



CHAPEL HILL, LONGRIDGE, PRESTON

HABITAT MANAGEMENT AND MAINTENANCE PLAN

The management plan is intended to discharge planning conditions for the development of land Chapel Hill, Longridge The plan is to be handed to the building owner/ occupants/ management company/ contractor, or whoever is responsible for the grounds maintenance of the site.

The plan has been prepared and coordinated by Mulberry TMC on behalf of D2 Architects

Above Zero Reference:	M718_Chapel Hill, Longridge_Habitat MP - V2
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VS2	Final	ES	RR	18.10.2024
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1.0 Introduction

Background and Purpose of the Habitat Management and Maintenance Plan (HMMP)

- 1.1 The proposed scheme is the development of land off Chapel Hill, Longridge Preston for residential housing. The purpose of this document is to provide a HMMP for the medium-term management (5 years) of habitats within the proposed development site. It sets out ecological guiding principles, aims, objectives, monitoring and threats. This allows those responsible for the management and maintenance of the site (the management company) to understand the existing and proposed habitats, levels and standards for management and maintenance, the proposed development and implications for ongoing maintenance of the site.
- 1.2 This HMMP should be read in conjunction with the Landscape General Layout (drawing M718-CHLP-LAND-02-04) and schedules (contained on drawing M718-CHLP-LAND-05).
- 1.3 A maintenance specification is provided in section 6. This sets out the detailed habitat maintenance requirements for the site. Maintenance of the site must be carried out as per

the requirements set out in the specification. Any discrepancies between this plan, the drawings and specification must be highlighted to site owners and overall management staff.

- 1.4 For a more detailed understanding on the ecology on site (pre development) reference should be made to the Habitat and Species Management Plan (Bowland Ecology June 2017).

Planning Requirements

- 1.5 This HMMP supports the full planning application for the development on the site.
- 1.6 The plan, to cover a 5 year period after completion, has been requested by Ribble Valley Borough Council as part of a planning condition to ensure existing habitats are suitability maintained and reach their potential.

Monitoring and Review

- 1.7 Annual monitoring reports will be made against measurable targets such as levels of litter, condition of planting, continued biodiversity of plant species, health of habitats

complaints from residents and instances of anti-social behaviour. The outcomes of this monitoring will form part of a Site Management Monitoring Report to be submitted by the management company to the site owner annually. The report will include management operations undertaken and any actions outstanding or required within the following year that fall outside of this plan and maintenance specification.

1.8 This HMMP will be reviewed annually by the site owner, management company and other interested parties to ensure that the aims of the plan are being met. The success of the management company shall be reviewed through regular meetings and inspections including:

- Annual Site Meeting following submission of annual report;
- Quarterly site inspections and reports;
- Monitoring of identified habitats; and
- Other unscheduled inspections made as required.

1.9 Every 5 years the HMMP will be reviewed and updated where necessary to reflect any changes on the site or to targets. This will review the type and frequency of maintenance operations to ensure the continued high-

quality management of the site in accordance with the design philosophy and habitat requirements as the site establishes and matures.

1.10 The HMMP covers the communal area of the site only and does not cover land within private or tenanted ownership. The area to be managed under this HMMP is shown over leaf:

Overleaf- Plan to show areas of open space to be managed under this HMMP. (Figure 1)

Figure 1



1.11 The structure of this plan has been set out under the following headings:

- Introduction
- Baseline Information
- Development Proposals
- Site Management and Maintenance
- Monitoring Surveys
- Ecological Trends or Constraints
- Implementation of the Management Plan
- Maintenance Specification

2.0 Baseline Information

Site Location

2.1 The site lies to the south of St Cecilia's RC High School, recycling unit, industrial units and residential properties, and to the north of Alston Reservoir No 2 (a designated County Biological Heritage Site). To the east lies residential properties fronting Chapel Brow, which is also a Bridleway. The site was formerly a greenfield site with two substantial buildings along the site frontage; one of which has been demolished (no.53) with only a former barn remaining. Part of the site lies within the St Lawrence's conservation area and the entire site falls within the settlement boundary of Longridge.

Site Description

2.2 The site area is roughly oval in shape and covers an area of approximately 1.38 Hectares. The site benefits from a close physical and visual connection to Alston Reservoir. The site slopes from Chapel Hill southwards towards the reservoir. An existing attractive stone wall defines the southern boundary neighbouring the reservoir. A number of existing stone walls bound residential properties to along Chapel Hill

2.3 A site visit by Mulberry TMC was undertaken in September 2024 during the construction phase of the project. Photographs of the site are shown below.)



2.4 A biodiversity Assessment Report was undertaken (predevelopment) and a report produced by Bowland Ecology Ltd (2017).

2.5 A limited range of existing habitats currently existing on site. These are summarised below:

Existing Habitats

Below is an extract from the Habitat and Species Management Plan (Bowland Ecology 2017)

2.6 *The development site and management areas have been subject to detailed ecological surveys (including Extended Phase 1 Habitat survey bird and bat surveys), the results of which can be viewed in the following document; BOW054 Chapel Hill, Longridge: Ecological Appraisal, December 2011.*

2.7 2.2 *The development footprint comprises semi improved neutral grassland, tall ruderal vegetation, marshy grassland, plantation woodland, scattered and dense scrub and scattered trees.*

2.8 *The site provides potential habitat for a variety of wildlife. The plantation woodland and scrub provide suitable*

terrestrial and refugia habitat for amphibians. The grassland, plantation woodland, scrub and scattered trees are likely to provide foraging areas for bats as well as facilitating commuting routes across the area. In addition, two bats were recorded emerging from adjacent Buildings 1 and 2 during the dusk emergence surveys undertaken in 2010.

2024

2.9 Much of the site has been developed with the remaining habitats being areas of scrub and retained mature trees.

2.10 There are many mature trees to be retained within the site. Sycamore is the predominate species with groups of Leyland cypress located with the proposed public open space to the east of the site.

3.0 Development Proposals

Landscape Proposals

- 3.1 Development proposals are for 54no new dwellings, access roads and private gardens, proposals also include generous areas of communal open space, the largest of which is situated on the eastern side of the development. Existing mature trees are retained within communal open space through the centre of the site. A generous linear green space has also been provided as a buffer between the built form of development and Alston Reservoir to the south.
- 3.2 Landscape proposals have been developed and specified by landscape architecture and ecology professionals. Proposals include the retention of mature or mature trees, planting 74no new native trees. 110 lin m mixed species native hedgerow, 0.6ha's of species rich meadow, 350m2 of bulb planting, ornamental hedgerows and planting areas to front gardens and amenity grassland.
- 3.3 Existing habitats have been either retained or new areas created that will be managed to enhance biodiversity and features of interest on site.

- 3.4 Once development is complete the following habitats will be retained or created onsite (Table 1).

Table 1

Habitat Type	Area/ Length/ No
Native Trees	74no
Mixed Species Native Hedgerows	110 lin m
Ornamental Hedgerow	267 lin m
Species Rich Meadow	6000m2
Amenity Grassed Areas	3500m2
Ornamental Planting	215m2
Native Bulb Planting	350m2
New Pond and Marginal Planting	730m2

- 3.5 As well as the providing landscape and habitats as above ecological enhancement features will be provided as part of the development to provide nesting for birds, roosting for bats, hedgehog refuges and hibernacula for small mammals and amphibians

These features are itemised below. (Table 2).

Table 2

Habitat Type	Area/ Length/ No
Schwegler Type 1FF Bat Box	8no
Vivara Pro Build-in Wood Stone Bat Box	6no
Schwegler Type 1b Nest Box	14no
Schwegler Swift Brick	20no
Hedgehog House	6no
Hibernacula	4no

3.6 “6no. bat boxes are proposed for installation into new buildings. These should comprise of Vivara Pro Build-in WoodStone Bat Box. The bat boxes should be installed on the south face of each building. The bat boxes should be installed immediately below the building’s eaves, and as high as possible. Bat boxes will be located at a minimum height of 4 m.

3.7 The proposed bird boxes to be installed within the buildings will comprise of Schwegler Swift bricks. Swift bricks are also used by house sparrows and other small bird species so are considered a 'universal bird brick'.

3.8 The Swift boxes should be installed on the north face of each building. The Swift boxes would be installed immediately below the building’s eaves, and as high as possible. Swift boxes will be located at a minimum height of 5 m.

3.9 Both the bat and bird boxes to be installed within the buildings are integral boxes which must be built into the brickwork of the housing. Therefore, the boxes cannot be retrofitted and so must be considered during construction of each house.

3.10 The tree mounted bat boxes would be positioned on retained mature trees located at the site. The boxes would be installed at a minimum height of 4m, positioned to avoid having a north facing aspect, and positioned so that the bat box entrance and bat flight lines below the entrance are not obstructed by vegetation (this may require some twigs and young branches to be removed within at least 1m beneath the bat box entrance).

3.11 The tree mounted bird boxes would also be positioned on mature trees around the site. The boxes would be installed at a minimum height of 2m, located in a sheltered location

and positioned so that the bird box entrances are not obstructed by vegetation.

3.12 The locations of all bat and bird boxes will be checked following installation by an appropriately qualified ecologist.”

3.13 Soft landscape proposals, planting schedules, ecological enhancement plan and indicative hibernacula and pond design are shown in figures 2-6 below.

Figure 2-4- Soft Landscape General Layout Plans (1-3)



Chapel Hill, Longridge, Preston- Habitat Management and Maintenance Plan



Chapel Hill, Longridge, Preston- Habitat Management and Maintenance Plan



Planting Schedules

Standard Tree Planting Schedule

Drawing Code	Name	Form	Age	Girth (cm)	Height (cm)	Clear stem (cm)	Root condition	Breaks	Nr of Trees
Ac	<i>Acer campestre</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	13
Ag	<i>Alnus glutinosa</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	4
Bpe	<i>Betula pendula</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	2
Bp	<i>Betula pubescens</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	5
Cm	<i>Crataegus monogyna</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	4
CmS	<i>Crataegus monogyna</i> 'Stricta'	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	5
Ms	<i>Malus sylvestris</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	3
Sa	<i>Sorbus aucuparia</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	7
Tc	<i>Tilia cordata</i>	Standard (extra heavy)	3x	14-16	425-600	175-200	RB	5	12
Ps	<i>Pinus sylvestris</i>	Leader and Laterals	4x		175-200		RB		4
Pa	<i>Prunus avium</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	2
Pp	<i>Prunus padus</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	4
Qr	<i>Quercus robur</i>	Standard (extra heavy)	3x	12-14	350-425	175-200	RB	5	9
Total									74

Mixed Species Native Hedgerow Planting Schedule

Plant name	Common Name	Height (cm)	Root Condition	Number of times Transplant (min)	Form	Length (lin.m)	Total Plants/ lin.m	Total No. Plants
Hedgerows (Double staggered row. 5 per m)								
<i>Corylus avellana</i>	Hazel	60-80	B	1+1	Branched	6	5	30
<i>Crataegus monogyna</i>	Hawthorn	60-80	B	1+1	Transplant	84	5	420
<i>Lonicera periclymenum</i>	Common Honeysuc	30-40	C (1L)		Sev. Shoots	2	5	10
<i>Ilex aquifolium</i>	Holly	60-80	B	1+1	Leader and laterals	12	5	60
<i>Rosa canina</i>	Dog Rose	40-50	B	1+0 or 1/1	Branched	3	5	15
<i>Viburnum opulus</i>	Gulder Rose	60-80	B	1+1	Branched	3	5	15
Total						110		550
Planting Species as Recommended by Consultant Ecologist.								
Hedging plants to be evenly spaced throughout the hedgerow in groups of 3 and 5								
Hedging plants to be evenly spaced and planted at approximately 1 plant every 3 metres of hedging								

Single Species Hedgerow Planting Schedule

Drawing Code	Plant name	Height (cm)	Root Condition	Number of times Transplant	Size (L)	Habit	Breaks	Density/ lin m	Length (m)	Total No. Plants
Hedgerows (Double staggered row)										
Cb	<i>Carpinus betulus</i>	60-80	B	1+1 or 1/1				5	57	285
Od	<i>Choisya x dewitteana</i> 'White Dazzler'	30-40	C		3L	Bushy	4	5	41	205
Ej	<i>Euonymus japonicus</i> 'Jean Hugues'	30-40	C		3L	Branched	4	5	9	45
EDS	<i>Excalonia</i> 'Donald Seeding'	30-40	C		3L	Bushy	4	5	13	65
Ei	<i>Excalonia</i> 'Iveyi'	30-40	C		3L	Bushy	4	5	16	80
Gi	<i>Griselinia littoralis</i>	30-40	C		3L	Bushy	4	5	52	260
Ia	<i>Ilex aquifolium</i>	60-80	B/C			Leader and laterals		5	55	275
Sj	<i>Skimmia japonica</i> 'Rubella'	30-40	C		3L	Bushy	3	5	24	120

Aquatic Marginal Planting Schedule

Plant Name	Common Name	Root condition	Size	Propagat ion	Planting Mix (m2)	Density (m2)	Total Number Plants
<i>Juncus inflexus</i>	Hard rush	C	1L	V	25	2	50
<i>Caltha palustris</i>	Marsh Marigold	C	1L	V	25	2	50
<i>Myosotis scorpioides</i>	Water forget-me-not	C	1L	V	25	2	50
<i>Metra aquatica</i>	Water mint	C	1L	V	25	2	50
<i>Potentilla palustris</i>	Marsh cinquefoil	C	1L	V	25	2	50
<i>Iris pseudacorus</i>	Yellow flag	C	1L	V	25	2	50
						150	300

Shrub Planting Schedule

Plant name	Height (cm)	Root Condition	Size (L)	Habit	Breaks	Planting Mix (m2)	Density (per m2)	Total Number Plants
<i>Euonymus fortunei</i> 'Emerald Gaiety'	20-30D	C	3L	Bushy	7	3	3	9
<i>Euonymus fortunei</i> 'Silver Queen'	20-30D	C	3L	Bushy	3	3	3	9
<i>Hebe pinguifolia</i> 'Pagei'	30-40	C	3L	Bushy	5	3	3	9
<i>Hydrangea macrophylla</i> 'Mariesii'	40-60	C	5L	Branched	5	4	3	12
<i>Lavandula 'Hidcote'</i>	20-30	C	3L	Bushy	5	5	3	15
<i>Mahonia japonica</i>	30-40	C	3L	Branched	2	3	3	9
<i>Nandina domestica</i> 'Gulfstream'	20-30	C	3L	Several shoots		4	3	12
<i>Potentilla fruticosa</i> 'Abbotswood'	20-30	C	3L	Bushy	4	3	3	9
<i>Rosa 'Kent'</i>	40-60	C	3L	Bushy		6	3	18
<i>Rosmarinus officinalis</i> 'Miss Jessop's Upright'	30-40	C	3L	Branched	4	3	3	9
<i>Skimmia japonica</i>	30-40	C	3L	Bushy	3	5	3	15
<i>Viburnum x juddii</i>	20-30	C	3L	Branched	5	3	3	9
Totals						45		135

Herbaceous/ Perennial Planting Schedule

Plant Name	Root condition	Size	Propagation	Planting Mix (m2)	Density (m2)	Total Number Plants
<i>Achemille mollis</i>	C	1L	S	7	6	42
<i>Anemranthele lessoniiana</i>	C	1L	V	7	6	42
<i>Anemone x hybrida</i> 'Honorable Jobert'	C	1L	V	7	6	42
<i>Aquilegia vulgaris</i>	C	1L	S	5	6	30
<i>Astilbe 'Deutschland'</i>	C	1L	S	7	6	42
<i>Astrantia major</i> 'Hudson Blood'	C	1L	V	7	6	42
<i>Bergenia 'Beethoven'</i>	C	1L	V	5	6	30
<i>Bergenia 'Silverlicht'</i>	C	1L	V	5	6	30
<i>Brunnera macrophylla</i>	C	1L	V	7	6	42
<i>Campanula glomerata</i>	C	1L	V	7	6	42
<i>Carex ornithopoda</i> 'Variegata'	C	1L	V	7	6	42
<i>Deschampsia cespitosa</i>	C	1L	V	5	6	30
<i>Euphorbia amygdaloides</i> 'Robbiae'	C	1L	V	7	6	42
<i>Geranium macrorrhizum</i>	C	1L	V	7	6	42
<i>Geranium Rozanne</i>	C	1L	V	7	6	42
<i>Geranium 'Wargrave Pink'</i>	C	1L	S	5	6	30
<i>Hakonechloa macra</i>	C	1L		7	6	42
<i>Heuchera 'Plum Pudding'</i>	C	1L	S or V	7	6	42
<i>Iris sibirica</i> 'Tropic Night'	C	1L	V	5	6	30
<i>Molinia caerulea</i> 'Edith Dudsuz'	C	1L	V	7	6	42
<i>Origanum vulgare</i> 'Aureum'	C	1L	S	5	6	30
<i>Persicaria affinis</i> 'Superba'	C	1L	S or V	15	6	90
<i>Pulmonaria officinalis</i> 'Sissinghurst White'	C	1L	V	7	6	42
<i>Salvia officinalis</i> 'Purpureascent'	C	1L	V	5	6	30
<i>Sedum spectabile</i> 'Brilliant'	C	1L	V	5	6	30
<i>Stipa tenuissima</i>	C	1L	S or V	5	6	30
Totals				170		1020

Bulb Planting Schedule

Plant Name	Form	Grade	Density/m2	% of Area	Area	Number of Bulbs
<i>Anemone nemorosa</i>	Bulb	5/6	15	10	350	525
<i>Fritillaria meleagris</i>	Bulb	5/6	15	10	350	525
<i>Galanthus nivalis</i>	Bulb	5/6	15	10	350	525
<i>Hyacinthoides non-scripta</i>	Bulb	8/9	15	30	350	1575
<i>Narcissus pseudonarcissus</i>	Bulb	10/12	15	40	350	2100

FOR PLANNING

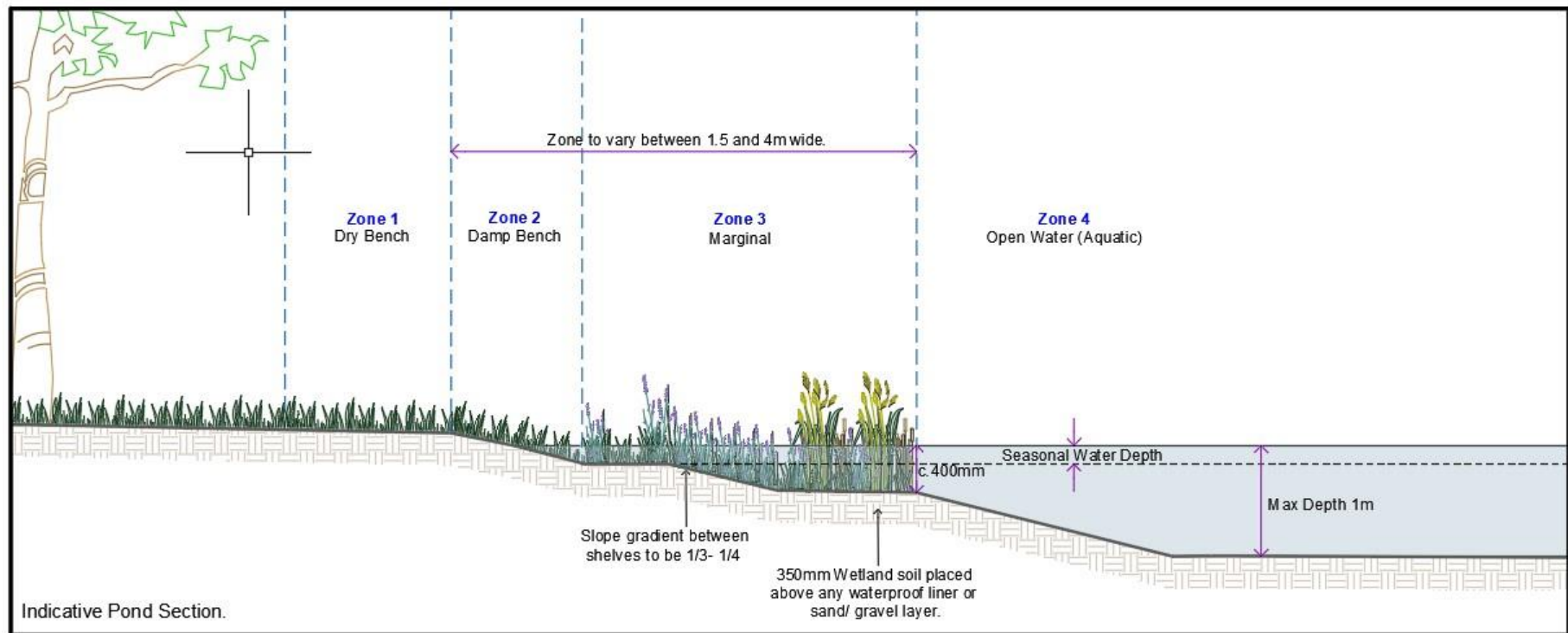
Chapel Hill, Longridge, Lancashire	
Planting Schedules	
SCALE: NTS	DATE: Sept 24
DRAWING: M718/CHLP/LAND/05	



Figure 5- Ecological Enhancement Plan



Figure 6- Indication Section for New Pond



3.14A maintenance specification has been provided within section 6 of this plan which sets out the detailed landscape maintenance requirements for the establishment and continued maintenance of new habitat areas across the site.

4.0 Site Management and Maintenance

Aims, Objectives and Targets for Management

4.1 The landscape scheme and ecological mitigation have been designed to reflect the local landscape context in order to integrate the development into the landscape and provide a naturalistic environment for people to enjoy. There are 7 strategic design objectives for the scheme:

1. Retain and protect the sites valued landscape features and provide new landscape features that will sympathetically integrate into the wider environment and mature to create an attractive setting.
2. Maintain and enhance existing and proposed habitats to ensure they develop naturally and thrive.
3. Increase species diversity within soft landscape area and principally within trees, hedges and meadows.
4. Improve habitat connectivity across the site and in the wider landscape

5. Provide a tidy, safe and well-maintained environment for members of the public.
6. Ensure that landscape proposals are cost effective and not overly onerous or unpractical on owners to develop and manage.
7. Provide an environment which local people care for and promotes active engagement in the management and maintenance of it.

Ecological Management Objectives

4.2 Various habitats proposed for the site which have varying management requirements. The landscape elements/habitats are presented at Table 1 and are listed below with the management objectives and tasks described on the following pages.

Existing Habitats

1. Standalone Trees

Proposed Habitats

2. New Trees

3. New Hedgerows
4. Shrub and Herbaceous Planting
5. Native Meadow Grass
6. Amenity grass
7. Bulbs
8. Pond and Marginal Planting

Habitat Type 1: Existing Trees

Objective

W1 Allow trees to continue to develop naturally, selectively prune for visual amenity and safety.

W2 Retention of deadwood or small, low brash piles as habitat features

W3 Monitor trees for condition and safety. If trees are thought to be diseased, take action to prevent disease spreading.

W4 Management of trees to aid natural surveillance from neighbouring areas.

*NOTE: Obtain correct permissions from Cheshire West Council prior to any work on protected trees or trees with conservation areas.

Operation/Prescription	Frequency per annum	Years applicable/ or frequency over the 30-year plan period	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Inspection of trees by a trained arboriculturalist for hazards, tree safety and disease (Objective W3)		Every 2 years.												
Carry out selective pruning as required to main visual amenity and remove any crossing, damaged or diseased limbs. Carry out any recommendations contained in tree condition reports. (Objective W1 & W3)	1	1 to 5												
Carry out tree works as required. Leave some dead wood within small, low brash piles in appropriate locations to provide habitat (Objectives W2)	As required	1 to 5												
Carry out selective pruning as required to ensure tree crown clearance from the ground is maintained at a minimum of 2m. Selective removal of limbs and branches to aid natural surveillance as identified and agreed by management company, residents and community safety teams. (Objective W4)	As required	1 to 5												
Check bird and bat boxes are secure. Reposition if they are continually not in use.	1	Every 5 years												

Habitat Type 2: New Trees

Objective

T1 To allow trees to successfully establish to provide an attractive setting to the open space whilst ensuring a safe environment.

T2 Management to provide conditions where a healthy tree root system and canopy will develop.

T3 Monitor trees for signs of disease and take action to prevent the spread through the site.

Operation/Prescription	Frequency per annum	Years applicable/ or frequency over the 30-year plan period	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Inspect guys, stakes and ties regularly for firmness and support. Adjust ties twice annually. (*) Remove ties and supporting posts once trees have established. Straighten leaning trees or refirm trees as required (Objectives T1 and T2)	12	1 to 5			*						*			
Maintain loose mulch around base of trees (Objectives T1 and T2)	2	1 to 5												
New trees to be watered as required to ensure successful establishment of trees. Programmed fortnightly during the growing season and more during prolonged periods of drought. Watering not to take place if rootball already looks saturated (Objectives T1 and T2)	As required	1 to 5												
Carry out hand weeding to vegetation within 0.5m of base of tree (Objectives T1 and T2)	Monthly	1 to 5												
Fertilise and aerate trees which are not thriving (Objectives T1 and T2)	2	1 to 3												
Replacement of failed tree planting in the next available planting season (Objective T1)	As required	1 to 3												
Formative pruning to maintain health and vigour. Annual crown lifting, pruning, thinning and shaping of trees as required. (Objective T2)	1	1 to 5 as required												

Undertake safety inspections by an arboriculturalist to check for damage and diseases. Carry out remedial works as required. Also check roots are not causing damage to roads, pavements or buildings. (Objective T3)		Every 2 years.													
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Habitat Type 3: New Hedgerows

Objective

H1 Hedgerow to be managed proactively to maintain structure to provide bird nesting habitat.

H2 Manage hedgerow to prevent conflicts with people, built environment and maintain visibility.

H3. Ensure hedgerows remain species rich.

H4. Ensure newly planted hedgerows establish and thrive.

Operation/Prescription	Frequency per annum	Years applicable/ or frequency over the 30-year plan period	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Remove litter and detritus from within hedgerows as part of fortnightly site cleanse (Objectives H1 and H2)	26	1 to 5												
Replant/ gap up hedgerow where plants have not established or have died. Ensure species are as per the original specification. (Objective H3).	1	1 to 3												
Keep area weed free through regular hand weeding (Objectives H1 and H2)	12	1 to 5												
Watering as required during establishment particularly during times of prolonged drought . (Objective Nh1)	As required	1-3												
Keep area beneath new hedgerow mulched with c. 75mm depth bark, until hedge thickens and becomes established	1	1-3												
Trim/face up hedgerows twice annually in first 3 years to maintain form and encourage bushy growth avoiding bird nesting season (March to August). Maintain clear visibility splays from roundabout junctions (Objectives H1)	2	1 to 3												
Trim/face up hedgerows annually years to maintain form and encourage bushy growth avoiding bird nesting season (March to	1	4-5												

[illegible]

Habitat Type 4: New Trees: Shrub and Herbaceous Planting

Objective

S1 Maintain a neat and tidy appearance to provide an attractive setting to the development through ensuring successful plant establishment.

S2 To achieve all year interest through appropriate management of ornamental species.

S3. Maintain and enhance the habitat within the wildlife area for the benefit of intended fauna species.

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Remove litter from planting beds as part of fortnightly site cleanse. . (Objective S1/S3)	26	1 to 5												
Remove weeds from all planting beds by hand weeding during the growing season. Pull up weeds to aid successful establishment and maintain a tidy appearance. (Objective S1/S3)	7	1 to 5												
Maintain mulch within ornamental planting beds to a depth of 75mm (Objective S1)	Twice annually	1 to 5												
Fertiliser application in spring and autumn (Objectives S1 and S2)	2	1 to 5												
Prune, trim and dead head shrub and herbaceous planting in accordance with species requirements to maintain vigour and growth. Retain seed heads (herbaceous and grasses) over winter to provide interest and food source and cover for wildlife. Cut back herbaceous plants and grasses in Spring. (Objective S2)	As required	1 to 5												
Remove any failed or diseased planting as soon as possible, replace in the next available planting season. (Objective S1/S3)	As required	1 to 5												

Landscape Feature Type 5: Meadow Grass

Objective

MG1 Management of meadow grassland to encourage diverse plant communities but discourage perennial and annual weeds and amenity grasses.

MG2 Target 9no. species of native wildflowers and grasses.

MG3 Manage scrub and ruderal vegetation to prevent it becoming established.

MG4 Provide a wildlife corridor and habitat to provide a food source for pollinators and habitat for small mammals.

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Cut meadow grassland to a height of 40-60cm during the first year to discourage annual weeds. Remove arisings from site. (Objectives MG3)	3	1												
Annual cut to a height to 60cm in height between late July to mid-August (for wildlife benefit carry out a late cut in September every 3 rd year) to allow a diverse sward to develop. Allow seed to drop before removing arisings from site. (Objectives MG1, MG2, MG3 and MG4)	1	2 to 5												
Weed control achieved by hand removal and spot spraying. (Objective MG3)	As required	1 to 5												
Remove any invading scrub annually. (Objectives MG3)	As required	1 to 5												
5 yearly inspection of meadow areas to ensure target of 9 species is maintained; carry out targeted remedial works (additional planting or seeding) if target number not achieved	Every 5 years	5												

Habitat Type 6: Amenity Grassland

Objective

AG1 To maintain a tidy appearance and ensure safe public usage

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
First cut of grass to be to 50mm height. Arisings removed from site (Objective AG1)	1	1												
Fortnightly cut during the growing season to maintain a height of 40mm. Spread arising evenly over grass areas. (Objective AG1)	16	1 to 5												
Cultivate and re-seed as required (Objective AG1)	As required	1 to 5												
Spring and autumn slow release fertiliser application (Objective AG1)	2	1 to 5												
Carry out weed control as required including spot treatment using selective herbicide on noxious weeds such as ragwort, nettles, thistles, dock and willowherb. (Objective AG1)	As required	1 to 5												

Habitat Type 7: Bulbs

Objective
B1 Establish and maintain spring bulb planting to provide seasonal interest within areas of amenity grassland.

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Fortnightly cut to 40mm height during the growing season 6 to 8 weeks after blubs have flowered. (Objective B1)														

Habitat Type 8: New Pond and Marginal Planting

Objective

P1 Encourage natural colonisation of the new pond to ensure species of local provenance come established.

P2 Increase aquatic/breeding habitat/ shelter provision for amphibians.

P3. Increase flora species biodiversity.

P4. Provide drinking and bathing water for mammals and birdlife.

P5. Provide an attractive feature for residents to enjoy

P6. Ensure the pond does not cause issues with flooding

*Allow pond to fill and water levels to naturally reflect weather conditions. Do not artificially fill.

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Check pond liner and ensure inlet and outlet are free-flowing and clear of debris. (P6).	1	1-5												
Remove leaves from pond surface. Net or rake out excess autumnal leaves that fall into the water. (P3)	3	1 to 5												
Removal/ management of marginal vegetation (Restrict as only when deemed necessary). Leave any vegetation on the site of the pond for 3 days prior to removal. (P1/P2/ P3/ P4/ P5)	1	3-5												
Removal of excess silt from base of pond. Allow silt to build up, but remove when this becomes too deep, leaving at least 200mm depth of silt in the base. Operation can be reduced by regular removal of leaves from surface. (P5/ P6)	As required	5												
Remove excess build-up of algae. Remove by hand and insert barley straw. (P1/P2/ P3/ P4/ P5)	As required	5												
Inspect the pond for ecological and wildflower value. Programme and action any works actions to improve ecological habitat.	1	5												

General Maintenance Operations

Objective

Maintain a clean, safe and tidy appearance to the overall development.

Operation/Prescription	Frequency per annum	Years applicable	Indicative timing of operation (monthly)											
			J	F	M	A	M	J	J	A	S	O	N	D
Undertake a maintenance inspection quarterly to ensure site is being maintained as per this document. Report to site owners with any queries or issues.	4	1 to 30												
Fortnightly cleansing to all areas of the open space to maintain a high quality environment. Litter disposed of in an authorised manner. Provide a general maintenance report detailing operations carried out	26	1 to 30												
Any graffiti removed as soon as possible	As required	1 to 30												
Any fly-tipping removed as soon as possible. If it cannot be removed then area to be secured whilst arrangements for its removal are made	As required	1 to 30												
Weed clearance to all pathways to prevent potential slip hazards. Gathered plant material removed from site. Avoid damage to surfaces whilst carrying out works	Monthly	1 to 30												
Remove leaf debris from footpaths														
Jet wash all public footpaths to maintain in a safe condition	1	1 to 30												
Carry out repairs to footpath surfacing as required	1	1 to 30												

5.0 Monitoring Surveys

5.1 Monitoring of the habitats on site will be undertaken after the first year of establishment to snag and assess any planting failures and then every 5 years for the duration of the management plan post-construction. This should involve the following elements:

Monitoring Habitats;

5.2 The monitoring will be undertaken by a trained ecologist. Recommendations will be made, if required, to management operations to promote biodiversity and continued sustainability on site.

5.3 If the inspection at year 5 shows that management has been successful, this document will be updated to reflect continued management.

5.4 Phase 1 or 2 habitat surveys are recommended as key indicators to help with the above inspections. Inspections should be undertaken between May and October.

5.5 Monitoring of the site will highlight any early warning signs or pernicious weeds or vegetation failure and allows time for rectification.

5.6 Ecological monitoring will ensure the habitats are establishing as planned in the ecological mitigation. It will also measure the success of the ecological enhancement schemes.

5.7 The monitoring surveys will ensure that the habitats within the site remain at or above the implemented areas, as per the table below.

Habitat Type	Area/ Length/ No
Native Trees	74no
Mixed Species Native Hedgerows	110 lin m
Ornamental Hedgerow	267 lin m
Species Rich Meadow	6000m2
Amenity Grassed Areas	3500m2
Ornamental Planting	215m2
Native Bulb Planting	350m2
New Pond and Marginal Planting	730m2

Native Species Hedgerow

- 5.8 Hedgerow to remain species rich, therefore continuing at least 6 native woody species within a 30m length. Hedgerow planted with the following species:

Hedgerow

- *Corylus avellana*
- *Crataegus monogyna*
- *Lonicera periclymenum*
- *Ilex aquifolium*
- *Rosa canina*
- *Viburnum opulus*

Wildflower Meadow

- 5.9 Wildflower meadow should comprise at least 9 of the species originally sown or deemed suitable for a wildflower meadow by the trained ecologist undertaking the survey. Species sown into the meadow:

Wild flowers 10%

- *Achillea millefolium* – Yarrow
- *Centaurea nigra* – Common Knapweed

- *Leucanthemum vulgare* – Oxeye Daisy
- *Malva moschata* – Musk Mallow
- *Plantago lanceolata* – Ribwort Plantain
- *Poterium sanguisorba ssp sanguisorba* – Salad Burnet
- *Ranunculus acris* – Meadow Buttercup
- *Rhinanthus minor* – Yellow Rattle

Grasses 90%

- *Agrostis capillaris* – Common Bent
- *Cynosurus cristatus* – Crested Dogstail
- *Festuca rubra* – Red Fescue
- *Phleum bertolonii* – Smaller Cat's-tail
- *Poa pratensis* – Smooth-stalked Meadow-grass

Pond and Marginal Planting

- 5.10 Pond should have a good balance between open water and marginal wet/ boggy areas to the pond edges with a naturally colonization of plants. Pond should have signs of life and a diversity of plant life. One single species should not dominate the environment. Pond health check and remedial works should take place every 5 years.

6.0 Ecological Trends or Constraints

- 6.1 This section provides a brief summary of the potential threats or constraints on site that could affect management operations or habitats on site.

Scrub Invasion

- 6.2 The meadow if left, would develop toward scrub domination. The management operations will seek to remove scrub and any other pernicious weeds from these meadow areas to maintain a balance of grassland species.
- 6.3 In addition, to retain impoverished soils of low fertility, the arisings from these areas will be removed from site. Fertilisers and other ground improvement products will not be used in meadow grass areas.

Human Impact/Disturbance

- 6.4 The site will be an area of communal open space and open 24 hours 365 days a year. It is anticipated that use will increase which may result in increased litter and debris or incidents of anti-social behaviour and vandalism. The site should be kept in a clean and tidy condition and repairs

carried out expediently. A local community or friends groups would be beneficial to help monitor the open space locally and work with the community to promote active and positive use.

- 6.5 The presence of dogs can be detrimental to wildlife temporarily or permanently reducing the amount of available habitat in which to feed and breed. Dogs swimming and paddling in ponds can stir up sediment, blocking out valuable sunlight for aquatic plants and wildlife. Dog flea treatment can also cause serious detrimental effects to water courses and ponds. Consider a dog on leads policy within the communal areas or signage to control dogs in meadows and ponds.
- 6.6 Fly tipping of garden waste into open spaces can be an unwanted issue. This is commonly placed over the fence by neighbouring residents. The management company shall monitor this and speak to neighbours should this occur.

Invasive species

- 6.7 To maintain biodiversity, monitoring for invasive species will be carried out by a experienced ecologist and any identified species removed to avoid the issue becoming out of hand and spreading beyond control.

7.0 Implementation of the Management Plan

Responsibilities

7.1. The management responsibility of landscape features and habitats across the site will fall to the management agent responsible for management and maintenance. The managing agent will be:

Complete Property Management Solutions Ltd
Dilworth Coach House,
41 Dilworth Lane
Longridge
PR3 3ST
Tel: 01772 782637
Email: info@completepropertymanagement.co.uk

7.2. This HMMP plan sets a standard for this maintenance to ensure establish of landscape features.

7.3. It is the management agents responsibility to ensure the management plan is updated and passed to the relevant management organisations throughout the plan period.

7.4. The management agent may employ other organisation to carry out landscape maintenance operations on their behalf. The management company must ensure the third parties have the relevant experience and certificates of competence to carry out the management operations.

7.5. Third party and management companies will be responsible for ensuring that maintenance operations are in accordance with this HMMP. The site will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP's) and Health and Safety Executive guidance.

7.6. The management agent and third parties will be responsible for preparing risk assessments for all elements of work as required under the Management of Health and Safety at Work Regulations 1999 and for carrying out monitoring and review. The Health and Safety Procedures for the site will follow the guidelines within the HSE publications including HSG65 'Managing for Health and Safety' and HSG268 'How to Control Risks at Work'. The managing company will need to comply with the relevant legislation including:

- Health and Safety: Health and Safety and Work Act (1974);

- Equality Act 2010 (Superseding the Disability and Discrimination Act (2005));
- The Wildlife and Countryside Act 1985 as amended;
- Environmental Protection Act 1990;
- Control of Pollution Act (1974) / Pesticides Act (1998);
- Building Regulations Approved Documents;
- BS3936:1989 Part 1 Nursery Stock, Trees & Shrubs;
- BS5837:2012 Trees in Relation to Construction;
- BS3998:2010 Recommendations for Tree Work;
- BS7370-4:1993 Grounds Maintenance. Recommendations for Maintenance of Soft Landscape;
- The Control of Pesticides Regulations 1986;
- The Code of Practice for the Use of Approved Pesticides in Amenity Areas 1988;
- The Code of Practice of Plant Handling 1980;
- National Plant Specification Section 10.2 'Handling & Establishing Landscape Plants'; and
- CPSE Recommended Form of Tender for the Supply & Delivery of Plants.

8.0 Maintenance Specification

General

- 8.1. Trees and shrubs planted shall comply with BS.3936 (Specification of Nursery Stock) and shall be planted in accordance with BS.4428 (General Landscape Operations) and BS8545:2014 'Trees from nursery to dependence in the Landscape'. Planting also to be in accordance with accompanying NBS specification.
- 8.2. Any damage or disturbance to the soil structure, planting area, grass, fencing, hard landscaping, structures or buildings during planting operations should be restored to their original condition.
- 8.3. Watering should be carried out as necessary to ensure the continued thriving of all planting. Water using potable mains water and wet the full depth of topsoil. Care should be taken to avoid damage or loosening of plants. Any compacted soil should be loosened by lightly forking.
- 8.4. Unless specified otherwise, dispose of all arisings to a licensed tip
- 8.5. Any chipping operations undertaken on site should be chipped into a pile and removed from site.
- 8.6. All rubbish on site should be collected and removed from site to a licensed tip.
- 8.7. Care should be taken to protect all areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly onto grassed areas.
- 8.8. Soil and arisings: should be removed from hard surfaces, car parking and footpaths around the building. Works should be left in a clean and tidy condition at completion and after any maintenance operations.
- 8.9. Graffiti should be removed using a suitable detergent and subsequent treatment using a transparent, two part anti-graffiti coating with a matt finish.
- 8.10. Apply a suitable foliar acting or residual herbicide to all hard surfaces and allow time for it to take effect before clearing arisings. Remove litter, leaves and debris from hard surfacing and remove arisings from site.

Grassed Areas

- 8.11. Standard: To BS 7370-3. Carry out maintenance appropriate to each category of turf, as follows:
 - Objectives: To BS 7370-3, table 6.
 - Programme: To BS 7370-3, clause 11.
 - Mowing methods: To BS 7370-3, table 3.
- 8.12. Prior to grass cutting, remove all litter and debris from grassed areas.
- 8.13. Amenity grassed areas should be cut 12-14 times per season, between mid March and late September, on a fortnightly basis to maintain the grass at a height of 40mm. An initial cut should be made at 75mm height in mid-March prior to fortnightly cutting commencing.
- 8.14. Grass should be maintained as a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt. Prevent compaction from maintenance operations and maintain reasonably free from moss, excessive thatch, noxious weeds, frost heave, worm casts and mole hills.
- 8.15. Any damage such as trampling, abrasion or scalping caused by mowing should be repaired immediately. Edges should be neat and well defined, in clean straight lines or smooth flowing curves. Litter and fallen leaves should be removed fortnightly to maintain a neat appearance.
- 8.16. After cutting the grass should be neat and even, without surface rutting, compaction or damage to grass and edges should be neat and well defined. Neatly trim around obstructions. Arisings should be removed and all footpaths and hard surfacing kept free from grass cuttings.
- 8.17. Do not use mowing machinery closer than 100mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.
- 8.18. The area of bulbs within grassland should not be cut until 6 to 8 weeks after the plants have finished flowering. There after cutting should be as paragraph 8.13.

- 8.19. Collect fallen leaves as part of the fortnightly cleansing operations by hand raking and remove from site or shred and use as mulch around the base of trees.
- 8.20. Spring, autumn and winter fertiliser application to use organic products and the application rate to be as per manufacturers instructions. Submit proposals before using.

Maintaining grassed areas with perennial wild flowers:

- 8.21. Before each cut remove litter and debris.
- 8.22. In the first year wildflower grassed areas should be cut every 6-8 weeks until autumn. Maintain the grass at a height of 50mm. Grass not to exceed 100mm in height. Arises to be removed from site.
- 8.23. In second and subsequent years, wildflower grassed areas to be cut annually in late July to mid-August to a height of 50mm. Arisings to be removed from site- after seed has dispersed.
- 8.24. Remove perennial weeds by- hand or spot spray if weeds are wide spread and persistent.

Reinstatement of damaged or failed grass

- 8.25. Worn or damaged areas: Make good by returfing or reseeding:
 - Returfing standard: To BS 7370-3, Clause 12.2.
 - Reseeding standard: To BS 7370-3, Clause 12.6.
- 8.26. Remove to a depth of 40mm and cultivate the ground to a fine tilth. Contractors choice for reinstatement via seeding or re-turfing but quality and appearance must match existing amenity grass areas.
- 8.27. If reseeding fill with a fine topsoil to BS3882 and reseed with a seed mix to match the existing grass sward. Provide necessary watering and protection to ensure successful germination and establishment.
- 8.28. Reseeding to be carried out between April and mid October.

Maintaining Herbaceous Plants/ Shrubs/ Trees/ Hedges

- 8.29. Planting beds should be kept free from weeds by handweeding. A minimum diameter of 1m around each tree and all of each ornamental planting bed should be maintained weed free. Weed cover to be less than 5%

across planting areas and no weed to be greater than 100mm in height.

- 8.30. Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch. Mulch should be maintained to 75mm depth.
- 8.31. Fertiliser should be applied to areas of new planting annually in March or April using an organic product. It should be spread evenly after carefully lifting mulch. Mulch to be replaced on completion of the operation and maintained for 3 years or when the hedge has thickened and established.
- 8.32. Soil aeration to be carried out to all compacted surfaces to aerate the soil of roots areas and break surface crust. Reduce soil to crumbs and level off. Adjacent planted are not to be damaged during operations.
- 8.33. Tree stakes and ties should be inspected monthly and adjusted twice annually. Loose, broken or decayed stakes should be replaced to original specification. If the stake is longer than half of clear tree stem height, cut to this

height in spring. Retie to tree firmly but not tightly with a single tie.

- 8.34. Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing at each inspection as required. If chafing has occurred, reposition or replace ties to prevent further chafing.
- 8.35. All trees and shrubs should be refirmed after strong winds, frost heave and other disturbances. Tread around the base until plant is firmly bedded.
- 8.36. Any collars in soil at base of tree stems, created by tree movement should be broken up by fork, avoiding damage to roots. Backfill with topsoil and refirm.
- 8.37. Pruning shall be carried out annually in accordance with good horticultural and arboricultural practice to BS 7370-4. When removing branches do not damage or tear the stem.
- 8.38. Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an

outward facing healthy bud, angled so that water will not collect on cut area.

8.39. Larger branches prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.

8.40. Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance. Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.

8.41. At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems from site. Retain seed heads on herbaceous perennials during the winter Cut back herbaceous perennials in January or February and dispose of plant material off site.

8.42. Do not use growth retardants, fungicide or pruning sealant unless instructed.

8.43. Watering to be carried out as required during prolonged drought in the growing season to ensure the healthy establishment and growth of plants.. Watering points to be confirmed on site, if none available water supply to be via bauser. If water supply is likely to be restricted by emergency legislation, submit proposals ad await instructions before carrying out operations.

Pruning trees, shrubs and hedges

8.44. Prune trees and shrubs to BS 7370-4

8.45. Pruning to take place once annually on young trees above 4m in height.

8.46. Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well-balanced head and ensure the development of a single strong leader. Remove duplicated branches and potentially weak or tight forks. When undertaking pruning operations ensure the branches are cut back to live wood.

8.47. Do not prune whips or feathered trees.

8.48. Extensive pruning of young trees and any surgery to larger trees must be carried out by an approved member of the Arboricultural Association or other approved specialist.

8.49. Cavities in trees to be investigated. Remove rubbish and rotten wood and probe the cavity to determine the extent of any decay and give notice. Waterfilled cavities are not to be drained. Sound wood inside cavities is not to be removed and cavity openings not to be covered.

8.50. Trim hedgerows twice annually in June and September to encourage bushy growth down to ground level. This should be undertaken after the plants have been established for three full growing season. All hedgerow to reach desired dimensions only by gradual degrees, depending on the growth rate and habit of each species. Trim annually once hedge has reached desired height.

Weeding

8.51. Hand weeding should be carried out monthly between April and September.

8.52. Remove weeds entirely, including roots and ensure that the minimum quantity of soil is removed to minimise disturbance to plant, bulb and mulched surfaces. On completion of hand weeding rake planting area to a neat, clean condition and reinstate mulch to original depth.

8.53. In areas of persistent or aggressive weed establishment treat with a suitable foliar acting herbicide to kill regrowth. Allow recommended period for herbicide to take effect before clearing arisings and disposing off site.

Reinstatement of planting

8.54. Remove dead or diseased plants as soon as possible and replace in the next available planting season.

- Deciduous trees and shrubs: Late October to late March.
- Conifers and 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.

- 8.55. Carefully move mulch to one side and dig over the soil leaving it fit for replanting. Do not disturb the roots of adjacent plants. Use plants to the original specification or to match the size of adjacent plants. Include a slow release fertiliser in each planting pit as per manufacturers recommendations.
- 8.56. Thinning by removal of surplus plants is to be carried out the BS7370-4 when foliage of adjacent plants has begun to touch and overlap. Minimise disturbance to other plants and refill holes with topsoil to leave an even graded surface. Maintain mulch to 75mm depth. Select plants with a strong healthy habit for retention.