



Building 'Green' in Vista Hills

There are many advantages to constructing a new home – building 'green' is one of them. Building 'green' means more environmentally friendly designs and construction, often with longer term cost savings. Many local home builders in Waterloo Region offer a wealth of knowledge and resources to assist you in building 'green'.

Green Construction

In January 2012, the *Ontario Building Code* changed to require enhanced energy efficiency in new construction. New technology and design measures can minimize energy use, minimize material waste, and extend the lifespan of construction materials. **Ask Your Builder:**



- about options to increase the insulation value in your home to a higher R-value
- about options to incorporate 'green' building materials into your home, including recycled materials
- about using engineered joists which require fewer natural resources to produce
- about options to insulate the foundation and foundation walls to minimize heat loss
- about longer-life shingles to reduce waste
- about ducting options to reduce the number of joints to improve air flow and efficiency, and ducting materials such as fiberglass duct board for enhance insulation and noise protection

Energy Efficiency

Being energy efficient in your home not only saves you money, but helps the environment as well. **Ask Your Builder:**



- about installing a high-efficiency furnace and air condition system with properly sized ducts
- about installing a programmable thermostat to control heating and cooling in your home
- about installing energy efficient lights, such as L.E.D. and compact florescent lights
- about installing an on-demand water heating system to lower heating costs and save energy (e.g. high-efficiency tankless water heater)
- about installing a drain water heat recovery system, which recovers and re-uses energy from the heated water running down your drains, in turn reducing household heating and energy costs

Indoor Environmental Quality

There are many ways to improve indoor environmental quality when constructing a new home, in turn improving the air you breathe and minimizing impacts to the natural environment. **Ask Your Builder:**

- about installing a high-efficiency HVAC system (heating, ventilation and air conditioning unit) with a programmable thermostat, to control heating and cooling of your home as efficiently as possible
- about installing an air purification unit on the furnace to enhance your home's air quality
- about installing a heat recovery ventilation (HRV) system to recovering outgoing heat while exchanging the air in your home
- about using paint with low volatile organic compounds (VOCs)
- about installing low-e argon double or triple glazed windows, which are designed to deter unwanted heat from entering the home in the summer and retain interior heat through enhanced reflective properties in the winter
- about installing flooring, cabinets, trim and other components in your home that are made from recycled and reclaimed materials



Safeguarding Water and Water Efficiency

Water is a precious resource and essential to the wellbeing of all living things. The clean, safe water we drink comes from our local environment. There are many ways to conserve and protect water resources when constructing a new home. **Ask Your Builder:**



- about water saving fixtures for your home
- about installing an on-demand water heating system (e.g. high-efficiency tankless water heater)
- about outfitting your bathrooms with dual flush and low flow toilets
- about outfitting your bathrooms with low flow aerator shower heads
- about motion sensor technology for water fixtures

Talk To Your Builder about water softeners. If a water softener must be installed, ensure that it uses less water and salt, and has programmable regeneration cycles and settings. Check out the Region of Waterloo's water softener facts website: <http://watersoftenerfacts.ca/>

Sustainable Site Planning

The location and design of your new home can have a significant impact on your heating and cooling costs. **Ask Your Builder:**

- about locating frequently used rooms on the south side of the house to capitalize on natural light
- about incorporating roof overhangs to shade rooms during the summer months while allowing natural light in during the winter months
- about locating windows and doors to take advantage of natural ventilation opportunities, such as westerly winds

Also consider:

- planting deciduous trees to shade rooms during the summer months while allowing natural light in during the winter months
- minimizing hard surfaces on your property to allow for natural rainwater and snowmelt infiltration, and to reduce “heat islands” (areas which capture and disburse solar heat, such as asphalt surfaces)
- retaining healthy mature trees on your property



Green Initiative Programs

Green Initiative Programs may be worthwhile pursuing when purchasing or constructing a new home. They include:

- Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ provides a rating system for the design and construction of green homes in Canada. www.cagbc.org/leed/what/index.php
- EnerGuide for Houses is a Canadian Government program designed to reduce greenhouse gas emissions and save energy. <http://oee.nrcan.gc.ca/energuide/15896>
- R2000 is a partnership between the public and private sectors which sets technical requirements for new home construction to exceed the Building Code requirements, resulting in greener homes. <http://oee.nrcan.gc.ca/residential/new-homes/r-2000/7334>
- Energy Star for New Homes is an energy efficiency program backed by Natural Resources Canada. http://www.energystar.gov/index.cfm?c=new_homes.hm_index



Canada Green Building Council



The City of Waterloo also provides a *'Buy the Home of your Dreams with Confidence'* brochure. Find additional information at www.waterloo.ca/buyingahome, including: (1) tips on buying a new home; (2) checklists to discuss with your builder; (3) the importance of knowing the zoning and planning regulations that apply to your lot and the surrounding area; and, (4) links to a host of websites that contain useful information for home buyers.



*The City of Waterloo
is committed to environmental
stewardship.
Together, we will make a
lasting difference.*



Digital references have been made wherever possible to convey information online and not on paper.