

## Greenfield, MA – Habitat 2 Bedroom

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**The first of Pioneer Valley Habitat for Humanity’s small homes achieves the goal of being net-zero possible.**

This small home was the first built by Pioneer Valley Habitat for Humanity, under the umbrella of the Big Enough Project. The goal was to build “big enough” for the home’s future residents, prioritizing right-sized living in a cultural climate when bigger is considered better. Designed by Austin Design of Colrain, the home also features solar panels from PV Squared, and was built with the assistance of students from Franklin County Technical High School.

### **Cost/ Design: Including In-Kind**

- Square footage: 988 sq. ft.
- Beds/baths: 2/1
- Cost of house: \$73,000
- Cost of site work: \$16,900
- Cost of land: \$72,000
- General and soft costs: \$33,900
- Total cost: \$195,800
- House Specifications: The building envelope has R-59 cellulose insulation in the roof and the walls have 2” of rigid insulation over ½” OSB and dense packed cellulose insulation installed between 2x6 studs on center.
- Length to complete: 13 months
- HERS score: -11
  - \$3,657 annual savings versus comparable builds
  - Estimated \$0 monthly utility costs (as a yearly average)



### **Financing:**

- USDA 502 Direct mortgage for rural developments
- Solar PV, land, labor, among other miscellaneous things were donated
- Land was donated
- Built by PV Habitat volunteers, the labor was donated through volunteer work
- PV Habitat may receive discounted work through in-kind materials or labor from partner organizations and contractors who support the nonprofit mission

**Regulatory:**

- While other small homes have had to contend with footprint and setback regulations, 33 Smith Street was built within standard regulations for single-story homes

**Lessons Learned**

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- A single-story house is easy and more efficient for volunteers to build than a two-story
  - With the same square footage, a two-story would save costs on foundation and roof structures, but likely would require a second bath where a single-story house makes the single bathroom convenient
  - Single-story homes are accessible and are built to allow aging-in-place
- Based on homeowner post-occupancy interviews, the space has proven functional for two residents
  - With the attached shed, there has been enough storage
- The monthly utilities assessment of \$0 as a yearly average has proven correct. The homeowner has a surplus of electricity produced every year and is working on allowing her extra money with the utility company to pay for their neighbors' electric bills
  - This home was, at the time of construction, the most airtight and efficient home built by Pioneer Valley Habitat for Humanity

**Learn More:**

- <https://www.pvhabitat.org/about/homes/greenfield/>
- <https://www.youtube.com/watch?v=mpOtw8m760E>

