in action

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The newsletter of

ACO Polycrete Pty Ltd

BEX Asia 2009 Issue

KERBDRAIN™ meets Singapore's PUB approval

The road surface on Henderson Road adjacent to Telok Blangah Road, just minutes from Singapore's bustling CBD, was originally drained with a stormwater system consisting of grated side inlet pits. These structures were connected to the city's main stormwater drainage system by a culvert. Heavy rainfall during storms combined with long, steep road gradients on Henderson Road, meant that large volumes of surface water would often bypass the inlet grates and cause flooding to a property downstream.

The Public Utility Board (PUB), Singapore's national water agency, manages the island state's water supply, catchment and drainage works. During the consultation period, PUB trialled ACO's **KERBDRAIN™** system as a potential solution to the flooding problem. The installation was project managed by Smitech Engineering Pte Ltd and ACO provided site support to the nominated subcontractor during the installation. Finally, testing of the system prior to the handover was done with a water truck discharging water into the drain from the upstream end of Henderson Road. During the evaluation, the performance of **KERBDRAIN™** was assessed and approved by representatives of PUB. Following this success, **KERBDRAIN™** is now being used in Singapore as a solution for problem areas where localised ponding is prevalent.

Unlike conventional side inlet systems, **KERBDRAIN™** transforms kerbs into continuous inlet structures with minimal excavation. Manufactured from durable, polymer concrete, **KERBDRAIN™** consists of 500mm long pre-cast modular units each comprising an integrally cast channel and batter with inlets for continuous drainage. The underlying channel then transfers captured flow to the stormwater often eliminating the need for multiple pits.

Following this success, KERBDRAIN™ is now being used in Singapore as a solution for problem areas where localised ponding is prevalent.

ACO's **KERBDRAIN™** has been used exclusively throughout Europe, the UK, the US and Australia as a continuous lateral collection drainage solution. It keeps water away from traffic lanes by effectively reducing the width of gutter flow. This provides an efficient water management solution to roads with steep gradients and flat cross flows typical of some intersections, roundabouts and a wide range of kerb line applications with depth restrictions.

This Issue

For more information on ACO's products or services, contact our sales office or visit:

www.acoaus.com.au

New era for racing track drainage

The Sepang International Circuit (SIC) is the venue used for the Malaysian Formula One Grand Prix, and the Malaysian Motorcycle Grand Prix. It is also used as a venue for many other major motorsport events.

Since construction in 1997, the circuit has undergone a number of upgrades where improvements have been made to the surface track drainage. Main contractor, Nippon Road, evaluated ACO's **POWERDRAIN™** system against a traditional cast in situ drainage design comprising mild steel grates bolted down into frames encased in the pavement. For many years, cast in situ drainage had been standard practice on Formula 1 tracks. Recently, however, findings by a research group carried out at Paul Ricard HTTT (High Tech Test Track) indicated that in time, bolts would cause potential issues with safety, were unsightly, and would oxidize resulting in maintenance issues. Over the next 5 years, over 800 metres of **POWERDRAIN™**, S200K (200mm wide) system would be installed along the bends of the track for the efficient removal of surface stormwater and for the safe transit of race cars.

Asphalted pavements designed for racing circuits differs from that of normal roads. A racing circuit's pavement and its drainage elements require very high quality control with respect to stability, surface regularity and durability. ACO's **POWERDRAIN™** grated trench drains are available with 90 tonne capacity ductile iron grates locked with boltless mechanisms into integrally cast ductile iron edge rails with anti shunt mechanisms. The underlying trench comprises interlocking precast channels made from polymer concrete, a durable resin composite with excellent strength properties.

Numerous racing tracks around the world, such as the Nürburgring and Hockenheimring; Europe; Formula 1 track in Shanghai, China and Albert Park Australia, are drained with ACO's world famous trench drains.

For more information, visit: www.acoaus.com.au/drain/powerdrain

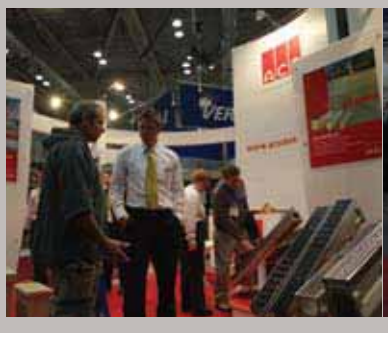
Pioneers, Leaders & Innovators

Despite the global economic downturn, ACO continues to invest in its products, displaying them in more exhibitions in 2009 than in any previous year. This has given engineers, architects, builders and merchants more opportunities to inspect new innovations as well as come in contact with ACO specialists.

Recently, ACO exhibited at Designbuild (Sydney) and Form & Function – DesignEx (Melbourne), Australia's largest design and building exhibitions. Substantial interest was shown in ACO's new illuminated lineal trench grate and cover range. These are dual service drainage and lighting systems for both internal and external applications. In the 70s, ACO pioneered the modular grated trench drain and remains today without peer as a world leader through constant innovation and technical support. In Australia, ACO Polycrete Pty Ltd is the only manufacturer of polymer concrete modular drainage systems.

This year, ACO also participated at various Hagemeyer Connection conferences, exhibition road shows held in all major Australian cities. At these events, numerous representatives from renowned industry suppliers such as Lawrence & Hanson, Auslec and their customers took advantage of this unique networking event. During the conferences, ACO was able to demonstrate its new patented cable pit, **POWERLOK®** , the industry's first barless locking pit offering 3 levels of security.

If you wish to visit ACO at a show in your city, visit www.acoaus.com.au/exhibitions



POWERDRAIN® *used in Johnston Tunnel, NZ first tollway.*

The Northern Motorway Extension is New Zealand's largest road project investment and the nation's first tollway. The route spans a scenic 7.5 kilometers between Orewa and Puhoi, north of Auckland and is planned to offer significant safety and greatly improved transit times for motorists. The infrastructure will also help to releive holiday time congestion and heavy traffic in Orewa and Silverdale.

The new route will include a total of 5 bridges and twin tunnels including the 290 metre long Johnson's Hill Tunnel with twin entries. This tunnel is concrete lined, fully lit, ventilated and has a fire protection system. Along its various sections, ACO's heavy duty trench drain was installed. Designers believed this system was sufficiently robust and secure for the tunnel application. In addition to this, ACO also supplied **RHINOCAST®**, 2 part access covers to meet the project's load specification.

ACO's civil construction products are installed globally in a number of infrastructure projects including roads, airports and ports. For over 15 years, Australasian Road Authorities have used ACO DRAIN systems in a variety of applications ranging from tidal flow, kerb drainage on footpath and super elevated medians, beneath overpasses and across interceptions.

For more information, visit: www.acoaus.com.au/pdf/highways_lo.pdf

ACO DRAIN up in lights!

ACO has launched a range of illuminated stormwater grated trench drains,

The dual function system allows designers to specify the world famous Australian manufactured ACO DRAIN system for drainage as well as a feature LED lighting system.

ACO's **LIGHTPOINT™** system was installed along the main entrance of Pavilions on the Park, Australand's recently completed first-class residential development on the Lower North Shore of Sydney. Leading designers, Allen Jack+Cottier architects designed the buildings in the complex with the most efficient use of materials, water and energy. ACO's dual function low voltage **LIGHTPOINT™** system was therefore the perfect fit for the application.

ACO's **LIGHTPOINT™** system consists of encapsulated LED lights plugged in series with IP67 weather protection (AS 60529). These lights emit a soft diffuse light in a choice of white or blue. The system is housed in the ACO DRAIN system complete with **HEELGUARD ANTISLIP™** grates, ideal for highly pedestrian trafficked areas. A single low voltage transformer can power up to 18 lights equivalent to 18 lineal metres of a trench drain before another one is required.

For more information, contact ACO's Technical Services on +61 2 4747 4000

ACO's Australia wide commitment to Customer Service.

As part of an ongoing pursuit to deliver a world class service to the Australian construction industry, ACO Polycrete Pty Ltd has recently opened a new customer service stocking centre in Canning Vale, Western Australia. This move is the final step which now allows the Australian manufacturer to service its regions through all major Australian capital cities with a direct supply of products from its seven stocking locations and deliver a more personalised customer service.

ACO's presence in Western Australia hasn't come overnight. For nearly 15 years, the manufacturer, through commercial partners, has been servicing the state with its extensive portfolio of stormwater, building drainage systems; cable pit and ducting systems; access covers and other products for niche applications.

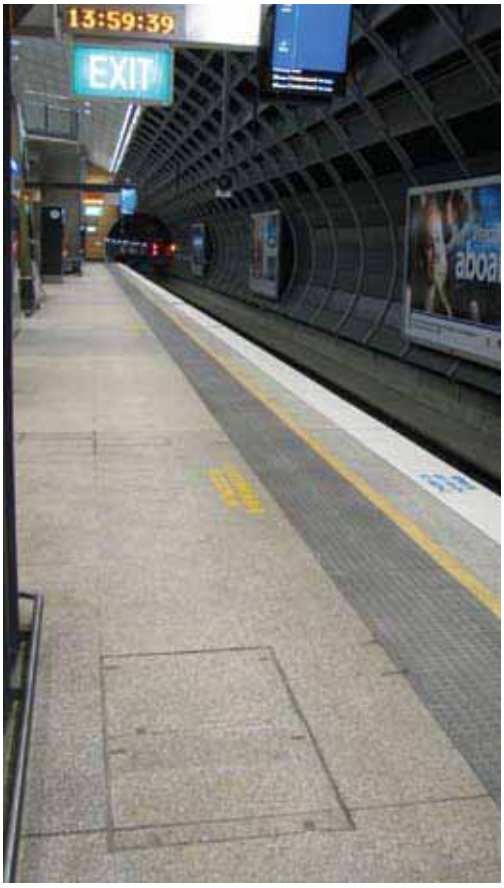
the flavour of customer service and technical support will be local – Western Australians will be talking to Western Australians in one time zone'

According to David Eisenhuth, ACO's Managing Director, the move has been very timely. 'Whilst some companies are deleveraging, reducing costs and adopting more conservative strategies thereby becoming less customer oriented, we have taken the bold decision to expand our sales operations so that customers can benefit from a more efficient and direct product supply. In addition to this, the flavour of customer service and technical support will be local – Western Australians will be talking to Western Australians in one time zone'

In 2008, ACO similarly decided to stock its products in Kilburn, South Australia after a long association with local distributors. A move that has seen ACO become a highly regarded direct supplier of construction products to the South Australian industry.

For more information, visit: www.acoaus.com.au/locat

RHINOCAST® *provides perfect visual integration throughout ECRL*



Delivered by the Transport Infrastructure Development Corporation (TIDC), the Epping to Chatswood Rail Line (ECRL) is a railway line in the northern suburbs of Sydney, connecting Epping on the Northern line to Chatswood on the North Shore line.

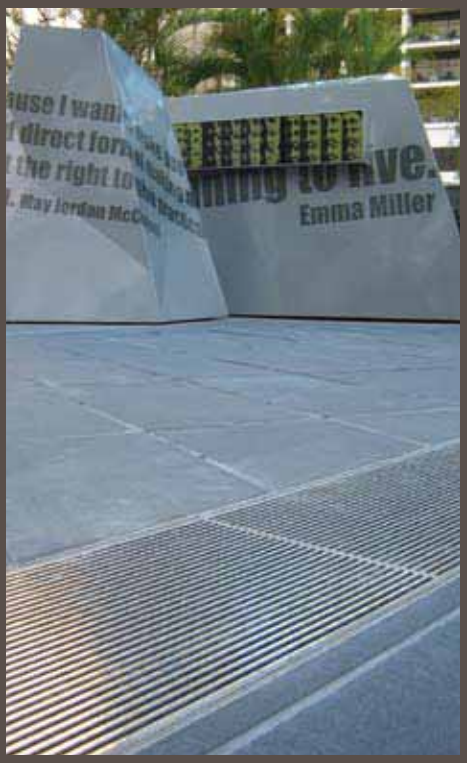
The 13 km line is built completely underground and includes three new stations: North Ryde, Macquarie Park and Macquarie University. The junction stations at Epping and Chatswood both underwent major redevelopments to incorporate the new link.

Along all the stations' platforms and walkways, designers specified ACO's **RHINOCAST®** access covers above the enclosures to house and protect the stations' data transmission cables. Various sized recessed covers with stainless steel edging were used to provide accessibility for maintenance whilst preserving the visual continuity of the walking service.

ACO offers Australasia's widest and most comprehensive range of cover and frame systems including ductile iron, galvanised steel, composite access covers in all sizes and configurations including WSAA approved circular covers, multipart systems and solutions for grease traps, motor rooms and fire rating applications.

For more information, visit: www.acoaus.com.au/access/index

Compact Drainage Solution for Inner Northern Busway



QLD Department of Transport's Inner Northern Busway (INB) is central to Brisbane's busway network offering quick, frequent and reliable services to key areas of Brisbane between Queen Street, CBD and the Royal Children's Hospital, Herston.

King George Square station is an underground station featuring ten individual bus stops across two platforms. Passengers can access the station via Ann, Roma or Adelaide Street entrances.

The Emma Miller Place project, part of the Roma Street upgrade, is a pedestrian link between the Roma Street precinct, Upper Albert Street, Turbot Street and King George Square station. Work was carried out to enhance the character of the streetscape as well as making it more conducive to pedestrian traffic flows.

ACO's **SLABDRAIN™**, grated trench system was a critical element of the flood prevention design for this precinct. Depth restrictions in the pavement meant that only surface drainage comprising shallow trench drains could be used in some areas. In keeping with a strong public safety objective, landscape architects EDAW Gillespie specified ACO's **HEELGUARD ANTISLIP™** grates as part of the **SLABDRAIN™** system and the various ACO stormwater pits along the pavement. In some sections, ACO's **HEELGUARD ANTISLIP™** grates were purpose manufactured for class D210kN (AS3996) loadings specifically for the transit of emergency and service vehicles.

Designed for public pedestrian areas, forecourts and carparks, **SLABDRAIN™** is available in widths up to 300mm and features an integrally cast steel protective edge. The system can accommodate over 10 different grate types, including ACO's patented stainless steel **HEELGUARD ANTISLIP™** grates and a specific set to comply with AS1428.2 (Design for Access and Mobility). All grates are secured with the **QUICKLOK™** boltless locking device. A nylon stud is factory fitted to the grate, allowing it to snap tight into a bar positioned across the channel for quick and easy maintenance operations.

For more information, visit: www.acoaus.com.au/drain/slabdrain

German Chancellor visits ACO

On May 20th 2009, the Chancellor of Germany, Dr Angela Merkel, visited the headquarters of the ACO Group in Germany to give a key note speech at the North German Business Conference.

The event, co-organised by the North Business Association (UV Nord) and the Federation of Business Associations in Hamburg/ Schleswig-Holstein, launched a comprehensive infrastructure concept aimed at safeguarding the future of the north German economy. The German Chancellor outlined the challenges facing German business policy in her 40-minute speech.

ACO is increasingly responding with integrated solutions to handle sudden climate extremes such as heavy rainfall.

Hans-Julius Ahlmann, Chairman and co-owner of the ACO Group, presented the global activities of the organization in front of delegates and an audience of 1500. He demonstrated how a company like ACO, renowned world leaders in drainage technology, can still be commercially successful even during difficult economic times. (The Euro zone's GDP contracted by -4.2% (year on year)). He spoke about the special challenge in tackling the consequences of climate change, to which ACO is increasingly responding with integrated solutions to handle sudden climate extremes such as heavy rainfall.

Australian manufacturer, ACO Polycrete Pty Ltd is a member of the ACO Group of companies and not a subsidiary. The Group's decentralized organisational structure encourages localisation of its leading technologies, competencies and products. Profits for the Australian company are reinvested in Australia.

For more info, visit www.aco.com

SHOWERDRAIN Lightline™ – water activated illumination for wet areas

Spring Launch

ACO Polycrete, innovator and manufacturer of ACO STAINLESS, the world's most popular building drainage range has adapted its renowned **SHOWERDRAIN™** to contain **LIGHTLINE™**, a water activation lighting system. This is an industry first innovation, purpose built to suit ACO's bathroom grates so that the drain can illuminate during showers and for several minutes thereafter.

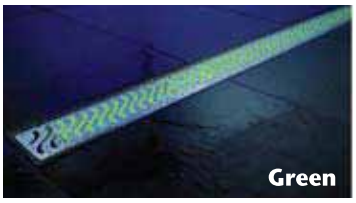
The **LIGHTLINE™** LED units are waterproof and available in blue, red, green and rainbow colours. They are easily removable for recharging and fit neatly beneath each end of the grate in the **SHOWERDRAIN™** system. The LED units do not require any wiring and on average will only need to be recharged every 3 months.

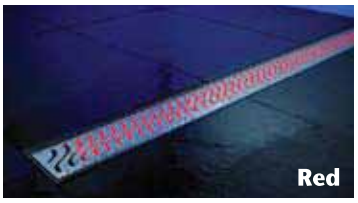
Drain can illuminate during showers and for several minutes thereafter

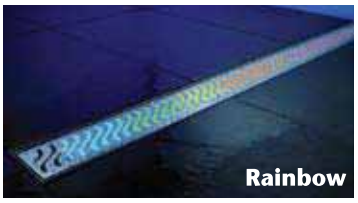
ACO's **SHOWERDRAIN™** is manufactured from 100% stainless steel and available in 900mm, 1200mm or built to custom lengths and can easily be secured into the topping screed, ideal for existing (retrofit) or new bathrooms. **SHOWERDRAIN™** is available with the industry's widest choice of grates allowing designers to adapt them to any bathroom design.

SHOWERDRAIN™ is fully accredited to the strictest regulatory requirements and can be installed adjacent to walls, shower hobs and even in hobless applications for uninterrupted safety of passage.

For more information, contact ACO's Technical Services on +61 2 4747 4000







Further investments in ACO's Technical Services

For over 15 years, ACO has led the way in providing architects, consultants and builders with world class technical advisory services to aid with the integration of product solutions to projects with specific and complex design requirements.

To further ACO's service to the industry, ACO have appointed two product specialists with considerable knowledge in cable pits, access covers and drainage.

Darren Chan, qualified civil engineer, and approved NATA signatory certifier has been delivering surface drainage solutions to the industry for almost 10 years. Tom Koeditz, qualified industrial engineer has spent valuable time in Europe developing solutions in what is traditionally a very demanding and mature market.

ACO have appointed two product specialists with considerable knowledge in cable pits, access covers and drainage.

Both Darren and Tom are the expert contacts for ACO's civil construction and building drainage product portfolios, respectively. They will be instrumental in developing and adapting products to meet specific local requirements as well as becoming active participants in various industry forums and regulatory committees. Most importantly they will give products in their specific industry sectors greater attention thereby enhancing ACO's level of technical service to specifiers and buyers.

If you would like to contact Darren Chan on technical matters regarding stormwater drains, access covers & cable enclosures, email: dchan@acoaus.com.au.

If you would like to contact Tom Koeditz on technical matters regarding building drainage, email: tkoeditz@acoaus.com.au

For further information, visit our website:

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