

Cross-Laminated Timber Symposium

February 8-9, 2011

Vancouver Convention Centre – West, Level 2, Vancouver, BC, Canada

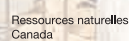
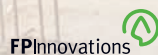
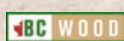


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Welcome Message

from the executive members of the Wood Enterprise Coalition

The Wood Enterprise Coalition of BC – Wood *WORKS!* BC, FPIInnovations and BC Wood Specialties Group welcome you to this comprehensive two-day symposium on CLT panels. This much-anticipated symposium will provide you with information and a working knowledge of cross-laminated timber.

CLT is welcomed by the forest products industry, along with the research, wood design and building communities in Canada – it is already being used in new projects in BC, and soon will be manufactured here at home as well. It offers all the benefits of wood – it’s renewable, cost-competitive, and strong enough for many structural applications.

You will be able to learn from the experts at seminars and open question periods, and together with the new CLT Handbook, you’ll be ready to apply it to your current and future projects. We are excited about CLT as we look to the future, and look forward to seeing it become a mainstream architectural and design material. Please enjoy the Cross -Laminated Timber Symposium!



Mary Tracey
(Wood *WORKS!* BC),
CO-CHAIR



Brian Hawrysh
(BC Wood),
MODERATOR



Erol Karacabeyli
(FPIInnovations), CO-CHAIR

Background

Among the new products recently introduced in the wood construction sector is the cross-laminated timber (CLT) panel, also commonly known as a solid wood panel. It is without doubt currently one of the most discussed wood products in BC and Canada.

CLT made its debut some fifteen years ago in Austria. Now, there are half a dozen major producers, located mainly in Austria, Germany and Scandinavian countries. This emerging successful system from Europe has been identified by the forest products industry and the research and wood design communities in Canada as a new opportunity for wood in non-traditional applications. CLT is now available in Canada. This two-day symposium is a unique opportunity to find out more about CLT, and how it can enhance and benefit your projects.

The CLT Symposium will put you “in the know” about this innovative product!

Over the course of these two days, all major aspects relating to CLT panels will be discussed: architectural and structural design, manufacturing, seismic resistance, connections, fire safety, acoustics, floor vibrations, durability, and environmental performance. During the symposium, we are privileged to host experts from Austria, Italy and United Kingdom.

- Dr.techn. Gerhard Schickhofer, university professor, Graz University of Technology, Austria will speak to the European experience of building with the new material and the challenges met, as well as current research topics and advanced design with CLT.
- Dr. Ario Cecotti, professor, IVALSA, Italian Trees and Timber Research Institute, Italy will be on hand to discuss seismic performance.
- Tristan Wallwork, CEng, MIStructE, Ramboll Engineering, United Kingdom will give a presentation on the engineering requirements for CLT used in the construction of The Norwich Academy, the UK’s largest structural timber building to date, and other European projects.



Did you know?

- Manufacturing facilities are gearing for production of CLT in Canada
- Participants of this symposium are among the first to receive the CLT Handbook in North America
- The estimated demand for CLT in North America is estimated to be 1.5 to 4.5 million m3 if market penetration is between 5% and 15%

Event Program

Day 1 - Tuesday, February 8, 2011

7:45 - 8:30 am	45 min	Registration and continental breakfast
8:30 - 8:45 am	15 min	Opening Remarks <i>Moderator: Brian Hawrysh, CEO, BC Wood Specialties Group</i> <i>Co-Chair: Mary Tracey, Wood WORKS! BC</i>
		Welcoming Remarks by BC Ministry of Forests, Mines and Lands, Natural Resources Canada and FPInnovations
8:45 - 9:00am	15 min	Cross Laminated Timber (CLT) in the Context of Wood Building Systems <i>Speaker: Erol Karacabeyli, P.Eng., Manager, Building Systems Department</i> FPInnovations, Building Systems Department
9:00 - 9:20am	20 min	CLT - Assessing the Market Opportunity in North America <i>Speaker: Pablo Crespell, Ph.D., Research Scientist</i> FPInnovations, Building Systems Department
9:20 - 9:40am	20 min	CLT - Manufacturing <i>Speaker: Brad Wang, Ph.D., Research Scientist</i> FPInnovations, Composites Department
9:40 - 10:00am	20 min	Coffee Break
10:00 - 10:40am	40 min	CLT - Structural Design <i>Speaker: Sylvain Gagnon, P.Eng., Research Scientist</i> FPInnovations, Building Systems Department
10:40 - 11:30am	50 min	CLT - Seismic Performance <i>Speakers: Marjan Popovski, Ph.D., P.Eng., Research Scientist</i> FPInnovations, Building Systems Department And, <i>Univ.-Prof. Dr. Ario Ceccotti, Director IVALSA, Italian Trees and Timber Research Institute, Italy</i>
11:30 - 12:05pm	35 min	CLT - Connections <i>Speaker: Mohammad Mohammad, Ph.D., P.Eng., Group Leader Structure</i> FPInnovations, Building Systems Department
12:05 - 1:25pm	1 hr 20 min	Lunch (Lobby - Buffet/Sandwiches)
1:25 - 2:10pm	45 min	CLT – European Experiences <i>Speaker: Gerhard Schickhofer, Univ.-Prof. Dipl.-Ing Dr.techn.</i> Graz University of Technology, Austria
2:10 - 2:30pm	20 min	CLT – Duration of Load and Creep Factors <i>Speaker: Ciprian Pirvu, Ph.D., Research Scientist</i> FPInnovations, Building Systems Department
2:30 – 2:50pm	20 min	CLT – Vibration Performance <i>Speaker: Lin Hu, Ph.D., Research Scientist</i> FPInnovations, Building Systems Department
2:50 – 3:10pm	20 min	Coffee Break
3:10 – 3:45pm	35 min	CLT - Research and Testing at UBC <i>Speaker: Frank Lam, Ph.D., P.Eng., Professor</i> University of British Columbia, Faculty of Forestry, Department of Wood Science
3:45 - 4:05pm	20 min	CLT – Acoustic Performance <i>Speaker: Sylvain Gagnon, P.Eng., Research Scientist</i> FPInnovations, Building Systems Department

Co-Chairpersons:

Mary Tracey,
Executive Director, Wood WORKS! BC

Erol Karacabeyli, P.Eng.,
Manager, Building Systems Department, FPInnovations

Moderator:

Brian Hawrysh,
CEO, BC Wood

4:05 - 4:30pm 25 min **Durability by design: CLT construction**
Speakers: Jieying Wang, Ph.D. and Constance Thivierge, P.Eng. MASC, Research Scientists
FPInnovations, Building Systems Department

4:30 - 6:00 1hr 30 min Lobby Reception

Day 2 - Wednesday, February 9, 2011

7:45 - 8:25am	40 min	Continental breakfast
8:25 - 8:30am	5 min	Opening Remarks/Introductions <i>Moderator: Brian Hawrysh, CEO, BC Wood Specialties Group</i>
8:30 - 9:20am	50 min	CLT - The Norwich Academy and other European projects <i>Speaker: Tristan Wallwork, CEng, MIStructE, Associate Director</i> Ramboll UK Limited (Structural Engineers)
9:20 - 9:55am	35 min	Fire Performance of CLT Assemblies <i>Speaker: Steve Craft, Ph.D., Research Scientist</i> FPInnovations, Building Systems Department
9:55 - 10:10am	15 min	Coffee Break
10:10 - 10:50am	40 min	CLT - Research and Testing at TU Graz <i>Speaker: Gerhard Schickhofer, Univ.-Prof. Dipl.-Ing Dr.techn.,</i> Graz University of Technology, Austria <i>Speaker: Alexandra Thiel, Dipl.-Ing. Dr.techn.</i> Research Assistant
10:50 - 11:10am	20 min	CLT – Environmental Performance <i>Speaker: Jennifer O'Connor, Group Leader</i> Energy and Environment FPInnovations, Building Systems Department
11:10 - 11:45am	35 min	CLT - Projects in British Columbia <i>Speaker: Robert Malczyk, MASC, P.Eng., MBA,</i> Principal, Equilibrium Consulting Engineers <i>Dr. Guido Wimmers</i> Dr. techn. Dipl. Ing. MRAIC, Architect (NL), LEED AP Principal, building evolution
11:45 - 12:00pm	15 min	Closing Remarks <i>Moderator: Brian Hawrysh, BC Wood</i> <i>Specialties Group</i> <i>Co-Chair: Erol Karacabeyli, FPInnovations</i> <i>Co-Chair: Mary Tracey, Wood WORKS! BC</i>

Be among the first in Canada to receive the new Cross-Laminated Timber Handbook

Have you purchased your copy?

Purchase your CLT Handbook now at the registration desk

Cost: CLT Handbook	\$150.00	or order your copy online at publications@FPInnovations.ca
HST R106868797	18.00	
Total	\$168.00	



A much-anticipated new handbook providing a comprehensive overview of the use of CLT or cross-laminated timber is now available. The CLT Handbook, published by FPInnovations, provides a reference for an alternative approach to building design using cross-laminated timber, and draws on the European experience, FPInnovations' expertise, and is peer-reviewed.

Under the Transformative Technologies Program of Natural Resources Canada, FPInnovations launched a multi-disciplinary research program on CLT in 2005. Based on these studies and the knowledge gained from the European experience, FPInnovations prepared this peer-reviewed CLT Handbook to:

- Provide immediate support for the design and construction of CLT systems as alternative solutions in building codes;
- Provide technical information for implementation of CLT systems in building codes and standards

This CLT Handbook provides key technical information related to the manufacturing, design and performance of CLT in construction in the following areas:

- Cross-Laminated Timber Manufacturing
- Structural Design of Cross-Laminated Timber Elements
- Seismic Performance of Cross-Laminated Timber Buildings
- Connections in Cross-Laminated Timber Buildings
- Duration of Load and Creep Factors for Cross-Laminated Timber
- Vibration Performance of Cross-Laminated Timber Floors
- Fire Performance of Cross-Laminated Timber Assemblies
- Acoustic Performance of Cross-Laminated Timber Assemblies
- Building Enclosure Design of Cross-Laminated Timber Construction
- Environmental Performance of Cross-Laminated Timber



The CLT Handbook will be instrumental in guiding building and design specialists as they seek use of this innovative new wood building material in non-traditional applications.

One of the first commercial buildings to utilize CLT in Canada is on the University of British Columbia campus – a building which will house a biomass-fuelled combined heat and power (CHP) solution. That building is expected to be completed by the end of 2011 .

Presented by the Wood Enterprise Coalition



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and Lands



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