

CFF Léman 2030 – Lausanne railway station

Building surveying and monitoring during station expansion



- 📍 Lausanne, Switzerland
- 👤 SBB AG
- 🕒 2020 – 2035

Services

- ◆ Extensive manual and automatic monitoring measurements (tracks, excavation pits, buildings, infrastructure, etc.)
- ◆ Preservation of evidence
- ◆ Construction engineering surveying
- ◆ Track surveying
- ◆ Control surveying and stakeouts
- ◆ Creation and maintenance of fixed point networks
- ◆ Recordings SBB database of fixed installations (DfA)

Technologies

- ◆ Automated total stations
- ◆ Inclination sensors
- ◆ Vibration sensors
- ◆ Noise sensors
- ◆ Crack meters
- ◆ Hydrostatic level and inclination sensors

Today, Lausanne station reaches capacity during rush hour. Some platforms are not long enough for 400-meter trains and are also too narrow. As part of the major Léman 2030 project, the entire Lausanne station will be modernized and expanded.

In 2030, over 200,000 people will use Lausanne station every day.

To cope with this increase and the growing number of passengers between Lausanne and Geneva, the following will be built: three new larger and more inviting pedestrian underpasses, five new longer and wider platforms, and a new space under the station square with waiting areas and shops. In addition, the tracks on both sides of the station will be redesigned and adapted with various engineering structures.

IG GéoService Léman, consisting of Terradata, IGemetris Technologie, and Amberg Infra 7D, is responsible as the building surveyor for all monitoring measurements as well as construction and engineering surveying at the station (GEOM lot) and the surrounding buildings (BATI lot).

Special challenges

- ◆ Long-term large-scale project (CHF 1.7 billion) with a high degree of complexity and several construction sites running in parallel
- ◆ Work in the vicinity of railway tracks while they are in operation
- ◆ High demands on on-call service for automatic monitoring measurements
- ◆ Temporary high demand for personnel and material resources in certain project phases