



## Concrete Apartment Tower in Los Angeles Reimagined in Mass Timber

<https://research.thinkwood.com/en/permalink/catalogue1191>

Author: Matthew Timmers  
Andrew Jacobs

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Hybrid Building Systems

Topic: Seismic  
Design and Systems

Keywords: High-Rise  
Seismic Performance  
High Seismic Regions  
Reinforced Concrete

Language: English

Series: Engineering Structures

Online Access: Payment Required

### Resource Link

<https://doi.org/10.1016/j.engstruct.2017.11.047>



# Mechanical Characterization of a Pre-Fabricated Connection System for Cross Laminated Timber Structures in Seismic Regions

<https://research.thinkwood.com/en/permalink/catalogue1193>

Author: Andrea Polastri  
Ivan Giongo  
Albino Angeli  
Reinhard Brandner

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Walls

Topic: Seismic  
Connections

Keywords: Point-to-Point Connections  
Shear Tension  
Shear Compression  
Cyclic Loading

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2017.12.022>



# Direct Displacement Design of Tall Cross Laminated Timber Platform Buildings with Inter-story Isolation

<https://research.thinkwood.com/en/permalink/catalogue1194>

Author: Vahab Bolvardi  
Shiling Pei  
John van de Lindt  
James Dolan

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Seismic

Keywords: Inter-Story Isolation  
Displacement-based Direct Design

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2017.09.054>



## Seismic Resilience of Plywood-Coupled LVL Wall Panels

<https://research.thinkwood.com/en/permalink/catalogue1195>

Author: Asif Iqbal  
Massimo Fragiacomò  
Stefano Pampanin  
Andrew Buchanan

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: LVL (Laminated Veneer Lumber)

Application: Walls

Topic: Connections  
Seismic

Keywords: Post-Tensioned  
Nails  
Cyclic Loading  
Energy Dissipation

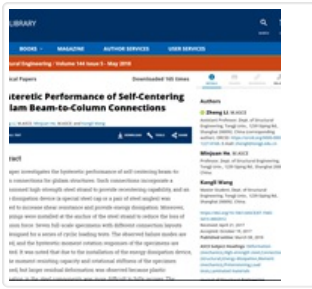
Language: English

Series: Engineering Structures

Online Access: Payment Required

### Resource Link

<https://doi.org/10.1016/j.engstruct.2017.09.053>



# Hysteretic Performance of Self-Centering Glulam Beam-to-Column Connections

<https://research.thinkwood.com/en/permalink/catalogue1231>

Author: Zheng Li  
Minjuan He  
Kangli Wang

Publisher: American Society of Civil Engineers

Year of Publication: 2018

Country of Publication: United States

Resource Type: Journal Article

Material: Glulam (Glue-Laminated Timber)

Application: Beams  
Columns

Topic: Connections  
Seismic

Keywords: Beam-to-Column  
Hysteretic Behaviour  
Self-Centering  
Energy Dissipation  
Steel Strand  
Moment-Resisting Capacity  
Rotational Stiffness

Language: English

Series: Journal of Structural Engineering

Abstract:

This paper investigates the hysteretic performance of self-centering beam-to-column connections for glulam structures. Such connections incorporate a posttensioned high-strength steel strand to provide recentering capability, and an energy dissipation device (a special steel cap or a pair of steel angles) was installed to increase shear resistance...

Online Access: Payment Required

## Resource Link

[https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002012](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002012)



# Alternate Load-Path Analysis for Mid-Rise Mass-Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1233>

Author: Hercend Mpidi Bita  
Thomas Tannert

Organization: Structures Congress

Publisher: American Society of Civil Engineers

Year of Publication: 2018

Country of Publication: United States

Resource Type: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Floors  
Wood Building Systems

Topic: Design and Systems  
Seismic

Keywords: Alternate Load-Path Analysis  
Disproportionate Collapse  
Lateral Loads

Language: English

Conference / Proceeding: Structures Conference 2018

Notes: April 19–21, 2018, Fort Worth, Texas

## Abstract:

This paper presents an investigation of possible disproportionate collapse for a nine-storey flat-plate timber building, designed for gravity and lateral loads. The alternate load-path analysis method is used to understand the structural response under various removal speeds...

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1061/9780784481349.017>



# Analytical Approach to Establishing the Elastic Behavior of Multipanel CLT Shear Walls Subjected to Lateral Loads

<https://research.thinkwood.com/en/permalink/catalogue1236>

Author: Daniele Casagrande  
Ghasan Doudak  
Luigi Mauro  
Andrea Polastri

Publisher: American Society of Civil Engineers

Year of Publication: 2018

Country of Publication: United States

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Shear Walls

Topic: Mechanical Properties  
Seismic

Keywords: Panels  
Lateral Loads  
Analytical Approach  
Hold-Down  
Joints  
Stiffness  
Elastic Strength

Language: English

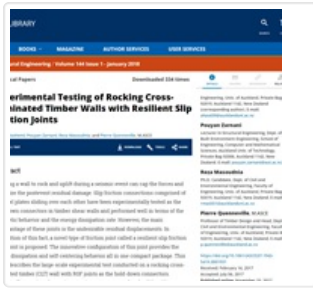
Series: Journal of Structural Engineering

Abstract:  
Structures assembled with cross-laminated timber (CLT) panels, and designed to resist gravity and lateral loads, are being considered as viable options for low-rise to mid-rise buildings. In this paper, an analytical approach based on the minimum total potential energy principle has been developed in order to determine the mechanical behavior of 1-story multipanel CLT walls...

Online Access: Payment Required

## Resource Link

[https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001948](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001948)



# Experimental Testing of Rocking Cross-Laminated Timber Walls with Resilient Slip Friction Joints

<https://research.thinkwood.com/en/permalink/catalogue1237>

Author: Ashkan Hashemi  
Pouyan Zarnani  
Reza Masoudnia  
Pierre Quenneville

Publisher: American Society of Civil Engineers

Year of Publication: 2018

Country of Publication: United States

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Walls

Topic: Seismic  
Connections

Keywords: Resilient Slip Friction Joint  
Energy Dissipation  
Self-Centering  
Rocking Walls

Language: English

Series: Journal of Structural Engineering

## Abstract:

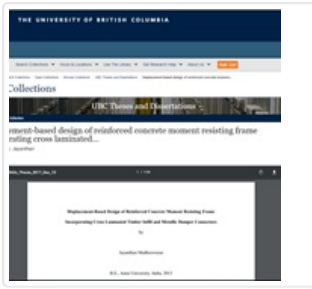
Allowing a wall to rock and uplift during a seismic event can cap the forces and minimize the postevent residual damage. Slip friction connections comprised of flat steel plates sliding over each other have been experimentally tested as the hold-down connectors in timber shear walls and performed well in terms of the hysteretic behavior and the energy dissipation rate...

Online Access: Payment Required

## Resource Link

[https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0001931](https://doi.org/10.1061/(ASCE)ST.1943-541X.0001931)





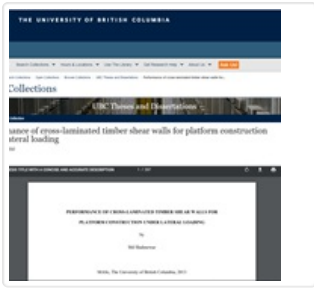
# Displacement-Based Design of Reinforced Concrete Moment Resisting Frame Incorporating Cross Laminated Timber Infill and Metallic Damper Connector

<https://research.thinkwood.com/en/permalink/catalogue1266>

Author: Jayanthan Madheswaran  
Organization: University of British Columbia  
Year of Publication: 2018  
Country of Publication: Canada  
Resource Type: Thesis  
Material: CLT (Cross-Laminated Timber)  
Application: Hybrid Building Systems  
Topic: Seismic  
Connections  
Keywords: Displacement-Based Design  
Reinforced Concrete  
Metallic Damper Connections  
Abaqus  
Finite Element Model  
Language: English  
Online Access: Free

## Resource Link

<http://doi.org/10.14288/1.0363915>




# Performance of Cross-Laminated Timber Shear Walls for Platform Construction Under Lateral Loading

<https://research.thinkwood.com/en/permalink/catalogue1268>

Author: Md Shahnewaz  
Organization: University of British Columbia  
Year of Publication: 2018  
Country of Publication: Canada  
Resource Type: Thesis  
Material: CLT (Cross-Laminated Timber)  
Application: Shear Walls  
Topic: Seismic  
Connections  
Keywords: Lateral Loading  
In-Plane Stiffness  
Platform Buildings  
Openings  
Thickness  
Aspect Ratios  
Language: English  
Online Access: Free

## Resource Link

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<http://doi.org/10.14288/1.0366004> 



# Systematic Experimental Investigation to Support the Development of Seismic Performance Factors for Cross Laminated Timber Shear Wall Systems

<https://research.thinkwood.com/en/permalink/catalogue1281>

Author: Omar Amini  
John van de Lindt  
Douglas Rammer  
Shiling Pei  
Philip Line  
Marjan Popovski

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Shear Walls

Topic: Seismic

Keywords: Quasi-Static  
Cyclic Tests  
Stiffness  
Strength  
Deformation  
Aspect Ratios  
Thickness  
Joints

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.06.021>



# Seismic Behaviour of Cross-Laminated Timber Structures: A State-of-the-Art Review

<https://research.thinkwood.com/en/permalink/catalogue1284>

Author: Matteo Izzi  
Daniele Casagrande  
Stefano Bezzi  
Dag Pasca  
Maurizio Follesa  
Roberto Tomasi

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Mechanical Properties  
Seismic

Keywords: Seismic Behaviour  
Finite Element Model  
Q Factor  
Capacity-Based Design

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.05.060>



# Cross-Laminated Timber Connections Assembled with a Combination of Screws in Withdrawal and Screws in Shear

<https://research.thinkwood.com/en/permalink/catalogue1287>

Author: Afrin Hossain  
Marjan Popovski  
Thomas Tannert

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Connections  
Seismic

Keywords: Ductility  
Stiffness  
Self-Tapping Screws  
Reverse Cyclic Loading  
Withdrawal  
Shear  
Load Carrying Capacity  
Yield Strength  
Deformation

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.04.052>



# Behavior of Cross-Laminated Timber Diaphragm Connections with Self-Tapping Screws

<https://research.thinkwood.com/en/permalink/catalogue1288>

Author: Kyle Sullivan  
Thomas Miller  
Rakesh Gupta

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: Connections  
Mechanical Properties  
Seismic

Keywords: Seismic Force Resisting System  
Monotonic Tests  
Cyclic Tests  
Strength  
Stiffness  
Shear Connections  
Self-Tapping Screws

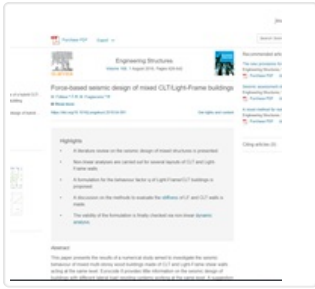
Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.04.094>



## Force-Based Seismic Design of Mixed CLT/Light-Frame Buildings

<https://research.thinkwood.com/en/permalink/catalogue1290>

Author: Maurizio Follesa  
Massimo Fragiaco

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)  
Light Frame (Lumber+Panels)

Application: Wood Building Systems  
Shear Walls

Topic: Mechanical Properties  
Seismic

Keywords: Multi-Storey  
Q Factor  
Eurocode 8  
Nonlinear Time History Analysis  
Dynamic Analysis

Language: English

Series: Engineering Structures

Online Access: Payment Required

### Resource Link

<https://doi.org/10.1016/j.engstruct.2018.04.091>



# Seismic Reliability Analysis of a Timber Steel Hybrid System

<https://research.thinkwood.com/en/permalink/catalogue1291>

Author: Xiaoyue Zhang  
Md Shahnewaz  
Thomas Tannert

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Hybrid Building Systems

Topic: Mechanical Properties  
Connections

Keywords: Timber-Steel Hybrid  
Genetic Algorithms  
Analysis of Variance  
Response Surface Methods  
Ground Motions  
Seismic Weight  
Lateral Load Resisting System  
FFTT

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.04.051> ↗





# Seismic Testing of Post-Tensioned Pres-Lam Core Walls Using Cross Laminated Timber

<https://research.thinkwood.com/en/permalink/catalogue1292>

Author: Daniel Moroder  
Tobias Smith  
Andrew Dunbar  
Stefano Pampanin  
Andrew Buchanan

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Shafts and Chases  
Walls

Topic: Seismic  
Connections

Keywords: Pres-Lam  
Core Walls  
Quasi-Static  
Seismic Loading  
Screws  
U-Shaped Flexural Plates  
Energy Dissipation

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

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<https://doi.org/10.1016/j.engstruct.2018.02.075>



# Seismic Assessment of a Three-Story Wood Building with an Integrated CLT-Lightframe System using RTHS

<https://research.thinkwood.com/en/permalink/catalogue1293>

Author: Tu Nguyen  
Thang Dao  
Sriram Aaleti  
John van de Lindt  
Kenneth Fridley

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)  
Light Frame (Lumber+Panels)

Application: Shear Walls

Topic: Mechanical Properties  
Seismic

Keywords: Post-Tensioned  
Real Time Hybrid Simulation

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.01.025>



# The Lateral Load Resistance of Unclassified Cross-Laminated Timber Walls: Experimental Tests and Theoretical Approach

<https://research.thinkwood.com/en/permalink/catalogue1294>

Author: Husam Wadi  
Sofiane Amziane  
Mustapha Taazount

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Walls

Topic: Mechanical Properties  
Seismic  
Wind

Keywords: Lateral Loading  
Fasteners  
Analytical Model

Language: English

Series: Engineering Structures

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.engstruct.2018.03.077>



# High-Capacity Hold-Down for Mass-Timber Buildings

<https://research.thinkwood.com/en/permalink/catalogue1307>

Author: Xiaoyue Zhang  
Marjan Popovski  
Thomas Tannert

Publisher: ScienceDirect

Year of Publication: 2018

Country of Publication: Netherlands

Resource Type: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Design and Systems  
Seismic  
Connections

Keywords: Hold-Down  
Quasi-Static  
Monotonic Loading  
Reverse Cyclic Loading  
Holz-Stahl-Komposit  
Steel Plates  
Failure Mechanism  
Ductility

Language: English

Series: Construction and Building Materials

Online Access: Payment Required

## Resource Link

<https://doi.org/10.1016/j.conbuildmat.2018.01.019>