

A successful Story of an Energy Efficient Home



**Presented by Homeowner Bill Resch and
LEED Architect Meera Parthasarathy**

OSU Green Building Workshop May 4, 2016

If not for



The Ohio State University's

Mission of:

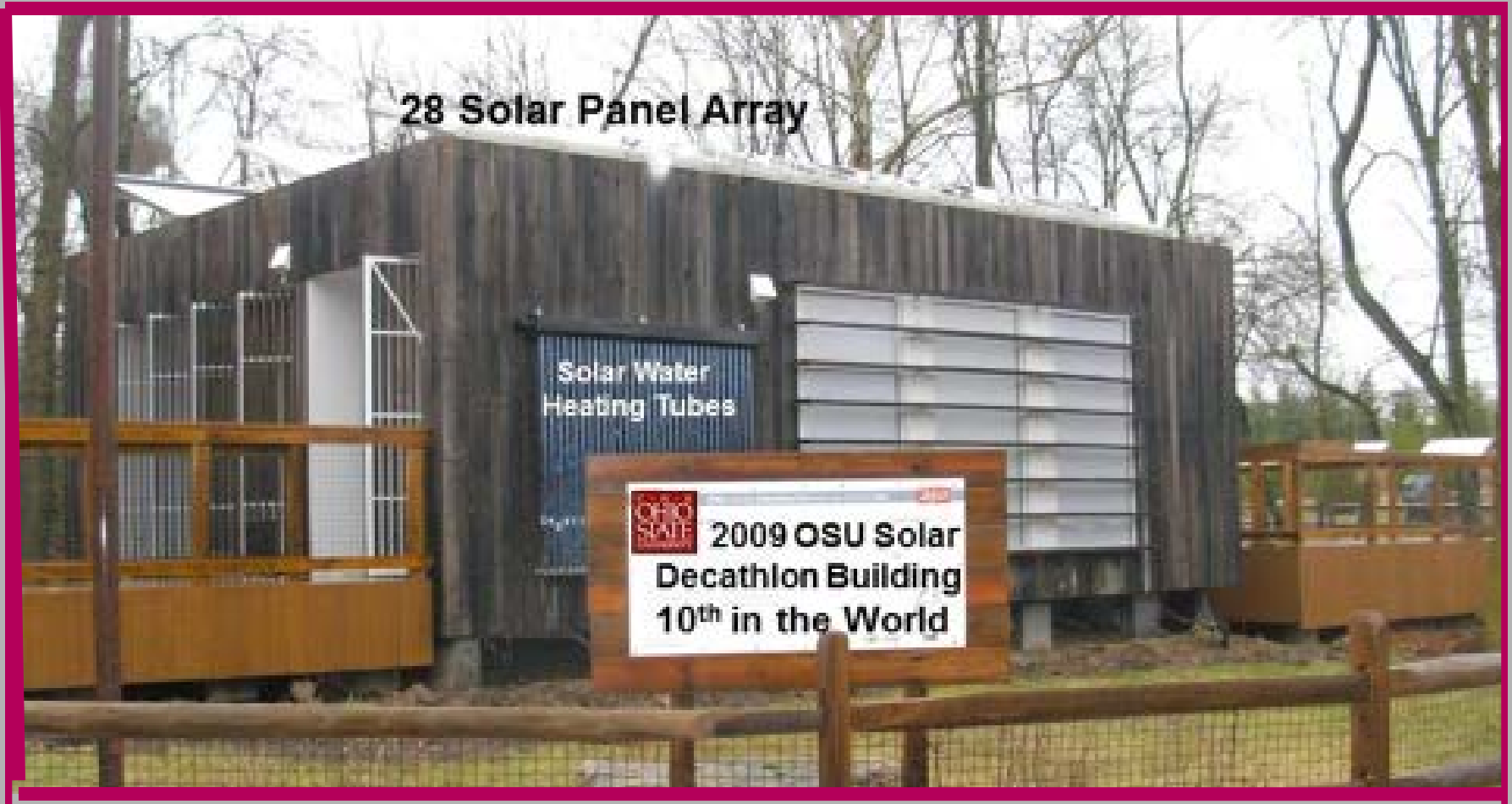
Teaching,

Research

and Community Outreach

there would not be ...

2009 OSU Solar Decathlon Home



Located at the New Albany School District Campus Nature Preserve

2011 OSU Solar Decathlon Home Encore

**5th Place
in International
Competition**



Located at The Ohio State University campus



...or the Resch Family Home

located at 5610 Morgan Road New Albany, OH 43054

STEP # 1

**Check your local municipality's
Zoning and Building codes that
regulate the architecture of
sustainable buildings
and
renewable energy systems**

This

Week

NEW ALBANY

October 13, 2011

'Green' home gets approval from ARB

By LORI WINCE
ThisWeek Community Newspapers

Bill Resch, dubbed the "Nature Guy" by many local students, has worked in environmental education most of his life, and he wants to retire in the first "green" home in New Albany.

Resch and his wife, Pauline, are building the first LEED (Leadership in Energy and Environmental Design) gold-rated home in New Albany, to be completed next spring. The LEED rating is based on several criteria that determine the level of "green" certifications for buildings.

The New Albany Architectural Review Board (ARB) on Oct. 10 voted 3-1 to approve plans for the home on Morgan Road, with several waivers from the city's design guidelines and requirements. Jonathan Iten cast the dissenting vote, while Bernard Costantino, Alan Hinson and Randolph Pierce approved. Shirli Billings and Kim Comisar were absent.

Project architect Meera Parthasarathy said the home required waivers in three areas: The windows are not "double-hung" windows and will not have spacers in them as required; the entrance is at ground level, not two feet above as required; and the driveway will be concrete, not asphalt as required.

The Resches agreed to change what would have required a fourth waiver by using the same building materials on all four sides of the home.

Parthasarathy said the Resches appealed to the ARB to classify the home at 5610 Morgan Road as an "isolated site," which would mean it could not be seen by 75 percent of its neighbors. According to staff reports on the application, "isolated building sites are defined as sites that are sheltered by landforms or trees and brush to the extent that development on the site is at least 75 percent screened from public streets and roads, or from adjacent prop-

erties. Isolated building sites provide the opportunity for more flexibility in design" but still have guidelines governing the way the structures are built.

The appeal did not pass. Iten and Pierce voted in favor of it but Costantino and Hinson voted against it.

Iten said he would rather have declared the home an isolated site rather than set a precedent by approving several waivers for a home being built in the village center.

Hinson said, while it is a unique site, he was not sure it met the isolated site guidelines, which is why he voted against the appeal.

Costantino questioned several aspects of the design, saying it has a lot of technology but lacks some of the basic elements of a LEED-designated home, in that it has an east-west orientation and does not have solar panels on the south face of the roof. Bill Resch said solar panels would be installed on the south elevation of the garage roof, which is the only large piece of roofing that has a true southern elevation.

Pauline Resch requested the ARB approve the application, despite their many questions, saying, "I can't believe something as simple as building a house by two law-abiding citizens who've lived here 40 years is given such a hassle."

Iten explained that the ARB has to follow city laws, established by New Albany City Coun-

cil, and Costantino said the board reviews applications to improve plans.

"We are not here to be obstructionists," Costantino said. "We are here to help."

The house would be the third on Morgan Road, which is a dead end with one resident, Phyllis Fischer, living at the north end. The Resch home would be built between Fischer's home and the third house, which is owned by the New Albany Church of the Resurrection. The church building is near the home at the corner of Dublin-Granville and Morgan roads and the church has plans to tear the home down eventually and add more parking.

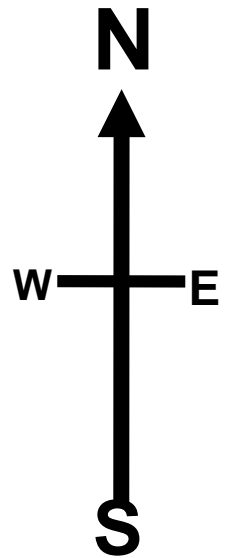
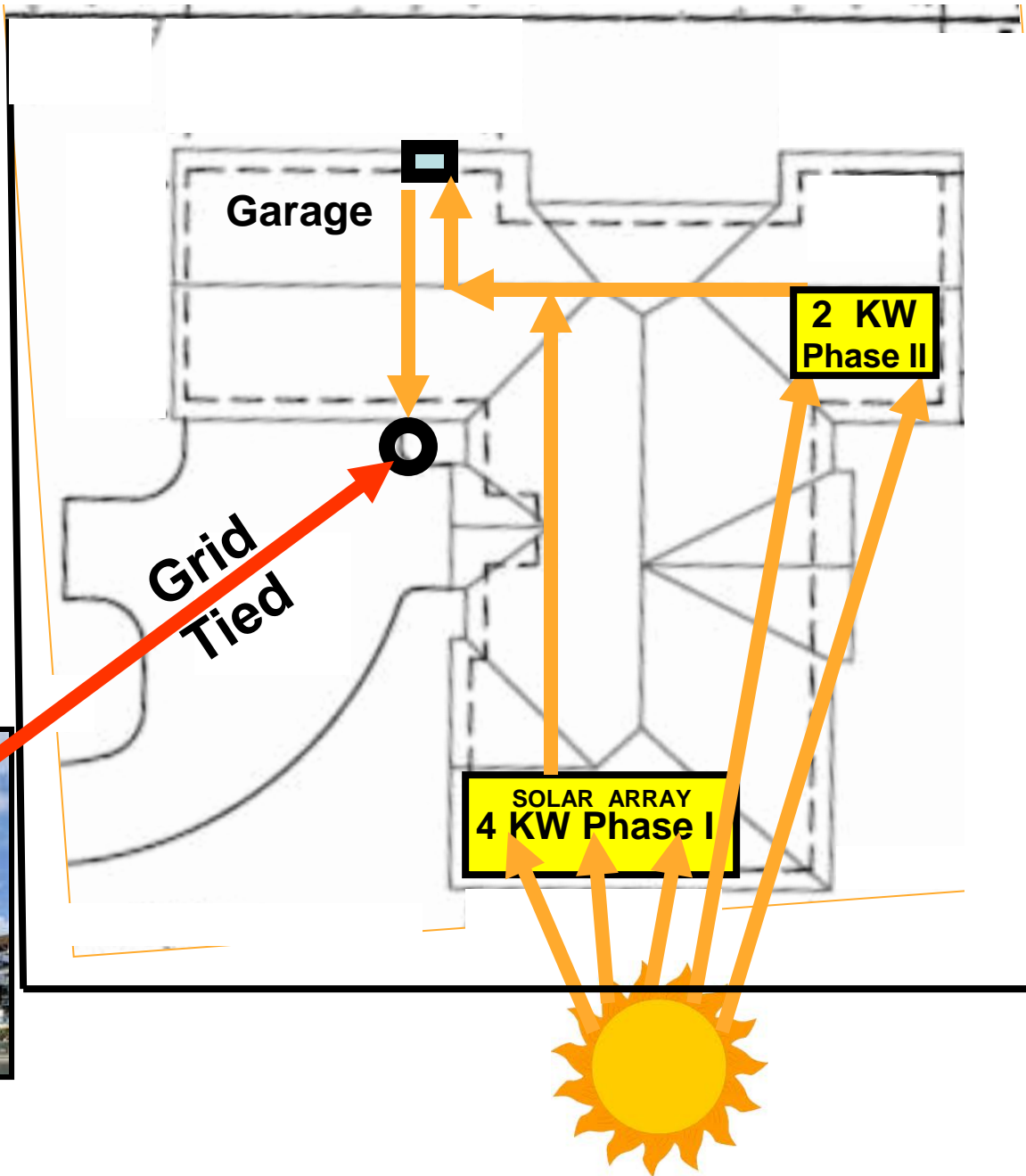
Pauline Resch said it is appropriate for the couple to retire in a natural area, bordered by wetlands and woods since her husband has worked in environmental education most of his life. He is an environmental consultant for the New Albany-Plain Local School District, and he was instrumental in preserving several wetlands in New Albany and helping convince the state to transfer management of an 80-acre wetland area in the city to the school district.

In other business, the ARB approved a sign for ella, a new restaurant on U.S. Route 62, and the Hayley Gallery, which moved to Route 62 from Second Street.

lwince@thisweeknews.com
www.ThisWeekNews.com

Step # 2 – Orientation of home on your site





Step # 3.

Insulate

Insulate

Insulate

...the envelope or shell of your home

Insulated Concrete Form Construction Technology



**Sort of like
building
with LEGOS**



**Then Cutting
Out and
Framing the
windows and
doors**





**Filling the ICF
exterior walls
with concrete
and rebar rods**



Triple Pane
Casement Windows

Remember...
Insulate
Insulate
Insulate!

**Step # 4 – Energize
your home
with Solar Power
and
Geothermal heating
and cooling**

Radiant Heat Flooring Installation



Geothermal water furnace and hot water tanks



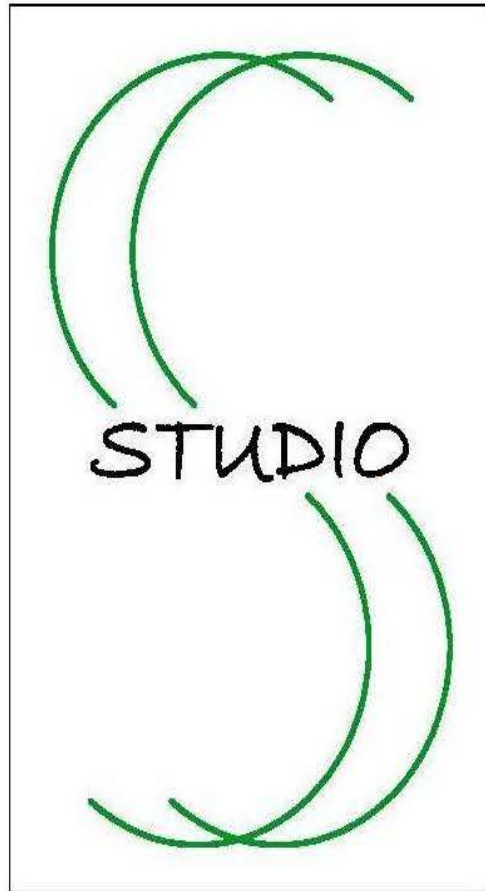
Installation of a 30 Panel Solar Array



The Result: an energy efficient home that emulates sustainable architecture and energy system concepts found in the 2009 and 2011 OSU Solar Decathlon Homes.



SPATIAL SYNERGY



STUDIO LLC

Meera Parathasarathy,
AIA, NCARB, LEED, HDPF

SUSTAINABLE DESIGN + ARCHITECTURE

www.green-bldg.com



SOLAR NEW ALBANY

[HOME](#)[ABOUT](#)[DONATE](#)[CONTACT & GET INVOLVED](#)[SPONSORS](#)

**THE EASTON-OSU STEM & NATURE CENTER
AT NEW ALBANY SCHOOLS**

SOLAR



NEW ALBANY

GET
CONNECTED

-  Solar New Albany
-  @SolarNewAlbany
-  @SolarNewAlbany
- www.SolarNewAlbany.org

QUESTIONS?