

# R69

## Civil





# Executive Summary



RBG Pty Ltd and its subsidiaries (RBG) is privately owned group of companies specialising in construction, civil engineering, retail, water and interior fit outs. The group was founded in 1979 and has turned over more than \$1 billion to date.

RBG has recently completed a group wide restructure focusing on achieving a lean and agile corporate structure that is readily adaptable to appropriate projects. RBG's key point of difference is its commitment to senior management presence on the worksite and continued involvement throughout the project. This approach ensures significantly improved productivity and strict conformance with company policies.

RBG's in-house Engineers support our Project Management Teams on all projects. RBG believes that a team approach is the key to the success of any project. We commit ourselves to a high level of consultation and cooperation with client teams to develop and manage projects from concept to completion.



## RBG emphasises three simple philosophies:

1. A commitment to service and excellence
2. A search for highly motivated individuals who achieve
3. A desire for sustained, carefully controlled growth.

RBG's close working relationship with major WA and QLD plant hire companies, combined with our access to a highly skilled team of heavy plant operators, allows bulk earthworks projects to be completed reliably, efficiently and with significant savings, ultimately benefitting the client.

RBG has available operators, supervisors, labourers and trades people to carry out construction activities. RBG also selects, manages and co-ordinates the network of specialist subcontractors needed to complete a complex project successfully.

In stark contrast to many groups within the industry, RBG senior staff remains engaged on site throughout the project.



# Capabilities & Service Offerings



**RBG has demonstrated experience and capability in a diverse range of building and construction projects.**

Our clients benefit from experience in efficient earthmoving and related infrastructure construction management particularly in construction projects of a complex nature.

As each project is unique, the service and expertise that RBG can provide will depend on the type of client contract.



Our specific services are detailed below.

## Pre-design

- Pre-design cost planning
- Site inspections
- Project programming
- Review of methods statements

## Contracting Expertise

- Design and construct
- Design, finance development and construct
- Project management
- Construction management
- Schedule of rates
- Traditional lump sum

## Design and Construct

- Engineering and mechanical designs
- Contract documentation and construction procedures
- Cost reports
- Cash flow and programming
- Value management

## Administration

- Special purpose accounts set up for each individual project
- Contract administration
- Project cost control
- Reports

## Special Services

- A Quality Assurance system tailored to each specific project
- Unique structures
- Civil engineering and mechanical services.

# Workplace Health & Safety



RBG is committed to the safety of their staff and Contractors. Achieving zero harm in safety and these high safety standards will not be compromised.



RBG is committed to the implementation and maintenance of a Workplace Health and Safety Management System for all projects undertaken by the company. The system is designed to comply and exceed with the requirements of the State and Federal Work Health and Safety Act and Regulations, Government Workplace Health and Safety Management System Guidelines, Australian Building Codes and with RBG's own quality, safety and environmental management systems.

RBG's safety objectives are met by ensuring the following:

- A project specific site safety plan is prepared, implemented and communicated to all personnel who will be working on site.
- All personnel engaged on the project, are appropriately inducted and trained in Workplace Health and Safety, as required by the client and our company.
- All personnel undertake to be responsible for the safety of the workplace and their fellow workers.
- Regular work practice checks are performed on site.
- All plant and equipment is in good working order, and operators are trained and/or qualified in the operation of the equipment.
- All personnel have been trained for their specific job.
- Incidents, unsafe acts, unsafe conditions and accidents are promptly reported and investigated.
- Correct preventative measures are implemented in the event of an accident.
- Potential risks/hazards are identified, documented and controlled through communication between RBG, the client and site personnel.



# Quality Assurance



RBG is committed to the implementation, execution and continual improvement of an integrated quality, safety and environmental management system.



The Management of RBG is dedicated to the delivery of projects in compliance with specified quality requirements. Our objective is to ensure that our clients receive the highest quality of work at competitive costs and delivered within specified timeframes.

The company aims to achieve improved productivity, efficiency and quality of work by having an effective and properly managed quality system that is certified by Standards Australia to AS/NZS ISO 9001/2000. This includes ensuring that personnel are suitably trained and that they adopt construction methods and practices that comply with relevant statutory and regulatory requirements, including the needs and expectations of communities.

RBG will achieve its goals through:

- Involvement of all employees, customers and suppliers
- Clear policy guidelines
- Clear responsibility guidelines
- Superior workforce
- Strong leadership
- Adequate resources.

The management team at RBG actively encourages all staff, clients and stakeholders to observe our Quality, Safety and Environmental Management System and contribute to its ongoing improvement.



# Environmental Management



**RBG is committed to performing to a high environmental standard and promoting sustainable construction practices on its sites.**

To ensure this standard is met, RBG operate on an ISO14001 Environmental Management System (EMS) across all of its projects. The EMS ensures our construction methods and those of our subcontractors, identify and comply with all relevant Australian statutory authority and legislative obligations, special client requirements, the communities' needs and all reasonable expectations of a construction company operating in a variety of challenging conditions.

RBG's Environmental Management System:

1. Identifies and assesses all relevant potential environmental aspects and impacts
2. Establishes the compliance objective, goals and targets for each impact
3. Operates hierarchy-based control strategies to meet the compliance objective
4. Is regularly and systematically checked for effectiveness
5. Performance is regularly reviewed to continuously improve it

All staff, employees, subcontractors and suppliers are encouraged by RBG to participate in the implementation operation and improvement of our Environmental Management System by:

- Contributing their ideas and experiences in developing innovative and improved work method and control approaches.
- Reporting potential problems and identifying further opportunities for improvements.



RBG is also committed to promoting sustainability across its projects, through the protection of:

- Threatened and endangered species of flora and fauna on and around its sites
- Cultural and heritage structures and terms it may find
- Good working relations and the trust of the communities within which it operates

Encouragement is also given to the minimisation of use of energy, water and the generation of waste wherever possible.





**RLG**

Project Profiles





# GLNG Roma



Heavy Plant Leasing Pty Ltd, a subsidiary of RBG is contracted to SANTOS, who are engaged to construct the upstream processing plant.

The Roma project involved preliminary civil works for the GLNG Upstream LNG Processing plant 50kms north-west of the Central Queensland town of Roma.

The scope of works consisted mainly of bulk earthworks, cut and fill excavation, access roads, installation of 3,000 screw piles, concrete foundations, drainage and the construction of four separate ponds totalling 835 Mega Litres capacity.

The site operated on a 12 hour, 21 by 7 roster to ensure the project was completed as efficiently as possible. The total earthworks volume was approximately 1.6 million cubic metres. When complete, the site will provide a collection point for the surrounding regions coal seam gas extraction and processing.

|                 |              |
|-----------------|--------------|
| LOCATION        | Roma, QLD    |
| CLIENT          | Santos       |
| CONTRACT VALUE  | \$90 Million |
| TIMEFRAME       | 58 Weeks     |
| EPCM CONSULTANT | Fluor        |





# North West Growth Centre

Australian Water (No.1) Pty Ltd



Sydney's population has rapidly expanded and the North West Growth Centre was identified by the NSW Government as an area to be developed to accommodate this growth.

Water and waste water infrastructure was an essential component of the development of these new growth areas. The North West Growth Centre contains about 66,000 new houses.

Sydney Water employed Australian Water to manage the design, construction and commissioning of water related infrastructure to the First Release Precincts in North West Growth Centre. RBG were engaged by Australian Water to design, construct and commission package one of the water infrastructure.

The North West Growth Centre covers North Kellyville, Riverstone, Alex Avenue, Riverstone West and Area 20 precincts. The project involved works, such as design and construction of a potable water surface reservoir, trunk potable water inlet and outlet mains, potable water and recycled water distribution mains, reservoir site mains and gravity sewer carriers.

|          |                 |
|----------|-----------------|
| LOCATION | Rouse Hill, NSW |
|----------|-----------------|

|               |      |
|---------------|------|
| CONTRACT TYPE | GC21 |
|---------------|------|

|                |              |
|----------------|--------------|
| CONTRACT VALUE | \$75 Million |
|----------------|--------------|

|                    |           |
|--------------------|-----------|
| CONTRACT TIMEFRAME | 104 Weeks |
|--------------------|-----------|

|                             |       |
|-----------------------------|-------|
| KEY ENGINEERS & CONSULTANTS | AECOM |
|-----------------------------|-------|



# Falcon Street Pedestrian Bridge

Roads & Traffic Authority, NSW

The construction of the \$12.4 million Falcon Street Bridge, associated ramps and underpass, heralds an era of pedestrian safety between Neutral Bay, Crows Nest and North Sydney.

Spanning 220m across the Warringah Freeway, the Falcon Street Pedestrian Bridge carries foot and cycle traffic from the business district of Neutral Bay to North Sydney. The steel box girder bridge sits on post tensioned precast concrete piers.

The project posed a number of construction challenges. As the structure crosses the busiest road in Australia with 260,000 vehicle movements per day, a good proportion of construction took place at night. Traffic constraints also necessitated “both end” construction, and a tolerance of just 8mm when the central span was programmed to be erected.

A second element of the contract involved the construction of the Falcon Street underpass. The footway provides a crucial pedestrian conduit along the eastern abutment of the bridge, removing the need for illegal and dangerous road crossings on Falcon Street.

The last element of the project was the provision for a bike and wheelchair accessible ramp 80m long from Alfred Street to connect with the existing Ridge Street pedestrian bridge.

The connection to the existing pedestrian bridge required the partial demolition of the existing prestressed concrete I-girder that required exposure, removal and modification of the strands from the existing girder and the replacement insitu diaphragm.

|                             |                         |
|-----------------------------|-------------------------|
| LOCATION                    | North Sydney NSW        |
| CONTRACT TYPE               | GC 21 - Edition 1 (RTA) |
| CONTRACT VALUE              | \$12.4 Million          |
| CONTRACT TIMEFRAME          | 50 Weeks                |
| KEY ENGINEERS & CONSULTANTS | Aurecon                 |





# Lismore Pipeline & Pump Station

Department of Commerce



The project included the construction of two pump stations. The first is a water extraction station with three submersible pumps connected to submerged intake screens. The installations are protected by trash deflection screens within the river and trash protection racks on the pump station structure.

These pumps in turn connect through a manifold into a dual 1.2km long 400mm diameter MSCL rising main which discharges into an existing 0.5Ml storage reservoir.

The second pump station is fed by gravity from the existing reservoir and is a new steel portal frame structure with masonry walls and a metal sheet roof which contains a total of four centrifugal pumps (two new pumps with 650kW motors and two refurbished pumps with 375kW motors), and associated electrical and mechanical installations (including overhead crane, MCC's, VSD's, forced ventilation).

The discharge manifold from these pumps in turn connects to a short section of previously installed pipework (approximately 3km) and the pipeline itself is approximately 17km from the termination of the previously installed pipe through to an existing water treatment plant. The pipeline is a combination of RRJ and welded MSCL pipe with road, rail and numerous creek crossings along the route.

|                             |                        |
|-----------------------------|------------------------|
| LOCATION                    | Lismore, NSW           |
| CONTRACT TYPE               | GC21                   |
| CONTRACT VALUE              | \$17 Million           |
| CONTRACT TIMEFRAME          | 50 Weeks               |
| ARCHITECT                   | Department of Commerce |
| KEY ENGINEERS & CONSULTANTS | Department of Commerce |



# Wollongong Northern Distributor Extension

Road & Traffic Authority, NSW



The works in this contract comprise the construction of the new four lane dual carriageway extension of the Wollongong Northern Distributor, extending from Bellambi Lane at Bellambi to the Princes Highway near Molloy Street in Bulli.

The three kilometre long road is known as the Northern Distributor Extension (WNDE).

Works within the contract include:

- major earthworks including soil nailing and shotcreting, and construction of embankments over soft ground;
- construction of nine bridges over local creeks, one road bridge and one pedestrian bridge over the WNDE, and one bridge over a local road;
- the construction of stormwater and subsoil drainage, including but not limited to stormwater pits, precast concrete reinforced pipes, precast reinforced concrete box culverts and headwalls;
- construction of several reinforced concrete retaining walls and reinforced soil retaining walls;
- construction of asphalt and heavily bound pavement courses, and sprayed bituminous surfacing;
- construction of noise barriers;
- construction of kerbs, safety barrier systems, pavement marking, signposting, fencing, revegetation and landscaping
- installation of new street lighting and modifications to existing street lighting; and installation of traffic signals.

|                             |                                |
|-----------------------------|--------------------------------|
| LOCATION                    | Wollongong, NSW                |
| CONTRACT TYPE               | Schedule of Rates and Lump Sum |
| CONTRACT VALUE              | \$88 million                   |
| CONTRACT TIMEFRAME          | 110 Weeks                      |
| KEY ENGINEERS & CONSULTANTS | SMEC                           |





# Cameby Downs Mine

## *Chinchilla QLD Civil and Concrete Works*

Syntech Resources Pty Ltd

**RBG made its first foray into mining infrastructure with a \$6 million Cameby Downs Mine – Civil and Concrete Works in Chinchilla, Queensland.**

Located in southeast of Queensland, approximately 360km northwest of Brisbane, Cameby Downs Mine produces Cameby Premium Coal, a high volatile bituminous thermal coal. The coal mining project in the Surat Basin, which forms one of the last major undeveloped export coal deposits in Australia has an estimated coal resource of approximately 4 billion tonnes and an anticipated lifespan of over thirty years.

The project involves the construction of major concrete and earth works, which included 5 different areas: ROM handling, raw coal handling, coal preparation plant, product and rejects handling, and train loading station.

The extreme hot weather and remote location were some of the challenges. In addition, delayed access to some construction areas as well as the impact of wet weather has become another obstacle that delayed progress.

Located on land within mining lease, the Cameby Downs site was governed by the Coal Mining Safety & Health Act 1999 (QLD) and the Coal Mining Safety & Health Regulation 2001 (QLD). RBG ensured all staff and subcontractor had completed the relevant coal industry induction and passed a coal board medical. A random drug testing regime was also put in place on site.

|                             |                   |
|-----------------------------|-------------------|
| LOCATION                    | Chinchilla, QLD   |
| CONTRACT TYPE               | Lump Sum          |
| CONTRACT VALUE              | \$6 Million       |
| CONTRACT TIMEFRAME          | 32 Weeks          |
| KEY ENGINEERS & CONSULTANTS | Haald Engineering |



# Chatswood Chase Shopping Centre

Colonial First State Property Management



Located on the lower North Shore of Sydney is the iconic Chatswood Chase Shopping Centre which received a much needed facelift by RBG.

The initial works undertaken at the shopping centre involved the demolition of two adjoining commercial buildings to allow extension works to occur.

The extension of the seven storey building incorporated an estimated 1000 additional and relocated car parking spaces as well as the relocation of Coles supermarket. This building as well as the alteration to the existing building added an additional 10,000sqm of NLA to the shopping centre and allows shoppers the ease of moving throughout the facility.

The redevelopment sees Chatswood Chase become a 4 Green Star Building, in line with the Green Building Council of Australia's Pilot Rating Tool for Shopping Centres.

RBG was engaged as the preferred contractor to undertake design, development and financial resolution of the construction documentation.

|                             |                                      |
|-----------------------------|--------------------------------------|
| LOCATION                    | Chatswood, NSW                       |
| CONTRACT TYPE               | Design and Construct                 |
| CONTRACT VALUE              | \$116 million                        |
| CONTRACT TIMEFRAME          | 94 Weeks                             |
| ARCHITECT                   | The Buchan Group                     |
| KEY ENGINEERS & CONSULTANTS | Coffey Projects<br>Incoll Management |
| QUANTITY SURVEYOR           | Rider Levett<br>Bucknall             |





# Bray Park Water Treatment Plant

Tweed Shire Council



Located on the outskirts of Murwillumbah in the Tweed Local Government Area, Bray Park Water Treatment Plant was the major supply source of water for the Tweed Shire and serviced the areas of Tweed Heads, Murwillumbah, Kingscliff, Hastings Point and Pottsville.

The scope of works in this project included decommissioning and upgrading a water treatment plant from 50ML to 100ML /day capacity of water in order to supply clean water for Tweed Shire Council and to meet population growth within the Shire.

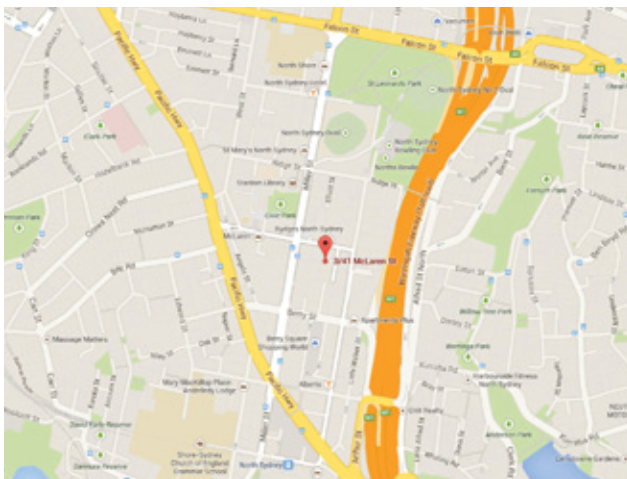
The upgrade had a capability to be expanded to an ultimate capacity of 150ML/day by introducing additional GE/Zenon cassettes to tanks already constructed for this purpose. This was Australia's second largest ultrafiltration water treatment plant and had the overall benefits of ergonomic design, construction and architectural features for the surrounding growth environment.

In order to reduce the usage of electricity, Hunter Water Australia adopted an energy savings concept and design using the principle of Syphoning.

There were various streamlined processes integrated by a range of mechanicals allowing the successful operation of water treatment within various facilities contained under the one roof.

|                             |                                |
|-----------------------------|--------------------------------|
| LOCATION                    | Murwillumbah, NSW              |
| CONTRACT TYPE               | GC21                           |
| CONTRACT VALUE              | \$68 Million                   |
| CONTRACT TIMEFRAME          | 88 Weeks                       |
| ARCHITECT                   | Hunter Water Australia Pty Ltd |
| KEY ENGINEERS & CONSULTANTS | Hunter Water Australia Pty Ltd |



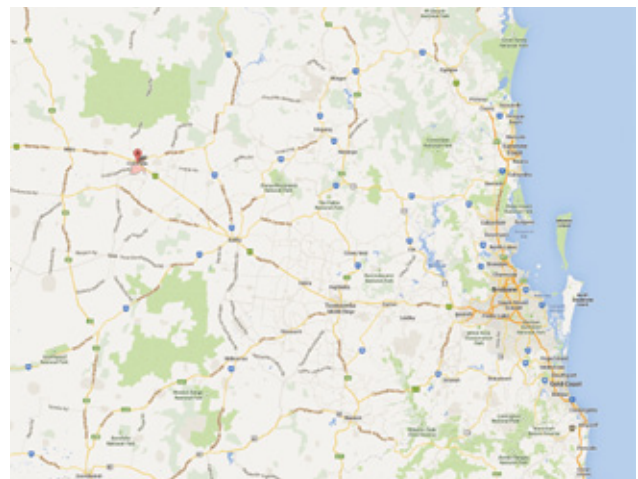


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