

Shugart Builds Green

by Sandy Groover

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Shugart Enterprises LLC is spearheading the "green" building movement in North Carolina. Long a leader in meeting and exceeding industry standards, this family-owned business is not only in the forefront of North Carolina's eco-friendly building trend, but they are leading the nation in building affordable, environmentally-friendly homes. Shugart has more homes certified to the National Green Building Standard than any other builder in the country. (The National Green Building Standard is the only green residential building rating system approved by the American National Standards Institute).

Shugart's Les Frye Jr., director of special projects, said the Shugart team tossed around the idea of green building for a number of years, but it wasn't until early 2008 that they began exploring the idea in earnest. As part of his duties, Frye began attending seminars and meeting with industry specialists to begin learning about various green programs and their requirements. Frye was so impressed with what he learned that he became certified by the National Association of Home Builders (NAHB) as a Certified Green Professional in the spring of 2008.

Shugart began implementing the NAHB's National Green Building Standard in the fall of 2008 and began certifying its homes to the US Environmental Protection Agency's (EPA) Energy Star program at the same time. Earning the Energy Star certification means a home must be at least 15 percent more energy efficient than homes built to the 2004 International Residential Code.

As Shugart learned more and more about green building, it discovered that much of it is simply the best concepts and techniques from what is the "latest and greatest" in current building science. Frye explained, "We always thought we built the best house in our market, but learning about green building has taught us how to build an even better house as far as energy efficiency, air infiltration and indoor environmental quality is concerned."

Once Shugart was comfortable with meeting Energy Star requirements, and had trained its field people and trade partners to meet those standards, they began certifying its 2nd generation homes to the NAHB's National Green Building Standard. On April 1, 2009, Shugart announced to the public "The Shugart 2nd Generation Home."

Shugart's 2nd Generation homes incorporate a systems approach to home building, where all the components that make up a home work together to achieve a highly energy efficient living environment. Shugart's 2nd generation homes have lower utility bills and healthier living spaces than their earlier homes, while maintaining affordability for first-time buyers and move-up homeowners.

To achieve this energy-efficient living environment, Shugart employs green building practices that include advanced framing and insulation techniques, sealed ductwork connected to energy-efficient HVAC systems with programmable thermostats, and water conserving plumbing such as low-flow faucets and toilets. Low-E (low-emittance) window coatings help reduce utility bills and prevent fading of fabrics by keeping the sun's rays out in summer. Argon-filled glass windows keep heat inside in winter, hot air outside in the summer and provide a barrier against outside noise. Even the paint on the walls and the floor coverings are low-VOC (volatile organic compound), chosen to reduce indoor air

pollution. Low-VOC paints and floor coverings don't emit fumes, nor do they don't contain toxins.

Because Shugart homes are both Energy Star and NAHB certified, every home receives two inspections - the first before the drywall is installed to be sure the insulation meets the six-sided requirements (insulation must fill the framing 2x4's, touching sides, top, bottom and each wall); the second, after installation to be sure there is a continuous thermal envelope all around the home. Shugart checks that its HVAC air distribution system is installed properly and that all ducts are permanently sealed with mastic material.

Studies done in North Carolina show that one of the major contributors to energy loss in home is air leakage, so once the house is finished, a "blower door test" is conducted to be sure there are no gaps in the house where air can escape. The blower creates a vacuum that allows the house to be checked for leakage. To be Energy Star certified, ductwork leakage can be no more than 5 percent. Shugart tries to achieve HVAC duct sealing of 2 percent leakage or less.

Shugart has all energy efficiency testing done by third parties to ensure impartial results. Dan McFarland, a building science expert with Southern Energy Management (an energy efficiency and solar technology services provider and Energy Star partner since 2003) said that Shugart pays attention to details in their green building techniques. That has resulted in good environmental stewardship that benefits both current home buyers as well as future owners of Shugart homes.

A vital part of green certification is owner education, and every new Shugart homeowner is given a walk-through once the house is complete to explain all the energy-saving benefits, along with a detailed homeowner's manual to insure that they understand how to use and maintain the green features of their new home.

Family-owned and operated Shugart Enterprises has been building homes in the triad since 1966. "We are proud that we can offer such a special home," said Grover Shugart Jr. "At Shugart Enterprises, we are dedicated to being a leader in the industry and continue to exceed your expectations."

There are more than 30 Shugart communities in Guilford, Forsyth, Davidson, Randolph, Alamance and Stokes counties.

For more information on Shugart Enterprises and their 2nd Generation Homes, visit www.buysugart.com. A DVD about Shugart's 2nd Generation homes is available upon request at the website.

To learn more about "green" building, visit these websites: Triad Green Building Council, www.triadgreenbuilding.org; National Association of Home Builders, www.nahbgreen.org; and Energy Star: www.energystar.gov.