CAPITAL INSIGHT **BUILDING WITH A VISION**

PROJECT DIRECTOR & PROJECT MANAGER : Capital Insight **PROJECT END VALUE : \$260 million COMPLETION : September 2013 ARCHITECTS : Rice Daubney**





private patients.

A shared vision and a commitment to social concerns were the seeds of genesis for the development of the Chris O'Brien Lifehouse in Sydney. A key player in this collaborative effort was Capital Insight, a project management company that took an idea, in particular driven by Professor Chris O'Brien himself, and navigated the path to bringing it into fruition.

Capital Insight was established in 1992, and has taken on management roles for a range of complex building projects, often with high social relevance and guided by an objective of making a positive contribution to the community. The Chris O'Brien Lifehouse is a celebrated evolution of a scheme and concept for an integrated cancer care building that had been in discussion for almost ten years prior, with Capital Insight being involved in earlier feasibility studies on the same site.

It was in 2009 that a commitment to funding the building project was finally made by the Commonwealth government, greenlighting Capital Insight to take on Project Director and Project Management roles. Engagement of the design consultants began through a tender process, with Rice Daubney Architects awarded the main building design contract and SKM the services engineering design. A design and construct contract was awarded to Brookfield Multiplex. Unique to this project was the instigation of approvals sought through multiple avenues for varying elements of the project, including the City of Sydney, and the Department of Planning. These multiple approvals were a way to keep the project moving forward, and were facilitated partly by the fact that it was a health project to be sited on crown land. The site itself was the first challenge, with an approval sought to relocate an existing and functioning services tunnel that ran from east to west across the site. Although the building design had not yet been finalized, Government funding was in place, permitting the demolition and excavation to occur while the building was still being designed.

The building footprint essentially sits across the entire site, with the largest floorplate

The Chris O'Brien Lifehouse is a 9 storey, state of-theart Integrated Cancer Centre, treating both public and

close to 4000m². Programmatically, this largest space caters for the operating theatre area, with unique design responses for the bounded site and required floor space. Unusually, a design decision was made to insert an internal staircase between theatre operating floor and the support areas as a way to maintain space requirements for the operating floor. Another design challenge involved creating a link between the new building and the existing Radiology department building directly adjacent to the site. A design decision was made to create a new bridge linking the two buildings, which also included a new lift in the existing building. This new link most importantly provides private access for patients needing to move between the two buildings.

The central section of the building contains are large internal void, which operates as the heart of the building, and allows for natural daylight to flood into the centre of the building. Internal gardens and visual connectivity provided by the internal void work to provide a natural ambience shared by those working and receiving treatment in the building. Natural daylight then permeates across circulation areas, including into the Imaging Department on the lower ground floor. Future-proofing the building was also a top priority for the designers, and particular sections of the building remain open to flexible usage as future needs are confirmed.

Capital Insight remain a committed leader in this project, that took a number of years of negotiations and discussions between numerous parties to keep moving it forward. The shared desire by all collaborators to bring the building to fruition has led to a successful outcome, that is, a building that provides a supportive and positive space that can contribute to beneficial results now and in the future.

For more information contact Capital Insight Pty Ltd, 77 Berry Street, North Sydney, NSW 2060, Director Robert Hickson, phone 02 9955 2300, fax 02 9955 5574, website www.capitalinsight.com.au

CLEAN ENERGY POWERING NEW HEALTH CENTRE

The design of turnkey power generation solutions is the specialty of TSF Engineering. With clean energy concerns imperative in today's buildings and their users, TSF Engineering's specialty of cogeneration and tri-generation power plants enables clean energy to be the lifeblood of the buildings system.

Founded in 1966 in Sydney, TSF Engineering design and supply power generation products and services for projects across Australia and also in the wider Pacific region. The scale and range of their projects cover commercial, retail including shopping centres, industrial, manufacturing and airports to name a few. TSF Engineering is award winning providers of quality power generation projects that will provide reliable clean energy well into the future.

The new project for The Chris O'Brien Lifehouse at Royal Prince Alfred Hospital, Sydney, utilised TSF Engineering's services to design the power generation that included the electrical and control systems for the project. This building required the installation of a 750kW tri-generation plant that provides the energy used for heating, cooling and electricity in the building. There were particular challenges to be resolved for this type of building program and client. A low ambient noise was a necessity, and TSF Engineering responded by providing a bespoke installation that keeps desired acoustic levels at 45dB@1 metre. The client also requested that the gas generation could be used as backup power as well during long outages of power similar to the main diesel generation system, TSF Engineering developed a control system that provided that capability.

Amongst their many projects, noted ones include The Charlestown Square Shopping Centre, Baxter Healthcare, The Star Casino, Global Switch Ultimo while current projects include a 8MWe Trigen plant at Melbourne Airport. TSF Engineering work with projects from their initial design stage, to create a system that is optimally resolved for the building, and provide reliable energy generation for users of the building well into the future.

For more information contact TSF Engineering Pty Ltd, Ronald Hall, phone 02 9002 5653, email ronaldh@tsfeng.com.au, website www.tsfeng.com.au

CLADDING SYSTEMS FROM STANE INDUSTRIES (AUST)

Cladding systems can work to provide a building with an identity and a presentation to the surrounding context. Stane Industries (Aust) is a company that has been providing cladding services for a number of years and installs various external cladding systems to complete a buildings exterior with a premium touch. Interview of the surrounding context of the surrounding context. Stane Industries (Aust) is a company that has been providing cladding services for a number of years and installs various external cladding systems to complete a buildings exterior with a premium touch. Interview of the surrounding context of the surrounding context. Stane Industries (Aust) is a company that has been providing cladding services for a number of years and installs various external cladding systems to complete a buildings exterior with a premium touch. Interview of the start due to the interfacing with

Working within the Sydney metro for over 15 years, Stane Industries (Aust) specialize in fabrication and installation of aluminium composite panels as well as other façade systems such as various tiles. Stane Industries (Aust) often work in consultation with the designers, particularly to resolve any foreseeable technical issues with lay-out and design.

For the new Chris O'Brien Lifehouse at Royal Prince Alfred, Stane
Industries (Aust) were contracted to install the external cladding
system. In this case, aluminium composite panels cover the top floors
and roof of the building, wrapping the building in a dark grey colour.for Wagga Wagga Hospital, with the selection of the 'Europanel', a
colour fibre cement panel from Europe, as the cladding system.In contrast, across the lower floors façade, the cladding changes to
terracotta tiles, presenting an earthy dark red colouring. A design
decision to connect through materiality the ground floor to thefor Wagga Wagga Hospital, with the selection of the 'Europanel', a
colour fibre cement panel from Europe, as the cladding system.



Regarded as quite a complex project, the Chris O'Brien building involved a lot of planning from the start due to the interfacing with the numerous other trades, including a separate company for the curtain wall and window systems. On average, there were around 10 -12 people on the job.

Other current projects include the Charles Perkins Obesity Centre, with a system of aluminum composite panels and timber veneer melamine for some internal areas. Stane Industries (Aust) are also the contractor for Wagga Wagga Hospital, with the selection of the 'Europanel', a colour fibre cement panel from Europe, as the cladding system.





THE ART **OF FLORA**

Landscape design is intrinsic to the creation of place and contributes to a positive experience of the building and surrounds. For the cancer care building The Chris O'Brien Lifehouse at RPA, the public spaces and access routes were a particular aspect that required a capable company to create successfully. AYZ Landscaping & Civil Construction were awarded the contract, and brought their expertise in production of usable and well-presented hard and soft landscaping to fulfill their clients needs.

In business for over 20 years, AYZ Landscaping & Civil Construction have developed high quality landscape construction and also small civil works. The Chris O'Brien Lifehouse project utilised around 12 employees, with the key components of the contract being the construction of a major architectural feature involving a living tree, and the construction of extensive paths and roads.

Initial work on the site involved clearing of the traffic island and widening of laneways and later followed by the construction of access routes. This work included excavation of footpaths and roads, installation of new kerbs and gutters, followed by a finishing of bitumen for some areas and otherwise over 1200 square metres of council-specified paving. Roads around the site were also re-bitumened.

The tree tower feature was a unique challenge, further complicated by a need to re-design the construction in the middle of the project. Originally conceived of as a single piece, the 6m steel frame object was re-designed to be fully demountable and capable of removing from its place in order to provide an opening for machinery in the future. The final piece was clad in recycled hardwood and planted with a tree on top.

AYZ Landscaping & Civil Construction are contractors for a number of other public space design projects, including Charles Perkins Centre and Dapto Train Station. They have also just completed major landscaping works at Randwick Racecourse.

For more information contact AYZ Landscaping & Civil Construction, 48 Dudley Street, Rydalmere, NSW 2116, phone 02 9684 6390, email info@ayzlandscapes.com.au, website www.ayzlandscapes.com.au

AUSTRALIAN NATIONAL CONSTRUCTION REVIEW



THEATRE TECHNOLOGY

Medical technology is an area of constant evolution, and for the Chris O'Brien Lifehouse at Royal Prince Alfred Hospital, the state-of-the-art technological fit-out is a celebrated facet. A leading brand in medical devices, the company Karl Storz was contracted to supply endoscopic products and to fit-out the operating rooms of the integrated cancer care building.

Karl Storz have built their name on the production and sale of medical devices and instruments since their inception in Germany in 1945, with the company now reaching a world-wide market and being direct in Australia since 2008. Building on their initial enterprise, Karl Storz now service a complete fit-out of operating rooms, including required hardware, and similarly have evolved in the production of electronics and software for documentation systems. For the Chris O'Brien Lifehouse, Karl Storz conducted the fit-out of 10 operating rooms, included the cabling and integration of audio-visual theatres. Currently 3 operating rooms are ready to go, 5 pre-cabled and 2 shells waiting for fit-out.

The fit-out included the installation of Karl Storz's OR1 NEO systems, a video streaming solution that integration of high definition

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capture systems into the existing hospital IT infrastructure. Surgeons can view their operations process on monitors, with the capturing devices able to forward documentation in the correct format onto the main hospital archive. Furthermore it allows surgeons to remote control certain aspects of the devices via touchscreen, keeping in tact the 'sterile field' of an operating room. As with all large construction projects, the timing and co-ordination with other trades for the correct installation was a challenge. For the Chris O'Brien Lifehouse, Karl Storz installed all aspects of the fit out, including all cabling prior to ceiling closure, ensuring the optimum conduct of the AV equipment for the theatre rooms.

A number of other hospitals around Australia have contracted the services of Karl Storz, including the Lyell McEwin Hospital in South Australia, Westmead Childrens Hospital in Sydney, and Townsville Hospital in Queensland.

For more information please contact Karl Storz Endoscopy Australia, Pty Ltd, Nicole Fuchs, 15 Orion Rd, Lane Cove West, NSW 2066, phone 02 9490 6718



PASSIVE FIRE-PROTECTION CO-ORDINATED WITH ACTIVE ENVIRONMENTAL CONCERNS

An industry powerhouse in the field of fire protection, the LAF Group have decades of experience in a wide scale of projects across industries. Recently achieving a 50 year benchmark, the wholly Australian owned company's range of services include manufacturing and installation of fire retardant material and design of fire-engineered solutions, prioritising Australian manufactured and environmentally friendly products.

LAF Group installed the passive fire protection systems at The Chris O'Brien Lifehouse at RPA, with the scope of work's including supply and installation of fire-rated riser shafts, spraying of fire-rated ductwork, sealing penetrations and Fire Damper rectifications and Certification. Environmental concerns remain a top priority for LAF Group's Environmental concerns remain a top priority for LAF Group's



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manufacturing, with the use of their environmentally sound and tested fire-retardant spray materials of Vermitex[®] TH and Vermiduct[®].

This hospital project introduced the use of LAF Group's products of pre-fabricated Trimesh[®] riser shaft panels, as well as a newly developed product Vitrave[®]. The company remains committed to ensuring safety in the built environment through their use of not only environmentally compliant materials but also ensuring all products used are developed to the Building Code of Australia (BCA) and Australian Standards.

