

ETCS Ceneri Base Tunnel, Construction Project Train Control and Signalling System

Concept, design and specification of the new train control and signalling system for the Ceneri base tunnel on behalf of AlpTransit Gotthard AG. The contract includes the construction project as well as options for the tender specification- , the offer evaluation- and the realisation phase.

The project is carried out by Emch+Berger AG Bern in a consortium. The system is being specified in a complex environment with many interfaces to other systems where the use of new technologies, open interface requirements, modularity, operational safety, interoperability, cost budgets and adherence to international and national standards set conditions to be met.

**Client**

AlpTransit Gotthard AG, Lucerne

Period: 2008 - 2010

Delivered services

- Concept train control and signalling system
- Engineering and design construction project
- Definition of the functional and technical requirements
- Cost estimate
- RAMS analysis

Specifications

- Two separated running tunnels: 15.4 km
- Train speed: 80-250 km/h
- Headway: 3 min
- Train control system: ETCS level 2
- RBC with GSM-R interface: 1
- Interlockings: 2
- Balises: approx. 200
- Central Control System: 1