

The Vermont Street Project

Greater sustainability in a design & craft-intensive home.



NEW ENERGY WORKS
design | timberframing | woodworks



Project Statement

The Vermont Street Project is the result of decades of custom timber work and environmentally sensitive design and construction by New Energy Works Timberframers. It is both a living example of our company's work and shelter for the owner's family. It embodies our belief that effective sustainability in the built environment is a balance of four major points:

1. **Advanced mechanical systems** — Critical water management includes 70% of the house usage coming from roof-collected and filtered rainwater, low flow and dual flush fixtures and toilets, and on-site storm water catchment. A net zero electrical usage occurs with a large solar electric array, LED and low-watt lighting and appliances, variable power-draw pumping and ventilation, and no air conditioning. Heating is supplied by a balance of efficient boilers that modulate specific to the load and a sealed combustion Scandinavian wood stove. The vast majority of the hot water is produced by the sun.
2. **Sustainable and, where appropriate, local sourcing of materials** — A high percentage of materials was sourced locally with low embodied energy and recycled content. Every effort was made to use products sourced and manufactured in the US, or where labor and environment controls could be verified.
3. **Longevity and effectiveness in structure and enclosure systems** — This hybrid timber frame is an expression of structure and craft, engineered to last for generations. Its high efficiency envelope of Structural Insulated Panels and cellulose insulation eliminate thermal bridging, while providing breathable walls and effective rain screens.
4. **Finally, true sustainability is entwined with the timelessness of great design and the beauty of fine craft** — Both inspire us to love and maintain a building, establish high standards for everyone involved on the project, use available resources intelligently, and create meaningful work.

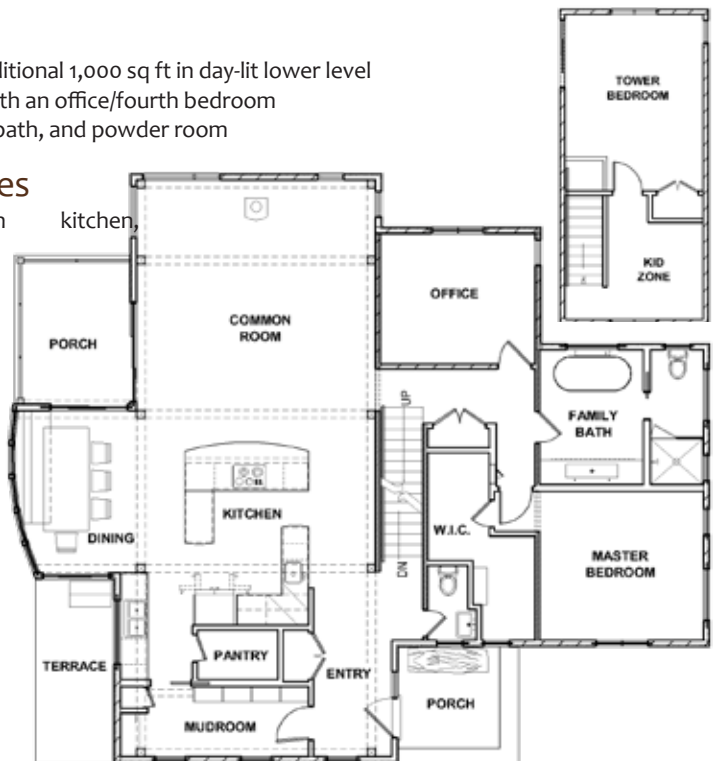
These areas cannot function alone. Think of them as four strong and necessary pillars of sustainable building; each one true and sturdy, each one contributing vital support.

Main House

- 2,000 sq ft with additional 1,000 sq ft in day-lit lower level
- Three bedrooms with an office/fourth bedroom
- Family bath, guest bath, and powder room

Lifestyle Features

- Common room with dining, and living area
- Pantry
- Mudroom
- Tower room
- Recreation room
- Movie nook
- Storage room
- Wine cellar
- Library
- Guest room



Structure

- New Energy Works timberframe of reclaimed industrial salvage Douglas fir
- Insulated Concrete Forms (ICF) foundation blocks by Shelter Works of Philomath, OR
- Structural Insulated Panels (SIP) roof panels by Premier Panels of Fife, WA
- New Energy Works Matrix walls, cellulose (recycled newspaper) and rigid insulation

Exterior Components

- Reclaimed redwood and barn siding by Pioneer Millworks, finished with OSMO Onecoat
- FSC and Energy Star windows by Kolbe & Kolbe
- High reflectivity standing seam metal roofing by Custom-Bilt Metals

Flooring and Ceilings

- Reclaimed Elm, Oak, and Douglas fir flooring by Pioneer Millworks
- Domestic entry tile by Sheldon Slate
- Lower level polished and sealed concrete
- Ceiling FSC Douglas fir T & G by Pioneer Millworks

Mechanical and Heating Systems

- 4,000 gallon rainwater collection system
- Low-flow fixtures and dual-flush toilets from Chown
- 96-98% efficient boiler
- Lower level in-slab radiant heat
- Main level European radiators
- Rais sealed combustion woodstove from ecohaus
- Heat recovering ventilator
- 4.2 kW photovoltaic system by Sanyo and ImaginEnergy
- Two solar domestic water panels by Shuco and ImaginEnergy
- No A/C
- ALL appliances meet new Energy Star ratings and include a variety of brands supplied by BASCO
- LED, CFL, halogen and conventional lighting

Interior Finishes and Furnishings

- All wall coverings earthen clay by American Clay, applied by Traditional Natural Plaster
- Tung and linseed oil by Land Ark used on woodwork and oak flooring
- Custom stainless steel sink/counter locally made by Solid Form Fabrication
- Plumbing fixtures and hardware supplied by Chown Hardware
- Powder room sink cast in Portland, OR of recycled aluminum house parts
- Domestic slate countertop by Sheldon Slate
- Recycled oak countertop by NEWwoodworks
- Recycled glass and porcelain tile from ecohaus
- Built-ins, stairs, doors, cabinetry and other fine woodwork by NEWwoodworks
- Lighting design by gld DESIGNSTUDIO LLC

Studio

- 680 sq ft
- Garage and workshop
- Home office/studio
- Guest retreat (kitchenette, bath, bedroom, sleeping nook)
- Covered porch

Landscape

- Native plants and rockery
- Small urban farmstead to include chickens, raised beds, and composting
- Planning and design by New Energy Works Timberframers
- Install and consultation by Landscape East & West
- Green eco-roof on adjacent studio

Design

While the majority of our work is in collaboration with architects and engineers, locally and around the country, The Vermont Street Project was designed by the New Energy Works team, including Jonathan Orpin, Maxine Bromfield, and Ty Allen RA, LEED AP.

Our thanks to our many Partners and Suppliers who helped us make this project a reality. Please don't hesitate to ask questions, we enjoy the conversation.



Partners & Suppliers

The Vermont Street Project is a collaboration of design/build team members, reclaimed and natural materials, energy efficiency and recent technologies, and a craft intensive application — a logical, achievable, and certainly at times difficult path when creating a home. Our many thanks to the following Partners and Suppliers for their insight, skill, and products:



NEWwoodworks



Evolution Floors



Mitchell Gold + Bob Williams



Dyadic Metal Works
FMC Exteriors
Kasters Kustom Cutting

Land Ark Northwest
Precision Finishes
Sheldon Slate

Solid Form Fabrication
MP Plumbing
Water Brothers Construction



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