



## Perforated Plate Testing

<https://research.thinkwood.com/en/permalink/catalogue2647>

Organization: Fast + Epp  
 Country of: Canada  
 Publication:  
 Material: Glulam (Glue-Laminated Timber)  
 Application: Frames  
 Topic: Seismic  
 Design and Systems  
 Connections  
 Keywords: Braced Frames  
 Dissipation  
 Cyclic Tests  
 Monotonic Test  
 GCWood  
 Language: English  
 Research Status: In Progress

### Summary:

As part of Fast + Epp’s ongoing work to push the boundaries of Tall Wood construction in seismic zones, this testing program aims to develop a new dissipative system for use in timber braced frames or other timber lateral systems where the connections provide energy dissipation. The connections are designed to dissipate energy through ductile steel plates to provide robust and well understood dissipative systems. In collaboration with the Advanced Research in Timber Systems’ team at the University of Alberta, Fast + Epp is working on a four-phase testing program for cyclic and monotonic testing of various configurations of perforated plate connections. Small scale tests have been completed on perforated plates, and entire connections will be examined in advance of a full-scale timber brace frame test to evaluate the overall behaviour. One phase of physical testing was completed in January 2020, with the next 3 phases intended to be completed in 2021. Initial data analysis of the first phase testing has resulted in tuning of the system in advance of later phase testing. Results on the first two or three phases of testing are anticipated to be completed in 2020 with initial publication of the results in early 2021.

### Resource Link

<https://www.fastep.com/portfolio/perforated-plate-testing/>