units and half of the 20/20 Lawrence units had been sold, he says.

All 180 units of the Gold-certified Eleven—a 13-story condominium building in downtown Los Angeles—were sold before opening in 2006. Developed by the South Group, a partnership of Portland, Oregon–based Gerding Edlen Development and Williams & Dame Development, the project includes

energy-efficient heating and cooling systems, water-conserving features, and operable windows.

According to USGBC communications coordinator Ashley Katz, studies indicate that green buildings generate 3.5 percent higher occupancy rates and 3 percent higher rental rates than do conventional buildings, as well as boost the return on investment by 6.6 percent. Green buildings also see an average increase of 7.5 percent in building values compared with conventional buildings, according to a 2006 study by McGraw-Hill Construction. However, most such data are derived from commercial rather than residential construction. "There's not much research on multifamily," says Katz. "We're just starting to do research on LEED-H."

The dearth of research within the residential sector is not an impediment for some industry leaders. "The value of LEED certification is obvious—that you're building a sustainable building. Over the long run, it is also less expensive to run," says Jordan Barowitz, spokesman for the Durst Organization, which collaborated with Rose Associates to develop the Helena, a mixed-use, mixed-income rental project in New York City. Completed in 2005, the 38-story, 580-unit project earned a LEED Gold rating.

The Durst Organization is also the developer of the uber-green Bank of America Tower under construction at One Bryant Park in New York.

Green buildings average 30 to 50 percent less in energy costs than conventional buildings, according to U.S. Department of Energy data; the long-term operational savings can be significant, particularly when developers manage rental properties. In the first year, Gerding Edlen's saved \$40,000 in utility costs for the 242 rental units within its LEED Gold-rated Louisa Apartments in Portland, Oregon.

The LEED Process

Despite the success of USGBC and its family of rating systems—and the acknowledged value of green building strategies—it is important for building owners, designers, and residents to realize that a green building is not synonymous with a LEED-certified building. For one thing, firms can apply green strategies without going through the LEED certification process. Also, in some cases, efforts to become LEED certified have not always produced the most sustainable structure for a particular region. According to Katz, USGBC is currently working on regionally weighted credits for the LEED systems to encourage strategies that would be the most appropriate for a project's given site conditions, such as water-saving features in the arid Southwest.

Developers and architects who have gone through the LEED process offer both positive and negative feedback. "It's intense: it's an expensive process to figure out the points and which ones we're going to go for. And then there's the documentation," says Zocalo's Achenbach, who hired energy analysts and other LEED-

The LEED Gold-rated Helena—a 38-story mixed-use, mixed-income rental building in Manhattan completed in 2005—was developed by the Durst Organization and Rose Associates.



THE DURST ORGANIZATION



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The Louisa Apartments in Portland, Oregon, completed in 2005, earned LEED Gold. Developer Gerding Edlen saved \$40,000 in utility costs in the first year of operation.

savvy consultants for his firm's two recent projects. Having a LEED-accredited professional on the team is not required, but helps in the process, and can earn credits under the LEED system. Many developers say the paperwork, need for consultants, and difficulty of getting third-party LEED validators to review a project's building performance all add layers of time, money, and stress to the development process.

Under LEED-NC, for example, there are six credit categories—sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation in design. Buildings are awarded points on a 69-point scale and classified as Certified (26 to 32 points), Silver (33 to 38 points), Gold (39 to 51 points), or Platinum (52 to 69 points). The water efficiency category, for example, consists of five items, including landscaping and innovative wastewater technologies, for a potential total of five points. Energy and atmosphere has three prerequisites plus a total of 17 possible points, from optimizing performance at different levels to using green power.

LEED certification can be achieved in a number of ways, depending on which of the points the team wants to attain for a particular building, says Renee Worme, sustainability manager for Gerding Edlen, which has developed 14 LEED-certified projects, including six multifamily developments. Building owners who want

to save on operations costs over the long term should invest in energy efficiency and mechanical systems, she advises. Gerding Edlen also strives to meet air-quality goals, she says. "The feedback we hear from clients is that utility bills are low, and they also appreciate the quality and the sustainability of the finishes," such as no off-gassing from carpets and paint.

Developers generally try to select checklist items that are most appropriate for their region. Under the



Osage Courts, a four-story, 185-unit project in Denver developed by Osage LLC and due to begin construction this May, is aiming for Silver certification under the LEED for Homes mid-rise pilot program.

stormwater design credit, for example, Worme has found that rainwater harvesting systems are a good choice for the Pacific Northwest, which is known for its steady rains, but are more difficult to implement in Los Angeles, where rain is less frequent and more torrential, and therefore must be handled differently.

For best results, a project team usually should decide to seek LEED certification early, in the preschematic phase. An integrated design process, in which all key players collaborate from the beginning to identify cost-effective systems and goals, increases the chances for a successful certification process.

However, some developers, especially those involved in affordable multifamily projects, say they cannot commit to LEED certification until the construction document stage, when they can assess the real costs needed to meet standards. Achenbach says his firm always starts a project by going for the criteria it thinks it can achieve. As the design and construction phases progress, he explains, "a few criteria toggle in and out." Some points, such as for signing up for wind power, can be brought in at the end if it makes a difference between whether or not the project is certified.

The Costs of LEED

Certification fees average \$2,000, though they range from \$1,750 to \$22,500, depending on square footage and whether the building developer is a member of USGBC, says Katz. USGBC returns all certification fees for projects certified as Platinum.

But it is higher construction costs, not the expense of certification, that are often the deal breaker. Among the most costly construction items are the upgraded



mechanical systems, which must perform 14 percent more efficiently than a standard one. Other expensive elements for high-density multifamily projects include air quality measures, such as ducts to send kitchen exhaust for each unit to the outside, and exhaust systems and painted interiors for garages.

USGBC maintains that LEED projects in the Certified category cost no more than conventional projects, and that going for Silver or Gold can increase total project costs by 1 to 2 percent; USGBC does not have such costs estimates for Platinum certification because few projects have reached that level. "LEED-certified buildings are able to recoup the costs within the first one to two years of the life cycle of the building, and after that, you are saving money," USGBC's Katz adds.

Gerdung Edlen has found additional total project costs of 0.5 to 2 percent for both Silver and Gold certification, depending on whether the focus is on green materials or energy systems, says Worme. Government incentives, when and where they exist, can help offset higher first-cost premiums for energy efficiency and green elements. For example, developers who attain a minimum LEED Silver level on projects of a certain size in Oregon can take advantage of the Business Energy Tax Credit (BETC) through the Oregon Office of Energy, as well as utility incentives based on energy efficiency through the Energy Trust of Oregon.

Some of Gerdung Edlen's projects have received up to \$300,000 through the BETC and up to \$100,000 from the Energy Trust for efforts related to LEED.

"It becomes very worthwhile to pursue Silver versus Certified because of these incentives," says Worme. Experience has allowed the firm to streamline the soft costs of certification, she says. "Our baseline also is not a code-compliant building. We start at a high-quality product and have factored cost premiums from there."

Developers of higher-end multifamily properties are better able to absorb construction costs related to meeting LEED criteria, says Tim Van Meter, a partner with Van Meter Williams Pollack, architects and urban planners in Denver and San Francisco. However, he continues, "When you deal with workforce affordable and attainable housing, adding even a couple percent additional costs may not be doable." In these cases, explains Van Meter, "We may incorporate 95 percent of the benchmark items, but not go for LEED because certain construction costs are prohibitive." The firm has designed one LEED Gold-certified multifamily project, and is designing four additional LEED projects, including Osage Courts in Denver, a four-story, 185-unit project due to begin construction by May and aiming for Silver certification under the LEED-H mid-rise pilot program.

Zocalo's Achenbach believes the best approach is a diverse one: "Projects ideally should have a mixed income range, with a broad base of buyers." He observes that the total number of units and the ratio of affordable to high-end units within a building can make a difference in whether a developer can go for LEED certification while at the same time providing some affordable housing. Zocalo reserved 10 percent of 60 units at both RiverClay and 20/20 Lawrence as affordable housing for buyers earning no more than 80 percent of the area's median income.

In the end, many developers share the belief that, even for projects that do not go all the way through to certification, LEED continues to be an excellent tool to guide sustainable multifamily building. **MFT**

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