

WAY OF THE FUTURE

The \$65M Camden Valley Way Upgrade transforms 3.5km of the existing two lane road into a four lane divided dual carriageway. This also includes the creation of a shared pedestrian and cycle path as well as upgrades to surrounding arterial roads.

DEVELOPER : Roads and Maritime Services
MAIN CONSTRUCTION COMPANY : BMD Group
DESIGN ENGINEER : AECOM and SMEC Australia (C2C Alliance)
CONSTRUCTION VALUE : \$65 million



Camden Valley Way is a major arterial road linking the Hume Highway, M7 and M5 interchange at Prestons, near Liverpool, Camden, Narellan and Harrington Park in Sydney's south-west. New South Wales Roads and Maritime Services is upgrading 3.5 kilometres of an existing two-lane road—Camden Valley Way from the Cowpasture Road - Bringelly Road intersection to Ingleburn Road at Leppington.

This work, being carried out by BMD Constructions (BMD), will create a four-lane divided dual carriageway with a shared pedestrian and cycle path on the northbound side. Local road connections are also being upgraded, including a major 600m greenfield realignment of Denham Court Road to a dual two-lane carriageway.

The project will ultimately increase road system efficiency, improve safety and reduce road congestion in line with the predicted traffic levels in the area created by the development of the South West Priority Growth Area.

The NSW Government has committed \$280 million to complete the remaining section of Camden Valley Way between Oran Park Drive, Harrington Park and Bringelly Road, Leppington by the end of 2015.

BMD's vast scope of work involves clearing, grubbing, earthworks, pavement construction, stabilisation, select material placement, lean mix concrete and asphalt, as well as constructing five new signalised intersections, reinforced soil and masonry retaining walls, storm water drains and major box culvert structures.

They're also responsible for three bridge structures including new twin, three span plank bridges over Bonds Creek, a single span land bridge over the eastern gas (EGP) and trunk main and demolition of the existing bridge over the Sydney Catchment Authority's (SCA) Upper Canal, enabling the installation of a new super "T" girder single span bridge. The Upper Canal is heritage listed and remains in service today. It supplies domestic drinking water to Prospect Reservoir.

By constructing a bridge over the sandstone block structure BMD will satisfy SCA's strict guidelines of ensuring there's no damage to the

historic structure. A complete catch deck under the new structure during construction ensures no construction contaminates will enter the potable water running through the canal.

Other restrictions BMD face surround three high-pressure gas pipelines running through the project and constructing a land bridge over the EGP and trunk main road crossing. An ethane gas pipeline owned and operated by APA-Gorodok runs along the eastern side of Camden Valley Way from the Cowpasture Road - Bringelly Road intersection before turning away from the road alignment at the SCA Upper Canal.

Jemena also own two high-pressure gas mains, north of the SCA Upper Canal on Camden Valley Way and BMD are constructing a land bridge structure, comprising precast, pre-stressed concrete planks on concrete headstocks supported by cast-in-place concrete piles, over these pipelines.

Not only are these gas mains high pressure, they play a significant and pivotal role in supply to the major industry. This has resulted in a high level of interaction with the asset owners and securing a range of approvals for specific works in close proximity to the high-pressure gas services exclusion zones.

BMD Constructions has carried out a number of significant road works adjacent to the operating Forest Lawn Cemetery (FLC). Maintaining access and managing work activities around the cemetery's needs include managing noisy activities around their service schedule aided by daily communications between BMD and FLC.

To date, there have been a number of major project milestones achieved by the team, including:

- the switching of traffic onto the first two sections of new pavement in Areas 1A and 1B;
- the realignment of a section of 132kV overhead high voltage Endeavour Energy main in Denham Court Road
- completion of southbound bridges and traffic switch to 3A / 3B new pavement.
- commencement of wearing course asphalt in Areas 1A, 1B, 2A and 2B.

Throughout the project, BMD has worked closely with the client, New South Wales Roads and Maritime Services, employing a 'one team' focus, to further strengthen the existing client relationship.

BMD have achieved this project through positive communication and the demonstration of commitment to safety, quality and programs.

Having recently secured 47th position in The Australian's Top 500 Private Companies list for 2015, it's no surprise that the wholly Australian owned and operated BMD Constructions was awarded the \$65 million Camden Valley Way upgrade - Stage 3.

BMD has grown from a small Queensland family business in 1979 to become one of Australia's largest private construction, consulting and urban development company's today. Their broader geographic footprint and expansion into new capabilities has positioned them as a major player in the national construction and property industry.

The Camden Valley Way upgrade is one of the company's largest contracts in NSW to date. It recognises the capability and strength of their New South Wales team.

With approximately 1,700 staff throughout Australia, BMD has the resources and experience to deliver projects ranging in size from \$1 million to over \$1 billion with an impressive track record.

BMD's strength lies in the quality of their staff and genuine relationships with clients, partners and communities, with success linked to their ability to deliver certainty through consistent performance.

The private ownership of the BMD Group facilitates a speed of decision making, when coupled with their financial strength and capability, provides outcomes of the highest possible mutual benefit.

For more information contact BMD Group, 25 Cambridge Parade, Manly QLD 4179, phone 07 3893 7000, fax 07 3893 1006, email brisbane@bmd.com.au, website www.bmd.com.au

Below Boral Asphalt supplied and laid the asphalt pavements for the Camden Valley Way project.

Below Barrowar landscaped the wide central median strip for the upgrade.



Boral Asphalt is a leading producer and applicator of bituminous products in Australia and was a significant contributor in the final construction of the NSW Government's upgrade of Camden Valley Way to create a 4-lane divided road. "We can produce road surfacing materials and place them through our contracting operations to meet the design specifications of councils and major road operators," advises Boral Asphalt's Sydney Contracting Manager, Simon Colton.

Boral is a leader in the asphalt industry, and the business offers a range of products and services related to bitumen including the supply and placement of asphalt, application of sprayed seals and the provision of road maintenance services. This is backed with a high standard of engineering expertise, road technology, product quality and technical service.

The Asphalt business is proud to be part of Boral Limited, a multinational building and construction materials company with extensive operations across 13 countries, and which employs over 13,000 employees. The largest division of Boral Limited, Construction Materials has a national structure that operates over 400 quarry, concrete, asphalt, technical and transport sites throughout Australia.

"An asphalt road surface has to provide a safe and comfortable driving experience," Simon says. "It also has to withstand the extremes of weather and traffic wear and tear over its working life." To meet these exacting requirements Boral Asphalt has developed a broad range of products, each specifically tailored to the job specifications.

Our experience ranges from placing asphalt at major facilities such as airports and harbour precincts, and alliance contracts on some of the biggest road projects in capital cities, to work on local residential streets. We have applied spray seals throughout Australia's rural road network and have also delivered many multiple year term network maintenance contracts to state road authorities across the country.

Simon summarises the success of the project around engagement. "Working with BMD on this job we have overcome environmental and strategic problems with a strong and proactive team approach through solid planning and organisation. This has enabled us to deliver a quality product with safety at the forefront of every decision made."

For more information contact Boral Asphalt NSW Head Office, Greystanes House, Clunies Ross Street, Prospect NSW 2148, phone 1800 555 445, website www.boral.com.au

A major arterial road, Camden Valley Way links the Hume Highway, M7 and M5 interchange at Prestons near Liverpool, Camden, Narellan and Harrington Park in Sydney's south-west. In 2005, Roads and Maritime Services upgraded Camden Valley Way to a four-lane divided road from the M5/M7 interchange to Bernera Road, Prestons.

The NSW Government has committed \$280 million to complete the remaining section of Camden Valley Way between Oran Park Drive, Harrington Park and Bringelly Road, Leppington by the end of 2015. Construction on the final section of Camden Valley Way commenced in late November 2013.

"Barrowar landscaped the wide central median, consistent with the other upgraded sections of Camden Valley Way," said Barrowar's Mitchell Bell. "It's been constructed so that it will eventually allow for the future widening to six lanes when required."

Established in 1988, Barrowar Pty Ltd has become synonymous with creating landscapes for the commercial and domestic markets. Today Barrowar services New South Wales and the Australian Capital Territory. Many of the large commercial projects are in the \$2 million range.

"We're proud to be associated with a variety of RTA projects including Nace Civil Central Coast Highway - Nace Civil Powers Road Seven Hills - RMS Princes Highway South Nowra - Nace Civil ANZAC Parade - RMSA."

Other projects Barrowar are involved in include:

- Bunnings at Mittagong and Prestons, NSW
- Art Gallery of NSW, Lilyfield, NSW
- New student residences at UWS, Campbelltown, NSW
- F3 widening from Wairoonga to Berowra, NSW

Barrowar's success and achievements are demonstrated through their ability to provide excellence service to any client, with their friendly staff who focus on producing work effectively and on time.

For more information contact Barrowar Pty Ltd, 1a Denham Road, Kenthurst NSW 2156, phone 02 9654 3071, mobile 0418 284 134, email cbell.barrowar@gmail.com, website www.barrowar.com.au

Below Guardrail Installations Australia provided Wire rope safety fencing as well as Guardrail and Tracc crash cushions on the Camden Valley Way upgrade.

Below Allroad Traffic designed, installed and facilitated necessary temporary traffic arrangements on the project.



For the past seven years Guardrail Installations Australia has become known as a specialist supplier and installer of safety barrier systems who deliver superior products and service to all clients. They've also invested heavily in the latest European technology. "We have specialist, hydraulic, guardrail installing machines from Italy providing greater reliability, efficiency and service," informed Sean. "Plus we provide technical and engineering advice on all job sites and equipment."

On the Camden Valley Way upgrade their guardrail, wire rope safety barriers, TRACC crash cushions and transitions were used, even their down the hole hammer when solid rock was encountered.

Wire rope safety fencing is aesthetically pleasing, environmentally friendly and widely used on Australian roads, highways and motorways due to its unique features of easy installation, ideal for narrow medians, quick low repair and maintenance costs, competitive purchase cost and an unrivaled safety record for over 30 years in over 30 countries that have it installed, including Australia.

For more information contact Guardrail Installations Australia Pty Ltd, Sean Holmes, mobile 0411 956 442, email sean@guardrailing.com.au, website www.guardrailinstallations.com.au



Minimal traffic disruption and safety were major priorities on the Camden Valley Way upgrade project. Creating a 4-lane highway from the current 2-lane road along a 3.5km stretch takes more than simple engineering planning. Allroad Traffic were called upon for the designing, installation and facilitation of the necessary temporary traffic arrangements.

With a passion for changing the way in which Traffic Control training was delivered Lee Vossen founded Allroad Safety and Training back in 2002. It has since changed the way newly trained Traffic Control people enter the industry. It has equipped the traffic controller with the most up to date information and technical expertise, subsequently producing some of the best Traffic controllers in the industry.

Since that time, the Allroad brand has expanded to offer a comprehensive range of traffic management products. Today there are three business units: Allroad Academy (for training), Allroad Traffic (for traffic management) and Allroad Alliance (for Road Safety Audits, planning and site establishment). "We put the client first," explained Lee. "This includes onsite workers and the motorist. They need to be able to negotiate the setups we put on the road."

Fundamentally Allroad redesign the carriageway to create the work area, at the cost of the travel path for the public. It's for this reason Allroad believe they're accountable.

Lee's foundations are in the training space and his company has a learning culture centric, with every member focusing on what they can learn from today's shift. Allroad's technical strengths stem from this, compliance and procedural accuracy.

With over 20 years of combined traffic control expertise, experienced plan designers, support from a traffic engineer, a fleet of fully equipped vehicles and highly experienced traffic controllers, Allroad Traffic is your one stop shop for all traffic management needs.

For more information contact Allroad Traffic, 4/5-7 Wiltshire Street, Minto NSW 2566, phone 02 8795 0834, email lee@allroad.com.au, website www.allroad.com.au

Below Sydney Cranes supplied mobile cranes and riggers on the Camden Valley Way Upgrade.

Below ACO Polycrete supplied heavy duty roadway grated trench drains and kerb inlet drains.



Sydney Cranes have been working with BMD Constructions on the \$60 million Camden Valley Way upgrade project for over two years supplying a variety of mobile cranes and riggers around the movable site. Award-winning Sydney Cranes is a family owned and operated business with an unblemished record for safety and reliability on every job.

“Our dedicated safety committee meets with clients prior to commencing any job,” explains Sydney Cranes Managing Director Enrico di Grande. “They prepare the working procedures required on-site to ensure everyone’s safety.”

“Our Operations Manager, Chris Turner is a specialist in creating the job plans, providing job site work method statements and risk analysis,” Enrico says. “With 30 years experience in the construction and crane industry he ensures all mobile crane jobs and franna wet hire is carried out safely and professionally.”

All Sydney Crane crews are licensed by Workcover and have construction industry OH&S training, as well as any relevant site specific training. Sydney Cranes also has the latest in European and Australian equipment and technology, that’s maintained to the highest standards.

“To ensure customer satisfaction and the best quality service on every job I’m constantly upgrading my fleet of mobile and franna cranes,” said Enrico.

Sydney Cranes has recently expanded its fleet with the addition of the awesome, big-lifting LEIBHERR LTM 1300-6.1 and on Camden Valley Way they also used the new TEREX FRANNA AT22.

“A major on-the-job challenge at Camden Valley Way was overcoming the close proximity of passing cars to the crane — sometimes just one metre or less clearance,” exclaims Enrico. “But we achieved another perfect safety record. Not a single incident or near miss occurred. A result of the close liaison between my team and our working partners.”

Enrico prides himself on teamwork, safety record and professional results and this saw Sydney Cranes also being utilised by John Holland Constructions on the South West Rail Link.

For more information contact Sydney Cranes Pty Ltd, 1 Hill Road, Lidcolme NSW 2140, phone 02 8765 4999, email info@sydneycranes.com.au, website www.sydneycranes.com.au

ACO has serviced the Australian market for over 20 years. The company’s Australian manufactured drainage products and free Sydney based design service ensured the road designer specified the correct water management system for the Camden Valley Way project.

“For Camden Valley Way, we supplied heavy duty roadway grated trench drains and RMS approved kerb inlet drains,” said Brad Ryan, New South Wales ACO Sales Manager. “These special drainage systems eliminate the need for excessive pits and pipework. The drainage excavation is kept shallow to avoid conflict with other services. The drain’s effectiveness also leads to a reduction in gutter flow widths, aquaplaning and pedestrians from getting splashed.”

ACO’s trench drains comprise of Polycrete® Channels. These are precast drainage channels manufactured from polymer concrete in a variety of widths and depths for all applications from shopping malls to airport runways. Polymer concrete is a versatile material produced by mixing a variety of mineral fillers with a resin-binding agent to produce a very durable material. ACO’s trench drains are available with grates in various materials and finishes and comes with a full range of accessories for seamless underground pipe connection.

ACO is dedicated to achieving the highest standards in quality and is a company with intelligent solutions for civil engineering, construction, building services, environmental technology, landscaping and sports grounds; as well as agricultural buildings.

An innovator of polymer concrete tunnels, ACO is also at the forefront of wildlife and environmental preservation to help amphibians cross under roads and fencing systems to keep small animals off roads.

With northern European roots, ACO was established in 1946 for manufacturing mineral building products such as terrazzo concrete, concrete window frames and pipes. Today ACO is renowned for the pioneering development and mass production of polymer concrete products. ACO, a global organisation, is committed to increasing its Australian capabilities of polymer concrete drainage products at its Sydney based facility in Emu Plains to support other road infrastructure projects like Camden Valley Way.

For more information contact ACO Polycrete Pty Ltd, 134-140 Old Bathurst Road, Emu Plains NSW 2750, phone 1300 765 226, fax 02 4747 4060, email sales@acoaus.com.au, website www.acoaus.com.au