

# **Landscape Specification & Management Plan**

For

## **Herbert Road**

Prepared By



On Behalf of

## **Keepmoat**

March 2017

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## **PROGRAMME:**

All soft landscape works shall be implemented during the first planting season post practical completion.

All bare-root stock is to be planted between November and March while trees are still dormant.

Containerised stock can be planted at any time of year but not during very cold or wet weather when the ground is likely to freeze or become waterlogged.

## **SOFT LANDSCAPE SPECIFICATION:**

### **Generally**

All works shall be carried out in accordance with BS4428:1989, Code for General Landscape Operations.

### **Clearance**

Any significant clearance of vegetation shall take place between September and March so as to avoid the bird nesting season.

### **Topsoil**

Generally, all topsoil should be stripped when dry (in the summer months) for re-use on landscape areas.

Topsoil depths to be 150mm for grass areas with a 450mm overall rooting depth, 400mm for shrub planting with a 600mm overall rooting depth and 400mm for trees with a 900mm overall rooting depth.

Existing topsoil on site should be checked and reconditioned where necessary. Enrich Topsoil backfill with slow release fertilizer. Everris Enmag CRF, or similar approved should be applied at a rate of 70g/m<sup>2</sup> and to a depth of 200mm.

## **Fallow Cultivation**

The contractor shall by cultivation or other approved means allow for suppressing all weed growth on all areas which lie fallow whilst awaiting suitable weather or the right season for planting or seeding.

## **Cultivation**

On newly topsoiled areas or on undisturbed areas where depth of not less than 300mm of topsoil exists after clearing all vegetation, beds shall be dug by hand or cultivated by machine to a minimum depth of 300mm breaking down all lumps and leaving the surface level with a medium tilth. All weeds and debris shall be collected and removed from site.

## **Nursery Stock**

Where possible all native species planting stock shall be primarily sourced from nurseries providing stock derived from local seed sources. In the eventuality of insufficient availability, stock derived from seed sourced from Forestry Commission UK seed provenance zone 303 in accordance with the Forest Reproductive Material Regulations (2002) shall be used. Where plants from this zone aren't available materials from an adjacent zone shall be sourced. All native species planting stock shall be of British provenance.

All stock must comply with BS3936 (Nursery Stock).

- Top growth shall be typical of the variety and well branched, except for varieties normally grown with a single stem.
- Roots shall be in balance with the size of plant and sufficiently fibrous and developed.
- All containers must be weed free.

- All plants must be fully hardened off prior to planting where protective growing techniques have been used.

All root-balled and containerised tree stock to be supplied in accordance with BS:8545:2014.

## **Season**

All trees, shrubs and ground cover plants shall be planted during suitable weather between October and April. However, containerised material may be planted between May and October. Planting of bare root stock shall be undertaken between November and March while plants are still dormant. Planting shall not be carried out when the ground is waterlogged, frozen or snow covered.

## **Planting Trees**

Preparation of trees for planting: remove any ropes, wrappings, tree frames, etc., where used for protection of tree in transit and temporary storage. Remove any dead, diseased or broken branches. Shorten any unusually long branches by one third.

Tree pit sizes: 1000mm diameter greater and 25mm deeper than rootball but not less than 750mm deep.

Excavate tree pits to specified size forking over bottom of pit for a minimum depth of 225mm leaving centre slightly raised and roughen pit sides.

Generally, trees are to be planted 300-500mm above the levels of the surrounding ground to assist drainage.

Tree pits to be backfilled with topsoil. Backfill under and around rootballs in 150-250mm layers firmly consolidated to eliminate air pockets. Make allowance for settlement in the thickness of the final layer which should not be consolidated.

All trees to be staked with minimum 800mm of stake below ground. Trees to be fixed to stakes by rubber supports.

Watering: water whole area of the tree pits thoroughly upon completion of backfilling but delay watering if there is risk of frost within 24 hours.

Mulching tree pit areas: mulch to an even depth of 50mm, to a diameter of 2.5m with tree planting compost or bark immediately on completion of planting.

### **Native Hedgerow Planting**

All planting stock shall be to British Standard 3936:1992. All existing grass and other vegetation to a width of 1m along the line of the hedgerow shall be removed by an appropriate method. Methods to include cutting of all surface vegetation and scraping back/scarifying of turf followed by an application of a suitable non-residual herbicide.

Hedgerow planting to be set out in double staggered rows 300mm apart with plants at 450mm centers.

In locations where a depth of suitable rooting material (topsoil and subsoil) is present to a minimum overall depth of 600mm plants are to be implemented as follows:

- Notch planted or planted into 400 x 400 x 400mm depth pits in a 600mm width strip of cultivated existing ground. Slow release fertilizer shall be incorporated.

In locations where a depth of suitable rooting material (topsoil and subsoil) is NOT present plants are to be implemented as follows:

- plant into a 400 x 400 x 400mm depth pit in a low hedge bank formed from topsoil to BS:3882 over a 600mm width strip of cultivated existing ground to make up an overall minimum depth of 600mm. Slow release fertilizer shall be incorporated.

OR

- Planted into a 400 x 400 x 400mm depth pit into a 600mm width excavated trench providing an overall 600mm depth of suitable rooting material of which minimum 400mm depth shall be pre-mixed 80% topsoil/20% compost mixture. Topsoil shall be to BS:3882 consisting of suitable material excavated on site, or imported material if not available.

Planting pits to be backfilled with material excavated from strip/trench. Where additional topsoil is available on site a low hedge bank shall be formed to maximize suitable rooting material. A biodegradable mulch mat roll of 1m width shall be pegged along the length of the hedge. Plants shall be planted through the mulch mat. A layer of 75mm depth medium grade bark mulch shall be applied over the mat.

Protective measures:

Rabbit guards: Proprietary plastic mesh guards to be fixed to individual 25mm square section wooden stakes to be installed around each hedge plant to prevent damage by rabbits and other rodents.

## **Buffer Planting**

Whips to be Notch planted or planted into 400 x 400 x 400mm depth pits in cultivated existing ground. Slow release fertilizer shall be incorporated.

Planting pits to be backfilled with material excavated from pits.

Protective measures:

Each whip to be staked and protected with a proprietary rabbit guard

## **Planting shrubs & reeds (open ground and containerised)**

All plants shall be planted at the same depth as previously grown, care being taken to avoid damaging the root system. Sufficient soil shall be taken out of the planting station to enable the roots to be fully spread, packing them round with fine soil before firmly heeling in. The roots of balled trees or shrubs shall not be disturbed during planting.

Shrub planting pits to be 150mm wider than root spread.

## **Mulching**

On completion of planting the shrub beds shall be mulched with 50mm depth of ornamental bark mulch. Mulch shall only be applied when the soil is moist.

## **Ground Preparation of Grassed Areas**

All topsoiled areas to be grassed shall be cleared of weeds and rubbish then rotovated to a depth of 100mm incorporating pre-seeding fertiliser at 0.06kg/sqm and raked out or harrowed to produce a fine seed bed tilth approximately 25 mm deep and lightly consolidated with an approved roller. Stones over 35mm in diameter shall be removed to a tip.

The tilth shall be kept fine and free from weeds during any fallow period prior to sowing seed/turfing.

All areas for grass shall be finely graded during cultivation to remove all minor hollows or ridges, such operations being carried out when the soil is dry and friable. The final finished surface shall have a smooth and even fall or gently rolling curve between the finished level and the boundary of the areas. The contractor shall ensure that a minimum depth of 150mm of topsoil is left on all parts after completion of grading.

Unless otherwise stated finished levels of grassed areas shall be 30mm above adjoining paving or kerb levels, 150mm below the damp-proof course of adjoining buildings and not more than 75mm above previous soil levels adjoining trees and shrubs. Levels shall be arranged to give gentle falls for drainage and any ponding developing after completion of the cultivation shall be made good.

### **Grass Seeding**

The seed shall be sown in two equal sowings in transverse directions by hand in small areas or by machine in large areas, lightly harrowed or raked in and firmed with a light roller. Seed sowing will normally be carried out from March to November during favourable weather conditions when the soil is moist and workable.

The contractor shall make good, at his own expense, all areas of grass which fail to germinate or establish, other than areas where failure is due to vandalism.

When the grass has grown 50mm high the areas will be lightly rolled in two directions with a roller not exceeding 0.25 tonne. All bare patches shall be re-seeded.

### **Wetland Meadow Seeding**

Areas to be seeded to be cleared of annual weeds by having a herbicide application. Perennial weeds to be eradicated by a translocated glyphosate based herbicide. Seeds should be sown onto subsoil with a fractional amount of topsoil.

Ground to be cultivated to provide a weed free seed bed and firmed if necessary.

Seed mixture is to be sown evenly at the recommended rate, either from early March to early May or from early August to mid September.

Upon completion of sowing, seed bed is to be raked lightly with a spring-tined rake and soil firmed by treading or rolling and the area well watered with a fine spray.

**Otter Fencing:**

Otter fencing to be installed in consultation with David Clements Ecology and in strict accordance with manufacturer's instructions.

## **LANDSCAPE MANAGEMENT PLAN:**

### **Management Responsibilities**

This document is intended to be used as the management plan for the site in perpetuity.

With the exception of private gardens, following the implementation of the landscape proposals, the management of landscape areas at the site will be undertaken by a suitably qualified contractor to be appointed by the site operator. The contractor will be expected to make site visits, spread throughout the year to suit the season.

**All Management will be undertaken in accordance with the specification contained herein and the David Clements Ecology Environmental Management Plan (March 2017-V1)**

### **Landscape Management Specification**

All planted areas are to be maintained in a weed free condition and any newly planted trees or shrubs which die, or are destroyed, within 5 years of practical completion shall be replaced in the appropriate season with plants of the same species.

The contractor shall eradicate weed growth within planted and seeded areas either by manual, mechanical or chemical means. Perennial weeds must be treated with glyphosate or another approved product. The use of residual herbicide is not permitted.

All relevant Acts of Parliament and the manufacturer's instructions concerning the handling, use and storage of chemicals must be followed at all times. Chemical containers and other contaminated equipment must be cleared from the site after each days work.

### **Newly Planted Trees:**

All root-balled and containerised tree planting aftercare must be in accordance with BS:8545:2014. Any necessary formative pruning to tree planting must be carried out in accordance with BS: 3998:2010

Check stakes and ties and adjust to allow for growth and movement and replace any broken or defective items. Stakes and ties for tree planting must be removed after no more than three growing seasons. Any sockets at base of tree stems caused by movements to be filled with fine soil.

Any dead twigs or water shoots occurring on the clear stems of newly planted trees shall be removed and disposed of by the contractor.

Minor settlement of newly planted tree pits to be made good by topping up with fine topsoil to grade in with surrounding levels.

For 24 months following practical completion all trees are to be watered at least 5 times during the growing season commencing in May, and thereafter as appropriate, to thoroughly wet the tree pits throughout their full depth. In the third and subsequent years trees should be watered during extended dry periods only (March through to October).

### **Newly Planted Shrubs & Reeds:**

Shrub bed areas shall be maintained as bare earth and kept free from weed growth, litter and rubbish at all times. Any shrubs overhanging pedestrian routes or adjacent grassed areas are to be pruned back during the appropriate season and arisings removed from site.

Pruning of ornamental shrubs should be done to encourage healthy and bushy growth and promote desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.

All shrub beds to be treated with a slow release fertilizer, as chosen by the landscape maintenance contractor, in March or April. Treatment to be undertaken on an annual basis as per the manufacturer's instructions.

Mulch to be maintained at a 50mm thickness. Any weeds growing on, or within, the mulch to be removed by hand weeding and taken off site.

### **Buffer Planting**

Buffer areas shall be maintained as bare earth and kept free from weed growth, litter and rubbish at all times.

Once established (3-5 years approx.) buffers to be selectively thinned in consultation with the local authority in favour of superior specimens

### **Grass Areas:**

Ornamental grassed areas are to be regularly cut in accordance with BS 7370-3, table 3 to maintain a healthy sward 35-50mm in height. Grass to be trimmed neatly around obstructions. Smooth flowing curves of edges with adjacent shrub areas to be left neat and in a weed free condition

### **Wetland Meadow Areas:**

Wildflower areas are to be cut every 6 – 8 weeks after sowing in year 1. In years 2-10 areas are to be cut once in early in the spring and once between July and October on a dry day. Cuttings are to be removed and composted.

### **Hedgerows:**

Once established, proposed hedgerows are to be maintained at a height of 1.8 metres using an appropriate pruning tool and in accordance with good horticultural practice. All arisings to be removed from site by the contractor.

**Otter Fencing:**

Otter fencing to be inspected weekly during construction phase and on a biannual basis following completion. Any gaps or broken sections to be repaired promptly following discovery.