

# Canopy over the barracks, Chamblon

01.01.2025

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A PD/ID shelter featuring an extraordinary folded/angled roof became a reality at the Chamblon Barracks thanks to TS3 technology. This fantastic project impressively demonstrates the wide range of possibilities offered by the TS3 system. With their design, the architects not only won the competition but also made a statement about the possibilities of modern timber construction.

## The Project

The architectural firm Atelier d'architecture Charrière-Partenaires SA from Granges-Paccot won the competition to expand the Chamblon Barracks. A winding wooden roof structure was planned as an additional PD/ID stand—a real challenge. The shelter measures 18.8 x 11.5 meters with a column grid of approximately 4.5 x 9.0 meters. In collaboration with the timber contractor Vial Charpente from Le Mouret and the timber engineering firm Timbatec, a solution using solid wood panels was developed.

[Video](#)

## The Construction Method

In the Vial Charpente workshop, the 280 mm-thick CLT panels were cut to size and joined into six separate roof sections using TS3 technology. Due to the angled joints, the panels were laid on negative molds serving as a jig. After a lengthy waiting period in the sheltered workshop, the individual components were transported to the barracks site and joined on-site using five additional TS3 joints. The roof was supported on 10 V-shaped steel beams.

## The Challenges

The corner joints were not to be subjected to heavy loads during transport and the crane lift. For this reason, the entire roof was constructed on negative molds resting on two beams. The beams were attached to the crane, and the entire structure was hoisted up and then set down on the supports. The lifting weight was approximately 30 tons.



### Construction data

- Roof area: 216 m<sup>2</sup>
- Cross-laminated timber: 43 m<sup>3</sup>
- TS3 technology: 124 m<sup>1</sup>
- Column grid: approx. 4.5 m x 9.0 m

### Architecture

Charrière-Partenaires SA Architecture Firm, Granges-Paccot

### Client

Armasuisse, Bern

### Timber engineer

Timbatec Timber Engineering Switzerland AG, Delémont

### Timber construction

Charpentes Vial, Inc., Le Mouret

### CLT Manufacturer

Schilliger Holz AG, Küssnacht