



BG Group
ENGINEERS



Corporate Profile

www.bgggroup.com.au

Who We Are

Established in 1993, BG Group is a multi-disciplinary design consultancy located across four states and territories with a philosophy focused on client relationships and a high level of expertise.

Since our foundation we have built and developed a strong loyal client base built on trust, integrity and personal service.

BG Group offers civil, structural, building services and energy engineering along with asset management services utilising leading edge modern technology and software, embracing Building Information Modelling (BIM) whilst ensuring the highest standards under our ISO9001 certification.

Our management have both Australian and international experience and work together seamlessly, regularly improving systems and processes and reinvesting in the company.

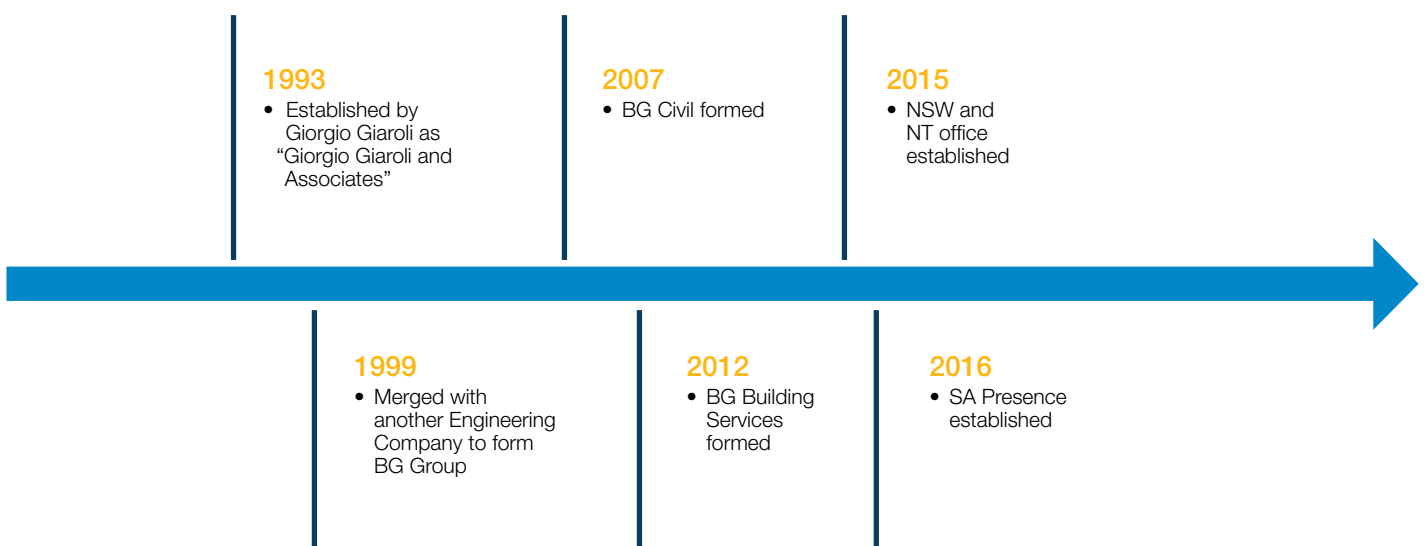
We are more than an enthusiastic and proactive team of specialist engineers. We are outcome focused and consider the bigger picture to deliver tailored solutions that add value both now and over the lifecycle of the asset.

Today the founding director is ever present, offering leadership, expert advice and mentoring across the group maintaining the company culture and work ethic.

Why Choose BG Group

- We are client focused, and believe in relationships and credibility
- We have extensive experience and understand how buildings function and operate
- We employ registered professional engineers
- Our engineers have worked globally and use modern methods, technologies and innovations
- We are small enough to provide a personal service yet large enough to deliver outcomes
- We are privately owned, flexible and agile, never fixated
- We listen

History Timeline



Our Core Capabilities

Structural Engineering

- Reinforced Concrete Construction (Insitu and Precast)
- Steel Framed Construction
- Steel and Concrete Composite Construction
- Masonry
- Timber
- Structural Aluminium
- Post-tensioned and Pre-Stressed Structures
- Space Frames
- Industrial pavement design
- Facade Engineering
- Earthquake Sensitivity Analysis
- Blast Analysis
- Marine Structures
- Retention Systems
- Contract Administration
- Project Management
- Bill of Quantities
- Tender Specifications
- Contract Documents
- Construction Supervision

Civil Engineering

- Services, Works & Infrastructure
- Site Based Stormwater Quantity
- Site Based Stormwater Quality
- Integrated Water Management
- Erosion & Sediment Control
- Filling & Excavation
- Retention and Detention Systems
- Overland Flow
- Hydraulic Analysis
- Flood Analysis
- Operational Works Submissions
- Erosion and Sediment Control
- Bulk Earthworks and Volumes
- Sewerage reticulation and treatment
- Water Reticulation
- Reservoir and Dam Designs
- Stormwater Drainage
- Water Sensitive Urban Design
- Urban & Rural Roads Design
- Hardstand Design
- Traffic Functional Layouts
- Sign and Line Marking
- Subdivision Design & Documentation
- Vehicle Turning Movement

Mechanical Services

- Air conditioning
- Heating
- Mechanical ventilation
- Fume and dust extraction
- Smoke control
- Stair pressurisation systems
- Compressed air

- Cold rooms and freezers
- Kitchen exhaust systems
- Vertical transpiration
- Process plant
- Humidity control
- Heat recovery systems
- Building management systems

Electrical Services

- General and specific power
- Communication systems
- General and specific lighting
- MATV and pay TV
- Electrical distribution networks
- Public address systems
- Evacuation lighting
- Lighting controls
- CCTV systems
- Standby power generators
- LV underground reticulation
- Nurse call systems
- Audio visual systems
- Security and access control
- Patient protection systems
- Car park lighting
- Park and sportsground lighting

Hydraulic Services

- Sanitary sewage and plumbing
- Roof and surface water
- Trade waste
- Rainwater retention and distribution
- Backflow prevention
- Gas reticulation
- Fire hydrant and hose reel systems
- Irrigation systems
- Potable water systems

Energy Services

- Photovoltaic design
- Power purchase agreements
- Energy audits (level 1 to 3)
- System comparisons
- Thermal modelling
- Nabers assessments
- Energy monitoring

Facility / Asset Management Services

- Data collection / asset inventories
- Maintenance specifications
- Maintenance management
- Financial forecasting
- Compliance audits
- Risk analysis reports

Structural Engineering

The BG Group team consists of experienced and recognised engineers who manage the balance between cost, functionality, and aesthetics.

Working in close cooperation and partnership with our clients, utilising the latest in engineering software and technology, we ensure specific project objectives are achieved.

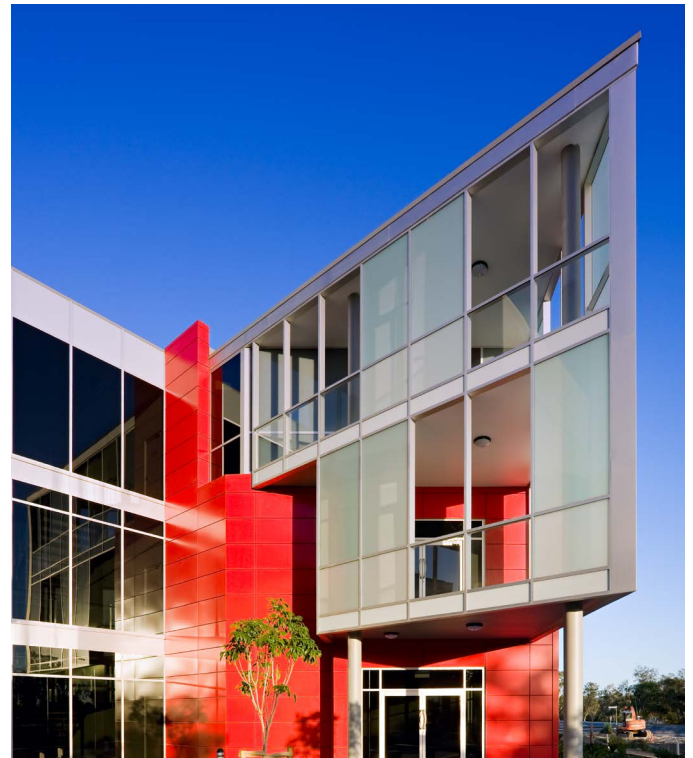
BG Group assists their clients through the transition from design to construction and handles all construction phase queries and design variations.

BG Group has an enviable history of providing significant time and costs savings for clients; sometimes using sophisticated techniques to

arrive at easy-to-construct solutions across the development spectrum. It was this basis that the company was formed.

Our experience in all forms of buildings and methods on multiple projects combined with our depth of technical knowledge and resources provide us with the knowledge, capacity, and capability to service any size or type of structural engineering project.

Our reputation and record of accomplishment stems from our expertise in delivering structural engineering advice and solutions involving single to multi-level structural steelwork, reinforced and post-tensioned concrete, precast concrete, masonry, timber, and aluminium.



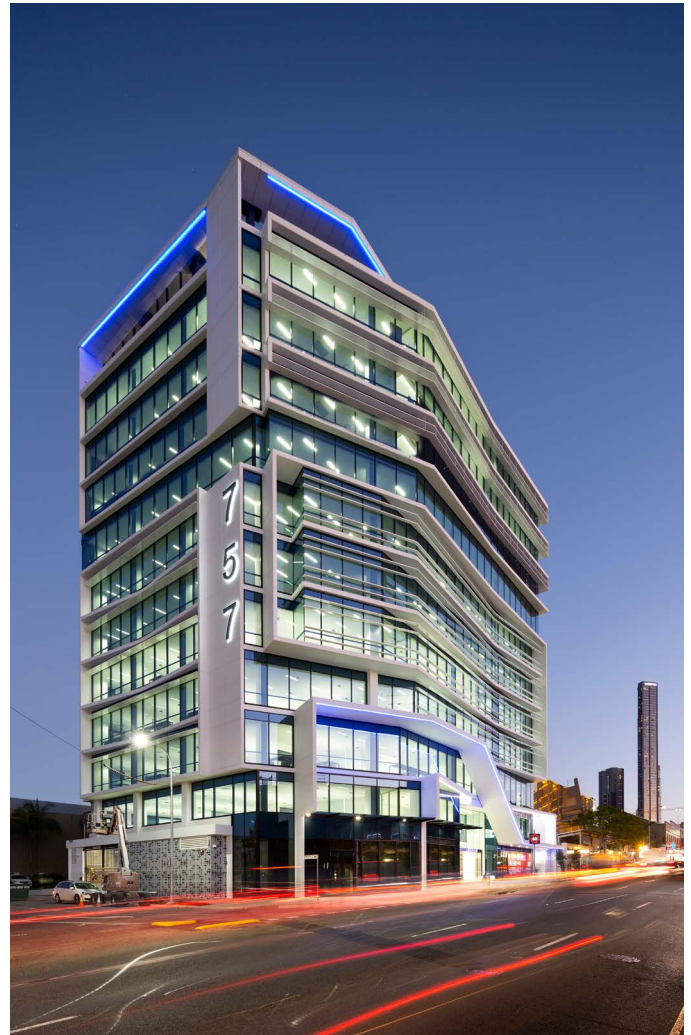
Civil Engineering

Our Civil Engineering team consists of seasoned professionals combined with energetic young engineers working closely together. This expertise aligns to offer a diverse range of civil engineering projects including residential and commercial subdivisions, large scale industrial and commercial buildings, arterial roads, bulk earth works, environmental and flood studies.

As with every project, we combine local

knowledge with leading edge software and principles for stormwater and urban sustainable design so the client has the best outcome considering project time frames and cost, thereby mitigating risk and ramifications of poor design when the project goes forward.

BG Group offer civil engineering from all office locations and have local and national accreditations in place for Australia wide projects.



Building Services Engineering

Building services are fundamental components of the built form, providing the life of a building through thermal comfort and utility needs, making it habitable.

It is imperative building services are designed correctly considering all stakeholders, operational running costs, functionality and aesthetics.

Working with other design teams, the BG Group Building Services design expertise extends both across Australia and internationally, considering modern design philosophies, whole of life, high efficiency mechanical and electrical equipment, and wastage.

Our Building Services engineers remain open minded to solutions around affordability and other criteria. We have international experience so can bring a wide spectrum of expertise to the design team.

Mechanical Engineering

Whether we are designing for city or regional areas, we have experience for multiple mechanical services solutions considering different climates, humidities and regional

challenges. Variable refrigerant volume, chilled water and hybrid systems, as well as ventilation and other specialist services are all within our capability, designed using the latest software technology, as well as BIM/REVIT drafting tools.

Our mechanical engineers are also registered by professional bodies across Australia.

Electrical Engineering

Our electrical engineers are adept at finding the right solution for lighting, power reticulation and specialist services and have experience across multiple market sectors, using the latest software technology available, as well as BIM/REVIT drafting tools. Our electrical engineers are also registered by professional bodies across Australia.

Hydraulic Engineering

We can provide full hydraulic design using modern solutions whilst keeping things simple.

Our engineers have worked across multiple sectors and regions and adept in all forms of fluid reticulation and fire services.

Asset Management and Energy Engineering

Asset Management

As well as design we work with our clients during whole of life offering asset data collection, financial forecasting, asset inventories, compliance audits, maintenance specifications and procurement services. Our engineers have extensive experience in this space having worked on multiple government and private sector projects using smart data collection methods.

Through working with industry partners, we are also able to work using BIM models as a platform for facility management services.

Energy Efficiency Services

As part of our expertise we are able to offer

sustainability engineering to both reduce energy consumption, meet compliance, or review carbon production. This can be delivered via industry standard tools, such as a NABERS Assessment, or via alternative methods.

We work together with stakeholders and industry partners to ensure targets are being met, consider opportunities and return on investment for capital expenditure, whilst design alternative solutions such as photovoltaics (solar) or co-generation plant.

With rising energy costs, monitoring energy usage is fundamental, a service we can design and implement, including physical displays and lobby screens.



Building Information Modelling (BIM)

BG Group are advocates of modern methods applied within the construction industry.

We are fully converse with the process of Building Information Modelling (BIM) and have invested heavily in both hardware/software, resources and training, to not only keep up, but elevate us to a level of being leading edge.

By using this method we can offer benefits to our clients during the design, construction and operational stage of a building asset including:

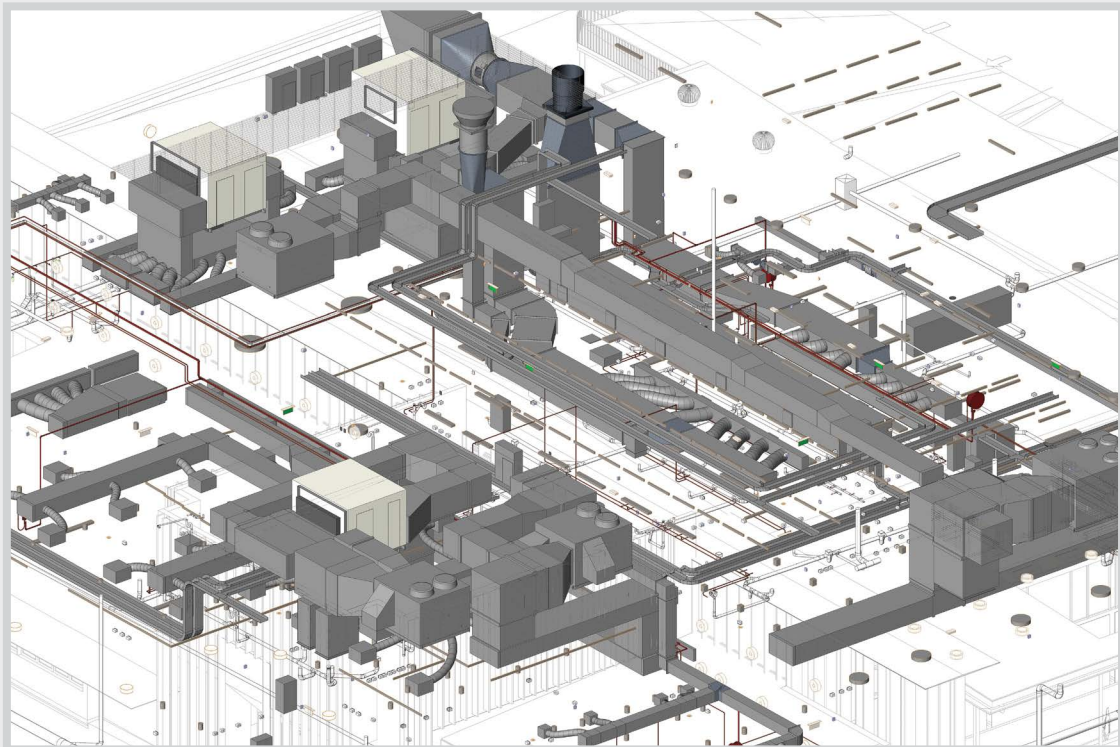
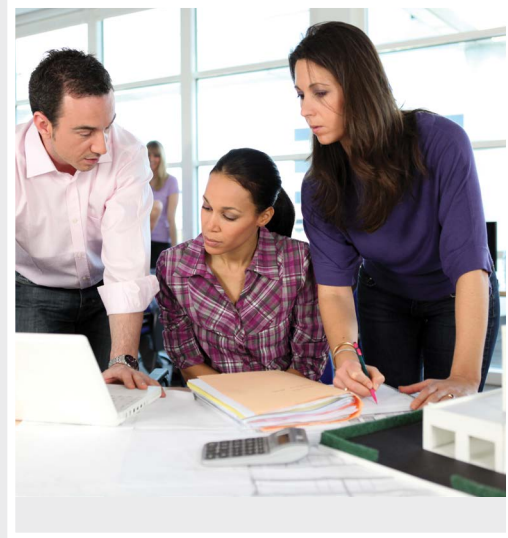
- lower project costs
- faster construction time
- pre-fabrication opportunities
- clash detection
- avoidance of rework
- improved communication with the design team
- better project outcomes
- model use in facility management
- value engineering

Within the BIM process we use various software solutions, REVIT being a key example. REVIT is now applied as a standard minimum across our projects and is the most widely used software with the highest level of multi-disciplinary integration.

Project Experience

Our BIM specialists have worked on numerous projects using the process and associated software, some recent ones including:

- Hotel Yarrabilba
- Gladys Street Multi-Use Development
- Land 121 Defence
- Sinnamon Village Aged Care Facility



Hotel Yarrabilba – mechanical, electrical and hydraulic services

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