

GÅRSTADEN | Gårdstensbostäder, Sweden



Size: 4 building block, 2700 apartments, population 7,500-8,500

Dates: Original building built 1969- 1972, renovated 1998-2004

Team: Gårdstens Bostäder

Description: The solar housing project of Gårstaden re-envisioned existing buildings into a community that practices energy efficient living

Intent: Revitalize community and building infrastructure, improve integration of renewable energy and increase energy efficiency in construction

S

Sit+Place

GOALS: (Food) Not Defined ; (Habitat+Biodiversity) Not Defined ; (Transport) Not Defined

STRATEGIES: (Food) Community greenhouses, gardening locations ; (Habitat+Biodiversity) Landscaping, internal courtyard, gardens ; (Transport) Access to public transportation, electric vehicles for rent, bicycle infrastructure

W

Water

GOALS: Not Defined

STRATEGIES: Not Reported

E

Energy

GOALS: 40% energy saving, 35% renewable energy for heating.
Energy Demand: 50 kBtu/ft² heating and electricity, 18 kBtu/ft² household energy

STRATEGIES: Innovative wall solutions for solar thermal, energy efficiency strategies, window replacement, insulated basement slab, energy efficient appliances, solar hot water, individual metering, ventilation with heat recovery, solar PV, district heating, solar air heating double walls, wind turbines, individual metering, energy management monitoring, annual reports

E

Equity

Percentage of affordable units: NA
GOALS: High quality public housing

STRATEGIES: Community engagement in re-development and ongoing decision making, resident education and online resources for sustainable living, unemployment services for residents, access to services including schools and shops

M

Materials

GOALS: (Materials) Increase existing buildings energy efficiency ; (Waste) Streamline separation of waste types

STRATEGIES: (Materials) Renovation of existing buildings to increase energy efficiency. ; (Waste) Composting facilities, recycling facilities, educate residents on waste types, biogas creation from compost

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	May contain parks, landscaping, little emphasis on storm water management				
W Water	Human Powered Living		Promotes walkable streets, bicycle infrastructure, access to some services			
	Net Positive Water	Water needs met by utilities or well, some conservation strategies				
	Net Positive Energy		2030 standards goal of efficiency, some reduction goals for energy & carbon, some renewable energy, solar PV ready			
E Energy	Civilized Environment		Community has some groups to promote social connections			
	Healthy Neighborhood Design		Some access to walking trails that connect to amenities, parks, recreation areas			
	Biophilic Environment		Development includes park & has some landscaping			
	Resilient Community Connections	Nothing considered/ not reported				
H Health+ Happiness	Living Material Plan		Some material selection standards, passive house standards used			
	Embodied Carbon Footprint		Some proxy standards for reducing CO2 in material selection and construction			
	Net Positive Waste		Material selection for recycled/recyclable materials, waste collection facilities, reduction standards			
	Human Scale and Humane Places		Project contains some elements of human-scaled design			
M Materials	Universal Access to Nature and Place	Limited access to parks and landscaping is minimal, no daylighting requirements for buildings				
	Universal Access to Community Services		Some services & community centers in development accessible by bike or walking			
	Equitable Investment		Some contribution to non-profits or charity organizations			
B Beauty	Beauty and Spirit					
	Inspiration and Education				Unit metering, education on sustainable practices, opportunities for community engagement	

SOURCES:

<https://www.gardstensbostader.se/>
<http://www.hemhyra.se/amnen/gardstensbostader>
http://www.vgregion.se/upload/Regionkanslierna/Milj%C3%B6samverkan/Kurser/S%C3%A5funktA5G%C3%A5rdsten_1_4.pdf
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