Gledswood Hills High School

REF Submission:
Architectural Design Statement

9 Gregory Hills Drive,
Gledswood Hills NSW 2557

December 2024

Wianamatta - The Mother Place

Yandhai - walking in past and present

djrd

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Document history, status and distribution

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1	Draft	29/11/24	EF	EF	Ethos, TSA
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DJRD Architects acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country. We pay our respects to the Gadigal people whose land our studio sits on and extend this respect to their families and leaders, Ancestors and Elders. We recognise their continuing connection to land, sea and sky, over many thousands of years and place our trust in their guidance, wisdom and care, as we live and enjoy the gifts they have passed on to us

Contents

List of Consultants

DISCIPLINE	CONSULTANT
Architecture	DJRD Architects
Project Manager	TSA Riley
Town Planner	Ethos Urban
Traffic	SCT Consulting
Geotech / Contamination	Geotechnique
Flood	Site Plus
Aboriginal Heritage	Indigeco
European Heritage	Umwelt (Australia)
Surveyor	SDG
Bushfire	Blackash Bushfire Consulting
BCA / DDA	MBC Group
Acoustic	Acoustic Studio
Hydraulics	Warren Smith Consulting Engineers
Civil & Structure	TTW Engineers
Services & ESD	Steensen Varming Engineering Consultants
Arborist	CPS (Creative Planning Solutions)
Noise & Vibration	NDY (Tetra Tech Company)
Ecology	Travers Consultancy

01

EXECUTIVE SUMMARY

1.1 Introduction

Introduction

This Architectural Design report has been prepared by DJRD Architects on behalf of the NSW Department of Education (DoE) to assess the potential environmental impacts that could arise from the activity of the new Gledswood Hills High School (the Proposal) at 9 Gregory Hills Drive, Gledswood Hills (the site). The works are proposed by the DoE to meet the growth in educational demand in Gregory Hills and Gledswood Hills, and the broader South-West Growth Area.

This report has been prepared to demonstrate that the Architctural design of the proposed activity has been considered and developed to ensure there is minimal impact on the locality, community and/or the environment.

Summary of the Activity

The proposed activity involves the staged construction and operation of a new high school at the site, including:

- A series of school buildings along the Northern, Eastern and Southern site boundaries.
- A school hall.
- An assembly area, sports field and multi sports courts.
- Car parking and a Kiss and Drop zone.
- Associated on and off-site infrastructure to support the school, including a new pedestrian crossing and relocation of the existing bus stop on Gregory Hills Drive to the site frontage.

The Review of Environmental Factors prepared by Ethos Urban provides a full description of the proposed works.

Site Description

The site is located at 9 Gregory Hills Drive, Gledswood Hills, within the Camden Local Government Area (LGA), approximately 60km South-West of the Sydney CBD and approximately 3.5km from Narellan Town Centre. It comprises one lot, legally described as Lot 2 in DP 1262720, that measures approximately 4.15ha in area. The site is bound by Digitaria Drive to the North and Gregory Hills Drive to the South. To the East lies two vacant lots, a childcare centre and a fast food outlet. To the West lies another childcare centre and a vacant lot (which also has approval for a childcare centre).

An aerial image of the site is shown at Figure 1.

Figure 1 (Source: Nearmaps)

1.2 Proposed Activity

Proposed Activity Description

The proposed activity is for the construction and operation of Gledswood Hills High School which is proposed to have a capacity of 1,000 students and 80 staff to meet forecast enrollment demand associated with population growth in Gledswood Hills and Gregory Hills. The school will provide permanent General Learning Spaces (GLS), Support Learning Spaces (SLS), staff facilities and a library across three (3), three storey buildings, a single storey hall, half playing field, three (3) outdoor sport courts, 78 operational at grade parking spaces (including two (2) accessible spaces), 80 bicycle spaces and landscaping.

Figure 2 provides an extract of the proposed site plan.

Scope

Number of buildings	4
Max. height of buildings	3 storeys
Permanent Teaching Space (PTS)	48
Support Teaching Space (STS)	3
Teaching spaces (total includes GLS, Support GLS, specialist GLS)	51
Specialist Teaching Spaces (labs/ workshops/ kitchens)	9 - Science - Health and PE - Performing Arts - Visual Arts - Food Tech
Additional Learning Unit (ALU) Selections	Lecture Theatre VET Kitchen
Hall	Internal Basketball court No stage Canteen Lecture Theatre (ALU)

Figure 2
Proposed Site Plan

1.3 Design Statement

Local Authority: Camden
Aboriginal Country: Dharawal, Gandangara, and Darug

Site Selection

The site is approximately 44km South-West of Sydney CBD in the local government area of the City of Camden the South-West Growth Area of Sydney. An approximately 4.2Ha site has been identified within the Turner Road Precinct bounded by Gregory Hills Drive to the South and Digitaria Drive to the North to serve the highly developed residential suburbs of Gregorgy Hllls and Gledswood Hllls.

Site Constraints

The site has a relatively flat typography and has previoulsy been cleared as part of an intended Concept Approval (DA/2017/45/1) for a mixed-use development comprising bulky goods premises, business premises, food and drink premises, indoor recreation facilities, two hotels and a cinema. It has been determined that the concept approval is not applicable to the subject of this report, and implications for assessment have not been identified.

While the site is relatively flat it has been raised approximately 1.5 - 2m above the surrounding streets as a flood prevention measure. The site is now flood free and above the 1:100 year flood level and PMF.

Design Objectives

The new high school for Gledswood Hills will meet the enrolment demand of the rapidly growing and developing surrounding suburbs. A number of design priorities informed the development of the preferred masterplan including:

- A strong street presence actively contributing to the Public Domain
- Main entries and alternate entries located to prioritise safe transport, green travel and community engagement
- Opportunities for community and shared use maximised through the considered location of the Hall and carparks
- Meaningful Connecting with Country engagement informs the Designing with Country response
- Environmentally Sustainable Design principles embedded within the design

Design Verification

The new Gledswood High School was reviewed by the GANSW State Design Review Panel on 25th September 2024. Both the SDRP comments and DJRD responses can be found in section 7.0 of this report.

Connection

The site is well connected within the existing street network with frontages to both Gregory Hills Drive and Digitaria Drive. The former has an existing bus stop which is proposed to be relocated for improved proximity to the School. Kerbside kiss & drop is proposed on the quieter Digitaria Drive with a new wombat crossing proposed to improve safe crossing for students. Bike parking is located off both Digitaria & Gregory Hills Drives. Cycling is supported with EOT facilities. Vehicle and pedestrian circulation is separated for safety with generous pedestrian entries prioritised within the hierarchies of arrivals and entry sequences. Within the site the relatively flat landscape requires minimal ramping and all buildings are connected at Ground and upper levels with covered external walkways.

Urban Design

Key urban design responses include:

- Proposed built form addresses the main school street frontage to Digitaria Drive with Building A – Staff + Admin – located for clarity of entry and wayfinding.
- Main entry to the site denoted with the public forecourt space with the built form setback in the North-East corner to allowing the former pathway of the creek through the site to be celebrated in the urban and landscape design.
- Proposed setbacks respond to the prevailing surrounding development
- Separation of buildings with external circulation links alleviates the bulk of the built form and provides visual connections into the site
- Street setbacks allow the site level transitions (site has been raised by 1.5 – 2m see Context for further information) to be managed within the landscape design with accessible ramps as well as stairs within the landscape
- Required vehicle access to the site eg. carparking, waste, and deliveries is separated from pedestrian circulation
- Good solar access and clear supervision of outdoor playspaces is prioritised

Built form

- Three-storey built form is efficient and ensures groundplane is returned to playspace
- Generous landscaped setbacks diminish the perceived bulk & scale
- Selection of materials and finishes to provide facade articulation and reduce perceived bulk & scale

Sustainability + Landscape

The new high school for Gledswood Hills will be designed to achieve 5 Star Certification with Green Star Buildings v1 in alignment with NSW GREP 2019. Key measures include:

- Sustainable transport initiatives encouraging walking & cycling with EOT facilities and bike-parking
- Reduce energy consumption and include photovoltaic arrays
- Improve indoor and outdoor comfort
- Heat island effect reduction through tree retention and increased tree planting
- Water-sensitive urban design principles
- Rainwater collection for onsite re-use
- Consideration of climate adaptation and building resilience
- Create new Outdoor learning spaces which are responsive to the building program eg. sensory respite gardens near the Support learning Unit, kitchen gardens near the food tech unit
- Games courts and field near the Hall supported by change rooms and stores
- WSUD and sustainability – rainwater collection, plant species selection, learning opportunities

Amenity - Visual impact, Overshadowing

The design response has been considered to ensure that there are no adverse visual and environmental impacts on adjoining properties see also following sections of this report for further analysis:

5.1 Visual Impact Assessment

5.2 Shadow diagrams

Statement of Environmental Impacts

The proposed activity has been designed to incorporate the required mitigation measures and recommendations part of the REF submission. The proposed design responds to key environmental issues and design principles and is considered not to be a significant impact to urban and site context. This REF report expands further on design responses related to the new High School for Gledswood Hills.

02

CONTEXT & SITE ANALYSIS

2.1 Urban Context - Timeline

The site is 'located within the Wianamatta (South Creek) water catchment on the Cumberland Plain, a low lying and gently undulating subregion of the Sydney Basin. It sits within Country that is an area of intersection of the Dharawal and Dharug peoples and seasonally visited by the Gundungurra peoples. Today Western Sydney is home to Aboriginal people from many Countries, and these contemporary communities have a strong attachment to the Country that they and their families have lived on for multiple generations.'
(Extract from 'A Guide to the South West Growth Area updated Structure Plan DPIE 2022'

early 1800s
These fertile low-lying plains of Western Sydney were highly sought after by the British for pastoral and agricultural use. From 1810, the colonial government 'granted' British citizens land to create a series of large estates along the Old Cow-pastures Road (now Camden Valley Way).

1968
Pastoral & Agricultural Lands

2008
Gregory Hills suburb was assigned in 2008 under Camden LGA

Turner Road Precinct Plan was Approved

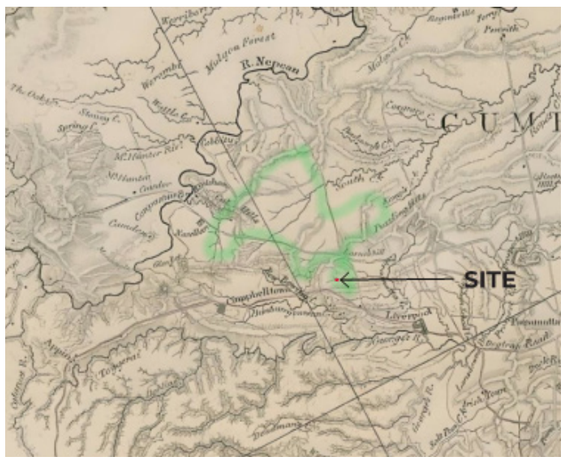
2011
Gledswood Hills suburb was suburb was assigned and was named after the 1830 Gledswood Homestead

2019
Gregory Hills Town Centre officially opens

2023
2023 Plan illustrating urbanisation of Turner Road Precinct within the South Western Growth

2024
Gregory Hills Gledswood High School Project starts

2027
Gledswood Hills HS programmed to open First day Term one 2027



Approx. early 1800's

Historical Map with South West Growth Area shown in Green Source NSW Government State Archives & Records (Extract from 'A Guide to the South West Growth Area DPIE 2022')

1969

2016

2023

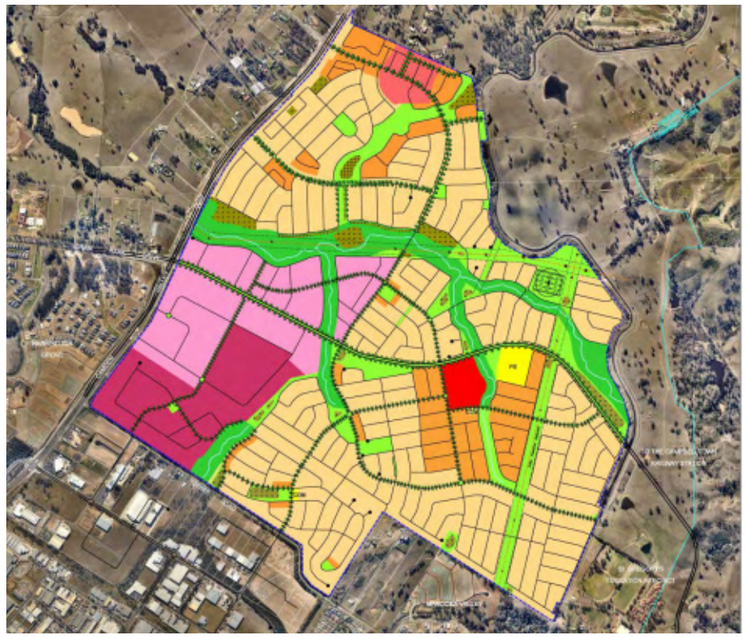
2.2 Urban Context - Greater Site

South-West growth area

The site sits within the Camden LGA in the Southern section of the SouthWest growth area which identifies precincts across Camden, Campbelltown and Liverpool Local Government Areas by the NSW Department of Planning, Housing and Infrastructure (DPHI) for future urban development.

The new greenfield suburbs of Gregory Hills and Gledswood Hills have seen an additional 6,450 dwellings built between 2011 to 2023, with the likelihood of an additional approximately 1,670 dwellings to 2041.

Turner Road Precinct DCP



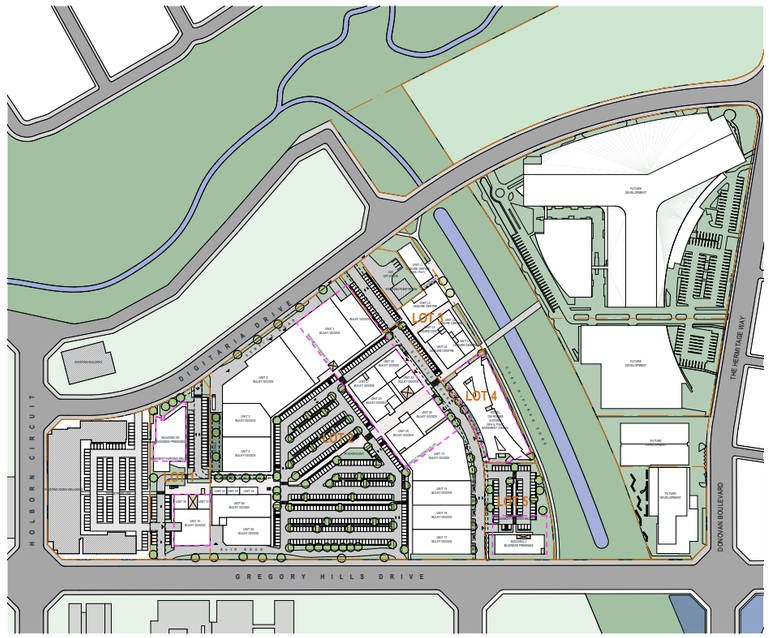
The Turner Road Precinct DCP comprises one of the first land release precincts within the South-West Growth Area and was adopted in 2007 identified as a local growth centre.

The vision for the Turner Road DCP is that it is characterised by high quality urban design, interconnected neighbourhoods, a compatible mix of land uses, local employment opportunities and enhanced natural environmental features. The Precinct will encompass a complete community incorporating live, work and play options.

Housing densities will be higher than those traditionally delivered in Camden with a broad range of dwelling types provided across the precinct with a particular focus on attractive residential streetscapes structured around well connected, walkable neighbourhoods.

The residential dwelling target for the Turner Road Precinct is 4284.

Concept DA



The site is subject to a previous concept Development Approval.
This report has considered the concept approval for the site (DA/2017/45/1) which is for a mixed-use development comprising bulky goods premises, business premises, food and drink premises, indoor recreation facilities, two hotels and a cinema. The concept approval has been modified to include multiple daycare centres including one that is approved but not developed.
The Concept Approval is further addressed in the REF report prepared by Ethos Urban.

2.3 Urban Context - Site

Gledswood Hills is a suburb of the Macarthur Region of Sydney. The suburb name was assigned in 2011 and is named after the 1830 Gledswood Homestead. The selected site is approxinately 4.2Ha and is bounded by Gregory Hills Drive to the South and Digitaria Drive to the North.

A service road forms the Eastern boundary of the site and serves both the school site and commercial properties opposite. There is no prior developed land use; 2009 aerials show the site as cleared agricultural land.

While the site is relatively flat it has been raised approximately 1.5 to 2.0 metres above the surrounding streets as a flood prevention measure. The site is now flood free and above the 1:100 year flood level and PMF. Despite the surrounding development, the Riparian corridor of Wianamatta Creek to the North remains a significant remnant of the original natural context of the site.

The School Catchment includes two suburbs: Gledswood Hills and Gregory Hills as identified below.

SCHOOL CATCHMENT

2.4 Urban Context - Existing Site & Surroundings

The site is surrounded by existing mixed-use developments, including childcare centres, two-three storey health and commercial business hubs along Digitaria Drive. Existing fast food retail is located on the corner of Gregory Hills Drive and the Service road on the opposite South-West corner to the site. A new hotel is planned along the Service road on the Eastern boundary.

The site has views and physical connections to the North and East towards South Creek Riparian Reserve and Riparian Creek Reserves.

1

Digitaria Drive | Two-storey health & business hub

2

Digitaria Drive | Three-storey commercial business hub

3

View towards Gregory Hills Drive

4

View into site from Digitaria Drive

5

Gregory Hills Drive | Neighbouring Fast Food

6

Existing road through site

7

Digitaria Drive | Riparian Creek

8

South Creek Riparian Path

9

South Creek Riparian Path

10

South Creek Riparian Path

11

South Creek Riparian Path

12

South Creek Riparian Path

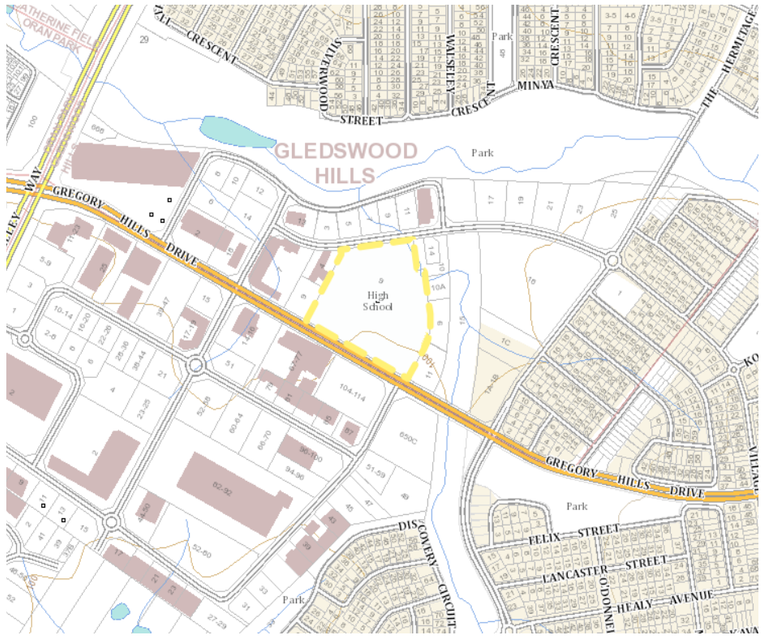
2.5 Statutory Planning Control - Local

Zoning

B5 - Business Development
C1 - National Parks and Nature Reserves
C2 - Environmental Conservation; C2, Environmental Management
C3 - Environmental Management
E4 - General Industrial
E5 - Heavy Industrial
EM - Employment
R1 - General Residential
R2 - Low Density Residential
R3 - Medium Density Residential
R4 High Density Residential
R5 - Large Lot Residential
RE1 - Public Recreation
RE2 - Private Recreation
RO - Regional Open Space
RP - Regional Park
SP2 - Infrastructure
RW - Road and Road Widening
UR - Urban

The site Land Use Zoning indicates B5 Business development. The development of an educational establishment is permitted with consent within this zone.

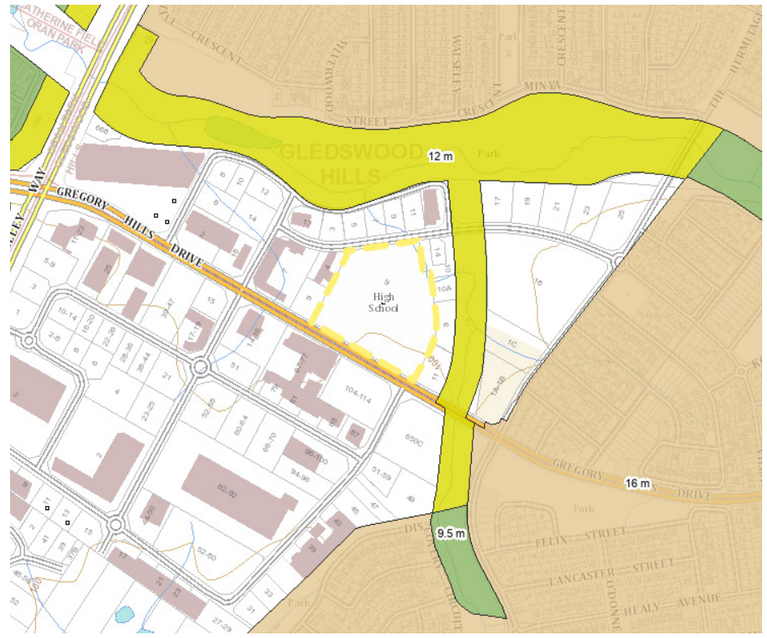
FSR



Additional Controls
Existing
0 - 0.39
0.4 - 0.44
0.45 - 0.49
0.5 - 0.54
0.55 - 0.59
0.85 - 0.89
0.9 - 0.94
0.95 - 0.99
1 - 1.09
1.1 - 1.19
1.2 - 1.29
1.3 - 1.39

Floor Space Ratio: N/A
No floor space ratio is identified in the planning maps for the site.

Building Height



Existing
0 - 3.6 m
3.7 - 4.9 m
5 - 5.4 m
5.5 - 5.9 m
6 - 6.4 m
6.5 - 6.9 m
7 - 7.4 m
7.5 - 7.9 m
8 - 8.9 m
9 - 9.9 m
10 - 10.9 m
11 - 11.9 m
12 - 12.9 m
13 - 14.9 m
15 - 16.9 m
17 - 18.9 m
19 - 20.9 m
21 - 22.9 m
23 - 24.9 m
25 - 29.9 m

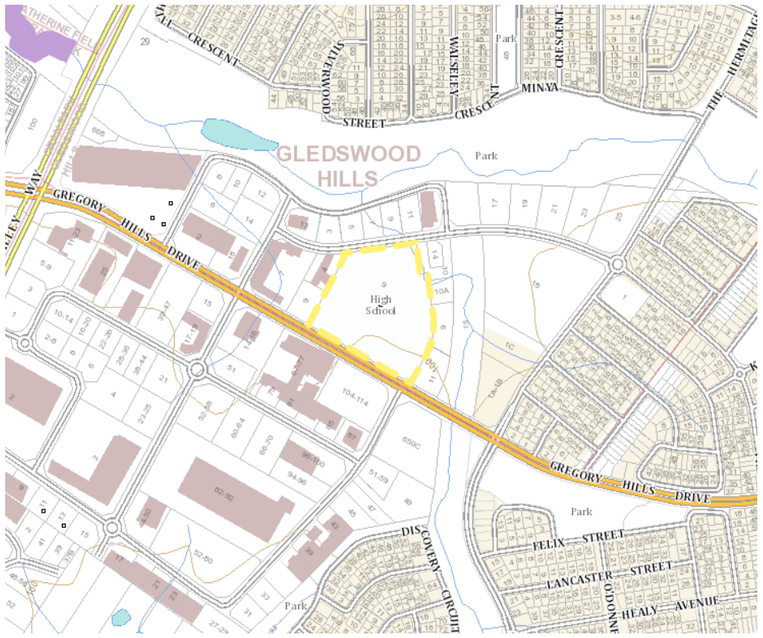
No Building Height is identified in the planning maps for the site.

4 storey maximum height permitted under SEPP, Part 3.4, Section 3.37A (item 2)

Proposed buildings are maximum three-storey

2.5 Statutory Planning Control - Local

Biodiversity

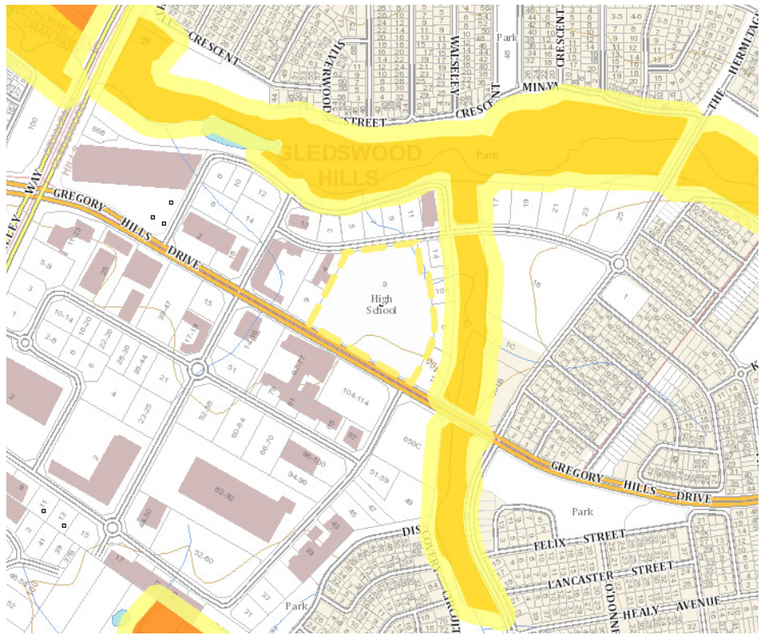


- Biodiversity Values
- Biodiversity Values added days

A Biodiversity Assessment report was completed in December 2024 by Travers Bushfire & Ecology. This shown the subject site does not contain mapped Biodiversity Values Areas.

The report confirms vegetation onsite does not conform to any listed Plant Community Types with no potential for threatened flora on site due to past and ongoing land management disturbances. The site does contain any habitat features that could be of importance to threatened fauna species. (Travers Bushfire & Ecology, December 2024)

Bushfire

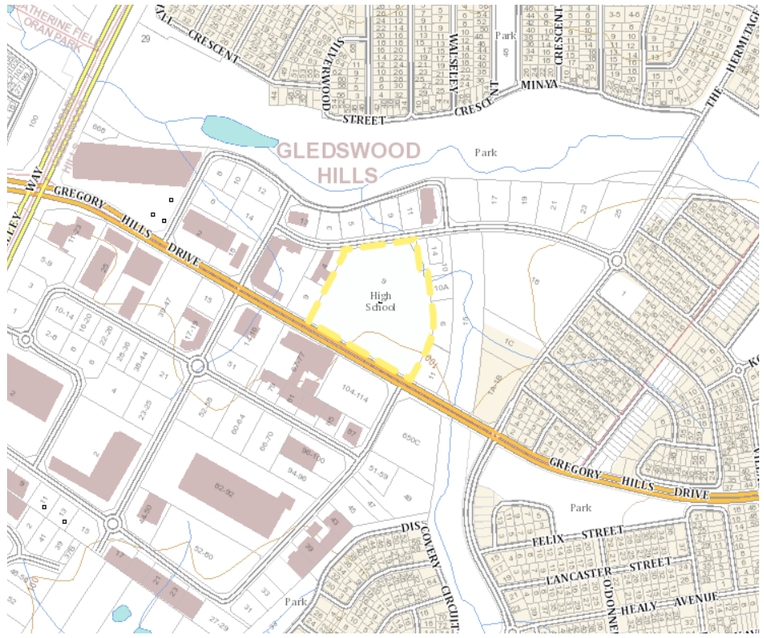


- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3
- Vegetation Buffer

The site is not on designated Bushfire Prone Land (BPL), nor is it affected by designated Bushfire Prone Land. The site is not on or within 100m of designated BFPL.

RFS has advised SINSW that the site is low risk and should be treated accordingly with no requirement for compliance with Planning for Bushfire Protection 2019, The National Construction Code (NCC) for Specification 43 or the Australian Standard for Construction of Buildings in Bushfire Prone Areas 2018 (AS3959).
The Department of Education will ensure that bushfire is provided for in the emergency management arrangements for the school prior to occupation. (Blackash Bushfire Consultants, October 2024)

Heritage



- Aboriginal Object
- Aboriginal Place of Heritage Significance
- Conservation Area - Aboriginal
- Conservation Area - Archaeological
- Conservation Area - General
- Conservation Area - Landscape
- Heritage Conservation Area
- Item - Aboriginal
- Item - Archaeological
- Item - General
- Item - Landscape
- Local Heritage - General

ACHA report was undertaken by Indigeco in May 2024 for the subject site and based of the desktop review and field assessment observations, it has been determined there is low archaeological potential within the Subject Area. Based on community consultation with Registered Aboriginal Parties (RAPs) for this project, and the completion of the ACHA report, a draft management recommendations have been developed relevant to the Subject Area. (Indigeco, May 2024)

2.6 Statutory Planning - SEPP

Response to Schedule 8 Design quality principles in schools—Chapter 3

Principle 1—Responsive to Context

Schools should be designed to respond to and enhance the positive qualities of their surroundings.
In designing built forms and landscapes, consideration should be given to a Country-centred approach and respond to site conditions such as orientation, topography, natural systems, Aboriginal and European cultural heritage and the impacts of climate change.
Landscapes should be integrated into the overall design to improve amenity and to help mitigate negative impacts on the streetscape and neighbouring sites.

Principle 2—Sustainable, efficient and resilient

Good school design combines positive environmental, social and economic outcomes and should align with the principles of caring for Country.
Schools should be designed to be durable and resilient in an evolving climate.
Schools and their grounds should be designed to minimise the consumption of energy, water and other natural resources and reduce waste.

Principle 3—Acessible and inclusive

School buildings and grounds should be welcoming, easy to navigate and accessible and inclusive for people with differing needs and abilities.
Schools should be designed to respond to the needs of children of different ages and developmental stages, foster a sense of belonging and seek to reflect the cultural diversity of the student body and community.
Schools should be designed to enable sharing of facilities with the community and to cater for activities outside of school hours.

The activity provides a strong response to the rapidly expanding residential context of the area by providing a community meeting place - connecting the site to this residential development to the North and East and the Riparian Corridor that bridges the two.

The buildings are strategically sited to create a protected space within the site where currently there is only cleared open land. The setting back of the school's main entrance creates a public domain space to facilitate community engagement, particularly during school pick up and drop off times.

This leads via the Connecting with Country piece - Wianamtta Walk - to the protected internal space of the school grounds and eventually to the other access point to the site on Gregory Hills Drive.

The proposed scheme provides a strong school identity based on the Connecting with County theme of water and riverbeds, with the new entry plaza at Digitaria Drive at the location where the original creek used to flow through the site. This water theme is continued in the materiality and colour themes of the buildings themselves - sand coloured brick with varying blue hues.

The Architectural language is refined by generous building setbacks and landscaped areas along street frontages. Endemic tree planting will soften the three-storey buildings on the street & neighboured facades. Undulating landscaped mounds with seating and planting have been introduced to the site internally to improve amenity and provide places of shade, rest and play.

The school has been designed to achieve 5-star Green Star Certification and aligns with SINSW Sustainability Framework. The design pursues buildings that are easy to construct, durable, resilient and adaptable. Built on a modular grid, the buildings will be flexible in the future allowing different functions as needed, reconfigurability of internal walls can easily be achievable.

Positive environmental measures promote passive design principles, such as indoor air quality, natural lighting, cross ventilation, thermal and acoustic comfort. Practical solutions such as façade screening, shading devices responsive to façade orientation will minimize glare, solar gain and reduce heat load on the buildings. Material selection addresses durability, sustainability, embodied energy and life cycle.

On-site renewable energy generation with 99kW solar photovoltaic system will be installed on the roof of Building A. The site has extensive areas for deep soil planting and rainwater harvesting and integrated storm water management including rainwater tanks.

The school has been designed to be accessible and inclusive to all teachers, students and the community.

The plaza at Digitaria Drive provides a welcoming entry to the site to encourage Community interaction through meeting and gathering. The identity of the school though use of colour, Connecting with Country design with waiting, meeting and learning spaces creates a sense of place and belonging to its community and children of all ages.

There are accessible entry points to the school site from existing and proposed roads. The Hall is easily accessible by the community from both Digitaria Drive and the carpark on the service road, and will have dedicated afterhours access.

Covered walkways, ramps and stairs are proposed throughout the campus and ensure access to all buildings and external grounds, assembly areas and the Hall. Lift access is provided to all levels of the three-storey buildings.

2.6 Statutory Planning - SEPP

Response to Schedule 8 Design quality principles in schools—Chapter 3

Principle 4—Health and safe

Good school design should support wellbeing by creating healthy internal and external environments.
The design should ensure safety and security within the school boundaries, while maintaining a welcoming address and accessible environment.
In designing schools, consideration should be given to connections, transport networks and safe routes for travel to and from school.

Gledswood Hills High school will promote the wellbeing of its occupants with comfortable and internal and external environments provided by both passive and mechanical temperature control, good daylighting internally, and shade cover externally to windows and landscapes spaces.

A number of safety measures have been proposed such as higher balustrades and full height screening devices on staircases. Students circulation walkways wrap the buildings facing internal gathering spaces and play areas, avoiding students exposure towards the street.

The site will have a perimeter high palisade fence for security, while providing a welcoming entry with a the public domain of the public entry forecourt. Access gates for pedestrian and vehicles will control entry points for student safety and school's asset protection. Passive surveillance and anti-bullying measures have been considered; most toilets will be 'air-line style' with their own basin in each cubical. Also, internal fencing will restrict and separate areas with limited supervision, vehicle movement, car parking and deliveries.

Promotion of Green modes of transport to the surrounding residential areas is at the forefront of the schools connectivity, encouraging safe pedestrian and cycling movements through the Riparian corridor, a new wombat crossing and Kiss and Drop zone on Digitaria Drive and new bus stop on Gregory Hills Drive.

Principle 5—Functional and comfortable

Schools should have comfortable and engaging spaces that are accessible for a wide range of formal and informal educational and community activities.
In designing schools, consideration should be given to the amenity of adjacent development, access to sunlight, natural ventilation, proximity to vegetation and landscape, outlook and visual and acoustic privacy.
Schools should include appropriate indoor and outdoor learning and play spaces, access to services and adequate storage.

The character of the adjacent residential developments and Riparian corridor assist in providing socially and environmentally responsive solutions, promoting pleasant spaces for education and the community. The school will create a strong identity and sense of community.

The buildings are placed on site facing the internal courtyard, play spaces and green open areas creating a pleasant environment for the school community, a variety of outdoor spaces and landscaped views. The landscape design and planting selections will enhance local biodiversity.

Shadow diagrams have been produced and show minimal impacts on neighbouring properties. Each learning space has access to natural light and ventilation, outlook and privacy as required within the EFSG.

Principle 6—Flexible and adaptable

In designing schools, consideration should be given to future needs and take a long-term approach that is informed by site-wide strategic and spatial planning.
Good design for schools should deliver high environmental performance and ease of adaptation, and maximise multi-use facilities.
Schools should be adaptable to evolving teaching methods, future growth and changes in climate, and should minimise the environmental impact of the school across its life cycle.

The proposed design provides for future needs, environmental performance, flexibility of space and ease of adaption. The modular grid provides flexibility allowing future internal reconfigurability and function change.

The classrooms are designed in hubs of four with access from and to a central shared learning space that includes a multi-purpose space. Walls are fixed and sliding glass panels offer flexibility and visual connection. When all opened the hub can be a teaching space for four classes or a large group and when closed suitable for smaller groups, offering a variety of team teaching scenarios or separate quiet rooms without interruption.

Principle 7—Visual appeal

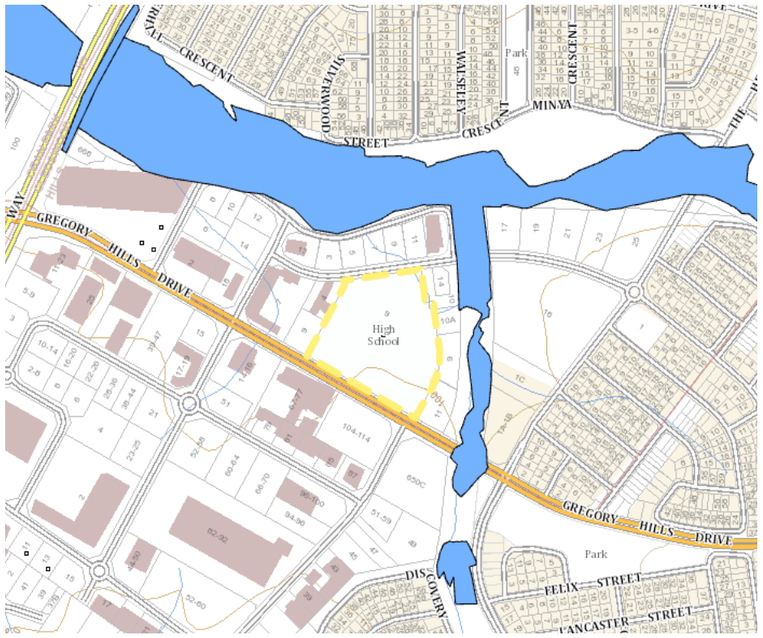
School buildings and their landscape settings should be aesthetically pleasing by achieving good proportions and a balanced composition of built and natural elements.
Schools should be designed to respond to and have a positive impact on streetscape amenity and the quality and character of the neighbourhood.
The identity and street presence of schools should respond to the existing or desired future character of their locations.
The design of schools should reflect the school's civic role and community significance.

The proposal identifies a number of opportunities for Connecting with Country artworks and experience with Country. Metal screening and facade elements will express relevant patterns, colours related to site context and Aboriginal heritage.

Generous landscaping and native planting will break up the built form and contribute to overall aesthetic of the school and the streetscape.

2.7 Site Analysis

Flooding

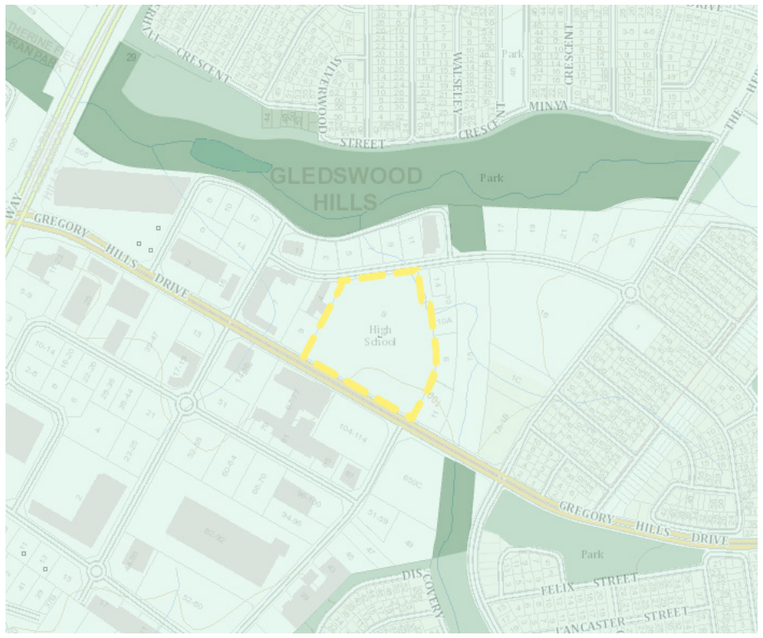


- Flood Planning Level (1:100 ARI)
- Land Identified in Section 3.27
- 1 in 100 AEP Flood Extent
- Area 1
- Flood Planning Area
- Flood Prone and Major Creeks Land

The subject site is above the PMF Flood Level. The site is not flood affected and the existing ground levels are considered appropriate. Both Gregory Hills Drive and Digitaria Drive are affected by floodwater in events up to and including the 1% AEP (1 in 100-year event). In the PMF event only the subject site is considered to be located in an area classified as a High Flood Island/Trapped Perimeter. (Flood Risk Assessment by Site Plus, October 2024)

Flood Emergency Response Plan (FERP) has been prepared by Site Plus Pty Ltd.

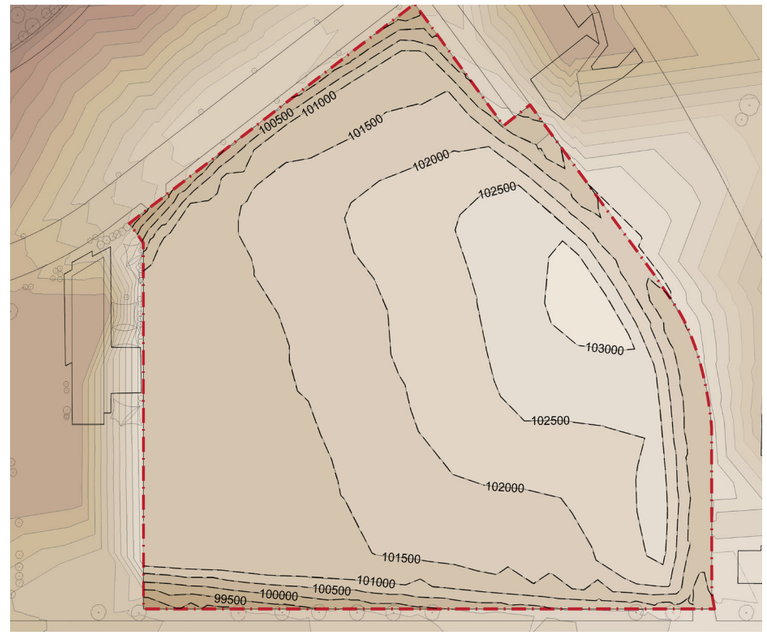
Tree Canopy



- 0 - 10 %
- 10 - 20 %
- 20 - 30 %
- 30 - 40 %
- 40 - 100 %

Ongoing and past disturbances associated with land clearing and urban development have heavily impacted and modified the subject site. The site is cleared and has no existing vegetation. Trees will be removed on Council verge at Digitaria Drive in accordance with Arboricultural Impact Assessment (AIA) completed by CPS, November 2024.

Topography



- Site Boundary Line
- 500mm Contour Line

The site is approximately 4.2Ha in size (Survey by SDG Pty Ltd 10.11.23) and features an even and consistent grade, falling approximately 4m as measured from the north-western to south-eastern corners (RL 97.00 – RL 101.00).

The site sits elevated above its surrounding access roads draining to both Gregory Hills Drive to the south and Digitaria Drive to the North. The proposed works do not alter the existing drainage patterns.

2.7 Site Analysis

The site is located in South-West of Sydney within NCC Climate Zone 6. Gregory Hills is on the outskirts of greater Sydney and due to this location and the Sydney basin, the area does not experience onshore breezes which cool in summer. Gregory Hills is often warmer in summer than more central and Eastern areas of Sydney and may suffer from radiant heat.

Summer and winter temperatures vary significantly as well as throughout the day, and both heating and cooling are required. The existing site is aligned in a North-East/South-West orientation. Due to this aspect, buildings are typically facing North-East and North-West, and external circulation faces South-East and South-West. Adequate sunshading has been provided to mitigate solar heat gain. Prevailing summer breezes are usually common from Southern direction, while South-Western winds are common in winter.

NTS

RIPARIAN CORRIDOR

SOUTH CREEK

FUTURE DEVELOPMENT

PROPOSED SOMA HOSPITAL

APPROVED HOTEL

TOPOGRAPHY
Steep areas of battering

MAIN ROAD
Gregory Hills Drive

MAIN PEDESTRIAN ACCESS

PROPOSED SITE ENTRY
Digitaria Drive & Gregory Hills Drive

REGIONAL OPEN SPACE

B EXISTING BUS STOP

N

03

DESIGN CONCEPT

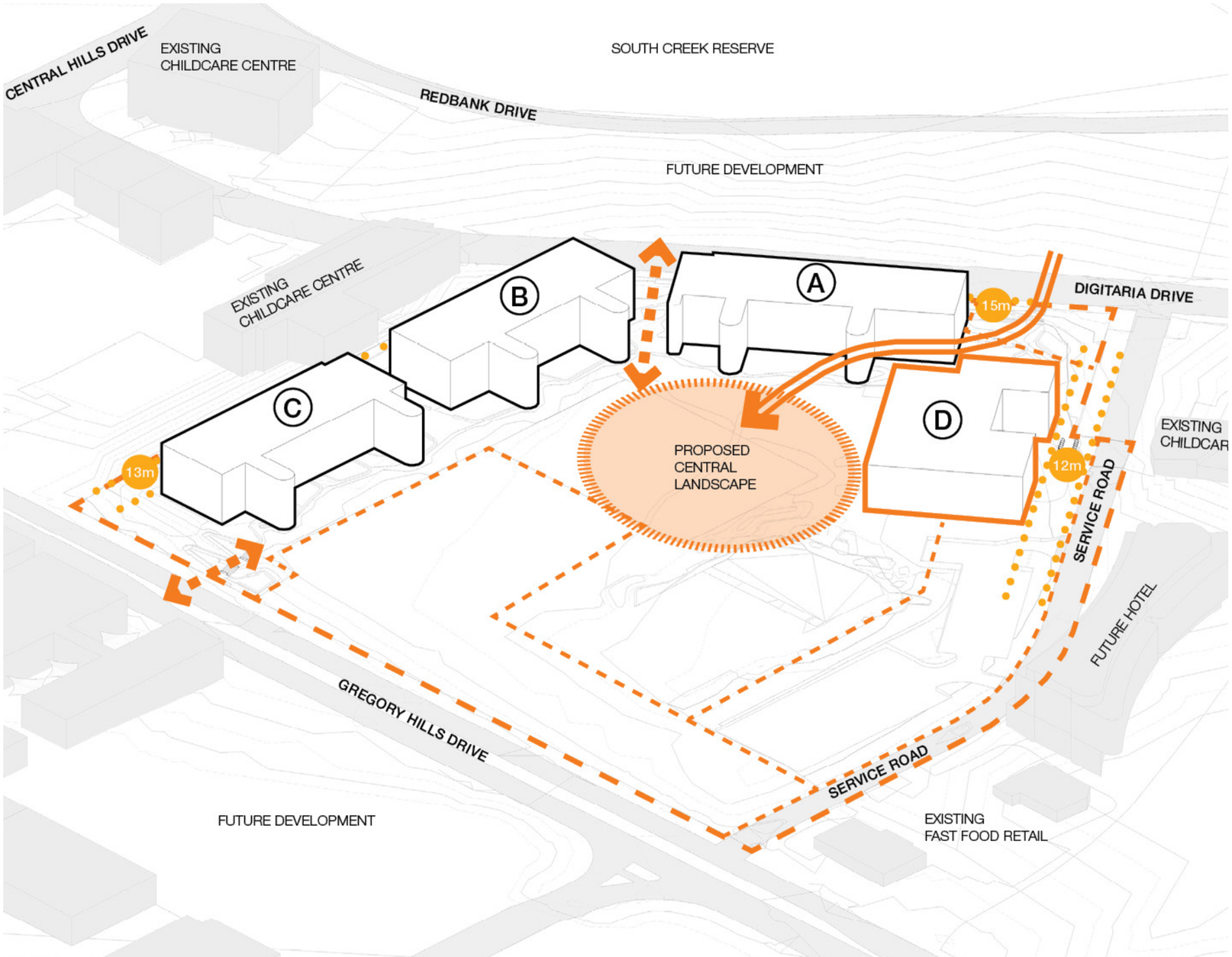
3.1 Urban & Built Form

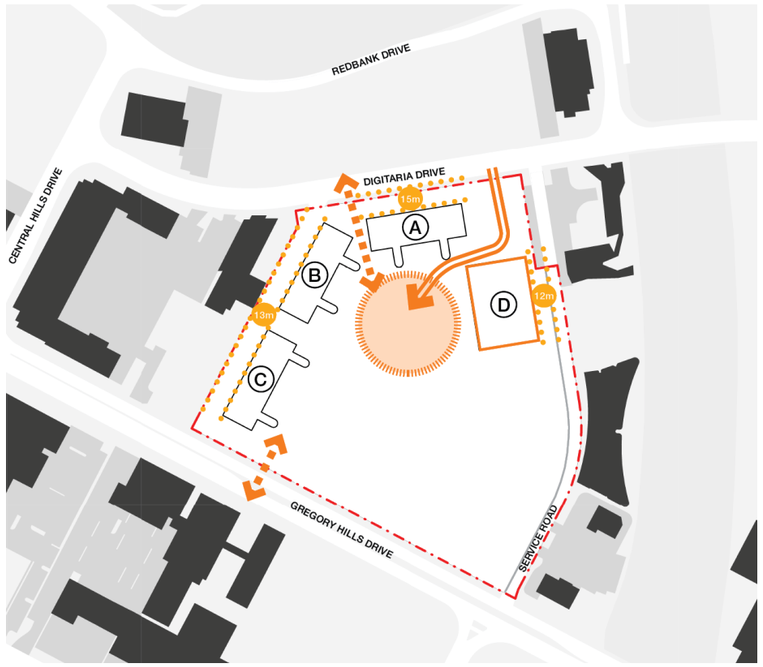
The built forms address both street frontages along Digitaria Drive and Gregory Hills Drive and seeks to respond to the business district context, topography, traffic noise and future development, including the existing childcare and new hotel adjacent to the Eastern boundary. The school administration located in Building A is adjacent to the main school entry which has a place of prominence with the proposed public domain entry plaza.

The Hall is also significantly setback from the service access road and existing childcare development. The three-storey buildings are sited along Western boundary adjacent to the business district and protected from high activity roads.

The placement of the built space provides for a protected central landscaped area at the heart of the school.

The new three-storey buildings are an appropriate scale to the surrounding area, considering the existing business district and mixed use developments. The built form and bulk are softened by generous landscaped setbacks building alignments. The façade is articulated by various elements, materiality and colour selection that is relevant to Country. The main Hall space is a double height volume which contributes to building height variation.





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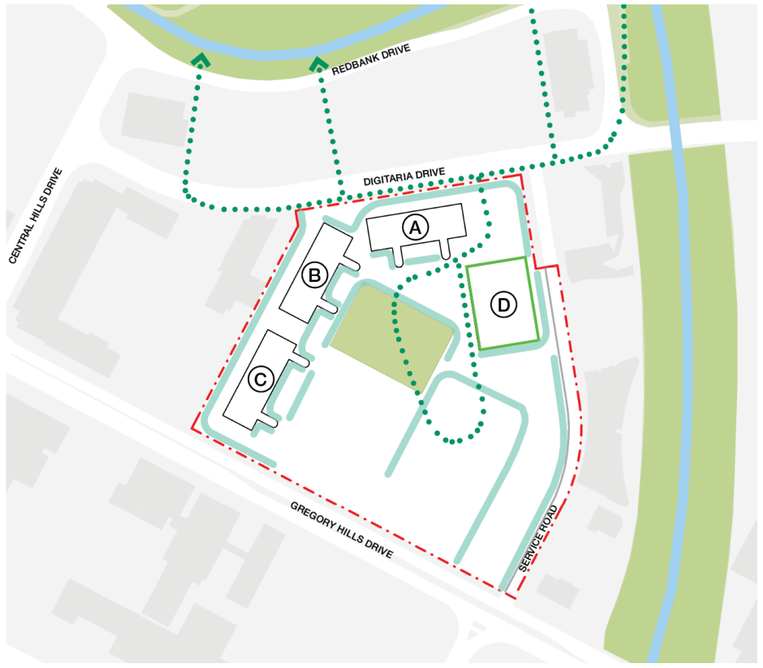
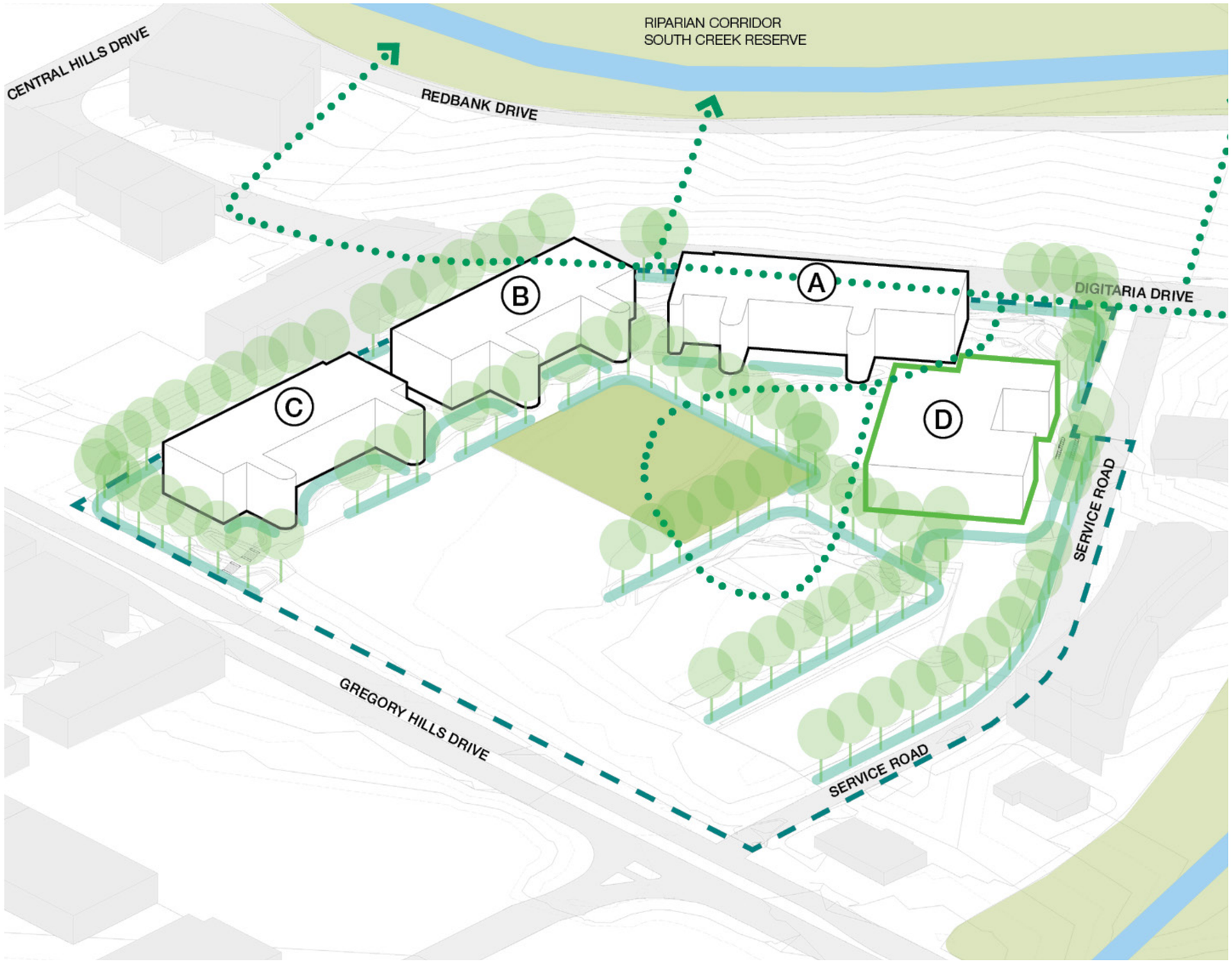
SITE BOUNDARY FENCE SETBACKS

3.2 Relationship to Open Space

While the buildings holding the street edge respond to the surrounding built context, there is a strong connection from the school's prominent corner entry and original Winamatta Creek location to the Riparian corridor to the North and to the residential areas beyond. There is also visual connection between Buildings A and B to the green open space.

The outdoor play spaces of the field and games courts are centrally located and have clear sight lines for supervision. Proposed tree planting ensures that natural shade is provided especially around hard paved areas such as the assembly plaza. The integrated response to indoor and outdoor learning spaces connects both built and natural environment.





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NATURAL CONNECTION
To Passive Open Spaces

SITE BOUNDARY

FENCE

LANDSCAPING

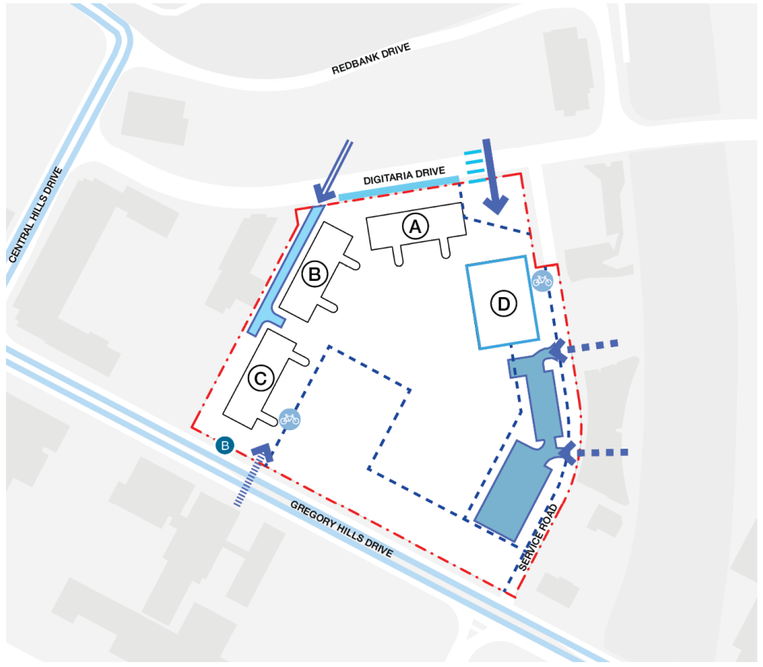
3.3 Traffic, Access & Circulation

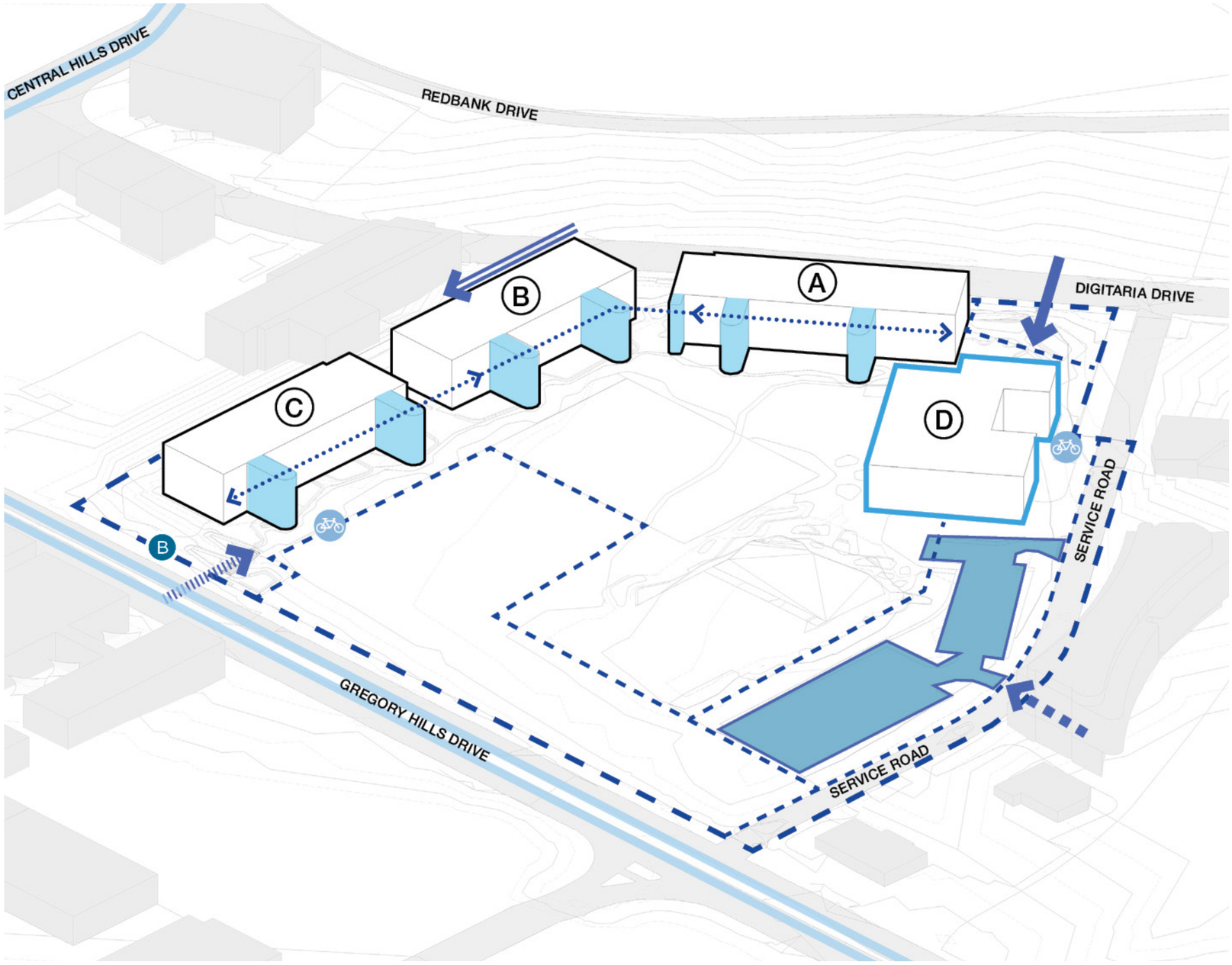
The school campus is designed to prioritise safe and efficient vehicle movement, pedestrian access and circulation. The main entry is conveniently located on Digitaria Drive adjacent to the kiss-and-drop zones and public transport, and provides clear arrival points for students, staff, and visitors.

The Green Travel Plan (GTP) prepared by SCT Consulting promotes pedestrian and cycling access. Connection to shared path cycling network and on-site bike parking encourages this mode of travel. Transport Impact Assessment (TIA) confirms Cycling infrastructure within the enrolment boundary is appropriate. There are shared paths running north – south and east – west along key arterial roads that provide the most direct access to the school. (SCT Consulting, Dec 2024)

By incorporating secondary pedestrian entry on Gregory Hills Drive, the campus ensures greater permeability for access to public transport and surrounding neighbourhood. Dedicated vehicle entries from both Digitaria Drive and service road provide access to the staff car park and delivery areas.

A series of outdoor covered walkways connect all buildings at all levels and to the Hall at ground floor, providing sheltered access for students, staff, and visitors. Vertical movement is provided via staircases between levels within three-storey buildings, with lift access to all floors also.





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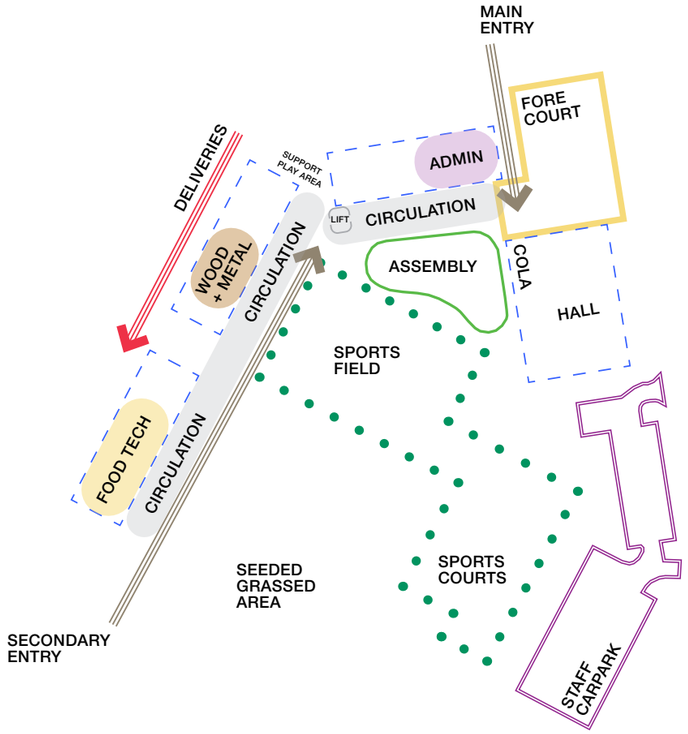
Main Entry
Secondary Entry
Vehicular Access
Deliveries Access
Bicycle Parking
SHARED PATH
Pedestrian & Cycle Network
SITE BOUNDARY
FENCE
Staff Car Park
78 spaces (2 accessible spaces, min 2400mm wide)
Kiss n Drop
10 spaces on the south side of Digitaria Drive
4 spaces northern side of Digitaria Drive

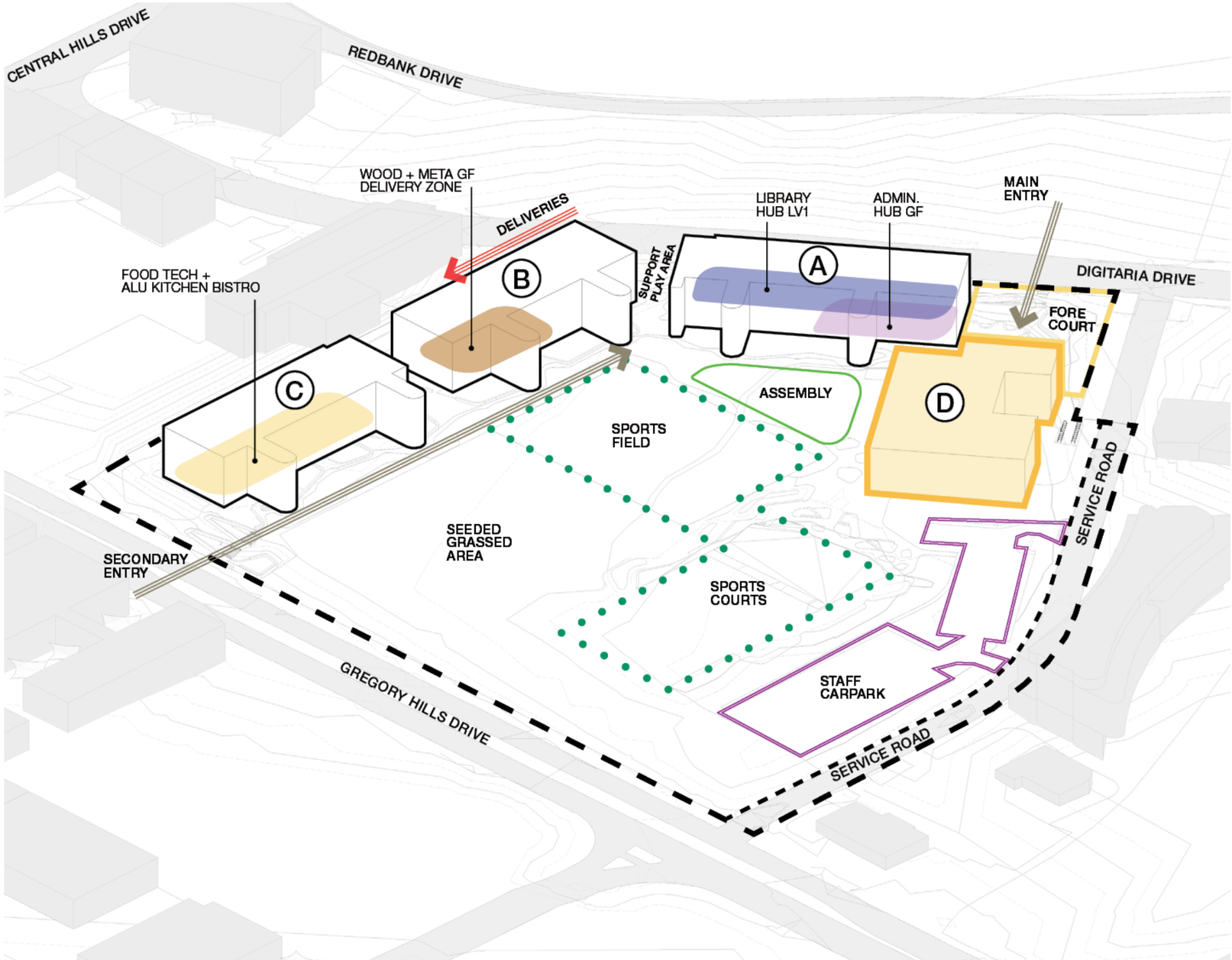
3.4 Functional Relationships

The main school entry serves as the primary access point, connecting directly to the public reception and administration hub within Buidling A. This central hub, adjacent to the public domain entry forecourt provides a welcoming entrance for students, staff and community. The Library is located on Level 1 of Building A, well centred to school campus. The location of the lift has been considered to directly connect the Support learning unit on Ground with the Library above.

The Hall, a significant communal space, is easily accessible from Digitaria Drive's main entry. It has direct access to sports fields and hard courts and is conveniently located close to the car park for staff and visitors.

To ensure smooth operations, deliveries are directed to dedicated service access road and areas adjacent to Buildings B (Wood + Metal) and C (Food Tech). Building D (Hall/Canteen) deliveries area is accessible via the staff car park.





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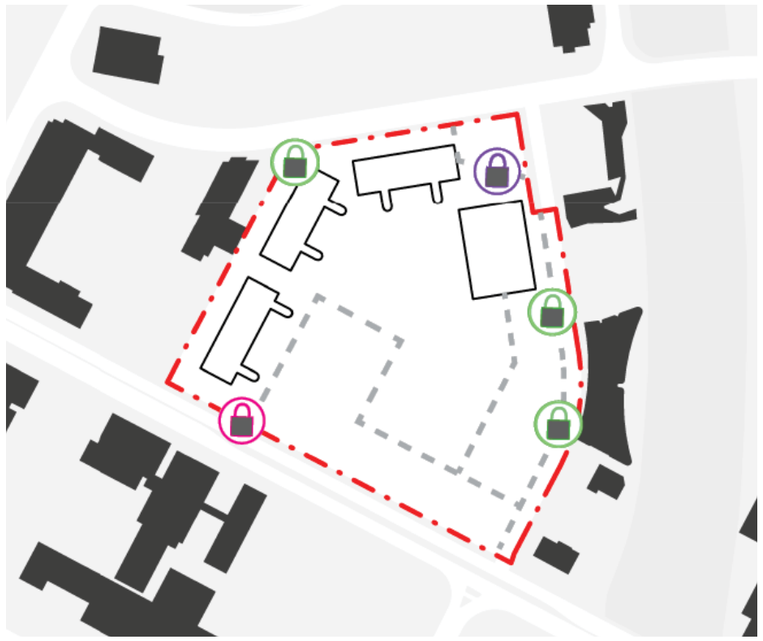
PUBLIC ACCESS
Hall, Community Use & Public Reception

FORECOURT | PUBLIC DOMAIN
Main Entry | School Interface with Public Domain

Perimeter Security & Access Control

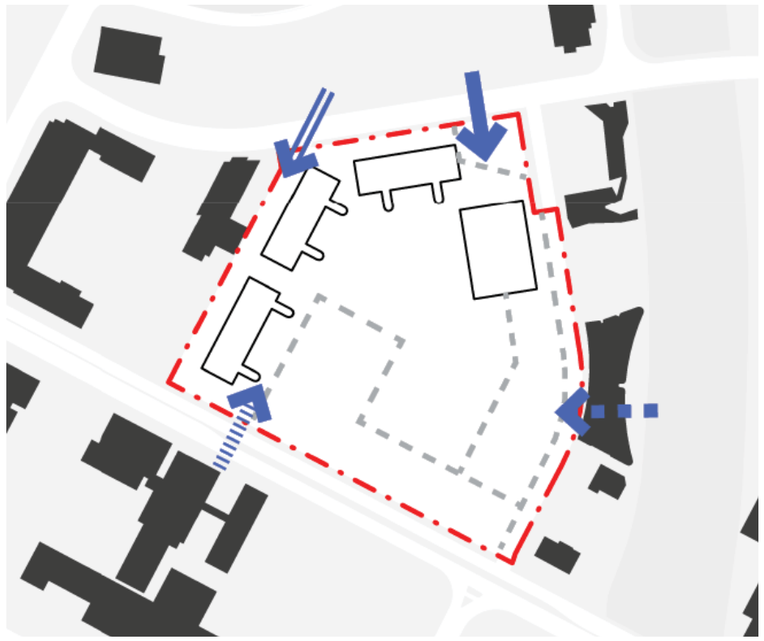


The School's main entry and forecourt will present a welcoming landscaped area improving the engagement of the School with the public domain, which aims to establish a civic front for the school. This is secure entry with video intercom to the administration.

Outside of this entry area, the School site will be secured by palisade fence around the site perimeter with gated control for entry into the school.

There is alternative entry off Gregory Hills Drive on Southern boundary of the site which will be open during peak arrival and departure times. Vehicle access to the car park and delivery zone are provided from the existing Service Road and Digitaria Drive. After school hours access is provided via the main entrance in close proximity to Hall.

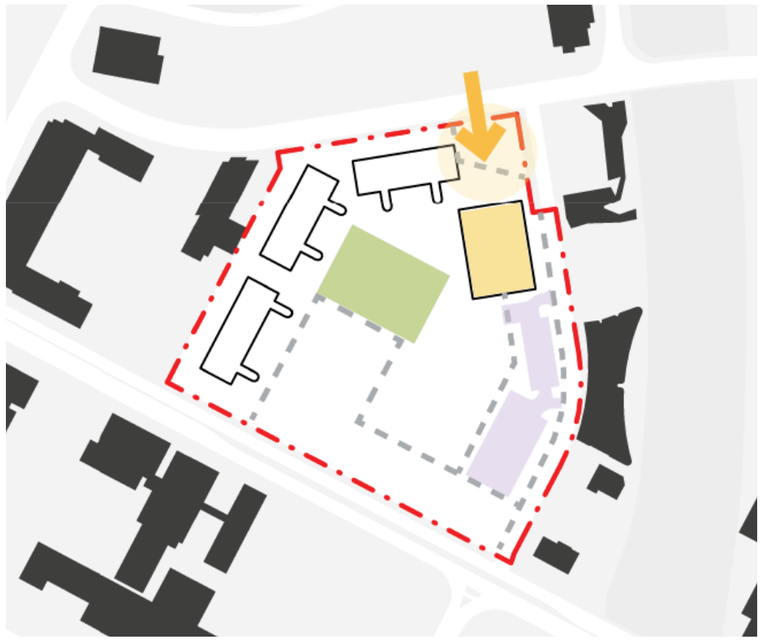
School Access & Natural Surveillance



Multiple access points are provided - all with clear sightlines and safe lighting. Additional CPTED design principles around entries and circulation include:

- Entry forecourt has good sightlines from Digitaria Drive
- The new reception is located with clear sightlines to the Main Entry allowing for passive surveillance
- Safe lighting will be provided along pathways and increased lighting at Main and after-hours entry points
- Circulation is rationalised with primary access along wide, open circulation spines that connect directly to vertical circulation nodes or external staircases
- 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 located externally, with good supervision of the stair wells and are used for both egress and general circulation

Community Use & Territorial Reinforcement



The proposed Hall, which has an internal basketball court, has many opportunities for shared community use. Public access and after-hours access to Hall is from Digitaria Drive main entrance. The main entry is designed to be welcoming while clearly demonstrating territorial reinforcement 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'

A well-maintained asset sends the message that people notice and care about what happens in an area. This, in turn, discourages vandalism and other crimes. The selection of materials has considered firstly reducing the likelihood of graffiti and vandalism, but also the ease of removal to facilitate ongoing maintenance.

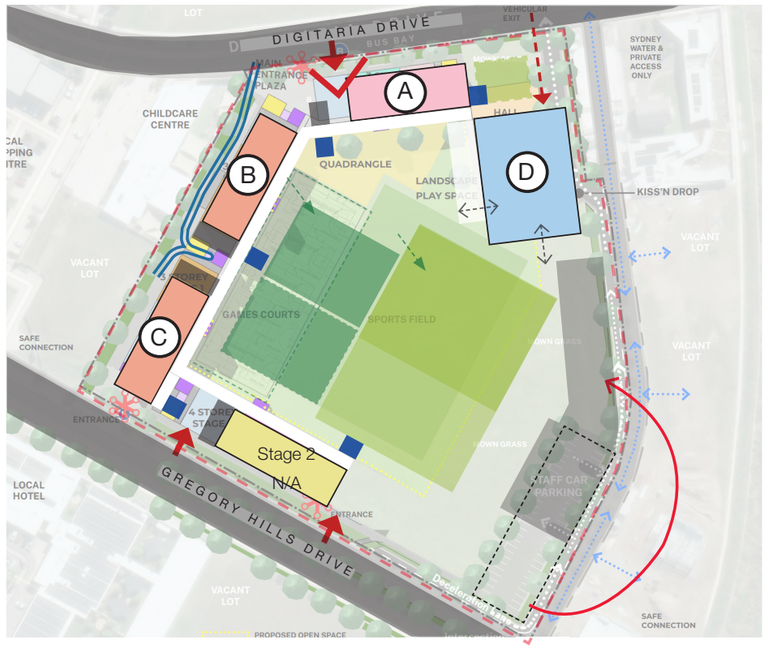
3.6 Masterplan Options

SINSW Masterplan

The SINSW Masterplan which was included with the Final Business Case included the following key design principles:

- Key Main entry off Digitaria Drive
- Kiss & Drop on site with an entrance from the service access road.
- Onsite parking access from the services access road
- The buildings placed to line Digitaria Drive, the Western boundary and Gregory Hills Drive (Stage 2 not a part of this REF application)
- The layout of the buildings frame around the edge of play space to allow for passive surveillance

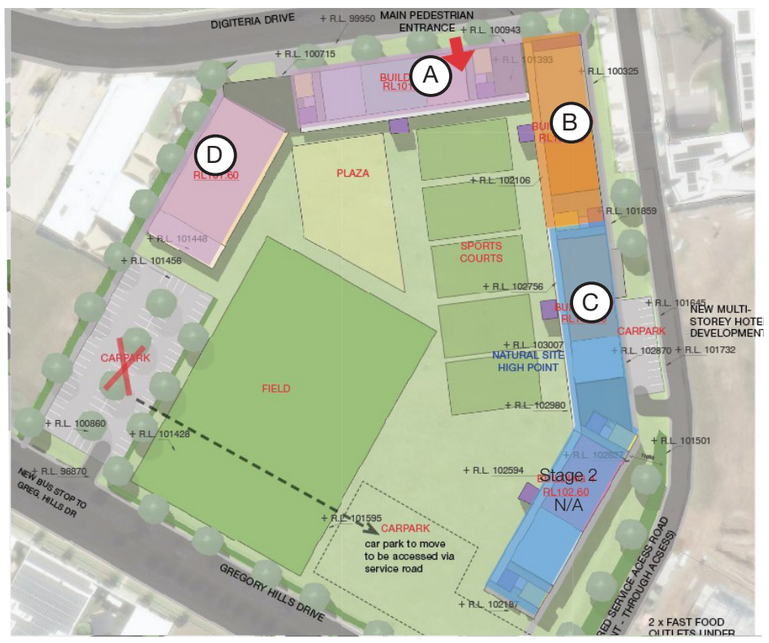
Masterplan Verification



While the majority of the Masterplan design principles were supported, during the Masterplan verification undertaken by DJRD a number of additional considerations were raised:

- Relocation of the car park to be closer to the Hall and the Administration Building
- Reposition Building A to allow for more space at the Main Entry between Buildings A and B
- Vehicle delivery access behind Building B for the Wood and Metal & Food and Technology departments
- Hall location to be adjusted to allow for shift of Building A and increased space at main entry

Alternative Masterplan Option



An alternative Masterplan arrangement was investigated and considered the following:

- Alignment of all buildings on the Eastern edge to be opposite to that of the natural pathway of overland water flow
- Buildings at varying floor-plate levels to ‘step up’ the natural rise of the site and reduce and fill
- Main entry to Eastern end of Building A
- Car park access from Gregory Hills Drive
- Hall location flipped to opposite side of site
- After consideration by the Design Team, this option was eliminated due:
- Complication of design of benching all buildings at different levels and additional stairs and 1:20 accessible covered walkway transitions between buildings
- Possible increased number of lifts required
- Teaching buildings being located more closely to fast food offerring on service access road
- Camden Council being unsupportive of a carpark entry on Gregory Hills Drive

3.7 Concept Design Options

Final Masterplan Option

The original recommendations from the Masterplan Verification process were accepted and adopted in the final Masterplan Option. These were largely in line with the original general design principles, with slight adjustments as follows:

- Car park size increased in line with updated traffic information
- Numbers of sports courts/sports-field configurations altered

Final Concept Design option

The final Concept design option greatly improved the entry experience to the site by relocating the main entry to the North Eastern corner and providing the community accessible forecourt. The improvements made to this layout in Schematic design were largely informed by the SDRP review and include:

- Courts and field locations and orientation
- Slight adjustment of Hall location to provide more space to the entry forecourt
- Increased refinement of landscape response

04

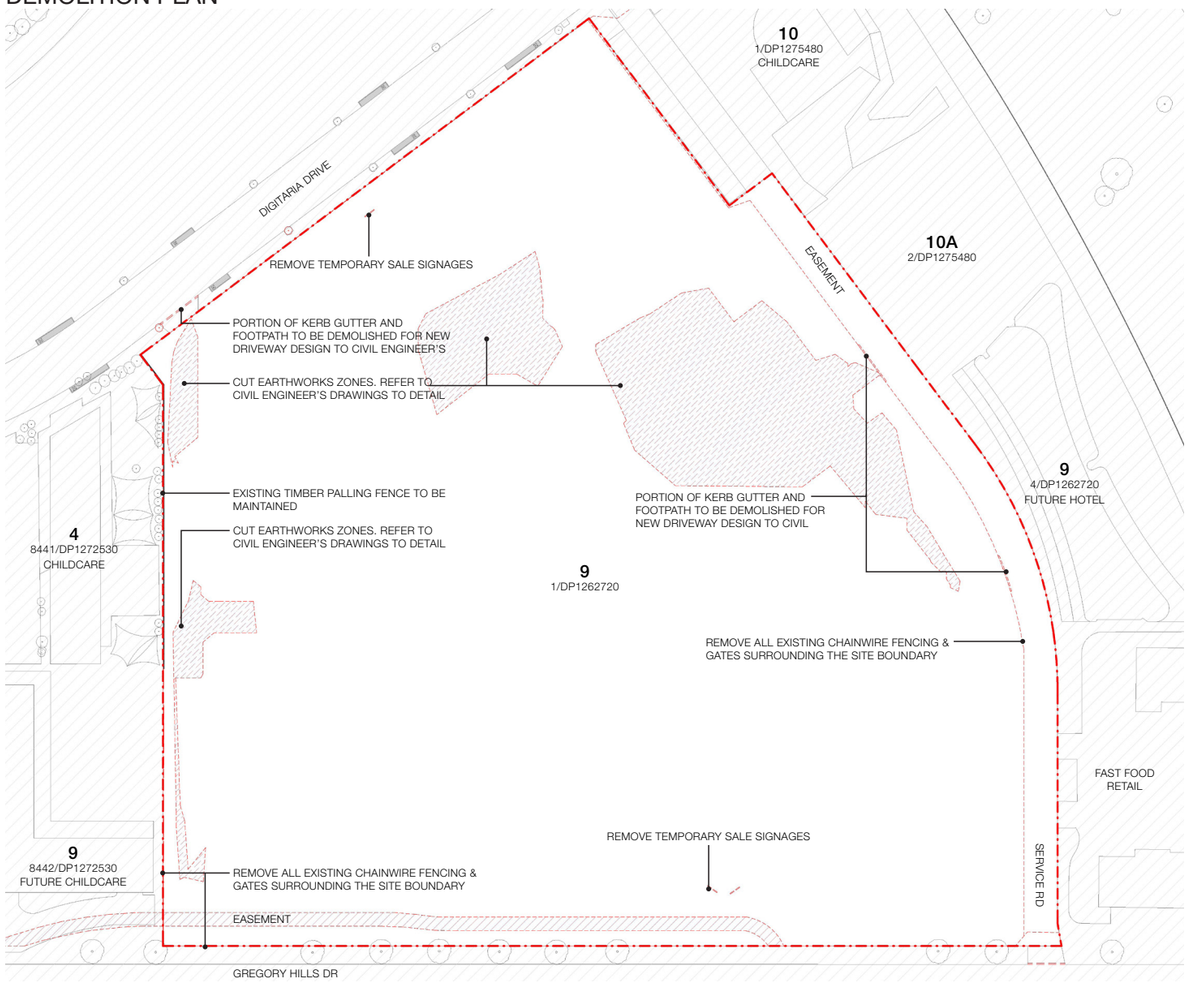
ARCHITECTURAL RESPONSE

4.1 Overall Site Plans

Minor demolition is required to allow for the activity as the site was previously cleared. Refer minor demolition works below.

The development of the plan from Concept Design to Schematic Design included refinement of the landscape design & sports courts design, and kiss and drop location arrangment in response to Council feedback.

DEMOLITION PLAN

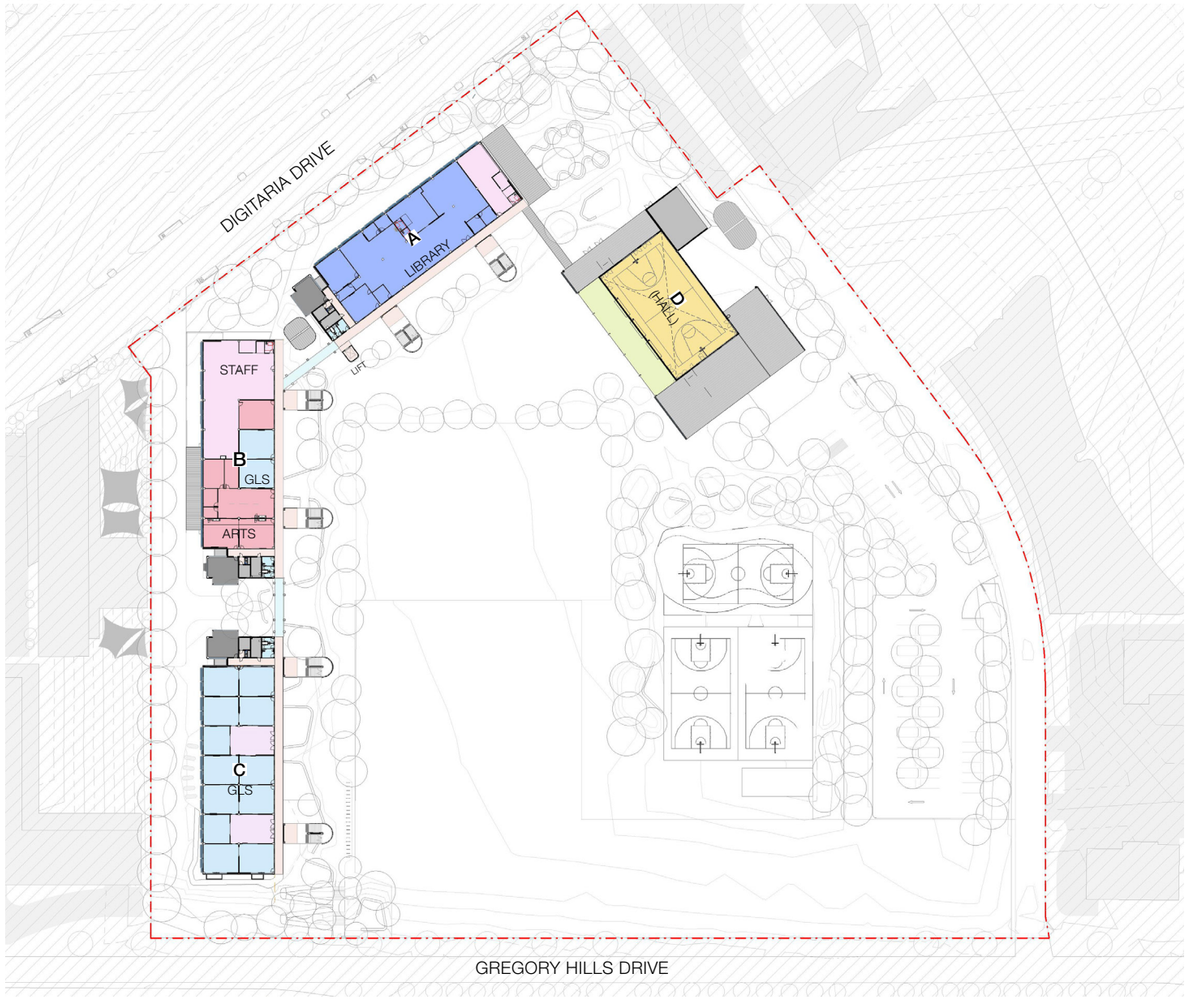


GROUND FLOOR

Refer to Civil drawings for offsite works.
Bin store area / proposed 33sqm collection area (min. 26sqm EF Consulting, November 2024)

4.1 Overall Site Plans

FIRST FLOOR



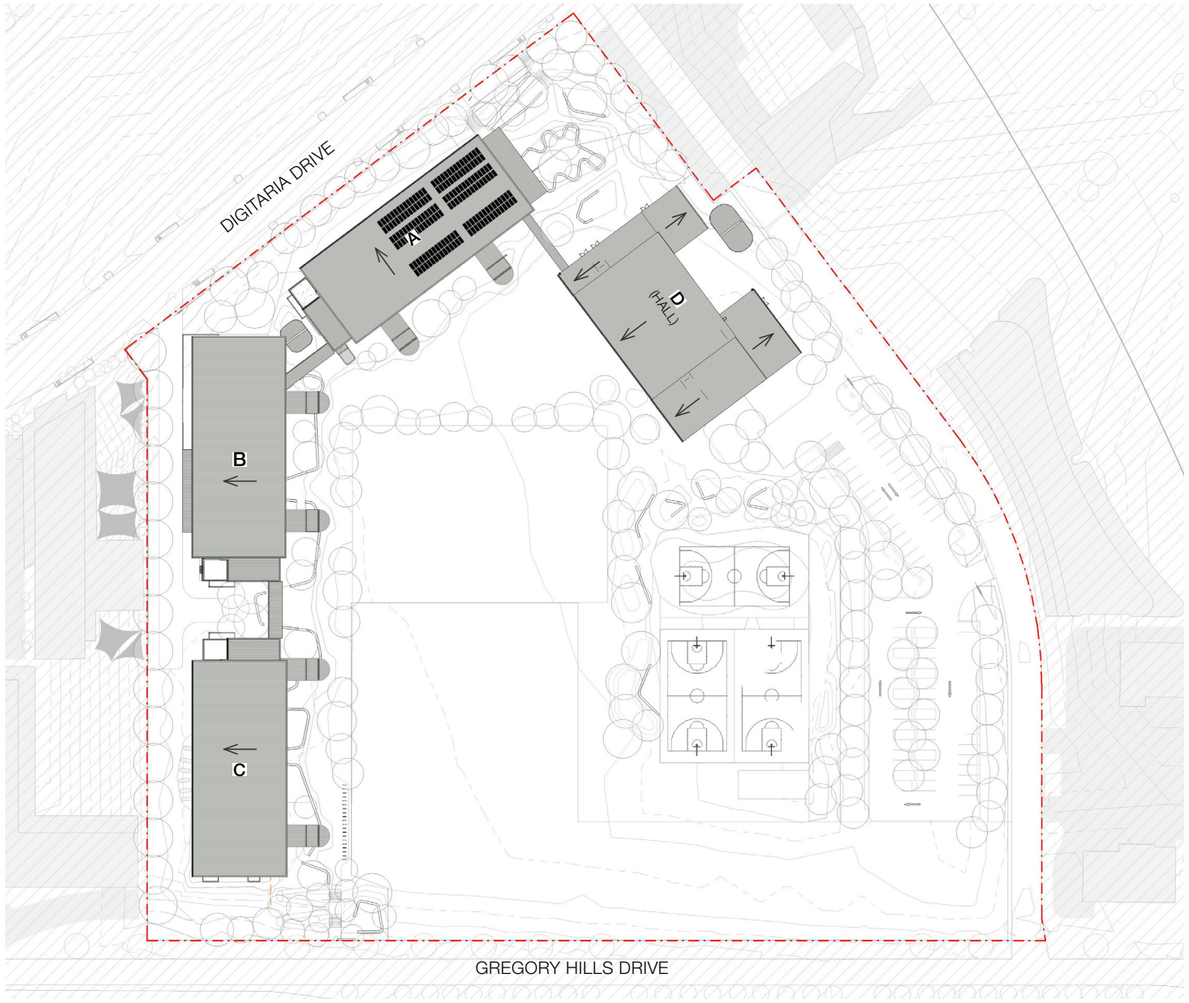
SECOND FLOOR

N

N

4.1 Overall Site Plans

ROOF PLAN



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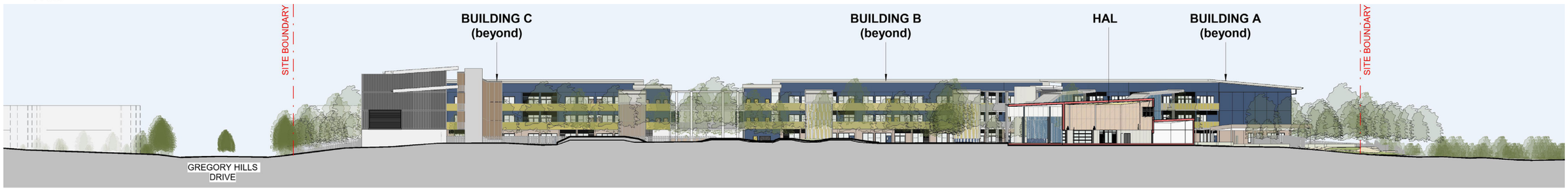
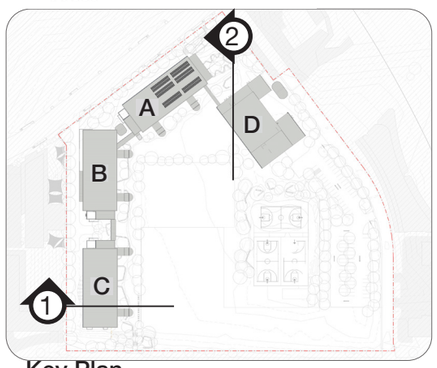
4.2 Site Sections

1 SITE SECTION 01
1 : 500

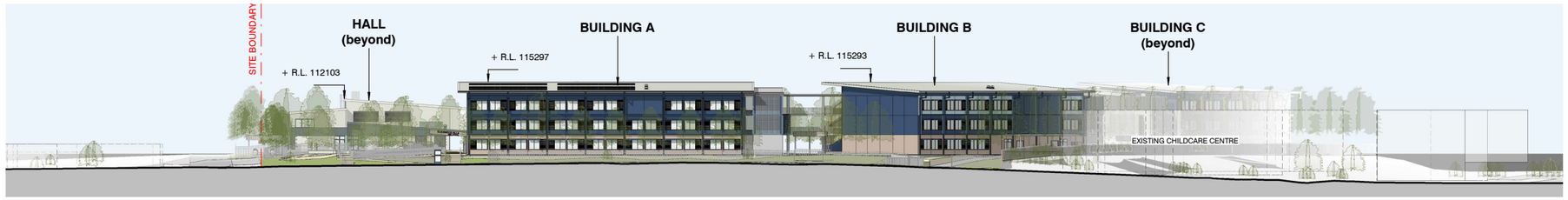


2 SITE SECTION 02
1 : 500



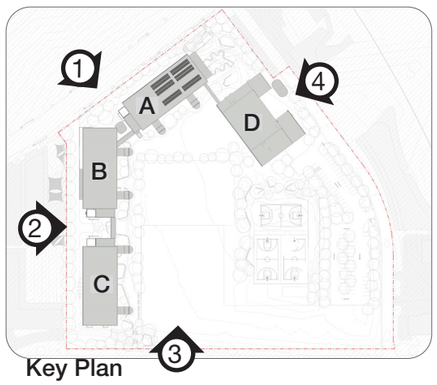
Key Plan

4.3 Site Elevations

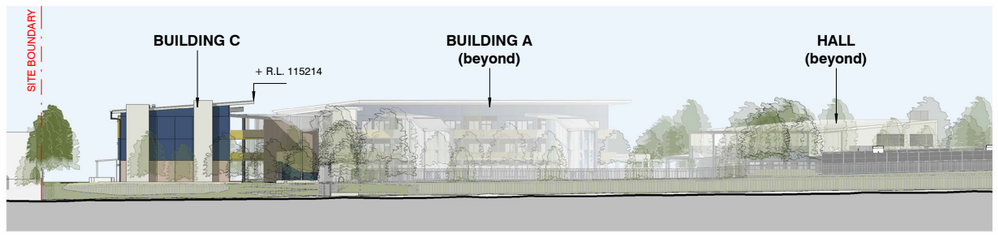


1 SITE ELEVATION - NORTH
1 : 500

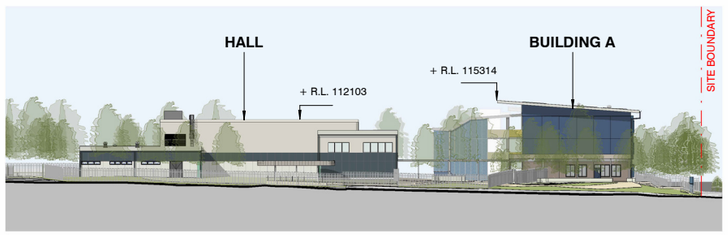
2 SITE ELEVATION - WEST
1 : 500



Key Plan



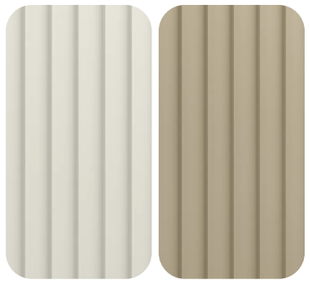
3 SITE ELEVATION - SOUTH
1 : 500



4 SITE ELEVATION - EAST
1 : 500

DURABLE CLADDING - UPPER

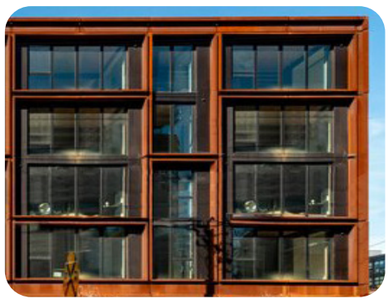
For areas where students will not come in contact with cladding eg. upper Hall profiled prefinished metal cladding is proposed



Metal Roof

DURABLE CLADDING - LOWER

For areas where students will come in contact with facade cladding but are not subject to the same high traffic as the ground plane a durable pre-finished, colour-through CFC is proposed



CFC Cladding & Feature

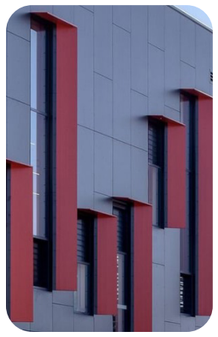
ROBUST BASE - HIGH TRAFFIC AREAS BRICK

For high traffic locations on ground floor of all buildings including Hall a facebrick is proposed

bricks - deep sand colour base

SUNSHADES + FACADE ARTICULATION

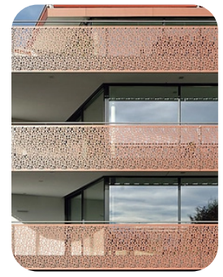
Where sunshades are required and for facade articulation fins - prefinished colour

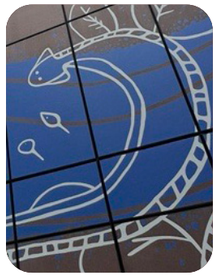


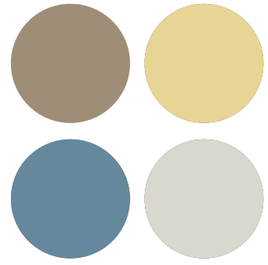
Powdercoats

PERFORATED METAL FALL PROTECTION POWDERCOAT

Selected stair cores and balustrades
custom artwork applied to CFC Cladding



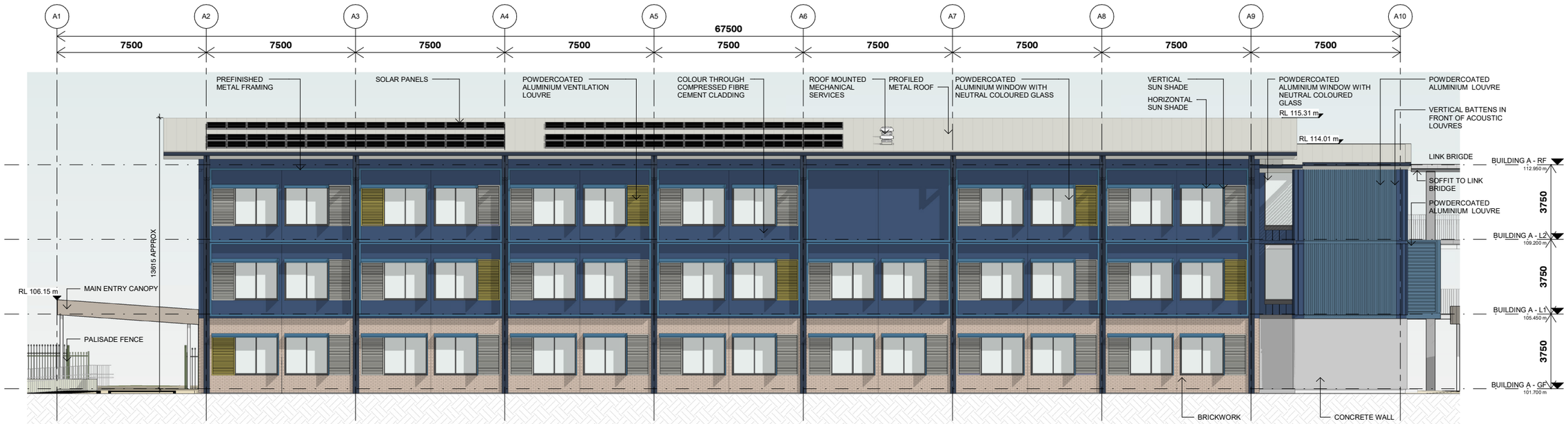




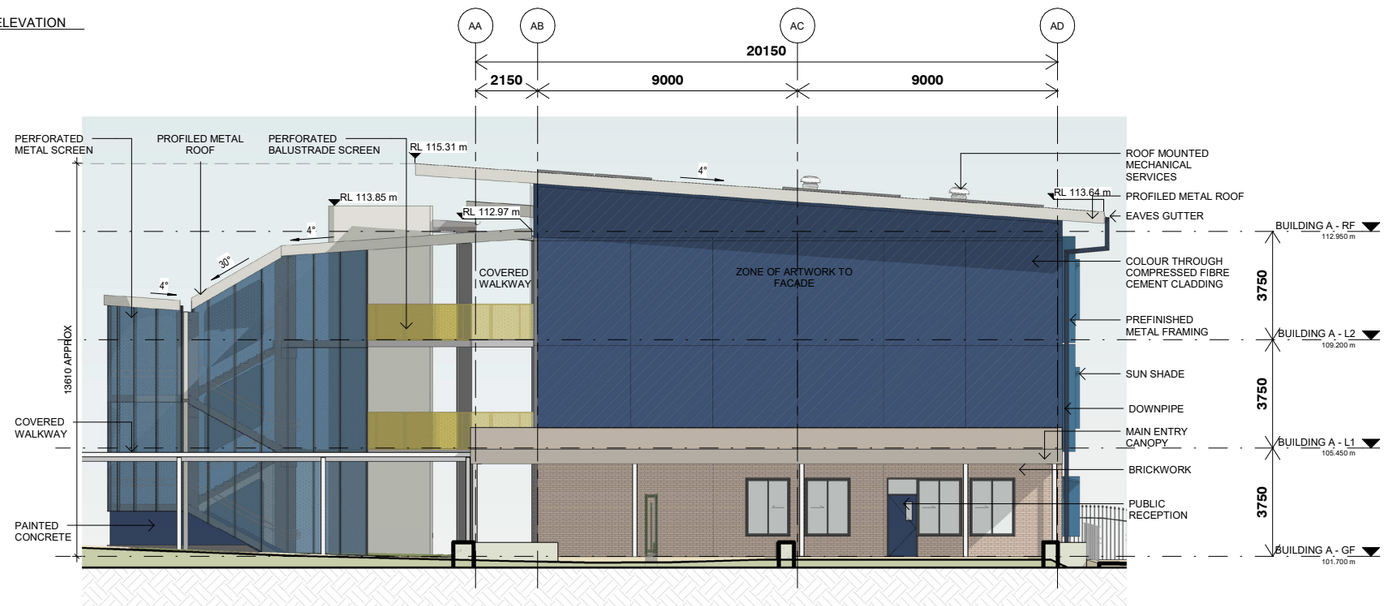
Powdercoats

4.5 Indicative Elevations

Block A Street Facade



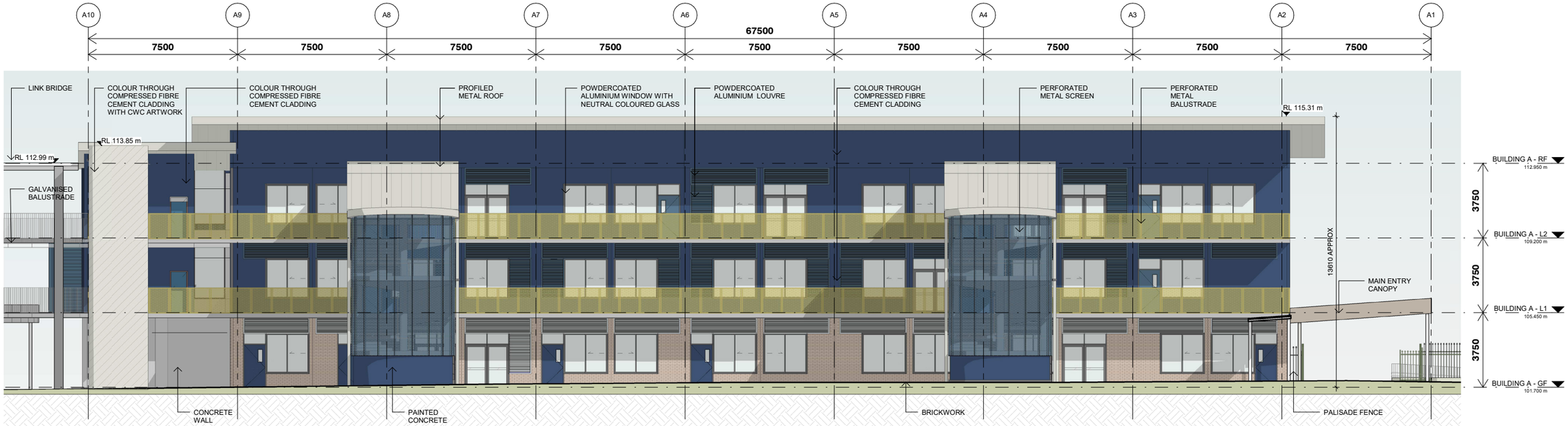
1 BUILDING A - SOUTH ELEVATION
1 : 100



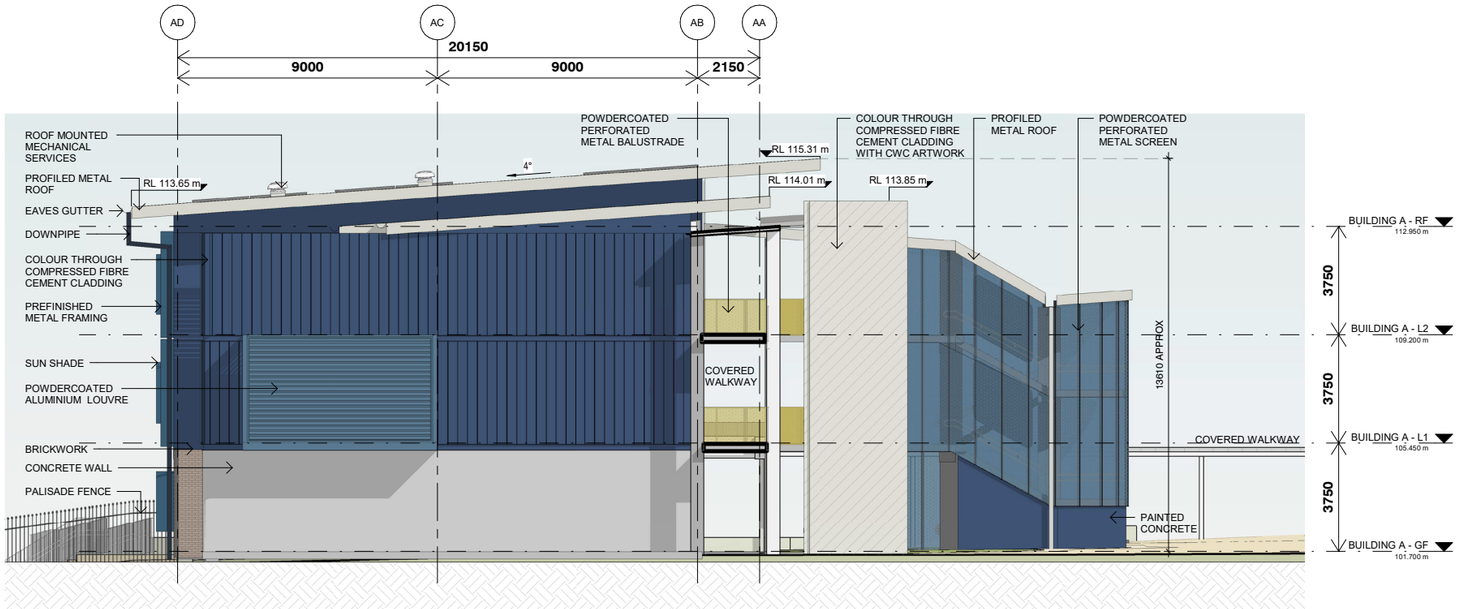
2 BUILDING A - WEST ELEVATION
1 : 100

4.5 Indicative Elevations

Block A Courtyard Facade



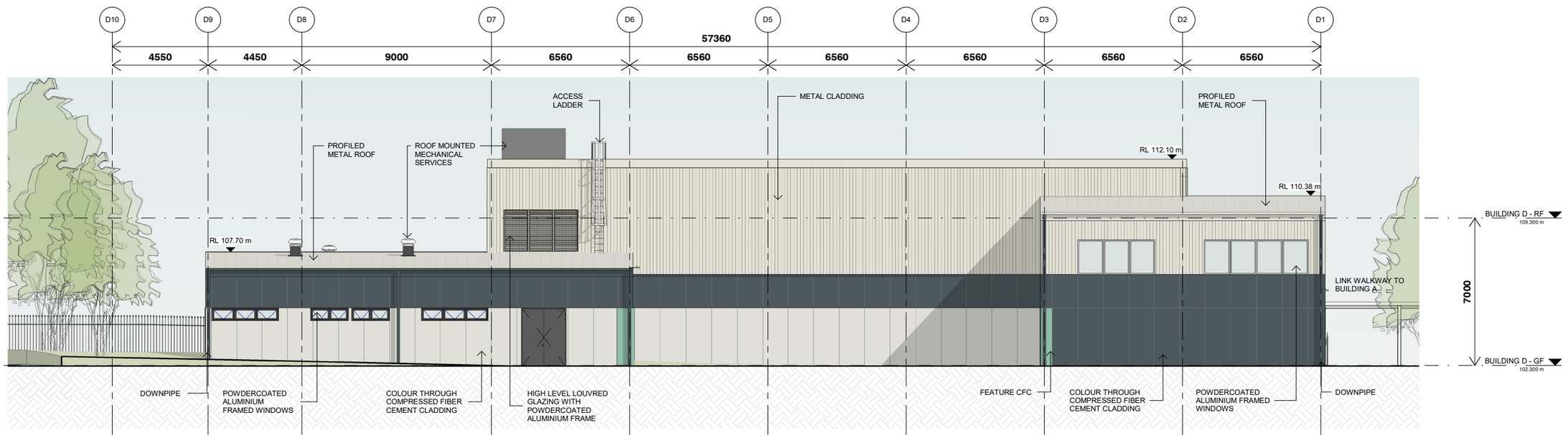
1 BUILDING A - NORTH ELEVATION
1 : 100



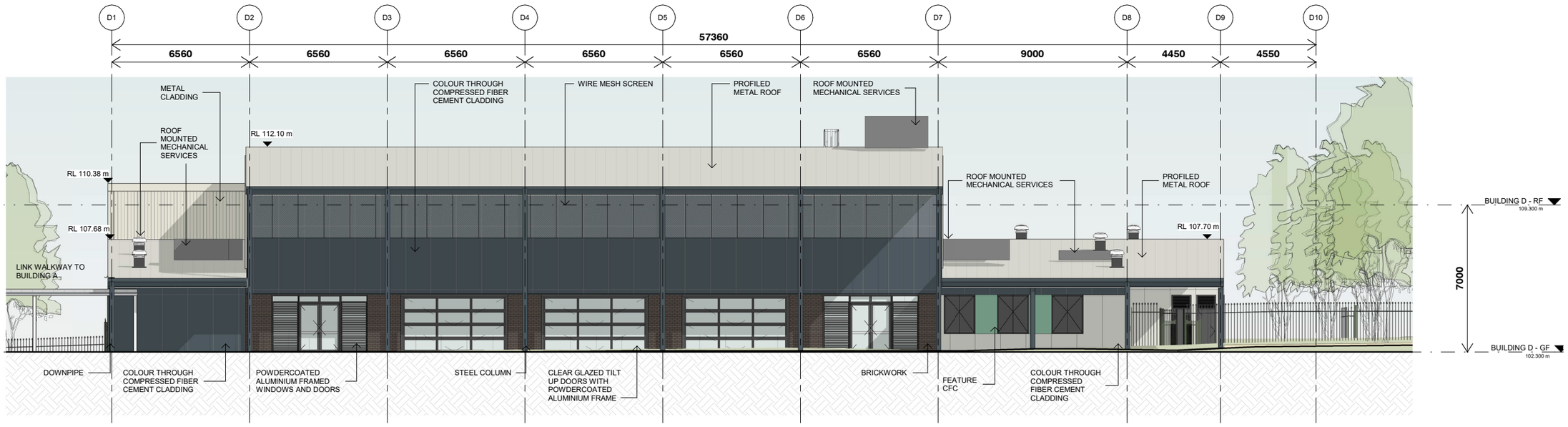
2 BUILDING A - EAST ELEVATION
1 : 100

4.5 Indicative Elevations

Hall



1 BUILDING D - EAST ELEVATION
1 : 100



2 BUILDING D - WEST ELEVATION
1 : 100

4.6 Renders

Aerial View

4.6 Renders

Public Domain - School Entry

4.6 Renders

School internal Courtyard

New school signage made up of individual letters is proposed Individual on the main entry awning, creating a clear and strong school identity. A digital electronic LED sign is also proposed on at the main entry on Digiteria Drive.

Acknowledgement of Country sign will be incorporated into the entry forecourt as a permanent piece - possible in the in situ concrete seating wall, design subject to CwC artist engagement.

Way finding signage will incorporate key directional signage, including building, department and room identification. Signage drawings have been included in the Architectural drawing pack as part of the REF submission.

New School Signage Awning (Feature)

CwC Sign (Feature)

Directional Signage

Main Digital Electronic School Sign

Public Domain Sign
Kiss n Drop, School Parking Hours

Vehicle Entry / Exit Sign

Secondary School Entry

Building Signage

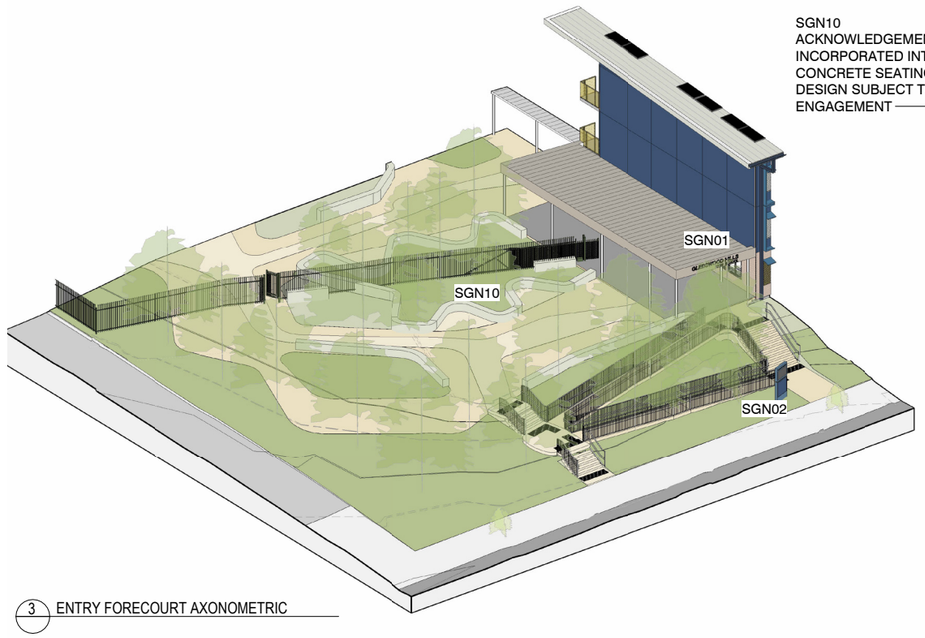
Department Signage
+ EFSG Signage for every room

1 MAIN ENTRY ELEVATION - SGN02
1 : 100

SGN01
INDIVIDUAL LETTER SCHOOL
IDENTIFICATION SIGNAGE.
SCHOOL NAME INDICATIVE ONLY.
SUBJECT TO CHANGE

SGN02
DIGITAL ELECTRONIC LED
SIGNAGE

2 MAIN ENTRY ELEVATION - SGN01 & SGN02
1 : 100



3 ENTRY FORECOURT AXONOMETRIC

SGN10
ACKNOWLEDGEMENT OF COUNTRY
INCORPORATED INTO IN SITU
CONCRETE SEATING WALL
DESIGN SUBJECT TO CWC ARTIST
ENGAGEMENT

ACKNOWLEDGEMENT OF COUNTRY SIGNAGE

05

ENVIRONMENTAL RESPONSE

5.1 Visual Impact Statement

A number of views have been reviewed from major sight lines towards the new school site.

The governing design principle for siting buildings was to address the streetscape and minimise impact toward existing and future developments. The massing of the three-storey buildings are broken by building separation, alignments and layering with the reduced scale hall, centralised open space and entry forecourts.

The generous building setbacks and generous landscape design will reduce the impact of the scale of the building from surrounding streets. The building articulation and materiality will also contribute to soften the bulk and scale of the proposal.

Landscape has not been illustrated in the following visual impact studies so that visual impact of the buildings is clearly visable.

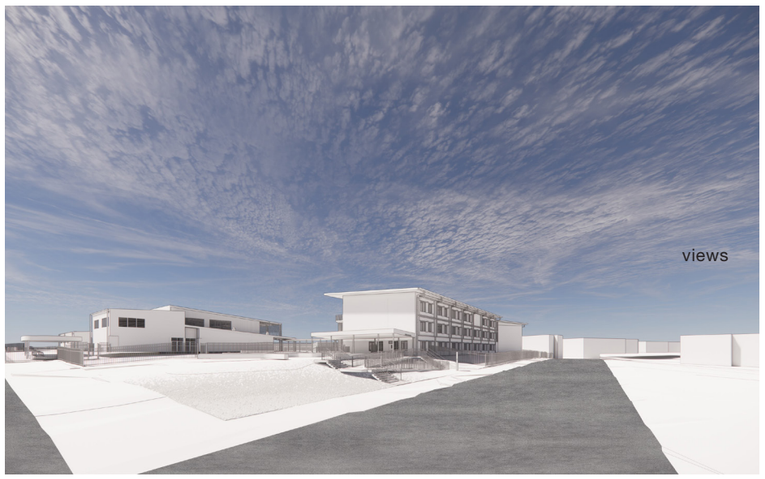
Key Plan

A View from Digitaria Drive East Side

B View from Digitaria Drive West Side

C View from Gregory Hills Drive

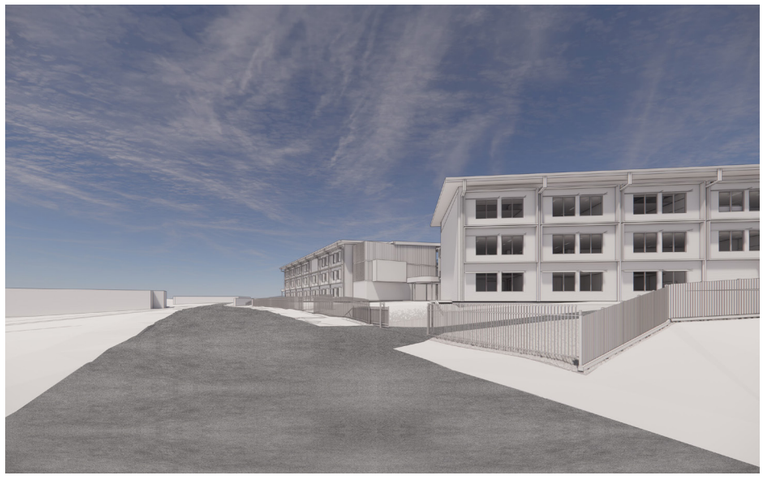
View A from Digitaria Drive East Side



Viewed from Digitaria Drive towards school main entry. The three-storey buildings respond well to neighbouring properties contributing to the streetscape. The Hall sits setback from main the school entry with the forecourt providing a landscaped zone to Digiteria Drive.

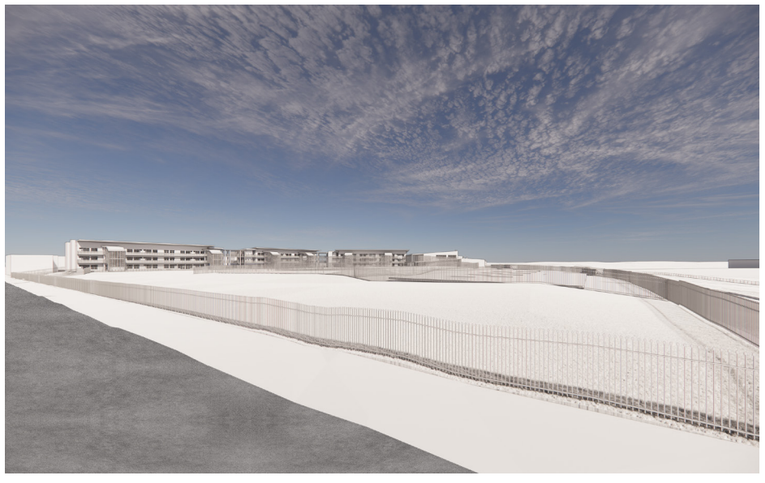
5.1 Visual Impact Statement

View B from Digitaria Drive West Side



Viewed from Digitaria Drive West side, the school lines streetscape. The three-storey buidlings frame the site boundries, in keeping with neighbouring buildings heights and allowing views towards the South Creek Reserve in the background.

View C from Gregory Hills Drive



View from Gregory Hills Drive, the school is setback significantly minimising visual impact to the streetscape.

5.2 Overshadowing

The shadows generated by the proposed buildings have minimal impact on neighbouring properties. Shadow impact is shown in the below modelling study at 9am in winter time along Western boundary and confirms no impact on the adjacent childcare centre on the Western boundary edge or future development due to the generous setbacks. Central play areas including assembly will have good direct solar access.

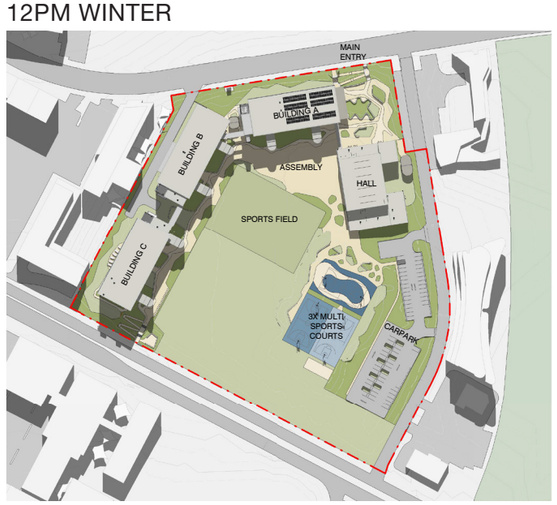
9AM SUMMER

12PM SUMMER

3PM SUMMER

9AM WINTER

12PM WINTER



3PM WINTER

N

5.3 Sustainability Strategies Overview

The following strategies outline the Sustainability approach for the activity by Steensen Varming included in the REF submission.

Impact on Biodiversity

- The landscape strategy has been guided by Green Star Credit 35 (Impact to Nature), to enhance the environmental performance of the land. It includes:
  - » Integration of native plant species
  - » Water Sensitive Urban Design (WSUD) features to passively manage storm water across the site and enhance biodiversity

Resilience

Key Climate Change risk mitigation strategies includes:

- Passive Design Optimisation: Increased thermal performance of the building envelope / shading/ air tightness / heat recovery
- Designed for natural ventilation and good air flow in indoor and outdoor areas (all classrooms and staff spaces) to allow for some increase in temperatures during peak times while maintaining comfortable conditions
- Active design systems: Increase in plant capacity in buildings to accommodate higher ambient temperatures
- Landscape strategy to include:
  - » Provision of trees, planting, covered walkways for shading
  - » Outdoor spaces connected with buildings
  - » Use of soft landscape, hardscaping and roofing materials with high solar reflectance index to reduce the heat island effect and improve outdoor thermal comfort
- Reduced stormwater runoff through rainwater harvesting from roofs
- Selection of native species with low irrigation (potable water) demands
- Community resilience initiative, under the ‘Share Our Space’ program launched by SINSW, if needed, the schools could serve as a place of refuge in case of a natural calamity

Passive Design

- Glazing has been strategically placed in spaces which can allow for more relaxed environmental conditions and that can benefit from access to daylight, views and natural ventilation
- Appropriate shading devices to glazing or high performance glazing to control heat gains and glare
- The performance of the building fabric will be above NCC 2022 Section-J Energy Efficiency minimum requirements by at least 10%
- The building will be tested for airtightness. This will ensure a well-constructed façade and will prevent unwanted heat transfer to the exterior
- Occupancy sensors are considered for all non-critical spaces, to ensure the artificial lighting system is only activated when the space is occupied and remain turned off at all other times

Energy Efficiency and Reduction in Peak Demand for Electricity

- Implement an “energy hierarchy” methodology in order to reduce the buildings energy consumption: optimisation of the building massing and envelope, efficient services and renewable energy generation on site
- Daylight maximisation and use of high efficiency LED lighting including occupancy sensors where appropriate
- Goal to exceed 10% improvement over NCC
- Onsite renewable energy by PV System 99kW on the roof surface of Building C
- The main switchboard will be designed in accordance with NCC 2022 Section-J requirements, to allow for PV and future battery installation
- A BMS system as per NCC requirements will be included in the project.
- All external lights to comply with Upward Light Output Ratio below 5%

Water

- Promote water drinking with accessible, filtered water dispensers through the site
- Water efficient fixtures and fittings certified under the WELS rating scheme will be specified for the project
- Rainwater harvesting is incorporated and will be reused for landscape irrigation
- Efficient water management through an automatic water meter monitoring system will be installed

Minimisation of Waste

- Collection of separate waste streams and efficient access to waste and storage areas
- Construction waste: builder to divert at least 90% of construction and demolition waste from landfill
- Builder or head contractor to develop and implement an environmental management plan to cover the scope of construction activities
- For operational waste management, the activity shall endeavour to implement guidelines provided in the SINSW Waste Handbook

Embodied Emissions

To support a reduction in the embodied emissions for the project, the following strategies are to be considered:

- Material reduction through efficient design layouts, structure and façade
- Prioritising prefabricated and modular components
- Specification of low carbon materials
- Sourcing of local products
- Substitution of raw materials with recycled or reclaimed alternatives
- Design for disassembly & repurposing of demolition waste

Green Star Certification

GBCA’s Green Star Buildings v1.0 evaluation tool has been used to inform the project design, with an aspiration to achieve a 5-star rating

06

LANDSCAPE STRATEGY

6.1 Landscape Masterplan

The new high school at Gledswood Hills shall be developed on essentially a green field site. Bounded by new housing and bushland, the school shall balance Designing with Country, Schools Infrastructure requirements and standards, whilst having consideration to urban design.

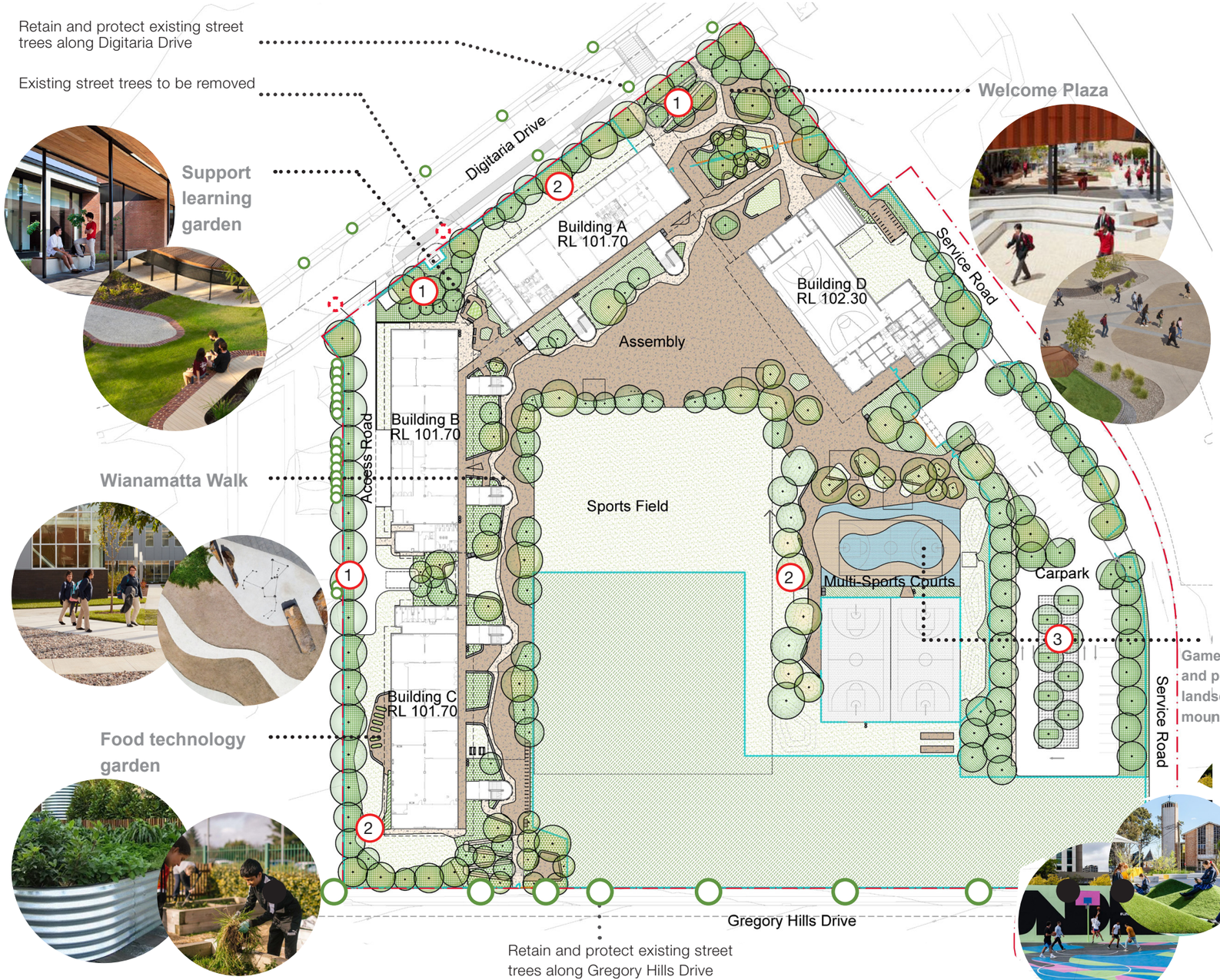
The Northern corner of Digitaria Drive shall host the Entry Plaza or forecourt to the school. This space will act as a public offering, aiding in legibility, seating amenity, shade and displaying Connection with Country themes and knowledge.

The arrangement of proposed buildings allows for a large semi-courtyard arrangement which wraps around by the Wianamatta Walk which is proposed to be a wide, meandering path with varied areas of hardscape, softscape and planting and inbuilt seating areas providing places for pause and engagement driven by Country creating. The design intent is to blur boundaries between programme and allow for good circulation and legibility of the external space.

A variety of seating spaces for varying sized groups both learning and socialising are scattered though out. Garden beds host native plants from local plant communities with new tree plantings for much needed shade and softening of built form.

Boundary planting and the new car park shall contain further new tree plantings.

Water Sensitive Urban Design (WSUD) is core to the coordinated Civil and Landscape design as both a naturalistic and cost-effective method to deal with overland flow. The proposed landscaped earth berms not only provide opportunities for cut disposal they perform an integral landscaped stormwater response. Other WSUD strategies include the replication the shape of the South creek in the design, infiltration beds, permeable paving and dry creekbed/swale design.



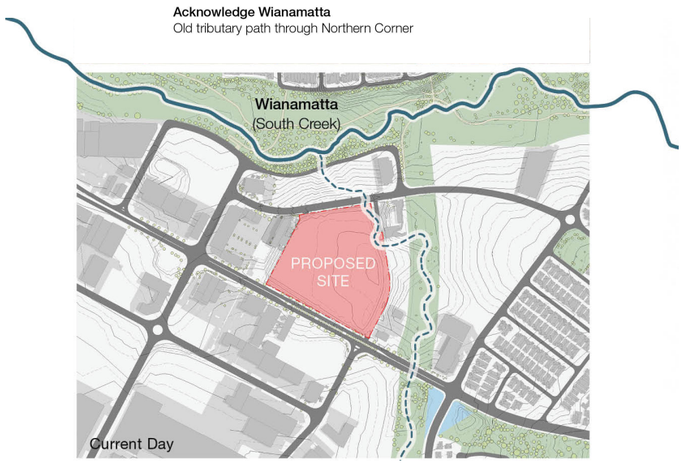
WSUD Strategies:

1. Infiltration Beds
2. Dry Creekbed / Swale
3. Permeable Paving

Indicative Tree Retention and Removal (Source: AIA, Nov24)

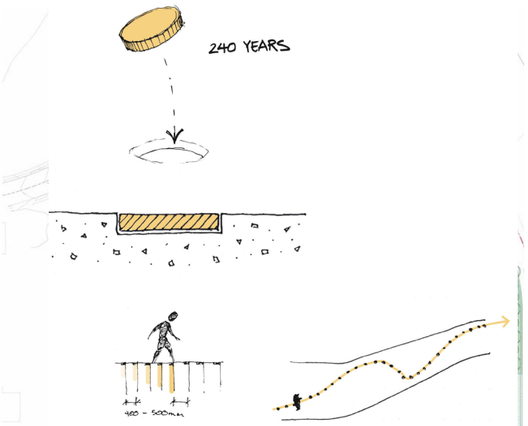
- Existing Street Trees Retained
- Existing Street Trees Demolished

The Acknowledgment of the Wianamatta South Creek's old tributary path through Northern corner of site starts at the new Digitaria Drive Entry Plaza going through the site. It includes inbuilt tokens of Acknowledgement of Country through to the Gregory Hills Drive connecting either end of School path. These elements form part of the core Connecting to Country response to Place and Community and are also to be further developed through co-design and additional consultations within the design finalisation phases and construction (shaping) period.



Connecting with Country

1 Wianamatta Walk



2 Welcome Plaza

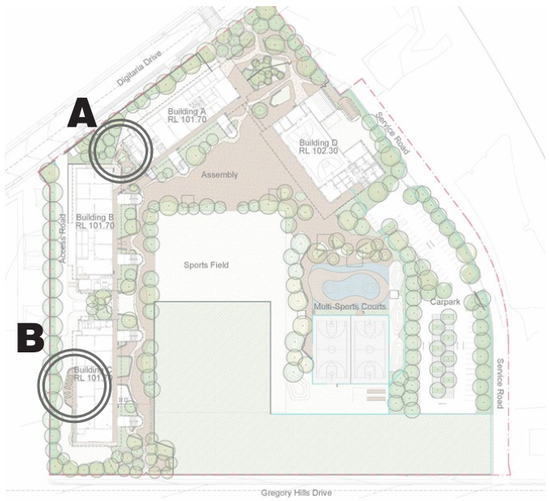
GHHS SDRP Response
Site Image | November 2024

6.3 Landscape I Pedagogy

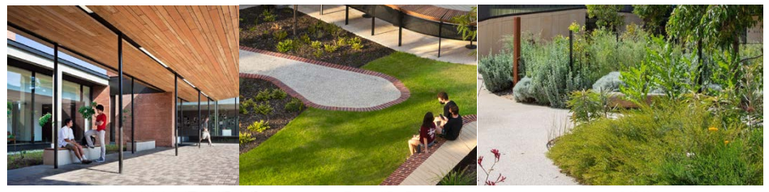
The landscape is purposefully designed to provide outdoor learning spaces with pedagogical approaches in mind, from inquiry-based to collaborative, reflective or integrative. The spaces provide opportunity for students, teachers and staff to be in contact with nature and Country, learn and gather while apply to curriculum.

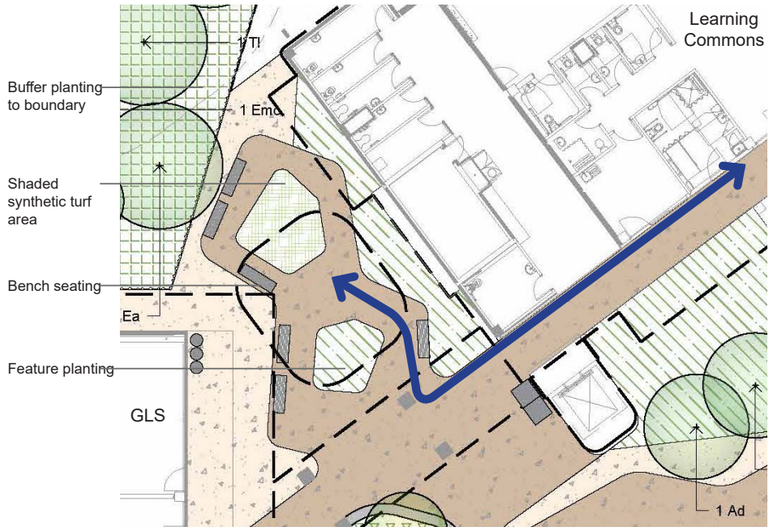
A range of key outdoor spaces have been considered:

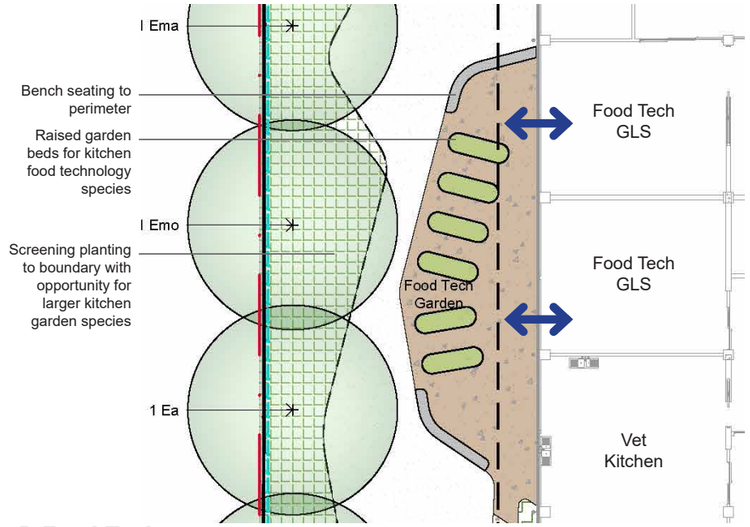
- Entry forecourt
- Staff/SELU garden
- Sensory playspace
- Bistro
- Food Tech garden
- Outdoor workshop
- Group seating areas
- Outdoor Classrooms



A Support Learning







B Food Tech

GHHS SDRP Response
Site Image | November 2024

6.4 Landscape | Planting Strategies

Native Vegetation Communites

The Gledswood Hills planting strategy has been developed through the use of local plant communities - Cumberland Shale Plains Woodland and Cumberland Red Gum River Flat Forest.

In addition plant species of local Indigenous significance are riparian species tied into the importance of the Wianamatta creek traditional food and medicine.

Welcome Plaza

- Native species

  Colour and texture in foliage

  Heights to maintain sight lines for surveillance

Assembly and School Heart

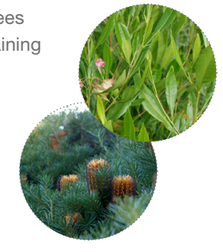
- Canopy trees for shade
- Low height understory

Wianamatta Walk

- Native grasses to reflect riparian plantings

Boundary Planting & Carpark

- Clear trunked canopy trees for softening and maintaining sightlines
- Low understory planting



Cumberland Shale Plains Woodland

Cumberland Red Gum River flat Forest

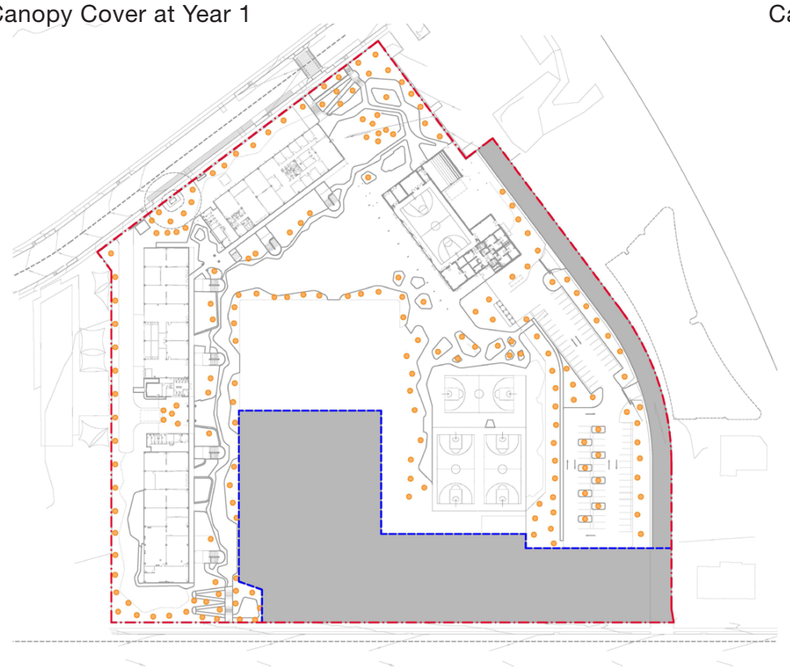
Wianamatta Creek riparian species

Canopy Tree Planting

6.5 Landscape | Canopy Cover

Canopy cover has been developed to maximise tree planting and shading to hardstand areas, in particular to the assembly and courts to provide shade amenity for users.

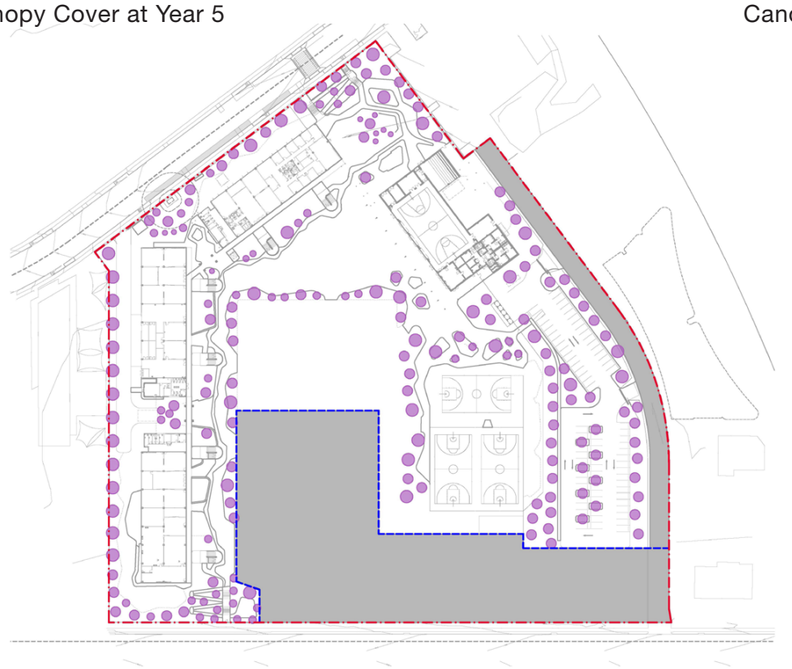
Canopy Cover at Year 1



Site Area	41570 sqm
*Site Area for Canopy Calculation	31382.55 sqm
Year 1 Tree Canopy	603.20 sqm (1.92%)

**Site Area for Canopy Calculation = Site Area - Area Excluded (grey)*

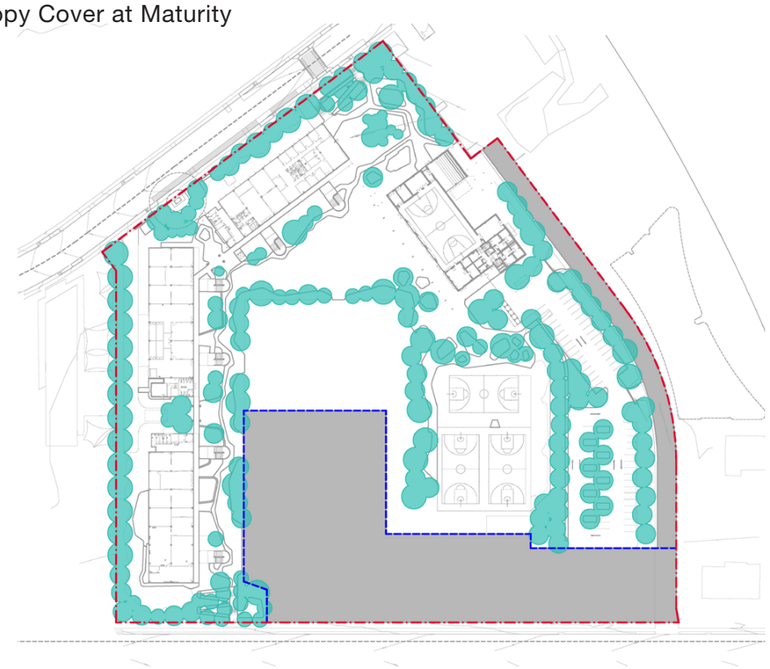
Canopy Cover at Year 5



Site Area	41570 sqm
*Site Area for Canopy Calculation	31382.55 sqm
Year 5 Tree Canopy	2371.50 sqm (7.55%)

**Site Area for Canopy Calculation = Site Area - Area Excluded (grey)*

Canopy Cover at Maturity



Site Area	41570 sqm
*Site Area for Canopy Calculation	31382.55 sqm
Mature Tree Canopy	8957.45 sqm (28.54%)

**Site Area for Canopy Calculation = Site Area - Area Excluded (grey)*

6.6 Landscape - Diversity of Space

A variety of gathering and play spaces are provided thought landscape areas.

Closer to the building, more intimate spaces such as support learning allow for smaller groups with shelter from adjacent classes and circulation spaces.

Larger more social groups and activities are catered for along the Winamatta walk overseeing the field as well as forecourts and assembly areas.

Seating surrounding the games court provides areas for spectators and engagement with users of the courts. Informal seating to the North of the courts is provided by landscaped mounds.

10. Ensure a diversity of gathering and play spaces are provided. Consider ways of integrating vegetation and earthworks into the functional programming of the unencumbered play spaces to create a meaningful design that caters to all student's needs.

07

DESIGN VERIFICATION

7.0 | DESIGN VERIFICATION

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Connecting with Country	
There are promising moves within the response to Country emerging. Further work is needed to carry this response through the site and create stronger physical and visual connections to the surrounding context.	Noted.
1. Continue to progress the key design move – Wianamatta Walk – by:	
a. continuing the walk and its strong design language to the Digitaria Drive Entry Plaza and Gregory Hills Drive entrance	The Wianamatta walk has been extended, as suggested, to start at the new Digitaria Drive Entry Plaza including inbuilt Acknowledgement of Country through to the Gregory Hills Drive with the inlaid tokens connecting either end of the path. These elements form part of the core Connecting to Country response to Place and Community and are also to be further developed through co-design and additional consultations within the design finalisation phases and construction (shaping) period.
b. adjusting the siting of buildings to open the physical and visual connection from the walk to the surrounding environment, for human and non-human kind	The location of the Hall has been adjusted in response to this SDRP comment to provide more space to the entry forecourt and increase visibility and connection of the walk from the main entry through the school and greens spaces to the Gregory Hills Drive entry.
c. ensuring sufficient spaces to pause, dwell and engage with the walk, beyond its use as solely a movement corridor	Wianamatta Walk is a wide, meandering path with varied areas of hardscape, softscape and planting and inbuilt seating areas providing places for pause and engagement.
d. providing sufficient room for dense native vegetation and large canopy trees, to ensure a shaded, comfortable environment	The walk includes generous areas for planting of advanced specimen native trees and a specific planting matrix developed by the Landscape Architects including native shrubs, accents, grasses and ground covers. Refer also to Section 6.4 Landscape Section and Landscape package drawings.
e. integrating this into an outdoor teaching offer – through water treatment	While there is no specific water treatment on site, the Wianamatta Walk creates a link to a number of targeted and overarching learning opportunities relating to the history of water on the site. Overall, the Walk acknowledges millennia of First Nations custodianship of Country against the recent history of colonisation and opportunities to create a better shared future for this Country. It begins at the location where the South Creek used to run through the site or falls towards edge of original creek. The inlays and the narrative of the design is an educational outdoor teaching offering for students, staff and community to learn about the heritage of the site. A number of specialist discipline teaching spaces have been including along the walk also for Food Technology, Wood & Metal, Support learning with multiple and varied seating opportunities. A Food Tech garden has also been included to the rear of Building C. Water treatment strategies include infiltration beds, permeable paving and dry creekbed / swale.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Connecting with Country continued	
f. exploring opportunities for water to traverse the corridor, through ephemeral gullies, swales and even ponding.	Water sensitive urban design is core to the coordinated civil and landscape design as both a naturalistic and cost-effective method to deal with overland flow. The proposed landscaped earth berms not only provide opportunities for cut disposal they perform an integral landscaped stormwater response. Refer to section 6.1 Landscape Masterplan for further details.
2. Further develop the opportunity for Country within the two primary site entrances. Explore shifting buildings and fences further back to create meaningful places for the community to gather and engage with the site and its important context within the South Creek/ Wianamatta Creek catchment.	The entry forecourt has been further developed to provide more space to this area, shifting fence lines to create a community gathering space at the main entry to the site. An inbuilt Acknowledgement of County is to be developed with local indigenous artists within this forecourt which could be inlaid into the pathway of the walk itself or in a place of prominence in the inbuilt seating elements. Placeholders for large-scale Connecting with Country artwork murals have been located on the lift core, the East façade of Building A at Digitaria Drive and South façade of Building C at Gregory Hills Drive, which both have prominent street facing orientations. A stylised interpretation of Wianamatta Creek is a placeholder only with the actual art work to be developed through consultation and co-design. While security requirements are understood, institutional fencing at the school boundary is historically unwelcoming for First Nations people, and so a feature fence is proposed at both entries with opportunities to incorporate a welcoming 'first touch' for the school to engage with all visitors and students.
3. Refer to the Connecting with Country Framework and case studies on the GANSW web-site for more information and guidance.	Noted.
Site Strategy and Landscape	
Given the limited variability in the architectural expression afforded by the SINSW Pattern Book, the landscape will need to play a crucial role in creating a strong sense of place. Concern was raised around canopy and shade, the hierarchy of informal gathering and play spaces, the siting of key facilities and the positioning of the Multi Sports Courts.	Noted.
4. Continue to explore opportunities to maximise canopy cover within all spaces, including the assembly area and Multi Sports Courts. In addition to maximising canopy cover, pro-vide calculations for the following: (Continued next page)	Noted.

7.0 | DESIGN VERIFICATION

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Site Strategy and Landscape continued:	
a. separate canopy cover for unencumbered play areas and non-accessible landscape areas (between buildings and boundary fences)	Areas of canopy cover have been more evenly distributed in the development of the design since the SDRP presentation and feedback. This includes the swapping of the sports courts and field areas, and breaking up of landscaped and canopy covered areas surrounding these. Canopy cover frames all edges of unencumbered play spaces and areas between buildings and boundary fences. Refer also Section 6.1 Landscape
b. canopy cover at key landscape maturity times, such as year one, year 5, and year 10	Refer Section 6.5 Landscape
5. Consider the benefit of generous canopy beyond shade provision, as both a tool to manage building cooling, heat island reduction, and biodiversity.	This has been considered in the re arrangement/reconfiguration of the sports courts to provide landscaping around between the outdoor play spaces.
6. Increase the provision of shaded and covered (weather protected) outdoor spaces. Ensure shaded and covered areas are well distributed and of varying sizes to accommodate flexible and diverse unencumbered play areas and teaching spaces.	Noted. Weather protected canopies have been provided for the following areas: Support Learning area, COLA in the Hall and canteen, covered walkways, buildings external circulation including in the ground floor interface with outdoor learning spaces, staircases, lifts, links to amenities as well as School's main entry awning.
7. Consider provision for interim shade solutions to ensure sufficient solar protection while the canopy establishes.	Refer Landscape section 6.5 - SINSW targets for advanced tree procurement strategy.
8. Study shifting the location of the hall to enable the Digitaria Drive entry plaza to provide for a generous and meaningful gathering space.	This has been considered and implemented. Refer Item 1b of this response table and Section 6.5 Landscape.
9. Revisit the layout of the Multi Sports Courts to reduce adverse impact on the proposed Wianamatta Walk and the teaching buildings by exploring the following: a. relocating the courts away from the teaching buildings by swapping them with the Sports Field b. reducing the continuous lengths of chain-link fencing by staggering the positioning and angle of the courts (noting Multi Sports Courts are ideally north-south oriented) c. dividing the five courts into smaller clusters to reduce heat island effects from the extensive area of continuous hardstand with no landscape d. activating the spaces in between the courts e. scrutinising the number of courts required	These items have been has been considered and implemented through the rearrangement of the field and the courts, reconfiguration of the courts and altering of orientation of the feature court. The spaces between and around the courts have been activated. Refer Item 1b of this response table and Section 6.1 Landscape

7.0 | DESIGN VERIFICATION

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
10. Ensure a diversity of gathering and play spaces are provided. Consider ways of integrating vegetation and earthworks into the functional programming of the unencumbered play spaces to create a meaningful design that caters to all student's needs. Explore the following spatial needs: a. informal and formal outdoor learning spaces b. smaller Multi Sports Courts and/or half courts for informal play c. different ages, genders, cultures and social groups; of all sizes.	Refer Section 6.6 Landscape Diversity of Spaces. A variety of gathering and play spaces are provided thought landscape areas. Closer to the building more intimate spaces such as Support learning allow for smaller groups with shelter from adjacent classes and circulation spaces. Larger more social groups and activities are catered for along the Winamatta walk overseeing the field as well as forecourts and assembly areas. Seating surrounding the games court provides areas for spectators and engagement with users of the courts. Informal seating to the north of the courts is provided by landscaped mounds.
11. Continue to explore how the use of earthworks and recontouring the site can provide a richer and more engaging environment. Consider: a. variations in scale and form to provide meaningful gestures and visual interest b. programming opportunities such as amphitheatres, spectator areas, gathering hollows and so forth c. places for a greater diversity of native habitats to facilitate a stronger sense of place and help heal Country.	The key landscape thematic and feature of the Wianamatta Walk provides a meandering spine though the site. Mounding around the sports fields creates seating and play spaces that benefit from varying aspects to provide shade, shelter and differing settings for groups. The moulding as well as seating adjacent courts enables a social space for spectators, gatherings and groups of different sizes. Boundary planting in particular provides generous areas of native planting with the distribution of smaller areas of softscape thought the landscape providing opportunities to engage with native planting, respite from hardstand, garden beds for canopy trees and the management of water through passive irrigation of garden beds
12. Demonstrate methods of better utilising the 'periphery' spaces between buildings and the boundary fences. These spaces can provide significant amenity and opportunity for students to engage with site frontages and Country. Explore: a. accommodating a range of significant canopy trees to provide ample shade for buildings and the streetscape, particularly as the buildings are located on the western side of the site b. generous landscaping to provide high levels of amenity and provide a rich diversity of habitat c. supervised programming opportunities, such as flexible outdoor learning overflow spaces, environmental education, and amphitheatre style berms d. refer item 16 in 'architecture' for further commentary.	Planting and canopy trees are located throughout the landscape providing shade, habitat and a green outlook to adjacent classrooms. Outdoor learning spaces are provided for Support leaning and food technology, these enable a flow between indoor activities and the landscape. The setting of the food technology area takes advantage of a peripheral space that allows for a degree of separation from the main play area activities and appropriate north western aspect for the growing of crops for use in classes. Amenity shaped along the Wianamatta walk ensures supervision and convenience from indoor learning spaces.
13. Challenge car parking numbers, location and layout to maximise space for canopy, landscape and unencumbered play spaces.	Car parking numbers are based teaching staff numbers (no parking provided for Year 12 students). Tree canopy cover to car park has been maximised with zones of permeable paving included. Refer to Section 6.5 Landscape Masterplan

7.0 | DESIGN VERIFICATION

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
14. Emphasise all entry points to the school and refine the public domain hierarchy across the site.	The main entry point has been emphasised with the increased space allocation to the entry forecourt, generous planting allowances and gathering spaces and seating. Gregory Hills Drive is also emphasised by generous tree planting allowance and waiting and seating spaces.
Architecture	
The size of the site provides ample opportunity to place buildings in locations that maximise the quality of internal and external environments. Additionally, the breadth of the Pattern Book designs could be adopted to provide greater opportunity to increase architectural variation and an improved sense of place.	Noted.
15. Consider how the built form edges of the Wianamatta Walk can better engage with this important student spine.	Refer item 1a-e of this response table and Landscape Section 6.2
16. Explore extending the Country narrative into the built form; responding to key nodes and pause points along the walk. Give particular attention to classroom entries, balustrades and stairwells.	Refer item 1a-e of this response table and Landscape Section 6.2
17. Demonstrate how the diversity of façade treatments adopted from the Pattern Book has been maximised. Consider how the material options can better break up the large, continuous forms and prevent a sense of ‘sameness’. Study ways of utilising these materials to create visual interest, identity and assist wayfinding.	SDRP confirmed comment is out of scope (Pattern Book)
18. Explore adjusting the placement of stairwells to reduce the repetitive nature of the façade rhythm and increase the sense of identity between each building. Consider varying stairwell placement, playing with angles (i.e., perpendicular, parallel, 45°), and adopting a range of materials from the Pattern Book.	SDRP confirmed comment is out of scope (Pattern Book)
Sustainability and Climate Change	
There is further scope for sustainability to inform the design of both the landscape and architecture. Consider how education facilities can inspire students about sustainability and help them better engage with their local environment	Noted.
19. Explore how the use of ecologically sustainable landscapes such as permeable pavements, swales, biodiverse habitats, rainwater capture and reuse, etc., can offer formal and informal learning environments and places to connect with Country.	Refer to Section 6.1 Landscape, Section 5.3 Sustainability Strategies overview and Item 1a-e of this response table
a. accommodating a range of significant canopy trees to provide ample shade for buildings and the streetscape, particularly as the buildings are located on the western side of the site	Refer to Section 6.5 Landscape Canopy cover

7.0 | DESIGN VERIFICATION

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Sustainability and Climate Change continued	
20. Pursue methods of integrating sustainable design into the learning environment, such as through visible energy monitoring, passive design features, material information/labelling, etc.	Refer to Section 5.3 Sustainability Strategies overview
21. Illustrate how the project will contribute to NSW's Net Zero emissions goal by 2050. Refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information.	SINSW projects address net zero readiness through the following – Scope 1 & 2 emissions: • The implementation of passive solar design principles and targeting Green Star certification • Improved energy efficiency (through specification of energy efficient light fittings, equipment, appliances etc.) • Electrification of assets (eliminating the use of gas) • Inclusion of onsite renewable energy generation (solar PV) Scope 3 emissions: • The use of low carbon materials (noting GS materials credits targeted) • Minimisation of construction waste and thereby embodied carbon (MMC techniques) • Support for sustainable transport options - i.e. walkable school catchment areas, safe pedestrian access and crossings, support for bicycles and proximity to public transport

08
APPENDIX

Indigenous
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MEANINGFUL CONNECTIONS

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Gregory Hills/Gledswood Hills High School

'CONNECTING WITH COUNTRY'

Aboriginal Community Engagement Report

Client: Schools Infrastructure NSW

Date of Report: 02 September 2024

Acknowledgement

I extend my deepest gratitude to the Cultural knowledge holders and to those who possess specialised knowledge of the Traditional lands and culture of the Camden area.

The generosity of the local community in sharing their stories, culture, and time has been invaluable in the creation of this report.

Their contributions have not only enriched this work but have also deepened our understanding and appreciation of their rich heritage.

Connecting with Country is a gift from First Nations People to help us understand that we are not separate from Country. We are a part of Country and a larger ecosystem and cycle of life which encompasses the physical, sacred, and spiritual.

When Country becomes unbalanced or sick, we all suffer.

Contents

Terminology use

In this report, the term "Aboriginal" is used respectfully to refer to Aboriginal and Indigenous communities, as well as various other First Nations and clans, within the scope of this document. This usage aligns with Indigenous Lead Facilitation principles, ensuring that the terminology employed throughout the report honours and recognises the sovereignty and diversity of these groups.

Acronyms

AECG	*Aboriginal Education Consultative Group*
ILF	*Indigenous Lead Facilitation*
LALC	*Local Aboriginal Land Council*
RAP	Registered Aboriginal Parties
SINSW	*Schools Infrastructure New South Wales*

Terminology

Term	*Description of Understanding*
Place	Weaving place names, locations and route descriptions from oral histories and tradition passed from generation to generation.
Truth Telling	Truth-telling is about openly acknowledging historical facts to foster an inclusive, just society. It recognises Aboriginal' deep connections to the land and their pivotal role in shaping Australian culture and society.
Story Telling	Storytelling is central to Aboriginal culture, serving as the main method of preserving history. For thousands of years, Aboriginal have passed down tales of their history, educational narratives, and stories about the land, creation, and tradition through generations. This tradition remains vital today, supporting communities, affirming experiences, fostering relationships, and acting as a key means of cultural continuity for Aboriginal peoples.

Executive Summary

The Gledswood Hills High School, commissioned by School Infrastructure NSW (SINSW), is a key development in the rapidly growing Camden Local Government Area (LGA). These new educational facilities aim to provide state-of-the-art environments that cater to the diverse needs of a growing community, with a particular focus on integrating Aboriginal cultural perspectives in line with the 'Connecting with Country' framework.

This report outlines the extensive consultation process undertaken with the Dharug and Dharawal communities to ensure that the school is designed in a manner that honours and reflects the cultural heritage and values of the Aboriginal peoples. The consultation included Walk on Country sessions with respected Elders, community workshops, and online engagements, all of which contributed to the development of culturally significant design elements for the school.

Key themes that emerged from the consultations include the importance of Truth Telling, Story, and Place. These themes have been integral in shaping the proposed design features, such as the inclusion of yarning circles, coolamon-shaped seating, and garden areas that reflect the natural landscape and cultural significance of the region. The report also emphasises the need for the schools to serve as places of education, not just in traditional subjects, but in the rich cultural history of the Dharug and Dharawal peoples, including the recognition of historical events such as the Appin Massacre and the ongoing connection of the Aboriginal peoples to their land.

The recommendations from these consultations are intended to guide the integration of cultural elements into the school's architecture and landscaping and as an additional outcome these learnings can be emerged into educational programs. The report concludes that by embedding these cultural considerations into the design, the new Gledswood Hills High School will not only provide modern educational facilities but will also foster a deep connection to Country, ensuring that the cultural heritage of the Aboriginal community is preserved and celebrated for future generations.

1. Introduction

1.1. Project Background

Gregory Hills and Gledswood Hills are rapidly growing areas within the Camden Local Government Area (LGA) in Sydney's southwest. With increasing populations and a high demand for educational facilities, the construction of these new high schools aims to provide state-of-the-art learning environments that cater to the diverse needs of the community. The schools are designed to accommodate a large student body, featuring modern classrooms, specialised learning spaces, sports facilities, and community engagement areas.

The new school builds at Gregory Hills and Gledswood Hills High School are significant projects undertaken by Schools Infrastructure NSW. These projects are part of the broader initiative to enhance educational facilities and ensure that they meet contemporary standards for quality education. Integrating Aboriginal cultural perspectives is a key element of these new builds, aligning with the 'Connecting with Country' framework to foster environments that respect and reflect the cultural heritage and values of Aboriginal communities.

1.2. Connecting with Country Framework

The "Connecting with Country" framework serves as a guiding compass for government entities, urban planners, architects, and industry stakeholders in New South Wales. It directs them on how to incorporate Aboriginal cultural considerations into the planning, design, and execution of built environment projects. The framework aims to enhance the recognition of Aboriginal culture in urban planning and design, amplify Aboriginal voices, and foster collaboration with their communities. By integrating Aboriginal perspectives into development initiatives, this approach promotes sustainability, resilience, and community well-being.

2. First Peoples of the lands of the Camden Shire area

The cultural mapping of the First Peoples of the lands in the Camden Shire area involves understanding the historical and contemporary connections of Aboriginal groups to the land, their cultural practices, significant sites, and their continued presence and influence in the area.

Camden Shire, located in the southwestern outskirts of Sydney, covers a significant portion of land traditionally inhabited by the Dharawal people. This area is rich in history and cultural significance for Aboriginal People.

Dharawal Nation

- Language Group: The Dharawal people are the Traditional Owners of lands which are situated within the Camden Shire area. Their language, also called Dharawal, was traditionally spoken across the region, including parts of the Illawarra and the southern fringes of Sydney.
- Territory: Dharawal land extends from the southern Sydney suburbs down to the Illawarra and Shoalhaven regions. The Camden area is on the northern boundary of Dharawal territory, overlapping with the lands of neighbouring Aboriginal peoples such as the Gandangara and Darug peoples.

Gandangara Nation

- Language Group: The Gandangara people historically occupied lands to the west of the Camden area, extending towards the Blue Mountains. Their language is known as Gandangara.
- Territory: The Gandangara lands cover parts of the southern highlands, including areas around Picton, which borders the Camden Shire. There is some overlap and shared usage of land between the Gandangara and Dharawal groups, particularly in the Camden region.

Darug Nation

- Language Group: The Darug people are another group that has historical connections to the northern parts of Camden Shire. The Darug language was thought to be widely spoken across what is now the Greater Sydney area.
- Territory: Darug lands traditionally extend from the Hawkesbury River in the north to the Parramatta River in the south, overlapping with the northern parts of the Camden area.

Significant Cultural Sites

- Nepean River, running through the Camden area, has been a significant cultural and life-sustaining feature for the Dharawal, Gandangara, and Darug peoples. It served as a source of water, food, and a means of travel.
- Mount Annan, now home to the Australian Botanic Garden, is an important cultural site. The area was traditionally used for gathering native plants and foods, as well as a place for social and ceremonial activities.
- Camden Park, an area of historical importance to both colonial and Aboriginal histories, was a noted as a site where early interactions between local Aboriginal people and European settlers occurred. It was also a traditional gathering place for Aboriginal groups.

The Camden Shire area features numerous cultural landscapes that reflect traditional Aboriginal Peoples practices. These include ceremonial sites, trade routes, and areas used for gathering food and materials. The traditional pathways, often following natural landmarks such as rivers and ridgelines, were integral for trade, communication, and cultural exchange between different groups.

Contemporary Connections

- **Local Aboriginal Land Councils (LALCs):** The Tharawal Local Aboriginal Land Council (TLALC) plays a significant role in managing land and cultural heritage in the Camden area. Over the years they have played a significant role in protecting sacred sites, promoting cultural awareness, and ensuring that development projects respect Aboriginal cultural heritage.
- **Aboriginal Community Groups:** Various Aboriginal community groups and Elders continue to have a strong presence in the Camden Shire area. They work on initiatives to preserve and promote Aboriginal culture, language, and history, often in collaboration with local councils and educational institutions.

Cultural Practices

The Dharawal, Gandangara, and Darug peoples practiced sustainable land management, including the use of fire stick farming, to maintain the health of the land and promote the growth of plant species. This practice also helped in hunting and managing resources.

Art and storytelling are integral to the cultural practices of the Dharawal, Gandangara, and Darug peoples. The Camden area has numerous sites where rock art, carvings, and other cultural expressions can be found, reflecting the deep connection between the people and the land.

Conclusion

The cultural mapping of the Camden Shire area reveals a rich tapestry of Aboriginal history and ongoing connections to the land. The Dharawal, Gandangara, and Darug peoples have left a legacy through their cultural practices, significant sites, and continued presence in the region. This mapping is essential for understanding the cultural heritage of the area and for ensuring that Aboriginal perspectives are included in future developments and conservation efforts.

3. Natural Environment of Camden Shire Area

The Camden Shire area is characterised by a rich and diverse natural environment, shaped by its unique topography, water systems, and native flora and fauna. Located within the Cumberland Plain Woodlands, a critically endangered ecological community, Camden Shire boasts a variety of landscapes including rolling hills, fertile plains, and significant watercourses such as the Nepean River and South Creek. These elements contribute to the area's ecological richness and environmental significance.

Landscape and Waterways

The Camden Shire Local Government Area (LGA) lies within the Cumberland Plain Woodlands, a region extending from the Hawkesbury to Picton and Parramatta to the foothills of the Blue Mountains. This area features a diverse range of landscapes, including gently undulating hills, expansive fertile plains, and vital water systems. The Nepean River and South Creek are the primary waterways that define the region's topography and support various ecosystems.

Nepean River: Flowing through the Camden Shire, the Nepean River is a key waterway that plays a crucial role in the area's ecology. It supports a range of aquatic and terrestrial habitats, providing essential resources for numerous species. The river's floodplains and adjacent areas are home to a variety of plant and animal life, making it a critical component of the region's natural environment.

South Creek: South Creek is another significant waterway in Camden Shire, flowing northwards to join the Hawkesbury-Nepean River system. Its catchment area includes various tributaries and supports a diverse range of ecosystems. The creek's riparian zones are vital for maintaining biodiversity, improving water quality, and providing habitats for various species. The creek also plays an important role in the region's hydrological system, influencing local water tables and contributing to the overall health of the Nepean River.

Vegetation

The Camden Shire area is predominantly covered by the Cumberland Plain Woodlands, characterised by an open canopy of eucalypts, a diverse understory of shrubs, and a ground layer of grasses and herbs. This ecological community is home to a variety of plant species that are adapted to the region's specific soil and climatic conditions.

Cumberland Red Gum River Flat Forest:

- **Eucalyptus species:** The Cumberland Red Gum River Flat Forest is dominated by *Eucalyptus tereticornis* (Forest Red Gum) and *Eucalyptus amplifolia* (Cabbage Gum). These species are typically found along floodplains and river flats.
- **Acacia species: Common** Acacia species include *Acacia decurrens* (Black Wattle) and *Acacia parramattensis* (Parramatta Wattle), which are often found in the mid-story or as part of the undergrowth.
- **Shrubs and groundcovers:** The understorey is rich with species such as *Bursaria spinosa* (Blackthorn), *Melaleuca decora* (White Feather Honeymyrtle), and native grasses like *Microlaena stipoides* (Weeping Grass) and *Poa labillardierei* (River Tussock). Herbaceous plants like *Dianella caerulea* (Blue Flax Lily) and *Lamandra longifolia* (Spiny-headed Mat-rush) also contribute to the diverse ground layer.

Riparian Vegetation along South Creek:

- **Eucalyptus species:** Riparian vegetation along South Creek typically includes Eucalyptus tereticornis (Forest Red Gum) and Eucalyptus amplifolia (Cabbage Gum), which are adapted to the moist conditions along the creek banks.
- **Acacia species:** Common Acacia species in the riparian zones include Acacia floribunda (Gossamer Wattle) and Acacia longifolia (Sydney Golden Wattle), which contribute to the mid-story vegetation.
- **Shrubs and groundcovers:** The understorey is often composed of Melaleuca styphelioides (Prickly-leaved Paperbark) and Leptospermum polygalifolium (Tantoon), along with native grasses such as Microlaena stipoides (Weeping Grass) and Phragmites australis (Common

Reed). The ground layer is also populated by herbaceous plants like Carex appressa (Tall Sedge) and Juncus usitatus (Common Rush), which are well-suited to the wet conditions typical of riparian zones.

South Creek Flora:

- **Eucalyptus camaldulensis** (River Red Gum)
- **Casuarina cunninghamiana** (River Oak)
- **Phragmites australis** (Common Reed)

These plant species are essential for maintaining the structural integrity of creek banks, filtering pollutants, and providing habitat for a wide range of wildlife.

Connecting with Country

The above vegetation has three main levels in which their colours and shades can influence building level clours:

High level- Eucalyptus trees (greens, brown and reg and white flower colours)

Mdium level – Acicia species (green, brown, grey and yellow flower colours)

Low level – Shrubs and ground covers (greens, browns and red, yellow, purple and white flower colours)

Fauna

The Cumberland Plain Woodlands and the riparian zones of South Creek support a diverse array of fauna, contributing to the area's rich biodiversity.

Cumberland Plain Woodlands Fauna:

- **Mammals**: The woodlands are home to various mammals, including the platypus, which requires clean, flowing water and dense riparian vegetation for its habitat.

Birds: The region is inhabited by numerous bird species, including the Australian White Ibis and other waterfowl that rely on the waterways for feeding and nesting.

- Reptiles and Amphibians: Frogs and other amphibians thrive in the wet, vegetated areas along the creek, while reptiles such as skinks and snakes inhabit the woodlands.

South Creek Fauna:

- Birds: Species such as the Australian White Ibis and various waterfowl are commonly found along South Creek, where they depend on the waterway for feeding and nesting. The riparian corridors also support a range of other bird species, including the lyrebird, which requires dense undergrowth for habitat.
- Amphibians: The wet, vegetated areas along South Creek provide an ideal environment for frogs and other amphibians, which are abundant in these habitats.

Ecological Importance

The natural environment of Camden Shire is not only aesthetically pleasing but also ecologically significant. The Cumberland Plain Woodlands, as a critically endangered community, require careful management and conservation efforts to ensure their survival. The region's waterways, including the Nepean River and South Creek, are vital for maintaining the area's biodiversity, supporting a wide range of species, and providing essential ecosystem services such as water filtration, flood regulation, and habitat provision.

Connecting with Country

Native Cumberland Plains wildlife play a key role in the dispersion of native fruit and seeds which in turn continues the regrowth of culturally significant food and medicinal plants. As everything in Aboriginal belief is connected, it is important to understand all Aboriginal groups within the Cumberland Plains will have special relations with the land and everything from it.

This simply means any sacred flora and fauna species will have to be protected to keep a healthy ecosystem revolving.

4. Consultation Methodology

As consultants dedicated to fostering meaningful engagement and consensus building with Aboriginal communities, we are committed to implementing the "Connecting with Country" framework. This approach acknowledges and respects the enduring relationship between Aboriginal peoples and their Country, a relationship grounded in the belief that everything is interconnected. This perspective emphasises a Country-centred worldview rather than a human-centered one. In simple terms, we all depend on our relationship with Country and not vice versa.

Identification of Aboriginal Communities:

Identifying the appropriate Aboriginal communities for a project is a crucial first step in implementing a Country-centred design process guided by the "Connecting with Country Framework." To achieve this, we undertake comprehensive research and consultation, which includes:

1. Traditional Owners Mapping:
    - Collaborate with local Aboriginal organisations and authorities to identify the Traditional Owners of the project area.
    - Study historical records, consult with Aboriginal Elders and knowledge holders, and review existing land tenure arrangements.
2. Country-specific Research:
    - Conduct research into the specific Country or Traditional Land to understand its cultural significance, history, and the unique needs and aspirations of the local Aboriginal community.
3. Community Consultation:
    - Engage in yarning sessions, workshops, and community meetings to establish relationships and build trust with the local Aboriginal community.
    - Ensure the project respects the wishes and cultural values of the community.

Methods of Engagement:

Our commitment to engaging with Aboriginal communities is guided by principles of cultural sensitivity, respect, and inclusivity. We employ various methods of engagement to ensure meaningful collaboration:

1. Yarning Sessions:
    - Facilitate yarning sessions to listen to the stories, experiences, and perspectives of Aboriginal community members.
    - Gain insights into cultural values and priorities.
2. Community Workshops:
    - Organise workshops that provide a platform for Aboriginal community members to actively participate in the project's planning and design.
    - Encourage open dialogue and co-design processes, guided by background presentations, focus questions, and consensus-building facilitated processes.
3. Elders Consultation:
    - Seek guidance and wisdom from both Social and Cultural Aboriginal Elders who hold valuable knowledge about cultural heritage, traditional practices, and protocols.

- Ensure Elders' input is essential in decision-making.

Whilst it is understood, it is difficult to integrate all of these practices into every project,, we aim to create opportunities that honours and reflects the cultural values and traditions of Aboriginal communities while fostering a respectful and inclusive partnership.

5. Stakeholder Mapping

The stakeholder mapping provided here identifies key individuals and organisations essential for incorporating Aboriginal perspectives into the new school project for Gregory Hills/Gledswood Hills. Emphasising the importance of honouring and preserving Aboriginal heritage, this mapping promotes active collaboration and consultation with the local Aboriginal community and relevant entities.

Each stakeholder contributes vital expertise, cultural knowledge, and connections necessary for developing a school environment that respects and celebrates Aboriginal culture. From Traditional Owners and Elders to educators and service providers, these stakeholders play crucial roles in maintaining cultural authenticity and ensuring inclusivity in the school design.

Engaging these stakeholders through meaningful partnerships is pivotal in creating a learning space that not only addresses educational demands but also enhances the sense of identity and belonging for Aboriginal students. This stakeholder mapping serves as a strategic guide to foster collaboration and mutual understanding, aiming for cultural enrichment and educational success.

Here's a structured approach to mapping the stakeholders:

Cultural Leaders and Authorities:

- Elders: Community-recognised leaders offering wisdom and insights crucial for the project's integrity.
- Registered Aboriginal Parties (RAP): Groups involved in managing and protecting cultural heritage in their designated areas.

Community and Educational Organisations:

- Aboriginal Education Consultative Group (AECG): Advises on educational strategies that effectively cater to the cultural needs of Aboriginal students.
- Dharawal and Dharug Community: Local Aboriginal community providing input on community impacts and aspirations.
- School Infrastructure NSW (SINSW): Responsible for the planning, delivery, and maintenance of educational infrastructures.

Design and Construction:

Architects: DJRD designing the school to reflect both modern educational requirements and Aboriginal cultural heritage.

6. Stakeholder Engagement Schedule

Date	***Community Consulted***	***Activity***
05 July 2024	Aunty Thelmerie Rudd & Uncle Paul Webb	Walk and talk on Country
24 July 2024	Aunty Glenda Chalker	Walk and Talk on Country
21 August 2024	Local Elders, RAP's and Community	Combined Dharawal and Dharug Workshop
21 August 2024	Dharug community members	Dharug specific online workshop
July 2024	AECG-SINSW meetings	Independent AECG/SINSW Consultations due to contested land and cultural sensitivity

7. Consultation

7.1. Walk on Country with Aunty Thelmerie Rudd and Uncle Paul Webb

Introduction: Aunty Thelmerie Rudd introduced herself as a Dharug Elder, highlighting the contested lands of the site. She emphasised the historical and cultural significance of the area, particularly focusing on Wianamatta Creek and its connection to the surrounding waterways.

Uncle Paul introduced himself as a Dharug man and spoke of his connection to the lands and waterways across Dharug land. He also spoke of several important facts about land and water connected to the Dharug people and land. These included the connection to Platypus which has near been extinct in the area due to killing for fur, the abundance of fish in the area within the waterways which still attract schools including Brim, Perch and Mullet and the importance of the archaeological evidence and insight into Dharug cooking areas and clay ball manufacturing sites at East Leppington.

Aunty Thelmerie Rudd and Uncle Paul Webb shared deep insights into the cultural, historical, and environmental significance of the site for the new high school at Gregory Hills and Gledswood Hills. The connection to Country was emphasised through discussions on the importance of Wianamatta Creek, which plays a vital role in the local ecosystem by linking various waterways. They highlighted the rich biodiversity of the Cumberland Plains, urging that students learn about native flora and fauna, such as platypus, possums, frogs, She oak, Eucalyptus, and Wattle. The significance of seasonal changes, including the Emu in the Sky, was also noted as essential for teaching traditional practices.

The site holds historical and cultural significance as a former trade area for the Dharawal, Dharug, and Gundungara Nations. Aunty Thelmerie spoke of the massacres that occurred on nearby land and the burial trees along Wianamatta Creek, underscoring the importance of remembering these events. Significant nearby sites, including Mount Annan, a meeting place, and the Leppington clay ovens, were also highlighted.

Education and truth-telling were central themes, with both Aunty Thelmerie and Uncle Paul stressing the importance of the school design in teaching students about the local environment, wayfinding, and the true history of the land. Aunty Thelmerie advocated for the inclusion of diverse voices from different nations to ensure that students feel welcome and connected.

Songlines and Dreaming stories were also discussed, with Aunty Thelmerie emphasising the importance of Wianamatta Creek in connecting various creeks and rivers, symbolising the connection of Nations. Dreaming stories like the Three Sisters, the Emu in the Sky, and the Giant Eel were shared to illustrate the cultural and spiritual connections to Sky Country and the land.

Finally, suggestions was offered for the design and integration of cultural elements into the school's architecture. This included incorporating artwork reflecting Wianamatta Creek into pathways, designing landscaping to reduce the visual impact of the three-story building, and using colours and native plants that reflect the local environment. The use of local languages for building names, signs in multiple languages, and creating a history line of Wianamatta Creek in the library were also recommended. Additionally, they suggested installing directional signage pointing to different nations and creating a yarning circle with seating shaped like a coolamon.

7.2. Walk on Country with Aunty Glenda Chalker

Aunty Glenda Chalker, an Elder from the Cubbitch Barta Clan, stated she has over 30 years of experience Walking on Country. However, opportunities for these walks often arise only when initiated by developers. She highlighted the challenges posed by the current systems, noting that the National Parks and Wildlife Service (NPWS) and the Westminster system often work against the interests of traditional clans.

The Connecting with Country initiative has provided a crucial platform for the Aboriginal Community to have their voices heard. However, Aunty Glenda pointed out that the Register of Recognised Aboriginal Parties (RAPs) does not always ensure fairness, distinguishing between major and minor parties unjustly.

Aunty Glenda discussed the rich history of the region, emphasising sites dating back 11,500 years. Excavations have revealed ancient clay ovens, though none were found at the Gregory Hills site. Unfortunately, much of Camden Valley Way has been developed without protecting these cultural sites. Aunty Glenda stated that Wilton stands out as the only development that adhered to legislation, leading to the respectful reburial of 23,000 artifacts.

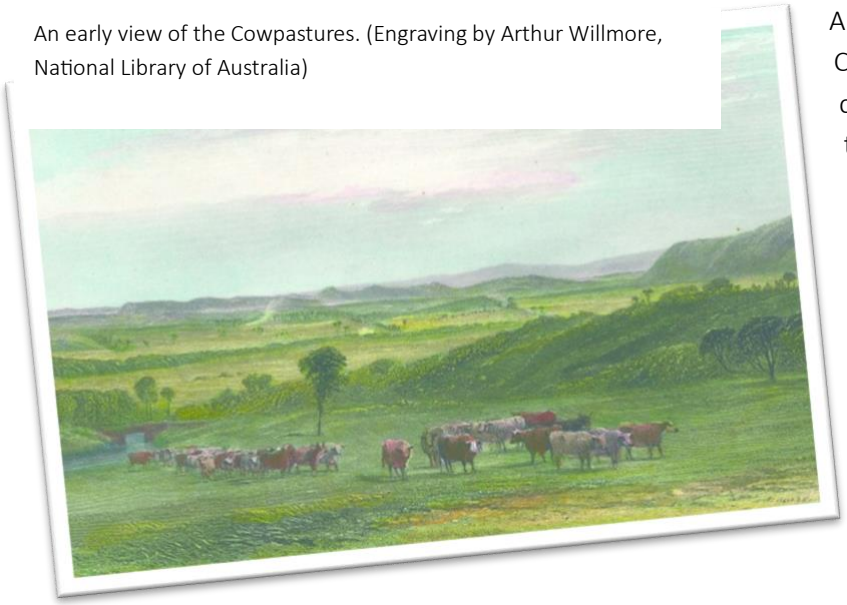
St Gregory College, initially a Catholic school with Aboriginal boarders, was later sold to a developer. The grounds were known for hosting rodeos in the early days. Historically, Camden had a population of 4,000, which was higher than Campbelltown's at the time. Today, Campbelltown hosts a variety of language groups, the highest in the country, and has a significant Aboriginal population of 3%.

Aunty Glenda clarified that she is not associated with the Tharawal Aboriginal Corporation. She shared that her family has roots in the Dharawal and Gandangara peoples from the local area. However, their Native Title claim was dismissed, misclassifying them as Dharug. Cultural mapping provided to the communities often lacked detail, resulting in empty maps for both Dharug and Dharawal. Despite these challenges, Campbelltown has officially acknowledged its status as Dharawal Country.

Aunty Glenda described the traditional landscape and vegetation of the Country before European settlement, highlighting the natural heritage and Aboriginal land management practices.

- **Grey Box (Eucalyptus moluccana):** Medium to tall trees known for their durable timber, providing habitat and food for wildlife.
- **Ironbark (Eucalyptus sideroxylon):** Distinctive dark, deeply furrowed bark, valued for its hard, dense wood.
- **Stringybark (Eucalyptus obliqua):** Fibrous bark, used in making tools and shelter.
- **Casuarina (Casuarina spp.):** Found along waterways, used in traditional crafts.
- **Paperbark (Melaleuca spp.):** Peeling bark used for wrapping food and making shelters.
- **Cumberland Plains Grasses:** Managed through controlled burns to promote new growth and maintain open areas for diverse plant and animal life.
- **Grandmother and Grandfather Trees:** Significant ancient trees serving as cultural landmarks, now diminished due to land clearing.

The Cumberland Plains in Western Sydney were open grassy woodlands and thick forest patches. Traditional cultural burning practices maintained these landscapes, promoting biodiversity and preventing large wildfires. European settlement disrupted these practices, leading to extensive land clearing and ecological degradation.



An early view of the Cowpastures. (Engraving by Arthur Willmore, National Library of Australia)

Aunty Glenda discussed the Cowpasture Tribe, named for the cattle farming that took place in the area. This name originated from the early days of European settlement when cattle brought by the early settlers escaped and thrived on the Aboriginal-managed pastures of the Nepean River floodplain.

The presence of these wild cattle led to the area's designation as the "Cowpastures," a term that eventually became associated with the local Aboriginal people.

Aunty Glenda reflected on the Cumberland Plains, noting that in earlier times, Aboriginal people practiced cultural burning to manage the land. These controlled burns maintained the health of the ecosystem, promoting biodiversity and ensuring the availability of resources. However, with European settlement, these practices were replaced by extensive land clearing for cattle and sheep farming, leading to significant changes in the landscape and disruption of traditional land management.

Aunty Glenda spoke of Elizabeth McArthur Agricultural Institute *Opened in 1990 at Camden, EMAI's 1600 hectares is part of the original land granted to agricultural pioneers John and Elizabeth Macarthur in 1805. It includes the original Cowpastures where the cattle that escaped from the first fleet settled.*

No cultural burning after European settlement led to changes in the landscape. This resulted in more densely forested areas, which were not the traditional landscapes maintained by the Dharawal and other Aboriginal peoples in the Camden region.

(Reference note: Aboriginal Australians practiced cultural burning for thousands of years. This method, also known as "cool burning," involved low-intensity fires that maintained the health of the landscape by reducing fuel loads, promoting new growth, and protecting native wildlife. These burns were crucial in shaping the ecosystem, keeping it open and park-like rather than dense with underbrush or forest.

With European settlement, these cultural burning practices were disrupted. Settlers cleared vast areas for agriculture, including cattle and sheep grazing, significantly altering the landscape. Without the regular cultural burns, areas that were once open grasslands maintained by Aboriginal fire management practices became more forested over time due to the accumulation of underbrush and the absence of controlled burns (WWF-Australia, 2024; Cultural Burning, 2024).)

Aunty Glenda spoke about the scar trees along Camden Valley Way, noting that these culturally significant trees are recognised by developers over other artifact sites. Scar trees, marked by Aboriginal people for various purposes such as creating canoes, shields, or tools, hold deep historical and cultural significance. One of these trees has even been capped to preserve it. However, the preservation of scar trees faces challenges. Old trees naturally drop branches, and sometimes, rangers need to cut down these trees, including some that are scarred, to manage safety hazards or maintain the area. Despite these efforts, the ongoing risk to these trees underscores the need for more comprehensive preservation strategies.

Aunty Glenda discussed the presence of koalas in the Appin and Wilton areas, highlighting that these habitats are distinct from the Cumberland Plains. She emphasised the significance of these koala habitats, noting that efforts have been made to protect and preserve them. In instances where development has encroached on their natural habitats, koalas have been relocated to areas near these designated habitats to ensure their safety and continued well-being. This relocation is part of a broader conservation strategy aimed at maintaining the delicate balance of the local ecosystem and protecting the koala populations from further disruption due to human activities.

When asked about her preferences for the school design, Aunty suggested the inclusion of earth colours, specifically lighter shades, to help deflect sunlight. She emphasised the importance of canopy cover for shade and recommended incorporating local artists' work and using the Dharawal language. Aunty also highlighted the need for gathering spaces, such as yarning circles, which should be at an equal level, made from sandstone with the possibility of timber tops, and incorporating logs.

Aunty Glenda highlighted the cultural and practical significance of Lamandra, or mat rush, within Aboriginal communities. She noted that Lamandra seeds are traditionally harvested and ground into flour for bush tucker recipes, providing essential nutrition. Additionally, the strong, flexible leaves are woven into mats, baskets, and other items. This weaving practice not only demonstrates Aboriginal resourcefulness and craftsmanship but also helps pass down cultural knowledge and skills to future generations.

Aunty spoke of the project design that acknowledges the significance of Wianamatta Creek, also known as "the Mother Place “, and its diversion area. She highlighted the South Creek story, emphasising the creek's cultural importance and the efforts to restore and celebrate it through community projects and environmental initiatives. Additionally, she mentioned the establishment of a mini wetland plantation in Camden, which is part of the broader plan to enhance water quality, support local wildlife, and create sustainable green spaces for the community.

Aunty told us there are several significant Aboriginal rock art sites in the Camden and Dharawal Cumberland Plains area.

Aunty Glenda spoke of one notable site is Bull Cave in Kentlyn, which features Aboriginal rock art including stencils and paintings. The artwork includes hand stencils and images of four-footed animal, believed to be representations of bulls. This site provides insight into early contact between Aboriginal people and European settlers and holds state significance.

Bull cave as photographed in the early 1980s and featured in the research paper, Bull Cave: Its relevance to the prehistory of the Sydney Region by R.D. Miller (held at Campbelltown Library)

The Dharawal National Park near Campbelltown is another area of cultural importance. It is home to various Aboriginal sites, including rock engravings and paintings. This park is significant for the Dharawal people and features a landscape of tall eucalypts, heaths, swamps, waterfalls, and rockpools.

Aunty Glenda highlighted that middens, which marked ancient Aboriginal camping spots, were once present throughout the region. These middens, composed of shells, bones, and other remnants, provided valuable insights into the diet and lifestyle of Aboriginal communities. Unfortunately, many of these sites have been destroyed by modern development. However, archaeological records and evidence still preserve their historical significance, ensuring that the cultural heritage they represent is not entirely lost.

Photography: Val Attenbrow, Australian Museum

Aunty Glenda has replicas of artifacts– not to display in public but used for tracing the story of the artifact,

The view west from the top of the Cataract Dam wall shows the deep ravine along the gully.(ABC Illawarra: Kelly Fuller)

As Aunty Glenda reflects on the Appin massacre, she emphasises the intense impact it had on the local Aboriginal communities. "The Appin massacre was a dark chapter in our history, a brutal act of violence ordered by Governor Macquarie that claimed the lives of our ancestors, including women and children, who were driven over the gorge of the Cataract River. This tragedy didn't just end hostilities; it inflamed them, leading to more bloodshed and suffering. Our people were resilient, fighting to protect their land and families, but the relentless raids by settlers and soldiers left

deep scars. Remembering the massacre is crucial for acknowledging the pain and resilience of our ancestors. The remains of some victims, including skulls bearing clear cut marks from the massacre, were held in the Anatomy Department at the University of Edinburgh for 175 years before being repatriated to the Australian Museum. Every year, the Aboriginal with non-Aboriginal supporters gather at Cataract Dam to honour their memory and remind us of the strength and spirit of Aboriginal people and also of the darker history of the local area.

Aunty Glenda noted the significance of the documentary "The Australian Wars," directed by Rachel and Adam Perkins. This documentary sheds light on the often-overlooked conflicts between Indigenous Australians and European settlers. By bringing these historical truths to a wider audience, the documentary helps to acknowledge and address the impact of these wars on many Aboriginal communities, fostering a deeper understanding and reconciliation.

Sharing examples of the Connecting with Country initiative, Aunty Glenda emphasised the importance of integrating Aboriginal cultural elements into contemporary projects. Highlighting the Mt Annan Botanic Garden designs as one of the few existing examples, noting that Connecting with Country is a relatively new concept with limited completed projects. The Billabong at Mt Annan is one of the only fully realised projects under this initiative. She also mentioned the Edmondson Park train station, where tree designs reflect Aboriginal heritage.

Aunty Glenda also emphasised the need for incorporating native animals such as snakes, echidnas, kangaroos, wombats, and platypuses from the Nepean River into these designs. Additionally, she stressed the importance of including native plant foods. Aunt also pointed out specific propagation challenges, such as the Geebung plant, which requires a host for successful propagation, and the native cherry, which has similar needs. She also mentioned the Waratah, a species native to sandstone country, and the unique ecological characteristics of the Georges River and the floodplain sandstone basin, which should be considered in design plans to reflect and respect the natural landscape and cultural heritage.

7.3. Community Workshop

Workshop 2 for the Gregory Hills/Gledswood Hills project was successfully facilitated by Charles Trindall from Indigenous Lead Facilitation (ILF) with active participation from the Dharug and Dharawal communities. The workshop focused on the themes of Truth Telling, Story, and Place, and provided significant input into the design of Sharing Spaces, Entry Spaces, and Garden Areas. The outcomes of the workshop highlight the integration of Aboriginal cultural and historical elements into the school environment, ensuring a deep connection to Country and community values.

Key Outcomes

1. Truth Telling

Family History:

- Participants expressed concerns about the loss of family history and the impact of historical events such as the Appin Massacre. Many local people are still directly impacted by the massacre.
- There was a desire to create a family history tree as a means of preserving and sharing these important stories.

Historical Events:

- The Appin Massacre was identified as an event that should be spoken about more openly, with smoking ceremonies at the school proposed as a form of remembrance and healing.
- Acknowledgment of Elders and those who have passed was seen as crucial in connecting past and present. Elders room was a spoken about option with stories and photos of significant Aboriginal Elders who helped shape present day Aboriginal life in the area.

Cultural Elements:

- The community emphasised that this land "Always was, always will be Aboriginal land," reflecting the deep-rooted connection to Country. This is not about the purchase of land but the thousands of years occupation.
- The importance of acknowledging 60,000 years of living history and the need to return land to the people were key points.
- Cultural and spiritual stories that connect to Country should be incorporated into the school environment, with a place to share and reflect on significant flora, fauna, and waterways.
- The White Waratah was discussed as a symbol of the changes brought by colonisation.

Community Impact:

- The displacement of Aboriginal people and the need for massacre sites to become healing places were prominent themes.
- A dedicated space for truth-telling and the consideration of truth and reconciliation were strongly supported.
- Concerns were raised that the Stolen Generations and other aspects of Aboriginal history are not well documented in the school curriculum therefore healing gardens etc were a creative option.

Other Notes:

- The boundaries of Country need to be acknowledged and respected and in the design.
- The enduring spirit connected to the land should be recognised and integrated into the project.

2. Story

Waterways:

- South Creek and Duck River were highlighted as vital waterways with deep cultural connections to the land.
- The importance of freshwater as a resource and its connection to cultural stories was emphasised.

Cultural Elements:

- The White Waratah flower, and the belief how it turned white after colonization, was discussed as a powerful symbol.
- The need to find ways of telling local stories outside of the traditional curriculum was highlighted.

- The trauma still carried by descendants of the Stolen Generation in this area was acknowledged.
- The Appin Massacre and shared use of land were discussed as critical elements of the local history and should be acknowledged as truth telling.

Historical Context:

- Bells Line of Road was recognised as a historical trade route, and the Appin Fight with its red ochre symbolism was mentioned.
- Key landscapes like Bull's Cave and other significant sites were noted as important cultural landmarks.

Stories and Songlines:

- The workshop underscored the importance of Songlines—cultural stories connected to the landscape and connected people across the lands.
- Participants suggested telling local stories through art, song, and other mediums, especially those connected to culture, truth, trauma and history.
- Stories linked to specific locations, like Bells Line of Road, were highlighted for their historical significance.

Flora and Fauna:

- Sharing stories about local plants and their uses was seen as an important way to connect students with the land.

Community Connection:

The community expressed a desire to connect these stories to local memory and knowledge, with further exploration of community stories connected to specific sites.

3. Place

Waterways:

- Wianamatta, South Creek, Nepean, and Davis Rivers, along with Penrith Lakes, were identified as important waterways with continued significant Aboriginal connections.

Significant Sites:

- The Appin Massacre memorial, native bushlands, and Aboriginal scarred trees were noted as crucial elements to be acknowledged in the design.
- Significant landscapes, including the Blue Mountains, were emphasised as integral to the cultural heritage of the shared groups of the area.

Cultural Elements:

- Songlines, native hillsides, and pathways were highlighted as cultural elements that should be reflected in the landscape design shapes and colours.
- Aboriginal carvings and the connection of pathways to significant sites were discussed as ways to honour cultural heritage. These can be reflected in local walkways designs.

Flora and Fauna:

- Native bushlands and a bush tucker garden were proposed as key features.
- The establishment of a healing garden highlighting the Stolen Generations Native Hibiscus flower.
- The inclusion of weaving areas with native plants and significant trees for Aboriginal culture, like the Native Hibiscus, was recommended. These plants included Dianella and Lamandra.

Community Connection:

- The design should reflect historical family connections to Clan Groups of the area and ensure a strong connection to Country are reflected in these stories.
- Cultural elements and values such as caring for Country, preservation and sustainability of native flora and fauna which in turn prides healthy Country and healthy people, should be integrated into the school environment to reflect community values.

Memory and Reflection:

- The significance of historical events, particularly the aftermath of massacres, should be reflected in the landscape design to foster understanding and respect. These do not necessarily need to be graphic event stories but reflected in art, colour and design and abstract imagery.

4. Sharing Places

Design Elements:

- Yarning circles, animal imprints, and timber boomerang seating were proposed as key design features.
- Trails connecting to Yarning circles, shaded areas with trees, and curved walkways were emphasised. Limiting straight lines and reflecting more on the curving shapes of Country and nature.

Activity Spaces:

- Spaces for school BBQ cooking for large/small groups, shaded gathering areas, and footpaths connecting to surrounding spaces were suggested.
- Napping or quiet reflection spaces and bush cafés were also discussed as important community elements.

Interactive Spaces:

- A digital hub for dance and cultural activities, exercise and body movement spaces, and a stage hub were proposed as interactive elements.
- Sharing Aboriginal learning and traditions in these spaces was seen as a natural connection.

Other Elements:

- Consideration of where gardens are placed in relation to the building and activities was highlighted. These considerations are in relationship to plants representing areas such as food technology, woodwork and design buildings etc and the correlation of traditional plants used for these purposes.
- The design should reflect community values and provide opportunities for learning about culture.

5. Entry Spaces

- The design of Entry Spaces should include shaded pathways with large trees, seating areas with local Aboriginal symbols, and seating made from locally sourced trees.
- Reflection areas, such as shade with reflections of water and mirror caves, were proposed to create a calm environment.
- Totem poles painted by students, shade from native trees, and Aboriginal carvings on wood were suggested to integrate cultural elements into the entry space.
- Native animals should be visually represented throughout the school.
- Sandstone seating from a local quarry and a modified tree to reflect cultural history were discussed.

- Acknowledgment of Country plaque or symbol should be incorporated into the entry space, with students collaborating with artists on projects like children's handprints.
- A map of land and water features should be included to connect the entry space with the local natural environment.

6. Garden Areas

- Engagement with Brendan Broadbent, an Aboriginal worker from Mt Annan Botanical Gardens, was recommended for the garden area development.
- The inclusion of seedlings and statues of Aboriginal native animals throughout the garden and school was discussed.
- Timber, sandstone, and animal pathways were proposed as key materials for the garden areas.
- Outside Yarning Circles for classes, weaving areas, and tree stumps for seating were suggested.
- Curved seatings, acknowledgment of local Custodians in entry areas, and a healing and bush tucker garden with shading and different types of Boomerangs were highlighted.
- The garden design should incorporate water flow shapes and curved walkways that connect the land and people.
- Signs with names of trees and the meanings of plants, along with a Yarning circle seating curve like a boomerang, were proposed as unique features.
- Native bush trees, Waratah, Jacaranda trees, and Lamandra walkways were recommended to enhance the garden area's connection to Country.

7.4. Online Workshop

Connecting with Country Community Engagement Online Meeting Overview

Dharug specific

Date: 21 August 2024

Time:
The meeting commenced at 5:00 PM, bringing together key stakeholders involved in the project to discuss the ongoing development and integration of cultural and historical elements into the school's design.

Attendees:

- Charles Trindall – ILF Facilitator
- Niwilli White-Forest – DJRD Architects
- Chloe Kennedy – SINSW Project Lead, Planning
- Mardi Christian – TSA Riley, Project Manager
- Rory Wynbergen – Project Director, SINSW
- Thelmerie Rudd – Dharug Elder
- Alan Mendhurst – Dharug Elder
- Paul Webb – Dharug Elder

Meeting Purpose

The Purpose of the meeting was to discuss the progress of the school's design and ensure that Aboriginal cultural perspectives and elements are thoughtfully and effectively integrated into every aspect of the project. The focus was on continuing the collaborative efforts between the project team and the Dharug community to ensure the design respects and reflects the cultural heritage of the land and its people.

Project Update

Niwilli White-Forest provided an update on the project, noting that the team has reached the halfway point in the concept design phase. This phase is crucial as it involves integrating the cultural suggestions gathered during previous activities, such as the Walk on Country. The following key points were discussed:

- Walk on Country Suggestions:
  The ideas and cultural insights gathered during the Walk on Country by Aunty Thelmerie and Uncle Paul were emphasised as critical to shaping the design. These suggestions are being carefully considered to ensure they are represented in the final concept.
- History Activity:
  An innovative visual representation of history was proposed, involving a paper train that would traverse the school oval. This activity is designed to help students and visitors

understand the timeline and scale of local history, bringing the past to life in an engaging and educational way.

- Significant Fauna:
  The platypus, a significant animal in the area, was highlighted as a symbol to be potentially incorporated into the school's design, reflecting the local fauna's importance in cultural storytelling.

- Building Scale:
  The proposed three-story buildings were discussed, with an agreement to consider ways to reduce their visual impact by breaking down the scale to ensure they harmonize with the surrounding natural environment. Large tress and colours, medium shrubs and trees and colours and ground shrubs and colours as design inspirations.

- Cultural Elements:
  The design will include cultural elements such as yarning circles and coolamon-shaped seating, which will serve as central gathering places within the school, fostering a sense of community and connection to Country.

- Garden Areas and Nature:
  Various Garden areas are planned, with the blooming of wattle being used as a natural timekeeper, reflecting traditional ways of reading the seasons. The discussion also touched on the importance of acknowledging smaller creatures and maintaining natural habitats like South Creek, which will require careful cleaning and preservation.

- Quiet and Reflective Spaces:
  The creation of quiet, passive spaces for reflection was emphasised. These areas would incorporate cultural artifacts and contemplative spots, allowing students and visitors to connect with the land and its stories.

New Conversations

The discussion then moved to explore new ideas and cultural practices that could be incorporated into the school's design:

- Men’s and Women’s Business:
  The representation of cultural practices, such as men’s fish nets and women’s weaving, was discussed. These elements will be carefully integrated to honour their significance in Aboriginal culture.

- Coolamon Seating:
  A discussion took place regarding the materials for coolamon-shaped seating, with a strong preference for using locally sourced and recycled materials. This approach aligns with the cultural value of sustainability and respect for the land.

- Recycled Materials:
  The reuse of River Red Gum from the primary school site was highlighted as an important aspect of the design, reflecting a commitment to using materials from the local area rather than importing them from elsewhere.

- Yams and Message Sticks:
  The inclusion of yams in the design was proposed, with a reference to their historical significance around 1780. The use of message sticks was also discussed, with a focus on truthfully representing their traditional uses and meanings. It was suggested that a message stick could be created and displayed in the school foyer, serving as a symbol of cultural continuity and respect.

- Traditional Artifacts:
  The question was raised whether there were traditional artifacts from the area that could be included in the project. Murra Mittiga was suggested as a potential source of such artifacts, and Uncle Colin Locke was also suggested as a valuable resource for cultural information. Both noted as Dharug cultural resources.

- Key Cultural Concepts:
  The group explored key cultural concepts that should guide the design, ensuring that the final project reflects the deep cultural heritage of the Dharug people and the land.

Theme of Place

Niwilli White-Forest directed the conversation toward the theme of place, emphasising the significance of the school's location:

- Location Context:
  The school site's location within the Cumberland Shale Plains Woodlands and its proximity to the Cumberland Red Gum River Flat Forest were acknowledged. The historical significance of South Creek, which originally passed through the site before being redirected, was noted, highlighting the importance of respecting the land's natural history in the design.

Stories

The group then discussed the importance of storytelling in the design, particularly the inclusion of the Emu in the Sky:

- Emu Story in the Sky:
  Aunty spoke about the Emu in the Sky and its connection to the seasons across Australia. The group explored various ways to incorporate this story into the school's design, such as using perforated metal for shade shelters, sandblasting pathways to create mapping designs, and including emu designs in the school hall. These elements would be developed in collaboration with artists and the community to ensure cultural authenticity.

Truth-Telling

A significant portion of the meeting was dedicated to the theme of truth-telling, an essential aspect of the project:

- Significance of Truth-Telling:
  The importance of accurately representing the stories of the Stolen Generations, particularly those placed at the Native Institution at Parramatta and later in Blacktown, was emphasised. The group discussed the need to tell the full story of the Dharug people's connection to Country, including the acknowledgment of Aboriginal warriors and historical figures like Namut Gilbert, a skilled tracker who led police to the grave of Frederick Fisher in 1826.

- Massacre Sites:
  The inclusion of massacre sites in the school curriculum was proposed, with the suggestion that these could be acknowledged through artwork or the creation of a commemorative garden. This would provide a place for reflection and education about the often-overlooked aspects of local history.

- Commemorative Garden:
  The idea of a commemorative garden was discussed as a community space, learning area, and space for recognition. This garden would serve as a place where Elders could come to the school and share stories of the past, including the impacts of colonisation on Aboriginal peoples.

- Student Involvement:
  The involvement of students in designing artwork for yarning circles or walls was proposed, with the additional suggestion of having an artist mentor an upcoming artist. This would not only preserve cultural practices but also ensure their continuation into future generations.

Garden Beds and Landscaping

The design and layout of garden beds were also discussed, with an emphasis on incorporating natural and sustainable elements:

- River as a Design Cue:
  The river was identified as a significant design cue, particularly for the front entry of the school. This natural element would help anchor the design in the local landscape and provide a visual and thematic connection to the land.

- Seating for Caregivers:
  The group discussed the possibility of creating seating and shelter for older caregivers, such as Aunties, Uncles, and grandparents, at the school. This would ensure that the school is welcoming to all members of the community and provides spaces for rest and reflection.

- Natural Materials and Lighting:
  There was a strong preference for using natural materials in the garden beds, aligning with the cultural value of sustainability. The inclusion of solar-powered adjustable lighting for key areas was also considered, particularly for after-hours use.

- Water Recycling:
  The potential for recycling water for garden use was explored, with a focus on creating linked spaces with pathways that meander from one location to the next, reflecting the natural flow of the landscape.

Colours of Country

The meeting concluded with a discussion on the importance of incorporating the colours of Country into the design. These colours would serve as a visual representation of the land's natural beauty and cultural significance, helping to create a school environment that is both respectful and reflective of its location.

Niwilli White-Forest wrapped up the meeting by confirming that the group had provided so much quality input to build on. and promised to return with updated design concepts that reflect the

discussions and ideas shared during the meeting. The meeting adjourned with a clear plan for moving forward, ensuring that the final design will honour the cultural heritage and natural beauty of the Dharug people and their land.

8. Conclusion

The Gregory Hills /Gledswood Hills High School project represents a significant step forward in the integration of Aboriginal cultural perspectives into the design and development of educational facility. Through the extensive consultation process, which included Walk on Country sessions, community workshop, and online engagements, the voices and wisdom of the Dharug and Dharawal communities have been central to shaping the school's designs.

The incorporation of shared cultural elements such as yarning circles, coolamon-shaped seating, and garden areas that reflect the natural environment and cultural significance of both the Dharawal and Dharug people of the region ensures that the school will not only meet the educational needs of a growing community but will also serve as a place of cultural learning and connection. The emphasis on themes such as Truth Telling, Story, and Place throughout the consultation process highlights the community's desire to see their history, heritage, and connection to the land deeply embedded in the fabric of the school.

By honouring the cultural heritage of the Dharug and Dharawal peoples, the school will provide a unique learning environment that respects and celebrates the long-standing traditions and contributions of Aboriginal communities. This approach sets a benchmark for future projects, demonstrating how education infrastructure can be developed in a way that is inclusive, culturally sensitive, and deeply connected to Country.

As the project moves forward, it is crucial that the principles and recommendations outlined in this report continue to guide the development process. The success of the school will be measured not only by the quality of education provided but by the strength of the connection between the school, the land, and the community. In doing so, the Gregory Hills/ Gledswood Hills High School will stand as symbols of reconciliation, cultural respect, and educational excellence, paving the way for future generations to learn, grow, and thrive in an environment that truly reflects the rich cultural tapestry of their surroundings.

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10. Appendices

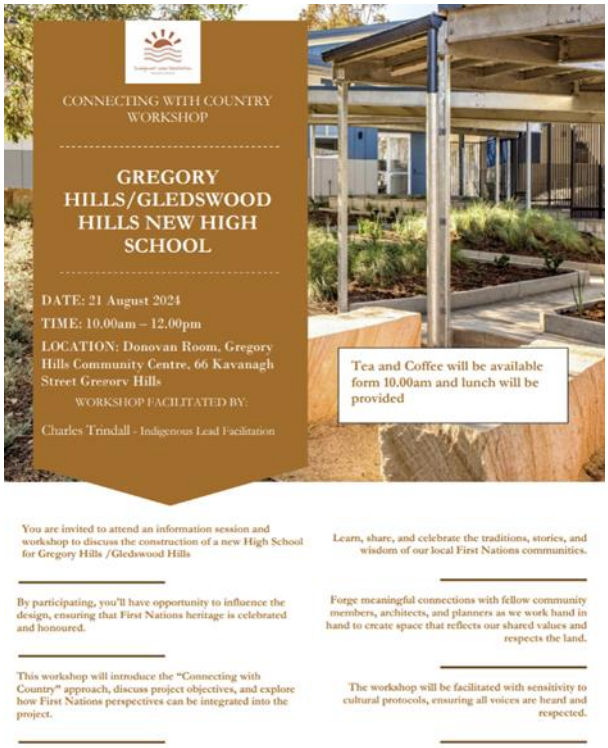
10.1. Stakeholder List

First Name	Last Name	Group
Hannah	Porter	RAP/ Dharawal/Dharug
Arika	Jalomaki	RAP/Dharawal/Dharug
Kerrie	Whebell	RAP/Dharawal/Dharug
Helen	Slater	RAP/Dharawal/Dharug
David	Matagia	Dharawal/Dharug/Youth
Jandamarra	Bryant	Dharawal/Dharug/youth
Gail	Daylight	Dharawal/Dharug/Elder
Vicky	Slater	RAP/Dharawal/Dharug
Nesta	Depoma	Dharawal/Dharug/Elder
Tahlai	Saliba	Dharawal/Dharug/Youth
Thelmerrie	Rudd	Dharug Elder
Paul	Webb	Dharug
Melissa	Barton	Dharug
Alan	Medhurst	Dharug
Anissa	Jones	Dharug
Glenda	Chalker	Dharawal Elder

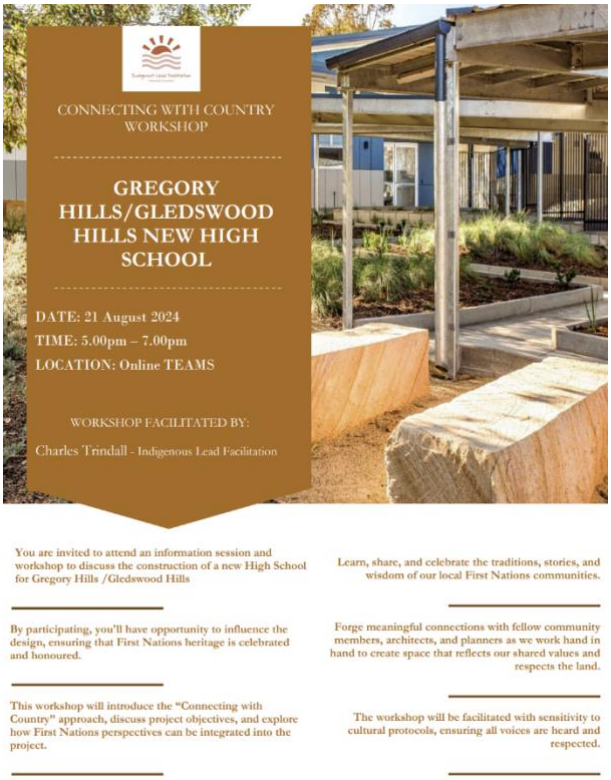
Niwili	Forest-White	DJRD Architects
Emily	French	DJRD Architects
Chloe	Kennedy	SINSW
Ryan	Thoroughgood	SINSW
Mardi	Christian	TSA
Shay	Bergin	SINSW
Cindy	Hamilton	SINSW

10.2. Workshop Presentation

10.3. Invitation In person



10.4. Invitation Online



10.5. Use of Native Flora and Fauna by Aboriginal Peoples in the Cumberland Shale Plains Woodlands and Cumberland Red Gum River Flat Forest

Edible Plants

The Aboriginal Peoples of the Cumberland Shale Plains Woodlands and Cumberland Red Gum River Flat Forests relied on a rich variety of native plants for their diet. Some significant edible plants include:

- Yam Daisy (Microseris lanceolata): The tubers of this plant were a significant food source, often eaten raw or roasted.
- Old Man Saltbush (Atriplex nummularia): The leaves were used as a seasoning or eaten as a leafy green, providing an important source of minerals.
- Native Raspberry (Rubus parvifolius): The fruits were commonly consumed fresh and were sometimes dried for later use.
- Kangaroo Grass (Themeda triandra): The seeds of this grass were harvested and ground into flour for making cakes and damper.
- Bush Tomato (Solanum centrale): The small, tangy fruits of this plant were an important part of the diet, consumed either fresh or dried.
- Geebung (Persoonia spp.): The fruits of these shrubs were enjoyed by the Dharawal Peoples as a sweet treat.
- Native Currant (Leptomeria acida): The tart berries of this plant were eaten fresh or used in various recipes, often providing a refreshing flavour.

These plants were part of a broader diet that included various native fruits, nuts, seeds, and roots, reflecting a deep knowledge of the local environment and seasonal cycles.

Tool-Making Plants

Aboriginal Peoples used a variety of plants for crafting tools and other essential items:

- Ironbark (Eucalyptus spp.): The hard, durable wood of Ironbark trees was used for making boomerangs, shields, and spears, crucial for hunting and defence.
- Forest Red Gum (Eucalyptus tereticornis): This sturdy wood was ideal for crafting canoes, tools, and large items like shields.
- Paperbark Tree (Melaleuca quinquenervia): The bark was used to create waterproof containers, shelters, and even clothing. Its soft texture also made it useful for wound dressings.
- Grass Tree (Xanthorrhoea spp.): The resin from these trees was used as an adhesive in toolmaking, while the flower spikes served as fishing spears.
- Tea Tree (Melaleuca alternifolia): Apart from its medicinal properties, the wood was used to make digging sticks and spears.
- Kurrajong (Brachychiton populneus): The fibrous bark of the Kurrajong tree was used to make ropes, nets, and fishing lines, while the seeds were sometimes roasted and eaten.

These plants provided essential materials for crafting tools, shelters, and other items necessary for survival and cultural practices.

Resin Sources

Resins were crucial for toolmaking and other applications, particularly as adhesives:

- **Grass Trees (Xanthorrhoea spp.):** The resin was a valuable resource for binding stone tools to wooden handles and repairing canoes.
- **Acacia (Wattle) Trees:** The gum from various Acacia species was used as an adhesive and sometimes in ceremonial practices, adding a spiritual dimension to its practical use.
- **Eucalyptus Trees:** Resins from these trees were used similarly to those from Grass Trees and Acacias, highlighting the versatility of these natural resources.

These resins were meticulously collected and processed, playing an important role in the Dharawal Peoples' material culture.

Fauna Utilisation

The Aboriginal Peoples demonstrated a deep connection with the animals of the Cumberland region, using them for food, tools, clothing, and ceremonial items:

- **Eastern Grey Kangaroo (Macropus giganteus):** A major food source, kangaroo meat was essential in the Dharawal diet. Hides were used for making cloaks and bags, while bones were fashioned into tools. Tail sinews were used for binding tools and weapons.
- **Common Brushtail Possum (Trichosurus vulpecula):** Possum fur was used to make warm cloaks, and their meat was a valuable food source. The bones were often used in making small tools or decorative items.
- **Wedge-tailed Eagle (Aquila audax):** Feathers from this bird were highly valued for use in ceremonial attire and headdresses, while bones were used to create tools.
- **Australian King Parrot (Alisterus scapularis):** The brightly coloured feathers were used for decorative and ceremonial purposes, while the birds were occasionally eaten.
- **Eastern Water Dragon (Intellagama lesueurii):** These reptiles were sometimes hunted for their meat, and their skins were used in traditional clothing and items.
- **Long-necked Turtle (Chelodina longicollis):** The meat of these turtles was consumed, and their shells were used for making containers or as part of ceremonial objects.
- **Australian Bush Turkey (Alectura lathami):** Hunted for its meat, the feathers were also used in traditional dress and ceremonial items.

General Uses of Animals in Tool-Making and Ceremonial Items

- **Tail Sinews:** Sinews from animals like kangaroos were used to make strong cords, essential for binding tools and weapons.
- **Bone Tools:** Bones from various animals were shaped into needles, awls, and other piercing tools, essential for everyday tasks.

- Fur and Pelts: The fur of possums and other mammals was used to make cloaks, which provided warmth and held ceremonial significance. These cloaks were often decorated with traditional patterns and designs.
- Feathers: Birds like the Wedge-tailed Eagle and Australian King Parrot provided feathers used in ceremonial headdresses, clothing, and other decorative items, symbolizing the spiritual connection to the natural world.

These practices highlight the sustainable and resourceful ways in which the Aboriginal Peoples utilised the flora and fauna of their environment, ensuring that every part of the natural world was respected and used to its fullest potential, maintaining a deep connection to Country and cultural heritage.