



SPECIFICATION NOTES

1. General.
This plan to be read in conjunction with the following documents:
- Landscape strategy 2076-TF-00-00-DR-L-1001 by terra firma
- ACD Consulting Report Aug 2016
- Aluco Ecology Ltd - Ecology Mitigation Strategy, Land at Bonhams, Yapton, June 2019.

2. General landscaping.
i. Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837: 2012 during construction.
ii. All landscape works to be undertaken by competent persons, with appropriate training and equipment.
iii. All arisings to be removed from site at contractor's expense unless noted otherwise.

3. Services.
The contractor must ascertain for himself/herself the exact location of underground services before commencing work.

4. Soil Materials Generally.
i. Purity: Soils shall be free from roots, stones, rhizomes, propagules of perennial or invasive weeds couch grass, bindweed, docks, Japanese knotweed, giant hogweed and horsetail/marestail (Equisetum arvense).
ii. Foreign matter: On visual inspection, free from non-soil material, brick and other building materials and wastes, sharps, and any other foreign matter or material or substance that would render the soil or soil ameliorant unsuitable for use.
iii. Contamination: Do not use topsoil, subsoil, sand or compost contaminated with rubbish or other materials that are:
- Corrosive, explosive or flammable;
- Hazardous to human or animal life;
- Detrimental to healthy plant growth.
iv. Give notice, if any evidence or symptoms of soil contamination are discovered on the site or in topsoil, subsoil, sand or compost or other planting media to be used.

5. Soil testing
Each soil source (imported and site-won subsoil and topsoil - see items 6-8 and 10 below) shall be analysed by Tim O'Hare Associates, Howbery Park, Wallingford, Oxon OX10 8BA. Tel: 01491 822633. Email: info@toha.co.uk, www.toha.co.uk (or equivalent approved).

6. Subsoil for general planting areas (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)
Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use for planting; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	35
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	90
Stones (2-50mm)	% dry wt.	0	50
Stones (>50mm)	% dry wt.	0	0
pH Value*	Unit	5.5	8.5

Electrical Conductivity (12.5 water extract) µS/cm -- 1500
Electrical Conductivity (CaSO4 extract) µS/cm -- 2800
Exchangeable Sodium Percentage % -- 15
Organic Matter % -- 1.5
*IF AN ACIDIC SITE RANGE SHOULD BE 4.5-6.5 IF ALKALINE 7.5-8.5

7. Subsoil for tree pits (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)
Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	15
Silt (0.002-0.05mm)	%	0	25
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	60	90
Stones (2-50mm)	% dry wt.	0	50
Stones (>50mm)	% dry wt.	0	0
pH Value*	Unit	5.5	8.5

Electrical Conductivity (12.5 water extract) µS/cm -- 1500
Electrical Conductivity (CaSO4 extract) µS/cm -- 2800
Exchangeable Sodium Percentage % -- 15
Organic Matter % -- 1.5
*IF AN ACIDIC SITE RANGE SHOULD BE 4.5-6.5 IF ALKALINE 7.5-8.5

8. Topsoil for general landscapes (sample of site-won and/or imported topsoil to be sent for testing to check compliance with parameters below and to inform any necessary amelioration - see 10 below)
Existing topsoil to be stripped and re-used, provided soil is within parameters given below when analysed. Imported topsoil to be good quality sandy loam or manufactured topsoil (from approved source, meeting parameters given below). Topsoil (site-won or imported) is to be tested to determine suitability for proposed use and should be free from commonly tested contaminants, including asbestos; test report to be submitted to Landscape Architect for approval and to enable amelioration recommendations to be made:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	18
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	85
Stones (2-20mm)	% dry wt.	0	20
Stones (20-50mm)	% dry wt.	0	15
Stones (>50mm)	% dry wt.	0	0
pH Value*	Unit	5.5	8.5

Electrical Conductivity (12.5 water extract) µS/cm -- 1500
Electrical Conductivity (CaSO4 extract) µS/cm -- 2800
Exchangeable Sodium Percentage % -- 15
Organic Matter % 4.0 8.0
Total Nitrogen % 0.15
Cation: Nitrogen Ratio 20:1
Extractable Phosphorus mg/l 26 100
Extractable Potassium mg/l 240 1200
Extractable Magnesium mg/l 50 600
*IF AN ACIDIC SITE RANGE SHOULD BE 4.5-6.5 IF ALKALINE 7.5-8.

9. Ameliorant: fertilizer and compost (contractor is responsible for submitting a sample of imported or site-won topsoil to inform requirements).
Topsoil amelioration to be determined by analysis. Once amelioration requirements ascertained as required, approved (peat free) composts to PAS100 and/or fertilizers to be incorporated during cultivation at required rate to full depth of growing medium.

10. Soil handling and depths.
Management of soils to be in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites
i. Topsoil and subsoil to be handled (i.e. excavated and/or imported, stored, spread, cultivated) in accordance with method agreed in writing by Landscape Architect prior to work commencing. All topsoil and subsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating ameliorants as required. If compaction is suspected in sub-grade, subsoil or topsoil surfaces, these should be ripped as necessary to decompact and ensure adequate drainage.
ii. Hand cultivations shall be carried out to achieve the required finish on areas where machine cultivation is impossible ie adjacent to kerbs, manholes and footpath junctions, around retained trees etc. Surplus plant material, rubbish and surface stones having any dimension greater than 25 mm shall be collected and removed from the site. Topsoil and subsoil is to be stored in heaps, maximum of 2m in height, providing soil is reasonably dry and friable during stripping and handling - using a tracked excavator. To protect from wet weather once final height is achieved, an excavator should regrade the sides and top of stockpile to free surface by tracking across it to form a smooth gradient.
iii. Final topsoil depth (allowing for settlement) to be 300mm for tree pits and general planting areas and 150mm for grass. Finished soil levels to be 25mm above adjoining paving or kerbs: not less than 150mm below dpc of adjoining buildings; shrub areas to be higher than adjoining grass areas by 25 mm. Topsoil to be spread in lightly compacted layers, max. 150mm depth, gently firm each layer before spreading the next.

11. Plant handling and establishment.
Plant handling shall be in accordance with 'handling and establishing landscape plants', published by the CPSE through the JCLl (http://www.gohellos.co.uk/nrphandling_establishment.aspx). The contractor shall comply with Part 3: Recommendations for plant handling from delivery to site to ensure successful establishment.

12. General planting notes.
Details for tree, hedge and general planting to be finalised once final site conditions are known (i.e. compaction and permeability of ground). General plant stock to conform to BS 3938, advanced nursery stock to BS 8545, and planting to BS 4428. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged. All planting operations to be in general compliance with BS4428: 'Code of Practice for general landscape operations'.
Only carry out all planting while soil and weather conditions are suitable:
- Do not plant during periods of frost or strong winds. Plant only during the following periods:
- Deciduous and conifer trees: Late October to late March (rootball and bare root)
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering is provided
- Bulbs: September/October
Setting out to be in line with plans; contractor to check with Landscape Architect if setting out is to be approved prior to planting. Ensure that plant beds are neatly defined, and rise from adjacent paved areas as specified above. All tree pits, tree circles in lawn and planting beds are to be mulched with approved bark mulch to 75mm depth after planting.

13. Tree planting
Any proposed substitutions of species shown on plan to be approved by landscape architect prior to planting. Details for tree planting to comply with BS8545, note that for rootball stock the wrapping material is to be left intact and not removed. As a guide all trees to be planted in square pits with base undisturbed unless drainage / compaction problems known. Plant at a depth where the root flare is clearly visible at the soil surface. Where trees have been supplied with the root flare to deep excess soil or fibrous root growth should be removed before planting. All trees to have 'Piddler' tree irrigation/aeration system installed as supplied by Platipus 01737 762300 www.platipus-anchors.com or approved equivalent. Water in heavily after planting and mulch surface, ensuring mulch is not in contact with trunk of tree. Tree support to comply with BS 8545: RB or CG trees to have double stake and bridge with adjustable tie; in windy locations or for large trees, install wired guying; tree stakes to be stained black. Any necessary remedial tree works are to be carried out by an approved tree surgeon to BS 3988. Trees planted within grass areas to be set in mulched earth circles, 1m diameter around tree trunk, with turf trimmed neatly to form circle.
i. Trees up to 20cm girth.
Depth of tree pits to be the same as the rootball and with overall width to be 150mm wider than the diameter of the rootball (75mm min. from rootball edge to tree pit side). Pits to be backfilled with 300mm depth of specified topsoil over subsoil as per spec.

14. Hedges. (beech and hawthorn clipped)
Depth of planting trench to be same as rootball, overall width 150mm wider than rootball (75mm min. from rootball edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis. Central post and wires supporting to be provided with two line wires and plants to be tied in using horticultural plastic ties. On planting, hedges to be trimmed to 800mm ht. and sides trimmed to neat shape where necessary.

15. Mixed Native hedges.
Species to be randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species. Depth of planting trench to be same as root system, overall width space 150mm wider than root system (75mm min. from root system edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Provide and install each plant with an appropriate sized recyclable staked green shrub shelter (available from Tubex Ltd, phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties.

16. Native tree and shrub mix.
All plants to be planted in cultivated planting beds with species randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species. Plants to be notch- or pit-planted. All grids at spacing given in schedule. Provide and install each plant with an appropriate sized recyclable staked green tree or shrub shelter (available from Tubex Ltd phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties.

17. Shrub and Ground Cover Planting.
All plants to be planted in cultivated planting beds (with 300mm depth specified topsoil) at densities shown in plant schedule, backfilled with same topsoil. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

18. Climbers.
All climbers to be planted as 19. above and provided with steel line wires attached to the wall/fence/ (min 3 no.) at 300mm vertical spacing with climbers spread out and tied to wires using appropriate horticultural ties. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

19. Bulb planting.
All bulbs to be planted at the rate given in the schedule, in random mixed drifts of single species in areas indicated on the plan, minimum 15 bulbs per drift of single species. For planting, naturalize bulb positions by dropping bulbs from waist height. Neatly remove a plug of turf and replace after planting. Plant so that the top of the bulb is at a depth of approximately twice its height with base in contact with bottom of hole. Bulbs should be no closer together than approximately twice the width of a single bulb.

20. Grass.
Turfing and seeding shall be carried out only during appropriate seasons and while soil and weather conditions are suitable for the relevant operations. Only machinery and tools suitable for the site conditions and the work to be carried out shall be used. Hand tools shall be used around trees, plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to turfing and seeding. Contact herbicide as specified should be applied to all areas of weed growth 4-6 weeks before grassing and repeated if necessary to maintain a weed free bed. Where deep rooted weeds are present (docks, thistles etc.) approved Glyphosate-based herbicide should be applied as a spot treatment. Turf or seed shall be laid on prepared, levelled soil (minimum 100mm depth) in the areas indicated on the drawings in accordance with BS 4428:1989 'Code of practice for general landscape operations'. All grass areas to be approved landscape quality turf for general amenity areas or lawn turf for garden areas, or equivalent seed.

21. Wildflower meadows.
Establish seed mix, soil and maintenance requirements from supplier.

22. Maintenance.
Establishment maintenance for all planting for 5 years from Practical Completion to include weed control, watering and replacement of failures to original specification in the planting season following failure.
A. All plant material to receive annual pruning and hedges and groundcover to be trained and edged with minimum 2 trims per year.
B. Check tree stakes and ties annually and after strong winds.
C. Check shrub shelters at least twice annually to remove weeds and any soil build up inside tube. Shelters to be removed in year 3 or recycled.
D. Native shrubs plants to be trimmed during winter just after planting, then twice annually in summer and autumn to encourage lower branching and dense growth.
E. Lawn & amenity grass areas - Mowing is to be carried out using approved machinery to maintain the vegetation length within the limits of 30 mm and 50 mm during April to August inclusive and between 50 mm and 70 mm during the rest of the year.
F. Wildflower meadows - as per seed supplier's and ecologist's recommendations.

Design intent
Design intent for planting to front gardens is to provide mixed planting giving some structure in winter and colour throughout the year. Plants chosen are robust, do not require specialist maintenance, are of suitable size for narrow beds and will not block windows. Climbers are to be used where there is a blank wall between windows/doors.

Design intent for larger communal planting beds is to provide mixed planting giving structure in winter and colour throughout the year. Plants chosen are robust, do not require specialist maintenance, and include larger species suitable for larger beds and to give some height against fences and walls. Climbers to be used against boundary fences and walls.

Ornamental Shrub Mix
Hebe abicans 'Red edge' 10L, CG, 3 per m2
Lavandula angustifolia 'Hidcot' 3L, CG, 5 per m2
Euonymus fortunei 'Emerald Gaiety' 3L, CG, 5 per m2
Cornus alba 10L, CG, 2 per m2
Mahonia 3L, CG, 4 per m2
Comarthus 10L, CG, 2 per m2
Rosa spp. 3L, CG, 2 per m2
Rosmarinus officinalis 3L, CG, 5 per m2
Sarcococca 3L, CG, 3 per m2
Vinca minor 2L, CG, 6 per m2
Wiegelia 10L, CG, 2 per m2
Fuchsia 3L, CG, 5 per m2
Hypericum 3L, CG, 5 per m2
Polemonia fruticosa 3L, CG, 4 per m2
Viburnum davidi 3L, CG, 4 per m2
Buddleja 10L, CG, 2 per m2
Corno sanguinea 10L, CG, 3 per m2
Hydrangea 10L, CG, 2 per m2

Bulbs
Galanthus 5/7, planted in drifts: 15m2
Narcissus pseudonarcissus 10/11, planted in drifts: 5m2
Fritillaria Meleagris 10/11, planted in drifts: 15m2

Note: To be read in conjunction with Terra Firma 2017-TF-00-00-DR-L-1001 Landscape General Arrangement.

P10	05.11.19	DP	AG	Updated site layout, addition of tree and species.
P09	01.11.19	DB	AG	Additional trees to rear gardens; additional trees to south boundary to screen views; group of trees to south east boundary omitted and replaced with single tree and native shrubs; tree numbers to planting specification updated.
P08	23.10.19	DB	LF	Section of existing hedge noted to be removed; proposed tree to north boundary removed; key amended.
P07	23.10.19	DB	LF	Baseline updated; structural planting adjusted accordingly; planting list updated with sizes and densities.
P06	02.10.19	PS	MH	Baseline updated.
P05	30.09.19	MH	MH	Footpath link to north omitted.
P04	15.07.19	AG	AG	Addition of heritage apple species to orchard.
P03	04.07.19	AG	AG	Addition of rose.
P02	13.06.19	TJ	AG	Revised site layout.
P01	07.06.19	NW	AG	First issue.
rev	date	by	CHK	notes
project	Bonhams Field, Yapton			
title	Planting Plan			
status	PLANNING		scale @ A1 1:500	
dwg no	2076-TF-00-00-DR-L-3001			
references	Topo 1651018 by Stuart Bailey Land Surveyor, and Proposed Site Plan 18076-P102F by OSP Architecture			
terrafirma				
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