

Costing for Heavy and Mass Timber Construction – Fundamental Approaches, Considerations, and Lessons Learned

Dec. 1, 3, and 8 at 2-4pm EST

As opportunities to use Heavy and Mass Timber in construction surge, contractors, developers and designers need to understand how best to estimate costs. Designs with these materials vary greatly from frame construction and require different approaches to costing the structural elements as well as determining the whole building costs which incorporate electrical, mechanical, plumbing and envelope components. This series brings experienced designers, manufacturers, installation trades, developers and general contractors together to share their knowledge with their colleagues. If you're contemplating building or bidding on a building using these innovative materials, this series will provide essential informational about the Tips, Tricks and Traps of costing wood buildings.

Agenda

Tuesday, December 1

2-3pm EST	David Porter, Program Coordinator, Atlantic Wood <i>WORKS!</i>	Mid-rise Cost Study
3-4pm EST	Christopher C. Williams P.Eng., MBA, Vice President, Timber Systems Ltd.	Budgeting Strategies for Mass Timber Construction

Thursday, December 3

2-3pm EST	Mark Gaglione P.Eng. Manager, Construction Sciences, EllisDon Construction	Mass Timber Construction Costs – Looking Beyond the Wood
3-4pm EST	Scott Noble, AIA, Construction Manager, Kaiser + Path	Adventures in Mass Timber Costing: The Canyons

Tuesday, December 8

2-3pm EST	Tim Praeger P.Eng., Principal, Aercoustics Engineering Ltd.	Mass Timber Acoustics – Doing it right. An investment early on will pay dividends for your building
3-4pm EST	Mark Kaustinen, Senior Consultant and Business Advisor, KOSH	Unlocking barriers to using Prefab building solutions – It's more than price.

EVENT DETAILS

TUESDAY, DECEMBER 1, 2020

2-3pm EST Mid-Rise Cost Study

David Porter, Program Coordinator, Atlantic Wood *WORKS!*

This presentation will examine a cost study comparing steel, concrete, and wood for midrise buildings. David will present an overview of the market demand for midrise buildings in Atlantic Canada and an in-depth cost analysis for a midrise building comparing common building materials.

About the presenter: David has been working in the construction industry since 2009. Upon graduating from Acadia university in 2016 he began selling building supplies to home builders. David joined the Wood *WORKS!* Team in 2019 as the program coordinator for the Atlantic Region.

3-4pm EST Budgeting Strategies for Mass Timber Construction

Christopher C. Williams, P.Eng., MBA, Vice President, Timber Systems Ltd.

While mass timber has been used for well over 100 years in Canada, its modern context is new to many designers and builders.

This can result in challenges for a project team to effectively estimate the cost of a new building, making it more difficult to build a case for a timber option.

The presentation will review an effective baseline template for early stage budgeting and identify considerations for the design team and owner.

We will also highlight some common oversights that can result in both overbudgeting and underbudgeting, as well as some site consideration that don't always show up on a spreadsheet.

About the presenter:

For 40 years Timber Systems have provided pre-engineered heavy timber structures to many markets around the world. They are renowned for their integral role in bringing many creative timber projects from concept to construction.

Christopher has extensive experience with the engineering, costing, and construction of timber buildings, with particular specialty in mass timber commercial structures.

He received his Bachelor's degree in Civil Engineering from Queen's University, Kingston, and received his MBA from the University of Cambridge, UK

THURSDAY, DECEMBER 3, 2020

2-3pm EST Mass Timber Construction Costs – Looking Beyond the Wood

Mark Gaglione P.Eng., Manager, Construction Sciences, EllisDon Construction

Understanding the cost of building with mass timber isn't as simple as swapping out the concrete prices for timber prices. This wide ranging presentation will tackle the construction side of the costing question head on, unpacking the ripple effects far beyond the structure into other areas of your estimate. We will also look into scheduling, construction risks, delivering real knowledge gained from the field.

About the presenter:

Initially trained as an engineer, Mark Gaglione spent the early part of his career in private real estate development. Now with EllisDon, Mark works in the Construction Sciences Division where he is focused on accelerating the adoption of emerging construction technologies and has played a central role in the proliferation of mass timber. Mark is currently involved in various large mass timber projects across Canada and continuously looking to improve project delivery.

3-4pm EST Adventures in Mass Timber Costing: The Canyons

Scott Noble, AIA, Construction Manager, Kaiser + Path

The presentation will include a brief introduction to Kaiser + Path and their recent mass timber portfolio. A focused look at the recently completed Canyons mixed use multifamily project in Portland, including a detailed examination of CLT costing considerations related to the project will be the primary focus.

About the presenter:

Scott Noble is an architect and construction manager at Kaiser Group and Path Architecture in Portland, Oregon, and a leader in mass timber construction, with more than 30 years of design and construction management experience. Scott has worked on several mass timber projects, including The Canyons, nearing final completion in Portland. Side projects include an active feasibility study for a 450 foot tall mass timber hybrid mixed use tower and pursuing the challenges of mass timber in tropical climates.

TUESDAY, DECEMBER 8, 2020

2-3pm EST Mass Timber Acoustics – Doing it right. An investment early on will pay dividends for your building

Tim Praeger P.Eng., Principal, Aercoustics Engineering Ltd.

Say what? Pardon moi? Are you sometimes bothered by a room echo or a noisy neighbour resulting in an elevated stress level or disappointment from an expected performance or event? Let's discuss how these scenarios can be avoided with the understanding of what it costs to achieve building-code and performance in acoustics with new Mass Timber Building technologies. We will explore how the variety of possible acoustic solutions will impact the structural and architectural design, as well as construction sequencing. What makes mass timber so successful in its structure is its main weak point in acoustics.

About the presenter:

Since 2012, Tim has been tackling the challenge making light-weight buildings soundproof and acoustically comfortable while keeping most of the design features set out by the structural and architectural teams. As an undergraduate in Electrical Engineering in 2005, and with a passion for music, Tim eagerly joined the Aercoustics team in 2006 and quickly became a Principal with a key role in

the development of acoustic solutions for Mass Timber Buildings. Tim is a key member throughout the entire design process on many projects in Canada and the US and continues to push the AEC industry in understanding the key items for acoustics in Mass Timber.

3-4pm EST Unlocking barriers to using Prefab building solutions – It's more than price.

Mark Kaustinen, Senior Consultant and Business Advisor, KOSH

Building a successful project using off-site constructed elements is possible. Learn about how important timing, design, project evaluation, supply chain, project team, logistics, AHJ's and other items are critical to the success of integrating off-site elements into a project. In this webinar you will also learn about some paths to using prefab and mindsets and motivations of the supplier, builder, developer and others.

About the presenter:

Passionate about buildings and architecture, Mark has worked for over 25 years with and for manufacturers including, almost 10 years in prefab construction where he lead project teams to the successful manufacturing, construction and completion of several ground-breaking projects for volumetric prefab. He has also worked as a financier providing monies for manufacturers of wood, metal, concrete and plastics. This experience along with his background in other industries in manufacturing has provided me with a unique and wholistic view at both macro and micro approaches. Most recently he has been working closely with the prefabrication industry and stakeholders across Canada. He is the author of several nationally disseminated reports, guides and magazine articles. Two examples of these well received publications include the chapter on Prefabrication in the Mid-rise Design guide and a white paper on the Barriers to offsite prefabrication. The area of improving the adoption of offsite prefabrication has been a long-standing area of Mark's work with industry stakeholders. His work in the area is further supported through extensive collaboration with industry experts and stakeholders.