RHOMBERG SERSA RAIL GROUP



ZEB Lucerne

Lucerne, Switzerland

As part of the project, targeted measures were implemented to optimise the infrastructure at Lucerne station. These included adjustments to the platforms, modifications to the turnout connection between tracks 3 and 4, and a reduction in headways at the station approach.

In 2022, all mast and signal foundations, track crossings and cable duct works were executed during night-time possessions.

Signal foundations were partly constructed using micropiles; ductile cast iron piles were also used in the station area. In addition, preparatory works for the installation and connection of tunnel signals were carried out.

In parallel, the foundation for a new railway technical building (BTG) was constructed using strip foundations. Along these foundations, a drainage system with inspection chambers for roof drainage was installed.

Furthermore, the foundation for the new BTG building was completed, and the existing building was demolished under RSRG responsibility.

Location:	Lucerne, Switzerland
Client:	Swiss Federal Railways SBB AG
Construction period:	09.2022 – 08.2024
Services:	Modifications to the platforms, a new set of points between platforms 3 and 4, and a reduction in train intervals on the Lucerne outbound line
Executing companies:	Rhomberg Sersa Rail Group (Switzerland)

Contact:
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Read more:

ZEB Lucerne
Lucerne, Switzerland

Special features

The project was characterised by a number of technical and logistical challenges:

- ✓ Use of a new buffer stop system (Klose)
- ✓ Deployment of a bi-directional side tipper wagon under trial conditions (AGSK 6321, Wascosa)
- ✓ First use of driven ductile cast iron piles including associated foundations
- ✓ Adjustment of platform edges to clearance gauge by cutting and grinding
- ✓ Logistically demanding installation of cement-bound Misapor:
  - ✓ 350 m^3 within three days (six shifts)
  - ✓ additional approx. 600 m^3 for a second platform

Technical data

- ✓ Excavation works: 1,200 m^3
- ✓ Cable ducts: 2,000 m
- ✓ Drainage pipes: 200 m
- ✓ Cable chambers: 75 units
- ✓ Track crossings: 15 units
- ✓ Pavement works: 400 t
- ✓ Foundations (anchors, signals, dwarf signals): 25 units
- ✓ Track removal: 910 m
- ✓ New track construction: 910 m
- ✓ Installation/removal guard rails (tracks 3 and 4): 350 m
- ✓ Removal of buffer stops: 3 units
- ✓ New buffer stops: 3 units
- ✓ Ballast replacement: 2,500 t
- ✓ Track geometry correction: 150 m
- ✓ Cable installation and pulling: 80 km
- ✓ Strip foundations: 40 m^3
- ✓ Precast chambers (BTG): 3 units
- ✓ Excavation: 1,200 m^3
- ✓ Roof drainage (BTG): 100 m
- ✓ Cable pipes in ballast: 1,000 m
- ✓ Mast and signal foundations: 16 units





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