

Green Building and Resource Efficiency

Green homes incorporate environmental considerations and resource efficiency into every step of the building and development process to minimize environmental impact. The design, construction, and operation of a home must focus on resource efficient building design and materials, along with the other green building elements of energy efficiency, water conservation, indoor air quality, and site & community impacts.

More specifically, resource efficiency can be accomplished by utilizing materials or techniques that meet the following criteria (with examples):

- **Recycled Content:** Products with identifiable recycled content, including post-industrial content with a preference for post-consumer content, including:
 - [Oriented strand board](#) (OSB)
 - [Synthetic composite decking](#)
- **Natural, plentiful or renewable:** Materials harvested from sustainably managed sources and preferably have an independent certification (e.g., [certified wood](#)) and are certified by an independent third party, including:
 - [Forest Stewardship Council](#) (FSC)
 - [Sustainable Forestry Initiative](#) (SFI)
- **Resource efficient manufacturing process:** Products manufactured with resource-efficient processes including reducing energy consumption or embodied energy, minimizing waste (recycled, recyclable and or source reduced product packaging), and reducing greenhouse gases, including:
 - [High fly-ash content concrete](#)
 - [Minimizing and/or recycling construction waste](#)
- **Resource efficient construction practices,** means using wood efficiently and includes:
 - [Advanced framing](#) (24" on-center)
 - [Simpler building designs and layout dimensions in 2 ft increments](#)
- **Locally available:** Building materials, components, and systems found locally or regionally saving energy and resources in transportation to the project site, including:
 - [Arizona flagstone](#)
 - Sawn timbers from [beetle-kill pine](#)
- **Salvaged, refurbished, or remanufactured:** Includes saving a material from disposal and renovating, repairing, restoring, or generally improving the appearance, performance, quality, functionality, or value of a product, including:
 - [Salvaged wood flooring](#)
- **Reusable or recyclable:** Select materials that can be easily [dismantled and reused or recycled](#) at the end of their useful life.
- **Recycled or recyclable product packaging:** Products enclosed in recycled content or recyclable packaging.
 - [Onsite separation and disposal of construction waste materials](#)
- **Durable:** Materials that are longer lasting or are comparable to conventional products with long life expectancies.
 - [Material durability:](#) tile vs. shingle roofing; fiber-cement siding vs. fiberboard siding
 - In building a "house as a system", durability is also dependent on good [moisture management](#):
 - subslab capillary break and vapor barrier
 - foundation perimeter drains
 - untreated wood not in contact with concrete
 - indoor humidity control with ventilation, tight ducts and right-sized HVAC system
 - wall system drainage planes
 - proper flashing of window and door penetrations
 - walls designed to dry when they do get wet

Additional Information on the Internet

[Sustainable Sources](#)

[Checklist for Environmentally Responsible Design and Construction](#)

