“ZERH provides homeowners a sense of pride knowing that their home is working for them!” Tim O’Brien Homes

**PROJECT DATA**

- **Layout:** 5 bdrm, 4 bath, 2 fls + bsmt, 5,725 ft²
- **Climate:** IECC 6A, cold
- **Completed:** August 2018
- **Category:** custom buyer

**MODELED PERFORMANCE DATA**

- **HERS Index:** without PV 47; with PV 25
- **Annual Energy Costs:** without PV $3,700; with PV $1,050
- **Annual Energy Cost Savings:** (vs typical new homes) without PV $1,650; with PV $2,650
- **Annual Energy Savings:** without PV 1,200 kWh, 400 Therms; with PV 17,600 kWh, 1,600 Therms
- **Savings in the First 30 Years:** $128,500

**KEY FEATURES**

- **Walls:** 2x4 16” o.c. advanced framing, R-21 total: insulated headers, 3-stud corners, ladder blocking, ½” drywall, R-15 blown, ¾” OSB, 1.16” R-5 graphite EPS foam, textured house wrap, rain screen behind veneer stone, 6” fiber cement lap siding.
- **Roof:** Hip roof; ice-and-water shield, synthetic underlayment, ridge vent, asphalt shingles.
- **Attic:** Vented attic, 20” R-50 blown fiberglass, ½” R-3 closed-cell spray foam, R-19 fiberglass batts, 7” raised energy heel.
- **Foundation:** Insulated basement, 1” R-5 exterior XPS rigid foam, 8” poured concrete wall, 1” interior R-6 polyiso rigid foam; 2x4 stud wall, R-19 bib insulation, poly vapor barrier.
- **Windows:** Double-pane, argon-filled, low-e3, vinyl single-hung frames, U=0.25-0.27, SHGC=0.22.
- **Air Sealing:** 1.0 ACH 50.
- **Ventilation:** HRV, MERV 11 filter, bath fans.
- **HVAC:** 2-stage gas furnace, 96% AFUE; 13 SEER AC; metal ducts in conditioned space.
- **Hot Water:** Gas 50-gal. tank, .68 EF, smart recirculation pump.
- **Lighting:** 100% LED, auto. window blinds, lighting controls, ENERGY STAR ceiling fans.
- **Appliances:** ENERGY STAR refrigerator and dishwasher.
- **Solar:** 10.2-kW PV system.
- **Water Conservation:** EPA WaterSense fixtures, drip irrigation.
- **Energy Management System:** Smart energy monitoring system.
- **Other:** Electric vehicle charging, active radon ventilation; Wisconsin Green Built Home certification; CRI Green Label Plus carpet, pad, glue; Green Guard certified flooring.