



Building
Green with
Wood in B.C.

MODULE 7

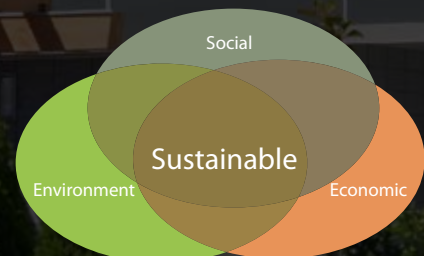
Social & Economic
Sustainability

In cities across North America, the low-density sprawl that has characterized development since the mid-20th century is giving way to a growing landscape of mid-rise buildings; four-to six-storey structures that are more environmentally sustainable and cost effective because of their increased density, while still blending with existing neighbourhoods and helping to create livable communities that accommodate growing urban populations.
Remy Condominiums, Richmond, B.C. Architect: Patrick Cotter Architect Inc.
Photo: naturallywood.com

Sustainable Development

Green building supports a built environment that is socially, environmentally and economically responsible. These are the three pillars of sustainable development.

While it is important to promote environmental sustainability, there is also a need to consider social and economic issues. Buildings must be designed with people in mind – and this will lead to thriving and vibrant communities.



Meeting Social Needs

Social sustainability relies on a collaborative approach to building and community development, one that involves all stakeholders, reinforces social networks, and allows people of every age and ability to reside and participate in their community throughout their life. Sustainable communities make it easier for people to travel by foot, bicycle and mass transit, and they bring together residential, commercial and retail development.

The objective of green design is to create communities where people will want to live and work now and in the future. Where appropriate,

there should be preference given to renewable and recyclable materials that are regionally harvested or manufactured, and can be installed and maintained by local labour.

Once again, life cycle assessment has a key role to play in identifying the most appropriate product choices. There may be times when local materials are not the most environmentally sound choice; and it may be better to import products that have lower extraction, processing and disposal impacts.



Meeting Economic Needs

A green design may cost more but often saves operating costs throughout the life of the building – through more efficient lighting and better windows, smaller and less costly HVAC, better use of materials, and reduced demolition costs. A green building is also likely to maintain a higher value.

In 2014, the Canadian Green Building Council commissioned the research report “Canada Green Building Trends: Benefits Driving the New and Retrofit Market” by McGraw Hill Construction. The report stated:

“Like their counterparts in the U.S. and around the world, Canadian building owners, architects and contractors report that green buildings significantly decrease operating costs in the first year after

construction, and that their impacts on operating costs continue to increase over five years. Operating cost savings are no doubt impacted by the energy and water savings reported.

- 82% of building owners/developers report decreases in energy consumption compared to similar buildings.
- 68% of owner/developers report decreases in water consumption.

The Canadian respondents also report reasonable payback periods of eight years for new green building projects and seven years for green retrofits and renovations. They also find that their green retrofit/renovation efforts contribute to increased building values, with a median increased value of 4%.”

Source: Canada Green Building Trends: Benefits Driving the New and Retrofit Market, 2014, Canadian Green Building Council
<http://www.cagbc.org/cagbcdocs/resources/CaGBC%20McGraw%20Hill%20Cdn%20Market%20Study.pdf>

British Columbia is a leader in sustainable forest management and forest certification, with more certified land than any other jurisdiction in the world, with the exception of Canada as a whole.

Photo: Moresby Creative

Responsible Forest Products

Designers and builders can use their buying power to improve forest management by choosing wood products they know are from legal, sustainable sources. This demonstrates their corporate social responsibility and shows customers they care about the environment.

Illegal logging is an urgent global problem that leads to the loss of wildlife habitat and public revenues. Lower prices for illegal forest products distort global markets and discourage sustainable forest management.

Private and public procurement policies are increasingly requesting proof that forest products are derived from known and legal sources.

Through its comprehensive governance structures, British Columbia is a world leader in forest products that are harvested legally and sustainably. Voluntary third-party forest certification systems used in B.C. also contribute to assuring buyers as evidence of these values.



Photo: Brudder

Green buildings

- Mitigate climate change
- Use less energy and water
- User fewer materials
- Reduce waste
- Are healthy for people and the planet

In Canada, about 80 per cent of Aboriginal peoples live in the forested regions, and their participation in forestry is growing steadily.



Photo: Forest Products Association of Canada.

Canada's Resource Communities

In Canada, forest products provide economic opportunities for people in resource-dependent communities. More than 300 Canadian communities, many of them in remote areas, depend on the forest sector for at least half of their base income.

About 80 per cent of Aboriginal peoples live in forested regions. There are 1,400 Aboriginal-owned businesses involved with Canada's forest sector, and about 17,000 Aboriginal people work in the industry.

On the cover:

*Squamish Lil'wat Cultural Centre
Whistler, B.C.*

*Architect: Alfred Waugh Architect
Photo: Michael Bednar*

Completed in 2008, the project is a showcase for the cultures of the Squamish Nation and Lil'wat Nation which have coexisted peacefully in this region for centuries.

Architecturally, the 38,000-ft² (3,350-m²) building is a contemporary reinterpretation of the traditional longhouses of the Squamish people, and the Istkens or pit houses of the Lil'wat people.

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British Columbia wood. Sustainable by nature. Innovative by design.