

Agenda

Presented by Rochelle Hill

Overview of Off-Site Construction

- What is off-site construction?
- Panelized construction vs modular construction
- What is level of completion (LOC) - modular vs panelized
- What is factory assembled structure (FAS) and design for manufacturing and assembly (DfMA)

Panelized Construction – Building Components

- Types of panels and materials:
 - Wood, light gage steel, SIPs, straw bales, cross-laminated timber (CLT)
- Walls, floors, and roof systems
- Open wall systems, closed wall systems
- Low LOC vs passive house panels
- Incorporating MEPF
- Project types: residential, commercial and multi-family
- Design, permitting, FAS and inspections
- Construction, transportation, site logistics and installation

Modular Construction

- Types of modular buildings: cold-form steel, wood, CLT, other materials
- Project types: residential, commercial and multi-family
- Design, permitting, FAS and inspections
- Construction, transportation, site logistics and installation
- Modular challenges
- Volumetric modular – lessons from the automobile industry

Modular vs Panelized Fabrication Facility

- Automation, robots and CAD/CAM
- How material types affect the factory process
- The trades and a component “kitting” approach to construction and fabrication
- FAS and inspections

Design for Manufacturing (DfMA) and BIM

- Difference in traditional design build vs DfMA
- The need for integration in DfMA
- Specialized software for CAD/CAM

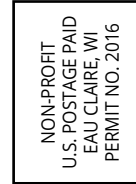
Case Studies of Prefabricated Components and Modular Buildings

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Modular Construction and Prefabricated Components: Residential, Multi-Family and Commercial Buildings

Live, Interactive Webinar - Wednesday, October 9, 2024



HalfMoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Define off-site construction, panelized construction and modular construction.

Discuss panelized construction materials for use in residential, commercial and multi-family projects.

Examine different types of modular construction, including cold-form steel, wood and cross-laminated timber.

Learn about the building component manufacturing process.

Get tips on designing with manufactured components.

Discuss case studies of prefabricated components.



HalfMoon Education Inc., Your LIVE Education Leader Presents Modular Construction and Prefabricated Components: Residential, Multi-Family and Commercial Buildings

Live, Interactive Webinar - Wednesday, October 9, 2024



Analyze the differences between panelized construction vs modular construction

Explore factory assembled structure (FAS) and design for manufacturing and assembly (DfMA)

Explore building components of panelized construction

Learn about types of modular buildings, including cold-form steel, wood, and CLT

Discuss how material types affect the factory process

Consider the difference in traditional design build vs DfMA

Review case studies of prefabricated components and modular buildings

Continuing Education Credits

Professional Engineers
6.0 PDHs

Architects
6.0 HSW CE Hours
6.0 AIA LU | HSW

International Code Council
.6 CEU (Building)

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Webinar Information

Online - Wednesday, October 9, 2024

Log into Webinar

8:30 - 9:00 am CDT

Break

11:10 - 11:40 am CDT

Morning Session

9:00 - 11:10 am CDT

Afternoon Session

11:40 am - 3:50 pm CDT

Tuition

\$339 for individual registration.

\$309 for two or more registrants from the same company at the same time.

Included with your registration: PDF seminar manual.

How to Register

- Visit us online at www.halfmoonseminars.org
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Faculty



Rochelle Hill comes to Halfmoon Education with a deep background in design; she specializes in design for manufacturing, modular and off-site BIM. Ms. Hill has spent much of her 35 years of design experience focused on off-site construction using modular or panelized construction methods and the use of CAD/CAM software for DfMA, and she enjoys educating others on the benefits and challenges within the industry. She also has a passion for Passive House that is closely tied to design for manufacturing. During her Certified Passive House Consultant (CPHC) training she discovered that modular and prefabricated construction were Passive House concepts, a concept that she has been championing since 2006. Ms. Hill has experienced many modular and prefabricated start-ups to include Transform, Katerra and Modulous. Her architectural experience includes working for a local Passive House builder, passive panel manufacturers and being a part of the design team for a local Passive House library. Ms. Hill lives just north of Seattle with her spouse and enjoys mountain biking, kayaking, and racing her hydroplane race boat. She champions diversity and inclusion and equality.

"I am excited to share my knowledge of modular, panelized construction and off-site building design and manufacturing with others. It's a subject that I am very passionate about as I truly believe it's our next step forward in solving so many design-building challenges. I am honored to be involved with Halfmoon Education and hope you will join me for a deep dive into a growing movement called Design for Manufacturing and Assembly" - Rochelle Hill

Additional Learning

Designing and Constructing Net-Zero Energy Homes

- Friday, August 23, 2024 | 8:30 am - 4:00 pm CDT

Flood-Resistant Design and Construction

- Monday, August 26, 2024 | 9:00 am - 4:30 pm CDT

2024 International Building Code: Administration and Enforcement

- Tuesday, August 27, 2024 | 12:00 - 4:30 pm CDT

Complying with Commercial Provisions of the 2021 International Energy Conservation Code

- Tuesday, August 27, 2024 | 9:00 am - 4:30 pm CDT

How to Calculate the Proper Size and Volume for Water Lines (Pex & Copper), Drain-Waste-Vent Lines and Natural Gas Lines

- Tuesday, August 27, 2024 | 8:30 am - 3:30 pm CDT

Structural Engineering Calculations for Wood Construction

- Tuesday, August 27, 2024 | 10:00 am - 1:15 pm CDT

Credit Information

This webinar is open to the public and is designed to qualify for 6.0 PDHs for professional engineers and 6.0 HSW continuing education hours for licensed architects in all states that allow this learning method. Please refer to specific state rules to determine eligibility.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider License No: CEA362), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00049300) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 6.0 HSW LUs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .6 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

On-Demand Credits

The preceding credit information only applies to the live presentation. This course in an on-demand format is not pre-approved by any licensing boards and may not qualify for the same credits; please consult your licensing board(s) to ensure that a structured, asynchronous learning format is appropriate. The following pre-approvals may be available for the on-demand format upon request: 6.0 HSW LUs (AIA)

Current Issues in Urban Planning:

Climate Planning and Equity Planning

- Wednesday, August 28, 2024 | 9:00 am - 4:00 pm CDT

How to Design Using Natural Ventilation

- Wednesday, September 4, 2024 | 11:00 am - 1:00 pm CDT

National Flood Insurance Program (NFIP) Problems and Proposed Reform

- Thursday, September 5, 2024 | 9:00 - 11:00 am CDT

Residential and Small Commercial Roof Design and Construction

- Friday, September 6, 2024 | 9:00 am - 4:30 pm CDT

Plumbing Basics for Non-Plumbing Professionals

- Tuesday, September 10, 2024 | 8:30 am - 3:30 pm CDT

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