



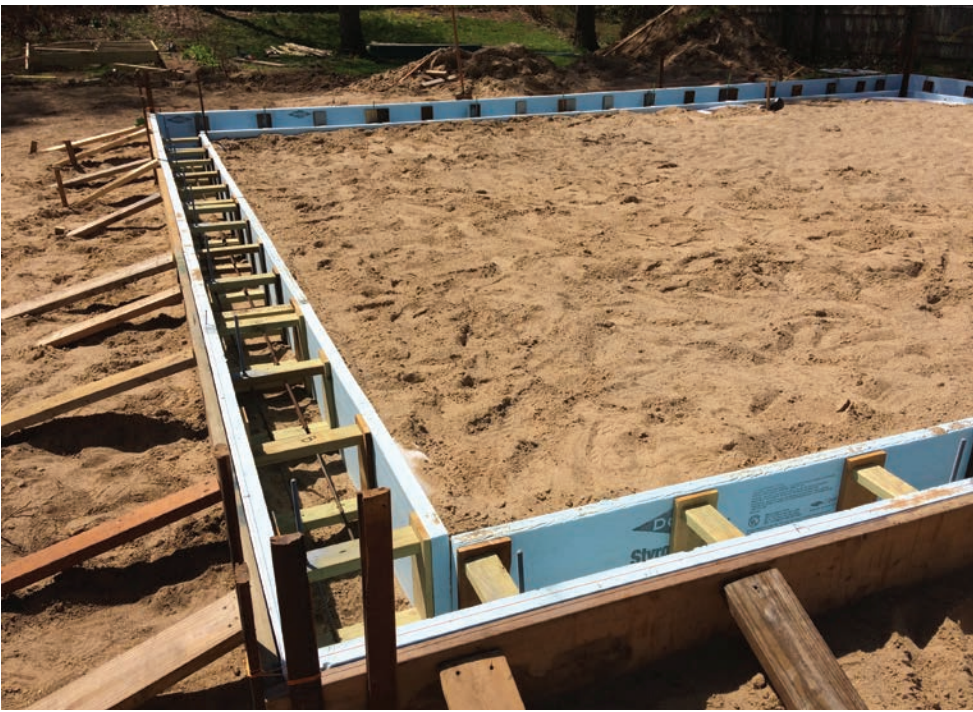
Kalamazoo Valley Habitat for Humanity

Kalamazoo Infill Home | Kalamazoo, MI | HabitatKalamazoo.org



Photos courtesy of Kalamazoo Valley Habitat for Humanity

“Our energy bills are lower than our apartment, and we have no bugs.” *Home owner*



PROJECT DATA

- **Layout:** 3 bdrm, 1 bath, 1 fl, 1,032 ft²
- **Climate:** IECC 5A, cold
- **Completed:** November 2017
- **Category:** affordable

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 46; with PV NA
- **Annual Energy Costs:** without PV \$750; with PV \$NA
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$450; with PV \$NA
- **Annual Energy Savings:** without PV 1,700 kWh, 50 mcf; with PV NA
- **Savings in the First 30 Years:** \$20,900

CONTACT

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KEY FEATURES

- **Walls:** 2x4 studs 24" o.c. staggered on 2x6 plates, advanced framed, 2" R-10 XPS sheathing; in cavity 2" R-10 XPS plus R-13 fiberglass batt; house wrap, vinyl siding.
- **Roof:** Asphalt shingles; taped ½" OSB, ice-and-water shield installed over roof edge and subfascia, and 6' up from eaves.
- **Attic:** Vented attic with 16" energy heels. Metal HRV ducts in the attic encapsulated in 2" R-14 closed-cell spray foam and covered with 16-18" R-60 of blown cellulose.
- **Foundation:** 16x16" footing foundation grade beam poured into 2" R-10 XPS forms; topped with R-10 XPS under slab. R-10 slab edge continuous insulation up exterior walls.
- **Windows:** Triple-pane, low-e, argon-filled, vinyl frames, U=0.22, SHGC=0.25.
- **Air Sealing:** 2.72 ACH 50.
- **Ventilation:** HRV, bath fan with motion and dew point sensors.
- **HVAC:** 97% AFUE furnace with modulating ECM motor and gas burner. Smart controller monitors humidity and temperature. All ducts in conditioned space.
- **Hot Water:** 98% AFUE condensing tankless; insulated hot water lines.
- **Lighting:** 100% LED.
- **Appliances:** ENERGY STAR-rated refrigerator, ENERGY STAR range.
- **Solar:** Solar ready.
- **Water Conservation:** ½" PEX hot water lines; compact plumbing design.
- **Energy Management System:** Smart thermostat.
- **Other:** No-VOC caulks, adhesives, and finishes; low-VOC paint and flooring; on-site recycling; universal design. WUFI modeled wall design. Extra wall strapping and attic bracing.



Energy Efficiency & Renewable Energy



For more information on the **DOE Zero Energy Ready Home** program, go to <http://energy.gov/eere/buildings/zero-energy-ready-home> or scan the QR code.



PNNL-SA-137729 September 2018