Planting the Tree - Underground guying method

1. Dig the planting pit deep just enough to allow the rootball to stand ensuring the top is not lower than the surface soil level
2. Remove all surface turf and foreign material; do not reuse this
3. Before planting install 'dead-man anchors and anchoring irons
4. Remove the tree from container and free spiralling roots by scarification, loosening the external roots. Prune crossing/interlocking branches and shape
5. Lower the root ball into the planting hole ensuring it is perpendicular and backfill
6. The loose soil in the base of the hole will gradually settle so it is very important that the root ball is not planted too deep. Lay a plank over the hole to show the soil level across the tree pit.
7. Ideally, the top of the rootball should be raised at least 5cm above the level of the soil.
8. Secure the tree by wrapping the flexible straps around the rootball and tension with the ratchet strap - see Fig 2
9. Allow the soil to settle by gently pressing the soil ensuring the roots are in contact with the soil; do not over compact
10. Thoroughly water in
11. Cover the exposed rootball with mulch or bark chippings (not freshly cut material) leaving a clear airspace around the trunk flare - see figure 1
12. Clear the area of waste material leaving it clean and tidy



Tree Aftercare

1. Ensure all stakes and ties are checked and adjusted where needed during the first and second growing seasons
2. Remove stakes in September of the second growing season or shortly afterwards should the rootball be loose; in which case the stakes and ties should be reset
3. Watering should be routinely applied during the first 3 growing seasons.
 - Year 1 - Watering during May once per week during dry spells i.e. no rainfall within a 4 day period.
 - June and July; water routinely once per week or twice per week during drought.
 - August; once per week as per May
4. Ensure the mulched area is kept weed free
5. Report trees that have not taken, have been vandalised or are dead to the Supervising Officer
6. Ensure mowers and other mechanical equipment are kept clear in order to avoid damaging the young trees
7. Formatively prune the young trees at year 2, 3, 4 and 5 where requested to do so by the Supervising Officer
8. Replenish the mulch when requested to do so by the Supervising Office

Planting the Tree - Twin stake method

1. Dig the planting pit deep just enough to allow the rootball to stand ensuring the top is not lower than the surface soil level
2. Remove all surface turf and foreign material; do not reuse this
3. Before planting ensure stakes are driven into the ground sufficiently deep to support the tree and wide enough to allow the rootball to lowered into the pit
4. Remove the tree from container and free spiralling roots by scarification, loosening the external roots. Prune crossing/interlocking branches and shape
5. Lower the root ball into the planting hole, ensuring it is perpendicular and backfill
6. The loose soil in the base of the hole will gradually settle so it is very important that the root ball is not planted too deep. Lay a plank over the hole to show the soil level across the tree pit.
7. Ideally, the top of the rootball should be raised at least 5cm above the level of the soil.
8. Allow the soil to settle by rocking the tree and gently pressing the soil ensuring the roots are in contact with the soil; do not compact
9. Using flexible ties and collars, secure the tree to the twin stakes at a height of 1/3rd from ground level
10. Thoroughly water in
11. Cover the exposed rootball with mulch or bark chippings (not freshly cut material) leaving a clear airspace around the trunk flare
12. Clear the area of waste material leaving it clean and tidy

PLANTING SPECIFICATION

EXISTING TREES AND SHRUBS

Where existing trees & shrubs are to be retained they should be subject to a full arboricultural inspection for safety.

Any surgery required shall be in accordance with BS 3998 (2010) 'Tree Work - Recommendations', shall comply with any existing T.P.O requirements and shall require the prior approval of the Landscape Architect.

Avoid damage to branches, trunks and roots of trees. All existing trees & hedges to be retained are subject to BS 5837 (2012) 'Trees in relation to design, demolition and construction - Recommendations', and should be fully fenced off, prior to the commencement of any works, in accordance with Figure 2 (p20) at the full extent of the root protection area, as determined by section 4.6 (p10-11) and Annex D (p40).

No storage of materials, disposal of rubbish, site fires, spillage of oil and chemicals, ground compaction, excavation or changes in level shall be carried out within existing tree / hedge canopies.

PLANTING

All plants and planting to comply with the requirements of all current / relevant British Standard specifications including BS 3936: Part 1 (1992), Part 2 (1990) and Part 4 (2007) and BS 4043 (1989) where applicable, BS 4428 (1989). All plants to be supplied in accordance with the plant schedule. Any plant material planted outside the recognised planting season (Nov-Feb), to be containerised stock and supplied at the sizes specified.

TREE PLANTING

A suitable method of foundation allowing for existing ground conditions is to be provided to accommodate the proposed tree planting. All trees are to be planted as shown ensuring a minimum of 5 metres from buildings and 3 metres from drainage and services. Where necessary, root barriers to be installed (supplier: GreenBlue Urban (www.greenblueurban.com), or equal approved), as recommended by structural engineer. Allow for the use of container grown stock during the period 1 April to 31 October, and field grown stock from 1 November to 31 March.

TOPSOIL REQUIREMENTS

To BS 3882 (2015) 'Specification for topsoil' as qualified by full contract specification. All areas shall be cultivated to a minimum depth of 150mm. Full weed, rubbish and stones over 20mm gauge shall be removed. Earth to be rolled as required and raked in two directions. Applied to all newly planted areas (except wildflower / meadow planting), to manufacturers' recommendations where appropriate.

Shrub / structure planting beds	-	450mm depth
Heavy standard tree pits	-	1500mm dia. x 900mm depth
Grass areas (incl. rear gardens)	-	150mm depth

Where necessary increase tree pit dimensions to ensure that tree pits are at least 75mm deeper and 150mm wider than rootball. Break up bottom of pits to a depth of 150mm. Compacted glazed sides of pits should be roughened.

Full analysis of existing and imported topsoil required prior to use.

TOPSOIL IMPROVEMENTS

Applied to all newly planted areas, to manufacturers' recommendations where appropriate:

1) Incorporate 75mm depth of soil conditioner into topsoil during cultivation;
2) Incorporate Enmag CRF granular fertilizer at approx 140g per pt to standard tree pit backfill and 70g per pt to structural / ornamental shrub planting;
3) Watering - supply minimum 54 litres / tree and 4.5 litres / shrub at planting;
4) Mulch - lightly fork over planted areas before applying a 75mm depth 50-100mm grade bark mulch. Ornamental Bark to consist of predominantly matured British Pine Bark with an even nominal particle size distribution of 5-35mm with 0% dust & fines & less than 5% wood content. The product shall be pest, disease & weed free & not have been treated with Methyl Bromide or any additives. The product shall have been tested in accordance with the requirements of BS 4790:1987, for fire resistance. NB - Watering to be carried out prior to application of bark mulch.

PLANT MATERIAL TREATMENT

NB All to be British grown stock and fully hardened off.

Root Dip - Proprietary Root Dip applied to all bare rooted stock (1) at time of lifting at nursery and (2) prior to planting.

Anti-Desiccant - Proprietary anti-desiccant to be applied to foliage of all containerised / rootballed material in leaf, specimen conifers and evergreens etc. (1) prior to transportation and (2) during any delay in planting.

Pruning - Allow for pruning of all deciduous trees and shrubs by 1/3rd following planting. **pt. Landscape Architects direction** or as indicated in the planting schedule.

Tree Stakes & Ties - Stakes to be pressure treated, round, smooth and peeled Larch or Chestnut, not less than 100mm in diameter. Advanced nursery stock - double staked with cross bar.

TREE STAKES, TIES & GUARDS

Trees planted within grassed areas to be provided with appropriate conical strimmer guards. Stakes to be pressure impregnated softwood, round, peeled, straight, free of projections and pointed at one end. Minimum length and thickness to be determined as follows:

Tree type	Min Dia.	Overall Height	Height exposed above ground
Ex / Hvy Std	100mm	1.8m	0.6m
Tree type	No. stakes	No. ties	
Ex / Hvy Std	2	1	

TURFED AREAS

Turf to BS 3969 (1998+A1:2013) 'Recommendations for Turf for general purposes' from an approved source. When topsoil is reasonably dry and workable, grade to smooth, flowing contours removing all minor hollows and ridges. Cultivate soil to full depth and break up any compacted topsoil. Apply approved herbicide to control perennial weeds and allow period of time to elapse as recommended by manufacturer before final cultivation. Apply proprietary fertiliser. Reduce top 25mm topsoil to a fine tilth by further cultivation. Remove stones exceeding 50mm in any dimension. Lay turf with broken joints, well butted up, working from planks laid on previously laid turves, during appropriate season and weather conditions. Adjust levels by raking out or filling with fine soil under turves. Consolidate by lightly and evenly firming with wooden beaters as laying proceeds. Do not use rollers. Dress turf with fine topsoil and brush in to fill joints. Thoroughly water completed turf within 24 hours of laying.

TURFED AREAS: ESTABLISHMENT CUT

Water all grass areas to maintain healthy growth. When grass is 50mm high remove debris, litter and any stones later in dry conditions cut grass to between 25-30mm. Remove and dispose of all arisings.

GRASS SEEDED AREAS

Grass seeding generally to BS 4428 (1998) 'Code of practice for general landscape operations'. When topsoil is reasonably dry and workable grade to smooth flowing contours removing all hollows and ridges. Cultivate soil to full depth and break up any compacted topsoil. Apply approved herbicide to control perennial weeds and allow period of time to elapse as recommended by manufacturer before final cultivation. Apply proprietary pre-seeding fertilizer. Reduce top 25mm of topsoil to a fine tilth by further cultivation. Remove stones exceeding 50mm in any dimension. Sow approved grass seed mixture in accordance with suppliers recommendations during appropriate season and weather conditions, e.g. Germinal (www.germinal.com) Mix A2 (Quality Lawn) (or equal approved) at 50gms/m2. Lightly harrow or rake then roll and cross-roll with lightweight roller.

GRASS SEEDED AREAS: ESTABLISHMENT CUT

When grass is between 40-75mm high remove stones and debris exceeding 50mm in any dimension and roll with a lightweight roller. About 48 hours later cut grass to approximately 35mm high. Remove and dispose of all arisings.

PROTECTIVE FENCING

The contractor shall maintain fencing until all site works are complete. The contractor will then remove the fencing and reinstate the ground. The fencing will remain the property of the contractor.

Within the area so fenced, the existing ground level shall be neither raised nor lowered, all excavations shall then be carried out by hand.

The Local Planning Authority shall be advised in writing when the protective fencing has been erected so that it can be checked on site before development commences, and shall thereafter be maintained during the period of construction.

MAINTENANCE

Regular visits (minimum 14 No.) required during the defects liability / rectification period to maintain all planted areas in a weed and litter free condition using a combination of chemical spray and hand weeding to be agreed with the Landscape Architect. Maintenance to include watering, pruning, pest and disease control and re-mulching as required. Grass areas to be mowed at 2 week intervals during the growing season.

Structure planting areas shall be maintained as non competitive weed free environment by repeated applications of a glyphosate based herbicide. Persistent weeds and unwanted scrub shall be spot treated as necessary with an alternative herbicide to be agreed with the Landscape Architect.

Watering shall be carried out as necessary to maintain healthy growth or as required by the Landscape Architect.

NB: Final visit to be immediately prior to handing over and to include a fertiliser treatment of Enmag CRF granular fertiliser at 100g / m2 and a 25mm depth bark mulch top up to all planted areas.

BUFFER PLANTING: FEATHERED TREES AND WHIPS

Notch planting will not be permitted. All feathered trees and whips will be planted in prepared pits 600mm diameter x 600mm deep for feathered trees and 300mm diameter x 300mm deep for whips.

Each plant shall be placed upright in the centre of the pit with the roots spread evenly outwards and downwards without restriction, and backfilled with topsoil (to BS 3882: 2015), incorporating TPMC Tree Planting Compost (Amenity Land Solutions) (or equal approved) well mixed with topsoil backfill at a rate of 50:50 in consolidated layers, shaking the trees to remove voids.

Incorporate Enmag CRF granular fertilizer at approx 140g per pit to feathered tree pit backfill and 70g per pit to structural shrub / whip planting backfill.

Supply water at a minimum 4.5 litres / whip and 18 litres / feathered tree prior to bark mulching.

Feathered trees shall be staked using 1.0m long Larch or Chestnut stakes, round, smooth, and peeled with 75mm diameter at the point and not less than 50mm at the butt end, driven at least 600mm into the ground. Trees will be secured to the stake using a single 'Tom Tie' (www.itoms.co.uk) or similar approved securely nailed at a point 50mm from the top of the stake to ensure no rubbing or excessive movement.

The plant shall be well firmed, with the soil level 10mm above nursery level to allow for settlement. Clear away surplus soil and after watering apply a minimum 75mm deep x 300mm diameter collar of 50-75mm grade coarse bark mulch. All tree species to be fitted with propriety rabbit guards such as Tubex Vertex (www.tubex.com) (or equal approved).

SAFETY PRECAUTIONS

The landscape sub-contractor is to take all safety precautions to prevent any injury to any persons. The landscape sub-contractor shall comply with the requirements of the Health & Safety at Work Act 1974 and current Construction, Design and Management Regulations (2015).

All subject to Local Authority approval.

PLANTING SCHEDULE

Tree Planting

Qty	Abb. Text	Species	Form	Age	Girth	Height	Clear Stem	Root	Container
1	Acr plt D	Acer platanoides 'Drummondii'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
4	Be pnd	Betula pendula	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
2	Be ut	Betula utilis jacquemontii	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
2	Crp bt FF	Carpinus betulus 'Frans Fontaine'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
1	Gldt tr S	Gleditsia triacanthos 'Sunburst'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
3	Lqd sty Sln Slh	Liquidambar styraciflua 'Slender Silhouette'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
2	Mgn dnd Yll Rvr	Magnolia denudata 'Yellow River'	Standard (Extra Heavy)	3x	14-16cm	400-450cm	175-200cm	C	70-100L
2	Mls R	Malus 'Rudolph'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
1	Pm Pnd	Prunus 'Pandora'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
3	Prns A	Prunus 'Accolade'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
3	Prns O	Prunus 'Okame'	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
1	Prns yd	Prunus yedoensis	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
2	Qr ro	Quercus robur	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
1	Srbs ac	Sorbus aucuparia	Standard (Extra Heavy)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
1	Tl cr	Tilia cordata	Standard (Semi-mature)	3x	14-16cm	425-600cm	175-200cm	C	70-100L
29									

Hedgerow 3

Qty	Abb. Text	Species	Container	Root	Height	Habit	Centres
510	Elgn x eb GE	Elaeagnus x ebbingei 'Gilt Edge'	5-7.5L	C	60-80cm	Branched	0.250
510							

Hedgerow 2

Qty	Abb. Text	Species	Container	Root	Height	Habit	Centres
443	Escl AB	Escallonia 'Apple Blossom'	3L	C	40-60cm	Bushy	0.250
443							

Native Hedgerow 2

Qty	Abb. Text	Species	Root	Height	Habit	Centres (m)	Mix %
7	Acer cam	Acer campestre	B	60-80cm	Branched	0.500	5.00 %
76	Crtg mn	Crataegus monogyna	B	60-80cm		0.500	60.00 %
13	Pru spi	Prunus spinosa	B	60-80cm	Leader/Laterals	0.500	10.00 %
20	Rs cn	Rosa canina	B	60-80cm	Branched	0.500	15.00 %
13	Sam nig	Sambucus nigra	B	60-80cm	Several shoots	0.500	10.00 %
129							

Native Hedgerow

Qty	Abb. Text	Species	Root	Height	Habit	Centres (m)	Mix %
34	Acer cam	Acer campestre	B	60-80cm	Branched	0.500	10.00 %
17	Bet pen	Betula pendula	B	60-80cm	Leader/Laterals	0.500	5.00 %
171	Crtg mn	Crataegus monogyna	B	60-80cm		0.500	50.00 %
34	Fag syl	Fagus sylvatica	B	60-80cm	Branched	0.500	10.00 %
51	Rs cn	Rosa canina	B	60-80cm	Branched	0.500	15.00 %
34	Sam nig	Sambucus nigra	B	60-80cm	Several shoots	0.500	10.00 %
341							

Specification note:

Supplier must have a recognised biosecurity policy and be able to demonstrate all aspects of such

The tender must include material grown by the nursery from scratch or material from ornamental stock that has been through the nursery production cycle and vetted by **Defra** along the way to ratify its **biosecurity**.

Shrub Planting

Qty	Abb. Text	Species	Container	Root	Height	Habit	Centres (m)
82	Acb jp R	Aucuba japonica 'Rozannie'	3L	C	40-60		0.500
23	Brb dr	Berberis darwinii	2L	C	20-30cm	Bushy	0.450
97	Cea BM	Ceanothus 'Blue Mound'	3L	C	30-40cm (D)	Bushy	0.500
43	Clnst lc	Cotoneaster lacteus	2L	C	30-40cm	Branched	0.500
14	Dn rcm	Danae racemosa	3L	C	30-40cm	Bushy	0.500
16	Eny fr EG	Euonymus fortunei 'Emerald Gaiety'	3L	C	20-30cm (D)	Bushy	0.450
40	Eny fr EG	Euonymus fortunei 'Emerald Gaiety'	3L	C	20-30cm(D)	Bushy	0.450
8	Hb AG	Hebe 'Autumn Glory'	3L	C	20-30cm	Bushy	0.450
32	Heb rak	Hebe rakaiensis	3L	C	20-30cm	Bushy	0.450
44	Lnc nt M	Lonicera nitida 'Maigreen'	2L	C	30-40cm (D)	Bushy	0.450
13	Lvn an R	Lavandula angustifolia 'Rosea'	3L	C	20-30cm	Bushy	0.450
5	Mhn aq A	Mahonia aquifolium 'Apollo'	3L	C	30-40cm	Leader/Laterals	0.600
7	Ole haa	Olearia x haastii	3L	C	30-40cm	Bushy	0.600
19	Pru OL	Prunus laurocerasus 'Otto Luyken'	3L	C	30-40cm	Bushy	0.600
40	Sk jp R	Skimmia japonica 'Rubella'	2L	C	20-30cm	Bushy	0.500
33	Spr jp F	Spiraea japonica 'Firelight'	2L	C	30-40cm	Bushy	0.450
76	Vb dv	Viburnum davidii	3L	C	20-30cm	Bushy	0.500
43	Vb tn EP	Viburnum tinus 'Eve Price'	2L	C	20-30cm	Bushy	0.450
635							

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Notes

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3. This drawing should be read in conjunction with all other relevant drawings and specifications.

NORTH

Key

- Existing hedgerow to be retained and protected in accordance with BS 5837:2012
- Proposed specimen tree planting
- Proposed specimen shrub planting
- Proposed hedge planting
- Proposed shrub planting
- Proposed grass
- Proposed gravel
- Proposed tree root barrier/director.

Rev	Description	Date	Initial	Checked
C	Updated to the LPA comments	21.10.19	MZ	DMB
B	Updated to suit latest layout.	17.05.18	JS	DMB
A	Updated to latest layout and planners comments.	27.03.18	JS	DMB

For guidance only. Do not scale off this drawing

1:20 - 0 | 200mm 400mm 600mm 800mm 1000 1200 1400 1600 1800 2000
1:100 - 0 | 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m
1:50 - 0 | 1m 2m 3m 4m 5m 6m 7m 8m 9m
1:5 - 0 | 100mm 200mm 300mm 400mm 500mm

MAKING COMPLEX EASY

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Client: Walton Homes

Project: Linton Heath Swadlincote

Title: Detailed Landscape Proposal Sheet 1 of 1

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