

BIO-CLIMATICAL eco-CONSTRUCTION OF THE MUNICIPAL TECHNICAL CENTRE OF VALENTON CITY (94) - LOW CARBON / POSITIVE ENERGY LABEL e+c-



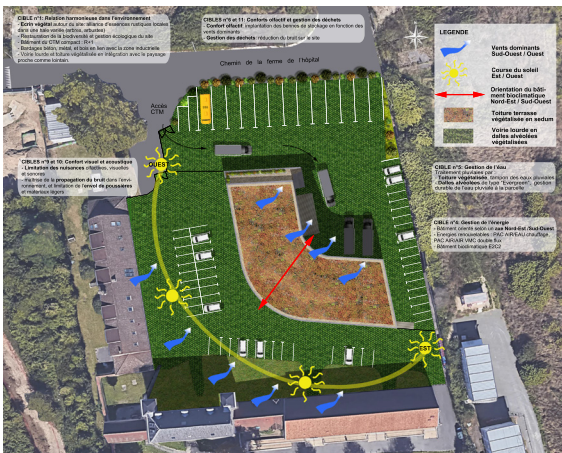
INDUSTRIAL SITE, HQE® APPROACH: TECHNICAL CENTER

Client Valenton city
Location Valenton (94)
Project Architectural, environmental and landscaping design of the municipal technical center
CONCEPTION PRODUCTION MAITRE CUBE, AR ARCHITECTES, ARCHIMEN, GAMBA ACOUSTIQUE
MISSION Architectural, environmental and landscaping design
area site 1: 1 778 m²
 site 2: 516m²
Date Competition 2018



View of the entrance on the south side, bioclimatic technical building in pre-grayed larch wood cladding, textured concrete and metal cladding

The new technical centre is located on site 1 near the hospital's farm road in Valenton. The center is located on a plot that already has municipality buildings. The objective of this design is to establish a dialogue with the center surroundings: volumes, heights and coatings allow the technical centre to be harmonized with its immediate environment, and ensure its integration. The primary objective is to reduce the environmental impact by implementing construction processes and techniques to achieve environmental performance through the implementation of an experimental low-carbon positive energy label (E+C-). The Center is designed bioclimatic and will be claded with wood and metal cladding, textured concrete and green vegetalized roofs.

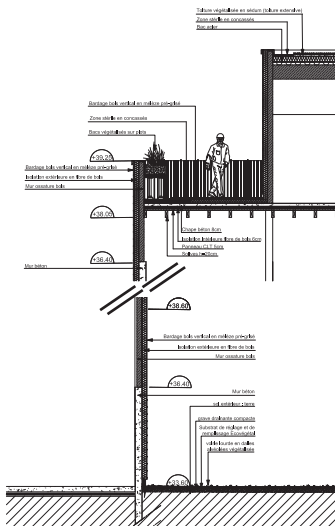


bioclimatical mass plan and project location

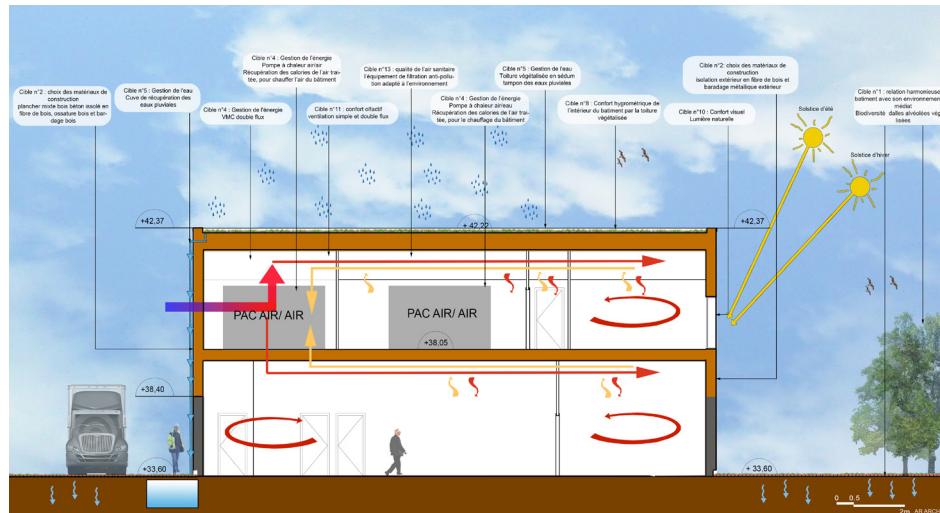




View from the hospital farm road: technical back stage design of the building



Detail sections



HQE® principles section

HQE® targets

Target 1 : Harmonious relation between building and its environment

- Vegetable crown around the site: combination of local rustic species in a varied hedge (trees, shrubs)
- Biodiversity restoration and ecological site management
- compact CTM building: r+1
- Concrete, metal and wood cladding in connection with the industrial zone
- Heavy roads and green roof in integration with the surrounding and distant landscape.

Target 4: energy management

- Building oriented along a northeast/southwest axis
- Renewable energies: air-to-water heat pump for heating, air-to-air heat pump controlled mechanical ventilation double flow
- Bioclimatic building e2c2

Target 5: water management

- rainwater treatment by:
- Green roof, rainwater buffer
 - Evergreen" honeycomb slabs, sustainable rainwater management on the plot

targets 6 and 11: olfactory comfort and waste management

- Olfactory comfort: location of storage bins according to prevailing winds
- Waste management: noise reduction on site

Targets 9 and 10: visual and acoustic comfort

- Limitation of olfactory, visual and noise pollution
- Control of noise propagation in the environment, and limitation of dust and light materials flight