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LEED high performance building measurement guidelines are becoming the green bldg. benchmark

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As regulations develop for a "low carbon growth economy" in response to concerns about climate change, and if energy costs resume rising to levels prior to the economic downturn, the return on investment (ROI) of "high performance buildings" will need to be revisited by real estate owners and developers. Developers and financial investors face many risks associated with property development - a rigorous environmental review process, uncertain energy prices, the ongoing focus on climate change, NIMBYism, permit regulations and conditions, and the credit crisis, to name just a few. These market conditions have resulted in developers assessing the benefits of investigating in green building and low impact development (LID) strategies to improve their probability of a permit approval and gain an acceptable return on investment. How high is high performance? When real estate development risk is rewarded with safe and productive environments and buildings that can yield attractive rates of return, the "building performance" is high and rewarding for all involved - investors, designers, contractors, owners and tenants.

Dr. James Woods wrote in Real Estate Issues Fall 2008 edition, "Accountability for the performance of a building is not a new issue, but it has become a nebulous function during design, construction and operations of buildings. Building performance is a set of facts and not just promises. If the promises are achieved and verified through measurement, beneficial consequences will result and risks will be managed." James Woods, Ph.D., P.E., Fellow ASHRAE is executive director of The Building Diagnostics Research Institute, Inc. in Chevy Chase, Md. His article focused on the risks and opportunities created by the concept of continuous accountability for healthy and safe performance of buildings based on the principles of building performance, the functional status of our existing building stock which is estimated at 11% government owned and 89% privately owned.

Leadership in Energy and Environmental Design (LEED) high performance building measurement guidelines are becoming the "green building" benchmark. According to the U.S. Green Building Council (USGBC), which administers the program, LEED in 2008 is being specified as a guideline in executive orders, legislation, policies and incentives in 78 cities, 28 states, and 12 federal agencies across the U.S. Connecticut and Massachusetts are included as leading legislative efforts in providing requirements and incentives for developers to use clean energy technologies, operate energy efficient buildings, and confirm the building meets an acceptable third party high performance score like LEED.

At USGBC's GreenBuild 2008 Conference, held in Boston in November, several presentations were made regarding research conducted in the U.S. to estimate the payback and ROI for commercial, retail and institutional buildings which had achieved the LEED accreditation process or the U.S. Environmental Protection Agency's Energy Star designation program. One national study completed in March 2008 estimated that LEED or Energy Star certified buildings in the U.S. benefitted perhaps partly due to the low supply and high demand. The survey database used estimated there are 15,671 unrated commercial/office buildings in the U.S. for each LEED or Energy Star rated building. Financial benefits for LEED or Energy Star buildings included: (1) higher sales price per s/f when compared to comparable properties in similar markets, (2) higher occupancy rates when compared to similar class office spaces in comparable markets and (3) higher rental prices existed in the certified buildings than the non-certified buildings in the range of 6-10% premium. These rates of return were significantly higher than premium paid for sustainable design and fees associated with gaining certification. The returns were improved in the period in 2008 when the economy was faltering so there may be reason to believe the high performance building ROI is able to cushion against regional market declines in real estate assets. One problem pointed out by the study is that savings in operating income realized by the building owners are not able to be analyzed in the ROI or payback surveys. Also if a building was marketed as a high performance green building but did not attain the certification of Energy Star or LEED, the ROI data would be included in the non-certified building data. Although the evidence is positive overall and the high demand/low supply trend is softening with the credit crisis, the ROI trend was forecasted to continue in the U.S. for 10-15 years.

Under the LEED guidelines issued by the USGBC, projects earn ratings (Silver, Gold, and Platinum) by amassing points for a variety of "green" building features (such as energy efficiency, use of renewable energy, healthy indoor air, etc.).

You can keep informed on the latest LEED news and guidelines by visiting the USGBC website at www.usgbc.org.

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