

**NBCS**   
NORTHERN BEACHES CHRISTIAN SCHOOL

*Love Learning*

**BUILDING OUR**

**VISION**

OUR CAMPUS | PAST, PRESENT, FUTURE



*Our infrastructure inspires and invigorates learning*

– NBCS Strategic Plan 2023-2025

'Manhattan' senior study centre.

# Introduction

This publication is a summary of the thinking and design behind, and features of, our campus and the foundation on which we will continue to build.

Northern Beaches Christian School has a unique campus set in a remarkable location. Nestled in our bushland setting, adjacent to the Ku-ring-gai Chase National Park and the Terrey Hills Golf Club, we are grateful for our spectacular contemporary architecture and wonderful facilities.

We are the beneficiaries of the dedication, vision, and hard work of those who have come before us. In the past six years we have refurbished the majority of our learning spaces, built a library, upgraded the playground, particularly in Primary, and are now on the cusp of finishing the STEM building. As we finish the STEM building, we will upgrade the last of our classrooms and repurpose current Science rooms for Technology, Music and Drama.

**Tim Watson**  
Principal



View of the 'City', cafe area and first floor 'Treehouse' recreation area for Year 11-12 students.

# The NBCS story

## EARLY SEEDS ARE SOWN

In 1980, a conversation at the end of a Bible study at Northern Beaches Christian Centre planted a seed that would bear much fruit. The church group's hope was to build an exceptional Christian school on the Northern Beaches.

With humble beginnings, the founders had to think creatively and be flexible about the learning environment. The first students were housed in a rented church hall in Mona Vale, where they sat at custom-designed desks and worked independently.

## "BUT WHERE IS THE SCHOOL?"

By 1982, numbers had doubled, and the original hall was no longer available. The school had a lease for the new school year on land in Terrey Hills with buildings still to be designed and built. With no useable campus, staff did enrolment interviews in the front bedroom of a home in Terrey Hills. "But where is the school?" one parent asked.

The answer was, 'not ready yet'. The first eight weeks of the school year were spent in another church hall, testing the creativity and flexibility of teachers and students as they waited for their demountable buildings to arrive on Booralie Road.

In 1985, the school moved to its own 4.5-hectare property in Echunga Road, building a campus of low-slung, ranch-style buildings, resourced by donations and labour from school and church families and members, motivated by the vision and a keen sense of community.

## A PICTURE OF OUR FUTURE

Enrolments grew steadily and by 1999, a new blueprint set a vision for the future and sought to make the most of the site. NBCS set about transforming its simple buildings into technology-rich, architecturally designed spaces that enhanced learning, fostered creativity, and grew community.

Today, much has changed, but the vision, faith and hope of the NBCS founders remain with us, embodied in the stunningly designed campus of today.

***"Our goal was to reinvent the notion of what a school building should be. We've created an architecture of spaces – not just buildings – which define the heart of the school campus and lead the way for learning in Australia and worldwide."***

Greg Barnett  
WMK Architecture

# Vision for a master plan

## A POWERFUL QUESTION

Relationships have always been a key part of learning at NBCS. As the Board began to look to the new century, it recognised that the school needed a central hub: a place to connect and develop relationships, shaping and growing community. NBCS Principal at the time, Stephen Harris, spent time visiting schools around the globe including in Spain. On one trip, as he waited in Barcelona airport, he was inspired by the space: a vast, acoustically engineered canopy under which a buzz of activity and conversation took place.

“What if a school was built using the same notion?” he thought. “What if there was a new space operating as the central heart, connecting all elements of the community?” His question was the impetus for the ambitious and ground-breaking ‘Barcelona Project’. In partnership with WMK Architecture, the school envisioned and created a stunning, sustainable, open space that now serves as the community ‘heart’ of the school.

## NOT YOUR TYPICAL SCHOOL DESIGN

That question asked by parents in 1982 – ‘Where is the school?’ – may still be asked by visitors to the school today, but for a different reason: what they see does not necessarily look like a typical school. As visitors enter the campus, they see a soaring canopy structure that echoes the surrounding eucalypts. Underneath the canopy, light-filled, multi-level pavilion buildings house reception, learning spaces and student support facilities. The scale of the canopy, along with lush gardens, helps bring a sense of peace and calm into the busy school day.

Stepping down into the ‘City’, a central, covered outdoor space, there is a cafeteria pod, treehouse seating platform and outdoor stage with tiered seating and large screens. This vibrant meeting place is designed to enable personal, authentic connections and customised teaching. For students, teachers, parents and visitors, it is the communal heart of the school.

The ‘City’ is the central congregational space in the school.

## SUSTAINABLE, FUNCTIONAL SPACES FOR LEARNING

The Northern Beaches Christian School Vision is *Love Learning*. All the school’s spaces and facilities work towards this. State-of-the-art educational technology and design is embedded within the campus. Rooms cater for learning, with writeable tables, floor-to-ceiling whiteboard walls and large-screen displays. The whole campus is powered by robust Wi-Fi infrastructure.

Whether students are making the most of specific spaces for performing arts or STEM, or reading and studying in the light-filled library that serves as the intellectual heart of the school, or even outside enjoying play or sport, they are learning in inspiring spaces.

## FOUNDATIONAL DESIGN CONCEPTS

The ambitious Barcelona Project sought to build a new heart of the school that would connect, energise and inspire a learning experience unlike any other. The architects were provided with a brief deliberately full of contradictions. The School Board wanted:

- an environment that was built from the imagined rather than the known
- a canopy that was as high as it was wide, leading to an immediate awareness of space
- buildings infused with green elements and light

The new space was to be highly transparent, innovative and instinctively intuitive, designed around community, connection and relationships.

## THE APPROACH

The architects began by looking at the campus in its physical and geographical context, taking time to understand the aspect, position of the sun, and the seasonal winds and breezes. They analysed the occupants who would use the spaces, looking at their activities, their clusters and their interconnected relationships.

They thought about the different experiences students and staff could have on the site – arriving, entering, interacting, learning, playing. And they considered how sustainability and technology interacted with every aspect of learning, relationships and community.

*“Our aim is to make learning deep, engaging, relevant and fun. We wanted a building that would inspire our students and create a wonderful learning environment.”*

Stephen Harris  
Principal (1999-2017)



*"When I first toured the school, I was amazed at how modern and different the campus was from any I had seen before. It reminded me of a university."*

Mitzi  
Year 12 student

The 'Treehouse' recreation breakout area is set aside for Year 11 and Year 12 students.

# Key design features

The Barcelona Project's prize-winning design features the spectacular 3000sqm 'living' canopy, which generates energy, harvests rainwater and cools the spaces below.

## WATER SENSITIVE URBAN DESIGN

The canopy column design harvests rainwater to large underground collection tanks. The water is then redirected to flush toilets and to provide irrigation for the hundreds of surrounding planter boxes. Collected rainwater is also fed into a canopy misting system that is triggered by high summer temperatures and cools the communal space below, reducing the school's reliance on air-conditioning.

## ENERGY GENERATION AND PASSIVE SOLAR

Energy is generated via photovoltaic cells on the canopy roof, with associated cabling infrastructure ensuring capacity to increase the PV array into the future. The 158kW PV system supplies most of the school's daytime power needs.

Passive solar design optimises the building's orientation to capture the winter sun and cooling summer breezes, using sun shading and insulation. Natural light is maximised through roof lights, large windows and narrow floor plates, while energy-efficient fluorescent and LED lighting features sensors to ensure lighting is off when there is no movement.

## NATURAL VENTILATION SYSTEM

Ventilation occurs in direct response to climate conditions using a sophisticated Building Management System that monitors internal and external conditions. It automatically adjusts mechanical air conditioning and vast operable windows as needed.

## SEWAGE TREATMENT PLANT AND OVAL IRRIGATION

The school operates its own sewage treatment plant. Treated water irrigates the main sports oval via an underground irrigation infrastructure.

## ARCHITECTURE AWARDS

WMK Architecture won several high-profile awards for their work designing the central campus – featuring the magnificent 'Manhattan' administration and Year 12 areas, the 'City' communal gathering space and the 'Gateway' main reception and staff area.

**Winner - 2017 NSW AIA Awards** - William E. Kemp Award for Educational Architecture

**Finalist - 2017 INDE Awards**

**Winner - 2016 National AIA Awards** - National Award for Sustainability

**Winner - 2016 NSW AIA Awards** - Milo Dunphy Award for Sustainable Architecture

**Winner - 2016 Good Design Awards** - Residential & Commercial Architecture

**Finalist - 2016 Urban Taskforce Awards**

**Finalist - 2016 IDEA Awards**

**Finalist - 2016 BPN Sustainability Awards**



# Timeline

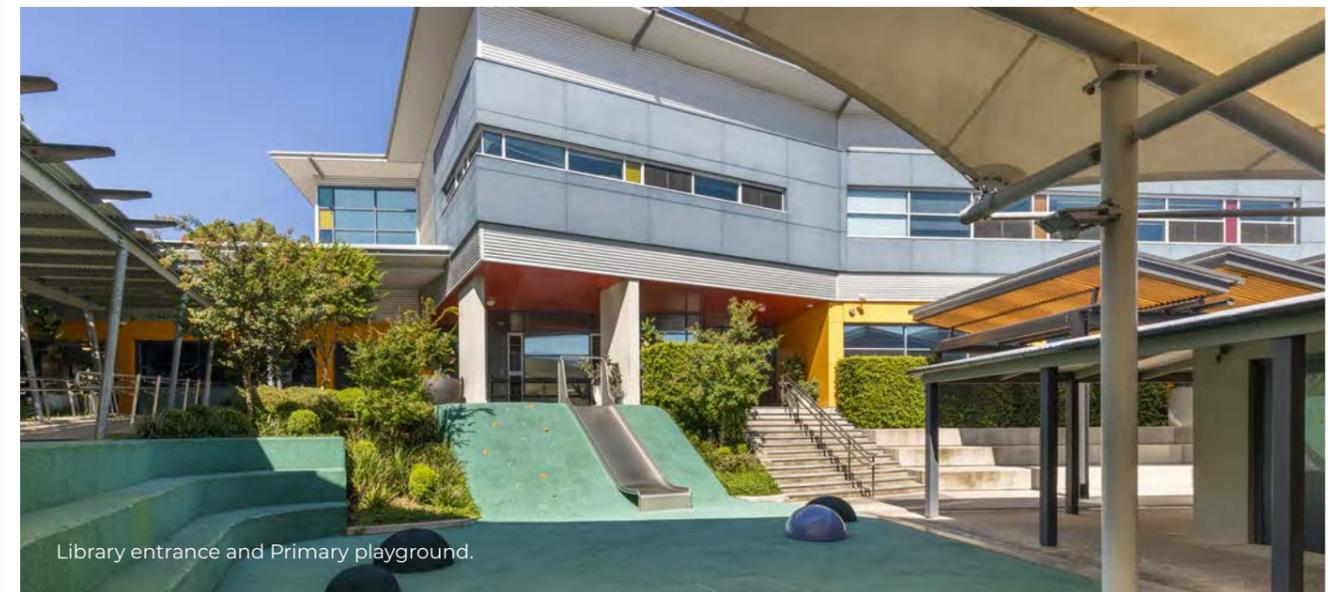
## CONSTRUCTION TIMELINE

2007–2010	Marina Prior Centre (MPC) for performing arts and Sydney Centre for Innovation in Learning (SCIL) (now the library), along with the oval and car parks designed and built.
2009–2010	Sports Centre, with indoor basketball court, strength and conditioning gym, and design and technology workshop spaces designed and built.
2012–2015	The Barcelona Project designed and built (includes the 'Manhattan' senior study centre and staff rooms, 'Gateway' administration buildings and 'The City' community hub with cafe).
2016	Refurbishment of the former church building into early Primary classrooms, the Living Room Stage 1 Hub, and the Narnia (Primary) Library.
2017–2018	Refurbishment of the seven 'Islands' classrooms.
2018–2019	Refurbishment of the Maths block of classrooms in the Village. Refurbishment of the Art rooms to incorporate storage and student displays.
2019–2020	Former SCIL building is renovated and repurposed into a new library, along with classrooms, learning spaces and staff rooms.
2020–2021	The Plaza and Zone blocks of Primary classrooms are gutted and refurbished.
2019–2022	Vast site utilisation works, including new Primary playgrounds, seating, awnings and landscaping.
2023	MPC refurbishment including the extension of the stage and an upgraded contemporary look and feel throughout.
2023–2024	Construction and completion of a dedicated three-storey STEM Centre, featuring nine laboratories, two classrooms, two seminar rooms and staff facilities.
2024–2025	Refurbishment and repurposing of remaining classrooms (after the opening of the STEM Centre) for Music, Drama and other technology subjects.
2024–2025	Transformation of current outside Secondary basketball court and former beach volleyball court into new Secondary basketball courts.

## CAMPUS MAP



Sports Court construction 2024-2025	Music Rooms refurbishment 2024-2025	STEM Centre 2023-2024	MPC refurbishment 2023	The Plaza/Zone refurbishment 2020-21	New Library 2019-2020
Sports Centre construction 2009-2010	Church/Hall refurbishment 2016	Maths Building refurbishment 2018-2019	Art rooms refurbishment 2018-19	'Islands' refurbishment 2017-2018	



Library entrance and Primary playground.

## OUR LIBRARY AT THE HEART

In 2019, Principal Tim Watson sought to build a library that would become the intellectual heart of the school, evoking a love of ideas, books and reading. The SCIL space was repurposed into an inviting and versatile library, with reading corners, quiet study spaces and embedded state-of-the-art technology. Opening in 2020, the spacious two-level design allows for a variety of learning opportunities, from classroom lessons to interactive workshops and group discussions.

*"The campus is on the cutting edge of industrial design, where creativity and innovation meet simplicity and calm, in an inspiring setting."*

Fernando  
Year 12 student

The inviting light-filled library opened in 2020.

# Under construction

## STEM CENTREPIECE TAKES SHAPE

In 2023-24, another major feature of the school's Master Plan, the Science Technology Engineering and Maths (STEM) Centre, began construction. It will feature nine laboratories, two classrooms, two seminar rooms and staff facilities. There is also a laboratory preparation room, chemical storeroom and a server room for IT infrastructure. Tiered external seating allows for an outdoor classroom, and a greenhouse provides an additional hands-on learning space and edible garden for Food Technology students.

The installation of an extra 58kW of solar PV panels augments the existing 100kW solar PV system. Beautiful green playscapes and lighting, and a bridge linking the STEM Centre to the Sports Centre and 'Manhattan', ensures that the centre maintains a seamless flow of connectivity and design integrity.



An artist impression of the new STEM Centre



The STEM Centre nears completion in June 2024.

## Future plans

After the completion of our three-storey STEM Centre in 2024, we have exciting plans on the horizon. These include an upgrade of our outdoor sports courts. In the first instance, we would love to add a court, resurface current courts, and put a shade and weather cover over our Primary sports court. There is, of course, a bigger vision of an auditorium, with two sports courts, that would seat the whole school population and expand our sporting opportunities significantly.

Other upgrades to the campus will incorporate ongoing sustainability measures. Already in the STEM project, NBCS has upped its solar panel capacity by 50 per cent. In the future, NBCS would love to be powered almost exclusively by its own solar panels. We also look forward to the opportunity to upgrade our sewage treatment plant, which would allow us to irrigate gardens as well as the sports oval.



Choose your own adventure in the Primary playground.

## Funding our vision

Capital works at Northern Beaches Christian School are funded from capital reserves, or if necessary, by borrowing. We can all be enormously grateful for the ongoing wise stewardship of both the past and the present NBCS Board of Directors and previous members of the school's leadership. Their financial acumen has enabled us to ensure that our facilities are indeed world class.

Up until 2020, Federal Government funds covered almost all of the staffing costs at NBCS. This enabled parent tuition fees to be deployed to cover the remainder of our operating costs and also to our building projects. Following well-publicised changes to the funding of independent schools, the amount of government funding to NBCS is falling, and will do so until 2029, at which point it will level off. Currently, government funding only pays for about two-thirds of NBCS staff costs. As a result, parent tuition fees, which previously funded building projects, are now needed to pay for the remaining one-third of staffing costs, as well as our operating expenses.

In order to continue improving and building world-class facilities, the school will need to rely on parent and extended community generosity. As this becomes a more pressing reality, the school is inviting those who are able, to consider contributing to the tax-deductible NBCS Building Fund – sharing in the vision of the generations who have come before to help shape the future of NBCS.

### DONATIONS TO THE NBCS BUILDING FUND

We invite the NBCS community to contribute to the future planning and construction of learning spaces by donating to the tax-deductible NBCS Building Fund.

To make a donation, please scan the QR code or see the details on the back page of this booklet.



The indoor sports courts are well used by NBCS basketball teams.

# Make future plans a reality

Your tax-deductible donation this year assists us to upgrade sports facilities and improve sustainability.

## TO MAKE A DONATION:

### Make a direct deposit:

NBCS Building Fund  
BSB: 062205  
Account: 10398156,  
Reference: include your name and phone number (for a tax-deductible receipt to be issued)

After you have made a direct deposit, please email [buildingfund@nbcs.nsw.edu.au](mailto:buildingfund@nbcs.nsw.edu.au) and share the details of your donation, including the name to whom the tax-deductible receipt should be issued.

### Debit/credit card over the phone:

If you would like to make a donation over the phone using a debit or credit card, please call our Accounts team who will take down your details and issue you with a tax-deductible receipt.

Phone: (02) 9450 1311

**NBCS**   
NORTHERN BEACHES CHRISTIAN SCHOOL

*Love Learning*

 (02) 9450 1311

 [nbcs@nbcs.nsw.edu.au](mailto:nbcs@nbcs.nsw.edu.au)

 1 Echunga Road, Terrey Hills

 [www.nbcs.nsw.edu.au](http://www.nbcs.nsw.edu.au)