

## EXTENSION OF THE TAUERN RAILWAY LINE, KOLBNITZ - MÜHLDORF SECTION

Client: ÖBB-Infrastruktur Bau AG (Austrian Railways Infrastructure Construction AG) Development Period: 1992 to 2006

## THE PROJECT \_\_\_\_

The mentioned project section consists mainly of a 4.7 km long, two-track railway extension, with line straightening in certain areas. Besides excavations and dams, 25 retaining structures (close to the existing single-track railway line) had to be built in mountainous territory. Due to the topography of the area and the railway loads above the retaining structures, the walls facing the valley had to be anchored.

Furthermore, three bridges had to be built in the immediate vicinity of the existing line.

## OUR FUNCTION \_\_\_

In this project, BGG Consult was responsible for the geological, geotechnical and hydrogeological consulting during all of the planning and construction phases. To this purpose, comprehensive subsoil exploration campaigns were planned and conducted on very difficult terrain. Based on this, hydrogeological and geotechnical expert's reports were compiled.

The numerous retaining structures demanded an intensive evaluation, and were optimized in close cooperation with the designer. In addition to this, the dimensions of the securing measures for the building pits were calculated. During construction, the securing measures and the retaining structures were monitored on the site.

## Klinzergraben Bridge:

For the Klinzergraben Bridge, unlike the shallow foundation of the existing bridge, a deep foundation by means of bored piles (Ø 90 cm) was chosen. Consequently, only a minimal amount of additional load was applied on the existing foundation, which kept the inclination at a minimum. As a result of this, the depth of the building pit and the securing structures could be minimized.



Building pit Klinzergraben Bridge (View towards Schwarzach)