

Health-E Community Enterprises of Virginia

Noah's Ark | Hampton, VA | WFSolarHomes.com



"Since we moved into the property [my wife's] allergy level has gone down." Health-E Home owner



PROJECT DATA

- Layout: 4 bdrm, 4.5 bath, 2.5 fls, 4,691 ft²
- **Climate:** IECC 4A, mixed-humid
- **Completed:** May 2019

KEY FEATURES

- Walls: 2x6 24" o.c., advanced framing, R-31 total: ¹/₂" drywall, 2" closed-cell spray foam, 3.5" blown fiberglass; 2" closed-cell + 3.5" open-cell spray foam in rim joists; coated R-3.6 OSB sheathing taped at seams; house wrap, fiber cement siding.
- **Roof:** Gable roof; reflective metal roofing, ice-and-water shield, 2-ft overhangs.
- Attic: Unvented, vaulted ceilings, R-44.7 total; 3" R-19.5 closed-cell spray foam, 7" R-25.2 open-cell spray foam, 14" raised energy heel.
- **Category:** custom buyer

MODELED PERFORMANCE DATA

- HERS Index: without PV 47, with PV -16
- Annual Energy Costs: without PV \$2,000, with PV -\$250
- Annual Energy Cost Savings: (VS typical new homes) without PV \$1,800, with PV \$3,900
- Annual Energy Savings: without PV 14,700 kWh, 8 MCF, with PV 32,500 kWh, 8 MCF
- **Savings in the First 30 Years:** \$189,300

CONTACT

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- **Foundation:** Below-grade pier foundation.
- Windows: Double-pane, argon-filled, low-e2, vinyl casement frames, impact-resistant glass, U=0.23, SHGC=0.17.
- Air Sealing: 1.6 ACH 50, closed-cell spray foam.
- **Ventilation:** ERV supplies to return side of HVAC, has 2 separately ducted returns; continuous bath fans with humidity sensors for boost speed, MERV 8 filters.
- HVAC: Central air-source heat pump, 10 HSPF, 19.75 SEER; 2-stage gas furnace for backup.
- **Hot Water:** Heat pump water heater, push button recirculation pump.
- Lighting: 100% LED, motion sensors, daylighting, ENERGY STAR ceiling fans.
- **Appliances:** ENERGY STAR dishwasher and clothes washer.
- **Solar:** Ready for 13.1-kW PV system.
- Water Conservation: WaterSense-labeled fixtures, drought-resistant landscaping.
- Energy Management System: Internet-enabled control of heating and cooling.
- **Other:** Aging-in-place; low-VOC paint, Green Guard flooring with cork backing.



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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