

The New 5- and 6-Storey Wood Mid-Rise Building Opportunity BETTER FOR THE ENVIRONMENT

Building professionals in Canada are often champions of environmental care, and many are actively incorporating wood products into their sustainable building strategies for new construction and renovations. In addition to growing naturally and using solar energy wood is both a renewable and recyclable building material. The proposal to modernize the National Building Code of Canada (NBCC) to increase the height limit for wood construction from four to six storeys, provides a new opportunity to use renewable, “green” wood products to help reduce the overall environmental footprint of buildings.

The environmental benefits of building with wood are further strengthened when those products are sourced from inside Canada, where we have advanced wood manufacturing technology and progressive forest practices, backed by third-party forest certification.

Wood – A Lighter Environmental Footprint

Life Cycle Assessment

Life cycle assessment (LCA) is a performance-based approach to assessing the impacts building choices have on the environment. The best way to understand the full environmental impact of any product or structure is to analyze its impacts at every stage of its life, including fossil fuel depletion, water use, and greenhouse gas emissions.

LCAs enable an objective comparison to be made between alternate materials based on quantifiable indicators that clarify the environmental equation associated with choosing one material over another.

Numerous LCA studies worldwide have shown that wood product-based building systems yield environmental advantages over other building materials at every stage. Wood buildings can offer lower greenhouse gas emissions, less air pollution, lower volumes of solid waste – all of this from a renewable resource.¹

Using wood can also reduce the impact of climate change since trees absorb carbon dioxide as they grow, and products made from trees continue to store this carbon. In North America, a typical wood-frame home stores 29 tonnes of carbon – this represents approximately the same amount of carbon dioxide emitted by running a family car for five years.²

Environmental Product Declarations

Environmental Product Declarations (EPDs) are standardized tools that provide information about the environmental footprint of the product being rated. They are, essentially, LCA “light” reports (similar, but providing less detailed product information).



Based on international standards (ISO 14025 & ISO 21930), EPDs have worldwide applicability. In North America, the wood products industry has taken its EPDs much farther than others, by obtaining third-party verification from Underwriters Laboratories Environment (UL-E), an independent certifier of products and their environmental sustainability.

¹ A Synthesis of Research on Wood Products and Greenhouse Gas, FPIInnovations, 2008

² Wood and Climate Change, FPIInnovations, 2008

The North American wood products industry has developed a number of EPDs, for use by design professionals interested in comparing the environmental impacts of building construction products. In Canada these EPDs were developed on behalf of the wood products industry by the Athena Sustainable Materials Institute, and in the U.S. by the Consortium for Research on Renewable Industrial Materials (CORRIM). EPD assessments have also been independently verified by third parties, and published by the Underwriters Laboratories Environment (UL-E), an independent certifier of products and their environmental sustainability.

Based on international standards (ISO 14025 & ISO 21930), EPDs have worldwide applicability and include information about product environmental impacts such as resources, energy use and efficiency, global warming potential, emissions to air, soil and water, and waste generation.

EPD's can be found at: <http://cwc.ca/design-with-wood/sustainability/life-cycle-and-epds/>.

Products from a Responsibly Managed Renewable Resource

Canada's forest sector knows how to take care of our valuable resource. We are world leaders in the implementation of progressive forestry practices, wildlife conservation and efficient utilization of resources and raw



materials – and the sector is committed to continual improvement. Additionally, tough laws and enforcement, backed by more third-party forest certification than any other country, ensure Canada's forest products are crafted from legal and sustainably harvested wood.



Regeneration is at the heart of sustainably managed forests. Canada's forest products are crafted from legal and sustainably harvested wood. Photo used by permission of Forest Products Association of Canada (FPAC).

The Canadian Wood Council (CWC) is the national association representing manufacturers of Canadian wood products used in construction. CWC is a strong advocate for the use of Life Cycle Assessment and communication about environmental attributes through the use of Environmental Product Declarations. Visit us at www.cwc.ca.

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