

Taking the LEED in Green Building Practices

BY JANE ELLISON

If you are interested in sustainability, you may be familiar with LEED (Leadership in Energy and Environmental Design), the internationally recognized U.S. Green Building Council's framework, developed in 2000.

If you're new to the subject, you may be surprised to learn that owners of nearly 7 billion square feet of commercial space worldwide participate in the rating system with an additional 2 million square feet receiving LEED certification every day.

In the United States, the LEED for Homes program has certified nearly 23,000 residences, and another 86,000 seek certification. In Santa Barbara, the stock of LEED for Homes and LEED-certified commercial properties continues to expand, as have the number of design professionals who are focused on these environmentally sound practices. With each certified building, the public benefits from less waste and conservation of energy and water.

Verification that a building's design and construction achieves high performance "in the key areas of human and environmental health" is the responsibility of Green Building Certification Institute. "Key areas" include sustainable site selection, water savings and energy efficiency, selection of materials and indoor environmental quality. The lengthy and rigorous certification process may incur costs of \$5,000 to \$10,000 in time and fees—the investment is well worth the effort as owners of certified buildings can realize a 9% increase in the values of their properties.

Victoria Garden Mews, in downtown Santa Barbara, is an ideal example of all that the U.S. Green Building Council encourages.



It is the realization of a dream shared by three couples who decided to live in close proximity and "age in place" as a community. The project's originator, Dennis Allen of Allen Associates, is a long-time proponent of green building design.

"This five-year project began with six friends setting out goals and integrating them into a partnership," he explains. "Rather than being led by the process, our goals were in place before we looked at LEED for Homes certification requirements. As it turned out, they were a natural fit for us."

The project's success is also a reflection

of an integrative design approach, bringing together the major stakeholders—architect, contractor, landscape architect and owners. Allen Associates' General Contractor was joined by Thompson/Naylor Architects and Grace Design Associates' Landscape Designer/Contractor to work in close consultation throughout the process. The resulting single-family home and three condominium units on 1/3 acre achieved LEED for Home Platinum status, the highest rating available, for each residence.

A photovoltaic system produces 100% of the electricity, realizing a 90% reduction in energy use over code (Title 24) through passive solar design. In addition, hot water is provided by solar thermal energy.

Grace Design Associates' landscape plan, an integral part of the project's success, includes "high habitat value plants" to attract pollinators and birds, including native plants. The 30 fruit trees on the site account for the greatest water use in the garden, while flowering plants have medium requirements. "With the exception of the fruit trees," Margie Grace explains, "we are stingy with water, and when the remaining plants grow to full size, they will need even less of it."

A rooftop rain capture system directs water to a flexible bladder with a capacity of 14,000 gallons that is contained within concrete walls and located in the basement.

An on-site weather station connects to the system, regulating how often and long the water should be flowing.

Rain falling outside the system is delivered directly to plants by groundwater infiltrators, which minimizes runoff and evaporation while delivering nutrients directly to the roots, creating healthier soil while increasing fruit productivity.

This much-celebrated project was also selected as one of 155 to be part of SITES, the Sustainable Site Initiative Pilot Program. Developed by the American Society of Landscape Architects, Lady Bird Johnson Wildflower Center at University of Texas at Austin and U.S. Botanic Garden, it evaluates how professionals make use of each LEED protocol in the field and demonstrate the appropriate integration of site and project.

Victoria Garden Mews, among the greenest residential projects in the nation, is a model for green residential building in Santa Barbara and beyond. *

THE TEAM

Allén Associates

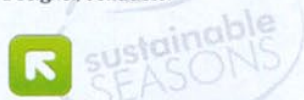
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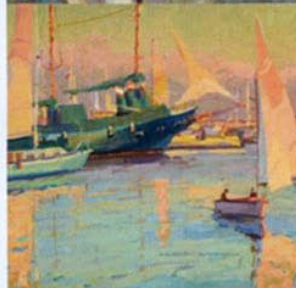
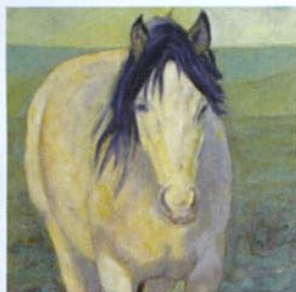
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Margie Grace, Landscape
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Read about *The Loop*, another LEED certified housing development, at www.sbseasons.com/blog.

THE SCOOP

As an alternative to LEED-certification, Santa Barbara County Planning and Development Department's **Innovative Building Review Program** offers advice from local architects, contractors, energy consultants and government officials. The program offers targets and incentives to participants that reach one of three target levels (contact Kathy Pfeifer, kathypm@co.santa-barbara.ca.us). Santa Barbara Contractors Association offers **Built Green Santa Barbara**, a voluntary self-certification process that includes detailed information, a checklist rating system and access to information, programs and classes on green building (www.builtgreensb.org/home). **Green Building Alliance** is a local group of design and construction professionals working together to create a more sustainable built environment (www.gballiance.com).



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