

# HIGH-TECH TRAINING FACILITY BUILT FOR CHAMPIONS

**DEVELOPER:** Department of Infrastructure and Transport  
**MAIN CONSTRUCTION COMPANY :** Hansen Yuncken  
**ARCHITECT :** Cox Architecture  
**CIVIL / STRUCTURAL ENGINEER :** KBR  
**QUANTITY SURVEYOR :** Chris Sale Consulting  
**PROJECT VALUE :** \$77.2 million



The state-of-the-art South Australian Sports Institute (SASI) facility in Adelaide offers a premier training environment designed to advance sports teaching and industry collaboration. Complete with a full-sized indoor sprung timber court, a movement studio, ergometer training space, physiology and biomechanics labs, SASI will attract national and international teams as they prepare for the Olympics and Paralympics, positioning Adelaide as a global sports training hub.

**As South Australia's premier sporting institution, the South Australian Sports Institute (SASI) has a long history of training top-tier athletes.** With the construction of the new SASI Headquarters, this legacy will reach even greater heights.

Designed by Cox Architecture, and managed by Hansen Yuncken, the project has set new benchmarks for sustainability and innovation in sports infrastructure.

The project's scope included the construction of 1,300m<sup>2</sup> of strength and conditioning gyms, two recovery pools, two saunas, and a FIBA-rated basketball court—each element designed with the athlete's peak performance in mind.

Two world-class environmental chambers were also included within the facilities design. These areas can simulate different altitudes, humidity, and temperatures to mimic varied training environments.

The inclusion of the chambers were integral to the facility's mission of developing elite athletes capable of competing on the global stage. One of the most innovative features of the new SASI HQ is the 'Movement Studio'. This immersive exercise space, outfitted with cutting-edge AV technology, allows athletes to be filmed during training sessions.

Coaches and trainers can then analyse the footage, providing immediate, data-driven feedback to enhance performance. The studio's two large LED screens and projectors can create an immersive environment tailored to the specific needs of the athlete and the sport they are practising. This unique integration of technology and sports science is a hallmark of Hansen Yuncken's commitment to delivering world-class facilities.

"This was a complex project that required input from both end-user groups to ensure that the finer day-to-day details were constructed

as they required," said Ricky Emili, Project Coordinator at Hansen Yuncken. The collaborative relationship with the design team was crucial in meeting the tight deadlines. "Being able to make quick decisions was imperative to the project's success," added Emili.

The site's location next to a live athletics stadium posed some logistical challenges, with school children and parents frequently moving through the adjacent car park. This required careful planning to ensure safety and minimise disruptions to both site activities and the neighbouring facilities.

The construction phase included unique challenges, with early discovery of soil contamination requiring adjustments to in-ground work. Hansen Yuncken collaborated closely with environmental specialists to manage the situation effectively, ensuring the surrounding environment remained undisturbed.

The site's technical requirements necessitated several cutting-edge construction techniques to meet both structural demands and project timelines. One key approach involved suspending all pipework beneath the ground-floor slab using stainless steel rods positioned at precise 300mm intervals. This method ensured optimal alignment, stability, and ease of access for future maintenance, while preserving critical under-floor space for other systems.

To streamline the project, Hansen Yuncken opted to prefabricate the mechanical fan coil units off-site, to ensure a high level of quality control, as well as to significantly reduced the installation time on-site. Likewise the ambitious solution of lifting the pre-assembled steel central heart stairs into place through an opening in the roof with the use of a crane, saved important time on the project and resulted in it's timely completion.

Hansen Yuncken's has a commitment to sustainability, resulted in SASI Achieving a 5 Star Green Star rating, with the facility incorporating numerous environmentally sustainable elements. Notably, the entire concrete structure was built using carbon-neutral concrete. "This was a significant move towards reducing the facility's carbon footprint without compromising on the structural integrity of the building," said Emili.

"It has been a privilege to construct the new headquarters for SASI and to see the uplift in spaces that South Australia's best athletes will now be able to train in," said Emili.

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**Below** Gant & Sons provided expert steel fabrication and installation for SASI, ensuring structural precision and durability.

# GANT & SONS TAKES SASI'S STRUCTURAL GAME TO THE NEXT LEVEL

Gant & Sons Structural Steelwork—a family-owned leader in steel fabrication and erection across Australia—brings generations of expertise to every project, with a reputation for unmatched precision and quality.

Known for handling intricate, high-detail structural work, Gant & Sons was chosen for the prestigious redevelopment of the South Australian Sports Institute (SASI). This project showcases their commitment to delivering durable, custom-engineered steel solutions that meet the unique needs of complex structures.

“As a company, we have built a reputation of honesty and integrity allowing us to maintain relationships and grow in conjunction with customers and clients,” said Drew Koch. “With the ability to Draft, Fabrication, Transport, Paint and Erect using internal resources, we are in full control of our supply chain and are a ‘one-stop-shop’ for steel solutions.”

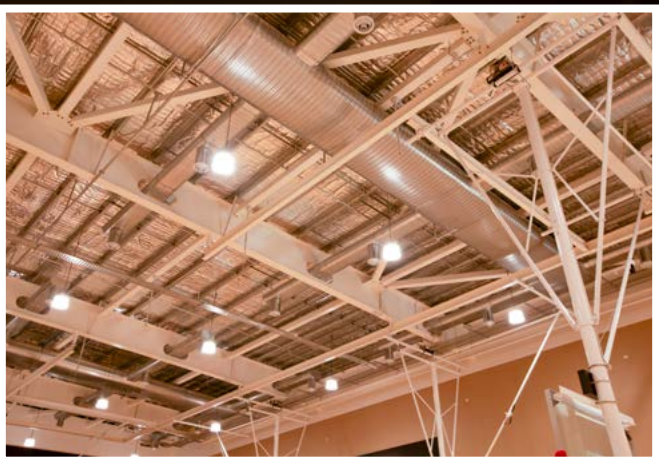
Specialising in crane hire, rigging, on-site welding, and steel fabrication, Gant & Sons expertly managed the complexities of the SASI project. “Our approach combines extensive industry knowledge with a commitment to quality and safety, ensuring each phase of the project is executed with precision,” explained Drew.

The scope of work included intricate steel frame installation, demanding not only technical skill but also rigorous adherence to safety standards. “We pride ourselves on a strict, no-tolerance approach to safety. Our team knows that every precaution taken today ensures we all go home safely tomorrow,” said Drew.

With a fleet of cranes up to 55 tonnes, the company handled multiple complex lifts, ensuring seamless integration into the existing infrastructure.

“Our team thrives on challenging projects where we can showcase our comprehensive, one-stop-shop services, from design to final installation,” added Drew.

*For more information contact Gant & Sons, 7 Palina Court, Smithfield SA 5114, phone 08 8284 5460, email [tenders@gantandsons.com.au](mailto:tenders@gantandsons.com.au), website [www.gantandsons.com.au](http://www.gantandsons.com.au)*





**Below** ITE installed motorised curtains, sports barriers, and a motorised truss grid, combining precision, functionality, and versatility for the adaptive space.



**Below** SASI's elite training facility features cutting-edge AV technology by Pro AV Solutions (SA) for performance analysis.



**Installation Theatrical Engineering (ITE), experts in stage machinery and audiovisual solutions, brought their expertise to the state-of-the-art South Australian Sports Institute (SASI).** Known for enhancing performance spaces in theatres, schools, and universities, ITE showcased its 44 years of experience with this exciting project.

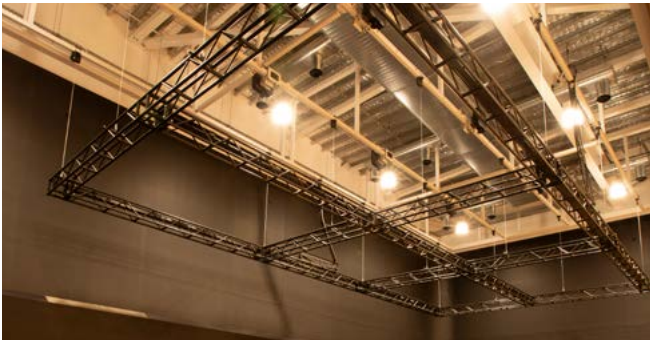
A dedicated team of eight from ITE's 30 employees were on the ground to install a cutting-edge motorised truss grid. This setup supports lighting and cameras, which are crucial for training sessions and live performances.

Additionally, ITE installed a motorised concertina curtain to separate the movement studio from the gym, along with motorised sports nets for the bounding track, making the space more versatile.

"The motorised concertina curtain was a tricky part of the project," said ITE Director Jon Agosta. "We had to get the sizing just right and ensure the logo was perfectly sewn onto the curtain. The grid design, with its multiple motors, was also a complex task. We needed to carefully size each component, motor, and brake to ensure everything works seamlessly."

This project highlights ITE's knack for tackling tough engineering challenges while delivering functional and visually appealing results.

ITE's current other major projects include work at the Australian War Memorial, Ruyton Girls School, University of NSW Footbridge Theatre, and Wellington Town Hall Redevelopment.



*For more information, contact Installation Theatrical Engineering, 816 Lorimer Street, Port Melbourne VIC 3207, phone 03 9646 0822, email [info@ite.net.au](mailto:info@ite.net.au), website [www.ite.net.au](http://www.ite.net.au)*

**The South Australian Sports Institute (SASI) is a world-class high-performance training facility dedicated to developing elite athletes through cutting-edge technology, research, and education.** As part of its commitment to innovation, SASI sought to enhance its training and analysis capabilities with state-of-the-art audio-visual (AV) systems, ensuring an immersive and data-driven environment for athletes, coaches, and researchers.

Pro AV Solutions (SA) designed and implemented a tailored AV ecosystem that supports a wide range of sporting disciplines and performance analytics. The project encompassed everything from real-time video analysis and advanced display systems to integrated communication platforms, allowing for seamless collaboration and data sharing.

The facility spans three floors, deploying technology in over 30 spaces to maximise training, learning, and performance analysis. "Our goal was to provide SASI with flexible, world-class AV technology to support athletes and students alike," a Pro AV Solutions spokesperson shared. "Key installations include more than 145m<sup>2</sup> of LED screens, 40 LCD displays with integrated control systems, and a floor-projection mapping simulation space. These systems transform

training through immersive simulation and real-time performance analysis," the spokesperson added.

Specialised AV features such as the bike lab camera system enable enhanced performance tracking, while the impact-resistant LED screens deliver high-resolution visual content.

Pro AV Solutions (SA) began work onsite in April 2024, deploying 22 skilled South Australian employees to design, install, and program in partnership with a specialised LED contractor.

"We're proud to bring this vision to life, setting a new benchmark for AV integration in sporting facilities in South Australia," the spokesperson concluded.

Pro AV Solutions (SA) is currently designing and implementing a number of critical projects that support the South Australian economy and operations.

*For more information contact Pro AV Solutions (SA), 247 Greenhill Road, Dulwich SA 5065, phone 08 8124 7777, email [reception.sa@proav.com.au](mailto:reception.sa@proav.com.au), website [www.proavsolutions.com.au](http://www.proavsolutions.com.au)*



# PUSHING THE LIMITS: HEUCH'S ALTITUDE CHAMBER TAKING SPORTS SCIENCE TO NEW HEIGHTS

Heuch Cooling Solutions is proud to be delivering a state-of-the-art environmental and altitude simulation chamber for the University of South Australia as part of the South Australian Sports Institute (SASI) Mile End development.

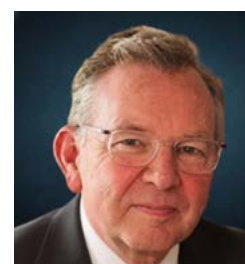
“The Heuch Environmental Chamber provides a cutting-edge simulation and research environment that will allow precise data gathering and testing in the most extreme conditions imaginable,” Neil Morrison, CEO at Heuch says.

With decades of experience, Heuch is the only company in Australia with the breadth of expertise to design and build such specialised environmental chambers. We have successfully delivered numerous projects across the country, backed by our local team of highly qualified and experienced engineers and technicians.

“These advanced facilities allow testing under various temperature, humidity, and hypoxic conditions, helping drive breakthroughs in high-performance sports science,” Neil says. Our Australian-based facilities not only ensure high-quality service but also ongoing support and maintenance.

If you're looking for a trusted partner in environmental chamber design and construction, get in touch with us today.

*For more information contact Heuch Cooling Systems, 1300 001 952, email [cool@heuch.com.au](mailto:cool@heuch.com.au), website [www.heuch.com.au](http://www.heuch.com.au)*



**Top:** Design & Custom-made Climate Chamber by Heuch Cooling Solutions **Left:** Pre-designed Climate Chamber installed by Heuch **Right:** Neil Morrison, CEO Heuch



**Below** GMR Interiors delivered high-performance ceilings, partitions, and framing, enhancing SASI's architectural detail and durability.

**Known for their precision and attention to architectural detail, the GMR Interiors team was tasked with the installation of high-performance ceilings, partitions, and stud framing that define the South Australian Sports Institute's unique interior spaces.**

Spanning an impressive 4,900m<sup>2</sup> of partitions on the ground level, 3,800m<sup>2</sup> on Level 1, and 3,600m<sup>2</sup> on Level 2, along with 2,200m<sup>2</sup> of external framing, GMR Interiors brought scale and sophistication to each area.

Complementing these partitions, ceilings were installed across 2,700m<sup>2</sup> on the Ground Level, 3,100m<sup>2</sup> on Level 1, and 2,800m<sup>2</sup> on Level 2, providing a seamless and functional design throughout the institute.

“Our role in this project was extensive,” said Seth Powell, Project Manager at GMR Interiors. “We handled everything from insulation and plasterboard to the Level 5 finishes for the Central Heart stairs — a feature that stands at an impressive 11m.”

The work included custom 13m high partition walls for the basketball court, delivering durability and refined aesthetics suited to high-traffic sports environments.

Due to the complex slab heights and custom design requirements, GMR Interiors adapted their approach with meticulous planning and execution. “We used custom-made interior stud work and plasterboard from local suppliers to meet the project's high standards and curved architectural design,” added Gary Powell, Managing Director. This locally sourced, high-quality material allowed GMR to deliver robust structural support while honouring the intricate aesthetic requirements of the space.

With over 70 team members deployed at peak times, the project required intense coordination across multiple trades and building floors. The success of the installation hinged on strategic pre-planning to align material logistics with the project's condensed schedule. “Delivering such a high-quality finish in a short program was a challenge, but it speaks to our team's commitment to excellence,” Seth noted.

GMR Interiors innovative methods and seamless coordination has set a new benchmark in the creation of dynamic spaces

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