A 23 SÜDOSTTANGENTE VIENNA, NEW CONSTRUCTION OF THE ELEVATED INZERSDORF MOTORWAY SECTION

Client: ASFINAG (Motorway Financing GmbH)
Development Period: since 10/2009

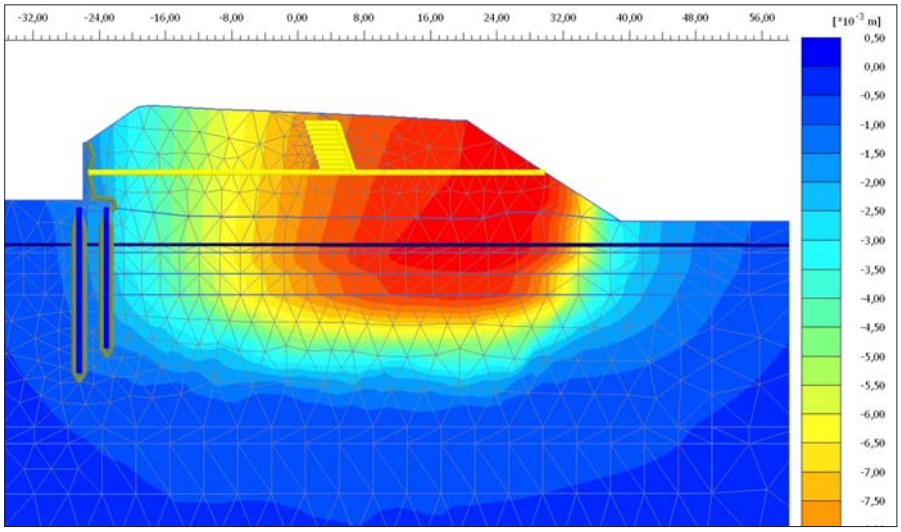
THE PROJECT

The elevated Inzersdorf motorway ranges from km 1.0 to km 3.9 of the A 23 Südosttangente Vienna. After 40 years of heaviest traffic load, a reconstruction is urgently necessary.
In the course of the new construction, the actual structure (a slim and resource-saving pre-fabricated system) will be partly renewed and partly replaced by embankments.
The Inzersdorf intersection with drive-up and drive-down ramps and the Altmannsdorf junction are situated within the contract section.
The motorway has to be under operation consistently for 145.000 daily passing vehicles.
At the area of the bridge over the Donaulände and the Pottendorfer Railway Line, the level crossing of the Pfarrgasse will be replaced by an underpass. Consequently, a crossing structure with three levels is necessary.

OUR FUNCTION

BGG Consult is commissioned for this project with services in the field of geotechnics and hydrogeology during the phases of building permit and tendering.
The work comprised first of all the acquirement of basic data including the planning, supervision and processing of subsoil exploration work. Based on it, expert's opinions and reports for the permit application project and the tendering project for the different contract sections were compiled in the respective fields.

Embankment below the existing Elevated Motorway:
The reconstruction project implies to replace sections of the existing bridge structures by embankments. This poses a special challenge with regard to the maintenance of traffic operation. For this purpose, the following approach was chosen: The embankment will be built for the purpose of a pre-load as far as possible below the existing bridge structures. Subsequently, it will be finished in two phases after the successive removal of the different bearing structures.
Because of the great heights of the embankments and the compressible underground, the calculation of possible settlements below the embankment and of the existing bridges was of special importance.
The amounts of settlement and consolidation periods resulting from the calculations (finite element method) served as basis for the foundation design and the planning of the construction sequences.



Example of a Result Plot from a Settlement Calculation