



# The Forest High School Allambie Heights

SSDA Report - Equitable Scheme

Prepared for

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Date

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## **THE FOREST HIGH SCHOOL, FRENCHS FOREST**

Landscape State Significant Development Application Report

Cover image: Site photos

**Project Number: S20-032**

**Project Address:** Allambie Heights, Frenchs Forest, NSW 2086

| <b>Rev</b> | <b>Issue</b> | <b>Date</b> | <b>By</b> | <b>Checked</b> |
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|            |              |             |           |                |
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|            |              |             |           |                |

OCULUS acknowledges the traditional owners of the lands on which we work. We pay our respects to Elders past and present.

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## **Acknowledgment of Country**

We would like to acknowledge that this project is on the land of the Cammeraygal people. The Cammeraygal people are the Traditional Owners of this land. We also acknowledge the present Aboriginal and Torres Strait Islander people, who now reside within this area. We pay our respects to the Elders past and present.



**1.0**  
Design Moves

# 1.1 Design Principles



## 1. Context, Built Form and Landscape

- Respond to site topography
- Address interface with open space/remnant bushland to the west and views to city
- Respond to low density residential interfaces to E, low-medium density office building to N and CPA building and Arranounbai School to S
- Create a sense of identity for school
- Consider Aboriginal cultural heritage and cultural plantings in the design



## 2. Sustainable, Efficient and Durable

- Respond to site aspect and micro-climate, particularly solar access and wind exposure
- Integrate WSUD into the design
- Select sustainable, robust and durable materials
- Promote active and public transport access



## 3. Accessible and Inclusive

- Provide school entries that are safe, accessible, visible and welcoming
- Ensure good accessibility and legibility within the school
- Create clear through site links within the site



#### 4. Health and Safety

- Respond to local access and connections – footpaths, cycleways, bus, kiss n’ drop
- Provide covered areas for protection from sun, rain and wind



#### 5. Amenity

- Provide adequate outdoor space to accommodate student population, including future growth
- Ensure close interfaces between indoor and outdoor uses and spaces
- Provide landscape buffers to setback zones



#### 6. Whole of Life, Flexible and Adaptive

- Provide capacity for multiple uses, flexibility and change of use over time



#### 7. Aesthetics

- Create engaging and attractive environments
- Ensure landscape and building design are integrated
- Screen car parking and service zones
- Minimise and integrate security fencing into the design

## 1.2 Connection to Country

### Traditional Owners of The Land

The area of present day Allambie Heights and the wider Warringah areas has been the home of the Cammeraygal people of the Eora Nation. Evidence of their habitation remains today in the form of rock engravings, rock art, open camp-sites, rock shelters, scarred trees and middens. The word Warringah has many interpretations including “sign of rain”, “across the waves” and “sea”. Allambie in the Guringai Language is roughly translated as ‘to remain a while’ which gives the impression that it may have been a place for settlement. There is the potential that the ‘goat track’ which follows the existing Allambie road today may have been an access route to the ocean beaches at nearby Manly.

A rock engraving to the south of the site depicts a singular Kangaroo/Wallaby in a leaping pose facing Northwest as if almost pointed at the highest point of the site. The site holds potential for engravings on suitable panels of sandstone bedrock which may be hidden under more recent fill (refer to Heritage report produced by GML Heritage). An undisturbed area of land which sits among a grove of trees may hold some significance and potential Aboriginal heritage.



Image: AHIMS 45-6-0905 - rock engraving of a kangaroo/wallaby. Source: GML, 2020.



Image: 1943 aerial photograph of site area with paths across Eastern side. Source: SixMaps.

### Design Considerations

- Walking Country with a Traditional Owner of the Land to understand and preserve the intangible and tangible aspects of the site.
- Engaging with the community and Elders for consultation on the appropriate design initiatives that will respect the traditional owners and their practices of caring for country.
- Encouraging connection to nature with outdoor learning opportunities surrounded by native planting of the area.
- Create a connection to the rock engraving sites surrounding the school and connection to Festivals and events celebrating Indigenous culture and heritage.
- Spaces to gather for sharing knowledge and stories of country.
- Design sensitive to potential Aboriginal archaeological site.
- Providing opportunities for learning from the land where children can observe, interact and understand the importance of the remnant Forest and creek connection to Manly Dam.
- Using responsible landscape management practices
- Protecting existing vegetation with a focus on replacing any trees removed with new planting.
- Emphasising the views into and out of the site towards the ocean.



Image: Aboriginal rock art, Engravings Track in Bantry Bay, Frenchs Forest, Garigal National Park.

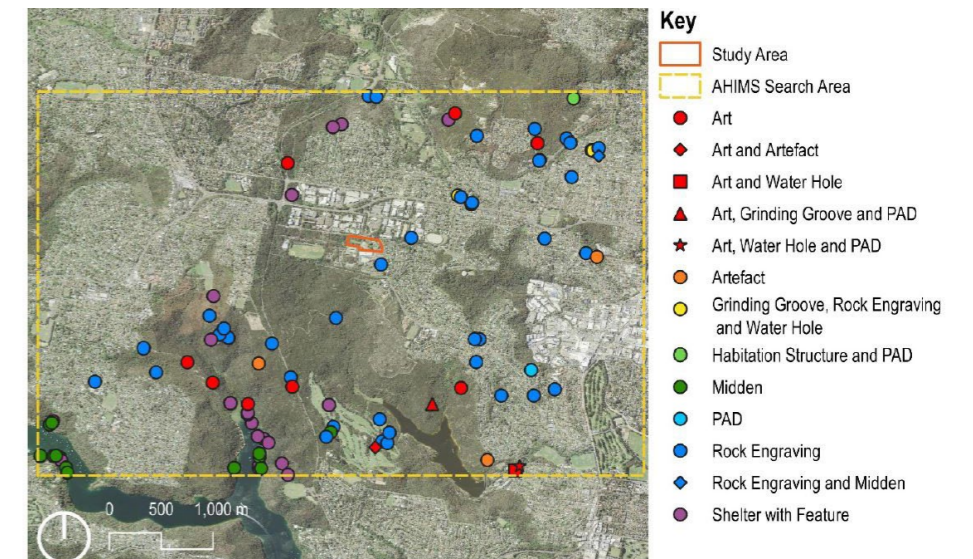


Image: AHIMS search results (Source: NSW Land Registry Services with GML additions, 2020)

## 1.3 Natural Heritage & Planted Gardens

### Remnant Vegetation Community

According to the Biodiversity report produced by Abel Ecology the site holds remnant disturbed Duffys Forest which is a threatened ecological vegetation community. The forest has an open-forest or woodland structure dominated by the following species; Red Bloodwood (*Corymbia gummifera*), Silvertop Ash (*Eucalyptus sieberi*) and Smooth-barked Apple (*Angophora costata*).

There are also scattered native trees around the Eastern side of the site with high retention value and potential habitats for locally occurring fauna species.

The site topography slopes to the south west with an ephemeral creek line which likely links up to Manly Creek feeding into Manly Dam. The site was part of catchment land for Manly Dam period to any development.

### Planted Gardens

McLeod House was built and opened in 1957 and with it the introduction of formal planted gardens of circular forms which can still be seen in the site despite being overgrown. A grove of trees planted around the large circular path feature to the West of the building today holds 40+ year old trees of significant value.

### Design Considerations

- Protecting and enhancing areas of remnant bushland and Forest where possible.
- Encouraging connections with the site biodiversity and study of the ecology.
- Creating visual and physical connections to the natural heritage of the site through observation areas and nature trails
- Recognising the importance of the mature significant trees on site to be protected and making them landmarks of the school campuses.
- New planting on site to focus on native vegetation types in particular close to the Duffys Forest.
- Sensitive landscape approach around the existing high value trees and potential heritage area.



Image: Site photos of remnant Duffys Forest on site.



Image: Red Bloodwood (*Corymbia gummifera*)



Image: Silvertop Ash (*Eucalyptus sieberi*)



Image: 1976 aerial showing the formal gardens still remaining on site. Source: NSW SCP

# 1.4 Feel of Country

## Reawakening memories of cultural landscapes

Walking Country must be undertaken with a Traditional owner of the land to allow us to know more about the memories and culture of the landscape. As an initial process before walking country we have looked to assess the landscape with the senses to form a connection and understanding of the land.

### Noise

- Traffic along Allambie Road
- Insects in the Western bushland forest
- Quiet to the South

### Sight

- Views to the City and Ocean
- Tall grass and flowers sway in the breeze
- Remnants of past human activity
- Parkland in the East, Bushland in the West



Image: Views to Manly



Image: Eastern side, Remnant formal garden

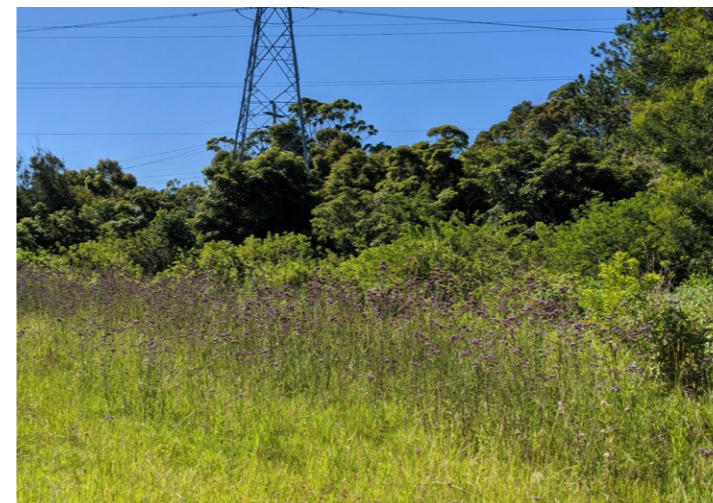


Image: Western side, Open glade



Image: Site photos of views to Sydney CBD

## 1.5 Community Cultural Significance

### McLeod House

Neil and Audrie McLeod, whose daughter had cerebral palsy started the Cerebral Palsy Alliance (originally known as the Spastic Centre of NSW) in 1945 in Mosman. Soon after they found a pressing need to provide a place to stay for children from rural communities.

Construction on the Country Children's Hostel began in 1947 and took 10 years to complete by a group of voluntary building teams working on weekends. The Hostel was aimed at providing a place for children to stay to get the best care and treatment which was unavailable in their hometown.

*"The land was on a hilltop with a commanding view of the Pacific Ocean; it was scrubby sandstone and clay. It would not have fed a rabbit, but that two hectares of land was the hope of The Spastic Centre's future development."* - Neil McLeod, *Nothing is Impossible*.

The Apex Club of Manly helped clear the land of scrub and trees ready for construction. A tree was planted in the grounds for every township where money was raised for the construction of the hostel.

Mr Robert Pollock was the honorary architect who designed a building with white curvilinear facade which complimented the hilltop setting.

*It is open to every breeze around the 250° horizon.* - Neil McLeod

The Country Children's Hostel, later known as McLeod House, opened at Allambie Heights. It was a 'home away from home' for dozens of country children who, like their city counterparts, could now access a full range of services. The much-loved nursing staff was assisted by mothers who lived-in for two week periods and regarded all the children as their family.



Image: Construction of McLeod House with views to the Ocean



Image: Country Children's Hostel as Allambie, 1967



Image: Site photos of McLeod House



**2.0**

Site Analysis

## 2.1 Context Plan



DRAWING TITLE  
Zoning Plan

SCALE  
10m 0m 20m 50m



## 2.2 Existing Ecology



### Ecological Value

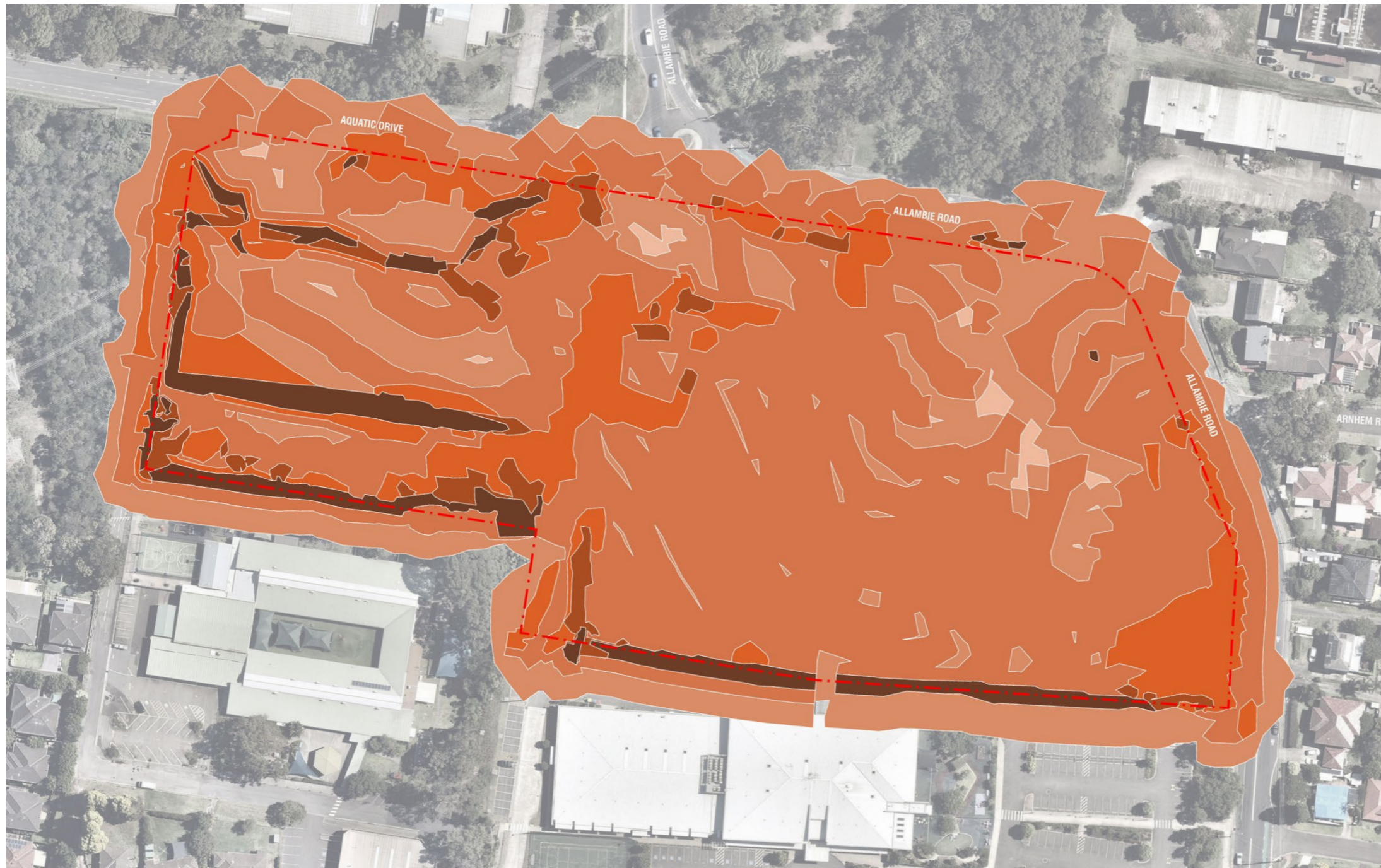
According to NSW Biodiversity Values Mapping and Sydney Metro V2 mapping it shows that the Western side of the site consists of Duffys Forest Vegetation community (DSF14).

The site has good connectivity to other high quality native vegetation such as the Stewardship site next door on Aquatic Drive. The condition of the remnant vegetation is still to be assessed.

Duffys Forest Ecological Community is the accepted name for the ecological community that occurs on the ridge tops, plateaus, upper slopes and occasionally mid slopes on Hawkesbury sandstone geology.

- Legend**
- Duffys Forest
  - Site Boundary

## 2.3 Slope Analysis










### Levels and Gradient

The site has a high point in the North East corner with the topography then sloping down towards the South and South West corner of the site.

The Eastern part of the site has more gentle and gradual slopes with significant flat areas. The Western part consists of steeper slopes to the North and South with a flat area in the middle.

\*0.5m Contour intervals information gathered from GIS. Updated survey to be provided for accurate analysis.

### Legend

-  Site Boundary
-  < 1:3
-  1:3 - 1:5
-  1:5 - 1:10
-  1:10 - 1:20
-  1:20 - 1:50
-  > 1:50



## 2.5 Existing Tree Canopy Cover



### Tree Canopy Cover

The site is split into a Western and Eastern part with regards to the tree cover and typology. The Western side consists of thick bushland forest type cover and the Eastern more scattered tree planting with some grouped groves. Below are the approximate calculations of canopy cover.



Site Area: 44622m<sup>2</sup>

Existing Canopy: 18326m<sup>2</sup>

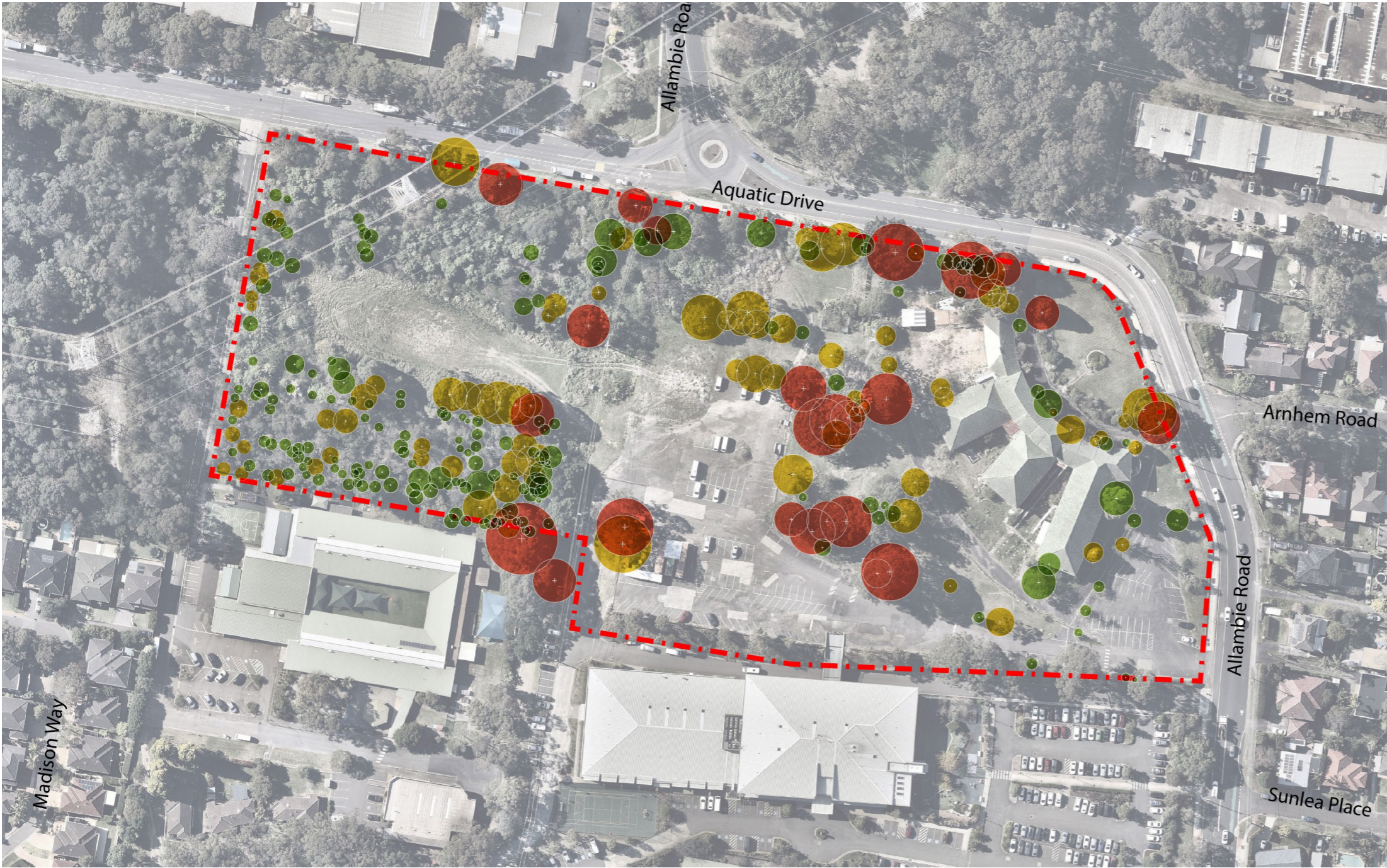
Coverage Rate: 41%

\*Approximate calculations. To be finalised once full Arborist Report is issued.

### Legend

-  Canopy Cover
-  Site Boundary

# 2.6 Tree Value



## Tree Significance Value

From initial study the site has a number of high retention value trees scattered around the Eastern side. The Western forest portion is yet to be assessed for retention value.

Retention Value:

- High value: 22 trees
- Medium: 58 trees
- Low: 68 trees

## Legend

- High Retention Value
- Medium Retention Value
- Low Retention Value
- Site Boundary

## 2.7 Landscape Character

EASTERN SIDE



Scattered Native Trees



Formal Garden Frontage



Remnant formal garden

WESTERN SIDE



Open glade

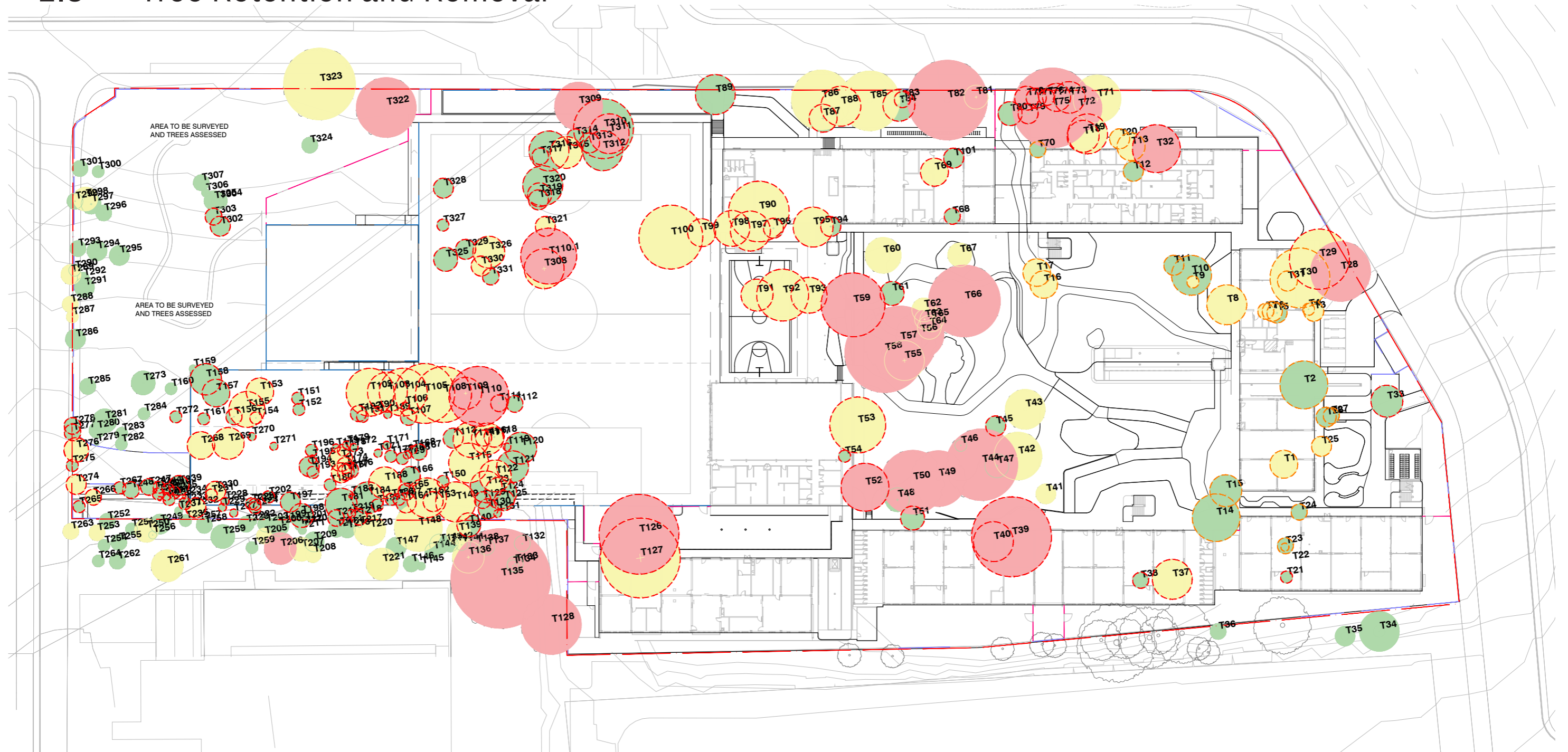


Dense scrub of remnant Duffys Forest



Remnant Duffys Forest

# 2.8 Tree Retention and Removal



|               |  |                                 |  |
|---------------|--|---------------------------------|--|
| <b>LEGEND</b> |  | TOTAL TREES SURVEYED : 372 + 34 |  |
|               | EXISTING TREE TO BE RETAINED - 146                         |                                 | HIGH RETENTION VALUE: 25 - EXISTING TREES TO BE RETAINED: 16 - EXISTING TREES TO BE REMOVED: 9   |
|               | EXISTING TREE TO BE REMOVED - 226                          |                                 | MEDIUM RETENTION VALUE: 78 - EXISTING TREES TO BE RETAINED: 31 - EXISTING TREES TO BE REMOVED: 47 - EXISTING TREES ALREADY REMOVED: 13 |
|               | EXISTING TREE ALREADY REMOVED UNDER EXISTING APPROVAL - 34 |                                 | LOW RETENTION VALUE: 269 - EXISTING TREES TO BE RETAINED: 98 - EXISTING TREES TO BE REMOVED: 171 - EXISTING TREES ALREADY REMOVED: 21  |

\*TO BE READ IN CONJUNCTION WITH THE FOREST HIGH TREE ASSESSMENT REPORT BY ECO LOGICAL AUSTRALIA.



3.0  
Accommodation

# 3.1 EFSG Requirements

## Landscape Typologies

The masterplan provides a range of open spaces to facilitate student's learning, physical activity, socialising and well-being. Relationships and adjacencies of uses and circulation patterns have been considered between indoor and outdoor spaces to ensure the smooth operation and use of all areas.

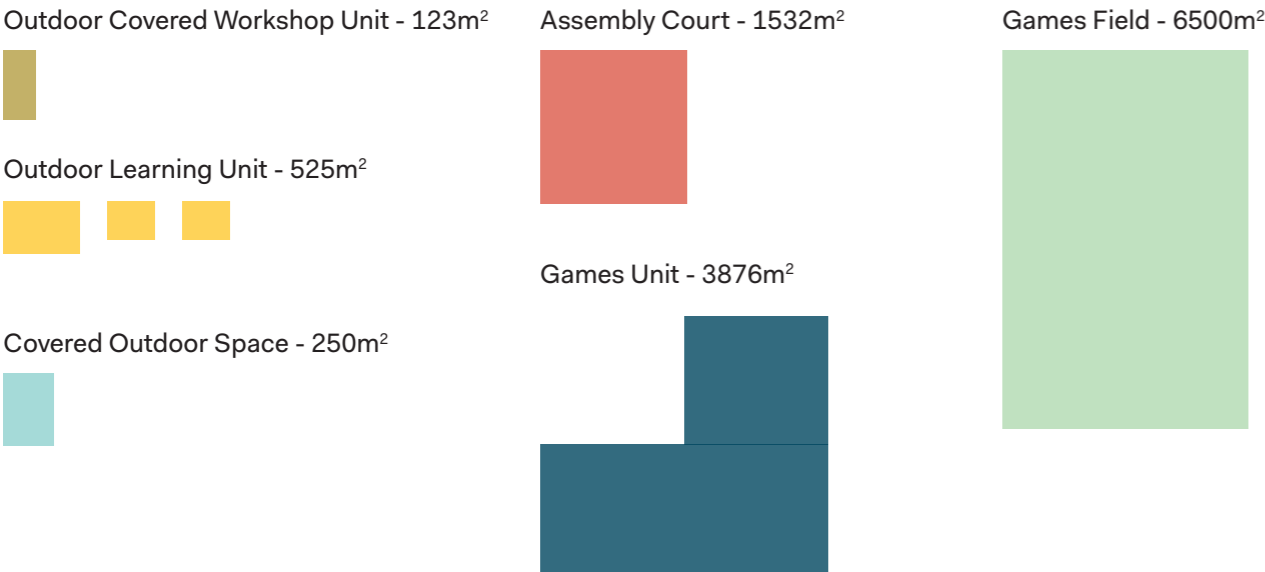
While meeting the functional criteria for the school, the landscape should also reflect the local character of the area, increase tree canopy cover and vegetation, and create a comfortable and inspiring environment for students, staff and visitors.

## Accommodation Summary

The masterplan needs to accommodate the EFSG requirements for open spaces of a 12 Stream high school. The requirements for 12 Stream are shown in the table below.

| EFSG Unit                           | Stream 9 Requirement                                      |
|-------------------------------------|---|
| HS503 OUTDOOR COVERED WORKSHOP UNIT | 123m <sup>2</sup>   |
| HS504 OUTDOOR LEARNING UNIT         | 525m <sup>2</sup>   |
| HS505 GAMES UNIT                    | 3 x Games Courts - 3,876m <sup>2</sup><br>1 x Games Field |
| HS606 COVERED OUTDOOR SPACE         | 250m <sup>2</sup>   |
| HS607 ASSEMBLY COURT                | 1,532m <sup>2</sup>                                       |
| HS610 OPEN PLAY SPACES*             | 15,300m <sup>2</sup>                                      |

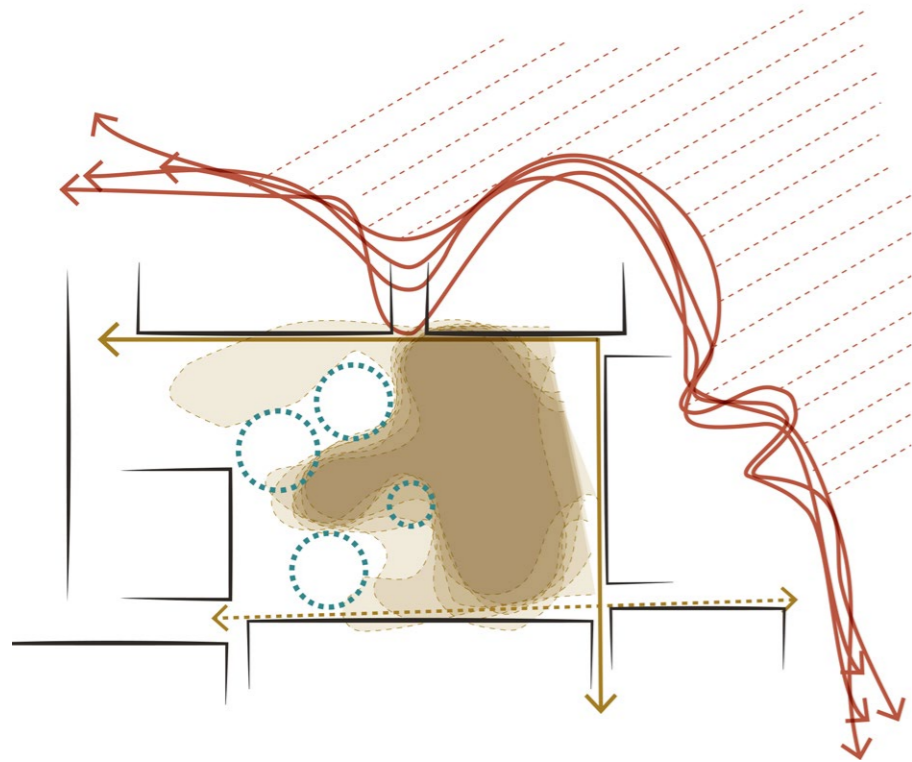
\* inclusive of Assembly Court, all Covered Outdoor Spaces, Outdoor Learning Units, Games Field & Courts, and 'passive open spaces'.



**4.0**

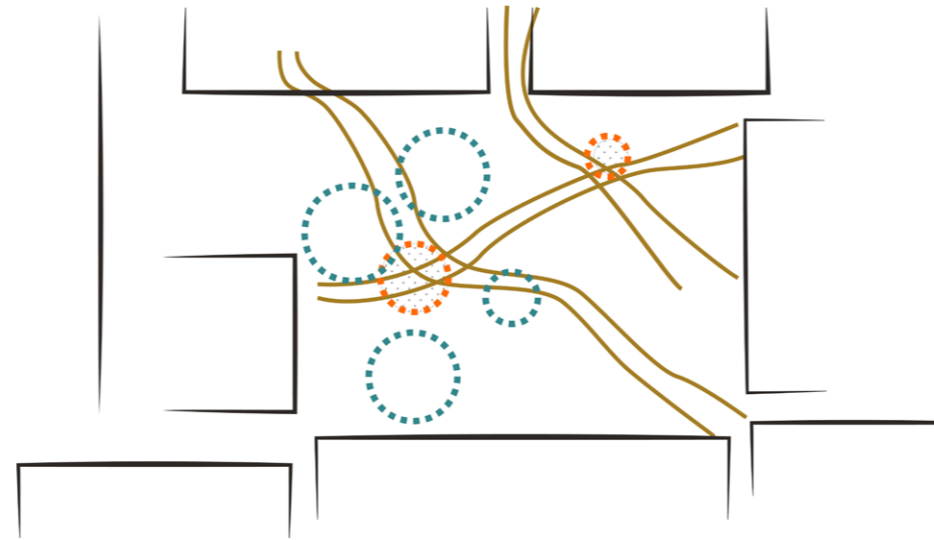
Concept Design

## 4.1 Site Narrative



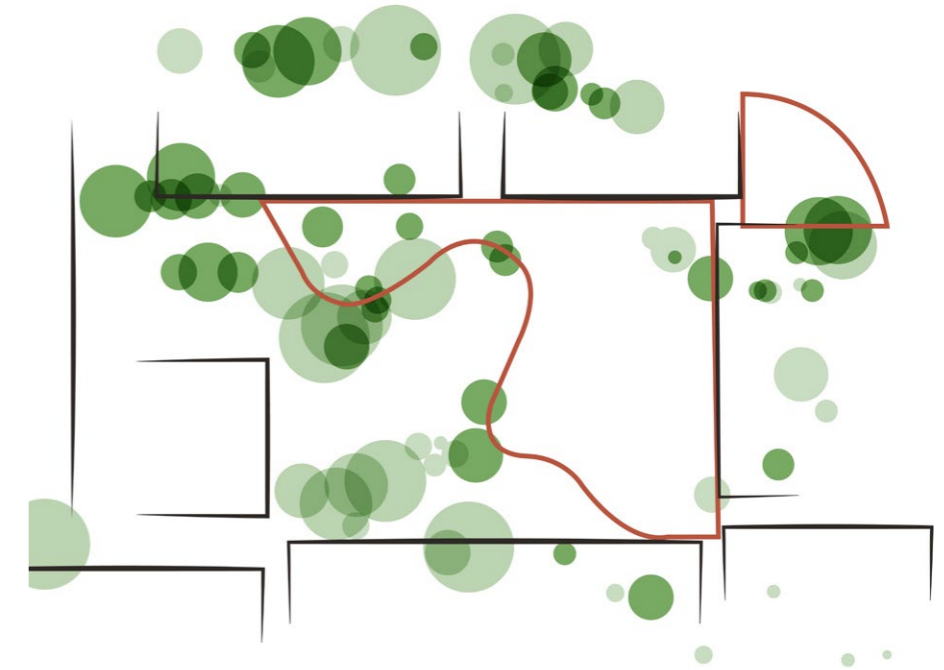
INTERACTION

- Consideration for how the school boundary interacts with the street and wider context
- Creating a landscape that fuses existing features with new
- Enhancing and framing views into the heart of the campus



CONNECTION

- Reference the site heritage and natural environment to connect to the past
- Linking the site with historic movement paths between buildings through the core landscape
- Allowing for open views across the campus and beyond



ACTIVITY

- Create hives of activity and moments of rest and relaxation
- Allowing for passive recreation nestled within the landscape
- Providing seating opportunities for gathering, learning and watching

## 4.2 Landscape Concept Plan



## 4.3 Landscape Concept Plan



### LEGEND

- ① Main Entry
- ② Covered Plaza
- ③ SSU Outdoor Space
- ④ Outdoor Learning Areas
- ⑤ Assembly Court
- ⑥ Gathering space
- ⑦ Passive Outdoor Space
- ⑧ Covered Outdoor Learning
- ⑨ Secondary Entry
- ⑩ Synthetic Sports Field - 6500m<sup>2</sup>
- ⑪ Games Courts
- ⑫ Existing Trees to be Retained
- ⑬ Forest Learning Area
- ⑭ Covered Outdoor Workshop Area
- ⑮ Remnant Duffys Forest
- ⑯ New Road to Carpark
- ⑰ Substation

## 4.4 Western Side - Concept Plan



### LEGEND

- 1 Secondary Entry
- 2 Covered Outdoor Learning Area
- 3 Graded Walkway
- 4 Synthetic Sports Field - 6500m<sup>2</sup>
- 5 Ramp Access
- 6 Games Courts
- 7 Covered Outdoor Workshop Area
- 8 Proposed Re-Forested Area
- 9 Forest Learning Area
- 10 Undercroft Car Parking
- 11 Remnant Duffys Forest
- 12 New Road to Carpark

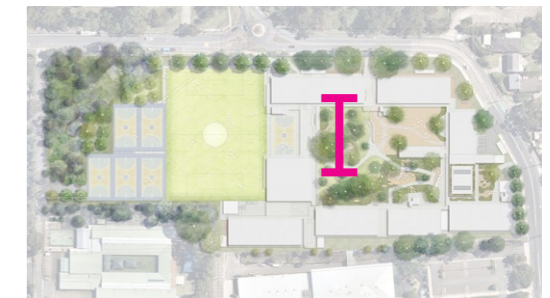
# 4.5 Eastern Side - Concept Plan



## LEGEND

- 1 Main Entry
- 2 Covered Plaza
- 3 SSU Outdoor Space
- 4 SSU Parking Spaces
- 5 Outdoor Learning Area
- 6 Central Gathering Space
- 7 Assembly Court
- 8 Existing Trees to be retained
- 9 Circulation pathway
- 10 Passive outdoor spaces
- 11 Extensive Green Roof Planting to edge of building
- 12 Covered Outdoor Learning Area
- 13 1:14 Ramp Access
- 14 Building Ramp Access
- 15 Bicycle Parking
- 16 Bicycle Entry
- 17 Substation

# 4.6 Site Section



T58    T57    T55    T56    T63-65    T62    T60

Existing Trees to be retained

Access to COLA

Existing Tree to be retained

Battered Planting



Central gathering space

Passive outdoor space

Secondary path

Passive outdoor space

# 4.7 Site Section



Assembly Court with paving and large shade trees

1:20 graded walkways and battered planting beds through the landscape

**5.0**

Connecting with Country



## 5.2 Connection to Country Strategies

### ACKNOWLEDGEMENT OF COUNTRY

"Acknowledgment of Country or alternatively a Welcome to Country is a crucial piece of the Connecting with Country framework." - Tocomwall Report

Exploring opportunities for the Acknowledgement of Country to sit within the landscape as a sculptural element that frames the view to the school as you enter. Potential for this to be done in collaboration with a local Indigenous artist and collaboration with the community and school.



### LANDSCAPE CONNECTION

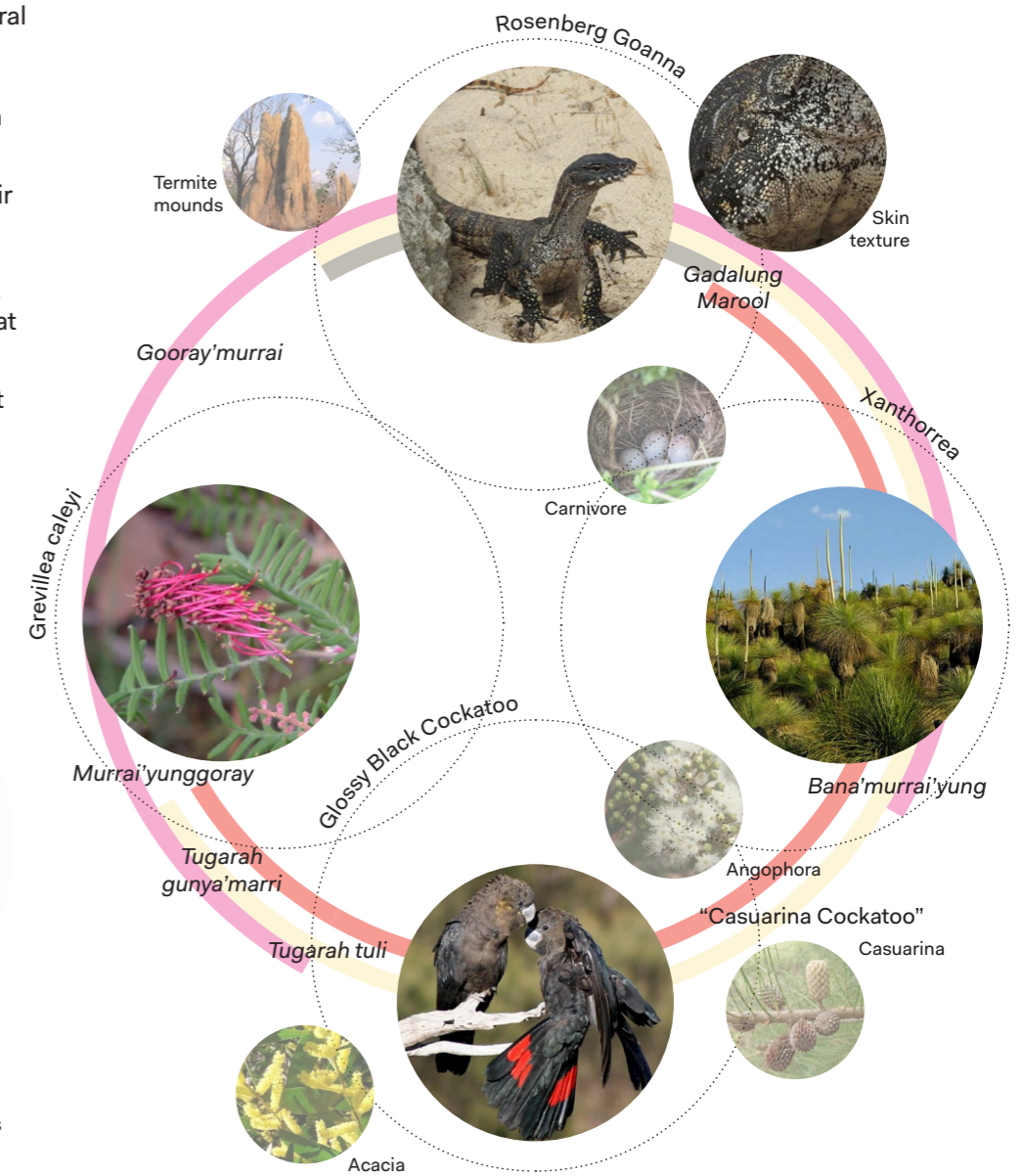
Planting that showcases the important relationships between flora, fauna, humans and seasonal change. Highlighting the local species of cultural and ecological significance.

The Traditional owners of the land understood the relationships between plants and animals not just as food sources but as markers in the change in seasons and thus the change in their activities.

Planting provides a holistic way of knowledge sharing through the edible and functional use of plants. Looking at the opportunities to use in the school for bush tucker, medicinal purposes and functional aspects such as basket weaving.



D'harawal Annual Cycle  
By Frances Bodkin & Gawaian Bodkin Andrews  
Illustrated by Lorraine Robertson



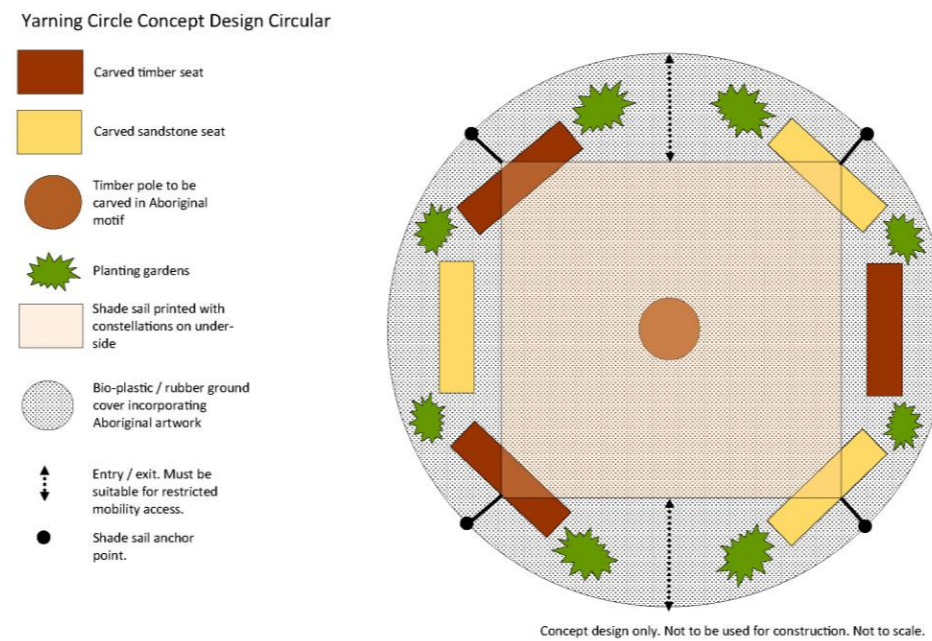
## YARNING CIRCLE

A Yarning circle is 'centred around meeting places still used within cultural landscapes today.' - Tocomwall Report

Through consultation it was discussed that the yarning circle should sit in a place of importance to the school campus within a natural setting. It was suggested that plants used for weaving practices could surround the circle for cultural reference and potential for sharing and learning about traditional weaving practices.

The proposed location next to the grove of existing trees in the central courtyard enhances the connection to the existing landscape. The design and specification of the space follows the recommended layout as indicated in Figure 18 of the Tocomwall Report.

## Tocomwall Yarning Circle Concept Design Recommendation



## Indicative render



Figure 18 Tocomwall's Proposed Design of a Yarning Circle

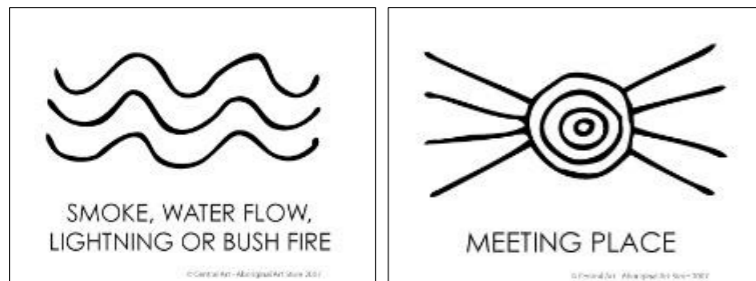


Figure 19 Aboriginal Symbols

## Plants for Weaving



Lomandra confertifolia

Lomandra multiflora

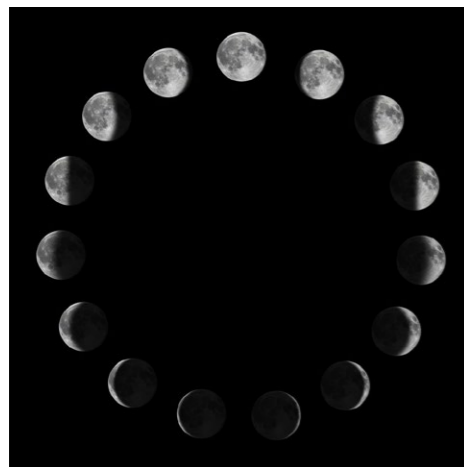
Lomandra glauca 'Blue Ridge'

## ENGRAVINGS

A framework that will allow more engravings to come later as the school community grows and becomes further established



Sandstone elements for carving within the landscape



Lunar cycle motif referencing the nearby Moon Rock engravings



Fine detail engravings hint at larger landscape narratives

## WATERWAYS

"The inclusion of a water feature directly references the importance of waterways to Indigenous peoples." - Tocomwall report

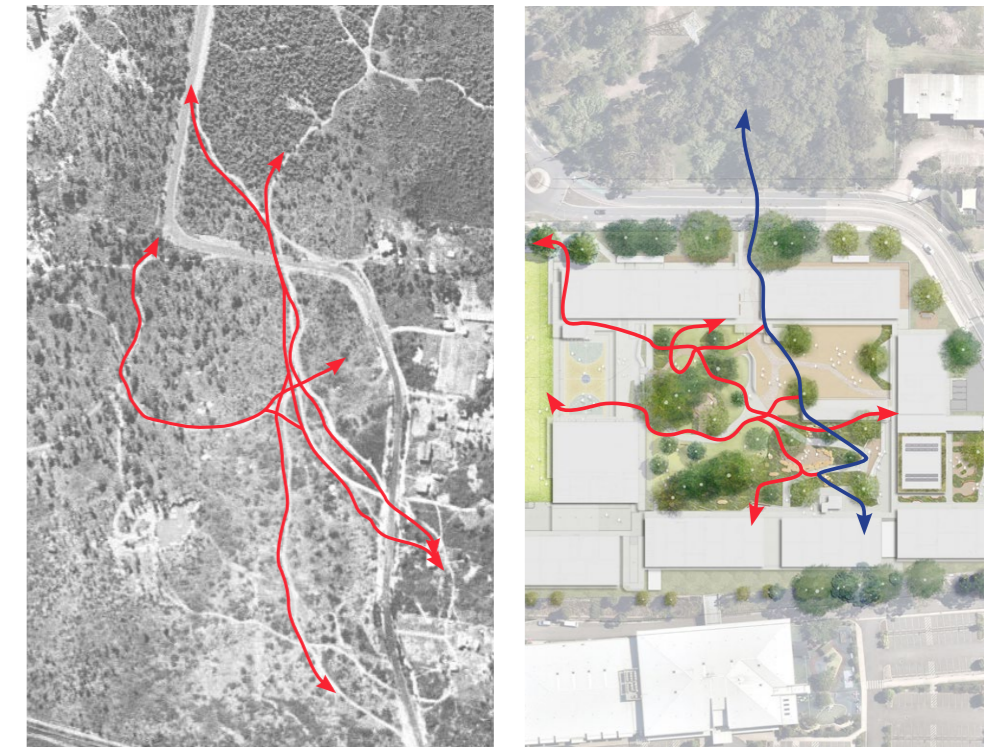
Making the flow of water a feature across the school and opportunities to reference waterways through dry creek beds and planting.



## EDUCATION OF HISTORY

"..the inclusion of local history and stories along a walkway will provide the opportunity to create a Songline" - Tocomwall Report

Referencing a 1943 Aerial Image of Allambie Heights shows well walked trails through the landscape that carry through in the landscape design of the school.



Narrative engravings and Sound installations along primary path



# 5.3 Connection to Country Framework

There is an opportunity for the project to refer to the sites indigenous and natural heritage.

### Remnant Forest &

Integrating plant species of the remnant Duffys Forest ecological community. Using the landscape as an educational tool with signage and information plaques to foster connection and understanding of natural relationships. Allowing the forest edge to provide opportunities for learning and playing in nature.

### Existing Trees

Retaining groves of existing trees with passive recreation around them. Re-use of removed trees for seating elements in the landscape.

### Tracks

Creating connected tracks across the campus that link the site together and recreate the 'goat tracks' which used to traverse the site. A pathway that transects the school looks to reference connect two sites of engravings which sit to the north and south of the site.









### Engravings

Opportunities for engraving within the floor plane, seating elements and sandstone blocks. Storytelling embedded into the landscape with appropriate language and imagery. Involving the students in the creation of engravings and sculptures.

### Gathering

Creating spaces within the landscape for group gatherings to share knowledge and learn. Also allowing for individual reflection in smaller more intimate spaces surrounded by native planting.

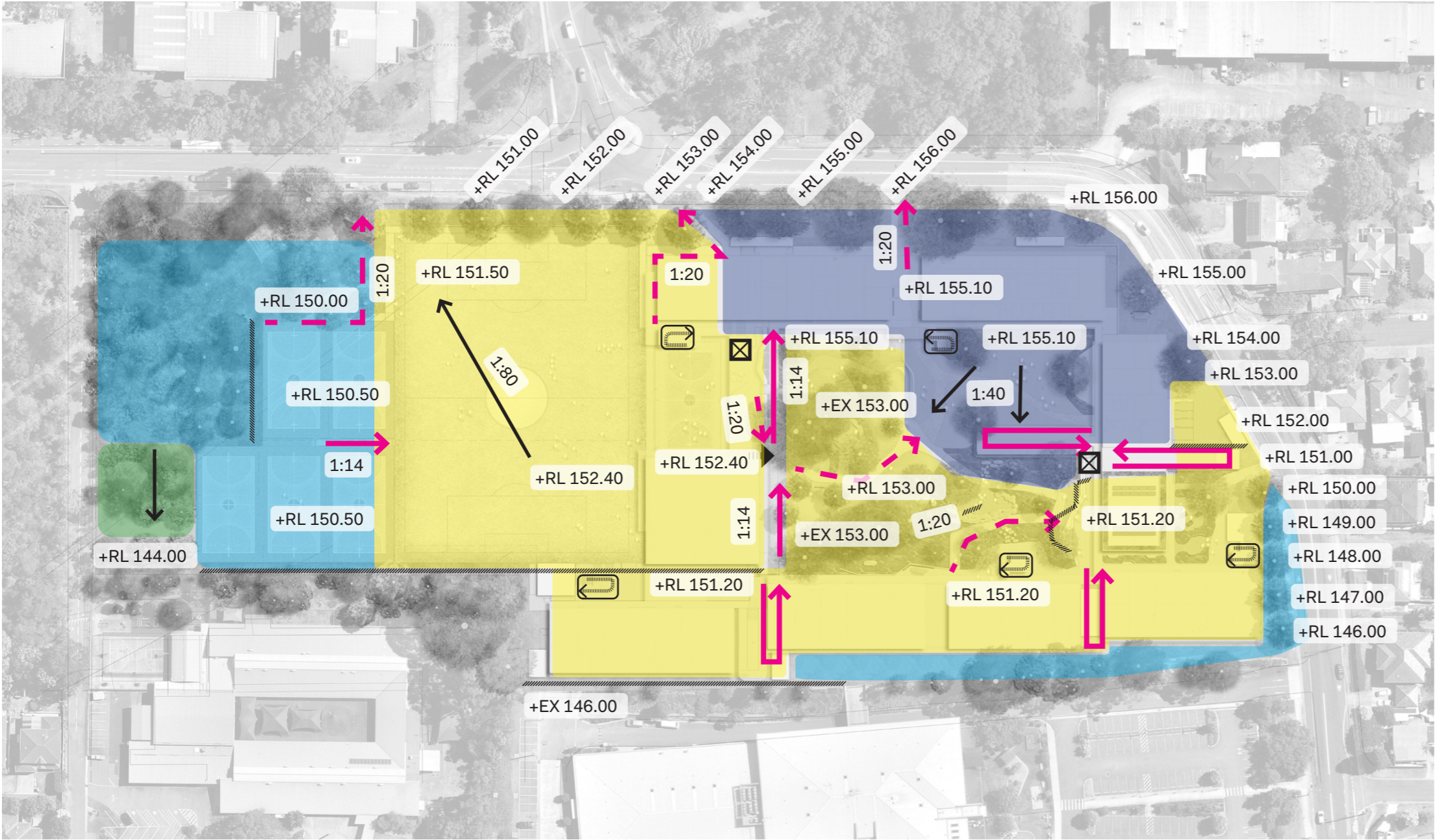


-  Tracks shown through materiality and engravings
-  Areas for gathering
-  Sandstone blocks
-  Recycled timber elements
-  Retained Existing Trees
-  Forest learning areas through the remnant Duffys Forest
-  Forest edge regeneration and nature play area
-  High points with view connections

**6.0**

Strategies

# 6.1 Levels + Accessibility Strategy



- LEGEND**
- RL 154.00 - 156.00
  - RL 151.00 - 153.00
  - RL 148.00 - 151.00
  - RL < 148.00
  - 1:14 Ramp Up
  - Graded Walkway
  - Stairs Up
  - Architectural Stairs
  - Lift Access
  - Fall/Grade Down
  - Retaining Wall

## 6.2 Tree Canopy Cover + Bushfire Protection Zones



Site Area: 41,443m<sup>2</sup>  
 Existing Canopy Retained: 6851m<sup>2</sup>  
 New Canopy Cover: 3490m<sup>2</sup>  
 Total Tree Canopy Cover: 10,341m<sup>2</sup>  
 Coverage Rate: 25%

The landscape design for the school will need to comply with the performance objectives of an Inner Protection Area to the northern boundary and as an Outer Protection Area to all other landscape areas, as described by section A4.1.1 of Planning for Bushfire Protection.

Bushfire Protection Zones:

IPA: 14.5%

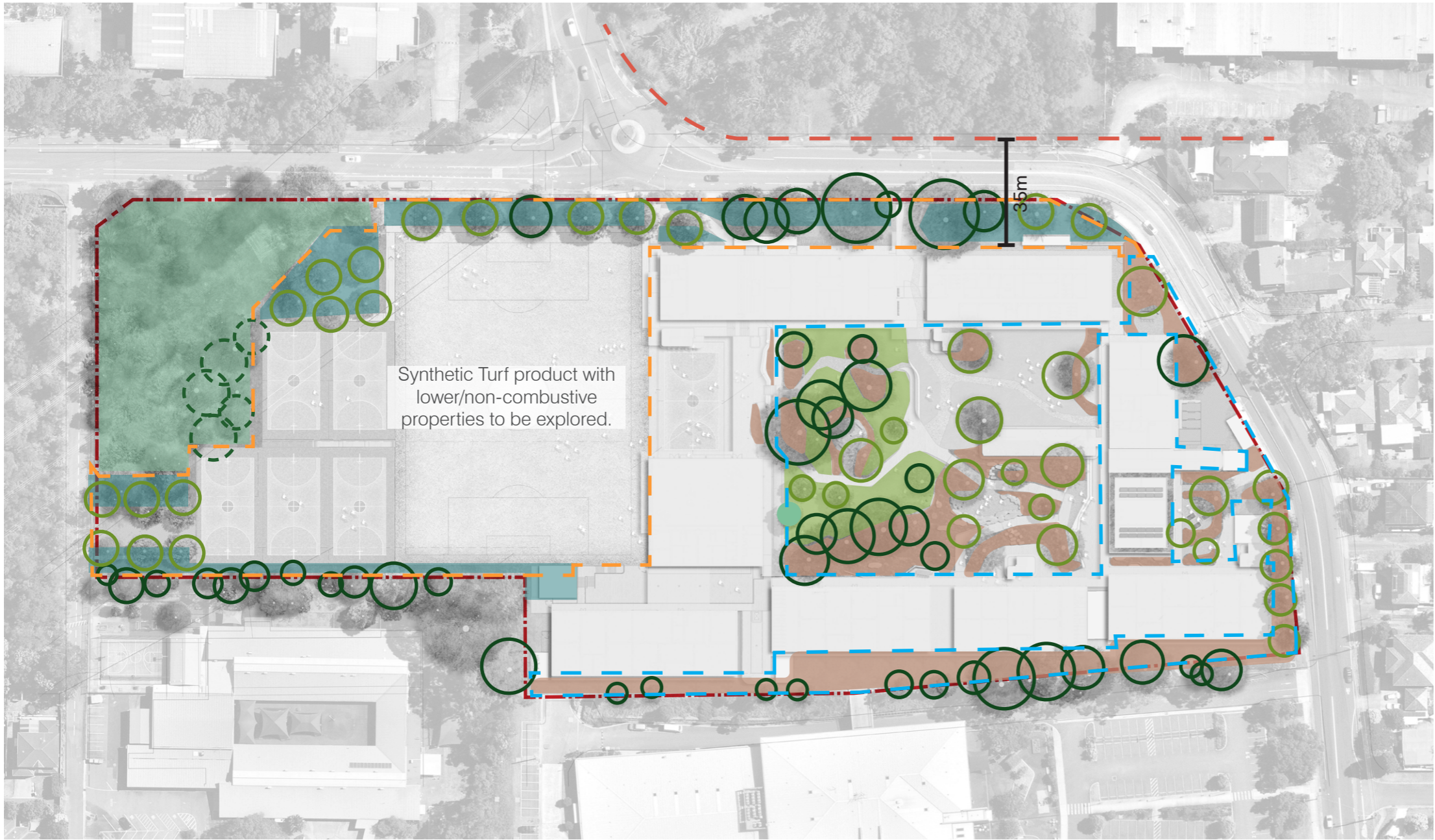
LZ: 40%

\*Approximate calculations. To be finalised once full Arborist Report is issued.

### LEGEND

- Existing Canopy
- New Canopy
- Landscape Zone (LZ)
- Inner Protection Area (IPA)
- Site Boundary

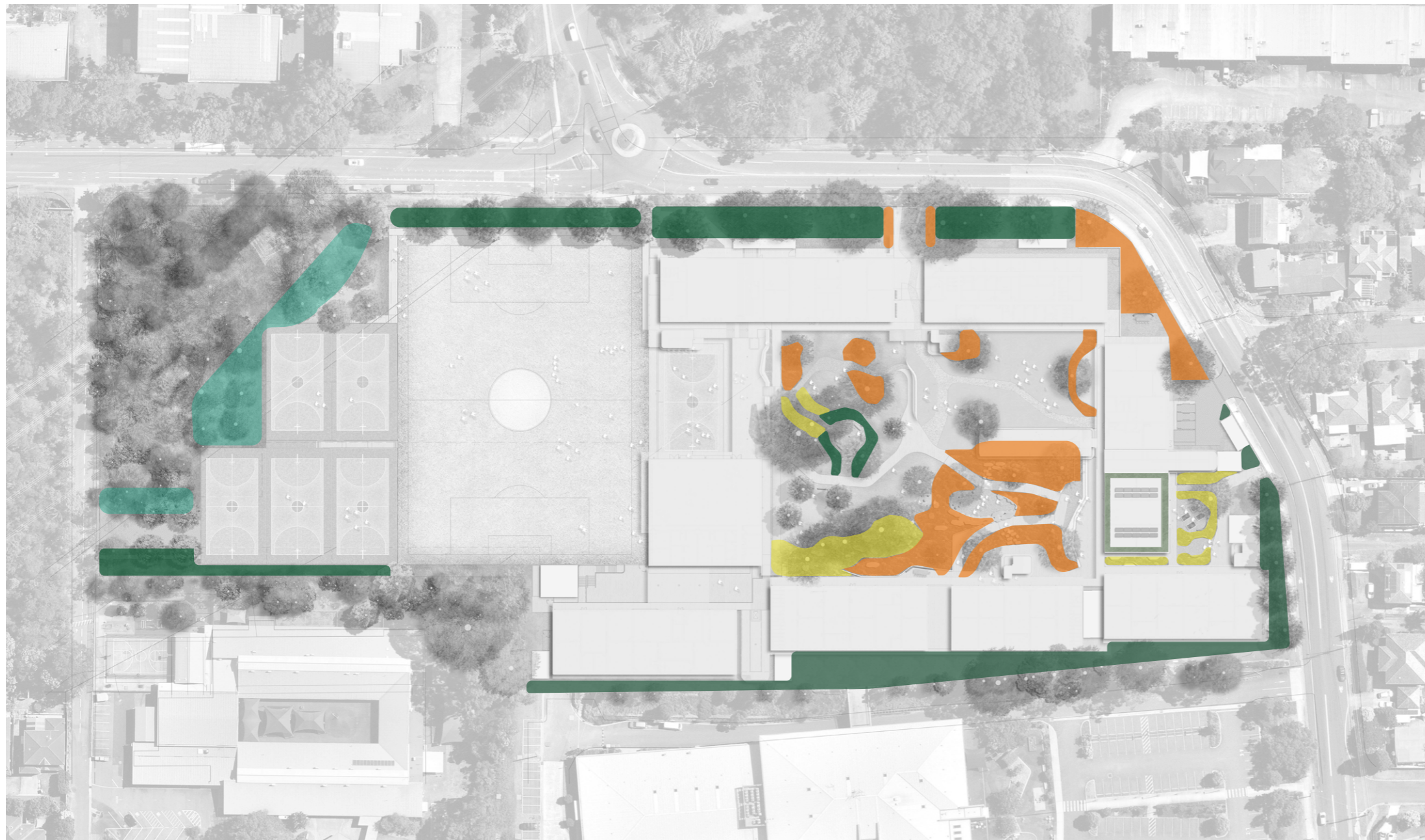
# 6.3 Bushfire Protection Planting Strategy



## LEGEND

- Internal Protection Area (IPA) - 14.5% tree canopy cover
- Landscape Zone (LZ) - 40% tree canopy cover
- Existing Trees with hazard reduction determined on site with Bushfire consultant and Arborist
- Proposed Trees with 2-5m gap between mature canopies.
- Proposed Trees as part of Forest regeneration
- Managed understorey Planting with 10% shrubs, 90% groundcover. Gravel mulch.
- Managed understorey planting with 20% shrubs, 80% groundcover. Gravel mulch
- Managed natural turf
- Proposed Forest regeneration area

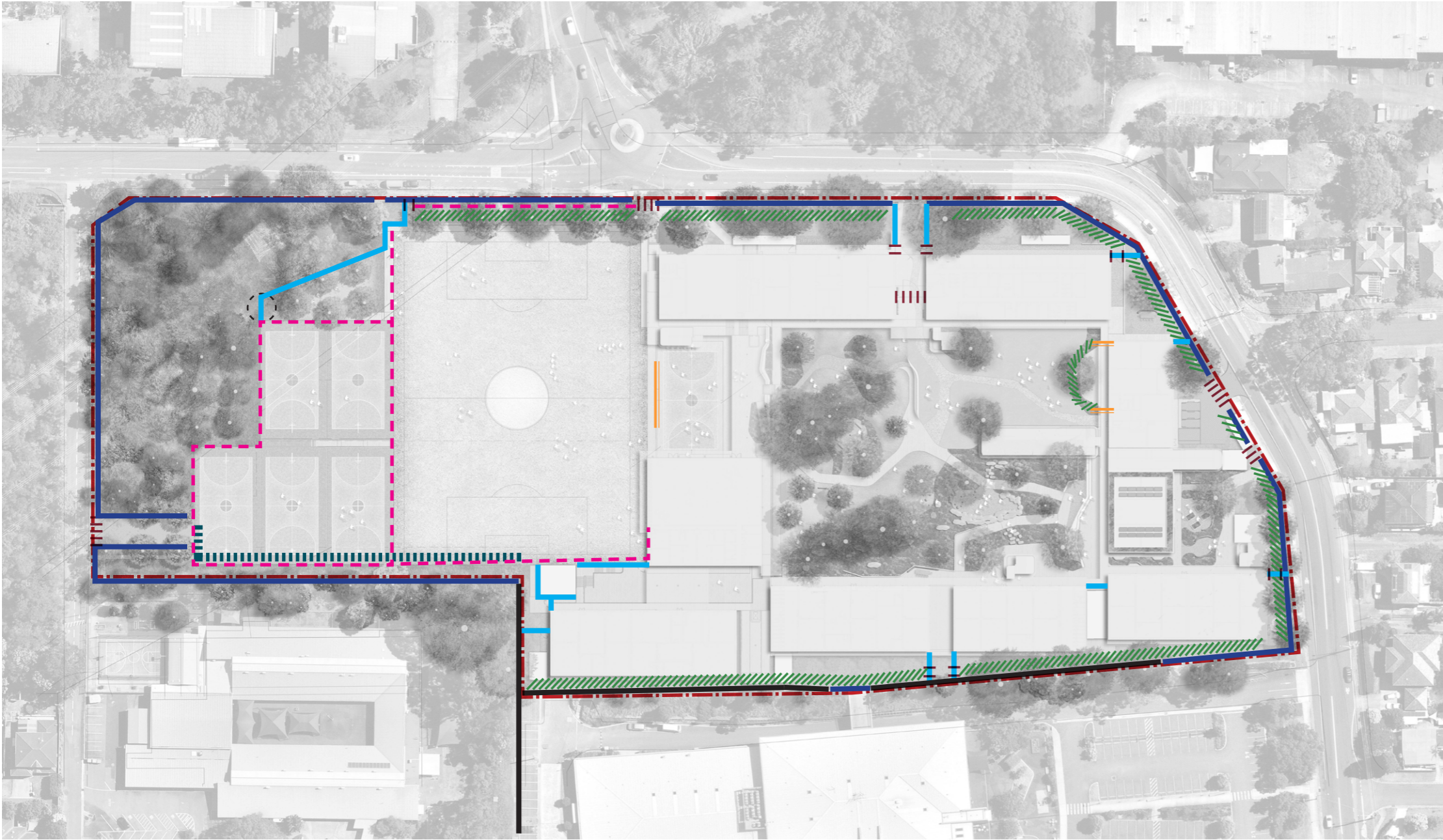
## 6.4 Planting Strategy



### LEGEND

-  Feature Planting
-  Native Buffer Planting
-  Shade Planting
-  Forest Edge Planting
-  Extensive Roof Planting

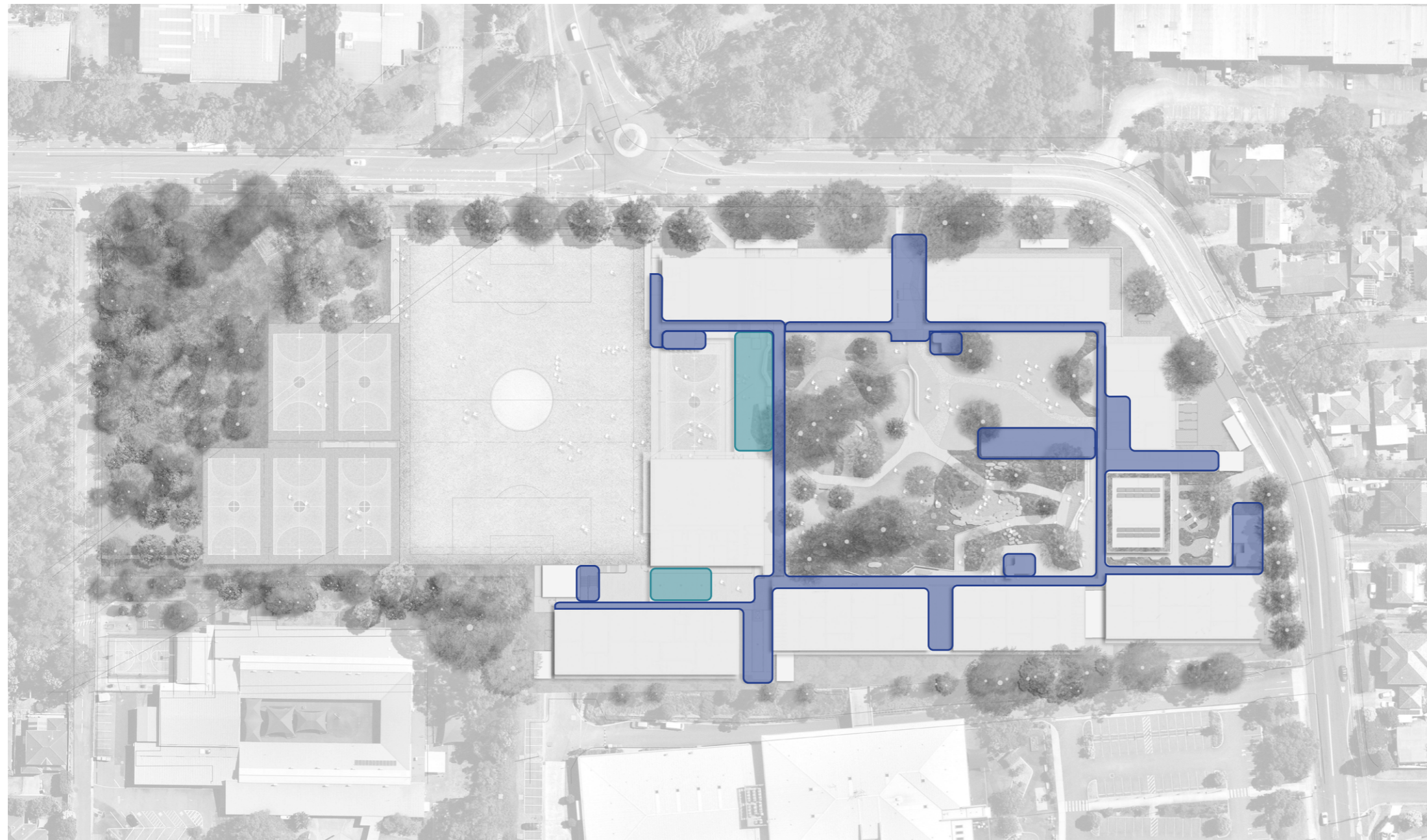
# 6.5 Fencing Strategy





\*To be read in conjunction with Architect's fencing strategy.

- LEGEND**
- 2.1m 'Palisade' fencing to architect's specification
  - 2.1m Security 'Corromesh' fencing to architect's specification
  - Existing 2.1m Security palisade fencing
  - - - - Timber Acoustic barrier fence to architect's specification
  - - - - Gate to architect's specification
  - Potential Operable Fence
  - - - - 4.3m Court & Field Fencing to architect's specification
  - /// Planting Buffer
  - - - - Boundary
  - Potential Access Location

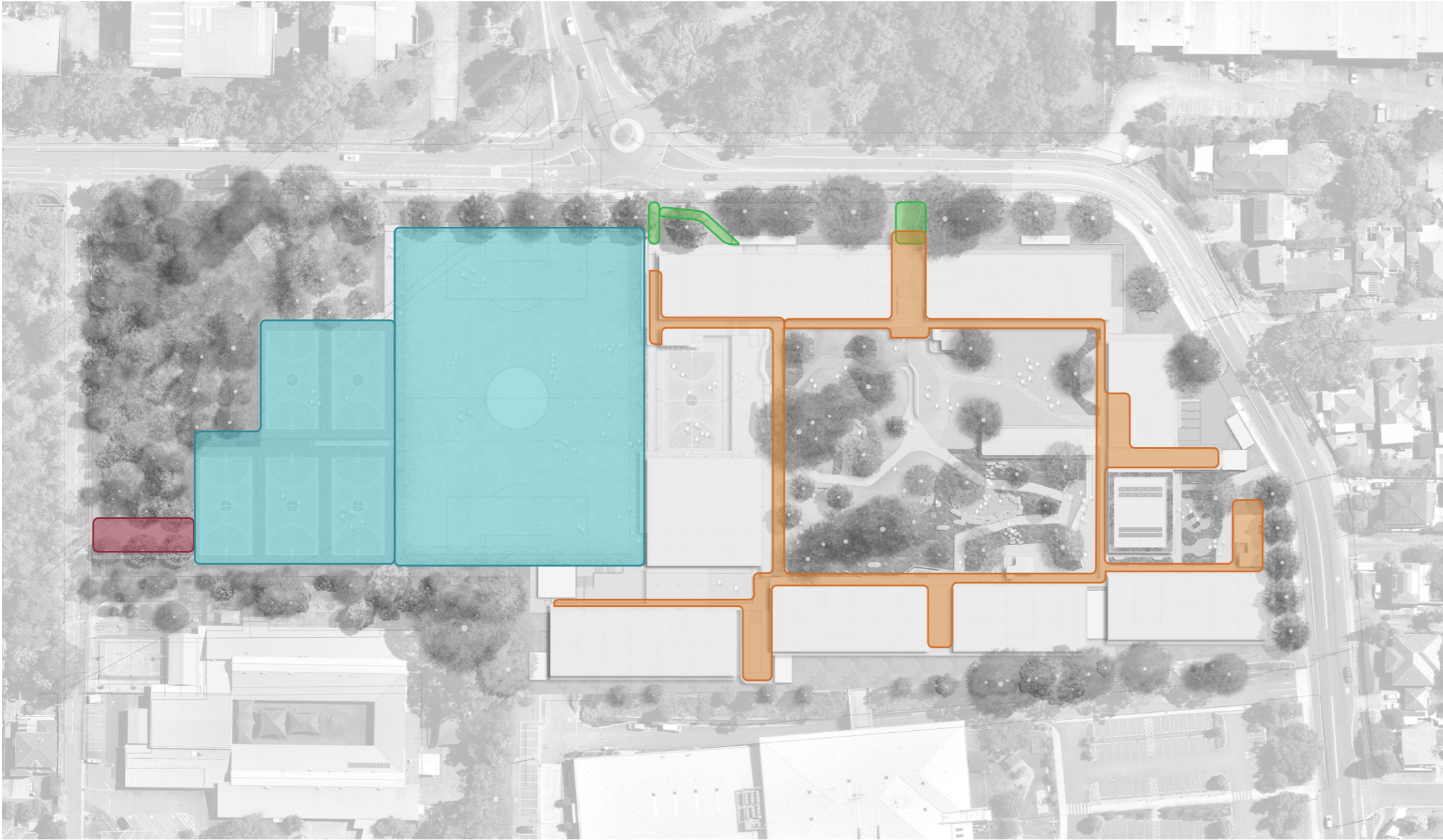
## 6.6 Covered Walkway Strategy



### LEGEND

-  Building Awning/Walkway
-  Covered Outdoor Learning

# 6.7 Lighting Strategy



### Lighting Strategy

This plan should be read in conjunction with the out of hours strategy as outlined by Architectus.

The strategy looks to ensure adequate lighting for access and general purpose. The access lighting is intended to provide safe and comfortable illumination for movement around the school during and after normal school hours. The general purpose lighting is intended to allow various areas to be used for their designed function.

The lighting, associated control systems and installation must comply with all applicable Australian codes and standards as outlined in the EFSG requirements.

Key CPTED Strategies for lighting design include:

- Ensuring Correct Categorisation of areas
- Ensuring robust quality fittings
- Ensuring Compatibility with security.

### LEGEND

- Covered Walkway - Recessed ceiling Light
- Walkway - Pedestrian Pole Light
- Access Road - Pole Light
- Sports Field -Floodlight

**7.0**

Open Space Typologies

# 7.1 Assembly Court

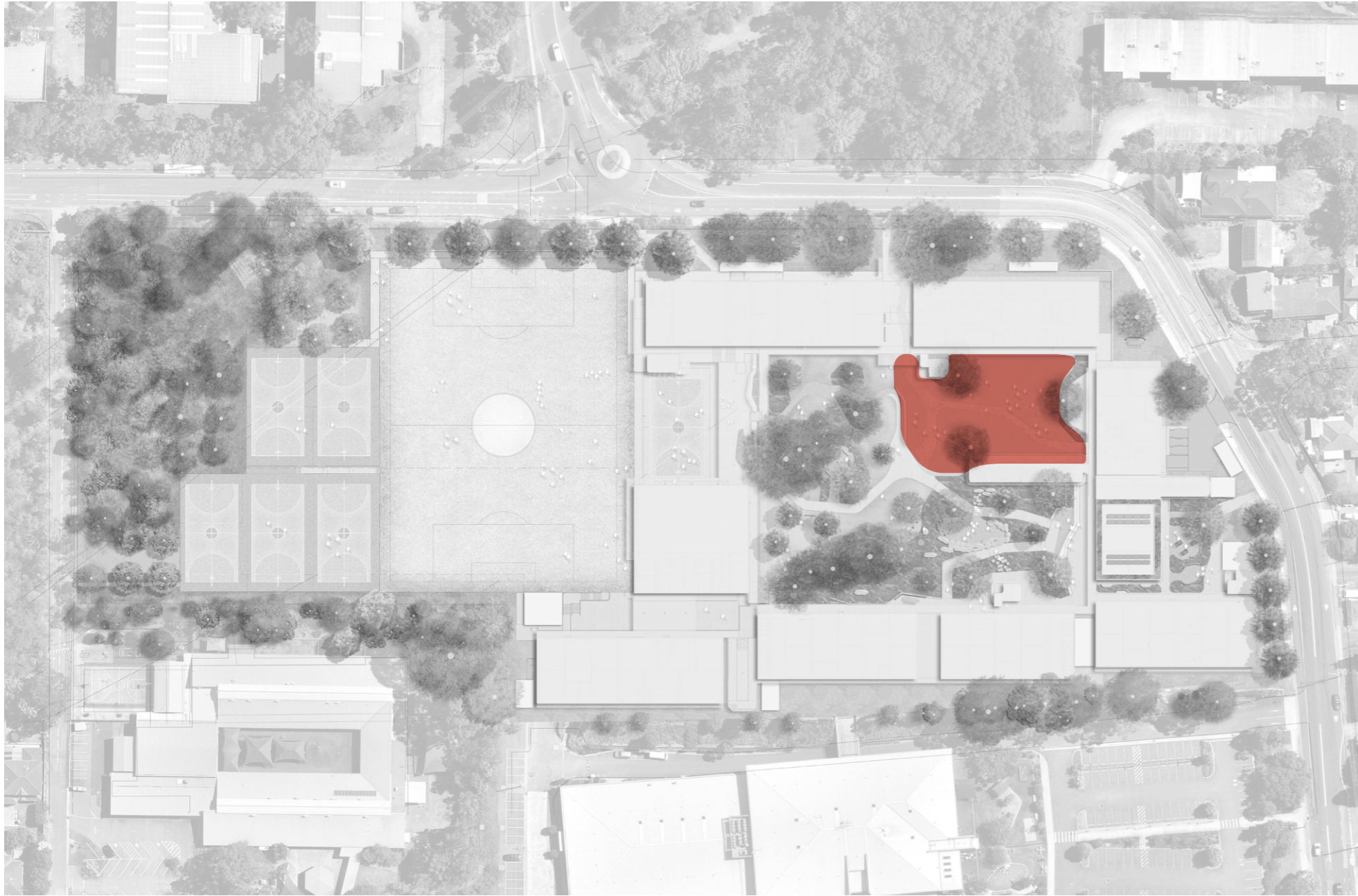


Image:  
TBLA, The East End,  
NSW



Image:  
Gledswood Hills Pri-  
mary School, NSW



Image:  
LUC, Oxford Brookes,  
UK

## 7.2 Outdoor Learning

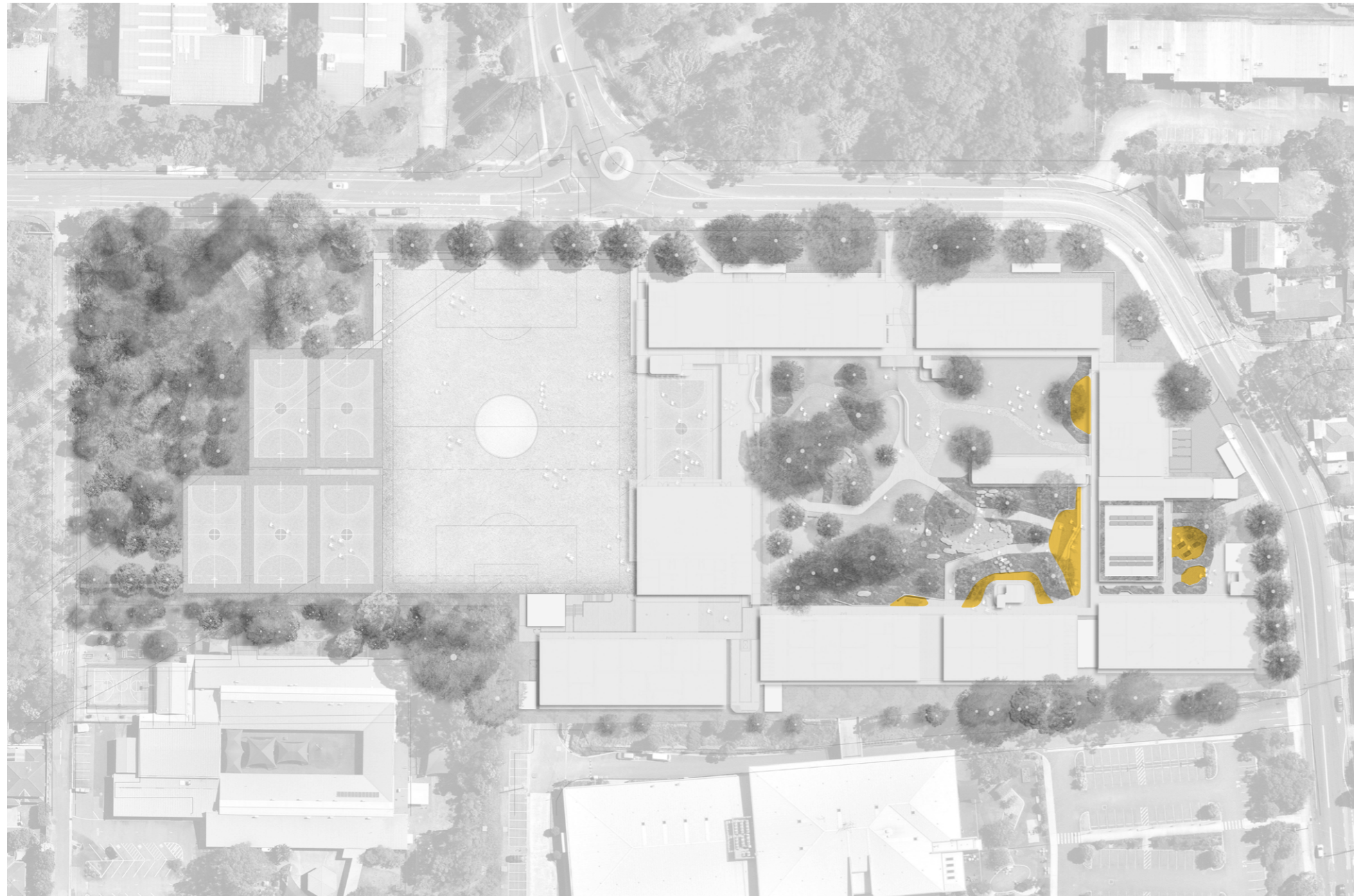


Image:  
Macartans Public  
School, NSW



Image:  
Oxley Park Public  
School, NSW



Image:  
ASPECT, Marrickville  
Library NSW

# 7.3 Landscape Ramps & Walkways

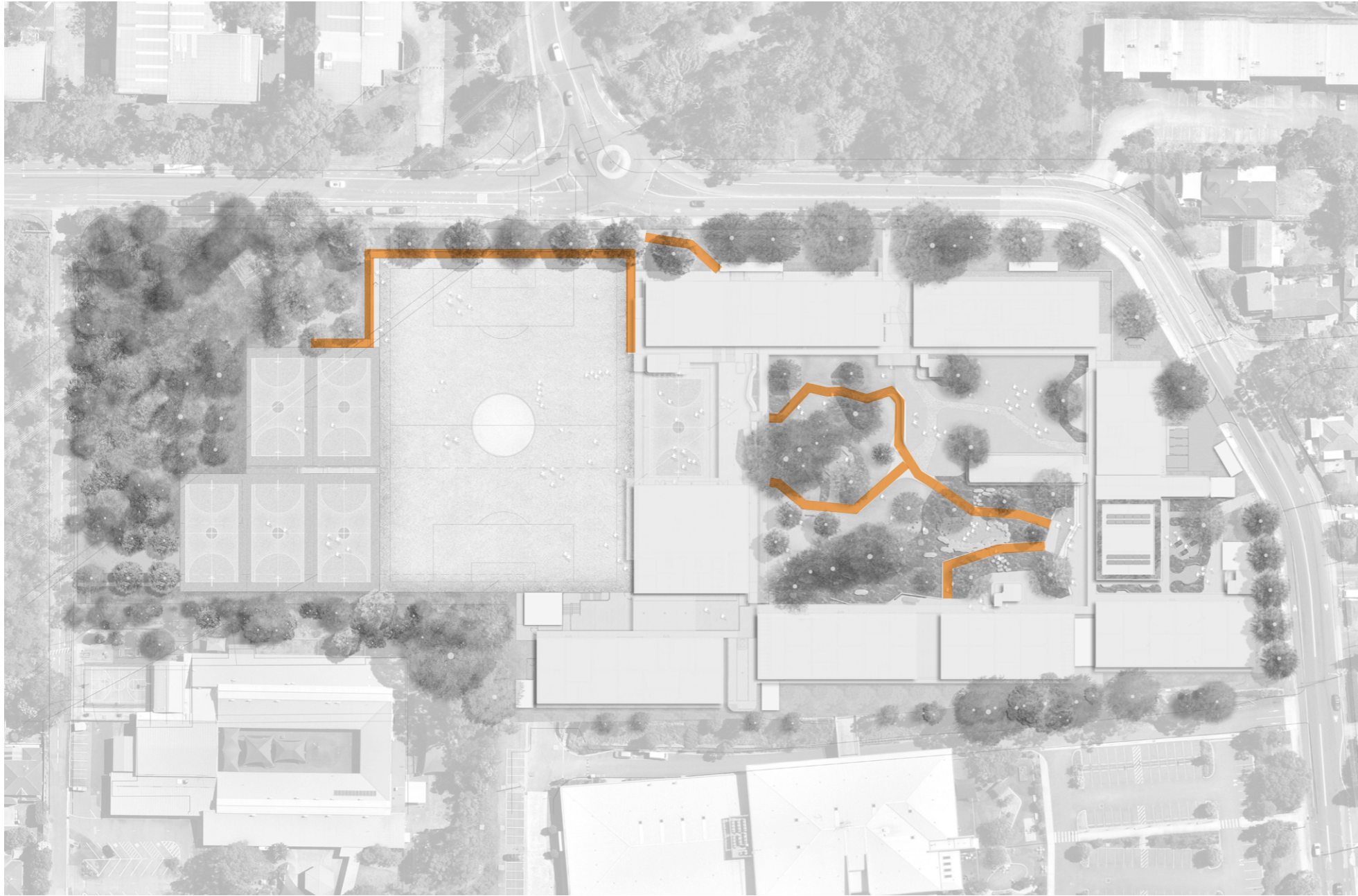


Image:  
Bendigo Hospital,  
OCULUS



Image:  
Bendigo Hospital,  
OCULUS



Image:  
St Vincents  
Forecourt

## 7.4 Covered Outdoor Learning Area (COLA)



Image:  
Loreto Mandeville  
VIC, OCULUS



Image:  
UTS, Aspect



Image:  
St Andrew's Anglican  
College, Wilson  
Architects

7.5 Covered Outdoor Workshop Area (COWA)



Image:  
Casis Elementary  
School, Baldrige  
Architects



Image:  
Everton Park State  
High School, Giarola  
Architects



Image:  
Stoner Architects  
Pottery Studio Kiln  
Shed



## 7.6 Games Courts

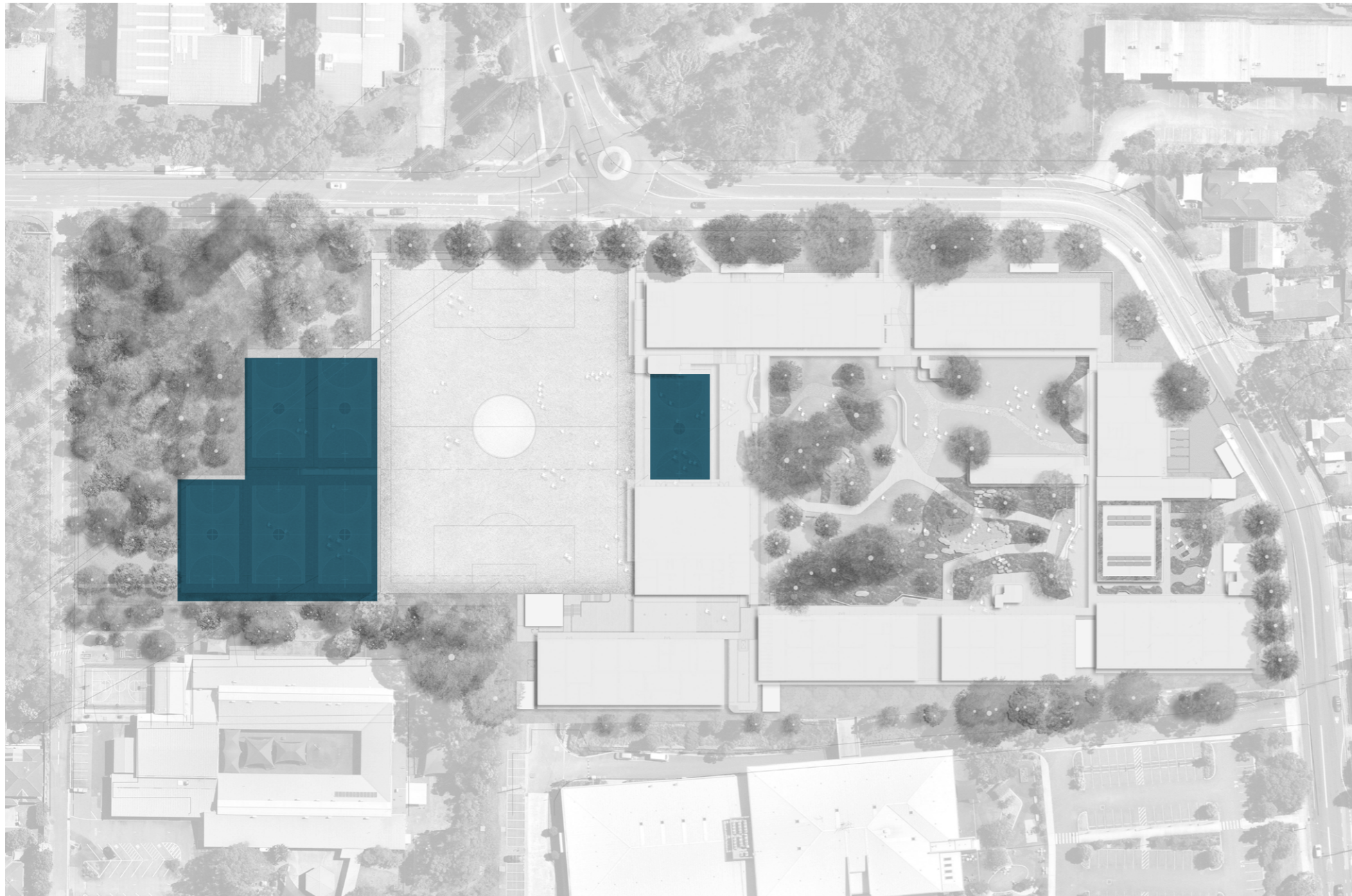


Image:  
St Denis Skatepark



Image:  
TCL, A'Beckett Urban  
Square, VIC



Image:  
Canvas Park courts,  
Ontario California

## 7.7 Sports Field



Field Area: 5,850m<sup>2</sup>

The sports field design for the school will need to comply with the EFSG and FIFA requirement. Surface to be a '3G FIFA Compliant Pitch'.

EFSG size range for football field: 90-120m Long x 65-90m Wide

FIFA field size range: min. 90m Long x 45m Wide

Run-off area to the NSW Football Association dimensions, 3m at each end, 3m on 1 side, and 5m one side for the technical zone

Image:  
OCULUS, Chatswood High School, NSW



Image:  
TRACT\_University of Queensland, QLD



Image:  
Context LA, Bella-Vista Public School, NSW



## 7.8 Passive Landscape



Image:  
Gillespies\_NEO  
Bankside, London UK



Image:  
OCULUS, Loreto  
Mandeville, VIC



Image:  
Encounter Lutheran  
College, SA

# 7.9 Perimeter/Buffer Landscape



Image:  
Malee Design\_Native  
Garden



Image:  
Sam Cox Landscapes,  
Curlewis



Image:  
Hugh Burnett,  
Northern Beaches  
Garden



## 7.10 Existing Remnant Forest



Image:  
Duffys Forest, North-  
ern Beaches, NSW



Image:  
Centennial Parklands,  
Bush School, NSW



Image:  
Corromesh fencing

**8.0**

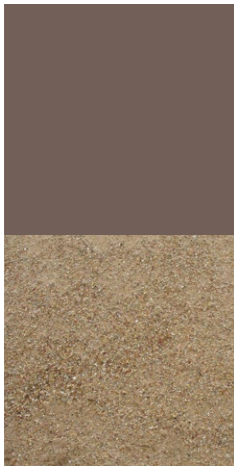

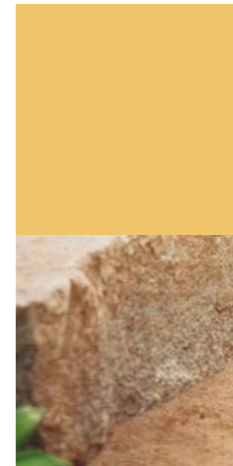
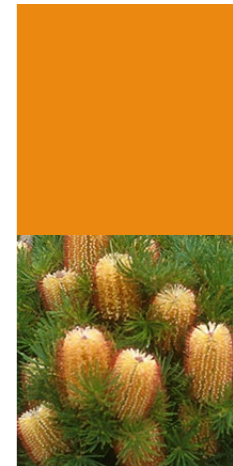
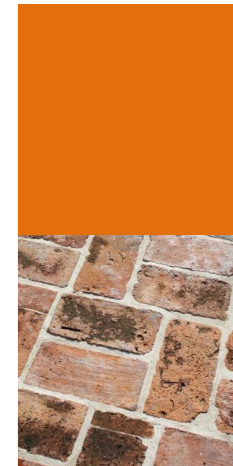
Materials Palette

# 8.1 Landscape Palette

“Drawing from the forms, colours and textures of the landscape Tocomwall suggests that the built form of Forest High School include a mix of earthy-tones and textures, combined with the vibrant colours of flowers and other vegetation, alongside colours and textures that can be associated with the ocean environment.

Another component of the landscape that is important to reference is the dependence on fire. The deeper colours of the post-fire landscape, combined with the colours of regrowth and rebirth of Country included in the design.” - Tocomwall Report

## Tocomwall's suggested colour Palette derived from Country

|   |   |   |  |   |   |   |   |   |   |   |
|---|---|---|--|---|---|---|---|---|---|---|
| #726058   | #D7D3D0   | #1A1D25   | #D6AA92  | #77935B   | #DB8CE2   | #6539EC   | #F82332   | #F0C46A   | #EB880F   | #E36E0C   |
|  |  |  |  |  |  |  |  |  |  |  |
| Decomposed Granite  | Insitu Concrete Broom Finish  | Black Gravel Mulch with Planting  | Beige Coloured Concrete  | Westringia fruticosa  | Indigofera australis  | Dianella caerulea   | Telopea speciosissima   | Sandstone Blocks  | Banksia spinulosa   | Recycled Brick Paving   |

## Landscape Materials Palette

# 8.2 Indicative Materials

INSITU CONCRETE PATHS



OUTDOOR BENCH SEATING



RAMPS & WALKWAYS



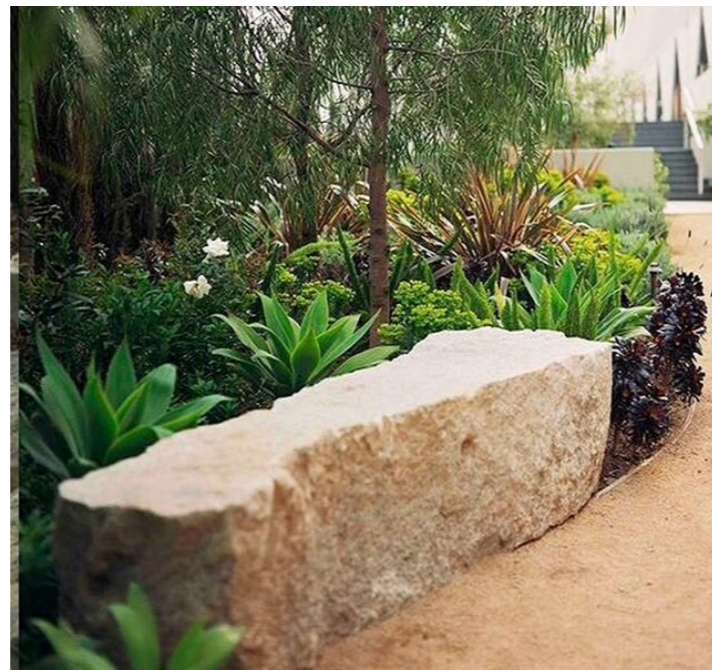
FEATURE BANDING



FRP Walkway



NATURAL STONE BOULDERS



CONNECTING PATHS



OUTDOOR LEARNING AREAS



## 8.3 Paving Types

**INSITU CONCRETE - BROOM FINISH  
MAIN PATHS**



**INSITU CONCRETE + CCS DESERT BUFF  
ASSEMBLY COURT**



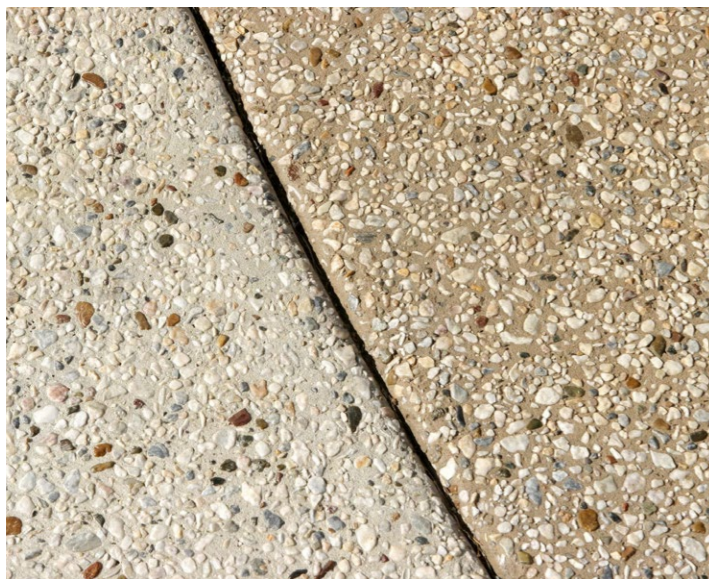
**RECYCLED BRICK PAVING  
TREE SURROUNDS**



**DECOMPOSED GRANITE  
OUTDOOR LEARNING AREAS**



**INSITU CONCRETE EXPOSED AGGREGATE  
BANDING TRACKS**



**ARTIFICIAL TURF  
SPORTS FIELD**



**HARD SPORTS SURFACE  
GAMES COURTS**



**SANDSTONE STEPPING STONES  
GARDEN BEDS**



# 8.4 Landscape Elements

**LARGE BOULDERS  
PASSIVE LANDSCAPE AREAS**



**SANDSTONE BLOCKS  
CENTER GARDEN SPACES**



**RECYCLED TIMBER LOGS  
PASSIVE LANDSCAPE AREAS**



**GRAVEL MULCH  
AREAS AROUND EXISTING TREES**



**INSITU CONCRETE WALL  
TERRACING AND RAISED PLANTERS**



**INSITU CONCRETE STAIRS  
LANDSCAPE STAIRS**



**CONCRETE EDGING  
BETWEEN TURF & PLANTING**



**TIMBER LOOK COATED ALUMINIUM  
BATTEN BENCH ON CONCRETE PLINTH  
OUTDOOR GATHERING SPACES**



**BICYCLE RACK  
BICYCLE PARKING**



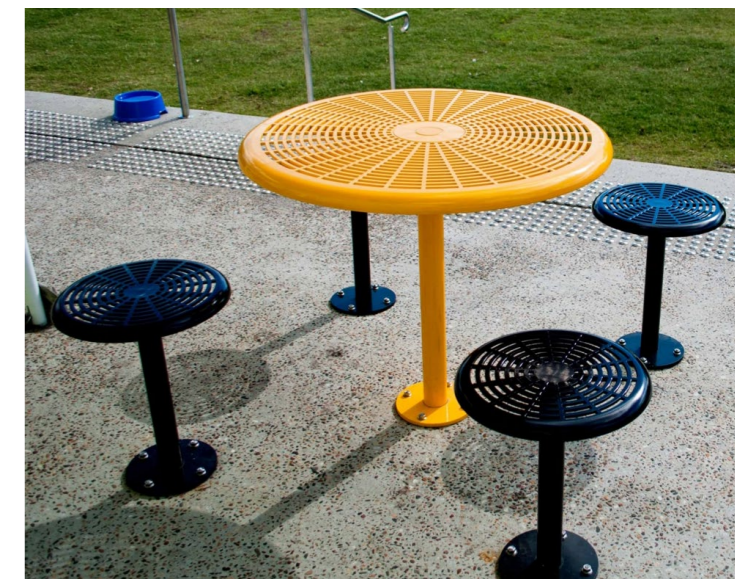
**CORRUGATED STEEL PLANTER  
LEARNING SPACES /EDIBLE GARDEN**



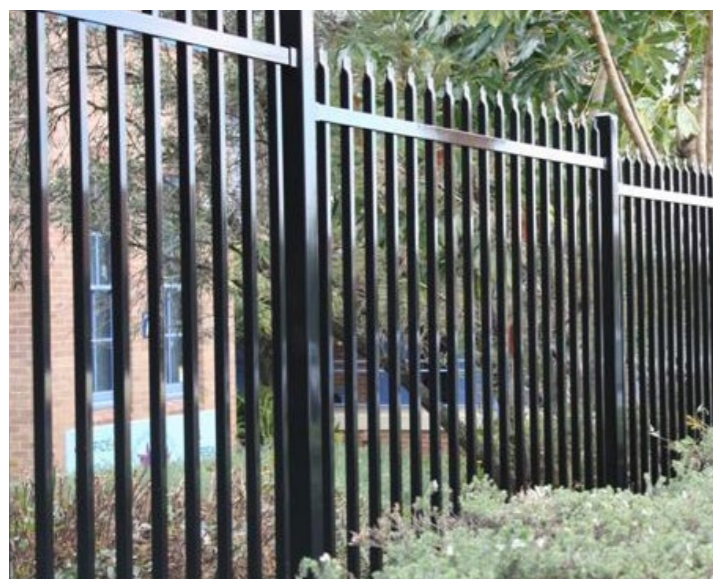
**CAFE TABLE  
OUTDOOR GATHERING SPACES**



**CAFE STOOL  
OUTDOOR GATHERING SPACES**



**STEEL PALISADE SECURITY FENCE  
BOUNDARY FENCING**



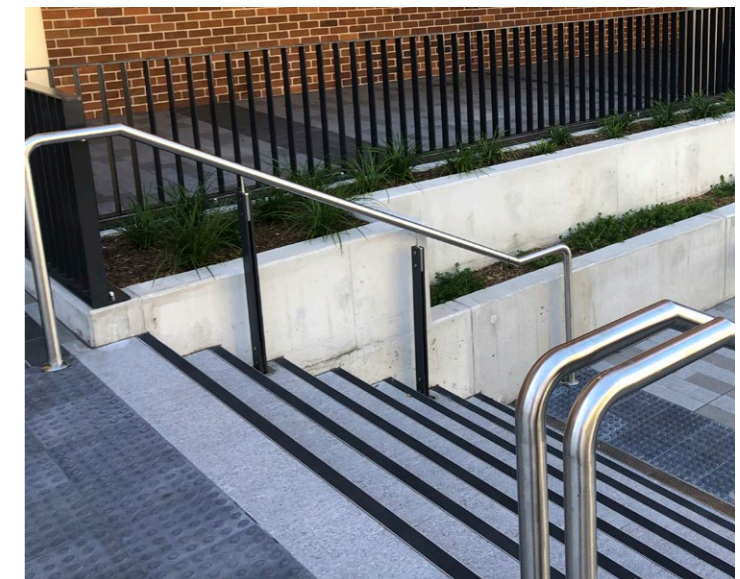
**'CORROMESH' SECURITY FENCE  
SECONDARY FENCING**



**INTERNAL SPORTS FENCE  
GAMES COURTS**



**STAINLESS STEEL HANDRAIL  
TO ALL STAIRS AND RAMPS**



# 8.5 Indicative Planting Typology

**Feature Planting**



**Native Buffer Planting**



**Shade Planting**



## 8.6 A Native Garden

'An ornamental native garden could draw from the surrounding landscape to elevate the importance of the Duffys Forest Ecological Community. Additionally, providing plantings that attract local wildlife including the Glossy Black Cockatoo and Rosenberg Goanna would allow the country around the school precinct to be introduced into the country of the school.' - Tocomwall Connecting with Country Report

| Code                                 | Botanic Name                           | Common Name              |
|--------------------------------------|--|--------------------------|
| <b>TREES</b>                         |  |                          |
| AC                                   | <i>Angophora costata</i>               | Sydney Red Gum           |
| AP                                   | <i>Acer palmatum</i> 'Sango Kaku'      | Coral Bark Maple         |
| BS                                   | <i>Banksia serrata</i>                 | Old Man Banksia          |
| CG                                   | <i>Corymbia gummifera</i>              | Red Bloodwood            |
| EH                                   | <i>Eucalyptus haemastoma</i>           | Scribbly Gum             |
| SS                                   | <i>Stenocarpus sinuatus</i> *          | Fire Wheel Tree          |
| TL                                   | <i>Tristanopsis laurina</i> 'Laurina'  | Water Gum                |
| <b>FEATURE PLANTING</b>              |  |                          |
| AnGV                                 | <i>Anigozanthos</i> 'Gold Velvet'      | Kangaroo Paw             |
| Doex                                 | <i>Doryanthes excelsa</i> *            | Gynea Lily               |
| Grca                                 | <i>Grevillea caleyi</i>                | Caley's grevillea        |
| Tesp                                 | <i>Telopea speciosissima</i>           | Waratah                  |
| Xame                                 | <i>Xanthorrhoea media</i>              | Grass Tree               |
| Zafu                                 | <i>Zamia furfuracea</i>                | Cardboard Palm           |
| <b>SHRUBS</b>                        |  |                          |
| Aclo                                 | <i>Acacia longifolia</i>               | Sydney Golden Wattle     |
| Acul                                 | <i>Acacia ulicifolia</i>               | Prickly Moses            |
| Basp                                 | <i>Banksia spinulosa</i>               | Hairpin Banksia          |
| Bohe                                 | <i>Bossiaea spp</i>                    | Bossiaea                 |
| CgAR                                 | <i>Ceratopetalum gummiferum</i>        | NSW Christmas Bush       |
| Dotr                                 | <i>Dodonaea triquetra</i>              | Common Hop-Bush          |
| Pepu                                 | <i>Petrophile pulchella</i>            | Conesticks               |
| Grse                                 | <i>Grevillea speciosa</i>              | Red Spider Flower        |
| LePC                                 | <i>Leptospermum</i> 'Pink Cascade'     | Pink Cascade             |
| Letr                                 | <i>Leptospermum trinervium</i>         | Flaky-Barked Tea-Tree    |
| WfGB                                 | <i>Westringia fruticosa</i> 'Grey Box' | Compact Coastal Rosemary |
| <b>GROUNDCOVERS, HERBS, CLIMBERS</b> |  |                          |
| Ache                                 | <i>Actinotus helianthi</i> *           | Flannel Flower           |
| Adae                                 | <i>Adiantum aethiopicum</i> *          | Common Maidenhair        |
| Blec                                 | <i>Blechnum sp.</i> *                  | Dwarf Tree Fern          |

|                                    |                                     |                        |
|------------------------------------|-------------------------------------|------------------------|
| Bisc                               | <i>Billardiera scandens</i>         | Apple Berry Dumplings  |
| Cagl                               | <i>Carpobrotus glaucescens</i> *    | Native Pigface         |
| Cian                               | <i>Cissus antarctica</i> *          | Kangaroo Grape         |
| Clgl                               | <i>Clematis glycinoides</i> *       | Native Clematis        |
| Dica                               | <i>Dianella caerulea</i>            | Blue Flax Lily         |
| Doas                               | <i>Doodia aspera</i> *              | Rasp Fern              |
| Fino                               | <i>Ficinia nodosa</i> *             | Knobby Club Rush       |
| Glcl                               | <i>Glycine clandestina</i> *        | Love Creeper           |
| Goov                               | <i>Goodenia ovata</i> *             | Hop Goodenia           |
| Hisc                               | <i>Hibbertia scandens</i> *         | Golden Guinea Flower   |
| Inau                               | <i>Indigofera australis</i> *       | Australian Indigo      |
| Pase                               | <i>Patersonia sericea</i>           | Native Iris            |
| Pili                               | <i>Pimelea linifolia</i>            | Slender Rice Flower    |
| Keru                               | <i>Kennedia rubicunda</i> *         | Dusky Coral Pea        |
| Vihe                               | <i>Viola hederacea</i> *            | Native Violet          |
| <b>GRASSES</b>                     |                                     |                        |
| Caap                               | <i>Carex appressa</i> *             | Sedge                  |
| CgCl                               | <i>Casuarina glauca</i> 'Cousin It' | Sheoak 'Cousin It'     |
| Dich                               | <i>Dichelachne sp.</i> *            | Plume Grass            |
| LoBR                               | <i>Lomandra glauca</i> 'Blue Ridge' | Lomandra Blue Ridge    |
| Lolo                               | <i>Lomandra longifolia</i>          | Common Mat-rush        |
| Lomu                               | <i>Lomandra multiflora</i>          | Many flowered Mat-rush |
| Thau                               | <i>Themeda australis</i>            | Kangaroo Grass         |
| <b>EDIBLE GARDEN</b>               |                                     |                        |
| Acac                               | <i>Acacia acuminata</i> *           | Raspberry jam Wattle   |
| Acra                               | <i>Acronychia acidula</i> *         | Lemon Aspen            |
| Ciau                               | <i>Citrus australasica</i> *        | Finger Lime            |
| Cyam                               | <i>Cymbogopon ambiguus</i> *        | Native Lemon Grass     |
| PoEl                               | <i>Podocarpus elatus</i> *          | Illawarra Plum         |
| * Australian Native Plant Species  |                                     |                        |
| Duffys Forest Ecological Community |                                     |                        |

### Ecologically & Culturally Significant Plants

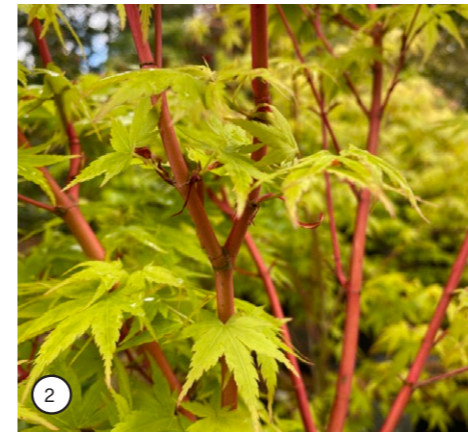


## 8.7 Indicative Planting Palette

### Trees

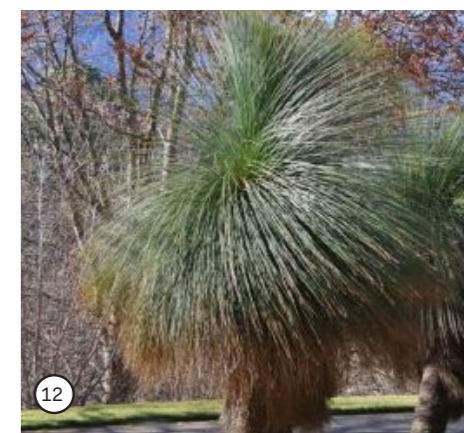
| Image | Botanic Name                           | Common Name      | Height x Width | Install Size |
|-------|--|------------------|----------------|--------------|
| ①     | <i>Angophora costata</i> *             | Sydney Red Gum   | 25x15m         | 200L         |
| ②     | <i>Acer palmatum</i> 'Sangu Kaku'      | Coral Bark Maple | 8x4m           | 400L         |
| ③     | <i>Banksia serrata</i> *               | Old Man Banksia  | 15x4m          | 200L         |
| ④     | <i>Corymbia gummifera</i> *            | Red Bloodwood    | 30x10m         | 200L         |
| ⑤     | <i>Eucalyptus haemastoma</i> *         | Scribbly Gum     | 15x15m         | 200L         |
| ⑥     | <i>Jacaranda mimosifolia</i>           | Jacaranda        | 12x7m          | 100L         |
| ⑦     | <i>Stenocarpus sinuatus</i>            | Fire Wheel Tree  | 20x8m          | 100L         |
| ⑧     | <i>Tristaniopsis laurina</i> 'Laurina' | Water Gum        | 15x6m          | 100L         |

\* Duffys Forest specific species



## Feature Planting

| Image | Botanic Name   | Common Name                                    | Height x Width            | Install Size   |
|-------|--|--|---------------------------|----------------|
| ①     | <i>Anigozanthos 'Gold Velvet'</i><br><i>Billardia scandens</i>                   | Kangaroo Paw<br>Apple Berry Dump-<br>lings     | 1x1m<br>1.5x3m            | 300mm          |
| ②     | <i>Casuarina glauca 'Cousin It'</i>  | Sheoak 'Cousin It'                             | 0.3x1m                    | 140mm          |
| ③     | <i>Ceratopetalum gum-miferum 'Alberys Red'</i>                                   | NSW Christmas Bush                             | 5x3m                      | 300mm          |
| ④     | <i>Doryanthes excelsa</i><br><i>Ficinia nodosa</i><br><i>Glycine clandestina</i> | Gynea Lily<br>Knobby Club Rush<br>Love Creeper | 2x1.2m<br>1.5x2m<br>140mm | 300mm<br>140mm |
| ⑤     | <i>Goodenia ovata</i>  | Hoop Goodenia                                  | 0.3 x 2m                  | 200mm          |
| ⑥     | <i>Grevillea caleyi</i>  | Caley's Grevillea                              | 2x2m                      | 300mm          |
| ⑦     | <i>Indigofera australis</i><br><i>Leptospermum 'Pink Cascade'</i>                | Australian Indigo<br>Pink Cascade              | 2x2m<br>0.8x1.5m          | 140mm<br>300mm |
| ⑧     | <i>Lomandra multiflora</i><br><i>Patersonia sericea</i>                          | Mat-rush<br>Native Iris                        | 0.3x1.5mm<br>0.6x0.3m     | 140mm<br>200mm |
| ⑨     | <i>Pimelia linifolia</i>   | Slender Rice Flower                            | 0.4x0.8m                  | 150mm          |
| ⑩     | <i>Telopea speciosissima</i>   | Waratah  | 3x2m                      | 200mm          |
| ⑪     | <i>Westringia fruticosa 'Grey Box'</i>   | Compact Coastal Rosemary                       | 0.45x0.45m                | 200mm          |
| ⑫     | <i>Xanthorrhoea media</i>  | Grass Tree                                     | 1x1m                      | 200mm          |



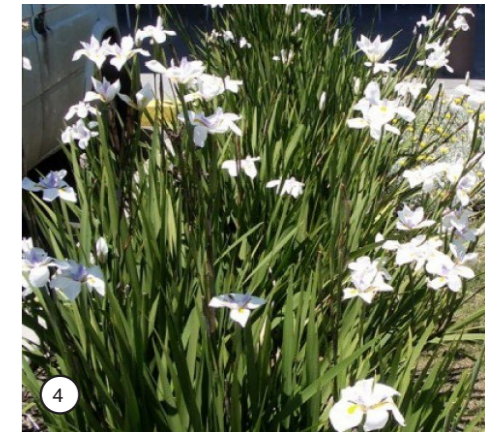
### Native Buffer Planting

| Image | Botanic Name                                   | Common Name          | Height x Width | Install Size |
|-------|--|----------------------|----------------|--------------|
| ①     | <i>Acacia longifolia</i>                       | Sydney Golden Wattle | 6x4m           | 200mm        |
| ②     | <i>Acacia ulicifolia</i>                       | Prickly Moses        | 2x2m           | 200mm        |
| ③     | <i>Banksia spinulosa</i>                       | Hairpin Banksia      | 0.5x1.5m       | 200mm        |
| ④     | <i>Ceratopetalum gum-miferum 'Alberys Red'</i> | NSW Christmas Bush   | 5x3m           | 300mm        |
| ④     | <i>Dodonaea triquetra</i>                      | Common Hop-Bush      | 3x2m           | 140mm        |
| ⑤     | <i>Grevillea sericea</i>                       | Pink Spider Flower   | 2x2m           | 200mm        |
| ⑥     | <i>Actinotus helianthi</i>                     | Flannel Flower       | 1.2x0.5m       | 140mm        |
| ⑦     | <i>Adiantum aethiopicum</i>                    | Common Maidenhair    | 0.5x0.5m       | 140mm        |
| ⑦     | <i>Carpobrotus glaucescens</i>                 | Native Pigface       | 0.2x1m         | 140mm        |
| ⑧     | <i>Clematis glycinoides</i>                    | Native Clematis      | 2.5m           | 140mm        |
| ⑧     | <i>Dianella caerulea</i>                       | Blue Flax Lily       | 1x2m           | 140mm        |
| ⑧     | <i>Goodenia ovata</i>                          | Hop Goodenia         | 0.3x2m         | 140mm        |
| ⑧     | <i>Hibbertia scandens</i>                      | Golden Guinea Flower | 3x5m           | 140mm        |
| ⑨     | <i>Indigofera australis</i>                    | Australian Indigo    | 2x2m           | 140mm        |
| ⑩     | <i>Pimelea linifolia</i>                       | Slender Rice Flower  | 0.4x0.8m       | 140mm        |
| ⑪     | <i>Kennedia rubicunda</i>                      | Dusky Coral Pea      | 3x3m           | 140mm        |
| ⑪     | <i>Danthonia sp.</i>                           | Wallaby Grass        |                | 140mm        |
| ⑪     | <i>Dichelachne sp.</i>                         | Plume Grass          |                | 140mm        |
| ⑫     | <i>Lomandra multiflora</i>                     | Mat-rush             | 0.3x1.5m       | 140mm        |



### Shade Planting

| Image | Botanic Name                | Common Name            | Height x Width | Install Size |
|-------|-----------------------------|------------------------|----------------|--------------|
| ①     | <i>Adiantum aethiopicum</i> | Common Maidenhair      | 0.5x0.5m       | 140mm        |
| ②     | <i>Billardiera scandens</i> | Apple Berry Dumpplings | 1.5x3m         | 140mm        |
| ⑦     | <i>Blechnum sp.</i>         | Dwarf Tree Fern        | 1x2m           | 140mm        |
| ③     | <i>Cissus antarctica</i>    | Kangaroo Grape         | 4x6m           | 140mm        |
| ④     | <i>Dietes grandiflora</i>   | Fairy Iris             | 0.8x0.8m       | 140mm        |
| ⑤     | <i>Doodia aspera</i>        | Rasp Fern              | 0.4x0.6m       | 140mm        |
| ⑥     | <i>Viola hederacea</i>      | Native Violet          | 0.2x1m         | 140mm        |



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