

Agenda

Presented by David Peabody and Matthew Fine

Introduction: Passive House Roots in the US and Canada

Why we are here
The problem with incremental approaches to climate change
The cost question
Why are you here
Passive House roots in the US and Canada

- The oil embargo and first efforts at energy efficiency
- Competing approaches
- Synthesis in first Passive House

Passive House Standard: Purpose, Principles and Development

Development of US energy efficiency standards
Passive House Standard: voluntary performance-based building envelope energy standard
Overview of the PH standards' criteria
Energy calculation tools: an introduction to tools and their functionality
History of certifying agencies in US: PHI and PHIUS and the two paths available for certification
Assembling a team to ensure quality and performance
Examining common design features of Passive Houses

Architectural Elements of Passive Houses

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

Mechanical Systems in Passive Houses

Optimizing heat gains

- Passive solar heat gains
- Indoor environmental heat gains

Heat exchanger
Supplemental heating
Renewable energy system integration
Energy-efficient appliances

Evaluating Passive House Case Studies in Our Climate (Mixed Humid, Mid-Atlantic)

A large single-family Passive House
An affordable multi-family Passive House retrofit
A modular Passive House
Projects on the boards
Questions

Passive House: Planning and Design
Jessup, MD - Tuesday, January 30, 2018

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Learning Objectives

You'll be able to:

Explain the roots of the Passive House Standard in the US and Canada.

Define the Passive House standard criteria and identify common design features of passive houses.

Consider siting, sizing, orientation, and other architectural elements of passive houses.

Learn how to optimize heat gains and integrate renewable energy systems.

Discuss case studies of passive houses in a mixed-humid, mid-Atlantic climate.



Passive House: Planning and Design

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Explore the roots of the Passive House standard in the US and Canada

Review energy efficiency standards and the Passive House building envelope energy standard

Evaluate architectural elements of passive houses

Study mechanical systems in passive houses

Discuss case studies of completed passive house projects

Continuing Education Credits

Professional Engineers

6.5 PDHs (MD Category A)

Architects

6.5 HSW LUs/CE Hours

6.5 AIA HSW Learning Units

Contractors

Non-Credit Continuing Ed.



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Faculty

David Peabody, LEED-AP, CPHC, has led Peabody Architects in Alexandria, Virginia, since 1992, designing more than 100 homes and additions. Witnessing and participating in the growth of sprawl in the suburban DC area through the '90's led to awareness that the way building is done today is not sustainable and a conviction that architects cannot sit on the fence on environmental issues. Since committing the practice to sustainable design in 2000, he has become increasingly active in issues regarding architecture and the environment, and he has made these issues central to the way the firm approaches its work. In 2004, he became a LEED Accredited Professional, and in 2009 he became a Passive House Certified Consultant—one of the first architects in the country to achieve this certification. Mr. Peabody earned his Master of Architecture degree in 1977 from Yale School of Architecture.

Matthew Fine, LEED-AP, CPHC, has over 10 years of experience in project design, management, and production services. His responsibilities have ranged from conceptual design through contract administration and project closeout. Much of Mr. Fine's knowledge and expertise centers on multi-family residential, mixed-use, urban infill, interior fit-out and adaptive re-use. Mr. Fine received his bachelor of arts degree in Architecture from the University of North Carolina, Charlotte. As a LEED® Accredited Professional, he continually seeks to push sustainable and innovative building solutions while addressing the most basic, but often overlooked, role of architecture. Mr. Fine is a Certified Passive House Consultant (PHIUS). Previously, he served as director of ZA+Dpassiv, a division of Zavos Architects. He was the project leader of that firm's very successful 2015 Weinberg Commons project, a Passive House retrofit of three 1950's multifamily housing units. He also has experience in high performance single family homes. He designed Arlington's first Passive House in 2012 and two Passive House townhouses (Habitat Empowerhouse) in Ivy City in 2014.

Seminar Information

Holiday Inn Columbia East
7900 Washington Blvd.
Jessup, MD 20794
(410) 799-7500

Tuition

\$279 for individual registration
\$259 for three or more registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers in all states. HalfMoon Education is an approved continuing education provider for Maryland engineers. This is a Category A event.

This course offers 6.5 LUs/HSW continuing education hours to architects in most states, excluding Florida architects. Courses approved by the American Institute of Architects are accepted in Maryland.

The American Institute of Architects has approved this seminar for 6.5 HSW Learning Units (Sponsor number J885). Only full attendance can be reported to the AIA/CES.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state contractor licensing entity for continuing education credit.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Construction Cost Estimating

- **Introduction to Cost Estimating**
Thurs., Dec. 7, 2017, 11:00 AM - 12:30 PM CST
- **Cost Components - A Closer Look at the Estimates**
Thurs., Dec. 7, 2017, 1:00 - 3:00 PM CST
- **Cost Estimate Organization**
Fri., Dec. 8, 2017, 11:00 AM - 1:00 PM CST
- **Cost Estimating Topics**
Fri., Dec. 8, 2017, 1:30 AM - 3:00 PM CST

Retaining Walls and Slope Stabilization

- **Retaining Wall Basics**
Thurs., Dec. 14, 2017, 11:00 AM - 12:00 PM CST
- **Geosynthetics and Retaining Walls**
Thurs., Dec. 14, 2017, 12:30 - 2:30 PM CST
- **Slope Stability and Geosynthetics**
Fri., Dec. 15, 2017, 11:00 AM - 12:30 PM CST
- **Slope and Retaining Wall Failures, Fixes and Prevention**
Fri., Dec. 15, 2017, 1:00 - 2:30 PM CST

International Energy Conservation Code

- **International Energy Conservation Code, Part I**
Thurs., Dec. 21, 2017, 8:00 - 11:00 AM CST
- **International Energy Conservation Code, Part II**
Thurs., Dec. 21, 2017, 12:00 - 3:00 PM CST

Seismic Design and Construction

- **Seismology and Building Codes**
Wed., Dec. 27, 2017, 11:00 AM - 3:30 PM CST
- **Seismic Design of Building Structures**
Thurs., Dec. 28, 2017, 11:00 AM - 3:30 PM CST

The Distributed Battery Webinar Series

- **The Distributed Battery Webinar, Part I**
Thurs., Dec. 28, 2017, 11:00 AM - 2:15 PM CST
- **The Distributed Battery Webinar, Part II**
Fri., Dec. 29, 2017, 11:00 AM - 2:15 PM CST

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the CD/Manual Package:

An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

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How to Register	
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Complete the entire form. Attach duplicates if necessary.	
Registrant Information Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.	

() I need special accommodations. Please contact me.

Tuition () I will be attending the live seminar. Single Registrant - \$279.00 . Three or more registrants from the same company registering at the same time - \$259.00 each. () I am not attending. Please send me the CD manual package for \$289.00 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CVV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____