

# QUEEN ELIZABETH HOSPITAL

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- HANSEN YUNCKEN'S PROJECT MANAGER, BEN TOLLEY



# A TRADITION OF HEALTH & WELLBEING

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QUEEN ELIZABETH HOSPITAL / HANSEN YUNCKEN



Left The North East Building of Queen Elizabeth Hospital.

**Hansen Yuncken has been involved with** the multi-facility redevelopment of the Queen Elizabeth Hospital in Woodville South, South Australia, for the past five years. The company was engaged as Managing Contractor and has provided significant contributions during the budget finalisation, value management and procurement and construction phases. The progress of the redevelopment has been yet another practical demonstration of Hansen Yuncken's philosophy of "Building Value" and consistently pursuing innovation.

Elements completed to date include the Inpatient building with its 70 ward rooms and 20 day chairs, with specialist departments such as haematology and cytotoxic preparation. This was completed in 2007. Since then work has continued on the Childcare building, the Research building and Engineering Buildings. A multideck carpark was constructed with 3 elevated levels allowing for 575 parking spaces. The old Maternity building was demolished this year making way for the construction of the Rehabilitation and Older Persons Mental Health buildings. Overall the works are due to be completed in December 2012 for a final contract sum of \$127m.

The Inpatient building has won a South Australian AIB award for professional excellence in the \$10-50m category. The new Rehabilitation Services Building will provide new replacement facilities for several Allied Health patient therapy services including Physiotherapy and Occupational Therapy. The new building will comprise state of the art facilities to replace existing ones. The new building comprises a two storey concrete framed structure containing Allied Health with linkages to adjacent inpatient building and former maternity building therapy services and a new plant room constructed atop the modified former Maternity Building.

The Older Persons Mental Health Unit comprises of 20 beds to service acute patients. Its construction is a single storey, with a steel and timber framing and brick veneer façade. The building is designed around a central core nurses station, with radiating accommodation wings.

Hansen Yuncken successfully managed a developing and changing scope of work while maintaining its commitment to budget outcomes

and overall master planning concepts. The company aims at all times to use a collaborative and communicative approach to project delivery. This has been demonstrated by undertaking smaller relocation fit outs within an occupied building, major infrastructure upgrades including fire sprinklers to the occupied tower block, HV ring main and upgrade of HV main switchgear and the demolition of the 7 storey Maternity Building, all of which involved critical services cutovers, and detailed communication of works while neighbouring buildings continued to function without interruption.

Hansen Yuncken, working with its consultant team, provided a significant contribution in the review and assessment of the Green Building Council Green Star rating tool for hospital buildings.

Hansen Yuncken's Project Manager Ben Tolley states "The Queen Elizabeth Hospital Project is a challenging project that has required an embracement of collaboration to achieve its targets. The project enabled us to further demonstrate our skills in construction and deconstructing in live environments. It has been a privilege for us to continue our contribution to the improvement of the State's Health System."

Hansen Yuncken has managed close to a dozen hospital and healthcare projects in recent years, including the Glenside Campus Health Facility, Lyell McEwin Hospital Stages A, B & C, Wakefield Hospital, Women's and Children's Hospital and the Noarlunga GP Plus Health, all in South Australia; Orange Hospital and the Medica Centre in NSW; and the Launceston General Hospital and Neo Natal Unit and the Royal Hobart Hospital in Tasmania.

The company has a proud track record in the delivery of many other significant and complex construction projects throughout Australia, over 4500 and counting since the company was founded in Melbourne in 1918. It is today one of the largest privately owned construction companies in this country.

*For more information contact Hansen Yuncken,* L1, 191 Fullarton Road Dulwich SA 5065, phone 08 8229 7300, fax 08 8229 7301, website: [www.hansenyuncken.com.au](http://www.hansenyuncken.com.au).

**Energy management specialist Schneider Electric** continues its involvement with the unfolding Stage 2 redevelopment of the Queen Elizabeth Hospital in Adelaide. Stage 2 is now scheduled for completion in late 2012. Schneider's local acquisition, TAC Pacific, has worked on the project from the beginning, winning an NECA Excellence Award in 2007. The injection of Schneider's global experience and resources has made the relationship even stronger.

The challenge all along has been to install and upgrade intelligent integrated systems (IIS) in a working hospital with no disruption of services in the midst of demolition, refurbishment, and six distinct construction zones.

In essence the aim of the building management and control system is to ensure that between energy generation and points of use the right amount of energy gets to the right user at the right time. Supply should be safe, reliable, efficient, and green. Schneider consolidated cable management for voice and data through a series of communication "closets" located throughout the hospital complex, linked by a combination of fibre and copper backbone cabling. The network provides dependable and stable transmission of data in an environment where security and CCTV systems alone require large bandwidth.

Incredibly, a single low voltage cable distribution infrastructure now supports voice and data, nurse-call, security and building functions including lighting, heating, and ventilation. The entire network, down to temperature sensors and magnetic door locks, can be controlled from a single designated computer. This brings systems integration to a level not seen before, setting a new standard for large buildings and institutions. Hospital staff can monitor and manage services in ways not possible until now, saving time and money. During the installation process Schneider has conducted extensive training of staff to enable them to use the system effectively.

Some functions take care of themselves. With information gained from swipe cards the network knows how many people are in each building, and where they are, and adjusts air conditioning and ventilation accordingly. This is a long way from the days when someone flicked a single switch in the morning and everyone hoped for

the best. At 11am the network generates a complete report on energy use, financials and other matters, which is sent by email to the hospital administrator.

From the patients' point of view, temperature and lighting controls obviously promote their comfort. Security measures and nurse-call and panic buttons ensure their safety. Reliable connectivity for laptops and other forms of entertainment helps them to enjoy themselves as much as they can in the circumstances.

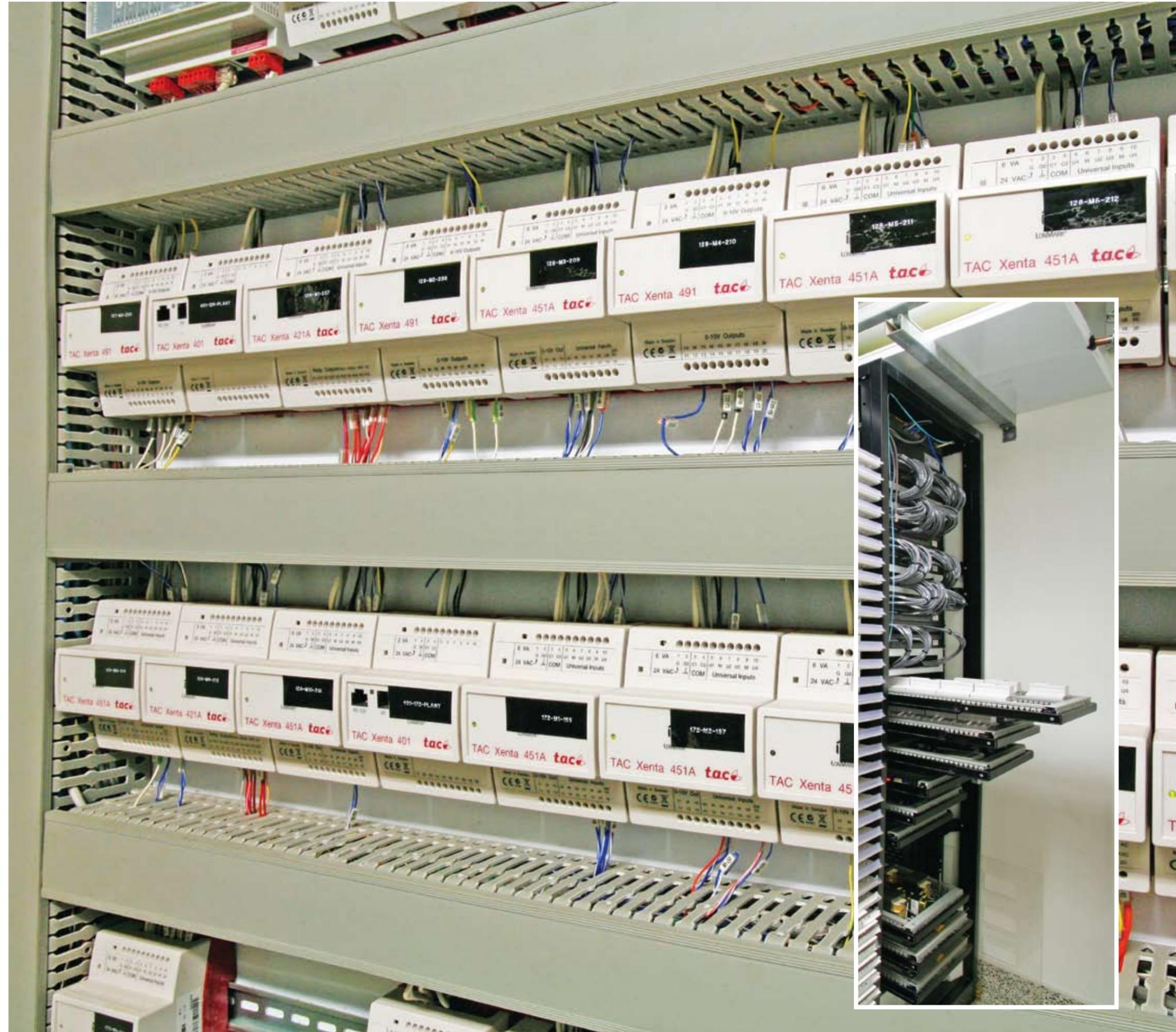
Schneider Electric has delivered some of the largest and most complex projects in Australia and New Zealand. Between our two cousin countries the company has an investment of \$1.3 billion and employs 3600 people, with its own factories in Adelaide, Benalla, Brisbane and Melbourne. Worldwide it employs 100,000 people in over 100 countries and has 200 factories.

The company provides integrated technology to optimise energy usage in any situation. With a unique portfolio in electrical distribution, industrial automation, critical power and cooling, building management and security, and in the growing healthcare sector, Schneider Electric is the only global specialist in energy management and a world leader in energy efficiency.

Since 2004 it has created a unique business portfolio, doubling its size in revenue and personnel. It devotes 5% of sales every year to research and development to make its solutions greener, simpler and easier to use. Schneider can help any building or facility achieve maximum points for Green Star, NABERS (National Australian Built Environment Rating System), and LEED (Leadership in Energy & Environmental Design).



*For more information contact Schneider Electric, Glen Scott, Country Segment Manager, Healthcare, Australia and New Zealand 0411 101 676, 33-37 Port Wakefield Rd Gepps Cross SA 5094, phone 08 8161 0955, fax 08 8161 0910, web: www.schneider-electric.com.*



Below Woodpend provided frames, fire and timber doors, door and sundry hardware, and a master key system for the Queen Elizabeth Hospital.



Below S & S Plasterboard Contractors were engaged to fit ceilings and partitions on the Queen Elizabeth Hospital project.



Woodpend was established in 1988 with a workforce of 8, supplying commercial door hardware to the construction industry. Woodpend has since extended its services by developing a locksmith department, Premier Locksmiths and a project management department, Woodpend Projects. With these departments Woodpend can provide, supply, install and manage all doorway systems complete with the design of master key systems.

Currently the company has 34 employees divided between Woodpend Hardware, Premier Locksmiths, and Woodpend Projects. It also calls on the services of 18 sub contracting carpenters.

Woodpend specialises predominantly in supply and installation of doors, frames, and commercial hardware, and associated project management. It has a license to manufacture its own fire rated doors.

Woodpend has recently introduced a new business initiative to its portfolio with supply and installation of toilet partition Suites, proudly supporting the Laminex Group product range.

For the Queen Elizabeth Hospital Woodpend provided a total project management contract package to all stages incorporating

frames, fire and timber doors, door and sundry hardware, and a master key system.

In the Research Building the package involved fire rated doors, joinery full glass doors, lead lined doors, acoustic doors, special venter doors, 2 in 1 assist doors, metal clad industrial doors and standard internal commercial doors. There was also a large scope of metalwork involved on site modifying existing aluminium frames to accommodate security access control and large glass double action doors pivoting from large steel square section posts as per the architects' specifications.

The Woodpend team was well up to the challenge of completing this work within the target of time and budget that the builder provided.

Woodpend is currently working on the new Tower 8 new Tax Office headquarters, Broken Hill Shopping Centre, and the Pasadena Green Shopping Centre and recently completed the SAPOL new Head Quarters for SA Police.

*For more information contact Woodpend Projects (Part of the Woodpend Pty Ltd Group), Level 1, 59 Goodwood Road Wayville SA 5034, phone 08 8357 3530, fax 08 8357 3537.*

S & S Plasterboard were initially engaged to fit ceilings and partitions in Stage 1 of the Queen Elizabeth Hospital refurbishment in 2001.

They have remained with the project, moving on to other areas such as the Inpatients building, Research building, Nuclear Medicine, Women's Health, and the Day Surgery, all the while working closely with hospital staff to avoid disruption to the normal everyday functions and services of the hospital.

The high quality finish they give to their work is evident throughout, most notably in the main entrance and atrium of the Research Building.

S & S enjoys regular repeat work from major contractors such as Hansen Yuncken owing to its reputation for careful attention to detail in planning, costing, and sourcing of appropriate materials, which invariably produces cost and time benefits to clients.

With Hansen Yuncken it has worked on the Mitcham cinema complex, Super Schools, and the commendation award winning Building X (Environmental Sciences) at the Mawson Lakes campus of the University of South Australia.

For Hindmarsh Construction they worked on Stages 2&5 of the Flinders Link development. In association with Built Environs they worked on a fit out for the Department of Defence at Mawson Lakes. S&S is currently working on the Flinders Medical Centre.

In business since 1984, its reputation has steadily grown along with its dedication to customer satisfaction. The company has also worked on convention centres, a Mormon temple, and the Commonwealth Law Courts building in Adelaide.

S & S brings its commitment to excellence to bear on every project, large or small.

*For more information contact S & S Plasterboard Contractors Pty Ltd, PO Box 2483 Charleston SA 5244, phone 08 8389 54630, fax 08 8389 5473, mobile 0408 827 092.*

**Below** MedMech specialises in the design and installation of medical and laboratory gas reticulation systems for hospitals, laboratories, and science facilities.

**Below** McMahon Services' demo-nstration in innovation



MedMech Solutions brought its expertise to construction of the new laboratory in Stage 2 of the Queen Elizabeth Hospital redevelopment. The company is contracted on various projects by builders, mechanical engineers and mechanical services contractors to carry out installations of specialized pipework during the building process.

MedMech specialises in the design and installation of medical and laboratory gas reticulation systems for hospitals, laboratories, and science facilities. It also installs products for operating theatres, high dependency, coronary care and intensive care units. Operating theatre lights, pendants and specialist medical equipment are either sourced by MedMech or supplied by a third party and installed by them.

MedMech carries out installation of mechanical services, pipe work for heating and chilled water systems including boilers, chillers, pumps, expansion tanks, header tanks, dosing pots and condenser units.

MedMech also specialise in installing refrigeration pipe work. This is complemented by the medical gas installation as the refrigeration pipe work needs to be installed to a high degree of cleanliness. By

purging the pipe work oxidization of the copper pipes is alleviated, which extends the life of the associated equipment.

MedMech carries out extensive servicing of medical and laboratory gas reticulation systems and has service contracts with a number of Government entities. The work performed in this area includes servicing and testing of reticulated systems, flash back arrestors, and all associated pieces of equipment in TAFE colleges, schools, and workshops.

MedMech also carried out the infrastructure Medical gas pipework on behalf of Climat Commercial Air Conditioning for stage 3 of the redevelopment, to re direct all of the existing Medical Gas services below ground, to allow demolition of the old maternity building and future redevelopment of the TQEH Older Persons Mental health facility.

MedMech Solutions has embarked on a program to achieve AS/NZ ISO 9001:1994 as an endorsed quality provider to its customers.

**For more information contact MedMech Solutions**, 6/25 Research Road Pooraka SA 5095, phone 08 8262 4873, fax 08 8262 4794, email: medmech@bigpond.com, website: www.medmech.com.au.

**The \$3.2million demolition works for Adelaide's Queen Elizabeth Hospital** demonstrated innovation at its best.

McMahon Services were previously contracted to tackle the first major project, removing 5,280 meters of asbestos contaminated mastic in precast panels, and 2000 meters of asbestos based pipe cladding and cement pipe, and creating an asbestos register for the entire hospital.

The complex demolition works involved the deconstruction of the 7 storey Maternity Wing attached to an occupied building.

Protected by outdoor scaffolding, the demolition followed a floor by floor deconstruction, using company-owned 3 and 5 tonne excavators supported by a number of skid steer loaders. To minimise disturbance, the demolition team constructed a purpose-built waste chute. The U shaped stacked formation was created using 11x40ft and 14x20ft shipping containers, lined with a concrete slab and 30mm steel plate.

The works also involved demolition of the 'back of house' facilities including workshops, offices and storage, as well as the boiler house,

which included a concrete and fire brick chimney approximately 40m high. To deconstruct the chimney McMahon Services brought in their new \$3million ultra high reach excavator, capable of reaching up to 45m from ground level.

Since commencing operations in 1990, McMahon Services have successfully completed projects with a combined value in excess of \$600million. This work has ranged from a high volume of small projects through to large multi-disciplinary projects across South Australia, Queensland, Western Australia and the Northern Territory.

The company encourages a strong culture of innovation, continually investing in new technologies and methods to minimise overall costs of operations, and to provide practical approaches that ensure efficient and effective results.

**For more information contact McMahon Services**, Head Office (Adelaide) 26 Duncan Road Dry Creek SA 5094, phone 08 8203 3100, website: www.mcmservices.com.au.