

SOCHI 2014 TUNNEL 3



Sochi, Russia

Between the Olympic village close to the city of Adler located at the Black Sea and the Krasnaya Polyana winter sports resort in the Caucasus, which is approx. 57 km away, 13 road, railway and service tunnels with a total length of approx. 30 km are built in addition to the 37 km of over-pass structures and bridges.

After the start of construction works, the alignment had to be adapted in order to avoid a landslide.

New Rail, Road and Service Tunnels

Location

Sochi, Russia

Project Stages

Start of construction: Spring 2009
Inner lining: 2012-2013
Commissioning: February 2014

Alignment

During the construction of the tunnels, a new alignment had to be planned under time pressure in order to avoid a huge sliding mass. The rail as well as the service tunnel were aligned below the sliding mass and more towards the mountain. The road tunnel was shortened and connects to a cable-stayed bridge beyond the sliding mass.

Geology

The geology is made up of a selection of sedimentary and magmatic rocks. Predominant have been limestones, marl, porphyry, various compositions of sandstone, claystone and siltstone as well as tectonically stressed fault zones. The fault zones consist of heavily broken hard rocks, fault gouges and clay fillings.

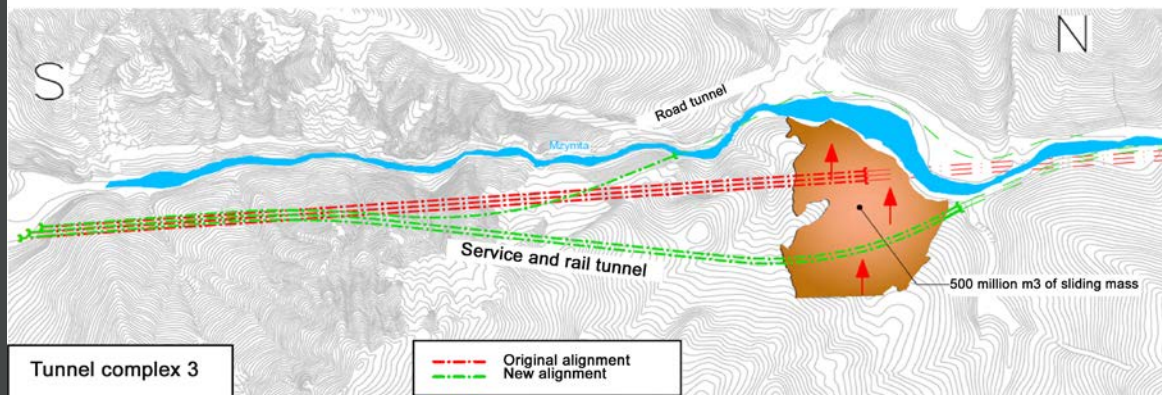
Excavation Method

TBM and conventional excavation.

Client and Contact Person

Russian Federal Railways,
Evgeniy Solntsev

Optimisation of the alignment due to geological risks (sliding mass in the area of the northern portal T3)



Objects

Rail tunnel 4'400 m
Road tunnel 3'200 m
Service tunnel 4'800 / 3'200 m

Our Services

- Alignment optimisation
- Risk management
- Client consultancy
- Monitoring of construction works
- Planning of construction support measures



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