

**41%** water use reduction

**97%** of project waste diverted from landfill

**55%** of materials regionally manufactured

## Asa Flats + Lofts Portland, Oregon

<b>Completion:</b>	December 2008
<b>Project size:</b>	243,324 sf   231 units 20,000 retail sf
<b>Owner:</b>	UNICO Properties
<b>Architecture:</b>	GGLO
<b>Landscape Architecture:</b>	GGLO
<b>Interior Design:</b>	GGLO
<b>Contractor:</b>	Anderson Construction Company
<b>Civil Engineer:</b>	KPFF
<b>Commissioning:</b>	Glumac & Lew Seagraves
<b>Electrical: (Design-Build)</b>	Dynalectric Company
<b>Mechanical: (Design-Build)</b>	Hunter-Davisson
<b>Energy Modeling:</b>	Glumac



**LEED® GOLD**

for New Construction

certification awarded July 2009

**LEED Points:** 47

<b>Sustainable Sites:</b>	12 of 14
<b>Water Efficiency:</b>	3 of 5
<b>Energy &amp; Atmosphere:</b>	11 of 17
<b>Materials &amp; Resources:</b>	6 of 13
<b>Indoor Environmental Quality:</b>	10 of 15
<b>Innovation in Design:</b>	5 of 5

## LEED® CREDIT HIGHLIGHTS

### Sustainable Sites

SS 2	Dense urban location close to community services
SS 4.1	Local bus & streetcar access, priority parking for fuel efficient vehicles, secure bicycle parking
4.2	
4.3	
SS 5.1	Over 30% of site is restored habitat and over 40% of site is vegetated open space
5.2	
SS 6.1	Eco-roofs for 30% of site area, filter and mitigate storm water
6.2	
SS 7.1	Over 75% of roof area is vegetated or has high solar reflectance, mitigating heat-island effect
7.2	

### Water Efficiency

WE 1.1	50% reduction in water use utilizes high efficiency drip irrigation
WE 3.1	41% water reduction - Low-flow showerheads, faucets & dual flush toilets
3.2	

### Energy & Atmosphere

EA 1	Designed for nearly 40% savings of utility costs compared to a conventionally designed building
EA 4	HVAC system contains no ozone depleting refrigerants

### Materials & Resources

MR 2.1	97% of demolition and construction waste, over 4,500 tons, was diverted from the landfill
2.2	
MR 4.1	24% of materials, from metal framing to linoleum, cork and carpet tile contain recycled content
4.2	
MR 5.1	55% of building materials were manufactured locally
5.2	

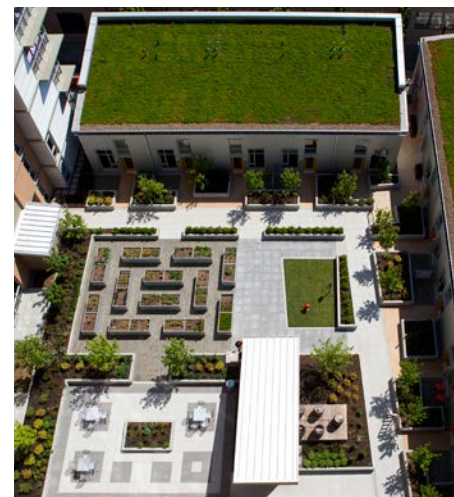
### Indoor Environmental Quality

EQ 4.1	Low VOC emitting adhesives, sealants, paints and carpets
4.2	
4.3	
EQ 6.1	High controllability HVAC systems provide greater comfort
6.2	
EQ 8.1	Daylight fills 78% of interior spaces views from 97% of interior spaces
8.2	

## Better Site Design

Located on the Portland Street Car line, the project takes advantage of urban amenities which contribute significantly to the project's sustainable goals:

- Multiple transportation options help residents reduce their carbon footprint while promoting bicycle and pedestrian activities.
- Vegetated roofs, making up 30% of the site area, along with a detention tank manage stormwater runoff and help protect the Willamette River



## Conserving Water

Design to conserve potable water inside and out:

- Dwelling units are individually metered to encourage conservation
- Drought tolerant landscaping requires 50% less potable water for irrigation
- Rain barrels collect roof water for residential P-Patch watering

## Conserving Energy

Key energy efficiency features of the building include:

- Reduced domestic hot water demand – Less hot water flowing out of low-flow showerheads and faucets results in less energy used to heat water
- Efficient lighting for parking, residences and common areas
- Low conductivity aluminum windows; Energy Star appliances; high-efficiency, central hot water heaters; water-source heat pumps and condensing boilers
- An occupant survey is planned to collect user feedback and the project is committed to post occupancy participation in GGLO's on-going [Building Performance Evaluation](#)

## Conserving Water & Energy

Materials were selected for their durability, promotion of healthy indoor air quality, recycled content and location of manufacturing and harvesting. Attention was given to the installation and disposal of the products:

- Reclaimed timber from the Wilbur Ellis warehouse that previously occupied the site was repurposed into stair treads, exterior benches and interior artwork
- 55% of building materials, including durable concrete and masonry, were regionally manufactured, reducing negative impacts of transportation while stimulating the local economy
- Large floor-to-ceiling windows with operable units provide daylight, views and ventilation
- Construction practices protect the health of the workers as well as the end-users
- Low-emitting sealants, adhesives, paints, coatings and carpeting improve indoor air quality
- HVAC systems provide individual controllability and fresh air for more user comfort

