

Why Build with Wood?

- ❑ **Wood has an excellent strength to weight ratio.** It is strong, lightweight and flexible, and there are many examples of using wood to achieve long spans (2010 Richmond Olympic Oval) and tall structures (AGO).
- ❑ **Wood offers one of the safest building systems in an earthquake.** Wood structures are lighter than other building systems – less mass is an advantage because it means lower forces are exerted on the building; wood shear walls are ductile due to the nailing, therefore withstanding the motion generated by seismic events.
- ❑ **Availability of skilled trades-people.** Wood frame construction is well-known to designers, trades and builders – there is a long tradition of creating strong and durable wood buildings.
- ❑ **Wood is durable.** There are many buildings that have been built with wood that are hundreds of years old. Proper drainage detailing to prevent moisture accumulation along with appropriate finishes to prevent decay or increase pest resistance will help ensure a building that will stand the test of time. When considering fire performance, wood's charring characteristics slow the spread of fire in larger members.
- ❑ **Wood is cost-effective.** Wood is widely accepted as the most economical option for building single family homes using light frame wood construction, but it has also been shown to be more economical for larger non-residential buildings as well (example Timmins Library).
- ❑ **Wood is easily sourced locally.** One of wood's great strengths as a building material in Canada is its abundance and ability to be sourced locally almost everywhere in North America.
- ❑ **Wood products are versatile.** There are a wide range of products and uses. Wood products can be strictly functional (eg. rough framing), or they can be scaled up in design and be exposed for their aesthetic value in institutional and commercial buildings (eg. exposed glulam structure in the AGO's Galleria Italia expansion).
- ❑ **Wood buildings are adaptable.** Wood buildings are more easily renovated, added on to, and adapted to changing uses over the lifespan of the building.
- ❑ **Wood is sustainable.**
 - Wood is the only renewable major construction material
 - Wood buildings are easier to insulate because it is less conductive than steel and concrete
 - Wood can be recycled and re-used
 - Outperforms other major building materials with regards to LCA (Life-cycle assessment) – an approach for assessing impact materials have on the environment- based on material extraction or harvesting, through manufacturing and processing, transportation, use on site, maintenance, disposal and re-use.
 - Wood out performs steel and concrete because it: requires less energy in production, produces fewer green house gas emissions, releases fewer pollutants into the air and in water and generates less solid waste.
- ❑ **Building with wood supports regional economies.** The forest industry is the second largest contributor to Ontario's economy. In many regions, forestry is the most important primary industry. Currently, the industry is facing tough challenges and must develop more value-added mills in Ontario. By choosing to build with wood you are helping increase demand that will create jobs in Ontario and contribute to innovation and investment in an industry that is important to the provincial economy.