

# **TUNNEL FEUERFELSEN / RENNBERG**

## **COBURG OST (DE)**

### **CLIENT**

Deutsche Bahn AG, DE-99001 Erfurt

### **ENGINEER**

DB ProjektBau GmbH, DE-04003 Leipzig

### **TIME OF COMPLETION**

05.2010 – 10.2014

### **CONTRACT SUM**

CHF 100 Mio. (€ 82 Mio.)

### **EXECUTION OF THE WORK**

ARGE Tunnel Feuerfelsen Rennberg

### **CONSORTIUM PARTNERS**

Marti Tunnel AG, CH-3302 Moosseedorf  
Marti GmbH, DE-70567 Stuttgart  
Johann Bunte Bauunternehmung GmbH & Co.KG,  
DE-26871 Papenburg

### **LEAD COMPANY AND TECHNICAL LEAD**

Marti Tunnel AG, CH-3302 Moosseedorf

### **COMMERCIAL LEAD**

Johann Bunte Bauunternehmung GmbH & Co.KG,  
DE-26871 Papenburg

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## COBURG OST (DE)

### SCOPE OF THE WORKS

Two-track railway tunnel. VDE 8.1 new railway section Ebersfeld – Erfurt, BA 3121, VP Coburg Ost, NBS Bau-km 19,1+30 – 24,8+95

### ACTIVITIES

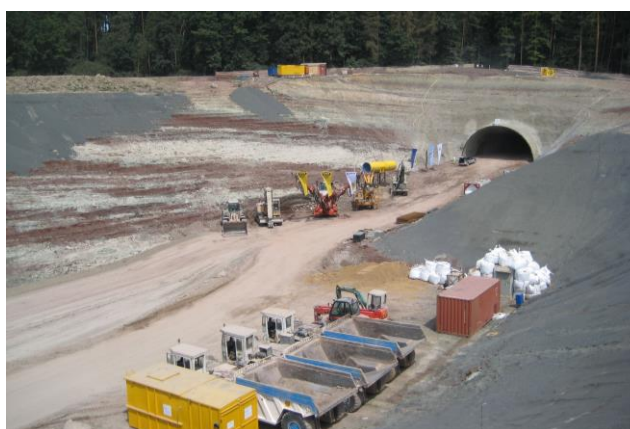
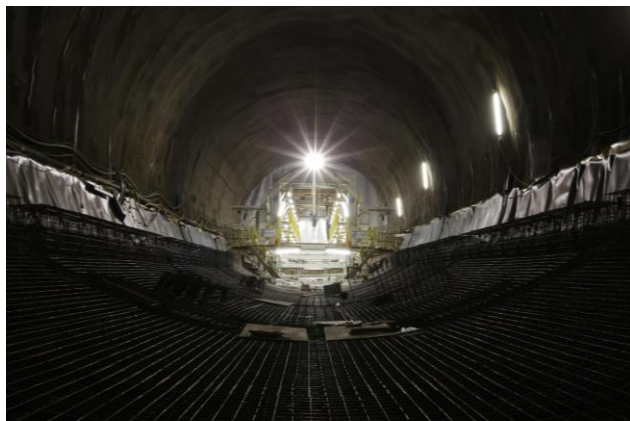
The road project Coburg East is part of the road traffic master plan Deutsche Einheit Nr. 8.1, new highway Nürnberg-Erfurt-Leipzig/Halle-Berlin.

The contract embraces a 5.8 km long stretch including the tunnel Feuerfelsen 1'003 m, the tunnel Rennberg 1'032 m, five bridges, the roadwork and earthwork of 2.2 mill. cubic meter.

#### Execution and schedule :

The tunnels are constructed double lined, being the external lining of shotcrete and the inner one of concrete. The tunnel section has 160 m<sup>2</sup> and both tunnels are excavated simultaneously. The excavation is performed applying the conventional NATM. Works started in August 2010 with the excavation of the pre-cut of the southern portal of the tunnel Feuerfelsen. The tunnelling work started in January 2011. For the completion of both tunnels of 21 months are scheduled

Length:	1 x 1'003 m
	1 x 1'032 m
- Excavation volume:	320'000 m <sup>3</sup>
- Shotcrete/concrete volume:	ca. 170'000 m <sup>3</sup>
- Reinforcement steel inner lining:	ca. 8'000 t
- Construction method:	NATM (D&B with top heading, bench and invert)
- Pull length:	max. 2.2 m
- Diameter of the tube:	12 m
- Minimalum overburden:	10 m
- Maximalum overburden:	25 m
- Escape gallery L = 150 m and escape shaft	
- Planned speed-limit:	300 km/h



21.01.2015

### GEOLOGY

Both tunnels Feuerfelsen and Rennberg are driven on their whole length through formations of coloured sandstone.

The tunnels have an overburden of 10 to 25 meters. Due to ground water the construction is shielded with a KDB insulation.

