



# BPC Green Builders

Trumbull Residence | Wilton, CT | BPCGreenBuilders.com



Photos courtesy of BPC Green Builders

“We generated more power than the house used.” Homeowner



## PROJECT DATA

- **Layout:** 3 bdrm, 2.5 bath, 2 fls + bsmt, 4,345 ft<sup>2</sup>
- **Climate:** IECC 5A, cold
- **Completed:** January 2020
- **Category:** Custom for Buyer >3,000 ft<sup>2</sup>

### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 36; with PV -13
- **Annual Energy Costs:** without PV \$3,150; with PV -\$1,000
- **Annual Energy Cost Savings:** vs typical new homes) without PV \$5,650; with PV \$9,900
- **Annual Energy Savings:** without PV 23,000 kWh; with PV 40,600 kWh
- **Savings in the First 30 Years:** without PV \$235,500; with PV \$414,600

## CONTACT

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## KEY FEATURES

- **Walls:** 2x8 16" o.c., R-37 total: dense pack-cellulose, 7/16" sheathing w/taped joints, 3" exterior mineral wool rigid insulation, 1x furring strips, fiber cement siding.
- **Roof:** Shed roof, R-84.6 total: 16" TJI rafters, R-57.6 dense-pack cellulose, 5/8" coated OSB, no overhang, taped joints, topped by 4.5" R-27 SIP with overhangs, ice and water shield, asphalt shingles, ENERGY STAR Cool Roof certified.
- **Attic:** No attic, vaulted ceilings.
- **Foundation:** Insulated basement, R-23.7 total: 10" poured concrete wall; on interior 2" closed-cell spray foam behind 2x4 16" o.c. stud wall with dense-pack cellulose. Under slab: vapor barrier, 6" R-28.8 closed-cell EPS rigid foam; 4" EPS at slab edge to foundation walls.
- **Windows:** Triple-pane, low-e, aluminum-clad vinyl tilt turn frames, U=0.13, SHGC=0.36.
- **Air Sealing:** 0.58 ACH 50. All wall and roof joints taped, wall to first roof corner taped.
- **Ventilation:** ERV, MERV 7 filter, bathroom and laundry boost controls.
- **HVAC:** Ducted Mini-Split Heat Pump, 10.1 HSPF, 15.8 SEER, 2 air handlers, 1 outdoor unit.
- **Hot Water:** Split heat pump water heater, 83-gal, 4.5 COP. Recirc pump.
- **Lighting:** 100% LED, daylighting.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer, and clothes dryer.
- **Solar:** 14.7 kW; prewired for future battery.
- **Water Conservation:** EPA WaterSense fixtures. Drought-resistant landscaping. Rain garden.
- **Energy Management System:** N/A.
- **Other:** Electric vehicle charging station, zero VOC paints. Main floor master.

