

DISCIPLINE BROCHURE

# Geotechnical Engineering

OPPORTUNITIES  
THROUGH  
EXCELLENCE

[bgeeng.com](http://bgeeng.com)

BG  
&E

# BG&E

**BG&E is a globally renowned civil and structural engineering consultancy celebrated for its innovative, cost-effective, and award-winning designs.**

With a dynamic team spanning 15 offices worldwide - including Australia, New Zealand, South East Asia, the United Kingdom and Middle East - we unite local and international professionals to deliver practical solutions with a strong focus on constructability.

Our clients consistently return to us, attesting to our exceptional service, responsiveness, and track record for delivering tailored solutions for technically challenging projects. The quantity and scope of engineering awards we've received acknowledge our diverse industry contributions and the exceptional quality of the services we deliver across a host of regions, disciplines, and sectors.



# Geotechnical Engineering

**Geotechnical engineering plays a crucial role in the successful design, delivery, and whole-of-life performance of structures that are cost effective, sustainable, safe, and resilient.**



*Sydney Metro Inspection -  
Sydney, NSW, Australia.*

BG&E's Geotechnical team is an integral component of our multi-faceted engineering consultancy operations – working alongside our structural and civil engineering teams in the building, rail, and bridge sectors. They also collaborate with our various specialist technical disciplines - including Water Infrastructure, Flooding and Hydrology, and Materials and Durability.

Accredited by TfNSW as a Technically Assured Organisation for the geotechnical design of rail projects, our expertise spans continents, from Australia to Europe and South East Asia.

We work closely with planners, engineers, and scientists from project inception through to the detailed design and construction. Our geotechnical services include desk studies, investigation scoping, field inspection, site formation, slope and foundation design, deep excavation and numerical assessment. Our mobile team is skilled in soil-structure interactions, utility impact assessment, and government liaison.

Operating under ISO9001 for Quality Assurance, we maintain rigorous standards in geotechnical design, ensuring excellence in every project.



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# Our Capabilities

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**BG&E's suite of geotechnical engineering services enables us to meet our Clients' needs and ensure successful project delivery by considering sustainability, risks, and ground conditions.**

- Geotechnical desk study.
- Planning on geotechnical investigation.
- Geotechnical interpretation.
- Site formation, earthworks and ground treatment.
- Slope design and maintenance assessment.
- Soft ground engineering and embankment design.
- Foundation design.
- Deep excavation and support design.
- Soil-structure analysis and numerical analysis.
- Impact assessment for building structures and utilities.
- Interface with government authorities on development application.
- Site supervision.
- Pavement design.
- Track formation design.

# Why Work With Us?

## KEY BENEFITS



**RESPONSIVENESS &  
AVAILABILITY**



**STRONG INDUSTRY  
RELATIONSHIPS (INC.  
EQUIPMENT, SUPPLIERS, &  
LABORATORIES)**



**EFFECTIVE &  
PROFESSIONAL  
COMMUNICATION**



**PRACTICAL  
SOLUTIONS**



**LICENSES,  
ACCREDITATION &  
TRAINING**



**WIDE RANGE OF  
SOFTWARE, EQUIPMENT  
& TOOLS**

# Sectors We Service

Our comprehensive understanding of geotechnics and ground behaviour enable us to provide site-specific, practical ground engineering solutions to projects across varied industry sectors.



BRIDGES



TALL BUILDINGS  
(INC. BASEMENT  
EXCAVATION)



ENERGY &  
RENEWABLES



PORTS &  
MARINAS



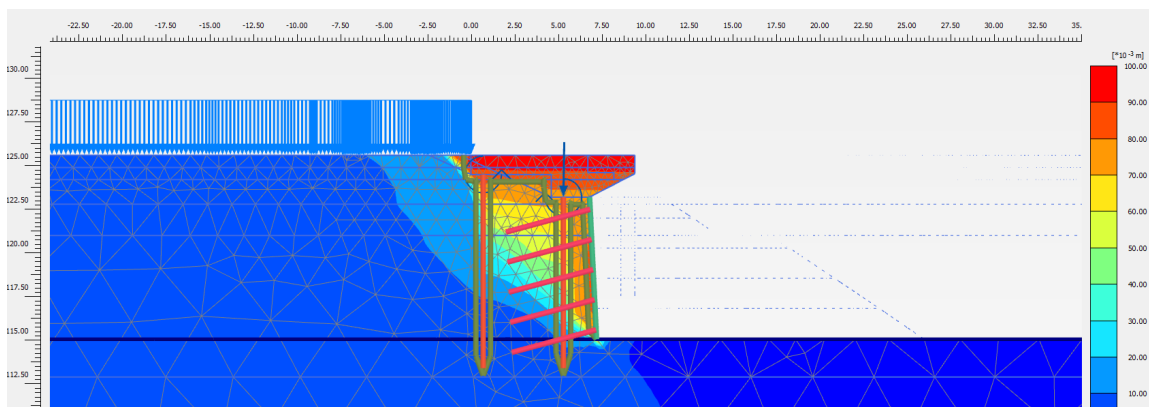
RAIL, STATIONS  
& OVER RAIL



ROADS &  
TUNNELS



WATER  
INFRASTRUCTURE





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At BG&E, we are united by a common purpose – we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.

Our team of more than 1100 highly skilled people, in offices across Australia, New Zealand, South East Asia, the United Kingdom and Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Energy and Resources sectors.

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