

# Retail goes green from the Ground Up

**R**ANDY PEACOCK WAS JUST 15 YEARS OLD when he began working for the Melaver family in Savannah, Ga. He was a bag boy at the M&M Supermarket at Abercorn Plaza, a shopping center that was, as third generation CEO Martin Melaver calls it, “a real high wire act”—the first shopping center development for the family whose roots were in the grocery store business. Abercorn Plaza opened during the height of the 1960s civil rights movement in Savannah, and the shopping center was boycotted because the Melaver family supported desegregation. Nevertheless, it was a great part-time job for a young man who never would have imagined that the shopping center would play such a major role in his future.

BY COLIN COYNE, LEED AP



Abercorn Common is the first all-retail Silver LEED-CS project in the nation developed by Melaver, Inc., which includes retailers like Panera, Circuit City, and McDonald's.

Flash forward to 2006, and Abercorn Common, as it is now known, is the first all-retail Silver Leadership in Energy and Environmental Design Core & Shell (LEED-CS) project in the nation. Melaver, Inc., now developers, renovated the center as a pilot project in the U.S. Green Building Council's (USGBC) Core and Shell program. Former M&M bag boy—now project manager—Randy Peacock is at the helm of the center's \$30 million, 169,000 square-foot renovation. The modern day Abercorn Common remains a sign of the Melaver family's socially progressive way of doing business, as the innovative flagship of the company's efforts to become a vertically-integrated, truly sustainable real estate firm.

"Abercorn Common represents a full circle for us," said Martin Melaver. "We planted the seeds of entrepreneurship and social responsibility here in the 1960s. Today's Abercorn Common is as relevant as that shopping center was in its time."

Melaver went on to say that the development of Abercorn Common as a LEED-CS project was a learning lab for the company.

"The trial and error process that comes from being a part of this pilot project has really informed the way we think about what we do," said Melaver. "We now talk about ourselves as envelopers and not developers: the idea being that we are encompassing our community in a different approach toward using—and not using—resources."

The renovation, completed in March 2006, includes several big box retailers, including Circuit City, Michael's, and Home Goods, as well as eateries like Panera Bread and Loco's Deli. Loco's Deli is pursuing LEED Commercial Interiors (CI) certification. The development also includes the first LEED Core & Shell McDonald's, which recently received a Gold rating.

Though not the first LEED project for Melaver, Inc., Abercorn Common is one of the first projects to apply the LEED rating system to a retail development, and as such, there were challenges. Though energy efficiency, water conservation, and daylighting are all appealing amenities, the center needed to provide a competitive market rate for tenants and fit into their overall plans for development to be successful.

"Most retailers have prototypical building plans that don't leave a lot of room for flexibility," explains Randy Peacock. "We spent a lot of time educating tenants about the benefits of green building, and the pay-offs that they would gain by adapting their plans for materials, lighting and the like."

## ABERCORN COMMON RENOVATION, LEED-CS

**Size:** .....169,000 Square Feet  
**Completed:** ..... March 2006  
**Cost:** .....\$30 Million  
**Retailers:** ..... Circuit City, Michael's, Home Goods, Panera Bread, Loco's Deli (Pursuing LEED CI) and The First LEED-CS McDonald's.

### GREEN PRODUCTS

**Concrete with Fly Ash:** ..... Lafarge  
**Formaldehyde-free Insulation:** ..... Johns Manville  
**High-albedo White Tpo Roof Membrane:** ..... GAF  
**High-efficiency Hvac with Hot-gas Reheat:** ... Lennox  
**Low-voc Primer:** ..... Sherwin Williams  
**One-gallon Per Flush Toilets:** .... Mansfield Plumbing with Sloan Flushmate Technology  
**Recycled Content Gypsum Board:** .... Georgia Pacific  
**Waterfree Urinals:** ..... Sloan

### PROJECT TEAM

**Owner/Developer:** ..... Randy Peacock, Melaver, Inc.  
**General Contractor:** ..... Scott A. Reynolds, Catamount Constructors, Inc.  
**Architect:** ..... Phil Ozell, AIA, Ozell Stankus Associates Architects  
**Leed Technical Assistance:** ..... Tommy Linstroth, Melaver, Inc., & Phaedra Svec, Elements  
**Plumbing & Mechanical Engineer:** .Rich Donaldson, P.E. Johnson, Spellman & Associates  
**Electrical Engineer:** ..... Mike Osaski, P.E., Johnson, Spellman & Associates, Inc.  
**Heating & Air Subcontractor:** ..... Michael Lemack, Air Services Refrigeration Specialties  
**Commissioning Agents:** ..... Thom Wille, Johnson, Spellman & Associates, Inc., Leah Benincasa, Barnett Consulting Engineers

## LEED Core & Shell

As a pilot project for LEED-CS, Abercorn Common was a teaching place for the entire development team—designers, general contractors, tenants, and, in particular, developer Melaver, Inc.

"We learned quickly that there was no road map for building a green shopping center," explains Martin Melaver.



"And, there was not really a market for it. We had to adjust our thinking many times along the way on just about every aspect of the project."

#### KEY COMPONENTS TO THIS CONSENSUS BUILDING WERE:

**Recruiting an integrated design team** that buys into the process from the beginning. "Getting everyone on board with what you are doing will facilitate the process," said Peacock.

**Establishing goals for the building beforehand.** "For example, set a goal that says the building will be X percent more energy efficient and incorporate Y percent daylight," advises Peacock.

"That way, the design team has a specific goal to work towards."

**Not letting the idea of a 'cost premium' throw project off course.** "What may seem like high first costs are often offset elsewhere in the project," said Peacock. "For example, the higher costs of a cistern and porous pavement will save you money in that the site requires less volume to be held in the retention ponds while harvesting rain water for irrigation. A better building envelope—achieved through high quality glass and higher R-Value with building insulation costs a bit more, but you offset the cost by lowering the amount of needed HVAC for the individual tenant spaces."

#### WHAT'S IN STORE?

Ultimately, the finished product at Abercorn Common is a high-performing retail center that is designed to be 30 more energy efficient than code (ASHRAE 90.1), designed to be 55 percent more water efficient than required by the 1992 Energy Policy Act, has healthier indoor air achieved through the use of MERV 13 filters, less stormwater runoff and uses no potable water for irrigation.

Abercorn Common is located within 1/4 mile of three different bus lines, preferred parking spaces are provided for shoppers driving hybrid vehicles, and bike racks and showers are provided for tenants.

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## SITE

Almost one acre of pervious pavement diverts stormwater runoff by almost 25 percent, decreasing the need for municipal stormwater treatment and removing sediment and pollutants. Preferred parking spaces are provided for shoppers driving hybrid vehicles. As a driving alternative, the center is located within 1/4 mile of three different bus lines. Bike racks and showers are provided for tenants.

## WATER EFFICIENCY

A highlight of any Abercorn Common tour is a visit behind the center to see a cistern that captures 5.5 million gallons of rainwater annually to irrigate the landscape while reducing the amount of stormwater run off into the local basin. Waterfree urinals, ultra-low-flow toilets, and low-flow faucets are designed to reduce sewage conveyance by 55 percent.

## BUILDING ENVELOPE

A better building envelope is achieved via a white reflective roof, efficient glazing, joint sealing and increased wall and roof insulation. This, coupled with high-efficiency light fixtures and HVAC equipment, helps reduce energy consumption by an estimated 30 percent. Annually, 450,000 kWhs of electricity and 9,000 therms of natural gas are saved, equating to over \$20,000 annual savings. Additionally, 100 percent of the core and shell of the McDonald's on the site uses green power.

## MATERIALS

Eighty-five percent of all construction debris, totaling more than 6,000 tons of material, was kept out of the landfill through recycling or reuse. Materials were selected that have high recycled material content, and over 70 percent of materials were manufactured within a 500-mile radius of the project site. For example, asphalt, concrete and landscaping plants were sourced in Savannah, while steel came from nearby South Carolina, and gypsum board from Brunswick, Ga.

## INDOOR AIR QUALITY

Low volatile organic compound (VOC) paints, sealants and adhesives were used throughout the project, improving indoor air quality. High-efficiency HVAC units ensure healthy levels of outside air and moisture control.

## SHOPPING A DIFFERENCE

Melaver's company tagline, "...a Difference," reflects

## MCDONALD'S AT ABERCORN COMMON

**SAVANNAH, GA**—abundant daylighting, certified wood, green power and innovative wastewater technologies have contributed to developer melaver, inc., receiving a gold leed core & shell rating for the mcdonald's restaurant located at abercorn common. some features of the new restaurant include: bike racks for employees and customers; preferred parking for low-emission hybrid vehicles; a porous pavement, which allows storm water to benefit the soil instead of draining into the sewer system; a white roof that reflects heat, keeping the building cooler in the warmer months; and reducing energy costs and windows that allow daylight to reach 75 percent of the interior of the restaurant, reducing lighting costs.

Additionally, water use has been reduced by 58 percent, saving 130,000 gallons of water annually. more than 20 percent of the construction material is made from recycled content and manufactured locally. more than 50 percent of the wood used in the restaurant comes from sustainable managed forests, as identified by the forestry stewardship council.

the intent of the company to provide traditional services like development by nontraditional means that take into account the social and environmental consequences of doing business or providing a service.

"Shopping a Difference" is the company's way of communicating to the community that there is something different about Abercorn Common. The Silver LEED-CS plaque is prominently displayed at the center of the complex, while plaques describing the various energy and water efficiency features are located throughout the center. Ultimately, the project that started as a learning lab for the company has become a learning lab for the community. **dlh**

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