CPAM office elevation La Roche sur Yon
LA ROCHE SUR YON, France

CPAM La Roche-sur-Yon – Timber Elevation for a Functional and Sustainable Workplace

In La Roche-sur-Yon (Vendée, France), the Caisse Primaire d'Assurance Maladie (CPAM) has undertaken an ambitious project to consolidate its decentralized offices into a single site. The goal was to bring together administrative teams and institutional partners that work closely on a daily basis. To meet this need, the client opted for a vertical extension of the existing building, adding one additional timber floor of 1,200 m².

Led by Guinée Potin Architectes, the project embodies a strong commitment to biosourced and responsible construction, in line with the agency's design philosophy that prioritizes sustainable materials and environmentally conscious architecture.

Limited load and maximum efficiency for a a new roof frame

The new upper level was entirely built using LVL (Laminated Veneer Lumber) Sylva™ elements supplied by Stora Enso.

This solution met two key objectives:

• Reducing the overall load of the superstructure to limit stress on the existing framework,

• While ensuring high mechanical performance to accommodate the building's load-bearing requirements.

The timber frame consists of 13 LVL portal frames with visible bracing, creating a distinctive interior expression that highlights the building's structural logic. The timber walls were insulated using bio-based fibre materials, fully consistent with the project's ecological ambitions.

Smart wood structure and careful installation

The structural engineering firm ECSB, a specialist in timber design, specified Sylva™ LVL for its lightness, dimensional stability, and high load capacity. A total of 84 m³ of LVL (NVI grade) was supplied by Stora Enso and installed by LCA – Les Charpentiers de l'Atlantique, who also handled the prefabrication and double-layer protective finish of the elements in their workshop. The assembly of the 13 portal frames was completed in just one month, demonstrating the speed and precision achievable with prefabricated solid timber systems.

Comprehensive weather protection measures were implemented on site. Despite heavy rainfall during summer 2024, the structure remained in excellent condition, confirming the robustness and reliability of the Sylva™ LVL system.

High Environmental performance and low carbon impact

The use of Sylva™ LVL significantly reduces the carbon footprint of the project compared to conventional concrete solutions. In addition to its lightweight and high-strength properties, timber construction naturally stores carbon, contributing to a positive environmental balance.

Moisture Challenges and quality of implementation

Timber, while efficient and sustainable, required careful on-site handling and protection.

Each LVL element was factory-finished with a two-coat protective stain by LCA, minimizing the risk of degradation during installation. Some minor humidity effects appeared later due to limited ventilation during the finishing phase, but overall, the structure demonstrated excellent resilience and quality performance, fully meeting the project's expectations.

With this timber rooftop extension, the CPAM de la Vendée now benefits from an exemplary low-carbon modernization project, combining technical precision, architectural simplicity, and environmental responsibility. Designed and built through the expertise of Guinée Potin Architectes, ECSB, LCA, and Stora Enso, the project illustrates how Sylva™ LVL enables lightweight, high-performance timber structures ideally suited for urban extensions and renovations where efficiency and sustainability are essential.

Products used :

Sylva LVL beams : https://www.storaenso.com/en/products/mass-timber-construction/building-products/lvl#Ta1ed701f-102a-46fa-96a0-9b9185a1e065

General

Delivery year

2024

Building type

Office

Area (m²)

2,400

Storeys

1

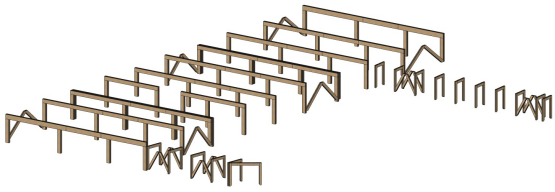

Photo credit: LCA Construction Bois

Products

Products and Services	Product volume (m³)
LVL	64

StoraEnso

Team

Developer

CPAM de Vendée

Architect

Guinée Potin

MEP Designer

AREA

Specialist Timber Subcontractor

LCA Construction bois

Timber Engineer

ESCB

Others

Construction cost (€)

2,200,000

Timber superstructure erection duration (weeks)

4