

MODULAR BUILDING AROUND THE GLOBE

There is a lot of attention recently about an emerging sector around the globe who produce modular buildings. A number of countries are looking closely at modular options, in particular to create more affordable, environmentally sustainable and robust housing solutions. The other nifty aspect of a modular building is it can typically be built in a shorter period of time than a traditional home building process requires - making it a viable option to help address the pressing housing and homelessness crisis, sadly faced by so many in today's world.

Although there is significant focus on this emerging industry at present, roots of modular construction date back a number of decades with countries such as South Africa who utilized container conversion techniques in 1985.



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WHAT IS A MODULAR HOME?

A modular home is a type of prefabricated building which typically combines a two phase construction of the building with the first phase starting at a factory ahead of time, followed by a second phase of construction on site.

Depending the type of modular build selected the amount of pre-construction in a factory can vary from initial development of wall panels, through to a completed structure that is delivered and graded onsite.

Modular homes provide an eco-friendly and affordable building solution as they require less energy and produce less trash during construction. They are also flexible in design to either connect into a grid or can be easily maintained in an off-grid setting.

OTHER LOW IMPACT HOME OPPORTUNITIES

There are a number of other low impact housing solutions that fall into the category of affordable, resilient and environmentally friendly. For example, passive homes are highly energy-efficient buildings that emphasizes using passive design features like windows, insulation, and natural ventilation to lessen the need for heating and cooling. These structures pride themselves in maximizing the gifts of mother nature. Compared to conventional homes, passive homes often consume up to 90% less energy, creating a low footprint home that is healthy and affordable to maintain for the long term.

BUILDING WITH NATURE

When embarking on a low footprint and affordable green housing solution, one of the best places to start is to look at the natural resources available at your building site or within the local community. The could include straw, hemp, soil or rock that could be leveraged to support construction of your new home.

Looking to use local natural materials in your build will not only keep costs low, but will also provide a source of material that is already climatized and resilient to the weather of the region. Straw bale homes and hempcrete homes are great examples of eco friendly homes that can be built to withstand cold climate weather.

If you are brave and creative you could also consider situating your home in a hill or rocky area, leveraging the benefits of natural heating and cooling in your home.



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NET ZERO HOMES

Another trendy term in the green building arena is “net zero”, one that is hard for some to wrap their heads around. A net zero or “carbon neutral” home is essentially homes that produce as much clean energy as they consume. Net zero homes can be either new homes or renovated older homes, but as always if design principles can be added from the onset through a new build, this is often the most economical way to achieve a net zero home.

Not surprising net zero homes are focused on energy efficiency, these homes are like a connected ecosystem maintaining consistent temperatures throughout. Although net zero homes are tackling the energy demand portion of sustainability, other aspects of sustainability such as the use of natural building materials and minimizing waste are also good principles to carry forward in a net zero home.



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CONCLUSION

As you travel on your journey to learn about and potentially even invest in a sustainable low impact home, be sure to consider the different types of homes available, as well as the local climate, rules and resources at hand, to determine the right fit for you.

If you would like to learn more about modular homes in the Ontario setting, please check out our website home page to access our July 2024 blog on this very topic! If you enjoyed this read please comment, like and share.



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SOURCES

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