

Development Lee Side, Faulensee

2017



The location is fantastic. Living in the Lee Side development in Faulensee means living with a view of the lake and the Alps. The two residential buildings are slightly elevated above Lake Thun. The cantilevered roof was constructed with panels of cross laminated timber.

The project

The Lee Side development in Faulensee near Spiez consists of two apartment buildings, each with three condominiums. The apartments have 3.5 to 5.5 rooms and are very generously equipped. All apartments offer an incomparable view of Lake Thun and the mountains of the Bernese Oberland. The large sliding glass doors contribute to the fact that the outside area practically merges with the interior. The jewel in the crown of each residential unit is the spacious, open-plan dining, cooking and living area, which flows seamlessly onto the balcony or into the garden. Except for the roof structures, the two buildings were constructed as solid structures. The gable roofs were constructed with panels of cross-laminated timber.

The construction method

The reason that the lighter building material wood was chosen for the roof structure: The large canopy was planned to cantilever about 2.5 m above the balconies. It is true that the Lee Side has supports on this side. However, they have no load-bearing function and are there purely for aesthetic reasons. In order to transfer the horizontal forces of the roof structure into the walls in the threshold area, steel plates were inserted into the concrete. Due to the specified smooth structure on the inside, the center purlins had to be integrated into the roof structure so that they could not be seen from below. The center purlins were constructed of block-bonded Kerto panels with support battens bonded to the sides, giving them high strength and rigidity. Thermal protection of the roof was solved with on-roof insulation. In the interior, the cross laminated timber boards of the roof were also clad with gypsum fiber boards.



Snapshot of the construction work: Cutting together the roof panels in the ridge area



Invisible from below: The Kerto center purlin was integrated into the roof structure



Absorb the outward horizontal forces: steel components inserted into the concrete



Skylight

Construction Data

- Cross laminated timber 2 x 31 m³

Construction costs

- BKP 1-5: 5.9 Mio.
- BKP 2: 5.2 Mio.
- BKP 214: 0.19 Mio.

Services of Timbatec

- SIA Phase 31 Preliminary design
- SIA Phase 32 Construction project
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- Site management and site inspections

Timber construction engineer

Timbatec Holzbauingenieure Schweiz AG, Bern
3012 Bern

Civil Engineer

Beat Dahinden, Engineering Office for Structural and Civil
Engineering
3700 Spiez

Architect

wittwer+pulver architekten ag
3510 Konolfingen

Woodworker

Zurbuchen Holzbau und Sägerei AG
3700 Spiez