



# S. D. Jessup Construction

Rockwell Farmhouse | Rockwell, NC | SDJessup.com



Photos courtesy of S. D. Jessup Construction

“I work from home so I’m here all day every day and the indoor air quality is great.” Homeowner



## PROJECT DATA

## KEY FEATURES

- **Layout:** 4 bdrm, 4 bath, 2 fls + bsmt, 6,143 ft<sup>2</sup>
- **Climate:** IECC 4A, mixed-humid
- **Completed:** December 2021
- **Category:** Custom for Buyer

### MODELED PERFORMANCE DATA

- **HERS Index:** without PV 39
- **Annual Energy Costs:** without PV \$1,450
- **Annual Energy Cost Savings:** (vs typical new homes) without PV \$1,650
- **Annual Energy Savings:** without PV 20,100 kWh
- **Savings in the First 30 Years:** without PV \$69,500

- Walls: 2x6, 16 inches o.c., R-25.6 total: R-19 + 6.6 continuous, 5.5" fiberglass batt in wall cavities; R-6 rigid foam integrated with coated OSB sheathing.
- Roof: Truss and rafter; gabled, hip, and shed roof: 7/16" OSB sheathing, synthetic roofing underlayment, continuous ridge vent, 14" raised-heel trusses.
- Attic: Vented and unvented (hot roof) attics. 13" R-30 blown-in and 9.5" R-30 batt fiberglass in vented attic; 7.5" R-30 open-cell spray foam on underside of hot roof.
- Foundation: Insulated basement: 2" R-10 XPS under slab, 4" XPS R-20 under threshold and 2" XPS behind door framing. Pre-cast concrete walls with 2.5" XPS in cavities and 1" EPS adhered to metal-faced concrete studs. Elastomeric damp proof coating, plastic drain mat.
- Windows: Triple pane, U=0.160, SHGC=0.27, low-e, argon-fill, vinyl-framed. Fixed, casement.
- Air Sealing: 2.37 ACH50: doors and windows caulked and foamed, Coated sheathing installed from roofing to foundation wall to cover top and bottom plates and rim joists.
- Ventilation: ERV integrated with HVAC; humidity sensors on bath fans.
- HVAC: Central air source heat pump 9.5 HSPF, 18.5 SEER for basement and main floor with dedicated dehumidifier. Upstairs: minisplit heat pump, 9,000 Btu/h, variable-speed. Air circulated to bedrooms by a separate air handler. MERV 13 filters.
- Hot Water: Heat pump water heater, 50-gallon, 3.88 UEF. Core plumbing design.
- Lighting and Appliances: LED lighting. ENERGY STAR appliances, induction cooktops.
- Solar: None.
- Energy Management System: Dehumidifier controlled by set point in thermostat.
- Other: EV charging: installed on site, builder used for his own car.

## CONTACT

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