

BACK IN BLACK

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The upgrade involves the construction of an overpass between the Brisbane Valley Highway and Wulkuraka Connection Road, over the Warrego Highway and the installation of an interchange to provide safe and efficient traffic movements.

Construction works commenced in April 2013 and are expected to be completed by late 2014, weather and construction conditions permitting.

The Australian Government has committed \$54 million to the upgrade from the Regional Infrastructure Fund, with the Queensland Government contributing the remaining \$39.4 million to the project.

The project will have a range of benefits.

- The upgraded intersection is designed to meet the transport needs of the region well into the future.
- By grade separating the major traffic movements at the intersection, the new interchange will improve safety, ease congestion and speed up freight movements along this vital freight link.
- Improved safety for pedestrians and cyclists, as they will be able to cross over the Warrego Highway via a dedicated shared pathway.
- Access to Blacksoil Village, local businesses and residential areas will be retained via the construction of a service road off the Warrego Highway eastbound on-ramp.
- Direct access to Eleazar Drive from the Warrego Highway will be removed to address safety concerns.
- The intersection upgrade will remove the need for vehicles to turn across oncoming traffic when negotiating the intersection.

In 2010/2011, the department undertook a review of the design to improve access to local businesses, reduce costs and reduce construction time. As a result of this review several changes have been made to the design.

The main changes include:

- The roundabout at Bayley Road and Pouincradda Street has been removed.
- The section of the service road between Bayley Road and the new access connection has been shortened by approximately 350m and has a turnaround facility at the end.
- A new connection has been included between the Warrego Highway eastbound on-ramp and the service road.
- Concrete shared paths have been changed to a bitumen sealed paths. The widths and surface levels have not been adjusted.

The department is committed to improving safety at the Warrego Highway and Brisbane Valley Highway intersection and will continue to keep the community informed about the progress of the project.

For more information contact the state of Queensland (Department of Transport and Main Roads), phone 1800 082 984, email warregobvh@tmr.qld.gov.au

CB ENERGY

There is a large pool of contractors available to a developer, particularly when it comes to government work such as the Blacksoil Intersection upgrade.

But one challenge constantly faced by developers and lead builders is how to manage contractors across so many disciplines. This is a need that was recognised early on by CB Group. Now with operations in civil construction, electrical, solar, project management and general maintenance, they know how to achieve the desired outcomes for just about any civil project.

Founded in 1946 as the saying goes 'by two men, with two shovels and a flat bed truck', CB Group has grown into a third generation family business and one of the most well respected contractors in Queensland. CB Energy, their electrical division, was awarded by Fulton Hogan the electrical contract for the Blacksoil Interchange project – a joint initiative funded by the Australian Government Regional Infrastructure Fund and the Queensland Government.

Tim Clark, Managing Director, says that although the main works they carried out across Blacksoil Interchange were electrical, it was the multi-disciplinary operation that they ran that helped to ensure they were successful in the procurement and execution of the contract.

"We can operate each arm of our enterprise independently, but in the end it is the full service offering that we have that really makes a difference when it comes to the speed and accuracy at which we work," Tim said. "By drawing from experience and resources as a civil contractor, we can work with increased efficiency within our CB Energy division," Tim said.

The CB Energy team has a vast amount of experience in large-scale civil development such as the Blacksoil Interchange project. With certified management systems for Quality, Safety & the Environment combined with accreditations from Energex, Ergon and Essential Energy, CB Energy is well placed to complete works across multiple jurisdictions and standards.

"Electrical is something that isn't always front of mind when it comes to developments, Tim said, "but an intersection like Blacksoil incorporates significant quantities of public lighting, a number of signalised intersections and large quantities of cabling and associated works, including the temporary lighting required to enable the safe progress of traffic through the works during the construction phase of the project."

It is critical that the Principal Contractor and the Electrical Contractor work closely to achieve the best possible outcomes." Tim said. "Tasks like upgrades to existing infrastructure or multiple connections into existing services are often overlooked but can turn into a real headache for the Principal and the Principal Contractor causing major stoppages and delays if they don't have an Electrical contractor like CB Energy with an experienced team that is proactive and focused.

At a total cost of \$93.4 million and duration of almost two-years, Blacksoil Intersection is a large project. Because of this, contractors need to have experience working on large projects that involve a lot of stakeholders.



A key feature of the intersection is safety. The design review signalled a need for improved pedestrian and cyclist access and use, which required extensive public lighting. Looking forward, CB Energy as well as the broader CB Group, has a bright future with plenty of opportunities in the pipeline.

"By establishing a multi-faceted business we're able to tender for contracts as a specialist in one particular area or as a full service solution provider," Tim said.

CB Energy specialises in electrical infrastructure such as road lighting, traffic signals, ITS, HV & LV distribution, conduits, pits and cabling to Road infrastructure projects, residential, commercial and industrial subdivisions and commercial building projects throughout Queensland and New South Wales.

For more information contact CB Energy, PO Box 189, Ashmore City QLD 4214, phone 07 5552 5222, email cb@cb.com.au, website www.cbenergy.com.au



CONSTRUCTION TRAFFIC MANAGEMENT



RoadNet's Certifying Engineer John Weatherall, Project Manager Richard Crawford and Road Designer Donovan Haddow



Traffic Management for construction of the Blacksoil Project was designed and developed by RoadNet.

The Blacksoil Interchange Project involves the grade separation of Warrego Highway and Brisbane Valley Highway, at Blacksoil, just west of Ipswich. The Queensland Government's Department of Transport and Main Roads states the key benefits of the project are to "improve safety and increase capacity" of the previous at-grade intersection. Jointly funded by the Australian Government and Queensland Government, the project cost of \$93.4 million "will meet the transport needs of the region well into the future".

RoadNet are a cohesive team of Civil and Traffic Engineers and Road Designers with specialist experience in Construction Traffic Management on major road infrastructure projects. With offices in Gold Coast, Port Macquarie and Sydney, RoadNet has been involved in major projects throughout New South Wales and Southeast Queensland.

Fulton Hogan engaged RoadNet to provide specialist traffic advice during their tender bid in 2012 due to previous successful engagements

on projects such as Pacific Motorway Upgrade - Nerang to Worongary and Warrego Highway - Helidon to Withcott.

The early planning phase during the tender bid required innovative options to be developed and analysed to ensure a well thought and attractive bid was developed. Some of the more challenging issues during the bid process continued right through the project and included maintaining existing turning and crossing movements, even for B-Doubles, and minimising delays to motorists whilst maintaining a safe and efficient working environment.

At the beginning of 2013, Fulton Hogan was awarded the contract to construct the new interchange, and naturally RoadNet was welcomed to the project as part of the team. During the start-up phase the tasks required to get the project moving came thick and fast with the RoadNet team under pressure to deliver temporary road designs and traffic guidance schemes to keep it on the critical path.

From time to time, the construction staging was reviewed and adjusted to suit project constraints for traffic operations while maintaining appropriate road design standards, with a goal to

minimise temporary pavement and the number of traffic switches. RoadNet was able to look ahead to future stages to provide alternatives and often innovative solutions to save time or cost.

Throughout the project, RoadNet developed comprehensive site specific Traffic Guidance Schemes covering the entire project site. These typically included detailed geometric road design, drainage and culvert design and temporary pavement design.

Each temporary road alignment section was designed to meet strict project constraints. Designs were completed in accordance with TMR's Road Planning and Design Manual, Austroads' Guide to Road Design and relevant Australian Standards. The designs were all checked and certified by one of RoadNet's RPEQ's to ensure the designs met the project requirements, but also were fit for purpose and met the relevant standards.

Richard Crawford, RoadNet's Project Manager for the job, says that it was the profound experience of the RoadNet team, coupled with their high level teamwork and cohesion, which produced a result that met the clients' expectations.

"We started work on Blacksoil in March 2013, and we've only just finished," Richard says. "Longer projects like this one require a concerted effort from all parties involved, which was certainly evident here. We were receptive to the needs of the client, the client was always happy to listen when we had concepts that were able to solve their problems but may not have been the first thought that comes to mind."

RoadNet's General Manager, Brett Franklin, would like to thank Fulton Hogan for the opportunity to work on such a challenging project. Sincere appreciation goes to RoadNet's Blacksoil team, Lead Designer and Project Manager - Richard Crawford, previous Project Manager - Stephen Thackwell, Road Designers Donovan Haddow, Ben Kerwick, Peter Drake and Daniel (Buzz) Gardiner, and certifying Engineer - John Weatherall RPEQ, for without the hard work and dedication of these guys, often going beyond what is normally expected of them, RoadNet would not have been able to deliver the quality and extent of work demanded.

For more information contact Roadnet, 8 Sixth Avenue, Palm Beach QLD 4221, phone 07 5525 7377, website www.roadnet.net.au

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RAISING THE BAR

A major infrastructure project like Blacksoil BVH Interchange involves a lot of stakeholders. Everyone from community groups to minor contractors to major contractors and government agencies need to be involved to ensure a smooth delivery of the project, so it pays to have businesses come on-board that can simply get the job done with a minimum of fuss.

That's where Crane Hotline comes in. Operating right across South East Queensland for over 30 years, Manager Perry Evans and his team know how to get the job done fast.

"We were called into the Blacksoil BVH Interchange project because the project manager required movement across a range of different areas of the site for heavy objects such as concrete pillars and barricades", Perry says. "They needed the work done quickly without clogging up main thoroughfares around the site, particularly because there were so many contractors and pieces of machinery operating at the time."

With a team of over 30 operators, riggers, dogmen and spotters, Crane Hotline are able to deal with any job that comes their way. Their fleet of fourteen ranges from a 12-tonne crane right through to a 90-tonne crane, so there is a full range in place to deal with any situations that arise across South-East Queensland.

"We have a full kit of equipment such as block cages, man cages and spreader bars, so we are able to take on any project," Perry says. "We were in and out of Blacksoil BVH Interchange quickly and we're constantly on the move, ready for the next job."

For more information contact Crane Hotline, 201 Briggs Road, Flinders View, Ipswich QLD 4305, phone 07 3294 0555, website www.cranehotline.com.au