

EXTENSION OF THE TAUERN RAILWAY LINE, STEINBACH - ANGERTAL SECTION

Client: ÖBB-Infrastruktur Bau AG (Austrian Railways Infrastructure Construction AG)

Development Period: 2004 to 2007

THE PROJECT

The project consists of a double-track railway extension of a 4.7 km long section, and includes line straightening. Main structures are the 3.0 km long Schloßalm Tunnel, which was excavated using primarily the mining technique, and the 136 m long Anger Gorge Bridge. The latter is designed as an arch bridge with nine spans.

The tunnel cuts through the rock of the lower and peripheral schist shell of the Upper Tauern Penninicum. It has an overburden between 30 m and 145 m, and approximately a third of the tunnel length crosses a spacious sliding body (rockslide mass).

OUR FUNCTION

BGG Consult has been involved in the project since 1992. In 1994, an alternative route, close to the existing track was considered. For this purpose, an extensive subsoil exploration was conducted for the geological and geotechnical evaluation of the new route. In 2004, an expert's report was compiled for the route selection procedure regarding the relevant geology, hydrogeology and geotechnics of the project. This was based on the final project including the tunnel. For the Anger Gorge Bridge, geotechnical expert's reports were compiled that were needed for the building permit application, and the preparation of the tender. For the construction phase, BGG Consult was responsible to supervise the construction of the foundation elements on site.

Anger Gorge Bridge:

From a geological and geotechnical point of view, it was of great importance that the heavy and concentrated loads were transferred into the sound rock. For the abutment of the side facing Schwarzach, the weathered rock had to be cleared several meters deep. This required the implementation of an anchored concrete block as a substructure below the foundation. All these works had to be carried out in a cliffy escarpment. For the pillars of the side facing Badgastein, rock-socketed piers with a depth of up to 12 m had to be constructed.



*View of the Anger Gorge Bridge,
existing and new (under construction);
View towards abutment
side Schwarzach*