

Forget the Real Estate Blues

Whether remodeling or constructing from the ground up, local builders can change the color of your life

by JENNIFER HEYNS



The landscape around Barrel Oak Winery is not the only thing that is green. So are its buildings.

News of the slowing building industry is old news, however a new—trend in construction is sweeping the Piedmont region. Keeping what you've got and turning it into what you want is where it's at these days. In other words — remodeling. With today's economic and environmental concerns, homeowners are weighing more heavily the effects their houses have on lifestyle, budget, and the planet.

Some homebuilders see the glass as half empty — having so few new clients. Other builders see it as half full — having a select group of environmentally conscious customers willing to take on the challenges of build-

ing responsibly.

According to Tom Lovegrove, president of Bayview Construction Company in Moneta, renovating your home for the sole purpose of reducing your carbon footprint or saving money on utility bills is rarely cost-effective. But if you're already planning to remodel your home or build an addition, it's a good time to make some decisions about the way your home affects the environment and uses energy.

Doug Horgan, vice president of best practices for BOWA Builders in McLean, notes that making home improvements to decrease your house's impact on the environment may soon be important for other reasons as well. "We expect that within two to five years it will

either be very common practice or even mandated by law that new houses meet certain energy efficiency standards," he says. "When that happens, existing homes that don't have a certification will be at a disadvantage on the real estate market. "Even now," Horgan continues, "some jurisdictions require sellers to include the amount of a year's utility bills as part of the property's listing."

The early planning stage of a home renovation is the best time to set goals for the project. There is much more to living green than reducing your electric bill. The first step is to find an architect and contractor familiar with environmentally friendly building methods. Check references. And reputations for keeping within budget.

"Green building is a somewhat new trend among contractors," observes Todd Heyns, president of Woodcraft Visions, Inc. in Delaplane, "but there are many of us who have been conscious of energy-saving methods, the scarcity of natural resources, and minimizing wasted space all along." The key to finding the right contractor, advises Heyns, is to be "a nosy Nelly and ask more questions than a Barbara Walters interview." Listen closely to the answers and try to read between the lines. If you hear a lot of trendy lingo reminiscent of political sound-bites, then it's possible the contractor is new to green building, and the project could cost too much and take too long. A more experienced contractor will be able to put things in easily understood terms, cite examples of everyday techniques for saving energy and resources, and make concrete suggestions for improving your renovation plans.

"As builders, we need to go farther than just building," says Jeff Easter, president of Jeff Easter Remodeling in Charlottesville.

"We need to educate customers about new products and better ways to live in their home."

Green building is more than just using new technology and engineered, environmentally friendly materials; it's about building well — making the most of the space you have, recycling and reusing materials and furniture, using more natural materials, creating less waste, and reducing energy and water usage.



The inviting entrance at Barrel Oak Winery

The New Space Age

As families outgrow their homes, they feel the need to add more space. But before moving forward with an addition, they might consider reorganizing the space they already have. An unfinished basement is a blank slate just waiting to fulfill growing needs. It can shift a portion of living space to the home's lower level, leaving room upstairs for opening up or combining smaller rooms into more spacious quarters.

"The first concern with finishing a basement," suggests Heyns, "is moisture. Have the basement tested for moisture levels and have a waterproofing system installed to ensure that your finished rooms won't become a habitat for mold and mildew."

Another way to reassign space is to absorb less-used rooms into the greater good of the house. If, for example, the dining room has become a shrine to the large feasts hosted there just twice a year, the defining walls could be demolished so that the kitchen could be expanded. Or perhaps a rarely used linen or coat closet could easily be closed off and used as an expansion of an adjoining bedroom closet or bathroom.

When every space in the home has been used to capacity, there is nowhere left to go

but up or out.

Tim Burch, Jr., president of Burch Builders Group in Warrenton, recently helped a client whose mother and sister were coming to live in her one-story rambler. "The home needed to be almost doubled in square footage," explains Burch. "We designed the addition to try and maximize the southern exposure of the lot and used floor-to-ceiling fixed-glass panels, full-lite doors, and even transom windows to capitalize on as much natural light as possible."

By letting in as much sunlight as possible, his customer gains heat from the sun each day, allowing her to use less electricity for not only heat but also daytime lighting.

A Material World

No matter the type of renovations, every project will, of course, need materials. "Eliminating volatile organic compounds (VOCs) seems to be very important to people today," notes Easter. "Many building and home interior products contain them and people hear about

them and how dangerous they are but don't necessarily know a lot about them." He explains: "VOCs are found in manufactured woods, the foam that comes in your furniture cushions, many types of flooring and adhesives."

Easter and his team learned a lot about VOCs, their healthier substitutes, and other environmentally friendly materials while recently adding a master suite and remodeling the kitchen of a Charlottesville home. The client, he explains, was extremely sensitive to allergens in the air, which forced them to select materials with the least amount of "outgassing" possible. Outgassing refers to the emission of gasses that have been trapped in certain materials.

"We used special low-VOC paints and adhesives," says Easter, "specially treated lumber, blown cellulose insulation, low-odor flooring finishes, low-e glass in the windows and doors, no-radon granite countertops, solid wood cabinetry, and Marmoleum." Marmoleum is a fairly new Smart Certified product used to finish many surfaces including countertops, flooring, and walls and is proven to be hygienic, resistant to bacteria, made from natural raw materials, and easy to maintain.

Beyond health concerns, conscientious choices for remodeling materials include reclaimed or recycled materials. Many contractors are in the habit of collecting used materials to recycle onto new job sites. Other materials are manufactured by recycling old materials into something new.

One way to cover floors with new material is to "buy durable flooring made from recyclable or renewable resources," suggests Lovegrove. "But research thoroughly or get expert advice before buying; while some so-called green flooring products...may use more environmentally friendly materials, their durability may be low enough that they will have to be replaced far more often than seemingly less friendly materials."

"Bamboo is a great environmentally friendly flooring choice," notes Easter. "It's recyclable, reusable and an easily replenished natural resource." Easter also advocates reusing the materials found in his customers' homes and finding new uses for old pieces of furniture they are planning to discard.

"Rather than buying completely new cabinetry," recommends Lovegrove, "resurface your existing cabinets. This isn't only green, it saves you pots of money."

Other ways to keep costs down and lessen landfill lodes: Old brick can become a stately walkway or patio surface. Studs, siding, and stone may also be reused.

Last summer Heyns was able to construct an entire greenhouse for a customer in Haymarket out of a sunroom that a previous customer had replaced with a screened-in patio. Green in this case had a threefold meaning: eco-friendly, made for plants, and saving dollars.

Waste Not Want Not

Construction can be a rather wasteful process when not carefully planned. Too much drywall, trim molding, concrete, and flooring means saturated landfills and empty coffers. Best are materials that can be purchased in desired quantities or that can be easily returned.

Even better: plan to use the same materials for several applications so that any waste left from one aspect of the project can be incorporated into the next phase of construction. Leftover wood flooring may be able to become cabinet toe kicks. An extra foot of granite can make a fabulous cutting board.

BOWA's Horgan points out that when his company performs additions or remodels that require a portion of a home to be torn

down, they prefer to do what's known as "deconstruction" instead of demolition. "Organizations such as Second Chance employ teams that are specially trained to methodically remove reusable and recyclable materials from a structure before it is demolished," he explains. "By doing so, BOWA is able to reduce the amount of materials going to landfills by over 75 percent on some jobs."

A few charitable organizations encourage building material donations so that they can perform new construction, renovations, remodels, and handyman services for the less-fortunate in our region. The Building Materials Reuse Association (BMRA) has 36 partner centers in Virginia where anyone can donate unused or reclaimed building materials (www.buildingreuse.org). Habitat for Humanity's 15 Virginia ReStore locations welcome donations of used or unused building materials, appliances, cabinetry (www.habitat.org).

Energy Efficiency

Many products on the market can alleviate our over-consumption of water, gas and electricity. When remodeling a home and updating appliances, Lovegrove strongly urges customers to select Energy Star appliances. "This is very painless; most quality appliances are Energy Star rated. Avoid over-powered designer appliances. Unless you're running a restaurant, you probably don't need the professional super-blaster gas range that puts out enough heat to weld your pots and pans together," he cajoles.

Strategically adding windows and skylights means natural sunlight can illuminate the home during the daytime and help keep it warm. Appropriate window coverings keep out excess heat during the warmer seasons. Ceiling fans push warm air downward during the winter and force the cooler air to rise in the summer.

Lovegrove's team finished a basement for a customer in Smith Mountain Lake last year employing several energy-efficient measures: a centralized plumbing system to reduce water waste while waiting for hot water to issue forth, zoned heating, insulated ductwork, and low-e windows.

"For additions, insulated concrete forms (ICFs) are a good choice for the framing materials," says Heyns. "They are foam blocks that are stacked like Legos, then filled with concrete. They are extremely energy-efficient and create superb insulation that helps keep inside temperatures more steady." ICFs are

quick and easy for knowledgeable contractors to put up, which saves on labor costs during construction. Plus their outstanding R-value saves on utility bills post-construction.

With the economy the way it is right now, Burch notes: "The project types haven't really changed, but we are discussing phasing

more this year." Phasing allows you to get what you want from your home a little bit at a time. If remodeling your home is something you definitely want to do but finances are keeping you from moving forward, talk to your contractor about breaking the project into a number of smaller projects.



Winemore

Expansive mountain views. This stately manor is surrounded by horse pasture and is totally secluded on 10 acres. With grand interiors, the home features 4 bedrooms including a master suite, game room, exercise room, and movie theater. Amenities include a pool and tennis court. \$1,495,000.



Madison County

Horse property in the mountains. Unique hunting lodge with exquisite wood interiors perfectly located to see breathtaking views. Large floor-to-ceiling windows blend the exterior to interior. On 60 rolling acres of pasture and woodland, outbuildings include large equipment shed, 3 stall barn, and workshop/office with apartment above. Also a 1.4 acre pond. \$1,100,000.



Western Albemarle - Garth Road

Prime location on 2 acres, with great views of the Moonans River. This 3 bedroom 3 bath house with cedar siding and metal roof features high vaulted ceilings, full walkout basement, and large back deck. Total privacy only minutes from town, in one of Charlottesville's most sought after areas. \$550,000.



Harrison County - Charming country cottage 30 mins from Charlottesville. Historic home on nearly 15 acres meticulously restored. Three fireplaces, hardwood floors and guest cottage. A stream with footbridge and pastures with new board fencing add to the park like setting. The cleared grounds showcase protected flower and vegetable gardens. A beautiful property with great horse potential. \$475,000.



On the Rappahannock River - Stone cottage on 10 acres amidst an enchanting forest. With landscaped grounds and large deck overlooking the river, this cozy home offers a truly magical setting. Exposed beam ceilings, beautiful blue slate fireplace that opens to both the kitchen and family room, and hardwood floors. Rustic loft guest cottage with intricate decking. \$495,000. Also available with 20 acres for \$620,000.

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CASE STUDIES IN NEW CONSTRUCTION

“Green construction is simply smarter construction,” says Doug Horgan, vice president of best practices for BOWA Builders, Inc. in McLean and Middleburg. Here are some examples of local greenery, newly built from the ground up.

EcoMOD3: The SEAM House

The University of Virginia’s School of Architecture and School of Engineering and Applied Science have collaborated to design a program for the students to design and build green structures, analyze them, and so learn about what works well and what needs adjusting.

The program is called ecoMOD, and to date students have built three eco-friendly modular homes, the third of which is called The SEAM House. It is so named because it has stitched together an historic structure with a modern one while at the same time seaming together generations, as the very young have constructed it to be a home for the elderly in Charlottesville.

The program started in the fall of 2004,

according to John Quale, assistant professor and ecoMOD project director, who says “the goal is to create sustainable, prefab housing units for affordable housing organizations.”

While the typical ecoMOD house is comprised fully of prefabricated units, The SEAM House incorporated the renovation of a mid-19th Century structure, thought to have once served as slaves’ quarters, in conjunction with a prefab rear addition.

After stabilizing the old structure, students renovated it using highly energy-efficient foam insulation, reconditioned historic wood flooring, an evacuated tube solar hot water system with on-demand water heating, and a modular green roofing system. The eco-friendly modular addition included super-

insulated wall and roof panel construction, a modular green roofing system, a large shaded deck and a rain garden. The roofing system, coupled with sustainable landscaping, alleviates storm water damage to the house’s foundation, a problem in the past.

Quale acknowledges that adding some of the eco-friendly features to The SEAM House increased spending by about five percent over a comparable project built without green provisions. But he emphasizes: “It is important to focus on strategies that reduce environmental impact and utility or maintenance costs simultaneously. A small investment in a high-performance building envelope will pay for itself much faster than expensive technologies like photovoltaics.”



Before...



...After

Charlottesville Waldorf School

The Charlottesville Waldorf School was a fairly straightforward project, according to Doug Lowe, President of Artisan Construction, Inc., of Charlottesville. The company, which encourages clients to incorporate green construction methods in their projects whenever possible, was able to build the schoolhouse in just under a year and has filed for LEED certification for the project.

The 7,000 square-foot school contains just eight classrooms, but a wealth of environmentally friendly aspects. Lowe says that it wasn't difficult to construct the small school on budget and in a green manner.

Green products, he explains "are more

readily available now than they were 10 years ago and by choosing the right products, you can really keep costs down."

Lowe notes that many people want to do the right thing by going green, but too often select products that are popular or trendy instead of goods that are cost-effective and environmentally beneficial in the long run. For example, he cites Chinese bamboo, though easily replenished, has enormous shipping costs to the environment.

"I try not to jump to foreign companies for materials," says Lowe. "Instead, I start by looking right here in Virginia." He was able to contract with Appalachian Sustainable

Development, a company that harvests trees in a responsible manner locally, to provide flooring for the classrooms.

Other green features found at the Waldorf School include low-e windows, a specially-designed HVAC system that allows for more fresh air intake, a design that utilizes natural daylight to reduce electrical dependency, a metal roof, and HardiePlank siding.

"I'm very proud that we were able to design, build, and open the school in such a short amount of time and in such a responsible manner," says Lowe. "It's a good environmental example to the students, which is in keeping with the school's philosophy."



Barrel Oak Winery

The owners of Barrel Oak Winery had no particular green aspects incorporated into their original building plans for a winery in Delaplane. It wasn't until Dominion Virginia Power threatened to obstruct their scenic views with transmission towers and lines that Brian and Sharon Roeder decided their winery needed to be about more than just tasty grapes.

Brian's company, Hallmark Development Partners, LLC, served as the general contractor for the project and both he and Sharon designed the entire winery. The pro-

duction area was placed nearly completely underground, helping to create a steady temperature of approximately 58 degrees in order to maintain the preferred temperature for producing and storing wine.

The new winery also contains a geo-thermal system that utilizes the earth's constant temperature to minimize energy usage. Also employed are SIPs in the roof and low-e windows; both prevent the higher heat loss found in traditionally built structures.

By using oriented strand board (OSB) instead of plywood and engineered lami-

nate materials, the winery structure is able to achieve lasting strength while decreasing the amount of wood utilized. By being "very efficient and conscientious with our use of materials on the job site," says Brian, "we had only seven trailers of trash to haul off to the dump."

The Roeders hope that their sensitivity and commonsense about the construction and practices will mean 70 to 85 percent less energy than originally planned – and so adding as little as possible to the area's growing demands on power.





Tri County Feeds, Etc.

After selling equine bedding, food, and other animal-related products for nearly 25 years out of multiple local buildings, Bill Jackson decided it was in everyone's best interest to bring everything together under one roof. So Jackson and his wife, Jeri, decided to build a new 24,000 square-foot structure to house Tri County Feeds, Etc. (TCFE) near their original stomping grounds in Marshall. They broke ground in summer 2005.

"When we started building we had not planned a green structure," admits Jeri, "but the great thing is that at any point in the building process you can incorporate green aspects." The building was originally planned to emulate a very large warehouse — a one-floor design with a ceiling not even a giraffe could bump its head on.

"One day Bill said, 'That's a lot of wasted space.' So we decided to put in the mezzanine," Jeri remembers.

It was then that the couple decided to take a good look at the size and scope of the building and its impact on the environment. From there many green ideas began to spring to mind. Their builder, Peter Williams, president of P. J. Williams Co., Inc. of Madison, recalls:

"We had always planned to use recycled newspaper insulation, which is very green, and Jeri selected environmentally friendly paints. We also used post and beam timbers and SIPs (structural insulated panels). The whole building was very well insulated to

help reduce heating and cooling costs."

The facility, which opened in the fall of 2007 in time to celebrate TCFE's 30th anniversary, is a model of green products, materials, and building methods. The first floor is lined with bamboo flooring, a material that is highly renewable, recyclable, biodegradable, and lends warm hues to the room. All of the shelves on which customers can find horse and pet products (many of which are recyclable or made from recycled products) are reclaimed units. Jeri remembers finding a local grocery store undergoing renovation and preparing to dump all of the shelving units. She immediately negotiated to salvage and relocate the components into the new TCFE — saving her store a wad of cash while helping to alleviate further landfill clutter.

The sales counter is made completely from reclaimed wood from torn-down old barns, adding to the charm and warmth of the country atmosphere. The mezzanine deck is lined with cork flooring, and atop that are dozens of racks of apparel, including three lines that Jeri specifically chose for their attention to the environment.

The Jacksons also had a media and conference room built into their second floor where local residents and organizations can gather for meetings or presentations at no charge. The couple claims it's just one of the ways they could give back to the community that has supported them for three decades.

There are numerous other green aspects

that have been incorporated into TCFE's retail store and warehouse feeds facility including VOC-free paints, stains and sealers, recycled fiber carpeting, a high-efficiency HVAC system, low-voltage lighting, and environmentally-friendly products like organic or natural alternative pet food and eco-friendly cleaning products and toiletries.

"We have traveled beyond just filling a recycling bin," says Jeri, "Greening is more than a trend and consumers make buying decisions with that in mind."

The Jacksons have committed themselves to not only offering customers more environmentally-responsible consumer products, but also in leading by example in their responsible building methods and every-day practices.

"Statistics indicate [that green building will take] 10 to 15 years to see a return on investment," scoffs Jeri, "but we think there's a better way to gauge our return: by customers and visitors whose environmental practices are influenced by the aspects we have incorporated and the products we offer."

Although TCFE is already open to the public the Jacksons would still like to incorporate solar panels and storm water retention into their building in the near future.

"Making choices throughout the facility that protect our environment and limited natural resources wherever feasible is just the right thing to do," says Jackson. ■