Learning Objectives
You’ll be able to:

Explore the history of energy-conserving residential construction.
Study the Passive House Standard and discuss the certification process.
Understand when and how to perform energy calculations.
Examine key architectural elements of Passive Houses.
Evaluate mechanical system options, as well as ultra-efficient lights, fixtures and appliances.
Discuss how to integrate renewable energy technologies into Passive Houses.

Agenda

Presented by David Horton & Sanyog Rathod, AIA, LEED AP

Understanding the Energy Efficiency of Conventional Construction
- Facts and figures on residential energy use
- History of energy-conserving residential construction
- Building code requirements
- Energy conservation incentives

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
- Energy calculations: how and when to perform them
- 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

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
- Adapting Passive House for the Midwest
- Case studies: in the planning process, under construction and finished projects

Passive House: Planning and Design
Lombard, IL - Tuesday, January 23, 2018

Understand the energy efficiency of conventional construction
Identify the purpose, principles and development of Passive House Standard
Examine the architectural elements of Passive Houses
Explore the history of energy-conserving residential construction
Study the Passive House Standard and discuss the certification process.
Understand when and how to perform energy calculations.
Examine key architectural elements of Passive Houses.
Evaluate mechanical system options, as well as ultra-efficient lights, fixtures and appliances.
Discuss how to integrate renewable energy technologies into Passive Houses.

Continuing Education Credits

Architects
6.5 HSW Contact Hours
6.5 AIA HSW Learning Units

Professional Engineers
6.5 PDHs

Contractors
Non-Credit Continuing Ed.
Faculty

David Horton
Director of Green Certifications, Sol Design - Consulting

Mr. Horton is a skilled tradesman turned energy geek. He began his journey retrofitting historic buildings. As Mr. Horton saw the care required to restore historic buildings, he hoped to be able to modernize their performance. Through training provided by PHIUS, GBCI, RESNET and other building performance-oriented organizations, he acquired the necessary skills to guide project teams to the highest performing building approach possible. Mr. Horton has done this by working on hundreds of Energy Star homes, more than 300 LEED projects, and Passvie House projects spread out across six states. As one of the founding members of Passive House Alliance Kentucky, he aims to bring Passive House and other high-performance building approaches to the mainstream. Mr. Horton has been the CHPC or PHIUS+ Rater on projects in Indiana, Cincinnati, Ohio, Kentucky and Missouri. He provides consulting support on multifamily PHIUS+ projects in central and western Pennsylvania. Ohio and Kentucky. He has been the green rater and HERs rater on 300+ LEED projects totaling thousands of units and has acted as field quality assurance for raters under HERs Providers for multiple years. Mr. Horton has created solutions to a plethora of problems in old buildings, with respect to energy efficiency, and has been a part of teams that constructed multiple different building types with multiple uses. Mr. Horton holds CHPC, PHIUS+ Rater, HERs Rater/QAD/Trainer, LEED AP Homes and LEED Green Rater/QAD certifications.

Sanyog Rathod, AIA, LEED AP
Founder and CEO, Sol Design - Consulting

Mr. Rathod is a licensed architect with a Master’s degree in Architecture, and brings 25 years of international design and construction experience of working on large complex projects. He maintains the highest standards of global knowledge, experience and leadership in sustainable design through active involvement in the profession, academia and community. Sol Design - Consulting is a Cincinnati-based firm which provides sustainability consulting and green building certification services. As an Enterprise Green Communities and LEED provider and verifier, Mr. Rathod has certified over 5,000 residential and commercial units in over 15 states and globally. Sol certified the nation’s first LEED for Homes Midrise Platinum housing for the homeless in 2010, and has recently certified the first international Platinum LEED for Homes project in all of the Middle East.

Seminar Information

Hyatt Place Chicago - Lombard/Oak Brook
2560 South Fountain Square Drive
Lombard, IL 60148
(630) 932-6501

Continuing Education Credit Information
This seminar is open to the public and offers 6.5 HSW contact hours to architects and 6.5 PDHs to professional engineers in all states, except Florida architects. Educators and courses are not subject to preapproval in Illinois.

The American Institute of Architects has approved this event for 6.5 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is deemed an approved architect continuing education sponsor in New York. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24G000070700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

This seminar also offers a non-credit continuing education opportunity to construction contractors. It has not been submitted to any state contractor licensing board for continuing education approval.

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

January Webinar Series

Technical Writing

• Technical Writing Basics
  Tues., Jan. 9, 2018, 11:00 AM - 1:00 PM CST
  \$279.00 each.

• Planning Documents
  Tues., Jan. 9, 2018, 1:30 - 3:30 PM CST
  \$279.00 each.

• Writing Documents
  Wed., Jan. 10, 2018, 11:00 AM - 1:00 PM CST
  \$279.00 each.

Masonry Design and Construction

• Introduction to Masonry Materials and Requirements
  Thurs., Jan. 11, 2018, 11:00 AM - 1:00 PM CST
  \$279.00 each.

• Masonry Construction Techniques
  Thurs., Jan. 11, 2018, 1:30 - 3:30 PM CST
  \$279.00 each.

• Quality Control and Sampling
  Fri., Jan. 12, 2018, 11:00 AM - 1:00 PM CST
  \$279.00 each.

• Masonry Inspections and the Masonry Standards Joint Committee (MSJC) Code
  Fri., Jan. 12, 2018, 1:30 - 3:30 PM CST
  \$279.00 each.

Deep Foundations

• Deep Foundation Site Evaluation
  Wed., Jan. 17, 2018, 11:00 AM - 12:00 PM CST
  \$279.00 each.

• Overview of Deep Foundations
  Wed., Jan. 17, 2018, 1:30 - 2:00 PM CST
  \$279.00 each.

• Deep Foundation Pile Design
  Thurs., Jan. 18, 2018, 11:00 AM - 12:30 PM CST
  \$279.00 each.

• Deep Foundation Installation and Testing
  Thurs., Jan. 18, 2018, 1:00 - 2:00 PM CST
  \$279.00 each.

Designing Solar Roofs and Community Solar

• Design Your Solar Roof
  Wed., Jan. 24, 2018, 11:00 AM - 1:15 PM CST
  \$279.00 each.

• Community Solar
  Wed., Jan. 31, 2018, 11:00 AM - 1:15 PM CST
  \$279.00 each.

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

Can’t Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for $289.00. To order the CD/Manual Package, call 715-835-5900 or visit www.halfmooneseminars.org/webinars/CDmanual

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. (SH gift included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

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