Sant Francesc 18

by Marcos Arraez / 2017-04-24 10:43:39 / España / 7695 / ES

Primary energy need :

37.3 kWhpe/m^2.year

(Calculation method : RD: 47/2007)

ENERGY CONSUMPTION

Economical building

< 50	A	
51 à 90	B	
91 à 150	C	
151 à 230	D	
231 à 330	E	
331 à 450	F	
> 450	G	

Energy-intensive building

Building **A**

Building Type : Collective housing > 50m
Construction Year : 2016
Delivery year : 2017
Address 1 - street : 17002 GIRONA, España
Climate zone : [Csa] Interior Mediterranean - Mild with dry, hot summer.

Net Floor Area : 223 m^2
Construction/refurbishment cost : 240 840 €
Number of Dwelling : 3 Dwelling
Cost/m2 : 1080 €/m^2

Proposed by :

inCOui
ESPAIS I SOLUCIONS PER VIURE

General information

Renovated urban building with A energy certification, made according to the sustainable construction Eco8 model and created from the collaboration with the future owners, with the purpose of creating a building intended for eco-apartments adapted for a large part of handicaps. A project with added value, sustainable, efficient, designed to improve the environment and the happiness of its users.

See more details about this project

http://www.eco8nstruccio.cat/index.php/projectes-eco8/item/16-projecte-2

Data reliability

Self-declared

Stakeholders

Stakeholders

Function : Contractor

INCOVI

http://incovi.com/

Function : Certification company

Associació Catalana de Construcció Sostenible

http://www.eco8nstruccio.cat/
Certification under the sustainable construction Eco8 model

Contracting method

Other methods

Owner approach of sustainability

The aim is to provide sustainable accommodation that promotes the health and well-being of users and that is environmentally friendly, not only during the construction process of the work, but throughout the life of the building

Architectural description

The architecture has been based on an eminently energetic rehabilitation but also deals with general aspects of sustainability: water management, responsible materials, innovation, good practices in construction, local promotion, respect for the environment and human health. The main thrust of this promotion has been the adaptability of housing and the participation of final users in the design and construction process of housing. The result: adapted, healthy and sustainable accommodation.

Energy

Energy consumption

Primary energy need : 37,30 kWhpe/m^2.year

Primary energy need for standard building : 60,00 kWhpe/m^2.year

Calculation method : RD: 47/2007

CEEB : 0.0001

More information :
During the first year the consumption is verified through monitoring of the building in order to verify actual consumption.

Initial consumption : 80,00 kWhpe/m^2.year

Envelope performance

Envelope U-Value : 0,28 $W.m^{-2}.K^{-1}$

More information :
The building is formed by different types of enclosure, adapting to the existing initial composition: 0.28

Indicator : HE1 BD

Renewables & systems

Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Condensing gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Natural ventilation
- Single flow

Renewable systems :

- Solar Thermal

Renewable energy production : 30,00 %

Other information on HVAC :

The building does not have an air conditioning system, the natural ventilation system is enough to lower the temperature during the night in the warm season.

Solutions enhancing nature free gains :

The building has a cross-ventilation system that facilitates the natural thermal regulation, in addition to a thermal inertia thanks to the stone walls that act as natural regulators.

Environment

GHG emissions

GHG in use : 2,60 $KgCO_2/m^2/year$

Methodology used :

Spanish Royal Decree: 47/2007

Indoor Air quality

It is guaranteed by controlled forced ventilation.

Comfort

Health & comfort : A photocatalytic painting is used for the interior painting of the whole building, an air purification system through a process called PHOTOCATALYSIS. It eliminates odors, fumes, viruses, bacteria, microorganisms, spores and other organic elements dangerous to health, and resolves the so-called "sick building syndrome".

Calculated indoor CO2 concentration :

La qualitat del aire interior se controla a traves de una sonda que mide la concentració de CO2 en el aire

Measured indoor CO2 concentration :

700PPM

Products

Product

PARQUET HELVETMAR

HELVETMAR

HELVETMAR

http://www.marti1956.com

Product category :

Parquet made of FSC certified, low carbon CO2 wood.

On-site confirmation of sustainable production certificates.

URSA INSULATION

URSA

URSA

http://www.ursa.es/es-es/productos/ursa-terra/ursa-terra-base/Paginas/informacion.aspx

Product category :

Mineral wool with Environmental Product Declaration.

Revision of thickness and coefficient of thermal insulation and correct placement on site, solving thermal bridges

Costs

Construction and exploitation costs

Total cost of the building : 240 840 €

Urban environment

The building is located on Avenida St. Francesc 18, Girona. It is a central area, close to Barri Vell, an area of great tourist interest. Thanks to this privileged location, the building has a multitude of nearby services (public transport less than 300 m from the city hall, shopping malls, gym, bank, school, Universitat de Girona, headquarters of the Generalitat de Catalunya de Girona, etc.,ll of them less than 800 meters from the building). In addition, users are very close to different public spaces, such as Plaça de la Constitució or Plaça del Lleó.

Land plot area

Land plot area : 76,00 m^2

Built-up area

Built-up area : 100,00 %

Parking spaces

The building has no parking for cars. There are public car parks very close (less than 100 m) for this purpose. To promote sustainable transport, the building has reserve a space to store users' bicycles and visits at the basement floor.

Building Environnemental Quality

Building Environmental Quality

- Building flexibility
- indoor air quality and health
- works (including waste management)
- consultation - cooperation
- acoustics
- comfort (visual, olfactive, thermal)
- energy efficiency
- renewable energies
- integration in the land
- mobility
- building process
- products and materials

Contest

Building candidate in the category

Energía & Climas Templerados

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