This project consists of implementing the thermal renovation of this 1970s residence, which has an 8-storey bar (building A) and two 6-storey plots (buildings B1 and B2).

This ambitious operation relating to buildings A and B1 includes the renovation of all the facades with thermal insulation from the outside, the replacement of the exterior joinery (private and smoke extraction skylights), the insulation of the roof terraces, the low floors on the car parks and roller shutter boxes, the installation of a VMC hygro B, the installation of thermostatic valves on the radiators, the cooling of the halls and their accessibility to PMR by external landscaped ramps.

The presence of asbestos in the exterior joinery joints and in the mosaic glue had an influence on the implementation of the ITE and on the replacement of certain windows.

GA vote on works: June 2018

Start of work: April 2019
See more details about this project
https://www.doucetarchitectes.fr/residence-bernardotte-le-pecq/

Photo credit
Doucet architects

Stakeholders

**Contractor**
Name: SdC Bernadotte

**Construction Manager**
Name: DOUCET architectes
Contact: Rémi Doucet
https://www.doucetarchitectes.fr/

**Stakeholders**
*Function*: Thermal consultancy agency
Switch

*Function*: Other consultancy agency
Energie Pulse
Financial support

*Function*: Company
Coulon
Restoration, ITE

*Function*: Company
Thop
Ventilation, heating

*Function*: Company
Andreutti
Sealing

*Function*: Contractor representative
IFF gestion
joint property

*Function*: Company
Lorillard
Exterior wood furnishings

*Function*: Company
Isambert
electricity

*Function*: Company
Sodacen
Asbestos removal

*Function*: Construction Manager
Contracting method

Separate batches

Type of market

Global performance contract

Energy

Energy consumption

Primary energy need: 133.00 kWhep/m².an
Primary energy need for standard building: 195.00 kWhep/m².an
Calculation method: RT existant
Breakdown for energy consumption:
- Heating: 80.7 kWh/m² (61%), DHW: 30.3 kWh/m² (23%), Lighting: 9.1 kWh/m² (7%), Aux. ventilation: 12.6 kWh/m² (9%)
Initial consumption: 218.70 kWhep/m².an

Real final energy consumption

Final Energy: 138.70 kWhep/m².an

Envelope performance

Envelope U-Value: 1.30 W.m².K⁻¹

More information

Final energy consumption before works: 234.8 kWh/m².year (bat A) / energy gain 39% / label C
Building B consumption:
- Primary energy before works: 328.5 kWh/m², after works: 185 kWh/m² / distribution of consumption: heating 93.1 kWh/m² (50%), DHW 74.2 kWh/m² (40%), lighting 5.7 kWh/m² (3%), Aux. ventilation 11.3 kWh/m² (6%) / energy gain 44% / final energy before works: 412 kWh/m².year, after works: 228 kWh/m².year

Renewables & systems

Systems

Heating system:
- Gas boiler
- Water radiator

Hot water system:
- Gas boiler

Cooling system:
- No cooling system

Ventilation system:
- Humidity sensitive Air Handling Unit (Hygro B)

Renewable systems:
Environment

Urban environment

The condominium is located in the Canada district of Pécq, on the right bank of the Seine, at the northern limit of the town. The plot is served by two roads: Boulevard Folke Bernadotte and Route de Sartrouville. Building A is located along and parallel to the Seine on which it has a direct vis-à-vis.

Costs

Construction and exploitation costs

Cost of studies: 78 463 €
Total cost of the building: 1 471 253 €
Subsidies: 357 041 €
Additional information on costs:
HT aid:
- ANAH engineering 65,460,
- ANAH + Better Living bonus €340,737,
- ANAH accessibility €10,844
HV studies:
- Architect (studies + site monitoring) €69,163,
- Thermal BE (studies only) €3,900,
- Financial engineer €5,400
Other MOE (HT):
- SPS €7,840,
- BCT €6,000,
- DO €19,273,
- Trustee €13,370
Asbestos DAAT (excl. VAT) €2,850
HV works:
- Restoration €499,050,
- Exterior joinery €229,850,
- Asbestos removal €26,950,
- Sealing €134,860,
- Electricity €8,555,
- Breakdown €56,252,
- Heating €30,899

Carbon

GHG emissions

GHG in use: 30.00 KgCO₂/m²/an
Methodology used:
DPE
GHG before use: 50.00 KgCO₂/m²
, ie xx in use years: 1.67
Reasons for participating in the competition(s)

Cette opération a été exemplaire sur le niveau des performances visées (39 % de gain énergétique sur le bâtiment A et 44% sur le bâtiment B) et atteintes au pourcent près après comparaison entre prévisions et factures, avec une approche globale sur les parois opaques et vitrées, sur la ventilation et le chauffage et sur la mise en conformité des accès. Le défi a été de préserver et valoriser l’esthétique remarquable et le vocabulaire architectural des façades à un coût maîtrisé.

Building candidate in the category

Prix du public