Institutional Wood Design: Large

Donald Schmitt, Diamond Schmitt Architects, Toronto, ON

Thompson Rivers University, Old Main Addition, Faculty of Law School,
represented by: Matt Milovick, Kamloops, BC

Thompson Rivers University, Old Main Academic Building Addition, Kamloops, BC

The natural surroundings and First Nations heritage that inform TRU’s identity inspired the design for the first new law school in Canada in 30 years. To accommodate 45,000 square feet of program space and not contribute to campus sprawl by building anew, a virtue was made of necessity to refashion a nondescript, low-slung facility and add two storeys atop its 400-foot length. Taking a cue from the surrounding mountains held sacred by indigenous peoples, an undulating roofline makes a bold connection with the terroir. The curvature of the roof also serves to unify the east and west wings of the new floors with the existing penthouse block.

For the building to be grounded in its context, it was decided from the beginning that wood, as a local, sustainable material, should feature in the structure and finishes.

Because the two lower floors had to remain in use, the only way to complete the shell of the addition on a very tight schedule was to use prefabricated panels for the roof. A system of glulam beams and plywood deck was the best way to prefabricate modules in 12-metre spans and a slim 50-cm depth that could smoothly follow the complex double curvature of the roof and allow for the construction tolerances required to connect to the slender 125-mm-wide steel columns. The soffits of the projecting roof, as well as two new ground floor entrance canopies, are clad in cedar, appearing from ground level as flowing ribbons of wood against the curtainwall façade.

Using wood in the roof structure required innovative thinking to comply with the building code. At four storeys, the addition was too tall to permit flammable materials in its structure. Hence, an alternative solution based on heavy timber and fire retardant-treated dimensional lumber was developed. The success of this approach opens up new opportunities for wood structures in building types where it cannot be conventionally used.

The main public spaces – a double-height atrium, a 2,600 square foot reading room, and three interconnected multi-purpose rooms – are unified with a ceiling of acoustic planks finished with maple veneer. The light wood’s colour enhances the natural light coming in from generous glazing, while its pattern subtly suggests the basket-weaving traditions of the indigenous cultures. The walls of the atrium are also clad in wood panelling with perforated upper portions for acoustic control.

The use of wood adds warmth and human scale to these large spaces and lends refinement and a welcoming feeling to reception desks, benches and the curved desks in the main lecture rooms. Bands of veneered plywood are used for the front panels of these desks, using the basket-weave motif. Overall, the wood finishes in the lecture rooms provide a calm and harmonious environment conducive to learning.

With a special focus on First Nations law, the university sought to establish a strong connection through design with indigenous culture as well create a bold identity to express the energy of this institution. In this, the Old Main addition succeeds by harmonizing landscape, culture, materiality and architecture.

“A dramatic achievement in the use of wood in large institutional construction... wood provides a seamless and attractive transition from the new space to the main building.”

-jury comments

High resolution images available. Please e-mail mmclaughlin@wood-works.ca

Submitted to Wood WORKS! BC - 2016