

BUILDING RETAIL DESTINATIONS

The Ocean Keys Shopping Centre will be 65% larger with a total floor space of 45,000 m² and includes the construction of a new Target store, 70+ specialty shops, a food court, multi-level car park and 10 residential apartments.

MAIN CONSTRUCTION COMPANY : Built Environs
CONSTRUCTION VALUE : \$80 million
COMPLETION DATE : October 2014
ARCHITECT : Taylor Robinson
STRUCTURAL ENGINEER : Wood & Grieve Engineers
QUANTITY SURVEYOR : Ralph Beattie Bosworth
CLIENT'S REPRESENTATIVE : IPS Consulting Services

With Western Australia going through what seems to be an endless growth phase, there is a huge amount of activity in the construction industry. Not just restricted to key CBD sites, there has also been an explosion of new suburban projects in recent months—both new developments and extensions—such as the Ocean Keys Shopping Centre Expansion.

In light of continued population growth in the Clarkson region, where the centre is located, AMP Capital commissioned an expansion of some 24,000 m² in retail space and 40,000 m² in new car parks. The new component of the centre houses a Target store, JB Hi-Fi, 70+ specialty shops, food court, multi level car park and 10 residential apartments.

Built Environs was engaged to build the \$80 million refurbishment and expansion for AMP Capital.

Luke McLean was Built Environs's Project Manager on the job. He said that although there were a range of challenges throughout the planning and construction phases, as expected when refurbishing an operational retail shopping centre, Built Environs delivered the project on time and on budget.

"We've grown the centre by 65 % to bring it to a total of 93,300 m² within a timeframe of just 21 months," Mr McLean said. "By working with a very tight timeline everything we've done has been carried out with minimal disruption to tenants and centre patrons."

The entire precinct has been lifted to the highest of standards, cementing the centre as an anchor employer and retail hub for the region.

Founded in 1987, Built Environs has become a stalwart of the construction industry. With offices in Western Australia, South Australia and Queensland and the backing of parent company, McConnell

Dowell, Mr McLean says they're proud to be able to scale both up and down to meet the demands of the market right around the country.

"We've completed jobs across all industry sectors," Mr McLean said. "Everything from defence through to industrial, residential, entertainment and health. We have a successful track record and that offers our clients a great deal of confidence going into a project."

By offering a complete range of construction services, Built Environs is able to achieve significant benefits for its clients.

"Design and value management, cost planning, quality, safety and environmental management, are all core components of our business that have been instrumental in winning us contracts for blue-chip organisations such as AMP Capital, the Coles Group, Colonial First State Property Management, Charter Hall, Federation Centres, ISPT, and Wesfarmers," Mr McLean said.

Part of Built Environs's strength in the retail sector can be traced back to its best-for-project approach to delivery coupled with its ability to deliver across the full range of construction contract forms.

Built Environs has a strong history of delivering work in the retail sector. From small-scale retail refurbishments and fit-outs, to retail warehouses and distribution centres, to the development of major shopping destinations all this experience was fully utilised on the Ocean Keys Shopping Centre project.

"We know it's critical for our retail clients to maximize their return on investment and to be able to have their premises operational, occupied and trading as soon as possible. From design, through to programming, to commissioning and handover we put our clients' needs up front and centre to make sure their project is a success," Mr McLean said.

With a client that was focused on creating truly inspiring shopping experiences, Built Environs worked to ensure the finished product not only lived up to but exceeded expectations. "Retail is an extremely competitive environment, especially in the current economic climate, so the brief was to create a shopping centre that people wanted to be in, rather than just shop in. In turn, this improves the shopping experience," Mr McLean said.

We're happy to say we managed the project's challenges well," Mr McLean said. "We've got a happy client, an excellent finished building and another great testimony for our business."

For more information contact Built Environs, Ground floor, 50 Kings Park Road, West Perth WA 6005, phone 08 9485 9000, fax 08 9485 9099, email perth@builtenvirons.com.au, website www.builtenvirons.com.au





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THE ELECTRIFIED EXPERIENCE

The 'Ocean Keys Shopping Centre' development project in Clarkson consisted of demolition to part of the existing centre and extending the shopping centre while maintaining access to the existing centre and shops.

TES Electrical was appointed as the electrical contractor & their scope of works included supplying, installing and commissioning lighting, power, access control, security, CCTV, lighting control, high voltage system, communications and a people counting system.

The works involved the modification of the HV System to increase the supply from 4Mva to 8Mva by adding an additional 2 HV Switch rooms. A 3 storey car park, which was constructed to accommodate 700 parking bays and an extension to the existing shopping centre that included a new food court, 72 new commercial tenancies, malls and a new Target store.

With an extension area that spanned some 14,000 square metres & a total construction value of \$75 million, the project has been running for three years & completion of the redevelopment will be at the end of 2014.

With a strong team of dedicated Management, supervisory & highly qualified & skilled tradespersons, all working together to ensure the smooth day to day running of this project.

TES Electrical continue to strive in having a strong focus on OH&S and the company prides themselves in delivering & maintaining the highest standards of quality of work for the client.

For more information contact TES Electrical, 18 Hammond Road, Cockburn Central WA 6164, phone 08 9434 1514, fax 08 9434 1966, email admin@teselectrical.com.au, website www.teselectrical.com.au



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WATERTIGHT

Short for Innovative Construction Materials, Inconmat Australia are leaders in waterproofing and structural reinforcing that demands durability and or electromagnetic neutrality. Regardless if you're working on small residential developments or large commercial projects, Inconmat Australia is capable of serving any size developer.

Darren Lutze, Inconmat's Managing Director, says "there's been a huge increase in the demand for our products, particularly the waterproofing component of our business".

"The Ocean Keys project is a great example of our expertise in this area," Darren says. "By working with the cement supplier to add the Radmyx Capillary Water Proofing into the concrete prior to delivery onsite, we were able to offer a 100% water tight solution to the concrete car park decks on the development."

"Retail, and particularly large-scale retail like Ocean Keys, is a year round pursuit," Darren says. "This car park needs to function 24 hours a day, 365 days a year, so the concrete structure needs to stand up to the rigors of endless traffic whilst ensuring the whole deck remains water tight to protect the shops below from water ingress."

The Radmyx Crystal Growth which Darren and his team utilised to waterproof the pre-stressed concrete decks during the construction phase is a complete concrete waterproofing system.

"Radmyx reacts with the hydration products of cement to form crystals within the cracks, pores and capillaries of concrete structures even if they form at a later date – effectively blocking the passage of water,"

Even though demand for Radmyx is constantly growing, their Radcon#7 is the world's only internal concrete membrane. It is not a poor blocker; rather it is a flexible, bio-chemically modified sodium silicate composite that will continue to grow and heal internally forever. Radcon Formula#7 has been on the world market since 1975, used in over 85 countries, it is very cost effective and "green" solution to traditional membranes. Radcon #7 is backed with a "100 year guarantee" and is being specified into many new projects.

A reinforcing bar called V-Rod is another innovative product for Inconmat. Made from glass fibre reinforced polymer(GFRP for short) V-Rod is a fully engineered and certified in Australia under the alternative provisions solution of the BCA. V-Rod is a high tensile GFRP reinforcing bar that replaces black, galvanized and stainless steel rebar in concrete structures that demand durability, like in marine environments such as wharfs, boat ramps and Jetties and sewer applications. Projects the require Electromagnetic neutrality such as power stations, MRI rooms and any other high energy fields that would normally involve complex earthing is another common area where V-Rod is successfully used as there is no need to earth this rebar.

Darren says that V-Rod will never rust pit or corrode even in the harshest of environments. The concrete itself is now the limiting factor not the rebar. V-Rod has been part of the Inconmat Australia arsenal for four years now, and it has been achieving great results across a range of projects. V-Rod has been available in the field for over 25 years in Canada featuring in more than 350 major highway



bridges. A number of Australian engineers are now designing with V-Rod and the successful project list is growing offering real value for their client's for real best in the field outcomes.

"We're constantly looking for ways to add value to the construction process," Darren says. CAPEX is always important consideration for developers and asset owners today, however consideration for long term durability must be addressed by the engineering team and end "asset owners" especially in environments that demand durability... No longer is a 40 or 50 design life considered long term, this is where OPEX savings will out way the extra couple of percent at the construction phase. "V-Rod is a set and forget insurance policy for asset owners. "Our solutions" are based around long term performance, saving the client in maintenance and costly repairs,"

With a huge array of clients on their books including brands such as Maritime Constructions, Water Way Constructions, Ausgrid, Boral, McConnel Dowel, Built Environs, Lend Lease, Sydney Fish Markets, Australian Nuclear Science Organisation, Gold Coast Rail along with the NSW, ACT, SA and WA Governments including the Australian Army just to name a few. Inconmat are truly able to tackle any project.

"We believe in working closely with a client and their engineers to solve issues that face not only engineering but whole of life considerations which are very important when making decisions for long term durability," Darren says.

For more information contact Inconmat Australia, Unit 4/240, Victoria Road, Largs Bay SA 5016, phone 08 8445 2233, website www.inconmat.com.au



PROJECT WITH A PLAN

Projects with the size and scope of the Ocean Keys Shopping Centre involve a lot of stakeholders. Tenants, contractors, the general public, financiers, developers and everyone in between has a role to play in bringing such a development to life.

So what do you do when you need to ensure the timely delivery of a major project?

You appoint Tracey, Brunstrom & Hammond – project management consultants. Jonathan Jacobs, Director at Tracey, Brunstrom & Hammond (TBH), says that the value of quality project management cannot be underestimated.

TBH was engaged by Main Contractor, Built Environs, to develop a detailed construction programme, dashboard reporting tools and undertake weekly progress reporting. Their role on the project was to ensure the project had a master programme that reflected the scope and sequence of works, separable portions, commissioning and critical path.

“As with most large brownfield retail projects, the key to successful delivery is the effective management of the many interfaces,” Jonathan says “After developing an initial draft programme, TBH workshopped the programme with the project team and subcontractors. The pros and cons of alternative methods were discussed, critical interface responsibilities were clarified and any outstanding scope incorporated. This process ensured that all parties now understood the programme, felt like they owned their respective parts and it essentially became the single source of truth.”

During the delivery phase of the project weekly programme meetings were held with all parties to discuss progress, look aheads, issues and mitigation if required. This updated programme was then issued to the Client along with a one page dashboard that graphically summarised progress by area, critical path, risks and opportunities.

This constant communication based on accurate information was a key factor in the successful delivery of the Ocean Keys Shopping Centre Project.

Tracey Brunstrom & Hammond (TBH) is one of the most experienced providers of independent project services in Australia. Their core competencies are in the area of Cost and Time (Scheduling/ Programming) Planning and Dispute Resolution (Claims), however they do provide the full PMO and project controls suite of services. Their staff are flexible and can be imbedded in project teams, work independently and can accommodate any long or short term requirements.

“No matter whether the project is large or small TBH are always focussed on delivering quality outcomes that allow our clients to progress with confidence,” Jonathan says.

For more information contact Tracey Brunstrom & Hammond, Level 5, 110 William Street, Perth WA 6000, phone 08 6462 3200, fax 08 6462 3299, website www.tbh.com.au



A SUPA JOB

Supawood offer one of the most extensive and diverse ranges of low maintenance, pre-finished Architectural Wall and Ceiling Lining Systems available. Specialising in optimum room acoustics for architectural projects the Bathurst based company design and implement both small and large scale jobs nationally, and now in the UK and Europe.

The Supawood product range includes 5 families of systems: Supaline, Supacoustic, Supaslat, Supatile and SupaExpanse.

Supawood products are low-maintenance, decorative and/or acoustically effective and come in either custom or modular options in a vast range of finishes. Their products are all supplied with customised fixing-systems and can allow for concealed access to services. Other special application features include curved panels and floating ceilings, fire-retardant options, wet-sealed panels for under-cover outdoor applications and “Green” environmentally friendly panels to achieve Green Star credits.

The Ocean Keys development in Clarkson, W.A. will cost approximately \$105 million and provide 200 construction jobs and over 400 retail jobs for local infrastructure. Supawood supplied profiled ceiling beams and acoustic backing for the food court and installed lightweight beams to

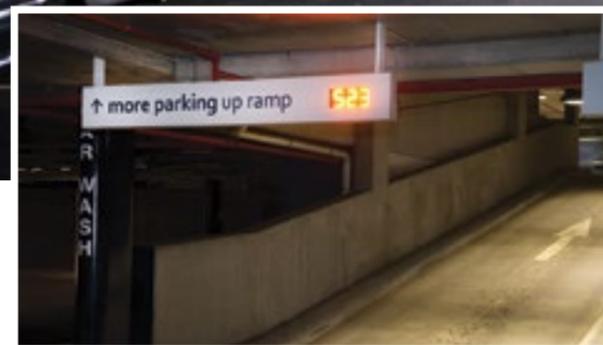
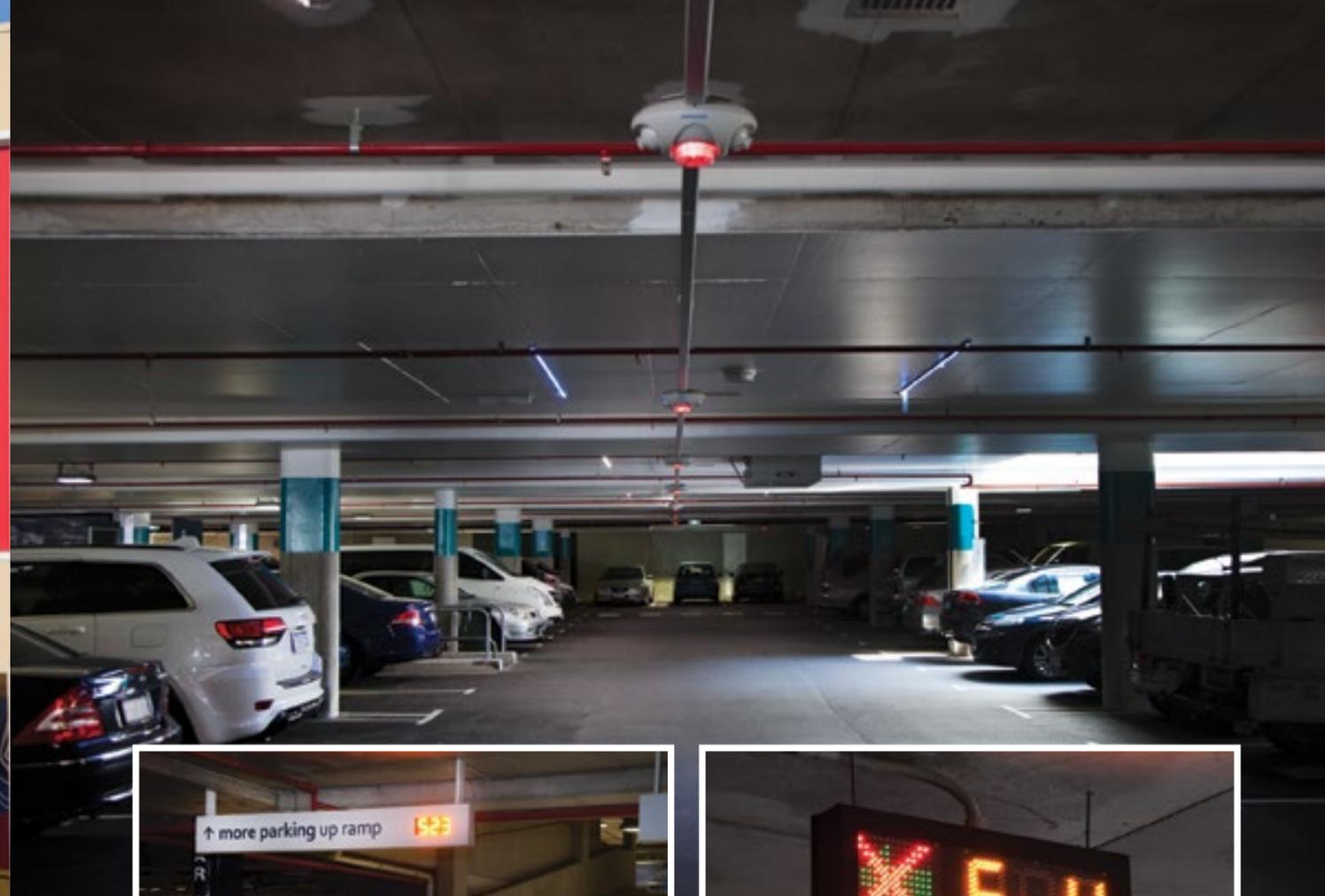
the mall bulkheads. This project is also the first and largest to use the Supalami supaslat MAXI BEAM in shaped profiles.

For over 10 years Supawood have been a market leader in the development, manufacture and supply of architectural linings in Australia and have now extended their scope to provide UK-manufactured solutions for the UK and European markets. This has been brought about through an alliance with British textured lining specialist V-Tec Group.

Supawood provide exceptional Technical Customer Support to designers and contractors and are happy to provide samples on request.

Other projects Supawood are currently working on include the Robina Shopping Centre and MLC Foodcourt. Past projects include the Royal Randwick Racecourse in Sydney, The University of New South Wales, Liverpool Hospital and Etihad Stadium at the Docklands development in Melbourne.

For more information contact Supawood, 18 Bradwardine Road, Bathurst NSW 2795, phone 1800 002 123, fax 02 6331 8885, email sales@supawood.com.au, website www.supawood.com.au



KEY SUPPLIES IN EXCELLENCE

Construction Fasteners and Industrial Supplies were contracted to the \$75 million dollar expansion of the Ocean Keys Shopping Centre in the Perth suburb of Clarkson. The project is managed by Built Environs with CFI supplying chemical injection equipment, power tools, structural bolts, structural grout, site signage, safety equipment, ferrules and fixings.

The 13,900 square metre development includes the construction of a new Target store, 48 specialty shops, a food court, multi-level car park and 10 residential apartments. The centre will be 65 per cent larger with a total floor space of 35,000 m², helping AMP to meet its mission to create inspiring shopping centre experiences.

CFI have been in operation for over 10 years and employ 7 people in the company, designed to supply the commercial and industrial building and construction markets with tools and materials, getting the job done to a superior standard of quality and timeframe.

The project team for the shopping centre expansion is working within a tight procurement timeline and focusing on managing the works across multiple stages to prevent trade disruption for existing retailers

and minimise inconvenience to centre patrons. CFI prides itself on giving the best service in their field. CFI's ability to offer a large range of products, as well as a quick response and a high level service to the needs of those involved, was critical in CFI's selection as a supplier for the Ocean Keys Shopping Centre Project.

The development comes amid forecasts the population of the City of Wanneroo, which includes Clarkson, Mindarie, Butler and Alkimos, is set to balloon to 300,000 by 2016.

AMP Capital Shopping Centres Development Manager Scott Nugent said the redevelopment would cater to the growing population, stating "Our vision is to create a truly exceptional shopping and leisure experience for our local customers and the residents of Clarkson,"

The project, which is planned to start next month, is expected to create 200 construction jobs and 400 retail jobs when completed.

For more information contact CFI Construction Fasteners & Industrial Supplies, 4 / 1914 Beach Road, Malaga WA 6090, phone 08 9249 5200, fax 08 9249 5077, web www.cfifa.com.au

PARK ASSIST

The M3 system designed by Park Assist is a cutting edge sensor network that monitors and highlights available and occupied car park spaces. By its very nature as a Parking Guidance System, the M3 technology indicates the nearest vacant parking space for drivers and supports the reduction of traffic congestion and CO2 emissions.

Park Assist's M3 is a highly efficient system that helps to shorten parking turnaround times and has the capability to help people find their car if they have forgotten where it was parked.

M3 uses a range of hardware specifically designed to accommodate the needs of each site including camera sensors, way-finding signage and infrastructure.

The M3 system utilizes complex computer vision algorithms to process the image captured by the camera, which delivers value to customers, operators and asset owners.

The platform can be integrated with traditional control systems and smartphones to create additional revenue opportunities and superior customer engagement.

On the Ocean Keys Development, AMP Capital, the asset owner/operator of the shopping centre, engaged Park Assist to deliver a turn-key, 4-to-1 camera-based M3 Parking Guidance System in the existing basement car park and newly-built 3-level car park. When the development is completed, the centre will be approximately 37,000sqm, with over 120 shops and 727 undercover parking spaces.

Besides the standard network of M3 sensors for the undercover car park areas, system design also includes car counting loops on the ramps to and from the rooftop car park as well as 4 large external signs located at key positions around the site.

Park Assist is currently installing their 4-to-1 M3 Parking Guidance System at Melbourne Airport as well as at 4 Westfield shopping centres. In October 2014 the same system will be installed at their second W.A. site in Cockburn Gateway.

For more information contact Park Assist, Unit 13, 110 Bourke Road, Alexandria NSW 2015, phone 02 9690 1397, website www.parkassist.com



THE CEILING AESTHETIC

On Board Ceiling Services are based in Perth, WA and have completed the underslab insulation boards throughout the Ocean Keys Shopping Centre Expansion in Clarkson, W.A.

Established in 2011 the fledgling company have “installed semi-rigid insulation boards directly to concrete slab for thermal and acoustic performance, as both exposed finish ceiling and concealed. The class A exposed finish was installed for the ceiling throughout the retail area of the new Target store, The new white faced Supertel Boards from Bradfords have been finished off with a custom colourbond flashing detail.”

Stage Two of the Ocean Keys Shopping Centre redevelopment will launch by the end of 2014, with the opening of Target and around 30 additional new stores, a new dining precinct and multi-deck car park with the majority of the centre car-parking to be undercover or shaded. 10 residential apartments facing Key Largo Drive will also be constructed. The AMP development will cost approximately \$105 million and when complete will house over 120 shops in the 37,000sqm of retail space.

Ocean Keys is a major shopping destination for the Clarkson area and one of Perth’s fastest growing residential areas. The expansion of the

centre will make grocery shopping more convenient for residents with an expanded fresh food range on offer, whilst also providing expanded retail opportunities through the addition of a second discount department store and a total of approximately 80 additional specialty stores.

Construction commenced in January 2013 with completion in two stages. Stage One opened on Thursday 20 March 2014 and Stage Two is on track to open in November 2014. 200 construction jobs and over 400 retail jobs have been created through the projects development. OBCS and their crack team of highly-trained, professional tradesmen understand the intricacies of installing both exposed and concealed ceiling systems.

Currently the team are finishing The ceilings and partitions at the new Homemakers centre in Osbourne Park, W.A as well as other industrial projects across Perth and have completed numerous jobs on mine sites in Pilbarra WA, for companies including Rio Tinto and BHP.

For more information contact On Board Ceiling Services, 26 Lansdowne Road, Kensington WA 6151, mobile 0424 417 496, email phil@onboardceilings.com.au

INNOVATIVE SOLUTION TO PILE BREAKING

Piling Resolutions Pty Ltd recently worked on the Ocean Keys Shopping Centre Project. Their work involved the effective breaking down of piles and removal of the spoil from site. Piling Resolutions dry hired a piece of specialist hydraulic pile breaking equipment from Mr Cropper Pty Ltd - a recently introduced company to the Australian construction industry. This 4 jaw pile breaker proved effective and successful with positives outcomes for all parties involved and enabled acceleration of works for the client.

The core business of Piling Resolutions is in the Geotechnical field, testing piles and other foundations. These include:

- Integrity Testing
- SPT
- Static Testing
- Tension Testing
- Post Tensioning
- PDA/CAPWAP
- Sonic Logging
- Verticality
- Other Testing Services -Pipe Thickness Testing; Re-bar Identification in concrete

All tests are carried out to AS specifications and can be adapted to suit the clients’ requirements.

Piling Resolutions also offer an environmentally friendly drilling fluid service using the G3 System in soil stabilization challenging the toughest soil conditions. This is a complete service from conception to completion of projects.

Consumables are also supplied for the industry and the company are able to offer best practice methods of construction for ‘follow on’ works after pile construction, saving costs to the client. Piling Resolutions is based in Perth, WA and operates nationally on city, regional and mining projects throughout Australia.

The company constantly strives to develop and improve their services and techniques and aims to develop foundation and geotechnical services throughout Australia and specialise with new techniques within the industry.

For more information contact Piling Resolutions, 4/5 Renewable Chase, Bibra Lake WA 6163, phone 08 9434 9079, email info@pilingresolutions.com.au , website www.pilingresolutions.com.au



Ocean Keys Shopping Centre, WA



UNICA

At Unica, business is all about elegance and style. Specialising in the manufacturing and installation of Terrazzo and the supply and installation of granite, marble and reconstituted quartz, Unica only import the best materials sourced world wide.

Unica also specialise in the removal and reinstatement of existing (large scale commercial) flooring high quality stone work, façade cladding, concrete grinding, structural toppings and bathroom renovations. Unica offers highly experienced advice on the most practical flooring selection and sealers for the project.

Whether the project is a major shopping centre, prestige large and small commercial ventures or exclusive domestic homes, Unica base their reputation on the key elements of competent and experienced personnel supported by progressive products and systems to deliver the project on time and on budget with a quality finish.

At Ocean Keys Shopping Centre Stage 2 Development slated to launch at the end of 2014, Unica overcame problem areas including crack isolations when laying their custom made Terrazzo flooring, to deliver a quality product.

When completed the \$105 million shopping centre redevelopment in Clarkson, WA, will offer 120 specialty stores and services over 37,000 square metres, a new dining precinct and a multi-deck car park. In addition to the new stores, the development will also include the construction of 10 luxury residential apartments facing Key Largo Drive.

Unica also provide engineering services to anchor the designer cladding and flooring systems, with huge selections and combinations of stainless – steel anchors and fastening materials.

Some of the past projects Unica have completed include Westfield Shopping Centres, BMW showroom Victoria Park, Burswood Presidential Suites, ENEX100, Federation Shopping Centres.

For more information contact Unica, phone 08 9421 1714, email admin@unica.com.au, or visit the website at www.unica.com.au





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WITHOUT A TRACE

When you think of large commercial developments like Ocean Keys Shopping Centre you probably jump straight to heavy machinery, tonnes and tonnes of concrete, tradesman and project managers left, right and centre. But what about the perfect finish that's left after all the dirty work is done. It takes more than just your average cleaner to take a new development and turn it into a shopping centre or apartment block ready for release to the public.

Diamond Commercial Cleaning are experts in what's known as build cleans – the process of cleaning up after the tradesmen so staff and shoppers can move in. They've been involved in the industry for over 20 years now and are the choice for many commercial builders around the region.

Kerrin Murphy, Director at Diamond Commercial Cleaning, says that there's not much they haven't seen these days. "We do what we do, every day," Kerrin says. "What might seem like an impossible task to some is our everyday job, which is why we're so sought after," Kerrin says.

With a staff of ten and an equipment list that includes elevated work platforms, automatic scrubbing machines and everything needed to get the job done, Ocean Keys Shopping Centre was a chance to prove their worth on tight deadlines.

"We were in and out very, very quickly," Kerrin says. "We had to be because there were some delays leading up to the clean time, so we had to shorten our schedule of works, but it wasn't a problem," Kerrin says.

Having worked on such high profile jobs as Perth International Airport, a range of the regions most prominent hospitals and many commercial developments, Diamond Commercial Cleaning are looking to the rest of the year for challenges.

For more information contact Diamond Commercial Cleaning, phone 08 9409 2307, email information@dcclean.com.au, website www.diamondcommercialcleaning.com.au