Green renovation by Roy Nandram

How to protect the future with your home

Natural resources are becoming more scarce and more expensive, and yet people are looking for increasing levels of comfort in their homes. Is there a way to have comfort and efficiency without adding to environmental stress?

Green construction offers a much-needed solution. Given the current state of our climate, new environmental protection laws, and rising costs, it is becoming an essential alternative.

Green construction is a method of constructing homes and buildings that utilizes environmentally-friendly techniques while creating a sustainable and energy-efficient final product.

The advantages are many, including long-term savings and numerous benefits for home owners. Perhaps most importantly, green construction gives homeowners an active role in protecting against climate changes and preserving natural resources for future generations.

Some green builders go above and beyond by providing additional benefits **for example:**

- **Mold-free basement construction;**
- **Radon-resistant construction when a basement is built to reduce radon and other soil gas entering the home;**
- **A future-proofed home for the inevitable changes in technology, including an electric car charger in the garage;**
- **Solar shades, which allow for natural, passive solar heating in winter and solar shading in summer.**

One of the most common concerns about green construction is that it will cost more money. This is a misconception. While some costs may be added at the beginning of the process (this is because of the costs of the materials themselves), the savings over the long-term more than compensate. Energy and utility costs are lowered over time and health bills go down. Not only does green construction benefit your budget. It also benefits your overall quality of life.

Green building is an investment in your future and the future of the environment.

For more information on green construction or to find out how you can utilize these techniques in your next project, contact your professional builder or renovator.

THE MANY BENEFITS TO GREEN CONSTRUCTION:

- **Reduction of greenhouse gases (GHG).** Greenhouse gas emissions are one of the primary drivers behind global warming. Buildings and structures contribute a significant amount of greenhouse gas emissions. By building green, GHG emissions are reduced, and that assists in the rebuilding of the ozone layer.
- **Reduction of operating costs.** Green homes are built with energy-saving features. Heating and cooling loads are lowered by using high-efficiency equipment, higher levels of insulation, reduced air leakage, high performance windows, energy-efficient lighting, passive solar, thermal mass, daylighting, integration of renewable energy and other techniques.
- **A hedge against the future costs of utilities.** Because of the sustainable nature of buildings created utilizing green techniques, most utility costs are dramatically reduced. This is particularly important in a world where power and water bills are rising not only year to year, but also month to month.
- **Homes that are more air tight and thermally comfortable.** Due to the design considerations, these homes are able to maintain better air quality and even temperatures throughout. Through green construction techniques, air leakage can be minimized, thus lowering costs across the board.
- **Better indoor air quality.** Green homes have exceptional indoor air quality. This is achieved through careful selection of material and finishes that produce very little or no volatile organic compounds (VOCs). Green homes employ advance heat recovery ventilation systems (HRV or ERV) to provide a continual supply of fresh air while ventilating the interior air space. Advance air filters will reduce dust, pollens and other outdoor air pollutants.
- **Increased durability.** Green homes are, generally speaking, more durable than their counterparts. Because these buildings are created using natural materials and more care is put into putting them together, they last longer.
- **Reduction in water use.** Green homes employ water-efficient fixtures and other strategies. Conservation of water isn't only saving the resource itself. When potable water is wasted, all the energy that goes into processing and delivery to your home is being wasted as well. Reduction in hot water use also saves the energy required to heat it.
- **Exterior noise reduction.** Green homes have higher levels of insulation and better quality windows – for example, triple-glazed thermos – which help to isolate the interior from exterior noise.
- **Better daylight and views.** Windows in green homes are strategically sized and placed to provide occupants a connection between indoor spaces and outdoor through the introduction of daylight and views.
- **Fewer materials.** Construction techniques optimize the use of material and reduce job site waste. Panelized construction, recycle and re-use methods divert debris from landfills. This reduces demand for virgin resources and therefore the impact on the environment.
- **Environmentally-friendly location.** Green homes are generally built in development patterns and neighbourhoods that allow for walking, biking or public transit. This minimizes dependency on personal automobiles and their associated environmental impact.
- **Higher resale value.** The value of a green home relative to similar conventional homes increases every time energy cost increases. Reduction of utility costs translates to higher market value.
- **Happier home owners.** When you have the opportunity to save on your energy costs, improve your health by providing amazing indoor air quality and excellent ventilation; when you can reduce respiratory and immune system distress, enjoy better daylight and views – all within the walls of your own home – it's no surprise that green homeowners are happier, with a better general piece of mind – and bragging rights.

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