

EXISTING TREE AND SITE PLAN

Scale 1:100

Register of Plans:
2102/1 Existing Tree and Site Plan
2102/2 Landscape Plan
2102/3 Planting Plans / Plant Schedule
2102/4 Construction Notes & Details

NOTE:
Based on the Arborist Report prepared by Growing My Way (dated Nov 2020).
NOTE: Print in colour for accuracy of information

Date:	Amendments:
19.05.2021	DRAFT issued electronically as PDF for FEEDBACK
25.05.2021	DRAFT amended / issued electronically as PDF
3.06.2021	DRAFT amended / issued electronically as PDF
4.06.2021	FINAL SET issued electronically as PDF
8.06.2021	FINAL SET issued electronically as PDF

Project:
Proposed Four Unit Development
3 Brookvale Ave
Brookvale NSW 2100

Client:
Primo Design Pty Ltd

Sheet Title:
Existing Tree and Site Plan

Scale: Plan and Bar Scale @ 1:100 @ A1 sheet size

Base drawing supplied by Bee & Lethbridge Pty Ltd

Date: May 2021 (refer amends table)

Dwg no: 2102/1 sheet 1 of 4

PAMELA FLETCHER registered landscape architect AILA
23 Sydney Rd Warriewood NSW 2428 pam@pamfletcher.com
www.pamfletcher.com mob: 0408 417 761

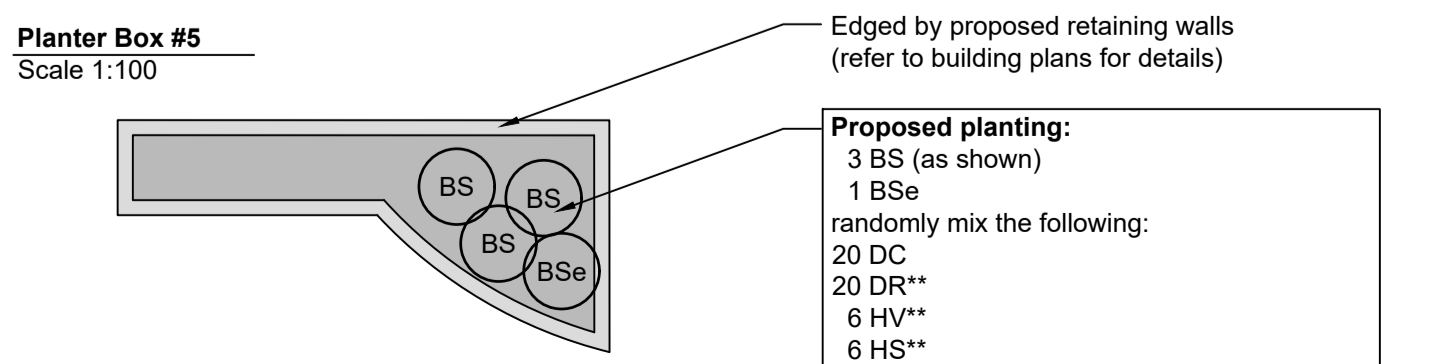
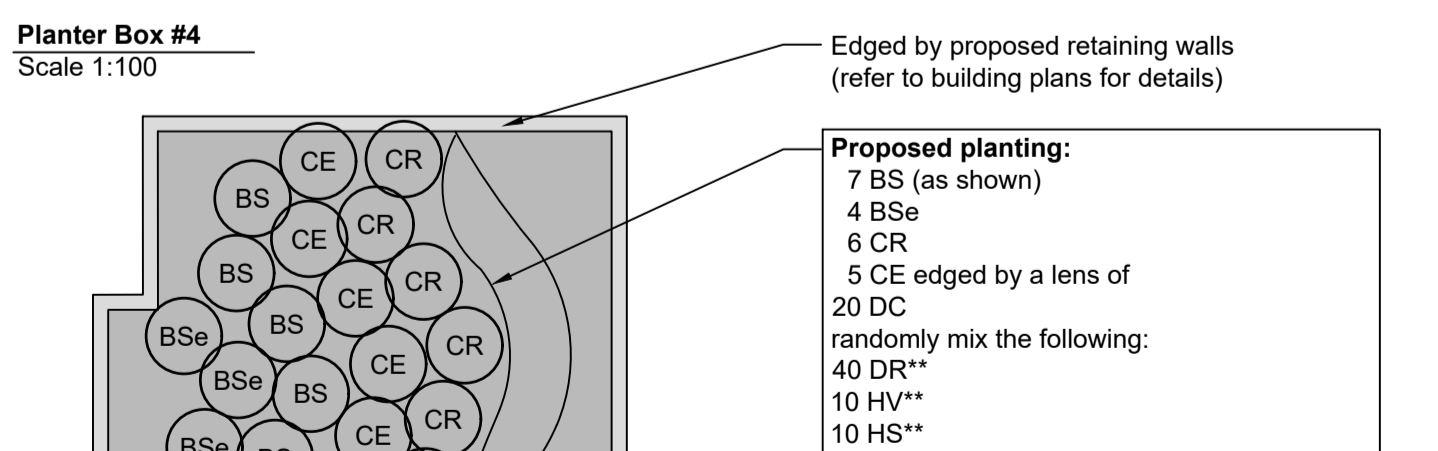
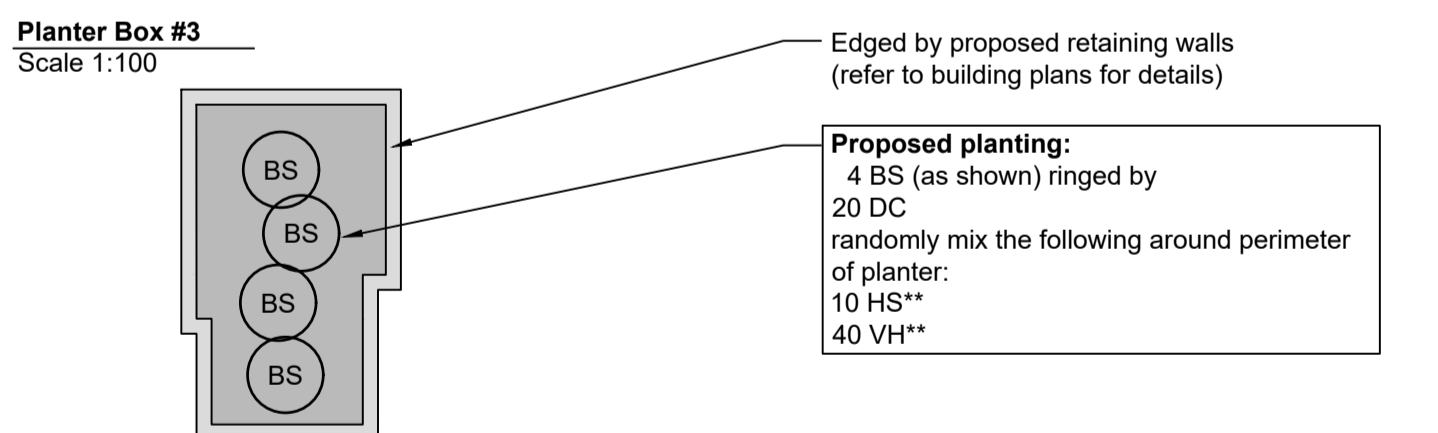
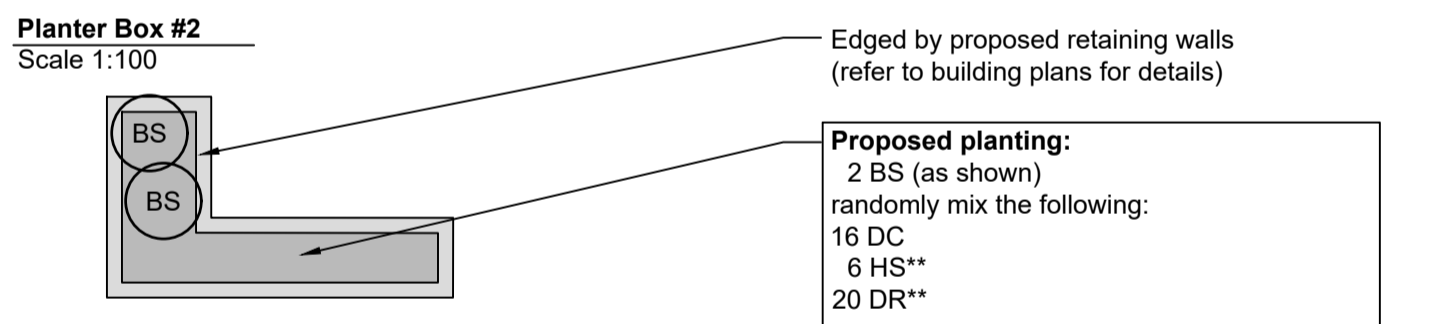
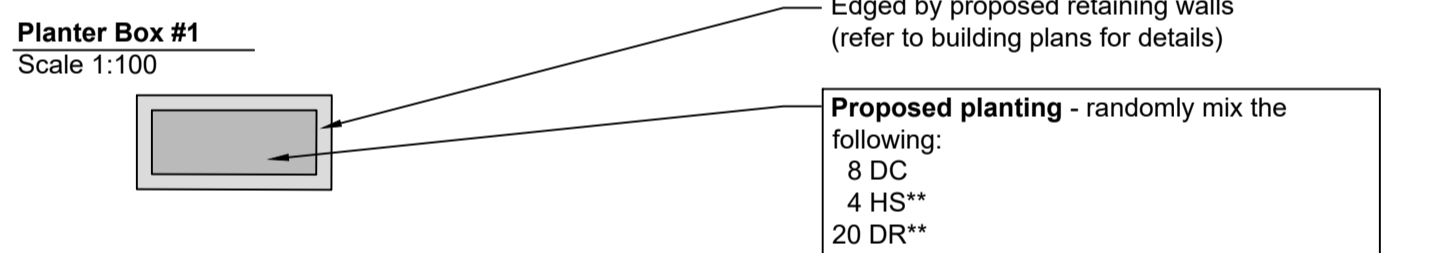
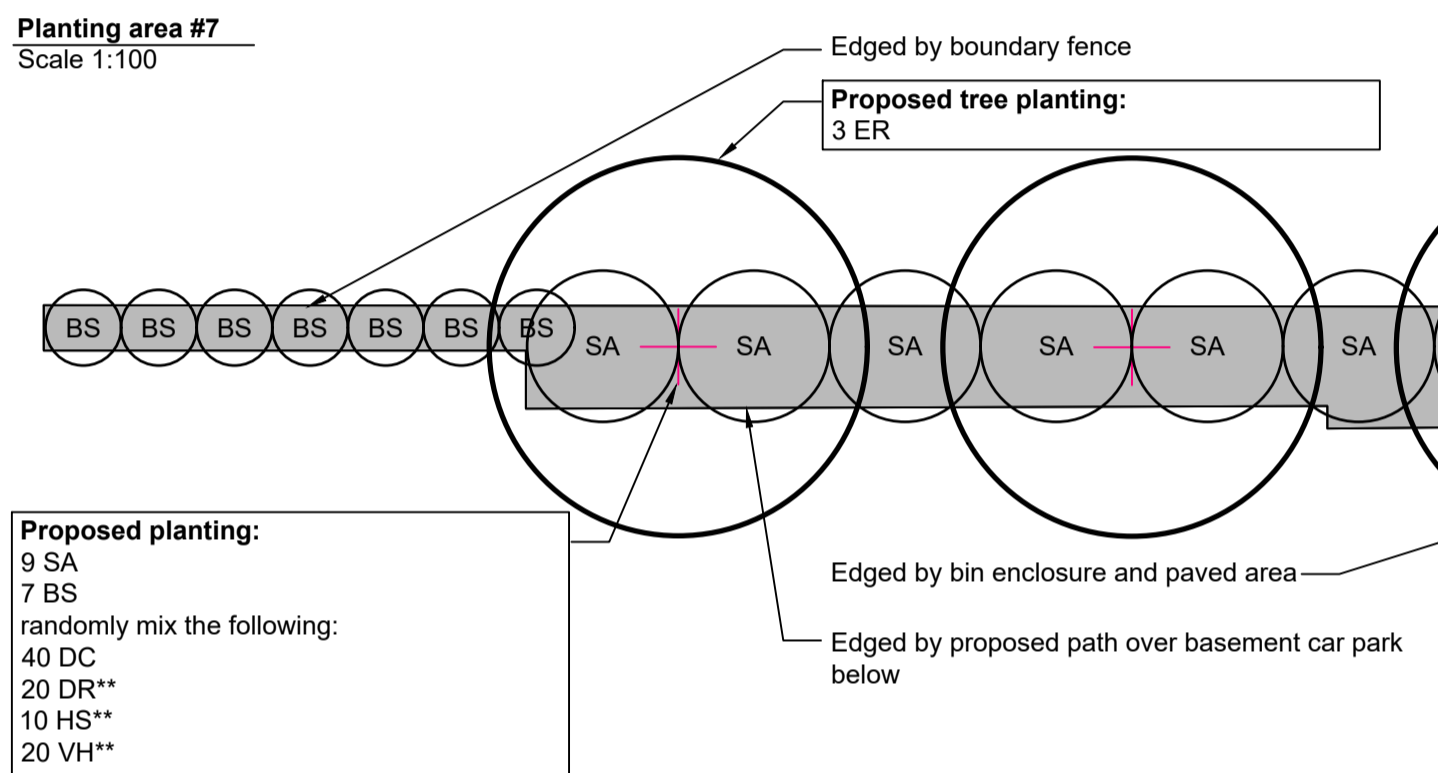
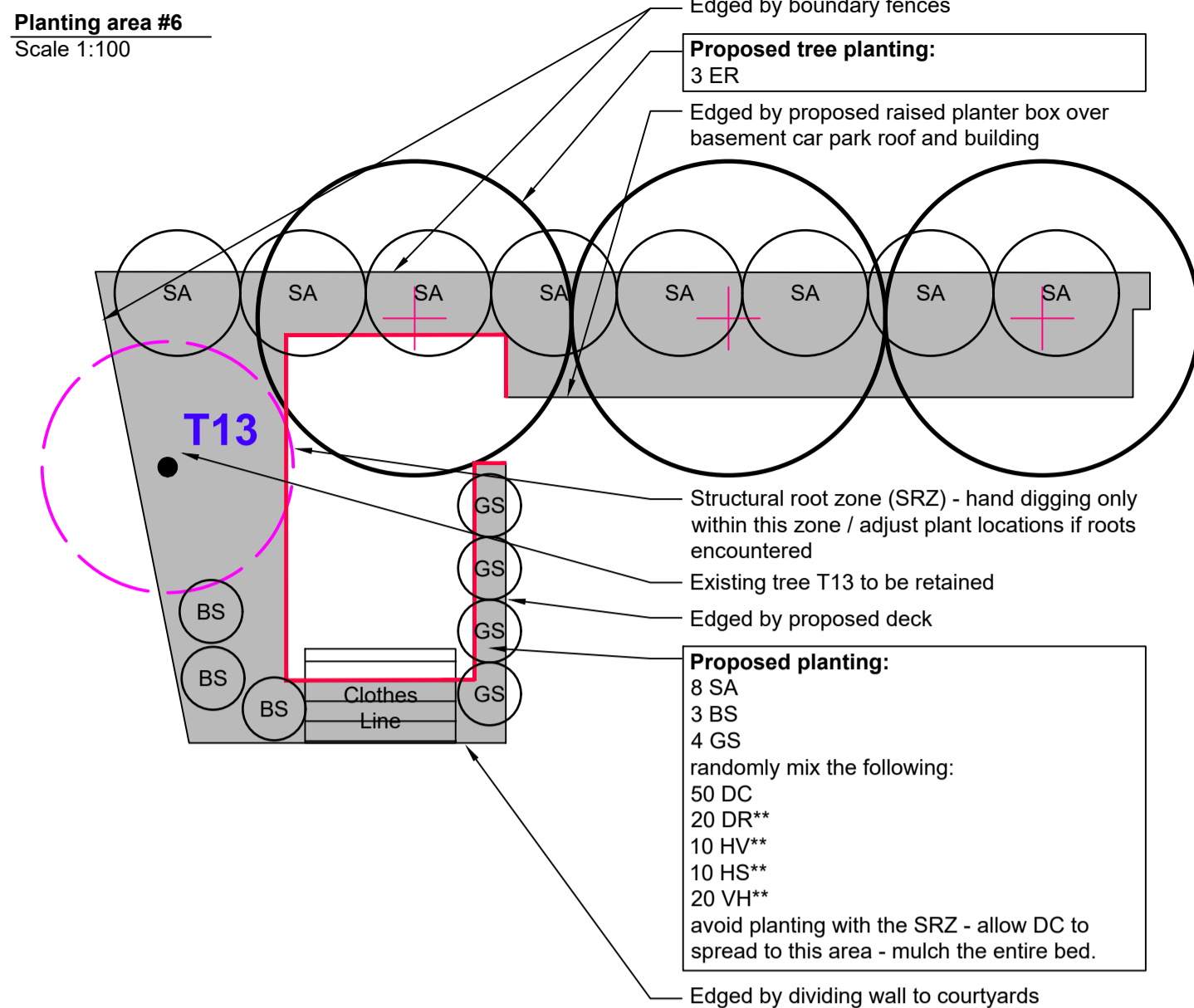
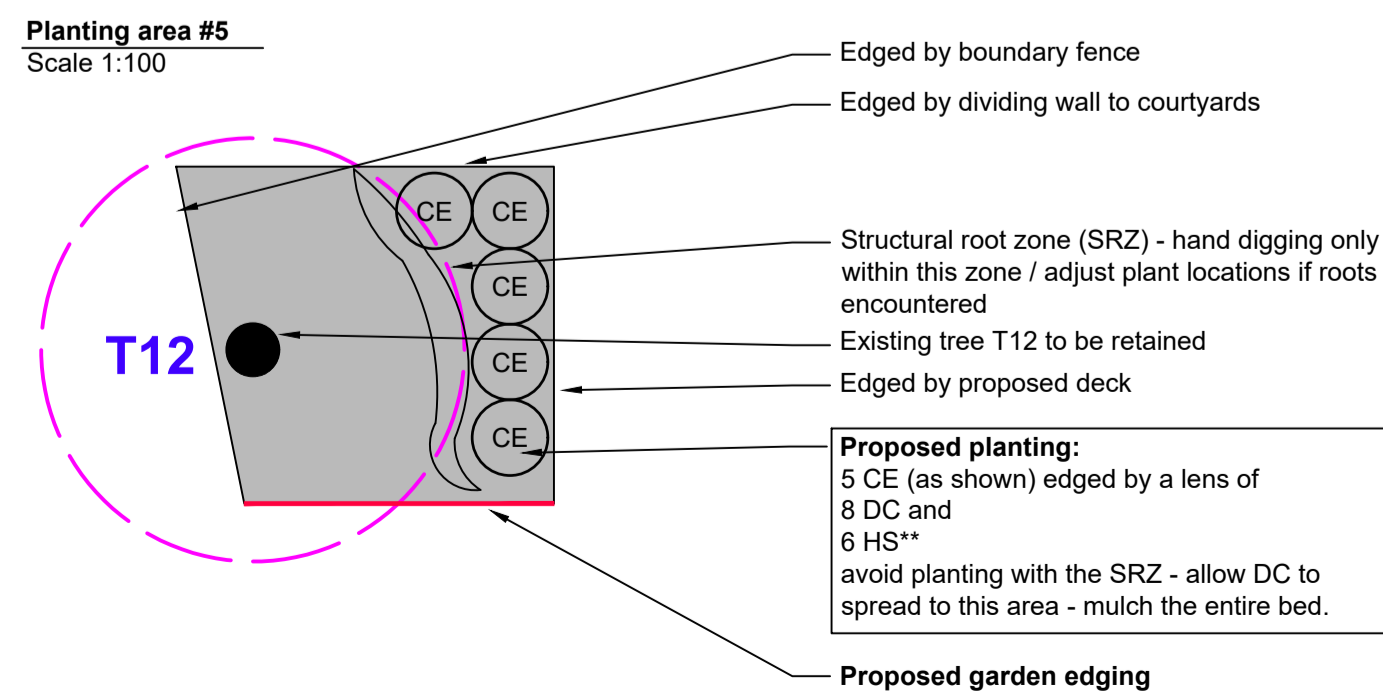
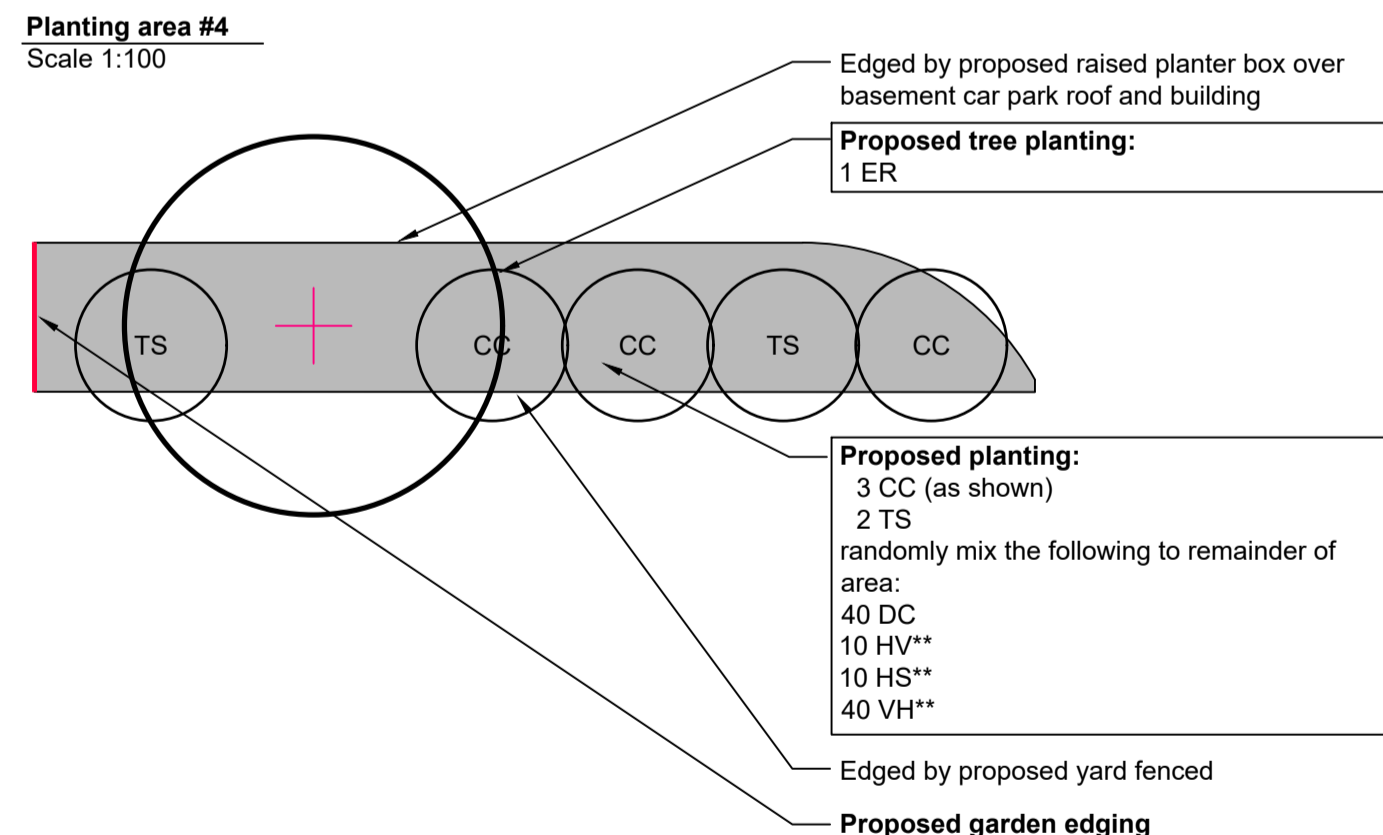
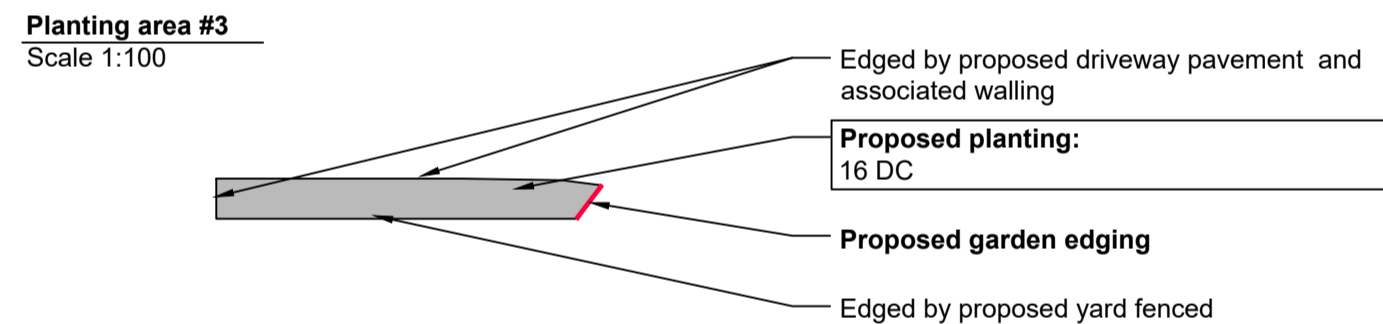
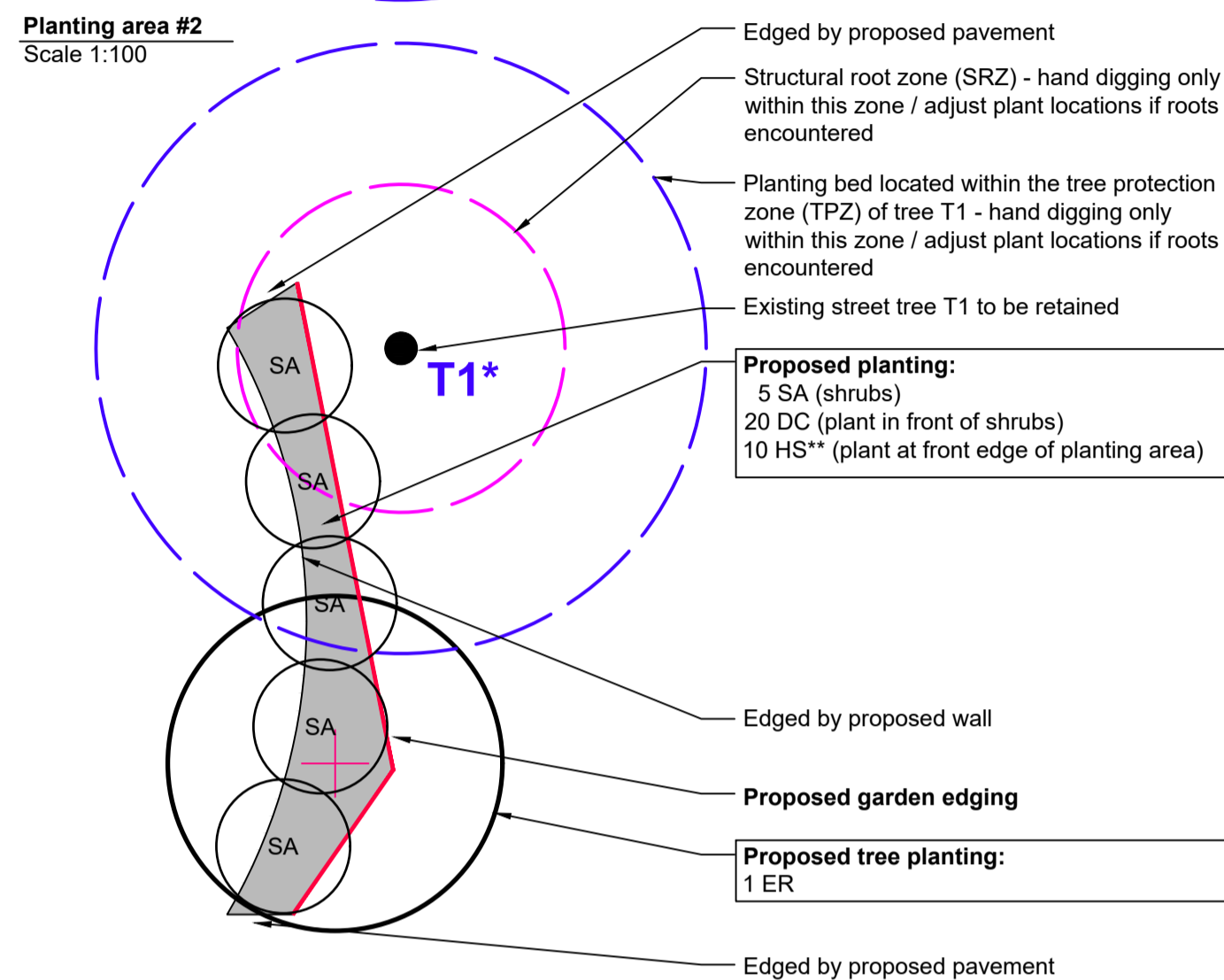
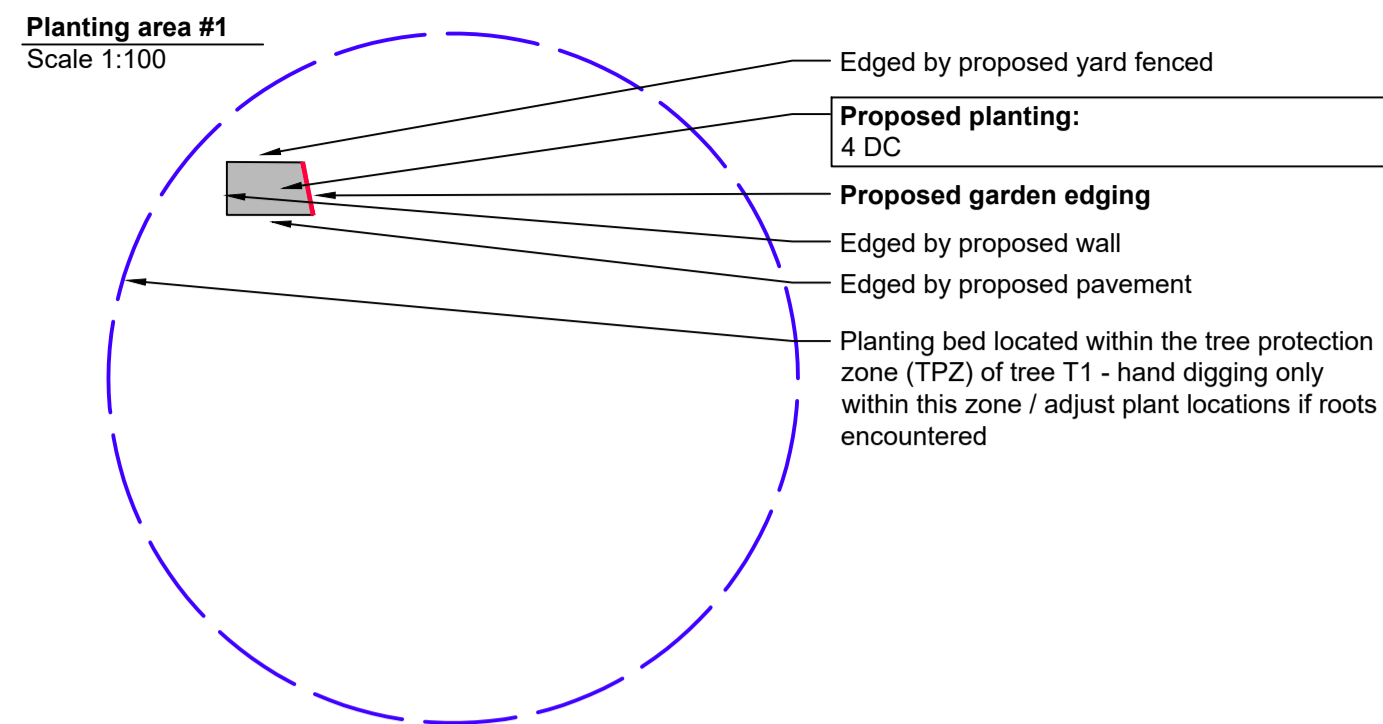
EXISTING TREE / PLANT SCHEDULE (based on the DRAFT AIA prepared by Growing My Way Tree Consultants dated June 2021):

Tree ID #:	Botanical Name:	Common Name:	Height m:	Canopy diam m:	Diameter at breast height m:	SRZ radius m:	TPZ radius m:	Condition:	Impacted by proposed development:	Proposed Action:	Comments:
T1*	<i>Callistemon viminalis</i>	Bottlebrush	<6.0	<9.0	0.380	2.45	4.56	Good	yes	Retain	Street tree under Council care and management
T2*	<i>Photinia x fraseri 'Robusta'</i>	Photinia	<6.0	<6.5	0.340	2.25	4.08	Good	yes	Remove and replace	Onsite
T3*	<i>Angophora floribunda</i>	Rough-barked Apple	<15.5	<14.0	0.900	3.31	10.80	Fair to good	yes	Retain	Significant tree in the neighbouring property
T4*	<i>Howea forsteriana</i>	Kentia Palm	<4.0	<5.02	0.290	n/a	3.48	Good	yes	Retain	Located on neighbouring property
T5*	<i>Callistemon viminalis</i>	Bottlebrush	<9.5	<8.0	0.440	2.47	5.28	Good	yes	Replace	Located on neighbouring property
T6*	Unknown							Nearly dead	yes	N/A	Located on neighbouring property
T7*	<i>Callistemon viminalis</i>	Bottlebrush	<8.0	<4.50	0.240	1.94	2.88	Poor	not	Replace	Located on neighbouring property
T8*	<i>Syzygium jambos</i>	Lillypilly	<7.5	<7.5	0.250	2.05	3.00	Good	marginally	Replace	Located on neighbouring property
T9*	<i>Tibouchina lepidota</i>	Tibouchina	<8.0	<6.0	0.260	2.05	3.12	Fair	marginally	Retain	Located on neighbouring property
T10*	<i>Syzygium jambos</i>	Lillypilly	<8.0	<6.0	0.260	2.05	3.12	Good	marginally	Replace	Located on neighbouring property
T11*	<i>Callistemon viminalis</i>	Bottlebrush	<6.0	<6.0	0.160	1.94	2.00	Good	yes	Remove and replace	Onsite
T12	<i>Jacaranda mimosifolia</i>	Jacaranda***	13.0	16.0	0.700	8.40**	2.80**		marginally	Retain	Onsite – significant tree
T13	Unknown	Pine***	6.0	5.0	0.300	3.60**	2.00**		yes	Retain	Onsite
T14	<i>Schefflera actinophylla</i>	Umbrella Tree***	6.0	6.0	0.400	4.80**	2.30**		yes	Remove	Onsite (environmental weed)
T15	<i>Mangifera indica</i>	Mango	6.0	8.0	0.300	3.60**	2.00**		yes	Remove	Onsite
T16	<i>Lagerstroemia indica</i>	Crepe Myrtle***	5.0	5.0	0.200	2.40**	1.70**		yes	Remove	Onsite
T17	<i>Callistemon viminalis</i>	Bottlebrush	4.0	4.0	0.300	3.60**	2.00**		yes	Retain	Street tree under Council care and management
T18	<i>Plumeria alba</i>	Franjipani	4.0	4.0					yes	Remove	Onsite
T19	Unknown							not		Dead	Located on neighbouring property

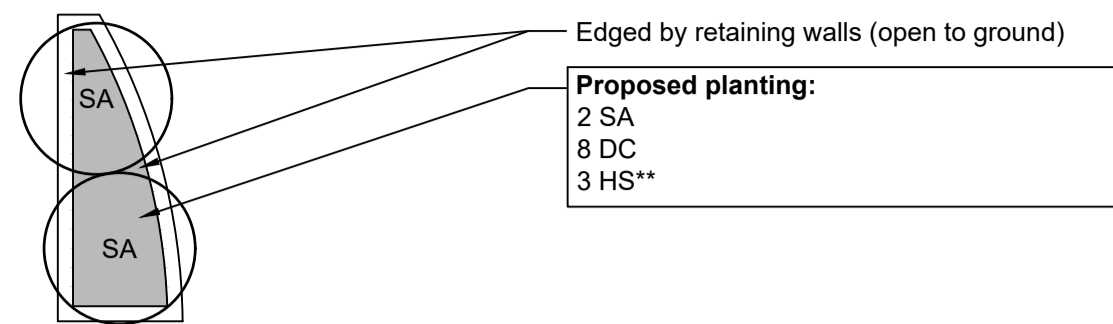
* Trees subject of AIA
** Estimated from surveyor's dimensions
*** exempt tree does not require approval for removal (Northern Beaches Council)

PLANTING PLANS

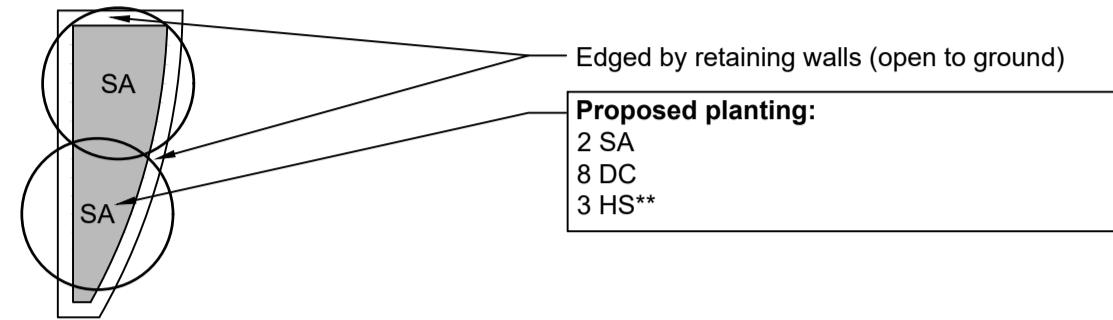
Scale 1:100



Raised planter #1
Scale 1:100



Raised planter #2
Scale 1:100



PLANT SCHEDULE

Key:	Botanical Name:	Common Name:	Height m:	Canopy m:	Tolerances:	Qu:	Pot size mm:
Trees:							
CG	<i>Ceratopetalum gummiferum</i> *	NSW Christmas Bush	5	5		-	"
ER	<i>Elaeocarpus reticulatus</i> *	Blueberry Ash	8-10	3-4		8	"
TL	<i>Tristanopsis laurina</i> *	Water Gum	4-7	3-6		-	"
Shrubs:							
BS	<i>Banksia spinulosa</i> *	Hairpin Banksia	1-3	1-2		26	150
BSe	<i>Boronia serrulata</i> *	Native Rose	0.5-1	0.5-1	frost	5	"
CC	<i>Callistemon citrinus</i> *	Crimson Bottlebrush	2	2	moist soils	3	"
CR	<i>Correa reflexa</i> *	Native Fuschia	0.5-1.2	0.5-1		6	"
CE	<i>Crowea exalata</i> *	Wax Flower	<1	<1		10	"
GS	<i>Grevillea sericea</i> *	Pink Spider Flower	1-2	1-2		4	"
MH	<i>Melaleuca hypericifolia</i> *	Melaleuca	1-2	1-2		-	"
MT	<i>Melaleuca thymifolia</i> *	Honey Myrtle	1	1	moist soils	-	"
SA	<i>Syzygium australe</i> 'Select Form'	Lilly Pilly	3-5	1.5	hedging	26	"
TS	<i>Telopea speciosissima</i> *	Waratah	2-3	2		2	"
Strappies:							
DC	<i>Dianella caerulea</i> * (select Breeze)	Flax Lily	1	1-2		278	"
FN	<i>Ficinia nodosa</i> *	Knobbly Club Rush	<1	<1	moist soils	-	"
MC	<i>Macrozamia communis</i>	Burrawang Palm	1.5-2	1.5-2		-	"
TA	<i>Themeda australis</i>	Kangaroo Grass	0.3-0.7	0.4-0.5		-	"
Groundcovers**:							
DR	<i>Dichondra repens</i>	Kidney Weed	spreading	1-5	shade	120	150
GBR	<i>Grevillea Bronze Rambler</i>	Grevillea	<0.5	3-5		-	"
GG	<i>Grevillea gaudichaudii</i>	Grevillea	<0.3	1-3		-	"
HV	<i>Hardenbergia violacea</i> *	False Sarsparilla	spreading	1.5		36	"
HD	<i>Hibbertia dentata</i> *	Twining Guinea Flower	spreading	2		-	"
HS	<i>Hibbertia scandens</i> *	Golden Guinea Flower	spreading	2		88	"
VH	<i>Viola hederacea</i>	Native Violets	<0.1	0.5	shade	120	"
Vines:							
KR	<i>Kennedia rubicunda</i> *	Dusky Coral pea	climbing	spreading	hardy	-	150

* listed on Council's website – recommended for backyard habitat planting / recommended for Curl Curl Council Ward

** groundcover species

Note: Plant Schedule can be used to select substitutes if selected plant species are unavailable at time of planting

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Project:

Proposed Four Unit Development

**3 Brookvale Ave
Brookvale NSW 2100**

Client:

Primo Design Pty Ltd

Sheet Title:

Planting Plans / Plant Schedule

Scale: Plan and Bar Scale @ 1:100 @ A1 sheet size

0 1m 5m 8m

Base drawing supplied by

Date: **May 2021** (refer amends table)

Dwg no: **2102/3** sheet 3 of 4

PAMELA FLETCHER registered landscape architect AILA

23 Sydney Rd Warriewood NSW 2428 pam@pamfletcher.com

www.pamfletcher.com mob: 0408 417 761

NOTE TO ALL TRADES:

- Refer to Existing Trees for details of required works prior to commencement of **any site works**.
- The notes below re Tree Protection apply to all works and trades on the site.
- During earthworks the existing topsoil is to be stripped and stored onsite for later reuse in new planting areas. The stripped soil is to comply with the following description:
 - Soil excavated from the site which contains organic matter, supports plant life, conforms generally to the fine to medium texture classification to AS 4419 (loam, silt, clay loam) and is free from:
 - Stones > 25 mm diameter.
 - Clay lumps > 75 mm diameter.
 - Weeds and tree roots, building materials, sticks and rubbish.
 - Material toxic to plants.

- Check the location of all underground services prior to undertaking any earthworks or digging.
- Undertake all building works in accordance with the provisions of the Building Code of Australia.
- All excavations and backfilling are to be executed safely in accordance with appropriate professional standards and excavations are to be properly guarded and protected to prevent them from being dangerous to life or property.

- For Tree T3 a manually excavated 'live root investigation' is required prior to commencement of any site works. Refer to the **Tree Report as referenced above for details.**
- Replacement of existing trees identified on the neighbouring property (and noted on the Landscape Plan Set) to be undertaken with the subject property owner's consent and under their direction. Replacement at 1 to 1.
- Trees T2, T11, T14, T15, T16 and T18 as shown on the Landscape Plan Set are to be removed.

- Trees T1, T3 to T10 (inclusive), T12, T13, T17, and T19 as shown on the Landscape Plan Set are to be retained.
- Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) as shown in the AIA are illustrated on the Landscape Plan Set. In addition, TPZs and SRZs calculated for other nominated existing trees have been shown;
- A project arborist to be appointed (AQF level 5 with min 5 years' experience) and to undertake the following:
 - install tree protection fencing as shown on the Landscape Plan Set and in accordance with the AIA;
 - Arborist to certify that this work has been undertaken; and,
 - Arborist to supervise any works undertaken within the nominated TPZs.

- o Tree T1 - the proposed retaining wall located within the TPZ of tree T1 is to be built with minimal excavation into the root zone and to be backfilled as required with a coarse material or gap graded sand as approved by the Arborist. The works (including excavation) within the TPZ of T1 are to be undertaken under the supervision of the Arborist;
- o Tree T3 – refer to Existing Trees notes above for details re root investigation. Undertake any excavations within the TPZ of this tree under the direction of the Arborist. Any backfilling required to be a coarse material or gap graded sand as approved by the Arborist.
- o Tree T12 – any excavations within the TPZ of this tree to be undertaken under the supervision of the Arborist.
- o Trees T1 and T17 – the proposed footpath and steps located within the TPZ of these trees to be built with minimal excavation into the root zone and to be backfilled as required with a coarse material or gap graded sand as approved by the Arborist. The works (including excavation) within the TPZ of these trees are to be undertaken under the supervision of the Arborist.

- all paved areas;
- the clothes line and associated paving if any;
- the metal shed; and;
- any debris not considered landscape materials and not required for the new building and associated paving and walls.

- the landscaped portion of the enclosed courtyards of Units 1 and 2 to be excavated by others to the proposed finished levels to the paved courtyards. The excavated finish to the cut bedrock and subgrade should fall to sites of proposed drainage inlet pits (refer to the Stormwater Management Plans prepared by others). The finished surface of any bedrock to be left with grooves / markings running towards the drainage system.
- Where earthworks are located within the TPZ of existing trees undertake works by hand:

Vehicular pavements: to be managed by others – refer to architectural plans.

Fencing: existing fencing to be replaced as specified in the architectural plans by others.

Proposed planter boxes on slab, raised planters on ground and raised lawn areas: retaining and drainage walls to be installed by others – refer to architectural plans.

Proposed planting:

Materials: <i>Plants:</i>	Supply the species as noted on Plan and which have large healthy root systems, with no evidence of root restriction or damage. Ensure plants are vigorous, well established, free from pests and diseases and consistent with the species. Plants are to be hardened off and suited to the site's natural climatic conditions. Trees to display a single leading stem unless otherwise required. The tree should not be too tall for the pot size. Stock may be rejected if considered by the client's representative to be too large for the pot size. Species noted as locally occurring to be sourced from local stock (local provenance).
<i>Subsoil for planters:</i>	<i>The Hills B Horizon Mix or similar</i>
<i>Topsoil for planters:</i>	<i>The Hills Lightweight Planter Mix or similar</i>
<i>Site topsoil:</i>	Equivalent to - the soil to be free of unwanted material and meet the following requirements: <u>Physical properties to include:</u> <ul style="list-style-type: none"> • Texture range to be sandy loam to clay loam • Organic matter to be 2-5% dwb • Permeability >20 mm/h • Wettability >5 mm/h • Dispersibility in water 1 or 2 category (AS4419) • Particle size in the following levels: <ul style="list-style-type: none"> ○ <20% w/w @ 2-20mm ○ <10% @ >20mm • Visible contaminants <0.5% w/w @ >2mm <u>Chemical properties to include:</u> <ul style="list-style-type: none"> • pH in water 5.4 to 6.8 • pH in CaCl₂ 5.2 to 6.5 • electrical conductivity <0.5dS/m • Phosphorous <20mg/kg • Exchangeable sodium <7% of ECEC • Exchangeable potassium 3-10% of ECEC • Exchangeable calcium 60-80% of ECEC • Exchangeable magnesium 15-25% of ECEC • Exchangeable aluminium <5% of ECEC • Calcium/Magnesium ratio of 3:9 • Available iron 100-400 mg/kg • Available manganese 25-100 mg/kg • Available zinc 5-30 mg/kg • Available copper 1-15 mg/kg • Available boron 0.5-5 mg/kg • Available nitrate >20 mg/kg

Reference: *Soils for Landscape Development* by Simon Leake and Elke Haeger

Site subsoil:	<p>Equivalent to - soil to be low in organic matter, well balanced chemically, not saline or sodic or excessively acidic or calcium deficient and not dispersive, to be low in Phosphorus and to meet the following requirements:</p> <p><u>Physical properties to include:</u></p> <ul style="list-style-type: none"> • Texture range to be sandy loam to sandy clay loam • Emerson aggregate class to be >4 • Particle size in the following levels: <ul style="list-style-type: none"> ○ <20% w/w @ 2-10mm ○ <10% w/w @ 10-20mm ○ <10% w/w @ >20mm ○ <2% w/w @ >50mm • Visible contaminants <0.5% w/w @ >2mm <p><u>Chemical properties to include:</u></p> <ul style="list-style-type: none"> • Wettability >2min • pH in water 5.4 to 6.8 • pH in CaCl₂ 5.2 to 6.5 • electrical conductivity <0.5dS/m • chloride <200mg/kg • Phosphorous <20mg/kg • Exchangeable sodium <7% of ECEC • Exchangeable potassium 3-10% of ECEC • Exchangeable calcium 60-80% of ECEC • Exchangeable magnesium 15-25% of ECEC • Calcium Magnesium ratio of 1.5-8 <p>Reference: <u>Soils for Landscape Development</u> by Simon Leake and Elke Haeger</p>
Turf Underlay:	In accordance with AS4419-2003, equal to Australian Native Landscapes <u>TURF UNDERLAY</u>
Turf for lawns:	Nara Zoysia
Organic matter:	Well composted cow manure
Slow release fertilisers:	Provide eco-friendly products with an N:P:K ratio specifically suited to native species.
Organic mulch:	Material consisting of vegetative material of species known not to be weed or noxious weed species, chipped to pieces not larger than 75 x 50 x 15mm. Ensure mulch is free of deleterious and extraneous matter such as soil, weeds and slicks. Unless specified, do not use bark mulch, pebble mulch or tub ground material, do not use bark fines and do not use freshly chipped plant material. The mulch to be weathered material.

- remove existing grass / lawn located within the proposed planting areas, ensuring grass roots are also removed;
- provide planting area edging as specified above between lawn areas and planting areas;
- spread organic matter to areas to be planted (50mm depth) excluding within the SRZ of existing trees to be retained. Site topsoil can be used in planting areas as required;
- cultivate the area to be planted, incorporating the organic matter into the existing soil, ensuring areas located within the TPZs of the existing trees are cultivated only by hand. Protect existing trees and plantings from cultivation. Refer to the Landscape Plan Set for the extent of TPZs and SRZs. Overtime, as the existing trees grow, these TPZs will expand. Rule of thumb is that the radius of a TPZ is 12x the diameter of the tree trunk at breast height,
- set out proposed new plantings as per the Landscape Plan Set.
- excavate planting hole to 100mm larger than the set out all round and break up the base and sides of hole as required. If tree roots are encountered abandon the hole and backfill with site soil and select a new location. Do not interfere or cut roots of any existing trees when undertaking planting works;
- install plant plumb into the prepared hole and backfill with site topsoil finishing plumb with the pot soil. Incorporate a handful of organic matter and work into the topsoil prior to placing in the prepared hole;
- apply slow release fertiliser in accordance with the manufacturer's directions;
- spread 75mm depth of organic mulch to planting areas (finish flush with adjacent edges);
- tree plantings may require staking for support. Provide 3 by 50x50x1800mm hardwood stakes with pointed end (600mm into the ground) in a triangle located outside of the root ball of the pot. Staple 50mm wide hessian tape around the stakes at two thirds height. Do not loop around the trees.

- to be waterproofed with drainage system installed by others and to include at a minimum:
 - waterproof membrane;
 - drainage cell, Atlantis Flo-Cell or similar – to be drained to proposed stormwater management system;
 - Geotextile layer over the drainage cell;
 - Washed river sand layer over the geotextile;
 - Planter soil overlaying the above
- Back fill to within 350mm of the top of the planter with light sub soil as required;
- Backfill within 50mm of the top of the planter with topsoil for planters (300mm depth);
- Install plantings as specified in the Plant Schedule;
- Apply slow release fertiliser to manufacturer's directions;
- Apply organic mulch to 50mm depth.

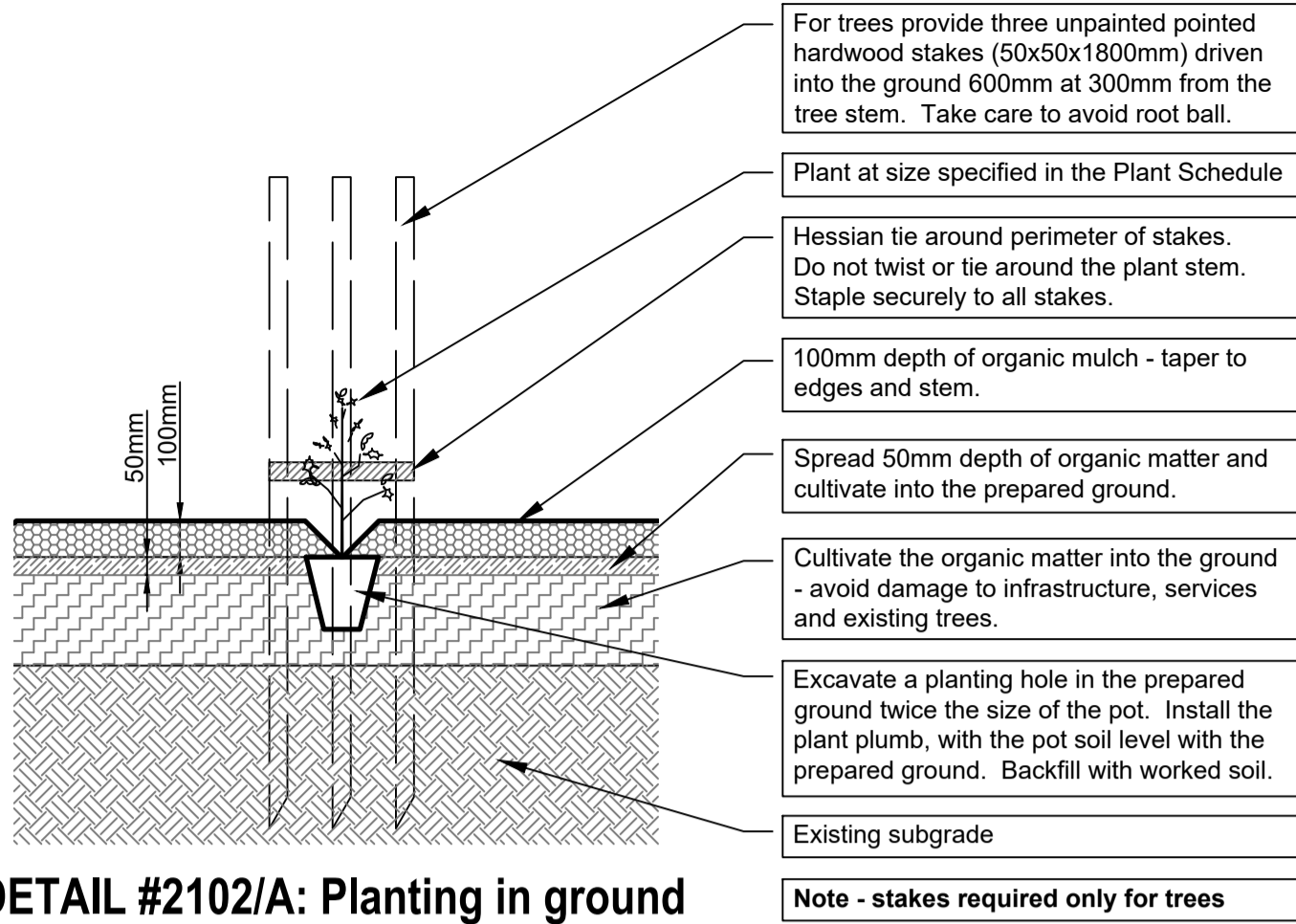
- Raised walls of planters to be installed by others. Refer to building plans;
- Inside walls of planters to be waterproofed;
- Planter to be drained to link to the stormwater drainage system as per planter boxes on slab as noted above;
- Back fill to within 350mm of the top of the planter with light sub soil as required;
- Backfill within 50mm of the top of the planter with topsoil for planters (300mm depth);
- Install plantings as specified in the Plant Schedule;
- Apply slow release fertiliser to manufacturer's directions;
- Apply organic mulch to 50mm depth.

- Remove any building materials, debris and vegetation from proposed lawn area.
- Cultivate ground to a depth of 100mm as possible.
- Smooth out cultivated soil and loosely compact.
- Place and spread 100mm depth of turf underlay. Smooth out and lightly compact soil.
- Lay turf in stretcher bond pattern with staggered joints. Lay turf within 48 hours of delivery to avoid excessive drying out. Tamp down to bond turf with soil.
- Finish turf levels flush with the adjacent pavements.
- Fertilise with lawn fertiliser in accordance with manufacturer's directions. Water turf well.

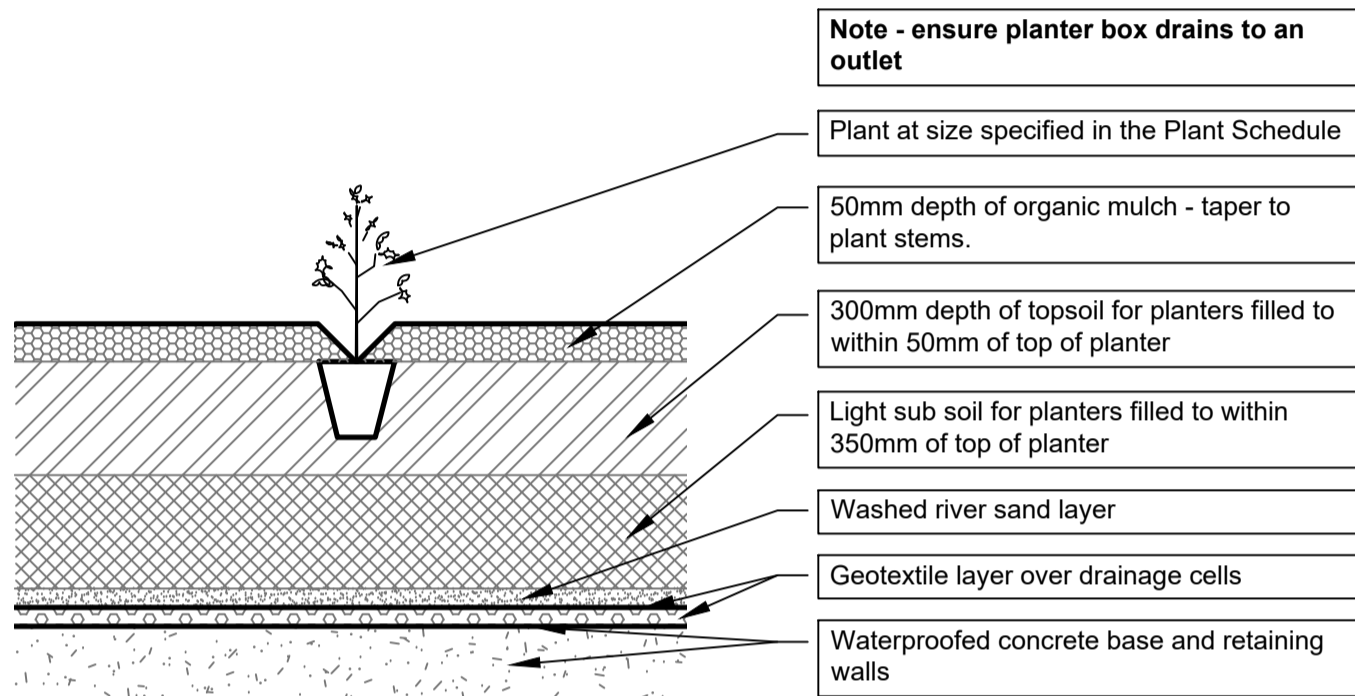
- Subgrade to be excavated as noted above.
- Drainage must be provided – refer to stormwater management plans.
- Backfill with subsoil to within 100mm of finished levels
- Smooth out cultivated soil and loosely compact.
- Place and grade to 100mm depth of turf underlay. Smooth out and lightly compact soil.
- Lay turf in stretcher bond pattern with staggered joints. Lay turf within 48 hours of delivery to avoid excessive drying out.
- Tamp down to bond turf with soil.
- Finish turf levels flush with the adjacent pavements.
- Fertilise with lawn fertiliser in accordance with manufacturer's directions. Water turf well.

Water plantings well at time of installation and then to establish. Water by soaking not frequent sprinklings. Fertilise within 6-8 weeks of installation. Replenish mulch to maintain specified depth as required. Undertake weed control in all areas as required. Supplementary plant as required. Continue to maintain for at least one full summer (to a minimum of 6 months). Continue to water as required.

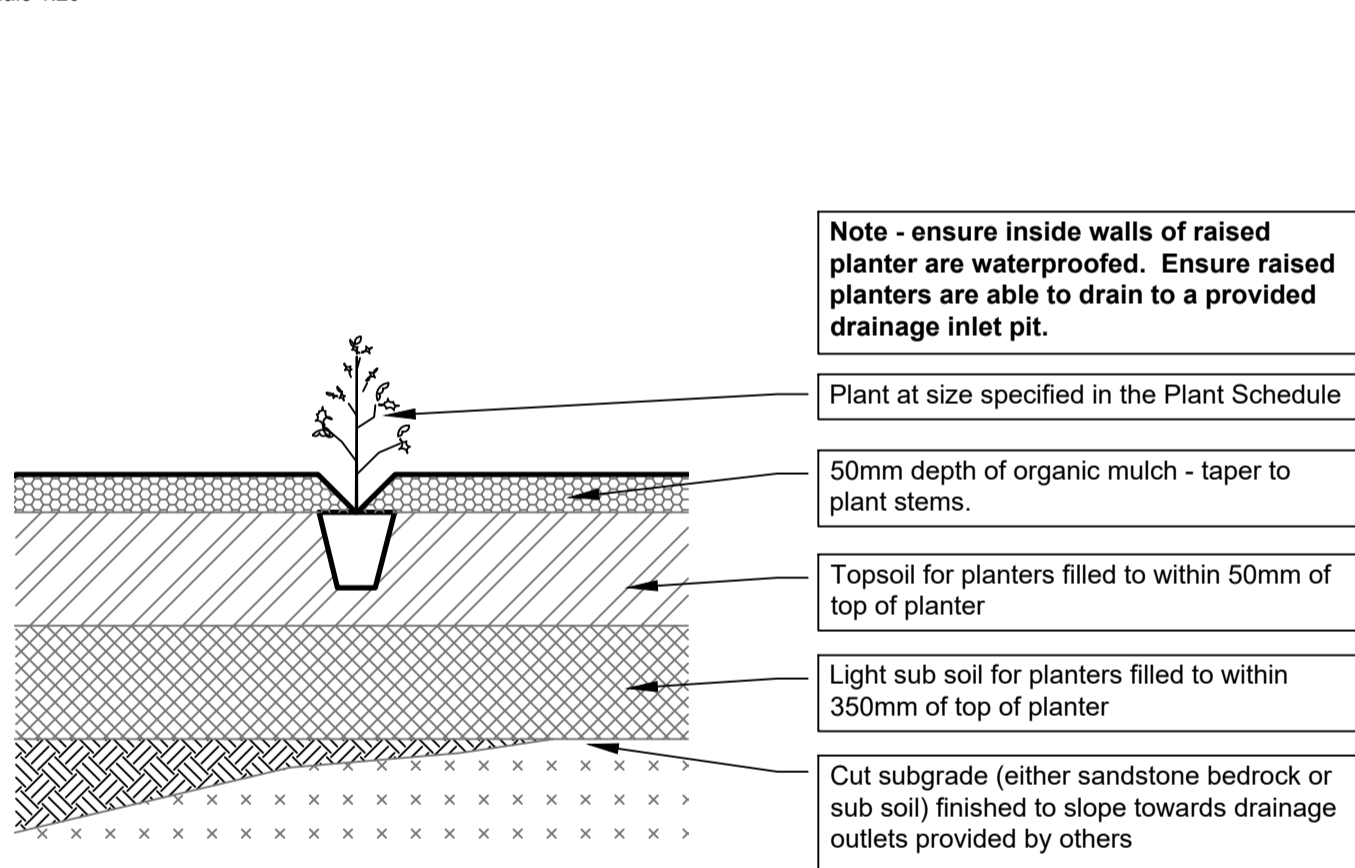
Water turf well at time of installation. Water by soaking not frequent sprinklings. Following establishment of lawn discontinue the watering regime and rely on rainfall alone.




Scale 1:20



Scale 1:20



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Base drawing supplied by

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Dwg no: 2102/4 sheet 4 of 4

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