



"All our other homes were drafty in the winter, but not this house." Home owner



## PROJECT DATA

- **Layout:** 2 bdrm, 2.5 bath, 3 fl, 2,873 ft<sup>2</sup>
- **Climate:** IECC 4C, marine
- **Completed:** July 2016
- **Category:** custom for buyer

### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 39, with PV -18
- **Projected Annual Energy Costs:** without PV \$950, with PV \$-300
- **Projected Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,200, with PV \$2,500
- **Annual Energy Savings:** without PV 12,200 kWh; with PV 25,700 kWh

## CONTACT

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## KEY FEATURES

- **Walls:** 6.5" R-25 SIP walls, draining house wrap, fiber cement plank siding.
- **Roof:** Standing-seam steel roofing over synthetic underlayment.
- **Attic:** Cathedral ceilings of 10.25" SIPs, 5/8" drywall.
- **Foundation:** 6" poured concrete foundation stem walls 4 ft deep with 2" R-10 rigid foam on interior of stem wall down to footing. Inside backfilled then topped with 2" pea gravel, 6-mil poly vapor barrier, 4" R-20 rigid XPS, and poured slab.
- **Windows:** Triple-pane, low-e, argon fill, U=0.20, SHGC=0.33 to 0.39.
- **Air Sealing:** 0.82 ACH 50.
- **Ventilation:** Two electronically controlled 60-cfm fans bring fresh air in through HEPA filters; timer-operated for night-time ventilation cooling; can ramp up to match 480 cfm of range hood exhaust for balanced ventilation.
- **HVAC:** Air-to-water heat pump for ground-floor radiant heat and domestic hot water; ductless heat pump for back-up heat and cooling upstairs.
- **Hot Water:** 450% efficient air-to-water heat pump for space and water heating.
- **Lighting:** 100% LED or CFL.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer.
- **Solar:** 10.89-kW PV.
- **Water Conservation:** Compact plumbing; low-flow fixtures; two 1,000-gal rain tanks for yard.
- **Energy Management System:** Passive heating and cooling with thermal mass slab.
- **Other:** Zero VOC finishes; electric car charging station. SIPs home designed to withstand an 8.0 earthquake and 110-mph winds. Conduit and roof space available for solar water.

