

LUTZ

Cool heads prevail

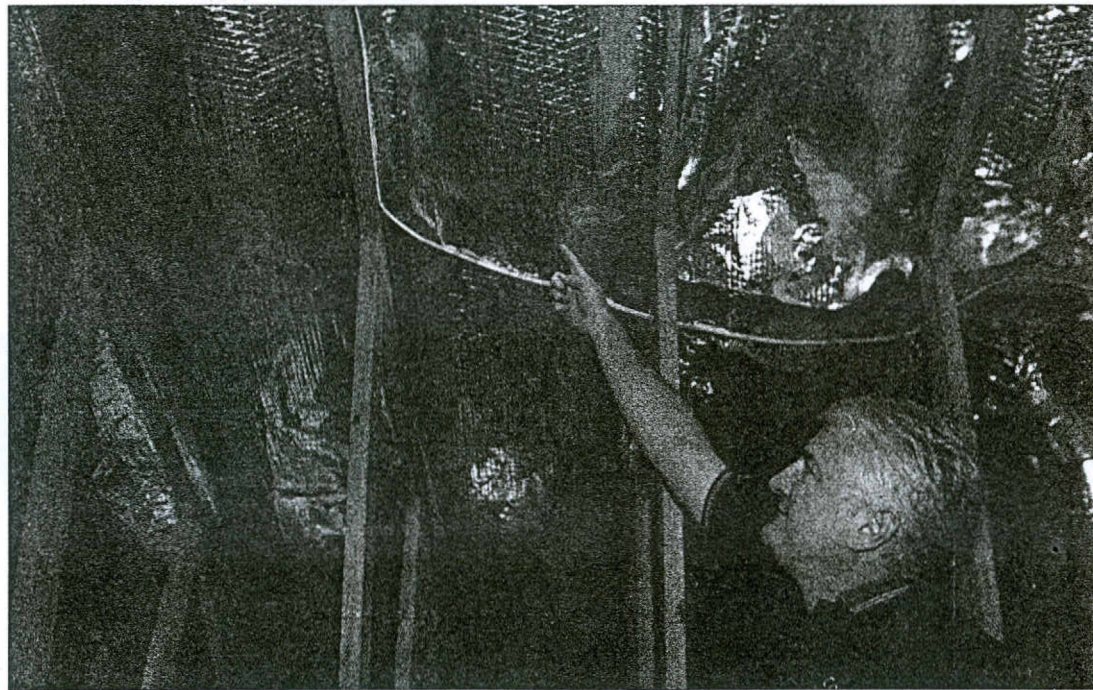
A sprawling house in Avila racks up little bills, thanks to an energy-efficient design.



Times photos — MIKE PEASE

ABOVE: Larger roof overhangs and maturing trees provide shade. The double-paned windows are filled with insulating gas, concrete blocks are filled with special foam insulation, and the frame of the home is wrapped in a sheath that keeps heat and cold in.

RIGHT: Homeowner Mike Willis points out the radiant barrier in the attic, which deflects heat from the sun.



By JOSH ZIMMER
Times Staff Writer

The air conditioner breaks down in the middle of a Florida summer.

The average homeowner would panic. But when lightning struck the Willis family's elegant 6,500-square-foot home in Avila a few months ago, knocking out the system, they simply ran the fans and survived pretty comfortably until the system was fixed.

"We lost our AC for a week and the highest it ever got was 81," Laura Willis said. "It was still cool."

Although many people brag about the appearance of their homes, Mrs. Willis and her husband, Mike, are unusually proud about the hidden details. That is largely because most mainstream homeowners never know about such energy-saving features.

The double-paned windows in the Willises' home are

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filled with insulating gas. The concrete blocks are filled with special foam insulation, and the entire frame is wrapped in a sheath that keeps heat and cold in. Special panels in the ceiling reflect sun rays back outdoors.

A home automation system regulates temperatures at peak times and when the house is unoccupied. Even the washer, dryer and dishwasher are different. They self-heat and use less energy.

The electric bills are surprisingly low. The Willises say they have ranged from \$200 to \$330, about the same they were paying at their former house in Carrollwood Village, which is one-third the size.

"That's just unbelievable to me," said Willis, a partner with the accounting firm PricewaterhouseCoopers.

"He (Willis) was way out there," said developer Jay Fechtel, who worked with the Willises. "He was thinking about things that most clients never even think about. It was a lot of fun working with him."

Willis, a specialist in information technology and knowledge, seems an ideal candidate for such a project.

With obvious enthusiasm, he opened up his ever-present laptop during a recent tour of the home and explained the research that went into it.

He tapped the Internet as much as he did Fechtel, an award winner who has been building homes in the area since the late 1980s. Willis' laptop screen is full of Web sites for obscure home products.

After mounting a stairwell, he stepped by a motion sensor that triggers a light near an attic closet. The sun was bearing down outside. But protected by the insulation and reflective shield, the attic is remarkably comfortable.

"It's amazing, isn't it?" he said.

High ceiling fans are everywhere, creating breeze and reducing the need for air conditioning. The house also benefits from the maturing shade trees Willis planted as soon as he bought the property in 1993.

Fechtel thinks mainstream developers are being short-sighted by not investing in more energy-savings features, sacrificing the environment for cheaper sales prices. At least one product, a heat exchanger, could easily be added

to most homes at low cost, he said.

The exchanger channels the heat generated to the hot water heater. The exchanger, which costs about \$1,000, pays for itself in several years, Fechtel said.

"I don't think the (large) builders have quite gotten there, but they should," he said.

Despite its promise, solar energy remains too expensive for the average homeowner, he added.

Ian Smith, spokesman for the Home Builders Association, said mainstream builders are beginning to offer more energy-saving products. The trend is in response to greater demand from consumers, he said.

"More and more of our builders want to get involved because the market is starting to go in that direction," he said.

From the beginning, Willis looked at the home as a good long-term investment for him, his wife and their three daughters.

"I'd like to be here a long time," he said.