



POLISH AND NORWEGIAN CITIES
together for climate and energy

HUSABØRYGGEN, STAVANGER PASSIVE ENERGY, SHELTERED HOUSING

Sector: Energy efficiency

Timeframe: 2008 – 2012

Location: Hundvåg, Stavanger, Norway

PROJECT BACKGROUND

The project is initiated to give sheltered housing (care homes), for which Norwegian municipalities are responsible. Spatial plan requires the use of wood as the main material for building in this area. The municipality also wanted a high level of energy efficiency. The site is part of a larger developmental project in this district.

PROJECT DESCRIPTION

The project includes 24 dwellings, divided into three separate areas: two for residents with mental disabilities and one for residents with psychiatric illnesses. Based on an analysis of the microclimate, the building is located at the Northern end of the site – in order to provide shelter from the intensive Stavanger wind, and to make space for a sunny garden to the South.

The building meets passive energy standard, is constructed with a compact volume and has a total of 350 mm insulation. The loadbearing structure floor slabs and roofs are made of cross-laminated timber panels. Also the exterior cladding is wooden. There are strict requirements for using environmentally friendly materials with environmental labelling and life cycle considerations.

Design was made in accordance with the principles of accessibility for all, including simple orientation through the clear organisation of functions, and conscious use of contrasting colours. Common areas are equipped with audio induction loops and acoustic measures have been taken in common areas and corridors.

Husabøryggen is centrally located, close to public transport. Charging facilities for electric cars and bicycles are included.

PROJECT RESULTS

The project, completed through a shared contract, is a model project for Enova, and as well as a pilot project in the national "Cities of the Future" programme.

Passive energy standard, energy performance certification standard B

Heated floor space:	2984 m ²
Energy consumption:	93.9 kWh/m ² /year
Delivered energy:	67.4 kWh/m ² /year
Primary energy source:	Heat pump
Secondary energy source:	Electricity

Using timber instead of non-renewable construction materials represents an important step towards reducing global warming. The role of forests as

'carbon sinks', whereby the wood stores carbon as long as the tree is alive or is used in a structure, is expected to become increasingly important in the future.

The outdoor area at Husabøryggen Sheltered Housing is shaped like a modern garden of the senses. It is a natural extension of the sheltered housing's common recreational areas and enriches everyday life for both residents and staff.

MORE INFORMATION

Project web site:

www.arkitektur.no/husaboryggen-medical-homes

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