

A Reprint from *Tierra Grande*

*THE WHOLE FOODS MARKET and corporate headquarters in downtown Austin received LEED certification for its "green" interior. Among other features, the building has an environmentally friendly under-floor cooling system and concrete floors instead of carpeting.*



# Selling Green

By Harold D. Hunt

The race is on to convince the commercial real estate industry that the country is ready to "go green." But proponents will need to pull off a trifecta if green building is to gain widespread acceptance in the marketplace. They must convince a host of people that supporting green commercial properties is good for the environment, good for a company's image and good for the bottom line.

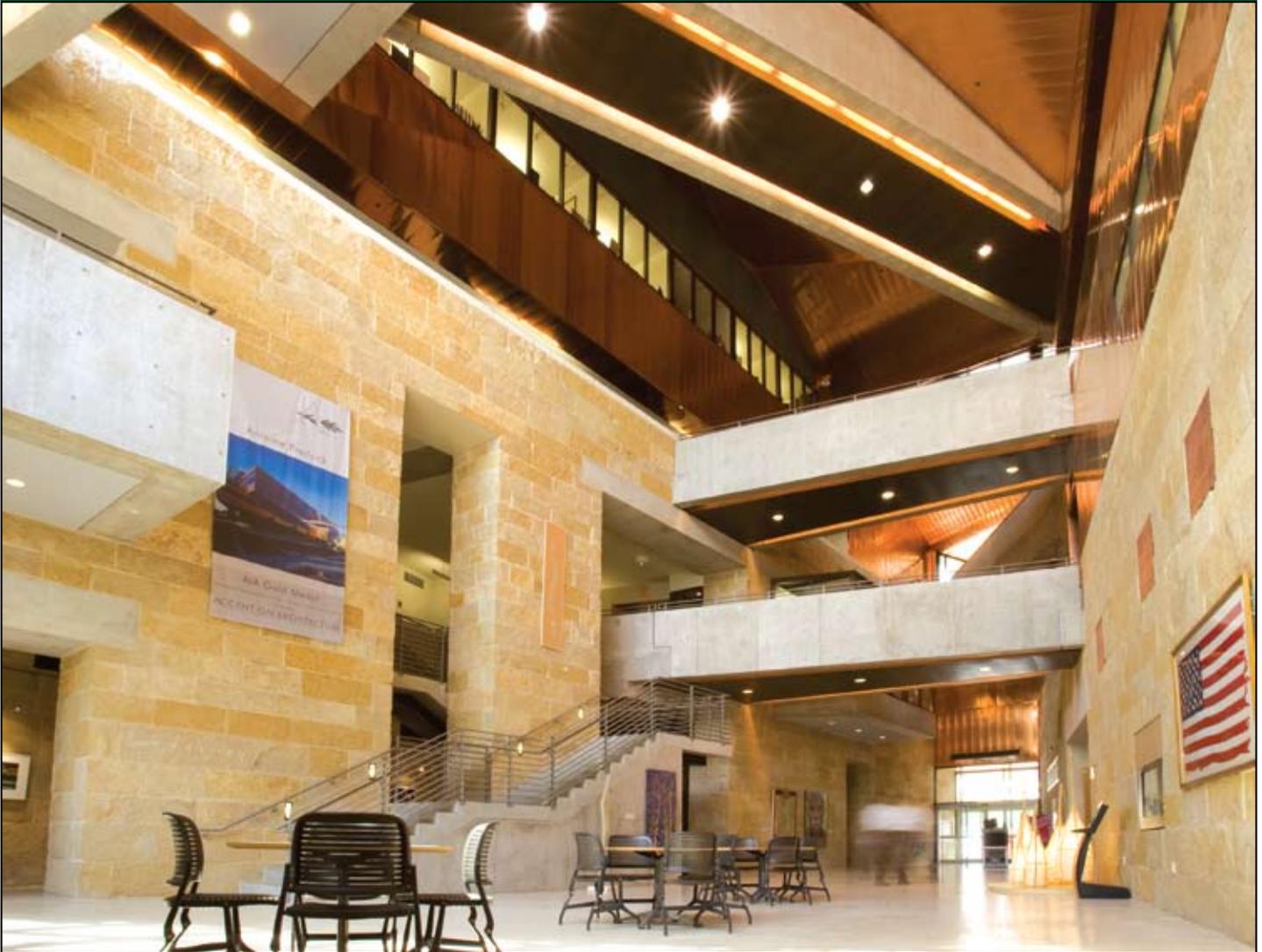
Environmental advantages have been the easiest "sell" to commercial real estate professionals because Americans are becoming more supportive of efforts to improve and protect the environment. The challenge is proving to commercial investors, landlords, tenants and an array of other financial stakeholders that economic rewards can be reaped as well.

A number of programs are converging to address this challenge, and Texas real estate professionals should consider becoming familiar with them. As these programs gain momentum and acceptance in the market, their influence on the greening of commercial real estate is sure to grow.

## Defining Commercial 'Green'

At their core, green building practices focus on reducing the quantity of resources used to construct and operate commercial

*AUSTIN'S CITY HALL and Public Plaza has bicycle storage space, showers and lockers to encourage employees to bike to work. More than 80 percent of the building's construction debris was recycled. Foundation drainage is collected and used to water the landscaping, and air conditioning condensation is used in a waterfall. These and other green building methods and features earned the building LEED's gold rating.*



buildings. According to Dan Winters, managing principal of Evolution Partners, a real estate investment advisory and private equity firm, "Green buildings are intended to be environmentally responsible, energy efficient, economically profitable and healthy places to live and work."

The term "sustainable development" is also frequently used to describe green building practices. The U.N. World Commission on Environment and Development defines sustainable development as that "which meets the needs of the present without compromising the ability of future generations to meet their own needs."

The U.S. Office of the Federal Environmental Executive has a more formal definition of green building: the practice of 1) increasing the efficiency with which buildings and their sites use energy, water and materials, and 2) reducing building impacts on human health and the environment through better siting, design, construction, operation, maintenance and waste removal throughout the building life cycle.

Winters believes the value of green commercial buildings will be recognized by the real estate industry when it can be measured

independently at a reasonable cost, quantified with hard numbers and supported with appropriate education and training.

### **EPA Energy Star Program**

**E**nergy Star is a joint program between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy. The program began in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products. The Energy Star label can be obtained for residential, commercial and industrial buildings.

Partnering with more than 9,000 private- and public-sector organizations, Energy Star provides technical information and tools for the development of energy-efficient solutions and best management practices. The program saved businesses and consumers about \$14 billion in 2006 alone.

"Energy is the single largest and most controllable operating cost in an office building," says Stuart Brodsky, national program manager for Energy Star's Commercial Property Markets Program. According to Brodsky, energy costs represent 30 percent of a typical building's total costs.

EPA research shows that buildings carrying the Energy Star label consume about 40 percent less energy than typical buildings while maintaining the required level of comfort and services.

Energy Star provides building operators with free online tools to estimate energy consumption and emissions at the building and portfolio levels. Property operators can rate their energy performance on a one to 100 rating scale and download a formal statement of performance.

Buildings achieving 75 to 100 points are eligible for Energy Star recognition. Operators of more than 28,000 buildings have used the EPA rating tool.

### BOMA Energy Efficiency Program (BEEP)

In 2006, the Building Owners and Managers Association (BOMA) Foundation, in partnership with the EPA Energy Star Program, created an operational excellence program to instruct property owners, managers and operators on how to reduce energy consumption and costs. The program is designed to help facility executives access and use Energy Star tools, develop operational best practices, document success stories and communicate those successes to the commercial real estate industry and stakeholders.

Commercial office building owners spend about \$24 billion annually on energy according to BOMA, which asserts a **30 percent reduction** in energy consumption is **often achievable** merely by improving building operating standards.

An online curriculum, available through a series of web seminars, is the core BEEP product. Support materials are also available online in real time. Access to the seminars can be purchased by BOMA members and nonmembers alike.

The six two-hour seminars cover an introduction to energy performance, energy performance benchmarking, energy-efficient audit concepts and economic benefits, no- and low-cost operational adjustments to improve energy performance, valuing energy enhancement projects and financial returns, and building an energy performance awareness program.

### Leadership in Energy and Environmental Design (LEED) Program

The U.S. Green Building Council (USGBC) was created in 1993 as a nonprofit coalition of businesses, organizations and government agencies dedicated to promoting green building practices. The USGBC established a rating system known as Leadership in Energy and Environmental Design (LEED).

Under the LEED-certified building program, buildings can earn points in categories including site sustainability, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process. Based on the number of points earned, buildings receive one of

four levels of certification: certified, silver, gold and platinum. Most developers tend to focus on the points that have a direct dollar payback.

LEED categories include new construction, commercial interiors, core and shell, operations and maintenance, homes, neighborhoods and a number of specific applications such as retail, multiple buildings or campuses, schools, healthcare, laboratories and lodging. While Energy Star-certified buildings are based on actual energy performance, LEED new construction credits are awarded based on projected performance.

LEED certification was designed to define green building by establishing a common standard of measurement; promoting integrated, whole-building design practices; recognizing environmental leadership in the building industry; stimulating green competition; raising consumer awareness of green building benefits and transforming the building market. The majority of nongovernment LEED-certified buildings are office buildings.

Among other things, the USGBC believes that LEED-certified buildings should:

- produce lower operating costs and increased asset value;
- secure tenants more quickly and reduce tenant turnover;
- command higher rents;
- attract grants, subsidies and other government incentives;
- reduce energy, waste disposal and water costs;

- reduce environmental and emissions costs;
- reduce operations and maintenance costs; and
- produce savings through increased tenant productivity and health.

Actual benefits range from fairly predictable (energy, waste disposal and water savings) to relatively uncertain (increased productivity and health benefits).

Potential negatives include:

- uncertain building costs due to a pioneering design,
- increased operating costs from the learning curve required to familiarize engineering staffs with green systems,
- inability to pass costs to tenants (existing leases in place may limit pass-throughs on green retrofits, and net leases constrict ability to pass through higher first costs), and
- risk of rapid functional obsolescence because “new” technologies may get leapfrogged.

The costs should move toward zero as design and construction teams gain more experience. By mid 2006, 245 buildings representing more than 55 million square feet of commercial space had registered (applied for) certification under the LEED program in Texas. Total registered space, including government and nonprofit buildings, is more than 67 million square feet. Almost 2.3 million square feet of total space has attained LEED certification in Texas.

*EPA research shows that buildings carrying the Energy Star label consume about 40 percent less energy than typical buildings while maintaining the required level of comfort and services.*

## Green Building Finance Consortium (GBFC)

Scott Muldavin of The Muldavin Company Inc., a real estate consulting firm, sees a number of barriers to private-sector investment in commercial green buildings.

Among those barriers are the inability to assign a value to specific investments in green technology, inadequate risk assessment of the investments and the problem of communicating cost and benefit information to decision-makers in a language they can understand.

Muldavin believes that appraisers, loan underwriters and acquisition analysts do not typically have the experience to address issues such as level of increased worker productivity or enhanced tenant demand being derived from a green building. Lenders and investors also require specific methods to evaluate financial or value impacts generated by a building with green attributes.

To address these challenges, Muldavin brought together a group of private sector real estate companies, trade groups and corporations in 2005 to form the Green Building Finance Consortium (GBFC). Muldavin is executive director of the GBFC; consortium members include the National Association of Realtors and BOMA International.

The mission of GBFC is to provide the private real estate sector with a way to independently assess the value and risk of a green building investment. This will be accomplished through

development and dissemination of an analytical model that will make green building benefits and costs more transparent.

Developing a methodology to measure value is also a critical first step toward the eventual introduction of green mortgage-backed securities, according to Muldavin.

The components needed to address the financial unknowns in building green commercial space are falling into place. Green building practices are slowly becoming a legitimate alternative for the commercial real estate sector.

In the years ahead, real estate professionals who fail to adjust to the commercial market's shift toward green buildings may expose themselves to substantial risk and potential value declines in their properties. ♣

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### THE TAKEAWAY

Real estate professionals should take note of the growing commercial green building movement. While data proving the benefits of green building are scarce, public and private groups are working to better define the value of green investments.



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**Tierra Grande** (ISSN 1070-0234) is published quarterly by the Real Estate Center at Texas A&M University, College Station, Texas 77843-2115. Subscriptions are free to Texas real estate licensees. Other subscribers, \$20 per year. Views expressed are those of the authors and do not imply endorsement by the Real Estate Center, Mays Business School or Texas A&M University. The Texas A&M University System serves people of all ages, regardless of socioeconomic level, race, color, sex, religion, disability or national origin. Photography/Illustrations: Bob Beals II, pp. 1, 2.