

SIZEABLE PROJECT TO BENEFIT THE COMMUNITY

MAIN CONSTRUCTION COMPANY: John Holland
CONSTRUCTION VALUE: \$260 million
COMPLETION DATE: Mid 2014
LEAD DESIGN: BG & E Pty LTD
SURVEYORS: Alliance Surveying
TRAFFIC CONSULTANT: Millar & Associates

The \$260M Great Northern Highway Realignment and Wallwork Road Bridge comprises approximately 8 kms of new road and a major interchange at the Broome turn-off, enabling uninterrupted flow for local traffic over Great Northern Highway.

With work expected to be finalised by mid 2014, the Great Northern Highway (GNH) realignment around the Wedgefield industrial area in Port Hedland is a project that will provide significant benefits for the surrounding community.

GNH Realignment Project Manager Andrew Pyke said this project will significantly benefit the community and industry, primarily in regards to safety but also transport efficiency.

“The aim of the work is to separate the heavy commercial vehicles from the lighter commuter vehicles,” he said.

“Prior to the GNH Realignment, the road network had several intersections where 53.5m road-trains were constantly crossing the travelling paths of commuter vehicles and had to manoeuvre on multi-lane roads with the substantially smaller commuter traffic.

“The completion of these works will see safer and more efficient traffic movements for heavy commercial mine vehicles heading to the port as well as safer movements for the public moving between the residential and employment areas in Port Hedland, Wedgefield and South Hedland.

“In general, the works have recieved a high level of community support as all parties realise the improved driving experience that will be achieved once the works are complete.”

The works were awarded to John Holland under a Main Roads WA Design and Construct contract and, whilst the company has had to endure a few cyclones and some unseasonal rain events during construction, Main Roads WA has been pleased with the performance and management of the works in order to still be able to meet the target date for completion.

As an experienced and pre-qualified contractor with Main Roads WA, John Holland has successfully undertaken and completed several large scale road infrastructure projects with Main Roads WA in the past.

“In view of the fact that these works required a contractor to work in a cyclone prone area, whilst building roads over tidal mud flats and bridges over operational rail lines, Main Roads WA knew from the onset that the contractor had to be resilient and flexible in their approach to planning and work execution”, said Andrew.

“We believe that the John Holland team that has been selected to complete the works has been able to meet this need extremely well.



“The John Holland team on the GNH Realignment works have collaborated with Main Roads WA staff on these works in respect to risk management, design, construction planning and the operation needs of the final product.

“The synergy of the two parties has been a key issue in the execution of the works, which has been able to develop as a result of the John Holland’s flexibility on-site and the trust that has been established with all the site staff.”

Andrew highlighted that due to the positive and mature attitude taken by all parties in the resolution of issues that have arisen the project has engendered some great working relationships.

“The extent of collaboration and the development of good working relationships is always hard to pin down to ‘what or why’ they happened. In this instance the recognition and respect of each party’s primary and core objectives for the project was certainly one of the reasons why things have turned out the way they have.

“This has led to a number of innovative solutions, including the use of the Ecosol catchment drains instead of traditional large basins, the development of a blended basecourse material from an

unused mine product and the use of cloud computing facilities for document filing.

“One particularly interesting new development is the early warning intersection system, which has been designed to warn approaching vehicles (mainly road-trains) that an intersection has a slow moving vehicle passing through it, thereby increasing the reaction time for drivers in large vehicles like 53.5m road-trains.

“To the best of our knowledge, this has never been done.

“Clearly, this was always a complex project with many risks and design issues, however in view of the level of experience and contracting maturity within Main Roads WA, we were able to confidently move into a suitable arrangement with a capable contractor such as John Holland to ensure a high quality outcome.”

For more information contact Main Roads Western Australia: John Holland Infrastructure West, 67 Walters Drive, Osborne Park WA 6017, phone 08 9482 2700, website www.johnholland.com.au



COMBINING EXPERIENCE, PROFESSIONALISM AND DRIVE

With proven strengths in both large and small construction projects for the infrastructure and resources sector, modern engineering surveying company Alliance Surveying is a leader in its field.

Director/Surveyor Stephen Marevic said the company stood out due to its staff who have many years of experience in these projects.

“Our staff have the ability to provide efficient and comprehensive surveying services to our clients,” he said. “The team at Alliance also provide good knowledge and support to different machine control systems from producing the relevant designs to technical support.”

Alliance Surveying is a local success story developed by two surveyors with extensive experience in their field.

After 12 years as employees of Macmahon Contractors, Scott Pollard established Alliance Surveying in June 2012. Then in March 2013, Stephen joined the company and over the next few months the company grew with new members joining the company.

“Together Scott and I have the singular focus of being the best. Combining our experience, professionalism and drive, Alliance Surveying delivers the best to our clients by having both of us as director’s very hands on and taking each projects success personally.”

Now Alliance Surveying supplies surveying services to several construction projects in Western Australia including the Great Northern Highway Realignment.

As a \$220 million design and construct contract, this major project is designed to realign the current national highway network around the Western edge of the Wedgefield industrial precinct in Port Hedland.

With highlights including eight kilometres of new highway, four new bridges, a major interchange over the Great Northern Highway at the Broome turn-off and a new line to South Hedland via Hamilton Road, this project is scheduled to be completed in mid 2014.

The project will provide uninterrupted traffic flow for traffic travelling between Port Hedland and South Hedland as well as for the traffic

travelling on the Great Northern Highway through Port Hedland.

On this project everything has to be considered from access to various areas, new links, major drainage works, street lighting and even landscaping and revegetation. Given that collectively Scott and Stephen have over 20 years experience in rail, road and bulk earthworks construction projects in both rural and metro areas this project was perfectly suited to Alliance Surveying.

“Alliance provides project support for clients for Main Roads WA Design and Construct Projects from the initial tender stages through the design phase and throughout the whole project until completion. This can be seen through the GNHR where I was involved since the tender phase and am still involved regularly on site.”

From the initial tender stage of the project, Alliance Surveying was used to calculate quantities for the projects thus helping the estimators. As the design began to evolve and planning for the project became more in depth, comprehensive staging plans and temporary designs were created by Alliance to help plan the project staging.

“Once construction of the project began we were able to provide all surveying requirements needed; from survey set out in the field to data and personnel management. Further strengths of Alliance Surveying on projects such as this are their collaboration with off-site designers in identifying and rectifying design issues.”

As well as this project, the directors and personnel of Alliance Surveying were previously involved in a wealth of other substantial projects in Western Australia including the Tonkin Highway extension, Mitchell Freeway extension, Reid Highway extension and Great Eastern and Roe Highway interchange.

Extensive road works is not the only strength of Alliance Surveying with their work also extending to rail construction projects.

Alliance has the knowledge and experience to provide the surveying requirements for rail construction projects especially in the area of bulk earthworks, structural steel and concrete construction and rail line set out.

For more information contact Alliance Surveying, PO Box 1006, Morley WA 6943, mobile 0407 198 643, website www.alliancesurveying.com.au



BIG WHEELS KEEP ON TURNING

When you are dealing with loads up to 55m in length there is no room for error and that is why it is vital to work with an experienced specialist for the substantial loads.

As the name suggests WA Specialised Transport offers an experienced solution to oversized transport needs offering a range of services transporting loads that include concreted based houses, mine camps, complex units, tanks, frames, machinery and switch rooms.

For director John Liddelow who himself has 20 years experience, this isn't simply about getting products from point A to point B, it is providing a service that customers can not forget.

John said being based in Maddington, Western Australian was ideal because the company was in the heart of many major projects including the Great Northern Highway Realignment.

"This is an energised industrial area central to the north and south with easy access to major highways servicing the heavy haulage routes," he said.

"Given the size and importance of this project we decided to bring in some new equipment for delivery of the concrete tee-roff beams to Port Hedland from Perth.

"These were the latest Faymonville Modular trailers with extendable deck sections which are ideally suited for the transport of particularly long or bulky loads.

"This trailer is time efficient and cost effective because its lightweight design gives greater steering angle and the low loading platform height additionally guarantees optimum maneuverability with the highest possible payload."

It is this understanding of the latest products for the benefit of its clients that has seen WA Specialised Transport begin as a small business producing and transporting concrete slabs for transportable homes.

Over the years as demand grew and as part of product support to customers the company has expanded in both equipment and expertise.

The company's transport abilities have even extended to hotel accommodation transport, Western Power

and Water Corporation substations and machinery and equipment.

"It is as our name suggests, we transport freight outside the scope of general or standard heavy haulage that continues to allow us to work on jobs such as the Thyssen Krupp Stacker Reclaimer and McConnell Dowell Bridge Section for Wheatstone.

"We have grown from having four trailers to being able to move 1500 tonne and by having the equipment that is most suited to our client's loads we are able to increase delivery times and efficiency.

"Based on my experience and the dedication of our team, clients can be assured that if the freight is outside the standard, we always have a solution."

Given the availability and reliability of the company's work, past and present customers of WA Specialised Transport include BHP, Rio Tinto, Lend Lease, CSI, Thermal Comfort Homes, Austral Construction, Plummers, Nomad Modular Building, Alco Building Company, Westwater Enterprises, Ausco Modular, ABB, Transglobal, Fleetwood, McConnell Dowell, IHI Engineering and Western Power.

"Our operation employs experienced staff of whom are valuable assets to our team because each member of our staff brings their own expertise and knowledge to the business from many years of experience in their particular field.

"In our service we always offer a complete solution including loading and unloading, arranging all required permits, traffic warden escorts, western power escorts and the use of our own accredited pilots.

"We are also a Main Roads Western Australia Heavy Vehicle Accredited company and having documented procedures for loading and unloading and staff being Rio Tinto and BHP inducted, WA Specialised Transporters is focused on offering a professional and safe working environment.

"It is this skill; experience and genuine love of our work that makes WA Specialised Transport stand out."

For more information contact WA Specialised Transport, 470 Bickley Road, Kenwick WA 6107, phone 0437 800 186, email office@wast.com.au

DEDICATED PROFESSIONALS WORK TOWARDS COMPANY'S FUTURE

To see how far Stable 17 has come since its inception in 1994, is a true credit to the drive and determination of director Matthew Dodd and a team of dedicated professionals.

With a vision for delivering creative and decorative iron works, Matt drew on his architectural and drafting expertise and when developing the company, experience in the mining industry was definitely a bonus.

"It was this as well as our common interest in fabrication and welding that meant we were able to recognise the opportunity within the market and hence Stable 17 was formed," he said.

"By being a smaller business we are able to share our passion with our clients through

personalised service, attention to details such as being on time and quality finishes and accurate work the first time around.

"With major projects such as the Great Northern Highway Alignment that required steel support, we can appreciate that by simply being on time we can help the process flow a lot better and allow the client to reach their very necessary deadlines.

"From sales to manufacturing and installation, our professional and friendly team aim to make our clients experience enjoyable from start to finish."

It is this commitment that has seen Matt flooded with testimonials from clients thanking them for guiding them every step of the way, going beyond the call of

duty within tight schedules and especially completing projects on time.

While Stable 17 was established as a specialised blacksmithing company, it has developed its business to include site installation and medium to heavy fabrication with an emphasis on safety and quality.

Moving forward, the launch of Stable 17 Engineering has seen that exceptional service continue with the inclusion of structural steel and a look to provide further service to all sectors of engineering from mining to water treatment industries.

Already it regularly supplies worldwide company Rio Tinto with mechanical, structural and engineering pieces.

"As a locally based company our aim is to develop business relationships with companies so that repeat business can be established, while not losing any of the emphasis on quality.

"Our varied client based requires us to cover all sectors of engineering, giving us greater flexibility within our workforce and allowing us to provide an unrivalled engineering service.

"Our workshop personnel are also multi-skilled tradesmen capable of fabricating the most intricate pipework and structural steelwork, plate, platforms, walkways and general metal work in both carbon steel and stainless steels and other exotic materials.

"We have invested in both the latest equipment and a high quality workforce to

ensure we can compete with and better any other mechanical contractor."

The Stable 17 workshop is well located in the Cockburn Commercial Park Southern industrial precinct in Perth, featuring a fully fitted 700sq m workshop and offices, with the possibility for further room if the project dictates.

It is staffed by skilled trades' personnel who are multi-skilled encompassing coded welders, riggers, pipe fitters, fabricators and boilermakers, who always make health, safety and the environment a high priority.

Showcasing its commitment to the development of its workforce, Stable 17 has a defined training programme.

Stable 17 also has a full and comprehensive project management service to co-ordinate packages that include mechanical, insulation and painting works to offer a complete service.

"Quality at Stable 17 encompasses every activity we undertake, from initial receipt of a customer enquiry through to contract completion."



For more information contact Stable 17 Engineering, Unit 2/6, Bushland Ridge, Bibra Lake WA 6163, phone 08 9418 2233, website www.stable17.com.au



COMPANY FOCUSED ON CUSTOMER SERVICE EXCELLENCE

With significant milestones becoming a regular occasion on the Great Northern Highway Realignment, it was important that every member of the project team realised the importance and magnitude of their individual role.

For the first of two of the major new bridges on this project, there was 2000m² of mechanically stabilised walls, 10 concrete beams, temporary sheet piling and associated earthworks taking over 17 weeks to construct the 55 metre long structure.

Significant cranes were an integral part of making this project a reality safely and efficiently and Joyce Krane were eager to share what makes them one of the leading service providers for lifting, rigging, personnel and transport services in Western Australia.

Director James Joyce said the company was able to provide an extensive range of lifting capabilities from six to 750 tons with some of the most experienced and hardworking individuals who offer the best customer service in the industry.

“Not only are we a family owned organisation, but having been operating since 1974, our roots are firmly in the Pilbara region, so through our years of experience and dedication we have built our reputation as the heavy lifting specialists,” he said.

“Over the years we have implemented and executed some of the most challenging projects in the residential, mining, construction, maritime and petro chemical industry in the Pilbara region but we never stop striving to exceed our client’s expectations by providing the highest level of quality, utmost flexibility and best price for their logistical requirements.”

As could be seen on the Great Northern Highway Realignment, Joyce Krane is able

to provide end to end solutions for every aspect of evaluation, implementation and operation at construction sites.

By offering services including crane hire, consultation, maintenance, personnel hire and other logistic requirements, Joyce Krane appreciate that on projects of this magnitude it is vital that the entire process is efficient to ensure that there is little upset to service.

The vast Joyce Krane fleet includes German Liebherr all terrain cranes, Japanese Kato and Tadano truck mounted cranes, American rough terrain cranes and Australian Franna pick and carry cranes.

“Over the years we have added modern equipment and a top of the line fleet of cranes

with well trained experienced personnel to manage any level of complexity of projects undertaken for our clients.

“Every worker and member of our team has national accreditation and certification of their skills and we provide rigorous training that facilitates them to perform their best in every project.

“By having experience that spans over four decades we are able to provide customised solutions including all the lifting requirements along with site inspections, requirement definition, development of JSA’s and lift studies to provide a comprehensive support to our clients in their project.”

Through having such a central location in Western Australia, Joyce is able to mobilise

labour and equipment as soon as possible, even providing a 24 hour/seven days a week emergency response service.

Add to this a strong commitment to the highest level of safety and maintenance requirements on every project.

“It is simple; our vision is to be the best crane hire company to work with, while our mission is to deliver the best products and services in the industry through our virtue of hard work, specialised services and a customer-centric approach to business.”



EARTHMOVING TECHNOLOGY ON CALL

Facilitating a major infrastructure project, the Great Northern Highway Realignment, West Australian-based company Equiprent supplied equipment rentals to major contractor John Holland for the duration of the works.

Defining their market through both customer-driven focus and their top range of mobile earthmoving equipment, Equiprent has a track record of reliability in assisting major works get underway and are completed.

Awarded the sub-contract for the dry hire equipment on the project only, a selection from their sturdy and quality fleet was provided as required. The rental range included a new 8-wheel water cart, a smaller 14-tonne CAT excavator, a D6T Swampy Dozer with GPS, a 980K wheel loader, a 25Tonne articulated water cart, and a 623 G-scraper.

A client-focused company, there is acknowledgement that responsiveness is of key importance for an often under-pressure contractor on a project. The company's 30-strong staff maintains a working culture of taking the initiative and fast decision-making,

that works in combination with individual experience and industry knowledge, giving reason for a returning client base. Servicing client's needs is exemplified on this project with the company's purchase of new equipment specifically for this infrastructure work.

Established in 2005, Equiprent began by providing equipment to the mining sector, and have developed to provide services of equipment and operational staff for road infrastructure and construction sectors. In providing operational support or equipment, there is full compliance with a Safety Management System keeping safe work practices in all activity.

The company's major workshops are located both in Maddington and secondly in Port Hedland, a now large and well established branch of the company. Current other ongoing contract work reaches up through various locations across the Pilbara region, working with companies such as RIO and BHP.

For more information contact Equiprent, 182 Maddington Road, Maddington WA 6109, phone 08 9452 3989, mobile 0429 968 374



DEDICATION TO QUALITY MAKES A DIFFERENCE

Like many quality Australian companies, Rocla sprang from humble beginnings when friends Walter Robertson and Heaton Clarke registered the company in 1922.

More than 80 years on the Rocla name continues to be associated with high quality concrete products. Western Australian area manager Craig Donaldson said Rocla was a leading Australian supplier of concrete solutions to the building and construction industry.

"Rocla provides a uniquely comprehensive range of innovative engineered solutions for stormwater piping, pits, headwalls and Box Culverts, sewerage piping and access systems, stormwater detention and treatment, water storage, bridging and earth retention, as well as concrete poles, building columns, boardwalks and railway sleepers," he said. "With strong capabilities in product design and development, Rocla can supply standard products, as well as value-added solutions to meet specific customer needs, while all products are designed for strength and durability which are the hallmarks of the Rocla brand."

This was seen through Rocla's involvement in the Great Northern Highway Realignment where the company supplied and delivered precast concrete drainage pipe, pipe headwalls and manhole pits. Rocla uses the proven technology of the roller suspension method in the manufacture of the concrete pipes and manhole liners.

This is both an efficient form of manufacture and provides for high strength product with tight dimensional integrity.

"As with other significant projects we are supplying to such as the Acacia Prison, Metropolitan Gateway and a variety of subdivisions, we are showing that we are able provide exceptional service by manufacturing the highest quality products and delivering them in a reliable and timely manner".

"Our real strength is our advanced engineering capabilities because a commitment to innovation and product improvement has helped Rocla achieve a leadership position by utilising the skills of experienced scientists and engineers in the field of concrete material applications."

"We are excited about our future and feel confident that a progressive attitude towards product development together with a focus on operational efficiencies and strategic management will enable us to meet the changing demands of our customers and harness opportunities for future growth and expansion."

For more information contact Rocla Pipeline Products, 3 Casella Place, Kewdale WA 6105, phone 131 004, mobile 0407 381 143, fax 08 9353 9802, email craig.donaldson@rocla.com.au, website www.rocla.com.au

BRIDGES BUILT ON QUALITY

PERMAcast has further entrenched its position as WA's Leading Precaster having once again been chosen as a key supplier of Precast Concrete bridge components for one of the states major infrastructure projects.

PERMAcast supplied pre-cast components for two bridge crossings on the \$260M Great Northern Highway Realignment, a partnership project between John Holland and Main Roads Western Australia. This large infrastructure upgrade is the latest in a string of projects for the company, supplying products across the mining, oil and gas and infrastructure sectors on projects such as Woodsides Pluto, Chevron's Gorgon & Wheatstone projects and the state governments SSWA desalination plant and 'Gateway WA' projects to name a few.

Based in WA, PERMAcast boast well structured business management systems designed and implemented to mitigate risk for their clients. This is assured by their practice of adherence to their third party certified ISO9001 Quality Management System and their conforming HSE systems.

Specifically on the GNHR project PERMAcast supplied large 1500 x 3000 precast culverts and 2500 x 5000 skewed link slabs for the floodway and creek crossings of the highway upgrade. These items included:

- Bridge # 1707 - 136 box culverts and 128 link slabs
- Bridge # 1708, 72 box culverts and 64 link slabs

PERMAcast's in house experienced engineers provided ongoing design assistance throughout the project stages and ensured that the products adhered to strict durability and other project specifications.

Established in 2006, the PERMAcast team has grown exponentially and includes in-house engineers, drafters & QA engineers, allowing direct consultation with a PERMAcast project engineer for each client. Their capacity for quality work is defined not only by engineering and technical capabilities, but their capacity for production and storage made possible by their large state of the art manufacturing

facility and impressive 250000m² of storage space. This over-arching capacity and provision for clients needs ultimately also provides cost benefits for PERMAcasts clients.

PERMAcast are currently also supplying a wide range of precast and prestressed concrete products to a number of the states other large infrastructure projects including the New Childrens Hospital, Kwinana Freeway PSP and the states largest ever infrastructure project, the iconic \$1 billion 'Gateway WA' to name a few. In doing so, the success story continues and PERMAcast further cements its recognized position as Western Australia's Leading Precaster.



For more information contact PERMAcast,
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website www.permacast.com.au



The Great Northern
Highway Realignment, WA