

Clifton View Homes

U.S. DOE

ZERO

ENERGY READY HOME

2022 WINNER

Housing
Innovation
Awards

Hillside Farm | Oak Harbor, WA | CliftonViewHomes.blogspot.com



"I did not know I could have all this—a home...more comfortable than my old one, all on one level, [that] uses less energy." Homeowners









PROJECT DATA

• **Layout:** 3 bdrm, 2 bath, 1 fl, 2,224 ft²

• Climate: IECC 4C

Completed: March 2022

Category: Custom for Buyer

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 39; with PV -18
- Annual Energy Costs: without PV \$850; with PV \$-250
- Annual Energy Cost Savings: (vs typical new homes) without PV \$1,450; with PV \$2,550
- Annual Energy Savings: without PV 13,650 kWh; with PV 24,150 kWh
- Savings in the First 30 Years: without PV \$59,200; with PV \$103,200

CONTACT

Ted L. Clifton 360-969-2363 cvh@whidbey.net

KEY FEATURES

- Walls: SIP walls, R-28 total: 6.5" graphite EPS, draining house wrap, cedar shingle siding.
- Roof: SIP shed roof, 10-1/4" R-46 graphite EPS SIPs, synthetic underlayment, steel roofing.
- Attic: Unvented vaulted ceilings, R-46 SIPs; small utility attic for exhaust fans.
- Foundation: Unheated basement, R-23 ICF walls, 4" R-20 XPS under basement slab. Floor joist cavities are filled with R-38 fiberglass batts and topped with 1-1/8" t&g floorply, house wrap slip sheet, and 3" concrete slab with in-floor radiant heat loops.
- Windows: Triple-pane, argon-filled, low-e3, vinyl frame, U=0.17, SHGC=0.34.
- Air Sealing: 0.72 ACH50. SIP envelope, all joints sealed with caulk and tape.
- Ventilation: Range fan timered with 45-CFM fan on fresh air intake through MERV 19 filter.
- **HVAC:** Ground-source heat pump (3.0 COP) supplies hot water for radiant in-floor heat. Passive solar heating of floor slab through large south-facing windows with deep overhangs. Timered fans for night ventilation cooling in summer.
- Hot Water: Ground-source heat pump heats 50-gallon tank, COP 3.0.
- Lighting: 100% LED, daylight sensors, windows set for optimal light, heat, venting.
- Appliances: ENERGY STAR refrigerator, dishwasher, ventilation fans.
- Solar: 9.92 kW of solar panels and 27 kW battery storage installed.
- Water Conservation: EPA WaterSense-certified low-flow fixtures, compact plumbing. Rainwater collection with five 5,000-gallon tanks in basement for domestic and irrigation water.
- Energy Management System: PV system tracks production, use, and time-of-use rates.
- Other: 100% ZERO VOC products. Two electric car chargers.





