

Low Energy Solar Living

Meral Home and Second Unit, Seahaven

This 2,500 sq. ft. home, built in 1991, has thermal mass under the tile floors for solar heat storage. The EPA-approved woodstove, burning wood trimmed from trees on the site, is backed up by seldom-used hydronic baseboard heaters on timers. The water heater and boiler are preheated by a solar hot water heater. Natural ventilation is aided by a ceiling fan in the stairwell. Natural lighting in every room, tight construction, insulation, wood-frame dual-glazed windows, and Energy Star appliances allow the 2.2 kw photovoltaic system to provide most of the electricity for the house and second unit. Low-flow plumbing fixtures, composting, recycling, and a drip irrigation system in the vegetable garden save energy and waste. The drought-tolerant, mostly native landscaping has been certified by the National Wildlife Federation.

The 750 sq. ft second unit exceeds Title 24 Energy Standards by 31%. Fly ash was used in the concrete foundation. The FSC-certified framing includes engineered trusses and floor joists. A solar system preheats the water for the demand heater that provides domestic water and hydronic floor heating. Tight construction, formaldehyde-free recycled-content insulation, low-e dual-glazed fiberglass windows, and Energy Star appliances greatly reduce energy use. Solatube skylights provide natural light, the wood flooring is sustainably harvested, and Trex was used for the decks.

CLAM thanks the people and organizations who made the Point Reyes Green Home Tour possible

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Supervisor Steve Kinsey for his insightful remarks and support.
Nacole Borg-Voneghr for sewing the beautiful cloth bags.

HOME HOSTS AND DOCENTS

Steve Hadland & Anneke Van der Veen, Paul Korhummel,
Jerry & Barbara Meral, Chris Reding & Randy Fleming,
Dennis Rodoni, John & Anita Severson

POINT REYES GREEN HOME TOUR COMMITTEE

Jim Campe, Rae Levine, Trish McEneany, Beth McIntyre, Tor Taylor, Elizabeth Zarlengo. Jim Campe, Daniel Cordrey, Susan Hayes, Nancy Stein, and David Willard organized and gathered the green resource materials. Special thanks to Jim Campe for his inspiration, dedication, and tremendous contribution.

Ongoing support to CLAM is provided by our membership, County of Marin, Marin Community Foundation, and the Randy Weil Trust.

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Point Reyes Green Home Tour

Building Sustainable Communities

Sunday, August 26, 2007

**A tour of Point Reyes area homes built
with green practices and materials**

SCHEDULE

10:30–11 A.M.	Green Building Display
11 A.M.–12 P.M.	Presentations
12–4 P.M.	Tour

Proceeds support CLAM's work creating affordable, green housing in the communities surrounding Tomales Bay.

CLAM
Community Land Trust Association
of West Marin

415 663 1005 www.clam-ptreyes.org

Zero Energy and Zero Waste **Campe Residence, Inverness**

Built in 1978, this 1,800 sq. ft. passive solar home uses a cast concrete wall and exposed aggregate floors to store solar heat gain. Insulating shades covering low-e dual glazing keeps the heat in at night. Natural ventilation and a ceiling fan provide cooling, and all rooms have natural light, requiring the use of CFL bulbs for lighting only at night. The house was framed with reclaimed timbers salvaged from Pier 41 in San Francisco and barracks on Treasure Island. Redwood recycled from old wine tanks was used for windows, doors, trim and furniture. The soon-to-be-EPA-approved woodstove provides heat using ¼ cord of wood per year from the renewable woodlot on the site.

A 2.4 kw photovoltaic provides more than enough electricity for the super-efficient electric water heater, with insulated hot water pipes, and Energy Star electric appliances. Some rooms have back-up electric heat controlled by individual thermostats, and small appliances are connected to power bars to eliminate “ghost currents.” Composting, recycling and a worm bin make for zero waste. There are fruit trees, a vegetable garden, and drought-tolerant landscaping on a drip-irrigation system.



Small is Beautiful **Hadland/Van der Veen Home, Point Reyes Mesa**

Steve and Anneka built a 750 sq. ft. guest house on their property 10 years ago and started designing a large home to be located in the middle of their site. After spending weekends and vacations in their guest house, they decided that all they needed was a simple, passive-solar 1,300 sq. ft. house on the edge of the site, thereby preserving the meadow and swale in the center of the property.

Their house has a high-efficiency boiler for domestic hot water and hydronic-zoned floor heating under sustainably harvested beech flooring. The wood windows are low-e dual glazed, and the eaves are designed to block summer sun and let in winter sun. Operable skylights on the north roof provide natural light and ventilation. With Energy Star appliances and a Rumford fireplace, the 4 kw photovoltaic system provides the electricity for the house, guesthouse, and an office/workshop.

The guesthouse has an exposed slab on grade for thermal mass and is heated by a woodstove burning local cypress, which was also used for the cabinets. The vegetable garden and the natural and ornamental landscaping are on drip irrigation.



Artists' Residence in Restored Native Habitat **Fleming/Reding House and Studio**

Randy and Chris lived part time in the 650 sq. ft. cottage completed in 2004 while designing the house and artists' studio. Native grass seeds were collected to reseed the site after construction. Cypress trees from the site were milled to be used as flooring, decking and furniture in the house. Don't miss the bed frame, vanity countertop, and stair railing. The cottage has FSC-certified Eco Timber floors, and the forced-air heating system runs off the water heater.

The 1,600 sq. ft. house was oriented to maximize solar gain and natural ventilation. Extra insulation in the walls and ceiling, low-e dual-glazed wood windows, and Energy Star appliances allow the house to exceed Title 24 Energy Codes by 25%. Put three logs in the EPA-approved heat-circulating stove insert at night and the temperature in the living room drops 8 degrees by morning and only 4 degrees in the bedroom.

Exposed engineered framing and no-VOC clay paint are some of the green features of this home. Construction waste was recycled, and a native mixture of more than 50 trees were planted to offset the CO2 produced during construction. Deciduous trees were planted near the house to provide summer shading, and the native habitat of the site has been restored.

