# Shinfield Park, Shinfield

## Landscape Management Plan (LMP)

On behalf of **Wrenbridge**

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Figure 1: Landscape Management Zones Plan (LMZ) by Stantec

# 1 Introduction

1.1.1 Stantec UK's Design Group (Stantec) was commissioned by Wrenbridge (the 'Applicant') to prepare a Landscape Management Plan (LMP) for a redevelopment of a site for employment ('the Proposed Development') Shinfield park, Shinfield road, Shinfield (the 'Site'). The Site is located within the southern settlement boundary of Reading. It is of an irregular shape and covers 5.5ha of previously developed land.

1.1.2 This LMP has subsequently been prepared by Stantec to provide a long-term landscape management and maintenance approach for the implementation and long-term after-care of landscape aspects for the Proposed Development. This report is accompanied by **Figure 1: Landscape Management Zones (LMZ) Plan** which sets out the broad management zones and components on which the structure of this document is based.

1.1.3 The LMP is intended to satisfy the intent of Regulation 9 of The Conservation of Habitats and Species Regulations 2017, which seeks the compliance with the Directives through the functions of an authority competent in habitats conservation management.

1.1.4 To summarise, the Site comprises of existing landscape and habitat components with a range of ecological and landscape values. Key opportunities for ecological and landscape enhancement include the retention and enhancement of existing vegetation, and the creation of new habitat and landscape features, including native tree planting, mixed scrub, native hedgerow planting, areas of wildflower meadow grassland and wetland areas throughout the Site which will benefit local species and create enhanced connectivity.

1.1.5 Appropriate management of vegetation within and on the boundaries of the Site, and potential enhancement and habitat creation, will encourage a higher diversity of wildlife within the Site and provide screening and increased visual amenity of the Proposed Development.

# 2 Vision, Aims, Objectives & Future Trends

## 2.1 Vision

2.1.1 The Landscape Management Plan will support a long-term vision to create, enhance, and sustain a resilient, high-quality landscape that enriches biodiversity, promotes well-being, and integrates seamlessly with the surrounding environment. It will guide the stewardship of natural and designed features, ensuring that the landscape remains functional, attractive, and ecologically rich for years to come.

## 2.2 Aims and Objectives

2.2.1 To achieve this vision, the key overarching aims and objectives are set out below:

### Aim 1: Protect and Enhance Existing Natural Assets

2.2.2 Objectives:

- Retain all high-value and visually significant trees.

### Aim 2: To establish and Deliver, high-quality amenity and landscape features within the Proposed Development.

2.2.3 Objectives:

- Ensure new planting is healthy and of good form.
- Provide for the successful establishment of all proposed planting.
- Create inviting, accessible green spaces and amenity hubs to support staff wellbeing, leisure, and informal recreation.
- Ensure built elements and hard surfacing are maintained in good order.

### Aim 3: To enhance biodiversity and ecological value.

2.2.4 Objectives:

- Secure a healthy structure for woodland, and grassland, and encourage native shrub species and ground flora development.
- Provide diverse, habitat-rich planting and establish ongoing management practices that increase biodiversity over time.

### Aim 4 : To soften and integrate the Proposed Development within the surrounding landscape, integrating the site into the surrounding landscape character.

2.2.5 Objectives:

- Maintain and enhance the healthy growth of trees, shrubs and grassland for landscape and visual amenity value.
- Ensure the successful establishment of planting to soften and integrate and minimise impacts on visual amenity assimilating the development into the surrounding landscape

- Create an attractive site frontage and boundaries that reflect local character.

### Aim 5: Deliver a Sensitive, Sustainable Management Regime

- Implement a responsive and adaptable landscape management approach that protects, manages, and enhances the site for visual quality, biodiversity, and recreational use.

# 3 Landscape Maintenance Components

## 3.1 Landscape Maintenance Component Definition

3.1.1 Critical to the management process is the identification of Landscape Maintenance Components. These are habitat and vegetative features with defined characteristics and qualities for which there are related user expectations, and which require distinct maintenance guidance.

3.1.2 The landscape features of the Proposed Development have been divided into a number of different **Landscape Management Zones a (LMZ) Plan,** illustrated on **Figure 1**. To achieve the overarching objectives for the LMP, maintenance recommendations and tasks have been identified for each Landscape Management Component.

## 3.2 Landscape Zones and Components

3.2.1 The Landscape Management Zone are outlined as follows.

- **Zone 1: Perimeter landscape areas,** Comprised of the following components:

Component 7: Scrub, Component 10: Woodland, Component 6: Wildflower Grassland

- **Zone 2: Public right of way corridor**, Comprised of the following components:

Component 11: Proposed Pathways/Shared Surfaces, Fencing and Hard Surfaces, Component 1: Existing and Proposed Trees, Component 4: Tough grass lawns and flowering lawns

- **Zone 3: Linear Park and infrastructure,** Comprised of the following components:

Component 1: Existing and Proposed Trees, Component 3: Mixed Shrub Planting, Component 5: Proposed Ornamental Grass Mixes, Component 2: Mixed and single species Hedgerows, Component 8: Rain Gardens and wetland meadow, Component 9: Bicycle shelter green roof

- **Zone 4: Northen carpark,** Comprised of the following components:

Component 1: Existing and Proposed Trees, Component 4: Tough grass lawns and flowering lawns, Component 10: Woodland

3.2.2 These Zones constitute the following Landscape Components,

- Component 1: Existing and Proposed Trees
- Component 2: Mixed and single species Hedgerows
- Component 3: Mixed Shrub Planting
- Component 4: Tough grass lawns and flowering lawns
- Component 5: Proposed Ornamental Grass Mixes
- Component 6: Wildflower Grassland
- Component 7: Proposed Scrub
- Component 8: Rain Gardens and wetland meadow

- Component 9: Bicycle shelter green roof
- Component 10: Woodland
- Component 11: Proposed Pathways/Shared Surfaces, Fencing and Hard Surfaces

## 3.3 Component 1: Existing and Proposed Trees

3.3.1 Existing trees will be retained as much as possible as a integral part of the development. A variety of high-quality individual trees will also be planted across the Site to form part of a cohesive structural vegetation network. This network will link into the wider Green Infrastructure, supporting habitat enhancement and maintaining the landscape's important visual softening function. All works will be carried out with appropriate safety measures to manage risk to people and property.

3.3.2 Trees located within or along the Site boundaries will generally be preserved and maintained, except in cases where development proximity makes long-term retention unviable, or where a tree's amenity value would be substantially diminished because of the proposals

3.3.3 Both retained and newly planted trees will contribute to biodiversity through the creation of a rich mosaic of habitats and increased structural diversity. They will complement the vegetation framework around the Site and enhance visual amenity by introducing vertical landscape elements and softening the appearance of new built form in views across the landscape.

### Management Aims and Objectives

3.3.4 To reinforce local landscape character and biodiversity value and assist in softening and absorbing the Development into the landscape while ensure the continuing survival of the existing tree cover on site. The overall management aim can be broken down into the following objectives:

i. Provide and retain visual softening and integrating function.

ii. Develop value as components of wildlife foraging.

iii. Enhance visual amenity and to contribute to the legibility and green structure of the Development; and

iv. Enhance the biodiversity value of the proposed open spaces, play and amenity areas, as part of a mosaic of habitat units.

### Management Recommendations

3.3.5 Works on trees with TPOS agreed with the Local Authority. Any specified tree surgery works will be carried out in accordance with BS 3998: 2010 'Tree Work – Recommendations', Health & Safety legislation, and relevant best practice. Prior to the commencement of works the Contractor shall provide valid proof of the required Public Liability Insurance and a full working method statement and risk assessment.

3.3.6 Existing trees and vegetation to be retained shall be protected by fencing as set out in BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations[1]. Fencing shall be erected prior to commencement of construction works and maintained during building operations. Protective fencing shall be removed once construction has been completed.

3.3.7 The retention of mature trees will be secured by the continued application of "***minimal safety management***" rules. If possible, works should be undertaken outside the birds nesting season (nesting season – March to August inclusive). If this is not possible, appropriate checks by a qualified ecologist should be undertaken and, if occupied nests are identified or suspected, works will need to be delayed

[1] BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations by BSI (2012) Available at: https://knowledge.bsigroup.com/products/trees-in-relation-to-design-demolition-and-construction-recommendations/standard

until nestlings have fledged. If necessary, further surveys should be carried out and appropriate licenses obtained to ensure legal compliance and/or secure appropriate or necessary mitigation.

3.3.8 New planting is to be in accordance with BS 4428:1989, planted in autumn-spring to minimise risk of plant failure, and encourage strong, healthy growth. All other tree planting, including specimen and street trees, will be planted in pits 100mm wider and deeper than root spread, backfilled with soil mixed with a slow release fertiliser. Stakes, ties, and guards are to be fitted to protect new trees from damage.

3.3.9 All staked trees shall be inspected on each maintenance visit, and any trees which have died or have suffered physical damage, such that they no longer provide any useful landscape function, shall be removed from site, complete with the stake, and the ground reinstated.

3.3.10 Any trees that have died because of the Contractor's operations or omissions shall be replaced by the Contractor at his own expense during the next planting season. Where the Operations Manager has agreed that plant deaths have arisen due to circumstances out of the control of the Contractor, replacement planting shall be instructed by the Operations Manager and paid for at an agreed rate.

3.3.11 Any dead, diseased, or damaged branches shall be pruned back to the main stem or suitable side shoot or removed.

3.3.12 Mulched areas around trees shall be maintained.

3.3.13 At the beginning and end of each growing season all stake ties and guying systems shall be inspected. Any looseness, constriction or abrasion shall be corrected by adjustment or replacement as required. Where the support of a stake is no longer required the stake shall be removed from site.

3.3.14 Watering is to be undertaken as necessary to allow healthy establishment of plants.

3.3.15 A visual inspection of retained individual trees shall be carried out at every visit. Any damaged, diseased or dangerous timber shall be reported to the Operations Manager, for an application to be made to the Local Planning Authority under the Town & Country Planning (Trees) Regulations 1999 if it is considered hazardous to public use of the area.

3.3.16 Specific management is required for street trees to maintain a clear stem to the height of 2m and prevent the canopies from causing an obstruction to properties, pedestrians, or vehicles.

3.3.17 To avoid ground compaction, there should be no vehicle or plant access within root protection areas. Where accidental compaction has occurred, advice should be sought from an arboricultural consultant on de-compaction measures, such as forking, spiking, subsoil replacement by hand-dug radial trenching or subsoil aeration using compressed air injection equipment.

3.3.18 Care should be taken when planning site operations to ensure that wide or tall loads, or plant with booms, jibs and counterweights can operate without contact with retained trees. Such contact can result in serious damage to trees and may compromise their retention. Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10m of a tree stem. Fires should not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk. Notice boards, telephone cables or other services should not be attached to any part of the tree.

3.3.19 The retention of existing trees will be secured by the continued application of "minimal safety management" rules. Any safety works affecting potential bat roost features or nesting birds on any tree will be checked before action and if necessary further surveys carried out and appropriate licenses obtained to ensure legal compliance and/or secure appropriate or necessary mitigation. Any timber

arising from safety works will be piled near trees to rot naturally. The natural future development of mature tree characteristics, such as dead wood and structures with potential for hole-nesting birds and bat roosts, will also be secured as far as is compatible with safety considerations. All works to mature trees will be undertaken in accordance with the guidance given in BS3998: 2010 'Recommendations for Tree Work' and the Natural England handbook 'Veteran Trees: A Guide to Good Management' (NE ref: IN13)[2].

**Table 6.1: Summary of Maintenance Tasks – Existing Trees**

| Task: | Frequency/ Timing |
|---|---|
| Safety inspections and report on condition of trees by arboriculture advisor. | Once a year |
| Undertake arboricultural works as advised by the above survey and to ensure trees do not obstruct roads or paths. All work to accord with BS3998:2010. Do not disturb nesting birds or roosting bats. | As recommended by annual inspection |
| Remove timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas. | Immediately following works |
| Any works affecting TPO trees are to be agreed with the Local Planning Authority prior to commencement; | As required |

**Table 6.2: Summary of Maintenance Tasks – Proposed Trees**

| Tasks: | Frequency/ Timing |
|---|---|
| Maintenance of a 1m 80% weed-free area to the base of each tree for five years – this can be achieved through the application of a 5-7.5 cm mulch in this area. | Once or twice a year or as required |
| Maintenance of rabbit guards and other forms of protection. | As required, following monthly inspection |
| Maintenance of stakes and ties, including loosening, as necessary. | As required, following monthly inspection |
| Maintenance of good levels of soil fertility and moisture. Irrigation may be required during dry periods. A 5-7.5 cm mulch for 1m around the base of each tree will increase retention of soil moisture. | Watering (to field capacity) min. 8 times during dry months |
| Treatment of pests and diseases and repair of any damage from vandalism. | As required, following monthly inspection |
| Check for root firmness and upright alignment of tree after high winds, frost heave and in spring and autumn until trees are considered to be wind firm. | Twice annually and as required |
| Formative pruning to avoid future structural problems and to remedy disease and vandalism problems. | As required following maintenance visits |
| Removal of guards, stakes and ties. | After 5 years, subject to inspection |

[2] http://publications.naturalengland.org.uk/publication/75035.

| Tasks: | Frequency/ Timing |
|---|---|
| Following the maintenance period, trees are to be inspected by a qualified arboriculturist who will provide a time-bound schedule of tree works to be undertaken. Recommendations will be based upon satisfying the objectives of this management plan and ensuring no hazards are present on site. | Annually |
| Create clear stem to street trees, removing epicormic growth and suckers. | As required |
| Lift tree canopies to minimum height of 2m, maintaining balanced canopy as tree matures. | Annually |
| Reduce crown to maintain canopies clear of buildings and lighting, maintaining a balanced form. | As required |

## 3.4 Component 2: Mixed and single species Hedgerows

3.4.1 Mixed and single species hedgerows should be positively managed to maximise landscape and wildlife value.

### Management Aims and Objectives

3.4.2 To establish linear planting features which contribute to the form and enclosure of spaces.

3.4.3 It is recommended that hedgerows be enhanced through the introduction of an ecology-led management regime and supplementary planting of native species where appropriate. This would provide an ecological enhancement that would contribute to national objectives for hedgerows.

3.4.4 The overall management aim can be broken down into the following objectives:

i. Maintain the structure and integrity of all hedgerows for the future.

ii. Promote full dense, healthy hedges with no gaps present;

iii. Provide habitat value , notably for bats and birds

iv. Soften the visual impact of the Development.

### Management Recommendations

3.4.5 For the management regime of the existing hedgerows, The Hedgerow Management Cycle[3], by Hedgelink UK needs to be referred and followed, as necessary. The hedgerow management cycle is a 10-stage cycle that responds to the physical condition of the hedgerow and provides targeted management actions for each stage.

3.4.6 Prepare a 1.5m-wide weed-free strip and cultivate by hand only in proximity to existing trees/hedgerow. No herbicide. Plant bare root transplants and container-grown shrubs at 0.5m centres in double staggered rows. Hand dig with care in proximity to existing hedgerows and do not sever any roots larger than 2.5cm

[3] https://www.hedgelink.org.uk/cms/cms_content/files/78_hedgelink_a5_12pp_leaflet_7.pdf

in diameter. Transplants to be notch planted and container-grown shrubs to be pit planted (in pits 150mm wider than root spread) ensuring the original root collar is at ground level after backfilling and firming in.

3.4.7 Hedgerow plants to be installed with rabbit protection, as follows:

- Transplants, cuttings and seedlings: PP photodegradable tube guards 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo cane inserted 300mm below ground level.
- Container-grown shrubs: recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit diameter of shrub, supported by 900mm timber stake inserted 300mm below ground level.
- Ensure protection methods do not restrict natural movement or growth.

3.4.8 Best practice horticultural techniques should be used in the planting of native hedgerow vegetation to ensure rapid early growth. Rapid attainment of effective physical enclosure would be achieved through the autumn planting of both hedgerows and hedgerows with trees, including a mix of 40-60cm and 60-80cm transplants drawn from the species recommended above. The ground below planting will be maintained as bare ground in the first 2 to 3 years after establishment. The ground flora should be maintained through annual cutting and manual removal of vigorous weed species.

3.4.9 Hedgerows shall be pruned on one side per year alternating on a 2- or 3-year rotation in February, aiming to maintain hedgerows between 3-4 meters in height, depending on the locations, to promote bushy growth while providing continued habitat and foraging opportunities for wildlife.

3.4.10 A minimum 500mm width shall be maintained, gap between ground and base under 0.5m, 500mm width of long grassland from outer edge of hedgerow shall be maintained.

3.4.11 The following maintenance will be undertaken as necessary during each year of the 5 year aftercare period:

- Hedgerows will be maintained in weed and litter free condition through the application of approved herbicides. If grass clippings are available these can be used as a mulch. A 1m wide weed free zone will be maintained along the length of the hedge (50cm either side).
- All dead dying or defective plants will be replaced each year to the original specification.
- Once established, hedgerows will be cut back to ensure dense and bushy growth.
- Year 5: A review of the planting will be undertaken to assess the establishment rates and vegetation composition/coverage. Guards will be removed from all plants and will be disposed of off-site (subject to satisfactory establishment and growth of the hedgerow).
- Existing hedgerows will be cut and topped once on a three year rotation.

**Table 6.3: Summary of Maintenance Tasks – Mixed and single species hedgerows**

| Task: | Frequency / Timing |
|---|---|
| Undertake routine maintenance visits identifying the existence and location of any hedgerow plants which are suffering from visible defects likely to cause danger, potential danger, obstruction, or nuisance to users of adjoining properties, pathways and roadways. | Monthly or as required by maintenance visits |
| Non-desirable species should be removed during management operations and at other times as necessary, where this does not prejudice screening requirements. | Monthly or as required by maintenance visits. |
| Trim hedge sensitively but regularly to encourage dense, species rich hedgerow growth (to a height of approximately 3-4m and a width of no less than 1.5m). | Every 2 years |
| Cut back undergrowth, overgrowing or overhanging hedgerow shrubs and minor tree branches from any pathways to maintain an unobstructed width of at least 2m or the existing width of the pathway, whichever is the greater. | Monthly or as required by maintenance visits |
| In the interests of wildlife, hand weeding, where feasible, should take precedence over the use of herbicides in hedgerows. However, in certain instances, herbicide may be the most effective measure to take against unwanted species. Where herbicide application is needed this should be in small, controlled areas around the tree base. Herbicides must be listed on the HSE Pesticides Register of UK Authorised Products, and herbicide application must conform to the 'Pesticides: Code of Practice for Using Plant Protection Products' (DEFRA, January 2006). | Hand weeding: As required by maintenance visits.<br>Herbicide application: July - August |
| Marker tags to be removed after 3 years once infill planting established and planting can be maintained with existing hedgerow. | Year 3 |
| Examine rabbit guards and where necessary remove guards on newly established hedgerow species to prevent spindly hedgerow growth. | Yearly |
| Inspect plant marker tags to ensure infill sections still adequately demarked and replace where necessary. | Yearly |

## 3.5 Component 3: Mixed Shrub Planting

3.5.1 Mixed shrub planting areas are set within providing seasonal interest and colour to the streetscape, softening of the streetscape and definition of the public realm.

3.5.2 Biodiversity will be incorporated through the planting of wildlife-friendly species where appropriate. Mixed shrub planting areas will aid the visual amenity of the streetscape and definition and legibility of the public and private realm.

### Management Aims and Objectives

3.5.3 To create attractive Mixed shrub planting areas, and to help define open space areas within the Development.

3.5.4 The overall management aim can be broken down into the following objectives:

i. Provide a high-quality landscape setting to the Development.

ii. Ensure satisfactory establishment of vegetation.

iii. Ensure that the new shrubs are healthy and of good form.

**Management Recommendations**

3.5.5 The planting area shall be prepared with cultivated topsoil to a suitable depth, free of large stones, debris, and perennial weeds. Shrubs should be pit planted, ensuring pits are at least 150mm wider and deeper than the root system. Backfill with site-won material mixed with organic matter if necessary to support establishment.

3.5.6 The growth patterns and requirements of different shrub species may vary. As such, maintenance should be responsive to seasonal changes and the needs of specific species. Initial establishment (first 2–3 years) should include regular weeding, watering (if needed), and formative pruning to support healthy structure and reduce competition.

3.5.7 In early years, weed control is critical, especially from aggressive competitors such as grasses and docks. Priority should be given to manual or mechanical weeding, but spot application of herbicide may be used in persistent cases. Herbicides must be used responsibly, in compliance with current UK legislation and best practice.

3.5.8 Where herbicide is required, it shall be applied using selective methods in late summer (July–August) around the base of shrubs, avoiding contact with foliage. All herbicides used must be authorised under the HSE Pesticides Register and applied in line with DEFRA's Code of Practice.

3.5.9 Mulching (e.g. with bark or woodchip) is strongly encouraged during establishment to retain soil moisture, reduce weed growth, and support soil health. Mulch should be maintained at a consistent depth and topped up as required, ensuring it is kept clear of direct contact with stems to avoid rot.

3.5.10 Winter maintenance should include the removal of dead or damaged material. However, some structural deadwood or seedheads may be left over winter to provide habitat and food sources for wildlife, particularly birds and invertebrates. Full cutback of herbaceous elements should occur in early March with arisings removed.

3.5.11 Mixed shrub areas should be selectively pruned, rather than uniformly clipped, to preserve a naturalistic appearance and encourage flowering, fruiting, and healthy regrowth. Management should encourage layering structure, with a mix of low, mid, and high canopy shrubs to enhance biodiversity.

3.5.12 Regular inspections (e.g. biannually) should identify plant health issues, overcrowding, or failures. Dead or failing specimens should be removed and replaced in the following planting season, ideally with the same or ecologically appropriate substitute species.

3.5.13 In the medium to long term (year 4 onwards), selective thinning and rejuvenation pruning may be required to maintain structural diversity and prevent dominance by fast-growing species. Consider a phased management approach, leaving some areas undisturbed to support wildlife.

3.5.14 The mixed shrub planting should contribute to wider green infrastructure objectives, including habitat creation, visual screening, seasonal interest, and ecosystem services (e.g. pollination, carbon sequestration). As such, management should be ecologically informed and monitored periodically to ensure benefits are being realised.

3.5.15 A summary of maintenance tasks and their frequency is set out below:

**Table 6.4: Summary of Maintenance Tasks – Proposed Ornamental Shrubs**

| Tasks: | Frequency/ Timing |
|---|---|
| Remove any litter or debris. | Weekly, and as required |

| Tasks: | Frequency/ Timing |
|---|---|
| Where appropriate clear weeds by hand and remove arisings. | Spring |
| Continue hand weeding, where appropriate, until canopy of shrubs is closed (first 3 years).<br>Inspect every 8 weeks and remove weeds.<br>Prune back any badly damaged shrubs to sound growth.<br>Water as necessary, allowing 10L/m² for planting beds. | Summer Growing Season |
| Remove dead herbaceous vegetation, other than ornamental seed heads and stalks, and dead leaves.<br>Prune out dead wood, cut leggy shrub growth hard back to promote bushy growth.<br>Remove all arisings from site.<br>Ensure that all shrubs are firmly bedded in the ground after strong winds, frost heave and other disturbance. | Autumn/Winter |
| Herbicide use may be the most effective measure to take against certain unwanted species. Where herbicide application is needed, it is recommended that an appropriate herbicide is applied in small, controlled areas around the shrub base. Herbicides should comply with the Control of Pesticides Regulations 1986 and be on the current DEFRA list of approved products. | July - August |
| Remove and replace any dead or failing shrubs. | During next planting season (Winter) |

## 3.6 Component 4: Tough grass lawns and flowering lawns

3.6.1 Tough grass lawns and flowering lawns are used to create open permanent grassland areas around the Site. These provide for easy movement and maintenance all year round.

### Tough Grass Lawns – Maintenance Recommendations

3.6.2 The performance requirement is to maintain a resilient, even, and well-knit sward capable of withstanding wear, free from disease, moss, or significant weed infestation. The lawn should have at least 95% grass cover, with minimal bare patches and a uniform surface free of ruts or depressions.

3.6.3 Management should aim to reduce reliance on chemicals while maintaining functionality and aesthetics. The use of fertilisers and herbicides shall be limited to spot treatments where necessary. Aeration and topdressing shall be preferred to address compaction and promote strong growth.

3.6.4 Prior to any mowing or mechanical operations, all areas shall be cleared of litter, stones, branches, and other debris to protect machinery and ensure safety.

3.6.5 All operations shall be conducted using appropriate mowing equipment (e.g., cylinder, rotary or mulching mowers), and only when ground and weather conditions are suitable to avoid surface damage.

3.6.6 If mowing is delayed due to unsuitable ground conditions (e.g., waterlogging or drought), additional visits may be needed to maintain acceptable growth and visual standards. The contractor shall monitor conditions and adjust the schedule accordingly.

3.6.7 During each maintenance visit, edges along kerbs, paths, tree pits, and built elements shall be neatly trimmed using appropriate equipment. Strimmers shall not be used around young or unprotected trees.

The typical cutting frequency will be every 2 weeks during the growing season, ensuring that grass height remains between 25–35mm and does not exceed 75mm.

3.6.8 Grass clippings shall be removed from adjacent hard surfaces following each cut. In high-wear or visibly prominent areas, clippings may also be removed from the lawn surface to maintain presentation quality.

### Flowering Lawns – Maintenance Recommendations

3.6.9 The performance requirement is to maintain a diverse sward comprising fine grasses and low-growing flowering species, with at least 80% vegetation cover. The lawn should be visually attractive, support biodiversity, and exhibit seasonal interest through varied flowering.

3.6.10 Management shall minimise nutrient inputs and completely avoid routine use of herbicides or fertilisers. Spot removal of invasive or non-target species may be required by hand. Soil fertility should be kept low to favour flowering species over vigorous grasses.

3.6.11 All areas shall be cleared of litter and debris prior to each mowing visit. Care shall be taken to avoid damaging emerging flowers or pollinators during warm seasons.

3.6.12 Suitable mowing machinery shall be used based on the site and mowing regime., cutting shall be deferred until after peak flowering (typically June), then being typically cut every 3-4weeks.

3.6.13 Mowing shall not be carried out during wet weather or when flowering species are actively used by pollinators. All cut material shall be collected and removed to prevent nutrient build-up and reduce grass dominance.

3.6.14 The contractor shall monitor sward composition annually and recommend overseeding with appropriate flowering lawn mix if floral content declines. Reinstatement of bare patches may be carried out in spring or autumn using a suitable low-fertility wildflower turf or seed.

3.6.15 Edging along paths, trees and obstacles shall be trimmed carefully during maintenance visits. High-flower areas may be left uncut in patches to promote wildlife shelter and foraging.

### Table 6.5: Summary of Maintenance Tasks – Tough Grass Lawns

| Tasks: | Frequency/ Timing |
|---|---|
| Remove any litter or debris. | Weekly, and as required |
| Grass should be mown to a height of 30mm whenever the sward reaches a height of 100mm (strimming to be carried out where grass abuts fences, walls and around other obstacles). Cleaning of paths after grass cutting. | Allow for 16 cuts per season or as required. |
| Monitor grass erosion and regularly reinstate damaged or worn areas as required, including re-turfing of failed areas of grass. | As required following inspection. |
| Spot-treat persistent weeds (if necessary) | As required, using herbicide responsibly |

### Table 6.6: Summary of Maintenance Tasks – Flowering Lawns

| Tasks: | Frequency/ Timing |
|---|---|
| Remove any litter or debris. | Weekly, and as required |
| Grass should be mown to a height of 40mm whenever the sward reaches a height of 100mm (strimming to be carried out where grass abuts fences, walls and around other obstacles). Cleaning of paths after grass cutting. | Cutting should be every 3-4 weeks, as required. |
| Remove arisings after each cut to reduce soil fertility | After each mowing visit |
| Monitor flowering lawn erosion and reinstate damaged or worn areas as required, including re-turfing using a supplement floral seed mix. | As required following inspection. |
| Spot-treat persistent weeds (if necessary) | As required, using herbicide responsibly |

## 3.7 Component 5: Proposed Ornamental Grass Mixes

### Management Aims and Objectives

3.7.1 To create attractive areas and boarders within the Development as part of a mosaic of habitats.

3.7.2 The overall management aim can be broken down into the following objectives:

i. Establish mixes of Ornamental grasses and swathes, mixed in with other components e.g. mixed shrubs

### Management Recommendations – Type 1 species

3.7.3 Type 1 Species: Stipa tenuissima, Deschampsia cespitosa, Sesleria autumnalis, Anemanthele lessoniana, Helictotrichon sempervirens

3.7.4 The performance requirement is to maintain a healthy, well-shaped, and vigorous sward of fine-leaved or evergreen ornamental grasses, with minimal build-up of dead material and sustained visual interest throughout the year.

3.7.5 Type 1 grasses are generally evergreen or semi-evergreen and require gentle maintenance to avoid damaging new growth. In early March, all Type 1 grasses shall be raked through lightly with a spring-tined rake or gloved hands to remove accumulated dead leaves and prevent rot at the base of tussocks.

3.7.6 Any untidy or scraggly live stems, particularly on species such as Anemanthele lessoniana, may be selectively pruned with secateurs to form a naturalistic dome shape. Care must be taken not to trim emerging shoots.

3.7.7 Dead or diseased foliage should be removed throughout the year as required. Avoid excessive disturbance during late autumn and winter, as foliage provides visual structure and habitat for wildlife.

3.7.8 Spot weeding should be carried out by hand to avoid damaging the grass clumps. Herbicide use is not recommended due to the risk of non-target damage.

### Management Recommendations – Type 2 species

3.7.9 Type 2 Species: Calamagrostis acutiflora 'Karl Foerster', Molinia caerulea 'Transparent', Panicum virgatum 'Heavy Metal'

3.7.10 The performance requirement is to maintain tall, upright, deciduous ornamental grasses that provide structure and seasonal interest, encouraging healthy regrowth through annual cutting and appropriate weeding.

3.7.11 Type 2 grasses are deciduous and should be cut back annually in early spring (typically March), before new shoots emerge. All stems shall be cut to approximately 15 cm above ground level using sharp secateurs or shears. The remaining stubble should form a neat, low dome or tussock shape where possible to retain visual order.

3.7.12 Dead foliage and seedheads should be retained over winter to provide seasonal interest and wildlife habitat but must be removed prior to the spring cut.

3.7.13 Arisings from the cut should be removed from site or composted appropriately to avoid smothering new growth or increasing nutrient levels.

3.7.14 Hand weeding should be carried out regularly to reduce competition and maintain clean planting beds. Spot herbicide may be used where invasive weeds persist, applied with care in accordance with UK legislation.

3.7.15 Monitor health and vigour annually. Where clumps become congested or start to decline (typically every 3–5 years), lifting and dividing may be required in early spring to rejuvenate the planting.

**Table 6.7: Summary of Maintenance Tasks – Type 1 Species**

| Tasks: | Frequency/ Timing |
|---|---|
| Lightly rake with a spring-tined rake or gloved hands to remove dead leaves and prevent rot at the base of tussocks. | as required |
| Prune scraggly or untidy stems | Twice annually, spring and autumn |
| Remove dead or diseased foliage throughout the year, avoiding disturbance in late autumn and winter, as foliage provides structure and wildlife habitat. | Twice annually, spring and autumn/winter |
| Hand weed to avoid damaging grass clumps | as required |

**Table 6.8: Summary of Maintenance Tasks – Type 2 Species**

| Tasks: | Frequency/ Timing |
|---|---|
| Cut back to approximately 15 cm above ground level using sharp secateurs or shears. Retain neat, low dome or tussock shape for visual order. Retain dead foliage/seedhead over winter for seasonal interest and wildlife habitat but remove prior to spring cutting. | Annually ( March ) |
| Assess the health and vigour of clumps. If clumps become congested or decline (every 3–5 years), lift and divide them in early spring to rejuvenate the planting. | Annually |
| Hand weed to avoid damaging grass clumps | as required |

## 3.8 Component 6: Wildflower Grassland

3.8.1 Existing grassland will be retained and protected as far as possible from construction activities, including through the use of ground protection mats where vehicle crossings cannot be avoided. Existing grassland communities will be over-seeded and where any damage does occur as result of construction operations, damage shall be remediated in accordance with specification for grassland creation.

3.8.2 New wildflower grassland areas will be cultivated to a depth of 150mm in dry conditions, with existing topsoil firmed and levelled to a medium, even tilth and seeded with mixes specified in planting Schedule. No cultivation to be carried out in operational buffer zones established as part of BS 5837:2012 protection works. Do not cultivate within tree root protection areas or within the existing hedgerows but cut manually to 30-50mm during autumn preceding and following seeding.

3.8.3 Seeding to be carried out in strict accordance with supplier's recommendations, with rolling carried out to ensure good contact between seed and growing medium. Seeding to be carried out in March-April or August-September immediately following cultivation.

3.8.4 A new species-rich grassland will be created to provide areas for habitat and foraging.This planting will also provide filtration of particulates in run-off and erosion controls as well enhanced visual amenity for Users. The meadow planting will be managed to encourage communities of high nature conservation and amenity value, both in terms of floral diversity and in the provision of habitat and foraging.

### Maintenance Recommendations

3.8.5 Seeding to be carried out in strict accordance with supplier's recommendations, with rolling carried out to ensure good contact between seed and growing medium. Seeding to be carried out in March-April or August-September immediately following cultivation.

3.8.6 In the first two years after seeding, all remediated and proposed grassland areas will be cut regularly to a height of 50mm up to a maximum of 3 annual cuts to control weed growth, until no longer required to prevent undesirable annual weed growth.

3.8.7 The areas of wildflower grassland and other neutral grassland will include a mown strip along the edges of paths and carriageways where appropriate.

3.8.8 Undesirable herbaceous (ruderal) and woody stemmed species will need to be controlled. These species include those which legally need to be controlled and those which suppress or otherwise inhibit the Proposed Development of a species-rich sward. Undesirable plant species will be removed by hand pulling and mechanical removal only.

3.8.9 Where the meadow sward fails to establish or dies out, or where the level and range of species is poor, measures will be undertaken to resolve any underlying problems. Areas will be re-sown following implementation of other remedial works. It is expected that following establishment, species diversity will naturally increase with time.

3.8.10 Following establishment, the grassland habitat would be managed as a hay meadow. Such management would also serve to maintain suitable habitat for reptiles.

**Table 6.9: Summary of Maintenance Tasks – General Purpose Meadow and Wildflower Grassland**

| Tasks: | Frequency/ Timing |
|---|---|
| Remove any litter or debris. | Weekly, and as required |
| In the first year after planting, meadow will be cut regularly to a height of 50mm, stopping in June-August and a final cut in September/October.<br>Following establishment, the meadow grassland would be cut (to 75mm) no earlier than late July once flowers have set seed. Arisings would be left for 1 week and removed. A further cut could be performed in the Autumn. Such management would also serve to maintain suitable habitat for reptiles.<br>Arisings will be left in situ for 2 to 3 days before removing and disposing off site.<br>Remove any woody species and weeds | Frequent cuts during first year, thereafter once or twice annually in late summer and autumn if required. |
| 0.5m wide margins alongside pathways and roadways will be mowed to a height of 35mm with the first spring cut and all cuts thereafter whenever the sward reaches a height of 100mm. | Allow up to 16 cuts per season |

## 3.9 Component 7: Proposed Scrub

3.9.1 Locally sourced native plant species should be used to enhance the existing areas of scrub and establish new areas of scrub,

3.9.2 Scrub will be retained and enhanced for habitat diversity, except in areas where this habitat conflicts with requirements for ecology mitigation, or for public safety or built form. The main management activity will be to prevent the encroachment of invasive species and limit the extent of scrub/understorey cover.

3.9.3 New planting is to be in accordance with BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)[4].

### Management Recommendations

3.9.4 To protect new planting from damage, Recycled HDPE mesh guards (height 60cm, diameter 150-180mm) shall be fitted around each new plant and secured to a single softwood stake of at least 25mmx25mmx900mm length, which is to be driven into the ground to a depth of 300mm.

3.9.5 Chipped conifer bark, size range 25-75mm, maximum 15% fines, composted for a minimum of six weeks prior to delivery, is to be used as a mulch. The organic mulch shall be spread evenly within a 1m diameter circle around each plant, to a depth of 75mm after settlement.

3.9.6 Management operations will ensure that vegetation is cut back from pathways and fences.

[4] BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces) by BSI (1989) Available at: https://knowledge.bsigroup.com/products/code-of-practice-for-general-landscape-operations-excluding-hard-surfaces/standard.

3.9.7 Weed control should be undertaken by hand weeding, with the use of herbicides avoided wherever possible. However, in certain instances, herbicide may be the most effective measure to take against unwanted species. Where herbicide application is needed this should be spot treatment of a non-residual herbicide. Herbicides must comply with the Plant Protection Products Regulations 2011 and Plant Protection Products (Sustainable Use) Regulations 2012 and be on the current HSE Pesticides Register of UK Authorised Products.

3.9.8 Over time, selective thinning of plants should be undertaken to encourage natural regeneration. Where possible, over-developed individuals should be removed. New structurally diverse habitat edges should be created by selective pruning and coppicing of shrub species to favour foraging by invertebrates, bats, and other fauna.

3.9.9 An Arboriculture advisor will undertake annual safety inspections. Works recommended following inspection typically include the removal of fallen, diseased, dead, dying or dangerous species and damaged or crossing branches. Arisings to be disposed of offsite to an authorised green waste facility..

**Table 6.10: Summary of Maintenance Tasks – Scrub**

| Tasks: | Frequency / Timing |
|---|---|
| Safety inspections and report on condition of trees by Arboricultural advisor. | Once a year |
| Water all proposed planting to ground capacity to ensure successful establishment. | As required, in the first three years |
| Maintenance of a 1m diameter weed-free area to the base of each proposed plant for three years through the application of 10cm mulch. | Annually in March, in the first three years |
| Removal of fallen, diseased, dead, dying or dangerous species and damaged or crossing branches. | As recommended by annual inspection |
| Remove all stakes, ties and plant protection once no longer required for establishment of proposed planting. | After 3 years |
| Removal of timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas. | Immediately following works |
| Removal of offsite disposal of arisings. | Once a year |
| Replace any planting that fails to establish within the next available planting season in accordance with the original specification. | Annually between October and April |
| Thin and reduce height of scrub to 2m height across half of Site on a 2 year rotational cycle. | Annually in March |
| Rotational coppicing of colonising scrub. Coppiced stems and uprooted shrubs removed local areas to be used as habitat refugia. | 7-yearly rotation, in January to March |

## 3.10 Component 8: Rain Gardens and wetland meadow

3.10.1 Native species will be planted in and along the margins of the proposed attenuation features to help protect water quality and to provide habitat and biodiversity enhancement and increased amenity value.

3.10.2 A meadow grass for wet soils will be planted outside of permanent water levels to support the seasonal flooding. This planting will also provide filtration of particulates in run-off and erosion controls as well as enhanced visual amenity for residents.

3.10.3 Excessive overhanging vegetation adjacent to the proposed attenuation features will be pruned back to encourage native marginal and aquatic vegetation, and invasive non-native species will be removed to protect biodiversity.

**Management Recommendations**

3.10.4 Setting out of meadow turf should be done in accordance with supplier's recommendations, Laying of meadow turf to be carried in August-September.

3.10.5 In the first years after laying, all proposed wetland meadow areas will be cut regularly to a height of 50mm up to a maximum of 3 annual cuts to control weed growth, until no longer required to prevent undesirable annual weed growth.

3.10.6 Undesirable herbaceous (ruderal) and woody stemmed species will need to be controlled. These species include those which legally need to be controlled and those which suppress or otherwise inhibit the Proposed Development of a species-rich sward. Undesirable plant species will be removed by hand pulling and mechanical removal only.

3.10.7 Where the wet water meadow planting / sward fails to establish or dies out, or where the level and range of species is poor, measures will be undertaken to resolve any underlying problems. Areas will be re-sown following implementation of other remedial works. It is expected that following establishment, species diversity will naturally increase with time.

3.10.8 Confine movement channels for maintenance to the minimum number of routes to avoid excessive trampling of habitat.

3.10.9 Remove any invasive or exotic species, annually in autumn or winter, ideally by hand, to ensure growth of other species is not suppressed. Herbicides shall not be used unless prior agreement has been obtained from the Environment Agency.

3.10.10 Monitor need for de-silting and clearance of leaf-fall on a 4-year basis and undertake as required. Remove deep bottom muck, silt or dense stands of dominant vegetation to diversify habitat and prevent ecological succession.

3.10.11 Cut back one third of marginal herbaceous plants and grasses to 75mm annually on a 4-year rotation (no cut in the fourth year) in late summer, before they set seed, to promote diverse, tussocky growth and Clear overgrown aquatic planting by hand and leave on the bank for 2 days.

3.10.12 Clear overgrown Rain Garden planting by hand, as required, to avoid nutrient build-up causing an imbalance of vegetation and loss of habitat. Leave arisings on the bank overnight, to allow invertebrates and reptiles to return to aquatic habitat. Remove arisings to a dedicated composting area , Excess arisings should be removed to a licensed composting or green waste disposal facility.

3.10.13 Assess extent of shading from trees and shrubs. Consider cutting back or pruning to reduce shading where required, in late winter to avoid disturbance to nesting birds.

3.10.14 Works will be carried out during late autumn or winter months (ideally late September to October). Works to be carried out in line with Ecologist recommendations.

**Table 6.11: Summary of Maintenance Tasks – Attenuation Basins and Marginal Planting**

| Tasks: | Frequency / Timing |
|---|---|
| Remove any litter and debris | Weekly, and as required |
| Remove any invasive, exotic species, ideally by hand, to ensure the growth of other species is not suppressed. | Annually, Autumn or Winter |
| Diversify habitat and prevent ecological succession by removing deep bottom muck, silt or dense stands of dominant vegetation. Clear overgrown aquatic/marginal planting by hand and leave on the bank for 1-2 days. Remove no more than 50% of bottom muck, silt or dense strands of dominant vegetation within any calendar year. | Annually, Autumn or Winter |
| Cut back bankside herbaceous plants and grasses before they set seed to 75mm to promote a diverse, tussocky growth. Leave uncut the strip at the base of the banks of waterbodies to avoid disturbing the marginal habitat and leave occasional strips uncut from the top of the bank to the base, to maintain a diversity of habitats associated with the waterbody. Confine movement channels for maintenance to the minimum number of routes to avoid excessive trampling of the habitat. | Annually, late Summer |
| Assess extent of shading from trees and shrubs. Prune, as necessary. | Every 4 years in late winter, as required |

**Table 6.12: Summary of Maintenance Tasks – Wet Grassland**

| Tasks: | Frequency/ Timing |
|---|---|
| Remove any litter or debris. | Weekly, and as required |
| The Wetland meadow would be cut (to 75mm) no earlier than late July once flowers have set seed. Arisings would be left for 1 week and removed. A further cut could be performed in the Autumn. Such management would also serve to maintain suitable habitat for reptiles.<br>Arisings will be left in situ for 2 to 3 days before removing and disposing off site.<br>Remove any woody species and weeds | once or twice annually in late summer and autumn if required. |

## 3.11 Component 9: Bicycle shelter green roof

3.11.1 The performance requirement is to maintain a structurally sound, vegetated green roof with at least 80% plant coverage, comprising drought-tolerant, low-maintenance species that support biodiversity and seasonal interest. The green roof shall be free draining, visually attractive, and deliver ecological benefits such as pollinator habitat and temperature moderation.

3.11.2 Management shall aim to preserve the roof's self-sustaining vegetation without routine irrigation or nutrient inputs.

### Management Recommendations

3.11.3 Spot watering may be undertaken during the first summer of establishment or in exceptional drought periods. Fertilisers and routine herbicide use are not permitted.

3.11.4 The contractor shall remove windblown litter, woody colonisers, and invasive species by hand. Substrate depth shall be preserved, and materials shall not be compacted during access.

3.11.5 Drainage outlets, inspection chambers, edge restraints, and structural elements shall be visually inspected twice annually and kept clear of vegetation and debris to prevent waterlogging or structural damage.

3.11.6 Vegetation shall be managed to maintain a diverse composition of sedums, mosses, wildflowers, and grasses. Management may include occasional selective thinning of dominant species and introduction of native plug plants or seed in sparse areas.

3.11.7 All arisings from vegetation control shall be removed from the roof to prevent nutrient accumulation and maintain low-fertility conditions favourable to wildflowers and non-invasive grasses.

3.11.8 No maintenance activities shall be undertaken during periods of heavy rain, frost, or when pollinators are actively foraging. Access shall be restricted to dry conditions using suitable safety measures to avoid damage to both vegetation and roofing membrane.

3.11.9 The contractor shall monitor plant cover annually in late summer. Where coverage drops below 80%, or biodiversity value declines, a remedial plan shall be proposed including overseeding with a locally appropriate dry wildflower mix or plug planting in early spring or autumn.

3.11.10 All maintenance staff shall be made aware of the green roof's biodiversity function and trained in appropriate low-impact maintenance techniques.

**Table 6.13: Summary of Maintenance Tasks – Bicycle Shelter**

| Tasks: | Frequency / Timing |
|---|---|
| Spot watering may be undertaken during the first summer of establishment | As needed |
| The contractor shall remove windblown litter, woody colonisers, and invasive species by hand. | Every 2 months |
| Drainage outlets, inspection chambers, edge restraints, and structural elements shall be visually inspected. | inspected twice annually |
| Occasional selective thinning of dominant species and introduction of native plug plants or seed in sparse areas. | Annually |

## 3.12 Component 10: Woodland

### Management Recommendations

3.12.1 Walkover survey to identify any trees or limbs that may pose a risk to public safety, infrastructure, or adjoining land. Any hazardous trees to be reported and actioned by a qualified arboriculturist.

3.12.2 Dead, dying or over-mature trees to be retained in situ wherever safe to do so, to enhance biodiversity. Deadwood to be left standing or re-sited as log piles away from paths if felling is required for safety.

3.12.3 Shrubs and minor tree branches overhanging formal or informal paths to be cut back to maintain a minimum clearance of 5m width or existing path width (whichever is greater).

3.12.4 Vigorous non-native or invasive species (e.g. bramble, nettle, sycamore seedlings) to be controlled as required to allow the development of a more diverse native ground flora. Hand weeding preferred; herbicides to be used only, if necessary, in targeted areas and under controlled conditions (DEFRA-approved products only).

3.12.5 A qualified arboriculturist to carry out a full inspection of the woodland annually to assess tree health, structure, and potential management interventions.

**Table 6.14: Summary of Maintenance Tasks – Woodland**

| Tasks: | Frequency / Timing |
|---|---|
| Walkover survey to identify any trees or limbs that may pose a risk to public safety | Every 6 months |
| Shrubs and minor tree branches overhanging formal or informal paths to be cut back to maintain a minimum clearance of 5m width | Annually, Autumn or Winter |
| Vigorous non-native or invasive species (e.g. bramble, nettle, sycamore seedlings) to be controlled as | As required |
| Qualified arboriculturist to carry out a full inspection of the woodland | Annually |

## 3.13 Component 11: Proposed Pathways/Shared Surfaces, Fencing and Hard Surfaces

3.13.1 The circulation areas and other open spaces include a range of hard surfaces, fencing and furniture, which articulate and animate the space and define the hierarchy of these spaces, and in some instances provide recreational opportunities for the users of the Proposed Development.

### Management Recommendations

3.13.2 In order to maintain security and a high standard of appearance, these proposed features will be maintained to a high standard throughout the lifetime of the Proposed Development.

3.13.3 To achieve these objectives, the following measures will be undertaken:

**Table 6.15: Summary of Maintenance Tasks – Proposed Pathways, Fencing and Hard Surfaces**

| Task: | Frequency / Timing |
|---|---|
| Check and report and defects with fencing, with remedial works to be carried out at the earliest opportunity. | Monthly, and as required |
| Removal of litter and dog excrement. | Weekly, and as required |
| Removal of grit, mud, leaf litter and plant debris by sweeping. | Monthly |
| Remove any stains, marks or discolouration of surface materials by jet spraying. | Twice annually, and as required |
| Cut back undergrowth, overgrowing or overhanging shrubs, hedges and minor tree branches from pathways through the Proposed Development to maintain an unobstructed width of at least 2m or the existing width of the pathway, whichever is the greater. | |

| Task: | Frequency / Timing |
|---|---|
| Removal of weeds by hoeing, pulling or (as a last resort) use of approved herbicide. | |
| Inspection of any defects and potential dangers in surfacing and signage and undertake remedial works at the earliest opportunity. | |
| Keep all hard surfaces safe to walk on during prolonged freezing conditions, using grit rather than salt to achieve this objective. | As required in winter conditions |

# 4 General Maintenance and Management Tasks

## 4.1 Overview

4.1.1 For tree planting during years 1-5 or until canopy closure, new planting shall be maintained by annual visits.

4.1.2 All plants shall be checked and if necessary, firmed up in the ground.

4.1.3 Any damaged shoots or branches shall be pruned off using secateurs.

4.1.4 All bird nesting and bat roosting boxes on suitable trees will be checked for any damage on an annual basis and replaced where required.

4.1.5 The Contractor shall ensure that all shrubs are maintained free of weed growth. This shall normally be achieved by the application of appropriate contact or residual herbicides, although it remains the responsibility of the Contractor to adopt other methods where herbicide application is unsuccessful or impractical.

4.1.6 The Contractor shall remove any dead, dying or diseased plants, which are evident during any maintenance visit. The Operations Manager shall be informed of the location, number and species of all material that has been removed. Any plants that have died as a result of the Contractor's operations or omissions shall be replaced by the Contractor at his own expense during the next planting season.

4.1.7 All replacement planting shall be with like species unless otherwise agreed with the Operations Manager.

4.1.8 The landscape contractor shall clean and make good all hard standings, fencing, planting areas, gullies, gratings and grassed areas of soil spillage, bark mulch, leaves etc. which emanate from adjacent shrub beds after each visit. No stockpiles to be left on Site.

4.1.9 Soil conditioner: Sanitized and stabilised compost to BSI PAS 100. Apply 75mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified or conforming to the specification from an approved supplier.

4.1.10 Mulch planting beds with matured coniferous bark, with an even particle size between 5-35mm, to 100mm minimum depth over weed-free soil after completion of planting and watering operations.

4.1.11 An Annual Landscape Audit will be produced for no less than five years following completion of the landscape works. The annual Landscape Audit shall be submitted to the Local Planning Authority for information prior to the next planting season and replacement planting undertaken in accordance with the landscape audit and 4.1.12) below.

4.1.12 Any trees or plants which, within a period of five years after planting, are removed, die or become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained.

## 4.2 Planting Season and Landscape Implementation Programme

4.2.1 All landscape implementation work, including any remedial maintenance operations will take place within the appropriate planting season as follows:

- Deciduous trees and shrubs: Late October to late March (outside periods of frosty or waterlogged conditions).
- Evergreens: September/ October or April/ May;
- Herbaceous plants (including marginal): September/ October or March/ April;
- Container grown plants: At any time if ground and weather conditions are favourable.
- Dried bulbs, corms, and tubers: September/ October;
- Green bulbs: After flowering in spring;
- Grass seed generally: April to October; and
- Wildflower seed generally: March/April or August/September.

## 4.3 The Use of Pesticides & Other Hazardous Substances

4.3.1 The Contractor's attention is drawn to the following statutes and regulations:

- The Food and Environment Protection Act 1985;
- Plant Protection Products Regulations 2011;
- Plant Protection Products (Sustainable Use) Regulations 2012;
- The Control of Substances Hazardous to Health Regulations 1988; and
- The Environment Protection Act 1990.

4.3.2 It is the Contractor's responsibility to ensure that he is fully conversant with the requirements of the foregoing legislation and other relevant Codes of Practice, British Standards, rules, guidelines, or directives that relate to the use of hazardous materials.

4.3.3 All manufacturers' recommendations relating to application, storage, mixing and other safety precautions must be strictly adhered to, in the interests of health and safety.

## 4.4 Litter Removal

4.4.1 The Contractor shall ensure that all the site is kept free of litter and other debris through a regular programme of monitoring, collection, and disposal, coinciding with visits to maintain grassed areas and planting.

4.4.2 Particular care shall be taken to remove all broken bottles, glass, tins, sharp objects and other items likely to constitute a hazard to the public and wildlife.

4.4.3 The Contractor shall take particular care when carrying out litter collection to ensure that any discarded needles or syringes are removed as soon as they are discovered. Such items must be packaged separately from other litter, and be contained within appropriately labelled, puncture-proof sharps containers supplied by the Contractor.

4.4.4 All litter and debris shall be removed off site to an authorised tip.

4.4.5 Frequency of litter control works to be programmed fortnightly and adjusted as required subject to litter levels occurring on site, with the scope to increase regularity in high litter areas and decrease in low litter areas.

4.4.6 This shall be carried out in accordance with the Code of Practice on Litter and Refuse issued under Section 89 of the Environment Protection Act (1990).

# 5 Annual Maintenance Schedules

**Table 5.1: Annual Maintenance & Management Schedule Years 1-5**

| Task: | Number of Annual Operations | | | | |
|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Remove any litter or debris from the Site. | 12 | 12 | 12 | 12 | 12 |
| Check and report defects with fencing - remedial works carried out at the earliest opportunity. | 12 | 12 | 12 | 12 | 12 |
| Water meadow grassland areas. | As required | As required | As required | - | - |
| Cut proposed meadow grassland regularly. | As required | As required | As required | As required | As required |
| Water all proposed hedgerow, scrub, Shrub, ornamental grass and woodland planting to ground capacity. | As required | As required | As required | - | - |
| Water Bicycle shelter roof | As required | - | - | - | - |
| Check root firmness and upright alignment of trees. | 2 | 2 | 2 | - | - |
| Inspect and adjust tree stakes, ties and plant protection including loosening to avoid damage | 1 | 1 | 1 | - | - |
| Remove all stakes, ties and plant protection once no longer required for replacement planting. | - | - | 1 | - | - |
| Hand pull or spot treat weeds in meadow grassland. | 1 | 1 | 1 | 1 | 1 |
| Cut areas proposed for Proposed Meadow Mixture | 1 | 1 | 1 | 1 | 1 |
| Strim back any weed growth on hard surfacing. | 1 | 1 | 1 | 1 | 1 |
| Maintenance of a 1m diameter weed-free mulched area to the base of each proposed tree. | 1 | 1 | 1 | 1 | 1 |
| Cut back ornamental grasses to 15cm above ground. | 1 | 1 | 1 | 1 | 1 |
| Replace any planting that fails to establish within the next available planting season. | 1 | 1 | 1 | 1 | 1 |
| Undertake routine maintenance of hedgerow/scrub. | 1 | 1 | 1 | 1 | 1 |
| Undertake routine maintenance of Bicycle Shelters | 2 | 2 | 2 | 2 | 2 |
| Removal of non-desirable woody species and weeds from hedgerow/scrub planting. | 1 | 1 | 1 | 1 | 1 |
| Prune hedgerows on one side per year, alternating on a 2 or 3-year rotation | 1 | 1 | 1 | 1 | 1 |
| Thin and reduce height of scrub to 2m height across half of site on a 2-year rotational cycle. | 1 | 1 | 1 | 1 | 1 |
| Monitor Rain Garden take appropriate preventative/remedial action, including removal of invasive exotic species. | 1 | 1 | 1 | 1 | 1 |
| Preparation of Annual Ecological Monitoring Report | 1 | 1 | 1 | 1 | 1 |
| Maintain hard standing. | 1 | 1 | 1 | 1 | 1 |
| Safety inspections and report on condition of woodland and trees by Arboricultural advisor. | 1 | 1 | 1 | 1 | 1 |
| Works to trees as recommended following inspection. | 1 | 1 | 1 | 1 | 1 |
| Selective felling and thinning to improve structural diversity of woodland. | - | - | - | - | 1 |
| Remove timber and arisings from safety and regenerative work and use to create deadwood habitat and refugia in local areas. | As required | As required | As required | As required | As required |
| Attenuation basin and basin's scrape de-silting and clearance of leaf-fall. | - | - | - | - | 1 |

| Task: | Number of Annual Operations | | | | |
|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Review of LMP by Operations Manager and consultant Landscape Architect & Ecologist as appropriate for ongoing management of scheme. | - | - | - | - | 1 |

# 6 Appendices

## 6.1 Figure 1 Landscape Management Zones Plan (LMZ)

6.1.1 For general indicative purposes only to be viewed in conjunction with Section 3.2 (Landscape Zones and Components)


Management Zones

**Zone 1 -** Perimeter landscape areas

**Zone 2 -** Public right of way corridor

**Zone 3 -** Linier park and infrastructure

**Zone 4 -** Northern carpark