OBERAU TUNNEL PROJECT
GARMISCH-PARTENKIRCHEN (DE)

CLIENT
Autobahndirektion Südbayern, DE-80335 München
(Road Administration Region Bayern South)

DESIGNER
PSP Consulting Engineers, DE-80686 München

SITE SUPERVISOR
ILF Beratende Ingenieure, AT-6063 Innsbruck

CONSTRUCTION PERIOD
09.2015 - 05.2020

CONTRACT SUM
CHF 103 Mio. (€ 99.4 Mio.)

JOINT VENTURE COMPANY
ARGE Tunnel Oberau

JOINT VENTURE PARTNERS
Marti GmbH Deutschland, DE-705647 Stuttgart
Marti Tunnel AG, CH-3302 Moosseedorf
TuCon a.s., SK-010 04 Žilina-Bánová
Marti GmbH Österreich, AT-8045 Graz

LEAD COMPANY AND TECHNICAL LEAD
Marti Tunnel AG, CH-3302 Moosseedorf

COMMERCIAL LEAD
Marti GmbH Deutschland, DE-705647 Stuttgart
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PROJECT DESCRIPTION
The Oberau tunnel project comprises the new construction of a twin tube road tunnel using conventional methods close to Garmisch-Partenkirchen, which aims to divert the existing road that crosses the town of Oberau. The excavation was performed with horizontal surface injections in order to prevent surface settlements due to low overburden. The ground water control was part of the scope of works.

The main parts of the project consist of:
- 2’750 and 2’830 m long (95 m²) twin tube road tunnel
- Cross connections every 500 m (14 to 36 m²)
- Shallow shafts for elevation-injections

WORK DESCRIPTION
Underground excavation, rock support and grouting work
- Excavation methods: drill & blast (80%) in hard rock, excavator advance (20%) in loose material
- Excavated length and volume: 5’580 m, 500’000 m³
- Grouting method: elevation-injections from the surface, sealing rings
- Standard rock support: shotcrete (60’000 m³) and systematic rock bolts (50’000 pcs)
- Additional rock support: spile umbrella and lattice girders

Underground water and frost protection work
- Umbrella seal and perimeter waterproofing systems: 160’000 m²

Surface- and groundwork
- Vibro pile column construction for 9’300 m
- Site access roads and main road works including extension of existing tracks
- Collection basins including design
- Roadway separation walls including design
- Tunnel excavated material: dumping and processing services

Concrete work
- Tunnel concrete lining
- Four concrete portals totally 312 m long

GEOLOGY
- Dolomite, Limestone
- Gravel deposits (loose material)