

Agenda

Presented by
Roger Taylor and Paul Westbrook

Passive House: Planning and Design Day One

Monday, January 11, 2021 | 11:00 am - 2:15 pm CST (including a 15-min. break)

Understanding the Energy Efficiency of Conventional Construction

- Facts and figures on residential energy use
- History of energy-conserving residential construction
- Building code requirementsEnergy conservation incentives
- Heat transfer basics
- Common energy and moisture issues in buildings

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
- Strategic design, planning process, and the team
- Passive house certification criteria
- Architecture/engineering the perfect wall
- Architecture/ engineering: a sample project with pre-certification documentation
- Examining common design features of passive houses

Architectural Elements of Passive Houses

- Siting, sizing and orientation
- Super-insulated envelope with minimized thermal bridging
- High performance windows and doors
- Air tightness, controlled ventilation
- Moisture and air barriers
- Ultra-efficient lights, fixtures and appliances
- Summer shading and cooling strategies
- Winter solar gain and heat retention strategies
- Integrating renewable energy technologies

Passive House: Planning and Design Day Two

Tuesday, January 12, 2021 | 11:00 am - 2:45 pm CST (including a 15-min. break)

Mechanical Systems in Passive Houses

- Cooling/heating loads
- Ventilation systems
- Heating/cooling systems
- Water heating
- Renewable energy generation
- Energy storage
- Energy monitoring
- Energy-efficient appliances

Financial Analysis/Passive House Case Studies

- Financial issues
- Westbrook House case study
- Case studies: in the planning process, under construction and finished projects

Passive House: Planning and Design

Online - Mon., Jan. 11 and Tues., Jan. 12, 2021

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Learning Objectives

You'll be able to:

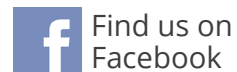
Discuss the history of energy-conserving residential construction, building code requirements, and energy conservation incentives.

Perform energy calculations and receive an introduction to energy calculation tools and their functionality.

Discuss the importance of siting, sizing, and orientation.

Utilize ultra-efficient lights, fixtures, and appliances in Passive House design.

Discuss strategies for adapting Passive House designs for local climate zones.



HalfMoon Education Online Learning

Passive House: Planning and Design

Live, Interactive Webinar Series

Monday, January 11 and Tuesday, January 12, 2021



Review the energy efficiency of conventional construction

Understand the purpose and principles of the Passive House standard

Discuss architectural elements in Passive House design

Explain mechanical systems in Passive Houses

Explore Passive House case studies

Continuing Education Credits

Professional Engineers

6.5 PDHs

AIA

6.5 LU | HSW

Architects

6.5 HSW CE Hours

International Code Council

.65 CEUs (Sustainability)



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Roger Taylor *Owner of DwellGreen of Dallas, TX*
Mr. Taylor is a Certified Passive House Consultant and Passive House Rater. He is a HERS Rater, and is certified by Energy Star, DOE Zero Energy Ready Home, IECC and BPI. Mr. Taylor has served on the ANSI/RESNET National Committee for Water Efficiency, on the Environmental Committee for the Town of Fairview, Texas; and as project manager for large commercial data centers. This is a second career after service in the US Navy, and completion of a computer science degree and 35 years in the computer services industry.

Paul Westbrook *President of RE:source Design in Fairview, TX*
Mr. Westbrook designed his own solar home in north Texas in 1996, which won the Energy Value Housing Award for Innovative Design. While serving as Sustainable Development Manager at Texas Instruments International Facilities, Mr. Westbrook was the LEED AP for the 1.1 million square foot Texas Instruments factory, which was the first LEED Gold semiconductor factory in the world. He led the effort to improve the energy and water efficiency of TI's 20 million square feet of existing global facilities. They were able to double the company energy and water efficiency in less than 10 years. In 2012, Mr. Westbrook was named a Senior Fellow for the US State Department's Energy and Climate Partnership of the Americas program. He visited Honduras, Bolivia, Columbia, and Peru where he worked with governments, universities, and industry on efficiency and renewable energy. His book, *The Joy of Efficiency*, (available for purchase at www.joyofefficiency.com). Mr. Westbrook received his B.S. degree in Mechanical Engineering from Louisiana State University, Baton Rouge, LA in 1982.

Webinar Information

Day One: Monday, January 11, 2021
11:00 am - 2:15 pm CST (including a 15-min. break)

Day Two: Tuesday, January 12, 2021
11:00 am - 2:45 pm CST (including a 15-min. break)
(please log into the webinar 15 - 30 minutes before start time)

Tuition
\$299 for individual registration
\$199 for three or more registrants from the same company at the same time.
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Additional Learning

Special Inspections under the 2018 International Building Code Chapter 17
- Mon., Jan. 11, 2021 | 8:30 am - 4:00 pm CST

Structural Forensic Engineering
- Wed., Jan. 13, 2021 | 10:00 am - 1:45 pm CST
- Thurs., Jan. 14, 2021 | 10:00 am - 1:45 pm CST

Practical Site Engineering: Science & Techniques
- Thurs., Jan. 14, 2021 | 11:00 am - 3:15 pm CST
- Fri., Jan. 15, 2021 | 11:00 am - 2:15 pm CST

Commercial Provisions of the IECC
- Thurs., Jan. 14, 2021 | 11:00 am - 3:30 pm CST
- Fri., Jan. 15, 2021 | 11:00 am - 2:00 pm CST

Slab-on-Grade Concrete and Pavement for Private Facilities
- Mon., Jan. 19, 2021 | 11:00 am - 2:45 pm CST
- Thurs., Jan. 20, 2021 | 11:00 am - 2:45 pm CST

For more information and other online learning opportunities visit:
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Continuing Education Credit Information
This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects licensed in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (S-0130), and North Dakota. 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 6.5 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .65 CEUs in the specialty area of Sustainability (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to prompts and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Can't Attend? Order the Webinar as a Self-Study Package!
Recordings of this webinar are available for purchase. 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.

Registration

Passive House: *Planning and Design*
Live, Interactive Webinar - Monday, January 11 and Tuesday, January 12, 2021

How to Register		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.
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Tuition () I will be attending the live webinar. Single Registrant - \$299.00 . Three or more registrants from the same company registering at the same time - \$199.00 each. () I am not attending. Please send me the webinar recording: ☐ Streamable MP4 Video/PDF Manual for \$279.00 . ☐ USB Video/PDF Manual for \$279.00 .
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