

New Construction of the Y80 Multifunctional Laboratory Building, Zurich

2023



The University of Zurich's (UZH) multifunctional Y80 laboratory building brings together three leading research institutes and provides a state-of-the-art infrastructure for medical research. Floors 1 through 3 were constructed using prefabricated timber elements.

The project

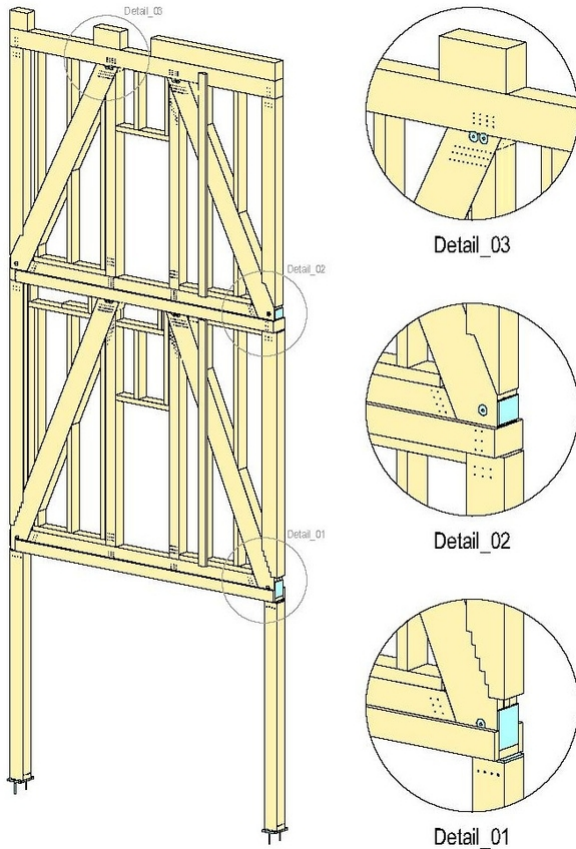
The University of Zurich's multifunctional Y80 laboratory building on the Irchel Campus was completed between 2021 and 2024 and offers approximately 2,450 m² of fully equipped laboratory, surgical, and research space. It brings together several institutes and strengthens interdisciplinary research. The building features a modular design: while the base floors are constructed using solid masonry, the upper floors 1–3 were designed as timber-frame structures. This hybrid construction allows for flexible floor plans, a reduced construction time, and resource-efficient use of materials, all while meeting the high technical requirements of a laboratory building.

The construction method

Load-bearing beech beams and a precise truss system enable large-volume structures with few columns. Prefabricated timber structural elements for walls and box-girder ribbed ceilings (spans up to 7.2 m) were used. Columns and joists made of spruce glulam and construction-grade beech complement the system. Approximately 60% of the ceiling elements were manufactured with a raised profile.

The challenge

The laboratory building is designed to meet the demanding requirements placed on it by day-to-day research activities. The heavy X-ray machines generate high point loads. The large number of research instruments necessitates numerous wall openings. Transport logistics for 4.20-meter-high wall panels.



Truss rendering with detailed design

Construction Data

- Amount of wood used: 570 m³

Construction costs

- Total project investment: CHF 46 million

Services of Timbatec

- SIA Phase 51 Implementation project
- 3D and 2D construction drawings



Erection of prefabricated wall elements



Construction drawings with detailed design in 2D and 3D

Building owner

Building Department of the Canton of Zurich
8090 Zurich

Architect

Seifert Architekten
8003 Zurich

Client

Implenia Schweiz AG Rümlang
8153 Rümlang

Timber construction engineer

Christian Keiser
9200 Gossau

General Contractor/General Subcontractor

Implenia Schweiz AG Rümlang
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Photography

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