

Beach life

With the opening of its SCIL facility, the Northern Beaches Christian School has dramatically raised its performance and presentation capabilities, as **Stephen Bruel** discovers

SYDNEY-BASED NORTHERN BEACHES

Christian School (NBCS) truly delivers on its mission statement: Excellence in Education, Christianity in Action. The recent completion of the Sydney Centre for Innovation in Learning (SCIL) building – a dedicated research, innovation and development unit – provides students and staff the opportunity to work and learn together under ‘world best’ standards. The nurturing and support students receive from teaching staff, viewed as a demonstration of God’s love by the School, rounds out nicely the whole learning experience.

Among the first schools in the world to have an attached dedicated research, innovation and development centre, the NBCS offers a modern approach to Christian learning. And according to general manager, Alan Schultz, the recent completion of the SCIL building project confirms the school’s position. With a strong background in administration management and Christian service leadership roles spanning 35 years, Mr Schultz understands leadership, people and the Christian faith. ‘The

aim with the SCIL is to provide a world-class facility to support the educational innovation we are known for,’ he says. ‘SCIL operates from the philosophy that students should be prepared to become problem solvers and team players, opening the possibilities for new ideas, innovative design and forward-thinking solutions in preparation for an ever-changing world, workplace and establishing great habits of lifelong learning.’

The SCIL is an impressive building, both in its design and layout. It consists of several connected spaces including The Brainforest, The Parklands, The Sandpit and the Marina Pryor Centre for the Performing Arts (MPC). Named after Marina Pryor, a legend in Australian musical theatre, the name was chosen to promote excellence in this field.

The Brainforest, meanwhile, is designed to attract visitors into visual engagement with information and ideas, and consists of a large-screen cinema for interactive mind games and touch-screen Google Earth. The Parklands are the largest interior



The Deck Bridge



NBCS general manager, Alan Schultz



SCIL exterior

spaces of the SCIL building and can be used in tandem or separately. It has two large screens, a stereo sound system and a number of collaborative worktables. The Sandpit is a ‘toy room’ where students and teachers can experiment with new technologies in a pleasant space with a comprehensive sound system.

The MPC is an 800-seat performance theatre that can be



Roland mixer and technical set-up for the MPC

transformed into five separate teaching spaces for dance, drama and music. These include the Playhouse Theatre classroom, the Globe Theatre classroom, the Space Station and the Terrace. All areas feature their own sound, lighting and digital video systems that can either operate independently or be linked to work together. The fifth space is the Studio, a special area for learning. It has its own movable soundproofed wall that can close the performance area off to create seven acoustic and sound treated music tuition or pre-performance rooms. Multiple video screens and audio sends link a number of these rooms with the main stage.

According to Mr Schultz, the new building and performance space helps differentiate the NBCS from other Christian educational facilities in a number of different ways: ‘The MPC is purpose built and designed, and is therefore not a compromised sports/performance space,’ he explains. ‘It is flexible and can be used in a number of modes including open and separate spaces. As the future needs of education are completely unknown, the facility has maximum flexibility in both the spaces and the audiovisual integration to enable ease of reconfiguration. It also has a very elegant finish and is naturally ventilated with an air conditioning option available.’

The first class audiovisual design, installation and equipment used is another factor that Mr Schultz believes defines the school as a technology and educational leader: ‘We have very good quality A/V equipment with complex switching

and programming to integrate the diverse needs of the students, staff and industry,’ he says. ‘We are not locked into a set or fixed design with a limited or restricted upgrade path.’

Sydney-based A/V and performance systems consultant Auditoria was engaged to design and manage the school’s technical production systems for the MPC and the audiovisual requirements for the whole SCIL facility. According to Auditoria director Scott Willsallen, it was previous experience and success in the house of worship market that secured the commission: ‘NBCS was referred to Auditoria by C3 Church, a HOW client of ours, whom we designed and managed many successful large projects over the past few years,’ he reveals. ‘Every project we undertake is unique, each design is approached with a blank sheet of paper to ensure that the technical systems are based on the parameters of the project and not on the most similar previous project.’

Mr Willsallen established Auditoria in 2004, after a number of years working as an audio professional in the rental, installation and events markets. His commitment to audio excellence inspired him to complete his Masters of Design Science in Audio. ‘Good design takes time and the process of matching technical systems to the current and future needs of the client is essential in delivering a successful project,’ Mr Willsallen says. ‘We were fortunate in that Mr Schultz engaged us early enough to design technical systems that exactly match their current and emerging needs and also easily integrated these systems into the building architecture. It has been

INSTALLATION

very rewarding working on a single project with such variety in the usage requirements. We have technology classrooms, practice rooms, training rooms, outdoor amphitheatres, drama studios and an auditorium; all within the one project.'

The design brief for the MPC was to create a space for the performing arts that was inspiring and ultra flexible. According to Mr Willsallen, creating a multi-use facility with high performance expectations and a fast turnaround between different users and with alternate user requirements, was a challenge in itself: 'The most challenging part of this project was designing integrated user-friendly technical systems that catered for the multi-use nature of each space, as well as maintaining the user-friendliness through the various room combining configurations, of which there are more than 10. Achieving this without creating a busy and confusing control interface was very challenging, and was worth the effort, as the interface is accessible and clear to all users.'

At the heart of the MPC sits the Crestron touchpanel control system used throughout the facility. For controlling and directing audio, the centre has a Roland RSS digital mixing console and a BSS Soundweb London network for digital system processing and routing. Shure microphones, a Shure SCM262 stereo microphone mixer, and U LX wireless microphone systems are also used. 'As with all products used in the project, we strive to strike the best balance between the functional requirements, quality, product support and project budget,' says Mr Willsallen. 'Given that this is a learning environment we lean towards products which are easy to use and have a proven track record. Local product support is also vitally important to our clients and to us.'

Auditoria chose Nexo for the whole speaker system, including PSR2 series 15s and 8s, RS15 subwoofers, and all powered by NXAmp amplifiers. 'The loudspeaker system was selected after a lengthy modelling process involving many different loudspeaker brands and products,' says Mr Willsallen. 'The nominated system provided the best performance in terms of consistency of coverage, bandwidth and speech intelligibility out of the alternatives considered.'

An ETC Smartfade lighting console, ETC and Selecon lighting fixtures and LSC dimmers were chosen for lighting requirements and data distribution. The rest of the installation included



The Parklands, with JBL speakers



The MPC theatre

Edirol video production equipment, Screen Technics screens, Jands stage machinery, lighting bars and drapes and Mitsubishi displays, with projectors provided by the school.

Audiovisual items used throughout the remainder of the SCIL facility include Crestron touch pad controls, JBL Control series loudspeakers and Lab.gruppen amplifiers, Biamp Nexia processors for audio routing and DSP, Shure microphones and U LX wireless microphone systems, Extron video switchers and processors, Screen Technics screens and Mitsubishi displays.

Rutledge Engineering, one of Australia's leading providers of professional audiovisual equipment and integration, was brought in for the final systems integration and installation. Project manager for Rutledge, Peter Attard, was appointed to manage the NBCS project. With a background as a musician and electrician, he moved into the world of corporate event A/V 15 years ago, and installation 10 years ago, as the benefits of his electrical background and understanding of A/V converged. 'Obviously this is a school facility, and as such there needed to be a balance between system flexibility and a real-world approach, given the systems would be used by staff and students,' he says. 'Once design was finalised, we worked closely with the builder to dovetail our works, to ensure that we were not built out, and our works were completed in a timely manner. Where possible we built system assemblies off-site, and commission then as a subassembly. When the building was

at a suitable state, we'd then bring them on-site and integrate the field equipment. This allowed us to take a just in time approach that suited the builder's programme.'

According to Mr Attard, the multiuse nature of the MPC called for a cautious approach to the construction and integration: 'Careful planning was implemented by Auditoria to ensure that each of these spaces were usable by themselves, and also when formed to make a larger system,' says Mr Attard. 'Rutledge's experience in custom user interfaces and control systems augmented and refined the original plan to create a robust, simple way for users to control how the venue operates.'

Another challenge for Mr Attard was the delay in the tender process although construction on the site had begun: 'The tender process was delayed while construction started, so we had to get on site pretty quickly to stay ahead of the build,' he recalls. 'The design evolved and grew a little after the tender was awarded, and staying abreast of changes and documentation while trying to stay ahead of the build was challenging. Some of the cable runs were reasonably long so we wanted to ensure we got them right the first time before the walls were sheeted up.'

He also had to deal with the reality of on-site construction as opposed to the original design, and be flexible in his approach: 'Once we started the rough in, and as the design evolved, it also became apparent that there were better ways to do things from a site point of view than initially thought or expected. So changes were made on-site to accommodate these.'

Then there were technology issues that were out of his control: 'One other slight challenge was that mobile coverage in the area was not as good as you would expect from one of our largest carriers, so calls were dropping in and out and it was generally hard to get hold of our site guys on occasions,' he says. 'This

was pretty frustrating, particularly with the amount of communication needed during the initial design changes while we were running in the cables.'

For Mr Attard, working with Mr Schultz allowed the project to reach its full potential: 'It has been a pleasure to work with Mr Schultz, who understands the type of work we do and has an interest and passion for the system we have installed,' he says. 'Mr Schultz was sympathetic to allow enough time to finish the build according to the construction programme, but then allowed enough time to properly commission the system. All in all, this makes for a quality installation that we're all very proud to be involved with.'

For Mr Willsallen, the project exceeded expectations architecturally, mechanically and functionally: 'Our goal was to design systems that provided for the current and future needs of NBCS with the ability to easily and cost-effectively upgrade system elements as required and/or desired. NBCS began using the facility as soon as they were able to and the response from Mr Schultz, the staff, the students and the parents has been really positive.'

According to its website, NBCS's vision for its students is to be hungry for knowledge (literate and numerate, absorbed by learning and extending their talents) knowing God (charged with hope, knowing their direction and accepting of others) and motivated to serve (adept in relationships and prepared for the workforce). With the recent completion of the SCIL building with state-of-the-art audiovisual technology and design, the impressive multipurpose MPC, and strong faith and Christian leadership evident in Mr Schultz, it's easy to be excited and positive about the future of the NBCS.

www.nbcs.nsw.edu.au

www.auditoria.com.au

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