Agenda

Presented by Jason Morosko, MSME, CPHC

Understanding the Energy Efficiency of Conventional Construction
- Conventional residential energy use
- History of energy-conserving residential construction
- Energy conservation incentives
- Current weatherization tactics

Passive House Standard: Purpose, Principles and Development
- History of certifying agencies in US: PHI and PHIUS
- Passive House Standard: voluntary performance-based building envelope energy standard
- Passive House energy calculations
- Energy calculation tools: an introduction to tools and their functionality
- Assembling a team to ensure quality and performance
- Examining common design features of Passive Houses

Elements of Passive House Design
- Siting, sizing and orientation
- Super-insulated envelope with minimized thermal bridging
- Efficient mechanical ventilation
- Ultra-efficient lights, fixtures and appliances - plug loads
- Summer shading and cooling strategies
- Winter solar gain and heat retention strategies
- Integrating renewable energy technologies

Mechanical Systems in Passive House
- Heat exchangers
- Supplemental space conditioning for micro loads
- Renewable energy system integration

Evaluating Passive House Case Studies
- Adapting Passive House for local climate
- Case studies: in the planning process, under construction and finished projects

Learning Objectives

You’ll be able to:

Explore the history of energy-conserving residential construction, and explore the development of the Passive House Standard.

Understand the requirements of Passive House, a voluntary performance-based building envelope energy standard.

Discuss energy calculation tools and review design features common to Passive Houses.

Integrate renewable energy technologies into your Passive House design.

Evaluate mechanical systems, including heat exchangers.

Adapt Passive House for local climates.

Passive House: Planning and Design
Roanoke, VA - Wednesday, August 7, 2019

Understanding the energy efficiency of conventional construction
Examine the purpose, principles and development of the Passive House Standard
Identify elements of Passive House design

Professional Engineers
6.5 Continuing Ed. Hours

Architects
6.5 HSW Continuing Ed. Hours
6.5 AIA HSW Learning Units

Construction Contractors
Non-Credit Continuing Ed.

Learn about mechanical systems in Passive Houses
Explore winter solar gain and summer shading strategies
Discuss case studies that illustrate the planning process, construction techniques and finished projects

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Additional Learning

Webinar Series
International Existing Building Codes
- Working with the International Existing Building Code
  Thurs., June 20, 2019, 11:00 AM - 12:30 PM CDT
- Chapters 3, 4 & 6
  Thurs., June 20, 2019, 1:00 - 3:00 PM CDT
- Chapters 7-10: Alterations and Occupancy
  Fri., June 21, 2019, 11:00 AM - 1:00 PM CDT
- Chapters 11, 12 and 16: Additions and Historic Buildings
  Fri., June 21, 2019, 1:30 - 3:00 PM CDT

Retaining Structures
- Earth Pressures and Surcharges
  Wed., June 26, 2019, 11:00 AM - 12:30 PM CDT
- Cantilever & Apparent Earth Pressures
  Wed., June 26, 2019, 1:00 - 2:30 PM CDT
- Apparent Earth Pressures
  Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT

Industrial Stormwater
- Understanding the Federal Industrial Stormwater Program
  Thurs., June 27, 2019, 11:00 AM - 12:50 PM CDT
- Examining Stormwater Pollutants and the Development of Total Maximum Daily Loads (TMDLs)
  Thurs., June 27, 2019, 1:00 - 2:00 PM CDT
- Creating Stormwater Pollution Prevention Plans (SWPPP's)
  Fri., June 28, 2019, 11:00 AM - 12:00 PM CDT
- Implementing Best Management Practices (BMP's), Sampling and Reporting
  Fri., June 28, 2019, 12:30 - 2:00 PM CDT

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

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Registration
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11:45 am - 12:05 pm
8:30 - 11:45 am
Morning Session
12:45 - 4:30 pm
Afternoon Session

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Receive a reduced tuition rate of $197 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

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- Visit us online at www.halfmoonseminars.org
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