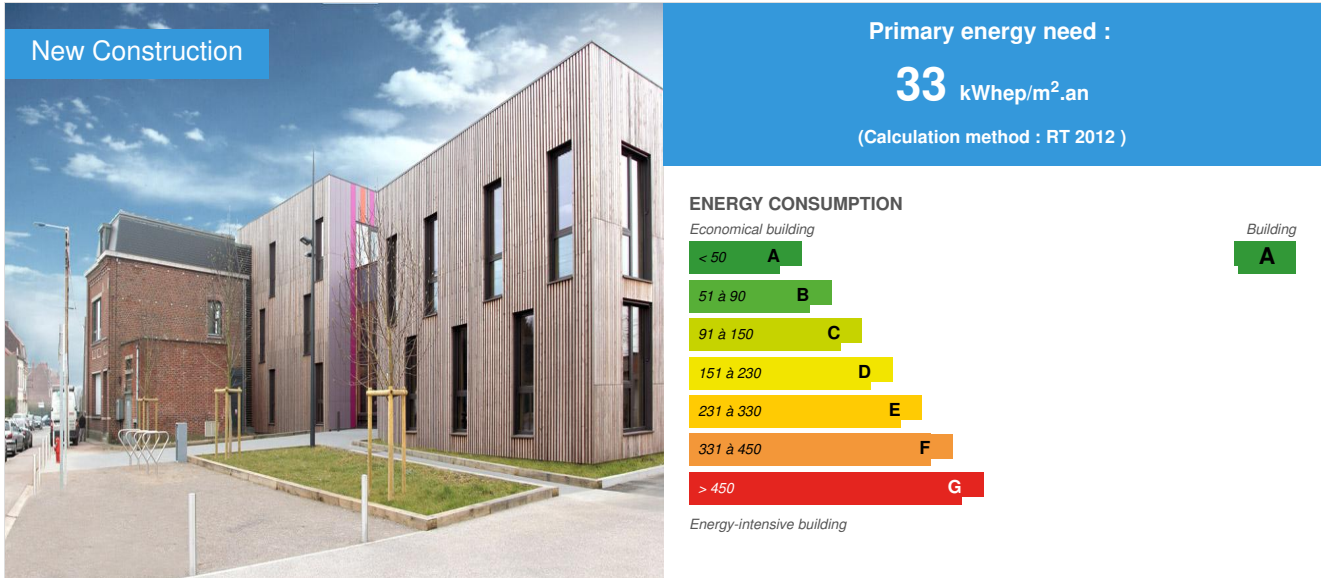


"Notre Logis" Headquarters

by [Tekhne Architectes](#) / 2015-06-05 09:58:34 / France / 15438 / FR



Building Type : Office building < 28m
Construction Year : 2014
Delivery year : 2014
Address 1 - street : Rue de la Lys 59250 HALLUIN, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 2 444 m² SHON
Construction/refurbishment cost : 4 101 000 €
Cost/m2 : 1677.99 €/m²

Certifications :



General information

Located at the entrance of a 100 hectare large eco-neighborhood which Our Logis developed, the new head office aims to embody the mission of this social housing company, which develops a societal vision of its business, contributing to the dynamics of a brownfield site reconversion.

The project installs the head offices along the old railway line, in a pair of two-storeys and three-storeys buildings linked by a cold greenhouse, a bio-climatic answer for the reception area of tenants and buyers, and a place of sharing and conviviality for staff. This orientation allows to connect the street where public access with the heart of the block are, as a link with future housings.

The project maintains the existing house as a trace of the industrial past, by converting it into the house of the eco-district anchored in public space. It implements a semi-entrenched base thus optimizing surface parking, freeing 20% of the land for nobler purposes. The project integrates the building in the green belt of the city through an ambitious landscaping project, unifying the square and mobility hub along the street, and coupling the storm water management to the plot, biodiversity, ground-level parking lots, service accesses and the benefits of south orientation.

Wooden vetures, illustration of the construction method, dialogue with the raw material of the preserved brick walls.

Sustainable development approach of the project owner

Here is the word of the General Director of Notre Logis: "8 years ago, in 2006, when I arrived at Our Logis, the company's new headquarters were already a long discussed topic with a significant history... Should we extend the offices by requisitioning some additional housings? Should we work on an other site? And if the latter, where? We have come a long way and obtained the agreement of the board because of our shared ambition for our company. To turn the company into an exemplary social landlord in the Lille Métropole area, to look to the future, to acquire 5,000 housings and ensure that our customers are well taken care of.

From an idea, we made a project. It was born from three ambitions:

- Client reception as priority number 1
- Provide the employees with a neat but not ostentatious workspace, friendly yet serious, happy and peaceful
- A showcase of our expertise without glitter, with the seriousness that characterizes us in our expertise to demonstrate our commitment to sustainable development in the broadest meaning, respectful of men and the planet.

After dealing with the competition, the selection, the companies and the construction stage, we moved into a building that strongly matches with our wishes.

We set up a managerial project: association of employees, regular visits, upstream work on many topics (technology, information, operation)".

Our Logis is committed to building energy efficient and quality housings. Here it was to build their headquarters.

Architectural description

In response to the program established by the contractor, we identified two challenges:

- to provide a simple and quality architecture to embody the project and the company's image, "a social enterprise for social housing"
- to design architecture scaled with the city to contribute to the dynamics of BODEZ site reconversion and the future eco-district.

We translated that into a building following four objectives:

1. Initiate the structuring of industrial wasteland, future eco-neighborhood of 100 ha, North South axis that is found in the installation of the buildings along the old route railway, with a central street, and with the shared lane beside existing homes;
2. Install the new headquarters in the city with a hollowing readability with its square on the street of the Lys and the relationship to the existing house preserved- as traces of the past and as an urban landmark with its advanced position;
3. bioclimatic design a spatial organization that can offer throughout the year a very good quality of comfort to employees and visitors, all in a sober worries: renewable resources, energy, water, maintenance ...;
4. provide a great landscape quality outdoor spaces by setting up a green frame and a blue frame to give room to the nature in the heart of the project: garden to the south in the continuity of the greenhouse, EP retention system but also by bringing the plant in the heart of the project in the cold greenhouse as a filter for the offices of the DRC over the reception area.

We wanted to produce an architecture that is:

simple, legible and functional ;

encourages exchanges through the multiple views and transparencies... between desks and with the outside.

integrates environmental quality in the architecture, from the ground plan, into the implantation, the general morphology of the project, into the performance of the envelope, with a simple objective: to maximise passive capacities of the building (envelope and shape) and to minimise active systems to tend towards "low tech".

The main environmental strong points are:

the cold greenhouse and "low thickness" building concepts: the buffer area of the colhouse creates a balance between temperature and daylight. This system is adapted to the local climate (not too hot) and with a summer comfort system in the greenhouse (openings and solar protection);

timber construction: as a bio-based material, timber retains CO2 and allows a balanced insulation of the walls, which is the optimal constructive principle to reach passive performances ;

active slabs: « low tech » system where we heat the mass of the structure. It emits a low temperature on the surface while the surface of emission itself is very large (floors and ceilings), providing a very enjoyable comfort.

The passive level of the building serves its architecture. Our approach integrates the constraint of passive construction as one more element to consider in the design process. The "passive construction" is not an end in itself but a constraint in the service of the quality of living and environmental quality.

See more details about this project

http://www.tekhne-architectes.com/projet_archi/nouveau-siege-social-de-notre-logis/



Stakeholders

Function : Designer

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Function : Certification company

maison passive france

Function : Certification company

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Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 33,00 kWhep/m².an

Primary energy need for standard building : 77,00 kWhep/m².an

Calculation method : RT 2012

Breakdown for energy consumption : Final energy consumption was calculated using PHPP calculation

Hot water 9.69

Heating 7.40

Lighting 10.81

PC 1.88

Other 0.87

Split 0.32

Acs 5.57

Auxiliary 6.67

Real final energy consumption

Final Energy : 43,00 kWh_{ep}/m².an

Envelope performance

Envelope U-Value : 48,00 W.m⁻².K⁻¹

More information :

In France, the UBAT no longer exists, we set the value of Bbio = 48

Paving on full earth: 120mm + 120mm polystyrene under paving polyurethane under screed - U = 0,115W / (m²K)

Roof: 240mm polyurethane - U = 0,098W / (m²K)

Timber frame wall: internal lining 80mm Métisse (recycled textiles), timber frame with 200mm insulation Métisse, high-density outer wooden wool forming rain barrier 52 mm thick - U = 0,130W / (m²K)

Building Compactness Coefficient : 0,50

Indicator : n50

Air Tightness Value : 0,55

More information

The contractor has moved into the building in early December 2014, we have no feedback on a full year, yet.

Renewables & systems

Systems

Heating system :

- Heat pump
- Others

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Other information on HVAC :

Heating through and active slab. A pre-insulated pipe network connected to the heating network has been set up and directed to a free space to eventually change heat production mode and install a biomass boiler.

Solutions enhancing nature free gains :

Concept de serre froide largement ouverte au sud entre nos deux bâtiments permettant d'avoir un espace tempéré en période froide..

Smart Building

BMS :

The BMS is designed to monitor all building consumptions, but also to control the technical installations. It allows: 1.récupérer the weather station information; 2.piloter ventilation, heating, recovery

Users' opinion on the Smart Building functions : The feedback after the first winter is very positive. We made sure, with the BMS, to limit automation to a minimum for systems in interaction with users so that the users remain actors of their work environment. Eg for blinds, depending on sunshine, the BMS orders the closing of the blinds on the facade but only 3 times a day: morning, noon and late in the day to put them in the ideal position. Each desk user can intervene whenever he wishes with local control and set the store as he sees fit.

Environment

Urban environment

Land plot area : 5 851,00 m²

Built-up area : 1 128,00 %

Green space : 1 684,00

The Notre Logis headquarters is the first building of a coming eco-district. It is grafted onto an existing house that connects it to the Lys street. It initiates the structuring of the new district by the orientation of two main buildings connected by a greenhouse forming the reception area. The blue frame and green frame allow implementation to start reclaiming the landscape of the place.

Products

Product

Active Slab "Activ +"

REHAU

contact@rehau.fr

<http://www.rehau.com/fr-fr/batiment/chauffer-et-rafraichir/chauffer-rafraichir-les-batiments-non-residentiels/dalle-active>

Product category : Génie climatique, électricité / Chauffage, eau chaude

Active slab

active slab implemented in our project in a screed on the wood concrete composite floor.



METISSE

LE RELAIS

metisse@lerelais.org

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

Product category : Second œuvre / Cloisons, isolation

recycled textile insulation

Product easy to implement, safe in handling, produced near the construction site



Costs

Construction and exploitation costs

Cost of studies : 77 000 €

Total cost of the building : 410 100 €

Health and comfort

Water management

Consumption from water network : 210,00 m³

Consumption of harvested rainwater : 152,00 m³

Water Self Sufficiency Index : 0.42

Water Consumption/m² : 0.09

Water Consumption/Work station : 2.53

The design of the rainwater valuation system tends toward simplicity. Rainwater descents collect half of the East Building and the West building roof areas. They will route collected rainwater to an underground concrete storage tank of 15m³. A pump system coupled to a storage tank redistribute rainwater in the building for use in toilets, local maintenance spaces and watering.

Indoor Air quality

- Mechanical ventilation is 30m³/h per person while the regulation requires only 25m³/h
- The air handling units start before the arrival of users to evacuate night emissions and of the morning maintenance
- All materials with A + classification label
- All window bays can be opened

Comfort

Health & comfort : The building was designed with wide access to natural light. 2 building wings are narrow, allowing a good penetration of natural light.

Calculated thermal comfort : Winter 20°, Max t° in summer 29°, with less than 30h of temperatures above 28° . Dynamic Thermal Simulation done with TRNSYS (version 17).

Acoustic comfort : Acoustic comfort of the offices is ensured by the implementation of acoustic speakers in the ceiling

Carbon

GHG emissions

GHG in use : 0,88 KgCO₂/m²/an

Methodology used :

French Thermal regulation calculation and carbon footprint method and ADEME guide

Life Cycle Analysis

Eco-design material : use of timber, wooden wool and Métise, an insulation material made from recycled textiles

Contest

Reasons for participating in the competition(s)

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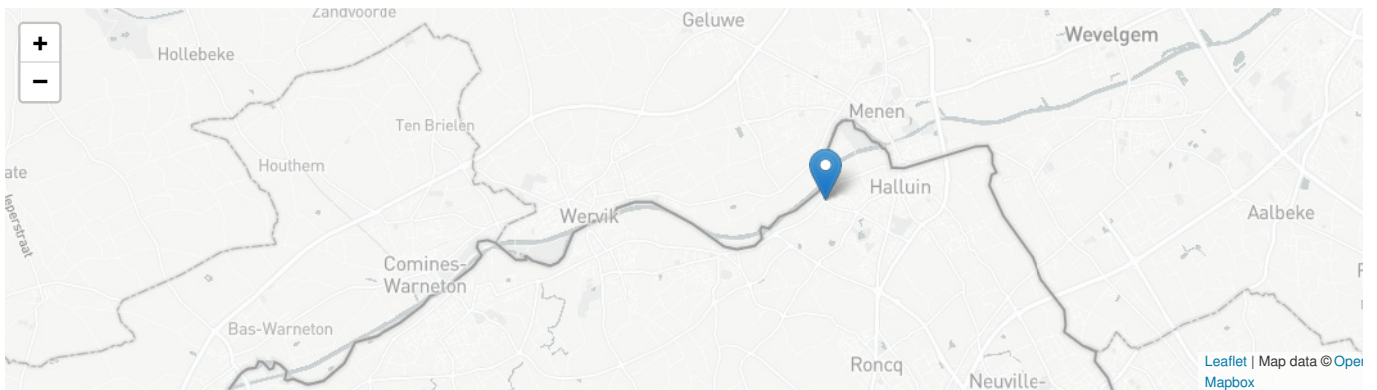
Building candidate in the category



Bas Carbone



Coup de Cœur des Internautes



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