



Landscape and Ecology Management Plan (LEMP)

Logicor Park Reading, Rose Kiln Court

Presented to: Redwood (Light Industrial) Propco
Sarl

Issued: September 2024

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As part of Lucion's group of companies, we can support you with a broader range of holistic services. Through our pool of multidisciplinary experts, we help you navigate complex regulatory frameworks, saving you time and money.

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Table of Contents

1.0 BACKGROUND TO THE PROJECT	1
1.1 Context and Purpose	1
1.2 Aims and Scope of Works	1
1.3 Scheme Overview	1
2.0 LANDSCAPE ENHANCEMENTS AND MANAGEMENT	2
2.1 General Measures	2
2.2 Trees	2
2.2.1 Existing Ecological Features	2
2.2.2 Influencing Factors for Management	2
2.2.3 Objectives	3
2.2.4 Implementation	3
2.2.5 Monitoring and Remediation	4
2.3 Grassland	4
2.3.1 Existing Ecological Feature	4
2.3.2 Influencing Factors for Management	4
2.3.3 Objectives	4
2.3.4 Implementation	4
2.3.5 Monitoring and Remediation	5
2.4 Hedgerow	6
2.4.1 Existing Ecological Feature	6
2.4.2 Influencing Factors for Management	6
2.4.3 Objectives	6
2.4.4 Implementation	6
2.4.5 Monitoring and Remediation	6
3.0 RESPONSIBILITIES	7
3.1 Roles and Responsibilities	7
3.2 Collaboration Opportunities	7
4.0 DISCLAIMER	8

Drawings

DRAWING 1 – LANDSCAPE PROPOSALS

Appendices

APPENDIX A – RECOMMENDED MANAGEMENT AND MONITORING PROGRAMME

APPENDIX B – RECOMMENDED MANAGEMENT PROGRAMME

1.0 Background to the Project

1.1 Context and Purpose

Lucion Delta-Simons Ltd has been instructed by Redwood (Light Industrial) Propco Sarl ('the Client') to produce a Landscape and Ecology Management Plan (LEMP) for the proposed redevelopment of Logicor Park Reading, Rose Kiln Court (hereafter referred to as the 'Site').

This LEMP has been written based upon information provided by the Client, the results and recommendations reported in the Preliminary Ecological Appraisal (PEA) Summary Report prepared by Lucion Delta-Simons Ltd, and a Landscape Plan prepared by TGP Landscape Architects for the Site. This LEMP has been developed in accordance with BS 42020:2013 Section 11.1.1.

This LEMP provides details of on-Site management only.

1.2 Aims and Scope of Works

The scope of this LEMP is to detail how long-term enhancement objectives can be achieved during the operational phase of the development.

The aims of the LEMP are to:

- Evaluate features to be managed, including ecological trends and constraints on-Site that could influence management;
- Detail enhancement measures to increase the biodiversity value of the Site;
- Set out objectives of management; and
- Provide a management and monitoring plan in order to achieve the biodiversity aims for the Site and allow remedial measure to be applied where necessary.

1.3 Scheme Overview

The proposed development will comprise the redevelopment of the Site to provide three buildings for Class E(g)(iii) (Light Industrial)/Class B2 (General Industrial)/Class B8 (Storage or Distribution) uses, including the provision of a new substation, parking, landscaping.

The proposed landscaping strategy (Drawing 1) provides an overview of the intended soft landscaping, including trees, grassland mixes, and native hedgerow.

2.0 Landscape Enhancements and Management

The landscaping strategy (prepared by TGP Landscape Architects and proposed management has been developed to maximise the biodiversity of the Site and to provide a range of resources for locally occurring wildlife, whilst being appropriate to the nature and setting of the development.

Implementation of the landscaping scheme should be undertaken in accordance with the details provided by TGP Landscape Architects and should be completed by a competent person. All soft landscaping areas should be maintained to a high standard to ensure the landscape scheme is successful, and objectives met. Long-term maintenance should be carried out by a commercial landscape maintenance contractor under a landscape maintenance contract or similar. A suggested maintenance and management programme to cover the first 30 years after development is included as Appendix A, and a management programme, starting from the completion of landscaping works, is included as Appendix B. Landscape features are shown in Drawing 1. The management regime should be reviewed at regular interval (every five years or where objectives are not being met) and adjusted accordingly. Management should be applied for the lifetime of the development.

2.1 General Measures

General Planting Notes

Soft landscape specification should follow the details set out within the Landscape Proposal Plan provided by TGP Landscape Architects.

General Management

Weeding should be carried out at each and every maintenance visit. All weeding to planting beds should be carried out using hand methods only.

All planting areas to be maintained to a high standard by the contractor for 12 months after practical completion, to ensure the landscape scheme is successful, and discourage decline of the area. Recommended minimum frequency of maintenance visits are March to May & September to November - 1 No. visit each month; June to August - 2 No. visits each month.

All litter to be picked and removed from landscape areas.

All soft landscaping to be subject to a watering regime, particularly during the initial 12-month establishment period. The watering frequency should be as necessary to ensure the continued thriving of all grass, hedges, trees and ornamental planting but as a minimum should follow the maintenance regime as set out in the sections below and be carried out at the time of each maintenance visit. During dry periods it may be necessary to increase watering visits to once per week. The soil should be checked for dryness using either a soil moisture sensor or by inserting a spade into the ground to a depth of 300mm to observe the appearance of the soil. If the soil is moist there is no need to water but if it is bone dry then watering procedure should be carried out immediately. The full depth of topsoil should be wet without loosening or damaging plants. Any compacted soil should be broken up sufficiently to allow water to reach the rootzone.

2.2 Trees

2.2.1 Existing Ecological Features

Scattered trees occur predominately around the boundaries of the Site, several of which are to be retained and protected as part of the development proposals.

2.2.2 Influencing Factors for Management

Retained and newly planted trees must be managed to maintain their health and amenity value as well as to contribute to the ecological value of the Site. Deadwood should be retained, where possible, for its biodiversity value, however, safety is paramount.

2.2.3 Objectives

The objectives for the tree retention and planting at the Site post-development are to promote species diversity, and structural diversity across the Site. Management objectives for the trees are to:

- Ensure satisfactory establishment and growth of new planting;
- Maintain planting in a healthy and attractive condition, to retain their contribution to the landscape structure, biodiversity, food source to wildlife, and amenity value in accordance with BS3998:2010; and
- Retain dead wood at the Site for biodiversity value, where possible.

In order to achieve a 'moderate' condition as detailed within the biodiversity net gain assessment for the development, the following condition criteria must be achieved:

- No current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.

2.2.4 Implementation

Tree planting is to be undertaken in the south of the Site.

Planting

Prior to planting, the ground will be prepared such that the plants can grow successfully. The soil should have a good tilth (particle size, moisture content, degree of aeration, rate of water infiltration, and drainage) so that the roots can establish. Planting is recommended to not be undertaken if the ground is suffering from hard frost or is heavily waterlogged, however, planting should be undertaken during the late autumn and winter months when the trees are dormant, in the next available planting season following completion of the development.

Extra heavy standard trees shall be short double staked, 300mm to be driven into the ground and 600mm maximum above ground. A flexible webbing cross bar within 25mm of the top of the stake shall be used and fixed to the trunk with expandable ties. Each tree shall have a 50mm diameter perforated plastic irrigation pipe, with plastic cap, wrapped in a circle above and around the sides of the rootball.

Management

Year 1:

- All dead and missing specimen trees or trees which fail to develop properly during the first season after planting shall be replaced. Specification for replacements shall be the same as for their originals;
- The condition of all trees should be regularly checked during the first 12 months, with stakes and ties adjusted or replaced as necessary;
- Water newly planted trees throughout the summer months (April to September) at weekly intervals after any period of four weeks without significant rainfall (less than 5 mm). Apply sufficient water to thoroughly wet the top 150 mm of soil around the tree roots. This will normally require 10 litres for a seedling or whip and 20 litres for a standard tree;
- Dead wood and suckers are to be removed as required to ensure development of a main leader, and balanced growth;
- Retained trees are to be pruned following the advice of a qualified arboriculturist; and
- Any trimming works should avoid the main bird nesting season (March – August, inclusive) as far as possible, alternatively, non-mechanical hand tools should be used, following confirmation that nesting birds are not present in the areas to be managed.

Year 2-4:

- Maintain watering and selective pruning as per Year 1;
- Begin phased removal of stakes and ties from most established trees.

Year 5- onwards

- Maintain watering and selective pruning.

2.2.5 Monitoring and Remediation

Monitoring should be undertaken as part of general Site maintenance, and at least annually by a qualified arboriculturist for disease, damage, and potential problems. Remedial work is to be carried out as required to meet the objectives set out above and in accordance with BS3998:2010.

Any trees which die, are removed, seriously damaged or diseased within the first five years of development completion should be replaced in the next planting season with others of similar size and species, unless otherwise advised by a competent professional.

2.3 Grassland

2.3.1 Existing Ecological Feature

Modified grassland along the roadside verge is to be retained.

2.3.2 Influencing Factors for Management

Whilst the grassland at the Site will be managed to visually provide formal landscaping, it will also aim to promote biodiversity appropriate to its location.

2.3.3 Objectives

The objectives for the grassland at the Site are to:

- Ensure satisfactory establishment of grass sward; and
- Maintain a healthy and diverse sward, cut appropriate to its function and use.

In order to achieve a 'moderate' condition for the flowering lawn mix and hedgerow grass mix, as detailed within the biodiversity net gain assessment for the development, the following condition criteria must be achieved:

- Wildflower species should be clearly and easily visible throughout the sward;
- Cover of bare ground is between 1-5 %
- Cover of scrub is less than 5%
- There is an absence of invasive/undesirable species.

2.3.4 Implementation

A flowering lawn mix is to be seeded at the southern extent of the Site, whilst a wildflower grassland hedgerow mix is to be seeded around areas at the perimeter of the Site which will be subject to shading from the adjacent trees and buildings. An amenity grass mix is proposed within an ecoblock system around the perimeter of the buildings.

Planting

Ground preparation should follow the supplier's instructions with the removal of weeds, rubbish, and stones of over 20 mm diameter. The seed is recommended to be sown/turf laid following development activities during times of sufficient warmth and moisture, ideally in late spring or early autumn and following manufacturers advised sowing rates.

Management

Flowering Lawn Mix and Retained Grassland

Year 1:

- Mow newly sown flowering lawns regularly (every 7 -10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, all cuttings will be removed and composted.
- Carefully dig out or spot treat any residual perennial weeds such as docks. No fertiliser or lawn feed (which also contains herbicide) is to be used under any circumstances. Herbicide may only be used for spot treatment for pernicious weeds.
- Areas should be watered as required during sustained periods of dry weather, to ensure full wetted depth of topsoil.

Year 2 onwards:

- Mow new and retained grassland regularly as a lawn but not too short (25-40mm). To permit flowering, mowing should be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). All cuttings to be removed and composted.
- Strips around the edges of the grassland, adjoining adjacent habitat/soft landscaping should be mown less frequently (twice a year in late July and again September/October) to encourage a varied sward height.
- Carefully dig out any residual perennial weeds such as docks. No fertiliser or lawn feed (which also contains herbicide) is to be used under any circumstances. Herbicide may only be used for spot treatment for pernicious weeds if necessary.

Wildflower Hedgerow Mix

Year 1:

- Many of the species in this mix are slow to establish and a flush of annual weeds may arise from the soil seed bank. These provide shelter to the sown seedlings, have ecological benefits and will die at the end of the year. Cutting of annual weeds should therefore be avoided until mid to late summer. Arisings should be removed and composted. The grassland can then be cut regularly as required during the winter months to maintain a short sward height. Any perennial weeds such as dock should be carefully dug out.

Year 2 onwards:

- Cut annually in late July to a minimum of 100 mm, with arisings left in-situ to shed seed for a minimum of 24 hours and then raked and removed. A second cut is to be undertaken in September/October.

Amenity Grassland

- Amenity grassland is to be cut to 50 mm height on fortnightly visits to commence when the grass reaches 100 mm in height during the growing season.

2.3.5 Monitoring and Remediation

Monitoring should be undertaken as part of general Site maintenance. If germination of grassland species is poor, this will be reviewed and re-seeded as appropriate in the next available planting season.

2.4 Hedgerow

2.4.1 Existing Ecological Feature

An existing ornamental hedgerow in the south of the Site is to be retained.

2.4.2 Influencing Factors for Management

The hedgerows at the Site will provide formal boundary features and as such require maintenance to ensure the hedgerow does not restrict required access or visibility requirements. However, where possible, the hedgerows will be managed to promote biodiversity.

2.4.3 Objectives

The objective for the hedgerow habitat at the Site post-development is to increase the extent and density of hedgerow vegetation, and to promote connectivity within the Site through appropriate management. Management objectives for the hedgerow habitat are to:

- Ensure satisfactory establishment and growth of new native planting; and
- Manage hedgerows in a healthy and attractive condition to retain and develop their structure and biodiversity value.

2.4.4 Implementation

Mixed species native hedgerow is proposed along the eastern and western boundaries.

Planting

Prior to planting, the ground will be prepared such that the plants can grow successfully. The soil should have a good tilth (particle size, moisture content, degree of aeration, rate of water infiltration, and drainage) so that the roots can establish. Planting should not be undertaken if the ground is suffering from hard frost or is heavily waterlogged, however, planting should be undertaken during the late autumn and winter months when the whips are dormant, in the next available planting season following completion of the development.

Each whip shall be protected with a biodegradable spiral tree guard, 0.6m high x 130mm diameter, supported by a single timber stake placed to prevent the natural movement of the tree being impeded or restricting growth.

Management

The new planting should be maintained weed free by hand pulling or spot treatment using an appropriate herbicide during the growing season (March – October, inclusive) until established (first three years). Herbicide use should be restricted where grass seed has been applied.

Light, regular, trimming of the hedgerow in its early years will encourage dense, bushy growth, therefore, newly planted hedgerow plants should be cut back annually in September. It is recommended that once the hedgerows have established that they will receive less frequent management, being cut only once every two years, or when growth requires to maintain the desired dimensions suitable to its position/adjacent land use, and on rotation such that not all the hedgerows at the Site are cut in the same year. This allows continuous provision of bird nesting habitat.

Water to field capacity if plants start to wilt during periods of low rainfall.

2.4.5 Monitoring and Remediation

Monitoring should be undertaken as part of general Site maintenance. Any plants that die in the first five years will be replaced with the same species in the next available planting season to prevent gaps developing.

3.0 Responsibilities

3.1 Roles and Responsibilities

The construction team will ensure the landscaping scheme is implemented as specified on the planting plan (Drawing 1) and following the directions within this document. This document will be provided to the new owners at the handover to ensure they are aware of the ecological ambitions of the Site.

Following handover, it is expected that a landscape management team would undertake day to day works as required to maintain the Site. A central point of contact, such as a Team or Unit Manager, would be available for the team to contact if problems arise. Record keeping should be undertaken by the property manager of any works required to meet the LEMP, such as replacement planting due to failures, so that if repeat problems arise a new solution can be agreed upon and passed to their point of contact at regular agreed intervals.

Given the nature of the development, all planting will be completed by the construction team and subsequent management by a central management team such that guidance for occupiers on planting/management is not relevant to this scheme.

3.2 Collaboration Opportunities

On-Site monitoring of faunal and floral successes will be undertaken by the landscape management team and occupants of the building. This could be through a central record book of sightings within the Site, additional enhancements could then be provided based on the recorded species.

4.0 Disclaimer

The recommendations contained in this Report represent Lucion Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Ecology Consultant.

This Report was prepared by Lucion Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Lucion Delta-Simons was instructed as defined in Section 1.0 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Lucion Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Lucion Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Lucion Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Drawing 1 - Landscape Proposals



KEY

- EXISTING TREES TO BE RETAINED
- EXISTING HEDGE TO BE RETAINED
- PROPOSED EXTRA HEAVY STANDARD TREE PLANTING
- PROPOSED WILDFLOWER GRASSLAND EL1 FLOWERING LAWN MIX - 195m²
- PROPOSED WILDFLOWER GRASSLAND EH1 HEDGEROW MIX - 975m²
- PROPOSED A22 AMENITY GRASS MIX IN PERMEABLE ECOBLOCK SYSTEM (NO DIG CONSTRUCTION) - 525m²
- PROPOSED NATIVE HEDGE MIX - 215lin m
- PROPOSED ROOT PROTECTION BARRIER - 85lin m

NOTES:

PLANTING OPERATIONS SPECIFICATION

TOPSOIL
Imported topsoil for tree pits and hedge shall comply with BS 3882 and shall be good quality, medium topsoil item, acid or slight acid (pH not less than 5.0), stones not greater than 50mm in any dimension, perennial weeds and any other foreign matter, free from chemical or other polluted subsoil, weeds, straw, sticks, stones, clay lumps and other deleterious material. Topsoil containing a significant proportion of subsoil or other foreign matter will not be accepted on the site. On no account shall topsoil be brought on the site in excessively wet conditions or in a water logged state. It shall be from an approved source, shall be fertile with a humus and fibre content and shall have a good crumb structure with medium texture.

All areas of wildflower grass seeding shall be made up of low nutrient sub-soil to assist establishment and maintenance of the meadow grasslands.

TREE PLANTING
Extra Heavy Standard tree pits shall be 1m x 1m x 0.75m. The bottom 150mm of each tree pit to be broken up to assist drainage. Compacted ground to be broken up. Backfill shall be excavated material with 50/50 mixed with peat free tree planting compost (Sample to be approved) for the top 300mm and excavated sub soil for the bottom 450mm. 4No Sierrablend gro tabs to be incorporated into each planting pit.

All EHSId trees shall be short double staked, 300mm to be driven into the ground and 600mm maximum above ground. A flexible webbing cross bar within 25mm of the top of the stake shall be used and fixed to the trunk with expandable ties. Each tree shall have a 50mm diameter perforated plastic irrigation pipe, with plastic cap, wrapped in a circle above and around the sides of the rootball.

NATIVE HEDGE PLANTING
Whip planting areas shall be cultivated to the full depth of the topsoil and bare root stock notch planted to accommodate the full depth of the roots. Planting density shall be as set out in the accompanying schedules and the layout shall be random, in groups of no less than 3 or more than 7 of the same species, ensuring that no three plants are aligned in any one direction. Each whip shall be protected with a biodegradable spiral tree guard, 0.6m high x 130mm diameter, supported by a single timber stake placed to prevent the natural movement of the tree being impeded or restrict growth.

WILDFLOWER SEEDING
Over seeding to occur during August / September. Any areas of failure to be re-seeded. Grass seed mix shall be Emorsgate (or similar approved by the LPA) EL1 Flowering Lawn Mix, 195m² and Emorsgate (or similar approved by the LPA) EH1 Hedgerow Mix, 975m², sown at a rate of 5g/m².

First Year Management:
Mow newly sown flowering lawn regularly (every 7 -10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense. This will gradually develop a good sward structure, help maintain balance between faster growing grasses and slower developing wild flowers, and control annual weeds.
Dig out any residual perennial weeds such as docks.

Management Once Established:
Mow regularly as a lawn to between 25-40mm. To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site.

EL1 Flowering Lawn Mix		
%	Species	Common name
Wild Flowers		
4	Galium verum	Lady's Bedstraw
0.5	Leontodon hispidus	Rough Hawkbit
1	Leucanthemum vulgare	Oxeye Daisy - (Moon Daisy)
3.7	Lotus corniculatus	Birdsfoot Trefoil
3	Primula veris	Cowslip
4	Prunella vulgaris	Selfheal
3.5	Ranunculus acris	Meadow Buttercup
0.3	Trifolium pratense	Wild Red Clover
20		
Grasses		
8	Agrostis capillaris	Common Bent
40	Cynosurus cristatus	Crested Dogtail
28	Festuca rubra	Red Fescue
4	Phleum bertolonii	Smaller Cat's-tail
80		
EH1 (Hedgerow Mix)		
Wild Flowers		
%	Latin name	Common name
0.5	Achillea millefolium	Yarrow
1.2	Agrimonia eupatoria	Agrimony
1.5	Alliaria petiolata	Garlic Mustard
0.4	Arctium minus	Lesser Burdock
0.5	Betonica officinalis	Betony
1.5	Centaurus nigra	Common Knapweed
0.4	Chaerophyllum temulum	Rough Chervil
2	Galium album	Hedge Bedstraw
1	Galium verum	Lady's Bedstraw
0.3	Geranium pyrenaicum	Hedgerow Crane's-bill
0.6	Hypericum perforatum	Perforate St John's Wort
0.3	Lathyrus sylvestris	Narrow-leaved Everlasting-pea
0.8	Leucanthemum vulgare	Oxeye Daisy - (Moon Daisy)
0.5	Origanum vulgare	Wild Marjoram
0.7	Plantago lanceolata	Ribwort Plantain
1	Primula veris	Cowslip
2.5	Silene dioica	Red Campion
0.5	Silene latifolia	White Campion
2	Torilis japonica	Upright Hedge-parsley
0.5	Verbascum thapsus	Great Mullein
0.5	Vicia cracca	Tufted Vetch
0.8	Vicia sativa ssp. segetalis	Common Vetch
Grasses		
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
7	Anthoxanthum odoratum	Sweet Vernal-grass (w)
7	Brachypodium sylvaticum	False Brome (w)
20	Cynosurus cristatus	Crested Dogtail
1	Deschampsia cespitosa	Tufted Hair-grass (w)
28	Festuca rubra	Slender-creeping Red-fescue
12	Poa nemoralis	Wood Meadow-grass

EXTRA HEAVY STANDARD TREE PLANTING				
Name	Girth	Height	Root Condition	Number
Acer campestre 'Louisa Red Shine'	14-16cm	425-600cm	Containerised	1
Acer cappadocicum subsp 'Lobelli'	14-16cm	425-600cm	Containerised	1
Betula nigra	14-16cm	425-600cm	Containerised	1
Carpinus betulus 'Fastigiata'	14-16cm	425-600cm	Containerised	1
Celtis australis	14-16cm	425-600cm	Containerised	1
Corylus columa	14-16cm	425-600cm	Containerised	1
Crataegus x lavalleei	14-16cm	425-600cm	Containerised	1
Fagus sylvatica 'Dawyck'	14-16cm	425-600cm	Containerised	1
Liquidamber styraciflua 'Lane Roberts'	14-16cm	425-600cm	Containerised	1
Liriodendron tulipifera 'Fastigiatum'	14-16cm	425-600cm	Containerised	1
Populus alba 'Pyramidalis'	14-16cm	425-600cm	Containerised	1
Pyrus calleryana 'Chanticleer'	14-16cm	425-600cm	Containerised	1
Robinia pseudoacacia 'Pyramidalis'	14-16cm	425-600cm	Containerised	1
Sorbus aucuparia 'Shearwater Seedling'	14-16cm	425-600cm	Containerised	1
Tilia cordata 'Greenspire'	14-16cm	425-600cm	Containerised	1

NATIVE HEDGE MIX 215 lin m				
Name	% of Mix	Height	Root Condition	Number
Acer campestre	10	60-90cm	BR	105
Corylus avellana	15	60-90cm	BR	160
Crataegus monogyna	35	60-90cm	BR	375
Ligustrum vulgare	10	60-90cm	BR	105
Ilex aquifolium	10	60-90cm	RB	105
Prunus spinosa	5	60-90cm	BR	55
Rosa arvensis	5	60-90cm	BR	55
Sambucus nigra	5	60-90cm	BR	55
Viburnum opulus	5	60-90cm	BR	55

Double Staggered Row @400mm ctrs in groups of 3, 5, or 7

Suite 5, Third Floor, Adamson House,
65 Westgate Road, Newcastle-upon-Tyne,
NE1 1SG. Tel: 0191 383 9955
andrew.gardner@tgp.uk.com/www.tgp.uk.com
Also in Glasgow & Edinburgh

Project	LOGICOR PARK: READING ROSE KILN COURT		
Title	LANDSCAPE PROPOSALS		
Date	Scale	Drawn	Checked
15.03.23	1:250 @ A1	DR	AG
Job	Suitability	No.	Issue
D342	-	D342.L.001	EXT
Revision	E		
LI WORKSTAGE:	0/1	2	3
	☐	☐	☒
	☐	☐	☐
	☐	☐	☐

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Do not scale from this drawing.
All dimensions to be verified on site prior to commencement of works.
Drawing to be read in conjunction with related TGP drawings, consultants drawings and any other relevant information.
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Appendix A - Recommended Management and Monitoring Programme

Recommended Management and Monitoring Programme

Habitat/Feature	Objective	Proposed Management	Proposed Monitoring	Performance Indicators		Remedial Actions
				Poor	Good	
Trees	Ensure satisfactory establishment and growth of new planting	Plant species listed in landscape plans	Trees to be inspected annually by a qualified arboriculturist for the successful establishment and health of individual plants	Poor growth of individual trees	Healthy growth of individual trees	Replace any trees which die, are removed, seriously damaged or diseased within the first five years of development completion in the next planting season with others of similar size and species, unless the Local Planning Authority gives written consent to any variation
		Water at least weekly between May and September during the first two years, should two weeks pass without rainfall. Following this only if showing signs of drought stress	Monitor health of individual trees	Wilting plants with poor growth	Healthy plants with expected growth rate	Review frequency of watering
		Tree ties and stakes to be checked	Monitor efficiency of ties monthly from March to October, inclusive, or following frosts or high wind	Poorly supported or damaged trees	Well established trees	Stakes and ties adjusted or replaced as necessary to prevent damage to the tree. After the third-year stakes and ties are to be removed if trees are self-supporting
	Maintain planting in a healthy and attractive condition, to retain their contribution to	Trees - pruning undertaken as required following arborist advice	Trees to be inspected annually by a qualified	Poorly developed plant	Well established plants	Review frequency of monitoring and



	the landscape structure, biodiversity, food source to wildlife, and amenity value	Any trimming works should avoid the main bird nesting season (March – August inclusive) as far as possible, alternatively, non-mechanical hand tools should be used.	arboriculturist for the successful establishment and health of individual plants			management practices.
	Retain deadwood for biodiversity value	Remove dead wood and suckers from new planting as required to ensure development of a main leader. In established trees deadwood is to be removed where it presents a health and safety concern or following the advice of a competent arborist	Monitor presence of dead wood and associated health of plants	No/excessive deadwood present. Plants in poor health	Some deadwood and plants in overall good health with no pests/disease	Review frequency of monitoring and management practices and deadwood retention. Implement remediation for pests/disease as appropriate
Grassland	Ensure satisfactory establishment of grass sward	Plant species/mix detailed in landscape plans	Monitor sward growth	Poor sward growth	Healthy growth of individual plants	Re-seed/lay as appropriate in the next available planting season
	Maintain a healthy and diverse sward, cut to its appropriate function	Flowering lawn mix and hedgerow mix to be managed appropriate too its location and function.	Monitor health and establishment of sward	Poor establishment of sward structure and species distribution	Healthy sward and good species distribution and diversity	Review frequency of cutting, watering, weeding, and pruning
		Amenity grassland is to be maintained as required for its function		Poor sward coverage	Healthy sward coverage	
Hedgerows	Ensure satisfactory establishment and growth of new planting	Plant species listed in landscape plans, protected with appropriate guards	Monitor successful establishment of individual plants	Poor growth of individual plants	Healthy plants forming intact hedgerow	Replace any plants that die within the first five years with the same species
		Manage weed growth around newly planted hedgerow	Monitor growth of competitive weeds around individual hedgerow plants	Excessive weed growth competing for resources	Lack of weed growth around new hedgerow plants	Review intensity of weed treatment. Increase/decrease as appropriate

		Water plants if starting to wilt during periods of low rainfall	Monitor health of individual plants	Wilting plants with poor growth	Healthy plants with expected growth rate	Review frequency of watering
	Manage hedgerows in a healthy and attractive condition to retain and develop structure and biodiversity value	Manage new hedgerows through cutting annually for the first three years. Once established management to be relaxed to every two years on rotation, or when required to maintain required shape/structure. Works to avoid the nesting bird season (March-August inclusive).	Monitor growth rate and health of individual shrubs	Poor growth and structure	Desired structure and height established	Review frequency and method of cutting. Replant any gaps that establish due to poor specimens

Appendix B – Recommended Management Programme

Recommended Management Programme

General	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and beyond
Litter picking	All litter cleared during each maintenance visit, and in response to any reported litter/fly-tipping. All litter disposed of appropriately.					
Management frequency	Recommended minimum frequency of maintenance visits are March to May & September to November - 1No. visit each month; June to August - 2No. visits each month.					

Trees	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6-and beyond
	All existing trees are to be inspected on an annual basis. Deadwood is to be removed where it presents a health and safety concern or following the advice of a competent arborist. Any limbs overhanging footpaths are to be cut back. Branches are to be removed from Site, however, major limbs are to be cut up and retained on site to provide a habitat for invertebrates					
	Water weekly between May and September should two weeks pass without rainfall.		Water if showing signs of drought stress.			
	Inspect trees annually in September and replace dead, removed, damaged or diseased trees in the next available planting season.					
	Dead wood and suckers are to be removed as required to ensure development of a main leader, and balanced growth	Selective pruning to maintain health and structure. Any trimming works should avoid the main bird nesting season (March – August inclusive) as far as possible, alternatively, non-mechanical hand tools should be used				
	Check stakes and ties monthly from March to October, inclusive and after frosts or high winds, and adjust or replace as necessary.	Remove stakes and ties if trees are self-supporting.				
	Annual inspection by a qualified arboriculturist for disease, damage and potential problems – remedial work to be carried out as required in accordance with BS3998:2010. Arboriculturist to update management plan as required					



Grassland	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-beyond
Hedgerow Grass Mix	Avoid cutting of annual weeds until mid to late summer. Arisings should be removed and composted. The grassland can then be cut regularly as required during the winter months to maintain a short sward height. Any perennial weeds such as dock should be carefully dug out.	Cut annually in late July to a minimum of 100 mm, with arisings left in-situ to shed seed for a minimum of 24 hours and then raked and removed. A second cut is to be undertaken in September/October.				
	If sward structure is poor, plant with the same species mix in the next available planting season.					
Flowering Lawn Mix	Mow newly sown flowering lawns regularly (every 7-10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense.	- Mow new and retained grassland regularly as a lawn but not too short (25-40mm). To permit flowering, mowing should be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Heavy quantities of cuttings should be collected and removed from site. - Strips around the edges of the grassland, adjoining adjacent habitat/soft landscaping should be mown less frequently (twice a year in late July and again September/October) to encourage a varied sward height.				

	All cuttings are to be removed and composted.					
	Carefully dig out or spot treat any residual perennial weeds such as docks. No fertiliser or lawn feed (which also contains herbicide) is to be used under any circumstances. Herbicide may only be used for spot treatment for pernicious weeds.					
Amenity Grass	Amenity grassland is to be cut to 50 mm height on fortnightly visits to commence when the grass reaches 100 mm in height during the growing season.					
Grassland	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-beyond
Hedgerow Grass Mix	Avoid cutting of annual weeds until mid to late summer. Arisings should be removed and composted. The grassland can then be cut regularly as required during the winter months to maintain a short sward height. Any perennial weeds such as dock should be carefully dug out.	• Zonal management should be applied to create structural diversity across the Site. The strip of hedgerow grassland mix along the northern and eastern edges should be cut annually in late July to a minimum of 100 mm, with arisings left in-situ to shed seed for a minimum of 24 hours and then raked and removed. A second cut is to be undertaken in September/October. • The western boundary should be cut every 2-3 years on rotation to provide a transition between the flowering lawn and woodland planting and create a rough tussocky character. No more than half the area should be cut in any one year.				
	If sward structure is poor, plant with the same species mix in the next available planting season.					

Flowering Lawn Mix	Mow newly sown flowering lawns regularly (every 7 - 10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense. All cuttings are to be removed and composted.	• Mow new and retained grassland regularly as a lawn but not too short (25-40mm). To permit flowering, mowing should be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Heavy quantities of cuttings should be collected and removed from site. • Strips around the edges of the grassland, adjoining adjacent habitat/soft landscaping should be mown less frequently (twice a year in late July and again September/October) to encourage a varied sward height.
	Carefully dig out or spot treat any residual perennial weeds such as docks. No fertiliser or lawn feed (which also contains herbicide) is to be used under any circumstances. Herbicide may only be used for spot treatment for pernicious weeds.	
Amenity Grass	Amenity grassland is to be cut to 50 mm height on fortnightly visits to commence when the grass reaches 100 mm in height during the growing season.	

Hedgerow	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and beyond
	Maintain weed free			Allow adjacent grassland to colonise at hedgerow bases		
	Trim annually in September to create desired shape/dimensions.			Trim every two years on rotation or when required to maintain shape/structure.		
	Water to field capacity if plants start to wilt during periods of low rainfall.					
	Inspect hedges in September and replace any dead plants in the next available season.					