



Point Supported CLT Testing Vancouver, BC

The 18-storey Tallwood House at Brock Commons at the University of British Columbia (UBC) is one of Fast + Epp's most ground-breaking projects known for its unique use of the cross-laminated timber (CLT) floor system. Although CLT is often used as a one-way decking system, the Tallwood House aimed to make use of the product's two-way spanning capability for its gravity system. Spanning in both directions helped eliminate the use for beams, allowing for clean, open spaces.

To support this innovative use of CLT floor panels, Fast + Epp undertook research, alongside a Peer Review Panel to support the design of this, which is not currently outlined in Canadian Codes, Standards, or Design Guides. To support the implementation of the two-way system, the team partnered with FP Innovations to complete physical testing of point-supported CLT panels, testing the punching shear effects on the panel at supports.

The testing was completed in 2015 allowing for safe implementation in the Tallwood House project. This research, along with other studies evaluating the unique challenges associated with this tall timber building, were published in two conference papers for the 2016 Wood Conference for Timber Engineering (WCTE) Conference Proceedings.

Fast + Epp

Project Partner
FP Innovations

Project Type
Physical Testing Program

Funding
Tall Wood Building Demonstration Initiative

Associated Project
Tallwood House at Brock Commons

Publications and Links
Case Study: An 18-Storey Tall Mass Timber Hybrid Student Residence at UBC

Structural Behaviour of Point Supported CLT Floor Systems

The TallWood House at Brock Commons Vancouver

