

Habitat for Humanity of Catawba Valley

The Rudy Project | Hickory, NC | HabitatCatawbaValley.org



"A home that is not only affordable to purchase, but also affordable to own and operate." Habitat for Humanity Catawba Valley



PROJECT DATA

- Layout: 3 bdrm, 2 bath, 1 fl, 1,160 ft²
- **Climate:** IECC 4A, mixed-humid
- **Completed:** January 2019
- **Category:** affordable

KEY FEATURES

- Walls: 2x6 24" o.c. advanced framing: ladder blocking, open and insulated headers, R-26 total: ¹/₂" drywall, R-19 unfaced batts, ¹/₂" OSB sheathing, 1" taped rigid foam, 1x4 furring strips, ³/₈" engineered wood lap siding.
- **Roof:** Gable roof; coated OSB sheathing, architectural asphalt shingles.
- Attic: Vented attic; 20" R-50 blown fiberglass; 24" raised heel trusses.

MODELED PERFORMANCE DATA

- **HERS Index:** without PV 40
- Annual Energy Costs: without PV \$750
- Annual Energy Cost Savings: (VS typical new homes) without PV \$300
- Annual Energy Savings: without PV 3,400 kWh
- Savings in the First 30 Years: \$12,200

CONTACT

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- Foundation: Unvented crawlspace, R-11 total: 2" rigid EPS on inside face of 8" CMU, rubberized waterproof coating, 12-mil reinforced polyethylene liner over dirt.
- Windows: Double-pane, argon-filled, low-e, vinyl single-hung frames, U=0.30, SHGC=0.22.
- Air Sealing: 2.5 ACH 50, drywall glued at top plate, sill seal.
- **Ventilation:** ERV, MERV 13 filters.
- HVAC: Ductless mini-split heat pump, 12.5 HSPF, 26.1 SEER, 1 indoor air handler, 1 outdoor compressor; dehumidifier in crawl.
- Hot Water: Heat pump water heater, 3.39 EF, 50-gal., compact plumbing design.
- **Lighting:** 100% LED, motion sensors on exterior lights.
- **Appliances:** ENERGY STAR refrigerator, dishwasher, clothes washer, and dehumidifier.
- **Solar:** Solar ready.
- Water Conservation: WaterSense-labeled fixtures and toilets.
- Energy Management System: Programmable thermostat.
- Other: 3-ft doors and hallways, low-VOC paint, Green Guard cabinets and flooring, passive radon vent, IBHS Fortified Home Bronze-level features.



Energy Efficiency & Renewable Energy



For more information on the **DOE Zero Energy Ready Home** program, go to http://energy.gov/eere/buildings/zeroenergy-ready-home or scan the QR code.



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Housing

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