



Mercury 62

Landscape & Ecological Management Plan

15th July 2022

Annabelle Langhorn BA(Hons) BLA CMLI

Email: annabelle@landscape-planning.co.uk

Tel: 07920 748520



Section 1: Introduction

Introduction

- 1.1 This Landscape & Ecological Management Plan should be read in conjunction with the following drawings:
 - Detailed Planting Plan (Ref: CLPD 075/P01b)
- 1.2 The above plans show the detailed soft landscaping works proposed for the public open spaces, communal areas, and to site boundaries for the proposed new development at Mercury 62.

Soft Landscaping Strategy & Aims

- 1.3 The Detailed Planting Plans build upon the Landscape Strategy and ecological recommendations included as part of the scheme. The proposed development has been informed and influenced by the information contained within the Halsnead Garden Village Design and Local Distinctiveness Guide (Knowsley Council, July 2020). Within this Design Guide, the site is identified as falling within the Halsnead South Character Area, with the overarching aim to provide wildlife corridors and green infrastructure corridors and to emphasise softening and framing commercial buildings.
- 1.4 This LEMP should also be read in conjunction with the BEMP (Biodiversity Enhancement Management Plan), prepared by Urban Green.
- 1.5 The Detailed Soft Landscape Proposals and Landscape Management Plan have used the recommended species mixes and specifications to inform the proposals and landscape strategy for the site. Planting within the Halsnead South Landscape Character Area aims to enhance and strengthen existing vegetation and provide a pleasant green area within which the commercial development will sit. It will also provide linkages to the adjacent country park and proposed landscaping reflects the characteristics of existing landscape features found within the surrounding landscape.
- 1.6 The landscape strategy proposed the following key Landscape Types within the site which respond to their local context:

Cronton Road

- 1.7 The boundary along Cronton Road includes a belt of native tree and shrub whips, shade tolerant understorey species, a native hedgerow and native trees which serve to soften the built form and provide a linear ecological features to maintain connectivity. This boundary vegetation will strengthen the existing vegetation found along Cronton Road. Within this character area the following species are proposed:
 - Native Woodland Planting (Tree and shrub whips): *Acer campestre*, *Betula pendula*, *Carpinus betulus*, *Corylus avellana*, *Crataegus monogyna*, *Ilex Aquifolium*, *Malus sylvestris*, *Prunus avium*, *Quercus robur*, *Rosa canina*, *Sorbus aucuparia*
 - Native Woodland Planting (Understorey): *Asplenium scolopendrium*, *Betonica officinalis*, *Primula veris*, *Prunella vulgaris*, *Silene dioica*, *Vicia sepium*



- Native Trees: (Feathered and semi-mature tree species): *Acer campestre*, *Alnus glutinosa*, *Betula penula*, *Carpinus betulus*, *Malus sylvestris*, *Prunus padus*, *Sorbus aucuparia*
- Native Hedgerow (Tree and shrub whips – double staggered hedgerow): *Acer campestre*, *Cornus sanguinea*, *Corylus avellana*, *Crataegus monogyna*, *Euonymus europaeus*, *Ilex aquifolium*, *Viburnum opulus*

Western Wetland Area

- 1.8 Located on the western part of the site, this area is informed by the existing conditions and ditches which run across the site. These existing ditches are enhanced with meadow mixes containing a mixture of grasses and wildflower species tolerant of wet and changeable conditions. The new attenuation proposed within this area will mimic natural wetland, with varied slopes proposed to allow for variation in habitat, with a maximum gradient of 1:3, but ranging to 1:6. The attenuation is proposed to have a maximum depth of 1500mm.
- 1.9 Marginal meadow seeding is included around the new pond area and is proposed to be the following:
- Emorsgate wetland mix (Emorsgate EM8 Mix). This mix includes the following species tolerant of wet and dry conditions:
 - Wildflowers (20%): *Achillea millefolium* (Yarrow), *Betonica officinalis* (Betony), *Centaurea nigra* (Common Knapweed), *Filipendula ularia* (Meadowsweet), *Galium verum* (Lady's Bedstraw), *Leontodon hispidus* (Rough Hawkbit), *Leucanthemum vulgare* (Oxeye Daisy), *Lotus corniculatus* (Birdsfoot Trefoil), *Plantago lanceolata* (Ribwort Plantain), *Primula veris* (Cowslip), *Prunella vulgaris* (Selfheal), *Ranunculus acris* (Meadow Buttercup), *Rumex acetosa* (Common Sorrel), *Silene silaus* (Pepper Saxifrage), *Succisa pratensis* (Devil's-bit Scabious), *Taraxacum officinale* (Dandelion), *Traopogon pratensis* (Goat's-beard), *Vicia cracca* (Tufted Vetch)
 - Grasses 80%: *Agrostis capillaris* – Common Bent, *Anthoxanthum odoratum* – Sweet Vernal-grass, *Briza media* – Quaking Grass, *Cynosurus cristatus* – Crested Dogstail, *Deschampsia cespitosa* – Tufted Hair-grass, *Festuca rubra* – Red Fescue

Retained trees to western area

- 1.10 The area to the west of the proposed commercial building contains a number of trees which are to be retained as part of the proposals. Where these existing trees are incorporated into the scheme, additional native scrub margins and areas of wildflower are proposed to increase diversity and strengthen the landscape character of this part of the site. All work within close proximity to retained trees to be completed in line with tree protection measures as outlined by qualified arboriculturist.
- 1.11 New native scrub, trees and meadow planting are proposed to create ecotones and transitional zones between the retained trees and the adjoining landscape and proposed development,
- 1.12 Enhancements are also proposed to the areas immediately around the retained trees to increase connectivity and species diversity. These new areas of native tree and shrub planting will strengthen the existing vegetation and characteristic landscape features, and will increase the ecological connectivity.
- 1.13 Within this character area, the following species are proposed:



- Native Woodland Planting (Tree and shrub whips): *Acer campestre*, *Betula pendula*, *Carpinus betulus*, *Corylus avellana*, *Crataegus monogyna*, *Ilex Aquifolium*, *Malus sylvestris*, *Prunus avium*, *Quercus robur*, *Rosa canina*, *Sorbus aucuparia*
- Native Woodland Planting (Understorey): *Asplenium scolopendrium*, *Betonica officianalis*, *Primula veris*, *Prunella vulgaris*, *Silene dioica*, *Vicia sepium*
- Native Scrub Margin Mix: *Centurea nigra*, *Corylus avellana*, *Crataegus monogyna*, *Cytisus scoparius*, *Lotus corniculatus*, *Ulex europeus*
- Meadow planting: Shade tolerant woodland edge/hedgerow wildflower meadow mix (Emorsgate EH1 or similar approved)
- Meadow planting: General Purpose Wildflower Mix (Emorsgate EM1 or similar approved)

Amenity Landscaped Areas Around Car Park/Service Yard etc

- 1.14 This planting character area is located around the building, at areas of car parking and along areas of infrastructure. It's primary aim is to provide areas of screening and amenity landscape areas to soften built form and areas of hardstanding.
- 1.15 Providing both screening and visual interest, the proposed planting mixes include evergreen shrub species to provide year round interest and visual screening in addition to native trees, shrubs and low level flowering lawn areas.
- 1.16 Within this area, the following species are proposed:
- Ornamental Trees: *Prunus cerasifer* 'Nigra' (Purple leaved cherry), *Sorbus aria* 'Majestica' (Whitbeam 'Majestica')
 - Native trees: *Alnus glutinosa*, *Betula pubescens*
 - Evergreen hedgerow (Containerised stock planted at 3 plants per m2): *Carpinus betulus* (Hornbeam)
 - Evergreen shrub mixes (Mix A and B): *Ceanothus* 'Blue Mound', *Choisya ternata* 'Sundance', *Cornus sanguinea*, *Hebe rakaiensis*, *Rosa arvensis*, *Viburnum opulus*, *Viburnum tinus* 'Eve Price'
 - Flowering lawn mix (Low grass/meadow mix intended to provide higher ecological value than amenity grass): (Emorsgate Flowering Lawn Mix EL1)

Ecological Recommendations

- 1.17 The ecological management regimes are set out in more detail within the Biodiversity Enhancement Management Plan (BEMP), produced by Urban Green. The following recommendations have been influenced by the BEMP and the design of the Landscape Strategy, and have been carried through to the Detailed Planting Proposals as follows:
- Retained trees in the western part of the site are to be enhanced with additional shade tolerant species and adjoining areas of native scrub to provide transitional ecotones and increase ecological connectivity.



- Trees will be managed in the interest of creating micro-habitats for birds, mammals and insects, and will include limiting management to only necessary activity as well as allowing and retaining Ivy growth
- Deadwood should be left in situ where possible, and bird and bat boxes should be installed on suitable trees.
- Native species rich hedgerows have been incorporated throughout the development
- Retain areas of wet ditches and enhance with marginal wildflower and grass species , with additional proposed attenuation proposed with shallow and varied bank profiles, creating additional habitats
- Proposed species throughout the development have been chosen to include native species, and to provide blossom and nectar to support pollinators and a range of species. Species selected conform with the recommendations set out within the Halsnead Garden Village Design and Local Distinctiveness Guide (Knowsley Council, July 2020) and those detailed within the ecological report.
- As an alternative to standard amenity grass mix, a flowering lawn mix is proposed in specific areas which provides a greater benefit to biodiversity, with low growing flowering species included.
- Works to trees, shrubs and hedgerows are to be completed outside of bird nesting season (ie between October and February). Where work is unavoidable, a check must be made of affected trees by a suitably qualified ecologist.



Section 2: Planting Objectives

- 2.1 The landscape works undertaken on-site will be maintained for a period of 12 months by a landscape contractor post Practical Completion, and following on from this, the landowner shall be responsible for the replacement of any trees, shrubs or plants which are dying, damaged or diseased within 4 years of planting within the next planting season.
- 2.2 The landscape is designed to:
- Strengthen the existing site boundaries and visual amenity along Cronton Road
 - Ensure the protection of key landscape features surrounding the site, and within the western part of the site to maintain and enhance characteristic landscape feature;
 - Provide connectivity with the Country Park land to the south east;
 - Provide integration with the surrounding landscape and settlement edge;
 - Increase ecological benefits through ongoing management and habitat creation; and
 - Reflect and respond to design guidance detailed within the Halsnead Garden Village Design and Local Distinctiveness Guide (Knowsley Council, July 2020).

General

- 2.3 All plant stock to meet National Plant Specifications and to be to BS 8545
- 2.4 All bare root and rootball stock to be planted between November to February.
- 2.5 Planting pits for trees, shrubs and hedging to be prepared with imported topsoil to BS3882, organic peat free compost and slow release fertiliser.
- 2.6 Mulch to be applied to a depth of 75mm around all trees, shrubs and hedging.
- 2.7 All planted stock to be watered in well.

Tree Planting

- 2.8 The proposed tree planting once established should display the following characteristics and condition relating to ecological requirements:
- More than 70% of species should be native;
 - Tree canopy is predominantly continuous with the gaps in canopy cover making up less than 10% of the total; area and no individual gap being more than 5m wide;
 - More than 50% of trees should be mature;
 - There is little or no evidence of adverse impact on tree health by vandalism or herbicide use. There is no current regular pruning regime, so trees retain more than 75% of expected canopy for their age and height;
 - The management regime has encouraged micro habitat sites for birds, mammals and insects with a presence of dead wood, cavities or loose bark;



- Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.

2.9 All tree planting to be planted between November and February.

2.10 Trees are to be planted at their mature spacing at a maximum spacing of 8 metres apart within hard landscaped areas. A minimum distance of 4 meters from foundations of buildings and 1 meter from fence lines and kerbs will be enforced on all trees. Tree surgery such as crown lifting, or dead wood removal will be carried out, as and when required.

2.11 All trees are to be planted in line with Green Blue Urban Tree Pit details (or similar approved) for both those planted within soft landscape areas and areas of hard standing. Tree pits to be at least 75mm greater than diameter of rootball, with 100mm depth of tree pit loosened to aid drainage.

2.12 Trees should be planted in tree pits backfilled with imported topsoil to BS standard and with organic peat free compost. Slow release fertiliser to be incorporated into tree pits at time of planting.

2.13 Trees are to be planted with double stakes and a cross bar. Stakes should be inserted on the side of the prevailing wind so that the tree is blown away from the stake.

2.14 Double stakes should be equally spaced around the tree outside the root ball and secured to the trunk with a timber crossbar and tie.

2.15 Ties should be checked regularly for rubbing and adjusted if necessary. Constriction of the stem by ties happens very quickly, so fast-growing trees need frequent checking. After bad weather, check for abrasion and snapped stakes or ties.

2.16 In year 5 remove staking if tree has established well and the stakes are no longer required.

2.17 The ground around the base of the tree is to be covered with a bark mulch in order to conserve moisture and reduce weed growth. For trees located within planting beds the bark mulch should be retained until such time as the area has been covered by shrub planting. Additional topping up of necessary mulching should take place on an annual basis.

2.18 All weed and grasses that self-seed around the base should be removed immediately.

2.19 Where trees are planted adjacent to existing planting, measures are to be taken to ensure the existing vegetation is protected.

2.20 Trees planted as part of woodland mix should be planted with a minimum of 400mm topsoil, and only native species should be planted. Woodland planting to be spaced randomly in groups of 3, 5 and 7 no of the same species. All bare root trees and shrubs within woodland mixes to be protected with spiral guards and 75mm of bark mulch laid to suppress weeds.

2.21 Water to ensure good establishment.

Scrub Planting

2.22 The proposed scrub planting once established should display the following characteristics and condition relating to ecological requirements:



- Habitat is representative of UKHab description (where in its natural range). There are at least three woody species with no one species comprising more than 75% of the cover
- There is a good age range – all of the following present: seedlings, young shrubs and mature shrubs;
- There is an absence of non-native invasive species (as listed on Schedule 9 of the WCA, 1981) and undesirable species (make up less than 5% of ground cover).

Scrub has a well-developed edge with scattered scrub and tall grassland present between scrub and adjacent habitats;

- There are clearings, glades and rides present within the scrub providing sheltered edges.

2.23 Inspect monthly and maintain tree and shrub whips in a weed free condition through combined techniques by hand, herbicides, cultivation and mulching.

2.24 Prune or clip to promote bushy, healthy growth and required shape when necessary.

2.25 Trim back growth overhanging adjacent footpaths or windows when required.

2.26 Remove/replace individual specimens as required.

2.27 Water to ensure good establishment.

Hedging

2.28 The proposed native hedgerow once established should display the following characteristics and condition relating to ecological requirements:

- Maintained once established to an average height of 1.5 metres, with the average height of woody growth estimated from the base of the stem to the top of shoots;
- Maintained once established to an average width of 1.5m estimated from the widest point of the canopy, excluding gaps and isolated trees, with newly planted hedgerows indicative of this criterion for up to a maximum of 4 years (if undertaken according to good practice);
- The gap between the ground and the base of the canopy is less than 0.5 metres for more than 90% of the length, with the vertical gappiness of the woody component of the hedgerow and its distance to the ground to the lowest leafy growth;
- Horizontal gaps within the woody component of the hedgerow are maintained less than 10% of the total length with no canopy gaps more than 5 metres in length;
- Undisturbed ground and perennial vegetation is provided on one side of the hedgerow for at least 90% of the length of the hedge, with more than 1m wide undisturbed ground with herbaceous or perennial vegetation present;
- Undesirable perennial vegetation is avoided, with species including nettles, docks and clevers not exceeding 20% of the groundcover;
- 90% of ground around hedgerow is maintained free of invasive neophyte species;



- 90% of the hedgerow or undisturbed ground is free of damage caused by human activities including pollution, piles of detritus, inappropriate management, excessive hedge cutting.

2.29 Hedges to be planted in double staggered rows to establish a natural hedgerow and planted at 6 plants per linear metre for the native hedgerows, and 3 plants per linear metre for the evergreen hedgerows. Stock should be planted in groups of 3 to 7 of the same species.

2.30 The ground around the newly planted hedgerows is to be bark mulched to a depth of 75mm in order to reduce weed growth and conserve moisture within the soil / root.

2.31 Careful clipping and pruning will be required in the early years of implementation to promote low bushy growth and to prevent the plants from becoming 'leggy'. Pruning to be completed on a 3 year rotation (3rd of hedge to be pruned each year to improve biodiversity and allow fruiting and flowering species to thrive)

2.32 All bare root stock within hedgerow should be planted with appropriate rabbit guards and checked regularly through establishment period then removed when whips, and hedgerow is established.

2.33 Apply fertiliser twice a year (Years 1-3).

2.34 Any diseased or dead stock should be removed each winter and hedgerow gapped up where necessary with additional native stock.

2.35 Native hedgerows once established should be maintained at a height of 1.5metres and a width of 1.5metres.

2.36 Water to ensure good establishment.

Shrub Planting

2.37 Water to ensure good establishment.

2.38 All shrub planting around car park areas at entrance features to be planted at 3 plants per m2.

2.39 Topsoil to be cultivated into beds to a minimum depth of 400mm with 150mm of base material loosened to aid drainage, with organic peat free compost and slow release fertiliser added to planting pits.

2.40 Planting pits for all shrubs should be at least 150mm wider and 100mm deeper than plant container, with 75mm of bark much provided to suppress weeds.

2.41 Water to ensure good establishment.

Wetland/Marginal Planting

2.42 The proposed attenuation pond once established should display the following characteristics and condition relating to ecological requirements:

- Cover of scrub and scattered trees is less than 10%



- Water quality is good, with clear water indicating no obvious signs of pollution;
- There is an absence of non-native plant and animal species (any species on the Water Framework Directive UKTAG GB High Impact Species List);
- Bank composition allows for varied habitats, with shallow gradients allowing for shelves to banks. Bank gradients to be no greater than 1:3 with preferred gradients of 1:6 and 'Beach type' slopes provided

2.43 Marginal meadow seeding and planting is proposed around the pond as shown on the Detailed Planting Proposals.

2.44 Ensure any litter or debris is removed within and around attenuation pond.

2.45 Complete selective weeding where necessary.

Wildflower/Grassland

2.46 The proposed meadow/grassland once established should display the following characteristics and condition relating to ecological requirements:

- Wildflowers, sedges and indicator species are clearly and easily visible throughout the sward;
- The sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed;
- Cover of bare ground is between 1% and 5%, including some localised areas;
- Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%;
- Ensure invasive non-native species are not (those listed on Schedule 9 of WCA, 1981), with combined cover of undesirable species present (Creeping thistle, Spear Thistle, Curled dock, Broad leaved dock, Common nettle, Creeping buttercup, Greater plantain, White clover and Cow parsley) accounting for less than 5% of the total area.

2.47 Most of the sown meadow species will consist of perennials which will be slow to germinate and grow and are therefore unlikely to flower during the first growing season. The resulting planting will consist of mainly annual weeds within the first growing season which will require topping or mowing.

2.48 When sowing within the autumn period, spring and summer cuts of the species are not to occur within the first growing season. Once the annual planting has flowered cuts are to occur within the mid-summer period and any excess vegetation is to be removed. It is important to cut back annuals before they die back, set seed and collapse. This cut will reveal the developing meadow mixture and give it the space required to develop.

2.49 In the second and subsequent years the Wildflower Meadow areas will require a summer 'hay cut' in combination with autumn and possibly spring mowing. In order to allow sown species to flower the meadow area must not be cut from spring to the mid-summer period (July / August) until the species have flowered.



2.50 After flowering has occurred a hay cut is to be completed using a scythe, petrol trimmer or tractor mower to approximately 50mm and the arisings left spread out over the ground for 1 to 7 days in order for seeds to be shed before the arisings are removed from the site.

Flowering Lawn

2.51 Flowering Lawn Mix and Amenity grass seeding is to be established using a wear-tolerant mixture as indicated on the Detailed Planting Proposals.

2.52 Flowering lawn mix should be mown regularly as a lawn at a height of between 25-40mm. To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks).

2.53 Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site.

2.54 EL1 is a complete mix composed of 20% wild flowers and 80% slow growing grasses.



Section 3: Management Regimes

- 3.1 As a minimum monthly maintenance visits should be undertaken to inspect, monitor as well as to carry out routine operations, including weeding and litter picking, with other specific operations being undertaken as scheduled below. The following management regimes should also be read in conjunction with the information found within the BEMP produced by Urban Green.
- 3.2 During the growing season (generally late April until the end of October – but depending on climatic conditions) further visits will need to be undertaken to ensure that amenity grass areas are kept in a tidy and well-kept condition. This is likely to be on a fortnightly basis.
- 3.3 Existing trees and woodland are to be maintained by:
- Occasional thinning of understorey scrub planting to increase light levels and encourage balanced canopies and growth of ground flora;
 - Monitor removal of invasive plant species on a regular basis;
 - Pruning trees to maintain correct shape and prevent plants encroaching on paths or roads, removing damaged and diseased limbs where necessary – work to be carried out outside of bird nesting season;
 - Replacing dead or dying trees and shrubs with similar species;
 - Weed control; and
 - Watering;
 - Areas of deadwood are to be retained where possible.
 - Retention of standing deadwood where safe and possible
- 3.4 Trees, shrubs and hedges are to be maintained by:
- Fertilising for continued healthy growth;
 - Pruning to maintain correct shape of plant and prevent plants encroaching on paths or roads;
 - Flail cutting of existing hedges on a rotational basis;
 - Weed control;
 - Watering;
 - Check and adjust ties; and
 - Firming up of stakes.
- 3.5 Wildflower meadow areas to be maintained by:
- Periodic cutting; and



- Weed control through mowing or spot spraying where necessary
- Re-seed any bare areas as necessary.

3.6 Marginal Aquatic Planting is to be retained by

- Clearance of litter and debris; and
- Selective weeding as required to ensure light levels are maintained
- Re-seed any bare areas as necessary.



Section 4: Responsibilities and Monitoring

- 4.1 The first 12 months management is to be included within the landscape contract and be undertaken by the landscape contractor to their own specification with the sole purpose of ensuring that the softworks are planted (in accordance with the Detailed Planting Proposals Plan) and successfully established. All plant failures within the first year will be replaced by the contractor on a like for like basis.
- 4.2 Maintenance and management activities for subsequent years (following end of defects period) are set out below to ensure the soft landscaping is managed effectively beyond the time limits of the implementation and establishment works.
- 4.3 The responsibility for this management and maintenance will be with the appointed management company. The maintenance and management of the ecological provisions will be included within the scope of works for the management company with inspections and repair work carried out as soon as practically possible following identification of any necessary maintenance.
- 4.4 Management and maintenance operations will be monitored and reviewed on an on-going basis and where required modified if the operations and frequencies set out do not deliver the required results or meet the specific aims and objectives.



Section 5: Maintenance and Management Activity Schedules

- 5.1 The first 12 months' management is to be included within the landscape contract; however, maintenance activities for subsequent years have been included below for information, to ensure the soft landscaping, ecological habitat features are managed effectively beyond the time limits of the construction works.

Component	Task	Time of Year	Frequency
YEAR 1: Monthly visits throughout the first year, fortnightly during growing season, and more frequently if required due to weather conditions			
Trees	Prune and repair wounds in accordance with good horticultural and arboricultural practice	Oct to Feb	As required (annually)
	Maintain 1-meter diameter circle of plant free soil around the base of the tree	Throughout	Once every four weeks in growing season. Five times per year in total.
	Check and adjust stakes. Re-firm tree by adjusting tree ties and ensuring soil is re-firmed around the base	Feb and after strong winds, frost heave and other disturbances	As required (annually)
	Hand weed	June to Sept	Monthly
	Apply suitable non-selective herbicide to control weeds	April / Oct	Twice a year (only if required)
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	April / May	Annually
	Replace any failed specimens	Oct to March	As required (next available planting season)
	Remove debris / litter	Throughout	Every visit
	Top up bark mulch around bases of trees to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so
Hedgerows	Retain areas of deadwood on site where possible	Throughout	As required
	Re-shaping	Hard-prune Oct to Feb	Annually if required
	Hand weed	Throughout	Monthly/every visit
	Apply suitable non-selective herbicide to control weeds.	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations.	Mar / April	Annually
	Remove debris / litter	Throughout	Monthly/every visit



	Replace any failed specimens.	Oct to March	As required (next available planting season)
	Top up bark mulch hedge base to full depth of 75mm.	April	Annually
	Watering of newly established hedgerows.	Throughout	As required after a period of four weeks without significant rainfall.
	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule.	May to Sept	As required (annually)
Shrub Planting	Prune to encourage healthy and bushy growth and desirable ornamental features; e.g. flowers, fruit, autumn colour, stem colour	Feb (or as appropriate to species)	Annually
	Re-firm plants	Feb and after strong winds, frost heave and other disturbances	As required (annually)
	Hand weed	Oct to March	Monthly
	Apply suitable non-selective herbicide to control weeds	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	Mar / April	Annually
	Remove debris / litter	Throughout	Every visit
	Replace any failed specimens	Bare root stock Oct to March. Containerised stock all year round	As required (next available planting season)
	Top up bark mulch around bases of shrubs to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so
	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)
Flowering Lawn Seeded Areas	All edges of flowering lawn area against buildings, footpaths, roadways, trees, posts and any other obstruction are to be kept neat and tidy	Throughout	2 hours per year per 100 linear metres
	Remove debris / litter	Throughout	Every visit
	Cut to within the limits of 25mm-40mm during April to June. From June onwards mowing to be relaxed over summer months to allow species to flower, with a further cut completed in 4-8 weeks when sward becomes higher. Remove all arisings	April to June/ September to March	Fortnightly, or as often as required during growing season.
	Remove loose moss by scarification	April / May	Annually
	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)



Wildflower Meadow Areas	Remove debris / litter	Throughout	Every visit
	Cut to 50mm and remove arising's. Cut to take place immediately after first flowering of annuals*	July / Aug*	Annually*
	Spot treatments of noxious weeds using selective herbicides	Throughout	Annually (As required)
Marginal Aquatic Planting	Maintain all planted areas with removal of dead plant material.	May to Sept	Every visit
	Remove debris / litter	Throughout	Every visit
	Cut to 50mm and remove arising's**	Sept and Mar**	Autumn & Spring only**
Scrub and Woodland Cope Planting Areas	Weeding around Trees. Apply suitable non-selective herbicide to control weeds.	April to Sept	Monthly/as required
	Grass control	Mar / Oct	Monthly
	Remove debris / litter	Throughout	Monthly
	Replace failed trees	Oct to March	As required (next available planting season)
	Watering of all newly planted trees	May to Aug and as necessary depending on weather conditions	Fortnightly-weekly in during periods of particularly dry weather
	Check fencing and tree guards	Throughout	Monthly
Ecological Habitat Features	Check all bird and bat boxes and access panels for damage that would affect their functionality. Repair / replace as soon as practically possible following inspection.	Throughout	Monthly
	Check hedgehog gaps for any obstructions. Clear obstructions as necessary to ensure gaps can still be utilised.	Throughout	Monthly

**First cut of annuals and subsequent 'Hay Cuts' must take place after flowering*

***No cutting or grazing to take place from spring through to late July/August*



Component	Task	Time of Year	Frequency
YEAR 2 Monthly visits recommended throughout year 2, fortnightly during growing season, and more frequently if required due to weather conditions			
Trees	Prune and repair wounds in accordance with good horticultural and arboricultural practice	Oct to Feb	As required (annually)
	Maintain 1-meter diameter circle of plant free soil around the base of the tree	Throughout	Once every four weeks in growing season. Five times per year in total.
	Check and adjust stakes. Re-firm tree by adjusting tree ties and ensuring soil is re-firmed around the base	Feb and after strong winds, frost heave and other disturbances	As required (annually)
	Hand weed	June to Sept	Monthly
	Apply suitable non-selective herbicide to control weeds	April / Oct	Twice a year (only if required)
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations.	April / May	Annually
	Replace any failed specimens (not part of rectification/defects)	Oct to March	Only if instructed (next available planting season)
	Remove debris / litter	Throughout	Every visit
	Top up bark mulch around bases of trees to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed
Hedgerows	Retain areas of deadwood on site where possible	Throughout	As required
	Trimming	April to Oct	5 times
	Re-shaping	Hard-prune Oct to Feb	Annually if required
	Hand weed	Throughout	Monthly
	Apply suitable non-selective herbicide to control weeds	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	Mar / April	Annually
	Remove debris / litter	Throughout	Every visit
	Replace any failed specimens (not part of rectification/defects)	Oct to March	Only if instructed (next available planting season)
	Top up bark mulch around bases of transplants to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so



Shrub Planting	Prune to encourage healthy and bushy growth and desirable ornamental features; e.g. flowers, fruit, autumn colour, stem colour	Feb (or as appropriate to species)	Annually
	All edges of grass areas against buildings, footpaths, roadways, trees, posts and any other obstruction are to be kept neat and tidy	Throughout	2 hours per year per 100 linear metres
	Re-firm plants	After strong winds, frost heave and other disturbances	As required (annually)
	Hand weed	Oct to March	Monthly
	Apply suitable non-selective herbicide to control weeds	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	Mar / April	Annually
	Remove debris / litter	Throughout	Every visit
	Replace any failed specimens (not part of rectification/defects)	Bare root stock Oct to March. Containerised stock all year round.	Only if instructed (next available planting season)
	Top up bark mulch around bases of shrubs to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so
Flowering Lawn Seeded Areas	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)
	Remove debris / litter	Throughout	Every visit
	Cut to within the limits of 25mm-40mm during April to June. From June onwards mowing to be relaxed over summer months to allow species to flower, with a further cut completed in 4-8 weeks when sward becomes higher. Remove all arisings	April to June/ September to March	Fortnightly, or as often as required during growing season.
	Remove loose moss by scarification	April / May	Annually
Wildflower Meadow Areas	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)
	Remove debris / litter	Throughout	Every visit
	Annual 'Hay Cut' - Cut to 50mm and spread arising's over the wildflower area to shed seed. Leave arising's for 1 to 7 days then remove	July/August after flowering*	Annually*
	Cut to 50mm and remove arisings**	Sept and Mar**	Autumn & Spring only**
	Spot treatments of noxious weeds using selective herbicides	Throughout	As required (Annually)
Marginal Aquatic Planting	Maintain all planted areas with removal of dead plant material.	May to Sept	Every visit
	Remove debris / litter	Throughout	Every visit
	Cut to 50mm and remove arising's**	Sept and Mar**	Autumn & Spring only**



Scrub and Woodland Cope Planting Areas	Weeding around Trees. Apply suitable non-selective herbicide to control weeds.	April to Sept	Monthly/as required
	Grass control	Mar / Oct	Monthly
	Remove debris / litter	Throughout	Monthly
	Replace failed trees	Oct to March	As required (next available planting season)
	Watering of all newly planted trees	May to Aug and as necessary depending on weather conditions	Fortnightly-weekly in during periods of particularly dry weather
	Check fencing and tree guards	Throughout	Monthly
Ecological Habitat Features	Check all bird and bat boxes and access panels for damage that would affect their functionality. Repair / replace as soon as practically possible following inspection.	Throughout	Monthly
	Check hedgehog gaps for any obstructions. Clear obstructions as necessary to ensure gaps can still be utilised.	Throughout	Monthly

**First cut of annuals and subsequent 'Hay Cuts' must take place after flowering*

***No cutting or grazing to take place from spring through to late July/ August*

Component	Task	Time of Year	Frequency
SUBSEQUENT YEARS Monthly visits recommended throughout subsequent years and more frequently if required due to weather conditions			
Trees	Prune and repair wounds in accordance with good horticultural and arboriculture practice	Oct to Feb	As required (annually)
	Maintain 1-meter diameter circle of plant free soil around the base of the tree	Throughout	Once every four weeks in growing season. Five times per year in total.
	Hand weed	June to Sept	Monthly
	Apply suitable non-selective herbicide to control weeds	April / Oct	Twice a year (only if required)
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	April / May	Annually
	Replace any failed specimens (not part of rectification/defects)	Oct to March	Only if instructed (next available planting season)
	Remove debris / litter	Throughout	Every visit
	Top up bark mulch around bases of trees to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells



	Retain areas of deadwood on site where possible	Throughout	As required
Hedgerows	Trimming	April to Oct	5 times
	Re-shaping	Hard-prune Oct to Feb	Annually if required
	Hand weed	Throughout	Monthly
	Apply suitable non-selective herbicide to control weeds	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	Mar / April	Annually
	Remove debris / litter	Throughout	Every visit
	Replace any failed specimens (not part of rectification/defects)	Oct to March	Only if instructed (next available planting season)
	Top up bark mulch around bases of transplants to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so
Shrub Planting	Prune to encourage healthy and bushy growth and desirable ornamental features; e.g. flowers, fruit, autumn colour, stem colour	Feb (or as appropriate to species)	Annually
	Hand weed	Oct to March	Monthly
	Apply suitable non-selective herbicide to control weeds	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations	Mar / April	Annually
	Remove debris / litter	Throughout	Every visit
	Replace any failed specimens (not part of rectification/defects)	Bare root stock Oct to March. Containerised stock all year round	Only if instructed (next available planting season)
	Top up bark mulch around bases of shrubs to full depth of 75mm	April	Annually
	Watering	May to Aug and as necessary depending on weather conditions	As required – weekly in dry spells if instructed to do so
Flowering Lawn Seeded Areas	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)
	Remove debris / litter	Throughout	Every visit
	Cut to within the limits of 25mm-40mm during April to June. From June onwards mowing to be relaxed over summer months to allow species to flower, with a further cut completed in 4-8 weeks when sward becomes higher. Remove all arisings	April to June/ September to March	Fortnightly, or as often as required during growing season.
	Remove loose moss by scarification	April / May	Annually



Wildflower Meadow Areas	Repair eroded areas – rotovate to 150mm, seed with appropriate mixes as per planting schedule	May to Sept	As required (annually)
	Remove debris / litter	Throughout	Every visit
	Annual 'Hay Cut' - Cut to 50mm and spread arisings over the wildflower area to shed seed. Leave arising's for 1 to 7 days then remove	July/August after flowering*	Annually*
	Cut to 50mm and remove arising's**	Sept and Mar**	Autumn & Spring only**
	Spot treatments of noxious weeds using selective herbicides	Throughout	Annually (As required)
Marginal Aquatic Planting	Maintain all planted areas with removal of dead plant material.	May to Sept	Every visit
	Remove debris / litter	Throughout	Every visit
	Cut to 50mm and remove arising's**	Sept and Mar**	Autumn & Spring only**
Scrub and Woodland Copse Planting Areas	Weeding around Trees. Apply suitable non-selective herbicide to control weeds.	April to Sept	Monthly/as required
	Grass control	Mar / Oct	Monthly
	Remove debris / litter	Throughout	Monthly
	Replace failed trees	Oct to March	As required (next available planting season)
	Watering of all newly planted trees	May to Aug and as necessary depending on weather conditions	Fortnightly-weekly in during periods of particularly dry weather
	Check fencing and tree guards	Throughout	Monthly
	Visual inspection of walls for damage. Repair as soon as practically possible following inspection in order to ensure the drystone walls are retained and maintained in their current condition.	Throughout	Every visit
Ecological Habitat Features	Check all bird and bat boxes and access panels for damage that would affect their functionality. Repair / replace as soon as practically possible following inspection.	Throughout	Monthly
	Check hedgehog gaps for any obstructions. Clear obstructions as necessary to ensure gaps can still be utilised.	Throughout	Monthly

**First cut of annuals and subsequent 'Hay Cuts' must take place after flowering*

***No cutting or grazing to take place from spring through to late July/ August*



Longer Term Scrub and Woodland Copse Planting Management

5.2 Beyond 5 years, the following woodland copse management activities are recommended for those responsible for the longer-term management of the soft landscaping within the development:

Years 6 to 10

5.3 As per Years 1 to 5 (except watering), with the addition of:

- Removal of tree guards in January
- Monitoring of the health and vitality of planting monthly throughout the year
- Removal of deadwood and pruning of any crossing lateral branches. Deadwood to remain on site in the form of stockpiles. Undertake monthly between November and February
- Control and removal of invasive non-native species
- Thinning of dense woodland growth
- Undertake a safety audit at year 10, in August.

Years 11 to 15

5.4 As per Years 1 to 5 (except watering), with the addition of:

- 20% thinning of woodland by targeted removal of weakest trees, undertaken monthly between November and February
- Monitoring of the health and vitality of planting monthly between November and February
- Removal of deadwood and pruning of any crossing lateral branches. Deadwood to remain on site in the form of stockpiles. Undertake monthly between November and February
- Control and removal of invasive non-native species
- Thinning of dense woodland growth
- Undertake a safety audit at year 15, in August.

Years 16 to 20

5.5 As per Years 1 to 5 (except watering), with the addition of:

- Monitoring of the health and vitality of planting monthly between November and February
- Removal of deadwood and pruning of any crossing lateral branches. Deadwood to remain on site in the form of stockpiles. Undertake monthly between November and February.
- Assessment of the requirement to removal any trees that have reached life expectancy or are compromising the establishment of younger woodland trees. Undertaken once per year, at any time during the year.



- Undertake a safety audit at year 20, in August.