

KARARA RAIL WORKS

"Macmahon has been proud to assist in the provision of such a significant, landmark project and we look forward to working with the clients, Ansteel and Gindalbie Metals in the future."

JJ VAN DER WALT, PROJECT MANAGER, MACMAHON



A PROVEN TRACK RECORD

Incorporating the construction of earthworks, civil and track work for the Karara to Tilley section.

KARARA RAIL WORKS / MACMAHON CONTRACTORS



With a history spanning almost 50 years, Macmahon is one of the leading construction and contract mining companies within Australia. Having evolved from its unique heritage of constructing roads and railways throughout the continent, Macmahon are now able to offer comprehensive capabilities to major construction and mining sector clients in Australia and overseas.

Able to deliver an extensive range of underground and surface mining services, as well as all-inclusive construction capabilities spanning roads and bridges, rail, marine, water and resource infrastructure services, Macmahon has forged strong relationships with some of the world's largest resource companies and government sector clients.

Given their wealth of expertise and experience, Macmahon has played a major role in the delivery of a number of Australia's largest multi-disciplinary construction and mining projects and were also recently involved on the significant Karara Project in Western Australia.

This \$85 million project, located approximately 400 kilometres northeast of Perth, is being constructed on behalf of Karara Mining Ltd (KML) (a joint venture between Gindalbie Metals and Ansteel). Heralded as being the Mid-West region's largest resources project, Karara will incorporate the construction of earthworks, civils and track work for the Karara to Tilley section.

In addition, an extensive range of project works, including drill and blasting, culverts, drainage and approximately 80 kilometres of track work, will all be integrated into this prolific Western Australian project.

JJ van der Walt, Project Manager from Macmahon, said throughout their involvement, which commenced in August 2010, they had been exclusively appointed as the head contractor for the construction of 79 kilometres of dual gauge railway line.

"In addition to ensuring a cost and time effective delivery of the railway line, the experienced Macmahon team also carried out a range of specific earthworks that were required for this project," Mr van der Walt said.

Below The experienced Macmahon team carried out a range of specific earthworks that were required for this project.

Below Rocla provided precast reinforced concrete products for the Karara Rail project.



“Given that KML adopted a philosophy whereby Contractors were allowed to utilise their own particular Project Management Systems (i.e. safety, quality, environmental etc that are regularly audited for compliance as opposed to prescribing to the contractors how they should conduct their work, Macmahon was able to comply with our extensive obligations within our own familiar company systems resulting in less uncertainties and delivering excellent results,” he said.

Whilst working on the Project, the Macmahon team of highly skilled professionals encountered challenging ground conditions onsite, which included large quantities of rock located close to the surface, and the challenge of constructing a railway line across two salt lakes.

These challenges were overcome through specialised Drill and Blast operations, heavy ripping and in places realignment of drains, extensive de-watering techniques and careful back-filling operations,” Mr van der Walt said.

“Given the sensitive nature of the site, which incorporated DEC land, the Macmahon team ensured they adhered to the site’s stringent requirements, which included reducing the impact of construction,

as well as avoiding over-clearing, accidental fires and topsoil contaminations,” he said.

However, despite these challenges, Mr van der Walt said Macmahon were able to carry out their responsibilities and deliver outstanding results to the client.

“Macmahon has been proud to assist in the provision of such a significant, landmark project and we look forward to working with the clients, Karara Mining Limited in the future,” he said.

With a strong, cohesive team and a commitment to providing leading and innovative construction projects, it is without a doubt Macmahon will continue to remain at the forefront of the building and construction industry, both within Australia and abroad.

For more information contact Macmahon Level 3, 27-31 Troode Street West Perth WA 6005, phone 08 9232 1000, fax 08 9232 1001, website: www.macmahon.com.au.

With more than 80 years of experience engineering precast concrete products, Rocla have an outstanding track record for meeting the needs of major infrastructure projects. Macmahon Contracting relied on Rocla to provide precast reinforced concrete products for the Karara Rail project.

Rocla manufactured and supplied approximately 4000t of custom engineered concrete items over a six month period. The products included approximately 2700t of Reinforced Concrete Box Culverts (RCBC) and link slabs. The bulk of the RCBC were 2100x1500x1.2, designed by Rocla Engineering at Guildford NSW to meet the requirements of special railway loadings and exposure classification C. There was also approximately 1300t of Class 4 design Reinforced Concrete Pipe (RCP) in sizes ranging from 450mm diameter to 1050mm diameter, some specifically engineered for aggressive ground conditions, which required 20/20 cover to reinforcement.

Rocla’s manufacturing and despatch departments worked closely with the transport company, PACE Transport and Logistics, to ensure all products were transported from their manufacturing plant in Kewdale, Perth, to the site on a schedule which met the requirements of Macmahon’s works program. “The project was successful because of the strong cooperative working relationship with Macmahon and all other parties involved,” said Rocla Area Manager for Western Australia, Mike Trew. “We specialize in supplying

major infrastructure projects throughout the state and we have an in house design department that can provide design solutions to any projects.”

Rocla’s WA base at Kewdale supplies reinforced pre cast concrete pipes, pipeline products and a range of modular solutions for the civil construction industry including site-assembled systems for building road bridges, retaining walls and concrete boardwalks. The company also engineer and manufacture reinforced concrete poles for lighting, power and communications; spun concrete piles; stormwater systems; building columns and railway sleepers.

By developing their own manufacturing technology, Rocla have been able to consistently innovate, delivering an ever-expanding range of quality assured concrete solutions for capital works including transport infrastructure and mining; subdivisions; plumbers and drainers; the agricultural sector; and resellers. The combination of experience, in-house expertise and extensive manufacturing capabilities, gives Rocla incredible flexibility in meeting every customer’s specific needs.

For more information contact Rocla Pipeline Products, Head Office: phone 02 8986 0900, fax 02 8986 0901, Sales 131004, WA Office, Mike Trew, Area Manager WA, phone 08 9353 9826, fax 08 9353 9802, email: trewm@rocla.com.au, website: www.rocla.com.au

Below Roadtrim provided eight Grader machines, all fitted with topcon GPS systems, two Double Road Train Side Tippers and a Double Road Train Water Cart.

Below Midwest Traffic Controllers safely managed the traffic on the Karara Rail Works Project.



Established in 2004, Roadtrim is an innovative earthmoving company, specialising in Final Trim Grader Hire and GPS Machine Control. Capable of delivering a extensive range of earthworks, Roadtrim can provide a large range of Earthmoving Equipment including Loaders, Water-tankers, Excavators, Dozers and Side-Tippers.

Able to supply 24-hour, seven-day-week Survey Support, as well as offer a range of electronic equipment packages to their clients, Roadtrim has secured their position as pioneers within the GPS Machine Control sector of the Earthmoving Industry and as a result, has been involved on a range of prolific developments, including the Karara Rail Project.

This \$85 million project, located 500 kilometres northeast of Perth, is a joint venture between Gindalbie Metals and Ansteel. Heralded as being the Mid-West region's largest resources project, Karara will incorporate the construction of earthworks, civils and track work for the Karara to Tilley section.

In addition, an extensive range of project works, including drill and blasting, culverts, drainage and approximately 80 kilometres of track work, will also be incorporated. Daniel Cox, Managing Director and Founder of Roadtrim, said throughout their involvement on the project,

his highly-skilled team had been responsible for the construction of all of the railway's earthworks.

"Whilst working on Karara Rail, we provided eight Motor Graders, all fitted with our topcon 3D GPS systems, two Double Road Train Site Side Tippers and a Double Road Train Water Cart," Mr Cox said. "Given our expertise in delivering outstanding project solutions, using the latest technology and Roadtrim's modern fleet, we were able to complete our responsibilities within time and in a cost effective manner," he said.

In fact, given Roadtrim's dedication to the Karara Rail Project, as well as their team of esteemed machinery operators, the Karara project ran like clockwork and any disruption to the construction phases were minimised.

With an impeccable project portfolio, as well as a high-quality fleet of earthmoving equipment, the latest in GPS Machine Control technology, Roadtrim has ensured they will remain the first choice for major Mining and Civil Contractors in Australia.

For more information contact Roadtrim, 41 Wandera Crescent, Mundaring WA 6073, phone 08 9295 0129, fax 08 9295 0690, email: admin@roadtrim.com.au.

Providing Western Australia with an extensive range of Traffic Control and Management Services, Midwest Traffic Controllers is one of Australia's most efficient and safe traffic management control companies.

Able to provide a leading range of services to all aspects and types of roads including main roads, highways for emergency services, events control and traffic management solutions, Midwest Traffic Controllers have worked for a variety of clients throughout Australia. Some of these include Boom Logistics, Karara Mining, MVM Rail, Georgiou, McConnell Dowell, Monadelphous, Downer-Mouchel, John Holland, WestNet Rail, FESA, Centrals CEM, Northcoast Holdings and most recently for MacMahon on the extensive Karara Rail Project.

This \$85 million project, 500 kilometres northeast of Perth, is a joint venture between Gindalbie Metals and Ansteel. Heralded as being the Mid-West region's largest resources project, Karara will incorporate the construction of earthworks, civils and track work for the Karara to Tilley section.

John Wheatland, Managing Director of Midwest Traffic Controllers, said that throughout their involvement on Karara Rail they had provided an outstanding range of traffic management solutions as well as pilot and escort vehicles, ensuring a high standard of safety was upheld at all times.

"Whilst working on the project, our team of traffic control experts implemented a detailed traffic management plan, using our innovative software that provided the client with a computerised plan that illustrated required signs, equipment and layout of all site specific requirements," Mr Wheatland said. "This allowed us to supply the client with cutting-edge and time-efficient results, as well as the necessary equipment and signage that was required for the Karara Rail Project site. In addition, accredited pilot and escort vehicles were deployed to site, working with MVM Rail piloting over-length rail trucks."

Our commitment to upholding the highest possible standard of safety, in compliance with Australian Standards, ensured a safe worksite existed at all times," he said.

With a wealth of industry expertise and an acute understanding of traffic management and project requirements, it is without a doubt Midwest Traffic Controllers will remain the traffic control partner of choice throughout Australia.

For more information contact Midwest Traffic Controllers, 304 Place Road Geraldton WA 6530, phone 08 9965 5888, fax 08 9965 5833, email: enquiries@trafficmanagementwa.com.au.