

Go green now

BY JACKIE KENNEDY

Save cash soon



AFTER



BEFORE

In the current economy, home energy efficiency has become increasingly important.

Making home improvements geared to conserve energy has become a popular choice in recent years for those who could afford the cash up front to incorporate the changes. But today, "going green" is more economical than ever.

The Midtown Atlanta home of Michael Hagearty and Jennifer Cockrill was cute before, but after an extensive remodel done to EarthCraft House specifications, their bungalow is not only charming but energy efficient and geared for sustainable living.

Why EarthCraft?

Cost-conscious Jennifer Cockrill and Michael Hagearty bought their house in Midtown Atlanta instead of paying for a big wedding and moved into it the night they married in June 2002. At 1,200 square feet, the bungalow was just the right size for the couple and their dog Dakota.

"We bought the house with plans to renovate someday, which at the time seemed very far off," says Cockrill. Soon after their second daughter was born, they began remodeling in early 2008. The couple chose The Building Firm to han-

dle the renovation (The Building Firm and DeckWright have since merged to become Mosaic Group Architect and Remodelers). When owner William Fadul suggested that Cockrill and Hagearty make their renovation an EarthCraft House project, the couple eagerly agreed.

"This building method matched well with their lifestyle and concerns for the environment," says Diane Kelly, marketing manager for Mosaic Group, which incorporates "green" building practices into every job, either by recycling building materials or searching out renew-

able materials.

"Many characteristics of an EarthCraft House are desirable features, not only for the sustainable-living aspect, but for energy costs and cleanliness," says Hagearty. "The fact that it was a responsible environmental choice only made it more appealing."

The two-story addition includes a kitchen and family room on the ground floor and a master suite on the second level. The small bungalow tripled in size, yet maintains its character and coziness, say the homeowners.

Improving air quality

Achieving optimum air quality was of primary importance, says Project Manager Charles Butler who performed initial air-exchange tests that charted the home's total air volume exchanged once every 45 minutes, revealing that the home was losing valuable heated or cooled air. When the remodel was complete, tests revealed the air exchanged once every three hours, meeting EarthCraft House standards by enhancing air quality, says Butler.

Among the components incorporated to improve air quality and reduce energy consumption were the installation of a high-efficiency HVAC

(heating, ventilating and air conditioning) system and sealing the envelope of the house with Icynene, a renewable-based spray foam insulation touted for its energy efficiency and sustainability; these items work in unison to ensure consistent temperature throughout the house and keep bad air from coming inside. The home's crawl space (which had mold, mildew and water drainage issues) was sealed and a dehumidifier included in the space to prevent mold and further enhance air quality, says Kelly.

"There's much less dust in the house now," Hagearty observes. "It's easy to actually see it when, at just the right time of day, the sun makes a perfect beam through the front door; the dust count is significantly lower. And it used to be that during the summer months you couldn't go in the attic after 8 in the morning due to suffocating heat. Now the attic temperature stays consistently comfortable regardless of weather."

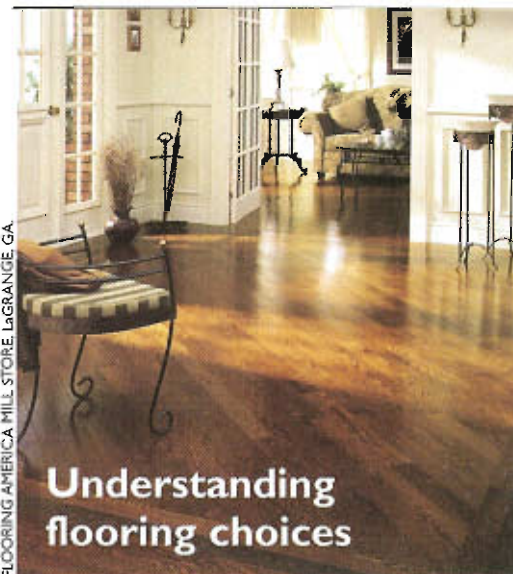
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Above: The kitchen includes cherry cabinets, Shaker-style doors and soapstone countertops. Details are in keeping with the cottage Craftsman style. **At right:** The butler's pantry serves as a passageway connecting the original home with the addition.



FLOORING AMERICA MILL STORE LAGRANGE GA



Understanding flooring choices

When it comes to flooring, new products crafted from renewable resources are making their mark, but some of the old standbys are green-friendly as well.

Such is the case with traditional hardwood floors, according to Jason Stanley, vice president of Floor Max Factory Outlet in Dalton.

"Saving the environment is a big issue when choosing floor covering," says Stanley, noting that flooring constructed from cork or bamboo is popular due to its "green" appeal. There's even carpet made from corn or recycled cola bottles, he adds.

"Everybody's looking into these products because they're considered green, but cork floors only last about five years," says Stanley, noting that bamboo floors last longer. "The new strand-woven bamboo has more character, blends with more décor and is twice as hard as traditional bamboo, which typically lasts 10 years before upkeep is needed."

Ten years sounds acceptable until compared with traditional hardwood floors that often endure a century or longer.

"When you use traditional hardwood, you're putting down a floor that lasts a hundred years, and the same is true with porcelain tile, proving there are a couple different ways to skin the green cat," says Stanley. "A good hardwood floor will be down forever. I prefer it over products that don't wear as well."

Hardwood floors, including those fashioned from reclaimed wood, help the environment by calling for fewer cleaning products, according to Stanley who says white vinegar, water and a cloth are the only items needed to adequately care for a wood floor.

"You don't buy the industrial strength cleaners, therefore you save money on cleaning products, which helps the environment considering all the cleaners, containers and pads you're not throwing in the trash," he adds.



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Above: The Hageartys' new master bath is comprised of a heated floor, cherry cabinetry, and marble floor tiles and countertop. **At left:** The children's bathroom features vintage black and white tile and cheerful walls.

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Additional Earth-friendly upgrades

Other environmentally friendly elements include framing based on green building standards and installation of an engineered floor system made from recycled materials. A tankless water heater was installed, enabling residents to heat water on demand, an efficient alternative to traditional water heaters. Old windows were replaced with energy-efficient, Aragon-filled, double-pane models. Energy Star appliances were installed along with 1.6-gallon toilets, which use less water per flush as compared to standard models. Reclaimed pine from an old warehouse was used for a hardwood floor upstairs.

"The house is just beautiful and very much in keeping with what we envisioned, if not better," says Cockrill. "It's spacious, but has a cozy feel. Our architect and The Building Firm helped us strike a balance of bungalow style with modern improve-

ments. Now with two children and Dakota, our small-but-sweet bungalow is a roomier three-bedroom home where I can easily picture our family growing for years to come."

David Shepard, a Certified Green Professional through the National Association of the Remodeling Industry (NARI) and certified LEED (Leadership in Energy and Environmental Design) carpenter, served as Mosaic's production manager on the Midtown remodel.

"This project passed all EarthCraft requirements with flying colors," says Shepard. "It incorporated building sciences that address energy efficiency, air quality and renewable resources—the three main components considered in an EarthCraft home."

While some measures incorporated in green remodeling are costlier than in standard construction, more options than ever are available to homeowners who wish to conserve both energy and cash, according to Shepard.

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Building an EarthCraft House

A green building program designed to help homebuilders construct or remodel houses that are healthy, comfortable and friendly to the environment, EarthCraft House offers guidelines that address energy efficiency, durability, indoor air quality, resource efficiency, waste management and water conservation.

Homes that meet EarthCraft House criteria are homes that perform better, are more economical for the owner, and cost little more to build or remodel than homes constructed or renovated via standard construction practices. A durable, energy-efficient house can be more affordable in the long run, even if it costs more to purchase or remodel than a similar home built or remodeled using standard practices.

EarthCraft House seeks to increase a home's energy efficiency by 30 percent. By promoting the use of recycled and renewable materials, EarthCraft House works to conserve natural resources.

The EarthCraft House Renovation program helps homeowners identify causes of uncomfortable rooms, high energy bills, poor indoor air quality and combustion safety concerns, enabling contractors to address these problems in the renovation. Guidance is offered in reducing the home's environmental footprint by decreasing the natural resources and energy used to renovate and operate the home. Even projects that add substantial square footage to an existing home manage to reduce energy bills.

For both new home construction and remodels, contractors attend EarthCraft training; inspections are completed before and after construction, and a home is certified an EarthCraft House only when specific criteria are met.

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“There are certainly things you can do that don’t require extra money, and one is using recyclable materials such as bamboo or cork flooring, FSC-certified [Forest Stewardship Council] lumber that’s harvested in a way that’s not harmful to the environment, or even recycled concrete,” says Shepard. (Read more about flooring on page 29.)

Renewable energy systems

Other energy-conserving measures used more frequently in construction today include renewable energy systems such as solar panels, according to Russell Seifert who founded Creative Solar USA in Canton last summer as an alternative energy business dedicated to renewable resources.

“The renewable energy field is where my heart lies, and I’m excited to be part of the change,” says Seifert. “Having access to renewable energy is just one of the myriad ways each of us can lower our carbon footprints.”

Creative Solar USA designs and installs renewable energy systems, from hot water to solar power and wind generators, and represents products from three major distributors.

“There are creative ways to make these additions architecturally appealing,” says Seifert. “You don’t have to simply stick solar panels on the roof; you can use them as carport covers or in the sunroom so they serve a dual purpose while generating energy for your home.”

Previously considered cost-prohibitive, tax incentives now make installing such energy systems a realistic option, according to Seifert who says that while upfront costs of a 2.5- to 4-kilowatt system may run up to \$30,000, tax credits may reduce the cost by more than two-thirds.

“The tax credits Georgia provides make it more affordable to achieve long-term savings by using solar power,” Seifert adds. “Plus, every dol-



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The master bathroom has a steam shower with both a rain shower and an everyday showerhead. The glass block window, top right, lets in natural light while maintaining privacy.

lar you save annually with renewable energy increases the value of your property by \$20.73.”

As technologies improve, the cost to implement renewable energy sources at home will come down even more, Seifert says.

“The Department of Energy estimates that by the year 2030, the solar power industry worldwide will have a 26-percent increase per year,” he concludes, noting that Germany currently has 47 percent renewable energy. “Georgia has the opportunity to be the leader on the East Coast for these types of initiatives.” ☉

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Energy-saver sites:

- Creative Solar U.S.A.: www.creativesolarusa.com
- EarthCraft House: www.earthcrafthouse.com
- Flooring America Mill Store: www.flooringamericagrange.com
- Floor Max Factory Outlet: www.carpetandstuff.com
- Icynene Inc.: www.icynene.com
- Mosaic Group Architects and Remodelers: www.mosaicgroupatlanta.com