HART OF SUCCESS

DEVELOPER : PAYCE
MAIN CONSTRUCTION COMPANY : DASCO
ARCHITECT : Robertson + Marks Architects
CONSTRUCTION VALUE : $70 million

Harts Landing consists of 268 apartments set across a podium that has three building made up of 134 private apartments and 134 affordable and social apartments. Harts Landing delivers an urban lifestyle incorporating a vibrant community.

Specialising in urban renewal projects, developers PAYCE in collaboration with Evolve Housing, a not-for-profit community housing group, created the integrated residential development in Penrith.

Harts Landing is another contribution to the new architecture of modern living for which PAYCE has been internationally recognised. The development consists of three buildings, two of which are u-shaped, rising 9-storeys above a podium level of common areas and two levels of car parking with 270 spaces. Residents enjoy private recreational facilities including landscaped gardens and BBQ areas.

Construction commenced on Harts Landing in April 2016 and completed in February 2018, four months ahead of schedule. Of the 268 apartments, 134 sold on the open market, with the other 134 apartments managed by Evolve Housing, through Echo Realty. The private one and two bedroom apartments, all with access to one parking space each, sold within three months of launch.

Only 100m from Penrith station, Harts Landing is positioned to take advantage of Penrith's new government infrastructure projects that include the upgrading of public transport systems, green space improvements and new roads such as the West Connex Motorway connecting Penrith to Sydney CBD by a 50 minute drive.

Jacquel Australia Project Management (JAPM) had three project managers coordinating the Harts Landing development. A major challenge for JAPM was working with designers and suppliers to find materials and finishes for the apartments that met the expectations of both the private market and affordable community housing.

DASCO, a design and construction company, were the contracted builders for the development. DASCO had up to 300 tradesmen working on the 6,370m² site. The current Sydney building boom has placed a heavy demand on resources, and a particular challenge for DASCO was acquiring the necessary materials and workers, for the project. Innovative solutions were needed to make the most use of the space available. Industrial size garbage bins were used to eliminate the need for storage of different household bins and a turntable was installed for easy manoeuvring of garbage collection vehicles.

PAYCE has worked with DASCO on many residential projects including East Village, the highly successful and internationally awarded development, Victoria Park, Zetland, 3km from the Sydney CBD. East Village is a complex of 206-apartments built to achieve a 5 Star Green Star Design rating.

Another highly successful and award winning development is The Waterfront at Wentworth Point. The old Homebush Bay industrial area was transformed by PAYCE and houses 5,500 residents and includes facilities such as a sports club with modern gym, indoor swimming pool and tennis courts that are open to the public. PAYCE also recently transformed the SOPA owned land at the end of Wentworth Point, delivering Jewel and Pierside. Jewel consists of 256 apartments and Pierside consists of 1,600m² of retail space and a child care centre.

PAYCE have over 40 years' experience creating landmark developments in the Sydney area including the large scale urban renewal development at Ermington, Royal Shores, a joint venture with Sekisui House Australia. This project, a waterfront residential complex, comprised nine buildings of 632-apartments with landscaped foreshore cycleways, playgrounds and picnic shelters. PAYCE was recognised for the Royal Shores development with the silver award at the 2017 Sydney Design Awards and won the Best Urban Renewal Development award in the 2017 Urban Taskforce's Development Excellence Awards.

For more information contact PAYCE, Level 37, Chifley Tower, 2 Chifley Square, Sydney NSW 2000, phone 02 8080 2300, fax 02 8080 2399, email reception@payce.com.au, website www.payce.com.au

DINCEL WORLD'S FIRST WARRANTED WATERPROOF STRUCTURAL WALL

AN INGENIOUS STRUCTURAL WALLING SOLUTION THAT AVOIDS PROBLEMS CAUSED BY WATERPROOFING FAILURES, DINCEL 275MM OFFERS A DESIGN, SUPPLY & INSTALL SOLUTION BACKED BY AN INDUSTRY FIRST WATERPROOFING WARRANTY.

Dincel Structural Walling is Australia's first polymer-based permanent formwork system and the company's Chairman, Burak Dincel, said that once the product's formwork is filled with concrete it is completely waterproof.

"Our polymer skin is impervious to water and once concrete filled, the Dincel panel joints are completely waterproof. Naturally, the junction between Dincel Wall and the footing/slab, requires waterproofing, but there is no need for the use of additional waterproofing measures such as membrane's at the wall surface. Our Dincel construction manual outlines various methods to control water penetration between the Dincel wall and footings/slab junction," said Mr Dincel.

"Dispensing with a waterproofing membrane affords considerable time and cost savings and also eliminates works in confined spaces such as between the wall and excavated soil surface, thus improving site safety compared with traditional building methods.

"Dincel is completely waterproof because its stops water ingress at the wall surface. It eliminates the root cause of defects such as concrete cancer, steel corrosion, leaking and mould.

The polymer skin encases the concrete to create a waterproof load-bearing permanent structural wall.

Mr Dincel said building structural walls using porous materials such as composite boards and sheeting, concrete blocks and in-situ or precast concrete can easily result in rainwater or moisture absorption and cracking, which spawns a chain-reaction that can lead to expensive and prolonged rectification works. The problems at basement walls below ground levels are well known to the industry.

"These are commonplace problems any builder or asset owner should and can now easily avoid," he said.

"It helps to understand that concrete can only be waterproof if its crack widths are less than 0.1 millimetres. Unfortunately, the science of expansion and contraction dictates that cracking in exposed conventional concrete or block walls is unavoidable, hence the requirement of waterproofing membranes.

"However, if a waterproofing membrane fails – as is too commonly the case – its repair or replacement is required. In order to waterproof the concrete, locating the leak is required, which is virtually impossible. This has widespread and long-term implications for the building industry and property owners."

A NEW ERA IN SPEED & WATERPROOFING

The secret to the Dincel Wall system is that its concrete core is entirely encapsulated by the non-porous outer polymer layer, which also prevents cement leakage. The latest Dincel innovation, the 275mm profile takes this unique waterproofing technology to the next level with its patented innovative ring form which allows a minimum 180mm (maximum 230 mm) concrete slump in a single continuous pour – for up to 4.5 metres.

Achieving 4.5 metre heights in a single pour with 200 mm slump concrete is currently unheard of in the Australian market (or are known to be associated with very expensive and elaborate conventional formworks systems). Dincel 275mm delivers this innovation in a cost efficient, light-weight formwork system which significantly increases construction speed and safety on-site.

The patented barbs at the joint lock tightly together and are tighter still under the tension of the concrete pour and subsequent curing. The gap between each panel connection leaves no room for aggregate to land and create air gaps in the pour. Instead, high-flow concrete slurry fills in around each panel joint, bonding them together and sealing the joint connection to complete a monolithic fill. The high-flow cement slurry without the presence of aggregates seals each barb joint to achieve complete waterproofing at the panel joints.

Dincel's new 275mm profile achieves waterproofing at each panel joint having the following combination;

- Polymer formwork surface (which does not suck the water of wet concrete to prevent air void formation)
- Patented barbs to create extremely tight joints
- Gap between each panel connection ensures that no aggregates accumulate at the panel joint.
- Our patented innovative internal ring form, allows for placement of concrete slump up to 230mm.

"The concrete encapsulated within the stay-in-place Dincel formwork delivers a significantly increased hydration period, thus denser and stronger - both in tension and compression. No air voids or honeycombing can occur when high-slump concrete is used," he said.

Another performance feature in the system is natural crack inducement. The unique design creates controlled cracks via inducers which pre-empt tolerably small crack widths, and avoid larger cracks through movement. Such tiny cracks are subsequently healed via the concrete's natural autogenous process, resulting in a virtually crack-free wall impregnable by water. This dispenses with the need for horizontal steel wall reinforcement usually deployed for crack control.

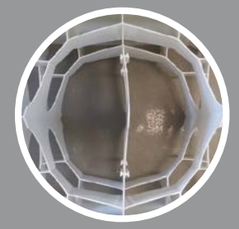
Dincel has conclusive CSIRO testing which states the 200mm Dincel Wall is waterproof at the joints under 6m head of water pressure, all without the use of waterproof membrane. The new 275mm Dincel delivers superior performance due to its innovative ring formation, allowing up to 230mm slump concrete which is key to achieving waterproofing at the panel joints.

"Because of its integrity, Dincel Structural Walling is maintenance free - delivering an expected lifecycle of at least 100 years – which is attractive from an environmental sustainability perspective, and of course a huge advantage for building owners."

Dincel's qualified engineers and certified installers offer the convenience and surety of a single source supply, technical support and compliance. When Dincel manage your basement and tank design, supply and installation, we will also provide a full waterproof warranty which is currently unavailable in this market.

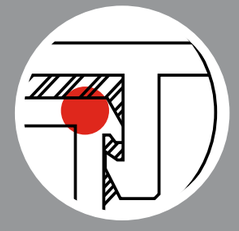
For more information on Dincel Structural Walling go to **www.dincel.com.au**

WHAT MAKES THE 275MM WATERPROOF?



Patented innovative ring form allows minimum 180mm concrete slump in a single pour up to 4.5 metres

Patented Dincel barbs and cement slurry ensures that snap joint is waterproof



180mm minimum concrete slurry improves concrete flow and compaction and eliminates the possibility of air voids

Below Leda Aluminium provided the aluminium framing for the Harts Landing project.

Leda Aluminium, specialising in the design and fabrication of custom made aluminium and glazing products, was contracted in April 2017 to supply aluminium components for the integrated residential development Harts Landing at Penrith. The three U-shaped 10-storey blocks present a contemporary façade which is enhanced by the frameless glazed balconies and lightweight aluminium screens. The individual units have a distinctive spacious and light filled quality due to the slim aluminium framing of the floor to ceiling windows.

Aluminium framing was specified at Harts Landing due to the relatively easy installation afforded by such a lightweight material and the tough powder coat finish that enables the glazing elements to arrive onsite ready to install. Leda Aluminium provided aluminium products designed for style, security and structural integrity that are durable as well as being easy to maintain.

At Harts Landing the challenge and success for Leda Aluminium was meeting the high standards of workmanship and time constraints required by the professional building team, Dasco Australia. Leda Aluminium has been working with Dasco Australia for the last 25 years with continued contracts for a number of jobs each year. Leda Aluminium finished their work for the Harts Landing development at the end of 2017.

Leda Aluminium has a reputation for supplying quality at an affordable price. The company provides innovative and stylish custom made products for a range of applications including large scale residential and commercial projects as well as the unique designs of luxury homes. Leda Aluminium design, manufacture and supply windows, doors, double glazing units, bifolds and louvres. They also produce custom made shop fronts, aluminium screens, glass roofs and awnings, and slump glass feature walls.

Based in Sydney, the company is a family run with 35 years industry experience with projects extending to Gosford, in the north and to Nowra, south of Sydney. At their Greenacre office, designs are perfected and working drawings are produced in consultation with architects and engineers. The adjacent manufacturing facility employs up to 70 people, allows Leda Aluminium to easily maintain quality control over the finished product.

Colour matching is a specialty for Leda Aluminium and to this end it has a powder coating facility at Lakemba which is Dulux licenced for Duratec and Duralloy as well as providing Interpon colours. Leda Aluminium have extensive experience in the use of colour back and seraphic glass, supplied by Viridian Glass, to provide designers and specifiers with a range of screen printed glass patterns that offer different qualities of light transmission.

Leda Aluminium is proud to be a member of the Australian Window Association, a professional association that ensures their members comply with, or extend, the minimum performance requirements of relevant Australian Standards and the Building Code of Australia. Members must also provide a minimum six year guarantee against faulty workmanship and materials.

The stylish façade of Merhis Gateway at Bankstown, a 9-storey structure comprising 70 residential units and 12 retail spaces, showcases Leda Aluminium's curved aluminium framed glazing panels, balconies and entrance doors. The company also fabricated aluminium windows to complement the stunning façade of the International Grammar School at Ultimo. Leda Aluminium is dedicated to delivering high end aluminium and glazing products as seen at The Grove, a luxury residential aged care complex at Randwick developed by Deicorp.

In March 2018 Leda Aluminium will start the process of creating aluminium glazing products for a 78 unit, 7-storey residential block at Gosford with Dasco Australia, a project that will take three to four months. Leda Aluminium will fabricate and supply powder coated aluminium framed windows, sliding doors, bifolds and a shop front.

For more information contact Leda Aluminium, 2/4 Naughton Street, Greenacre NSW 2190, phone 02 9642 8588, fax 02 9642 8743, website www.ledaaluminium.com.au

Harts Landing, New South Wales

Below Joeliane Electrical Consultant completed the electrical supply for the Harts Landing project.

Joeliane Electrical Consultant has a successful 30 year history of building services electrical design employing two electrical engineers, two draftsmen and a fire services consultant for electrical design services across Australia. Engineer, Joseph Rahme led the team to supply the electrical services design and documentation at Harts Landing, starting in early 2016 and finishing the job late November 2017. The project included all the work associated with the main switchboard, electrical power supply and lighting, in particular the maximum demand calculation lighting control system.

Joeliane Electrical Consultant designed the lighting for the 268 individual apartments as well as for the four common areas at podium level. Motion sensitive switches, C-Bus wiring and LED lamps were used throughout the development.

The challenge for Joeliane Electrical Consultant involved creating the required visibility and lighting control for such vastly different areas whilst maintaining a commitment to energy saving principles.

Joeliane Electrical Consultant offers complete building services electrical design and shop drawings for power supply as well as interior design lighting. The company is involved in a number of Sydney based projects, large scale apartment blocks and residential developments such as Macquarie Park (680 units), Kogarah (530 units), Lidcombe (561 units) and the new suburb, Edmonson Park, in Liverpool. Joeliane Electrical Consultant provides a cost effective and well detailed professional service based upon energy saving principles with an efficient design that gives real value for money.

Joeliane Electrical Consultant were also contracted by Dasco Australia for all the building services electrical design at Ferry Wharf and Wentworth Point for Billbergia, designing the lighting and power requirements for 200 apartments and the commercial areas including an IGA supermarket. At East Village, Victoria Park, Joeliane Electrical Consultant were contracted by Payce Consolidated to design the lighting and power system required for 206 apartments, basement carparking and a Coles supermarket, aiding the achievement of a 5 Star Green Star Design rating.

For more information contact Joeliane Electrical Consultant Pty Ltd, 67 Callagher Street, Mount Druitt NSW 2770, phone 02 9832 4803, email joeliane@bigpond.com