

# Bicycle bridge over the Töss, Wülflingen

1992



During a flood in the 1960s, the old footbridge at the confluence of the Eulach and the Töss was destroyed. This was not replaced at first. It was not until residents of the adjacent neighborhoods submitted a petition for a new pedestrian footbridge in 1989 that the project planning for a new footbridge was taken in hand.

## The project

From a number of variants in covered and uncovered construction, a waisted truss bridge with inclined struts was chosen for execution. The preliminary studies and the preliminary project including structural analysis, design and cost estimation were part of an internship Stefan Zöllig completed at Ing. Büro Menig in St. Gallen. The scenic surroundings required great care in the construction and design of the new footbridge.

## The construction

The Töss Bridge is a truss bridge with a length of 48.00 m and a width of 3.00 to 3.80 m. The deck is made of transversely prestressed planks 6 x 3 cm. The waisted deck consists of transversely prestressed planks 6 x 10 cm. It rests on double-guided transverse beams suspended from steel round bars. The struts are double-guided. They run from the support joint below the deck to the axles every 4.70 m at the truss. In addition to the stiffening deck slab, the primary wind bracing of parabolically laid, prestressed spiral wire ropes ( $\varnothing$  25 mm) and the secondary wind bracing in sawn timber as St. Andrew's crosses are also used for wind bracing. All components are made of pressure-impregnated white fir.



Montage



Montage



The new construction



Bearing connection

### Construction Data

- Galvanized lanyard approx. 900 kg
- steel Fe 360 galvanized approx. 1800 kg
- Hardwood (oak) 2 m<sup>3</sup>
- Glulam 40 m<sup>3</sup>
- sawn timber FKII 51 m<sup>3</sup>

### Timber Construction Contractor

Zehnder Holz+Bau AG, Timber Construction Contractor  
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### Timber construction engineer preliminary project

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### Client

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### Timber engineer Construction project

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### Structural engineer

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