N08 Escape Passage Sengg Tunnel, Safety Galleries Chüebalm and Giessbach Tunnel

Client
Federal Roads Office (ASTRA), Regional Office Thun

Engineering
Consortium „Notausgang N8“, lead by IUB Engineering Ltd.

Construction period
2013-2017

Construction costs
9.6 Million CHF

Scope of services
General planning contract from detail design to site supervision for driving and lining the galleries, air locks and exterior appurtenances, surveying and provision of electromechanical equipment.

Description
The Chüebalm and Giessbach tunnels will receive a total of 15 emergency exits. To this end, a safety gallery will be construct-ed parallel to each tunnel, to which it is connected via cross passages. The safety gallery for the Giessbach tunnel will be bored using an open gripper TBM, whereas the safety gallery for the Chüebalm tunnel will be excavated by conventional drill-and-blast method. Both galleries will be equipped with air locks and technical chambers at the portals. The Sengg tunnel will just be equipped with an emergency passage at the centre of the tunnel, leading to the surface via a gallery and a staircase shaft. At the head of the shaft an operating building with integrated air lock is being constructed.

Principal data
Safety gallery Giessbach tunnel
Length 3319 m
Diameter 5.20 m

Safety gallery Chüebalm tunnel
Length 1150 m
Cross-section 3.20 m x 4.50 m

Escape passage Sengg tunnel
Shaft depth 10 m
Shaft diameter 6.60 m
Gallery length 50 m
Cross-section 2.60 m x 3.20 m