

Land at Tilstock Road, Tilstock Landscape & Ecological Management Plan

Boningale Homes Ltd. September 2024 | P24_1425_EN_08

Environment





Pegasus Group 33 Sheep Street Cirencester Gloucestershire GL7 IRQ

www.pegasusgroup.co.uk I T 01285 641717

Pegasus Design is part of Pegasus Group Ltd

© Copyright. The contents of this document must not be copied or reproduced in whole or in part without the written consent of Pegasus Planning Group Ltd.

Crown copyright. All rights reserved, Licence number 100042093.

Printed material produced by Pegasus Design Cirencester is printed on paper from sustainably managed sources and all parts are fully recyclable.

Job code	P23_1425
Author	JES
Checked by	RF
Date	23/10/2024

Pegasus Design

Since 2003, we've been solving planning and development problems for our clients successfully, and we're really proud of that. Even though our work is complex, what we deliver for our clients is very simple: we deliver results.

Expertly Done sums up our approach. We listen and learn from our clients, working as true partners who are passionate about delivering excellence and expertise on every step of the journey.

Everything we do is Expertly Done.

Expertly Done.
DESIGNI ECONOMICS LENVIRONMENT I HERITAGE I LAND & PROPERTY I PLANNING I TRANSPORT & INFRASTRUCTURE

CONTENTS

1 Introduction	4
2 Site Description	-
3 Environmental Considerations	ξ
4 General Maintenance Requirements	10
5 Maintenance Specification	1
6 Schedule of Management and Maintenance	19

NOTE: THIS DOCUMENT IS DESIGNED TO BE VIEWED AS A3 DOUBLE SIDED

1 Introduction

Planning Background

- 1.1 This Landscape and Ecological Management Plan (LEMP) accompanies the detailed Public Open Space (POS) Hard and Soft Landscape Proposals submitted as part of the full planning application for the site.
- 1.2 The objective of this LEMP is to set out management and maintenance procedures for areas of POS at Land at Tilstock Road, Tilstock.
- 1.3 This LEMP is designed for the operational phase of the development and will commence from the handover date from the landscape contractor to the management company.
- 1.4 This document is supported by;
 - P24-1425_EN_07 Detailed Public Open Space Hard and Soft Landscape Proposals;
- Natural England Technical Information Note TIN017 edition 2 'Traditional orchards: maintenance pruning'.

Purpose of Management Plan

- .5 The purpose of this management plan is:
 - To ensure the design intent and vision for the POS of is realised and maintained:
- To ensure that clear long term objectives for the POS areas are agreed and laid down;
- To provide detailed management prescriptions for habitat features within the site to ensure that the ecological interest is protected and biodiversity is improved where possible;
- To set clear standards for the performance of landscape maintenance work following handover from the landscape contractor at the beginning of the operational phase;
- To develop detailed maintenance schedules for landscape maintenance staff;
- To provide details of the body or organisations responsible for the implementation of the plan and help in the allocation of financial resources for landscape maintenance; and
- To help monitor success and progress against management targets and any breaches of the LEMP.

Scope

- 1.6 This LEMP details the management of POS including to site perimeter, grass verges along vehicular route, play spaces and SuDS (Sustainable Drainage System) features including swales and attenuation basin, within the site.
- .7 It details long-term management aims and objectives, management prescriptions and maintenance schedules, the body or organisation responsible for the implementation of the plan, and the monitoring framework including actions for any breaches of the approved LEMP.
- 1.8 It does not include on-plot/curtilage landscaping which would be maintained by the occupiers, or works associated with site clearance and constructions works.

CDM Regulations

1.9 The Construction Design and Management Regulations 2015 Regulation 4 requires Clients to make suitable arrangements for managing a project. Regulation 5 states that they must appoint a Principal Designer and Principal Contractor where applicable. For full details the CDM 2015 Client duties please refer to HSE Guidance Notes L153. For the avoidance of doubt Pegasus Group are not providing the CDM Principal Designer role. Pegasus can provide a copy of the safety assessment of design work in liaison with the Principal Designer when required.

Review

- 1.10 The document should be seen as an operational guide subject to change and improvement as the different landscape features mature and develop.
- 1.11 This LEMP details management prescriptions for the first five years, and we recommend it is reviewed and republished at five year intervals to ensure the management aims are still required and relevant. This review should be undertaken by a suitably qualified professional who will recommend necessary changes to the LEMP.

Ecological Trends & Constraints

1.12 This LEMP is an operational guide subject to review to incorporate landscape and ecological trends that may impact on the landscape management aims, objectives and maintenance regime. The review process would also allow future constraints such as Natural England licenses, working method and conservation targets to be included as the LEMP evolves. Changes to management practice for ecological trends for habitat and species which may be updated to local policy and biodiversity targets would be incorporated as necessary. This would help to ensure that the LEMP remains fit for purpose in the evolving dynamic of landscape and help to ensure resilience to the effects of climate change and social pressure.

Managing Risk & Competencies

- 1.13 It is assumed that a competent contractor shall have the necessary PPE, training and skills to undertake the management and maintenance tasks as set out within this LEMP.
- 1.14 The landscape management company shall be responsible to undertake a written risk assessment in relation to the landscape, arboricultural and ecological management and maintenance prescriptions detailed within this LEMP (in additional to any other site risks). This shall be provided to the clients prior to the start of works.

Legal & Funding Mechanisms.

- 1.15 The funding for the landscape maintenance will covered by a maintenance fee collected from the residents
- 1.16 The developer will be responsible for appointing a suitable qualified contractor to implement the management and maintenance as set out within this LEMP. They will also appoint an suitably experienced/qualified ecologist to ensure all ecological responsibilities within the LEMP are delivered.

Insolvency/Administration

1.17 Should the landscape maintenance body or one of their subcontractors be made insolvent/ or enter administration, the developer has the ability to re-tender the maintenance contract and engage a suitable alternative contractor to carry out the landscape maintenance. This will ensure that the maintenance regime is delivered.

Landscape & Ecological Management Objectives

- 1.18 The main aims for the landscape and ecological management and maintenance are:
 - To maximise on-site biodiversity value in line with the Natural England / DEFRA methodologies;
 - To ensure maintenance and enhancement of ecologically valuable features for the diversity of wildlife within and surrounding the site;
 - To present an attractive and safe environment for home owners, residents and visitors;
 - To ensure the proposed landscape elements successfully establish, and present a high quality visual appearance of new planting and areas of grassland within the POS and streetscape;
 - To keep POS areas in good condition, suitable for amenity and informal recreation;
 - To ensure that existing site features (existing trees and hedgerows) are appropriately managed in relation to proposed dwellings and existing habitats:
 - To maintain the health, visual amenity and species diversity of the new planting;
 - To ensure that newly planted trees and areas of soft landscaping become successfully established:

- To protect the canopies and rooting environments of the retained trees during construction and maintenance operations according to the guidelines set out is BS 5837:2012 "Trees in relation to design, demolition and construction."
- To help prolong the life and enhance the wildlife value of the existing trees within the site, and retain their function within the existing landscape framework of this site;
- To successfully establish new areas of tree planting and maintain tree planting to establish a diverse treed environment;
- To keep the site clear of litter and rubbish;
- To keep weed colonization at a minimum and acceptable level;
- To provide an appropriate level of management intervention ranging from a moderate to minimal approach to management; and
- To carry out maintenance work according to best practice using sustainable techniques and materials.

2 Site Description

- 2.1 The development comprises 70 dwellings and POS including SuDS features, equipped play spaces and a community orchard.
- 2.2 A new tarmac footpath connection passes through the main area of open space to the southeastern corner of the site, providing safer year-round pedestrian access to the village, primary school and the adjacent Public Right of Way (ref '0233/28/1'). Several self-binding gravel footpath pass through POS allowing permeability throughout the development.
- 2.3 All existing trees, tree groups and most existing hedgerows will be retained within the POS. Replacement mixed-species native hedgerow is proposed along Tilstock Road adjacent to the proposed access, and throughout the areas of POS, providing habitat connectivity, shelter and foraging for wildlife.
- 2.4 Belts of native woodland planting are proposed to the eastern, northern and northwestern boundary, to include native understorey planting and a range of native standard trees. Blocks of native shrub planting are proposed adjacent to the native woodland areas, and around the periphery of the site.

- 2.5 An area of fruit trees set within a sward of flowering lawn meadow grassland will include fruit trees of local provenance to enhance the sense of place and provide a productive landscape feature. The trees will provide residents with opportunities for nature education, informal recreation and foraging opportunities for wildlife.
- Swales are proposed within verges alongside the internal road network and to the eastern boundary, to manage surface water runoff, with some connecting into the attenuation basin within the southeastern corner of the site. These will be seeded with wildflower meadow grassland suitable for seasonally wet soil. An area of permanent water within the basin allows for marginal/aquatic planting and flowering pond edge seed to the banks. These soft landscaped areas will be regularly maintained to support the health and longevity of the plants, but allowed to grow and create a naturalistic wetland character, with natural surveillance over the feature.
- 2.7 Long-mown meadow grass is proposed around the western and northern boundary adjacent existing and proposed woodland and native shrub planting, and around the SuDS basin to provide foraging and shelter for wildlife. Flowering lawn grassland is proposed to road verges, within the community orchard, incidental areas of open space, and adjacent to footpath routes. Flowering lawn can tolerate frequent mowing, with species diversity and flowers for seasonal interest when mowing pauses during the flowering period, creating habitats for wildlife and benefits for pollinators. Hard-wearing amenity grass is proposed to highuse areas such as the play spaces.
- 2.8 Street furniture has been provided to create resting opportunities for residents and visitors, with naturalistic play equipment and features to the Local Area for Play (LAP) and Locally Equipped Area for Play (LEAP). Litter bins have been provided in accessible locations.



3 Environmental Considerations

Horticultural Peat

3.1 Horticultural peat is not to be used as mulch on any planting areas or as a soil conditioner, and wherever possible plants grown without peat will be preferred to those grown using peat.

Recycled Materials

3.2 Where appropriate, use should be made of materials made from recycled components, eg wood chip mulch.

Pesticides/Herbicides

3.3 Weed control of transplant areas is to be achieved by using mulch mats and hand weeding. The control of invasive and pernicious weeds can be carried out with targeted applications of glyphosate based herbicides, but should be minimised.

Water Management

3.4 Where necessary, maintenance staff are to water plants at appropriate times of the day to ensure minimum water evaporation. It is anticipated that watering will only be necessary during the establishment period.

Habitat Management

- 3.5 Opportunities for the creation of additional micro-habitats and habitat enhancement should be taken wherever possible. Where appropriate habitat creation could include working with the Wildlife Trust and local wildlife groups to create log/habitat piles.
- 3.6 Allow deadwood, jagged stumps, splits, fungal growths/fruiting bodies and holes in tree trunks to remain unless they are creating a safety hazard.
- 3.7 Trees should not be felled unless they are classified as dangerous. Where a tree poses as a health and safety hazard, advice shall be sought immediately from an arborist. Ivy should only be severed where it is growing into tree canopies and is likely to create a sail hazard.
- 3.8 The retention, as far as possible, of the existing vegetation is considered an important part of the development. Such areas will be managed appropriately to maintain and develop their value.

4 General Maintenance Requirements

General Maintenance

4.1 Maintenance operations are to be carried out with regard to BS 4428: Code of Practice for General Landscape Operations. Maintenance of soft landscaping (other than amenity turf) to have regard to BS 7370-4: Grounds Maintenance. Recommendations for Maintenance of Soft Landscape.

Watering

4.2 Care should be taken not to over-water plants. Until well established all shrubs/trees are to be watered during the growing season. Following any dry periods of 7-10 days soil water content should be assessed and watering undertaken as necessary. Planting areas are to be brought up to field capacity at each visit and each tree is to receive 40 litres or as required. If trees are showing signs of drought stress the watering regime should be reviewed and increase as required. Care should be taken to ensure applied water is absorbed into the root-zone and does not run off the surface.

Tree Works

- No pruning works to trees, hedgerows or structural planting are to be undertaken during the general bird nesting season of 1st March to 31st August inclusive. Works outside of this time period should be subject to checks by an ecologist to ensure there are no nesting birds present. All tree surgery work is to be carried out to BS 3998:2010 Tree Work–Recommendations, and should be undertaken by a suitably qualified operative. Trees with bat potential to be inspected by a qualified bat specialist prior to any tree works commencing.
- 4.4 Hygiene works will be avoided, for example fungal fruiting bodies should not be removed nor trees felled because they have bracket fungi on them unless classified as dangerous by an arborist. Where possible, trees will be allowed to age naturally and dying trees will be allowed to decay in-situ. Where a tree poses a health and safety hazard, advice will be sought from an arboriculturist.

Failure to Thrive

- 4.5 Any shrubs, hedges or trees which fail to thrive in the first five years shall be replaced with the same species and variety at the size specified on the original landscape planting plan. Trees and shrubs should be checked in September and marked with paint, or noted on a plan, as necessary. Replacements will be planted during the following planting season. No substitutes will be planted without written approval from the local planning authority.
- 4.6 If a particular species fails to establish successfully then an alternative, comparable species should be considered as replacement, in agreement with the landscape consultant. Replacement planting of container plants to be undertaken as required, root-ball/bare root planting to be undertaken November to March. Planting of new trees to have regard to Section 10 of BS 8545:2014 Trees: from nursery to independence in the landscape. All plants to conform to BS 3936 and be in accordance with the National Plant Specification.

Litter & Arisings

4.7 All arisings from landscape works will be removed from site and disposed of at a registered facility, recycling or composting of arisings should be prioritised. Litter and debris shall be cleared by hand from all open space areas and removed from site on a monthly basis, and prior to mowing.

5 Maintenance Specification

5.1 Retained Trees & Tree groups

Management Aims & Objectives

- To prolong life and enhance aesthetic and wildlife value of existing trees around site boundaries;
- To enhance functionality of the existing features such as trees and tree groups;
- To maintain the health and visual amenity of the retained trees and tree groups;
- To enhance ecological/ biodiversity value; and
- To maintain the varied age and structure of the trees.

An Arboricultural Assessment has been carried out (FPCR, ref 12501-T-02A, Tree Retention Plan, April 2024) of existing trees within and immediately adjacent to the site, illustrating trees and hedgerows to be retained and removed as part of the development proposals.

A detailed condition survey of all trees will be carried out by a qualified arborist at least once every two years. Any necessary remedial works will be carried out as soon as possible.

Deadwood resulting from on-site tree management works will be used to create wood piles as and when required following completion of works. Piles are to be max. 600mm height, set 1/3rd into the ground, located away from main walking routes.

5.2 Retained Hedgerows

Management Aims & Objectives

- To strengthen the commuting routes for bats, provide enhanced foraging, resting and nesting habitats for birds, and provide additional habitat for invertebrates:
- To maintain the health and visual amenity of the retained hedgerow;
- To maintain dense, bushy, continuous hedge lines with a good species mix and no gaps;
- To enhance the ecological and biodiversity value of the existing hedgerow;
- To take care due care during maintenance operations near existing hedgerow; and
- To maintain a varied structure of hedgerow through rotational cutting.

Any cutting to be undertaken in later February to avoid the nesting bird season and allow fruit / nectar sources to be provided for the local bird population over winter.

Hedgerows shall be cut on a 3 year rotation as the abundance of berries increases from one year to two years after cutting and then slowly declines, cutting annually reduces the availability of food for wildlife.

1/3 of the retained hedgerows shall be trimmed per year, leaving the remaining 2/3 untrimmed, this will prevent encroachment into open space whilst promoting growth of fruiting plants. The untrimmed growth of the hedgerows will allow wildlife to migrate and re-colonise before the next trim, and also allow development of mature fruiting stems. All arisings from all trimming operations shall be removed from site. Litter will be removed from the base of retained hedgerows.

Existing hedgerows along Tilstock Road are to be maintained at their current 1.5m width and 2m height.

Any gaps in hedgerows on the site are to be in-filled using native species as soon as identified to prevent short-cuts developing. These will be planted as tall whips and will comprise a similar native species mix to those present within the hedgerow. To ensure that the plants establish new planting will be protected from trampling with appropriate guards and fencing until they are well established.

5.3 Trees

Management Aims & Objectives

- To successfully establish new individual POS and street, woodland and fruit tree planting;
- To maintain new tree planting to establish a diverse treed environment;
- To present and maintain high quality visual appearance of new trees;
- To provide enhanced opportunities for foraging and sheltering for a range of wildlife including birds, bats and invertebrates;
- To enhance existing bat and wildlife corridors;
- To maintain newly planted trees to ensure good survival rate and development;
- To minimise competition from grass and weeds around newly planted trees;
- To maintain appropriate form of trees for future growth; and
- To ensure trees do not present a hazard to site users.

Tree stakes and ties will be regularly checked during the establishment period and adjusted as necessary to ensure that the developing trees are not damaged. Stakes and ties will be removed from site (to a legal disposal facility) by the landscape maintenance contractor at the earliest opportunity (year 3–5) when it is considered that the trees are self supporting.

There will be a minimal pruning policy for trees as pruning wounds can provide a source of infection. Formative pruning of new trees will be carried out to remove dead and diseased wood and to create a well balanced tree with a single leader. Clear stems of 2m will be maintained by rubbing off any shoots and when the trees reach 5–6m high lower branches will be removed to give a canopy height of approximately 3m.

If trees die the reason for death shall be investigated and addressed before replanting a replacement. If death is due to the planting conditions these shall be ameliorated. If death is due to pests or disease and likely to be present in the future a resistant species of an alternative similar native tree shall be selected.

Where trees have become moribund due to compaction or lack of nutrients then soil aeration techniques and/or the use of inoculants shall be considered.

Orchard Tree Maintenance

Management of orchard trees should be low intensity and avoid the use of pesticides and fertilisers wherever possible to maximise the biodiversity of the site.

Pruning should be undertaken to help develop and maintain tree size and shape and stimulate new growth.

All maintenance should aim to keep an open crown which lets in light and air, maintains a balanced shape, helps form a strong framework of branches, and avoids the crossing over of branches.

Small growth should be cut back to an outward facing bud to encourage new growth away from the centre of the tree. Larger cuts should be made cleanly, taking them back to the trunk or a major branch to enable the tree to heal and reduce the risk of disease getting in.

Apple and pear trees should be formatively pruned in winter. Plums should be formatively pruned during the growing season (spring/summer).

Further research should be done by the contractor to understand the nuances of pruning fruit trees. In particular, refer to Natural England Technical Information Note TINO17 Traditional Orchards: maintenance pruning (2010).

5.4 Hedgerows

Management Aims & Objectives

- To assist establishment of native hedgerow to enhance and create green corridors throughout the site:
- To strengthen bat commuting routes, provide enhanced foraging, resting and nesting habitats for birds, and provide additional habitat for invertebrates:
- To help establish and maintain a dense continuous hedge line with no gaps;
- To maintain the health, visual amenity and species diversity; and
- To take due care during maintenance operations near new hedgerows.

Mixed native hedgerows are proposed to replace those lost adjacent Tilstock Road, along the southeastern boundary, and enclosing POS. Single-species native hedgerows are proposed to residential/POS interfaces where space is more limited.

Hedgerow planting will be maintained by weeding, pest & disease control and appropriate guards and fencing until it is well established.

Native hedgerows will be planted with min. 5 native woody species per 30m length. Hedgerow cutting will take place between November and February inclusive, outside of the bird nesting season (unless works are essential for public safety), and be maintained at min. Im width and 1.5m-2m height.

Hedgerow plants will be trimmed to create a healthy solid hedge, with frequency dependent upon growth rates and weather conditions; the requirement for cutting will therefore be assessed annually.

From year 4, hedgerow will be pruned/shaped as part of a rotational management regime whereby hedgerows are cut on a 3 year rotation (1/3 trimmed per year, leaving remaining 2/3 untrimmed), preventing encroachment into POS, whilst promoting growth of fruiting plants.

Single-species hedgerows shall be cut once or twice per year as necessary to maintain a well kept appearance.

It is intended that the single-species hedgerows will be maintained at 0.6-0.8m width and approx. 1-1.2m height

Any gaps in hedgerows on site are to be in-filled using like-for-like species as soon as identified to prevent short-cuts developing.

5.5 Native shrub

Management Aims & Objectives

- To establish new areas of planting;
- To maintain newly planted shrub planting to ensure successful establishment;
- To minimise competition from grass and weeds from around newly planted trees.; and
- To keep areas free from litter, rubbish and waste.

Shrubs should be allowed to grow dense where not encroaching grassland or amenity areas. Formative pruning will be kept to a minimum but where necessary diseased and damaged plant material will be removed. Where shrubs overhang path edges they will be neatly clipped back in order to maintain the full width of pedestrian access routes. Where shrubs have become 'leggy' formative pruning shall be undertaken to encourage bushy growth.

To avoid disturbing nesting birds, maintenance shall take place between August and February i.e. outside the bird nesting season. Any works required to be undertaken for the period March to July inclusive will be preceded by a survey by an Ecologist to check for nesting birds.

Planting beds will be checked regularly throughout the growing season for pests and diseases and treated as necessary. Plant losses should be monitored and recorded. If a particular plant becomes subject to a fatal pest or disease it shall be replaced by an alternative and suitably resistant plant, with a similar form and habit.

5.6 Ornamental Planting

Management Aims & Objectives

- To successfully establish areas of new ornamental planting;
- To present and maintain high quality visual appearance of planting;
- To maintain newly planted shrub / herbaceous plants to ensure a good survival rate and development;
- To minimise competition from grass and weeds; and
- To keep planted areas free from litter, rubbish, garden waste and dog faeces.

New ornamental shrub, herbaceous and grass planting is located around the perimeter of the play spaces, to provide seasonal interest and overall visual amenity. Species selected include some native varieties with colourful bark in winter, flowering plants for colour and floral scents, with different textures for tactile play. Ornamental planting will define the play spaces and create a sense of privacy, while allowing for natural surveillance from surrounding properties and public spaces.

Formative pruning will be broadly kept to a minimum, where necessary diseased and damaged plant material will be removed. Where shrubs overhang path edges or access routes they will be neatly clipped back in order to maintain the full width of pedestrian access routes and access to play equipment, as required. Where shrubs have become 'leggy' formative pruning shall be undertaken to encourage bushy growth.

Planting beds will be checked regularly throughout the growing season for pests and diseases and treated as necessary. Plant losses should be monitored and recorded. If a particular plant becomes subject to a fatal pest or disease it shall be replaced by an alternative and suitably resistant plant, with a similar form and habit.

5.7 Grasslands & Bulbs

Management Aims & Objectives

- For grassed areas to present and maintain high quality visual appearance;
- Areas of long grass and wildflower mixes are to be maintained as features with high ecological value as well as amenity value;
- Areas of bulb planting are to be maintained as attractive landscape features;
- To ensure grassland areas successfully establish;
- To keep grass areas free from weeds, litter and rubbish; and
- To keep grass areas in good condition.

There are several grassland types on the site, using seed mixes to suit site conditions (a landscape architect and/ or ecologist along with the LPA are to be consulted on substitutions). Suggested mixes are:

- Amenity grassland Emorsgate EG22 Strong lawn grass mixture,
- Long-mown grass meadow Emorsgate EM3 Special general purpose meadow mixture,
- Flowering lawn grass Emorsgate EL1 Flowering lawn mixture;
- Wet Meadow Grassland Emorsgate EM8 'Meadow mixture for wetlands; and
- Flowering grassland Emorsgate EP1 Pond Edge Mix.

Amenity Grass (including grass verges)

Amenity grass areas shall have a well-kept appearance at all times and shall be regularly cut during the growing season from March to October to maintain a height of between 25–50mm.

Long-mown grass meadow

Long-mown grass meadow will be maintained as a meadow during summer, with height controlled post flowering/setting seed with a hay cut in late summer (Sept) to between 200-250mm as required.

Flowering Lawn

Flowering Lawn will be maintained at a height of between 25-40mm. To permit flowering, mowing should 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.

Wildflower meadow for seasonally wet soils

Seasonally wet meadow grass will be maintained through a summer hay cut in combination with autumn and spring mowing as necessary. 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, a summer hay cut will reduce meadow to circa 50mm.

All arisings from seasonally wet meadow grass should be left in situ for approximately 1-7 days after mowing to allow for any invertebrates/amphibians/ mammals to disperse. Maintain height of 50mm by mowing through autumn/winter and spring as needed.

Pond Edge Mixture to the banks of the permanent water to be managed as marginal and aquatic planting (See section 5.8).

Bulbs

Area of bulbs should be not be mown during spring, to allow leaves to emerge. During flowering and for approximately 6 weeks after flowering, areas of bulbs will not be mown.

General

Arisings shall be swept from hard surfaces adjacent grass/wildflower areas after each maintenance visit. Junctions between grass/wildflower areas and plant beds/hard surfaces shall be regularly edged and trimmed to maintain a neat and tidy appearance. In order to avoid damage to trees no mower or strimmer will be allowed within 400mm of a tree trunk.

Areas of greater than 5% failed grass shall be prepared and re-sown with the specified seed mix either in April or September. A spring "weed and feed" shall be applied to amenity grass areas at the manufacturer's recommended rates. No fertiliser should be used on long-mown grass meadow, for wildflower meadow for seasonally wet soils, and grass growth regulator will not be permitted.

Undesirable plant growth within the sward, such as scrub, dock, thistle, nettles and ragwort, should be controlled by hand excavation /pulling. This should be undertaken in the winter months, to avoid the bird nesting season.

Litter shall be hand picked and bagged from all grass areas **prior** to cutting. Bags shall be removed from site and legally disposed of.

5.8 SuDS Basin

Management Aims & Objectives

- · To maintain effective on site water management;
- To maintain as habitat features to provide foraging for wildlife and as an attractive landscape feature:
- To create a substantial cover of submerged and marginal native vegetation within the basin;
- To avoid dense shading of the basin margins;
- To ensure the design water management capacity for the basins are achieved through viable equipment associated with the basin;
- To ensure grassland areas within the basin successfully establishes;
- To ensure marginal planting areas within the basin successfully establishes; and
- To control weeds / scrub invasion detrimental to appearance or usage.

[To be read in conjunction with drainage engineers maintenance specification].

The SuDS basin should be maintained according to best practice as set out in The SuDS Manual (C753). Shrub and grassland within the basin will be managed and maintained as per elsewhere. Seasonally wet meadow grass to the drainage swales and seasonally-wet parts of the main basin will be managed as per 'seasonally wet meadow grass' within grassland section.

Marginal and aquatic planting around the permanent water body will be checked regularly throughout the growing season for pests and diseases and treated as necessary. If a particular plant becomes subject to a fatal pest or disease it shall be replaced by an alternative resistant plant with a similar form and habit.

If the waterbody should become heavily shaded (more than 50% at 1m from the pond margins) management will include cutting back overhanging trees and shrubs to reduce shading and leaf fall into the waterbody.

Due care will be taken when carrying out management and maintenance operations in and around the basin. In line with the CIRIA SuDS Manual C753 2015 (Section 32 Operation and Maintenance), slopes have been designed to comply with maximum gradient of 1:3. Maintenance of grass within the main body of the basin is to be carried out using hand machinery such as push mowers, with grass around the inlet and outlet infrastructure being strimmed closely to reduce risks to system performance. Appropriate training should be provided to encourage safe working practices on side slopes by water and should not take place during or immediately following periods of excessively wet weather.

Annual monitoring and evaluation of the risk assessment and controls is to take place for the SuDS basin.

5.9 Hard Landscape

Management Aims & Objectives

- To present the visible indication of high quality, regular site maintenance;
- To keep hard landscaped areas free of debris, litter, graffiti & dog faeces;
- To keep weed colonisation at a minimum and acceptable level;
- To maintain hard landscaped areas in safe condition; and
- To maintain street furniture, including litter bins and seats and replace if necessary.

Hard areas and elements will be regularly checked for subsidence and damage and will be repaired at the earliest opportunity using the original specified material. Areas where damage poses a hazard to pedestrians shall be cordoned off with bollards and high visibility tape until repair can be organised.

A "no tolerance" policy will apply to graffiti which shall be removed as soon as it appears and where necessary specialist contractors shall be employed to carry out this work

5.10 Play equipment

Management Aims & Objectives

- To regularly inspect and maintain play and recreation areas to comply with current legislation and regulations; and
- To maintain the recreational equipment in a safe and viable state which ensures freedom from unacceptable risk.

All play equipment will be regularly inspected to identify any obvious hazards, this includes a post installation inspection, weekly, monthly and annual inspections. The high quality appearance of the equipment will be maintained through maintenance inspections with work undertaken as required.

Post installation inspections (carried out by a ROSPA consultant) will ensure that the play space meets the required standards and has been installed correctly. The inspection will check the site on completion including equipment, surfacing, any ancillary items and undertake a disability and risk assessment with a report produced to confirm the findings.

Weekly and monthly inspections – regular checks will ensure the play space and its equipment is functional, and will help to identify any faults or dangers arising from vandalism or breakage. The weekly inspection will check the site, surfacing and equipment and record any faults within the log book. Should a fault be found on a piece of play equipment or the play area be found unsafe and cannot be immediately corrected the equipment should be removed or immobilised and the piece/space be cordoned off with a warning noticed attached.

Annual inspections are required to ensure the play equipment and ancillary items are compliant to EN 1176 and EN 1177 and should be undertaken by an independent, suitably qualified specialist. The annual inspection will look at the site design safety, ancillary item safety, equipment and surfacing safety. The condition of the equipment is assessed and any repair or refurbishment requirements noted. Where necessary the inspector would make suggestions where the quality of the site could be improved. The annual inspections will be non-dismantling, however, where dismantling work is required, this will be recommended.

After each annual inspection, a written report is to be supplied to the client covering site safety and condition, equipment, surfacing, and ancillary item safety and condition, and compliance with EN1176 where relevant.

Recommendations for any remedial action required are given together with risk ratings for each item. The report will note compliance with standards and notifications of failures/faults where necessary and an assessment of risk, notification of faults and suggested remedial action.

Whilst annual inspection is not mandatory law under Section 3 of the Health and Safety at Work Act 1974 requires a risk assessment.

5.11 Ecological Habitats

Management Aims & Objectives

- To maximise on-site biodiversity value in line with the Natural England / DEFRA methodologies;
- To ensure that newly created habitats are managed appropriately to provide biodiversity benefits for wildlife;
- To ensure ecological corridors are maintained for foraging and commuting,
- To maximise biodiversity value of proposed and existing habitats for reptile and mammal; and
- To monitor management efficiency by undertaking monitoring of habitats and species.

Detailed habitat management and monitoring provision will be provided in the Habitat Management and Monitoring Plan (HMMP) in line with the requirements of the Environment Act (2023) alongside the Biodiversity Gain Plan.

6 Schedule of Management and Maintenance

6.1 Establishment Years 0-5

The below table sets out how the maintenance tasks for the management aims and objectives will be achieved for the establishment period of years 0-5:

Ref	Planting Type	Timing	Maintenance Task and Method	
6.1.1	All planting areas	Every Visit	• Ensure continued health of all landscaping - water as required to ensure that the planting continues to establish successfully. Investigate any failed growth and take remedial action as necessary.	
		Monthly	 Removal of rubbish and debris - clear litter and fly-tipped rubbish by hand and remove from site. Remove rubbish and debris from all grassland areas before mowing. Inspect for vandalism - visual inspection of all landscaping for vandalism, report to owner. On instruction from owner replace any landscaping damaged by vandalism. 	
		Annually	 Monitor and record any plant losses and report to owner - on instruction from owner remove dead plant and replace as per original approved specification, unless otherwise agreed to plant alternative species. Maintain to ensure survival. Re-planting to be undertaken in November/December. Remove exotic plant species that do not belong in each type of habitat/the general environment - check all landscaped areas for exotic species, clear by hand and remove from site Control vigorous plant species that are out competing less vigorous species - check all landscaped areas for invasive species e.g. self seeded sycamore, brambles, ground ivy and nettles. Reduce/clear by hand and remove from site. 	
trees, group propo shrub and p	Existing retained trees/tree groups/woodland; proposed native shrub planting; and proposed tree planting	Monthly	 Ensure trees/shrubs planting are stable - visually inspect tree/shrub guards/shelters to check for signs of bark damage or damage. Check that stakes, ties and guards are not too loose, too tight or broken. On instruction from client/owner, replace or upgrade guards/shelters as necessary. Monitor transplants to ensure developing healthily - visual inspection of plants, if not stable/upright rectify by replanting in an upright position and re-firm, if plant remains unstable remove by hand and replace. Undertake for the first two years. Visual inspection for fungal activity (for trees this is to be performed by a qualified arboriculturist) - remove diseased wood or treat as appropriate. Keep use of pesticides to a minimum. Inspection to be undertaken March to October when trees/shrubs are still in leaf. 	
		3x per annum	 Visually inspect bark mulch areas around trees and top up to 75mm depth, if required. Remove any weeds within the mulch by hand, do not use strimmers or herbicides in these areas – April/June/August. Visually inspect structural shrub surrounds for grass/weeds – remove by hand or spray grass/weeds with a glyphosate based herbicide. Do not use strimmers – April/June/August. 	

Ref	Ref Planting Type Timing		Maintenance Task and Method
	Existing retained trees/tree groups/woodland; proposed native shrub planting; and proposed tree planting	Annually	 For first 5 years - establishment survey for new trees to be undertaken by a qualified arboriculturist, any recommendations to assist with establishment must be undertaken as soon as possible. Keep paths/highway/parking clear from branches/vegetation - pruning/cut back any tree branches/vegetation encroaching. Trees shall be pruned to a height of 5m if overhanging highways and 3m if over paths. Remove dead, damaged or dying branches as appropriate. Formative pruning of new trees - to create a well balanced tree with a single leader and, by rubbing off any shoots, creating a clear stem of 2m. When the trees reach 5-6m in height, lower branches will be removed to give a canopy height of approximately 3m.
		Biennial (or as recommended)	• Check tree safety - identify hazards and carry out necessary maintenance works. A visual tree assessment is to be undertaken by a qualified arboriculturist of all new and existing tree planting, with instrumental back up where necessary. Any resulting tree works are to be carried out to BS 3998:2010. Keep records up to date.
		3 to 5 years after planting	• Confirm root growth is well established and remove shelters, stakes, guards and ties from trees/transplants - to avoid damage cut shelters away then remove stakes.
6.1.3	Hedgerows- retained and newly planted hedgerows.	Monthly	 Check hedgerows for gaps, record and infill during late October to March. Plant replacement plants of a species mix to match the hedgerow or to increase native diversity, in a suitably prepared soil bed. Ensure successful establishment and protect from trampling/use as a shortcut using a temporary fence/guards. Keep hedgerow planting free from weeds - visually inspect bark mulch areas around planting and top up to 75mm depth, if required. Remove any weeds by hand, hoe or fork. Take care not to disturb shrub roots and excessive treading of bed surface. Do not use strimmers or herbicides in these areas - March to October. Keep litter and rubbish free.
		Annually (year 4 onwards for newly planted native hedgerow)	 Control exotic tree and shrub species that do not belong in a native hedgerow, remove manually any exotic or invasive species which appears in the hedge. To ensure two years growth can accumulate, only 1/3rd of each mixed-species native hedgerow will be cut every year, on a three year rotation. Prune retained hedgerows to ensure a good shape and healthy growth. Prune to maintain an 'A' shape and control future growth. Management to be undertaken in January/February. Prune/shape new hedgerow planting to a shape and form appropriate to the species, with formative and seasonal pruning to create and maintain a natural 'A' shape hedgerow (for mixed species hedgerows), pruning dead foliage and extension growth as necessary - Autumn (November onwards). Re-plant in an upright position and re-firm plants that suffer from wind-rock - January/February. For the mixed native hedgerows, a minimum width of 1m and a maximum height of 1.5 shall be maintained for those within areas of open space, and a maximum of 2m height for those along the western and eastern boundary. Single-species hedgerows to be maintained at 0.6-0.8m width and 1-1.2m height. Single hedgerows to be trimmed as required to maintain a well kept appearance, dependant on growth rates and weather conditions.
		3-5 years after planting	• Confirm root growth is well established and remove shelters, stakes, guards and ties from hedgerow transplants - to avoid damage cut shelters away then remove stakes.

Ref	Planting Type	Timing	Maintenance Task and Method	
planting required. Remove any weeds within the mulch by h treading of bed surface. Do not use strimmers or herk Keep paths and play spaces / equipment clear from required from March to October. Keep ornamental planting in prime condition and apper of ornamental planting. Prune dead foliage, flowers Formative and seasonal pruning to shrubs to create required. Re-plant in an upright position and re-firm required depending on species. Check on health of ornamental planting – qualified ho		Monthly	• Keep ornamental planting in prime condition and appearance – qualified horticultural staff to inspect and check on condition of ornamental planting. Prune dead foliage, flowers and extension growth as necessary. Divide perennials as necessary. Formative and seasonal pruning to shrubs to create a natural shape – do not routinely clip shrub. Apply organic fertiliser if required. Re-plant in an upright position and re-firm plants that suffer from wind-rock. Management to be undertaken as	
		2x per annum	• Removal of excessive leaf litter and fallen twigs and branches - use leaf blower and leaf litter collection equipment - November to December.	
6.1.5	Grassland - general maintenance requirements for all areas of grassland	All grassland.	 All grasslands to be sown and managed in accordance with supplier's instructions and best practice to help ensure successful establishment. Height of grassland areas cut during first year as per suppliers instructions. Do not cut grass in drought conditions. Mow with suitable machinery – no mower or strimmer within 400mm of a tree trunk. Edge and trim junctions between grassland / wildflower and hard surfaces to maintain a neat and tidy appearance. Remove arisings from site and dispose of responsibly. Clean adjoining path areas after mowing. Keep all grassland areas free from weeds – remove weeds and encroaching scrub by hand, hoe or fork, as appropriate. Undertake monthly from March to October, or as required. Keep grassland areas in good condition – check and report to client/owner on damaged areas. On instruction from client/owner repair damaged/failed areas and re–sow seed. Do not apply feed to long–mown meadow grass, flowering lawn, or wildflower meadow for seasonally–wet soils. 	
		Cutting Regime - Year 1	 Most of the sown meadow species are perennial and are slow to establish. There will often be a flush of annual weeds from the soil in the first growing season. Flowering lawn - 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. 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 including docks. Wildflower meadow for seasonally wet soils and Long-mown grass meadow - Retain the flush of annual weeds, which offer shelter to the sown seedlings and habitat for insects. Do not cut the annual weeds until early August, then cut to a maximum of 40mm, remove and compost the cuttings. This will reveal the young meadow which can be kept short by mowing until the end of March the following year. Pond Edge Mix - Annual weed growth may be cut back to encourage the development of a good perennial ground cover. Establishment on sites prone to flooding may be patchy and may take several years to fully colonise. 	

Ref	Planting Type	Timing	Maintenance Task and Method	
	Grassland - general maintenance requirements for all areas of grassland	Cutting Regime – Year 2	Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportude flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late a winter to c 50mm and again in spring if needed. Flowering lawn – Mow regularly as a lawn but not too short (25-40mm). To permit flowering, mowing can be relaxed from June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow control to flower. Heavy quantities of cuttings should be collected and removed from site. Wildflower meadow for seasonally wet soils and Long-mown grass meadow. Meadow grassland is not cut or graze spring through to July/August to give the sown species an opportunity to flower. After flowering in July or August take cut': cut back with a scythe, strimmer or tractor mower to approx. 50mm. Leave the 'hay' to dry and shed seed for 1 then remove from site. Mow the re-growth through to late autumn/winter to 50mm and again in spring if needed. Pond Edge Mix – Manage as per marginal / aquatic planting. Amenity grass – Control height of amenity grass to between 25-50mm (approx 12 times during growing season e.g. for April – September). Do not cut grass in drought conditions. Mow with appropriate machinery. Remove arisings from so dispose of responsibly. Clean adjoining path areas after mowing. Bulb planting – allow bulbs to flower and build up energy for the next flowering season – do not cut grass in bulb are 6 weeks after flowering.	
		Cutting Regime - Amenity grass and Bulb planting	• Bulb planting - allow bulbs to flower and build up energy for the next flowering season - do not cut grass in bulb areas until	
6.1.6	Hard Landscape	As necessary	• Remove graffiti - a 'no tolerance' policy will apply to graffiti which shall be removed as soon as it appears, where necessary specialist contractors shall be employed to carry out this work.	
		Fortnightly	• Keep hard landscape areas clean - remove litter, debris and faeces. Use pressure washer to remove chewing gum and staining. Fortnightly March to October and as required during the winter months.	
		Monthly	• Maintain all hard landscape areas/elements, including footpaths in a safe and clean condition - monitor and report to client on damaged areas/items and repair as instructed by the client. Repair using the original material/product to maintain the integrity of the design. Areas where damage poses a hazard to pedestrians shall be cordoned off with bollards and high visibility tape until repair can be organised.	
		2–3x per annum	 Removal of excessive leaf litter and fallen twigs and branches – use leaf blower and leaf litter collection equipment – November to December. Keep hard landscaped areas clear of weeds – kill weeds using a herbicide spray containing glyphosate using a knapsack sprayer – April, June and August. 	

Ref	Planting Type	Timing	Maintenance Task and Method	
6.1.7	equipment *play spaces are to be fenced off (with appropriate signage to tell users not to enter) until the post installation inspection is completed/play space is fit for purpose/use Monthly *Perform operatinclude: * all working all ropes, completed for trip haze finger trap: * wooden ite ocordoned off wactions on a spel Inspect superfice.	 Post installation inspections are to be carried out by a ROSPA consultant and will ensure that the play space (equipment, safety surfacing and any ancillary items including gates, fences, seats etc) meet the required standards and has been installed correctly. The inspection will include a disability and risk assessment with a report (including photographs) produced to confirm the findings including the quality of the installation and equipment finish. The report will be sent to the client 		
		Weekly	 Routine visual inspection of all play areas to identify obvious hazards or respond to complaints by public. Check for signs of vandalism and remove any litter, glass etc. Check safety surface for faults. If parts are found to be unsafe and cannot be immediately repaired the equipment should be immobilised or cordoned off with a warning noticed attached. Check each item against a checklist (as provided by manufacturer for play equipment item) and record each visit on a spreadsheet, including any actions. Note – Inspection to be undertaken by suitably qualified/competent professional. 	
		Monthly	 Perform operational inspection of all items of equipment, fences and gates to check the operation and stability. Checks to include: all working parts and oil and grease bearings as necessary; all ropes, chains and shackles; anti slip surfaces e.g. on step treads; that structures and foundations are secure; for trip hazards and obstructions in surrounding area; finger traps; wooden items for splinters and cracks; metal items for corrosion and sharp edges; and plastic/polythene items for brittleness and sharp edges. If parts found to be unsafe and cannot be immediately corrected the equipment should be removed or immobilised and cordoned off with a warning noticed attached. Check each item against a check list and record each visit and required actions on a spreadsheet. Inspect superficial appearance of equipment and street furniture – as required, sand down and re–paint or re–stain equipment, seats, bins and fences to specification provided by supplier. 	

Ref Planting Type Timing		Timing	Maintenance Task and Method	
		Annual	 Annual technical inspection of all play areas to establish overall level of safety of the equipment (whilst an annual inspection is not mandatory a risk assessment is required by law under the Health and Safety Regulations) – to be carried out by RPII (Register of Play Inspectors International) trained and certified inspectors or manufacturers inspection engineers. Ensure the play space meets the relevant standards (EN1176) and will note any faults or failures and suggest appropriate remedial action and identify risks. Assess all elements of site design safety, ancillary items, equipment and surfacing including an operational inspection of all to check the operation and stability. Checks to include: all working parts and oil and grease bearings as necessary; all ropes, chains and shackles; anti slip surfaces e.g. on step treads; that structures and foundations are secure; for trip hazards and obstructions in surrounding area; finger traps; wooden items for splinters and cracks; metal items for corrosion and sharp edges; and plastic/polythene items for brittleness and sharp edges. If parts found to be unsafe and cannot be immediately corrected the equipment should be removed or immobilised and cordoned off with a warning noticed attached. Check each item against a checklist (as provided by manufacturer for play equipment item) and record each visit and required actions on a spreadsheet, including corresponding actions and any remedial actions undertaken. Includes a non-dismantling inspection of all equipment where recommended. To be supported by a detailed technical report highlighting any action required. If parts are found to be unsafe and cannot be repaired the equipment should be removed or immobilised and cordoned off with a warning notice attached. 	
6.1.8	SuDS Basins (including marginal planting)	Monthly	 Inspect inlets, outlets and overflows for blockages, and clear if required Inspect bank sides, structures, pipe work etc for evidence of physical damage. During the first year, inspect inlets and facility surface for silt accumulation. Control invasive plants and naturally occurring weed within the marginal planting areas. Remove waste from site and dispose of responsibly. 	
		Annually	 Check mechanical devices associated with basin, report faults or failures and suggest appropriate remedial action. As necessary, remove sediment from devices associated with the SuDS basin. Monitor and record any plant losses within marginal planting areas. Report losses to the client and replace on instruction. Prune marginal planting as required to maintain attractive and healthy appearance. Submerged and emergent aquatic/ marginal plants will be hand cut on 25% per year rotational basis between September to November with cuttings removed to wildlife pile. Divide any clump forming plants in early spring as required. Once cleared, keep any removed vegetation at the edge of the basin for 24-48 hours to allow any trapped reptiles, amphibians and invertebrates to escape / migrate to a new habitat back into the water. 	
6.1.9	Ecological Habitats	Annually	• The detailed habitat management and monitoring provision for the development will be outlined within the detailed Habitat Management and Monitoring Plan (HMMP) produced alongside the Biodiversity Gain Plan in line with the requirements of the Environment Act (2023).	

6.2 Landscape Management Review

Monitoring	Monitoring and Review			
Ref	Management Categories	Timing	Maintenance Task and Method	
6.2.1	Landscape and Habitat Management	As necessary	 Monitor comments/suggestions from residents and other users - feedback comments to client/owner and respond as instructed and incorporate into LEMP as required. Respond to comments from client/owner and incorporate into LEMP as required. 	
6.2.2	Habitat Management - annual monitoring report	Annual	• Review of habitat conditions (including grassland, hedgerows, shrub, scrub and trees) and species to be undertaken by a qualified ecological professional. The review and report will be used to determine whether or not objectives for the site and component features have been met. Once the review has been completed a monitoring report is to be produced. Any amendments set out within the report to be incorporated within this LEMP following discussions with the client/ owner.	
6.2.3	LEMP Review	Every 5 years	• Suitably experienced professional to undertake a review of habitat / landscape establishment and quality, respond to review and incorporate into LEMP as required.	

Office Location

33 Sheep Street Cirencester GL7 1RQ T 01285 641717 cirencester@pegasusgroup.co.uk

Offices throughout the UK and Ireland.

Expertly Done.

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE



 $\widehat{\Psi}$ All paper sourced from sustainably managed forests.

Pegasus Group is a trading name of Pegasus Planning Group Limited (07277000) registered in England and Wales Registered Office: Pegasus House, Querns Business Centre, Whitworth Road, Cirencester, Gloucestershire, GL7 IRT We are ISO certified 9001, 14001, 45001







PEGASUSGROUP.CO.UK