MACKELLAR SCHWERDT ARCHITECTS

MERIDIAN COMMUNITY PRIMARY SCHOOL
PEACEHAVEN, EAST SUSSEX

Landscape Scheme

Long Term Landscape Management Plan

Approved By: Joe Jackson
Signed: ……
Position: Principal
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Landscape Scheme

Long Term Landscape Management Plan

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DRAWINGS / DOCUMENTS

- ***LLD954 / 01 series – Tree Constraints Plans;***
- ***LLD954 / 02 series – Tree Retention and Protection Plans;***
- ***LLD954 Existing Tree Schedule and Arboricultural Impact Assessment;***
- ***LLD954 / 03 series – Soft Landscape Layout;***
- ***LLD954 / 04 series – Detailed Planting Plans;***
- ***LLD954 Detailed Plant Schedule and Specification;***
- ***LLD954 Preliminary Ecological Appraisal and Habitat Plan***

1.0 INTRODUCTION

1.1 Lizard Landscape Design and Ecology has been commissioned to compile a Landscape Management Plan for the proposed Meridian Community Primary School development at the site of the existing school, Peacehaven, East Sussex to provide management prescriptions for the future maintenance of the proposed soft landscape scheme.

1.2 The proposed development comprises the extension of a new school building with associated pedestrian access and hard play areas; the reconfiguration of the existing car park and the inclusion of a frontage and boundary planting scheme and landscape scheme enhancement of the proposed extension.

1.2 The existing site holds limited habitat of ecological value. The existing school is contained within extensive areas of grass sports fields and hard play areas, and parking areas.

1.3 Existing mature vegetation is largely held to the site boundaries. Scattered trees are located to the boundaries; the majority of planting exists to the school frontage and car park area adjacent to the school wildlife garden.

1.4 The Soft Landscape Scheme Management Plan includes the following Management and Maintenance Prescriptions and Specification;

- *Description of the Scheme Proposals;*
- *Landscape Management Prescriptions;*
- *Annual and Long-Term Management Schedule;*
- *Landscape Maintenance Specification.*

Drawings and Reports

1.5 The Soft Landscape Scheme Management Plan is accompanied by the following documentation;

- *LLD954 / 03 series – Soft Landscape Layouts;*
- *LLD954 / 04 series – Detailed Planting Plans;*
- *LLD954 Detailed Plant Schedule and Specification;*

2.0 LANDSCAPE SCHEME PROPOSALS

2.1 The Soft Landscape proposals for Cavendish School have been indicated on the following drawings; LLD954 / 03 series – Soft Landscape Layout.

2.2 The development plan for the Meridian Community Primary School, Peacehaven includes an ecological and landscape strategy which aims to retain and enhance the existing landscape and ecological features present within the existing site area. The development proposals provide the opportunity to enhance the species biodiversity within the development site with habitat enrichment and creation to the development site boundaries, in particular to the proposed car park and fringes of the existing wildlife garden, and to the surrounds of the proposed extension and hard play area.

2.3 Proposed feature planting areas shall provide enhanced replenishment of western boundary vegetation to the western edge of the proposed car park with flowering shrubs and low ground cover with specimen and accent planting enhancing the proposed parking areas and providing reinforcement of the school boundary and entrance to the school wildlife garden. The proposed feature planting areas shall comprise native tree planting and native mixed species boundary hedgeline planting to the western boundary. The planting would provide containment of existing habitat area / wildlife garden and reinforcement of school boundary.

2.4 Additionally, the feature car park planting areas would incorporate specimen tree planting with flowering shrubs and low ground cover and specimen and accent planting forming identity to the school frontage and proposed parking areas. Native Wildflower Grassland seeding should be implemented to areas of disturbed / bare ground following construction activity. The wildflower grassland would further enhance and enrich biodiversity of existing habitat garden.

2.5 Proposed feature planting including specimen tree planting with bands of flowering shrubs would provide visual interest and amenity to the proposed feature terrace garden to the northern edge of the school site. Further specimen tree, hedge and shrub planting would edge and soften the proposed pedestrian access and ramp immediately south of the terrace garden.

2.6 The proposed school extension incorporates a pedestrian terrace to the southern elevation of the building and which extends to the reconfigured hard play area and access to the school playing fields. Proposed feature planting areas would comprise ornamental flowering shrubs, low ground cover planting areas with specimen and accent planting forming visual interest and enhancement of the proposed school building, pedestrian terrace and hard play area. Treeline tree planting would provide verticality and continuity to these areas.

2.7 Existing vegetation proposed to be retained within the proposals shall be protected in accordance with *BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'*.

2.8 Management Plan prescriptions for the scheme soft landscape proposals detailed in *Section 3.1 - Landscape Management Prescriptions* are as follows;

- *P 1 – Existing Mature Trees and Vegetation;*
- *P 2 – Proposed Native and Ornamental Advanced Nursery Stock Tree Planting;*
- *P 3 – Proposed Native Hedge Planting;*
- *P 4 – Proposed Ornamental Hedge Planting;*
- *P 5 – Proposed Soft Landscape Planting Areas*
- *P 7 – Proposed Native Species Wildflower and Grass Seeded Areas;*
- *P 8 – Proposed Grass Seeded Areas.*

3.0 LANDSCAPE MANAGEMENT PRESCRIPTIONS

3.1 The Landscape Management prescriptions for the proposed development site areas detailed below are illustrated on the following drawings;

- *LLD954/ 03 series – Soft Landscape Layout;*

3.2 P 1 – Existing Mature Trees and Vegetation

Existing Tree Retention and Protection Proposals

3.2.1 Following the removal of existing vegetation as outlined above, all trees to be retained are to be protected in accordance with *BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations.*

Protection and Retention of Existing Vegetation

3.2.2 The contractor shall exercise extreme care when performing operations beneath the canopy of existing mature trees and vegetation designated for protection and avoid at all times damage to the roots, trunk and branches.

Protective Fencing

3.2.3 All trees to be retained on site shall be protected with fencing erected around the area of mature vegetation in accordance with *BS 5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations.* The fencing is to be erected according to the specified and dimensioned Root Protection Areas in accordance with the Tree Protection Plan.

3.2.4 The fencing is to be erected prior to the commencement of all works on site and retained in place throughout construction. The fencing is to be a min. 2.0 metres height 'Heras' Welded Wire Mesh Fencing secured upon a scaffolding framework, with uprights at maximum 3.5m spacings, braced to the ground with 45 degree struts; supporting standard anti-climb 'Heras' welded mesh fence panels secured with anti-lift devices to concrete or cable ties. *"TREE PROTECTION ZONE - KEEP OUT"* or similar notices to be attached to every fifth panel.

3.2.5 The fencing is to be positioned to the outside edge of the Tree Root Protection Areas specified. All such fencing shall be maintained for the full contract period. Repositioning of the protective fencing during the course of the contract as the contract works progress shall need to be agreed on site with the Landscape Architect.

3.2.6 At the end of the contract period the Contractor shall remove protective fencing from the site. All retained vegetation shall be healthy and thriving at the handover date. Within the protected area the following activities must not take place;

- *No vehicles are to be used in the fenced off areas;*
- *No materials are to be stockpiled or stored;*
- *No chemicals are to be stored;*
- *No excavation or increase in the soil level shall occur;*
- *No fires shall be lit on site.*

Ground Protection Measures - Manual Excavation

3.2.7 Within the tree Root Protection Areas the first 750 mm depth of any excavation, whether for proposed foundations, hard surfacing, or underground services shall be undertaken by hand under arboricultural supervision. The soil shall be loosened with a pick or a fork, and then will be cleared from roots with a compressed air soil pick. All roots will be cut cleanly with a hand saw or secateurs. The edge of the excavation closest to the trees will be covered with hessian sacking to prevent drying out, and if necessary be shuttered with an appropriate material to prevent soil collapse.

3.2.8 All excavations, cultivation and grading beneath the canopy of existing mature trees and within the tree Root Protection Areas outside the canopy of the trees and vegetation shall be carried out using hand tools, taking care not to damage or disturb any existing tree roots.

Ground Protection Measures - No Dig Construction

3.2.9 Proposed hard surfacing within Root Protection Areas of retained trees is to be constructed in accordance with B*S 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'* - ground levels should not be raised or lowered within the existing tree root protection areas. A *'No-Dig' Construction* method shall be employed in order to avoid damage to existing tree roots and localised compaction of subsoil within the tree root protection area, using a geo-grid or geo-web, or a combination of the two shall be placed beneath the sub-base to prevent compaction of the soil in which the tree roots are growing. Such surfaces should be laid down prior to the commencement of any other building works, to ensure that the ground beneath the existing trees is protected throughout the construction process.

Tree Protection Zone – Temporary Construction Access.

3.2.10 Construction areas and access routes / existing ground beneath the existing tree canopy or within the tree Root Protection Areas is to be overlain with a geo-textile membrane and compressive material. The construction access / area is to be protected with interlocking metal plates or scaffolding boards for the duration of the construction period. Tree Protective Fencing is to be realigned / relocated on site only in agreement with the Arboricultural Consultant, to suit the construction phasing / process.

Arboricultural Supervision

3.2.11 The Landscape Architect will directly supervise all construction works that have to be undertaken within Root Protection Areas. These include:

- *Location of protective fencing and ground boarding;*
- *Construction of above-soil surfacing – No Dig Construction;*
- *Depth of manual excavations for sub-base of proposed roads;*
- *All other excavations, whether for proposed foundations, hard surfacing, or underground services.*

Removal of Existing Vegetation

3.2.12 All existing trees designated for removal are to be removed in accordance with *BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'* and *BS3998:2010 – 'Tree Work: Recommendations'.* Trees designated for removal and felling shall be clearly marked on site with white paint. Prior to the removal and felling of trees, the required work and tree positions shall be agreed on site with the Landscape Architect / Arboricultural Consultant. Trees shall be felled, and tree surgery works undertaken prior to the erection of the Tree Protective Fencing. Care should be taken during the tree removal process to avoid any damage to any trees which are designated to be retained and protected.

3.2.13 Stumps shall be removed and cut away so that the top of the stump shall be at least 450 mm below the final topsoil level in order that the site can be levelled and grassed over. Stumps are to be treated with an approved herbicide to be agreed with the Landscape Architect. Where the depth is greater than 450 mm the areas shall be backfilled with topsoil to the required level.

3.2.14 The removal of shrub or scrub material within the tree root protection area of any tree to be retained shall employ a manual removal method; the use of hand tools shall be used in order to maintain the ground surface of the tree root protection area, and reduce any damage to existing tree roots within the protected tree root zone. Adjacent trees shall not be utilised as anchors or levers to facilitate the removal of adjacent vegetation.

Tree Surgery

3.2.15 Any significant defects found in the trees during the course of the scheduled work shall be reported to the Landscape Architect. All work shall be undertaken by an approved and qualified Tree Surgeon in accordance with *BS3998:2010 – 'Tree Work: Recommendations'*. Care should be taken to avoid damage to neighbouring trees to be retained. Branches in confined spaces shall be removed and taken down in sections. All arisings shall be transported and disposed of away from site to the Contractor's tip.

Existing Mature Trees to be Retained and Protected on Site

3.2.16 The condition of the retained existing mature trees shall need to be monitored each year, in order to identify any dead or dying branches within the existing canopy or any areas of significant die-back. The existing trees should be checked annually for dead, dying, or damaged branches during the spring of each year. Dead, dying, or damaged branches should be cleaned from the tree trunks, removing all dead wood back to the tree trunks. Any overhanging branches which constrict use within the development site should be trimmed hard back to the development boundary. Any works required to neighbouring trees / vegetation should be limited to the extent of removing overhanging branches. Tree Surgery works are to be undertaken in accordance with *BS3998:2010 – 'Tree Work: Recommendations'.*

3.2.17 P 1 – Existing Mature Trees and Vegetation - Management Prescriptions

- ***Existing Mature Trees and Vegetation:*** *Inspect trees annually for dead and dying branches during the Spring of every year. All existing trees are to be inspected every year for dead, dying, or damaged branches; including any diseased wood or wounds. Any dead, dying, or damaged branches should be cleaned from the tree trunk by a Qualified Tree Surgeon, removing all dead wood back to the tree trunk;*
- ***Existing Mature Trees:*** *The condition of the existing mature trees to the development site boundaries shall need to be monitored each year, in order to identify any dead or dying branches within the existing canopy or any areas of significant die-back;*

3.3 P 2 – Proposed Advanced Nursery Stock Tree Planting;

Native and Ornamental Tree Planting Proposals

3.3.1 The following tree species are proposed to be planted as part of the soft landscape scheme:

- *Acer campestre (Field Maple); Standard Extra Heavy; (14 – 16 cm girth size; 4.5 m height);*
- *Sorbus aria 'Magnifica' (Whitebeam); Standard Extra Heavy; (14 – 16 cm girth size; 4.5 m height);*
- *Tamarix aestivalis; Standard Select*; *(10 – 12 cm girth size; 3.5m height)*.

Proposed Tree Planting – Planting Specification

3.3.2 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.

3.3.3 The size of tree planting pits and planting method shall be as follows;

- Planting pits should be excavated to the same depth as the trees root system with the root flare or root collar level with the surface of the surrounding existing soil.
- If the bottom of the planting pit is compacted or there is a soil pan, this should be alleviated by breaking up the soil in the bottom of the pit to ensure that there is suitable drainage.
- The width of the tree pit should be excavated to a minimum of 150 mm radially greater than the radius of the root ball or container.
- If the tree pit sides are compacted, smooth or smeared they should be scarified to loosen the soil.
- During excavation the soil should be separated into topsoil and subsoil in order that during backfilling the soil can be replaced in the same order.
- The trees root system should be lightly wetted prior to planting.
- The tree should be planted at the correct depth ensuring the root flare is just visible above the soil level and that there has been allowance for any settling of soil levels.
- Backfilling should be added gradually in layers of 150mm ensuring the tree is held upright. Each layer should be firmed down to remove air pockets within the soil and to aid tree stability but not to excessively compact the soil.
- The final layer of backfilling should not be consolidated, but should be of a sufficient depth to allow for settlement and mulching.
- Refer to *'BS 8545: 2014 – Trees: From Nursery to Independence in the Landscape – Recommendations'* for details on tree planting.

3.3.4 Where required 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

3.3.5 Tree staking is to be Long Double Staking for Extra Heavy Standard Trees and Standard Selected Trees with stakes driven vertically at least 300 mm into bottom of pit on either side of tree position before planting. The stakes should be placed to allow the fixing of the cross bar to the windward side of the tree and as close to the stem as possible. Backfilling should seek to consolidate material around stakes. 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 and the tree secured firmly but not rigidly to the cross bar with one adjustable tie plus spacer within 50 mm of the top of the stake with a 25 mm long galvanised clout nail.

Organic Mulch

3.3.6 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.

3.3.7 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

3.3.8 Trees planted within grassland should be maintained with a weed and grass-free area at the base of each tree. A 600 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

3.3.9 No strimming should be undertaken around the base of the proposed tree planting. A 600 mm diameter weed-free zone should be achieved.

Watering

3.3.10 In order to establish newly planted Advanced Nursery Stock trees, the proposed planted trees should be watered throughout the early to late summer period; May / June / July / August / September. Semi-mature and Nursery Stock tree planting should be watered fortnightly throughout the Spring / Summer Period; May / June / July / August / September. 20 litres should be applied to each tree at each watering visit. Thereafter, water as deemed necessary only where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Tree Guards and Tree Ties

3.3.11 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.

3.3.12 All tree guards and rubber tree ties should be checked to each tree bi-annually; Spring / Autumn.

Tree Planting - Pruning

3.3.13 Advanced 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 highway footpaths. Trees should be pruned accordingly during the Spring and Autumn, whilst the trees are still in leaf.

3.3.15 P 2 – Proposed Native and Ornamental Tree Planting - Management Prescriptions

- ***Trees within Grassland:*** *Maintain a weed-free zone at the base of Nursery Stock Trees; check 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 Watering:*** *Nursery Stock Tree Planting to be watered fortnightly throughout May / June / July / August / September; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***Tree Guards and Tree Ties:*** *Check fitting of tree guards and rubber tree ties including tree stakes; check bi-annually; Spring / Autumn.*
- ***Tree Pruning:*** *Prune trees for dead and damaged branches bi-annually; Spring and Autumn whilst the trees are still in leaf.*
- ***Tree Planting; Defects:*** *Replace dead trees as required.*

3.4 P 3 – Proposed Native Species Hedgeline Planting

Native Hedgeline Planting

3.4.1 The soft landscape scheme includes native hedge line planting to reinforce or supplement existing vegetation; to offer screening; and as part of the school frontage planting scheme. Hedgeline material consists of the following native species:

Native Mixed Species Hedgeline Planting

- *Acer campestre (Field Maple);*
- *Corylus avellana (Common Hazel);*
- *Crataegus monogyna (Hawthorn).*

Native Hedgeline Weeding

3.4.2 Hedgerow transplants shall be planted in mulched beds / or native grass seeded areas, 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 within the development should be cleared of all weeds bi-annually; Spring and Autumn.

Native Hedgeline Mulch Top – Up

3.4.3 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

3.4.4 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.

Hedgeline Planting Watering

3.4.5 In order to establish the hedgerow planting, the hedgerow transplants should be watered fortnightly throughout the summer season in the first two years of establishment during May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit. Thereafter, water as necessary where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Native Hedgeline Shrub Guards

3.4.6 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

3.4.7 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

3.4.8 Long–term, the management objective for the hedgerow planting should be to achieve a dense hedgerow boundary reaching a height of the adjoining hedgeline (if supplementary hedgeline planting); or, where the hedgerow is a newly established feature the management objective for the hedgerow planting should be to achieve a dense hedgerow of approximately 1.5 metres height.

3.4.9 After three years of establishment and light trimming, the hedgerows should be maintained to the maximum objective height and should be hard–trimming bi-annually during Spring and Autumn to achieve this goal. The hedgerow should be trimmed to an 'A' shape and form. The following hedgeline height should be achieved: - *1.5m height;*

3.4.10 P 3 – Proposed Native Hedge line Planting – Management Prescriptions

- ***Native Hedgerow - Weeding;*** *Maintain hedgerow planting areas weed free; check bi-annually, Spring / Autumn;*
- ***Native Hedgerow - Mulch Top Up;*** *Maintain mulch to all hedgerow planting areas; check bi-annually; Spring / Autumn;*
- ***Native Hedgerow - Trimming and Pruning;*** *Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring;*
- ***Native Hedgerow - Shrub Guards;*** *Check and refit where necessary all hedgerow shrub guards, check bi-annually; Spring / Autumn;*
- ***Native Hedgerow - Planting Watering;*** *Fortnightly during May / June / July / August / September for establishment of new hedgerow planting; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***Native Hedgerow - Litter Collection;*** *Collection on a fortnightly basis.*
- ***Native Hedgerow - Long–term Management;*** *Maintain hedgerows at 1.5 metres height to all boundaries; check bi-annually; Spring and Autumn;*

3.5 P4 – Proposed Ornamental Species Hedgeline Planting

Ornamental Hedgeline Planting

3.5.1 The soft landscape scheme includes ornamental hedge line planting of the following ornamental species:

Ornamental Single-Species Hedgeline Planting

- *Griselinia littoralis (New Zealand Privet)*

Ornamental Hedgeline Weeding

3.5.2 Container grown stock 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 should be cleared of all weeds bi-annually; Spring and Autumn.

Ornamental Hedgeline Mulch Top – Up

3.5.3 The hedgerow plant material is located within a mulched planting area. The bed 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.

Ornamental Hedgeline Trimming and Pruning

3.5.4 During the first three years of hedgerow establishment the hedgerow plants 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 later summer to maintain size, shape, and vigorous growth.

Hedgeline Planting Watering

3.5.5 In order to establish the hedgerow planting, the hedgerow plants should be watered fortnightly throughout the summer season in the first two years of establishment during May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit. Thereafter, water as necessary where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Litter Collection

3.5.6 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

3.5.7 Long–term, the management objective for the hedgerow planting should be to achieve a dense hedgerow, achieving a height of approximately 1.2 metres height.

3.5.8 After three years of establishment and light trimming, the hedgerow should be maintained to the maximum objective height and should be trimmed during late summer to achieve this goal. The hedgerow should be trimmed to an 'A' shape and form. The following hedgeline height should be achieved: – *1.2m height.*

3.5.9 P 4 – Proposed Ornamental Hedgeline Planting – Management Prescriptions

- ***Ornamental Hedgerow – Weeding:*** *Maintain hedgerow planting areas weed free; check bi-annually, Spring / Autumn.*
- ***Ornamental Hedgerow - Mulch Top Up:*** *Maintain mulch to all hedgerow planting areas; check bi-annually; Spring / Autumn.*
- ***Ornamental Hedgerow - Trimming and Pruning:*** *Light trimming of hedgerow plants to stimulate vigorous and dense growth; carry out annually during late summer.*
- ***Ornamental Hedgerow - Planting Watering:*** *Fortnightly during May / June / July / August / September for establishment of new hedgerow planting; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***Ornamental Hedgerow - Litter Collection:*** *Collection on a fortnightly basis.*
- ***Ornamental Hedgerow - Long–term Management:*** *Maintain hedgerow at 1.2 metres height; check annually in late summer.*

3.6 P 5 – Proposed Soft Landscape Planting Areas.

Soft Landscape Planting Areas – Weeding.

3.6.1 Throughout the proposed school development site are areas of proposed Soft Landscape Planting. The planting areas are to define and enhance the hard landscape within the proposed development and provide additional opportunity to increase biodiversity within the site.

3.6.2 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

3.6.3 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

3.6.4 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

3.6.5 In order to establish the soft landscape planting areas, the shrub planting material should be watered fortnightly throughout the summer season in the first year 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. Thereafter, water as deemed necessary only where natural precipitation levels are insufficient in order to maintain healthy dense growth.

Pruning and Trimming

3.6.6 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.

Litter Collection

3.6.7 All planting areas should be checked on a regular basis for litter collection. All planting areas should be cleared of litter and checked throughout the year. All litter to be removed from the site.

3.6.8 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:*** *Maintained 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 year of establishment; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***Planting Area:*** *Pruning and trimming; lightly prune / trim plant materials to all soft landscape areas bi-annually; Spring / Autumn.*
- ***Litter Collection:*** *Collection on a fortnightly basis.*

3.8 P 6 – Wildflower Grassland Seeded Areas – Meadow Wildflower Grass Seed Mix

Wildflower Grass Seed Mix - Generally

3.8.1 Areas of bare / disturbed ground following construction activity to the wildlife garden are proposed to be sown with wildflower grassland seed mixes selected for and adaptable to the local soil type for ecological habitat creation. The following prescriptions apply to open areas of wildflower grassland.

Wildflower Grassed Areas – Initial Cutting - Year One

3.8.2 Initial cutting of the vegetation once sown, on a monthly basis, shall suppress invasive weeds in areas where this is a problem. Cutting the wildflower area again in late October would help the initial establishment of the wildflower meadow. *(Grasses produce a flush of growth in late-autumn, and by removing vegetation in late autumn, this will allow the wildflowers to predominate).*

Wildflower Grassed Areas – Annual Cutting – From Establishment

3.8.3 The wildflower grassed areas sown with a meadow mixture for chalk soils are to be allowed to develop and flower throughout the spring and summer growing season. No cutting shall occur in this period. The wildflower grass seeded areas are to be cut with one or two cuts at the end of summer to a height of 50 – 75mm. Arisings are to be left in-situ for a period of 7 no. days before removal. Mow re-growth through to late autumn/ winter to 50mm height and again in spring if needed.

3.8.4 The wildflower grassland arisings throughout the development could potentially either be composted on site, composted locally, or removed from site to a Local Authority Green Waste Recycling Facility.

Litter Collection

3.8.5 All wildflower grassland seeded areas should be checked on a regular basis for litter collection. All wildflower grassland seeded areas should be cleared of litter and checked throughout the year. All litter to be removed from the site.

3.8.6 P 6 – Meadow Grassland Areas – Maintenance Prescriptions

- ***Meadow Grassland Areas; Annual Cutting:*** *End of summer of each maintenance year.*
- ***Meadow Grassland Areas; Litter Collection:*** *Collection on a fortnightly basis.*

3.9 P 7 – Grassed Areas

Grassed Areas - Cutting

3.9.1 The cutting regime of grass seeded 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

3.9.2 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

3.9.3 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 / m^2 or equal and approved.*
- *In September apply 5: 10: 10; Autumn Turf Fertiliser at 35 g / m^2 or equal and approved.*

3.9.4 P 7 – 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.*

4.0 LANDSCAPE MAINTENANCE AND MANAGEMENT SCHEDULE

4.1 Annual Maintenance and Management Prescriptions

- ***P 1 - Existing Mature Trees and Vegetation:*** *Inspect trees annually for dead and dying branches during the Spring of every year. All existing trees are to be inspected every year for dead, dying, or damaged branches. Any dead, dying, or damaged branches should be cleaned from the tree trunk, removing all dead wood back to the tree trunk.*
- ***P 2 - 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.*
- ***P 2 – Proposed Tree Planting; Defects:*** *Replace dead trees as required. Check annually.*
- ***P 3 - Native Hedgerow - Trimming and Pruning:*** *Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring.*
- ***P 4 - Ornamental Hedgerow - Trimming and Pruning:*** *Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during late summer.*
- ***P 6 - Meadow Grassland Areas; Annual Cutting:*** *October / late summer of each maintenance year.*

4.2 Spring and Summer Maintenance and Management Prescriptions

- ***P 2 - Proposed Tree Planting within Grassland;*** *Maintain a weed-free zone at the base of Nursery Stock Trees; check during Spring.*
- ***P 2 - Proposed Tree Planting Watering:*** *Nursery Stock Tree Planting to be watered fortnightly throughout May / June / July / August / September; fortnightly - 20 litres per tree at each watering visit; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***P 2 - Proposed Tree Planting Tree Guards and Tree Ties:*** *Check fitting of tree guards and rubber tree ties including tree stakes; check during Spring.*
- ***P 2 - Proposed Tree Planting Pruning:*** *Prune trees for dead and damaged branches bi-annually; Spring when the trees are in leaf.*
- ***P 3 - Native Hedgerow – Weeding:*** *Maintain hedgerow planting areas weed free; check during Spring.*
- ***P 3 - Native Hedgerow - Mulch Top Up:*** *Maintain mulch to all hedgerow planting areas; check during Spring.*
- ***P 3 - Native Hedgerow - Trimming and Pruning:*** *Light trimming of hedgerow transplants to stimulate vigorous and dense growth; carry out annually during Spring.*
- ***P 3 - Native Hedgerow - Shrub Guards:*** *Check and refit where necessary all hedgerow shrub guards, check during Spring.*
- ***P 3 - Native Hedgerow - Planting Watering:*** *Fortnightly during May / June / July / August / September for establishment of new hedgerow planting; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***P 3 - Native Hedgerow - Litter Collection:*** *Collection on a fortnightly basis during Spring.*
- ***P 3 - Native Hedgerow - Long–term Management:*** *Maintain hedgerows at 1.5 metres height to all boundaries; check during Spring.*

Spring and Summer Maintenance and Management Prescriptions Cont'd

- ***P 4 - Ornamental Hedgerow – Weeding:*** *Maintain hedgerow planting areas weed free; check during Spring.*
- ***P 4 - Ornamental Hedgerow - Mulch Top Up:*** *Maintain mulch to hedgerow planting area; check during Spring.*
- ***P 4 - Ornamental Hedgerow - Trimming and Pruning:*** *Light trimming of hedgerow to stimulate vigorous and dense growth; carry out annually during late summer.*
- ***P 4 - Ornamental Hedgerow - Planting Watering:*** *Fortnightly during May / June / July / August / September for establishment of new hedgerow planting; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***P 4 - Ornamental Hedgerow - Litter Collection:*** *Collection on a fortnightly basis during Spring.*
- ***P 4 - Ornamental Hedgerow - Long–term Management:*** *Maintain hedgerow at 2.0 metres height; check during spring and late summer.*
- ***P 5 - Soft Landscape Planting Areas; Weeding:*** *Maintain soft landscape areas weed free; check during Spring. Check throughout the spring / summer repeat where necessary.*
- ***P 5 - Soft Landscape Planting Areas; 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:*** *Maintained mulch levels to a consistent depth of 75 mm; check during spring.*
- ***P 5 - Soft Landscape Planting Areas Watering:*** *Water plant material fortnightly during the summer season for the first two years of establishment; and as deemed necessary after the establishment period, only where natural precipitation levels are insufficient.*
- ***P 5 - Soft Landscape Planting Areas; Pruning and trimming:*** *Lightly prune / trim plant materials to all soft landscape areas during Spring.*
- ***P 6 - Meadow Grassland Areas; Litter Collection:*** *Collection on a fortnightly basis during spring and summer.*
- ***P 6 - Meadow Grassland Areas; Initial Spring Cut;*** *Monthly cutting throughout the spring and summer for initial 1st season (thereafter annual maintenance cut; October/ late summer).*
- ***P 7 – Grassed Areas; Grass Cutting:*** *Initial cut early spring. Regular cutting fortnightly during April / May / June / July / August / September.*
- ***P 7 – Grassed Areas; Bare Patches:*** *Re-seeding during spring.*
- ***P 7 – Grassed Areas; Fertiliser:*** *Bi–annually undertake during spring.*

4.3 Autumn Maintenance and Management Prescriptions

- ***P 2 – Proposed Tree Planting Trees within Grassland:*** *Maintain a weed-free zone at the base of Nursery Stock Trees; check during Autumn.*
- ***P 2 - Proposed Tree Planting Tree Guards and Tree Ties:*** *Check fitting of tree guards and rubber tree ties including tree stakes; check during Autumn.*
- ***P 2 - Proposed Tree Planting Tree Pruning:*** *Prune trees for dead and damaged branches check during Autumn whilst the trees are still in leaf.*
- ***P 2 - Proposed 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 Autumn.*
- ***P 3 - Native Hedgerow – Weeding:*** *Maintain hedgerow planting areas weed free; check during autumn.*
- ***P 3 - Native Hedgerow - Mulch Top Up:*** *Maintain mulch to all hedgerow planting areas; check during autumn.*
- ***P 3 - Native Hedgerow - Shrub Guards:*** *Check and refit where necessary all hedgerow shrub guards, check during Autumn.*
- ***P 3 - Native Hedgerow - Litter Collection:*** *Collection on a fortnightly basis during Autumn.*
- ***P 3 - Native Hedgerow - Long–term Management:*** *Maintain hedgerows at 1.5 metres height to all boundaries; check during autumn.*
- ***P 4 - Ornamental Hedgerow – Weeding:*** *Maintain hedgerow planting area weed free; check during autumn.*
- ***P 4 - Ornamental Hedgerow - Mulch Top Up:*** *Maintain mulch to hedgerow planting area; check during autumn.*
- ***P 4 - Ornamental Hedgerow - Litter Collection:*** *Collection on a fortnightly basis during autumn.*
- ***P 4 - Ornamental Hedgerow - Long–term Management:*** *Maintain hedgerows at 2.0 metres height; check during autumn.*
- ***P 5 - Soft Landscape Planting Areas Mulch Top–Up:*** *Maintained mulch levels to a consistent depth of 75 mm; check during Autumn.*
- ***P 5 - Soft Landscape Planting Areas; Pruning and trimming:*** *Lightly prune / trim plant materials to all soft landscape areas during autumn.*
- ***P 6 - Meadow Grassland Areas; Annual Cutting:*** *October of each maintenance year.*
- ***P 6 - Meadow Grassland Areas; Litter Collection:*** *Collection on a fortnightly basis.*
- ***P 7 – Grassed Areas; Grass Cutting:*** *Regular cutting fortnightly during September / October; Final Cut: November.*
- ***P 7 – Grassed Areas; Bare Patches:*** *Re-seeding during autumn.*
- ***P 7 - Grassed Areas; Fertiliser:*** *During autumn.*

4.4 Long-Term Maintenance and Management Prescriptions

- ***P 3 - Native Hedgerow - Long–term Management:*** *Maintain hedgerows at specified height; check bi-annually; Spring and Autumn.*
- ***P 4 - Ornamental Hedgerow - Long–term Management:*** *Maintain hedgerow at specified height; check bi-annually; spring and autumn.*

Q35 Landscape Maintenance

To be read with Preliminaries / General Conditions.

Generally

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

- Supply: Potable mains water.
- Quantity: Wet full depth of topsoil.
- 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.

160 Water Restrictions

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

170 Disposal of Arisings

- General: Unless specified otherwise, dispose of arisings as follows:
  - Biodegradable arisings: Remove to recycling facility.
  - Grass cuttings: Remove to recycling facility.
  - Tree roots and stumps: Remove to recycling facility.
  - Shrub and tree prunings: Remove to recycling facility.
  - Litter and non-biodegradable arisings: Remove from site.

180 Chipping or Shredding on Site

- General: Not permitted on site.

190 Litter

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

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.
- Soil and grass:
  - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
  - Waterlogging and compaction: Prevent.
  - Damage: Repair trampling, abrasion or scalping.
- Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
  - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
- 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.

226 Tree and Plant Stems

- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
  - Operations close to stems: Complete using hand tools.

235 Bulbs and Corms in Grassed Areas

- Before flowering: Do not cut.
- Interval between end of flowering and start of grass cutting (minimum): Six weeks.

250 Leaf Removal

- Operations: Collect fallen leaves.
- Disposal: Remove from site for recycling.

255 First Cut of Sports Fields

- Height of initial growth: 40-75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 40 mm.
- Mower type: Contractor’s choice.
- Arisings: Remove.

256 First Cut of Wildflower Grassland Meadow

- Height of initial growth: 40-75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove.
- Height of first cut: 50 mm.
- Mower type: Contractor’s choice.
- Arisings: Remove.

262 Mowing Sports Fields

- Grass height: Maintain between 10 and 20 mm.
- Arisings: Remove.

265 Mowing General Areas

- Grass height: Maintain between 25 and 50 mm.
- Arisings: Remove.

272 Maintaining: Grassed Areas with Perennial Wildflowers – Mix for Chalk & Limestone Soils

- Preparation: Before each cut remove litter and debris.
- Height and frequency of cut in first growing season:
  - Time of first cut: March/April
  - Height of first cut: 75 mm.
  - Frequency of subsequent cutting (minimum): Most of the sown species will be slow to germinate and grow and will not usually flower in the first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing.
  - Height of growth permitted (maximum): 150 mm
- Height and frequency of cut in second growing season:
  - Time of cut: One or two cuts to the end of summer on shallow soils. On areas of deeper soil a single cut in October.
  - Height of cut: 50 mm.
- Trimming: All edges.
  - Arisings: Remove.
- Watering: When instructed.
- Management once established: In the second and subsequent years the wildflower grassland can be managed in a number of ways depending on the soil fertility.
  - Poor Shallow Soils: On poor shallow soils the wildflower grassland can be managed through one or two cuts towards the end of summer to help maintain diversity and interest.
  - Deeper Soils: Wildflower grassland seeded on deeper soils should be managed through a main summer hay cut in combination with autumn and spring mowing. The wildflower grassland seeded areas are not to be cut from spring through to late July/ August to allow the sown species to flower. After July/August a ‘hay cut’ with a petrol strimmer to 50 mm height should be undertaken with the hay left to dry and shed seed for 1 – 7 days before being removed from site. Regrowth should be mowed through to late autumn / winter to 50 mm height and again in spring if required
- Other Requirements: For further maintenance requirements refer to the wildflower grassland seed mix supplier’s instructions and recommendations.
- Other Requirements: No soil ameliorant / conditioner or fertilizer to be applied to the wildflower grassland.

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.
- Arisings: Remove.

310 Re-Forming Grass Edges

- Location: Where damage occurs.
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

381 Reinstatement of Lawns - Worn Areas

- Damaged turf: Remove to a depth of 40 mm.
- Preparation: Cultivate substrate to a fine tilth.
- 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.
- Turf or seed: To match existing in appearance and quality.
- Protection and watering: Provide as necessary to promote successful germination and/ or establishment.

Flower Beds / Seasonal Beddings

470 Flower Beds Generally

- Operations:
  - Remove: Dead flower heads, fallen leaves, litter and debris.
  - Weeds: Thoroughly hand weed.
  - Cultivate: Lightly hoe.
  - Trim: Clip grass edges.
- Fungicide: Contractor's choice.
- Insecticide: Contractor's choice.

Shrubs / Trees / Hedges

500 Establishment of New Planting

- Duration: 12 months maintenance period.
- Weed control:
  - Method: Keep planting beds clear of weeds by use of suitable herbicides; maintaining full thickness of mulch and hand weeding.
  - Area: 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.
- Watering: When instructed.

502 Establishment of New Planting - Fertilizer

- Time of year: March or April.
- Type: Slow release.
- Spreading: Spread evenly. Carefully lift and replace any mulch materials.
  - Application rate: As manufacturer's recommendations.

510 Tree Stakes and Ties

- Inspection / maintenance times: monthly as part of the routine maintenance inspections and immediately after strong winds.
- 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: During spring when no longer required to protect the hedge planting.

540 Pruning Generally

- Pruning: In accordance with good horticultural and arboricultural practice.
  - Removing branches: Do not damage or tear the stem or bark.
  - 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, hand saws 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 pruning 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.
- Special requirements: Allow ground cover plants to partially overlap paths and lawns.

550 Pruning of Excessive Height

- Timing: annually or as instructed by the Landscape Architect.
- Operations: Remove excessive height as instructed.

555 Pruning Trees and Shrubs

- Standard: To BS 7370-4.
- Special requirements: None.

570 Formative Pruning of Young Trees

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 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.

600 Trimming Rapidly Establishing Hedges

- General: Allow to reach planned height as rapidly as possible.
  - Form: Trim back lateral branches moderately.

605 Trimming Slowly Establishing Hedges

- Operations:
- Timing: Cut back hard in June and September to encourage bushy growth down to ground level.
  - Form: Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

611 Trimming Non-Tapering Established Hedges

- Time of year: Regular trimming from June to September.
- Operations:
  - Form: Trim carefully and neatly to regular line and shape with vertical sides.
  - Trim: Remove current growth rather than old wood.
- Tools / Cutting: Shears or suitable mechanical cutters.

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.

630 Dead and Diseased Plants

- Removal: As soon as possible.
- Replacement: In the next suitable planting season.

635 Reinstatement of Shrub / Herbaceous Areas

- Dead and damaged plants: Remove.
- Mulch / matting materials:
  - Carefully move to one side and dig over the soil, fit for replanting.
  - Do not disturb roots of adjacent plants.
- 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.
  - Additional requirements: Submit details and cost of plants before ordering.
- Dressing: Slow release fertilizer:
  - Type: Organic.
  - Application rate: As manufacturer’s recommendations.

640 Thinning by Removal of Surplus Plants

- Plants to be thinned: as instructed by the Landscape Architect;
- Standard: BS 7370-4:1991.
- Timing: as instructed by the Landscape Architect;
- Roots:
  - Disturbance to adjacent plants: Minimise.
  - Soil: Refill holes with topsoil to leave an even graded surface.
  - Mulch: Maintain mulch as original specification.
  - Adjacent plants: Make good any minor damage immediately.
- Plants for retention: Select plants with a strong healthy habit.
- Mature planting density: As schedule.

645 Weed Control Generally

- Weed tolerance: Weed to clear ground every two weeks.
- Adjacent plants, trees and grass: Do not damage.

650 Hand Weeding

- General: Remove weeds entirely, 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.
- Mulch: reinstate to original depth.

657 Herbicide to Kill Regrowth

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

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 dead weeds.

670 Weed Control with Summer Herbicide

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

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 and break surface crust.
  - Size of lumps: Reduce to crumb and level off.
  - Damage: 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: Every three months.
- 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 treatment and / or hand weeding.

695 Fertilizing Established Trees and Shrubs

- Time of year: During April or May.
- Type of fertilizer: Slow release.
- Application: Spread evenly.
  - Rate: As manufacturer's recommendations.

700 Snow Removal from Shrubs/ Trees

- Standard: To *BS 7370-4.*
- Plants Subject to Snow Removal: As instructed.
- Timing: When instructed.

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.

710 Woodland Planting Maintenance

- Watering: In exceptional circumstances to prevent plants dying.
- Loose plants: Refirm surrounding soil, without compacting.
- Ditches and drains: Keep clear.

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 3998:2010 'Tree Work. Recommendations' and Health & Safety Executive (HSE) 'Forestry and Arboriculture Safety Leaflets'*.
- Removing branches: Cut as Arboricultural Association Leaflet 'Mature tree management'. 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 3998:2010, Clause 8.*

825 Prevention of Disease Transmission

- Standard: To *BS 3998:2010, 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;
  - Anvil type secateurs: Do not use.
- 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 with prior approval.
  - 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 sub-lateral 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 clearance.
  - Height: As recommended by *BS 7370-4*, *clause 3.7.2.3*.
- 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:
  - Branches: Cut back to lateral or sublateral 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 the calculated tree Root Protection Area (RPA) in accordance with *BS 5837:2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations'.*
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- Cutting:
  - Cutting: Make clean smooth cuts with a hand saw.
  - Wounds: Minimize. Avoid ragged edges.
  - Finishing: Pare cut surfaces smooth with a sharp knife.
- Backfilling:
  - Protection: Cover cut roots with clean sharp sand.
  - Material: Backfill with original topsoil.

860 Removing Trees, Shrubs and Hedges

- Standards: To BS 3998:2010, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and 'Forestry Advisory Group Safety Leaflets'.
- 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:
  - Removal: Remove mechanically to a minimum depth of 300 mm below 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:
  - Material: Use as-dug material and/ or imported soil as required.
  - Finishing: Consolidate and grade to marry in with surrounding ground level.

865 Bark Damage

- Wounds:
  - Do not attempt to stop sap bleeding.
  - Bark: Remove ragged edges using a sharp knife
  - Wood: Remove splintered wood from deep wounds.
  - Size: 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.
- Cavity Openings: Do not cover.