

# Addition to school Walkringen, Walkringen

2011

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In order to create more school space, the school Walkringen gets an additional floor and a new outside lift. To achieve this, the existing roof structure was demolished and a new attic floor was added to the building.

## The project

The Walkringen school building (external dimensions around 14 x 34 meters) was to be supplemented with additional classrooms and an external lift. To realize this, the existing roof structure was removed and a new attic floor was added to the building.

## The construction

From the engineer's point of view, the bracing of the building proved to be a difficulty. In the longitudinal direction, short walls existed only in the four corners of the building to form static slices. Transversely, there were the gable walls as well as a room partition, which served as bracing.

## The challenge

It was important to optimize the construction as far as possible so that rapid assembly was possible during the school vacations. The gable-end exterior walls and the roof were therefore manufactured/assembled as prefabricated elements. The roof was designed as a rafter layer, but was prefabricated in the factory in the form of hollow box elements. The gable walls and the bracing interior wall were also prefabricated. The ridge as well as the foot purlins on the window mullions had to be erected conventionally.



Southeast view with kindergarten



Roof view



Canopy construction



View

### Construction Data

- BSH GL24h 31 m<sup>3</sup>
- Structural timber 21 m<sup>3</sup>
- Three-layer boards B/C 27mm 124 m<sup>2</sup>
- OSB 4
- 15mm 480m<sup>2</sup>
- OSB 4
- 22mm 45.5m<sup>2</sup>

### Services of Timbatec

- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- Site supervision and site inspections

### Client

Walkringen Residents' Community  
3512 Walkringen

### Architect

Andres Manfred  
3512 Walkringen

### Timberconstruction engineer

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### Timberconstruction

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