

SQUAMISH ADVENTURE CENTRE

LOCATION

Squamish, British Columbia

SIZE

522 m²

COMPLETION

2005

**ARCHITECT AND STRUCTURAL
ENGINEER**

Iredale Architecture

MECHANICAL ENGINEER

MCW Consultants Ltd.

CONSTRUCTION MANAGER

Compass Management

LANDSCAPE ARCHITECT

Senga Landscape Architecture Inc.

PROJECT OWNER

District of Squamish

PROJECT OVERVIEW

The Squamish Adventure Centre is an elegant example of advanced wood technology and the capabilities of British Columbia's forest product sector. It shows how modern designs with complex geometries can be quickly and economically built.

Located along the Sea-to-Sky highway on the outskirts of Squamish, the building's signature curved wing-like roof represents the eagles in the Squamish Valley. It's a memorable landmark for the two million visitors who travel the highway each year between Vancouver and Whistler.

The elliptical geometry of the Squamish Adventure Centre contains more than 1,000 uniquely shaped heavy-timber members, all made from locally grown Douglas fir harvested from a sustainably managed forest operated by the Squamish First Nation.

The wood structure was designed, detailed, fabricated and built in just three months to meet a tight timeline of eight months for the entire project. The project was commissioned by the District of Squamish. It is a combined visitor centre, outdoor sports museum and economic development office.



“This project is an example of a new typology of the tourism visitor centre, operating as a combined cultural and historical venue. At its most ambitious—using organic forms and materials indigenous to the area—the design seeks to evoke an immediate awareness of landscape.”

Richard Iredale, Partner, Iredale Architecture

WOOD USE

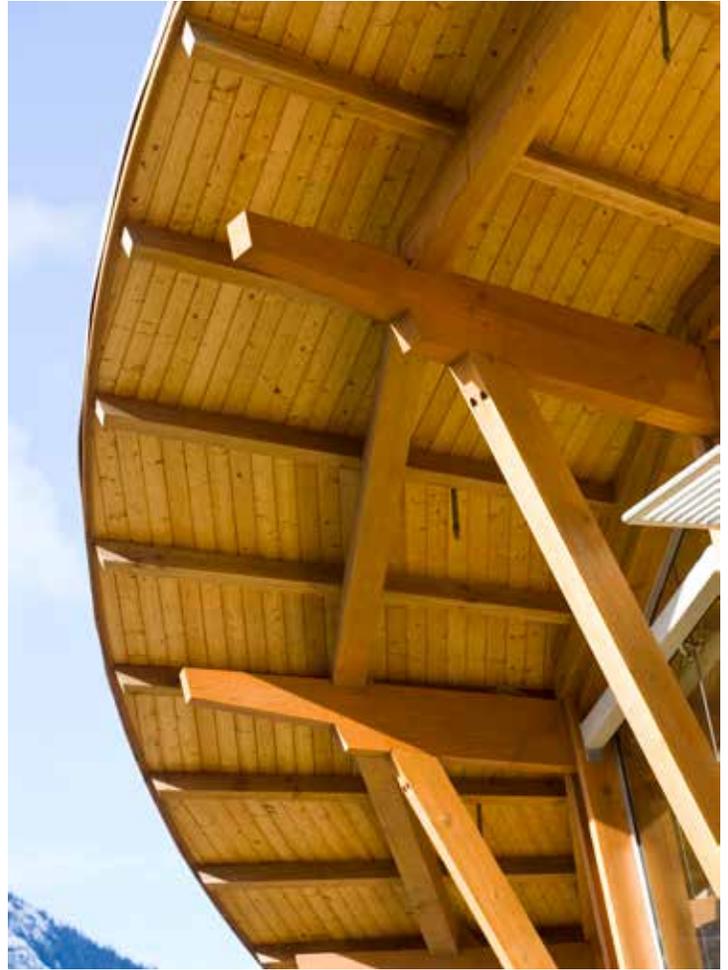
The Squamish Adventure Centre’s curved butterfly roofs perch lightly on a supporting structure of exposed timber columns, brackets and beams. The roofs are made from 35 different composite steel and timber roof trusses that each have a unique geometry.

The Centre is built from 60,000 board feet of Douglas fir timber from the west coast of British Columbia, and the structure comprises more than 1,000 uniquely crafted elements that required detailing and precision milling.

The heavy timber frame building’s shape—with few, if any, right angles—was made possible through the

application of locally based, leading-edge design expertise and manufacturing technology. To realize such a complex structure within a limited time frame, each component was computer modelled in three dimensions. Assembly at the site required only two cranes and a crew of four, and it proceeded quickly, with all the pieces of the puzzle fitting perfectly together.

The use of wood as a major building material for the Centre, along with local harvesting, milling and fabrication, minimized transportation energy while providing economic and social benefits to the region.



Photos courtesy of www.naturallywood.com

FOR MORE INFORMATION

This profile is published by Forestry Innovation Investment, the Government of British Columbia’s market development agency for forest products.

For more examples of innovative wood building projects throughout British Columbia, visit:

naturallywood.com