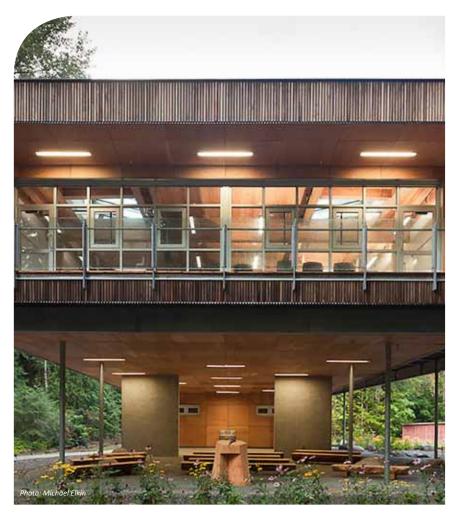
USE OF LOW CARBON & RENEWABLE MATERIALS in LEED Projects

CASE STUDY



Overview

The BlueShore Environmental Learning Centre at the Cheakamus Centre in Brackendale, B.C., is a striking timber structure raised up into the canopy of the surrounding forest. The classrooms are raised up on short concrete walls and steel columns to above the 200-year flood level of the nearby Cheakamus River. The covered ground level provides a sheltered gathering space from which classes can explore the surrounding area. The raised main building contains two classrooms and a large open multi-purpose room.

How low carbon materials were used in the project

Above the flood level, the structure is made up of a grid of glulam beams supporting cross-laminated timber panels at both floor and roof level. Wood is used in the cedar slat cladding that wraps the building, and for interior finishes, from the reclaimed Douglas Fir timbers that cover the soffit between glulam beams to the wooden millwork.

BlueShore **Environmental Learning** Centre

Brackendale, B.C.

LEVEL OF LEED OBTAINED:

LEED® Canada NC v1.0 Platinum

WOOD RELATED LEED CREDITS **ACHIEVED:**

MRc5 - Regional Materials MRc7 - Certified Wood IEQc4.4 - Low-Emitting Materials: Composite Wood & Laminate Adhesives

CLIENT

School District 44, North Vancouver

ARCHITECT

McFarland Marceau Architects Ltd.

STRUCTURAL ENGINEER

Equilibrium Consulting Inc.

MECHANICAL ENGINEER

Stantec

LEED CONSULTANT

McFarland Marceau Architects Ltd.

CONTRACTOR

D.G.S Construction

NUMBER OF STOREYS

GROSS FLOOR AREA

950m²



CASE STUDY: BlueShore Environmental Learning Centre









Leadership in Energy and Environmental Design (LEED°)

The project was certified under LEED Canada NC 2009 and achieved points for using recycled content in building materials and using local materials. LEED credits that were supported by low carbon building materials include Materials and Resources credit 5 - Regional Materials, for which the project exceeded 30%, gaining two LEED points.

Notable Awards

- 2015 Canadian Wood Council Western Red Cedar Award
- 2013 Wood Design & Building Awards
 Citation
- 2013 Lieutenant-Governor of British Columbia - Merit
- 2012 Holcim Award of Acknowledgement for Sustainable Construction
- 2012 Canadian Architect Awards of Excellence - Merit

References

McFarland Marceau Architects Ltd. (2014). BlueShore Financial Environmental Learning Centre at Cheakamus Centre. Accessed Feb 2017. URL: http://www.mmal.ca/northvan/page1.html

WoodWorks (2013). 2013 Wood Design Awards - Project Fact Sheet: Environmental Learning Centre, North Vancouver Outdoor School. Ottawa, ON: WoodWorks. URL:

http://www.wood-works.ca/wp-content/uploads/content/BC/WDA/Winner2012/FactSheets/elc.pdf