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## Tech HOUSE

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**SARASOTA** -- It's designed to resist hurricanes, conserve energy and meet household needs with the most advanced technologies. It's the "Tech House," a joint venture of the Home Builders Association of Sarasota County and Vision Homes.

With all its features and promises, one might imagine that the house looks like a Buckminster Fuller sketch. But in reality, it does not stand out from the other

attractive houses on the block in the new subdivision of Trillium, off Proctor Road east of Interstate 75. Certified by the Florida Green Building Coalition (FGBC), the Tech House demonstrates the most advanced, yet practical, techniques available in construction today.

The three-bedroom, three-bath, two-story house has a three-car garage, a study/office and a bonus room in 2,684 square feet of air-conditioned space. Vision expects to list the house for sale at \$889,000 next year. Proceeds from the sale will go to the HBA and Habitat for Humanity.

Located at 7513 Trillium Blvd., the Tech House opened in time for the Parade of Homes, which concluded last weekend, and had a grand-opening celebration Friday. For the next 18 months, it will be used to educate the public about "green" construction techniques.

"This will be the first house designed to educate the public to receive FGBC certification," said Drew Smith, founder of Two Trails Inc., which assists builders and developers in the techniques of green or sustainable building. He further consulted with the Florida Home Builders Association, the Florida House Learning



STAFF PHOTOS / THOMAS BENDER /

Clockwise from top right: Vision Homes' HBA Tech House is three miles east of Interstate 75 on Proctor Road, in the Trillium subdivision; the pool is heated with energy collected by solar tiles on the deck in the foreground; safety and home-automation panels are installed throughout the house; compact fluorescent lights are another energy-saving feature.

### More photos



Home-builder group and Vision Homes create demonstration house.



### The elements

#### of "Tech House"

When the Tech House, by Vision Homes, goes on the market next year, it will be listed for \$889,000, a price that compensates for its numerous eco-

Center and the FGBC, which Smith helped found in the 1990s.

"There will be reference-material space in the house, so we can educate other builders and the public that the house doesn't have to look any different from any other," Smith said, "and that it doesn't have to cost any more to be green."

## What's inside?

Vision used the increasingly popular bamboo flooring and low-VOC (volatile organic compound) paints, but the builder also implemented green, weather-proofing techniques in more innovative ways.

Green practices include the use of recycled and fire-resistant building materials where possible, and using a fiber-mesh concrete slab designed to prevent foundation cracks. The pest-control apparatus was installed in tubes within the slab and walls of the house. That way, when a pest-control technician comes for his periodic inspection, his chemicals won't permeate the interior of the house.

Smart technology is also an important aspect of this showcase home. Bundled wiring connects every room with Internet access, music and cable television, said Steve Wilkins, purchasing manager for Vision Homes. The system is accessible from remote locations, so the homeowner can access the A/C, lighting, irrigation and other needs, even while on vacation.

"If there's a home theater in the house, one touch of a button will draw the shade, turn off the lights and start the movie for you. Or, you can play music in different areas of the house; you can have steel-drum music on the lanai and holiday music in the kitchen, and the kids can have different music in their rooms," Wilkins said. Access points are placed at the front entry and in various rooms.

The house features a biometric fingerprint entry and a light-motion sensor. The biometric fingerprint entry is one of the most advanced security applications

sensitive, technological and hurricane-resistant features. So what does a homeowner get for that? For hurricane-resistance, Vision Homes installed:

- Impact-resistant, low-e (energy-efficient) windows.
  - A safe room made of solid concrete.
  - A generator that can power the air-conditioning system and refrigerator for five days.
  - A water-purification system that can run by water pressure for five days in a power outage.
- Several measures were implemented to promote energy efficiency and conserve natural resources:
- Solar tiles, installed on the floor of the pool deck, that heat the pool water.
  - Icynene insulation that creates a thermal envelope around the home.
  - An air-conditioning system that has a SEER (seasonal energy efficiency rating) of almost 20, nearly twice that required by code.
  - Plumbing pipes that are insulated below the slab and sealed around the base at ground level.
  - Energy-saving fluorescent lighting.
  - Energy Star appliances that conserve energy.
  - Landscaping with native plants that requires minimal irrigation.
  - A recirculating water system that quickly provides hot water at the tap, eliminating the waste of unheated water.

The Tech House is open to the public from 10 a.m. to 5 p.m. Mondays through Saturdays, and noon to 5 p.m. Sundays.

-- Nichole L. Reber

available, and eliminates the need to remember a security code. The light-motion sensor detects when a resident has pulled into the driveway and turns on lights throughout the house, according to the homeowner's path.

Finally the house also has an HVAC system that will absorb microscopic dust mites and mold spores, bacteria and viruses.

The house is also an exercise in storm-proofing.

"We want to make it a true hurricane house," said Wilkins. That's why the laundry room serves as a hurricane shelter/safe room. It has solid-concrete block walls and a concrete ceiling. All the windows of the house are impact-resistant.

No exercise in redundancy

How does the Tech House differ from the Florida House Learning Center, at Proctor and Beneva roads in Sarasota?

Florida House is more of a laboratory, demonstrating every green and hurricane-resistant option available, from architecture to engineering and from building sciences to interior design. To implement everything the Florida House exhibits would be impractical and prohibitively expensive. It was designed for on-going public education, rather than habitation.

The Florida House "shows that certain technology can be used, but it doesn't show how you get that to a profitable business. There are lots of technologies that sound good, but don't make sense," said Larry Anderson, executive vice president of the HBA of Sarasota County. "What you want to do is move it from a concept. You see concept cars that come out and never get into production. Eventually that technology gets into your car, like GPS, hybrid technology and satellite radio. Once it becomes real-life production, it becomes accepted and expected. So what this Tech House does is allow this to occur."

While going green hasn't exactly been free for Vision Homes, vice president Mike Padgett believes the green certification process has increased the selling price of the home only by 4 or 5 percent.

Smith said implementing green concepts in most homes would cost about \$4,000 to \$5,000 more than the cost of a non-green home, but the payoff comes within a few years through reduced utility bills and tax incentives.