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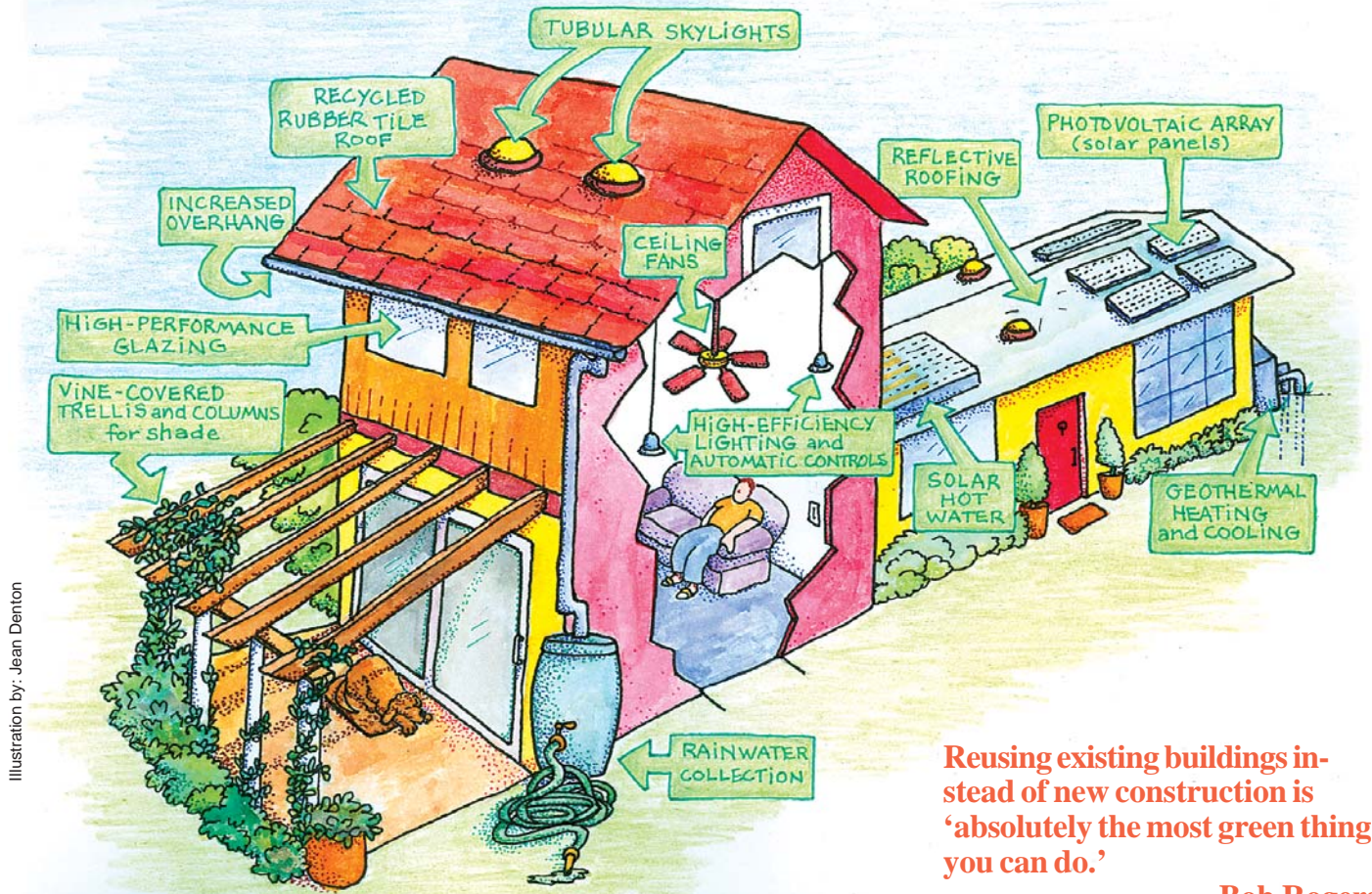


Illustration by: Jean Denton

Reusing existing buildings instead of new construction is 'absolutely the most green thing you can do.'

—Bob Rogers

What makes a green building green?

By Gene Marrano

Perhaps the determining factor has more to do with philosophical priority than bottom line considerations.

Going green adds costs to construction projects, but it may not be as steep as some imagine. There are minor supply pipeline problems in the Blue Ridge Region, as well, but for the most part the major question is this: how "green" does a client want to go with a new building project or a remodel? And how important is the environmental impact to the client?

There are various degrees of green building, says Bob Rogers, president of Architectural Alternatives in Blacksburg. "There's

much more interest these days in doing something that is green, although the terminology sometimes gets a little confusing," says Rogers, declaring that no building is completely green—or completely "ungreen."

We may be in the information overload phase of the green building movement according to Rogers, who says there are also supply issues at times. "When you go to find [green materials] in Blacksburg, can you really get them?" He believes general contractors are making commitments, so finding firms that build green has not been a major hurdle.

Architectural Alternatives is working on a hospital in Giles County that it hopes to have

LEED certified (Leadership in Energy and Environmental Design, a U.S. Green Building Council designation), but there are a few hitches. Recycling during building, part of the LEED checklist, is an issue.

"How do you recycle construction materials in a place like Giles County, that really isn't set up for [it]?" asks Rogers. In some cases Architectural Alternatives will use LEED guidelines to achieve energy conservation, even if a project ultimately is not certified.

Reuse

Reusing existing buildings instead of new construction is "absolutely the most green

thing you can do,” says Rogers, who also advocates careful consideration of how much residential or commercial space a project really needs. Is that 6,500-square-foot McMansion necessary? Is a 5,000-square-foot LEED Platinum certified house built in a national forest really green? “No,” says Rogers, “it’s too big and it’s out in the wilderness.”

He points to his own Shadowlake Village project in Blacksburg as a green project, in part because cluster housing guidelines were used, reducing the size of individual yards while preserving common open space. “It’s one of the best projects we’ve ever done,” says Rogers of the 33-unit subdivision, where houses are oriented when possible to take full advantage of sunlight.

The Preserve at Two Ford in Southwest Roanoke County is a semi-rural development of several dozen home sites that can be customized by the owners; however, they must meet “Earthcraft” standards. Not as stringent as the LEED certification process, Earthcraft houses must also pass a set of inspections based on criteria such as site planning, energy efficient equipment, resource efficient design and indoor air quality. Several home plans offered at The Preserve are generally in the 3000-square-foot range.

“We’re not into building McMansions,” says Suzi Fortenberry, who, along with husband Brent, is behind the project. “We’re about quality.” Still, being less than LEED certified but earning the Earthcraft designation isn’t inexpensive: houses at The Preserve (the majority of lots aren’t sold yet) will generally run between \$650,000 and \$1.5 million, says Fortenberry.

Like many other architectural

firms, Roanoke-based SFCS is fielding plenty of inquiries from clients who want to go green. That’s fine with partner Drew Kepley: “We’re promoting that as a corporate philosophy.”

Green buildings and sustainable designs identified by designations like LEED help SFCS define what clients need and are willing to pay for. Within LEED there are four levels:

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certified, platinum, gold and silver. Points are earned for certain measures taken, from redeveloping a brownfield instead of turning over pristine earth for a building, to installing low-flow plumbing fixtures. The final tally of those points determines the LEED level obtained.

Green mandates

From designing or redesigning Roanoke City public library branches, high schools and retirement communities nationally, Kepley preaches to go as green as possible, especially with businesses that figure to be around for many years. Self-sufficient, very high efficiency heating and cooling systems like ground source heat pumps are a prime example. “It [may] take 8, 10 to 12 years to pay back,” says Kepley, “but then you own that.”

He also believes it’s a marketing edge in many cases, such as someone considering retirement communities that may be won over by sustainable practices.

For some government agencies, LEED certification is now mandated on construction projects, something that has led SFCS to have its architects certified as well. “We’re on board to do it,” says Kepley. Orienting a

building to take full advantage of sunlight and focusing on the mechanical system are two of the first green topics SFCS discusses with clients. Low-flow systems, high-efficiency insulation, sunscreens

on windows; the list goes on and on.

Kepley says data from the U.S. Green Building Council shows that costs differences are relatively small—single digit hikes in many cases—between more run-of-the-mill building practices and going green. Certain esoteric systems like photovoltaic cells and rainwater harvesting units may be harder to come by in these parts but, for the most part, Kepley says, finding green materials is not difficult.

Hiring contractors comfortable with LEED and building green is another issue. “That’s the challenge,” Kepley says.

Catching up

Kepley points to Breakell Inc., a Roanoke general contractor that has taken a forward position

when it comes to green building. Company president Stan Breakell has been preaching green for years and is happy to see the rest of the industry catching up.

Roanoke City Council cited him several months ago for his firm’s work on the historic State & City Building, a 100-year-old structure that was converted to residential living spaces, with retail on the bottom floor. It was also LEED-certified.

Recycling is a major component of the LEED process, even for subcontractors on the construction site, who are expected to recycle their own building waste materials. “It really is kind of new ground for these guys,” says Breakell, whose company acts as a liaison between the building owner and the project manager, making sure everyone is on board with the green process. With more LEED guidelines now being used upfront during the design stage, Breakell says it is becoming more of the norm for all involved.

Challenges remain: it’s not so much about the difference in costs, which he calls insignificant in many cases, but “the desire to get it done,” says Breakell. “To get that to filter down to the subcontractors is tough.”

Breakell Inc. includes certain language in contracts with its subcontractors to help ensure cooperation on green projects. “It’s so easy not to do it correctly,” he says.

There are still a few pipeline kinks, says Breakell. For example, wood products that are not full of glues and chemicals or are sustainably harvested, thus earning LEED points, are scarce at times in in the Blue Ridge Region. “It’s just not standard operating procedure around here for those suppliers,” says Breakell. At least not yet.

(Gene Marrano is a Roanoke-based freelance writer.)