

# PHRC News



The Pennsylvania Housing Research Center (PHRC) serves the home building industry and the residents of Pennsylvania by improving the quality and affordability of housing. The PHRC conducts applied research, fosters the development and commercialization of innovative technologies, and transfers appropriate technologies to the housing community.

## Getting in touch

Contact us to find out more about the PHRC or to seek assistance.

[www.engr.psu.edu/phrc/](http://www.engr.psu.edu/phrc/)

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## "Innovations Without Headaches" gets good reviews

The PHRC's seventh annual conference/workshop was well received by builders, remodelers and others in the housing industry. It focused on providing solutions to participants on several issues facing the housing industry. Some of the sessions included:

**Class Action:** Discussion of several key class-action legal suits that have impacted the housing industry.

**Comfort Without Cost?** Where has the housing industry gone in tackling energy efficiency problems? This session looked at where we have been and where we are heading and some of the unwanted consequences of our efforts.

**Exterior Insulation Finish Systems (EIFS)** – how to avoid common mistakes and moisture problems.

Other sessions looked at pressures in houses, housewrap in walls, steel framing, and innovation and building codes.

The conference was sponsored by the PHRC, the Pennsylvania State University, and the Pennsylvania Builders' Association.

## What builders and remodelers need to know about building codes

The PHRC, in conjunction with the Pennsylvania Builders Association, held a building codes workshop for builders in Warrendale, PA on November 6, 1998. This three-hour workshop provided an overview of building code requirements, recent and upcoming changes in model codes, and how to increase code compliance by understanding the most common code violations.

## PHRC initiates study on site improvement standards

Site improvement standards regulate how land is developed by establishing minimum standards for infrastructure such as road construction, parking, stormwater management systems, sanitary sewer, water supply and other utilities. These standards are intended to result in acceptable minimum performance of these systems and to provide some assurance as to the serviceability of the systems for those groups responsible for their long-term operation and maintenance. In Pennsylvania, these standards are established at the local government level (township, borough, or city).

This project is intended to be a preliminary investigation and includes the following tasks:

1. review the contemporary policy in other states (particularly New Jersey) regarding residential site improvement standards;
2. provide a general overview of the existing site improvement standards used in the Commonwealth;
3. evaluate the need for, and benefits of, a statewide site improvement standard in Pennsylvania;
4. evaluate the potential effectiveness of suggested best practice or voluntary model site improvement standards.

For more information on this project, please contact Mark Fortney at (814) 863-2366 or [mrf106@psu.edu](mailto:mrf106@psu.edu).



## What's hot and what's cool from the Dallas NAHB Show

Each year building material manufacturers coordinate the release of their new products with the National Association of Home Builders Show. This show, with its 70,000+ participants, is the largest convention in the world. The following are some of the innovative products and equipment that we saw at the show. The descriptions do not imply endorsement of any of these products.



### Put your tape away

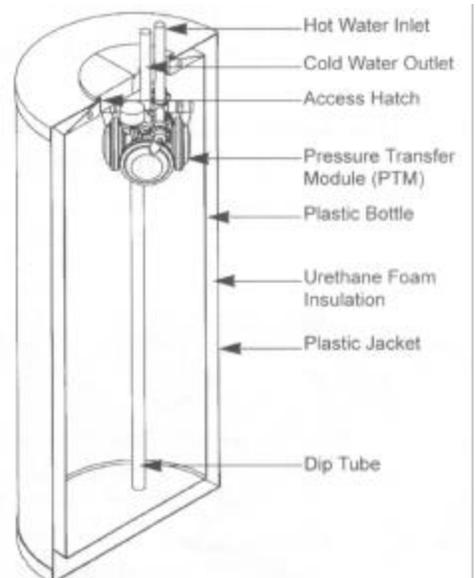
Louisiana-Pacific has a new oriented strand board (OSB) called Visual Precision that provides carpenters with short cuts in measuring and marking. The 4x8 ft. sheets have a primary one-foot grid and a secondary one-inch grid printed directly on the board. Many cuts can be made directly from the markings without the need for and measuring or snapping lines. Once the sheets are installed, you won't have to guess where to drive the fasteners to hit the studs or joists. Simply count the squares. The boards are available in one thickness only (7/16"). For additional information, contact Louisiana-Pacific at [www.lpcorp.com](http://www.lpcorp.com) or (800) 648-6893.

### Rethinking the water heater

Water heaters are built in basically the same way as they were 60 years ago: Steel tanks to withstand 150 psi pressure with high pressure and temperature relief safety valves. This new concept uses a storage tank at atmospheric pressure. This means that you do not need a high pressure steel tank or the temperature and pressure relief valves.

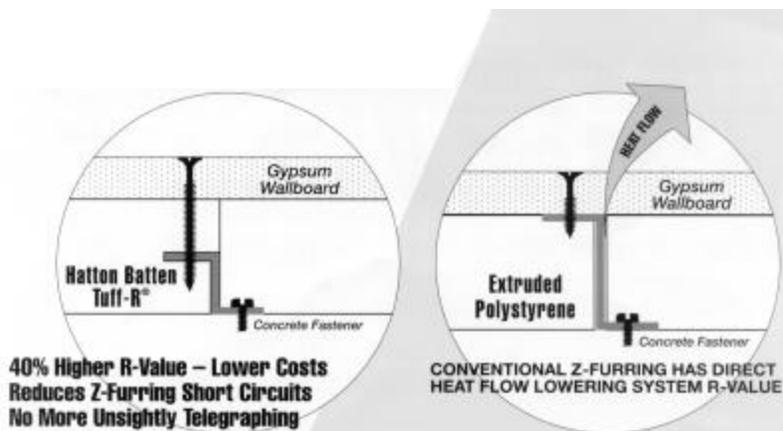
The new system is called BEST (Better Electric Storage Tank). It consists of a rustproof urethane tank insulated with 3 inches of urethane foam (R-25) with a polyurethane exterior shell. The 80 gallon tank weighs about 80 pounds.

The heart of the new system is the pressure transfer module (PTM) which is basically a hydraulic diaphragm pump. The PTM uses the incoming cold water to pump out the hot water. The BEST system will carry a 15 year transferable warranty. For additional information, contact Vaughn Manufacturing Corp. at [www.vaughncorp.com](http://www.vaughncorp.com) or (978) 462-6497.



### Improving the performance of insulated sheathing

The Celotex Corporation has introduced a new system for attaching insulated sheathing that is intended to reduce the thermal bridging across fasteners. The new system, called Hatton Batten, uses a Z clip or batten with Celotex's Kurf-R insulated sheathing. This system embeds the fastener in the insulation and eliminates thermal bridging associated with typical Z furring installations. For additional information, contact Celotex Corporation, PO Box 31602, Tampa, FL 33631.



### A job-site radio with an attitude

DeWalt Industrial Tool Company is introducing a job-site-radios with a difference. The radio is made of the same black and yellow impact-resistant plastic as their tools; it has a roll-bar to protect it; the knobs are oversized so they can be used by hands with work gloves on; and it can run off either line voltage or a DeWalt battery pack. **But get this** If you are using 120 volt line power, it serves as a battery charger. It will charge **any** voltage battery pack that DeWalt makes (9.6V to 18V). Look for it in the tool section of your building supply center by mid-year.

The Pennsylvania Housing Research Center

# Publication Order Form



Publications Order Form				
Report Number	Title	Price	Quantity Ordered	Subtotal
50	Below-Grade Construction: Issues and Needs	\$25.00		
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59	<b>The Use of Housewrap in Walls: Installation, Performance and Implications (NEW)</b>	\$25.00		
52	A Builder's Guide to Modular Housing	\$25.00		
56	<b>The Importance of Modular Housing in Pennsylvania (NEW)</b>	\$25.00		
61	<b>Building Code Training Needs in Pennsylvania (NEW)</b>	\$25.00		
58	Steel-Stud-Framed Wall Systems (to be released in May)	\$25.00		
65	Training and Education Needs Assessment for the Home Building and Remodeling Industry in Pennsylvania (to be released in May)	\$25.00		
Software				
54	Evaluating the Costs of Modular and Stick-Built Construction Using ACE (includes a copy of report #52 - A Builder's Guide to Modular Housing)	\$125.00		
<b>ORDER TOTAL</b>				

Please send me information on becoming a member of the PHRC.

\_\_\_\_\_  
Name

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Make all checks payable to:

***Penn State University***

***Send payment with your completed order form to:***

***The Pennsylvania Housing Research Center  
ATTN: Michelle McMullen  
219 Sackett Building  
University Park, PA 16802***

## PHRC releases a series of reports

The PHRC has recently released the following technical reports:

**Report #61 – Building Code Training Needs:** This report discusses the building-code-related training and education needs in Pennsylvania. It provides an overview of both existing training needs and the anticipated training needs when, or if, a state-wide building code is enacted. The intended audiences include policy makers at the state and local government levels, providers of building code training, educators, and residential construction and remodeling associations.

**Report # 59 – The Use of Housewrap in Walls: Installation, Performance, and Implications:** This project was directed at the in-service performance of various housewrap products and included an infield survey of installation practices and laboratory testing of various products, including building paper.

**Report #56 – The Importance of the Modular Housing Industry in Pennsylvania:** This report looks at the size and makeup of the modular housing industry, its economic impact in Pennsylvania, and factors that may be impeding the industry's growth.

**Report #65 – Training and Education Needs Assessment for the Home Building and Remodeling Industry in Pennsylvania:** This report looks at the training and educational needs, opportunities, and the market demand versus supply for labor. Its intended audience includes industry members and association leaders, educators, instructors, government agencies and workforce-development policy makers.

The following are some of the questions addressed by the report:

- What do members and leaders of the home building and remodeling industry, and educators think is needed in terms of training and educational opportunities for:
  - vo-tech or post-secondary students, supervisors and managers in residential construction,
  - entry-level building trade and craft workers, technical and professional workers in the industry?
- What training and education opportunities are available for those in the home building and remodeling industry in PA?
- Where can one go to find out what knowledge and skills are needed for:
  - an entry-level framing carpenter?
  - a house building contractor?
  - an experienced residential electrical contractor?
- What will the future look like for the market demand for workers compared to the likely supply of trained labor?

Copies of these reports can be ordered from the PHRC for \$25 each, to cover copying and shipping costs.

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## PHRC kicking off educational offerings for 1999

For more than a decade the PHRC has served the housing industry in Pennsylvania by carrying out applied research and delivering education and training to the home building industry. The PHRC draws resources and expertise from both the Pennsylvania State University at University Park and the Pennsylvania College of Technology in Williamsport.

For 1999, the PHRC is planning a series of workshops to be held in the fall in three locations across the state. The intended audiences include builders, remodelers, building trades instructors, building code officials, and others involved in the home building industry. As a result of industry input, the PHRC developed a list of 14 possible topics for workshops. The workshop topics focused on new and emerging technologies and how to make effective use of them. From this list, the following five workshops have been identified as the highest priority from local and regional associations interested in sponsoring training for their members:

- Cure of the common callback
- Building with engineered lumber
- Homes that can meet the needs of our aging population
- Introduction to building codes
- Code compliance workshop

If these topics coincide with your organization's training needs or initiatives, we are still looking for local and regional partners to help promote the workshops and solicit your members' participation. **If your local or regional association signs on as a partner, their members will receive a significant discount on registration fees.** For more information, please contact Mark Fortney at (814) 863-2366 or MFortney@psu.edu.

**We're on the Web**  
[www.engr.psu.edu/phrc/](http://www.engr.psu.edu/phrc/)

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## PHRC announces speaker service to local associations

As a service to the home building and remodeling industry in Pennsylvania, the PHRC is offering a speaker service to local and regional associations. The PHRC will provide short (15 to 45 minutes) technical sessions intended to provide an understanding of the problems builders and remodelers may be facing.

The PHRC is prepared to discuss a variety of technical subjects including:

- The use of housewrap
- Steel Framing – doing it right
- Innovative Foundation Systems
- Crawlspace Construction & Ventilation
- Engineered Wood Products

If you are interested in having a presentation in conjunction with your local association's meetings, contact Mark Fortney at the PHRC at (814) 863-2366 or [mfortney@psu.edu](mailto:mfortney@psu.edu).

## Membership

A vital portion of the financial support for the PHRC is obtained from membership fees. Financial and other forms of support for the PHRC are very important. Industry-based funding, individual or corporate or association, is critical for our continued operation. We warmly welcome the new members of the PHRC. We thank new and existing members for their support of the PHRC and its efforts to serve the home building industry in Pennsylvania.

### New Members

ACCADIA  
Cedar Knoll Associates  
Dow Chemical Company

Lackawanna Home Builders Association  
Pennsylvania Manufactured Housing Association  
Pocono Builders Association

### Existing Members

Armstrong World Industries  
Celotex Corporation  
CertainTeed Corporation  
Comfort Home Corporation  
Carl Flohr  
Curtis Schneck, Inc.  
DuPont Nonwovens  
Elam Stoltzfus  
Edward B. Walsh & Assoc. Inc.  
Liberty Homes Custom Builders  
NVR Homes, Inc.  
Raycore, Inc.  
Ryland Group, Inc.

S&A Custom Built Homes, Inc.  
Builders Association of Central PA  
Franklin County Builders Association  
HBA of Chester and Delaware Counties  
HBA of Metro Harrisburg  
Lebanon County Builders Association  
Lehigh Valley Builders Association  
Mid-Atlantic Building Systems Council  
Pennsylvania Builders Association  
Pennsylvania Concrete Masonry Association  
PA Dept of Community & Economic Development  
York County Builders Association