healthy homes for a healthy environment

## green building





JAS Design Build (© 2006 johngranen.com)

### why build green?

## **Cost Savings**

Energy and water efficient designs reduce monthly utility bills. Durable materials and well-designed septic systems last longer and cost less to maintain over time.

#### Health & Comfort

Proper ventilation and low or non-toxic materials and finishes contribute to a safer, healthier home.

#### Added Value

Green materials and careful site planning can add quality, lower maintenance, and reduce environmental disturbance, all of which translate into greater value in the housing market.

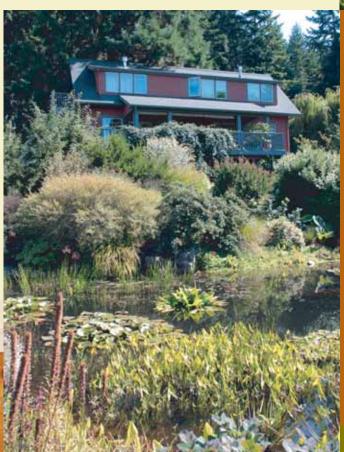
#### **Ecological Benefit**

Green building minimizes negative impacts on your property. Making environmentally responsible choices helps reduce pollution while protecting forests and wildlife.

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### what is green building?

Green building is an approach to building and site design that not only makes your home and property look better, but makes it work better – for both you and the environment.



This material will be provided in alternate formats upon request by contacting the King County Solid Waste Division 206-296-4466, 1-800-325-6165 ext. 6-4466, TTY Relay: 711, www.metrokc.gov/dnrp/swd



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# in your home

#### create a healthy home

Simple steps during design and construction can reduce or eliminate indoor toxins, making a healthier and safer home for your family.

- Eliminate harmful irritants. Select materials and finishes labeled "low-" or "zero-VOC" and "formaldehyde-free" for insulation, cabinets, carpeting, trim, paints, sealants and adhesives.
- Control moisture by grading to drain water away from your home; properly sealing windows, doors, plumbing and electrical penetrations; and installing efficient venting in wet areas such as bathrooms.
- Protect construction materials stored outside by keeping them off the ground and covered. Check for mold and moisture damage on wood and insulation before enclosing walls.
- Choose hard surface flooring like wood, bamboo, or natural linoleum instead of carpet— they are easier to clean and keep free of toxins. Where carpet is necessary, opt for tack down rather than glue down installation.
- Test for air leaks before completing wall construction. The added cost of testing will be offset by energy savings and avoidance of future moisture problems.

#### improve your bottom line

Improving your home's energy and water efficiency benefits the environment and protects your budget from rising utility costs.

- Look for the Energy Star® logo when choosing appliances, heating and ventilation equipment, lighting, and roofing material.
- Size matters! Smaller homes cost less to heat and cool than even the most energy-efficient oversized houses.
   Work with a professional designer to identify space needs and minimize overall house size. Consider multi-purpose rooms and flexible spaces for future uses.
- Place windows to take advantage of natural lighting.
   Choose light-colored interior finishes to reduce the need for artificial lighting.
- Harvest rainwater to use in non-potable locations such as toilets, laundry, or irrigation.
- Choose showerheads and faucet fixtures that use fewer gallons of water per minute (gpm) than required by code.

#### choose green materials

Make material choices that benefit both you and the environment— like selecting durable products that minimize waste and cut down on costs associated with maintenance or replacement.

- Look for products that come with a 30- or 50-year warranty for materials such as siding, roofing, and decking.
- Find salvaged, reused, or remilled materials for fixtures, doors, flooring and hardware to create a unique look.
- Use locally-sourced materials to reduce transportation costs and support local businesses.
- Choose materials that are rapidly renewable such as bamboo, cork and strawboard, in place of lumber products from old-growth forests.
- Reuse or recycle construction and demolition waste to save money while keeping valuable materials out of landfills.
- Buy wood products with the Forest Stewardship Council (FSC) label, a guarantee that the materials are sourced from sustainably-managed forests.

Photo below: Harrison Architects

The American Lung Association of

Washington offers resources and free home

assessments to help identify indoor

air hazards. For more information

contact ALA at 1-800-732-9339 or

www.alaw.org/air\_quality



Many local utilities offer free conservation assistance and rebates on energy or water saving products. For more information visit:

- *Puget Sound Energy* www.pse.com
- Seattle City Light www.seattle.gov/light/conserve
- Saving Water Partnership www.savingwater.org

## learn more

#### King County

Green Tools

206-263-603

www.greentools.us

Provides free technical assistance to help residents and builders apply green building practices – from small remodels to community developments.

#### Rural Stewardship Program

206-296-8362

dnr.metrokc.gov/wlr/cao/rural-stewardship-facts.htm

Helps landowners develop site plans that support environmental stewardship and protect critical areas while gaining regulatory flexibility and tax incentives.

Department of Development and Environmental Services

206-296-6600 www.metrokc.gov/d

Issues building and land use permits for properties located in unincorporated King County. Drop in assistance weekday mornings at the permit center.

### Regional

BUILT GREEN™
425-460-8238
www.builtgreen.n

Certification program designed to help builders, remodelers, and homebuyers protect the health of their families and the Northwest environment.

Northwest EcoBuilding Guild

206-575-2222

www.ecobuilding.org

Resources for finding local green building professional services including architects, contractors, and suppliers.

Need help with creating a native plant

landscape? King County's online Native

Plant Resource provides easy-to-use plant

lists and sample landscape plans at:

dnr.metrokc.gov/wlr/pi/go-native





**Powered by King County** 

Free resources for your building project.

www.greentools.us

## on your property

#### location, location

On an undeveloped site, choosing where to build is an important decision. Locate your home to take full advantage of your site's natural features while avoiding sensitive areas like wetlands and streams.

- Utilize sun exposure and shading on your site to moderate temperatures naturally and save on home heating and cooling costs. Ask your architect about passive solar design.
- Create "peak-a-boo" views through trees and shrubs instead of clearing the site. The best views – and those that add the most value to your home – are framed by nature.
- Set buildings far enough back from rivers, streams, and banks to avoid flooding and erosion. You'll protect your home while reducing disturbance to critical areas.
- Cluster developed areas and locate driveways and paths to minimize clearing.
- Protect native vegetation corridors that link wetlands, streams, and forests for a beautiful and wildlifefriendly site.

#### naturescape your yard

Natural landscapes are easier to care for and healthier for families, pets, and the environment. These practices add beauty while providing natural pest protection.

- Choose plants that do not require fertilizers or pesticides.
- Select plants that will thrive in your soil conditions and locate them where they'll get the sun or shade they need.
- Choose plants that require less watering to save money and time.
- Turn landclearing debris into mulch for pathways or plant protection.
- Limit lawn areas, protect native plants, and leave underbrush in forested areas to encourage wildlife.
- Remove the minimum number of large trees necessary to accommodate development of the site. Replant cleared areas with a diverse native landscape.
- Minimize impervious surfaces to help prevent soil erosion and flooding on your property. Consider a porous driveway or a green (vegetated) roof.
- Add compost or mulch to disturbed areas. Healthy soils help absorb rainwater, prevent runoff, and filter out pollutants – and may be required by code in some areas.

#### get smart about septics

Properly designed and maintained septic systems protect both your family and your property. The best designs consider specific site conditions such as soil type and depth, and minimize disturbance to the natural landscape.

- Reduce landclearing for your drainfield by routing effluent pipes around existing trees and other plants onsite.
- Use water efficiently to increase the life of your septic system and lower utility costs. Repair leaky faucets and toilets and install "low flow" fixtures and showerheads.
- Direct rainwater runoff from slopes and roofs away from the drainfield.
- Ask your septic designer about high performance septic systems and placement of drainfields to protect your site.
- Reuse greywater from sinks, showers, and washers to flush toilets. Ask your regulatory agency about approved systems.
- Minimize repair and replacement costs by following the recommended maintenance schedule for your septic system.





- 2 Rain garden to infiltrate runoff
- 3 Pervious pavement
- 4 Studio/garage with green roof
- 5 Deciduous trees on the west side for summer shade
- 6 House oriented for solar exposure
- Pervious patio
- 8 Solar panels

- 10 Septic tank and drainfield
- 1 Vegetable garden and compost bins
- Wetland buffer and wildlife corridor with native vegetation
- (13) Wetland



