

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

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Passive House: Planning and Design
Fort Washington, PA - Thursday, February 20, 2020

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Learning Objectives

You'll be able to:

Describe the purpose and principles of the Passive House standard.

Identify common design features of Passive Houses.

Explore architectural elements of Passive Houses, including sizing, orientation, super-insulated envelopes, and efficient ventilation.

Discuss summer shading and cooling strategies, and identify solar gain and heat retention strategies.

Describe mechanical and electrical systems in Passive Houses.

Integrate renewable energy technologies into Passive House design.



Passive House: Planning and Design

Fort Washington, PA - Thursday, February 20, 2020



Understand the purpose, principles, and development of the Passive House Standard

Explore elements of Passive House design

Analyze the energy efficiency of conventional construction

Learn about mechanical systems in Passive Houses

Explore winter solar gain and summer shading strategies

Discuss case studies illustrating the planning process, construction techniques, and finished projects

Continuing Education Credits

Professional Engineers

6.5 PDHs

Architects

6.5 HSW Continuing Ed. Hours
6.5 AIA LU|HSW

PHIUS

6.5 CPHC CEUs

Contractors

Non-Credit Continuing Ed.



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Faculty

Jason Morosko, MSME, CPHC *Vice President of Engineering with UltimateAir, Inc.*

Mr. Morosko is a vice president with UltimateAir, a research, design, and manufacturing company of leading technology air-to-air heat exchangers. Mr. Morosko is a 12-year veteran in this field, and he holds bachelors and masters degrees in heat transfer engineering. He became a certified Passive House consultant, and he has taught the curriculum to become a certified Passive House consultant. Mr. Morosko has built his own Passive House duplex, and he has consulted on various Passive House projects in the particular areas of mechanical systems, shell design, and ventilation.

Here's what past attendees had to say about the program and presenter Jason Morosko:

“Well done. Kept audience engaged the whole day.” – Architect

“Excellent presenter and abundant examples and visuals.” – Engineer

“Very knowledgeable and passionate.” – Architect

Seminar Information

Hilton Garden Inn Fort Washington 530 W. Pennsylvania Ave. Fort Washington, PA 19034 (215) 646-4637	Registration 8:00 - 8:30 am Morning Session 8:30 - 11:45 am	Lunch (On your own) 11:45 am - 12:45 pm Afternoon Session 12:45 - 4:30 pm
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Tuition

\$289 for individual registration

\$269 for three or more simultaneous registrations.

Included with your registration:

Complimentary continental breakfast and printed seminar manual.

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 self-study package. You may also send another person to take your place.

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Additional Learning

Webinar Series

Commercial Solar Peaker Batteries

- **Part I**
Wed., Feb. 5, 2020, 11:00 AM - 2:15 PM CST
- **Part II**
Thurs., Feb. 6, 2020, 11:00 AM - 2:15 PM CST

Pumping and Piping Systems

- **Introduction to Pumps: Operation, Principles and Calculations**
Thurs., Feb. 6, 2020, 11:00 AM - 1:00 PM CST
- **Pumping and Piping Design Standards and Codes**
Thurs., Feb. 6, 2020, 1:30 - 2:30 PM CST
- **Piping System Components, Materials and Calculations**
Fri., Feb. 7, 2020, 11:00 AM - 1:00 PM CST
- **Handling Pump and Piping System Problems**
Fri., Feb. 7, 2020, 1:30 - 2:30 PM CST

Pavement Design

- **Principles of Pavement Design**
Wed., Feb. 12, 2020, 11:00 AM - 12:00 PM CST
- **Flexible Pavement Design**
Wed., Feb. 12, 2020, 12:30 - 2:30 PM CST
- **Rigid Pavement Design**
Thurs., Feb. 13, 2020, 11:00 AM - 1:00 PM CST
- **Maintenance, Rehabilitation and Sustainability of Pavements**
Thurs., Feb. 13, 2020, 1:30 - 3:30 PM CST

Ethical Issues for Engineers

- **Resolving Disputes and Handling Ethical Issues in Government Projects**
Fri., Jan. 31, 2020, 12:00 - 1:00 PM CST
- **Complying with Rules of Professional Conduct**
Fri., Feb. 14, 2020, 12:00 - 1:00 PM CST

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

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 continuing education hours to architects in all states with continuing education requirements.

This seminar is approved by the American Institute of Architects Continuing Education System for 6.5 LU|HSW (Sponsor No. J885). Only full attendance is reportable to the AIA/CES. Visit www.halfmoonseminars.org for complete AIA/CES information under this course listing.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects.

The Passive House Institute US has approved this course for 6.5 CEUs.

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

Registration

Passive House: *Planning and Design*

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How to Register	
Online: www.halfmoonseminars.org	
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Complete the entire form. Attach duplicates if necessary.	
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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 - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.

() **I am not attending.** Please send me the self-study package:

- Downloadable MP3 Audio/PDF Manual for **\$269.00**.
- CD/Manual Package for **\$289.00**. USB/Manual Package **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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