

# Wood is our Greenest Building Material

Wood builds 30,000 Ontario homes each year.

Wood is a natural, renewable, and sustainable building material. In fact, wood helps build approximately 30,000 homes each year in Ontario. Wood is an indispensable forest product, it grows naturally, is renewable, sustainable and has advantages over other building materials from a carbon footprint perspective. Wood contributes to energy efficiency due to its ability to conduct heat, meaning it is a better insulator than other materials.

Widely recognized as a green building material, wood is durable, adaptable and has positive impacts on our health and wellbeing. Building materials such as concrete and steel have a larger carbon footprint than wood. This is because their manufacturing processes heavily depend on fossil fuels to process raw materials, which are usually extracted through open-pit mining and heated to extreme temperatures. The way wood products are manufactured is less energy-intensive and results in less carbon emissions than steel or concrete. Wood's sustainability, low energy production, its versatility, and its ability to store and capture carbon, make it an exceptional choice as a sustainable low carbon building material. While wood is commonly used for residential homes, advances in



Wood uses less energy to manufacture than alternative building materials.



**Advantages to building with wood**

- Less energy to manufacture
- Biodegradable
- Strong
- Smaller environmental footprint
- Recyclable
- Reduce earthquake impacts
- Durable
- Renewable
- Exposed wood improves productivity and concentration
- Stores carbon
- Versatile

building technology has progressively allowed the use of wood in a wide range of non-residential and multi-story buildings. Construction codes have been evolving to realize the benefits of wood construction and allow for higher buildings to be built with wood. Advances in building technology has also progressively allowed the use of wood in a wide range of non-residential and multi-story buildings.

### Wood Stores CO2

Growing trees capture CO2 from the air and store it as carbon. If the trees are harvested and turned into wood products, such as timber, the carbon stays locked in the wood. The wood used to build homes, buildings, and other wood products, like furniture, can store carbon for decades. Wood products have the additional benefit of being used as an alternate material to products made from concrete or steel, which have a greater impact on CO2 emissions than wood. They also do not absorb and store CO2 like wood does.

A **wood-framed** home stores the same amount of **carbon** that is emitted by running the family car for five years.



### Mass Timber

Wood has been used to build houses for thousands of years, but more recently with the development of engineered structural timber, mass timber has allowed wood to be used in major construction projects to create higher buildings. Mass timber involves attaching pieces of wood together to form panes or structural elements such as beams. This results in wood that is strong, fire-resistant, lightweight, versatile, and aesthetically pleasing.

Building with wood is **quick and quiet.**



### Did you know?

Provincial and territorial forest laws, regulations and policies address and govern a variety of environmental, social, and economic considerations, which includes the importance of sustainable forest management. Ensuring that every harvested area is regenerated and there is a continuous cycle of growing, harvesting, and renewing, so that forests remain healthy for many years to come.