



A Comparison of the Energy Saving and Carbon Reduction Performance between Reinforced Concrete and Cross-Laminated Timber Structures in Residential Buildings in the Severe Cold Region of China

<https://research.thinkwood.com/en/permalink/catalogue1207>

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Country of Publication: Switzerland

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Energy Performance
Environmental Impact

Keywords: Energy Consumption
Carbon Emissions
Residential
Severe Cold Regions
Simulation
Reinforced Concrete
Life-Cycle Assessment

Language: English

Research Status: Complete

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ISSN: 2071-1050

Abstract:

This paper aims to investigate the energy saving and carbon reduction performance of cross-laminated timber residential buildings in the severe cold region of China through a computational simulation approach. The authors selected Harbin as the simulation environment, designed reference residential...

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Resource Link

<https://doi.org/10.3390/su9081426> ↗



Energy Saving and Carbon Reduction in the Operation Stage of Cross Laminated Timber Residential Buildings in China

<https://research.thinkwood.com/en/permalink/catalogue1208>

Author: Guo, Haibo
Liu, Ying
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Publisher: MDPI

Year of Publication: 2017

Country of Publication: Switzerland

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Energy Performance

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Language: English

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Abstract:

This paper focused on energy consumption and carbon emission for heating and cooling during a building's operation stage, and examined the energy effects of using Cross Laminated Timber (CLT) as an alternative building material to reinforced concrete (RC) in China's 31 key cities located in different climate zones...

Online Access: Free

Resource Link

<https://doi.org/10.3390/su9020292>



Innovation in Hybrid Mass Timber High-Rise Construction: A Case Study of UBC's Brock Commons Project

<https://research.thinkwood.com/en/permalink/catalogue1273>

Author: Fallahi, Azadeh
Organization: University of British Columbia
Year of Publication: 2017
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Glulam (Glue-Laminated Timber)
PSL (Parallel Strand Lumber)
Application: Hybrid Building Systems
Topic: General Information
Keywords: High-Rise
Construction
Design
Prefabrication
Project Coordination
Virtual Design and Construction
Language: English
Research Status: Complete
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<http://doi.org/10.14288/1.0345634>



Investigating the Performance of the Construction Process of an 18-storey Mass Timber Hybrid Building

<https://research.thinkwood.com/en/permalink/catalogue1269>

Author: Kasbar, Mohamed
Organization: University of British Columbia
Year of Publication: 2017
Country of Publication: Canada
Format: Thesis
Material: CLT (Cross-Laminated Timber)
Application: Hybrid Building Systems
Wood Building Systems
Topic: General Information
Market and Adoption
Keywords: Brock Commons
Construction
Efficiency of Construction
Language: English
Research Status: Complete
Online Access: Free

Resource Link

<http://doi.org/10.14288/1.0347252>



Modeling of Orthotropic Plates out of Cross Laminated Timber in the Mid and High Frequency Range

<https://research.thinkwood.com/en/permalink/catalogue1352>

Author: Winter, Christoph
 Buchs Schmid, Martin
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Publisher: ScienceDirect

Year of Publication: 2017

Country of Publication: Netherlands

Format: Journal Article

Material: CLT (Cross-Laminated Timber)

Application: General Application

Topic: General Information

Keywords: Finite Element Model
 Statistical Energy Analysis
 Frequency
 Orthotropic Plates

Language: English

Research Status: Complete

Series: Procedia Engineering

Online Access: Free

Resource Link

<https://doi.org/10.1016/j.proeng.2017.09.373>