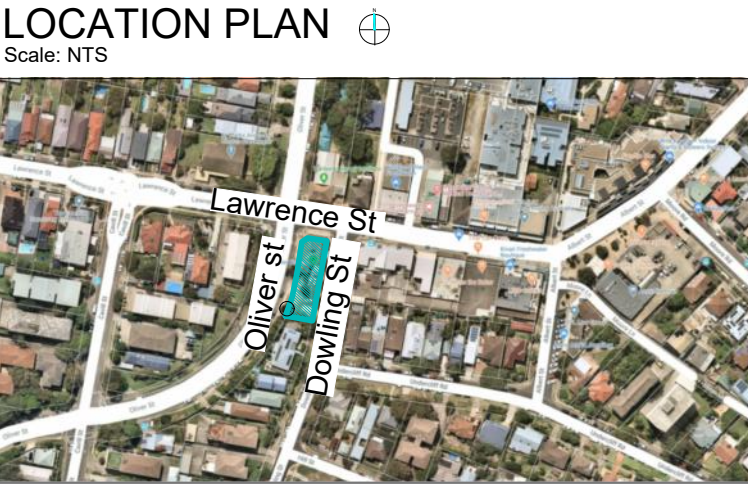


DRAWING SCHEDULE

SHEET #	DRAWING TITLE	REV.
/1	HARDSCAPE PLAN	D
/2	LANDSCAPE PLAN-LV1	D
/3	LANDSCAPE PLAN-LV2	D
/4	LANDSCAPE PLAN-LV3	D
/5	DETAILS	B
/6	SECTIONS	B
/7	SPECIFICATION	A



TREE SURVEY

Existing Trees based on Arborists Report by Aura Tree Services prepared on AUGUST 2021/20

No.#	Species	Size (Ht x Sp)	Condition	Action
1	Gleditsia triacanthos	7x7.5	Good	Remove & replace
2	Cupressus sempervirens	14.5x5	Good	Remove
3	Gleditsia triacanthos	6.5x6.5	Fair	Remove & replace

REV	DATE	NOTATION/AMENDMENT
A	30.03.20	Preliminary plan prepared for review
B	03.04.20	Co-ordinated with architect's comments & stormwater plan
C	24.03.21	Co-ordinated with council comments
D	25.08.21	Co-ordinated with council comments

LANDSCAPE PLAN NOTES

This plan should be read in conjunction with the architectural and hydraulics plans. Work specific to these plans should be prepared in accordance to these plans, including specification and details prior to the installation of landscaping, and should not be altered or compromised during landscape construction. Elements such as drainage swales may be incorporated in garden bed areas (using non-floatable mulch) without compromising the capacity or form.

This plan has been prepared for Development Application approval only, not for construction.

This plan has been prepared with reference to **NORTHERN BEACHES Councils** Landscaping Guidelines & requirements. Planting proposed using mainly indigenous, commercially available plant species selected from local planting lists and the BASIX local plant list and from Sydney Waters "Plant Selector" web site one-drip rated native plants (**acceptable for Basix planting**).

The Design & location of new letter boxes shall be in accordance with Australia Post's "Requirements for Delivery of Mail to Residential Premises" published Feb '97. All noxious weeds listed in Councils weed lists & located on the site shall be continually removed & suppressed. Reinstall all boundary fencing in poor condition with Council approved 1.8m fencing to rear of building line, rake to 1m forward of BL. Pollution, sediment & erosion control devices as specified shall be in place, and maintained for the duration of the construction period. Proposed excavation near existing established trees to be supervised by arborist.

D.A approved landscape plan's are required to be constructed as approved to obtain occupancy certificate. **Permeable areas may be indicated to achieve site coverage restrictions & should be constructed as drawn on this plan.**

- ### LANDSCAPE ITEM
- Metal garden edging
 - Trees proposed to be removed and replaced with new landscaping
 - Existing trees proposed to be retained and protected
 - Street tree tree guard & (garden edging) -refer detail
 - Existing paving to public footpath. Re-instate where is necessary
 - Existing Concrete footpath. Re-instate where is necessary
 - Lawn to nature strip to match existing
 - Boundary
 - Proprietary outdoor furniture to be nom. by client to manufacturer's specification
- KEY**
- TOW Top Of Wall
 - FFL Finished Floor Level
 - RL Reduced Level
 - Existing level

- ### PLANTING
- | | |
|--|---|
| <p>Botanical Name: <i>Alcantarea imperialis</i>
Common Name: Ruby Imperial Bromeliad (Exotic)
Pot size: 300mm
Mature H x S: 0.8m x 0.9m
Qty Required: 4</p> | <p>Botanical Name: <i>Alternanthera 'Little Ruby'</i>
Common Name: Bronze Rambler (Native)
Pot size: Tube stock
Mature H x S: 0.3m x spreading
Qty Required: 6/m2 (16m2 total)</p> |
| <p>Botanical Name: <i>Agave attenuata</i>
Common Name: Century Plant (Exotic)
Pot size: 300mm
Mature H x S: 1.0m x 1.0m
Qty Required: 3</p> | <p>Botanical Name: <i>Cycad revoluta</i>
Common Name: Sago Palm (Native)
Pot size: 300mm
Mature H x S: 1.2m x 1-1.5m
Qty Required: 3</p> |
| <p>Botanical Name: <i>Cordyline 'Rubra'</i>
Common Name: Rubra Cordyline (Exotic)
Pot size: 200mm
Mature H x S: 800mm x 800mm
Qty Required: 20</p> | <p>Botanical Name: <i>Doryanthes excelsa</i>
Common Name: Gymea Lily (Native)
Pot size: 300mm
Mature H x S: 1.1m x 1m
Qty Required: 4</p> |

- ### STREET TREES
- | | |
|---|---|
| <p>Botanical Name: <i>Gleditsia triacanthos</i>
Common Name: (to match exiting neighboring tree)
Pot size: 75L
Height: 7m x7m
Qty Required: 2</p> | <p>Botanical Name: <i>Strelitzia nicolai</i>
Common Name: Giant Bird of Paradise (Exotic)
Pot size: 45 Lt
Mature H x S: 2-6m x 3m
Qty Required: 3</p> |
| <p>Botanical Name: <i>Carpobrotus</i>
Common Name: 'Aussie Rambler'
Pigface (Native)
Pot size: Tubestock
Mature H x S: 0.25m x spreading
Qty Required: 5/m2 (8m2 total)</p> | <p>Botanical Name: <i>Lomandra longifolia 'Tanika'</i>
Common Name: Dwarf Mat Rush (Native)
Pot size: 150mm
Mature H x S: 0.8m x 0.8m
Qty Required: 20</p> |

General Notes:

Figured dimensions take preference to scale readings. Verify all dimensions on site. PDF files may vary slightly in scale for that indicated on plans. Report any discrepancies to the Landscape Architect before proceeding with the work.

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Australian Institute of Landscape Architects

Bar Scale: 0 2 4 6 8 10m

REV	DATE	NOTATION/AMENDMENT
A	26.2.2020	Preliminary plan prepared for review
B	03.04.2020	Co-ordinated with architect's comments & stormwater plan
C	19.03.2021	Draft review
D	24.03.2021	Council comments
	24.08.2021	Council comments

COUNCIL	NORTHERN BEACHES
CLIENT	LIFE PROPERTY GROUP
ARCHITECT	CKDS ARCHITECTURE
STATUS / ISSUE	DA - ISSUE D

Conzept Landscape Architects

Suite 101, 506 Miller St
CAMMERAY NSW 2062

Phone: 9922 5312
Fax: 8209 4982
enquiries@conzept.net.au Mob: 0413 861 351

SITE PLAN -PUBLIC DOMAIN		DWG.No:	LPDA 20 - 190 / 1
PROPOSED RESIDENTIAL DEVELOPMENT		SCALE:	1:200 @ A3
50 LAWRENCE STREET FRESHWATER		DATE:	AUGUST 2021
DRAWN:	E.W	CHECKED:	R.F

LEGEND & SCHEDULE

- NOTES:**
 1. ALL FINAL PLANT QUANTITIES INDICATED ON PLANS SHALL BE CHECKED AND VERIFIED BY SUCCESSFUL LANDSCAPE CONTRACTOR.
 2. ANY PLANT SUBSTITUTES REQUIRED DUE TO UNAVAILABILITY SHALL BE RECOMMENDED BY THE LANDSCAPE CONTRACTOR TO BEST MATCH SUBSTITUTED PLANTS AND APPROVED PRIOR TO PURCHASING BY THE LANDSCAPE ARCHITECT.
 3. WORKS CERTIFIED FOR FINAL OCCUPANCY CERTIFICATE ARE TO MATCH APPROVED LANDSCAPE PLANS.
 4. LANDSCAPE CONTRACTOR SHALL LOCATE AND AVOID SITE STORM WATER & DRAINAGE SERVICES. LOCATE TREES A MINIMUM 1.25M FROM PITS
 5. ALL PLANTING AROUND EXISTING TREES SHALL BE ADJUSTED TO AVOID DAMAGE AND CLASHING WITH SURFACE ROOTS.
 6. THE NATURE STRIP (STREET FRONTAGE) FOR THE SITE IS PUBLIC LAND, AND ONLY AUTHORIZED WORKS MAY OCCUR HERE. EXISTING CONDITIONS SUCH AS STREET TREES, COUNCIL PLANTING ETC SHALL BE RETAINED AND PROTECTED DURING CONSTRUCTION, UNLESS SPECIFIC APPROVAL HAS BEEN GRANTED FOR NEW WORK IN THIS AREA.

TREES

Botanical Name: *Hymenosporum flavum*
Common Name: Native Frangipani (Native)
Pot size: 75Lt
Mature H x S: 8m x 5m
Qty Required: 1

Botanical Name: *Waterhousia 'Sweeper'*
Common Name: Weeping Myrtle (Native)
Pot size: 45Lt
Mature H x S: 6-8m x 3-4m
Qty Required: 1

SHRUB/SMALL TREE

Botanical Name: *Acmena 'Sublime'*
Common Name: Sublime Lilly Pilly (Native)
Pot size: 200mm
Mature H x S: 5m x 2.5m
Qty Required: 2

Botanical Name: *Backhousia myrtifolia*
Common Name: Grey Myrtle (Native)
Pot size: 200mm
Mature H x S: 4-6m x 2-4m
Qty Required: 1

ACCENT PLANTS

Botanical Name: *Archontophoenix cunninghamiana*
Common Name: Bangalow Palm (Native)
Pot size: 1m trunks
Mature H x S: 6-10m x 3m
Qty Required: 3

Botanical Name: *Cyathea australis*
Common Name: Rough Tree Fern (Native)
Pot size: 45L (Min 1m trunk)
Mature H x S: 2.5-5m x 3m
Qty Required: 3

GRASSES / GROUNDCOVERS

Botanical Name: *Myoporum parvifolium 'Yareena'*
Common Name: Creeping Boobialla (Native)
Pot size: 140mm
Mature H x S: 0.15m x spreading
Qty Required: 7/m2 (10.5m2 total)

Botanical Name: *Philodendron 'Xanadu'*
Common Name: Xanadu Plant (Exotic)
Pot size: Tube stock
Mature H x S: 0.7m x 0.7m
Qty Required: 6/m2 (10m2 total)

Botanical Name: *Dianella tasmanica 'Tasred'*
Common Name: Tasred Flax Lily (Native)
Pot size: 150mm
Mature H x S: 0.6m x 0.65m
Qty Required: 6/m2 (3m2 total)

Botanical Name: *Libertia paniculata*
Common Name: Libertia (Native)
Pot size: 140mm
Mature H x S: 0.5-0.7m x 0.2-0.5m
Qty Required: 6/m2 (3.5m2 total)

Botanical Name: *Lomandra hystrix 'Katie Bells'*
Common Name: Katie Bells Mat Rush (Native)
Pot size: 150mm
Mature H x S: 1.2m x 1.2m
Qty Required: 6/m2 (8m2 total)

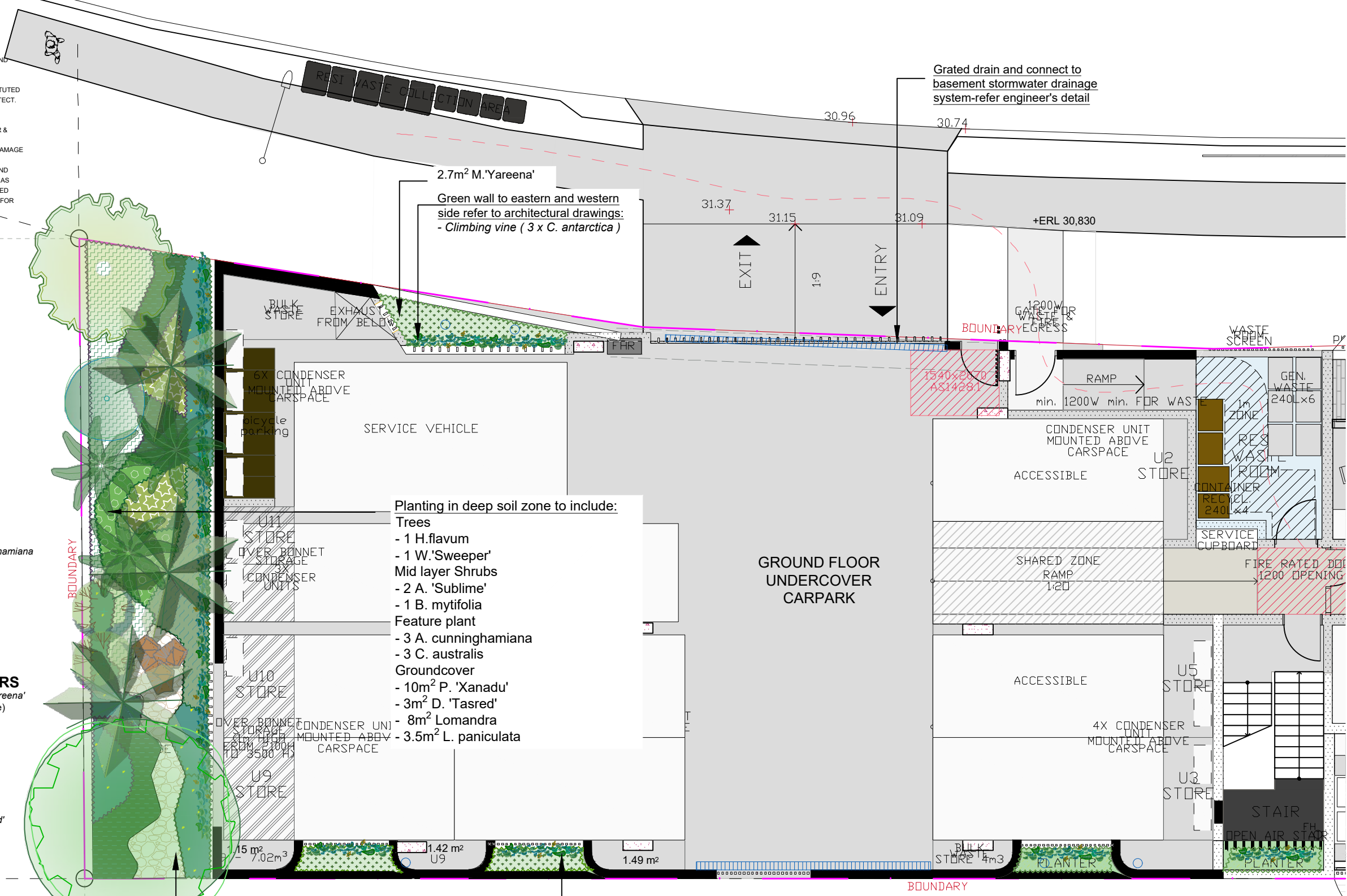
Botanical Name: *Cissus antarctica*
Common Name: Kangaroo Vine (Native)
Pot size: 100mm
Mature H x S: 0.3m x spreading
Qty Required: 5

LANDSCAPE ITEMS

River pebble - dry creek feature

2-3 men bush feature rock

Street tree guard-refer detail



Planting in deep soil zone to include:

- Trees**
 - 1 H.flavum
 - 1 W.'Sweeper'
Mid layer Shrubs
 - 2 A. 'Sublime'
 - 1 B. mytifolia
Feature plant
 - 3 A. cunninghamiana
 - 3 C. australis
Groundcover
 - 10m² P. 'Xanadu'
 - 3m² D. 'Tasred'
 - 8m² Lomandra
 - 3.5m² L. paniculata

Planting in deep soil zone to include:

- Trees**
 - 1 H.flavum
 - 1 W.'Sweeper'
Mid layer Shrubs
 - 2 A. 'Sublime'
 - 1 B. mytifolia
Feature plant

Green wall to eastern and western side refer to architectural drawings to include:

- Climbing vine
 4 C. antarctica
 - 4m² M. parvifolium 'Yareena'

General Notes:
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REV	DATE	NOTATION/AMENDMENT
A	26.2.2020	Preliminary plan prepared for review
B	03.04.2020	Co-ordinated with architect's comments & stormwater plan
C	24.03.2021	Council comments
D	24.08.2021	Council comments

COUNCIL: NORTHERN BEACHES
CLIENT: LIFE PROPERTY GROUP
ARCHITECT: CKDS ARCHITECTURE
STATUS / ISSUE: DA - ISSUE C

Concept Landscape Architects
 Suite 101, 506 Miller St
 CAMMERAY NSW 2062
 Phone: 9922 5312
 Fax: 8209 4982
 www.conzept.net.au
 enquiries@conzept.net.au
 Mob: 0413 861 351

TITLE: LANDSCAPE PLAN -LEVEL 1
 PROPOSED RESIDENTIAL DEVELOPMENT
50 LAWRENCE STREET FRESHWATER

DWG No: LPDA 20 - 190 / 2
SCALE: 1:100 @ A3
DATE: AUGUST 2021
DRAWN: E.W
CHECKED: R.F

LEGEND & SCHEDULE

- NOTES:**
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ACCENT PLANTS

Botanical Name: *Agave attenuata*
Common Name: Century Plant (Exotic)
Pot size: 300mm
Mature H x S: 1.0m x 1.0m
Qty Required: 11

TRAILING GROUNDCOVERS

Botanical Name: *Carpobrotus 'Aussie Rambler'*
Common Name: Aussie Rambler Pigface (Native)
Pot size: Tubestock
Mature H x S: 0.25m x spreading
Qty Required: 5/m² (11.8m² total)

Botanical Name: *Rosmarinus officinalis 'Prostratus'*
Common Name: Creeping Rosemary
Pot size: Tubestock
Mature H x S: 0.1m x 0.1m
Qty Required: 5/m² (19.4m² total)

Communal Open Space Rooftop Terraces

GENERAL NOTE
BCA & Australian Standards (AS):
 Building codes and standards are established on a federal level by the nationally recognised Building Code of Australia (BCA), & these apply to all phases of construction, including balustrade design and specification. Specifically, BCA 2012 Parts 3.9.1 (stairs) and 3.9.2 (balustrades) and Australian Standard 1170.1 cover regulations for balustrades on stairways, balconies, rooftop terraces and other surfaces between levels.

BCA Balustrade Regulations and Standards
 A balustrade is defined as a rail and its balusters (posts or other supporting members). BCA regulations state that a balustrade must:
 • Be at least 1 metre high as measured from the finished floor;
 • Have openings between risers or posts no greater than 125mm; and
 • Be able to withstand loads and impacts as determined by AS 1170.1
 The height regulation of 1 metre ensures the balustrade is high enough to provide prevention against falling over the balustrade. The openings between risers or posts cannot be greater than 125mm to prevent children from falling between them. Load and impact regulations are designed to ensure balustrades can resist impact or will not collapse when pressure is applied to them from any direction.

Balustrade Safety & Planters
 BCA regulations state that the balustrade must be 1 metre or more, higher than the finished floor. On roof-top terraces, planters & furniture are often incorporated in the landscape design. It's important for compliance and safety that these elements do not undermine the safety of Communal Open Space (COS) terraces and rooftops, and the compliance with the BCA and AS's are maintained.

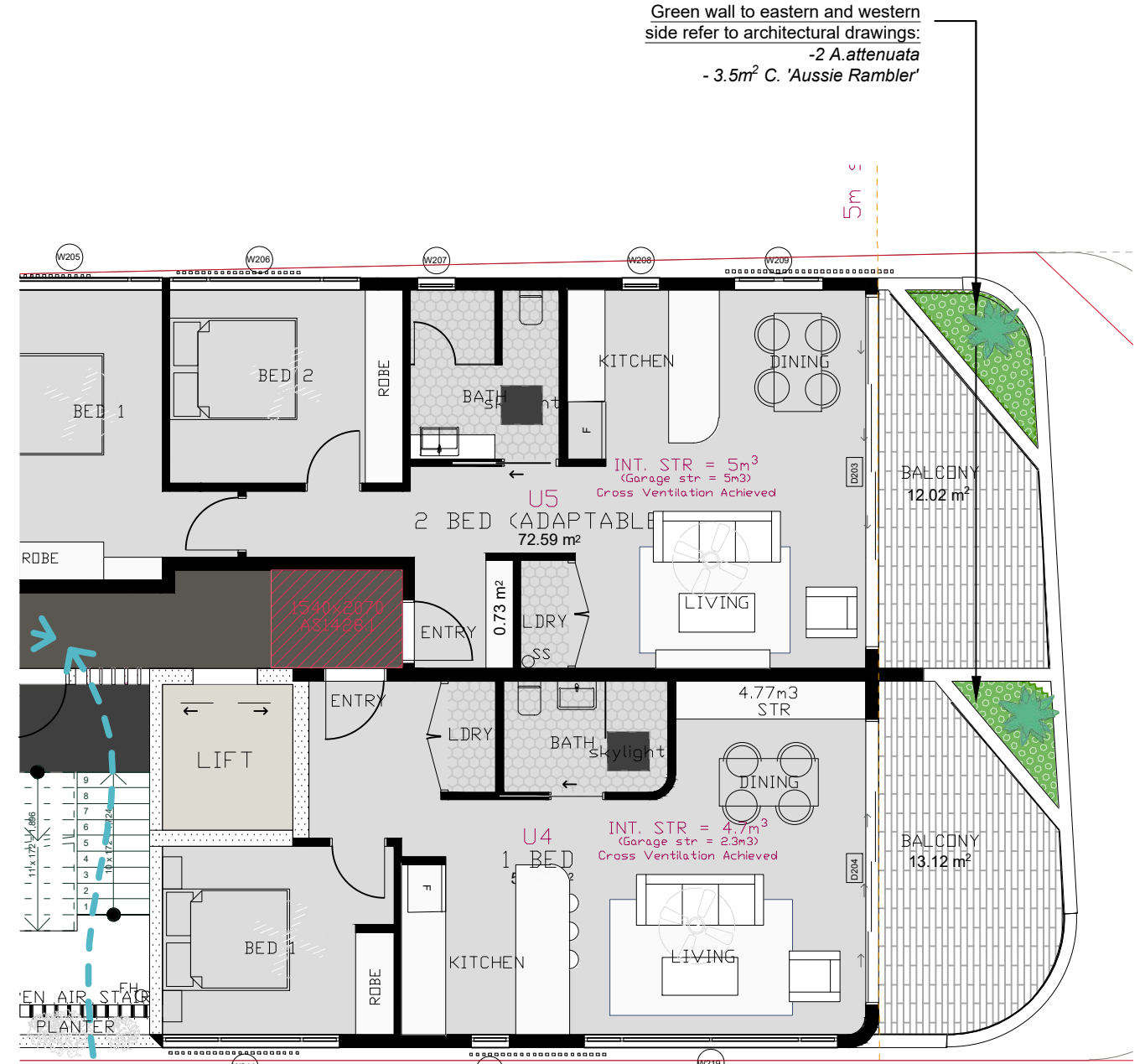
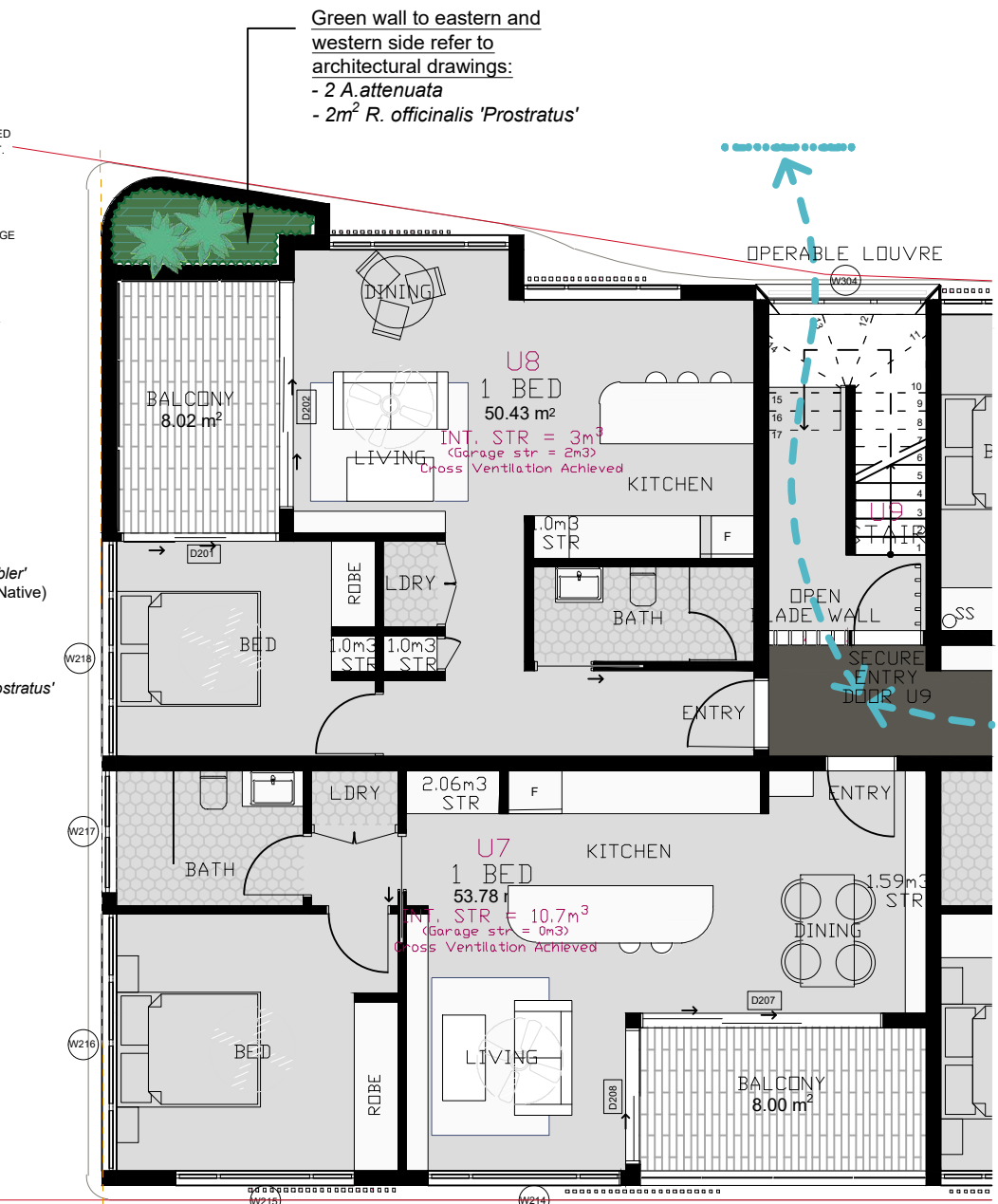
Items to consider are:
 - Where planters form the safety balustrade, their internal face must be 1m non-climbable
 - Outdoor furniture such as tables, BBQs, and seating shall be fixed and located a minimum 1m away from balustrades
 - Where furniture is proposed to be fixed or adjacent to COS terrace planters which form the balustrade, then a compliant handrail will be required to be fixed to the external edge of the planter

A concern for COS areas on rooftops or terrace areas is that the strata will add loose furniture which ultimately could undermine the safety of the installed balustrades. In this case, it shall be the strata bodies responsibility to manage the safety of these areas.

Ultimately, the compliance and safety of the COS areas shall be the responsibility of the builder, and carefully inspected and certified at the Occupation Certificate (OC) stage of the development

Maintenance of COS area
 Communal Open Space terrace and rooftop areas are exposed to extremes (wind, sun, and extreme weather) so maintenance is important. The following item should be included or considered:

- All planters shall be structurally water-proofed, with this work certified and periodically inspected. Trades should be closely monitored so they do not subsequently damage completed waterproofing
- All planters shall be irrigated with an automated system set on an approved watering pattern. Moisture gauges should be installed in some planters to minimize overwatering
- Tree Anchors shall be installed in high wind areas to larger plants, such as palms & small trees
- Compliance for balustrades and handrails should be monitored regularly
- For the maintenance of large rooftop areas and planters without external balustrades, anchoring points for tying off harnesses for landscape maintenance workers are essential



PLANT IMAGES



Archontophoenix cunninghamiana



Cyathea australis



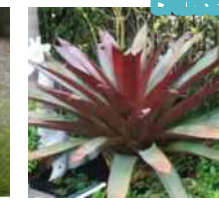
Streitizia nicolai



Doryanthes excelsa



Lomandra longifolia 'Tanika'



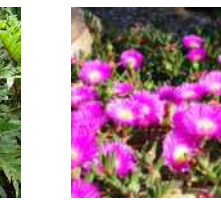
Alcantarea imperialis 'Rubra'



Rhapiolepis indica 'Oriental Pearl'



Philodendron 'Xanadu'



Carpobrotus 'Aussie Rambler'



Rosmarinus officinalis 'Prostratus'



Waterhousia 'Sweeper'



Hymenosporum flavum



Acmena 'Sublime'



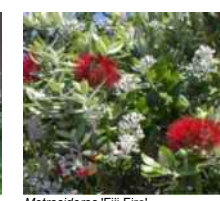
Backhousia myrtifolia



Dianella caerulea 'Cassa Blue'



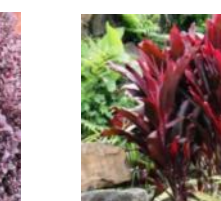
Agave spp



Metrosideros 'Fiji Fire'



Alternanthera dentata



Alternanthera dentata



Cissus antarctica

GREEN WALL & TRAILING PLANTS



Indicative image: Climbing vine over screens

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REV	DATE	NOTATION/AMENDMENT
A	26.2.2020	Preliminary plan prepared for review
B	19.3.2021	Reg. council comments
C	24.03.2021	Council comments
D	24.08.2021	

COUNCIL	NORTHERN BEACHES
CLIENT	LIFE PROPERTY GROUP
ARCHITECT	CKDS ARCHITECTURE
STATUS / ISSUE	DA - ISSUE D

Concept Landscape Architects
 Suite 101, 506 Miller St
 CAMMERAY NSW 2062
 Phone: 9922 5312
 Fax: 8209 4982
 Mob: 0413 861 351
www.conzept.net.au
enquiries@conzept.net.au

TITLE: LANDSCAPE PLAN -LEVEL 2
 PROPOSED RESIDENTIAL DEVELOPMENT
50 LAWRENCE STREET FRESHWATER

DWG No:	LPDA 20 - 190 / 3
SCALE:	1:100 @ A3
DATE:	AUGUST 2021
DRAWN:	E.W
CHECKED:	R.F

LEGEND & SCHEDULE

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- SHRUBS**
- Botanical Name:** *Metrosideros 'Tahiti'*
Common Name: NZ Christmas Bush (Exotic)
Pot size: 150mm
Mature H x S: 1m x 1m
Qty Required: 6
 - Botanical Name:** *Rhaphiolepis indica 'Oriental Pearl'*
Common Name: Indian Hawthorn (Exotic)
Pot size: 200mm
Mature H x S: 1m x 0.8m
Qty Required: 15
- ACCENT PLANTS**
- Botanical Name:** *Agave attenuata*
Common Name: Century Plant (Exotic)
Pot size: 300mm
Mature H x S: 1.0m x 1.0m
Qty Required: 8
 - Botanical Name:** *Russelia equisetiformis*
Common Name: Firecracker (Exotic)
Pot size: 200mm
Mature H x S: 1m x 1.2m
Qty Required: 6
- TRAILING GROUNDCOVERS**
- Botanical Name:** *Carpobrotus 'Aussie Rambler'*
Common Name: Aussie Rambler Pigface (Native)
Pot size: Tubestock
Mature H x S: 0.25m x spreading
Qty Required: 5/m² (10.8m² total)
 - Botanical Name:** *Rosmarinus officinalis 'Prostratus'*
Common Name: Creeping Rosemary
Pot size: Tubestock
Mature H x S: 0.1m x 0.1m
Qty Required: 5/m² (5.5m² total)
- Communal Open Space Rooftop Terraces

GENERAL NOTE

BCA & Australian Standards (AS):

Building codes and standards are established on a federal level by the nationally recognised Building Code of Australia (BCA), & these apply to all phases of construction, including balustrade design and specification. Specifically, BCA 2012 Parts 3.9.1 (stairs) and 3.9.2 (balustrades) and Australian Standard 1170.1 cover regulations for balustrades on stairways, balconies, rooftop terraces and other surfaces between levels.

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- Be at least 1 metre high as measured from the finished floor;
- Have openings between risers or posts no greater than 125mm; and
- Be able to withstand loads and impacts as determined by AS 1170.1

The height regulation of 1 metre ensures the balustrade is high enough to provide prevention against falling over the balustrade. The openings between risers or posts cannot be greater than 125mm to prevent children from falling between them. Load and impact regulations are designed to ensure balustrades can resist impact or will not collapse when pressure is applied to them from any direction.

Balustrade Safety & Planters

BCA regulations state that the balustrade must be 1 metre or more, higher than the finished floor. On roof-top terraces, planters & furniture are often incorporated in the landscape design. It's important for compliance and safety that these elements do not undermine the safety of Communal Open Space (COS) terraces and rooftops, and the compliance with the BCA and AS's are maintained.

Items to consider are:

- Where planters form the safety balustrade, their internal face must be 1m non-climbable
- Outdoor furniture such as tables, BBQs, and seating shall be fixed and located a minimum 1m away from balustrades
- Where furniture is proposed to be fixed or adjacent to COS terrace planters which form the balustrade, then a compliant handrail will be required to be fixed to the external edge of the planter

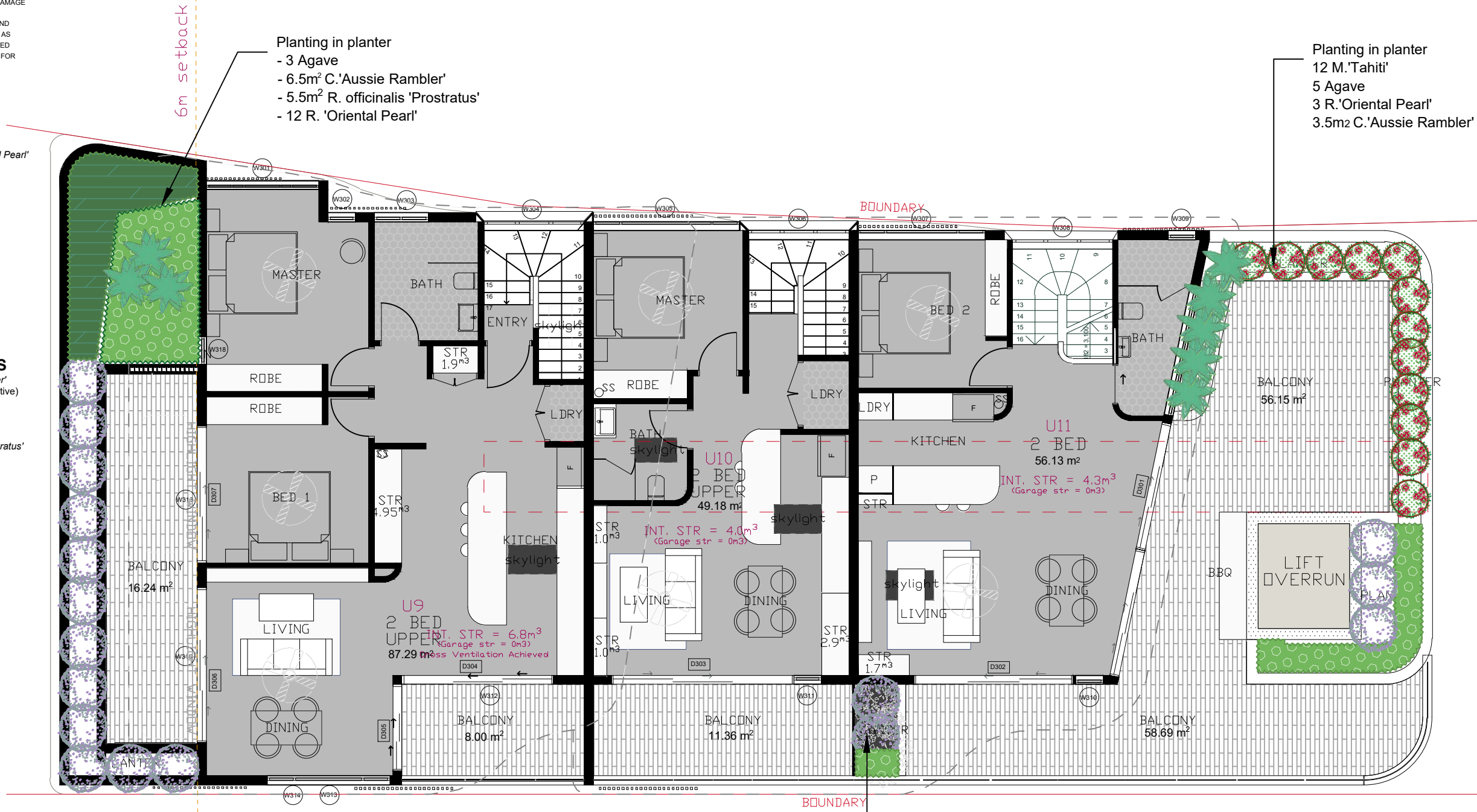
A concern for COS areas on rooftops or terrace areas is that the strata will add loose furniture which ultimately could undermine the safety of the installed balustrades. In this case, it shall be the strata bodies responsibility to manage the safety of these areas.

Ultimately, the compliance and safety of the COS areas shall be the responsibility of the builder, and carefully inspected and certified at the Occupation Certificate (OC) stage of the development

Maintenance of COS area

Communal Open Space terrace and rooftop areas are exposed to extremes (wind, sun, and extreme weather) so maintenance is important. The following items should be included or considered:

- All planters shall be structurally water-proofed, with this work certified and periodically inspected. Trades should be closely monitored so they do not subsequently damage completed waterproofing
- All planters shall be irrigated with an automated system set on an approved watering pattern. Moisture gauges should be installed in some planters to minimize overwatering
- Tree Anchors shall be installed in high wind areas to larger plants, such as palms & small trees
- Compliance for balustrades and handrails should be monitored regularly
- For the maintenance of large rooftop areas and planters without external balustrades, anchoring points for tying off harnesses for landscape maintenance workers are essential



- Planting in planter**
- 3 Agave
 - 6.5m² C.'Aussie Rambler'
 - 5.5m² R. officinalis 'Prostratus'
 - 12 R. 'Oriental Pearl'
- Planting in planter**
- 12 M.'Tahiti'
 - 5 Agave
 - 3 R.'Oriental Pearl'
 - 3.5m² C.'Aussie Rambler'
- Planting in planter**
- 2 R.'Oriental Pearl'
 - 0.5m² C. 'Aussie Rambler'

General Notes:

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Australian Institute of Landscape Architects

1:100

REV DATE	NOTATION/AMENDMENT
A 26.2.2020	Preliminary plan prepared for review
B 19.3.2021	Reg. council comments
C 24.03.2021	Council comments
D 24.08.2021	

COUNCIL	NORTHERN BEACHES
CLIENT	LIFE PROPERTY GROUP
ARCHITECT	CKDS ARCHITECTURE
STATUS / ISSUE	DA - ISSUE D

Conzept Landscape Architects

Conzept Landscape Architects Suite 101, 506 Miller St CAMMERAY NSW 2062

Phone: 9922 5312 Fax: 8209 4982 Mob: 0413 861 351

www.conzept.net.au enquiries@conzept.net.au

TITLE:

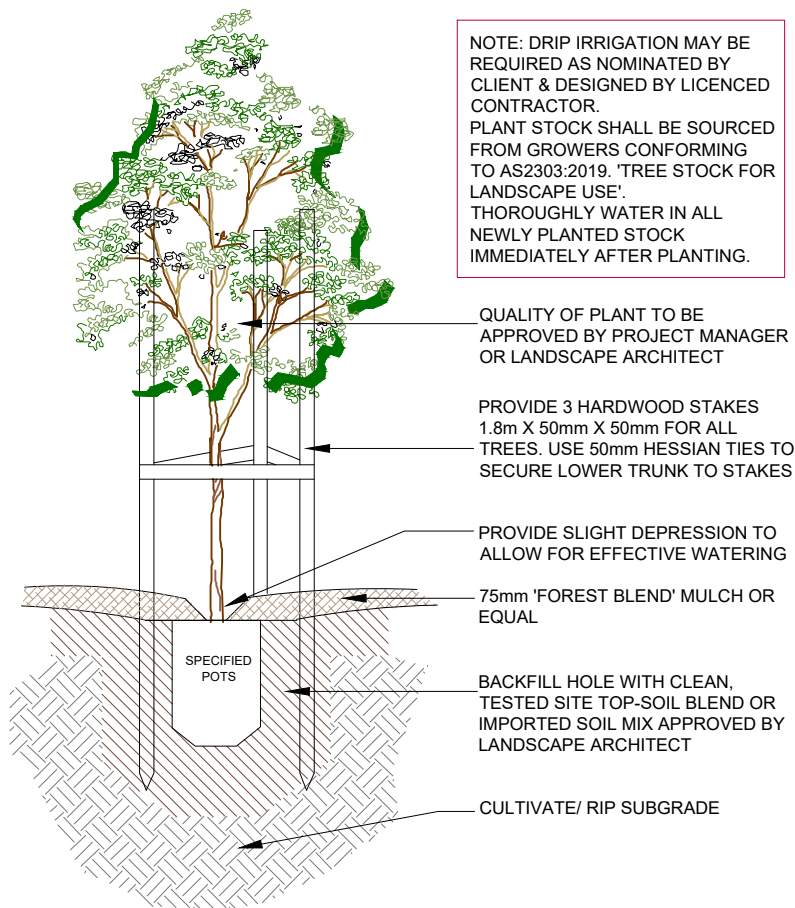
LANDSCAPE PLAN -LEVEL 3

PROPOSED RESIDENTIAL DEVELOPMENT

50 LAWRENCE STREET

FRESHWATER

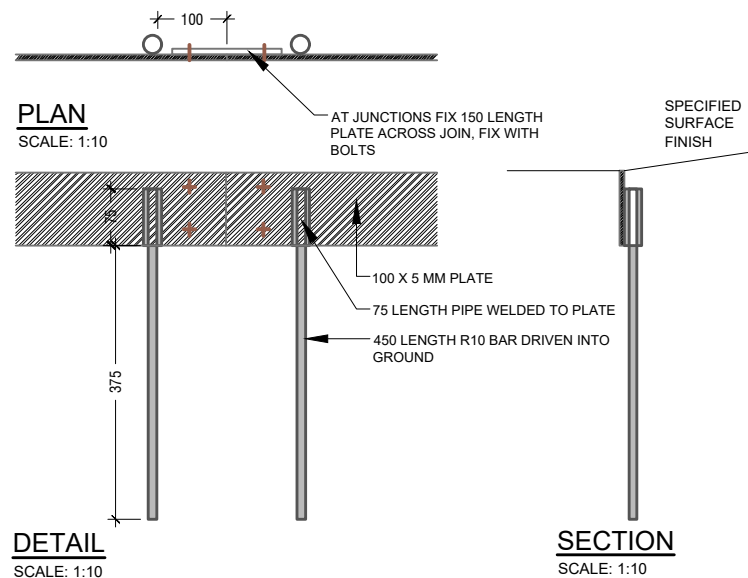
DWG No:	LPDA 20 - 190 / 4
SCALE:	1:100 @ A3
DATE:	AUGUST 2021
DRAWN:	E.W
CHECKED:	R.F



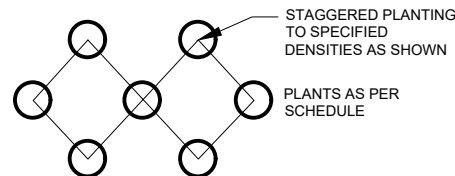
TREE PLANTING DETAIL

SCALE: NTS

(ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED. NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE)



STEEL EDGE DETAIL



MASS PLANTING SETOUT

N.T.S

OVERFLOW
(TO SUPPLIER'S SPECIFICATION)

NOTE (BCA COMPLIANCE). WHERE NO EXTERNAL BALUSTRADE IS PROPOSED, THE INTERNAL PLANTER WALL FACE MUST BE NON-CLIMBABLE TO A HEIGHT TO MEET AS & BCA COMPLIANCE.

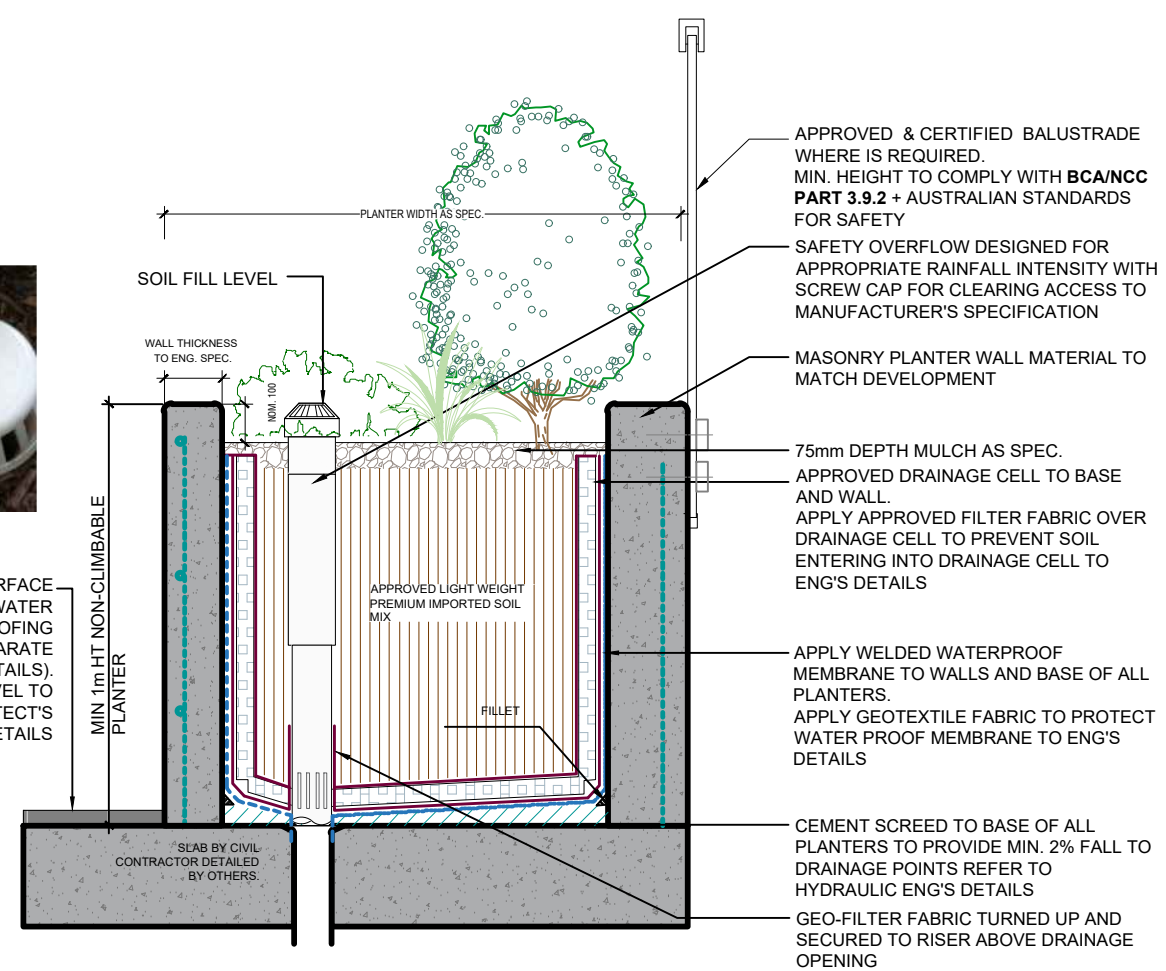
NOTE (DRAINAGE & WATER PROOFING). DRAINAGE PITS AND LAYOUT TO BE NOMINATED BY HYDRAULIC ENGINEER TO WORK WITH STRUCTURAL DESIGN AND LANDSCAPE.

THE WATERPROOFING, APPROVED DRAINAGE CELL AND SPECIFIED GEOFABRIC LAYER IN THIS DETAIL ARE INDICATIVE ONLY AND SHOULD BE DETAILED BY THE RELEVANT PROFESSIONAL ENGINEER 'FOR CONSTRUCTION'.

UNDER THE CONSTRUCTION PRACTITIONER BILL, STRUCTURAL WATER-PROOFING SHALL BE DOCUMENTED BY A HYDRAULIC ENGINEER

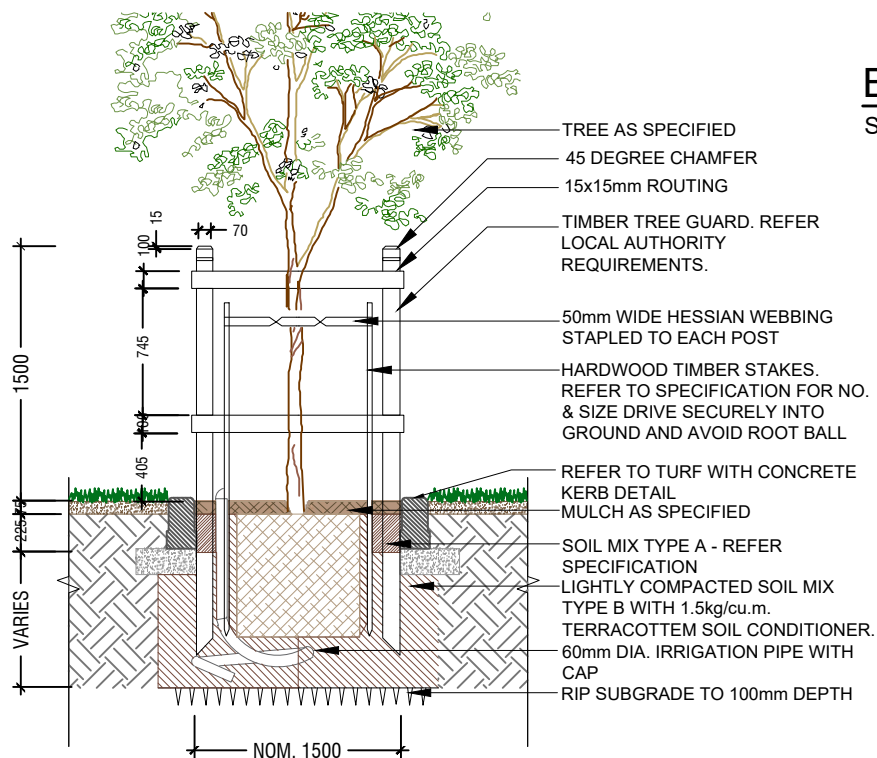


NOMINATED SURFACE FINISHES & WATER PROOFING (REFER TO SEPARATE DETAILS). FINISHED LEVEL TO ARCHITECT'S DETAILS



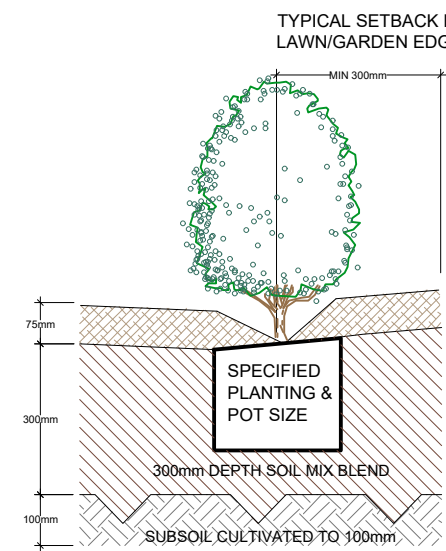
BALCONY PLANTER DETAIL

SCALE: 1:15



STREET TREE GUARD DETAIL

SCALE: NTS



TYPICAL GARDEN PREPARATION DETAIL

SCALE NTS

NOTE
THIS DETAIL IS ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED. NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE

75mm DEPTH "FOREST BLEND" MULCH OR EQUIVALENT

SOIL MIX:
50% OF STOCKPILED SITE TOPSOIL FREE FROM ALL BUILDER'S RUBBISH AND DELETERIOUS MATERIALS. TOPSOIL TO BE MIXED WITH MINIMUM 50% IMPORTED GARDEN MIX OR SOIL CONDITIONER/ COMPOSTED ORGANIC MATTER - SEE SPEC. USE 100% IMPORTED SOIL MIX WHEN SITE TOPSOIL RUNS OUT.

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REV	DATE	NOTATION/AMENDMENT
A	26.2.2020	Preliminary plan prepared for review
B	24.8.2021	Reg. council comments

COUNCIL	NORTHERN BEACHES
CLIENT	LIFE PROPERTY GROUP
ARCHITECT	CKDS ARCHITECTURE
STATUS / ISSUE	DA - ISSUE B

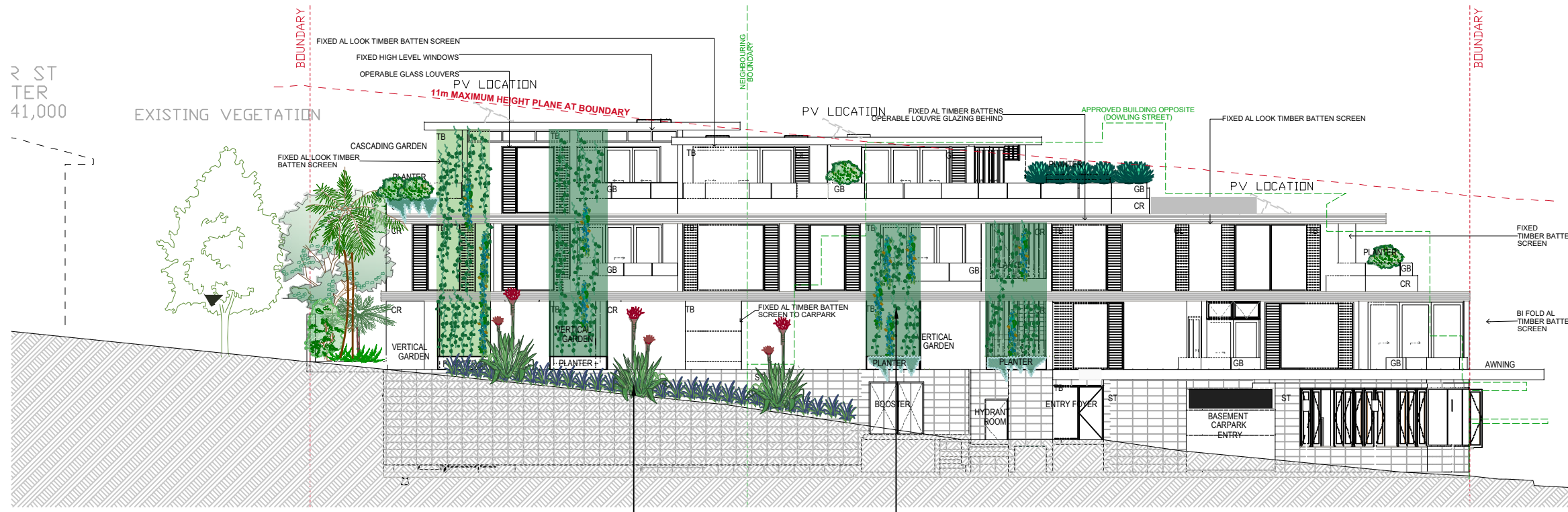
Concept Landscape Architects

Concept Landscape Architects Suite 101, 506 Miller St CAMMERAY NSW 2062

Phone: 9922 5312 Fax: 8209 4982

www.concept.net.au enquiries@concept.net.au Mob: 0413 861 351

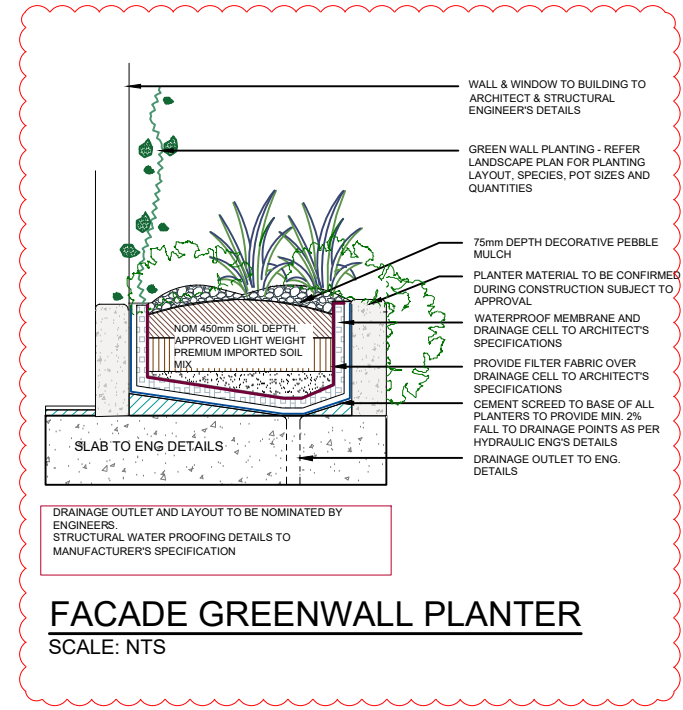
TITLE:	LANDSCAPE PLAN	DWG.No:	LPDA 20 - 190 / 5
	PROPOSED RESIDENTIAL DEVELOPMENT	SCALE:	AS SHOWN @ A3
	50 LAWRENCE STREET	DATE:	AUGUST 2021
	FRESHWATER	DRAWN:	E.W/K.Z
		CHECKED:	R.F



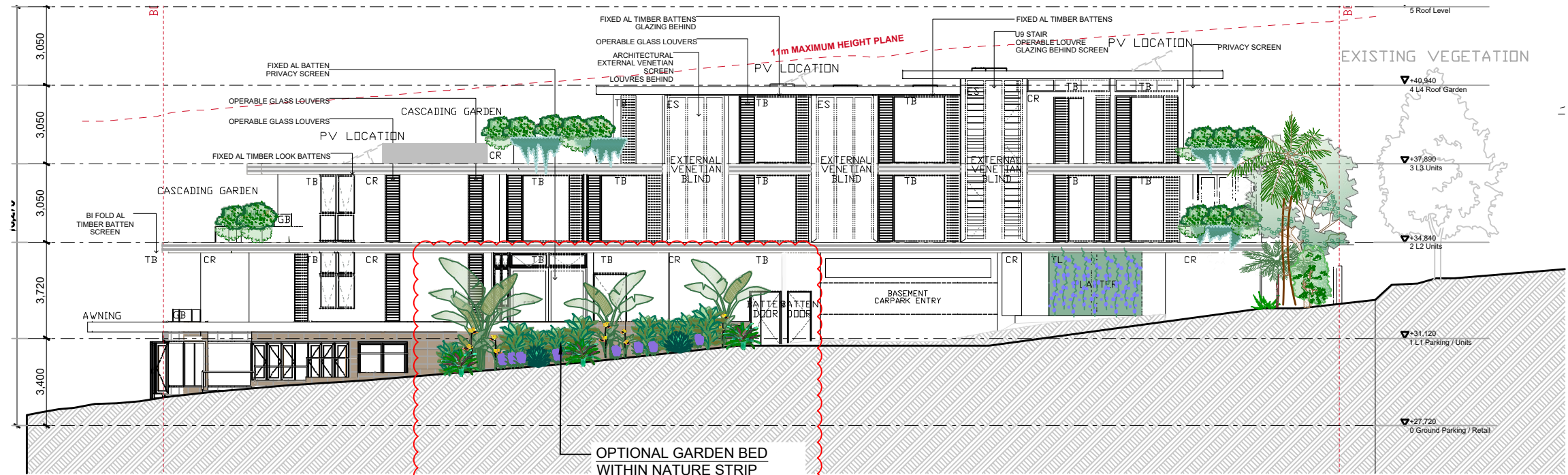
EAST ELEVATION
SCALE: 1:100

OPTIONAL GARDEN BED FOR NATIVE GRASS (LOMANDRA SPP.) WITHIN NATURE STRIP SUBJECT TO COUNCIL APPROVAL

80MM 314 GRADE STAINLESS STEEL TENSION WIRE ON BUILDING FACADE AS PER ARCHITECTURAL DWG. SPACING (NOM 300mm) AND LENGTHS TO BE DETERMINED ON SITE TO MANUF. SPEC



FACADE GREENWALL PLANTER
SCALE: NTS



WEST ELEVATION
SCALE: 1:100

OPTIONAL GARDEN BED WITHIN NATURE STRIP SUBJECT TO COUNCIL APPROVAL

AGS1v - Single Vertical Cable				
System No	Orientation	H5 mm	S mm	Suitable plant types
AGS1v-200	Vertical	200	80	Slow growing vines
AGS1v-400	Vertical	400	80	Slow growing vines
AGS1v-600	Vertical	600	120	Vigorous vines
AGS1v-800	Vertical	800	160	Vigorous vines
AGS1v-CUST	Vertical	Custom	Custom	

*See page 88 for further component details. See page 89 for minimum installation details.

SPECIFICATION BLOCK
Specify as Ronstan AGS1v-XXX Vertical Cable trellis system.
Consists of stainless steel wall mount sets and 4mm cable assemblies.
Aluminium/plastic clamber studs to be provided at 500mm centres.

LANDSCAPE GREEN WALL

RONSTAN CABLE TRELLIS SYSTEMS (INDICATIVE ONLY). REFER TO MANUFACTURER'S SPECIFICATION OR SIMILAR PRODUCT

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REV	DATE	NOTATION/AMENDMENT
A	26.2.2020	Preliminary plan prepared for review
B	24.8.2021	Revised Elevation

COUNCIL	NORTHERN BEACHES
CLIENT	
ARCHITECT	CKDS ARCHITECTURE
STATUS / ISSUE	DA - ISSUE B

Conzept Landscape Architects
Suite 101, 506 Miller St
CAMMERAY NSW 2062
Phone: 9922 5312
Fax: 8209 4982
www.conzept.net.au
enquiries@conzept.net.au

TITLE:	SECTIONS	DWG.No:	LPDA 20 - 190 / 6
	PROPOSED RESIDENTIAL DEVELOPMENT	SCALE:	AS SHOWN @ A3
	50 LAWRENCE STREET FRESHWATER	DATE:	AUGUST 2021
DRAWN:	E.W	CHECKED:	R.F

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 GENERAL

The following general conditions should be considered prior to the commencement of landscape works:

- The landscape plans should be read in conjunction with the architectural plans, hydraulic plans, service plans and survey prepared for the proposed development.
- All services including existing drainage should be accurately located prior to the commencement of landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect.
- Installation of conduit for required irrigation, electrical and other services shall be completed prior to the commencement of hardscape works and hardstand pours.
- All outdoor lighting specified by architect or client to be installed by qualified electrician
- Anomalies that occur in these plans should be brought to our immediate attention.
- Where an Australian Standard applies for any landscape material testing or installation technique, that standard shall be followed.

1.02 PROTECTION OF ADJACENT FINISHES

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done so in accordance with AS 4970-2009 Protection of trees on development sites as well as in accordance with the tree protection measures prepared by project arborist.

Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health.

Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip-line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained.

Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.

Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

1.04 EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site.

Erosion & pollution control measures shall incorporate the following:

- Construction of a sediment trap at the vehicle access point to the subject site.
- Sediment fencing using a geotextile filter fabric in the location indicated on the erosion control plan or as instructed on site by the landscape architect.
- Earth banks to prevent scour of stockpiles
- Sandbag kerb sediment traps
- Straw bale & geotextile sediment filter.
- Exposed banks shall be pegged with an approved Jute matting in preparation for mass planting

Refer to 'Guidelines for Erosion and Sediment Control on Building Sites' by DLWC (2000) for construction techniques

SOIL WORKS

2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)

The specified soil conditioner for site top-soil improvement shall be an organic mix complies with **AS 4454-2012 Composts, soil conditioners and mulches**. Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting

New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer d) below) and imported soil. All mixes are to comply with **AS4419-2003 Soils for Landscaping and garden use**, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf

The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 80% washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom compost or soil conditioner, or other approved lawn top dress.

Site Topsoil

Site topsoil is to be clean and free of unwanted matter such as gravel, clay lumps, grass, weeds, tree roots, sticks, rubbish and plastics, and any deleterious materials and materials toxic to plants. The topsoil must have a pH of between 5.5 and 7. Use 100% imported soil mix when site when site topsoil runs out.

2.02 INSTALLATION

Note: No level changes (Cut or Fill), soil ripping within the Tree Protection Zones of trees to be retained

a) Testing

All testing is to be conducted in accordance with AS4419-2003 Soils for Landscaping and garden use Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying to ensure conditions are appropriate for planting as stated above. Tests shall be taken in several areas where planting is proposed, and the pH shall be adjusted accordingly with sulphur or lime to suit.

Note that a soil test conducted by the Sydney Environmental & Soil Laboratory or approved equal shall be prepared for all commercial, industrial and multi-unit residential sites. The successful landscape contractor shall implement the recommendations of this test.

b) Set Out of Individual Trees & Mass Planting Areas

All individual tree planting positions and areas designated for mass planting shall be set out with stakes or another form of marking, ready for inspection and approval. Locate all services.

c) Establishing Subgrade Levels

Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:

- Mass Planting Beds - 300mm below existing levels with specified imported soil mix.

- Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

d) Subgrade Cultivation

Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a thorough breakup of the subgrade into a reasonably coarse tilth. Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix.

e) Drainage Works

Install surface and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits.

f) Placement and Preparation of Specified Soil Conditioner & Mixes.

- Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported "Organic Garden Mix" as supplied by ANL or approved equal.
 - Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm
- Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine tilth and good growing medium in preparation for planting.
- Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm.
- Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material

All trees supplied above a 25L container size must be grown and planted in accordance with **AS 2303:2019 Tree stock for landscape use**. Certification that trees have been grown to AS2303:2018 guidelines is to be provided upon request of Council's Tree Management Officer.

Above - Ground Assessment:

The following plant quality assessment criteria should be followed:

Plant true to type, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is apically dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure

Below - Ground Assessment:

Good root division & direction, rootball occupancy, rootball depth, height of crown, non-suckering For further explanation and description of these assessment criteria, refer to AS2303:2019.

All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does not conform to the standards listed above.

b) Stakes and Ties

Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, unpainted, straight hardwood, free of knots and pointed at one end. They shall be 2200mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.

c) Fertilisers

Fertilisers shall be approved slow release fertilisers suitable for the proposed planting types. Note that for native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall be used.

d) Mulch

Mulch shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris.

e) Turf

Turf shall be soft leaf Buffalo or equivalent (unless stated otherwise), free from any weeds and other grasses, and be in a healthy growing condition.

3.02 INSTALLATION

a) Setting Out

All planting set out shall be in strict accordance with the drawings, or as directed. Note that proposed tree planting located near services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting.

b) Planting

All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, incorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set plumb vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

c) Staking and Tying

Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching

Mulch for general planter bed shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, coarse river sand, scoria or river pebbles. 4-7mm screenings or similar.

e) Turfing

Moisten soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a lawn fertilizer and thoroughly water in. Keep turf moist until roots have taken and sods/rolls cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

f) Garden edging

Where is required, the Contractor shall install steel edging as detailed on the drawings, to all mass planting beds adjoining turf or gravel mulched areas, and where required. The resultant edge shall be true to line and flush with adjacent surfaces. However, no edging shall be used within the Structural Root Zone (SRZ) of trees to be retained.

g) Nature Strip and public domain works

The nature strip (street frontage) for the site is public land, and only authorized works may occur here. Existing Conditions such as street trees, council planting etc shall be retained and protected during construction, unless specific approval has been granted for new work in this area. Where council policy specifies a particular unit paver, material finish, pattern or treatment, it shall be the contractors responsibility to check and verify that this material & treatment is correct and current prior to undertaking construction works'

HARDSCAPE WORKS

4.01 GENERAL

The Contractor shall undertake the installation of all hardscape works as detailed on the drawing, or where not detailed, by manufacturers specification.

- Paving - refer to typical details provided, and applicable Australian Standards. *Permeable paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a useable, hardwearing, practical surface.* In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be setout as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be brought to the attention of the Landscape Architect.

Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owner/s which may arise from this application. Any enquiries in this regard may be made to the Crown Lands on 1300 886 235.

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION)

This is a general Irrigation Performance Specification only, as a guide for projects requiring irrigation systems as part of consent requirements or building contractual arrangements.

An automated irrigation system is recommended for the effective establishment of new gardens, and to assist with the success of planting areas on terraces, over slabs and in Communal Open Spaces.

The inclusion of this general specification is no guarantee that an irrigation system forms part of the landscape scope of works, which will be determined by the building contract.

New irrigation systems to planting areas shall be a Commercial Grade Irrigation System conforming to all relevant Australian standards, including AS 3500 & the Gas and Electricity (Consumer Safety) Act 2017, Workplace Health & Safety Act 2011, & the latest Sydney Water Code

An automated drip-irrigation system is to be installed to all gardens, planters and lawn areas in accordance with the approved Irrigation Design. This system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest industry standards and to maximise the efficient usage of water.

The Installer is required to obtain all approvals necessary for the completion of works in accordance with the Laws of Australia, Laws of the State of NSW, Northern Beaches Council By-Laws and Ordinances.

Drawings:

- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide Irrigation drawings for approval upon engagement.

Design Requirements:

- The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas.
- It shall incorporate a suitable back flow prevention device for the scale of works, an in-line filter, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for specified planting.
- The irrigation application rate shall not exceed the infiltration rate of the soil or creates run-off.
- The landscape contractor shall check the existing pressure available from the ring mains and size irrigation piping to suit. Supply shall be from local hose cock where available.
- All piping and fittings shall be buried 50mm below the finished soil levels in garden and lawn areas, and secured in position at 500mm centres with galv wire pins.
- Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Services Co-ordination:

- Co-ordination required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provisions.
- The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit locations.
- Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects:

Upon completion of installation, the system shall be tested, including:

- Main Line Pressure Test: The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time.
- Dripper Pressure Test: Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The inlet pressure is then tested under the same conditions to check it does not exceed 300Kpa.
- All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

Warranty :

- A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation:

- On request, a detailed irrigation performance specification report can be issued.

CONSOLIDATION AND MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be either



- 6 months beginning from the approved completion of the specified construction work (Practical Completion)
- as agreed to in the landscape contractors contractual obligations.
- or as specified by Council in the Determination.

A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contracted works by accepted landscaping or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent in the contracted works.

This shall include, but not be limited to, the following items where and as required:

- Watering all planting and lawn areas / irrigation maintenance.
- Clearing litter and other debris from landscaped areas.
- Removing weeds, pruning and general plant maintenance.
- Replacement of damaged, stolen or unhealthy plants.
- Make good areas of soil subsidence or erosion.
- Topping up of mulched areas.
- Spray / treatment for Insect and disease control.
- Fertilizing with approved fertilizers at correct rates.
- Mowing lawns & trimming edges each 14 days in summer or 18 days in winter
- Adjusting ties to Stakes
- Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.

General Notes:	AILA Associate	REV	DATE	NOTATION/AMENDMENT	COUNCIL	 <p>Conzept Landscape Architects Suite 101, 506 Miller St CAMMERAY NSW 2062 Phone: 9922 5312 Fax: 8209 4982 Mob: 0413 861 351</p>	TITLE:	DWG No:
Figured dimensions take preference to scale readings. Verify all dimensions on site. PDF'd plans may vary slightly in Scale for that indicated on plans. Report any discrepancies to the Landscape Architect before proceeding with the work.	 <p>Australian Institute of Landscape Architects</p>	A	26.2.2020	Preliminary plan prepared for review	NORTHERN BEACHES		SPECIFICATIONS	LPDA 20 - 190 / 7
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If the Status of this drawing is not signed off For Construction it may be subject to change, alteration or amendment at the discretion of our office. If so, Concept is not liable for any loss, damage, harm or injury whether special, consequential, direct or indirect, suffered by you or any other person as a result of your use of this drawing for construction purposes.					ARCHITECT		FRESHWATER	AUGUST 2021
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					STATUS / ISSUE			CHECKED:
					DA - ISSUE A		K.Z	R.F