

Architect:

Oesch Environmental Design
8683 Schuyler Road
Schuyler, VA 22969
Phone: (434)831-1003
hfoesch@mindspring.com
<http://fredoesch.com>

Owner:

Private Residence

Project Cost:

\$200,000

Square Footage:

1,236 sf

Cost per Square Foot:

\$161.81/sf

Completion Date:

August, 2006
(under construction)

Project Consultants:

Contractor:

Fluvanna Woodworks
Bruce Guss
PO Box 459
Palmyra, VA 22963

Photovoltaics Consultant:

Dunimis Technology, Inc.
Jeff Yago
PO Box 10
Gum Spring, VA 23065
Phone: (804)457-9566
Fax: (804)457-2451
<http://pvforyou.com>



Project Description:

The mission was to design and build a small, affordable, healthful, Zero Energy Home (ZEH), thereby making an autonomous lifestyle possible. As a close collaboration between the owner, designer, and builder, these ideals are coming to fruition. Taking maximum advantage of the wooded solar site, the cottage features a unique free-span spiral frame roof, and is energy independent.

Green Features:

- Active solar hybrid design and construction
- Local milled Post and Beam
- "Reciprocal" spiral frame roof (free-span)
- R-40 Straw bale infill walls
- Low maintenance fire resistant stucco finish
- Off-the-grid Photovoltaic electrical system
- Hydronic radiant floor heating
- LP Gas boiler backup (95% efficient)
- Wood stove backup
- Ventilating skylights
- Passive cooling thermal chimney effect
- Natural daylighting
- Living vegetated roof w/ deck access
- Food producing geodesic greenhouse
- Owner-crafted ceramic tiles

