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CELEBRATING 55 YEARS

Green's popularity has brought opportunities to prove that building sustainability is good business

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The concept and practice of green building has clearly gained significant market acceptance and is being incorporated into design and construction projects across the country and in every market sector. The past decade has seen sustainable and green building initiatives rise to the forefront of today's construction environment as concerns about rising energy costs, droughts, rising sea level and global warming feed our desire to become more environmentally conscious.

Mainstreaming Green

According to a February 2007 report prepared by the USGBC, "various LEED initiatives including legislation, executive orders, resolutions, ordinances, policies and incentives are found in 53 cities, 10 counties, 17 states, 33 schools and 11 federal agencies across the United States and Canada."

In fact, the Boston Zoning Commission issued several amendments to the city's local zoning code which now requires all new and major renovations (public and private projects greater than 50,000 s/f) to earn a minimum of 26 LEED points. The amendments also require that at least one project team member must be a USGBC LEED Accredited Professional to ensure the project conforms to the stated goals.

Additional initiatives aimed at "mainstreaming" green building practices include a number of tax incentives that have been built into the revised US Department of Energy's Energy Policy Act. These incentives and credits focus on energy conservation measures and investment that address such things as energy efficient commercial buildings, energy efficient new homes, energy efficient appliances, fuel cell and stationary micro turbine power plants and solar investment tax credits.

Innovation Today

Given the widespread acceptance of green/sustainable building practices, and incorporation into local codes, how will the next generation of green facilities get beyond the mainstream? As green/sustainable building becomes the standard, innovators in this arena will face challenges to truly differentiate themselves and their facilities.

There are significant key factors driving today's business leaders to continue to innovate. Beyond the environmental benefits, with green building's popularity has also come greater opportunities to prove that building sustainably is good business. These green facilities are offering potentially lower operating costs; increased building values; increased returns on investments; increased occupancy ratio; and increased rent ratios for buildings that are designed following sustainable building practices. These benefits will help to drive innovation aimed at bringing green beyond the mainstream. Some specific examples:

* In Smithfield R.I., Fidelity Investments is in the process of constructing a 577,000 s/f office building and garage (Rhode Island's largest office building) in anticipation of receiving a LEED Silver rating. The focus of this building has been on increased operational efficiencies from both an energy and

water use perspective in addition to creating an office environment that provides optimal working conditions.

* At Concord Hospital in Concord, N.H., the commitment to building a sustainable project was backed by hospital leadership from the very beginning and Concord is one of the first hospitals in New England to seek a LEED rating. The primary goals of this project were to enhance the healing environment for its patients.

* Recently the University of Rhode Island completed the 80,000 s/f Hope Dining Hall and was awarded a LEED Silver rating. The focus of this project was to minimize the impact construction had on the local environment by procuring materials in addition to utilizing materials with the highest recycled content.

What's Next?

Looking over the horizon at where this market is heading, most notably, the trend is to address the global warming crisis. While the debate continues about the impact of global warming and how fast it will occur, a number of public and private organizations have taken this issue to task by proposing reduction limits and/or measures to reduce the amount of greenhouse gas emissions. The United States national goal is 18% reduction from 2002 to 2012; while California's Global Warming Solutions Act aims at cutting emissions by 25% by 2020.

The United Nations World Commission on Environment & Development defines "sustainability" as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" and ASTM standard E 2114 defines a green building as "a building that provides the specified building performance requirements while minimizing disturbance to and improving the functioning of local, regional, and global ecosystems both during and after its construction and specified service life." This essentially translates into buildings that take into account their holistic impact on their intended occupants as well as the environment.

The California Energy Commission (CEC) Integrated Energy Policy Report for 2007 recommends adjusting their energy codes to require net-zero-energy performance in residential buildings by 2020 and in commercial buildings by 2030. A net-zero-energy building produces as much energy as they consume and represent the cutting edge of environmentally responsible construction. These buildings are clearly going beyond the mainstream by incorporating state-of-the-art energy-efficient construction and renewable energy systems such as solar and wind with the ultimate goal of reducing its impact on the environment.

Along these same lines, another forward-looking approach has been proposed by Edward Mazria, founder of the 2030 Challenge. This organization has issued a challenge to the building and design community, calling for all new buildings to immediately reduce their greenhouse gas emissions by 50%, and by the year 2030, for all new buildings achieve a "carbon neutral" status - essentially using non greenhouse-gas emitting fuels to operate.

Thus far, this challenge has been gaining momentum and has been adopted by a number of organizations and cities; including the U.S. Conference of Mayors; American Institute of Architects; ASHRAE; USGBC; Royal Architectural Institute of Canada; and the International Council for Local Environmental Initiatives - Local Governments for Sustainability. By striving to achieve the reduction goals outlined within the 2030 Challenge, the buildings that we construct and occupy will truly meet the definitions of "sustainable" and "green".

It is clear that the buildings we construct have a significant impact on the global environment from a number of environmental perspectives. As such, the building community has a social responsibility

to continue to incorporate sustainability innovations into new facilities. Ultimately those leaders in the building community that strive to incorporate green practices beyond the mainstream strategically position themselves as leaders in a world where the success of a company is now a measured by not only its economic success but also environmental success.

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