

Bellingham Bay Builders

U.S. DOE

ZERO

ENERGY READY HOME

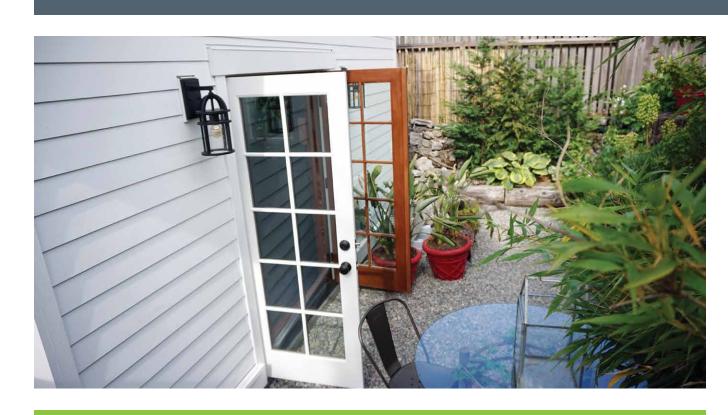
2019 WINNER

Housing
Innovation
Awards

Greenlake Cottage | Seattle, WA | BellinghamBayBuilders.com



"This house is so comfortable! The temperature is never hot or cold" Home owner









PROJECT DATA

• Layout: 2 bdrm, 2 bath, 2 fls, 752 ft²

• Climate: IECC 4C, marine

Completed: June 2019

• Category: custom for buyer

MODELED PERFORMANCE DATA

• **HERS Index:** without PV 44

 Annual Energy Costs: without PV \$600

- Annual Energy Cost Savings: (vs typical new homes) without PV \$550
- Annual Energy Savings: without
 PV 5,100 kWh
- Savings in the First 30 Years: \$23,800

CONTACT

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KEY FEATURES

- **Walls:** $2x6\ 16''$ o.c. advanced framing, R-27 total: $\frac{1}{2}$ '' drywall; in cavity 5.5" blown fiberglass; on exterior $\frac{7}{16}$ '' coated OSB sheathing with liquid-applied flashing at seams, 2" cork exterior insulation, 1x4 battens, fiber cement siding.
- **Roof:** Gable roof; $\frac{5}{8}$ " drywall, $2x12\ 16$ " o.c. rafters, $\frac{5}{8}$ " coated OSB sheathing with liquidapplied membrane at seams and penetrations, $\frac{7}{8}$ " R-12 cork insulation, $\frac{2}{8}$ 6 battens, $\frac{7}{8}$ 6" OSB sheathing, roofing underlayment, black asphalt shingles.
- Attic: Unvented attic; 11.25" R-38 fiberglass batts.
- **Foundation:** Slab on grade; gravel base, 6-mil vapor barrier, 4" R-20 XPS, 4" colored concrete as finished floor; 2" R-10 XPS on slab edge with stainless steel subgrade flashing.
- Windows: Double-pane, argon-filled, low-e, casement frames, U=0.25, SHGC=0.3.
- Air Sealing: 0.62 ACH 50.
- Ventilation: HRV, continuous, MERV 5 filters; timers on bath fans; 300 cfm range hood.
- **HVAC:** Ductless mini-split heat pump, single head; 13.5 HSPF, 30.5 SEER; back-up electric heaters in bedrooms; south-facing windows and concrete floors for passive heat.
- Hot Water: Electric tank, .92 EF, 50-gal.; centrally located.
- Lighting: 100% LED, daylighting.
- Appliances: ENERGY STAR refrigerator, dishwasher, ceiling fan, and exhaust fans.
- Solar: Solar ready.
- Water Conservation: EPA WaterSense fixtures and toilets.
- Energy Management System: Programmable thermostat.
- Other: Zero-VOC paint, main floor master; carbon-negative cork insulation; all electric.





