



Edge Lane Retail Park
West of Montrose Way, Liverpool, L13 1EW

LANDSCAPE MANAGEMENT PLAN

For: Derwent Holdings Ltd

DOCUMENT NO. Ref. Ref. M2739_MP05_030217_jh

February 2017

Barnes Walker Limited

Unit 6
Longley Lane
Northenden
M22 4WT
Tel: 0161 946 0808
Fax: 0161 946 0713

CONTENTS

1.0	Introduction	
1.1	The Structure of the Plan2
1.2	The Landscape Areas2
1.3	Delivery & Long-term Management3
2.0	The Landscape Elements & Their Maintenance Regimes	
2.1	Introduction4
2.2	Newly Planted Trees5
2.3	Mature Trees7
2.4	Hedges8
2.5	Ornamental Planting	...10
2.6	Mown Grass	...11
2.7	Hard Surfacing, Boundary Treatments and Elements	...12
3.0	Routine operation schedules	...13

1.0 Introduction

1.1 The Structure of the Plan

This document provides details of the landscape management for the open space at the Edge Lane Retail Park Site commercial development, West of Montrose Way, Liverpool. The commercial development encompasses a mix of retail units with associated car parking set within a substantial landscape infrastructure framework. This document sets out how the open space within the site is to be managed and maintained to achieve the overall aim of developing and enhancing the landscape within the development curtilage.

The key objective of the Plan is to organise the management of the landscape into landscape elements by providing a framework of routine operations for each item. This will then be used to guide and instruct the landscape maintenance operations carried out by contractors on site.

The Management Plan forms a working document and refers to drawing M2739.11 Edge Lane Retail Park Landscape Planting Plan prepared by Barnes Walker Ltd, to facilitate the long-term management of the proposed landscape elements comprising trees, hedgerows, ornamental planting, hard surfacing and open space therein.

1.2 The Landscape Areas

The areas of open space to be managed comprises of the following:

- Trees – newly planted and mature
- Hedges – structural and native species
- Ornamental Planting
- Mown Grass
- Hard Surfacing, Boundary Treatments and Elements

1.3 Delivery & Long-term Management

The delivery of the Management Plan will be facilitated by Derwent Holdings Ltd, working with landscape contractors. Defined tasks are outlined below, and reference should be made to the Landscape Management Schedules for the annual maintenance of each of the landscape elements identified in Section 2.0, refer to document M2739_MP02_130117_jh Landscape Management Schedules for details.

To ensure the Management Plan is implemented properly and that management aims are being achieved, progress will be reviewed on a regular basis by an appropriately qualified consultant. A site visit will be carried out in years 1, 3, and 5 of the plan to evaluate management actions and habitat quality. This will allow direct measures to be made against the objectives set out within the Management Plan. At the end of the 5 years the Plan should be updated accordingly to ensure the long-term health of the Management Plan and long-term prescriptions set for years 10, 15 and 20.

The Management Plan shall be implemented in accordance with the details contained therein.

2.0 The Landscape Elements & Their Maintenance Regimes

2.1 Introduction

This section describes the design objectives for each of the landscape elements and then the landscape management operations, which are necessary so that these objectives are achieved.

2.2 Newly Planted Trees

The trees on site have been chosen to provide a strong green infrastructure. The site includes a range of ornamental trees to be in-keeping with the character of the local area. The trees will give physical presence, provide spatial definition, positive aesthetic and emphasise the character of the site.

The following schedule lists the trees as proposed at the planning stage of the project. There may be some variation to those actually planted depending on nursery availability:

<u>TREES</u>		Size in cm
Acer campestre 'Elsrijke'	<i>Field maple (ornamental)</i>	20-25 girth
Betula albosinensis 'Fascination'	<i>Chinese Red birch</i>	20-25 girth
Carpinus betulus 'Frans Fontaine'	<i>Hornbeam</i>	20-25 girth
Liquidamber styraciflua 'Worplesdon'	<i>Sweet Gum Worplesdon</i>	30-35 girth
Pyrus calleryana 'Chanticleer'	<i>Pear (ornamental)</i>	20-25 girth
Quercus palustris 'Fastigiata'	<i>Fastigate oak</i>	30-35 girth
Quercus palustris 'Fastigiata'	<i>Fastigate oak</i>	20-25 girth

Watering

- In the first 3 years newly planted trees are still establishing. Trees should be watered once per week, or as necessary in dry weather, during the growing season (June to October). Apply approximately 50-75 litres/sqm per tree per week. Once they have become well established, most trees only need to be watered during spells of drought.
- A provision of at least 12 waterings per year should be included.
- Trees within areas of hardstanding should be provided with an appropriate watering system installed, i.e. a suitable proprietary root irrigation system.

Fertiliser

- All new trees will benefit from feeding during the first 2-3 years after planting. Once established they will only require feeding once every 5-10 years.
- Trees grown for their foliage will benefit from a fertiliser rich in nitrogen.
- In autumn, an organic fertiliser such as well rotted manure or compost can be applied as mulch. Spread the material in layers 5-8cm deep around the tree keeping a clear area immediately around the trunk.
- A contact herbicide should be applied as necessary, once annually in June to maintain a 500mm radius weed free area until year 5;
- A translocated herbicide can be applied as required 4 times per year, once a month from May to August;

Mulch

- Mulches are best applied during the spring, but provided that the soil is moist they can be spread any time of the year except at times of drought or frost. The mulch is to be spread and maintained at an even depth of 5cm.
- Top up the mulch every year or two under young trees. The mulch will help to suppress weed and retain moisture.

Weeding

- Hand weed throughout where necessary. Mulching will help to suppress the weeds.
- Where trees are located in areas of grass or planting, they are likely to be subject to competition from the grass sward, adjacent plants and from weeds respectively. A circle of bare or mulched ground should therefore be maintained within a radius of between 250mm and 500mm around each of the trees.
- Trees within areas of hardstanding i.e. gravel covered tree pits or within tree grills should be maintained in a weed free condition. This can be undertaken by hand weeding or if necessary an application of an appropriate herbicide.

Pruning

- Pruning of young trees should not generally be required unless they have dead, damaged, vandalised or diseased branches. In such cases the tree branch should be pruned back (using a sharp clean knife) to an outward facing bud whilst maintaining the natural shape of the tree.
- As the trees become established, some selective pruning works may be required. This should be undertaken once annually in November;

Replacements

- Dead or vandalised trees should be removed as soon as they are noticed, and re-planted in the following planting season.

Tree Ties

- To prevent the ties chafing the trees, they should be inspected and adjusted at least once per year in April, prior to an increase in the tree girth. This should then be done again in October, after growth has occurred.
- Damaged ties and stakes should be replaced.
- When the trees have established and are firm enough to support themselves, the ties should be removed, and the stakes cut down to ground level.

2.3 Mature Trees

- The mature trees should be inspected annually to ensure that they are in good health, and are not hazardous to the users of the site. Both the inspection and all works to mature trees should be carried out by qualified arboricultural personnel. Routine pruning should include the following operations:
 - the removal of dead, diseased and dying branches;
 - the removal of vegetation growing onto footpaths, parking areas, POS, roads, signs, sightlines and any other location where it presents a hazard to the users of the site;
 - inspection for, and reporting of, any incidence of pests and disease.
- Occasionally, the inspection may result in a recommendation for more specialist pruning of which crown thinning and reduction are likely to be the most commonly needed.
- All tree works should be carried out in a safe manner complying with all relevant legislation.

2.4 Hedges

Structural Hedges

Structural hedges will provide aesthetic advantages and low level screening and containment. Hedges have been used to define space, provide screening and soften boundary treatments.

Hedgerows are to be maintained in a weed free condition (aided by bark mulch).

The following schedule lists the hedges as proposed at the planning stage of the project. There may be some variation to those actually planted depending on nursery availability:

<u>HEDGES</u>	Code	Size in cm	Root Condition	Density/Spacing	Final height
			Pot size (C)		
<u>Evergreen</u>					
Prunus lusitanica	PL	80-100cm	10L / RB	2.5No / linear m	1.2m

Structural species hedgerows should be maintained as follows:

- Following planting, all hedges are to be mulched with a 50mm depth of BSI PAS 100 standard mulch;
- The depth of mulch should be maintained at a minimum of 50mm until the hedgerows are well established; Mulch layer may need to be topped up every year or two.
- Annual trim in October until objective height is achieved; Thin-back laterals in first 2-3 years to shape. Shape to oblique angle (wider base than top), particularly in formative second year, allowing the apical shoot to grow to the desired height before trimming back.
- Once the objective height is achieved, the hedges should be trimmed 3 times annually in April, June and October to the various objective heights required. Trimming should achieve flat, uniform sides and a flat, level top to the hedges.
- Allow hedges to grow laterally through any adjacent fences. Once projecting growth is established and sufficiently dense, trim back to a minimum distance of 50cm from fences. Adjust trimming distance as required to achieve dense hedge growth as viewed from non-planted side of fence. Where space permits trim opposite side of hedge to match in order to maintain balanced growth.
- If necessary an appropriate contact herbicide should be applied in May.
- To prevent weed growth, fertiliser application should be avoided unless there are localised areas of poor growth. Hand weed throughout where necessary.
- Watering should be carried out as necessary, particularly from June to October for the first 3 years following planting. A provision of at least 12 waterings per year should be included.

New Hedges (up to establishment only)

Newly planted hedges take some time to establish and until this occurs they are subject to very vigorous competition in their root zone from weed growth. The use of mulch mats aims to minimise this competition until plants are established and also helps to retain moisture within the root zone. To ensure that plants thrive, the following checks and actions are required:

- Check that all mulch mats are fixed correctly in place in accordance with the manufacturer's instructions, and re-fix any that have become loose.
- Remove any weed growth at base of plant either by hand weeding or spot treatment with an approved translocated herbicide. If treating near swales check that any herbicide is suitable for use near water.
- Check that all rabbit guards are in place and undamaged, replacing any that are damaged or loose.
- Water as required until plants are established.
- Remove litter from all beds.
- Control pests and diseases by monitoring regularly and treating affected areas swiftly as required.
- At the appropriate time and when weather conditions allow, add a folia or granular feed to maintain healthy growth of plant material.
- Replace dead plants as required.

2.5 Ornamental Planting

Ornamental planting is proposed to provide interest around the site, offering a mix of deciduous and evergreen species for seasonal interest.

Ornamental planting areas are to be maintained in a weed free condition (aided by bark mulch).

- The ornamental planting areas are predominantly species which are not native to this country, and newly planted stock can take some time to establish. Until this occurs, young plants are subject to competition in their root-zone from weeds.
- Many areas of ornamental planting contain groundcover species which might be damaged by herbicides. These areas will therefore need to be hand-weeded and will require regular hoeing. Areas of ornamental planting should also be watered until they are established.
- The end of the establishment phase is usually when the leaf canopies of the plants meet and they are thereby able to suppress weed growth. After establishment, the weed population will change to become more localised, but probably larger specimens. These can be hand-weeded or receive a spot treatment of an appropriate herbicide as necessary through the growing season.
- Only a small amount of routine annual pruning should be necessary in the first five years. Where shrubs grow over roads, paths or sightlines, their growth should be controlled to prevent a hazard to the site users. The ornamental plants should not be pruned routinely since this spoils their natural shape. The shrubs should not be pruned to a plain surface (like hedges are); pruning should consist of the removal of individual branches, to maintain the natural shape of the plant. Pruning should therefore be carried out by horticulturally competent personnel.
- An approved translocated herbicide should be applied as required for the control of pernicious weed growth.
- Remove litter from all beds.
- Ensure that all plants are firmed into the soil.
- Water as necessary
- Control pests and diseases by monitoring regularly and treating affected areas swiftly as required.
- At the appropriate time and when weather conditions allow, add a folia or granular feed to maintain healthy growth of plant material.
- Prune back shrubs overhanging hard areas.

2.6 Mown Grass

Mown Grass is located where the design objective is to create areas of short mown grass for informal recreation with easy pedestrian access for the users of the site.

To achieve the objectives for Amenity Grassland, the sward should be cut approximately fourteen times per year during the growing season, to a height of 25 mm. This frequency and height of cut should allow the cuttings to be dispersed without leaving too many residues, but obviously is dependent on the weather conditions. Only where a 'manicured' lawn is required and for the first cut after growth in the winter and spring should the removal of cuttings be required.

An application of selective herbicide can be made during the spring or early summer. Again this should be restricted to the areas where it is really required and not applied to the whole site.

Areas of short grass should be maintained as follows:

- The sward should be cut 14 times per year once in April, twice in May, 3 times in June, July and August and twice in September;
- An appropriate selective herbicide can be applied as necessary once per year in May;
- A slow release fertiliser can be applied as necessary once per year in May;
- Watering should be carried out as necessary, particularly from June to October for the first 3 years following planting. A provision of at least 12 waterings per year should be included;
- Before cutting, remove all litter and debris from grass areas.
- Trim edges adjacent to planting areas using long handled shears.
- Trim and reform edges adjacent to hard surfacing / manholes etc. as necessary.
- At the end of each visit ensure that the site is left in a tidy condition.
- Overseed or repair and returf any worn patches.
- Manually spike to aerate turf and maintain drainage if problem areas occur
- Manual scarification to remove moss and thatch.
- Application of fungicide as required to control the spread of fungal disease.

2.7 Hard Surfaces, Boundary Treatments & Elements

Hard surfaces within this management plan encompass areas of public footpath and boundary treatments within the open space.

- The site should be inspected regularly and any litter removed.
- Any graffiti or vandalism should be removed/rectified as soon as possible, since if it is left unattended the problem tends to escalate.
- All problems with hard elements should be attended to as a matter of urgency.
- Routine maintenance of the hard elements and surfaces should be carried out in accordance with a programme, since this allows budgeting for the work.
- Some weed control will be required on hard surfaces, particularly those which are not sealed (such as areas of compacted gravel). Weed control should be carried out if the surfaces are hazardous for pedestrians or unsightly, but residual herbicides should not be used.
- Elements including all boundary treatments, fences, railings, hard surfaces, board walks, street furniture and lighting should all be inspected regularly for defects, damage, trip hazards and vandalism in accordance with manufacturer's recommendations. Repairs and replacements should be carried as a matter of urgency to maintain site safety.
- Drainage channels should be kept clear of silt and other debris throughout the year.

3.0 Routine operation schedules

The schedules are compiled for the annual maintenance of each of the landscape elements identified in Section 2.0, refer to document M2739_MP02_130117_jh Landscape Management Schedules for details.

The frequency and timing of most landscape maintenance operations will depend upon the weather and growing conditions. The operations described are therefore for guidance only, and should be carried out according to the requirements of the site conditions and therefore not treated as a rigid programme.

If maintenance is undertaken by an external contractor, payments should be linked to work actually completed, rather than paying an unvarying monthly maintenance sum which is a twelfth of the total. In this way, expenditure will match the requirements of the site more accurately. All operations should therefore be regarded as provisional items. Whether specific operations are carried out should be judged against the conditions on site at the time.

Further Information

If any additional information or advice is required regarding the landscape design intentions or maintenance requirements please contact the designer Barnes Walker Ltd. 0161 946 0808