

Institutional Wood Design: Large

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Earth Sciences Building, Vancouver, BC



The jury commented that it is an outstanding building in terms of how wood was used and systems that have been applied. It is striking, very innovative and most impressive.

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

The Earth Sciences Building (ESB) is located on the Vancouver campus of the University of British Columbia. Shared between Earth, Ocean and Atmospheric Studies, the Department of Statistics, the Pacific Institute for the Mathematical Sciences and the Dean of Science, ESB is designed to enhance the growing links between each department, providing valuable opportunities for shared learning and collaboration.

The building is located along Main Mall, the primary north-south pedestrian route on campus, providing opportunity to add visual interest to the pedestrian experience by displaying the research taking place inside the building. To achieve this, the ground floor is considered the primary public space, and is glazed on all sides to maximize visibility into the building. Located directly across the street is the Beaty Biodiversity Museum, which together with the ESB creates a 'museum precinct' in this area of campus, a first for UBC.

Promoting the project goal of 'science on display', a double-height research lab space serves as the backdrop for the museum-display component of the project. The building contains faculty and staff offices for each department, research laboratories, teaching spaces that include three lecture theatres, a museum component and a cafe. A five-storey atrium divides the north and south wings of the building, providing an organization structure for the different departments while at the

same time providing an east-west pedestrian route directly through the building. Unlike the concrete south wing that contains labs and offices, the north wing houses offices and lecture theatres, with wood as the primary structural material. The wood structure provides a welcoming environment for the inhabitants of the building. The embodied carbon footprint of the heavy timber structure is almost 50 per cent less than the concrete structure and is less than the average UBC laboratory building.

To provide rain cover for pedestrians in line with the university's design guidelines, a solid wood CLT canopy wraps three sides of the project. It extends from inside the building, where it forms the interior ceiling finish of the museum and cafe, blurring the boundaries between interior and exterior space. Located in the atrium is a free-floating cantilevered solid timber staircase. The dramatic stair is fully cantilevered off the bridge floors and is composed of a seamless folding 'ribbon' of rigid glulam stringers, a first of its kind in the world. The clean and elegant lines of the massive timber seem to defy gravity, and dramatically demonstrate the aesthetic and structural capabilities of modern engineered timber. The ESB project sets a new standard of structural performance and innovation in heavy timber construction and demonstrates how modern engineered timber can be used efficiently and competitively in the most demanding of institutional projects.