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Feature: Smaller, Smarter, Greener: Designing Homes for the New Economy

by Scott Huebner, AIA on 03/22/2010

In response to a slower economy, many homeowners are finding ways to stretch dollars, trim excess spending and be resourceful with what they already have. The economic crisis is also having an effect on new home design and construction. Historically, the average square footage of single-family homes has been on a steady increase year after year in spite of the steady decline in family size. But for the first time since the 1950s, home size has significantly dropped from last year. While proponents of green design have long proclaimed that smaller homes are greener homes, their message is finally finding an audience.

So what is this new paradigm all about? Savvy homeowners are not simply trading in their larger houses for smaller ones, they are demanding more from architects and designers, asking them to create homes that perform all of the tasks of their larger counterparts, but in a smaller package. Much the way that larger SUVs have lost their appeal in favor of smaller, more fuel-efficient vehicles, homeowners are seeking stylish, well-built homes that cost less to construct and operate, while still providing ample space and a healthy and comfortable indoor environment.

Using a skilled architect can help homeowners realize their dreams of a finely crafted, well-designed home that meets their unique and personal needs without unnecessary square footage. An architect can also guarantee that your home meets the requirements of ENERGY STAR, LEED or the NC HealthyBuilt Homes program. These programs are the best tools to ensure that your home is well built, energy efficient and healthier for you and the environment. Record participation in these programs in 2008 and 2009 — despite one of the deepest recessions in U.S. history — points to a real shift in consumer opinion that green building is no longer a pricey, boutique market, but one that saves money, adds value and offers a higher quality of living.

For a home to be smarter, it must break the mold of traditional homes that have many highly specific spaces that only get occasional use. These rooms are expensive to build and require full-time heating, cooling and maintenance. Many of the smaller homes we design have spaces that are not specific to a singular use but can accommodate a variety of uses while still functioning as a coherent space. This allows the home to live larger than its square footage implies.

A few design techniques that help smaller homes live larger:

- Multifunction or flex spaces that can accommodate several uses
- Main living spaces that connect directly to outdoor spaces
- Planning for future additions so a house can grow as a family grows
- Daylight basements or bonus rooms to accommodate space needs

Smaller homes are not only more practical, they permit homeowners to reapportion those saved dollars (normally spent on under-utilized square footage) for upgrading to better quality finishes and higher efficiency equipment, appliances and lighting. These items get daily use and afford homeowners a greater return on their investment with lower operational costs.

Smarter and greener homes also take advantage of newer or time-tested technology to increase comfort while saving energy. Zoned heating, ventilation and air conditioning systems and programmable thermostats allow the user to more efficiently control and tailor the comfort of the house to meet the needs of its occupants.

Tremendous strides in lighting technology have brought low-voltage halogen, fluorescent and LED lighting to residential markets. Long used in commercial settings for their cost-savings properties, these fixtures now provide the convenience of dimming, long life, natural color rendition and lower costs more comparable to the traditional incandescent.

A green home cannot depend solely on technology, renewable energy sources or more energy-efficient products to compensate for an oversized home. Overcoming the desire to live in larger homes may be the greatest obstacle to achieving a sustainable future. However, a faltering economy and a marked shift in our views on how we live and view our planet may provide the perfect storm to get us there.

Featured article in 2010 issue, Western North Carolina Green Building Directory

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