

# NEW PRIMARY SCHOOL IN GOOGONG

DESIGN ANALYSIS REPORT

09.06.21

# DOCUMENT DETAILS

## DOCUMENT/STATUS REGISTER

Issue	Date	Purpose	Written	Approved
01	30.04.21	Draft	KLC/SJ	
02	06.05.21	Draft	KLC/SJ	
03	17.05.21	Draft for Test of Adequacy	KLC/SJ	SR
04	21.05.21	Draft for Test of Adequacy	KLC/SJ	SR
05	27.05.21	Issue for SSDA	KLC/SJ	SR
06	09.06/21	SSDA Submission	KLC/SJ	SR

## LIST OF ABBREVIATIONS

<b>BCA</b> – Building Code of Australia
<b>COLA</b> – Covered Outdoor Learning Area
<b>CDR</b> – Concept Design Report
<b>DDA</b> – Disability Discrimination Act
<b>DoE</b> – Department of Education
<b>EFSG</b> – Education Facilities Standards and Guidelines
<b>GBA</b> – Gross Building Area
<b>GEA</b> – Gross Envelope Area
<b>GFA</b> – Gross Floor Area (Planning)
<b>HB</b> – Homebase
<b>PA</b> – Pedavoli Architects
<b>SINSW</b> – School Infrastructure NSW
<b>UFA</b> – Usable Floor Area

## PROJECT DETAILS

<b>Site Address</b>	Gorman Drive, Googong, NSW, 2620
<b>Site Area</b>	28,118.39m <sup>2</sup>
<b>Land Use &amp; Zoning</b>	R1 General Residential
<b>Local Authority</b>	Queanbeyan-Palerang Regional Council
<b>Traditional Custodians</b>	The traditional custodians of the land in which the site is located are the Ngambri, Ngunnawal, and Ngarigo peoples (it is likely there other people groups that lived on this land, we will continue to add to our understanding of the Indigenous narrative of the site through the consultations that we have begun and are continuing).
<b>Heritage Status</b>	Advice was received for the proposed school site in Murrumbateman from Heritage NSW. It is not a State or local heritage item, nor located within a heritage conservation area.

## PEDAVOLI ARCHITECTS

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# 1 INTRODUCTION

## INTRODUCTION

This Design Analysis Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD-10326042).

The development is for a new primary school located on land bound by Gorman Drive, Aprasia Avenue, Wilkins Way and McPhail Way in Googong.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs) as outlined in pages 5-7 of this report.

## THE PROPOSAL

The proposed development is for construction and operation of a new primary school in Googong that will accommodate up to 700 students.

The proposed development is a Core 35 school and includes:

- A collection of 1-2 storey buildings containing 30 home base units, 3 special education learning units, canteen, hall, library and administrative facilities.
- On-site carpark with 60 spaces and on-street kiss-and-ride facilities.
- Outdoor sports court and play area.
- Integrated landscaping, fencing and signage.

## PROJECT FRAMEWORK

This report builds on the work completed by SHAC who completed the Masterplan and Concept Design. The latter accompanied the request for SEARs on this project. From SHAC's Concept Design we have proceeded into a design validation process followed by design development for this submission in collaboration with the following parties:

- SINSW
- Mecone
- The new primary school in Murrumbateman PRG
- Hansen Yuncken
- Pedavoli Architects
- Specialist Consultants

This report documents the design approach for the proposed school, which brings together the inputs of the above stakeholders and the entire consultant team. The refinements to the concept design through the validation process are outlined in this report and are the result of consultation with stakeholders.

## ACKNOWLEDGEMENT OF COUNTRY

Pedavoli Architects acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

# 1 INTRODUCTION

## SEARS

The following table outlines the requirements as specified in the SEARs (SSD-10326042) and the relevant sections that respond to these requirements.

SEARS Requirements - Index	Pertinent
<b>General Requirements</b>	Refer to p4
<b>Executive Summary</b>	Refer to p4
A complete description of the development including:	
<ul style="list-style-type: none"> <li>A detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development.</li> <li>Plans, elevations, and sections of the proposed development.</li> <li>Cladding, window, and floor details, including external materials.</li> <li>A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process).</li> <li>Plans and details of any advertising/business identification signs to be installed, including size, location, and finishes.</li> <li>Any staging of the development.</li> <li>Details of construction and decommissioning including timing.</li> <li>An estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided.</li> </ul>	Refer to: <ul style="list-style-type: none"> <li>Site Analysis p7-14</li> <li>Material Palette p32</li> <li>Wayfinding and signage p33</li> <li>Architectural Documentation SSDA-000[B] through to SSDA-501[B]</li> <li>Environmental Impact Statement (EIS), by Mecone.</li> </ul>

### Key Issues 1. Statutory and Strategic Context

Address the statutory provisions contained in all relevant legislated and draft environmental planning instruments, including but not limited to:	Refer to <ul style="list-style-type: none"> <li>Consultations p15</li> </ul>
<ul style="list-style-type: none"> <li>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.</li> <li>Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities).</li> <li>Googong Development Control Plan (2010)</li> <li>Queanbeyan-Palerang Community Strategic Plan 2018-2028</li> <li>South East and Tablelands Regional Plan 2036</li> <li>Queanbeyan-Palerang Regional Council Local Strategic Planning Statement 2040</li> </ul>	Refer to: <ul style="list-style-type: none"> <li>Design Verificaiton p38</li> <li>EIS</li> </ul>

### Key Issues 2. Built Form and Urban Design

Address:	
<ul style="list-style-type: none"> <li>The height, density, bulk and scale, setbacks, and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces.</li> <li>Design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette.</li> <li>How Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.</li> <li>How good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.</li> <li>How design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).</li> <li>How services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.</li> </ul>	Refer to <ul style="list-style-type: none"> <li>Design Statement p27</li> <li>Site Planning and Massing p28</li> <li>Architectural Documentation SSDA-000[B] through to SSDA-501[B]</li> <li>CPTED p21</li> <li>ESD p20</li> <li>Design Quality Principles p39-40</li> <li>EIS</li> </ul>

# 1 INTRODUCTION

## SEARS

Provide:

- A detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.
  - 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.
- Refer to:
- Site Analysis p7-14
  - Visualisation and Streetscapes p34-35
  - EIS

### 4. Environmental Amenity

Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.

- Refer to:
- Shadow Diagrams SSDA-301[B]
  - Design Principles p16-22
  - EIS

### SEARS Requirements - Index

#### Pertinent

Provide:

- Shadow diagrams.
  - A view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.
  - An analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts.
- Refer to:
- Shadow Diagrams SSDA-301[B]
  - Visualisation and Streetscapes p34-35
  - Lighting Strategy p22

## 6. Ecologically Sustainable Development (ESD)

Identify:

- How ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development.
- Proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy.
- How the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy, and water efficient design (including water sensitive urban design) and technology and use of renewable energy.
- How environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018).

Refer to:

- ESD Design principles p20
- ESD Schematic Design Report by Steensen Varming

In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following:

- Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and Planning Certificate).
- Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including:
- Architectural design statement.
- Diagrams, structure plan, illustrations, and drawings to clarify the design intent of the proposal.
- Detailed site and context analysis.
- Analysis of options considered to justify the proposed site planning and design approach.
- Summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice.
- Summary report of consultation with the community and response to any feedback provided.

Refer to:

- Design Quality Principles p39-40
- Design Statement p27
- Option Comparison p23
- Landscape p26
- Wayfinding and signage 33
- Material Palette p32
- Site Analysis p7-14
- Response to GANSW p43-44
- Key Consultations p15

During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:

- The relevant Council.
- Government Architect NSW (through the NSW SDRP process).
- Transport for NSW.

- Response to GANSW p43-44
- Key Consultations p15
- EIS

## 2 SITE ANALYSIS

### LOCATION AND CONTEXT

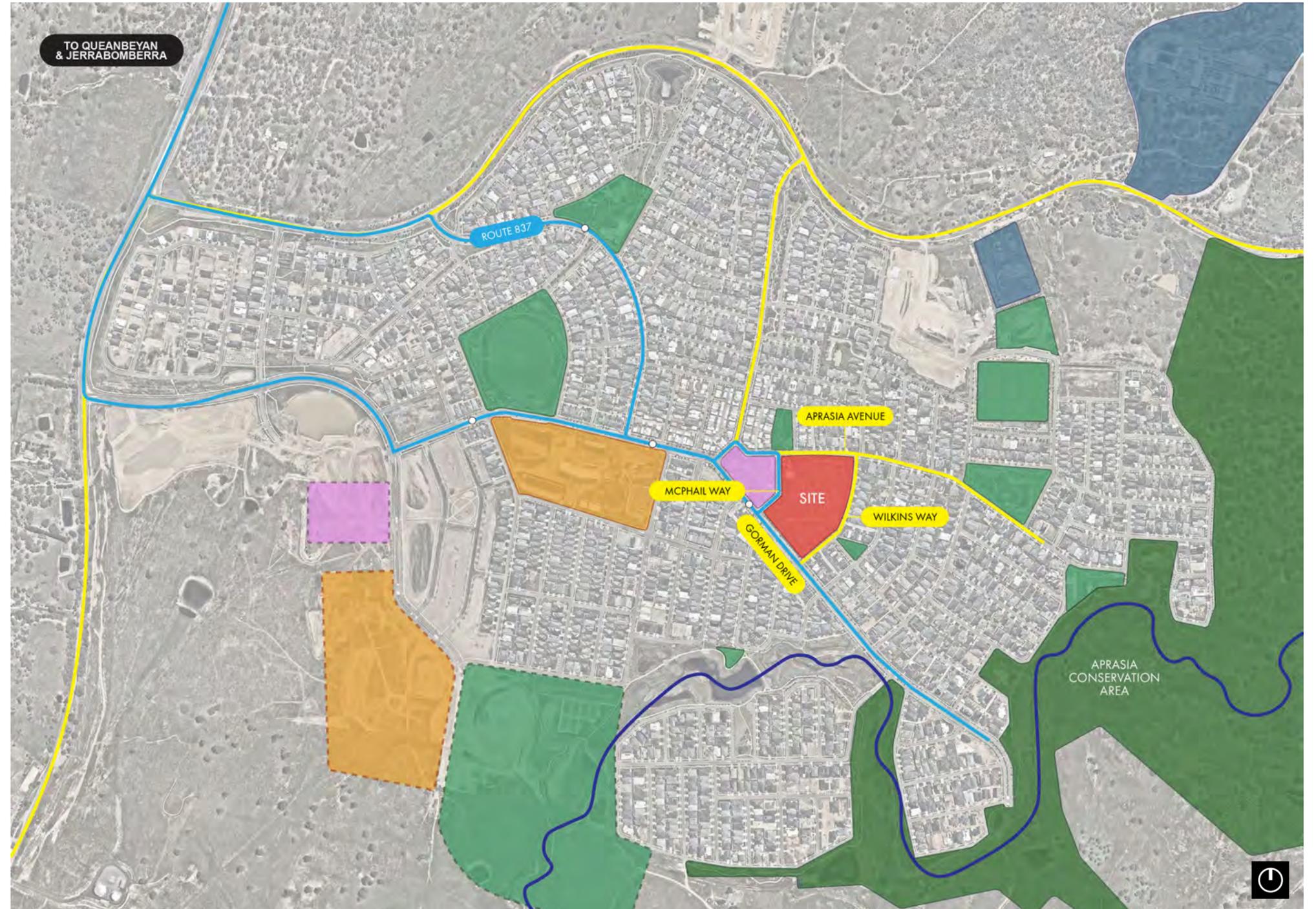
Googong is a town located 25 minutes south-east of Canberra, within the Queanbeyan-Palerang Regional Council local government area.

The new primary school at Googong (Lot 3, DP 1179941) is a 2.81 hectare site located adjacent to the Googong North Town Centre on Gorman Drive, Googong, 2562, NSW. The site is bounded by Aprasia Avenue north; Wilkins Way east; Gorman Drive south; and McPhail Way west.

The site survey information has been provided by Steger & Associates (see DWG:20011\_001).

#### Legend

Subject Site	
Town Centres	
Proposed Town Centres	
Surrounding Schools	
Proposed Schools	
Recreation/Open Space	
Proposed Recreation	
Services Infrastructure	
Main Roads	
Bus Route	
Water Course	



## 2 SITE ANALYSIS

### LOCATION AND CONTEXT

#### TOWN CENTRES

1. Googong North Village Centre & Hope Christian Church
2. Proposed Town Centre

#### SCHOOLS AND EDUCATIONAL FACILITIES

3. The Anglican School Googong
4. Proposed K-12 Public School

#### SPORTS, RECREATION AND NEARBY OPEN SPACE

5. Lovegrove Park
6. Hopper Park
7. Googong Community Garden
8. Rockley Oval
9. Club Googong Gym and Pool
10. Barkley Dog Park
11. Duncan Fields
12. Aprasia Park
13. Yerradhang Nguru - Gumnut Playground
14. Proposed Indoor Sports Centre

#### SERVICES INFRASTRUCTURE

15. Googong Water Treatment Plant
16. Water Recycling Plant

#### Legend

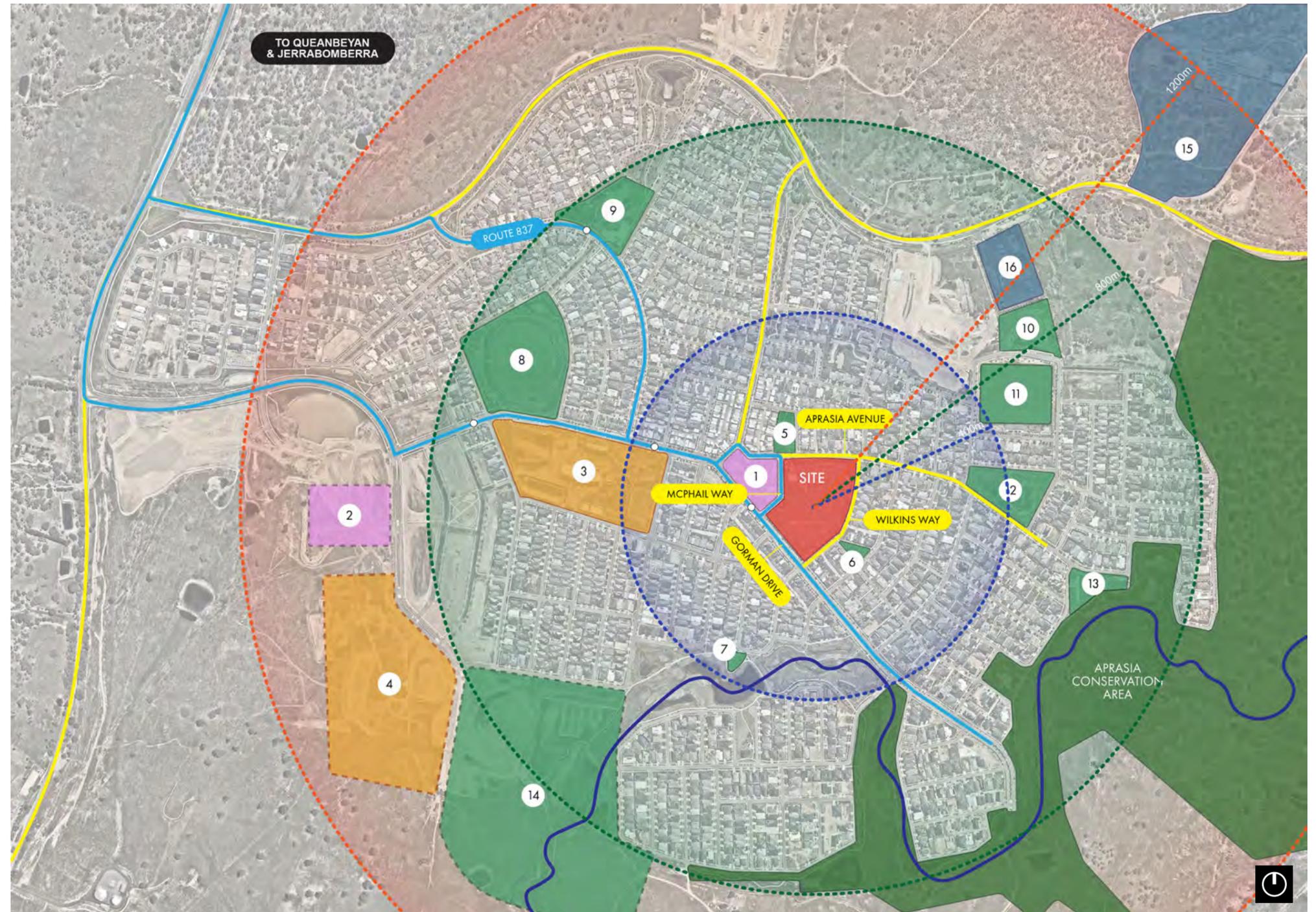
Walking Distance Radius 400m



Walking Distance Radius 800m



Walking Distance Radius 1200m



## 2 SITE ANALYSIS

### SITE ANALYSIS PLAN

The existing site is predominantly grassland, with the exception of a substation located on the north-western corner. The high point on the site towards its centre, affording north, east, and southern views from the site to the surrounding hills and valleys.

#### Legend

Subject Site	
Open Recreation	
Carparking	
Cycle Way	
Bus Bay	
Existing Substation	
Surrounding Streets	
Privacy Concerns (Overlooking/Noise)	
Desirable Views	
Roads	

Note: Entirety of area shown is zoned R1 - Residential.



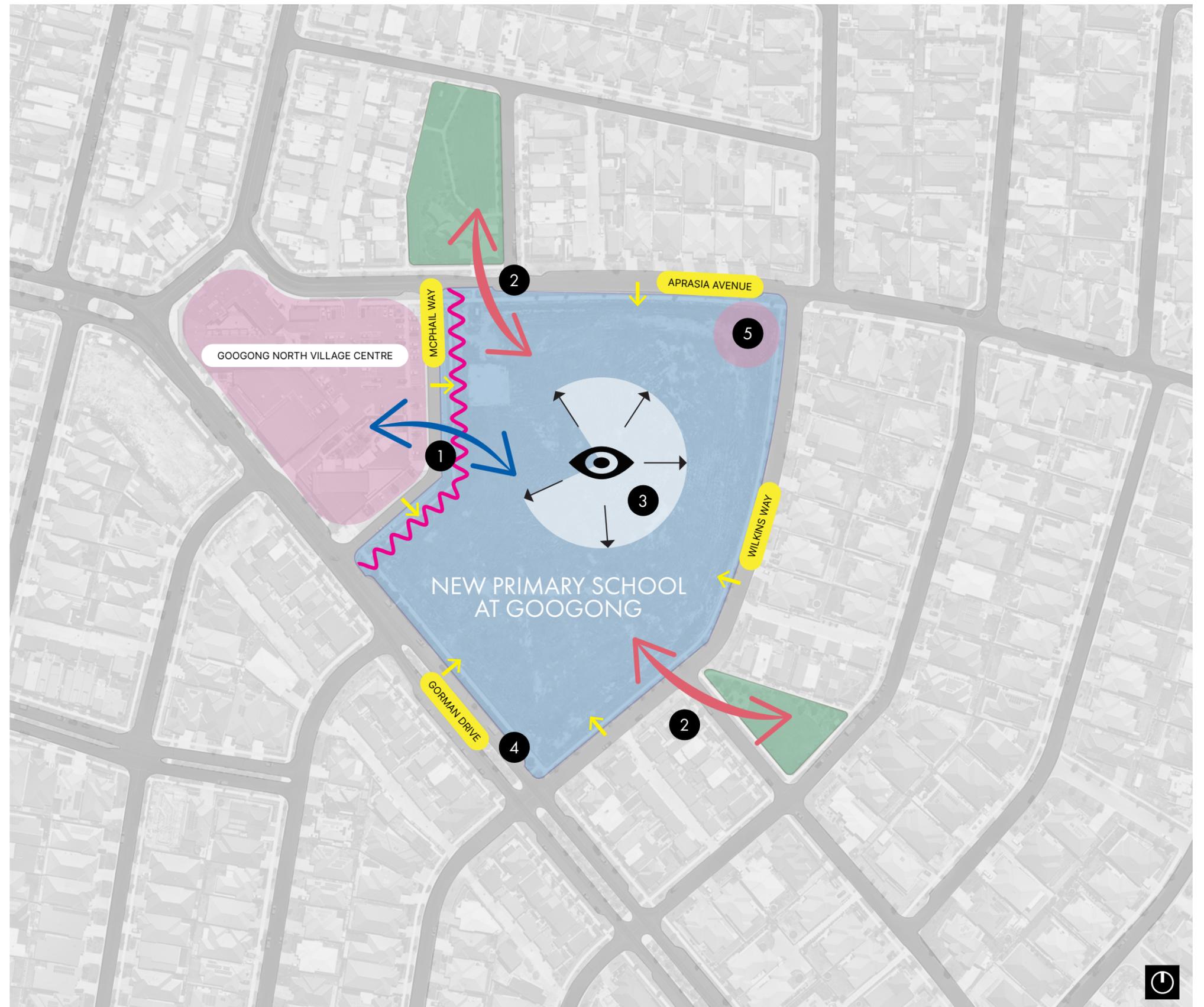
## 2 SITE ANALYSIS

### OPPORTUNITIES

1. Connection with Googong North Village Centre community hub.
2. Connection to green spaces and community recreation.
3. Expansive open site with good views to ranges beyond.
4. The site is large, landscaped and has good address to the primary road, Gorman Drive.
  - Access into the site from all site boundaries.
  - Low Rise: The site is surrounded by two storey residential and commercial developments. The site is not over shadowed and views are not obstructed.
  - The site has good unobstructed solar access.

### CONSTRAINTS

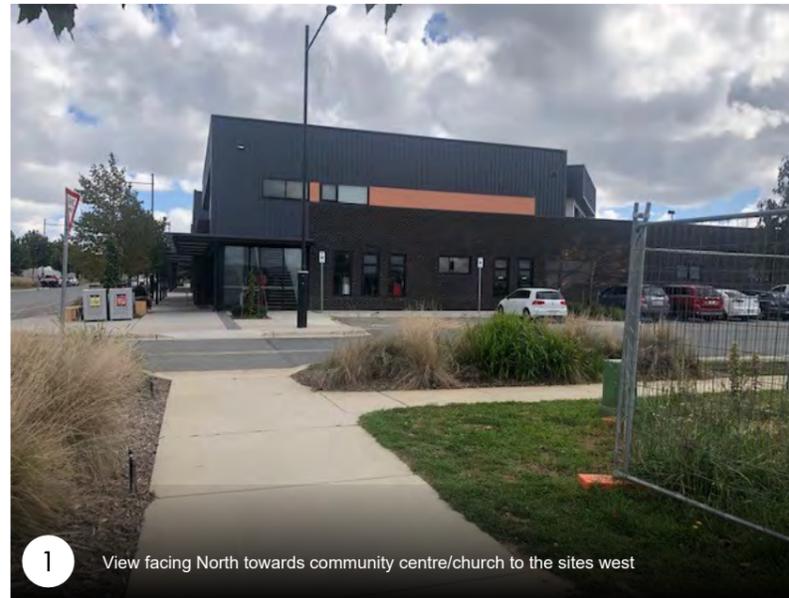
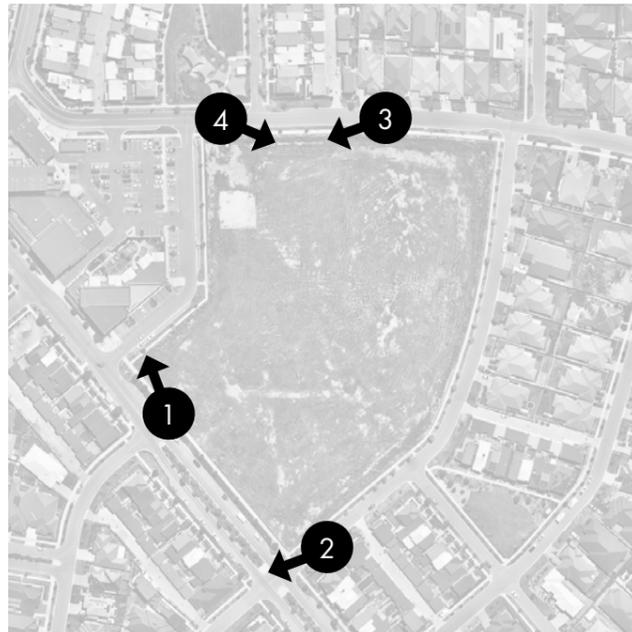
1. Privacy and traffic constraint on McPhail Way, due to the commercial development to the north-west.
5. Low site point on the corner of Aprasia Avenue and Wilkins Way.



## 2 SITE ANALYSIS

### SITE PHOTOGRAPHS

The site photographs were taken by Pedavoli Architects during a site visit on the 23rd of March 2021.



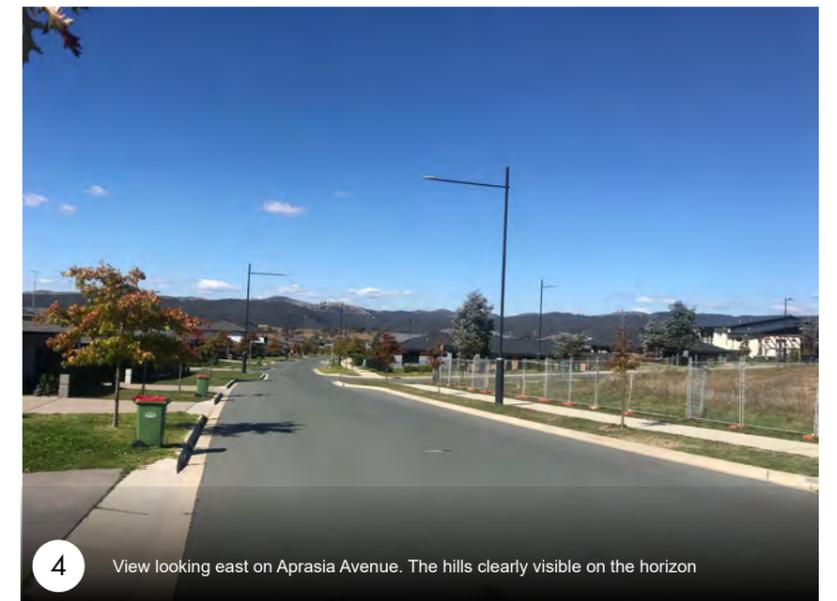
1 View facing North towards community centre/church to the sites west



2 View facing South across Gorman Drive.



3 View facing Googong North Village Centre



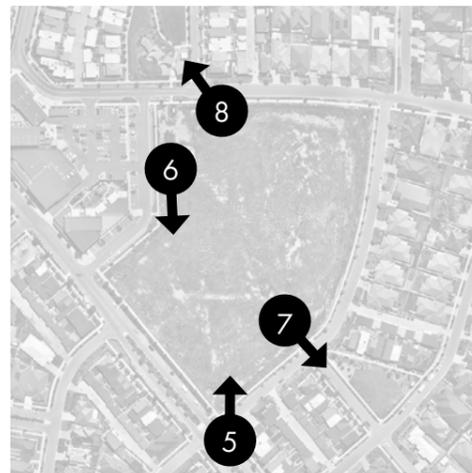
4 View looking east on Aprasia Avenue. The hills clearly visible on the horizon

## 2 SITE ANALYSIS

### SITE PHOTOGRAPHS

The surrounding built context is one and two storey residential along Aprasia Avenue, Wilkins Way, and Gorman Drive. McPhail Way to the site's east provides access to Googong North Village Centre. The village centre includes a community centre; childcare centre; church; IGA store; a gym; and several cafes/restaurants. The primary road the site addresses is Gorman Drive, which bisects Googong Village east-west. Gorman Drive has pedestrian pathways on both sides and offers traffic islands at the intersections with perpendicular roads. The three other roads all have pedestrian pathways on the sites side of the road, which connect in with pedestrian pathways into the surrounding residential area. Two parks are located adjacent to the site, Lovegrove Park on Aprasia Avenue and Hopper Park on Wilkins way.

The site photographs were taken by Pedavoli Architects during a site visit on the 23rd of March 2021.



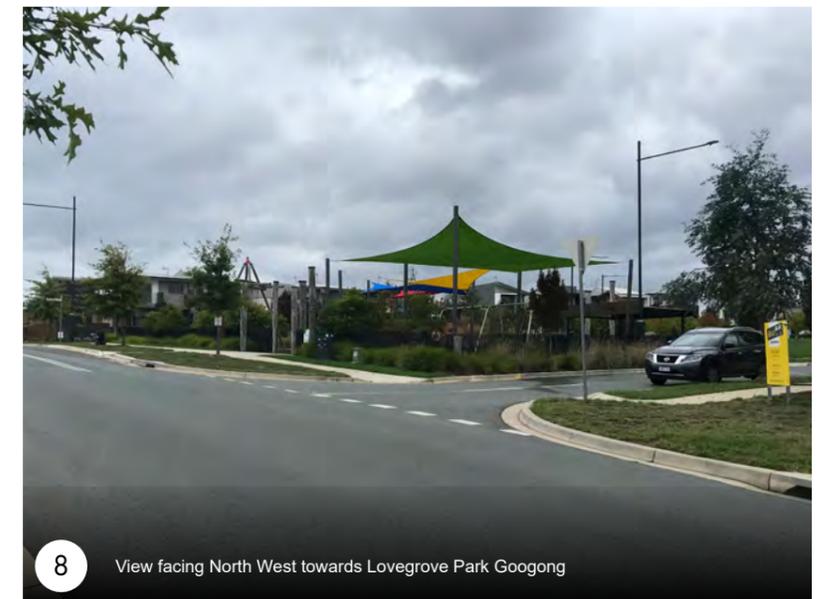
5 View facing North towards Gorman Dr and Wilkins Way



6 View facing South along McPhail Way



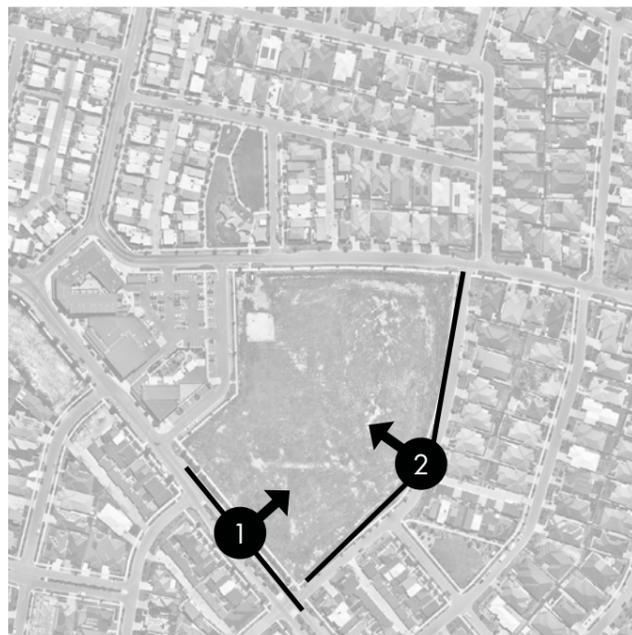
7 View facing South East towards Percival Road



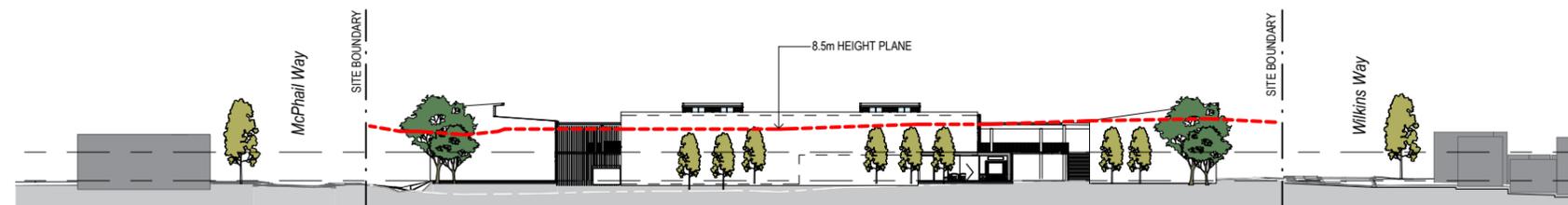
8 View facing North West towards Lovegrove Park Googong

## 2 SITE ANALYSIS

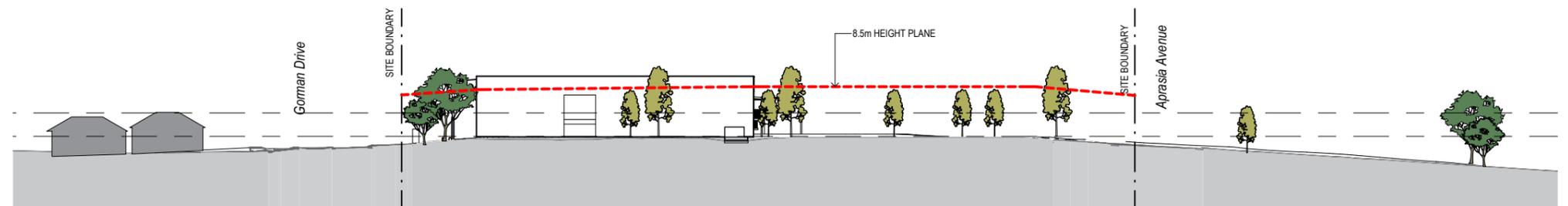
### SITE SECTIONS



SITE PLAN: KEY



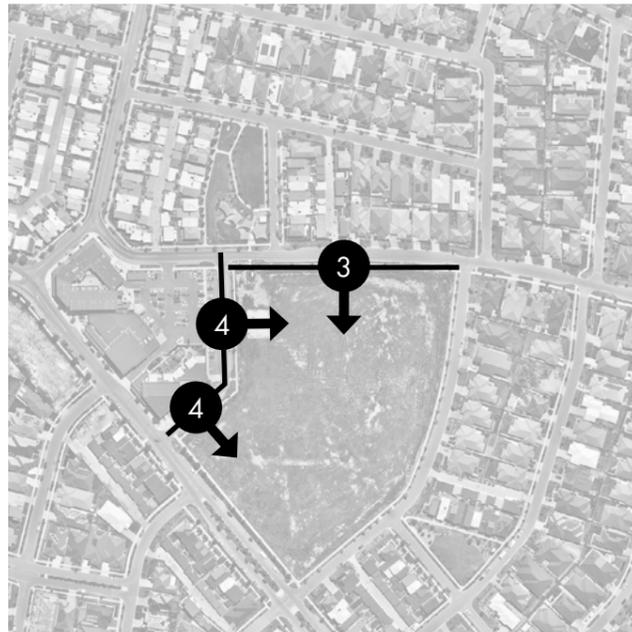
1. South-West Section : Gorman Drive



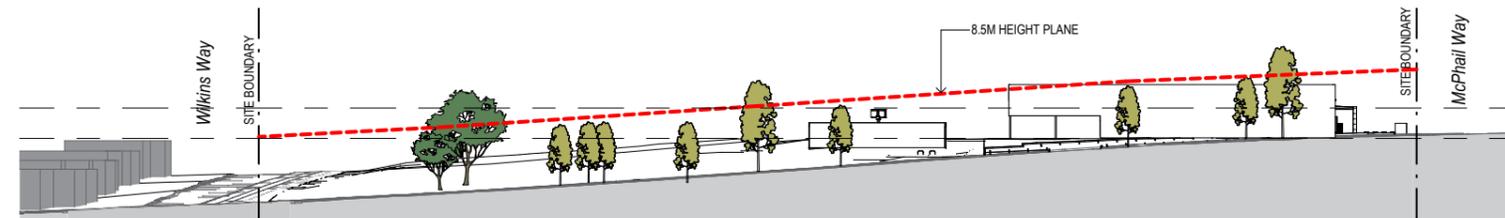
2. South-East Section : Wilkins Way

## 2 SITE ANALYSIS

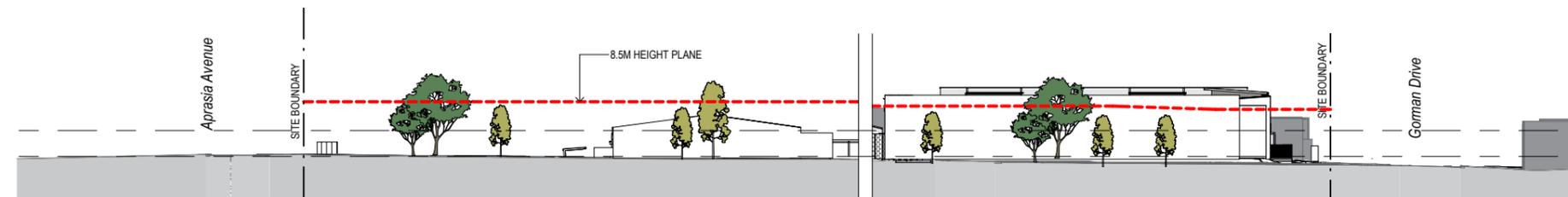
### SITE SECTIONS



SITE PLAN: KEY



3. North-East Section : Aprasia Avenue



4. North-West Section : McPhail Way

# 3 KEY CONSULTATIONS

## STAKEHOLDERS

### Project Reference Group (PRG)

Meetings have been held on the 17th of December 2020; the 21st of March 2021; and 21st of April 2021. In these meetings the project was presented to date and feedback was recorded for discussion with the project team for implementation into the proposed design.

### Queanbeyan-Palerang Regional Council / TfNSW

The minutes from the meeting between Queanbeyan-Palerang Council, SINSW, TfNSW and Savills on the 18th of January 2021 and the 15th of March 2021 have been read and all comments noted for consideration during the design development. Of note:

- Ason Group (traffic consultants) in their School Transport Plan submitted as a part of this SSDA submission have responded to the traffic comments noted by council.

### SDRP

A presentation to the State Design Review Panel occurred on the 28 April 2021. Their feedback and our responses are outlined in Section 7 (Design Verification) within this report.

### SINSW Technical Stakeholders (TSG)

Technical stakeholder meetings have taken place throughout the current phase of work ensuring the project development is considering the operational factors. The feedback from the TSG will be continually implemented into the design as it progresses.

## CONNECTING TO COUNTRY

### Consultation with a Ngambri Elder Woman and a Schools Infrastructure representative (16 April 2021) Key Points:

1. The open site is home to the crow, the eagle and the black cockatoo. The Ngambri Elder Woman hopes the landscape will attract these birds.
2. The school should 'tell the story' of the land and animals and 'make it visible' for all the children to understand their sense of place in the hills and valleys important to the area.
3. The site's context was an important gathering place for trade and ceremonies.
4. The traditional pathways connected food, water, and medicine in the area.

### Consultation with a Ngambri Elder Woman and a Schools Infrastructure representative (21 May 2021) Key Points:

- In this meeting the project team received feedback from the Ngambri Elder Woman and the Schools Infrastructure representative on the conceptual diagrams for the proposed school. The project team was also able to feedback what they had heard in the first meeting to ensure it was correctly captured. Their ideas for the conceptual approach to the school are recorded on the following page.

# 3 DESIGN PRINCIPLES

## CONNECTING TO COUNTRY

### STRATEGY FOR INTEGRATION

Two meetings have occurred on the proposed school site to develop the design of the school with an integrated connecting to country principle.

The first initiation meeting was with the Ngambri Elder Woman and Schools Infrastructure representative on the 16th of April 2021. The second meeting was on the 20th of May 2021 with the same Ngambri Elder woman and an Educational Leadership Queanbeyan Principals Network representative, where the project team was able to show developments in the design process that integrated information from the first meeting and learn further from the Ngambri Elder Woman.

Through the distribution of information that is shared we are able to design across the relevant disciplines (Architecture, Landscape, wayfinding, signage, planning etc). The two diagrams on the following page capture key points the Ngambri Elder Woman raised. Further details of these consultations can be found in the Connecting to Country Appendix.

## STRATEGY FOR DESIGN INTEGRATION

### Key strategic items established through consultation with the Ngambri Elder Woman and Schools Infrastructure representative

1. Site massing considers views and connection with the hills and valleys surrounding the site.
2. Pathways through and to the site connect the school to its context.
3. The site is open to the sky. The return of the natural flora to the site will draw the native fauna back to the site.
4. The architectural landscape design incorporates details from our meetings with the Ngambri Elder Woman.
5. Incorporating Aboriginal local language (Ngambri) into the school. Opportunity for the naming of places within the school by the Ngambri Elder Woman to connect the school to the Aboriginal understanding of the country.
6. Use of Aboriginal cultural references (eg, the totem)

## IMPLEMENTATION OF KEY STRATEGIES

1. Through wayfinding, signage, and functional layouts the school is established as a community hub. If a shared-use agreement is established the hall and carpark and sports courts are co-located to allow for good community address.
2. The site plan considers the address to the neighbouring streets west, south and east of the site orienting the play space and circulation corridors to the northern aspect, framing the hills that lie beyond the village.
3. The landscape design in collaboration with the architectural design proposes pathways that weave into and through the site, connecting the key functional spaces, within the landscape.
4. Through collaboration with the wayfinding, signage, landscape, ESD and architecture the school will educate students in connecting with country,
5. The architectural landscape will implement colour, site planning and landscape to integrate the information we gather through these collaborative processes.
6. Arrange for continued collaboration in the process to ensure that connecting to country occurs not only in the finished design but in the design and construction process (for example, supporting a smoking ceremony on the site before construction where stakeholders and other schools may attend to learn about country).

### 3 DESIGN PRINCIPLES



#### CONNECTION TO THE FAUNA – THE BIRDS IN THE SKY

The Ngambri Elder Woman observed the open space on the site and then looked up to the sky to observe the presence of birds as a connection to native fauna. The birds they referenced for the area were the crow, the eagle, and the black cockatoo. They hope the proposed landscape will bring the birds to the site. Our proposal aims to introduce plant species and groupings of plantings to facilitate the habitation of these birds.

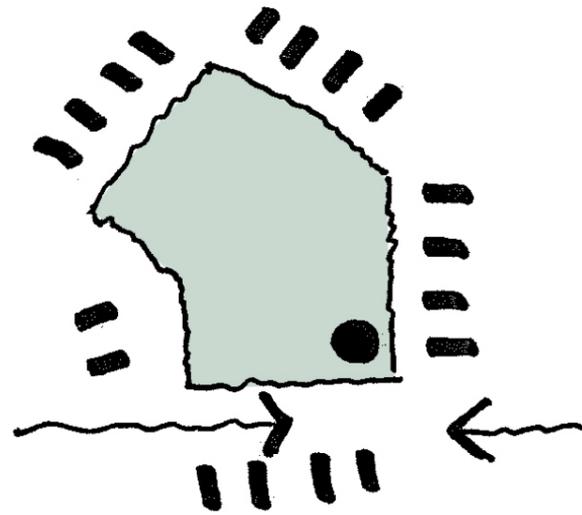


#### CONNECTION TO THE LANDSCAPE – HILLS AND VALLEYS

The Ngambri Elder Woman, when meeting the project team on site, shared about the students who will attend this proposed school, 'growing up with their hills and valleys' that can be seen from the site.

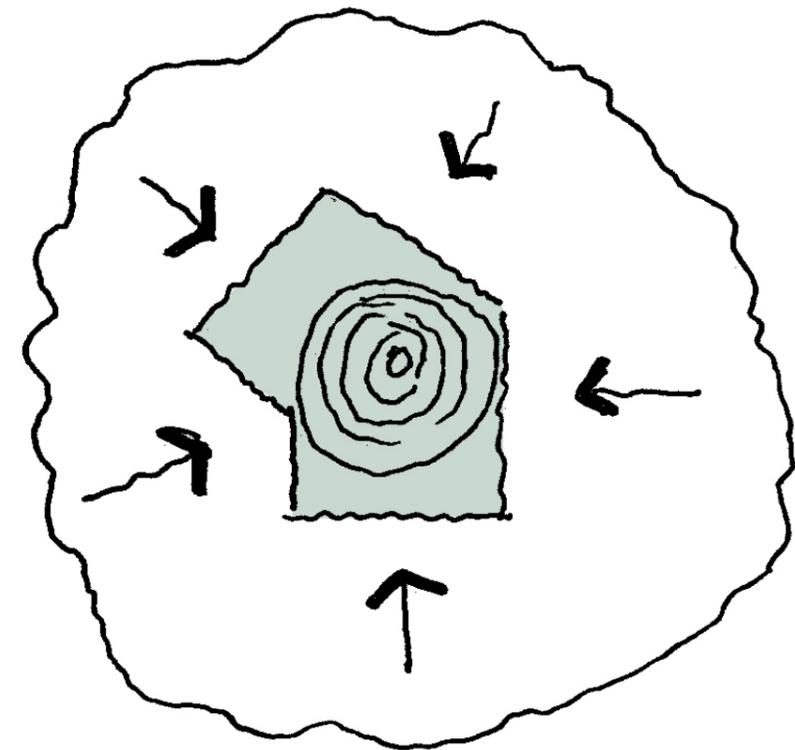
# DESIGN PRINCIPLES

## URBAN DESIGN



### CONNECTING TO CONTEXT

- The built form located and orientated on the site to consider and respond the context (Googong North Village Centre and surrounding residential neighbourhood)
- Built form addresses the streetscape
- The building in the south-eastern corner, containing 2 homebases and the library, has been identified as an urban marker
- Proposed 2 storey scale respects the surrounding 2 storey built form



### CONNECTING TO SITE

- The site has an 'open' curtilage with access available from all boundaries
- The terrain's levels rise up towards the centre, creating a nested zone.
- This creates opportunities for green learning environments, views through and across the site and outwards to the hills.

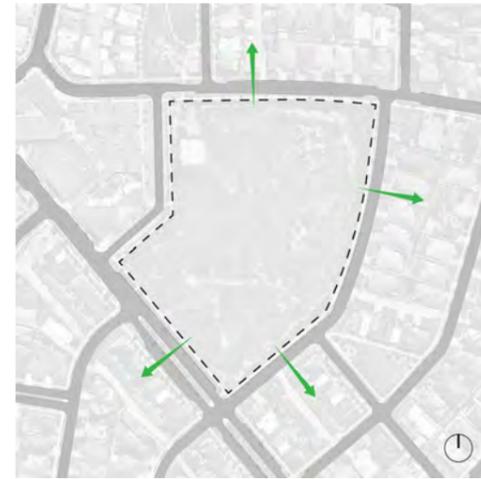
# 4 DESIGN PRINCIPLES



Site absent of existing trees provides the opportunity for new ecology to be established carefully to connect to country and integrate with the built form.



Playspace to be located centrally for child safety, visual and acoustic privacy.



Views out from site that can be captured to the rolling hills. As a way of connecting to country.

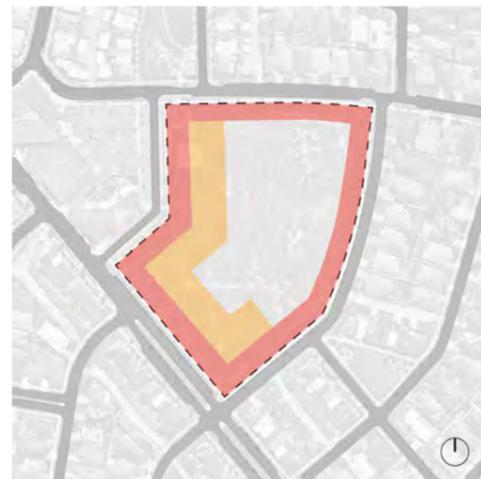


Likely pedestrian access points, adjacent to existing bus zones, the main street Gorman Drive and the Village Centre. This will allow for intergration into the community. Street address to primary road (Gorman Drive) and Googong North Village Centre is important to enhance the centre of the village.

## SITE PLANNING PRINCIPLES

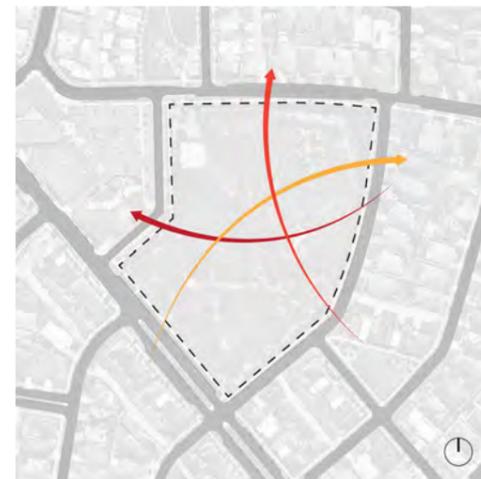


Privacy, acoustics, bulk and scale need to be carefully considered on the two roads addressing low density residential.

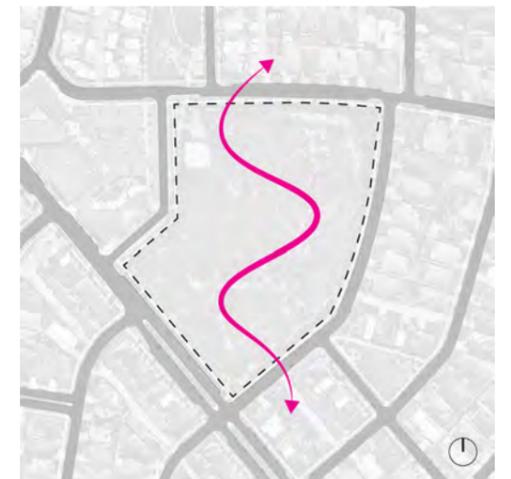


Red = Setback: 3m minimum street setback as per Googong Development Control Plan.

Orange = Bulk and Scale: School Buildings will be at a scale proportionate to the context. Gorman Drive is the primary road for the school, wider than the three other adjacent roads. This wider road provides the residential housing on the south side of Gorman Drive a positive buffer from any proposed built form on the school site.



Googong was a meeting place for many Aboriginal communities who travelled in and out of the area. The layout and landscape is a way of connecting to country.



Googong was also a place many communities travelled through on common paths that connected food and water.

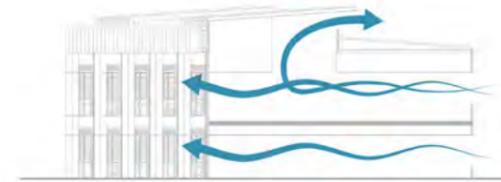
# 4 DESIGN PRINCIPLES

## ESD

The following ESD principles have been developed with Steensen Varming. They outline the ESD principles that have been incorporated into the proposed design.

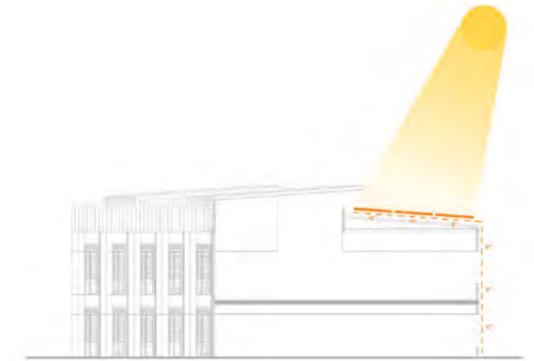
### NATURAL VENTILATION

Natural ventilation, which provides good air quality and passive cooling to be achieved through the integration of operable windows and room layouts that ensure cross flow of air movements in rooms.



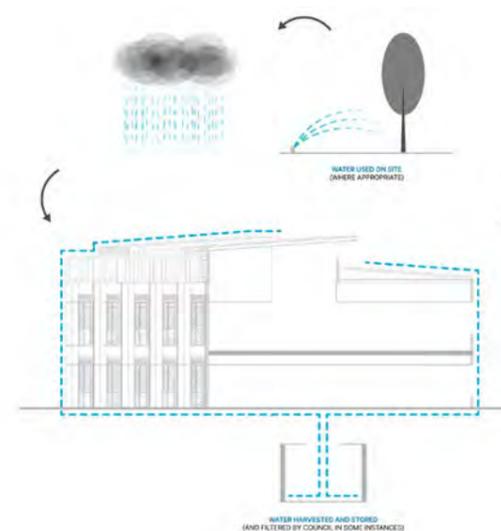
### SOLAR HARVESTING

Installation of solar panels on the roof of the proposed school to supplement power supply.



### WATER HARVESTING

Water sensitive urban design principles are to be adopted, including the capture and reuse of rainwater. Through a stormwater drainage plan, site water will be captured and likely connected into the “purple pipe” network that exists in the Googong Village for treatment and reuse where appropriate. It is still to be determined with council how the water recycling and reuse of water will be connected to the existing system. See hydraulic engineer’s (NDY) documentation for more information.



### REDUCING HEAT ISLAND EFFECT

High solar reflectance index materials; playing court and car park surface; provide vegetation; provide shade with vegetation and external shading elements within the architectural design.



# 4 DESIGN PRINCIPLES

## CRIME PREVENTION

CPTED consists of four (4) universal design principles which are aimed at assessing crime risk and reducing preventable risk before a development is approved. The proposed development has been designed having regard to the CPTED principles.

### TERRITORIAL RE-ENFORCEMENT

The Site has frontage to the public domain on all edges of the site, there is likely to be higher public pedestrian traffic on the western border of the site adjacent to the town centre and carpark. The primary entry is proposed on Gorman Drive, secondary entries are proposed on Wilkins Way and adjacent to the kiss and drop on Aprasia Avenue. The site is to be fenced in accordance with the SINSW security (SSU) requirements therefore delineating ownership and access. The entry points are clearly defined by built form and signage and encourage access to the site through controlled points.

### SURVEILLANCE

The principles relating to surveillance relate to spaces in public areas where people can see and interact with others. The proposal, with its clear circulation paths, promotes strong natural surveillance of both the public domain and the interior of the site. During weekend and after-hours periods, the site will be secured with site fencing and the buildings will be fitted with a Back to Base Alarm System. Further, the external lighting for night-time crime deterrence will be designed to the relevant Australian Standard & SSU requirements.

### ACCESS CONTROL

The proposed development proposes to utilise fencing to all boundaries, with gates to provide access control. Fencing around the boundary of the site will not restrict surveillance opportunities and will be constructed of optically permeable materials in accordance with EFSG.

### SPACE/ACTIVITY MANAGEMENT

The proposed development achieves this through the design of buildings orientated to the exterior of the site and the promotion of interior open spaces protected from the public domain. During school operation, the students will be contained generally to the interior of the site. Graffiti resistant materials will be used wherever practicable to assist in removal.

# DESIGN PRINCIPLES

4

## EXTERNAL LIGHTING STRATEGY

### Key Considerations for External Lighting

AS 4282:

- Light falling on surrounding properties
- The brightness of luminaires in the field of view to nearby residents
- Glare to users of adjacent transport systems
- Effects of astronomical observations

Control of Effects:

- Level of lighting
- Times of operation for proposed lighting
- Type of lighting technology

CPTED:

- Ensuring correct categorisation of areas
- Ensuring robust quality fittings
- Ensuring compatibility with security

### Design Objectives:

The implementation of a new exterior lighting design will be in accordance with the following Australian Standards:

- AS/NZS 1158:2005 Lighting for the roads and public spaces and,
- AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.

The design will consider surrounding properties and residents and work to mitigate the negative effects of this through careful and considered selections of luminaires and control strategies, appropriate lighting levels and lighting locations.

The new exterior lighting system will also consider crime prevention and work to eliminate cause through the implementation of correct lighting categorisations, and a cohesive lighting system with robust luminaires that is compatible with security system requirements.

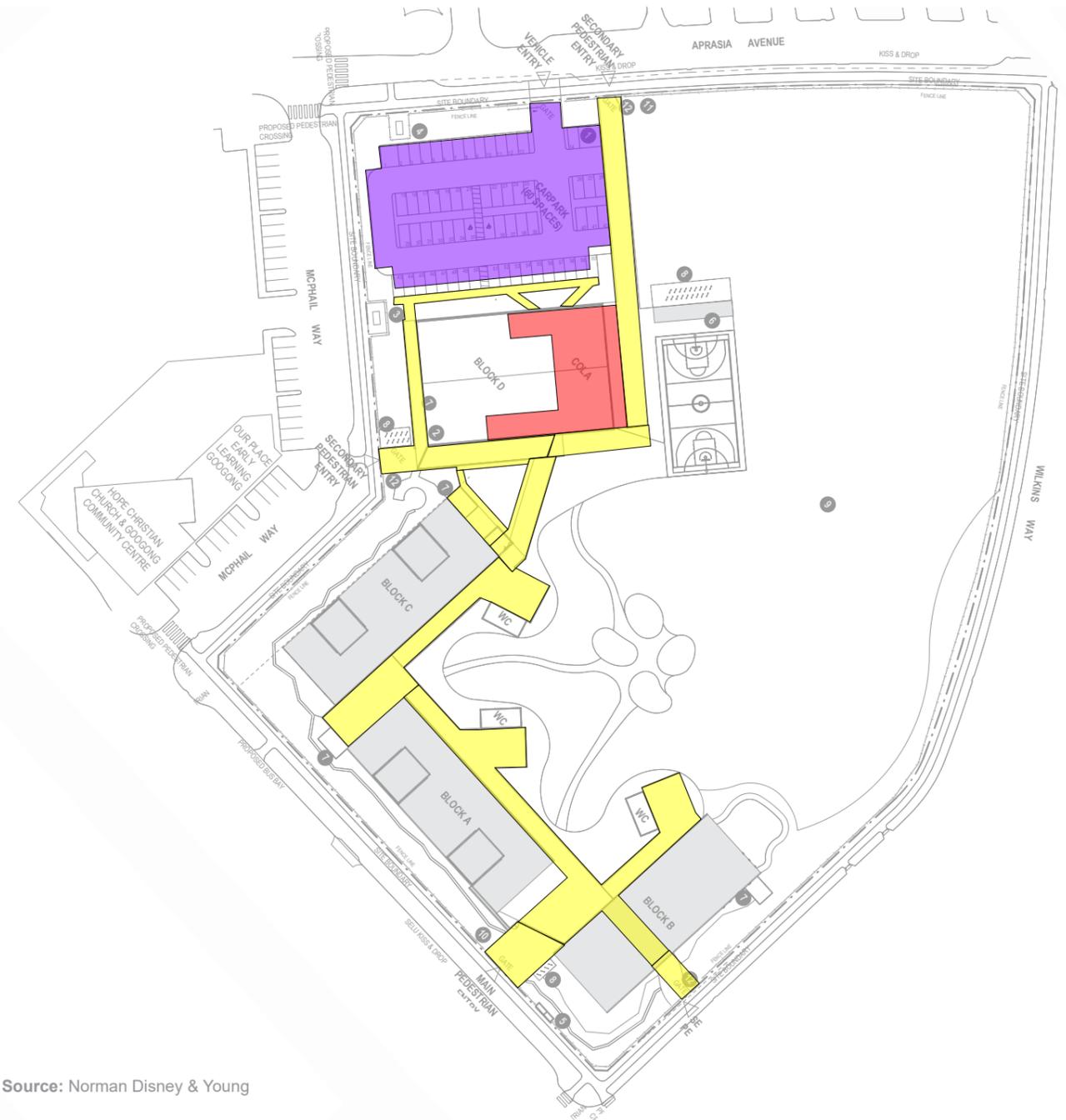
### Legend

Target 80-300

Target PA1, 21 LUX HORIZONTAL (1158.3.1-2020)

Target PCD, 14 LUX HORIZONTAL (1158.3.1-2020)

Target PC3, 3.5 LUX HORIZONTAL (1158.3.1-2020)



Source: Norman Disney & Young

# 5 ARCHITECTURE

## OPTION COMPARISON

The general site arrangement of the proposed concept design is consistent with the proposed site masterplan developed by SHAC architects. The Library (Block B), the Administration and Staff unit (in block A) all required reconfiguration. The homebase designs have also undergone further design development during this phase of work. The overall location of each of these programs has been maintained as per SHAC's design.

The hall and the carpark have undergone some minor changes also. These resulted from design input from the Landscape Architect (Taylor Brammer); the wayfinding strategy (by Working Images); and a review of the passive surveillance across the site.



PREVIOUS SITE PLAN (SHAC)



PROPOSED SITE PLAN

# 5 ARCHITECTURE

## MASTERPLAN

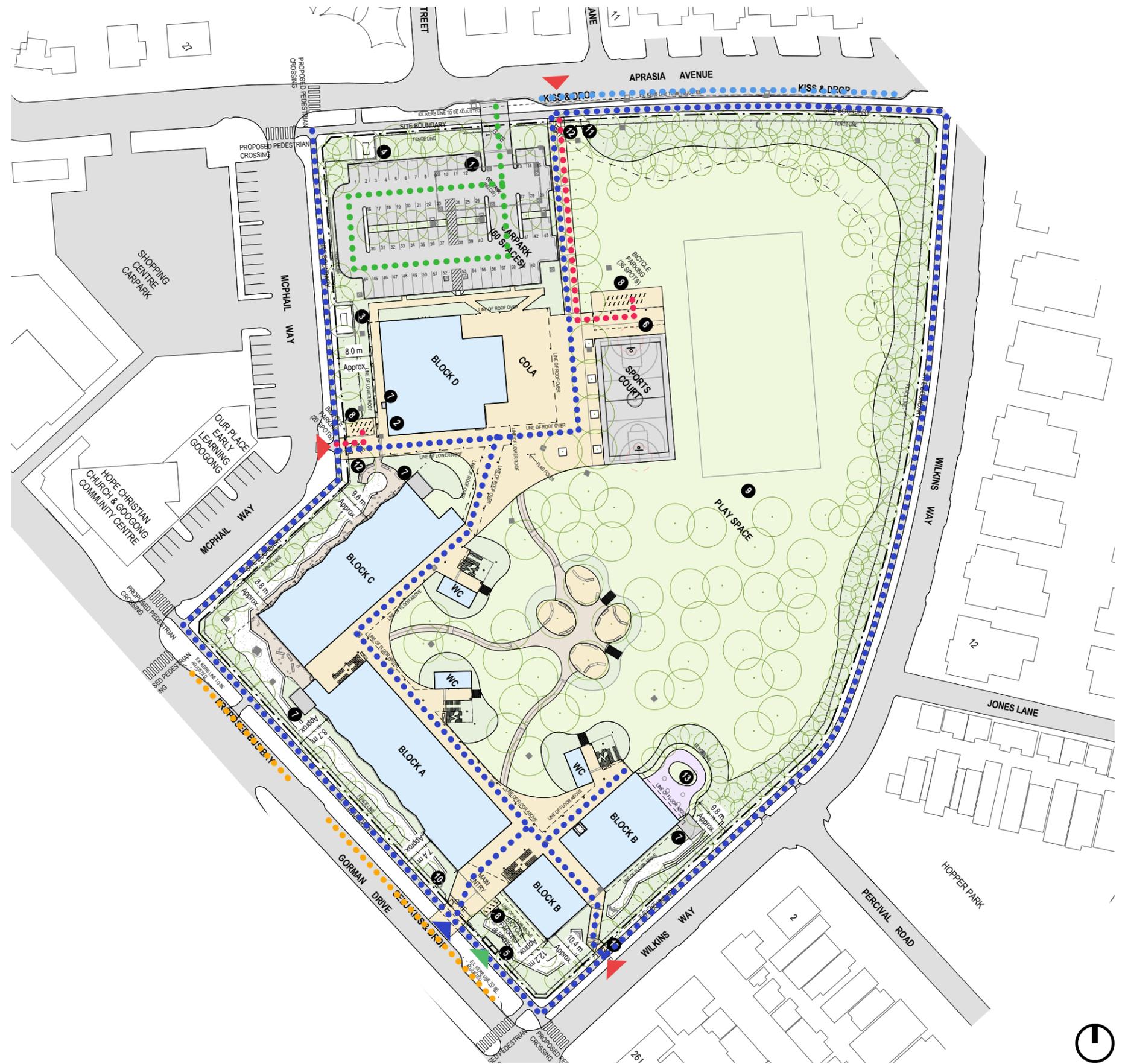
The preferred masterplan has been developed through consultation with the stakeholders.



# 5 ARCHITECTURE

## CIRCULATION DIAGRAM

- Main Entrance ▶
- Secondary Entrance ▶
- Bicycle Access/Storage ▶
- Pedestrian - - - - -
- Bicycle - - - - -
- Vehicular - - - - -
- Bus & Accessible Drop-Off - - - - -
- Kiss and Drop - - - - -



# 5 ARCHITECTURE

## LANDSCAPE MASTERPLAN

The proposed landscape site plan shown on this page forms a part of the documentation submitted by Taylor Brammer. Please refer to the Landscape Report for more information and design rationale. This proposed landscape plan was developed in collaboration with the architectural scope, site narrative, ESD, wayfinding and signage designs.



Source: Taylor Brammer SSDA Report (06.05.21)

## 5 ARCHITECTURE

### DESIGN STATEMENT

The new primary school at Googong is located within the traditional lands of the Ngambri/Ngunnawal People (Currently being confirmed with the AECG). The school is located adjacent to the town centre and low density residential housing.

The site narrative has been developed in collaboration with the local elders and consultant team to bring together the natural environment; surrounding landscape; immediate adjacencies; the Aboriginal knowledge of the area; the topography; and the existing pedestrian and vehicular circulation passages. These elements inform the landscape design, wayfinding approach, the site layout, arrangement of buildings, location of stairs, walkways for views out and the material palette selected for the school. The colour palette for the materials and finishes is inspired by the regional landscape.

The arrangement of the built form on the site addresses McPhail Way from the west; Gorman Drive from the south-west; and Wilkins Road from the south-east. The open play space is bounded by Aprasia Avenue from the north, Wilkins Way to the east and the carpark and Hall (Block D) to the west, is appropriately screened by landscaping at the site boundaries. The main entry of the school is located adjacent to the bus bay and SELU Kiss and Drop on Gorman Drive. This site layout will create a positive streetscape to the addressing streets while screening and protecting the playspace within the perimeter buildings and appropriate landscape buffers.

The built form is positioned, and articulated to respond to the suburban setting, defining the streetscape. The proposed separation between buildings provides cross site views, natural ventilation, and daylighting. The buildings are all connected by a continuous 'U' shaped covered walkway, which the amenities pods and stairs are located off. The walkway creates a clear and easy pedestrian circulation path and affords views out to the hills around the site from level 1, used to connect to the surrounding country.

The Administration/Staff (Block A) and the Library (Block B) buildings are located to the south eastern corner of the site, visually establishing the primary pedestrian entry to the school, which passes in between the two blocks. This visual pedestrian opening in the school and the architectural variation created by the administration and library programs will create the urban marker to the site. The hall (Block D) is located towards the north western corner of the site adjacent to the commercial facilities. This location of Block D also creates easy access from staff parking and surrounding on street public parking for potential shared use opportunities. The spatial arrangement of Block D, the C.O.L.A and Canteen provide a direct connection to the outdoor play space and clear visibility for teacher surveillance. The mechanical plant areas have been appropriately screened and located away from outdoor play spaces.



## 5 ARCHITECTURE

### SITE PLANNING AND MASSING

The predominantly two-storey built form is positioned, and articulated to respond to the suburban setting, defining the streetscape. The buildings are generously setback to allow for landscaping to mediate the public domain and the school's property. The proposed separation between buildings provides cross-site views, natural ventilation, and daylighting. The buildings are all connected by a continuous covered walkway, which the amenities pods and stairs are located off. The classrooms and playspace with this proposed site plan oriented primarily to the north, providing good solar access to classrooms and playspaces.



Refer to Architectural Fence Plan for details on the fenceline that is not displayed in the following visualisations.

## 5 ARCHITECTURE



**North Elevation:** Aprasia Avenue (NTS)

### STREETSCAPE ELEVATIONS

The following streetscapes illustrate the scale of the proposed works within the neighbouring context.



**South Elevation:** Gorman Drive (NTS)



**South-East Elevation:** Wilkins Way (NTS)

# 5 ARCHITECTURE

## STREETSCAPE ELEVATIONS

The following streetscapes illustrate the scale of the proposed works within the neighbouring context.



**South-West Elevation:** McPhail Way (NTS)



**North-West Elevation:** McPhail Way (NTS)



View of internal playspace



View towards the hall from north-west



View of the internal playspace towards the hall



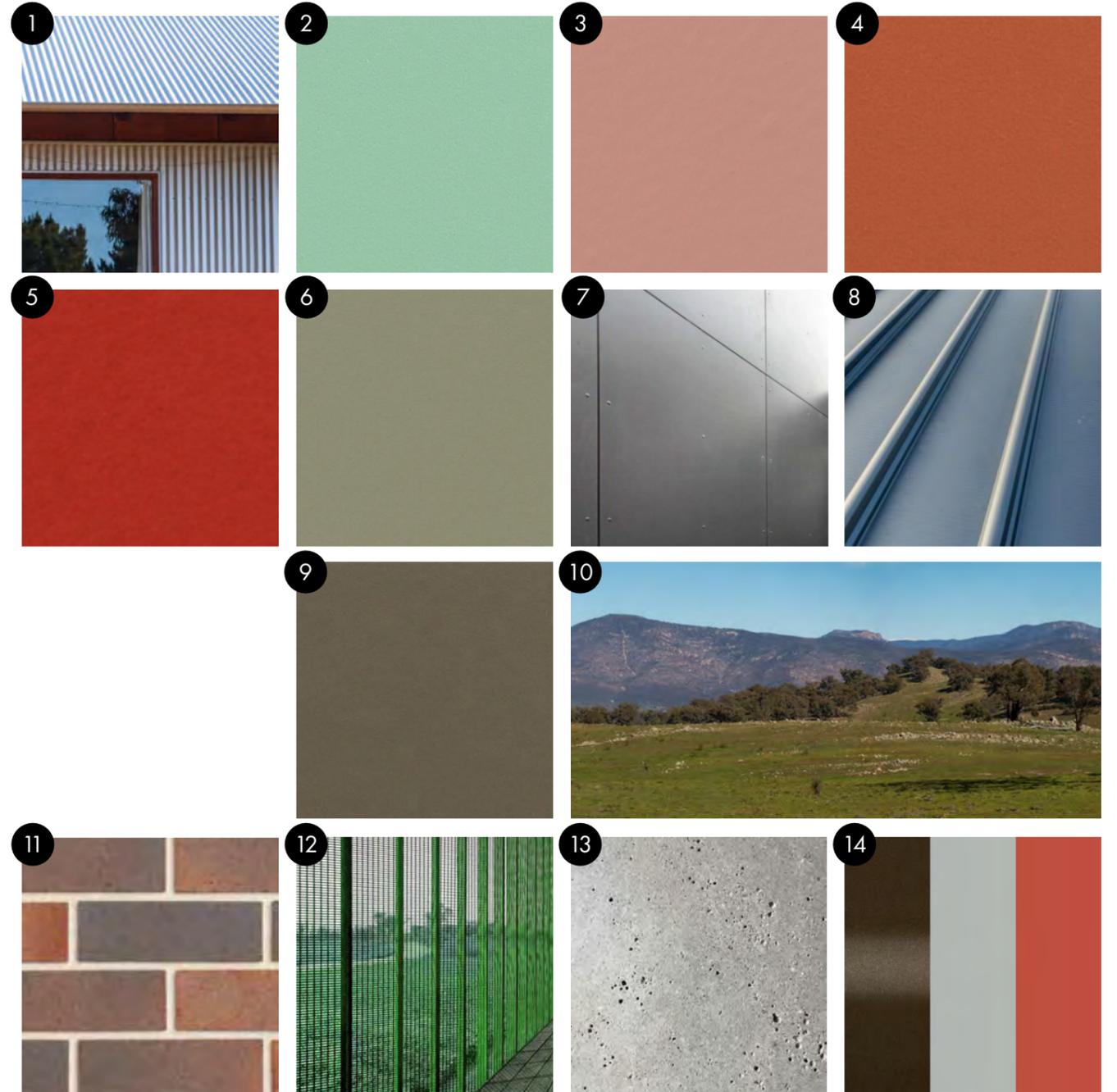
View of internal playspace

# 5 ARCHITECTURE

## MATERIAL PALETTE

The colours and textures in this material palette are desaturated tones, drawing on the inspiring surrounding rolling hills and valleys as discussed with the Ngambri Elder Woman at our site visits (See connecting to country design principles). The palette also looks to integrate with the wayfinding, signage and landscape proposals. In regards to Environmentally Sustainable design, the roof will be light colour to achieve low solar absorbance and materials will be selected that are durable and require low maintenance. Brick has been selected for the hall to respond to the surrounding built context and the earthy tones that are found in the

1. Metal Roof/Wall Cladding - Custom Orb
2. Cladding Accent Colour - Prefinished CFC
3. Cladding Accent Colour - Prefinished CFC
4. Cladding Accent Colour - Prefinished CFC
5. Cladding Accent Colour - Prefinished CFC
6. Cladding Accent Colour - Prefinished CFC
7. Cladding - General - Prefinished CFC
8. Roofing - Colourbond
9. Cladding Accent Colour - Prefinished CFC
10. Locality
11. Dry Pressed Bricks
12. Metal Mesh Screen - Powdercoated
13. In-situ Concrete Paving Colour
14. Sunshade Colour Selection

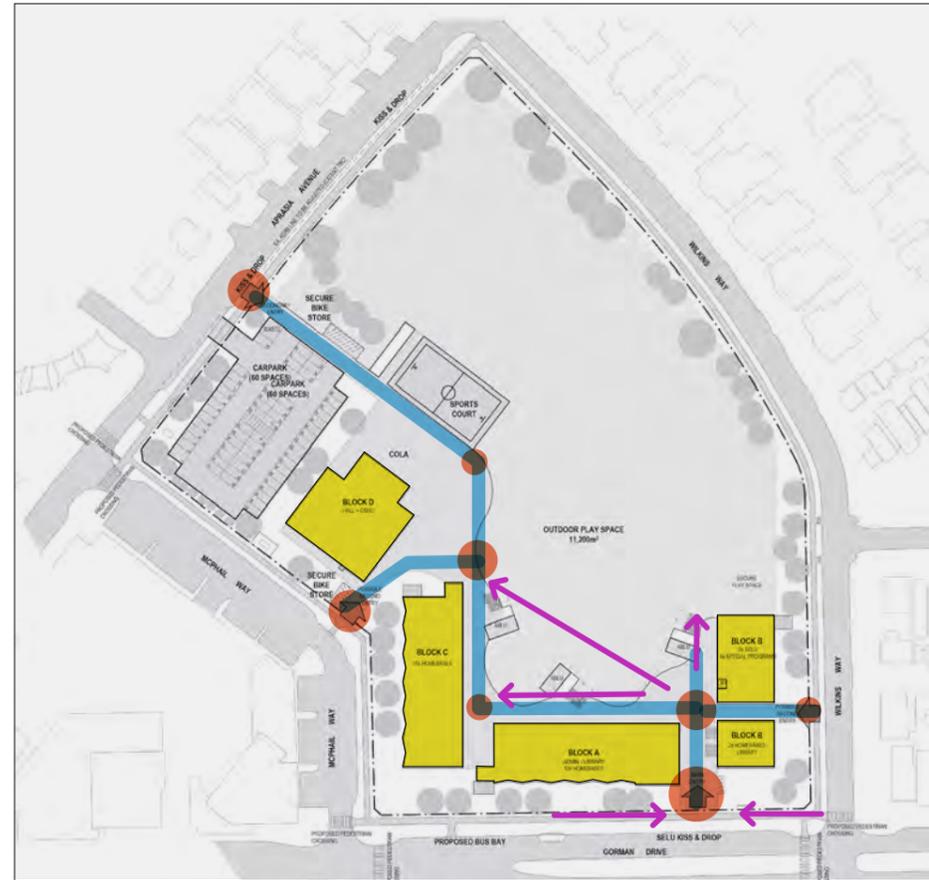


# 5 ARCHITECTURE

## WAYFINDING AND SIGNAGE

The proposed wayfinding and signage strategy by Working Images shown here was developed in collaboration with Pedavoli Architects and Taylor Brammer.

Please see architectural drawing set where the main identification signs are shown for SSDA approval are shown. The wayfinding design and signage strategy are shown here to display the integration of visual communication with the site principles to achieve a holistic site strategy.



Note: site plan is indicative only. Final locations to be confirmed with resolved site plans.

### 1.0 SITE ANALYSIS: Circulation and nodal points

The above diagram identifies **Circulation Pathways**: tracing the movement of users throughout the site, **Nodal points**: highlighting the intersection of circulation pathways and therefore the location of signage forms and according to the scale of the nodal point and the level of information required, **Primary destinations**: which forms the basis for navigation throughout the site and **Primary site lines**: which influences the location of Type 2 Block signage and Entry signage. These four factors will guide the location and development of a signage system.

<span style="color: blue;">■</span>	Circulation pathways
<span style="color: orange;">■</span>	Nodal points: Primary / Secondary / Tertiary
<span style="color: yellow;">■</span>	Primary destinations
<span style="color: purple;">■</span>	Primary site lines

Source: Working Images

## GOOGONG PUBLIC SCHOOL WAYFINDING AND SIGNAGE WAYFINDING STRATEGY

THE STRATEGIES ARE DRAWN IN RESPONSE TO THE SITE NARRATIVE, SITE CONDITIONS AND CONTEMPORARY WAYFINDING PRINCIPLES

TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8
ENTRY BOLLARD	BLOCK SIGNAGE	DIRECTIONAL PLINTH	DIRECTIONAL PLAQUE	DOOR SIGNAGE	FLOOR NUMBERS	SUPER GRAPHICS	IDENTIFICATION SIGNAGE
<b>IDENTIFICATION</b>	<b>IDENTIFICATION</b>	<b>DIRECTIONAL</b>	<b>DIRECTIONAL</b>	<b>IDENTIFICATION</b>	<b>IDENTIFICATION</b>	<b>ARTWORK</b>	<b>IDENTIFICATION</b>
Supports the clear identification and branding of the school at main entry visible on both approaches.	Supports the clear identification and branding of school blocks visible from the central grounds within the school.	Ensures provision of high level information supporting navigation to and from primary destinations within the site.	Ensures provision of detailed information supporting navigation to and from secondary destinations within the site if required.	Signage system that supports the clear identification of classrooms detailing the floor level and room number.	Signage system that supports the clear identification of floor levels in each building adjacent to vertical circulation.	A range of site specific large scale graphics that contribute broadly to the site aesthetics and amenity and specifically to learning and placemaking.	Signage system that supports the clear identification of destinations throughout the site.
2800mm x 600mm x 100mm	800mm x 600mm x 50mm	2200mm x 400mm x 50mm	600mm x 400mm x 50mm	300mm x 250mm	2000mm x 600mm	2700mm x 6000mm	200mm letter height
2 x sided sign form 100mm depth. Panels and graphics to be durable powder coated paint finish. The 2 outer panels have different colours to the front and reverse faces. Dimensioned lettering to the front and reverse sign faces from 10mm aluminium finished in durable powder coated paint finish. Engineering and footing details to be resolved.	1 x sided sign form with graphics to face that may wrap around the corner of a building. Sign face as 3mm aluminium sheet finished with durable powder coated paint finish with concealed fixing to SHS galvanized frame. Dimensioned lettering in 10mm aluminium finished in durable powder coated paint finish.	2 x sided sign form with graphics to front and reverse faces. Sign face as 3mm aluminium sheet finished with durable powder coated paint finish concealed fixed to internal 50mm SHS galvanized frame. Graphics to sign face with clear protective coating over to seal. Directional face to meet EPFG SG-581 minimum size compliance 15mm.	Sign face as 3mm aluminium sheet, finished with durable powder coated paint finish, concealed fixed to internal 50mm SHS galvanized frame. Graphics to sign face with clear protective coating over to seal. Directional face to meet EPFG SG-581 minimum size compliance 15mm.	A Fixed Room Identification as per AMS System and B. Variable Room identification compliant with EPFG SG-581. Sign forms mechanically fixed to wall or glazed surface. Graphics to sign face with clear protective coating over to seal.	1 x sided sign form with graphics to front face only. Letters to be cut from 6mm aluminium, finished with durable powder coated paint finish. Base plate mechanically fixed to wall surface with sign face mechanically fixed to base plate.	Graphic to be digitally printed die sublimation to synthetic wallpaper product such as 3M. Require drops in 1000 or 1500mm width to full heights of walls. Require means to conceal ends of graphics to avoid lifting or picking.	1 x sided sign form. Dimensioned lettering from 10mm aluminium, finished with durable powder coated paint finish, mechanically fixed to wall.

### 1.1 SIGNAGE REQUIREMENTS AND SPECIFICATION: SCALE 1:50

### 1.2 THE WAYFINDING STRATEGY

**PRIMARY OBJECTIVES:** The primary objective for the wayfinding is to facilitate the autonomous navigation and movement throughout the site of a range of users supporting a positive visitor experience.

**USER GROUPS:** The signage will support a range of user groups comprising students, parents, staff and broader community. It is expected that the requirements will be higher for first time visitors to the site and as familiarity increases with subsequent visits the dependence upon information and signage will decrease.

**CIRCULATION AND NODAL POINTS:** A range of circulation pathways are evident within the site typically tracing the movements from a number of entries to a range of key destinations. As the school site contains no through vehicular access the signage will preference pedestrian movement and, where relevant, guide visitors through the site from designated car parks. A high reliance on directional information (to/from destinations) is typical at circulation nodal points which are characterised by: 1. transitions between spaces and zones: ie public/school & internal/external, 2. transition between transport modes: ie vehicular/pedestrian, and 3. at the intersection of circulation pathways. To support good site navigation a range of signage is required that accommodates a range of varying types and scale of information providing clear

identification of destinations throughout the site and the movement between them. Primary site lines are noted in the heart of the school grounds and main entry that will guide location of entry signage and situation of high level block signage.

**INTEGRATED SIGNAGE SUITE:** A draft, functional signage suite is detailed above that responds broadly to the site narrative and to the specific site conditions. The suite consists of a set of scaled forms, categorised as either directional or identification, that respond to the identification and navigation to and from a range of primary and secondary destinations.

**MATERIALS, AESTHETICS AND FORM:** Whilst the design of signage satisfies primarily functional requirements and will preference the autonomous navigation of visitors throughout the site, it is important also that the signage respond to the architectural, material and spatial scale and consider this in its design, materiality and construction. The signage will importantly contribute to the sense of place and strengthen the site narrative.

**BRAND AND SIGNAGE:** A secondary though important function of a signage system is to appropriately brand the site. At a basic level this means the clear representation of the school brand but also to reflect the aspirations, character and positioning of the school through its design. This will be further developed with user groups.

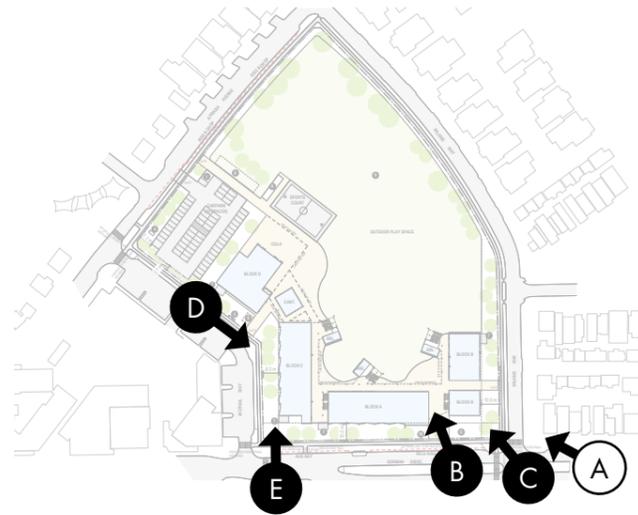
# 6 VISUALISATIONS & STREETSCAPES

## 3D VISUALISATION

The proposed design balances the built form and landscape to create a positive setting that is in keeping with the local context.

The built form is articulated to provide visual relief; clarity to the entry point; proportion; and openings for the necessary passive design principles. The main entry is established on Gorman Drive adjacent to the Administration and Staff Unit providing visitor/student support and the necessary passive surveillance upon arrival. The wide setback between the administration building and the homebase/special programs building on the corner of Gorman Drive and Wilkins Way establishes a visual link between the interior of the school and the public space. This variation from built form to void visually indicates the main entry point and establishes the south eastern corner of the site as the urban marker of the school.

The main entry touch-point is supported further through specific wayfinding designs and landscape design.



# 6 VISUALISATIONS & STREETSAPES

3D VISUALISATION



# DESIGN VERIFICATION

## GFA

### GFA DEFINITION

Gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- The area of a mezzanine.
- Habitable rooms in a basement or an attic.
- Any shop, auditorium, cinema, and the like, in a basement or attic.

### But excludes:

- Any area for common vertical circulation, such as lifts and stairs.
- Any basement, storage, and vehicular access, loading areas, garbage and services.
- Plant rooms, lift towers and other areas used exclusively for mechanical services or ducting.
- Car parking to meet any requirements of the consent authority (including access to that car parking).
- Any space used for the loading or unloading of goods (including access to it). Terraces and balconies with outer walls less than 1.4 metres high, and voids above a floor at the level of a storey or storey above.

**GFA Definition: (LEP)**

Gross Floor Area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes—

(a) the area of a mezzanine, and  
 (b) habitable rooms in a basement or an attic, and  
 (c) any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes—

(d) any area for common vertical circulation, such as lifts and stairs, and  
 (e) any basement—  
 (i) storage, and  
 (ii) vehicular access, loading areas, garbage and services, and  
 (f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and  
 (g) car parking to meet any requirements of the consent authority (including access to that car parking), and  
 (h) any space used for the loading or unloading of goods (including access to it), and  
 (i) terraces and balconies with outer walls less than 1.4 metres high, and  
 (j) voids above a floor at the level of a storey or storey above.

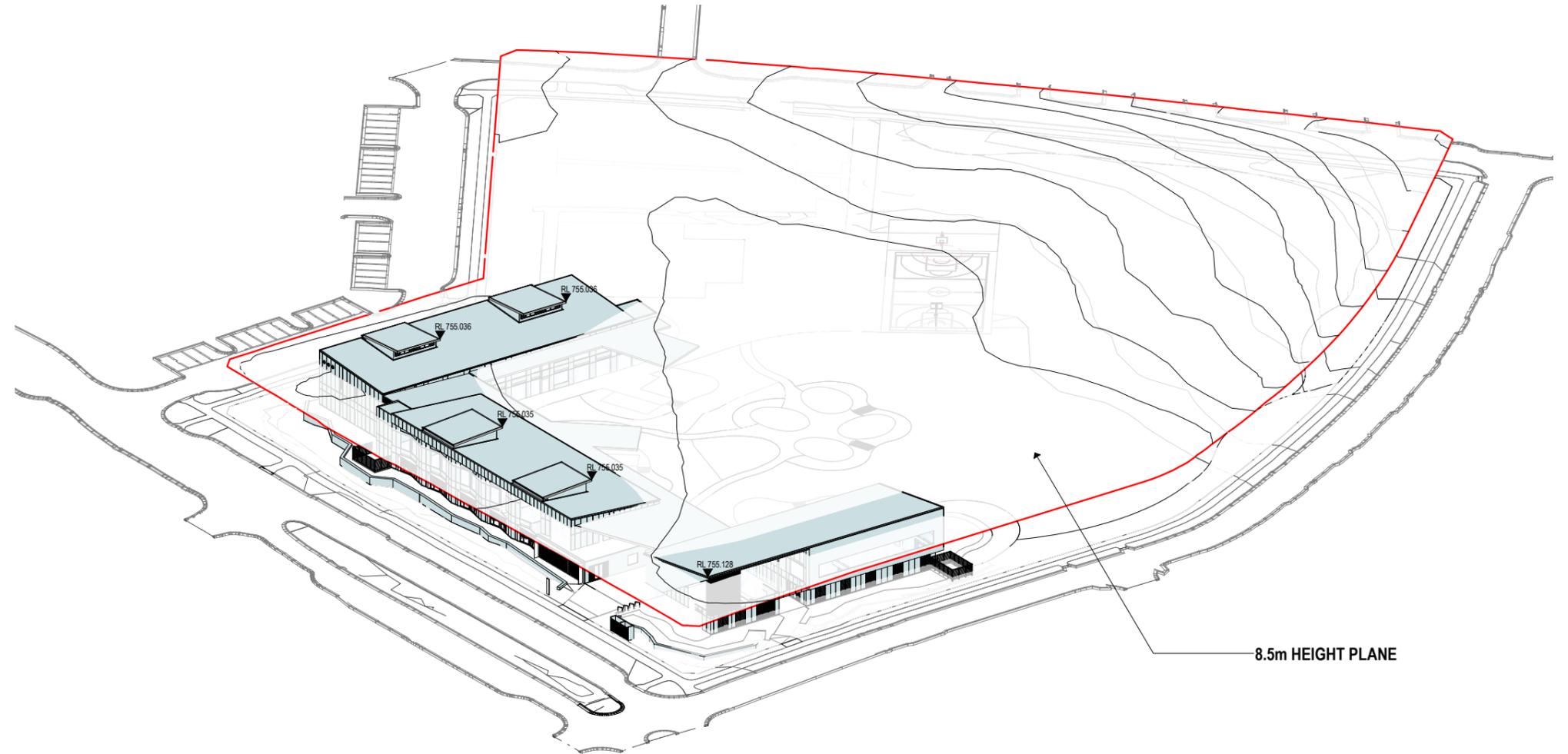
GFA - ABL BLOCKS	
BUILDING / LOCATION	AREA
GFA - ABL BLOCKS - LEVEL 00	105.16 m <sup>2</sup>
GFA - ABL BLOCKS - LEVEL 01	105.38 m <sup>2</sup>
	210.54 m <sup>2</sup>
GFA - BLOCK A	
BUILDING / LOCATION	AREA
GFA - BLOCK A - LEVEL 00	965.77 m <sup>2</sup>
GFA - BLOCK A - LEVEL 01	874.19 m <sup>2</sup>
	1839.96 m <sup>2</sup>
GFA - BLOCK B	
BUILDING / LOCATION	AREA
GFA - BLOCK B - LEVEL 00	603.43 m <sup>2</sup>
GFA - BLOCK B - LEVEL 01	563.71 m <sup>2</sup>
	1167.13 m <sup>2</sup>
GFA - BLOCK C	
BUILDING / LOCATION	AREA
GFA - BLOCK C - LEVEL 00	875.51 m <sup>2</sup>
GFA - BLOCK C - LEVEL 01	875.25 m <sup>2</sup>
	1750.76 m <sup>2</sup>
GFA - BLOCK D	
BUILDING / LOCATION	AREA
GFA - BLOCK D - LEVEL 00	762.11 m <sup>2</sup>
	762.11 m <sup>2</sup>
SITE AREA:	2818.39m <sup>2</sup>
GFA TOTAL:	5787.83m <sup>2</sup>
FLOOR SPACE RATIO:	0.21 : 1



# DESIGN 7 VERIFICATION

## HEIGHT PLANE

The area shown in blue on the height plan diagram on page right indicates the area of the proposed buildings that is over the 8.5 meter height limit. Please refer to Environmental Impact Statement.



HEIGHT PLANE DIAGRAM  
SOURCE: ARCHITECTURAL DOCUMENTATION (NOT TO SCALE)

# 7 DESIGN VERIFICATION

## COUNCIL PLANS AND STRATEGIES

### **Googong Development Control Plan**

The proposed New School at Googong has been reviewed in consideration of *Googong Development Control Plan (2010), Section 5.7 Education Facilities*. Please see the EIS by Mecone for any further details.

### **Queanbeyan-Palerang – Community Strategic Plan (2018-2028)**

The five strategic pillars outlined in the Community Strategic Plan have been reviewed for this proposal. This proposal on both urban design and school design scales is successfully responding to the pillars. Below we have cited a few key points within the strategic plan:

- Pillar 2 (Choice) 2.1.1: This proposal supports the desired outcome of Queanbeyan's village CBD's being dynamic and thriving places.
- Pillar 3 (Character) 3.1.1-3.1.5: This proposal as outlined in the ESD report and the ESD principles highlighted in this report, has integrated sustainable systems into the design.
- Pillar 4 (Connection) 4.1.1 and 4.1.5: Included in this submission is a transport assessment, that outlines the transport recommendations for the school, which respond to discussions that took place with Queanbeyan-Palerang Council.

# 7 DESIGN VERIFICATION

## DESIGN QUALITY PRINCIPLES

### INTRODUCTION

This Architectural Design Analysis Report illustrates and describes the rationale behind the proposed design for the school. We have achieved design quality through site analysis; context analysis; briefing with the PRG and stakeholders; close collaboration with key consultants; and the testing of design options. The following policies and manuals are required to be addressed by the SEARS for the SSDA submission. These policies and manuals have been tested and applied throughout the design process to ensure the most suitable design outcome for the school is achieved for its time and context.

- State Environmental Planning Policy (Educational Establishments and Child Care Facilities (2017)
- Design Guide for Schools (GANSW) – ISSUE 02 PUBLISHED 2018
- Better Placed An integrated design policy of NSW
- Draft Greener Places Design Guide (GANSW) – ISSUE 03 PUBLISHED 2020 (please see Taylor Brammer’s Landscape Report and Documentation for a response to this Guide)
- Environmental Design in Schools Manual (2018) - Please See ESD SSDA Report by Steensen Varming, which responds to this manual for this proposal.

### DESIGN QUALITY PRINCIPLES

Below are our itemised responses to schedule 4 of the Education SEPP (2017) “Design Quality Principles” 1 through 3. These responses also address the Design Guide for Schools (GANSW 2018) “Design Quality Principles”, which are aligned with the Education SEPP.

### PRINCIPLE 1 – CONTEXT, BUILT FORM & LANDSCAPE

*Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites.*

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The design for the new primary school at Googong is based on information drawn from the site analysis and urban design principles described in this report, ensure the project responds to the context and is site and community specific.

The proposed site planning is in keeping with the context through the integration of the following principles.

1. Scale of the build form: the proposed two storey school is in keeping with the height of the neighbouring residential buildings and commercial spaces.
2. The school’s primary address to Gorman Drive, shields the playspace from the busiest road; prevents the school from overshadowing the outdoor playspace; and signifies the school in the village.
3. The location of the hall and carpark are sensitive to the road network and the potential for future shared uses of the hall, field and sports court.

### PRINCIPLE 2 – SUSTAINABLE, EFFICIENT & DURABLE

*Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.*

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The new primary school at Googong has been designed with regard to the principles of environmentally sustainable development. The buildings’ location, orientation, sun shading and passive thermal design elements are the first step to creating a sustainable building solution. This is further enhanced by the inclusion of a water reuse system, solar power and the selection of long lasting, low maintenance materials . The structural system for the buildings is a mixture of concrete frame and steel framing. The benefit of these systems is that the internal walls are non-loading bearing allowing for reconfiguration in the future if deemed necessary. Together with Steensen Varming the buildings have been optimised to facilitate good daylighting and natural ventilation. The ESD report that forms part of this submission, outlines these ideas in more detail including energy conservation,

### PRINCIPLE 3 – ACCESSIBLE & INCLUSIVE

*School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. Note: Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space. Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.*

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The site has been designed to provide an accessible and inclusive ground plane such that buildings are all served by ramps and/or lifts. The design of the open space aims to provide walkway transitions between the various areas. This creates equitable access for all users. The site layout is clear and simple, promoting easy and direct circulation. This will be enhanced by clear wayfinding signage. The signage strategy is included in Section 4 of this report.

# DESIGN 7 VERIFICATION

## DESIGN QUALITY PRINCIPLES

### PRINCIPLE 4 – HEALTH AND SAFETY

Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The design ensures that natural light, ventilation & acoustics create healthy and safe learning/teaching environments. The school site is to be fenced at the boundary as the perimeter security. The landscaping of the site and arrangement of the fence assist in integrating the school into the site and public domain. The primary and secondary entries are clearly visible and are integrated into the sites context.

### PRINCIPLE 5 – AMENITY

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The location and layout of the proposed work was developed in consultation with the Project Reference Group, building on the design work undertaken by the previous project team. The objective is to provide a variety of teaching and learning spaces that have access to natural light and ventilation and have good internal acoustics to facilitate comfortable learning environments. The typical learning clusters contain four homebases, a combined practical activity area with a shared learning common. In addition, a range of outdoor learning and play spaces are provided with the aim to encourage learning from the natural environments and the buildings themselves. The site massing locates the built forms adjacent to the streetscape to maximize the useable play spaces towards the centre and south of the site. This site planning places the buildings as a buffer between the public domain and the students outdoor playspace.

### PRINCIPLE 6 – WHOLE OF LIFE, FLEXIBLE & ADAPTIVE

School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The design of the site is based on the urban design and sustainability principles described in the points above. The key factors that ensure a building can be used well into the future are;

- Long lasting, low maintenance materials to ensure its use stands up to the impacts associated with school buildings.
- Framed construction that allows the internal walls to be reconfigured in the future to adapt to future learning requirements.
- Providing a variety of learning spaces that have good amenity for the students and teachers.

### PRINCIPLE 7 – AESTHETICS

*School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.*

**REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.**

The school is designed to provide an articulated and dynamic built form which contextually responds to site, scale, and massing. The pedestrian entry and urban marker for the site is bounded by Blocks A and B, which create a distinguishable break to the facade indicating it as the access point. The proposed school is two storey with the exception of the hall. It wraps around a central playspace in a 'U' shape form. The open covered connections create visual relief in the façade between buildings, whilst allowing daylight, breezes, and visual connection to exist appropriately between the school and it's surrounding context.

See material palette in this report for the proposed colours and materials for the proposal. A site narrative has been developed through the applied material palette, landscape design, signage and wayfinding strategy to include the local indigenous narrative, history and culture of the traditional Indigenous groups. These themes will be refined further at our next meeting with the relevant Aboriginal community members. The combination of the building forms and the landscape setting will provide a sense of identity for the neighbourhood and wider community.

# 7 DESIGN VERIFICATION

## BETTER PLACED

Below are PA's description of how we have responded to the Better Placed (GANSW) 2.6.1 – Design Objectives For NSW.



### OBJECTIVE 1. BETTER FIT Contextual, local and of it's place

Good design in the built environment is informed by and derived from its location, context and social setting. It is place-based and relevant to and resonant with local character, heritage, and communal aspirations. It also contributes to evolving and future character and setting.

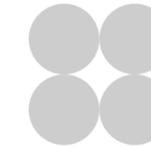
- Our design process as shown in this report includes a detailed site and context analysis with the support of the relevant specialist consultants and stakeholders.
- During the current phase of work the PRG was consulted on the development of the design. The consultation and feedback loop that exists helps ensure that the project continues to be suitable for the local community and their aspirations for the school.
- See Principle 1 - Context, built form and landscape in the response to the ESEPP above for more information.



### OBJECTIVE 2. BETTER PERFORMANCE Sustainable, adaptable, and durable

Environmental sustainability and responsiveness is essential to meet the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, whole of life design.

- This project has been developed with ecological sustainability integrated from first principles including: passive heating and cooling design; flexibility of buildings for future uses; provision for a photovoltaic system on the roof; selection of durable lasting materials; and close collaboration with key consultants including ESD and Landscape.
- See Principle 2 - Sustainable, efficient, and durable in the response to the ESEPP above for more information.



### OBJECTIVE 3. BETTER FOR COMMUNITY Inclusive, connected, and diverse

The design of the built environment must seek to address growing economic and social disparity and inequity, by creating inclusive, welcoming and equitable environments. Incorporating diverse uses, housing types and economic frameworks will support engaging places and resilient communities.

- The location of the proposed buildings was determined considering equitable access to and throughout the site as well as considering community access to the hall and OSHC facilities. The proposed lift access to the second floors of all buildings provide equitable access to all of the necessary spaces for students and teachers.
- The proposed site layout creates a diversity of outdoor environments suitable for different learning and community opportunities.
- The schools primary address is off Gorman Drive with the secondary entry adjacent to the kiss and drop on Aprasia Road. These two entry points establish the school as an accessible place to the community (with in the framework of CPTED and child safety).
- See Principle 3 - Accessible and inclusive and Principle 5 - Amenity in the response to the ESEPP above for more information.

# 7 DESIGN VERIFICATION



## OBJECTIVE 4. BETTER FOR PEOPLE

### Safe, comfortable and liveable

The built environment must be designed for people with a focus on safety, comfort and the basic requirement of using public space. The many aspects of human comfort which affect the usability of a place must be addressed to support good places for people.

- The proposed entries and fencing are integrated with the landscape, creating a school connected to its community while providing the necessary security for the school.
- The main entry passes by the administration unit, which allows for passive surveillance of those entering and exiting the school.
- See CPTED lighting strategy and the Architectural site plan for more information on the fencing and lighting for the school.
- Solar access, natural ventilation and access to landscaped open space has been integrated into the design from first principles providing the students with a quality learning environment.
- See Principle 4 - Health and Safety in the response to the ESEPP above for more information.



## OBJECTIVE 5. BETTER WORKING

### Functional, efficient, and for purpose

Having a considered, tailored response to the program or requirements of a building or place, allows for efficiency and usability with the potential to adapt to change. Buildings and spaces which work well for their proposed use will remain valuable and well-utilised.

- The homebase modules have been arranged spatially in close collaboration with key consultants and stakeholders to establish fit for purpose learning environments that are adaptable to future changes.
- The layouts of the homebases and proposed core facilities consider circulation pathways and the necessary uses of each space to create an efficient functional layout.
- See Principle 6 - Whole of life, flexible and adaptive and Principle 2 - Sustainable, efficient, and durable in the response to the ESEPP above for more information.



## OBJECTIVE 6. BETTER VALUE

### Creating, and adding value

Good design generates ongoing value for people and communities and minimises costs over time. Creating shared value of place in the built environment raises standards and quality of life for users, as well as adding return on investment for industry.

- The flexibility of the homebase module design in planning and structure allows for future education rationales to be implemented into the building fabric without fundamental changes to the schools building footprint.
- The proposed school has been planned to achieve successful integration with the surrounding contexts. The fundamental integration of sustainability and ESD ensures the designs relevance into future of the school.



## OBJECTIVE 7. BETTER LOOK AND FEEL

### Engaging, inviting and attractive

The built environment should be welcoming and aesthetically pleasing, encouraging communities to use and enjoy local places. The feel of a place, and how we use and relate to our environments is dependent upon the aesthetic quality of our places, spaces and buildings. The visual environment should contribute to its surroundings and promote positive engagement.

- The proposed design's two storey scale allows for the school's aesthetic to be significantly shifted by the landscape buffer that exists between the built forms and the boundary.
- What is now a site without good landscape will become a growing library of native flora and fauna. See Taylor Brammers landscape plans for more details on the landscape.
- See Principle 7 - Aesthetics in the response to the ESEPP above for more information.

# 7 DESIGN VERIFICATION

## GANSW RESPONSE

The project team would like to thank the panel for their responses and feedback on the new school at Googong. The status of the project is approaching 50% schematic design, many of the items noted by GANSW will be integrated into the design as we progress.

We note that the panel supports:

- The early engagement with local Aboriginal Groups to inform the masterplan and future design.
- The intention to create a connection with place through framed views, outdoor learning areas and the landscape plan.
- The apex of the site functioning as the main outdoor space, framed by school wings allowing views into the landscape.
- The emphasis and provision of services for active transport with offsite kiss and drop facilities.
- The generous setbacks to the street allowing for street planting with buffer zones and informal gathering at arrival points.
- The location of the main entry on Gorman Drive, and secondary entries on McPhail Way and Aprasia Avenue.

GANSW Comment	Pedavoli Architects' Response
<b>Connecting with Country</b>	
<i>The initial engagement with local community groups has provided valuable and significant input into the design of the masterplan and is commended. This process of engagement with local Aboriginal community members should be extended to include students and teachers who will be the users of the school to ensure there is a culture that supports these design initiatives.</i>	Noted
<i>Develop a strategy for embedding what is learnt, including how to manage knowledge that is shared, how to demonstrate a response to that knowledge through the project and how to 'report back' – a continuing relationship. Refer to the draft framework Connecting with Country on GANSW website.</i>	See Key Consultations on Pg.15 and Design Principle "Connecting to Country" on Pg.16-17 that respond to this item.
<i>It is noted that this site, with its proximity to the Snowy Mountains and the seasonal ceremonial practices that would have happened there, is part of a complex network of people and languages that would have shared this country. This multiplicity is part of the richness of the landscape and as such there are many truths. The Strategy should respond to this and work to incorporate this knowledge.</i>	As the design continues to develop and further consultations take place, we will continue to seek to integrate the multiplicity of narratives that exist in the area into the design. See Key Consultations on Pg.15 and Design Principle "Connecting to Country" on Pg.16-17 that respond to this item.
<i>The naming of the natural features of the site is supported to celebrate the school's identity and provide pedagogical opportunities.</i>	Noted
<i>The function of yarning circles needs to be fully considered and their careful placement in the landscape should support this. The space under a tree or a sheltered clearing could provide a similar function.</i>	See the Landscape Architects report and documentation submitted as a part of the SSDA
<b>Masterplan and Landscape</b>	
<i>Explore the opportunity to re-introduce endangered endemic ecology on the site as way of caring for country. Native grasses could be used to break up the scale of the vast site to the east.</i>	See the Landscape Architects report and documentation submitted as a part of the SSDA
<i>Consider how fauna such as crows, eagles and black cockatoos can be encouraged back to the site with planting or other methods.</i>	See the Landscape Architects report and documentation submitted as a part of the SSDA
<i>Investigate opportunity for proposed deciduous trees to be native species. Consider how shade has been sought and provided for traditionally on the site.</i>	See the Landscape Architects report and documentation submitted as a part of the SSDA
<i>The allowance of areas for structured play and nature play is supported. The main quadrangle should be designed to accommodate different aged student groups, allowing them a sense of ownership over their age-group space.</i>	Noted
<i>Circulation diagrams are required to understand the movement around the campus including the carpark and bicycle parking area. There could be a conflict between the movement of teachers and students arriving by bicycle in peak times.</i>	Please see circulation diagram on Pg.25, which responds to this item

# 7 DESIGN VERIFICATION

## GANSW RESPONSE

<p><i>There is a potential conflict in the movement around the canteen and the hall entry. Reconfigure or indicate on circulation diagrams proposed pathways around these high traffic destinations. Consider how a greater volume draws people into the space.</i></p>	<p>See Architectural Site Plan GOOG-SSDA-001[B], which shows the adjustment in the location of the canteen. See also the circulation diagram on Pg.25. There are multiple proposed access routes between the carpark and the hall to the main circulation spine connecting all buildings.</p>
<p><i>The site sits within the centre of Googong and provides a valuable green resource in this suburban context. Indicate which parts of this green space are available to the greater community.</i></p>	<p>At this point in the project there are no shared use agreements. The design and location of the hall, carpark and the open space has considered the potential for future shared use agreements.</p>
<p><i>The north west corner of the school with its proximity to the village centre suggests a public presence that integrates with the community. Consider how the homebase buildings and setback can respond to this.</i></p>	<p>The direct adjacency to the school on McPhail Way is carparking for the shopping centre. The design has created street address to the road edge. The hall (block D) is located on this edge, acknowledging access from the village centre facilitating the potential for shared use.</p>
<p><i>The building setbacks should respond to the hierarchy and character of each street. These setbacks can be further articulated by defining which edges of the school require a civic presence and which need to be buffered from the street.</i></p>	<p>See Architectural Site Plan GOOG-SSDA-001[A]. This site plan shows a generous setback to Wilkin's way, which has the narrowest road and lowest scale residential adjacent. The northern portion of this road as well as Aprasia Avenue, which also is adjacent to low density residential are designed as the outdoor play space and the school carparking. This provides a positive outlook for the adjacent houses. The main building form addresses Gorman Drive as the school entry and the setback treatment is designed to respond to this address.</p>
<p><i>Provide a clear strategy which outlines how the school facilities will be shared and after-hours access.</i></p>	<p>The school hall and outdoor playing courts/fields have been located in such a way to allow for the potential of future shared uses. Shared use agreements have not been established with the school yet.</p>
<p><i>Indicate the extent of fencing and limit fencing to only where required, using the edge of buildings, landscape elements and low-rise fencing where possible.</i></p>	<p>See architectural fencing plan GOOG-SSDA-005[B] for details. A perimeter fence is required by the school's security unit. The fence line has been articulated where possible to provide landscaping to the road side of the fence.</p>
<p><i>The landscape strategy is well considered and supported providing for a place-based response and the site-specific integration of this modular building. Ensure that this landscape response is not compromised through the cost planning process.</i></p>	<p>Noted</p>
<p><i>Consider increasing planting in the area identified for future expansion of the school.</i></p>	<p>See the Landscape Architects report and documentation submitted as a part of the SSDA</p>
<p><i>Investigate if adjacent car parking can be used to leverage the requirements of parking on this site.</i></p>	<p>Noted</p>
<p><i>Carparking should be considered as part of the landscape with expanses of bitumen to be avoided.</i></p>	<p>See the Landscape Architects report and documentation submitted as a part of the SSDA</p>
<p><i>Clarify the catchment area for students and the associated transport plan.</i></p>	<p>Please see catchment areas and transport plan provided by ASON Group.</p>

# 7 DESIGN VERIFICATION

## CONNECTING TO COUNTRY

The Government Architect NSW “Draft Connecting with Country Framework” (2020) outlines 7 statements of commitment and principles for action. The framework states these 7 statements are, “To help project teams fulfill their commitment to Country” (Draft Connecting with Country Framework 2020 Pg.32).

In our process for this project, we will be guided by this framework. We welcome and invite collaboration with the relevant Indigenous stakeholders in the region who can guide us in the fundamental work of Connecting with Country. Through collaboration we will be able to attend authentically to the “Draft Connecting with Country” Framework in our process on this project.

In parallel to our reaching out for guidance on the Connecting with Country work we have commenced in parallel, a summary of information gathered through desktop online research.

- Basic info (people, clan, boundaries, significant geographies).
  - Proposed theme/idea for the site (in principle).
  - How this process achieves the 7 outcomes from the Draft Connecting to Country 2020 Doc (7 criteria quoted below).
1. We will respect the rights of Aboriginal peoples to Indigenous cultural intellectual property, and we will support the right of Country to be cared for.
  2. We will prioritise Aboriginal people’s relationship to Country, and their cultural protocols, through education and enterprise by and for Aboriginal people.
  3. We will prioritise financial and economic benefits to the Country where we are working, and by extension to the Traditional Custodians of that Country.
  4. We will share tangible and intangible benefits with the Country where we are working and by extension the Traditional Custodians of that County, including current and future generations.
  5. We will respect the diversity of Aboriginal cultures, but we will prioritise the local, place-specific cultural identity of the Country we’re working on. Aboriginal people will determine the representation of their cultural material, customs, and knowledge.
  6. We will prioritise recognition and responsibility of Aboriginal people, supporting capacity building across Aboriginal and non-Aboriginal communities, and across government project teams.
  7. We will support Aboriginal people to continue their practices of managing land, water, and air through their ongoing reciprocal relationships with country.