

# VIDIT workshop, Bubikon

2021

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With the new construction of the workshop, a representative and sustainable company headquarters has been built for the Hustech company. A skeleton structure and beams and columns made of beech wood and TS3 technology reflect the innovative spirit of the company.

## The project

The basement and first floor are built in cast-in-place concrete, the three upper floors above are pure timber construction. The supporting structure consists of beech columns and beams with solid spruce ceilings above. In the roof, a truss was formed with the beech girders, which dictates the shape of the roof. Insulated hollow box elements are stretched over the trusses. A back-ventilated wooden formwork forms the facade cladding. The stairwell and elevator shaft walls were constructed with CLT panels. The slabs are all formed into slices, which transfer the forces from wind and earthquakes into the bracing walls. The stairwell and elevator core walls, as well as individual exterior wall elements, were used for bracing.

## The construction

The columns and beams in beech (grid 4.0 x 5.0 m) with spruce solid wood floors above allow for an economical and efficient construction method. The supporting structure also immediately forms the visible surfaces inside the building and gives the building its own character. The three-meter cantilevered canopy was created using a TS3 CLT panel (wooden panel supporting in both directions) and suspended from the building with tie rods. The same type of construction (TS3) was also used to create the roof for the container spaces, which is supported at certain points.

## The challenge

The three upper office floors are connected to each other via an open area inside the building, so that an RWA (smoke and heat exhaust ventilation system) had to be planned. A fan in the roof will extract the smoke gases in the event of a fire.



Interior view with beech supports



Interior view



TS3 during TS3 grouting of the canopy



Roofing of the container house

### Construction Data

- Beams/columns beech 60 m<sup>3</sup>
- CLT panels 200 m<sup>3</sup>
- Structural timber/ BSH 100 m<sup>3</sup>

### Construction costs

- BKP 214: 1.6 million Swiss francs

### Services of Timbatec

- SIA Phase 31 Preliminary design
- SIA Phase 32 Construction project
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- SIA Phase 52 Execution
- SIA Phase 53 Commissioning
- Statics and construction
- Fire protection planning
- Fire protection Quality assurance QSS2
- Cost estimation
- Technical site supervision and site inspections

### Client

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### Architect

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### Timber construction engineer

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### Timber construction

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### Timber construction

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### Photography

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