

# St Monica's Primary School – Senior Centre





## Project Details

<b>Project Name</b>	St Monica's Primary School - Senior Centre
<b>Location</b>	Melbourne, Victoria, Australia
<b>Building type</b>	School
<b>Principal</b>	Mr. Peter Moore
<b>Project Initiated</b>	2014
<b>Completion date</b>	December 2016
<b>Total Project Cost</b>	\$2,620,744
<b>Gross Floor area</b>	950m <sup>2</sup>
<b>Cost Per square metre</b>	\$2,759 per m <sup>2</sup>
<b>Photographer</b>	Peter Clarke

## Project Team

<b>Baldasso Cortese Architects</b>	Ben Percy – Design and Senior Project Architect Gabriella Muto – Design and Project Architect David Choate – Technical Eniko Cosma – Technical
<b>Builder</b>	McMahon & Ultri Builders
<b>Structure &amp; Civil Engineer</b>	Kersulting Nathan Grigg & Sophia Pan
<b>Service Engineers</b>	Watermans AHW Michael Parker & Boiminh Ho
<b>Quantity Surveyor</b>	Prowse Quantity Surveyors Vincent Lau
<b>Acoustic Engineer</b>	SLR Consulting Australia Pty Ltd Jim Antonopoulos
<b>Building Surveyor</b>	BSGM Consulting Building Surveyors Peter Shaw



## Executive Summary

**St Monica's Senior Centre saw the modernisation of a 1917 heritage building. Converting an underutilised courtyard to a central Modern Learning Environment, unifying six learning areas and a presentation space catering for over 150 Year 5 and 6 students. The aim for the facility is to promote a mature learning philosophy which supports students, especially in their transition to high school. Responding to the client's needs, The Senior Centre allows a flexible interchange between class based learning to collaborative group work spaces, presentation or individual learning, this newest development for the school ensures the potential for future growth and promotes a rich mature learning philosophy amongst its senior students.**

Critical to the design process was maintaining the feeling of light and sky. The ceiling is a sculptural interpretation of this. The 'sky' was set as a gentle curve linking the two sides of the previous courtyard terminating in a mirrored horizon edge, eroded by repeating organic forms – the "pebbles". The brief was to create a sophisticated and mature space for senior students transitioning to high school. A key aesthetic was a tension between the inherent colour and texture of diverse existing materials counterpointed with modern finishes.

Strong consideration was given to the heritage building and the existing conditions; exemplified through the retention of brickwork. By converting the existing window lintels into openings - large traversable archways or "portals" framed in black steel were created. These promote flexibility and movement between the learning and central space.

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**"When I walk in, it makes me feel good and happy. It gives me a warm feeling inside of me...I remember when the building was first finished and I walked in here and I was really surprised to see it. It pleased me to know that I was going to be working in this space."**

- Senior Centre Student

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Acoustic considerations were critical, we worked carefully with an acoustic engineer and material manufacturers to ensure the facility could absorb the weight of sound. They also helped with the formal presentation space intended to be used by the wider community.

Other key endeavours include high levels of transparency and custom 'learning settings', helping promote a sense of connectivity, visibility and safety. Three key pieces occupy the central space- "The Learning Lounge", "The Campfire" and "The Communal Table" which addressed the clients' requirement to have multiple opportunities for learning. For instance, the "The Campfire" allows for an entire class group to gather, tiers capable of holding small presentations, while its seating and workbench can be used for study or group activity.

We concentrated on excellence in passive sustainable design principals. Five "pebble" skylights allowed a generous level of natural light that was not direct throughout the space, with considerable effort applied to establish the correct specification of the glass. The facility can be naturally ventilated by the use of high and low level louvers that generate cross ventilation through the space.

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**"The space has literally transformed the learning and teaching approaches in the senior school. Students are interacting more with children from other classes – creating a true sense of community. Due to the transparency of the space, teachers are able to see each other teaching, without creating a sense of being 'watched'. Teachers are planning for new ways of working with parents and other members of the community. The space invites opportunities for active and passive learning and the staff are genuinely embracing these moments."**

- Peter Moore, Principal

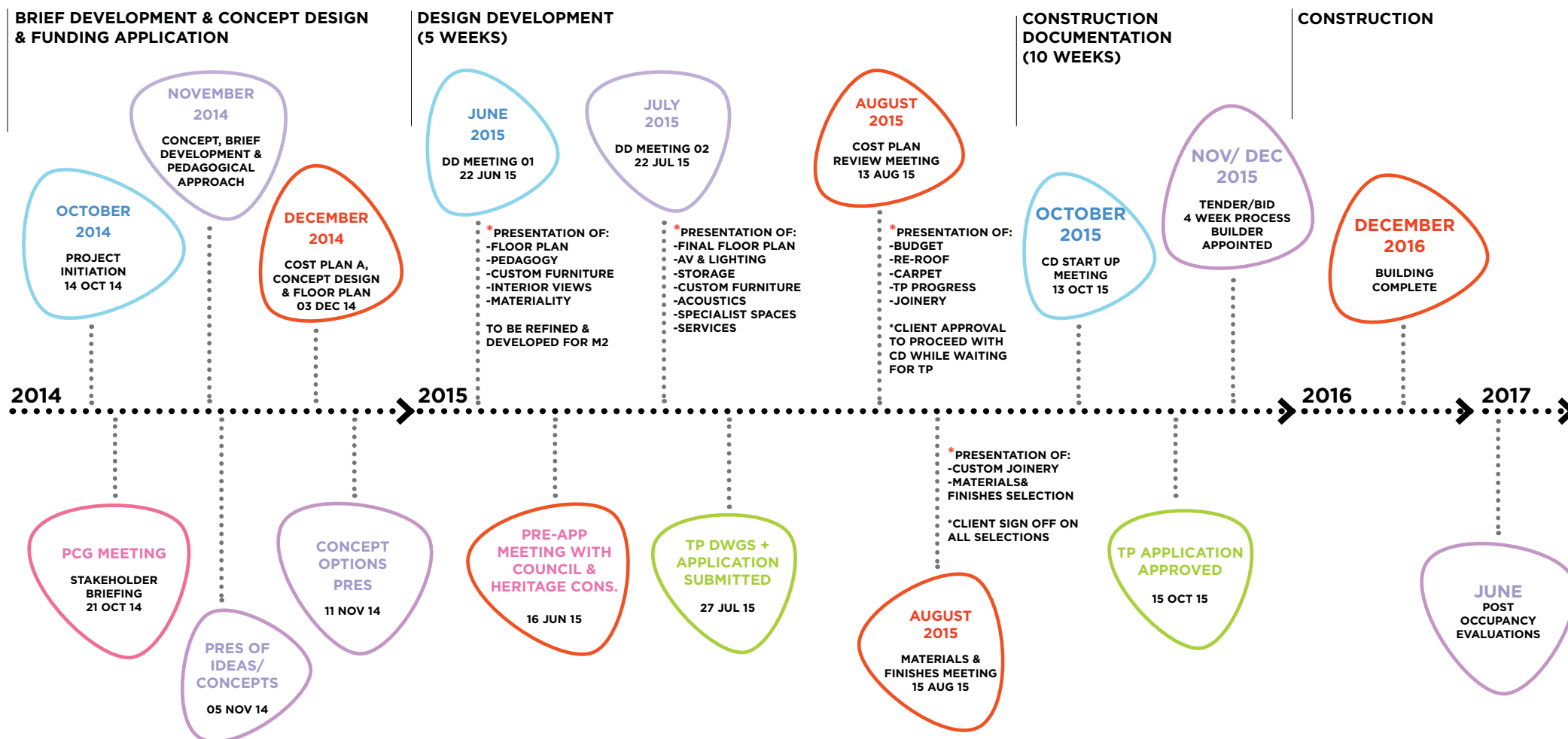
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From the start, the budget had critical implications on the design. Core design initiatives are deliberately budget friendly. Working within the existing conditions, retaining surfaces, and using simple and affordable materials such as plasterboard in new and interesting ways are examples of making decisions with consideration towards budget.

This contextually driven design reconceptualised an underutilised outdoor space into a unified Modern Learning Environment enhancing teaching and learning opportunities for the students, staff and wider community.

# Scope of Work and Budget

St Monica's has a rich cultural heritage dating back to 1853. Over the last 10 years, the architects long term relationship with the client, has facilitated extensive renovations from the construction of the Junior School, refurbishment of the Middle School, to the construction of the Senior Centre in late 2016. The principal's new approach to pedagogy for the senior centre – a mature learning settings for the senior centre students transitioning to high school, formed the basis of the scope of work which has helped bring St Monica's into the 21st Century while still respecting the school's heritage. The clients brief was taken at the commencement of the project in 2014 through a series of workshops with the client (School Principal and Parish Priest) and Project Control Group (PCG) which included school board member, community members, and staff.



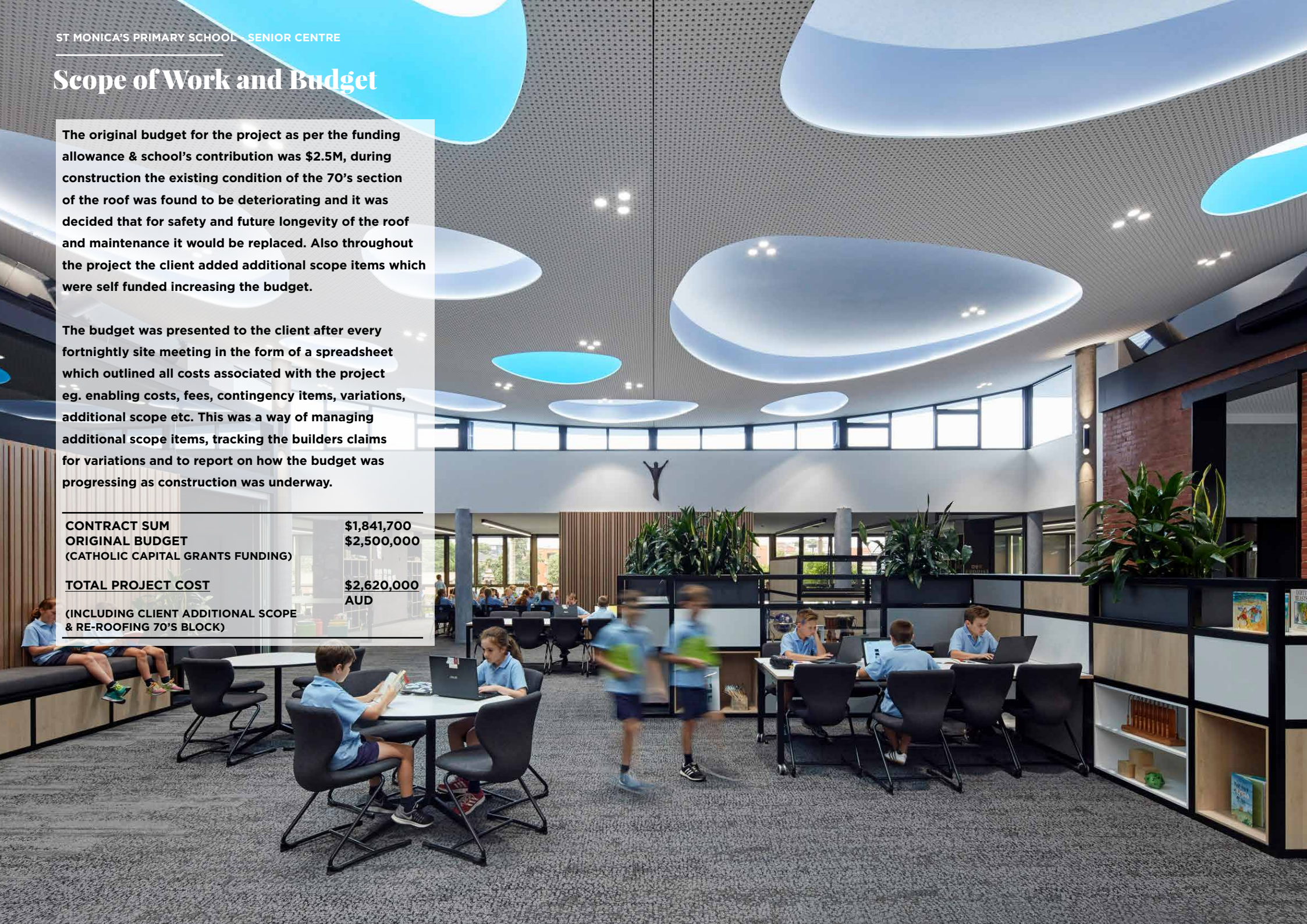


## Scope of Work and Budget

The original budget for the project as per the funding allowance & school's contribution was \$2.5M, during construction the existing condition of the 70's section of the roof was found to be deteriorating and it was decided that for safety and future longevity of the roof and maintenance it would be replaced. Also throughout the project the client added additional scope items which were self funded increasing the budget.

The budget was presented to the client after every fortnightly site meeting in the form of a spreadsheet which outlined all costs associated with the project eg. enabling costs, fees, contingency items, variations, additional scope etc. This was a way of managing additional scope items, tracking the builders claims for variations and to report on how the budget was progressing as construction was underway.

<b>CONTRACT SUM</b>	<b>\$1,841,700</b>
<b>ORIGINAL BUDGET</b>	<b>\$2,500,000</b>
<b>(CATHOLIC CAPITAL GRANTS FUNDING)</b>	
<b>TOTAL PROJECT COST</b>	<b>\$2,620,000</b>
<b>(INCLUDING CLIENT ADDITIONAL SCOPE &amp; RE-ROOFING 70'S BLOCK)</b>	
	<b>AUD</b>





# School & Community Engagement

**The Senior Centre represents the end of a long term masterplan for the school. Many consultations / workshops were held with the St Monica's Parish Board Members, Parish Priest, Principal, students and leadership team. Drawings, diagrams and presentations were provided to the School's Principal to conduct internal reviews with students and teachers to gain their perspective and bring back to meetings. Over 20 meetings took place over a period of 2 years to establish the brief and design of the project with the PCG group and key stakeholders.**

## Key Stakeholders:

Peter Moore - School Principal

Fr Tony Feeney - Parish Priest

Dao Tran - Catholic Archdiocese Melbourne

Craig/ Michael/ Drew - School Board Members

6 Senior Centre Teachers

Senior Centre Students (Grade 5 & 6)

Community Members

## Key Activities:

20 meetings for the briefing and design workshops included; workshops on brief development and school's pedagogical approach, several design presentations to community members, principal and school representatives, consultantations with the PCG group regarding concept design and floor plan, School Board Presentation, PCG briefing meetings at project milestones (eg. concept design, design development etc) - *for the timeline of events see above.*

**“ Creating a space that inspires children to want to come to school is the dream of any Principal.**

**Seeing this project develop from 'dream' to 'reality' has been a privilege. Children want to come to school to be in this space. ”**

-Peter Moore, Principal

From the beginning, the project was influenced by existing conditions, a strong respect and consideration of the one hundred year old building. Working within the heritage framework of a 100 year old building had challenges and it required liason with the local municipality's Heritage Consultant. We had a pre-application meeting with the consultant and council's planner to describe the design and how the design would respect and maintain the heritage exterior while upgrading the facility internal to benefit the school for teaching and learning. A compromise was achieved as the exterior of the building was maintained with the new roof line set below the existing roof ridge line.

A briefing requirement from the principal was to engage the community within the new design. The presentation space facilitates a connection between the Senior Centre students and the rest of the school as well as the wider community, It has been designed to cater for after school community events and for a senior citizen program on the weekends.

During construction of the facility marketing packages were provided (plans, drawings and diagrams, renders and progress photos) for the inclusion into the school's newsletter as well as for the display cabinet in administration to inform students, teachers, parents, Catholic Archdiocese Melbourne and Catholic Education Melbourne and the wider community of the building's progress.

## Stakeholder Workshops



**The heritage building**





"I really like the curved ceiling. It's different. I like how we can see the sky through the skylights. I like the shapes and how the big light hangs down - the same shape as the eggs in the ceiling."

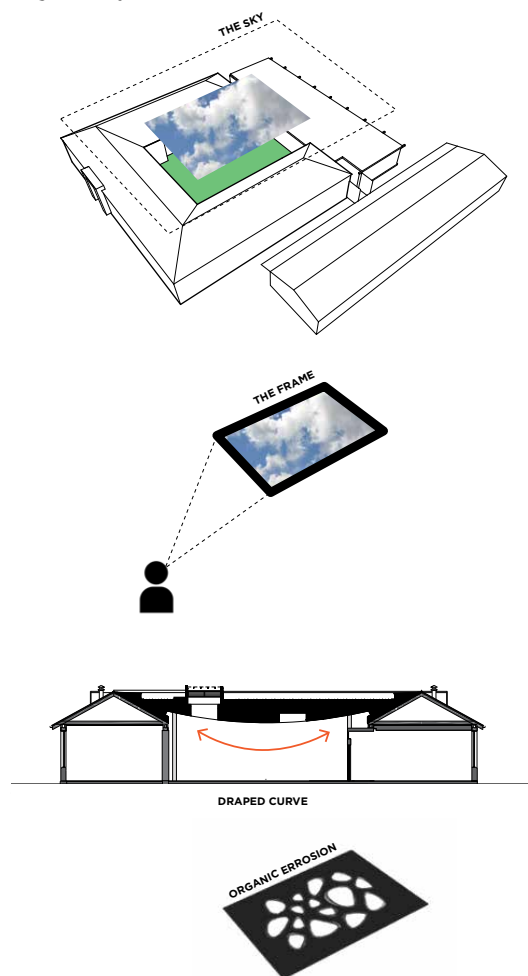
- Senior Centre Student

# Education Environment

Critical to our thought process was maintaining the feeling of light and sky in the architectural expression of the ceiling. The ceiling is a sculptural interpretation, highlighting the transformation of an exterior courtyard to an interior space. We considered that this expression would help alleviate the feeling of enclosure. The 'sky' was set as a gentle curved ceiling that linked the two sides of the previous courtyard terminating in a mirrored horizon edge. The new sky is eroded by repeating organic forms – the "pebbles," some of which are skylights.

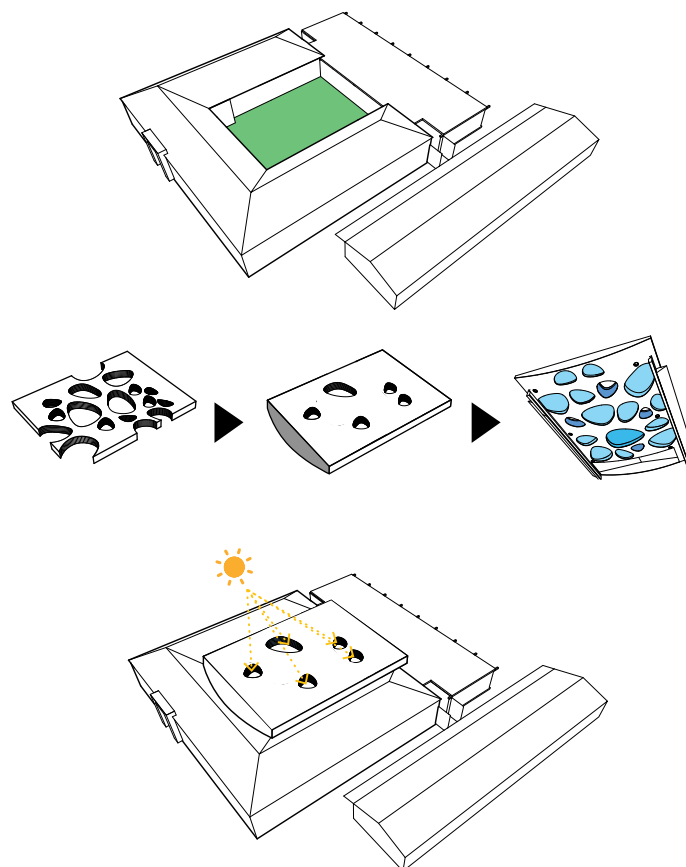
## The Response

Framing the sky



## The Outcome

Indoor courtyard



## Statement of Pedagogy

"At St Monica's we believe that faith, culture and life are interconnected and that contemporary learning is a vehicle by which our learners are empowered to build upon knowledge, shape and enrich their world with meaning and purpose. We believe that effective pedagogy is based on the need to maximise children's options and to empower with the essential knowledge, skills and capacities for active citizenship and lifelong learning.

In our aim to promote academic excellence and in so doing develop lively and enquiring minds we believe that the needs of our students should be placed first. It is our responsibility to develop the potential and talents of our students to their maximum. We value a curriculum that acknowledges the diverse nature of our society and is comprehensive to embrace the emotional, social, creative, physical and academic needs of our students.

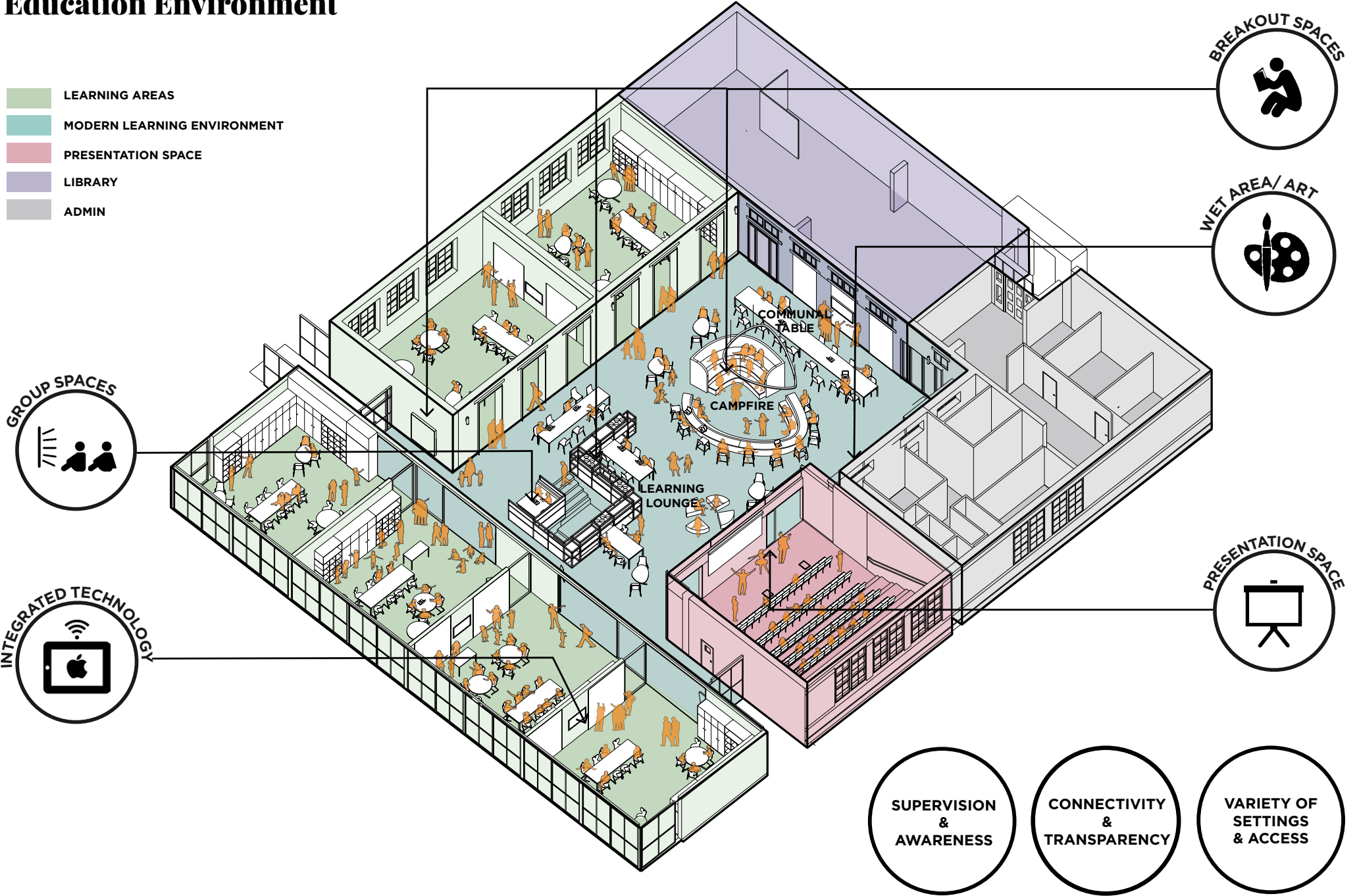
Opportunities for reflection, collaboration and the use of contemporary tools are of paramount importance. The development of enabling skills, along with creative and critical thinking, creativity, problem solving, reasoning and cooperative learning are all priorities.

We aim to create a visually stimulating and contemporary learning environment for students. All teachers work collaboratively to assist in the role modelling of collaborative skills and facilitating the provision of a differentiated curriculum. We have made a conscious effort to change the nature of student learning and encourage our students to accept more responsibility for their own learning.

We believe that effective learning occurs when there is a team approach. Learning is successful when the team is made up of the learner, the family that supports the learner, the teachers that support and give direction to the learner and the global community that makes accessible appropriate resources and gives authenticity to learning."



# Education Environment

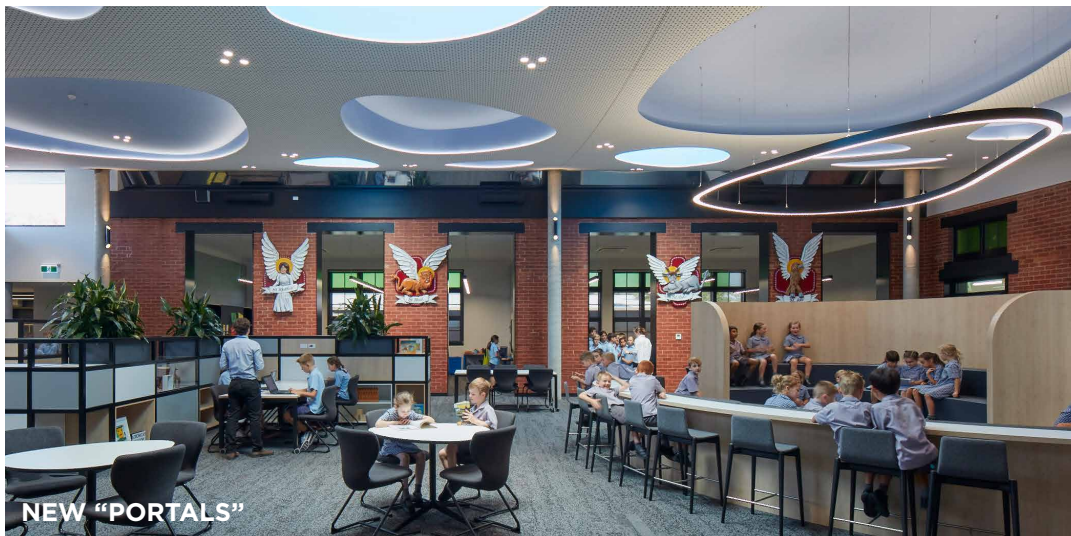


# Education Environment

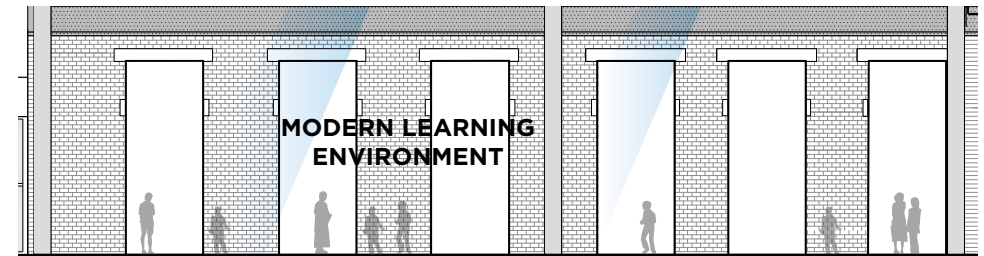
From the beginning the project was influenced by existing conditions, a strong respect and consideration was given to the one hundred year old building, as we created a positive tension between existing and modern materials.

## The 'Portals'

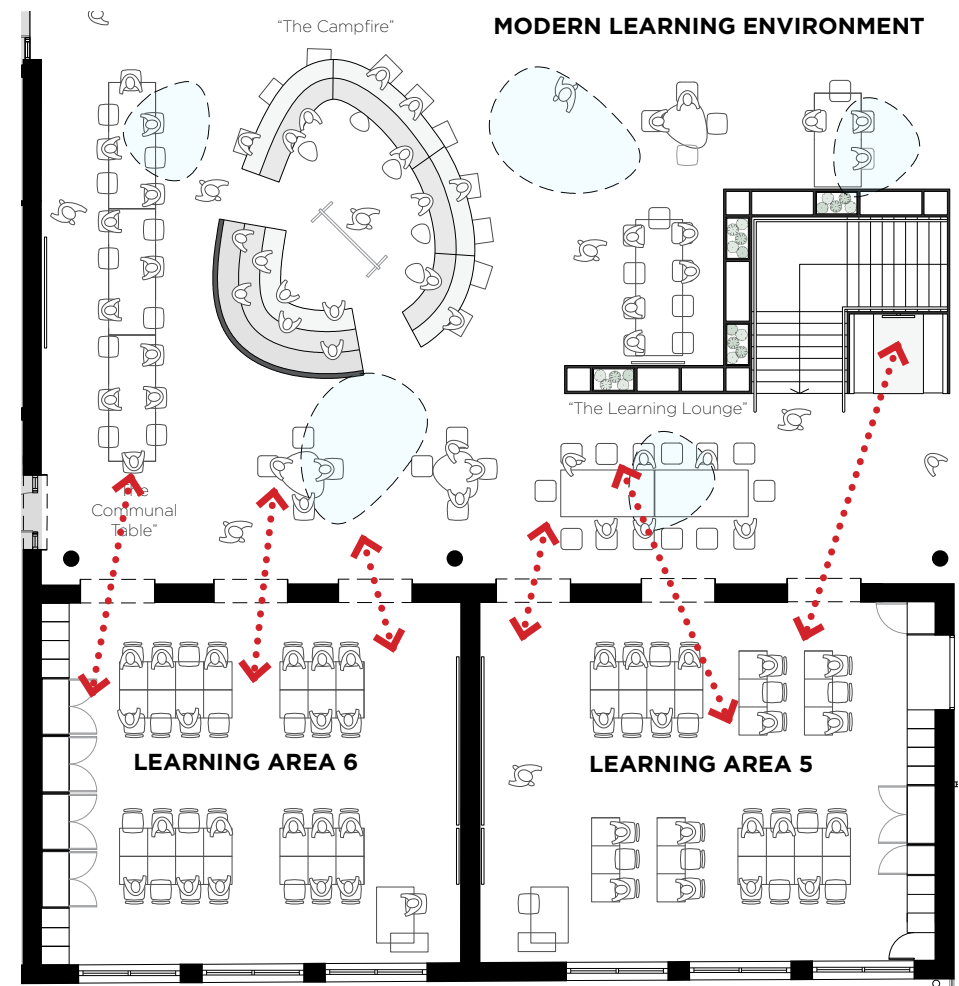
By retaining the external heritage brickwork and using it as an internal material there was a tension between old and new. Converting the existing highlight window lintels to openings created large traversable archways or "portals" which are framed in black steel. These "portals" are pivotal to enable the agile flow of students between the learning spaces.



ELEVATION



PLAN





# Education Environment

In line with the programmatic goal of opening up the classrooms to the central space, the elimination of doors was used to promote fluid and constant movement between the spaces.

## Transparency & Connectivity

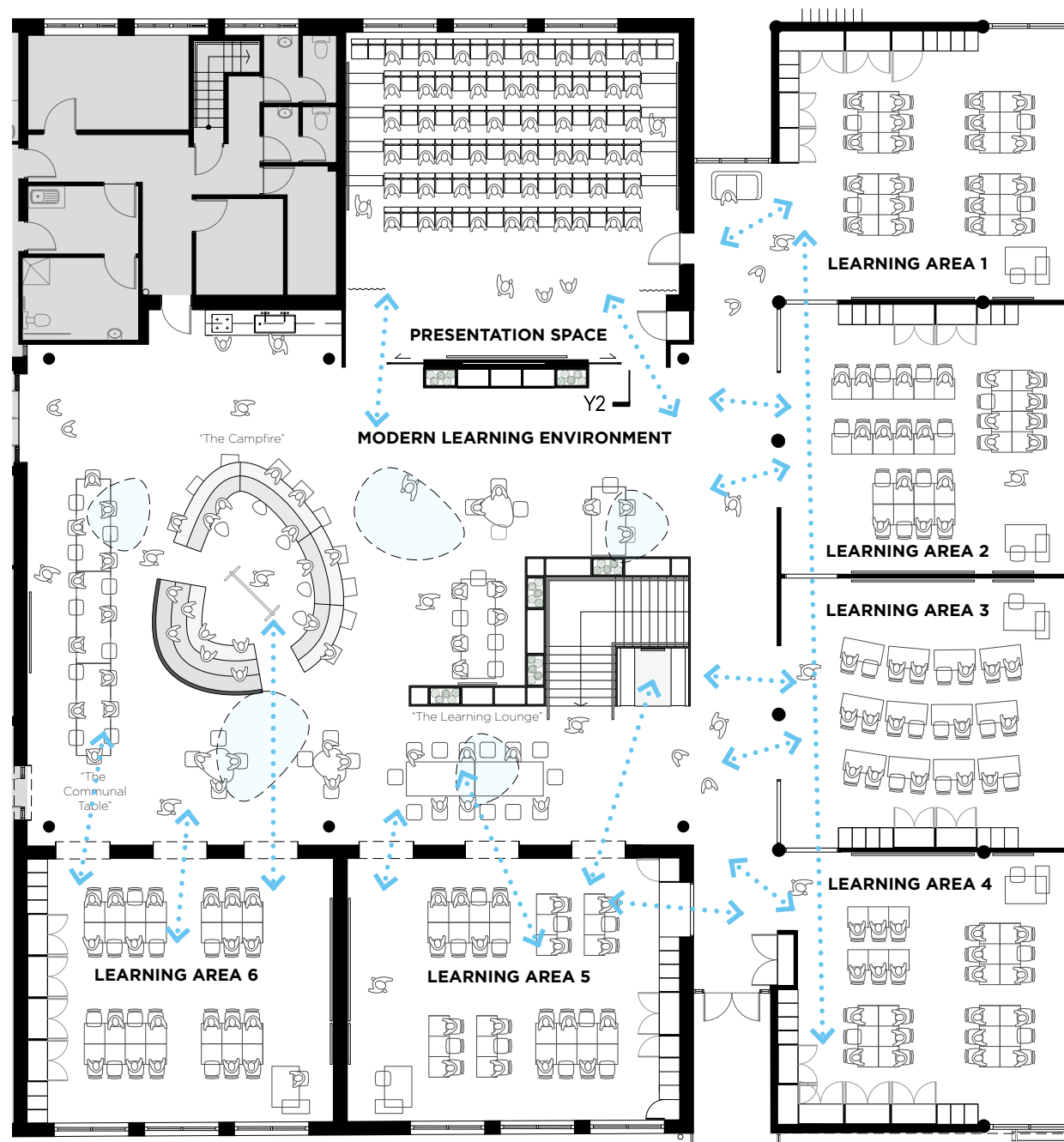
Acoustic considerations were critical to the building's success. We worked carefully with an acoustic engineer to ensure the facility could absorb the weight of sound, liaising also with the manufacturer, to achieve the curved perforated plasterboard ceiling.

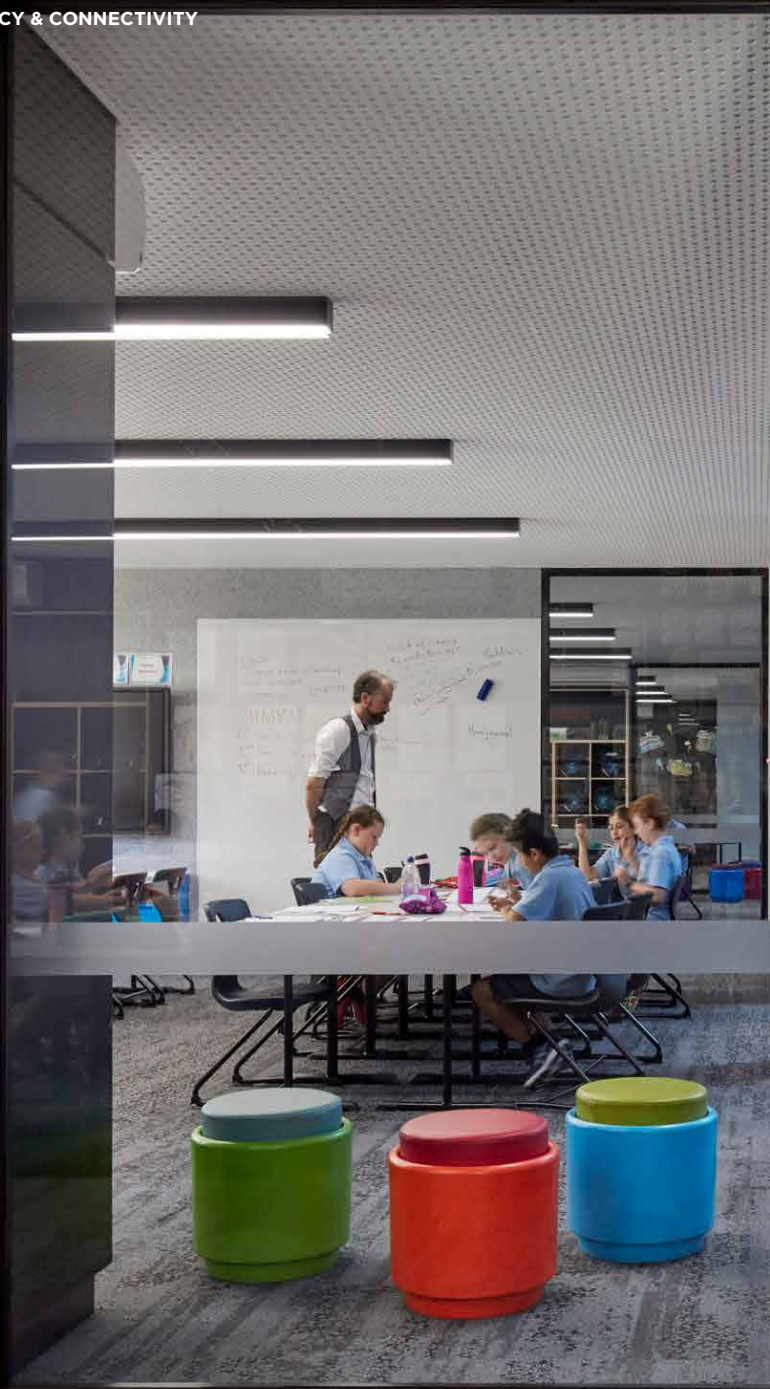
Other key endeavours in the scheme include high levels of transparency and custom 'learning settings', helping to enhance teaching and learning opportunities within the space. The transparency across the scheme works to promote the sense of connectivity, visibility and passive supervision. The transparency also worked to satisfy contemporary requirements for safety for students.

“I love the flexibility the space presents to both staff and students. It allows me as an educator to not only see collaboration from teacher to student and student to student but also collaboration across grades and thus collaborating with other teachers.

This is possible due to the openness of the space, allowing me to have confidence in supervising children from a variety of different viewpoints.”

- Senior Centre Teacher







# Education Environment

## Sustainable design principals

We concentrated on excellence in passive sustainable design principals. In terms of light, it was crucial to obtain a level of natural light that was not direct, nor overwhelming and therefore tempt usage of blinds, but nonetheless provide a generous wash of light through the space. The modern learning environment has five "pebble" skylights. Considerable effort was required to realise the correct specification for the glass. The facility can be naturally ventilated by the use of louvers set at high level, and in classrooms that generate cross ventilation through the space. These are operated with a single open/shut button maximising the simplicity of usage for the school. The philosophy was to simplify the user interfaces with all the technology.

Adapting biophilic principals, the inclusion of resilient plants in self watering planter boxes brought natural foliage relief to a highly constructed environment bringing elements of the outside in and creating life and colour in the space.



SECTION

0 1 2 3 5m  
SCALE 1:200

# Education Environment

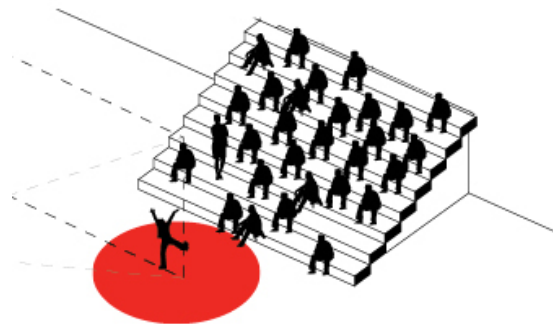
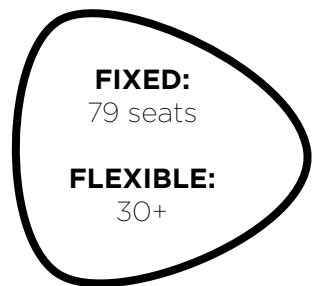
## Presentation Space

The 75 seat tiered presentation space, can allow for over 100 people with the inclusion of flexible seating. It is a space that facilitates a connection between the Senior Centre students and the rest of the school.

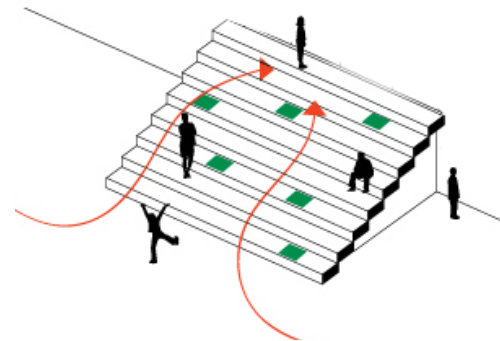
The space allows for big or small group presentations, and has been acoustically treated to not disrupt the activities in adjacent areas and classrooms. Not only intended as a space for students but as well as the wider community.

“When I presented my research to the whole class, we were in the Presentation Space. My work was on the big screen! I liked how the class really listened to me.”

- Senior Centre Student

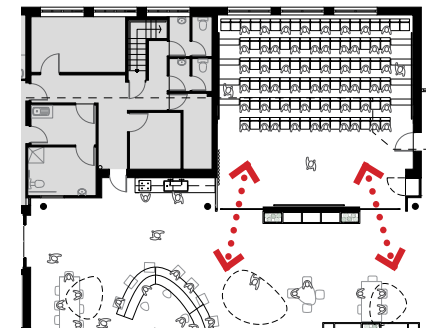


Presentation/ performance space



Breakout Space

PLAN



Flexibility & connectivity



"We use this space for children to be able to present their learning to others. It really gives them a 'step-up' experience like no other. It is also the perfect space for visiting speakers (incursions) and allows the staff to team-teach a large group of children with content that can be delivered lecture-style.

The addition of two retracting curtains make the presentation space a perfect location for drama productions and intimate concerts. The state-of-the-art audio/visual equipment enhances our presentations to a professional level. The children love it when the presentation space becomes their very own cinema."

- Peter Moore, Principal





# Education Environment

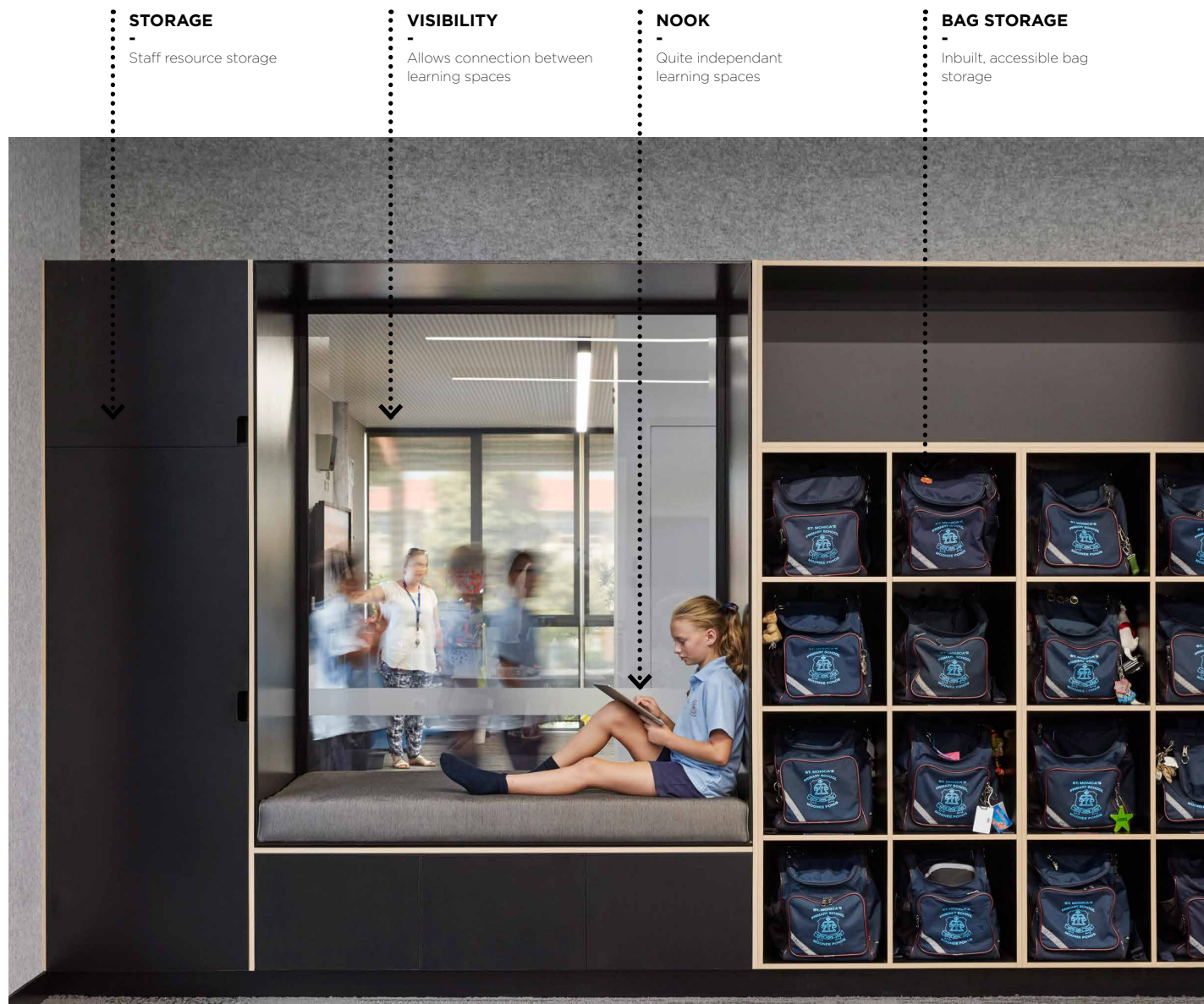
## Custom casework

Custom casework played an integral role in how the educational environment supports a variety of learning and teaching styles.

Adequate storage and breakout spaces for students were a brief requirement. Locker areas generally waste a lot of space in schools therefore all bag storage was built into the wall casework – allowing greater flexibility and more generous size classrooms. Where possible, 'reading nooks' were inserted to maintain connectivity between areas and allow breakout spaces for students.

“I can have time by myself in the booth. I like the other spaces for discussion. It is really important to have spaces to discuss things.”

- Senior Centre Student





# Education Environment

## The “Campfire” (custom ‘learning setting’)

**Tiered seating**

- Class presentation, hangout, teaching.

Upoholstery to fixed seat cushions.

Laminex Charcoal to seating edge.

**Finish**

- Laminex Rock Maple

**Pinboard**

- Pinboard for acoustics + display.

Ella Panel Silver  
Flush to back of tiered seating.

**Seating**

- Class teaching or individual study.

Upoholstery to fixed back and seat cushions.

**Bench**

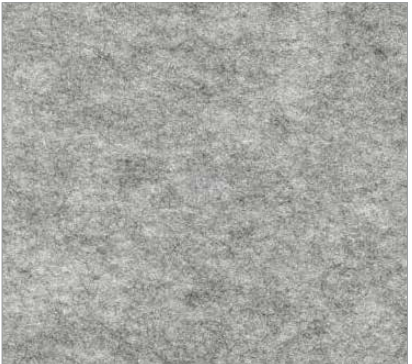
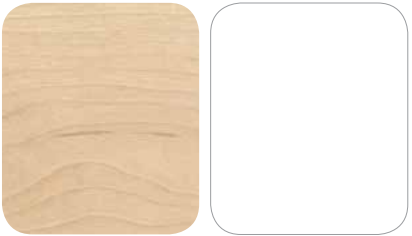
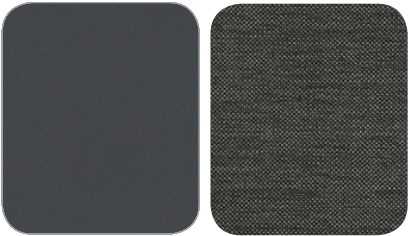
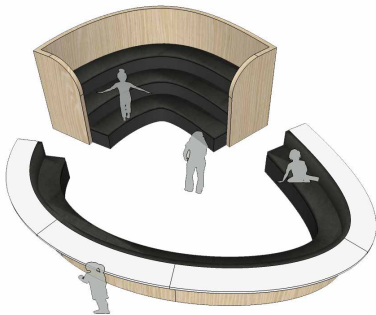
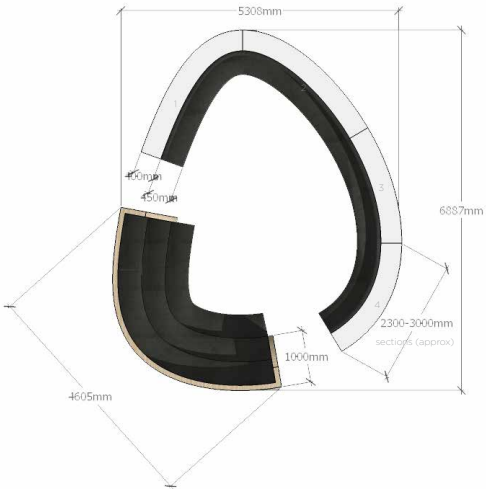
- Class or individual study.

Laminex Polar White  
900mm high.

**Moveable pieces**

- For flexibility.

4 x pieces on castors.



- |   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 |   |
- 1. Laminex Charcoal
  - 2. Warwick Fabric Lucent Asphalt
  - 3. Laminex Rock Maple
  - 4. Laminex Polar White
  - 5. Pinboard Silver









## Education Environment

### The “Communal table” (custom ‘learning setting’)



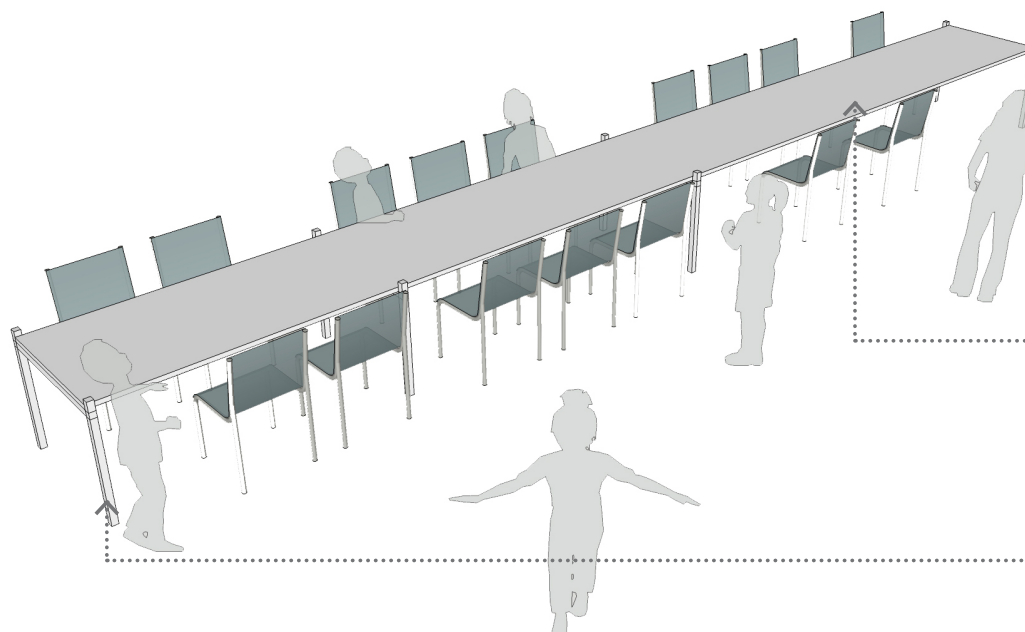
#### Seating

- Mature furniture  
Upholstered seats

“The furniture was designed specifically for the space, it meets the needs of our learners. All furniture is ergonomically designed and encourages safe use of mobile devices (resting on horizontal surfaces rather than on laps).”

The furniture contributes to our desire to replicate David Thornburg’s primordial learning environments: cave, campfires and waterholes. Rather than selecting furniture that ‘might’ work, our educational vision was fulfilled by designing a learning environment with furniture that would work. The quality of the furniture means that students and adults are extremely comfortable and can happily work for a sustained period.”

-Peter Moore, Principal



#### Bench

- 30 student capacity for group & individual study

#### Castors

- Allow flexibility

4 x separate tables, allowing flexibility with arrangement





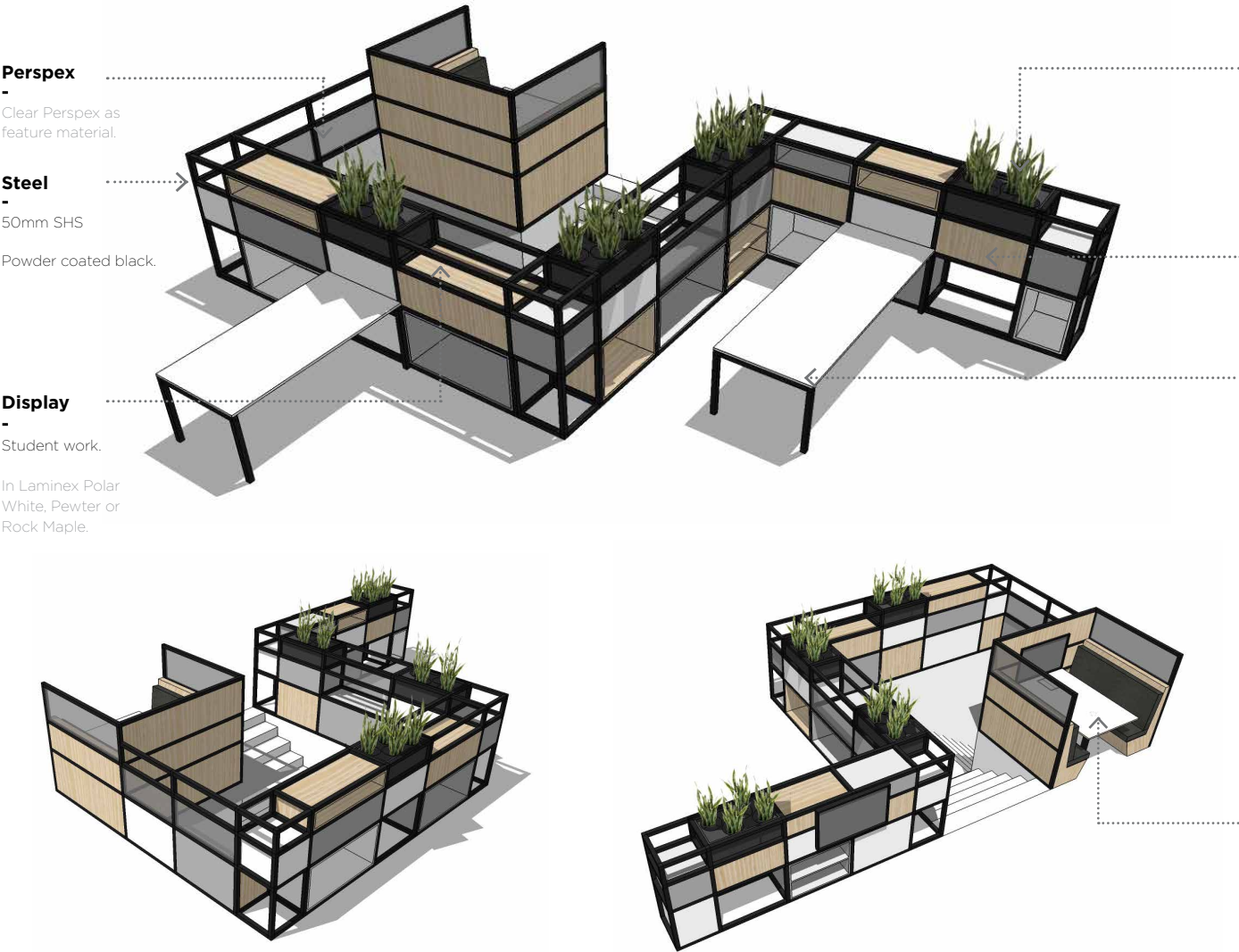
"The children are thriving in this space. They love being able to choose what type of furniture suits their learning. Some like being in a small group, creating a more intimate community. Others prefer to sit in a large communal table."

-Peter Moore, Principal



# Education Environment

## The “Learning Lounge” (custom ‘learning setting’)



**Perspex**  
- Clear Perspex as feature material.

**Steel**  
- 50mm SHS  
Powder coated black.

**Display**  
- Student work.  
In Laminex Polar White, Pewter or Rock Maple.

“ I can have time by myself in the booth. I like the other spaces for discussion. It is really important to have spaces to discuss things. ”

-Senior Centre Student

### Planter boxes

- ESD initiatives  
Biophillic design principals

### Storage

- books, equipment

### Collaborative tables

- Moveable.  
ECF custom tables.



### Booth Seating

- With LED screen.  
Seats in Warwick Fabric - Lucent Asphalt

- |   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
1. Warwick Fabric Lucent Asphalt
  2. Laminex Polar White
  3. Laminex Pewter
  4. Laminex Rock Maple
  5. Dulux Powder Coat Steel Black Satin
  6. Container Connection Planter box Grey 816A





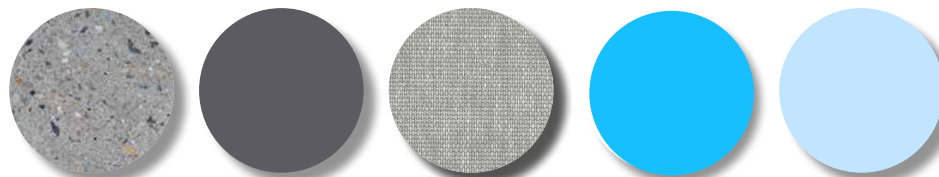
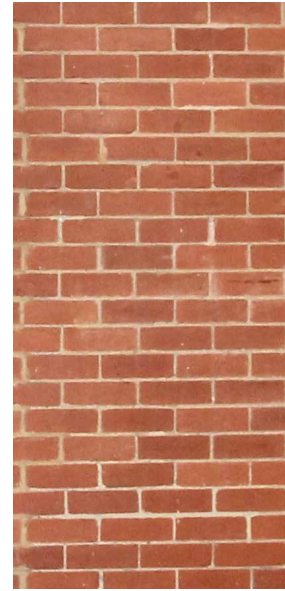


## Education Environment

The brief was to create a sophisticated and mature space for senior students transitioning to high school. This was implemented through a neutral and restricted material palette, furniture selection and the types of learning opportunities created for students. Typically bright colours are used to add life and excitement in primary schools. At St Monica's there was a play on the inherent colour of the diverse range of materiality that existed within the heritage framework. Modern additions; the raw materials like red brick, concrete and timber counterpoint with the modern finishes like painted steel, perforated plasterboard, pinboard panels and carpet.

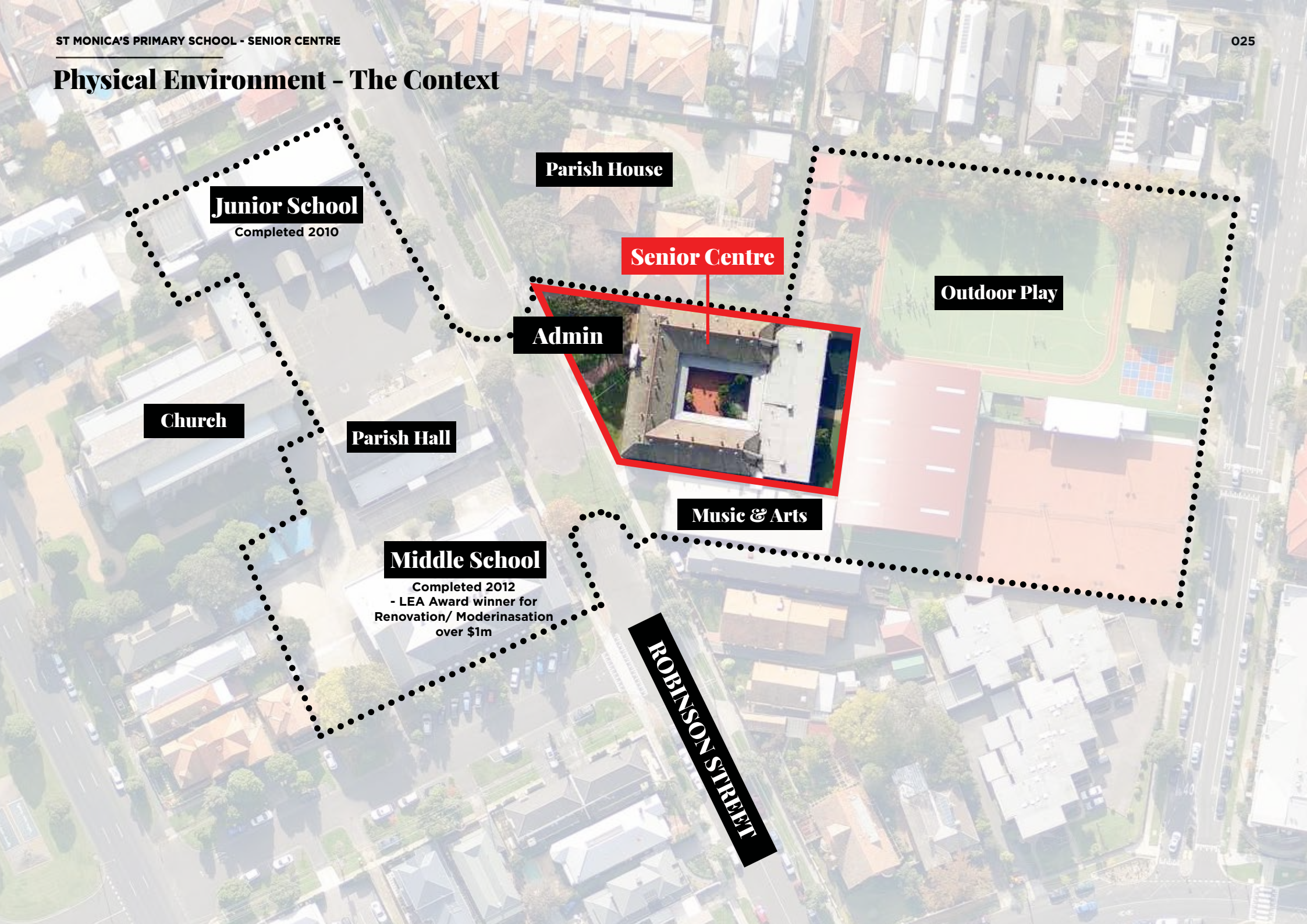
### Materiality

“ Typically bright colours are used...in primary schools, at St Monica's there is a play on inherent colour of the diverse range of materiality that existed within the heritage framework ”





## Physical Environment - The Context



**Junior School**

Completed 2010

**Parish House**

**Senior Centre**

**Admin**

**Outdoor Play**

**Church**

**Parish Hall**

**Middle School**

Completed 2012  
- LEA Award winner for  
Renovation/ Modernisation  
over \$1m

**Music & Arts**

**ROBINSON STREET**

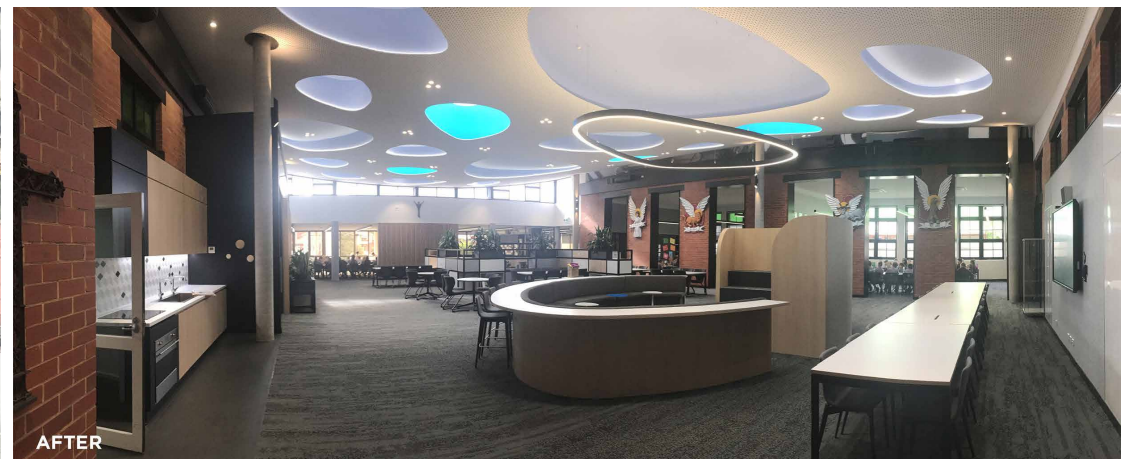


# Physical Environment

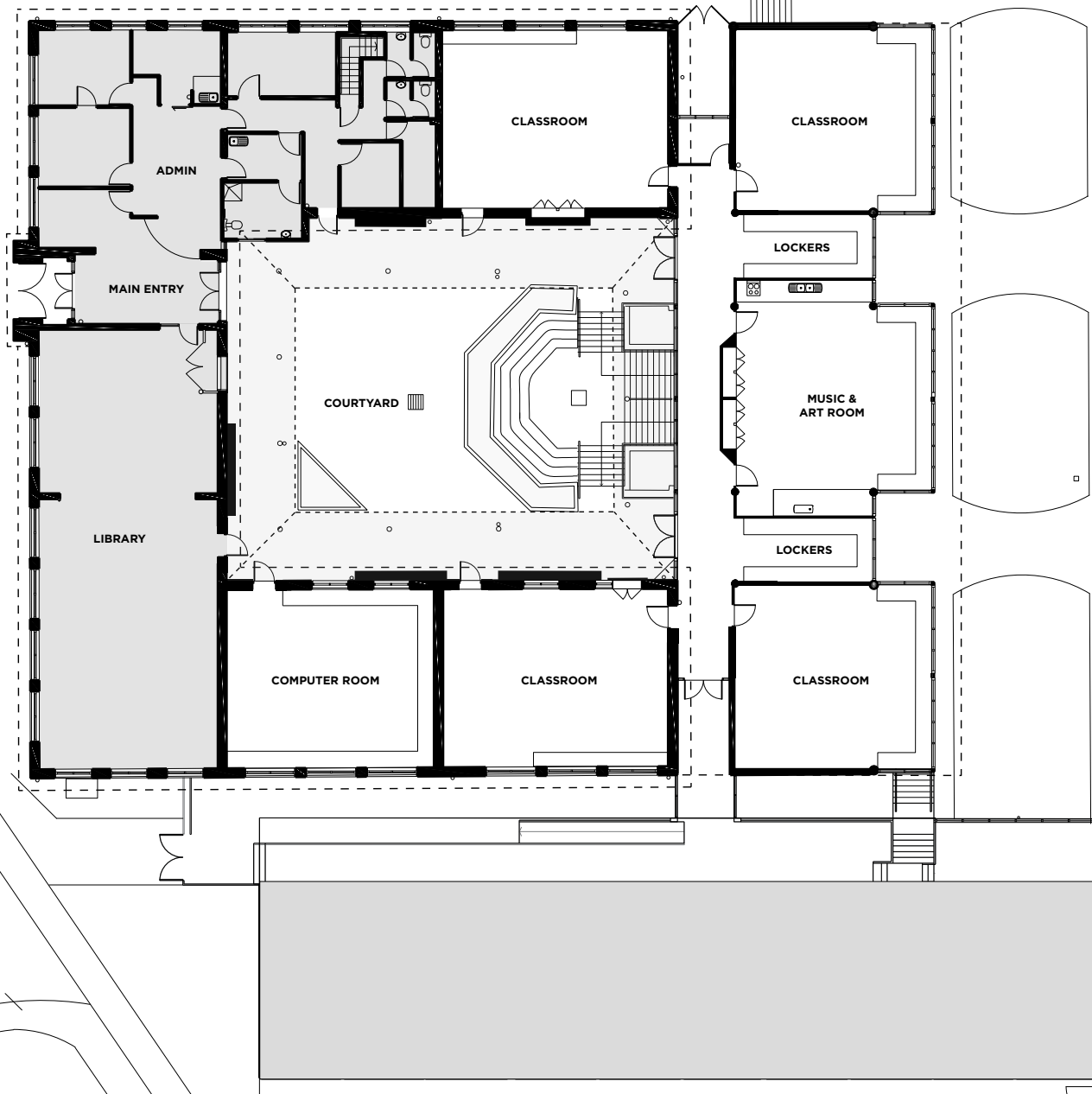
## Transformation

The construction process took 12 months to convert the existing external courtyard to a shared central space, six learning areas and a presentation space.

The client and key stakeholders were heavily involved throughout this process attending fortnightly site meetings with the architect and builder, enabling them to be part of the construction process.



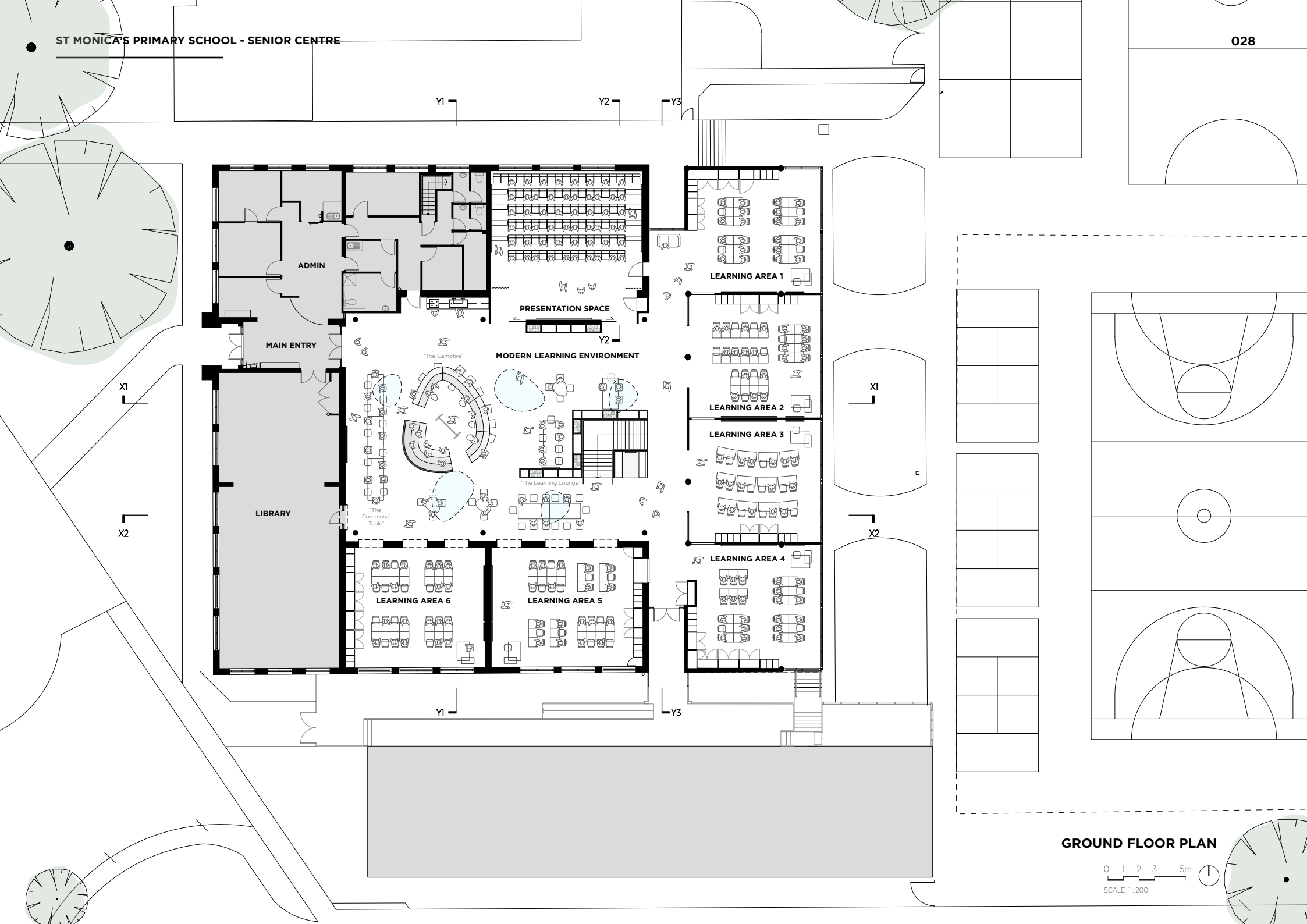




EXISTING PLAN

0 1 2 3 5m  
SCALE 1:200







# The Results

**The Senior Centre allows a flexible interchange between class based learning to collaborative group workspaces, presentation or individual learning. This design looks to the school's future and promotes a mature learning philosophy amongst its students.**

*Dispersed within the body of this document are post occupancy feedback (quotes) from the principal, senior centre staff members and students.*

"The space primarily belongs to the Senior School but we have encouraged use of the presentation space, kitchenette and the shared space by other year levels. It creates a strong sense of community when the children interact with each other. At lunch times the space becomes the venue for Craft Club, Chess Club and Games Club. It is the perfect venue for Buddy Activities where older and younger children collaborate on a project together.

Although it was not our intention at the time of planning the building, it has transpired that the building is the perfect venue for adult social events and it has already been the successful location for a staff social function and a parent social/movie night. We use the presentation space for parent meetings and family focused gathering."

**"The Architect welcomed the extensive brief and established a relationship with me based on genuine collaboration.**

**We spent a considerable amount of time exploring the relationship between the successful implementation of curriculum and the learning spaces. I was very impressed with the Architect's ability to adapt to new possibilities during the design process.**

**We worked collaboratively during the construction phase to enable a high-quality finished product that delivers excellent education outcomes."**

- Peter Moore, Principal

## Education Facility Narrative

The redevelopment of our 1917 building was identified as a priority in the School's Master Plan, in response to significant changes in the educational landscape for 11-12-year-old students. We know that students are more engaged and connected in modern and well-designed learning spaces that create community.

Previously classrooms were isolated and autonomous. We were keen for this refurbishment to extend opportunities for collaborative teaching and learning, leading to inter-connectedness and enhanced social capital. Using the natural ceiling height of the existing buildings, we developed transparency across the entire area so that a true sense of communal learning could be established.

As well as having the opportunity to remain within the walls of a home-room, we believe the children need opportunities for self-directed learning using satellite facilities. Using portable and wireless technology, students are able to work alone or collaborate in a group beyond the teacher-directed classroom. Flexible furniture allows for more sustained engagement of flexible groups, developing connectedness as a total learning community and creating opportunities to develop higher-order joint reasoning with like-minded peers.

Although we value outdoor learning, Melbourne's weather is often problematic. We developed an underutilised outdoor courtyard into an internal space where the natural light, airflow and overall level of comfort could be controlled.

Using 'futurist' David Thornburg's study of learning environments, we created flexible zones that replicated three primordial learning spaces: campfires, watering holes and caves. Using Thornburg's theories as a springboard, we created:

- 21<sup>st</sup> Century Campfires - places to learn from experts, places for whole-group discussion, places where the storyteller or lead-learner shares wisdom.
- Contemporary Water Holes - spaces for small group discourse and collaboration, where we learn from our peers, where each participant at the watering hole is both learner and teacher at the same time.
- New-Age Caves - for individual study, reflection, quiet reading and creative flow, places where learners isolate themselves from others to gain deeper insights and experience sustain periods of reflection.


We are keen to extend our pedagogical repertoire, so multiple activity centres with interactive screens have been created to facilitate individual, group and multiple-class lecture-style learning. Using booth-like structures we have created spaces for privacy, whilst maintaining visual contact with others.

High levels of acoustic treatment supports conditions for fundamental academic achievement and the acoustics in this space are breathtakingly effective, providing a deep sense of calm at all times.

The level of community engagement has been a significant by-product of this building's design. Parents are warmly welcomed into the space and contribute to the learning process, as well as eagerly visit when the children use the facilities to present their learning to the community.

Visitors to the building are affected by the overall impact of what has been created: attention to detail, graceful curves, strength & beauty, flexibility, innovation, a deep sense of calm, height, light, shade, fun and dignity for this much-revered building.

The children have now been in this space for seven months and they simply love being there. This building is transforming learning at St. Monica's.

  
Peter Moore  
School Principal

Email: [principal@stmonicasmp.catholic.edu.au](mailto:principal@stmonicasmp.catholic.edu.au)



20 Robinson St,  
Moonee Ponds  
Vic. 3039  
Ph: 9375 1132  
Fax: 9370 7136

Educate



**Baldasso Cortese Architects**

Melbourne  
Level 1/ 103 Oxford St  
Collingwood VIC 3066  
+61 3 9417 7555

[www.bcarch.net](http://www.bcarch.net)

