

LEGEND

BOUNDARY

SEWER

EXISTING LEVELS

ALUMINIUM EDGE

CONCRETE

MULCH

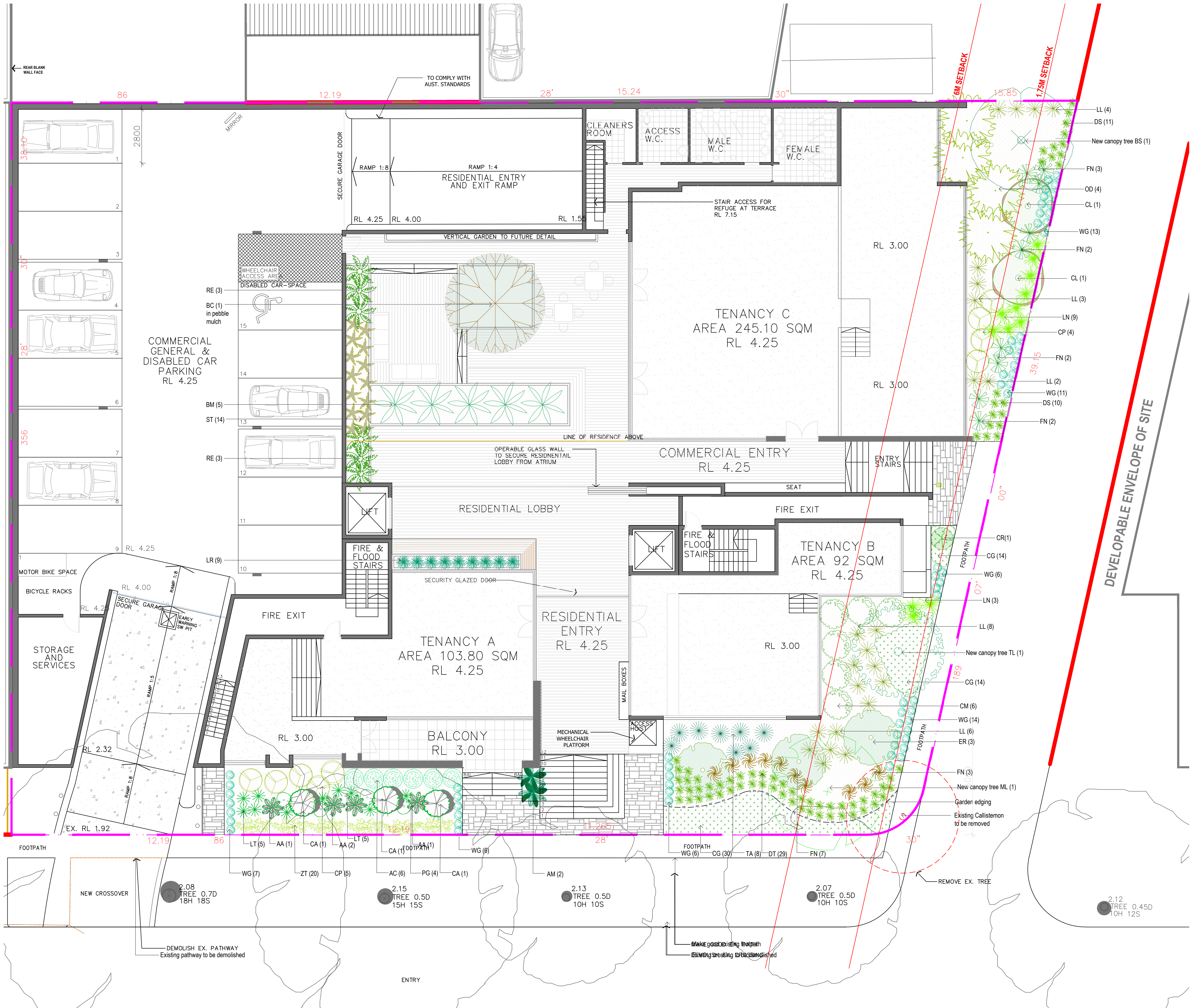
PAVING

TREE TO BE RETAINED

TREE TO BE REMOVED

PROPOSED PLANT SCHEDULE					
KEY	BOTANICAL NAME	COMMON NAME	QTY	MATURE HGT	POT SIZE
TREES					
BC	BACKHOUSIA CITRIODORA	LEMON MYRTLE	1	5m	75Ltr
* BS	BANKSIA SERRATA	OLD MAN BANKSIA	1	7m	400Ltr
ER	ELAEOCARPUS RETICULATUS	BLUEBERRY ASH	3	6m	75Ltr
* ML	MELALEUCA LINEARIFOLIA	SNOW IN SUMMER	1	8m	400Ltr
TL	TRISTANIOPSIS LAURINA 'LUSCIOUS'	LUSCIOUS WATER GUM	1	8m	400Ltr
SHRUBS					
AA	ASPLENium AUSTRALASICUM	BIRDS NEST FERN	5	1m	250mm
AC	ACMENA SMITHII MINOR 'CHERRY SURPRISE'	CHERRY SURPRISE	6	2.5m	35Ltr
AM	ALPINIA MUTICA 'FALSE CARDAMON'	NATIVE GINGER	2	2m	250mm
BM	BAMBUSA TEXTILIS GRACILIS	SLENDER WEAVERS BAMBOO	5	6m	75Ltr
CA	CORREA ALBA	WHITE CORREA	3	1.5m	250mm
* CL	CALLISTEMON LINEARIS	NARROW LEAF BOTTLEBRUSH	2	3m	35Ltr
CM	CALLISTEMON VIMINALIS 'MACARTHUR'	MACARTHUR BOTTLEBRUSH	6	1.8m	250mm
CP	CRINUM PEDUNCULATUM	RIVER LILY	9	2m	250mm
CR	CYCAD REVOLUTA	CYCAD	1	1m	250mm
* OD	OZOTHAMNUS DIOSMIFOLIUM	EVERLASTING PAPER DAISY	4	2m	250mm
PG	PITTOSPORUM 'GOLF BALL'	GOLF BALL PITTOSPORUM	4	0.7m	250mm
RE	RHAPIS EXCELSA	RHAPIS PALM	6	2m	45Ltr
WG	WESTRINGIA FRUTICOSA 'GREY BOX'	GREY BOX	70	0.4m	250mm
GRASSES / GROUND COVERS					
CG	CARPOBROTUS GLAUDESCENS	PIG FACE	44	0.2m	200mm
DS	DIANELLA 'SILVER STREAK'	VARIAGATED FLAX LILY	21	0.5m	140mm
DT	DIANELLA 'TAS RED'	TAS RED FLAX LILY	29	0.4m	200mm
* LL	LOMANDRA LONGIFOLIA	SPINY-HEADED MAT-RUSH	19	1m	200mm
LN	LOMANDRA LONGIFOLIA 'NYALLA'	NYALLA	12	0.7m	200mm
LR	LIRIOPE MUSCARI 'JUST RIGHT'	JUST RIGHT	9	0.5m	140mm
LT	LOMANDRA LONGIFOLIA 'TANIKA'	TANIKA	10	0.5m	200mm
* FN	FICINIA NODOSA	KNOBBY CLUB-RUSH	9	0.6m	200mm
ST	SANSEVIERIA TRIFASCIATA 'LAURENTII'	MOTHER IN LAWS TONGUE	14	0.8m	250mm
* TA	THEMEDA AUSTRALIS	KANGAROO GRASS	8	1m	200mm
ZT	ZOYSIA TENUIFOLIA	NO MOW GRASS	20	0.1m	200mm

* DENOTES PLANT FROM COUNCIL'S 'LOWLANDS' VEGETATION LIST.



Rev. A
B
C

Date
30/03/17
30/03/17
12/07/23

Issue
Preliminary Issue
DA Issue
DA Issue

Checked
AE
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AE

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24/07/2023

SCALE
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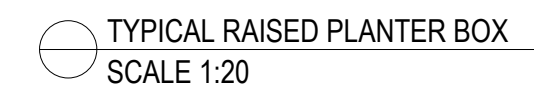
PROJECT NO.
17571

NORTH

LANDSCAPE PLAN
GROUND FLOOR

L-01

Rev D



The planters are to be consistently maintained to a high standard for maximum visual benefits, functions and uses.

Establishment maintenance is typically 6 to 12 months with irrigation, weed control and pruning critical to promote suitable plant form and growth

All maintenance activities are to be conducted in accordance with applicable Australian and workplace safety regulations. All 'Working at Heights' requirements are to be complied with. Maintenance personnel must have appropriate training and qualifications. Safety systems are to be maintained as per AS/NZS 1891-4:2009. All work shall be carried out in accordance with standard horticultural and arboricultural practices. Use a visual inspection checklist to monitor the planters identifying any problems. Weeds to be removed or controlled to prevent them from becoming a problem. Maintenance staff should observe good hygiene practices to ensure weeds do not spread from one site to another. Drains and associated infrastructure should be inspected annually. No ponding of water should be evident on roofs or in perimeter drains and no leaks observed from overflowing gutters externally or internally.

After the vegetation has been installed, the requirements for maintenance include; removal of weeds, light fertilization with slow release complete fertilizers, inspected for and the replacement of dead plants.

For the successful establishment of plants it is essential that adequate maintenance on a regular basis be provided. Regular visual inspection ensures problems can be re-identified and fixed. This regular maintenance will encourage quick development of the plants and reduce the cost of replacing dying plants.

VISUAL INSPECTION CHECKLIST

Use a visual inspection checklist to monitor the planters and identifying any problems. Additional visual inspections are recommended after extreme weather events such as rain, strong winds and prolonged drought.

PLANT HEALTH: Assess plant health and condition, noting signs of possible nutrient deficiencies, pests and diseases, damaged plants, pruning

WEEDS: Assess the weeds present, noting the dominant species and if particular areas are more impacted than others.

PLANTERS	Check the planters, noting any roots emerging from the bottom of planters, particularly at drainage points, or any surface damage of the planter profile.
IRRIGATION	Check the irrigation system, including the mainline, submain, and lateral lines, for leaks, blockages, or other problems. Check the operation of the valves and the pressure of the system.

IRRIGATION: Check any damage/deterioration of irrigation components and any visual signs of over/under watering.
DRAINAGE: Check for blockages, standing water.

HORTICULTURAL MAINTENANCE

Weeding:

Uncontrolled weeds compete with planted species and can alter the aesthetic and functional outcomes of the planters. Weed control measures should aim to eliminate weed germination and establishment. Weeds are to be controlled while young and before seed set.

Physical control of weeds in planters rely on hand removal with early weeding of small weeds the most effective approach. Weeds to be removed carefully by hand to minimize spread. Chemicals are generally not recommended. Maintenance staff should observe good hygiene practices to ensure weeds do not spread from one site to another.

Pruning:

Pruning is undertaken to manage plant form and shape of climbers and small trees. Begin from the top of the green wall and head down towards the bottom. Prune specimens that tower above others. Ensure plants do not attach to windows or walls. Prune climbers to encourage attachment to wire cables and ensure they do not grow over planter edges and trail along the ground. Prune climbers to ensure they do not attached to the small trees. Pruning as required to small trees to maintain plant density, shape, encourage flowering and improve appearance. After pruning, plants should have no dead wood evident and retain an appropriate form or shape. Pruning frequency will be dependent on growth rates and seasonality.

Plant Health:

Plant health issues may relate to nutrition or to abiotic stresses such as elevated heat, drought and wind exposure. Pests can cause physical damage to plants while pathogens such as viruses, fungi and bacteria can introduce disease and damage plant growth. Integrated pest management approaches will be the most effective to ensure plant health. Vegetation should be healthy with even growth and no evidence of pest and disease infestation. Scheduling of control measures will depend on the plant species and season.

Fertilisers: Managing plant nutrition should be based on regular monitoring of plant growth. Visual symptoms such as low vigour, stunting, leaf yellowing or chlorosis may indicate nutrient deficiency. Assessing the soil pH helps identify problems. Fertilising will only be required if the plant is indicating signs of poor condition and slow growth due to nutrient deficiencies. If fertilising is deemed to be necessary it will be carried out after the second season growth at the end of the second growing season in late summer to autumn. Fertilisers are to be used carefully to avoid dumping of nutrients and/or leaching of nutrients into the stormwater. Synthetic, controlled-release fertiliser or organic slow-release fertilisers should be used. N-P-K rates and application rates vary greatly depending on conditions of use. Consult manufacturers for application rates suitable for individual plantings.

Irrigation:
Check individual components of the irrigation system included drip heads, irrigation lines and drainage gutters.

Mulches:

Every 6 months all garden beds are to be checked to ensure there is sufficient mulch. Mulch to be spread evenly and uniformly at a consistent depth. No ponding of water should be evident or in perimeter drains and no leaks observed from planters externally or internally. All mulching is to be carried out with AS 4454 composted organic material, low in phosphorous and derived from the raw material, green waste. Mulching materials must be sourced from a certified fully licensed Australian Standard producer.

PLANTER SPECIFICATIONS

PLANTER MEDIA

Provide a lightweight Planter Media to AS4419 ie Planter Box Mix Top for the top layer up to 300mm above Planter Box Mix Bottom as supplied by BC Sands or equivalent. Provide a non hydrophobic low organic content media that is stable over time, has excellent capillary properties for sub surface irrigation, good shear strength due to particle shape for slope surface and is suitable for a wide range of plant species.

IRRIGATION

Install sub surface drip irrigation with even spacing to ensure a uniform moisture application. The irrigation system is to be designed & installed by a specialist Irrigation Subcontractor. The irrigation system is to be a fully automatic system, either a *proprietary* system, or an Electrical & Hydraulic Engineer Certified system made up of *proprietary* components. It is to supply water to all plant life at a rate & consistency to promote that plant life health. Water delivered by the irrigation system is not to create run-off or erosion, and is not to fall on non-soft landscaping areas & not to fall on non-soft landscaping elements outside of the area of planting.

FERTILISING

Fertilising will only be required if the plant is indicating signs of poor condition and slow growth due to nutrient deficiencies. If fertilising is deemed to be necessary it will be carried out after the second seasons growth at the end of the second growing season in late summer to autumn. Fertilisers are to be used carefully to avoid dumping of nutrients and/or leaching of nutrients into the stormwater. Synthetic, controlled-release fertiliser or organic slow-release fertilisers should be used. N:P:K ratios and application rates vary greatly depending on conditions of use. Consult manufacturers for application rates suitable for individual plantings.

MULCHING

Mulch all gardens to reduce the opportunity for blow-in weed species to readily establish. Mulch will also provide a stable ballast layer protecting the substrate layer during plant establishment from excessive winds. Following planting tamp lightly to give an even graded surface. Spread layers of mulch 20-40mm over the surface of all garden beds. Care shall be taken not to mix soil and mulch together.

All mulching is to be carried out with AS 4454 and must be sourced from a certified fully licensed Australian Standard producer
Mulch to be scoria, recycled concrete or basalt.

Rev.	Date	Issue
A	30/03/17	Preliminary Issue
B	30/03/17	DA Issue
C	12/07/23	DA Issue

Checked
AE
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S P A C E
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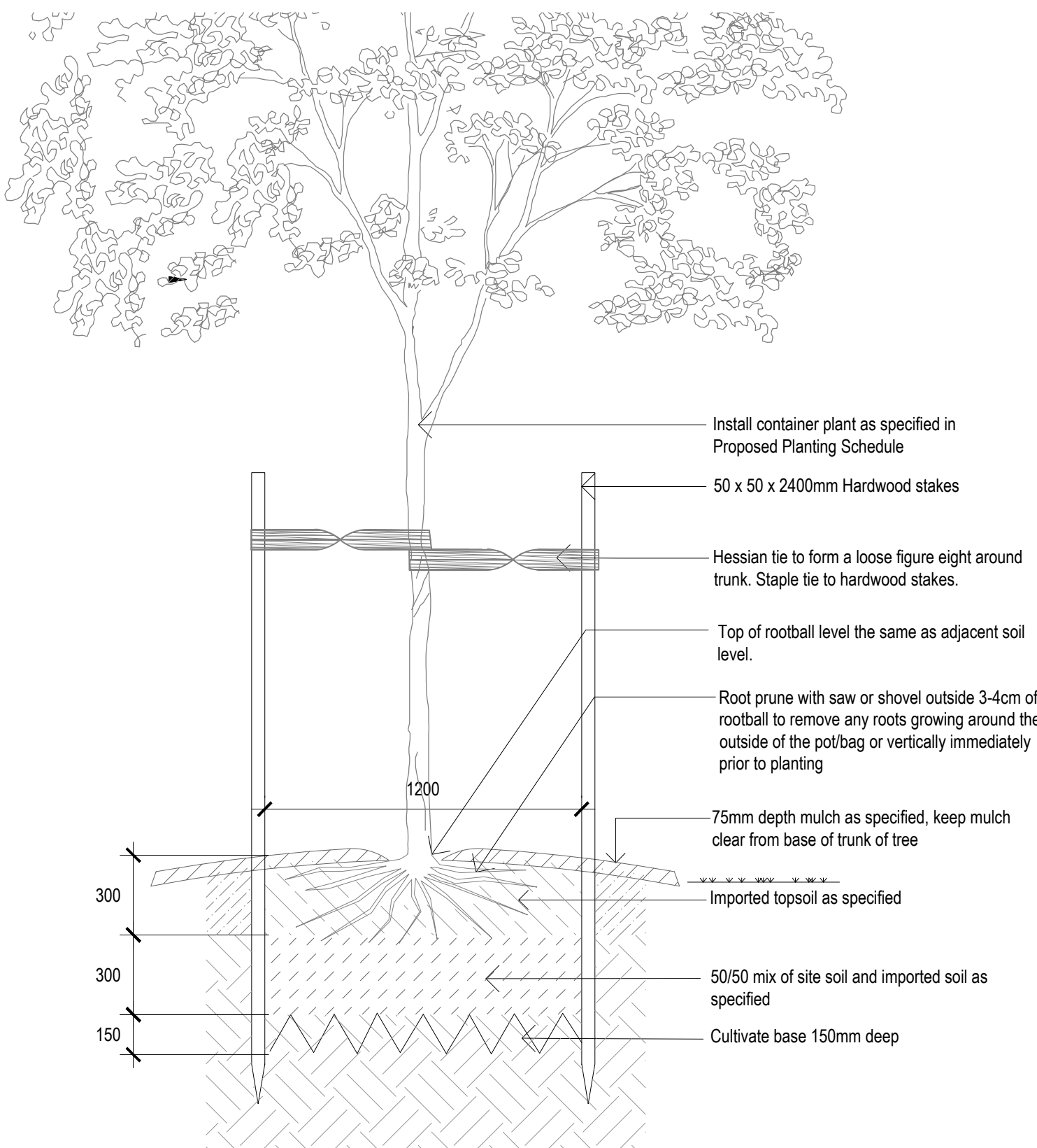
DRN: C.Wallace (B.LArch)
DATE: 12/07/2023
SCALE: 1:100@A1
PROJECT NO: 17571

LANDSCAPE PLAN
FIRST FLOOR RESIDENTIAL

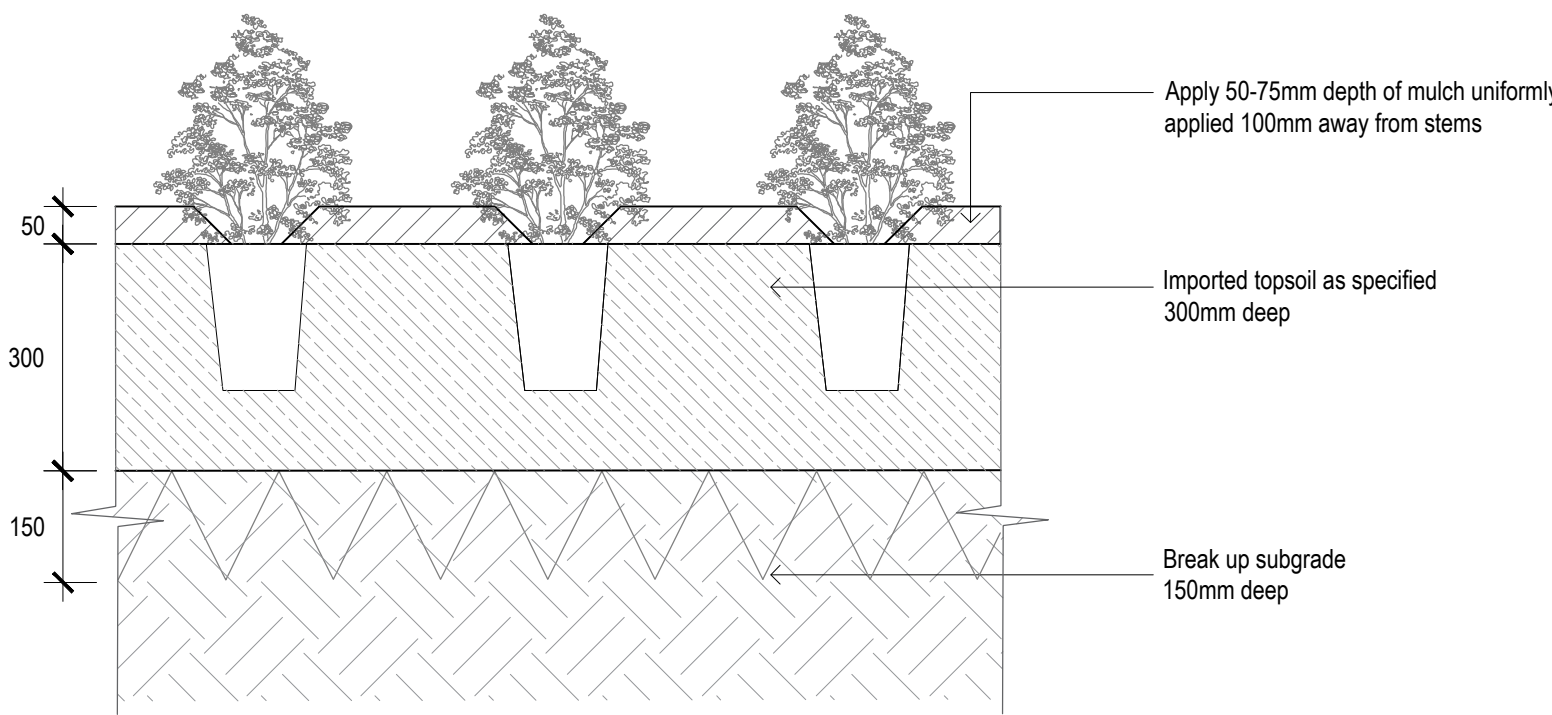
Rev D

NOTES:

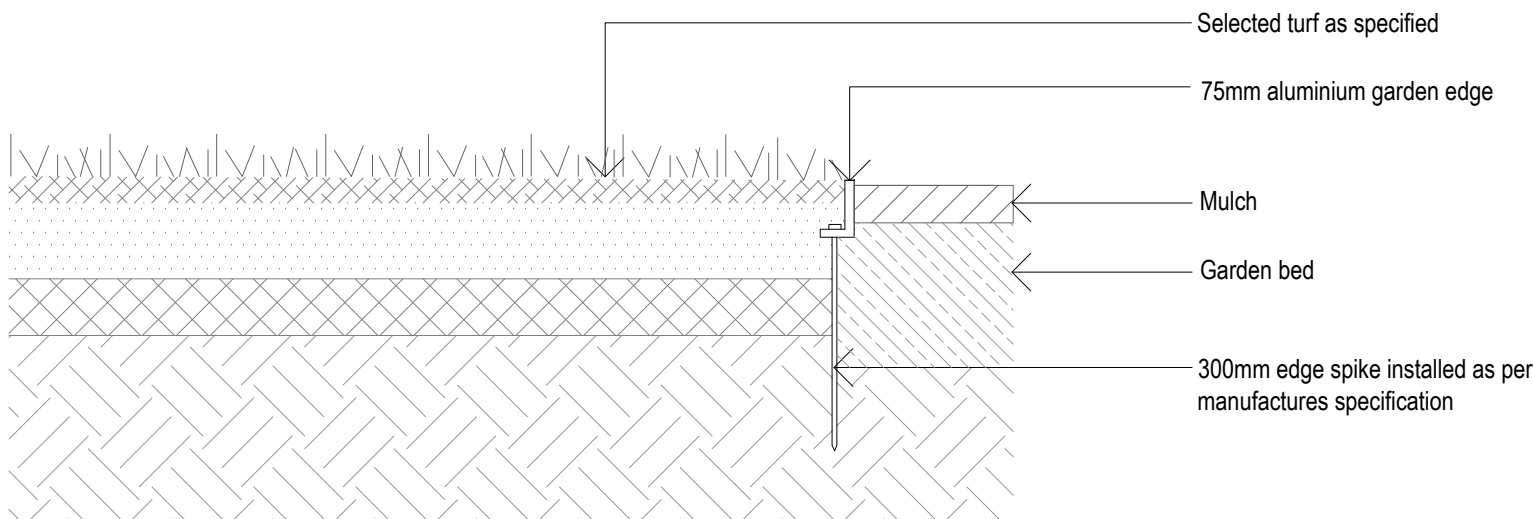
- Contractors to check and verify all dimensions and all levels on site prior to any works.
- Any discrepancies should be immediately referred to Space Landscape Designs.
- All work to comply with B.C.A. Statutory Authorities and relevant Australian Standards.



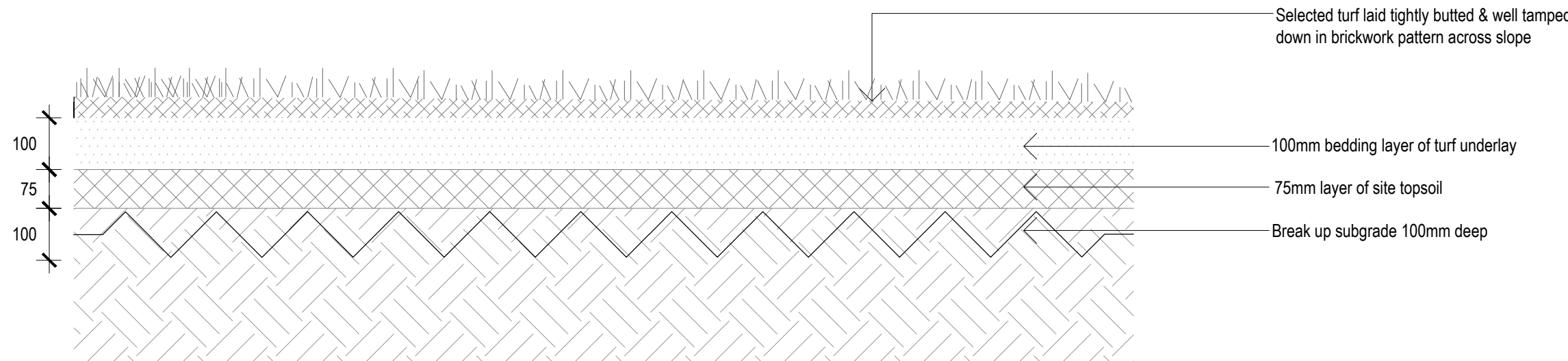
01 TYPICAL TREE PLANTING
SCALE 1:20



02 TYPICAL GARDEN BED DETAIL
SCALE 1:10



03 TYPICAL ALUMINIUM EDGE DETAIL
SCALE 1:10



04 TYPICAL TURF DETAIL
SCALE 1:10

LANDSCAPE SPECIFICATION NOTES

SITE PREPARATION

Locate any underground and overground services & ensure no damage occurs. Levels on plan are nominal only & all dimensions to be checked on site prior to commencement. Final structural integrity of all items shall be the sole responsibility of landscape contractor

WORKMANSHIP AND MATERIAL QUALITY

Materials and workmanship are to conform to the current applicable Australian Standard Specifications and Codes. Any work or materials, which, in the opinion of the Site Manager do not meet appropriate industry standards should be rejected. Where works are adjacent to existing works, make proper junctions between new and existing works and make good any damage caused to adjoining existing and retained works.

ELIMINATE WEEDS

Remove all existing weeds by hand, wiping or spraying with a glyphosate based herbicide. Weed control shall never be performed by mechanical cultivation or by scraping. Herbicide spraying is to be used to eliminate all existing weeds 30 days prior to planting.

IMPORTED TOPSOIL

All construction must comply with AS 4419-2018 Soils for Landscaping and Garden Use. Spread the topsoil on the prepared subsoil and grade evenly, making allowances, if appropriate, for the following:

- Required finished levels and contours after light compaction.
- Compact lightly and uniformly in 150 mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:
- Finished to design levels, smooth and free from stones or lumps of soil. Graded to drain freely, without ponding, to catchment points. Grade evenly into adjoining ground surfaces ready for planting.

PLANTING AREA

Remove weeds, rubbish, mulch and other debris. Do not disturb tree roots or services and if necessary cultivate these areas by hand. Spread topsoil on the prepared subsoil and grade evenly, making the necessary allowance to permit the required finished levels and contours after a light compaction. Spread topsoil to the typical depth of 300mm. Feather edges into adjoining undisturbed ground.

PLANT STOCK

Plant stock to be supplied by production nurseries in accordance with AS 2303:2018 Tree Stock for Landscape Use.

Health & Vigour: Supply plants with foliage size, texture & colour consistent with that shown in healthy specimens of the species. Balance of Crown: Supply plants with max. variation in crown bulk on opposite sides of stem axis, +/- 20%. Stock selection should also be based on NATSPEC Guide *Specifying Trees: a Guide to Assessment of Tree Quality*.

TREE DELIVERY

Carefully load, transport and unload, at the nominated site, the specified trees. All trees are to be delivered in such a way to prevent in transit wind damage. All trees shall be watered prior to loading for delivery. Plants shall not be contained within delivery vehicles for a period longer than 24hrs. Trees shall be carefully unloaded using methods appropriate to the size and weight of the trees. Damage to trees sustained during transport or unloading will result in those plants being rejected. Plants shall conform to the requirements at the time of delivery to the planting site. Transpiration shall be minimised during transport to prevent subsequent wilting or unseasonal defoliation. Plants that have been allowed to wilt or dry out during transport shall be rejected, irrespective of any previous acceptance. The soil mass of the root ball shall be securely contained and supported during transport. Root balls that have been unreasonably fractured, deformed or slumped during transit or unloading should not be accepted.

TREE PLACEMENT AND ALIGNMENT

When the tree pit is excavated and the hole is the correct size, place the rootball in its final position. Ensure the trees are centred and plumb and the top of the rootball level with the finished surface of the surrounding soil mix. Do not use the trunk of the tree as a lever in positioning or moving the tree in the planting hole. Position the tree at the set out distances as indicated in the details. Ensure trunks are set vertically and aligned with other new or existing trees. Orientate the trees trunk north where indicated by supplied markings where applicable.

ROOT TRIMMING

All trees shall have the outer 10-25mm of the external root ball faces pruned or sliced away using secateurs or a sharp and clean spade. Avoid excessive disturbance to the remaining root ball during this trimming and discontinue if excessive root ball soil begins to fall away. Do not leave the root balls exposed for extended periods. Cover the root ball with moist hessian if backfilling cannot occur immediately.

STAKING

Install 3 x 2100mm (H) x 50mm x 50mm hardwood timber stakes with hessian ties to all trees. Provide appropriate support considering exposure to prevailing winds. Stakes and hessian ties to be removed as soon as the tree is self supporting.

BACKFILLING

Backfill with soil mix as specified in soil mixes and in accordance with the details and specification. Lightly compact the soil to ensure all voids around root balls are filled and that no air pockets are retained. Ensure that the backfill soil is not paced over the top of the potted root ball. The top of the root ball and plant stem must be kept level with the top of the backfill.

FERTILISING

Fertiliser to be applied at time of planting. Slow release landscape fertiliser suitable for trees and shrubs, 9 to 12 months release time. Osmocote or approved equivalent applied according to manufacturers directions.

IRRIGATION SYSTEM

New inground dripline irrigation system to be installed with backflow preventer and with timers. Irrigation system to be designed and installed to local codes.

The entire irrigation system shall be fully automated and provide drip irrigation to all tree, shrub and ground cover zones. It is the Contractor's responsibility to verify water pressure available and determine all design-built parameters prior to any installation and sizing of irrigation components. Irrigation system to be connected to water tank to supplement water from mains.

ALUMINIUM GARDEN EDGING

Supply and install Link Edge 75mm as per Landscape Plan. Compact and level the base in the required area as indicated on Landscape Plan. Half hammer spikes into prepunched holes (approx 4 spikes every 3m length) starting from the first hole in the end of the Link Edge. Use spike washers supplied by manufacturer. Half hammer subsequent spikes in pivotal areas along the length. (Especially at points where a curve is required). Connect lengths together by using fish-plate connectors supplied by manufacturer. Check position of Link Edge is correct before hammering spikes firmly into ground.

MULCHING

All landscaping must comply with AS 4454-2012 Compost, soil conditioners and mulches. All planting areas to receive 50-75mm of garden Mulch, Droughtmaster, ANL p: 02 9450 1444 or approved alternative. Keep mulch 100mm away from plant stem & form a well to stop excessive water runoff. Finish flush with adjacent surfaces.

TURFING

New turf- Sir Walter Softed Leafed Buffalo. Excavate / grade all areas to be turfed to 120mm below finished levels. Ensure that all surface runoff is directed away from buildings. Ensure that no pooling or ponding will occur. Further rip the subgrade to 150mm. Install 100mm of imported turf underlay. Rolls to be closely butted and laid in a brickwork pattern. Fill any small gaps with topsoil and water thoroughly.

WATERING

Water in immediately after plant installation & allow for soil settlement. Watering program: Minimum 3 complete waterings, soaking to a depth of 150 mm at fortnightly intervals for the first 6 weeks of plant establishment irrespective of natural rainfall. Manually water all lawn and planting areas in absence of an irrigation system or until the proposed irrigation system is fully operational. Avoid frequent dampening of the surface. Allow the surface of the soil to partially dry out between waterings.

PAVERS ON SLAB

Pavers to be laid over a suitably constructed reinforced concrete base to engineer specifications. Provide movement joints over any expansion joints in the substrate, changes in background substrate or at a maximum of 5m intervals when in large areas. Joints shall go through the paver and mortar bed to the substrate. Seal all movement joints with a high quality flexible sealant.

Mortar bedding: use clean washed sand and cement at a ratio of 3 parts sand to 1 part cement thoroughly mixed screeded accurate to falls to a depth of approximately 25mm, dust the surface of the mortar liberally with dry neat cement allowing the moisture from the mortar to wet the neat cement. Do not spread more mortar than can be covered by the paving before it commences to set.

Adhesive Bedding: use a good quality flexible adhesive such as Readyfix Elasta Grip, mix according to the instructions, notch the adhesive out with a 12mm x 12mm notch trowel (do not spread more adhesive than be covered before it commences to skin over) approximately 1m² at a time.

Place the pavers in the required pattern, taking care to keep the lines straight by checking each row with a string line and fitting the cut pieces as you go, until the area is paved. Ensure any excess cement, mortar or dust from cutting is removed from the surface of the paver before it commences to set. Grouting can commence after 24 hours. Pavers to comply with slip resistance AS 4586:2013.

RETAINING WALLS & PLANTER BOXES

All retaining walls & planter boxes to be constructed to Engineer's details. Ensure all internal surfaces are waterproofed. Geotextile wrapped ag. drainage line backfilled with aggregate is to be installed behind all retaining walls & connected to stormwater in accordance with Sydney Water regulations. All planter boxes are to have Atlantis drainage cell (or approved alternative) installed & connected to stormwater in accordance with Sydney Water regulations.

ESTABLISHMENT MAINTENANCE

The Contractor shall monitor and maintain all planting and associated landscaping works for the duration of the maintenance period. This shall generally include lawn mowing, watering, failed plant replacements, pest and disease control, weed control and monitoring. Maintenance to be carried out to all areas where new planting is installed. Weeding shall extend around and in between individual plants and up to paths, kerbs or other defining edges. Carry out all maintenance activities for all new garden and lawn areas as required to ensure the plants and turf become established within the maintenance period and are kept in a healthy and tidy state in accordance with best horticultural practices.

NOTES:

- Contractors to check and verify all dimensions and all levels on site prior to any works.
- Any discrepancies should be immediately referred to Space Landscape Designs.
- All work to comply with B.C.A. Statutory Authorities and relevant Australian Standards.
- Dimensions designed over existing. All measurements are in millimetres.

Rev.	Date	Issue
A	12/07/23	DA Issue

Checked

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**LANDSCAPE DETAILS
AND SPECIFICATIONS**
L-03

Rev A