LANDSCAPE PLAN

REF SUBMISSION Q

14968.5-South Lismore Public School-MP_S

LISMORE SOUTH PUBLIC SCHOOL

Department Of Education

Rev. S 12-06-2025

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CONTENTS

Acknowledgement of Country

Terras acknowledge the Traditional Custodians of the lands on which we work and live. We pay our respects to the elders, past, present and emerging and recognise their continuing connection to country and contribution to this land.

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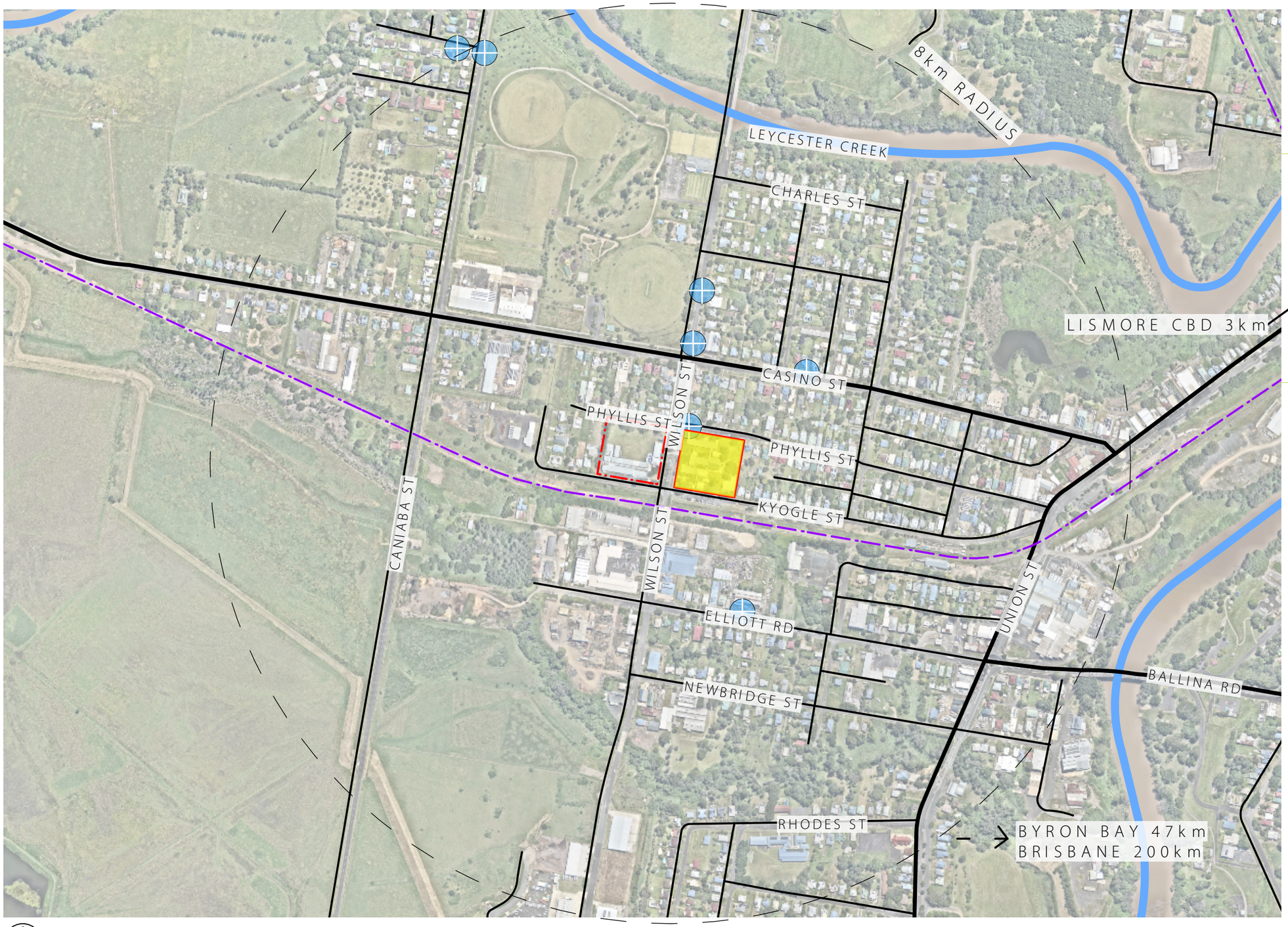
LOCAL CONTEXT



LEGEND

- SITE BOUNDARY
- MAJOR ROAD
- MINOR ROAD
- LEYCESTER CREEK
- OLD RAILWAY LINE
- EXISTING BUS STOP
- SCOPE OF WORKS
  Eastern Campus Only

SITE ANALYSIS

The site is located 733km north of Sydney, 47.5km south-west of Byron Bay and 200km south of Brisbane.

The subject site lies approximately 3km west of Lismore CBD, bordered to the west by a minor road corridor, Wilson St runs through the subject site.

Leycester creek runs approximately 1km north and east of the subject site. Nesbitt Park, Marie Lee Oval and Arthur Park all lie within 1km of the site. The site's relatively flat terrain and close proximity to major rivers and waterways makes it a flood prone land.

1 / L101 SITE ANALYSIS
Scale: 1:7000

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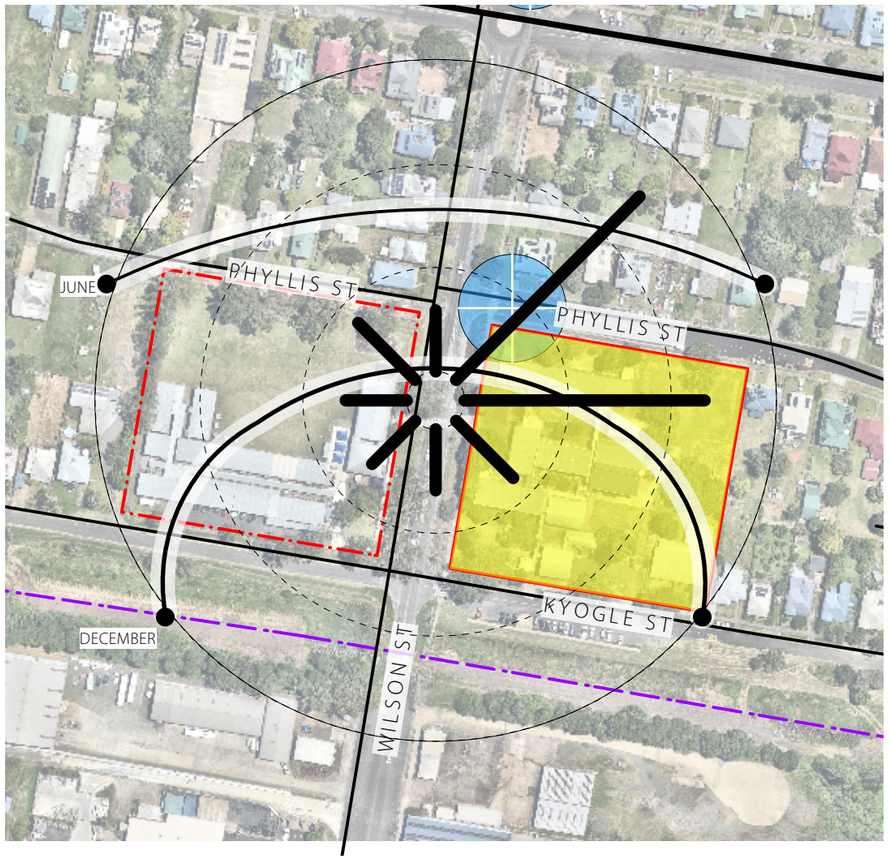
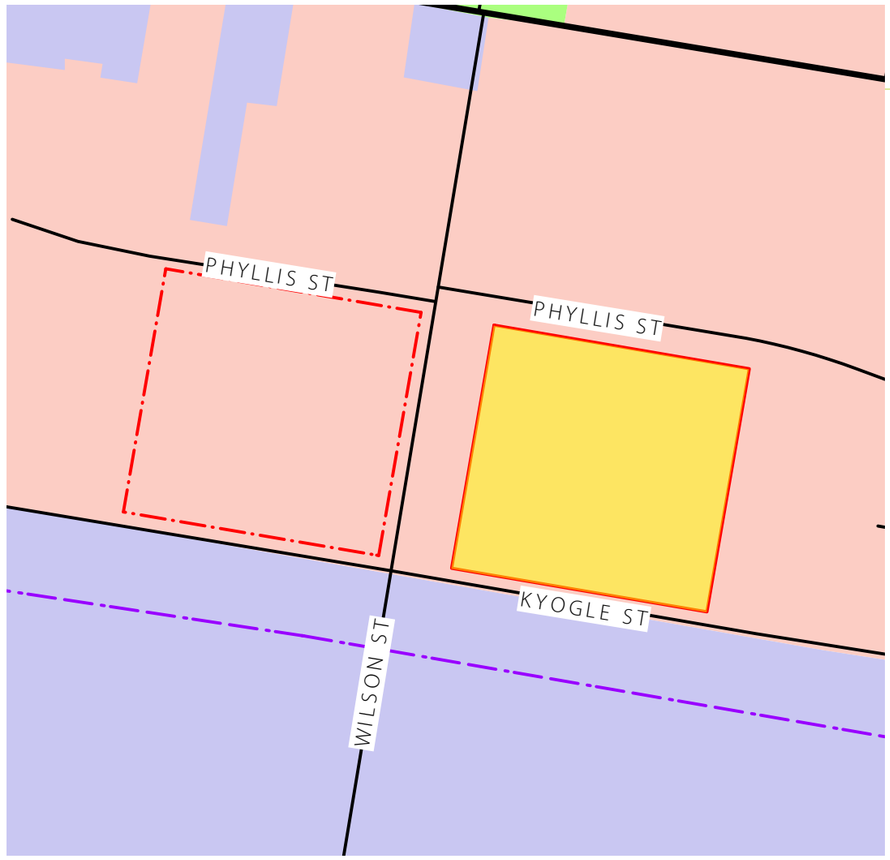
LOCAL ANALYSIS



NATURAL SYSTEMS

- SITE BOUNDARY
- OLD RAILWAY LINE
- SCOPE OF WORKS
  Eastern Campus Only
- MAJOR ROAD
- MINOR ROAD

Wind rose 9am Tenterfield
(http://www.bom.gov.au/cgi-bin/climate/cgi_bin_scripts/windrose_selector.cgi?period=Annual&type=9&location=56032)



ZONING / SPATIAL TYPES

- SITE BOUNDARY
- LOW DENSITY RESIDENTIAL (R2)
- SCOPE OF WORKS
  Eastern Campus Only
- GENERAL INDUSTRIAL (E4)
- PUBLIC RECREATION (RE1)

ANALYSIS

Wind of the area can be largely categorised by its northeastern and eastern direction.

Sun calculations demonstrate a low sun angle with shorter days in Winter, making north-eastern to north-western sun access vital during this time. Summer sun is dictated by a higher sun angle with longer days.

The land has been zoned as R2 - Low Density Residential and falls within the Lismore City Council LGA.

The site is largely bordered to the north, east and west by Low Density Residential zone, and to the south by General Industrial zone. Further to the north lies a Public Recreation zone that assist in connecting the residential areas to the city.

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SITE CHARACTER

View from Wilson St, looking east.

ANALYSIS

The subject site to the east of Wilson St is currently comprised of existing structures and vegetation relating to Lismore South Public School, that are no longer in use while the temporary demountable classrooms are located to the west of Wilson St. Easily accessible for parents to drop off and pick up, an existing parking lot is located south of Kyogle St.

Landscape character within the immediate vicinity of the site includes low density residential fabric, minor road corridors, recreational space in the form ovals and playing fields and mixed use industrial and commercial development.

Kyogle St along the southern boundary, looking west.

View of existing COLA and sports field from Wilson St, looking west.

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VEGETATION COMMUNITIES

VEGETATION COMMUNITIES: TYPE 1

Richmond Valley Riparian Waterhousea Forest
(ID: 3104)

This vegitation community is defined from a single plot on a creek flat of a minor tributary of the Wilson River, itself a tributary of the lower Richmond River, on the southern outskirts of Lismore. The community is a dense, tall rainforest in which Waterhousea floribunda is clearly the dominant canopy species , with the highest cover. There is a sparse understory, including the shrub Desmodium acanthocladum

Species present include, but are not limited to:
Canopy Species: *Waterhousea floribunda, Streblus brunonianus, Cryptocarya triplinervis*
Mid Stratum: *Desmodium acanthocladum, Diospyros australis*
Ground-Stratum: *Oplismenus aemulus*

(Trees Near Me 2025)

VEGETATION COMMUNITIES: TYPE 2

Far North Creekflat Paperbark Swamp Forest
(ID: 4029)

This community occurs in small remnants in otherwise almost completely cleared landscapes associated with basalt lithology. The plots are highly disturbed and have high to extremely high proportions of exotic species. Of the two plots defining this PCT, one is an open forest of Melaleuca quinquenervia and Glochidion ferdinandi with a mainly grassy ground layer, the other is Casuarina glauca with scattered shrubs and a mixed ground layer.

Species present include, but are not limited to:
Canopy Species: *Melaleuca quinquenervia, Glochidion ferdinandi*
Mid Stratum: *Breynia oblongifolia*
Ground-Stratum: *Centella asiatica, Hydrocotyle acutiloba, Juncus continuus*

(Trees Near Me 2025)

VEGETATION COMMUNITIES: TYPE 3

Northern Lowland Swamp Turpentine-Red Gum Forest
(ID: 4046)

A very tall to extremely tall sclerophyll open forest with a mid-stratum of Melaleucas and soft-leaved species and a grassy ground layer, occurring on floodplains and low rises of the southern Richmond River and Lower Clarence valleys.
Acacias are almost always present, *Alphitonia excelsa* and *melaleucas* are very frequent and *Glochidion ferdinandi* is common.

Canopy Species: Lophostemon suaveolens,frequently with red gums (Eucalyptus tereticornis or Eucalyptus seeana).
Mid Stratum: *Breynia oblongifolia, Melaleucas.*
Ground-Stratum: *Imperata cylindrica, Geitonoplesium cymosum and Parsonsia straminea.*

(Trees Near Me 2025)

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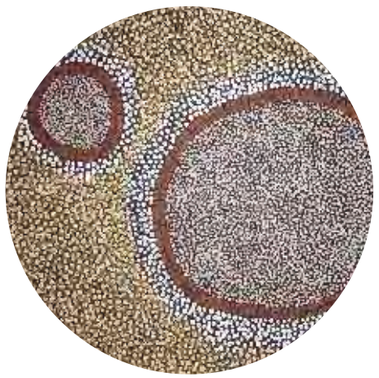
HISTORY AND HERITAGE



FIRST NATIONS PEOPLE

The site is located on **Bundjalung Nation** and is home to the traditional custodians of the Mid-North Coast and Richmond River **WidjabalWaibal people**.

Traditionally, the **WidjabalWaibal people** lived in family groups and relied on the fertile river flats of the northern NSW coastal region for **hunting, fishing, and gathering**. They had great skills in crafting tools and weapons from natural resources. They used materials like **stone, wood, shells** and **animal bones** to create spears, boomerangs and other tools essential for hunting and fishing.

One of the annual rituals of the Bundjalung people was the movement to the coast during the winter months when the mullet were plentiful. The inland peoples from around Casino brought black bean seeds with them to trade for the fish. The indigenous native Bundjalung Nation Aboriginal people used "**tea trees**" as a traditional medicine by inhaling the oils from the crushed leaves to treat coughs and colds.

The Aboriginal culture in the Bundjalung Nation is evident in many aspects, including many bora rings. Casino was an important aboriginal meeting place. Ceremonial grounds are usually marked with a **Bora Ring** which is a raised platform of dirt arranged in a circle. This Bora Ring which was last used in the 1800s is located 15 kilometres south of Lismore on Wyrallah Road

BUNDJALUNG PLANTING

The landscape design considers endemic planting, which uses native species that have adapted to the local environment and have a cultural significance for the Bundjalung people.

Planting of endemic species to establish a sense of place and connection to country specific to site encouraging the creation of habitats for various species, contributing to urban biodiversity & ecosystem health.

Community involvement is encouraged to establish these areas with the help of the Local Aboriginal Land council's **Ngulingah Nursery.**

The region has rich **alluvial soil** from a history of volcanic activity. Floodplain alluvium can be highly fertile, and supported some of the earliest human civilizations.

The design also looks at maximising soft surfaces while retaining as many trees on site as possible and incorporating WSUD principals to ensure care for country is implemented.

LOCAL MATERIALS

The choice of material is intended to draw from the former site while reducing the extent of high carbon elements and contributing to a more sustainable built environment. The components that categorise the historical, architectural language of the country are defined by the rich sources of natural materials available at the time.

The design aims to forster a connection between the built environment and the local community by using local materials where possible to promote environmental responsibility and preserve the local identity.

The design looks at provision of opportunities for **art** and celebration of First Nations Culture within the scheme.

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LANDSCAPE VISION

CONNECTION TO COUNTRY

As a landscape architecture practice that deals with land, places, culture, history and the natural environment, everything we do is on Country and it is our responsibility to care for country. We are committed to understand more about the Traditional Owners of this land, and their deep cultural connections to Country. Our ambition is to:

- Reduce the impacts of natural events through sustainable land and water use practices
- Value and respect Aboriginal cultural knowledge and language and engage with truth
- Ensure Country is cared for appropriately and sensitive sites are protected

HUMAN CONNECTIONS

Provide legible and easily accessible links through the site at a human scale to encourage walking and cycling. Creating opportunities for active and passive recreation and a variety of recreation experiences.

The environments in which we live profoundly affect us. Positive relationships and connections to natural and built landscapes impact our health and well-being in a variety of ways. Including reducing stress and minimizing anxiety.

It is our intention to foster connections for the people to Live, Work, Play, Gather, and Learn.

CLIMATE POSITIVE DESIGN

As stewards of the environment, landscape architects must advocate for climate positive outcomes. As designers of the built environment we need to ensure the future of our planet by reducing carbon footprints and increasing sequestration. CPD can mean:

- Retention of as many trees on site as possible
- Reduce demolition and recycle and reuse materials
- Reduce the extent of high carbon elements
- Maximise soft surfaces and soil root plate volumes
- Increase biodiversity
- Design for longevity
- Utilise WSUD principles

SITE SPECIFIC DESIGN

Design which preserves, enhances, and creates strong visual and physical connections to the natural features inherent to the site ,whether they are a stand of trees, the topography of a site, a body of water, or a distant view.

LANDSCAPE VISION

To tell the idiosyncratic story of Wallis Creek and its relationship to water, through thoughtful landscape initiatives that celebrate the site's entire history and assist in creating meaningful connections to its future intended purposes.

MATERIALS


Significant Plantings


Undercroft Ball Courts


STREET PRINT SPRAY ON CONCRETE


Bush Tucker


Widjabul Wia-bal Welcome Art

NOTES

The proposed material palette is inspired by the site's history and heritage. The rich floodplains and wetlands provide fertile land throughout Lismore, with sedimentary and volcanic rocks such as rhyolite and granite being the predominant materials. Wetland trees such as Paperbark will be used to create the place.

Local timber is proposed in a variety of applications throughout the site with the introduction of coloured concrete to create interest speaking to the natural earthy colours of the surrounding landscapes. Timber referencing the Paperbarks and Melaleuca from the banks of Wilsons River will be used in furniture and features.

Planting endemic vegetation will help create a sense of place unique to the site. Swathes of native grasses are proposed to reinforce movement and the site's relationship to water. The introduction of Bush tucker plants represents the futility of the greater Lismore area while creating opportunities for outdoor and cultural learning.

PRESCHOOL MATERIALS


Significant Plantings


Bush Tucker


WALL VINYL WRAP- Edugrafix


Widjabul Wia-bal Welcome Art


NATURE PLAY


STREET PRINT SPRAY ON CONCRETE

NOTES

The materials chosen for the preschool celebrate the area, with timber being the predominant structural material.
The sand play area provides textural learning experiences while providing safe learning spaces that encourage children to emerge in their natural surroundings in a safe and exploratory way.
Sand connects the preschool to the school's contextual setting of coastal sandy floodplains.
Planting is introduced into the space through cut outs in the sand pit from underneath the undercroft allowing tactile connection to the natural environment.
The introduction of wall art presents opportunities to increase aesthetics in otherwise heavy architectural undercroft areas while educating children on the local flora and fauna or storytelling opportunities.

MASTER PLANS

LANDSCAPE PLAN

Undercover pick-up /drop off zone
an open multi use play space with contoured rubber wet pour softfall and perimeter concrete planters .

Buffer Planting
Dense buffer planting for playground interest shading and screening.

Motion Play Equipment .

Open Turfed Play Space
Open green space for multi use games and sports promoting collaborative play and healthy competition

Main Assembly Area
Coloured concrete patterning with raised planter beds celebrating the four seasons of Bundjalung with wall mounted timber look aluminum bench seating.

Yarning Circle
with cultural planting perimeter .

Main Undercover Playground
Organically shaped wet pour rubber soft fall with full inclusive play tower module.

Nature and Sensory Play
including obstacle course challenges and nature play sensory elements.

Bush Tucker
To encourage children to engage with nature and foster a sense of place.

Electronic School Signage

Pavement Etching
To provide opportunity for story telling, linking key cultural areas together.

After Hours Entry off Kyogal Street

Sand Pit
With canopy shading

Growing Gardens

Play Court
concrete finish

Garden Storage

Preschool Nature Play Space
with sand pit and mass planting

Vegetation Buffering
playground greening between main play space and preschool

Preschool Undercroft Area
Nature themed play module with tower and organic wet pour rubber softfall.

Flag Poles

Boundary Screening
car park canopy to reducing heatisland affect and providing street screening

Undercroft Ball Courts
A multipurpose ball court space with opportunity for basketball hoops and removable nets to be installed.

Pickup Zone Seating
meeting space with picnic bench seating

Waste Enclosure

Community Gathering Place
south entry community gathering space.

LEGEND

- SITE BOUNDARY
- 2.100m HIGH BLACK TUBULAR STEEL FENCING- SECURATOP
- 1.200m HIGH BLACK CROWDTUFF PEDESTRIAN BARRIER FENCING
- GATE ACCESS
- EXISTING TREE TO BE RETAINED
- CANOPY TREES PROPOSED
- TURFED AREA
- MASS PLANTING
- SOFT FALL 1
- SOFT FALL 2
- SOFT FALL 3
- SOFT FALL 4
- PLAY SAND
- DECOMPOSED GRANITE
- CONCRETE PAVING TYPE 1
- CONCRETE PAVING TYPE 2
- CONCRETE PAVING TYPE 3
- BENCH SEAT AS SPECIFIDE
- SANDSTONE LOG SEATING TYPE 1
- SANDSTONE LOG SEATING TYPE 2
- FLAG POLE TO ARCHITECTURAL DETAIL

1 / L301 Landscape Plan
Scale: 1:600

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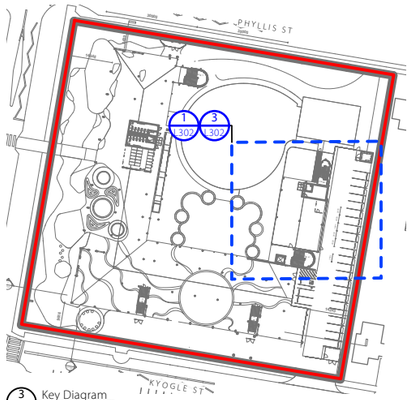
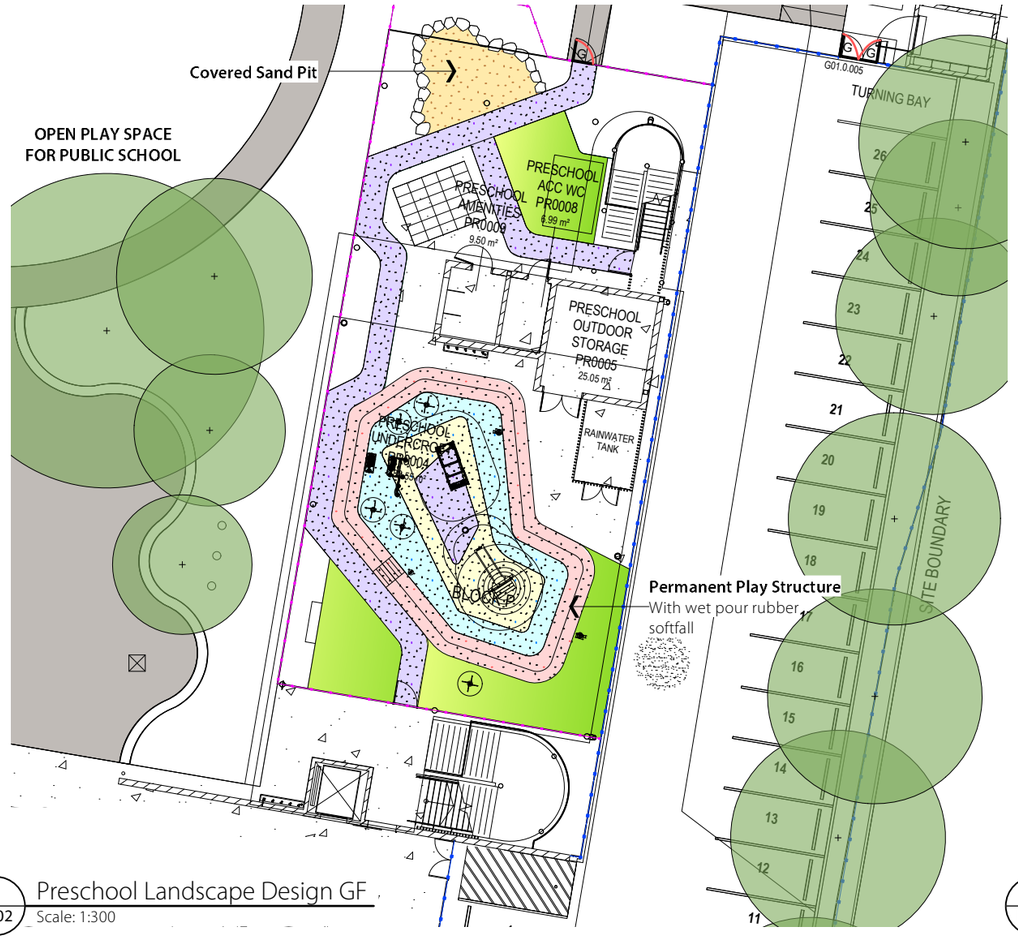
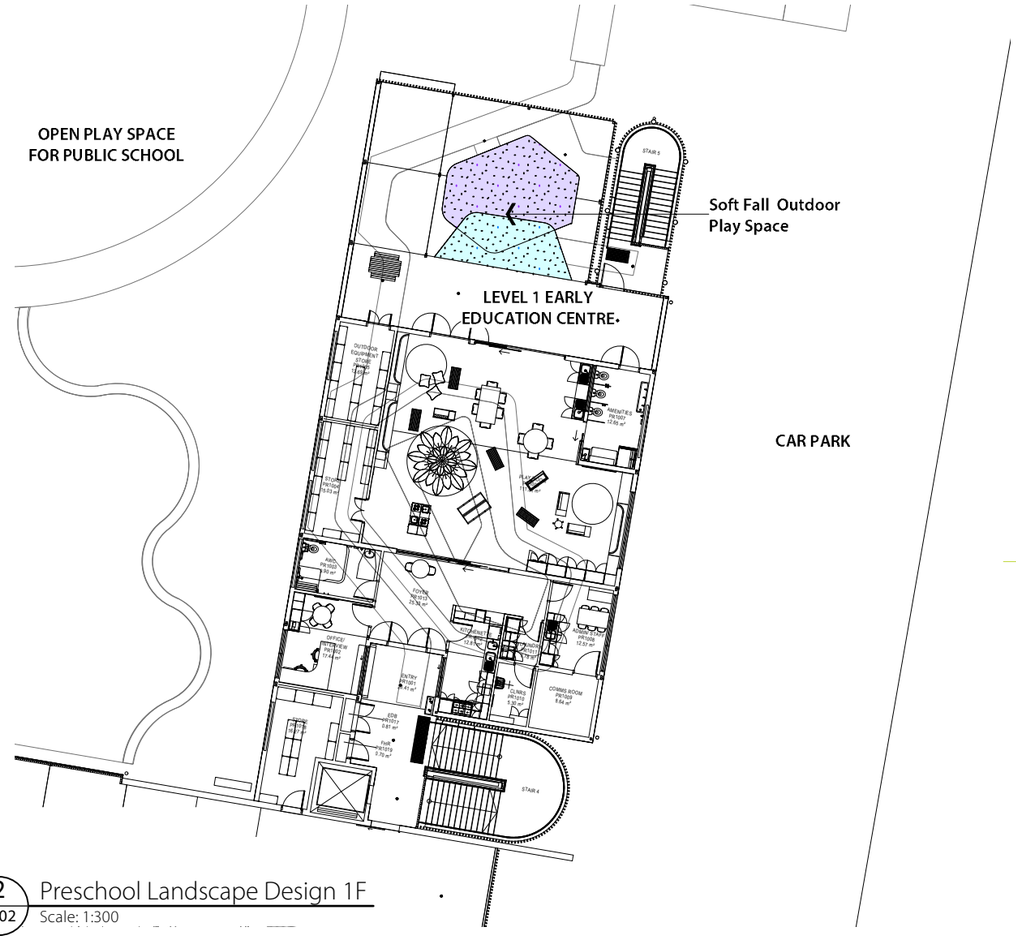
PRESCHOOL LANDSCAPE PLAN



3 L302 Key Diagram
Scale: 1:2000



1 L302 Preschool Landscape Design GF
Scale: 1:300



2 L302 Preschool Landscape Design 1F
Scale: 1:300

LEGEND

- SITE BOUNDARY
- 2.100m HIGH BLACK TUBULAR STEEL FENCING- SECURATOP
- 1.200m HIGH BLACK CROWDTUFF PEDESTRIAN BARRIER FENCING
- GATE ACCESS
- EXISTING TREE TO BE RETAINED
- CANOPY TREES PROPOSED
- TURFED AREA
- MASS PLANTING
- SOFT FALL 1
- SOFT FALL 2
- SOFT FALL 3
- SOFT FALL 4
- PLAY SAND
- DECOMPOSED GRANITE
- CONCRETE PAVING TYPE 1
- CONCRETE PAVING TYPE 2
- CONCRETE PAVING TYPE 3

NOTES

1. Preschool undercroft active playspace with large structural play elements and integrated softfall to sandpit. Sandpit area to include music play, and nature play elements shaded by large feature tree and perimeter screen plantings for colour and softening of built forms.

2. The preschool first floor outdoor playspace will be a softfall race track and 2D games inserts with synthetic turf surrounds. Space to accommodate nature and messy play tables, as well as an area for gross motor play elements such as building frames and large tower block play to be incorporated.

GROUND FLOOR PRESCHOOL UNDERCROFT PLAYSPACE

Musical Play - (Harmony Flowers)

Sandpit with integrated nature play - (Natural stone and wood)

Undercroft play structure- (Natural theme with softfall underlay)

LEVEL 1 PRESCHOOL COVERED OUTDOOR PLAYSPACE

Softfall design to mimic the river linking to the

Colourful structured play elements on softfall

Softfall race track

Softfall colourful game inserts

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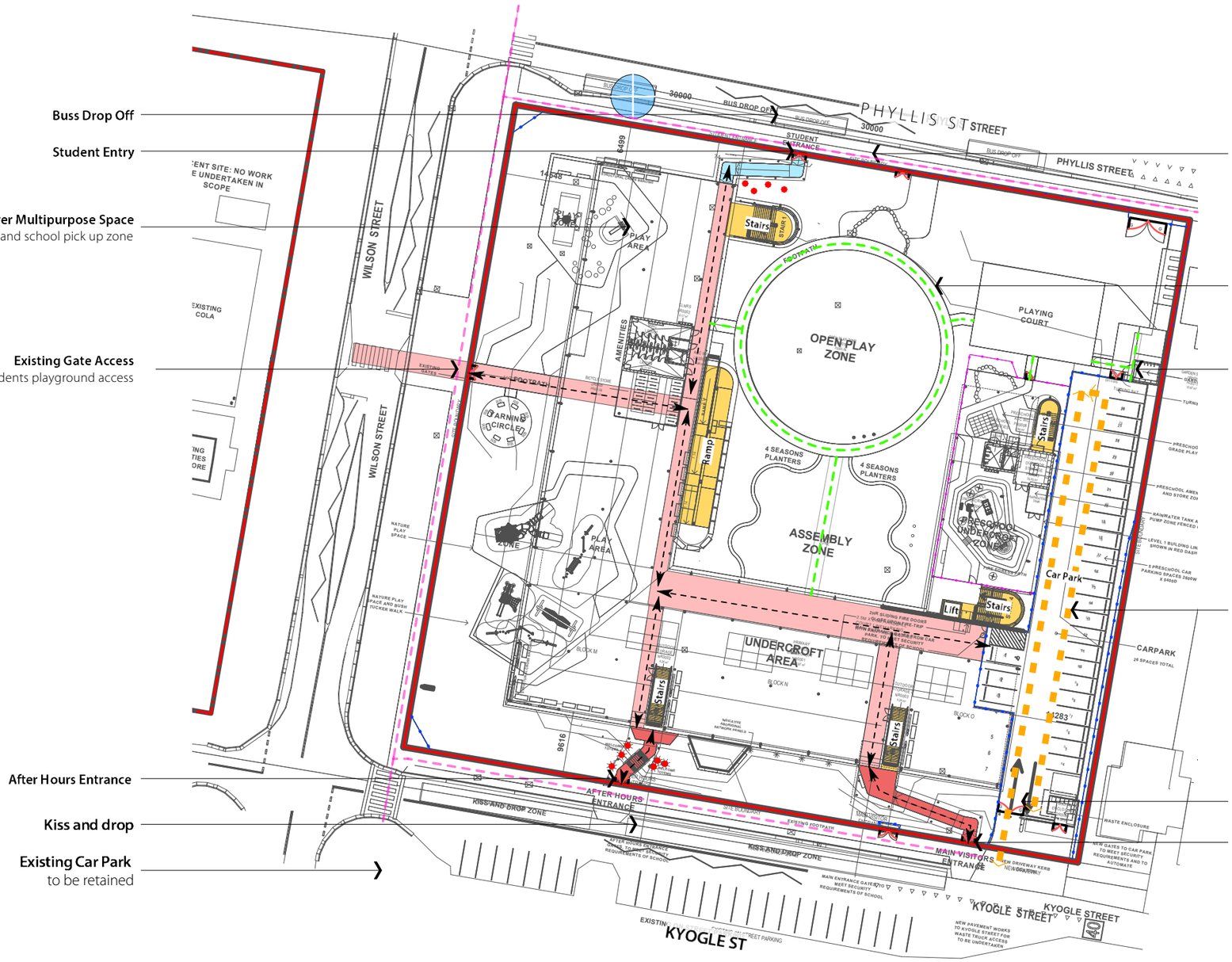
LANDSCAPE STRATEGIES

CIRCULATION HIERARCHY



Buss Drop Off

Student Entry

Undercover Multipurpose Space
and school pick up zone

Existing Gate Access
for senior students playground access

After Hours Entrance

Kiss and drop

Existing Car Park
to be retained

Exterior Pedestrian Access Path
to encourage safe pedestrian movement.

Internal Pedestrian Access Path
to facilitate circulation through play spaces.

Pedestrian Maintenance Access

Vehicular Access and Parking

Vehicular Entry to Gated Car Park

Main Visitor Entrance

LEGEND

- SITE BOUNDARY
- EXISTING BUS STOP
- VERTICAL CIRCULATION
- STUDENTS ENTRY (BUS ARRIVALS)
- MAIN ENTRY
- SECONDARY ENTRY
- VEHICULAR ENTRY
- FOOTPATH CONNECTION
- PEDESTRIAN FLOW
- 2.100m HIGH BLACK TUBULAR STEEL FENCING- SECURATOP
- 1.200m HIGH BLACK CROWDTUFF PEDESTRIAN BARRIER FENCING
- GATE ACCESS

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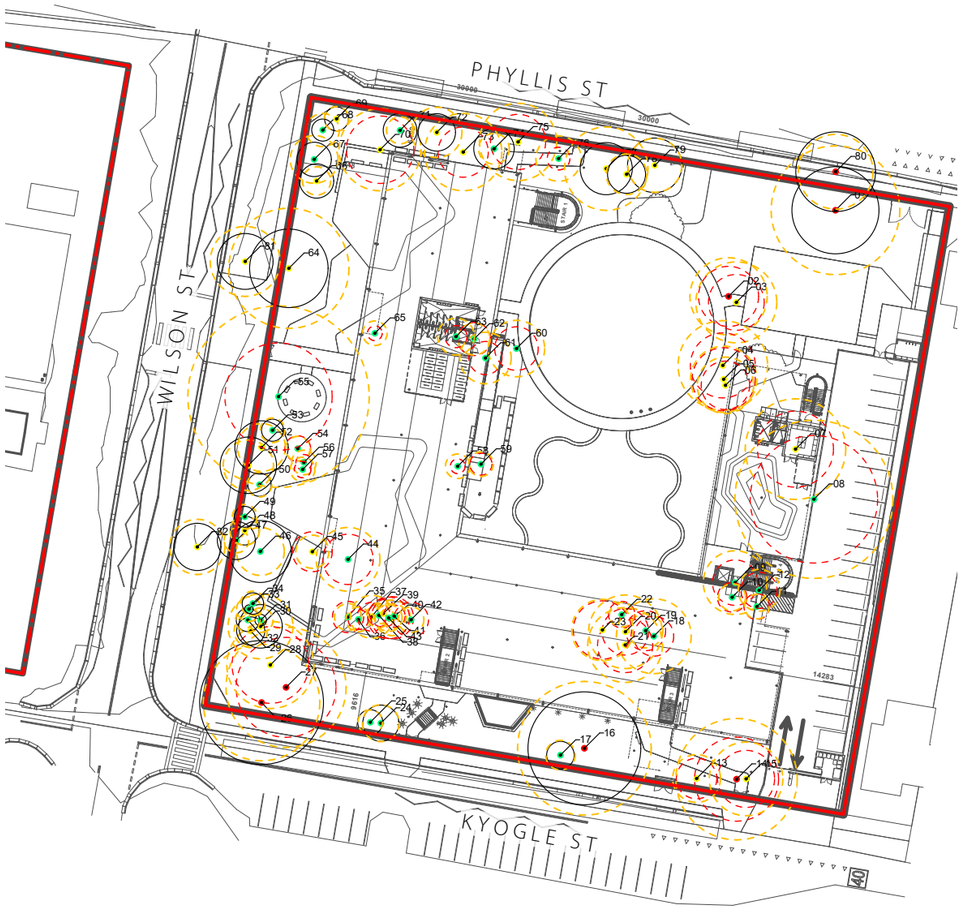
TREE CANOPY



EXISTING CANOPY COVER

SITE BOUNDARY

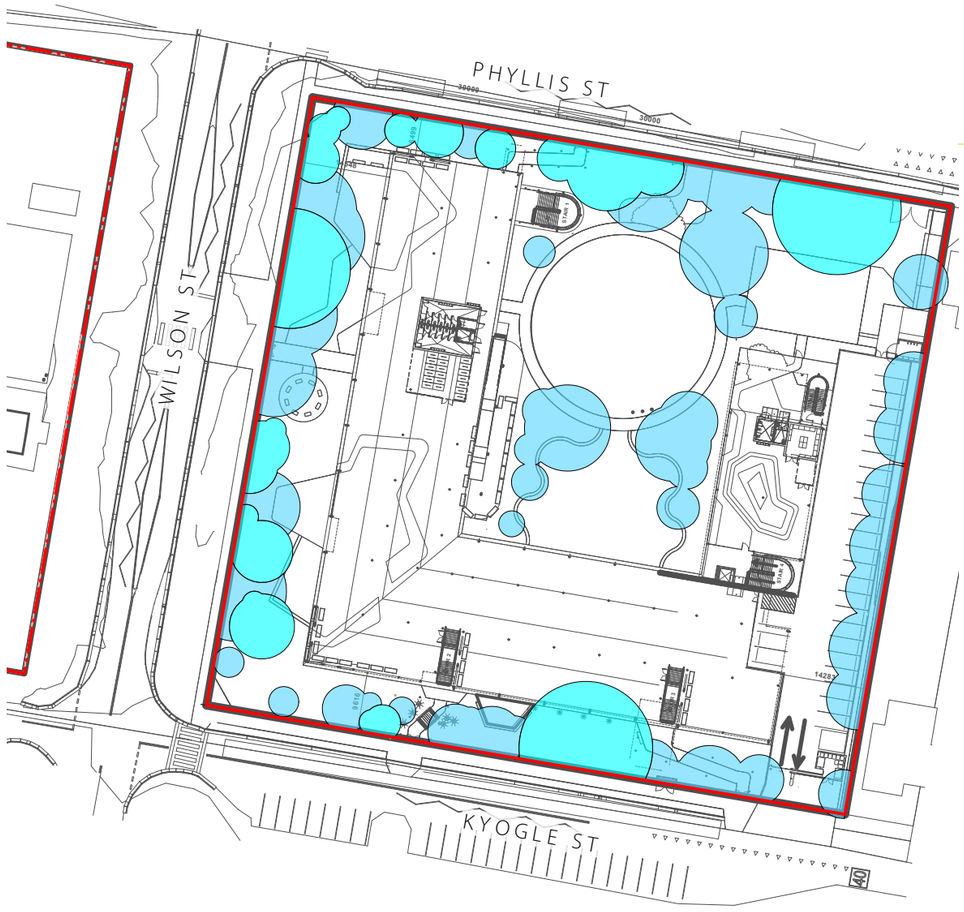
LOW RETENTION VALUE

MEDIUM RETENTION VALUE

HIGH RETENTION VALUE

TO BE REMOVED

TPZ



INTENDED CANOPY COVER

SITE BOUNDARY

EXISTING TREE TO BE RETAINED

PROPOSED TREE

NOTES

The landscape explores opportunities to increase canopy cover in open spaces to offset removal of some of the existing canopies owing to aging and building footprint.

The original design intent was to maintain 30% canopy coverage to provide shade, create an outlook from classrooms and shield the school from the street . The intent of this has been achieved via the 28% canopy coverage with play equipment strategically placed in the undercroft to provide shade.

Site = 10622.9m^2
Canopy Coverage = 2972.7m^2

28% Canopy Coverage

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LANDSCAPE HIERARCHY

HARDSCAPE

SOFTSCAPE

Maximise canopy planting opportunities by in filling with endemic planting to provide a visual buffer, and habitat and reduce heat island effect

Undercover pick-up and bus waiting area with interactive ground games and seating

Open turfed area for run around activities

Main undercroft playground with veriety of interactive play elements and softfall areas

Undercroft area to offer a shaded space for students' outdoor eating with removable seating for space flexibility

After Hours entrance hardscaping to create large gathering space for school pick-up, drop-off and community zone

Garden areas added and extended in the entry zone for increased canopy and also the protection of existing native trees.

Planting of tall, significant endemic species, Araucaria cunninghamii - Hoop Pine four seasons planting.

Provision of open courts for public school separate to preschool area

Planting to create buffer to reduce visual impact and provide vegetative screen to existing residences north and east of site

Increased deep soil areas for greater canopy cover to reduce heat island affect from car park

Flexible undercover ball sports area

Vehicular linkage to Kyogle St and car parking to south east of site

LEGEND

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- SOFT FALL 4
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- DECOMPOSED GRANITE
- CONCRETE PAVING TYPE 1
- CONCRETE PAVING TYPE 2
- CONCRETE PAVING TYPE 3
- BENCH SEAT AS SPECIFIDE
- SANDSTONE LOG SEATING TYPE 1
- SANDSTONE LOG SEATING TYPE 2

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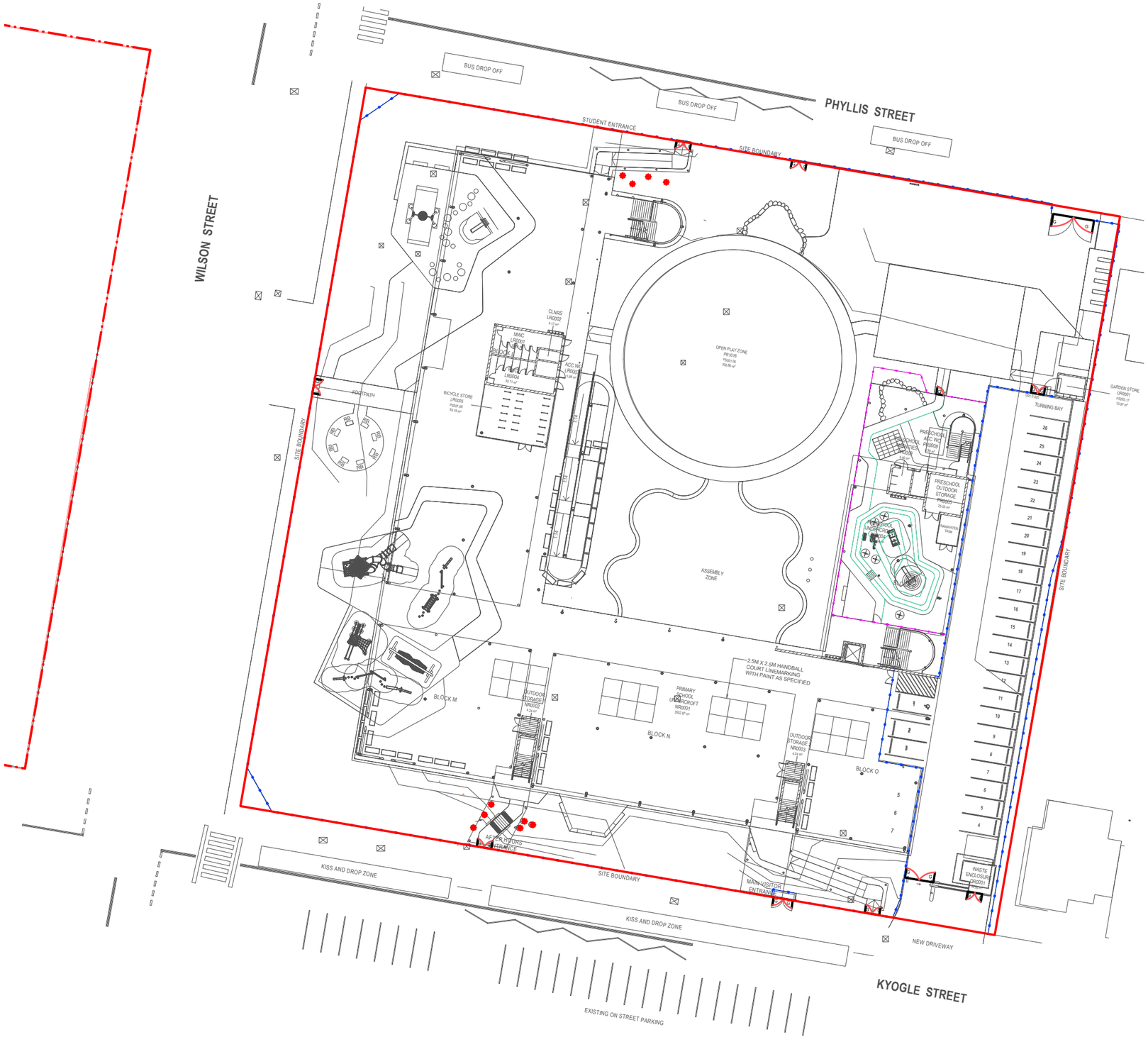
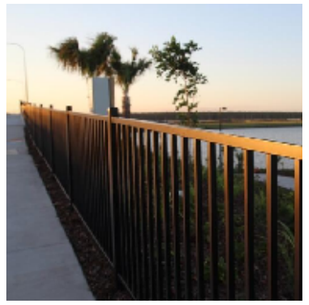
FENCING DIAGRAM



LEGEND

- SITE BOUNDARY
- 2.100m HIGH BLACK TUBULAR STEEL FENCING- SECURATOP
- 1.200m HIGH BLACK CROWDTUFF PEDESTRIAN BARRIER FENCING
- GATE ACCESS
- ENTRY FEATURE ART

Crowdtuff pedestrian Barrier fencing - Bluedog Fences



Panel Height: 1200mm
Top Profile: Flat, Rod or Loop Top
Picket Size: 25 x25 x1.2mm gap between uprights 112mm
Post Size: 65 x65x 1800mm long Spaced 2415mm Gap
Material: Pregalvinised steel hollow tube to AS1450-2007 and AS1397:2001
Weld Type: Silicon Bronze
Pre- Treatment: 7 Stage immersion Bath AS4506
Finish: Polyester powder coat to AS4506-2005 metal finishing- Theroset powder coatings.

Panel Length: 2400mm
Rail Size: 40 x40x1.6mm

Securatop Bluedog Fences - Tubular Steel Fencing

Panel Height: 2100mm
Top Profile: Crushed Spear Top
Horizontal Rail Size: 40 x40x1.6mm square hollow tube punched at 140mm centers to suit the pickets
Picket Spacing: Gap between uprights 98mm. (Child safe option)
Post Spacing: 2415mm Gap Between Posts
Material: Pregalvinised steel hollow tube to AS1450-2007 and AS1397:2001
Pre- Treatment: 7 Stage immersion Bath AS4506
Finish: Polyester powder coat to AS4506-2005 metal finishing- Theroset powder coatings.

Panel Length: 2400mm
Weld Type: Silicon Bronze

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TREE PALETTE

NATIVE TREES


Backhousia citriodora- Lemon Myrtle (E & F)


Araucaria cunninghamii- Hoop Pine(E)


Lephostemon confertus- QL Brush Box (N)


Melaleuca quinquenervia- Paper Bark (E)


Waterhousea floribunda- Weeping Lilly Pilly (E)


Buckinghamia celsissima- Ivory Curl (N)

DECIDUOUS TREES


Nyssa sylvatica- Tupelo


Zelkova serrata 'Green Vase'- Japanese Elm

(E) Endemic to site *(F) Edible/Bush tucker component* *(N) Australian Native*

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GENERAL PLANT PALETTE

LARGE SHRUBS


Callistemon viminalis 'Pink Alma' - Bottlebrush - (Native)

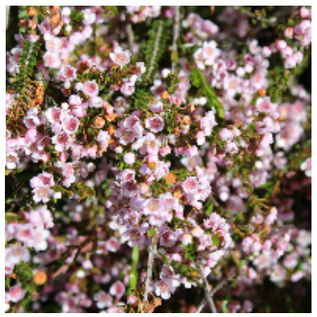

Acacia pycnantha- Golden Wattle - (Native)


Acacia melanoxylon- Sally Wattle (E)


Banksia integrifolia - Coastal Banksia - (Native)


Doryanthes palmeri- Spear Lily - (Endemic)

SMALL SHRUBS


Thryptomene 'Beths Pink' - (Native)


Prostanthera ovalifolia - Mint Bush (Native)


Westringia fruticosa - Coastal rosemary - (Native)


Banksia aemula- Wallum Banksia (E & F)


Acmena smithii 'Minor' - Dwarf Lilly Pilly (Native)

GROUNDCOVERS


Myoporum parvifolium- Creeping Boobialla (N)


Hardenbergia violacea- Native Sasparilla (E)


Scaevola albida 'White Mist'- Fan Flower (Native)


Billardiera scandens- Apple Berry - (Native)


Viola hederacea- Native violet (Endemic)

GRASSES


Lomandra confertifolia (E)


Themeda triandra- Kanagroo Grass (E & F)


Ficinia Nodosa- Club Rush (E & F)


Juncus continuus- (Endemic)


Oplismenus aemulus- Basket Grass (Endemic)

(E) Endemic to site *(F) Edible/Bush tucker component* *(N) Australian Native*

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BUSH TUCKER PLANT PALETTE

BUSH TUCKER GUARDEN

Macadamia integrifolia- Macadamia (N & F)

Acronychia oblongifolia - White Aspen (E & F)

Austromyrtus dulcis- Midgenberry (E & F)

Ficus coronata- Sandpaper Fig (E & F)

Syzygium australe- Lilly Pilly (E & F)

Diospyros australis-Black Plum (Endemic -Edible Berries)

Alpinia caerulea- Native Ginger (Endemic)

(E) Endemic to site *(F) Edible/Bush tucker component* *(N) Australian Native*

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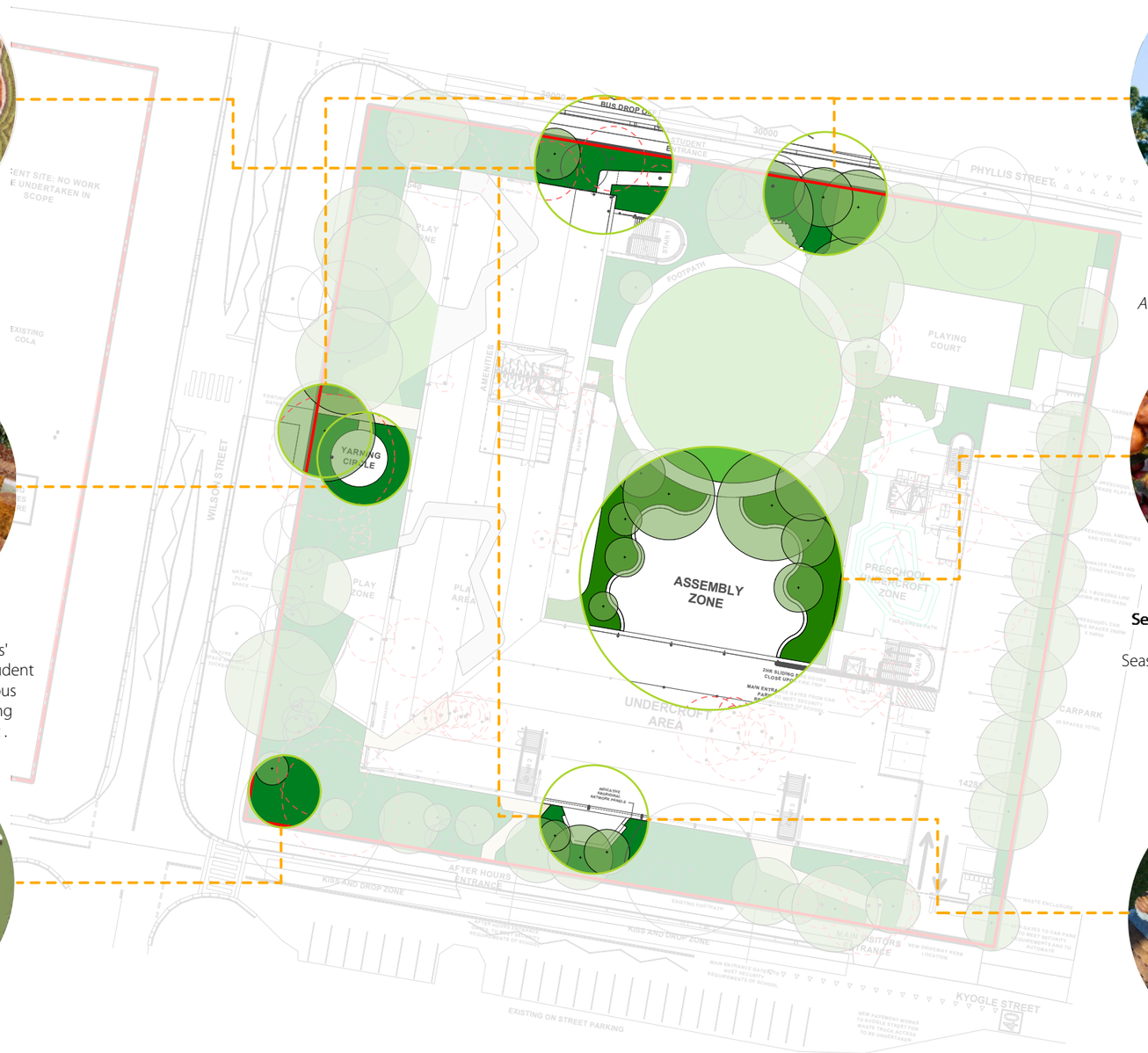
CONNECTION TO COUNTRY

Uncle Gilbert original art
representing
Widjabul Wia-bal land.

Yarning Circle to enrich students' learning experience and promote student interactions, reference to indigenous ceremonial ground with a bora ring marking and indigenous story art .

'Hands in the Earth' To involve community in the planting of the school in stages and avoid planting out "all at once"



1 of 2 Proposed Plantings
of the culturally significant
Araucaria cunninghamii - **Hoop Pine**

Seasonal Planting of Bundjalung Nation -
Seasonal Feature Mass Planting Matrix

Inclusive spaces for gathering
encouraging community interactions.

NOTES

- Creative use of Bundjalung language through art, engravings, signage, and QR codes. Aboriginal local land council to assist with developing language and dialogue.

- A progressive community panting plan to be established by the school and local aboriginal land council's Ngulingah Nursery.

- Tree protection and retention of existing native trees outside the building footprint and supplemented with Bundjalung endemic species. Consider removing established weed tree species (Camphor Laurel) along Wilson street and replacing with a Hoop Pine to highlight the importance of the Hoop Pine (gurrumbil) to Widjabul Wia-bal .

- Bush tucker, bush medicine and totem plants repeated throughout the landscaped areas. Encourage the use of Backhousea citoradora.

- Widjabul Wia-bal welcome signs at the main entrance to school and also at entry to school via Phyllis Street.

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ESD GREEN STAR CLAUSES

1.2 RESILIENT

1.2.1 Credit 16: Climate Change Resilience
(Minimum Expectation and Credit Achievement)

The Climate Change Risk and Adaptation Assessment has been developed by the project team. This plan includes a list of actions and responsibilities for all risks identified on the project. At a minimum, all high and extreme risks that have been identified must be addressed by the project team and all relevant disciplines are required to provide responses. The Design team shall be aware of the assessment developed and ensure that all design responses for all high and extreme risks to be implemented in the construction phase.

1.2.1.1 Climate Change Pre-screening Checklist

Project team members must consider potential impacts from climate change when completing the checklist in the submission form including, but not limited to:
- Direct damage or failure of project components
- Accelerated deterioration of project components or reduced design life
- Reduced operating capacity
- Climate hazard impacts to surrounding areas (e.g., impacting access and egress)
- Impacts to the health and wellbeing of building occupants and other relevant stakeholders
- Indirect risks from impacts to other interdependent systems and services (e.g., transport networks, power, water, telecommunications)

The Minimum Expectation is achieved on completion of the checklist and doesn't require identified risks to be treated. The checklist must be signed off by a member of the project leadership team and shared with key project stakeholders, including the Building Owner.

1.2.1.2 Managing Risks

The project team must ensure risks are addressed as follows:
- All risks rated as Extreme' must be addressed through specific design responses
- All risks rated as High' must be addressed through design or future operational responses
- Regardless of risk rating, at least two risks identified in the assessment must be addressed by specific design responses.

1.2 RESILIENT

1.2.2 Credit 19: Heat Resilience
(Credit Achievement)

The Design team must ensure at least 75% of the project site area comprises of one or a combination of strategies that reduce the heat island effect. The strategies that are being used to reduce the heat island are:
- Vegetation
- Green roofs
- Roofing materials, including shading structures, having the following:
  - For roof pitched <15° a three-year SRI of minimum 64.
  - For roof pitched >15° a three-year SRI of minimum 34.
  - Unshaded hard-scaping elements with a three-year SRI of minimum 34 or an initial SRI of minimum 39
  - Hardscaping elements shaded by overhanging vegetation.
  - Water bodies and/or water courses

Note: The area of the site that is shaded by permanent structures (e.g., part of a car park to the south of a tall building) at noon local time at the summer solstice can be excluded.

1.3 NATURE

1.3.1 Credit 36: Biodiversity Enhancement
(Exceptional Performance)

1.3.1.1 Landscape Area
At a minimum, external landscape in the building, whether horizontal or vertical must be provided at a ratio of either 30% of the site area or at a ratio of 1:300 of the GFA, whichever is larger. Vertical or horizontal landscapes are acceptable.
1.3.1.2 Diversity of Species
Landscape must be shown to be diverse and include multiple species/genus/etc.
Greater than 80% of plants must be indigenous and the site must include at least one significant (nesting) tree or equivalent habitat provision per 500m^2 of landscaped area.
No invasive species are allowed, as per the Australian Weeds Strategy 2017 to 2027.
There are two pathways to demonstrate diversity in plant selection and climate resilience Prescriptive & Performance.

Prescriptive pathway

The landscaping must not exceed the following percentages per type:
- 10% of plants from one species
- 20% of plants from one genus
- 30% of plants from one family

Performance pathway

An ecologist must assess and verify that the choice of landscaping and biodiversity is diverse and resilient to climate change impacts, thereby increasing the longevity of the landscape. An Ecologist must provide this narrative.
1.3.1.3 Biodiversity Management Plan
A suitably qualified professional, such as a qualified ecologist or landscape architect, must prepare the Plan. The plan must outline key actions that need to be undertaken in order to maintain the ecological integrity of biodiversity on the site, whether this is existing or that created as part of the development. The Plan must be included as part of the project's handover.
A Biodiversity Management Plan has not yet been created for the project, nor has an ecologist been engaged to demonstrate plant diversity and climate resilience, this is for the contractor to procure.