



Photos courtesy of Cornerstone Construction of Northeast Ohio

"We are significantly less reliant on air conditioning and heating due to the comfortable temperatures the house maintains." Homeowners



## PROJECT DATA

- **Layout:** 4 bdrm, 3 bath, 1 fl + bsmt, 4,642 ft<sup>2</sup>
- **Climate:** IECC 5A, cold
- **Completed:** March 2022
- **Category:** Custom for Buyer

### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 42; with PV -2
- **Annual Energy Costs:** without PV \$2,050; with PV \$50
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$2,800; with PV \$4,800
- **Annual Energy Savings:** without PV 23,400 kWh; with PV 40,700 kWh
- **Savings in the First 30 Years:** without PV \$117,550; with PV \$199,950

## CONTACT

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## KEY FEATURES

- **Walls:** 2x6, 24" o.c. + 2" polyiso, R-31 total: blown fiberglass in cavity, 2" polyiso, rain screen furring with insect screen at bottom, fiber cement or stone veneer.
- **Roof:** Truss gable. All cathedral ceilings, in to out: 5/8" drywall, 1.5" furring for service cavity, 7/16" coated taped OSB, truss with R-60 blown in fiberglass, 5/8" coated taped OSB, synthetic underlayment, 24-gauge standing seam metal roof.
- **Attic:** Vented attic, R-60 total: 22" blown fiberglass, 14" raised-heel trusses.
- **Foundation:** Insulated basement, R-39 total, R-20 insulated pre-cast foundation walls with steel-faced insulated concrete studs, R-19 unfaced fiberglass batt in cavities.
- **Windows:** Double-pane windows: U=0.28, SHGC=0.2, argon-fill, Low-e, fiberglass framed, overhangs and fixed awnings.
- **Air Sealing:** 0.53 ACH 50. Rubber gasket under sill plate; sill seal and caulk at wall sheathing and top plates. All penetrations sealed with tape and joint sealant.
- **Ventilation:** HRV, timed bath exhaust. MERV 8 filters.
- **HVAC:** Two ducted air source heat pumps, HSPF of 10 and 15.4 SEER.
- **Hot Water:** Heat pump water heater, 50-gallon tank, 3.75 UEF. Two manifolds near kitchen and baths, recirculation pump, 1/2" PEX.
- **Lighting and Appliances:** 100% LED lighting. ENERGY STAR appliances, all electric, induction cooktop.
- **Solar:** 14.8 kW PV.
- **Energy Management System:** smart thermostat.
- **Other:** 2 electric vehicle chargers.

