

TB Rälsbach, A 45



SHORT DESCRIPTION

The Rälsbach Valley Bridge consists of two prestressed concrete superstructures, each approximately 175 m long, with one carrying traffic in each direction on the A45. As part of the demolition process, the structures will be dismantled via a controlled blast involving the sequential demolition of the piers and the vertical collapse of the superstructure.

THE PROJECT

The Rälsbach Valley Bridge is located between the Siegen-Süd and Wilnsdorf interchanges in the Wilnsdorf district.

The two bridge sections are designed as prestressed concrete continuous girders with prestressing tendons in composite action, each approximately 175 m long.

A controlled demolition will be carried out, in which the piers will fail due to blast folding and the superstructures will fall vertically to the ground.

BBV Systems GmbH was responsible for the fabrication, prestressing, and grouting of the tendons both at the factory and on the construction site.

The project demonstrates the successful application of modern prestressed concrete technology in bridge construction and the requirements for its subsequent demolition.

SERVICES IN DETAIL

- Prestressing Technology, Bridge Construction:
 - Internal strand tensioning method with subsequent bonding
 - External strand tensioning method, Type E
 - Per superstructure (internal): 48 metric tons of prestressing steel; 138 prestressing tendons each, type BBV L15
 - External: 30 metric tons of prestressing steel; 12 BBV L15E tendons each

FACTS

Location	Wilnsdorf-Rinsdorf , Germany
Status	completed
Construction volume (value of our services)	506,000 EUR
Start of construction	January 2020
Completion	January 2023
Building owner	Strassen NRW
Contracting entity	Züblin / Strabag



<https://www.bbv-systems.com/en/projects/detail/ref/tb-raelsbach-a-45/>

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