Taiwan High Speed Rail C230 & C240 Independent Expert to Arbitrator Geotechnical Design Aspects

Asia

Description of Work

The Taiwan High Speed Rail is a 345 km high speed rail link between Taipei and Kaohsiung which was completed in December 2006. Contracts C230 and C240 were awarded to Hyundai Engineering and Construction and comprised the construction of 44 km of the alignment, including 13.3 km of viaduct, 14.6 km of tunnels and 16.3 km of cut and fill embankment. Hyundai employed Hyder Consulting to provide design and engineering services associated with both C230 and C240. During the course of the design and construction work a number of disputes arose between Hyundai and Hyder, which eventually resulted in an arbitration procedure being activated.

Dr. Andrew Pickles of GCG (Asia) Ltd. was employed as an expert on the geotechnical aspects of the arbitration to provide direct assistance to the arbitrator in understanding the positions put forward by Hyundai and Hyder. Mr. Roger Buckby of Halcrow was employed in a similar position to provide advice on the structural aspects. The employment of experts to directly assist the arbitrator is relatively unusual.

The geotechnical aspects on which advice was required included design of piles, slope stability, soil reinforcement, temporary and permanent tunnel portal design, tunneling, cut and fill embankments and cut and fill tunnels. The advice also considered the scope of design work and design changes required during the design and construction phase. The work included the preparation of expert reports. The dispute was settled shortly after the expert report was submitted to the arbitrator and prior to the arbitration hearing.

Client: Hyder and Hyundai

Date: 2005 – 2006 (GCG input)

Approximate Project Cost: US$ 15 Billion

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