

# New construction MFH Silberhorn, Beatenberg

2007

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Beaten GmbH planned to build a development with 4 apartment buildings on the site of the former Hotel Silberhorn. The buildings are built in pure timber construction except for a massive development core.

## The project

The living areas have protected loggias alternating across the corner to the sun and to the mountains. The resulting cantilevers had to be designed without supports and in a way that was flawless in terms of building physics. No supporting structure was allowed to be visible either; the entire construction had to be integrated flush with the walls and ceilings, while the thermal insulation still had to be sufficiently thick.

## The construction method

The solution consisted of walls of timber frame construction reinforced by integrated trusses and trusses. For the low knee walls in the attic, box girders with laminated veneer lumber planking were chosen. For the ceilings, a wood-concrete composite system of board-stack elements with superimposed concrete was specified. The sound insulation concept was designed in such a way that the supporting structure was decoupled from all rooms by means of facing shells and suspended ceilings.



Aerial view of a building



Visualization of the entire structure



Visualization view of Eiger, Mönch and Jungfrau from loggia



Visualization Cadwork - support on trusses

### Construction Data

- 3 MFH with 4 1/2 floors each
- Ridge height 13
- 7 m
- 1 MFH with 3 1/2 floors
- ridge height 11 m
- Area in ground plan 11 x 15
- 7 m

### Construction costs

- BKP 1-9: 8.5 Mio.
- BKP 2: 1.9 Mio.

### Services of Timbatec

- Statics: bracing/overall stability
- Calculations wood-concrete-composite
- Details/detailed solutions
- Accompaniment and consulting contractor/architect
- Work and construction site inspections

### Execution

Künzi + Knutti AG  
3715 Adelboden

### Timber Construction Engineers

Timbatec Holzbauingenieure Schweiz AG, Thun  
3600 Thun

### Client

Beaten GmbH  
3803 Beatenberg

### Architect

Fahmi Heinz, Architect  
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### Civil Engineer

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