



Monday, February 21

Special Full-Day Preconference Training

8:30 am–4:30 pm

Smart Remodeling: It Begins and Ends with Performance

Presented by: Pat Huelman, Tom Schirber, William Weber and Dick Stone—Home remodeling can be a risky proposition. Changes and upgrades can either make things better or worse, especially in homes that have existing performance issues related to air quality, moisture, durability, or energy efficiency. Help ensure that your remodels will make homes safer, healthier, more durable and more resource-efficient. Diminish the risks to you, your business and the homeowner. Come learn from the experts how to apply the tools of building performance and green building to increase your profits and marketability, reduce call-backs and liability concerns, and make homes better for both their residents and the environment as a whole.

WHO SHOULD ATTEND?

- **Residential remodelers** and their site supervision staff, designers and trades concerned with improving performance and managing risk.
- **Mechanical contractors, insulators, air-sealers, siding installers and specialty contractors** interested in better serving their customers.
- **Realtors, appraisers, home inspectors, and product suppliers and retailers** who want to better understand how homes work (and why they sometimes do not).
- **Building performance specialists** who wish to enhance whole house systems diagnostics and performance measures.
- **Policymakers** who are interested in gaining a technical understanding of the performance issues involved with housing renovation.

LEARNING OBJECTIVES

- Recognize common remodel changes that can pose high risks to the building or occupants.
- Understand the building science behind these changes and the potential risks involved.
- Learn how to implement a five-step process that will enhance performance outcomes and reduce risks for your next remodel.

\$150 Registration fee (includes lunch)

Register early—capacity is limited.

Tuesday, February 22

Please see the following pages for detailed course descriptions.



6:30–7:00 am • Early Session Registration

7:00
–
8:15

Complete your 7-hour credit CEU requirements in just one day (pending approval from the Minnesota Department of Labor and Industry). You must attend the 7:00 am session to receive all seven credits.

Triple E: New Developments
Doug Manthey, Conservation Technologies

Spectrally Selective Coatings (Low E—Does One Size Fit All?)
Ken Modeen, Marvin Windows and Doors

New Opportunities With Structural Insulated Panels (SIPS)—Retrofit of Existing Building Stock (Advanced Session)
Curt Stendel, Panelworks Plus, Inc.

Solar 101
Jason Edens, Rural Renewable Energy Alliance

7:30–8:30 am • Registration • Exhibit Hall Opens

Building Science—High-performance Housing—EEBA Houses That Work™

Multifamily

Materials and Methods

Remodeling and Retrofits

Solar

8:30
–
10:00

Building for the Future—Solar Ready Homes
Tex McLeod, Building Knowledge, Inc.

The Ecology of Multifamily Buildings (Advanced Session)
Don Hynek, Wisconsin Division of Energy Services

Get Full Value From Your R-Value
Dick Stone, University of Minnesota Extension

Home Energy Performance Scores for Existing Homes—Predicted Versus Actual
Dean Talbott, Duluth Energy Efficiency Program

Retrofitting a Home for Passive and Active Solar: A Minnesota Case Study
Cindy Ojczyk, Verified Green

10:00–10:30 am • Break • Exhibits

10:30
–
12:00

Ventilation Strategies
Tex McLeod, Building Knowledge, Inc.

Addressing Energy Efficiency in the Rental Housing Sector
Julia Eagles and Diana McKeown, Metro Clean Energy Resources Team (CERT)

5 Things Not to Do ... and How to Do Them If You're Going to Do Them Anyway
Doug Manthey, Conservation Technologies; Pat O'Malley, Building Knowledge, Inc.

Basement Remodeling—It Doesn't Get Any Riskier Than This
Pat Huelman, University of Minnesota Extension

The State of Solar in Minnesota
Tim Bethke, Minnesota Renewable Society

12:00 noon–1:00 pm • Lunch • Exhibits

1:00
–
2:30

A Builder's Approach to Frost-protected Shallow Foundations (Part 1 of 2)
Tex McLeod, Building Knowledge, Inc.

Multifamily Benchmarking
Janne Flisrand, MN Green Communities; Jeff Perlman, Bright Power Inc.; Ed Connelly, New Ecology Inc.

Just the Facts: Interior Selections to Keep Your Project Green
Cindy Ojczyk, Verified Green

Improving Indoor Air Quality in Existing Homes: A Field Report
McGregor Pearce, IAQ Consultant

Unglazed Transpired Solar Collectors—Basics and Feasibility
Patrick Tebbe and Louis Schwartzkopf, Minnesota State University, Mankato

2:30–3:00 pm • Break • Exhibits

3:00
–
4:30

A Builder's Approach to Frost-protected Shallow Foundations (Part 2 of 2)
Tex McLeod, Building Knowledge, Inc.

Infiltration Testing and Air Sealing in Multifamily Buildings (Advanced Session)
Don Hynek, Wisconsin Division of Energy Services

What Matters Now—The Future of Home Building (Advanced Session)
Ed VonThoma, Building Knowledge, Inc.

Phasing of Residential Renovation in Cold Climates
Chris Petit, Regenerative Design Solutions

Understanding Solar Water Heating
Kurt Koegel, Solar Skies Manufacturing

4:30–6:00 pm • Reception • Door Prizes • Refreshments • Exhibits

Wednesday, February 23

Please see the following pages for detailed course descriptions.



6:30–7:00 am • Early Session Registration

7:00
–
8:15

Complete your 7-hour credit CEU requirements in just one day (pending approval from the Minnesota Department of Labor and Industry). You must attend the 7:00 am session to receive all seven credits.

Cost-Effective Energy Savings with Drain Water Heat Recovery
Gerald Van Decker, RenewABILITY Energy Inc.

Practical Application of Green in the Field
(Advanced Session)
Micheal Ansel, Verified Green

Getting to Zero Energy (It's in the Envelope)
(Advanced Session)
Tom Brown, Architect

Builders Association of Minnesota Regulatory Update or Regulatory Changes
Pam Perri, Builders Association of Minnesota

7:30–8:30 am • Registration • Exhibit Hall Opens

8:30
–
10:00

Building Science—High-performance Housing—EEBA Houses That Work™

Insulation and Air Sealing: Attaining Optimal Insulation Effectiveness in High-performance Homes
(Part 1 of 2)
Justin Wilson, Building Performance Solutions, Inc.

HVAC and Energy Systems

Replace a Furnace With a Boiler? Absolutely!
(Advanced Session)
Sam Greene, Sustainable Resources Center

Human Health and Buildings

Unconditioned Spaces and Indoor Air Quality
McGregor Pearce, IAQ Consultant

Integrated Design

Integrated Design Strategies and Quality Control
(Advanced Session)
Rachel Wagner, Wagner Zaun Architecture

Policy, Programs, Perspectives

How Can We Make Sure Our Attempts at Sustainability Are Sustainable?
Conrad Metcalfe, Performance Systems Development

10:00–10:30 am • Break • Exhibits

10:30
–
12:00

Insulation and Air Sealing: Attaining Optimal Insulation Effectiveness in High-performance Homes
(Part 2 of 2)
Justin Wilson, Building Performance Solutions, Inc.

Geothermal Parameters—What Homeowners, Architects and Contractors Need to Know Before Planning for Ground Sourcing
Mark Sakry, Northern Groundsource Inc.

A Survey of the Health Effects Related to Indoor Environment Problems
(Advanced Session)
John Ouellette, M.D., IAQ Consultant

Passive Design for Smaller Buildings
Tom Brown, Architect

Creating Context: Designing and Building Change
(Advanced Session)
Mike LeBeau, Conservation Technologies

12:00–1:00 pm • Lunch • Exhibits

1:00
–
2:30

EEBA Houses That Work for Existing Homes—Remodeling for Energy Efficiency
(Part 1 of 2)
Justin Wilson, Building Performance Solutions, Inc.

Measured Performance of Tankless and Storage Water Heaters
Ben Schoenbauer, Center for Energy and Environment

A True Systems Approach to Green Remodeling
Micheal Ansel, Verified Green

Linking Best Practices to Performance
William Weber, CSBR

Energy Workforce Training and the DEEP Program Model
Dean Talbott, Duluth Energy Efficiency Program; Michelle Gransee-Bowman, Minnesota Office of Energy Security

2:30–3:00 pm • Break • Exhibits

3:00
–
4:30

EEBA Houses That Work for Existing Homes—Remodeling for Energy Efficiency
(Part 2 of 2)
(Advanced Session)
Justin Wilson, Building Performance Solutions, Inc.

Building Better Homes HVAC Excellence
(Advanced Session)
Pat O'Malley, Building Knowledge, Inc.

Engaging the Public in the Psychology of Sustainable Behavior
Christie Manning, Macalester College

High Performance and Low Energy in the Field
(Advanced Session)
Rachel Wagner, Wagner Zaun Architecture

Source Versus Site Efficiency: Heating, Cooling and Powering Options
(Advanced Session)
Joe Plummer and Terry Webster, Minnesota Office of Energy Security