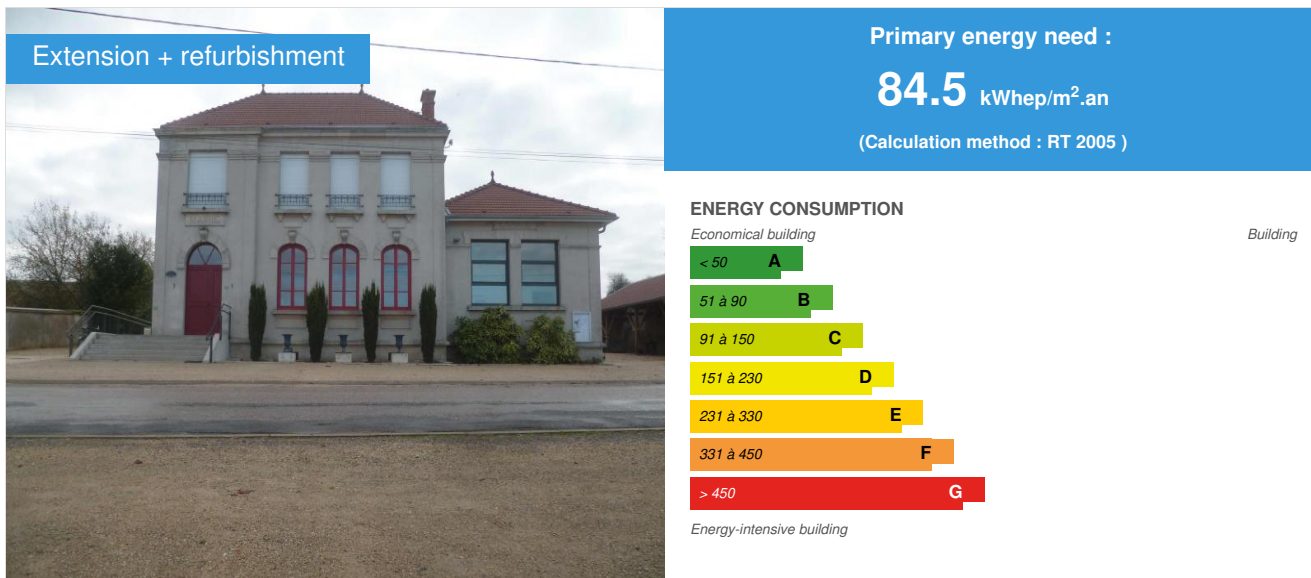


City Hall and multifonction space in Champneuville (55)

by Marie-Laure Aubriot / 2014-06-30 09:51:55 / France / 5094 / FR



Building Type : Other building
Construction Year : 1920
Delivery year : 2012
Address 1 - street : 9 rue de l'église 55100 CHAMPNEUVILLE, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 212 m² SHON
Construction/refurbishment cost : 513 601 €
Number of none : 100 none
Cost/m² : 2422.65 €/m²

General information

- Meuse Energie Nouvelle 2011 Label (New Energy in Meuse)
- Energy requirements management on patrimonial buildings by EDF
- Rubans du patrimoine 2013
- LQE 2013 Prize winner (Environmental Quality in Lorraine)

The city's project is committed to meeting the maximum amount of criterias in sustainable development and incorporating a social dimension by consulting residents. Besides, self-financing was achieved thanks to an ethical et solidarity-based bank. The operation involves renovation, restructuring and extension of the city hall and the old community hall.

The main objectives were:

- to improve the conditions of use
- to comply with the new legislations: accessibility, safety, acoustics, thermal in order to reach the BBC renovation performance .

Sustainable development approach of the project owner

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Low environmental impact building site :

- Departmental Charter on construction's waste management
- Building Processes and construction materials chosen for quality implementation with low environmental and sanitary impact

Hygrothermal comfort

- Good inertia of the envelopes
- Perspirant walls
- Blackout roller blinds on south and west facades
- Programmable double-flow ventilation

Acoustic comfort

- Building submitted to the Decree 2007-1467 du 12/10/2007
- Acoustic Limiter for sound amplifiers
- Very good acoustic quality of the hall
- High-quality sound insulation

Visual comfort

- Natural Light
- Non-reflective materials and coverings
- Blackout roller blinds on the windows, doors, south and west facades.
- Motion detector switch

Architectural description

Works involve renovation, restructuring and extension of the city hall and the old community hall.

The main objectives were:

- improve the conditions of use
- compliance with the new legislations: accessibility, safety, acoustics, thermal

Orientation:

- Existing Building: north.
- Extension: southwest

See more details about this project

<http://www.lqe.fr/home/upload/fiches/FicheMairieChampneuville.pdf>

Stakeholders

Stakeholders

Function : Contractor

Mairie de CHAMPNEUVILLE (55)

Function : Designer

Agnès RIES

Function : Structures calculist

Venathec

<http://www.venathec.com/systeme/m1.php>

Function : Thermal consultancy agency

Exp'air 54

<http://www.expair54.fr/>

Function : Others

Est Control

<http://www.estcontrol.com/>

Function : Company

Dreneri Bâtiment

Function : Company

Meuse Métal

Function : Company

Gil Carrelages

Function : Company

Gigot

<http://www.gigot.fr/index.php/fr/>

Function : Company

Laurent Fenêtres

<http://www.laurent-fenêtres.fr/>

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 84,50 kWh/m².an

Primary energy need for standard building : 148,00 kWh/m².an

Calculation method : RT 2005

CEEB : 0.0001

Breakdown for energy consumption : Primary energy needs calculated from the average of two buildings:

- City hall: 48 kWh FE/m²/year
- Community hall: 121 kWh FE/m²/year

Primary energy needs for a standard building calculated from the average of two buildings:

- City Hall = 83 kWh FE/m²/year
- Community hall = 213 kWh FE/m²/year

Initial consumption : 962,00 kWh/m².an

Envelope performance

More information :

Materials

- Structure: Existing: facades and shear walls in dressed stone and rubble stone, timber work, tiles cover. Extension: brick masonry 25 cm thick, roof terrace in concrete with watertightness and insulation
- Insulation: Cellulose wadding, wood wool, high-density polyurethane
- Joinery: solid wood, double windows in community hall
- Facade: Existing: dressed stone and coat. Extension: larch siding.
- Floors and Walls: Solvent-free paints on wall coverings in cellulose fiber, wall panelling in laminated wood, enamelled stoneware earthenware. Floors: tiles floor in enameled stoneware, solid oak woodfloor. Ceilings: perforated plastered board, acoustic false ceiling in mineral and wood fiber. Insulation : "Box in box" principle and the airtightness.
- Roofing: Existing: 400mm blown cellulose wadding. Extension: Insulation under tightness and complement on the underside of concrete slab with 100 mm wood wool.
- Walls. internal dubbing 160 mm wood wool with technical plenum
- Floors : 80 mm high density polyurethane under concrete screed (no HCFC, HFC or CFC). Punctually, 120mm wood wool under solid oak flooring
- Glazing. Insulation Uw 1.40 W/m²K. Double windows in community hall.

Indicator : EN 13829 - q50 » (en m³/h.m³)

Air Tightness Value : 0,76

Systems

Heating system :

- Wood boiler

Hot water system :

- No domestic hot water system

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Wood boiler

Other information on HVAC :

- Heating: wood pellets stove
- Ventilation: programmable double flow ventilation .

Environment

Urban environment

Land plot area : 3 114,00 m²

Costs

Construction and exploitation costs

Cost of studies : 71 406 €

Total cost of the building : 513 601 €

Subsidies : 432 201 €

Health and comfort

Indoor Air quality

- Non-polluting material
- Perspirant walls
- Natural ventilation and double flow ventilation

Carbon

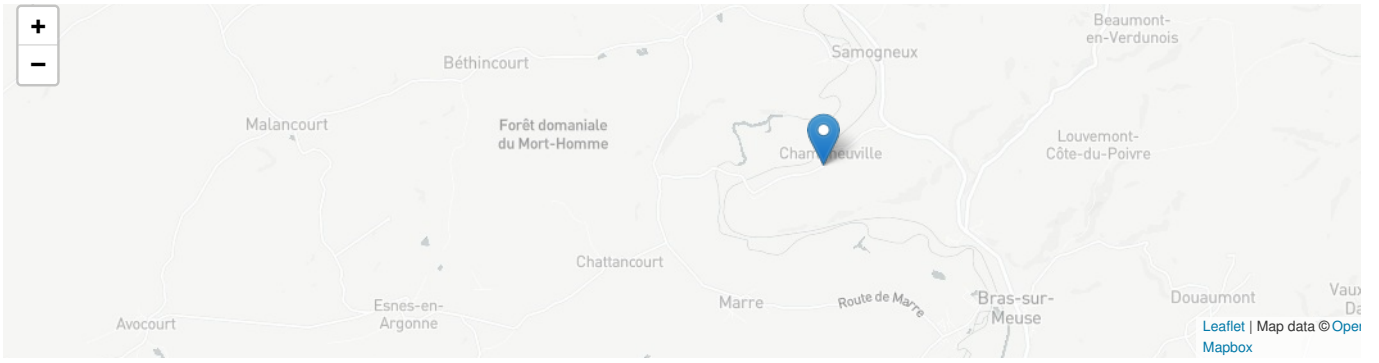
GHG emissions

GHG in use : 1,60 KgCO₂/m²/an

Life Cycle Analysis

Eco-design material : Stone; wood (larch, oak); cellulose wadding; wood wool; solvent-free paint; Wood fiber





Date Export : 20230512080023