

Braamwisch Ecological Settlement Hamburg-Bramfeld, Germany



Size: 3 acres, 40 units, 140 residents

Dates: 1996-2000

Team: Federal Ministry of Science, Research & Technology, Hamburg Gas Works

Description: Braamwisch Ecological Settlement is a bedroom community that was designed as a pilot project to test solar municipal heating and energy efficient construction.

Intent: Supply community with solar heating, create an innovative community dedicated to reducing CO2 emissions, water consumption, and energy usage

S

Sit+Place

GOALS: (Food) NA; (Habitat+Biodiversity) NA; (Transport) Provide alternative transportation opportunities

STRATEGIES: (Food) Edible landscaping, community gardens ; (Habitat+Biodiversity) 30% edible landscaping, community gardens, green roofs on sheds, trees in landscaping, reed wetland for greywater purification ; (Transport) Car sharing, walking paths, proximity to public transportation, adjoining land was set aside as a park instead of parking for vehicles.

W

Water

GOALS: Conservation of water resources

STRATEGIES: Separation of water circuits, rain water collection, reduction in black water due to composting toilets, on-site plant based greywater treatment system.

E

Energy

ENERGY DEMAND: 30 kBtu/ft² 0.31

GOALS: 10 Btu/ft², 100% solar heating, emissions reduction target: 85%

STRATEGIES: District solar hot water heating, 5100 kWh solar panels that contribute to community grid, natural ventilation, heat recovery ventilation, individual metering, gas-fueled boilers providing backup heating, passive solar design strategy, lower energy approach to construction, double wall cavity with natural material insulation.

E

Equity

Percentage of affordable units: NA

GOALS: NA

STRATEGIES: Community areas, biophilic design, central courtyard with gardens, edible landscaping, shared open space, walkable community.

M

Materials

GOALS: (Materials) Promote sustainable materials. ; (Waste) NA

STRATEGIES: (Materials) Renewable, recyclable building materials including cob walls and wood construction, non toxic material selection ; (Waste) Composting toilets, grey-water toilets, waste separation, grey-water recycling.

SUSTAINABILITY MATRIX

		STANDARD	GOOD	BETTER	LIVING COMMUNITY	REGENERATIVE
S Site+Place	Limits to growth		Developed for density, or limits growth, contains open space			
	Urban Ag		Some community garden space			
	Habitat Exchange		Landscaping includes parks, landscaping, some emphasis on storm water management.			
	Human Powered Living		Promotes walkable streets, bicycle infrastructure, access to some services			
W Water	Net Positive Water				Greywater purification & reuse, on-site treatment of some blackwater, constructed wetlands, storm water prevention (green-roofs & impermeable surfaces)	
E Energy	Net Positive Energy				2030 standards of efficiency, advanced construction techniques, ongoing monitoring to meet goals, net +ve energy, carbon neutral goals, 100% renewable energy	
H Health+Happiness	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				
M Materials	Living Material Plan		Some material selection standards, passive house standards used			
	Embodied Carbon Footprint				Material selection requirements, proxy standards for reducing CO2 in material selection and construction on-going energy monitoring	
	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 and community centers in development accessible by bike or walking			
	Equitable Investment	No contribution to charity				
B Beauty	Beauty and Spirit					
	Inspiration and Education				Unit metering, education on sustainable practices, opportunities for community engagement	

SOURCES:

<http://masters.donntu.org/2013/feht/bardakova/library/article9.pdf>
<http://www.werkstatt-stadt.de/en/projects/28/>



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