

PLANNING NOTES (SOFT LANDSCAPE):

1. SOILS: Subgrade / subsoil to be prepared in accordance with BS 8601:2013 and BS 4428:1989 and scarified or ripped to 300mm depth (excluding root protection areas of retained trees refer to Tree Protection Plan) prior to spreading topsoil to alleviate compaction and promote drainage. Imported and as saved topsoil to be in accordance with BS 3882:2015 'Multipurpose Grade' with minimum soil organic matter contents 1% greater than the minima value (or as approved). Imported topsoil (and 'as saved if requested) is to be laboratory tested to BS 3882:2015 and ameliorated as required to meet the required characteristics as detailed within Table 1 of BS 3882:2015 specification. Wildflower seed mix to be unimproved topsoil or low fertility topsoil to BS 3882:2015. Grass areas to be a minimum depth of 150mm. Shrub & hedge beds 450mm depth. Any weed / grass growth to be sprayed out with appropriate herbicide at least 10 days prior to cultivation. All areas to be cultivated to a minimum depth of 150mm removing weeds and rubbish / stores greater than 20mm in size. Incorporate proprietary non peat compost to BS PAS 100 to 50mm depth evenly worked into soil during cultivation.

N.B Proposed services (electric, water, gas etc) in landscape areas should be installed as a minimum below the required topsoil depths and clearly identified in accordance with service / utility requirements.

2. BUILDING FOUNDATION DESIGN: All tree and shrub planting proposals are to be referred to by the structural engineer during building foundation design.

3. PLANT STOCK: Unless agreed otherwise all trees and shrubs are to be of UK provenance where plants have been propagated and/or grown on for a minimum of 5 years in the UK for trees and 2 years for shrubs. All plants are to comply with the requirements of all current British Standards including BS3338 'Specifications for Nursery Stock' and BS5854 'Trees from nurseries to independence in the landscape and be supplied in accordance with the Plant Schedule. Should planting be required outside of the planting season (November - March) any bare root or rootballed stock supplied is to be replaced with containerised stock to an appropriate or similar specification to the approval of the landscape architect prior to ordering.

4. EXISTING TREES: Where trees are to be retained they should be subject to a full arboricultural inspection to assess condition and safety. Retained trees shall be protected from damage by erection of 2.3m wellhead fencing on a scaffold framework in accordance with BS 5837:2012 Figure 2. These barriers shall be maintained in position and in good condition until work is complete. Fencing to be located in accordance with Table D.1 at a radius of 12 times the stem diameter (single stem trees) or based on the combined stem diameter for multistem trees (trees with more than one stem arising below 1.5m above ground level) refer to Clause 4.6. Further precautions are to be taken as detailed within BS 5837:2012 6.2.4.

5. TREE SURGERY / REMOVAL: Tree surgery and tree removal to be carried out by an arboricultural Association approved Tree surgeon in accordance with BS 3859:2010. Arisings to be removed to a licensed tip.

6. TREE PLANTING: All trees to be in accordance with BS 3936, BS8545 and The National Plant Specification - 'Rootballed Trees' recommendations. Trees to be planted in accordance with BS 4428:1989, double staked (10-12cm - 14-16cm girth trees) and tied with webbing loops in prepared pits. Tree pits in open field / un-compacted ground conditions or shrub beds to be 1000mm x 1000mm (at least 75mm greater than that of the root system) with pit depth to be based on the planting depth of the tree (distance from root flare to underside of rootball) in accordance with BS 8545:2012. Topsoils and subsoils to be excavated and stored separately for reuse. Tree pit to be backfilled with stored subsoil and topsoil at depths to replicate the existing soil horizons. Topsoil to be mixed enriched with 40L of peat free tree planting compost, incorporating Rootgrow professional (RGPto as supplied by Empathy) and Siemsen N-Mag Pre-planter Fertiliser in accordance with manufacturers recommendations. Root balls to be encircled by Root Rain Metro or similar irrigation pipe. Well water after planting. The base of trees to be planted in grass areas are to be covered with 75mm amenity grade bark mulch such as Melcourt Amenity Bark Mulch (or similar approved by the landscape architect) to 1.0 metre diameter and kept weed free.

Where trees are to be planted in heavily compacted ground, tree pits are to be excavated to achieve the an uncompacted growing volume with pits being approximately 4m x 4m x800mm backfilled with excavated subsoil and topsoil (as described above) mixed with 100L of peat free tree planting compost.

Generally all trees are to be planted as shown ensuring a minimum of 5 metres from buildings and 3 metres from drainage or services. In locations close to footpaths and roadsways linear root barriers Greenblue Urban, ReRoot, or similar are to be installed in accordance with manufacturers instructions. Where proposed tree locations conflict with services, trees are to be relocated in accordance with the appropriate utilities guidance notes subject to client / local authority approval. Proprietary root barrier Greenblue Urban, ReRoot or similar to be installed in accordance with manufacturers instructions where relocation is not considered appropriate.

7. SHRUB PLANTING: plants to be in accordance with BS 3936 and handled in accordance with NPS 'Handling & Establishment' guidelines and planted in accordance with BS 4428:1989. Nursery stock supplier to be approved by the Landscape Architect. All shrubs to have a minimum of three breaks, except Hedera with a minimum of two. Shrubs to be pit planted incorporating Rootgrow professional in accordance with manufacturers recommendations and Agrolon Yellow tablets evenly distributed around the plant at 200mm depth with 2 tablets for plants up to 3 ltrs, 3 tablets for plants up to 5 ltrs and 4 ltrs for plants up to 10lrs. Well water plants immediately after planting and prior to spreading of mulch. Planting areas to be covered with 75mm depth amenity grade bark mulch such as Melcourt Ornamental Bark Mulch (or similar approved by the landscape architect) and kept weed free.

8. NATIVE SHRUB PLANTING: plants to be in accordance with BS 3936 and planted in accordance with BS 4428:1989. Transplants to be planted at 1 metre centres (or as scheduled) in random groupings of 3-5 and 7-10 shrub species depending on numbers of plants. Bare root transplants to be root dipped with 'Broadleaf Root Dip' prior to planting. Planted areas to be kept weed free and protected from rabbits, with rabbit fence and / or individual mesh tree guards securely fixed to timber stakes(s).

9. WILDFLOWER SEEDING: grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Unimproved or low fertility topsoil to be imported, cultivated and levelled, to remove all minor hollows or ridges as required with any debris or stores greater than 20mm diameter removed to provide a fine weed free tilth. Do not apply fertiliser. Weeds to be eradicated by herbicide or repeated cultivation prior to sowing. Lightly rake areas after sowing and keep well watered. Areas to be kept free from unwanted plants and mown every 6 - 8 weeks during establishment year removing arisings. In subsequent years cut in early spring and autumn after setting seed (in accordance with manufacturers recommendations) removing arisings. Seed mixes to be supplied by Emorsgate Seeds and include the following sown in accordance with suppliers recommendations.

EM2 'Standard General Purpose Meadow Mixture' to general landscape areas (sown at 4g/m2).

EH1 'Hedgerow mix' to woodland edges (sown at 4g/m2).

10. MAINTENANCE: To be carried out at approximately monthly intervals during the defects liability / rectification period to include the following:

- Eradicate weeds by hand or appropriate chemical means.
- Cut out dead or / and damaged stock or branches, prune as required.
- Ensure all shrubs and trees are firmed in, securely staked and tied with guards where applicable.
- Collect litter, sweep and tidy site.
- Apply suitable non-residual herbicides, pesticides and water as required.
- Carry out mowing to grass areas when attained 100mm, cut to 35mm (50mm for shaded areas) approximately 2 week intervals during the growing season.
- Carry out mowing to wildflower areas as per Emorsgate Seeds Ltd aftercare First year & Established ward guidance.
- All hedges to plot frontages be maintained to a max height of 2.0m.
- At final visit apply granular fertiliser to all planted areas and top up bark mulch depth to 75mm.

13. WATERING: all plant material (including turf) to be watered in dry periods until established during April through to September with a fine rose until the water penetrates the topsoil to at least 5cm depth and achieves field capacity. Frequency of watering regime to be determined by weather conditions, soil conditions and underlying geology. All plant beds to be watered to ensure soil is consistently moist to promote successful establishment. As a guide only it is suggested that during hot, dry periods, plants are to be watered every six to ten days. For individual trees it is suggested that 16 watering visits per year are carried out commencing late March (prior to budburst) and utilising a minimum of 50 litres of water per tree. Soil probe to be used to determine soil saturation to full depth of root ball.

LEGEND: SOFT LANDSCAPING

- GROUND COVER: deciduous and evergreen shrub ground cover planting with specimen shrubs.
- EVERGREEN HEDGE: evergreen shrub hedge as detailed.
- SPECIMEN SHRUBS: specimen shrub planting as detailed.
- WILDFLOWER MEADOW AREAS: to be seeded with Emorsgate EM2 wildflower seed mix to open areas and EH1 to the woodland edge.
- NATIVE SHRUB PLANTING: native species shrub planting mix at 1m centres seeded with Emorsgate EW1.
- ORNAMENTAL GRAVEL: pea gravel from local source; 50-75mm minimum depth; refer to notes.
- TREE PLANTING: standard tree planting with canopy spread illustrated at 25 years growth.
- EXISTING TREES: to be retained in accordance with BS 5837 'Trees in relation to Construction' 2012.
- TREES TO BE REMOVED

Plant Schedule

No.	Species Name	Specification	Girth	Height	Density
2	Amelanchier x grandiflora 'Robin Hill'	3x Extra Heavy Standard 'Clear Stem 175-200 :5 brks :R8 :PG 114-16cm	425-600cm	Counted	
10	Carpinus betulus	3x Extra Heavy Standard 'Clear Stem 175-200 :5 brks :R8 :PG 114-16cm	400-450cm	Counted	
11	Carpinus betulus 'Fastigiata'	3x Extra Heavy Standard 'Clear Stem 175-200 :5 brks :R8 :PG 114-16cm	400-450cm	Counted	
5	Carpinus betulus 'Fastigiata'	3x Extra Heavy Standard 'Clear Stem 175-200 :5 brks :R8 :PG 114-16cm	400-450cm	Counted	

No.	Species Name	Specification	Girth	Diameter	Height	Pot Size	Density
498	Escalonia rubra macrantha (*)	Bushy :4 brks :C :PG 9	40-60cm	3L		0.45Cfr Triple Staggered at 0.35m offset	

No.	Species Name	Specification	Diameter	Height	Pot Size	Density
65	Brachyglottis 'Sunshine'	Branched :4 brks :C :PG 8	30-40cm	3L	3m ²	
67	Cornus sanguinea	+1 :Transplant :Branched :2 brks :B	40-60cm	1Cfr		
67	Corylus avellana	+2 :Transplant :Branched :3 brks	60-80cm	1Cfr		
67	Crataegus monogyna	+1 :Transplant :B	60-80cm	1Cfr		
23	Euonymus europaeus	+2 :Transplant :Branched :5 brks :B	60-80cm	1Cfr		
38	Hebe 'Mrs Winder'	Bushy :5 brks :C :PG 9	30-40cm	3L	3m ²	
38	Hypericum 'Hidcote'	Bushy :5 brks :C :PG 8	30-40cm	3L	3m ²	
45	Ilex aquifolium	Leader With Lateral	40-60cm	3L	1Cfr	
45	Ligustrum vulgare (*)	0/2 :Cutting :Branched :3 brks :B	60-80cm	3L	1Cfr	
147	Lonicera pileata	Bushy :6 brks :C :PG 2	30-40cm	3L	3m ²	
109	Prunus laurocerasus 'Otto Luyken'	Bushy :5 brks :C :PG 8	40-60cm	5-7.5L	3m ²	
23	Rosa carolina (*)	+1 :Transplant :Branched :3 brks :B	40-60cm	1Cfr		
23	Sambucus nigra	+1 :Transplant :Branched :3 brks :B	60-80cm	1Cfr		
45	Viburnum lantana	+2 :Transplant :Branched :3 brks	60-80cm	1Cfr		
45	Viburnum opulus	+2 :Transplant :Branched :3 brks :B	60-80cm	1Cfr		

EXISTING WOODLAND MANAGEMENT: nursery species (including Cherry, Field Maple, Birch, Alder) and poorer climax species (Ash, Pine, Poplar & Oak) to be thinned out to benefit the better condition climax species.

VEGETATED RETAINING WALL SYSTEM: to engineers details, seeded with Wildflower mix EH1

- 67 No. Cornus sanguinea 15%
- 67 No. Corylus avellana 15%
- 67 No. Crataegus monogyna 15%
- 23 No. Euonymus europaeus 5%
- 45 No. Ilex aquifolium 3L 10%
- 45 No. Ligustrum vulgare (*) 5%
- 23 No. Rosa carolina (*) 5%
- 23 No. Sambucus nigra 5%
- 45 No. Viburnum lantana 10%
- 45 No. Viburnum opulus 10%

TYPICAL TREE PIT DETAIL:

- SOILS: subsoil and topsoil to be excavated to form tree pit, depth to be based on the planting depth of the tree (distance from root flare to underside of rootball), with soils retained and placed separately for backfilling pit.
- SUBSOIL: as dug subsoil to be used to backfill the tree pit to depth to match the existing soil profile. NB where excavated subsoil and hardcore 200mm backfill is to be replaced with imported subsoil to BS 8601:2013.
- ROOT BALL / BARE ROOTS: tree pit sizes to be at least 75mm wider than the tree root system or rootball.
- TOPSOIL: topsoil/substrate as specified (refer to item 4.0 in the drawing notes) and used to backfill the upper part of the tree pit to match the existing soil profile.
- IRRIGATION: RK3A RootRain Metro irrigation system with plastic cap and fixing bracket. Secure to stake with 30mm galvanised nail. Ensure cap finishes slightly above finished surface level.
- MULCH LAYER: finished with Melcourt amenity grade bark mulch to a minimum depth of 75mm.
- STAKES: softwood timber round, peeled chestnut, larch or oak, free from projections and large or edge knots and with pointed lower end; 75mm diameter, 2000mm height; 600mm above ground.
- REES: tree held to stakes with 35mm flexible webbing and 40mm spacer sleeves fixed to stake with galvanised acorn nail.

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rev	date:	amendments:	alt:
A	25.08.21	Layout amendments.	E.H
B	27.10.21	Northern boundary amended.	E.H
C	08.12.21	Levels amended, retaining walls added.	E.H
D	07.03.22	Planting & specification amended.	E.H
E	17.05.22	Retaining wall and planting amended.	E.H

cdm 2015: designers residual risk information

In addition to the risks & hazards normally associated with the type of work selected on this drawing the following residual risks should be noted:

Construction:

Standard Soft Landscape Works Only. No Additional Identifiable Risks.

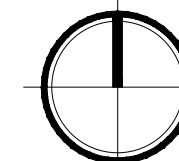
- Changes in level across the site including imposed access / means.
- Air entering and leaving the retaining wall and tree pits.
- The proximity of adjacent pavements, estate roads & car parks.
- The proximity of adjacent buildings and associated buried services.

Maintenance:

Standard Soft Landscape Works Only. No Additional Identifiable Risks.

- Changes in level across the site including imposed access / means.
- Air entering and leaving the retaining wall and tree pits.
- The proximity of adjacent pavements, estate roads & car parks.
- The proximity of adjacent buildings and associated buried services.

It is assumed that works will be carried out by competent contractor working where appropriate to an approved method statement.



bea
landscape design ltd

client: KNOWSLEY (IMAGE BUSINESS PARK) LTD

project:
SITE 2, IMAGE BUSINESS PARK
KNOWSLEY

title:
PLANTING PLAN

status:
PLANNING

date:	drawn:	number:
MAY 21	E.H	21-59-03
scales:	checked:	revision:
1:250	(-)	E

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