

QUARTIER VAUBAN | Freiburg, Germany



Size: 94 acres, 5000 residents

Dates: 1993-2006

Team: Forum Vauban, the City of Freiburg, Common & Gies Architects

Description: Quartier Vauban is an energy efficient residential community with some services

Intent: All buildings must achieve a minimum energy standard, 100 units built to passive house standard or plus energy standard (producing more energy than they consume)

S

Sit+Place

GOALS: (Food) Cooking with biogas instead of natural gas ; (Habitat+Biodiversity) Not defined ; (Transport) 40% of residents live without owning a vehicle

STRATEGIES: (Food) Access to farmers markets in the area ; (Habitat+Biodiversity) Preserve existing trees, landscaping practices avoid using herbicides and fertilizer, reed bed water filtration garden ; (Transport) Transit oriented, car sharing system, bicycle infrastructure, walking paths, proximity to public transportation

W

Water

GOALS: Not defined

STRATEGIES: Rainwater capture and storage, grey-water purified and used in houses, water infiltration into ground, blackwater separated by vacuum toilets connect to biogas plant

E

Energy

GOALS: All buildings to achieve 65 kWh/m² heating energy, reduce CO₂ emissions by 60%

STRATEGIES: 100 units built to passive house standard or plus energy standard, solar hot water, solar PV, cogeneration plant operates with 80% woodchips and 20% natural gas, district heating, biogas plant, no

E

Equity

Percentage of affordable units: Not defined
GOALS: Not defined

STRATEGIES: Public access to streets, human scale design, community house, playgrounds, community engagement in planning and operation

M

Materials

GOALS: (Materials) Not defined ; (Waste) Not defined

STRATEGIES: (Materials) Thermal bridge free construction, renovation of existing buildings, prefabricated elements, three pane windows, designed for adaptability over time, preference for recycled materials ; (Waste) Not reported

SUSTAINABILITY MATRIX

		STANDARD	GOOD	BETTER	LIVING COMMUNITY	REGENERATIVE
S Site+Place	Limits to growth		Developed for density/limits growth, contains open space			
	Urban Ag	No garden space required				
	Habitat Exchange		Landscaping includes parks, landscaping, some emphasis on storm water management			
W Water	Human Powered Living		Promotes walkable streets, bicycle infrastructure, access to some services			
	Net Positive Water				Greywater purification & reuse, on-site treatment of some blackwater, constructed wetlands, stormwater prevention (green-roofs & impermeable surfaces)	
E Energy	Net Positive Energy		2030 standards goal of efficiency, some reduction goals for energy & carbon, some renewable energy, solar PV ready			
H Health+ Happiness	Civilized Environment				Community has some organization and collaborates on 1-2 of the living community listed programs	
	Healthy Neighborhood Design		Some access to walking trails that connect to amenities, parks, recreation areas			
	Biophilic Environment		Development includes park and has some landscaping			
	Resilient Community Connections	Nothing considered/ not reported				
M Materials	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			
E Equity	Universal Access to Nature and Place		Access to parks, promotes sense of place, some daylighting strategies for buildings			
	Universal Access to Community Services		Some services & community centers in development accessible by bike or walking			
B Beauty	Equitable Investment	No contribution to charity				
	Beauty and Spirit					
	Inspiration and Education					Eco-literacy is continually built and engaged throughout the community

SOURCES:

<http://www.passivhaus-vauban.de/idee.en.html>
<http://www.passivhaus-vauban.de/architektur.html>
<http://www.vauban.de/info/abstract.html>



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