

Bo01 | Malmö, Sweden



Size: 22 acres, 1000-1500 units, 43 people/ acre

Dates: 2006-2010

Team: The Municipality of Malmö, SVEBO, Architect: Kim Utzon. Developer: MKB Fastighets AB

Description: Bo01 is a mixed use development that aspires to demonstrate modern ecological urban living, brownfield reclamation, New construction: residential, commercial, services.

Intent: 100% local renewable energy, minimize vehicle transportation.

S

Sit+Place

GOALS: (Habitat+Biodiversity) 50% open space ; (Transport) Limited parking 0.7/household. (parking ramp recently installed to meet demand for parking, rental electric vehicles removed due to lack of use)

STRATEGIES: (Food) Garden plots for residents, proximity to city sources ; (Habitat+Biodiversity) Green-space factor: 0.55, 53%, not including green roofs, Biotope Area Factor: 0.5 to ensure Bo01 has a minimum of green associated with each building. Compensation habitat for birds, habitats and new parks, area ecologist. Green points initiative to encourage biodiversity ; (Transport) Center of development is car free zone, bicycle infrastructure, carpooling, access to public transportation 1500 ft., central train station 1.5 miles away

W

Water

GOALS: Water consumption efficiency, management of stormwater.

STRATEGIES: Storm water is used and filtered in canals, bioswales, courtyard ponds, green roofs. Greywater is treated through the cities system, efficient appliances.

E

Energy

ENERGY DEMAND: 36-45 kBtu/ft²

GOALS: 100% local renewable energy, 40% reduction of Swedish average.

STRATEGIES: 2 MW wind turbine, 15,000 ft² solar array, geothermal, distric heating, heat from seawater, biogas, integrated energy grid, individual metering, renewable energy, strict efficiency standards, monitoring, emphasis on public transportation and bicycle infrastructure.

E

Equity

Percentage of affordable units: 0% currently, next phase will have 70% affordable housing.

GOALS: 85% apartments, 15% townhomes.

STRATEGIES: A variety of architecture designed by different architects, human scale planning, many public spaces, waterfront boardwalk access, aesthetic rainwater drainage system, access to community centers and services, access to greater community, education on sustainable living, case study.

M

Materials

GOALS: (Waste) Materials listed on the Swedish Chemicals Inspectorates list of hazardous materials are banned, materials selected for durability and reuse

STRATEGIES: (Materials) Materials listed on the Swedish Chemicals Inspectorates list of hazardous materials are banned, materials selected for durability and reuse ; (Waste) Waste separation units near homes, composting, recycling, reuse, certain facilities have a vacuum collection and sorting system, organic waste transformed into biogas for heat and energy.

SUSTAINABILITY MATRIX

		STANDARD	GOOD	BETTER	LIVING COMMUNITY	REGENERATIVE
S Site+Place	Limits to growth			Built on greyfield of brown-field, developed for density, conserves habitat land		
	Urban Ag		Some community garden space			
	Habitat Exchange			Constructed wetlands, land set aside, native plantings, 25%+ developable space undeveloped		
	Human Powered Living				Pedestrian oriented community, public transit linkage to services, public bike infrastructure	
W Water	Net Positive Water			Greywater purification & reuse, on-site treatment of some blackwater, constructed wetlands, stormwater prevention (green-roofs & impermeable surfaces)		
	Net Positive Energy			2030 standards of efficiency, advanced construction techniques, ongoing monitoring to meet goals, net +ve energy goals, carbon neutral goals, 100% renewable energy		
E Energy	Civilized Environment			Community has some organization and collaborates on 1-2 of the living community listed programs		
	Healthy Neighborhood Design				Dedicated walking trails, parks, plazas, squares, recreation areas, health plan for citizens	
	Biophilic Environment				Innovative landscape, design includes elements that encourage human/nature connection, aesthetic design	
	Resilient Community Connections	Nothing considered/ not reported				
H Health+ Happiness	Living Material Plan			Innovative landscaping using native plants, rain gardens, constructed wetlands, access to parks, waterfront, community gardening		
	Embodied Carbon Footprint		Some proxy standards for reducing CO2 in material selection and construction			
	Net Positive Waste			Reduction in construction waste, material selection for recycled/recyclable materials, innovative waste collection facilities, waste to energy		
	Human Scale and Humane Places			Project is designed to create human-scaled places, promotes culture & interaction		
M Materials	Universal Access to Nature and Place				All transportation equally accessible to public, innovative landscape, educational opportunities	
	Universal Access to Community Services				Places to shop, congregate, work, learn, within 1/2 mi to direct or 1/4 to public transportation within 2 mi	
	Equitable Investment	No contribution to charity				
E Equity	Beauty and Spirit					
	Inspiration and Education				Educational website, brochures, education on buildings, landscaping and infrastructure, case study, metering, ongoing improvements	

SOURCES:

www.miljobyggprogramsyd.se
<http://www.urbangreenbluegrids.com/projects/bo01-city-of-tomorrow-malmo-sweden/>
http://www.energy-cities.eu/IMG/pdf/BO01_EN.pdf
<http://www.dac.dk/en/dac-cities/sustainable-cities/all-cases/master-plan/malmo-bo01---an-ecological-city-of-tomorrow/>
http://www.collegepublishing.us/jgb/samples/JGB_V8N3_a02_Austin.pdf
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