



Ambient and Forced Vibration Testing and Finite Element Model Updating of a Full-Scale Posttensioned Laminated Veneer Lumber Building

<https://research.thinkwood.com/en/permalink/catalogue1103>

Author: Worth, Margaret
Omenzetter, Piotr
Morris, Hugh

Year of Publication: 2012

Country of Publication: New Zealand

Format: Conference Paper

Material: LVL (Laminated Veneer Lumber)

Application: Wood Building Systems
Shear Walls

Topic: Seismic
Wind
Acoustics and Vibration

Keywords: Post-Tensioned
Full Scale
In Situ
Finite Element Model
Dynamic Performance

Language: English

Conference: New Zealand Society for Earthquake Engineering Conference

Research Status: Complete

Notes: April 13-15, 2012, Christchurch, New Zealand

Summary:

The Nelson Marlborough Institute of Technology Arts and Media building was completed in 2011 and consists of three seismically separate complexes. This research focussed on the Arts building as it showcases the use of coupled post-tensioned timber shear walls. These are part of the innovative Expan system...

Online Access: Free

Resource Link

<http://db.nzsee.org.nz/2012/Paper020.pdf>



In Situ Measured Flanking Transmission in Light Weight Timber Houses with Elastic Flanking Isolators

<https://research.thinkwood.com/en/permalink/catalogue231>

Author: Ågren, Anders
Ljunggren, Fredrik

Organization: Inter-noise

Year of Publication: 2013

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Floors
Wood Building Systems

Topic: Acoustics and Vibration

Keywords: Modules
Prefabrication
Sound Insulation
Elastomer Isolators

Language: English

Conference: Inter-noise 2013

Research Status: Complete

Notes: September 15-18, 2013, Innsbruck, Austria

Online Access: Free

Resource Link

<http://tu.diva-portal.org/smash/get/diva2:1011925/FULLTEXT01.pdf>



Sound Insulation Performance of Cross Laminated Timber Building Systems

<https://research.thinkwood.com/en/permalink/catalogue342>

Author: Schoenwald, Stefan
Zeitler, Berndt
Sabourin, Ivan
King, Frances

Organization: Inter-noise

Year of Publication: 2013

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Acoustics and Vibration

Keywords: Airborne Sound Insulation
Acoustic Performance

Language: English

Conference: Inter-noise 2013

Research Status: Complete

Notes: September 15-18, 2013, Innsbruck, Austria

Online Access: Free

Resource Link

<http://nparc.cisti-icist.nrc-cnrc.gc.ca/npsi/ctrl?action=shwart&index=an&req=21268871&lang=en>



Wind-Induced Motion Of 'Treet' - A 14-Storey Timber Residential Building in Norway

<https://research.thinkwood.com/en/permalink/catalogue459>

Author: Bjertnæs, Magne
Arne Malo, Kjetil

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: Glulam (Glue-Laminated Timber)

Application: Wood Building Systems

Topic: Acoustics and Vibration
Wind

Keywords: Multi-Storey
Comfort Properties

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

Summary:

This paper deals with the comfort properties in a planned 14-storey timber apartment building in Bergen, Norway. The building will be one of the tallest timber buildings in the world. The building consists of load-carrying glulam trusses with two intermediate levels.

Online Access: Free

Resource Link

http://scho.wshosted_files/wcte2014/64/ABS622_Bjertnaes_web.pdf



Model Calibration of Wooden Structure Assemblies - Using EMA and FEA

<https://research.thinkwood.com/en/permalink/catalogue638>

Author: Bolmsvik, Åsa
 Linderholt, Andreas
 Olsson, Jörgen

Year of Publication: 2014

Country of Publication: Canada

Format: Conference Paper

Material: LVL (Laminated Veneer Lumber)

Application: Wood Building Systems

Topic: Acoustics and Vibration

Keywords: Experimental Modal Analysis
 Finite Element Model
 Sound Transmission
 Vibrational Tests

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 10-14, 2014, Quebec City, Canada

Summary:

To predict and, when needed to fulfil regularizations or other requirements, lower the impact sound transmission in light weight buildings prior to building, dynamically representative calculation models are needed. The material properties of commonly us...

Online Access: Free

Resource Link

http://schr.ws/hosted_files/wcte2014/00/ABS427_Bolmsvik_web.pdf



Acoustics Summary: Sound Insulation in Mid-Rise Wood Building

<https://research.thinkwood.com/en/permalink/catalogue750>

Author: Schoenwald, Stefan
Zeitler, Berndt
King, Frances
Sabourin, Ivan

Organization: National Research Council of Canada

Year of Publication: 2014

Country of Publication: Canada

Format: Report

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

Application: Wood Building Systems

Topic: Acoustics and Vibration
Design and Systems

Keywords: Mid-Rise
Sound Insulation
Impact Sound Transmission
Airborne Sound Transmission

Language: English

Research Status: Complete

Online Access: Free

Resource Link

<http://doi.org/10.4224/21274554>



Model Calibration of Wooden Structure Assemblies - Using EMA and FEA

<https://research.thinkwood.com/en/permalink/catalogue1001>

Author:	Bolmsvik, Åsa Linderholt, Andreas Olsson, Jörgen
Year of Publication:	2014
Country of Publication:	Canada
Format:	Conference Paper
Material:	LVL (Laminated Veneer Lumber)
Application:	Wood Building Systems
Topic:	Acoustics and Vibration
Keywords:	Finite Element Model Experimental Modal Analysis Impact Sound Transmission
Language:	English
Conference:	World Conference on Timber Engineering
Research Status:	Complete
Notes:	August 10-14, 2014, Quebec City, Canada
Online Access:	Free

Resource Link

http://schr.ws/hosted_files/wcte2014/00/ABS427_Bolmsvik_web.pdf



Building Higher with Light-Weight Timber Structures: The Effect of Wind Induced Vibrations

<https://research.thinkwood.com/en/permalink/catalogue89>

Author: Johansson, Marie
Linderholt, Andreas
Bolmsvik, Åsa
Jarnerö, Kirsir
Olsson, Jörgen
Reynolds, Thomas

Organization: Inter-noise

Year of Publication: 2015

Country of Publication: United States

Format: Conference Paper

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

Application: Wood Building Systems

Topic: Acoustics and Vibration
Wind

Keywords: Mid-Rise
High-Rise
Vibration Properties

Language: English

Conference: Inter-noise 2015

Research Status: Complete

Notes: August 9-12, 2015, San Francisco, California, USA

Online Access: Free

Resource Link

<https://reynoldstom.files.wordpress.com/2013/08/internoise.pdf>



Experimental Analysis of Flanking Transmission of Different Connection Systems for CLT Panels

<https://research.thinkwood.com/en/permalink/catalogue1632>

Author: Speranza, Alice
Barbaresi, Luca
Morandi, Federica

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Acoustics and Vibration
Connections

Keywords: Vibration Reduction Index
Fasteners
Flanking Transmission

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 2904-2911

Summary:

This paper presents the first results of the flanksound project, a study promoted by Rotho Blaas srl regarding flanking transmission between CLT panels jointed with different connection systems. The vibration reduction index K_{ij} is evaluated according to the EN ISO 10848 standard by measuring the velocity level difference between CLT...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1648969>



Finite Element Modeling for Vibration Transmission in a Cross Laminated Timber Structure

<https://research.thinkwood.com/en/permalink/catalogue1633>

Author: Vardaxis, Nikolaos-Georgios
Hagberg, Klas
Bard, Delphine

Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Acoustics and Vibration

Keywords: Sweden
Numerical Model
Finite Element Model
Impact Noise Transmission
Impact Sound

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 2953-2962

Summary:

This paper deals with a certain type of C.L.T. (Cross Laminated Timber) construction, in a residential building in Fristad, Sweden. The objective is to study impact noise transmission, at the lower frequency range (10-200 Hz), where wooden dwellings perform inefficiently...

Online Access: Free

Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649004> ↗