WoodWorks™
WOOD PRODUCTS COUNCIL


# Southern California Wood Solutions Fair

## OCTOBER 4, 2017

**PASADENA CONVENTION CENTER**
300 EAST GREEN STREET
PASADENA, CA 91101

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

Register at woodworks.org

# Southern California Wood Solutions Fair Schedule

***Space is limited. Register today!***

| | | | | | |
|---|---|---|---|---|---|
| **7:00 am** | Registration Check-In – Exhibit Expo Opens | | | | |
| | **ROOM 1** Detailing | **ROOM 2** Engineering | **ROOM 3** Fire & Life Safety | **ROOM 4** Construction Delivery | **ROOM 5** National Partners |
| **8:00 am – 9:10 am** | Energy-Efficient Wood-Frame Assemblies: Options for Compliance with Title 24 | Mass Timber Lateral Framing Systems: Design and Detailing Options | Code Compliant Fire Resistance Design for Wood Construction | Off-Site Wood Construction: What, Why, How and the Future | Mid-Rise Engineering Considerations for Engineered Wood Products **NP** |
| **9:10 am – 9:45 am** | Break – Exhibit Expo | | | | |
| **9:45 am – 10:45 am** | Why Acoustics Matter: Demystifying Noise Control in Buildings | Lateral Design Considerations for Mid-Rise Wood Structures | Fire Life Safety Approval for Mass Timber Projects | More with Less: An Overview of the First CLT Hotel in the US | Fire Retardant-Treated Wood: Products, Applications & Code Provisions **NP** |
| **10:45 am – 11:00 am** | Break – Exhibit Expo | | | | |
| **11:00 am – Noon** | Classic Connection Conundrums – Commonly Overlooked Wood Engineering Design Issues | Designing Wood Schools in California: A Perspective from the Division of the State Architect | Sprinklers in Wood-Frame Construction: What Architects and Engineers Need to Know | Building the T3 Minneapolis Office: Seven Stories of Success | Cross-Laminated Timber: Bridging the Designer-Manufacturer Gap **NP** |
| **Noon – 1:20 pm** | Lunch • Wood Design Awards | | | | |
| **1:20 pm – 2:20 pm** | Energy-Efficient Wood-Frame Assemblies: Options for Compliance with Title 24 | Mass Timber Lateral Framing Systems: Design and Detailing Options | Code Compliant Fire Resistance Design for Wood Construction | Off-Site Wood Construction: What, Why, How and the Future | Wood-Frame Exterior Walls in Type III Construction **NP** |
| **2:20 pm – 2:50 pm** | Break – Exhibit Expo – Closes at 3:00 pm | | | | |
| **2:50 pm – 3:50 pm** | Why Acoustics Matter: Demystifying Noise Control in Buildings | Lateral Design Considerations for Mid-Rise Wood Structures | Fire Life Safety Approval for Mass Timber Projects | More with Less: An Overview of the First CLT Hotel in the US | Meeting Fire Code with Oriented Strand Board **NP** |
| **3:50 pm – 4:00 pm** | Break | | | | |
| **4:00 pm – 5:00 pm** | Western Red Cedar: Distinctive, Sustainable Design **NP** | Designing Wood Schools in California: A Perspective from the Division of the State Architect | Sprinklers in Wood-Frame Construction: What Architects and Engineers Need to Know | Moving to Mass Customization: Prefabrication in Type V Construction | Mass Timber – The Next Generation of Wood Construction **NP** |

Photos: (cover) Clay Creative, Mackenzie, photo Christian Columbres, (address panel) 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.*

NP *Indicates the session is presented by one of our National Partners*

# Seminars and Speakers

## ROOM 1 – Detailing

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

### Energy-Efficient Wood-Frame Assemblies: Options for Compliance with Title 24

*Matthew Brown, APA-The Engineered Wood Association*

From a thermal perspective, wood-frame building enclosures are inherently more efficient than other materials—because of the insulating qualities of wood, and because wood stud walls are easy to insulate. Referencing real projects, this presentation will examine options for utilizing wood-frame assemblies to comply with the California Energy Code, Part 6 of Title 24.

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

### Why Acoustics Matter: Demystifying Noise Control in Buildings

*Randy D. Waldeck, PE, LEED AP, CSDA Design Group*

This session will focus on strategies for achieving an appropriate balance of noise control in wood-frame buildings. Topics will include techniques for reducing environmental noise, selection of acoustical components and wood-frame assemblies in the context of occupant/tenant separation, lessons learned from recent projects and best practices for optimal acoustic performance.

MORNING SESSION 11:00 AM

### Classic Connection Conundrums – Commonly Overlooked Wood Engineering Design Issues

*Michelle Kam-Biron, PE, SE, SECB, American Wood Council*

This presentation covers questions that commonly arise when designing connections using the *National Design Specification®* (NDS®) *for Wood Construction* and *Special Design Provisions for Wind and Seismic,* which are referenced in US building codes and used to design wood structures worldwide. Discussion will include local stresses in fastener groups, member shear design for bolt and lag screw connections, design values for power-driven staples and nails, and connection detailing requirements for high capacity shear walls and diaphragms.

Visit ***woodworks.org*** for full seminar descriptions, speaker bios, registration and more.

## ROOM 2 – Engineering

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

### Mass Timber Lateral Framing Systems: Design and Detailing Options

*Ilana Danzig, PEng, PE, MEng, Equilibrium Consulting*

Although mass timber buildings are becoming more common, mass timber components are often limited to gravity load resistance. This presentation will highlight options for mass timber lateral framing systems subject to either seismic or wind loads such as heavy timber braced frames, cross-laminated timber shear walls and mass timber panel diaphragms.

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

### Lateral Design Considerations for Mid-Rise Wood Structures

*Terry Malone, PE, SE, WoodWorks*

This presentation will focus on important engineering considerations related to the lateral design of mid-rise wood buildings. Discussion will include diaphragm and shear wall flexibility, their effects on the horizontal distribution of loads through the structure, and design issues associated with the trend toward corridor-only shear walls.

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

### Designing Wood Schools in California: A Perspective from the Division of the State Architect

*Rich Denio, SE, California Division of the State Architect*

The Division of the State Architect (DSA) has jurisdiction over all public K–12 schools and community colleges in California. This presentation by a DSA supervising structural engineer will cover code provisions and design considerations that architects and engineers need to be aware of for wood school projects in the state. Also covered will be lessons learned from DSA construction oversight that can help attendees successfully navigate the design and construction process for California wood schools.

## ROOM 3 – Fire & Life Safety

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

### Code Compliant Fire Resistance Design for Wood Construction

*Dennis Richardson, PE, CBO, American Wood Council*

In a building environment where the ability to maximize height and area is key to cost effectiveness, designers must understand the gamut of fire protection considerations applicable to mid- and low-rise wood structures. This presentation will include code requirements, compliance options and nuances related to assembly selection for required fire resistance-rated floor/ceiling assemblies, exterior walls, fire barriers, fire partitions, and fire walls.

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

### Fire Life Safety Approval for Mass Timber Projects

*Robert Gerard, PE, Senior Fire Engineer, Holmes Fire*

The mass timber movement has introduced both new materials and new uses for existing materials. While this brings design opportunities, there are approval challenges to shifting norms. This presentation seeks to provide an in-depth understanding of the Alternate Materials and Methods Request (AMMR) process, which can be used for projects that include unfamiliar innovation.

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

### Sprinklers in Wood-Frame Construction: What Architects and Engineers Need to Know

*Nate Wittasek, PE, CFEI, LEED AP, Simpson Gumpertz & Heger*

Sprinklers are the most common form of active fire protection in multi-family and commercial buildings. However, there is a misunderstanding among many building designers that sprinkler code requirements apply differently to wood-frame buildings vs. other types of construction. This presentation will cover code provisions related to the use of sprinklers in wood structures, including when and where they're required.

## ROOM 4 – Construction Delivery

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

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

*Randall Walter, AIA, LEED AP, Bensonwood*

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 this approach.

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

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

*Jeff Morrow, Lendlease*

This presentation will review the economic, environmental and social benefits realized through the use of cross-laminated timber (CLT) on the 4-story Candlewood Suites hotel at Redstone Arsenal. Discussion will include lessons learned during design and construction, perceived hurdles, and associated solutions related to using CLT as a whole building system.

**T3 Minneapolis**, MGA, DLR Group, Magnusson Klemencic Associates, StructureCraft

photo Ema Peter

MORNING SESSION 11:00 AM

### Building the T3 Minneapolis Office: Seven Stories of Success

*Lucas Epp, StructureCraft Builders*

T3 (Timber, Transit and Technology) Minneapolis is a seven-story office building with six stories of mass timber. Presented by the timber specialists responsible for such iconic structures as the Richmond Olympic Oval and Arena Stage at the Mead Center for American Theater, this presentation explores the structural efficiency, cost effectiveness and aesthetic potential of mass timber systems in the context of T3 and introduces the use of nail-laminated timber.

AFTERNOON SESSION 4:00 PM

### Moving to Mass Customization: Prefabrication in Type V Construction

*David Smolker, Project Frog*

Designers are tapping into automation technology to accelerate project delivery without sacrificing aesthetics and flexibility. This session will explore one method for solving design challenges typical to commercial Type V construction using a prefabricated delivery model. Attendees interested in transitioning from traditional to prefabricated construction methods will be intrigued to learn how they can begin using cloud-based design automation on their projects.

## PARTNER PRESENTATIONS

See schedule grid for room numbers and times. Visit ***woodworks.org*** for session descriptions and partner profiles.

**Western Red Cedar: Distinctive, Sustainable Design**
Western Red Cedar Lumber Association

**Wood-Frame Exterior Walls in Type III Construction**
Weyerhaeuser

**Mid-Rise Engineering Considerations for Engineered Wood Products**
Boise Cascade

**Fire Retardant-Treated Wood: Products, Applications & Code Provisions**
Hoover Treated Wood Products, Inc

**Cross-Laminated Timber: Bridging the Designer-Manufacturer Gap**
SmartLam

**Meeting Fire Code with Oriented Strand Board**
LP Building Products

**Mass Timber – The Next Generation of Wood Construction**
D.R. Johnson Wood Innovations

**With a full day of seminars and a trade exposition**, the Southern California Wood Solutions Fair will pack an informational punch for architects, engineers, developers, code officials and anyone else interested in wood's exciting design possibilities. During the day access wood design experts, informative seminars, technical information from manufacturers, engineering consultants and industry associations, and exhibits featuring a wide range of structural and finishing products.

**To register, visit 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. To help make your choices, speaker bios and full seminar descriptions are available on the website.

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

**Education Credits**: Attendees can earn up to 6 AIA/CES HSW LUs or PDH credits (one per attended seminar). AIA/CES forms and professional development certificates will be available on site.

**Visit woodworks.org**
for more information.

*WoodWorks is an approved AIA provider.*

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For project assistance please contact:

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For resources, such as CAD/REVIT details, span tables, design examples and more, visit ***woodworks.org*** or email help@woodworks.org.

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