



Tim O'Brien Homes

Arbordale | New Berlin, WI | TimOBrienHomes.com



Photos courtesy of Tim O'Brien Homes

"The basement is where I can really feel [the comfort]...it doesn't feel like a basement." Homeowner



PROJECT DATA

- **Layout:** 4 bd, 2.5 bath, 1 fl+bst, 2,116 ft²
- **Climate:** IECC 6A, cold
- **Completed:** March 2020
- **Category:** Custom Spec

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 47; with PV 24
- **Annual Energy Costs:** without PV \$1,850; with PV \$750
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,200; with PV \$2,300
- **Annual Energy Savings:** without PV 5,100 kWh, 1,050 Therms; with PV 14,300 kWh, 1,050 Therms
- **Savings in the First 30 Years:** without PV \$56,400; with PV \$107,400

CONTACT

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KEY FEATURES

- **Walls:** 2x4, 16" o.c, R-21 total: advanced framed; R-15 fiberglass, 7/16" OSB, 1-1/8" R-5 EPS, textured house wrap, dimpled plastic rainscreen, stone, and fiber cement siding.
- **Roof:** Truss hip roof: asphalt shingles, ice & water shield in valleys and eaves, synthetic underlayment, ridge vent, aluminum soffit vent.
- **Attic:** Vented attic: 20" R-50 blown fiberglass, top plates. 7" raised heels.
- **Foundation:** Insulated basement: 8" poured concrete wall, 1" R-5 XPS on exterior, 1" R-6.3 rigid polyiso on interior. 2x4 interior wall w/R-19 bib insulation and poly vapor barrier.
- **Windows:** Double-pane, argon-filled, low-e3, vinyl. Interior motorized blinds, U=0.27, SHGC=0.22.
- **Air Sealing:** 1.02 ACH 50. All exterior seams taped. Closed-cell spray foam used over all top plates, attic penetrations, and rim joists.
- **Ventilation:** HRV on return side of furnace, MERV 11 filter. Active radon fan. Air cleaner.
- **HVAC:** Natural gas furnace, 96 AFUE. 13 SEER AC. Rigid metal ducts, 3 zones.
- **Hot Water:** Gas water heater, 0.68 EF, 50-gal. Power-vented. Recirc pump.
- **Lighting:** 100% LED, automated window blinds controlled by home automation system.
- **Appliances:** ENERGY STAR dishwasher, refrigerator, 4 ceiling fans.
- **Solar:** 6.9 kW rooftop panels.
- **Water Conservation:** EPA WaterSense fixtures, drip irrigation.
- **Energy Management System:** PV production and energy use monitored.
- **Other:** No-VOC paint, radon. CRI Green Label Plus carpet, pad, adhesive.

