MCMAHON SERVICES

THE WORKS

Autumn 2013

Largest civil project to date completed

Building in the APY Lands

A Grade Roofing

Industry Insight: Asbestos

Right tools for the job our plant and equipment







FROM DAVID MCMAHON







Safe and Solid

On track in 2013, McMahon Services has started the year safe and solid.

At the end of last year, McMahon Services proudly gained Federal Safety Re-Accreditation. I congratulate the HSEQ team, along with the demolition team based at the Amcor site in Botany NSW, chosen as the audit site in the re-accreditation process.

Even through some tough times, work has remained solid over the first quarter. We continue to see our work take us right across the country, even to the most remote sites, including South Australia's APY Lands.

The Building Services division has travelled great distances to complete refurbishment works as part of the Federal Government's commitment to Indigenous health centres located in Amata and Pukatja.

Heading North, we also completed our largest civil project to date. Demanding a team of over 40 personnel, the 570,000 square metre site was prepared ready to house 3,500 FIFO workers helping to build INPEX's Icthys gas processing facilities.

As experts in asbestos removal, this edition of The Works also includes Industry Insight into issues of growing concern – the effects of asbestos soils, dust and putty. With new regulations also coming into play, this is a timely read for all.

The team in Queensland has also recently secured a demolition works package at the Brisbane Aquatic Centre in preparation for the 2018 Commonwealth Games. This is a high-profile project, so we look forward to keeping you updated with its progress.



David McMahonManaging Director





Back in 2009, McMahon Services was the first multidisciplinary construction services company in Australia to achieve Federal Safety Accreditation.

In 2012, the company went through an eight month audit process and are proud to report that we have gained re-accreditation.

The audit for re-accreditation tested our safety systems and processes, and set us the challenge of demonstrating safety best practice to the highest standards.

The Amcor Paper
Manufacturing Plant
demolition site in New South
Wales was selected as
the operational site to be
audited by the Federal Safety
Commission, as part of the
three year re-accreditation
process.

The historic plant based in Botany was earmarked for redevelopment, so McMahon Services was engaged to demolish complete and part sections of the existing structures and plant.

Some areas were redundant, while others required decommissioning. The project also called for both friable and bonded asbestos removal, along with redundant pipework, tanks and roofing.

In total, over 4,000 square metres of Super 6 bonded asbestos sheeting was safely removed and disposed of, and approximately 300 lineal metres of friable pipe lagging.

The project also demanded an extensive range of heavy machinery, including the PC1250 Ultra High Reach Demolition Excavator. The Federal Safety
Commission officer arrived
on-site in mid-October to
observe work processes and
to cross-check our safety
documentation.

The team was successful in passing the audit process, proving our strength as a leading construction services provider.





Just days after an arson attack burnt out the Target Country building in Port Lincoln South Australia, McMahon Services received a call from the loss adjusters.

Within 24 hours McMahon Services was on site to assess the damage.

Five days on, our demolition team mobilised to site, ready to stabilise the structure in preparation for a complete mechanical deconstruction. The building was declared structurally unsound, so the first task was to block the road from public access.

The road was then lined with steel plates for protection once machinery was in active use.

The fire caused major damage to the pre-cast panels, so in a first for McMahon Services, the ultra high reach boom was fitted on the PC300-8 excavator with a genesis cutter crusher attachment, providing a safer solution than cutting and crane lifting.

When fire crews were battling the blaze, water seeped through the ceiling of a neighbouring building, causing damage to the existing floor.

Already on site, McMahon Services was approached to remove friable asbestos backed vinyl from the adjacent property and dispose of the 280 square metres of contaminated material.

McMahon Services was commended by the local community for stabilising the burnt out building and for using specialist equipment to safely bring down the central structure.

LIVING FOR THE CITY



"OTEK and McMahon Services worked co-operatively together in developing and implementing remedial methodologies and strategies for this complex and challenging site. The outcome was a site that was remediated to an auditable standard and deemed fit for high density residential development"

Dean Noske Senior Environmental Geologist **OTEK**



McMahon Services successfully remediated a large former commercial/ industrial site ready for a high density residential development in Adelaide's city centre.

The 2 Stage project called for the removal of large volumes of high level contaminated soils, along with the remediation of two former Underground Storage Tank (UST) locations.

The first stage involved the removal of 878 tonnes of Low Level Waste Soils (LLWS) and over 1140 tonnes of Intermediate Waste Soils (IWS).

The inner city location was narrow and therefore challenging to manoeuvre around. To avoid cross contamination, the project team used a tandem tipper, which also stopped project delays.

The Civil team then pumped out two fuel tanks, before excavating the area, removing the tanks and surrounding

soils. To finish, a new subbase was prepared and compacted.

Stage 2 was to remove an additional 5.016 tonnes of LLWS and 1,991 tonnes of IWS, along with approximately 50 tonnes of High Level Waste Soils. 120 tonnes of concrete and 420 tonnes of asphalt.

Latent discoveries found on site included soft spots. concrete structures and asbestos soils, which were quickly and safely removed off site to minimise stockpiling and avoid delays.

McMahon Services implemented a material tracking system, which allowed for every tonne of material disposed of, imported on to, or moved around site to be tracked to its final location.

Working collaboratively with **Environmental Consultant** OTEK in developing successful remedial strategies helped deliver the project with zero safety incidents recorded.

HEALTH KICK(K

MCMAHON SERVICES

HEALTH KICK UPDATE

Kick start your health

Our internal health and wellbeing program – Health Kick – is off to a kicking start.

What are the odds?

An alarming 1 in 12
Australians will develop
bowel cancer in their lifetime;
however the cancer is 90%
curable if diagnosed early.
Knowing these odds, we
made the decision to kick-off
a Corporate Bowel Screening
Program across the company.

McMahon Services has partnered with The Jodi Lee Foundation to roll-out the program, offering free testing kits to employees across all offices.

Inspired by his wife's long battle, Nick Lee is on a mission to increase awareness about bowel cancer and emphasise the importance of early detection.

As a commitment to our workforce, we will continue to encourage staff to be brave and take the first steps towards early detection.

At the Health Kick Launch, staff heard inspiring presentations from Nick Lee and veteran television journalist, Graeme Goodings, about the disease and how it can impact anyone, at any age. Since then, we have had over 100 employees come forward for testing and we will continue to encourage more over the next six months.



McMasterchef heats up

In an effort to spark healthy eating, McMahon Services has launched its very own healthy cooking competition – McMasterchef.

Receiving their very own McMasterchef apron, we encourage members of staff to send through their photo entries each month, showcasing their healthy home-made dishes.

All entrants are featured in our Health Kick newsletter – KickBack – and winners receive handy tools for the kitchen.

McMasterchef is all about sharing ideas, encouraging healthy home cooking and having some fun with food!







Working under extreme weather conditions during the holiday season may not be the ideal way to spend Christmas but for McMahon Services, this was dedication to the job.

McMahon Services was engaged to complete extensive asbestos roof sheeting removal and reinstatement works at two CSBP fertiliser production plants in Western Australia. Albany was the first stop, with the removal of asbestos roof sheeting to both a 3,300 square metre Rock Shed and an 8,000 square metre Super Storage Shed. The roof was then replaced with double coated Ultra-Roof Sheeting, for maximum durability.

Wind and rain struck the town sporadically throughout the project, so the project team staggered working hours and days to optimise work during favourable weather conditions.

Safety was a major focus, especially due to the continued operations at the Plant. Through close consultation and radio communication, the team

was able to monitor and coordinate truck deliveries, which required access in and out of the facilities where roofing works were occurring overhead.

Kwinana was the next stop. By this time, it was nearing Christmas and the Plant had commenced shutdown. The project needed to be completed for recommencement of operations in early January.

The team began by removing 2025m² of asbestos roofing and 380m² of wall sheeting from the Super Manufacturing Plant, before installing stainless steel roof sheeting and translucent sheeting to the Eastern wall.

Working long hours to get the task completed, personnel were once again faced with extreme weather conditions, this time however it was soaring temperatures of over 40 Degrees. To combat this, the team strategised with early starts, staggered breaks and closely monitored work practices.

Several team members spent their Christmas and New Years in the town of Kwinana.

The client congratulated McMahon Services for a job well done, with the entire project completed by the deadline and without incident, despite the difficult conditions.



The scope included widening and layout reconfiguration of a 400 metre asphalt road, along with line marking, the installation of guardrails, median island crossing and

Precision demolition of a mass in-situ concrete culvert and timber sleeper structure, which was adjacent to the rail line and to overhead and Maintaining access to the school was critical, so the team was rostered to safely guide students to and from the main entrance. Allowing for school buses to remain operational meant that site-set up was also regularly changed.



El Alamein Secure

The El Alamein Secure compound at the Cultana Army Base in South Australia was earmarked for improvement under The Department of Defence, National Training Areas & Ranges Improvement Program (NTARIP).

Engaged by Sitzler, McMahon Services completed a demolition and civil works package at the remote site, starting with the deconstruction and disposal of existing buildings and several internal strip outs.

The significant road works saw the civil team reconstruct and upgrade a 1.5 kilometre existing asphalt road, including upgrades to stormwater infrastructure.

The pavement design included a thick asphalt overlay over a rubble subbase and base-course, which varied in thickness due to variable subgrade conditions. The stormwater infrastructure included reinforced concrete pipes and headwalls and swales.

The discovery of oversize rock within the pavement design area was a significant challenge for the project team, so a Powerscreen was mobilised to site to separate the geotechnically unsuitable rock and soil.

The oversized stones were then incorporated into the site drainage swales, smaller aggregate set aside for use in site pedestrian paths and other suitable materials stockpiled for use in top dressing other site access tracks. Only a small quantity of the soils required off-site disposal.

This resourceful approach earned Project Manager Mark Polec and McMahon Services an impressive client commendation.

"Throughout this project we found Mark's attitude, knowledge and resourcefulness to be the epitome of what we know and respect of the McMahon Services Group" said Sitzler - SA Manager, Andrew McDonald.

"This project produced some interesting challenges by way of unknown poor existing road base materials.

"Mark's proactive approach and resourceful nature assisted greatly in providing value for money innovative solutions to our client" he said.

PROJECT FEATURE: INTO THE APY LANDS





Country Health SA LHN

AMATA Family Wellbeing Centre

PALYA

8.45am - 5.00pm Monday to Friday

Office Hours





In 2011, the Federal and South Australian Governments announced they would contribute \$5 million to establish Family Wellbeing Centres in three Anangu communities in the APY.

The project was developed to create a single, coordinated access point for critical support services to the local Aboriginal communities.

McMahon Services was contracted to complete refurbishment works at both the Amata and Pukatja (Ernabella) sites, with the two teams from the Building Services division working simultaneously across the Lands.

Amata

Four hours from the Stuart Highway, one team arrived on site in Amata. With limited accommodation in the area, the team utilised existing buildings as sleeping quarters.

Food also proved to be a logistical challenge, with the nearest supermarket over seven hours away.

The extensive internal refurbishment works spanned from the replacement of all doors, door hardware and sanitary tapware, to ceilings and wall linings. The Government sought to 'de-institutionalise' the Centre from a substance misuse centre, to a more homely environment.

The team was then further challenged - propping the existing roof structures to demolish the internal walls and install new structural elements to support the existing roof

loads, before constructing new external walls.

A new Reception Area was also modified and constructed, along with a new kitchenette, leading to the Activity Hall.

Outdoor works included an extension by re-positioning the back veranda, construction of new concrete paths, modifications to the existing perimeter fences, refurbishment of gates and construction of a new Implement Shed.

The team also removed Wiltja Shelters, which they gave back to the community.

This project also opened doors for local Anagu men living in Amata and the surrounding homelands.

Intract employed three Indigenous workers, who worked side-by-side with McMahon Services' employees, gaining practical







Oodnadatta

knowledge and on the job experience. The workers faced several challenges, working long days in extreme heat and transport to site. A dedicated Site Supervisor provided strong support and assisted with transportation.

The local workers soon became part of the team and McMahon Services became part of the community. Working together, the team also installed a tombstone as a sign of respect.

Pukatja

This project started in the opal mining community of Mintabie, with an existing timber frame transportable originally serving as a school Music Room and Science Laboratory, requiring transportation to Marla for refurbishment.

Pit-stopping in Marla, the second team began by replacing the timber floor, conducting a de-fit of the existing walls and constructing new walls, removing existing cladding and replacing with new Colorbond, electrical re-wiring and installing all new associated plumbing.

It was soon discovered that the building had "broke its back", calling for structural modifications to ensure its safe transportation to Pukatia and long-term stability.

The transportable was then picked up and carted to Pukatja. Two Intract personnel and a local Pukatja man employed by Intract, worked hard to prepare the site, ready for placement. This was done in close coordination with Murray River North who delivered a new toilet block, to ensure the two buildings were placed directly adjacent to each other.

The team then began the reticulation of new services and connection into the existing

infrastructure including water, power and sewer.

To finish, a new perimeter fence was installed along with new concrete verandas, steps and a disabled access ramp. The transportable also required a full roof reinstatement.

In an arrangement with the Department for Planning, Transport, & Infrastructure (DPTI), McMahon Services developed a joint initiative with Carey Training, Complete Personnel and CITB to provide support to the local workers engaged across both projects to complete Certificate I in Construction.

The men completed a two week block of class time, utilising the training room and accommodation facilities at our office in Port Pirie.

Aboriginal School

The Building Services division completed their work in the APY Lands, constructing a new purpose-built shed to extend the Oodnadatta Aboriginal School's current Tech Studies facility.

Located off the famous Oodnadatta Track, the team travelled along the unsealed outback road to site, completing site preparation, concrete works, construction of the new shed and installation of a new toilet facility.

This project was also the first time McMahon Services' mobile concrete batching plant was put to work, providing an ideal remote work solution.

We've got the right tools for the job with over

of modern, companyowned plant and equipment.



McMahon Services invests heavily so that we can apply our own gear to our projects right across Australia.

Our \$60 million network has over 350 individual units including high powered mechanical equipment, custom demolition attachments, specialist plant and transport vehicles.



THE WORKS



26 Trailers & Floats 29 Trucks & Floats 150 Utility Vehicles 150 Wheel Loaders 6 Water Trucks & much more

Specialist Equipment



Ultra High Reach Demolition Excavator

Weighing 160 tonnes and with a reach of up to 45 metres, this \$3 million excavator can operate with attachments of up to 2.6 tonnes at full reach and can cut steel and concrete members up to a metre thick. McMahon Services is now able to use the cold-cutting demolition shears 20 metres higher than before and can demolish buildings up to 15 storeys tall from ground level.



Komatsu Reterra G-Mode BZ210-1

McMahon Services has two of only a handful of soil blending machines in Australia. The Komatsu Reterra G-Mode mobile soil conditioner ensures the fast and accurate blending of appropriate reagents to both neutralise and stabilise contaminated soils.



Powerscreen Warrior 1400 & 1800

The 1400 and 1800 Warriors allow for 2-3 way splitting and stockpiling for applications such as quarrying, recycling, construction and demolition aggregates, and top soil applications.



Precision Demolition Attachments

- Ultra high reach demolition boom
- Heavy duty demolition boom
- Cutter crusher demolition shears
- Railbreakers
- Waste handling grapples and buckets
- Hydraulic and mechanical pulverisers



McMahon Services delivers on quality. Our plant and equipment is serviced in our own workshops located across Australia.

We have built a network of stateof-the-art equipment, so that we can apply new and well maintained tools and machinery to our jobs.

Our complete in-house service offered from city centres to remote locations includes -

- √ Float Transportation
- √ Transport Permits and Escort Services
- √ Wet Hire Options
- √ Highly Experienced Operators
- ✓ Servicing & Maintenance Workshops
- ✓ Mobile Site Service Trucks
- √ 24/7 Emergency Response



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Last year, McMahon Services secured our largest civil project ever, preparing land for the construction of the Howard Springs Accommodation Village in the Northern Territory.

Engaged by Laing O'Rourke, McMahon Services was awarded three separate contracts to help prepare the 570,000 square metre site.

Managed by JKC Australia LNG Pty Ltd (JKC), the Howard Springs Accommodation Village will house 3,500 workers to build the gas processing facilities at Blaydin Point.

Demanding a team of over 40, the major civil component included site clearing, bulk and detailed earthworks, rock excavation, final trimming, internal road works, pavement preparation, external road and pavement works, along with line marking and signage.

The second phase included additional external road works to widen the site entrance off Howard Springs Road.

The final phase was the construction of a new three kilometre internal ring road and seven individual car parks, including kerbing, concrete work and final subsurface pavement.

To tackle the major civil works, totalling 250,000 cubic metres of excavation, McMahon Services adopted innovative surveying techniques to get the job done.

McMahon Services equipped four graders and a land plane with UTS GPS machine control system in order to perform a stakeless set-out for the bulk earthworks, detailed excavation and final trimming.

A continuous operating reference station was located at the site compound and two high precision total stations distributed corrections for machines, along with two GPS rovers assigned for guiding excavators in order to excavate stormwater drains.

Early in the project, the team encountered a large amount

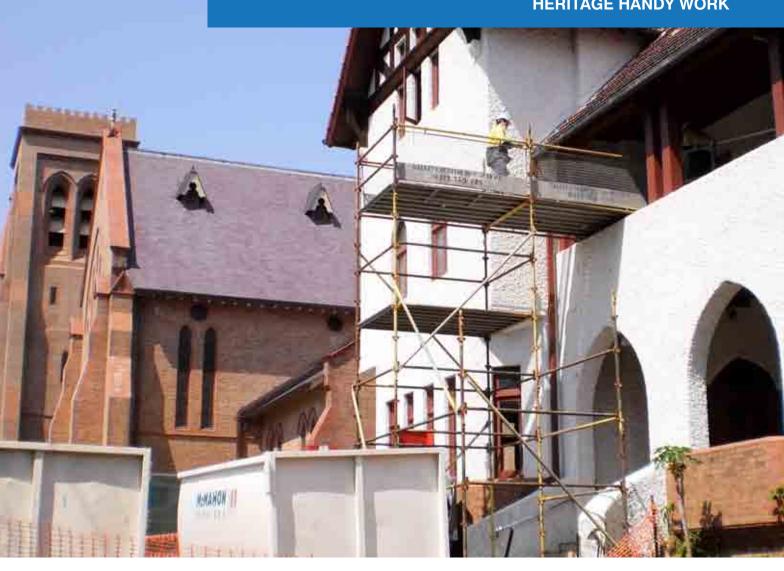
of soft rock, which soon hardened. Quickly mobilising an additional fleet of heavy machinery, including several rock breaking attachments to site, the rock was excavated to allow for reinstatement of select clean fill.

Contamination was also discovered across the site, including asbestos and metal waste. Utilising our specialised in-house labour force, all contaminated material was treated and removed.

The seven month project demonstrated McMahon Services' strong civil works capability, with teams from Darwin and Adelaide working together to deliver one of our most complex civil projects to date.



HERITAGE HANDY WORK



Delicate asbestos removal and demolition works in a heritage listed building.

A three storey solid brick heritage building at Trinity College in Lismore New South Wales required significant asbestos removal and demolition works ready for re-use.

A team from our Queensland operation mobilised to the town to complete the delicate work.

To prepare the building, heritage archival records were removed and stored, before completing a full internal strip

out. Existing stairways were also deconstructed for later reinstallation.

Excavation and external demolition works then began, including a solid brick retaining wall and footing, and chimney stack.

At various stages of the project, the sensitivity of the site presented several changes to the scope of works, including additional asbestos found in the ceilings and floor coverings.

The building had also undergone various design changes over the years and investigation work revealed that certain walls were load bearing but earmarked for removal, so structural support had to be installed prior to deconstruction.

The existing lift was decommissioned prior to McMahon Services arriving on site, making it physically challenging to haul the masonry from the upper level walls to the ground floor for removal, with demolition works required on four different levels of the building.

Improvising on site, the project team constructed a purposebuilt scaffold tower adjacent to the bin located on the first floor and chuted the material straight in.

The removal of the lath and plaster ceilings created tremendous amounts of dust. It was imperative to contain

the dust inside the building due to the neighbouring college and Cathedral, so each room was sealed individually without the use of water to avoid damage to the floors and ceilings and lower levels, which had to remain in place.

The project team was also confronted with inclement weather conditions, with flooding from the Wilsons River located only 300 metres away.

Despite the complexities of the 12 week project, McMahon Services delivered a seamless demolition, working carefully under strict supervision.



Andrew McMahon - Director



With new legislation surrounding asbestos removal coming into play across Australia, McMahon Services are the experts you need on board for the management of asbestos.

The new regulations not only address a growing area of concern – asbestos-contaminated dust (ACD), but also the formalising of Asbestos Management Plans for workplaces, changes to licensing and responsibilities and registered training.

What does remain the same is your duty as a business to ensure that everybody is protected from exposure to asbestos.

In this Industry Insight, McMahon Services will look at three specific instances where asbestos removal is the best method of control –

- Asbestos in soil
- Asbestos-contaminated dust (ACD)
- Asbestos putty

Asbestos in soil

The management of asbestos in soil is one of Australia's fastest growing asbestos-related issues. But where did the issue start? Asbestos has found its way into soils from debris left on-site or buried after construction or replacement works and even from asbestos roofing and wall cladding that has deteriorated over time resulting in breakdown and dispersal of debris and fibres.

Concentration of asbestos in soils varies greatly from site to site and is a result of poor asbestos management and work methods.

Poorly managed soil remediation not only leads to high costs but places greater impact on public health risks, soil disturbance and removal of contaminated material to landfill.

Asbestos management plans should be implemented on all sites where asbestos in soils has been identified to remove or reduce the associated risks.

Asbestos contamination in soil can either be in the form of fragments visible on the soil surface, buried asbestos or as microscopic fibres contained within the soil.

The completion of an asbestos audit, should asbestos soil contamination be identified on a site, must be conducted with all information documented on the site asbestos register, and management and controls documented with a management plan.



Asbestoscontaminated dust (ACD)

This rapidly growing issue is definitely one to watch. Residual dust containing asbestos means dust or debris that has settled within a workplace, and is assumed to be released from asbestos roofing, building movement, vibration and the process of expanding and contracting over time.

The residual dust then settles on surfaces below and some cases we have seen already include consumable goods, equipment, floor coverings and so on.

Management and controls must be put into place or

a full clean-out actioned. If asbestos is disturbed it can release dangerous particles of contaminated dust. The risk of contracting asbestos related diseases increases with the number of fibres inhaled and length of time.

Individual fibres in asbestos are very small and almost indestructible. Materials containing asbestos break down over time into microscopic dust, which then becomes airborne.

Friable asbestos is the form most easily reduced to dust. Non-friable asbestos however will not break down into dust simply by hand pressure, it must go through another process such as machine drinding, sanding or buffing. Bonded asbestos can also

become friable through fire, hail or water damage.

Once a person has inhaled or swallowed asbestos dust, the highly durable fibres remain in the body for many years. The tiny fibres can then penetrate body tissue and lead to a number of asbestos related diseases, including asbestosis, lung cancer and mesothelioma.

Asbestos putty

In May 2012 a safety alert was released by The Australian Glass & Glazing Association Inc exposing the potential risk of asbestos fibres in putty/mastic used on steel/aluminium framed windows installed prior to 1985.

Research shows that asbestos fibres were used to reinforce window putty/mastic compounds in Australia from 1930 – 1985.

Window putty/mastic found in site glazed steel/aluminium framed windows in buildings built prior to December 31st 2003 should be treated as asbestos containing material (ACM) unless laboratory testing proves otherwise.

Asbestos putty is unlikely to become airborne in its bonded state; however the demolition or removal of asbestos containing putties during glass repair can cause the ACM to become friable and airborne. Removal should only be completed by a licenced asbestos removalist.

Our solution

McMahon Services are leaders in the asbestos removal industry, holding A Class asbestos removal licences in all States and Territories.

Our service covers:

 Commercial and industrial asbestos removal (friable/bonded)

- A Class asbestos project managers and supervisors
- Removal of asbestoscontaminated dust (ACD)
- Asbestos surveys, testing and analysis
- Removal of asbestos pipe lagging and reinsulation
- Remediation of asbestos and other contaminants in soil

- Lead abatement
- Chemical removal and disposal
- Removal and transport of waste to approved facility
- PCB removal, transport and disposal
- 24/7 emergency response - spills, fire, wind and water damage
- Asbestos Insurance (\$20 million)

- Replacement of asbestos material with non-asbestos materials
- Re-insulation / Refire Rating
- Project Management

NEW LOOK FOR VICTORIA PARK



The well-known Victoria
Parklands in Adelaide's
CBD was earmarked for an
upgrade, with the Adelaide
City Council unveiling a
Master Plan to transform the
space into a "People's Park".

In its early stages, McMahon Services was engaged to complete earthworks and landscaping as part of the southern end upgrade. Challenges for this project ranged from site location and sensitivity, through to strict environmental controls, making planning and consultation critical factors in the projects' success.

The first task was to demolish five existing concrete cricket pitches, making way for three new pitches.

The 104,000 square metre site was then stripped of existing grass and topsoil, before a cut to fill process of the existing sub-grade, and spreading and compacting of the stockpiled topsoil.

Contaminated material was discovered, with some areas excavated and stockpiled and others requiring changes to the final surface design to allow for a clean material coverage.

Approximately 15,000 tonnes of Oval 20 Mix topsoil was then imported and spread across the parkland to finish the desired design.

Proving its strength on previous projects, McMahon Services utilised a land plane equipped with Grade Control Software, rather than excavators and trucks. This provided a more timely and efficient excavation process, completed without the use of timber stakes.



A major change in methodology was promoted early on, with the site situated adjacent to the Clipsal 500 event set-up and organisers requesting additional compounds on the corners of the site. The site was also highly sensitive due to its prominent city location, visibility and public interest. Furthermore, the parkland encompassed a Native Vegetation Area, Biodiversity Area and Butterfly Zone, all centrally located, which the project team had to work around with no access allowed.

Ballestrin, who form part of the McMahon Services group, were also on site to prepare the new concrete cricket pitches. Three new pitches were poured, with the concreters working carefully around the landscaping works still in progress.

The Victoria Park Master Plan is well underway, with the Council aiming to rival some of the great city parks of the world.



School holidays are always a busy time for the Roofing Division.

Working in collaboration with Spotless, McMahon Services has completed over eight school roofing projects since 2009 for the facility management provider.

Masters of their trade, the roofing team has their Program down packed, making sure handover happens before the first week rush.

Most recently, the Division completed two re-roofing

projects over the 2012 summer holidays at The Heights in Modbury and Klemzig Primary School in Adelaide.

The Heights required the removal of a 2,100 square metre iron decking roof from the Tech Studies Building and installation of a replacement zinc alume decking roof, complete with a blanket and safety mesh. This project involved multiple ceiling penetrations, ready for the installation of ducts.

Working closely with the Asbestos Division, the roofers

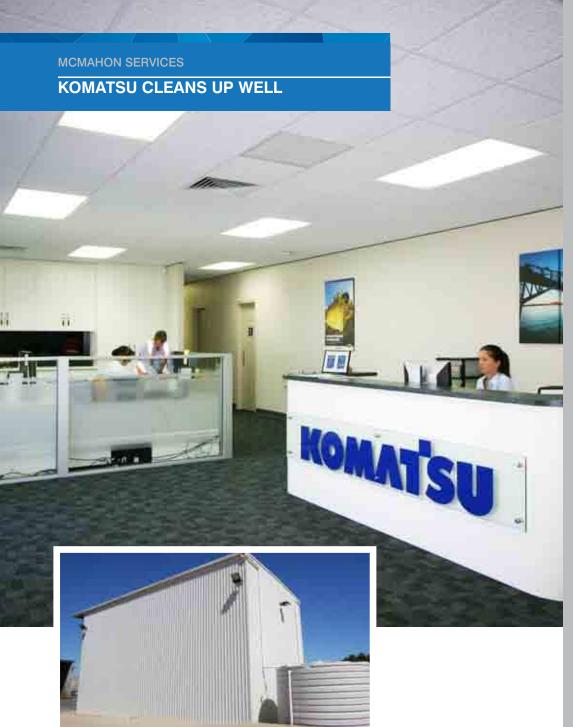
then completed the removal of a Deep 6 asbestos roof from the Klemzig Primary campus ready for replacement.

The team then installed a zinc alume custom orbe roof with a 50 millimetre blanket and safety mesh, along with gutters and downpipes and a Roof Safety System, providing a safe access system for future maintenance works.

In total, our roofers have completed over 24 school projects since McMahon Services started the Division in 2006.

Spotless School Projects

- ▶ Blackwood High School
- Ridgehaven Primary School
- St Agnes Primary
- Allenby Gardens Primary School
- The Heights Modbury
- Klemzig Primary School
- Modbury High
- Gawler High School



Our Building
Services team
delivers highly
complex concrete
works







Editor's Note:

McMahon Services provides sophisticated solutions for complete concrete construction projects, including this concrete chamber recently constructed for a government client.

The Building Services division recently completed office refurbishment works and construction of a wash bay for the Komatsu site in Dry Creek, Adelaide.

The office required a full strip-out of existing partitions, along with existing electrical and data to accommodate the relocation of services.

The building was then reinstated with new aluminium frame glass and doors, partitioning, painting, carpet, tiles, Reception Area and signage. Installation

of new aluminium exterior windows and painting completed the look.

Toilet facilities and change rooms were upgraded, including the addition of a disabled toilet. A new tradesman wash area was also constructed, including a new locker room.

A main feature of the project was construction of a 16 x 8m² Wash Bay.

First step was to install a solid settling tank at the base, with mains water and recycled pipework connected to existing services. A steel reinforced concrete bund was then installed for the wash bay and the adjacent structure housing the treatment system.

The final stage required our Roofing division to install new walls and roofs for the two structures, including cladding, gutters and down pipes.



In late 2012, McMahon Services undertook a demolition of large proportions – deconstructing a structurally unsafe 85 metre Telstra tower located seven kilometres north-west of Eucla in Western Australia.

To ensure the tower collapse had minimal impact on the surrounding environment, the demolition was performed in stages, with local police informed of all activities. A hydraulic jacking system designed by the client - Kordia Solutions - was employed to tilt the tower. The innovative system provided a safer demolition method for the towering structure, without the need for a tall boom crane.

A large exclusion zone was created around the structure, allowing sufficient space for the tower to collapse. After removing surrounding fences and footings, the enormous

tower was deconstructed in sequence with the aid of the jacking system.

A PC 300 Excavator with Emberey SD 30 shears was used to cut the tower into smaller segments and transport the scrap metal off site, with a focus on minimal waste.

McMahon Services well exceeded their waste minimisation target of 80% with the salvage and recycling of 71 tonnes of scrap metals. Once all materials were removed, the McMahon Services crew excavated below ground level to take out the foundation of the tower. Their final task was to make sure that any holes were back filled and the environment was appropriately restored.



Nyrstar Carpentry Contract

Nyrstar is the largest employer in Port Pirie, with over 734 personnel. The local lead smelter has been in operation for over 120 years and is one of the world's largest primary lead smelting facilities and third largest silver producer.

Already holding a maintenance contract at the Smelter for over 20 years, McMahon Services has recently secured a new three year carpentry contract.

The full-time team of five, including two local apprentices, will complete all minor day-to-day carpentry works and daily maintenance to offices, crib rooms and site amenities, as well as regular project work.

The team is currently completing timber refurbishment works on one of the cooling towers at the Zinc Plant, using \$76,000 of timber.

To reduce the team's levels of lead exposure, McMahon Services will complete majority of the preparation work on our Ellen Street premises.

The contract will also further strengthen our relationship with BoysTown – a local not-for-profit organisation helping young people overcome barriers to employment and further education.

BoysTown will provide all specialised manufactured timber for our work, which gives local people, including Indigenous labour, valuable skills training.

Service Spotlight: 24-hour bin hire



Did you know that our Port Pirie and Whyalla offices offer a 24-hour bin service throughout the State's North? The bins range from 10-25m3 and handle both general and commercial waste.

We deliver bins across the APY Lands, Riverland, Mid-North, Far North, Barossa and the West Coast.

The Yorke Peninsula currently holds 12 bins from Ramsay through to Arthurton and Warooka, which are emptied on a weekly basis.

In Port Pirie, the bins are not only hired for residential use, but are also regularly based in the local smelter.

Ballestrin.

Head Office welcomes Ballestrin

We are pleased to announce that Ballestrin Construction Services, who form part of the McMahon Services Group, have relocated to our Head Office space in Dry Creek.

It has been a long-term vision to integrate Ballestrin and now that McMahon Services are nearing completion of the office expansion and refurbishment works, we have taken the next step.

We see this as a great opportunity for both McMahon Services and Ballestrin to become closer in its business dealings with each other, and especially with our clients.

There will be a very close synergy across the services and capability offered by the two groups and our clients will benefit greatly from this relationship.

Since Ballestrin's rebirth in 2010, the company has reached many significant milestones, including a \$10 million turnover and rapid expansion across the Upper Spencer Gulf.

Core Services

- ConcreteConstruction
- Remedial Services
- Masonry & Paving
- Civil & Earthworks
- Floor Grinding
- Special SurfaceApplications



Filling in the Gap

McMahon Services has made its mark, securing multiple Design & Construct projects across the Gap Ridge Industrial Estate in Karratha, Western Australia. McMahon Services will also assist with relocation works, to ensure businesses remain operational.

 Metalcom – Pilbara's largest scrap metal recycler – office and warehouse over 34,000m2 area

- AGC AusGroup new MAS facility – office, warehouse and car park over 12,000m2
- Mobile Concrete Solutions

 office, warehouse,
 concrete batching plant,
 shaded aggregate
 bins, washout pits and
 hardstand areas over
 21,000m2 area
- ► Tutt Bryant 1950m2 office space and warehouse, 6,000m2 concrete hardstand and car park

Concrete – any time, anywhere

Manufacturing certifiable concrete in any location, across any job site is now made possible, with McMahon Services purchasing our first mobile concrete batching plant – the DB 460 CBV.

This easy to manoeuvre, technically advanced piece of machinery eliminates the need for batching plants and cement trucks on site, providing an all in one concrete solution.

The mobile plant reaches 4.0m3 in capacity, with an output of three batches per hour. The 4-wheel and crab steer capability also means the machine is ideal for footpath and kerbing work.

The weights located in the loading bucket also ensure a perfectly measured mix of water and materials, with the in-cab computer system capable of storing up to 20 recipes and printing reports.

Operated by Intract Indigenous Contractors, the DB 460 CBV can be mobilised anywhere across Australia.

EXCITING NEW CHALLENGES



Northfield Women's Prison (SA)

Stormwater system upgrade and civil construction of site facilities, including roofing, paving and new building plateaus.

DPTI Storm Clean-Up (SA)

Commissioned by the Department of Planning, Transport & Infrastructure to complete emergency response works in Whyalla, including fallen trees and repair of residential and school buildings.

Port Adelaide Distribution Park (SA)

Asbestos removal and reinstatement works for three warehouses, totalling 39,000m² of roofing and 10,000m² of walling.

Brisbane Aquatic Centre (QLD)

Partial demolition works in preparation for the 2018 Commonwealth Games to be held in Southport.

Karratha D&C (WA)

Design and Construct staged project for Ross's Auctioneers and Valuers in the Gap Ridge Industrial Estate, from concept through to delivery, including an office and two warehouses.

QCLNG Asbestos Removal (QLD)

Decontaminate sea containers purchased to store control systems for plant operation as part of the Queensland Liquefied Natural Gas Project, including asbestos removal, decontamination of system equipment, sealing containers and hazardous waste disposal.

St Anne's Retirement Village (SA)

Extensive asbestos removal and demolition works for residential and townhouse dwellings; internal stripouts, demolition of existing structures and backfilling to level out the site.

HMAS Coonawarra Attack Wharf (NT)

Cleaning, repairs and replacement of structural steelwork to improve structural integrity ready for re-use.



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