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## LOW-RISE COMMERCIAL WOOD DESIGN: VIRTUAL WORKSHOP

**DATE:** Wednesday, March 16, 2022

**TIME:** 9:00am – 2:00pm PST

**LOCATION:** Zoom

**REGISTRATION:** \$109 early bird till March 2<sup>nd</sup> \$129 regular [www.wood-works.ca/bc](http://www.wood-works.ca/bc)

## REGISTER TODAY!

The interest in mass timber construction in commercial projects is growing globally as developers and designers seek out more environmentally friendly and cost-effective building materials. Compared to concrete and steel construction, wood construction offers many benefits, including reduced carbon footprint, accelerated construction time, and enhanced building performance.

The workshop will introduce you to a series of viable and innovative structural wood systems developed for low rise commercial real estate using Light Wood-Frame, Heavy Timber, Mass Timber and Hybrid Systems. From the speakers you will also gain insight into the low rise commercial market, design, and construction.

### **Who Should Attend?**

This workshop is designed for architects, engineers, developers, designers, contractors and building officials.

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### AGENDA

#### MORNING AGENDA – 9:00 AM – 12:25 PM

9:00 am **Welcome** – *Lynn Embury-Williams, Executive Director, Wood WORKS! BC*

9:05 am **Speaker Introductions** – *Jennifer Yu, Technical Manager, Wood WORKS! BC*

**9:10 am – 10:00 am - Low-Rise Commercial Construction in Wood – A guide for architects and engineers:** *Claude Lamothe, P. Eng., President, Intra-Bois Inc., Quebec*

By far, the largest opportunity available to the wood industry is the low-rise market segment. Almost 75% of this market segment, largely dominated by the steel industry, is made of these three main usages: offices, diverse retail spaces and warehouses/light industrial buildings. To achieve CWC's goal of developing new wood solutions for low-rise commercial buildings, three regional working groups consisting of experts from the construction and design industry were assembled to research and develop new viable and sound wood systems. The structural systems developed by the regional working groups and further refined by a national working group were recently published in a new document: *Low-Rise Commercial Construction in Wood – A Guide for Architects and Engineers*. This presentation will mainly focus on this new guide.

10:00 am – 10:10 am - Q&A

**10:10 am – 11:00 am - The Evolving Commercial Wood Construction Market in Ontario:** *David Moses, Principal, Moses Structural Engineers, Toronto*

Similar to other jurisdictions, construction of commercial buildings in Ontario has the potential to move away from steel and concrete construction and into stick frame, mass timber or hybrid structures combining all materials. While this type of construction has been dominated by other materials, wood is considered when cost and scheduling are competitive and especially when the embodied carbon of the alternatives is considered by building owners. David will review the progression of wood-use in commercial construction over the last ten- years or so, in the Ontario market with examples including restaurants, retail, office, and some private recreational facilities.

11:00 am – 11:10 am - Q&A

**11:10 am-11:25 am – 15-MINUTE COFFEE BREAK**

**11:25 am – 12:15 pm - Prefabricated Mass Timber**

**Elements in Low-Rise Commercial Buildings:** *Robert Malczyk, P.Eng, Struct. Eng., Principal, Timber Engineering Inc., Vancouver*

Low-rise commercial buildings are the next category where mass timber elements are replacing traditionally used concrete and masonry. Prefabricated CLT walls are lighter and faster to install which makes this solution a price attractive alternative. In addition to pure economy, mass timber has great environmental advantages due to the carbon (CO<sub>2</sub>) capture. This seminar will present a few existing mass timber commercial buildings in British Columbia and cover a system for large scale warehouse structures. While at Katerra, Robert Malczyk led a team developing CLT based prefabricated wall systems for the largest US tech companies to house their storage facilities and data centers. In the current climate of shortages in availability of historically used structural materials, CLT and glulam have an opportunity to enter the market of low-rise commercial buildings. This market situation plus the pressure from the environmental forces provides a unique opportunity for mass timber.

12:15 pm – 12:25 pm - Q&A

**12:25 pm – 12:55 pm – 30-MINUTE SESSION BREAK**

#### AFTERNOON AGENDA – 1:00 PM – 2:00 PM

1:00 pm - **Session Resumes** – *Jennifer Yu*

**1:05 pm – 1:50 pm - Embodied Carbon and Low-Rise Commercial: A contractor's perspective:** *Patrick Crabbe, Director, Mass Timber, Bird Construction, Nova Scotia*

This session will start with an overview of the role of embodied carbon reduction in the path to net zero. The presentation will also cover Bird's approach to low-rise commercial in office, warehouse and commercial buildings. The session will conclude with how project delivery methods can impact the cost of a mass timber project and what to do about it.

1:50 pm – 2:00 pm - Q&A

2:00 pm - **Thank you, and closing remarks** – *Jennifer Yu*

Participants will receive a link to the Low Rise Commercial Construction in Wood Guide

**REGISTER TODAY!**

<https://www.eventbrite.ca/e/267513990547> - [www.wood-works.ca/bc](http://www.wood-works.ca/bc)

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**SPEAKER BIOS**



**Claude Lamothe** graduated from McGill University in 1985 with a civil engineering bachelor degree. He worked in the lumber truss, and steel industries before joining Trus Joist. After five years as a technical sales representative and three years as Eastern Canada regional sales manager, Claude joined Domtar lumber division as marketing manager and then worked for Goodfellow as manager engineered wood products. From 2002 to 2012, Claude was sales manager structural & industrial segments for the lumber division of Resolute Forest Products. In 2012, Claude founded its own consulting firm, Intra-Bois Inc. which offers structural engineering services and has performed several market studies for major North American

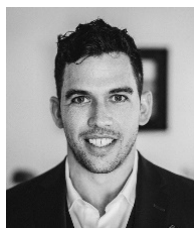
forest products companies.



**David Moses** is the founder of Moses Structural Engineers, a Toronto-based firm focussed on sustainable design for our cities and communities. David completed his PhD at UBC with a focus on timber engineering and is a recognized leader, designer, teacher, researcher, writer and invited lecturer. His projects include some of the first CLT buildings in Ontario.



**Robert Malczyk** is the principal at Timber Engineering. He co-founded Equilibrium Consulting Inc. who is responsible for designing many award-winning buildings in a portfolio exceeding 600 projects. Robert is a world-renown expert in structural timber engineering and is experienced in developing new business ventures. He has a natural eye for simplicity in structure and is passionate about novel structural systems in wood and other materials



**Patrick Crabbe** is the director of mass timber at Bird Construction – within the national strategic development team. Growing up within the sawmill and wood manufacturing sector, Patrick brings unparalleled expertise that is demonstrated through his \$1 billion worth of construction value experience and commitment to numerous agencies that are advocating for the use and benefits of mass timber as a sustainable and economical solution. In his role, Patrick supports 18 districts across Canada with a focus on providing constructability input during the design and pre-construction and construction phases, as well as educating project teams, clients, and the public. He is an active member of the Carbon Pricing Leadership

Coalition (led by the World Bank) and a trusted advisor to Infrastructure British Columbia and the Canadian Wood Council.

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