## Building a better future

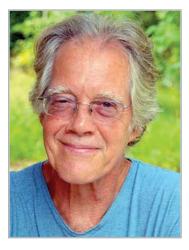
□ By Garret K. Woodward □

hen Boone Guyton moved to Asheville in 1991, "There wasn't a green building movement." But, Guyton knew he was somewhere that could potentially lend itself to more energy efficient building and forward-thinking ideologies.

"When we moved here most of the green building was being done by the early adopters and the back to the land movement. There was not an organized push to get green building into the mainstream" he said. "But, it seemed that there were a lot of folks that would bend towards green building if they were made aware of it."

A founding member of the Western North Carolina Green Building Council, Guyton and his wife, Claudia Cady, operate Cady & Guyton Construction, which is based out of Alexander. In the 13 years since the inception of the WNCGBC, the green energy and green building initiatives in the region have grown exponentially, with Southern Appalachia becoming a hub for netzero building and renewable energy technologies.

"It makes sense in hindsight how big green building is around here," Guyton said. "This area attracts progressive-minded folks, entrepreneurs, artists and creative-minded people."



Growing up in south-central Connecticut, Guyton learned basic woodworking and tool skills from his father. He then moved to middle



Located on Trade Street in the River Arts District of Asheville, this home was built by Cady & Guyton Construction. The structure features solar panels, rainwater collection and a high-efficiency water pump. Garret K. Woodward photos

Tennessee as part of the "Back to the Land" movement of the late 1960s/early 1970s, where he learned from scratch how to build, and build efficiently, from other skilled carpenters and engineers.

"I got into the movement and bought a farm in Tennessee," he smiled. "I didn't have much money, so I had to do things myself, and I plete one housing project. For 2013-2014, they built a Platinum Certified Green Built NC home on Trade Street in the River Arts District of Asheville.

On a small hillside property overlooking the district, Guyton emerges from the home and walks down the driveway with a welcoming hand extended. A warm Apmonth, we made 85 kilowatt hours more than the house used. In a good month, a cooler one like September, we'll make more of a surplus to be available in winter when there will be a deficit in production and overflow."

Stepping into the three-bedroom, two-bathroom house, one notices an immediate temperature

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started building and doing my own carpentry work."

Eventually, he and Cady packed up and headed for Asheville, in search of new opportunities.

Nowadays, Cady & Guyton Construction specializes in building green homes and structures. Each year, they design, build and com-

palachian summer sun radiates above, with Guyton all smiles as he points to the numerous solar panels on the roof of the 1,200square-foot structure.

"We have a net-metered [solar] system, where overflow goes into the grid, and you get paid for what excess you have," he said. "Last

drop, where the summer heat has been replaced with a nicely shaded, cool living room. Guyton points out intricate details around the rooms and nooks, where his wife, a skilled woodcrafter, handmade the cabinets and detailed trim. The wood was harvested from a nearby lot in West Asheville the couple

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One key feature of the kitchen is the handmade cabinets, with the material coming from wood harvested from a lot in West Asheville.

cleared for another project.

In addition to the solar panels, the home also boosts a rainwater collection system and has a high-efficiency heat pump water heater (HPWH), which collects heat from inside the building and transfers it into hot water, thus also helping keep the building cooler in the summer.

"The heat pump water heater is twice as efficient as a regular electric water heater" Guyton said. "When it runs it takes the heat out of the air and puts in right into the water."

The walls of the home are Ideal Precast concrete, which provides for a waterproof, airtight and wellinsulated structure. Guyton noted the walls are R-20 when set by the foundation contractor with additional insulation added onsite. While building codes require R-15 for walls and R-38 for ceilings, the Trade Street structure is R-30 in the walls and R-60 in the ceiling. Guyton figures the entire project, including land, building supplies, permits, labor and miscellaneous items, cost around \$180,000 and should cost very little monthly to operate.

"We're always trying to build them in a more affordable, efficient way," he said.

But, even with his ever-evolving homes, Guyton and his wife feel there's more to be done, more innovations and ideas that will bubble up to the surface on the green building industry.

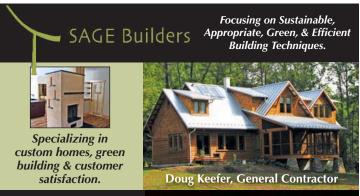
"That's what I like about green building – there's always something new coming," he said. "The next big thing I think will be energy storage, where solar panels produce energy and store it, which can help the grid out because the energy can be used when it's needed, not just when it's produced, making it a lot more efficient."

When asked why folks should take a hard look at green initiatives for their own homes and future housing projects, Guyton takes a glance at the newly built Trade Street property, with his gaze heading across the way into the mountains of Southern Appalachia.

"[Green building] saves money right now, and savings are only going to increase because energy

Construction: Cady & Guyton Construction, boone.guyton@gmail.com Electric: Jon Fedock Electrician, Leicester, angieslist.com Plumbing: Sacchi Plumbing & Gas, Candler, angieslist.com Solar: Solar Dynamics, Asheville, solardynamicsnc.com HVAC: Gentry Heating, Inc., Asheville, gentryheatinginc.com **Insulation**: Home Energy Partners, Asheville, homeenergypartners.com **Energy Rater**: Vandemusser Design, Asheville, vandemusser.com Roofing: Ogburn Repairs, Sylva, facebook.com/ogburnrepairs Framing help: Rare Earth Builders, Canton, rareearthbuilders.com **Building supplies: Builders** FirstSource, Asheville, bldr.com **Excavation**: Jeff Kegler

costs are only going to increase. As far as the nuts and bolts of it all, it's a good thing to do," he said. "Environmentally, buildings are 40 percent of greenhouse gases in the United States. So, if we're going to address climate change, buildings are one of the things we've got to do better."



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