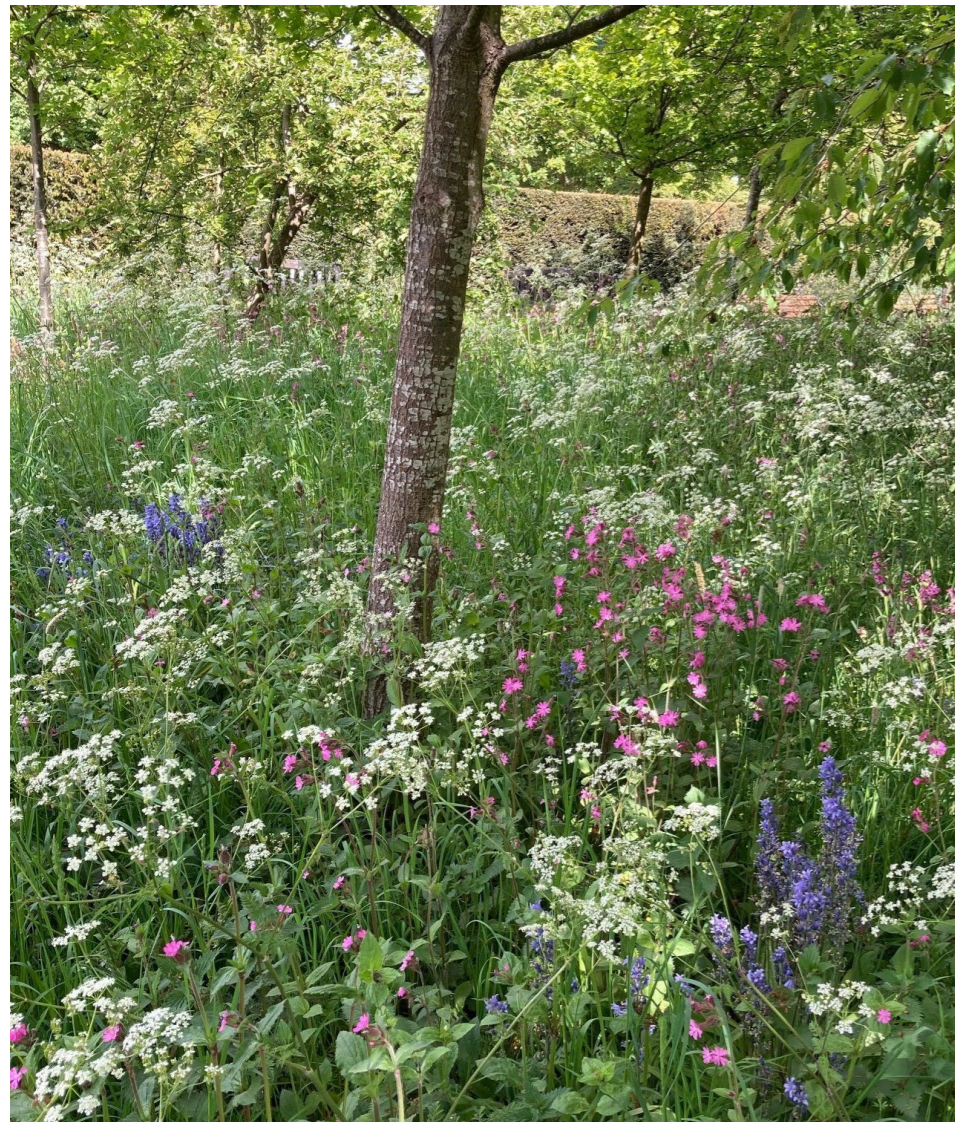


LANDSCAPE STRATEGIES

Planting Palette

SHADE TOLERANT WILDFLOWER PLANTING



Emorsgate EW1 wildflower woodland seed mix

WILDFLOWER MEADOW



Nectar-rich wildflower meadow (Emorsgate mix EN1 or similar approved) or where shading occurs, a shade tolerant woodland mix such as EW1.

SPECIES RICH LAWN

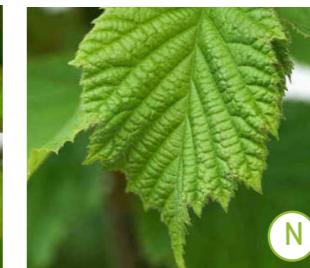


Species-rich flowering lawn mixture (Emorsgate mix EL1 or similar approved)

NATIVE HEDGEROW MIX



Acer campestre



Corylus avellana



Craetagus monogyna



Prunus padus



Prunus spinosa



Rosa canina



Viburnum lantana

Native species

Evergreen and semi evergreen species : winter shelter for wildlife

RHS "Plant for pollinators" species

Fruits/seeds for wildlife

LANDSCAPE STRATEGIES

Biodiversity & Ecology Strategy

To support and protect wildlife diversity several ecological initiatives are proposed site wide.

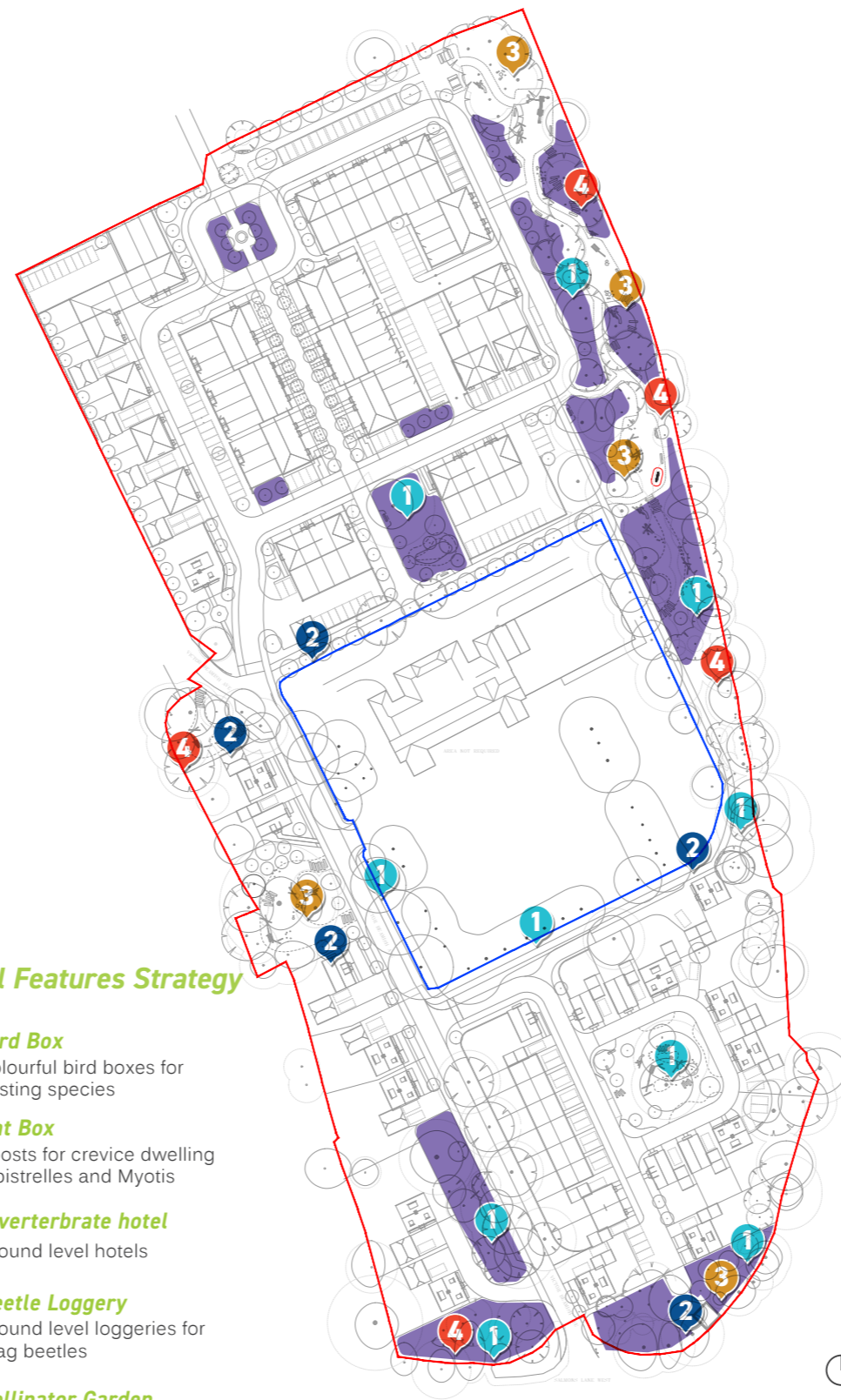
The planting palette for the site includes a range of species with ecological value. These species have been selected for their suitability, form, and wildlife value.

Many of the species selected are native and are introduced to improve levels of biodiversity and attract a range of wildlife to the site. These species include a high proportion of flowering plants which are attractive to pollinators, butterflies, insects, and birds. Further shrub species, ferns and tree species provide food, shelter, or nesting opportunities to bats, birds, butterflies, and insects.

Proposed supplementary planting and opening of the existing culvert will help to improve species diversity for potential wildlife value and habitats. The improved culvert will follow a natural approach to planting with a focus on native species with local occurrence in the area.

The existing planting on site has been noted to contain dormice and proposals will seek to provide improved habitat for dormice and other fauna likely to be present on site already. Bird and bat boxes could be explored in the next stage of the development as the site is surrounded by an established tree belt.

All biodiversity and ecology enhancing elements are to be confirmed at the next stage.



Ecological Features Strategy

- 1 Bird Box**
Colourful bird boxes for nesting species
- 2 Bat Box**
Roosts for crevice dwelling Pipistrelles and Myotis
- 3 Invertebrate hotel**
Ground level hotels
- 4 Beetle Loggery**
Ground level loggeries for Stag beetles
- Pollinator Garden**
Nectar-rich flowering plants



LANDSCAPE STRATEGIES

Perimeter Boundary Strategy

The approach to perimeter boundary for the site aims to maintain existing boundaries where possible and reinforce our woodland aesthetic utilising timber for knee rails and fencing where boundaries are needed.

Timber knee rails border the northern edge of the site to retain visual linkages through to the Kenley aerodrome and promote physical movement and accessibility. Timber fencing on the north-western edge of the site buffer the new residential houses from the existing car park.

The boundary strategy is to be confirmed at the next stage.



Edge Boundary

- Timber Fence
- Timber Knee Rail
- Existing Condition Boundary to be retained



TIMBER FENCE TO REAR GARDENS



TIMBER KNEE RAIL

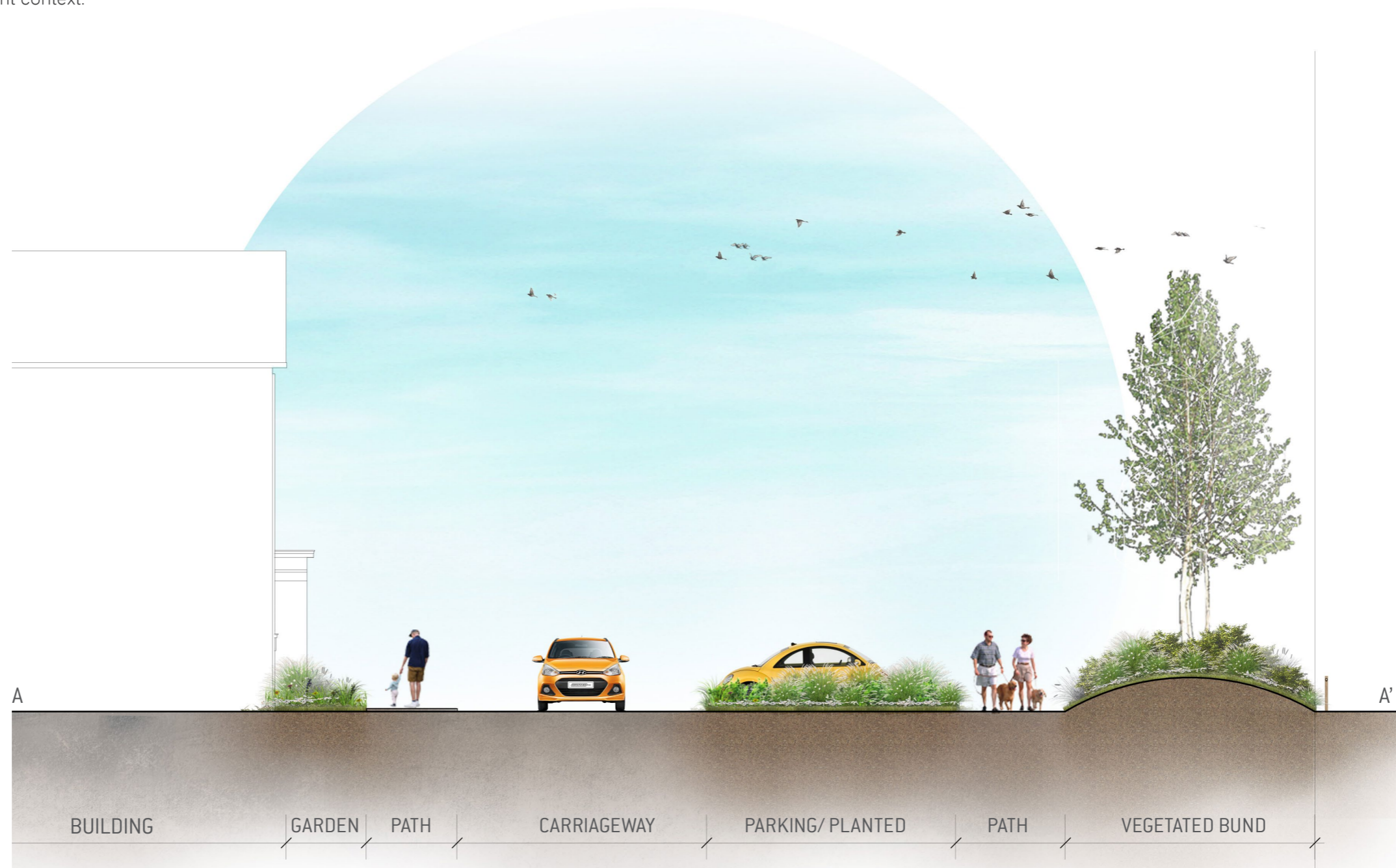


EXISTING BOUNDARY RETAINED

LANDSCAPE STRATEGIES

Northern Boundary

Along the northern boundary, the existing security fencing has been removed to promote visual and physical access with the Aerodrome to the north. A vegetated bund helps to screen the new residential units whilst a timber knee rail demarcates the transition between the site and the adjacent context.



LANDSCAPE STRATEGIES

Outline & Maintenance

INTRODUCTION

Below sets out an outline management and maintenance strategy for the landscape to cover a minimum period of 5 years.

GENERAL

This Landscape Management Plan (LMP) has been developed to ensure the long term management of the landscaped setting while enabling it to contribute positively to the visual amenities of the area and create usable and valued spaces for the residents to enjoy.

This plan sets out the long term maintenance principles required for the external hard landscape treatments (surface finishes) and soft landscape throughout the site.

The principle management strategy for the site is for an easy to maintain landscape that uses durable and robust products and materials for enhanced longevity. The hard landscape materials will conform to British Standards (BS) and European Standards (ES) as well as being easy to clean, maintain or replace if required.

Adopted landscape areas to be maintained by the Local Authority (LA) unless specifically stated otherwise while maintenance of non-adopted areas will be the responsibility of the legal property owner.

This LMP will be reviewed annually to ensure its effectiveness at maintaining the landscape elements to the highest standards.

OBJECTIVES

The general objectives for this LMP are to:

- Create an attractive and well cared for setting for the development;
- Ensure the successful implementation, establishment and longevity of the planting scheme and external treatments;
- Ensure the landscape contributes positively to the users;
- Ensure the landscape contributes positively to the site context;
- Enhance and protect the native flora and fauna (both existing and proposed); and,

Enhance biodiversity and ecology where possible.

SOFT LANDSCAPE

The soft landscape strategy is designed to create a strong green framework for the development using a range of new native tree and shrub planting. The new planting will use a range of robust deciduous species to give year-round seasonal interest.

All soft landscaping proposals within the non-adoptable areas to be managed and maintained by the Clients Management Contractor (CMC) with the exception of privately owned domestic gardens.

HARD LANDSCAPE

The hard landscape treatments include Bitumen Macadam and a variety of modular pre cast concrete blocks and pavers. Surface treatments are designed to be robust and provide safe and attractive routes throughout the development.

Bench seating and litter bins will be selected to ensure they are of durable and low maintenance materials. These will be located in and around the LEAP.

Boundary treatments include timber knee rails, metal railings and timber fencing.

MANAGEMENT RESPONSIBILITIES

Maintenance operations should be refined to suit:

- The needs of users;
- The conservation of ecological interests;
- Improvements in equipment and horticultural aids
- Changing legislation and sustainability requirements;
- The completed scheme when soft landscaping, including species, have been confirmed; and,
- The detailed management recommendations any existing trees/planting to be retained.

LMP PROGRAMME

YEAR 1

It is intended that the implementation of this management plan will help to fulfil the design objectives over the first year. This period is set to cover the 1st year of the defects liability period of the appointed landscape contractor. Management objectives should be reviewed on a regular basis to ensure that they are being achieved.

From the point of final completion (end of the defects liability period) the CMC will be responsible for the maintenance of the site.

YEARS 2-5

The CMC is responsible for the site in the long term and should keep to the original design objectives/intent whilst responding in a sensitive and practical way to issues which may arise in future years.

The LMP should be reviewed and adjusted accordingly to ensure the design objectives are maintained in the longer term. Annual monitoring of the establishment and condition of the Landscape Scheme will be undertaken by a suitably qualified Landscape Management Advisor.

PLAN REVIEW

The LMP will be reviewed during the life of the plan with a final review undertaken before the end of the five year period. A revised LMP should be submitted for the agreement of the local authority before the five years has expired. The revised plan will include similar provision for the long-term management of the Landscape Scheme and for future revision and updating.

The plan review must be undertaken by a suitably qualified Landscape Architect.

LANDSCAPE STRATEGIES

Outline & Maintenance

MANAGEMENT PROPOSALS

GENERAL

This section sets out management objectives and prescriptions for each of the different elements of the Landscape Scheme.

HARD SURFACES

Regular monthly maintenance inspections are to be undertaken of surface treatments for litter, debris and leaf removal (or snow clearance and de-icing in winter months).

OBJECTIVE 1

To maintain the condition of all surfaces in a clean and safe condition.

Cleaning is to be either mechanically swept or jet washed as required to remove surface build-up of atmospheric dust. Removal of chewing gum or other significant marking may be done locally by the use of an approved chemical agent. Frequency – monthly.

In the event of weeds or moss growth in paving joints these are to be treated with an appropriate water based herbicide. Weeds are not to be pulled out by hand to preserve the bedding course. Frequency – monthly.

Damages to paving surfaces - In the event of any cracking, disturbance, breakages or damaging of paving surfaces these are to be replaced to match.

FURNITURE

OBJECTIVE 1

To maintain all seating, bollards, litter bins and lighting elements in a clean, safe and operational condition.

Damage to the seating, bollards, litter bins and lighting elements within non-adoptable areas: In the event that these elements are damaged, the CMC will be required to source replacement timbers and replace any broken or damaged units that are deemed to pose a risk to public safety or are aesthetically not in keeping with the design intent. Frequency: Inspections to be undertaken on a bi-monthly basis by the CMC and works undertaken immediately in identification of any fault.

Damaged furniture located within adoptable areas are to be maintained, fixed, or replaced by the party responsible as outlined in section 5.6.

Emptying of the litter bins located within non-adoptable areas will be the responsibility of the appointed CMC. All litter bins to be inspected and emptied weekly.

Removal of chewing gum or any other significant marks – chewing gum may be removed using an approved chemical agent. Other significant marks such as permanent markers and spray paint are to be removed using an approved chemical agent to manufacturer's recommendations. Any surface coatings or finishes that are compromised by the marks are to be repaired. Frequency: Inspections to be undertaken on a weekly basis by the CMC and works undertaken immediately in identification of any issues.

Damage to lighting units that are deemed to pose a risk to public safety, are not functioning, or are aesthetically not in keeping with the original design intent are to be repaired or replaced by a suitable qualified contractor. Any replacement units must be of the same specification as the original unit to maintain consistency throughout the design. Inspection to be carried out monthly on site and any due work is to be undertaken immediately in identification of any fault.

OBJECTIVE 2

To maintain all boundary treatments & edges in a clean, safe and operational condition.

Damage to non-private boundary treatments: In the event that these boundaries are damaged or vandalised, the CMC as appointed by the legal property owner will be required to source and replace any broken or damaged units that are deemed to pose a risk to public safety or are aesthetically not in keeping with the design intent. Frequency – Inspections to be undertaken on a bi-monthly basis and works undertaken immediately after the identification of any fault.

NATURAL PLAY EQUIPMENT

OBJECTIVE 1

To maintain all natural play equipment elements in a clean, safe and operational condition.

Inspection of natural play equipment is to be carried out at agreed intervals. In the event that any of the play equipment is found to be vandalised, broken, damaged or in a condition that poses a risk to public safety these

are to be repaired immediately by a qualified contractor or closed off until such remedial actions can be taken place.

PLANTING

OBJECTIVE 1

Ensuring sustained tree and shrub growth during the life of the LMP.

Watering of trees and shrubs: water as required during periods of drought to ensure satisfactory establishment, and for a period of not less than three years after planting. Frequency: as required to maintain healthy plant growth.

Inspection of trees and remedial actions: Trees within non-adoptable areas are to be inspected every 6 months for the first two years of the LMP to ensure that trees are healthy, not diseased or damaged, or dead. Inspections after the first 2 years can be reduced to yearly if they are establishing well. Inspections should be carried out by a qualified arboriculturalist to identify any dead limbs or other parts of a tree that may cause harm to the tree or member of the public and advise remedial actions.

Any failed trees during the first 5 years after planting will be replaced and maintained for a subsequent 5 years.

Frequency of remedial pruning: yearly pruning to be conducted between January and March based on findings of inspections. Emergency pruning to be conducted immediately when a critical fault is noticed.

Frequency of tree replacement: To be undertaken in optimum tree planting in early spring or late autumn.

Height, width and overall form of the shrub and hedge planting is to be maintained so as not to cause damage or to interfere with visibility. Any pruning or shaping of planting to be carried out in accordance with good horticultural and arboricultural practice in order to ensure the overall health of the plant. Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced natural appearance.

[LMP CONTINUED ON NEXT PAGE]

LANDSCAPE STRATEGIES

Outline & Maintenance

MANAGEMENT PROPOSALS (CONT.)

OBJECTIVE 1 (cont.)

Inspection and remedial actions of native shrub planting within the non-adoptable areas is to be inspected by the CMC every 3 months to ensure that the planting is healthy, not diseased, damaged, or dead. Dead or unhealthy shrubs are to be removed on inspection and replaced with the same species and size as required to achieve the desired visual effect.

Frequency of inspections: 3 monthly

Frequency of remedial work: immediately as required.

Frequency of seasonal remedial pruning works: Pruning, dead heading at the end of plant flowering seasons (spring to autumn) as required.

Removal of harmful materials that may affect tree growth – weeds on the top of tree pits are to be removed by hand. Herbicides and weed strimmer's are not to be used to control weeds in plant beds. Other material such as litter, debris and other harmful material is to be removed. Mulch is to be topped up to desired depths and levels as specified.

Frequency of weed removal: fortnightly from spring to autumn and then monthly during the winter months;

Frequency of debris removal: bimonthly

Frequency of mulch replenishing: 6 months

OBJECTIVE 2

Retain a healthy growing medium for all trees and amenity planting areas.

Fertilisation of soils to replenish nutrients: All shrub beds are to be fertilised using an approved slow release fertiliser as per the manufacturer's recommendations. Trees are to be fertilised in the first two years of establishment using a liquid based organic fertiliser as per the manufacturer's recommendations. An approved organic soil conditioning agent is to be applied to all garden beds as per the manufacturer's recommendations and worked into the top 150mm of the soil profile without damaging the existing planting. Mulch is to be removed prior to application and reinstalled after soil conditioner has been added.

Frequency: Shrub fertiliser - annually

Frequency: Tree fertiliser – annually for the first two years

Frequency: Soil conditioner for amenity planting beds – annually in early spring

WATER BODIES, MARGINALS AND AQUATIC PLANTING

OBJECTIVE 1

To maintain all drainage elements and ponding areas in a clean, safe and operational condition.

All water bodies shall be kept free of litter, so that at no time shall litter coverage of 5% be tolerated. The responsible party shall provide a minimum of monthly visits to ensure that litter is removed from the water body, but no dead plant material and leaf litter should be removed as this would have detrimental effects on the aquatic invertebrate populations and diversity.

Maintain the pond in a manner appropriate to the intended use. Ensure all litter, debris, accumulated silt and excessive vegetation causing obstruction to any inlet, outlet or pond base infrastructure be removed.

Frequency of debris removal – 6 monthly or after the event of continued high rainfall

OBJECTIVE 2

To maintain all planting within drainage elements and ponding areas in a safe and operational condition.

The responsible party shall monitor growth of marginal plants and carry out control by pulling, if plants become too dominant. Control of shading and succession in these areas shall be undertaken by hand-pulling of woody species (allow up to 10% cover of woody species only) that may have established in areas of marginal planting. Non-native invasive species (such as Indian Balsam and Japanese Knotweed) shall be removed as they occur and disposed off-site at a licensed tip.

GRASSES AND MEADOW MIXES

OBJECTIVE 1

To retain healthy and well maintained amenity grass with bulbs, meadow, meadow for swales and marginal aquatic planting grass areas.

All grass cutting shall be carried out by cylinder or rotary machines, or a combination of the two: unless otherwise specified. Where grass cutting is undertaken and the arisings are allowed to 'fly', all arisings shall be evenly distributed over the whole of the grass area and not left in wind-rows.

Meadow and Meadow for swales - Mow newly sown meadows regularly throughout the first year of establishment to a height of 20 - 50mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wild flowers. Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c 50mm. 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 autumn/winter to c 50mm and again in spring if needed.

Mown path in wildflower meadow to be maintained at a height of 25-50mm.

Marginal aquatic planting - Variation in structure can be achieved by cutting back and removing short sections of vegetation every 2-3 years in rotation. Vegetation removal causes the least disruption to wildlife when carried out between September and November.

Generally windflower meadow and lawns are to be maintained in accordance with suppliers recommendations.

LANDSCAPE STRATEGIES

Outline & Maintenance

MAINTENANCE SPECIFICATION

STANDARD OF WORK

The LMP is to be carried out to a high and consistent standard. Planted areas must be kept neat and clean in appearance at all times, weed and litter free, with all planting in a healthy state. The CMC shall ensure that the works themselves do not cause inconvenience or danger to users of the site and that any potential Health and Safety issues are raised and all necessary measures are taken accordingly.

All staff will be trained in landscape maintenance operations and have suitable experience/qualifications to undertake the specified work

BRITISH STANDARDS

All materials, workmanship and horticultural terms shall comply with the current, appropriate British Standards or European Standards unless specifically stated.

USE OF CHEMICALS

The CMC must ensure that all approvals and measures are in place for the use of any chemicals e.g. herbicides or pesticides on the site within non-adoptable areas. The responsible party (see section 5.6) shall also ensure approvals and measures are in place for the use of any chemicals on the site within adoptable areas. The responsible party (see section 5.6) shall ensure that any chemical application is undertaken by a trained operative with the appropriate qualification. They shall ensure at all times that the public, store employees and own staff are not subject to any hazard from the use of chemicals, and that all equipment, containers and materials are kept in a secure place when on site and not in use, and that all empty containers, etc. are removed from site at the end of each day.

CLEANLINESS

At the end of each day of each maintenance operation, The CMC shall remove from site all rubbish, trimmings, and superfluous materials, leaving the works in a clean and tidy condition. Particular attention shall be paid to ensuring areas of hard surfacing are left in a clean condition, free from any soil, mud, leaves, cuttings and plant pruning.

PESTS AND DISEASES

The CMC shall implement appropriate treatment to any pest or diseases occurring on-site that are found to be affecting the vegetation as agreed to coincide with normal maintenance visits, where possible. All operations shall comply with statutory safety requirements. All diseased wood, prunings etc. shall be removed from site.

MULCHING

All areas of shrubs are to be mulched to a depth of 50mm. Mulched areas are to be topped up as necessary using the same material as was originally specified.

WEED CONTROL

In the course of the routine maintenance visits, The CMC shall undertake the weed control necessary to keep the site in a neat and tidy, weed free condition and to allow specified species to develop free from unnecessary competition. Weeding may be carried out by hand, machine, and herbicide or by a combination of all three consistent with the other requirements of this maintenance specification.

Where herbicide is to be used, it is the CMC's responsibility to ensure that the herbicide proposed to use is appropriate for the purpose and location.

Weeds and other debris will be removed from site at the end of each visit.

LITTER

At every maintenance visit the CMC shall remove all litter from planted areas. During autumn all fallen leaves should be collected and removed from grass and hard surfaces.

WATERING

Watering to be full depth of the topsoil. To be carried out as necessary for the continued thriving of all plantings. Do not loosen or damage plants.

If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

PROTECTIVE BARRIERS

During each visit CMC to check that any protective tubes are retained in place and that any protective fencing is maintenance and has not been breached.