

eco-CONSTRUCTION OF THE OPERATING BUILDING PR5, ABOVE THE LIFTING STATION OF THE VALLEY OF THÈVE AND YSIEUX IN ORRY-LA-VILLE (60), FRANCE

INDUSTRIAL site, HQE® APPROACH : water, sanitation AND PHYTOPURIFICATION

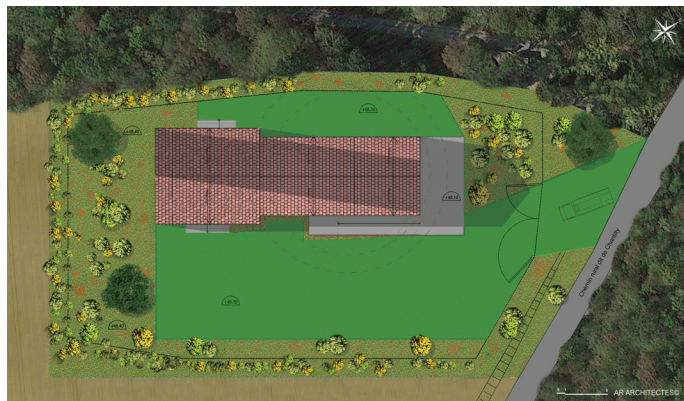
Client	SICTEUB
Site	Orry-la-Ville (60)
Project	Architectural and landscaping design of the PR5 and lifting station building
DESIGN BUILT MISSION	AR ARCHITECTES, NALDEO Architectural and landscaping design
Plot area	750m ²
BUILDING AROUND VOLUME	100m ² 1 300m ³
COST	9 000 000 EUROS
Date	Delivered in 2019



Photograph of the lifting station entrance

The Lifting Station PR5 project is part of the Coye-La-Forêt wastewater treatment plant carried out by the Syndicat Intercommunal for the Collection and Treatment of Wastewater from the Bassin de Thève and Ysieux (SICTEUB). The project is located in a rural site on the border between urban areas (housing at 100m) and natural areas (undergrowth, agricultural plains, etc...). The building designed by AR ARCHITECTES is inspired by the architecture of an agricultural farmhouse and fits harmoniously into the landscape thanks to its volume and wooden materiality.

The PR5 consists on two entities, the burried part is made of concrete, it contains the storage of the discharge station. The above-ground part contains the electrical room, the ventilation room and the operator room.



Project's master plan

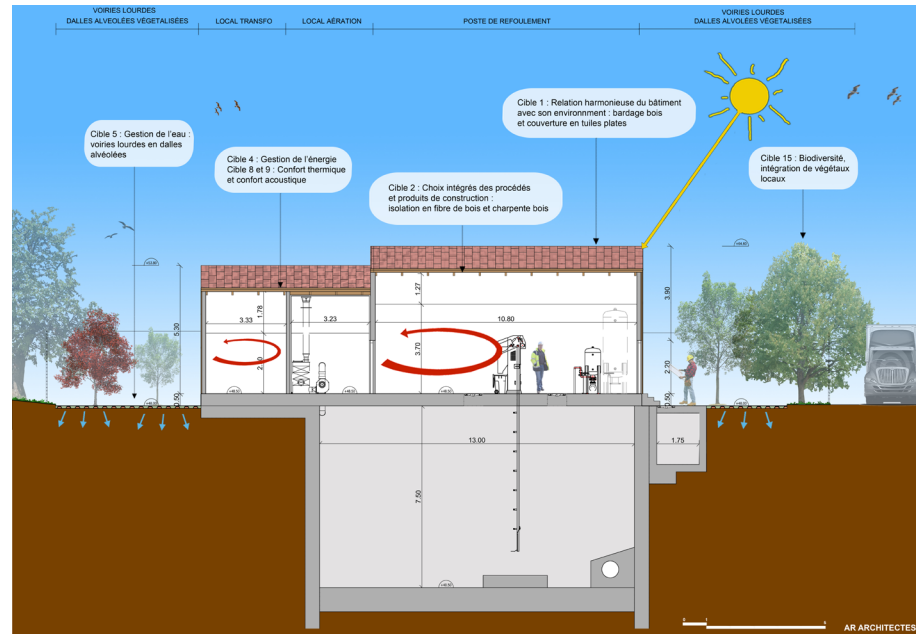




Photograph of the lifting station - South West view



Wood frame structure



Longitudinal section showing the buried concrete storage and the operating building

HQE® targets PROCESSED

TARGET 1: HARMONIOUS RELATION OF THE BUILDINGS WITH THEIR IMMEDIATE ENVIRONMENT

- The building designed is inspired by the rural and agricultural architecture surrounding the site : the outside volume is similar to an agricultural farmhouse.
- Use of **eco-materials** with a low impact on the environment and harmonious integration in the natural landscape.

TARGET 2 : INTEGRATED CHOICES FOR CONSTRUCTION PROCESS

- The **cladding is made of pine wood**.
- The frame is made of large wood.
- Outdoor insulation in **wood fibers**.
- **Terracotta tiles**.

TARGET 4 : ENERGY MANAGEMENT

- Thanks to its **insulation**, the operating building has a **good inertia** and reduces its energy consumption.
- **Natural lightning and ventilation** of the process area thanks to the facade openings.

TARGET 5 : WATER MANAGEMENT

- The rain water treatment is managed by :
- Alveolated slabs allowing rain water to be infiltrated into the earth.

TARGET 8 AND 9 : OPTIMIZED HYGROMETRIC COMFORT AND ACOUSTIC COMFORT

- The hygrometric and acoustic comfort for the operators building is guaranteed by the insulation of **wood fibers**.

CIBLE 15 : BIODIVERSITY.

- The landscaping design is composed by different varieties of **local wildflowers**. This mixture encourages the life cycle, ensures a large presence of insects on the site and promotes the presence of wild pollinators such as bees and butterflies.

