



**WoodWorks**<sup>TM</sup>  
WOOD PRODUCTS COUNCIL



# Central Florida Wood Solutions Fair

**NOVEMBER 2, 2016**  
**ROSEN CENTRE HOTEL**  
9840 INTERNATIONAL DRIVE  
ORLANDO, FL 32819

*Earn 6 AIA/CES LUs (HSW) or PDH credits free*




Register at [woodworks.org](http://woodworks.org)

# Central Florida Wood Solutions Fair Schedule

**Space is limited.  
Register today!**

7:00 am	Registration Check-In – Exhibit Expo Opens		
	ROOM 1	ROOM 2	ROOM 3
8:00 am – 9:10 am	Mass Timber Building Systems: Understanding the Options <i>Tanya Luthi</i>	Forests and Forest Products <i>Kathryn Fernholz</i>	Advancements in Force Transfer around Openings for Wood-Framed Shear Walls <i>Karyn Beebe</i>
9:10 am – 9:45 am	Break – Exhibit Expo		
9:45 am – 10:45 am	Off-Site Wood Construction: What, Why, How and the Future <i>Randall Walter</i>	The Role of Control Layers in Building Enclosure Design <i>Colin Shane</i>	Multi-Family Design and Detailing: An Orlando Perspective on Mid-Rise Construction <i>Russel Goliath</i>
10:45 am – 11:00 am	Break – Exhibit Expo		
11:00 am – Noon	More with Less: An Overview of the First CLT Hotel in the US <i>Jeff Morrow</i>	Urban Acoustics <i>Steve Thorburn</i>	International Building Code Essentials for Wood Construction <i>Paul Coats</i>
Noon – 1:20 pm	Lunch • Wood Design Awards		
1:20 pm – 2:20 pm	Innovative Solutions for Mass Timber Projects: Structural Concepts and Case Study Examples <i>Tanya Luthi</i>	Forests and Forest Products <i>Kathryn Fernholz</i>	Advancements in Force Transfer around Openings for Wood-Framed Shear Walls <i>Karyn Beebe</i>
2:20 pm – 2:50 pm	Break – Exhibit Expo (closes at 3:00 pm)		
2:50 pm – 3:50 pm	Off-Site Wood Construction: What, Why, How and the Future <i>Randall Walter</i>	Advanced Detailing Techniques for Building Enclosures <i>Colin Shane</i>	Multi-Family Design and Detailing: An Orlando Perspective on Mid-Rise Construction <i>Russel Goliath</i>
3:50 pm – 4:00 pm	Break		
4:00 pm – 5:00 pm	More with Less: An Overview of the First CLT Hotel in the US <i>Jeff Morrow</i>	Urban Acoustics <i>Steve Thorburn</i>	Designing for Permanence: Protecting Wood-Frame Structures from Insects and Decay <i>Paul Coats</i>

Photos: (cover) Haven at Avalon, Dwell Design Studio, photo Dwell Design Studio, (address panel) The Brooklyn Riverside, Dwell Design Studio, photo Pollack Shores, Matrix Residential, (inside left) Framework, Works Partnership Architecture, photo Joshua Jay Elliott, (inside right) 525 at the Enclave, Baylis Architects, Rafn Company, photo Sky-Pix

 Indicates the session is presented only one time at the fair. All other presentations are offered both morning and afternoon.

# Seminars and Speakers

## ROOM 1

MORNING SESSION 8:00 AM

### Mass Timber Building Systems: Understanding the Options

Tanya Luthi, PE, Fast + Epp

Mass timber represents a rapidly advancing technology that can be utilized as an alternative to steel and concrete to frame a variety of mid- and high-rise building types. This presentation provides an overview of available mass timber systems, with an emphasis on their advantages and unique design considerations. Topics will include connections and fasteners, which differ from those used in light-frame wood construction, including available options and code requirements. Practical design considerations with regard to project location, climate, material sourcing, weather and fire protection, as well as detailing for dimensional variability, will also be reviewed. Cost estimating will be discussed, as successful mass timber projects require a complete understanding of both the system itself and impact on trades.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM

### Off-Site Wood Construction: What, Why, How and the Future

Randall Walter, AIA, LEED AP, Bensonwood

Due to skilled labor shortages, compressed schedules, and the potential for greater quality control, off-site wood construction has become increasingly popular. This presentation will cover the unique design and construction techniques associated with pre-fabricated and off-site panelized wood systems. An introduction to the different levels of off-site construction and review of associated products and services will be followed by a demonstration of cost and schedule benefits based on real-world projects. A step-by-step process will be presented for designers new to off-site construction, with information on how to find and utilize partners and resources, the integrated design process, and differences compared to traditional on-site methods. Trends and future projections for the use of off-site construction, as well as its advantages, will also be reviewed.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00 PM

### More with Less: An Overview of the First CLT Hotel in the US

Jeff Morrow, Lend Lease

The availability of cross-laminated timber (CLT) in the US is causing some designers to rethink traditional construction practices—and one progressive development company is helping to lead that charge. For the recently completed Candlewood Suites Hotel at Redstone Arsenal, Alabama, Lend Lease explored the use of CLT for improved construction efficiency and performance. The four-story, 62,688-sf project utilized CLT for nearly all floor, roof and wall framing, making it the first mass timber hotel in the country. This presentation will review the economic, environmental and social benefits realized through the use of CLT on this project, and address CLT's viability as a market changing technology. Lessons learned during the design and construction processes will be discussed, as will some of the perceived hurdles and associated solutions related to using CLT as a whole building system.

AFTERNOON SESSION 1:20 PM

### Innovative Solutions for Mass Timber Projects: Structural Concepts and Case Study Examples

Tanya Luthi, PE, Fast + Epp

Mass timber construction uses large prefabricated wood members such as CLT and glue-laminated timber. These products, combined with a heightened awareness of wood's carbon benefits, have focused attention on the possibility of "tall wood" and large-area wood buildings. Mass timber building systems and techniques have been successfully proven in projects worldwide. This presentation provides an analysis of three recently built mass timber projects in Canada: a 30,000-sf commercial building; a 156,000-sf student residence; and a 110,000-sf commercial building. The solutions used in each illustrate the adaptability of mass timber to a variety of design considerations and constraints.



## ROOM 2

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM

### Forests and Forest Products

Kathryn Fernholz, Dovetail Partners, Inc.

This presentation will answer many questions about forests and forest products, such as: Where do our trees and forests grow? How have forests changed over time? What is the relationship between people and forests—now and in the past? How are forests managed—and are they being managed responsibly? Are our forests and forest products sustainable? Why is wood an environmentally-friendly choice?

MORNING SESSION 9:45 AM

### The Role of Control Layers in Building Enclosure Design

Colin Shane MEng, PEng, RDH Building Science Inc.

Building enclosures are responsible for controlling heat flow, air flow, vapor flow and a number of other elements. Through a combination of building science fundamentals and current research, this presentation will explore design considerations associated with wood-frame building enclosures and the role of control layers. Discussion will focus on best practices for designing durable, energy-efficient enclosures using traditional light wood-frame construction.

MORNING SESSION 11:00 AM • AFTERNOON SESSION 4:00

### Urban Acoustics

Steve Thorburn, PE, LEED AP, CTS-I, CTS-D, Thorburn Associates

As with any issue of building performance, the acoustics of a mixed-use wood-frame structure can be designed to meet or far exceed minimal requirements. It is the responsibility of the design team to determine acoustical expectations for the project and meet them within the available budget. Through the use of case studies, this fast-paced, interactive session will explore how multi-story wood systems can be used to meet acoustical privacy goals. Discussion will focus on the detailing and construction of units, and how consideration of the construction process can help keep acoustical costs down. With the objective of providing implementable solutions, the session will include construction details and photos showing what has and hasn't worked in actual buildings.

AFTERNOON SESSION 2:50

### Advanced Detailing Techniques for Building Enclosures

Colin Shane MEng, PEng, RDH Building Science Inc.

This presentation will provide an in-depth look at a variety of wood-frame building enclosure assemblies and details. Beginning with a review of building enclosure design fundamentals and considerations, it will then focus on best practices with references from technical guidelines and case studies. Finally, the critical detail interfaces between different enclosure assemblies (i.e., walls, roofs, balconies, windows) will be reviewed with a focus on continuity of critical barriers. Details and case studies will be presented for each.

## ROOM 3

MORNING SESSION 8:00 AM • AFTERNOON SESSION 1:20 PM

### Advancements in Force Transfer around Openings for Wood-Framed Shear Walls

Karyn Beebe, PE, LEED AP, APA

A joint research project of APA – The Engineered Wood Association, University of British Columbia (UBC), and USDA Forest Products Laboratory was initiated in 2009 to examine the variations of walls with code-allowable openings. Test results from the (8' x 12') full-scale wall configurations, in conjunction with the analytical results from a computer model developed by UBC, were used to develop and refine rational design methodologies in accordance with the *International Building Code* (IBC). This presentation provides an update of that research with a focus on asymmetric piers and multiple openings. Rational design methodologies in accordance with the IBC will be shared.

MORNING SESSION 9:45 AM • AFTERNOON SESSION 2:50 PM

### Multi-Family Design and Detailing: An Orlando Perspective on Mid-Rise Construction

Russel Goliath, Slocum Platts Architects

Developed in response to a growing interest in mid-rise wood-frame projects, this course will provide an in-depth look at design and detailing considerations associated with multi-family buildings in particular, both on grade and on a podium. Architectural topics specific to fire and life safety will be reviewed at length, including floor and wall assembly selection, shaft walls, fire walls, and the intersection of rated assemblies. The recently completed Lexington Court project in downtown Orlando will be used to illustrate common design challenges and solutions for mid-rise structures. Presented by Slocum Platts' Director of Architecture, who has designed and overseen many four-story, wood-frame projects in Florida, this presentation goes beyond code provisions and focuses on the "how-to" associated with their design.



MORNING SESSION 11:00 AM

### International Building Code Essentials for Wood Construction

Paul Coats, PE, CBO, American Wood Council

Based on the American Wood Council (AWC)/ICC publication, *Code Conforming Wood Design* (CCWD), this presentation provides insight into the 2012 IBC parameters for wood in non-residential and multi-residential construction. Topics will include maximum building sizes (participants will receive pre-calculated tables for eight occupancies, with and without frontage and sprinkler increases); alternatives for establishing required fire resistance; special provisions for pedestal buildings; precautionary recommendations during construction; criteria for finishes, and other wood features; and the use of AWC design standards and other publications in relation to the IBC. Participants may download a complimentary copy of the CCWD at: <http://www.awc.org/codes/ccwdindex.html>.

AFTERNOON SESSION 4:00 PM

### Designing for Permanence: Protecting Wood-Frame Structures from Insects and Decay

Paul Coats, PE, CBO, American Wood Council

When properly designed and constructed, wood-frame structures are able to resist damage by moisture and living organisms. This presentation focuses on four steps to achieving maximum service life with wood-frame structures: 1) controlling moisture content of wood, 2) providing effective termite controls, 3) using durable materials such as naturally durable or preservative-treated wood, and 4) instituting quality assurance. With an emphasis on best practice details and material specification, this session will present techniques for mitigating decay, insect infestation, and durability issues in new and existing wood construction.

## Who Should Attend?

With a full day of seminars and a trade exposition, the Central Florida Wood Solutions Fair will pack an informational punch for architects, engineers, developers, code officials and anyone else interested in wood's exciting design possibilities. Register today if you'd like access to wood design experts for one-on-one support, informative seminars, technical information from manufacturers, engineering consultants and industry associations, and exhibits featuring a wide range of structural and finishing products.

## How to Register

To register, visit [woodworks.org](http://woodworks.org) and look under "Education" on the home page. As part of the registration process, you will be asked to choose which seminar you plan to attend in each time slot. Once your request has been processed, you will receive an email confirmation that your registration is complete. To help make your choices, speaker bios are available on the website.

## Cost

There is no cost to attend and complimentary lunch will be provided.

## Education Credits

Attendees can earn up to 6 AIA/CES LUs (HSW) or PDH credits (one per attended seminar). CEUs are FBPE approved. Visit [woodworks.org](http://woodworks.org) for details and learning objectives. AIA/CES forms and professional development certificates will be available on site.

## More Information

Visit [woodworks.org](http://woodworks.org)



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