



Développement de murs de cisaillement à haute capacité pour la construction à ossature en bois

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 Date: March 2021
 Material Type: Research report
 Physical Description: 5 p.
 Sector: Wood Products
 Field: Sustainable Construction
 Research Area: Building Systems
 Subject: Wood structure
 Shear walls
 Walls
 Wood
 Building construction

Series Number: InfoNotes 2021 N14

Language: French

Abstract: n collaboration avec l'Université de Victoria, on a mis au point un mur de cisaillement à haute capacité comportant deux rangées de clous au périmètre du revêtement. On a mené un programme d'essais pour évaluer la performance du mur de cisaillement proposé, ce qui comprend la résistance aux charges latérales et aux déplacements, le comportement hystérétique, la rigidité et la ductilité.

Documents



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Expanding wood use towards 2025: seismic performance



of midply shear walls

<https://library.fpinnovations.ca/en/permalink/fpipub7699>

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Date: March 2020

Edition: 52949

Material Type: Research report

Physical Description: 47 p.

Sector: Wood Products

Field: Sustainable Construction

Research Area: Advanced Wood Materials

Subject: Cross Laminated Timber (CLT)
Performance
Building construction
Building materials
Seismic
Shear walls
Standards

Series Number: Expanding wood use towards 2025

Language: English

Abstract: Midply shear wall (hereafter Midply), which was originally developed by researchers at Forintek Canada Corp. (predecessor of FPInnovations) and the University of British Columbia, is a high-capacity shear wall system that is suitable for high wind and seismic loadings. Its superior seismic performance was demonstrated in a full-scale earthquake simulation test of a 6-storey wood-frame building in Japan. In collaboration with APA–The Engineered Wood Association and the American Wood Council (AWC), a new framing arrangement was designed in this study to increase the vertical load resistance of Midply and make it easier to accommodate electrical and plumbing services. In this study, a total of 14 Midply specimens in six wall configurations with different sheathing thicknesses and nail spacing were tested under reversed cyclic loading. Test results showed that Midply has approximately twice the lateral load capacity of a comparable standard shear wall. The drift capacity and energy dissipation capability are also greater than comparable standard shear walls. For Midply to use the same seismic force modification factors as standard shear walls, seismic equivalency to standard shear walls in accordance with ASTM D7989 was also conducted. Although Midply has superior lateral load and drift capacities, it does not seem to be as ductile as the standard shear walls at the same over-strength level. Additional testing and dynamic analysis are recommended to address this issue.

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