

LEGEND & SCHEDULE

Note: Landscape Contractor to confirm plant quantities with Landscape Architect prior to ordering

Street Trees

Tristaniopsis laurina 'Luscious'
Watergum (Native)
Pot size: 100L
Mature H x S: 5-8m x 3-5m
Qty Required: 5



Lophostemon confertus
Brush Box (Native)
Pot size: 100L
Mature H x S: 15m x 8m
Qty Required: 6

Cupaniopsis anacardioides
Tuckeroo (Native)
Pot size: 100L
Mature H x S: 6-10m x 4-5m
Qty Required: 3

Acer palmatum 'Sango Kaku'
Japanese maple (Exotic)
Pot size: 75L
Mature H x S: 6m x 5m
Qty Required: 5

Syzygium 'Cascade'
Cascade Lilly Pilly (Native)
Pot size: 300mm
Mature H x S: 2.5m x 1.5m
Qty Required: 15

Doryanthes excelsa
Gymea Lily (Native)
Pot size: 300mm
Mature H x S: 1m x 1m
Qty Required: 18

Dianella tasmanica
Dianella Emerald Arch (Native)
Pot size: 300mm
Mature H x S: .55m x .5m
Qty Required: 40

Lomandra longifolia 'Tanika'
Lomandra Tanika
Pot size: 200mm
Mature H x S: .7m x .8m
Qty Required: 34

Philodendron 'Xanadu'
Dwarf Philodendron (Exotic)
Pot size: 140mm
Mature H x S: .7m x .7m
Qty Required: 36

Bio-retention mass planting
Carex appressa
Juncus usitatus
Isolepis nodosa
Goodenia ovata

Pot size: tube stock
Planting Density: 8 plants/m²
Total Qty Required: 85.7 m² (685 plants)

Other Landscape Items
Brick garden edging - refer detail
Maintain or reinstate nature strip turf - refer detail
Non-slippery paving to architect's details

Retaining wall - refer to Structural Eng. detail
Handrail or approved equivalent to BCA standards & council specifications

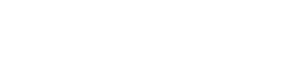
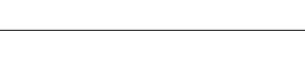
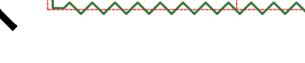
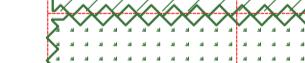
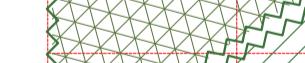
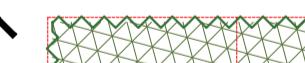
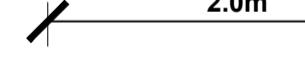
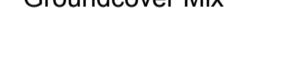
Planting shall be modified to suit embankment, existing trees and natural elements where necessary.

Organic mulching is not permitted.
Non-floatable mulch could include crushed rock, gravel, coarse river sand, scoria or river pebbles. 4-7mm screenings or similar.

Ca *Carex appressa*
Ju *Juncus usitatus*
In *Isolepis nodosa*
Go *Goodenia ovata*

Pot size: tube stock
Planting Density: 8 plants/m²
64/module (4m x 2m)

BIO - RETENTION GROUNDCOVER MIX



LEGEND & SCHEDULE

Note: Landscape Contractor to confirm plant quantities with Landscape Architect prior to ordering

Trees

Lagerstroemia 'Biloxi'
Crepe Myrtle (Exotic)
Pot size: 75L
Mature H x S: 5m x 4m
Qty Required: 3

PLANT PALETTE



Corymbia 'Summer Red'
Flowering Gum (Native)
Pot size: 5L
Mature H x S: 5m x 3m
Qty Required: 3

Plumeria acutifolia
Frangipani
Pot size: 75L
Mature H x S: 6m x 5m
Qty Required: 3

Screening Plants
Elaeocarpus reticulatus
Blueberry Ash (Native)
Pot size: 25L
Mature H x S: 5-8m x 3-4m
Qty Required: 5

Shrubs
Metrosideros collina var.
villosa 'Tahiti'
Tahiti Christmas Bush (Exotic)
Pot size: 300mm
Mature H x S: 2m x 1.5m
Qty Required: 84

Syzygium 'Cascade'
Cascade Lilly Pilly (Native)
Pot size: 300mm
Mature H x S: 2.5m x 1.5m
Qty Required: 24

Feature Plants
Ravenala madagascariensis
Travelers Palm (Exotic)
Pot size: 75L
Mature H x S: 3m x 1.5m
Qty Required: 5

Beschorneria yuccoides
Mexican Lily (Exotic)
Pot size: 200mm
Mature H x S: 1m x 1m
Qty Required: 55

Doryanthes excelsa
Gymea Lily (Native)
Pot size: 45L
Mature H x S: 1.5m x 1m
Qty Required: 52

Philodendron 'Xanadu'
Dwarf Philodendron (Exotic)
Pot size: 300mm
Mature H x S: 1m x 1m
Qty Required: 47

Cordyline fruticosa 'Rubra'
Red Sensation (Exotic)
Pot size: 300mm
Mature H x S: 2m x 1.5m
Qty Required: 22

Grasses / Groundcovers
Trachelospermum asperatum 'FlatMat'
Japanese Star Jasmine (Exotic)
Pot size: 150mm
Mature H x S: 300mm x 1m
Qty Required: 135

Lomandra 'Tanika'
Dwarf Mat Rush (Native)
Pot size: 150mm
Mature H x S: 500mm x 600mm
Qty Required: 84

Dianella tasmanica 'WYEENA'
(Native)
Wyeena Dianella
Pot size: 140mm
Mature H x S: 8m x 6m
Qty Required: 233

Carpobrotus glaucescens (Native)
Pigface
Pot size: 140mm
Mature H x S: 0.2m x 2m
Qty Required: 320

Other Landscape Items
Brick garden edging - refer detail
1.2m Gate and fence - colour and style to be nominated by client

Retaining wall - refer to Structural Eng. detail
Non-slippery paving to Architect's details

Feature Plant: *Philodendron 'Xanadu'*

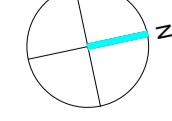
Feature Plant: *Doryanthes excelsa*

Groundcover: *Trachelospermum*

SAMPLE IMAGE: SHADE STRUCTURE



Bar Scale
0 1 2 3 4 5m 10m



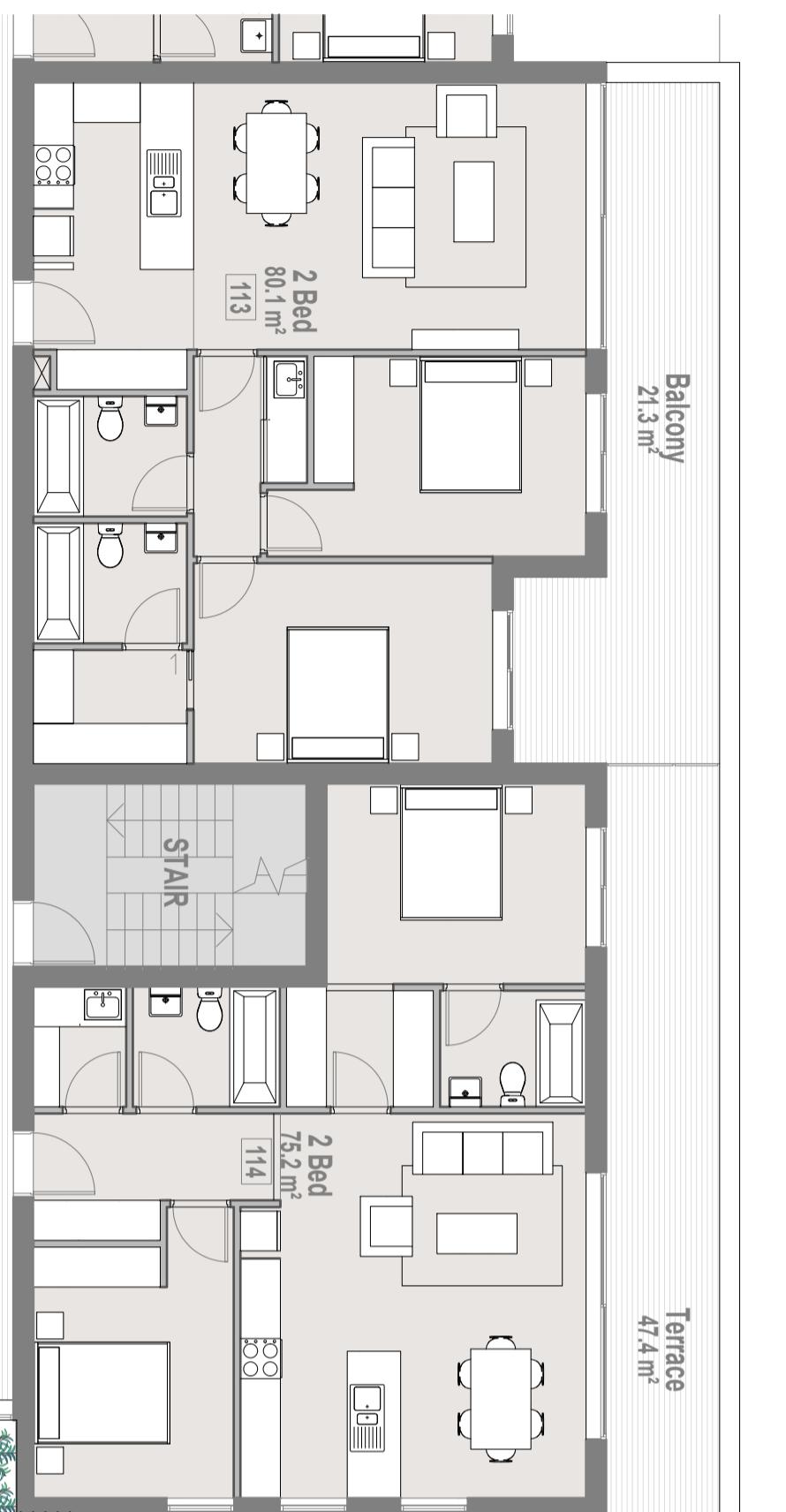
Planting in raised planter to include:

-3 Ravenala.m
-9 Cordyline 'Rubra'
-17 Doryanthes.e
-13 Philodendron 'Xanadu'
-50 Dianella

Planting in garden bed on paving level to include:

-34 Trachelospermum. a
Recessed concrete slab to Structural Eng. & Architect's details

REFER ARCHITECT'S DETAILS FOR INTERNAL LAYOUT



No. 4 Hargrave St
SINGLE STOREY
CLAD RESIDENCE
TILE ROOF

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. **Retaining wall details to engineers design.** Elements such as drainage swales may be incorporated in garden bed areas (using non-floatable mulch) without compromising the capacity or form.

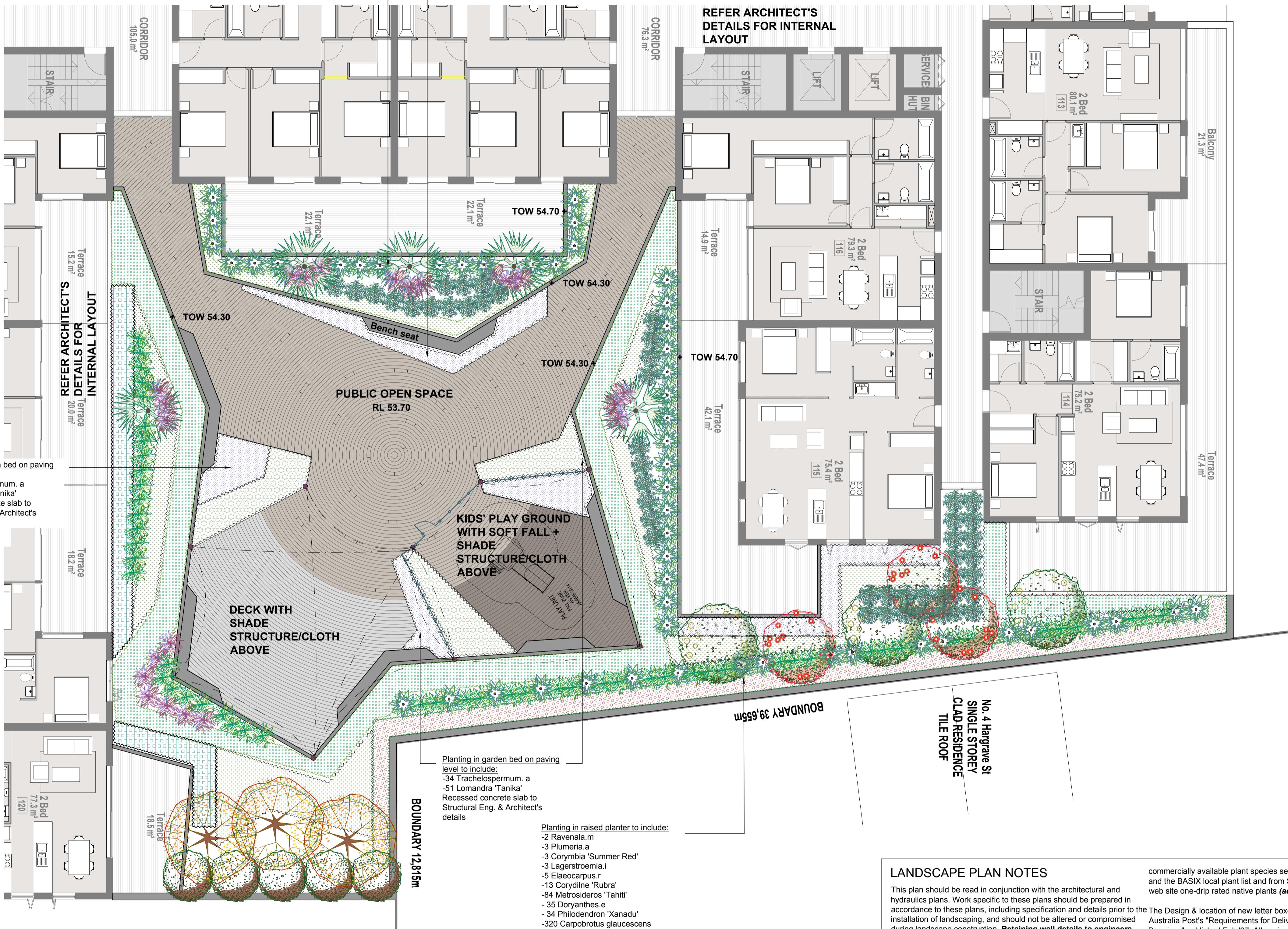
This plan has been prepared for DA approval only, not for construction.

This plan has been prepared with reference to **Penrith Council Landscaping Guidelines & requirements**. Planting proposed using

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**).

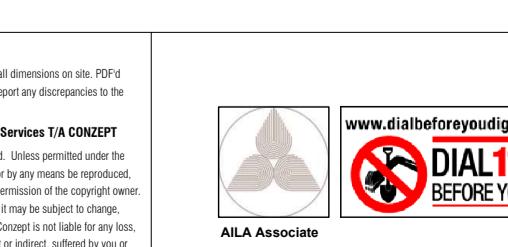
The Design & location of new letter boxes shall be in accordance with Australia Post's "Requirements for Delivery of Mail to Residential Premises" published Feb '97. All noxious weeds listed in Councils weed lists & located on the site shall be continually removed & suppressed. Reinstate all boundary 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.

DA 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.**



GENERAL NOTE:
Frequent dimensions are preferred to scale markings. Verify all dimensions on site. IPDF plans may vary slightly to Scale for the indicated on plans. Report any discrepancies to the Landscape Architect.

© Copyright R. L. Frew Landscape Architectural Services T/A CONCEPT
This drawing is protected by copyright. All rights are reserved. Unless permitted under the Copyright Act 1968, no part of this drawing may be copied or reproduced, published, distributed or otherwise used without the prior written consent of the copyright owner.
It is the State of the drawing is signed by the Contractor it may be subject to change.
Contractor shall not be liable for any damage, loss 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.



www.dialbeforeyoudig.com.au
DIAL 1100
BEFORE YOU DIG



LANDSCAPE ARCHITECT:
Suit 101, 506 Miller Street,
CAMMERAY NSW 2026
Phone 9922 5312
Fax 8622 3002
Mobile 0413 861 351
www.concept.net.au
enquiries@concept.net.au

COUNCIL
PENRITH

REV
A
DATE
20.11.15

NOTATION/AMENDMENT
Landscape plan for DA submission

PROJECT:
PROPOSED MEDICAL & RESIDENTIAL
APARTMENT DEVELOPMENT
29-33 DERBY ST, 34-38 SOMERSET ST &
2 HARGRAVE ST
KINGSWOOD NSW

TITLE:
LANDSCAPE PLAN
LEVEL 1
DWG No:
LPDA 16 - 220 / 2
DRAWN:
E.W.
ISSUE:
A
DRAWN:
E.W.
CHECKED:
R.F.

STATUS:
DEVELOPMENT APPLICATION
SCALE:
1:100 @ A1
DATE:
NOV 2015

Landscape Work Specification

Preliminaries

1.01 General

- The following general conditions should be considered prior to the commencement of landscape works:
 - The landscape plans shall be read in conjunction with the architectural plans, hydraulic plans, service plans and other plans to be prepared.
 - All services including existing shall 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 landscape 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 NATSPEC Guide 2 "A Guide to Assessing Tree Quality". 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 stocking 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 trapping 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
- Sandbags/ 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 "Sewsite Reference Kit" as prepared by DLWC & WSROC (1997) for construction techniques

Soil Works

2.01 Materials

Specified Soil Conditioner (Generally to improve site soil)

The specified soil conditioner for top-soil improvement shall be an organic mix, equal to "Botany Humus", as supplied by ANL. 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 "Organic Garden Mix" as supplied by ANL or approved equal. All mixes are to comply with AS 4419 Soils for landscaping & garden use, and 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 between 5.5 and 7. Use 100% imported soil mix when site topsoil runs out.

2.02 Installation

a) Testing

All testing is to be conducted in accordance with AS 1289 Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying 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 5%.

Note that a soil test conducted by the "Sydney Soil lab" 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 Areas - 100mm below finished surface level.
- 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 Conditioners & Mixes

- Trees in turf & beds - backfill 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 till to thoroughly mix the conditioner into the top 100mm 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 a 25L container size must be grown and planted in accordance with Clarke, R 1996 Purchasing Landscaped Trees: A guide to assessing tree quality. NatSpec Guide No. 2. Certification that trees have been grown to NatSpec guidelines is to be provided upon request of Council's Tree Management Officer.

b) 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 Ross Clark's book

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. 2 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 220mm 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 "Sir Walter" Buffalo or equivalent (unless stated otherwise), free from any weeds and other grasses, and 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
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 fanned 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 roots set to the consolidated finished grade 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 backfill. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching
Mulch should be spread so that a compacted thickness of 75mm is achieved after settlement in all planting beds and around individual plant. Apply immediately following planting and water in, ensuring that a 50mm radius is maintained around the trunk of each plant. There shall be no mixing of soil and mulch material.

e) Turfing
Moisten soil prior to turf being laid. Turf shall be neatly butted 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 rotated immediately following installation.

f) Brick Edging
The Contractor shall install Brick 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.

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 set out as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All hardscape 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 owners which may arise from this application. Any enquiries in this regard may be made to the Crown Lands Division on (02) 8536 5332.

Irrigation Works

5.01 General (Performance Specification)
New irrigation systems to planting areas shall be a Commercial Grade Irrigation System conforming to all relevant Australian standards, including AS 3800 & the Electrical Safety Act 2002, Workplace Health & Safety Act 1995, & 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 latest Sydney Water Code. 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, Permit 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 irrigation application rates not exceeding 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 required 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

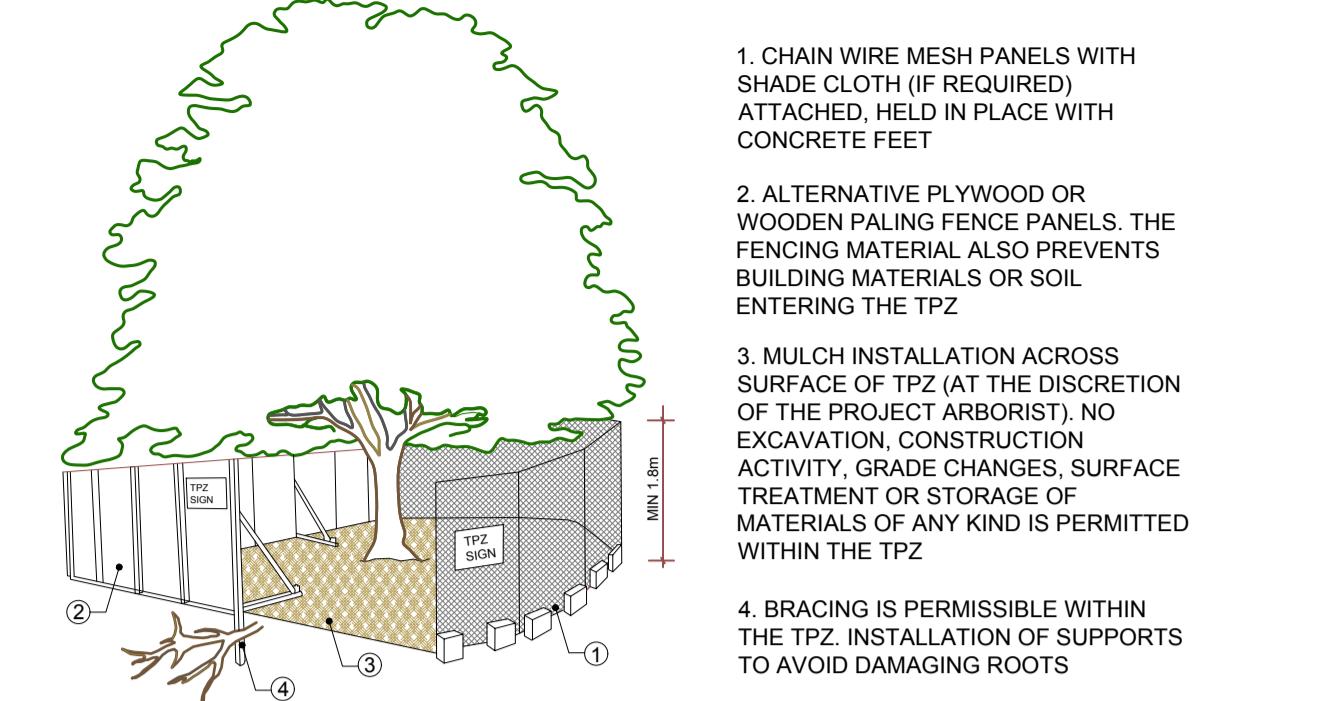
6.01 General
The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance 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.
- Cleaning 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.
- Feeding with approved fertilizers at correct rates.
- Adjusting 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.

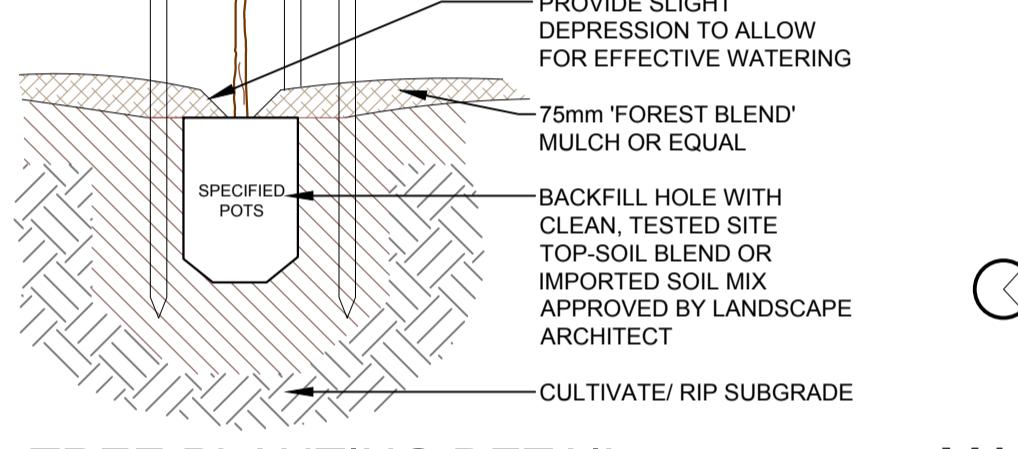
On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.

b) Stake and Tie Removal
Provide min. 2 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 220mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.



TREE PROTECTION ZONE

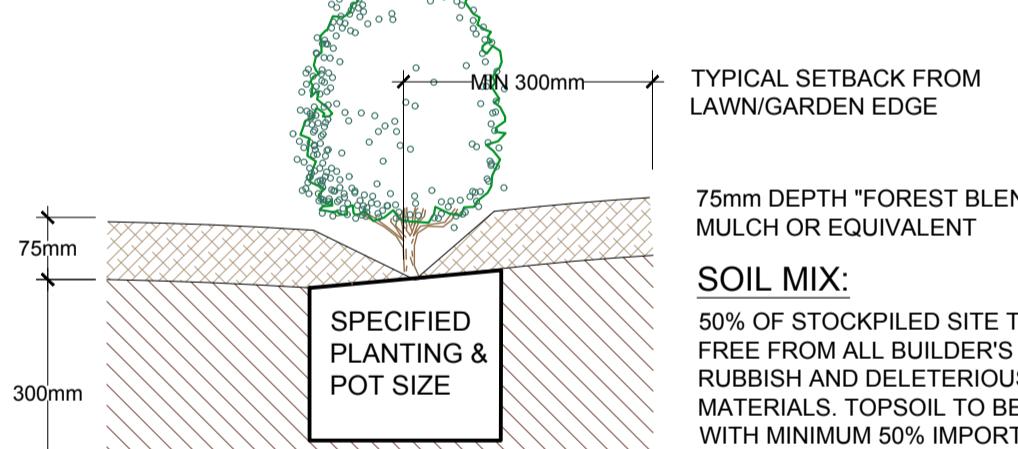
N.T.S



TREE PLANTING DETAIL

SCALE: 1:10

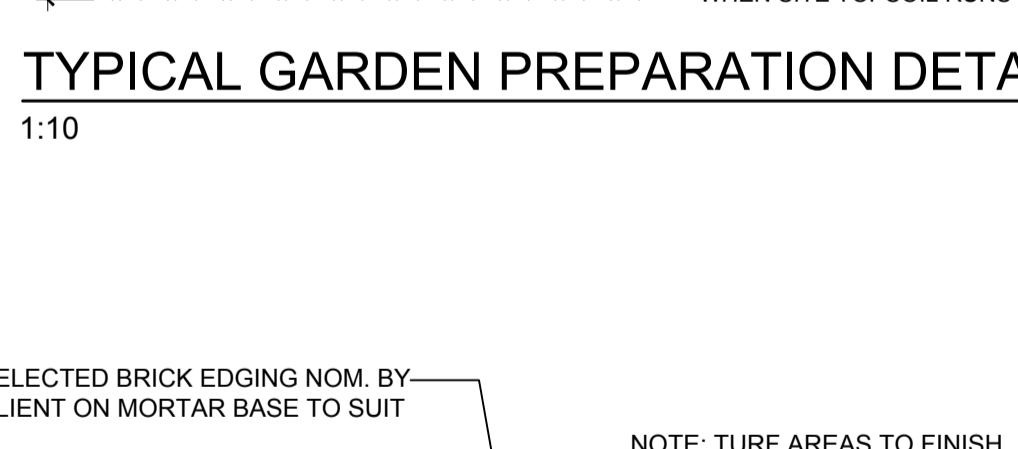
N.T.S



TYPICAL GARDEN PREPARATION DETAIL

SCALE: 1:10

N.T.S



TYPICAL TURF AND BRICK EDGE DETAIL

SCALE: 1:10

N.T.S