

# LUNCH AND LEARN SEMINARS 2019-20



AS PART OF ITS ONGOING EDUCATIONAL SEMINARS FOR ARCHITECTS, DESIGNERS, ENGINEERS, DEVELOPERS, BUILDERS, AND CONTRACTORS, BC WOOD IS PLEASED TO OFFER THE FOLLOWING LUNCH & LEARN SEMINARS 2019-20. BC WOOD WILL PROVIDE A CATERED LUNCH IN YOUR OFFICE\*, AND BE JOINED ON EACH TOPIC BY INDUSTRY PROFESSIONALS FROM BC'S VALUE-ADDED WOOD MANUFACTURING INDUSTRY.

## ADVANCED TIMBER MANUFACTURING

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

How can an integrated approach to architecture and manufacturing capitalize on convergent technologies and position Advanced Timber at the forefront of the construction industry in North America?

Fraught with labour inefficiency, material waste, and environmental impacts, the construction industry is on the cusp of significant change which will forever alter the way buildings are constructed. Stemming from Europe, Advanced Timber Manufacturing applies a forward-thinking approach to the built environment which disrupts the status quo, increases the cost-effectiveness of construction, and responds to environmental targets of the 21st century. Uniquely positioned to facilitate the growth of Advanced Timber construction in North America, this seminar looks at a B.C. manufacturers' threefold approach: practicing fabrication-centric integrated project delivery strategies, forming strategic industry alliances, and increasing capacity in the material supply chain.

As off-site digital fabrication is integral to the Advanced Timber industry, early manufacturer engagement is crucial to project success as it enables an informed design process and efficient project execution. Responding to the inefficiency and duplication of work associated with conventional project delivery practices, strategic industry

connections can facilitate the integration of traditionally isolated scopes of work. Ground-breaking developments within the material supply chain—including a large-scale investment in free-form fabrication and North America’s most sophisticated CLT and Glulam fabrication plant located in B.C.—are enabling the growth of Advanced Timber through a sustainable approach to inspired architecture.

## ARCHITECTURAL WALL PANELS - FROM THE WEST COAST FOREST FLOOR TO PROJECT SITE

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

More Architects, Designers, and Homeowners are gravitating towards wood and other natural materials. Sustainability and reducing the carbon footprint continues to be a growing influence in consumers’ product choices, and innovative wood products are now at front and center. This presentation tells the story from the tree, specifically the Western Red Cedar, through sustainably managed processing into beautiful engineered wooden panels for exterior and interior walls, garage doors, and cabinet doors.

Wood is warm and aesthetically pleasing, but as a natural product there are concerns about its durability against the elements, finishing, and maintenance. This presentation also looks at how engineered edge-glued and cross-laminated Western Red Cedar panels can address these concerns, and how it compares with other cladding materials.

## BUILDING MORE RESILIENT BUILDINGS WITH LESS RISK: MODULAR + HIGH PERFORMANCE

1 Hour Session | AIA 1 Core LU

### DESCRIPTION:

With buildings being the leading source of GHG emissions in Canada, new building standards like Passive House and the BC Energy Step Code are becoming the norm to achieve sustainability targets and address climate change. This session will discuss how using modular construction can lead to successfully building high-performance buildings more efficiently, resulting in a higher quality product with less risk. Learn how using wood modular construction is complementary in meeting the various high performance standards and how modular creates resilient buildings that address the current housing crisis.

## CROSS LAMINATED TIMBER PANELS (CLT’S); OPPORTUNITIES & CHALLENGES WHEN SPECIFYING

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

Cross Laminated Timber or CLT is the green choice for schools, health care facilities, public buildings, commercial buildings, and multi-family housing because of its cross-layered construction, reduced carbon footprint, and ready to assemble system. Solid CLT panels are ideal for floor, wall, and roof systems making it a perfect structural

solution. This seminar will discuss the opportunities and challenges (CLT) has faced and the progress made with designing and constructing with CLT and the advantages for the architect, builder and owner.

### DESIGNING AND SPECIFYING MODERN TIMBER BUILDINGS & SYSTEMS

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

Timbers both Solid and Engineered in a pre-fabricated form continue its dramatic growth as a popular building material due to its many superior attributes including environmental, strength and technical qualities in the assembly of this form. Therefore, it is important for architects and engineers to continue learning about the benefits of heavy timbers in their various forms.

This seminar will provide a detailed overview of modern timber building techniques including all aspects of designing and specifying architectural timbers including solid sawn timbers, glulams and wrapped steel timber members. It will also discuss the critical aspect of the preparation of heavy timbers through the proper drying process as well as timber preservation through a variety of factory finishing options.

### EXTRACTING MAXIMUM VALUE FROM FORESTS AND THE NEXT GENERATION OF WOOD PRODUCTS

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW

#### DESCRIPTION:

British Columbia's wood products industry has matured to the point that most of the raw material is already dedicated to existing commodity markets, and timber is consolidated into a few major producers' hands. This presentation looks at an innovative culture in extracting the maximum value from other available timber supply from the forest, while keeping waste to a minimum. This next generation of wood products utilizes the small logs not suitable for production into dimensional lumber. These consist of salvaged logs from beetle kill pine or forest fires. The entire log is sourced in an environmentally sustainable manner, harvested areas are regenerated, and high value, end use products are manufactured.

This next generation of wood products offers Architects, Builders, and Consumers beautiful engineered Multi Laminated Timber and Edge Glued Siding and Trim.

### FACTORY REFINISHING OF EXTERIOR BUILDING MATERIALS; A SUSTAINABLE PRACTICE

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

Cladding products start with the most natural, healthy, and sustainable resource available – wood. That wood is then engineered, machined, and coated to create a full line of siding and trim products that deliver performance,

stability, and beauty. The finished products can be specified on any project; residential and non-residential projects alike with BC companies shipping throughout North America and Globally.

### FENESTRATION, PAST, PRESENT AND BEYOND

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

Advances in North American fenestration had been relatively stagnant through the late 80s to around 2000. There were modest advances in glazing improvements, but the windows themselves didn't change much. After 2000 the speed at which fenestration manufacturers were expected to improve products increased. This session will explore the changes during the period of the late 80 into the 90s. Then take us to what is happening since 2000 and the dramatic changes we are seeing as we move through the 20/teens; and how the demands for performance into 2030 and beyond is impacting the fenestration manufacturer and its suppliers.

### FIRE RETARDANT COATINGS AND FACTORY FINISHING OPTIONS

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

Fire Retardant Coatings and Building Code compliance is the hot topic of late in specification writing. Fire retardant coating technology has made great advancements in both safety and environmental issues. This seminar will give an overview of the latest in technology for fire retardant coatings, their viabilities and limitations. Also discussed will be environmentally friendly coating and LEED compliant factory finishing options.

### FRIENDS IN LOW VOC PLACES

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

Discover how water borne coatings can perform as well, if not better, than their solvent borne counterparts without their negative environmental impact. The seminar will discuss a wide range of water based products and how architects can enjoy a net gain by specifying them.

It will also address the role water borne coatings can play in enhancing the natural look and performance of wood products and how LEED and VOC mandates are leading our industry down the green road. The session will also address the advantages of factory coatings.

### INNOVATIONS IN LAMINATED VENEER LUMBER

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW | BC HOUSING 1 CPD, INFORMAL

#### DESCRIPTION:

The seminar will give a short overview of the currently available products for mass timber construction and introduce Laminated Veneer Lumber (LVL). LVL advanced product by laminating LVL into a structural panel product as an additional alternative for mass timber construction. LVL is an extremely stable and consistent engineered wood product, ecologically sourced, complies with LEED requirements, with an astonishing visual quality.

## INTRODUCTION TO HYBRID WOOD CURTAIN WALL WINDOW SYSTEMS

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

Hybrid wood curtain wall window systems have been available in Europe for over 20 years. This is a thermally broken, self-draining system that offers a wood interior and wood or aluminum exterior. It is the ideal option for contemporary residential and commercial applications. This system is certified for Passive House design in Europe and is now manufactured and available right here in BC.

The seminar will feature the curtain wall systems introduction. Participants will also learn how wood can be incorporated into this and other window systems, using sustainably-sourced, engineered wood components that can be used for the exterior that will require little or no maintenance.

For this session, BC Wood will be joined by a representative of Unison Windows and Doors, a company that began in 1978. Unison works closely with the Wood Sciences Dept. of UBC and Germany's Rosenheim Wood Technology Department. This link to cutting edge industry advances has helped keep this BC window company ahead of the curve, developing energy efficient and engineered wood window and door systems that exceed current standards.

## SPECIFYING OF WESTERN RED CEDAR AND YELLOW CEDAR PRODUCTS

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

The all-natural beauty of Western Red Cedar and Yellow Cedar products from British Columbia adds value and prestige to construction projects. Architects, specifiers, engineers, designers, and homeowners are increasingly choosing these products as a sustainable building material.

This presentation will describe the aesthetic, durability and long-term performance qualities associated with both wood species. It will explain the cedar products, grades and finishes available in today's market, their appropriate uses, and guidelines for properly specifying them. It will give insight into the manufacturing, drying, and safety practices for working with cedar. Also explained will be coating applications, and the care and maintenance for these environmentally responsible building materials.

## UNBUILDING: THE FUTURE OF BUILDING REMOVAL

1 HOUR SESSION | AIBC 1 CORE LU | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

This talk will outline the difference between traditional demolition and deconstruction, the new way of removing old buildings. Visuals of both services will be shown and the facts and figures of how impactful the transition to deconstruction will be - economically, environmentally and socially. Business models will be presented - donation & acquisition model. The business models will be broken down and shown how they work and why it is necessary to drive the deconstruction cost down. Displayed will be typical materials that are salvaged, their value, and their destination. This will include end products and installations. Lastly the talk will explore how to design with reclaimed materials - the benefits and the challenges. The session will end by looking at the future of both deconstruction and construction with the urge for the professionals in the room to start designing with product and building end use in mind – design for disassembly.

## VENTILATED DOORS- NEXT GENERATION: MAXIMIZING INDOOR ENVIRONMENTAL QUALITY BETWEEN ENCLOSED SPACES

1 HOUR SESSION | AIBC 1 CORE LU | AIA 1 LU/HSW | BC HOUSING 1 CPD, INFORMAL

### DESCRIPTION:

Doors are specified and used every day. Today's door manufacturers offer a wide range of designs and functions that respond to the current demanding requirements including Energy Conservation, Environment and Sustainability issues as well as Fire Doors, Institutional and Commercial Doors, Acoustical Doors, and Residential Doors. This seminar will discuss how to link the door to various applications throughout a project by focusing on current functions, designs and trends; the construction and materials used in wood doors as it relates to environmental issues and design trends; overweight door options, acoustical and solid core doors, and finishing options; with the ultimate goal to insure the correct doors are specified for the required application in both design and function for all applications.

## THE DESIGN/BUILD PROCESS: A BUILDER'S INSIGHT

\*2 HOUR SESSION TO BE HELD AT THE MANUFACTURING DESIGN/BUILD OFFICE SHOWROOM  
AIBC 2 CORE LUS | BC HOUSING 2 CPD, INFORMAL

### DESCRIPTION:

Through the insight of a builder, this in-depth presentation examines the design/build project delivery system working together with Architects to streamline construction.

The Design-Build planning process will be discussed including conceptual plans, preliminary and final budgets, permit plans, hiring of professionals, managing of all materials and labour for construction, and final delivery to owner. Structural components will be featured including factory built pre-fabricated hybrid timber systems, panelized wall sections, engineered components, pre-cut timber components, and energy efficient technology which are integrated into commercial projects, residential projects, and remote location builds. Also covered will be the on-site installation and environmental advantages in factory-built house packages, including less waste, less on-site labor, fewer vehicle deliveries, adaptation to remote locations, and constructing efficiently within seasonal limitations. One of the key focuses will outline getting to lock-up stage as efficiently and quickly as possible.