New High School for Jordan Springs

REF Submission: Architectural and Landscape Design Report

Armoury Road and Infantry Street
Jordan Springs NSW 2747

January 2025

djrd

djrd
architects

T + 612 9319 2955
E studio@djrd.com.au

63 Myrtle Street
Chippendale NSW 2008
Sydney, Australia
djrd.com.au

djrd pty ltd
ACN 002 425 194
ABN 48 942 921 969

Nominated Architects
Daniel Beekwilder 6192
Andrew Hipwell 6562

New High School for Jordan Springs

Armoury Road and Infantry Street,
Jordan Springs NSW 2747

REF Submission: Architectural and Landscape Design Report

Document history, status and distribution

Version	Revision	Date	Reviewed By	Approved By	Issued To
1	Draft	26/11/24	TD	TD	DFP, TSA
2	Final Issue	16/12/24	TD	TD	DFP, TSA
3	Final Issue	19/12/24	TD	TD	DFP, TSA
4	Final Issue	08/01/25	TD	TD	DFP, TSA

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

1.0 Executive Summary **5**

1.1 Introduction 6

1.2 Proposed Activity & Scope 7

1.3 Proposed Activity Scenarios 8

1.4 Design Statement 10

2.0 Context & Site Analysis **11**

2.1 Urban Context - Timeline 12

2.2 Urban Context - Greater Site 13

2.3 Urban Context - Site 14

2.4 Urban Context - Existing Site & Surroundings 15

2.5 Statutory Planning Control - Local 16

2.6 Statutory Planning - SEPP 18

2.7 Site Analysis 20

3.0 Design Concept **22**

3.1 Urban & Built Form 23

3.2 Relationship to Open Space 24

3.3 Traffic, Access & Circulation 25

3.4 Functional Relationships 26

3.5 Security, Access & CPTED 26

3.6 Masterplan Options 28

4.0 Architectural Response **29**

4.1 Overall Site Plans 30

4.2 Site Sections 34

4.3 Site Elevations 35

4.4 Materiality 36

4.5 Indicative Elevations 37

4.6 Renders 40

4.7 Signage & Wayfinding 44

5.0 Environmental Response **47**

5.1 Visual Impact Statement 48

5.2 Overshadowing 50

5.3 Sustainability Strategies Overview 51

6.0 Landscape Strategy **52**

6.1 Landscape Masterplan 53

6.2 Landscape | Places for Stories 55

6.3 Landscape | Pedagogy 56

6.4 Landscape | Planting Strategies 57

6.5 Landscape | Tree Canopy 58

7.0 Design Verification **59**

7.1 Response to SDRP 60

Appendix **64**

Connecting with Country Strategy

01

EXECUTIVE SUMMARY

1.1 Introduction

Introduction
This REF Architectural Design Statement has been prepared to accompany a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of a New High School for Jordan Springs (the activity) under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP TI).

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments – Consideration of environmental factors for health services facilities and schools, October 2024 (the Guidelines) by the Department of Planning, Housing and Infrastructure.

This report examines and takes into account the relevant environmental factors in the Guidelines and Environmental Planning and Assessment Regulations 2021 under Section 170, Section 171 and Section 171A of the EP&A Regulation.

This REF Architectural Design Statement is to be read in conjunction with drawings and other consultant reports as part of the REF Submission.

Activity Site
The project site is located on the corner of Armoury Road and Infantry Street in Jordan Springs and is legally described as part of Lots 2 and 3 in DP 1248480.

Figure 1 provides an aerial photograph of the project site, outlines the boundaries of the project site (in red) and the boundaries of Lots 2 and 3 in DP 1248480 (in blue).

The project site is within the Central Precinct of the St Mary's Release Area in the Penrith Local Government Area.

Other Approvals
External works and construction of the permanent off-site OSD Basin are to be constructed by others

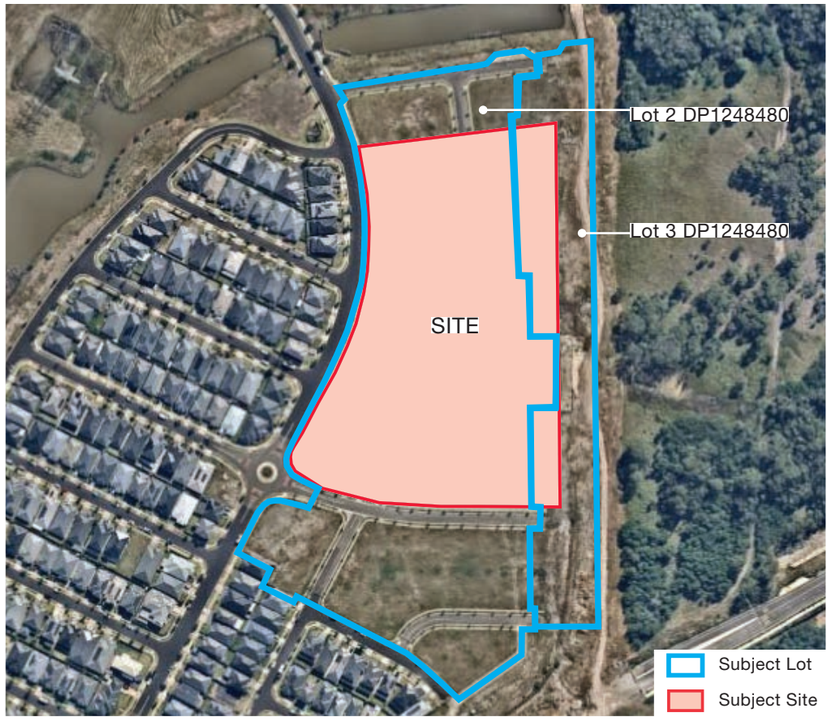


Figure 1
Source: DFP Planning, 2024

1.2 Proposed Activity

Proposed Activity Description

The proposed activity for the construction and operation of a New High School for Jordan Springs is proposed to have a capacity of 1,000 students and 80 staff to meet forecast enrollment demand associated with population growth in Jordan Springs and Ropes Crossing. 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 sports field, three (3) outdoor sport courts, 72 operational at grade parking spaces (including two (2) accessible spaces), 100 bicycle spaces and landscaping.

Public domain works and the permanent off-site OSD Basin are to be constructed by others under separate planning pathways.

Figure 2.1 & 2.2 provides an extract of the proposed site plan.

Scope

Number of buildings	4
Height of buildings	3 storeys
Permanent Teaching Space (PTS)	29
Support Teaching Space (STS)	3
Teaching spaces (total includes GLS and Support GLS)	51
Specialist (labs/ workshops/ kitchens)	10
Additional Learning Unit (ALU) selections	Science Wood & Metal

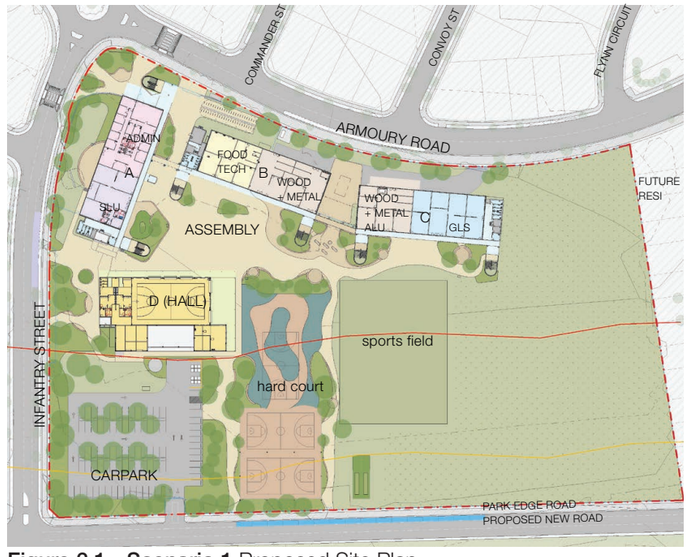


Figure 2.1 - Scenario 1 Proposed Site Plan

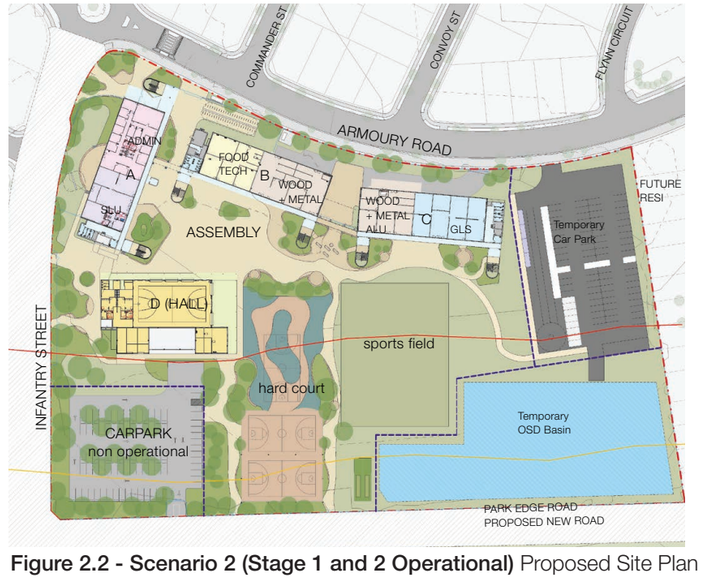


Figure 2.2 - Scenario 2 (Stage 1 and 2 Operational) Proposed Site Plan

1.3 Proposed Activity

Scenario 1

Proposed Activity Scenarios

The project scope of works includes two (2) Scenarios, to allow construction and operation of the school, with (Scenario 1 – preferred option) or without (Scenario 2 – Interim Solution) the public domain works and permanent off-site basin being constructed by others under a separate planning pathway.

Scenario 1 – Preferred Option - Road Network completed and permanent OSD Basin Constructed

External works undertaken by others to facilitate Scenario 1

- Construction of Park Edge Road;
- Any adjustments to Infantry Street;
- Kiss and drop zone along Park Edge Road;
- Support kiss and drop zone located along Infantry Street; and
- Construction and operation of permanent OSD Basin off site.

Note – Scenario 1 is not to proceed if external works undertaken by others is not completed.

Scenario 1

Construction and Operation of the New High School for Jordan Springs, including:

- Decommissioning of existing on-site OSD basin;
- Demolition of roads and associated services within the site boundary;
- Tree removal within the site boundary
- Earthworks;
- Three (3) multi-storey classroom buildings;
- One (1) school hall;
- Three (3) outdoor sport's courts;
- One (1) sport's field;
- 72 at grade car parking spaces, including two (2) accessible parking spaces, and waste services, accessed via Park Edge Road;
- 100 bicycle parking spaces across the site; and
- Landscaping.

1.3 Proposed Activity

Scenario 2

Scenario 2 - Interim Solution – Road network not completed, Permanent OSD Basin not constructed.

Scenario 2 - Stage 1

Construction and operation of a temporary on-site OSD Basin;
Construction and operation of the New High School for Jordan Springs, including;

- Demolition of roads and associated services within the site boundary;
- Tree removal within the site boundary
- Earthworks;
- Three (3) multi-storey classroom buildings;
- One (1) sport's field;
- Temporary carpark - 72 at grade car parking spaces, including two (2) accessible parking spaces and waste services, located on the northwest corner of the site, accessed off Armoury Road;
- 100 bicycle parking spaces across;
- Temporary Kiss and drop facilities on Armoury Road; and
- Associated landscaping.

Scenario 2 - Stage 2

Stage 2 is not to be undertaken until the temporary on-site OSD basin under stage 1 works is completed and operational.
Decommissioning of existing on-site OSD basin, prior to the following works being undertaken:

- 72 at grade car parking spaces, including two (2) accessible parking spaces, and waste services, located on the southeast corner of the site. This car park cannot be constructed until the decommissioning of the existing OSD basin is completed and will be non-operational with no road connection until completion of Scenario 2 – Stage 3;
- One (1) school hall;
- Three (3) outdoor sport's courts; and
- Associated landscaping.

External works undertaken by others to facilitate Stage 3

- Construction of Park Edge Road;
- Any adjustments to Infantry Street;
- Kiss and drop zone along Park Edge Road;
- Support kiss and drop zone located along Infantry Street; and
- Construction and operation of OSD Basin off site.

Note – Scenario 2 - Stage 3 is not to proceed until the external works undertaken by others have been completed.

Scenario 2 - Stage 3

- Connection of the southeast carpark to Park Edge Road;
- Rectification works along Armoury Road to remove temporary kiss and drop facilities and cross over for temporary carpark;
- Demolition of temporary carpark, once permanent car park is operational; and
- Decommissioning of temporary OSD basin

1.4 Design Statement

Scenario 1

Local Authority: Penrith
Aboriginal Country: Dharug

Site Selection

The site is approximately 53km west of Sydney CBD in the local government area of the City of Penrith. An approximately 4.0Ha site has been identified in the recently planned community area in the eastern portion of Jordan Springs. The selected site connects the precincts of Jordan Springs, Jordan Springs East and Ropes crossing via. Wianamatta Parkway.

Site Constraints

Bushfire hazards exist adjacent to the site's eastern boundary and consist of Cumberland Plains Woodland and cleared grasslands. Bushfire protection measures have been investigated and a mitigation measure of a 100m setback from the eastern side of the future Eastern Street for any school buildings has been proposed.

As part of Flood Impact assessment, BMT developed a flood model to assess overland flooding and the majority of the Site falls within an H1 hazard classification, indicating low risk to people and property.

Design Objectives

The new high school for Jordan Springs will meet the enrolment demand of the rapidly growing and developing suburb. 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
- Response to site conditions particularly Bushfire Asset Protection Zone (APZ) mapping and Planning for Bushfire Protection measures
- Building D Hall is set at 22mAHD, 0.5m above the 1 in 1000 AEP flood
- A Flood Emergency Response Plan (FERP) has been developed with a risk management priority system, emphasising school closure as the primary response to predicted severe or extreme flood events
- Scenario 2 interim solution including temporary infrastructure while external works are not completed by other.

Design Verification

The new high school for Jordan Springs as reviewed by the GANSW State Design Review Panel on 23rd October 2024. Both the SDRP comments and DJRD responses can be found in section 7.0 of this report.

Connection

The activity has responded to the St Marys Central precinct Development Plan in particular the promotion of walking and cycling connections. The links between the Central Precinct and Western and Eastern precincts of the catchment have been extensively workshopped with Penrith City Council and TfNSW. A large proportion of the school catchment will be within walking/ cycling catchments and this mode of travel has been promoted; new wombat crossings will ensure safe road crossings to key school entries and covered bike parking provided. A new bus-stop servicing the proposed school is proposed on Armoury Rd. While green travel is prioritised the travel mode share has indicated a requirement for kiss & drop and this has been provided on Park Edge Road with clear and direct entries into the School site. Students may be required to use of existing bus stop if surrounding road network is not complete.

Scenario 2 provides interim solution for temporary car park, kiss and drop, vehicle and pedestrian entries to School site off Aromoury Road.

Urban Design

Key urban design responses include:

- Proposed built form addresses both Armoury Road and Infantry Street - the key nexus of student and visitor arrivals
- Setbacks respond to the prevalent residential development character allowing landscaped buffer zones to mitigate the perception of bulk and scale within the streetscape
- Separation of buildings provides visual connections into the site in response to existing urban street patterns
- Response to the bushfire APZ loating buildings outside of this risk zone
- 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

Urban Design - Scenario 2 response:

- Temporary OSD basin and car park
- Temporary car park access off Armoury Road
- reduced number of pedestrian entries with access off Armoury road
- permanent car park not operational until external works are completed by others.
- Scenario 2 stages completed as described on section 1.3 of this report.

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 Jordan Springs 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 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

Evaluation 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 Jordan Springs.

02

CONTEXT & SITE ANALYSIS

2.1 Urban Context - Timeline

Settled in the early 1800s, the area, which was originally known as Jordan Hill, was mainly used for farming. In 1941 700 acres of land was resumed by the Commonwealth Government to create the St Marys Defence Site. An additional 500 acres of land was taken in 1955. A factory was built in the area for the production and housing of munitions, and was in operation until 1993, when Australian Defence Industries (ADI) Ltd sought to redevelop the site for housing. In 2004 the Commonwealth Government sold the land to Lend Lease to make way for 4,800 houses.

Mid 1800s
The name “Jordan” has historical ties to the site. Jordan Hill is mentioned in the Nepean Electoral Roll for 1869-1870 as being the property of William Faithful. 1805 land granted to captain John Houston. Land used by local farmers for grazing as well as by small settlers.

1863
Penrith Train station opens with single track line as the terminus of the Main Western line when it was extended from St Marys

1941
Commonwealth Government resumes 700 acres of land to create the St Marys defence site. A further 500 acres is taken in 1955

1993
ADI Ltd seeks to rezone the St Marys defence site for housing

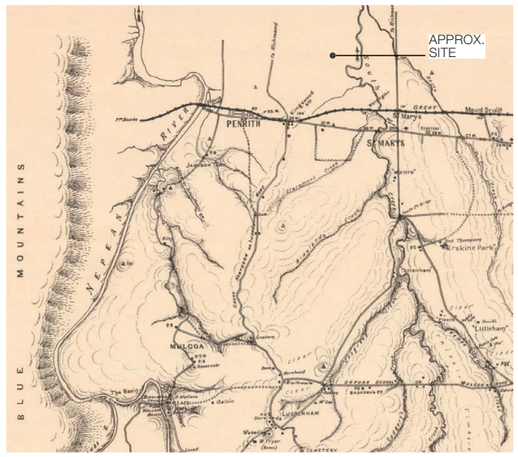
2004
Lend Lease acquire land and start to develop 4,800 houses.

2011
Jordan Springs is designated a suburb

2023
2023 Plan illustrating urbanisation and residential development

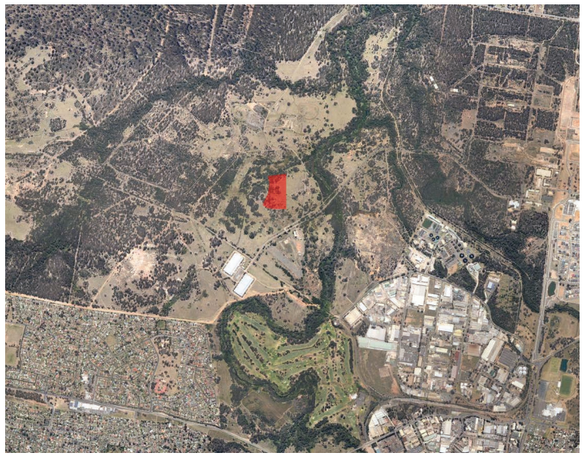
2024
Jordan Springs HS Project starts

2027
Jordan Springs HS programmed to open First day Term one 2027



1904 (partial map)

Creator: Australia. Commonwealth Military Forces. New South Wales District. MAP G8971.R1 1904



1991

Source: NSW Historical Imagery

2024

Source: NSW Historical Imagery

2024

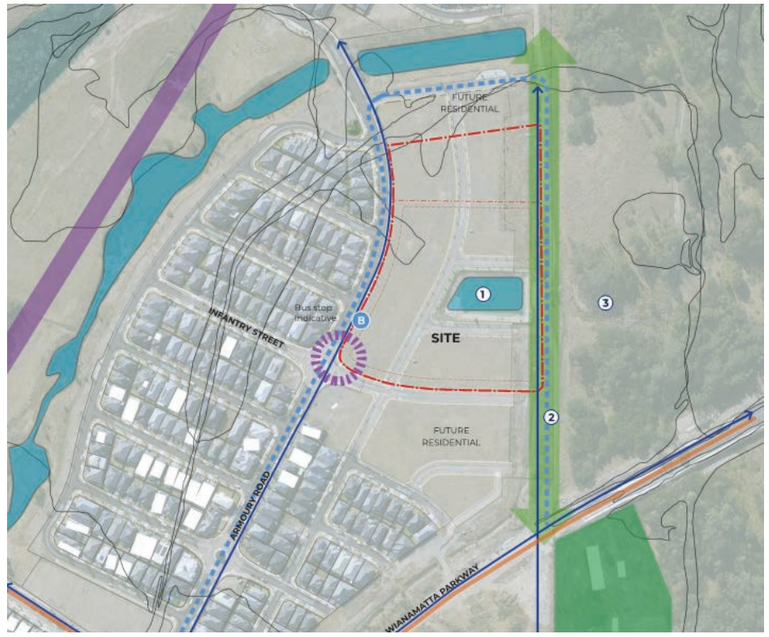
Source: Nearmaps

2.2 Urban Context - Greater Site

South-West growth area

Jordan Springs Master Plan - Lendlease

Existing Site condition



The site sits within the Penrith LGA on land which was a former Australian Defence Industries (ADI) property and borders the Wianamatta Regional Park and lie north of the confluence of Cattai Creek and South Creek.
It is 7km from Penrith City Centre, near Penrith Train station.

The new high school will cater for the communities of Jordan Springs and Ropes Crossing.

The planned communities of Jordan Springs and Jordan Springs East have seen staged delivery with a total anticipated population of 13,000 residents. The precinct is anticipated to have over 17ha of parks and open space with direct access to Wianamatta Regional Park from both centres. Jordan Springs East will have a future town centre with adjacent park and sporting fields (Jordan Springs Masterplan by Lendlease)

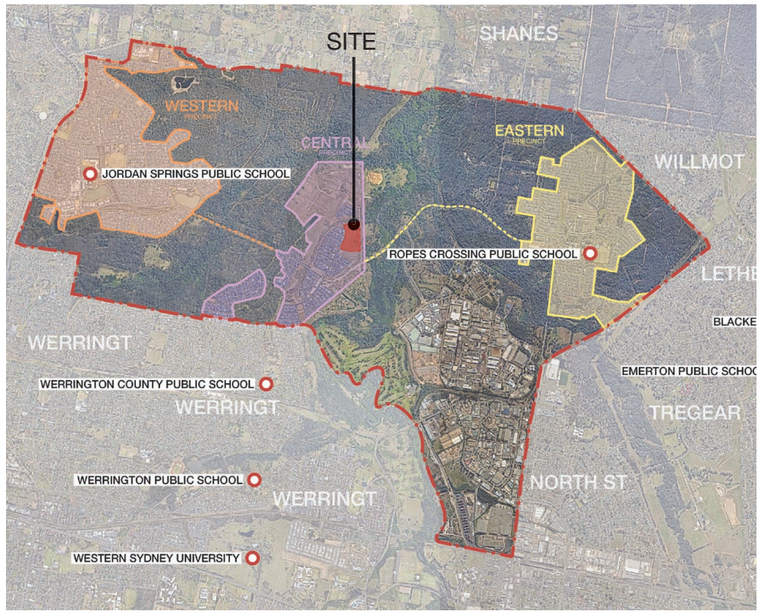
The identified site of approximately 4.0Ha is situated in the southern part of a larger 4.7Ha block. The land within the site has been partially serviced with infrastructure including power, water and a partial street layout suitable for detached residential subdivision. The site will be cleared and generally level with services capped at the street. A detention basin exists on the site (1) and is addressed by project scope of works which includes two Scenarios: Scenario 1 Road Network completed and permanent OSD Basin Constructed with external works undertaken by others. Scenario 2 which is an Interim Solution requires to be constructed in 3 stages with inclusion of a temporary OSD basin and a temporary car park, refer to section 1.3 for detailed description.

2.3 Urban Context - Site

The site is within the St Mary's Release Area, forming part of the Central Precinct, within a residential setting, with predominantly low-density residential properties located within the vicinity of the site. The land has been cleared of vegetation and comprises recently constructed roads, as well as some recently planted street trees.
The proposed high school is located towards the north-eastern side.
A water quality basin is located on site, spanning over part of Lot 2 DP 1248480.

The School Catchment includes three suburbs: Jordan Springs, St Marys and Ropes Crossing.

SCHOOL CATCHMENT



Students are expected to walk/cycle to school from Jordan Springs West Area

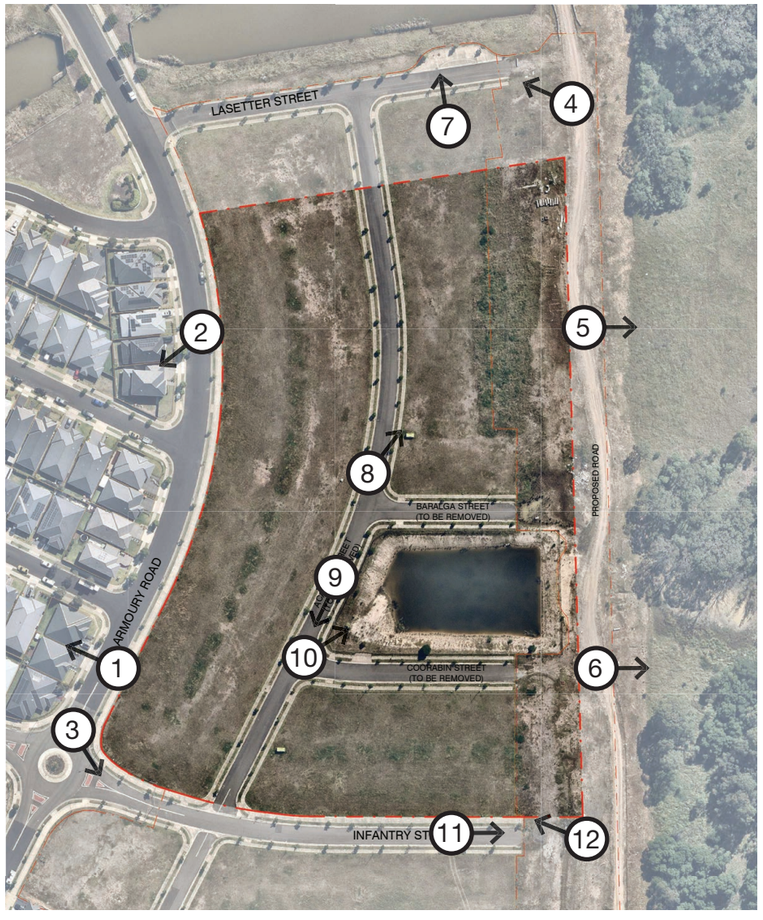
Students are expected to walk/cycle to school from Jordan Springs South via Armoury Road

Students are expected to walk/cycle to school from Ropes Crossing area using Wianamatta Parkway once road is completed.

2.4 Urban Context - Existing Site & Surroundings

The site is bounded by existing single and two-storey residential dwellings along Armoury Road. Further residential development is planned on Lasetter Street along the northern boundary and on Infantry Street which forms the southern boundary of the site. To the east the site has views towards Wianamatta Creek reserve and grassland.

The site currently houses internal roads, a substation and an internal bio-retention basin. The existing infrastructure is inconsistent with the activity and will be demolished to allow for the site development.



1

Armoury Road | Single-storey residential dwellings

2

Armoury Road | Two-storey residential dwellings

3

Corner of Armoury Road & Infantry Street at roundabout

4

Lasetter Street | Pond view North from site boundary

5

Grassland | East view from proposed road toward Wianamatta Creek

6

Detention Basin | East of proposed

7

Lasetter Street | Pond view North from site

8

Existing Substation | View from existing Academy Street

9

Existing Academy Street | View to South

10

Academy Street | View of internal site pond

11

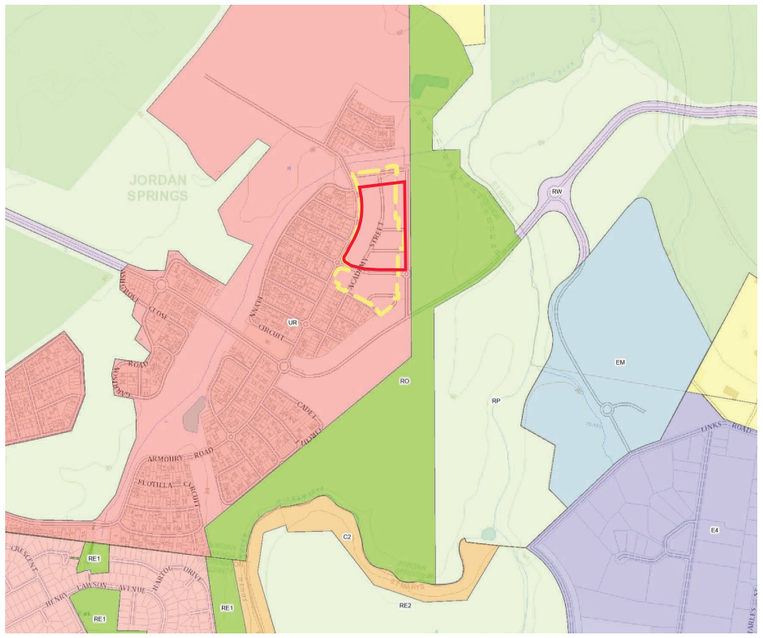
Infantry Street | View to East

12

View of Infantry Street & Site | South east of site boundary

2.5 Statutory Planning Control - Local

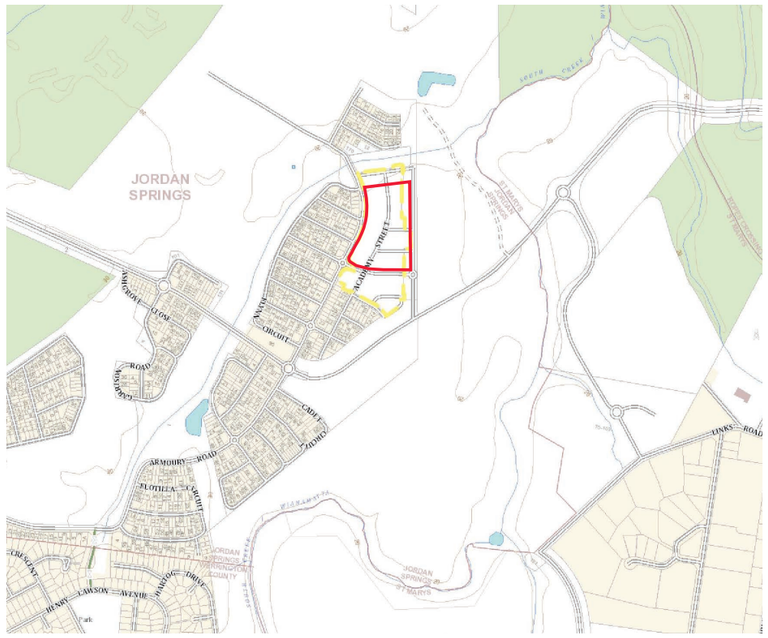
Zoning



The project site is subject to SEPP PWPC including a Precinct Plan and Planning Agreement (Part 6.3-6.4), Performance Objectives (Part 6.5), Zoning (Part 6.6) and Development Controls (Part 6.7).

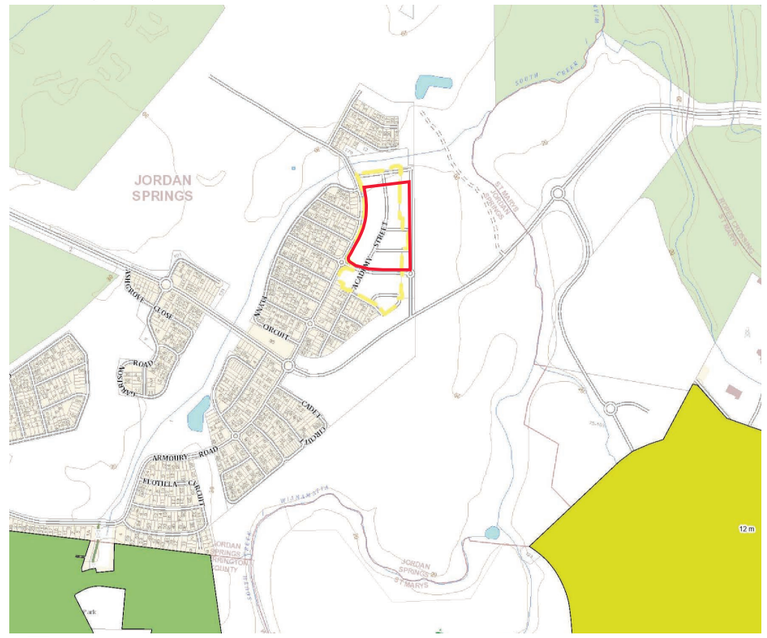
Riverine Scenic Area applies to the Site under Biodiversity & Conservation SEPP. Impact of the activity on the scenic quality of the Riverine Scenic Area will be minimised.

FSR



Floor Space Ratio: N/A

Building Height



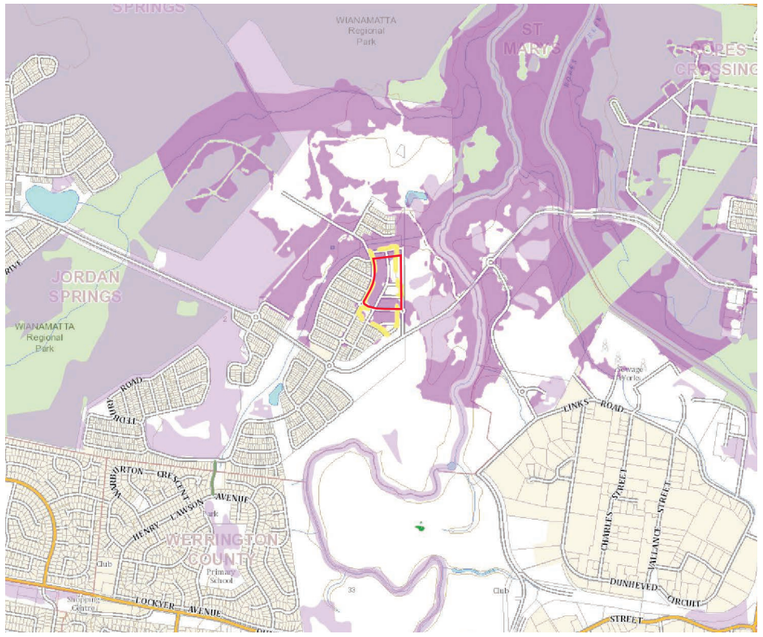
Height of Buildings: N/A
No Building Height is identified in the planning maps for the site.

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

Proposed buildings are three-storey

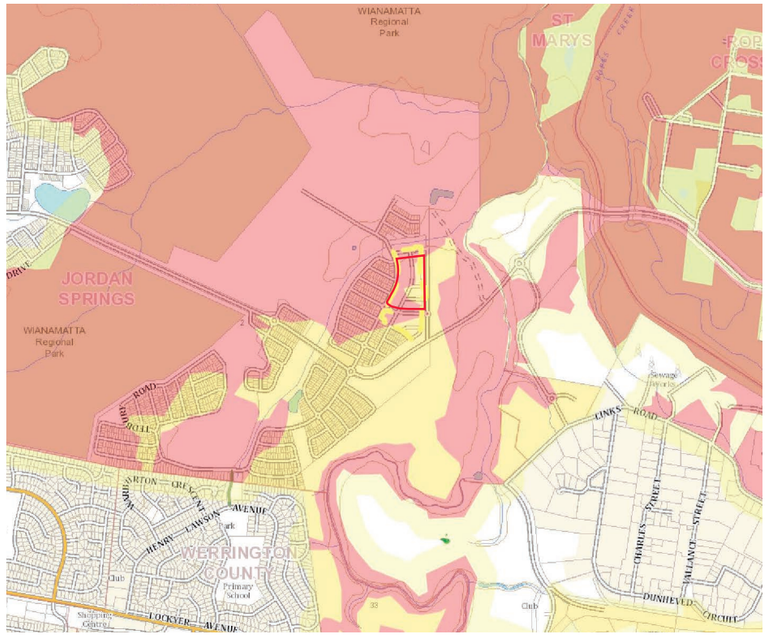
2.5 Statutory Planning Control - Local

Biodiversity



Ongoing and past disturbances associated with land clearing and urban development have heavily impacted and modified the subject site. The site is primarily comprised of re-established grassland, new roads, street trees, and a bio-retention basin. Pre-clearance native vegetation has been replaced by a cover crop of exotic species designed to stabilise the site post broad scale land clearing. This provides minimal habitat for any native species, and no habitat resources of relevance for predicted threatened species.

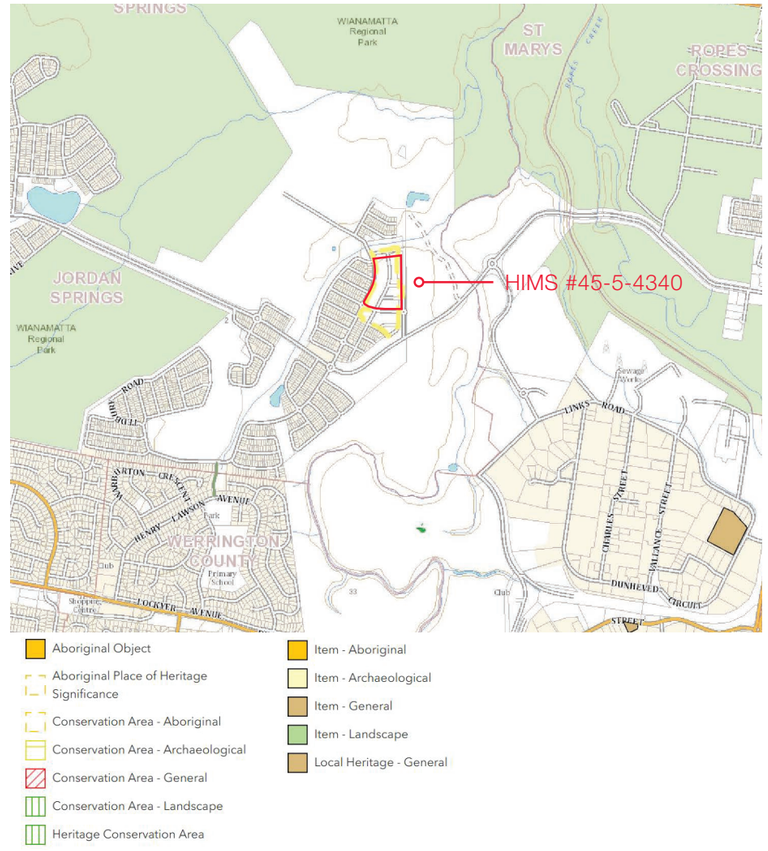
Bushfire



The site is identified as ‘bush fire prone land’ for the purposes of Section 10.3 of the EPA Act and the legislative requirements for PBP 2019 are applicable.

The assessment has demonstrated that the proposed new school is able to meet the requirements of Planning for Bushfire Protection 2019. Recommendations have been provided that are required to mitigate bushfire to tolerable levels in accordance with Planning for Bushfire Protection 2019. (Blackash Bushfire Consulting, Dec 2024)

Heritage



Heritage NSW granted AHIP number C0000362 (AHIMS No. 3647) on 5th June 2014, which is valid for 15 years. It was proposed that salvage excavation would occur at AHIMS #45-5-4340 (SMDS-CP3), which is noted as extended into the Subject Area, as part of mitigating harm approved by the AHIP. Subject Area has undergone high levels of ground disturbance, including the placement of anthropogenic fill over the Subject Area and has been assessed as having nil potential to contain archaeological deposits. (Preliminary Indigenous Heritage Assessment and Impact Report - PIHAI, Kayandel Archeological Services, December 2024). A series of recommendation have been prepared for the subject site in the PIHAI completed by Kayandel in December 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.

The proposal envisages a strong response to the future expanding residential context, new roads and expressive open green areas including the Wianamatta Regional Park on the eastern boundary.

Three buildings are strategically sited in close proximity to Armoury Road and Infantry St fabric, including existing and future residential development blocks, roads and infrastructure. The school's main entrance is set back to create a public domain, which will facilitate community engagement, particularly during school pick up and drop off times.

The proposed scheme provides a strong school identity based on the Connecting with County theme based on narrative of the Mariong, with new entry forecourt at corner of Armoury Road and Infantry Street. The narrative of the Mariong has been developed beyond symbolic representation to encompass more specific learnings around First Nations practice of sustainability, understanding of ecology and biodiversity, and sharing of knowledge. The architectural language is refined by generous landscaped areas along all street setbacks. Endemic tree planting will soften the three storey buildings along both street facades and the school centre will be physically and visually connected to green areas on eastern boundary.

The Hall is sited away from Wianamatta Regional Park as bushfire mitigation measure; outside 100 metres to BAL19 offset line and 50 metres APZ from eastern boundary. The Hall is set at 22mAHD, providing an additional safety margin of at least 0.5m above the 1 in 1000 AEP flood level.

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.

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.

Caring for Country is embedded in the design via the Connecting with Country process and aims to create opportunities for learning and appreciation of Country via initiatives such as, indoor and outdoor connection, different learning spaces and gathering areas - from quiet and intimate to communal, colour scheme inspiration by CwC themes and landscaping planting strategy to incorporate native species.

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.

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 school has been designed to be accessible and inclusive to all teachers, students and the community. There are accessible entry points to the school site from existing and proposed roads. The Hall is easily accessible by the community from Infantry Street and will have dedicated afterhours access.

The proposed school forecourt at the corner of Armoury Road and Infantry Street 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 Infantry Street and will have dedicated after hours access.

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

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.

The proposal ensures good relationship between buildings and the external environment, creating opportunities for connection between indoor and outdoor learning spaces.

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

The site will have a perimeter high palisade fence, excepting the public domain, plus pedestrian and vehicles auto-gates acting as 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.

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 residential development and green areas 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 expansive views. The landscape design and planting selections will enhance local biodiversity.

Shadow diagrams have been produced and show no impacts on neighbouring properties. Each learning space has access to natural light and ventilation, outlook and privacy as required within the EFSG. Furthermore, the site is not subject to major noise issues due to surrounding residential areas.

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. 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

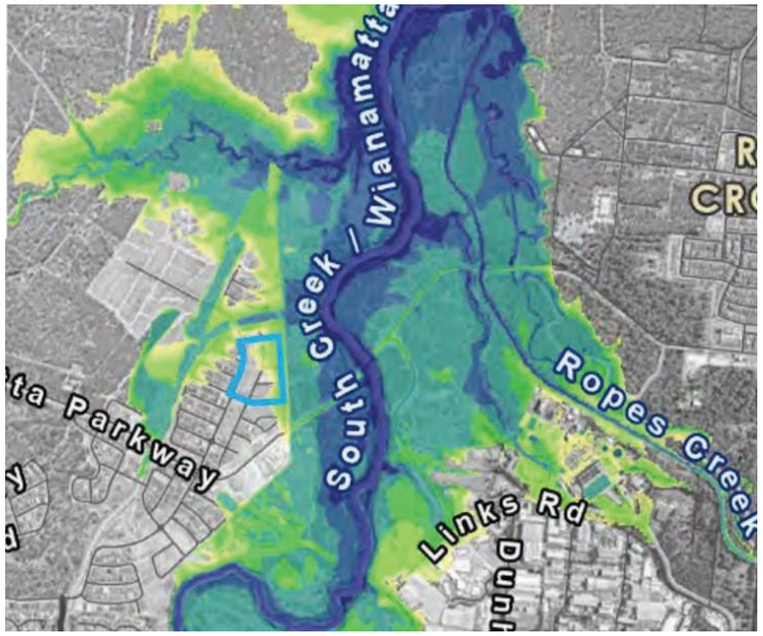
School buildings and their landscape settings should be aesthetically pleasing by achieving good proportions and a balanced composition of built and natural elements.
Schools should be designed to respond to and have a positive impact on streetscape amenity and the quality and character of the neighbourhood.
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 depths
- 0 - 0.3m
- 0.3 - 0.5m
- 0.5 - 1.2m
- 1.2 - 2m
- 2 - 4m
- 4 - 6m
- >6m

1 in 1000 AEP Flood Depths, Hawkesbury Nepean Flood Study (NSWRA, 2024)
Source BMT - Flood Imapct Assessment

As part of Flood Impact assessment, BMT developed a flood model to assess overland flooding and the majority of the Site falls within an H1 hazard classification, indicating low risk to people and property. Building D Hall is set at 22mAHD, providing an additional safety margin of at least 0.5m above the 1 in 1000 AEP flood level for the Hawkesbury-Nepean Rive.

As part of the mitigation measure, The Flood Emergency Response Plan (FERP) for the new high school at Jordan Springs has been developed with a risk management priority system, emphasising school closure as the primary response to predicted severe or extreme flood events (BMT Flood Impact Assessment, Nov 2024).

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 primarily comprised of re-established grassland, new roads, street trees, and a detention dam.

Topography

- Site Boundary Line
- 500mm Contour Line

The site is relatively flat with approximately 2 metres fall from south-western to north-eastern boundary, with the highest point being approx. 23.00AHD and lowest point 21.00HD.
The on-site elevation varies from 18.4AHD at the surface of the existing stormwater basin to 23.7AHD in the southwest corner, as illustrated in Figure above. These topographic features contribute to the site's positioning within the South Creek catchment, a significant tributary feeding into the Hawkesbury River.

2.7 Site Analysis

The site is located northwest of Sydney within NCC Climate Zone 6. Penrith is located at the foot of the Blue Mountains on the outskirts of greater Sydney. Due to this location and the Sydney basin the Penrith area does not experience onshore breezes which cool in summer. Penrith 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 east-west orientation. Due to this aspect buildings are typically facing east and west, and external circulation faces east. Adequate sunshading has been provided to mitigate solar heat gain. Prevailing summer breezes are usually common from southern direction, while southwestern winds are common in winter.

NTS

RIPARIAN CORRIDOR

FUTURE OPEN SPACE

FUTURE RESIDENTIAL

EXISTING WATERWAYS

PROMINENT SITE CORNER

PROPOSED SITE ENTRY
Infantry Street & Armoury Road

100m BAL19 OFFSET

50m APZ OFFSET

EDGE OF TREE LINE

HIGH VOLTAGE POWERLINES

PROPOSED ROAD

VIEWS TO
REGIONAL OPEN SPACE

B EXISTING BUS STOP

03

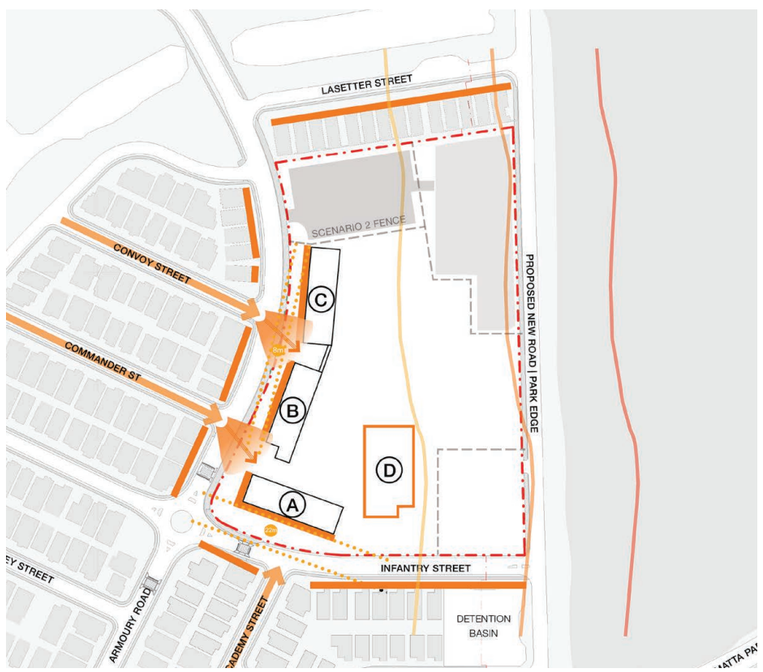
DESIGN CONCEPT

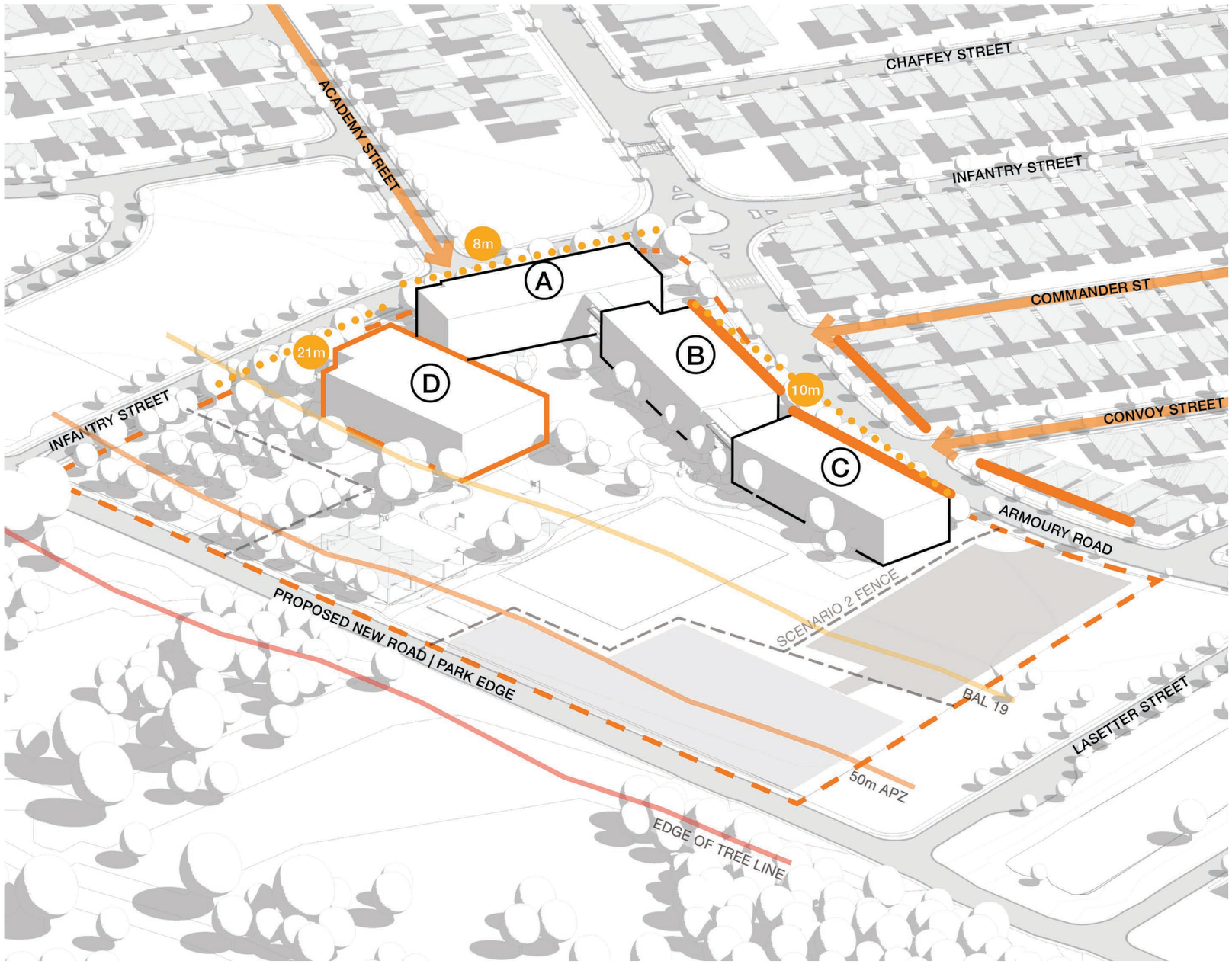
3.1 Urban & Built Form

The built form addresses both street frontages along Armoury Road and Infantry Street and it seeks to respond to the surrounding residential context, sloping topography, and future expanding residential development and roads. The school administration located on Building A is adjacent to the main school entry and has direct connection to the proposed public domain.

The proposed buildings front setback varies from approximate 10 to 21 metres, in particular the Hall's orientation and side setback respond to minimum 50m APZ in the eastern boundary as well as outside BAL19 offset line. In addition, Building D Hall is set at 22mAHD, providing an additional safety margin of at least 0.5m above the 1 in 1000 AEP flood level for the Hawkesbury-Nepean River (BMT Flood Impact Assessment, Nov 2024).

The new three-storey buildings are an appropriate scale to the surrounding area, considering existing and future two-storeys freestanding houses. The built form and bulk are softened by generous landscaped setbacks and cranked building alignments. The façade is articulated by various elements, materiality and colour selection that is relevant to Country. The Hall is a double height volume which contributes to building height variation.





N

STREET SIGHTLINE RELATIONSHIP
Break in building facade

Setbacks

Perimeter Fence

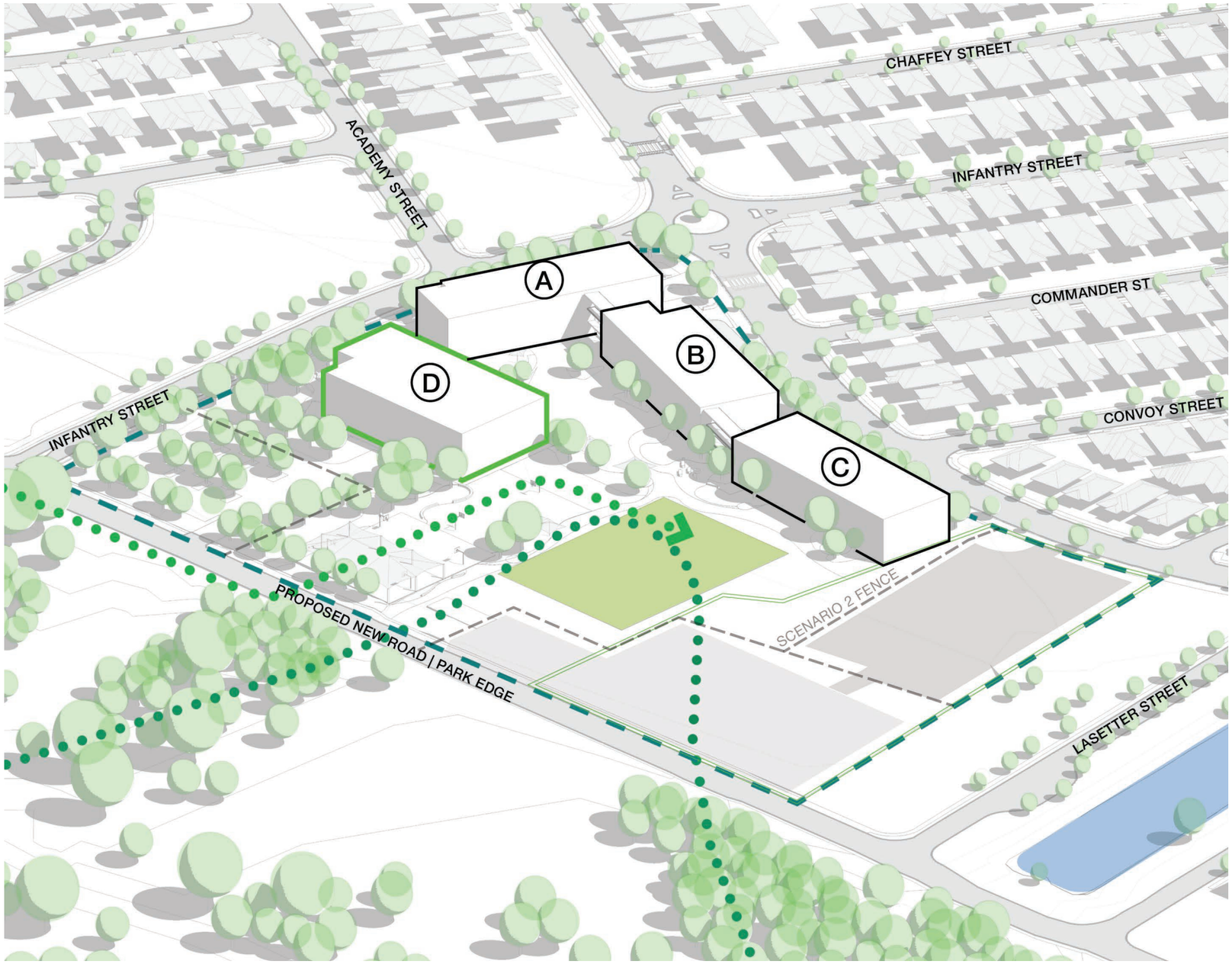
Scenario 2 Fence

Scenario 2 Temporary Car Park

Scenario 2 Temporary OSD Basin

3.2 Relationship to Open Space

While the buildings holding the street edge responds to the surrounding built context a visual and physical connection is proposed from the centre of the school to the South Creek and Wianamatta Regional Park on the eastern boundary. Outdoor play spaces such as the field and games courts are centrally located and have clear sightlines for supervision. Advanced 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.



N

NATURAL CONNECTION
To Passive Open Spaces & Urban Bushland

RECREATION CONNECTION
To Future Sports Field & Recreation

Perimeter Fence

Scenario 2 Fence

Scenario 2 Temporary Car Park

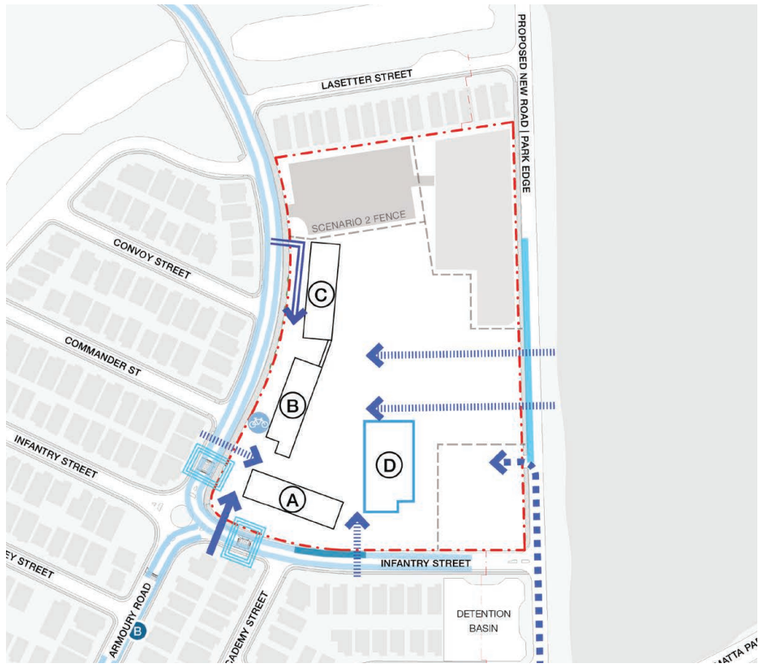
Scenario 2 Temporary OSD Basin

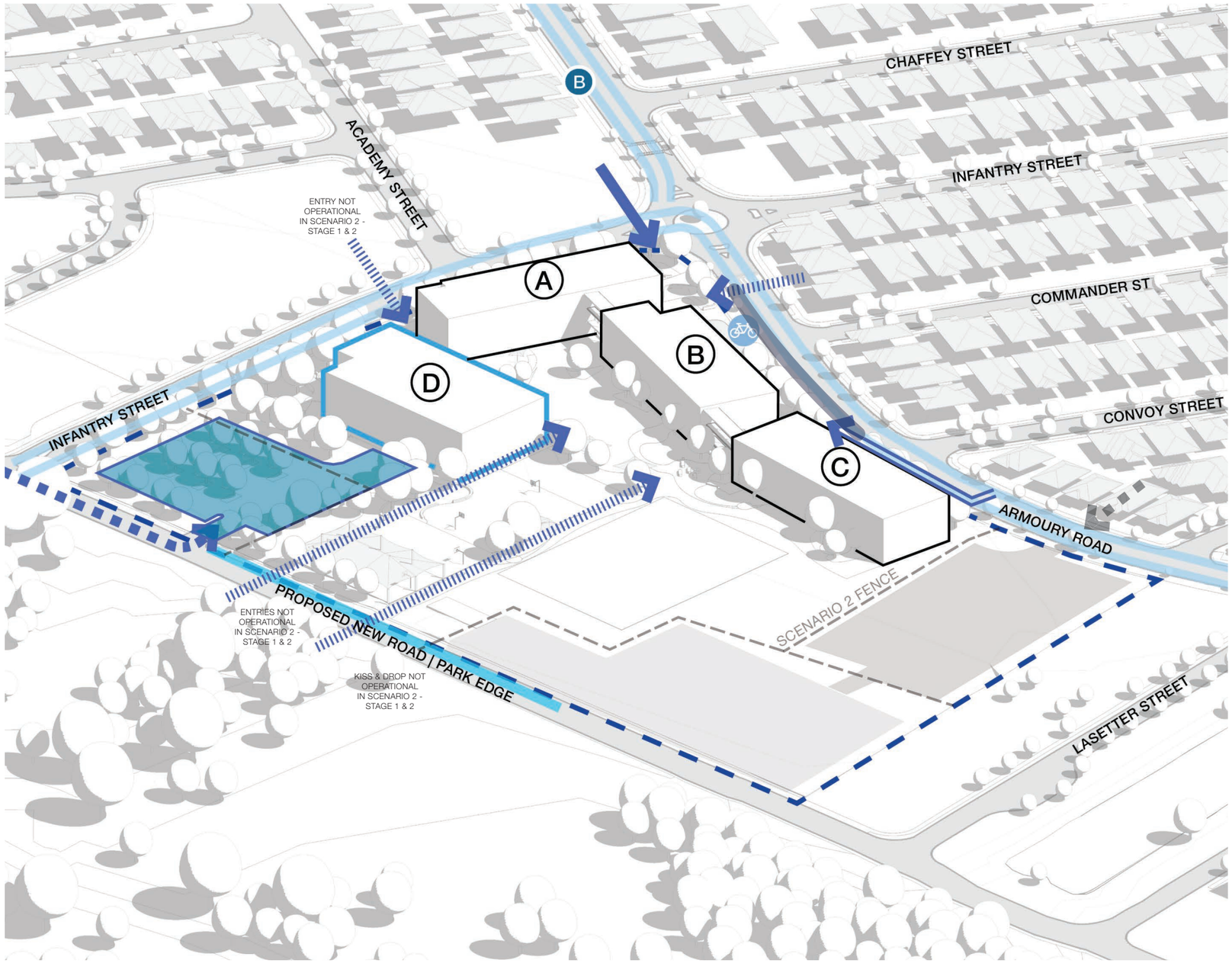
3.3 Traffic, Access & Circulation

The school campus is designed to prioritise safe and efficient vehicle movement, pedestrian access and circulation. The main School entry is conveniently located at corner off Armoury Road and Infantry Street near drop-off zones and public transport, and provides clear arrival points for students, staff, and visitors.
The green travel plan promotes pedestrian and cycling access. Connection to shared path cycling Network and on-site bike parking encourages this mode of travel.

By incorporating secondary pedestrian entries on both roads, the campus ensures greater permeability for access to public transport and surrounding neighbourhood. Dedicated vehicle entries from proposed Edge Park Road provide access to the staff car park and delivery areas access is done via Armoury Road. Scenario 2 provides less options for school entries, vehicle and pedestrian entries will occur via Armoury Road including access to temporary car park.

A series of outdoor covered walkways connect all buildings and the Hall, providing sheltered access for students, staff, and visitors. For vertical movement, staircases offer access between levels within three-storey buildings, while lifts ensure accessibility to all floors.





N

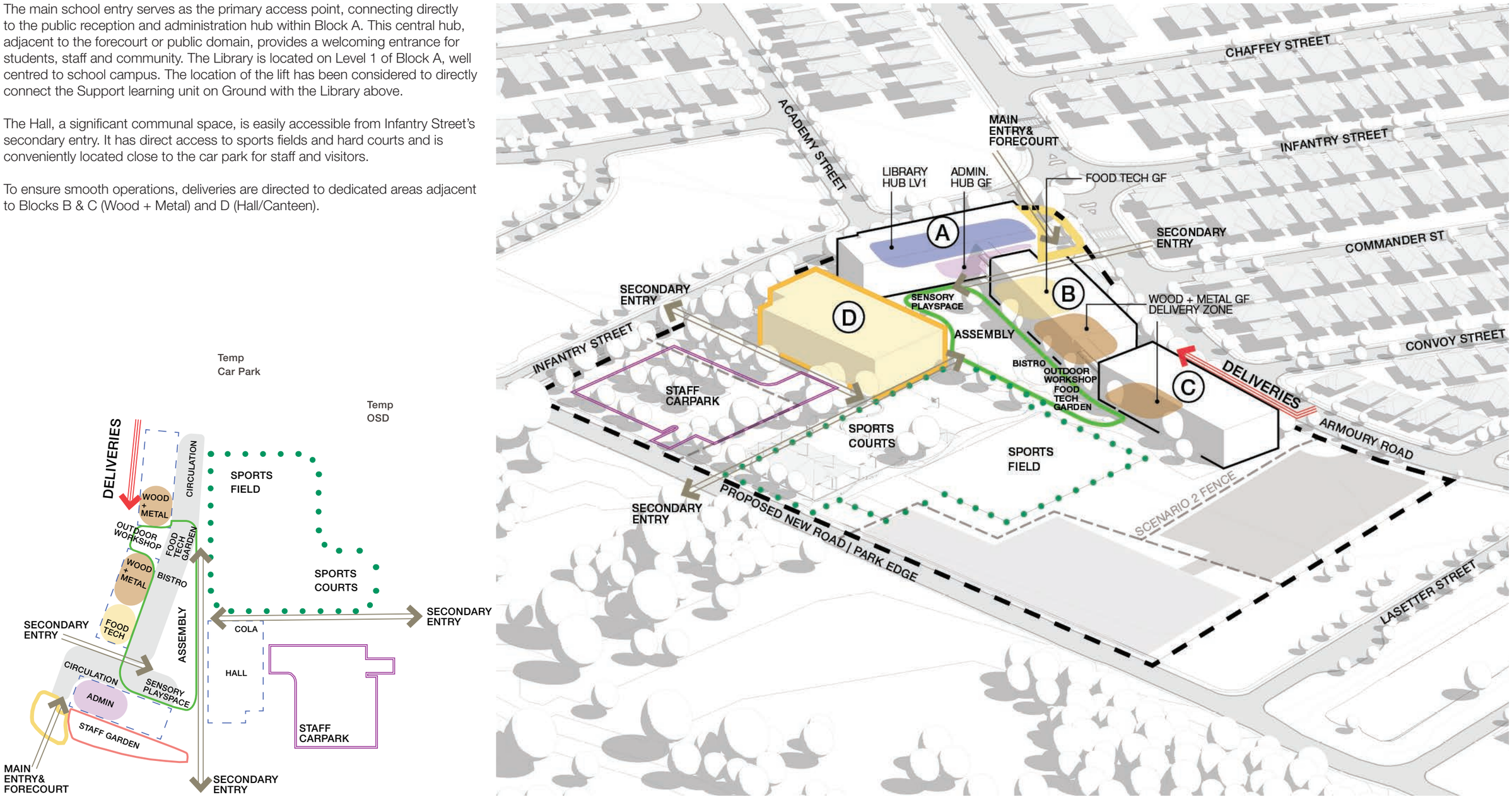
Main Entry
Secondary Entry
Vehicular Access
Deliveries Access
Kiss n Drop
SHARED PATH Pedestrian & Cycle
Bicycle Parking
Scenario 2 Fence
Scenario 1 Car Park (Not Operational in Scenario 2)
Scenario 2 Temporary Car Park
Scenario 2 Temporary OSD Basin
Scenario 2 Vehicular Access
Scenario 2 Kiss n Drop

3.4 Functional Relationships

The main school entry serves as the primary access point, connecting directly to the public reception and administration hub within Block A. This central hub, adjacent to the forecourt or public domain, provides a welcoming entrance for students, staff and community. The Library is located on Level 1 of Block 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.

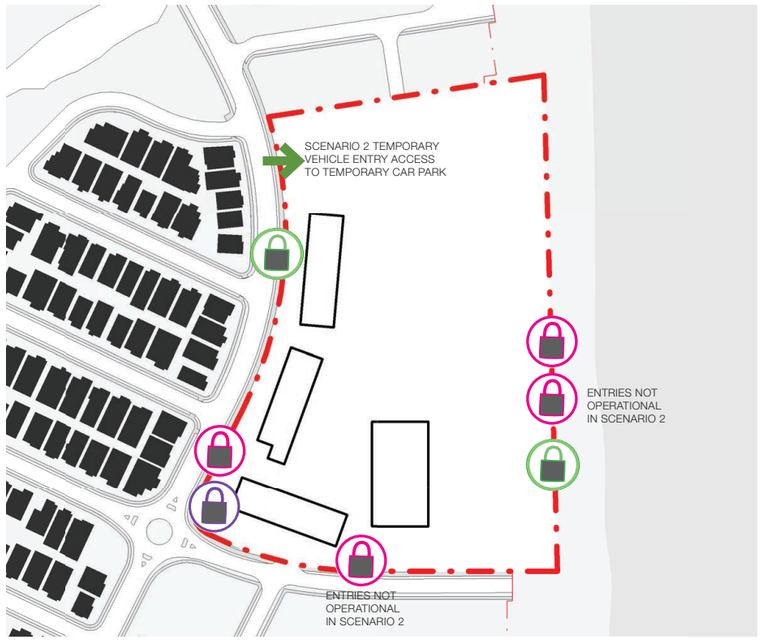
The Hall, a significant communal space, is easily accessible from Infantry Street's secondary entry. It has direct access to sports fields and hard courts and is conveniently located close to the car park for staff and visitors.

To ensure smooth operations, deliveries are directed to dedicated areas adjacent to Blocks B & C (Wood + Metal) and D (Hall/Canteen).



3.5 Security, Access & CPTED

Perimeter Security & Access Control

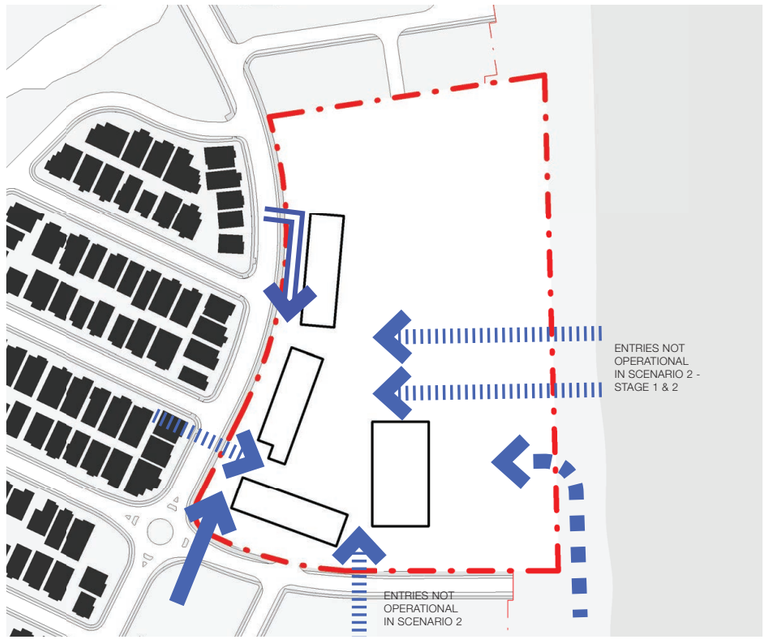


The School's main entry and forecourt will present a welcoming landscaped area improving the engagement of the School with the public domain, which aims to establish a civic front for the school. Outside of this entry area the School site will be secured by palisade fence around site perimeter with access controlled gates for entry into the school.

The main school entry is from Infantry Street and Armoury Road near the pedestrian crossing. This is secure entry with video intercom to the administration.

There are alternative entries from other roads that surround the site which are are open during peak arrival and departure times but are not operational during School hours. Vehicle access to car park and delivery zone are provided off Armoury Road and proposed Park Edge Road in Scenario 1. After school hours access is provided via a secondary entrance in close proximity to Hall and staff car park. Scenario 2 provides less options for school entries, vehicle and pedestrian entries will occur via Armoury Road.

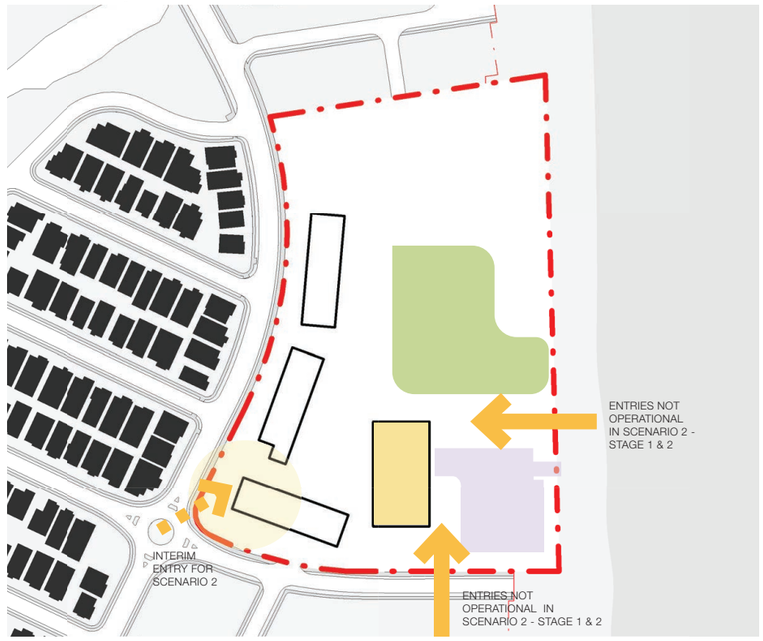
School Access & Natural Surveillance



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 both Infantry Street and Armoury Road
- 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
- separate vehicle and pedestrian access to reduce pedestrian/ vehicle conflict
- occupation of school buildings offers passive surveillance of adjoining residential properties

Community Use & Territorial Reinforcement



The proposed Hall, which has a internal basketball court, has many opportunities for shared community use. Public access and afterhours access to Hall is off Infantry Street secondary entrance. Both the after-hours and main entries are 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. Fencing and landscaping provide a sense of ownership/ territorial reinforcement. 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:

- All buildings sit outside of the nominated bushfire buffer zone
- Strong street presence and visibility within precinct
- Good use of street frontage for school access
- Open play space connects to adjacent bushland and potential green link

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:

- Greater separation of Buildings A + B to improve amenity and provide adequate circulation around main entrances
- Separation of Buildings B + C to provide covered outdoor workshop and appropriate space for delivery vehicle manoeuvres
- Location of courts and field to provide improved functional sports and playspace arrangement
- Hall location has not considered future expansion opportunities

Final Masterplan Option (Scenario 1 and Scenario 2 - Stage 1 & 2)

The Masterplan Sketch remains largely in line with the original general design principles, however, the following design recommendations were made:

- Building separation considered to allow functional and operational requirements for student circulation, deliveries and egress
- Improved functional arrangement of landscape and sporting facilities
- Hall location considered to allow future expansion opportunities

Note: Stage 2 buildings (4 & 5) were removed from project scope after Masterplan phase.

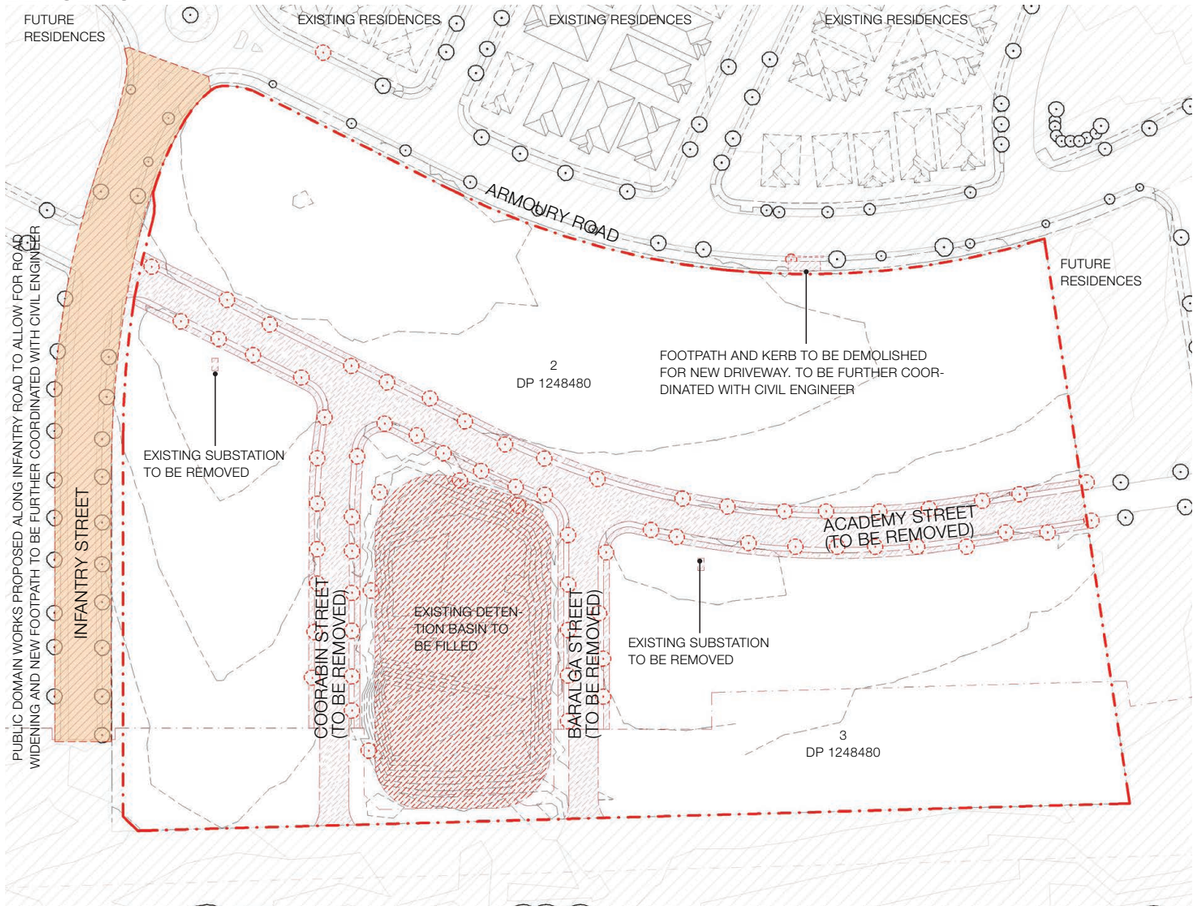
04

ARCHITECTURAL RESPONSE

4.1 Overall Site Plans

Demolition is required to allow for the activity. Existing infrastructure and trees affected by the school development will be removed. Including internal roads, associated drainage, kerb and gutter, footpaths and street light poles within school site, existing substations and inground powerlines.

DEMOLITION PLAN



LEGEND

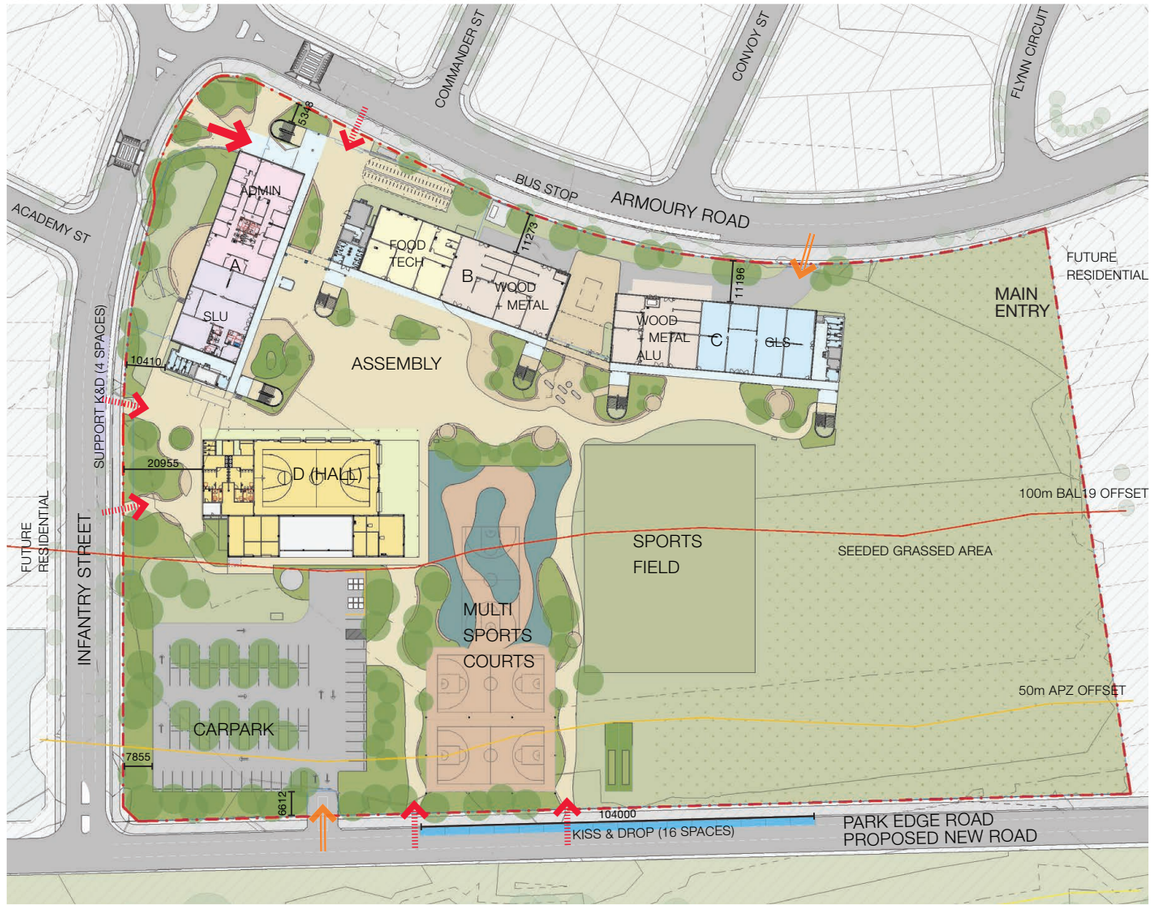
- SITE BOUNDARY
- EXISTING TREES TO REMAIN
- EXISTING TREES TO BE DEMOLISHED
- EXISTING SITE ELEMENTS TO BE DEMOLISHED
- SURROUNDING SITE ELEMENTS TO BE DEMOLISHED (OFF-SITE)
- EXISTING DETENTION BASIN TO BE FILLED WITH IMPORTED SOIL
- AREA NOT IN PROJECT SCOPE
- PUBLIC DOMAIN WORKS PROPOSED ALONG INFANTRY STREET (BY OTHERS)

N

4.1 Overall Site Plans

Scenario 1 is subject to to external works undertaken by others to facilitate Scenario 1 and includes: construction of Park Edge Road, adjustments to Infantry Street, kiss and drop zone along Park Edge Road, support kiss and drop zone located along Infantry Street and construction and operation of permanent OSD Basin off site.
Note – Scenario 1 is not to proceed if external works undertaken by others is not completed.

GROUND FLOOR - SCENARIO 1 OPERATIONAL



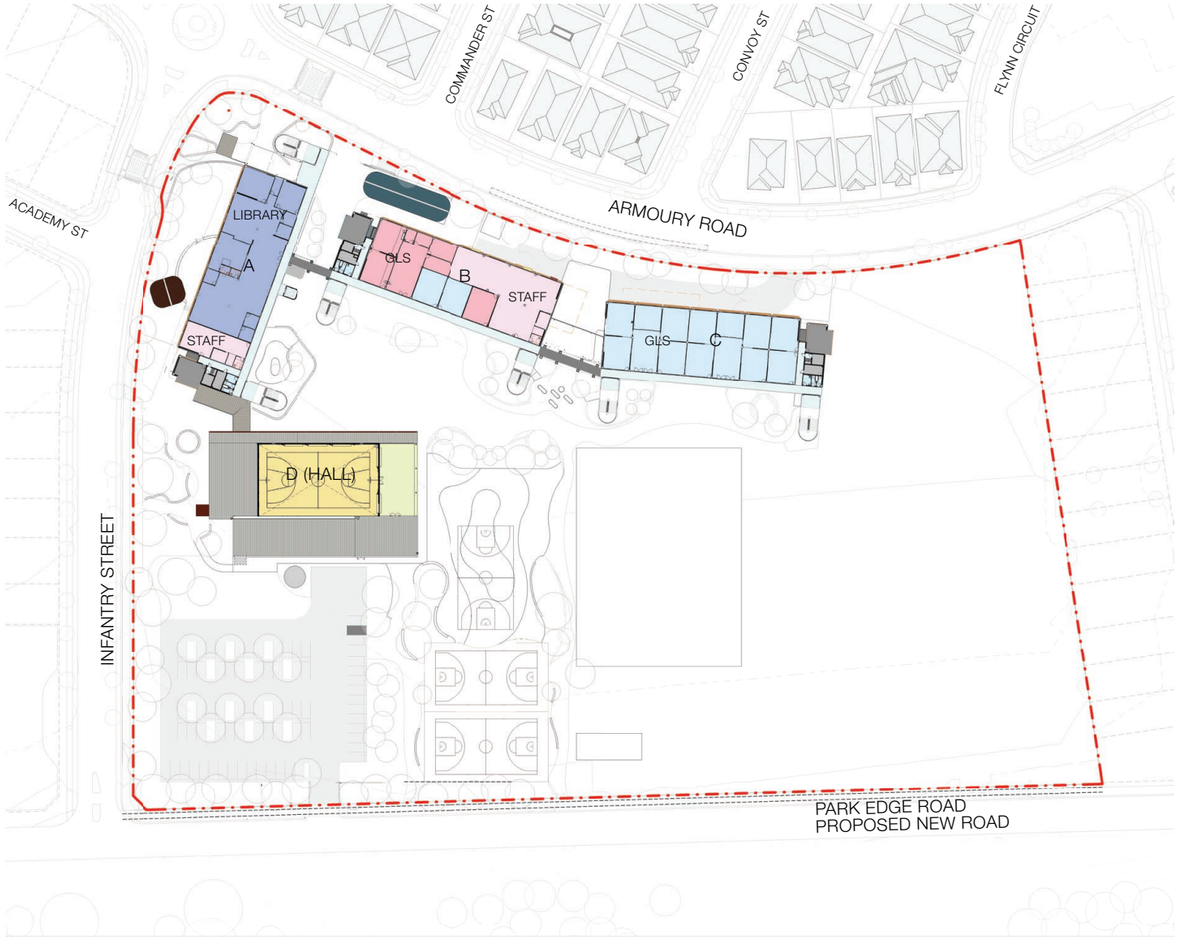
Scenario 2 - Interim Solution – Road network not completed, Permanent OSD Basin not constructed. Scenario 2 comprises of three stages described under Section 1.3. Firstly, a construction and operation of temporary on-site OSD Basin and the new High School for Jordan Springs; following by stage 2 which includes decommissioning of existing on-site OSD basin, car park, school Hall, sports courts and associated landscaping. Finally, stage 3 which is external works undertaken by others. Refer section 1.3 for further description.

GROUND FLOOR - SCENARIO 2 STAGE 1 AND 2 OPERATIONAL

N

4.1 Overall Site Plans

FIRST FLOOR

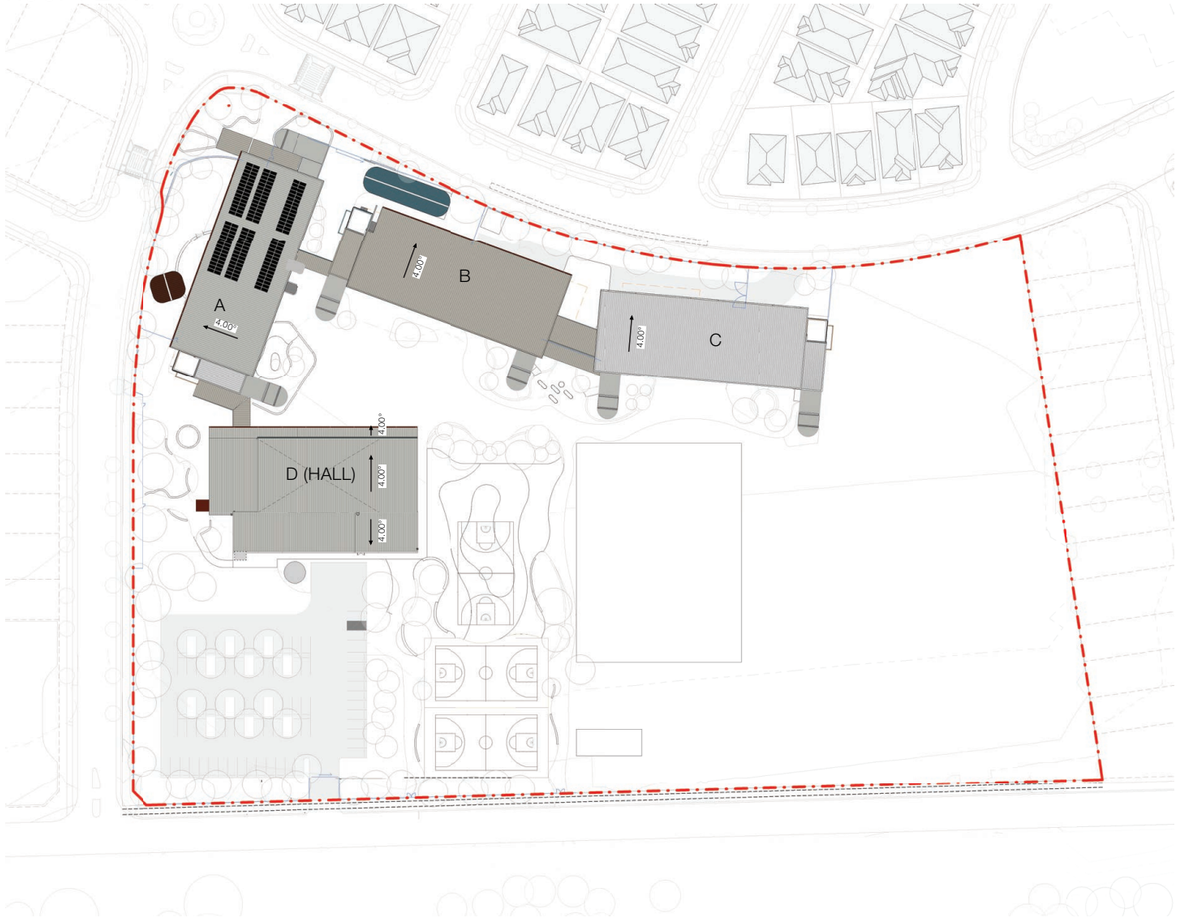


SECOND FLOOR

N

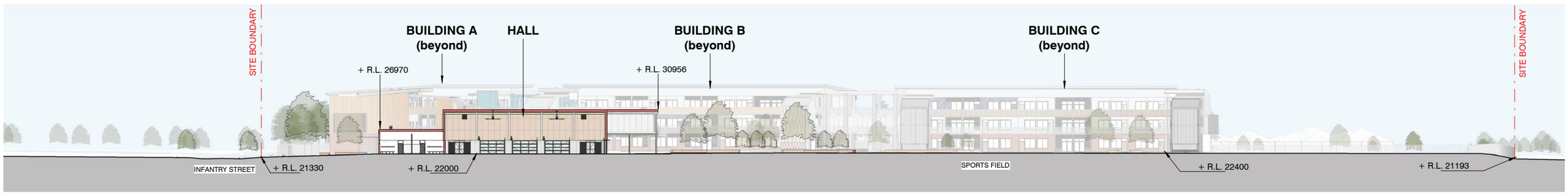
4.1 Overall Site Plans

ROOF PLAN

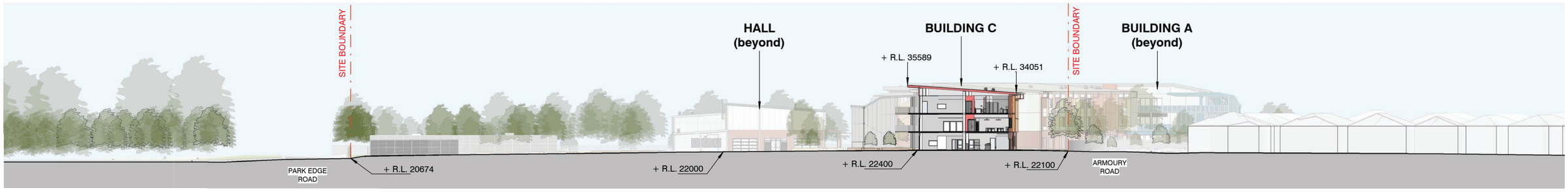


N

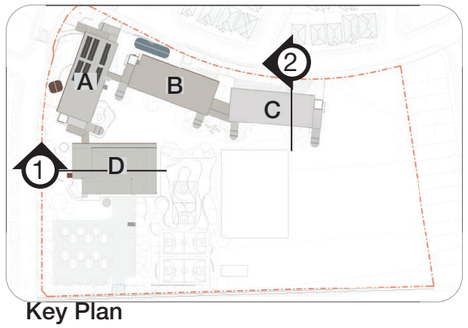
4.2 Site Sections



1 SITE SECTION 01
1 : 500

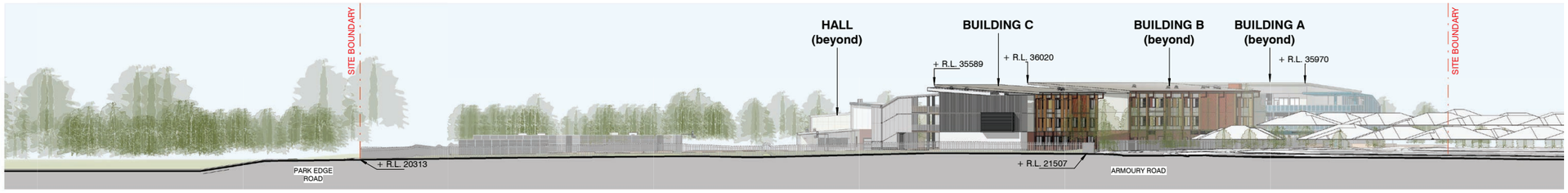


2 SITE SECTION 02
1 : 500

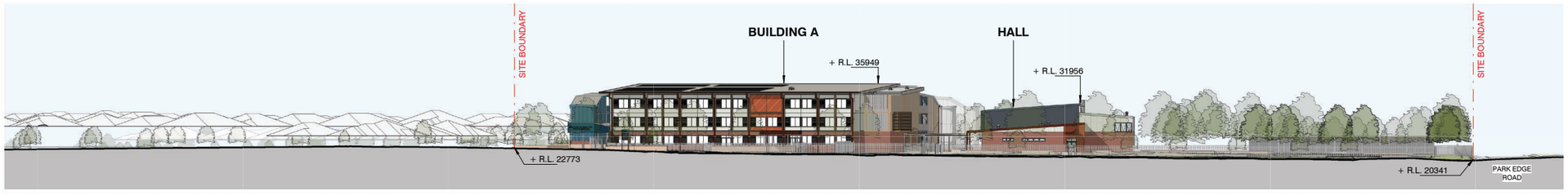


Key Plan

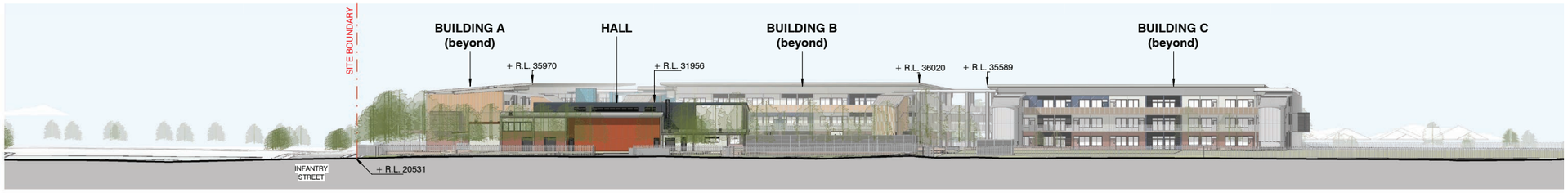
4.3 Site Elevations



01 SITE ELEVATION - NORTH (LASETTER STREET)
1 : 500

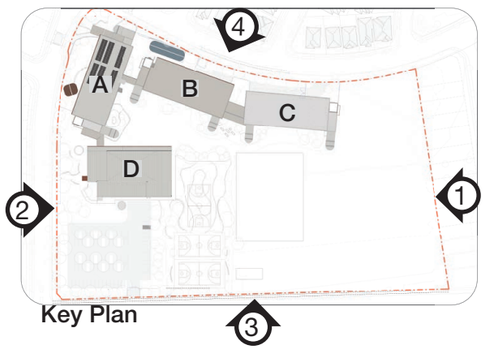


02 SITE ELEVATION - SOUTH (INFANTRY STREET)
1 : 500



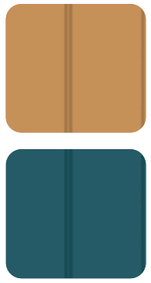
03 SITE ELEVATION - EAST (PARK EDGE ROAD
1 : 500

04 SITE ELEVATION - WEST (ARMOURY ROAD)
1 : 500

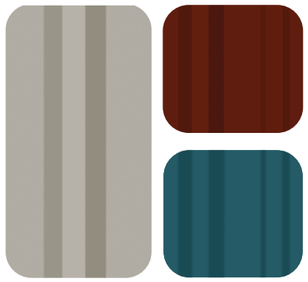


DURABLE CLADDING - UPPER

For upper levels where students cannot come in contact with the facade durable but cost efficient metal cladding is proposed



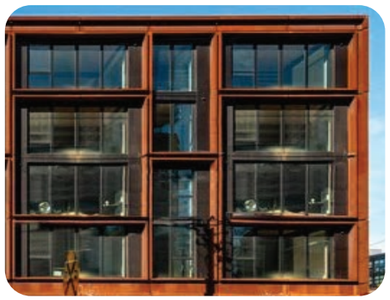
Metal Cladding

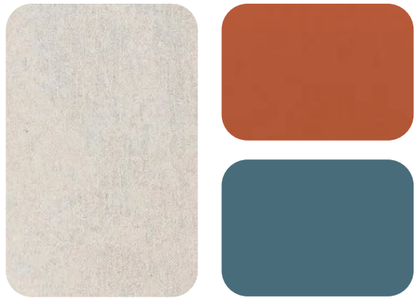


Metal Roof

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

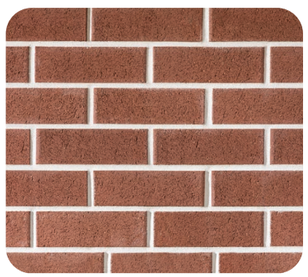




CFC Cladding & Feature

ROBUST BASE - HIGH TRAFFIC AREAS BRICK

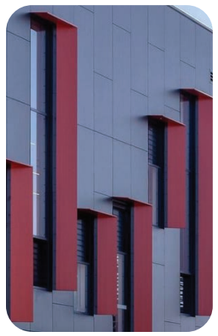
For Building A - Main entry / Staff + Admin and Support learning and for high traffic locations in the Hall brick is proposed



bricks - red

SUNSHADES + FACADE ARTICULATION

Where sunshades are required and for facade articulation fins

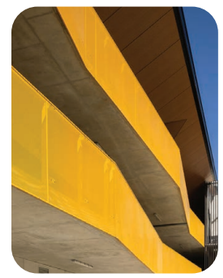


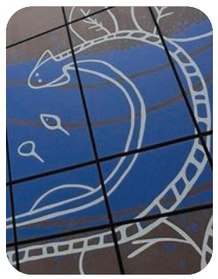
External Paiting

Gutters & Downpipes

PERFORATED METAL FALL PROTECTION POWDERCOAT

Selected stair cores and balustrades custom artwork applied to CFC Cladding

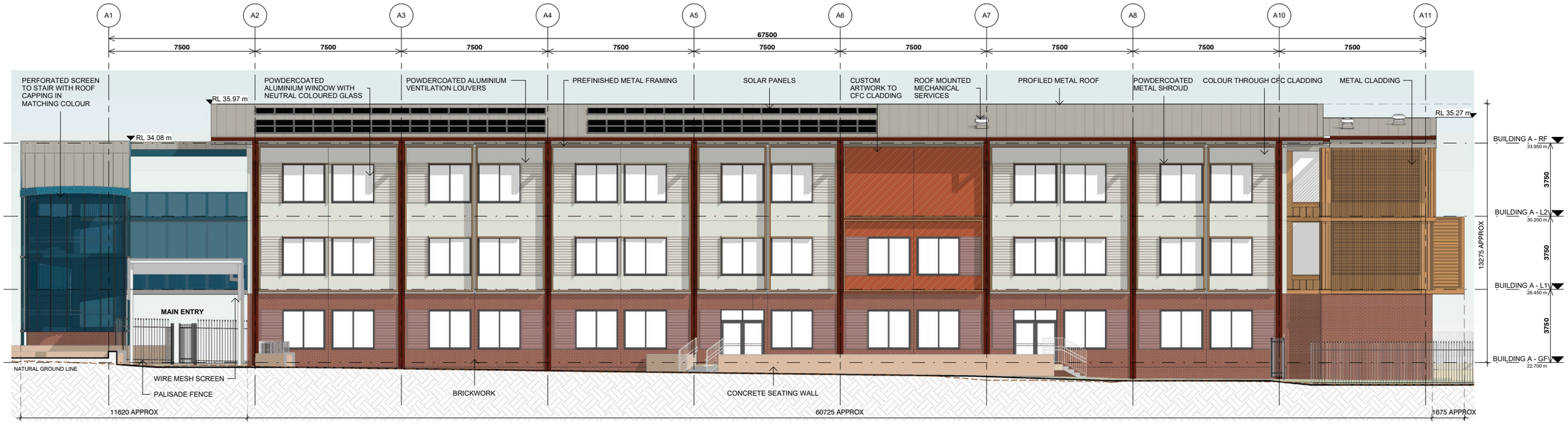




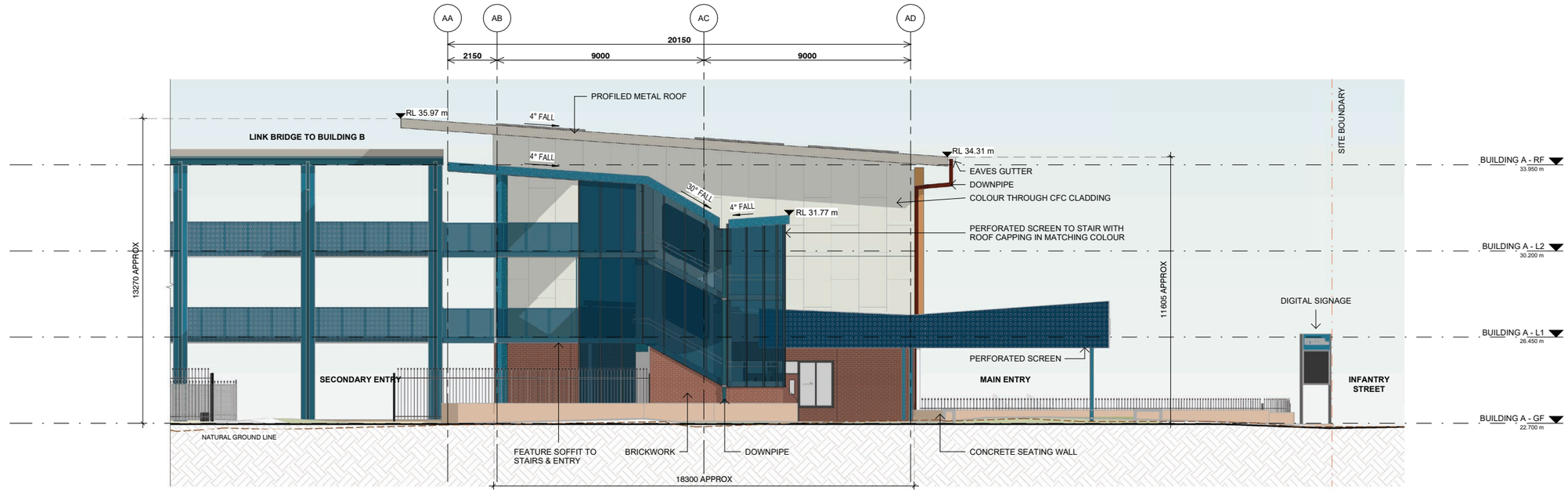
Powdercoats

4.5 Indicative Elevations

Block A Street Facade



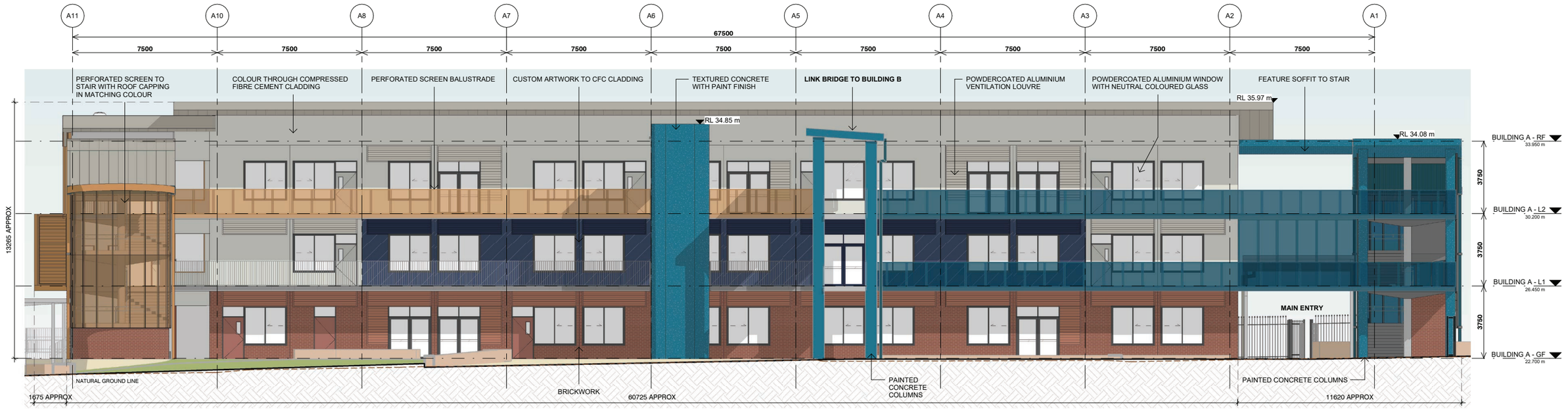
1 BUILDING A - SOUTH ELEVATION
1 : 100



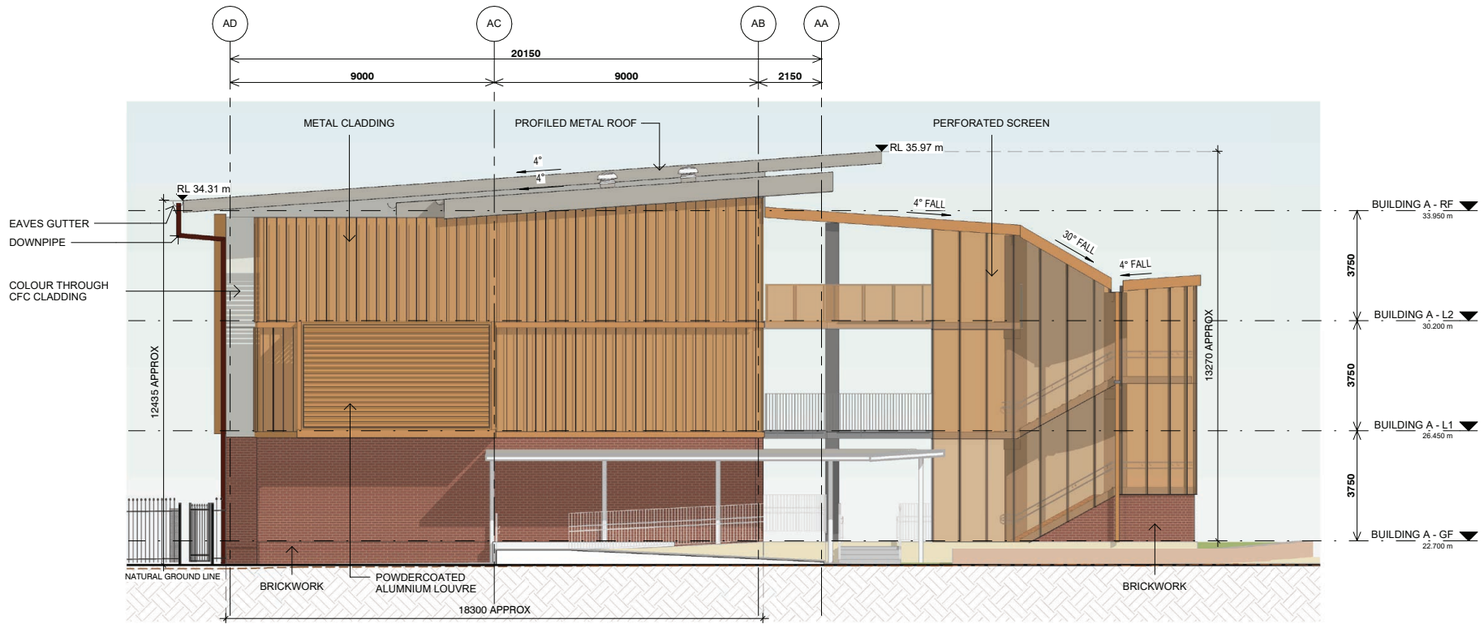
2 BUILDING A - WEST ELEVATION
1 : 100

4.5 Indicative Elevations

Block A Courtyard Facade



1 BUILDING A - NORTH ELEVATION A
1 : 100



2 BUILDING A - EAST ELEVATION A
1 : 100

4.5 Indicative Elevations

Hall

1 HALL - EAST ELEVATION - HS1000
1 : 100

2 HALL - WEST ELEVATION - HS1000
1 : 100

* minimum clear dimension required for the hall (Baketball Court)

4.6 Renders

Aerial View (Scenario 1 - Operational)

4.6 Renders

Aerial View (Scenario 2 - Stage 1 and 2 Operational)

4.6 Renders

Public Domain - School Entry

4.6 Renders

School Internal Courtyard

4.7 Signage | Wayfinding

Scenario 1 - Operational

Individual letter school signage is proposed in the main entry awnings, creating a clear and strong school identity. Another main entry signage is proposed to be digital electronic LED sign.

Acknowledgement of country sign will be incorporated into 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 Awining (Feature) - SGN 01

CwC Sign (Feature) - SGN 10

Directional Signage

Main Digital Electronic School Sign - SGN 2

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

4.7 Signage | Wayfinding

Scenario 2 - Stage 1 and 2 Operational

Individual letter school signage is proposed in the main entry awnings, creating a clear and strong school identity. Another main entry signage is proposed to be digital electronic LED sign.

Acknowledgement of country sign will be incorporated into 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.

Scenario 2 has reduced number of pedestrian entries and a temporary car park entry off Armoury Road with designated signage.

New School Signage Awining (Feature) - SGN 01

CwC Sign (Feature) - SGN 10

Directional Signage

Main Digital Electronic School Sign - SGN 2

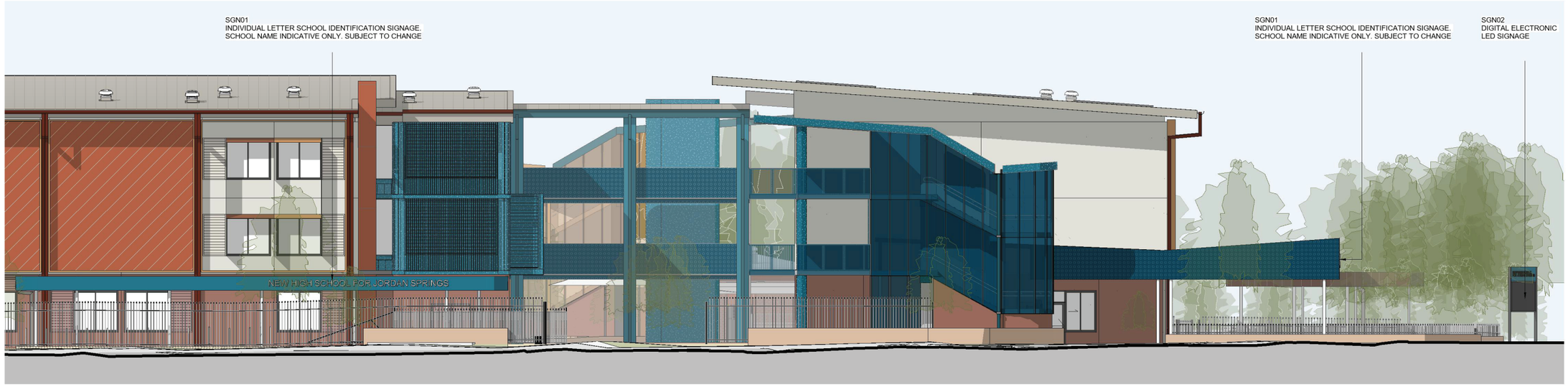
Public Domain Sign
Kiss n Drop, School Parking Hours

Vehicle Entry / Exit Sign

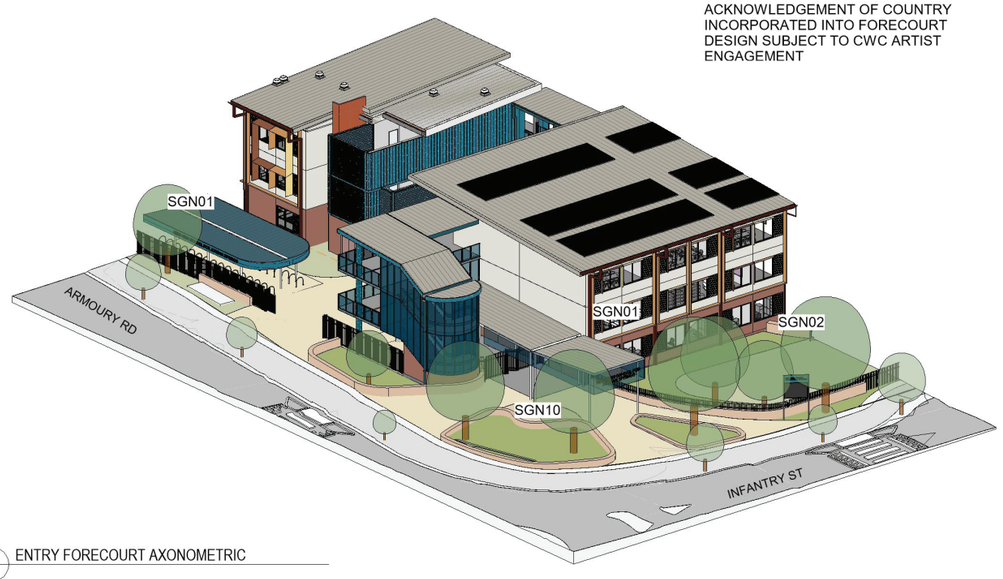
Secondary School Entry

Building Signage

Department Signage
+ EFSG Signage for every room



1 ENTRY ELEVATION - WEST (ARMOURY ROAD)
1 : 100



2 ENTRY FORECOURT AXONOMETRIC

ACKNOWLEDGEMENT OF COUNTRY SIGNAGE

3 ELECTRONIC DISPLAY SIGNAGE
1 : 50

05

ENVIRONMENTAL RESPONSE

5.1 Visual Impact Statement

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

The governing design principle for siting buildings was to address the streetscape and keep minimal impact towards residential development and Wianamatta Regional Park. The massing of the 3 storey buildings plus the Hall is split into four separated buildings plus inclusion of the entry forecourt and central courtyard. The existing green areas in the background and generous landscape design will reduce the impact of the scale of the building from surrounding streets. The buildings have features and materiality which will also contribute to soften the bulk and scale of the development.

In the following visual impact studies, landscape has not been illustrated so that visual impacts can be annotated.

Key Plan

A View from Armoury Road corner with Infantry Street

B View from Armoury Road intersection with Lasetter Street

C View from Infantry Street

View A from Armoury Road corner with Infantry Street

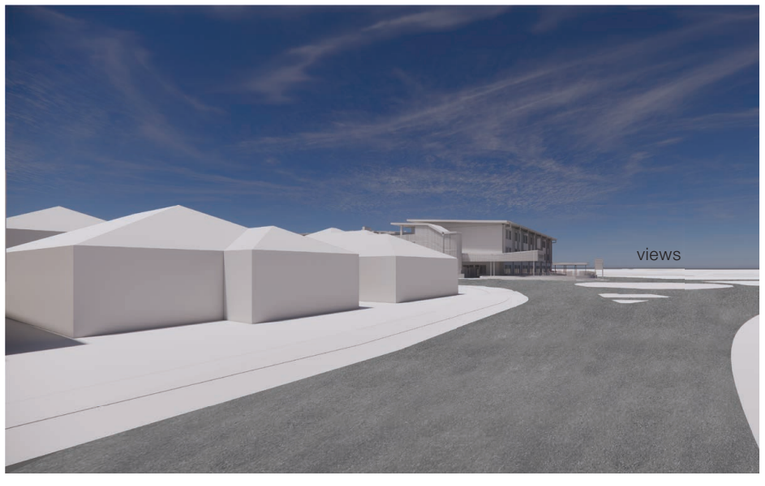
Viewed from Armoury Road towards School main entry. The School maximum three storey high allows views to Wianamatta Regional Park in the background. Buildings A, B and C can be seen from a distance contributing to the streetscape's character. The School's forecourt is part of the public domain and creates a strong and welcoming school identity.

5.1 Visual Impact Statement

View B from Armoury Road and intersection with Lasetter Street

Viewed from Armoury Road intersection with Lasetter Street, the School sits along streetscape. The School maximum three storey high allows views to Wianamatta Regional Park in the background.

View C from Infantry Street



Viewed from Infantry Street intersection with Armoury Road towards School main entry. Building A is setback significantly allowing full view to Wianamatta Regional Park. The School's forecourt reduces the three-storey massing impact by creating a human scale School main entry, which become part of the public domain.

5.2 Overshadowing

The shadows generated by the proposed buildings and mature trees, specially in winter, do not impact neighbouring properties. 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 are based on Steensen Varming's Sustainability approach which is included in the REF submission.

Minimisation of Waste

- Collection of separate waste streams and efficient access to waste and storage areas.
- Construction waste: Aim for 90% recycling benchmark.
- Builder or head contractor to develop and implement an environmental management plan to cover the scope of construction activities.

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.
- Where required the windows are designed to have appropriate shading or be of high performance to control heat gains and glare.
- 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

- 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.
- Goal to exceed 10% improvement over NCC (BCA Consultant to confirm if NCC 2022 will apply and assess implications).
- Onsite renewable energy by PV System 99kW with required roof space of 693sqm 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

- Rainwater collection and reuse for irrigation and toilets; size and locations to be considered.
- No water-based heat rejection.
- 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.

Embodied Emissions

To support a reduction in the embodied emissions for the project, the following recommendations 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.

Climate Adaptation

Implementation of a climate adaptation plan considering items such as:

- Increased rainfall gutters to be sized appropriately;
- Façade design;
- Provide shading in outdoor areas to reduce the impact of higher outdoor temperatures;
- The design of the mechanical systems to consider future increase in temperatures.

Resilience

Key Climate Change risk mitigation strategies includes:

- 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;
  - » Inclusion of waterbodies;
  - » Use of soft landscape, hardscaping and roofing materials with high Solar reflectance index to reduce the heat island effect and improve outdoor thermal comfort.
- Vegetable gardens for school (WELL N12).
- Reduced stormwater runoff through rainwater harvesting from roofs

Selection native species with low irrigation (potable water) demands.

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.

Sustainable Transport

- Develop Transport assessment plan. Aim to include EOT (Cycling) / High pedestrian access and mobility / EV chargers.
- Encourage cycling for students and staff; provide electric vehicle infrastructure; reduce car parking onsite; secure and accessible bicycle storage provided onsite; lockers and shower facilities provided for staff.

Community Benefits

- Aim to include school spaces which can be used as community spaces (Hall space / Sports Field / Outdoor Areas).
- Collaboration with local aboriginal community groups to embed significant traditional elements in the design of the building and landscaping.

06

LANDSCAPE STRATEGY

6.1 Landscape Masterplan

Scenario 1

The new high school at Jordan Springs 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 Corners of Armoury Road and Infantry Street 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. Paths, outdoor learning, seating areas and other outdoor amenities geometry has been driven by Country creating an organic river like aesthetic whilst not reducing function.

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 shall further contain new tree plantings along with the new carpark.

6.1 Landscape Masterplan

Scenario 2

The Landscape design and intent does not differ in Scenario 2 interim Solution, however seeded area in Scenario 2 will be reduced for construction and operation of a temporary on-site OSD Basin and temporary car park while Road network is not completed.

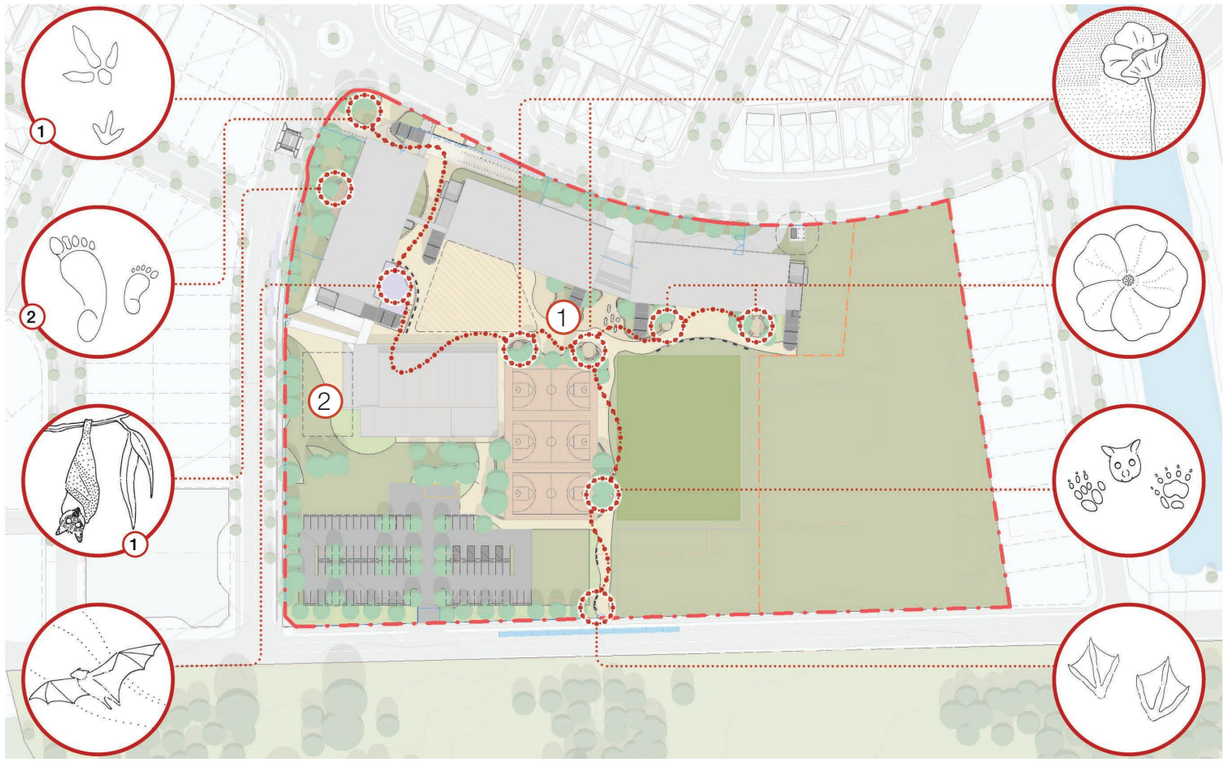
Both Temporary OSD and Car park will be fenced off and out of bounds to students. Permanent Car Park will be not operational in Scenario 2. Refer to Section 1.3, Proposed Activity on pages 6 and 7 for more details on Scenarios.

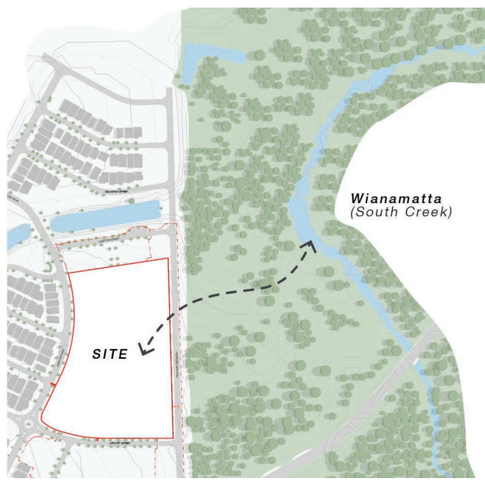
Opportunities for enriched learning spaces have been explored and interwoven within the landscape design. Following multiple community consultations, a series of lessons or themes specific to the area were developed to be embedded across the sites gathering spaces. A variety of spaces have been included to accommodate groups of different sizes, each of these areas incorporate a lesson that can be drawn upon when required.

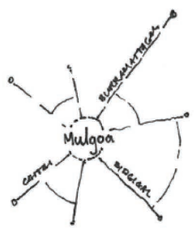
Wianamatta Creek is a key element in the local landscape and the site itself with hardscape elements taking natural flowing forms. Furthermore, it provides opportunities to explore lessons on water management and the impacts of periodic flooding on local ecological communities.

Country as a Teacher
Extending lessons beyond the School boundaries though Wianamatta (South Creek) and Wianamatta Regional Park. Elders as teachers with touch points for these lessons within the school site.

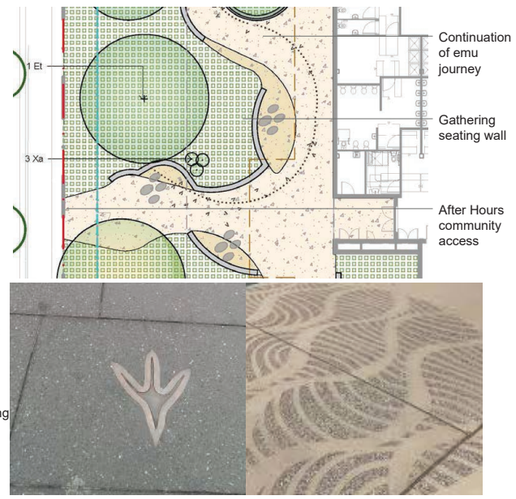
Places for stories
A series of spaces for groups of different sizes across the school site to gather. The importance of story telling in maintaining culture was shared with us by the late Uncle Wes Marne during our Walk on Country.







1 Gathering Spaces & Places for Stories



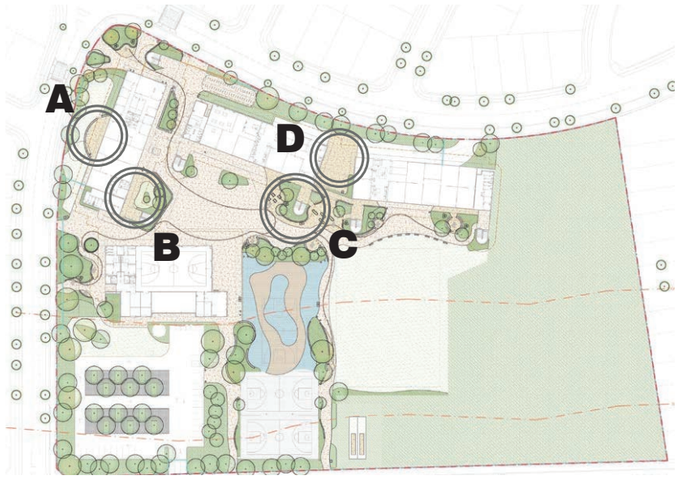
2 Hall Entry

6.3 Landscape I Pedagogy

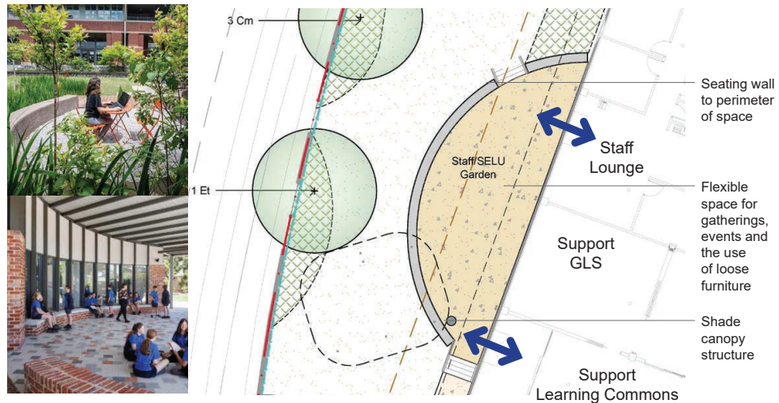
The landscape is purposefully designed to provide outdoor learning spaces with pedagogical approaches in mind, from inquiry-based to collaborative, reflective or integrative. The spaces provide opportunity for students, teachers and staff to be in contact with nature and Country, learn and gather while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

A range of key outdoor spaces have been considered:

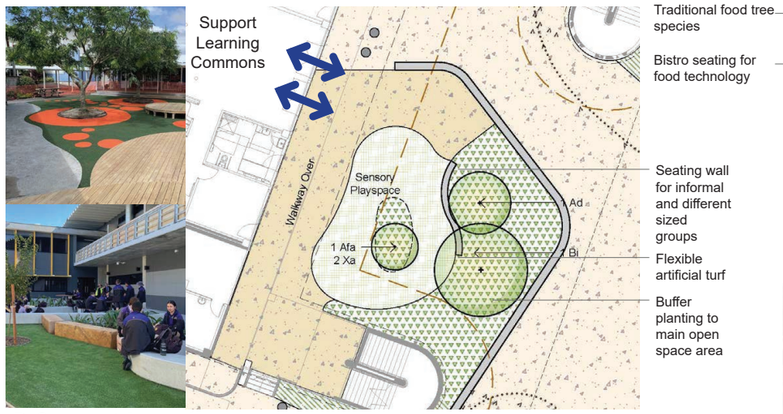
- Entry forecourt
- Staff/SELU garden
- Sensory playspace
- Bistro
- Food Tech garden
- Outdoor workshop
- Group seating areas
- Outdoor Classrooms



12. Optimise the courtyard configuration by maximising activation of ground floor spaces and providing landscape spaces compatible for indoor-outdoor use.

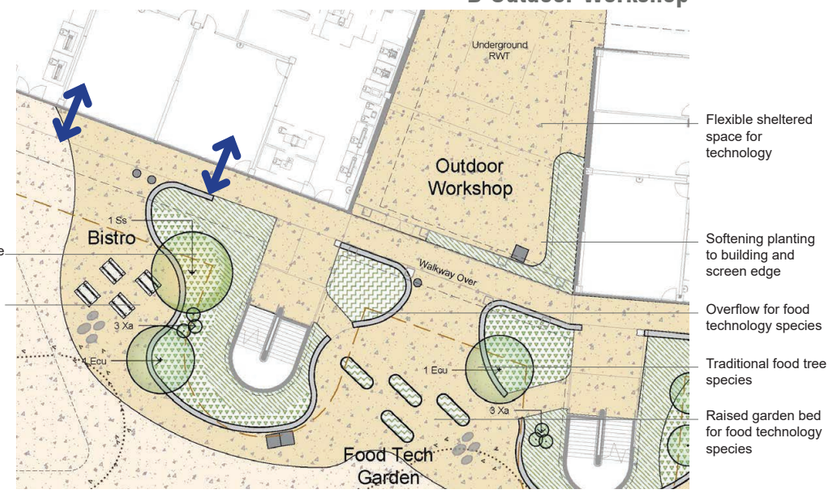


A Staff & SELU Garden



B Support Learning

D Outdoor Workshop



C Food Tech

6.4 Landscape | Planting Strategies

Native Vegetation Communities

The Jordan Springs 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 featured which were used for tool making, traditional food and medicine.

Entry Planting

- Native species
- Feature peppercorn & wattle
- Colour and texture in foliage
- Heights to maintain sight lines for surveillance

Assembly and School Heart

- Canopy trees for shade
- Low height understory
- Food Precinct

Gathering & Learning Spaces

- Planting for story telling and lessons
  - -tool making & shelter
  - -species related to controlled burning
  - -seasonal indicator species
  - -riparian species

Boundary Planting & Carpark

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

Food Tech Garden

- Bush Tucker and medicinal species

Cumberland Shale Plains Woodland

Cumberland Red Gum River Flat Forest

Carpark Shade Trees - Spotted Gum

Welcome Feature Trees - *Acacia* (Wattle)

Tree Species with Traditional Food Uses

Large Canopy Trees for Shade Amenity

6.5 Landscape | Canopy Cover

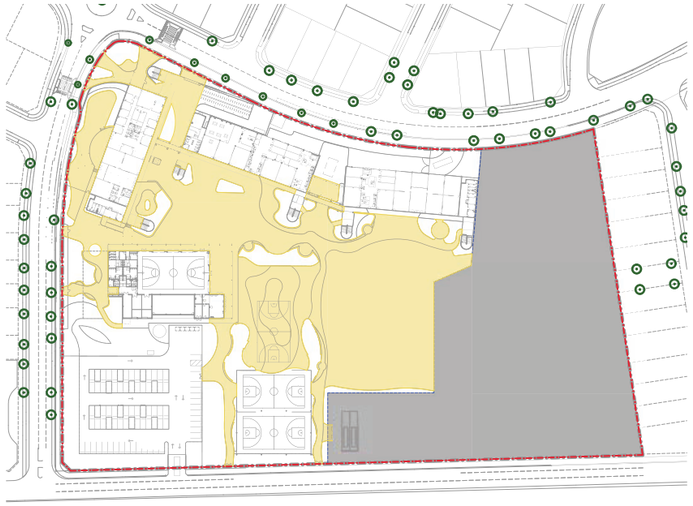
Canopy cover has been developed to maximise tree planting and shading to hardstand areas, in particular to the assembly and court areas to provide shade amenity for users as well as the carpark area. Due to bushfire constraints a maximum of 15% cover is allowed on this site.

SITE AREA (INCLUDING UNDEVELOPED AREA)	40,262sqm
SITE AREA FOR CANOPY CALCULATION (INCLUDES PROPOSED DEVELOPED AREAS, EXCLUDES GREY AREA)	27,675sqm
MATURE TREE CANOPY	4,142sqm (15%)

Landscape Area

Site Area	40262 sqm
Landscape Area	9728.10 sqm
Permeable Paving Area	616.80 sqm

Unencumbered Play Space Area



Site Area	40262 sqm
Unencumbered Play Space Area	11931.75 sqm

Advanced Canopy Cover

Site Area	40262 sqm
*Site Area for Canopy Calculation	27675 sqm
Year 5 Tree Canopy	1090 sqm (4%)

Canopy Cover at Maturity

Site Area	40262 sqm
*Site Area for Canopy Calculation	27675 sqm
Mature Tree Canopy	4142 sqm (15%)

07

DESIGN VERIFICATION

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Connecting with Country	
The key Country principles arising from the Walk on Country and engagement process are supported. However, they are not yet adequately reflected in the proposed design.	
1. Explore how the response to Country can be continued beyond the site entry and form an integral part of the site planning and landscape. Consider approaches beyond the symbolic narrative of the emu (mariong) to physical interventions that offer an opportunity to heal Country e.g. restoring the highly disrupted site ecologies.	Noted. Opportunities for embedded learning spaces has been further explored and interwoven within the landscape design. The learning opportunities around the Mariong narrative remain significant to this Place and consultation feedback, however references to other local flora and fauna have been expanded upon within the developed design. Furthermore the narrative of the Mariong has been developed beyond symbolic representation to encompass more specific learnings around First Nations practice of sustainability, understanding of ecology and biodiveristy, and sharing of knowledge, to be further developed through ongoing consultation and co-design.
The development of a 'Wianamatta connection' as part of the response to Country is a robust design principle. However, the integration of water into the landscape is relegated to the periphery, in areas inaccessible to students.	On further consideration the design team reflected that the connection to Wianamatta Creek was more genuinely represented not as an overlay of the creek upon the site but as how water would naturally fall across the site towards the creek. The subsequent landscape redesign has reflected upon this and embedded WSUD principles within the pathways that direct towards Park Edge Road, the natural slope of the pre-development site.
2. Demonstrate how the narrative of water will be embedded throughout the site, particularly within the unencumbered play area. Prioritise interventions in places where students will have the greatest opportunity to have meaningful engagement with this important element of Country, such as around/adjoining the 'places for stories'.	Refer above responses. The more truthful depiction of the narrative of water has been captured in the revised landscape design. Places for sharing of knowledge and learning have been further developed within the landscape design.
3. Further explore how the 'places for stories' can offer a diversity of areas for students to gather and connect with Country.	Refer Landscape section 6.2
4. Refer to the Connecting with Country Framework and case studies on the GANSW website for more information and guidance.	Noted. We confirm that the Connecting with Country Framework and case studies on the GANSW website have been referred to for more information and guidance. See Appendix report prepared by Indigenous Engagement & Facilitation for further detail.
Site Strategy and Landscape	
The response to Country and approach to landscape are crucial to informing the site strategy and achieving a good design outcome. Consequently, concern was raised around canopy and shade, site entries and circulation, the siting of buildings and the positioning of the multi-sports courts.	
5. Develop the design to better integrate the intention to connect with water, including consideration of topography, hydrology, placement of buildings and outdoor spaces and WSUD.	Noted. As mentioned in above responses the landscape design has been amended to better reflect the relationships of outdoor spaces, particularly the games courts, within the broader context of the WSUD and CwC design response.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
6. Demonstrate that a minimum 30% canopy cover will be achieved, including how canopy cover has been maximised across the site, such as within the assembly area, multi-sports courts, car park and loading dock. Provide calculations for the following:	Refer landscape section 6.0. Canopy cover has been maximised across the site including within in the assembly area, around the multi-sports courts, within and around the carpark and along the street frontages. However, given the ground plane area required for building footprints, clear sporting spaces such as fields and courts, and circulation zones, as well as the required for managed landscape within the onsite Asset Protections Zones as part of Planning for Bushfire Protection 30% canopy cover is not achievable.
a. Separate canopy cover for unencumbered play areas and non-accessible landscape areas e.g. between buildings and boundary fences.	Areas between the buildings and boundary fences are accessible landscape areas. These are functional spaces which will be used by Staff + Support learning (Building A) and by Wood & Metal technology (Buildings B + C)
b. Canopy cover at key landscape milestones, such as year one, year five, year ten and maturity.	Refer Landscape section 6.5 - SINSW targets for advanced tree procurement strategy.
7. 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 outdoor teaching spaces.	Weather protected canopies have been provided for the Support Learning area and Outdoor covered workshop adjacent the Wood & Metal workshops. Other shaded areas include; well sized 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.
8. Explore the orientation and placement of buildings to maximise shading opportunities within the site.	Refer Section 5.2 - Overshadowing. The Hall location and orientation provides morning shade in summer. Buildings B + C location provide afternoon shade in summer.
9. Demonstrate the use of interim shade solutions to ensure sufficient solar protection while the canopy establishes.	Refer proposed shade solutions noted above on item 6b related to advanced tree planting and item 7 covered areas.
10. Explore options to relocate or reconfigure the multi-sports courts to maximise functionality and visibility. Consider shifting these out of the centre of the school, or consolidating them, to provide a better flow and ensure that the courts are better integrated with other active spaces.	Refer landscape section 6.0. The multi-sports courts have been reconfigured to improve the flow of students from the hall and canteen to the unfenced feature court (which is intended to include artwork to be developed through co-design and ongoing Connecting with Country consultation). Tree planting and seating on the periphery better integrates this multi-purpose space within the overall landscape design and provides amenity for spectators.
11. Increase the size and reconsider the position of the entry plaza on the corner of Infantry Street and Armoury Road. Explore:	The location of the entry plaza responds to the nexus of student and visitor arrival as identified in the traffic & transport studies. The fenceline has been adjusted as suggested to improve the flow and connection from the Infantry St wombat crossing.
a. shifting Buildings 1 and 2 further back from the intersection to create a more generous space	Building setback has been carefully considered to allow for pedestrian flow onto the site, creating usable landscaped space within the setback street frontage, yet also maximising the internal playspace available for students.
b. aligning the plaza with existing and planned pedestrian crossings to create a safer and more intuitive entrance	See response above re: fenceline adjusted to create a better connection to the Infantry St wombat crossing.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
c. combining the additional hall entrance for community access with the primary entrance to maximise space for landscape and improve wayfinding for students and community.	Functionally the after hours access to the hall and school main entry serve different purposes. While community shared use of the hall and sports facilities is encouraged it is undesirable for public to be able to access the whole school site after hours. However, noting this comment the landscape design and hall architectural response have been refined to improve the announcement of the secondary entry from the street and wayfinding generally.
12. Explore reorienting or adjusting the placement of the hall to reduce the inaccessible landscape created to the east and increase the amount of accessible unencumbered play space for students.	Alternate options for the hall position and orientation were considered, however, a key driver behind the design response is the offset to the bushfire hazard to the east to ensure asset protection requirements are met.
13. Reduce the overall visual bulk and mass by manipulating the floorplates of each of the buildings where permitted by the School Infrastructure Pattern Book.	The manipulation of building floorplates on a project level contradicts the design principles of standardisation for equity and value-for-money which underpin the Pattern Book response. The general arrangement and adjacencies of teaching spaces, as documented in the Pattern Book for three storey buildings, align with the preferred approach to operations teacher supervision and student movement between classes (maximum 3 minutes using stairs). The selection of materiality and use of articulation, including large scale artworks and extruded sunshades, creates variety and playfulness which visually breaks the massing of the buildings.
The planned staging strategy results in a constrained spatial layout, with the fenced off stage two area creating a large, inaccessible area of mown grass for the indefinite future.	Internal fencing has been removed for Scenario 1, allowing the school full use of the undeveloped area of the site until any future development is required to meet population growth demands. Scenario 2 requires internal fencing to isolate temporary infrastructure (OSD, car park) and the non-operational car park as shown in section 1.3 of this report.
14. Review the planned staging strategy to address:	
a. how an interim management strategy could provide opportunities to use this significant amount of land in more productive ways	See above reponse.
b. how adjusting the staging boundary could enable better distribution of the landscape, field, courts, buildings, etc.	The entire site has been masterplanned to ensure it can be future proofed and developed with minimal disruption to the operational school, although Scenario 2 will require demolition of temporary infrastructures (OSD, car park), that would occur outside schools' established areas such as landscaping, playing fields, hardcourts, and assembly areas ensuring lesser disruption to school's operation. This is a value-for-money futureproofing response which ensures that both current and future needs can be met.
15. Demonstrate that the unencumbered play space set aside for stage two meets minimum SINSW standards. Explore how the provision of play space can be increased or demonstrate alternative strategies to ensure play space is adequate.	As noted above, future stages of the development, if required, can be designed to meet the needs of the project at that time and will demonstrate response to all required standards, including SINSW minimum playspace provisions.
16. Clarify the ownership and timing for the delivery of the proposed Park Edge Road. Demonstrate how the proposed site entries, drop-off and parking etc. will work with and without this infrastructure.	Refer Section 1.2 and 1.3 Proposed Activity - scenarios - DFP to provide additional guidance

7.1 RESPONSE TO SDRP

RESPONSE TO SDRP REVIEW PANEL 1

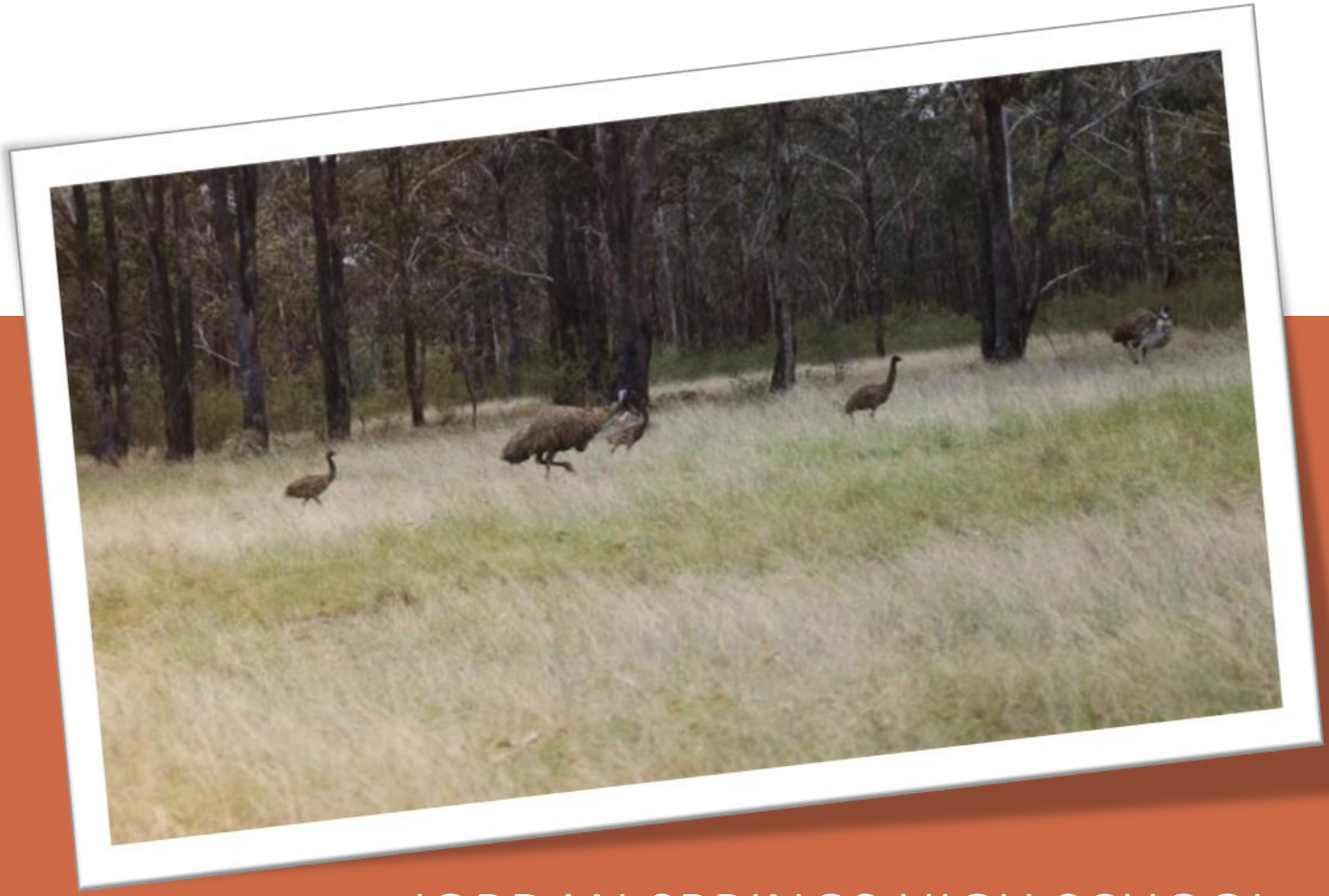
STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Architecture	
As architectural drawings were not provided, no comments on the architecture were given during this session.	Noted. Refer Section 4.0 - Architectural response
Sustainability	
17. Demonstrate how sustainability targets will be achieved and how initiatives are integrated into the site planning and design of landscape and buildings, including opportunities for well-integrated Country narratives.	Refer Section 5.3 Sustainability Strategies overview
18. Demonstrate how the placement of Buildings 2 and 3 with significant west facing façades offer the best response to the local climate. Explore alternative configurations, use of light materials to reduce heat gain, increased space for significant canopy trees (particularly around the loading dock), or alternative shading solutions (refer to Item 1 in the School Infrastructure Pattern Book commentary below for additional advice).	Buildings 2 and 3 (now named B and C) have been designed with sufficient sunshading to ensure solar heat gain is minimised and internal comfort maintained. Light coloured facade materials have been selected to further reduce heat gain. Additional tree planting within the school boundary along the Armoury Rd. street frontage has been included with sufficient setbacks to allow mature canopy growth to provide natural shade and visual outlook into the tree canopy at upper storeys.
19. 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: 1. The implementation of passive solar design principles and targeting Green Star certification 2. Improved energy efficiency (through specification of energy efficient light fittings, equipment, appliances etc.) 3. Electrification of assets (eliminating the use of gas) 4. Inclusion of onsite renewable energy generation (solar PV) Scope 3 emissions: 1. The use of low carbon materials (noting GS materials credits targeted) 2. Minimisation of construction waste and thereby embodied carbon (MMC techniques) 3. Support for sustainable transport options - i.e. walkable school catchment areas, safe pedestrian access and crossings, support for bicycles and proximity to public transport
Additional information required for the next SDRP session	
In addition to addressing the advice and recommendations above, please provide the following at the next SDRP session:	
20. Corrected shadow diagrams, for stage one and two.	Refer Section 5.2 - Overshadowing.
21. Detailed plans and sections of the internal spaces, as well as perspectives, as appropriate.	Noted. Refer Section 4.0 - Architectural response
22. Clarity on the long-term staging strategy and estimated timeframe.	Refer response item 15. The timeframe for additional student population needs for this school are unknown but have been considered for should they eventuate.
The following advice was provided on elements of the School Infrastructure Pattern Book that are outside the scope of review:	
23. Demonstrate how the potential heat gain in the west-facing classrooms in Buildings 2 and 3 is being managed. Incorporate passive design strategies, external shading devices and alternative classroom configurations to mitigate any impacts.	Refer response item 18

08
APPENDIX

Indigenous
Lead Facilitation
MEANINGFUL CONNECTIONS

M. +61 428 394 497
E. indigenousfacilitation@gmail.com
indigenousfacilitation.com.au

Final Report



JORDAN SPRINGS HIGH SCHOOL

Connecting with Country

First Nations Community Engagement Report

Client: Schools Infrastructure NSW

Date: 04 September 2024

WARNING: Aboriginal and Torres Strait Islander readers are warned that the following report contains images and names of deceased persons.

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

Acknowledgement 5

..... 4

Terminology use 4

Acronyms 6

Terminology 6

Executive Summary 7

1. Introduction 8

1.1. Project Background 8

1.1. What's in Scope 8

1.2. Connecting with Country Framework 8

2. Dharug First Peoples of the land of Jordan Spring 9

Historical Context of Dharug People 9

Clans and Boundaries 9

Creation Stories 9

Connection to the Land 10

Archaeological Evidence and Heritage Sites 11

Contemporary Recognition and Preservation 12

3. Flora of the Jordan Springs Area 13

4. Fauna of the Jordan Springs Area 14

5. Consultation Methodology 15

5.1. Stakeholder Mapping 17

5.2. Stakeholder Engagement Schedule 18

6. Consultation 19

6.1. Talk on Country with the Late Uncle Wes 19

6.2. 1st Community Workshop 21

6.2.1. Insights from the Mind Mapping Exercise 22

6.2.2. Example images 28

7. 2nd Community Workshop 29

8. Key Findings 38

9. Conclusion 40

10. References: 41

11. Appendices 42

11.1. Appendix 1: Consultation Participant List 42

11.2. Appendix 2: Use of Native Flora by Dharug Peoples on the Cumberland Plains 43

11.3. Use of Native Fauna by First Nations Peoples on the Cumberland Plains 45

1.1. Appendix 3: Consultation Invitation 49

1.1. Appendix 4: Workshop)ne Presentation 50
1.2. Appendix 5: Kangaroos on Traditional Lands.....55
1.3. Appendix 6: Workshop Two Presentation 56

Acknowledgement

We extend our deepest gratitude to the Cultural knowledge holders and those who possess specialised knowledge of the Traditional lands and culture of the Jordan Springs area.

We would also like to take this time honour the late Uncle Wes Marne, whose recent passing has deeply impacted the community. We are profoundly grateful for the opportunity to have heard his voice and stories, and for the knowledge and wisdom he generously shared. His contributions have enriched this work and left an enduring legacy for us all.

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 deepened our understanding and appreciation of their rich heritage but also continue to guide us in our efforts to honor and preserve their cultural legacy.

Terminology use

In this report, the term "First Nations" is used respectfully to refer to Aboriginal and Indigenous communities, as well as various other 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
AEO	Aboriginal Education Officer
ILF	Indigenous Lead Facilitation
LALC	Local Aboriginal Land Council
RAP	*Registered Aboriginal Party*
SINSW	Schools Infrastructure New South Wales

Terminology

Term	Description of Understanding
Wayfinding	Embedded and embodied storytelling practices. Weaving place names and route descriptions into oral histories and Tradition that were passed from generation to generation.
Truth Telling	Truth-telling is about openly acknowledging historical facts to foster an inclusive, just society. It recognises First Nations' deep connections to the land and their pivotal role in shaping Australian culture and society.
Story Telling	Storytelling is central to First Nations culture, serving as the main method of preserving history. For thousands of years, First Nations peoples 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 First Nations peoples.

Executive Summary

The Jordan Springs New High School project is a critical initiative under the New South Wales (NSW) Government's substantial $8.6 billion investment in school infrastructure, aimed at constructing 160 new and upgraded schools over the next four years. This investment, which builds upon the $9.1 billion allocated since 2017, underscores the government's commitment to enhancing educational facilities across the state. Integral to this project is the "Connecting with Country" framework, which seeks to embed First Nations cultural values into the planning, design, and execution of the school's infrastructure, ensuring that the new school is rooted in the local cultural, historical, and spiritual heritage of Dharug Country.

The Jordan Springs New High School project is situated within the Penrith Local Government Area, an area historically inhabited by the Mulgoa tribe of the Dharug people. The land holds immense cultural significance, and the engagement process involved consultations with the local First Nations community, including Elders, Recognised Aboriginal Parties, and the Aboriginal Education Consultative Group (AECG). The community engagement was designed to ensure that the school's development is not only sensitive to but also celebratory of the rich heritage and traditions of the Dharug people.

The engagement process, structured into two major workshops, focused on exploring key themes such as Place, Story, and Truth Telling into the school's design. The first workshop emphasised the importance of storytelling, the significance of local rivers and totems, and the preservation of local flora and fauna. The second workshop further developed these themes by exploring more depth and how they could be translated into the physical spaces of the school, such as entry spaces, sharing places, and garden areas.

Key findings from these workshops include the need for:

- Significance of Place: Integrating key locations within Dharug Country, such as South Creek campgrounds and Munjoo (Emu) Swamp, into the school's design to reflect the deep cultural connections of the Dharug people to these sites.
- Emphasis on Storytelling: Incorporating storytelling into the school environment through murals, digital elements such as, QR codes, and the design of spaces that facilitate cultural storytelling.
- Truth Telling: Embedding Truth Telling into the school's culture by recognising historical events and creating reflective spaces to acknowledge past significant people and events. This should also allow for spaces for regular storytelling sessions led by Elders and community members.
- Creating Sharing Places: Designating areas within the school, such as yarning circles and bush tucker and healing gardens, that foster community education, engagement and a connection to Country.
- Design of Entry Spaces: Ensuring that entry spaces are welcoming and culturally resonant, featuring native plants, cultural motifs, and Acknowledgment of Country signage in both Dharug and English.
- Importance of Garden Areas: Creating Garden areas that serve as memorials, reflective spaces, and educational environments, incorporating native flora and fauna significant to Dharug culture.

These findings will guide the integration of Dharug cultural, historical, and spiritual elements into the design of Jordan Springs High School, ensuring it is not just an educational institution, but a space that deeply respects and celebrates the heritage of the Dharug people. The school will stand as a living

narrative of Dharug Country, fostering a deeper connection between students and the land, promoting cultural understanding, and supporting the well-being of the community.

1. Introduction

1.1.Project Background

The New South Wales (NSW) Government is committing substantial resources to enhancing and expanding school infrastructure, with $8.6 billion allocated over the next four years for the construction of 160 new and upgraded schools across the state. This initiative builds on the $9.1 billion already invested in educational projects since 2017, bringing the total investment in public education infrastructure to $17.7 billion. The NSW Department of Education remains dedicated to delivering state-of-the-art educational facilities that support communities, address the evolving needs of students, and contribute to local economic growth.

1.1.What's in Scope

This project aims to unpack conversations and ideas from First Nations people within the Jordan Springs and surrounding area that provide a direct connection between the First Nations people and Country of Jordan Springs and the new Jordan Springs High School. These connections will influence but not limited to landscapes, gardens, paths and building external surfaces such as art, colours, and designs.

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 across New South Wales. It provides direction on how to incorporate First Nations cultural considerations into the planning, design, and execution of built environment projects. The framework's primary goal is to elevate the recognition of First Nations culture within urban planning and design, amplify the voices of First Nations peoples, and foster meaningful collaboration with their communities. By integrating First Nations perspectives into development projects, this approach enhances sustainability, resilience, and the well-being of the community.

2. Dharug First Peoples of the land of Jordan Spring

Historical Context of Dharug People

The Dharug people have a long history of inhabiting the Sydney region, dating back around 50,000 years. They experienced significant disruption with the arrival of European settlers, which led to frontier wars, dispossession, and the forced removal of children. Despite these challenges, the Dharug community has maintained a continuous presence and cultural connection to their land.

The Dharug people are the traditional custodians of a large area that encompasses what is now known as the Greater Western Sydney region, including the Penrith Local Government Area (LGA). Within this region, the area of Jordan Springs holds significant cultural and historical importance. The Dharug Nation's connection to the Cumberland Plains, Nepean River, South Creek South highlights their deep-rooted presence and the rich cultural heritage of the area.

Clans and Boundaries

The Dharug Nation, also known as the Darug, traditional lands encompass much of what is now Sydney, extending from the Hawkesbury River in the north, west to the Blue Mountains, and south to the Georges River. Some notable clans and their corresponding areas include:

- Bediagal: Georges River area
- Bidjigal: Castle Hill
- Boolbainora: Wentworthville
- Boorooberongal: Richmond
- Burramattagal: Parramatta
- Cabrogal: Liverpool
- Cannemegal (Warmuli): Prospect
- Cattai: Windsor
- Gomerrigal (Tongara): South Creek
- Kurrajong: Kurrajong
- Mulgoa: Penrith/Mulgoa
- Tunggal: Toongabbie
- Wandeandegal: Eastern Creek/Blacktown

Creation Stories

The Dharug people, indigenous to the Sydney region, possess a rich tapestry of creation stories that explain the origins of the cosmos, the landscape, and their community. These narratives are not only foundational to their cultural and spiritual identity but also offer profound insights into their relationship with the natural world.

Mariong (The Emu and the Milky Way) The story of Mariong centers around the Mother Spirit, who transformed into the Milky Way. According to Dharug lore, the Mother Spirit was once an emu who ascended to the sky. As she shook the water off her feathers, it turned into stars, creating the galaxy. Her journey to the sky is immortalised in the Great Emu, a star constellation that is visible just below

the Southern Cross in the night skies over Sydney. This story is a celestial reflection of the importance of emus in Dharug culture and an embodiment of the Mother Spirit's protective and nurturing role.

Kurrobori, the Spirit Woman The tale of Kurrobori speaks of a time thousands of years ago when the land now known as Sydney was submerged under the sea, inhabited only by sea spirits. Kurrobori, traveling from the east, from beyond the Morning Star, saw the submerged land and raised it from the ocean depths. The retreat of the sea spirits shaped the land's rivers, valleys, and mountains as they fled. Kurrobori then adorned the land with flora and fauna, making it a lush, welcoming place. This story underscores the transformative power of Kurrobori and her role in creating and nurturing the land, highlighting themes of creation, sustenance, and the beautification of the earth.

Yandhai, the Spirit of the Nepean River Yandhai, as the spirit of the Nepean River, plays a crucial role in Dharug spirituality. Yandhai is not only a guardian who watches over the river and its diverse ecosystems but also provides guidance, protection, and sustenance to those who live along its banks. The river, under Yandhai's watch, is more than a source of water; it is a vital conduit for spiritual connection to the ancestors, linking the community across generations.

Gurrangatty the Eel/Serpent: Central to one of the main creation myths is Gurrangatty, an ancestral creator depicted as an eel or serpent. According to the lore, Gurrangatty traversed the terrain, carving out rivers and sculpting mountains with its movements. The eel's lifecycle, which includes migration from freshwater to the ocean and back, epitomises resilience and adaptability. This cycle is honoured at cultural events such as the Burramattagal Eel Festival in Parramatta. Gurrangatty, revered as the Great Eel creation ancestor, is believed to have formed the sacred course of the Dyarubbin (Nepean River). The Dharug people see flooding as a communication from Gurrangatty, suggesting a spiritual disequilibrium. This perspective emphasises the community's responsibility to recognise and respect the river's might and its integral place in their spiritual existence.

Connection to the Land

Jordan Springs, located within the Penrith LGA, is part of the Cumberland Plains. This region is characterised by its unique flora and fauna, including diverse ecosystems that were vital for the Dharug people's traditional way of life. The Cumberland Plains provided abundant resources such as plants for food and medicine, animals for sustenance, and materials for tools and shelter.

The Dharug people managed the land through Traditional practices such as controlled burning, which promoted biodiversity and maintained the health of the ecosystems. These practices also facilitated hunting and gathering activities, ensuring a sustainable balance with nature.

The Dharug people observe six distinct seasons based on natural indicators rather than the conventional four. These seasons are marked by events such as the flowering of plants, changes in weather patterns, and the lifecycles of animals. Each season has associated cultural practices and stories, reflecting the deep connection the Dharug people have with their environment. For example, during the season known as Yuruga Burra, which occurs around March and April, the migration of eels from rivers to the ocean marks the beginning of this season.

"The inland clans fished for mullet and eels in rich lagoons, but much of their food came from yams dug out from the riverbanks and worms known as 'cah-bro' extracted from river driftwood. Colebee

and Ballederry called these people the ‘climbers of trees’ after their practice of skilfully ascending gums in pursuit of animals, cutting footholds in the trunks with a stone axe.” (Collins 1798)

Nepean River: The Nepean River, which flows through the Penrith region, is a critical waterway for the Dharug people. It served as a primary source of water and food, with its banks and surrounding areas rich in resources. The river was also a vital travel route, linking various clans and facilitating trade and communication. The Nepean River is intertwined with many Dreaming stories and cultural practices, emphasising its spiritual and practical significance to the Dharug Nation.

One notable Dreaming story associated with the Nepean River involves Garangatch, the giant eel. This story explains the formation of the river and highlights the interconnectedness of the Dharug people's spirituality and the natural environment including many of the neighbouring smaller creeks and water ways. Such stories are integral to the cultural identity and heritage of the Dharug people, providing lessons and reinforcing their connection to the land and water.

South Creek: South Creek, a tributary within the region, further underscores the Dharug people's connection to waterways. Smaller creeks like South Creek played crucial roles in daily life, providing fresh water, and supporting diverse ecosystems that were integral to the Dharug lifestyle. These creeks also served as markers for territorial boundaries and pathways for movement and trade between different Dharug clans and neighbouring groups.

Archaeological Evidence and Heritage Sites

The Penrith region, including Jordan Springs, is rich in archaeological evidence of the Dharug people's long-term habitation. Sites containing stone tools, axe grinding grooves, and rock engravings are scattered throughout the area. These artifacts provide tangible links to the Dharug's past, showcasing their sophisticated tool-making skills and deep understanding of the natural world.

Stone Tools and Axe Grinding Grooves: Archaeological sites in the Cumberland Plains and along the Nepean River reveal extensive use of silcrete and other materials for tool production. Axe grinding grooves, often found near creeks and rivers, indicate locations where the Dharug people shaped and sharpened their tools. These sites offer insights into the everyday activities and technological practices of the Dharug.

Rock Engravings and Art: Rock engravings and art sites are another crucial aspect of Dharug cultural heritage. These engravings depict various symbols, animals, and human figures, often linked to Dreaming stories and cultural traditions. The Warragamba area, for example, contains notable engravings of emus and kangaroos, demonstrating the significance of these animals in Dharug culture.

Contemporary Recognition and Preservation

Today, efforts are ongoing to recognise and preserve the cultural heritage of the Dharug people in the Penrith LGA. Initiatives include archaeological surveys, heritage listings, and community engagement programs aimed at educating the broader public about the rich history and cultural significance of the Dharug Nation.

Key sites of cultural and historical importance are being documented and protected through heritage listings. These efforts ensure that the physical evidence of Dharug heritage, such as archaeological sites and rock engravings, is preserved for future generations.

References

Dharug Clans | A History of Aboriginal Sydney

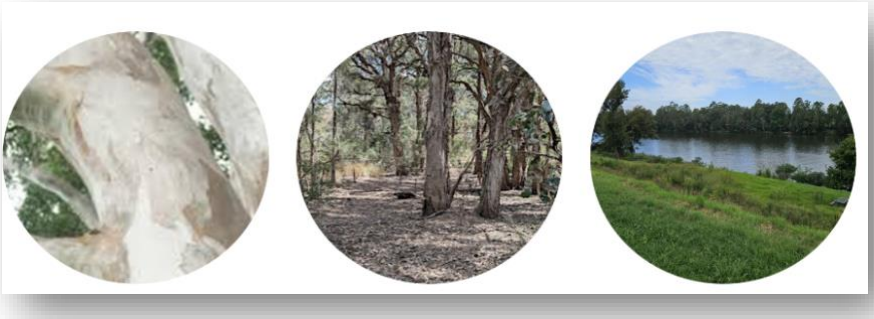
Dharug National Park | NSW National Parks

Dharug Ngurra Aboriginal Corporation

3. Flora of the Jordan Springs Area

East of Jordan Springs lies Wianamatta (Dharug for 'Mother Place') Regional Park, 900-hectare area preserving the critically endangered Cumberland Plain Woodland under the Threatened Species Conservation Act. This unique ecological community is characterised by a canopy dominated by various eucalypt species such as Grey Box (Eucalyptus moluccana) and Forest Red Gum (E. tereticornis), complemented by Grey Ironbark (E. crebra), Narrow-leaved Stringybark (E. eugenioides), and others. The mid-level consists of smaller trees including Black Wattle (Acacia decurrens) and Native Cherry (Exocarpos cupressiformis

The understory is dense with shrubs like Blackthorn (Bursaria spinosa) and Native Indigo (Indigofera australis), influenced by past land clearing and varying management practices. The ground layer thrives with grasses such as Purple Wiregrass (Aristida ramosa) and Kangaroo Grass (Themeda australis), along with scramblers like Native Sarsaparilla (Hardenbergia violacea).



Additionally, The Nepean River, Yandhai (Dharug) is the main waterway that runs through the Penrith Loal Government Area (LGA). this area encompasses swamps and the vegetation along the Nepean River, where First Nations People have historically maintained a deep connection with these waterways. This rich biodiversity not only supports a variety of flora but also fauna, including kangaroos and emus, contributing significantly to the ecological and cultural value of the region.

4. Fauna of the Jordan Springs Area

The Cumberland Plains near Jordan Springs are home to a diverse array of fauna and birdlife, reflecting the area's rich ecological heritage. This region, part of the critically endangered Cumberland Plain Woodland, features a variety of habitats that support numerous species.

Among the birdlife, you can find species such as the Superb Blue Wren, Black Cockatoo, and Azure Kingfisher. These birds thrive in the native woodlands and wetlands, providing vibrant sightings for birdwatchers. Other common avian residents include Kookaburras and Rosellas, contributing to the area's auditory and visual appeal. Magpies are also a frequent presence, known for their melodious calls and striking black and white plumage.

The fauna of the Cumberland Plains includes species such as kangaroos and emus, which are often seen grazing and roaming the plains. Echidnas, with their spiny appearance, are another unique inhabitant of the area.

The Blue Tongued Lizard, Brushtail Possum, and Eastern Pygmy Possum are also part of the diverse animal community. These species are well adapted to the varied ecosystems within the plains, from open forests to dense underbrush, highlighting the ecological richness and biodiversity of the region.

5. Consultation methodology

Indigenous Lead Facilitation aims to embrace meaningful engagement and consensus building with First Nations communities when implementing the "Connecting with Country" framework, we are committed to acknowledging and respecting the enduring relationship between First Nations peoples and Country. This relationship is grounded in First Nations beliefs that everything is connected through a Country centred viewpoint as opposed to wider western based philosophy of a Human centred viewpoint.

Identifying the First Nations communities relevant to a project is a crucial first step in implementing Country Centred design process guided by the "Connecting with Country Framework". To do this, we strive to undertake a research and consultation process that includes the following:

- Traditional Owners Mapping: We strive to collaborate where possible with local First Nations organisations and authorities to identify the Traditional Owners of the project area. This may involve studying historical records, consulting with First Nations Elders and knowledge holders, and reviewing existing land tenure arrangements.

- Country-specific Research: We conducted research into the specific Country or Traditional Land to understand its cultural significance, history, and the unique needs and aspirations of the local First Nations community.

- Community Consultation: We seek to engaged in interactive sessions, workshops, and community meetings to establish relationships and build trust with the local First Nations community. This is a critical aspect of our approach, as it ensures that the project respects the wishes and cultural values of the community.

- Methods of Engagement: Our commitment to engaging with First Nations communities is guided by principles of cultural sensitivity, respect, and inclusivity. We employ various methods and processes of engagement to ensure flexible and meaningful collaboration.

- Yarning Sessions: We facilitate yarning sessions, where we listen to the stories, experiences, and perspectives of First Nations community members. This allows us to gain insights into their cultural values and priorities.

- Community Workshops: We organised workshops that provide a platform for First Nations community members to actively participate in the project's planning and design ideas. These workshops encouraged open dialogue, guided by background presentations, focus questions and consensus building facilitated processes.

- Elders Consultation: Where possible we seek guidance and wisdom from First Nations Elders, both Social and Cultural who hold valuable knowledge about cultural heritage, Traditional practices, and protocols.

5.1.Stakeholder Mapping

The stakeholder mapping provided here identifies key individuals and organisations critical to incorporating First Nations perspectives into the new school project in Jordan Springs. Emphasising the importance of honouring and preserving First Nations heritage, this mapping promotes active collaboration and consultation with the local First Nations community and relevant entities.

Each stakeholder contributes vital expertise, cultural knowledge, and connections essential for developing a school environment that respects and celebrates First Nations culture. From Traditional Custodians 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 First Nations students. This stakeholder mapping is 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:

- Traditional Owners: Custodians of the land where the school is being constructed, engaged in consultations to honour the land's cultural significance.
- Elders: Community-recognised leaders offering wisdom and insights crucial for the project's integrity.
- Deerubbin Local First Nations Land Council (LALC): Manages land rights and advises on land use, cultural preservation, and community benefits.
- Registered First Nations Parties (RAP): Groups involved in managing and protecting cultural heritage in their designated areas.

Community and Educational Organisations:

- First Nations Education Consultative Group (AECG): Advises on educational strategies that effectively cater to the cultural needs of First Nations students.
- Dharug Community: Local First Nations 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 Architectural firm designing the school to reflect both modern educational requirements and First Nations cultural heritage

5.2.Stakeholder Engagement Schedule

Date	*Community Consulted*	*Activity*
24 April 2024	The Late Uncle Wes Marne	Walk on Country
1 May 2024	Local Elders, RAPs, AECG Community	1st Workshop
21 May 202	Yarramundi AECG project presentation	TEAMS meeting
13 August	Local Elders, RAPs, AECG Community	2nd Workshop

6. Consultation

6.1.Talk on Country with the Late Uncle Wes Marne

Uncle Wes Marne AM, a Bigambul man and First Nations Elder, was born in 1924 in Southwest Queensland and resided on Dharug Country for the past 46 years. He fondly recounts his childhood spent on his ancestral land, where his grandfather taught him hunting and imparted stories he would later share with future generations, a practice that unknowingly rooted him in conservationism.

By the age of ten, Uncle Wes' life was disrupted when his family was forcibly removed from their land and relocated to the Deadbird Mission in Northern NSW (Ashford First Nations Reserve). Reflecting on those times, Uncle Wes notes, "The missions were no joke those days.". I learned the hard way." His memories are a tapestry of life and death, ghost tales, boxing, bush lore, and poignant stories of love and loss, all shared from the heart.

For the last 46 years, Uncle Wes has lived in Western Sydney, where he has become an educator, a steward of First Nations culture, and an advocate for the area's vulnerable youth. As one of the first Nations storytellers to be invited into Schools in Western Sydney, sharing his poetry and art, he speaks of both the early resistance by non-First Nations parents and community members and the beauty of the open mindedness of children to listen and learn about Fist Nations people and culture. Today he has opened the doors for many other First Nations story tellers in schools and has become a central figure in western Sydney community.

Uncle Wes also states that he was one of the initial men to reintroduce public smoking ceremonies back on Dharug lands.

Uncle Wes met with ILF, SINSW and Architects to talk about the country and the culture of the land upon which the new Jordan Springs High School will be built. Uncle Wes performed a Smoking Ceremony to cleanse the spirits of those in attendance.

Uncle Wes emphasised the significance of "stories" in preserving and perpetuating culture. He highlighted that all cultures are rooted in stories, which are essential for keeping traditions and heritage alive. The smoking Ceremony reminded him of first stories of fire and how they were connected to the stars. He spoke of Dharug star stories, illustrating their cultural richness.

Uncle Wes also spoke about South Creek, described a time when it had sufficient water for canoes to navigate its length. He emphasised how the old people took care of the rivers to keep them clean and flowing, recognising for Aboriginal people, rivers and waters are the lifeblood, crucial for sustaining life and culture. South Creek, he noted, is dotted with middens and evidence of camp sites (middens are distinct concentrations of shell that contain evidence of past First Nations hunting, gathering, and cooking) and campsites, marking its historical and cultural importance.

6.2. 1st Community Workshop

Overview

Indigenous Lead Facilitation (ILF) organised an initial workshop with community members to discuss an overview of the development of new Jordan Springs High School. This session aimed to provide clarity on the government's objectives, investment plans, approval procedures, site planning, and the "Connecting with Country" framework, highlighting the project's implications for both the government and the community.

The workshop commenced with a Welcome and Acknowledgement of Country, followed by participant introductions. ILF then presented essential background information before conducting a "Mind Mapping" exercise. This visual tool effectively captured diverse perspectives, emphasising cultural significance, educational improvements, and environmental considerations.

The mind mapping exercise facilitated visual and collaborative engagement, enabling participants to deepen their understanding and contribute innovative solutions.

6.2.1. Insights from the Mind Mapping Exercise

Truth Telling

Keeping Place

Although the Connecting with Country scope is mainly aimed at the school exterior, community emphasised the importance of displaying truthful evidence of both traditional and post-colonial First Nations life and the dramatic and devastating changes.

The following truth telling concepts are some ideas which may help capture and create an educated awareness of the rich Dharug cultural heritage of Jordan Springs and surrounding areas.

The concept of the "Keeping Place" is an element in the Jordan Springs High School development, aimed at deepening cultural understanding and preservation. This dedicated area within the school can function as a cultural hub where students and visitors can engage directly with the tangible heritage of the First Nations community. Here's how the Keeping Place can serve the school and the broader community:

- Cultural Repository: The Keeping Place will house a diverse collection of artifacts that are significant to the local First Nations communities. These items might include traditional tools, garments, artworks, and historical documents. By showcasing these artifacts, the Keeping Place will offer an immersive educational experience, allowing students to learn about First Nations history and cultures through real, tangible objects.

- Interactive Exhibits: Alongside static displays, interactive elements could include touch screens with detailed information about each artifact, videos showing the artifacts in use, and perhaps virtual reality setups that transport visitors to different times and places relevant to the stories behind the items.

- Preservation Efforts: By establishing a Keeping Place, the school commits to the preservation of First Nations heritage. This involves not only physical care for the artifacts but also an ongoing effort to document the stories and knowledge associated with them, ensuring they are preserved for future generations.

Elders' Stories

The integration of technology to share Elders' stories is a critical aspect of maintaining and revitalising oral traditions. By using QR codes or significant plants and animals strategically placed around the school grounds, the project will create a bridge between Traditional knowledge and modern technology, making these cultural narratives accessible to a broader audience. Here's a closer look at how this could be implemented:

QR Codes: Placed next to installations, trees, or benches, QR codes can be scanned, leading users to audio or video recordings of Elders sharing their stories,

- Wisdom, and experiences. This approach allows for a personal connection with the narratives which may also directly relate to the Connecting with Country design concepts, as students and visitors listen to the voices of both Elders and cultural knowledge holders .

- Dharug Totem Stations: These installations can be interactive digital totems or solar powered physical posts equipped with audio playback devices. Users can activate these to listen to stories, which might be accompanied by visual aids or animations to enrich the storytelling experience.

- Augmented Reality: An augmented reality app which could bring stories to life as users walk through the school grounds. Pointing their devices at specific locations could overlay digital images, animations, or additional narrative layers onto the real-world environment, providing a multi-sensory learning experience.

Artistic Expression

Artistic expression plays a pivotal role in the design and cultural narrative of Jordan Springs High School, ensuring that the environment is not only educational but also inspirational and reflective of First Nations heritage. Here are some suggestions from the community workshop:

Metal Work

- Functional Art with Cultural Significance: The integration of First Nations designs into functional metalwork such as screens and railings will serve multiple purposes.
- Design Inspirations: Examples of such metalwork
    - Dharug Stories of Creation such as Yandhai, the Spirit of the Nepean River. Connecting the river system to the school e.g. a depiction of a woman and children sitting by a river under a weeping tree.
    - Souths Creek, depicting travel along the creek in canoes, and campsites along the way.
- Native Fauna Motifs: Incorporating local wildlife into metalwork designs provides an educational aspect to art. Fauna such as the Feathertail Glider, Eastern Quoll, Eastern Grey Kangaroo, and Wedge-tailed Eagle, Black Cockatoo can be rendered in metal forms along railings, gates, and other structural elements.

Murals and Cultural Artwork

- Large-Scale Murals: These artworks will be prominently displayed across the school's walls, depicting significant cultural, historical, and ecological themes. Murals might illustrate stories from First Nations mythology, scenes from local history, or landscapes featuring native flora and fauna.
- Functional Artwork: Smaller pieces of artwork will also be embedded into everyday objects such as water bubblers, benches, and signposts. These pieces will serve dual functions—fulfilling their primary purpose while also educating and engaging students and visitors with vibrant depictions of cultural symbols and stories.

Yarning Circle

- Space for Community and Dialogue: The Yarning Circle within the school grounds dedicated to storytelling, teaching, and community gatherings. Circular in shape, symbolising unity, and inclusivity, and lined with seating that incorporates First Nations motifs.

  Note: while yarning circles are physical structures, they are only useful if groups understand its purpose and sessions are facilitated correctly.

- Design Features: Possible features within the Yarning Circle could include a light scope, which enhances the area's and adds an element of drama to the storytelling sessions. The design might also include ground carvings or mosaic artworks that depict celestial bodies or waterways, important symbols in Dharug culture.
- Cultural and Educational Hub: The Yarning Circle can be a place where informal learning and community bonding occur. It may host Teacher and students' outdoor sessions, Elder-led sessions, cultural workshops, and community meetings, making it a vital space for educational and cultural communal engagement.

Wayfinding

Wayfinding strategies at Jordan Springs High School are designed not just for navigation but also to educate and immerse students and visitors in First Nations culture and language. Here are some community suggestions:

Language and Signage

- Bilingual Signage: Feature signage in both English and the Dharug language, covering all elements from building names, room labels and directions to emergency exits and informational posts. This initiative supports the revitalisation of the Dharug language by making it a visible and functional part of the school environment.
- Educational Integration: Each sign will serve as a learning tool, with QR codes that link to voice recordings of the proper pronunciation of the Dharug terms, along with additional cultural context or stories associated with the words. This approach not only helps with language preservation but also enhances students' and visitors' understanding of the cultural significance behind the words.
- Cultural Promotion: The signage can also include traditional greetings, common phrases, and even poetry in Dharug, offering daily exposure to the language and fostering a deeper connection with local Indigenous heritage.

Themed Footpaths

- Design and Functionality: The footpaths around the campus can be more than just walkways; they will be pathways to learning. Imprints of local fauna such as kangaroos, emus, goanna, and other native species will be embedded into the concrete, turning an ordinary path into an interactive learning experience. The natural flow of paths, creeks and rivers in nature is curved and do not in most cases follow straight lines so paths should be natural in design and have curved edges to reflect natural surroundings.

- Artistic Features: Alongside animal footprints, such as kangaroo and Emu prints, the footpaths can incorporate Dharug artist impressions and colours. This could include patterns and symbols that are significant to the Dharug people, providing insights into cultural meanings and historical contexts.
- Educational Component: Informational plaques or interactive displays could be placed alongside these footpaths, explaining the significance of the animals and artwork depicted. For instance, a footprint of a kangaroo might include information on the role this animal plays in local Dharug culture and stories and its importance to the ecosystem balance.
- Integration with Nature: The design of the footpaths should consider the surrounding landscape, with pathways curving around existing trees and gardens, and incorporating elements of the natural environment. This design strategy not only preserves the natural beauty of the campus but also aligns with Dharug cultural practices of respecting and integrating with the land.

Storytelling

The community suggests a deeper integration of cultural, spiritual, and environmental considerations into the development of the new Jordan Springs High School. By embedding these significant elements into the school's structure and to compliment educational programs, the project will not only serve as a learning environment but also as a space that respects and celebrates the rich heritage of the Dharug people and the land.

- Use of Dharug Language: Continuing to use the local language to help preserve its use and promote cultural heritage and sustainability.
- Cultural and Ancestral Stories: Utilising QR codes and solar posts to bring to life the stories narrated by Knowledge Holders and Elders, merging traditional storytelling with modern technology.
- Contemporary stories: Addressing themes related to the local history, including environmental challenges and the area’s military history, providing a well-rounded understanding of the region’s legacy.
- South Creek's Cultural Significance: Highlighting the freshwater significance of South Creek and its role within the local ecosystem, narrated through stories that connect with the wider environmental and cultural narratives of the area. This will include but not limited to such things as local campsites, fishing holes, significant flora, and fauna.

Generic Dharug stories

- Gurangatty the Great Eel: The narrative of Gurangatty, the Great Eel creation ancestor, whose actions shaped the sacred path of the Dyarubbin (Nepean River). Incorporating the spiritual significance of flooding in Dyarubbin as viewed by the Dharug people. Flooding is interpreted as a message from Gurangatty, the Great Eel creation ancestor, indicating a spiritual imbalance. This narrative reminds the community of the need to understand and respect the river's power and its role in their spiritual life.
- Yandhai, the Spirit of the Nepean River: Emphasising the role of Yandhai in Dharug spirituality as a guardian who provides guidance, protection, and sustenance. This narrative enhances

the understanding of the river not only as a physical resource but also as a spiritual conduit connecting the community with their ancestors.

Acknowledgement of Country

The thoughtful placement of Acknowledgement of Country signage throughout Jordan Springs High School is an integral part of the project's dedication to respecting and honouring the Traditional lands of the Dharug people.

Purpose and Placement

- Strategic Locations: Acknowledgement of Country signs be prominently displayed at all major entry points to the school, as well as in significant areas such as the main assembly hall, sports fields, and administration buildings. This ensures that everyone entering or using these spaces is immediately made aware of the cultural significance of the area.
- Design and Content: The signs should be designed with input from local Knowledge Holders, Elders, and community members to ensure cultural accuracy and sensitivity. They will feature not only the Dharug language but also English, to make the information accessible to all school visitors and the school community. The design may include traditional Dharug art elements that are culturally significant to the Dharug people, enhancing the visual impact and educational value of the signage.

Educational Impact

- Cultural Teaching Tool: Beyond welcoming visitors, these signs serve as a constant educational tool for the school community, reminding students, staff, and visitors of the ongoing connection Dharug people have with the land. Teachers can also use these signs as starting points for discussions about history, culture, and the importance of land and place in Dharug traditions.
- Interactive Learning: Each sign could be equipped with a QR code that links to a webpage or a video explaining the significance of the land, the history of the Dharug people, and the importance of why we Acknowledgement Country. This feature would allow individuals to engage with the information actively and learn at their own pace and/or inspire residual learnings.

1. Landscaping

The community suggested that the school's landscaping and architectural designs incorporate colours drawn from the local natural landscape to create aesthetic harmony and a sense of connection with Country. The proposed colours are inspired by the Cumberland Plain Woodland and the Nepean River and South Creek, reflecting the diverse vegetation layers and the natural beauty of the area. See 9.2, appendix 2.

Conservation of Native Flora

- Preservation Initiatives: The community strongly supports the conservation of existing trees, especially those that hold sacred significance, emphasising the importance of maintaining these natural heritage elements. Additionally, there was a consensus on the need to integrate

a wide variety of native plants and grasses to attract local fauna such as birds and small wildlife which will in turn enhance biodiversity and ecological balance. See 9.3 Appendix 3

Educational and Cultural Spaces

- Design of Outdoor Learning Environments: Feedback highlighted the desire for courtyards and other outdoor spaces to be designed with educational purposes in mind. Features such as boomerang-shaped seating and informative signage about local flora and fauna were suggested to facilitate learning and connection to country. These spaces are intended to serve as interactive areas where students can engage with the natural environment and Indigenous cultural elements.

Healing and Native Gardens

- Therapeutic and Educational Landscapes: There was a strong endorsement for the creation of gardens dedicated to native bushfoods and medicinal plants. These gardens are envisioned to be both educational and therapeutic, incorporating elements like healing circles, which include soundscapes and sand artwork, to enhance the sensory experience and provide peaceful sanctuaries for students, staff and visitors.

Note: Bush foods and medicinal plants need appropriate instructional signage for both uses and preparation.

Colours of Country

- Greys and Greens of Eucalypts: The dominant canopy layer of Wianamatta Regional Park featuring species like Grey Box and Forest Red Gum provides a range of soft grey and deep green hues.
- Ironbark and Stringybark Tones: The darker tones of Grey Ironbark and the lighter, almost silvery hues of Narrow-leaved Stringybark
- Acacia Yellows and Greens: The vibrant greens and yellow tones from Black Wattle and other Acacia species are perfect for injecting bursts of brightness.
- Indigo and Blackthorn Shades: Deep blues and purples from Native Indigo, along with the darker tones of Blackthorn.
- Grasses and Scramblers: The earthy tones of Purple Wiregrass and the rich greens of Kangaroo Grass offer a natural palette for the design of ground cover and textured pathways.
- Floral Hues of Hardenbergia: The vibrant purple of Native Sarsaparilla flowers.
- Nepean River and Souths Creek Blues, browns and Greys: The reflective soft colours associated with the Nepean River and Souths Creek. These colours promote a calm and contemplative environment and can be used in relaxation zones or quiet corners for students.
- Swampland Greens and Earth Tones: Drawing from the vegetation of the swamplands, the deep greens and rich earth tones can be incorporated into the landscaping to create a seamless transition from the built environment to the natural landscape, ensuring that the school grounds feel like an extension of the natural bushland.

Fauna

- Local Wildlife: Highlighting sculptures or images of local animals such as black cockatoos, goannas, kangaroos, emus, snakes, and turtles. These elements aim to increase awareness and respect for the local fauna.
- Memorial: Creating a dedicated space to acknowledge and honour sacred animals that have been affected by development, such as the Dharug kangaroos and emus. It was stated in the workshop, in First Nations culture when a totemic or sacred animal or plant is culled or cleared the trauma and is witnessed and can be felt by those people closely connected through individual and clan relationships.

Other Important Elements

- Visibility and Representation: Ensuring the Aboriginal flag is prominently displayed.

6.2.2. Example images






7. 2nd Community Workshop

Participants: 20 attendees, including Aboriginal Elders, Recognised Aboriginal Parties, the Aboriginal Education Consultative Group (AECG), and community members
Facilitators: Niwilli White-Forest (DJRD Architects) and Charles Trindall (Indigenous Lead Facilitation)

The second community workshop was held in Jordan Springs, bringing together a diverse group of twenty participants, including key stakeholders from the Dharug community. The workshop was co-facilitated by Niwilli White-Forest from DJRD Architects and Charles Trindall from Indigenous Lead Facilitation. The session was structured into two primary sections:

- **Part 1: Themes and Concepts** - This section delved into the core cultural, historical, and spiritual themes central to Dharug Country, including the significance of Place, the power of Story, and the importance of Truth Telling.
- **Part 2: Areas and Spaces** - This section focused on how the identified themes could be translated into the physical spaces of the new school, covering areas such as Sharing Places, Entry Spaces, and Garden Areas.

Building on the insights from the first community engagement session, this workshop specifically explored the cultural, historical, and spiritual significance of key locations within Dharug Country, such as the South Creek and associated campgrounds, and local stories like the Emu in the Sky. The primary objective was to understand how these cultural elements could be intricately woven into the design of the new school, ensuring that it serves as not only an educational institution but also a place deeply connected to the land and its First Nations heritage.

Themes and Insights

Part 1: Themes and Concepts

1. Place

Significant Rivers and Waterways:

- The Nepean River and Hawkesbury River were identified as essential waterways in Dharug Country, each holding deep cultural and historical significance. These rivers have been central to the life and traditions of the Dharug people, serving as main arteries for trade, travel, and cultural exchange. Yarramundi was highlighted as the place the rivers connect. Yarramundi, which means “storyteller” in Darug, was a place of gathering, teaching and storytelling. It should be noted that waterways and thought of as life veins connecting and sustaining Country.
- The design of the new school should reflect the importance of these waterways. This could be achieved through symbolic elements such as artwork depicting the flow of these rivers, or pathways within the school grounds that mimic their courses. Incorporating water features that reference these rivers could also help students connect physically and spiritually with the natural landscape.

Dharug Totems and Nocturnal Animals:

- The incorporation of Dharug totems, particularly nocturnal animals like possums and flying foxes, was highlighted as crucial. These animals are not only important to Dharug culture but also embody the deep connection between the people and the natural world.
- These totems could inspire the colours and themes of the school’s houses (e.g., sporting teams) and be visually represented throughout the school in murals, sculptures, and educational displays. This would help embed these cultural symbols into the daily life of the school, fostering a strong sense of identity and connection to Country.

Local Storytellers and Historical Figures:

- Figures like the storyteller Yellomundee (also known as Yallahmundi) hold a special place in the history of Dharug Country. The workshop emphasised the need to honour such figures within the school’s environment, potentially by naming sporting houses, buildings or spaces after them or by creating dedicated storytelling areas where their stories can be shared with students.
- Incorporating Dharug language and historical narratives into the school’s design and curriculum will help preserve and pass down these important cultural stories, ensuring that they remain a living part of the community.

Emu in the Sky Story and Cultural Symbols:

- The "Emu in the Sky" story is a significant cultural narrative that participants felt should be prominently featured in the school’s design. This could be manifested through symbolic elements such as shaded gathering spaces that represent the emu, or through artwork that depicts the story, perhaps as a central feature in both the entrance and other communal areas.
- The use of cultural symbols and motifs from this and other stories throughout the school—whether in architecture, landscaping, or decorative elements—will ensure that these narratives are continually present and influential in the school’s atmosphere.

Flora and Fauna:

- The school's design should reflect the local environment by incorporating native plants and creating habitats that support local wildlife. For example, specific areas could be dedicated to the preservation of plant species that are significant to Dharug culture, such as those used as traditional food sources and bush medicine practices.
- Educational elements, such as interpretive signage or learning modules about local flora and fauna, can be integrated into these spaces to teach students about sustainability, the natural world around them and their cultural significance. This approach helps foster a deep respect for the environment and its interconnectedness with Dharug traditions.

Connection to Country:

- Overall, the school's design should ensure a deep and meaningful Connection to Country theme. This includes the thoughtful integration of significant cultural sites, traditional pathways, and natural features into the layout and architecture. The design should evoke a sense of place that is unmistakably tied to Dharug Country, making the school not just a building but a living part of the land's cultural and spiritual landscape.

2. Story

Murals and Artworks:

- The workshop emphasized the importance of using murals and artworks to tell the stories of Dharug Country throughout the school. These visual elements can serve both as educational tools and cultural reminders, ensuring that the history and stories of the land are ever-present in the school environment.
- Artworks could depict key narratives, such as life force of local waterways and the Emu in the Sky and can be strategically placed in areas to inspire reflection and discussion. For example, murals could be placed in hallways, common areas, or outdoor spaces, making them an integral part of the daily experience for students and staff.

Cultural Storytelling Elements:

- To enhance the storytelling experience, participants suggested incorporating digital elements like QR codes that link to videos, audio recordings, or interactive content about local stories, cultural practices, and significant sites. These codes could be placed next to artworks, in gardens, or in other relevant locations throughout the school.
- Picnic areas, outdoor classrooms, or other communal spaces could be designed specifically to facilitate storytelling, providing environments where the stories of Dharug Country can be shared in both traditional and modern formats.

Significant Local Stories and Symbols:

- The Emu in the Sky and other significant stories should be prominently featured and celebrated within the school. For instance, a central gathering space, such as a yarning circle or an outdoor amphitheatre, could be dedicated to these stories, with design elements that evoke the symbols and themes of the narratives.
- The school could also include sculptures or installations of local native animals, plants, or other cultural symbols that are tied to these stories, creating a physical and visual connection to the land's heritage.

Connection to Local Heritage:

- The design should acknowledge and integrate local heritage sites, such as the Wianamatta/South Creek area, which is of deep cultural significance. Educational signage, interactive displays, or even virtual reality experiences could help students and visitors understand the historical and cultural importance of these sites.
- This connection to local heritage should be woven into the fabric of the school, making it a place where the past and present meet, and where the stories of the land are preserved for future generations.

Interactive and Educational Features:

- Yarning circles could be established within the school grounds, providing spaces where students can gather to hear stories from Elders and community members. These circles can also be used for cultural ceremonies, discussions, and other school based educational activities.
- The school's houses could be named after significant people, flora, fauna, or cultural symbols from Dharug stories, embedding these narratives into the everyday life of the school and ensuring that they remain a constant presence in the students' experience.

Cultural and Natural Integration:

- The landscape design should reflect the natural environment of Dharug Country, with native plants, sacred trees, and water features that are significant to local stories. These elements not only beautify the school but also serve as living connections to the stories and traditions of the land.
- School bells or announcements could feature sounds connected to the local environment, such as bird calls or traditional songs, reinforcing the cultural connection each day.

3. Truth Telling

Storytelling Sessions:

- Regular storytelling sessions should be held, where Elders and community members can share the true history of the land, including the impacts of colonization, the Stolen Generations, and other significant events. These sessions could be integrated into the school's curriculum, as well as offered during after-school programs (OOSH), ensuring that students have multiple opportunities to engage with these important narratives.
- These sessions should be held in dedicated spaces designed for truth telling, such as yarning circles, amphitheatres, or indoor spaces that are conducive to reflective discussion and learning.

Integration of Truth Telling into Daily Life:

- Truth telling should be a core part of the school's culture, not just an occasional activity. This could include incorporating stories of Dharug history into the curriculum across subjects, such as history, literature, and social studies, as well as into school events and ceremonies.
- The school environment itself can reflect this commitment to truth telling, by dedicated spaces for photos and books and murals, artworks, and sculptures that depict historical events and figures, ensuring that these stories are ever-present in the physical space of the school.

Recognition of Historical Figures and Events:

- The school should recognise significant figures and events in Dharug history, such as Kitty Colbee, Budsworth Warmuli, and other important leaders. This recognition could be through named buildings, plaques, or dedicated memorial gardens and spaces within the school.
- Memorials or symbolic areas should also be created to honour those who suffered or were lost during the darker and more difficult periods in history, such as massacres or the forced removal of children from their families. These spaces could serve as places of reflection, education, and remembrance.

Cultural and Language Preservation:

- Truth telling should also focus on the preservation and revitalisation of Dharug language and culture. The school could offer language lessons as part of the curriculum, as well as cultural workshops and performances that celebrate and maintain Dharug traditions.
- Dance, music, and visual art forms should be integrated into the school's events and daily activities, allowing students to express and engage with their cultural heritage in meaningful ways.

Interactive and Sensory Learning:

- The school could include interactive elements such as a "Wind Tunnel" where students can listen to recordings of stories, songs, or significant cultural sounds, creating an immersive learning experience that connects them to both Country and past.
- Pathways designed with animal tracks or other cultural symbols could be integrated into the school grounds, creating a walking narrative that teaches students about the land's history and the stories connected to it.

School Environment and Uniforms:

- The design of school uniforms, as well as the overall environment, should reflect Dharug culture and history. This could include the use of traditional colours, patterns, and symbols that are significant to the Dharug people, making the school a visual and cultural representation of the community's heritage.
- Pathways or other design elements that tell the story of migration or significant journeys of the Dharug people can be incorporated into the school's landscape, creating a physical narrative that students and visitors can follow and learn from.

Cultural Exchange and Learning:

- The school should foster an environment of cultural exchange, where students learn to respect and understand the customs and cultures of others. This includes creating spaces for sharing customs, food, and traditions, ensuring a holistic understanding of the Dharug people and their history.

- Events, festivals, and ceremonies that celebrate Dharug culture and invite other cultures to participate and share can help create a dynamic, inclusive, and educational environment that values truth and cultural diversity.

Part 2: Areas and Spaces

4. Sharing Places

Indoor and Outdoor Spots for Events:

- The school's design should include both indoor and outdoor areas that are flexible and adaptable for various events and activities. These spaces should be designed with good acoustics to enhance the quality of presentations and performances, particularly in outdoor settings.
- Easy access for Elders and community members should be a priority, with paths and surfaces that are suitable for all mobility levels. This ensures that all members of the community can fully participate in the school's activities and events.

Yarning Circles:

- The creation of multiple yarning circles within the school grounds was emphasised as a key design element. These circles should be strategically placed in both shaded areas (e.g., under large trees) and more open spaces (e.g., near assembly halls), providing versatile spaces for discussions, storytelling, and cultural exchange.
- Yarning circles could also be designed to accommodate different themes or groups, such as circles specifically for women, men, or children, ensuring that the school provides spaces for all community members to share and connect.

Activity Spaces and Artwork:

- The school should include designated spaces for various activities, such as art and cultural workshops. These spaces could be equipped with modern technology, like interactive displays or QR codes, to enhance the learning and storytelling experience.
- Art and cultural symbols could be integrated into the architecture and landscape of the school, making these activities a visible and integral part of the school's daily life.

Connection to Nature:

- Natural elements such as native plants, water features, and landscaped areas should be incorporated into the design of sharing places. These elements not only beautify the spaces but also provide a physical and spiritual connection to the land, reinforcing the school's ties to Dharug Country.
- The use of natural light, open spaces, and views of the surrounding landscape can help create an environment that feels connected to nature, supporting the well-being and cultural engagement of students and staff.

5. Entry Spaces

Acknowledgment of Country:

- The entrance to the school should prominently feature an Acknowledgment of Country sign, written in both Dharug and English, to honour the Traditional Owners of the land. This sign could be accompanied by a welcoming art piece or ceremonial space that introduces visitors to the school's commitment to respecting and celebrating Dharug culture.
- The entry could also include a dedicated area for performing Welcome to Country ceremonies, ensuring that this important cultural practice is integrated into the school's operations and events.

Natural and Cultural Integration:

- The entry spaces should incorporate native plants and trees that are significant to Dharug culture, such as Coral Pea, Gympie Lily, and Blue Flax Lily. These plants can create a welcoming and culturally resonant environment that immediately connects visitors to the land.
- Architectural elements, such as arches, arbours, or sculptures, could be designed with perforated animal shapes or other cultural motifs that resonate with Dharug totems. These elements would enhance the cultural symbolism of the entry spaces and create a visually engaging entrance.

Colour Palette and Materiality:

- The design of entry spaces should use a colour palette that accentuates the natural colours of Dharug Country. Earthy tones and textures that reflect the surrounding environment should be used to create a warm and inviting atmosphere.
- Material choices, such as stone, wood, and metal, should be selected for their cultural significance and their ability to create a sense of place that is deeply connected to the land.

Symbolic Pathways and Features:

- Pathways leading into the school could be embedded with cultural symbols, such as footprints in concrete that follow the paths traditionally taken by Elders or other community members. These pathways could serve as a symbolic journey into the school, representing the connection between the land, its people, and the educational journey of the students.
- A feature tree, such as a Peppercorn Tree, could be planted prominently in the entry space, serving as a cultural marker and gathering point for students, staff, and visitors.

Welcoming Rituals:

- The entry experience could include welcoming rituals or ceremonies that introduce new students and staff to the school and its cultural values. These rituals could be performed in the entry spaces, using the natural and cultural elements of the design to create a meaningful and memorable experience.
- Gardens or landscaped areas near the entrance could serve as spaces for reflection, learning, and cultural exchange, further enriching the entry experience and reinforcing the school's connection to Dharug Country.

6. Garden Areas

Memorial and Reflective Spaces:

- The garden areas within the school should include spaces that serve as memorials or places of reflection, helping students and visitors connect with the history and cultural significance of the land. These spaces could feature natural elements, such as a sacred tree or commemorative garden, that anchor them in the cultural and spiritual traditions of the Dharug people.
- These spaces could also be used for ceremonies, cultural events, or quiet reflection, providing a meaningful and serene environment that supports the school's educational and cultural goals.

Integration of Native Flora and Fauna:

- The gardens should feature native plants and trees that are significant to Dharug Country, including those used in traditional practices or as bush foods. These plants could be arranged in ways that reflect traditional knowledge and cultural significance, creating a living classroom for students to learn about the natural world and its cultural connections.
- Sculptures of native animals, such as emus, kangaroos, and cockatoos, could be placed throughout the garden areas, reinforcing the connection to local wildlife and Dharug cultural symbols. These sculptures could also serve as educational tools, helping students learn about the animals and their roles in Dharug culture and ecosystems.

Yarning Circles and Cultural Classes:

- Yarning circles should be established within the garden areas, providing spaces for cultural classes, storytelling, and discussions. These circles could be designed to accommodate different group sizes and types of activities, ensuring that they are versatile and functional for a range of educational and cultural purposes.

- The use of yarning circles in the gardens would create a strong connection between the natural environment and cultural learning, helping students and visitors engage with Dharug traditions in a meaningful and respectful way.

Educational and Interactive Elements:

- The gardens should include interactive elements that facilitate learning about Dharug culture and the natural environment. For example, a bush tucker garden could be created where students can learn about traditional food sources, medicinal plants, and their preparation and use in Dharug culture.
- These interactive elements could be supported by signage, digital displays, or guided tours, providing multiple ways for students and visitors to engage with the gardens and learn about their cultural and environmental significance.

Seasonal and Natural Themes:

- The garden areas could be designed to reflect seasonal changes and natural cycles, providing students with a living classroom that changes throughout the year. This connection to the natural world is essential for fostering an understanding of Dharug Country's rhythms and cycles, and for teaching students about the importance of sustainability and environmental stewardship.
- Features such as wind sculptures, water features, or seasonal plantings could be incorporated to enhance the sensory experience of the gardens, making them a place of beauty, learning, and cultural connection.

8. Key Findings

Key Findings from the Jordan Springs Community Workshop

1. Significance of Place
    - The workshop underscored the importance of integrating key locations within Dharug Country into the school's design, including South Creek campgrounds and Munjoo (Emu) Swamp.
    - There was a strong emphasis on representing local totems, such as the possum and flying fox, and incorporating nocturnal animals into the design elements.
2. Emphasis on Storytelling
    - Storytelling emerged as a central theme, with suggestions to incorporate storytelling sessions both during school hours and in after-school programs.
    - The use of QR codes in picnic areas was proposed to facilitate the sharing of local stories and cultural narratives.
    - School murals and entry canopies should reflect significant local stories, such as the Emu in the Sky, ensuring that the design serves as a visual narrative of Dharug heritage.
3. Truth Telling
    - Truth Telling was identified as a crucial theme, with a focus on acknowledging the historical impacts of settlement on Dharug Country, including potential massacre sites.
    - There was a call for incorporating Truth Telling sessions into the school's activities, led by Elders and community members, to educate students on the true history of the land.
4. Creating Sharing Places
    - The workshop highlighted the need for designated Sharing Places within the school, including yarning circles and bush tucker gardens, to foster a sense of community and connection to Country.
    - The inclusion of natural elements, such as water play areas and bush tucker hedge gardens, was recommended to enhance the students' connection to the natural environment.
5. Design of Entry Spaces
    - Entry Spaces were viewed as key to welcoming and orienting visitors and students, with suggestions to use native plants and incorporate an Acknowledgment to Country sign in both Dharug and English.
    - The design should feature cultural elements such as archways with perforated animal shapes and concrete pathways with footprints leading to significant areas.

6. Importance of Garden Areas

    - Garden Areas were recognised as vital for connecting the school environment with Dharug Country, with proposals to include memorial gardens, seating areas for reflection, and native flora.
    - The design should consider sensory elements like water fountains and wind tunnels to create a deeper connection to the natural landscape.

These key findings will guide the integration of Dharug cultural, historical, and spiritual elements into the school's design, ensuring it is not only an educational institution but also a space deeply rooted in the heritage and values of the Dharug people.

9. Conclusion

The Jordan Springs High School project represents a significant opportunity to create an educational institution that is not only functional but deeply connected to the cultural, historical, and spiritual heritage of the Dharug people. Through the "Connecting with Country" framework, the project has engaged in a thorough and respectful consultation process with the local First Nations community, ensuring that the design of the school honours the rich traditions and deep connection to Country that are central to Dharug culture.

The insights and key themes identified during the community workshops—including the significance of Place, the power of Story, and the importance of Truth Telling—have provided a robust foundation for the school's design. By integrating elements such as storytelling spaces, yarning circles, and gardens that reflect native flora and fauna, the school will serve as a living narrative of Dharug Country. These spaces will not only facilitate educational activities but also serve as places of cultural reflection, learning, and connection to the land.

The design of the entry spaces, sharing places, and garden areas will embody the cultural values and heritage of the Dharug people, making the school a beacon of cultural respect and education. This approach ensures that the school is not merely a place for academic learning but a space where the cultural heritage of the Dharug people is lived, experienced, and passed down to future generations.

In conclusion, the Jordan Springs High School project is a meaningful step toward fostering cultural understanding and connection to Country within the education system. It exemplifies how modern educational facilities can be designed to respect and celebrate the cultural heritage of First Nations peoples, creating a space where students can learn, grow, and connect with the rich history and traditions of the land on which they live. Through this project, the school will become a vital part of the community, honouring the past, enriching the present, and inspiring future generations to carry forward the legacy of Dharug Country.

.

10. References:

https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/nsw-threatened-species-scientific-committee/determinations/final-determinations/2008-2010/cumberland-plain-woodland-critically-endangered-ecological-community-listing

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=EXH-1129%2120190604T072330.889%20GM

https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-management-other/wianamatta-regional-park-masterplan-140041.pdf

https://www.penrithcity.nsw.gov.au/facilities-recreation/nepean-river-our-river#:~:text=The%20Nepean%20River%20is%20the,empties%20into%20the%20Tasman%20Sea.

https://www.penrithcity.nsw.gov.au/waste-environment/environment/bushland/vegetation-of-penrith

https://www.ourlivingriver.com.au/content/uploads/2023/12/First-Nations-Peoples-of-the-Parramatta-River-and-surrounding-region_lo-res.pdf

https://www.eorapeople.com.au/language/clans/

https://shared-drupal-s3fs.s3-ap-southeast-2.amazonaws.com/master-test/fapub_pdf/00+-+Planning+Portal+Exhibitions/Mamre+Road+DCP/Aboriginal+heritage+report+Part+1.PDF

11. Appendices

11.1. Appendix 1: Consultation Participant List

FIRST NAME	LAST NAME	ROLE	ORGANISATION	WOC	1st Workshop	Meeting	2nd Workshop
Uncle Wes	Marne	Aboriginal Elder	Aboriginal Elder	Yes			
Amanda	Bell	Community Member	Community Member		Yes		Yes
Yandamara	Bryant	Community Member	Community Member		Yes		Yes
Georgia	Campbell	Community member	Community Member		Yes		
Katrina	Eckford	Community Member	Community Member		Yes		Yes
Carolyn	Hickey	Community Member	Community Member		Yes		Yes
Amanda	Hickey	Community Member	Community Member		Yes		
Carol	Hickey	Community Member	Community Member		Yes		
Karen	Owens	Community Member	Community Member		Yes		Yes
Mark	Pittman	Community Member	Community Member		Yes		Yes
Ethan	Trewlyn	Community Member	Community Member		Yes		Yes
Tasmin	Dunn	Principal Architect	DJRD	Yes			
Niwili	White-Forest	Architectural Designer	DJRD	Yes	Yes		Yes
Nick	Metcalf	Landscape Architect	DJRD	Yes			
Charles	Trindall	Facilitator	Facilitator	Yes	Yes	Yes	Yes
Pearl	Depoma	Co Facilitator	ILF	Yes	Yes		
Kaarina	Slater	Ngambaa Cultural Connections	RAP		Yes		
Kayelene	Slater	Co Facilitator	RAP				Yes
Vicky	Slater-Terry	Wurrymay Consultancy	RAP		Yes		
Tegan	Pittman	Community Member	RAP		Yes		Yes
Annelise	Beljaars	Project Director Infrastructure Planning	SINSW	Yes	Yes		
Becky	Chung	Project Officer	SINSW	Yes			
Cindy	Hamilton	Senior Aboriginal Partnerships Officer	SINSW	Yes	Yes		
Corinne	Mendham	Preseident	Yarramundi AECG			Yes	Yes
Kelly	Winters	Treasurer	Yarramundi AECG			Yes	Yes

11.2. Appendix 2: Use of Native Flora by Dharug Peoples on the Cumberland Plains

Edible Plants

Many plants found in the Cumberland Plains provided essential food resources for Indigenous peoples. These include:

1. **Yam Daisy (Microseris lanceolata)**: The tubers of this plant were a significant food source.
2. **Warrigal Greens (Tetragonia tetragonoides)**: Also known as native spinach, it was commonly used in cooking.
3. **Bush Tomato (Solanum centrale)**: The small fruits were edible and nutritious.
4. **Native Raspberry (Rubus parvifolius)**: The fruits were eaten fresh or used in various recipes.
5. **Murnong (Microseris scapigera)**: The tubers were dug up and eaten.
6. **Geebung (Persoonia species)**: The fruits of these shrubs were eaten.
7. **Lilly Pilly (Syzygium smithii)**: Berries were consumed.

These plants were part of a broader diet that included various other native fruits, nuts, seeds, and roots.

Tool-Making Plants

Several plant species were crucial for manufacturing tools and other items:

1. **Ironbark (Eucalyptus spp.)**: The hard wood was ideal for making boomerangs, spears, and digging sticks.
2. **Forest Red Gum (Eucalyptus tereticornis)**: Used for crafting canoes, shields, and other large items due to its sturdy wood.
3. **Spotted Gum (Corymbia maculata)**: Its wood was used for various tools and weapons.
4. **Broad-leaved Apple (Angophora subvelutina)**: Provided wood for making tools and vessels.
5. **Cabbage Tree Palm (Livistona australis)**: Leaves were used for weaving baskets and mats, and the wood for building shelters and tools.
6. **Broad-leaved Paperbark (Melaleuca quinquenervia)**: Its bark was used to make containers and shelters.

7. Tea Tree (Melaleuca alternifolia): The wood was used for making spears and digging sticks.

8. Grass Tree (Xanthorrhoea spp.): The resin was used in toolmaking, while the flower spikes were used as fishing spears.

9. Wattle (Acacia spp.): The wood was used for making clubs, shields, and digging sticks. The bark provided fibers for weaving and making nets.

These plants were integral to daily life, providing the necessary materials for survival and cultural practices.

Resin Sources

Resins were important for toolmaking, particularly as adhesives:

1. Grass Trees (Xanthorrhoea spp.): The resin from these trees was used as a strong adhesive in toolmaking.

2. Acacia (Wattle) Trees: Various species of Acacia provided gums and resins used as adhesives and in ceremonial practices.

3. Eucalyptus Trees: Many species produced resins that were used in similar ways to those from Grass Trees and Acacias.

These resins were collected and processed to bind stone tools to wooden handles, repair canoes, and create decorative items.

References - These resources highlight the intricate knowledge and sustainable practices of First Nations peoples in utilising the flora of the Cumberland Plains and surrounding regions for food, tools, and other essential needs.

- Attenbrow, V. (2002). Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records. UNSW Press.

- Bannerman, S. M., & Hazelton, P. A. (1990). Soil Landscapes of the Penrith 1:100 000 Sheet. Soil Conservation Service of NSW.

- NSW National Parks and Wildlife Service. (2003). The Bioregions of New South Wales: Their Biodiversity, Conservation, and History.

- NSW National Parks and Wildlife Service (2003). "Vegetation of the Cumberland Plain

- Australian National Botanic Gardens:

11.3. Use of Native Fauna by First Nations Peoples on the Cumberland Plains

Feathertail Glider (Acrobates pygmaeus)

- Food Source: Occasionally hunted for their meat.
- Ceremonial Use: Not specifically documented, but small mammals often played roles in ceremonies and traditional practices.

Eastern Quoll (Dasyurus viverrinus)

- Food Source: Consumed for their meat.
- Pelts: Used for clothing and ceremonial items. Quoll pelts were valued for their fur.

Eastern Grey Kangaroo (Macropus giganteus)

- Food Source: A primary source of meat.
- Hides: Used to make cloaks, pouches, and coverings. The fur was used for warmth and clothing.
- Bones: Utilised to make tools like needles, awls, and points.
- Tail Sinews: Employed as binding material for tools and weapons.

Common Ringtail Possum (Pseudocheirus peregrinus)

- Food Source: Consumed for their meat.
- Fur: Highly prized for making possum skin cloaks, which were worn fastened over one shoulder and under the other for warmth.
- Bones and Teeth: Used as tools and ornaments.

Australian Owlet-nightjar (Aegotheles cristatus)

- Food Source: Occasionally hunted.
- Feathers: Used in ceremonial decorations and clothing.

Wedge-tailed Eagle (Aquila audax)

- Feathers: Highly valued for use in ceremonial attire and headdresses.

- Bones: Utilised for making tools and ceremonial objects.

Australian King Parrot (Alisterus scapularis)

- Food Source: Consumed occasionally.

- Feathers: Used for decorative and ceremonial purposes.

Eastern Water Skink (Eulamprus quoyii)

- Food Source: Occasionally eaten.

- Skins: Used in some traditional clothing and decorative items.

Eastern Blue-tongue Lizard (Tiliqua scincoides)

- Food Source: Eaten for their meat.

- Skins: Used for various purposes, including tool handles and decorative items.

Eastern Brown Snake (Pseudonaja textilis)

- Skin: Used for making belts and other items.

- Meat: Occasionally consumed.

Brown-striped Frog (Limnodynastes peronii)

- Food Source: Eaten occasionally.

General Uses of Animals in Tool-Making and Ceremonial Items

1. Tail Sinews: Sinews from various animals, particularly kangaroos, were used to make strong cords for fastening tools and weapons.

2. Bone Points: Bones from many animals, including kangaroos and possums, were fashioned into awls, needles, and other piercing tools.

3. Fur and Pelts: Furs from possums, quolls, and other mammals were used for making warm clothing like cloaks, which were essential for colder weather. These cloaks also had ceremonial significance and were often decorated with patterns and designs.

4. Feathers: Birds like the Wedge-tailed Eagle and the Australian King Parrot provided feathers that were used in ceremonial headdresses, clothing, and other decorative items.

These practices highlight the sustainable and resourceful ways in which First Nations peoples utilised the flora and fauna of the Cumberland Plains, ensuring that nothing went to waste and that each part of the animal served a purpose in their daily and ceremonial lives.

Reference Materials

General Information on First Nations Use of Plants and Animals

1. Attenbrow, Val. "Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records." University of New South Wales Press, 2002.
    - This book provides detailed information on the use of various plants and animals by the Indigenous peoples of the Sydney region, including the Cumberland Plains.
2. NSW National Parks and Wildlife Service. "Vegetation of the Cumberland Plain."
    - This report covers the various vegetation types in the Cumberland subregion and their uses by First Nations peoples.
    - NSW National Parks and Wildlife Service Report

Specific Plant Uses

1. Australian National Botanic Gardens. "Traditional Aboriginal Plant Use."
    - This resource provides insights into how different plants were used for food, tools, and other purposes.
    - Australian National Botanic Gardens

Specific Animal Uses

1. Atlas of Living Australia.
    - This database includes detailed information on the native fauna of Australia, including the animals found on the Cumberland Plains.
    - Atlas of Living Australia
2. "Australian Aboriginal Culture and History" by Dr. John Bern.
    - This book discusses the use of animal parts for tools, clothing, and ceremonial items.
    - Australian Aboriginal Culture and History

3. "Cooee Mittigar: A Story on Dharug Songlines" by Jasmine Seymour and Leanne Mulgo Watson.

    - This picture book introduces Dharug Country and culture, including traditional practices related to plants and animals.

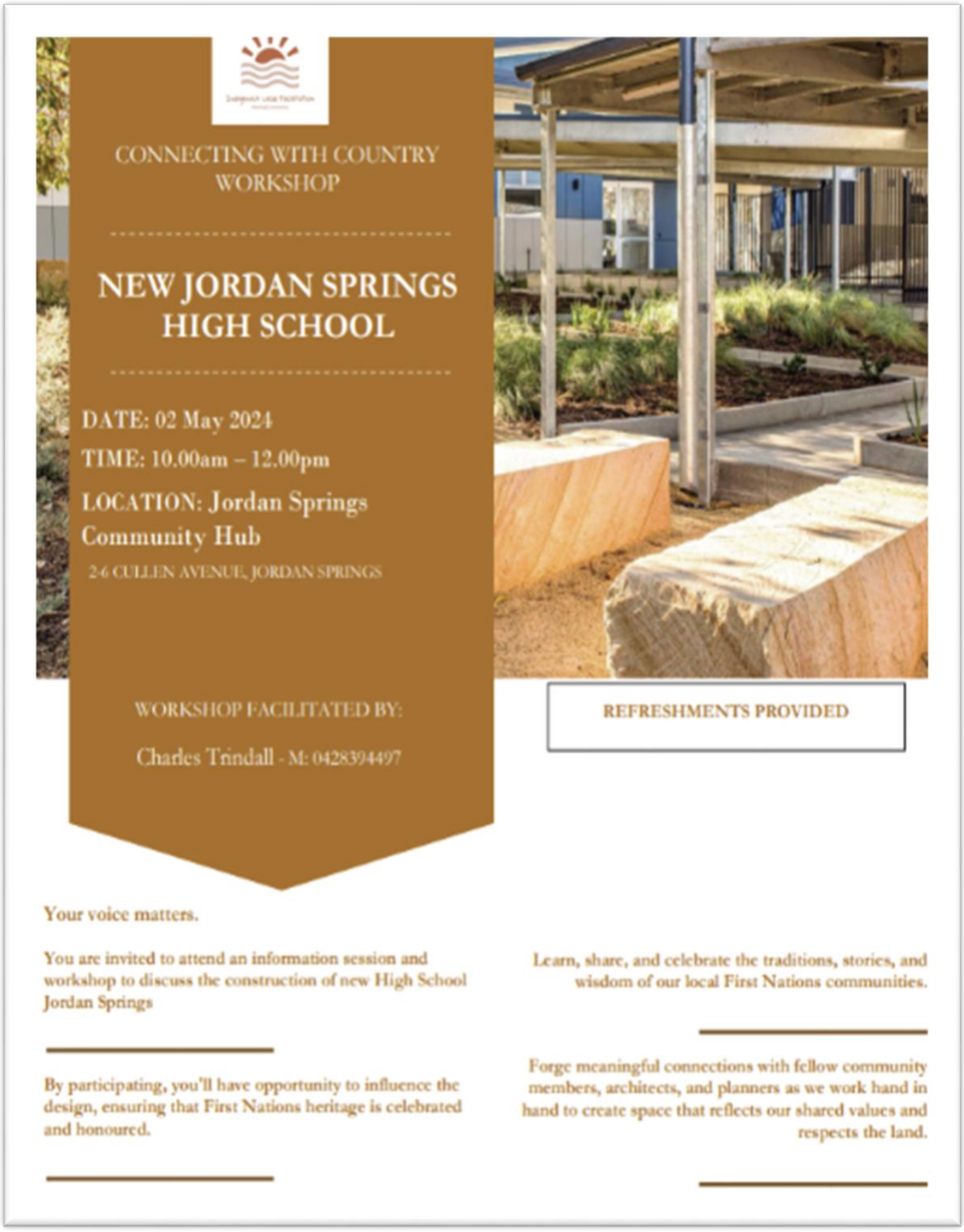
4. Songlines & Sightlines Exhibition.

    - An interactive exhibition that highlighted the connection between the Dharug people and their land, including the use of plants and animals.

    - Songlines & Sightlines

These sources offer comprehensive insights into the traditional uses of plants and animals by First Nations peoples on the Cumberland Plains, contributing to our understanding of their sustainable practices and deep connection to the land. These sources also support plants and animals as stated by community as common in and around the Jordan Springs area,

1.1.Appendix 3: Consultation Invitation



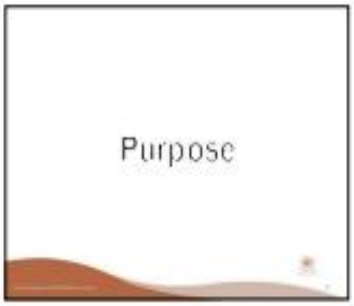
1.1.Appendix 4: Workshop)ne Presentation

1

2

3

4



5

6

7

8

9

Background

New High School for Jordan Springs

- In the next stage of the project, architects, engineers and town planners will be appointed and analysis of the site will take place, along with the development of the concept design.
- A Connecting with Country design process will be included at this stage.
- Doing so means that we consider the needs of the local area now and into the future, and ensure the right school is designed for the community.
- This new school is scheduled for completion in 2027.

10

Background

New High School for Jordan Springs

- The Architects for New Jordan Springs High School are engaged and will be a key factor in the design works proposed by Connecting with Country stakeholders.
- A Connecting with Country design process will be advised by First Nations Stakeholders who have an invested interest in the Jordan Springs area and/or High School.

11

Planning

12

Jordan Springs

13

Jordan Springs High School

Jordan Springs HS - to be located at Armoury Road in Jordan Springs East

14

Jordan Springs High School

Connecting with Country Process

Walk on Country

- Elders or knowledge holders to share appropriate Country knowledge with Architects and project teams

Stakeholders Presentation and Workshop

- Jordan Springs High School Connecting with Country presentation
- Connecting with Country design ideas Workshop
- Architects create schematic Design for Stakeholders consideration

15

Stakeholder Engagement

16

Why Stakeholder Engagement

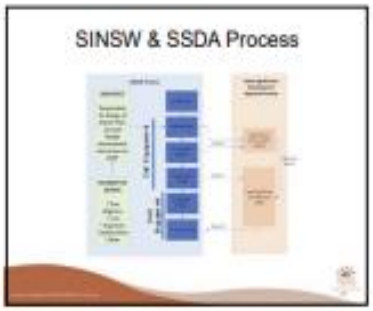
17

Why Stakeholder Engagement

18

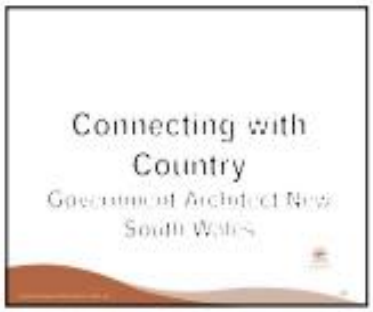
19

20



21

22



23

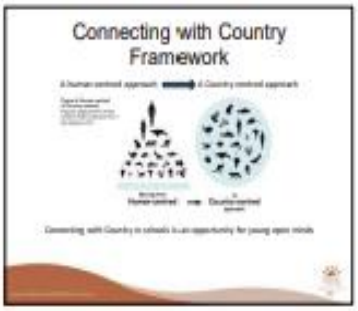
24

25

26

27

28

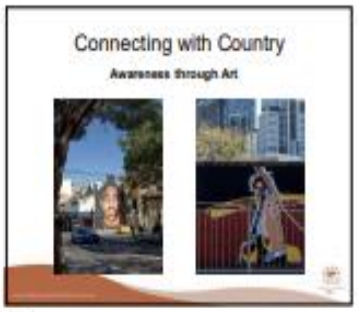


29

30

31

32



33

34

35

36


Connecting with Country

37


Focus Questions

38


Workshop

39

40


Thank you

41

1.2.Appendix 5: Kangaroos on Traditional Lands

For First Nations Peoples, the concept of "Country" is far more than just a geographic location; it represents a deep, holistic relationship between the land and all its inhabitants, including humans, animals and plants. This bond is spiritual and intrinsic to identity and existence. Just as First Nations communities maintain a sacred connection to their Traditional lands, so too do species like the kangaroo, which hold significant places in First Nations lore and the natural ecosystem.

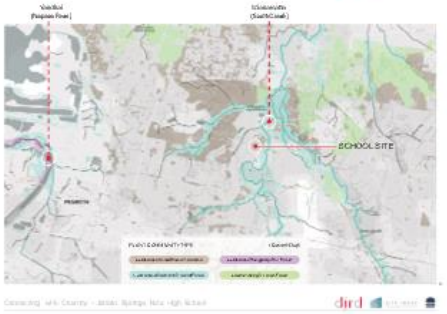
In First Nations belief systems, every element of the land has spiritual significance. Disruptions to any part can ripple through and affect the whole. Kangaroos, prominently featured in Dreamtime stories, are not merely animals inhabiting the land; they are part of its very essence. They embody the spirit of Country, contributing to the balance and health of their habitats. This spiritual connection underscores that kangaroos, like First Nations peoples, thrive best in their ancestral environments where their natural roles and relationships can be fully expressed.

Kangaroos are more than wildlife; they are cultural icons woven into the heritage and Traditions of First Nations Communities. They appear in art, spiritual ceremonies, and stories that transmit critical knowledge from one generation to the next. Ensuring kangaroos remain on their Traditional lands allows this cultural transmission to continue unimpeded, preserving the integrity and vibrancy of First Nations cultures.

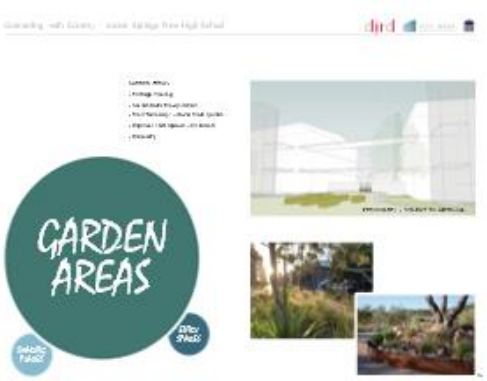
Maintaining kangaroos on their Traditional lands is not merely an act of ecological wisdom; it is a profound obligation to respect and uphold the spiritual and cultural practices of First Nations peoples. It reflects a commitment to living harmoniously with the land, honouring connections nurtured over thousands of years between the land, its people, and all other beings that call it home *First Nations Australian kangaroo engraving near Bundeena, New South Wales.*

.

1.3.Appendix 6: Workshop Two Presentation




SHARING
PLACES


GARDEN
AREAS