



NewenHouse

A Super Insulated Sustainable Kit Home

• madisonenvironmental.com
sonya@madisonenvironmental.com •
• (608) 220-8029

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NewenHouse will provide super insulated, sustainable kit homes for people who want to live lightly on the earth.

NewenHouses are designed to be **80 to 90% more energy efficient** than the average home. The prototype in Viroqua, WI, is aiming for both **Passive House** and **LEED Platinum** certification.



East Elevation

Design Features

- Three sizes to choose from: 600 sf (1 br), 800 sf (2 br), & 1000 sf (3 br, 2 ba), all at least 50% smaller than an average new American home
- Cozy, contemporary interior
- Designed for entertaining and hosting overnight guests
- Large southern windows for day-lighting and solar gain
- Direct or borrowed light in all rooms
- Built-in benches and storage
- No furnace necessary (peak heat demand is only ~1500 W, the equivalent of a hairdryer)
- Designed to reduce interior electromagnetic fields
- Solar hot water and photovoltaic (PV) system ready
- Semi-attached three-season porch and storage area with sleeping loft and root cellar
- 1000 gallon rainwater harvesting system
- Edible landscaping plan, plus green roof option for entry porch

Construction Details

- 16 inch-thick double wall system filled with dense pack cellulose (recycled newspaper)
- Insulation R-values of 57 under slab and around walls and 100 in the attic
- Heat Recovery Ventilation (HRV) system with 92% heat recovery
- Triple-pane windows with insulated fiberglass frames
- FSC certified wood roof trusses and kitchen cabinets
- Shiplap cedar siding
- Standing seam metal roof with hidden fasteners
- 0.8 gpf and dual-flush toilets, plus low-flow faucets
- Ultra-safe paints and natural oil finishes
- Regional and natural materials sourced when possible
- Designed to incorporate optional salvaged materials
- Designed for deconstruction

What Does the NewenHouse Kit Include?

- The Design, Construction Documents, and a detailed Subcontractor Specification Sheet
- Sustainable Building Materials -- that make the NewenHouse unique (Windows, Doors, HRV, Cabinets, Wood Flooring/Trim/Shelving, Tile, 0.8 gallon/flush Toilets, Building Tape, Paint and Finishes, and more)
- Consultation during building process (working with you or your contractor)
- Edible Landscape Plan and Comprehensive Green Living Guide
- Membership to NewenHouse On Line Community

NewenHouse Prototype

422 Hickory Street • Viroqua, WI 54665
608.220.8029 cell • madisonenvironmental.com
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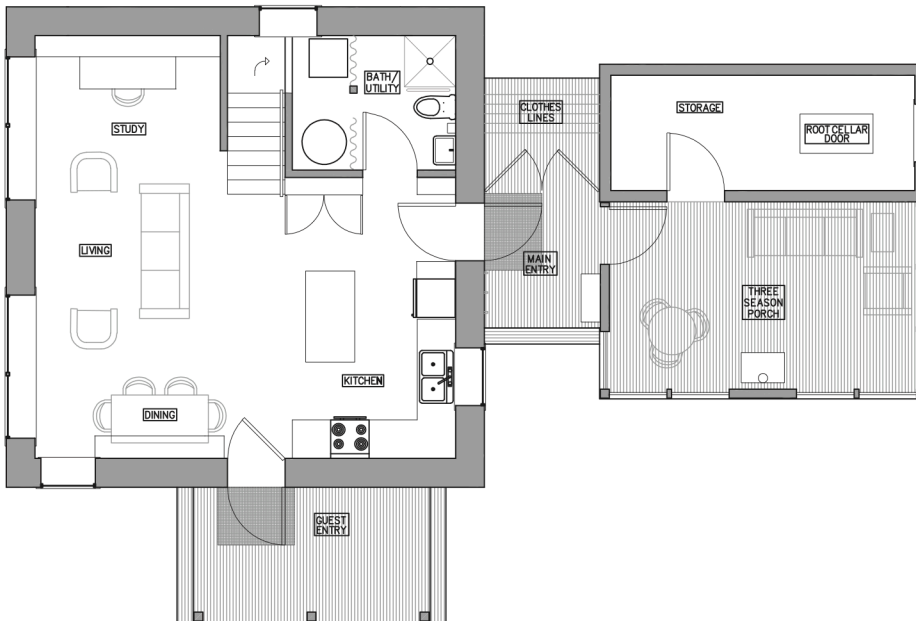
NewenHouse Prototype

The NewenHouse Prototype was completed in Fall 2011 in Viroqua WI. You can learn about the home and building process by visiting Sonya's Natural Home Magazine [blog](#) (see madisonenvironmental.com for link), or please attend a NewenHouse **OpenHouse**, held at the prototype on the **fourth Friday** of every month from 4 to 6 pm (**RSVPs appreciated** – please call Sonya to confirm at (608) 220-8029).

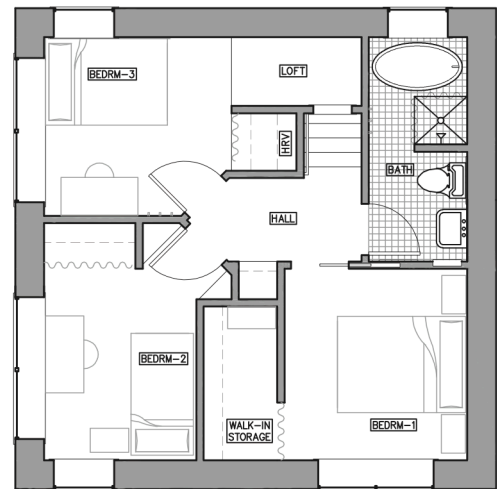
Prototype Details

- Two floors with three bedrooms and two bathrooms
- Interior dimensions: 968 sf (22' x 22')
- Exterior dimensions: 1250 sf (25' x 25')
- Porch/storage dimensions: 289 sf (17' x 17')
- Estimated total annual electric demand (heating, equipment, appliances, plug loads, and hot water for three occupants): ~6119 kWh/yr

First Floor Plan



Second Floor Plan



Prototype Aims for Passive House and LEED for Homes Platinum

- Certified Passive Houses aim to conserve energy first through a high performance envelope rather than through technologies (i.e. solar panels). To qualify for Passive House certification, a house must meet strict requirements: airtight building shell with 0.6 or fewer air changes per hour, annual heat requirement less than 4.75 kBtu/sf/yr, and primary energy use less than 38.1 kBtu/sf/yr ([passivehouse.us](#)).
- Platinum is the highest level in LEED for Homes, an internationally recognized third-party verification system that covers a broader range of green building elements ([usgbc.org/LEED](#)).