

## NOTES

All planting to be carried out in the first planting season unless an alternative phasing scheme has been approved by the local authority.

The following standards shall apply;

General landscape operations:

- BS 4428:1989 CoP for general landscape operations

Trees:

- BS 3998:2010 Tree work
- BS 8545:2014 Trees: from nursery to independence in the landscape.
- NHBC Chapter 4a - Building near trees

Ground preparation:

- BS 3882:2015 Specification for topsoil and requirements for use
- BS 8601:2013 Specification for subsoil and requirements for use
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites 2009. (Issued by Defra)

## Topsoil

Unless otherwise specified all 'topsoil' for planting, turfing or seeding shall comply with the following criteria.

- Compliance with the general requirements of BS3882:2015, Grade - Multi purpose. However the following additional constraints apply;
- pH Value: 5.5-7.5
- Textural classification: 'Loam soils' are acceptable within the following parameters
  - Silt = 0-65%
  - Sand = 30-70%
  - Clay = 5-30%

'Topsoil' is deemed to include imported, and existing reclaimed or manufactured growing medium.

Topsoil amelioration to be undertaken subject to analysis and recommendations of a suitably qualified soil scientist. General amelioration will utilise PAS 100 Green waste compost unless an alternative is specifically recommended by the soil scientist.

Standard depth of topsoil layer, placed over 300mm decompacted and free-draining subsoil, to be as follows (subject to completion of ground preparation proposals):-

All grass sward types	- 150mm
Ornamental planting	- 300mm
Native mix planting	- 300mm
Tree pits	- 400mm topsoil layer

Additional growing medium required to meet recommended tree planting volumes will be achieved using approved subsoil or washed sand.

Cultivation

All cultivation to be carried out in accordance with good practice and appropriate to the planting type, ground conditions and risk assessments/method statements. Incorporate proprietary non peat compost to BSI PAS 100 to 50mm depth evenly worked into soil and a general purpose slow release fertiliser at the rate of 75gm/m<sup>2</sup>

No cultivation of soil to be undertaken within RPA of retained trees and hedgerows.

## Tree Planting

All trees to be in accordance with BS 3936 and The National Plant Specification - 'Rootballed Trees' recommendations. Trees to be planted in accordance with BS 4428:1989 and double staked. 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 encircled by Root Rain Metro or similar irrigation pipe. Well water after planting. The base of trees to planted in grass areas are to be covered with 75mm amenity grade bark mulch to 1.0 metre diameter and kept weed free.

Tree pits in poorly draining soils are to be positively drained, connecting into the surface water drainage system to engineers details. Suitable foundations are to be provided to accommodate proposed tree planting and retained trees in accordance with the NHBC Standards. In locations close to footpaths and roadways linear root barriers 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.

## Scrub Planting

Plants to be in accordance with BS 3936 and planted in accordance with BS 4428:1989, subgrade to be cross ripped at 1.2m intervals prior to planting to alleviate compaction. Transplants to be planted at 2m centres in random groupings of 7-10 shrub species. Transplants to be root dipped with Alginur prior to planting. Planted areas to be kept weed free and protected from rabbits, with individual mesh tree guards securely fixed to timber stake(s).

## Shrub and Herbaceous Planting

Plants to be in accordance with BS 3936 and handled in accordance with CPSE guidelines and planted in accordance with BS 4428:1989. Nursery stock supplier to be approved by the Landscape Architect. Well water plants immediately after planting and prior to spreading of mulch. Planting areas to be covered with 75mm depth amenity grade bark mulch and kept weed free.

## Hedge Planting

Plants to be in accordance with BS 3936 and handled in accordance with CPSE guidelines and planted in accordance with BS 4428:1989. Hedge plants to be pit planted in double staggered rows 300mm apart at 450mm centres. 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.

## Turfing

Grass turf areas to be Tillers 'Arena' or similar approved cultivated turf, laid in accordance with BS 4428:1989. Topsoil to be rotovated and levelled as required and any debris or stones greater than 50mm diameter removed. Pre-turfing fertiliser to be applied in accordance with manufacturers instructions. Turf to be laid from planks with broken joints well butted up, pegged to slopes where required. Well water after laying to avoid shrinkage.

## Seeding

Grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Topsoil to be rotovated and levelled as required and any debris or stones greater than 20mm diameter removed. Pre-seed fertiliser to be applied in accordance with manufacturers instructions. Lightly rake areas after sowing.

## Species Rich Grassed Areas

Grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Unimproved topsoil to be imported, rotovated and levelled as required and any debris or stones greater than 20mm diameter removed. Lightly rake areas after sowing. Seed to be as per the planting schedule.

## Maintenance

To be carried out at approximately monthly intervals 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.
- Collect litter, sweep and tidy site.
- Apply suitable non-residual pesticides, fungicides, fertilisers and water as required.
- Carry out grass mowing to turf when attained 100mm, cut to 35mm (50mm for shaded areas).
- 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.
- Species Rich Grass Areas:

First Year management

Mow all plant growth (sown grasses and weeds) regularly to 40-60mm throughout the first growing season to prevent weeds smothering the slower-growing grasses. Remove cuttings if dense, more frequent and regular topping will minimise the amount of toppings produced each time so they can be left to disperse.

Management Once Established

In the second and subsequent years sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

## Watering

All plant material 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.

## PLANTING SCHEDULE

Trees

Number	Species	Height	Girth	Specification	Density
2	Acer campestre 'Elsrijk'	3.0-4.0m	12-14cm	Heavy Standard :Clear Stem 150-175 :3/5 brks :2x :RB	Counted
3	Crataegus monogyna	175-200cm	4-6cm	Light Standard :BR :Feather	Counted
1	Magnolia kobus	3.0-4.0m	12-14cm	Heavy Standard :Clear Stem 150-175 :3/5 brks :2x :RB	Counted
2	Malus 'Evereste'	3.0-4.0m	12-14cm	Heavy Standard :Clear Stem 150-175 :3/5 brks :2x :RB	Counted
3	Malus sylvestris	175-200cm	4-6cm	Light Standard :BR :Feather	Counted
3	Prunus 'Sunset Boulevard'	3.0-4.0m	12-14cm	Heavy Standard :Clear Stem 150-175 :3/5 brks :2x :RB	Counted
3	Prunus padus	175-200cm	4-6cm	Light Standard :BR :Feather	Counted
1	Prunus sargentii 'Rancho'	3.0-4.0m	12-14cm	Heavy Standard :Clear Stem 150-175 :3/5 brks :2x :RB	Counted

Woodland Mix

Number	Species	Specification	Height	Mix Species	Density	Percentage
2	Acer campestre	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Betula pendula 'Dalecarlica'	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Carpinus betulus	Light Standard :BR	1.8-2.0m	5Ctr		1%
265	Corylus avellana	1+1 :BR	60-80cm	1/m <sup>2</sup>		17%
480	Crataegus monogyna	1+1 :BR :Transplant	60-80cm	1/m <sup>2</sup>		31%
2	Fagus sylvatica	Light Standard :BR	1.8-2.0m	5Ctr		1%
202	Ilex aquifolium	BR :Transplant	40-60cm	1/m <sup>2</sup>		13%
2	Malus triobata	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Pinus nigra		80-100cm	5Ctr		1%
2	Prunus avium	Light Standard :BR	1.8-2.0m	5Ctr		1%
418	Prunus spinosa	1+1 :BR	60-80cm	1/m <sup>2</sup>		27%
2	Quercus petraea	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Quercus robur	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Tilia euchlora	Light Standard :BR	1.8-2.0m	5Ctr		1%
2	Ulmus glabra	Light Standard :BR	1.8-2.0m	5Ctr		1%

Edge Mix

Number	Species	Specification	Height	Density	Percentage
17	Acer campestre	1+1 :Transplant :BR	60-80cm	1/m <sup>2</sup>	15%
11	Alnus glutinosa	1+1 :Transplant :BR	60-80cm	1/m <sup>2</sup>	10%
17	Betula pubescens	1+1 :Transplant :BR	60-80cm	1/m <sup>2</sup>	15%
11	Cornus sanguinea	1+1 :BR	60-80cm	1/m <sup>2</sup>	10%
11	Corylus avellana	1+1 :BR	60-80cm	1/m <sup>2</sup>	10%
11	Frangula alnus	1+1 :Transplant :BR	60-80cm	1/m <sup>2</sup>	10%
11	Prunus avium	1+1 :Transplant :BR	40-60cm	1/m <sup>2</sup>	10%
11	Ribes nigrum	1+1 :BR	60-80cm	1/m <sup>2</sup>	10%
11	Salix caprea	1+1 :Transplant :BR	60-80cm	1/m <sup>2</sup>	10%

Shrubs

Number	Species	Height	Pot Size	Specification	Density
18	Berberis thunbergii 'Atropurpurea Nana'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
38	Brachyglottis 'Sunshine'	30-40cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
5	Convolvulus cneorum	15-20cm	3L	Bushy :3/4 brks :C	4/m <sup>2</sup>
8	Euonymus fortunei 'Silver Queen'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
50	Hebe 'Purple Pixie'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
10	Hebe 'Wiri Mist'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
11	Hebe ochracea 'James Stirling'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
11	Lavandula angustifolia 'Alba'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
10	Lavandula angustifolia 'Munstead'	30-40cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
27	Pachysandra terminalis	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
12	Pachysandra terminalis 'Green Carpet'	10-20cm	3L	3/5 brks :C :Several shoots	4/m <sup>2</sup>
27	Pieris japonica 'Little Heath'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
5	Salvia officinalis 'Purpurascens'	15-20cm	3L	Bushy :3/4 brks :C	4/m <sup>2</sup>
38	Spiraea japonica 'Goldflame'	30-40cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
27	Vinca minor 'Alba'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
17	Vinca minor 'Gertrude Jekyll'	20-30cm	3L	3/5 brks :Bushy	4/m <sup>2</sup>

Herbaceous

Number	Species	Pot Size	Specification	Density
8	Astilbe 'Sprite'	3L	Full Pot	4/m <sup>2</sup>
18	Bergenia 'Silberlicht'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
12	Geranium 'Johnson's Blue'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
26	Helleborus orientalis	3L	Full Pot	4/m <sup>2</sup>
17	Heuchera 'Plum Pudding'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
18	Heuchera micrantha 'Palace Purple'	3L	Full Pot	4/m <sup>2</sup>
12	Persicaria bistorta 'Superba'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
8	Sedum spectabile 'Brilliant'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
12	Tolmiea menziesii	3L	5 Buds :Full Pot	4/m <sup>2</sup>
7	Verbena rigida	3L	5 Buds :Full Pot	4/m <sup>2</sup>

Native Hedgerow Mix

Number	Species	Specification	Height	Density	Percentage
19	Acer campestre	BR	60-80cm	5/m	10%
42	Corylus avellana	BR	60-80cm	5/m	25%
42	Crataegus monogyna	BR	60-80cm	5/m	25%
11	Euonymus europaeus	BR	60-80cm	5/m	5%
11	Ilex aquifolium	C :Bushy	40-60cm	5/m	5%
11	Lonicera periclymenum	3/5 brks	60-80cm	5/m	5%
34	Prunus spinosa	BR	60-80cm	5/m	20%
11	Viburnum opulus	BR	60-80cm	5/m	5%

Hedges

Number	Species	Specification	Height	Density
68	Carpinus betulus	1+1 :Transplant :BR	60-80cm	5/m
106	Escallonia 'Apple Blossom'	C	40-60cm	5/m
426	Griselinia littoralis	Bushy :3/5 brks :C	40-60cm	5/m
272	Hebe 'Red Edge'	C	40-60cm	5/m

Revision

Rev. A 31.05.24 Schedule updated.

## Designer Notes Under CDM Regs 2015

- The design information presented on this drawing has been prepared with due regard to the role of the designer under the CDM Regs 2015.
- Contractor to provide method statement for undertaking works within service zones and easements.
- Where possible, this design has taken due care to eliminated hazards and reduced risks.

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Client

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Project Name

Headlands Works, Liversedge

Project No.

LDP-24-P218

Dwg. No.

1002

Dwg. Title

Landscape Schedule

Revision

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Status

DRAFT

Date

31.05.24

Scale

NTS

Drawn By

MJB

Reviewed

Filepath

Filepath

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