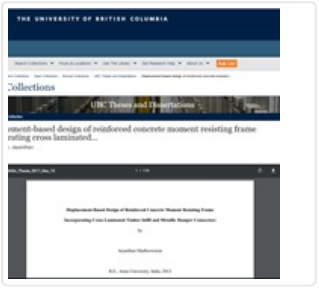

Displacement-Based Design of Reinforced Concrete Moment Resisting Frame Incorporating Cross Laminated Timber Infill and Metallic Damper Connector

Author:	Jayanthan Madheswaran
Organization:	University of British Columbia
Year of Publication:	2018
Country of Publication:	Canada
Format:	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
Research Status:	Complete
Online Access:	Free

Resource Link

http://doi.org/10.14288/1.0363915

State-of-the-Art Review of Displacement-Based Seismic Design of Timber Buildings

https://research.thinkwood.com/en/permalink/catalogue2123

Author:	Christiano Loss
	Thomas Tannert
	Solomon Tesfamariam
Publisher:	Elsevier
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Country of Publication:	United States
Format:	Journal Article
Material:	CLT (Cross-Laminated Timber)
	Glulam (Glue-Laminated Timber)
	Light Frame (Lumber+Panels)
Application:	Wood Building Systems
Topic:	Design and Systems
	Seismic
Keywords:	Performance Based Design
	Direct Displacement-Based Design
	Hybrid Structures
	N2 Method
	Design Procedures
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Abstract:

This paper discusses the state-of-the-art of displacement-based seismic design (DBD) methods and their applications to timber buildings. First, an in-depth review of the DBD methods is presented, focusing in particular on the direct, modal and N2 methods. Then, paper presents DBD application on a wide range of construction systems, including both traditional light-frame structures as well as the emerging sector of tall and hybrid timber buildings. Finally, potentials of using these DBD methods for seismic design as well as possible implications of including DBD within the next generation of building codes are discussed.

Online Access: Free

Resource Link

https://doi.org/10.1016/j.conbuildmat.2018.09.205