

# WHISTLER ATHLETES' CENTRE LODGE

**LOCATION**  
Whistler, British Columbia

**SIZE**  
3,999 m<sup>2</sup>

**COMPLETION**  
2009

**ARCHITECT**  
Burrowes Huggins Architects

**STRUCTURAL ENGINEER**  
Canstruct Engineering Group

**CONSTRUCTION MANAGER**  
Metric Modular

**WOOD MODULE FABRICATION AND INSTALLATION**  
Metric Modular

**PROJECT OWNER**  
Whistler Sport Legacies

## PROJECT OVERVIEW

The four-storey Whistler Athletes' Centre Lodge was originally developed to provide comfortable accommodations for athletes of the 2010 Vancouver Olympics and Paralympic Winter Games. Both the Vancouver Olympic Committee and Whistler community leaders also wanted an affordable, sustainable facility that could continue to be used long after the games ended. This building has lived up to that goal. The fully-accessible, 100-bedroom Lodge provides housing for Canadian athletes in training as well as for cultural and educational groups; it's even used for weddings and other events.

Developers chose to build the Lodge using wood-framed modular construction to meet the Olympic Committee's strict budget and for quick installation. With all the other Olympics-related construction underway in the area at the time, skilled labor availability was tight. So, they assembled the modules offsite, trucked them to Whistler and then quickly and efficiently lifted them into place.

By building the modules in a controlled, factory environment, they were able to improve quality, reduce waste and minimize jobsite challenges. And because the modules could be fabricated at the same time sitework was taking place, the overall timeline was significantly shorter. Metric Modular started producing the modules in April 2008 and athletes moved in just 13 months later.

Built on an existing landfill to reduce the project's environmental footprint and designed to meet both LEED Silver standards and Whistler Green requirements, the project met challenging sustainability goals. The team also implemented a comprehensive Environmental and Wildlife Management Plan to manage challenges related to local bears invading the building site. The project was completed before the due date and within the budget requirements.



Photo courtesy of Metric Modular

*“Wood is more flexible and more economical than other materials, making it the ideal choice for a project like this. Whistler is in a relatively remote location; they have a shorter construction window and we absolutely needed to have the Lodge ready for the Games. Modular construction allowed us to meet the deadline, saving 30 to 40 percent in construction time.”*

**Tom Faliszewski, Senior Manager,  
Innovative Solutions for Metric Modular**

## WOOD USE

The Lodge was built using 59 prefabricated modules, each of which was approximately 3.7 metres wide, 15 metres long and 3.4 metres high. The modules, built at Metric Modular’s facilities in Agassiz and Penticton, were assembled using traditional wood framing with dimension lumber for the roof and floor joists and wall studs. To stay true to the project’s sustainability goals, Metric Modular used wood sourced from mountain pine beetle-affected forests when possible.

They used both plywood and oriented strand board (OSB); they also used laminated veneer lumber (LVL) beams for rim joists. The LVL provided stiffness that allowed the modules to be transported and then picked up and set in place by crane without damage. Crews notched the ceiling joists to accommodate an

energy-efficient hydronic heating and cooling system; they installed tubes between the ceiling joists and the gypsum board, which turned the ceiling surface into a large radiant panel.

Once the modules were stacked in place, contractors added a site-built truss roof structure and heavy timber canopies to complement the facility’s architecture. Designers carried the Olympic theme into the interior, with gold, silver and bronze coloring as well as sculptures that honour the fact that the Lodge is built on the traditional territory of three Indigenous Communities. The resulting structure is virtually indistinguishable from a conventional site-built project, and the durability of wood allows it to continue to provide comfortable housing for Whistler athletes and visitors.



Photos courtesy of Metric Modular

*The wood grain featured in this profile is lodgepole pine.*

## FOR MORE INFORMATION

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

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