

What's Your Green IQ?

The Build Right Institute™ helps decipher 'shades' of green when it comes to building right.



If you've made the decision to build your home, you'll want to consider building it green. Green building is a passion for some and may be a new concept to others - but undoubtedly a true benefit for all who venture down its path. It's a building philosophy that not only respects Mother Nature, but also rewards homeowners with high-performance, energy-efficient homes that are ultimately safer, more durable and comfortable and have better indoor air quality than standard homes built to code - not to mention the cost savings.

Building a green home means making environmentally preferable and sustainable decisions throughout the entire building process. While there are many shades of green and even the slightest notion of going green is helpful, there are a few key features and processes to look for when evaluating green builders.

For instance, heating and cooling makes up 20 percent of a home's energy use, so two significant focus areas when building green are energy efficiency and indoor air quality. As your educational resource, the Build Right Institute is pleased to provide you with the platform you'll need for understanding all that is green when it comes to building.

Green builders recycle.

Not only is green building made of various construction techniques, also taken into consideration is the use of sustainable products and reduction of construction waste. According to the U.S. Green Building Council, building a 2,500 square-foot home generates as much as two tons of construction waste, so the benefits of recycling are obvious. Using alternative building methods, such as panelized or systems-built construction of key structural components such as walls and floor decks, virtually nothing is wasted. With panelized homes specifically, materials from one house can be saved and used at a later time, which lessens the amount of waste that ends up in a landfill. In addition, with little or no cutting of material on site, waste is minimized and recycling is easier.

"According to the Environmental Protection Agency, building-related construction and demolition debris totals approximately 136 million tons per year, 43% of which is generated from residential sources."

Green building means breathing right and saving energy.

When selecting a builder, it's essential to inquire about what process the builder has in place to ensure superior indoor air quality and a tightly built home. A key ingredient for these two must-haves is a HVAC and ventilation package that works as a whole-house system. This whole-house approach to ventilation will improve indoor air quality, moisture and odor control and create a healthier living environment.

What is the whole-house system?

Good builders will not blink an eye when you ask for an explanation of this exciting philosophy. The whole-house system approach considers the interaction between you, your building site, your climate and the overall mechanical components in your home. Builders who live by this approach are guided by the fact that one component in the house can greatly affect other components, which ultimately affects the overall energy efficiency of the house. These green built homes often utilize advanced framing systems, an integrated envelope sealing package, energy efficient windows and superior mechanicals - which includes green bath fans such as the Panasonic Whisper. All of these features are then put through an array of testing to ensure that the home will function as one entity and will be the model of excellence in energy efficiency. The U.S. Department of Energy Efficiency and Renewable Energy lists the following as benefits of the whole-house approach to building:

- Reduced utility and maintenance costs
- Increased comfort
- Reduced noise
- A healthier and safer indoor environment
- Improved building durability

If you're building a panelized home, you may be surprised to learn that your home has the potential to be built stronger than the average "stick-built" home. The best panelized home builders in the industry often view the whole-house approach as a standard process. Because panelized homes are built using a stringent system, the foundation, floors, walls and trusses are engineered in way to create a rock-solid structure - a structure that is viewed as one.

Build tight to build right.

Building green means building tight. There has been a common misperception among homeowners that their homes need to "breathe." This simply is not true. In actuality, a green home that is built tightly and is equipped with proper ventilation mechanicals will eliminate drafts and allow for a more comfortable living space, while a home that "breathes" will be warm in the summer, cold in the winter and will experience higher energy costs. The "tightness" of a home can be determined by completing a natural air exchange test. According to testing conducted in Wisconsin by Perfect Environmental Performance, LLC, the average home has .20 air changes per hour. The best built homes can reach as low as .10 air changes per hour.

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Get your seal of approval.

Formal certification programs, such as ENERGY STAR®, are in place to ensure your home meets all of the green criteria that will allow for an energy efficient home. However, it's up to you to initiate this process - so ask your builder what he or she can do to help you reap the awards associated with this stellar process.

An ENERGY STAR certified home can save homeowners up to 30% annually on their heating and cooling costs. A few ENERGY STAR features to look for and request include:

- Effective insulation - Panelized homes are built from the inside out, which makes insulating and air-sealing simple.
- High-performance windows - Look for windows that will keep heat in during the winter, out during the summer and will block ultraviolet sunlight.
- Tight construction and ducts - Structurally-engineered systems are used during the panelization process to tie the foundation, deck floor, walls and trusses together to create a rock-solid structure. Homes can also be wrapped in Tyvek®, which acts as a raincoat for the home.
- Efficient heating & cooling equipment - Energy efficient mechanicals are often quieter, reduce indoor humidity and can improve the comfort of your home. Every furnace should have a sealed combustion chamber with external fresh-air intake and exhaust air outflow. And, each water heater should be power-vented, which prevents unwanted gasses from entering your home.
- Energy efficient products - From programmable thermostats to compact fluorescent bulbs to solar panels, there are numerous products that you can put in your home that will save you money. For a full listing of products, visit: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.

"According to the ENERGY STAR program, the average household spends some \$1,500 each year on energy bills. By choosing ENERGY STAR-certified products, consumers can cut this by 30%, saving about \$400 each year."

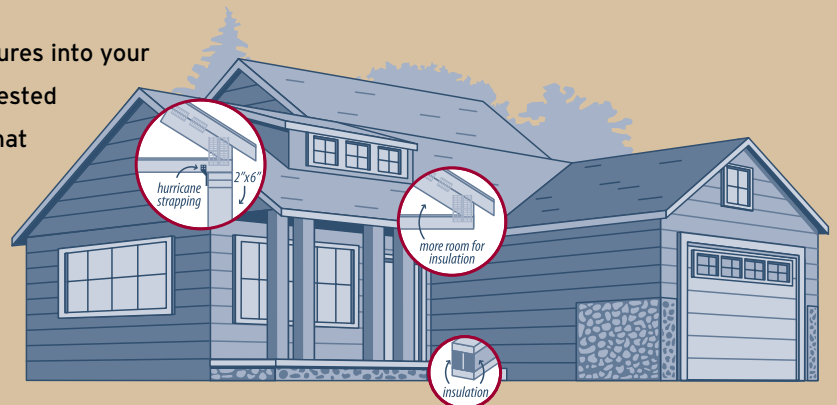
"According to the U.S. Green Building Council, a green home uses 40% less energy than a similar standard home."

You can continue to maintain your indoor air quality long after you move into your new home. The American Society of Heating, Refrigerating and Air-Conditioning recommends these simple steps to help you keep your green home green:

- Vent bathrooms, kitchens, toilets and laundry rooms directly outdoors.
- Avoid locating furnaces, air conditioners and ductwork in garages or other spaces where they can draw contaminants into the house.
- Properly vent fireplaces, wood stoves and other hearth products.
- Vent clothes dryers and central vacuum cleaners directly outside.
- Store toxic or volatile compounds such as paints, solvents, cleaners and pesticides out of occupiable space.
- Minimize or avoid unvented combustion sources such as candles, cigarettes, indoor barbecues, decorative combustion appliances or vent-free heaters.
- Provide operable windows or additional mechanical ventilation when using home cleaners or painting.
- Use sealed-combustion, power-vented or condensing water heaters and furnaces. When natural-draft applications must be used, they should be tested for proper venting and should be located outside the occupiable space when possible.
- Put a good particle filter or air cleaner in your air-handling system to keep dirt out of the air and off of your ductwork and heating and cooling components. Maintain it or replace it regularly as required.
- Distribute a minimum level of outdoor air throughout the home, using whole house, mechanical ventilation.

Whether you choose to incorporate only a few green features into your home or if you decide to have your home professionally tested and certified, the most important thing to remember is that your green home will allow your family to breathe easily, live comfortably and enjoy the cost savings.

For more information on building a green home right, contact the Build Right Institute at 888-JWH-2212 or email questions to experts@buildrightinstitute.com.



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