

Green Building, Why and How

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There is a great and growing movement towards green building, both by developers and homeowners, new construction and remodel/retrofits. Green Building can mean many things to many people, but the three most recognized benefits of Green Building are:

- Energy Efficiency
- Healthy Indoor Air Quality
- Conservation of Resources

Energy Efficiency

Probably the most well known benefit of Green Building is employing energy efficient appliances, heating and hot water systems to insulation, passive solar construction and photovoltaic solar. Energy performance assessments are often done to determine the HERS energy rating, a nationally recognized index that is determined by a certified inspector. Leadership in Energy and Environmental Design (LEED) is a set of rating systems for design, construction, operation and maintenance of buildings and homes.

Creating more efficient homes and buildings reduces the life cycle cost of heating and cooling. In addition, it creates a more pleasant work or living environment through more consistent temperature and humidity by efficient design of the systems.

Healthy Indoor Air Quality

As buildings become tighter to enhance energy efficiency, the importance of indoor air quality should be high on the occupant list. HVAC systems can reduce the likelihood of mold and filter the air, but starting with cleaner air is also important. Volatile

Organic Compounds (VOCs) from indoor finish materials such as cabinets, flooring



and other construction materials are the primary culprits whether it be the surface finish or even the internal glues used to construct the materials.

Fortunately, Low VOC and Zero VOC paints are now readily available and should be selected for any indoor application. Indoor construction materials can now be found which are made with soy-based glues, are finished in California and comply with California Air Resources Board Phase 2 (CARB2) regulations or are simply made from real materials rather than plastic.

Plywood products and other manufactured wood such as Medium Density Fiberboard (MDF) can be produced with No Added Urea Formaldehyde (NAUF) but many are not. Naturally occurring Formaldehyde does exist in wood products but doesn't off gas like the Urea type.

Conservation of Resources

When it comes to conservation of resources as a Green Building benefit, water is high on the list these days. Systems such as on-

demand hot water can reduce the water going down the drain. Landscaping that is designed for efficient use of irrigation, drip systems or even greywater systems such as Laundry to Landscape installations can reduce water use.

But likewise, natural building materials are a resource to be conserved. The Forest Stewardship Council (FSC) provides a stamp to indicate materials that are sourced from sustainably grown and managed forests. Framing and interior wood trim may be FSC certified if the builder or homeowner specifies it, even to the point of having wood flooring and cabinets constructed from FSC materials.



Substituting rapidly renewable resources such as bamboo and cork flooring or wool carpeting reduces the impact on forests which take longer to grow back. Conservation of resources may be accomplished by using recycled content. For example, look for high percentages of recycled content in solid surface counters and tile.

Balance cost, comfort and conscience when choosing Green Building products and ask about all three elements, energy efficiency, indoor air quality and conservation of resources.