



DOWLAIS PRIMARY SCHOOL, MERTHYR TYDFIL

LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN

The management plan is intended to discharge planning conditions for the development of a Multi-Use Games Area (MUGA) at Dowlais Primary School. The plan is to be handed to the property managers/ leadership team/ management company/ contractor, or whoever is responsible for the grounds maintenance of the school site.

The plan has been prepared and coordinated by Above Zero Landscape Architecture Ltd on behalf of Merthyr Tydfil County Borough Council

Above Zero Reference:	116.01_Dowlais Primary School, Merthyr_LMP
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Issue Version	Status	Prepared by	Checked	Date
VS1	Final	ES	TS	11.09.2024

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Contents

1.0 Introduction

- Background and Purpose of the Landscape Management and Maintenance Plan (LMMP)
- Planning Requirements
- Monitoring and Review

2.0 Baseline Information

- Site Location
- Site Description
- Existing Habitats

3.0 Development Proposals

- Landscape Proposals

4.0 Site Management

- Aims, Objectives and Targets for Management
- Ecological Management Objectives
- Existing Habitats
- Proposed Habitats

5.0 Monitoring Surveys

- Monitoring Habitats

6.0 Ecological Trends or Constraints

7.0 Implementation of the Management Plan

- Responsibilities

8.0 Maintenance Specification

1.0 Introduction

Background and Purpose of the Landscape Management and Maintenance Plan (LMMP)

- 1.1 The proposed scheme is for the development of a Multi-Use Games Area (MUGA) with new pedestrian access at Dowlais Primary School, Merthyr Tydfil. The purpose of this document is to provide a LMMP for the long-term management (10 years) of habitats within the proposed development site. It sets out guiding principles, aims and objectives. This allows those responsible for the management and maintenance of the site (the management organisation) 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 LMMP should be read in conjunction with the Landscape General Layout (drawing 116.01.01) and schedules (contained on drawing 116.01.02).
- 1.3 A maintenance specification is provided in section 6. This sets out the detailed landscape 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 and comprehensive understanding on the ecology on site (pre development) reference should be made to the Ecological Assessment and Bat Survey at Dowlais Primary School by 'Be Ecological Ltd' and subsequent updates or addendums.

Planning Requirements

- 1.5 This LMMP supports the full planning application for: *'New MUGA, floodlights and fencing and associated works including the creation of paths and ramps'*. Refence no: P/24/0125 |
- 1.6 The plan, to cover a 10 year period after completion, has been requested by Merthyr Tydfil County Borough Council as part of a planning condition to ensure existing landscape features 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, 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 organisation 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 LMMP will be reviewed annually by site managers, leadership team, 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 LMMP 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 landscape requirements as the site establishes and matures.

1.10 The LMMP covers the application area only and landscape and habitats effected as part of the currently planning application. The LMMP does not cover the whole school or previous development proposals or planning obligations

Content

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

- Introduction
- Baseline Information
- Development Proposals
- Site Management
- Implementation of the Management Plan
- Specification for Maintenance

Baseline Information

Site Location

2.1 Dowlais Primary School is located in the east of Merthyr Tydfil. The school occupies a prominent location on the junction with the High Street and Gwernllwyn Road. The MUGA is to be located with the existing playing field to the northwest of the existing school buildings. The field is c.2m higher than the footway on Gwernllwyn Road. The site is within a built-up area and has an urban character

Site Description

2.2 The new games facility is proposed to be 14.2 x 28.2m (400m²). The games areas will be fenced on all sides with gated access. The facility is to be accessed both from Gwernllwyn Road (via a flight of steps or a series of ramps) and also from the existing school hard play spaces again with a series of paths, ramps and steps. The scheme also includes lighting, surface water drainage and soft landscape features.

2.3 Prior to development land was made up amenity grass used for the schools playing field, young (recently planted) trees planted within the grass area on the boundary with Gwernllwyn Road. The site has larger more mature trees to

the residential boundaries (both on and off site) on the north west and north east boundaries.

2.4 The site was visited in August 2024 (photographs below). Construction work had begun onsite.



2.5 A biodiversity Assessment Report was undertaken (predevelopment) and a report produced by *BE Ecology Ltd* (2024). A limited range of existing habitats were identified within the ecology report and are summarised below:

Habitats

2.6 The following habitats were found to exist on the site:

- Amenity grassland
- Woodland

Amenity grassland

2.7 This habitat was found across the main body of the site. The grassland was species poor and well managed with a short sward. A small amount of this will be lost as a result of the footprint of the MUGA.

Woodland

2.8 There was broad-leaved woodland present to the north east of the site. The woodland is largely made up of sycamore and ash. This area will not be impacted by the current proposals.

3.0 Development Proposals

Landscape Proposals

3.1 Proposals are for the creation of a MUGA. The facility will be both for school and community use out of school hours. Landscape proposals include the retention of existing mature trees, excavation and replanting of existing young trees, new tree planting, new hedgerow planting to the site boundary with Gwernllwyn Road, wildflower meadow planting to surface water 'Rain Garden' and amenity grass land.

3.2 Existing habitats have been either retained or new areas created that will be managed to enhance biodiversity and features of interest on site.

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

Table 1

Habitat Type	Area/ Length/ No
Existing young trees transplanted within the site	7no
Existing mature trees retained	
New tree planting.	5no
Mixed Species Native Hedgerows	36 lin m
Native Meadow Planting Areas	100 m2
Amenity Grassed Areas	2000m2

Landscape General Layout Plan (116.01.01)



3.4 A 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

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 5 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 landscape features to ensure they develop naturally and thrive.
 3. Provide a tidy, safe and well-maintained environment for the school and members of the public.
 4. Ensure that landscape proposals are cost effective and not overly onerous or unpractical the local authority or school to develop and manage.

5. Provide an environment which local people care for and promotes active engagement in the management and maintenance of it.

Ecological Management Objectives

- 4.2 There are 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
2. Existing young trees (transplanted)

Proposed Habitats

3. New Trees
4. Hedgerows
5. Native Meadow Areas
6. Amenity grass

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. Lift crown to 2m height on selected trees to provide play spaces and allow light to understorey vegetation.

*NOTE: Obtain correct permissions from Merthyr Tydfil BC prior to any work on protected trees.

Operation/Prescription	Frequency per annum	Years applicable/ or frequency over the 10-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 10												
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 10												
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 as identified and agreed by school. (Objective W4)	As required	1, 3 & 5												
Check bird and bat boxes are secure. Reposition if they are continually not in use.	1	Every 5 years												

Habitat Type 2: Existing young trees transplanted with the site**Objective**

T1 To allow trees to successfully re-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 10-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 10 as required												

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 10-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 10												
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 H1)	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). (Objectives H1)	2	1 to 3												
Trim/face up hedgerows annually to maintain form and encourage bushy growth avoiding bird nesting season (March to August). (Objectives H1)	1	4-10												
Fertiliser application in spring and autumn as required (Objective H2)	2	1 to 3												

Habitat Type 4: 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 10-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 10 as required												
Undertake safety inspections by an arboriculturalist to check for damage and diseases. Carry out remedial works as required. Also check		Every 2 years.												

roots are not causing damage to roads, pavements or buildings. (Objective T3)																			
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Landscape Feature Type 5: Meadow Grass

Objective

NG1 Management of meadow grassland to encourage diverse plant communities but discourage perennial and annual weeds and amenity grasses.

NG2 Target 9no. species of native wildflowers and grasses.

NG3 Manage scrub and ruderal vegetation to prevent it becoming established.

NG4 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 or frequency over the 10-year plan period	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 NG3)	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 NG1, NG2, NG3 and NG4)	1	2 to 10												
Weed control achieved by hand removal and spot spraying. (Objective NG3)	As required	1 to 10												
Remove any invading scrub annually. (Objectives NG3)	As required	1 to 10												
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	1, 5, 10												

Habitat Type 6: Amenity Grassland

Objective

G1 To maintain a tidy appearance and ensure safe usage for the school and visitors.

Operation/Prescription	Frequency per annum	Years applicable or frequency over the 10-year plan period	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 G1)	1	1												
Fortnightly cut during the growing season to maintain a height of 40mm. Spread arising evenly over grass areas. (Objective G1)	18	1 to 10												
Cultivate and re-seed as required (Objective G1)	As required	1 to 10												
Spring and autumn slow-release fertiliser application (Objective G1)	2	1 to 10												
Carry out weed control as required including spot treatment using selective herbicide on noxious weeds such as ragwort, nettles, thistles, dock and willowherb. (Objective G1)	As required	1 to 10												

General Maintenance Operations

Objective

Maintain a clean, safe and tidy appearance to school.

Operation/Prescription	Frequency per annum	Years applicable or frequency over the 10-year plan period	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 10												
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 10												
Any graffiti removed as soon as possible	As required	1 to 10												
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 10												
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 10												
Remove leaf debris from footpaths														
Carry out repairs to footpath surfacing as required	1	1 to 10												

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

5.5 Ecological monitoring will ensure the habitats are establishing as intended.

5.6 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
Existing young trees transplanted with the site	7no
Existing mature trees retained	
New tree planting.	5no
Mixed Species Native Hedgerows	36 lin m
Native Meadow Planting Areas	100 m ²
Amenity Grassed Areas	2000m ²

Native Species Hedgerow

5.7 Hedgerow to remain species rich, therefore continuing at least 5 native woody species within a 30m length. Hedgerow planted with the following species:

Hedgerow

- *Corylus avellana*
- *Crataegus monogyna*
- *Ilex aquifolium*
- *Malus sylvestris*
- *Viburnum opulus*

Wildflower Meadow

5.8 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%

- *Agrimonia eupatoria*– *Agrimony*
- *Anthyllis vulneraria*– *Kidney Vetch*
- *Centaurea nigra*– *Common Knapweed*
- *Centaurea scabiosa*– *Greater Knapweed*
- *Chaerophyllum temulum*– *Rough Chervil*
- *Cruciata laevipes*– *Crosswort*
- *Daucus carota*– *Wild Carrot*
- *Echium vulgare*– *Viper's-bugloss*
- *Galium album*– *Hedge Bedstraw*
- *Galium verum*– *Lady's Bedstraw*

- *Geranium pratense*– *Meadow Crane's-bill*
- *Knautia arvensis*– *Field Scabious*
- *Lathyrus pratensis*– *Meadow Vetchling*
- *Leucanthemum vulgare*– *Oxeye Daisy*
- *Malva moschata*– *Musk Mallow*
- *Medicago lupulina*– *Black Medick*
- *Onobrychis viciifolia*– *Sainfoin*
- *Origanum vulgare*– *Wild Marjoram*
- *Plantago lanceolata*– *Ribwort Plantain*
- *Plantago media*– *Hoary Plantain*
- *Poterium sanguisorba* ssp *sanguisorba* – *Salad Burnet*
- *Primula veris*– *Cowslip*
- *Prunella vulgaris*– *Selfheal*
- *Ranunculus acris* – *Meadow Buttercup*
- *Rhinanthus minor*– *Yellow Rattle*
- *Sanguisorba officinalis*– *Great Burnet*
- *Silene dioica* – *Red Campion*
- *Silene vulgaris*– *Bladder Campion*
- *Taraxacum officinale*– *Dandelion*
- *Vicia sativa* ssp. *segetalis*– *Common Vetch*

Grasses 90%

- *Agrostis capillaris* – *Common Bent*

- *Cynosurus cristatus* – Crested Dogtail
- *Festuca rubra* – Red Fescue
- *Phleum bertolonii* – Smaller Cat's-tail
- *Poa pratensis* – Smooth-stalked Meadow-grass

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 a shared use facility. Unsupervised use by the public 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 friend groups

would be beneficial to help monitor the facility locally and work with the community to promote active and positive use.

Invasive species

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

Lack of proactive management and maintenance

- 6.6 A lack of routine site monitoring, reporting and proactive management and maintenance will be detrimental to landscape features within site and risk not achieving the standards, aims and objectives set out in this LMMP. This is especially relevant with the establishment of new landscape feature (including replanted trees). The establish period is would be approximately 2-3 years.

7.0 Implementation of the Management Plan

Responsibilities

- 7.1. The management responsibility of landscape features and habitats across the site will fall to Merthyr Tydfil BC or the management organisation responsible for management and maintenance.
- 7.2. This LMMP plan sets a standard for this maintenance to ensure establish of landscape features.
- 7.3. It is the responsibility of the management organisation to ensure the management plan is updated and passed to the relevant management organisations throughout the plan period.
- 7.4. The management company 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 organisations will be responsible for ensuring that maintenance operations are in accordance with this LMMP. 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 company 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 and 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.