UNIVERSITY OF NEWCASTLE CENTRAL COAST CAMPUS

CLIENT : University of Newcastle
MAIN CONSTRUCTION COMPANY : Hansen Yuncken
ARCHITECT : Lyons and EJE Architecture
ENGINEER: Northrop Consulting Engineers
FACADE ENGINEER: Inhabit

NATURAL MATERIALS IN ADVANCED LEARNING ENVIRONMENTS

The University of Newcastle's new Gosford Central building is a contemporary 4,500–5,000m² facility featuring a mass timber structure, and a curved glazed façade. The project integrates global procurement, digital co-ordination and low-carbon construction, targeting a 6 Star Green Star rating for future-ready education.

The new building stands as a major investment in the region's future, reshaping Gosford's city centre and expanding access to tertiary education for local students. The project involved the complete design and construction of a contemporary multi-storey learning and innovation facility, incorporating specialist teaching, research and collaborative spaces.

"Hansen Yuncken served as the Managing Contractor responsible for the full design and construction delivery of the new University of Newcastle Central Coast Campus," said Project Manager, Rob Schmitzer. "Our scope encompassed demolition and remediation of existing site structures, followed by the construction of the new campus building. We managed consultant co-ordination, design development, procurement and end-to-end construction activities to ensure the project was delivered safely, sustainably and on program."

A defining feature of the project is its extensive use of mass timber, with Glue-Laminated Timber (GLT) and Cross-Laminated Timber (CLT) sourced from specialist suppliers Rubner (Italy) and KLH (Austria). The structural timber forms the building's signature warm aesthetic, with exposed beams, columns and soffit, contributing contributing to both architectural expression and carbon reduction outcomes.

However, delivering mass timber at this scale required a sophisticated global procurement and logistics strategy. "Managing an international supply chain of this size presented challenges," Rob explained. "More than 30 shipping containers travelled via 11 international routes. We utilised Autodesk Construction Cloud to enable real-time collaboration across global teams, finalise design models efficiently, and track procurement. Every timber and facade component was QR-coded for progress monitoring and clear installation sequencing onsite."

The façade delivery was equally complex, with curtain wall systems involving multi-stage fabrication across China and Thailand. Early supplier engagement and detailed scheduling ensured these critical elements arrived in alignment with the build sequence, protecting program continuity.

Sustainability and innovation were embedded from the earliest design phase. The building features a 32% reduction in upfront carbon, achieved through the mass timber structural system, Climate Active-certified carbon-neutral concrete and steel sourced from ResponsibleSteel™ suppliers. The project set a >90% construction waste diversion target, achieved through onsite sorting streams, signage, training and continuous performance monitoring.

High-performance operational systems further enhance the facility's sustainability profile, including rooftop solar PV, advanced battery energy storage system (BESS), and the University's commitment to sourcing 100% renewable energy. "This project stands as a benchmark for low-carbon construction and operational performance," Senior Project Engineer Tim Everett explained. "Sustainability was prioritised early and consistently, and that's reflected in both the building's structure and its long-term energy profile."

Collaboration was a central pillar throughout delivery. Weekly co-ordination sessions involving the University, architectural and engineering teams ensured rapid design resolution and seamless integration of specialist requirements.

"We maintained transparent communication and close alignment with the University's project leadership team," Rob said. "Engagement with local stakeholders and schools also helped strengthen community connection and highlight the value this facility brings to the region."

From a technical perspective, the exposed mass timber and sweeping curved façade stand out as celebrated achievements. "We are immensely proud of the craftsmanship this project represents," Tim said. "The curved GLT beams, the precision of timber installation and the façade integration all demonstrate the capability and collaboration of the team."

Beyond the engineering and construction delivery, the broader legacy is what resonates most for Hansen Yuncken. "This campus represents a major investment in the future of the Central Coast," Rob said. "It enhances access to higher education, stimulates urban renewal,

and strengthens the region's social and economic resilience. We are honoured to have played a leading role in realising that vision."

The new Gosford Central building was jointly funded by the University of Newcastle ($31.3 million), the Australian Government ($18 million), and the NSW Government ($18 million) using land provided by the NSW Government's Hunter and Central Coast Development Corporation.

For more information contact Hansen Yuncken, phone 02 4908 6300, email newcastle@hansenyuncken.com.au, website www.hansenyuncken.com.au

Below Transways managed the shore-to-site delivery of mass timber for the University of Newcastle Central Coast Campus, ensuring cost control, risk mitigation, and on-time installation

SUPPORTING MASS-TIMBER CONSTRUCTION THROUGH STRATEGIC LOGISTICS

For Gosford Central, the ambition to deliver a large-scale, low-carbon building using internationally sourced CLT and GLT introduced a supply-chain task spanning continents, ports and tightly sequenced construction windows. More than 30 shipping containers travelled across 11 international routes, carrying precision-engineered timber elements that demanded absolute certainty in timing, handling and storage.

While Hansen Yuncken coordinated global procurement and digital tracking, the project's success ultimately relied on what happened once those containers reached Australian shores. From customs clearance and bio-security compliance to unpacking, storage and just-in-time delivery, the margin for error was slim. Any delay, damage or misalignment in logistics risked disrupting the build program and undermining the efficiencies of mass-timber construction.

Transways Logistics International was a critical delivery partner, tasked with managing the full post-port logistics process, providing an end-to-end freight solution that transformed a complex international supply chain into a controlled, predictable workflow. "Our scope included customs and quarantine lodgement and clearance, fumigation for the Brown Marmorated Stink Bug (BMSB), unpacking timber sleds from containers, storage and weatherproofing, and delivery to site in Gosford," Transways CEO Ben Langshaw said.

While the job didn't involve oversized cargo, the unpacking of the timber sleds required a specialised approach, as well as temporary storage. The timber sleds weighed up to 20 tonnes each and required a yard with heavy machinery capable of unpacking the sleds. "We had to ensure the yard was set up with a dedicated set-down area and heavy machinery large enough to drag out the sleds safely," Ben explained.

To maintain efficiency and cost control, Transways divided the logistics workflow between Sydney-based partners for wharf operations and local Central Coast contractors for last-mile delivery, a model that proved both agile and economical.

Weather also played a factor, especially given the project's coastal location. "We needed to plan for potential site shutdowns due to high winds," Ben noted. "Our strategy included contingencies for secure overnight storage if deliveries had to be paused."

Transways worked closely with Hansen Yuncken, holding weekly scheduling meetings and providing 36-hour advance delivery forecasts.

"It wasn't our first project with Hansen Yuncken," Ben said. "We've developed a strong working relationship built on mutual understanding of how each team operates. That familiarity allowed us to respond quickly to late changes and keep the site running smoothly."

Transways' scope extended beyond functioning solely as a logistics provider, the team provided strategic planning and transparent cost modelling and focused delivery framework that strengthened cost control and reduced procurement risk.

"We provided Hansen Yuncken with an upfront forecast budget based on the install sequence and updated it weekly, showing when peak storage periods ended and when we could deliver to site," said Ben.

Transways also saved money by managing fumigation domestically, rather than in Europe, and minimised container detention charges by strategically using 'free days' for short-term storage before returning containers to shipping lines.

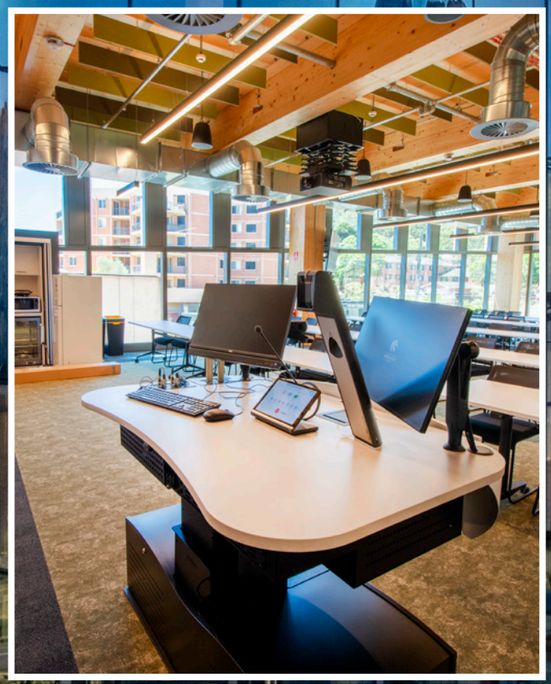
"We're proud of how clearly we were able to outline all logistics costs, including those outside of our own fees," Ben explained. "Many builders aren't familiar with the financial responsibilities of importing materials. We help them understand the true landed cost, including duty, GST, and shipping charges, giving them confidence to buy mass timber on CIF terms."

This partnership approach has made Transways a trusted logistics partner for Hansen Yuncken and other leading builders. "We pride ourselves on knowing building sites," Ben said. "After 15 years managing logistics for mass timber and curtain wall projects, our senior leadership team has the experience to identify potential pain points before they become problems."

"Our fingerprints are on every part of the job," Ben concluded. "That's what ensures every shipment, and every project, runs smoothly from the first container to the final delivery."

For more information contact Transways Logistics International, Unit 18, 198-222 Young Street, Waterloo NSW 2017, phone 02 9319 9600, website www.transways.com.au

Below MNGD delivered a fully integrated, bespoke AV system at Gosford Central, enhancing hybrid learning



FUTURE-PROOFING LEARNING SPACES WITH INTEGRATED AV TECHNOLOGY

Technology integration specialist MNGD delivered a cutting-edge audio-visual system for Gosford Central, designed to enhance teaching, learning, and hybrid collaboration. By combining bespoke AV infrastructure with intuitive lecturer control and fully co-ordinated installation, MNGD enabled a technologically future-proof learning environment that meets both teaching and operational requirements.

"Our scope included three seminar rooms, nine teaching spaces, and over 10 meeting rooms," explained MNGD Director Josh Chircop. Each space was equipped with tailored AV infrastructure to support the university's hybrid and interactive learning model.

Seminar rooms feature large projection screens, motorised lifters, dual-camera systems, pendant speakers, and wireless microphones, all operated through bespoke lecterns designed for intuitive lecturer control. "This centralised control and automation enable lecturers to manage both classroom and Zoom sessions seamlessly," said Josh.

Teaching spaces utilise dual 98-inch displays and similar camera and audio configurations, while the meeting rooms incorporate flexible single- and dual-display setups with ceiling microphones and integrated conferencing tools. "All system integrations are bespoke and involve a high level of co-ordination to avoid potential issues onsite," Josh said. "Hansen Yuncken were incredible in ensuring the AV hardware was protected from impact by other trades, guaranteeing the best possible teaching and collaboration experience."

Valued at over $1.5 million, the AV component was one of the largest of its kind outside Australia's capital cities. Logistical challenges were managed through meticulous planning and strong collaboration between MNGD's Newcastle site team and Sydney HQ.

"The project demonstrates our expertise in delivering advanced technology solutions for large-scale education environments," Josh said. "Our onsite team handled complex integrations and co-ordination exceptionally, supported by our design documentation team." The result is a seamlessly connected campus where technology empowers teaching.

For more information contact MNGD, Unit 4, 24-28 Skarratt Steet, North Silverwater NSW 2128, phone 1800 717 474, email hello@mngd.tech, website ww.mngd.tech

Below CETEC ensures educational buildings meet sustainability and wellbeing goals through expert air-tightness and indoor air quality testing.

ENSURING AIR TIGHTNESS & AIR QUALITY, IN COMPLEX MULTI-FUNCTIONAL TIMBER BUILDINGS

As sustainability and occupant wellbeing become central to modern educational design, verifying that design intent translates into real-world performance has never been more critical.

CETEC partnered with Hansen Yuncken at the University of Newcastle Gosford Central Campus, delivering specialist airtightness and indoor air quality (IAQ) services to ensure the new timber building performs exactly as intended, efficiently, safely, and with consistently healthy internal environments.

Principal Consultant Adam Garnys explained that CETEC's scope focused on two essential areas: airtightness testing to support Green Star Certification, and exposure to toxins, VOC and formaldehyde testing to underpin indoor air quality.

The building's striking architectural form, featuring a curved envelope and extensive engineered timber, presented unique technical challenges. "Timber buildings can be more complex from an airtightness perspective," Adam noted. "There is material constraint with bespoke structural elements around airtightness, so it really comes down to collaborating with the team from the design stage."

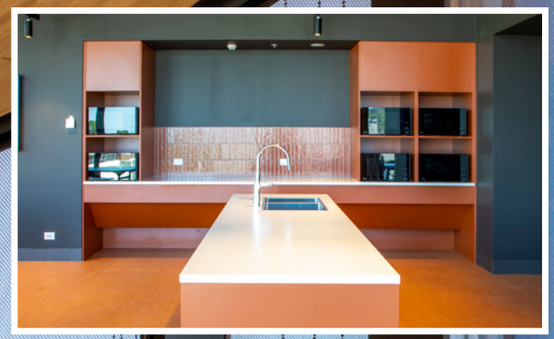
CETEC's early engagement proved pivotal. During design review, they provided targeted technical guidance on services penetrations, junction detailing, and air barrier continuity, areas that are the highest-risk points for air permeability and moisture transfer in timber buildings. Periodic site inspections ensured these strategies translated in built reality.

"The Hansen Yuncken team had a growth mindset," Adam added. "They were curious and proactive in seeking advice. That level of collaboration really enabled strong performance outcomes."

CETEC's national capability further strengthened delivery. "We operate across all major cities with specialist equipment and experience," Adam said. "And with our long history in air tightness and air quality leadership, including contributing to the development of Green Star's IEQ requirements, we're able to bring both technical depth and strategic insight to projects like this."

For more information contact Cetec, www.cetec.com.au nationwide

Below Pluim Joinery delivered sustainable, precision-crafted timber interiors at Gosford Central, enhancing functionality, wellbeing, and learning.



DESIGNING INTERIORS FOR FUNCTIONAL AND SUSTAINABLE EDUCATION CAMPUSES

The University of Newcastle's Gosford Central Campus is defined not only by its sustainable credentials and architectural distinction, but by the quality of its internal environments. Pluim Joinery delivered precision-crafted internal joinery that enhances the functionality, aesthetics, and wellbeing of the campus. Pluim Joinery were responsible for the manufacture and installation of all internal joinery across the entire campus, including the reception counter, café, banquette seating, timber-clad columns, kitchens and retail areas.

"From the first point of contact at reception right through to the café, teaching support spaces and retail areas, our joinery helps define & shape how people move through and experience the building," explained Pluim Joinery's Director, Andrew Sohier.

Whilst the project presented no major construction challenges for the Pluim Joinery team, the success of the works relied heavily on precise manufacture & delivery coupled with close co-ordination with all Construction partners on-site along with strict compliance to the sustainability aspects of the fit-out & materials used. To achieve this result Pluim Joinery worked closely with the main contractor, design consultants and university stakeholders to ensure all products met the required Green Star targets.

Beyond performance and compliance, the joinery contributes directly to the comfort and wellbeing of students, staff and visitors. The warmth of timber finishes, carefully detailed seating and custom built elements introduce a tactile and welcoming quality that contrasts beautifully with the campus's bold structural form.

"The high level of craftsmanship displayed in the joinery work adds to the overall ambience of the campus," Andrew explained. "We're proud to have delivered joinery that doesn't just perform technically, but genuinely enhances the way people feel & interact in the space."

Through careful attention to detail, sustainable material selection, and close coordination with the contractor and design team, Pluim Joinery delivered interiors that meet Green Star requirements which in-turn support and assist the wellbeing of students, staff, and visitors. Their work provides a demonstration of how precise, well-coordinated & placed joinery can integrate with educational environments to provide functional, durable, and contextually appropriate interiors.

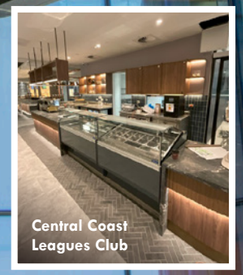
For more information contact Pluim Joinery, Unit 3/900 Pacific Highway, Lisarow NSW 2250, phone 02 4328 0500, email info@pluimjoinery.com.au, website www.pluimjoinery.com.au

Below M-Fire delivered integrated, compliant fire and EWIS systems at Gosford Central, ensuring safety, resilience, and seamless operation.

Below Alpha Custom Stainless Steel delivered locally fabricated, compliant stainless-steel infrastructure supporting durable, high-performance university environments.


Central Coast Leagues Club


Anglicare CPK


Central Coast Leagues Club


University of Newcastle Gosford Central

FIRE SAFETY SOLUTIONS FOR COMPLEX MULTI-FUNCTIONAL CAMPUS ENVIRONMENTS

M-Fire delivered a fully integrated, compliant, and architecturally sensitive fire protection system at the Gosford Central, combining technical expertise, seamless coordination, and reliable commissioning to safeguard people, assets, and operations across a high-use, multi-functional education environment.

M-Fire's scope included the supply and installation of a Vigilant MX1 Fire Detection and Alarm System (FDAS) and a Vigilant QE90 Emergency Warning and Intercommunication System (EWIS).

"We also integrated the systems with smoke exhaust fans, louvres, security, BMS and AV trips, and even boom gate controls," explained Managing Director, Michael Matthews. "All interfaces were successfully achieved through close co-ordination with other trades both in the office and on site."

The project presented several technical challenges, particularly when working around decorative compressed timber ceilings. "We had to design and fabricate custom brackets to lower equipment in some areas to maintain compliance," said Michael. "It was about finding practical solutions that complemented the architectural vision."

Further complexity came from networking the system back to the main Newcastle campus for remote monitoring. "That required collaboration with the University's network and fire infrastructure teams, all relationships we've built over many years."

M-Fire's commitment to quality and safety guided every stage of delivery. "Our experienced lead hand was pivotal to achieving the high standard of workmanship expected. Even with supply delays on the custom-built fire and EWIS panels, our team worked tirelessly to install, program, and commission everything within two weeks of delivery."

"We take pride in delivering high-level, complex systems that protect people and assets. The Central Coast Campus is a project we're honoured to have helped make safer for generations of students to come,"reflected Michael.

For more information contact M-Fire Pty Ltd, 36 Rural Drive, Sandgate NSW 2304, phone 02 4011 5907, email enquiries@m-fire.com.au, website www.m-fire.com.au

TRANSLATING DESIGN INTENT INTO FUNCTIONAL STAINLESS-STEEL SYSTEMS

Alpha Custom Stainless Steel delivers end-to-end stainless-steel solutions that combine precision fabrication, compliance and design integrity. Drawing on more than 50 years of industry experience, Alpha's locally fabricated, fully integrated approach ensures joinery, commercial kitchens and hospitality fit-outs are delivered on time, on budget and in alignment with each project's operational, regulatory and architectural requirements.

"We pride ourselves on being involved from the design stage right through to installation," Senior Project Manager Elliot Hammond said. "That gives clients confidence that what's drawn can actually be built, and built properly."

Alpha balances precision stainless-steel fabrication with user-focused design. The company's experience in creating commercial kitchens, benching, extraction systems, and integrated equipment are engineered for durability, compliance, and efficiency while providing a pleasing and visually refined profile.

"Education environments demand robustness, compliance and efficiency, but they also need to feel welcoming and work intuitively for staff and students," explained Elliot. Alpha's experience at Gosford Central draws on a broader body of work delivering stainless-steel infrastructure for complex, high-use environments.

Delivering complex food and beverage infrastructure at scale for the Archibald/Voco Hotel in Gosford, with ALAND, required Alpha to complete a $3.1 million design and construct package including in-house fabricated stainless-steel components, Filter Stream extraction hoods, commercial kitchens, refrigeration systems and cool rooms across multiple venues including the Level 28 Astra Skybar.

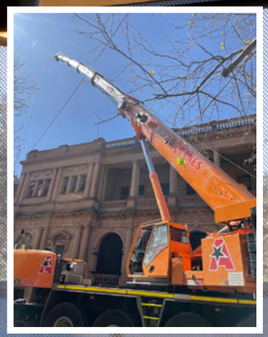
The refurbishment of Dooleys Catholic Club, delivered with Buildcorp, saw Alpha deliver a $4.5 million multi-level hospitality fit-out incorporating 16 bars, kitchens and dining outlets, featuring custom stainless-steel fabrication, extraction systems and commercial kitchen equipment.

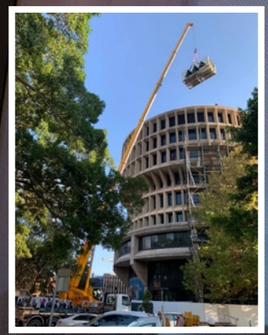
"Everything is fabricated locally within our own factories. That gives us full control over quality, timing and performance, and it allows us to respond quickly when projects evolve," Elliot explained."

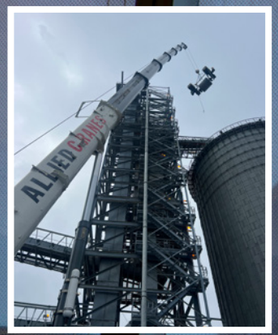
For more information contact Alpha Custom Stainless Steel, 1300 362 596, email sales@alphace.com.au, website www.alphace.com.au

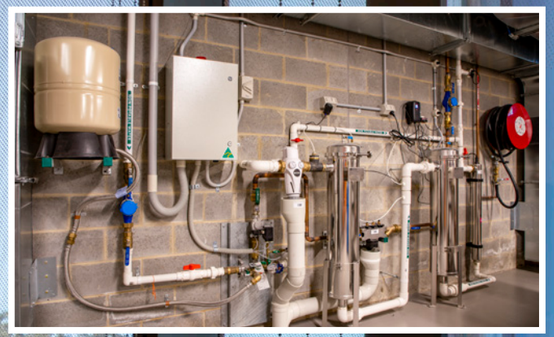
Below Allied Construction delivered coordinated crane services, enabling safe, efficient lifting operations within a constrained university campus site.

Below G&W Hydraulics delivered integrated, design-led hydraulic services for complex education infrastructure project.









LIFTING PERFORMANCE THAT KEEPS COMPLEX PROJECTS MOVING

As the University of Newcastle's Central Coast Campus continues to expand its footprint and capabilities, Allied Construction (Allied Crane Hire) has been a driving force behind the scenes, elevating the project with precision, communication and an uncompromising commitment to safety.

"Our scope was to supply cranes, riggers and dogmen," Business Development Manager Brian Trevethan said.

Tight access, evolving staging, and the complex movement of materials required a lifting partner capable not only of supplying equipment, but of integrating seamlessly with the project's operational rhythm. "We worked closely with site representatives and supervisors to keep everything moving smoothly," Brain explained.

This collaborative approach extended through every phase of the build. Allied co-ordinated directly with the main contractor and all interfacing trades. "We scheduled works, communicated lift plans, and barricaded areas and drop zones with information tags attached," Brain said. This disciplined, transparent method enabled the project team to maintain momentum while upholding the highest safety standards.

The result was a partnership defined by reliability. Their capability in handling diverse load sizes, their responsiveness to shifting site needs, and their proactive communication added measurable value to the project's progression.

For Allied, the legacy of the Gosford Central build lies not just in lifts completed but in relationships strengthened. Their work reinforced what the industry already knows: when precision, planning and professionalism come together, the entire project rises.

For more information contact Allied Construction (Allied Crane Hire), 808 Tomago Road, Tomago NSW 2322, phone 0437 609 486, email slantry@alliedcranehire.com.au, website www.alliedcranehirenewcastle.com.au

HYDRAULIC INTEGRATION WITHOUT COMPROMISING DESIGN INTENT

Delivering complex hydraulic services to a modern education facility like the Gosford Central, requires both technical expertise and close collaboration with onsite trade, qualities that defined G&W Hydraulics' workflow and methodologies.

G&W Hydraulics delivered a comprehensive scope of services to the precinct including potable cold water and fire hose reel systems, hot water, sanitary plumbing, fire hydrant systems, non-potable water reuse, siphonic and conventional stormwater, sanitary fixtures and tapware, water meters, acoustic lagging and BMS monitoring points The package ensured reliable water services, fire protection and drainage infrastructure across the campus.

The project required an alternate approach to stormwater management, as site and design constraints made a conventional system unworkable. Working alongside the design team, G&W implemented a siphonic drainage solution engineered to efficiently remove roof water without impacting the building's structural or architectural intent.

"The siphonic system was reviewed and designed to meet project requirements and achieve the desired outcome without compromising the building's design," explained Marty.

Co-ordination was critical on a project of this scale. G&W worked closely with builder Hansen Yuncken and all interfacing trades. "We held regular coordination meetings, design reviews and services workshops to ensure clear integration and sequencing," Marty says. Construction activities were aligned with the master program, with test hold points and inspections maintaining quality and compliance.

We're most proud of delivering a hydraulics system that achieves a high-quality aesthetic outcome and robust operational functionality," Marty said. Seamlessly integrated into the built environment, G&W's systems support the campus's long-term performance while meeting all compliance and client requirements.

For more information contact G&W Hydraulics Pty Ltd, 65 Barralong Road Erina NSW 2250, phone 02 4368 4050