Appendix G7 Site-wide Landscape Strategy

Environmental Impact Statement

for Alterations and Additions to St Philip's Christian College, Cessnock

ST PHILIP'S CHRISTIAN COLLEGE CESSNOCK

LANDSCAPE STRATEGY AND DESIGN REPORT



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В	Draft	JS	05.10.21
С	For Review	ТВ	18.11.21
D	For Submission	ТВ	17.01.22



OVERVIEW

SITE

LANDSCAPE DESIGN PRINCIPLES

PRECINCT CONCEPTS

STAGING

1.1 Introduction

This report has been prepared to support a State Significant Development Application for alterations and additions to an existing school known as St Philip's Christian College Cessnock. The school caters for students from Kindergarten to Year 12 and also incorporates an Early Education Centre and Prep program as well as a special school for students requiring an alternate learning environment.

The school is located on the corner of Lomas Lane and Wine Country Drive, Nulkaba and its land holdings incorporate four large lots described as Lot 1 DP 126765, Lot 1 DP 744377, Lot 2 DP 600895 and Lot 518 DP 837571.

The site is irregular in shape and has an overall area of 41.8 hectares. The site's northern boundary has frontage to Lomas Lane of approximately 390 metres and its western boundary fronts Wine Country Drive with a length of approximately 1030 metres. The site's eastern boundary is defined by Black Creek.

The proposed development, to be constructed in several stages, consists of seven (7) new buildings and additions/ alterations to six (6) existing buildings. As part of the development certain existing pre-fabricated buildings will be removed to make way for new permanent buildings. The proposed development also incorporates infrastructure works external to the site associated with provision of a new intersection on Wine Country Drive providing direct access to the school at the southern end of the campus, and the upgrade of the intersection of Wine Country Drive and Lomas Lane to a roundabout. Widening of Lomas Lane will also be carried out to facilitate the provision of bus bays and a bus layover area.

The school has a current enrolment of approximately 1,270 students, including the Narnia Early Education Centre and Prep Program and DALE Special School. This application seeks approval for an increase in student numbers up to 1,732.

Moir Landscape Architecture were engaged to provide landscape architectural services for the redevelopment of St Philips Christian College, located at Lomas Lane, Nulkaba (Cessnock). For the initial stage of the project, Moir LA has prepared a site-wide Landscape Strategy to accompany the master plan prepared by SHAC Architects, with whom Moir LA has worked closely to develop an integrated design strategy. The design has been prepared in accordance with relevant strategic documents and planning policies, notably the 'Better Placed' policy from the Government Architect NSW (GANSW) and local Cessnock Council planning controls.

As a school campus, the design proposal seeks to maximise opportunities for a stimulating and engaging learning environment. A detailed analysis of site conditions has informed a design strategy that responds to existing landscape elements, including the site's topography, network of water bodies and resident ecological communities, as well as constraints such as flooding and bush fire.

The site-wide landscape strategy identifies the unique character of each of the four key activity precincts, while ensuring an overall design coherence across the school campus. The design seeks to enhance the site's overall amenity and sustainability through consideration of connectivity, shade, views, materiality and water management using best practice water sensitive urban design.









1.2 Strategic Approach

Better Placed - Government Architect NSW

The Design Guide for Schools and Environmental Design in Schools are part of a suite of documents developed by the Government Architect NSW (GANSW) as part of the Better Placed design policy. These documents have been prepared by GANSW in collaboration with School Infrastructure NSW (SINSW) and provide specific guidance for good design in NSW schools.

The Design Guide For Schools provides guidance on how to meet the Education SEPP Design Quality Principles, listed as the following:

- 1. Context, built form and landscape
- 2. Sustainable, efficient and durable
- 3. Accessible and inclusive
- 4. Health and safety
- 5. Amenity
- 6. Whole of life, flexible and adaptive
- 7. Aesthetics

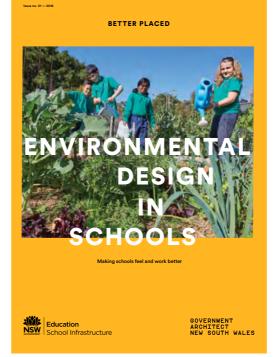
The Design Guide provides recommendations for a best practice approach to the design process for schools, emphasising the importance of a wholistic and participatory design approach.

Environmental Design in Schools outlines the benefit of environmentally sensitive design for people and their surroundings in schools. The manual presents strategies for designing buildings and landscapes that respond to the natural environment in order to create comfortable and sustainable learning spaces.

The GANSW documents *Greener Places Design Guide* and Designing with Country discussion paper provide additional guidance that is relevant to certain aspects of the project.

The guidance provided by these documents will inform the design approach for the landscape strategy, ensuring the delivery of a high quality design in line with State Government principles.









Source: Government Architect NSW



1.3 St Philip's Christian College

Founded in 1998, St Philip's Christian College Cessnock was originally known as Hunter Vineyard Christian College. The school has been managed by St Philip's Christian College since 2004. It is one of six schools across the Hunter and Central Coast regions under the governance of St Phillip's Christian Education Foundation.

St Philip's Christian College Cessnock is located on a 42-hectare site on Wine Country Drive, Nukalba. At present, the school has over 1200 students across prep, junior school, middle school and senior school.

Our Mission

'St. Philip's Christian College will continue to provide quality education in a caring, secure and challenging learning environment based on Christian beliefs, values and practice'

Our Core Values

- · Christ First we want to honour Christ in all things.
- Serve One Another we want to appreciate the unique God-given potential of each person.
- Strive For Excellence we want to aim to do our very best all the time.
- Do What Is Right we want to always behave in a Christian manner.
- · Build Community we want everyone to feel they belong.





Source: St Philip's Christian College



OVERVIEW

SITE

LANDSCAPE DESIGN PRINCIPLES

PRECINCTS

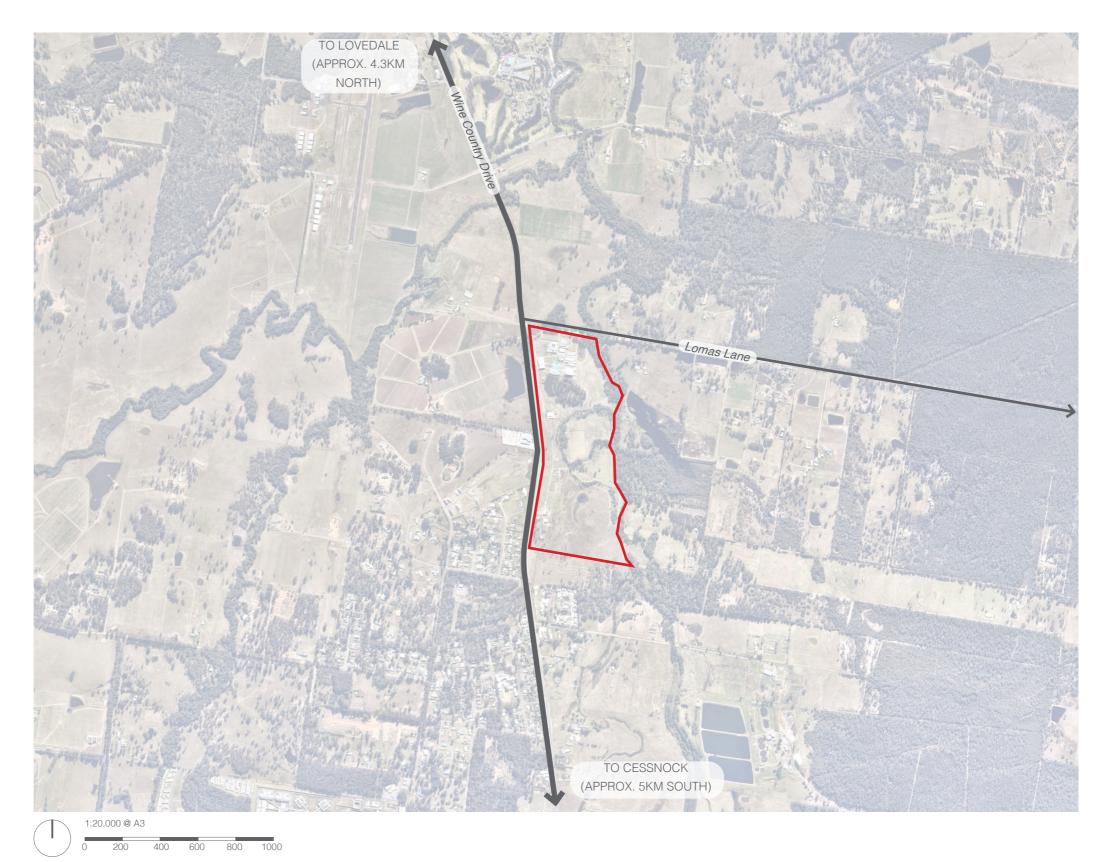
STAGING

2.1 Context

The Site is situated along Wine Country Drive, approximately 5km north of Cessnock within a predominantly agricultural landscape.

LEGEND

Site boundary





2.2 Site Photos

Key Plan





Water feature and signage and main intersection.
 The Broken Back Range can be seen in the background.



2. Current entry off the existing admin building



3. Vehicular entry off Lomas Lane



4. Gravel road with dam, eucalyptus forest and sports 5. Covered court with playground behind field to the east





6. Pathway across open lawn with carpark behind



7. Covered walkway along new building



8. Edge of sports court looking towards Wine Country Drive



9. Sports courts in front of sports hall



2.2 Site Photos





10. Battered grassed area leading to the dam



11. View across reeds associated with dam





12. View across dam toward Wine Country Drive



13. View across dam toward bund wall



14. View toward the existing agricultural area



15. View into the Remnant Forest



16. Black Creek



17. View across existing playing fields



18. Existing access across Black Creek toward Playing Fields

2.3 Aboriginal Heritage & Cultural Context

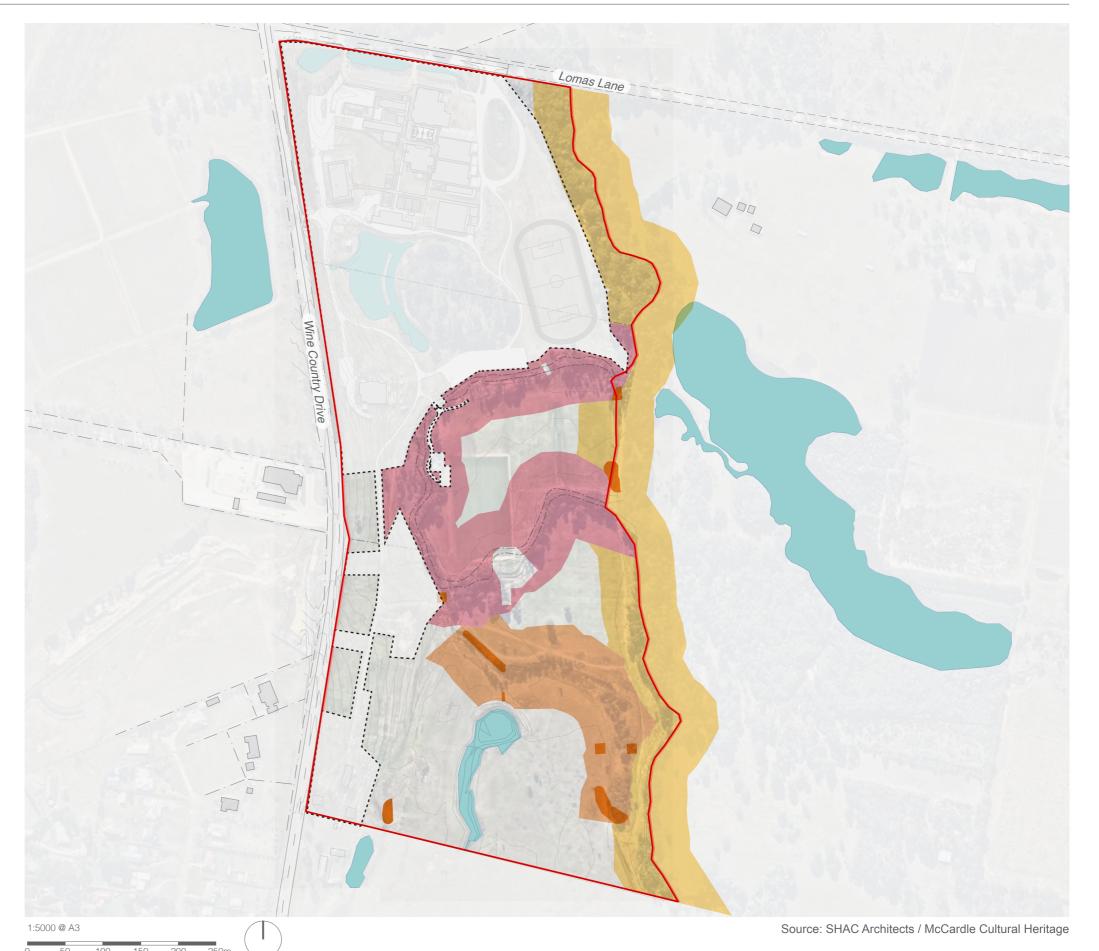
McCardle Cultural Heritage completed an Aboriginal Cultural Heritage Assessment (ACHA) of the site in November 2021. The ACHA report identifies the location of both isolated artefacts and artefact scatters within the site, all within 50 metres of a water source. The artefact scatters were assessed as of moderate scientific significance while the isolated finds were assessed as being of low scientific significance. It is noted that additional isolated finds and artefacts scatters may be located in other parts of the site.

Across the remainder of the site, a large portion has been subjected to signficant clearing and disturbance, meaning that no original landform remains in these areas.

The ACHA finds that none of the AHIMS sites or PADs will be impacted by the proposed development and as such, provides the following recommendations on page 3 of the report:

- 1. The persons responsible for the management of onsite works will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance. Of particular importance is the National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010, under the National Parks and Wildlife Act 1974, and
- 2. Should any Aboriginal objects be uncovered during works, all work will cease in that location immediately and the Environmental Line contacted.

LEGEND Site boundary Water body Disturbed Area PAD 1 PAD 2 PAD 3 Aboriginal (AHIMS) Sites





2.4 Vegetation

The vegetation within the site has been mostly cleared, historically for agriculture, with remnant vegetation generally limited to the riparian corridor of Blacks Creek. Some patches of native canopy persist within the lots away from the creek, chiefly in the northeast and an isolated small forest centrally; these comprise of canopy only with a managed understorey. The former and current land uses have resulted in the modification of the structure of native vegetation within the site to a point that vegetation representative of the assigned Plant Community Type (PCT) is defined generally by canopy. The groundcover throughout the Subject Land is generally cultivated grass species with occasional native grass, graminoid and herbaceous species.

A Biodiversity Development Assessment Report was prepared by MJD Environmental in November 2021. The assessment identified one plant community type within the land subject to the application, being PCT 1594: Cabbage Gum-Rough-barked Apple grassy woodland on alluvial floodplains of the lower Hunter. This PCT is partially a subsect of Endangered Ecological Community (EEC) known as River-Flat Eucalypt Forest on Coastal Floodplains.

LEGEND

••• Study area

Subject site

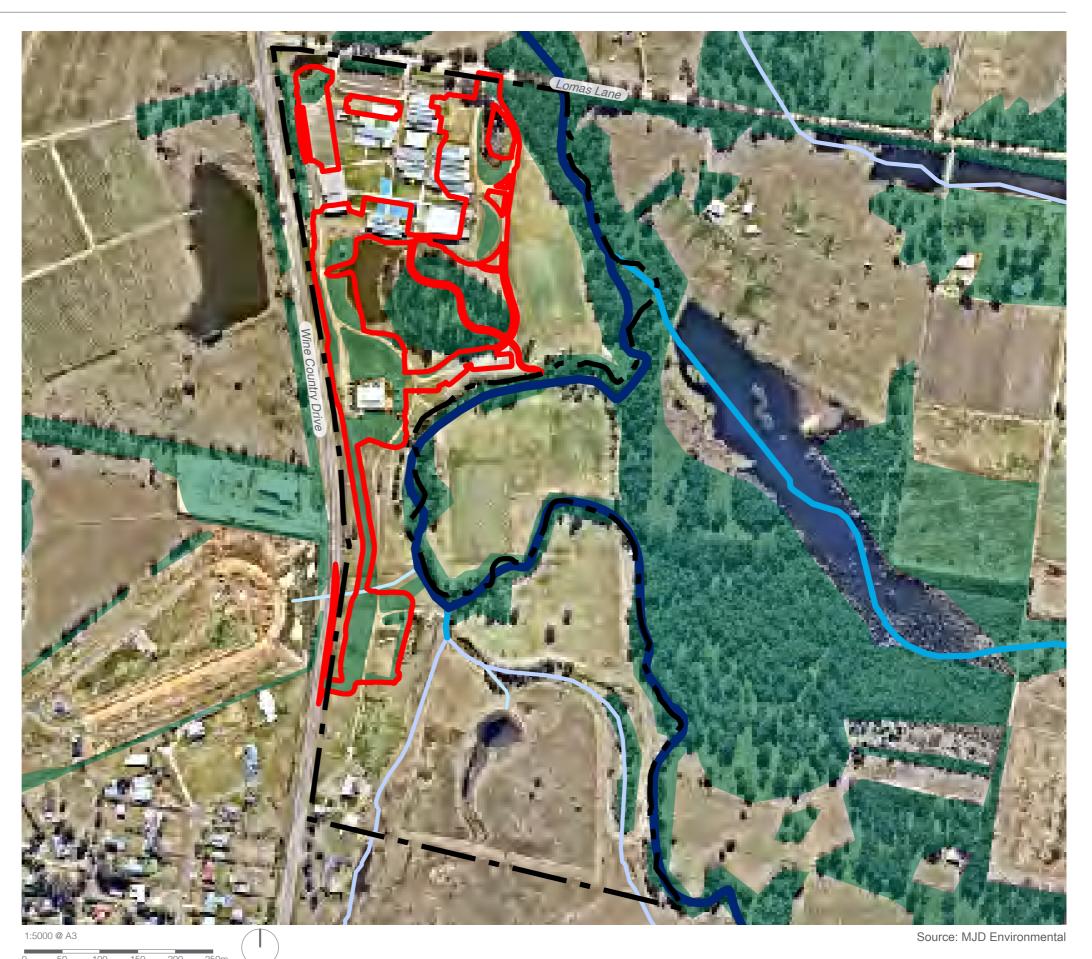
1st Order Stream

2nd Order Stream

3rd Order Stream

5th order Stream

Native vegetation





2.5 Flooding

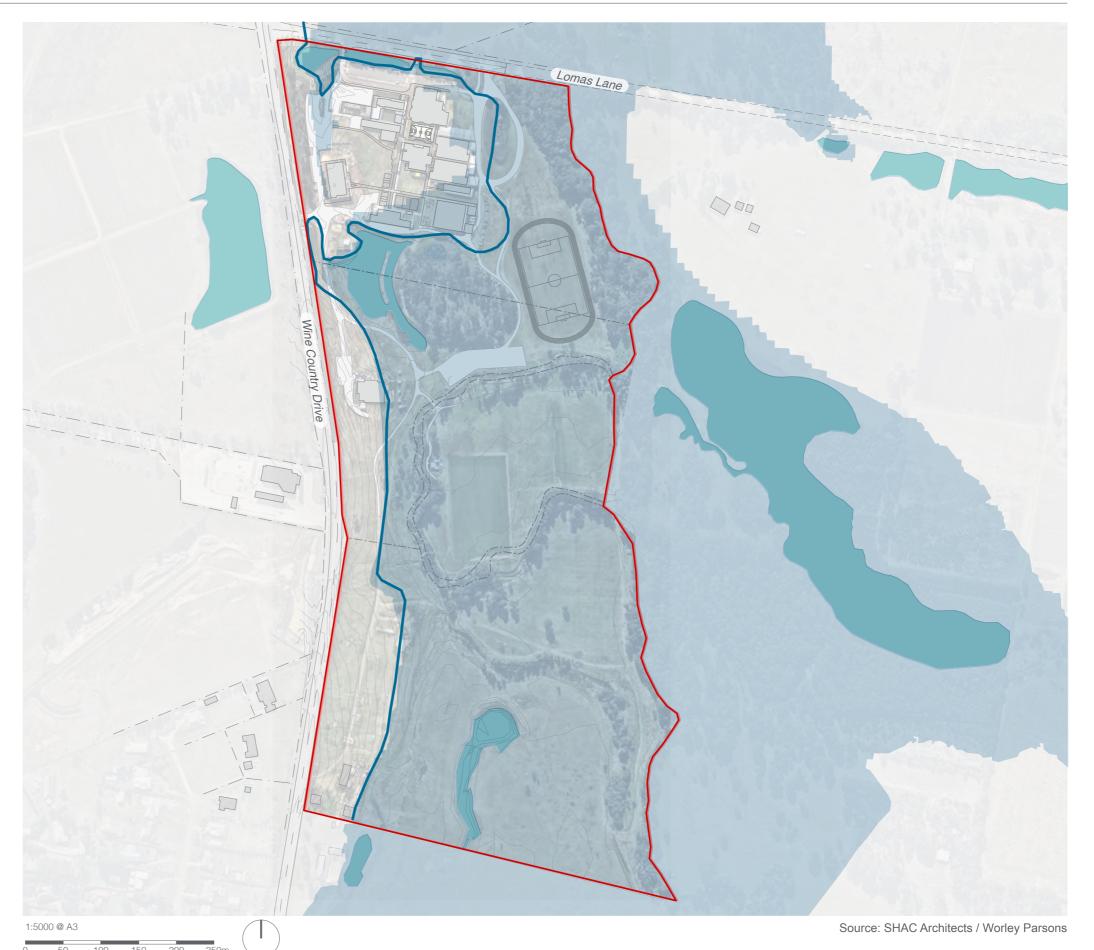
Worley Parsons completed a flood impact assessment for the Cessnock Campus in 2009. Worley Parsons assessed the existing flood characteristics of Black Creek, flood related development constraints, the impact of development on Black Creek and recommending appropriate flood management procedures to mitigate the risk of flooding. The development involves the construction of a 4.75 ha fill pad (220 x 240m) to raise the school site to above the 100 year Average Recurrence Interval flood levels. The report notes that excavated material from the eastern portion of the old trotting track would form this pad, restoring the trotting track to natural surface levels to offset the loss in flood conveyance.

The assessments findings include:

- A significant portion of the site is affected by a 100 year flood, with depths ranging from .5 to 1.5 m, with water velocities of 0.6 to 1.1 m/s.
- Relocating the existing flood conveyance corridor from the west of the old trotting track to the east, by lowering the eastern side of the existing filled area to natural surface levels. This improves the site's flood conveyancing ability and shifts the flood corridor from the west of the site to the east.
- Establishing all habitable floor levels at least .5 m above the predicted 100 year flood level.
- Restricting fence lines and ground level modifications within the flood plain to maintain the flood conveyance of Black Creek.

An updated Flood Impact Assessment was prepared by BMT in 2021 to assess the impact of the alterations and additions proposed in this application.

LEGEND Site boundary Water body Council mapping: 1 in 100 Year Flood Extent (1%AEP) BMT mapping: 1 in 100 Year Flood Extent (1%AEP)





2.6 Drainage

A Stormwater Management Plan (SWMP) has been prepared by Worley Parsons covering the development of St. Philips proposed 2009 masterplan. The SWMP includes the following key measures:

- Water quality treatment. This will involve the construction of three wetlands to effectively remove sediment, nutrients and other pollutants from stormwater through physical, biological and chemical processes. The total surface area of these wetlands is to be 4,000m2 with a permanent water volume of 2,800m2.
- Rainwater harvesting. Involving the establishment of a decentralised system of rainwater tanks across the campus. Captured water is to be utilised for toilet flushing and sewer main flushing.
- Site grading. This includes raising the school site above the 100 year flood level and maintaining grades across the site of at least 1% to facilitate efficient drainage.
- Stormwater conveyance. Stormwater pipe systems are to be utilised across proposed 'filled' areas of the site, with drainage swale systems provided for low lying areas to promote overland flows. Overland flow paths are to be provided to safely convey water flow during a 100 year flood level event.
- Conveyance of dam breach flows. A controlled overland flow path is to be provided to the existing onsite dams to safely convey potential peak flows to the south and east. This system is to divert water flow into the southern Wetland, away from the key school facilities at the north of the site.

An updated water cycle management plan was prepared by Northrop Consulting Engineers in 2021. Amendments are proposed to accommodate the alterations and additions proposed in this application, however the above design intent has been maintained.

LEGEND

Site boundary

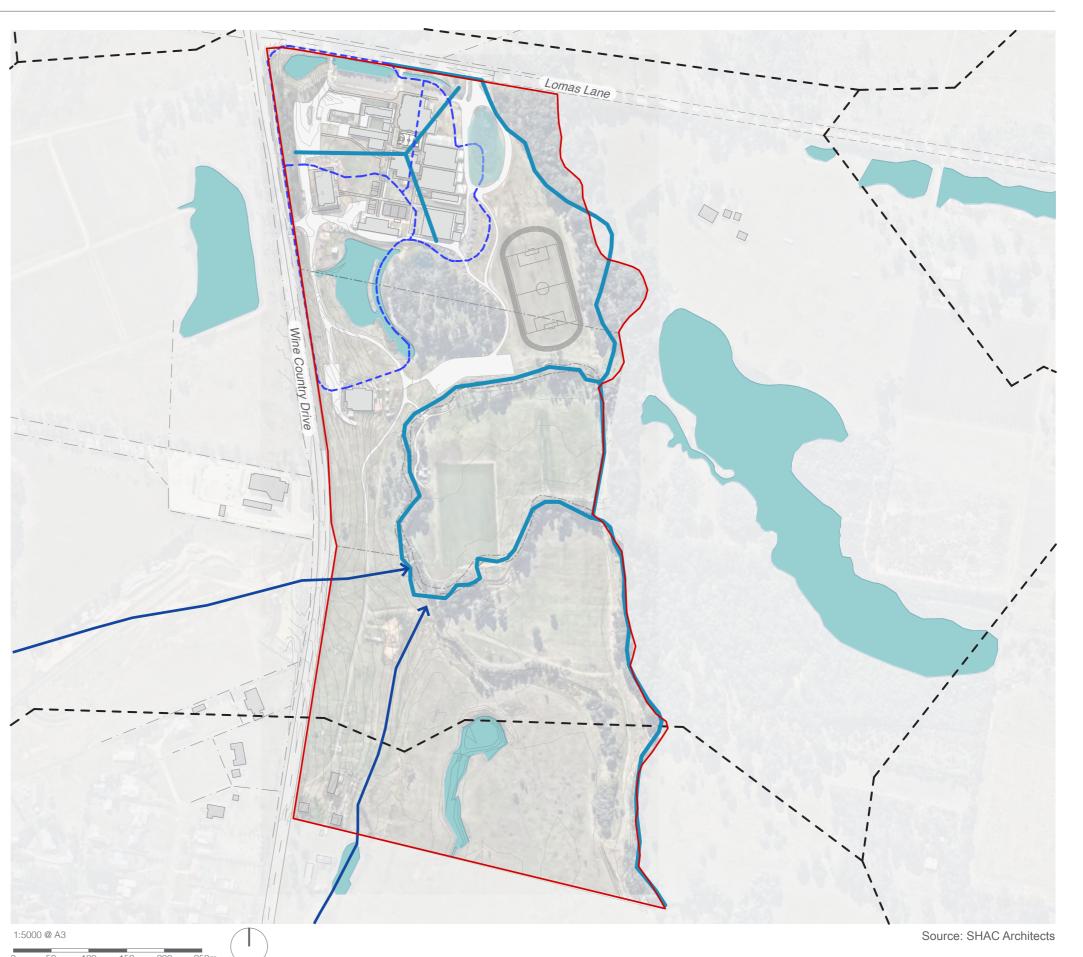
Water body

Sub catchment

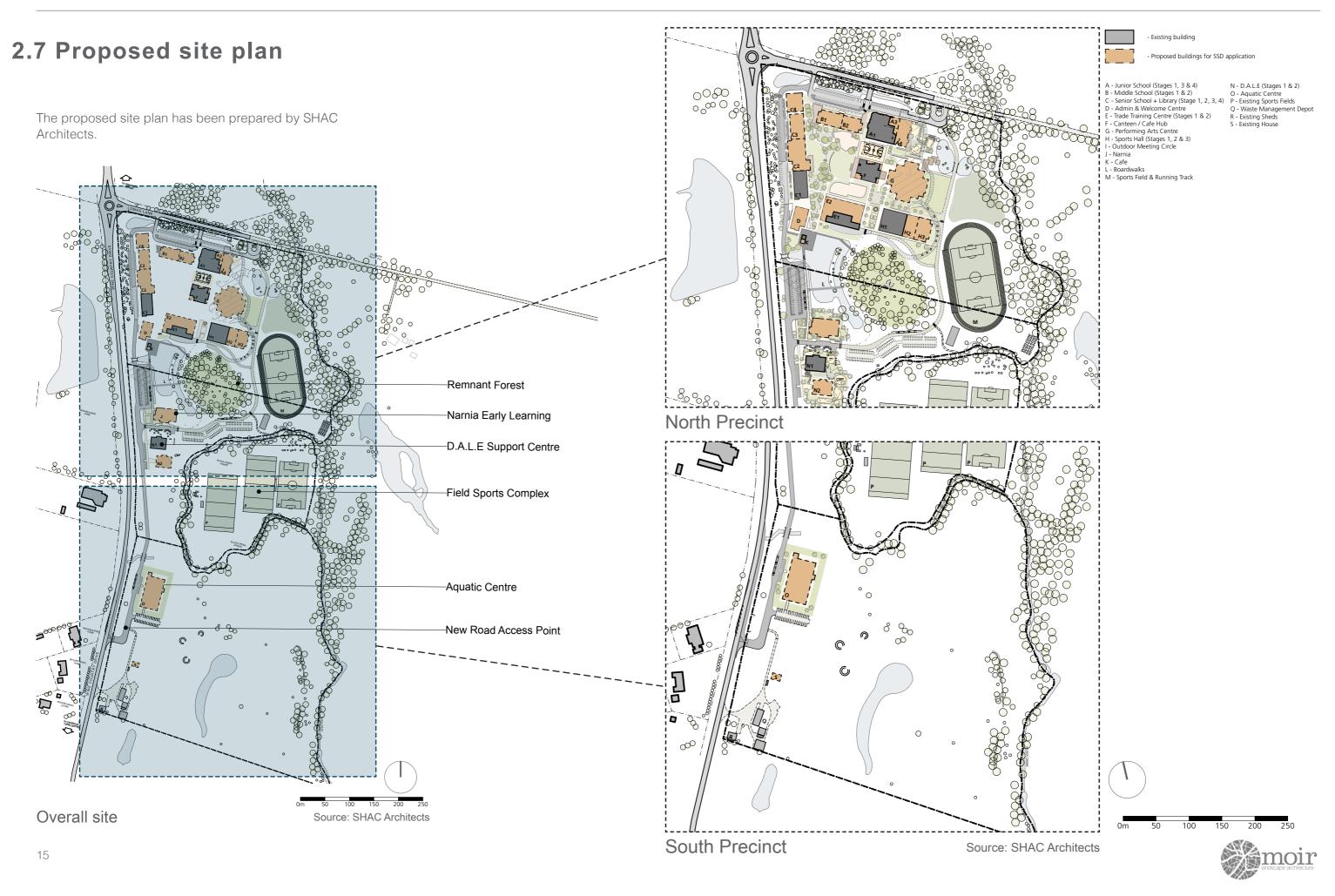
--- Local catchment

Stormwater flow

→ Local catchment drainage path





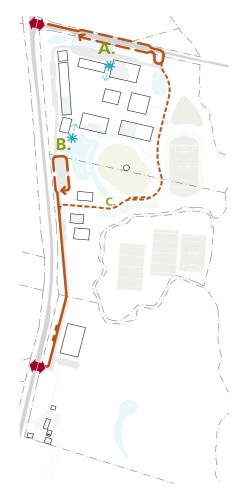


2.8 Proposed

Arrival and Approach Sequence

5.4 **ARRIVAL & APPROACH STUDY**

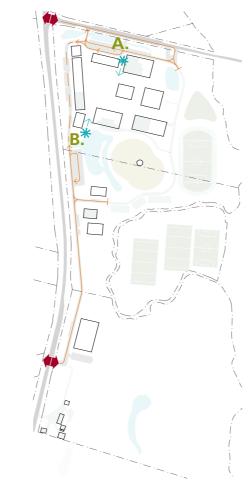
5.4.1 **ARRIVAL + APPROACH - MACRO DESIGN PRINCIPLES**



ARRIVAL BY BUS

Two main entrances:

- Lomas Lane (existing)
- Wine Country Drive (proposed)
- A. Main Bus Entry, turning Bus Bay, bus layback, queuing and marshalling. Adjacent Junior + Middle Schools Administration + Playground.
- Second Bus Bay adjacent Main Entry, Senior School Entry, DALE + Narnia.
- Overflow Bus Bay on service road adjacent Outdoor Chapel + Sport Precincts.

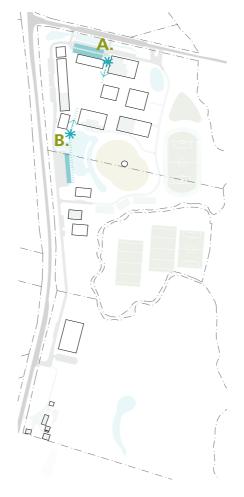


ARRIVAL BY CAR

Two main entry approaches:

- Lomas Lane (existing)
- Wine Country Drive (proposed)
- A. Lomas Lane: existing Kiss + Drop Zone for the whole of school becomes for Junior School.
- B. New Wine Country Drive Entry/Approach for main deliveries + Senior School Activities

Traffic queuing lengths occur on site rather than on Lomas Lane (refer to traffic engineer report).



KISS + DROP ZONES

SPCC has a split campus system.

- A. Junior + Middle School drop off
- B. Main Entry + Senior School drop

The two can operate independently or in sync via ring road connector.W

LEGEND SITE BOUNDARY **EXISTING BUILDINGS**

PROPOSED BUILDINGS

MAIN ROADS

ON-SITE ROADS

WATER BODIES

BUS ACCESS

BUS BAYS / QUEUING CAR ACCESS

ROAD LINK / RING ROAD

---- UNFORMED ROADS DELIVER/MAINT. ACCESS

FORMED PARKING

UNFORMED PARKING KISS + DROP ZONES

ENTRANCES PARKING

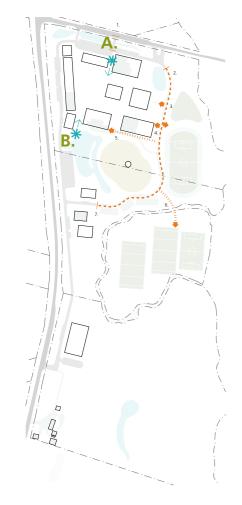
EX. UNFORMED PARKING

PROPOSED PARKING



2.8 Proposed

Arrival and Approach Sequence



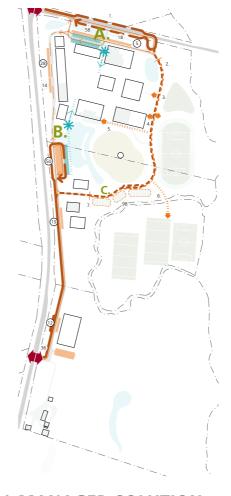
SECONDARY ROADS SYSTEM

- 1. Bridge link at Entry A utilised only after peak traffic time loads are over
- 2. Locked boom gate/restricted access
- 3. Service to rear of Performing Arts Centre
- 4. Service to rear of Sport
- 5. Service to rear of Trade Training Centre
- 6. Maintenance access to Sports Fields
- 7. Locked boom gates/restricted access
- 8. Locked boom gates/restricted access for maintenance



ON-SITE PARKING DISTRIBUTION

- Evenly distributed around campus
- Services split site accordingly to Junior/Middle/ Senior Schools
- Localised parking at outer functional areas
- Overflow parking for sports events or extra curricula school events is controlled via boom gates



TOTAL MANAGED SOLUTION

- Two main control points
- Clear wayfinding to 3 school provinces
- Restricted controlled access to Service + Sports Zones

LEGEND SITE BOUNDARY PROPOSED BUILDINGS EXISTING BUILDINGS MAIN ROADS ON-SITE ROADS WATER BODIES **BUS ACCESS** BUS BAYS / QUEUING CAR ACCESS ROAD LINK / RING ROAD ----- UNFORMED ROADS DELIVER/MAINT. ACCESS FORMED PARKING UNFORMED PARKING KISS + DROP ZONES ENTRANCES PARKING EX. UNFORMED PARKING

PROPOSED PARKING

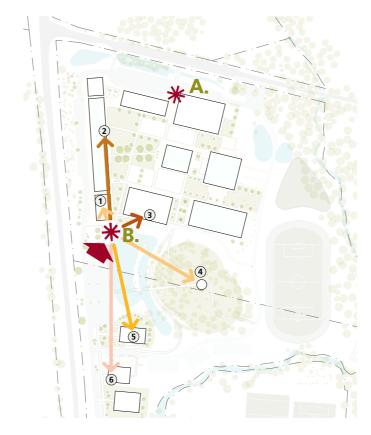


2.8 Proposed Arrival and Approach Sequence



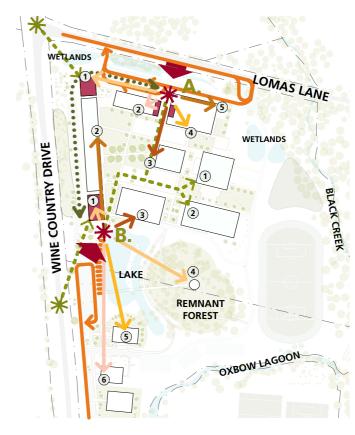
WAY FINDING: ENTRY A

- 1. Library + Community Gathering Places
- 2. Middle School Administration
- 3. Playgrounds for Junior + Middle Schools
- 4. Junior School Administration
- 5. Prep School Entry + Administration



WAY FINDING: ENTRY B

- 1. Main Administration
- 2. Senior School Administration
- 3. VET Exhibition Space + TAS
- 4. Outdoor Gathering Space + Remnant Forest + Oxbow Lagoon
- 5. Narnia
- 6. DALE



ARRIVAL, ENTRY HIERARCHY

- Entry A + B can operate independently or in-sync
- All elements of the Main Campus are controlled by 2 clear entry points
- A generous public forecourt/cafe/outdoor plaza is sited at Entry B

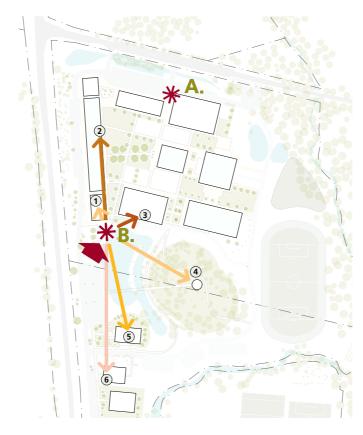


2.8 Proposed Arrival and Approach Sequence



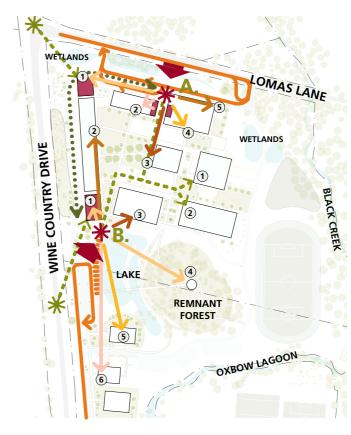
WAY FINDING: ENTRY A

- 1. Library + Community Gathering Places
- 2. Middle School Administration
- 3. Playgrounds for Junior + Middle Schools
- 4. Junior School Administration
- 5. Prep School Entry + Administration



WAY FINDING: ENTRY B

- 1. Main Administration
- 2. Senior School Administration
- 3. VET Exhibition Space + TAS
- 4. Outdoor Gathering Space + Remnant Forest + Oxbow Lagoon
- Narnia
- 6. DALE



ARRIVAL, ENTRY HIERARCHY

- Entry A + B can operate independently or in-sync
- All elements of the Main Campus are controlled by 2 clear entry points
- A generous public forecourt/cafe/outdoor plaza is sited at Entry B



2.9 Constraints

Key Constraints include:

- Major road with limited site access
- Traffic Noise from Wine Country Drive
- Good quality existing native vegetation
- Flood prone areas
- Existing overland flow drainage areas

Legend

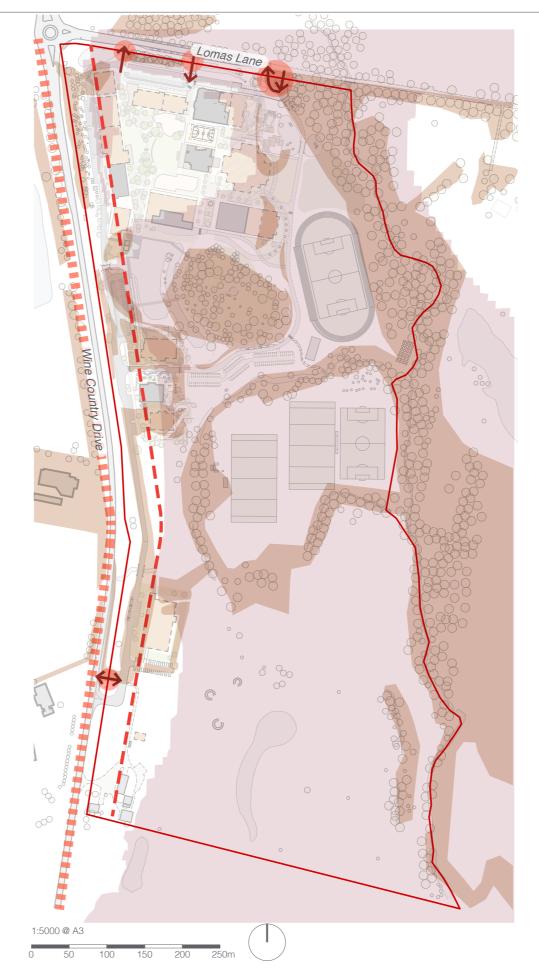
Existing native vegetation

Council mapping: 1 in 100 Year Flood Extent (1%AEP)

Site access

Major road

= 50m setback





2.10 Opportunities

Key Opportunities include:

- Enhance existing landscape features
- Integrate outdoor learning opportunities
- Utilise existing landscape corridors to improve overall site management such as WSUD principles.
- Find opportunities within existing building layout to define network of open space.
- Utilise larger undeveloped area for significant open
- Address key view corridors to surrounding landscape, both within and surrounding the site.
- Anchor primary pedestrian paths by key destinations and entrance points.
- Use the existing parts of the landscape that contain indigenous cultural links or relevance to develop a program or trail that assists in explaining the concept of 'Design On Country'.

Legend

Water body

Existing vegetation

'U-shaped' open space corridor



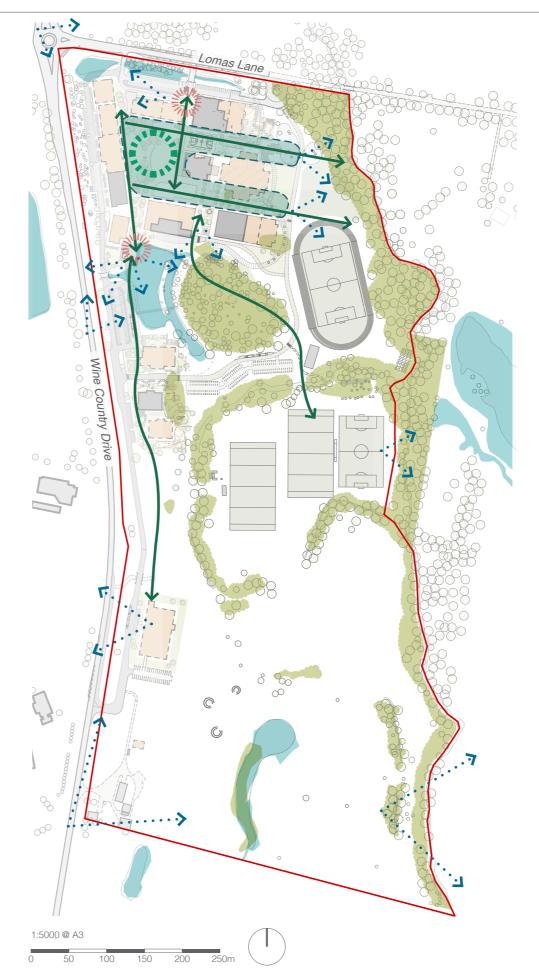
Opportunity for significant open space



Key view corridors

Key pedestrian circulation







OVERVIEW

SITE

3

LANDSCAPE DESIGN PRINCIPLES

PRECINCTS

STAGING

3.1 Landscape Design Principles

The following landscape design principles have been adopted from the Education SEPP Design Quality Principles outlined in the *Design Guide For Schools*:



1. Context, built form and andscape

 Integrate and respond to the sites natural setting by maintaining and enhancing key views to the surrounding forest, water bodies, creeklines and borrowed views to the rural landscape.



2. Sustainable, efficient and durable

- Bring the unique natural setting into the development by weaving and connecting the forest and creeklines via a series of WSUD principles to enhance the learning opportunities, environmental outcomes and amenity.
- Integrate passive landscape solutions that enhance thermal efficiency and performance.



3. Accessible and inclusive

- Prioritise pedestrian safety and accessibility through the provision of pathways that are logical, inclusive and safe.
- Investigate opportunities to integrate 'designing with country' principles into the landscape.
- Seek opportunities for facilities to be shared with the community outside of school hours.



4. Health and safety

• Ensure planting includes low and high planting with cleared mid story to ensure CEPTED.



5. Amenity

- Provide tailored outdoor spaces that complement classroom learning and encourage nature based learning, play and outdoor study.
- Ensure the provision of ample, appropriate, flexible and shaded outdoor spaces that meet the needs of the differing age groups and abilities of students.



6. Whole of life, flexible and adaptive

- Provide a series of scalable and flexible outdoor spaces that can adapt to the changing learning, technological advances, age groups and demographics of the
- Incorporate resiliency through the consideration of plant and tree selections to ensure drought tolerance, provision of ample shading to assist in lowering the ambient temperature as well as WSUD principles.
- Ensure material selections consider longevity, on-going maintenance requirements and the embodied energy of materials with an emphasis on local and sustainable products.



7. Aesthetics

- Integrate and complement the building through the provision of landscape interventions that respond to the spatial environment.
- Provide references and cues in the arrangement and material selection that link the new school to its context.



OVERVIEW

SITE

LANDSCAPE DESIGN PRINCIPLES

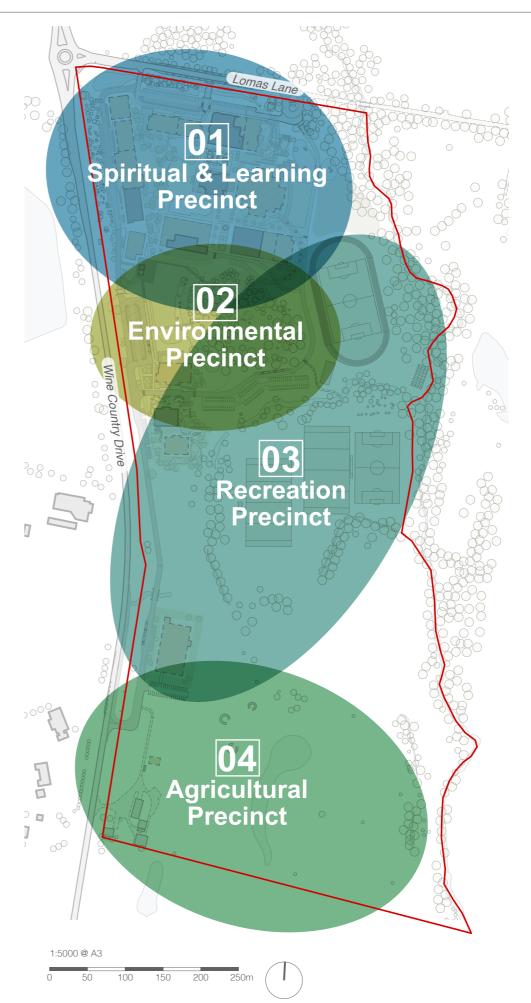
PRECINCT CONCEPTS

STAGING

4.1 Proposed Precinct Plan

The proposed precinct plan has been adapted from SHAC's proposal, and identifies four key precincts defined by different types of activity occurring across the site.

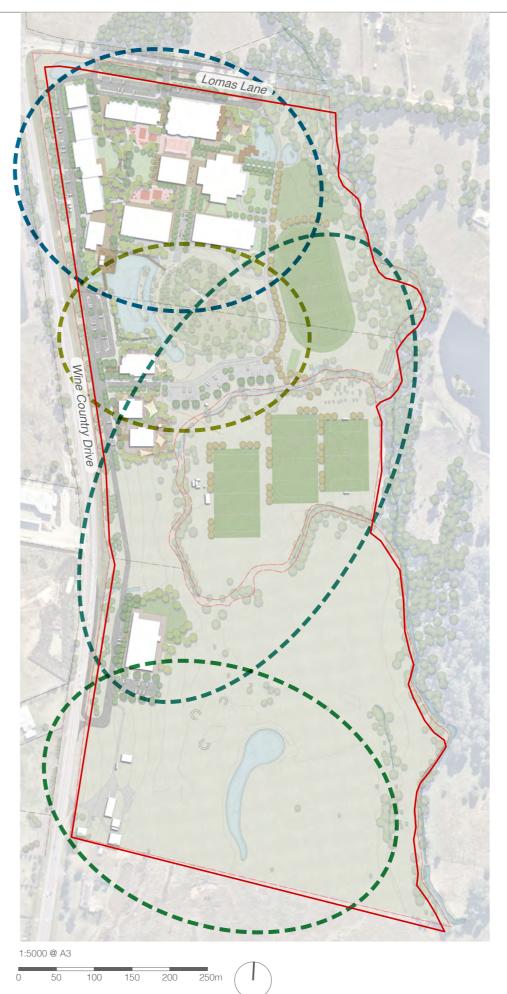
The landscape strategy will identify the unique character of each precinct, while ensuring an overall design coherence across the site.





4.2 Proposed Overall Concept Plan

The adjacent concept plan shows the overall masterplan for the site. This masterplan caters to the requirements, functions and amenity of each of the precinct areas and is underpinned by the principles outlined in the previous section of the document.





4.3 Indigenous Cultural Heritage

The Traditional Custodians of the land that lies within and surrounding Cessnock Local Government Area (LGA) are the Wonnarua Nation, and also includes Darkinjung and Awabakal lands. Wonnarua means 'land of hills and plains', describing the area simply and beautifully. Today the area is within the Mindaribba LALC boundaries. Many localities in the Cessnock LGA have Aboriginal place names & histories that are deeply significant to Aboriginal peoples and to our greater understanding of history and Aboriginal culture. The banks of Black Creek were historically known to be inhabited by the Aboriginal people. An archaeological study was conducted by AECOM in October 2009. With the assistance of the local Aboriginal community, this report identified 10 Aboriginal sites of varying importance. An updated Aboriginal Cultural Heritage Assessment (ACHA) was undertaken in August 2021 by McCardle Cultural Heritage. The report identified Potential Archaeological Deposit (PAD) sites within 50m on either side of the Creek, Oxbow lagoon and 2nd order stream that is to be protected. No construction is proposed in these areas.

The Designing with Country process has commenced with the School's Principal and Aboriginal Liaison Officer, with members of the local community in the early stages of engagement. The school has had previous consultation with Sonia Sharpe of the local Aboriginal Education Consultative Group (AECG) and it is intended that this will continue as part of this process.

Within the landscape scheme for the site, the approach is to reflect and develop the three identified elements of 'Designing with County' being nature, people and design. The landscape architecture responds to the local environment and setting and seeks to draw the surrounding natural landscape deep into the heart of the school. The 'blue green thread' allows the expression of nature, the natural wetting and drying cycles, seasonal change and the passage of light and shade to be experienced. The use of passive shading and biophillic elements in the design reinforces the important link between people and nature.

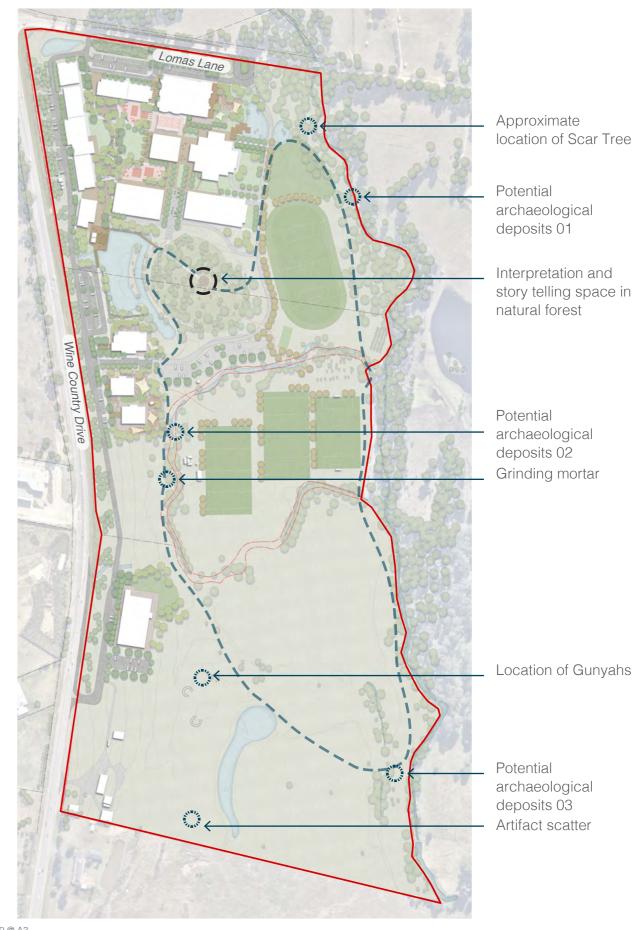
Identified in the 'Designing with Country' discussion paper (GANSW), cognitive mapping was done by 'walking country' and learning about important sites and traditions by 'being' in the place. Cultural lore, traditions and wayfinding were



(and still are) tightly bound to the notions of place and country. In this tradition it is not proposed to provide a specific spatial design to reference Wonnarua culture. Instead – the use of storytelling spaces and a potential 'Connection with County' walking route is suggested. The proposed trail is a suggested route that will take in a series of the known and identified sites of aboriginal occupation and significance. The walking and story-telling route, the programs and discussions that occur can be modified for the audience, for mobility and for age-appropriateness. The intent (pending approval from SPCC and the Traditional Owners) would be to have a knowledge holder provide these walks and storytelling sessions to illustrate the significance of the landscape. The interpretation and education should come from a Traditional Owner to retain its authenticity and culturally appropriate framing.

The beginnings can be located at the multi-purpose outdoor celebration and gathering space - located in the existing remnant Cabbage Gum forest. The trail will link important parts of the landscape and allow for interpretation, story telling and the transfer to knowledge. At each key location, the should be an informal space to sit and listen to stories and 'lore'. Informal seating may be a collection of logs, boulders and other natural elements.

An ongoing program of interaction and engagement with relevant Aboriginal Stakeholders will continue to inform the development of St Philips Cessnock and its landscape.







4.4 Spiritual & Learning Precinct

The Spiritual & Learning Precinct aims to provide an inclusive, stimulating and adaptive learning environment for students, underpinned by a focus on spirituality.

The precinct will provide an opportunity for a unique outdoor learning experience specifically tailored to each age groups and will complement the indoor classroom lessons.

The proposed design will include scalable spaces that cater to both small group gathering as well as moments for individual reflection and contemplation.

The design will respond to the passive and active functions of the precinct through the provision of recreation, seating and learning opportunities that integrate the surrounding natural environment.

Access and movement will be underpinned by the desire to maintain and enhance key site lines and to ensure CPTED and user safety principles whilst ensuring inclusive access.

Planting arrangement and selection will be a major component within this space and will be reflective of the areas unique vegetation characteristics balanced with the provision of ample shading and sensory qualities.









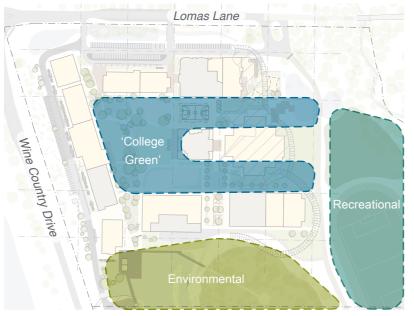




4.5 Spiritual & Learning Precinct - Key Design Moves

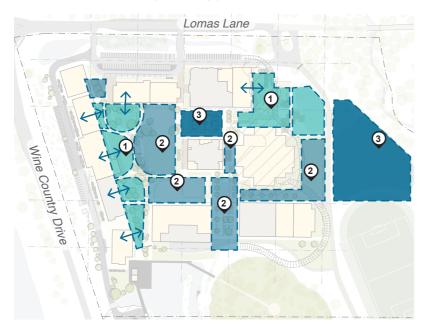
Key plan

1. Zones



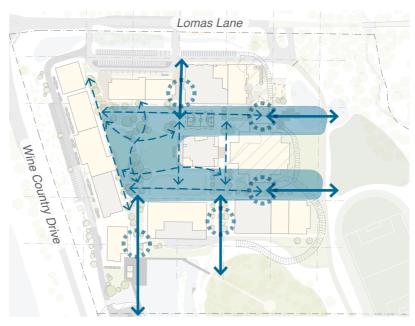
Respond to the requirements of the distinct zones including the 'Founders Forum', recreational and environmental zones.

4. Open Space typology



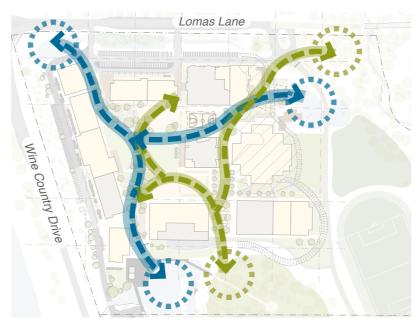
Integrate a series of tailored outdoor learning spaces that respond to the needs of students abilities and age groups. These include outdoor learning areas particularly those connected to buildings (1), flexible communal areas (2) and active spaces (3).

2. Movement



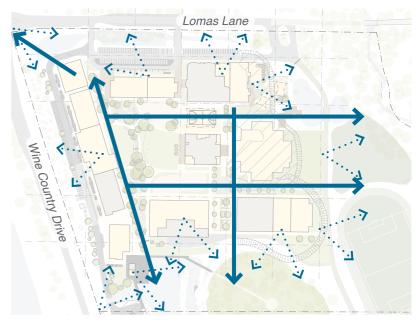
Provide a hierarchy of logical pedestrian thoroughfares. Direct paths between key destinations will be connected by a network of informal pathways between buildings and across open space.

5. Landscape



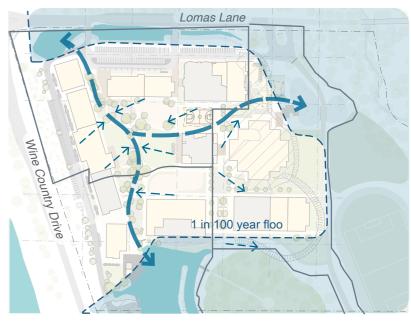
Weave the surrounding natural landscape into the site through a series of landscape (endemic vegetation selection) and WSUD principles and elements.

3. Views



Maintain and enhance views toward the natural landscape and consider views into development.

6. Hydrology / WSUD



Investigate opportunities to enhance the hydrology of the site and improve drainage and levels to increase usability, access and safety.

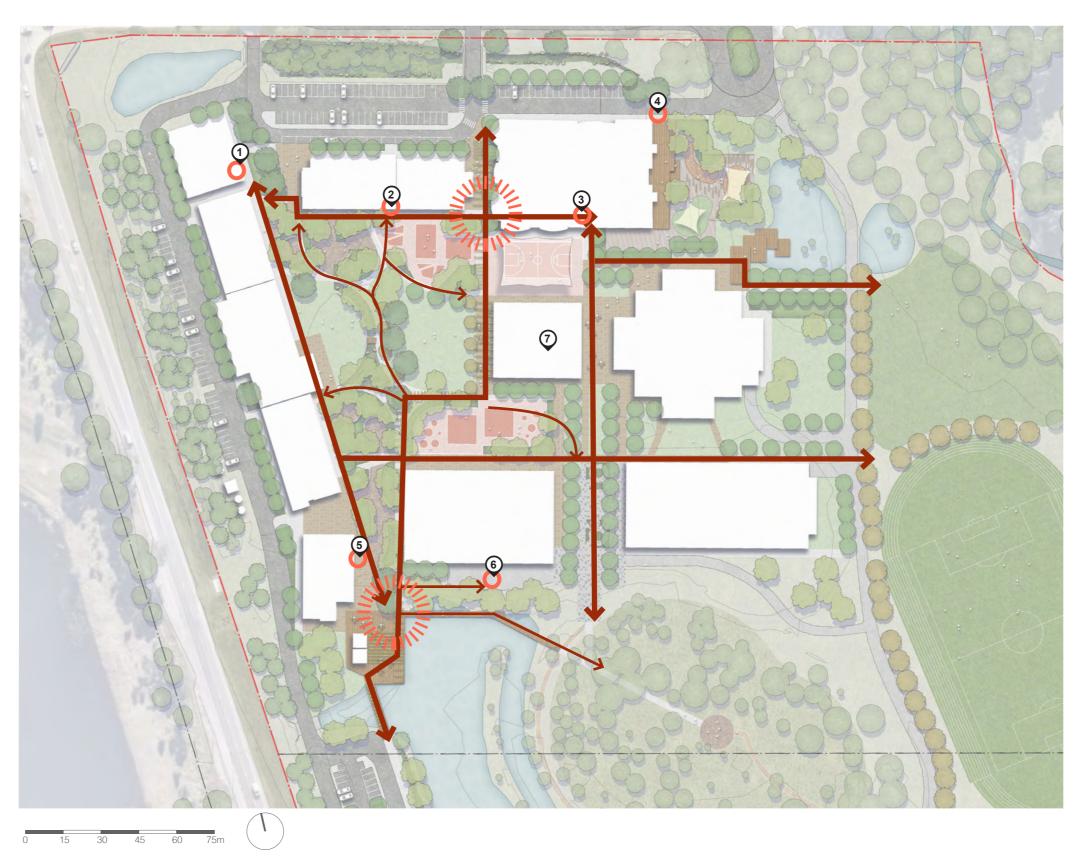


4.6 Spiritual & Learning Precinct - Pedestrian Circulation

Pedestrian access and circulation is underpinned by the desire to create a legible pedestrian network that responds to the key entries and maintains key site lines.

LEGEND

- Main Entry
- Key Entries
- ← Major Circulation
- ← Minor Circulation
- 1 Library Entry
- 2 Middle School Admin
- 3 Junior School Admin
- 4 Prep School Admin
- Main Admin and Welcome Centre
- 6 VET Exhibition Space
- 7 Canteen





4.7 Spiritual & Learning Precinct - Concept Plan

The adjacent Concept demonstrates our initial ideas for the Spiritual & Learning Precinct. The precinct includes a combination of outdoor learning spaces tailored to each age group and can be used to complement the indoor classroom lessons.

The design will respond to the passive and active functions of the precinct through the provision of recreation, seating and learning opportunities that integrate the surrounding natural environment.

A key feature of the concept is the idea of bringing the natural landscape and functions into the central learning spaces. A blue green thread weaves its way through the centre of the area allowing opportunities for people to engage with the natural systems on site. The palette of the spine will include endemic tree species to the area and a dynamic swale system with footbridge crossings. This element will serve an essential function but will also provide a cooling and aesthetic appeal for the school courtyard area.

The key space typologies are as follows:

LEGEND

1 Entries

2 Central Open Lawn

3 Central Arbor

4 Blue green thread

5 Flexible Open Play/Active Spaces

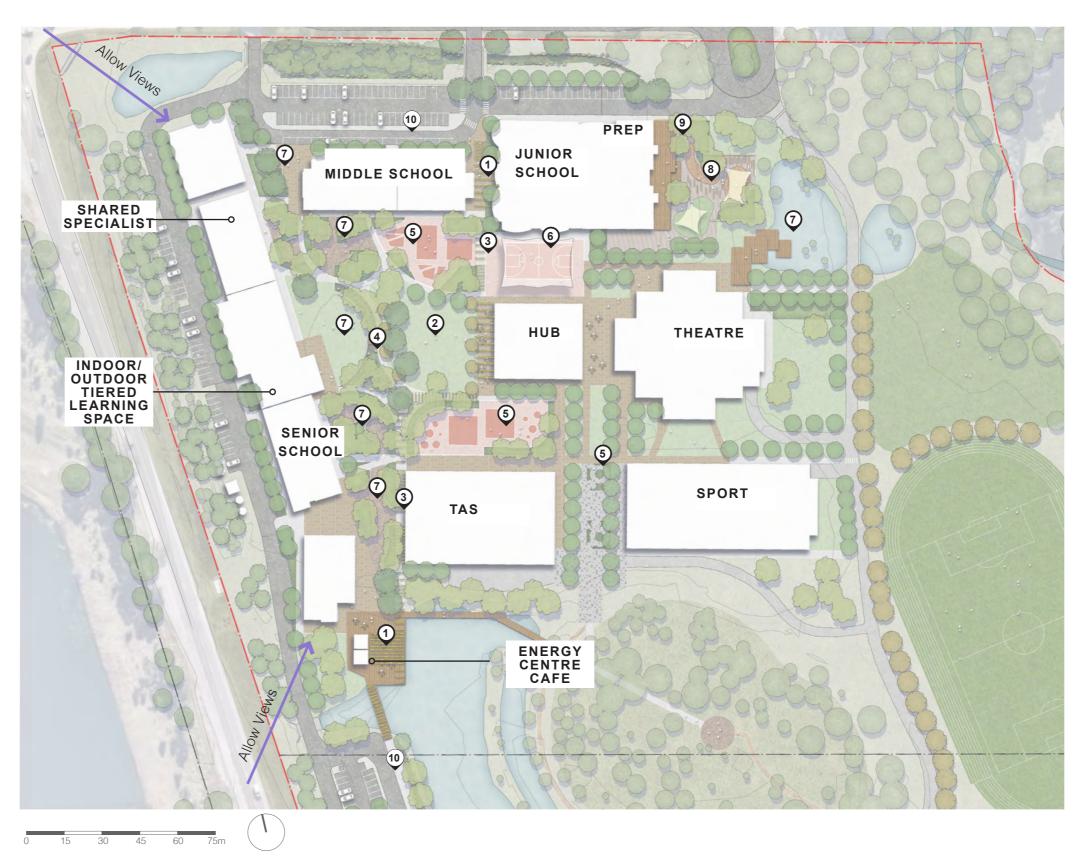
6 Covered Outdoor Active Playspace

Outdoor Learning and Study Space

3 Junior School Play Area

9 Fenced Prep Play Area

(10) Drop off Zone





4.8 Spiritual & Learning Precinct - Entries



- ① Distinctive Entry Arbor
- Cafe and Outdoor Seating AreaBoardwalk
- Viewing Deck and Stair Edge









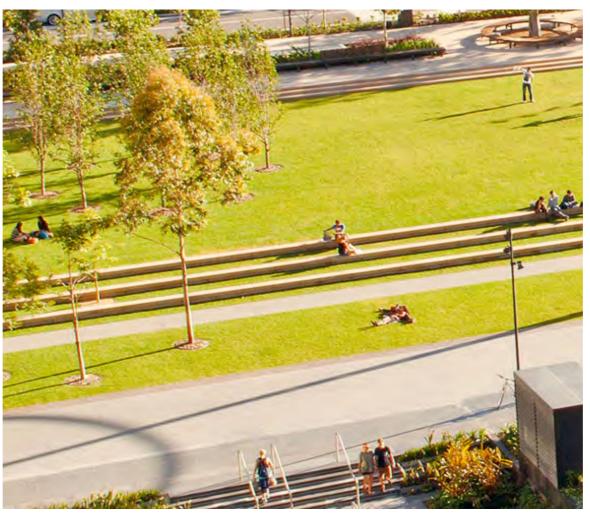


4.9 Spiritual & Learning Precinct - Central Open Lawn



LEGEND

- ① Central Open Lawn (potential for overflow viewing area for outdoor projector)
- 2 Central Feature Arbor
- 3 Blue green thread
- 4 Seating Edge5 Shaded Seating6 Active Play/Bal Shaded Seating
- Active Play/Ball Courts













4.10 Spiritual & Learning Precinct - Outdoor Study Learning Spaces

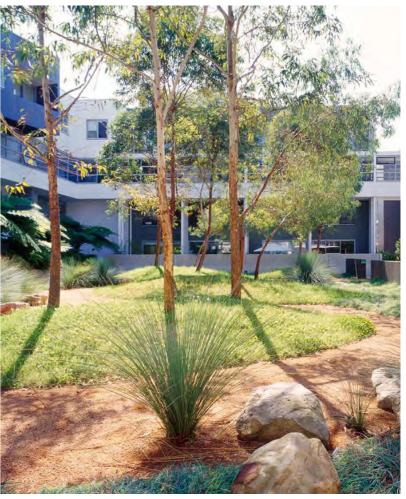


- 1 Flexible Open Space
- Outdoor Learning Space (Middle School)
- 3 Outdoor Study Space (Senior School)
- Outdoor Learning Space (Library Forecourt)
- 5 Blue/Green thread WSUD Drainage and planting swale
- Seating edge (potential for overflow viewing area for outdoor projector)











4.11 Spiritual & Learning Precinct - Junior School Play Area



LEGEND

- Sensory Play Area
- Nature Play Area
- 3 Adventure Play Area
- Fence & vegetated screen surrounding play area
- 5 Active Play area for Kinder students
- 6 Decked area down to Dam area













4.12 Environmental Precinct

The Environmental Precinct leverages off the area's natural assets to provide a welcoming, tranquil and reflective space for students.

The precinct will utilise the Cabbage Gum Floodplain Forest with its naturally reflective ambiance as an opportunity for quiet reflection and spiritual repose.

The existing water bodies will be enhanced and celebrated, providing both formal and informal spaces to visually appreciate and appropriately interact with.

A range of smaller flexible informal passive seating spaces complemented by signage and sculptural elements will encourage environmental education and stewardship. It is envisioned that this area would have a strong emphasis on connecting with country demonstrated through educational signage and place names.

Functional aspects to the design such as access and maintenance will be developed to be both sensitive and practical. Smaller and more intimate trails that are sensitive to the natural environment will be developed to allow for education and reflection. Access for parking and maintenance will be maintained. Both will be underpinned by the desire to maintain and enhance key site lines and to ensure CPTED, user safety principles and ensuring inclusive access.

Additional wetland planting will be incorporated to improve the overall health and amenity of the wetland areas including water quality and erosion issues. Care will be given to material selection to strengthen the existing water bodies and aquatic habitats. The design will limit the use of concrete (an alkaline which effects the pH of water) in and around water bodies and instead utilised natural materials.





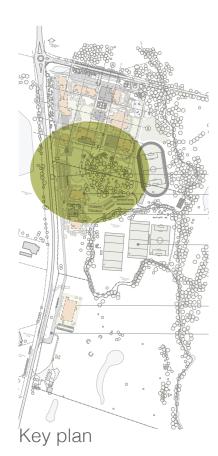




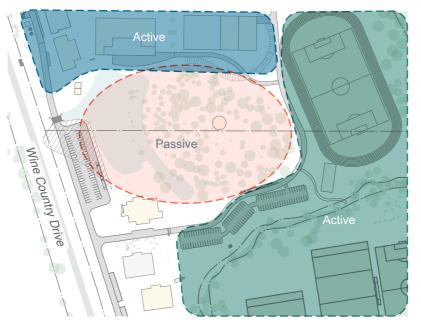




4.13 Environmental Precinct - Key Moves



1. Zones



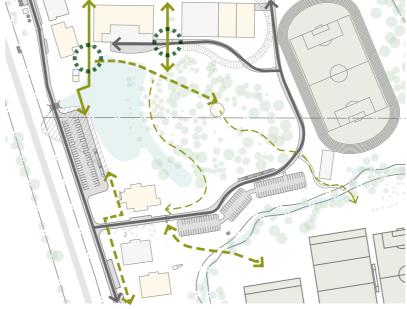
Leverage off the area's natural assets to provide a welcoming and reflective passive space for students that complements the active uses that surround the area.

4. Open Space typology



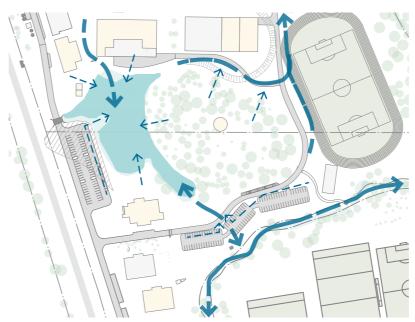
Provide a series of smaller formal and informal passive seating spaces to complement the natural environment and outdoor learning to encourage reflection, environmental education and stewardship. These would respond to the character and needs of 1)Narnia & DALE 2) Dam edge & 3) Cabbage Gum Forest.

2. Movement



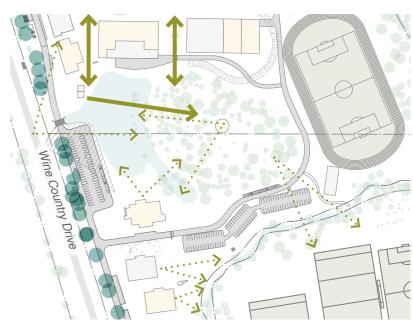
Integrate a series of trails that are sensitive to the natural environment to allow for education and reflection. Balance this with inclusive, direct access through pedestrianised accessed roads, maintenance vehicles and parking needs.

5. Hydrology



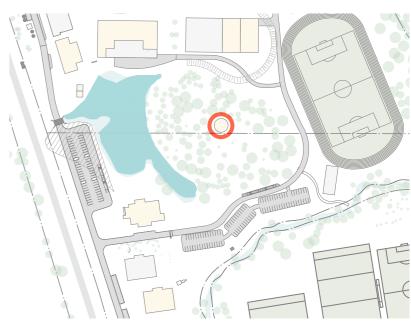
Investigate opportunities to enhance the ecology and habitat through additional wetland planting which will improve the overall health and amenity of the wetland areas including water quality and erosion issues.

3. Views



Maintain and enhance views toward the natural landscape and control views into development from the Wine Country Drive.

6. Reflection



Integrate a small outdoor Celebration space to provide students and visitors and opportunity for a place of repose and reflection within the forest.



4.14 Environmental Precinct - Concept Plan

The adjacent plan demonstrates some initial Concepts for the Environmental Precinct which will enhance, celebrate and improve the area's natural assets to provide a welcoming, tranquil and reflective space for students and visitors.

LEGEND

- 1 Proposed Outdoor Celebration Space
- 2 Cabbage Gum Waterside Trail
- 3 New Boardwalk Crossing
- Opportunity for Outdoor Learning Space
- 5 Opportunity for informal passive seating space
- 6 Forest Threshold
- Viewing Deck
- 8 Dam Seating Edge
- © Creek-line planting
- 10 Vegetated WSUD Swale for water quality



4.15 Recreational Precinct

The Recreational Precinct aims to provide a high quality active environment for students and the wider community that is multi functional, flexible and inclusive.

The proposed design considers usage throughout the day and weekend and facilitates out of hours functions such as park run, after school sports and training as well as high quality recreational facilities for students.

The design will provide appropriate amenity to spectators including shade, seating, and parking.

Access and movement will be underpinned by the desire to maintain and enhance key site lines and to ensure CPTED and user safety principles whilst ensuring inclusive access and adequate maintenance access. This will be complemented by appropriate wayfinding and signage to assist visitors.

Planting will be focused on enhancing and maintaining natural corridors, buffers and edges. The design will reference and celebrate the natural setting and surrounds through material selection and planting palette.













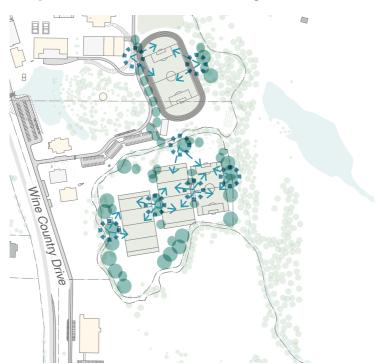




4.16 Recreational Precinct - Key Moves

Key plan

1.Spectator/Student Amenity



Provide appropriate amenity to spectators including shade, seating, access and parking.

2. Multi-functional Use



Encourage after hours usage through the provision of elements that support activities such as outdoor fitness equipment, after school sports training, informal carparking and water bottle filling stations.

3. Views



Maintain and enhance views toward the natural landscape and control views into development from the Wine Country Drive. Ensure adequate views are maintained out of and into the sports fields.

4. Hydrology



Investigate opportunities to enhance the ecology of the site through additional creekline planting which will improve the overall health and amenity of the creek lines including water quality and erosion issues.



4.17 Recreational Precinct - Concept Plan

The adjacent plan demonstrates some initial Concepts for the Recreational Precinct to improve the user experience and accessibility of the existing recreational facilities. These improvements will provide greater flexibility of use for both students and the wider community and create better environmental outcomes.

LEGEND

- Feature Tree Avenue to guide students from educational area toward the recreation space
- Additional Shade and seating to Spectator Area
- Improved pedestrian access into Sports Field
- Opportunity for Park Run Trail/ Creekline Trail
- **5** Enhance and improve natural corridors and edges through planting



OVERVIEW

SITE

LANDSCAPE DESIGN PRINCIPLES

PRECINCT CONCEPTS

STAGING

5.1 Staging

The School will be developed in stages over the coming years as the student enrollment increases and the School's population expands. The intention is to develop the building units and associated landscapes in sequential blocks as illustrated, with the time frames shown.

For details of the building development sequence refer to the Architectural desgin package.

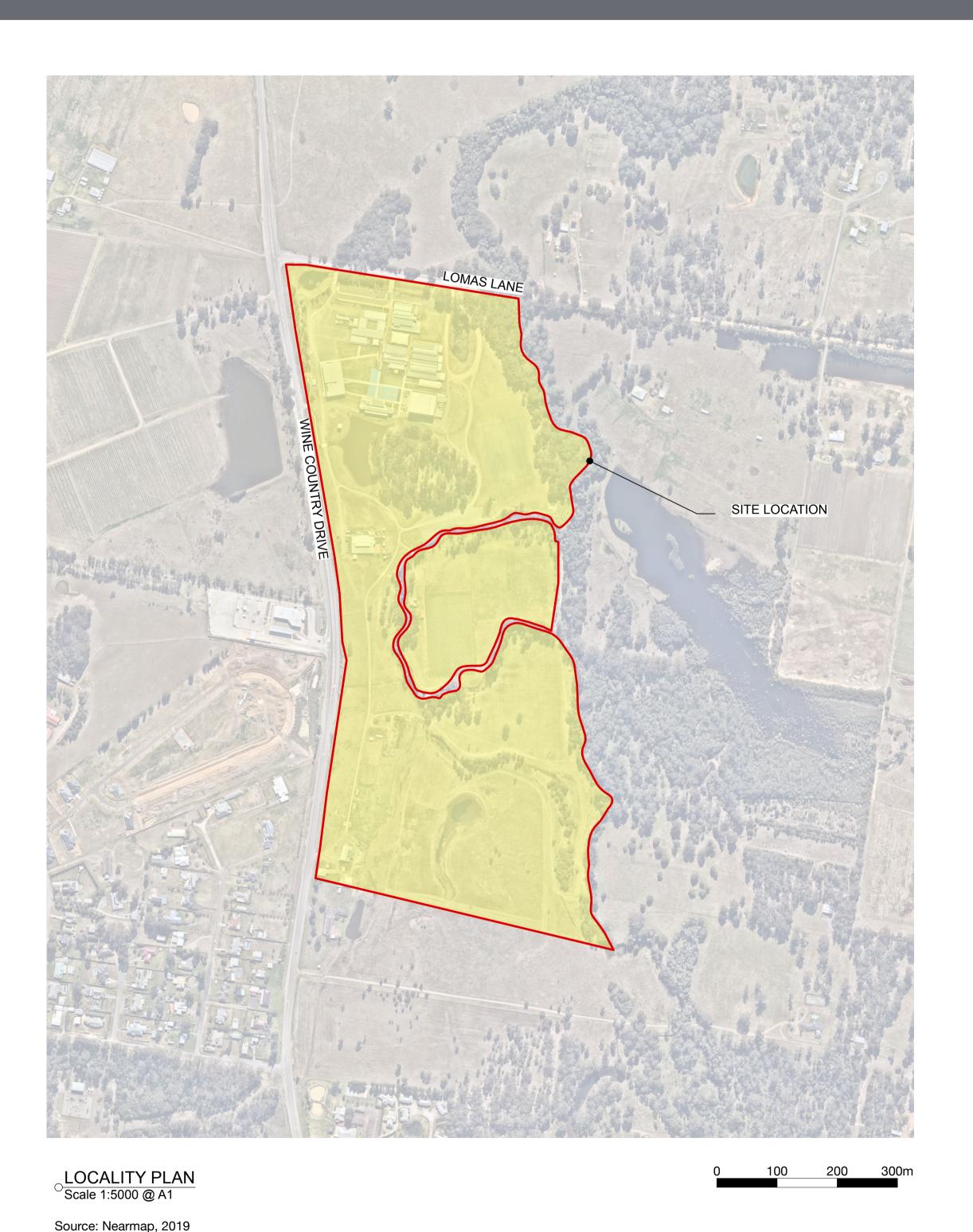




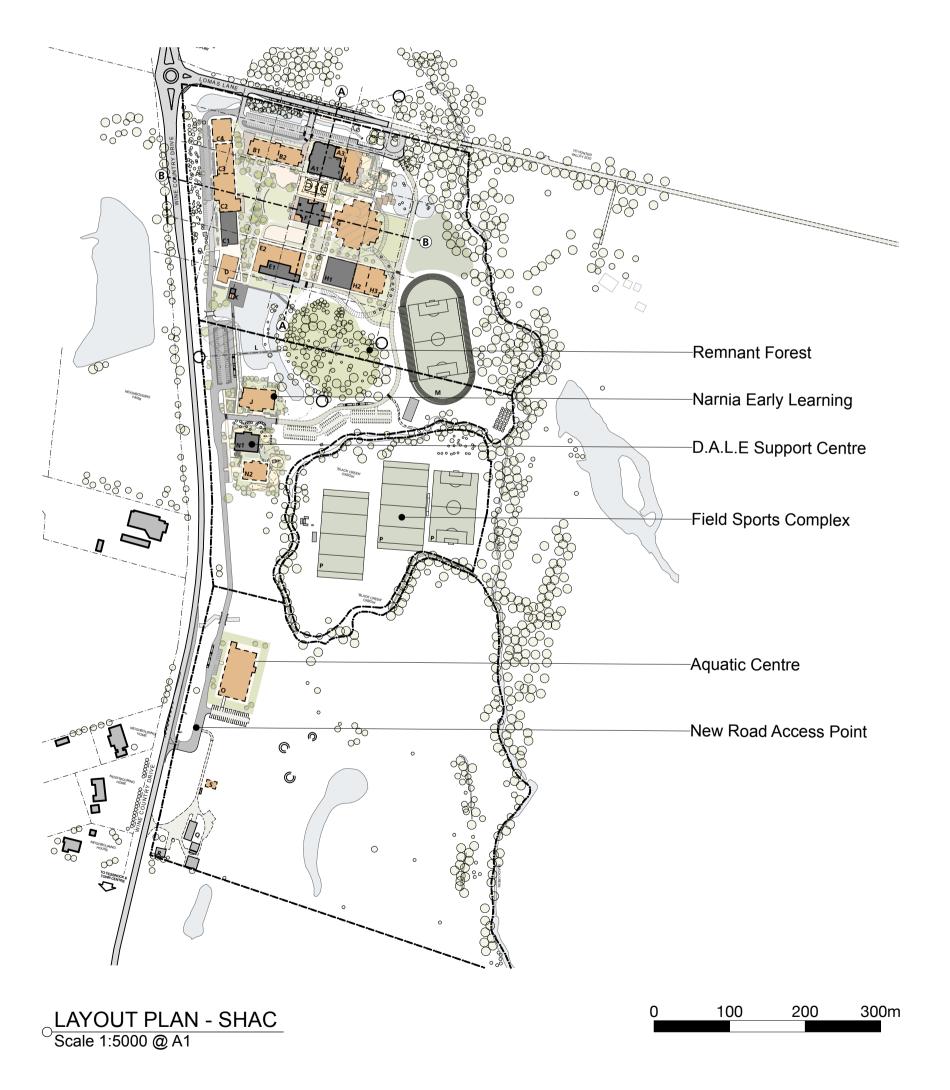




ST PHILLIP'S CHRISTIAN COLLEGE CESSNOCK LANDSCAPE CONCEPT MASTERPLAN 10 LOMAS LANE, NULKABA, NSW 2325.



Sheet No.	Drawing Title	Revision	Date
LP01	COVER SHEET	Α	18/11/21
LP02	KEY PLAN	Α	18/11/21
LP03	LANDSCAPE PLAN 01	Α	18/11/21
LP04	LANDSCAPE PLAN 02	Α	18/11/21
LP05	LANDSCAPE PLAN 03	Α	18/11/21
LP06	LANDSCAPE PLAN 04	Α	18/11/21
LP07	LANDSCAPE PLAN 05	Α	18/11/21
LP08	LANDSCAPE PLAN 06	Α	18/11/21
LP09	LANDSCAPE PLAN 07 & 08	A	18/11/21





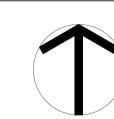
ARCHITECT: Studio 1, 88 Fern Street SHAC slington NSW 2296 ENGINEER: Fax (02) 4965 3555 Northrop admin@moirla.com.au www.moirla.com.au

CLIENT:

St Phillip's Christian Education Foundation

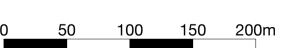
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St Phillip's Christian College, Cessnock 10 Lomas Lane, Nulkaba NSW 2325 Status: FOR SUBMISSION





OKEY PLAN
Scale 1:3000 @ A1





ARCHITECT: SHAC ENGINEER: Northrop

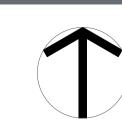
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A 18/11/21 Landscape Concept Masterplan

BY: PROJECT: St Phillip's Christian College, Cessnock 10 Lomas Lane, Nulkaba NSW 2325

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Primary road Secondary road Concrete pavement Existing paving Paving treatment 1 Paving treatment 2 Paving treatment 3 Timber decking Rubber softfall Mulch softfall Gravel **ELEMENTS** Arbour structure Shade sail Coloured concrete steppers Formed concrete seating Sandstone log Boulders LANDSCAPE PLAN 01 SCALE: 1:500 ORIGINAL DRAWING AT A1. Drawing No. Drawn By: AG Checked By: TB Approved By: DM LP03

LEGEND

TREES

SOFTSCAPE

HARDSCAPE

— Site boundary

Lot boundary

Existing tree

Native tree 1

Native tree 2

Feature tree

Deciduous tree 1

Deciduous tree 2

Existing grassland

Open turf area

Sportsfield

Water body

Planting

Vegetated swale

Protected vegetation community

Existing minor contour - 0.5m interval

Existing major contour

— — Drawing extent



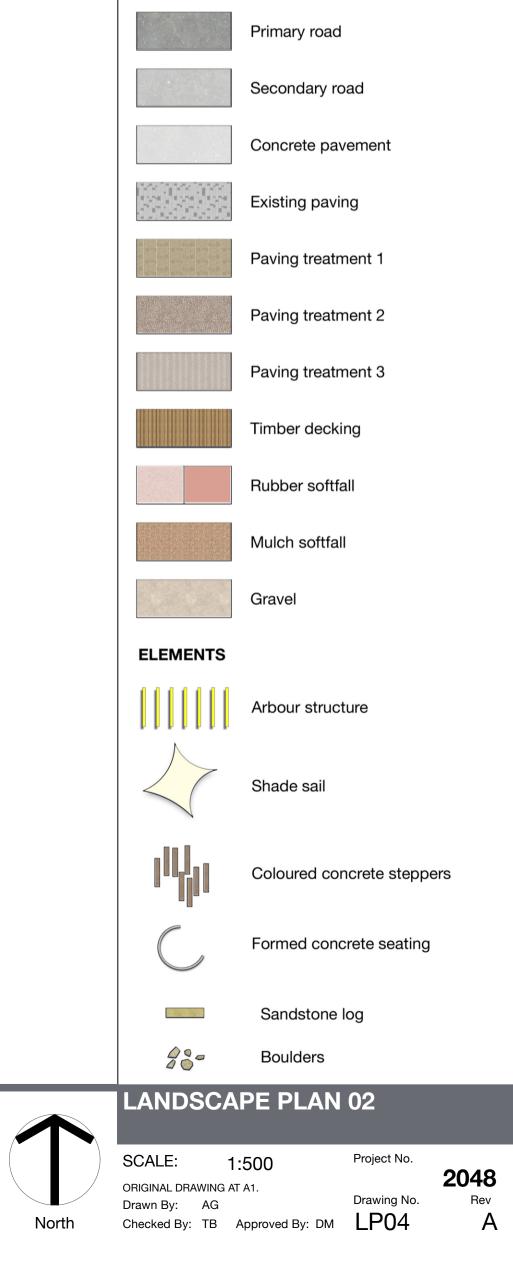
ARCHITECT: Studio 1, 88 Fern Street SHAC Islington NSW 2296 Phone (02) 4965 3500 ENGINEER: Fax (02) 4965 3555 Northrop admin@moirla.com.au

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LEGEND

TREES

SOFTSCAPE

HARDSCAPE

— Site boundary

—·—· Lot boundary

— — Drawing extent

Existing minor contour - 0.5m interval

Existing major contour

Existing tree

Native tree 1

Native tree 2

Feature tree

Deciduous tree 1

Deciduous tree 2

Existing grassland

Open turf area

Sportsfield

Water body

Planting

Vegetated swale

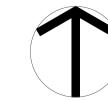
Protected vegetation community



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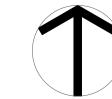
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LANDSCAPE PLAN 03

LEGEND

1:500 SCALE: ORIGINAL DRAWING AT A1. Drawn By: AG

Sandstone log

Boulders





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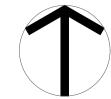
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St Phillip's Christian College, Cessnock 10 Lomas Lane, Nulkaba NSW 2325



LANDSCAPE PLAN 04

SCALE: 1:500 ORIGINAL DRAWING AT A1. Drawn By: AG





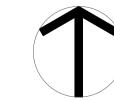
ARCHITECT: SHAC ENGINEER: Northrop

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admin@moirla.com.au

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LANDSCAPE PLAN 05

LEGEND

TREES

SOFTSCAPE

HARDSCAPE

— Site boundary

—·—·— Lot boundary

— — Drawing extent

Existing minor contour - 0.5m interval

Existing major contour
- 1m interval

Existing tree

Native tree 1

Native tree 2

Feature tree

Deciduous tree 1

Deciduous tree 2

Existing grassland

Open turf area

Sportsfield

Water body

Planting

Vegetated swale

Primary road

Secondary road

Existing paving

Paving treatment 1

Paving treatment 2

Paving treatment 3

Timber decking

Rubber softfall

Mulch softfall

Arbour structure

Coloured concrete steppers

Formed concrete seating

Sandstone log

Boulders

Shade sail

Gravel

ELEMENTS

Concrete pavement

Protected vegetation community

SCALE: 1:500 ORIGINAL DRAWING AT A1. Drawn By: AG Checked By: TB Approved By: DM LP07



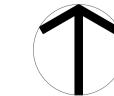


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SCALE: 1:500 ORIGINAL DRAWING AT A1. Drawn By: AG



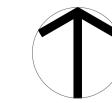


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10 Lomas Lane, Nulkaba NSW 2325

Status: FOR SUBMISSION



SCALE: 1:500 Drawing No.



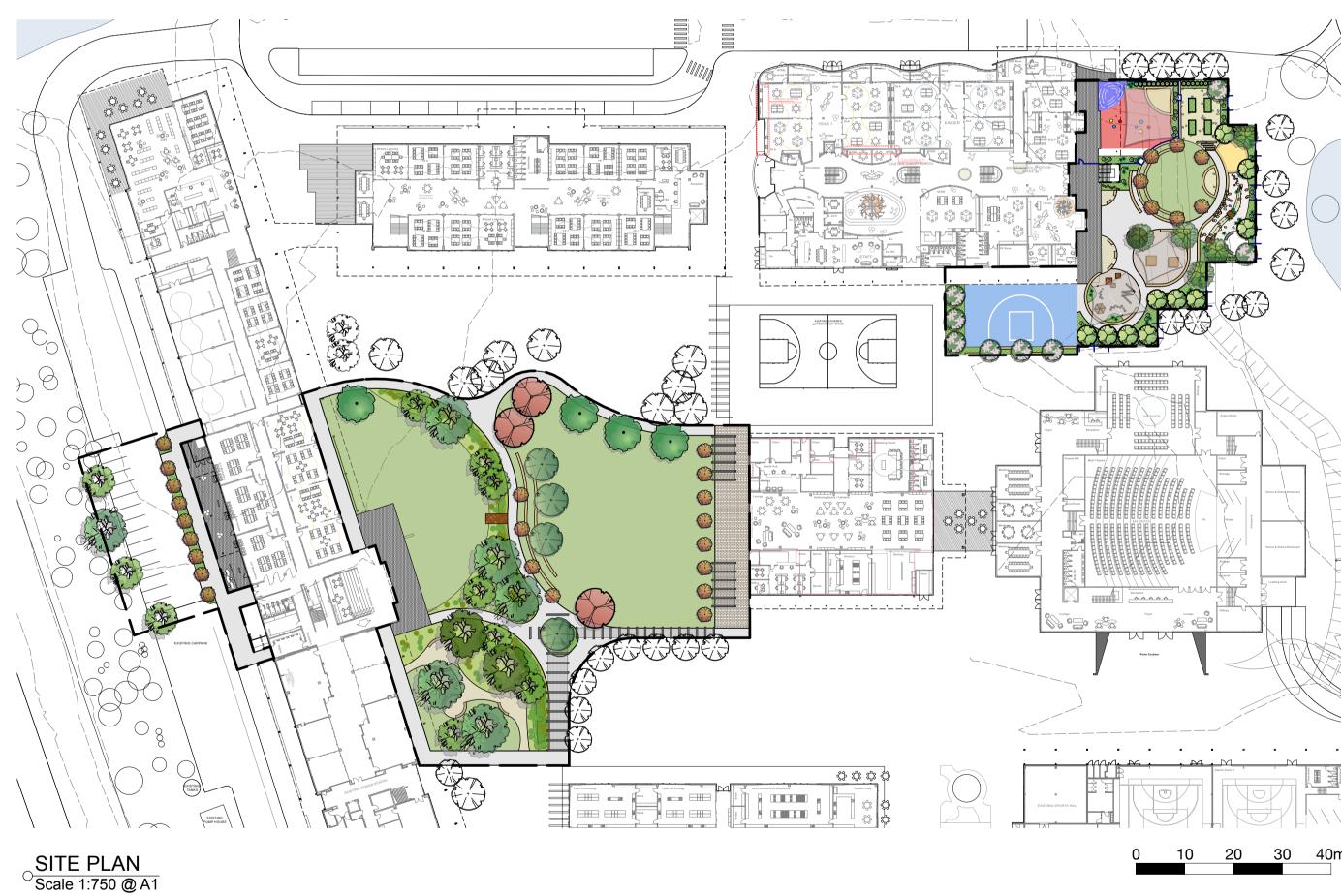
APPENDIX

APPENDIX

ST PHILIPS CHRISTIAN COLLEGE CESSNOCK LANDSCAPE DETAILED DESIGN DOCUMENTATION 10 LOMAS LANE, NULKABA, NSW 2325.



Sheet No.	Drawing Title	Revision	Date
LP01	COVER SHEET	В	17/1/2022
LP02	OVERALL LANDSCAPE PLAN	В	17/1/2022
LP03	JUNIOR SCHOOL - LANDSCAPE PLAN	В	17/1/2022
LP04	THEMING & PLANTING PALETTE	В	17/1/2022
LP05	SENIOR SCHOOL - LANDSCAPE PLAN	В	17/1/2022
LP06	THEMING & PLANTING PALETTE	В	17/1/2022
LP07	SECTIONS	В	17/1/2022



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slington NSW 2296

Fax (02) 4965 3555

www.moirla.com.au

admin@moirla.com.au

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Status: DRAFT

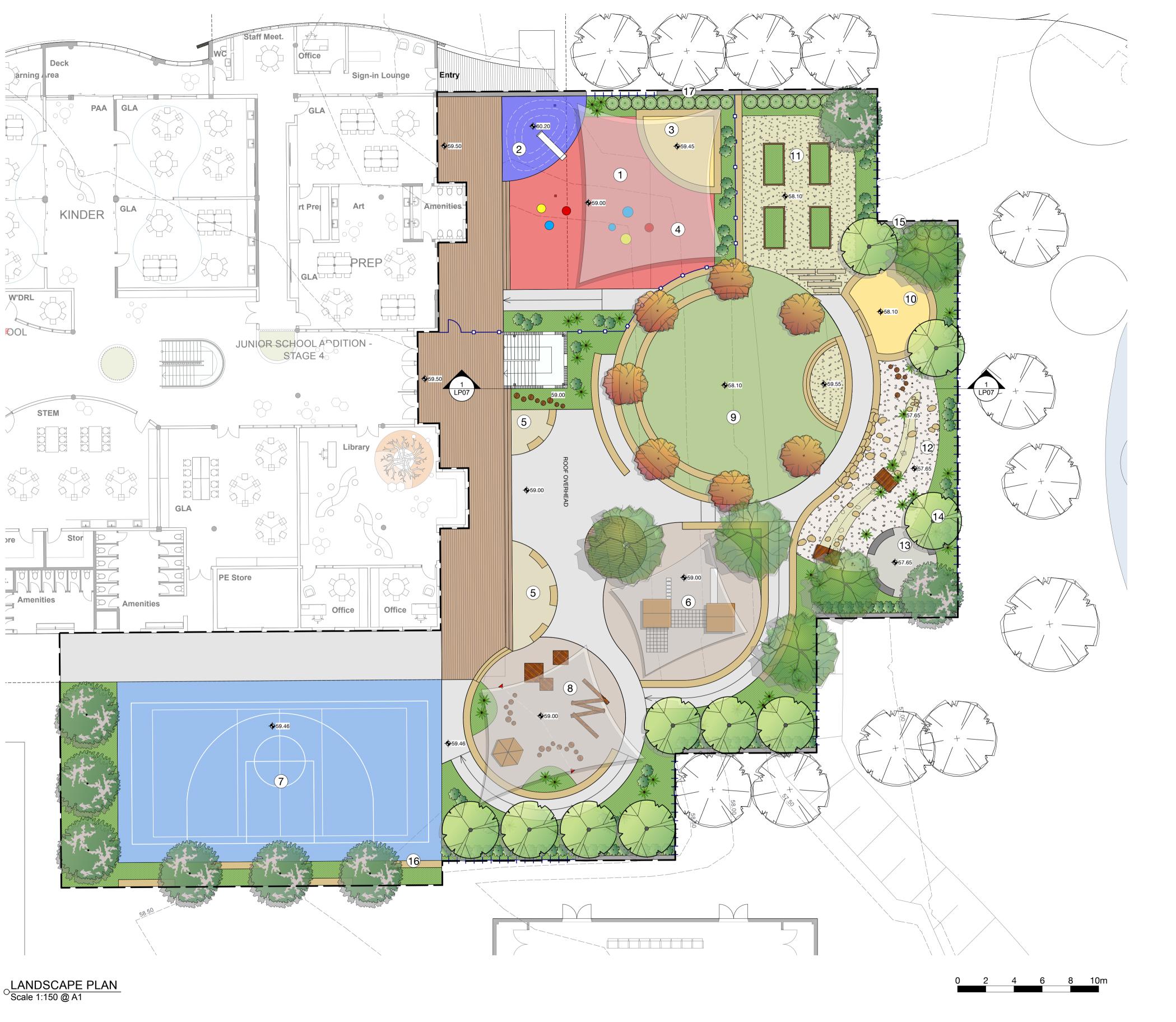


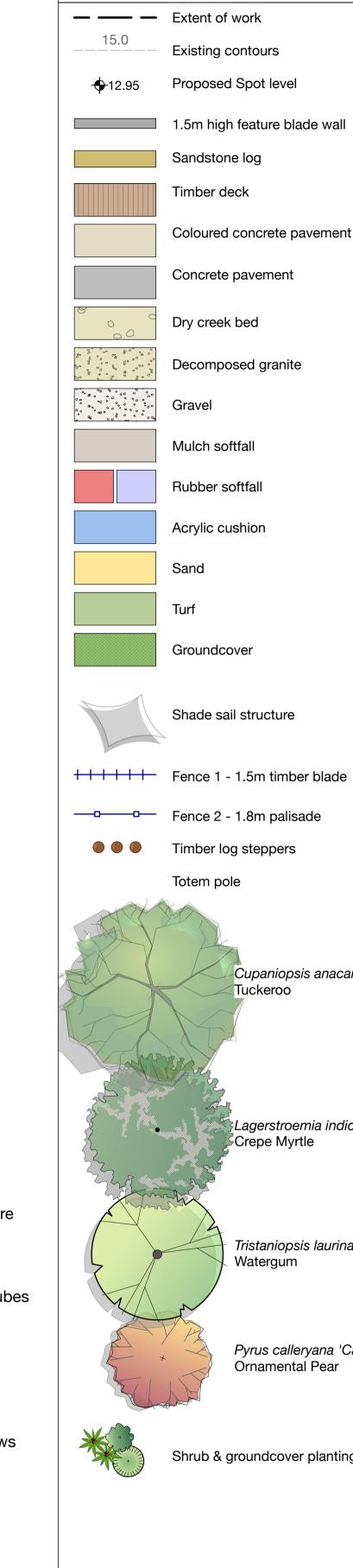
OLANDSCAPE PLAN Scale 1:500 @ A1



Status: DRAFT

2048





LEGEND

Existing contours

Sandstone log

Timber deck

Concrete pavement

Decomposed granite

Dry creek bed

Gravel

Sand

Mulch softfall

Rubber softfall

Acrylic cushion

Groundcover

Totem pole

Cupaniopsis anacardioides
Tuckeroo

Lagerstroemia indica

Tristaniopsis laurina

Pyrus calleryana 'Capital' Ornamental Pear

2048

Crepe Myrtle

Watergum

Shrub & groundcover planting

Shade sail structure

Coloured concrete pavement

Proposed Spot level

KEY:

- 1. Fenced PREP softfall area
- 2. Softfall mound and slide
- 3. Toddler sandpit
- 4. Small softfall mounds and space for movable furniture
- 5. Round seating nodes
- 6. Adventure play climbing structure and slide 7. Multi-purpose sports court
- 8. Nature play balance, climbing, tee pee and talking tubes
- 9. Turf amphitheatre, stage and kickabout area
- 10. Sandpit
- 11. Veggie gardens
- 12. Dry creek bed water play and hand pump
- 13. Conversation circle
- 14. Feature trees to frame pond
- 15. 1.5m high blade walls for security and to frame views
- 16. Low seating wall
- 17. 1.8m high wall adjacent to PREP



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ARCHITECT: SHAC

ENGINEER: Northrop Engineers CLIENT:

St Philips Christian Education Foundation

No: DATE: REVISION: A 12/11/21 DRAFT FOR REVIEW B 17/1/2022 FINAL FOR SUBMISSION PROJECT:

St Philips Christian College 10 Lomas Lane, Nulkaba, NSW JUNIOR SCHOOL - LANDSCAPE PLAN

SCALE: Project No. 1:150 ORIGINAL DRAWING AT A1. Drawing No. Drawn By: AL

Checked By: TB Approved By: DM LP03

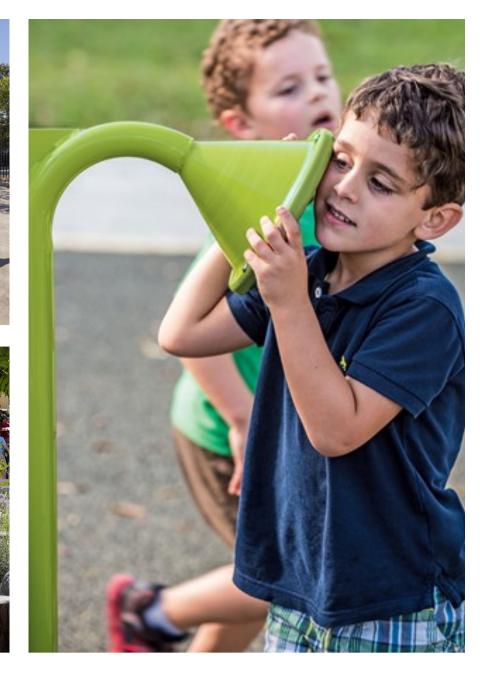


















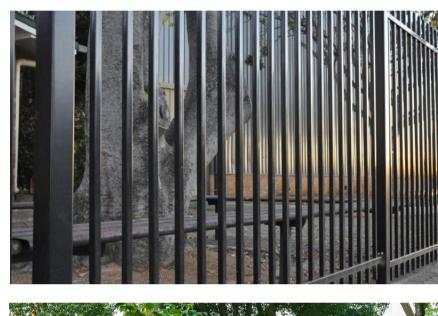
















NATURE PLAY







ACTIVE/ADVENTURE









MATERIALITY

Hardenbergia violacea Purple Coral Pea



sis anacardioides Lagerstroe Crepe Myr

Lagerstroemia indica Crepe Myrtle

Pistacia chinensis Chinese Pistachio

CLIENT:
St Philips Christian Education Foundation

No: DATE: REVISION:
A 12/11/21 DRAFT FOR REVIEW
B 17/1/2022 FINAL FOR SUBMISSION

Gazania rigens var. leucolaena Silver Trailing Gazania

BY: PROJECT:

St Philips Christian College 10 Lomas Lane, Nulkaba, NSW THEMING & PLANTING PALETTE

SCALE:

ORIGINAL DRAWING AT A1.

Drawn By: AL

Checked By: TB Approved By: DM LP04

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Northrop Engineers

NOTE: DRAWING PURPOSES FOR APPROVAL ONLY. NOT FOR CONSTRUCTION.

Liriope muscari Lilly Turf

Status: DRAFT





ENGINEER: Northrop Engineers

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10 Lomas Lane, Nulkaba, NSW

Status: DRAFT

ORIGINAL DRAWING AT A1.

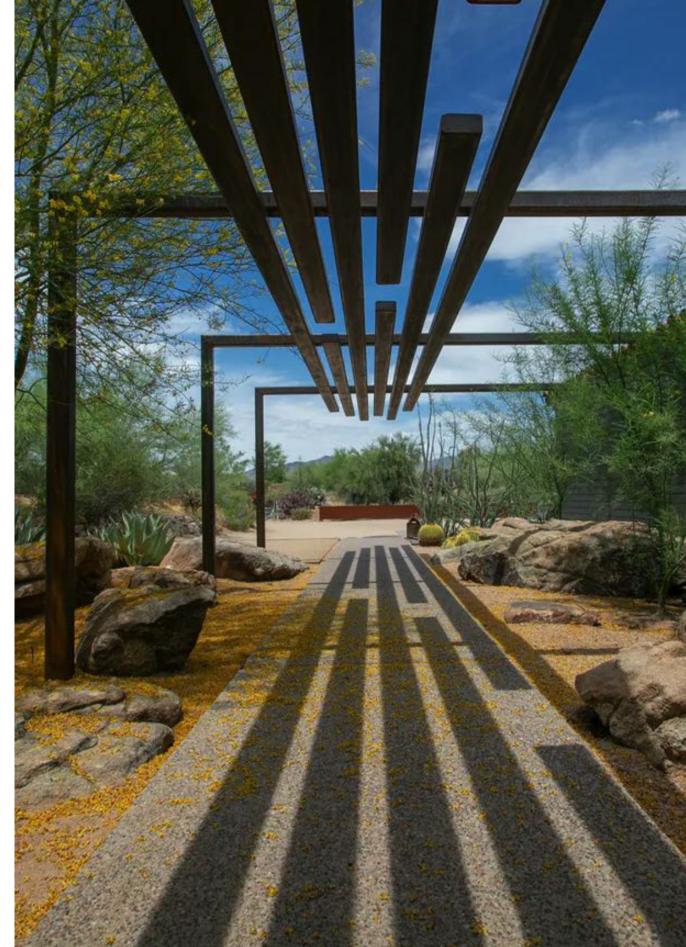
Drawing No. Drawn By: AL Checked By: TB Approved By: DM LP05



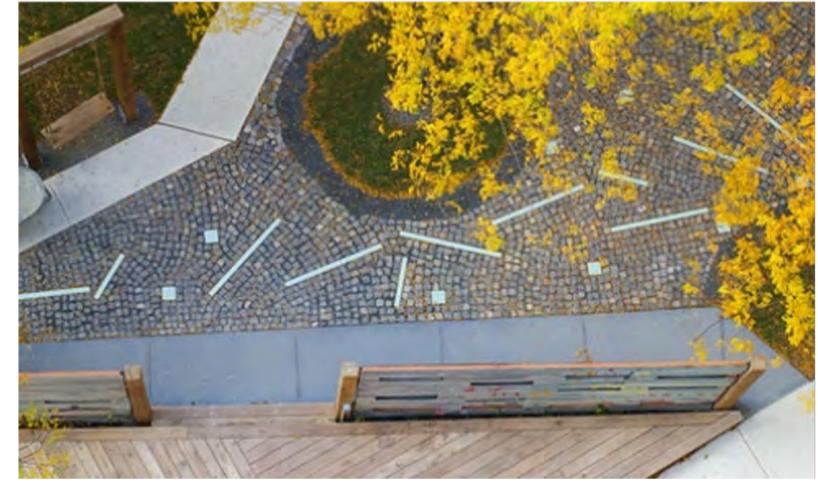






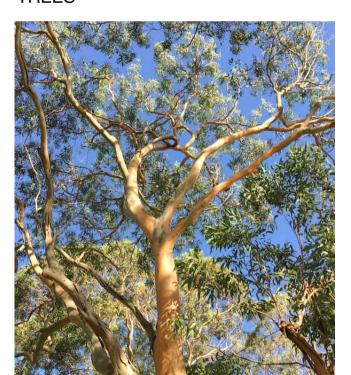










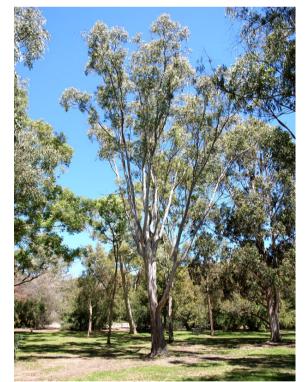






Angophora floribunda Rough-barked apple





Eucalyptus amplifolia Cabbage Gum



Pyrus calleryana 'Capital' Ornamental Pear



Fraxinus pennsylvannica 'Urbanite' Urbanite Ash



Jacaranda mimosifolia Jacaranda



Liriodendron tulipifera Tulip Tree

Status: DRAFT





<u>5</u>(59.50



ARCHITECT: SHAC ENGINEER: Northrop Engineers

CLIENT:

St Philips Christian Education Foundation

No: DATE: REVISION: A 12/11/21 DRAFT FOR REVIEW
B 17/1/2022 FINAL FOR SUBMISSION BY: PROJECT: St Philips Christian College 10 Lomas Lane, Nulkaba, NSW

Status: DRAFT

SECTIONS

SCALE: 1:100 ORIGINAL DRAWING AT A1.
Drawn By: AL Drawing No.