

UB4E PAGEWOOD

130-150 BUNNERONG ROAD, PAGEWOOD

DEVELOPMENT APPLICATION

CLIENT: Meriton Property Group

ARCHITECT: Nettleton Tribe

STATUS:	DEVELOPMENT APPLICATION
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1.0 INTRODUCTION

This Landscape Architectural report presents the landscape design philosophy for the proposed development (UB4) at 130-150 Bunnerong Road, Pagewood. The design incorporates ground floor landscaping surrounding private and communal entry points to the property boundary and streetscape, a common “arrival forecourt garden” and a level 6 rooftop residential communal garden.

The landscape proposal has been prepared after review of, and in compliance with Council’s DCP - Landscape Guidelines and DA application checklist and Street Tree Master Plan (note the public domain is by others).

SITE CONTEXT

The site is located on Bunnerong Road just north of Westfield Drive, giving the site a high visual frontage as part of this new residential precinct.

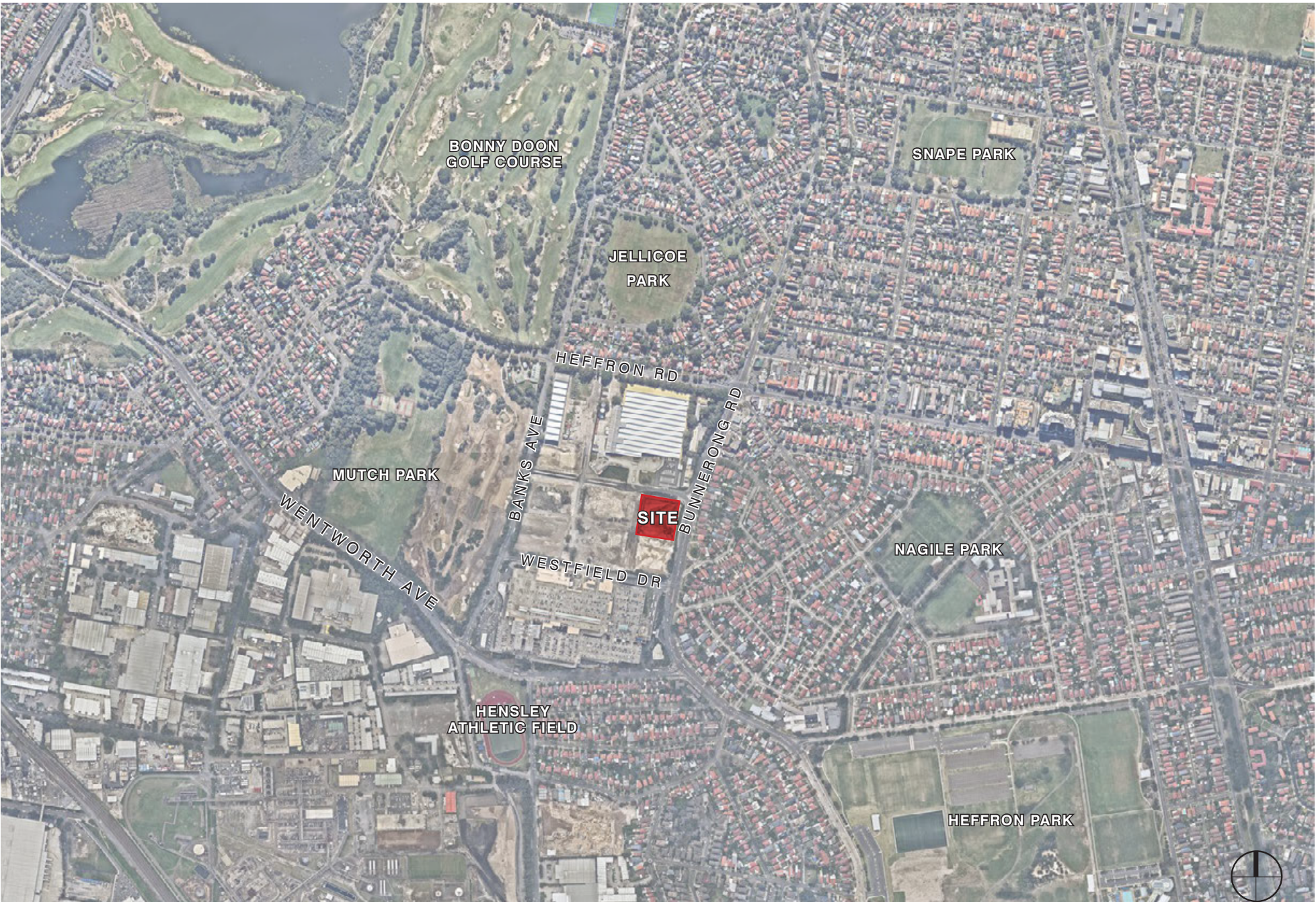
The existing landscape conditions on site include six existing trees along the Bunnerong Road street frontages (refer to arborist report and tree retention strategy for details). The rest of the site was previously used for industrial purposes and consists of a large level concrete slab with no significant vegetation. There is an embankment to the eastern boundary where the site meets the street frontage, on average this is 2m high.

DEVELOPMENT PROPOSAL

The development will include new street frontage planting on internal roads; private ground floor residential stoop entrances with screening planting and a communal arriva garden framed by planting and finished with high quality materials.

The ground level space provides a variety of programs and destinations including arbours with seating pods, a bbq pavilion and a large open lawn area with trees in sculptural grass mounds that provide an opportunity for informal play. The entrance garden will be secured by a fence along the boundary with an pavilion defining the entry point.

The level 6 communal gardens will include a large lawn area framed by raised planters to the northern edge and a pergola running along the southern edge which will provide privacy from the adjacent building. Adjacent to the lawn is a residents kitchen garden and veggie/productive garden providing a range of experiences for the residents.



Bunnerong Road



Bunnerong Road



Bunnerong Road

2.0 DESIGN RESPONSE

2.1 METHODOLOGY

GROUND LEVEL DESIGN

- Residential arrival points are to be accented by lush planting areas leading into the entrance lobbies.
- Private access stoop's are securely accessible to ground floor residents. The entrance points are also framed by planting at for privacy screening.
- Street planting to match public domain master plan, (Eucalyptus paniculata on North South Street 2 and Angophora Costata along Meriton Boulevard to the north), with additional tree planting along the pedestrian through link to the south.
- The public domain strategy is to:
 - Retain the existing footpaths and street trees on Bunnerong Road;

COMMUNAL GARDENS

- A primary path network provides easy access to residential lobbies from Meriton Boulevard via a feature entrance pavilion.
- The paths are framed by a series of open lawn areas with turf mounding with feature trees and childrens play integrated into the mounds.
- 2 additional seating pavilions provide shelter and seating facilities for passive activity
- Lawns and pavilions are bordered and enhanced with lush planting and a mixture of small and large feature trees, providing shade, colour and greenery in the gardens.

LEVEL 6 ROOF TOP DESIGN

- Communal Lawn area framed by feature trees
- Communal kitchen gardens for seasonal herbs and vegetables.
- BBQ pavilion with BBQ and dining facilities with harbour over looking the southern pedestrian link.
- Lush planting providing screening to private terraces and greenery on the rooftop.

2.2 LIGHTING

- All external areas will be designed to meet relevant Australian Lighting Standards. Integrated landscape lighting is proposed to all the landscape elements.

2.3 WATER MANAGEMENT

Water Sensitive Urban Design (WSUD) principals have been realised into the landscape design in a way that celebrates a sustainable water cycle.

- Where possible storm water runoff will be directed to the lawn and garden beds.
- All soft landscape zones on structure will be detailed to have subsurface drainage.
- Irrigation will be provided to all soft landscape areas and will be specified within the tender package.

2.4 PLANT ESTABLISHMENT MAINTENANCE

GENERAL NOTES

Planting procedure:

- Refer typical planting sections on drawings page 18 for all on grade & on slab planting details

MAINTENANCE NOTES:

GENERAL

- Planting maintenance period: the planting maintenance period will be 52 weeks and will commence from the date of practical completion. Of each phase of planting works (hereby specified to be a separable part of the works). It is anticipated that planting works will be undertaken in one phase
- Planting maintenance program: 2 weeks prior to practical completion, furnish a proposed planting establishment program, and amend it as required. Such proposal should contain details of the types and frequency of maintenance activities involved with the establishment of plants and grassed areas. Comply with the approved program.
- Planting maintenance log book: keep a log book recording when and what maintenance work has been done and what materials, including approved toxic materials, have been used. Log book must be signed off by the client's representative after each maintenance visit. Maintain log book in location nominated by superintendent. All entries are to be initialled by person nominated by superintendent. Log book to contain a copy of the approved planting establishment program.
- Product warranty: submit the supplier's written statement certifying that plants are true to the required species and type, and are free from diseases, pests and weeds.
- Insurance: the contractor is to ensure suitable insurance cover and / or bank guarantee is in place for the theft and / or damage of all works executed under this contract for the plant maintenance period.

WATERING

Generally: Refer Item 1.9 'Drainage & Watering Strategy'.

If the watering regime is intended to be amended the contractor must seek written approval from the superintendent immediately prior to the deferment of watering.

Watering permits: the contractor is responsible for obtaining the necessary watering permits required to carry out the watering as specified.

PLANTING MAINTENANCE

Protection of works: provide any fencing or barriers necessary to protect the planting from damage throughout the planting establishment period.

Recurrent works: throughout the planting maintenance period, continue to carry out recurrent works of a maintenance nature all to the extent required to ensure that the plants are in the best possible condition at the end of the planting maintenance period. These activities are including but not limited to:

- weeding,
- rubbish removal,
- fertilizing,
- pest and disease control,
- adjust / replace stakes and ties
- topping up mulch,
- cultivating,
- pruning,
- keeping the site neat and tidy

Replacements: the contractor is responsible for the replacement of failed, damaged or stolen trees, shrubs and groundcovers throughout the planting establishment period.

WEEDING

Generally: regularly remove, by hand, rubbish and weed growth that may occur or recur throughout turfed, planted and mulched areas. Continue eradication throughout the course of the works and during the planting establishment periods.

Weed eradication: the contractor must make allowance for a higher level of maintenance during establishment to ensure that weeds are controlled.

Herbicide use: re-application of herbicide such as Ronstar or equivalent if required.

COMPLIANCE

- Requirement: plant maintenance shall be deemed complete subject to the following compliance with the criteria:
- repairs to planting media completed
- ground surfaces are covered with the specified treatment to the specified depths
- pests, disease, or nutrient deficiencies or toxicities are not evident.
- organic and rock mulched surfaces have been maintained in a weed free and tidy condition and to the specified depth
- vegetation is established and well formed
- plants have healthy root systems that have penetrated into the surrounding, undisturbed ground and not able to be lifted out of its planting hole
- vegetation is not restricting essential sight lines and signage
- collection and removal of litter
- all non-conformance reports and defects notifications have been closed out.
- plant maintenance compliance schedule:

PRUNING

- Generally: tree plantings shall be left to grow in a form consistent with the growth habit of the species.
- Pruning: cut back tree canopies and groundcovers to road verges, and light poles and signs as required achieving clear sight lines when viewed along roadway.

Requirement: pruning to be undertaken by a qualified tree surgeon / arborist

Plant Material	Acceptable failure per area	Acceptable concentration of failure
Tube stock given location*	< 10%	< 15% in any
100-150mm given location*	< 5%	< 15% in any
45L	< nil	nil%
Turf	< 5%	nil%
Trees (200L/400L/1000L/ Trunk)	< nil%	< nil%

FERTILISING

- Generally: the fertiliser regimes have been devised to provide sufficient long-term fertility for the vegetation type and it is anticipated that all except the very high status horticultural beds such as feature plantings (entry and courtyard planting) for colour and foliage will not need regular fertiliser regimes.
- Testing: additional nitrogen may be required due to drawdown effects from composts and mulches and localised waterlogging. To compensate for this, soil testing is to be carried out after 12 months to ascertain nutrient requirements.

COMPLETION

- Cleaning: remove temporary protective fences and tree stakes at the end of the planting maintenance period.

DRAINAGE & WATERING STRATEGY

- Water sensitive urban design (wsud) principals have been realised into the landscape design in a way that celebrates a sustainable water cycle.
- all irrigation systems will comprise of subsurface drip systems and automatic timers with rainwater / soil moisture sensor controls;
- where possible storm water runoff will be directed to the lawn and garden beds;
- Irrigation will be provided to all soft landscape areas and will be specified within the tender package;
- Low water demand shrub planting is proposed.
- Refer detail on drawings page 25 for ‘on grade’ and ‘on slab’ drainage intent.

SAFETY AND SECURITY

An integrated approach to safety will improve actual and perceived personal security in pedestrian public domain areas;

- All paths are overlooked from adjoining buildings and adjacent streets which will provide a high level of passive surveillance;
- All external spaces will have multiple clear sight lines without obstacles, proposed shrub planting is low level which will prevent places to hide;
- All paths will be well lit at night time and designed to meet relevant Australian Lighting Standards;
- Signage will be provided across the precinct to assist with wayfinding and navigation through the site.

2.5 TREE RETENTION STRATEGY

- See TALC Arboricultural Assessment report for detailed analysis of trees, Tree Protection Zones and removal guidelines
- See tree retention plan for trees to be retained or removed.
- Trees to be retained and protected will comply with councils DCP guidelines and arborist report.
- The public domain strategy is to retain the existing vegetation where possible

3.0 GROUND FLOOR ACCESS + CIRCULATION

3.1 GROUND FLOOR



4.0 GROUND FLOOR PROGRAM



- Legend
- Residential Lobby Forecourt
 - Private Garden Verges to Stoops/ Streetscape
 - Pedestrian through link
 - Communal lawn areas
 - Communal seating pavilions
 - Entrance Pavilion

5.0 GROUND FLOOR LANDSCAPE PLAN
(REFER TO DETAIL LANDSCAPE PLANS)



- Legend**
- Existing Trees to Bunnerong Road to be retained. Refer arborist report for details.
 - Proposed Trees
 - Proposed Shrub Planting
 - Artificial Turf on Private Terraces
 - Turf Lawn Area
 - Site Boundary
 - Bench Seat
 - Arbour Pavilions
 - Stepping Stone Paving
 - Private Courtyard Paving
 - Internal Paving
 - Private Access Paving
 - Footpath Paving
 - +RL 0.00 Spot Levels
 - +TW 0.00 Top of Wall Levels

- ① Child care drop off/shared zone
- ② Landscaped embankment to Bunnerong Road.
- ③ Pedestrian through link
- ④ Private access points
- ⑤ Grass mounding with trees
- ⑥ Accessible ramp + stairs to Bunnerong Rd
- ⑦ Lobby entrance
- ⑧ Arbour + seating
- ⑨ Through link open lawn framed with mounds + tree groves.
- ⑩ Private terrace
- ⑪ Access to basement carpark
- ⑫ Open lawn with stepping stone perimeter path
- ⑬ Raised lawn access
- ⑭ Porous Paving

SCALE 1:400 @ A3 - 1:200 @ A1

0 5 10 15 20

6.0 GROUND FLOOR DETAIL LANDSCAPE PLAN



- Legend
- Existing Trees to Bunnerong Road to be retained. Refer arborist report for details.
 - Proposed Trees
 - Proposed Shrub Planting
 - Artificial Turf on Private Terraces
 - Turf Lawn Area
 - Site Boundary
 - Bench Seat
 - Arbour Pavilions
 - Stepping Stone Paving
 - Private Courtyard Paving
 - Internal Paving
 - Private Access Paving
 - Footpath Paving
 - +RL 0.00 Spot Levels
 - +TW 0.00 Top of Wall Levels
 - Refer Plant Schedule for Tree Species, Numbers + Pot Sizes

















SCALE 1:200 @ A3 - 1:100 @ A1



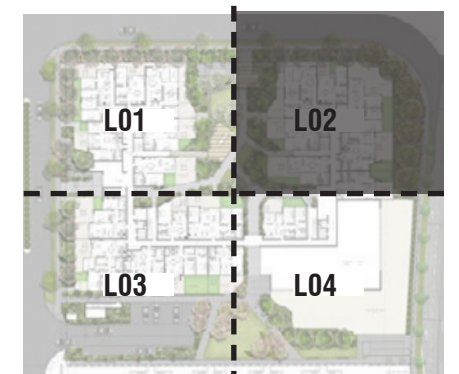
7.0 GROUND FLOOR DETAIL LANDSCAPE PLAN



Legend

-  Existing Trees to Bunnerong Road to be retained. Refer arborist report for details.
 -  Proposed Trees
 -  Proposed Shrub Planting
 -  Artificial Turf on Private Terraces
 -  Turf Lawn Area
 -  Site Boundary
 -  Bench Seat
 -  Arbour Pavilions
 -  Stepping Stone Paving
 -  Private Courtyard Paving
 -  Internal Paving
 -  Private Access Paving
 -  Footpath Paving
 -  +RL 0.00 Spot Levels
 -  +TW 0.00 Top of Wall Levels
 -  **AP** Refer Plant Schedule for Tree Species, Numbers + Pot Sizes

SCALE 1:200 @ A3 - 1:100 @ A1



8.0 GROUND FLOOR DETAIL LANDSCAPE PLAN



- Legend
- Existing Trees to Bunnerong Road to be retained. Refer arborist report for details.
 - Proposed Trees
 - Proposed Shrub Planting
 - Artificial Turf on Private Terraces
 - Turf Lawn Area
 - Site Boundary
 - Bench Seat
 - Arbour Pavilions
 - Stepping Stone Paving
 - Private Courtyard Paving
 - Internal Paving
 - Private Access Paving
 - Footpath Paving
 - +RL 0.00 Spot Levels
 - +TW 0.00 Top of Wall Levels
 - Refer Plant Schedule for Tree Species, Numbers + Pot Sizes

SCALE 1:200 @ A3 - 1:100 @ A1



9.0 GROUND FLOOR DETAIL LANDSCAPE PLAN



- Legend
- Existing Trees to Bunnerong Road to be retained. Refer arborist report for details.
 - Proposed Trees
 - Proposed Shrub Planting
 - Artificial Turf on Private Terraces
 - Turf Lawn Area
 - Site Boundary
 - Bench Seat
 - Arbour Pavilions
 - Stepping Stone Paving
 - Private Courtyard Paving
 - Internal Paving
 - Private Access Paving
 - Footpath Paving
 - +RL 0.00 Spot Levels
 - +TW 0.00 Top of Wall Levels
 - Refer Plant Schedule for Tree Species, Numbers + Pot Sizes

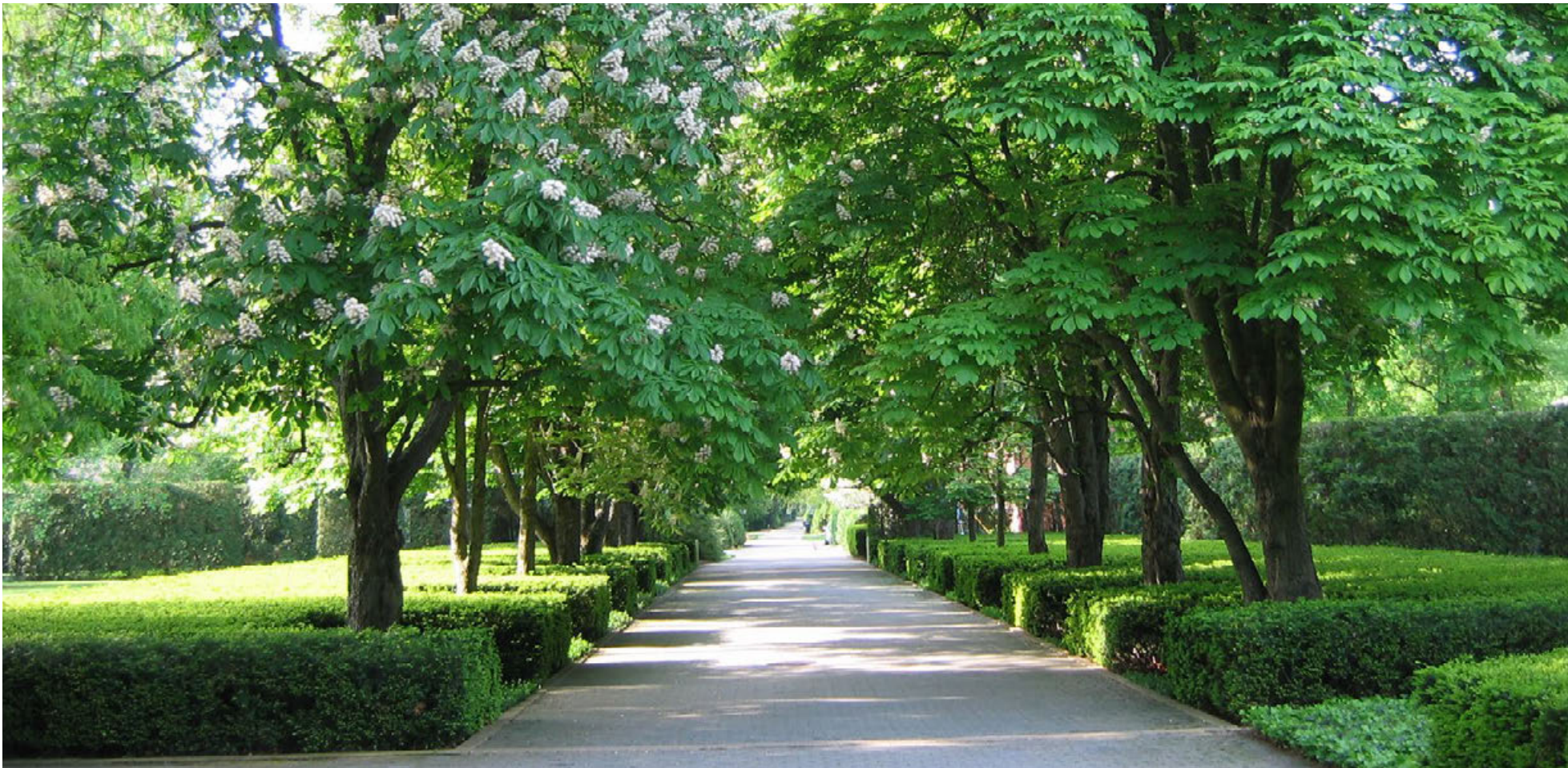
SCALE 1:200 @ A3 - 1:100 @ A1

0 5 10 15 20



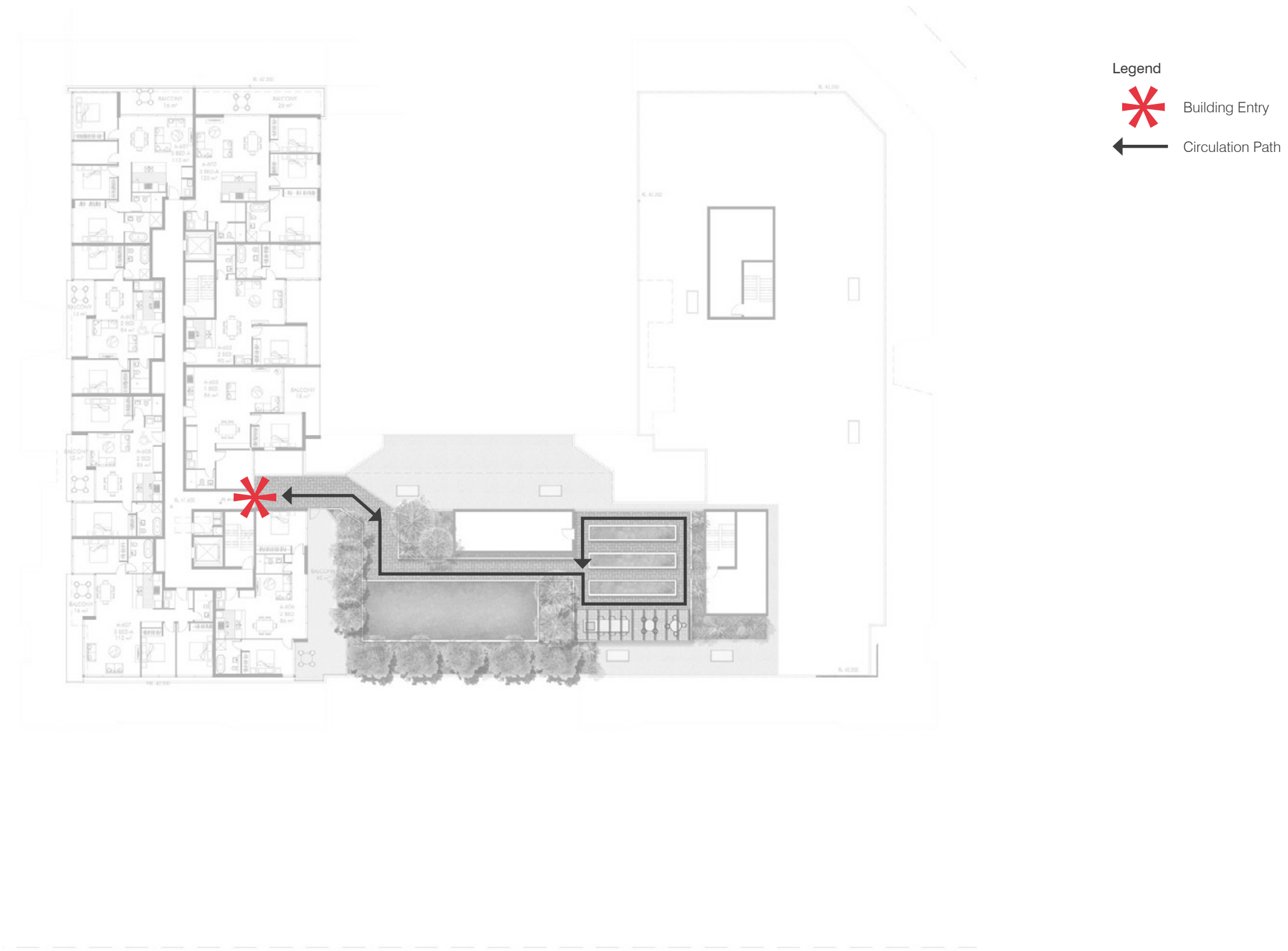
10.0 GROUND FLOOR PRECEDENTS
10.1 STREET FRONTAGE / ARRIVAL FORECOURT GARDEN



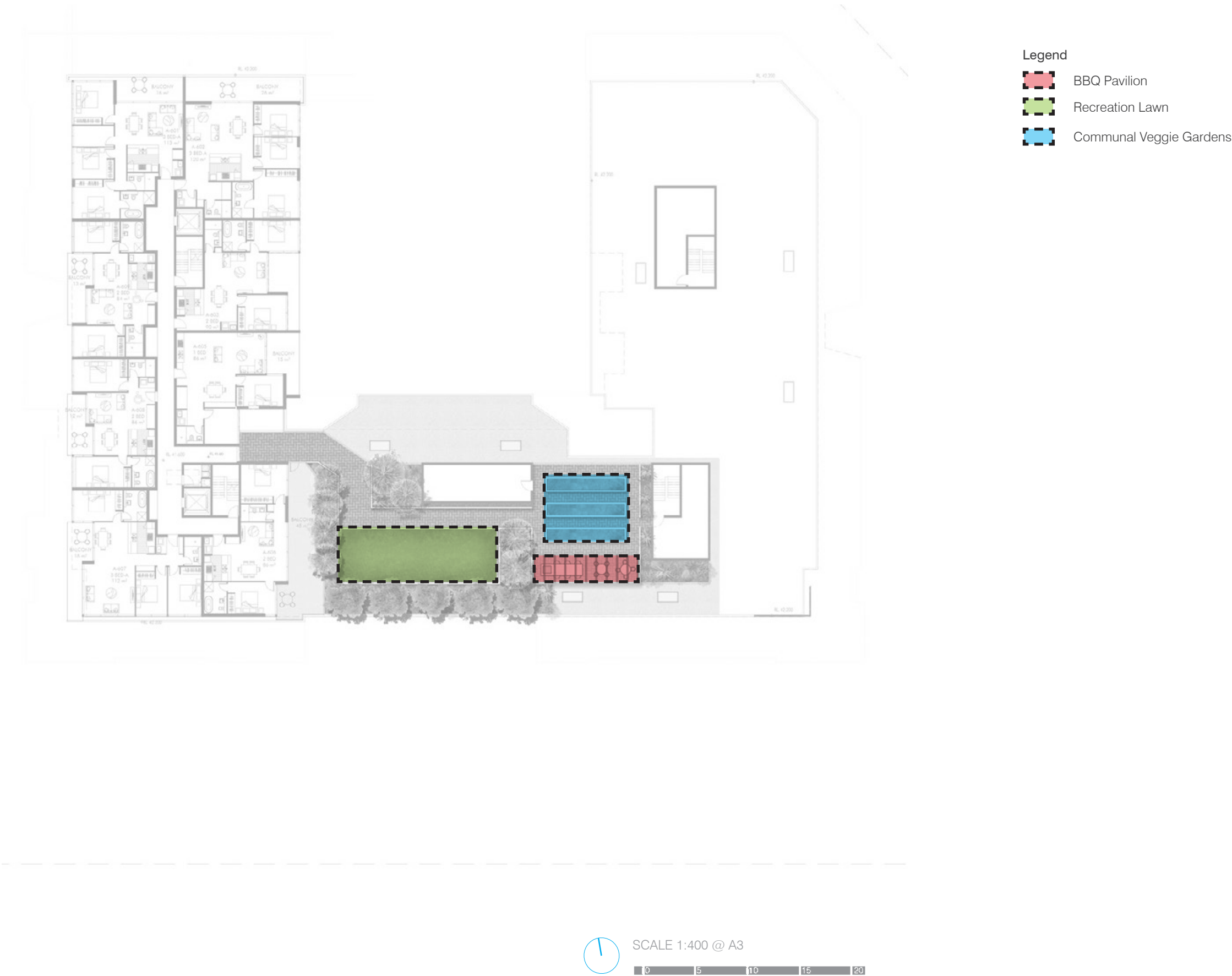


11.0 PODIUM ACCESS + CIRCULATION

10.3 PODIUM



12.0 PODIUM LANDSCAPE PROGRAM



13.0 PODIUM LANDSCAPE PLAN



14.0 PODIUM PRECEDENT IMAGES

14.1 LEVEL 6 ROOFTOP



15.0 GARDEN TERRACES PRECEDENT IMAGES

15.1 PRIVATE TERRACES



16.0 LANDSCAPE SECTIONS

16.1 GROUND LEVEL SECTIONS



SECTION A - EASTERN RESIDENTIAL INTERFACE ON BUNNERONG ROAD

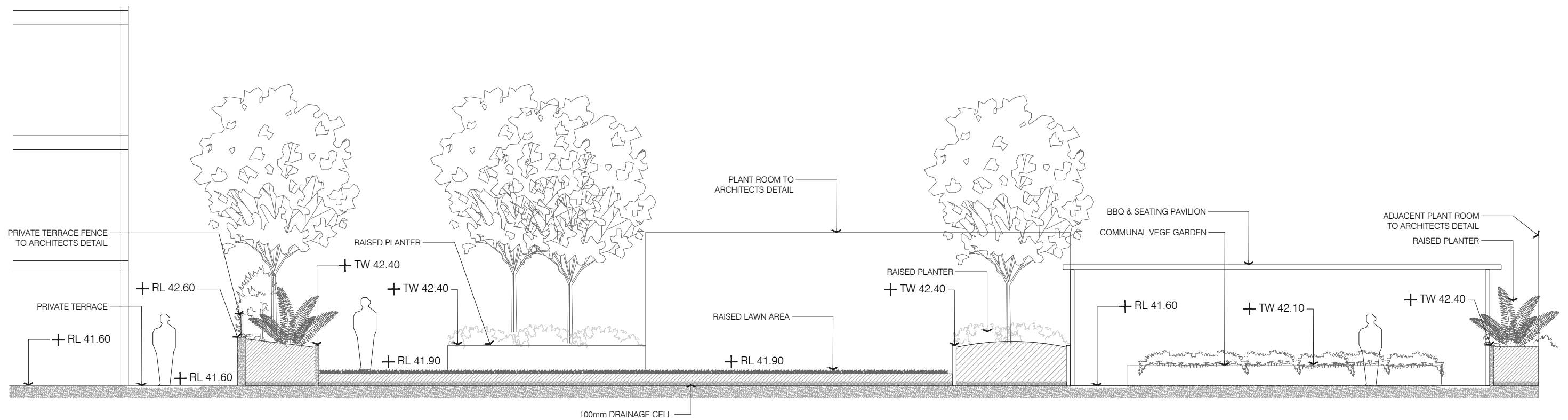
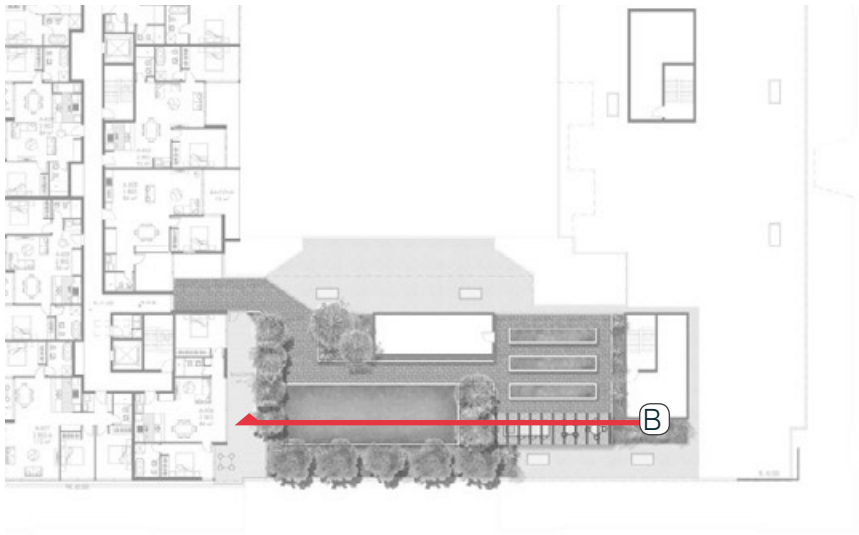
1:100 @ A3

KEY PLAN



16.2 LEVEL 3 - COMMUNAL RESIDENTIAL GARDENS

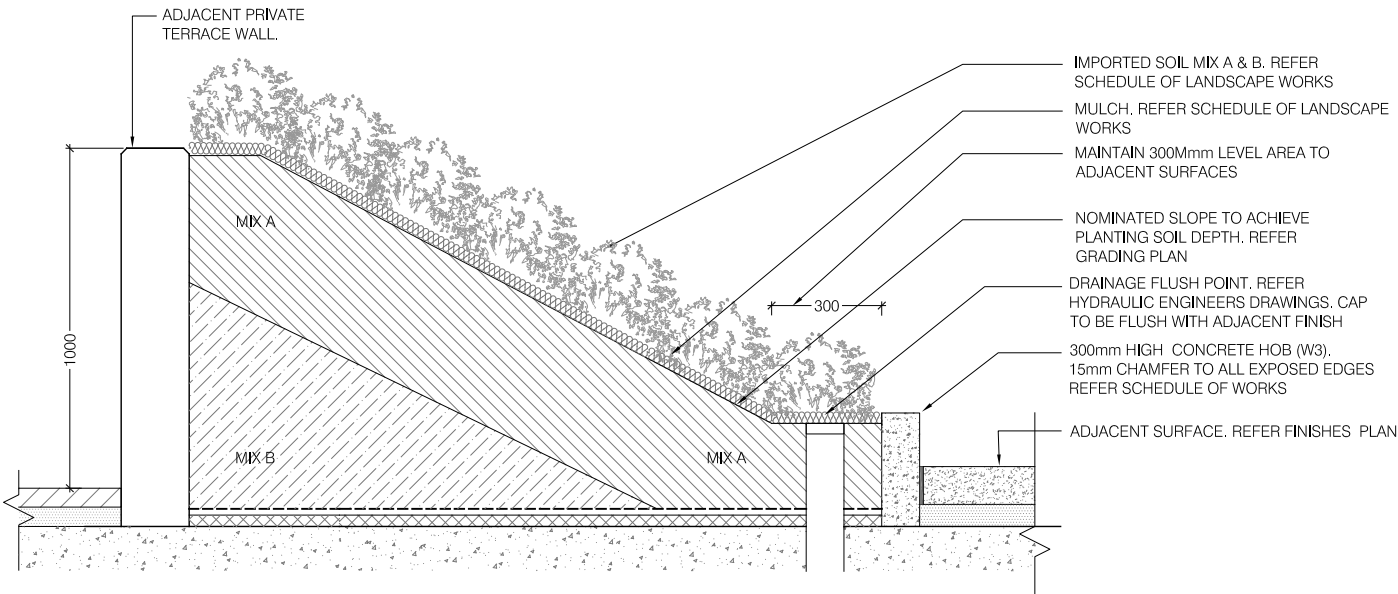
KEY PLAN



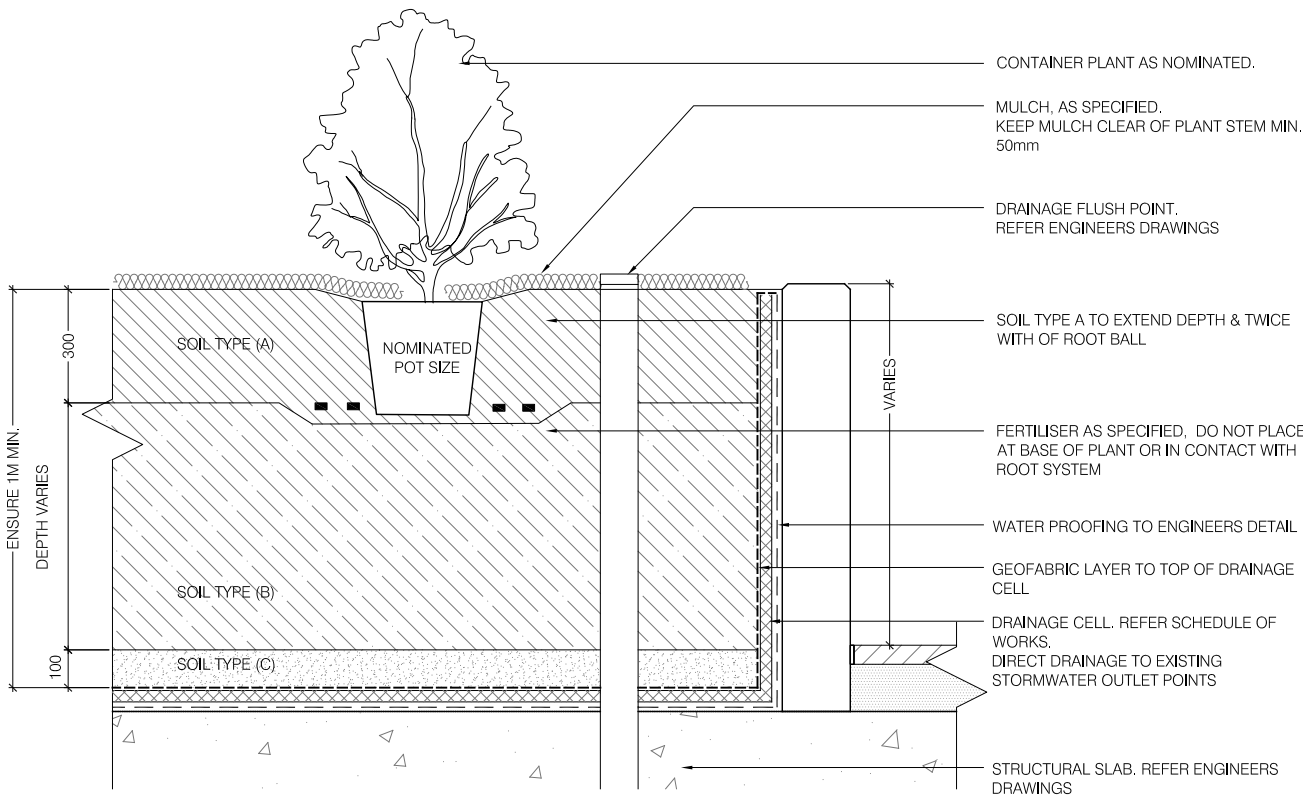
SECTION B - PODIUM COMMUNAL GARDEN + PRIVATE TERRACE INTERFACE

1:100 @ A3

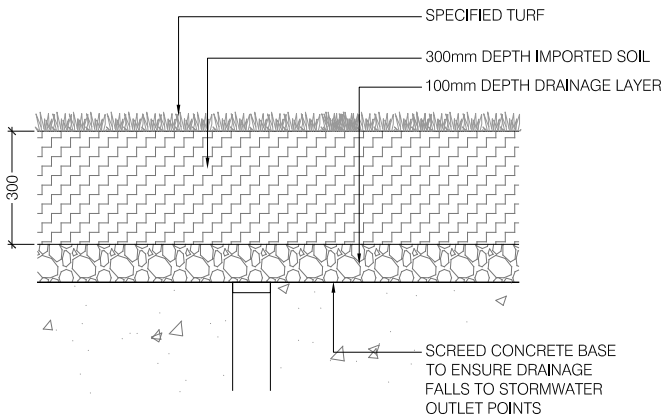
17.0 TYPICAL LANDSCAPE DETAILS



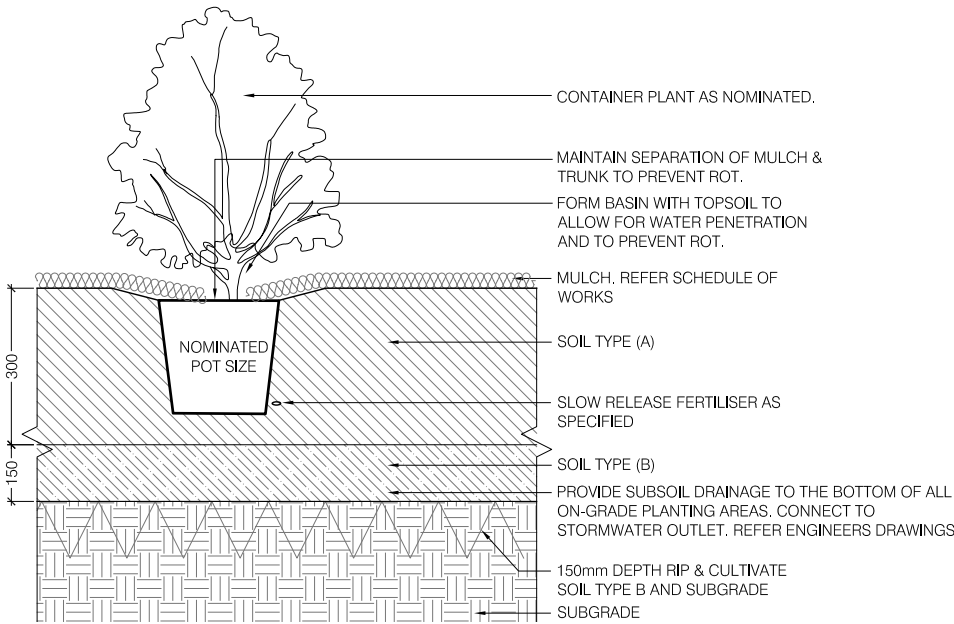
Mounded garden bed on podium & garden edging 1:20@A3 - 1:10@A1



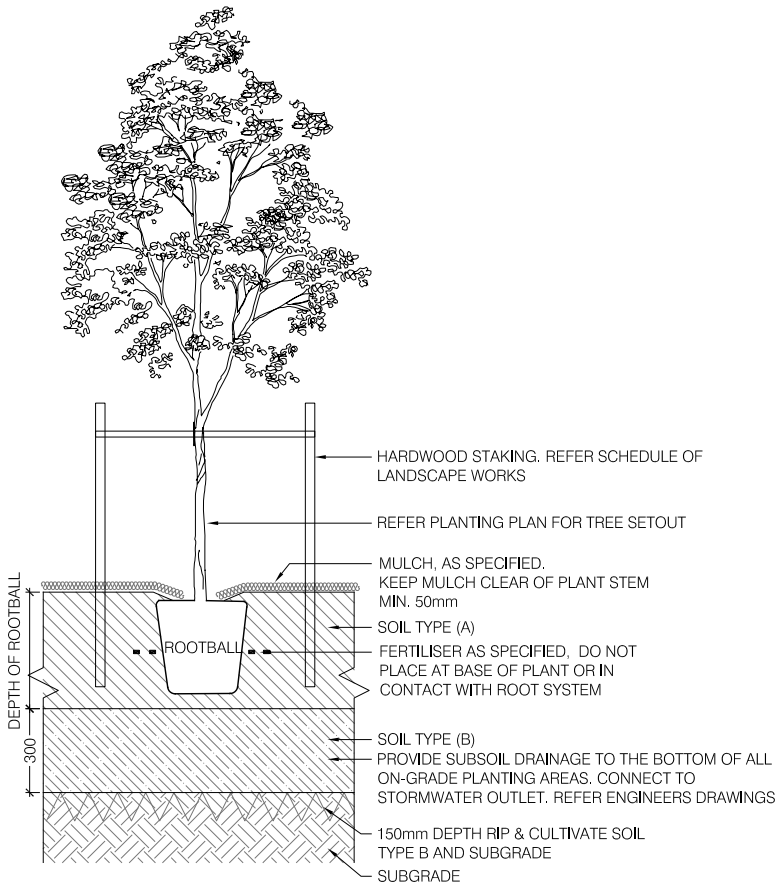
Shrubs/grasses/groundcovers on podium 1:20@A3 - 1:10@A1



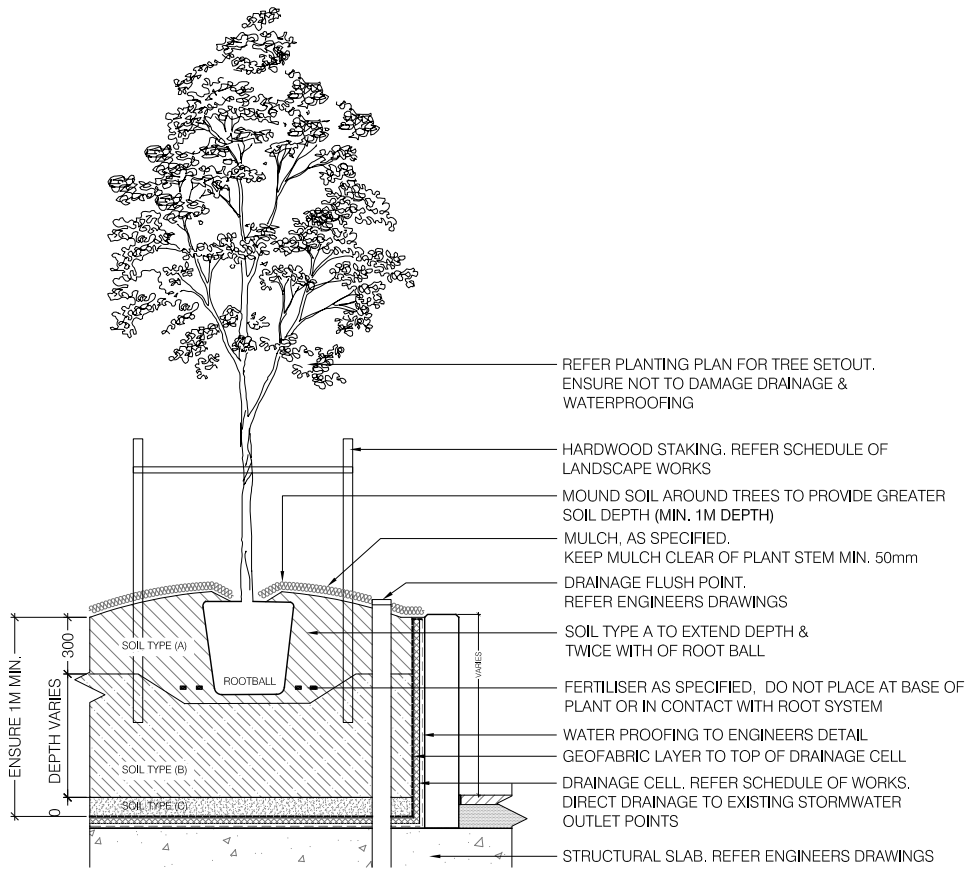
Turf on podium 1:20@A3 - 1:10@A1



Shrubs/grasses/groundcovers on grade 1:20@A3 - 1:10 @A1



Tree on grade 1:40@A3 - 1:20 @A1



Tree on podium 1:40@A3 - 1:20 @A1

18.0 PLANTING STRATEGY

- Plant species have been carefully chosen to form a lush garden character and create pleasurable spaces, whilst also providing privacy screening to the adjacent apartments on the same level. Plants will combine exotic and native species to create a sub-tropical feel to accommodate for the high amounts of shade in larger areas
- Soil depths to comply with Botany Bay councils DCP landscape requirements for on grade landscaping. A minimum of 1000mm for medium canopy trees, 500mm for shrubs and 300mm for grasses/ turf. All planted areas must include sub surface drainage, usually an additional 100mm depth beneath planting media.



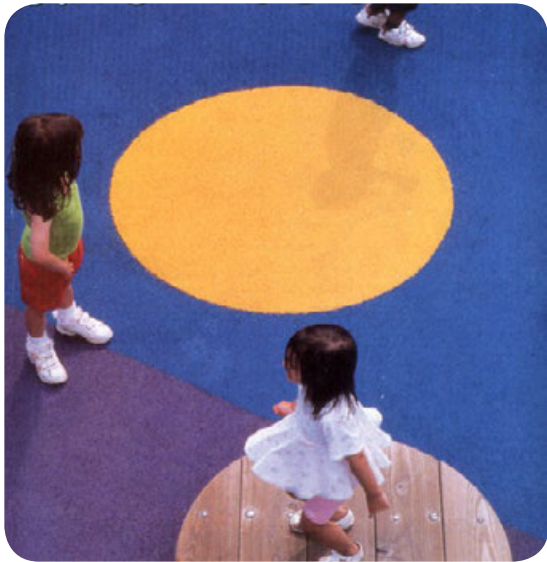
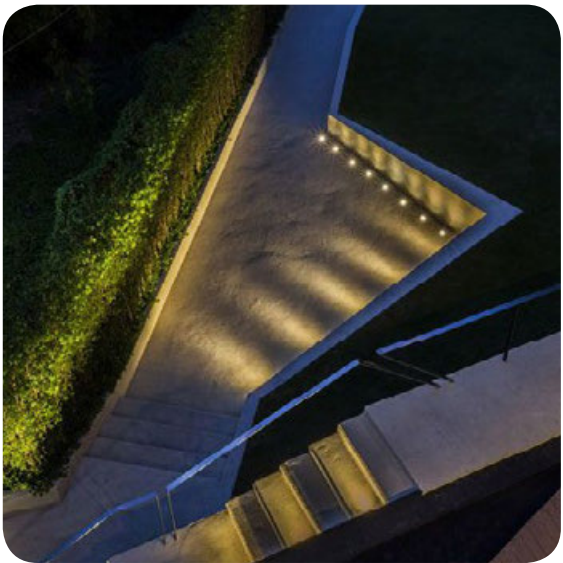
CODE	COMMON NAME	SCIENTIFIC NAME	HEIGHT + SPREAD (M)	QTY	POT SIZE
STREET TREES (TO FUTURE DA APPROVAL)					
CM	Spotted Gum	Corymbia maculata	20 x10	5	200L
AC	Smooth Barked Apple	Smooth Barked Apple	25 x 12	5	200L
PRIVATE LOT TREES					
CA	Tuckeroo	Cupaniopsis anacardioides	12x5	5	200L
LC	Brush Box	Lophostemon confertus	15x10	13	200L
HP	Tulipwood	Harpulia pendula	7x3	11	200L
EM	Tallowood	Eucalyptus microcorys	25x15	7	200L
EB	Bangalay	Eucalyptus botryoides	25x9	9	200L
ER	Blueberry Ash	Elaeocarpus reticulatus	15x7	10	200L
MG	Bull Bay Magnolia	Magnolia grandiflora 'Exmouth'	15x8	5	200L
ML	Little Gem Magnolia	Magnolia 'Little Gem'	10x5	2	200L
TL	Water gum	Tristaniopsis laurina	12x7	12	200L
SHRUBS + HEDGES					
ADE ser	Wooly Bush	Adenanthos seiceus	1.5x1		
CAL lit	Bottlebrush	Callistemon 'little john'	3x3		
COL esc	Elephant Ear	Colocasia esculenta	1.5x1.5		
CYA	Rough Tree Fern	Cyathea australis	10x3		
MUR pan	Mock Orange	Murraya paniculata	2x1		
MET spp	Dwarf NZ Chirstmas bush	Metrosideros spp	1x1		
MON del	Swiss Cheese Plant	Monstera deliciosa	3.5x3.5		
Phi xan	Xanadu	Philodendron xanadu	1x1		
RAP spp	Indian Hawthorn	Raphilliolepis	1x1		
CAL lit	Little Jon Bottle Brush	Callsiteemon 'Little John'	1x1		
CAL han	Hannah Ray Bottle Brush	Callistemon 'Hannah Ray'	2.4x1.8		
GAR aug	Gardenia	Gardenia auguta 'Florida'	1.2x1.2		
STR nic	Bird of Paradise Tree	Strelitzia nicholi	6x3.5		
SYZ spp	Dwarf Lilly Pilly	Syzygium sp	3x2		
WES fru	Coastal Rosemary	Westringia fruticosa	1x1		
GROUNDCOVERS + GRASSES					
ADE ser	Wooly Bush	Adenanthos sericeus	1.2x1		
Dia lon	Pale Flax Lilly	Dianella longifolia	0.5x0.5		
Gre bro	Bronze Rambler	Grevillea 'Bronze Rambler'	0.7x1		
Hib sca	Twining Guinea Flower	Hibbertia scandens	0.2x1.5		
Lom tan	Spiny-Headed Matrush	Lomandra longifolia 'Tanika'	1x1		
Myo par	Creeping Boobialla	Myoporum parvifolium	0.2x1		
AGA ori	African Lily	Agapanthus orientalis	0.6x0.6		
CLI min	Bush Lily	Clivia miniata	0.6x0.6		
LIR mus	Evergreen Giant	Liriope muscari	0.5x0.5		
CAR gla	Pig Face	Carpobrotus glauceces	0.3x1		
Tra jas	Chinese Star Jasmine	Trachleospermum jasminoides	0.2x1		
ACCENT					
Aga att	Agave	Agave attenuate	0.5x0.6		
Asp ela	Cast Iron Plant	Aspidistra elatior	0.4x0.6		
Cyc rev	Cycad	Cycas revoluta	1.2x1		
Dor exc	Gymea Lily	Doryanthes excelsa	2x1.5		
Pho ten	New Zealand Flax	Phormium tenax	1.5x1		
Str spp	Bird of Paradise	Strelitzia reginae	2x1		

NOT REQUIRED FOR DEVELOPMENT APPLICATION

19.0 MATERIALS STRATEGY + PALETTE

All paving materials and street furniture would be subject to relevant Australian Standards and comply with Council's guidelines.

- Paving will consist of contrasting finishes, textures and materials (stone, brick and concrete) providing a seamless connections throughout the site.
- Timber seating elements will be integrated within the raised planter walls and provide a contrast between materials.
- Lighting will be provided to meet all Australian standards and Green Star energy efficiency requirements. Feature lights will highlight distinguished interest areas & landscape elements.
- Arbour structures will be installed as a timber pergola attached to podium.
- Sculptural play elements will be integrated into the landscape design, opportunity to introduce small areas of bold colour.



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