Extracurricular Madeleine

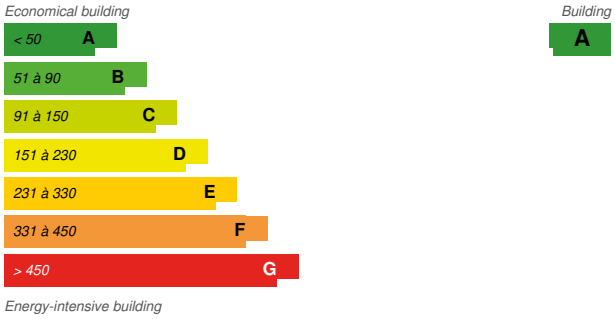
by Gwennaël Liger / 2022-10-18 00:00:00 / France / 1016 / FR

Primary energy need :

61.4 kWhep/m².an

(Calculation method : RT 2012)

ENERGY CONSUMPTION



Building Type : School, college, university
Construction Year : 2019
Delivery year : 2019
Address 1 - street : 8 Bld Porte Madelaine 45150 JARGEAU, France
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 364 m² Autre type de surface nette
Construction/refurbishment cost : 891 196 €
Cost/m2 : 2448.34 €/m²

Certifications :

General information

The new building is built in a built environment with its own history and functioning. We wanted to establish consistency between the buildings, **enhance the existing site through the controlled integration of the new construction** . We organized all the buildings around the courtyard. The latter is a protected space, conducive to exchanges and which makes it possible to articulate the different spaces (courtyard, existing buildings, sanitary facilities), to strengthen the links with the existing biodiversity space and to accentuate the connection with the sports centre.

The school group's boiler room, sized for all of the school's existing buildings, was renovated in 2016. Rather than resizing this installation and providing buried networks to bring the gas to the new building, we proposed to **carry out a bioclimatic building** which would make it possible to get rid of “gas” energy and which would reach the passive thermal optimum. This also keeps running costs to a minimum. **A pedagogical approach** has been initiated with students to make them aware of the environment and site visits have been organized with professionals.

Environmental approach

The entire construction is made of **wooden frame walls including straw insulation** , cladding made of rough sawn Douglas fir planks with joint cover. The exterior joinery is made of wood. In order to promote the retention of rainwater and thermal comfort, **a green roof terrace** , also insulated with straw, covers the entire new building and overflows to form the courtyard and the awning. This roof is designed as a “green” footbridge which ensures continuity between the Loire and the biodiversity area. Finally, **the floors are made of NORA natural rubber and the paints benefit from the European Ecolabel.**

See more details about this project

https://www.envirobatcentre.com/centre-de-ressources/les-projets/fiche-projet/periscolaire-madeleine

Photo credit

BHPR

Stakeholders

Contractor

Name : Mairie de Jargeau

Construction Manager

Name : BHPR Architectes

Energy

Energy consumption

Primary energy need : 61,40 kWhep/m^2.an

Primary energy need for standard building : 73,60 kWhep/m^2.an

Calculation method : RT 2012

Renewables & systems

Systems

Heating system :

- No heating system

Hot water system :

- Individual electric boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Environment

Urban environment

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exchanges and makes it possible to articulate the different spaces (courtyard, existing buildings, sanitary facilities), to strengthen the links with the existing biodiversity space and to accentuate the link with the sports centre.

Products

Product

Natural rubber floors

NORA

https://www.nora.com/france/fr

Product category : Second œuvre / Revêtements de sol

nora® floor coverings are made from high-quality natural and industrial rubbers. They are mixed with minerals from natural sources and other compounds, including environmentally friendly color pigments, then cut into blanks, pressed and vulcanized under the effect of heat and high pressure. Thanks to the flexibility of the material, rubber flooring does not require any plasticizer. The nora cleanguard® cross-linking then carried out in the factory creates a dense and closed surface, without the application of a protective layer. This is why our rubber floor coverings will never need surface protection (varnish, wax, metallization): even after many years of use, their appearance remains new.

Product category :

Costs

Construction and exploitation costs

Total cost of the building : 891 196 €

Contest

Reasons for participating in the competition(s)

- Use of biosourced materials: Douglas fir wood and straw insulation;
- Passive building thanks to a bioclimatic design;
- A green roof for summer comfort, thermal efficiency and biodiversity;
- A new construction integrated into the existing site.

Building candidate in the category

Prix du public

GREEN SOLUTIONS AWARDS
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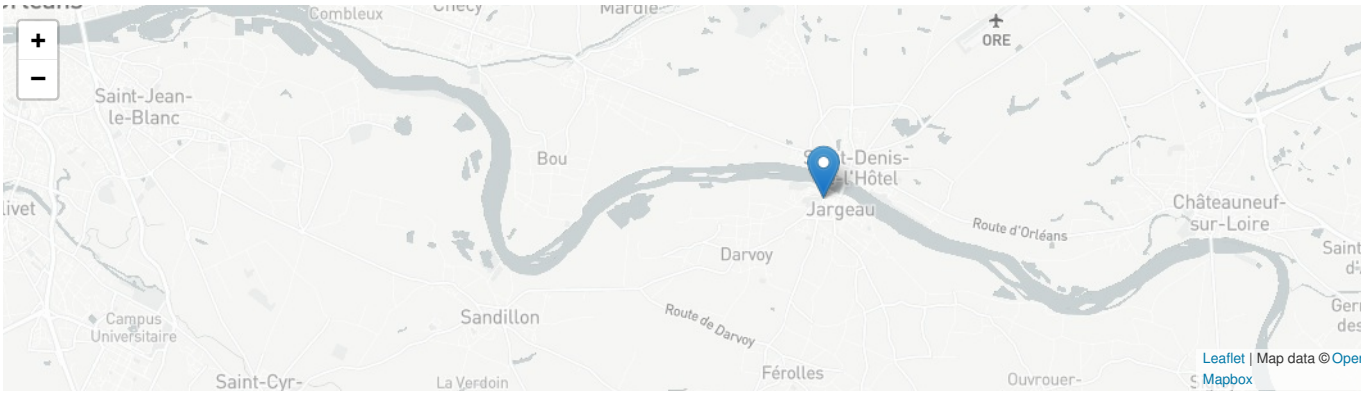

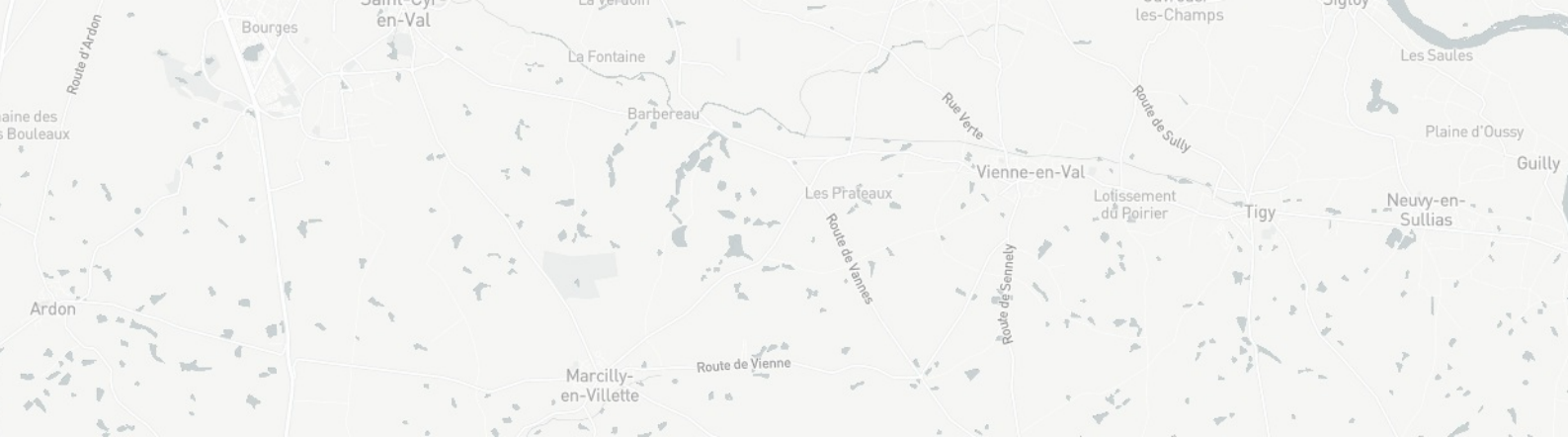
Bourges
Saint-Germain-
en-Val
La Fontaine
Barbereau
Route d'Ardon
Rue Verte
Route de Sully
Les Saules
Plaine d'Oussy
Guilly
Vienne-en-Val
Les Prateaux
Lotissement
du Poirier
Tigy
Neuvy-en-
Sullias
Route de Vannes
Route de Sennely
Ardon
Marcilly-
en-Villette
Route de Vienne