Apartment Buildings in Hollerach, Grossaffoltern

Four apartment buildings featuring the new TS3 technology are being built in Grossaffoltern in the Bernese Seeland. This is the world's first residential development to utilize this innovative technology.

The Project

The three-story residential complex, featuring 20 comfortable apartments, is located in Hollerenacher in Grossaffoltern, between Bern and Biel. The ground floor and first floor each house two apartments, while the top floor features a penthouse apartment with panoramic views. The sustainably constructed wooden buildings in Grossaffoltern are the first in the world to utilize TS3 technology. This means that the building's floor slabs consist of large-format cross-laminated timber panels bonded end-to-end using TS3 technology. This provides building occupants with a comfortable indoor climate as well as maximum flexibility in use.

The Construction Method

Prefabricated wooden elements were erected on the concrete floor slabs. The 13 glued-laminated timber panels, each measuring 2.5 meters by 2.5 meters, were glued end-to-end on site to form the floor slabs. A total of 2,300 square meters of floor slabs were glued and installed in the four apartment buildings.

The Challenges

Impregnating the ends of the cross-laminated timber panels presented a major challenge. To address this, a tent equipped with a construction crane was set up near the construction site. This allowed the panels to be prepared and precisely glued together on-site to form floor slabs.

The timber remains visible in the interior

Exterior view of a finished house

Visualisation

Construction data

- Cross-laminated timber: 230 m³
- Round timber columns: 12 pieces

Architecture

Spreng + Partner Architects, Inc., Bern

Timber engineer

Timbatec Timber Engineering Switzerland AG, Zurich

Timber construction

Stuberholz AG, Schüpfen