USE OF LOW CARBON & RENEWABLE MATERIALS in LEED Projects

CASE STUDY

BlueShore Environmental Learning Centre
Brackendale, B.C.

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.

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
2

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
