

ARCHITECTURAL DESIGN REPORT

NORTH SYDNEY PUBLIC SCHOOL

For NSW Department of Education



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Education
School Infrastructure

Document Quality Control

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Revision History

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CURRENT ISSUE: A

Document Quality Control

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SEARs Response Table

SEAR's Requirement	SEARs	Response / Report Reference
General Requirements		
	A detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development	Section 4 – Site Analysis and Architectural Drawings (SD-1003)
	Plans, elevations and sections of the proposed development	Refer to Architectural Drawings
	Cladding, window and floor details, including materials	Section 7 – Design Statement
	A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process)	Refer to Architectural Drawings – SD-1102
	Plans and details of any advertising/business identification signs to be installed, including size, location and finishes	Refer to Architectural Drawings – SD-1103
	Any staging of the development	Section 9 – Construction Management and Continued Operation and Architectural Drawings (SD-1301)
Key Issues		
2. Built Form and Urban Design	the height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces.	Section 8.1 – Context, Built Form and Landscape
	design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette.	Section 7 – Design Statement and Section 8.1 – Context, Built Form and Landscape
	how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.	Section 12 – Crime Prevention Through Environmental Design Principals (CPTED)
	how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	Section 8.2 – Sustainable, Efficient and Durable (Environmental Amenity) and Section 8.4 – Health and Safety
	how design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).	Section 8 – Response to Design Quality Principles
	how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 10 – Services Integration
	a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.	Section 6 – Masterplan Options
	a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.	Section 9 – Visual Impact Assessment and Views Analysis

4. Environmental Amenity	Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.	Section 8.1 - Context, Built Form and Landscape
	Shadow diagrams	Section 8.1 - Context, Built Form and Landscape and Architectural Drawings – SD-1108
	a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.	Section 9 – Visual Impact Assessment and Views Analysis
	an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts.	Section 10 – Services Integration
	Relevant Policies and Guidelines: Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008).	Section 8.6 - Acoustic Issues and Development Near Busy Roads
Plans and Documents		
	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation.	n/a
	Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	Refer to Architectural Drawings
	Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including:	n/a
	architectural design statement.	Section 7 – Design Statement
	diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal.	Section 5 – Design Objectives
	detailed site and context analysis.	Section 4 – Site Analysis
	analysis of options considered to justify the proposed site planning and design approach.	Section 6 – Masterplan Options
	summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice.	Appendix A – State Design Review Panel Response to Advice
	summary report of consultation with the community and response to any feedback provided.	Section 13 - Consultation
Consultation		
	Government Architect NSW (through the NSW SDRP process).	Appendix A – State Design Review Panel Response to Advice

Introduction

This report forms part of a State Significant Design Application for proposed new facilities at North Sydney Public School (also known as the North Sydney Demonstration School). In this report we will outline a brief project description including site analysis and suitability, construction staging and the continued operation of the school and the design response particularly in relation to the Design Guide for Schools.

1.1 Project Description

This SSDA seeks consent for alterations and additions to the existing North Sydney Public School. The proposal entails:

- Demolition of the existing hall (building B), haven building (building C) and 6 temporary buildings;
- Construction of a three-storey building comprising:
 - staff administration rooms;
 - 16 home bases
 - a new library;
 - hall;
 - out of school hours care facilities;
 - covered outdoor learning area;
 - bicycle parking and end of trip facilities for staff; and
 - services, amenities and access.
- New entry gate and forecourt from Bay Road;
- Internal refurbishment of building G ground floor from the existing library to 3 home bases;
- Capacity for an increase in student numbers from 869 to 1,012; and
- Associated tree removal, landscaping and excavation.

The proposal maintains:

- The gates and fence of former Crows Nest House including the entrance from Pacific Highway and Bay Road;
- Existing gate along McHatton Street;
- The outdoor play area to the east of Building A;
- Existing covered outdoor learning area adjacent to Building A;
- The basketball courts and staff carpark in the western portion of the site;
- The significant tree planting on all school boundaries;
- Buildings A, D and F noting minor internal refurbishments are being undertaken outside of the SSDA scope of work (exempt development) to improve student amenities and canteen; and
- Building G noting ground floor internal refurbishment is proposed in the SSDA.



Existing Site – Central Courtyard

Existing Site

North Sydney Public School is located adjacent to the North Sydney Central Business District in the suburb of North Sydney.

The school was established on what was previously the grounds of Crows Nest house. As a result, the site is highly vegetated and features many significant mature trees. The three original school buildings (Buildings A, D and F) are heritage listed. The site is also surrounded by heritage listed sandstone and wrought iron fencing and gates along the Bay Road and Pacific Highway frontage.

The existing buildings are grouped around a central courtyard space with games courts and play spaces located outside the courtyard to the East and West. The site features a number of pedestrian entrances – which don't currently provide an accessible entrance to the facilities.

The site falls steeply from North to South affording it access to views towards the city and harbour.



Aerial Photograph – Existing Site - Image source: Google maps

Need for Development and Site Suitability

The Department of Education has identified a need for additional capacity on the site.

The school's population has steadily increased in recent years to a current population of 869 students. This necessitated 6 temporary classroom buildings being added to the site.

Demographic modelling and projections undertaken by the Department of Education has determined that by 2036, there will be a shortfall in capacity for 484 students, due to increased local demand (North Sydney PS Final Business Case - July 2020). As a result, the school requires additional permanent learning facilities to accommodate a population of 1012 students

Further to this, it has also been determined that the North Sydney Public School site includes sufficient space and is located in an appropriate locate to support the increased capacity on the site.

As a result, it has been determined that a development on the site is appropriate in order to –

- Increase the overall capacity of the school and the primary school network within the region in order to cater for future population requirements; and
- Improve the facilities available to the school and community; the street presence and the overall connection of the school to the local community.
- Reduce the impact on the available play space per student.



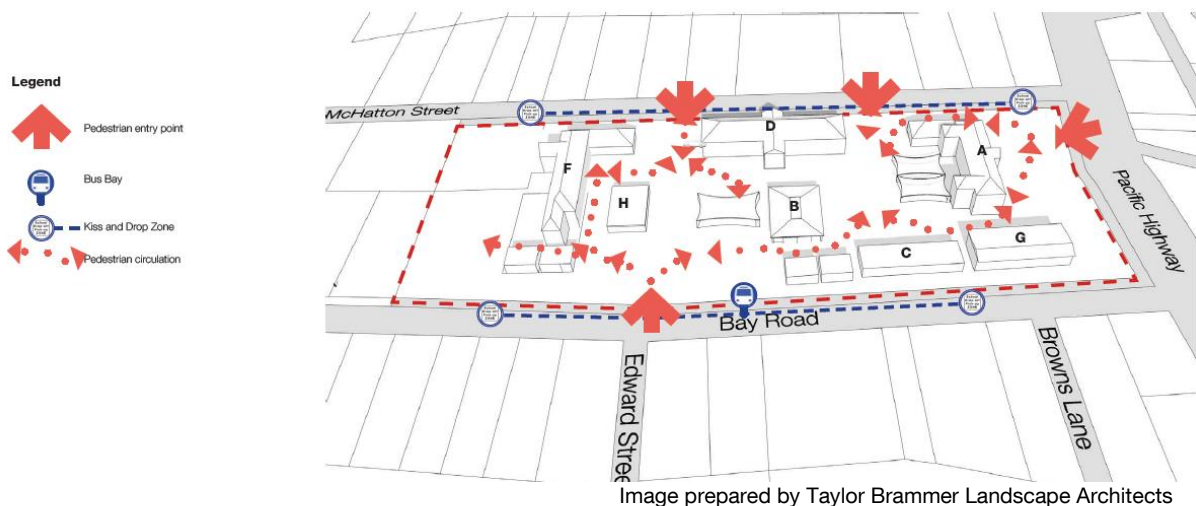
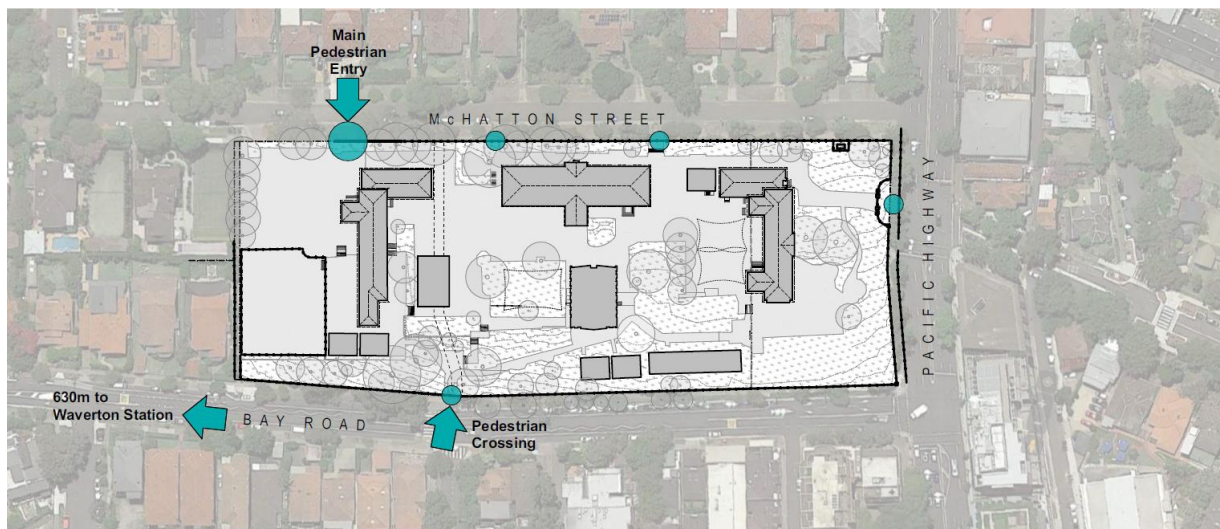
Existing Site – Building A – The Pacific Building

Site Analysis

At the commencement of the project a detailed site analysis was undertaken. This highlighted the following key elements that would need to be taken into consideration in developing the site –

- **Site Entries and Pedestrian Movement**

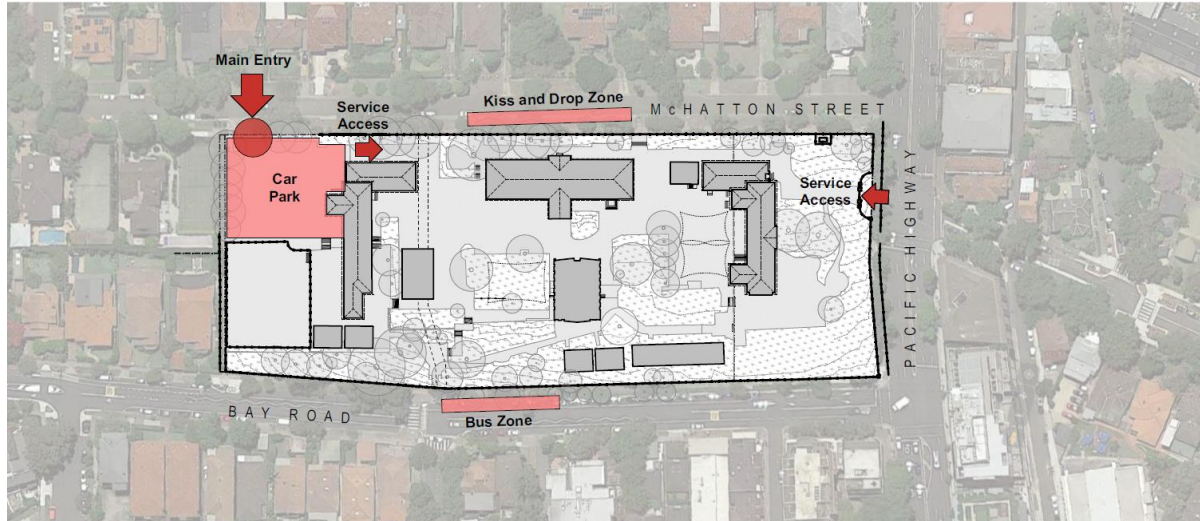
The site features multiple pedestrian site entries on the McHatton Street, Bay Road and Pacific Highway Frontages. Only one of the gates (the Crows Nest Gates to the Pacific Highway) provide an accessible entrance to the site, however, this only provides access to a limited portion of the site.



- **Vehicular Movement – Buses and Cars**

The site features 1 main vehicular access point – on McHatton Street. This provides access to the site carpark. Student pick up and drop off is facilitated by a kiss and drop area on the McHatton Street frontage.

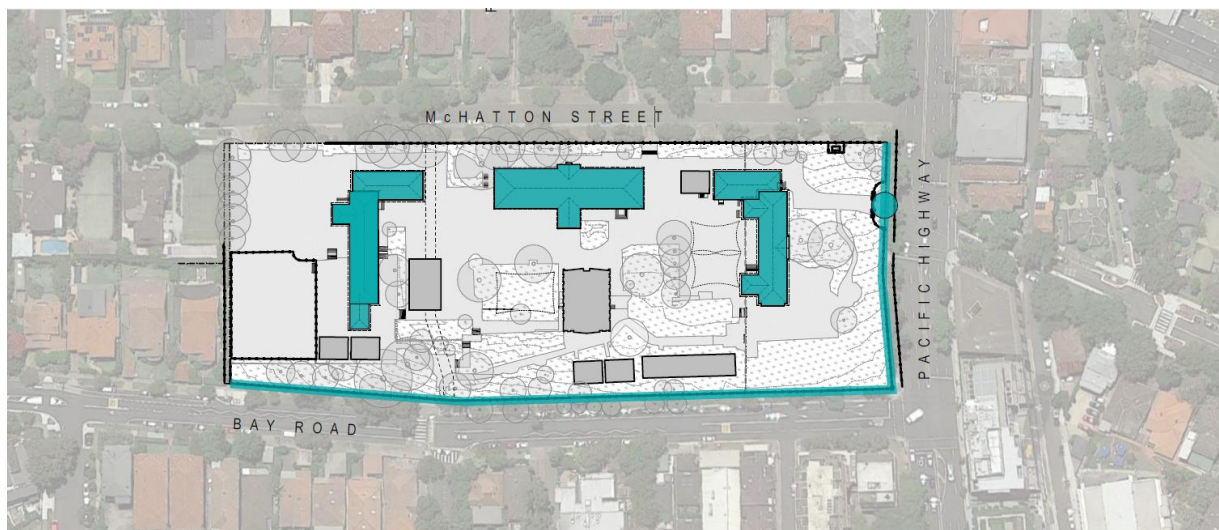
The site is serviced by a bus stop located on Bay Road.



- **Heritage Items**

The site features a number of heritage-listed features including –

- The sandstone and wrought iron fencing to the Bay Road and Pacific Highway boundaries
- The Crows Nest House Gates to the Pacific Highway frontage
- Existing Building A – The Pacific Building
- Existing Building D – The McHatton Building
- Existing Building F – The Rivers Building



○ **Existing Building Condition**

The condition of the existing buildings on the site have been reviewed. The majority of the buildings have been maintained well and are in fair condition.

However, the layout of the spaces within the existing buildings do not support the requirements of the current methods of teaching and learning.



○ **Existing Buildings**

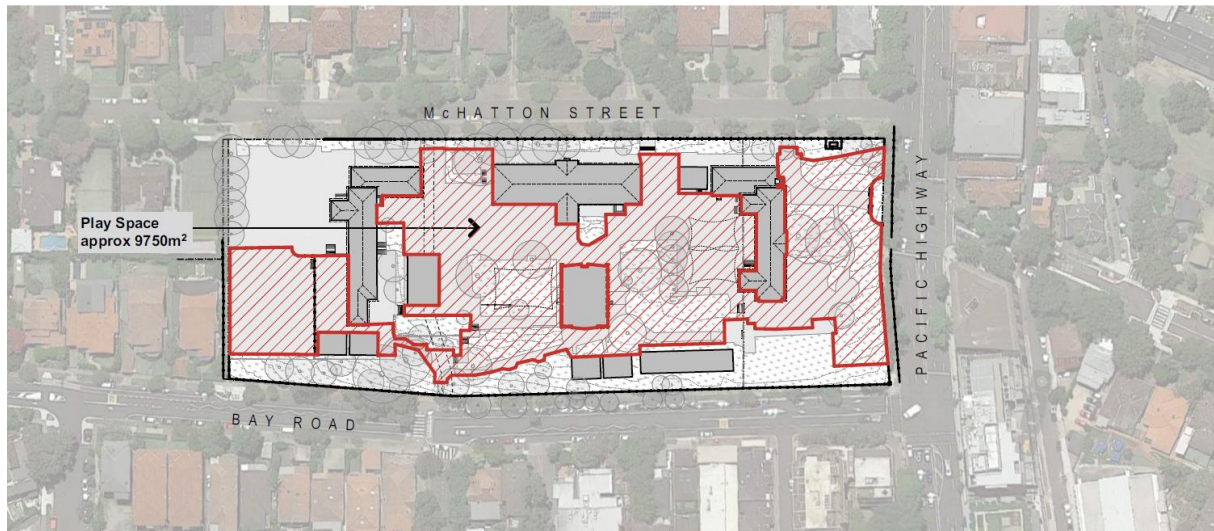
The existing buildings are constructed predominantly of brick with tile roofs.

They are mostly 2 storeys in height with portions of up to 3 storeys due to the topography of the site.



Open Space / Play Space

The school features a number of outdoor play areas, games courts and informal play areas. The current open space provides a play space of 9,750m² in total. This equates to 11.2m² per student based on the current population.



Legend

- Active Zone 1,269m²
- Passive Zone 6,945m²
- Street Frontage Zone 3,307m²
- Subject site 19,348m²

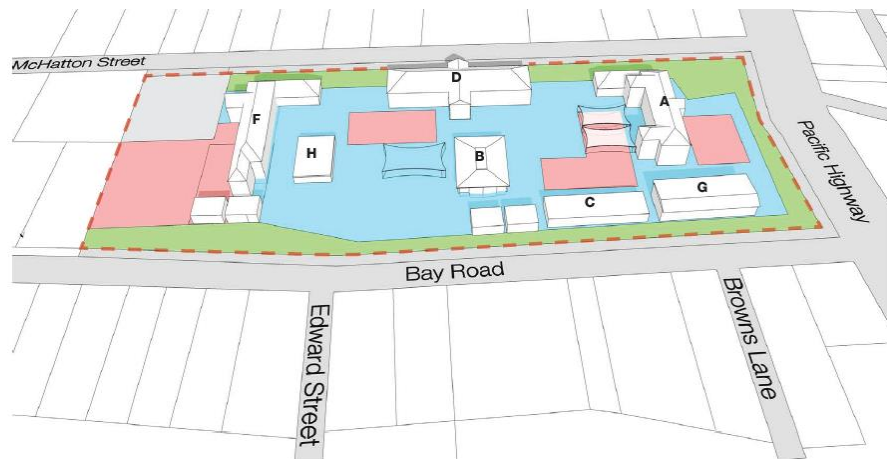
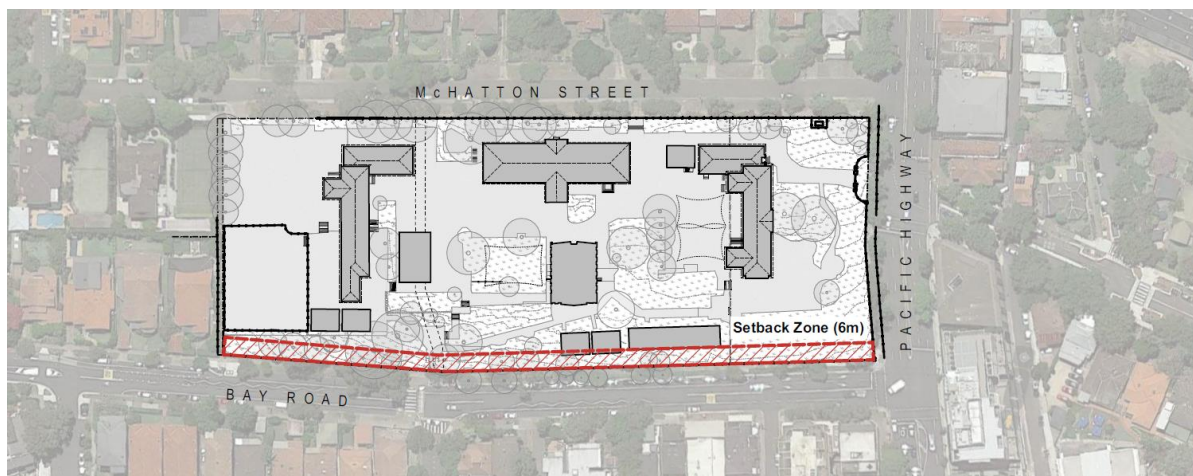


Image prepared by Taylor Brammer Landscape Architects

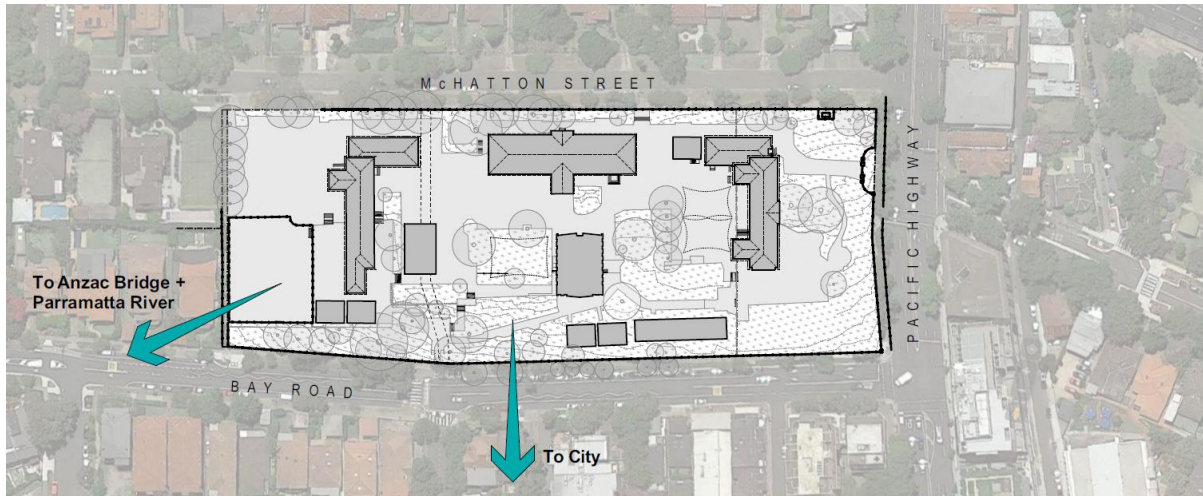
Setbacks

A minimum setback of 6m is required from the site boundary in keeping with the planning constraints and to confirm with the neighbouring buildings on the site.



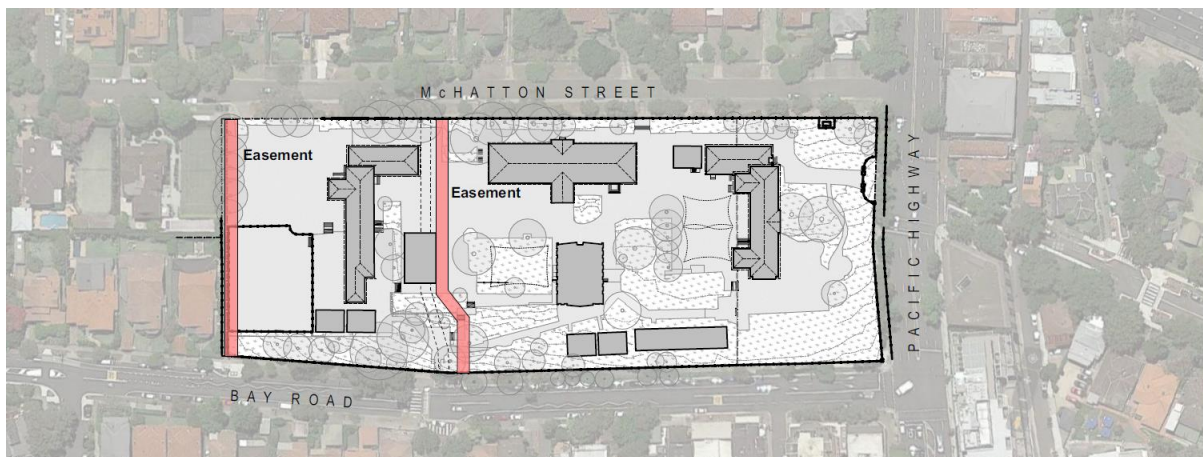
○ **Potential Views**

The site topography and location allow for potential views to the south to the Sydney CBD and the harbour as well as to the West to the Anzac Bridge and the Parramatta River.



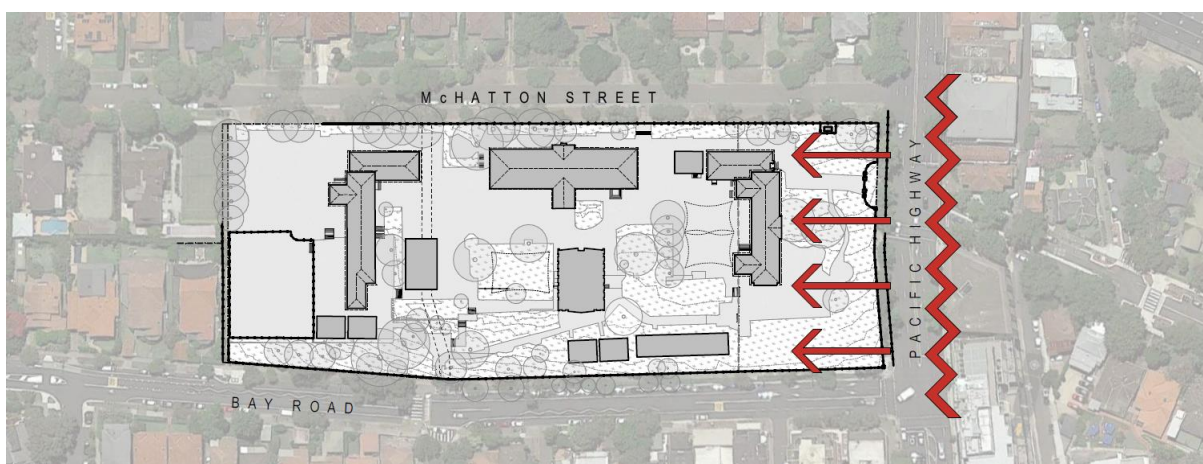
○ **Services Easements**

There are two major site easements that traverse the site from North to south. An electrical easement sits to the Western end of the site and a water easement is located in the centre of the site adjacent to Building F. Any new constructions must avoid building over these easements.



○ **Acoustic Impacts**

The Pacific Highway is a busy dual carriageway road that will create an acoustic impact on the school.



○ **Significant Vegetation**

The site features a number of large and mature trees including a large stand of angophora trees to the South of Building F along the Bay Road frontage.



Image prepared by Taylor Brammer Landscape Architects

● **Site Topography**

The site falls steeply from McHatton Street in the North to Bay Road in the south. This divides the site into 3 distinct levels –

- The upper level along the McHatton Street frontage
- The courtyard level to the centre of the site
- The lower level along the Bay Road Frontage



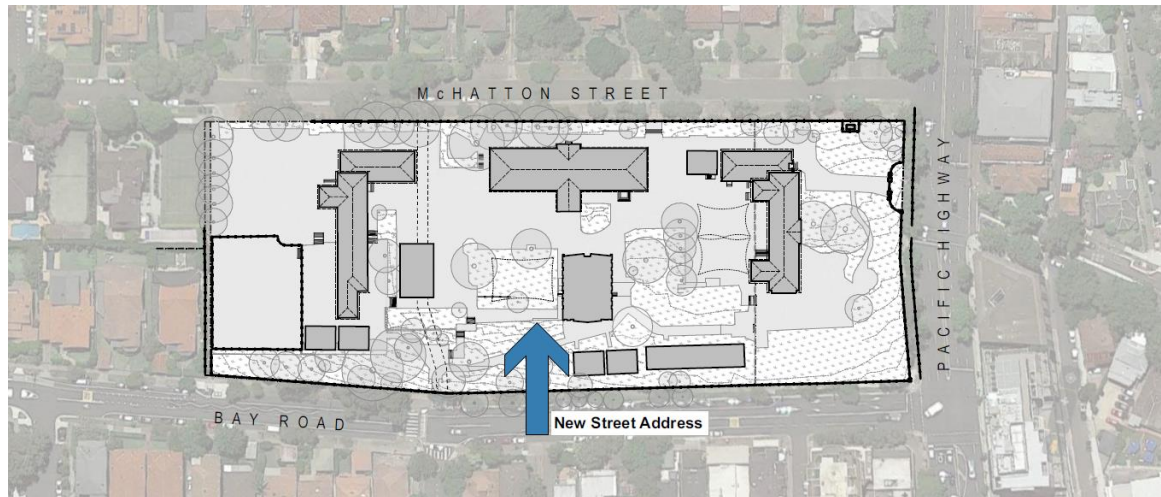
Image prepared by Taylor Brammer Landscape Architects

Design Objectives

Following the above site analysis and through the initial consultation process with the school the following design objectives were established for the project -

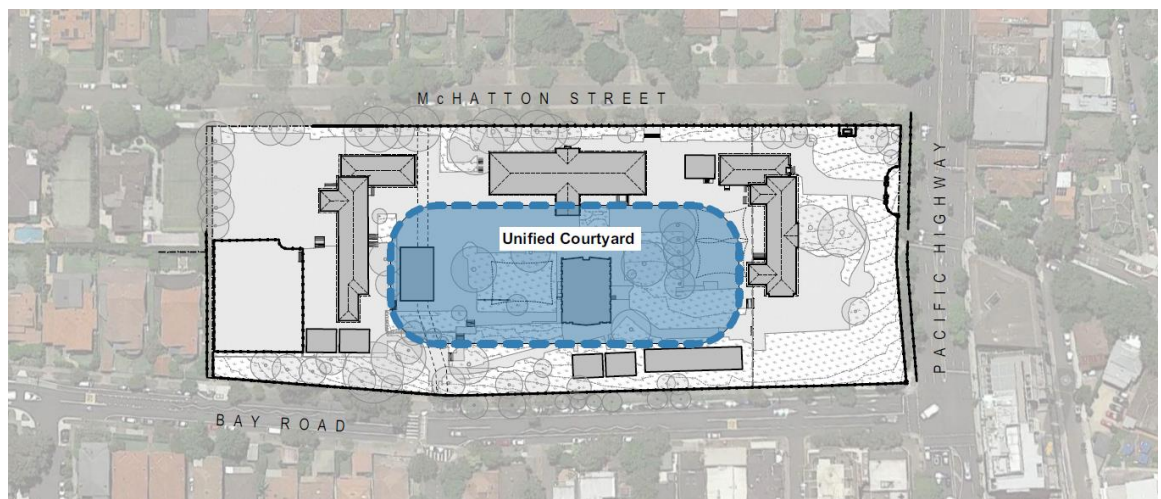
- **New Street Address and Accessible Site Entrance**

The development should create a new main site entrance that improves the connectivity of the site and also an open and accessible entrance into the facilities.



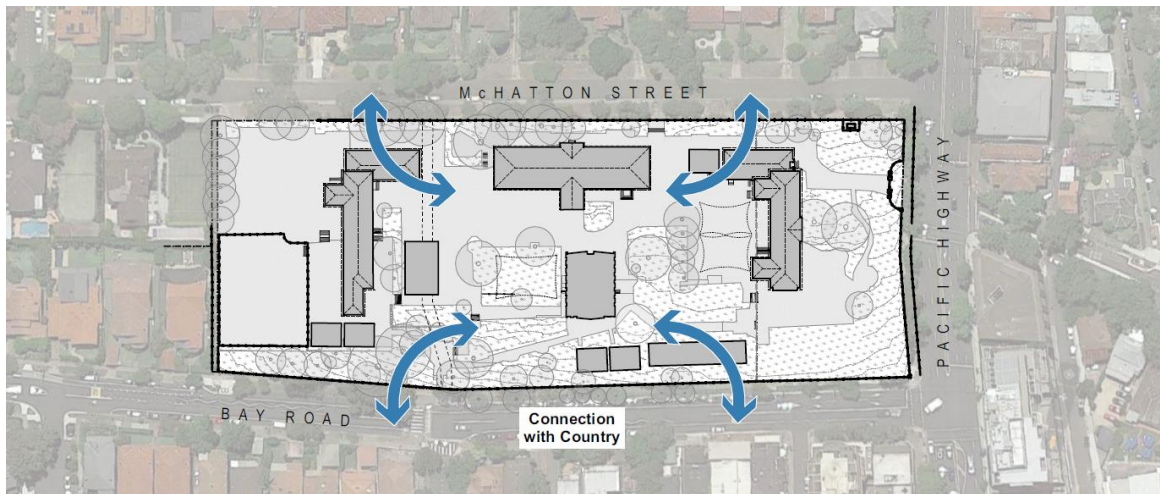
- **Unify Courtyard**

The development should open up the central courtyard and rationalise the play space to create an open and functional play space in the centre of the school.



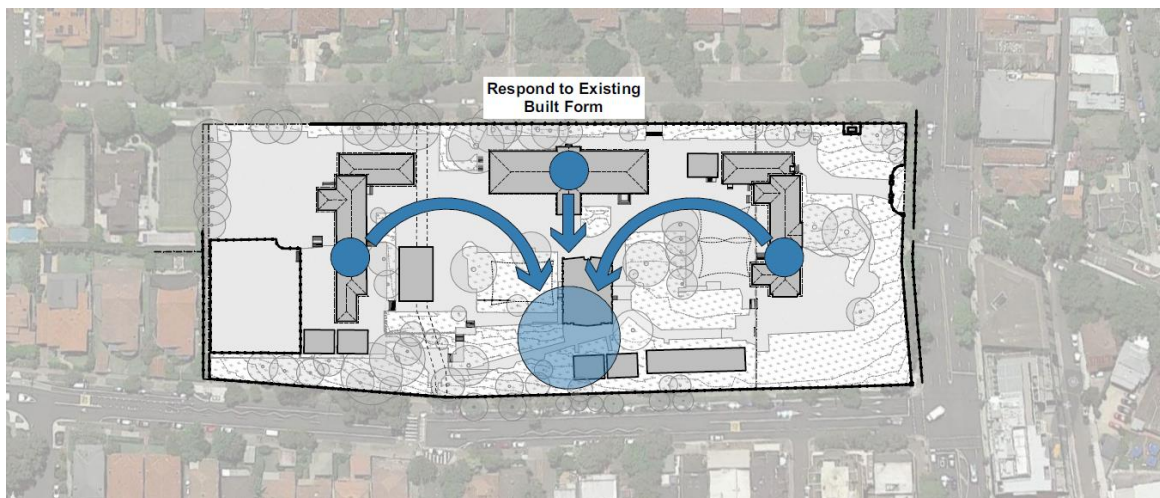
- **Connection with Country**

The site should honour country and the nature of the site, highlighting and celebrating the indigenous heritage of the site.



- **Respond to Existing Built Form**

The design should respond sensitively to the existing built form on the site – particularly the heritage listed items.



Masterplan Options

As part of the design process a number of masterplanning options were developed. These options were analysed and considered in consultation with the school and the Department of Education.

All options sought to meet all relevant educational design principles as well as meeting the design objectives outlined above, whilst achieving the required staff and student capacity on the site.

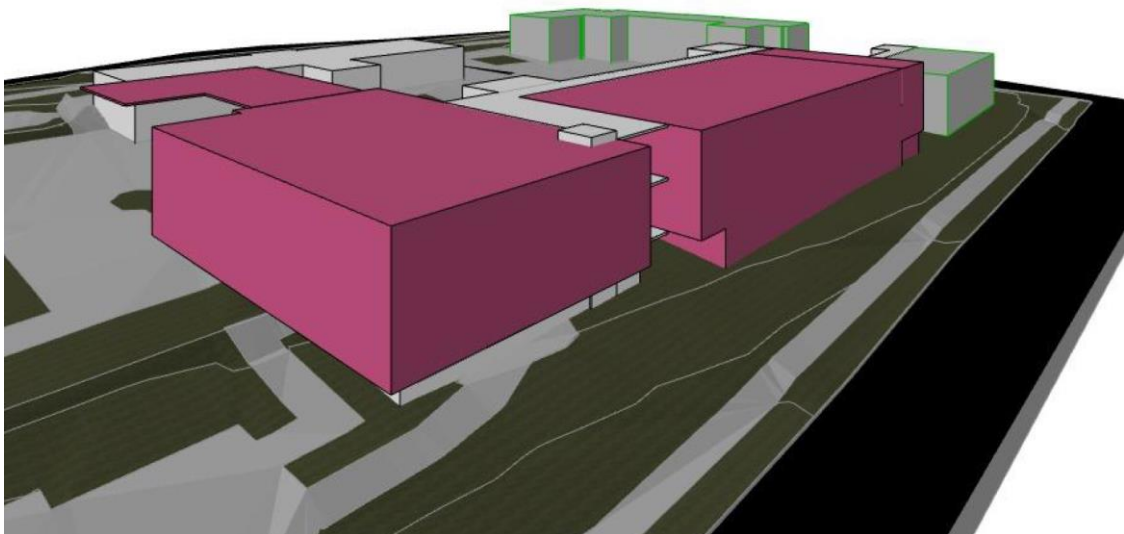
The options considered are shown below -

- **Option 1**

This option locates two buildings along the Bay Road Frontage of the site. The space between the two buildings creates the new site entry point. The Hall and Library would open off the gap between the buildings to allow them to function easily as shared public use facilities. This options retains Tree 16 – a significant tree adjacent to the Hall Building.



Site Plan – Level 2 / Courtyard Level



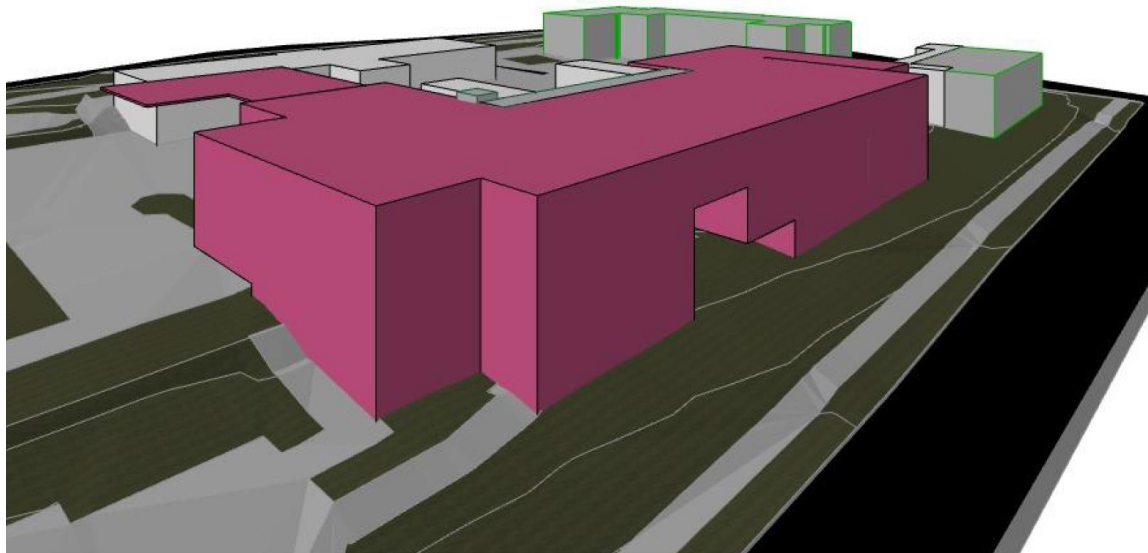
Overall Perspective – South-West

- **Option 2**

This option creates a single building to the Bay Road frontage with a connection created through the lowest level for the new site entry. The Library and Hall are located on the second level – opening into the courtyard. This option also retains Tree 16 adjacent to the Hall.



Site Plan – Level 2 / Courtyard Level



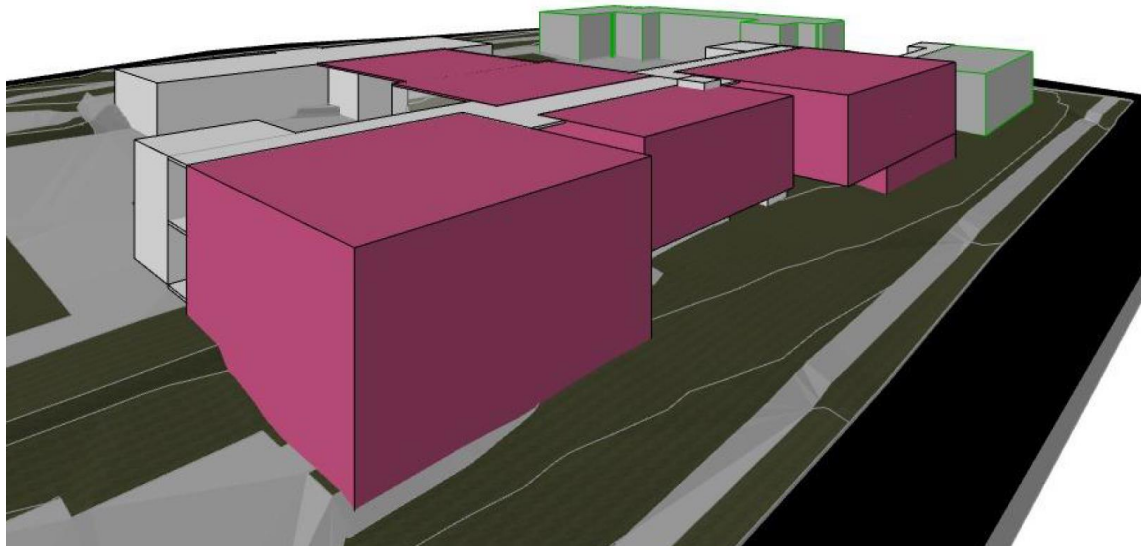
Overall Perspective – South-West

- **Option 3**

This option breaks the building into 3 forms across the Bay Road frontage. The Eastern space between the two buildings creates the new site entry point. The Hall and Library would open off the new site entry area to allow them to function easily as shared public use facilities. This option places the Hall in the centre of the site – allowing it to connect with the Covered Outdoor Learning Area (COLA) and the existing canteen in the centre of the site. This option also retains Tree 16.



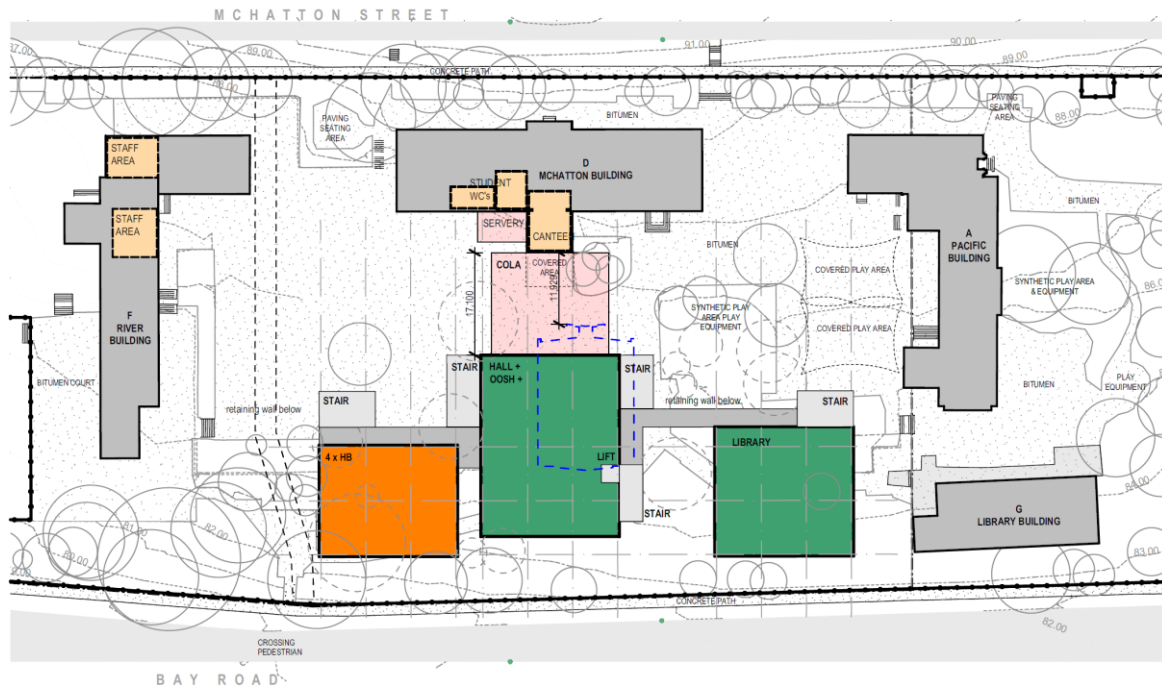
Site Plan – Level 2 / Courtyard Level



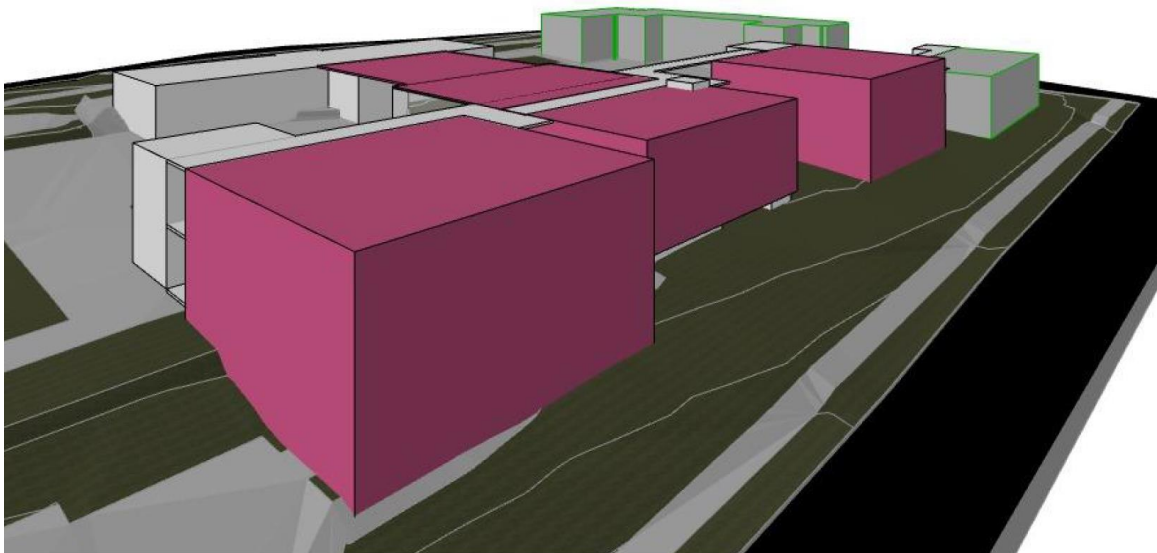
Overall Perspective – South-West

- **Option 4**

This option employs the same site planning as Option 3, but increases the Eastern separation between the buildings in order to retain both significant trees within the centre of the site – Tree 16 and Tree 43. Additional elevated walkways are required to connect the buildings in this configuration.



Site Plan – Level 2 / Courtyard Level

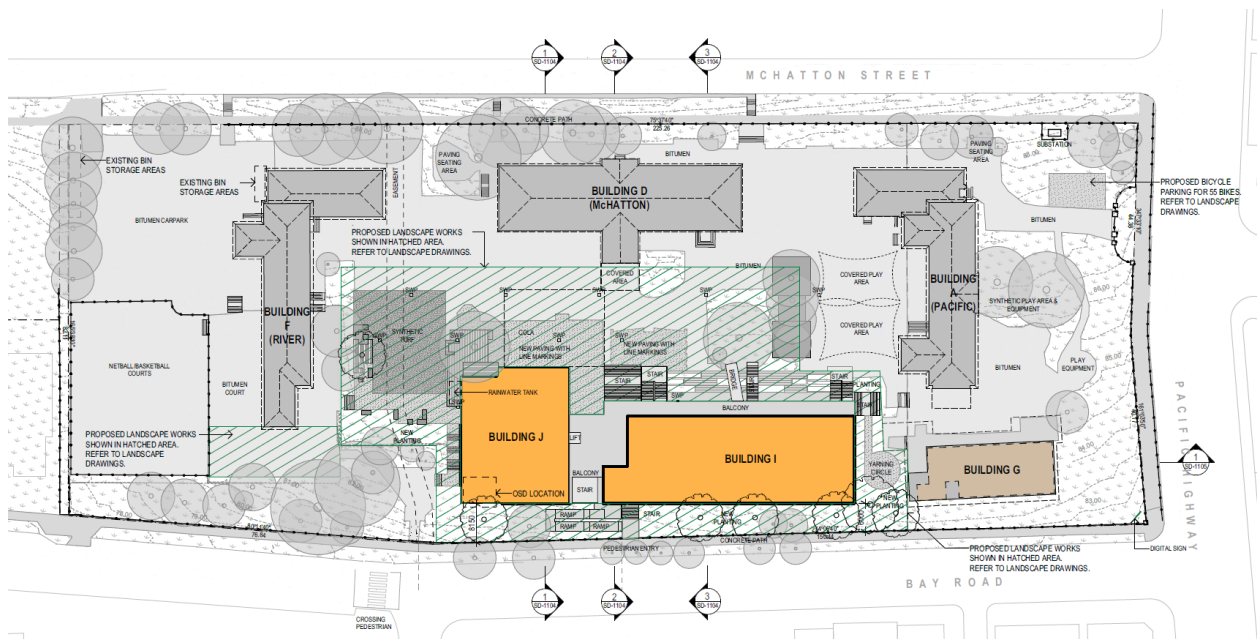


Overall Perspective – South-West

The masterplan options outlined above were analysed and considered by the stakeholders with the following key outcomes:

- While Option 4 allowed for the retention of Tree 43, the amount of retaining walls that were required around the existing root zone of the tree would significantly impact on the functionality of the building. Further to this, the extent of elevated walkways required to connect the buildings around the tree meant that this option was considered impractical.
- The location of the Hall and Covered Outdoor Learning Area in Options 3 and 4 was considered undesirable because it breaks up the central courtyard space – restricting the flow of students and visibility around that area. Further to this, it was felt that the combination of the Hall, Covered Outdoor Learning Area and Canteen could lead to congestion in the centre of the site.
- The planning of Option 2 did not support the creation of the Hall and Library as shared facilities as it required the entire school to be opened to allow access to these spaces. On the other hand the planning for the other options allowed for simple access and potential line of security to separate the Hall and Library from the remainder of the school.
- It was felt that Option 1 provided the most open and simple courtyard space – with as few interruptions as possible. Whereas the wings of the Building in Option 2 and the Hall Space in Options 3 and 4 interrupted the central courtyard space.
- It was felt that the planning for Option 1 represented the most simple and efficient planning meaning that it was also the most constructable option.

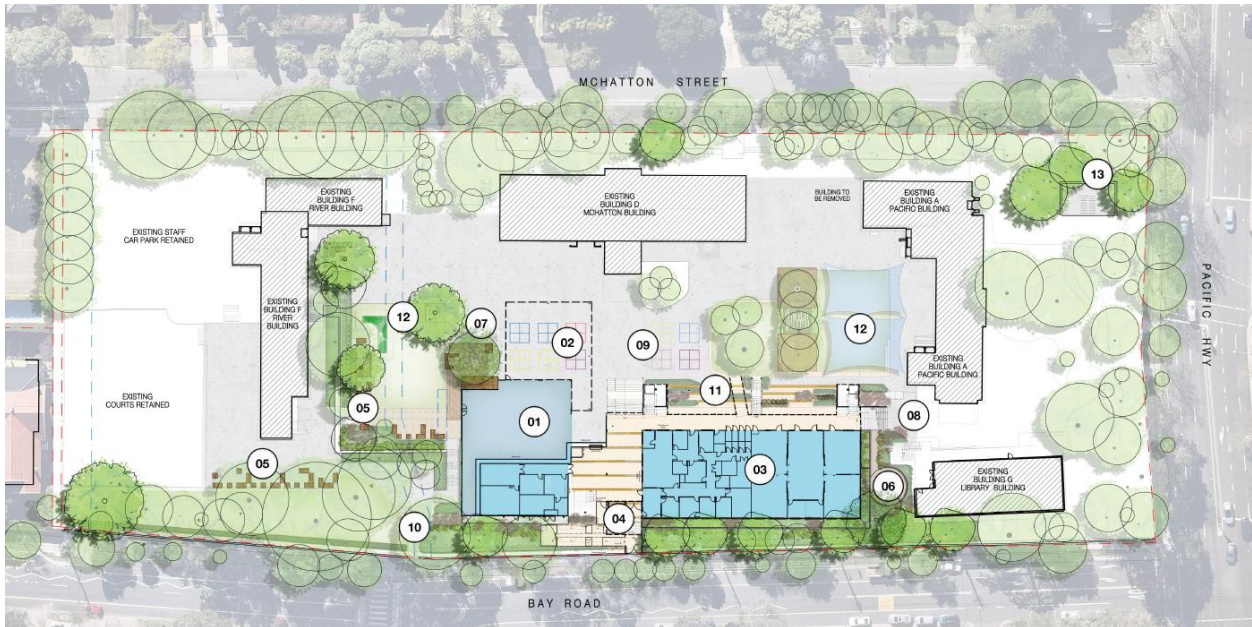
Following this analysis **Option 1** was selected as the preferred masterplan for the site. The proposed scheme has been developed on this basis.



Proposed Site Plan – Level 2

Design Statement

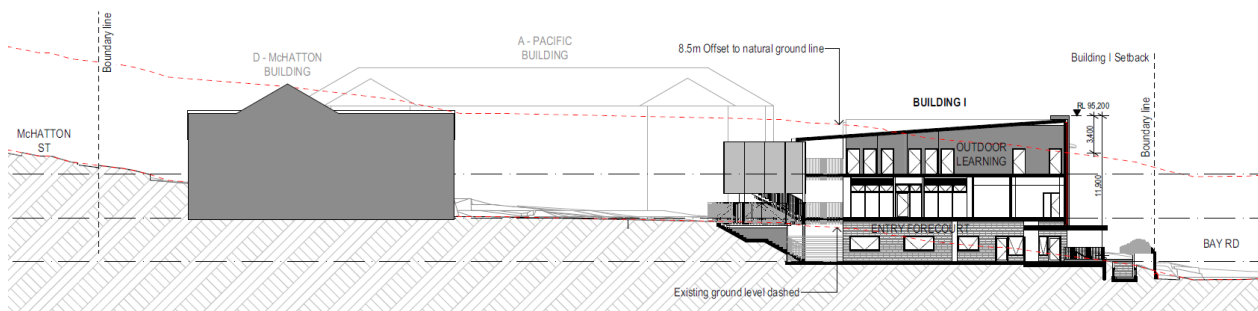
The proposed development involves the creation of two new buildings along the Bay Road frontage of the site – presenting a new street presence for the school to the South of the site. This allows for the creation of a new main site entry at the connection between the buildings.



Proposed Landscape Plan - Image prepared by Taylor Brammer Landscape Architects

The buildings are 3 storeys tall. The levels of the building have been structured to connect into the existing topography and platforms – as follows:

- Level 1 – Bay Road Street Level
- Level 2 – Existing Central Courtyard Level
- Level 3 – Top Storey of the Proposed Buildings



Site Section – Through New Site Entry

These levels allow for the building to connect into both the existing site – at the central courtyard level – as well as the Bay Road Street frontage. This allows for the new site entry to provide an accessible path of travel into Level 1 of the proposed new building and, from there, via a new lift into the remainder of the proposed building and into the existing site.

The new entry forecourts provides a direct connection (with appropriate lines of security) into the new site Administration facilities as well as into the remainder of the site. A direct stair connection extends the entrance forecourt up to the existing Central Forecourt level – connecting at the centre point of the courtyard with views to the existing McHatton Building (one of the heritage listed buildings). A second stair also provides access to Level 2 – providing access into the Hall and Library areas. This allows them to function as shared public use facilities.



New Main School Street Entry – Perspective

The Western Building (known as Building J) includes the Hall on Level 2 of the building – connecting into the existing courtyard area via the Covered Outdoor Learning Area (COLA) - with plant areas and other facilities located underneath in Level 1. The Eastern building (known as Building I) includes the following functions –

- Level 1 – Administration Facilities and 4 Home Bases
- Level 2 – Library Facilities and 4 Home Bases
- Level 3 – 8 Home Bases

Further to this, within the existing Building G the existing Library space is refurbished into 3 Home Base spaces.

Full detailed plans for the proposed facilities are provided in the **Architectural Drawings**.

The buildings themselves present a strong façade to the Bay Road street frontage whilst opening to verandahs and courtyard spaces to the North, to allow the buildings to connect into the remainder of the site.



Bay Road Street Frontage – Perspective

The materiality and articulation of the elevations to the building takes cues and detailing from the existing heritage listed elements on the site to create a contemporary building form that responds sensitively to the existing built form on the site.

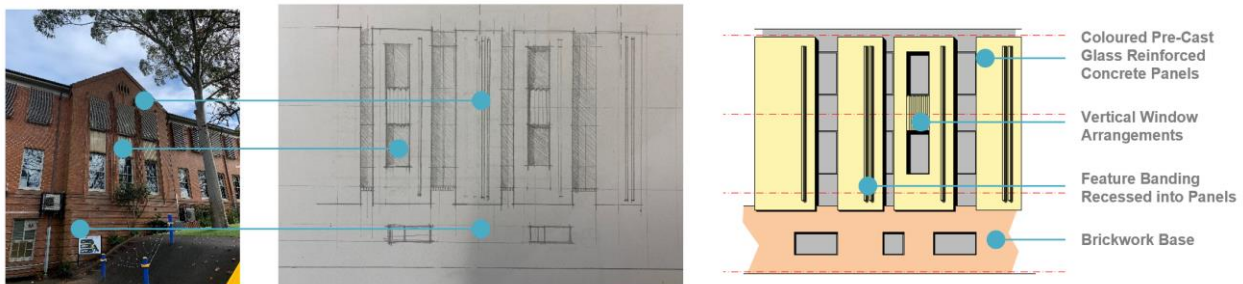
The space around the proposed buildings seeks to manage the level changes created by the new building in order to create functional spaces through the use of terracing to the North of the building. The central courtyard is rationalised and simplified to create a large central gathering space in order to support the increased population of the school.

1.2 Materiality and Façade Strategy

Architecturally, the new building takes its cues from the existing materiality of the site. The site is characterised by brickwork and sandstone - the existing buildings are predominantly brickwork and sandstone features are used in the landscaping and the heritage listed fencing and gates.

In response the base of the building is clad with face brickwork and the upper levels are finished with a panelised façade system of glass reinforced concrete in a sandstone colour.

The articulation of the panelling is structured to reflect the vertical nature of the existing windows as well as the vertical features found in Building A – The Pacific Building (as shown below).



Materiality and Façade Strategy

The volume of the hall is clad in modern compressed fibre cement (CFC) cladding to create a contemporary finish in contrast to the materials referencing the heritage of the site. Similar forms are created along the length of the building to disrupt the mass of the form and reference the gable forms generated along the length of the heritage buildings.



Overall View - Perspective

Feature red panelling breaks up these panels in reference to the feature red panelling and doors that are found throughout the remainder of the site.



Existing Building F – The River Building

1.3 New Site Entry

As discussed above, the development aims to create a new main site entry to the site in order to improve connectivity into the site and to provide an accessible point of entry for the site. The need for this new entry was determined following a review of the existing entrance points on the site.

The site includes 5 existing gates that provide pedestrian access into the site:

- **Gate 1 - McHatton Street West - Main Pedestrian Entry** - Provides pedestrian access from McHatton Street and connects the existing Administration area on the site. It provides access via stairs and is not DDA compliant.
- **Gate 2 - McHatton Street Central** - Provides access from the Kiss and Drop area on McHatton Street into the site. Access is via stairs and is not DDA compliant
- **Gate 3 - Dorothy W Bull Memorial Gates** - Provides access from the Kiss and Drop area on McHatton Street into the site. Access is via stairs and is not DDA compliant.
- **Gate 4 - Crows Nest House Gates** - Provides access from the Pacific Highway into the site. This gate provides level access into the North-Eastern corner of the site. While this provides a DDA compliant access point to a portion of the site (the upper platform along the McHatton Street frontage) it does not connect into an accessible path of travel that connects into the remainder of the site. The gate structure is heritage-listed.
- **Gate 5 - Bay Road Entrance** - Provides access into the site from Bay Road. Access is via stairs and is not DDA compliant. The gate forms part of the heritage-listed fence to this frontage.

As a result of this analysis, it was determined that a new gate that acts as the main site access should be created as part of this project for the following reasons -

- **DDA Compliance** - As outlined above in the analysis of the existing gates on the site, only the Crows News House Gates to the Pacific Highway frontage provide access into the site that doesn't require the use of stairs. However, these gates connect to the highest point of the site and do not provide an accessible path of travel into the main courtyard of the site or the remaining facilities. Further to this, the bus and vehicle pick up and drop off zones are located on McHatton Street and Bay Road.

Therefore, it wasn't considered appropriate or equitable to locate the only accessible gateway into the site on the Pacific Highway frontage. As a result, it was decided that a new site entrance should be provided as part of this development along with a new lift and ramps in order to allow for an accessible entry point to the site and connections into the central courtyard in the site. This is discussed further in the **Access report and the Supporting Statement prepared by Philip Chun.**

- **Relocation of the Administration Facilities** - Part of the functional requirements for the school is to expand the existing administration facilities. While the existing facilities are located in Building F, it was determined that it wasn't possible to accommodate the additional area requirements in the current location. This is because there wasn't sufficient area within Building F to accommodate the amount of additional Administration Area that was required for the proposed school capacity. This was limited further by the restrictions that working within a heritage-listed building would have placed on the planning that could have been achieved in the building. It was felt that these restrictions would have limited the functionality of the Administration facilities had they been expanded in their current location.

As a result, the new administration facilities are created in the proposed development.

It is a requirement for all Department of Education Schools that the administration be located at the main point of access into the site. This allows for appropriate levels of security and access control to be provided in order to protect the students at all times. Due to planning restrictions on the site, it wasn't

possible to locate the new administration facilities in order to allow one of the existing entry gates to provide the necessary direct public access.

Therefore, it was determined that a new entry should be created in close proximity to the new administration facilities.

- **Shared Public Facilities** - It is proposed that the Library and Hall facilities within the proposed development will be opened for use by the public outside of school hours. As a result, a site entrance is required that provides direct access into these facilities. Due to the planning restrictions on the site (such as the stand of mature angophora trees and the in-ground water services easement adjacent to the Bay Road gates) it wasn't possible to facilitate this entry using the existing gateways on the site. As a result, the creation of a new entrance gate was required.

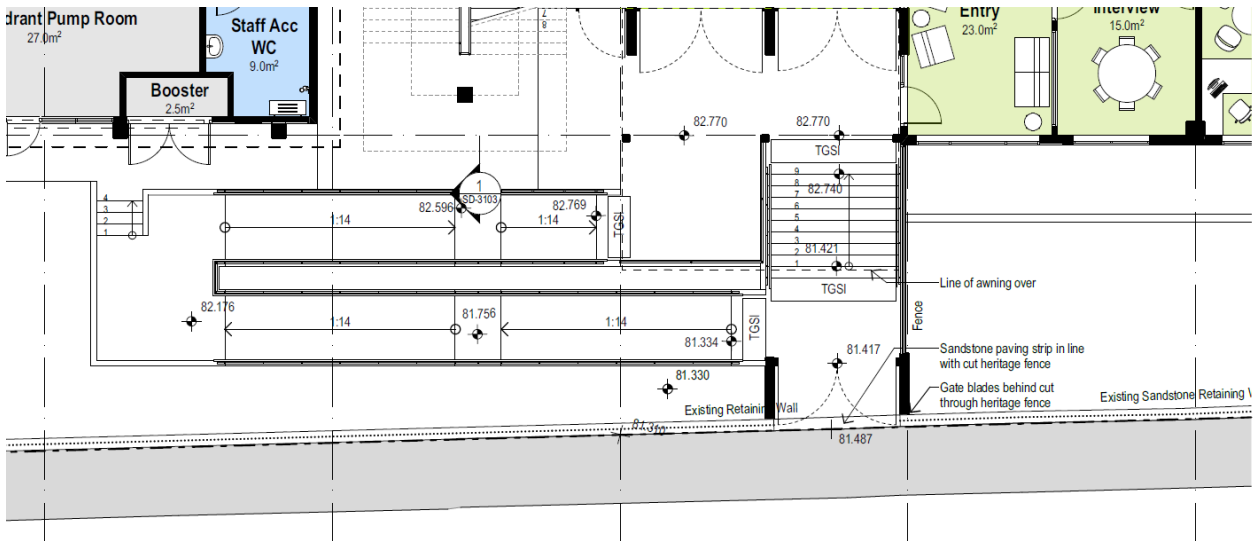
The new entry gate to the site has been designed in order to create a functional and accessible new point of access to the site, while also minimising the impact on the existing heritage-listed fence.

As outlined above, the proposed new entry gate is intended to provide a DDA compliant entrance to the site. However, given that it also functions as the main point of access to the shared public facilities as well as a main point of access to the site, it will also need to facilitate a large volume of pedestrian movement at the peak pick-up and drop-off times.



New Site Entry – Bay Road - Perspective

The size of the gate has been planned in order to comply with the Education Facilities Standards and Guidelines (EFSG). This dictates that a width of 700mm should be allowed for a row of students (referred to as a 'movement lane'). Main paths of travel within the school are required to allow for a minimum of 3 movement laneways at all times. However, given the amount of pedestrian traffic that the proposed main entrance will experience during times of pick-up and drop-off as well as during events in the shared public facilities, it has been determined that the entrance should allow for 4 movement laneways. This allows for two movement laneways entering the site as well as two movement laneways exiting the site.



Proposed Site Entry Plan – Level 1

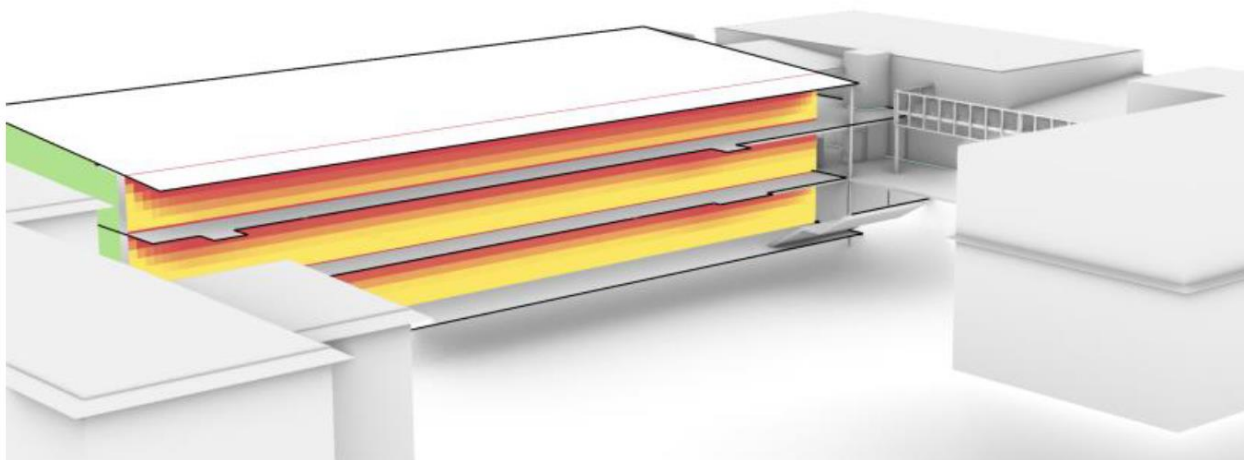
As a result, the width of the entrance gate and insertion in the existing heritage fence has been set at 3500mm (the width of four 700mm wide movement laneways). This width allows for, what is considered, the minimum circulation width that is appropriate for school operations in order to minimise the impact of the new site entry on the heritage-listed fence.

1.4 Window Strategy

The windows have been created within the elevations to reflect the articulation of the façade, as discussed above, with a predominantly vertical expression. The windows are incorporated into the panelised façade systems of the Southern façade.

The windows have been sized in order to maximise the natural light and ventilation provided to the internal spaces. This strategy has been developed in consultation with the ESD consultant.

Further details about the placement and sizing of windows can be found on the **Architectural Drawings**.



Daylight Analysis Diagram - Image prepared by Integral Group

1.5 Connection to Country

Initial consultation has been undertaken with local indigenous groups including the Metropolitan Local Aboriginal Land Council and the Gawura Aboriginal Education Consultative Group. As a result, a strategy has been developed to facilitate the development of an appropriate response to country within the development.

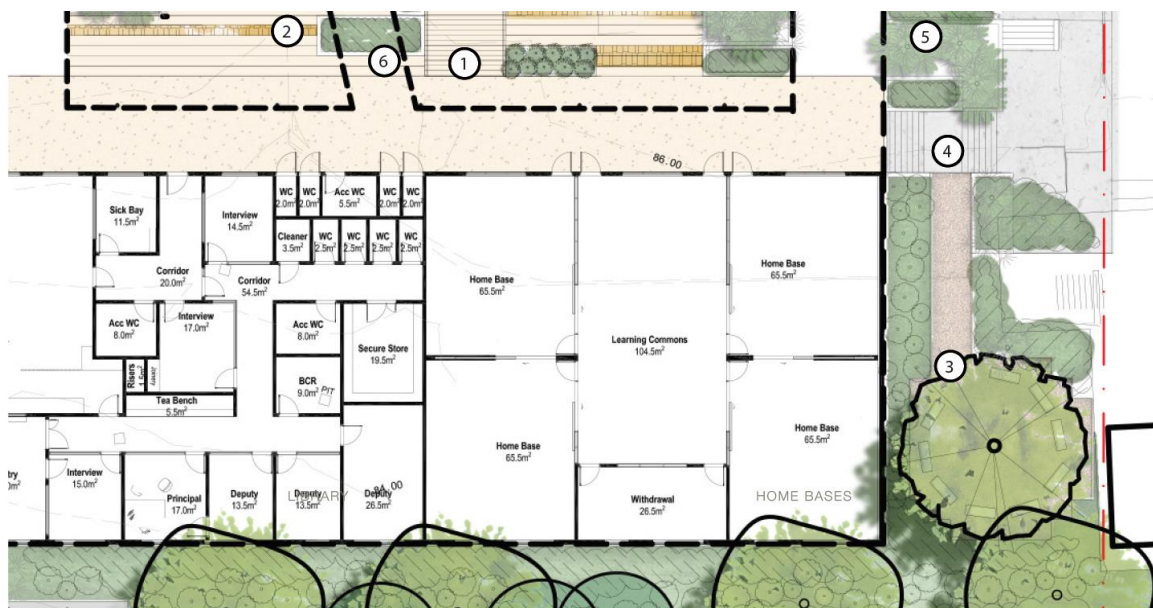
Tocomwall has been engaged to develop a Connecting with Country (CwC) strategy for the project. Their strategy aims to:

- Consider cultural connection to the landscape of the site where the development is to take place.
- Document the cultural heritage of place through time.
- Recommend tangible approaches for architect and designers to incorporate Aboriginal cultural meaning and connectedness to place in the design, built form and visual amenity of new constructions.

As part of the CWC process, Tocomwall is undertaking a consultation process with Aboriginal people or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places at the site. This includes the Local Aboriginal Lands Council, an Aboriginal Education Consultative Group representative, Native Title claimants, and other Registered Aboriginal Parties under the Aboriginal Heritage Act 2006.

Using the Aboriginal cultural heritage consultation requirements (2010), Tocomwall's consultation process consists of four stages. The first stage involves notification of the proposed project and registration of interest. In stage two, interested stakeholders are presented with information about the proposed project. Stage three involves gathering information about the cultural significance of the project site and determining how this information may inform the design process. Stage four consists of collating this information and design suggestions in the form of a Connecting with Country (CWC) proposal which is presented to our client.

Overall, Tocomwall's Connecting with Country (CwC) strategy aims to facilitate a respectful and reciprocal relationship between Indigenous and non-Indigenous stakeholders to create new developments that reflect the site's Indigenous past, present and future.



Proposed Landscape Plan including Yarning Circle - Image prepared by Taylor Brammer Landscape Architects

It is proposed that this response will focusing on honouring country and nature. It is proposed that this will involve the creation of the following elements within the development –

- Incorporation of native planting species in the landscaping – including bush medicine and bush tucker species
- Incorporating native grasses into the landscaping that can also be used for educational purposes (teaching weaving and other skills)
- Creation of a yarnning circle
- Incorporating artworks and interpretive signage into the site – particularly in the entry forecourt area
- Returning indigenous artefacts to the site and displaying them for educational purposes

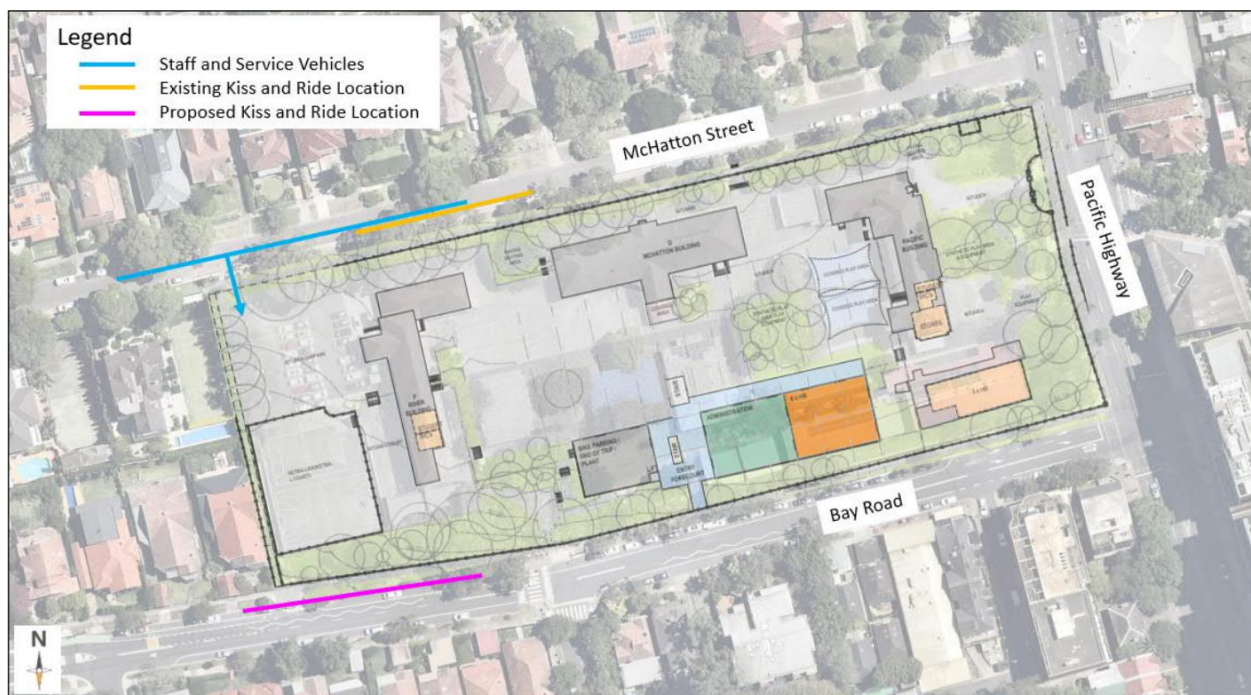
It is proposed that the final details of how the response to country is achieved within these elements will be developed in consultation with local land council and members of the local indigenous community through the consultation process that has been developed by Tocomwall. This process has been commenced prior to the lodgement of this application and is proposed to continue through the remainder of the project.

For further details please refer to the **Connection with Country Report prepared by Tocomwall** that is included in this submission.

1.6 Traffic Management

A traffic management plan has been developed for the site following a consultation process that involved the creation of a Traffic Working Group. The group included the Department of Education, North Sydney Council, Transport for NSW, Sydney Buses and Ason Group (the traffic engineers for the project). This working group has reviewed the traffic management systems for the site on a wider scale.

The traffic management plan proposes the creation of a new Kiss and Ride area to Bay Road to support the proposed additional population on the site and to connect into the proposed new entry.



Proposed Kiss and Drop Arrangements - Image prepared by Ason Group

The following provisions are also made for bicycle and scooter parking on the site –

- 60 parking spaces – including 8 dedicated for staff use (located in Level 1 of Building J)
- End of Trip Facilities including –
 - Lockers for personal storage – located in a secure area in Level 1 of Building J
 - Shower and Toilet facilities for staff use

Full details of the proposed traffic management measures are provided in the **Traffic Impact Assessment prepared by Ason Group**.

1.7 Acoustic Issues and Development Near Busy Roads

As highlighted above the site is located adjacent to the Pacific Highway. This noise generated by this busy road will create an acoustic impact on the site.

In order to address the impact of this road on the site we have reviewed the recommendations outlined in Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008). As a result, the planning has taken the following measures into account –

- **Siting of Buildings** - The proposed buildings have been located to avoid the Pacific Highway frontage of the site. As a result, they have been located on the Bay Road frontage. Further to this, the buildings were located as far as possible to the West of the Bay Road frontage – taking into account the limitations created by the in-ground water services easement and the large stand of mature angophora trees. This is in keeping with the recommendations in Section 2.4.2 of the guideline.
- **Courtyard Play Area** – The planning has been established to maximise the use of the central courtyard area within the school. This courtyard area is protected from the noise of the Pacific Highway by the existing buildings as well as the proposed buildings. This is also in keeping with the recommendations in Section 2.4.2 of the guideline.
- **Acoustic Treatment** – The acoustic engineer for the project (Marshall Day Acoustics) has provided details on other acoustic treatment that will be required to mitigate the impact of the traffic noise on the project. Further details of these measures are outlined in the **Noise and Vibration Assessment prepared by Marshall Day Acoustics** attached to this submission.

Response to Design Quality Principles

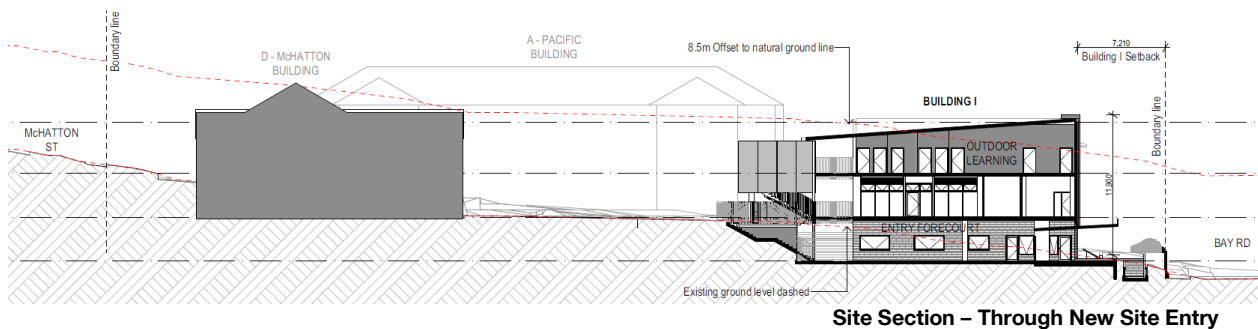
Below is a summary of how the proposed scheme responds to the Design Quality Principles outlined in the State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 -

1.8 Context, Built Form and Landscape

As mentioned above, one of the key goals for the project is to create a new street address to the Bay Road frontage and, as a result, an increased street presence to this street. The building has been located along the frontage in order to sit between the services easement and the mature stand of angophora trees to the Western end of the site and existing Building G to the East of the site. These existing restrictions dictate the location of the building along the Bay Road frontage of the site.

The scale of the building form has been established as 3 storeys in order to accommodate the facilities and home bases required for the increased site population. As discussed above, the levels of the building have been structured to connect into the existing topography and platforms – as follows:

- Level 1 – Bay Road Street Level
- Level 2 – Existing Central Courtyard Level
- Level 3 – Top Storey of the Proposed Buildings



These levels allow for the building to connect into both the existing site – at the central courtyard level – as well as the Bay Road Street frontage. This allows for the new site entry to provide an accessible path of travel into Level 1 of the proposed new building and, from there, via a new lift into the remainder of the proposed building and into the existing site.

The scale of the building that is produced is consistent with the scale of the existing 2 and 3 storey buildings on the site as well as the multi-storey residential and commercial developments opposite the site along the Pacific Highway.



Adjoining Properties to the Pacific Highway to the East of the Site - Image source: Google maps

Therefore, while the residences directly opposite the development along Bay Road are largely low density residential housing, the proposed building form is considered to be in keeping with the scale and mass of the surrounding area.

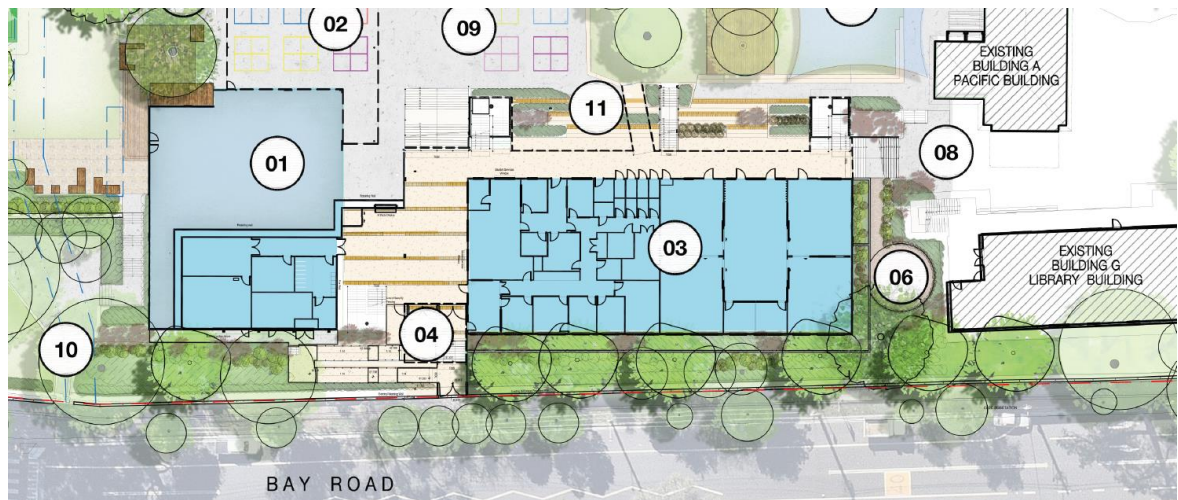


Adjoining Properties to Bay Road to the South of the Site - Image source: Google maps

The impact of the mass and scale of the proposed buildings has been considered in the following ways -

- **Setbacks**
The building is located with appropriate setbacks from the Bay Road boundary of the site – a minimum setback of 6m to the Eastern end of the building.
- **Heritage Fencing and Landscape Setting**
The existing heritage fencing is retained along the Bay Road site boundary – except where the new entrance is created (as discussed above).

In addition to this the majority of the existing street planting and landscape buffer trees along the Bay Road boundary are retained. Additional landscaping is provided along the boundary line to ensure that the proposed buildings sit in behind a landscaped buffer to the street – softening the impact of the building.



Landscape Buffer Planting – prepared by Taylor Brammer Landscape Architects

The overall landscaping strategy is documented separately in the **Landscape Design Report prepared by Taylor Brammer Landscape Architects.**

- **Overshadowing**

The impact of the shadows produced by the proposed buildings have been reviewed. Because the site fronts directly onto Bay Road the majority of the overshadowing created by the proposed building impacts on the road reserve rather than the neighbouring buildings across Bay Road to the South. The proposed buildings only impact on the neighbouring properties after midday in the Winter months.



Sunshading Studies – June 21st - 9.00am



Sunshading Studies – June 21st – 3.00pm

- **Visual Privacy**

As with the overshadowing, the impact of the proposed development on the visual privacy of the neighbouring properties is reduced by the buffer of Bay Road as well as the presence of generous landscape buffer planting and street planting to both sides of the street.



Overall View – South West - Perspective

1.9 Sustainable, Efficient, Durable (Environmental Amenity)

The project has been designed to achieve a 5 Star Green Star Design and As-Built rating. The environmental performance of the development has been considered in the following ways -

- **Siting and Orientation**
The buildings have been orientated to face North/South rather than East/West – allowing them to avoid thermal heat gains from the Western and Eastern sun.
- **Natural Light and Sun Shading**
Large windows are provided to the teaching spaces and staff areas. The windows that face south don't require sunshading due to the building orientation and the windows that face north are protected by the verandahs and eaves of the building.
- **Natural Ventilation**
Large openable windows are provided to all classroom and staff spaces to allow for a good amount of natural ventilation to the spaces. This means that, while air conditioning is to be provided as part of this development, natural ventilation can be maximised in order to reduce the reliance on artificial cooling.
- **Solar Electricity**
Allowance has been made for the inclusion of a 75kW PV array to the site. This is created through a combination of existing systems located on the existing buildings and supplemented by an additional PV array to roof of the proposed new building (Building I). This system will offset the demands for the site.
- **Energy Efficient Fixtures and Equipment**
Equipment and fixtures will be selected to minimise their energy use and wastage. This will include efficient water fixtures, energy efficient light fixtures (LED) with motion sensors and zoned switching. The project also features an energy efficient air conditioning system that features a mixed mode ventilation system to limit Co2 levels in indoor spaces.
- **Rainwater Harvesting**
A rainwater tank is included to capture and recycle rain water from the roof for the use of irrigation of landscaping and the flushing of toilets.
- **Durability and Maintenance**
For the most part unfinished, highly durable materials have been selected in order to minimise the ongoing maintenance required on the site and to ensure the longevity of the buildings. This includes the use of unfinished face blockwork and pre-cast concrete panels as well pre-finished metal roof sheeting and soffit linings.
- **Landscaping**
As discussed above, the development has been planned to minimise the disruption to the existing landscaping. In addition to this the landscaping has been designed to include the provision of additional landscaping, trees and deep soil planting areas to offset the impact of the building.

Aurecon has been engaged as the ESD consultant for the project. Further details of all ESD initiatives can be found in the **Environmentally Sustainable Development Report prepared by Integral Group**.

1.10 Accessible and Inclusive

As discussed above, the new buildings have been positioned to create a new site entry and street presence to Bay Road. The siting of the building improves the connection of the school to the surrounding community and increases the accessibility of the site.

The entry forecourt that connects to the new site entry create an open and welcoming entrance to the school that provides direct connections (both via stairs and lifts) into the Library and Hall facilities as well as into the central courtyard area of the site. This allows for the Library and Hall facilities to be established as shared public use facilities. For further details refer to the **Access report and the Supporting Statement prepared by Philip Chun** which is included in this submission.



New Site Entry – Bay Road - Perspective

1.11 Health and Safety

Health and Safety issues are addressed on the site in a number of ways –

- **Quality of Internal Space**

As discussed above, the buildings have been designed to allow for all habitable spaces to have good levels of natural ventilation and natural light. This will ensure that the internal areas (the teaching spaces in particular) provide a good level of amenity to the students who will use them.

- **Child Safety**

The site and the buildings have been designed, in keeping with the Department of Education's requirements, in order to allow the students to be safe and protected while in the school. This includes designing the spaces to allow for a good level of supervision of the students at all times – whether in or out of the classroom. This also includes providing a clear and solid line of protection around the site that can be closed and monitored during school hours.

- **Play Space and Covered Play Space**

As discussed previously, the development maintains the generous amount of play space provided on the site and creates new covered walkway roofs to allow all weather access between the new facilities and the existing buildings surrounding the central courtyard.

- **Natural Ventilation**

Large openable windows are provided to both sides of the new buildings to allow for a good amount of natural ventilation to the spaces. This means that, while air conditioning is to be provided to the majority of the spaces as part of this development, natural ventilation can be maximised in order to reduce the reliance on artificial cooling. The hall building will be naturally ventilated with fans provided to assist air circulation.

- **Safe Pedestrian / Bike Access**

The creation of the new entry to the site provides a clear delineation between pedestrian movement and vehicular movement on the site. The site also provides safe areas for bikes to access the site. Bicycle parking is also provided on the site.

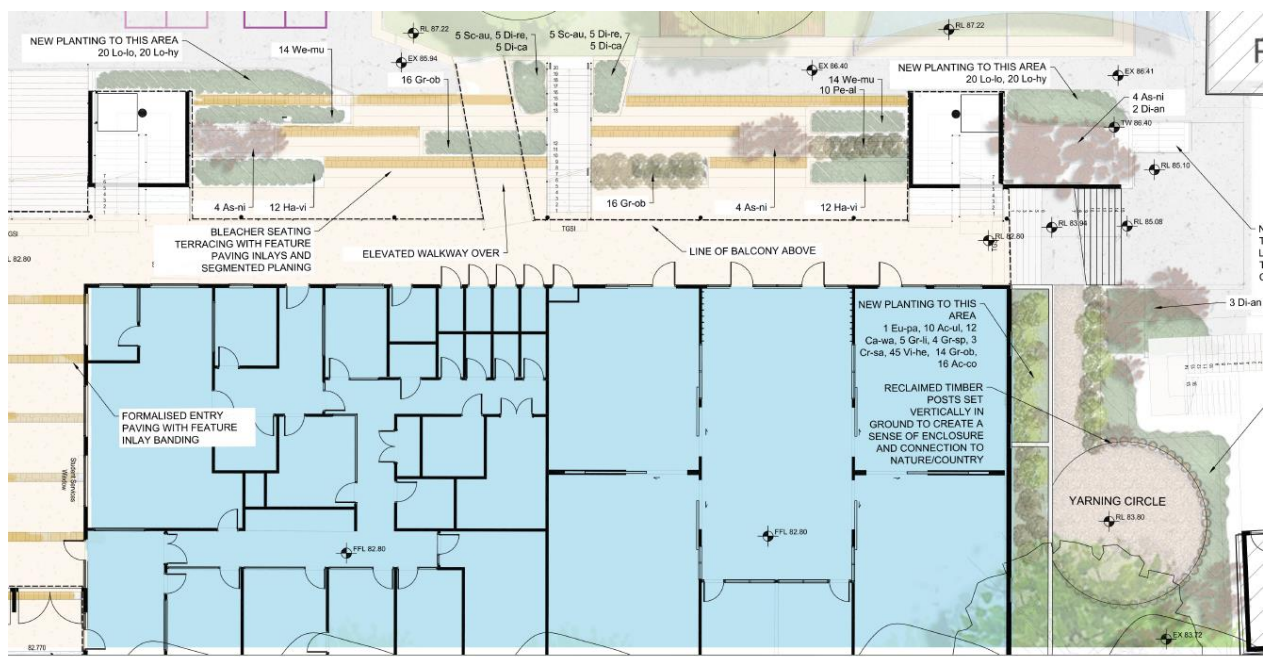
- **CPTED**

The CPTED principals have been considered and implemented into the development. This is discussed further in Section 10 below.

1.12 Amenity

As discussed in the above sections, the project creates a high level of amenity on the site by –

- Creating spaces with a strong connection to external spaces by allowing the proposed new buildings to connect out onto the central courtyard space
- Creating internal spaces with good access to natural ventilation and natural light.
- Increasing the tree canopy coverage on the site
- Creating a series of external spaces that support the needs of the students – including large informal gathering spaces, a formal tiered teaching space as well as more intimate small group spaces.

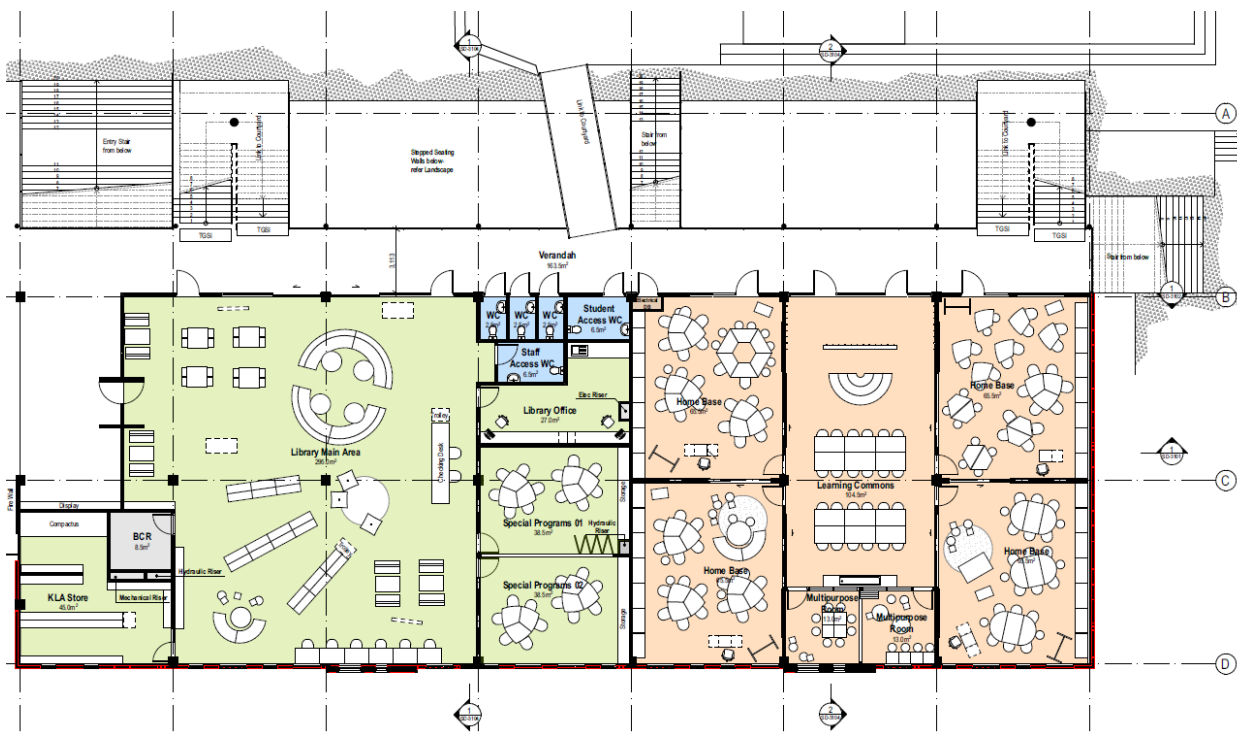


Western Courtyard adjacent to Building J - prepared by Taylor Brammer Landscape Architects

1.13 Whole of Life, Flexible and Adaptive

The Whole of Life approach has been considered in this development in the following ways –

- Ensuring that structural elements and columns are kept to the perimeter of the spaces where possible to allow for future re-configuration and adjustment of the spaces without needing large amounts of structural work.
- Internal spaces have been designed to be flexible and adaptable – particularly in the teaching spaces. The planning allows for the teaching spaces to be easily left open or closed up as required to suit the needs of the students and the teachers using them. They provide a variety of education needs and teaching styles.



Floor Plan – Building I – Level 2

- Materials have been chosen to require a minimum of ongoing maintenance. They are durable and hard wearing to ensure that they age well, without needing replacement or re-finishing on a regular basis.

1.14 Aesthetics

As discussed above, the architectural expression of the proposed new building takes cues from the existing built form on the site to create a new, contemporary building form that sits comfortably within the existing building fabric.

The base of the building is clad with face brickwork (referencing the main material of the existing buildings) and the upper levels are finished with a panelised façade system of glass reinforced concrete in a sandstone colour (referencing the materiality of the heritage fencing around the site).

The articulation of the panelling is structured to reflect the vertical nature of the existing windows as well as the vertical features found in Building A – The Pacific Building.



Bay Road East - Perspective

The volume of the hall is clad in modern CFC cladding to create a contemporary finish in contrast to the materials referencing the heritage of the site. Similar forms are created along the length of the building to disrupt the mass of the form and reference the gable forms generated along the length of the heritage buildings. These elements are given red coloured feature trims referencing the red door features in the existing buildings.

Visual Impact Assessment and View Analysis

The impact of the proposed development on the surrounding areas.

Below is an analysis of these key views –

- **View 1 – Corner of Bay Road and Pacific Highway**

From this perspective, the buildings sit within the existing line of the buildings on the site – particularly Building G at the Bay Road / Pacific Highway corner of the site. The height of the proposed building is slightly greater than the Building G form, but sits lower than the existing trees along the Bay Road frontage.

 = Image Location



Image Location – Image Source: Google Maps



Existing View – Image Source: Google Maps



Proposed View

- **View 2 – Edward Street and Bay Road Intersection**

From this perspective, the buildings sit under the existing stand of mature angophora trees and the other existing streetscape trees.

 = Image Location



Image Location – Image Source: Google Maps



Existing View – Image Source: Google Maps



Proposed View

- **View 3 – Western End of Site – Bay Road**

From this perspective the buildings are not visible from due to the volume of the existing angophora trees on the Bay Road frontage



Image Location – Image Source: Google Maps



Existing View – Image Source: Google Maps



Proposed View

- **View 4 – Edwards Street**

From this perspective the buildings are not visible from due to the massing of the existing residences and the trees along the Edwards St road reserve.

 = Image Location



Image Location – Image Source: Google Maps



Existing View – Image Source: Google Maps

Services Integration

The provision of services to the site and proposed building have been considered and integrated into the overall design outcome. A summary of the services management is outlined below –

- **Rainwater and Stormwater Management**

The rainwater from the roof of the new building is partially collected into a new rainwater tank – located underground to the West of the Hall building (Building J). The harvested rainwater is collected for use in flushing toilets and watering of gardens. An on-site detention tank is also provided as part of the overall stormwater management system. This is provided underground to the south of the site proposed building as is integrated into the landscaping of the play spaces in this area.

- **Electrical Services**

The existing electrical sub-station is to be retained along the McHatton Street frontage. It has been determined that the existing substation has sufficient capacity to service the new buildings on the site. New electrical switchboards and in-ground services reticulation is created in order to provide power to the new buildings as well as maintain power to the existing facilities on the site.

A 75Kw PV solar array is also created on the site through a combination of existing solar systems on the site as well as a new system to be provided on the roof of the new buildings (Building I)

- **Mechanical Services and Air Conditioning**

Air conditioning is provided to all areas of the proposed new building. This is provided as a centralised VRV system with a plant area located in Level 1 of Building J. The plant area are contained within the building and the walls are acoustically treated. Louvred grills are provided around the plant area. These measures minimise the visual and acoustic impact on the remainder of the development and the neighbouring properties.

- **Lighting Design**

External lighting will be provided to facilitate wayfinding and safe access to the site.

Lighting to the entry paths and ramps will be provided in the following ways –

- Wall lighting in the entry blade walls to illuminate the proposed new gate entry
- Lighting in the entry awning roof structure to illuminate the entry stairs and landings
- Low level wall lighting to the surrounding garden beds to illuminate the access ramps
- Wall lighting along the face of the building to illuminate the service paths adjacent to Building J
- Soffit lighting through the Entry Forecourt area between Buildings I and J.

Within the site additional external lighting will be provided through a combination of wall lighting and bollard lighting to provide a level of safety. All light fittings will be chosen and located in order to minimise light spill to neighbouring properties.

The operation of these lights will be managed through a timer system and will be limited to suit the school's operational requirements. External lighting will only be required after normal operational hours (typically 0700-1900) in the event the school is hosting a Community Event. Internal lighting will be automated by motion sensors and will only be required after normal operational hours (typically 0700-1900) in the event the school is hosting a Community Event.

Further details are provided in the Lighting Design Statement in by LCI.

- **Waste Management**

The existing waste management procedures on the site will be maintained as part of this development. This includes distributed bins and waste collection areas around the site. These are regularly collected into a central waste storage area (located in the existing carpark area to the North-West corner of the site). Two additional bins are provided in order to provide for the additional capacity on the site.

- **Loading Zones and Deliveries**

Deliveries and services vehicles on the site will be managed through the existing arrangements – including street parking for deliveries and service vehicle gates from the existing car park area and the Pacific Highway frontage.

Further details of the proposed services arrangements can be found with various reports included in this submission.



Street Elevation – Bay Road

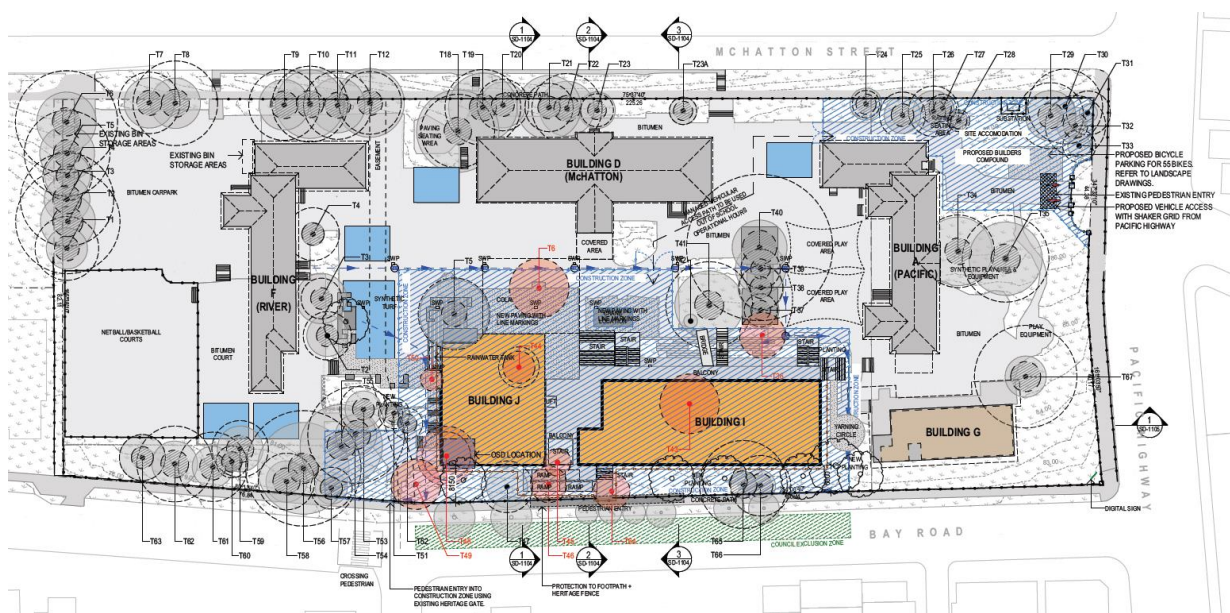
Construction Management and Continued Operation

1.15 Construction Management

The proposed works are to be constructed as one building contract. The work will be carried out in the following stages –

- **Stage 1 – Relocate Temporary Buildings**
The two temporary classroom buildings that are located adjacent to Building C (within the proposed building footprint) will be located out of the construction zone to the North Eastern corner of the site to allow them to remain operational during the construction period.
- **Stage 2 – Demolish Existing Buildings**
Building B and Building C are demolished in order to clear the construction zone for the new buildings
- **Stage 3 – Construct New Buildings**
The new buildings – Building I and Building J – are constructed along with any associated external works and landscaping.
- **Stage 4 – Repurpose Building G**
Once the Library facilities in Building I are commissioned the existing library area in Building G is refurbished and repurposed into 3 new home bases.
- **Stage 5 – Remove Temporary Buildings**
Following completion of the proposed works the remainder of the temporary buildings are removed from the site.

Further details of this proposed construction process are outlined in the **Preliminary Construction and Environment Management Plan prepared by Turner and Townsend.**



Construction Environmental Management Plan

1.16 Site Access, Vehicle Circulation and Parking

As the bulk of the proposed works is to the South of the site, the builder's compound is to be a self-contained area to the Bay Road frontage and will operate independently of the operations of the school. However, in order to achieve this, site access is required through the existing carpark (across school grounds). This will be carefully managed to ensure child safety is maintained.

Once a crane is established on the site it is proposed that deliveries and materials will be loaded onto the site from a loading zone on Bay Road.

Crime Prevention Through Environmental Design Principals (CPTED)

Below is an outline of how the proposal addresses the four principals outlined in the Guidelines to minimise the opportunity for crime.

1.17 Surveillance

The proposed development allows for all circulation areas – particularly the new main entrance to the site – to be open, accessible and clearly visible from both inside the site and from the street. The entrance points are appropriately fenced to allow them to be closed off when they are not in use and are landscaped in a way that avoids creating hidden areas. They are also appropriately lit to allow for a safe level of surveillance and supervision during periods of out-of-hours use.

Within the site, the play spaces and student spaces created as part of this project have been designed to allow for good passive and active supervision at all times – particularly during the school's operating hours.

1.18 Access Control

The new main site entrance that is created as part of this work is designed to allow for a free flow of students and parents at pick up and drop off time. However, during school operating hours the entrance is closed off and visitors are directed to the Administration Reception area to ensure that they are checked and signed-in before they are given access to the school.

As a requirement of the Department of Education, the new facilities have also been designed in order to allow for them to be easily locked-down to protect the students in the case of a security incident.



Bay Road Entry – Perspective

1.19 Territorial reinforcement

A security fence is maintained around the full perimeter of the site to ensure that it can be contained and access restricted out of hours. During school operations (as discussed above) the entrance arrangements have been designed to ensure a clear demarcation between public areas and private school spaces. Wayfinding signage and visual cues will also be incorporated to reinforce this.

1.20 Space Management

The site will be maintained on a regular basis and repairs will be undertaken promptly when required. The school employs a member of staff that is responsible for maintenance and repairs. They will be responsible for the day-to-day upkeep and management of the facilities once they are occupied.

Further to this, the Department of Education has a number of programs in place for the ongoing maintenance of their facilities and this development would fall under this program.



Courtyard View - Perspective

Consultation

1.21 Design Consultation

Fulton Trotter Architects have undertaken a detailed consultation process with the school, the various stakeholders within the Department of Education and the school community as part of planning each phase of this development.

Details of this consultation is outlined in the Consultation Report attached to this submission.

1.22 Indigenous Cultural Heritage Consultation

As outlined above, initial consultation has been undertaken with local indigenous groups including the Metropolitan Local Aboriginal Land Council and the Gawura Aboriginal Education Consultative Group. As a result, a strategy has been developed to facilitate the development of an appropriate response to country within the development. It is proposed that this response will focusing on honouring country and nature.

It is proposed that the final details of how the response to country is achieved within these elements will be developed in consultation with local land council and members of the local indigenous community through the consultation process that has been developed by Tocomwall.

1.23 State Design Review Panel

The project has undertaken a review with the Government Architect through the State Design Review Panel process on Wednesday the 4th August 2021.

Following the Initial Project Review by the State Design Review Panel a letter of advice was received from the Government Architect (dated 25th August 2021). This letter outlined the advice and comments provided during the Initial Project Review.

We have reviewed and considered the issues raised in this letter and the Initial Project Review. A summary of the issues outlined in the letter as well as our proposed response to each item is included in this report in **Appendix A – State Design Review Panel - Response to Advice Schedule**.



Courtyard and COLA - Perspective

1.24 Traffic Working Group

A working group was developed with the Department of Education, Transport for NSW and North Sydney Council to develop a wholistic approach to the traffic management around the site. The outcomes of this working group are outlined in the **Traffic Impact Assessment prepared by Ason Group**.

Appendix A – State Design Review Panel – Response to Advice

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State Design Review Panel – Response to Advice Schedule

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Connection with Country		
1	The ambition for adopting Connecting with Country into the project, is acknowledged. It was noted that outcomes from the current consultation are limited by a lack of clarity in various matters, notwithstanding this limitation and the tight project timeframes, the following observations and recommendations are made:	This comment is noted. Specific details are discussed below.
1a	The consultation process is yet to meaningfully inform the design (as presented), as such Connecting with Country is not yet successfully embedded into the project.	We have continued to progress the consultation process following the SDRP session. This has involved a formal consultation process led by Tocomwall – our Indigenous Culture and Connection with Country consultant. This has involved consultation with a variety of stakeholders. Further to this, a series of targeted meetings with individual stakeholders. We have also presented the project to the Gawura AECG on Thursday 26 th August and obtained feedback from the group. This process has allowed us to refine the Connection with Country response further. However, we acknowledge that further work is required to finalise the process.
1b	Regarding the above, ongoing consultation for the duration of the project is recommended, to identify and develop opportunities for Connecting with Country in an integrated manner (noting this may include spatial, programmatic or economic opportunities).	It is proposed that this consultation process will continue through the remaining phases of the project in order to refine the details of the proposed Connection with Country response.
1c	Consider diversity within the consultation process to address the limitations identified above; extending consultation to include a range of Knowledge-holders and/or diversity of expertise (e.g an Aboriginal artist or landscape/bio-diversity expert with strong local or community connections).	As part of the ongoing consultation process a number of other groups have been identified for further discussions as details are developed. This includes artists and experts in native planting and bush medicine. It is intended that engagement with these groups will form part of the ongoing consultation process for this project.
2	The proposed Yarning Circle has been raised out of session and the following recommendation is made - Yarning Circles have a specific function and purpose within Indigenous culture. Any further development of this idea should be informed by consultation with traditional custodians and the local Aboriginal community to ensure the approach is meaningful and its role can be successfully integrated into the School's pedagogy.	<p>As discussed above, Tocomwall have been engaged to undertake a formal consultation process on this project. Part of the function of this process will be to finalise the final details of the proposed yarning circle.</p> <p>This will involve consultation with traditional custodians as well as representatives from the Department of Education. It is intended that this will allow for the outcome to be culturally relevant as well as functional and usable for the school.</p> <p>The initial designs that are being developed for the Yarning Circle have been submitted as part of the SSDA application.</p>

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3	Consider including opportunities for Connecting with Country initiatives into a landscape strategy for the project (refer below for expanded commentary).	This comment is noted. This is discussed further in items 8 to 8c below.
4	Refer to the draft Connecting with Country Framework on the GANSW website	This is noted and has been reviewed.
Entry and Circulation		
5	The design of the entry ramp on Bay Street does not meet the needs of the varied user groups including people with prams, young children with bikes, and people with disabilities. The current approach requires negotiation between the many different user groups in a narrow ramp. This mixed-use approach is not supported in its present form. Address the Bay Street entry ramp in the next SDRP.	This is noted and is discussed further below in Item 6
6	<p>Further design development of the Bay Street entry (and its connection to adjacent buildings) is required to optimise public accessibility and amenity, including but not limited to:</p> <ul style="list-style-type: none"> a) Creating a welcoming entry for both public and students b) Ensuring barrier free access c) Prioritising functionality d) Creating an appropriate civic stature e) Supporting accessibility for all users. 	<p>This area of the design has been reviewed in detail following the SDRP. The area has been developed further in order to simplify the entry and access arrangements, while also minimising the impact on the heritage-listed fence to the Bay Road boundary of the site.</p> <p>As a result, the following adjustments have been made –</p> <ul style="list-style-type: none"> - The width of the gates created in the heritage-listed fence has been reduced. The width of the gate has been set in order to accommodate for the large amount of pedestrian traffic coming through the gate without removing too much of the existing fencing. Following detailed analysis of the area in consultation with the Heritage Architects the width of the gate has been set at 3500mm - The configuration of the stairs and ramp within the entry area have been adjusted in order to decrease the level of separation between the two paths of travel. This allows for the ramp and stair to connect to the Entry Forecourt area at same point – creating equity in the entrance experience. - The width of the ramps has been widened to 1.7m clear width in order to allow for the amount and type of pedestrian traffic that will utilise the ramps. <ul style="list-style-type: none"> o It should also be noted that access for bikes, scooters and prams will also be facilitated through the existing Crows Nest Gates on the Pacific Highway frontage – reducing the amount of pedestrian traffic that will be required to use this ramp.

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		<p>Further to this, an alternative entry arrangement was considered that lowered the level of the buildings on the site to create a more level connection to Bay Road at the new site entrance. However, this was not deemed appropriate for the following reasons –</p> <ul style="list-style-type: none"> - The topography of the Bay Road frontage of the site rises up from the proposed site entry point towards the Pacific Highway corner. As a result, lowering Level 1 of the proposed buildings would result in the Eastern end of the new buildings being recessed substantially below the surrounding ground levels. It was felt that this would impact on the amenity of the spaces in that area – particularly the teaching spaces. - Lowering the Ground floor level would also increase the level difference to the central courtyard (which would align with Level 2 of the buildings). This would require additional terracing, stairs and retaining walls to manage this difference. Again, it was felt that this would reduce the amenity of the teaching spaces on Level 1 of the buildings. - The lowered levels would also potentially necessitate the removal of additional trees along the Bay Road frontage as the additional earthworks required may impact on the root zones of these trees.
7	<p>Further clarification of the appropriate size and scale of the space between the two new wings is recommended. Explain the capacity and performance of the space through different scenarios: accommodating large school assembly, regular daily use after pick-up times, community or school open day. Illustrate the function of both peak and day-to-day scenarios with regards to passive surveillance, capacity, and legibility of pathways and movement.</p>	<p>The extent of the space between the buildings is largely established due to the planning restrictions on Level 2 of the building (between the Library and the Hall). Following the comments raised in the SDRP this area was reviewed and it was felt that reducing the area further would reduce the functionality of the space and create restrictions on the access requirements around this area.</p> <p>The functionality of this space has been explored further and can be used for a number of functions – both during the day-to-day operation of the school as well as during special events and out of school hours. These are outlined below –</p> <ul style="list-style-type: none"> - Waiting Area at Pick Up Times The undercroft area on Level 1 provides a covered area that allows for queuing students waiting for pick up. This provides protection from rain as well as shade the sun. This function would also be utilised when students are being collected by bus for excursions. The location of this area adjacent to the Administration area allows for good supervision at all times from the clerical space. - Entrance and Gathering Space – Public Functions When the Hall and Library spaces are being used for public functions the space between the buildings on both Level 1 and Level 2 would provide the majority of the circulation to these facilities. The space in these areas would need to facilitate movement of pedestrians to the stairs and lift in that area. In addition to these access paths the area will need to allow for gatherings of pedestrians in both the Level 1 and Level 2 areas with out blocking the access to the stairs and lift.

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		<p>- Outdoor Learning Areas</p> <p>The spaces between the buildings on all 3 levels also function as outdoor learning spaces and play spaces for the students. In particular, the Level 2 spaces can serve as an overflow space from the functions of the library and the Level 3 space provides a convenient outdoor space for the classrooms on that level. The space on Level 2 can also function as play space – connected into the main courtyard area.</p> <p>Based on this analysis it was felt that reducing this area significantly would limit the circulation required (particularly in large events) as well as limiting the functionality of the space for other uses.</p>
Site Planning and Landscape		
8	Landscape presents a range of opportunities to this project that can help produce positive outcomes in relation to Connecting with Country, learning, and ecological performance. Prepare a site-wide landscape strategy that addresses these opportunities and that includes the following:	These comments are noted. Specific details are discussed below.
8a	Consider the playgrounds and spaces from a children's perspective and with the kind of playful joy that they bring to day-to-day activities. How might the COLA and other spaces enable and celebrate this?	The intent of the landscape design is to break down the hard surfacing which currently engulfs the outdoor active space. The design includes a softening of these spaces through varied surfacing with each space forming its own sense of identity, providing students with pockets of seating areas, active space and play space. The proposal also fosters a sense of discovery throughout the new landscape elements. Further consultation has occurred with the school as to their desires for the play areas which we have captured in our overall design. Further detailing and consultation will occur as the design develops in future stages.
8b	The educational value of landscape, view it as a classroom which is part of the educational process through play, science etc. Every single landscape space has the ability to contribute to the educational opportunities of students.	Landscape areas associated with the upgrade works have been designed with an educational focus and value. A balance of active and passive outdoor spaces has been developed to provide amenity for multiple purposes. Seating elements have been included that promote small groups to engage with each other and form a series of outdoor classrooms. The material and plant selection across the landscape design have been considered in creating imaginative and connected learning environments.
8c	Explore the possibility of re-using timber from trees being removed – noting the sustainable and story-telling advantages of this.	It is proposed that reclaimed timber from fallen trees is reused in the new landscape areas, specifically around the proposed Yarning Circle and in the central upper courtyard. This has been captured on our landscape drawings. It is seen as favourable within the landscape strategy to reuse as much reclaimed natural material as possible to further enhance the connection to Country.

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Built Form		
9	Courtyard strategy - The retained buildings have a clear design strategy in which they form a perimeter around a coherent central courtyard. The proposed new West Wing does not optimise the courtyard. Notwithstanding site constraints (e.g. tree retention) consider the following moves to improve this:	These comments are noted. Specific details are discussed below.
9a	Swapping the hall and the library to make the library more legible and creating more space to keep the central courtyard coherent.	<p>This alternative configuration was explored during the masterplan phase of the project, but was not considered appropriate for a number of reasons –</p> <ul style="list-style-type: none"> - The spatial requirements of the footprint of the hall would interrupt the planning of classrooms and the relationships between clusters of classrooms in Level 3 of the building - A functional relationship of the hall is that it should connect with the Covered Outdoor Learning Area (COLA). This allows for the COLA to act as overflow seating space for the hall for larger functions. Adjusting the location of the hall would place it in the centre of the new buildings. As a result, creating the required connection to the COLA in that area would interrupt circulation around the building and also reduce the amount of light and amenity that can be achieved to the spaces on Level 1 below the hall. - When the positioning of the Hall and COLA is located more centrally to the courtyard (as discussed above) it creates a potential point of congestion where the playspace of the COLA sits next to the gathering space around the Canteen. It was felt that this congestion would divide up the courtyard space too greatly.
9b	Rotating the hall so its runs lengthways along the perimeter and not into the courtyard.	<p>Following the SDRP comments this alternative was explored. It was determined that this wasn't a viable option for the following reasons –</p> <ul style="list-style-type: none"> - If the hall were to be rotated using its current planning it would increase the footprint of the building to the West. This would place it too close to the existing easement for underground water services. This could be limited a little by reducing the space between the buildings, however, it was felt that this would have other functional implications for the library and other spaces. - If we were to rotate the hall planning (as discussed above) and re-plan the space accordingly additional circulation space would be required in order to maintain the functional relationships within the building. As a result, rotating the building in this way would not make it possible to greatly reduce the amount that the hall building extends into the courtyard area. Therefore it was felt that this wasn't achieving the desired outcome of this suggestion.

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		<ul style="list-style-type: none"> - Further to this, the current hall planning has been structured in order to allow the building to step around the tree protection zone of the existing tree adjacent to the area (Tree 16). It was felt that rotating the hall and adjusting the planning to suit would result in the tree interrupting the connection required between the Hall and the COLA space (unless the tree is removed).
10	<p>Façade – a successful architectural outcome in a heritage context is dependent on developing a strong relationship between the new buildings and the existing retained brick buildings. The current design and detailing (specifically the configuration of the panels) is inconsistent with the existing built fabric. For this reason, the current approach is not supported. Further design development of the facade is required to ensure a more appropriate contextual fit. Consider the following:</p>	<ul style="list-style-type: none"> - These comments are noted. Specific details are discussed below.
10a	Running the panelised system together so that the facade is read as a single form with openings.	This feedback was adopted. The design of the façade has been adjusted to remove the spacing between the 'façade panels'. This creates a more unified façade to the bulk of the buildings with windows treated as punctures into the façade materials. The layout of the glass reinforced concrete panels proposed for the façade has been configured to retain the texturing and detailing that was proposed as references to the existing detailing in the 'panels' that were presented previously to the SDRP.
10b	Examine alternative materials for the panels/façade to better fit in with the context.	The materiality of the façade was reviewed following these comments. The proposed glass reinforced concrete panels have been retained for the majority of the face (except for the feature panels – discussed below) in a sandstone colour in order to connect to the existing materiality of the site. The layout and structure of these panels have been reduced in order to reduce the scale of the façade and building as a whole.
10c	Examine the way that bricks create human scale from large surface areas and how their detailing and arrangement might inform a better fit.	<p>Brickwork cladding has been utilised for the base of the building as well as the Western façade of the building (the 'wing' of the Hall building). While masonry was considered for the façade of the upper levels as well it wasn't considered an ideal solution from a buildability perspective.</p> <p>The benefits of bricks for the building are understood. We believe that utilising bricks in the base of the building increases the warmth and tactility of the building at the pedestrian scale and creates a strong connection with the existing buildings on the site.</p> <p>As discussed above, the comments provided by the panel regarding breaking down the scale of the façade have been taken on board in the articulation of the façade panelling to the upper levels.</p>

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10d	The relationship of the new building with both the existing buildings and its suburban context.	This has been reviewed and it is felt that the mass and scale of the buildings are appropriate in the context of the existing buildings on the site as well as within the wider context of North Sydney – particularly the multi-residential buildings across the Pacific Highway.
11	Roofline - The requirements of DFMA make it difficult for the roof of the new buildings to directly reference the historical hip roofs. However, the current proposed flat roof does not fit well into the existing historical context. Consider alternative architectural expressions for the roof and explore improvements to daylight and cross ventilation.	<p>Following this feedback, the façade treatment of the Bay Road frontage was reviewed. A number of ‘feature’ panels were created in order to break up the form and the ridgeline of the building. This creates a connection to the way the gable roof ends are used to break up the length of the original buildings on the site (Buildings A, D and F).</p> <p>The feature panels have been created to correspond with the ‘Learning Commons’ areas within the planning and are used to break-up the mass of the building to the street and add a more playful element to the composition. CFC cladding has been used to tie these panels in with the stair and hall elements of the building so that they still feel part of a cohesive whole.</p>
12	It is recommended the design team be retained through to delivery. In the context of the project’s tight timeframes, Design and Construct delivery and critical nature of detailing and use of DFMA in a heritage setting, this will provide increased certainty for good design. Intrinsic to this is the integration and partnership between landscape and architectural expertise to attain place-focused outcomes.	SINSW is currently reviewing the delivery strategy on how to deliver the project, after the State Significant Development Application (SSDA) is submitted. To provide continuity, the current architects and Landscape architects have been retained to help work through the Response To Submissions (RTS). Following this submission, SINSW is looking at a range of delivery options that will help meet the projects objectives including program, cost and quality and continue beyond the Schematic design which will be completed by the current design team.