

SPECIFICATION NOTES

1. General.
This plan to be read in conjunction with the following documents:
- Landscape works specification and other drawings by terra firma
- Risk Register by terra firma
- Schedule of works by terra firma
- Arboricultural report by Aspect Arboriculture

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 10948 TCP 01.
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, timber sleepers).

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, stolons, 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 amelioriant 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, Howberry Park, Wallingford, Oxon OX10 8BA, Tel. 01491 822653, 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 (0.002-0.06mm)	%	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)	%DW	–	50
Stones (>50mm)	%DW	–	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	–	1500
Electrical Conductivity (CaSO4 extract)	µS/cm	–	2800
Exchangeable Sodium Percentage	%	–	15
Organic Matter	%	–	1.5

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	18
Silt (0.002-0.06mm)	%	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.	–	50
Stones (>50mm)	% dry wt.	–	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	–	1500
Electrical Conductivity (CaSO4 extract)	µS/cm	–	2800
Exchangeable Sodium Percentage	%	–	15
Organic Matter	%	–	1.5

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 9. 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 (0.002-0.06mm)	%	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
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 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	–
Carbon: Nitrogen Ratio	–	–	20:1
Extractable Phosphorus	mg/l	26	100
Extractable Potassium	mg/l	240	1200
Extractable Magnesium	mg/l	50	600

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 or 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.
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/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. Topsoil to be spread in lightly compacted layers, max. 150mm depth, gently firm each layer before spreading the next.

12. Plant handling and establishment.
Plant handling shall be in accordance with 'Handling and establishing landscape plants', published by the CPSE through the JCLI. (https://www.cstheb.com/wp-content/uploads/2014/12/The-National-Plant-Specification-Handling-and-Establishment.pdf) The contractor shall comply with Part 3: Recommendations for plant handling from delivery to site to ensure successful establishment.

13. 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 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.

14. Plant biosecurity
Plant procurement should follow the latest recommendations from DEFRA and landscape contractors should verify the status of all specified species prior to procuring. Plant material should be sourced from UK growers with a sound Biosecurity Policy and management systems that can demonstrate the traceability of their stock with plant health certificates / plant passports or other documentation (commensurate with the HTA Plant Health Assurance Scheme (still in development phase)).
Selected plants, including trees should be propagated and grown on a UK nursery, or containerised and grown-on in the UK for a minimum of 5 years (trees) or 2 years (shrubs). Any Xylella host plants specified must come from a UK nursery and must not be imported from Europe or anywhere else in the world, directly to site. There must be full traceability on the Xylella host plants (ideally back to its origin). The contractor is responsible for checking compliance of growers and to submit their own Biosecurity Plan with their tender.

15. 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 'Pfeifer' 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: Bare root trees to have a single upright stake. RB or CG trees to have double stake and bridge with adjustable tie; multi stemmed trees or trees on slopes to have angled single stake with adjustable tie; in windy locations or for large trees, install wired guying; tree stakes to be stained black. Trees to be underguyed guyed shall have suitable guying systems installed as supplied by Platipus 01737 762300 www.platipus-anchors.com or approved equivalent. 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 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.
ii. Trees - 20cm girth and above.
Depth of tree pits to be 200mm deeper than 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 400mm depth of specified topsoil over washed medium coarse grade sand to a depth of 200mm below rootball.

15. Hedges.
Depth of planting trench to be same as rootball, overall width150mm 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 wire 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.

16. 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.

17. 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. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

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. Contract 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 lawn turf for garden areas, or equivalent seed.

19. Species-rich grass.
Establish seed mix & soil requirements from supplier.

20. 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.
i. All plant material to receive annual pruning and hedges and groundcover to be trained and edged with minimum 2 trims per year.
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. 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.
v. 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.
vi. Wildflower meadows.
Meadow grass areas where left un-mown to receive a main summer hay cut in combination with autumn and spring mow. Leave grass to flower from spring through to late July/Aug to give sown species the opportunity to flower. After flowering carry out a 'hay' cut with a strimmer to 50mm. Leave 'hay' to dry and shed seed for 1-7 days then remove from site. Mow regrowth through to late autumn to 50mm and again in spring as needed. The grass is to be cut twice a year to a height of 100mm in March / April, to 100mm in August / September following flowering. Mowings / hay can be left to dry to allow seed shedding back into the sward and removed within 3 days. At the time of each cut, all grass edges are to be trimmed: round the base of trees, manholes, etc. All adjoining hard areas are to be swept clear of cuttings.

Plant list

Structural street tree
Acer campestre 'Elsrijk'
Acer platanoides 'Crimson Sentry'
Acer campestre 'Streetwise'
Carpinus betulus 'Lucas'
Ginkgo biloba
Quercus palustris
Liquidamber styraciflua 'Worplesdon'
Sorbus torminalis
Quercus rubra
Tilia tormentosa 'Brabant'
Liriodendron tulipifera
Quercus robur
Sorbus aria 'Whitebeams'

Smaller street tree
Amelanchier lamarckii 'Robin Hill
'Betula 'Edinburgh'
Betula albosinensis 'Fascination'
Malus 'Evereste'
Pyrus calleryana 'Chanticleer'
Prunus avium 'Plena'
Prunus 'Sunset Boulevard'
Sorbus aucuparia
Ginkgo biloba
Tilia cordata 'Rancho'

Native trees to buffer
Quercus robur
Carpinus betulus
Corylus avellana
Tilia cordata
Euonymous europaeus
Sorbus aria
Ilex aquifolium
Crataegus monogyna
Prunus spinosa
Viburnum opulus
Prunus avium
Fagus sylvatica

Arrival space
Magnolia grandiflora
Liriodendron tulipifera
Prunus subhirtella
Magnolia kobus
Malus 'Evereste'
Malus hupehensis 'Flowering Crab'

Trees to central POS
Betula pendula 'Youngii'
Quercus robur
Juglans regia
Prunus avium
Pyrus communis
Sorbus aria
Corylus avellana
Sorbus aucuparia

Sensory trees to LEAP
Acer griseum
Prunus serrula
Salix babylonica 'Tortuosa'
Pterocarya fraxinifolia

Hedgerows (native to buffer)

Crataegus monogyna	30%
Corylus avellana	25%
Quercus robur	10%
Prunus spinosa	10%
Cornus sanguinea	5%
Viburnum lantana	5%
Rosa canina	5%
Rosa arvensis	5%
Euonymus europaeus	5%

Hedgerows (native internal)
Fagus sylvatica
Crataegus monogyna
Carpinus betulus

Ornamental Shrubs
Aucuba japonica
Rozannie Berberis spp. & cultivars
Choisya Aztec Pearl
Cistus Silver Pink
Hebe cultivars
Lavandula spp. & cultivars
Juniperus spp. & cultivars
Nandina domestica
Olearia x haslii
Pachysandra terminalis
Philadelphus microphyllus
Prunus x cistena
Crimson Dwarf
Prunus laurocerasus Otto Luyken & Zabeliana
Sarcococca confusa
Skimma x confusa Kew Green
Symphoricarpos x chenaultii
Hancock Viburnum cultivars
Vinca cultivars
Weigelia florida
Folis Purpureis

Native shrubs
Acer campestre
Corylus avellana
Crataegus monogyna
Ilex aquifolium
Lonicera periclymenum
Prunus spinosa
Viburnum opulus

Climbers
(to internal parking courtyard fences)
Hedera helix
Pyracantha 'Red column'
Parthenocissus quinquefolia

Wildflower meadow mix- EM1 Basic General Purpose Meadow Mixture	
Species	Percentage of Mix %
Wildflowers	
Achillea millefolium	0.1
Centaurea nigra	3.5
Cruciata laevipes	2.2
Leucanthemum vulgare	3.5
Plantago lanceolata	6.5
Poterium sanguisorba - (Sanguisorba minor)	2
Prunella vulgaris	0.1
Ranunculus acris	2
Silene vulgaris	0.1
	Total : 20

Grasses	
Agrostis capillaris	8
Cynosurus cristatus	28
Festuca rubra	24
Phleum bertolonii	4
Poa pratensis	16
	Total : 80

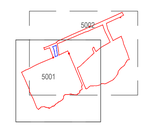
Species rich grassland - EG1 – General Purpose Meadow Grass Mixture	
Species	Percentage of Mix %
Agrostis capillaris	10
Cynosurus cristatus	35
Festuca rubra	30
Phleum bertolonii	5
Poa pratensis	20

Damp grass mix for attenuation basins -EG8 – Meadow Grass Mixture for Wet Soils	
Species	Percentage of Mix %
Agrostis capillaris	12.5
Alopecurus pratensis	3.75
Anthoxanthum odoratum	3.75
Briza media	3.75
Cynosurus cristatus	32.5
Deschampsia cespitosa	2.5
Festuca rubra	35
Schedonorus pratensis (Festuca pratensis)	6.25

0m 10m 20m north

- All dimensions in millimetres unless otherwise indicated. All levels in metres relative to Ordnance Datum and are positive (AOD) unless otherwise indicated.
- Figure dimensions only to be taken from this drawing, do not scale except for planning purposes. All dimensions to be checked on site.
- For soil 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.

- Site boundary
- Topographical survey information - dwg. PLN-6000 by Cadmap dated March 2021
- Existing tree to be retained and protected in accordance with BS 5837:2012 - refer to arboricultural report 10948 TCP 01 by Aspect Arboriculture dated June 2021
- Root Protection Area - refer to arboricultural report. To remain undisturbed and uncompacted (no material or equipment storage)
- Existing tree to be removed
- Proposed building
- Cobble rumble strip
- Emergency access route
- Bitmac surface to primary road
- Bitmac surface to secondary road
- Bitmac pavement
- Block paved shared surface - colour (brindle / buff) to tie in with brick colour of buildings in character areas
- Block paving to driveways - colour (brindle / buff) to tie in with brick colour of buildings in character areas
- Block paving to private patios
- Fittleworth stone footpath
- Bark mulch path (to maintenance paths)
- Large street tree
- Smaller street tree
- Native buffer trees
- Tree to central Public Open Space
- Sensory trees to LEAP
- Ornamental tree at entrance
- Shrubs (including native and ornamental)
- Sensory planting to play area
- Amenity grass to rear gardens
- Wildflower grass to public open space
- Grassland mix
- Native hedge buffer planting, to site boundaries with post and wire
- Native hedge (internal) with post and wire
- Close board fence to rear gardens
- Combined boundary wall and fence (to key outer faces)
- Post and rail fence with stock proof mesh
- Low fence to ground floor apartment patios
- Proposed play equipment
- Earth mound play feature
- Rubber crumb safety surface
- Metal gate to play area
- Telescopic bollards to emergency access route
- Knee rail to POS
- Wooden steps to bridleway
- Climbers



rev.	date	by	chk	notes
P12	03.12.24	MS	EB	Various amendments to match latest site layout
P11	11.09.24	NC	EB	Updated western side to latest in site layout
P10	17.07.23	TJ	LF	Updated site boundary
P09	17.03.23	TJ	LF	Amendments to buffer zones and block paving colours
P08	15.03.23	TJ	LF	Updated site boundary
P07	09.03.23	TJ	LF	Updated site layout
P06	21.09.22	EB	LF	Updated site boundary
P05	29.06.22	EB	LF	Updated to latest site layout
P04	28.06.22	EB	LF	Updated to latest site layout; planting list updated
P03	25.02.22	EB	LF	Planning issue
P02	24.02.22	EB	LF	Second draft issue for team circulation
P01	24.02.22	EB	LF	Draft issue for team circulation

project	Land South of Crawley Down Road, Felbridge
title	Landscape Masterplan (1 of 2)
status	Planning
scale @ A0	1:500
dwg no	PLN-1-5001
references	220620 Site Plan (1101 Rev.I) by Boyer Planning. 10948 TCP 01 by aspect arboriculture PLN-6000 by Cadmap

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