



A 7 MÜHLKREIS MOTORWAY, VÖEST-BRIDGE - URFAHR SECTION

Client: ASFINAG (Motorway Financing AG)

Development Period: since 2017

THE PROJECT

After 40 years in operation, a general rehabilitation and an adjustment to the best available technology with regard to the traffic safety is necessary at the A 7 Mühlkreis Motorway. The VÖEST-Bridge section comprises a motorway section with a length of 2.2 km within the town of Linz.

The centrepiece of the project is the *Danube* bridge, that will be extended after overall completion by two additional supporting structures, the by-pass bridges on both sides of the existing bridge. The by-pass bridges each consist of three-bayed cable-stayed bridges (lengths 300 m) and foreshore bridges (lengths 240 m). Furthermore, eight crossing structures have to be renewed or extended and five retaining structures have to be newly built.

OUR FUNCTION

BGG Consult has been commissioned by the ASFINAG with the services of the geotechnical expert in the construction phase.

The work includes, among others, the geological documentation of the excavation works and the contact surfaces of the foundations and the embankments with comparison to the forecast situation, the consulting of the client with regard to soil improvement measures, the evaluation of slopes and slope support measures, the evaluation of fill material and the participation in the determination of the technical monitoring. Furthermore, earth statical calculations for the temporary construction pit support systems have to be performed.

Geotechnical Safety Management during Construction:

Within the framework of our services, a Geotechnical Safety Management Plan has been prepared. Its goal is a safe establishing of the structures and the hazard-free operation of the existing motorway. The Safety Management Plan contents, amongst others, the monitoring programme for the geodetic measurements at the numerous shotcrete support systems required for the construction of the retaining walls and at the sheet pile walls required for the preparation of the bridge foundations. As a basis for the evaluation of the system behaviour of the temporary construction pit support systems, BGG Consult has defined forecast, warning and alarm thresholds.

During construction, the recorded displacement are compared with the forecast values and, if necessary, additional measures initiated.



Setting up of the ramps for the by-pass bridges across the Danube