

Mosman High School School Infrastructure NSW



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Overview

01 Executive Summary

Introduction

This Architectural Design Statement has been prepared by Woods Bagot on behalf of School Infrastructure NSW (the Applicant). It accompanies an Environmental Impact Statement (EIS) in support of Stat Significant Development Application (SSD-10465) for the Mosman High School building at Military Rd , Mosman (the site). The new build is replacing an existing inefficient building on the site of the existing Highs School and will accommodate more students and a diversity of learning spaces.The proposal seeks consent for:

- A multi-level, multi-purpose, integrated new building for the high school students studying arts, performing arts. The building sits at the front of the school site facing Military and Belmont Roads and is connected back to the other buildings in the landscape and through Architectural expression. It also has a covered walkway connecting the building back into the Science Building. The school building contains:
- Demolition of Building B, Building C and part Building E;
- Removal of existing sports court and surrounding retaining walls and nominated trees;
- Construction of a new part 3/ part 4 storey building plus lift overrun and net enclosure to rooftop multi-court (Building G) on the corner of Military Road and Belmont Road providing:
 - o administration and staff facilities;
 - o multipurpose gym/hall;
 - o library;
 - o canteen facilities;
 - o general and senior learning units;
 - o science learning unit;
 - o health / PE and performing arts unit; and
 - o learning and admin support unit.
- Associated landscaping works including new outdoor play areas, a rooftop play space and rooftop multi-purpose court; and
- Relocation of the main pedestrian entrance from Military Road to Belmont Road.

Purpose of the Report

The purpose of this report is to provide a detailed Architectural Design Statement to support the State Significant Development Application submission. It outlines in detail how this proposal has developed from the previous design proposal (by others) , from site analysis , through concept, pedagogy, built form and materiality to propose a new addition to the Mosman High school site. This report should be read in conjunction with the supporting consultant reports and Environmental Impact Statements prepared by Architectus. As such this design report reflects the work undertaken with a multidisciplinary design team including the following;

- Architecture
- Education Specialist
- Structure
- Planning
- Building service
- ESD
- Fire engineering
- Heritage
- Indigenous
- Landscape Design



01 Brief Overview

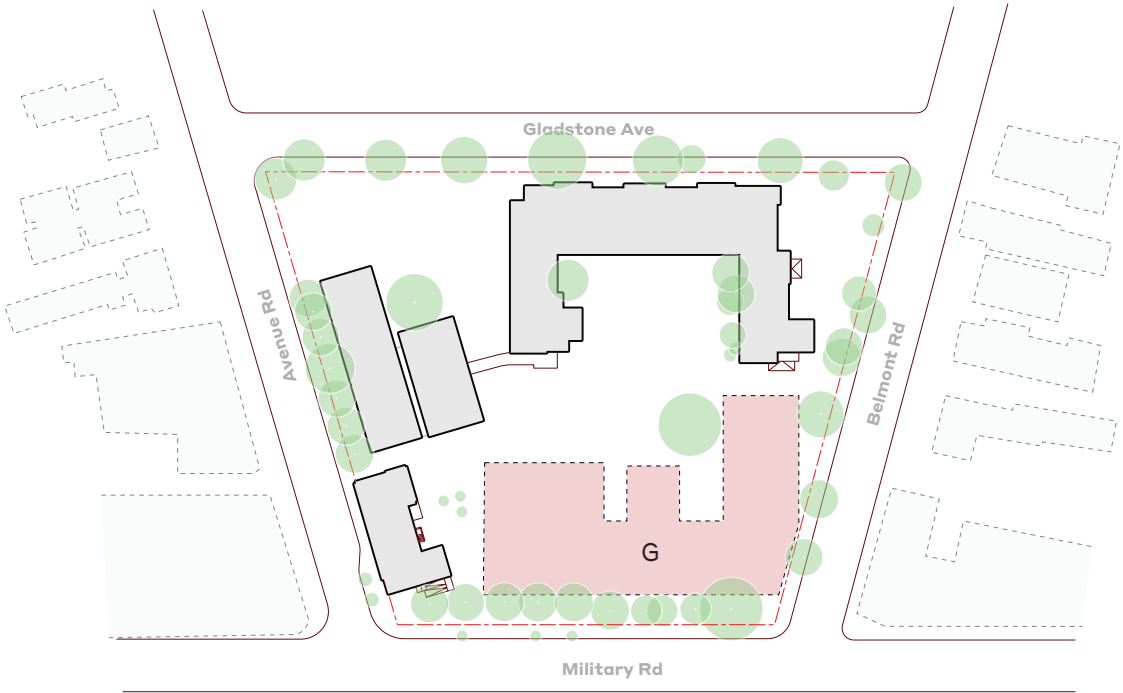
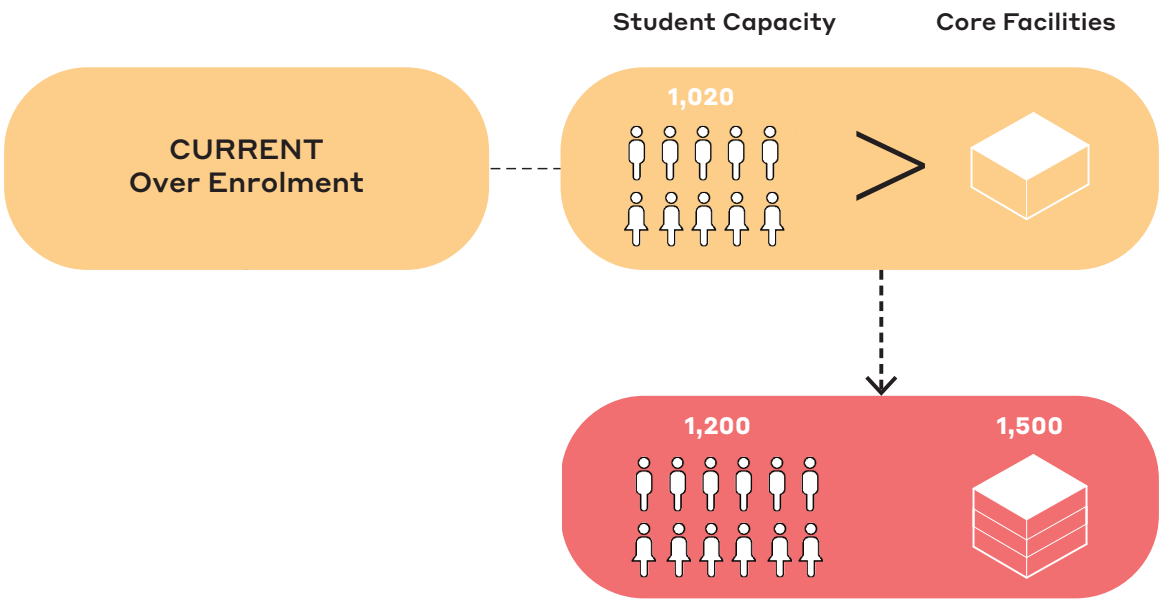
Mosman High School has recently experienced an increase in enrolment pressures due to the unprecedented rise of student movement from private to public schools within Sydney's North Shore, this coupled with a growing population and dated facilities has led to the funding of a significant school upgrade project.

This expansion involves an increase in capacity from the current approximately 1,116 students to 1,200 students. This is achieved through the demolition of the existing Buildings B & C and the construction of a new Building G.

The new Building G will increase the capacity of the school to Stream 7 teaching facilities (1,200 students) and core facilities bringing EFSG Stream 9 level with some departures i.e. the Wood and Metal Technology Unit and Food Technology Unit will remain as existing and not provide any expansion within this project.

Building G accommodates expansion in the following learning units:

- A new Gymnasium with Stage
- A new Canteen
- A new Admin unit
- A new Lecture Theatre
- New amenities
- 2 Performing Arts/Fitness Workshops
- 4 Performing Arts/Fitness GLSs
- 4 Science General Learning Spaces
- 9 Senior GLSs and associated informal spaces
- 2 GLSs



Stage 1

Response to SEARS

The Architectural Design Statement is required by the Secretary's Environmental Assessment Requirements (SEARs) for SSD 10465. This table identifies the SEARs and relevant reference within this report;

SEARS Requirements (Architectural Design Statement)	Response Location
4. Build Form and Urban Design	
Address the height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.	Section 4.0 Built Form
Consider the impact on local character of the proposed buildings, given the site's location within the Military Road Heritage Conservation Area and proximity to the Mosman Junction Business Centre.	Section 2.0 Site & Context Analysis Section 4.0 Built Form Section 5.0 Materiality & Facade
Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.	Section 4.0 Built Form Section 5.0 Materiality & Facade
Incorporate Aboriginal culture and heritage in the design proposal in consultation with the local Aboriginal community and cultural groups.	Section 3.0 Walking Country Section 9.0 Design Response to GANSW
Provide details of any digital signage boards, including size, location and finishes.	Not Applicable
Clearly demonstrate 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.	Section 9.0 Design Response to GANSW
Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Refer separate package: Architectural Drawings - Rooftop and Ground floor plant locations Refer separate package: Waste Management Plan (Ricardo)
Provide detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.	Section 2.0 Site Context and Analysis Section 4.0 Built Form
Provide a detailed site-wide landscape strategy, including: - consideration of equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation. - details of the number of trees to be removed and the number of trees to be planted on the site.	Refer separate package: Landscape Report (Black Beetle)
Provide 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 4.0 Built Form
Address CPTED Principles	
Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	Section 2.0 Site Context and Analysis Section 4.0 Built Form

Response to SEARS

The Architectural Design Statement is required by the Secretary's Environmental Assessment Requirements (SEARs) for SSD 10465. This table identifies the SEARs and relevant reference within this report;

SEARS Requirements (Architectural Design Statement) (Continued)	Response Location
5. Environmental Amenity	
Assess amenity impacts on the surrounding locality, including solar access, visual privacy and over shadowing.	Section 4.0 Built Form
Undertake a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development).	Section 4.0 Built Form
Provide a lighting strategy and detailed measures to reduce spill into the surrounding sensitive receivers.	Refer separate package: Lighting Strategy (Acor)
Identify any proposed use of the school outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures.	Refer separate package: Social Impact Assessment/ Environmental Impact Assessment (RPS Group)
Detailed outline of the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff and student numbers.	Refer separate package: Social Impact Assessment/ Environmental Impact Assessment (RPS Group)
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.	
Architectural drawings (dimensioned and including RLs)	Refer separate package: Architectural Drawings
Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries	Refer separate package: Architectural Drawings
Site Analysis and Context Plans	Section 2.0 Site Context and Analysis
Shadow Diagrams	Section 4.0 Built Form + Architectural Drawings
- View analysis, photomontages and architectural renders, including from - those from public vantage points	Section 4.0 Built Form
Schedule of materials and finishes	Refer separate package: Architectural Drawings - Elevations

01 Design Principles



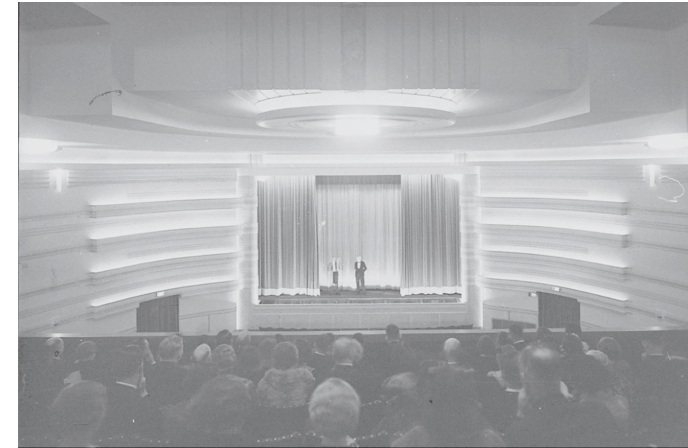
Mosman

This building needs to fit within the fabric of Mosman while still creating an identity and as the “new face” of Mosman High School. It was important to explore and pick up the streetscape essence of Mosman and Military Road which included the scale, a shift in materiality and the use of brickwork.



Open and Closed

Due to the fact both Military Road and Belmont Road are busy and noisy streets, the idea of a protective crust that also to the Mosman theme was an important theme for the design. The skin peels / opens off at points revealing the inside workings of the building and allowing students view out into the community and the historical Mosman environment. The building is flexible for the future and can change uses without adding or subtraction of windows / walls. The inside façades are more “open” revealing the uses of the interiors, revealing the hall, theatre, classes area, outdoor canteen and administration.



Performance

This school is a successful Performance based school. Currently it is difficult to understand the strengths of the school. The Architecture in the courtyards become performance spaces everywhere:

Performance in the stairs, the exposed balconies, the reveal of the lecture/performance theatre and the breakout of the hall to the external façade with big folding vertical doors. The landscape enhances this creating performance “platforms for the students. This is evident at the hall and the arts courtyard reading distinctive places for performance and play. The internal areas also reveal a spectacle of spaces and the performance of learning.



Layers

The idea of layers was an important design theme. Layers around public. Invite and private areas are revealed in the architecture with courtyards, verandas and outdoor learning and then into the more private learning environments.

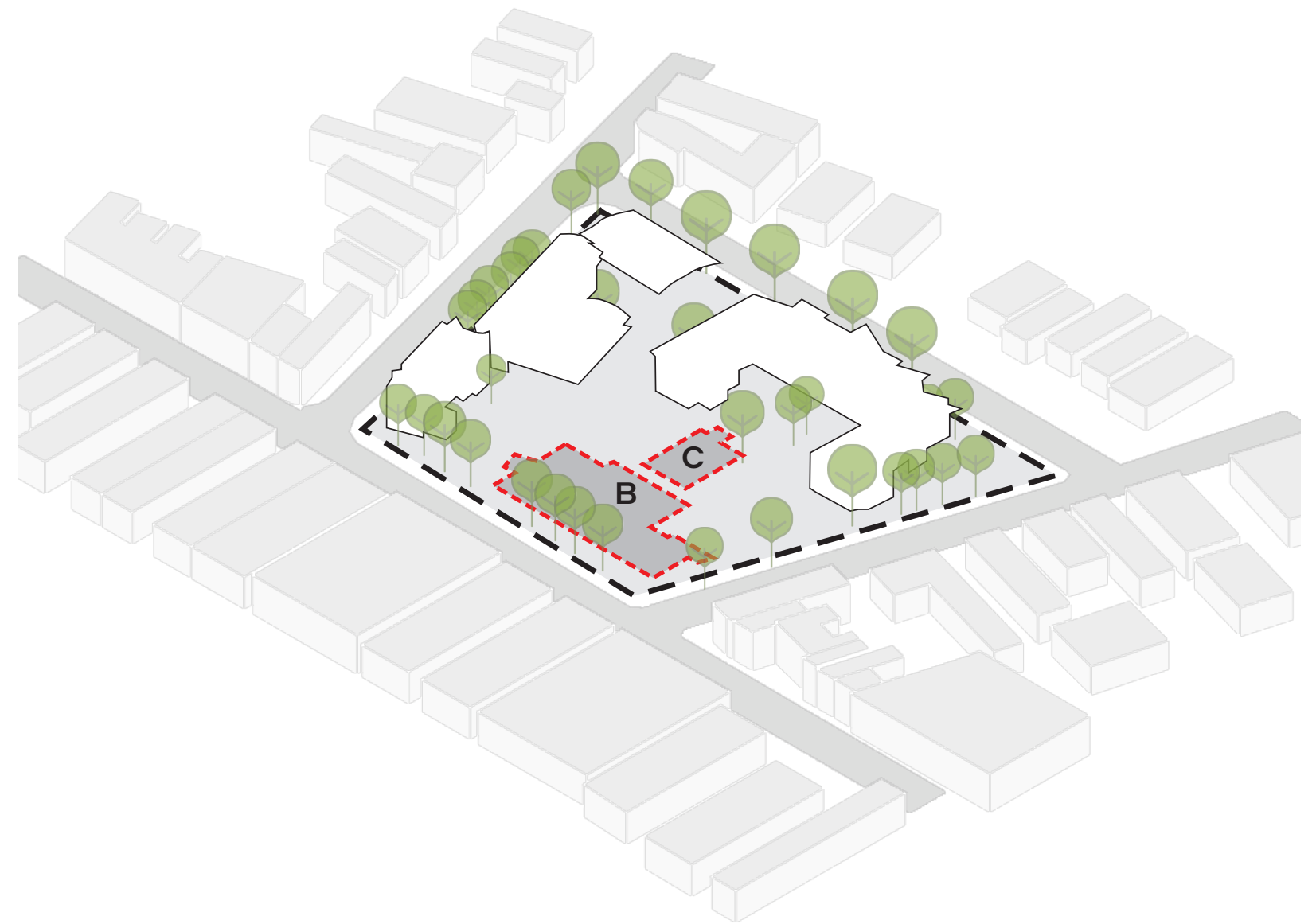
The layers are also revealed in the brickwork and materiality as we move around the building, revealing what is happening inside the specific spaces with the materiality.

The cue to the layers on the façade has been taken from the vertical layers in Military Rd façade. With brick and larger opening to the base, a middle layer of punched opening and the top being a lighter weight steel materiality. The building colour also changes with verticality. Looking at the existing rock stratification of the area, the building is coloured vertically.

01 Site Strategies

Site

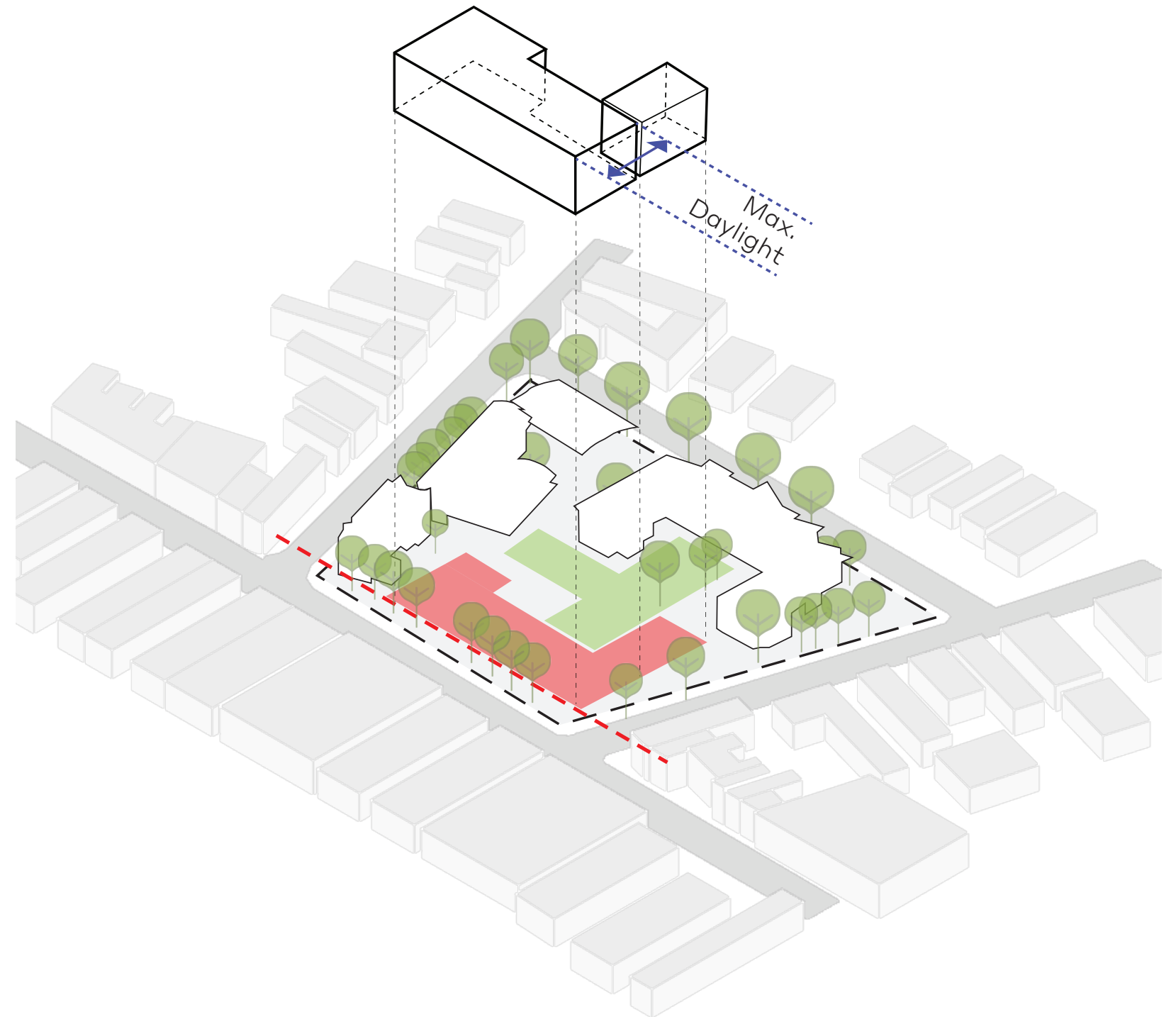
The site is within a dense urban area with a number of existing school buildings. The site is surrounded by mature trees along all boundaries. Building B and C are to be demolished to make room for a new school building to accommodate the increased enrolment.



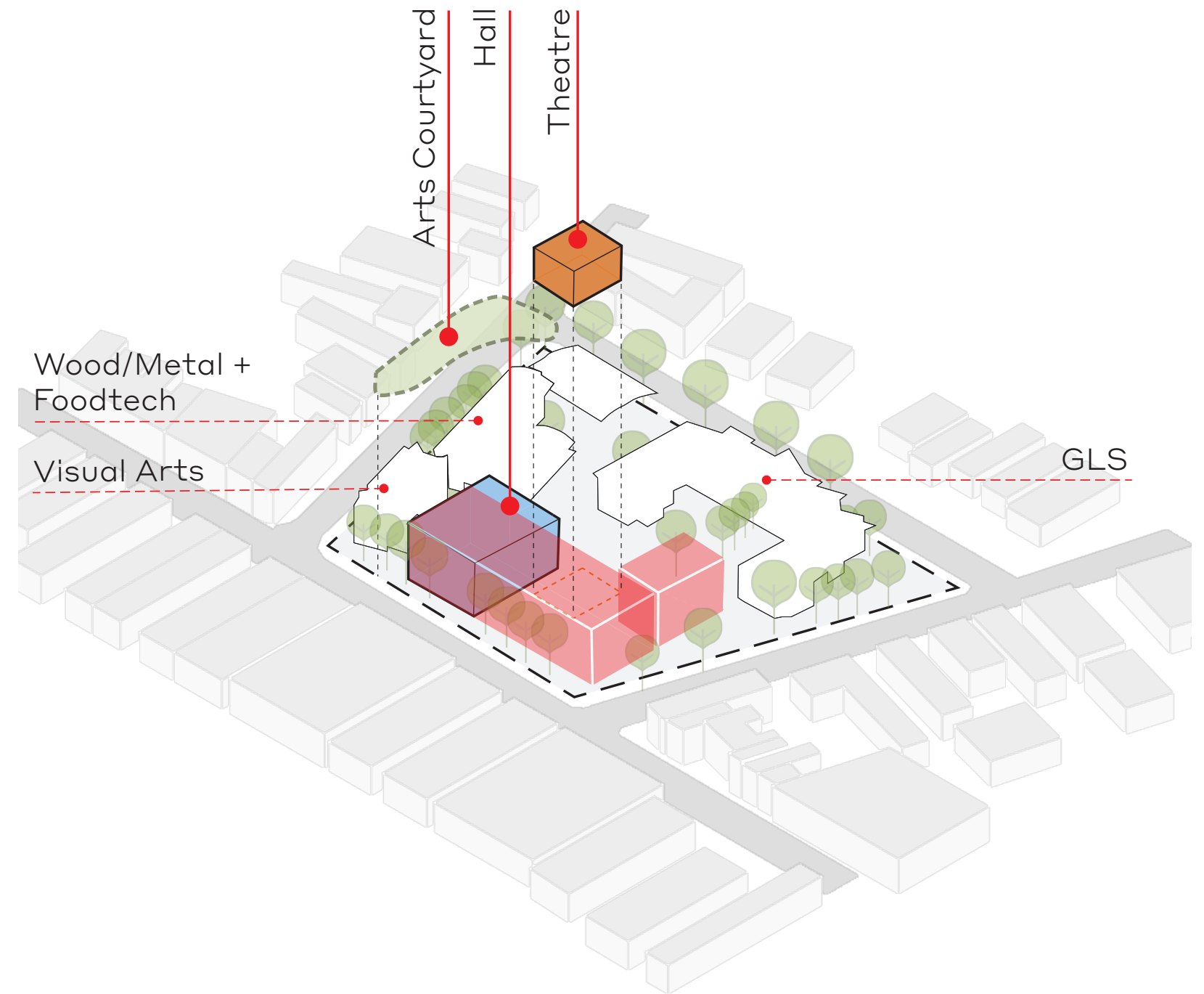
01 Site Strategies

Massing and Setback

The new building massing is set to a width for better pedagogy as well as maximising daylighting and natural ventilation. The massing runs along Military Road and Belmont Road leaving a contiguous courtyard joining with the existing courtyard of Building D and the rest of the buildings on Site. The footprint of the massing is massaged back and around the existing significant trees along Military Road and Belmont Road to maintain privacy to school front as well as current streetscape/landscaping.



01 Site Strategies



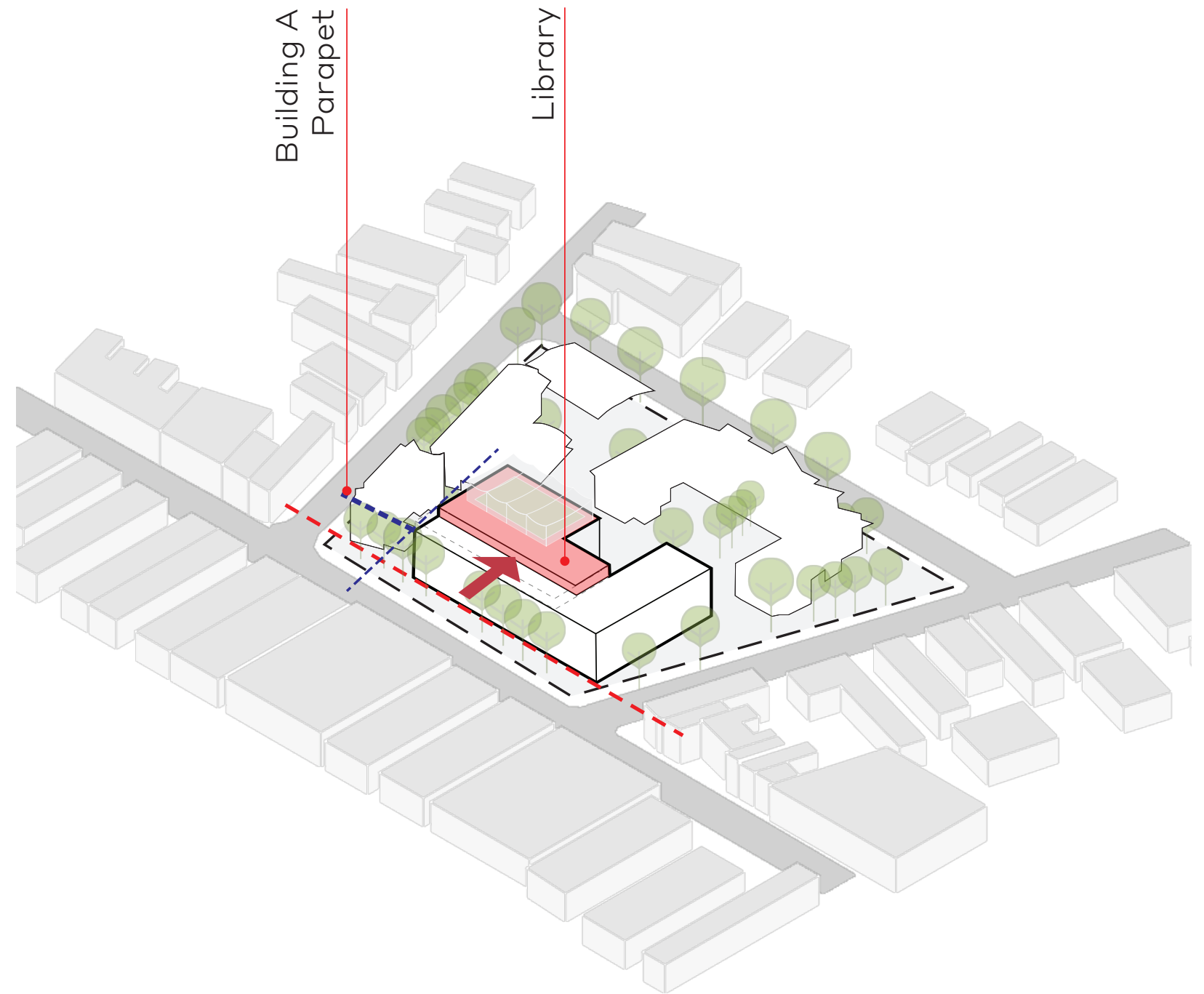
Performance Spaces / Arts Courtyard

The school is performance orientated. The Performance Hall and Theatre are proposed to be located close to the existing Block A Visual Art Building to create an Arts Courtyard for school and after hour events.

01 Site Strategies

Alignment

Existing school building Block A sets the parapet height datum of the building parapet located within the Conservation Zone. The street parapet of the proposed massing matches this height datum closely with the fourth level further setback to reduce visual impact from Military Road. The Military Road setback of the proposed massing also aligns generally with Block A.



Site Context and Analysis



THE SPIT

QUAKERS HAT

GAYAMAYGAL

NORTHERN BEACHES

BALMORAL BEACH

CAMARAIGAL

MIDDLE HEAD

SITE

WATSONS BAY
BIRRABIRRAGAL

CHOWDER BAY

TARONGA ZOO

KIRRIBILLI
GIYARABILI

SYDNEY HARBOUR BRIDGE

BALMAIN

WANGAL

GADIGAL

SYDNEY OPERA HOUSE

CBD

BRADLEYS HEAD
BOROGEAL

02 Local Context

Site Understanding

Mosman High School is located on Military road on the ridge of Middle Head Peninsula. It is at the centre of this headland and historically has been a significant site for learning, teaching, and gathering. Every access to the water at this headland connects back to the site. It is physically well connected with its surrounds as well as being visually connected.

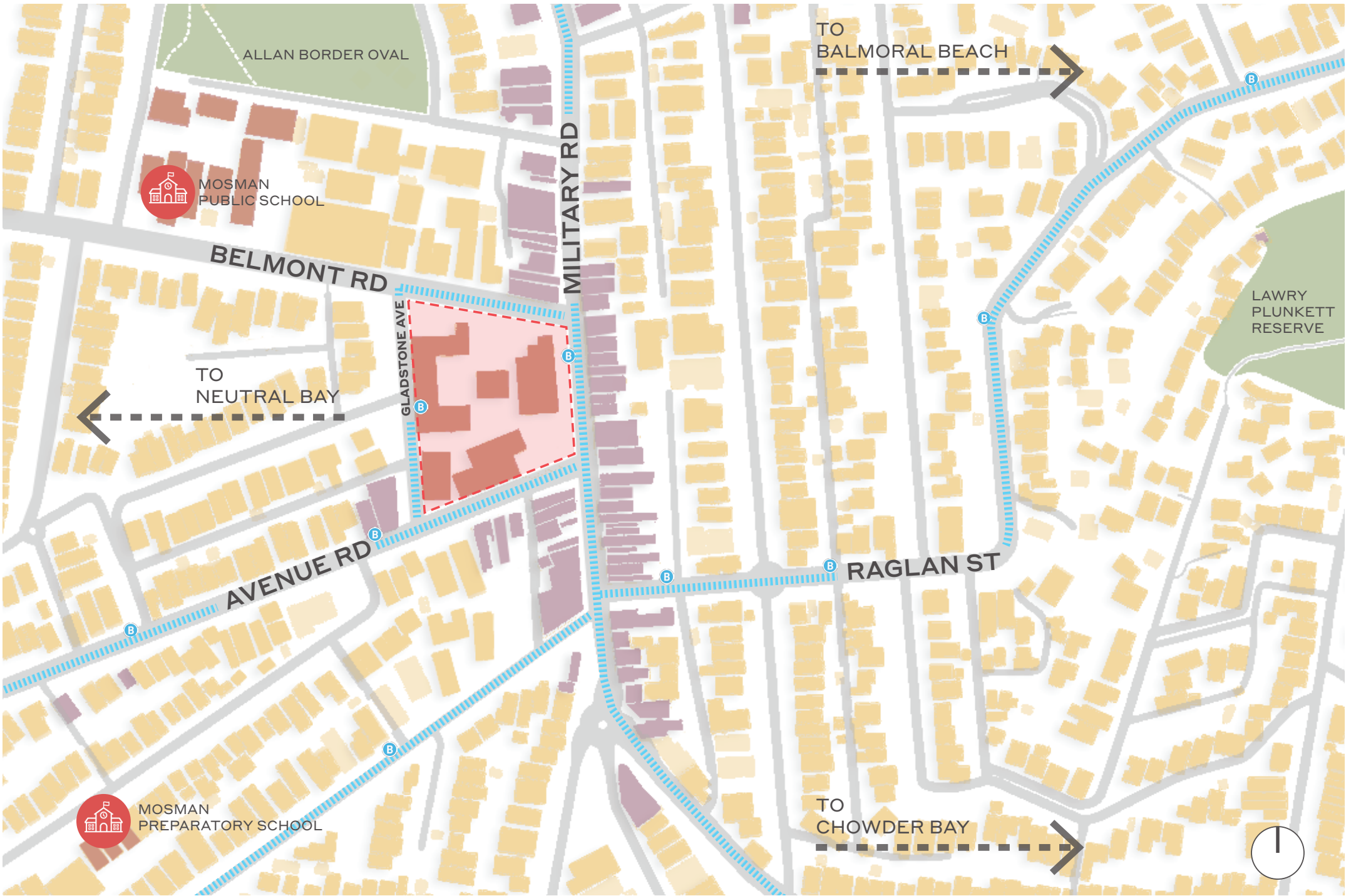
The School site sits on the ridge line of the headland. Military Road also follows this ridge line, being a significant artery into and out of the headland. Secondary streets peel off into the valleys and create access to the water. These can all be seen from various levels of the new school. The movement and energy of Mosman will be ever present in the new building.

The immediate site surround is Military Road. This considered the front of the school and faces onto a series of heritage shopfronts and sits in a primarily residential zone. The texture and scale and proximity of the surround was an important design consideration for the school scale, texture and materiality.

The side streets Belmont Road and Avenue Road are significant roads, Belmont for access and traffic and Avenue for it's connectivity to the water.

There are existing buildings on site, some heritage, requiring connectivity to the new building through links, walkways and courtyards.

- Site - Mosman High School
- Residential
- Commercial/Retail
- Schools
- Parks/Open Space
- Bus Routes 100, 111, 114, 228, 230



02 Local Context

Archaeological Sites

Over 100 sites

Middens – ‘old rubbish heaps that could include, human remains among animal bones, shells, ochre, stone artefacts & charcoal

Rock engravings - art silhouettes of animals and human models

Pigment art – ochre, charcoal, pipeclay

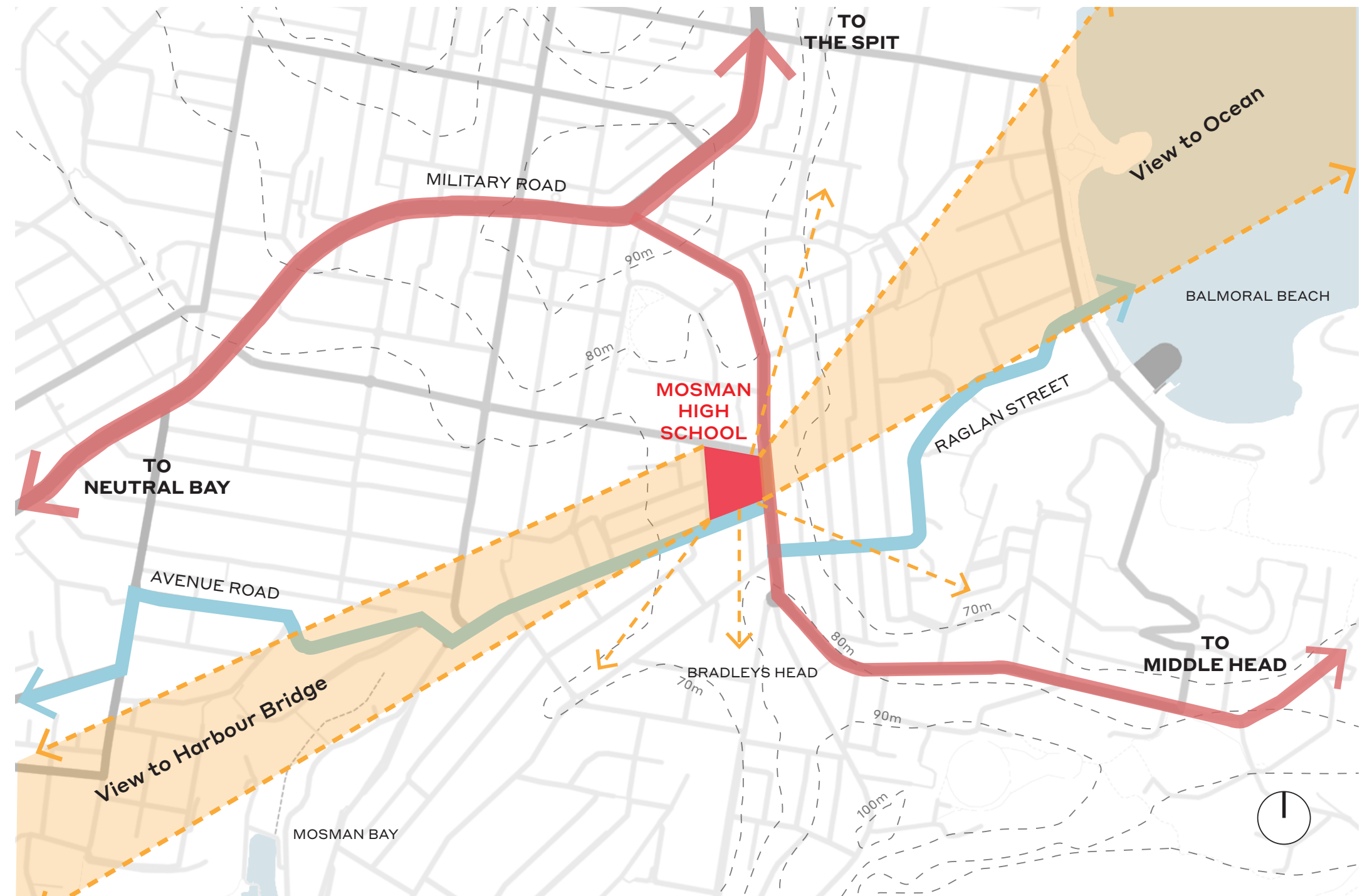
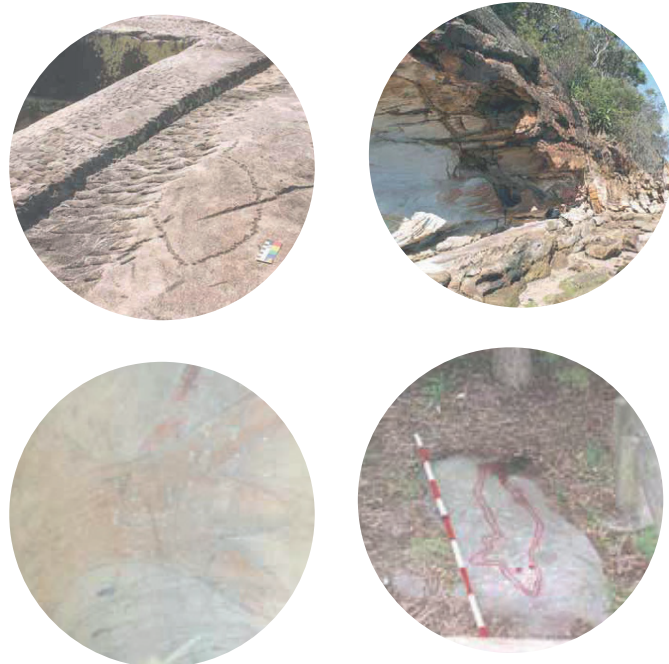
Grinding grooves for native wheat and seeds

4 main sites in Mosman:

- 1) Quakers Hat Bay,
- 2) Bradleys Head,
- 3) Middle Head,
- 4) Chowder Heads

Rock over hangs for shelter/homes

Rock holes for fresh water storage



02 Site Analysis and Constraints



Existing Campus

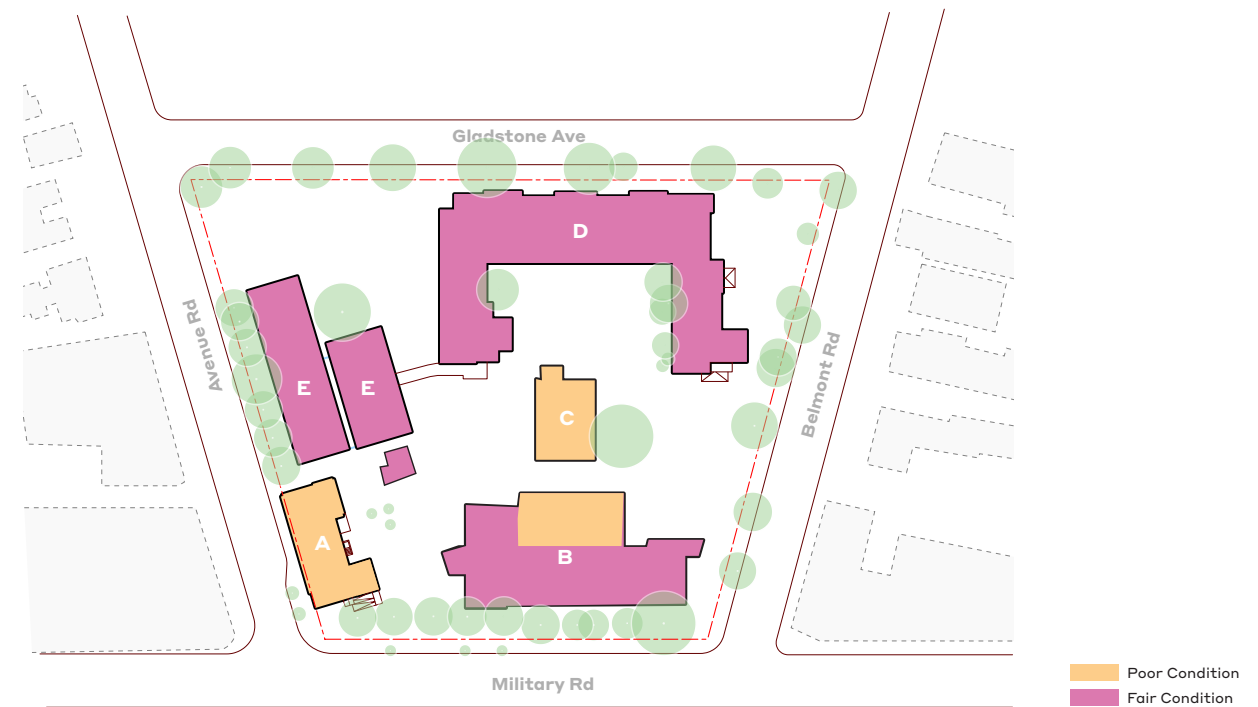
Building A - Visual Arts and GLS (Specialist Spaces)

Building B - Hall, Administration, Specialist Spaces (Music), GLS and Library

Building C - Canteen and Specialist Spaces (Music)

Building D - GLS and Staff Areas

Building E - Specialist Building with Wood/Metal Work, Science and Food Tech/Textiles



Building Condition

Building A - Heritage listed, poor condition

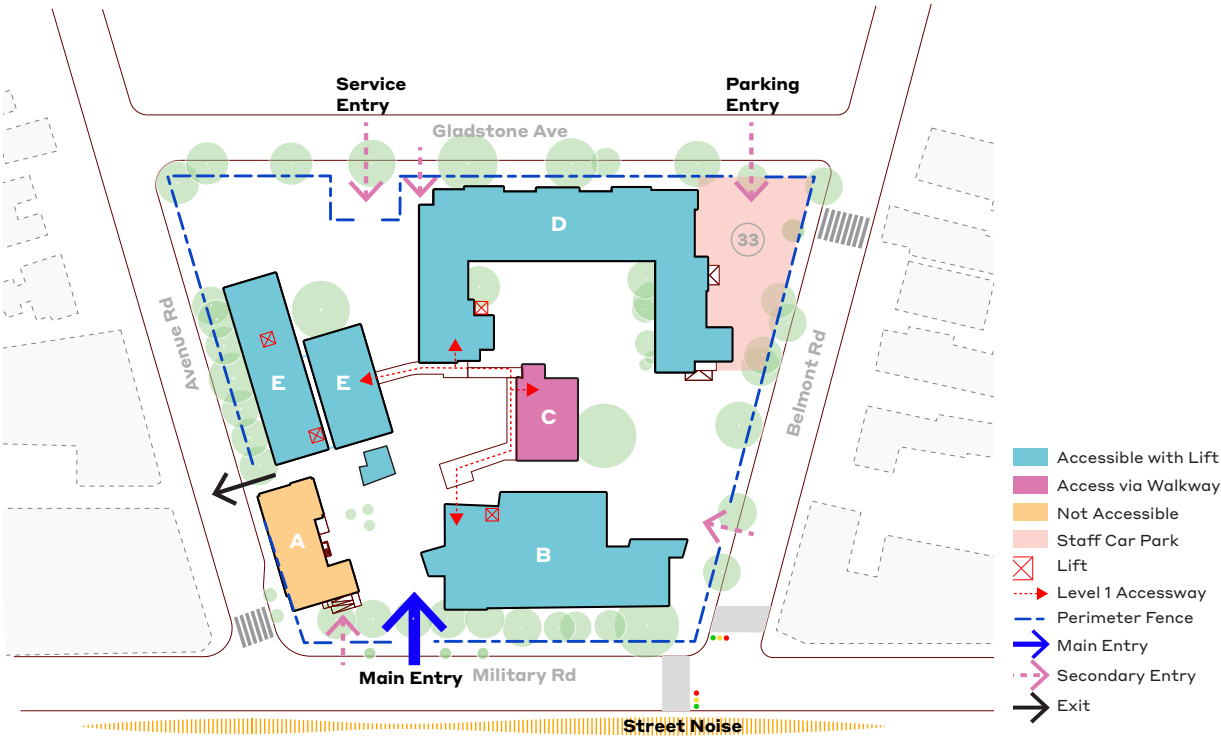
Building B - Fair/Poor Condition

Building C - Poor Condition

Building D - Heritage listed, fair condition

Building E - Fair condition, the spaces require upgrading to meet ESFG standards

02 Site Analysis and Constraints

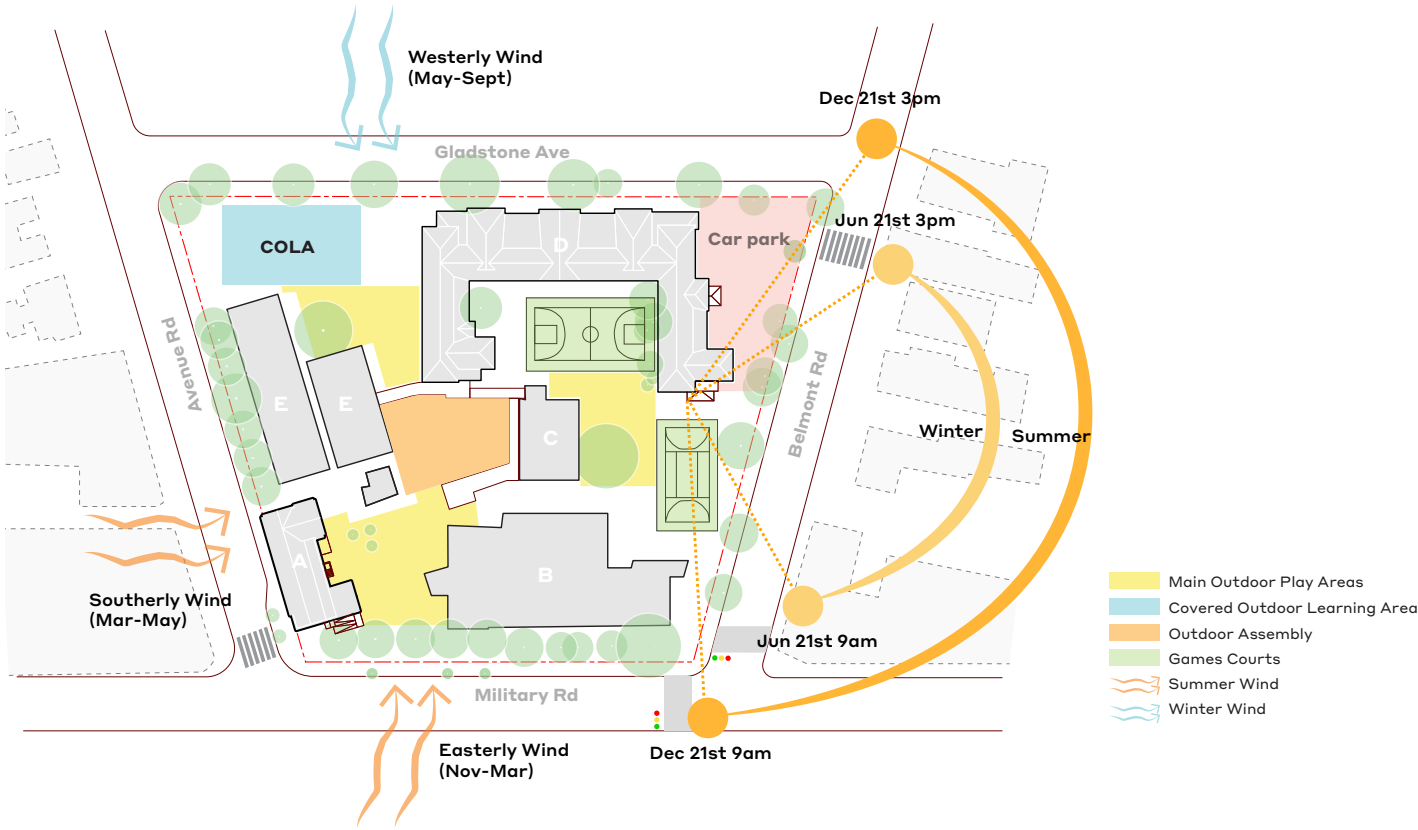


Noise, Traffic and Access

Military Road is having significant noise pollution that can easily disturb teaching and learning if not dealt with in the orientation and materiality of the build. The building edge facing Military Road needs to be acoustically considered. The uses are also of sensitive consideration especially the performance spaces. Belmont Road is considered (by stakeholders) to be a better entry. Currently the main entry to the school is off Military Road, however it is not an ideal entry point according to stakeholders because it is a busy vehicle and bus thorough fare. This entry is a good location for after hour access as it is safe, easy to see and a large, gated entry.

There is currently and secondary pedestrian access to Belmont road, Avenue Road and Gladstone Ave. Vehicular entry for services and the carpark are both accesses via Gladstone St. There is no reason to alter these access points.

The car park on Gladstone Avenue is a main entry for staff with approximately 33 parking spaces on site. Within the site, there are 4 lifts and several buildings are interconnected through walkways providing undercover access to almost all buildings on campus. This allows for all buildings on site to be accessible except Building A.

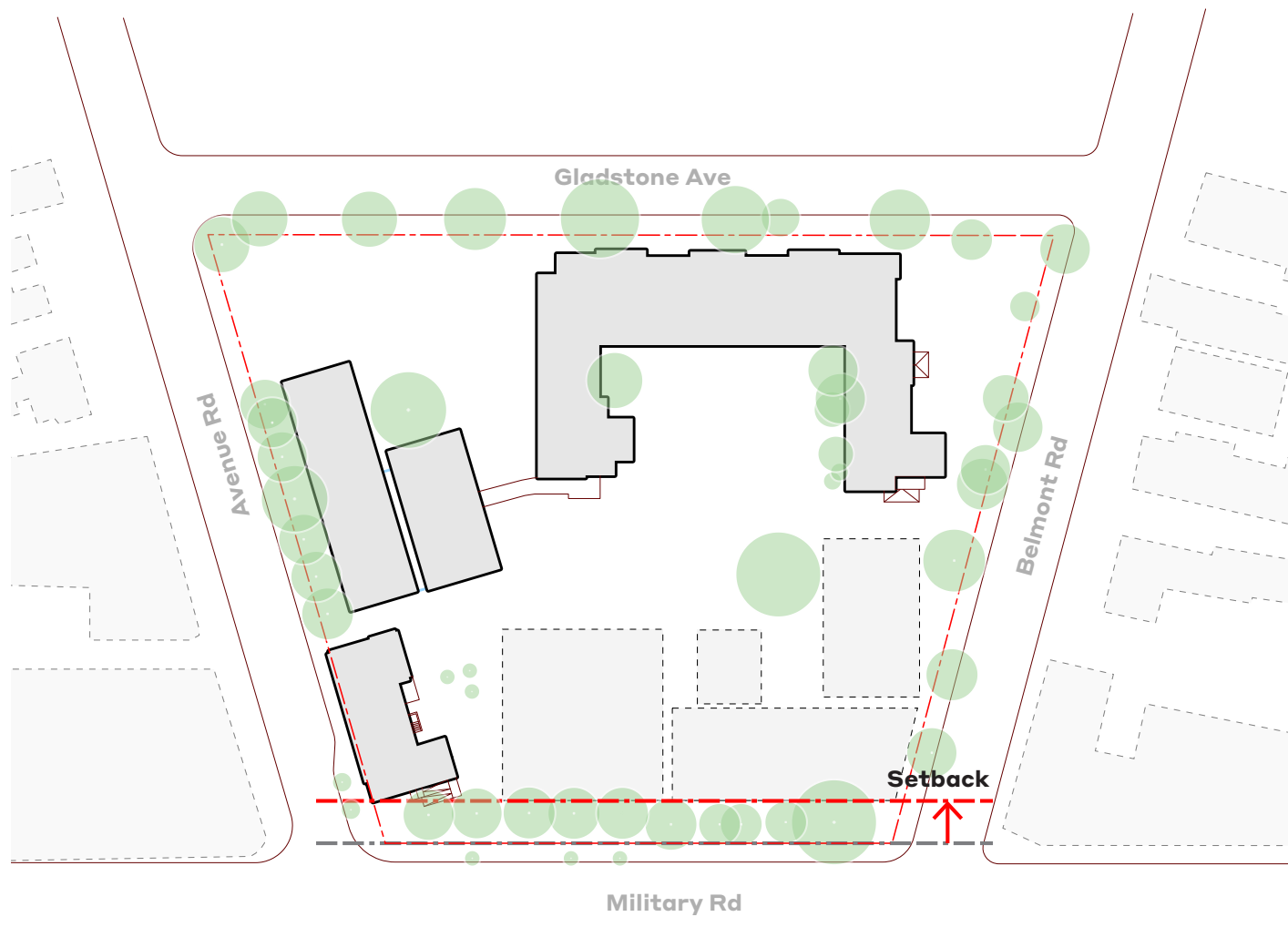


Outdoor Conditions

The site is lined heavily with nature and dense trees along Avenue Road, Military Road and Belmont Road.

There is outdoor play space of approximately 5661 sqm which equals to approximately 4.88sqm per student (based on current enrolled student numbers).

02 Retention of Setback

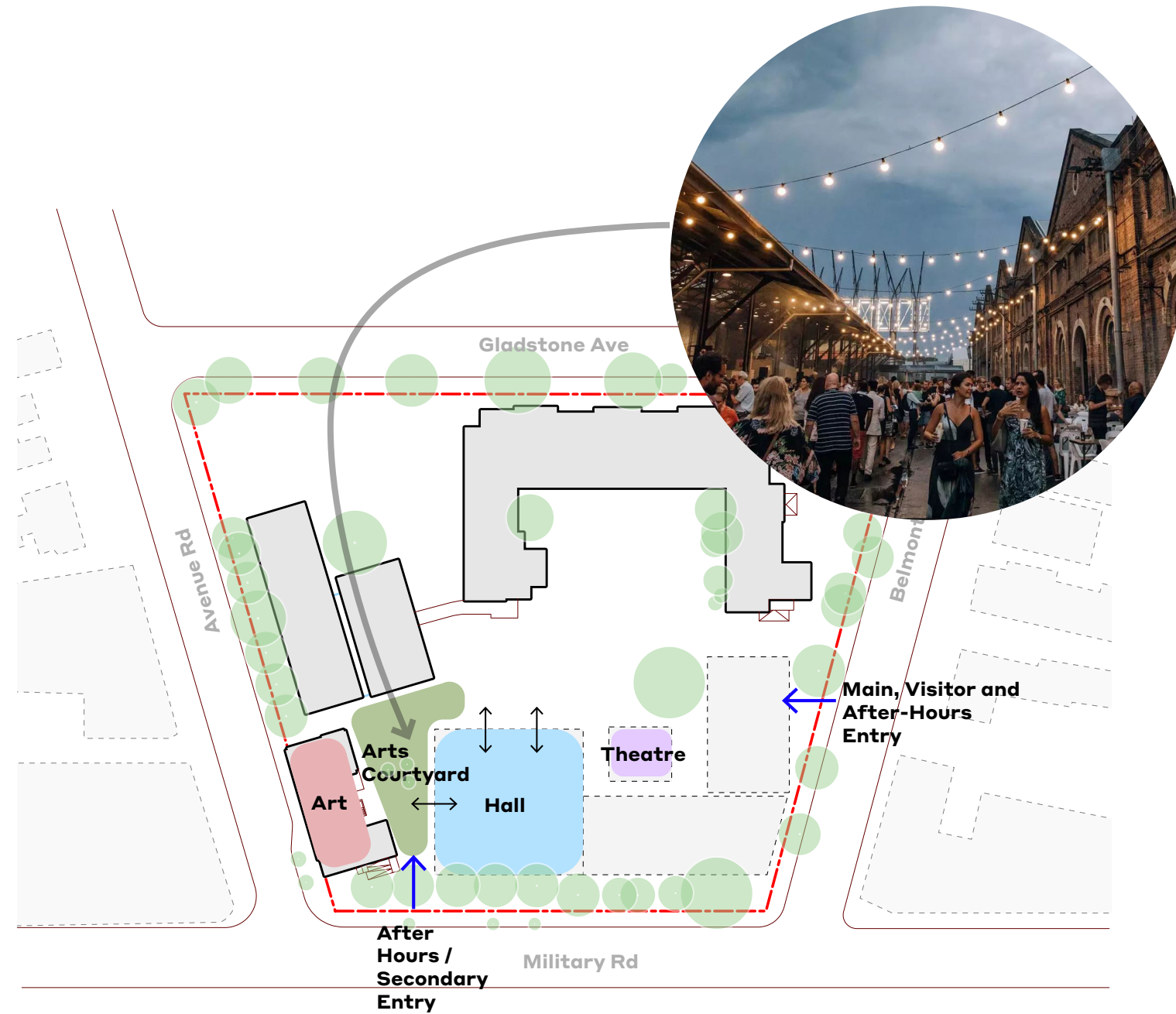


Tree Retention

Sympathetic approach to context - Retaining setback of existing building to preserve surrounding trees, allowing for a green frontage and privacy to school front by maintaining current streetscape/landscaping.



02 Masterplanning

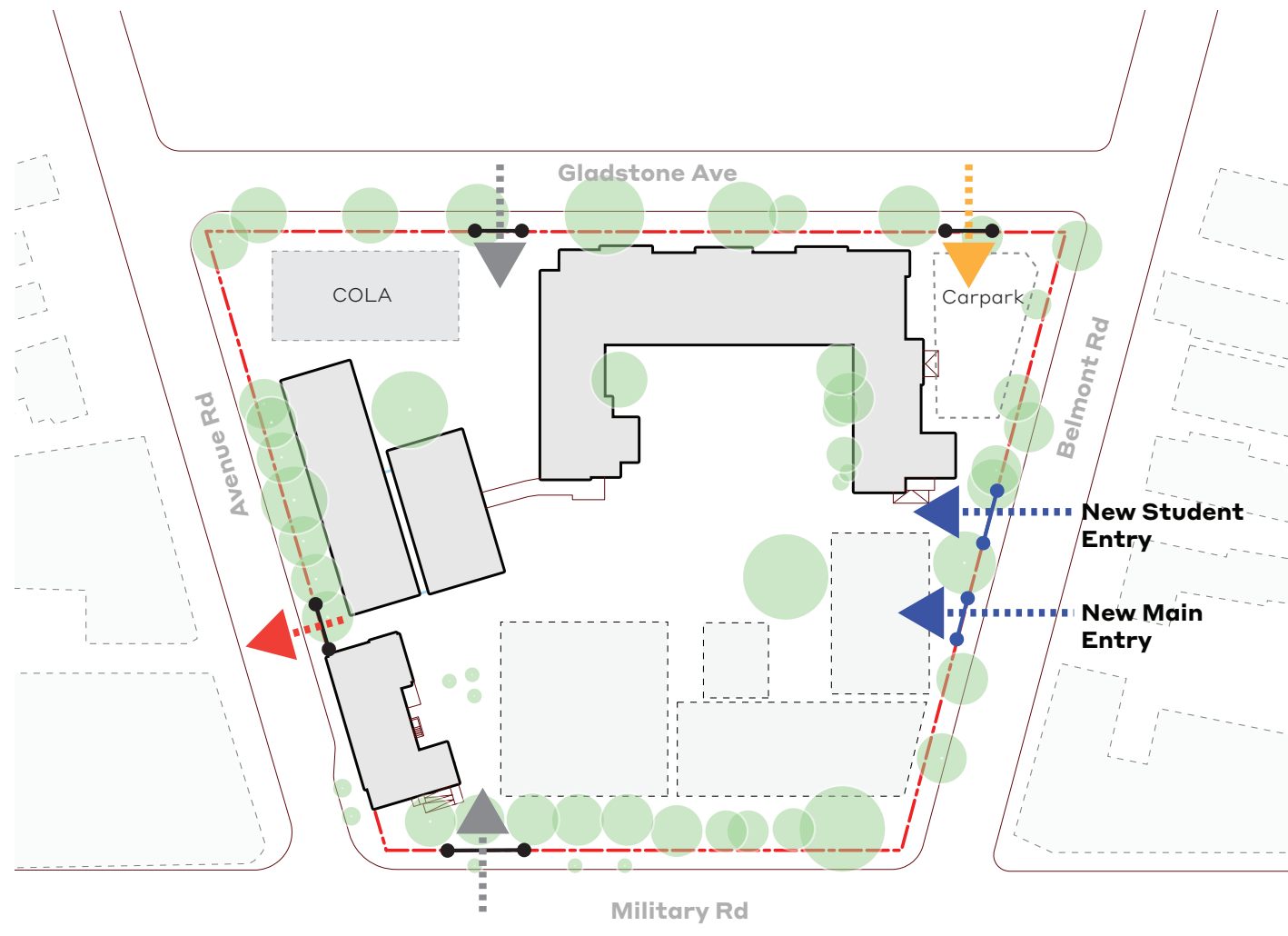


Arts Courtyard

Cluster of art and performance creates courtyard for after hour events.



02 Masterplanning

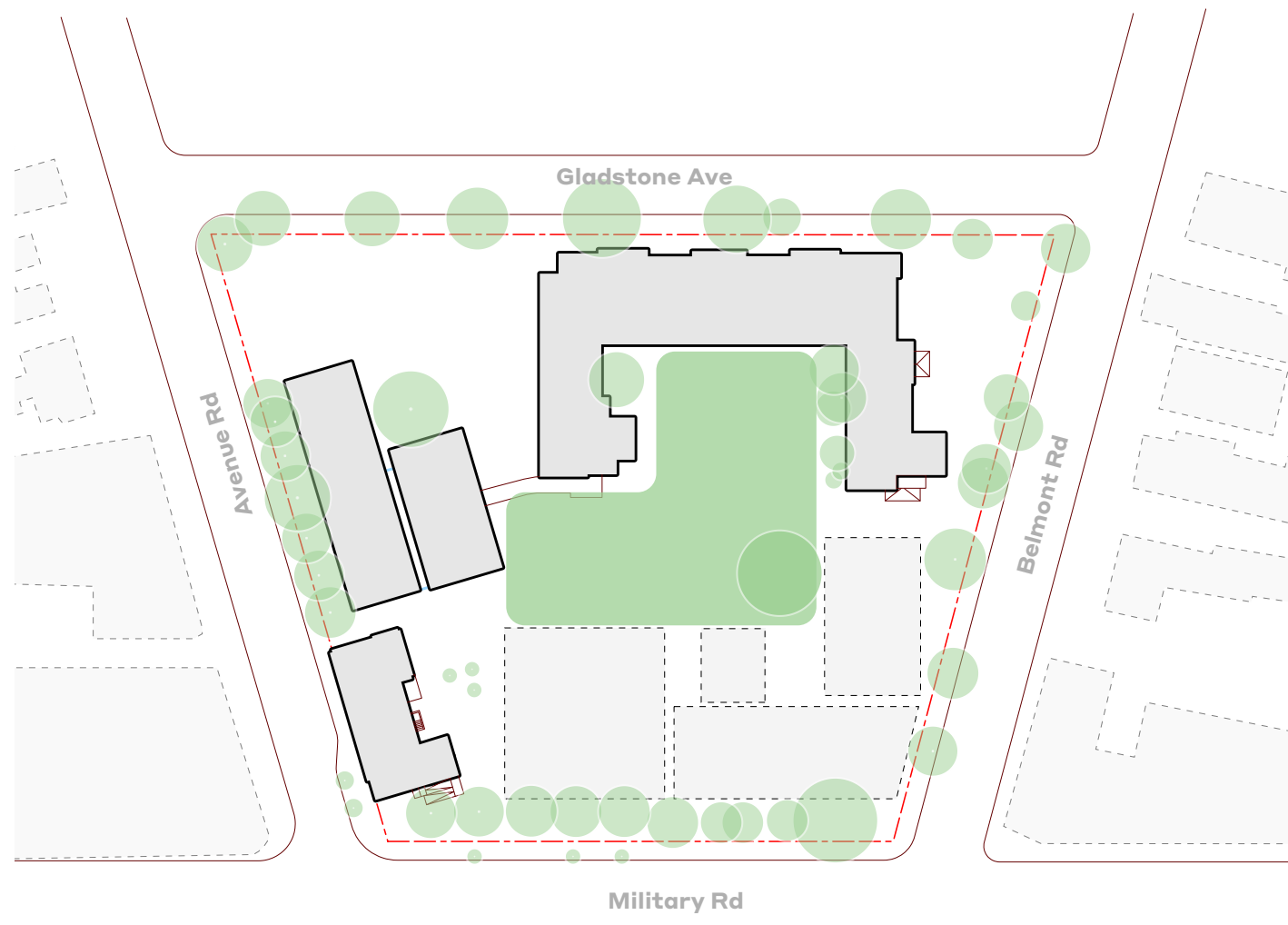


Relocation of Entry

Relocating main school entry to a quieter street - Belmont Road, whilst maintaining a secondary entry on Military Road.



02 Masterplanning

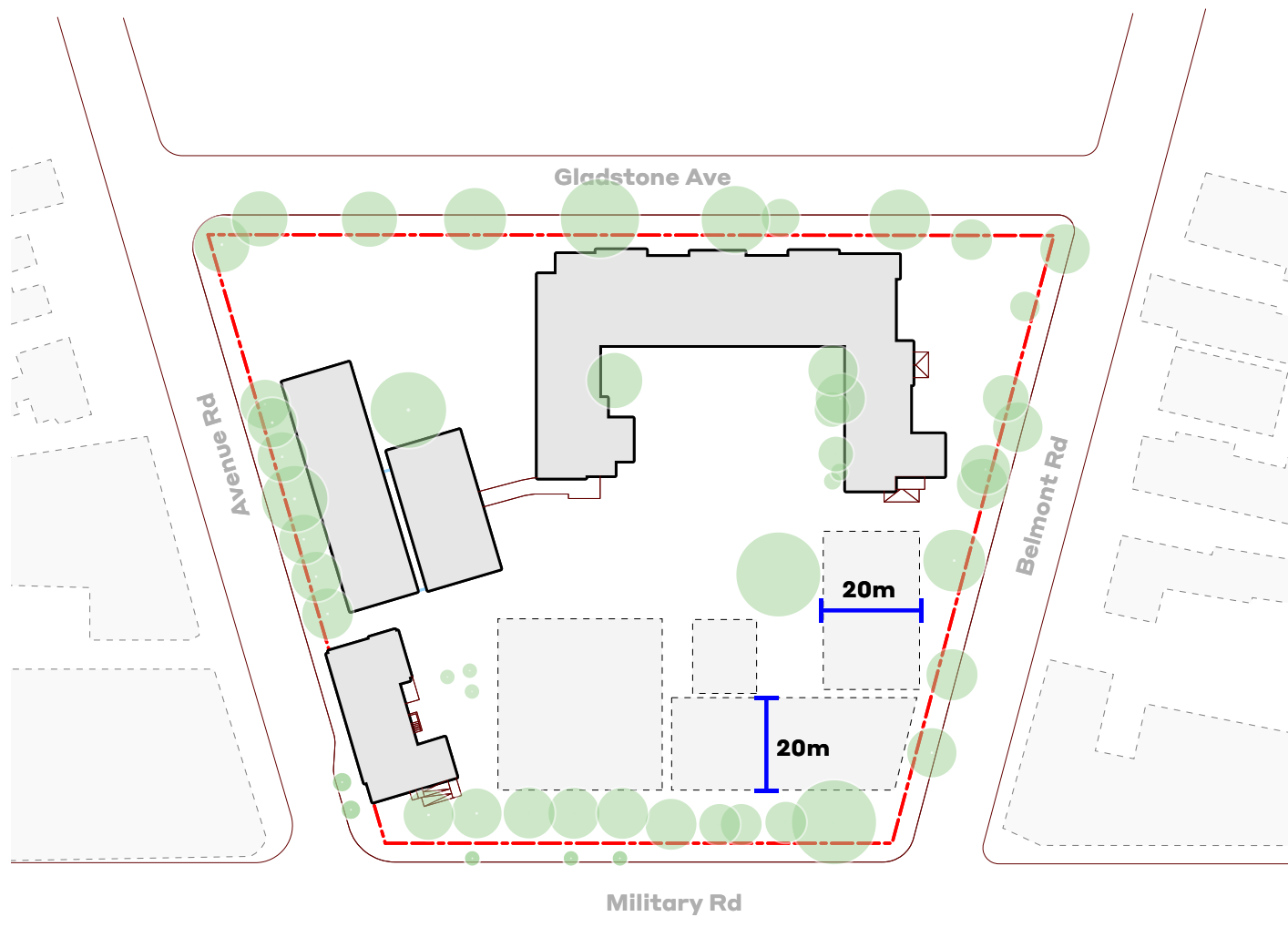


Play Area Courtyard

Courtyard block creating contiguous open area - High visibility and high flexibility of use.

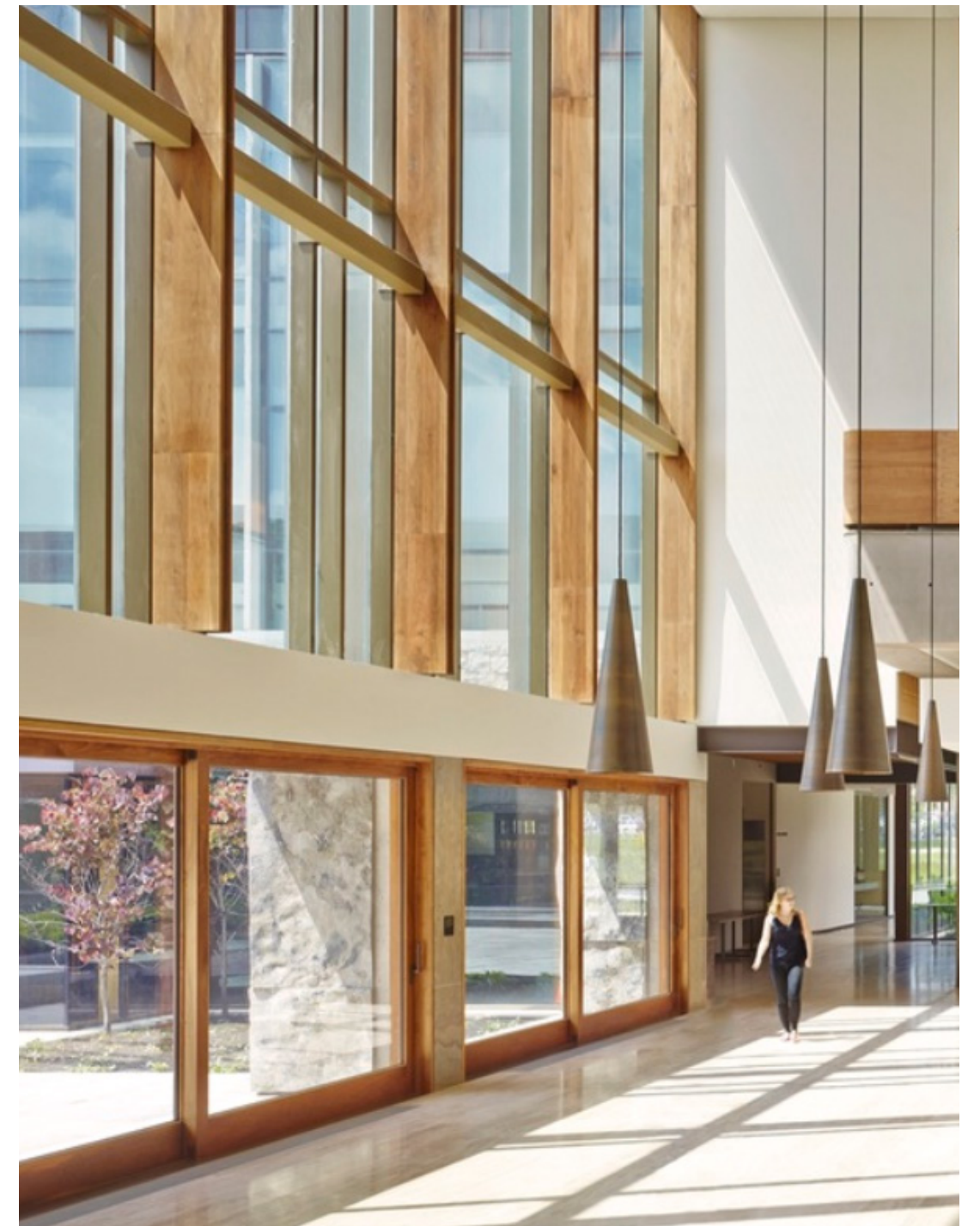


02 Masterplanning

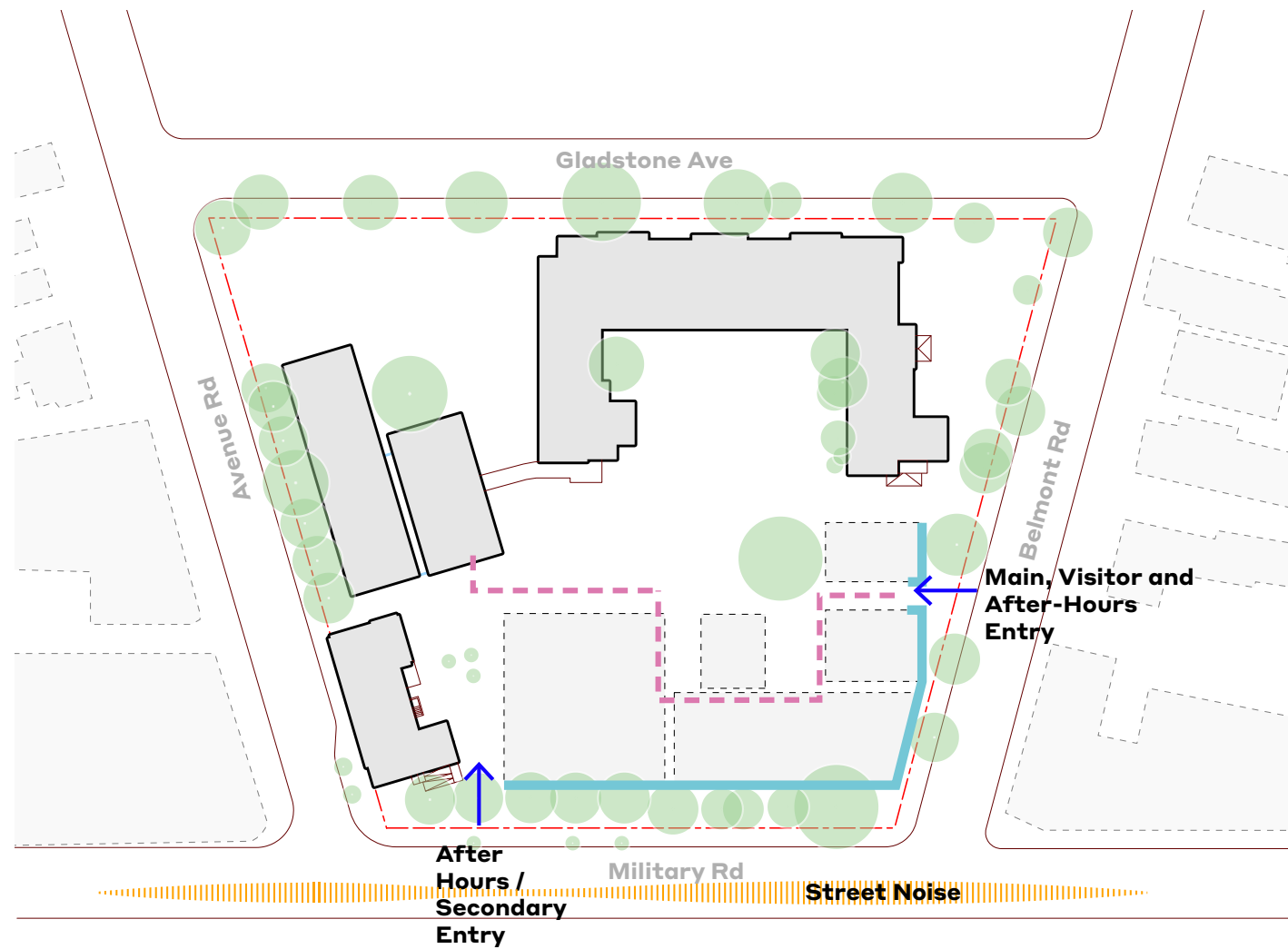


Daylight

Depth adjusted to ensure adequate daylight penetration.



02 Masterplanning

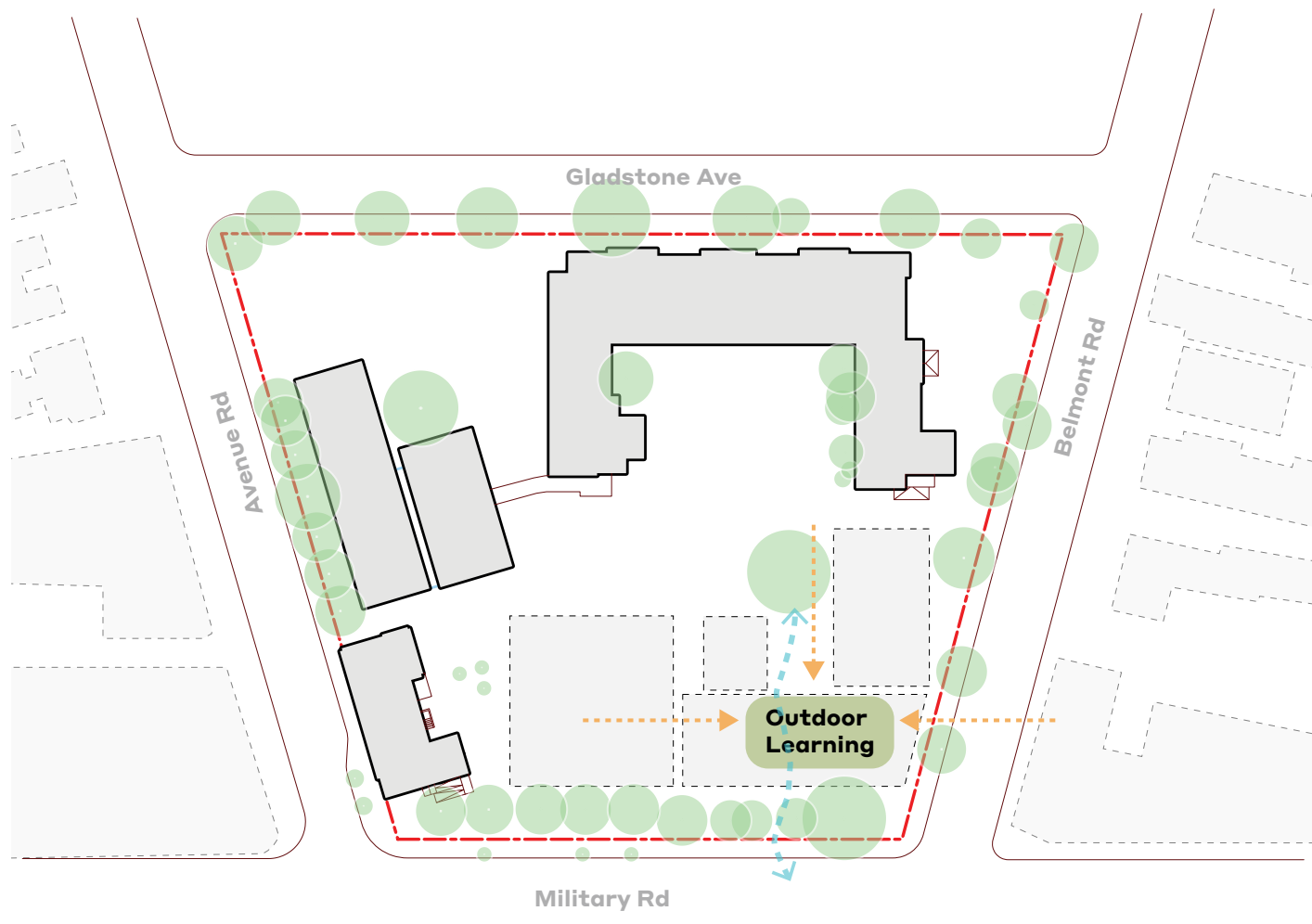


Protected Corridor

Main circulation is placed away from the outer edge to protect learning spaces from the noise on Military Road. This also allows for a level of privacy to the circulation zones of the school.



02 Masterplanning



Outdoor Learning

The strategy of outdoor learning is to allow for cross ventilation and more natural light.



02 Urban Context | Streetscape



Military Road (Opposite)

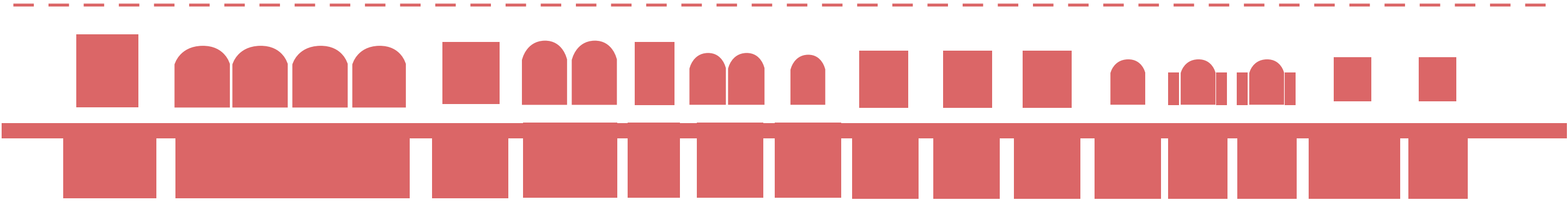
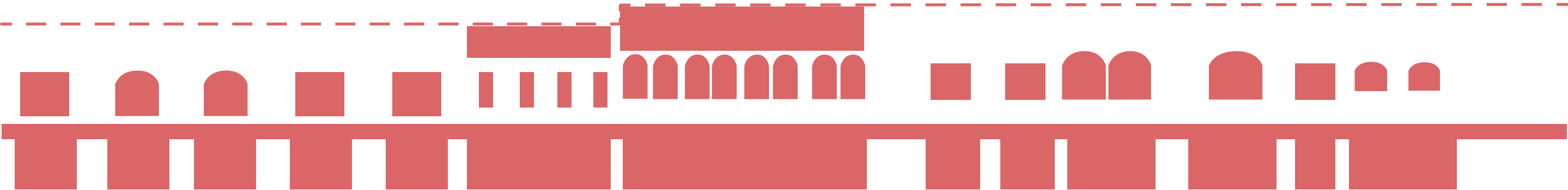


Military Road



Avenue Road

02 Urban Context | Form



02 Urban Context

Materiality



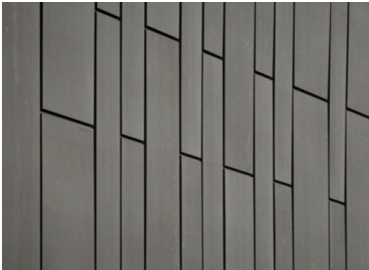
Heritage



Scale and Grain



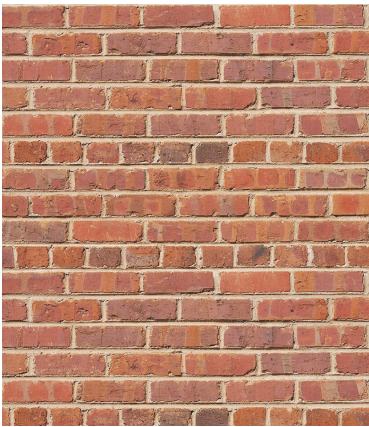
02 Urban Context | Layers and Datums



Light Weight Top



Framed Openings



Brick Base

Walking Country

03 Value Proposition (Cultural Statement)

Mosman High School was founded on the lands of Aboriginal people. We are proud of our connection to the traditional people who lived and worked these lands. The area's bountiful food bowl of local bush tucker and sea life sustained Aboriginal people. The natural environment, water ways and light of this place provided a backdrop and stage for ceremonies that told the stories of animals, birds and ancestral beings.

This setting was the original school and learning place for local Aboriginal people who explored and lived here. It is now our school and we respect its place in history.

Cultural practices and traditional knowledge systems have been passed on to young people on this land we call Mosman and our home, for over 65,000 years: Indigenous Australians are the first performing artists, drama teachers and practitioners. Through their traditional ceremonies

they improvise and use cultural expression and storytelling performed through song, dance and miming to pass on knowledge, using the natural landscape as their theatre; they are also the first scientists, technologists, engineers, architects and mathematicians and designers. They used all these principles to create shelter, tools and weaponry.

We acknowledge our rich shared history with Australia's First People. Together we will continue to build future respectful artistic world leaders and change agents.

03 The People



Significant Sites

- 1. Quakers Hat Bay
- 2. Middle Head
- 3. Chowder Heads
- 4. Bradleys Head

Language Groups

- 1. Camaraigal
- 2. Darug
- 3. Tharawal
- 4. Guringal
- 5. Borogegal

03 The Food Bowl



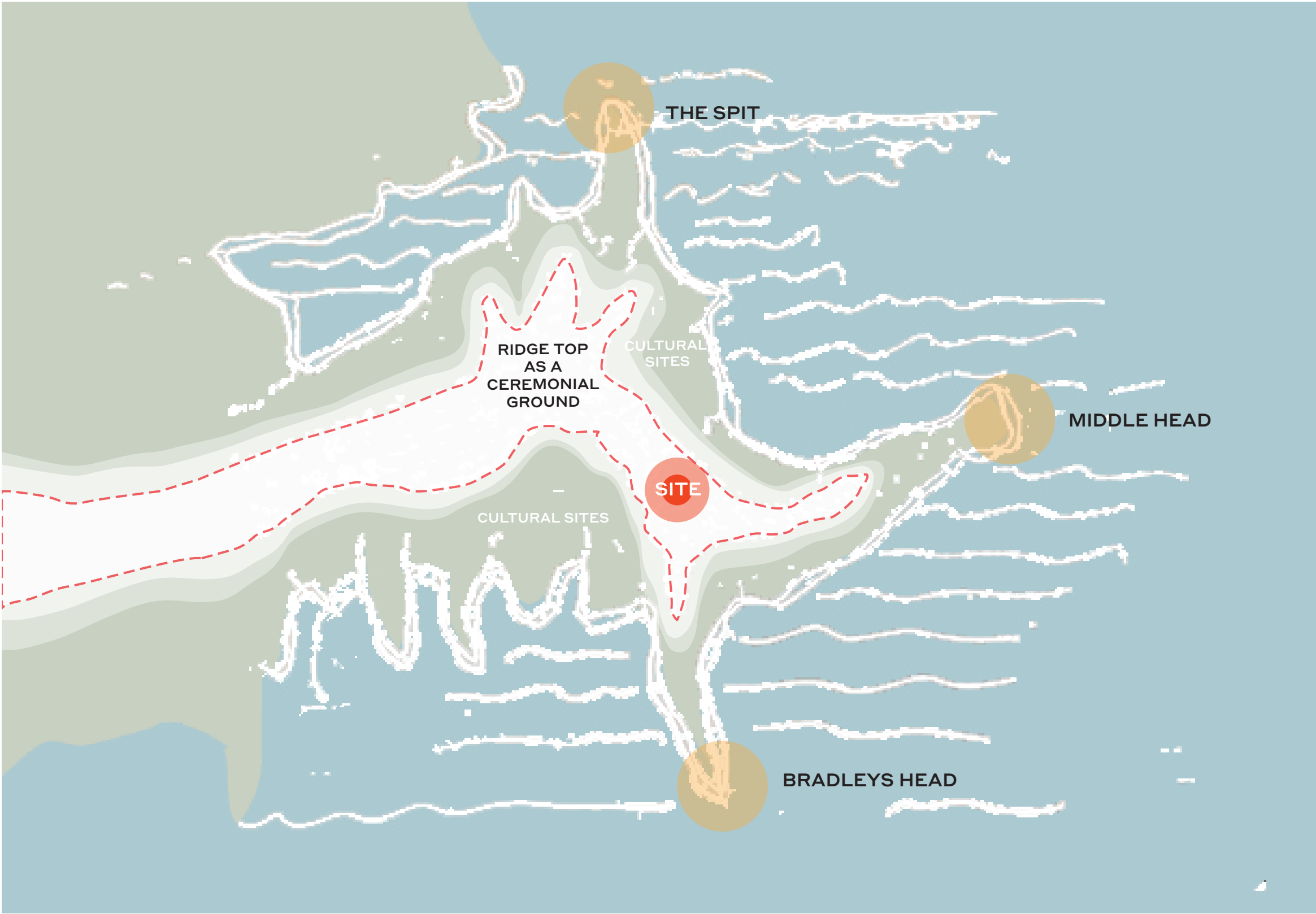
Food Bowl

- 1. Roots
- 2. Animal/Sea Life
- 3. Edible Flowers
- 4. Berries
- 5. Honey from Native Bees
- 6. Birds Eggs

Animal/Sea Life

- 1. Kangaroo
- 2. Wallabies
- 3. Possums
- 4. Gliders
- 5. Dingo
- 6. Bandicoots
- 7. Wombats
- 8. Quolls
- 9. Fruit Bats
- 10. Shell Fish
- 11. Snakes
- 12. Goanna
- 13. Seal
- 14. Dugong
- 15. Lizards
- 16. Turtles
- 17. 150 Bird species

03 Ceremonial Ground

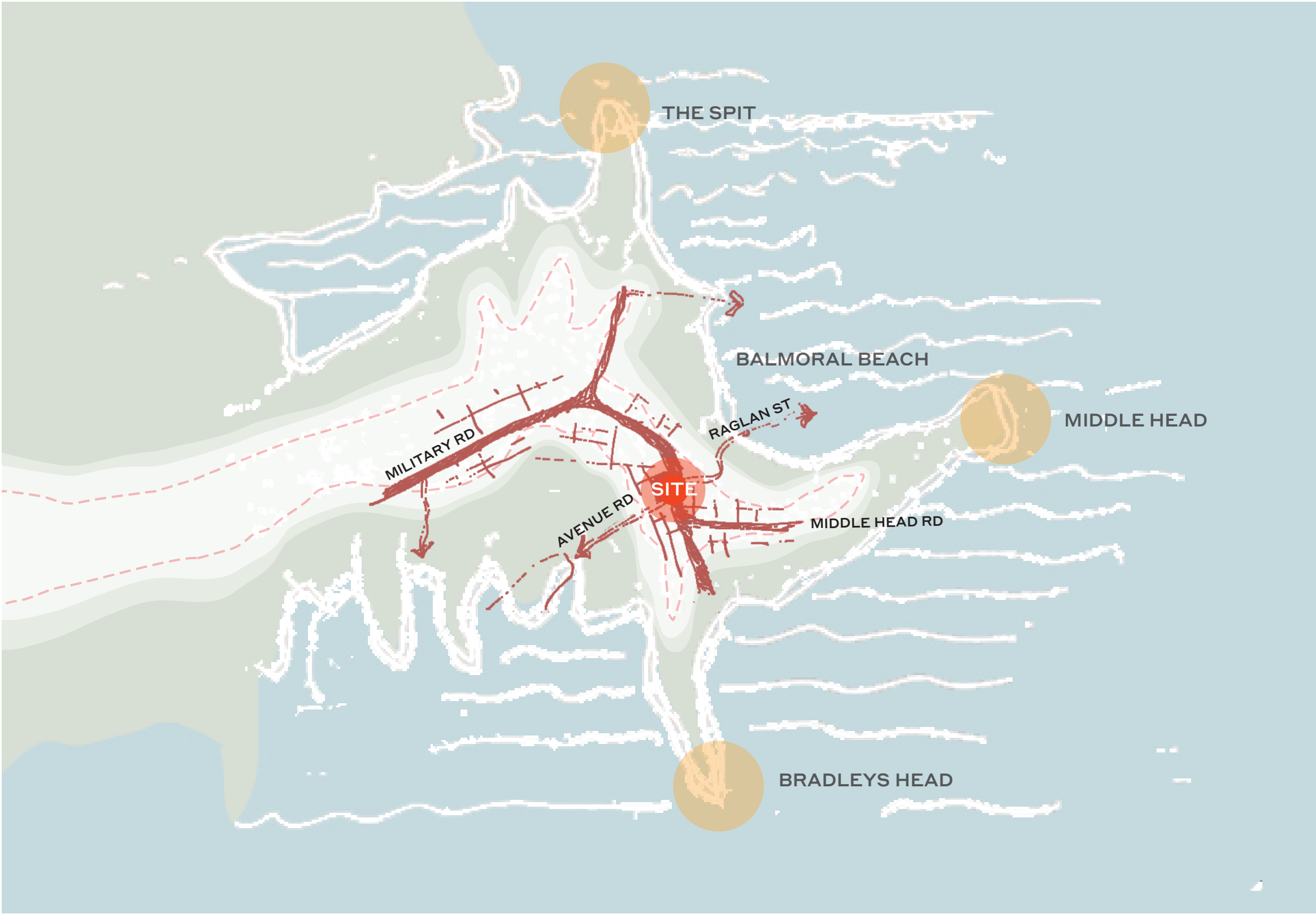


A Spiritual Place

A Place of Exchange

A Place of Learning

03 The Meeting Place



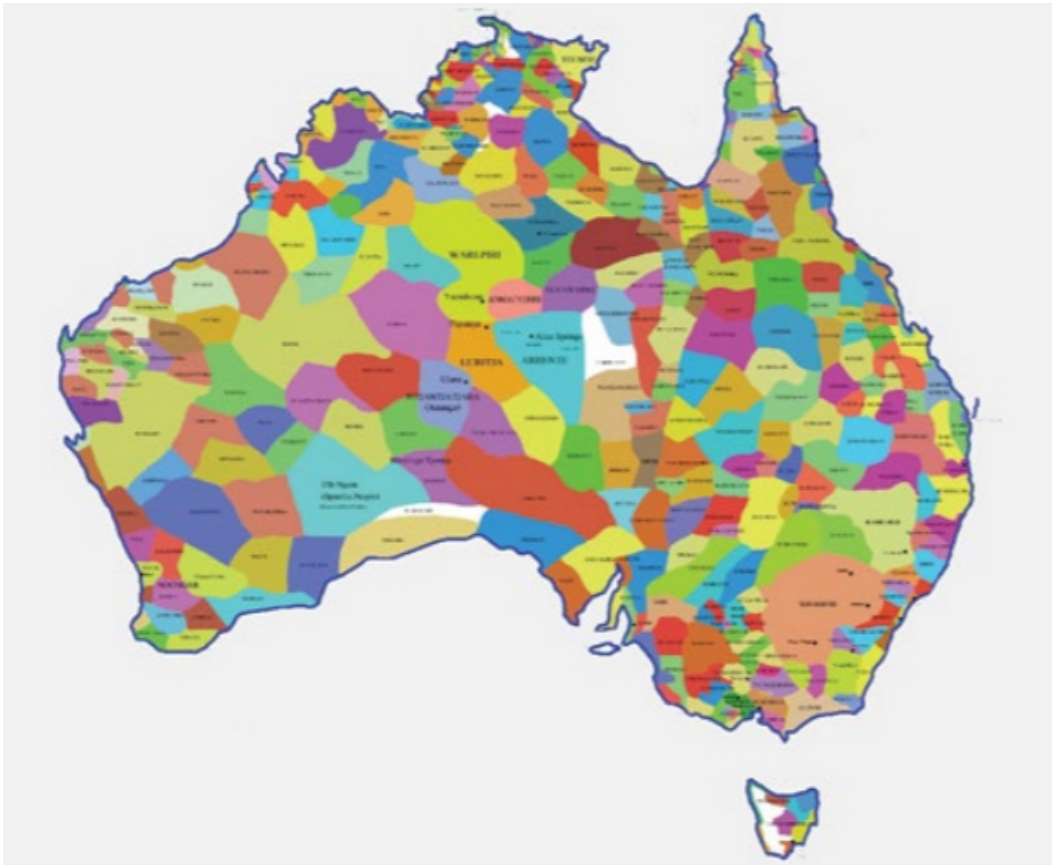
Main Routes

- 1. Military Road
- 2. Raglan Street
- 3. Avenue Road
- 4. Middle Head Road

03 Country

"When people talk about country it is spoken of like a person:
we speak to country, we sing to country, we worry about country, and we long for country."

- Common Ground First Nations Connection to Country



AIATSIS Map of Indigenous Australia

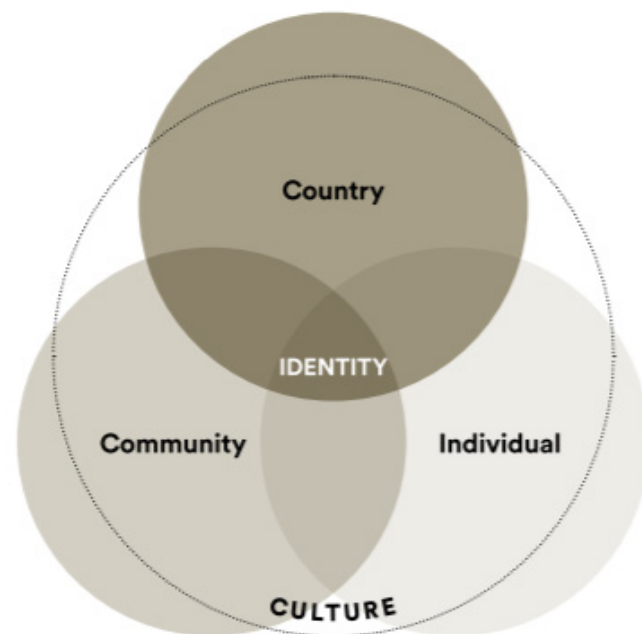
Burran Hot and dry	Marrai'gang Wet becoming cool	Burrugin Cold and frosty	Wiritjiribin Cold and windy	Ngoonungi Cool becoming warm	Parra'dowee Warm and wet
Male kangaroos aggressive	Quolls seeking mates	Echidna seeking mates	Lyrebird building mounds	Flying-foxes appear	Summer heat starts
Meat forbidden	Lillypilly ripens	Burringoa flowering	Marrai'uo flowering	Ceremonial time	Stable weather
Weetjellan blooming		Shellfish forbidden	Boo'kerrikin flowering	Miwa Gawaian in flower	
			Gentle spring rains		

Cultural Expression

Cultural expression comes in many different forms - performance, ceremony, collection and preparation of food, song, dance, art, clothing, and tools. The most primal of all is language.

The above image illustrates the Dharawal seasons cycle.

03 Country



Interrelationships between Country, community and individuals

Reciprocal relationships with Country and community from cultural practices, which in turn shape individual identities. All are also influenced by external factors including environment, politics and wider society.

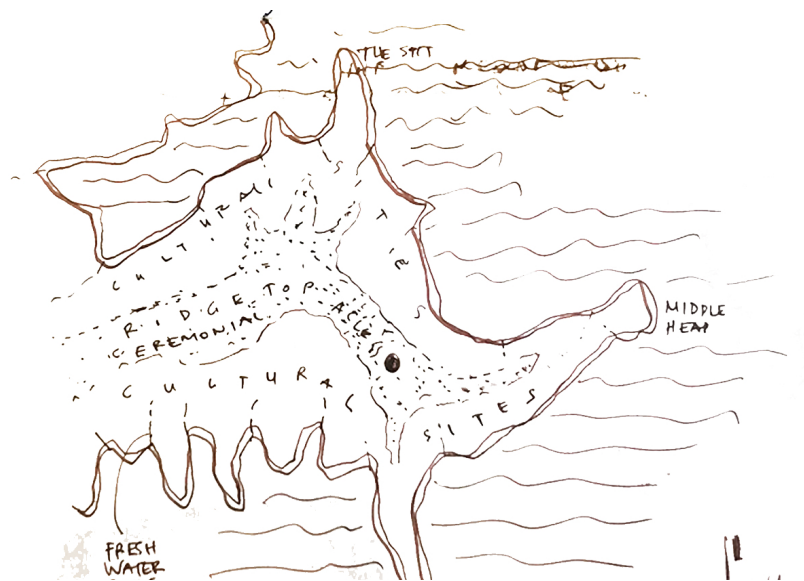


Human-centred / Country-centred

In the "Country-centred", or eco-centric circle the human and non-human are represented as integrated in a network of relationships through Country - all supporting each other.

In contrast, the "human-centred", or ego-centric triangle, represents the human and non-human as separate elements in a hierarchy.

03 Meta Principles



A Spiritual Place

Connection to Country
Reconnection - to history and place
Culture - ceremony practices
Recognition - Aboriginal people



A Place of Learning

On Country Learning
Translation of knowledge - literacy and communication
Transformation/translation - of knowledge and education settings
Reinforcing family structures and values



A Place of Exchange

A rich meeting place of land water and people, past, present and future
Connection - to land and Aboriginal people
Survival - food bowl - animals and sea life
Community - diversity and inclusion, social systems, language groups

03 A Spiritual Place



03 A Place of Learning



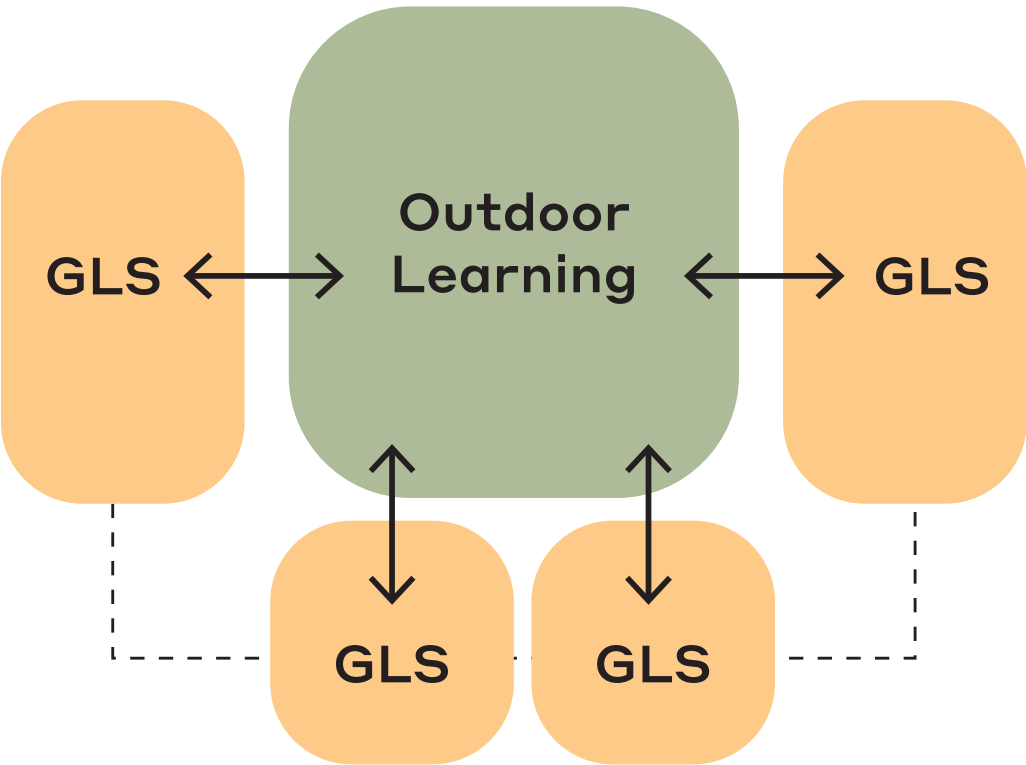
Rooftop Learning



Outdoor Learning



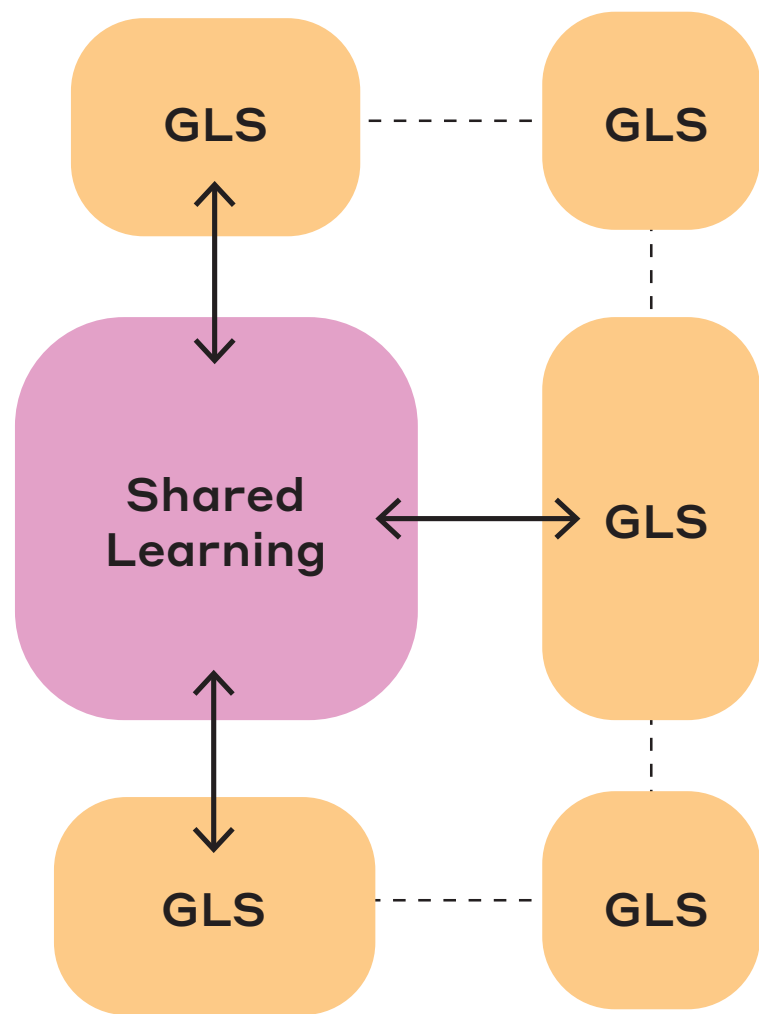
Meeting Space



A Place of Learning

The design encourages outdoor learning everywhere. The building is designed around a courtyard which can be used as an informal learning space for students at ground level. On level 1 and level 2 there is an outdoor learning environment located between the 2 learning neighbourhoods and surrounded by formal and informal learning environments. The rooftop level has a substantial outdoor area outside the library. This can be used for more noisy / collaborative learning. It was an important design consideration to have a variety of outdoor learning environments to encourage continuous learning and serendipity.

03 A Place of Exchange



A Place of Exchange

The GLS and formal classes designed around a more shared learning environment. Students will move for a formally led class and furniture settings to a looser, more playful, and potentially noisier space. The variety creating a shift in the way the students learn. Encouraging direct teacher led teaching and a more student led, conversation/exchange style of learning. These spaces are open and are both physically and visually easy to access.



Connection

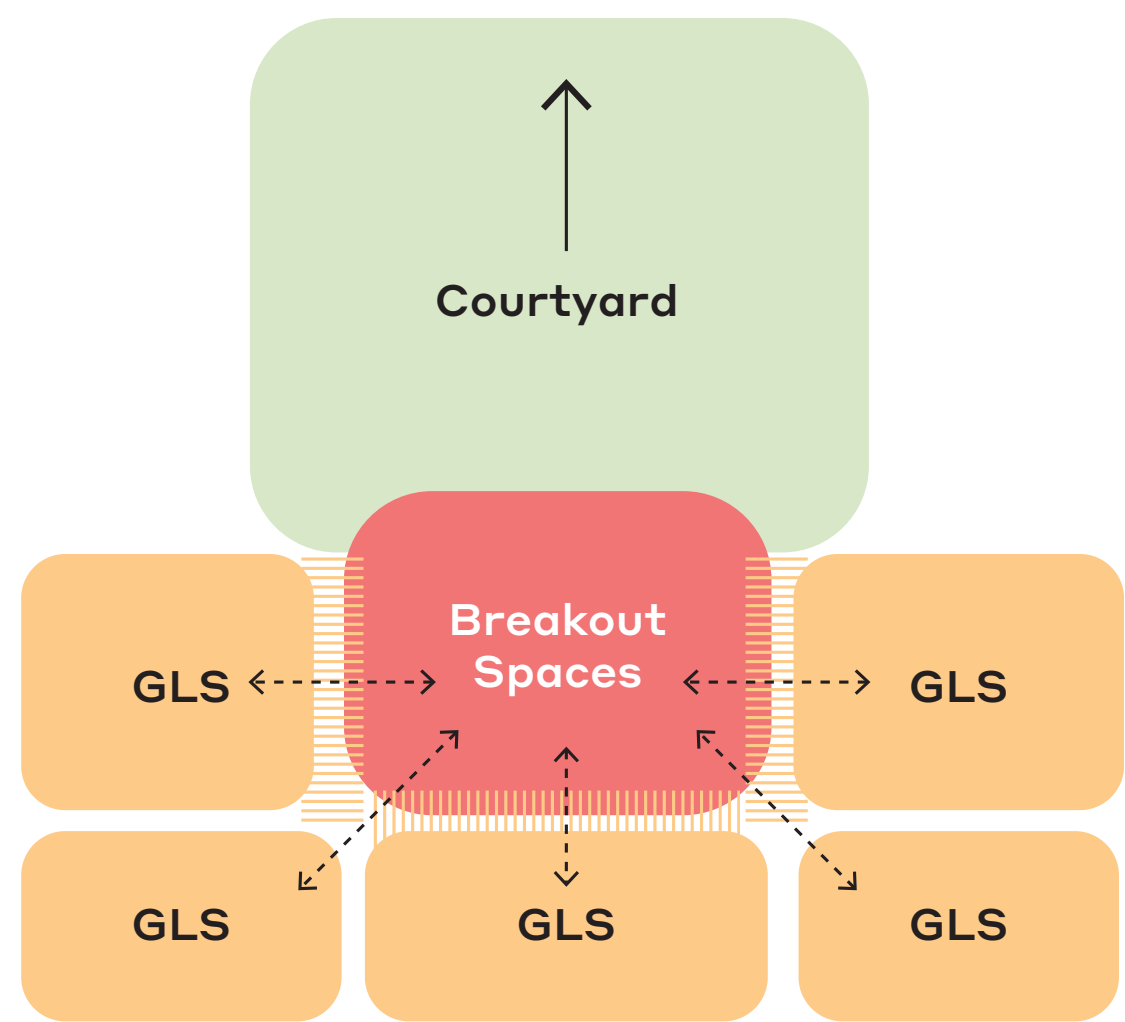


Shared Space



Collaboration

03 Breakout



Breakout Spaces and Permanent Spaces

The design of the entire school is to encourage as many learning styles as possible. From individual, teacher led and also peer to peer group learning. The design works with formal and break out spaces adjacent to each other to encourage the behaviour of mixed modes of learning.

The breakout spaces can be described as outdoor spaces, courtyard, covered verandas, covered learning and informal spaces that wrap around formal spaces. The formal spaces are GLS spaces and specialised spaces for performance and science.

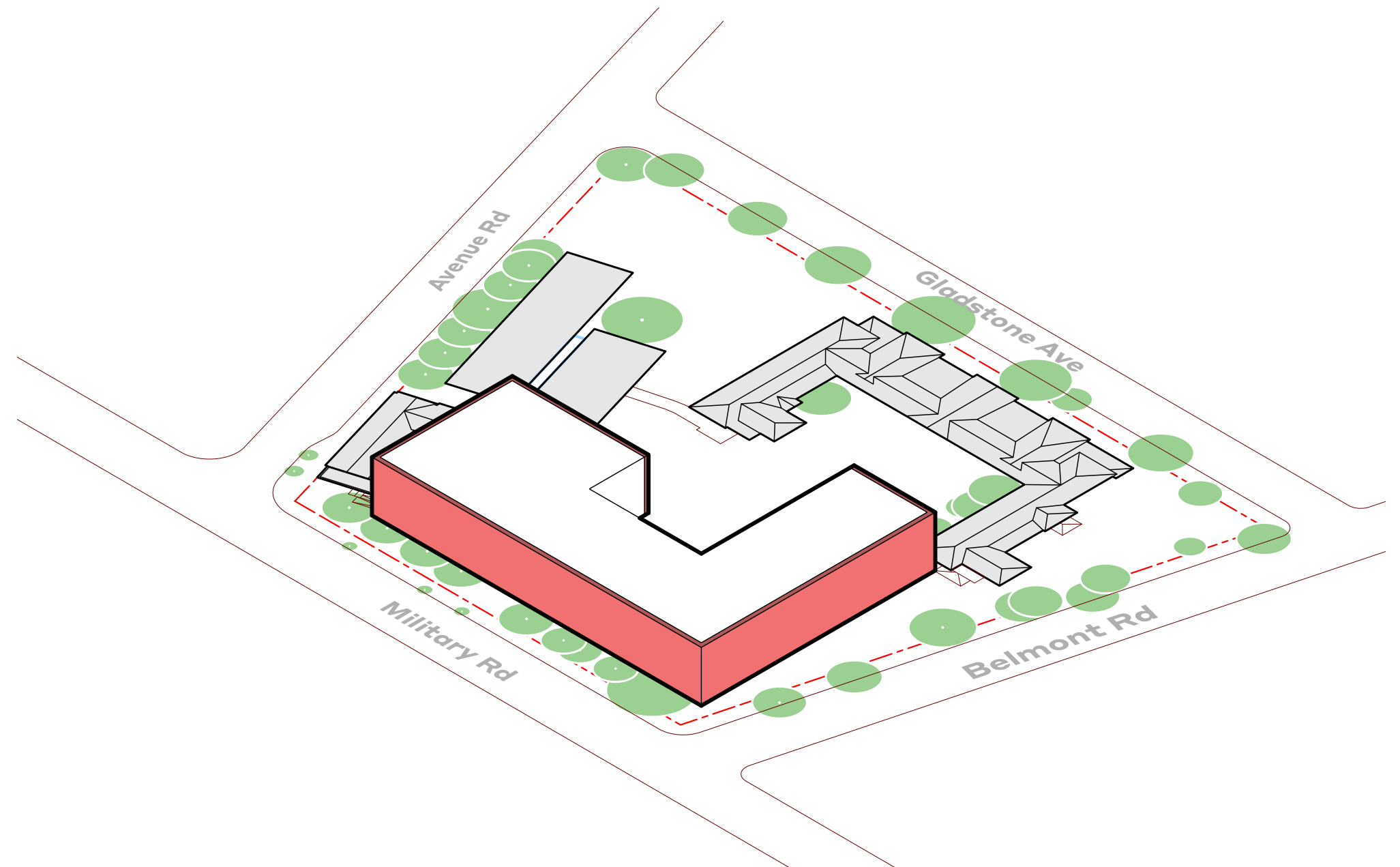
Built Form

04 Built Form | Brick Crust

Brick Crust

The proposal responds to the surrounding Military Rd façade and the adjacent Building A by creating an external brick “crust”. The crust concept relates conceptually to the adjacent buildings in both materiality and height. The crust also reads as a protective element for the school, screening the school from the busy street both visually and acoustically.

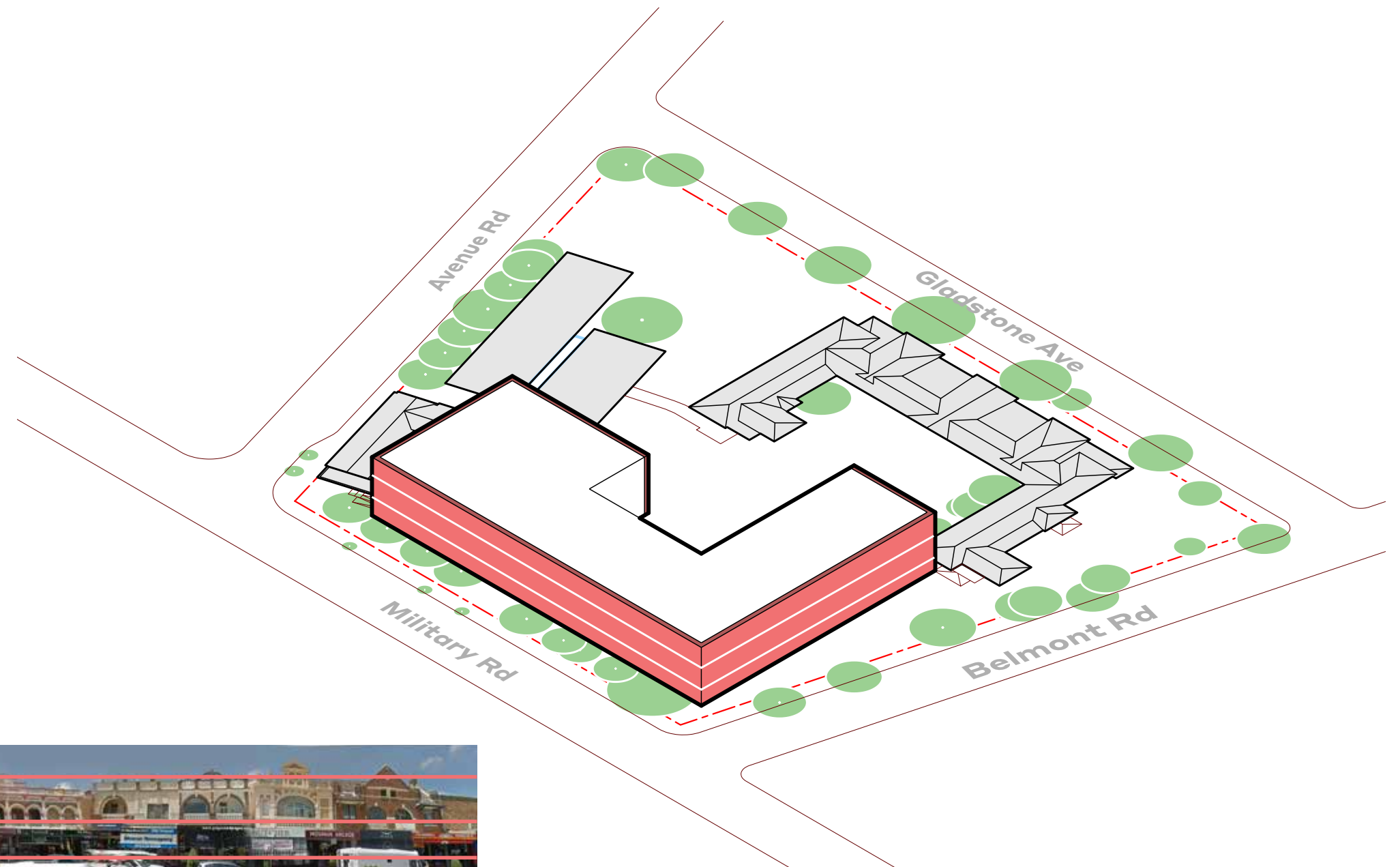
The crust is broken by the windows. The windows at the corners are breaking through the façade and feed views and light into and out of the building. These windows will face towards various views of Sydney and Mosman. These views face various historical stories relating to indigenous landscape, the role of the water and the history of Mosman in built form. Beyond this views of greater Sydney are captured, specifically the harbour bridge and city seen from the library and staff rooms. The intent is that eventually these will become part of the pedagogy of the school, which means a student will learn what they are looking at (historically) from various windows throughout the new building.



04 Built Form | Street Rhythm

Street Rhythm

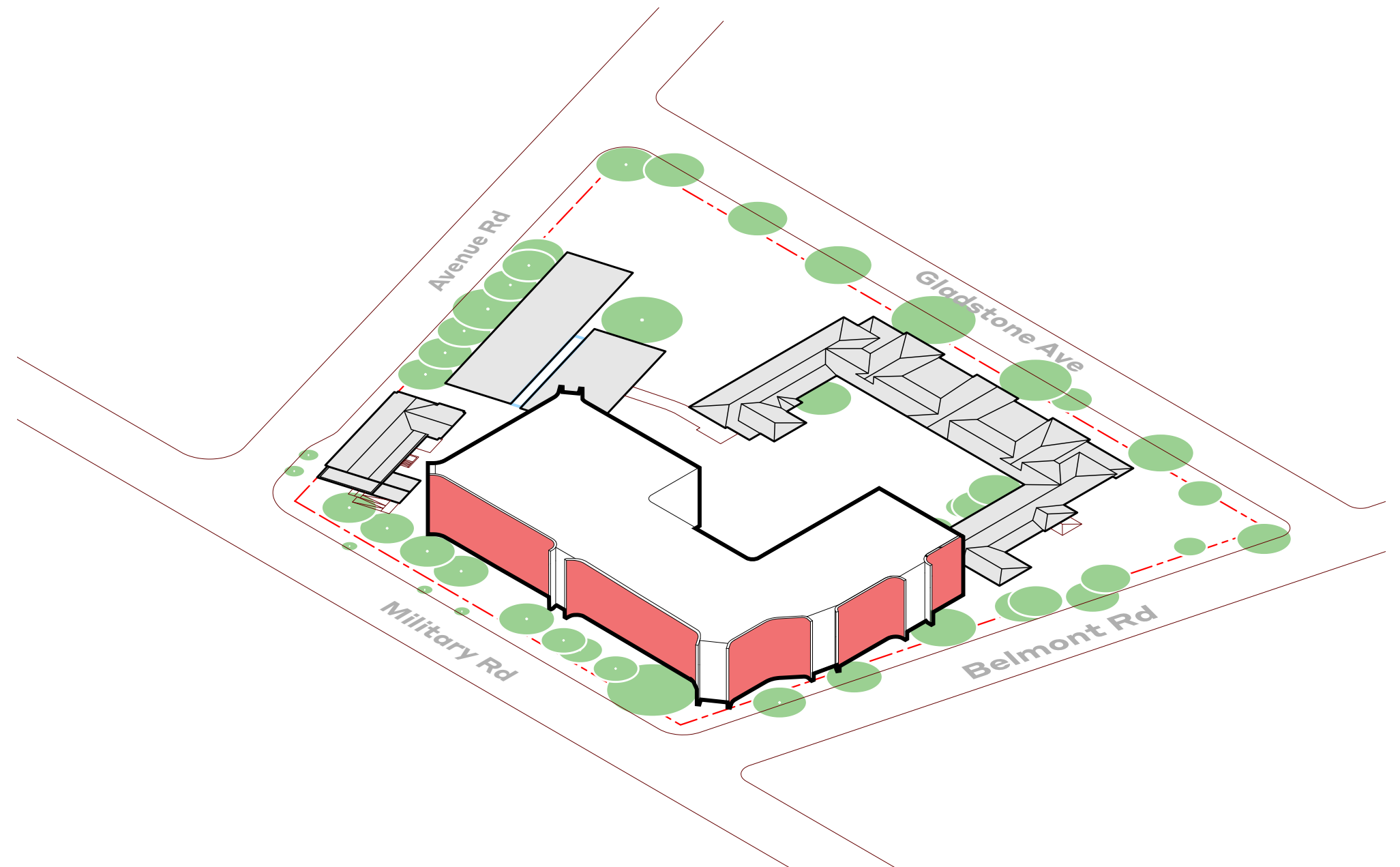
The rhythm of Military Road is both vertical and horizontal. The street is made up from a continuous shop-front rhythm which reads as small vertical shops. However, the stronger rhythm is the horizontal, continuous strip effect of the awning and consistent parapet line. The 3 layers horizontally are a very strong memorable experience. The street level is the activated level and has a deep horizontal canopy which diminishes the effect of individual shop front. The next layer of is a patchwork of horizontal windows of various scale. The third level is the lightweight roof-line which varies up and down (not substantially) and is of a different material as the 2 brickwork levels. The proposed design has used all of these scale and rhythmic tools to establish the design of the building. The strong horizontal shift work as layers up to the library and rooftop basketball court.



04 Built Form | Corner - Peel Open

Peel Open

As mentioned in the crust section there are windows that break through the brick crust. There are smaller windows in the main façade lengths and these are broken by “peels” where the entire 3 levels of program are revealed to the street. The corner of Military Rd peels opens to reveal 3 windows showing informal performance and senior classes. These were well received by the stakeholders suggesting they were special moments for the students to feel part of Mosman, looking out and Mosman looking in. The other peels reveal other functions inside the building including a staircase with serendipitous potential coming from library to ground floor.



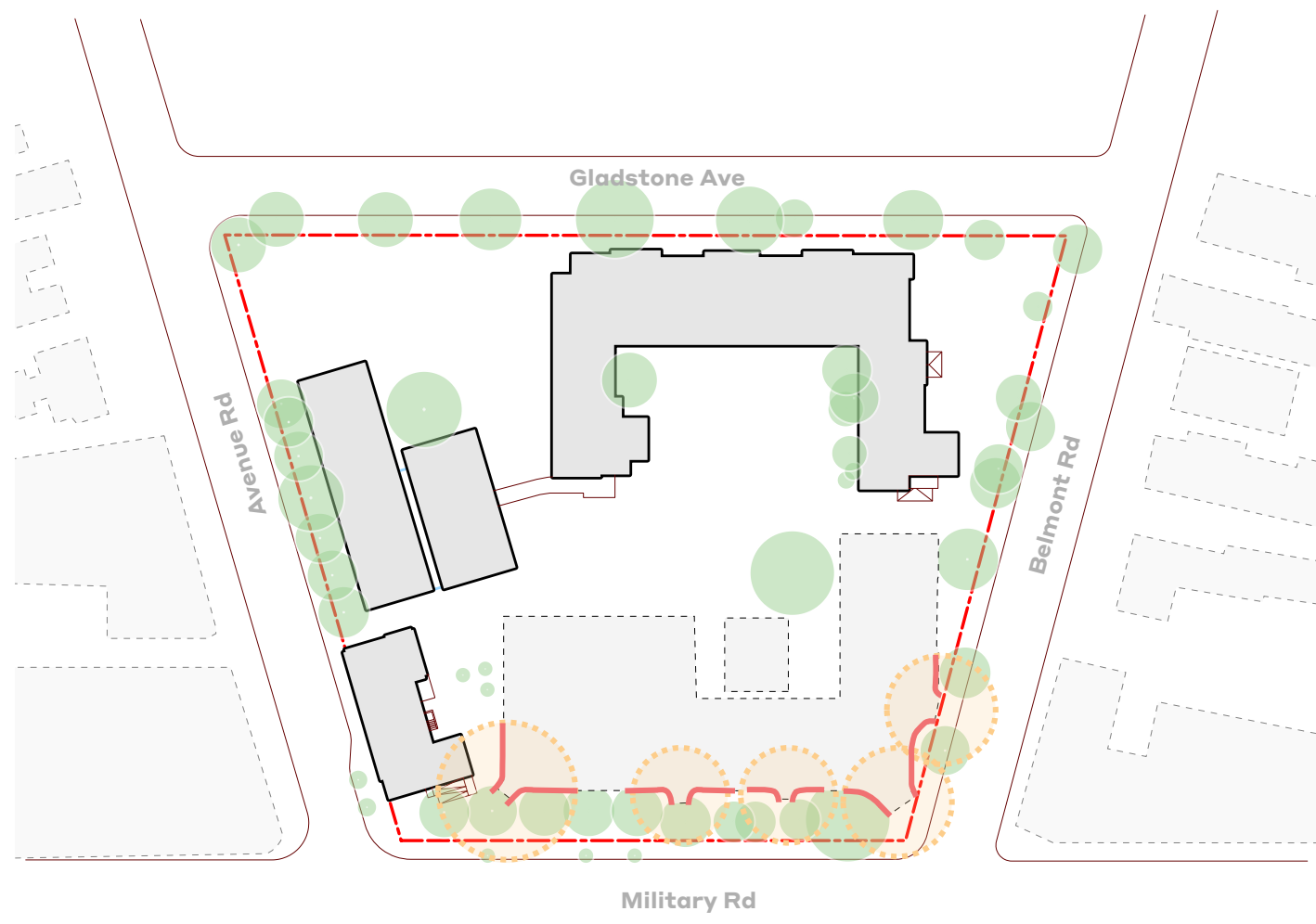
04 Built Form | Views Out

Views Out

As mentioned, the peel out windows, and in fact all windows are found to have views to significant sites on the water at the top level. These views range from the City of Sydney at the level 4 and the roof court to views to the harbour and the beaches and bays that all have a significant value in being a food bowl for Indigenous people and a cultural, working and entertainment value to the more recent history of Mosman. All these are valued historical references and can potentially be used as a learning tool in the building. The views at lower levels are for engagement at street level for the students and for Mosman locale to feel part of the community.

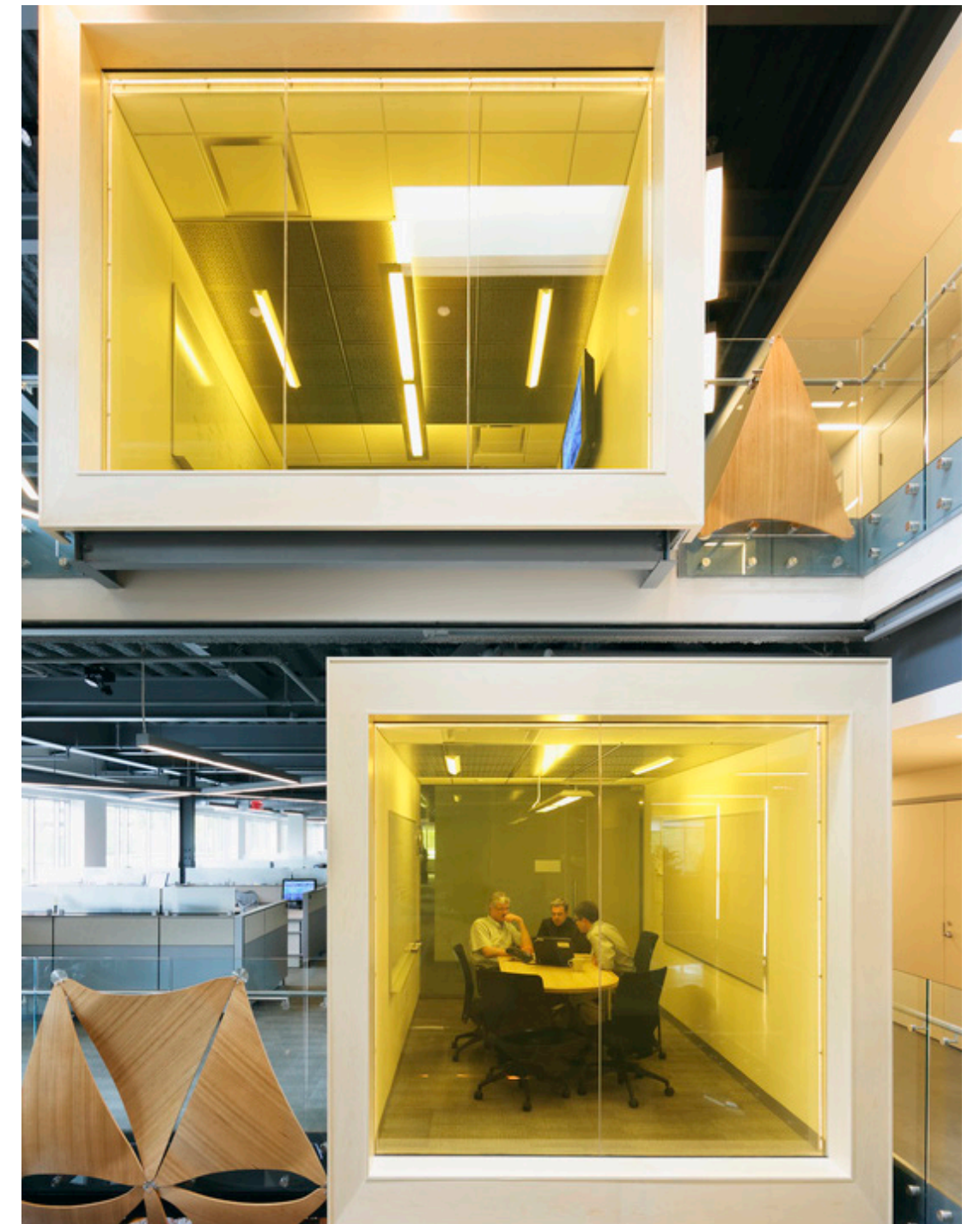


04 Built Form | Learning on Display



Learning on Display

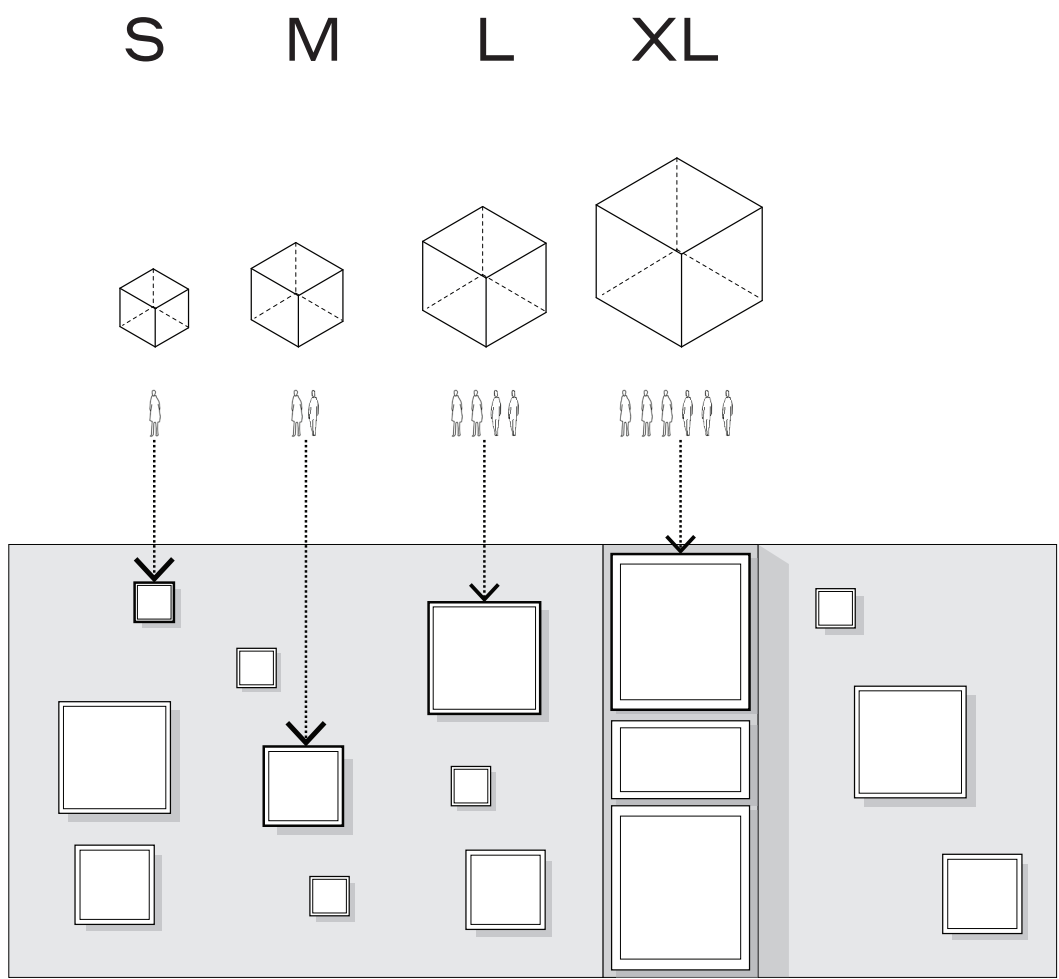
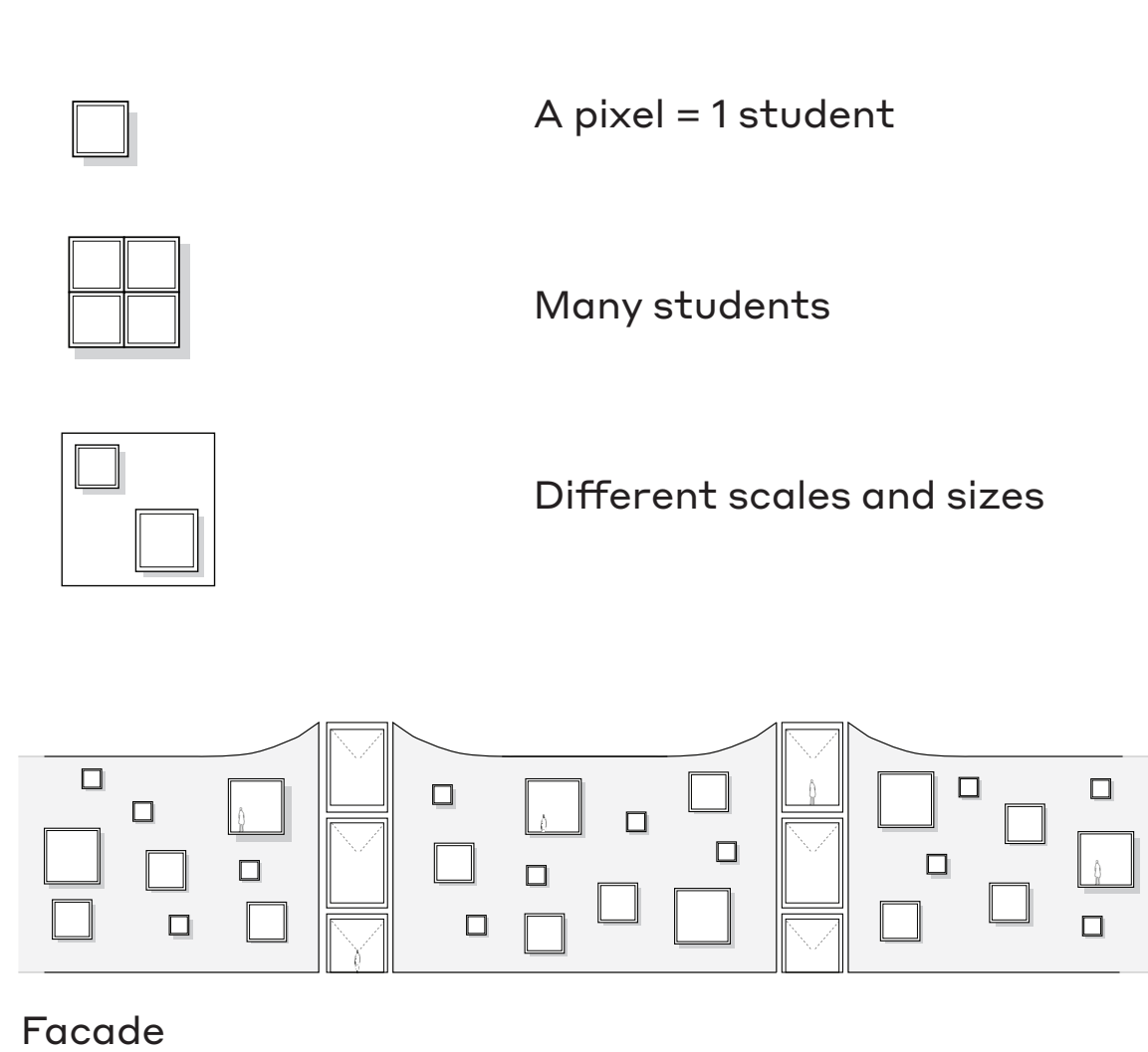
Significant programs are placed on the corners strategically for display.



04 Built Form | Design Concept

Concept

The facade windows mirror the variety of scales of openings along Military road. The windows themselves form opportunities for a single student to look out and learn the context of the school and similarly as they scale the windows allow for groups of various sizes to look out.

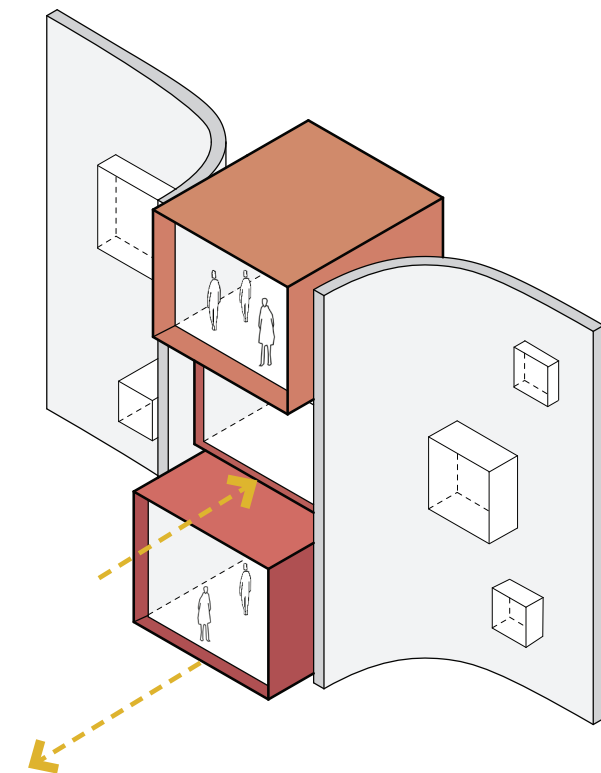


06 Built Form | Occupiable Window Space



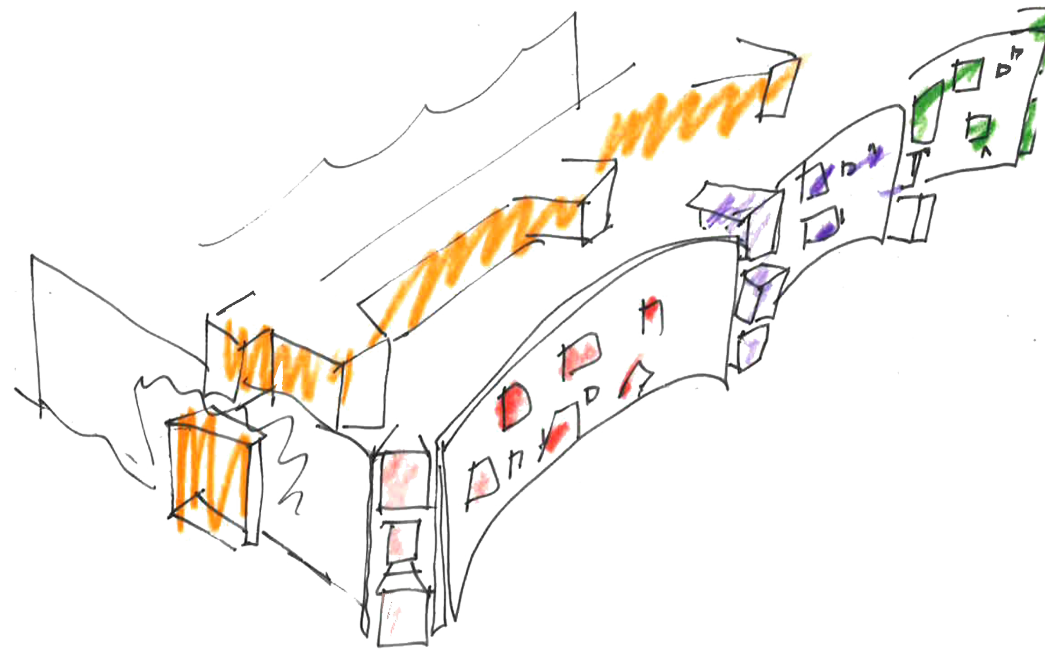
Window Space

The facade peels back to reveal window boxes which house various performance and shared learning spaces for students creating an opportunity for "learning on display". These also mark key points in the building both breaking up the mass and marking the corners in keeping with Mosman's vernacular.

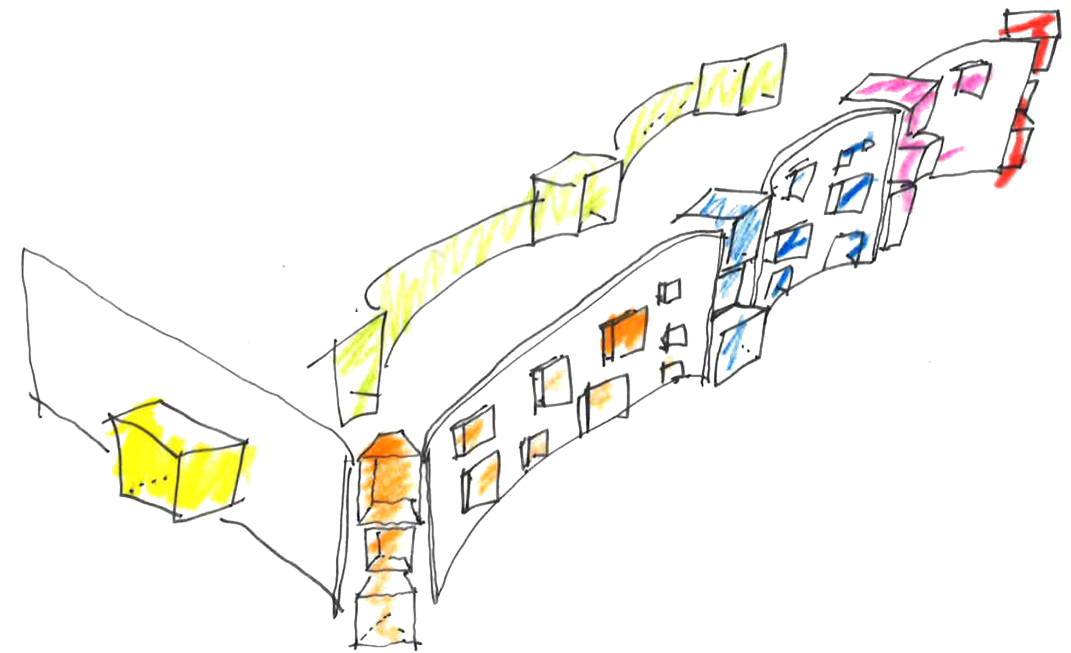


Window boxes "pushing in and out"

04 Built Form | Concept Sketches



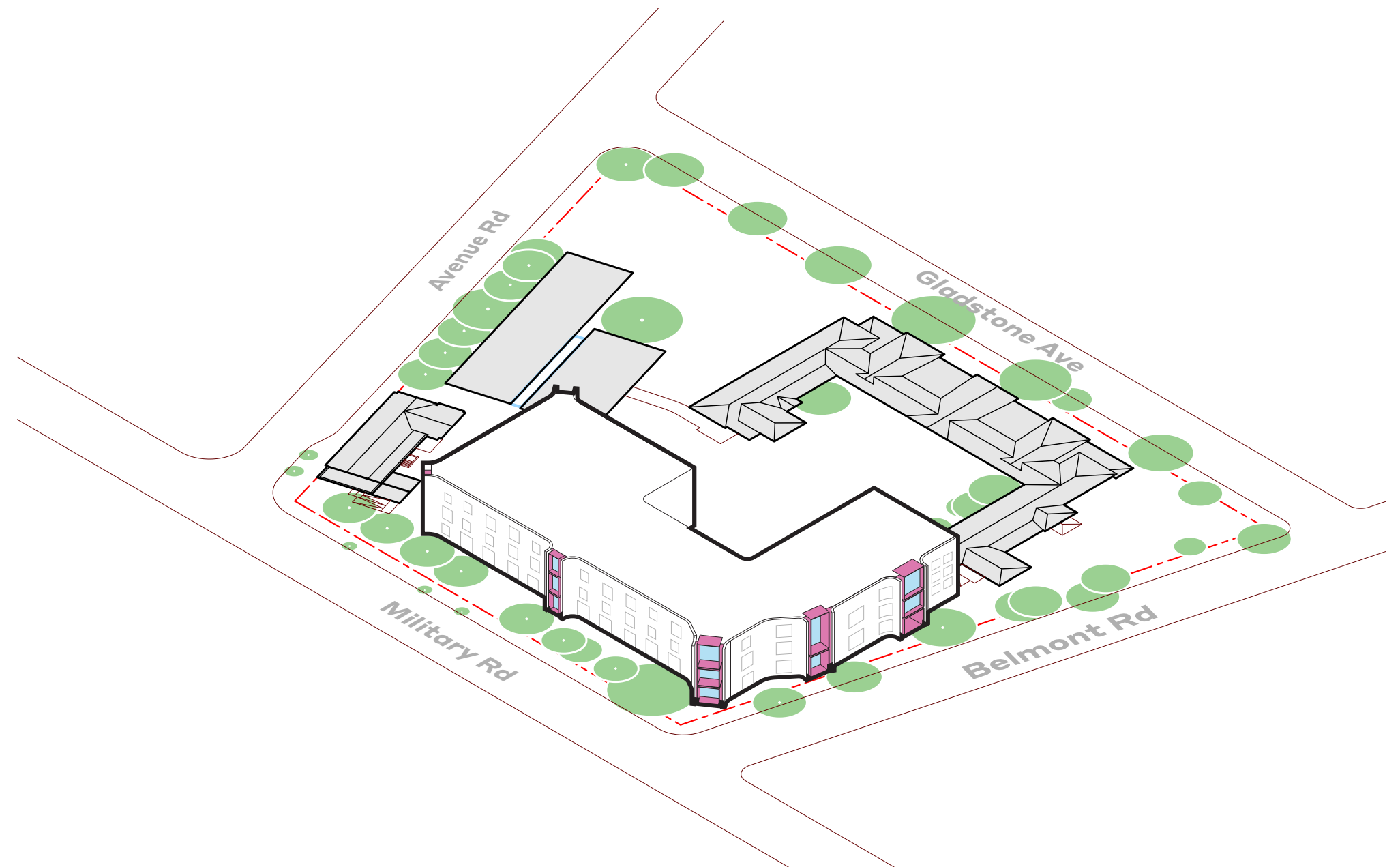
ACTIVATED SPACE



04 Built Form | Framing Key Views

Framing Key Views

As mentioned, the peel out windows, and in fact all windows are found to have views to significant sites on the water at the top level. These views range from the City of Sydney at the level 4 and the roof court to views to the harbour and the beaches and bays that all have a significant value in being a food bowl for Indigenous people and a cultural, working and entertainment value to the more recent history of Mosman. All these are valued historical references and can potentially be used as a learning tool in the building. The views at lower levels are for engagement at street level for the students and for Mosman locale to feel part of the community.



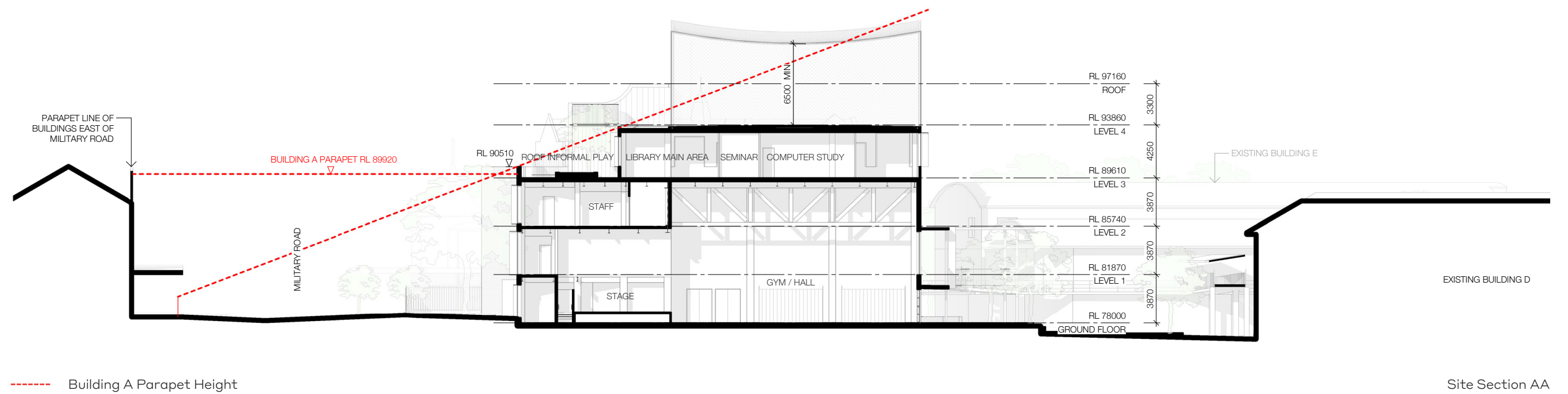
04 Built Form | Render



04 Built Form | Render

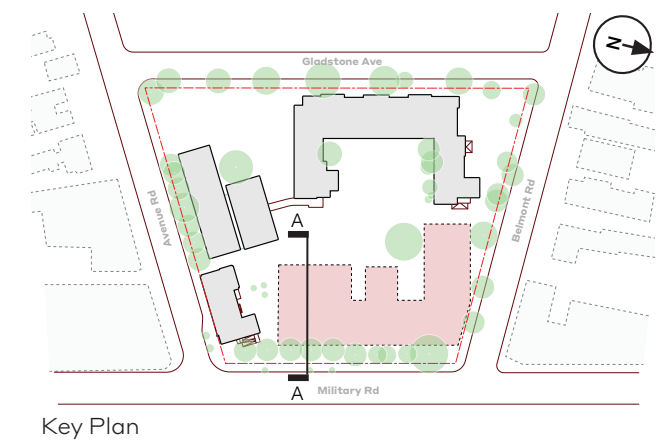


04 Built Form | Bulk & Scale

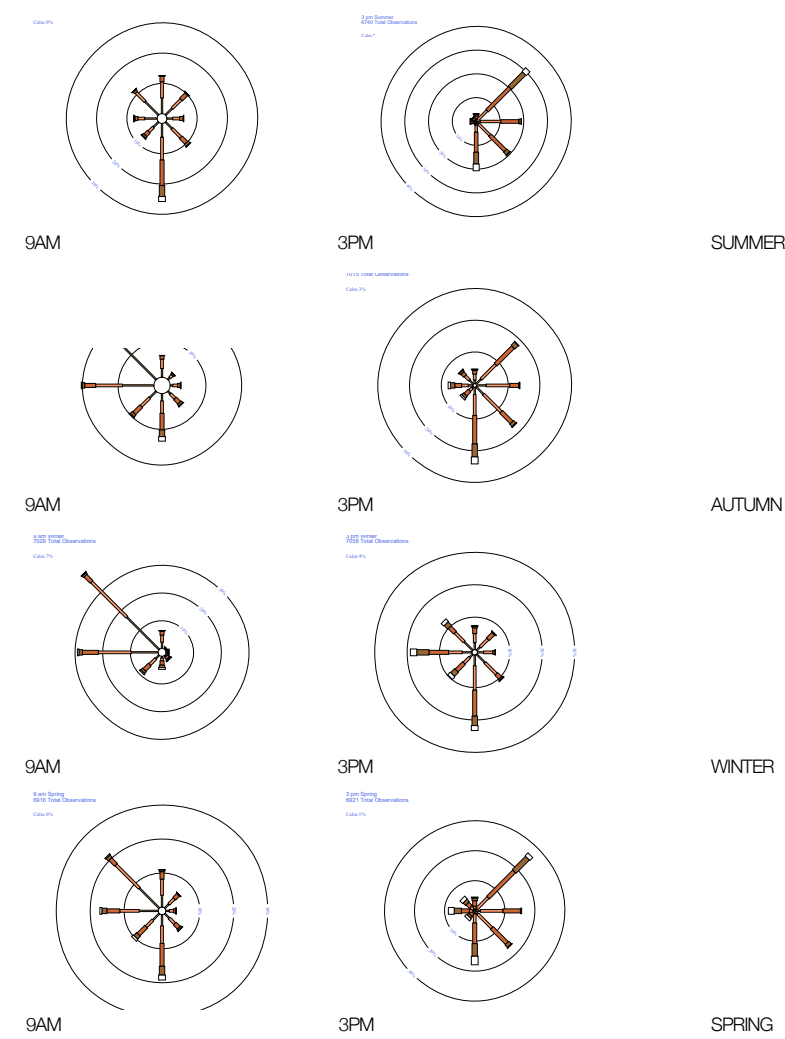


Bulk and Scale

The proposed development sits within the prescribed heritage building envelope. The height of this is set out in two way. One is the parapet height driven by the existing building on Military Road. This lines up approximately with the proposed building parapet on the roof of level 3. Above this we have a setback from the library and restricted heights driven by the heritage line of site driven by the visual access to sky for under the shop canopy. The proposal sits under this line of site. The basketball court breaks through this line, however it is a “soft” elevation being a black mesh net. The purpose is to stop recreational ball from dropping onto the road or school play areas.



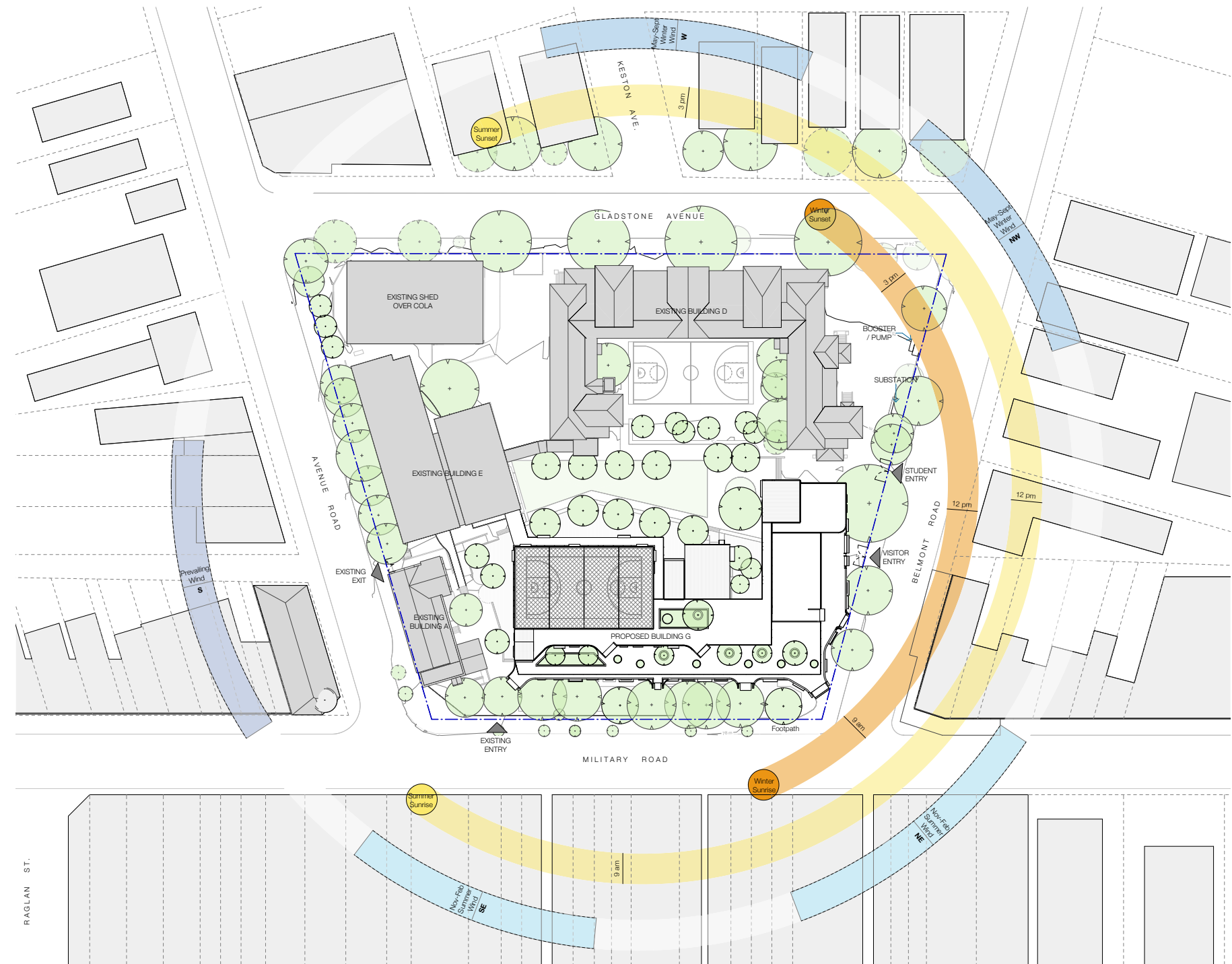
04 Built Form | Environmental Impacts



Building Orientation

The building is designed so that its main aspects are predominantly east and west facing. The shorter edges of both wings face predominantly north and south. The Western facade is protected by an external circulation corridor reducing impacts of solar radiation and glare in the afternoon.

The central courtyard configuration uses the buildings mass to protect the primary play areas from the warm north easterly winds and the cold southerly winds in winter.



04 Render | Corner of Military Rd and Belmont Rd



04 Render | Arts Plaza



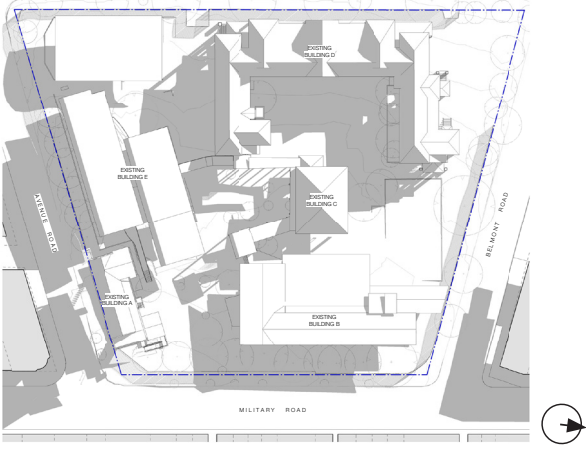
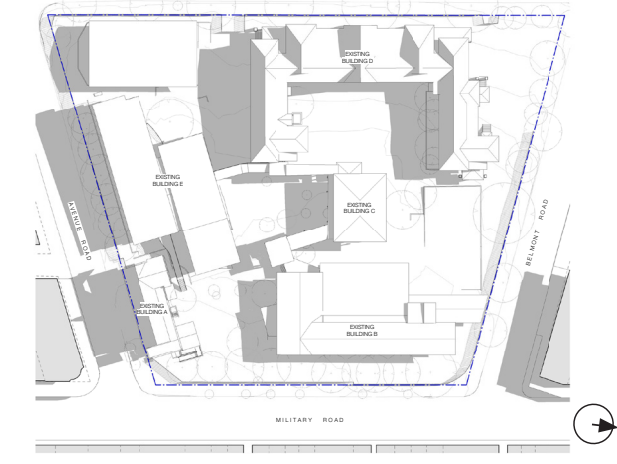
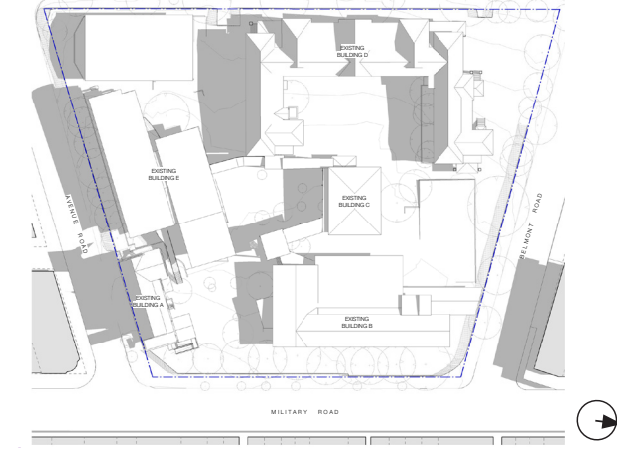
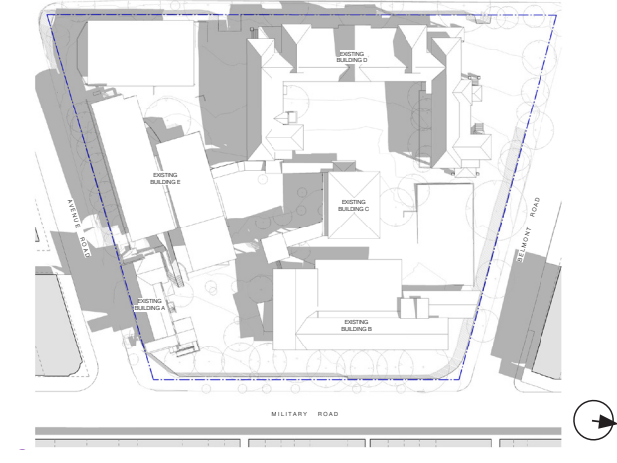
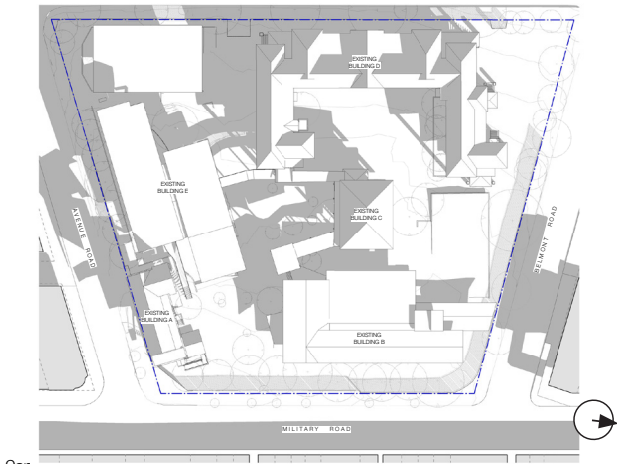
04 Render | Rear View



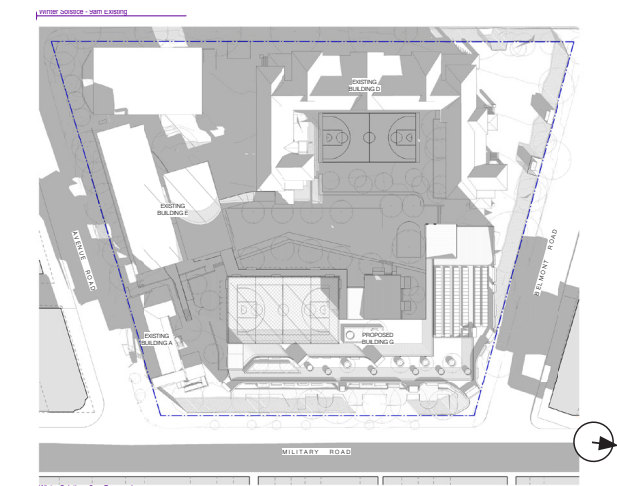
04 Render | Entry View



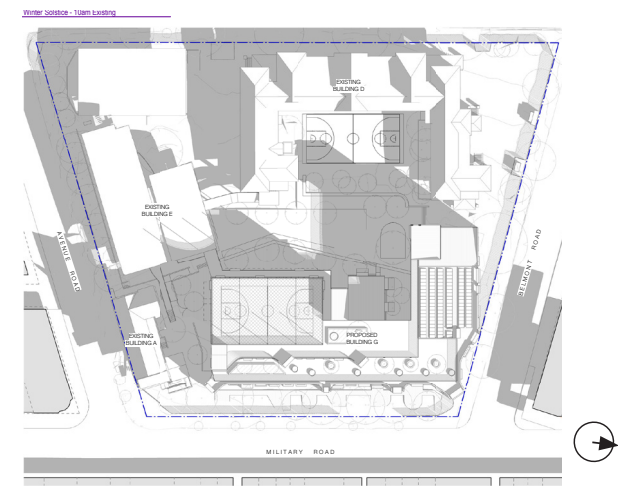
04 Built Form | Shadow Diagrams - Winter Solstice - Existing



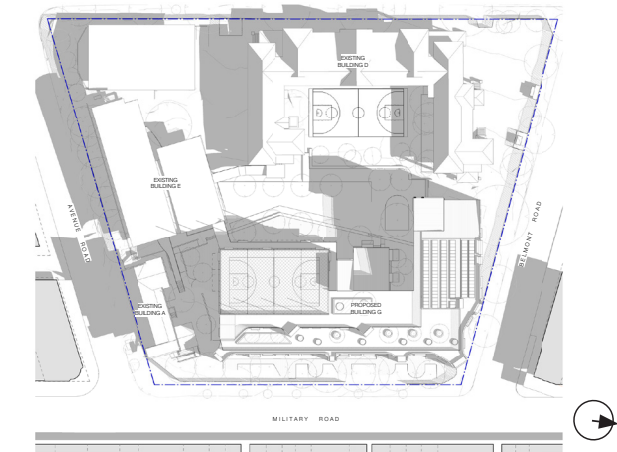
04 Built Form | Shadow Diagrams - Winter Solstice - Proposed



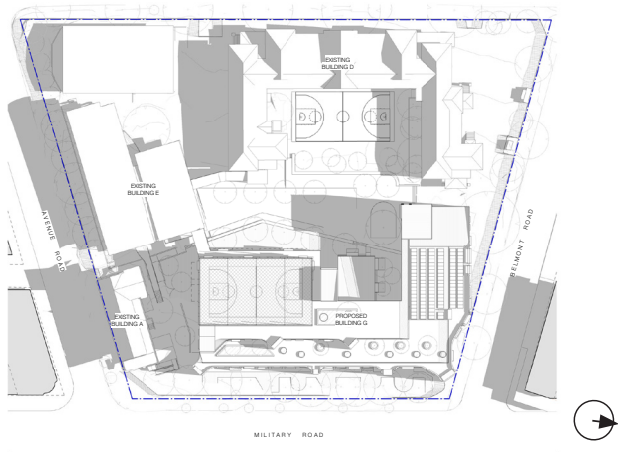
9am



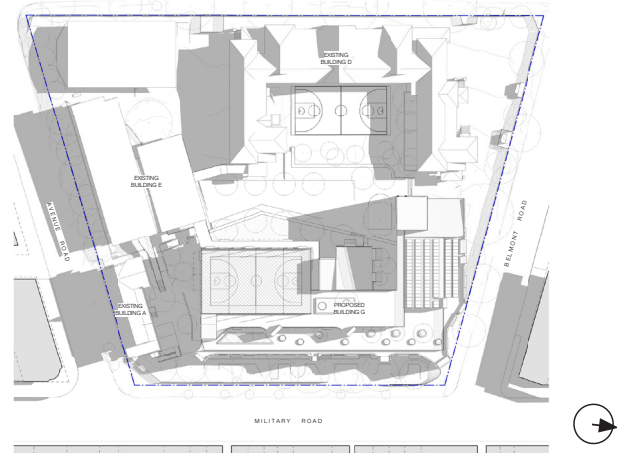
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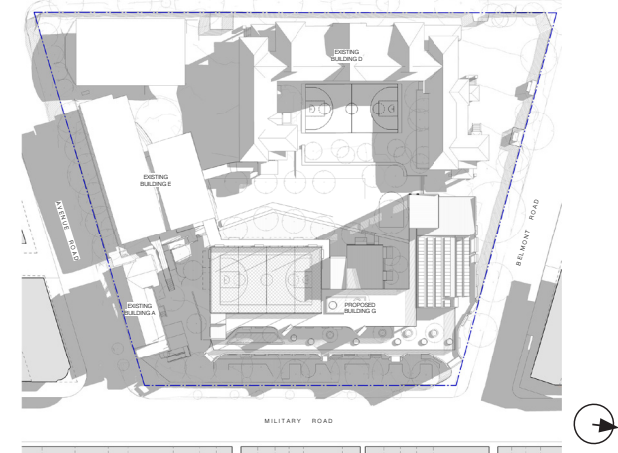
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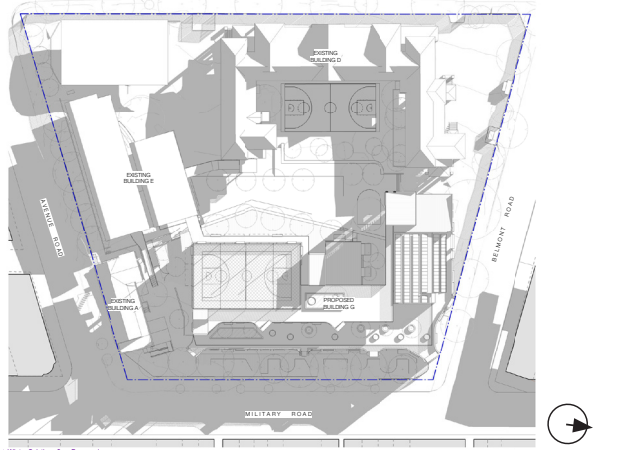
12pm



1pm

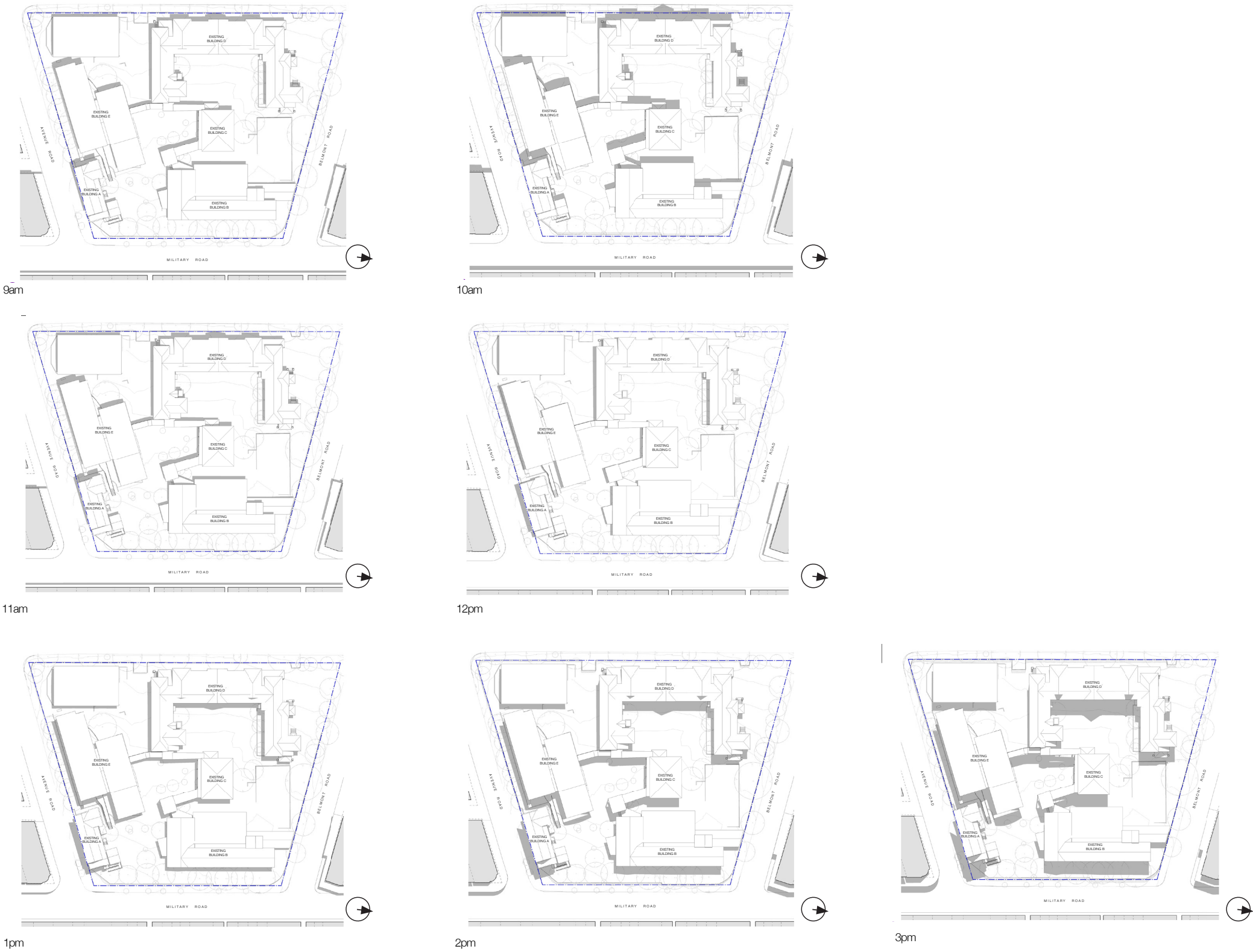


2pm

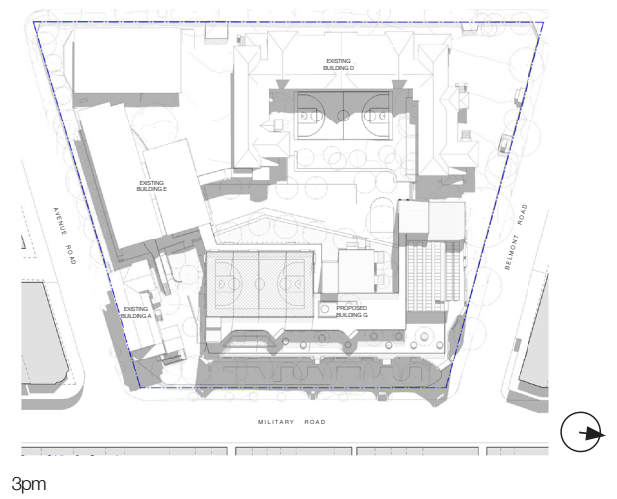
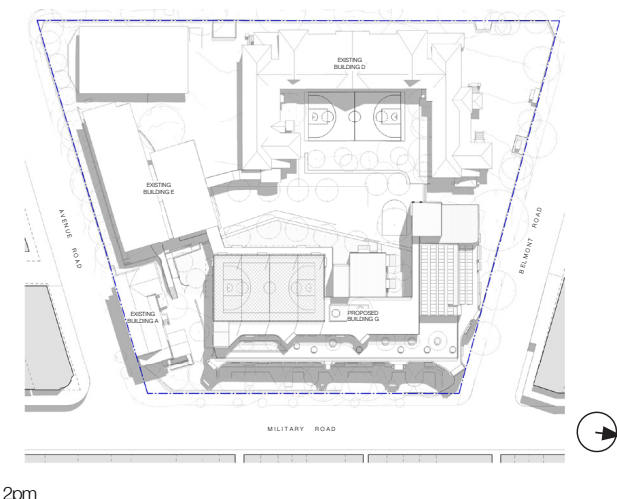
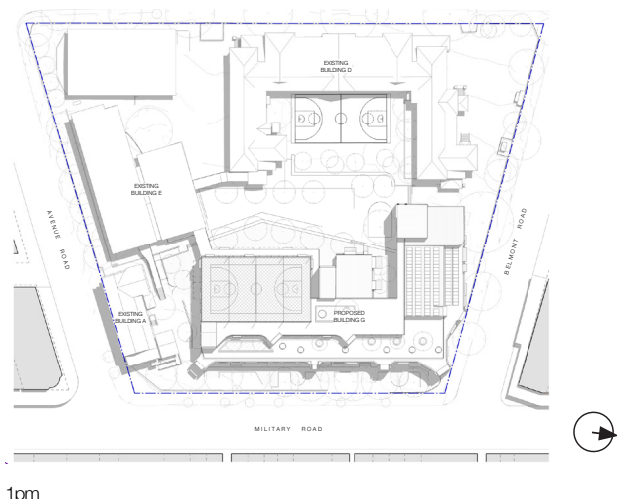
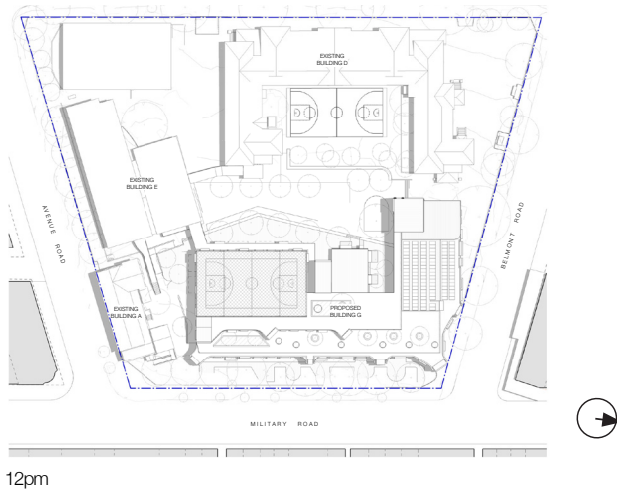
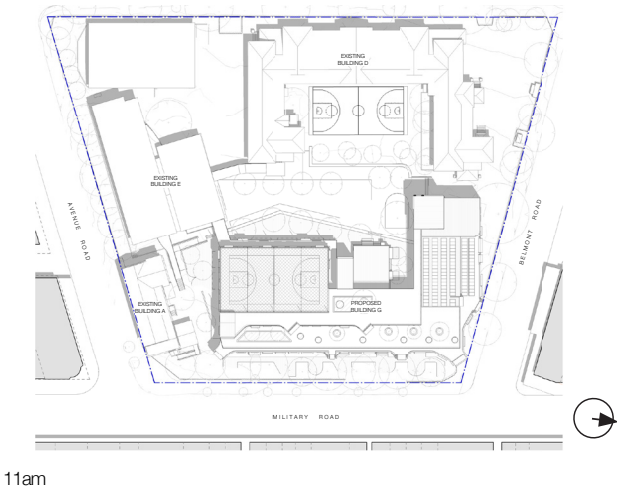
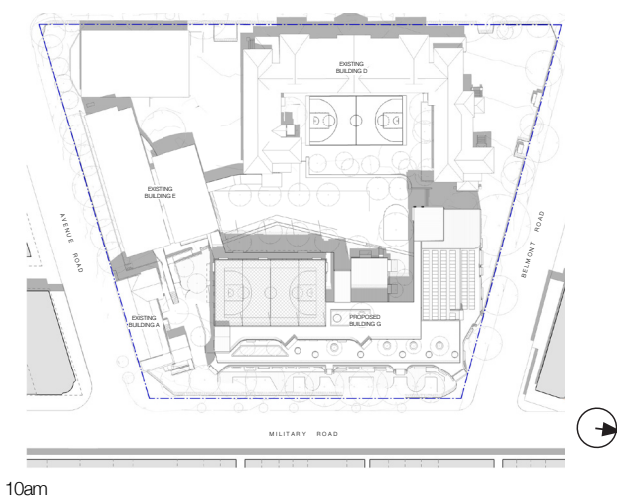
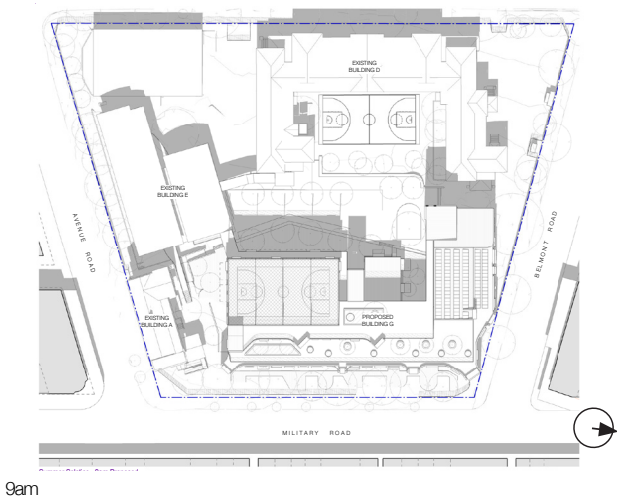


3pm

04 Built Form | Shadow Diagrams - Summer Solstice - Existing



04 Built Form | Shadow Diagrams - Summer Solstice - Proposed

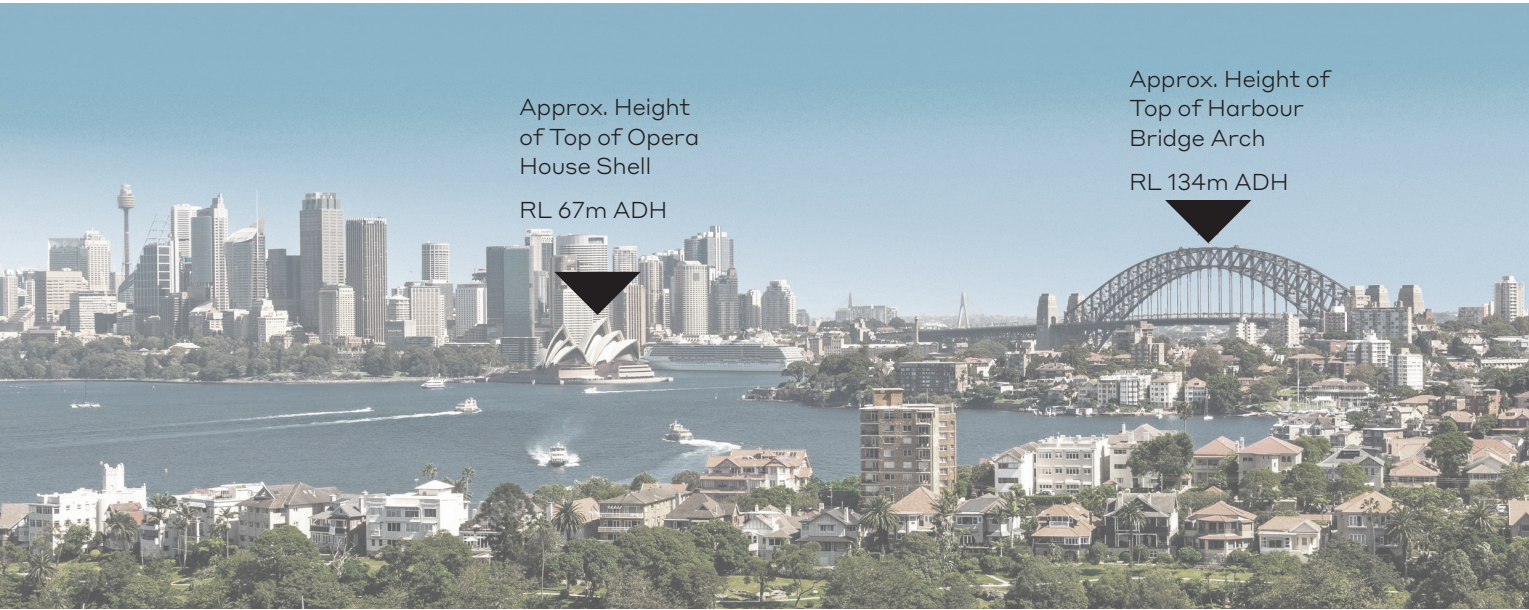
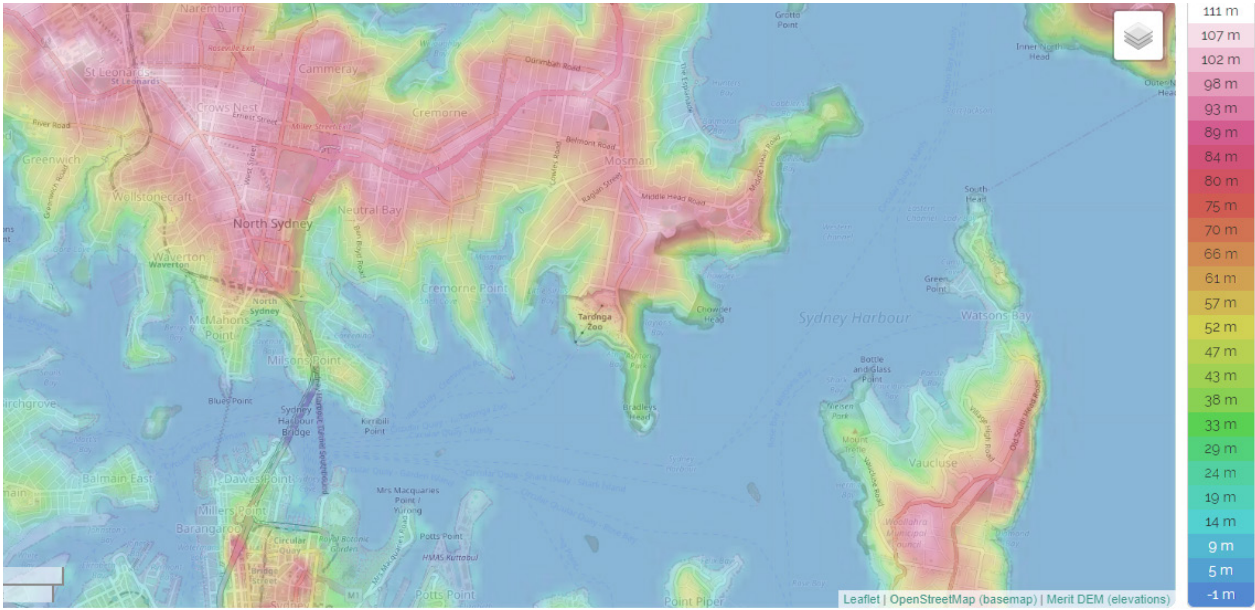
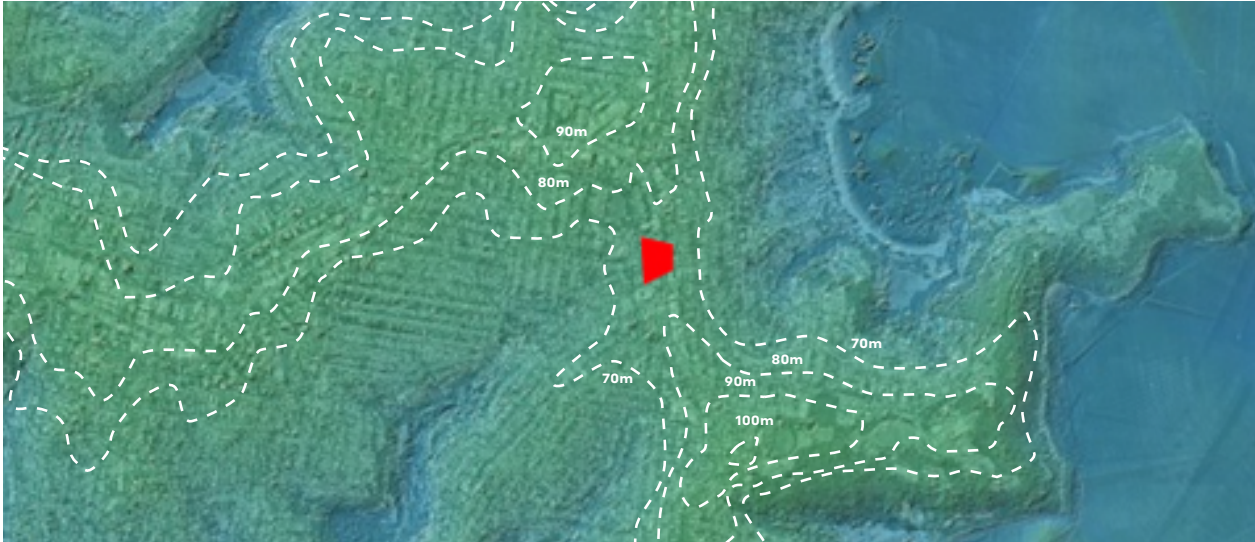


04 Built Form | Visual Impact Assessment

View from Surroundings

Mosman High School is located on a natural ridge line that falls away towards the waterline on both sides. It sits at an approximate RL of 80m ADH. The broader landforms of the surrounding context falls away towards the east and west of the site - towards Balmoral Beach and Mosman Bay. The context to the north and south of the site rise a further 10-20m in height hence views from these sites will not be significantly impacted by new buildings on the Mosman High School site.

The following view analysis is generated to determine where existing views to Sydney harbour to the east and ocean/coastal views to the east may be affected by the proposal.



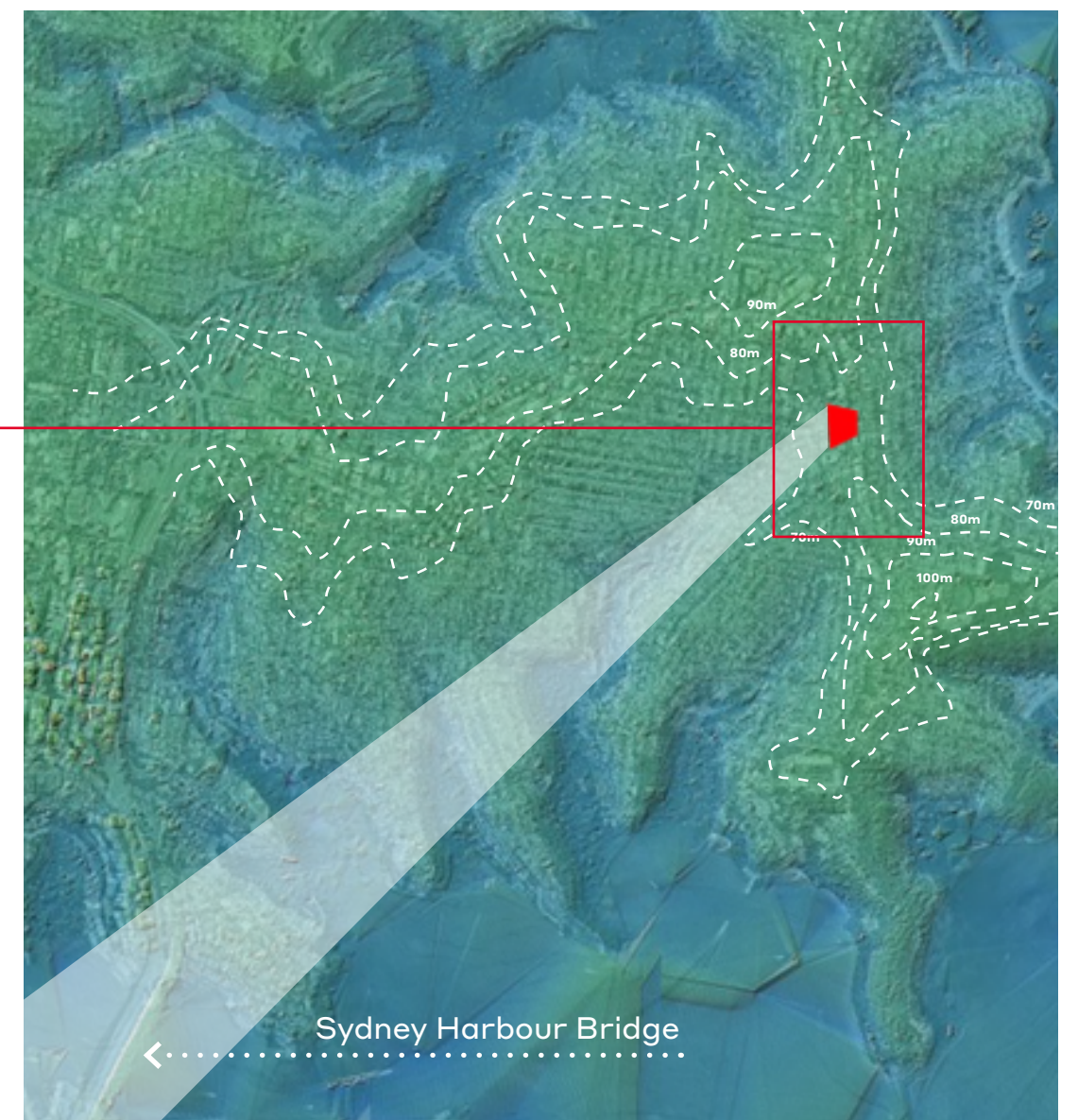
04 Built Form | Visual Impact Assessment

Impact on Surrounding Properties - Harbour Bridge Views

Although the context is primarily made up of low rise developments - there are a number of taller building north of the site which may have views to the harbour bridge and potentially opera house. The adjacent study shows that it is unlikely that the proposed building will have any affect on these views. In addition CBD views from significant sites such as Allan Border Oval will not be affected.



Mosman High School Site with proposed building location



04 Built Form | Visual Impact Assessment

Impact on Surrounding Properties - Ocean Views

South of the site there are a number of tall buildings that potentially have waterfront views towards the east. These have the potential to be impacted by the proposed buildings. This impact is likely to be limited due to the natural fall of the site towards the east and the heights of the existing school buildings already obscuring some views.

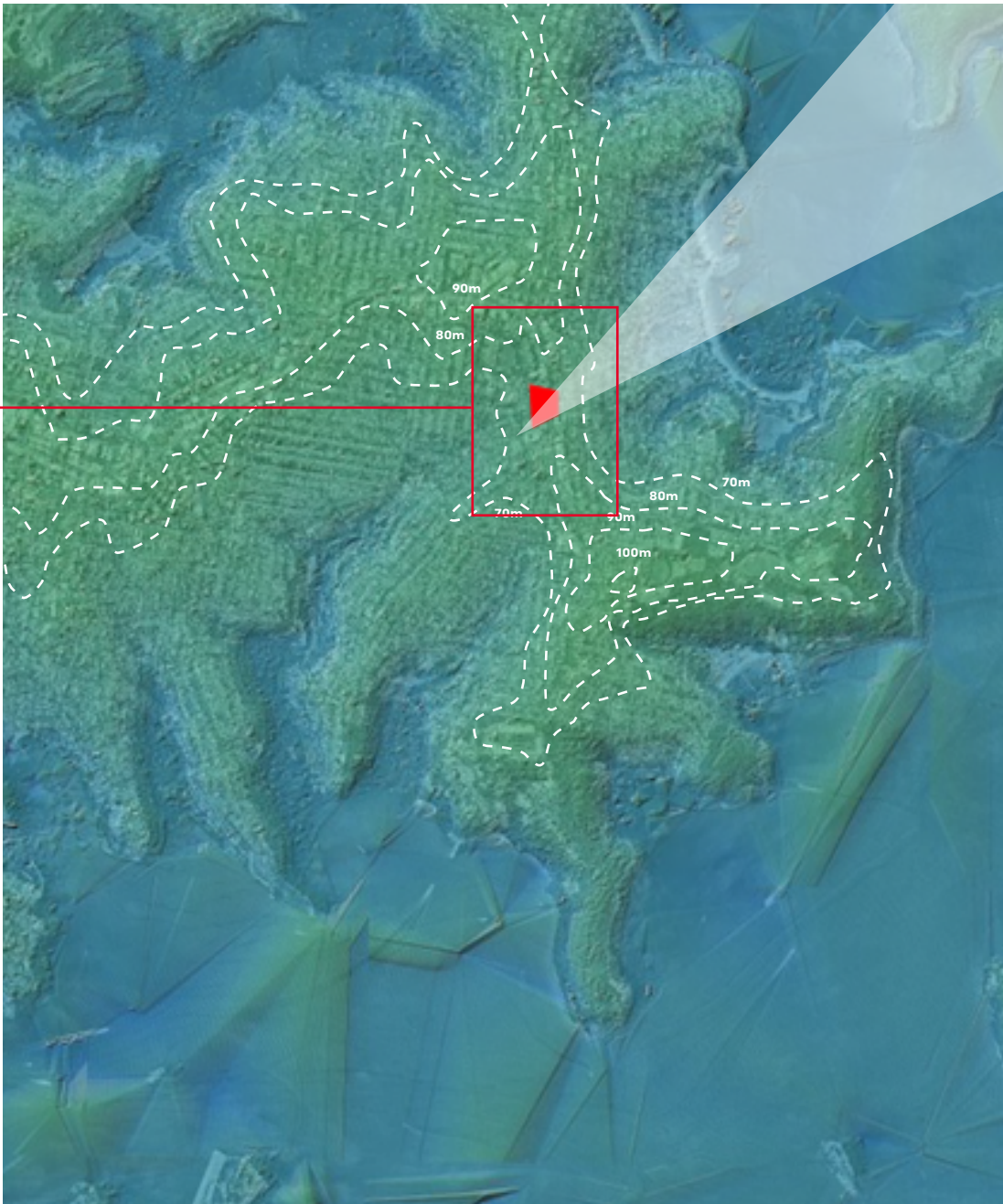


Only residential units above existing Building E ridge line and below Building G (Proposed Building) are potentially impacted.

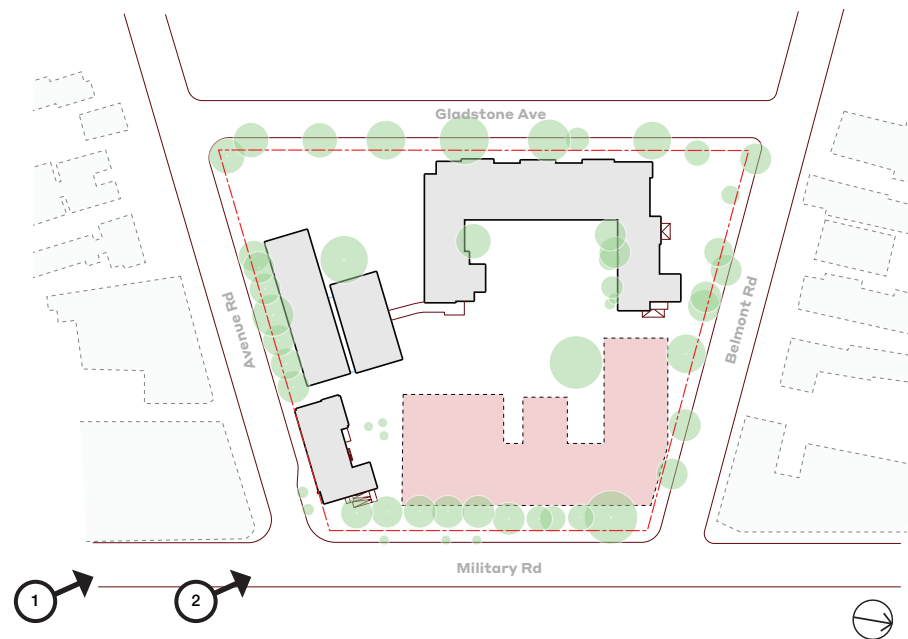


Mosman High School Site with proposed building location

- Portion of panoramic view not impacted
- Portion of ocean view potentially impacted
- Portion of ocean view not impacted



04 Built Form | Visual Analysis - Key View Points



EXISTING



EXISTING



PROPOSED



PROPOSED

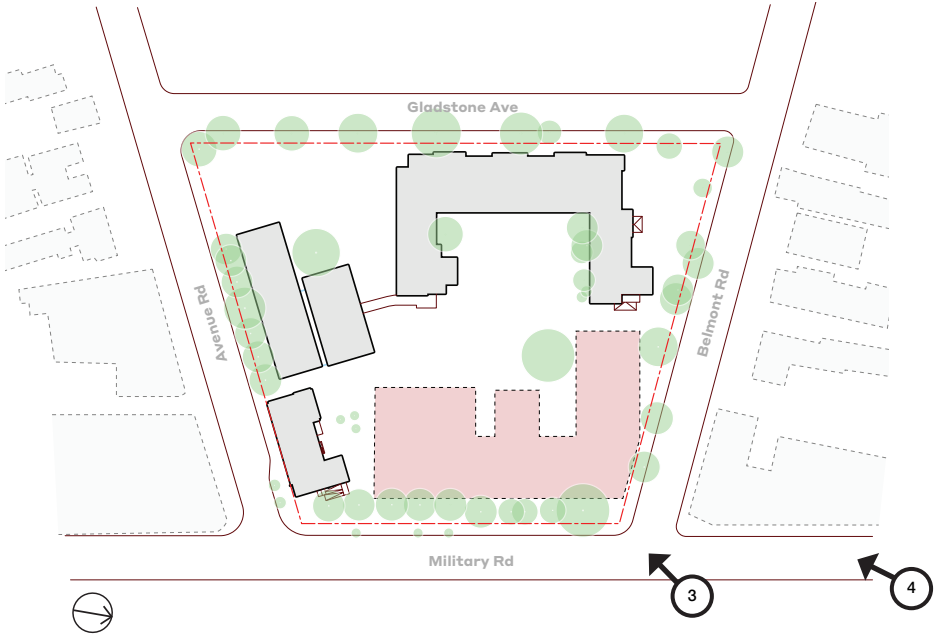
01 | Corner of Military Road and Raglan Street Looking North towards Mosman High School

The proposal considers both the parapet height of Building A and that of the existing Military Rd two storey frontage to maintain continuity along the streetscape. As shown in the image comparison above.

02 | East side of Military Road Looking North towards Mosman High School

The Upper level and rooftop play area have been set back to allow for the continuity of the predominant parapet line to read clearly along Military Road continuing the rhythm and language of the streetspace. Proposed materiality also works to continue the brick frontage and character of the street, allowing the upper floor and rooftop court to break from the primary form - using light weight materials.

04 Built Form | Visual Analysis - Key View Points



EXISTING



EXISTING



PROPOSED



PROPOSED

03 | Military Road Looking SouthWest to Mosman High School

The Mosman's urban morphology shows particular attention to street intersections where corners are marked with a dominant feature such as turret, feature window or similar. The proposed scheme follows this language in plan with "pop-outs" in the form acknowledging key corners such as the intersection of Military Rd and Belmont Rd.

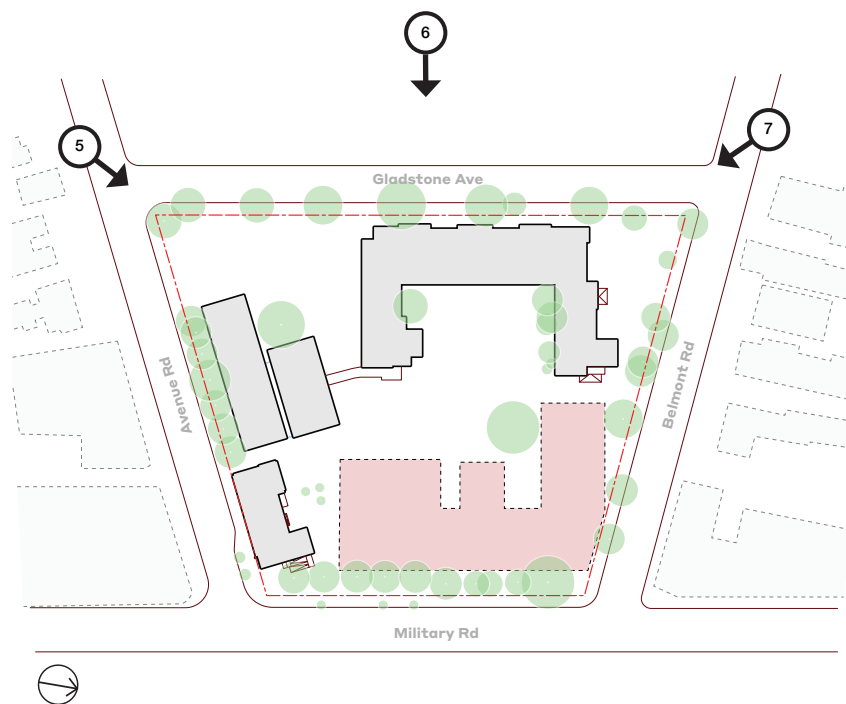
Retaining the mature trees where possible along Military Rd. also works to highlight the corners where the existing clearing occurs.

04 | Corner of Military Road and Gouldsbury Road Looking South towards Mosman High School

The proposal considers both the parapet height of Building A and that of the existing Military Rd two storey frontage to maintain continuity along the streetscape. As shown in the image comparison above.

The Upper level and rooftop play area have been set back to allow for the continuity of the predominant parapet line to read clearly along Military Road continuing the rhythm and language of the streetspace.

04 Built Form | Visual Analysis - Key View Points



EXISTING



PROPOSED

05 | Corner of Avenue Road and Gladstone Avenue

The view above is unaffected due to the mature trees along Gladstone Ave.



EXISTING



PROPOSED

06 | Keston Avenue Looking East towards Mosman High School

The proposal is for the most part is obscured by the existing Building D. The rooftop play will use a lightweight mesh fence with minimum visual impact to the context.



EXISTING



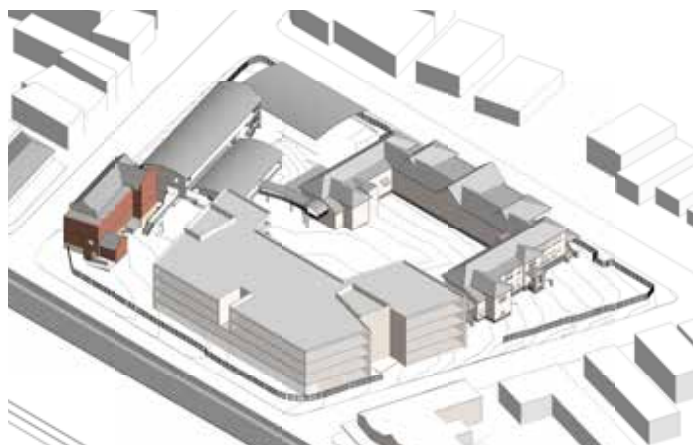
PROPOSED

07 | Corner of Belmont Road and Gladstone Avenue

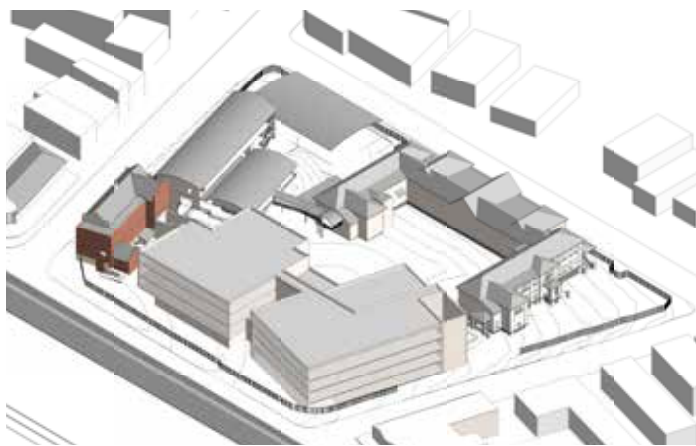
The upper floor breaks from the primary form - using light weight materials to distinguish them from the masonry and terracotta materiality of mosman. This allows the upper core to blend into the background as seen in the view above.

04 Built Form | Options Analysis

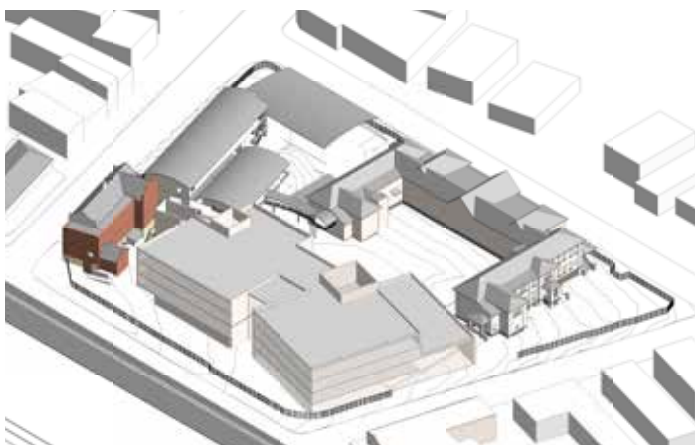
Option 1



Option 2



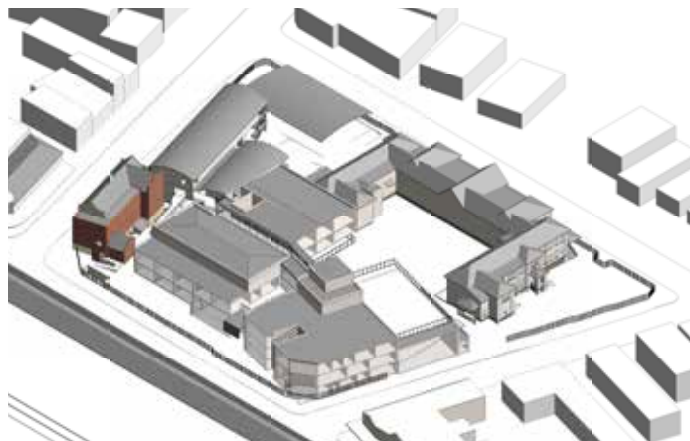
Option 3



Number of Stories	5	5	5
Architect	DJRD Architects	DJRD Architects	DJRD Architects
Rooftop Play	Yes	Yes	Yes
Opportunities	- Setback at a higher level to cater for heritage conservation zone. - Largest forecourt area to Building D and increased play space at ground level. - Greatest distance from Building C for construction.	- Reduced bulk of new structure by splitting mass into two volumes is of great benefit. - Possible direct connection to Building D courtyard and a more central area of the school with entry located between the admin and the hall. - Improved opportunities for staged construction - Consistent mechanical risers between floors	- Reduced impacts on overshadowing on the quadrangle. - Optimal hall location for increased efficiency in structure and façade ratio. - Smaller scale in height overall due to location of hall and set down of building to accommodate for structure. - Efficient structure over hall resulting in reduced floor to floor allowance. - More consistent riser shafts between floors providing more efficient outcomes.
Constraints	- Shade structures to roof will be required and impact on the height, scale and bulk of the building - Deep floor plates restrict natural light to central spaces - One building mass limits staging potential for construction - Deep structural beams required over hall due to the number of floors above it. - Larger building footprint requires additional deviation of in-ground storm water pipework. - Less common rising service space for electrical and communications runs between levels.	- Requires circulation space around the hall - Floor to floor level is greater due to the deep structure over the hall - Reduced connectivity between the hall and quadrangle levels compared to Option 3 - Additional electrical and COMMS cupboards are required compared to Option 3. - In-effective use of rooftop playground space due to land locked location of smoke exhaust fan and isolated shaft extrusion. - Potential construction tolerances and buildability issues with close proximity to Building C	- Proximity to Building C requires staged construction
Summary	This option was not selected as the design developed and resolved outstanding issues such as deep structural beams and deep floor plates that restricted natural light and ventilation.	This option was not selected due to the inefficiency of circulation around the hall at Level 1. In addition, there was limited staged construction potential and deep structural beams across the hall created a taller building that did not respond to the heritage context.	This option was not selected as the floor plates are too deep, resulting sandwiched learning space with poor daylighting and ventilation. The Arts building, performance hall, theatre are disconnected from each other. The majority of street trees along Military Rd will be removed due to building close proximity to east Site Boundary.

04 Built Form | Options Analysis

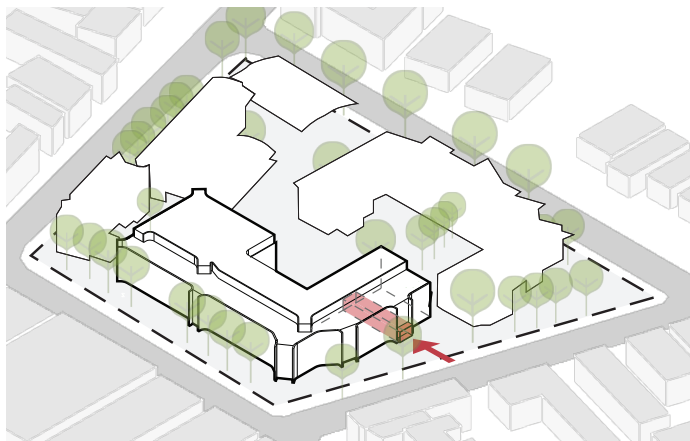
Option 4



Option 5



Option 6



Number of Stories	5	9	4
Architect	DJRD Architects	DJRD Architects	Woods Bagot
Rooftop Play	Yes	Yes	Yes
Opportunities	- Preferred hall and sports court location near Building D.	- Allows the project to be scaled to address both a 1200 student population and a 1500 student population.	- Consolidated "Arts Courtyard" with adjacencies to performance and arts based program - theatre, hall etc. - Maximises views to harbour from library - Forms contiguous play area in central courtyard - Retains most trees on Military Road frontage - Main entry on Belmont Street - less congested street - Decreased depth of floor plates allowing better daylight penetration
Constraints	-Height and bulk of building is set back into the site but is still within the heritage conservation zone. - Overshadowing on the quadrangle. - Quality of outdoor learning space is compromised. - Proximity to Building C has major impact on construction staging. - Structure is inefficient and compromises clear outdoor play space at ground floor and interstitial floors.	- Height and bulk of building is set back into the site but is still within the heritage conservation zone. - Height of building is extremely tall and limited precedents of this typology in the local street scape. The tower will impact views from the north and south of Military Road. - Increased services for a building that exceeds 25meters include, stair pressurisation, sprinkler system, zone smoke control, EWIS system and increased fire systems throughout the building. This is onerous and costly to the project. - Booster pump requirements - Increased number of lifts required.	- Level change across the site requires landscaped ramp
Summary	This option was not selected due to the negative impacts on height, heritage, overshadowing and lack of cohesive approach to the landscape and outdoor spaces.	This option was not selected as it was not supported by the government architects. Several reasons include negative impacts on height, overshadowing and lack of consistency with surrounding heritage context.	This option was selected as it maintains the streetscape of Military Rd and Belmont Rd by keeping the existing mature trees. The arts building, performance hall and theatre are closely located creating an Arts Plaza. Better daylighting and ventilation for the classrooms. This option is supported by School and the government architects.

05

Materiality and Facade

05 Textures and Colours | Context



01



02



03



04



05



06



07



08



09



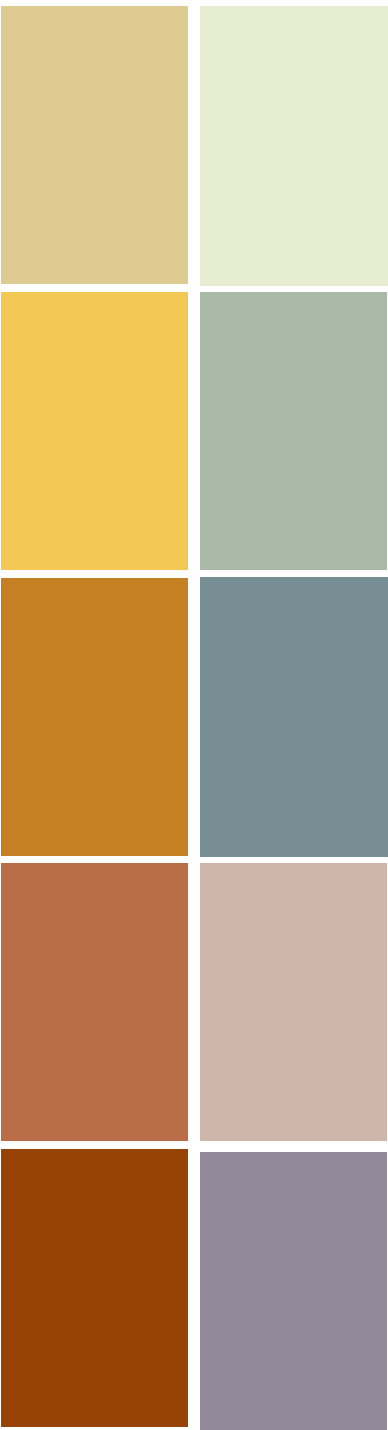
10



11

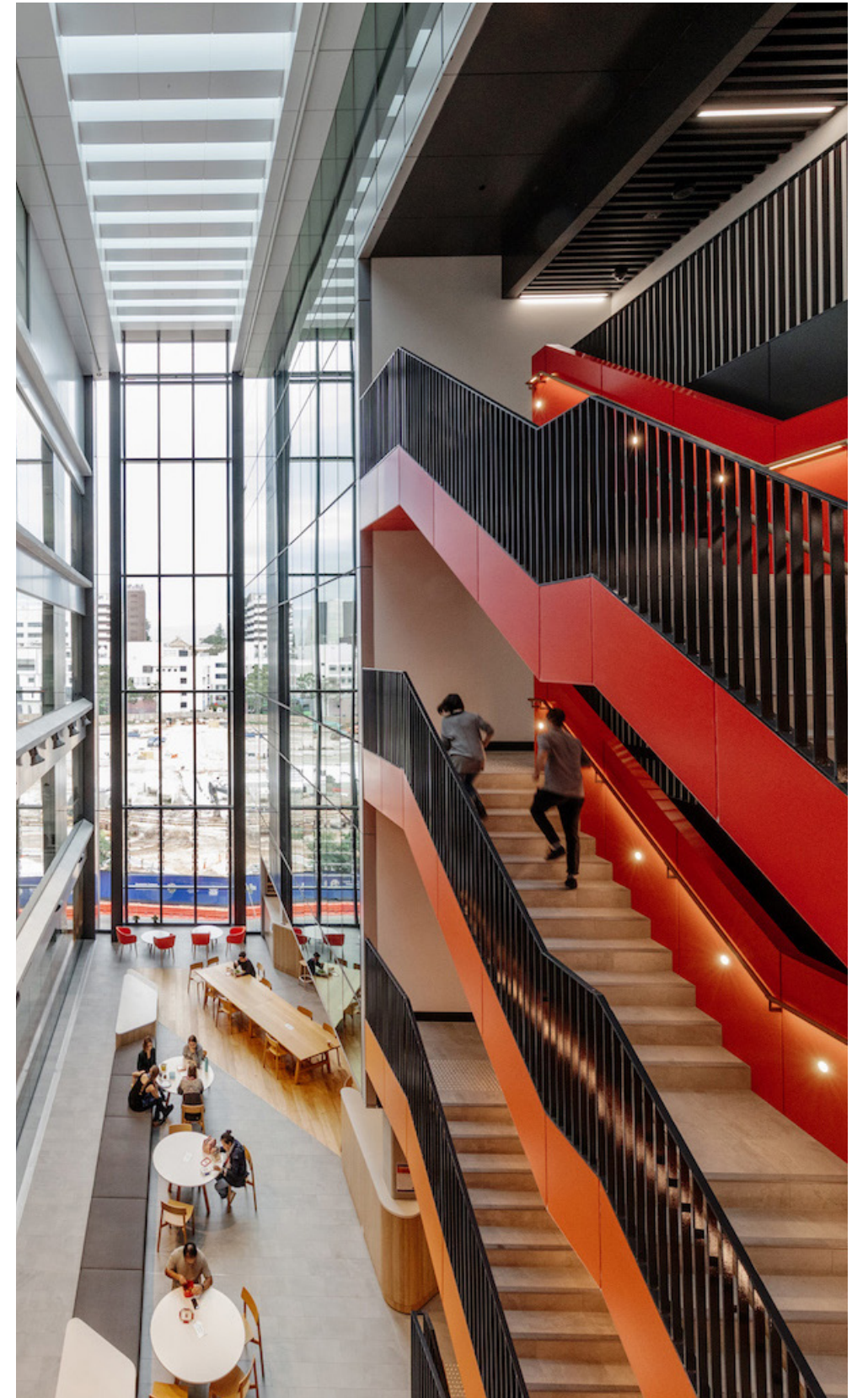
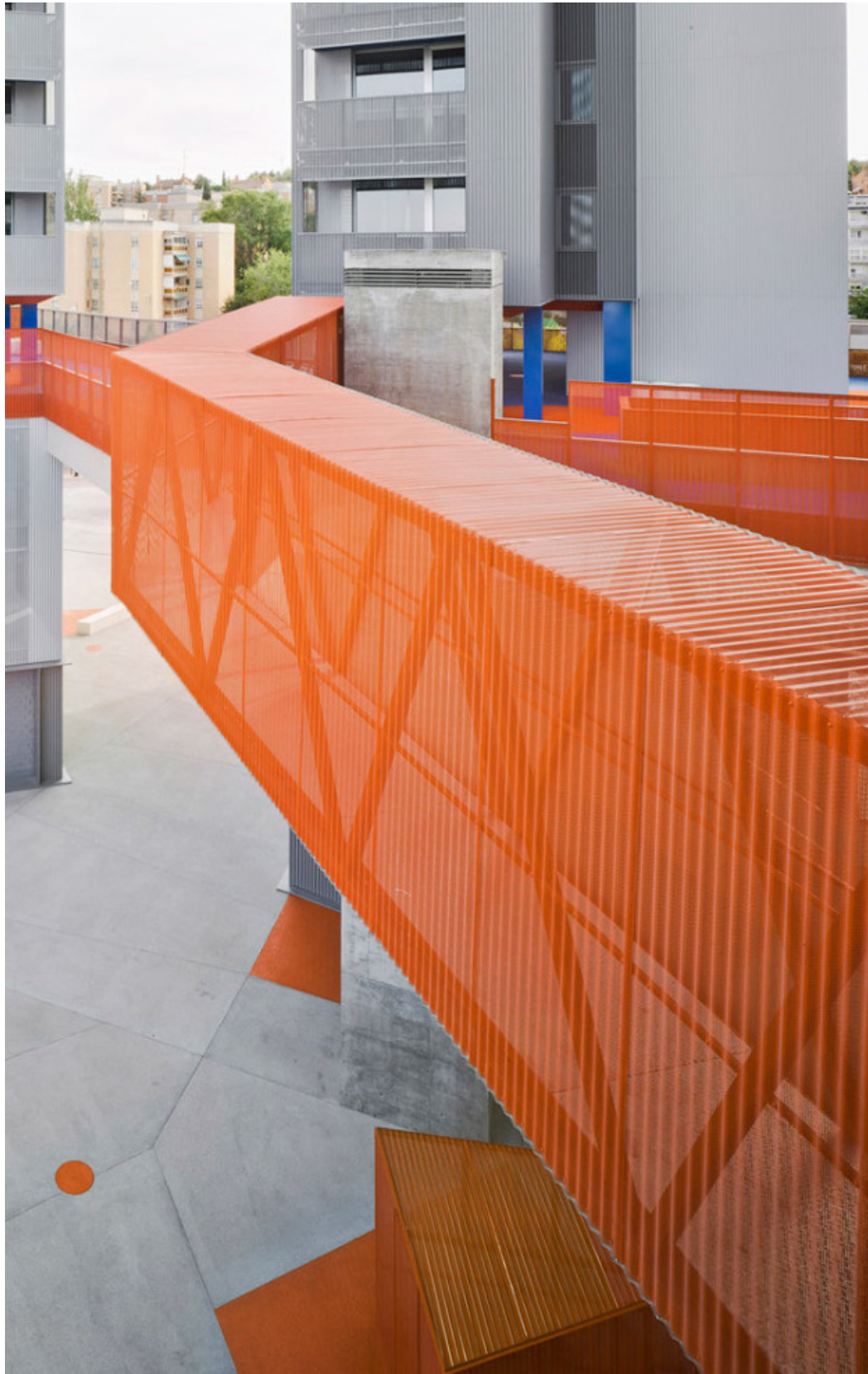


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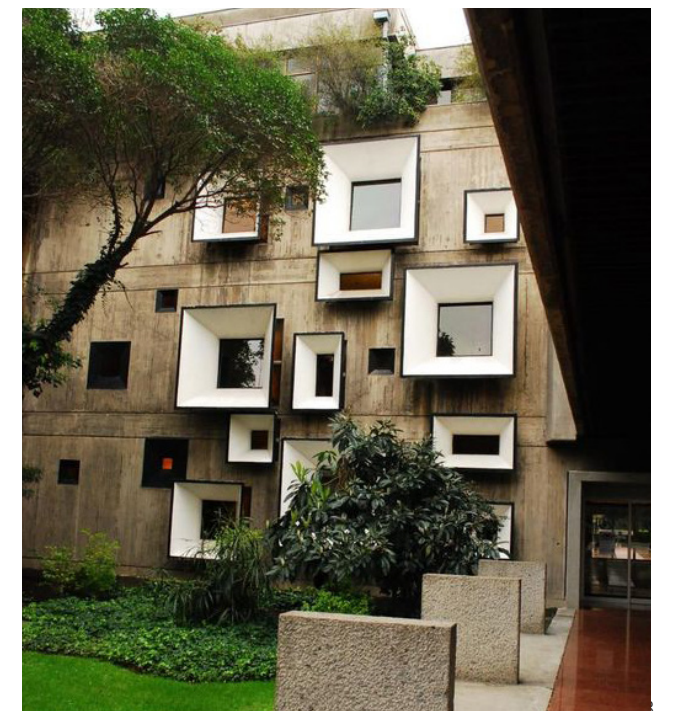
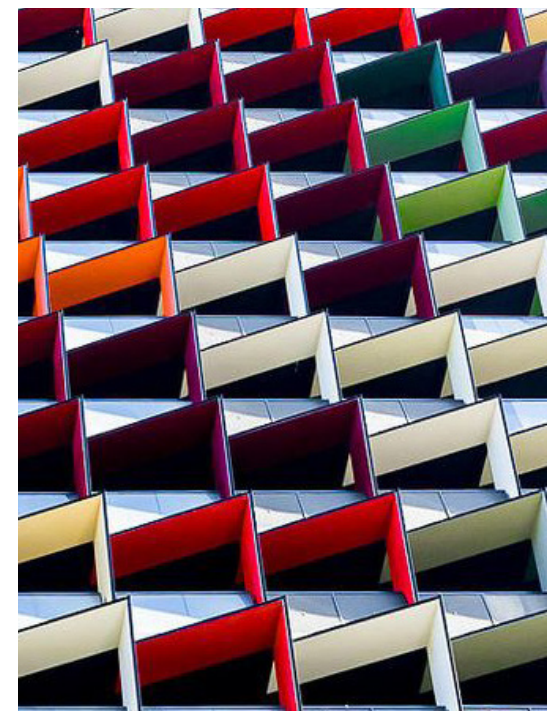
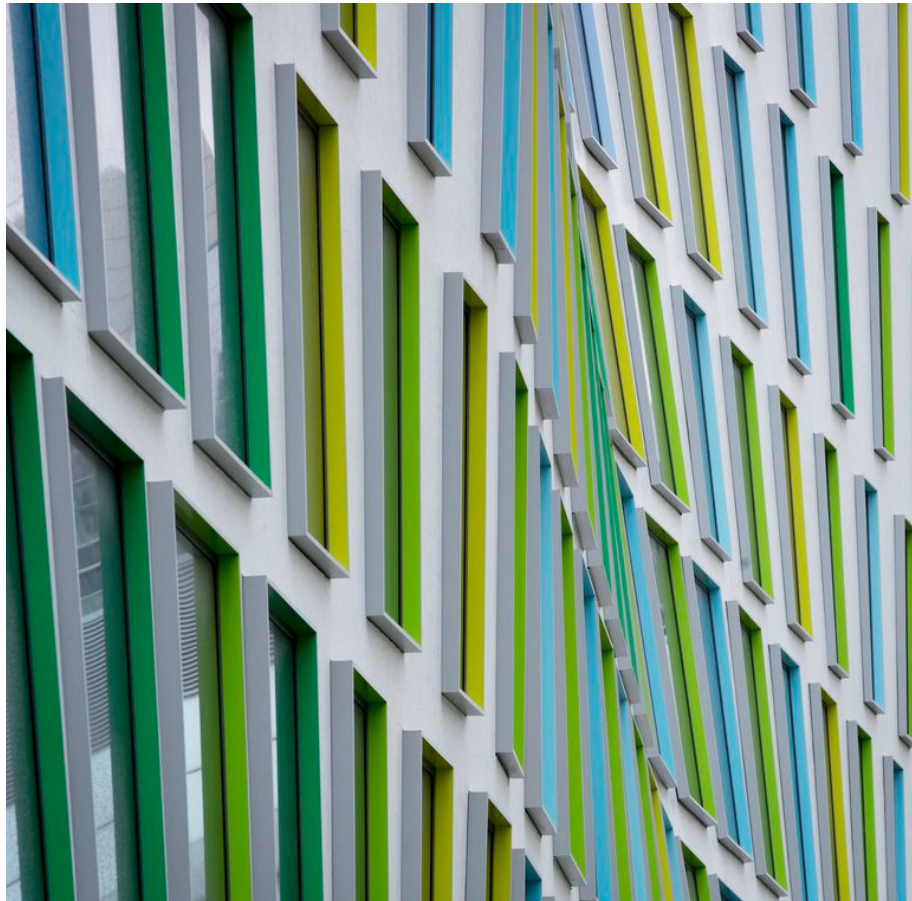


- 01 Banksia (Banksia Ericifolia)
- 02 Corymbia
- 03 Acacia
- 04 Melaleuca
- 05 Tick Bush (Kunzea Ambigua)
- 06 Banksia (Banksia Serrata)
- 07 858 Military Rd
- 08 866 Military Rd
- 09 74 Middle Head Rd
- 10 185 Avenue Rd
- 11 735 Military Rd
- 12 779 Military Rd

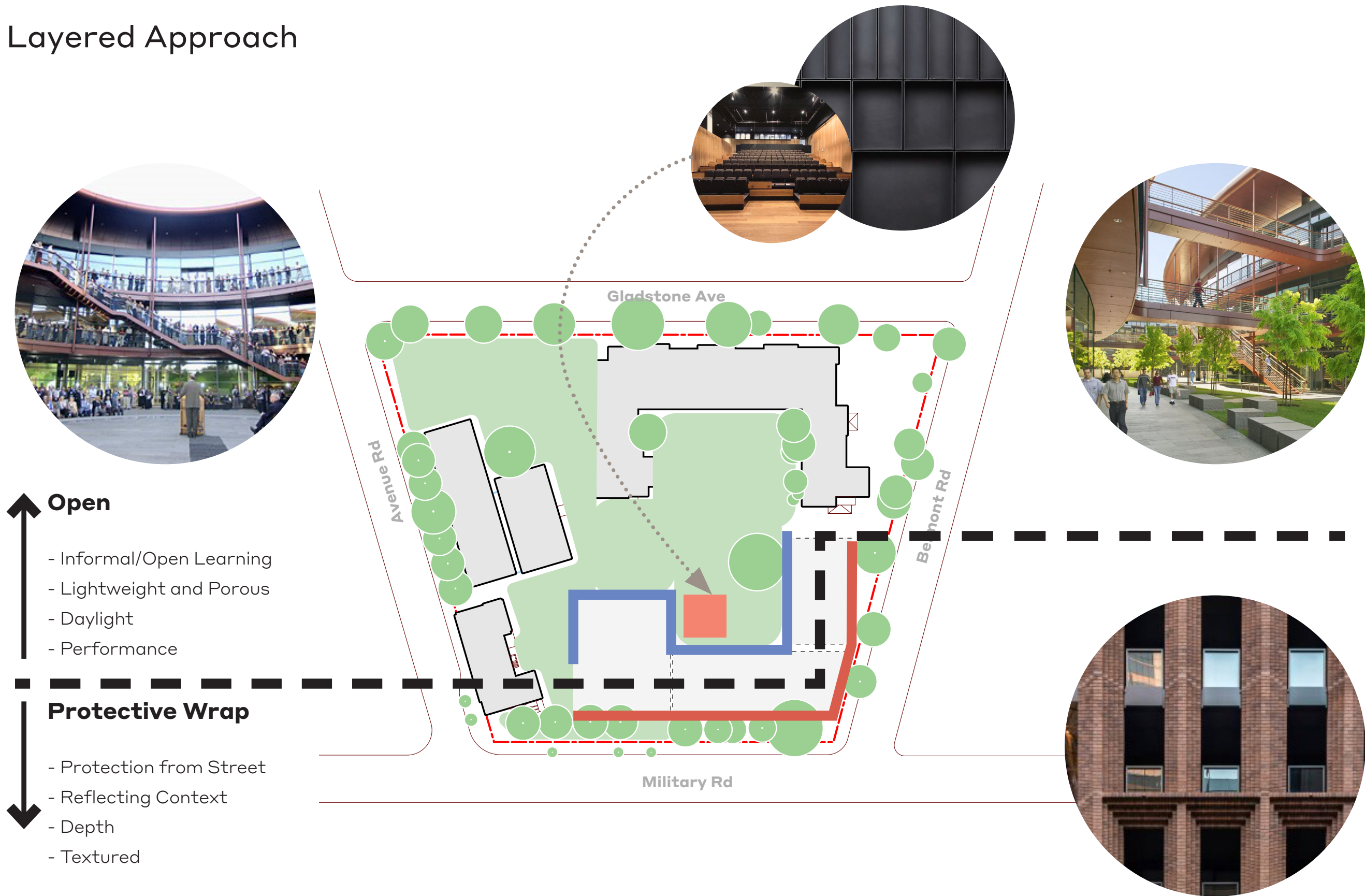
05 Feature Colour Reference



05 Windows | Colour Reference



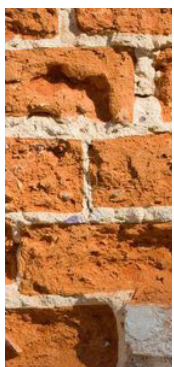
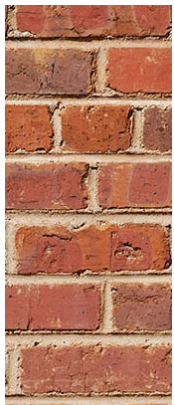
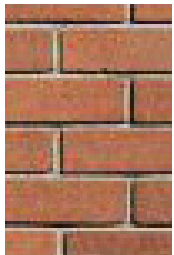
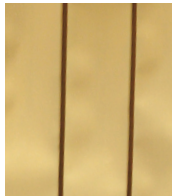
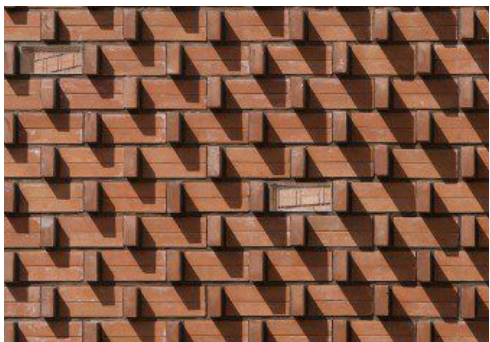
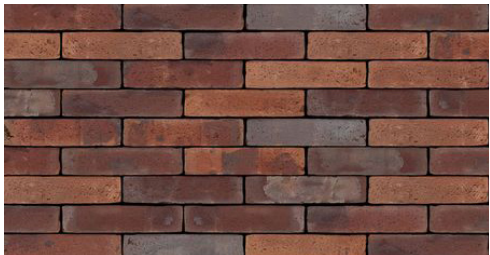
05 Layered Approach



05 Layers



Historic Layers of the Site



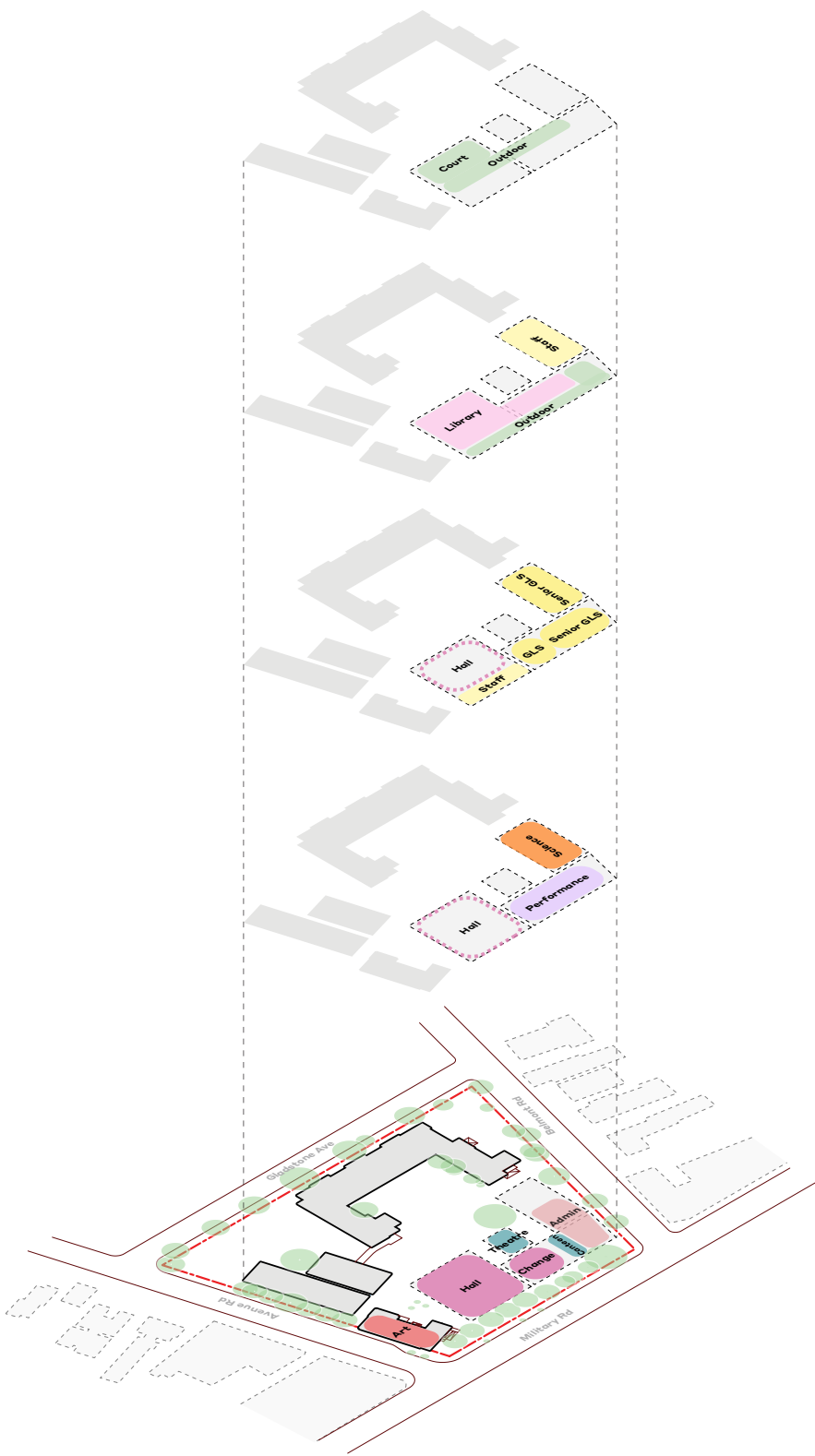
Smooth and Even

Textures

Textured and Rough

Block & Stack

06 Block and Stack



Ground

The ground level creates a more “public” space than the upper floors. The new entry to the campus and the formal entry through administration is on the ground floor facing Military Road. The new entry is set back of Belmont Road creating a safer environment for dropping of and entering the site for students, staff and visitors.

The other areas on the ground floor are the performance spaces, the hall and the lecture theatre which both break out into the landscape which supports the program. The canteen is also located on the ground floor in the main courtyard which is protected by the walkways above.

Level 3

Level 3 accommodates the library and outdoor learning spaces associated with the library. It also has staff areas to the Belmont Road frontage of the site.

These are connected with the outdoor learning deck and the main central stair.

Level 4

Level 4 is the rooftop level and accommodates an outdoor basketball court, outdoor informal space and roof area with photovoltaic panels. Some plant area is also at this level.

Level 1

Level 1 stacking creates to neighbourhood spaces. One area is for performance learning spaces and the other is Science based. These are linked with an outdoor learning space and external walkway. This level is also linked to the existing science block via an elevated walkway.

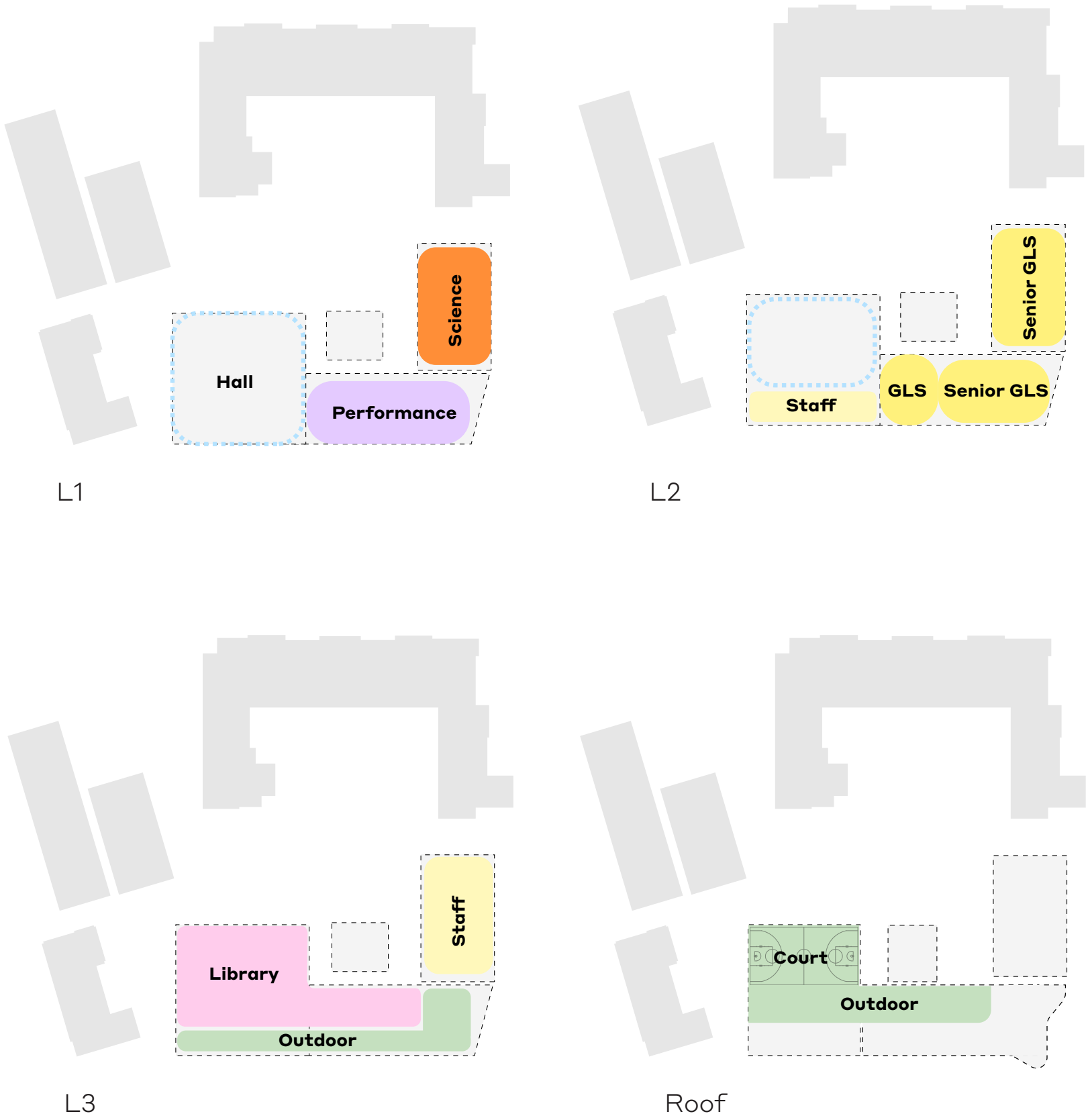
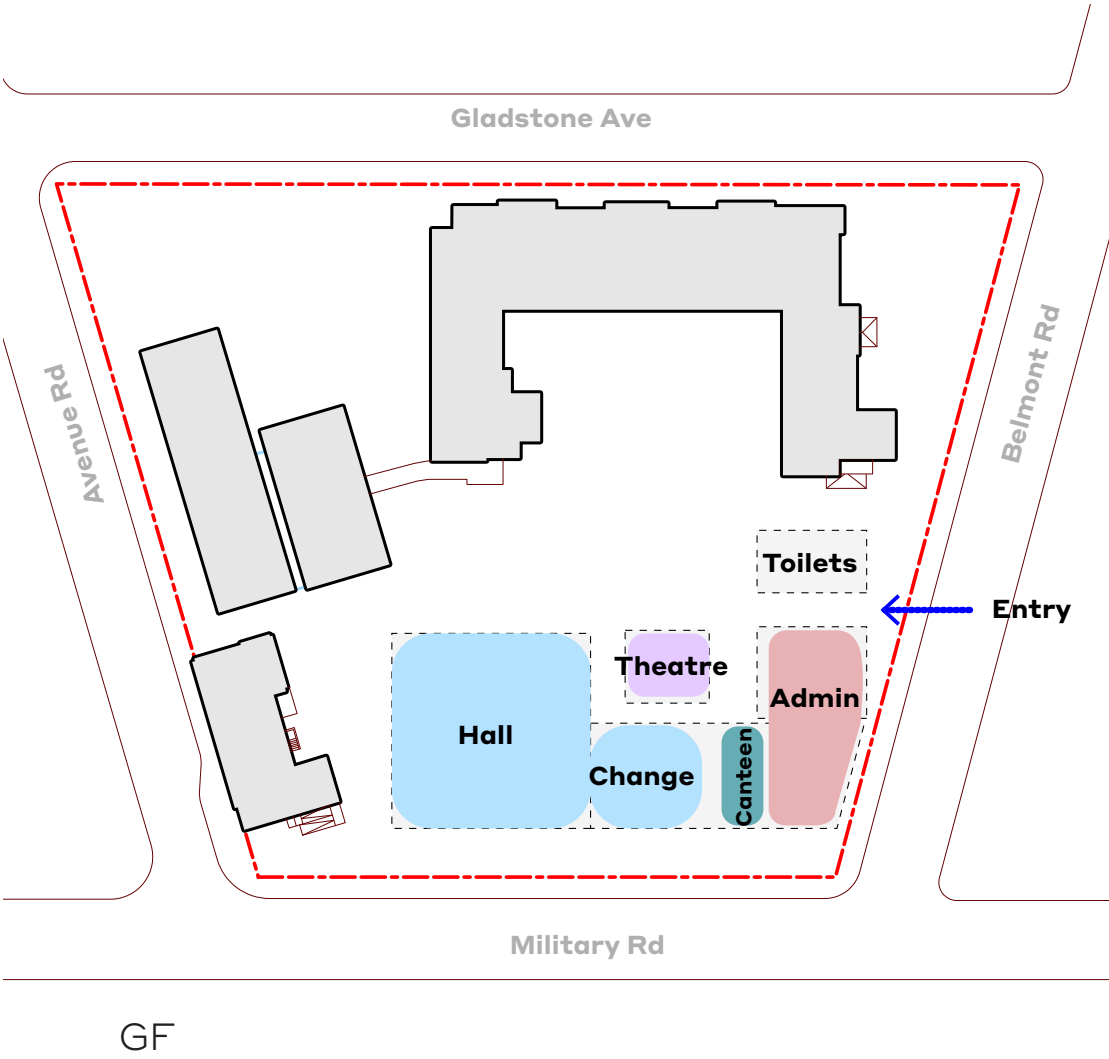
Level 2

Level 2 is the other neighbourhood of learning being two areas of Senior GLS spaces.

The staff room is located on the area above the stage area in the hall block. These spaces are also connected with a covered outdoor learning space and an external walkway.

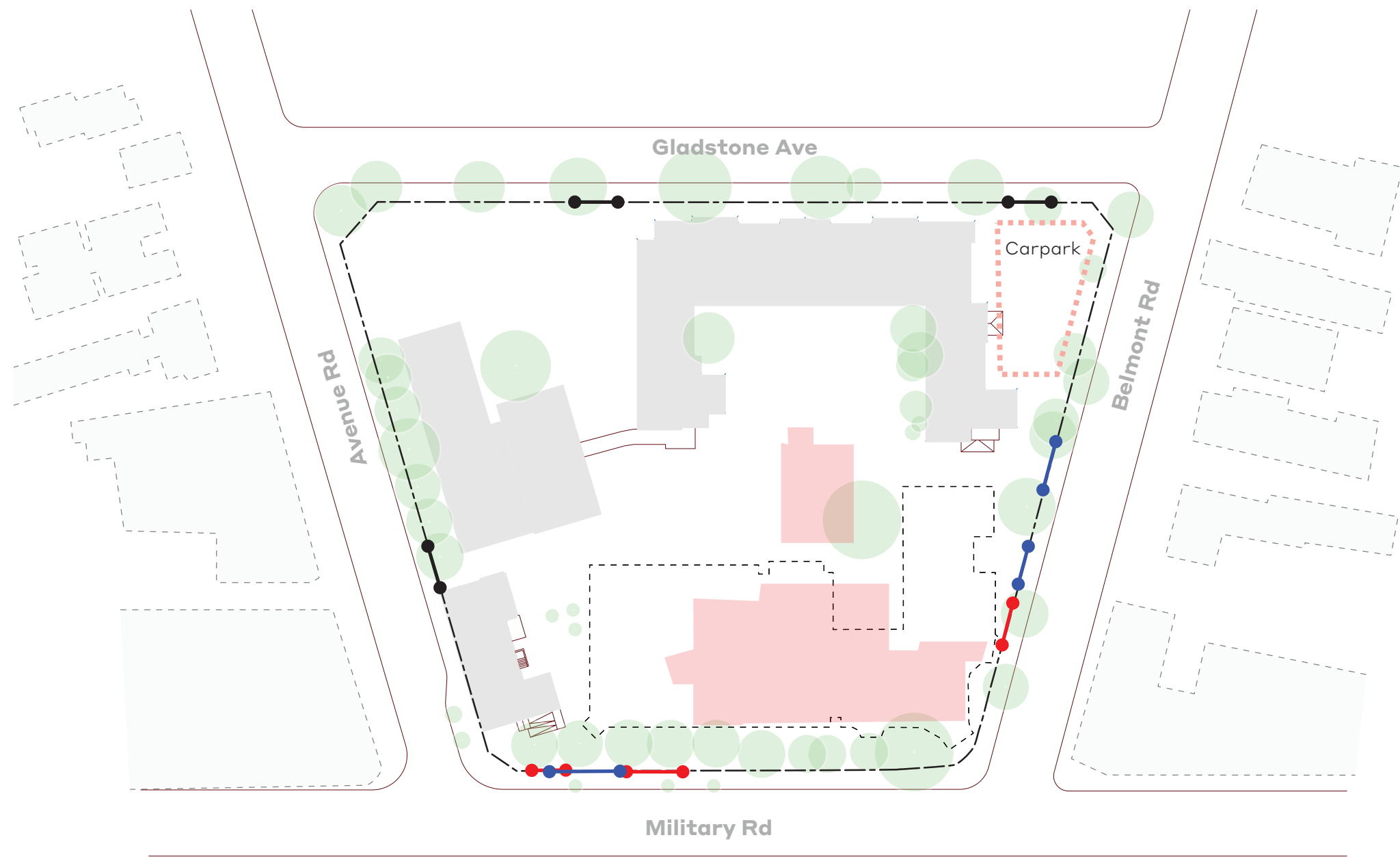
All levels are connected by a main open central stair and two fire stairs. There is also a lift located in the core which also contain the toilets.

06 Block and Stack



Security and Circulation

07 Works to Gates and Fences

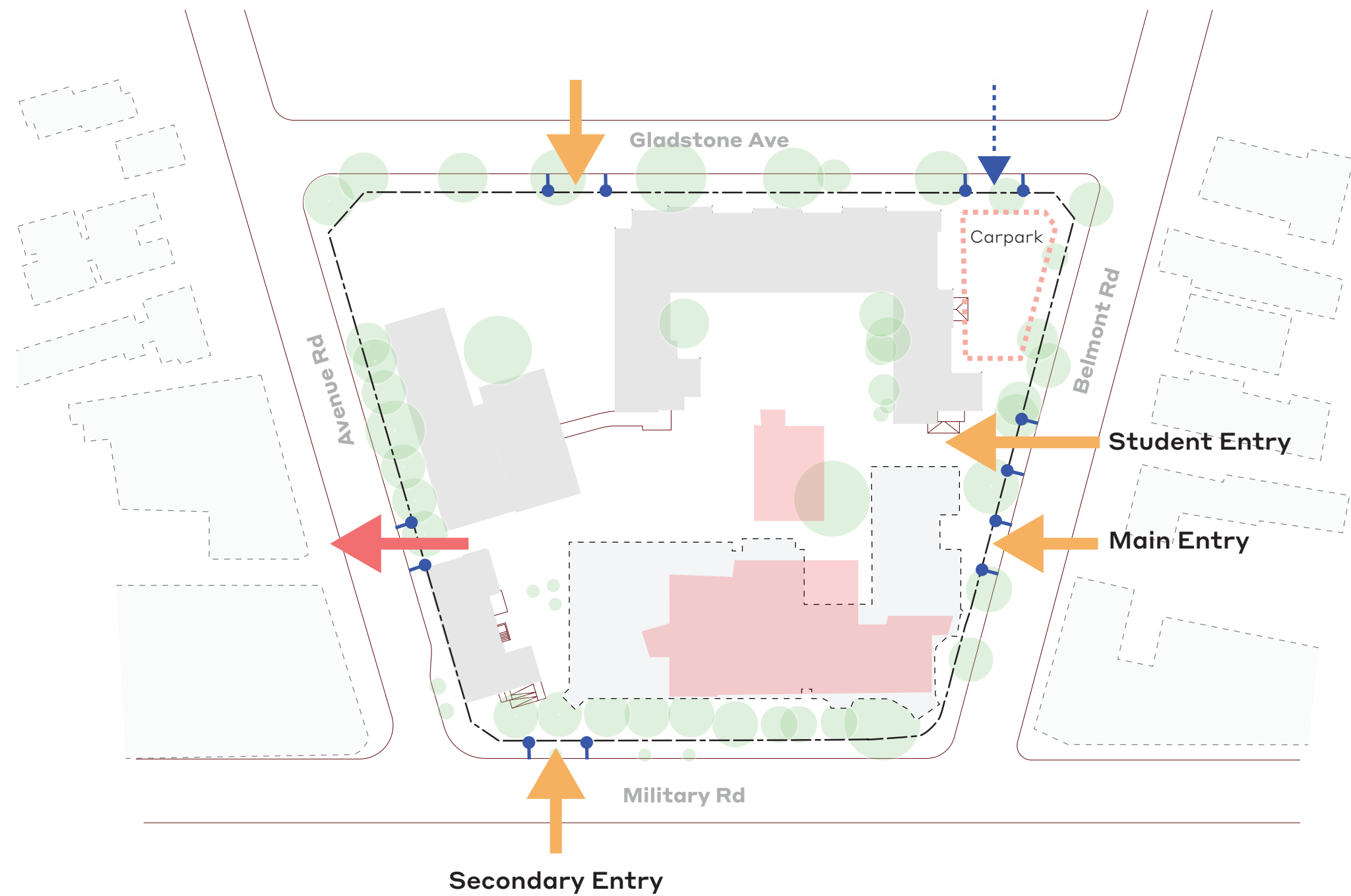


Entry and Security Fence

Mosman High School has an existing perimeter fence on all sides of the school campus. The main visitor entry is on Military Road - This is a controlled entry with an intercom system to the admin.

The proposed scheme aims to retain the existing perimeter fences. The main entry has been relocated to the quieter Belmont Rd, whilst maintaining a secondary entry on Military road to connect to the "Art's Courtyard." Gates on the other interfacing streets will not be altered this includes the service entry and back of house facilities from Gladstone Ave. These are all access controlled.

07 Arrival



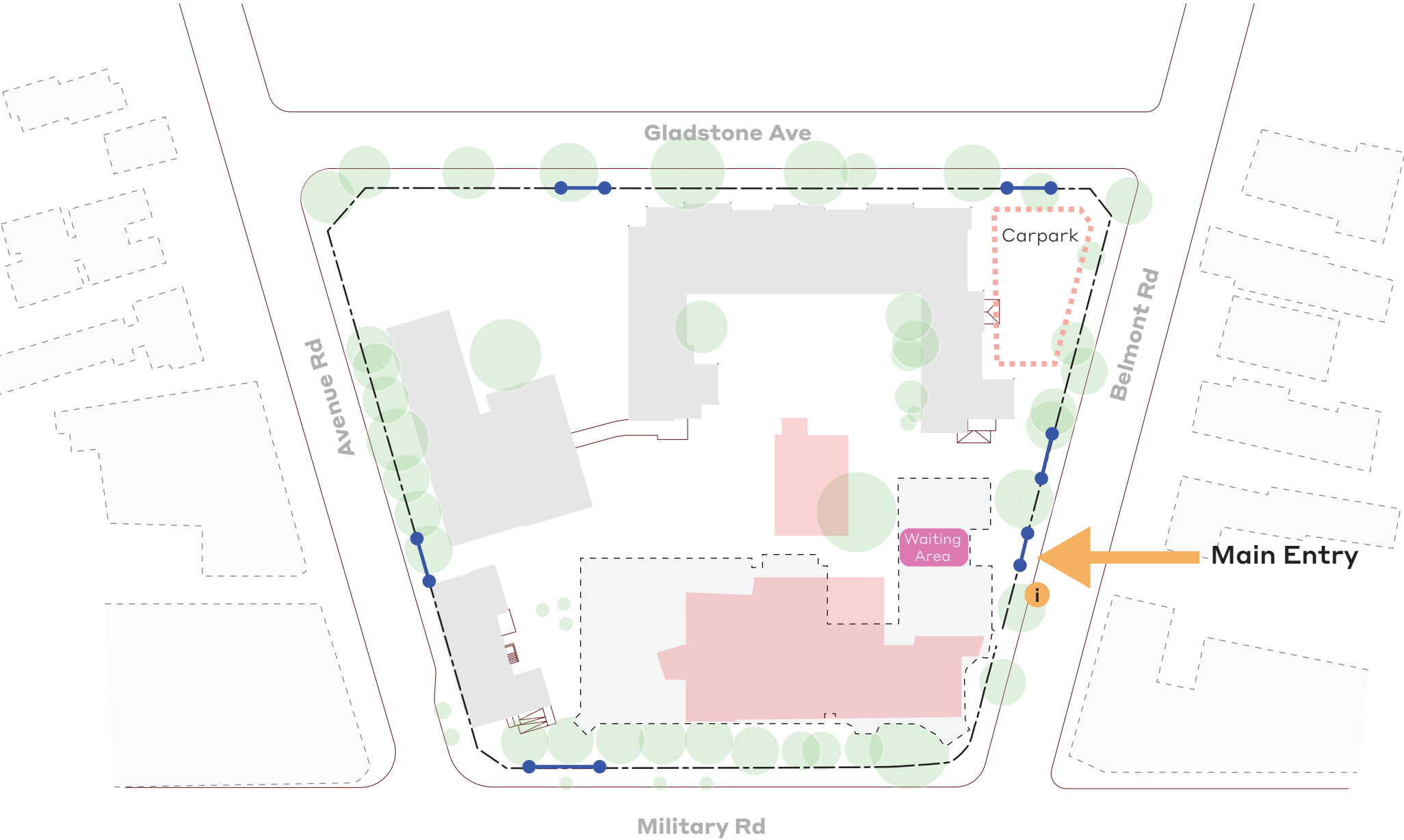
Start and End of School Day

The main entry has been relocated to the quieter Belmont Rd. This entry brings visitors through the building lobby area which is connected to the admin spaces. This entry improves admin visibility to the main entry and creates a clear entry point within the buildings articulation.

Multiple student entries have been introduced or maintained on Military Rd, Belmont Rd and Gladstone Ave. These will be open during the start and end of the school day. Existing carpark and vehicular entry to be retained.

- Fence to be retained
- Locked Gate
- ⌋ Opened Gate
- ...▶ Vehicular Access
- Pedestrian Access
- Exit Only Access

07 School Hours

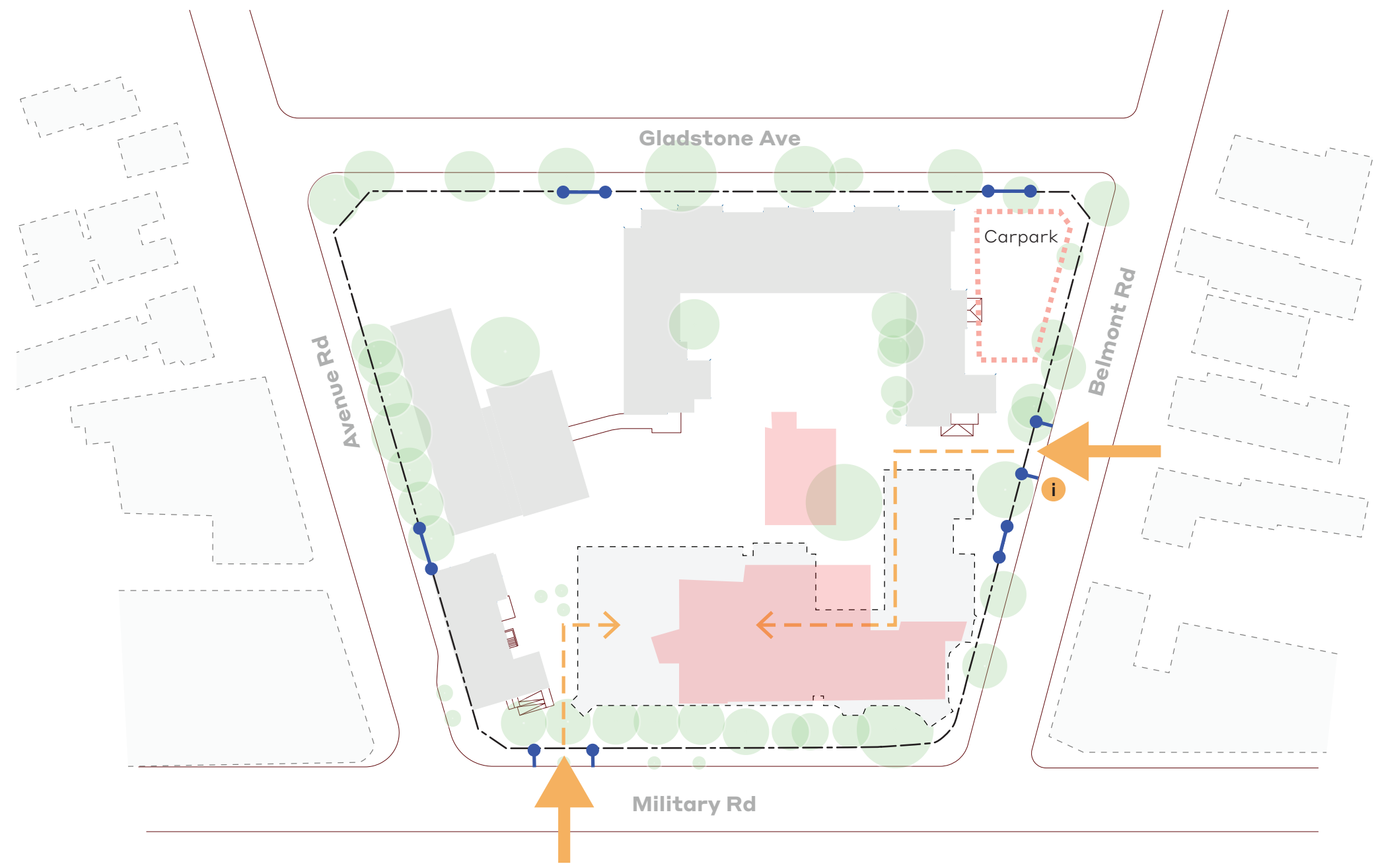


During School Hours

The main entry on Belmont Rd will be the primary gate used during School Hours. This entry brings visitors through the building lobby/waiting area which is connected to the admin spaces. It will use an intercom system to control entry. The alternative gates will be locked for entry during this time.

- Fence to be retained
- Locked Gate
- Opened Gate
- i Intercom

07 After Hours



After Hour Use/ Events

The main entry on Belmont Rd will be the primary gate used during After Hours and Events. This entry brings visitors through the building lobby/waiting area which is connected to the admin spaces. It will use an intercom system to control entry. The alternative gate on Military Rd is also an option - connecting visitors directly to the Hall through the "Arts Courtyard." This gate will require staff supervision during use.

- Fence to be retained
- Locked Gate
- ● Opened Gate
- i Intercom

07 CPTED

01 | Perimeter Security and Access Control

Mosman High School has an existing perimeter fence on all sides of the school with gates for entry/exit to/ from the school. The main entry to the school is from Military Road adjacent to the bus zone. This is the security entry with buzzer access and video intercom to the admin.

The proposed scheme aims to retain the existing perimeter fences. The main entry has been relocated to the quieter Belmont Rd with buzzer access and video intercom to the admin, whilst maintaining a secondary entry on Military road to connect to the "Art's Courtyard."

Gates on the other interfacing streets will not be altered this includes the service entry and back of house facilities from Gladstone Ave. These are all access controlled.

02 | Territorial Reinforcement

The purpose of this principle is to create a clear distinction between public and private property. The following provides an assessment of the proposal against these principles:

- The School name features prominently at the main entrance.
- The School grounds are fenced and access control monitored.
- Areas will be well-maintained and well-used to generate a feeling of 'ownership'

03 | Natural Surveillance

Clear sight lines, safe lighting and elimination of hiding spots, particularly in the landscaping design, are recommended measures to incorporate natural surveillance within the environmental design. The following provides and assessment of the proposal against these principles:

- The new Reception is located with clear sight lines to the main entry allowing for passive surveillance.
- Circulation is rationalised with primary access along wide, open circulation spines that connect directly to vertical circulation nodes.
- Constrained, dead-end corridors are minimised.
- Student amenities are located to maintain passive surveillance and allow safe use by different age groups and genders.
- All stairs are used for both egress and general circulation with either an open type of stair or with all stair doors on 'hold open' only closed during emergency modes.
- Safe lighting will be provided along pathways and increased lighting at facility entries.
- Entry forecourt has good sight lines from Belmont Road and considered landscape design to eliminate hiding spots.

04 | Maintenance

Maintenance is related to territorial reinforcement. A well-maintained area sends the message that people notice and care about what happens in an area. This, in turn, discourages vandalism and other crimes. Security practitioners refer to the 'Broken Windows Theory', the idea that one broken window will entice vandals to break another. A vandalized area then becomes more inviting to higher levels of crime. A property should be well-maintained as a matter of safety as well as pride. This includes the regular removal of waste, graffiti, repair of vandalism and garden maintenance.

The selection of materials has considered firstly reducing the likelihood of graffiti and vandalism, but also the ease of removal to facilitate ongoing maintenance.

Pedagogy

08 Summary of Educational Rationale - Learning Typologies

Introduction

The education rationale has been endorsed. The education rationale is a working document that evolves with the project. The process involves identifying the graduate profile of students and the teaching and learning practices of the school to inform the design team and provide learning environments that responds to these aims.

Mosman high school has an

‘outstanding reputation for academic achievement and success in the creative and performing arts’.

The school consequently has a strong connection with the community and hosts many events and visits within the school. In addition, due to limited space, the library is also frequently used for community purposes. DJRD aim to embrace

The community and public use of the school to provide a hierarchy of private, semi private and private spaces within the school to allow for the fulfilment of their community interactions without compromising the school centre.

Our Mission Statement reflects our vision – ‘A school community fostering creativity, individuality and leadership while striving for excellence in teaching and learning.’

The executive team have endorsed the provision of future flexible learning spaces that incorporate Shared Learning Spaces, Outdoor Learning Spaces and Multi Purpose spaces to future proof the schools learning environment.



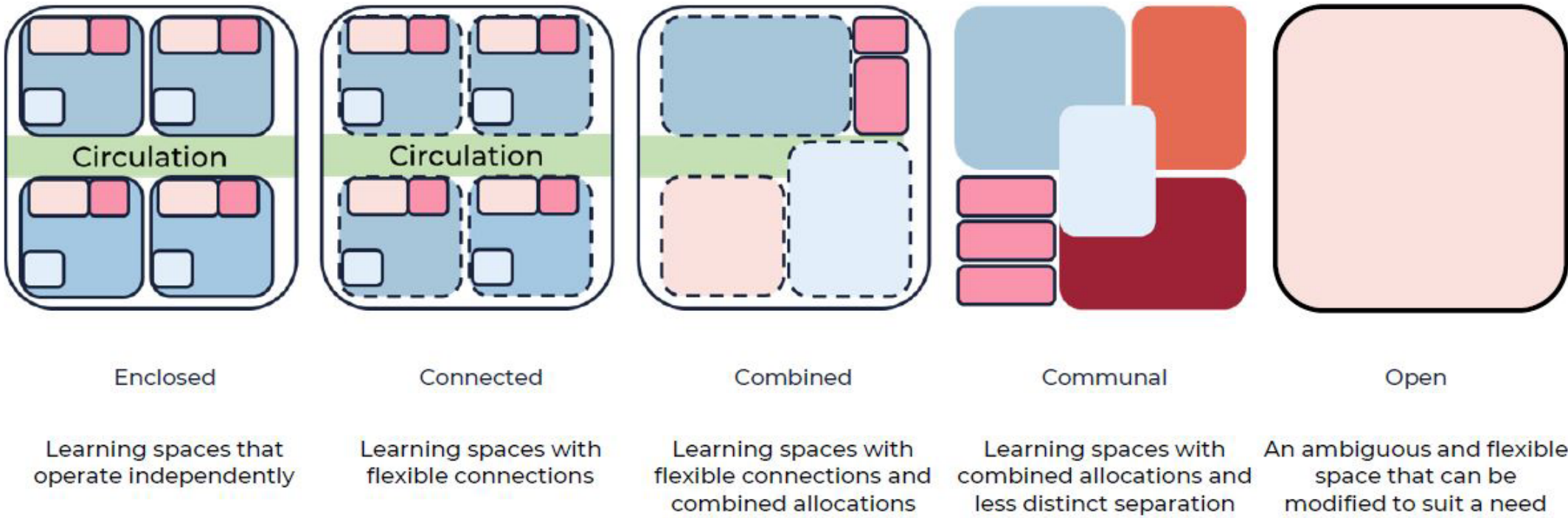
08 Summary of Educational Rationale - Education Principles

Education Principles

Educational Principles target student profile outcomes. Principles that apply to the school design and spatial considerations are as follows:

- 1. First and foremost, focus on the needs of learners and learning.
- 2. Build community and identity and create a culture of welcome, inclusion and belonging that reflects and respects diversity within the school's community
- 3. Be aesthetically pleasing
- 4. Provide contemporary, sustainable learning environments
- 5. Embed the potential for reconfigurability, both in the present for multi-purpose use and over time for changing needs.

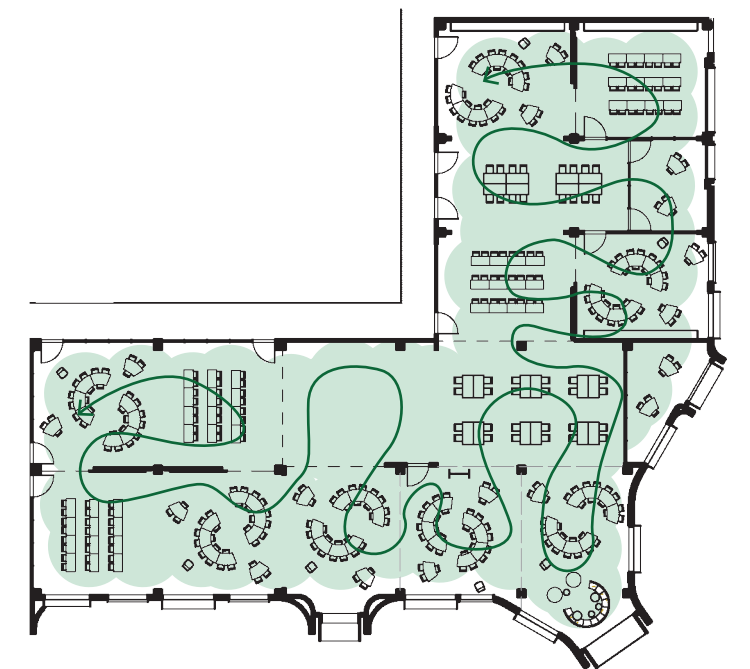
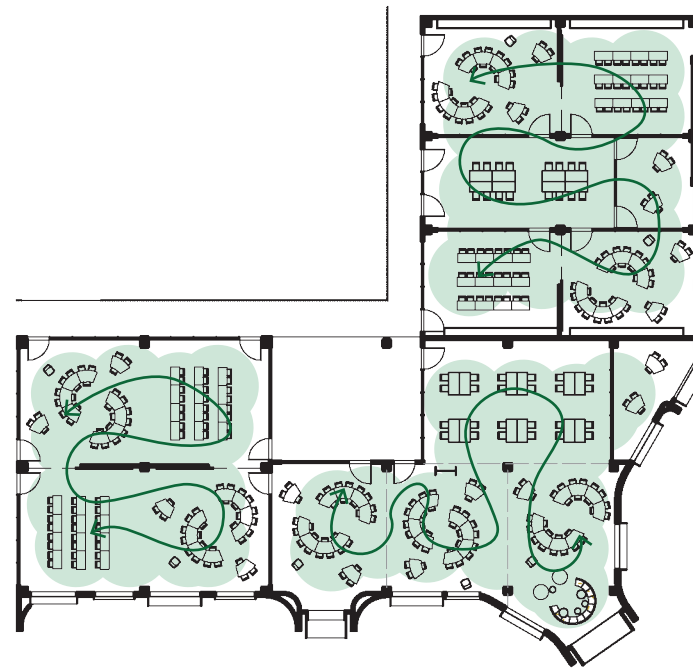
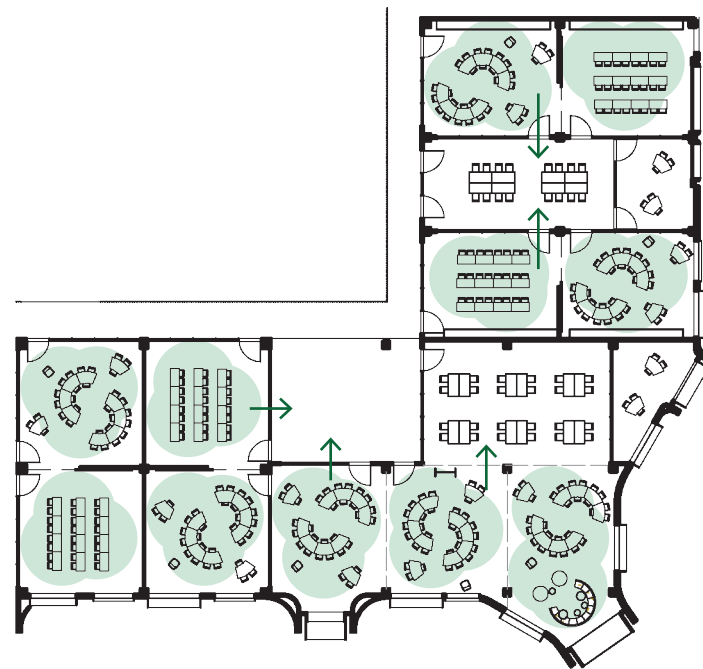
The learning environments shown in the spectrum to the right are a range of spaces types. The preferred type of space is Combined, Communal and Open Typologies.



08 Planning - Adaptability

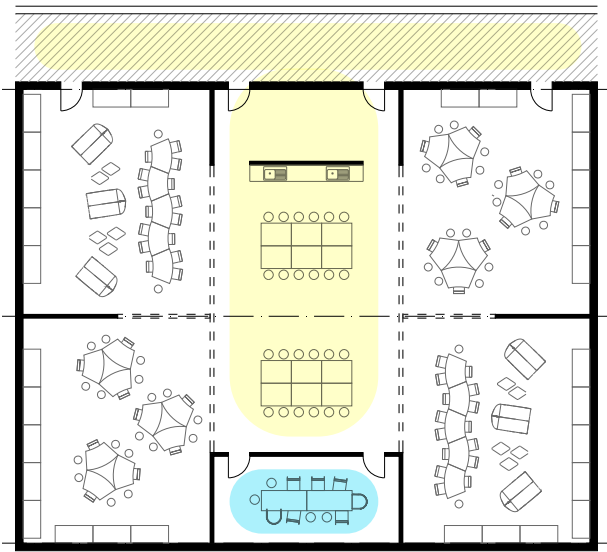
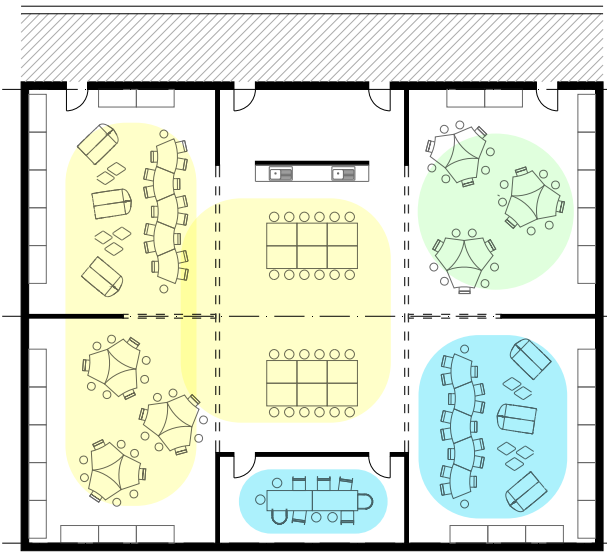
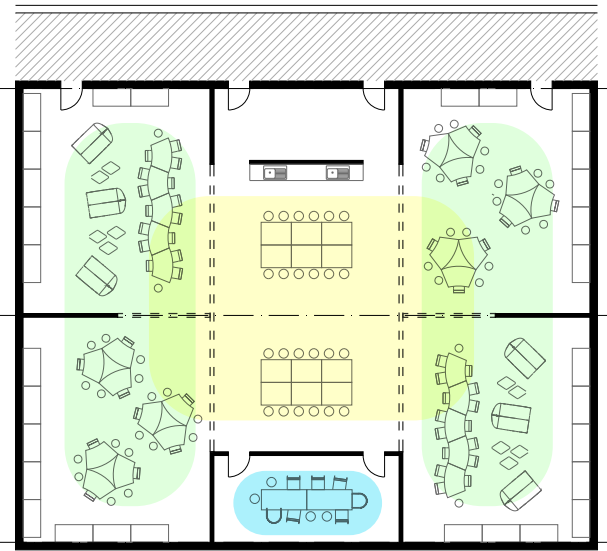
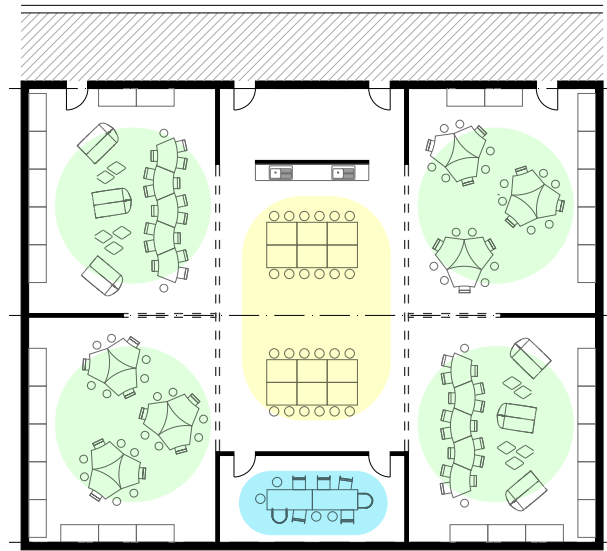
Change Management

Change management, which will require a period of time where new pedagogies are tested can be implemented over time with the possibility of open shared learning spaces featuring in future schools. Or conversely, a return to traditional formats. The planning strategy has both eventualities and any mix enabled.



08 Planning - Adaptability

- Instructed Learning
- Active Learning
- Focussed Learning



Design Response to GANSW

09 Better Schools Design Verification Statement

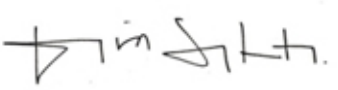
Better Schools Design Verification Statement

Project name: Mosman High School

Project Overview

Project Name: Mosman High School
Project Address: 745 Military Road, Mosman
LOT: 1 DP: 1268793
Architect's Name: Georgia Singleton
Registration No.: 7968

I confirm responsibility for designing the proposed development and have applied the Education SEPP Design Quality Principles. (Please Note this document may be used by schools, communities, councils and certifiers to verify this).

Signature of Architect: 

Architect's Name: Georgia Singleton

01 | Context, built form and Landscape

The proposed building is a new facility that supplements and updates the existing Mosman High School with new Performing Arts, Fitness, Science, Seniors Unit, Hall, Theatre, Staff, Library, Rooftop Games Court and outdoor learning opportunities.

The proposed built form sits within a conservation area and the rich heritage of Military Road, respecting the scale and materials of its context. The form of the scheme aims to provide a new entrance in the safer, more pedestrian environment of Belmont Road, which creates a protective built perimeter to enclose a central courtyard environment. This enhances the civic and heritage forms while providing a secure and noise and pollution-mitigating environment that expands the existing play space within.

The existing Military Road setback is retained, which allows the retention of much of the existing trees along Military Road. The building's predominant parapet height is sympathetic with the surroundings and aligns with the eaves of the historic Arts Building (Building A). This also aligns with the parapets of the retail buildings on the opposite side of Military Road. The upper levels which contain the library, rooftop terraces and rooftop Games Court, set back to observe clear sight lines from the opposite side of Military Road, retaining the existing clear sky exposure and sense of street scale.

The proposed scheme provides a pedagogy that mixes open plan learning environments with more traditional enclosed classrooms. These are provided as learning neighbourhoods, grouped by learning unit (i.e. Performance/Fitness, Science, Seniors unit etc). This has informed the mass, with a Learning Neighbourhood forming each 'wing' of the building. Facing the courtyard, the rich mix of uses is revealed, through the hall and its garage style doors, and the theatre acting as a 'jewel' being the prominent feature of the courtyard. The courtyard facing façades feature covered open walkways that continue the circulation character of the existing school, while engaging the central courtyard space with the activity of student movement.

The existing landscaping character of Mosman High School is that of cool breezes through a well established trees and a beautiful hedge-covered perimeter fence. This character is retained with minimal intervention to the hedges and an enhancement of tree canopy cover. The retention of trees along Military Road keeps the existing character of well shaded informal learning spaces, while additional tree planting increases the tree canopy cover.

The central courtyard space is re-landscaped with a variety of active and passive learning and play spaces. A new Arts Courtyard is formed between the new Hall and the existing Arts building which can be a lively events space spilling out from the hall. Spill-out

space to the central courtyard is also possible through garage-style doors from the hall into a newly formed terrace. This allows expansion of assembly capacity and connectivity with indoor hall space and outdoor terrace space.

The roof terraces are planted with trees to provide shaded play space spilling out from the library with magnificent views across the local neighbourhood, to the city and to the ocean.

02 | Sustainable, Efficient and Durable

There is growing appreciation of the significant role that good design can play in education, with increasing evidence that student learning outcomes are closely related to the quality of the environment in which they learn. Factors such as air quality, ventilation, natural lighting, thermal comfort and acoustic performance have been shown to have a profound impact on teacher well-being and student attentiveness, attendance and overall performance.

The proposed scheme addresses the careful balance of the constraints of a busy road with achieving indoor environmental quality. This includes the promotion of natural daylight into all learning spaces, excellent indoor air quality through a mixed mode system allowing increased outdoor air inside classrooms, low pollutant emitting materials, excellent thermal, visual and acoustic comfort by shifting the focus of operable windows to the internalised protected courtyard

09 Better Schools Design Verification Statement

space and placing the more solid brickwork façade to block the noise and pollution from Military Road. The depth of the building balances daylight penetration with the formation of spaces deep enough to connect classrooms to form open-plan learning opportunities that are 2 classrooms deep.

Students will enjoy learning in well landscaped spaces, tempering the solar impact and providing a connection with nature from most parts of the scheme, learning in amongst or under the tree canopy.

The proposal employs materials that are robust, hardy, tactile and playful. Materials are celebrated in their natural state adding colour, vibrancy and overall playfulness to the project. The education of craftsmanship and how things are made/assembled is something that the project seeks to express in its use and placement of such materials both natural and man-made. Such materials include the use of masonry to be sympathetic to the local conservation area, and metals to reflect the civic-scale uses of hall, theatre and library and to provide a recessive, more lightweight material for those parts.

A PV array is included on the roof, rainwater is harvested for irrigation and the scheme targets 4 Star Green Star equivalent.

03 | Accessible and Inclusive

Schools play an important role in the local social infrastructure and it is vital that there should be an inclusive and clear approach to access and engage with the community which is interwoven with the proposal. There is an approximately 1m fall across from Military road to the proposed new entrance. Access is enabled through gentle ramps in the landscape with community areas easily accessible through the

main entrance on Belmont Road and through the Arts plaza. The landscaping deals with the levels change with progressive ramps linked by gentle ramps. Every space in the proposal is linked via lifts and the existing building links to the adjacent Building E with a connecting elevated walkway.

04 | Health and Safety

This proposal seeks to provide a healthy and safe learning environment for all students, promoting physical activity and walkable environments, social cohesion and student safety and security at all times of the day.

A strong emphasis is placed on permeability of the physical environment to encourage transition, transparency and connectivity to the rest of the existing school. A sense of 'protection' is promoted through the formation of enclosure, through the positioning of the building along Military Road, forming the courtyard space with good surveillance, yet the scheme retains a sense of welcoming to the community through controllable gates and retention of secure lines at the admin reception area.

The buildings retain the existing fence lines and keep the building set back, protecting the asset and children during school and after hours.

The new main entrance location on the more residential Belmont Road provides an improved safer environment with better surveillance and away from the busy Military Road with its high traffic, retail and bus stops. This also helps relieve congestion of school children with the public.

05 | Amenity

Consideration has been given to not only the amenity of the school site but its community. The school is proud of their place in the community and in particular the Performing Arts and its association to the historic theatres and cinemas of Mosman. This building enhances the Performing Arts aspect with a new Theatre and Hall and its these main features that have shaped the form and layout. These have been positioned to work as a hub and to enable parents and visitors to experience performances and events both held by the school and by the community.

The scheme has respected the local community by releasing the congestion on Military Road by moving the entrance to Belmont Road, and by retaining the much-loved existing character of tree-lines setback and the hedged fence line.

06 | Whole of Life, Flexible and Adaptive

It is essential for school facilities to enable learning and teaching outcomes required of a modern world and the world of the future. It is vital that they are designed and constructed to reflect the pedagogy of today but able to adapt to the way we learn and teach in future.

This proposal acknowledges that overtime student numbers will shifts, the way we teach will shift and that even the schools that occupy the site may merge or change. The Learning Neighbourhoods provide both open-pan and enclosed learning modes but are also highly flexible to adapt to changing pedagogy needs. These are set on a grid that enables most learning units to occupy the spaces in the future should the school wish to adapt its offering.

The open plan environment allows teachers to provide adaptable spaces with a variety of learning modes to occur within the classrooms.

Materials are chosen to minimise maintenance, be robust and suitable to a school environment and to the coastal atmospheric conditions.

Energy consumption is minimised through good natural ventilation and daylight provision enabled by the floor plat depth and L shaped form.

07 | Aesthetics

The building sits comfortably in its surroundings while providing a new 'beacon' adding interest through its playful colours mixed with the brickwork which respects the local heritage and conservation area.

The scheme has provided playfulness while respecting the scale and proportions of the heritage buildings nearby. The courtyard facing façades provide activated walkways and a 'jewel' announcing the theatre with a vibrant coloured box sitting in the courtyard landscape.

The proposal also identifies a number of key areas to be used as part of the public art strategy. Destination artworks create a sense of ownership of space for students and staff alike as they reflect the culture of the school and the local community. The main identified location is to provide a graffiti/art wall on the Hall wall facing the Arts Courtyard.

09 State Design Review Panel

The following section provides a response to the State Design Review Panel (SDRP) comments provided through 4 consultations during the design of the proposed scheme.

The first 2 consultations were provided to the original design team in 2019 and early 2020 and based on the masterplan options provided at the time. Woods Bagot led by Multiplex undertook a revised masterplan and scheme in late 2020 and took on board the comments provided by the SDRP on the previous scheme in generating a new concept to inherently and cohesively embody the comments within.

The table below provides the key points from the last of the previous scheme and each consultation on the new scheme, and summarises the response:

Item	SDRP Comments	Response
1.1	Clarification and illustration of buildings facing Military Rd, creating an urban edge appropriately articulated to address the mass and scale of the surrounding context;	The building was located in line with the existing building retaining the same urban and same tree canopy setback.
1.2	Clarify retention of trees along Military Rd and across the site;	The setback allowed retention of the existing trees along Military Road and the setback on Belmont Road also allows the significant fig tree to be retained.
1.3	Illustrate how the mass, volume and depth of floor plates will be broken up to allow natural light and ventilation into every level of the building;	The depth of floor plate shifted from 30-35m to an 18-21m depth. This allows natural light and ventilation to penetrate into the learning spaces.
1.4	Provide shadow diagrams, particularly for the open spaces/play spaces;	The shadow diagrams reveal good sunlight reaching the central courtyard space.
1.5	Clarify and illustrate indoor/outdoor relationships, and in particular the extension of ground floor areas into the proposed quadrangle;	The ground floor uses of Hall, Canteen and admin now have good connectivity with the ground plane.
1.6	The landscape approach is instrumental in providing a coherent site character. Provide further details including materials, hard and soft landscape areas, clarity of views and way-finding;	Refer to Landscape Design Report.
1.7	Investigate opportunities to closely integrate the buildings with the landscape, for example by making use of building edges as landscape elements, seating areas and so on.	The existing school has informal learning benches in the Military Road setback area. This use is enhanced through an updated landscape with additional seating. The courtyard features bleacher seating, raised terraces and a variety of space types to enable different types of play/informal learning.
1.8	Illustrate vertical connections, including circulation zones and access to/from play spaces on various levels;	The central feature stair is a clear way-finding and connecting tool, easy to orient against and connecting all levels. Two further stairs connect the levels at the extremities of the building also serving fire egress. A lift connects all levels and is located near the front entrance.
1.9	Clarify and illustrate building planning to enable passive ESD strategies to be incorporated;	The floor plate depth reduction allows natural ventilation and daylight to occur. The external covered walkways provide a solar shading 'shelf' the protect from north and west sun. The north and east façades feature shrouds around the windows.
1.10	Provide details of site wide sustainability strategies;	As per School Infrastructure policy, a 4 Star Green Star equivalent will be pursued. In addition to the passive measures, a PV array is included on the roof and rainwater harvesting contributes to irrigation. Mechanical systems include recovery and mixed mode operations.

09 State Design Review Panel

SDRP 1 Comments on current scheme 16.12.2020

Item	SDRP Comments	Response
2.1	Support on the following: - The site layout which maintains the landscape setting of the school and prioritises existing trees. - The refined built form and reduced footprint which enables retention of existing trees along Military Road and provides improved solar amenity to the central courtyard. - The cluster of art and performance spaces in the south-east corner of the site, which facilitates direct and legible communal and after-hours access. - The reduced floor plate depth and clarified internal circulation which maximises outdoor play area, improves indoor amenity, and supports passive design strategies, including access to natural daylight and ventilation. - The stepped massing of the upper levels to maintain unobstructed sight lines from the footpath on the east side of Military Road. - The simplified materials palette including the use of bricks which are characteristic of the Military Road heritage conservation area.	Noted
2.2	Connection with Country An understanding of Country can inform richer and more place responsive design solutions. - Engage with Traditional Custodians to inform a meaningful approach to Country and integrate Indigenous culture and heritage into the architectural and landscape design strategy. - There is an opportunity to create an environment that anchors the connection to Country and promotes sustainability, for example, drawing on the history and ecology of the area and using naming, massing, materiality and form, circulation, landscape, plant species that are endemic to the bioregion, texture and so on. Explore how this might acknowledge the school's strengths in the creative and performing arts and inform its pedagogical approach. - Refer to the draft framework Connecting with Country on the GANSW website.	- The Indigenous consultant has guided the design team to celebrate not only Indigenous history and culture. but all history and culture. This was always a teaching and learning location in all historical cultures. To this end the location of the teaching areas, the windows, the celebration of performance was important considerations. The celebration of performance is marked by and indoor and outdoor performance space. This will be marked/named in an appropriate way in the next phase with further community consultation. - The connection to water was of very clear meaningful Indigenous cultural importance. The design has responded by creating various and multiple views to all parts of the harbour not just small significant sites, Access to all students was the key message here. - The idea is that this will become a learning tool for the students and teachers. The reference to circulation was considered important and as such the entry was moved from the busy Military Road to enable a softer entry under the fig tree on Belmont Road, The building is sited so that it then encourages free circulation , and continuous learning in the landscape where students can find a variety of spaces form load and collaborative to singular, quiet and reflective.

09 State Design Review Panel

SDRP 1 Comments on current scheme 16.12.2020

Item	SDRP Comments	Response
2.3	Masterplan and Landscape – Develop the landscape design to integrate the built form with landscape elements and amplify the unique character of the setting. – Demonstrate how tree retention is maximised for biodiversity, sustainability, shade, amenity and aesthetic quality. Provide an arborist report to indicate the significance of existing trees and clarify the trees to be retained, new trees proposed and trees to be removed. – Demonstrate how the proposal will achieve the 40% tree canopy target. – Clarify the proposed student numbers and the open space provision for learning and recreation. – Further explore opportunities to vary the character of the outdoor spaces so that they might contribute to the natural environment and provide opportunities for social interaction that reflect and connect to adjoining teaching and performance spaces. – Illustrate how the entry from Belmont Road will work in terms of permeability, access control and pedestrian movement. – Provide analysis of pedestrian movement to and within the site (including shared use facilities), to demonstrate that circulation between buildings is safe, weather protected, accessible and inclusive to people with different needs and capabilities. Clarify DDA accessibility between entry points, landscape areas and built form.	– The retention of trees along Military Road contribute to a large tree canopy retention with further tree planting proposed along the perimeter and within the courtyard space. The updated landscaping strategy includes roof top tree planting. – A detailed arborist study and coordination has verified the proposed tree retention and the proposed target tree canopy is 24%. The main area of development is around the proposed Building G and the courtyard. This area has been heavily planted. Other areas of the site are subject to disruption, access and safety restrictions, limiting the potential tree canopy cover achieving 40%. – A variety of outdoor spaces have been provided, with seating, terracing, play space, terraced areas etc. These are provided as covered, uncovered, secluded and open to allow for a wide variety of uses allowing different social groups to use. – The entry on Belmont Road features two separate entrances. One is for visitor access to the admin/reception area. This is gated and includes an intercom. The second gate is left open on arrival and departure and is for students to permeate into the central courtyard and onward towards the various school buildings. – The landscape areas a fully DDA compliant and accessible with ramps and lifts connecting all spaces. Circulation is weather protected through the covered walkways including the covered elevated link between Building G and Building E.

09 State Design Review Panel

SDRP 1 Comments on current scheme 16.12.2020

Item	SDRP Comments	Response
2.4	Built Form – Demonstrate how the massing, scale, rhythm and materiality contributes to the character of the Military Road Conservation Area. The Panel supports the use of bricks similar in colour and texture to those that characterise the Military Road heritage conservation area. – The treatment and expression of the Military Road / Belmont Road corner is unresolved and requires further development to demonstrate how it responds to the immediate context. – Demonstrate how measures to mitigate traffic noise from Military Road will still enable the provision of natural ventilation. – Demonstrate how the network of open walkways can enrich the scheme by providing moments of respite, opportunities for social interaction and informal learning. – Illustrate how the built form edges and public domain interface will contribute to the quality and character of the street, including how this might be achieved at the Military Road / Belmont Road corner.	The built form respects the Military Road Urban line and existing character, retaining the existing trees and setting back in line with the existing building. The height and scale is derived from the adjacent Arts building (Building A) where the proposed building's parapet aligns with the eaves of Building A. This sets the height to the same height as the heritage retail buildings opposite. The upper levels set back from the street to create a clear sight line from the opposite pavement to preserve the sky dome and set the street scale to be sympathetic to the heritage conservation area. The Military Road/Belmont Road corner is a moment of delight as it pops through the tree canopy and anchors the corner. The bricks are sympathetic to the heritage while the coloured window shrouds add a playful announcement of school usage beyond. The walkways are broken by a larger central covered learning space that is actively engaged with good surveillance from the classrooms. This provides respite along the journey.
2.5	Sustainability – The approach to sustainability lacks ambition. As the design develops, the Panel encourages the demonstration of leadership in sustainability; acknowledging that Woods Bagot is a founding signatory of Architect's Declare Australia. – Provide details of the proposed ESD initiatives and how they support a more ambitious sustainability strategy. – Provide details of the proposed passive design strategies to ensure that access to natural light and ventilation are provided and maximised for all internal spaces.	The floor plate depth allows natural ventilation and daylight to occur. The external covered walkways provide a solar shading 'shelf' the protect from north and west sun. The north and east façades feature shrouds around the windows. As per School Infrastructure policy, a 4 Star Green Star equivalent will be pursued. In addition to the passive measures, a PV array is included on the roof and rainwater harvesting contributes to irrigation. Mechanical systems include recovery and mixed mode operations.

09 State Design Review Panel

Comments from SDRP 2 on current scheme 03.02.2021

Item	SDRP Comments	Response
2.1	The following elements of the design approach are supported, in particular the: – site layout which maintains the landscape setting of the school and prioritises existing trees, including an increased setback from Military Road – increased tree canopy cover for the site – improved connection between the hall and the external western forecourt – developed landscape strategy for the site including the varied opportunities and – provision of outdoor learning environments.	Noted
2.2	Connecting with Country A commitment to Connecting with Country initiatives has not been demonstrated. Although studies may have been undertaken to evaluate and mitigate Aboriginal archaeological and cultural heritage impacts on site, and engagement with Associated Professor Dr Chris Lawrence from UTS was noted, an understanding of Country does not appear to have informed the site strategy. The following is strongly recommended: – Engage with Traditional Custodians to inform a meaningful approach to Country and integrate Indigenous culture and heritage into the architectural and landscape design strategy. – Create an environment that anchors the connection to Country and promotes sustainability, for example, drawing on the history and ecology of the area and using naming, massing, materiality and form, circulation, landscape, plant species that are endemic to the bioregion, texture and so on. Explore how this might acknowledge the school's strengths in the creative and performing arts and inform its pedagogical approach. – If there is a Reconciliation Action Plan (RAP) for the school, consider opportunities for this to inform the design strategy and the school's pedagogical approach. – Refer to the draft framework Connecting with Country on the GANSW website.	– The Indigenous consultant has guided the design team to celebrate not only Indigenous history and culture. but all history and culture. This was always a teaching and learning location in all historical cultures. To this end the location of the teaching areas, the windows, the celebration of performance was important considerations. The celebration of performance is marked by and indoor and outdoor performance space. This will be marked/named in an appropriate way in the next phase with further community consultation. – The connection to water was of very clear meaningful Indigenous cultural importance. The design has responded by creating various and multiple views to all parts of the harbour not just small significant sites, Access to all students was the key message here. – The idea is that this will become a learning tool for the students and teachers. – The reference to circulation was considered important and as such the entry was moved from the busy Military Road to enable a softer entry under the fig tree on Belmont Road, The building is sited so that it then encourages free circulation , and continuous learning in the landscape where students can find a variety of spaces form load and collaborative to singular, quiet and reflective.

09 State Design Review Panel

Comments from SDRP 2 on current scheme 03.02.2021

Item	SDRP Comments	Response
2.3	Landscape – Provide an Arboricultural report to indicate the significance and health of existing trees. Clarify trees to be retained, new trees proposed and trees to be removed. – Demonstrate how recommendations from the Arboricultural report will be implemented to protect the root zones of the existing trees to be retained (particularly along Military Road). Consideration may need to be given to elevated walkways to minimise and / or avoid excavation. – The scheme proposes a canopy cover of 24.6%, which increases the existing tree canopy on the site by 3.4%. While a target of 40% canopy cover may be unachievable given the site's urban context, the panel recommends that the proposed canopy cover be increased to provide a minimum of 30%. – Provide plant species that are indigenous to the area and demonstrate how the landscape will be used as a learning opportunity for students. – Illustrate how recreation spaces are designed to address the specific needs of students of different ages, abilities and genders. – Provide a CPTED analysis of the scheme and incorporate recommendations to provide clear access control and mitigate opportunities for concealment. Given the diversity of recreation spaces, demonstrate how surveillance will be managed. – Provide drawings with RLs to illustrate that circulation between buildings is safe, weather protected, accessible and inclusive to people with different needs and capabilities. Clarify DDA accessibility between entry points, landscape areas and built form.	Refer to Arborist report with clarification and confirmation of tree retention. Now reflected in the scheme. Tree canopy cover is 24.6%. The main area of development is around the proposed Building G and the courtyard. This area has been heavily planted. Other areas of the site are subject to disruption, access and safety restrictions, limiting the potential tree canopy cover achieving 40%. Indigenous and endemic species are selected – Refer to Landscape Design Report. CPTED report is include within the Architectural Design Statement plus security/access diagrams demonstrating security measures and surveillance. Drawings include ramps, RLs and show access and circulation. The landscape areas a fully DDA compliant and accessible with ramps and lifts connecting all spaces. Circulation is weather protected through the covered walkways including the covered elevated link between Building G and Building E.

09 State Design Review Panel

Comments from SDRP 2 on current scheme 03.02.2021

Item	SDRP Comments	Response
2.4	Built Form The challenge of designing a four storey school building in a Heritage Conservation Area (HCA) with particular character and scale qualities is acknowledged. In its current form however, there are strong reservations about the façade design. The architectural expression of the proposal is not supported as it lacks both the civic and playful qualities of a school typology and appears disconnected from the internal spaces. The following is recommended: – Reconsider the form, character and façade composition to establish a more public presence. Consider taking cues from the existing heritage built form onsite, which is considered to have a civic scale while maintaining deference to the significant qualities of the HCA. – The proposed building accommodates an incredibly rich and varied internal program with diverse scales and spatial qualities. Demonstrate how the architectural expression of the building is informed by and reflects these internal learning environments and spaces. – Limited information was provided to demonstrate how the building responds to its broader context. Provide detailed sections and elevations (extending beyond the immediate site boundaries) to illustrate how the built form edges and public domain interface will contribute to the quality and character of the street. – The rationale behind the façade modulation was the opportunity to connect with significant sites, although none were identified. The location and geometry driving the ‘folds’ appears to be arbitrary. Provide a detailed study of the significant view corridors (taken at eye-level) and demonstrate how these vistas have informed the design of the façade. – The treatment and expression of the Military Road / Belmont Road corner requires further development to demonstrate how it responds to the internal program, as well as how it interfaces with the public domain. Demonstrate how the spatial qualities of the internal learning environments and spaces have informed the architectural expression of the facade. – Demonstrate how measures to mitigate traffic noise from Military Road will still enable the provision of natural ventilation. – Provide internal elevations to demonstrate the treatment and spatial quality of the elevated walkways and façades generally.	– The masterplan was reconsidered in this process and it was understood by stakeholders that it was correct. For example, the hall could not face out to Military Road for acoustic reasons and it was important that it opened up to the inside court to activate the student play area not the community streets, This was also the case for the lecture theatre which is like a jewel in the students zone. The designers did however acknowledge the need for playfulness in the façade and the strategy was to “play with; the interior program and the scale of the windows, creating a variety (5) types of openings which have taken on the colours of the surrounding historical neighbourhood. – It was important to keep the brickwork to Military Road and Belmont to fit within Mosman precinct. – The heritage buildings on site are not particularly civic especially to the external of the campus. – The design intent is to create a Mosman crust and open the playful nature of the program to the students through the internal courtyard space. – Information on the surrounding has been complete including long elevations of context and scale. – The rational for the windows is that every view is important and thus has been backed by the indigenous consultant. Therefore there is not one special view but many . The building is alike a theatre in the road and it changes as you travel form the historical crust through to the open performance areas. – For spaces with multiple façades, operable windows are to be provided on façades which are less affected by traffic noise. For those spaces with only traffic noise affected façades, occupants will be provided with operable windows which can be opened when traffic noise is at an acceptable or manageable level for occupants. In line with SINSW education facility guidelines, spaces shall also be provided – Internal perspectives provided.

09 State Design Review Panel

Comments from SDRP 2 on current scheme 03.02.2021

Item	SDRP Comments	Response
2.5	Sustainability The proposal adopts a compliance-based approach to sustainability that lacks ambition and has failed to address the comments from the first SDRP session. To achieve a supportable outcome the following is strongly recommended: – The demonstration of leadership in sustainability; acknowledging that Woods Bagot is a founding signatory of Architect's Declare Australia. – An ambitious sustainability strategy. – Details of the proposed ESD initiatives. – Details of the proposed passive design strategies to ensure that access to natural light and ventilation are maximised for all internal spaces. – Demonstration of how the sustainability initiatives optimise the school's pedagogical approach.	The floor plate depth allows natural ventilation and daylight to occur. The external covered walkways provide a solar shading 'shelf' the protect from north and west sun. The north and east façades feature shrouds around the windows. As per School Infrastructure policy, a 4 Star Green Star equivalent will be pursued. In addition to the passive measures, a PV array is included on the roof and rainwater harvesting contributes to irrigation. Mechanical systems include recovery and mixed mode operations.

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