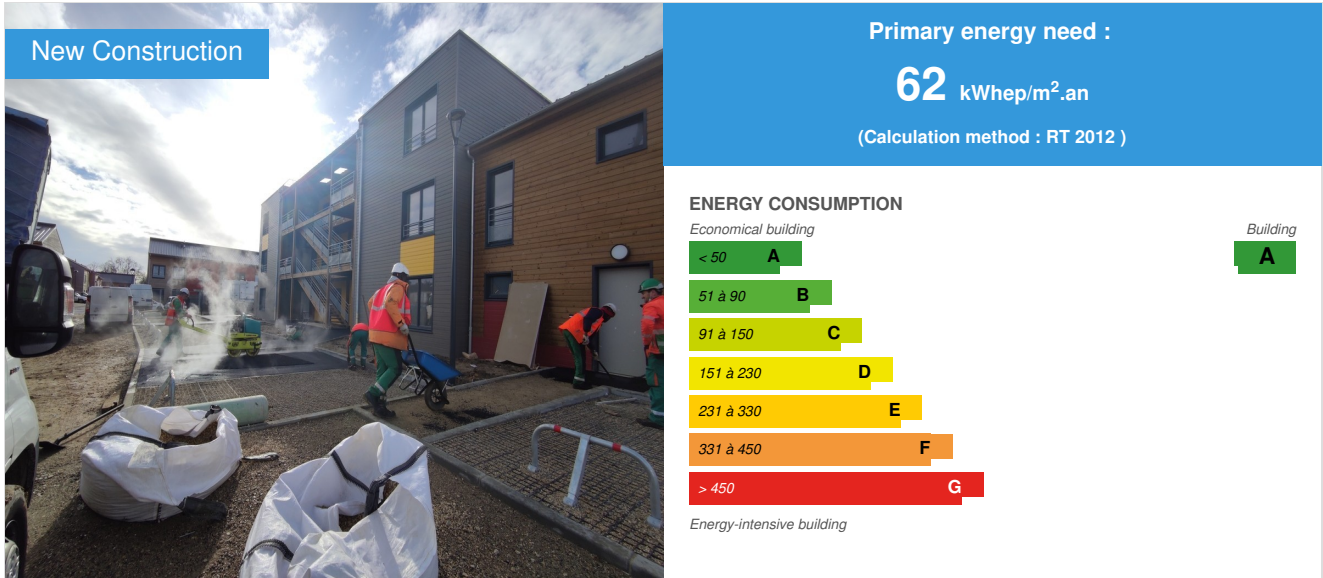


Low carbon bio-based collective building

by Louis Maréchal / 2021-03-25 15:57:21 / France / 4774 / FR



Building Type : Collective housing < 50m
Construction Year : 2020
Delivery year : 2021
Address 1 - street : 25 rue de la roche 91340 OLLAINVILLE, France
Climate zone : [Cbc] Mild, dry winter, warm and wet summer.

Net Floor Area : 2 460 m²
Construction/refurbishment cost : 2 730 000 €
Cost/m2 : 1109.76 €/m²

Certifications :



Proposed by :



Continental
FONCIER

General information

The Ollainville operation is made up of 35 biobased housing units prefabricated in the factory. Several labels and certifications have made the Continental Foncier project stand out: HQE, BBCA, E+C-, Batiment Biosourcé.

For the structure, the insulation, the facade, most of the materials come from the wood industry:

1. spruce for the structure of walls, floors and roofing,
2. wood panels for horizontal and vertical bracing,
3. cellulose wadding for distributed insulation,
4. wood fiber for exterior insulation,
5. Douglas for the structure and decking of passageways,

6. coniferous for the cladding in cladding,

Thanks to the accumulation of these biobased materials, the Ollainville program reaches 3 times the level 3 of the Biobased label which was retained in addition to the NF Habitat HQE label issued by Cerqual. With the results obtained, it was suggested to Cerqual to create a level 5 of this same label to distinguish this type of highly biobased constructions.

The E + C- level sought by this operation was E2C2 for the collective buildings presented here and E2C1 for the adjoining individual houses.

Sustainable development approach of the project owner

Beyond the simple realization of buildings, Continental Foncier reinstates the know-how of design and construction of buildings. This new approach, associated with a great understanding of the territories, allows a **reasoned approach of the projects** with for first concerns the quality of life of the inhabitants, their well-being and that of the residents.

Since 2008, Continental Foncier has been building virtuous buildings with the best environmental performance. **The technologies are mastered, the sites are optimized, the commitments are respected.**

Continental Foncier designs and builds buildings and housing adapted to the needs of affordable, quality and healthy housing. With this know-how, **we support social landlords and elected officials in the development of a construction policy adapted to the territory.**

Architectural description

The exterior walls of the collectives are made of a wooden frame.

The exterior wall cladding is made of two materials:

For the facades and the gables a cladding.

Occasionally, and on the bases, a wooden cladding also, but colored (Tulip red - Colorlames)

There are no interior common areas.

Access to the first floor is via an external galvanized steel staircase on the central part.

The roof is an inaccessible roof terrace.

The gutters and downspouts are made of PVC.

The exterior joinery is in gray pvc tinted in the mass (RAL 7047).

The bay windows are provided with a sunshade integrated in the double glazing and rolling shutter.

These buildings and their locations comply with the recommendations of the PLU.

The height is 9.00 m at the parapet.

Each accommodation on the ground floor respects the PMR standard.

Each living room on the upper floors has a balcony.

If you had to do it again?

Work on the aesthetics of balconies with powder-coated materials.

See more details about this project

<https://cfoncier.fr/project/ollainville/>

Photo credit

Continental Land

Stakeholders

Contractor

Name : CONTINENTAL FONCIER

Contact : Louis Maréchal

<https://cfoncier.fr/>

Construction Manager

Name : TECHTONIQUE

Contact : Sylvain Quintard

Stakeholders

Function : Thermal consultancy agency

POLYEXPERT

Arnaud Bourachot

<https://polyexpert.fr/>

thermal study, environmental design, LCA study, acoustic study

Contracting method

Separate batches

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need : 62,00 kWhep/m².an

Primary energy need for standard building : 76,00 kWhep/m².an

Calculation method : RT 2012

Envelope performance

Envelope U-Value : 0,20 W.m⁻².K⁻¹

Indicator : EN 13829 - q50 » (en m³/h.m³)

Air Tightness Value : 1,00

Renewables & systems

Systems

Heating system :

- Electric radiator

Hot water system :

- Heat pump

Cooling system :

- No cooling system

Ventilation system :

- Single flow

[ECS par chauffe eau thermodynamique](#)

Renewable systems :

- Heat pump

Smart Building

BMS :

Roller shutters and controlled heaters and program by application

Environment

Urban environment

Operation registered in a peri-urban environment.

Products

Product

Product category : Structural work / Structure - Masonry - Facade

Costs

Construction and exploitation costs

Cost of studies : 50 000 €

Contest

Reasons for participating in the competition(s)

Continental Foncier utilise depuis sa création en 2008 des procédés industriels dans la construction de ses bâtiments.

La quasi totalité des éléments de structures, d'isolation thermique et acoustique, de revêtements de façades est issue de filières biosourcées et décarbonées d'échelle territoriale.

Les bâtiments construits sur le programme d'Ollainville possèdent plus de 95kg de matériaux biosourcés par m² habitable !

L'utilisation de systèmes préfabriqués et industrialisés permet également de réduire les impacts chantier. Les délais d'utilisation d'engins de levage sont minimes en comparaison à une construction traditionnelle.

Building candidate in the category



Bas Carbone



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