



Green Building: A Guide to Getting Started

Homeowners and prospective buyers are becoming increasingly aware of energy and water efficiency, indoor air quality concerns, moisture issues, and the use of green products. Many of the builders in our community have already been taking the first steps toward green building, incorporating deconstruction practices, material recycling, and use of high quality durable materials into new homes. The following is a list of sample building practices that should be considered if you would like to increase your firm's competitiveness in the marketplace by further incorporating green building practices.

- **Site Planning.** Consider the existing site conditions and how best to respond with a site and building design that minimizes soil and vegetation disturbance and takes advantage of a site's natural lighting and stormwater processing capabilities.
 - Use of natural landscape and low impact site development techniques, including the following:
 - Reduce the site disturbance and the area that is cleared
 - Preserve and enhance native vegetation and topsoil to disperse, store, and infiltrate stormwater
 - Create areas, like rain gardens, for excess water to collect and filter into the ground
 - Use pervious materials to allow water from driveways, walkways and patios to soak into the site
 - Amend soils to improve and regain stormwater storage capacity
 - Use vegetated roof systems to evaporate and transpire stormwater
 - Use drought tolerant and native plants and minimize lawn areas
 - Use of alternative foundations, such as pin foundations, that reduce site disturbance
 - Building design that responds to natural setting
 - Orient buildings and windows to make the best use of passive solar
 - Placement of windows for natural ventilation.
- **Energy Efficiency.**
 - Consider how to maximize the thermal performance of the building. There are a number of issues to consider, including insulation beneath slabs on grade, at corners, at wall intersections, over top plates, etc.
 - Consider how to increase energy efficiency in the design and layout of the heating and cooling system. Issues to consider include how to locate the equipment to reduce the size of the distribution system and minimize pipeline energy loss, insulation of pipes, placement of ducts in a conditioned space, and use of alternative systems such as a hydronic heating system. Consider the control devices of heating/cooling systems to maximize energy efficiency.
 - Evaluate water heating devices to maximize energy efficiency.
 - Evaluate use of heat recovery devices for air and drainwater.
 - Install Energy Star appliances
 - Consider energy efficient lighting choices and equipment.
 - Evaluate the use of alternative energy sources, such as solar water heaters or powering the home with photovoltaics.
- **Health and Indoor air quality.**
 - Install low or no emission materials from insulation to paints, sealants, and adhesives to reduce toxic off-gassing.
 - Limit use of carpet and consider low pile carpet choices to limit allergens.
 - Incorporate moisture control practices.
 - Incorporate construction practices to reduce dust and particulates.
 - Consider air ventilation needs, as greater air tightness has created a greater need for appropriate air ventilation.

□ **Material selection.**

- Use deconstruction to dismantle and reuse existing building materials on the site
- Use material separation and recycling practices to allow all usable materials to be used in other building projects.
- Install materials with longer life cycles, locally produced materials, and salvaged or recycled materials.
- Use of lumber that is certified sustainable harvested wood.
- Use of alternative systems, such as engineered structural products, to limit waste and save raw materials.

The list is not exhaustive, as there are many additional materials and building practices that can be integrated into green building. The internet is a great place to research for green building topics. The following are a sample of some useful web pages:

- The Built Green program (www.builtgreen.net)
- US Green Building Council (www.usgbc.org)
- The City of Seattle's Sustainable Building Pages (www.seattle.gov/sustainablebuilding/)
- King County Sustainable Building (www.metrokc.gov/dnpr/swd/construction-recycling/links.asp)
- King County Solid Waste Division's [Construction Recycling Directory](http://www.metrokc.gov/dnpr/swd/construction-recycling/documents/cdlguide.pdf) (<http://www.metrokc.gov/dnpr/swd/construction-recycling/documents/cdlguide.pdf>)
- Energy Star (<http://www.northwestenergystar.com/>)
- Forest Stewardship Council - Sustainably harvested lumber (<http://www.certifiedwoodsearch.org/searchproducts.aspx>)

Incentives

There are a range of different incentives that may apply. Please consult the following resources for more information on existing incentives:

- Puget Sound Energy rebate and incentive programs (www.pse.com/solutions/builderRebates.aspx)
- Northwest Solar Center (www.northwestsolarcenter.org/)
- Database of State Renewable for Renewables and Efficiency (www.dsireusa.org/library/includes/map2.cfm?CurrentPageID=1&State=WA&RE=1&EE=1)
- Federal incentives (www.dsireusa.org/library/includes/genericfederal.cfm?CurrentPageID=1&state=us&ee=1&re=1)
- Energy Star Northwest (www.northwestenergystar.com/)
- Cascade Water Alliance (www.cascadewater.org/)

Green Building Programs

The City of Kirkland promotes the use of several external green building programs, including:

- [Built Green](#), a nonprofit residential green building program developed by the Master Builders Association of King and Snohomish Counties in partnership with Seattle, King County, and local environmental groups.
- [Energy Star Homes](#), a program for new homes created by the U.S. EPA and U.S. Department of Energy.
- [LEED for Homes](#), a new residential rating system by the U.S. Green Building Council, currently in pilot stage.

For more information about the City of Kirkland, call the Planning and Community Development Department at 425-587-3225 or go to www.ci.kirkland.wa.us.