

EAST SUSSEX COUNTY COUNCIL

**Main Development - Highfield Junior School,
The Hydneye, Eastbourne**

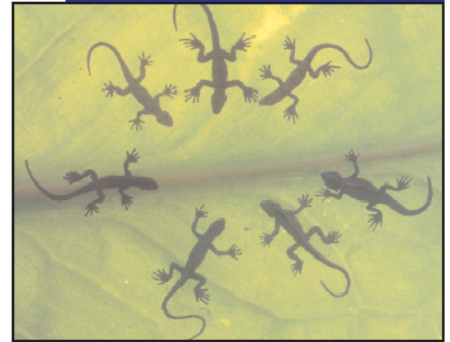
Landscape Scheme Management Plan

Approved By: Joe Jackson
Signed:
Position: Principal
Date: 21st July 2011

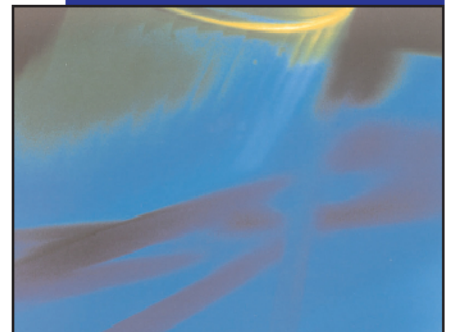
July 2011 - Planning Issue

Revision 02

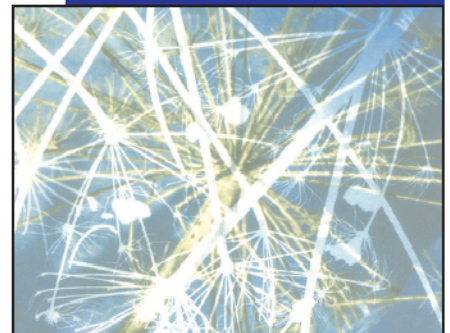
LLD360/KM/07.11



Landscape Architecture



Environmental Design



Landscape Planning

Lizard Landscape Design

Lizard Landscape Design



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DRAWINGS / DOCUMENTS

LLD 360 / 02 - Tree Retention and Protection Plan

LLD 360 / 04 - Soft Landscape Layout

LLD 360 / 05 - Detailed Planting Plan

LLD 360 - Existing Tree Schedule

LLD 360 - Landscape and Ecology Strategy and Outline Plant Specification

LLD 360 - Detailed Plant Schedule and Specification

1.0 INTRODUCTION

- 1.1 The development proposals for Highfield Junior School comprise the development of the southern school frontage and refurbishment to the main school building. The school buildings to the northern site are proposed to be extended and re-developed within the area of the existing school hard play area. To the south western school boundary the development is to incorporate a pre-school nursery as part of the ESCC Temporary Accommodation Programme.
- 1.2 The Highfield Primary School is located to the northern edge of Dallington Road in Hampden Park, Eastbourne. The existing school site area is approximately 1.25 hectares. The School grounds comprise existing School buildings and structures; Improved Neutral Grassland Playing Fields; Scattered Trees; Intact Species-Poor Hedges; Intact Species-Rich Hedge; Introduced Shrubs; Dense Scrub; Tall Ruderal vegetation; Refuse and Compost Heap; and Bare Ground / Paving and Tarmacadam surface treatments. Immediately adjacent to the School grounds to the southern edge there are areas of Dense Scrub; Natural Broad-Leaved Woodland; Drain and Standing Water with Marginal and Aquatic vegetation; edged with Ephemeral and Short Perennial vegetation.
- 1.3 The development proposals consist of an extension to the northern school building into the existing hard play area, and redevelopment of the existing vehicular access and parking facilities. The proposed development site area consists of Bare Ground; Improved Neutral Grassland; Introduced Shrub; and Scattered Trees.
- 1.4 Habitats of interest adjacent to the development site include areas of Coastal and Floodplain Grazing Marsh, within 1.0 km to the north and west; Sites of Special Scientific Interest, within 3.0 km to the north, south and west; areas of Ancient Woodland, within 5.0 km to the east and south-west; and Heritage Coastland, within 5.0 km to the south-west.

Landscape Scheme Proposals

- 1.4 The proposals for the Highfield Junior School development include a landscape scheme, consisting of Native Hedge Planting, Native and Flowering Shrub and Groundcover Planting, and interspersed with Herbaceous Accent Planting. Advanced Nursery Stock Trees would be planted throughout the scheme. The tree planting would comprise Native species trees.
- 1.5 The proposed site entrance is to be shared with the proposed development of the Temporary Accommodation Programme Nursery Facility. The planting of Mixed Species Native Hedgeline planting would visually enhance the proposed entrance to both Highfield Junior School and the proposed Nursery School developments. Feature Ornamental Planting Areas would provide interest and enhance the frontage identity of the School and the Nursery developments.
- 1.6 The Dallington Road School Frontage would include the planting of Native Species Trees to either side of the proposed vehicular access, within the proposed hedgeline. Opposite the vehicular and pedestrian entrance, and in order to further strengthen the visual quality of the school approach, is proposed a swathe of Ornamental Planting and Feature Tree Groups comprising of Native Species trees. The Native Species Tree planting would mitigate any loss of existing trees either in order to accommodate the Development Scheme Access and Car Park proposals.

- 1.7 To provide connection of the proposed Highfield Junior School Refurbishment with the proposed Nursery School development, and strengthening the edge between the proposed Hard Play Areas and the proposed Staff and Visitor vehicle parking areas, the soft landscape scheme would incorporate mixed ornamental planting of Flowering Shrubs, interspersed with Accent and Specimen planting. The soft landscape proposals would include the establishment of a Native Species Trees within the band of planting edging the northern perimeter of the proposed Car Park area.
- 1.8 It is noted that several of the existing Ornamental trees within the school boundary to the southern edge are not flourishing. The soft landscape strategy would include the planting of Advanced Nursery Stock, Native Species Trees, suited to the underlying ground and soil conditions associated with the site and enhancing the ecological features present within the development boundaries; the tree planting would mitigate the removal of existing non-native trees in order to form the development scheme access proposals.
- 1.9 To the southern edge of the school building a Staff Terrace is proposed, adjacent to the internal staff room. The paved terrace area would be enhanced with Ornamental and Accent planting and defined with the planting of a Mixed Native Species Hedgeline to the southern boundary fenceline linking to the existing hedgeline of Port Road, to provide an enclosed but informal space for teaching staff.
- 1.10 The planting area to the pedestrian footpath and southern school frontage are proposed to be planted with Native Hedge and Tree Planting, to offer enhancement of the development site's bio-diversity and habitats for foraging Birds, Bats, and Invertebrates.
- 1.11 The planting areas leading to the school building entrance, are proposed to be bordered and reinforced with Ground Cover and Flowering Shrubs, and interspersed with Accent Specimen planting. The planting areas are proposed to be planted with a range of species to offer enhancement of the development site's bio-diversity and habitats for foraging Birds, and Invertebrates.
- 1.12 The main school building is to undergo refurbishment and the integration of External Classroom spaces to the southern façade of the main wing of the school building. The division of the External Classroom areas are to incorporate Raised Timber Planters. The planters are to be top soiled and used and planted by the Highfield Junior School. It is proposed that the school could offer the External Classroom planting areas and on-going maintenance as an educational garden.
- 1.13 It is proposed that the northern school building would be extended into the existing hard play area. The northern hard play area contains brick-built raised planting beds that include shrub planting and a number of young to semi-mature trees. The planting beds are proposed to be partially removed within the phased development. The soft landscape scheme would include the re-establishment of the planting areas and the possible relocation and re-planting within the school grounds of the young to semi-mature trees.

Existing Vegetation

- 1.14 The development 'Construction Zone' for Highfield Junior School consists of Phase 1 Habitats; Bare Ground; Improved Neutral Grassland; Introduced Shrub; and Scattered Trees. The development site and adjacent areas support habitats of existing Bare Ground; Improved Neutral Grassland; Introduced Shrub; Scattered Trees; Dense Scrub; Intact Species Poor-Hedge, and Intact Species Rich-Hedge.
- 1.15 The Landscape Scheme Management Plan includes the following Management and Maintenance Prescriptions and Specification;
- *Description of the Scheme Proposals;*
 - *Landscape Scheme Specification;*
 - *Landscape Management Prescriptions;*
 - *Annual and Long-Term Management Schedule;*
 - *Landscape Maintenance Specification.*

Drawings and Reports

- 1.16 The Landscape Scheme Management Plan is accompanied by the following documentation;
- *Ecology Phase 1 Habitat Survey Report; Dated 06.11*
 - *Soft Landscape Proposals; General Arrangement; LLD360 / 03 Rev03; Dated; 07.11*
 - *Soft Landscape Layout Drawing; LLD360 / 04 Rev02; Dated; 07.11*
 - *Detailed Planting Plan Drawing; LLD360 / 05 Rev 02; Dated; 07.11*
 - *Detailed Plant Specification; Rev02; Dated; 06.11*

2.0 HIGHFIELD JUNIOR SCHOOL – LANDSCAPE SCHEME PROPOSALS

- 2.1 The following section details the soft landscape scheme proposals to be implemented within the Highfield Junior School development, Eastbourne, East Sussex. The proposals to the development site are described in detail below.

Northern Boundary

- 2.2 It is proposed that the northern school building would be extended into the existing hard play area as part of a phased development programme. The northern hard play area contains brick-built raised planting beds that include shrub planting and a number of young to semi-mature trees, proposed to be partially removed within the phased development. The soft landscape scheme would include the re-establishment of the planting areas and the possible relocation and re-planting within the school grounds of the young to semi-mature trees.

Eastern Boundary

- 2.3 The eastern edge of the proposed car parking area, to the western façade of the existing School building area and next to the proposed school entrance area, would be planted and bordered with a mix of flowering shrubs, climbers and herbaceous material to encourage wildlife, and in particular Invertebrates to the site.

Southern Boundary

- 2.4 To the southern edge of the existing school building a Staff Terrace is proposed, adjacent to the internal staff room. The paved terrace area would be enhanced with Ornamental and Accent planting and defined with the planting of a Mixed Species Hedgeline to the southern boundary fenceline to provide a partially enclosed but informal space for teaching staff, and encourage foraging Birds and Invertebrates to the site.

- 2.5 The pedestrian footpath and southern school frontage are proposed to be planted with Native Hedge and Tree Planting, to offer enhancement of the development site's bio-diversity and habitats for foraging Birds, Bats, and Invertebrates.
- 2.6 The planting areas leading to the school building entrance, are proposed to be bordered and reinforced with Ground Cover and Flowering Shrubs, and interspersed with Accent Specimen planting. The planting areas are proposed to be planted with a range of species to offer enhancement of the development site's bio-diversity and habitats for foraging Birds, and Invertebrates.
- 2.7 The northern edge of the proposed building car parking area would be planted and bordered with flowering shrub planting to encourage wildlife, and in particular Invertebrates to the site. The soft landscape scheme would include the planting of Native Species (*Advanced Nursery Stock; 14 -16cm Girth Size*) trees.
- 2.8 The main school building is to undergo refurbishment and the integration of External Classroom spaces to the southern façade of the main wing of the school building. The division of the External Classroom areas are to incorporate Raised Timber Planters. The planters are to be top soiled and used and planted by the Highfield Junior School. It is proposed that the school could offer the External Classroom planting areas and on-going maintenance as an educational garden.

2.9 ***Landscape Maintenance Period***

Landscape Maintenance Contract to be an agreed period of 12 months to run concurrently with the 12 months Defects Liability Period for all Soft Landscape Works. All plant material / grass seeded areas which fail during the first 12 months of establishment and throughout the continuous 12 months maintenance period shall be replaced by the Landscape Contractor.

3.0 MANAGEMENT OF EXISTING ECOLOGICAL HABITATS AND SPECIES

- 3.1 The following section details the existing ecological habitats and species which are of interest within and adjacent to the Highfield Junior School development, Eastbourne, East Sussex. This section details the ecological enhancement, management and protection of these habitats / species within the development site scheme proposals for the future.

Existing Ecological Habitats

- 3.2 The development site and immediate adjacent areas supports habitat potential and is detailed within the *LLD360 Ecology Extended Phase 1 Habitat Survey Report, June 2011*.
- 3.3 Habitat of botanical interest on the site is limited. The majority of the Grassland on the site is short-cut and Improved Neutral Grassland and all areas of Grassland are species-poor. There is therefore no significant botanical resource represented within these Grassland areas.
- 3.4 The Species-Rich Intact Hedge to the northern edge, the Mature Scattered Trees; Dense Scrub to the western edge, and the Natural Broad-Leaved Woodland strip to the southern edge of the School all provide habitat interest and connectivity along the western and southern edges of the School site. There is some limited connectivity across the Highway corridor to the more substantial Natural Broad-Leaved Woodland areas to the south of Dallington Road, which surround a water body of Standing Water.

- 3.5 The boundary vegetation of Species-Rich Intact Hedge, Mature Scattered Trees, Dense Scrub and Natural Broad-Leaved Woodland to the northern, western and southern edges of the School site all provide suitable habitat for foraging and nesting Birds, roosting and foraging Bats, and Invertebrates. There is some limited habitat and fodder species for Dormouse, but connectivity with larger areas of Dormouse habitat such as Woodland areas is limited due to the isolation of existing habitats within the urban / residential area.
- 3.6 The mature Scattered Trees and Broad-Leaved Natural Woodland to the western and southern edges of the existing School site are mature tree specimens of Grey Poplar and Crack Willow, with plenty of dead wood and Ivy clad tree trunks, which provide suitable holes, cracks and crevices for Protected Species of Bats to roost within. The mature Scattered Trees and Woodland habitat alongside the Drain with Standing Water are also good foraging habitats for Bats with a good source of Invertebrates from the adjacent water. There is some limited connectivity across the Highway corridor to the more substantial Natural Broad-Leaved Woodland areas to the south of Dallington Road, which surround a water body of Standing Water, which does have good habitat potential to support Protected Species of foraging and roosting Bats.
- 3.7 The areas of Dense Scrub, Tall Ruderal vegetation, and Refuse Tip / Compost Heap surrounding the habitat area to the south-western corner of the School site do have some limited habitat potential to support Protected Species of Reptile. The area of optimal Reptile habitat is however extremely limited and small, and isolated amongst the short cut Grassland areas of the main School grounds, and any populations of Reptile are likely to be relic, small and isolated to the residential garden boundary to the western edge of the School site. The short-cut Improved Neutral Grassland of the School site is sub-optimal habitat for Reptiles which covers the majority of the southern sector of the School grounds.
- 3.8 The Drain with Standing Water located off-site to the southern edge of the School site, is lined and edged with Marginal and Aquatic Vegetation, and bordered with Dense Scrub and Grassland habitat. The adjacent habitat provides suitable habitat for breeding and foraging / hibernating Protected Species and UK BAP Species of Amphibians. The boundary with the School comprises short cut Improved Neutral Grassland which is sub-optimal habitat for foraging / hibernating Amphibians.
- 3.9 The existing school buildings have limited potential to support roosting Bats, being of a solid and tight construction, with limited opportunities for Bats to access the fabric of the existing building. The existing garage to the western edge of the School grounds has limited potential to house roosting Bats within, being single skinned, too open, and disturbed for Bats to access and roost within. The Ivy clad eastern elevation of the garage has some potential for roosting / hibernating Bats, beneath the canopies of the existing mature Scattered Trees to the western boundary.
- 3.10 The development site area can be confirmed as a Construction Site Area of 'Low Ecological Value'. Any existing features of Ecological Value and interest surrounding the development site area can be retained and protected on site within the scheme proposals.

Mitigation Measures

- 3.11 The Highfield Junior School development is in close proximity to a number of potential habitats outlined above. To retain and protect, and to mitigate against potential damage, to Protected Species or habitats, it is recommended that, in accordance to the guidelines set out within the *LLD360 Ecology Extended Phase 1 Habitat Survey Report, June 2011; (Section 6.0 Protected Species - Conclusions And Recommendations)*;
- 3.12 Areas of dense scrub to be retained shall be protected on and adjacent to the site development area.
- 3.13 Where the proposals indicate the removal of, or disturbance to, areas of potential habitat; a Destructive Search shall be undertaken prior to commencement of works in order to establish and mitigate against damage to, or loss of, Protected Species of Reptiles and Amphibians. The Destructive Search shall be undertaken under the supervision of a Qualified Ecologist. A Destructive Search of the development construction zone immediately adjacent to the drain to the southern edge of the site should be undertaken prior to commencing construction works on site.
- 3.14 The Willow tree to the southern school boundary TG13 (iv) (*refer to drawing LLD360/02 – Tree Retention and Protection*) is to be undergo a crown reduction to the northern canopy edge in order to accommodate the development proposals. The tree contains some potential habitat for Bats. Tree Surgery Works shall only be undertaken subsequent to inspection and approval by a Qualified Bat Surveyor.
- 3.15 The existing garage to the south western boundary holds potential for Bats within the Ivy covering the structure. The removal of the Ivy and / or the structure shall only be undertaken subsequent to inspection and approval by a Qualified Bat Surveyor.
- 3.16 All Tree Surgery Works undertaken on Site is to be undertaken in accordance with *BS3998:2010 Tree Surgery*;
- 3.17 All existing trees, mature hedgelines, tree groups and associated understorey, to be retained within and adjacent to the site boundaries, shall be Protected with tree Protective Fencing in accordance with *BS5837:2005*.

4.0 LANDSCAPE MANAGEMENT PRESCRIPTIONS

- 4.1 Management Plan prescriptions for the scheme soft landscape proposals detailed in *Section 4.0 - Landscape Management Prescriptions* are as follows;
- *P 1 – Proposed Tree Planting;*
 - *P 2 – Proposed Hedge Planting;*
 - *P 3 – Proposed Native and Flowering Shrub Planting;*
 - *P 4 – Proposed Grassed Areas;*
 - *P 5 – Proposed Climber Planting;*
- 4.2 The Landscape Management prescriptions detailed below are illustrated on the following attached drawing:
- *Soft Landscape Layout Drawing; LLD360 / 04; Rev 00; Dated; 06.10*

4.3 P 1 – Proposed Tree Planting

Tree Planting Areas – Scheme Proposals

- 4.3.1 The development proposals and landscape strategy would include the planting of native trees to the northern edge of the proposed car parking area. The proposed native tree planting would enhance the bio-diversity of the development site whilst enhancing the potential for foraging Bats and Birds within the Scattered Trees and reinforcing the connectivity to the vegetated boundaries of the adjacent residential gardens. The northern edge of the proposed car parking area would be planted with Native tree species of Advanced Nursery Stock Trees (14 – 16 cm girth size). The Native Tree Species planting shall comprise;

Tree Planting ;

- *Alnus glutinosa* (Common Alder);
- *Carpinus betulus* (Hornbeam);

Tree Planting - Specification

- 4.3.2 All grass seeded areas shall be cut before any pit preparation is undertaken to a maximum height of 75 mm. All tree planting pits are to be cut by removing the existing grass or vegetation. Planting pits shall be dug by hand and any major existing tree or shrub roots found within the pits shall not be severed. Once set out tree planting positions are to be treated with a suitable non-residual herbicide application.
- 4.3.3 The size of tree planting pits shall be as follows;
- *Advanced Nursery Stock Trees (14 – 16cm girth size); 1200 x 1200 x 750mm;*
 - *Or 20% wider in any direction than the rootball whichever is the greater.*
- 4.3.4 Backfilling material shall be the site excavated topsoil combined with an organic compost planting medium, and soil improver. The organic compost shall be thoroughly mixed into the backfill or cultivated material at a rate of 1 no. part planting medium to 3 no. parts existing site topsoil.

Tree Staking – Advanced Nursery Stock Trees

- 4.3.5 Tree staking is to be double staking for Advanced Nursery Stock Trees. The single stakes shall be positioned close to the tree on the windward side and driven vertically 300 mm into the bottom of the tree pit prior to planting. The stake shall extend above ground level to a maximum of one third of the total height of the tree. The top of the stake shall be no more than 40 mm away from the stem of the planted tree. The tree shall be firmly secured with one adjustable tie plus spacer with 50 mm of the top of the stake with a 25 mm long galvanised clout nail.

Tree Shelters

- 4.3.6 Tree shelters shall be provided for all new tree planting areas. Tree shelters are to be 'Acorn Planting Shelterguard Plus for Trees' or equal and approved; Height; 1200mm; Diameter; circular in section; 80 – 110 mm; Colour; specially blended green; Material; UV stabilised polypropylene; Support; one hardwood stake; 1200 mm x 25 mm x 25 mm attached to the tree shelter with 1 no. nylon ratchet tie. Tree shelters shall be carefully placed over the tree plant material, and the entire base, pushed a minimum of 25 mm into the ground.

Organic Mulch

- 4.3.7 Organic mulch comprising of well composted organic material, wood chips, or bark, shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks. Organic mulch shall consist of graded fines to a maximum particle size of 40 mm with approximately 70 % particle size 5 mm to 40mm, 30 % particle size less than 5 mm.
- 4.3.8 Clear all weeds, water soil thoroughly and mulch all planting pits and notch planting positions to dimensions as follows, to an even depth of 75 mm after settlement. Pit planted trees and notch planting tree positions shall be mulched around the base of the plant material to a 500 – 700 mm diameter circle.

Trees within Grassland

- 4.3.9 Trees planted within grassland should be maintained with a weed and grass-free area at the base of each tree. A 500 - 700 mm diameter weed / grass-free zone should be achieved by either hand-weeding or application of a non-residual herbicide. This management prescription should be undertaken bi-annually. Spring / Autumn.

Strimming

- 4.3.10 No strimming should be undertaken around the base of proposed tree planting. A 500 – 700mm diameter weed-free zone should be achieved.

Watering

- 4.3.11 In order to establish newly planted Nursery Stock trees, the proposed planted trees should be watered throughout the early to late summer period, for the first year only. Nursery Stock tree planting should be watered fortnightly throughout the Spring / Summer Period; April / May / June / July / August / September. 20 litres should be applied to each tree at each watering visit, for the first year only.

Tree Guards and Tree Ties

- 4.3.12 All tree guards and rubber tree ties, should be checked to each tree bi-annually; Spring / Autumn. All tree guards should be in place and properly positioned and fitted at the base of each tree. Rubber tree ties should accommodate the tree girth. The tree ties should also not draw the tree stake into the trunk of the tree, potentially causing abrasion. Tree ties should be fitted so that the tree trunk and tree stake are located comfortably side by side and aligned. Replace and refit rubber tree ties / tree stakes and tree guards if necessary. All tree guards and rubber tree ties should be checked to each tree bi-annually; Spring / Autumn.

Tree Planting - Pruning

- 4.3.13 Nursery Stock Tree Planting should be checked for dead, dying or damaged branches and stems bi-annually. Trees should also be checked for shape, form and size within the site areas and adjacent to the property and footpaths. Trees should be pruned accordingly during the Spring and Autumn, whilst the trees are still in leaf. All dead / damaged branches should be removed from the trees. All dead / damaged branches should be cut into short lengths and preserved on site in neat stacks to the site boundaries, as additional habitat for wildlife.

Native Tree Planting - Defects

- 4.3.14 Replace all dead / dying plant material within the first 5 years of establishment as required.

Tree Planting Areas – Management Prescriptions

4.3.15 The following Management Prescriptions shall be routinely implemented to the Tree Planting Areas.

4.3.16 P 1 – Proposed Tree Planting - Management Prescriptions

- **Tree Planting; Weeding; Trees within Grassland; to be maintained with a weed and grass-free area at the base of each tree to be undertaken bi-annually; Spring / Autumn;**
- **Tree Planting; Mulching; Trees within Grassland should be maintained with a mulch zone 500 – 700mm diameter to the base of the trees. Mulch layer to be checked annually;**
- **Tree Planting; Tree Watering; throughout the early to late summer period; April / May / June / July / August / September fortnightly; 20 litres per tree at each watering visit, for the first year only;**
- **Tree Planting; Tree Guards and Tree Ties; checked to each tree bi-annually; Spring / Autumn;**
- **Tree Planting; Tree Pruning; trees should be checked for dead, dying, or damaged branches and stems bi-annually;**
- **Tree Planting; Defects; Replace dead trees as required.**

4.4 P 2 – Proposed Native Hedge Planting

Native Hedgeline Planting

4.4.1 The Southern Boundary Edge adjacent to the fenceline would be planted with a Native Mixed Species Hedge line planting of *Corylus avellana* (*Hazel*), *Cornus sanguinea* (*Dogwood*), and *Carpinus betulus* (*Hornbeam*) hedging species.

Native Hedgeline Planting

- *Corylus avellana* (*Hazel*);
- *Cornus sanguinea* (*Dogwood*);
- *Carpinus betulus* (*Hornbeam*)

Native Hedgeline Weeding

4.4.2 Hedgerow transplants shall be planted in mulched beds which should be kept clear of all weeds at the base of the plant material. The hedgerow planting should be kept weed free by either hand weeding or application of a non-residual herbicide application, taking care not to spray or scorch existing plant material. The hedgerow planting to all boundaries should be cleared of all weeds bi-annually; Spring and Autumn.

Native Hedgeline Mulch Top – Up

4.4.3 The hedgerow plant material is generally located within mulched planting beds. The beds should be topped up with an ornamental bark mulch to assist with the suppression of weeds to these hedgerow planting areas. A mulch top-up should be undertaken and checked bi-annually; Spring / Autumn. Mulch levels should be maintained at a consistent depth of 75mm.

Native Hedgeline Trimming and Pruning

4.4.4 During the first three years of hedgerow establishment the hedgerow transplants should be lightly trimmed to maintain shape and form. Light trimming shall encourage vigorous and dense growth. Hedgerow trimming during the first three years of establishment should be undertaken annually; during the Spring to maintain size, shape and vigorous growth.

- Native Hedgeline Planting Watering**
- 4.4.5 In order to establish the hedgerow planting, the hedgerow transplants should be watered fortnightly throughout the summer season during the first year of establishment during April / May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit.
- Native Hedgeline Shrub Guards**
- 4.4.6 All hedgerow shrub guards should be checked and refitted where necessary to all hedgerow transplants. Shrub guards should be checked bi-annually and refitted where necessary.
- Litter Collection**
- 4.4.7 All hedgerow planting areas should be checked on a regular basis for litter and leaf collection. All Hedgerow Planting areas should be cleared of litter and checked on a fortnightly basis throughout the year. All litter to be removed from the site.
- Long-Term Hedgeline Management**
- 4.4.8 Long-term, the management objective for the hedgerow planting should be to achieve a dense hedgerow boundary approximately 1.8 metres height. After three years of establishment and light trimming, the hedgerows should be maintained to a maximum height of 1.8 metres and should be hard-trimmed every 2 years. The hedgerow should be trimmed to an 'A' shape and form.
- Proposed Hedgeline Planting- Management Prescriptions**
- 4.4.9 The following management prescriptions shall be routinely implemented to the Hedgeline Planting Areas;
- 4.4.10 P2 – Proposed Hedgeline Planting – Management Prescriptions**
- **Hedgerow - Weeding;** Maintain hedgerow planting areas weed free; check bi-annually, Spring / Autumn;
 - **Hedgerow - Mulch Top Up;** Maintain mulch to all hedgerow planting areas; check bi-annually; Spring / Autumn;
 - **Hedgerow - Trimming and Pruning;** Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring;
 - **Hedgerow - Shrub Guards;** Check and refit where necessary all hedgerow shrub guards, check bi-annually; Spring / Autumn;
 - **Hedgerow - Planting Watering;** Fortnightly during April / May / June / July / August / September for the first year of establishment only;
 - **Hedgerow - Litter Collection;** Collection on a fortnightly basis.
 - **Hedgerow - Long-term Management;** Maintain hedgerows at 1.8 metres height to all boundaries; every 2 years.
- 4.5 P 3 – Proposed Native Species and Flowering Shrub Planting**
- Native and Flowering Shrub Planting**
- 4.5.1 The northern, eastern and southern boundaries to the proposed car parking area, the southern façade of the existing school building and the proposed raised timber planters would be planted and bordered with native and flowering shrub planting to encourage wildlife, and in particular Invertebrates to the site.
- Native and Flowering Shrub Planting - Specification**
- 4.5.2 All grass seeded areas shall be cut before any shrub planting pit preparation is undertaken, to a maximum grass height of 75 mm. The setting out positions of shrub planting pits shall be treated with a suitable non-residual herbicide application prior

to planting. No excavation of the areas where herbicide has been applied shall commence until the relevant vegetation has been effectively controlled. Planting pits shall be dug by hand and any major existing tree or shrub roots found within the pits shall not be severed.

Planting Pits

- 4.5.3 The size of shrub planting pits shall be as follows;
- Whips / Transplant / Shrubs 300 x 300 x 300mm;
 - Or 20% wider in any direction than the root ball whichever is the greater.

Bare Root - Transplant Whip and Shrub Planting

- 4.5.4 The Contractor shall form a planting notch for bare rootstock to a sufficient depth and width to allow roots to spread without cutting or bending. The shrub plant material is to be inserted into the planting pit, firming the soil by treading with the heel, ensuring that the plant material remains in an upright position.
- 4.5.5 Backfilling material shall be excavated topsoil, combined with organic planting medium and soil improver. It shall be thoroughly mixed into the backfill or cultivated material at a rate of 1 no. part planting medium to 3 no. parts existing topsoil.

Organic Mulch

- 4.5.6 Clear all weeds, water soil thoroughly and mulch all planting pits and notch planting positions to 500 – 700 mm diameter circle, to an even depth of 75mm after settlement. Pit planted trees and shrubs and notch planted positions shall be mulched around the base of the plant to a 500 – 700mm diameter circle.
- 4.5.7 Organic mulch comprising of well composted organic material, wood chips, or bark, shall be free of pests, disease, fungus, weeds and foreign material. The organic mulch shall be matured for a minimum of 16 weeks. Organic mulch shall consist of graded fines to a maximum particle size of 40 mm with approximately 70 % particle size 5 mm to 40mm, 30 % particle size less than 5 mm.

Native and Flowering Shrub Planting - Weeding

- 4.5.8 Ornamental shrub plant material would be planted in planting pit areas overlain with a Medium Grade Ornamental Bark Mulch, which should be kept clear of all weeds at the base of the plant material. The ornamental shrub plant material should be kept weed free by either hand weeding or application of a non-residual herbicide application, taking care not to spray or scorch existing plant material. The ornamental shrub plant material to the eastern site boundary should be cleared of all weeds bi-annually; Spring and Autumn.

Native and Flowering Shrub Planting - Mulch Top-Up

- 4.5.9 The shrub plant material would be located within planting pit areas overlain with a Medium Grade Ornamental Bark Mulch. The shrub planting pits should be topped up with an organic bark mulch to assist with the suppression of weeds to these native tree and shrub planting areas. A mulch top-up should be undertaken and checked bi-annually; Spring / Autumn. Mulch levels should be maintained at a consistent depth of 75 mm.

Native and Flowering Shrub Planting - Trimming and Pruning

- 4.5.10 During the first three years of establishment the ornamental shrub transplants should be lightly trimmed to maintain shape and form. Light trimming should encourage vigorous and dense growth. Trimming during the first three years of establishment should be undertaken annually; during the Spring to maintain size, shape and vigorous growth.

Native and Flowering Shrub Planting - Watering

- 4.5.11 In order to establish the ornamental shrub planting, the transplants should be watered fortnightly throughout the summer season, for the first year of establishment only, during April / May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit. Thereafter, water as deemed necessary only where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Native and Flowering Shrub Planting – Defects

- 4.5.12 Replace all dead / dying plant material within the first 5 years of establishment as required.

Proposed Native and Flowering Shrub Planting - Management Prescriptions

The following management prescriptions shall be routinely implemented to the Native and Flowering Shrub Planting Areas;

P 3 – Proposed Native and Flowering Shrub Planting - Management Prescriptions

- ***Weeding;*** mulched planting pits to be kept clear of weeds to the base of each plant. Planting pits to be cleared of weeds bi-annually; Spring and Autumn;
- ***Mulch Top–Up;*** planting pits should be topped up with an organic bark mulch. Mulch levels should be maintained at a consistent depth of 75 mm. Mulch top–up should be undertaken and checked bi-annually; Spring / Autumn;
- ***Trimming and Pruning;*** during the first three years of establishment the native shrubs should be lightly trimmed to encourage vigorous and dense re-growth. Trimming during the first three years of establishment should be undertaken annually; during the Spring;
- ***Watering;*** transplants should be watered fortnightly throughout the summer season in the first three years of establishment during April / May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient;
- ***Defects;*** Replace dead trees / shrubs as required.

P 4 – Grassed Areas

Grass Seeded Areas - Generally

- 4.6.1 Where the development scheme incurs loss of existing grass sward, or where the proposals include newly proposed grassed areas, grassed shall be established through seeding. The specified seed mix should be appropriate for amenity turfed areas; grass seed mix to be 'A3 – Landscape and Banks' as supplied by British Seed houses (*Refer to Soft Landscape Specification*).

Grassed Areas - Cutting

- 4.6.2 The cutting regime of the Grassed Areas should vary throughout the year. The grass should be maintained to a height of 35 mm. The cutting regime should be as follows;

- *Initial Cut; Early Spring; Feb / March – Initial cut to tidy Grassed Areas to 40–50 mm height.*
- *Regular Cutting; April / May / June / July / August / September / October. Cutting Regime; fortnightly throughout the Spring / Summer season to a height of 35 mm.*
- *Final Cut; November – Final cut to tidy Grassed Areas to 40 – 50 mm height.*

Grassed Areas – Bare Patches

- 4.6.3 Grassed Areas which fail to establish or become bare due to wear should be top dressed with sandy loam topsoil and re-seeded with Grass Seed Mix as specified. The bare areas that are re-seeded should be temporarily fenced off to enable establishment. Bare patches should be re-seeded in March / April or September / October. The Grassed Areas should be checked for bare patches bi-annually; Spring and Autumn.

Grassed Areas Fertiliser – Spring – Autumn

- 4.6.4 A fertiliser application should be made bi-annually to the Grassed Areas during Spring and Autumn as follows;
- *In March apply 15: 10: 10; Spring Turf Fertiliser at 35 g / m² or equal and approved;*
 - *In September apply 5: 10: 10; Autumn Turf Fertiliser at 35 g / m² or equal and approved.*

4.6.5 P 4 – Grassed Areas – Management Prescriptions

- **Grass Cutting; Initial cut early Spring; Regular cutting fortnightly during April / May / June / July / August / September / October;**
- **Final Cut; November;**
- **Bare Patches; Re-seeding bi-annually; Spring and Autumn;**
- **Fertiliser; Bi-annually; Spring and Autumn**

4.7 P 5 – Soft Landscape Planting Areas- Proposed Climber Planting

- 4.7.1 The landscape scheme includes climber planting to the western façade of the existing building, next to the proposed school building entrance.

Soft Landscape Planting Areas – Weeding.

- 4.7.2 All soft planting areas should be maintained weed free throughout the maintenance year. It is recommended that shrub planting areas should be cleared of all weed growth either by hand weeding or by the application of a non-residual herbicide application. Weed growth to be checked bi-annually during Spring / Autumn. Regular maintenance visits should be made to the soft landscape areas to check weed growth by hand weeding. This should be checked and undertaken monthly throughout the Spring and Summer; March / April / May / June / July / August / September / October.

Plant Debris

- 4.7.3 Soft landscape plant debris such as spent flowers, bulb, and perennial plant material debris should be cleared from the planting beds on a regular basis. The condition of the planting beds should be checked monthly throughout the Spring and Summer during March / April / May / June / July / August / September / October. All plant debris to be cleared from the soft landscape areas.

Soft Landscape Areas - Mulch Top-Up

- 4.7.4 The soft landscape planting areas are to be mulched with an ornamental bark mulch. The mulch should be checked and maintained to a consistent depth of 75mm. The mulch cover should assist with suppressing weed growth. The mulch should be topped up and checked bi-annually during Spring / Autumn.

Watering

- 4.7.5 In order to establish the soft landscape planting areas, the shrub planting material should be watered fortnightly throughout the summer season in the first two years of establishment during May / June / July / August / September. 10 litres per metre square should be applied fortnightly throughout the summer season at each maintenance visit.

Pruning and Trimming

- 4.7.6 Shrub plant material should be lightly trimmed and pruned to maintain vigorous and dense growth during early establishment. Plant material should be checked for size and space within public areas, particularly adjacent to the garden area footpaths and paving / seating areas. Pruning and trimming should be undertaken bi-annually; Spring / Autumn during early establishment.

4.7.7 P 5 – Proposed Soft Landscape Planting Areas – Management Prescriptions.

- **Planting Area Weeding;** *Maintain soft landscape areas weed free; check bi-annually; Spring / Autumn. Check throughout the Spring / Summer repeat where necessary;*
- **Plant Debris;** *Remove and trim all plant debris during monthly maintenance visits throughout the Spring / Summer;*
- **Planting Area Mulch Top-Up;** *Maintain mulch levels to a consistent depth of 75 mm; check bi-annually Spring / Autumn;*
- **Watering;** *Water plant material fortnightly during the summer season for the first two years of establishment;*
- **Planting Area;** *Pruning and trimming; lightly prune / trim plant materials to all soft landscape areas bi-annually; Spring / Autumn.*

5.0 ANNUAL AND LONG TERM MAINTENANCE SCHEDULE

5.1 Annual Management and Maintenance Schedule

5.2 Protected Species Management Prescriptions

- **Ecological Mitigation Measures – Birds**

All Birds' nests are protected and it is recommended that the Dense Scrub and mature Scattered Trees found on site are retained wherever possible within the development proposals. All works relating to vegetation clearance, such as the removal of existing Scrub or Trees, should avoid the breeding Bird season that runs inclusively from mid-March to August of each year.

- **Ecological Mitigation Measures - Invertebrates**

It is recommended that some rough Grassland areas are maintained / created within the proposed development in addition to the protection of Dense Scrub and mature Scattered Trees in order to enhance habitat for Invertebrates. Dead wood is an invaluable resource for many Invertebrates and should be added / not cleared away from the area, and retained within the post-construction development scheme for Invertebrates. Proposed habitat enhancement to the south-eastern boundary of the development site incorporating Native Species Tree Planting, Native and Flowering Shrub planting species, would enhance the site's potential for Invertebrates.

- **Ecological Mitigation Measures – Bats**

The existing mature Scattered Trees and the Natural Broad-Leaved Woodland to the western and southern edges of the School site should be retained and protected within the development scheme proposals. Existing areas of Dense Scrub and Hedgerow boundary vegetation should be retained and protected on site to maintain foraging habitat and connectivity for Bats surrounding the School site. Any tree surgery works proposed to any of the existing mature Scattered Trees and the Natural Broad-Leaved Woodland to the western and southern edges of the School site should be inspected by a Bat Surveyor prior to the removal of any branches or limbs to assess the potential for roosting Bats prior to Tree Surgery works. The existing garage proposed to be removed should have Ivy inspected for presence of Bats and removed prior to demolition.

- **Ecological Mitigation Measures – Reptiles and Amphibians**

A Destructive Search of the development construction zone immediately adjacent to the drain to the southern edge of the site should be undertaken prior to commencing construction works on site in this area. The Dense Scrub found on site should be retained wherever possible to maintain viable terrestrial habitat for Amphibians and Reptiles.

- **Ecological Mitigation Measures - Badgers**

Dense Scrub and Grassland should be retained within the site where possible to maintain potential foraging habitat for Badgers.

5.3 Annual Maintenance and Management Prescriptions

- **P 1 – Proposed Tree Planting; Mulching;** Trees within Grassland should be maintained with a mulch zone 500 – 700mm diameter to the base of the trees. Mulch layer to be checked annually;

- **P1 – Proposed Tree Planting; Defects;** Replace dead trees as required. Check annually;
- **P 2 – Proposed Hedge Planting; Hedgerow Trimming and Pruning;** Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring;

5.4 Spring and Summer Maintenance and Management Prescriptions

- **P 1 - Tree Planting; Weeding; Trees within Grassland;** to be maintained with a weed and grass-free area at the base of each tree to be undertaken during Spring;
- **P 1 - Tree Planting; Tree Watering;** throughout the early to late summer period; April / May / June / July / August / September fortnightly; 20 litres per tree at each watering visit, for the first year of establishment only;
- **P 1 - Tree Planting; Tree Guards and Tree Ties;** checked to each tree during Spring;
- **P 1 - Tree Planting; Tree Pruning;** trees should be checked for dead, dying, or damaged branches and stems during Spring;
- **P 2 - Hedgerow; Weeding;** Maintain hedgerow planting areas weed free; check during Spring;
- **P 2 - Hedgerow; Mulch Top Up;** Maintain mulch to all hedgerow planting areas; check during Spring;
- **P 2 - Hedgerow; Trimming and Pruning;** Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring;
- **P 2 - Hedgerow; Shrub Guards;** Check and refit where necessary all hedgerow shrub guards, check during Spring;
- **P 2 - Hedgerow; Planting Watering;** Fortnightly during April / May / June / July / August / September for the first year of establishment only;
- **P 2 - Hedgerow; Litter Collection;** Collection on a fortnightly basis during Spring;
- **P 3 – Native and Flowering Shrub Planting; Weeding;** Maintain hedge planting areas weed free; check during Spring;
- **P 3 - Native and Flowering Shrub Planting; Mulch Top Up;** Maintain mulch to all hedge planting areas; check during Spring;
- **P 3 - Native and Flowering Shrub Planting; Trimming and Pruning;** Light trimming of hedge transplants to stimulate vigorous and dense growth; carry out annually during Spring;
- **P 3 - Native and Flowering Shrub Planting; Watering;** Fortnightly during April / May / June / July / August / September for the first year of establishment only; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.
- **P 4 - Grassed Areas; Grass Cutting;** Initial cut early Spring; Regular cutting fortnightly during April / May / June / July / August / September;
- **P 4 – Grassed Areas; Bare Patches;** Re-seeding during Spring;
- **P 4 – Grassed Areas; Fertiliser;** Bi-annually undertake during Spring;
- **P 5 - Soft Landscape Planting Areas; Climber Planting; Weeding;** Maintain soft landscape areas weed free; check during Spring;. Check throughout the Spring / Summer repeat where necessary;
- **P 5 - Soft Landscape Planting Areas; Climber Planting; Plant Debris;** Remove and trim all plant debris during monthly maintenance visits throughout the Spring / Summer;
- **P 5 - Soft Landscape Planting Areas Mulch Top-Up; Climber Planting;** Maintained mulch levels to a consistent depth of 75 mm; check during Spring;

- **P 5 - Soft Landscape Planting Areas; Climber Planting; Watering;** Water plant material fortnightly during the summer season for the first two years of establishment;
- **P 5 - Soft Landscape Planting Areas; Climber Planting; Pruning and trimming;** lightly prune / trim plant materials to all soft landscape areas during Spring;

5.5 Autumn Maintenance and Management Prescriptions

- **P 1 - Proposed Tree Planting; Trees within Grassland;** Maintain a weed-free zone at the base of Nursery and Standard Stock Trees; check bi-annually; Spring / Autumn;
- **P 1 - Proposed Tree Planting; Tree Watering;** Nursery Stock and Standard Tree Planting to be watered fortnightly throughout April / May / June / July / August / September for the first year of establishment only;
- **P 1 - Proposed Tree Planting; Tree Guards and Tree Ties;** Check fitting of tree guards and rubber tree ties including tree stakes; check bi-annually; Spring / Autumn;
- **P 1 - Proposed Tree Planting; Tree Pruning;** Prune trees for dead and damaged branches bi-annually; Spring and Autumn whilst the trees are still in leaf;
- **P 2 - Hedgerow Planting; Hedgerow Weeding;** Maintain hedgerow planting areas weed free; check bi-annually, Spring / Autumn;
- **P 2 - Hedgerow Planting; Hedgerow Mulch Top Up;** Maintain mulch to all hedgerow planting areas; check bi-annually; Spring / Autumn;
- **P 2 - Hedgerow Planting; Hedgerow Shrub Guards;** Check and refit where necessary all hedgerow shrub guards, check bi-annually; Spring / Autumn;
- **P 2 - Hedgerow Planting; Hedgerow Planting Watering;** Fortnightly during April / May / June / July / August / September for the first year of establishment only;
- **P 2 - Hedgerow Planting; Litter Collection;** Collection on a fortnightly basis;
- **P 3 - Native and Flowering Shrub Planting; Weeding;** Maintain hedge planting areas weed free; check during Autumn;
- **P 3 - Native and Flowering Shrub Planting; Mulch Top Up;** Maintain mulch to all hedge planting areas; check during Autumn;
- **P 4 - Grass Cutting;** Regular cutting fortnightly during September / October; Final Cut; November;
- **P 4 – Grassed Areas; Bare Patches;** Re-seeding during Autumn;
- **P 4 - Grassed Areas; Fertiliser;** during Autumn;
- **P 5 - Soft Landscape Planting Areas; Climber Planting;** Mulch Top-Up; Maintained mulch levels to a consistent depth of 75 mm; check during Autumn;
- **P 5 - Soft Landscape Planting Areas; Climber Planting; Pruning and trimming;** lightly prune / trim plant materials to all soft landscape areas during Autumn;

5.6 Long-Term Management Prescriptions

- **P 1 - Tree Planting; Tree Thinning;** to be selectively thinned on a regular and routine basis. Selective tree thinning of nurse tree species should be undertaken every five years to assist tree establishment;
- **P 2 - Hedgerow; Trimming;** Maintain hedgerows at 1.5 metres height; check every 2 years;
- **P 3 - Native and Flowering Shrub Planting;** Check bi-annually during Spring and Autumn.

6.0 SECTION Q35 LANDSCAPE MAINTENANCE SPECIFICATION

To be read with Preliminaries / General Conditions.

Generally

100 **Landscape Maintenance Period**

- Landscape Maintenance Contract to be an agreed period of 12 months to run concurrently with the 12 months Defects Liability Period for all Soft Landscape Works. All plant material / grass seeded areas which fail during the first 12 months of establishment and throughout the continuous 12 months maintenance period shall be replaced by the Landscape Contractor.

110 **Notice**

- Give notice before:
 - *Application of herbicide;*
 - *Application of fertilizer;*
 - *Watering;*
 - *Each site maintenance visit;*
- Period of notice: 2 days.

130 **Reinstatement**

- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.

155 **Watering – Advanced Nursery and Standard Stock Tree Planting**

- Supply: Potable mains water;
- Quantity: 20 Litres per tree; first year of establishment only;
- Application: Do not damage or loosen plants;
- Compacted soil: Loosen or scoop out, to direct water to root zone;
- Frequency: Fortnightly during April / May / June/ July / August / September;
- Watering to be undertaken for the first 12 months of establishment.

160 **Watering – Soft Landscape Planting Areas and Hedgerow Planting**

- Supply: Potable mains water;
- Quantity: 10 Litres per metre square; first year of establishment only.
- Application: Do not damage or loosen plants;
- Compacted soil: Loosen or scoop out, to direct water to root zone;
- Frequency: As necessary for the continued thriving of all planting;
- Watering to be undertaken for the first 12 months of establishment.

170 **Disposal of Arisings**

- General: Unless specified otherwise, dispose of arisings as follows:
- Biodegradable arisings: to a Local Authority Green Waste Recycling Facility;
- Grass cuttings: to a Local Authority Green Waste Recycling Facility;
- Tree roots and stumps: to a Local Authority Green Waste Recycling Facility;
- Shrub and tree prunings: chipping or shredding permitted on site. Chippings to be spread across the native planting areas as instructed by the Landscape Architect;
- Litter and non-biodegradable arisings: remove to the Contractor's tip separately to green waste.

180 Chipping or Shredding on Site

- General: chipping and shredding of shrub and tree prunings permitted on site. Chippings to be spread on site across the native planting areas as instructed by the Landscape Architect.

190 Litter

- Extraneous rubbish not arising from the Contract Work: Collect and remove from site.

193 Tree and Plant Stems

- Nylon filament rotary cutters and other mechanical tools: Do not allow closer than 100 mm to the stem of any tree or plant;
 - *Complete operations close to stems using hand tools.*

195 Protection of Existing Grass

- General: Protect areas affected by maintenance operations using boards / tarpaulins. Do not place excavated or imported materials directly on grass.

197 Cleanliness

- Soil and arisings: Remove from hard surfaces;
- General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

Grassed Areas**210 Maintenance of Grassed Areas**

- General: Maintain turf in a manner appropriate to the intended use;
- Grass height: Maintain within range specified in clauses 260 to 280;
- Soil and grass condition;
 - *Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt;*
 - *Prevent water logging and compaction;*
 - *Repair damage due to trampling, abrasion or scalping during mowing;*
- Ornamental turf and lawns: Maintain reasonably free from moss, thatch, weeds, frost heave, worm and mole casts;
 - *Edges: Neat and well defined;*
- Litter and fallen leaves: Remove regularly to maintain a neat appearance.

220 Grass Cutting Generally

- Before mowing: Remove litter, rubbish and debris;
- Finish: Neat and even, without surface rutting, compaction or damage to grass;
- Edges: Leave neat and well defined. Neatly trim around obstructions;
- Adjoining hard areas: Sweep clear and remove arisings;
- Drought or wet conditions: Obtain instructions.

225 Tree Stems

- Precautions: Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

250 Leaf Removal

- Operations: Remove fallen leaves;

- Special requirements: remove leaf waste to a Local Authority Green Waste Recycling Facility.

260 Mowing Lawns

- Grass height: Maintain between 25 and 50 mm;
- Arisings: remove grass cuttings to a Local Authority Green Waste Recycling Facility.

295 Spiking

- Operations: Aerate the soil to a depth of 100 mm.

300 Scarifying

- Operations: Relieve thatch conditions and remove dead grass;
- Depth: 25 mm into soil.

305 Harrowing

- Operations: Aerate soil and remove worm casts;
- Type of harrow: Chain harrow or drag mat.

309 Edges to Seeded Areas

- Location: Planting beds and around newly planted trees;
- Timing: After seeded areas are well established;
- Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.

310 Re-Forming Grass Edges

- Location: Planting beds, paths, manhole covers and the like;
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

320 Levelling Hollows and Bumps in Turf

- Standard: To *BS 7370-3, Clauses 12.4 and 12.5.*

325 Relieving Surface Compaction in Turf

- Standard: To *BS 7370-3, Clause 13.5.*

330 Selective Herbicide

- Type: Selective herbicide non-residual herbicide application;

350 Fertilizer - Spring Application

- Type: Turf Liquid Organic Feed; Supplier / Source: Farmura, Stone Hill, Egerton, Ashford, Kent, TN 27 9DU; Tel. 01233 756241; Fax. 01233 756419; Email; info@farmura.com;
- Coverage: 1 litre per 100 m², diluted with water at a rate of 1:2.

360 Fertilizer - Autumn Application

- Type: Turf Liquid Organic Feed; Supplier / Source: Farmura, Stone Hill, Egerton, Ashford, Kent, TN 27 9DU; Tel. 01233 756241; Fax. 01233 756419; Email; info@farmura.com;
- Coverage: 1 litre per 100 m², diluted with water at a rate of 1:2.

380 Reinstatement of Lawns - Worn Areas

- Damaged turf: Remove to a depth of 40 mm;
- Preparation: Cultivate substrate to a fine tilth;

- Reinstatement: Contractor's choice of turfing or topsoiling and reseeding:
 - *Turfing: Quality and appearance to match existing;*
 - *Reseeding: Fill with fine topsoil to BS 3882 Medium Grade Topsoil, free from stones, debris and weeds. Reseed with a seed mix to match existing grass in quality and appearance;*
- Protection and watering: Provide as necessary to promote successful germination and / or establishment.

Shrubs / Trees / Hedges

500 Establishment of New Planting

- Duration: 12 months maintenance period;
- Weed control:
 - *Keep planting beds clear of weeds by use of suitable non-residual herbicide application and hand weeding where necessary;*
 - *Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit;*
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch;
- Trees: When in leaf, spray crowns in the evening during warm weather.

510 Tree Stakes and Ties

- Inspection / maintenance times: monthly as part of the routine maintenance inspections;
- Stakes:
 - *Replace loose, broken or decayed stakes to original specification;*
 - *If 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;*
- Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing;
 - *Where chafing has occurred, reposition or replace ties to prevent further chafing;*
- Removal of stakes and ties: as instructed by the Landscape Architect.
 - *Fill stake holes with lightly compacted soil.*

520 Refirming of Trees and Shrubs

- Timing: After strong winds, frost heave and other disturbances;
- Refirming: Tread around the base until firmly bedded;
- Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.

525 Tree Guards

- Loose or defective guards: Adjust, refix or replace to original specification and to prevent chafing.

530 Tree Shelters

- Loose or defective shelters: Adjust, refix or replace to original specification and to prevent chafing;
- Removal: as instructed by the Landscape Architect.

540 Pruning Generally

- Pruning: In accordance with good horticultural and arboricultural practice;
 - *Removing branches: Do not damage or tear the stem;*
 - *Wounds: Keep as small as possible and cut cleanly back to sound wood;*

- *Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area;*
- *Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide;*
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance;
- Tools: Use clean sharp secateurs, handsaws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife;
- Disease or fungus: Give notice if detected;
- Growth retardants, fungicide or sealant: Do not use unless instructed.

545 Pruning of Excessive Overhang

- Timing: annually or as instructed by the Landscape Architect;
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.

550 Pruning of Excessive Height

- Timing: annually or as instructed by the Landscape Architect.

555 Pruning Trees and Shrubs

- Standard: To *BS 7370-4, Clauses 3.6.3 to 3.6.5.*

570 Formative Pruning of Young Trees

- Time of year: Do not prune during late winter / early spring sap flow period;
- Young trees up to 4.0 m high:
 - *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. In each case cut back to live wood;*
- Whips or feathered trees: Do not prune;
- Operatives: 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.

575 Pruning Ornamental Shrubs

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour;
- Suckers: Remove by cutting back level with the source stem or root.

580 Pruning Flowering Species of Shrubs and Roses

- Time of year:
 - *Winter flowering shrubs: Spring;*
 - *Shrubs flowering between March and July: Immediately after the flowering period;*
 - *Shrubs flowering between July and October: Back to old wood in winter;*
 - *Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.*

605 Trimming Slowly Establishing Hedges

- Operations:
 - *Cut back hard in June and September to encourage bushy growth down to ground level;*

- Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

620 Removal of Dead Plant Material

- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems;
- Removal: Arisings to a Local Authority Green Waste Recycling Facility;
- Replacement: to be agreed with the Landscape Architect.

625 Climbing Plants

- Pruning: Remove excess growth to ensure that (*in addition to the requirements of clause 545 where relevant*) signs, light fittings, doors and windows are kept clear at all times;
- Insecure growth: Attach to supporting wires or structures using 1.0 mm diameter black plastic coated steel wire;
- Supporting structures: Check and repair as necessary.

630 Dead Plants

- Removal: as soon as possible, as instructed by the Landscape Architect;
- Replacement: during the next available planting season.

635 Reinstatement of Shrub / Herbaceous Areas

- Dead and damaged plants: Remove;
- Replacement plants:
 - Use pits and plants to original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.

640 Thinning by Removal of Surplus Plants

- Plants to be thinned: as instructed by the Landscape Architect;
- Standard: *BS 7370-4, Clause 3.5.17.1*;
- Timing: as instructed by the Landscape Architect;
- Roots:
 - Remove as much as possible without causing undue disturbance to adjacent plants;
 - Refill holes with topsoil to leave an even graded surface;
 - Make good any minor damage to adjacent plants immediately;
- Plants for retention: Select plants with a strong healthy habit.
 - 645 Weed Control Generally
- Weed tolerance: at all times, weed cover less than 5 % and no weed to exceed 100 mm high;
- Adjacent plants, trees and grass: Do not damage.

650 Hand Weeding

- General: Remove weeds entire, including roots;
- Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible;
- Completion: Rake area to a neat, clean condition.

657 Herbicide to Kill Regrowth

- Type: Suitable foliar acting herbicide to kill regrowth;
- Timing: Allow recommended period for herbicide to take effect before clearing arisings.

665 Weed Control with Winter Herbicide

- Type: Suitable residual soil acting herbicide;
- Time of year: Unless otherwise agreed, complete before end of March;
- Timing: Allow recommended period for herbicide to take effect before clearing arisings.

670 Weed Control with Summer Herbicide

- Type: Suitable foliar acting herbicide;
- Timing: Allow recommended period for herbicide to take effect before clearing arisings.

675 Digging Over

- General: Dig over beds. Do not damage existing plants, bulbs and roots.
 - *Depth of dig (minimum): 100 mm.*

680 Soil Aeration

- Compacted soil surfaces: Prick up to aerate the soil of root areas. Break surface crust, reduce size of lumps to crumb and level off. Do not damage plants and their roots.

685 Soil Level Adjustment

- Level of soil / mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface;
 - *Arisings (if any): Spread evenly over the bed.*

690 Maintenance of Loose Mulch

- Thickness (minimum): 75 mm consistent depth;
 - *Top up: with Ornamental Bark Mulch, supplied by Melcourt Industries or equal and approved. Address; Melcourt Industries, Boldridge Brake, Long Newton, Tetbury, Glos, GR8 8RT. Tel. 01666 502711. Fax. 01666 504398;*
- Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area;
- Weeding: Remove weeds growing on or in mulch by non-residual herbicide application.

705 Winter Leaf Removal

- Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds;
- Arisings: remove to a Local Authority Green Waste Recycling Facility.

Tree Work**810 Tree Work Generally**

- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned;
- Protection: avoid damage to neighbouring trees, plants and property;
- Standards: To *BS 3998 and Forestry and Arboriculture Training and Safety Council Safety Guides*;
- Removing branches: Cut as shown in *Arboricultural Association Leaflet No 8 'Mature Tree Maintenance'*. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater;
- Appearance: Leave trees with a well-balanced natural appearance;
- Chain saw work: Operatives must hold a Certificate of Competence;

- Tree work: To be carried out by an approved member of the Arboricultural Association.

815 Additional Work

- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820 Prevention of Wound Bleeding

- Standard: To *BS 3998, Clause 8*.

825 Prevention of Disease Transmission

- Standard: To *BS 3998, Clause 9 and Appendix B*.

830 Cleaning Out and Deadwooding

- Remove:
 - *Dead, dying, or diseased wood, broken branches and stubs;*
 - *Fungal growths and fruiting bodies;*
 - *Rubbish, wind blown or accumulated in branch forks;*
 - *Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained;*
 - *Other unwanted objects, e.g. tree houses, swings;*
 - *Climbing plants retain within existing trees.*

835 Cutting and Pruning Generally

- Tools: Appropriate, well maintained and sharp;
- Final pruning cuts:
 - *Do not use chainsaws on branches of less than 50 mm diameter;*
 - *When using handsaws, cut in one continuous operation to form a smooth cut surface;*
 - *Do not use anvil type secateurs;*
- Removing branches: Do not damage or tear the stem;
- Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area;
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible;
- Large branches:
 - *remove only if unavoidable;*
 - *Remove in small sections and lower to ground with ropes and slings;*
- Dead branches and stubs: When removing, do not cut into live wood;
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions;
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

840 Crown Reduction / Shaping

- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps;
- Operations: as instructed by the Landscape Architect.

845 Crown Lifting

- Clearances: Remove branch systems to give clearances as follows: as instructed by the Landscape Architect;
- Removing branches: Remove whole branches back to the stem or cut lower portions of branches back to lateral or sub-lateral buds or branches. Do not leave stumps.

850 Crown Thinning

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches;
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown as instructed by the Landscape Architect;
- Cutting: Cut portions of branches back to lateral or sub-lateral buds or branches without leaving stumps;
- Appearance: Leave a uniform and well balanced structure of branches and foliage.

855 Cutting Tree Roots

- Excavating: Use hand tools only;
- Protected area: Do not cut roots within an area which is the larger of:
 - *the branch spread of the tree;*
 - *an area with a radius of half the tree's height, measured from the trunk;*
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval;
- Cutting:
 - *Make clean smooth cuts with a handsaw;*
 - *Minimize the wound area and avoid ragged edges;*
 - *Pare cut surfaces smooth with a sharp knife;*
- Backfilling:
 - *Cover cut roots with clean sharp sand;*
 - *Backfill with original topsoil.*

860 Removing Trees, Shrubs and Hedges

- Standards: To *BS 3998, Appendix A and Forestry and Arboriculture Training and Safety Council Safety Guides;*
- Existing services: Check for below and above ground services. Give notice if they may be affected;
- Shrubs and smaller trees: Cut down and grub up roots;
- Tree stumps:
 - *grind down to 450 mm below the proposed ground level, backfill with on site topsoil levelled off to the existing ground level;*
 - *Removal by winching: Give notice. Do not use other trees as supports or anchors;*
- Protection: avoid damage to neighbouring trees, plants and property;
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained;
- Filling holes:
 - *Use as-dug material and/or imported soil as required;*
 - *Grade to marry in with surrounding ground level.*

865 Bark Damage

- Wounds:
 - *Do not attempt to stop sap bleeding;*
 - *Gently remove ragged edges and remove splintered wood from deep wounds, but keep wounds as small as possible;*
- Liquid or flux oozing from apparently healthy bark: Give notice.

870 Cavities in Trees

- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice;
- Water filled cavities: Do not drain;
- Sound wood inside cavities: Do not remove.