



Photos courtesy of Thrive Home Builders

“The indoor air quality inside our house has become even more important over the past year, with the global pandemic and historic forest fires, and especially now with a 6-month-old daughter.” *Homeowner*



PROJECT DATA

- **Layout:** 4 bdrm, 4.5 bath, 2 fls + bsmt, 3,934 ft²
- **Climate:** IECC 5B, cold
- **Completed:** August 2020
- **Category:** Production

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 39; with PV 5
- **Annual Energy Costs:** without PV \$1,500; with PV \$200
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$2,200; with PV \$3,300
- **Annual Energy Savings:** without PV 19,700 kWh; with PV 31,100 kWh
- **Savings in the First 30 Years:** without PV \$88,300; with PV \$134,500

CONTACT

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KEY FEATURES

- **Walls:** Double wall, R-39 total: two 2x4 24" o.c. walls set 2.5" apart, advanced framed, 9.5" blown fiberglass, 7/16" OSB sheathing, drain wrap, engineered wood siding.
- **Roof:** Truss gable roof: 14" raised heel trusses, 7/16" roof sheathing, self-adhered membrane at eaves and valleys, 10-mil synthetic underlayment, 30-year asphalt shingles.
- **Attic:** Vented attic: 20" R-50 blown-in fiberglass, 14" raised energy trusses.
- **Foundation:** Basement: poured concrete; finished basement walls are 2x4 24" o.c. with R-15 fiberglass batts; unfinished walls have R-19 fiberglass drape. Active radon vent with fan in 4" aggregate under 6-mil slab vapor barrier.
- **Windows:** Double-pane, argon-filled, low-e, vinyl frame, U=0.24, SHGC=0.2.
- **Air Sealing:** 1.80 ACH50, closed-cell spray foam top plates and rim joists.
- **Ventilation:** Continuous exhaust paired with fresh air supply; temperature and humidity sensors on fresh air intake. MERV 7 filter on intake. MERV 13 filter on supply.
- **HVAC:** Central air-source heat pump, 3.24 COP, 17.8 SEER, AC variable speed compressor.
- **Hot Water:** Heat pump water heater, 3.55 UEF, 65-gal; recirculation pump.
- **Lighting:** 100% LED.
- **Appliances:** ENERGY STAR dishwasher, clothes washer, clothes dryer, induction cooktop.
- **Solar:** 7.8-kW rooftop panels, 10-kW battery storage.
- **Water Conservation:** Low-flow fixtures, PEX piping: hot-water recirc; smart irrigation.
- **Energy Management System:** Energy monitoring system, keypad camera.
- **Other:** Low/no-VOC paint, Green Label Plus carpet, KCMA-certified cabinetry, GreenGuard-certified hardwood flooring; prewired for EV charging.

