

PLANNING NOTES (SOFT LANDSCAPE):

Also refer to the NBS Landscape Specification.

- 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 areas to be unimproved topsoil or low fertility topsoil to BS 3882:2015. Grass areas to be a minimum depth of 150mm, Shrub beds 450mm depth and forestry / transplants 300mm 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 / stones greater than 20mm in size. Incorporate proprietary non peat compost to BS1 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.

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

- 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 BS936 'Specifications for Nursery Stock' and BS8545 'Trees from nursery 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 specified is to be replaced with containerised stock to an appropriate or similar specification to the approval of the landscape architect prior to ordering.

- 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 weldmesh fencing on a scaffold framework in accordance BS 5837:2012 Figure 2. These barriers shall be maintained in position and in good condition until works are 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.

- TREE SURGERY / REMOVAL:** Tree surgery and tree removal to be carried out by an Arboricultural Association approved Tree surgeon in accordance with BS 3998:2010. Arisings to be removed to a licensed tip.

NOTE TREES ON SITE BOUNDARY WHICH ARE SUBJECT TO A TREE PRESERVATION ORDER (TPO). REFER TO ASSOCIATED ARBORICULTURAL REPORTS.

- 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 and double staked (10-12cm - 14-16cm girth trees) or triple staked (16-18cm - 18-20cm girth trees) and tied in prepared pits. Semi mature trees to be underground girdled and securely anchored using Platipus Tree System. Tree pits in open field / un-compacted ground conditions 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. Root balls to be encased 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.

In confined urban areas i.e car parks & housing estates where trees are to be planted in heavily compacted ground. Small tree pits (Mature canopy 3m) should have a minimum of 4.24m3. Medium tree pits (Mature Canopy 5m) should have a minimum of 11.8m3. Large tree pits (Mature canopy 8m) should have a minimum of 24m3 (or to latest GreenBlue Urban Topsoil Volume Guidelines). Tree pits are to be excavated to achieve above uncompacted growing volume with pits without cells being approximately 2.5m x 2.5m backfilled with excavated subsoil and topsoil (as described above) mixed with 160L of peat free tree planting compost. Where groups of trees or avenues are planted the pits are to be combined to achieve the required growing volume. Tree pits in poorly draining soils are to be positively drained, connecting into the surface water drainage system by engineers details.

Generally all trees are to be planted as shown ensuring a minimum of 5 metres from buildings and 3 metres from drainage or services. Suitable foundations are to be provided to accommodate proposed tree planting and retained trees in accordance with the NHBC Standards. The NHBC radii are illustrated as a guide only, based on an assumed medium soil type and minimum foundation depths and should not be relied upon for construction purposes. In locations close to footpaths and roadways 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.

- ORNAMENTAL HEDGES, SHRUBS & HERBACEOUS 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. Well water plants immediately after planting and prior to spreading of mulch. Planting areas to be covered with permeable membrane and topped with 75mm depth amenity grade bark mulch such as Melcourt 'Amenity Bark Mulch' (or similar approved by the landscape architect) and kept weed free.

- CLIMBING PLANTS:** 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. For non self supporting plants heavy duty fan timber trellis 1.8m x 900mm is to be installed. All plants to have a minimum of three breaks. Well water plants immediately after planting and prior to spreading of mulch.

- NATIVE HEDGE PLANTING:** plants to be in accordance with BS 3936 and handled in accordance with the NPS 'Handling & Establishment' guidelines and planted in accordance with BS 4428:1989. Hedge plants to be pit planted in double staggered rows 350mm apart at 450mm centres (or as scheduled). In mixed species hedges, shrub species to be planted randomly throughout the length of hedge. Well water plants immediately after planting and prior to spreading of mulch. Planted areas to be covered with 75mm depth bark mulch and kept weed free. Where necessary plants to be protected from rabbits with rabbit fence and / or individual rabbit mesh guards securely staked. Unless otherwise indicated on the drawing it is assumed that all hedges are to be maintained at a maximum height of 1.5m for the purposes of the NHBC guidelines.

- WOODLAND PLANTING:** plants to be in accordance with BS 3936 and planted in accordance with BS 4428:1989, subgrade to be cross ripped at 12cm intervals prior to planting to alleviate compaction (excluding root protection areas). 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. Tree species to be evenly distributed throughout the planted area. Transplants to be root dipped with Algisure 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 stake(s).

- TURFING:** Grass turf areas to be Tillers 'Arena' or similar approved cultivated turf to BS 3969 'Recommendations for Turf for general purposes' laid in accordance with BS 4428:1989. Prior to cultivation topsoil is to be free from perennial weeds, reasonably dry and workable and graded to remove all minor hollows or ridges and leveled as required with any debris or stones greater than 50mm diameter removed. Topsoil to be cultivated to full depth with top 25mm reduced to a fine tilth. Pre-turfing fertiliser to be applied in accordance with manufacturers instructions. Turf to be laid during appropriate weather conditions from planks with broken joints well butted up, pegged to slopes where required. Lightly consolidate and firm turf as laying proceeds. Fill joints with fine topsoil and thoroughly water after laying to avoid shrinkage.

- SEEDING:** grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Prior to cultivation topsoil is to be free from perennial weeds, reasonably dry and workable and graded to remove all minor hollows or ridges and leveled as required with any debris or stones greater than 20mm diameter removed. Topsoil to be cultivated to full depth with top 25mm reduced to a fine tilth. Pre-sed fertiliser to be applied in accordance with manufacturers instructions. Lightly rake areas after sowing then roll with a lightweight roller. Seed to be Germinal Seeds mix A19 'All Purpose Landscaping' sown at 35g/m2, including:
 - 30% CORAIL (Slender Creeping Red Fescue)
 - 25% RAISA (Cheatings Fescue)
 - 20% ABERELF (Perennial Ryegrass)
 - 20% CADIX (Perennial Ryegrass)
 - 5% HIGHLAND (Browntop Bent)

- GRAVEL:** Gravel areas to be ornamental gravel, from local source 10-20mm, laid on geotextile membrane to a depth of 50-75mm.

- 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 sward guidance.
 - All hedges to plot frontages be maintained at a max height of 1.0m. Hedges and shrub planting within visibility splays to be maintained in accordance with current highways design guidelines.
 - Woodland planting to be maintained free from perennial weeds, self set shrub and tree species.
 - At final visit apply granular fertiliser to all planted areas and top up bark mulch depth to 75mm.

- 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 18 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

PLANTING OFFSET: All planting near to paths to be offset from path edging by a 200mm as shown to reduce growth over edge of paths. Bark mulch extended to path edge.

DECIDUOUS PLANTING: as detailed.

EVERGREEN PLANTING: as detailed.

HERBACEOUS PLANTING: as detailed.

ORNAMENTAL GRASS PLANTING: as detailed.

GROUND COVER: coniferous ground cover planting as detailed.

HEDGE: evergreen shrub hedge as detailed.

DECIDUOUS HEDGE: shrub hedge as detailed, reinforced with timber post & wire fence where indicated.

SPECIMEN SHRUBS: specimen shrub planting as detailed.

SPECIMEN CLIMBERS: specimen climbing plants as detailed.

LAWN: high quality turf, soil and drainage to lawn areas. Turf to be from Lindum, Rolawn, or similar approved.

EXISTING RETAINED GRASS: made good with seed.

WOODLAND PLANTING: native screen planting mix as detailed.

ORNAMENTAL GRAVEL: loose gravel from local source; 50-75mm minimum depth on permeable membrane.

EXISTING HEDGE: dead plants and bramble to be removed & hedge gapped up with native species.

EXISTING HEDGE / VEGETATION: to be removed to facilitate development.

TREE PLANTING: deciduous tree planting with NHBC radii. Tree Canopy spread illustrated at 25 years growth.

TREE PLANTING: coniferous tree planting with NHBC radii. Tree Canopy spread illustrated at 25 years growth.

TREE PLANTING: fruit tree planting with NHBC radii. Tree Canopy spread illustrated at 25 years growth.

EXISTING TREES & RPA: to be retained in accordance with BS 5837 'Trees in relation to Construction' 2012. Refer to Tree Protection Plans.

EXISTING TREES & VEGETATION TO BE REMOVED: Refer to Tree Retention & Removal Plans.

NHBC Guidelines 2021 Chapter 4.2 'Building near trees':

NHBC tree radii illustrated based on Medium soils assuming foundation depth of 0.9m. Buildings within the NHBC tree radius should be designed so that their foundations are to a suitable depth in accordance with the NHBC guidelines.

Asterisk (*) on planting tags identify shrubs with a mature height above 1.5m where adjacent foundation should be designed by Engineers in accordance with NHBC guidelines 2021 Tables 3 or 5 of sections D & E.

ECOLOGICAL FEATURES:

BIRD BOX LOCATION: 3Nr. Bird boxes, secured to perimeter timber fences. Types to be confirmed.

BAT BOX LOCATION: -2Nr. Schwegler 2FR General Purpose Bat Box. & -2Nr. Vivara Pro Woodstone Bat Box Secured between of min. 3m high to existing trees at frontage of the site, avoiding southern orientation.

PLANT SCHEDULE: Knowl Park House

Trees		Specification	Girth	Height	Density
49	Acor campestris (*)	1+1 :Transplant :B :PG 1		60-80cm	1/m ²
1	Betula pendula	3x :Extra Heavy Standard :Clear Stem 175-200 :5 brks :RB :PG 1	14-16cm	400-450cm	Counted
37	Betula pendula (*)	1+1 :Transplant :B		60-80cm	1/m ²
74	Corylus avellana (*)	Branches: 1+2 :3 brks :RB :PG 7		60-80cm	1/m ²
13	Crotaegus monogyna (*)	1+1 :Transplant :B :PG 1		60-80cm	1/m ²
3	Prunus 'Sunset Boulevard'	3x :Extra Heavy Standard :Clear Stem min. 200 :RB :PG 1	18-20cm	450-500cm	Counted
1	Fynus communis 'Conference'	2x :Standard :Clear Stem 175-200 :3 brks :RB :Quince A Rootstock (or similar) :PG F	8-10cm	2.5-3.0m	Counted

Hedging

No.	Species Name	Specification	Girth	Diameter	Height	Pot Size	Density
60	Buxus sempervirens (*)	Bushy :10 brks :C :PG 8			40-60cm	10L	0.3Ctr
182	Corpinus betulus (*)	1+1 :Transplant :8R :PG 1		80-100cm			0.3Ctr Double Staggered at 0.35m offset
83	Escallonia 'Donard Seabelling' (*)	Bushy :4 brks :C :PG 9		40-60cm	3L	0.45Ctr Double Staggered at 0.3m offset	
20	Phloxia fraseri 'Red Robin' (*)	Branches: 4 brks :C :PG 1		30-40cm	3L	0.45Ctr Double Staggered at 0.35m offset	
42	Phloxia x fraseri 'Little Red Robin'	Bushy :6 brks :C :PG 1		30-40cm	3L	0.45Ctr Double Staggered at 0.35m offset	

Conifers

No.	Species Name	Specification	Spread	Height	Pot Size	Density
1	Picea abies	Leader & laterals :4x :RB		175-200cm		Counted

Shrubs

No.	Species Name	Specification	Diameter	Height	Pot Size	Density
12	Abelia grandiflora 'Francis Mason'	Bushy :3 brks :C :PG 8		30-40cm	3L	3/m ²
37	Brachyglottis 'Sunshine'	Branches :4 brks :C :PG 8		30-40cm	3L	3/m ²
2	Buxus sempervirens (*)	Clipped cone :C :PG 8		80-100cm	10L	Counted
17	Ceanothus 'Blue Mount'	Branches :5 brks :C :PG 8	30-40cm	3L	3/m ²	
16	Ceanothus thyrsiflorus repens	Bushy :5 brks :C :PG 8	30-40cm	3L	3/m ²	
3	Choisya ternata 'Sundance' (*)	Bushy :7 brks :C :PG 8		40-60cm	10L	Counted
6	Choisya ternata 'Sundance' (*)	Bushy :7 brks :C :PG 8		40-60cm	10L	1/m ²
30	Cornus sanguinea 'Midwinter Fire' (*)	Branches :3 brks :C :PG 7		40-60cm	3L	3/m ²
37	Cornus sanguinea (*)	1+2 :Branches :3 brks :B :PG 7		60-80cm	3L	1/m ²
12	Escallonia 'Apple Blossom' (*)	Bushy :4 brks :C :PG 9		40-60cm	3L	3/m ²
1	Fatsia japonica (*)	Leader :C :PG 9		60-80cm	10L	Counted
1	Forsythia intermedia 'Lynwood Gold' (*)	Bushy :7 brks :C :PG 2		80-100cm	15L	Counted
7	Fuchsia 'Tom Thumb'	Bushy :4 brks :C :PG 6		15-20cm	2L	3/m ²
18	Hebe 'Frozen Flame'	Bushy :5 brks :C :PG 9		30-40cm	3L	3/m ²
7	Hebe 'Midsummer Beauty' (*)	Bushy :5 brks :C :PG 9		30-40cm	3L	3/m ²
44	Hebe 'Sulherlandi'	Bushy :5 brks :C :PG 9	20-30cm	3L	3/m ²	
44	Hebe rakaiensis	Bushy :5 brks :C :PG 9	20-30cm	3L	3/m ²	
67	Lavandula angustifolia 'Hidcote'	Bushy :9 brks :C :PG 10		30-40cm	7.5L	3/m ²
17	Leucochoe 'Scarletta'	Bushy :3 brks :C :PG 1		30-40cm	3L	3/m ²
106	Pachysandra terminalis 'Green Carpet'	Several shoots :7 brks :C :PG 8	15-20cm	2L	4/m ²	
8	Peroxiskia atiplicifolia 'Blue Spire'	Bushy :3 brks :C :PG 6		20-30cm	2L	4/m ²
3	Phormium 'Blonde'	Triple Crown :C :PG 9		40-60cm	10L	Counted
3	Phormium tenax 'Bronze Baby'	Triple Crown :C :PG 9		40-60cm	10L	Counted
3	Phormium tenax 'Variegatum'	Triple Crown :C :PG 9		100-125cm	25L	Counted
52	Phloxia x fraseri 'Little Red Robin'	Bushy :6 brks :C :PG 1		30-40cm	3L	4/m ²
3	Prunus cistena 'Crimson Dwarf'	Branches :4 brks :C :PG 1		60-80cm	5L	Counted
2	Rosa 'The Shepherdess'	David Austin :C		40-60cm	5L	Counted
79	Rosmarinus off. Miss Jessop's Upright'	Bushy :4 brks :C :PG 9		30-40cm	3L	3/m ²
48	Salvia officinalis 'Purpurea'	C :Bushy :Full Pot :PG 9		30-40cm	3L	4/m ²
50	Santolina chamaecyparissus	Bushy :7 brks :C :PG 10		20-30cm	3L	3/m ²
15	Skimmia japonica 'Rubella'	Bushy :4 brks :C :PG 8		30-40cm	3L	3/m ²
6	Skimmia x confusa 'Kew Green'	Bushy :4 brks :C :PG 8		30-40cm	5L	3/m ²
13	Spiraea japonica 'Anthony Waterer'	Branches :6 brks :C :PG 6		30-40cm	3L	3/m ²
4	Spiraea japonica 'Candle Light'	Bushy :6 brks :C :PG 6		30-40cm	3L	3/m ²
37	Viburnum opulus (*)	1+2 :Branches :3 brks :B :PG 8		60-80cm	2L	5/m ²
78	Vinca major	Several shoots :3 brks :C :PG 6	20-30cm	2L	5/m ²	
28	Vinca major 'Variegata'	Several shoots :3 brks :C :PG 6	20-30cm	2L	5/m ²	
4	Vinca minor 'Alba'	Several shoots :3 brks :C :PG 6	20-30cm	2L	5/m ²	
103	Vinca minor 'Argenteovariegata'	Several shoots :3 brks :C :PG 6	20-30cm	2L	5/m ²	
5	Weigela florida 'Folies Purpurea'	Branches :4 brks :C :PG 2		40-60cm	3L	3/m ²

Climbers

No.	Species Name	Specification	Spread	Height	Pot Size	Density
6	Clematis montana 'Elizabeth' (*)	Several Shoots :5 brks :Trellis :C :PG C1		150cm	25L	Counted
1	Hedera helix 'Goldheart' (*)	Several Shoots :5 brks :Trellis :C :PG 11		150cm	25L	Counted
1	Lonicera periclymenum 'Graham Thomas' (*)	Several Shoots :7 brks :Trellis :C :PG 11		150-200cm	25L	Counted

Herbaceous

No.	Species Name	Specification	Diameter	Height	Pot Size	Density
2	Alchemilla mollis	Full Pot :C :PG HB		2L	3/m ²	
18	Allium schoenoprasum	Full Pot :C :PG HB		2L	Counted	
9	Aster macrophyllus 'Twilight'	Full Pot :PG HB		2L	Counted	
10	Bergenia 'Silverlicht'	Full Pot :C :PG HB		2L	7/m ²	
9	Bergenia cordifolia 'Purpurea'	Full Pot :C :PG HB		2L	Counted	
8	Echinacea purpurea 'Magnus'	Full Pot :PG HB		2L	Counted	
11	Geranium 'Johnson's Blue'	Full Pot :C :PG HB		2L	4/m ²	
3	Geranium 'Rozanne'	Full Pot :C :PG HB		2L	Counted	
9	Hemerocallis 'Golden Chimes'	Full Pot :C :PG HB		2L	4/m ²	
8	Heuchera 'Lime Marmalade'	Full Pot :C :PG HB		2L	4/m ²	
10	Heuchera 'Lime Marmalade'	Full Pot :C :PG HB		2L	5/m ²	
32	Heuchera micrantha 'Palace Purple'	Full Pot :C :PG HB		2L	5/m ²	
6	Kniphofia 'Atlanta'	Full Pot :C :PG HB		2L	Counted	
18	Mentha spicata var. crispa 'Moroccan'	Full Pot :C :PG HB				