New high school for Leppington and Denham Court

REF Submission: Architectural and Landscape Design Report

Rickard Road
Leppington NSW 2179

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01	Final Draft Issue	29/11/24	EF	EF	Gyde, TSA
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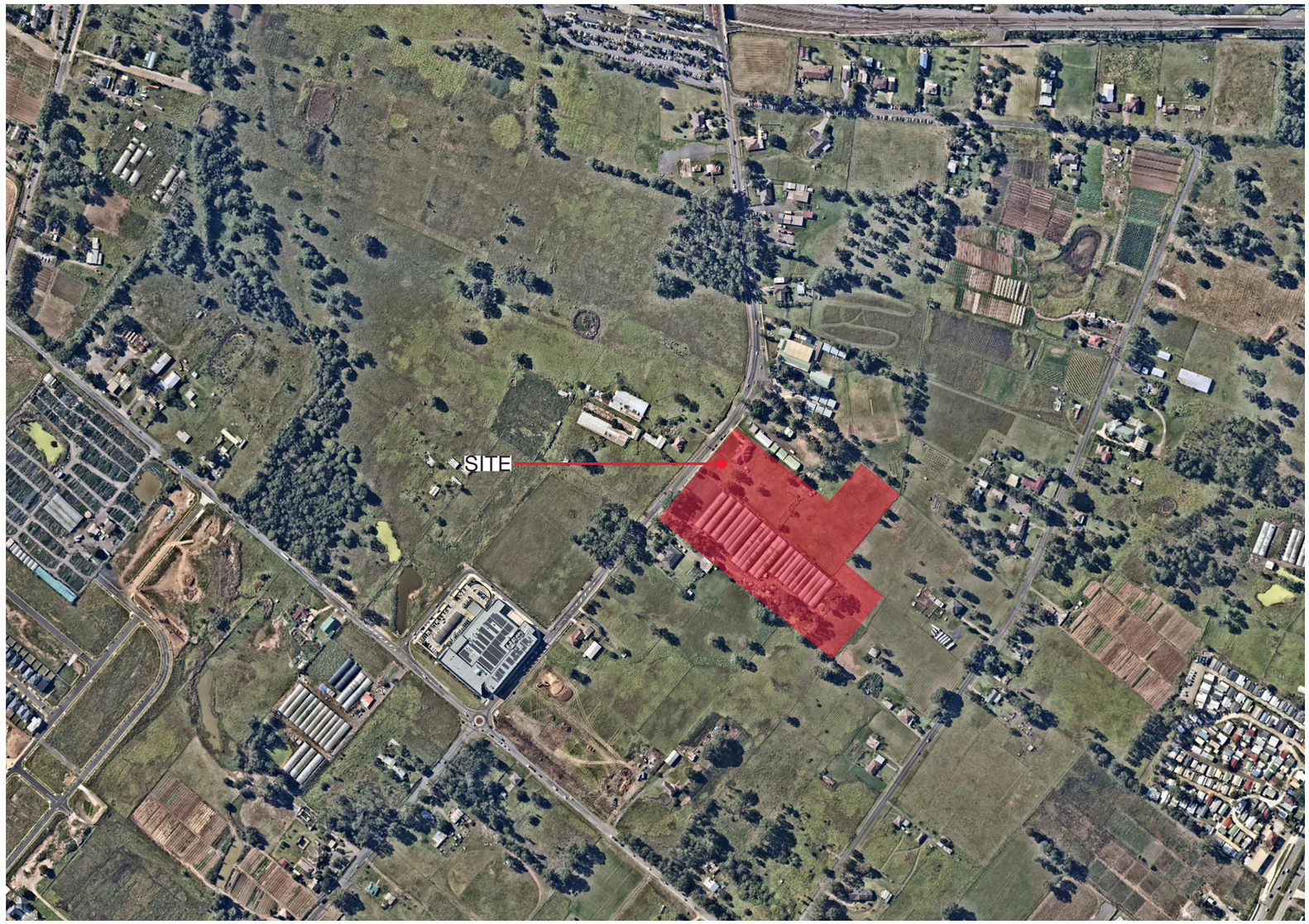

DJRD Architects acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country. We pay our respects to the Gadigal people whose land our studio sits on and extend this respect to their families and leaders, Ancestors and Elders. We recognise their continuing connection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

Contents

List of Consultants

DISCIPLINE	CONSULTANT
Architecture	DJRD Architects
Project Manager	TSA Management
Town Planner	Gyde
Traffic	Stantec
Geotech / Contamination	JK Geotechnics
Flood	J.Wyndam Prince
Aboriginal Heritage	Aboriginal Heritage Services
European Heritage	City Plan
Surveyor	Project Surveyors
Bushfire	GHD
BCA / DDA	MSA Consultants
Acoustic	Acoustic Studio
Hydraulics	Warren Smith Consulting Engineers
Civil & Structure	TTW Engineers
Services & ESD	Steensen Varming Engineering Consultants

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EXECUTIVE SUMMARY

1.1 Introduction

Introduction

This Architectural Design Report has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the new high school for Leppington and Denham Court (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as “development permitted without consent” on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

The proposed activity is for the construction of a new high school located at 128-134 Rickard Road, Leppington, NSW, 2179 (the site).

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

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

Site Description

The site is known as 128-134 Rickard Road, Leppington, NSW, 2179 and is legally described as Lots A and B in Deposited Plan 411211. The site is located on the Eastern side of Rickard Road and is approximately 4.1ha in area. The site is located immediately South of the existing Leppington Public School at 144 Rickard Road and is approximately 700m South of Leppington Train Station.

The Northern portion of the site is currently used for residential purposes. The Southern portion of the site is used for agricultural purposes, with multiple greenhouses and an existing pond on the property.

Figure 1 (right)provides an aerial image of the site.

Figure 1
Source: Nearmaps

1.2 Proposed Activity & Scope

Proposed Activity Description

The proposed activity is for a new high school for Leppington and Denham Court. The new high school will accommodate up to 1,000 students across 3 new buildings that will comprise 49 permanent teaching spaces (PTS), 3 support teaching spaces (STS), 9 specialist labs/workshops/kitchens and a hall. Buildings A, B and C will wrap the Western and Southern boundaries of the site and the Hall will be located in South-East corner. The activity also includes the construction of a sports field in the centre of the site and 3 x multipurpose courts along the Northern boundary. The proposed scope of works is illustrated in Figure 2.

Scope

Number of buildings	4
Height of buildings	3 storeys
Permanent Teaching Space - PTS/GLS	48
Support Learning Teaching Space - STS	3
Teaching spaces (total includes GLS and Support GLS or STS)	51
Specialist (labs/ workshops/ kitchens)	9 - Science - Health and PE - Performing Arts - Visual Arts - Foodtech
Additional Learning Unit (ALU) selections	Science VET Kitchen
Hall	Basketball court no stage Canteen

Figure 2
Proposed Site Plan

1.3 Design Statement

Local Authority: Camden

Aboriginal Country: Dharawal, Gandangara, and Darug

Site Selection

The site is approximately 38km South-West of Sydney CBD in the local government area of the City of Camden the South-West Growth Area of Sydney. The activity proposes the new High School on a greenfield site with the existing Leppington Primary School site on its Northern boundary, collectively providing an education precint approach to the educational journey for students of the local area. The proposed site is well positioned within the new vision for the new Leppington Town Centre.
The proposed approximatelly 4.1ha site comprises of two separate allotments and the current land uses are a rural residential property and an agricultural nursery. Rickard Rd is the only existing street frontage and the site is currently bounded by agricultual land to the its East and South

Site Constraints

The site is part of the rolling hills of the area and has a considerable 10m fall from its highest point in the North-Eastern to its lowest in its South-West .
While included in both the current Leppington DCP and Draft Leppington ILP which both identify significant future road infrastrature works to the area, the existing single road access from Rickard Road is aknoweldged as a considerable constraint to the site.

Part of these furture works includes the widening of Rickard Road however the timing of these is still undetermind by Council. The site has existing ecological communities that include the Cumberland Shale Plains will be disturbed by the proposed future infrastructure works not currenly being considered and subject to seperate planning pathway.

Design Objectives

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

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

Design Verification

The new high school at Leppington was reviewed by the GANSW State Design Review Panel on 25th September 2024. Both the SDRP comments and DJRD responses can be found in Section 7.0 of this report.

Connection

As the timing of the future infrastructure works to the area are undetermind, the activty proposes a new internal access driveway to mitagate the limitation of the single street frontage of Rickard Road. This includes vehicle and pedestrian access, a kerbside kiss and drop zone and the main entry to Building A on the quieter Southen edge of the site.

The site is well served by the existing public transport connections which will only be expanded in the future. The existing train station is approx. 700m from the site and new bus stops and pedestrian crossings are proposed on Rickard Rd.

To encourage further pedestrian and cycling mode shares, two alternate secondary entry points are proposed on Rickard Rd. Vehicle and pedestrian circulation is separated for safety with generous pedestrian entries prioritised within the hierarchies of arrivals and entry sequences.

Within the site Buildings A, B and C sit at the same bench-level and are connected at Ground and upper floors with covered external walkways and lift access. Landscaping around the Hall and playing fields form a mid-site transition level. The sportcourts terrace down the site from the highest point of the site and these are accessed by further landscaped level transitions incorporating areas to sit, rest and play.

Urban Design

Key urban design responses include:

- Proposed built form addresses Rickard Rd and has considered future provision for the potenital future Southern + Eastern roads with Building A – staff and admin - located on the quieter Southern boundary
- Setbacks respond to the potential future development while allowing landscaped buffer zones to manage level transitions to the buildings from Rickard Rd
- Separation of buildings with external circulation links alleviates the bulk of the built form and provides visual connections into the site
- Substantial site level changes to be managed within the landscape design with accessible ramps as well as stairs
- Preservation of the ‘peak’ of the hill as a landscaped space reflecting on its cultural significance
- Required vehicle access to the site eg. carparking, waste, and deliveries is separated from pedestrian circulation
- Good solar access and clear supervision of outdoor playspaces is prioritised

Built form

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

Sustainability + Landscape

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

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

Amenity - Visual impact, Overshadowing

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

5.1 Visual Impact Assessment

5.2 Shadow diagrams

02

CONTEXT & SITE ANALYSIS

2.1 Urban Context - Timeline

The European context of the occupation of the site commenced in the early nineteenth century, by large land grants made to government officials, ex-soldiers, wealthy settlers and emancipist farmers. The construction of Cowpasture and Bringelly Roads, in 1805 and c1815 had a profound influence on the pattern of settlement of the area, forming the boundaries of numerous early land grants in the study area, and facilitating transport, communication and growth throughout the region. The Upper Canal was constructed between 1881 and 1888 as part of the Upper Nepean Scheme to provide Sydney with a reliable supply of clean water. The exceptional historic, technical, and aesthetic significance of the Canal is recognised through its listing on the SHR.

early 1805
In 1816 construction of Cowpasture and Bringelly Roads 1800-1900s Pastoral & agricultural Lands

1881
Upper Canal for clean water supply to Sydney

1900s
Early 20th century subdivision – Raby Estate

1955
Leppington Public School is built in 1955

1972
Leppington was gazetted on the 7th of April 1972. The suburb is shared between the Liverpool and Camden LGAs.

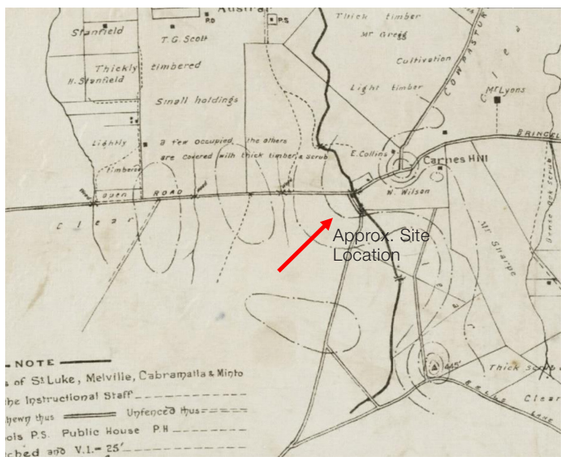
2004
Leppington was identified as part of Sydney's South-West Growth Centre

2015
Leppington Train Station is open - Line South-West Link

2023
2023 Plan illustrating urbanisation and residential development

2024
Leppington and Denham Court HS Project starts

2027
New High School for Leppington and Denham Court programmed to open Day one Term one 2027



1906

Extract of a 1906 plan of Liverpool

1947

Source: NSW Historical Imagery

2019

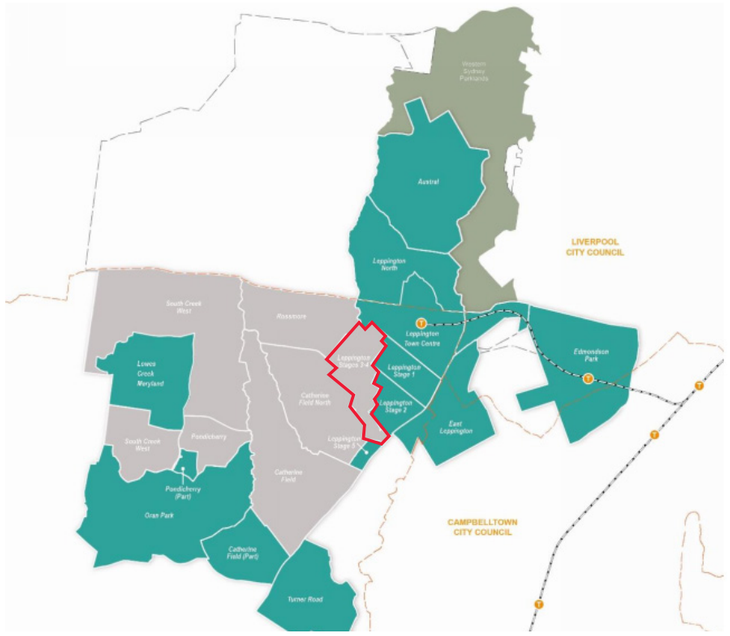
Source: NSW Historical Imagery

2024

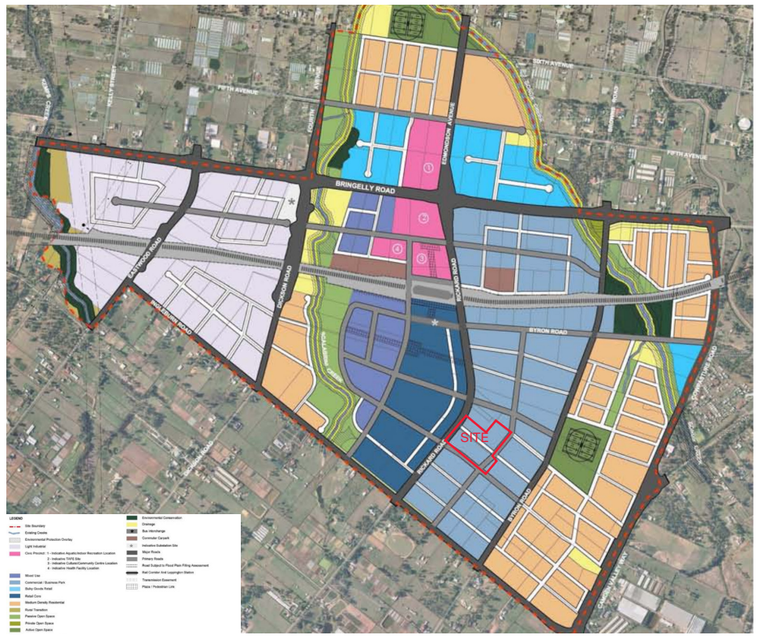
Source: Nearmaps

2.2 Urban Context - Greater Site

South-West Growth Precinct



Leppington Precinct - Current Camden Growth Centre DCP



Leppington Precinct - Proposed Draft DCP

The site sits within the Camden LGA in the middle section of the South-West growth area which identifies precincts across Camden, Campbelltown and Liverpool Local Government Areas by NSW Department of Planning, Housing and Infrastructure (DPHI) for future urban development. By 2040, the South-West Growth Area will be a thriving and greener place to live while providing improved housing choice, access to shops, schools, and transport options for growing communities.

The site is subject to the provisions of State Environmental Planning Policy (Precincts—Western Parkland City) 2021 which provides a robust framework to grow new communities in line with the provision of infrastructure.

The current Camden Growth Centre DCP (2013) applies to the site which is currently zoned as Commercial/Business Park within the Leppington Major Centre. The current ILP for Leppington North proposes additional street frontages to the Eastern, Western and Southern boundaries of the site, however a Draft DCP and Indicative Layout Plan has been exhibited which shows modifications to these.

Leppington Town Centre has recently been identified as a State led rezoning area.

The exhibited Draft DCP and Indicative Layout Plan (ILP) proposes changes to current planning controls, land uses and new infrastructure for the Leppington Town Centre precinct. Future additional street frontages are still proposed to the Eastern, Western and Southern boundaries, however notably the proposed road running through the site has been removed.

The blocks surrounding the site are proposed to be rezoned to for high density residential and mixed use development.

2.3 Urban Context - Site

The site is situated along Rickard Road in Leppington, covering an area of approximately 4.1 hectares. The site currently consists of a rural residence at 134 Rickard Road, and agricultural development (greenhouses and outbuildings) at 128 Rickard Road. The site is located to the South of the existing Leppington Public School and is generally surrounded by agricultural development.

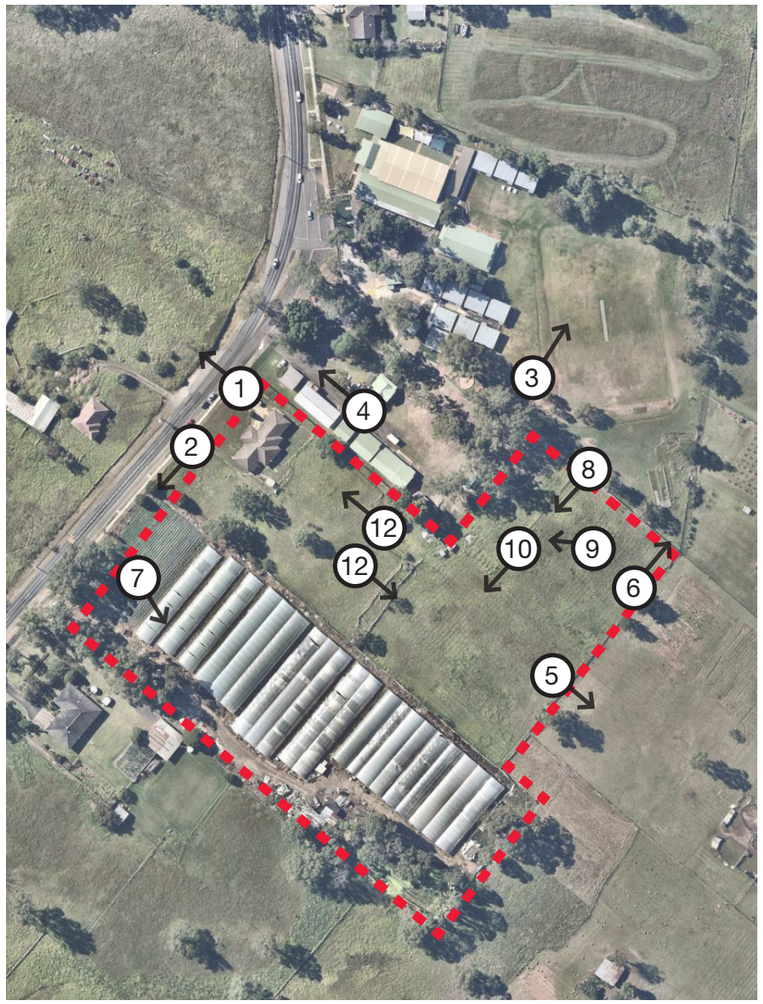
The indicative School Catchment intake area will absorb all existing areas currently serviced by John Edmondson HS to the West of Sydney Water Supply Canal, both North and South of Bringelly Road. Camden Valley Way will serve as a boundary between the new Leppington/Denham Court HS, and Edmondson Park HS.

SCHOOL CATCHMENT

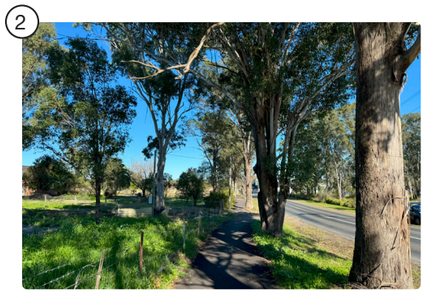
N

2.4 Urban Context - Existing Site & Surroundings

The land is mostly agricultural and consists of grassland, with patches of remaining native vegetation, particularly on the Southern section. There is a residence on the Northern boudary adjacent to the Primary School and remaining commercial agricultural greenhouses in the centre of the site. Due to recent precinct-wide rezonings, the surrounding area is transitioning from a semi-rural residential zone to an urbanised setting, featuring new high-density residential, mixed-use developments and supporting infrastructure.

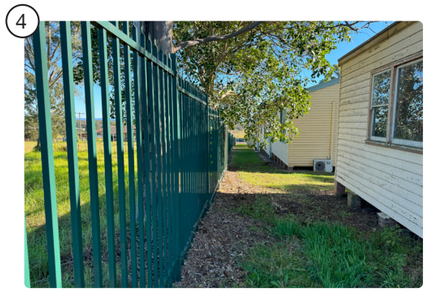


1 Rickard Road | Agricultural Land



2 Rickard Road | Agricultural Land

3 Leppington Primary School - existing



4 Leppington Primary School - existing

5 Eastern boundary - proposed East Road

6 Eastern boundary - proposed East Road

7 Existing site - corner of Rickard Road & future South Road
Trees of high significance

8 Site boundary from Leppington Primary School - existing

9 Site boundary from Leppington Primary School - existing

10 View from Leppington Primary School - existing

11 View West from centre of site

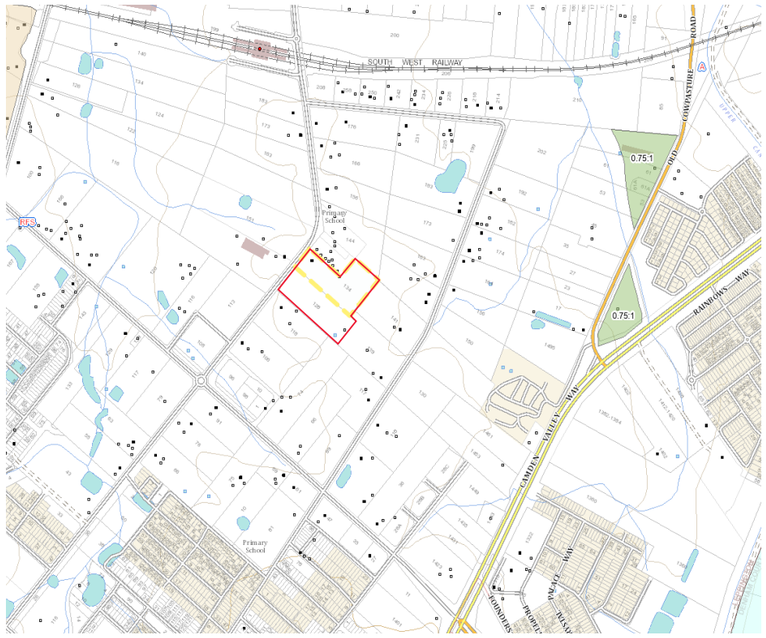
12 View East from centre of site

2.5 Statutory Planning Control - Local

Zoning

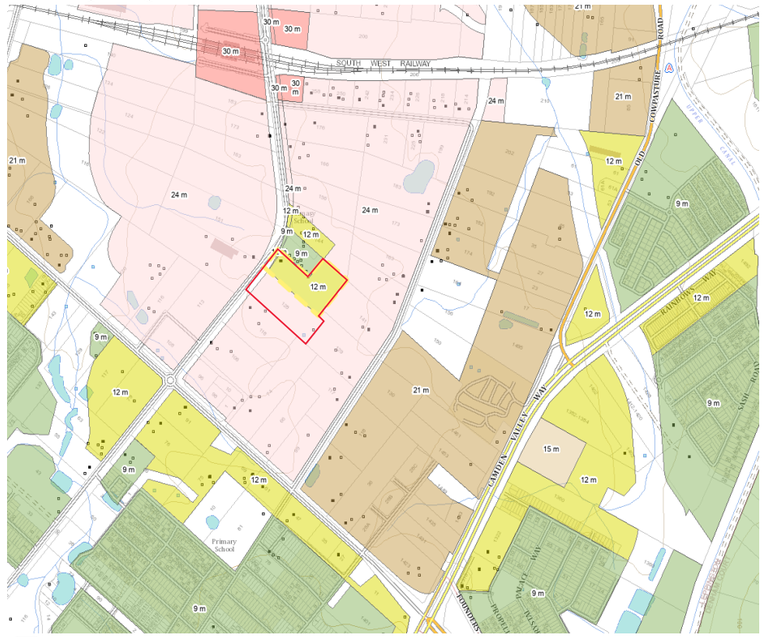
Educational establishment is permitted with consent in the B7 zone (current zoning). In accordance with the State Environmental Planning Policy (Transport and Infrastructure) 2021, “educational establishments” are permitted in both the B7 and SP2 Zones.

FSR



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

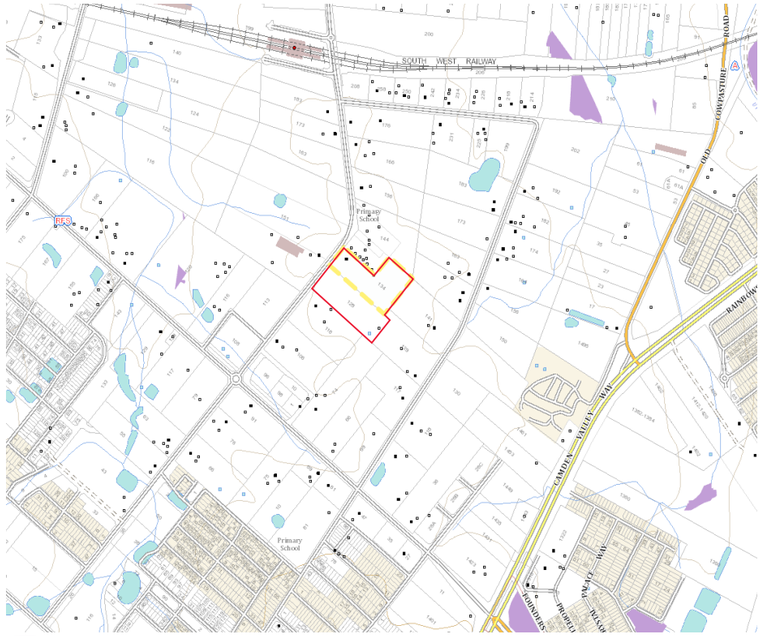
Building Height



Height limits of 12m apply to the site. Proposed buildings are single and three-storey. 4 storey maximum height permitted under SEPP.

2.5 Statutory Planning Control - Local

Biodiversity

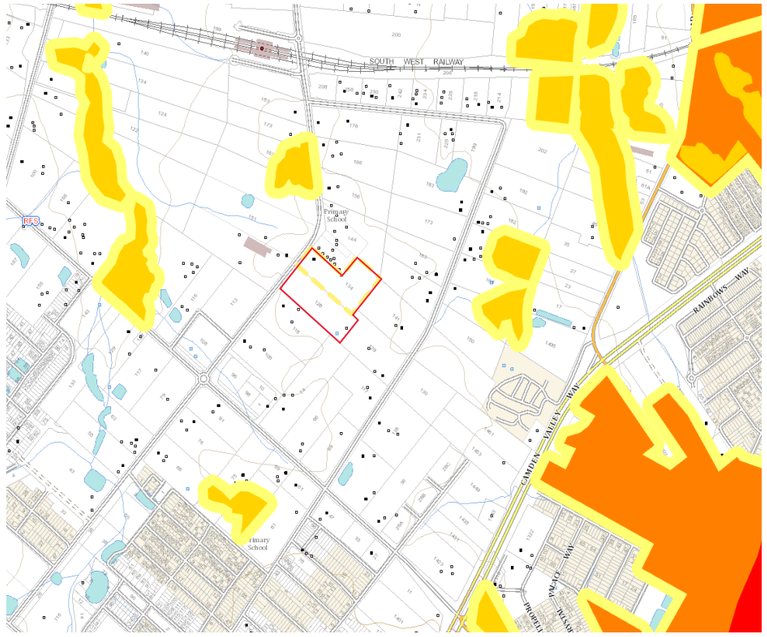


- Biodiversity Values
- Biodiversity Values added days

A Preliminary Biodiversity Assessment report was completed in June 2024 by Water Technology Consultants. The subject site largely comprises amenity grasses and some endemic vegetation and only a few mature canopy trees. The subject site does not contain mapped Biodiversity Values Areas.

The proposed works are located in the SEPP-South West Growth Centre (2006), which is biocertified (note that the SEPP is repealed). This certification allows development in certified areas to proceed without further threatened species assessment.

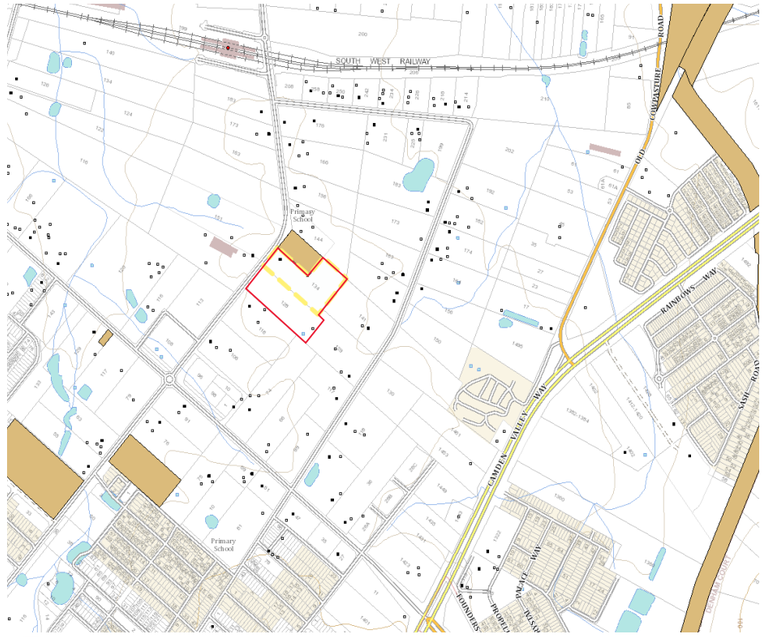
Bushfire



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

The site is not on designated Bushfire Prone Land (BPL).
The proposed site is not mapped as BFPL, and BFPL does not occur within 100m of the proposed site. The site is recommended to be built to BAL 19 as construction will be occurring prior to the development of the area into a high density residential area.

Heritage



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

No non-Aboriginal heritage values are known to exist across the subject site or lot. Based on ACHAR findings, the proposed activity at the site is unlikely to impact objects of aboriginal cultural heritage significance. (ACHAR, AMAC Archeological, Nov 2024)

Part of the existing Leppington Public School is a locally listed heritage item and is also listed on the Section 170 Heritage Register.
Appropriate setbacks have been proposed to minimise impact on existing listed heritage item as recommended by Statement of Heritge Impact (EMM, 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 activity responds to the dynamic typography of the site in the placement of the buildings and outdoor spaces to maintain, where possible, the natural fall of the land while providing access from the existing Rickard Road and graded accessibility and functional requirements throughout the school.

Reshaping of the land has been minimised to reduce cut and fill of the site with the intent to preserve the existing natural slope and recognising the significance of the geographic landform and natural high point of the site to Country.

The sports courts at the highest point of the site terrace from existing levels down towards Rickard Road. The landscaped terracing between the courts and the field provide a functional zone for seating and accessible movement in the levels transition areas for gathering and observing.

The three storey buildings wrap a natural contour of the site to achieve level access between them, generous landscaped transitions down to the existing Rickard Road and Southern boundary levels, incorporating the function of the new access driveway while minimising land shaping.

1:20 access is provided from Rickard Road and the new driveway on the Southern boundary.

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.

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 minimise 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 B. 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 multiple accessible entry points to the school from Rickard Road and proposed access driveway.

The public domain interface between the school at the North-West corner of the site and between Buildings B and C will have prominence to Rickard Road and the natural desire line of commuters to the train station further North.

The identity of the school though use of colour, Connecting with Country design and with waiting, meeting and learning spaces creates a sense of place and belonging to its community - adults and children of all ages.

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 new high school at Leppington/Denham Court will promote the wellbeing of its occupants with comfortable internal and external environments provided by both passive and mechanical temperature control, optimal daylighting internally, and shade cover externally to windows and landscaped spaces.

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

The site will have a perimeter high palisade fence for security, and still provide welcoming entries both from Rickard Road and the new internal access driveway. Pedestrian and vehicle access gates will control entry points for student safety and school 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 for individual use, avoiding bullying in shared toilet blocks. 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 new high school will create a strong identity and sense of community in association with the existing Leppington Public school - promoting campus-style education and community in providing socially and environmentally responsive and pleasant spaces.

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

Shadow diagrams have been produced and show minimal impacts on neighbouring sites. Each learning space has access to natural light and ventilation, outlook and privacy as required within the EFSG. The internal focus of the movement of students and direction away from the future expanding road network will work to mitigate the potential future acoustic impacts.

Principle 6—Flexible and adaptable

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

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

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

Principle 7—Visual appeal

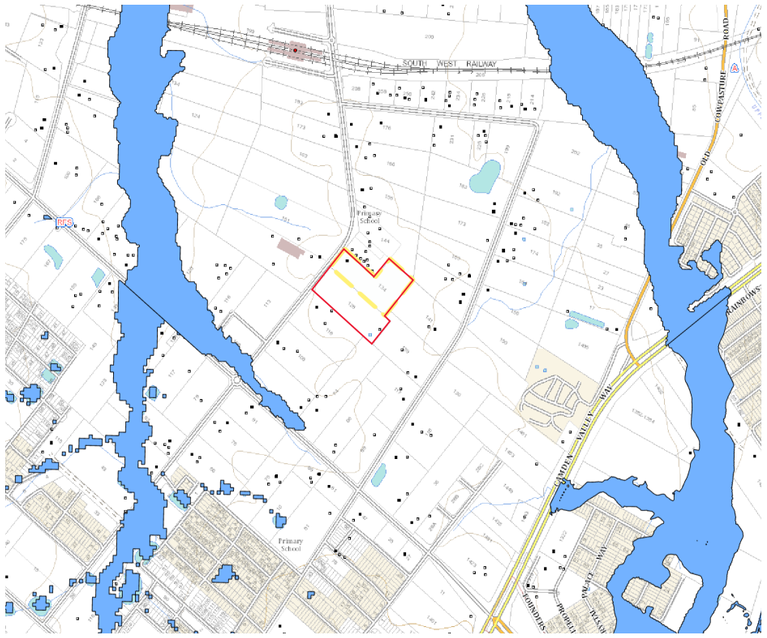
School buildings and their landscape settings should be aesthetically pleasing by achieving good proportions and a balanced composition of built and natural elements.
Schools should be designed to respond to and have a positive impact on streetscape amenity and the quality and character of the neighbourhood.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

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

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

2.7 Site Analysis

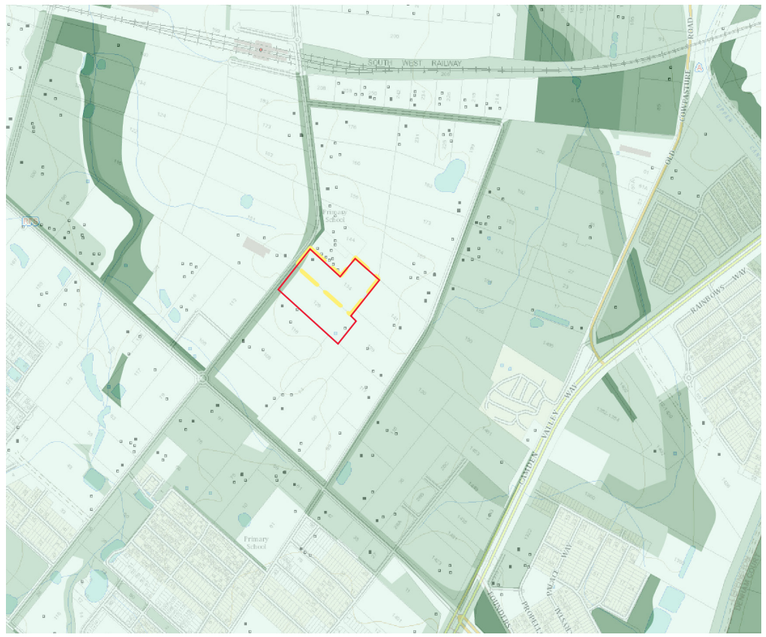
Flooding



- Flood Planning Level (1:100 ARI)
- Land Identified in Section 3.27
- 1 in 100 AEP Flood Extent
- Area 1
- Flood Planning Area
- Flood Prone and Major Creeks Land
- Cultural Heritage Landscape Area
- Transitional Land
- <all other values>

No flood identified to subject site.

Tree Canopy

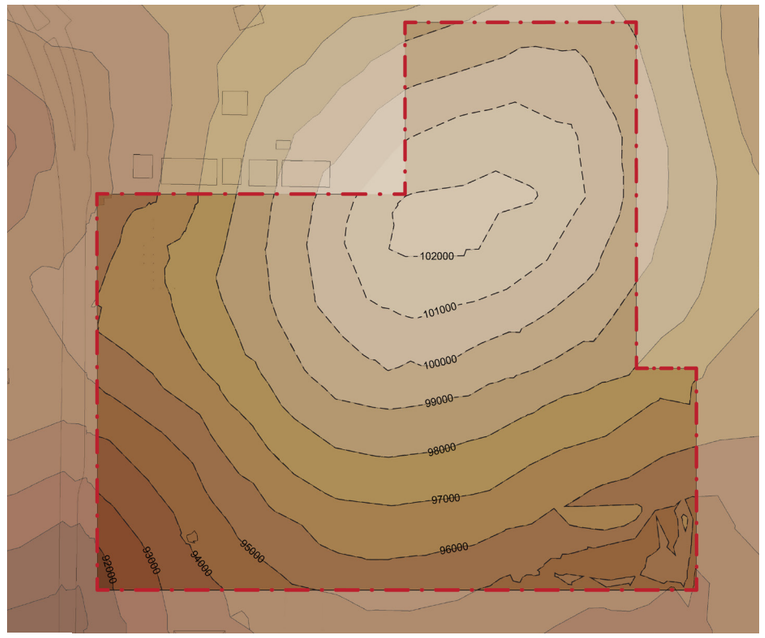


- 0 - 10 %
- 10 - 20 %
- 20 - 30 %
- 30 - 40 %
- 40 - 100 %

10% minimum Tree Canopy required.

An Arboricultural Impact Assessment report was completed and provides recommendations based on the tree significance and condition. Trees to be retained have been recorded and considered in the design. (Allied Tree, Oct. 2024)

Topography



- Site Boundary Line
- 500mm Contour Line

The existing site topography comprises of a crest central to the site with approximately 10 metres fall mostly towards the South and West. The lowest point being 92.00AHD at the Western corner of the site at Rickard Road boundary.

2.7 Site Analysis

The site is located South-West of Sydney within NCC Climate Zone 6 with four distinct seasons; experiences mild and lower diurnal temperature, mild to cool winters with low humidity, hot to very hot summers, moderate humidity.

Summer and winter temperatures vary significantly as well as throughout the day, and both heating and cooling are required. The existing site is aligned in a North-East and South-West orientation. Due to this aspect buildings are typically facing North-East and North-West, and external circulation faces North-East and North-West. Prevailing summer winds and colder winter breezes are usually common from the Southern direction.

TRANSITION ZONE
Main & Secondary Entry

LOW LEVEL ZONE
New Access Driveway & Carpark

MEDIUM LEVEL ZONE
Sports Field & Hall

HIGH LEVEL ZONE
Multi-Sports Courts

NATURAL WETLAND / DRAINAGE POND

HERITAGE BUILDING
Leppington Public School

PROPOSED SITE ENTRY

VIEWS TO REGIONAL OPEN SPACE

EXISTING BUS STOP

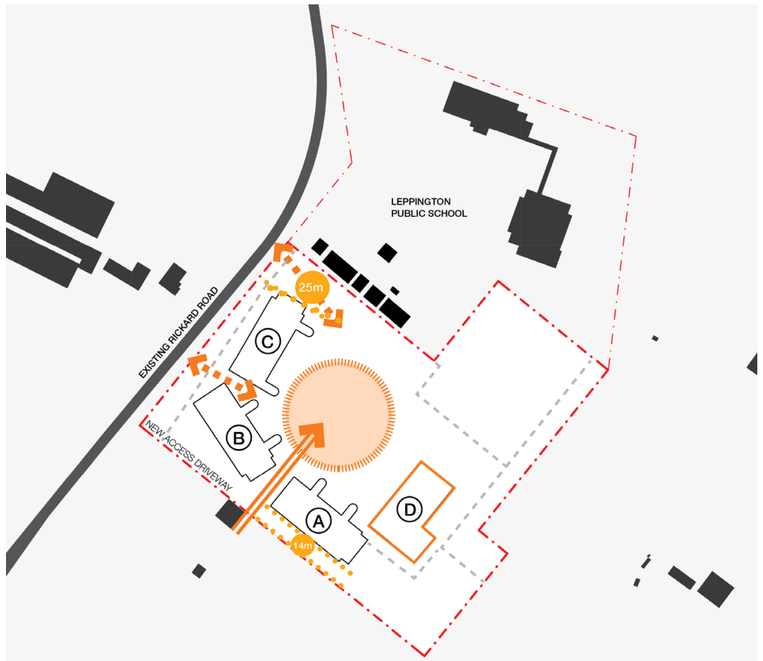
03

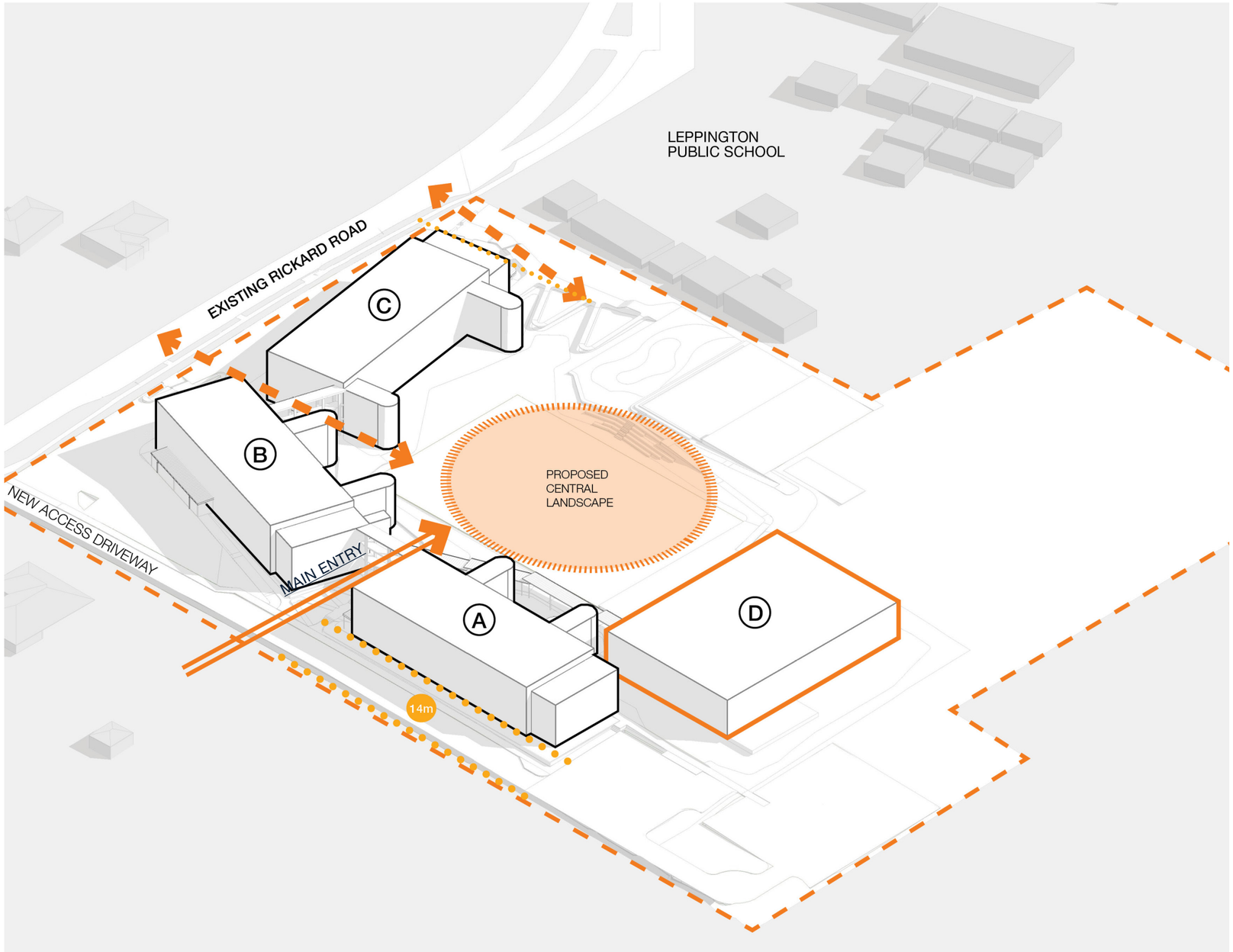
DESIGN CONCEPT

3.1 Urban & Built Form

The built forms address the existing Rickard Road alignment with Building C and the new access driveway alignment with Building A, with the cranked placement of Building B bridging the two. Setbacks and alignment respond to the surrounding context, existing public school, sloping topography, and future expanding neighbourhood. The school administration located in Building A is adjacent to the main entry, along the new driveway connected to Rickard Road.

The new three-storey buildings are an appropriate scale, considering the future development of the surrounding area. 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 includes a basketball court and overall contributes to building height variation reading as a double storey volume.





N

SITE BOUNDARY SETBACKS

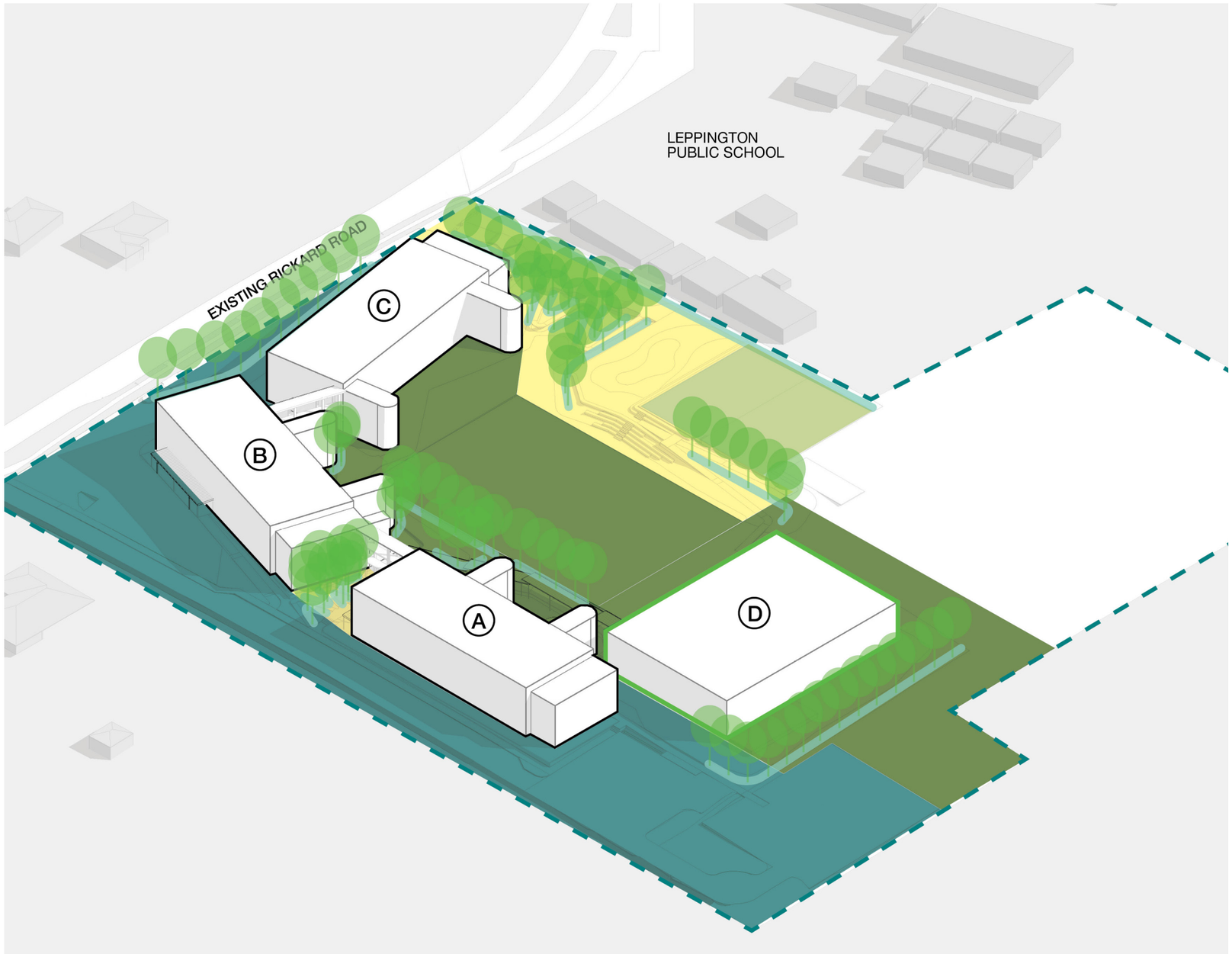
3.2 Relationship to Open Space

While the buildings hold the street edge responding to the future surrounding built context, visual and physical connections are proposed from the centre of the school to the ‘peak’ of the hill as a landscaped space reflecting on its cultural significance.

Outdoor play spaces are North facing with playing field and games courts centrally located and have clear sight lines for supervision and opportunity for connection to nearby public playing fields.

The connection between buildings and outside space is achieved on the sloping site by terracing the landscape. The site is divided into the low, medium and high level zones bridged by landscaped level transitions with spaces for outdoor learning opportunities. The level of the field relates directly to the level of the assembly area and the hall. The assembly area has been relocated to the East of the field for an improved functional relationship with the hall - this was previously on the Western edge of the field when presented at the SDRP. Buildings A, B and C are positioned at the same RL, wrapping a natural contour of the site and providing 1:20 access from Rickard Road and the new driveway on the Southern boundary.

Retention of mature trees and additional tree planting ensures that natural shade is provided especially around hard paved areas such as the assembly plaza.



N

TRANSITION ZONE
Landscaped level transitions

LOW LEVEL ZONE
New Access Driveway & Carpark

MEDIUM LEVEL ZONE
Sports Field & Hall

HIGH LEVEL ZONE
Multi-Sports Courts

LANDSCAPING
Site Periphery & Internal

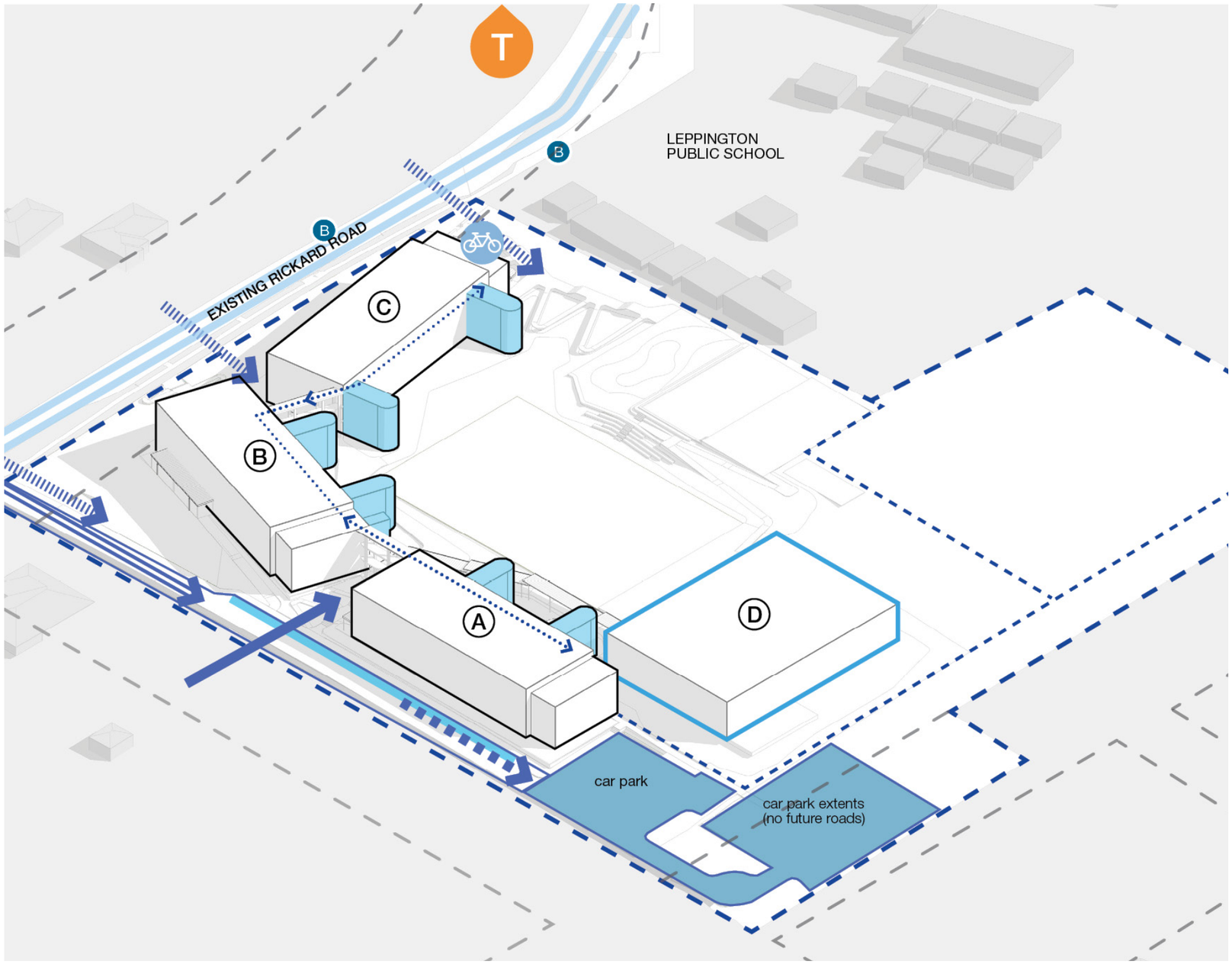
SITE BOUNDARY

3.3 Traffic, Access & Circulation

The school campus is designed to prioritise safe and efficient pedestrian access, circulation and vehicle movement. The Rickard Rd entries are conveniently located close to public transport connections, and provide clear arrival points for students, staff, and visitors.

The main pedestrian entry along the internal access driveway is co-located with the kiss-and-drop in front of the administration Building A. The drive mitigates the future road widening of Rickard Rd and provides efficient vehicle movement along the Southern boundary for staff parking and deliveries within the site. The multiple entries to the campus ensures greater permeability.

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



N

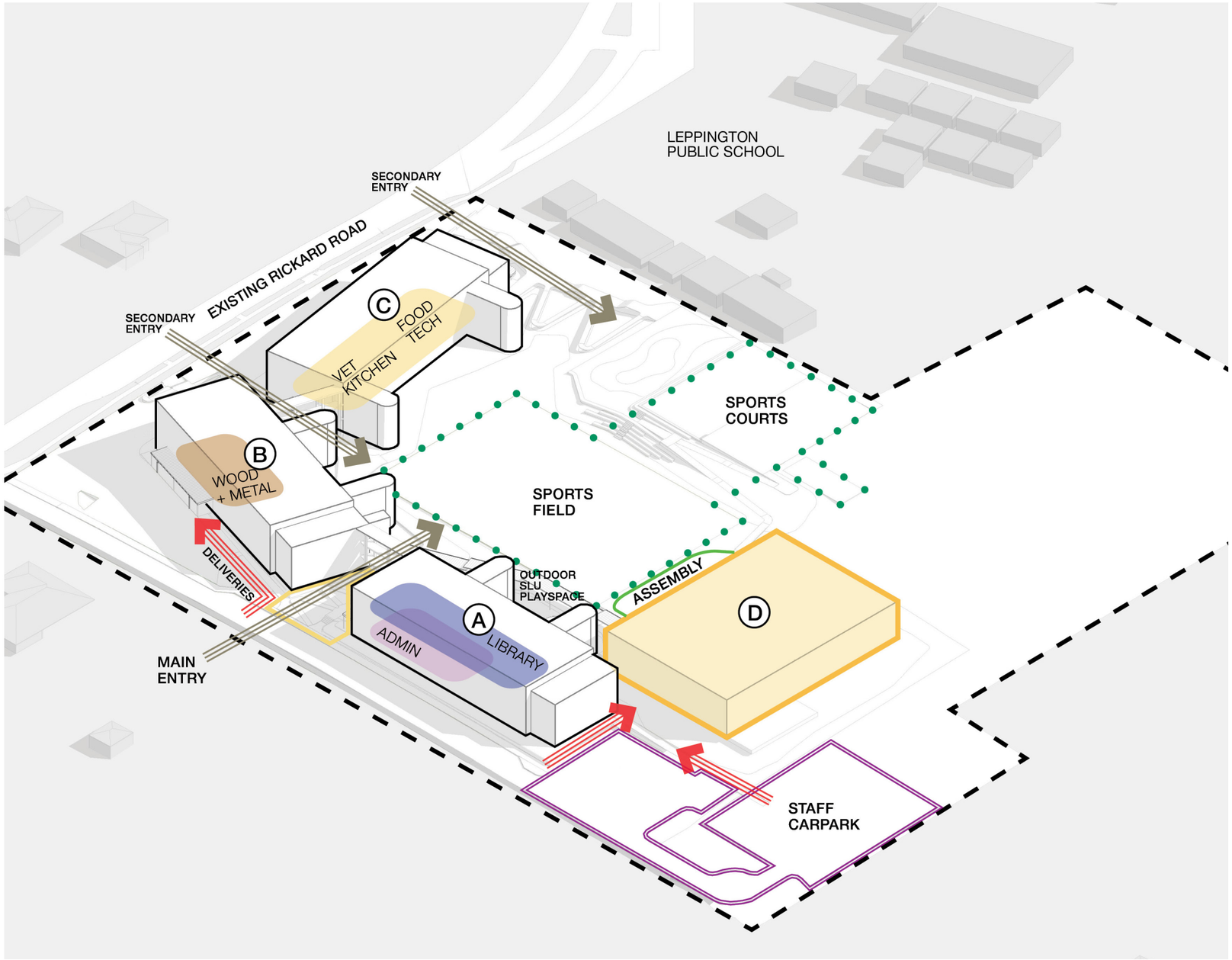
Main Entry
Secondary Entry
Vehicular Access
Deliveries Access
Kiss n Drop
SHARED PATH
Pedestrian & Cycle Network
Future Roads
(By Others)
Site Boundary
Bicycle Parking
Internal Fence
Bus Stop
Leppington Train Station
(7 min. walk to Site)

3.4 Functional Relationships

The main school entry serves as the primary access point, connecting directly to the public reception and administration hub within Building A. This central hub, adjacent to the entry forecourt between Building A and B, provides a welcoming entrance for students, staff and community. The lift is centrally located at Building B directly accessible from the main and secondary Rickard Rd entries and relative to the library.

The Hall, a significant communal space, is easily accessible along the new access driveway and via accessible paths from the secondary entries. The carpark is co-located with the Hall and the Support Learning Unit with consideration of accessible parking.

To ensure smooth operations, deliveries are directed to dedicated areas adjacent to Building B (Wood + Metal) and staff car park for Building D (Hall/Canteen).



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PUBLIC ACCESS
Hall Community Use & Public Reception

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

3.5 Security, Access & CPTED

Perimeter Security & Access Control

The School's main entry will present a welcoming landscaped area and the site will be secured by palisade fence around site perimeter with access controlled gates for entry into the school.

The main school entry between Buildings A and B is accessible from the gate on Rickard Road on South-West corner of the site which is adjacent to the vehicle entry. This is a secure entry with video intercom connection to the administration.

There are alternative entries from Rickard Road between Buildings B & C and on the Northern boundary, adjacent to Leppington Primary School, which are open during peak arrival and departure times, but are not operational during school hours. Vehicle access to the car park and delivery zone are provided from Rickard Road. After school hours access is provided adjacent to vehicle entry, an accessible pathway along Buildings A & B leads to the Hall. Additional gates for grounds maintenance are provided east of Hall.

Entries & Access

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

- Entry has good sightlines from Rickard 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

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 the Hall is via the new access driveway from the Rickard Road entrance near Building B. 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. 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:

- Main entry and Admin Building on future South Road
- Hall in top North-East corner of the site
- The layout of the buildings wrapping South-West corner of the site and around the edge of play space to allow for passive surveillance

Masterplan verification

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

- Relocation of Hall closer to Buildings A, B and C
- Car park to be located on main portion of site adjacent to the Hall
- Possibility of main entrance and Administration Building being located on the Rickard Road street frontage
- Adjustments to field and sports courts
- (Note MP verification took future roads and a Stage 2 of building into consideration which are no longer relevant to the activity)

Final Masterplan option

The Masterplan Sketch remained in line with verification suggestions:

- Hall located adjacent to Building A
- Main entry and Building A to be on quieter Southern boundary edge

Note: Stage 2 is not the subject of this REF. The internal access road shown in the subsequent plans beyond Masterplan phase provides site access from the existing Rickard Road onto the site. Future stages and roads shown in images above will be subject to a separate planning approval.

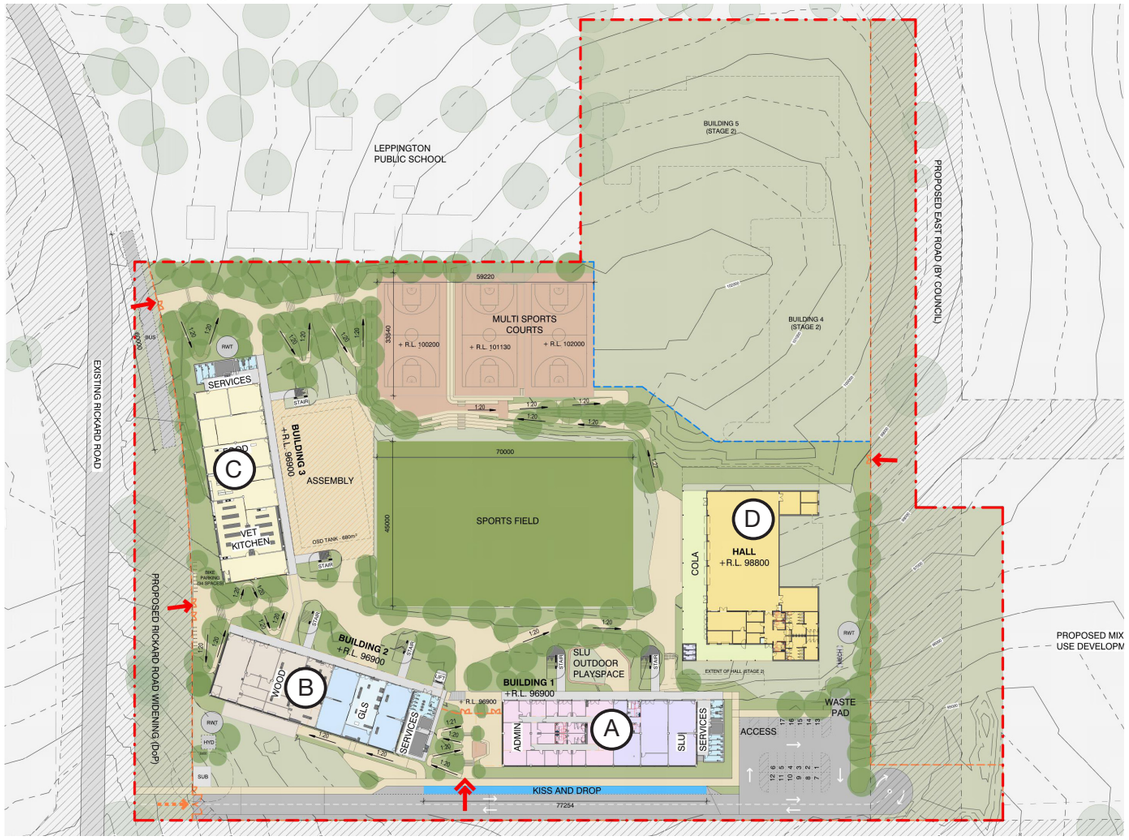
3.7 Concept Design Options

Previous Concept Design Option

The Concept Design developed the final Masterplan, but with the consideration that Buildings A, B and C and D would have to be able to be built and accessed without the reliance upon any new road infrastructure delivery by Council through more clear understanding of their delivery timeline.

This led to the introduction of the new internal access driveway and re-consideration of the Main entry and Administration building back onto the Southern boundary in line with the original SI Masterplan. In addition the landscape space arrangement was reconsidered with a greater understanding of the typography of the site and the desire to minimise site shaping/cut and fill.

Final Concept Design Option



The final Concept design option greatly improved the entry experience along the access driveway, landscaping between the drive and Building B and further improved and refined entry connections from the site boundaries between buildings into the centralised site space.

Note: Stage 2 is not the subject of this REF. The internal access road shown in the subsequent plans beyond Concept Design phase provides site access from the existing Rickard Road onto the site. Future stages and roads shown in images above will be subject to a separate planning approval.

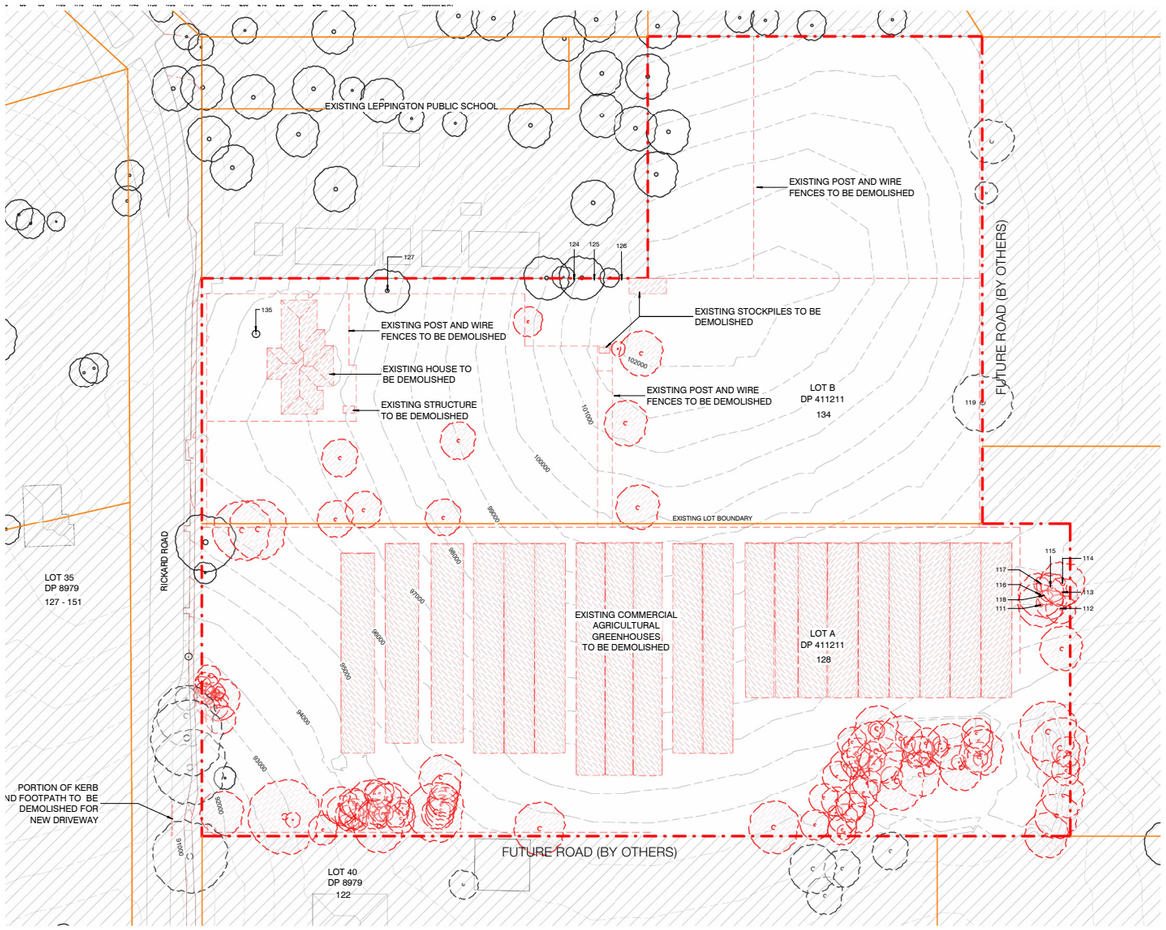
04

ARCHITECTURAL RESPONSE

4.1 Overall Site Plans

School buildings have been sited to minimise removal of trees, however existing trees affected by the proposed school development will be removed in line with the Arborist reports recommendations.
In addition, demolition of existing commercial Agricultural Greenhouses and residence on North-Western part of site, adjacent to existing Leppington Public School are required.

DEMOLITION PLAN

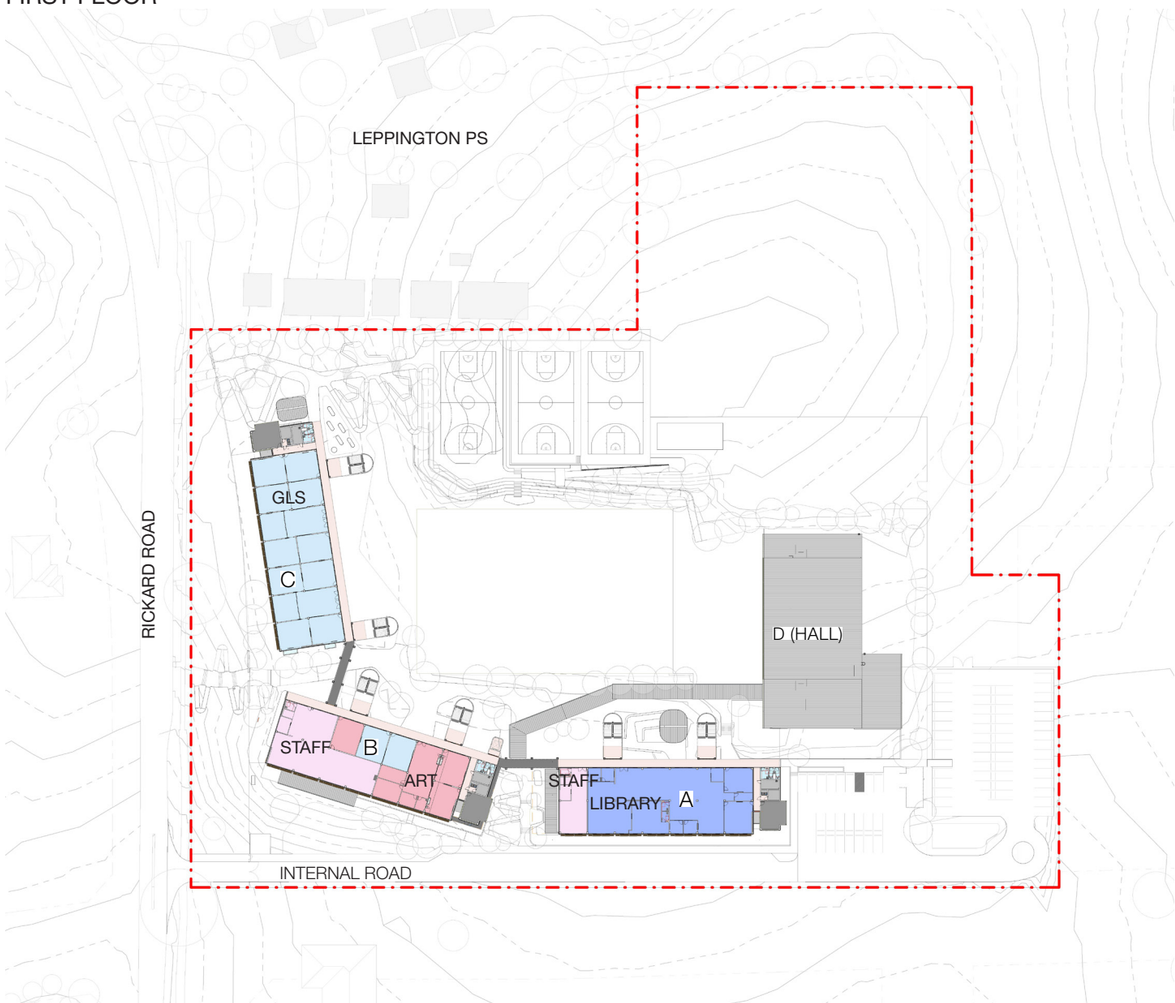


DEMOLITION LEGEND
- BOUNDARY
- EXISTING LOT BOUNDARY
- AREA NOT IN PROJECT SCOPE
- EXISTING SITE ELEMENTS TO BE REMOVED
- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE RETAINED
- TREES REMOVED IN FUTURE INFRASTRUCTURE WORKS BY OTHERS

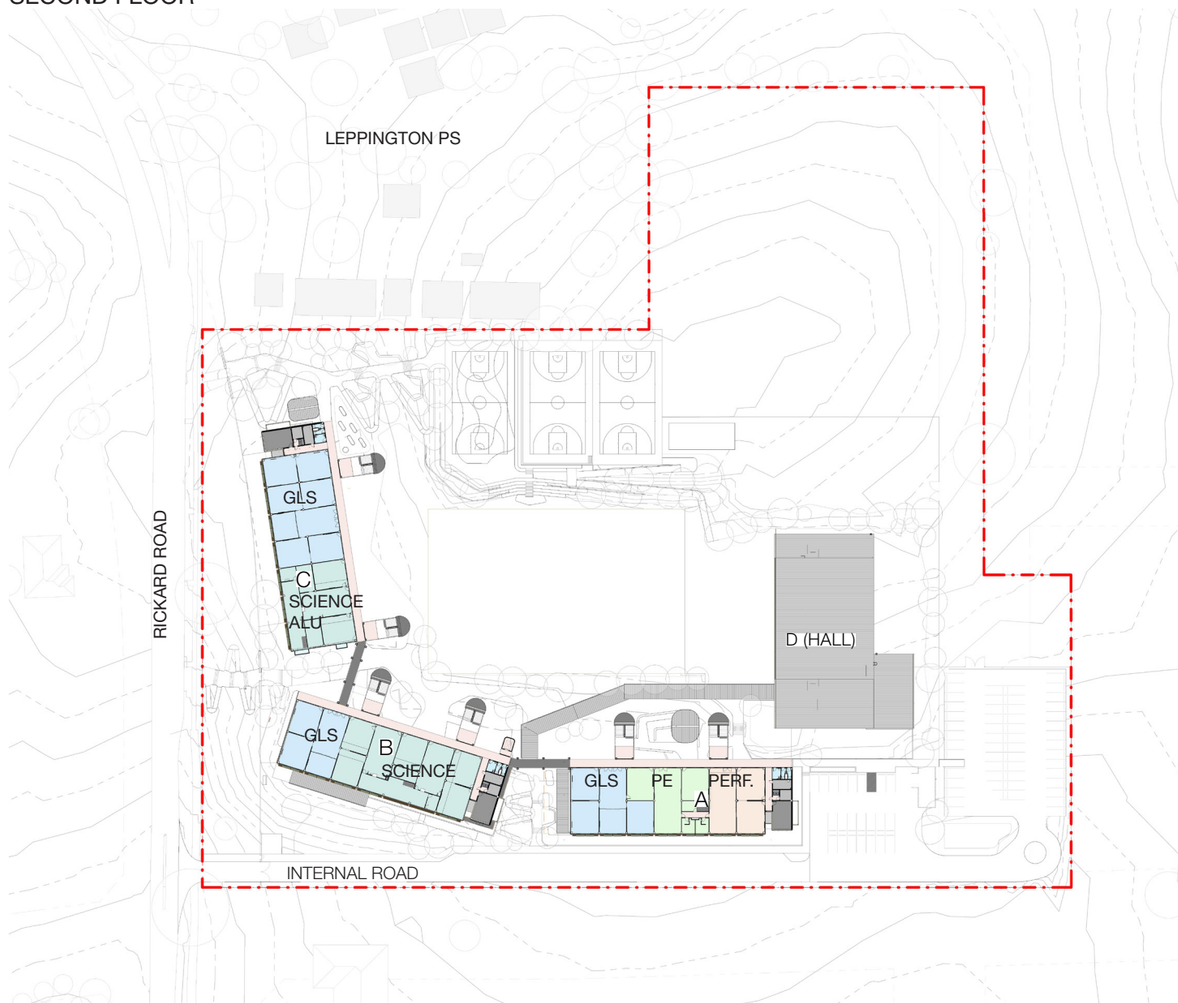
GROUND FLOOR

4.1 Overall Site Plans

FIRST FLOOR



SECOND FLOOR



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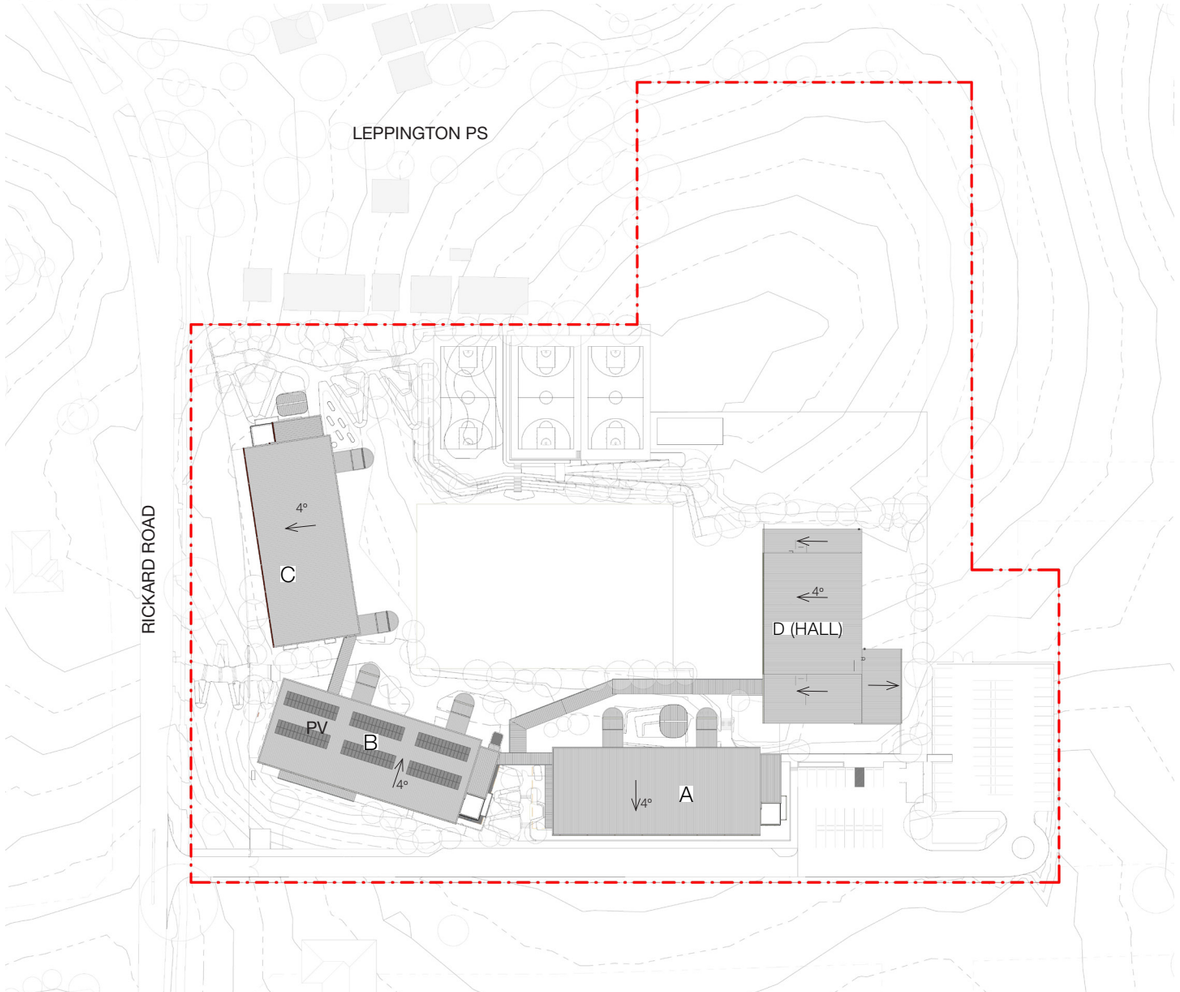
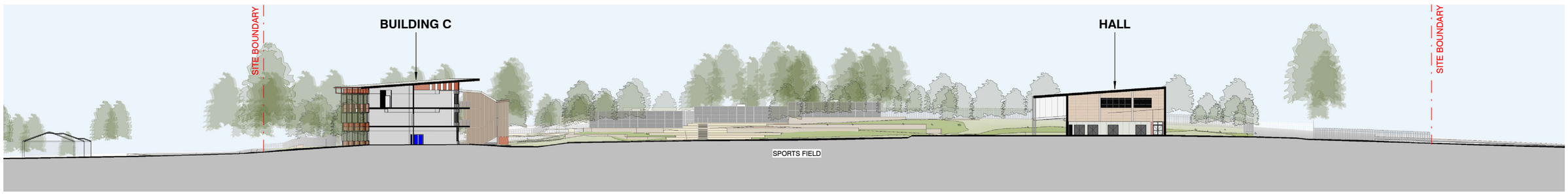
4.1 Overall Site Plans

ROOF PLAN

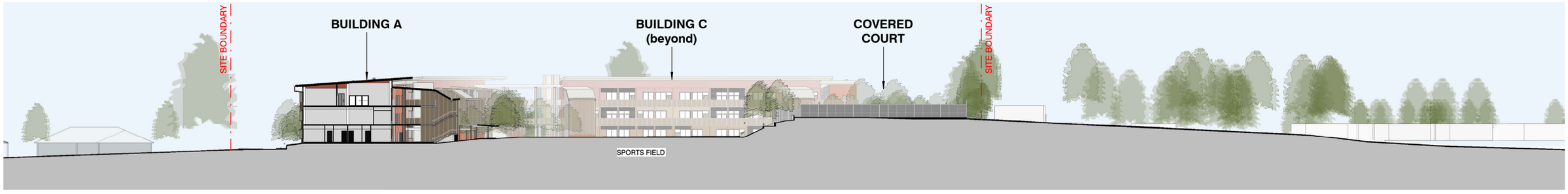


N

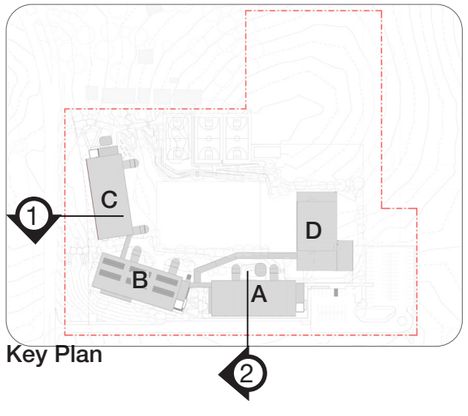
4.2 Site Sections



1 SITE SECTION 01
1 : 500



2 SITE SECTION 02
1 : 500

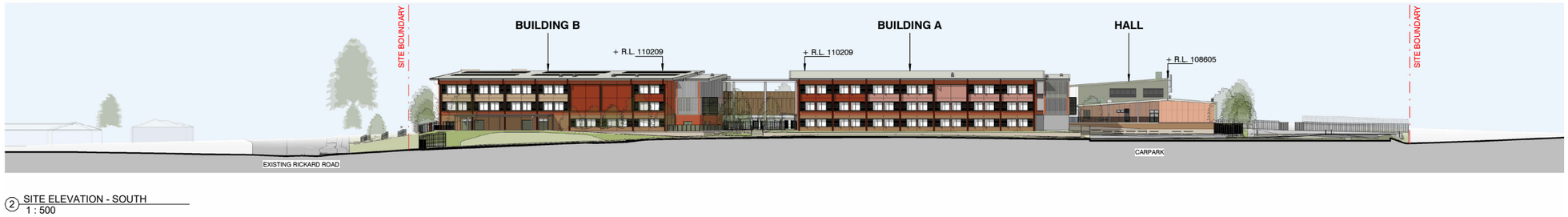


Key Plan

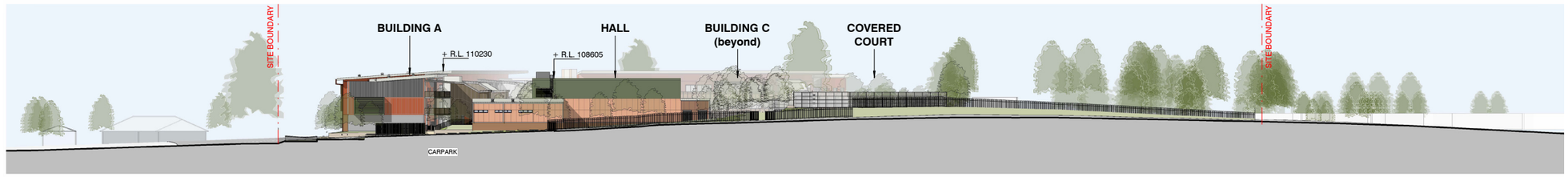
N

4.3 Site Elevations

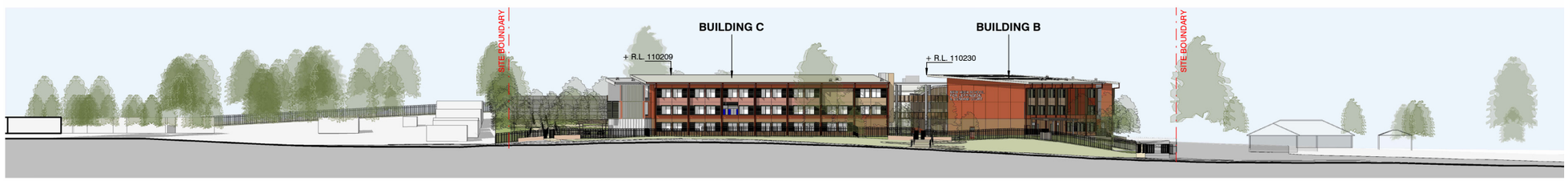
1 SITE ELEVATION - NORTH
1 : 500



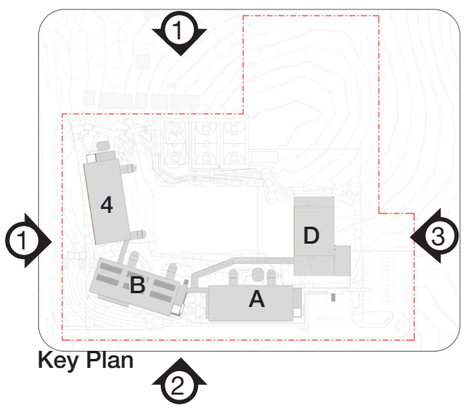
2 SITE ELEVATION - SOUTH
1 : 500



3 SITE ELEVATION - EAST
1 : 500



4 SITE ELEVATION - WEST
1 : 500



Key Plan

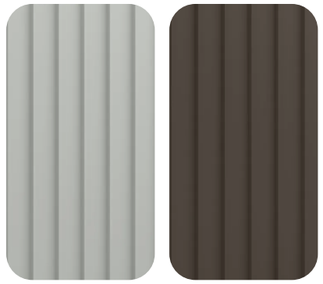
N

4.4 Materiality

Finishes were selected and inspired by the importance of the geology of the landscape and Country, which was carried through into the colour scheme and layering of the facades.

DURABLE CLADDING - UPPER

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



Metal Roof

DURABLE CLADDING - LOWER

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

Through coloured CFC cladding

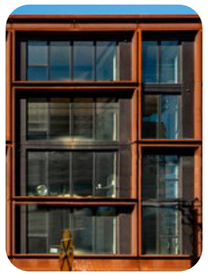
ROBUST BASE - HIGH TRAFFIC AREAS

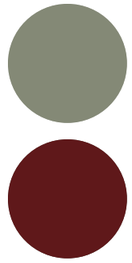
For high traffic locations on ground floor of all buildings including Hall a facebrick is proposed

Brickwork

SUNSHADES + FACADE ARTICULATION

Where sunshades are required and for facade articulation window shroud - prefinished colour

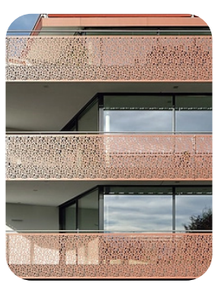




powdercoat louvres downpipes

PERFORATED METAL FALL PROTECTION

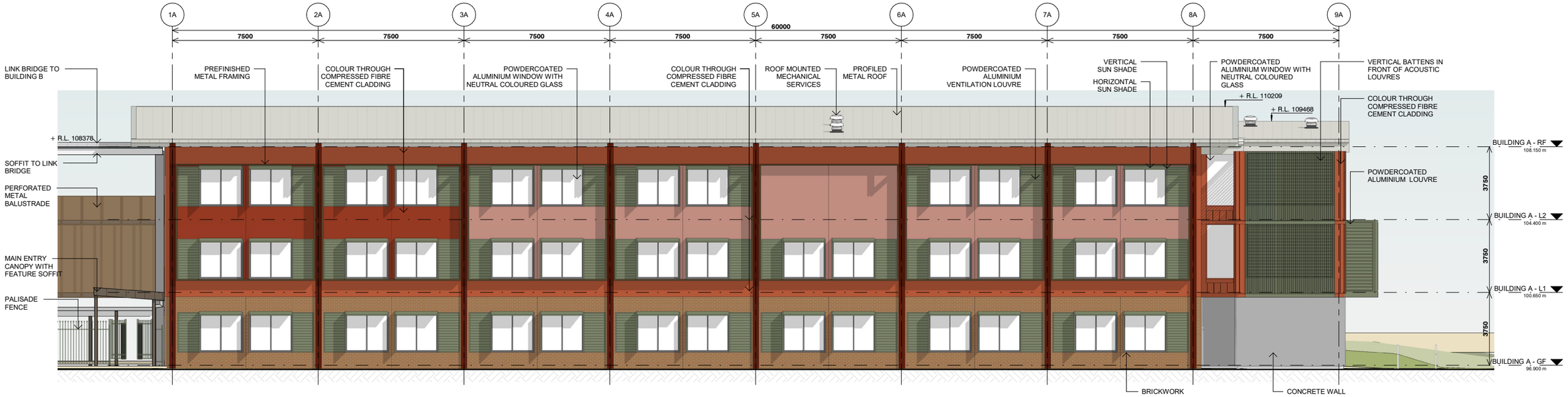
Selected stair cores and balustrades



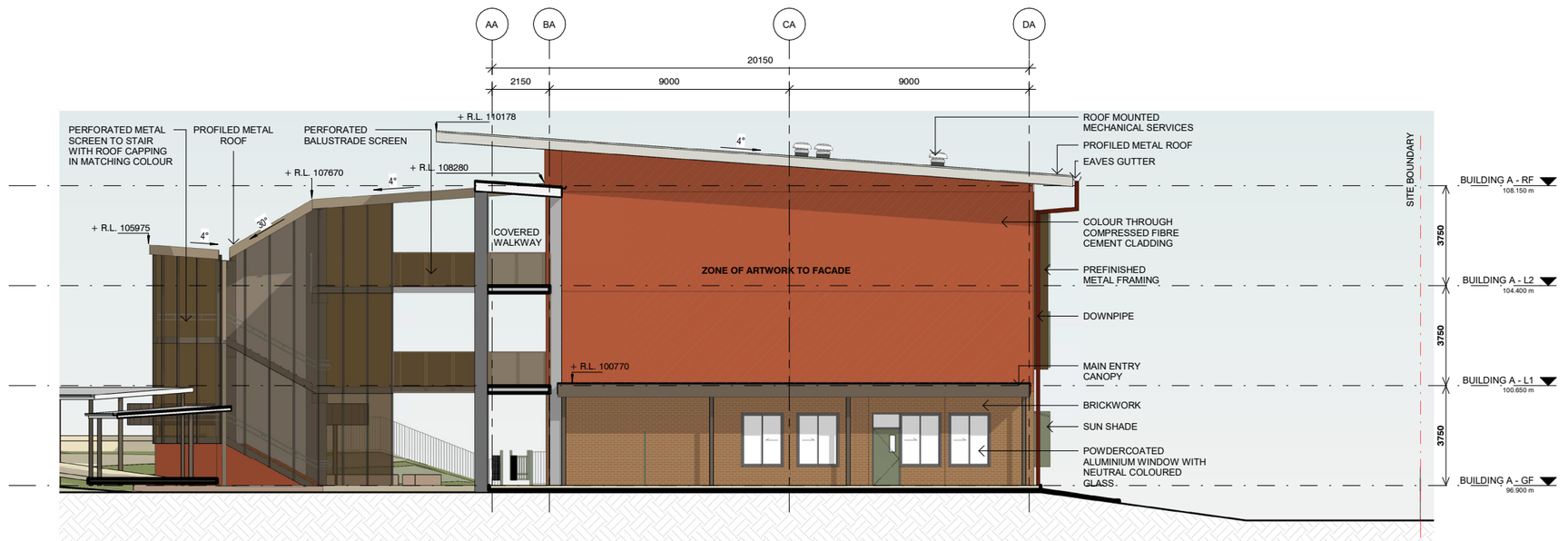
powdercoat perforated panels

4.5 Indicative Elevations

Building A Street Facade



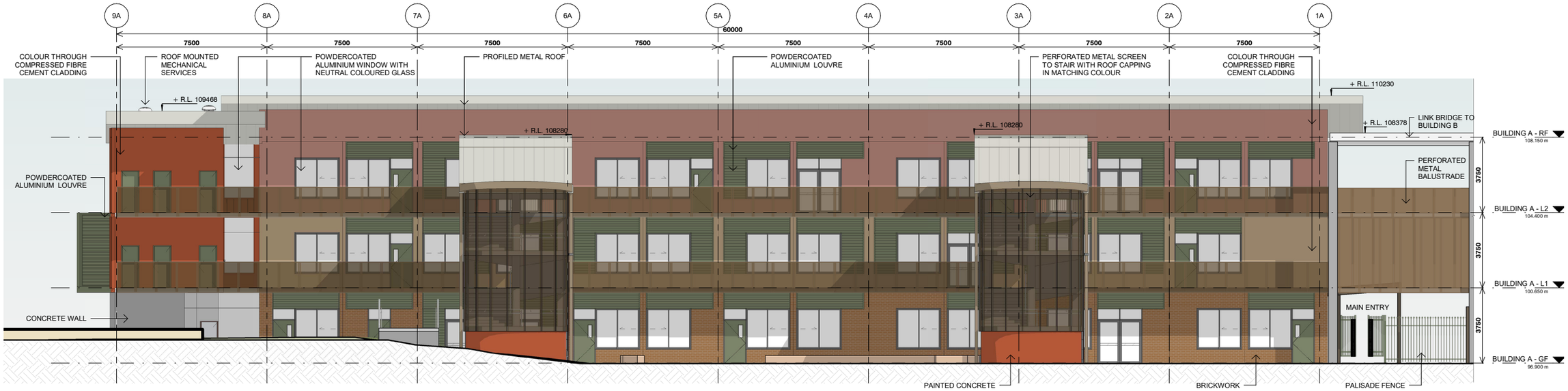
1 BUILDING A - SOUTH-WEST ELEVATION
1 : 100



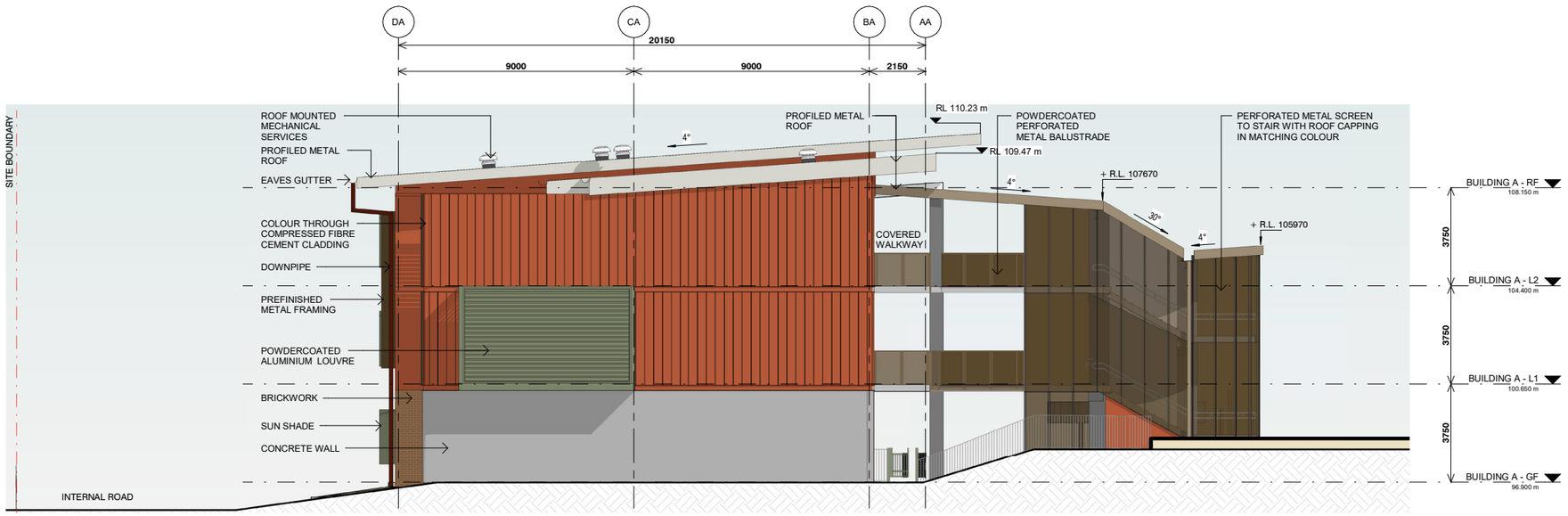
2 BUILDING A-SOUTH-EAST ELEVATION
1 : 100

4.5 Indicative Elevations

Building A Courtyard Facade



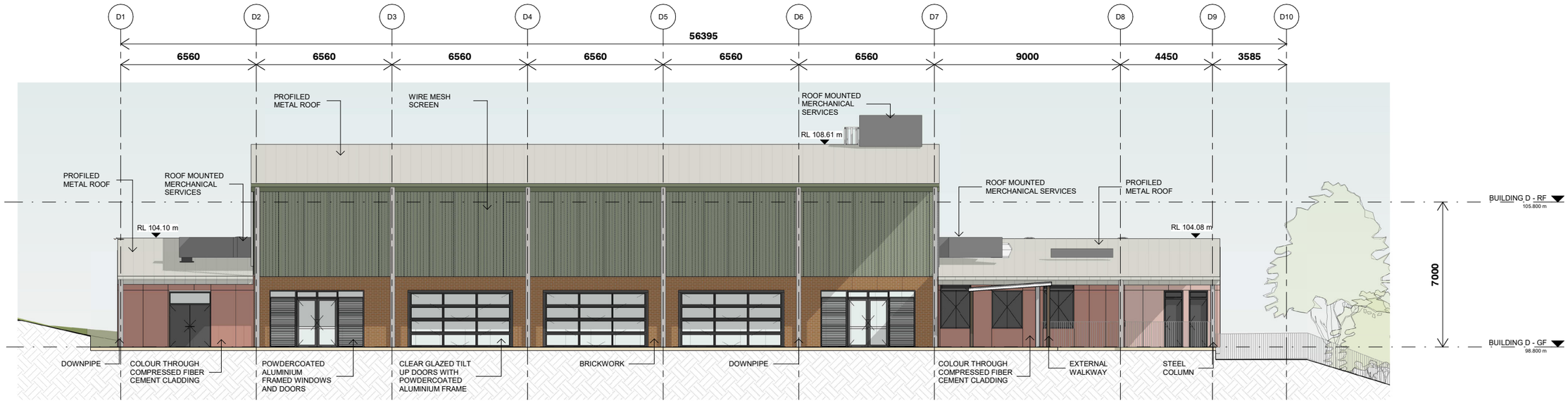
1 BUILDING A - NORTH-WEST ELEVATION
1 : 100



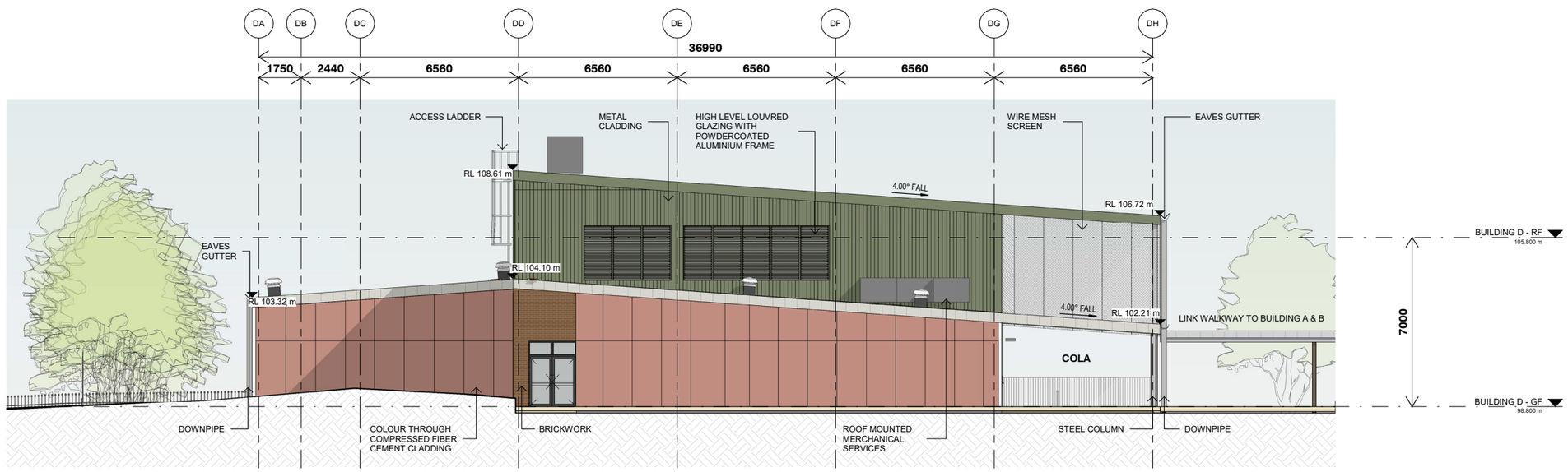
2 BUILDING A - NORTH-EAST ELEVATION
1 : 100

4.5 Indicative Elevations

Building D - Hall



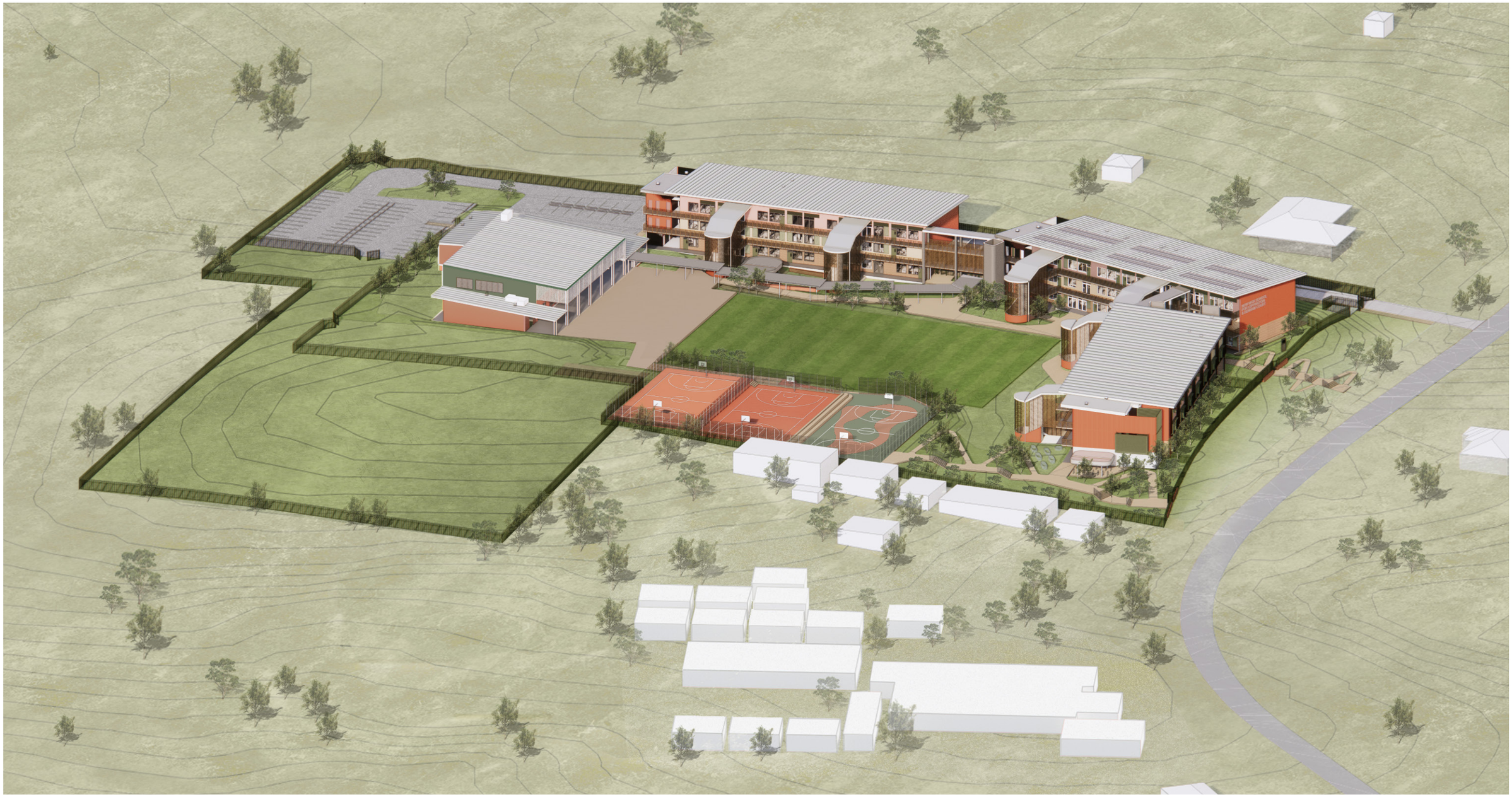
1 BUILDING D - WEST ELEVATION
1 : 100



2 BUILDING D - NORTH ELEVATION
1 : 100

4.6 Renders

Aerial View



4.6 Renders

Public Domain - School Entry

4.6 Renders

Assembly and Play Fields

4.7 Signage | Wayfinding

New school signage made up of individual letters is proposed on the facade of Building C facing Rickard Road, creating a strong school identity on the existing road as well as a digital electronic LED sign. Another school entry sign is proposed at the Main entry along the new access driveway.

Acknowledgement of Country sign will be incorporated into into a co-designed art piece/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 Name Signage

CwC Sign (Feature)

Directional Signage

Main Digital Electronic School Sign

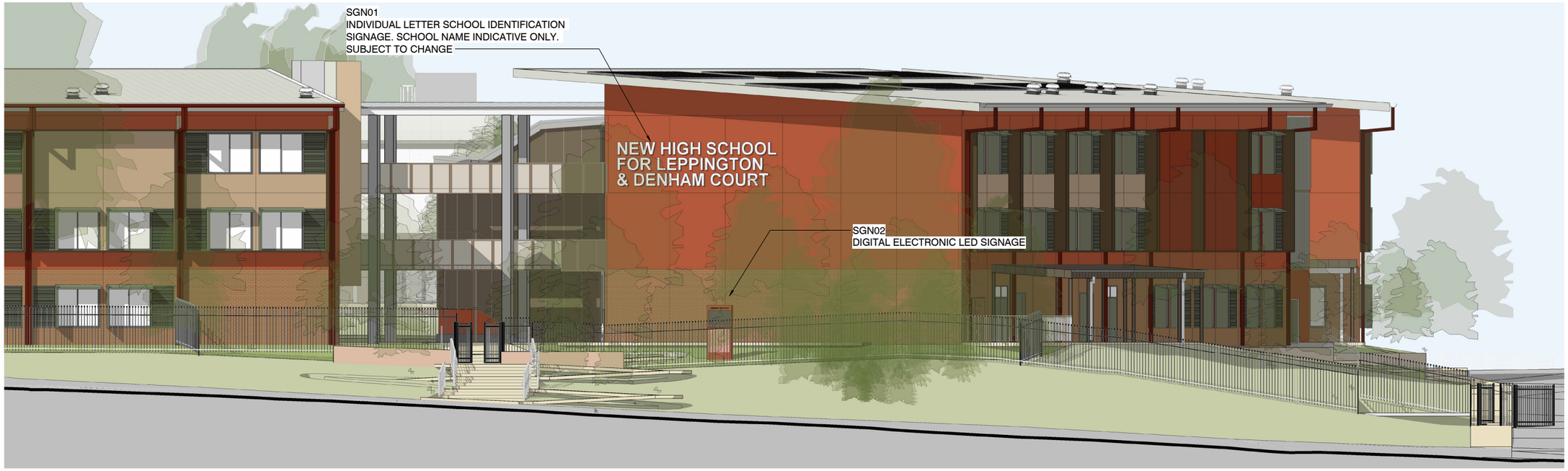
Public Domain Sign
Kiss n Drop, School Parking Hours

Vehicle Entry / Exit Sign

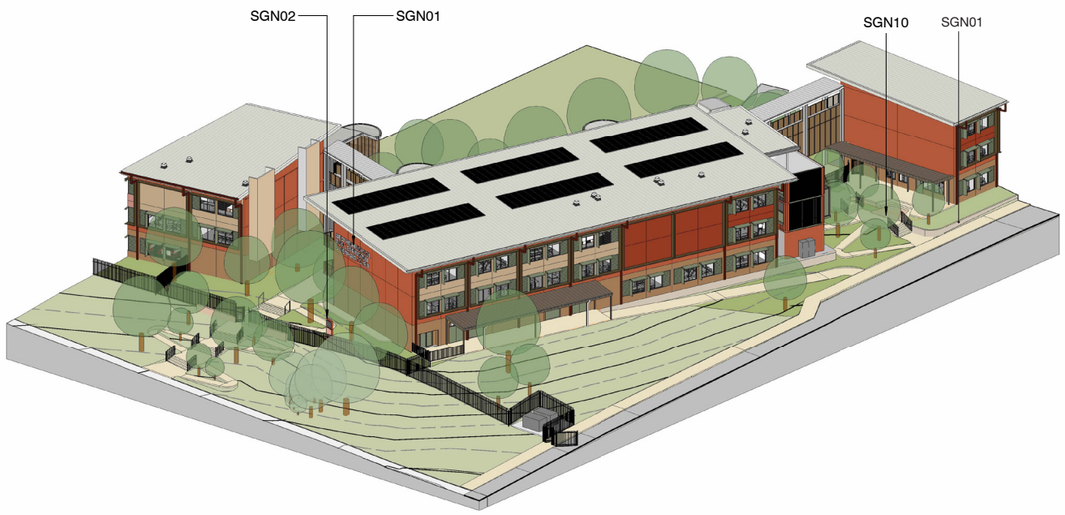
Secondary School Entry

Building Signage

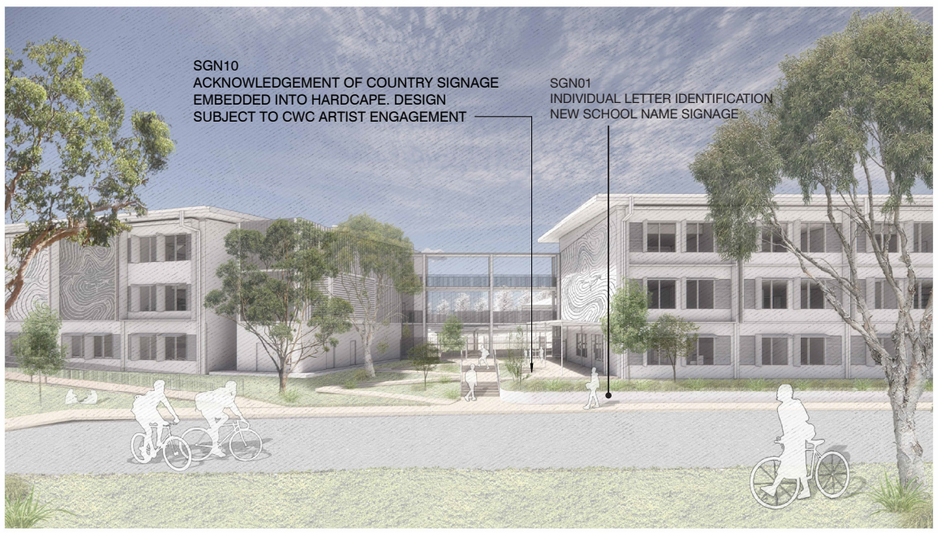
Department Signage
+ EFSG Signage for every room



1 SITE ELEVATION - WEST
1 : 100



2 ENTRY AXONOMETRIC



ACKNOWLEDGEMENT OF COUNTRY SIGNAGE

05

ENVIRONMENTAL RESPONSE

5.1 Visual Impact Statement

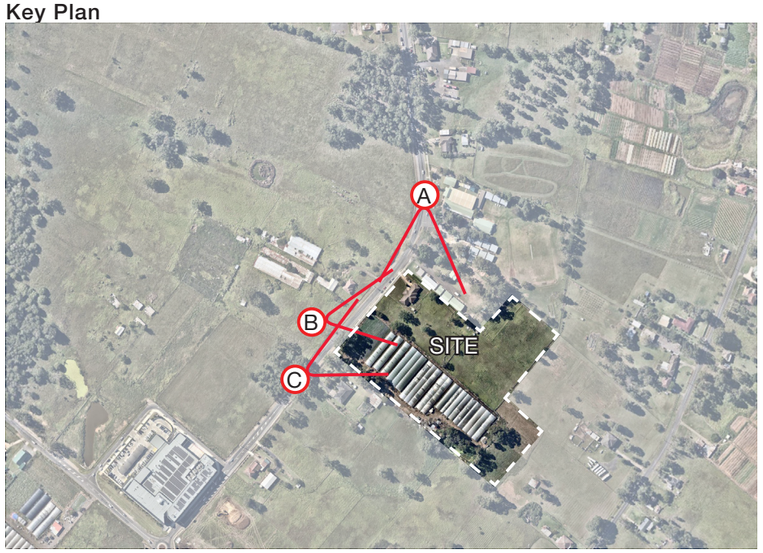
A number of views have been reviewed from major site lines towards the new School site.

The governing design principle for siting buildings was to address the streetscape and keep minimal impact towards neighbouring properties. This is particularly addressed on the Northern part of site towards Leppington Public School due to its Heritage local significance where a generous side setback applies. The massing of buildings are separated into the three individual teaching buildings and the Hall as standalone masses with the entry forecourt, central courtyard and landscaped spaces in between.

Generous landscape design and tree planting will reduce the impact of the scale of the buildings on the surrounding neighbouring properties.

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

Key Plan

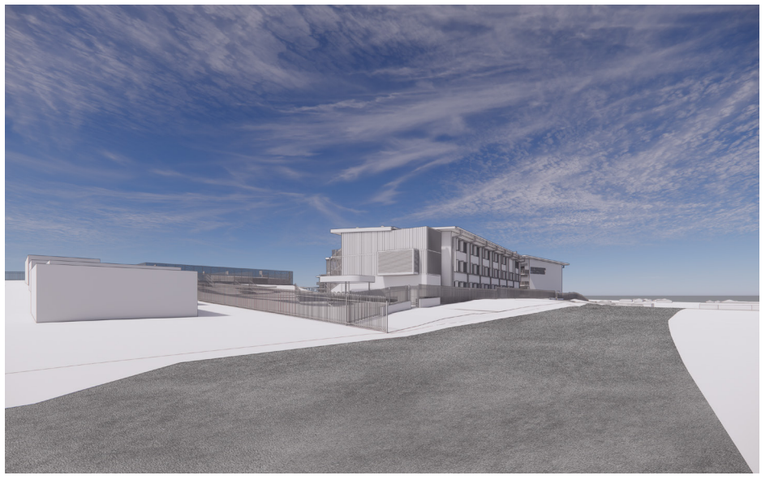


A View from Rickard Rd (North)

B View from Rickard Rd (East)

C View from Rickard Rd (South-East)

View A from Rickard Rd (North)



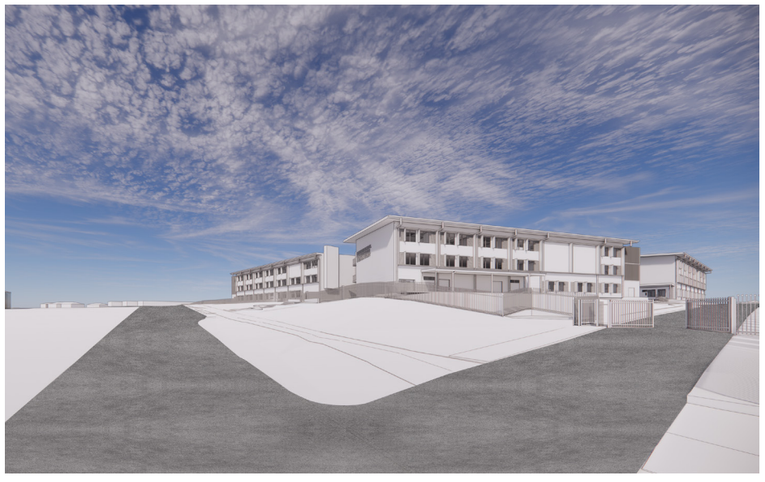
Viewed from Rickard Road towards school entry and Building C at Northern boundary adjacent to Leppington Public School . Buildings are sited significantly back to reduce height and bulk impact to the streetscape and public school.

5.1 Visual Impact Statement

View B from Rickard Rd (East)

Viewed from Rickard Road between Buildings B & C from Eastern boundary towards North.
The buildings are positioned with a significant setback preserving views to Public School.

View C from Rickard Rd (South-East)



Viewed from Rickard Road along Southern boundary looking towards the school's proposed pedestrian and vehicle entry.
The generous setback along the Southern boundary minimises the impact of buildings on neighbouring properties.

5.2 Overshadowing

The shadows generated by the new buildings, do not impact neighbouring properties, except in early morning in winter time along the Southern boundary, with no significant overshadowing in other times of the day. Central play areas including assembly will have good direct solar access except early in the morning and later in the afternoons.

9AM (21 DECEMBER)

12PM (21 DECEMBER)

3PM (21 DECEMBER)

9AM (21 JUNE)

12PM (21 JUNE)

3PM (21 JUNE)

N

5.3 Sustainability Strategies Overview

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

Impact on Biodiversity

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

Resilience

Key Climate Change risk mitigation strategies includes:

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

Passive Design

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

Energy Efficiency and Reduction in Peak Demand for Electricity

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

Water

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

Minimisation of Waste

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

Embodied Emissions

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

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

Green Star Certification

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

06

LANDSCAPE STRATEGY

6.1 Landscape Masterplan

The new high school for Leppington and Denham Court shall be developed on essentially a rural site. Bounded by rural land and Leppington Public School, the school shall balance Designing with Country, Schools Infrastructure requirements and standards, whilst having consideration to urban design.

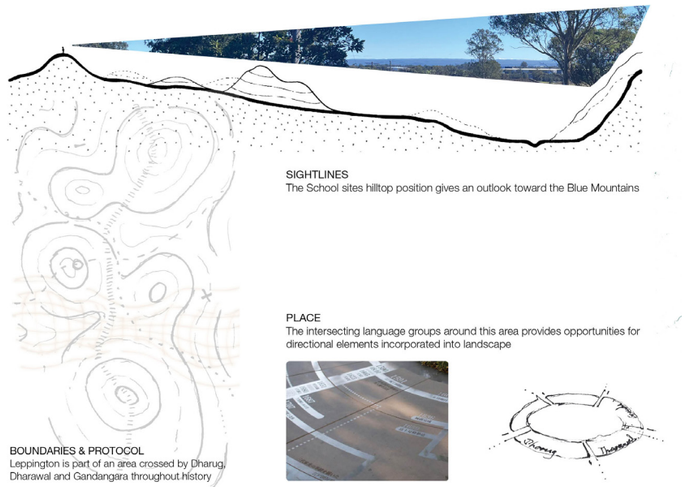
The main welcoming plaza from the South will serve as a foyer space, featuring integrated seating, shade trees, and incorporating themes of Connection with Country through use of materiality, design elements and planting endemic to the area.

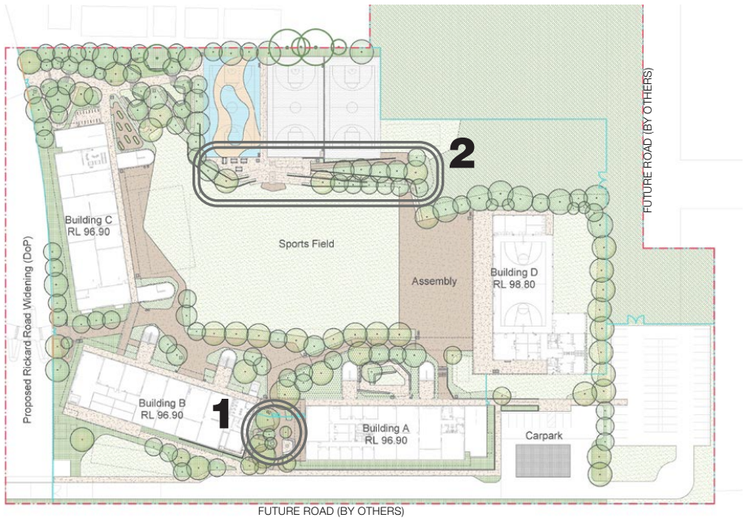
The topography of the site has been carefully considered in the placement of the buildings and outdoor spaces to maintain where possible the natural fall of the land while providing access from the existing Rickard Road and graded accessibility and functional requirements throughout the school. Reshaping of the land has been minimised to reduce cut and fill of the site with the intent to preserve the existing natural slope. The sports courts at the highest point of the site terrace from existing levels down towards Rickard Road. The landscaped terracing between the courts and the field provide a functional zone for seating and accessible movement in the levels transition areas for gathering and observing.

The buildings will be arranged in a courtyard layout across the site, with pathways, outdoor learning areas, sport courts and amphitheatre seating spaces organised in a circuit around the main central sports field. The design of these spaces and their integration inspired by the geometries and form of the local geology.

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.

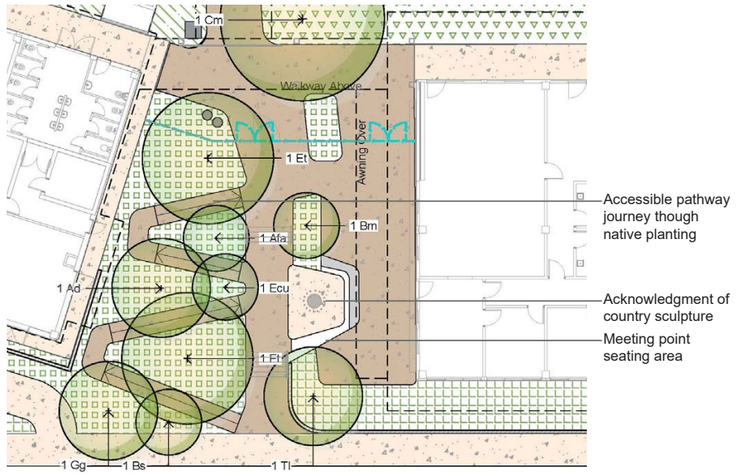
Collaborative design workshops led by Yerrabingin identified recycling of material of Country as a site specific sustainability measure: the re-use of the timbers from felled trees on site and the inclusion of locally sourced stone in the landscaping, particularly in the terracing between the sports courts and the field, and the winding access path up from the secondary entry on Rickard Road to the sports courts. The importance of the geology of the landscape is also carried through into the colour sections and layering of colour in the facades. The introduction native species planting throughout the site will also contribute significantly to healing Country which had previously been cleared for agricultural purposes.

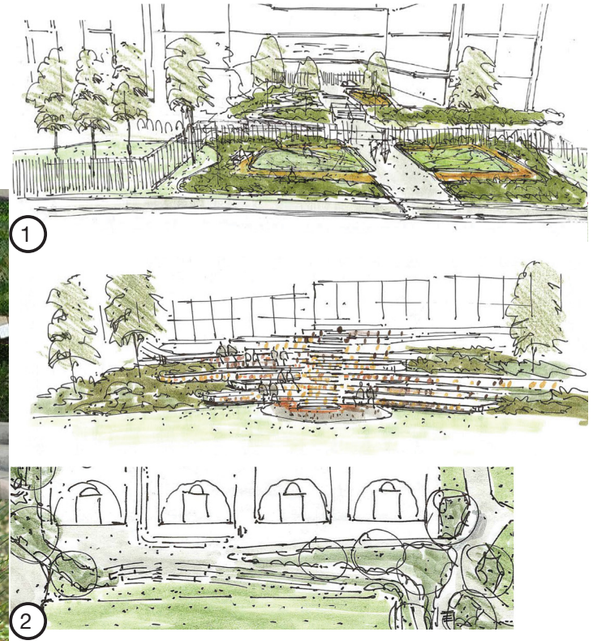




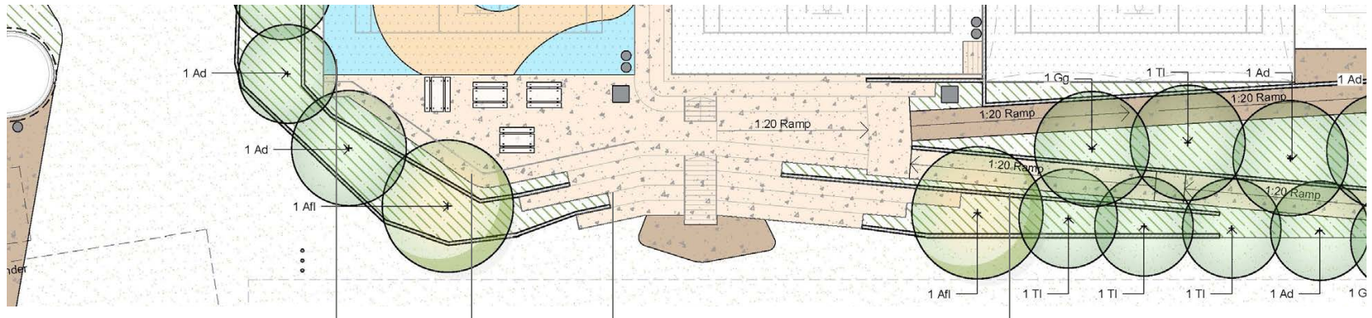
Connecting with Country Key Areas

1 Welcome Plaza





2 Open Space Amphitheater



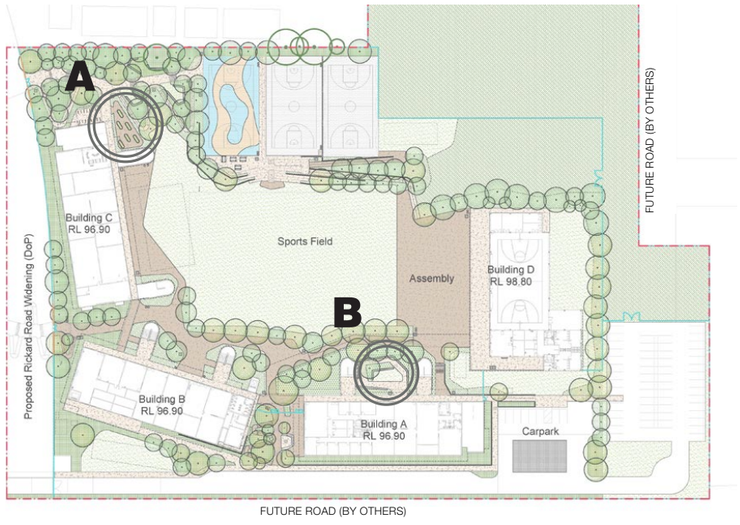
LHS SDRP Response
Site Image | November 2024

6.3 Landscape I Pedagogy

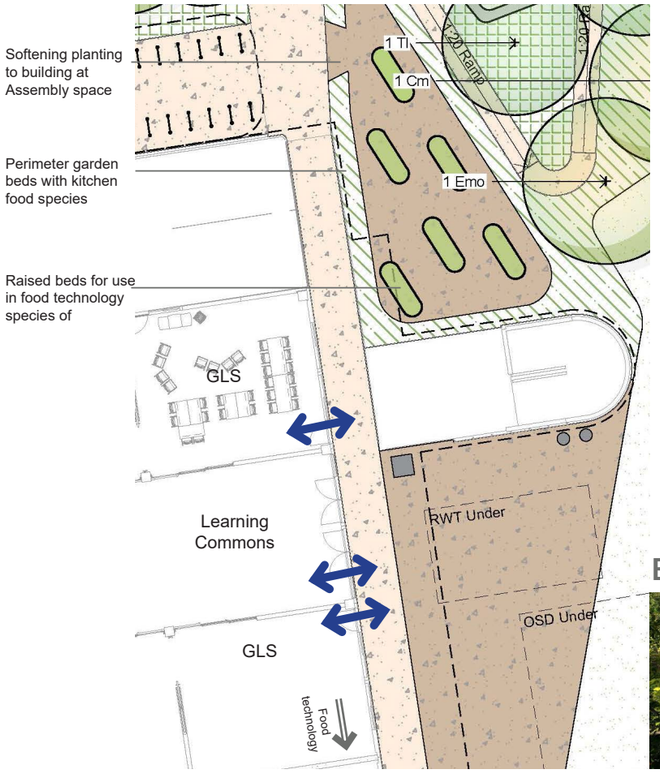
The landscape is purposefully designed to provide outdoor learning spaces with pedagogical approaches in mind, from inquiry-based to collaborative, reflective or integrative. The spaces provide opportunity for students, teachers and staff to be in contact with nature and Country, learn and gather while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

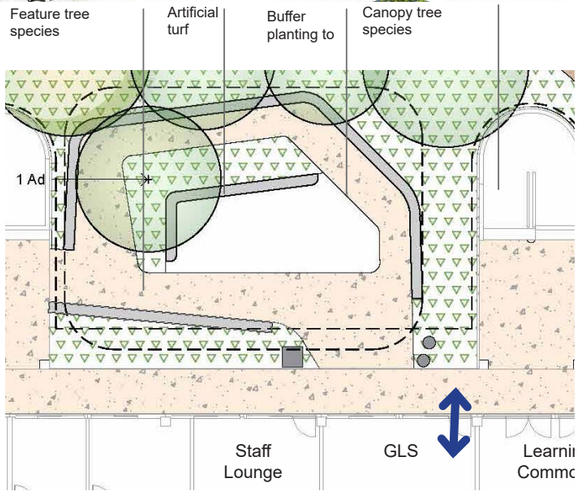
A range of key outdoor spaces have been considered:

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



A Food Technology





B Support Learning

6.4 Landscape | Planting Strategies

Native Vegetation Communites

The Leppington 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 Plaza

- Native species
- Colour and texture in foliage
- Heights to maintain sight lines for surveillance

Indicative species

Assembly and School Heart

- Canopy trees for shade
- Low height understory

Indicative species

Support Learning

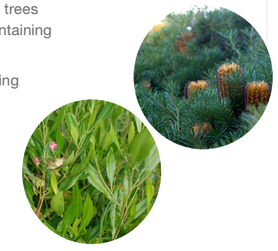
- Native grasses to reflect riparian plantings

Indicative species

Boundary Planting & Carpark

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

Indicative species



Cumberland Shale Plains Woodland

Cumberland Red Gum River Flat Forest

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

01 Canopy Cover at Year 1
1:1200

Site Area	40600 sqm
*Site Area for Canopy Calculation	27297 sqm
Existing Tree Retained Canopy	285 sqm (1.04%)
Year 1 Tree Canopy	380 sqm (1.39%)
Total Canopy	665 sqm (2.43%)

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

02 Canopy Cover at Year 5
1:1200

Site Area	40600 sqm
*Site Area for Canopy Calculation	27297 sqm
Existing Tree Retained Canopy	285 sqm (1.04%)
Year 5 Tree Canopy	1022.15 sqm (3.74%)
Total Canopy	1307.15 sqm (4.78%)

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

03 Canopy Cover at Maturity
1:1200

Site Area	40600 sqm
*Site Area for Canopy Calculation	27297 sqm
Existing Tree Retained Canopy	285 sqm (1.04%)
Mature Tree Canopy	3738 sqm (13.69%)
Total Canopy	4023 sqm (14.74%)

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

6.6 Landscape - Diversity of spaces

The landscape proposal offers a variety of spaces across the campus for different sized groups. To the Northern entry ramp off Rickard Road a series of seating areas allow for sitting nestled within the native planting.

An open, social setting is proposed surrounding the feature court for spectators and interaction with activities adjacent. The terraced amphitheatre seating adjacent the lawn provides a place to sit under tree canopies and view activities on the field. The Support learning garden provides an area of solitude adjacent to the support learning unit and administration area. Bench seating and synthetic lawn allow for groups of different sizes and respite in a convenient location.

Interrogate the spaces between the buildings to create a diverse range of spaces within the landscape that can cater to various activities, including intimate areas for smaller groups to complement the larger spaces such as the sports fields.

07

DESIGN VERIFICATION

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Connecting with Country	
The following elements of the masterplan are supported: - The commencement of the connecting with Country process through desktop research. - The focus on healing Country through a strong sustainability response to the site, subject to the advice below. - The proactive efforts to engage with council to find an optimal solution for the delivery of the roads providing access to the proposed school campus in stage 1. - The intention to provide a landscape connection with the primary school to the North, subject to the advice below. - The intention to share facilities with the community. - The commitment to achieve a 5-star Greenstar rating for the school.	
1. Develop the healing Country approach by identifying site specific sustainability measures	Collaborative design workshops led by Yerrabingin identified recycling of material of Country as a site specific sustainability measure: the re-use of the timbers from felled trees on site and the inclusion of locally sourced stone in the landscaping, particularly in the terracing between the sports courts and the field, and the winding access path up from the secondary entry on Rickard Road to the sports courts. The importance of the geology of the landscape is also carried through into the colour sections and layering of colour in the facades. Native species planting throughout the site will also contribute significantly to healing Country which had previously been cleared for agricultural purposes.
2. Continue the engagement with Yerrabingin to further develop the Connecting with Country strategy for the project and integrate the outcomes of the engagement process into the design.	The engagement with Yerrabingin is continuing and since the last SDRP presentation has continued to inform the design with input from community engagement sessions. Some examples of this are the prominent imagery and pattern integration into the facades and hardscape, and the inbuilt acknowledgement of Country concept at the main entry of the school to be designed by Indigenous artists. Refer also to the Section 8 Appendix for Yerrabingin's continuing report on the Designing with Country process.
3. Carefully assess the existing site conditions:	
a. Interrogate the topography of the site to better inform the masterplan.	The topography of the site has been carefully considered in the placement of the buildings and outdoor spaces to maintain where possible the natural fall of the land while providing access from the existing Rickard Road and graded accessibility and functional requirements throughout the school. Reshaping of the land has been minimised to reduce cut and fill of the site with the intent to preserve the existing natural slope. The sports courts at the highest point of the site terrace from existing levels down towards Rickard Road. The landscaped terracing between the courts and the field provide a functional zone for seating and accessible movement in the levels transition areas for gathering and observing. The level of the field relates directly to the level of the assembly area and the hall. The assembly area has been relocated to the East of the field for an improved functional relationship with the hall - this was previously in the Western edge of the field when presented at the SDRP. Buildings A, B and C are positioned at the same RL, wrapping a natural contour of the site and providing 1:20 access from Rickard Road and the new driveway on the Southern boundary.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
b. Analyse the current flow of water on site and provide drawings to illustrate this. Incorporate the flow of water into the proposed masterplan and utilise it in the approach to healing Country.	The current flow of water on the site moves with the existing contours of the land from the upper-most of the North-East to the lower-most contours at the South-West and South-East of the site. The existing dam at the South-Western corner of the site appears to be a man-made water control measure. The proposed water management on site follows these natural falls with permeable landscaping throughout the transitions from high to low points, with snaking access paths flaked with vegetation between the sports courts and Rickard Road, the courts and the field and between the buildings through entries to the site boundaries emulating riverbeds in the direction of water flow towards the South-Eastern corner. OSD tanks have been located at the natural low points for water management and capture. The new access driveway has a swale on its Southern edge that also drains naturally to this South-East corner and connects to the surrounding stormwater infrastructure. Refer to Section 2.7 Site Analysis drawings which indicate the site topography and existing waterflow on the site.
c. Retain significant vegetation wherever possible.	Where possible, significant vegetation has been retained on site and as recommended by the Arborist. The amendment of existing and introduction of new infrastructure to the surrounding areas will unfortunately require some removal of vegetation. This will be replaced with advanced specimen trees within the school site where there was once agricultural/market garden function. Refer landscape Section 6.0 for canopy cover.
d. Identify existing outlooks and bring those views into the site through careful framing and building placement.	The predominant outlooks from the site to the surrounding area is from the highest RLs with existing views out towards the blue Mountains to the West and the surrounding grassland area to the South. Refer Section 2.7 Site Analysis showing the topography of the site showing the hill on the North Eastern portion of the site and Section 2.4 Urban Context showing existing views. Noting that the new Leppington Town Centre ILP includes for 4 storey multi-residential re-zoning to the West, South and East of our site which will likely block these outlooks from the School site. The placement of the buildings along the lower contours of the site encourage the existing views out towards the mountains to the West from the natural ground level at the top of the hill within the site, with a view corridor along the Northern boundary edge between Building C and the Public School from the sports courts. Views will also be available from the upper levels of Buildings B and C to the West, as well as from Building A to the South. Again, noting that with the development of the surrounding area, it is likely these views with be altered which is beyond the control of this activity.
4. Refer to the Connecting with Country Framework and case studies on the GANSW website for more information and guidance.	Noted
Site Strategy and Landscape	
The inclusion of a temporary road along the Southern boundary of the site for stage 1 significantly and permanently compromises the masterplan. 5. Provide alternative options for the location of the temporary road, for example along the Northern boundary.	For clarification purposes, the Southern access driveway on the site will be permanent until the additional road infrastructure proposed as part of the new Leppington Town centre ILP is constructed by Council. Council has advised the delivery of these roads is likely to be some years away as it is reliant on development contributions of the surrounding area for funding, which are collected when Development Applications are lodged. No development applications have been received by Council surrounding the site currently.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Site Strategy and Landscape continued 5. Provide alternative options for the location of the temporary road, for example along the Northern boundary continued.	The location of the new driveway entry into the school has been well considered in looking at a number of aspects including the natural typography of the site, the minimisation of disturbance to the natural form and falls of the site, impacts on the Public school and heritage buildings on their Southern boundary and the co-location of the new driveway to the main entry Building A, car park and hall for deliveries. The driveway along the Southern Boundary is at the lower edge of the site with the least amount of fall from one end of the road to the other. If the road was along the Northern boundary, along the edge of the Public School this would be the steepest portion of the site and require the most amount of earthworks to grade the road to be acceptable for vehicular traffic. The road would also then run along next to the items of heritage significance on the Public School boundary which is not ideal. In the current configuration there is a generous setback and landscape buffer along this Northern edge which is a more appropriate interaction with the heritage items. The driveway will be the only vehicle entry into the site and there is a co-location of function of the driveway for the following functions: Kiss and Drop and the Main entry Building A; Wood and Metal deliveries to Building B GF; accessible carparking to Support Learning Unit on GF of Building A; deliveries to the Hall via the carpark; Hall and waste collection from the carpark. All of these functions align along the Southern edge of the site. The position also allows for the eventual transition to include for the future road infrastructure to be introduced with the least disruption to the school. It is for these reasons it is considered that the Southern boundary edge is the more appropriate location for the access driveway into the site.
6. Reduce the Southern setback along the new South road to increase the play area within the school campus and to preserve existing trees	The setback between the Southern boundary and the Buildings is as reduced as possible while allowing for a required drainage swale, the width of a dual carriageway driveway, kiss and drop, footpath and appropriate civil/structural level transitions from the road to the GF RLs of Buildings A and B wrapping the existing site contours. We have increased the play area within the school campus by reducing the setback of Hall to the Eastern boundary
7. If a viable alternative location cannot be provided, DoE should take all possible steps to support council to deliver the section of new South road along the Southern boundary in time for the stage 1 opening.	The DoE supports the Council in their delivery of the future South Road, however is committed to providing access to the school site within the site boundary. Post completion of South Road, the access within school site is proposed to be converted to a landscaped space for screening, additional large trees consequently increasing canopy cover and shade, and a CwC approach to design a larger entry to school off new South Road in front of the entry between Building A and B.
Regarding the masterplan more generally:	
8. Respond to key elements of the broader context including the green corridor and the mixed-use zone to the North of the site to ensure the school can successfully serve as an anchor for the local community.	The comment references the future development of the Leppington Town Centre which is unlikely to have commenced on the completion of the activity on the school site. The North-Eastern corner of the site is not part of the activity forming this REF application.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
9. Improve the relationship to the future masterplan of the neighbouring primary school to support future potential shared uses and connections.	The activity acknowledges the existing Public School and it's future masterplan through proposed physical connection between the sites with future access able to be provided at the North-Eastern corner of the high school. There is potential for shared access between the schools for use of facilities and teaching spaces including for out-of-hours activities. Refer Section 5.3 Access and Circulation.
10. Test relocation of the hall to the West of the site adjacent to the assembly area so that it can serve as an acoustic buffer to Rickard Road while providing shade to the assembly area.	The functional co-location of the Hall to the carpark for deliveries, out of hours function use and waste management collection is a significant one. Relocating the Hall to the Eastern edge of the site would disconnect it from the carpark in the South-East. The main street elevation on Rickard Road would then also be presented with the 'back' of the Hall building. For these reasons the Hall is more appropriately located on the Eastern side of the site. The assembly area has been relocated to the front of the Hall which will receive morning sun shade from the Hall building.
11. Provide masterplan options along with justifications for the arrangement of buildings which address all site strategy concerns.	Refer to Section 3.6 Masterplan Options.
Landscape As the pattern book limits variability in the architectural expression of the buildings, the landscape design will play an increasingly crucial role in ensuring schools can achieve a strong responsiveness to place	
12. Improve the design of the corner of Rickard Road and the new South road: a. Share the landscaped area with the community to create a sense of welcoming, openness and inclusivity – remove perimeter fencing.	Perimeter fencing is a SINSW requirement as part of their access and security standards to ensure the safety of students and the protection of assets. The boundary fence along Rickard Road is set back from the site boundary to align with the eventual future widening of Rickard Road. Until the widening occurs there is a public domain landscaped buffer zone between the existing road and the boundary fence that includes the secondary entry path between Buildings B and C. Planting along the fence-line is proposed to soften the appearance of the fence with canopy trees to provide shade and an attractive frontage on the eventual completion of the future road.
b. Relocate the substation from this area to improve the quality and legibility of the arrival experience.	There are multiple arrival experiences along Rickard Road, with two pedestrian entrances along Rickard Road other than the footpath adjacent to the vehicle entrance - one to the North of Building C (closest to the train station and bus stops) along the Northern boundary edge and the other between Buildings B and C which feeds into the middle of the school. There will be significant foot traffic through these two entrances as they are closer to the existing main road and public transport connections than the prosed access driveway. The location of the substation adjacent to the proposed access driveway relates directly to existing High Voltage (HV) cable runs on the Western side of Rickard Road, and also the services access required to the substation – a vehicle is required to be able to pull up to the kiosk for servicing. There is also a direct function relationship between Building A which houses the MSB and the substation, so the co-location of these was also a factor in determining its location. The substation is set a significant distance away from the main entry to the school which is between Buildings A and B adjacent to the kiss and drop along the access driveway. This area creates a welcome entry with and landscaped zone incorporating waiting and gathering space, Welcome to Country art piece, planting and levels transition up to the main entry building of the school.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Landscape continued	
13. Interrogate the spaces between the buildings to create a diverse range of spaces within the landscape that can cater to various activities, including intimate areas for smaller groups to complement the larger spaces such as the sports fields.	Refer Landscape Section 6.6. The landscape proposal offers a variety of spaces across the campus for different sized groups. To the Northern entry ramp off Rickard Road a series of seating areas allow for sitting nestled within the native planting. An open, social setting is proposed surrounding the feature court for spectators and interaction with activities adjacent. The terraced amphitheatre seating adjacent the lawn provides a place to sit under tree canopies and view activities on the field. The Support learning garden provides an area of solitude adjacent to the support learning unit and administration area. Bench seating and synthetic lawn allow for groups of different sizes and respite in a convenient location.
14. Integrate the ramping across the site into the landscaping and make them more inviting as play spaces by introducing moments for rest and gathering.	Ramping though the site has been integrated to respect the natural topography of the site wherever possible. The use of retaining walls is minimised with generous areas of planting. Seating is allowed at intervals on the Northern Rickard Rd entry ramps and the Southern entry plaza. Seating at terraced intervals enables seclusion and the engagement of users with surrounding vegetation and tree canopies.
15. Demonstrate that appropriate drainage is provided across the site to adequately support healthy Country.	Appropriate falls are provided though the site with permeable areas at low points on terraces this will assist in efficient drainage of hardstand and benefit planting with passive irrigation.
16. Explore opportunities to reorient the basketball courts to the North to South direction to minimise the impact of the sun on players on opposing teams	The sports courts orientation is based on the minimisation of the disturbance of the natural site formation by staggering them down the hill in the shortest direction – rotating the courts would require additional cut and fill to the site and create greater disturbance topography. Each court steps down the hill in line with existing contours at the highest point. The perimeter fencing to the courts is a standard SINSW requirement and a safety precaution for the courts located at a high point on the site and adjacent to tiered ramps, stairs and seating between the courts and the lower field. This has been altered to group the two lower courts together with stepped seating in between these to encourage gathering space.
The current approach of ringed perimeter fencing has a range of highly negative and costly impacts including limiting play area, precluding community gathering space and creating a hostile and uninviting school presence.	
17. Reconsider the ‘ringed perimeter fencing’ approach as a project assumption. 18. Reduce the extent of perimeter fencing. 19. Wherever possible, use the building itself as a secure line. 20. Set fence lines back beyond built form lines and conceal with soft planting.	Perimeter fencing is a SINSW requirement as part of their access and security standards to ensure the safety of student and the protection of assets. The boundary fence along Rickard Road is set back from the site boundary to align with the eventual future widening of Rickard Road. Until the widening occurs there is a public domain landscaped buffer zone between the existing road and the boundary fence that includes the secondary entry path between Buildings B and C. Planting along the fence-line is proposed to soften the appearance of the fence with canopy trees to provide shade and an attractive frontage on the eventual completion of the future road
Architecture As architectural drawings were not provided, no comments on the architecture were given at this session.	Noted.

RESPONSE TO SDRP REVIEW PANEL 1

STATE DESIGN REVIEW PANEL REVIEW & COMMENTS	RESPONSE
Sustainability and Climate Change The school will be one of the first buildings to be delivered within the new masterplan for the Leppington Town Centre and should act as a sustainability benchmark for all future developments in the area.	Noted.
21. Set clear and realistic sustainability targets that are specific for the project and deliverable within the cost plan. Demonstrate how they will be achieved and integrated into the site planning.	Refer to Section 5.3 Sustainability Strategies Overview
22. Ensure the climate resilience of the school by implementing the following measures: a. Incorporate water-sensitive urban design strategies into the masterplan and landscape design.	Refer to Section 6.0 Landscape
b. Retain existing trees wherever possible. Provide an arborist report for all trees and clearly indicate significant trees to be retained on plans.	Refer to Section 4.1 Overall Site plans
c. Provide sufficient tree canopy cover that reflects the targets for the proposed town centre to passively cool the site while promoting biodiversity.	Refer to Section 6.0 Landscape
d. Increase the amount of artificial shade across the site to mitigate the impacts of the urban heat island effect and to create comfortable outdoor spaces	Weather protected canopies have been provided for the following areas: Support Learning area, COLA in the Hall and canteen, covered walkways, buildings external circulation including in the ground floor interface with outdoor learning spaces, staircases, lifts, links to amenities as well as School's main entry awning.
Sustainability	
23. Illustrate how the project will contribute to NSW's Net Zero emissions goal by 2050. Refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information.	SINSW projects address net zero readiness through the following – Scope 1 & 2 emissions: • The implementation of passive solar design principles and targeting Green Star certification • Improved energy efficiency (through specification of energy efficient light fittings, equipment, appliances etc.) • Electrification of assets • Minimise use of gas (bottles only used for science labs) • Inclusion of onsite renewable energy generation (solar PV) Scope 3 emissions: • The use of low carbon materials (noting GS materials credits targeted) • Minimisation of construction waste and thereby embodied carbon (MMC techniques) • Support for sustainable transport options - i.e. walkable school catchment areas, safe pedestrian access and crossings, support for bicycles and proximity to public transport
The following advice was provided on elements of the pattern book that are outside the scope of review: 1. Widen the roof overhang and the elevated walkways to ensure sufficient shading is provided to create more comfortable outdoor spaces and to mitigate the impacts of the urban heat island effect	SDRP confirmed comment is out of scope (Patternbook)

08
APPENDIX

NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT

CONNECTING WITH COUNTRY

CWC DESIGN REPORT | NOVEMBER 2024

YERRABINGIN

Aboriginal and Torres Strait Islander peoples should be aware that this document may contain voices/images, names of people who have passed away.

We acknowledge the Cultural Landscape that we are working upon, and the Traditional Custodians of the Country where the new High School in Leppington project is located.

We acknowledge all First Nations people and their ongoing connection to culture, lands and waters and their valuable contribution to the community. We recognise, acknowledge, and extend our respects to many others who have custodial obligations for Country who have been connected to Country for many generations, including their Elders past, present and emerging.

Yerrabingin is an Aboriginal owned design studio. At the core of our work is custodianship and care for Country. Our expertise encompasses Designing with Country, landscape architecture and urban design. We are recognised for our collaborative design approach, bringing together cultural knowledge and sustainable design solutions. We walk together to amplify the powerful language of Country for the betterment of our collective future.

We are guided by the inspiration of Country, the stories and knowledge a place contains and gifts us. We acknowledge its contribution to wellbeing both mental and physical, providing a refuge and safe place to learn and share.

Our Vision is that sensing and caring for Country is something that transcends cultural differences and highlights the many values that are similar across the cultures of our contemporary communities, supporting a socially inclusive, resilient, and innovative community based on, and honouring the wisdom and kinship of all cultures, captured through the lens of custodianship.

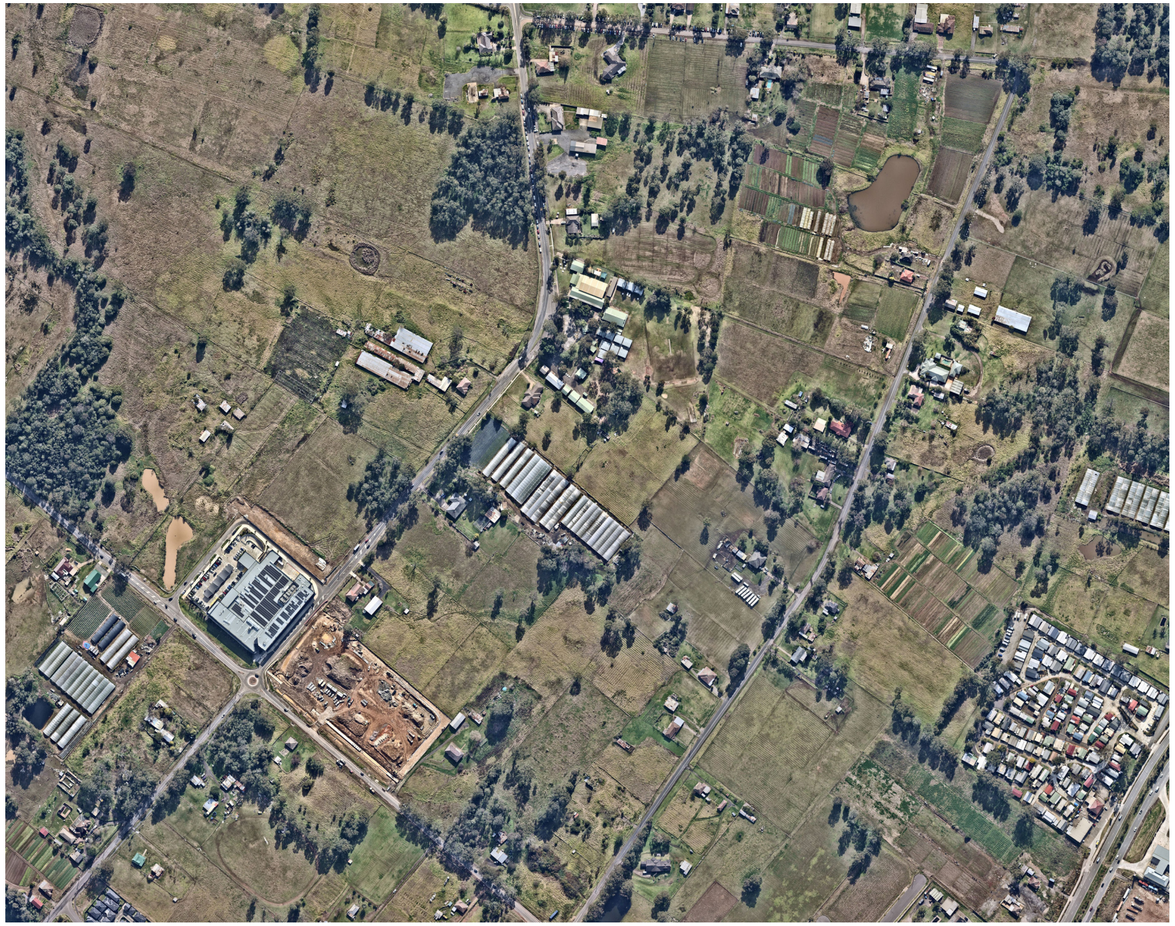


Figure.1 - *Aerial photo of the new high school for Leppington and Denham Court | Nearmap*

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DOCUMENT NAME	REV	DATE
YB_CWC_DES_0176	REV A	2024 11 11
YB_CWC_DES_0176	REV B	2024 11 29
YB_CWC_DES_0176	REV C	2025 01 23

AUTHORSHIP

At Yerrabingin, we acknowledge and respect the traditional custodians and ancestors of the lands we walk across.

The terms First Nations, Indigenous and Aboriginal are used interchangeably throughout this report. When referring to a specific group or individual, nation or language group names are used.

This report includes reproduction of words and descriptions in historic quotes written in the past that may be confronting and would be considered inappropriate today.

Permission to publish the graphic materials from archival collections and previous publications has not been obtained as part of this study. Permission should be sought from copyright holders if the report is published with the graphic material or the graphic material is used for other purposes.

Cover / Back Image - Existing site condition | Yerrabingin

Figure.2 - *Existing site condition | Yerrabingin*

GLOSSARY

Key Words and Terms

To better understand key terms referenced throughout the report, please consult the glossary.

The following terms derive from the GANSW (2023) Connecting with Country Framework.

- **Aboriginal Community:** Within the context of Sydney, the Aboriginal Community refers to a range of peoples that often include Traditional Custodians, Knowledge Holders, Elders, RAPs (Registered Aboriginal Parties), LALC (Land Councils), and local Aboriginal members of the community.
- **Built Environment:** Understood as distinct from the natural environment. It includes all aspects of our surroundings made by people. The built environment encompasses cities and towns, neighbourhoods, parks, roads, buildings, infrastructure, and utilities like water and electricity.
- **Country:** Country includes Earth, Waters, Sky and our Non-human Kin. It encompasses tangible and intangible aspects, knowledge and cultural practices, belonging and identity, well-being and relationships. People are inhabited by Country and Country inhabits us.
- **Design:** Design is both a process and an outcome - a way of thinking and a result of making. It involves a combination of creativity and problem-solving skills to generate ideas and concepts, followed by a systematic and often iterative process to develop those ideas into a tangible form.
- **Engagement:** When a particular group is engaged to gather their input in relation to a proposal, challenge, or outcome.
- **First Nations:** Is an encompassing term that acknowledges the diversity of Aboriginal Communities, while also communicating that sovereignty was never ceded. This term is growing in preference for First Nations Australians but may also be interchanged with Aboriginal and Indigenous in this report.
- **Knowledge:** Aboriginal knowledge comes from different nations and family groups. Knowledge is multifaceted and may incorporate many different views. It encompasses the information and skills that people accumulate over time, enabling them to comprehend the world, make informed decisions, and solve problems.
- **Peoples**: Peoples is used in plural to reference First Nations peoples, recognising that there are many nations and family groups.
- **Place:** A social and physical concept, a physical setting, point, or area in space conceived and designated by people and communities. In this sense, place can describe different scales of the built environment; for example, a town is a place, and a building can be a place.
- **Practices:** Practice or cultural practice refers to the various customs, traditions, rituals, behaviours, and activities that are collectively shared and passed down within a specific cultural group, serving as a means of expressing identity, values, beliefs, and social cohesion

EXECUTIVE SUMMARY

This Connecting with Country Design Report has been prepared to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the new high school for Leppington and Denham Court (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP. The proposed activity is for the construction of a new high school located at 128-134 Rickard Road, Leppington, NSW, 2179 (the site).

The document has been developed by Yerrabingin following our Collaborative Design process, in partnership with School Infrastructure New South Wales, TSA Riley, DJRD Architects, Site Image Landscape Architects and Aboriginal community members through the Walk on Country and Collaborative Workshops and meetings. The purpose of this document is to share the findings and design recommendations from our collaborative design process.

The opening section - Connecting with Country Design - provides an introduction to how we understand Country and what Country means to us. We then introduce the Connecting with Country Framework created by the Government Architect New South Wales and the outcomes that can be used to guide this project.

The second section - Contextual Analysis - provides a recap of the scope and intent of the new high school for Leppington and Denham Court project. We then introduce the sites Place in Country and explore the context of the site within the wider Cumberland Plain cultural landscape.

The third section - Collaborative Design - firstly recounts our design methodology and then shares a summary of each step in the process, including the How Might We Session, Walk on Country and the Collaborative Workshop. For each engagement, we include a description of the engagement and a summary of the findings.

The fourth section - Ideation Development - recounts targeted design team workshop and captures the tangible design outcomes created based on the activities of the Collaborative Workshop.

The final section recounts the Community Feedback session discussion and findings, and explores the community driven Connecting with Country opportunities for the new high school for Leppington and Denham Court. The opportunities of *Revealing Deep Country*, *Views to Sky Country and Horizon*, and *Country is our Teacher* are also explored through conceptual graphics for how they apply to the project. Lastly, we highlight how Yerrabingin's methodology relates to the How Might We question and Government Architect NSW's Outcomes for Country in respect to the new high school for Leppington and Denham Court.

Figure.3 - *Site photo | Yerrabingin*


CONNECTING WITH COUNTRY DESIGN

INTRODUCTION TO CWC DESIGN

Beginning with Country

Country is our mother, our teacher, our library and our kin; it sustains us, inspires us and surrounds us. The experience of Country is both individual and collective, both new and familiar. From her we learn, share and flourish. Continuing to care for Country is central to our being and our identity.

Christian Hampson, Yerrabingin

Country reaches into and across the earth and into the sky. The unique and distinctive elements of Country are connected, and open to everyone. They are the connective tissue, the interstices, the flow between Water, Earth, Sky, our Non-Human Kin, and ourselves. In this way, we are part of the system of Country and have a responsibility to future generations. Our actions must always be Country positive.

Country-centric

We inhabit and are inhabited by Country. To inhabit Country and connect with Country is to be grounded in the landscape and to practice the cultural knowledge stored within it. This encourages physical and emotional wellbeing for people and Country.

The innate symbiosis of being connected to Country moves us into being Eco or Country centric, rather than being Human centric. This connection and position in relation to Country is a central component of Aboriginal people's ideology. It is a cultural value that places humans within the ecological and landscape system, not as dominators but as caretakers and custodians. This function requires constant interaction and observation, being tuned in to reactive requirements and response.

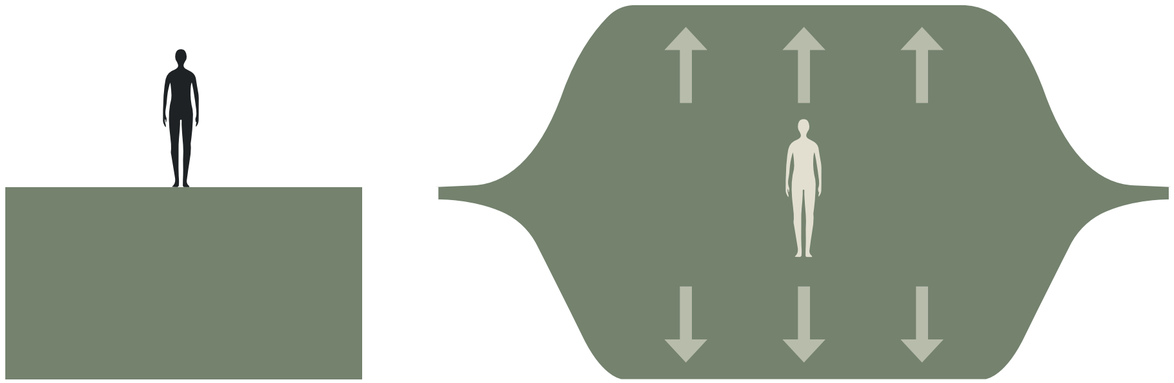


Figure.4 - *We inhabit and are inhabited by Country | Yerrabingin*

GANSW CONNECTING WITH COUNTRY FRAMEWORK

Policy Context

In 2023 the Government Architect New South Wales released the Connecting with Country Framework to guide Designing with Country projects in NSW. The Framework covers several areas of Designing with Country work, including:

Practices for taking a Country-focused approach

Combining traditional cultural knowledge and practices with a behavioural science approach to create a system of Communing with Country / Thinking, Sensing Country / Feeling, and Being on Country / Behaving to guide projects. The image to the right illustrates this relationship.

Guidance on design considerations

Considering the project scale to determine what design considerations should be factored into decision making and design. This project is building scale, therefore we are taking a contextual and site specific perspective.

Outcomes for Country

The Framework describes five Outcomes for Country to help project teams focus on their commitment to Country. The outcomes are: Healthy Country, Healthy Community, Protecting Aboriginal cultural heritage, Cultural Competency and Better Places. A summary of how this project addresses these outcomes is included in the final section of this report.

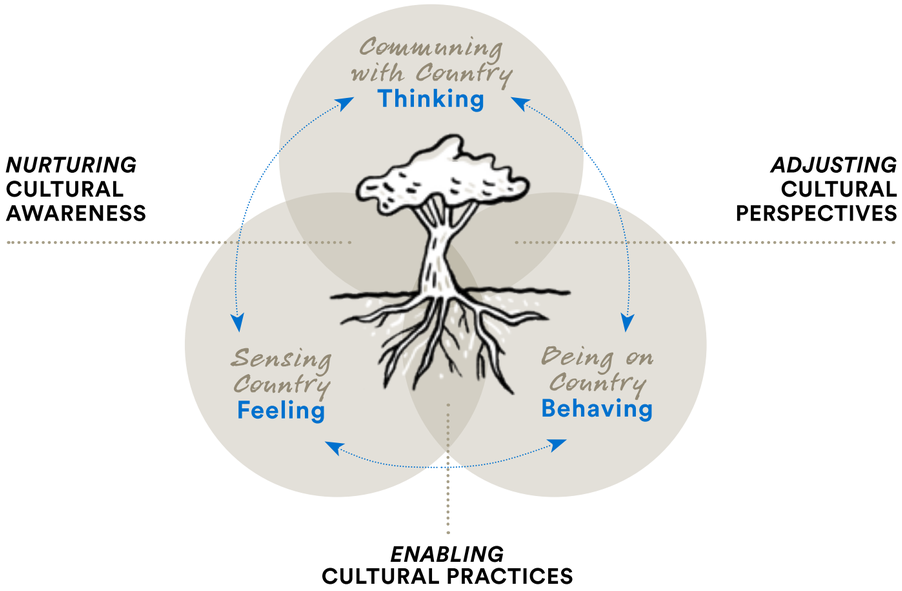


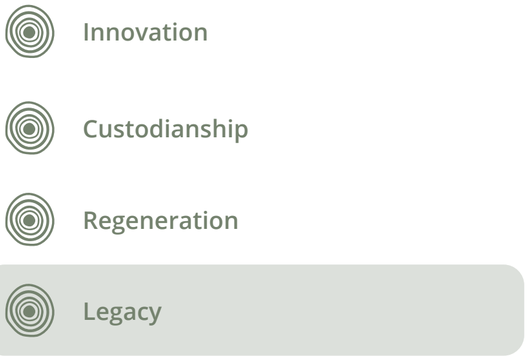
Figure.5 - Combining cultural practice and behavioural change systems | GANSW

YERRABINGIN PILLARS

What guides our work

Yerrabingin has four pillars that guide our work. The pillars link together our values, Country, culture, professional practice, and cultural practice.

Each pillar is one part of the larger task of caring for Country. Together they contribute to a holistic commitment to care and design for Country. The pillars are Custodianship, Innovation, Legacy and Regeneration. The new high school for Leppington and Denham Court offers an opportunity to work with the Legacy pillar and this is explored within this report.



Innovation

We are a transformative force for change. We draw on ancient wisdom, guided by ecological kinship, to share the powerful voice of Country and disrupt conventional systems and perceptions. Inspired by Country, we take a holistic view, centring creativity, adaptation and reciprocity. Our work propels us towards a collective future that considers the life of all kin.

Regeneration

We deeply understand the connections between all things and work towards balance. We overcome limitations in conventional design thinking by centring the needs of Country and all kin. We create places for people to experience the many ways Country sustains and holds them, to connect them with their role in the system of their place. Learning from Country, we take a long-term view, with the knowledge that health and healing will come, given the right conditions of care.

Custodianship

We are custodians of Country. We draw on cultural knowledge to advocate and care for Country. It is our responsibility to improve the health of Country and our diverse communities through our work. In our role as designers, we listen deeply to the needs of Country and walk together with our partners to foster connection. Country benefits and grows in our care.

Legacy

Our works sits at the intersection of culture and design. We are industry leaders in collaborative design, bringing together First Nations communities and built environment professionals for an enduring conversation. By introducing people to Country, we transform the experience of belonging and connection to place in Australia. We show people that if we care for Country, she will care for us in return. Healthy Country and connected communities are our legacy.

YERRABINGIN COLLABORATIVE DESIGN METHODOLOGY

Our Design Process

Our design methodology is informed by components of design thinking, user-centred design and Connecting with Country design disciplines to create our Country-focused, collaborative design approach.

Country-focused
What sets us apart from conventional built environment design is our recognition of the interconnection of Country with human activity and our imperative to consider the needs of Country in the design solution. Empathetic observation and consideration of Country is central to our approach.

The outcome of our Country-focused approach is that Country is designed for and cared for, allowing Country to care and provide for future generations.

Collaborative
Inspired by the natural processes of fostering and sustaining life on Country, our design methodology follows a cyclical, collaborative process: we collect, plant, nourish and tend.

The Connecting with Country Design Report – Final contributes to the Tend / Sustain stage in our methodology. In this stage, we tend our project by ensuring that the partnerships and outcomes created are sustainable and have ongoing positive outcomes for Country and communities. A key part of tending is empathising, which keeps the cycle moving. We tend in feedback sessions with the community and our ongoing partnerships and new custodial relations created through our project. Our output of this stage is this Connecting with Country Design Report - Final.

Design Methodology Stages
Collect **-** First, we collect by empathising with our project partners and with Country. We gather ideas, inspiration, facts, desires, research and limitations. This occurs in the discovery and 'How Might We' session.

Plant - After understanding the design challenge, we plant. Collaborative design workshops involve First Nations peoples and the wider team involved to generate diverse and innovative design solutions.

Nourish **-** Following the collaborative design sessions, we nourish through iteration. We share the collaborative outcomes to develop design solutions and concepts further based on feedback.

Tend **-** Finally, we tend to our creation. We tend by ensuring that the partnerships and outcomes created are sustainable and have ongoing positive outcomes for Country and communities.

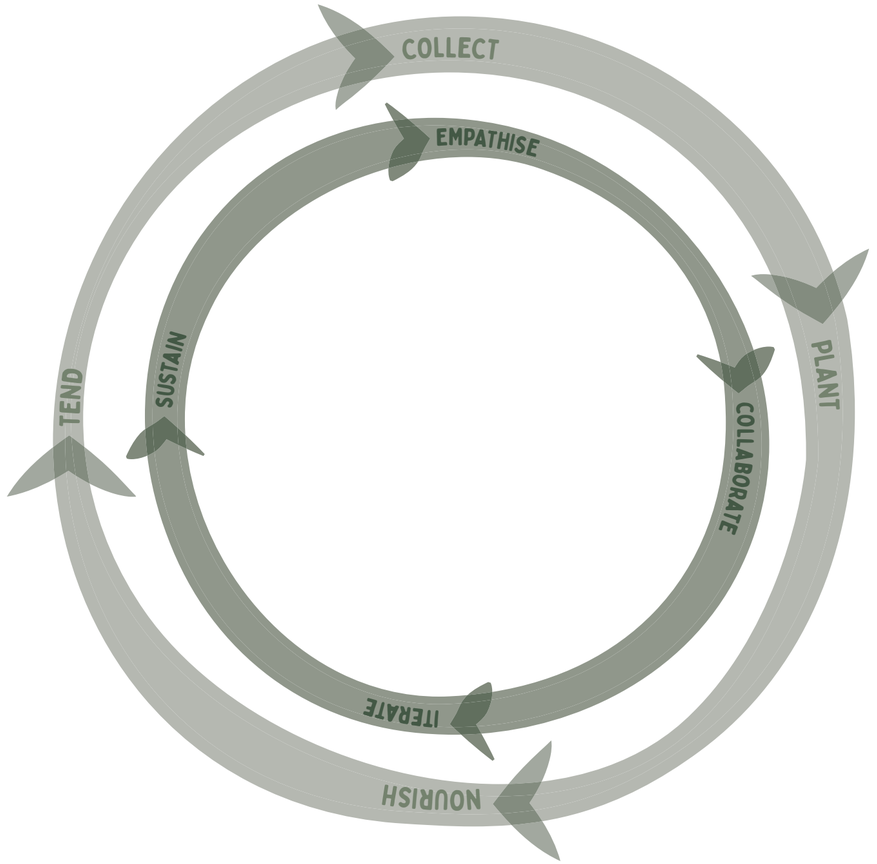


Figure.6 **-** *Methodology Process | Yerrabingin*

COLLECT / EMPATHISE

CONTEXTUAL ANALYSIS

INTRODUCTION

Project Overview

As part of this project, School Infrastructure NSW has engaged Yerrabingin to undertake the Designing with Country scope. This project aims to construct modern learning spaces and amenities to serve the growing population in the Leppington and Denham Court area.

This involves incorporating Aboriginal cultural knowledge and perspectives into the design and development to create meaningful connections to Country. The Designing with Country approach will help ensure the new high school facilities reflect and respect the long history and continuing cultural significance of the land to Aboriginal people.

Through this process, the project seeks to foster a sense of place and belonging for all future students and staff while acknowledging the enduring relationship of Aboriginal people to the area.

The project is currently in tender design stage, with this report assisting in the proposal process. The Connecting with Country approach will inform a site narrative that can be applied across the project to constantly express the pillar of legacy.

The site is known as 128-134 Rickard Road, Leppington, NSW, 2179 and is legally described as Lots A and B in Deposited Plan 411211. The site is located on the eastern side of Rickard Road and is approximately 4.1ha in area. The site is located immediately south of the existing Leppington Public School at 144 Rickard Road and is approximately 700m south of Leppington Train Station.

The northern portion of the site is currently used for residential purposes. The southern portion of the site is used for agricultural purposes, with multiple greenhouses and an existing pond on the property.

The proposed activity is for a new high school for Leppington and Denham Court. The new high school will accommodate up to 1,000 students across 3 new buildings that will comprise 48 permanent teaching spaces (PTS), 3 support teaching spaces (STS), 19 specialist labs/workshops/kitchens and a hall. Buildings 1, 2 and 3 will be clustered along the southern boundary and the hall will be located in south-east corner of the site. The activity also includes the construction of a sports field in the centre of the site and 3 x multipurpose courts along the northern boundary.

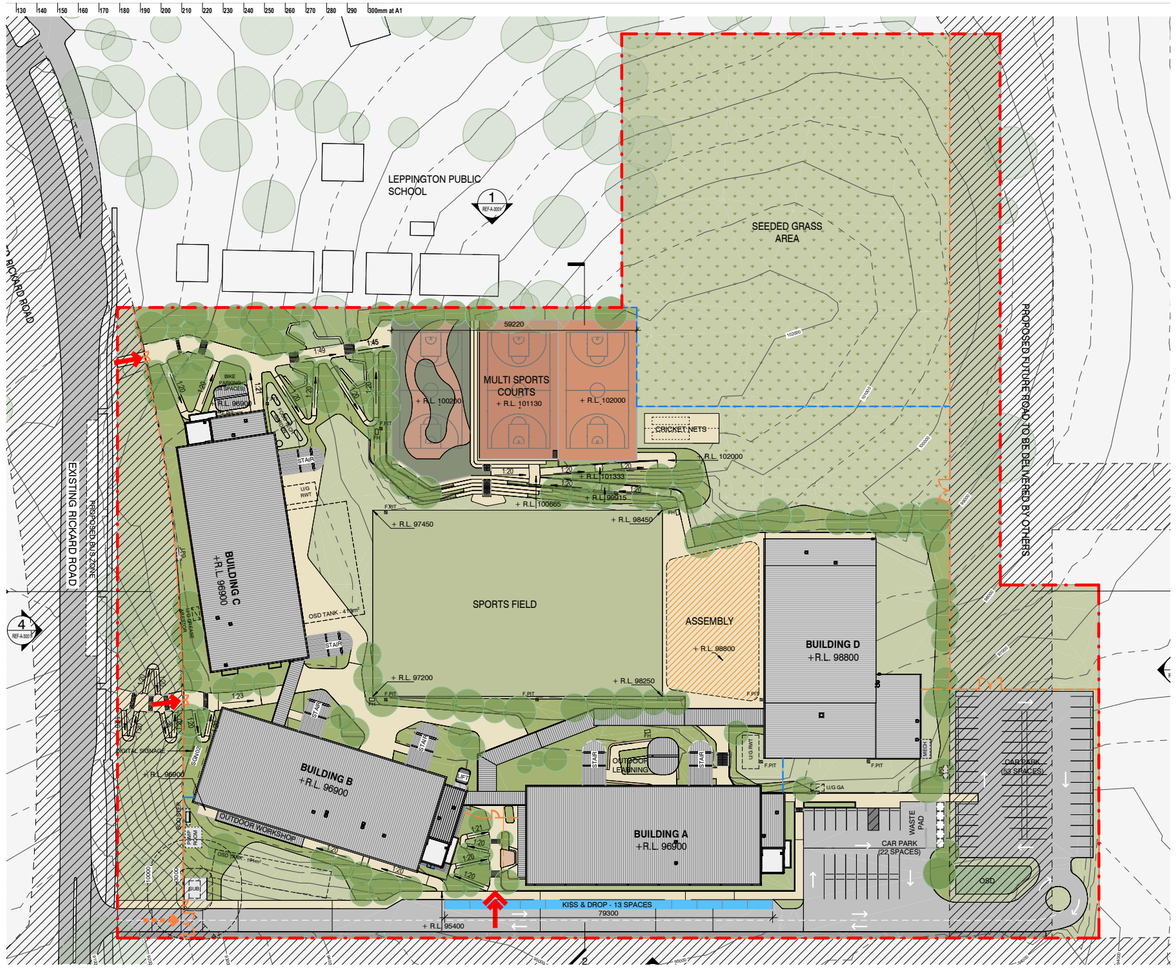


Figure.7 - New high school for Leppington and Denham Court | DJRD

DHARUG COUNTRY

Place in Country

The proposed new high school for Leppington and Denham Court project is situated on Dharug Country, within the traditional lands of the Dharug peoples who have been the custodians of this area for tens of thousands of years (Kohen, 1993). The Dharug peoples have a deep and enduring connection to this land, which is rich in cultural and ecological significance (Tobin, 2002).

The site is located within the South Creek sub-catchment of the Hawkesbury-Nepean River system, a network of waterways that have sustained Dharug peoples for millennia (Attenbrow, 2010). Nearby Kemps Creek, approximately 900 meters to the east, and Bonds Creek to the west, form part of this intricate water system that has shaped the local ecology and cultural practices (Molino Stewart, 2023).

The area is part of the broader Cumberland Plain, characterised by its gently undulating landscape and once extensive woodlands (Keith, 2004). The geology is predominantly Wianamatta Group shales, which have given rise to the clay-rich soils typical of the Cumberland Plain (Clark & Jones, 2017). These soils have historically supported a diverse ecosystem of Cumberland Plain Woodland, a critically endangered ecological community that holds significant cultural and ecological value (NSW Department of Planning and Environment, 2022). The climate of the region is temperate, with warm summers and mild winters. Rainfall is distributed throughout the year, with slightly higher precipitation in late summer and early autumn (Bureau of Meteorology, 2023). This weather pattern has traditionally influenced seasonal movements and resource gathering practices of the Dharug peoples (Gammage, 2011).

The broader landscape is rich in cultural heritage. Rock engravings, scarred trees, and stone tool scatters have been documented in the surrounding region, testament to the long and continued Dharug presence (Irish, 2017).

The cultural landscape extends beyond physical artefacts, encompassing intangible heritage such as Dreaming stories, songlines, and traditional ecological knowledge that continue to connect Dharug people to this Country (Bodkin, 2020). Understanding and respecting these deeper layers of cultural significance will be crucial in developing a school that truly connects with Country.

Figure.8 - *Untitled | Western Sydney Parklands, 2024*

YERRABINGIN PILLAR

Site Specific Opportunities

The concept of legacy is deeply intertwined with the Dharug people's connection to Country and their responsibility to care for it. This pillar is particularly relevant to the new high school for Leppington and Denham Court, as it presents an opportunity to create a lasting impact that honours Dharug culture, promotes environmental stewardship, and fosters a sense of belonging for future generations. By integrating Dharug knowledge and perspectives into the school's design and curriculum, we can ensure that the project leaves a positive legacy that extends far beyond its physical structures.

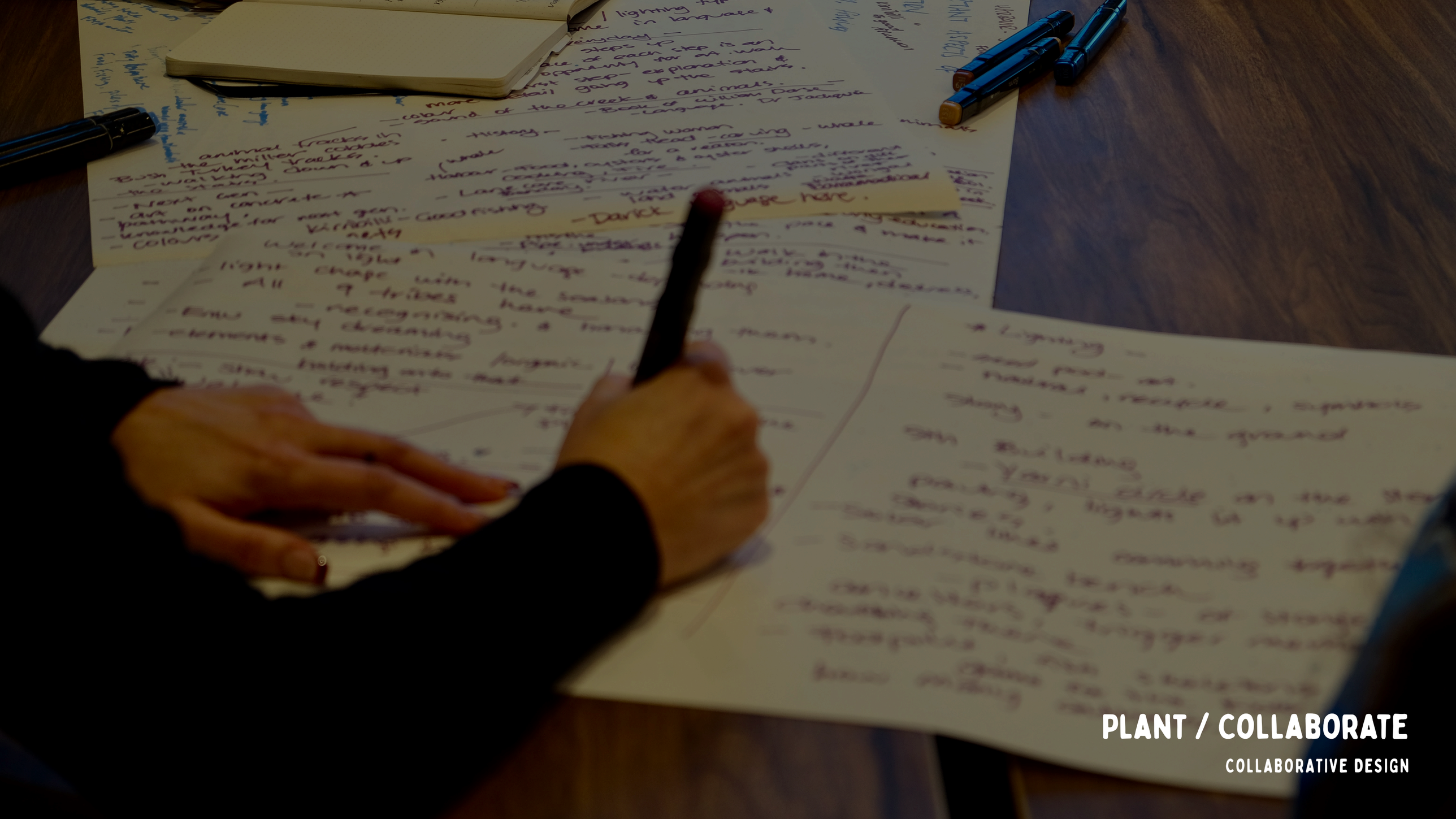
Dharug Elder Aunty Edna Watson emphasises the importance of this connection to Country, stating,

"Our connection to Country is our birthright, our inheritance. It's not just about the land, it's about everything – the trees, the animals, the air we breathe. It's all connected, and we are part of that connection"

(Watson, as cited in Bodkin, 2020, p. 45).

This profound understanding of interconnectedness can be woven into the fabric of the school, both literally and figuratively. The school's architecture can reflect Dharug culture, incorporating elements that represent the local flora, fauna, and landforms. This could include using native materials, designing spaces that maximise natural light and ventilation, and creating outdoor learning areas that encourage students to engage directly with the natural environment (Jones & Birch, 2021).

Figure.9 *- Untitled | Liverpool City Council Australia, 2020*



PLANT / COLLABORATE

COLLABORATIVE DESIGN

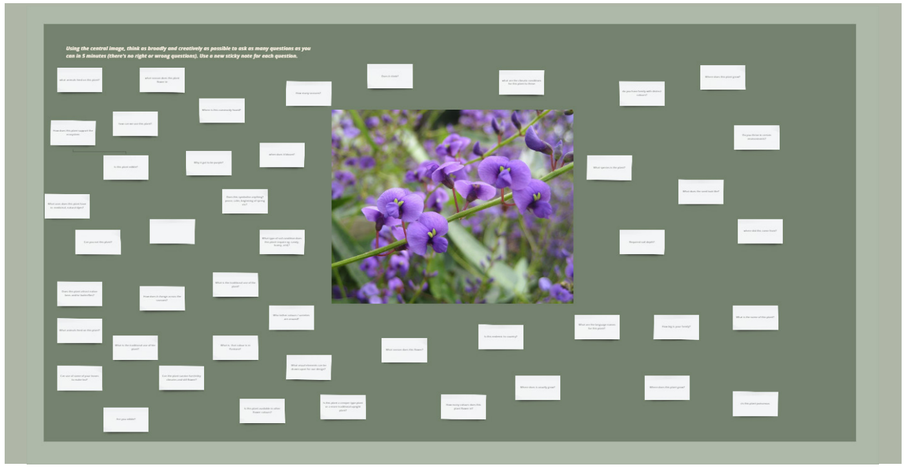
COLLABORATIVE DESIGN METHODOLOGY

Process and Progress

As described above in the introduction to Yerrabingin's Collaborative Design Methodology, our design process is made up of four stages, Collect / Empathise, Plant / Collaborate, Nourish / Iterate and Tend / Sustain. Each project is unique, and we tailor our design approach within each of the four stages for each project.

Our Progress

We have completed the Collect / Empathise and Plant / Collaborate stages and we are now working on the Nourish / Iterate stage.



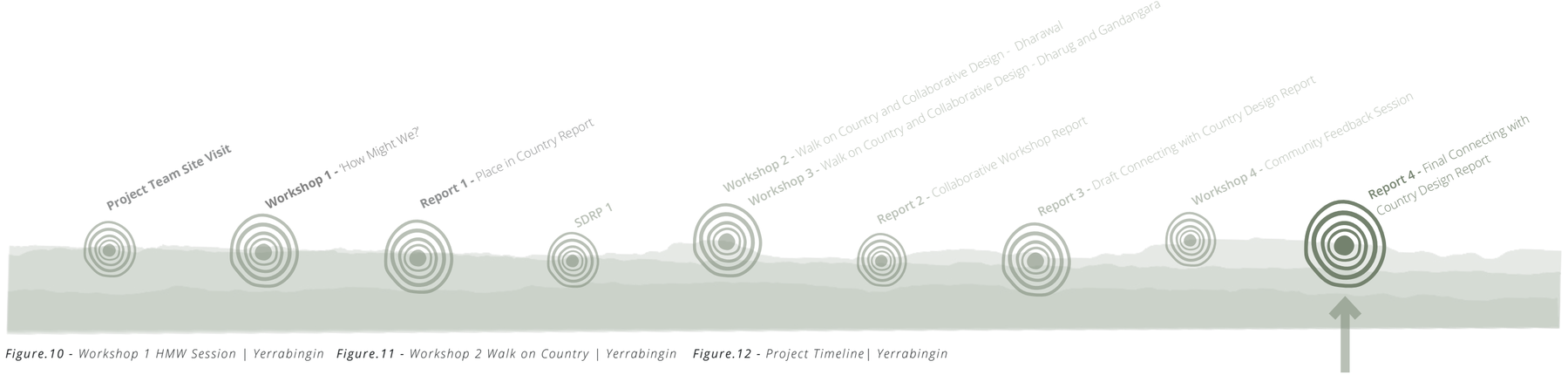


Figure.10 - Workshop 1 HMW Session | Yerrabingin *Figure.11 - Workshop 2 Walk on Country | Yerrabingin* *Figure.12 - Project Timeline| Yerrabingin*

HOW MIGHT WE?

Our Design Challenge

In the How Might We Session, we worked with the project team to learn as much as we could about the aims of the project and to introduce the design team to our process. We created the following How Might We statement for the project:

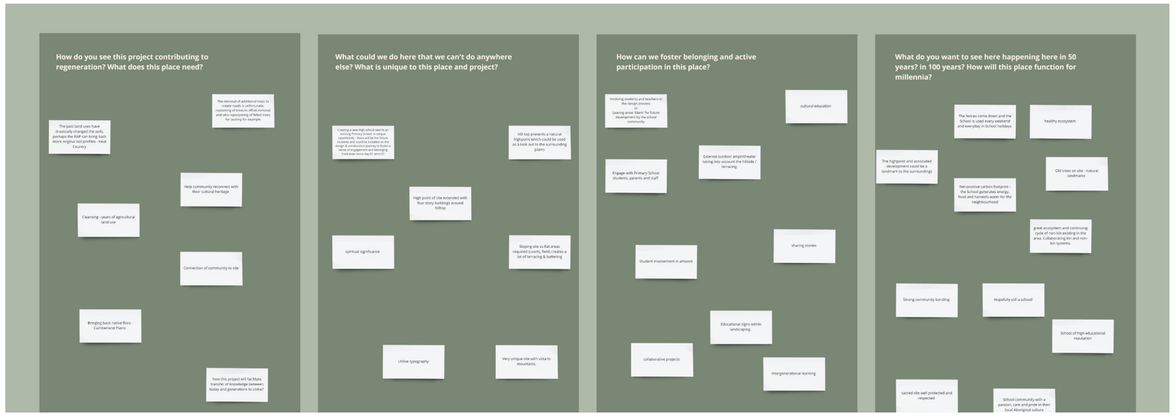
How Might We design transformative and inspiring learning spaces which reflect Country, contribute to Country, and allow Country to be the lead teacher?

We use the How Might We statement to understand the design team's thoughts on the project users, impact, connection and value. By gaining as much information as we can from the beginning, we aim to ensure that we can direct the project more accurately and generate more impact. We use the How Might We statement to define our design challenge.

Across all activities, the overarching themes of enriching educational development and a Country integrated strategy were clear.

There is opportunity for this project to regenerate the ecologies of Country and embed them in the function of education and youth development. This will allow students, teachers and visitors to create a sense of custodianship and responsibility to the systems of Country within the site, and beyond.

Through innovative design approaches, the new high school for Leppington and Denham Court can create an environment that fosters physical, mental and emotional growth for visitors and shape a legacy for future generations on acknowledging and caring for Country.



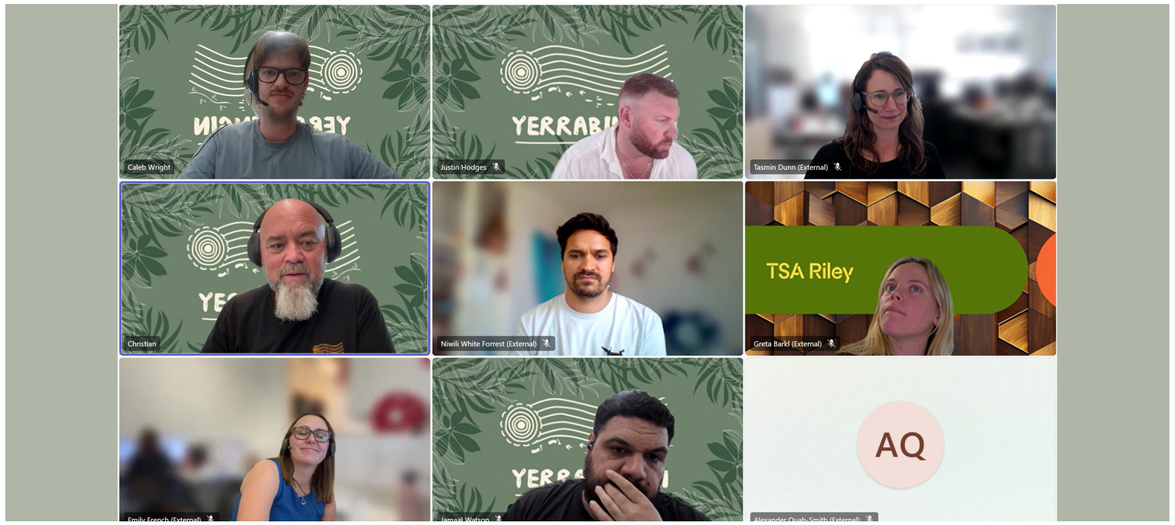


Figure.13 *- How Might We session activity | Yerrabingin* ***Figure.14*** *- How Might We session participants | Yerrabingin*

WALKS ON COUNTRY

Listening to Country

The on-Country walks was part of our collective stage. We visited the project site alongside the project team and community members to understand the site's context, explore the needs of Country in this place, and build strong relationships with one another.

Workshop 01

When: Monday 23rd September, 2024

Where: 128 – 134 Rickard Road, Leppington

Who:

- 10 x First Nations community members
- 1 x TSA Riley staff (Mardi Christian)
- 1 x DJRD staff (Niwili White Forrest)
- 4 x Yerrabingin staff (Christian Hampson, Kerrie Shepherd. Justin Hodges, Caleb Wright)

Workshop 02

When: Friday 4th October, 2024

Where: 128 – 134 Rickard Road, Leppington

Who:

- 4 x First Nations community members
- 1 x The new high school for Leppington and Denham Court Director, Educational Leadership (Dace Elletson)
- 1 x DJRD (Emily French)
- 2 x Yerrabingin (Christian Hampson, Caleb Wright)

***Figure.15** - Walk on Country - Workshop 01 | Yerrabingin* ***Figure.16** - Walk on Country - Workshop 02 | Yerrabingin*

COLLABORATIVE DESIGN WORKSHOPS

Discussion and Findings

Participants of the two collaborative workshops each took part in activities around three focus areas:

Activity 1 : Reflecting Country

This focus area explored how the activity could express and celebrate the unique features of the Country it sits on.

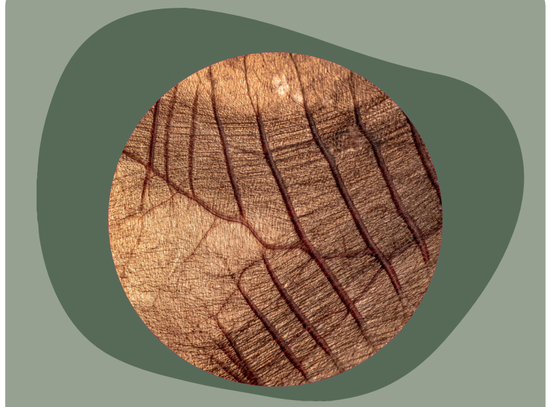
Activity 2 : Contributing to Country

This focus area challenged how the proposed activity could have a positive influence on Country.

Activity 3 : Country as a Teacher

This focus area investigated the role Country can play in educating and fostering connection for future students, staff and visitors.

The outcomes of the activities are summarised in the adjacent diagram, and in full in the Collaborative Design Workshop report.



Reflecting Country

Ensure the new high school for Leppington and Denham Court reflects the unique and specific elements of Country on which it is located. Opportunities identified in the collaborative workshop include materials selection, use of keystone species in naming of spaces and interpretive elements, planting of indicator species in the landscape to express seasonality, creating strong visual connections between interior and exterior spaces, and views beyond the site.

***Figure.19** - Texture of Flying Fox wing | National Geographic*

Contributing to Country

This idea recognises the opportunity for the design of the new high school for Leppington and Denham Court to improve the health of Country through design interventions. This could include encouraging the presence of Non-Human Kin through habitat creation, the use of the unique terracing of the site to create spaces to view and connect users to Sky Country and introducing water sensitive urban design and revealing the hydrology of the site as a way to improve water quality, as well as an education tool.

***Figure.18** - Cumberland Shale Plains Woodland | Prestons, NSW*

Country as a Teacher

Country as a teacher involves instilling values such as resilience, sustainability, kinship, respect and ingenuity. It's about learning the systems and resources of the land, water and skies around you to appreciate the role you play in the web of relationships of kin. By viewing Country as a living entity, the students, staff and visitors of the new high school for Leppington and Denham Court will leave with an appreciation for the site and it's context.

***Figure.17** - The blue tongued lizard indicates a new season | Lehigh Valley Zoo*

NOURISH / ITERATE

IDEATION DEVELOPMENT

IDEATION DEVELOPMENT WORKSHOP

Discussion and Findings

Following the Collaborative Design Workshop with Aboriginal community members and the project team, Yerrabingin held an Ideation Development Workshop with the project team to review the summary of outcomes of the Collaborative Design Workshop and investigate ideation opportunities, expand thinking, understand constraints and limitations, and together develop the next stages of the Connecting with Country design work.

A number of the Community data points from the collaborative workshop were repeated and confirmed by the project team as attainable design outcomes for the project. The discussion and findings under the topic areas explored is as follows:

Reflecting Country

- Expression of geology through the use of stone and rocks, and Deep Country colours in landscape seating, walls, and elements. Use from site if possible
- Colours of Country used in building panelling, powder coating and brick colours, and integration of art.
- Incorporate patternation expressing Country, through perforated steel panels, murals and other artwork integrated with building and in the landscape.
- Kinetic built elements reflecting wind Country.

Contributing to Country

- Frame Blue Mountains from upper level walkways and classrooms, and at landscape high point. Create view corridors with planting, and use seating at key points to allow for pause and 'looking up' to engage with sky Country.
- Consider tree canopy and aim to create a connected canopy around and through the site.

Country as Teacher

- Embedded water sensitive urban design in the landscape
- Strategic tree planting to mitigate impacts of heat on buildings
- Outdoor teaching spaces including sensory gardens, cultural planting

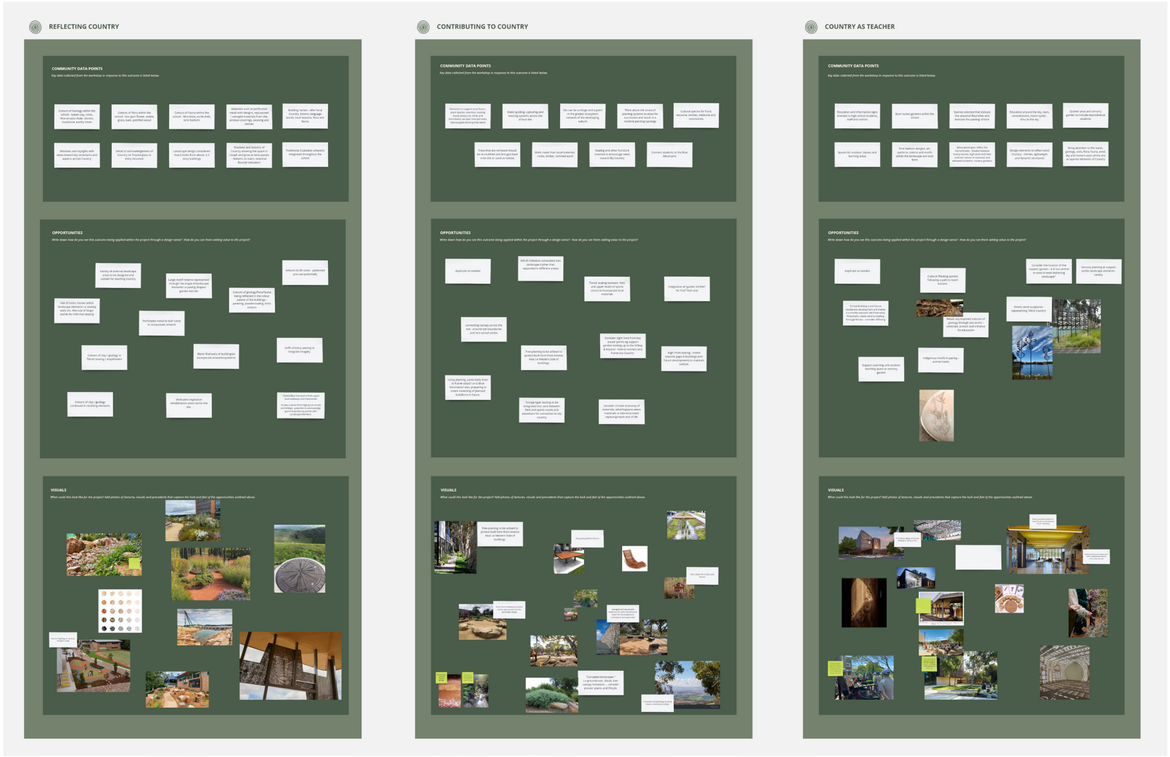


***Figure.20** - Ideation Workshop Miro Board | Yerrabingin*

TEND / SUSTAIN

TOWARD FINAL DESIGN - NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT

COMMUNITY FEEDBACK SESSION

Process

The design development progress was shared with community at our Community Feedback session on Tuesday, November 5th 2024. The session was attended by:

- 15 x First Nations community members
- 1 x SINSW (Paul Kotronakis)
- 1 x DJRD staff (Niwili White Forrest)
- 1 x Site Image (Nick Metcalf)
- 2 x Yerrabingin (Kerrie Shepherd, Caleb Wright)

In the session, Yerrabingin presented project updates and what opportunities had emerged from the Collaborative Workshop. Consultants then presented their project progress to the group, highlighting how specific elements from the opportunities identified in the Collaborative Workshop have been explored in the current design.

Specific feedback was sought for the three key opportunity areas on site being:

- Revealing Deep Country
- Views to Sky Country and Horizon
- Country is our Teacher

Feedback captured in the session included post it notes and recorded conversations, which captured Community responses and comments toward key parts of the project proposal.

Based on this feedback, the consultant team have been able to progress with ideas relating to the key opportunity areas, such as integrating local materials, colours, textures and motifs into the future school design, encouraging links to the Blue Mountains and Sky Country, and designing internal and external spaces where staff and students can nourish their connection to Country.

***Figure.21** - Community Feedback Session Attendees | Yerrabingin* ***Figure.22** - Attendees reviewing material | Yerrabingin*
***Figure.23** - Attendees discussing material | Yerrabingin*

Discussion and Findings

Connecting with Country Principles:

- Agree with established principles
- Can you integrate the found artefacts from Deep Country?
- Like the access to light, and natural materials.
- Use the colours of Deep Country throughout the design.
- Mountain views and sky views are very important, glad to see they are their own principle.
- There should be more green spaces to connect to Country, outdoor class sessions for all use spaces.
- Country is being represented accurately in the colour palette and respect of using flora and the re-use of dead trees as benches and decor. The importance of preserving the natural view of the land.
- Keep as much of Country as possible.
- Additional colours of Country could be waratah (red), dianella (purple), wattle (yellow), native cherry (green and red), honey suckle (pink and yellow) and gymea lily (green and red).
- The colours of the Blue Mountains - grey, blue, green.
- When it comes to the colours of Deep Country, let the earth do the talking. Take a photo during excavation or bore holes.
- Love that Sky Country is there - key views.

Landscape

- Push for more grass areas.
- Look at the amphitheatre, how good is that?!
- I like the soft, jagged, bleeding edge of the amphitheatre steps.
- The frontage of amphitheatre material should be a gradient of colours from Deep Country.
- WSUD areas could have QR codes or educational plaques. Incorporate the turtle story.
- Have the permeable paving with animal footprints to educate on tracking.
- The footpaths should tell a story to reflect the journey as you move through.
- Flowers on the side of pathways and snake designs.
- It's good if felled trees are re-used in the design.
- Think about the ground level materials - softfall and pathways are also the colours of Country.
- Have artwork at the front entry of the school

Architecture

- What is happening on the rooftops? Connect to Sky Country through Emu Dreaming and constellations are ancestors. Consider the sky views when flying over.
- Country as Our Teacher - need to embed the lessons from Country in the school [research AHIMS and get community perspective].
- Spaces and places for cross-cultural exchange.
- Have the form of the Blue Mountains accurately outlined on the facade.
- Any artworks should be in-line with the narrative of the site.
- There are 6 buildings, 6 local seasons colours and names. Have a look at the Western Sydney Parklands seasonal artworks.
- Think about the colours as a transition from Deep Country, land and Water Country to Sky Country.

Future Opportunities

- There should be ceremony before the breaking of ground with community involved.
- There should be a community site walk through and opening ceremony for when the new high school for Leppington and Denham Court is opened.
- In the past, the AECG have come in and changed school designs that were formed by community engagement outcomes. They should not decide or change what community have said.

***Figure.24** - Landscape presentation | Yerrabingin*

CONNECTING WITH COUNTRY OPPORTUNITIES

New high school at Leppington

This section presents our finalised Connecting with Country Opportunities, incorporating all feedback discussed in the above two sections and following further development on the ideas presented in the draft report to elaborate on the design opportunities.

The finalised Connecting with Country Opportunities include:

- Revealing Deep Country
- Views to Sky Country and Horizon
- Country is our Teacher

Revealing Deep Country

This opportunity looks to Deep Country, and what can be revealed in the design to reflect Country.

The project should strive to reveal the stories of geology, ground water and layers of Deep Country, and reflect those colours and movements above ground in the architecture and landscape elements.

Views to Sky Country and Horizon

This opportunity looks to Sky Country, and ways to connect the school to the surrounding cultural landscape of this Country.

The new high school for Leppington and Denham Court can inspire learning spaces for contemplative reflection, connected to Sky Country. Students can gain a deeper understanding of their place in Country and observe daily and seasonal changes in light and weather.

Country is our Teacher

This opportunity allows spaces for learning and teaching in different ways, from the lens of connecting to Country.

By designing places and experiences for interaction and experience of Country, the school can function as a place for learning on many layers. It will teach in a passive way, through it's presence and connection to Country, and hold spaces for active teaching and learning.

Revealing Deep Country

This opportunity looks to Deep Country, and what can be revealed in the design to reflect the Country of the new high school at Leppington.

The unique geology and archaeological history of this Country can be reflected through the materiality and colour palette of the project. The built form and landscape elements should take inspiration from the existing colour palette of Deep Country such as clay-rich Wianamatta Group shales soils.

Furthermore, the opportunity to expose the stratums of geology during construction as unique features of Country which can be innovatively woven into the school. Any material that is disturbed during construction can be re-purposed into landscape features to encourage innovative and regenerative solutions.

Water sensitive urban design initiatives in the landscape and built form can be integrated to guide, capture and treat water across the site. This will bring students and teachers attention to their contextual location close to the Kemps and Bonds Creeks, as part of an intricate water system that penetrates Deep Country and evoke a sense of legacy.

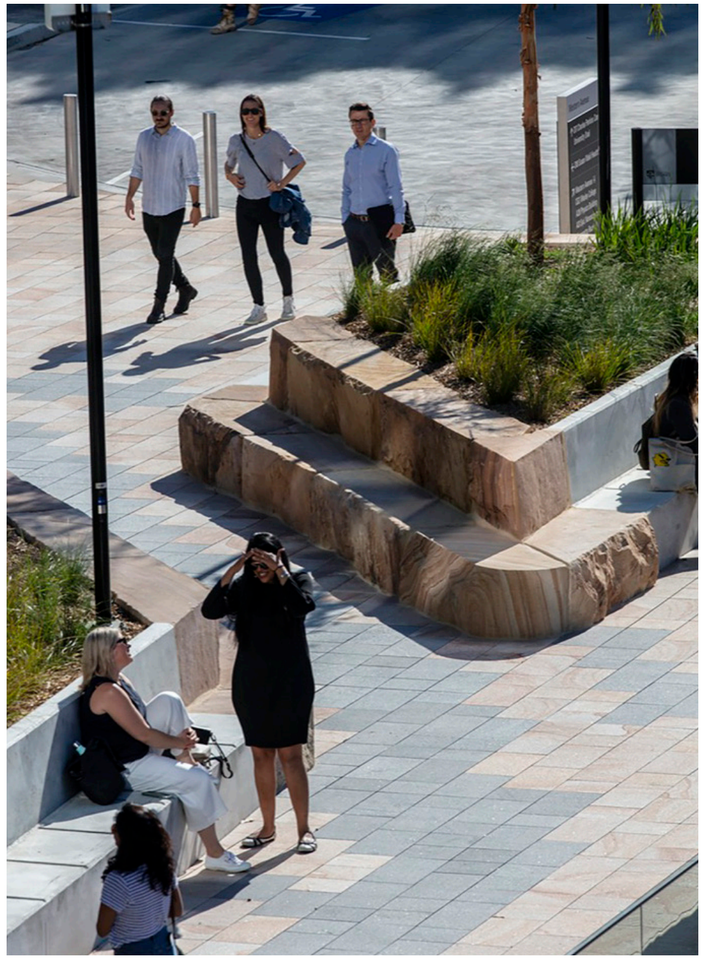


***Figure.25** - Geology re-purposed in design | GREENinc Landscape Architecture*

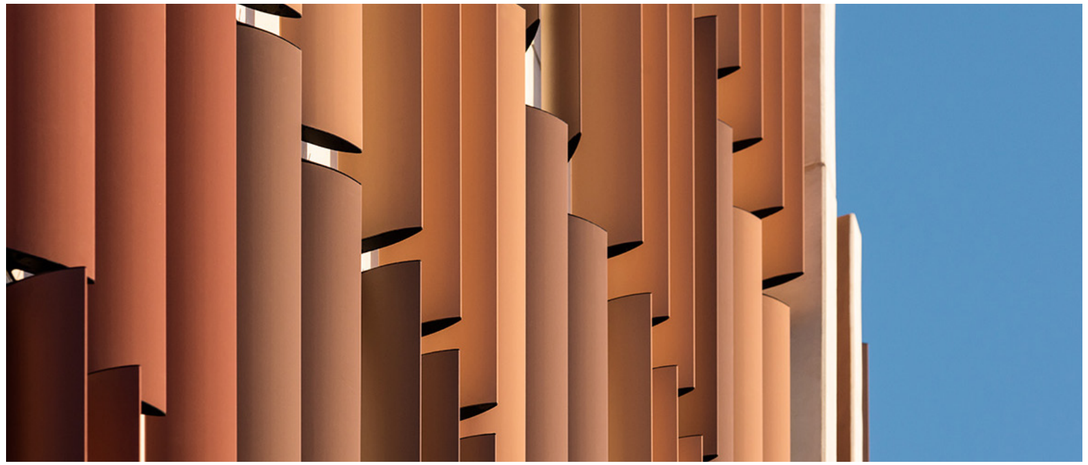


***Figure.26** - Natural tones on facade | Dulux Powders*

***Figure.27** - Dry creek bed | Our Nesting Space*

***Figure.28** - Tiered geology | Helidon Sandstone*

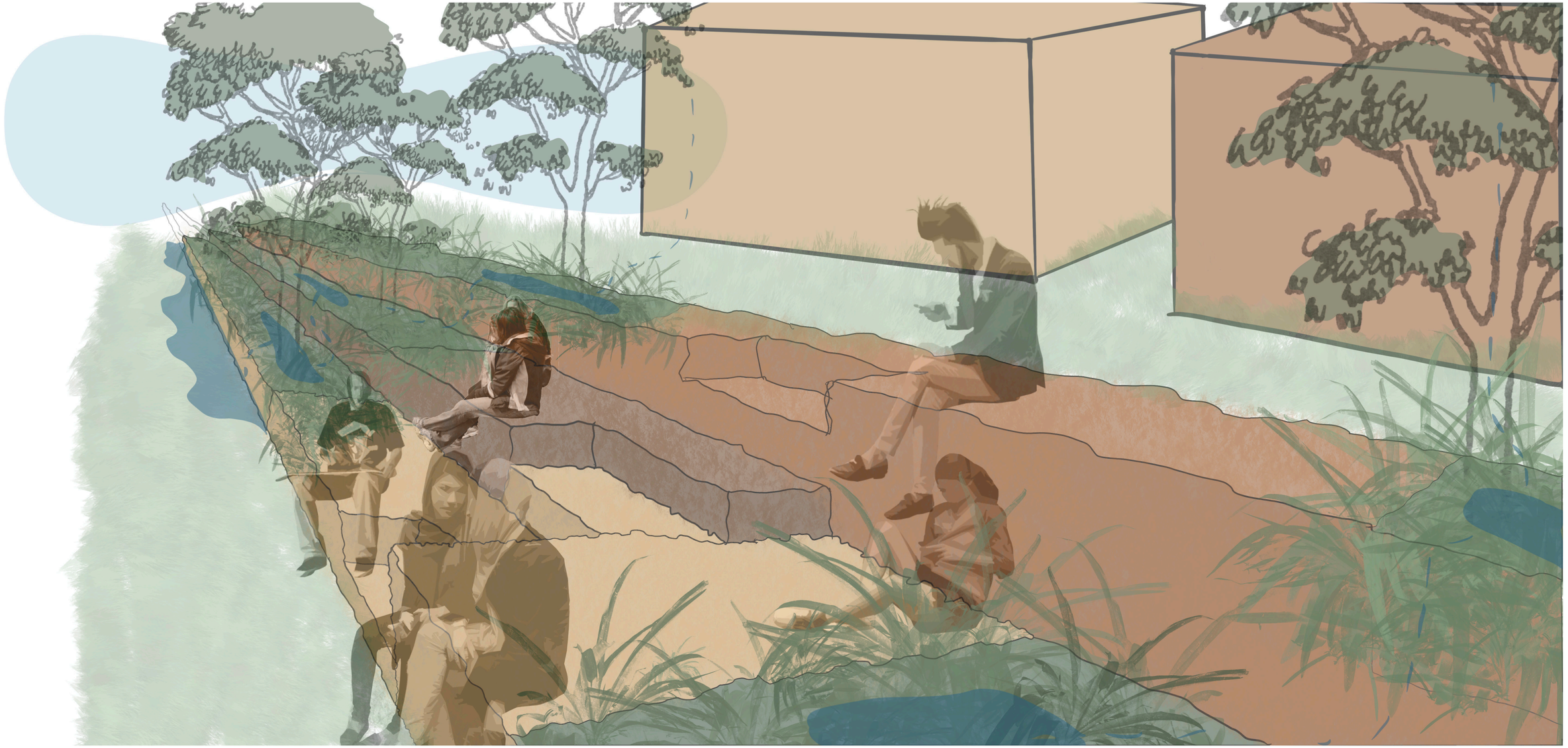


Figure.29 - Revealing Deep Country site application graphic | Yerrabingin

Views to Sky Country and Horizon

This opportunity looks to Sky Country and ways to connect the school to the surrounding cultural landscape of Dharug Country.

The current site offers breathtaking views across Country toward the Blue Mountains and Big Sky Country. Retaining these views where possible, and inviting the essence of the mountain range into the school ensures that connection is not lost as the surrounding suburb is developed.

High points within the site should also be utilised as key opportunities to gather and admire the surrounding landscape. Furthermore, angled seating and terracing can encourage students, staff and visitors to shift their eye line toward Big Sky Country - creating an educational opportunity around the movement of the sun, moon and stars, and their influence on the seasonal flourishes of Country. The exploration of shade and shadows within the built form reflects the solar movements into other elements of the school.

In addition to active education opportunities, the expanses of Big Sky Country encourage contemplative reflection for students who may be seeking solitude and respite. By providing internal and external spaces where students can hangout with views toward sky Country, the new high school for Leppington and Denham Court can innovatively connect visitors to the sky and horizon of this Country.

***Figure.30** - Views from Leppington to Blue Mountains | Paig* ***Figure.31** - Landform inspired facade | Ashari Architects* ***Figure.32** - Platform seating | SFA*
***Figure.33** - Basking lounges | Liege(wiese)*

***Figure.34** - Views to Sky Country and Horizon site application graphic | Yerrabingin*

Country is our Teacher

This opportunity grounds education experiences in Country through facilitating moments for active and passive learning.

As discussed in the previous opportunity, having internal and external gathering spaces invites students and teachers to learn from the systems and elements of Country.

First Nations design, art, patternation and motifs expressed throughout the landscape and architecture of the school will also provide canvases for education, and encourage all visitors to the new high school for Leppington and Denham Court to strengthen their connection to Country.

In addition to sky Country reflecting the seasonal flourishes of Country, the selection and placement of planting species which reflect the progression of seasonal flourishes through behaviour such as flowering and fruiting. Fauna species which indicate seasonal changes can also be incorporated into design motifs.

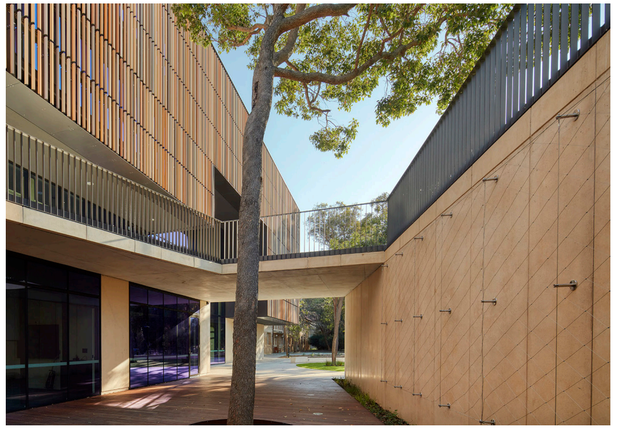


Figure.35 - *Country guides architecture and planting | Hayball* ***Figure.36 -*** *Materiality and scale informed by Country | Badge* ***Figure.37 -*** *Integrated indoor / outdoor learning spaces | ASPECT Studios*
Figure.38 - *Existing tree guides architectural form | Kerry Hill Architects*

***Figure.39** - Country is Our Teacher site application graphic | Yerrabingin*

CONNECTING WITH COUNTRY DESIGN

Answering the How Might We Question

The Connecting with Country opportunities presented in the preceding pages together form the answer to our How Might We question:

How Might We design transformative and inspiring learning spaces which reflect Country, contribute to Country, and allow Country to be the lead teacher?

Through Yerrabingin's engagement process, key opportunities for the new high school for Leppington and Denham Court to explore this question have been identified.

Transformative and inspiring learning spaces are those which are informed by, and immersed within Country. These spaces should respond to the materials, colours, textures and landmarks of Country in order to reflect the High School's context. Providing moments where students and staff can learn through Country-positive design interventions will instil a holistic understanding of the interconnected kinship systems which are woven across Country. By bringing Country into the school through plantings that showcase seasonality, habitat creation, materials and healthy water flows, students can interact and learn from a thriving, healthy system of Country.

Revealing Deep Country

1. Tones and hues inspired by Deep Country
2. Exposing and celebrating the unique geology
3. Providing permeable surfaces for water to penetrate

Views to Sky Country and Horizon

4. Maintain high points on site where possible
5. Integrate the sun, moon and constellation movements into the design
6. Reclined seating to guide user eye-line upward

Country is Our Teacher

7. Outdoor learning nestled in Country
8. Strengthen biodiversity areas for Non-Human Kin
9. Reflect First Nations culture and knowledge in design elements

Figure.40 - CwC opportunities overlayed on site plan | Yerrabingin, DJRD

GANSW CONNECTING WITH COUNTRY FRAMEWORK OUTCOMES

Outcomes for Country

GANSW Outcomes for Country	The new high school for Leppington and Denham Court Opportunities
1. Healthy Country	• Reintroducing locally native ecologies onto the site through the prioritisation of Non-Human Kin. • Retaining the high point of the site to ensure Country remains recognisable.
2. Healthy Community	• Strong cultural identity through design motifs of Country. • Cultural safety and an invitation to appreciate Country. • Employment opportunities for identified staff.
3. Protecting Aboriginal cultural heritage	• Opportunity to integrate local language and place names into the school. • Allow wider First Nations community access to Country through out of hours school activities and community programs. • Engagement with First Nations community to ensure connecting with Country engagement is informed by Traditional Custodians, Registered Aboriginal Parties and First Nations community stakeholders.
4. Cultural Competency	• Ongoing cultural awareness training for staff to integrate into curriculum to develop skills and competency in delivering Country-centred material.
5. Better Places	• Planning and design projects apply the community driven opportunities to ensure the new High School for Leppington and Denham Court is connected with Country. • Planning and design outcomes informed by the community driven opportunities support living cultural practices. • Original landscapes are repaired and restored through the re-establishing of locally native ecologies.

Figure.41 *- Existing vegetation on site | Yerrabingin*

PROJECT LEGACY

Future of Connecting with Country at the new high school for Leppington and Denham Court

We have followed our Collaborative Design process to first define our design challenge, and then with the project team and Aboriginal community members, worked together to develop a solution to our challenge in the form of an answer to our How Might We Question as shared above.

At the beginning of the process, Yerrabingin identified the opportunity to explore bringing the Legacy pillar into the design solution, and our process has focused on developing design solutions that will achieve long term outcomes for Legacy at the project site.

Together, the Connecting with Country opportunities of '*Revealing Deep Country*', '*Views to Sky Country and Horizon*' and '*Country is Our Teacher*' will contribute to bringing this pillar to life at the site in the short term, and into the future.

Figure.42 - *Project site with Blue Mountains in background | Yerrabingin*

FIGURES LIST

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