

# Diesse Plateau School, Prêles

2023

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A new wooden school was built in Prêles between 2021 and 2023. Wood from the municipality was used, and Timbatec was responsible for the structural engineering and building physics.

## The Project

The new school is located on the plateau of the village of Prêles, where a natural ice rink used to form during periods of extreme cold. Thanks to its ideal elevated location, the building offers a magnificent view of the natural surroundings and the region's recreational areas. The decision to use wood from the municipal forest for construction was made during the initial discussions, and the expertise of the Timbatec firm proved to be a major advantage for the project's development. Currently, 1,159 tons of CO<sub>2</sub> are stored in the structure of the new building, which comprises a total of approximately 2,800 m<sup>2</sup> of classroom, extracurricular, and office space.

## The Construction Method

The load-bearing elements were constructed entirely of wood using the post-and-beam principle, including the vertical circulation cores, which consist of encapsulated CLT panels. A wood-on-wood ribbed ceiling, supplemented by a weighting layer that allows for the partial integration of building services, ensures rapid construction and perfectly meets sound insulation requirements.

## The Challenge

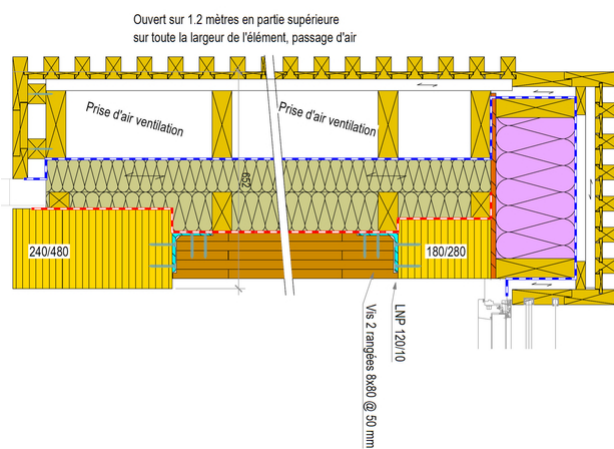
The successful integration of wood from the community forest into the construction project was crucial to the project's implementation. A quality assessment of the wood, based on representative samples from the selected forest, allowed conclusions to be drawn regarding the properties required for the project's execution.



Interior of a classroom.



First floor under construction.



Integration of fresh air intakes in the facade.

### Construction Data

- Above-ground construction volume: 12,700 m<sup>3</sup>
- Wood panel area: 3,468 m<sup>2</sup>
- Net volume of wood used: 1,093 m<sup>3</sup>

### Construction costs

- BKP 1-9: CHF 14.3 million, including VAT
- BKP 214: CHF 2.6 million, including VAT
- BKP 214: CHF 205/m<sup>3</sup> incl. VAT

### Services of Timbatec

- SIA Phase 31 Preliminary Design
- SIA Phase 32 Construction Project
- SIA Phase 41 Tendering and Bid Comparison
- SIA Phase 51 Construction design
- SIA Phase 52 Construction
- SIA Phase 53 Commissioning
- Structural Analysis and Design
- Building physics planning
- Cost estimate

### Client

, Municipality of Plateau de Diesse  
2515 Prêles

### Architect

Riforma architecture SA  
1700 Fribourg

### Timber Engineer

Timbatec SA Timber Engineer  
2800 Delémont

### Timber construction

Charpentes Vial SA  
1724 Le Mouret

### Client

Municipality of Plateau de Diesse  
2515 Prêles