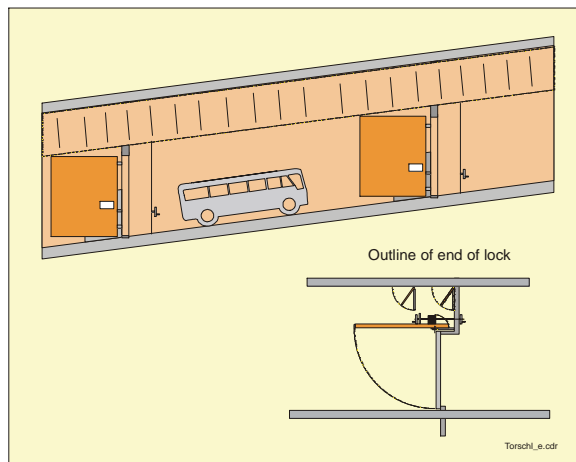
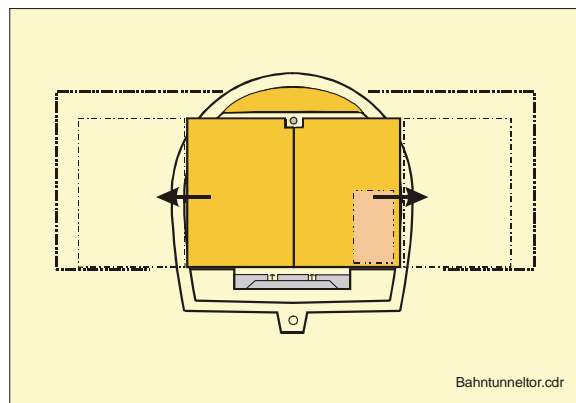


Schematic of ventilation station at Mitholz



Lock in lateral adit Mitholz



Gate in rail tunnel

## Description

The Loetschberg Base Line is a principal element of the New Cross-Alpine Rail Links (NEAT) in Switzerland. Central elements of the Loetschberg Base Line are the Loetschberg base tunnel with a length of approximately 35 km and the Tunnel Engstlige with a length of approximately 3 km. There are demanding requirements regarding the lifetime and availability of the electro-mechanical equipment.

HBI Haerter Consulting Engineers was mandated with planning services for mechanical equipment and ventilation at the stage of the basic design.

## Services

The following services were provided by HBI within the phase of basic design of electrical and mechanical equipment:

- Implementation of the feasibility studies and of the electro-mechanical requirements in a basic design
- Design of the ventilation stations at Mitholz and its fans
- Design of the mechanical equipment, particularly tunnel-sided gates and doors, gates of locks, doors in the rail tunnels, rails, handrails, and signage of escape routes
- Specification of requirements for the equipment considering the rail-specific needs
- Issuing of inventory, drawings of equipment and basic design of principle elements and documents for authorities
- Issuing of documents for approval of the design
- Calculation of costs and comparison of different alternatives
- Set up of time schedules for further project phases