elbowed out of the San Francisco real estate market have historically looked across the bay for affordable studios, performance space and housing. But in East Bay cities like Oakland, reasonably priced properties suitable for artists with low incomes are growing harder to come by. Although Bay Area real estate prices have dropped from their highs of a few years back, they remain out of reach for many of the artists and artisans whose incomes have been squeezed by the economic downturn.

“The Bay Area is world renowned for its cultural community,” said Ian Winters, executive director of the Northern California Land Trust, a Berkeley-based nonprofit housing developer. “If those people can no longer afford to both live and work here, that really changes the community.”

To help address the chronic shortage of work and performance space, NCLT recently renovated a rundown former noodle factory in West Oakland that had been illegally converted into residential and events space. The newly rehabbed 19,000-square-foot building now houses 11 work/live condos for low-income artist and craft-worker households, as well as a performing arts center with rehearsal space and a 90-seat theater for music, film, theater, dance and other events. To ensure the homes will remain permanently affordable, NCLT used the community land trust model, establishing a nonprofit corporation that retains ownership of the land underneath the Noodle Factory while the residents own (or lease-to-own) the condos on top of the land.
Although funding setbacks delayed construction, Northern California Land Trust remained committed to making the project as green as possible. “We focused not necessarily on the sexiest green technologies but on keeping spaces and finishes really simple and easy to maintain over the long term,” said Winters. StopWaste.Org provided NCLT with green design assistance and a $30,000 grant to carry out waste reduction strategies during the building’s construction and ongoing operations. The Noodle Factory condos have earned the GreenPoint Rated label, certifying that the homes exceed code requirements for health, energy and environmental performance.

What Makes It Green

ENERGY & CLIMATE CHANGE

Innovative Solar Financing. When the Northern California Land Trust set out to rehab the Noodle Factory, good insulation, natural lighting and ventilation, and energy-efficient heating and water heating systems were top priorities. To further shrink the development’s carbon footprint, NCLT wanted to install a photovoltaic system that would offset as much as 75 percent of the residents’ electricity use. Financing the PV system proved difficult, however, in part because nonprofit organizations can’t take advantage of depreciation benefits and federal tax credits for solar power that are available to for-profit corporations. “As a nonprofit, you shouldn’t get penalized for doing something good,” Winters said, but “we were ready to give up on solar panels because of the cost.”
Rather than throwing in the towel, NCLT set up a new entity, the Nonprofit Solar Alliance, which bundled the PV purchases planned for the Noodle Factory and four other local nonprofit groups to create an investment package large enough to attract third-party investors. The result? The Noodle Factory got a PV system without a huge capital outlay, and the residents pay monthly electricity bills to the Nonprofit Solar Alliance at lower rates than they would have paid for electricity purchased directly from the local utility. In seven or eight years, after the investors have taken full advantage of the tax credits and depreciation, the Noodle Factory’s owners will own the PV system outright.

“We created this structure that we’re sure works and results in actual power being produced for low income and nonprofit projects,” said Winters. “We’re very much looking forward to doing it again on a much larger scale.”

**RECYCLING & MATERIALS CONSERVATION**

**Building Reuse.** One of the greenest aspects of the Noodle Factory project was “being able to retain a pretty large portion of the building’s overall structural system,” said Winters. Although some of the structure had to be torn down because it was unsound or unsuitable for the building’s new uses, much of it was retained, including the foundation, the original factory slab, all the structural framing and a number of the demising walls on the first floor, and the second-floor deck. The engineering and construction team put up some resistance, maintaining that it would be easier to tear down the building than try to improve the existing structure, Winters said. But building green often means not taking the easy road. “It would have been an awful lot of rubble to generate,” he said.

**Material Reuse & Recycling.** Much of the lumber pulled out of the original building’s second-floor walls was reused on site as form boards or to build partition walls. All told, about 62 percent of the demolition and construction materials were diverted from the landfill, either through reuse or recycling.

**IMPROVED INDOOR ENVIRONMENTAL QUALITY**

**Radiant Floor Heating.** A very high efficiency central boiler serves both the domestic hot water system and the radiant floor heating systems in the work/live units. Although it can sometimes be tricky to retrofit buildings for underfloor heating, in this case the cost was similar to installing forced air furnaces in each of the 11 units, Winters said. “We were tearing up the floors anyway,” he said, “and we had to pour concrete slabs for sound control between the units.” Combining functions and creating a floor that blocks sound transmission, provides comfortable, draft-free heating, and serves as a hard-wearing, low-maintenance finish floor “made things a whole lot cheaper,” he said. It also meant they didn’t need to install fuel-burning equipment in the living spaces, which helps protect indoor air quality.
Natural Ventilation and Daylighting. Architect Greg Van Mechelen and the project team put considerable effort into designing the condos for natural light and ventilation. Even the rehearsal and performance spaces receive plenty of natural ventilation, with mechanical cooling and ventilation available when occupancy levels warrant their use. “When you open the windows, there’s tremendous cross ventilation” in the public spaces, said Winters. “Given that it’s Oakland and more or less in the fog belt, most of the time when you have three or four people in space for things like rehearsals, it’s perfectly comfortable with just the windows open.” Despite the building being hemmed in by neighboring properties, all the second-floor units and many of the first-floor units receive abundant natural light, which reduces electric lighting energy use and provides good quality illumination for working. Although the units typically have windows on only one side, a clerestory running the length of the building and mezzanine lofts inside the second-floor units help get light deeper into the space, Winters said.