

SPECIFICATION NOTES

- 1. General.**
This plan to be read in conjunction with the following documents:
Risk register by terra firma
Ecologists report by Aluco Ecology
Arboricultural Report by B. Harverson
- 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 or as detailed in Tree Protection Plan.
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. (e.g. woodchip, gravel, topsoil).

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

- 4. Soil Materials Generally.**
a. Purity: Soils shall be free from roots, stolons, rhizomes, propagules of perennial or invasive weeds couch grass, bindweed, docks, Japanese knotweed, giant hogweed and horsetail/maretail (Equisetum arvense)
b. 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.
c. 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.
d. 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.
e. Management of soils to be in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

- 5. Subsoil to make up levels for for tree pits**
Existing as-dug subsoil to be stripped and re-used, provided suitable for intended use, or import subsoil as necessary. Imported natural or manufactured subsoil (from approved source) will be acceptable. Subsoil should be free from contaminants, including asbestos and suitable for intended use.

- 6. Topsoil.**
Existing as-dug topsoil to be stripped and re-used, provided suitable for intended use, or import topsoil as necessary. Imported natural good quality sandy loam topsoil or manufactured topsoil (from an approved source) will be acceptable. Topsoil should be free from contaminants, including asbestos and suitable for intended use.

- 7. Ameliorant: fertilizer and compost.**
Topsoil amelioration, if required, to be approved (peat free) composts to PAS100 and/or fertilizers to be incorporated during cultivation at required rate to full depth of growing medium.

- 8. Soil handling and depths.**
a. 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.
b. Hand cultivations shall be carried out to achieve the required finish on areas where machine cultivation is impossible in adjacent to kerbs, manholes and footpath junctions, around retained trees etc. Surplus plant matter, 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 firm surface by tracking across it to form a smooth gradient.
c. 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/below 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.

- 9. 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.gohelios.co.uk/npshandling_establishment.aspx). The contractor shall comply with Part 3: Recommendations for plant handling from delivery to site to ensure successful establishment.

- 10. 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 3936, 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
•Setting out of planting beds to be approved by Landscape Architect before work commences. 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.

- 11. 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. 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 too deep excess soil or fibrous root growth should be removed before planting. All trees to have 'Pidder' tree irrigation/aeration system installed as supplied by Platipus 01737 762300 www.platipus-anchors.com or similar 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. Bare root trees to have a single upright stake; 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 3998. Trees planted within grass areas to be set in mulched earth circles, 1m diameter around tree trunk, with turf trimmed ready 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.

- 12. Clipped Hedges to Gardens.** 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. 50mm depth mulch to base of hedge. Central post and wire supporting to be provided with two line wires and plants to be tied in using horticultural plastic ties where shown on plan. On planting, hedges to be trimmed to neat shape where necessary. Instant hedges to be planted as per supplier's recommendations.

- 13. Native hedges.**
Species to be randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species (with the exception of Honeysuckle (Lonicera) and Holly (Ilex) which are to be planted individually). 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. 50mm depth mulch to base of hedge.

- 14. 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. Plant on grid 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. 50mm depth mulch to base of hedge.

- 15. Specimen Shrubs.**
Depth of planting pit to be same as rootball, overall width space 100mm wider than rootball (50mm min. from rootball edge to sides of pit). Pit to be backfilled with 300mm depth of specified topsoil over subsoil as per spec.

- 16. Shrub and Ground Cover Planting.**
All plants to be planted into cultivated planting beds (with 300mm depth specified topsoil) at densities shown in plant schedule, backfilled with same topsoil. Apply 50mm depth ornamental grade bark mulch to beds

- 17. Climbers.**
All climbers to be provided with horticultural grade steel line wires attached to the wall (min 3 no.) at 300mm vertical spacing with climbers spread out and tied to wires using appropriate horticultural ties.

- 18. 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 150mm 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.

- 19. Wildflower meadows / species-rich grassland.**
Establish seed mix & soil requirements from supplier to suit soil conditions. Sow on graded and prepared subsoil. Refer to Ecologist's recommendations.

- 20. Maintenance.**
Establishment maintenance for all planting shall be for 5 years from Practical Completion and include weed control, watering and replacement of failures to original specification in the planting season following failure.
i. All plant material to receive annual pruning and hedges and groundcover to be trained and edged with minimum 2 trims per year. Where new and existing mixed native hedges front onto open space they are to be maintained according to Ecologist's recommendations
ii. Check tree stakes and ties annually and after strong winds.
iii. Check shrub shelters at least twice annually to remove weeds and any soil build up inside tube. Shelters to be removed in year 3 and recycled.
iv. 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.
v. Species-rich grassland: Refer to Ecologist's recommendations.

Structural planting- Site wide

Abbreviation	Species	Specification	Qty.
Acer camp (8-10)	Acer campestre	8-10cm girth 2.3/3m ht.	8 No.
Acer camp (12-14)	Acer campestre	12-14cm girth 3.5-4m ht. BR or CG	17 No.
Acer 'Street'	Acer campestre 'Streetwise'	12-14cm girth 3.5-4m ht. BR or CG	4 No.
Aesc x car 'Bri'	Aesculus x carnea 'Briotii'	14-16cm girth 4.4-5m ht. BR or CG	1 No.
Alnu glut (8-10cm)	Alnus glutinosa	8-10cm girth 2.3/3m ht.	6 No.
Alnu glut (12-14cm)	Alnus glutinosa	12-14cm girth 3.5-4m ht. BR or CG	4 No.
Crat mono	Crataegus monogyna	12-14cm girth 3.5-4m ht. BR or CG	3 No.
Lirio tulipi	Lindendron tulipifera	14-16cm girth 4.4-5m ht. RB or CG	2 No.
Malus 'Rud'	Malus 'Rudolph'	10-12cm girth 3.5-4m ht. BR or CG	5 No.
Malu sylv	Malus sylvestris	10-12cm girth 3.5-4m ht. BR or RB	2 No.
Malu trilob	Malus trilobata	10-12cm girth 3.5-4m ht. BR or CG	15 No.
Prun aviu	Prunus avium	12-14cm girth 3.5-4m ht. BR or CG	7 No.
Prun 'Plen.'	Prunus avium 'Plena'	12-14cm girth 3.5-4m ht. BR or CG Colt rootstock	3 No.
Prun padu	Prunus padus	8-10cm girth 2.3/3m ht.	7 No.
Prun padu 'Alberti'	Prunus padus 'Albertii'	12-14cm girth 3.5-4m ht. BR or CG	5 No.
Prun subh 'A.R.'	Prunus subhirtella 'Autumnalis Rosea'	10-12cm girth 3.5-4m ht. BR or CG	2 No.
Pyrus Chan	Pyrus calleryana 'Chanticleer'	12-14cm girth 3.5-4m ht. BR or CG	2 No.
Quer' ilex	Quercus ilex	12-14cm girth 3.5-4m ht. CG	2 No.
Quer robu (14-16cm)	Quercus robur	14-16cm girth 4.4-5m ht. RB or CG	11 No.
Quer robu (10-12cm)	Quercus robur	10-12cm girth 3-3.5m ht. RB or CG	3 No.
Quer robu (12-14cm)	Quercus robur	12-14cm girth 3.5-4m ht. RB or CG	4 No.
Sorb form	Sorbus torminalis	12-14cm girth 3.5-4m ht. BR or CG	6 No.
Ulmus 'NH'	Ulmus 'New Horizon'	14-16cm girth 4.4-5m ht. BR or CG	2 No.

Clipped Hedges

Abbreviation	Species	Specification	Density	Qty.
Esca 'Ivey'	Escallonia 'Iveyi'	60-80cm ht. 10L CG 3/m		143 No.
Fagu sylv	Fagus sylvatica	80-100cm ht. BR	0.5Ctr Double Staggered at 0.25m offset	825 No.

1860 Native hedge

Number	Abbreviation	Species	Specification	Density
245 No.	Acer camp	Acer campestre	80-100cm ht. BR	0.5Ctr Double Staggered at 0.25m offset
483 No.	Cory avel	Corylus avellana	80-100cm ht. BR	0.5Ctr Double Staggered at 0.25m offset
1433 No.	Crat mono	Crataegus monogyna	80-100cm ht. BR	0.5Ctr Double Staggered at 0.25m offset
126 No.	Ilex aqu	Ilex aquifolium	60-80cm ht. CG or bagged	0.5Ctr Double Staggered at 0.25m offset
128 No.	Loni peri	Lonicera periclymenum	60-80cm ht. CG or BR	0.5Ctr Double Staggered at 0.25m offset
Total :2413 No.				

1860 Native shrub

Number	Abbreviation	Species	Specification	Density
118 No.	Cory avel	Corylus avellana	80-100cm ht. BR	1/m²
290 No.	Crat mono	Crataegus monogyna	80-100cm ht. BR	1/m²
60 No.	Prun spin	Prunus spinosa	80-100cm ht. BR	1/m²
60 No.	Sali capr	Salix caprea	80-100cm ht. BR	1/m²
60 No.	Samb nigr	Sambucus nigra	80-100cm ht. BR	1/m²
Total :588 No.				

1860 Native understory

Number	Abbreviation	Species	Specification	Density
115 No.	Acer camp	Acer campestre	60-80cm ht. BR	1/m²
92 No.	Cory avel	Corylus avellana	60-80cm ht. BR	1/m²
115 No.	Crat mono	Crataegus monogyna	60-80cm ht. BR	1/m²
46 No.	Ilex aqu	Ilex aquifolium	60-80cm ht. CG/bagged	1/m²
92 No.	Prun spin	Prunus spinosa	60-80cm ht. BR	1/m²
Total :460 No.				

INDICATIVE PLANT PALETTE

Ornamental shrubs, groundcover and herbaceous species:

species	size	density
Aichemilia mollis	2L CG	7m2
Ameiandcher lamarki	20L CG	specimen
Anemone x hybrid 'Honoree Jobert'	2L CG	8m2
Arbutus unedo	10L CG	specimen
Berberis darwinii	3L CG	4m2
Berberis thunbergii f. atropurpurea	3L CG	4m2
Bergenia cordifolia 'Purpurea'	3L CG	5m2
Bergenia cordifolia 'Silverlitchi'	2L CG	8m2
Convallaria majalis	1L CG	7m2
Corvus 'Midwinter Fire'	10L CG	2m2
Corvus sericea 'Flavirenea'	10L CG	2m2
Cotoneaster dammeri	3L CG	5m2
Digitalis purpurea	2L CG	7m2
Dryopteris filix-mas	2L CG	8m2
Euconymus fortunei 'Emerald Gaiety'	3L CG	5m2
Euphorbia amygdaloides var. robbiae	2L CG	5m2
Fatsia japonica	3L CG	4m2
Forsythia x intermedia 'Lynwood Variety'	5L CG	specimen
Geranium macrorrhizum 'Album'	2L CG	8m2
Hebe 'Great Orme'	3L CG	5m2
Hebe Novaeis Blue	10L CG	2m2
Hebe buxifolia	3L CG	5m2
Hebe rakaiensis	10L CG	3m2
Hedera helix 'Green ripple'	2L CG	6m2
Helleborus pedicularis	2L CG	3m2
Hypericum 'Hidcote'	3L CG	5m2
Iris foetidissima	2L CG	6m2
Lonicera pileata	3L CG	5m2
Magnolia stellata	15L CG	specimen
Mahonia x media 'Charity'	10L CG	specimen
Pachandra terminalis	3L CG	6m2
Polypodium x hybridum	2L CG	8m2
Prunus laurocerasus 'Otto Luyken'	3L CG	5m2
Sambucus nigra 'Black Lace'	3L CG	3m2
Syringa corsica 'Kew Green'	3L CG	5m2
Syringa vulgaris 'Madame Lemoine'	10L CG	specimen
Viburnum davidii	3L CG	5m2
Viburnum tinus	3L CG	3m2
Vincetoxicum	2L CG	5m2

Marginal species:

botanical name	common name	specification
Scirpus lenzii	True bulrush	1L container 3m2
Butomus umbellatus	Flowering rush	1L container 3m2
Caltha palustris	Marsh marigold	1L container 3m2
Typha latifolia	Common reed mace	1L container 2m2
Iris pseudacorus	Yellow flag	1L container 3m2
Mentha aquatica	Water mint	1L container 5m2
Lythrum salicaria	Loosestrife	1L container 5m2
Myscotis scorpioides	Forget-me-not	1L container 5m2

- All dimensions in millimetres unless otherwise indicated. All levels in metres relative to Ordnance Datum and are positive (AD) unless otherwise indicated.
- Figure dimensions only to be taken from this drawing, do not scale. Dimensions to be checked on site.
- For civil and structural matters including existing and proposed services, sub-base construction and site structures (including retaining walls over 900mm height) refer to information by others.
- The original version of this drawing was produced in colour - monochrome copies should not be relied upon to accurately reflect all drawing elements.
- This drawing has been prepared for planning purposes only and should not be used for quantification, tender or construction.

rev	date	by	cnr	notes
P06	28.10.20	KB	AG	Changes following revised layout
P05	21.10.19	KB	AC	Changes to tree planting on Lower Road
P04	13.09.19	KB	KB	Changes to tree planting on Lower Road
P03	03.04.19	KB	AG	Coordination with Ecologist
P02	01.04.19	KB	AG	Minor changes to graphics and spec notes
P01	29.3.19	KB	AG	Final issue

project	Minor Farm, Bedhampton		
title	Schedule and spec notes (sheet 5 of 5)		
status	Planning	scale	@ A1 nts
dwg no	1860-TF-00-00-DR-L-1006		
references			