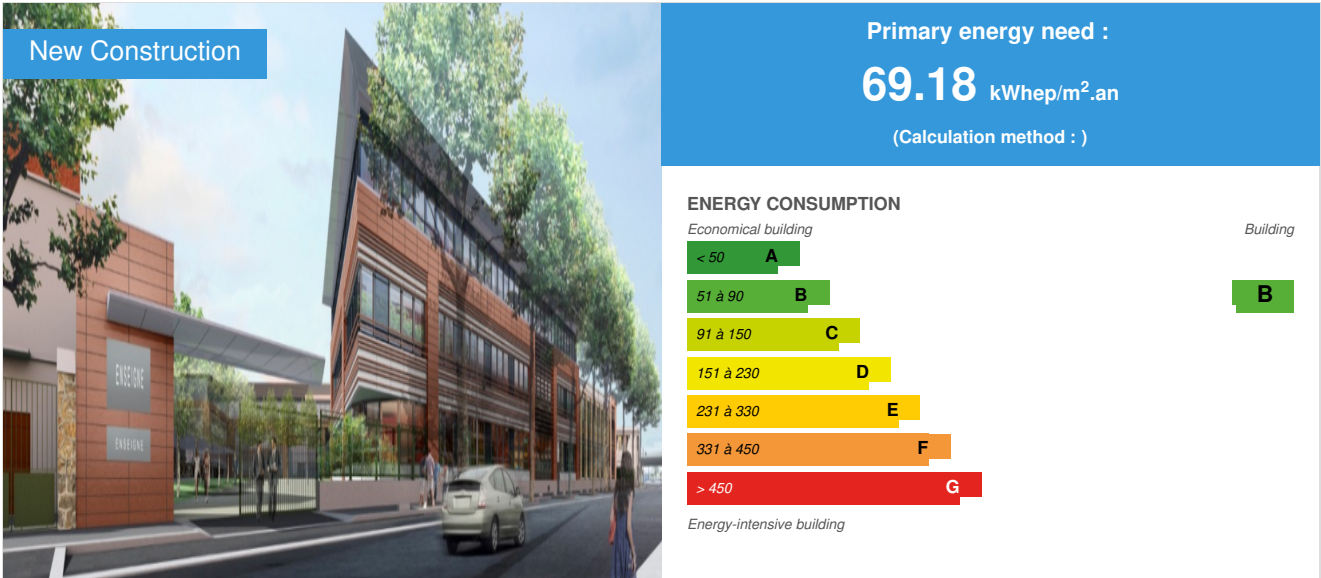


RESPIRO

by benjamin masse / 2015-07-07 11:03:00 / Francia / 15471 / FR



Building Type : Office building < 28m
Construction Year : 2015
Delivery year : 2015
Address 1 - street : 83-85 rue Henri Barbusse 92735 NANTERRE, France
Climate zone : [Cfc] Marine Cool Winter & summer- Mild with no dry season.

Net Floor Area : 11 183 m²
Construction/refurbishment cost : 51 000 000 €
Number of Work station : 859 Work station
Cost/m2 : 4560.49 €/m²

Certifications :



Proposed by :

CERTİVEA

General information

This building of 11 200m², is located on the historic site of old rusk "Heudebert" , old Nanterre. It becomes the new headquarters of the company **GTM Bâtiment**. While maintaining part of it original façades, this renovation is a key element of this area urban renewal. Modernes, bright, spacious, bright and comfortable, offices will include a canteen, a cafeteria and indoor (gym) and outdoor (garden, planted terraces) wellness facilities. Certified BREEAM, HQE and BBC (Low energy building) , this project has also been part of a "intrinsic energy performance warranty" process to enhance its biodiversity. This process was developed in a partnership with **The National Museum of Natural History** .

Sustainable development approach of the project owner

"Foncière des Régions" as general contractor is committed through its policy on its green heritage:

The offices represent 65% of share heritage of the group.

The policy of sustainable development of Foncière des Régions is reflected in particular by a continuous improvement of environmental performance of this office

park, throughout the life cycle of buildings.

This approach places the comfort and health of the user to the center and takes into account all the environmental dimensions: choice of locations, equipment and materials, based on life cycle assessment (LCA - to measure and reduce the impact) or the digital building modeling (BIM - to optimize the control of each step).

"Foncière des Régions" has met one year ahead, the goal of holding 50% of Legacy Land Offices Franc at the end of 2015.

This park "greening" strategy of Foncière des Régions is also deployed in other activities of the group products.

Architectural description

This building of 11,200 sqm, located on the historic site of the old rusk Heudebert in the old Nanterre, becomes the new headquarters of the company "GTM Bâtiment". While retaining some of the original façades, this renovation is a key element of the urban renewal district. Modern, bright and spacious, these offices include a company restaurant and a cafeteria on the ground floor. The building rests on a basement level sheltering 193 parking spaces.

Building users opinion

The building is comfortable thanks to:

Its internal lighting atmosphere.

Its qualities of acoustic isolation from the street as between spaces

It best hygrothermal comfort with the use of reversible radiant ceiling

It quality green spaces including a roof terrace

Olfactory comfort guaranteed by ventilation rates higher than the minimum regulatory, and the use of materials with low VOC emissions

See more details about this project

http://www.foncièredesregions.fr/solutions/bureaux/patrimoine_en_developpement/respiro_nanterre

Stakeholders

Stakeholders

Function : Construction company

GTM Bâtiment

<http://www.gtm-batiment.fr>

Function : Certification company

CERTIVEA

certivea@certivea.fr - 01 40 50 29 09

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

Contracting method

Lump-sum turnkey

Energy

Energy consumption

Primary energy need : 69,18 kWhep/m².an

Primary energy need for standard building : 184,51 kWhep/m².an

Calculation method :

Breakdown for energy consumption : Heating: Cooling 52.5% 3.9% Production ECS: Fans 7%: 20.7% Lighting: 10.8% Auxiliary: 5.1%

Real final energy consumption

Final Energy : 66,76 kWh_{ep}/m².an

Envelope performance

Envelope U-Value : 0,55 W.m⁻².K⁻¹

More information :

High thermal inertia building with its exterior insulation.

Thermal insulation of the current wall on the outside provided by 180 mm insulation with Lambda 0.032 W / (mK) giving a U_p = 0.17 W / (m².K).

Reinforced sunscreen on exposed facades (BSO).

Indicator : I4

Air Tightness Value : 0,80

Users' control system opinion : - Widget - Display consumption on TV - multi-business controls (lighting, heating, blinds)

More information

Followed by GTB end consumption through an extended commissioning. The construction process also participate in a certification "OXYGEN", an eco-commitment of Vinci Construction France, which secured the building performance in its operation.

Renewables & systems

Systems

Heating system :

- Gas boiler
- Water radiator
- Electric heater
- Radiant ceiling
- Fan coil

Hot water system :

- Individual electric boiler
- Solar Thermal

Cooling system :

- Water chiller
- Fan coil
- VAV Syst. (Variable Air Volume system)
- VRV Syst. (Variable refrigerant Volume)
- Radiant ceiling

Ventilation system :

- compensated Air Handling Unit
- Double flow heat exchanger

Renewable systems :

- Solar Thermal

Renewable energy production : 5,60 %

Smart Building

BMS :

Regulation and Building Management System (GTB) energy efficient class A. Implementation of environmental awareness of the user devices including a dynamic display of global consumption, batch and office. Setting up a portal

Users' opinion on the Smart Building functions : Individual control systems available to offer users an optimized ergonomics to quickly and simply act on all comfort parameters. The touch tablet, provides an icon that indicates the impact of the set of variations on the energy efficiency of the building

Environment

Urban environment

Green space : 2 221,00

The project is in a highly urbanized environment with shops, services and transport nearby

Products

Product

Innovative vegetated roof terrace

TOPAGER

<http://topager.com>

<http://topager.com>

Product category : Table 'c21_spain.innov_category' doesn't exist SELECT one.innov_category AS current,two.innov_category AS parentFROM innov_category AS oneINNER JOIN innov_category AS two ON one.parent_id = two.idWHERE one.state=1AND one.id = '7'

On this pilot project, the two roof levels were treated differently:

The first level is an accessible roof terrace with a semi-intensive type of vegetation with many biodiversity-friendly developments (bundles of firewood, wetlands, stones, sand). This level also features a roof garden to sensitize users of biodiversity and urban agriculture.

The second level roof (roof technology) was treated by the implementation of an innovative unplanted substrate allowing colonization by spontaneous vegetation. This level also has bird nest boxes and bat.

The product was created through the involvement of all stakeholders of the project and is very well received by users, aware of the improvement of the living environment that this development represents.



Energy recovery

FRANCE AIR

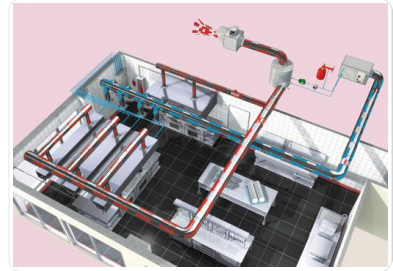
<http://www.france-air.com/>

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Product category : Table 'c21_spain.innov_category' doesn't exist SELECT one.innov_category AS current,two.innov_category AS parentFROM innov_category AS oneINNER JOIN innov_category AS two ON one.parent_id = two.idWHERE one.state=1AND one.id = '19'

Heat recovery unit dedicated to professional kitchens

Product well accepted by the project stakeholders



Costs

Health and comfort

Indoor Air quality

Air flow regulating devices according to the CO2 concentration in the high occupancy areas.

Comfort

Health & comfort : Terminal processing device by reversible radiant ceiling technology offering different advantages: - reduced air speeds - Homogeneity of temperature in space - optimized Perceived temperature - dust brewing Limitation

Carbon

GHG emissions

GHG in use : 6,00 KgCO₂/m²/an

Methodology used :

Calculation method RT CSTB

Contest

Reasons for participating in the competition(s)

Health and comfort:

- For this project **GTM Bâtiment** is at the same time co-promoter (through its branch **ADIM Concepts**, and a partnership with **Foncière des Région**) and builder and future users of the building. Therefore, the comfort of the employees was placed at the heart of the reflection from the sketch up to operation and maintenance contracts.

- Biodiversity is present in the building design: with a plot 40 % vegetated and green accessible terraces including a collective vegetable garden, a collective work with **The National Museum of Natural History** allowed to advocate improvements protecting local fauna and flora while minimizing the impact of technical of the equipment project.
- The search for an optimum between thermal and lighting comfort was found to meet the requirements of the HQE and BREEAM certifications.

Smart Buildings:



- Implementing OXYGEN, the eco-design process of **VINCI Construction France** that aimed to ensure the intrinsic performance of buildings. With a personalized view of their consumption in real time, the user is aware of the impact of his behaviour on the overall performance of the building.

S

Building candidate in the category




Smart Buildings

Santé et confort

