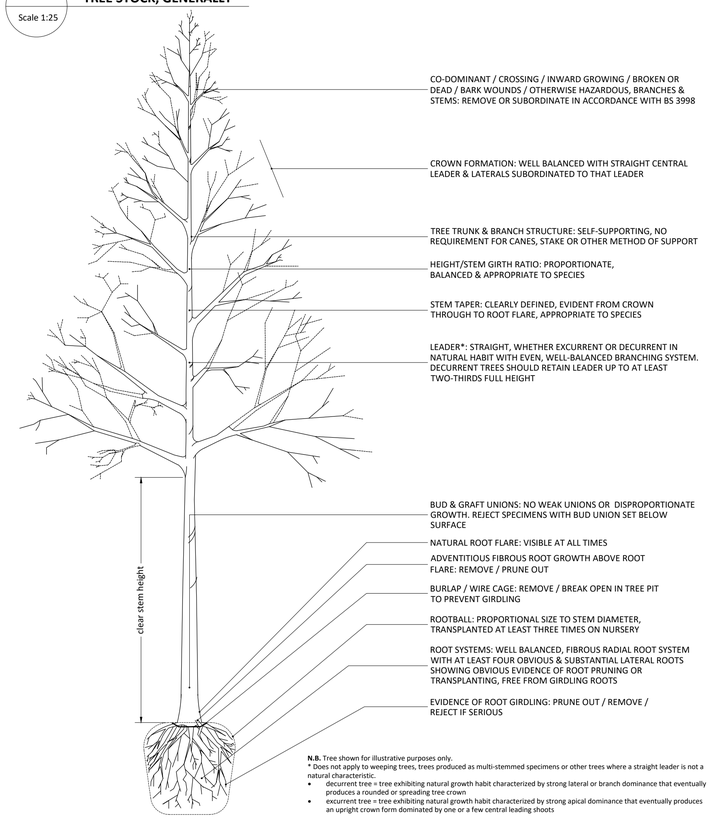
1. TREE STOCK, GENERALLY

Scale 1:25



N.B. Tree shown for illustrative purposes only.
* Does not apply to weeping trees, trees produced as multi-stemmed specimens or other trees where a straight leader is not a natural characteristic.

- decurrent tree = tree exhibiting natural growth habit characterized by strong lateral or branch dominance that eventually produces a rounded or spreading tree crown
- excurrent tree = tree exhibiting natural growth habit characterized by strong apical dominance that eventually produces an upright crown form dominated by one or a few central leading shoots

2. GENERAL TREE PLANTING PRINCIPLES

Scale 1:25

TREE SUPPORT SYSTEMS & IRRIGATION MEASURES OMITTED FOR CLARITY

TREE PIT: PLAN VIEW

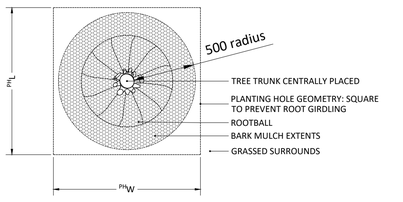


Table 1: TREE PIT DIMENSIONS

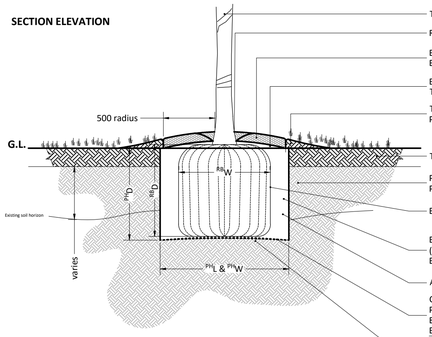
FORM	GIRTH	ROOTBALL DIMENSIONS (RBØ)	(RBDp)	PLANTING HOLE DIMS (PHL)	(PHW)	(PHD)
LS	6-8	400	300	700	700	300
S	8-10	400	300	700	700	300
SSe	10-12	400	400	700	700	400
H	12-14	500	400	800	800	400
EH	14-16	600	500	900	900	500
	16-18	600	500	900	900	500
	18-20	600	500	900	900	500
SM	20-25	750	750	1050	1050	750
	30-35	1000	1000	1300	1300	1000

based on: **BS 4428: 1989 & BS 8545: 2014**, together with: **suppliers (James Coles) stated rootball dimensions**

where: RBØ = Rootball diameter, RBDp = Rootball depth,
&: PHL = Planting Hole length, PHW = Planting Hole width, PHD = Planting Hole depth
&: LS = Light Standard, S = Standard, SSe = Selected Standard, H = Heavy Standard, EH = Extra Heavy Standard, SM = Semi Mature

N.B. Stated tree pit dimensions have been chosen to accomodate the rootball are a minimum. Rootball dimensions can, & do, vary from scheme variance is to be expected naturally between species, tree stock, suppliers and season. In the event that the rootball exceeds the stated dimensions, the contractor shall seek advice from the Landscape Architect before commencing further. Thereafter, the Landscape Contractor shall excavate the hole (in Open Ground) to the advice given in BS 8545: 2014 with the exception of tree pit dimensions which shall be varied to achieve a minimum dimension of 150mm greater** than the rootball. Tree planting hole depth shall generally be no greater than the existing rootball or container depth. The Landscape Contractor shall take care not to damage any underground utilities &/or services.
* where root spread is taken to be rootball size.
**Section 10.5.10 of BS 8545:2014 states that, "Tree pits should have a diameter at least 75mm greater than that of the root system." However, this does not allow adequate space for firming in around the rootball by footfall.

SECTION ELEVATION



N.B. tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to Table 1.

N.B.

- BS 8545: 2014 states that, "*Sensible tree pit design begins with intention of doing as little as possible other than digging a pit, planting the tree, and using the existing soil, separated as subsoil and topsoil, as backfill. Each additional level of complexity added to the basic pit design can be related to the amelioration of a particular constraint*".
- Tree shown planted in open ground in optimal conditions with minimal site constraints.
- Tree support systems are omitted for clarity.
- Tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to table.

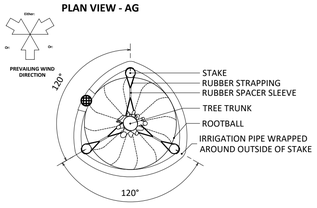
Notes
Information regarding '*Tree Planting in Open Ground, Generally*' on this sheet is derived from "*BS 8545: 2014 Trees: from nursery to independence in the landscape - recommendations*".

While every attempt is made to address the most salient points raised [within the BS], this list should not be considered exhaustive as it is presented in summary format only. For further information, the reader is referred back to the relevant British Standard.

3. ABOVE GROUND SUPPORT TRIPLE STAKED (Tst) TREES

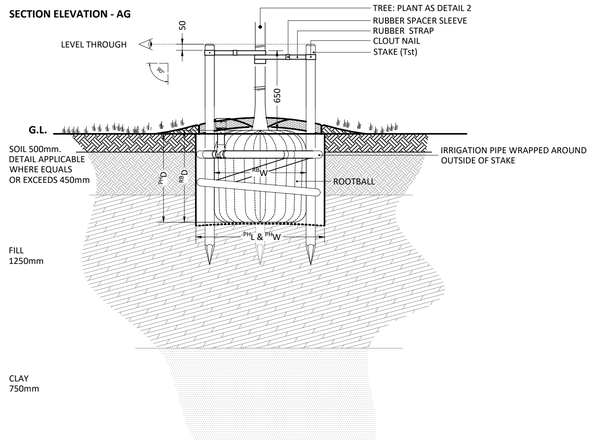
Scale 1:25

PLAN VIEW - AG



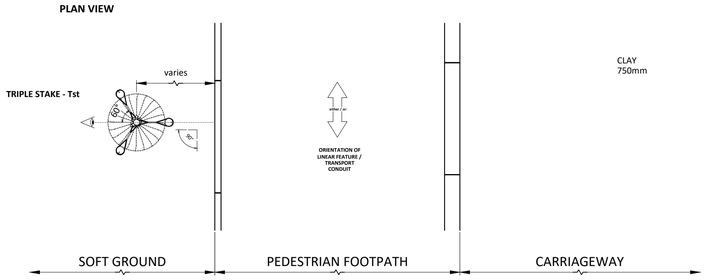
N.B. tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to Table 1, detail 2

SECTION ELEVATION - AG



STAKE TYPE ORIENTATION IN PROXIMITY TO TRANSPORT CONDUITS / AVENUE / SPINE ROAD PLANTING / ETC.

PLAN VIEW



4. BELOW GROUND TREE SUPPORT UNDERGROUND GUYED (UG) TREES

Scale 1:25

PLAN VIEW - UG

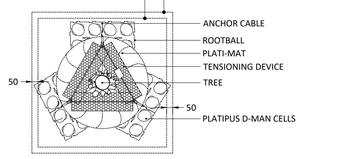


TABLE 2: VERGE GUYING SCHEDULE

ITEMS	SPECIFICATION
EARTH ANCHORING SYSTEM:	UNDERGROUND GUYED
MANUFACTURER:	PLATIPUS
MODEL:	D-MAN
D-MAN CELL DIMENSIONS:	270x270x80mm (LxWxD)
CODE:	RF2PDMAN
SUITABLE FOR:	12-45cmg TREES
SYSTEM COMPRISING:	3no. Wire Chokes, 5m galvanised wire, 1no. ratchet tensioner, 3no. Plati-Mats, 6no. D-MAN cells (3 x 2no. cells connected).

N.B. Earth Anchoring Systems are to be installed to manufacturer's recommendations & requirements with a minimum of 3no. earth anchors & associated cables to be fitted per tree.

The RF2PDMAN system has been preferentially selected over the RF1PDMAN system b/c of adverse site conditions (exposure, wind & ground conditions).

SECTION ELEVATION - UG

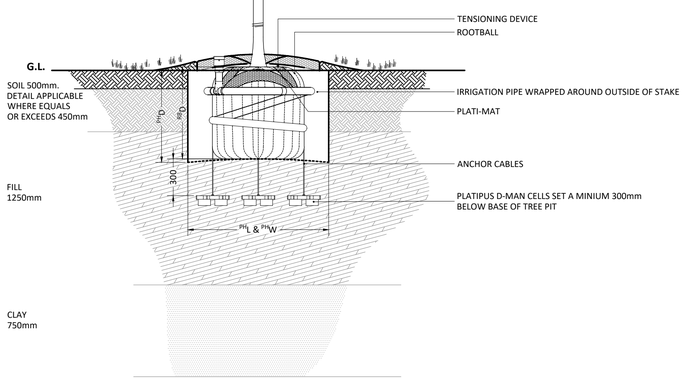


Table 3: TREE PLANTING ACCESSORIES INVENTORY

Planting Type:		Tst TREES	UG TREES
Form:		SM	SM
Girth / Height:		20-25	20-25
Planting Hole Dimensions (length, width, depth - mm):	L:	1050	1150
	W:	1050	1150
	D:	750	750
Bark Mulch Dimensions radius & depth (mm):	R:	500	500
	D:	75	75
Tree Support System:		AG	UG
Tree Support Height (mm):		650	N.A.
Stake Type:		Tst	N.A.
Stake Diameter (mm):		75	N.A.
Stake Length (m):		1800	N.A.
Tree Tie Type:		BS	N.A.
Rubber Block Type:		N.A.	N.A.
Rubber Spacer Type:		SLV230	N.A.
Rubber Belt Type:		S2	N.A.
Earth Anchoring Type:		N.A.	RF2PDMAN
Irrigation Systems:		RRCIVIC 2	RRCIVIC 2

Form: F = Feathered, LS = Light Standard, S = Standard, SSe = Selected Standard, H = Heavy Standard, EH = Extra Heavy Standard, SM = Semi Mature

Tree Support System: AG = Above Ground, UG = Under Ground.

Tree Tie Type: BB = Belt & Block, BS = Belt & Spacer, EA = Earth Anchoring

Rubber Block Type: RSB1 = Standard Double Rounded Block 50mm x 35mm for use with 24mm belting. RSB2 = Standard Double Rounded Block 65mm x 50mm for use with 35mm belting.

Spacer Type: FBS1 = 25mm Slot, Standard Flat Back Block 50mm x 35mm for use with 24mm belting. FBS2 = 37mm Slot, Standard Flat Back Block 65mm x 50mm for use with 35mm belting. SLV130 = 30cm x 25mm for use with 24mm belting SLV230 = 30cm x 40mm for use with 35mm belting SLV290 = 90cm x 40mm for use with 35mm belting

Belting Type: S0 = 15mm x 2mm x length, standard reinforced rubber belting S1 = 24mm x 2mm x length, standard reinforced rubber belting S2 = 35mm x 2mm x length, standard reinforced rubber belting S3 = 48mm x 2mm x length, standard reinforced rubber belting HO2 = 35mm x 3mm x length, Heavy duty rubber belting HO2 = 50mm x 3mm x length, Heavy duty rubber belting

Earth Anchoring: RF2PDMAN = cabled large anchor system w/t deadmen composite anchors, webbing strap & rachet tensioners. For trees up to 45cmg.

Irrigation System: RRCIVIC 2 = Greenleaf RootRain Civic 2, 30mm Ø, 5m long, 80mm inlet, reducer & end cap, 60mm vertical pipe cut to suit onsite.

GENERAL TREE PIT PLANTING NOTES:

1. **SPECIFIED MATERIALS:** all to be installed in accordance with the manufacturer's recommendations and/or instruction.
2. **PLANTING GENERALLY:** Correct planting depth is critical for transplanting success, with over-deep planting identified as a common cause of failure. The Contractor shall therefore ensure that the natural root flare of the tree is clearly visible at proposed finished soiling surface. To ensure that correct final planting position / depth is achieved, the Contractor shall therefore take care to remove all:
   - soil placed above natural root flare during nursery packaging & production - rootballing, containerization, etc.
   - adventitious roots above the root flare,
   - wire encircling the main stem,
   - wire cage & burlap where possible. Otherwise, peel back and remove once the tree is in the planting pit.
3. **BACKFILL MATERIAL:** *Open ground & Verges*: select 'as dug' material to be reused taking care to match adjacent soil horizons (where suitability assured for tree growth); TBC onsite by Contractor. All 'as dug' topsoil material to conform to BS 3882:2015 General Purpose Topsoil & shall be reinstated to a depth of no more than 300mm). Remove all deleterious material arising (weeds, broken brick & large stones, etc). Backfill & lift in layers no greater than 150-230mm deep. Compact to between 1.5 - 2.0 mega pascals: tread down using footfall, paying particular attention to the planting hole edges and rootball extents to eliminate voids. Avoid over compaction.
4. **BACKFILL SOIL AMELIORANTS:** the Contractor shall satisy himself of the general suitability of the topsoil supplied for long term tree growth. Reason: to ensure the long term longevity of the tree supplied. Thereafter: to suit site conditions. Typically, this may comprise 0.5kg of broadleaf p4 or similar (pre-hydrated with water) thoroughly mixed with the topsoil until the medium is homogeneous.
5. **ARISINGS:** all deleterious material arising, shall be removed offsite to a licensed tip by the Contractor.
6. **TREE SUPPORT SYSTEMS:** Unless otherwise stated, all trees shall be supported as identified on the Softworks drawings which use both the Triple Stake (Tst) & Underground Guyed (UG) method of tree support.
   - Tree support stakes along transport conduits are to be orientated in accordance w/t Detail 3 opposite.
   - Tree support stakes to butt up against the rootball to help stabilise it.
   - Tree support height above ground shall be as identified on Detail 3.
   - Stakes to be removed to a minimum 150mm below ground level with no sharp edges as soon as the developing root system is self-supporting & root firmness is proven.
   - Irrigation pipes to be installed around the AG tree support system & on top of the the UG tree support system.
7. **ROOT PROTECTION MEASURES:** supply & install permeable rootbarriers (Terram RootGuard, or equal & approved) to a min. depth of 600mm below ground. *Installation*: as per manufacturer's instruction. *Finished level*: top of barrier to be 10mm above G.L. *Zone of Deployment*: protection of hard surfacing / services lying within a min. 5m radius of the proposed tree and or as dictated on plan.
8. **IRRIGATION:** *Open ground & Verges*: Create topsoil chaucer as Detail 2. Water at frequence necessary to ensure establishment & survival.
9. **DRAINAGE:** the contractor shall satisy himself that the tree pit is free draining. The contractor shall notify the Contract Administrator of any problem areas and await further instruction before proceeding further. Reason: to ensure the longevity & viability of the tree supplied. TBC onsite.
10. **BARK MULCH:** Amenity, 8-40mm particle size, mid dark brown, Rolawn (or equal & approved). *Coverage:* 75mm deep, 1m Ø around base of tree.

Notes

Drawing Revision

Rev.	Date	Description	DRN	CKD
P1	22/09/2021	First issue.	BS	AC

Status

PLANNING

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BARRETT DAVID WILSON HOMES

Project

WHITE POST ROAD, BODICOTE (FULL)

Drawing Title

TYPICAL TREE PLANTING DETAILS

Scale	Sheet Size	Date
1:25	A1	DEC 2019

Client Ref.	Drawing Ref.	Drawing No.	Status
-	2832-5-2-1	DR-5500	P1

0 500mm 1000mm 2000mm