

Campus Reidbach Wädenswil

Construction surveying and monitoring of structures and excavations



TUWAG has planned a new building for the ZHAW at Einsiedlerstrasse 35 and 37 in Wädenswil. The new building will house a teaching and research centre with a laboratory.

The excavation pit, which is up to 12 metres deep, was secured with a nail wall. In the area of the adjacent railway tracks of the Südostbahn (SOB) and the bus loop, this was additionally tied back with a layer of pre-tensioned strand anchors. The pre-tensioning causes the deformations to be anticipated.

During the excavation work and until backfilling, the excavation pit closures, the surrounding buildings and roads, and the adjacent SOB railway track were permanently monitored by an automatic monitoring system. Two automatic tachymeters and an in-place inclinometer were used.

- 📍 Wädenswil, Switzerland
- 👤 TUWAG Immobilien AG
- 🕒 2019 - 2020

Leistungen

- ◆ Basic data collection/3D model
- ◆ As-built surveys/crack reports
- ◆ Construction services (3D machine control, data processing, etc.)
- ◆ Vibration measurements
- ◆ Construction surveying
- ◆ Automatic, tachymetric monitoring of structures and excavations
- ◆ Automatic, tachymetric track monitoring
- ◆ Online access to current measurement data via a web-based customer portal

Technologien

- ◆ 2 precision total stations with approx. 70 monitoring points
- ◆ 5 vibration sensors
- ◆ 1 in-place chain inclinometer
- ◆ TEDAMOS Web, password-protected customer portal with 24/7 access