



Mr A. Bracegirdle
MSc DIC CEng FICE
Senior Partner

Areas of expertise

Slope stabilisation, retaining wall design, earthworks, hydrogeology and groundwater flow, soft clay engineering, pile foundations, grout injection and ground stabilisation techniques, tunnel construction, shallow and deep water ground investigation, and seismic design of earth structures.

Experience with GCG

Mr Bracegirdle joined GCG in 1984, becoming a Director in 1988 and then a Senior Partner when the company became a LLP in 2011. He has advised on a wide range of civil engineering works which have included the rock and soft ground tunnelling, stabilisation of large landslides, foundations for buildings, storage tanks and deep excavations.

Recent assignments include due diligence and earthquake PML analysis and geotechnical design in respect of major investments Eastern Europe and Turkey. Previous assignments in this region include advising BP in relation to landslide and seismic risk to the BCT/AGT pipeline. He also prepared evidence on behalf of Hungary in respect of the Gabcikovo-Nagymaros Hydro Power Project (Hungary v Slovakia, at the ICJ).

Other recent hydro power works include the investigation of a failure of the abutment of a large dam in Ecuador in 2015 and an investigation into the collapse of a 350m high raisebore during its construction in the Dominican Republic in 2011. He investigated the collapse of a shotcrete lined hydro power headrace tunnel in Chile which occurred after two years of peak-power operation in 2013 and is currently advising insurers in respect of a similar collapse in Georgia. His investigation identified inadequacies in standard design methods, shotcrete fatigue and adverse geology and rock mineralogy as the principal contributory factors leading to the collapse.

In 2013-14, he investigated the collapse of a shaft in Russia in which difficulties were experienced with groundwater and loss of stability and a depth of about 100m

He has been involved with the investigation of mining subsidence and sinkhole activity in the UK and South Africa and is currently undertaking remediation of collapse subsidence in Ripon in the UK.

Other recent work in soft clay includes the assessment of settlement of warehouse floors in Cardiff, Avonmouth and Winsford, the settlement of a large industrial structure in Newcastle and problems on major projects associated with piling in rock and soft clay.

Work on ground improvement includes the application of jet grouting, permeation grouting and compensation grouting.



GEOTECHNICAL CONSULTING GROUP

52A Cromwell Road London SW7 5BE United Kingdom
Tel: +44 (0)20-7581-8348 Fax: +44 (0)20-7584-0157 Email:admin@gcg.co.uk

Mr Bracegirdle has been retained as an expert witness in cases involving soil and rock slope stability, tunnel construction in hard and soft ground, cofferdam and retaining wall construction, building and storage tank foundations, quay walls, groundwater flow, ground improvement, earthworks and seismic risk, presenting evidence to the ICJ, ICC and UK Technology Courts. He has recently acted as an expert for an International Arbitration in Oman involving the construction of a pipeline in difficult ground conditions.

He has published papers on the subject of ground movements due to tunnel construction and their influence on buried services, slope and pit slope stability, seismic design of reinforced earth, construction of cofferdams, and pile foundations.

Areas worked

UK and Channel Islands, Ireland, France, Zimbabwe, Libya, Ethiopia, France, Georgia, Denmark, Portugal, Nepal, Singapore, Australia, Russia, USA, Dominican Republic, Chile, Peru, UAE, Turkey, Serbia, Hungary, Slovakia, Greece, Oman, South Africa and Hong Kong.

Previous experience

On graduation and until 1978, Mr Bracegirdle worked as a Section Engineer on the construction of surface hydraulic structures, rock and mixed ground tunnelling and underground civil works in the development of a major hydro-electricity project in the North Island of New Zealand. During this time he was primarily involved with the construction of the 60m high Moawhango Dam, and penstock and surge chamber construction at the underground Rangipo North powerhouse. This work involved rock excavation, support and grouting works.

In 1979 he attended a post-graduate course in Soil Mechanics and Engineering Seismology at Imperial College, London. Between 1980 and 1983, he undertook research and development and consultancy in geotechnical and earthquake engineering for the NZ Ministry of Works and Development. During this period, he was responsible for the investigation, design and technical specification of the geotechnical aspects of civil works which included opencast coal mining, industrial structures, large petrochemical storage tanks, bridge substructures and slope stabilisation schemes.

Education/Research

MSc (Distinction), Imperial College, London, United Kingdom, 1979
BEng (1st Class), University of Auckland, New Zealand, 1975

Professional Qualifications & Memberships

Fellow of the Institution of Civil Engineers, 2004 -
Member of the Institution of Civil Engineers, 1994 -
Member of the Institution of Professional Engineers, New Zealand, 1983 –
Member of the British Tunnelling Association, 1983-
Member of the British Geotechnical Association, 1983 –

Service on Technical/Professional Bodies

British Geotechnical Association Chairman, 2003 – 2005
Trustee of the British Geotechnical Association 2011-
Institution of Structural Engineers committee for the implementation of Eurocodes, 2007 – 2011