


Logistics Platform DECATHLON

by Julien BARCET / 2016-06-28 16:18:38 / France / 23666 / FR

New Construction



Primary energy need :

52 kWhep/m².an

(Calculation method :)

ENERGY CONSUMPTION

Consumption Range (kWhep/m ² .an)	Grade
< 50	A
51 à 90	B
91 à 150	C
151 à 230	D
231 à 330	E
331 à 450	F
> 450	G

Building **A**

Economical building (top of scale) / *Energy-intensive building* (bottom of scale)

Building Type : Logistics warehouse
Construction Year : 2015
Delivery year : 2016
Address 1 - street : 59 840 LOMPRET, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 34 676 m²
Construction/refurbishment cost : 16 000 000 €
Number of Installed Kw : 5 Installed Kw
Cost/m2 : 461.41 €/m²

Certifications :



General information

Logistics platform for DECATHLON of 5 cells of 6000m2 and 1000m2 of offices.

The supply regional center will supply all the area stores.

HQE certified project level: Very Good.

Highlighting aspects:

- biodiversity monitoring the design and implementation by an ecologist + differentiated management of the operation site for 10 years minimum
- Building materials: use of wood in the structure of the warehouse and offices: posts / walls / wooden roof. Implementation of concrete with 28% of recycled aggregates (sand blast furnaces). 1st application of a circular economy with the Carrières du Boulonnais
- Energy: RT 2012 on the whole: office and warehouse area, with a project Cep <62.6 at baseline Vine.
- Stormwater Management: 100% infiltration on website

Sustainable development approach of the project owner

Expand production capacity by improving the quality and comfort for employees while constructing a building concerned about the impact it could have on the environment.

Architectural description

Conduct a pleasant logistics platform in view of the outside and qualitative and comfortable for internal users.

General concern about the environment with the inclusion of residents in landscape amenities (mounds to "hide" the building) and the orientation of the building with truck access north: open orientation on a farm field. Biodiversity, materials (wood): 100% + in offices in the warehouse cells

Building users opinion

Overall satisfaction of the operator on the quality of jobs and working conditions.

Pleasant logistical cells with the amount of natural light and walls painted white, this is very bright.

A mezzanine, added during the project is sensitive to overheating because apprehended end of the operation.

A natural ventilation system open dock doors, coupled with the opening of skydomes overcomes the problem

See more details about this project

<http://www.construction21.org/france/articles/fr/rabot-dutilleul-et-les-carrieres-du-boulonnais-sassocient-pour-une-economie-circulaire.html>

Stakeholders

Stakeholders

Function : Contractor representative

GERIM

julien BARCET

<https://www.gerim.com>

General contractor

Function : Construction Manager

AGENCE A

Eric HAUGOU

Design Work of Master

Function : Certification company

CERTIVEA

certivea@certivea.fr

<http://www.certivea.fr>

Function : Construction company

Rabot Dutilleul

<http://www.rabotdutilleul.com/fr>

Contracting method

General Contractor

Type of market

Table 'c21_maroc.rex_market_type' doesn't exist

Energy

Energy consumption

Primary energy need : 52,00 kWhep/m².an

Primary energy need for standard building : 141,00 kWhep/m².an

Calculation method :

Breakdown for energy consumption : - Heating: 18.9

- Cooling: 0.5

- Hot Water: 0.7

- Lighting: 31.4

- Auxiliary: 1.3

Envelope performance

Envelope U-Value : 0,25 W.m⁻².K⁻¹

More information :

Wooden frame in offices with 200 + 120mm insulation distributed in dubbing for the walls. 120mm Roof Roofing warehouse 130mm. 150mm double-skin wall

Renewables & systems

Systems

Heating system :

- Condensing gas boiler

Hot water system :

- Solar Thermal

Cooling system :

- Reversible heat pump
- Tape

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- Solar Thermal

Smart Building

BMS :

Product of a local start-up: EFFIPILOT

Environment

Urban environment

Land plot area : 182 000,00 m²

Built-up area : 33 000,00 %

Green space : 126 000,00

Building next to the northern ring of Lille, in a mixed area: rural with few houses around and a garage. road environment undeveloped for alternative transport: no bike paths and bus stop at 500m

Products

Product

Concrete made of recycled aggregates

Carrières du Boulonnais

Mme SCHMIDT

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

Product category : Gros œuvre / Structure, maçonnerie, façade

innovative concrete containing 30% slag * sand meeting concrete requested specifications for paving (C30 / 37-
XF1-S4) * Substitution rate of natural aggregates = 38%

Concrete tested and complies fully with the requirements and the desired application



Costs

Health and comfort

Water management

conventional water supply system.

Indoor Air quality

Sealing Class C ventilation systems

Comfort

Health & comfort : Turbofan Sealing controlled networks (class C) Knowledge of VOC emissions over 80% of products in contact with air and implemented weakly transmitter product: A +

Calculated thermal comfort : Dynamic Thermal Simulation realized for the Office part and logistic cells

Measured thermal comfort : Acoustic measures to reception

Acoustic comfort : Acoustic studies in design and acoustic measurements at reception on: - sound reduction vis-à-vis the outside - Acoustic Attenuation between offices

- Noise equipment

- Noise Impact Results comply with HQE target No. 9 treated Based

Carbon

GHG emissions

Building lifetime : 50,00 année(s)

GHG Cradle to Grave : 1 330,00 KgCO₂ /m²

Study ELODIE

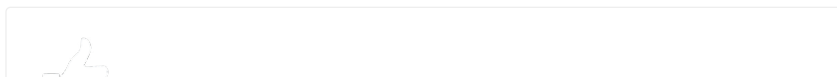
Contest

Reasons for participating in the competition(s)

A project "beautiful, good and innovative" First concrete project resulting from the circular economy in partnership with the Carrières du Boulonnais. 1000m² of concrete slabs offices with cast concrete made from cement substitution (blast furnace slag).

- Wood valuation in construction: the wood structure warehouse / office posts / frame / timber roof.
- Biodiversity: design + construction followed by an ecologist and differentiated management of the site for 10 years minimum. Species selected by the ecologist and pond landscaping 100% infiltration of rainwater in basins filled infiltration trench + infiltrating valleys on parking
- Integration of a local Euratechnologie startups: EFFIPILOT in the management and optimization of the use of technical systems
- Valuation of natural lighting in the cells for the comfort of employees + artificial lighting on detection and luminosity 1500L
- Hot water cylinder preheated with solar panels
- The entire building: logistics offices + cells reach a Cep RT 2012

Building candidate in the category



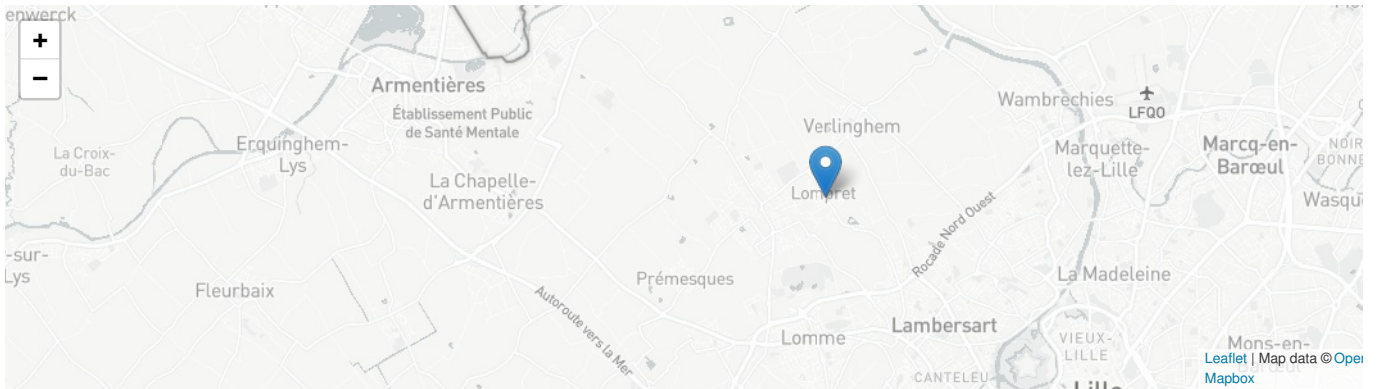


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