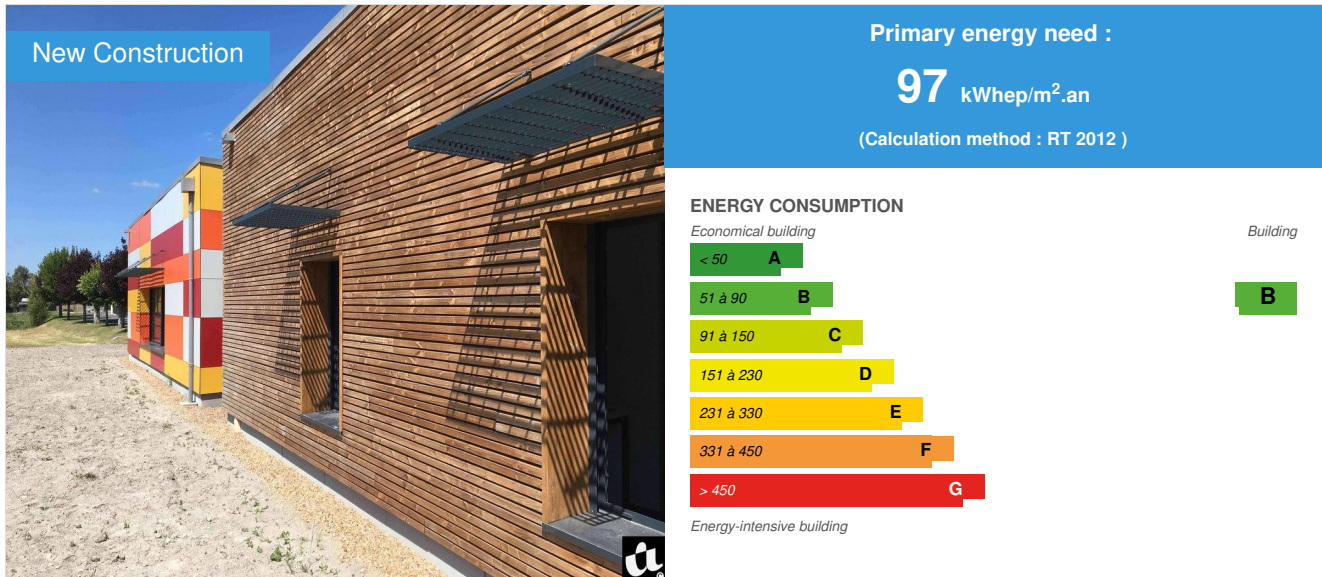


Eco-construction of a micro-nursery in Pernay

by [éric leconte](#) / 2019-04-10 16:20:16 / France / 7463 / FR



Building Type : Preschool, kindergarten, nursery
Construction Year : 2017
Delivery year : 2018
Address 1 - street : rue de la Gare 37230 PERNAY, France
Climate zone : [Cwb] Mild, dry winter, cool and wet summer.

Net Floor Area : 183 m²
Construction/refurbishment cost : 328 666 €
Number of Children : 1 Children
Cost/m² : 1795.99 €/m²

General information

- Compactness of the frame, South solar gains, solar protection, reinforced insulation, biosourced materials
- Low floor of insulating RCH
- Reinforced insulation of buried parts
- Structure and timber frame
- Wood cladding, zinc and veture composite panel
- Outer / inner insulation made of wood wool
- External joinery reinforced insulation, profiles with thermal / phonic bridge breakage
- Low consumption and servo lighting fixtures according to occupancy rate
- Limited flow faucets
- Mixed low temperature condensing boiler
- High efficiency double flow ventilation
- Reinforced airtightness

Sustainable development approach of the project owner

Meet the demand of the families of the Commune

Efficient, economical and virtuous building: communal will

Architectural description

Coherence with the ambitions of the public authorities in terms of sustainable development / confirm the choice of a virtuous, sustainable, adaptable and evolutive constructive principles / Choose simple materials of maintenance to make choices of design guaranteeing the optimization of the energy costs during the ranges of occupation management / Controlled and regulated energy

Search for energy sobriety / optimisation of the time "construction site" / respect of the allocated budget qualification of the southern entrance of the Commune interaction direct between MICRO-CRECHE and existing buildings / work on the envelope and the volumetry (volumetry and simple contrasts) / interior spaces quickly readable/ benchmarks for users concerning general soothing ambient comfort (brightness, colors, materials, acoustics) / PMR regulation requirements (walk-in building)

Stakeholders

Contractor

Name : Communauté de Communes Gâtines Choisilles - Pays de Racan

Contact : Mr TRYSTRAM 02 47 29 81 00

<http://www.gatine-racan.fr/>

Construction Manager

Name : Architectures Éric Leconte (AEL)

Contact : ÉRIC LECONTE - Architecte - 02 46 10 54 98 - eric.leconte@quarante6.com

<https://www.pinterest.fr/architecturesericleconte/boards/>

Stakeholders

Function : Designer

Éric LECONTE (mandataire de l'équipe Maîtrise d'oeuvre)

Éric LECONTE - 02 46 10 54 98 - eric.leconte@quarante6.com

<http://quarante6.com/wordpress/>

Architect

Function : Thermal consultancy agency

bet CALLU

Mr MUREAU - 02 47 50 91 16 - contact@betcallu.fr

<https://www.bureau-etudes-callu.fr/>

Thermal Study Office

Function : Company

sarl POUËSSEL

Mr POUËSSEL - 02 47 53 92 80 - pouessel@sarl-pouessel.com

<https://www.stephane-pouessel.com>

M.O.B. - frame - ITE - cladding and cladding - zinc roofing

Function : Company

BERNEUX Construction

Mr BERNEUX - 02 47 23 14 80 - laurent.berneux@berneux.fr

<https://www.berneux.fr>

Big work

Function : Company

BRISSET

Mr RIBEIRO - 02 47 44 24 45 - contact@brisset.fr

exterior joinery - locksmith

Function : Company

ASSISTANCE ÉTANCHÉITÉ

Mr PAIN - 02 47 25 07 08 - g.pain@assistanceetancheite.fr

sealing

Contracting method

Separate batches

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 97,00 kWhep/m².an

Primary energy need for standard building : 98,00 kWhep/m².an

Calculation method : RT 2012

Envelope performance

Envelope U-Value : 0,25 W.m⁻².K⁻¹

More information :

- external walls: U = 0.145 W / m² ° C
- low floor: U_p = 0.130 W / m² ° C
- roof: U = 0.166 W / m² ° C
- exterior joinery: U_w = 1.40 W / m².K - S_w = 0.53 - TL_w = 0.65
- coefficient. thermal bridges: 0.120 w / ml ° C and 0.60 w / ml ° C

Building Compactness Coefficient : 0,86

Indicator : I4

Air Tightness Value : 0,60

Renewables & systems

Systems

Heating system :

- Low temperature gas boiler
- Condensing gas boiler
- Low temperature floor heating

Hot water system :

- Low temperature gas boiler
- Condensing gas boiler

Cooling system :

- No cooling system

Ventilation system :

- Double flow heat exchanger

Renewable systems :

- No renewable energy systems

Environment

Urban environment

Land plot area : 424,00 m²

Built-up area : 52,00 %

Green space : 48,00

-Requalification of the southern entrance of the commune

-Direct interaction between MICRO-CRECHE and existing buildings

-Proximity of the plot of the site compared to the urban center (suburban area, public transport, local shops, services, ...)

Products

Product

STEICO

STEICO

Product category : Finishing work / Partitions, insulation

WOOD WOOL

GOOD

Costs

Construction and exploitation costs

Cost of studies : 30 000 €

Total cost of the building : 360 000 €

Health and comfort

Comfort

Health & comfort :

-Immediate proximity to the public space and access to the building

-Legibility of the 2 separate volumes constituting the building (urban landmark)

-Easy identification of the entrance to the building (central access, zinc cap, ...)

-Solar contributions + natural light South and West (activity room, administrative areas, staff relaxation area) = 60% of the total glazed area

-Natural lighting through the reception area

-Sun-breaker South entrance

-Light interior colors - contrast between vertical walls and horizontal walls (perception of interior volumes)

Acoustic comfort :

-Reinforced insulation of the outer walls of wood wool

-Reinforced insulation of the wood wool

-Interior dividing walls Isophonic dividing partitions (children's areas / surrounding areas)

-Acoustic ceilings

-Flexible isophonic flooring

-Non parallelepipedic activity room

Contest

Reasons for participating in the competition(s)

- Compacité du bâti
- Apports solaires Sud
- Protections solaires
- Isolation renforcée
- Matériaux biosourcés
- Pancher bas du RCH isolant
- Isolation renforcée des parties enterrées
- Structure et ossature bois
- Bardage bois, zinc et vêtire panneau composite
- Isolation extérieure/intérieure en laine de bois
- Menuiseries extérieures isolation renforcée

- Profils à rupture de pont-thermique/phonique
- Appareils d'éclairage basse consommation et asservissement suivant taux d'occupation
- Robinetterie à débit limité
- Chaudière mixte à condensation basse température
- Ventilation double-flux à haut rendement
- Étanchéité à l'air renforcée

Building candidate in the category



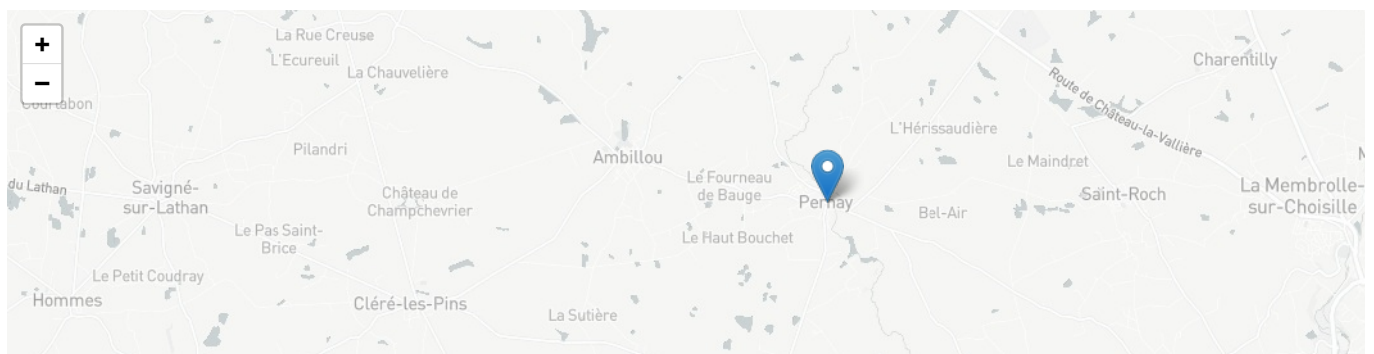
Santé & Confort



Prix du public



Prix des Etudiants



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