

Innovative insulation A real house of straw

Monica Rodriguez, Staff Writer

Created: 07/06/2010 03:45:15 PM PDT



Pomona resident Esther Alvarez in her new addition at her home with the main construction material consisting of straw bales. She began focusing in 2005 on learning about this type of construction and who could help her with it. (Frank Perez/Correspondent)

POMONA - Esther Alvarez loves cooking and wanted a bigger kitchen for her West 11th Street home, but contractors told her the remodeling project she wanted was out of her price range.

Alvarez's dream kitchen called for making it large enough to have a center island and other conveniences. However, contractors said it couldn't be done.

"Well, you can make it smaller" is what Alvarez remembers one of them telling her.

Then she recalled a story her mother told her.

In Mexico, Alvarez's grandfather once built two rooms out of straw that were cool in the summer and warm in the winter.

"If he could do it, so could I," Alvarez recalled thinking.

That was 10 years ago.

Alvarez is now



Pomona resident Esther Alvarez in her new addition at her home with the main construction material consisting of straw bales. She began focusing in 2005 on learning about this type of construction and who could help her with it. (Frank Perez/Correspondent)

on her way to having the home of her dreams

Advertisement

HEARTLAND QUALITY
OMAHA STEAKS
SINCE 1917

SAVE up to 64%
Plus, get
3 FREE Gifts

Special Code: 45069ZWN

To Order: www.OmahaSteaks.com/print71 or call 1-877-586-4455

Print Powered By FormatDynamics™

including her roomy kitchen, a new dining room and a larger living room - an unconventional addition that will use straw bales as part of the construction project.

Although Alvarez began thinking of straw bale construction about 10 years ago it wasn't until 2005 that she began focusing on learning about this alternative type of construction and who could help her carry it out.

"I started doing the research on contractors and architects," she said.

After a long search she found Pasadena-based designer Lisa Swan, who had experience working on straw bale and other "green" construction projects.

The project involved some challenges, Swan said.

"It was an addition to an existing house, which is unusual. For me it's a first," Swan said.

Alvarez's project is not a typical straw bale building, said Greg Griffith, a Pomona building official.

"It's a hybrid," he said.

One reason is the project combines a conventional building with a straw bale addition. The second reason is the straw bale addition has a structural frame.

"It uses the straw bale for the insulating value

and the frame to comply with California seismic requirements," Griffith said.

The addition has wood and steel posts so the structure will withstand earthquakes, Swan said.

Those materials along with others will make the final product sturdy and flexible in an earthquake, Swan said.

Using straw bales in construction is not a new concept. It is a material that was readily available in the Midwest in the late 18th century.

"Really, this is an old strategy that's seeing a resurgence," said Kyle D. Brown, director of the John T. Lyle Center for Regenerative Studies at Cal Poly Pomona.

"We've seen over the last five, six, seven years a definite increase in the interest level," he said. "People have become more aware of it."

Straw bale "is a significantly better insulant than the common insulating material," Brown said.

Straw bale structures are also cost-effective because straw is relatively inexpensive, Brown said.

Straw has a long life and the plaster or other material used to cover the straw contributes to that.

In conventional construction projects walls are designed with moisture or vapor barriers before

Advertisement

Help people in need.
 Donate your car, boat or RV
Free Towing ■ Tax Deductible



FREE
 3 day vacation to over
 80 destinations.

Call Toll-Free
1-877-225-9384



Print Powered By  FormatDynamics™

they are covered over.

Such barriers are not used in straw bale construction "so the walls are breathable," Swan said.

The lack of barriers keeps the straw from collecting moisture but should it become wet it can dry quickly minimizing the growth of mold, she said.

"We encourage straw bale construction for people who have allergies and respiratory conditions," Swan said.

Those familiar with straw bale construction say the fact straw is tightly compacted is part of what gives it its strength and it is also what makes it difficult to burn.

Alvarez said she expects her home to be completed by the end of the summer and is looking forward to it.

"I wanted a sustainable building, and straw baling is just the best," Alvarez said.

Advertisement

Own a new computer for just \$29.99* per week!

And improve your credit score at the same time!

Give us a call today!

1-877-294-3988

*Prices start at \$29.99 but may vary by model.



Print Powered By  FormatDynamics™