



June Key Delta House

Once products are shipped across the ocean, the steel containers that keep materials safe are usually left behind at the port to be recycled or reused for other applications. The Portland Alumnae Chapter of the Delta Sigma Theta Sorority, an international sisterhood of Black college educated women, converted these orphaned containers into a community center for its members and neighbors. The expansion to the site's existing structure, a former gas station, also recycled insulated window units, used rainwater for toilet flushing and diverted stormwater from the sewer with bioswales and permeable pavers. The Community Center is also registered for the Living Building Challenge, a testament to Delta Sigma Theta's commitment to its members and the community.

Project Highlights

- Living Building Challenge
- Reused structural components
- Recycled materials
- Rainwater collection and reuse
- Bioswales
- Permeable pavers

Portfolio Contents

[Living Building Challenge Poster](#)

[Project Website \(External Link\)](#)

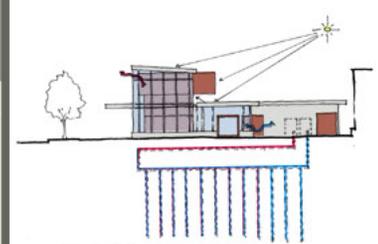
Green Investment Fund





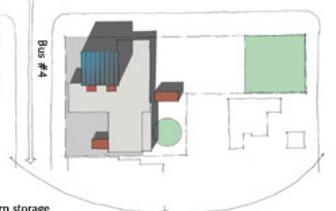
**LIVING BUILDING CHALLENGE
PREREQUISITES MET**

- ☑ Site Design – Responsible Site Selection
- ☑ Site Design – Limits to Growth
- ☑ Site Design – Habitat Exchange
- ☑ Net Zero Energy
- ☑ No Material Red List Items
- ☑ Minimal Construction Carbon Footprint
- ☑ Responsible Industry
- ☑ Appropriate Materials/Services Radius
- ☑ Leadership in Construction Waste
- ☑ Net Zero Water
- ☑ Sustainable Water Discharge
- ☑ Civilized Work
- ☑ Source Control
- ☑ Ventilation
- ☑ Beauty and Spirit
- ☑ Beauty & Inspiration



- PASSIVE SOLAR + ENERGY DIAGRAM**
- Net Zero / Renewable Energy Solar PV Panels
 - Passive Solar Daylighting
 - Sun Shading Specific to Orientation
 - Geothermal Heating and Cooling

Peninsula Park and Rose Garden
Public Park

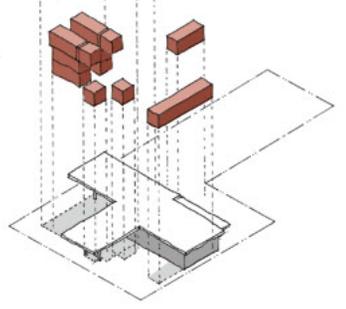


SUSTAINABLE SITE DESIGN

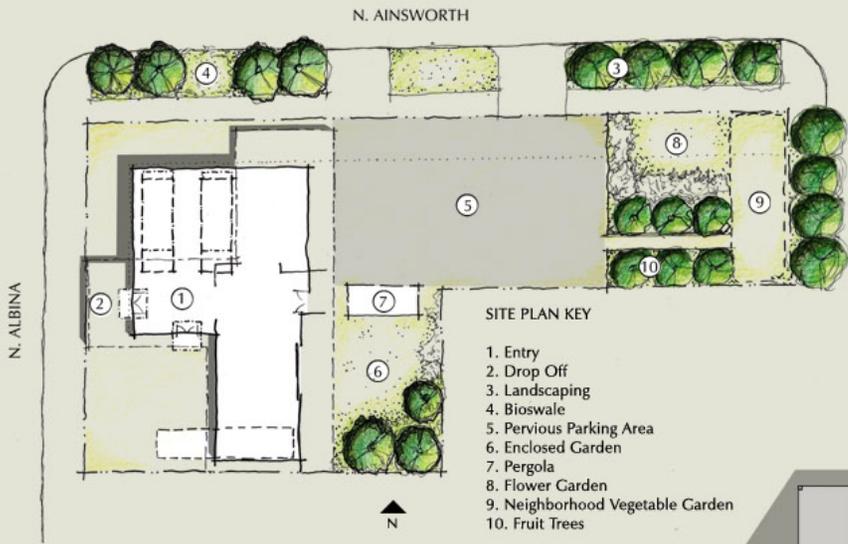
- Brownfield Redevelopment
- Public Transportation
- Building Reuse
- Open Space
- Stormwater Design
 - Bioswales
 - PerVIOUS Paving Areas
- Urban Redevelopment
- Water Conservation
 - 9,000 gal. underground cistern storage
 - UV light and carbon filter treated rainwater
- Zero VOC, low toxicity and optimal Indoor Air Quality



- BUILDING COMPONENTS**
- Salvaged Materials
 - Recycled Glass
 - Shipping Cargo Containers
 - Interior Finishes from ReBuilding Center
 - Photovoltaic Panels
 - Adaptive Building Reuse

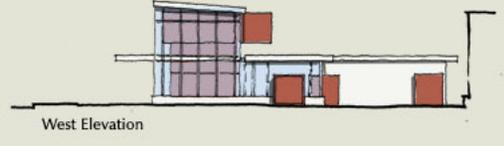
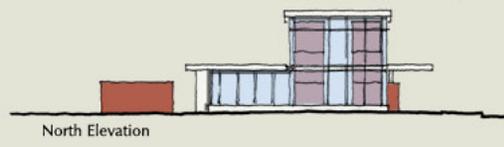
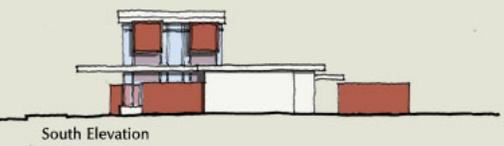
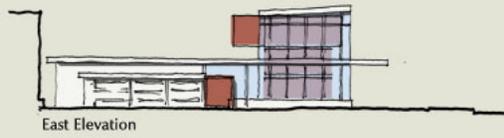


LIVING FUTURE DELTA HOUSE



SITE PLAN KEY

1. Entry
2. Drop Off
3. Landscaping
4. Bioswale
5. Pervious Parking Area
6. Enclosed Garden
7. Pergola
8. Flower Garden
9. Neighborhood Vegetable Garden
10. Fruit Trees



Former Gas Station Transformed into Ecologically Sustainable Community Center

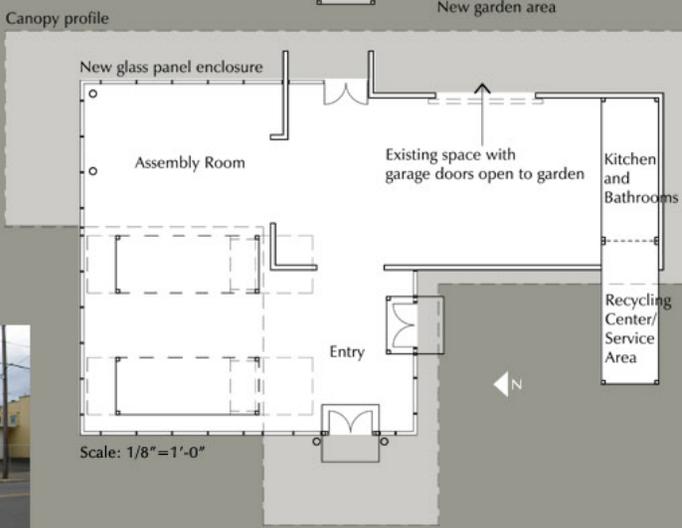
June Key Delta, a professional sorority of black women, has met regularly in a former gas station for over 10 years. Now they have raised funds to construct an addition and renovate the existing structure using 90% salvaged materials and sustainable design principles. Primary building materials are salvaged steel cargo containers as structure and a skin of recycled glass. The Delta Sisters want their building to be a demonstration and inspiration of how buildings can be beautiful, useful and conserve natural resources.

The site is across from a public park, community swimming pool and Portland's largest formal rose garden. It is readily accessible via public transportation. The immediate neighborhood is an up-and-coming residential and commercial neighborhood of cultural diversity.

Inside the building, the larger community space will facilitate more after-school tutoring of local public and private school children. Also the sorority has received a grant to provide science education for African American students and their families sponsored by the SEE Project (Science & Everyday Experiences) of the American Association for the Advancement of Science.

Outside the building, hardscape materials are minimized while landscaping, vegetable and flower gardens regenerate the landscape.

The project construction budget of hard costs is \$440,000 and consultant fees/permits of \$60,000 for a total of \$500,000. The existing building and land is owned free and clear by the Delta Sorority and they may borrow on the property equity. They have \$150,000 in current construction funds, \$50,000 in endowments, a grant of \$13,000 from the Piedmont Rose Connection, Inc. and Benson Industries has donated \$57,000 in recycled glass. The ReBuilding Center has promised donations of any useful building materials. A City of Portland grant for on-site storm water retention is \$30,000. In-kind services amount to an additional \$35,000. The sorority is confidently awaiting announcement of grants from The Green Investment Fund of the City of Portland and an additional grant from the Portland Development Commission. Motivated by their vision of community service, sustainability and land stewardship, they continue fund-raising.



Scale: 1/8" = 1'-0"



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