

# HOMELY HERITAGE

Quay Quarter Lanes is an integrated mixed use development involving the construction of three new residential towers over a common basement and the restoration of two heritage buildings, and includes 104 boutique high end apartments, three commercial floors, 22 retail tenancies and an underground museum space.

**Located a stones throw from Sydney Harbour, the Quay Quarter Lanes development is situated on a prime piece of real estate with a rich history and an exciting future ahead.** AMP Capital appointed Richard Crookes Constructions as the head contractor for the project which boasts a mixed use development with three new residential towers built over a common basement. There are also two heritage buildings on the site which have been tastefully restored.

This is the first project that Richard Crookes Constructions has undertaken with AMP Capital and essentially it was five projects in one. “The buildings shared common services but that is where the similarities ended, each building’s design was completely individual having been completed by a different architect. The new buildings contain retail and commercial tenancies, 104 apartments and the ground plane included the creation of and renewal of seven laneways, five of which are dedicated to public pedestrian use,” said Guy Bell, Senior Project Manager.

It was an interesting project for Richard Crookes Constructions as they navigated the different building designs with architects Carter Williamson Architects, Lippmann Partnerships, Studio Bright, Silvester Fuller, SJB Architects, and ASPECT Studios. The bespoke nature of the architecture saw each building intertwine with the next while still claiming its independent design. “The level of individuality of each of the buildings and the way in which they combine to create such a fantastic space for not only those fortunate enough to own one of the apartments but all members of the public who will be able to come and dine, drink, and meet with friends in a truly unique City of Lanes within our City of Sydney,” said Guy.

The approval process throughout the entire project saw a combination of efforts from many entities. “The detailed design development and approval of the public domain works covered all seven lanes and street frontages of all five buildings. The team at Richard Crookes Constructions and their designers, ASPECT Studios and

Arup Civil, worked tirelessly in conjunction with the City of Sydney’s Public Domain Team over a period of two years to secure an approval and to construct the public works to a level befitting of such a prominent part of our city. The Public Domain also incorporated five integrated works of Public Art, by renowned Wiradjuri/Kamilaroi artist Jonathan Jones, and numerous elements of Heritage Interpretation, each of which required their own regulatory approvals before their insertion into the public domain works,” said Guy.

One particular challenge was that the site is split in two by a heritage asset called the Bennelong Drain, a large ovoid brick duct, that is tunnelled in rock and sits approximately one metre below the surface. “The project’s design required us to dig basements up to 5-storeys deep and within 75cm of the heritage tunnel on either side. The engineering and monitoring of this exercise was massive and carried out with complete success. The heritage asset was not damaged in any way by the excavation and construction of the buildings,” said Guy.

“The project straddles a unique geological feature called the Sydney GPO Fault-Line. This underground feature consists of fractured Sydney sandstone which creates an underground stream that seeps into Sydney Harbour. When the ground water was tested it was found to be contaminated (note that the contamination was not caused or attributed to the Quay Quarter Lanes site both past and present), so as part of the project we designed and built a drained basement and a permanent water treatment plant that is capable of extracting and treating over 80,000L of contaminated ground water per day.”

Richard Crookes Constructions is a private, family owned construction company that has been building for both government and private clients since 1976.

*For more information contact Richard Crookes Constructions, Level 3, 4 Broadcast Way, Artarmon NSW 2064, phone 02 9902 4700, website [www.richardcrookes.com.au](http://www.richardcrookes.com.au)*



DEVELOPER : AMP Capital  
MAIN CONSTRUCTION COMPANY : Richard Crookes Constructions  
ARCHITECTS : Carter Williamson Architects, Lippmann Partnerships, Studio Bright,  
Silvester Fuller, SJB Architects, and ASPECT Studios  
CONSTRUCTION VALUE : \$200 million  
Photo supplied by Sydney Site Photography



**Below** RJC Group completed the restoration of the sandstone, including the supply of 500 new sandstone pieces.

**As part of the Quay Quarter Lanes project, two incredible 19<sup>th</sup> century buildings, Hinchcliff House and Gallipoli Memorial club, required a complete makeover with specialised restoration works.**

These beautiful buildings, which are more than 140 years old, are the oldest buildings that RJC Group have had the privilege of working on.

RJC Group were engaged by Richard Crookes Construction for the major restoration of Hinchcliff House and Gallipoli Memorial Club, at Circular Quay. This included the restoration of the sandstone façade as well as the supply and install of almost 500 new sandstone pieces. Given the age of the buildings, there was also the desalination process of the façades to remove salts and increase longevity and bring back the heritage fabric. RJC Group were also responsible for the removal of all lead paints.

RJC Group had 10 stonemasons and two apprentices working tirelessly onsite for two years to restore the beautiful sandstone, inside and out, to both buildings. “The biggest challenge we faced was removing the five layers of lead based paint from the building facades as they had been painted over due to deterioration of the stone. Sandstone is porous and it absorbs salts from the air, especially in the sea mist this close to the harbour. Once the salt crystallises it expands and makes the front of the stone crumble and delaminate. Instead of fixing it properly, people just rendered it, or painted over the top. A special paint stripper was used to remove the paint, revealing the extent of the damage to the stone beneath. We then had to work out which stones could be repaired, and which needed replacing,” said Jaimie Cookson, Managing Director.

The original sandstone blocks that were not able to remain in place were considered for reuse based on their structural integrity and whether the salt had caused any damage. Those stones that were still partially able to be reused were cut down and used as indents.

New yellow block sandstone bricks were sourced by Gosford Quarries and came from Sydney’s infamous 200 George Street

site. These local blocks were quarried in 2013 with the intent of them being used for local restoration works. The Quay Quarter Lanes project certainly fits the criteria for these rare and beautiful blocks to be reused. Sydney yellow block, an oxidising and now rare stone material pays tribute to colonial Australia. Its rich thermal capabilities, acoustic properties and charming appeal makes this natural substance a crowd favourite.

As part of this project the Gallipoli Memorial club building, which dates back to 1880, has been restored and conserved, and basement levels created to house a new museum. Hinchcliff House which was built in the 1870s, has historic significance, evoking a bustling period in Sydney’s history when Circular Quay was the centre of the international shipping trade, and wool was Australia’s chief export. As part of the Quay Quarry lane project, this building has been restored and reinvented for retail use, while still capturing the history of the area and embracing the wool store itself. The new venue boasts a discreet entry to a basement bar via a former fire door in Loftus Lane, along with other exciting retail and dining venues.

RJC Group have been involved in many significant stonemasonry and heritage restoration projects, and are currently undertaking restoration work on the Intercontinental Hotel façade along with palisade fence restoration works at the Royal Botanic Gardens. RJC Group are leaders in stonemasonry and heritage restoration in Sydney, and work closely with Tier 1 Builders, Heritage Consultants and Government departments. Their expertise is sought on sensitive and significant projects across the country. Given that the restoration of heritage buildings is a delicate task, RJC Group combines their comprehensive building and construction knowledge with the latest in curative techniques to ensure each building is restored in its full glory whilst embracing the heritage intricacies and requirements.

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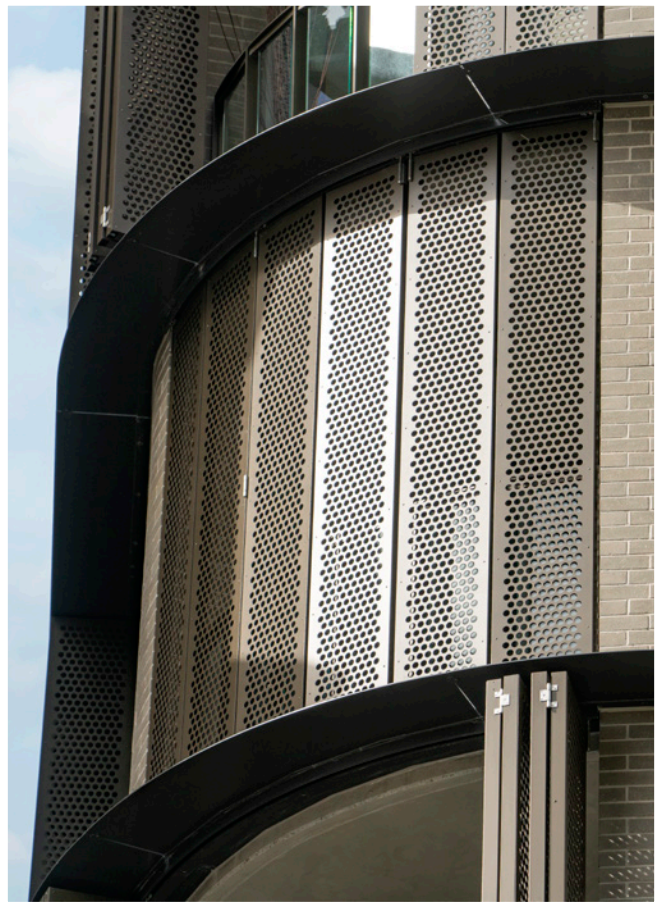
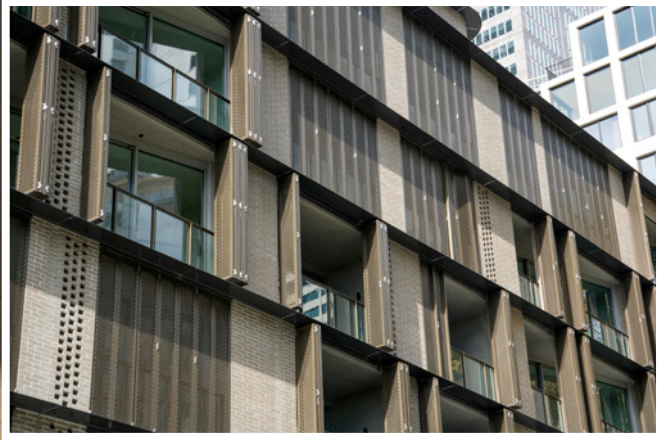
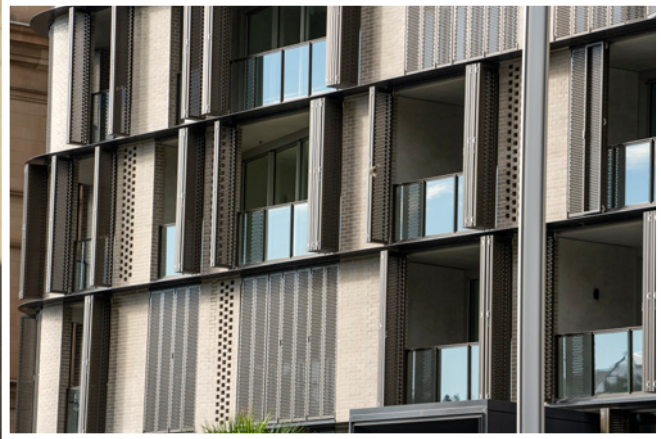




**Below** Enravel were responsible for the HVAC engineering, providing a BIM Model with LOD 300.



**Below** Shutterflex manufactured the perforated bi-fold and fixed screens for the balconies of the project.



Enravel is a leading provider of BIM consulting, modelling, drafting and engineering services to the building industry. They provide a reliable, all in one service with a focus on MEP (Inc Fire), architectural, structural and BIM coordination.

The team at Enravel were contracted as the HVAC engineers and documenters for the Quay Quarter Lanes project. “The Quay Quarter Lanes project was an interesting one with the complexity of dealing with several lead architects rather than one single overseer. This meant that decisions were required to be approved by multiple people before we could proceed,” said Director, Trevor Joy.

Enravel were involved early on in the project providing Richard Crookes with a well coordinated BIM Model with LOD 300. With energy efficiency in mind, the team simplified the design from the original concept by integrating all the various systems to a single common water cooled system. This also helped in minimising the central plant requirement. Enravel understand that heating and cooling costs can be a major expense, and getting the most efficient design plans will save money in the long term. That’s why Enravel offers smart HVAC design and planning that considers all the project factors, present and future.

The team at Enravel spent two years on the Quay Quarter Lane project with over 3,000 man hours clocked up. The team are well versed within the ever changing construction market, aspiring to continually raise the benchmark.

Their intent is to exceed expectations on every development. Enravel have enjoyed working on several multi-billion dollar projects including Brookfield Place in Sydney, Pitt Street Station and Martin Place Station (as part of the Sydney Metro development) and the M4 and M5 Road Tunnels. To date, the company have completed more than 5,000 projects across Australia.

*For more information contact Enravel, 2a/10-12 Woodville Street, Hurstville NSW 2220, phone 02 9579 4003, email enquiries@enravel.com.au, website www.enravel.com.au*

Shutterflex has the reputation for providing engineered solutions for climate control, including façades and screens. As well as an extensive product range, the company provides bespoke solutions.

The team at Shutterflex, worked closely with Quay Quarter Lanes architect, Studio Bright, and head Contractor, Richard Crooke Constructions, to produce a unique design. Representatives from both companies traveled to Shutterflex’s manufacturing facility to consider the prototype. The result was the manufacture of distinctive bi-folding perforated screens, and fixed perforated screens for the balconies.

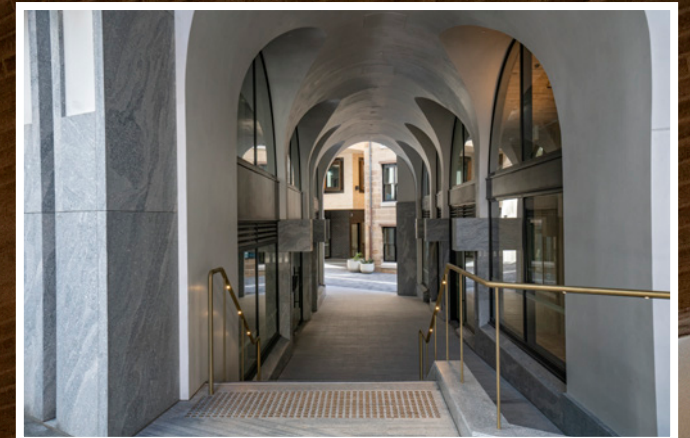
“It was very much a collaborative design process. In particular, the fixings and installation which presented some challenges. From the very start, every aspect of the design and install was carefully considered and engineered,” said Peter Ryan, Managing Director. “This was a design and construct contract for Shutterflex, so the architects, developer, and builder were all involved in a collaboration to ensure the design not only achieved the desired look, and clever operation but engineer how the screens would be fixed to the building and be incorporated into the brick façade.”

Specific to this design is a HOD bracket that is fundamental to the structural integrity of the balcony screens. It holds up the brick façade, HOD plate and bifolding doors.

The colour of Sable Medium Bronze colour of the screens created a warm, shimmering finish. At certain times of the day, the reflecting light plays with the perforations and references the patterned brickwork to achieve an aesthetic where all elements work together effortlessly. The functionality of the perforated screening means filtered light streams through the apartment along with breezes, whilst providing privacy. The combination of aesthetic appeal, cost effectiveness and sustainable performance made this Shutterflex product the perfect solution for this sophisticated inner city project.

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**Working with AMP Capital and Richard Crookes Constructions on the Quay Quarter Lanes project saw SCP Consulting undertake structural and civil engineering of the entire project from concept and design through to construction completion.**

The Quay Quarter Lanes project is part of a much bigger development of the Circular Quay precinct. This particular project, involved the construction of three new residential towers over a common basement. The project also saw the refurbishment and conservation of two heritage buildings, along with the preservation of the Bennelong Drain which runs through the site.

“As part of the project, our team undertook the rehabilitation and refurbishment of the 150 year old Hinchcliff House and the Gallipoli Memorial Club,” said Director, Paul Siewert. “This involved extensive heritage engineering work along with the construction of basement levels below the existing building footprint without compromising the structural integrity of the building.”

SCP Consulting also engineered the retention system to use the existing basement walls of the original site buildings. Other works included a column free, 2m deep, transfer floor at the ground floor

of Building A to allow for column free space in the museum space under. The 5-storey deep excavation was also engineered to ensure there was no damage to adjacent properties including the heritage listed Customs House.

The project involved deep rock excavation below the sites water table along with specialised ground water removal to enable minimal cost basement construction.

Over the past five years, SCP Consulting has experienced rapid growth of over 400%. The company boasts an exceptional reputation which stems from their 40 years experience in the construction industry and having built long lasting, collaborative relationships with their clients. The team at SCP Consulting are proud to be known throughout the industry as an engineering consultancy that thinks differently to deliver better.

**For more information contact SCP Consulting**, 507 Kent Street, Sydney NSW 2000, phone 1300 727 364, email [mail@scpconsult.com.au](mailto:mail@scpconsult.com.au), website [www.scpconsult.com.au](http://www.scpconsult.com.au)



**Below** Award Architectural Aluminium installed the Sky Frame sliding door aluminium system to the project.

**Below** Manooga installed the beautiful Corian® products in the bathrooms and kitchens in the apartments.



For the past 23 years, Award Architectural Aluminium have been manufacturing and installing aluminium and steel windows and doors for residential and commercial projects alike. For the Quay Quarter Lanes project, a team of over 40 skilled engineers and tradespeople were deployed to deliver a high performing sliding door system that embraced the million dollar views on offer.

Manufactured in Switzerland, the Sky Frame sliding door system was chosen due to its minimal vertical interlock, and floor to ceiling glass, making it the perfect solution to provide seamless views over Circular Quay, the Harbour Bridge, and the Opera House.

“The Sky Frame product was chosen due to its minimalistic look and ability to provide a free flowing space. While engineering challenges presented, the end product met all thermal, acoustic and structural requirements for this high end residential apartment project,” said Chris Lyons, Director. “The Sky Frame system was used in Building C, for all residential units spanning Level 5 to 13 on the Northern elevation.”

Sky Frame is a unique system, which is perfect for large surface sliding door projects. It features a frame that can be installed flush with the

walls, ceiling, and floor. A modest 20mm vertical mullion where two sections overlap is all that is visible of the frame. This makes for unimpeded views and a harmonious connection between the inside and outside. Besides offering aesthetic advantages, the system also meets the highest standards in thermal insulation and safety.

Award Architectural Aluminium are currently busy working on 40 other high end residential and commercial projects. The team are proud to offer the highest quality solutions from all around the world, which include products from Italy, Germany, The Netherlands and New Zealand.

*For more information contact Award Architectural Aluminium, phone 02 4388 2111, email enquiries@awardaluminium.com.au, website www.awardaluminium.com.au*

When it came to choosing the perfect product for the bathroom and kitchen surfaces on the Quay Quarter Lanes project, the choice was simple. The team at Manooga reached straight for the Corian® products which are renowned for their superior design and superb finishes. Corian® is not only known for its beauty but its renewable and repairable design, meaning the product can be fully restored to its original condition if damaged, without having to replace the entire unit. This is particularly beneficial if minor damage occurs during construction.

Glacier White, a timeless colour choice, was used in the bathrooms, while Silver Grey was chosen for the kitchens. One apartment, however, was fitted with Deep Titanium for a darker result, which was chosen by one particular vendor.

The properties of Corian® not only allow for seamless joins but there is also the added benefit of being able to heat and shape the material which was key to the design and finish of this project. The island benchtops provide a superior combination of beauty and hygiene, allowing the lucky owners to enjoy an easy care and healthy experience, due to the non-porous and harmonious design of these surfaces.

“This project was particularly interesting as the kitchens were completely seamless. Six pieces were combined to make one continuous end product. The smooth, radius corners resulted in a remarkable finish,” said David Page, Director.

The team at Manooga invested 18 months working on the Quay Quarter Lanes project with six of those months spent onsite. Currently, the team are working simultaneously on several other notable projects including Natura at Macquarie, Ribbon Hotel Darling Harbour and a number of private residential and commercial fitouts.

Manooga is a family owned business where managers, David and Michael Page, are known to be completely hands on in every facet of the business. David and Michael, together with the Manooga team, provide superior quality and highly durable, bathroom, kitchen and commercial benchtops which are backed by exceptional customer service and a true desire to achieve excellence on every project.

*For more information contact Manooga Products, 13 Rhodes Street, West Ryde NSW 2114, phone 02 9807 3511, email sales@manooga.com.au, website www.manooga.com.au*