

consumer recycled paper. Lap siding is made of durable and maintenance-free cement board. Constructed of local southern pine using the traditional “balloon framing” technique, the house’s building envelope is protected from the weather by a wall assembly of cement-based siding, a woven polypropylene water-resistant air infiltration barrier and a thick layer of open-cell spray foam insulation.

### COLLECTIVE WISDOM AND FEEDBACK LOOPS

The project’s success hinged upon operational systems since they had to work in order for the house to become habitable. Accordingly, preliminary modeling and design was essential to the accomplishment

of the entire endeavor; in fact, the design phase (17 months) was four times as long as the construction stage. The project team, after having spent a post-occupancy evaluation weekend at the cabin, is proud to report that all systems are performing as designed.

The final product reflects a close collaboration between client, architect, engineers, sub-contractors, builder and the community. Problem solving, streamlined coordination and earnest teamwork helped achieve a quick construction timeline (four months) at a comparatively low cost (\$130,000)—a rare achievement in today’s contentious building environment. The entire process, from conceptual design to substantial completion (27 months), was instrumental in enhancing

the design and its performance. Suggestions, recommendations and consultations constantly informed the progression of the project until its conclusion.

“The biggest lesson learned from the project is the necessity for an integrated project team and design process,” says Brun. “The architect, the engineers and the builders all really need to be in sync in order to achieve an ‘off-grid’ home. We would also suggest a ‘design-build’ method because it fosters teamwork in order to achieve the sustainability goals within a reasonable budget.”

The designers believe the malleability of this design-build methodology will surely be recommended for future projects in the community.

# EID Residential Runners Up

## FIRST RUNNER UP

### SUSTAINABLE URBAN VILLA

**SUBMITTED BY:** Wolf Architects Inc.

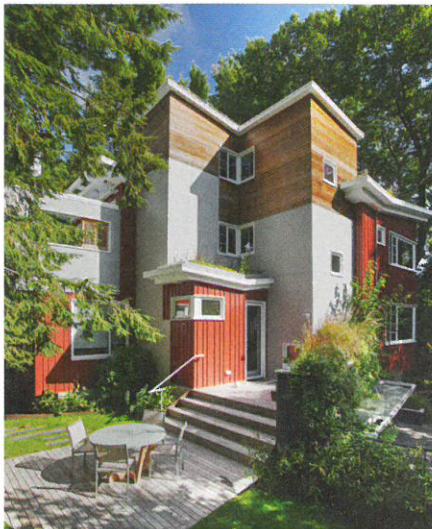
**SIZE:** 3,460 square feet

**LOCATION:** Cambridge, Mass.

IMAGE BY ERIC ROTH

The project team used natural materials and a garden setting in a small urban site. The building was clad with several different types of wood, all of it milled from reclaimed lumber. (Much of this material was originally harvested over a century ago.)

The house features solar voltaic panels on the highest roof, a ground-source geothermal system, 100 percent permeable ground surfaces, underground recharger chambers and densely insulated exterior walls and roofs. Inside the house, builders used marble and slate quarried in New England as primary materials and heart-pine flooring throughout which was milled from reclaimed heavy timber beams. A birch-bark column in the entry vestibule and laser-cut leaf forms in sliding screens on the first floor are meant to present a poetic statement about the role of nature in the lives of the inhabitants.



## SECOND RUNNER UP

### ONENEST PROJECT

**SUBMITTED BY:** Greenspur

**SIZE:** 1,090 square feet

**LOCATION:** Delaplane, Va.

IMAGE BY KEN WYNER



The home was built using recycled materials and aesthetically pleasing and energy-efficient systems. Inspired by the classic barn and silo relationship, the home has virtually no hallways or wasted space.

The 3-bedroom, 2.5-bath home has 26-foot vaulted ceilings, a spa, wine cellars and a theater room. The multi-zone and ductless heating and cooling system features engineering and design enhancements that deliver increased efficiency ratings, decreased noise levels and improved piping capabilities.

Rather than using a traditional home foundation, OneNest used concrete piers and a steel chassis to set the home in concert with its natural surroundings. In addition to its energy efficiency, OneNest was built in a 100-day build cycle at 40 percent less cost than a traditional build. **edc**