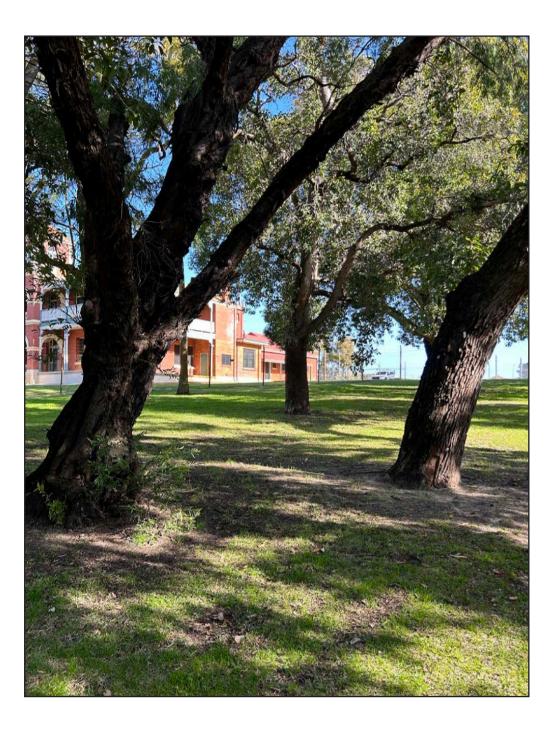
Landscape Architecture

Development Application Report

04.12.2023





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THE SITE



Site History

Edward Millen House, originally The Rotunda Hospital was constructed in the Federation Queen Anne style. Registered Midwife, Elizabeth Baillie was responsible for the construction of the hospital in 1912. It was the only maternity hospital in Perth at that time. Since that time the hospital has been used for a number of purposes. During the Spanish Flu pandemic in 1919 the site was used by the state government. It was used as a repatriation hospital after World War I. It has also been used as a hospital for psychiatric patients and a centre for children with autism.

The significant surrounding landscape was developed with the advice of the Superintendent of Kings Park in 1920. The open lawn areas were originally created for the care and treatment of tuberculosus patients. The layout of the grounds with its sweeping lawns, central drive and avenues of trees are typical of landscape design of this era.

Reference: http://inherit.stateheritage.wa.gov.au



Nurses pictured with colourful annual flower display

Federation gardens

During the federation era, Australian gardens were characterised by curved paths, clipped hedges, garden ornaments and sweeping lawns. These lawn were made possible by the invention of the lawn mower and garden hose at the end of the 19th century.

Manicured hedges were popular at this time and were used to outline paths and define spaces. Colourful flowering annuals were popular. Often a productive, kitchen garden was at the rear of a property with the front garden putting the architecture on show.

A mixture of exotic and native tree species were used. Popular species included;

Jacaranda mimosifolia, Eucalyptus sp., Citrus trees, Cypress, Palm trees, Wattle trees, Morton Bay Fig, Arbutus unedo, Elaeocarpus reticulatus, Grevillea silky oak, Norfolk Island Pine, Illawarra flame tree

Flowering shrub species also include a mix of exotic plants with some natives. Some prominent species include;

Hydrangeas, roses, wisteria, phromium sp, euphorbia splenden, jasmine, rhododendrons, azaleas, climatis, bogainvillea, clivia nobilis, daisies, geraniums References: Baskin, J & Dixon T, 1996, Australia's Timeless Gardens, www.federation-house.com/great-federation-gardens



The Rotunda Hospital

Noongar Boodja

Project Site Country: Whadjuk Noongar Boodja

"Whadjuk is the name of the dialectal group from the Perth area. Whadjuk is situated south of Yued and north of the Pinjarup dialectal groups.

The major cities and towns within the Whajuk region include Perth, Fremantle, Joondalup, Armadale, Toodyay, Wundowie, Bullsbrook and Chidlow. The approximate size of the Whadjuk region is 5,580 km.

Throughout the Whadjuk Region there are a range of significant Noongar sites. For instance, Ngooloormayup, known as Carnac Island; Meeandip, known as Garden Island; Gargangara north of Armadale; and Goolamrup, the suburb known as Kelmscott. Noongar people may refer to Kings Park as Karra katta or the hill of the spiders or Geenunginy Bo, the place for looking a long way. Dyarlgarro Beeliar is known as the Canning River and Derbal Yiragan, the Perth estuary waters.

The Whadjuk Claim for Native Title was made in September 2006."

Source: https://www.noongarculture.org.au/whadjuk/

Birak (December and January)

Dry and Hot. Noongar people burned sections of scrubland to force game into the open for easier hunting.

Key plant species:

· Nuytsua floribunda

Bunuru (February and March)

Hottest part of the year, with sparse rainfall throughout. Noongar people moved to the estuaries for fishing

Key plant species:

- · Jarrah, Marri and Ghosts Gums are in bloom.
- · Female Macrozamis Riedle cones are emerging

Djeran (April and May)

Cooler weather begins. Fighting continued and bulbs and seeds were collected for food.

Key plant species:

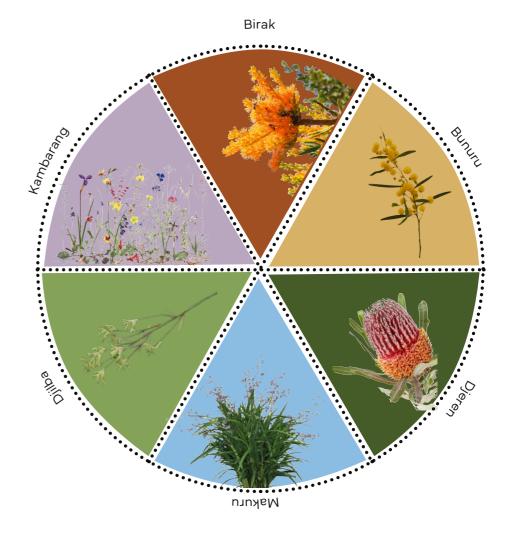
- · Corimbia ficifolia
- Beaufortia aestiva
- Ranksias

Makuru (June and July)

Usually the wettest part of the year. Noongar people moved inland to hunt once the rains had replenished inland water resources.

Key plant species:

- Dianella Revoluta
- Patersonia occidentalis
- · Agonis flexuosa



Djilba (August and September)

Often the coldest part of the year, with clean, cold nights and days, or warmer windier periods. Roots were collected and emus, possums and kangaroos were hunted.

Key plant species:

- Balgas (grass tree)
- Acacias

Kambarang (October and November)

Usually the wettest part of the year. Noongar people moved inland to hunt once the rains had replenished inland water resources.

Key plant species:

- Orchids
- Kangaroo paws
- Banksias

(Sources: https://www.noongar.org.au/educational-posters, https://www.vincent.wa.gov.au/community/aboriginal-culture/noongar-culture)

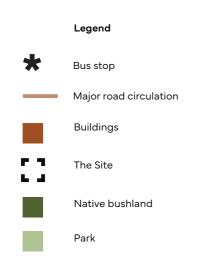
Opportunities and Constraints

Key opportunities

- Provide high quality landscape connection to Edward Millen Park
- Strengthen heritage aspect through considered and appropriate landscape design and materials
- Protect significant key trees
- Make for a safe and activated public realm through integration of high quality alfresco spaces
- · On-site food production
- · Provide pedestrian connection to bush forever site
- · Improved car parking and (longer term) shading solutions
- · Improved pedestrian site navigation and safety.

Key constraints/considerations

- · Modification of existing levels
- · Consideration of site security and after hours access
- Interface with childcare facility





Site Images

Edward Millen House and the associated landscape sit in a poor state, in need of some significant work to restore the precinct to its former glory.

The general structure of the existing garden is generally good, but the condition of the landscape is of poor quality.

There are some significant tree specimens that should be retained and protected, including a series of Illawarra flame trees and palms that have some heritage significance. In addition to these, there is a mature frangipani specimen that will be transplanted, and two mature Jacaranda specimens located in the car park that will also be relocated to a more prominent position in the landscape.

Soil condition across the site is generally poor. Soil appears to have a high sand content, and is littered with debris and rubble from the degrading buildings.







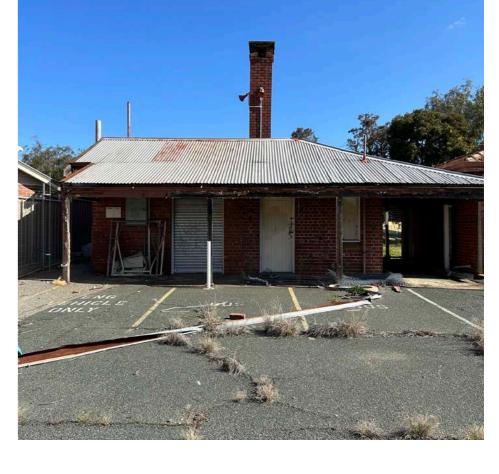




Existing site condition













Tree retention + removal plan

The findings of the recent arborist report determined which trees were worthy of protecting and which trees were of lower retention value that can be potentially removed.

The existing trees have been overlayed on the proposed master plan (opposite) illustrating which trees are to be considered for retention and trees that can be potentially removed. Final decision about removal and retention of trees to be determined on site. The existing tree strategy aims to preserve as many suitable existing trees as possible.

*Refer to the arborist's report for detailed tree information.

Existing trees to be retained	Existing trees to be removed
High retention trees to be retained = 7	High retention trees to be removed = 20
Medium retention trees to be retained = 4	Medium retention trees to be removed = 5
Low retention trees to be retained = 12	Low retention trees to be removed = 32
High retention trees to be transplanted = 3	

LEGEND

High retention value trees to be retained

Medium retention value trees to be retained

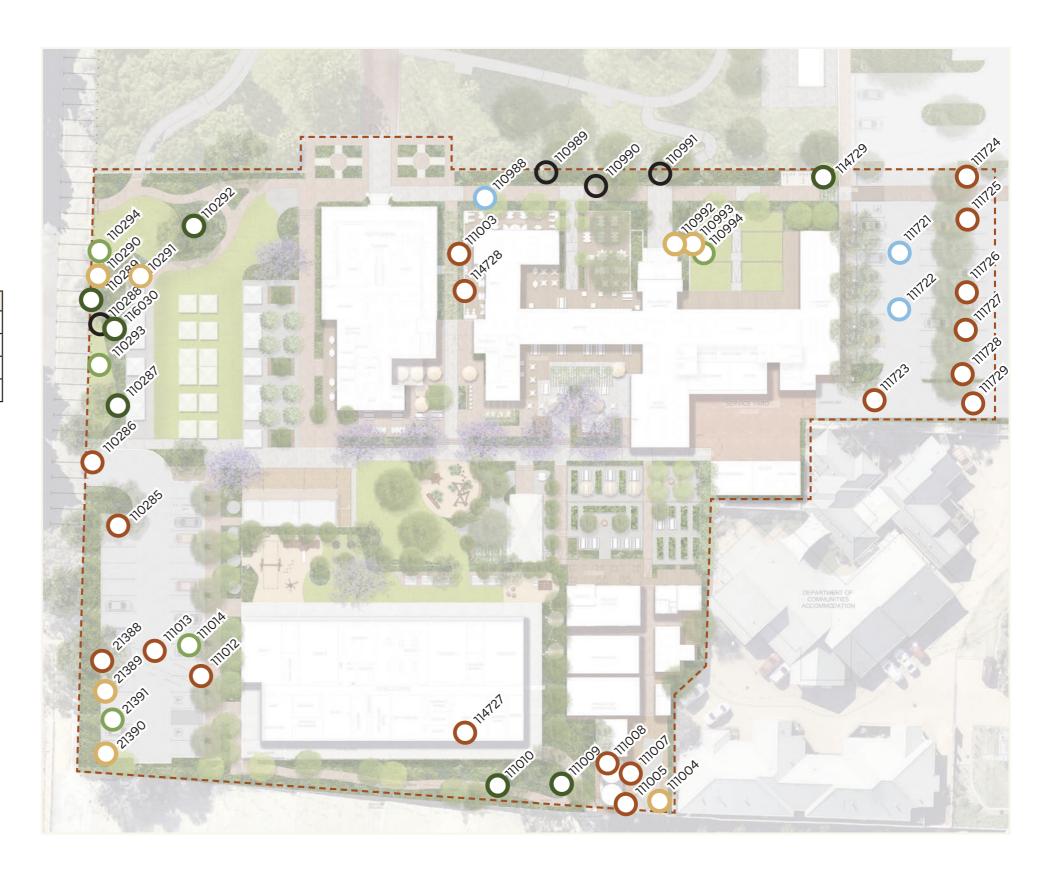
Low retention value trees to be retained

High value retention value trees to be removed

Medium value retention value trees to be removed

Low retention value trees to be removed

High retention value trees to be transplanted





CONCEPTDIAGRAMS

Our approach

The below diagrams outline the key design ideas we have taken with the approach to the design of the landscape for Edward Millen House.



Key Design Ideas



Respect heritage



Safety & accessibility



Activation/food & bev/ weekend markets



Play opportunities



Productive gardens



Protect existing tree canopy

Design Principles







Heritage landscape

- Create a distinct and appropriate frontage to Edward Millen House leading up from the park.
- $\boldsymbol{\cdot}$ $\;$ Frame the heritage building to create a complimentary landscape

Productive garden

- Inclusion strengthens connection to federation garden design
- Provides produce for on-site cafe and brewery
- · Improves soil quality
- · Helps to activate the site through regenerative gardens

Activated alfresco areas

- Improve connection to heritage buildings
- Increases awareness of historical significance of the site through proximity to buildings
- Increases foot traffic and safety throughout the precinct
- Activates various zones around the grounds with varying scales of alfresco zone sizes

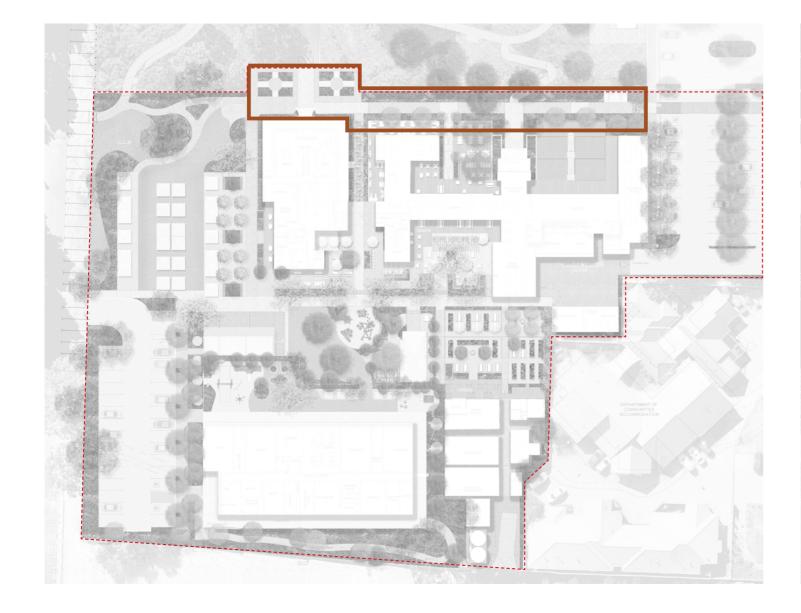
Landscape Design Strategy

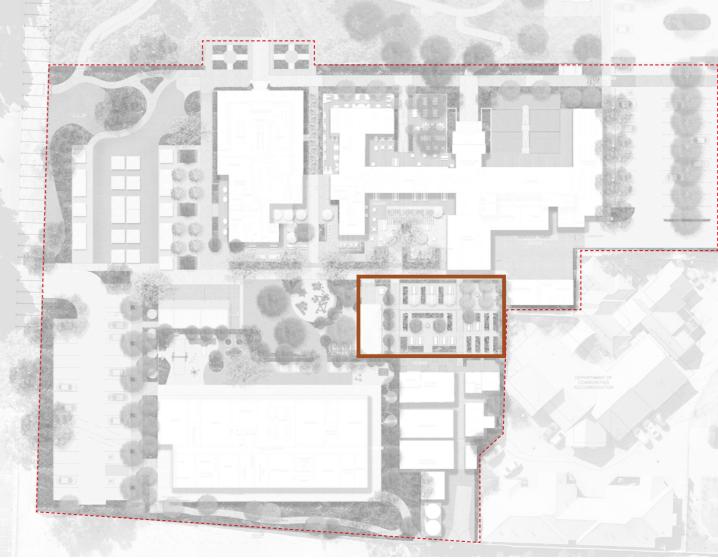
Respecting + enhancing heritage through formality

The northern frontage to Edward Millen Park is proposed to be formal and lineal to be respectful to the federation heritage of the building. Two formal gardens flank the entry to Edward Millen House, with a lineal path connecting the entry points into the various buildings. Plant species will be a combination of endemic and exotic, mainly planted in a formal arrangement.

Produce gardens

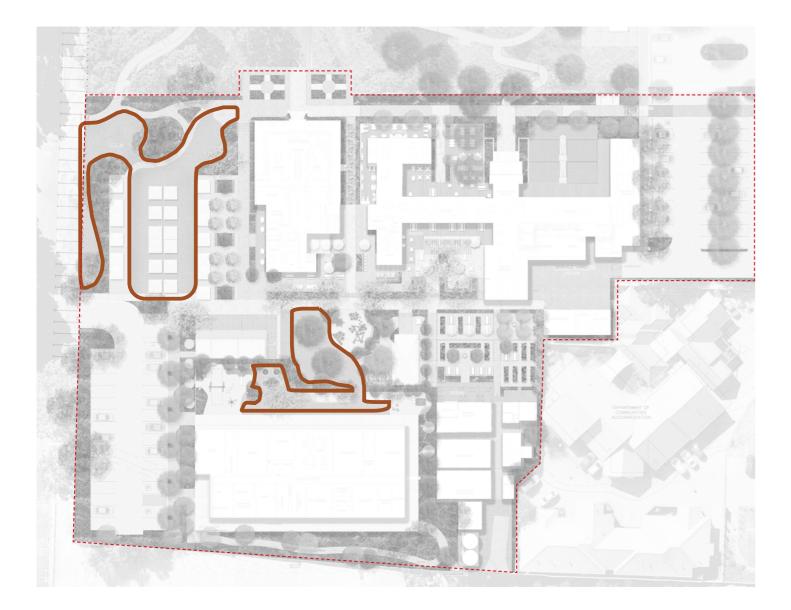
An important offering within the precinct will be the production of food for the on-site food and beverage offerings. The production of food also has ties to the heritage of Edward Millen House, and also links to federation garden design.





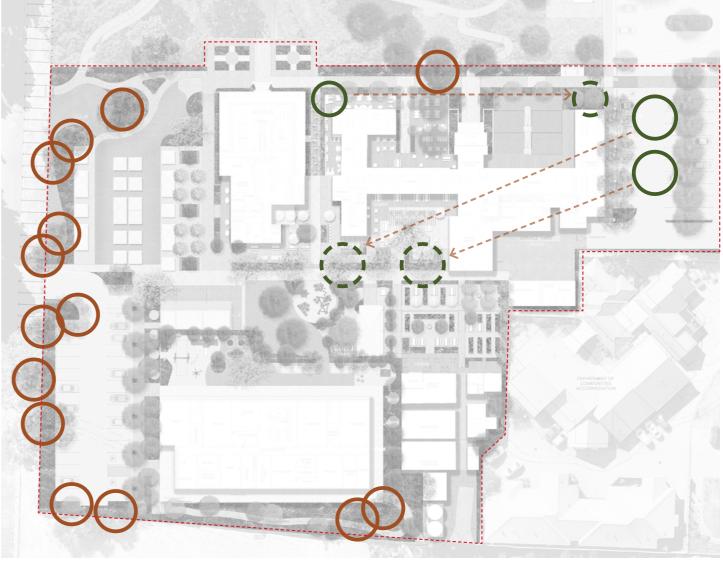
Sweeping lawns

A foundation of the federation garden design movement, the inclusion of sweeping lawns within the landscape design offer permeable and cool spaces for people to gather in. These spaces also provide flexibility for weekend markets and small events.



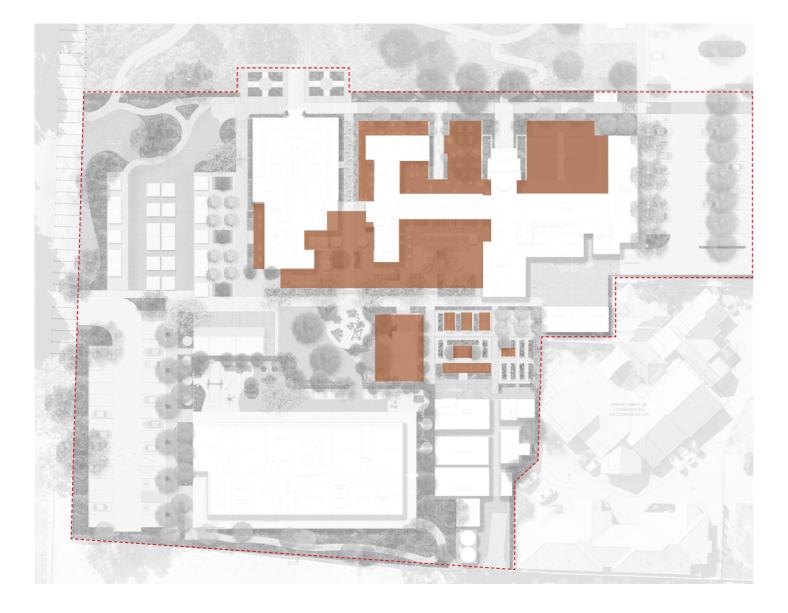
Protecting existing trees

There are a number of significant tree specimens on site that the landscape design aims to retain and protect. The retention of trees is critical for reducing heat island effect, making habitable spaces for people, and maintaining habitat for fauna.



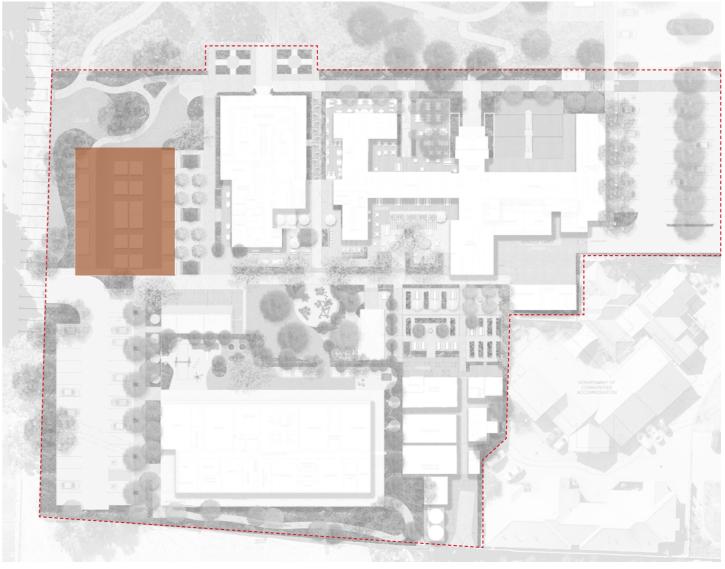
Active alfresco spaces

A variety of alfresco dining opportunities will be dispersed throughout the site to create an interesting and dynamic dining experience. Large timber decks associated to the buildings will host external dining opportunities, and smaller spaces around the cafe will create small and more intimate opportunities. In the garden, there is a proposed garden pavilion, with smaller dining spots scattered throughout the produce garden to create an immersive alfresco dining experience.



Flexible weekend market space

A large area to the west of the site has been allocated to weekend market space, where local makers can offer their wares to visitors. The weekend market will also be a crucial offering in activating the precinct and assisting the on site food and beverage offering.

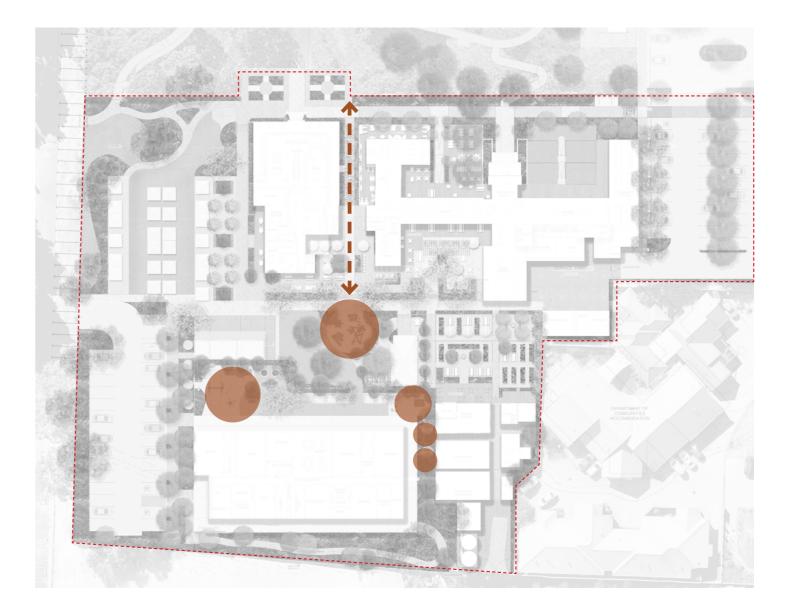


Connecting to Edward Millen Park

The proposed upgrades to Edward Millen Park will significantly enhance the overall precinct, with connection into the park critical in establishing easy and obvious ways to meander through the park. A major entry point aligns the park to Edward Millen House on a north/south axis, with two additional meandering paths connecting into the broader park.

Active play space

A large public playspace is proposed at the end of the lane way to provide a key activator of the precinct. Its proximity to the cafe, beer garden, and garden pavilion make it an easily accessible and visible space from multiple vantage points. The location at the end of the lane way has been selected to be a visual link from the front of the site and attract visitors to the back portion of the precinct.

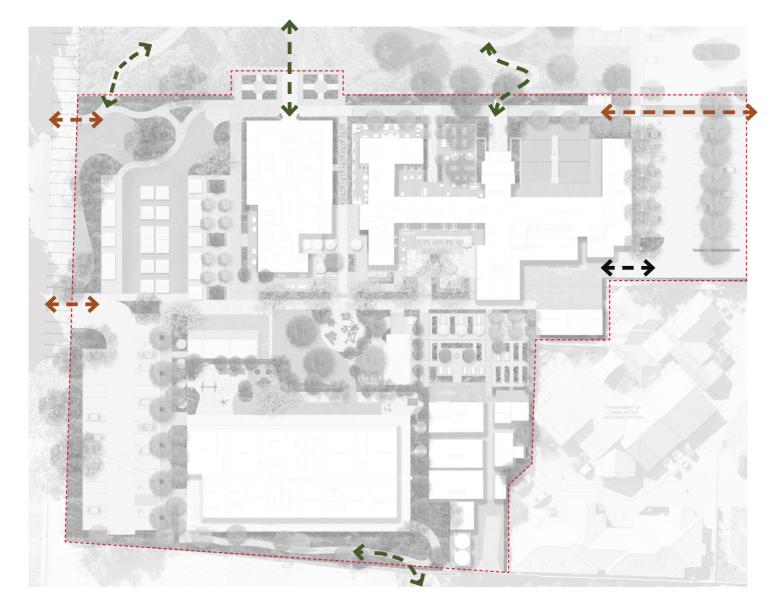


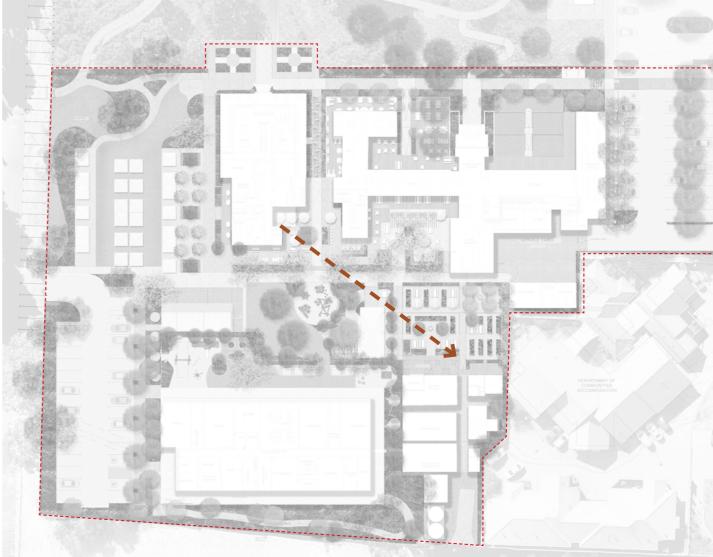
Clear wayfinding and site navigation

Wayfinding throughout the site and from the various parking areas will be critical to ensuring the success of the precinct.

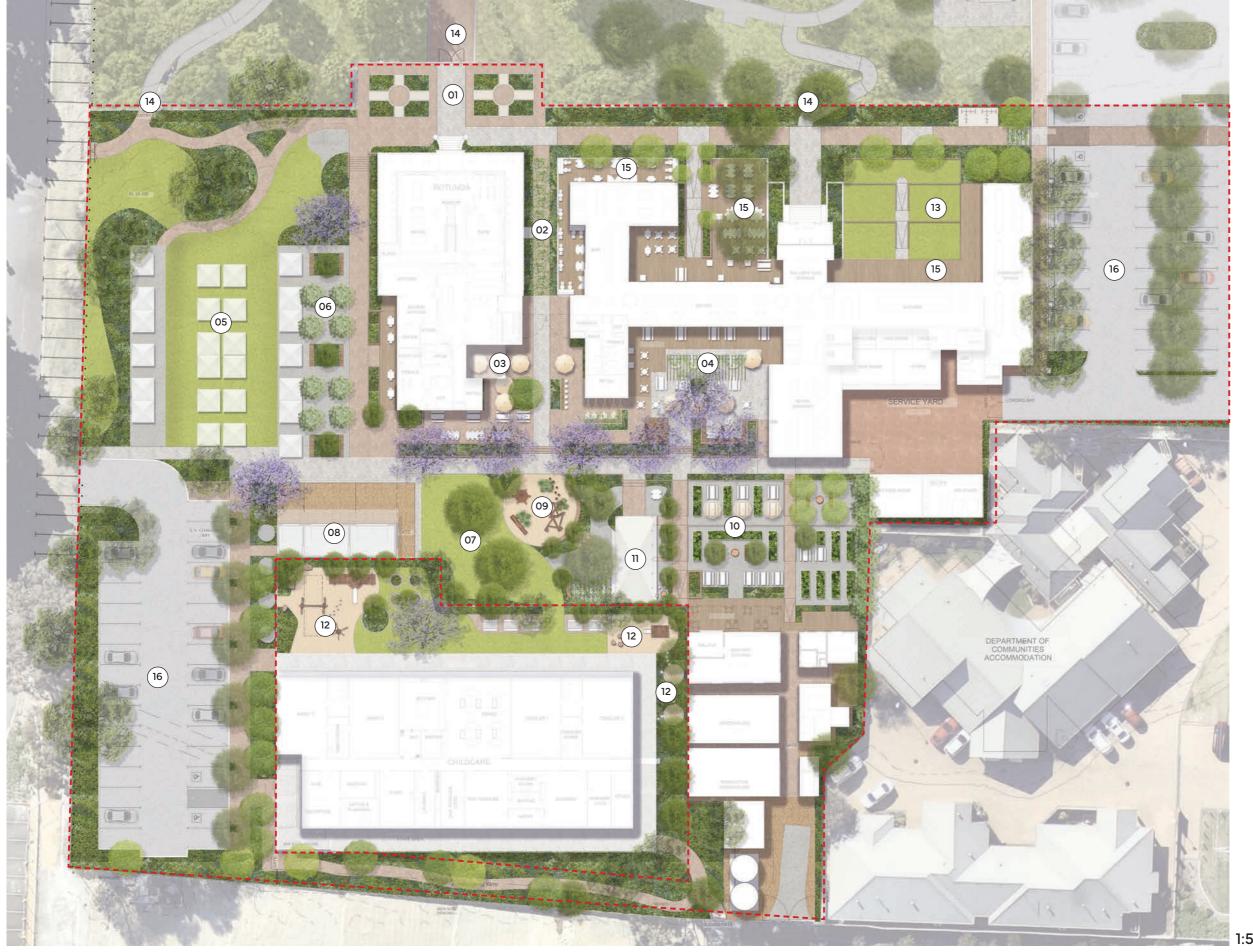
Maintaining site lines to heritage buildings

The garden pavilion has been positioned so that the heritage building to the south east of the site can be seen from the cafe alfresco area.





Master Plan



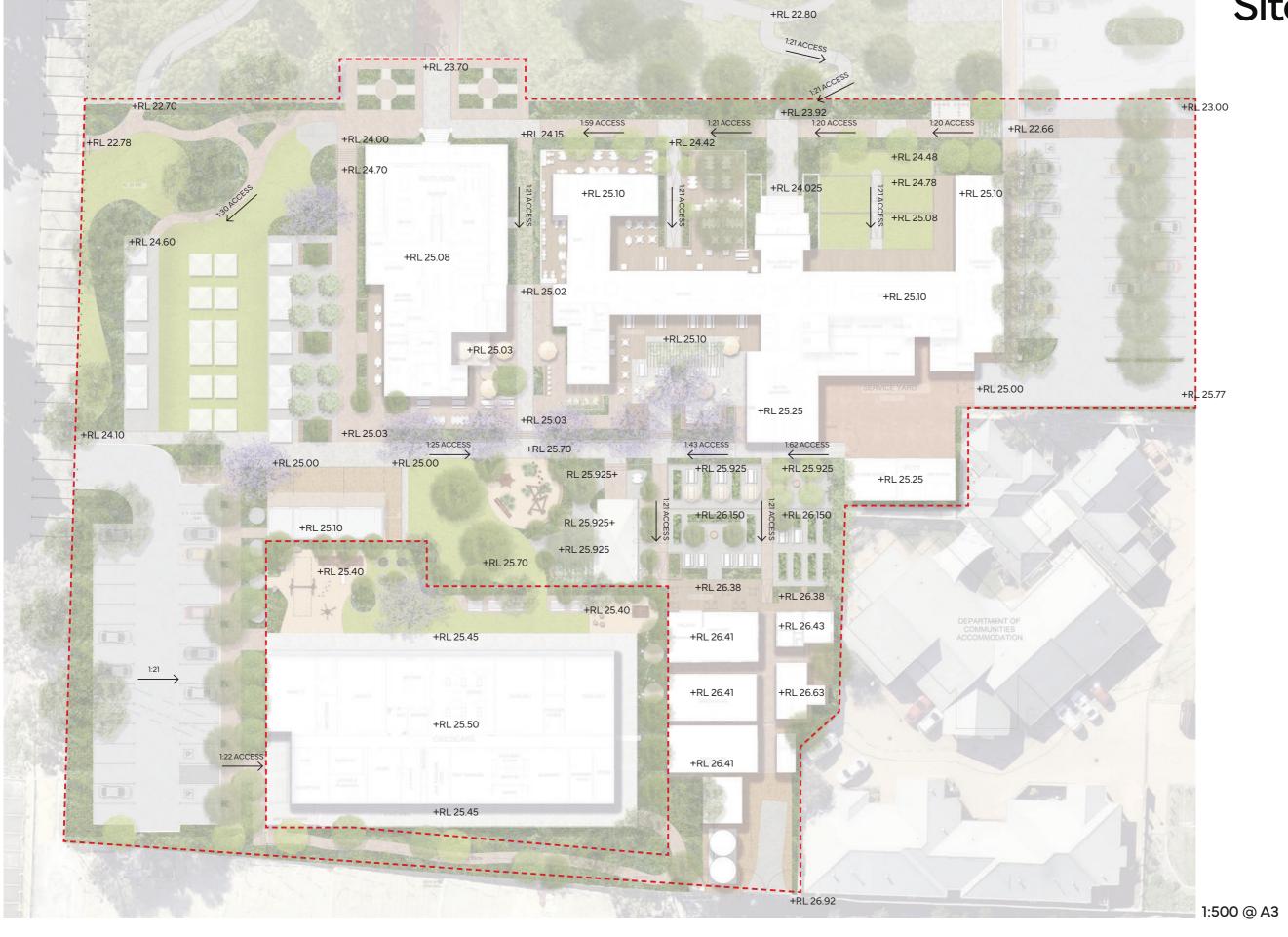
Legend

- 01) Formal entry
- (02) Central arbor
- (03) Cafe alfresco area
- 04) Brewery alfresco area
- (05) Weekend market lawn
- 06) Orchard
- 07) Lawn
- (08) Animal pens
- 09) Playspace
- (10) Produce garden
- (11) Garden pavilion
- (12) Childcare playspace
- (13) Terraced lawns
- (14) Connection to Edward Millen Park
- (15) Alfresco deck
- (16) Car park

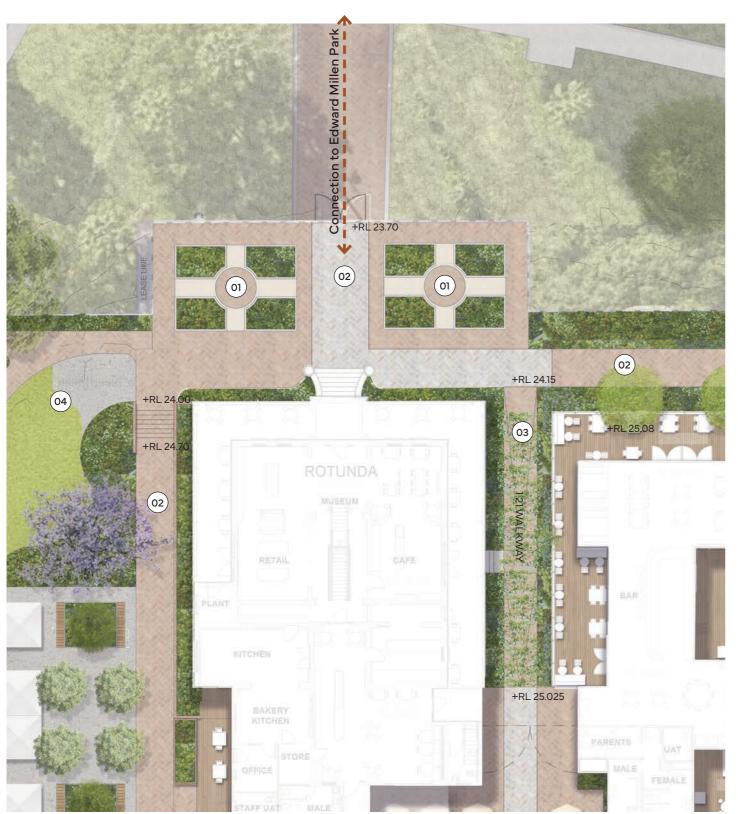
1:500 @ A3



Site Levels



Formal entry zone



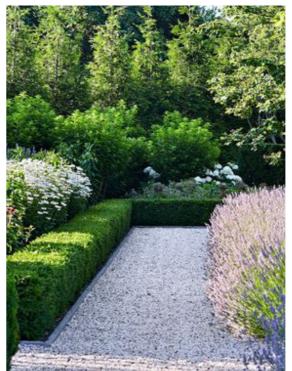
Legend

- (01) Formal gardens
- (02) Pedestrian access
- (03) Central arbor with floating walkway
- (04) Sweeping lawn



Location Plan

Vibe imagery





1:250 @ A3



Weekend market zone





- (01) Sweeping lawn
- (02) Garden bed
- (03) BSL gravel area
- (04) Pedestrian access
- (05) Orchard
- (06) Planters with integrated seating
- (07) Access stair
- (08) Entry threshold



Location Plan

Vibe imagery

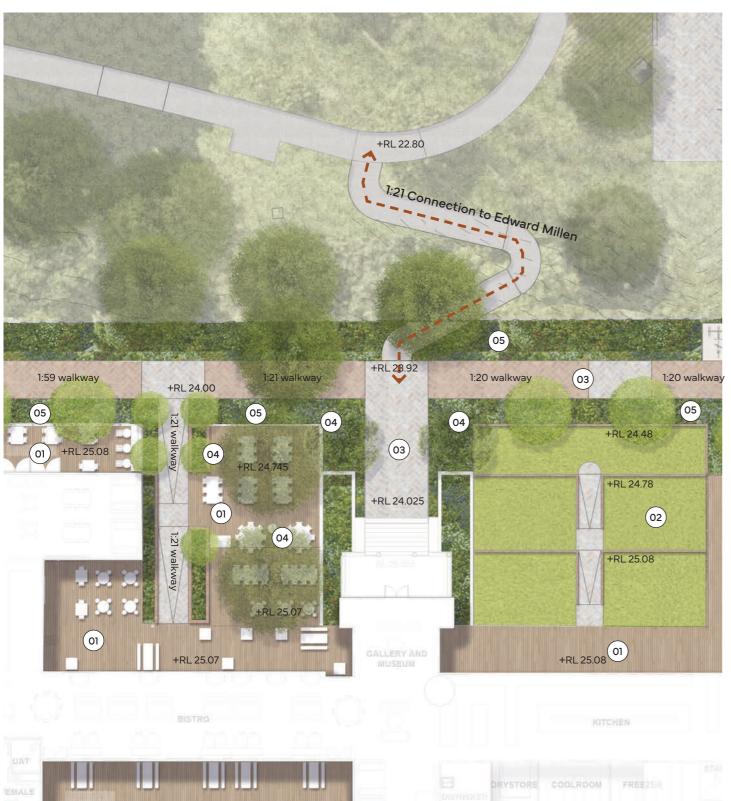




1:250 @ A3

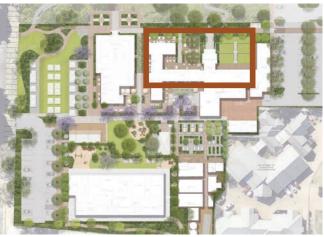


Edward Millen Park interface zone





- (01) Alfresco decking area
- (02) Grassed terraces
- (03) Pedestrian access
- (04) Feature tree
- (05) Planting bed



Location Plan

Vibe imagery





1:250 @ A3

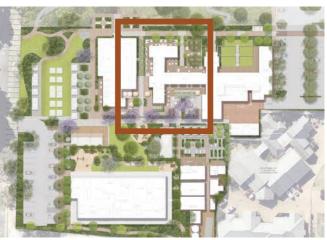


Alfresco dining



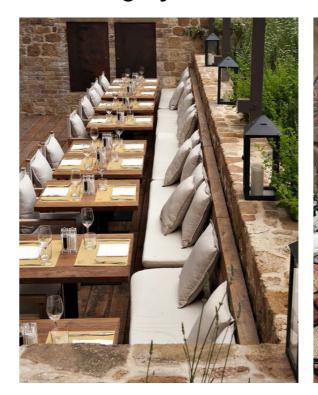


- (01) Central arbor with floating walkway
- (02) Alfresco decking area
- (03) Access stairs
- (04) Planter with integrated seating
- (05) Cafe alfresco
- (06) Brewery alfresco
- (07) Alfresco area
- (08) Pedestrian access
- (09) Arbor
- (10) Music stage



Location Plan

Vibe imagery





1:250 @ A3



Production garden + play zone





- (01) Garden pavilion
- (02) Terraced production gardens
- (03) Timber decking
- (04) Fire pit area
- (05) Arbor + long table dinner area
- (06) Playspace
- (07) Production garden alfresco nook
- (08) Toddlers playspace
- (09) Childcare lawn space



Location Plan

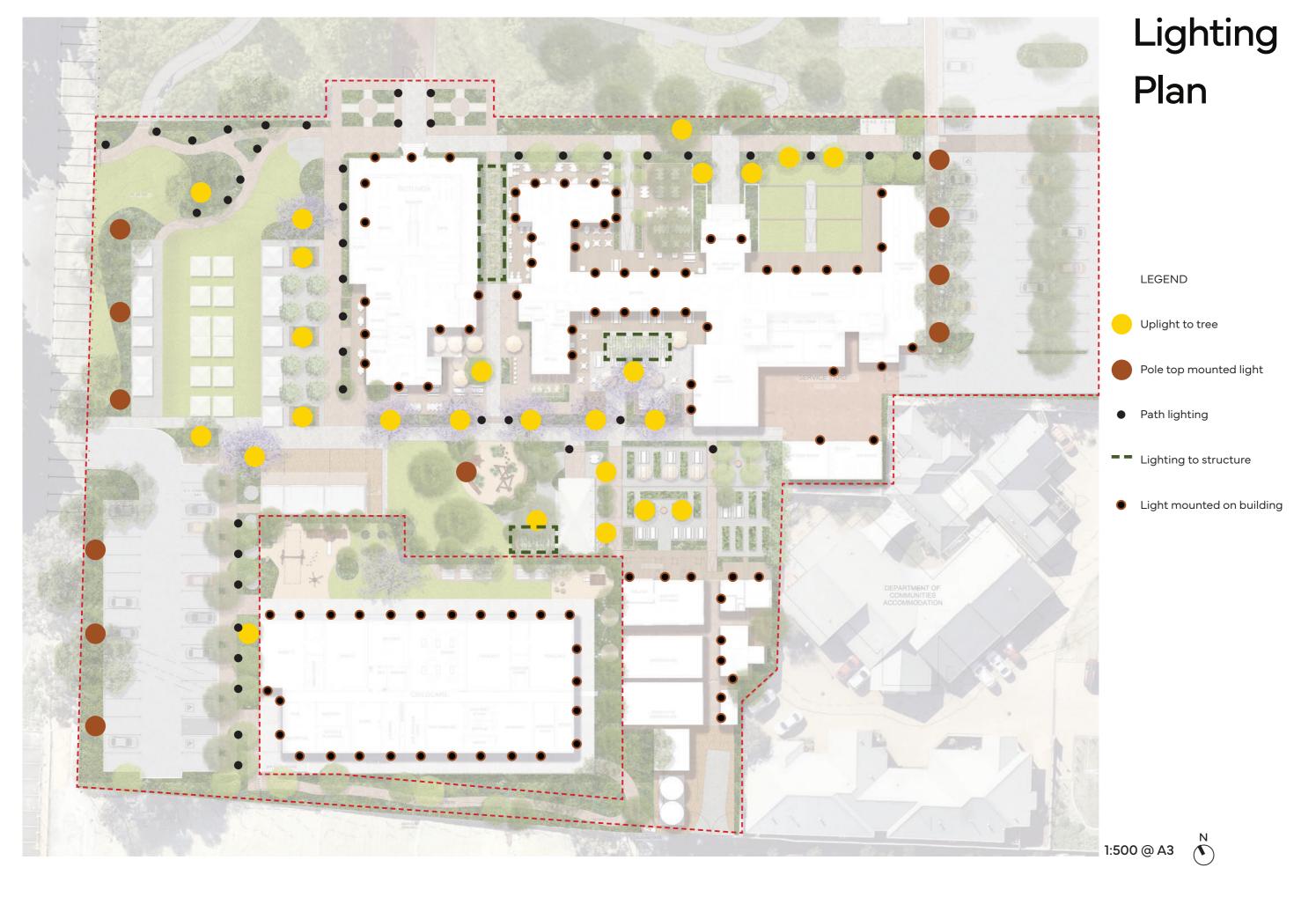
Vibe imagery





1:250 @ A3





PERSPECTIVES







Location Plan





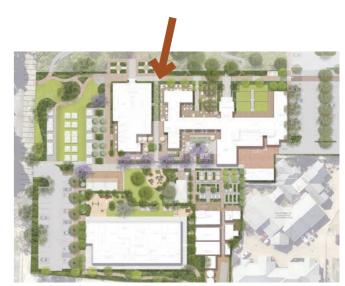
Location Pla





Location Pla





Location Pla





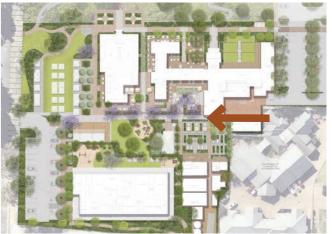
Location Plan





Location Pla





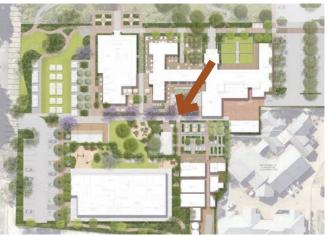
Location Plan





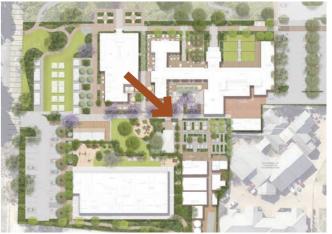
Location Plan





Location Plan

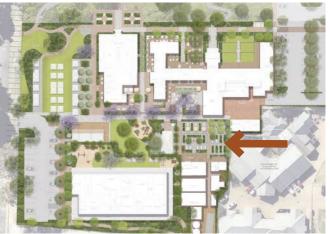




Location Pla

Perspective 11





Location Plan

SELECTIONS



Plant/Materials Palette

Heritage plants



Wisteria sp.



Erigeron spindrift



Hydrangea obsidian



Dietes grandiflora



Clematis 'southern star'



Rosmarinus 'tuscany blue'



Trachelospermum jasminoides



Agapanthus Queen Mum



Clivia miniata



Boxus microphylla

Native plants



Leptospermum 'Fore Shore'



Viola hederacea



Grevillea obtusifolia 'Gin Gin Gem'



Grevillea Red Coral



Eremophila nivea 'Spring Mist'



Dianella revoluta



Westringia mundi



Hardenbergia 'meema'



Westringia 'Aussie Box'



Patersonia occidentalis



Agonis flexuosa 'nana'



Adenanthos sericea

Climbing plants



Wisteria sp.



Hydrangea obsidian



Clematis 'southern star'



Trachelospermum jasminoides



Clivia miniata



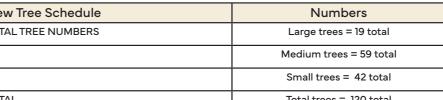
Buxus microphylla

Edible gardens



Tree Selection

New Tree Schedule	Numbers
TOTAL TREE NUMBERS	Large trees = 19 total
	Medium trees = 59 total
	Small trees = 42 total
TOTAL	Total trees = 120 total



LEGEND

Existing Trees to be retained

DECIDUOUS



Lagerstroemia Natchez 200 ltr

EVERGREEN

Arbutus unedo 500	ltı



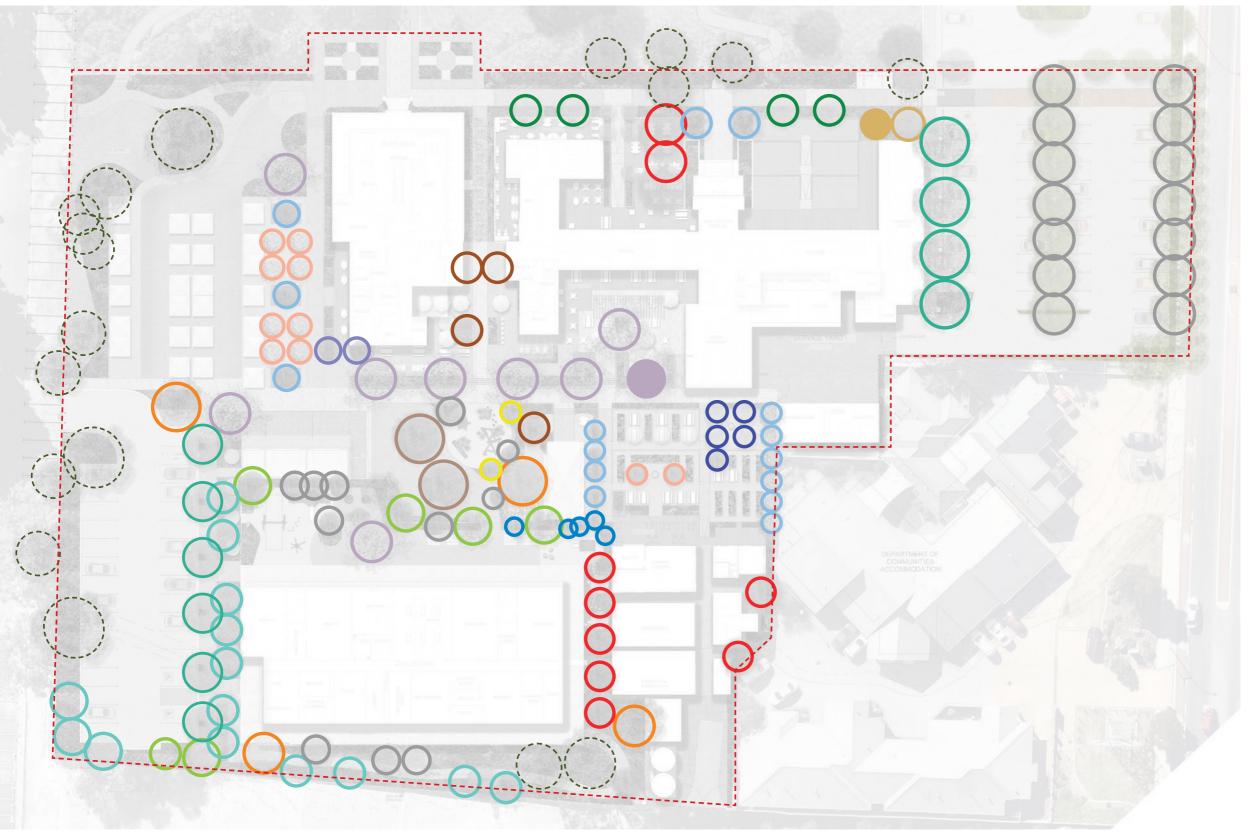
NATIVE TREES

- Eucalyptus gomphocephala 400 ltr
- Eucalyptus rudis 90 ltr
- Eucalyptus victrix 90 ltr
- Banksia sp. 90 ltr
- Agonis flexuosa 200 ltr
- Eucalyptus lane poolei 90 ltr
- Melaleuca leucadendra 90 ltr

FRUIT TREES

C	Various Citrus 400 ltr
	Feijoa sellowiana 1000 l

Olea europaea 400 ltr



Deciduous Trees



Plumeria transplant from site



Jacaranda mimosifolia



Caesalpinia ferrara (Semi-Deciduous)



Delonix regia



Lagerstroemia Natchez

Evergreen Trees



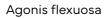
Ficus longifolia



Arbutus unedo

Native Trees







Eucalyptus gomphocephala



Eucalyptus lane poolei



Eucalyptus rudis



Melaleuca leucadendra



Eucalyptus victrix

Fruit Trees



Feijoa sellowiana



Olea europaea



Citrus reticulata - Mandarin



Citrus lemon meyer



Citrus latifolia - Lime



Citrus minneola - Tangelo

Surface Treatments



Brick Paver

Material: Recycled red brick



Material: Washed Aggregate Type 1 Colour: Boab

Finish: Exposed



Material: Washed Aggregate Type 2

Colour: Karri

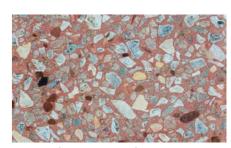
Finish: Exposed



Red asphalt Material: Asphalt



Coloured concrete Material: Concrete



Material: Engineered concrete paver

Colour: Amber

Finish: Milled



Material: Engineered concrete paver

Colour: Casino Grey

Finish: Milled



Lawn



Timber Decking Material: Recycled Hardwood

Size: 90 x 30mm



Stabilised Gravel Material: BLS gravel



Permeable Paver

Colour: Charcoal Aqua Tri-Pave

Size: 171 x 198 x 80mm Supplier: Midland Brick

Walls



Material: Recycled Red Brick



Hardwood timber sleepers Material: Hardwood timber sleepers



Insitu concrete Material: Concrete (off form white)



Painted Steel
Material: Recycled Steel
Colour: Black

Furniture



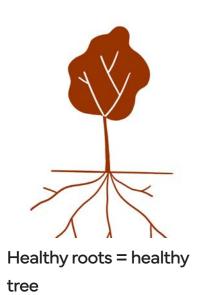
Timber Seat Material: Recycled Hardwood



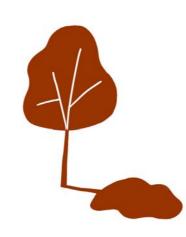
Timber arbor Material: Recycled hardwood



Deep Soil Zone Benefits





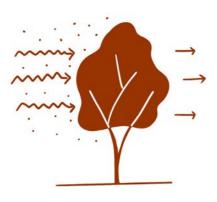


Enhance water filtration Co

Comfortable Micro-Climate + Reduction of Urban Heat Island Effect







Improve Air Quality



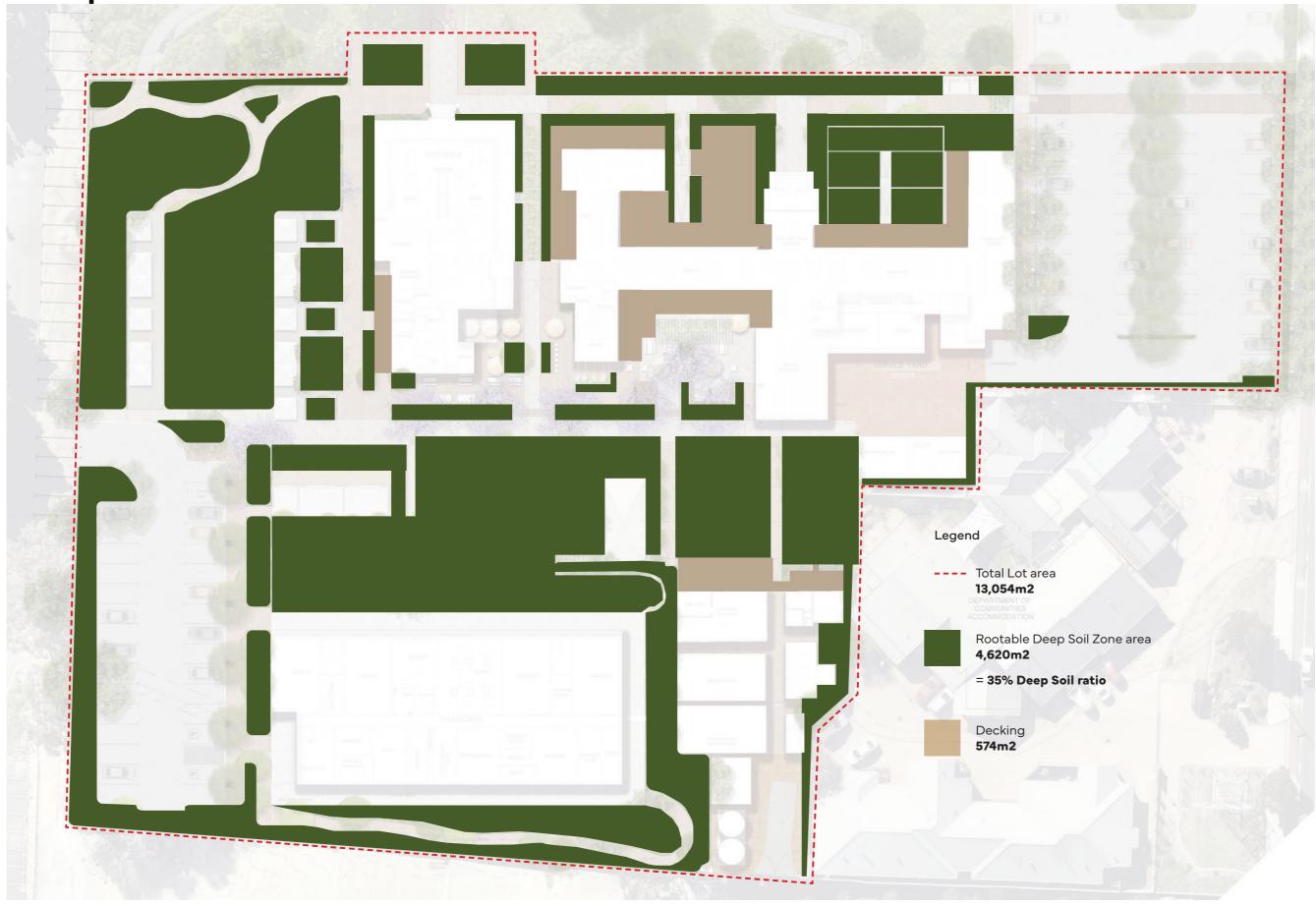
Community Health through increased canopy coverage

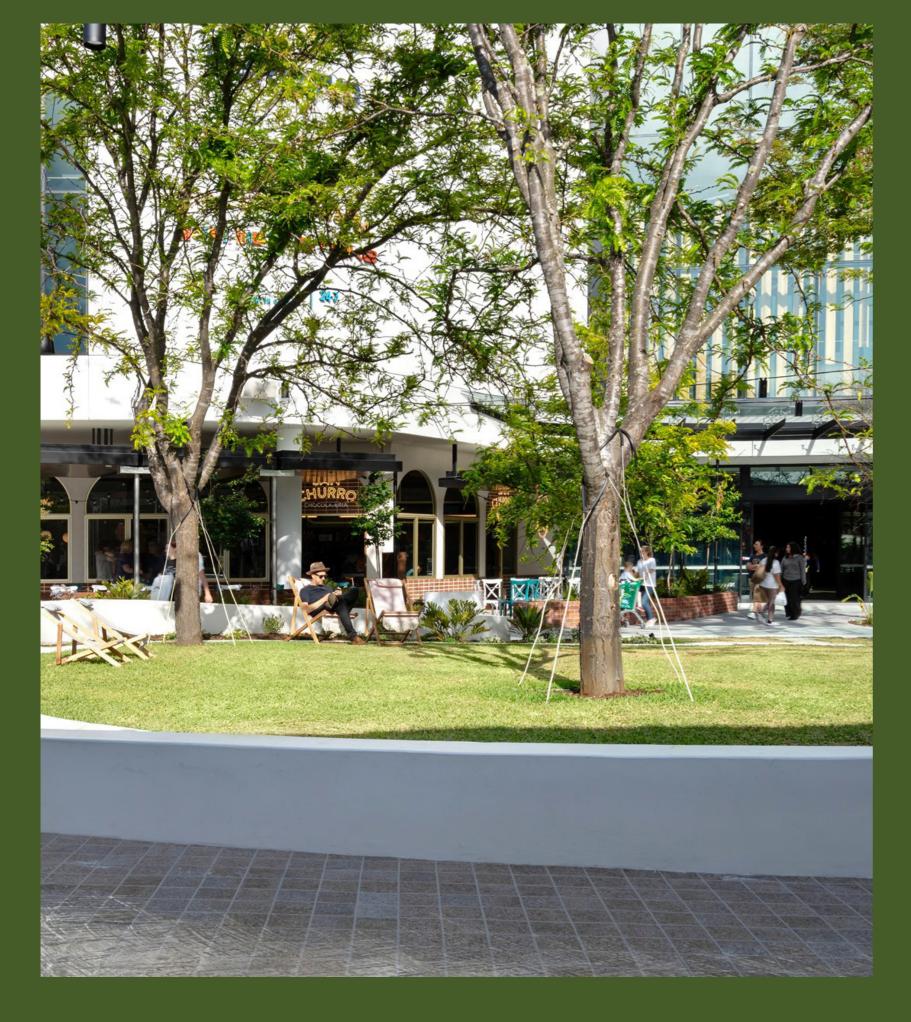


Trees and gardens make a significant contribution to the ecology, character and amenity of neighbourhoods. They provide habitat for fauna, shade, storm water management and micro-climate benefits, as well as improve apartment outlook and privacy.

The provision of deep soil areas to support and sustain the development of tree canopy can also make a major contribution to the retention of existing trees. A deep soil area is an area of soil that is free of built structure and has sufficient area and depth to support tree growth and infiltrate rainwater. Site planning should seek to co-locate deep soil areas with existing trees on and adjacent to the site, and in locations best suited to the development of a viable tree canopy and landscaping.

Deep Soil Areas





IRRIGATION

Irrigation Strategy

Planting selection has been based on the specific climatic conditions throughout the proposed development. Both native and exotic water wise species are proposed to ensure low water usage whilst creating an inviting landscape for the future residence. Varied tree species (both existing and proposed) will create tree canopies increasing shade across the site allowing for the creation of new micro-climates.

Irrigation of the proposed landscape is required to meet the following;

- · Maintain a vigorous healthy appearance to all planting.
- Carry out intensive care and watering of planting during the establishment period to ensure vigorous healthy growth. (The establishment period shall be not less than 3-6 months.)
- · Avoid frequent dampening of the surface.
- Allow the surface of the soil to partially dry out between watering.
- Water at times of day to minimise water evaporation loss as per water corporation recommendations . Do not water during the hottest period of Summer days.
- Coordinate system to ensure water regime is approved against any state/ federal government legislation and restrictions at the time.
- Ensure system has been programmed for the precipitation requirements of the individual zones/stations with regard to types of plants.
- The infiltration rate of the soil/medium and associated physical factors seasons, evaporation, exposure and topography
- An allowance for adjustment or shut down during and after periods prolonged heavy rains.
- Elevated planting beds are to be irrigated by mist irrigation system and subsurface drip-line.







Please feel free to contact us with any inquires.

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