

Replacement of Raiffeisenbank, Gebenstorf

2024



The new Raiffeisenbank Wasserschloss building in Gebenstorf, designed by Merlo Architekten AG, is based on the TS3 skeleton construction method: Columns and wide-span, point-supported cross-laminated timber panels form the load-bearing structure, so that surrounding ribbon windows create an open and bright ambience. The wide-span load-bearing structure enables a flexible room layout for the counter hall and the office space above, which is spread over the other three floors.

The project

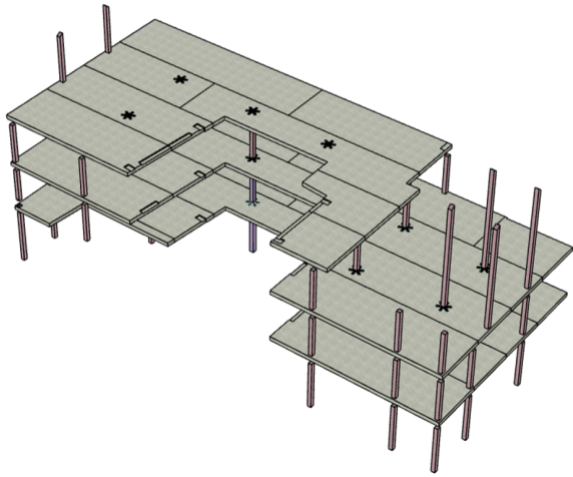
Raiffeisenbank Wasserschloss held an architectural competition for a new replacement building for its Gebenstorf site. From several architectural proposals, Merlo Architekten AG emerged as the winner with their design of a light-flooded concept. The architectural requirements placed high demands on the supporting structure, which is only conceivable with a skeleton construction. In order to achieve a fast and shortened construction time, the architectural concept was realized as a TS3 supporting structure in skeleton construction and a column grid of 6.5m x 5.3m.

The construction method

Skeleton construction is one of the most suitable construction methods for such projects. However, this construction method relies on beams in timber construction. To be able to build without beams, Vögel Ingenieure opted for the TS3 system. A concrete access zone consisting of a staircase, elevator shaft and technical rooms helps to reinforce the building. In the interior, there are no load-bearing walls at all. A total of 882m² of cross-laminated timber panels were used, which are rigidly connected to each other using 240 linear meters of TS3 joints.

The challenges

Noise and traffic obstructions had to be prevented as far as possible, which was ensured by the short construction time of the TS3 load-bearing structure. The interlocking of the construction of the load-bearing structure and the setting of the outer walls were planned by Vögel Holzbau and are part of the fabrication and assembly work, in the sense of a just-in-time process.



Construction data

- Gross floor area: 882m²
- Cross laminated timber: 229 m³
- TS3 technology: 240 linear meters of joints
- Column grid: 6.5m x 5.3m

Architecture

Merlo Architects AG

Client

Raiffeisen moated castle, Gebenstorf

Timber engineer

Vögeli Ingenieure AG, Kleindöttingen

Timber construction

Vögeli Holzbau AG, Kleindöttingen