



# Under Tight Wrap

SolAire Homebuilders work with designer, Mary Louise Vidas, to take "green" home building one step further.

by, Pat McGuinness, for *The Bulletin*

As energy-efficient buildings become more desirable for Central Oregon home buyers, builders continue to seek out materials and products that will allow them to make that desire a reality. One such product has recently made its debut in the region and is, in the truest sense, sealing the envelope on energy-efficient home building.

The product is called Tyvek AtticWrap, manufactured by DuPont, and is the crowning glory for the super-insulated, weather-resistant home that builder/designer team, SolAire Homebuilders, and designer/homeowner, Mary Louise Vidas, have chosen for a prairie-style home that is currently under construction in NorthWest Crossing.

The AtticWrap is the first product designed for the roof that helps protect the structure by reducing air leakage and radiant heat flow through the ceiling. When properly installed over the top of the rafters or trusses, the AtticWrap provides a vapor-permeable air and water barrier that stops airflow while still allowing attic moisture to escape by diffusion.

"The decision to use the DuPont AtticWrap was made in the interest of increasing the effectiveness of the home's insulation," said Cindi O'Neil, co-owner of SolAire Homebuilders.

"The AtticWrap not only keeps the attic ventilated and dry, it keeps the attic cool

industry. With this product, we are able to seal the attic for energy conservation and, at the same time, create a ventilated roof to manage moisture. You get the best of both worlds—an airtight attic and a fully-vented roof."

Adding to the intrigue of the project is the fact that this will be the first Leadership in Environmental Design Home (LEED-H) certified home in Bend.

"While there have been homes built in Central Oregon that have been built to fulfill LEED-H standards, none have been certified to date," said O'Neil.

LEED is a voluntary rating system developed

2,000-square-foot home is approximately \$3,000.

"The payback is immediate because it will reduce your energy bill," said O'Neil.

Horta is in agreement, stating that a 10 to 15 percent reduction in energy costs per month is a reasonable expectation. O'Neil also mentioned that SolAire currently has two other homes in the design phase that will incorporate the AtticWrap.

"I think we will recommend it for every home when it fits the client's budget," said O'Neil.

She believes the AtticWrap is a perfect product for Central Oregon homes, particularly because of our weather extremes.

Other "green" technologies that SolAire and Vidas are incorporating into Vidas' home are super-insulated foundation and walls. The walls are being engineered for staggered, 8-inch wall construction which will enhance both the depth of the insulation and reduce the conductive heat loss. The end result is a higher R-value (the level of insulation) for the wall.

The home also has a passive solar design component, a soalar water heater, a solar electric system, radiant sub-floor heating and a whole-house clean-air system with an energy recovery ventilator.

"SolAire took great care in making sure all interior materials don't pollute the indoor air and that they are extracted and manufactured locally," said O'Neil.

Builders anticipate the home will be completed in early July. At that time, the house will be third-party field inspected for LEED-H certification.

Vidas' home will be entered into the 2008 Central Oregon Builders Association Tour of Homes, which opens the weekend of July 18.

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With the U.S. introduction of the Tyvek AtticWrap, Central Oregon builders have the opportunity to offer the same energy-efficient material to homes that European builders have been using in their building projects for approximately 15 years. The AtticWrap has been utilized in Luxembourg, Germany since its initial development but was just introduced into the U.S. market last year.

"Build tight, ventilate right," said Arturo Horta, marketing manager for DuPont.

"That's the motto for this product in the

by the United States Green Building Council under contract with the U.S. Department of Energy. The LEED council is a coalition of building industry leaders who came together in 1993 to promote environmentally-responsible and profitable buildings that are also healthy places to live and work.

The council developed the LEED-H certification program to provide guidelines and recognition for "green" buildings. As builders across the country are finding out, building "green" in consideration of energy concerns translates to good business practices and a potential for greater business opportunities.

The cost of installing the AtticWrap on a



SolAire Homebuilders and DuPont employees install the AtticWrap on Vidas' home. Photo by Cindi O'Neil.