

CHAPELTON LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN

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SECTION 1 INTRODUCTION

1 Introduction

1.1 Landscape Management Plan and Adoption process

The Chapelton Landscape Management and Maintenance Plan has been prepared on behalf of Elswick Development Company (EDC) for the new settlement of Chapelton. It describes the performance quality and frequency of maintenance tasks and sets out the areas to be managed. Representatives from Aberdeenshire Council Infrastructure Services; Roads Development and Landscape Services and Scottish Water, who will be responsible for maintaining the Adopted areas of the development (public roads and SUDs basins respectively), have been consulted in its preparation.

The management regimes set out in the Management Plan will be set in motion with the completion of the Infrastructure Contract Maintenance Period (i.e. 12 months (for general soft landscape) and 24 months (for trees)). The plan will be managed by EDC as future stages of the development are completed, and subsequently by the Chapelton Community Interest Company (CCIC) which will ultimately have overall responsibility for the management of the communal, non-adopted areas of the town. Following satisfactory completion of the respective implementation contract(s) an application will be made to Aberdeenshire Council for the addition of the newly completed roads to the list of public roads. This will trigger a standard 12 month maintenance period prior to the agreed roads being handed over to Aberdeenshire Council who will become responsible for their maintenance. This period may run concurrently with the contract maintenance period. The performance quality and frequency of maintenance tasks set out in this document takes cognisance of the standard maintenance regimes set out in Aberdeenshire Council's Landscape Services 'Grounds Maintenance Standards'. In key locations, such as Greenlaw Road, it has been agreed that additional maintenance operations i.e. over and above those specified in Aberdeenshire's standard grounds maintenance schedules, may be undertaken by CCIC. Any planting that dies within a period of 5 years from the completion of the development phase will be replaced by CCIC.

This document has been prepared to support application ref: APP/2011/3103.

1.2 Overarching landscape design objectives

Recognising existing natural assets

A key influence on the development of the Chapelton master plan has been the appreciation of the distinct qualities of the surrounding rural landscape. The master plan layout endeavours to protect worthwhile existing landscape features and build on the typical characteristics found locally, to create a development with a strong sense of place, rooted in the Aberdeenshire countryside.

An important objective of the design approach is to integrate the development with the surrounding landscape, so that, for example, the traces of existing field and vegetation patterns are threaded through the settlement, while at the edges of the development efforts will be made to connect new landscape to existing landscape features rather than 'outlining' the development.

With over 40% of the emerging town as green, the character of the landscaped areas is intended to be one of the defining characteristics of the town. In addition, the planting and open spaces within the development must perform a wide variety of roles, from the strategic to the local, and from the functional to the decorative. In particular, the landscape structure is intended to:

- help integrate the development with its setting
- create varied and attractive spaces and places within the built up area
- provide a full complement of recreational opportunities
- support biodiversity throughout the site

A mixed use community

Chapelton has been designed to be representative of traditional Aberdeenshire towns, with a full complement of different housing types, employment, community facilities and recreational space.

It is designed as a walkable community, with neighbourhood centres within a 5 minute walk of all residences. The comprehensive network of footpath and cycle paths is easy to navigate and provides a wide choice of safe and comfortable routes through and between neighbourhoods.

Character and diversity

The town incorporates a rich variety of public open spaces of different character and purpose, ranging from formal squares with a civic function to play parks, allotments and informal parkland for casual recreation.

The streets too vary in character, from busy streets with a formal, urban character to semi formal suburban streets, shared surface lanes and country tracks.

This rich hierarchy of character, from dense and urban to informal and rural, is integral to the master planner's original Transect-based planning and **will be protected over the long term through the application of appropriate management and maintenance practices.**

1.3 Management Zones

The Chapelton Landscape and Management Plan subdivides the site into Management Zones of different types based on the projected character, function and intensity of use of each street and public space. Three zones of management have been designated, as follows:

Formal

Areas that will be maintained to a Formal level include high profile civic spaces and streets such as Hume Square and Greenlaw Road. Typically this includes highly visible streets and squares that are important to first impressions, influence the overarching character and quality of Chapelton, and/or are important social spaces. Spaces falling into this category are likely to be popular destinations and intensively used.

Semi-formal

Areas that will be maintained to Semi-formal level include secondary public parks or squares such as Wolrige Gardens and Pheppie Park, and secondary streets such as Murray Street and Black Street. Typically these spaces are in less prominent locations, are less intensively used and have a less formal character than spaces maintained to Formal level.

Informal

Areas that will be maintained to Informal level are often located on the rural edge of the settlement or in significant areas of woodland or wetland where a more natural rural character is sought. Examples include the corridor of the Pheppie Burn, areas adjacent to SUDs basins and peripheral lanes such as Pheppie Lane. A key aim of the management regime in these areas will be to support biodiversity.

Figure 1: Phase 1A masterplan



1.4 General maintenance considerations

The detailed design has taken due consideration of management and maintenance processes including:

General

- allowance made for access for mobile maintenance equipment (eg. for cutting grass, removing arisings, litter etc. from soft landscape maintenance operations)
- provision of fixed elements required for maintenance (eg water and electricity connections)

Hard landscape elements

- paving and surface materials selected for ease of cleaning
- durable and long lasting materials that will weather well over time

Soft landscape elements

- plant selections which are predominantly native and well adapted to surviving in the local conditions
- the introduction of limited ornamental species to promote diversity and interest but which do not have a high maintenance burden
- avoidance of plants which require too much pruning or thinning (selecting hedge species according to their natural habit and siting accordingly)
- selection of exclusively native plant material in selected areas to promote biodiversity
- avoidance of grass areas on steeply sloping ground which would be difficult to cut
- using relatively high density for shrub planting to help reduce the requirement for weeding
- consideration of regionally appropriate low and slow growing grass and/or wildflower mixes in Semi-formal or Informal areas to reduce the need for excessive grass cutting regimes

1.5 Management Responsibilities

The period of contract maintenance i.e. the maintenance operations that are undertaken by the contractor to ensure successful establishment prior to hand over of the site, will be one year for general soft landscape and two years for tree planting, after which time the ongoing maintenance responsibilities for the completed phases of Chapelton will revert to EDC and ultimately to CCIC together with Aberdeenshire Council and Scottish Water.

The overarching aims for each of the identified management zones are described below. The corresponding detailed maintenance operations and their respective frequencies are set out in Section 3 Annual Maintenance Programmes.

Formal

All areas qualifying for Formal maintenance will be monitored on a frequent basis to check that all landscape elements are in good order. All planting will be maintained in good condition, pruned neatly as required and kept weed and litter free. Hard surfaces will be regularly swept clean and kept in good repair while any street furniture will be wiped down on a regular basis. Features such as public art and lighting will be regularly checked to ensure they are in good repair and functioning as intended.

Semi-formal

Areas that fall into this category are designed to accommodate simple and easy maintenance operations without the need for frequent maintenance activities or use of large machinery. None the less, all areas of planting will be maintained weed free and specimens pruned as necessary. Public spaces will be litter picked and hard surfaces and street furniture will be kept clean and in good repair. Lawn areas will be mown selectively but to keep a neat appearance.

Informal

Most spaces allocated for Informal maintenance have an important role in supporting biodiversity and the maintenance regime is designed accordingly. Consequently, for example, weeding of planted areas will be selective and as appropriate to promote the survival of desired species and habitat types, while grass cutting will be kept to the minimum necessary. However, all landscaped areas will still be kept clear of litter and any hard surfaces and furniture regularly cleaned and checked for damage.

SECTION 2 SOFT AND HARD LANDSCAPE MAINTENANCE

2.0 Soft and Hard Landscape Maintenance

2.1 General Items

Time Frame

This document sets out the actions required to maintain the soft and hard landscaped areas at Chapelton. However, it is proposed to review these actions at regular intervals (5 years) to ensure that the document remains valid and applicable.

Maintenance Schedule

This document is to be read in conjunction with the Maintenance Schedules, which set out both the frequency of the operations and the times the operations are to be carried out.

Workmanship

All work is to be carried out in the best possible manner and executed by workmen qualified to carry out their particular trade.

Removal to Tip

The Contractor shall remove, at his own expense, all surplus material (including stones, builders' debris, weeds and roots, cleared trees and bushes, grass cuttings, prunings and thinnings, general rubbish and the like) resulting from his work to licensed tip(s).

Reinstatement

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

Control of Mammalian Pests

The Contractor shall provide a list of Specialist firms and submit proposals, for approval, if required.

Chipping or Shredding on Site

Generally chipping and shredding may be permitted on site. The Contractor should submit requirements for approval. Arisings from pruning may be shredded and used as mulch at the rear of the shrub beds, or else removed from site.

Protection of Existing Grass

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

Watering

Supply: Potable mains water. The Contractor should note that hydrants may not be available for watering purposes. The Contractor shall provide his own hosepipes, bowsers and other materials and equipment necessary to carry out watering in a satisfactory manner. The Contractor must consult the appropriate water authority to obtain the necessary permissions for water supply and pay any charges due.

Quantity: Wet full depth of topsoil

Application: Do not damage or loosen plants.

Compacted soil: Loosen or scoop out, to direct water to rootzone.

Frequency: As necessary for the continued thriving of all planting.

Cleanliness

Soil and arisings: Remove from hard surfaces.

General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

2.2 Grassed Areas**Grassed Areas Generally**

Maintain turf in a manner appropriate to the intended use and design standard.

Grass height: Maintain within range specified.

Soil and grass condition:

Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.

Water logging and compaction: Prevent.

Damage: Repair trampling, abrasion or scalping caused by mowing.

Ornamental turf and 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.

Before mowing, remove litter, rubbish, debris and stone pick, as necessary.

Finish: Neat and even, without surface rutting, compaction or damage to grass, adjacent surfaces, trees, shrubs or woodland.

Edges: Leave neat and well defined. Neatly trim around obstructions, with shears if necessary to the same length as the main grass areas.

Adjoining hard areas: Sweep clear and remove arisings.

Drought or wet conditions: In wet conditions cutting shall cease and operations shall be resumed as soon as possible. In drought conditions the Contractor shall obtain instructions to agree a cutting height as required to maintain the condition of the sward.

Grass shall be cut using approved machines as specified, correctly adjusted, and fitted with sharp cutter blades set to cut the sward cleanly and evenly, so that the cuttings are evenly dispersed.

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. Where operations are close to stems, complete using hand tools. Any damage caused shall be made good at the Contractors expense.

Where bulbs and corms occur within the grassed areas, do not cut grass before flowering. Leave an interval, of a minimum of 6 weeks, between end of flowering and start of grass cutting.

Do not cut meadow grass containing wild flowers or grass in reinforced access paths/tracks.

Hard landscape areas adjoining grass areas shall be swept clear of all cuttings and rubbish or debris found on the grass shall be removed prior to cutting.

All operations relating to grass-cutting within one area shall be completed within the same day.

GRASS CUTTING

Within Formal Areas of Maintenance

Grass height: Maintain between 15mm and 40mm

Arisings: Remove cuttings from site.

Cutting Machine: Cylinder or rotary mower

Number of cuts: 24 per annum

Within Semi-formal Areas of Maintenance

Grass height: Maintain between 15mm and 60mm

Arisings: Remove cuttings from site.

Cutting Machine: Cylinder or rotary mower

Number of cuts: 18 per annum

Within Informal Areas of Maintenance (and Areas Managed for Bio-diversity)

Grass height: not applicable

Cutting Machine: Cylinder or rotary mower

Number of cuts: 2 per annum. Spring (early to mid May) and autumn (late September to early October)
Arisings: remove spring arisings, but leave autumn arisings to allow seeds to remain.

Edging to Formal Areas of Maintenance and Road Areas

Following every alternate cut, the edges to the grass are to be trimmed with edging shears.

Margins of all grassed areas

Annually, the margins of grass areas shall be carefully trimmed with a half-moon edging iron, or mechanical equivalent, to clean straight lines or smooth curves, as instructed. Where this operation is instructed to the edge of planted areas, soil shall be drawn back from edges so as to permit use of edging shears, and all arisings removed.

Additional Grass Maintenance to Formal and Semi-formal Areas of Maintenance

The Contractor shall undertake the following to ensure the health and vigour of the amenity lawn and grass verges:

Top Dressing: Spread a mix of compost, sand, imported loam topsoil and low nitrogen fertiliser over entire areas of grass to a depth of 1-2mm. Work thoroughly into the surface to reveal the grasses beneath.

Rolling: Consolidate turf and reduce frost heave by rolling during spring, before carrying out the aeration operations. Do not roll during periods of heavy frost.

Spiking: Aerate the soil and improve surface water penetration. Spike to a depth of 100mm in spring and autumn.

Scarifying: Relieve thatch conditions and remove dead grass. Scarify to a depth into the soil of 15mm.

Carry out 3 times per annum during the summer months.

FERTILISER TO GRASSED AREAS IN FORMAL AND SEMI-FORMAL AREAS OF MAINTENANCE

Fertiliser – Spring Application

The Contractor will apply a slow release type fertiliser e.g. Enmag in March

Application: 15:10:10 Spring turf fertilizer at 35 g/m².

Fertiliser – Autumn Application

The Contractor will apply a slow release type fertiliser e.g. Enmag in September

Application: 5:10:10 Autumn turf fertilizer at 50 g/m².

Selective Herbicide to Grassed Areas

The Contractor will apply a selective herbicide, suitable for suppressing perennial weeds. Do not spray the road verge areas as they include bulbs and corms. In verge areas treat weeds with spot treatment or hand weeding.

WEED CONTROL OF GRASS AREAS**Weed Control Generally**

All pesticides and herbicides to be used must have been approved for the use in the appropriate fields, in accordance with the Control of Pesticides Regulations, 1997.

Notice to Public

It is the Contractor's responsibility to ensure that the owners or users of properties which adjoin areas to be sprayed are informed of spraying operations. Signs posted where the operatives are spraying will be adequate for this purpose.

Handweeding

The Contractor shall remove by pulling, hand-hoeing, digging, or forking entire weeds including roots, taking care to remove the minimum quantity of soil and cause minimum disturbance to mulched surfaces. The area shall be left in a neat, raked, clean condition upon completion, including the surface of mulch. Desirable adventitious growths are to be carefully preserved, as directed by the Contract Administrator or designated individual within the maintaining authority.

Spraying

The Contractor shall spray with contact herbicide all weeds (including perennials) which are easily accessible. Occasional weeds which have grown above 100mm, and those growing adjacent to or amongst plant stems are to be removed by handweeding. During the course of handweeding and spraying do not damage adjacent plants, trees and grass. Any damage will be required to be made good at the Contractor's expense.

Informal Areas Managed for Bio-diversity

Do not apply fertilizers or herbicides. Treat any persistent broad-leaved weeds by localised spot treatment or handweeding.

Reinstatement of Worn or Damaged Grassed Areas

Damaged turf: Remove to a depth of 40mm.

Preparation: Cultivate substrate to a fine tilth. Screed areas with 1-2mm of fine topsoil to BS 3882 general purpose grade, free from stones, debris and weeds.

Protection and watering: Provide as necessary to promote successful germination and/ or establishment.

Quality of Turf

Reinstatement: Use turf to match existing grass in quality and appearance i.e. to match original specification.

Timing of laying:

Spring and summer: Within 18 hours of delivery

Autumn and winter: Within 24 hours of delivery

Weather conditions: turf is not to be laid when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.

Working access: Planks are to be laid on previously laid turf.

Jointing: Laid with broken joints, well butted up. Turf is not to be stretched.

Edges: Whole turfs, trimmed to a true line.

Adjusting levels: High spots removed and hollows filled with fine soil.

Consolidating: Lightly and evenly firmed as laying proceeds to ensure full contact with the substrate.

Rollers are not to be used.

Dressing is to be brushed well in to completely fill all joints

Watering: Completed turf to be thoroughly watered immediately after laying, ensuring that water has penetrated into the soil below.

Dressing for Turf

Type: 35% finely sifted topsoil, 35% compost and 30% sand.

Coverage: 15kg/m²

Quality of Seed

Freshness: Produced for the current growing season.

Certification: Blue label certified varieties to EC purity and germination regulations and the Department for Environment, Food and Rural Affairs Higher Voluntary Standard.

Samples of mixtures: Submit when requested.

Sowing

General: Establish good seed contact with the root zone to promote healthy, consistent growth.

Method: To suit soil type, proposed usage of grassed area, location and weather conditions during and after sowing.

Rate of application: 35 g/m² = 350kgs/ha

Sowing Season

Grass seed generally: April to October.

Wildflower seed: March to May or August to October

2.3 Bulbs

Dead heading and trimming back

After flowers have died back remove all dead flower heads and allow between 1 and 2 months before trimming back to soil level, the remaining leaves and flower stems, to allow time for nutrients to return to the bulbs.

2.4 Trees, shrubs and hedges

Establishment of New Planting

Duration: For the first 5 growing seasons from the date of planting.

Weed control

Method: Keep planting beds clear of weeds by hoeing, hand weeding or application of weed killers/ herbicide, as appropriate.

Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit. Do not use strimmers within 150mm of any tree base.

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.

Fertiliser to Planted Areas

Time of year: March or April.

Type: Slow Release type fertiliser e.g. Enmag

Spreading: Spread evenly. Carefully lift and replace any mulch materials.

Coverage: To be applied at the rate of 40 gms/whip or shrub and 70 gms/standard, feathered, heavy standard or extra heavy standard tree. It is to be applied by hand and evenly spread within a 75 mm radius of the plant, during late March - early April.

Tree Stakes, Ties and Tubes

Inspection/ maintenance times:

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: Two years after planting, at the earliest, or during spring when no longer required to support the tree. All redundant tapes, tags, ties and labels and other encumbrances are to be removed. Fill stake holes with lightly compacted soil.

Tubes: Where tree tubes are fitted these shall be removed when trees are established and tubes are beginning to constrain tree development.

Tree Guy Wires

Inspection/ maintenance times: As scheduled and immediately after strong winds.

Operations: Replace or re-secure loose or missing guy wires.

Adjust to suit stem growth and to provide correct and uniform tension.

Removal: Two years after planting, at the earliest, or during spring when no longer required to support the tree. All redundant tapes, tags, ties and labels and other encumbrances are to be removed. Fill any holes arising from removal of guy wires with lightly compacted soil.

Re-firming of Trees and Shrubs

Timing: After strong winds, frost heave and other disturbances.

Re-firming: 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.

PRUNING OF TREES, SHRUBS AND HEDGES

Pruning Generally

All trees are to be surveyed annually and any necessary pruning or lopping identified.

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. Suckers are to be removed by cutting back to their source on the roots of the affected shrubs.

Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance. Growth is to be reduced to encourage flower and fruit and to remove any growth encroaching onto paths, roads, signs, sightlines and lights, cutting back to outward pointing bud.

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 infection: The Contractor shall notify the Contract Administrator of the incidence of any disease/fungus present.

Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

Arisings: All prunings/thinnings are to be removed to the Contractor's tip. Unless otherwise agreed with the Contract Administrator pruning shall be carried out as dayworks.

Timing of Pruning (if required) e.g.

Fagus – January

Acer – January

Amelanchier – January

Crataegus – January

Sambucus – January

Ilex – April

Tilia – June and/or October

Prunus – June and/or October

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 4m 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.

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.

Pruning of Excessive Overhang

Timing: As instructed by the Contract Administrator or designated individual within the maintaining authority

Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.

Pruning of Excessive Height

Timing: As instructed

Operations: Remove excessive height as instructed.

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.

Pruning Flowering Shrub Species

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.

Where overgrown plants require remedial pruning, these are to be cut back hard to the height required by the Contract Administrator to enable future growth to be controlled by regular pruning practices.

The Contractor is to allow for cutting stems up to 150 mm in diameter, and all material arising from such operations is to be removed from site to the Contractor's tip. Unless otherwise directed, remedial pruning shall be carried out as dayworks.

Clipping hedges and formal shrubs

The hedge is to be carefully clipped, line and level being maintained to promote a dense hedge, rectangular in cross-section, as directed. Broadleaved evergreen hedges shall be pruned using secateurs, unless otherwise directed. The Contractor shall allow for cutting up to two years' growth.

Formative pruning and shaping of newly-planted hedges will be carried out as dayworks, unless otherwise agreed with the Contract Administrator.

Slowly establishing hedges shall be 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.

Care of Climbers

During the winter prune of all excessive, straggling, elongated or weak growth. Cut back to healthy, full growth. Ensure new growth of climbers are tied onto frames to given even support to the plant.

Care of Ornamental Grasses

In early spring trim lightly to remove any dead ends. 'Fluff-up' to improve volume and appearance.

Watering of Trees, Shrubs and Hedges

The Contractor should note that hydrants may not be available for watering purposes. The Contractor shall provide his own hosepipes, bowsers and other materials and equipment necessary to carry out watering in a satisfactory manner. The Contractor must consult the appropriate water authority to obtain the necessary permissions for water supply and pay any charges due.

Mulch Maintenance

Top up: annually to a thickness of 50mm with medium grade, ornamental bark mulch.

Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.

Weeding: Remove weeds growing on or in mulch by hand weeding or application of suitable herbicide.

Compost

Every 3 years a quality all purpose compost is to be applied to all tree and shrub areas at a depth of 50-75mm and carefully forked into the top 50-75mm depth of topsoil, avoiding damage to roots.

2.5 Replacement of plant material

The Contractor shall allow in his rates for supply and making good any plant material which fails, other than failures caused by malicious damage after completion. Failures will be judged towards the end of each of the first five growing seasons after planting and are to include those plants experiencing dieback resulting in a plant being below the height or spread specified upon inspection.

Dead Trees, Redundant Stakes and Ties

Dead trees and redundant tree-stakes are to be removed to tip together with other fixings and wire tree-guards and postholes refilled with lightly compacted top-soil, and the area left tidy until the trees and shrubs are replaced. Where trees are removed in grassed areas, turf to match the existing will be put in place until the next planting season.

Reinstatement of Trees, Shrubs and Hedges

Plant material unless otherwise stated is to be supplied by the Contractor and shall conform to BS 3936 (Part 1, 1980; Part 2, 1990; Part 3, 1990; Part 4, 1984; Part 5, 1985; Part 7, 1989; Part 9, 1987; and Part 10, 1990). The Contract Administrator reserves the right to reject any plant material which does not conform to the plant replacement schedule /specification.

Trees, shrubs and whips are to be good quality, healthy nursery stock, and to have well branched vigorous growth and a strong fibrous root system.

The time between collecting all plants at the nursery and planting on site shall be kept to an absolute minimum. The plants shall be adequately protected during transportation by an impermeable, opaque cover to prevent them drying out. Upon arrival any plants in bundles shall be divided and "heeled-in" in a

properly prepared area, the roots covered with soil, watered and firmed until required for planting. Roots shall be fully spread in their natural position. Shrubs and whips shall be planted to the same depth as they were at the nursery, as shown by the soil mark on the stem.

Loose soil is to be carefully shaken between the roots so as to avoid air pockets during back-filling.
Back-filling to be adequately firmed as required.

Planting shall not be carried out during periods of frost, snow, drying winds, or waterlogged conditions.

Surfaces of shrub borders shall be left neat and clean with a raked surface between the plants during and on completion of planting. The Contractor is to allow for watering all plant material thoroughly immediately following planting during dry weather conditions.

Any polythene or non-perishable containers, nursery ties, and tags to plants must be carefully removed from site. If roots, branches or shoots suffer slight damage, they shall be carefully pruned. If major damage has occurred, the plant shall be rejected and replaced at the Contractor's expense.

Canes shall be removed from climbers used as ground cover. Hessian wrapping on root-balls is to be folded clear of the plant stem and laid on the bottom of the planting pit prior to back-filling.

Dig over beds and prick up to aerate the soil of root areas and break surface crust. Reduce to crumb and level off. Do not damage existing plants, bulbs and roots.

Planting Pits for Replacement Trees

All pits for planting trees, whips, shrubs and herbaceous plants shall be of adequate dimensions to permit planting at the same depth to which they have previously grown and enabling the roots to be spread in their natural position. Dimensions of tree pits should be at least 250mm deeper and 60mm wider than the rootball.

Pit bottoms: slight raise centre and break up to a depth of 250mm.

Pit sides: scarify.

Fertiliser for replacement planting

All newly planted stock shall be fertilised with one of the following fertilisers, as specified:

- 15:15:15 (N:P:K) compound agricultural fertiliser or Enmag slow-release fertiliser, at 70 gms per tree and 40 gms per whip/shrub/transplant; to be spread within 75 mm radius of the plant.

2.6 Woodland planting

Woodland Planting Maintenance

Watering: In exceptional circumstances to prevent plants dying.

Loose plants: Refirm surrounding soil, without compacting.

Tubes: Where tree tubes are fitted these shall be removed when trees are established and tubes are beginning to constrain tree development.

Vegetation except trees and coppice shoots to be retained: Cut down to [5-10] mm above ground level within the plantation area.

Arisings: Leave between trees.

Ditches and drains: Keep clear.

Woodland Thinning

Thinning to commence in 10th year of growth. Selectively remove or coppice approximately 10% of the trees. Identify weak or struggling trees to be removed first. Trees can be removed in groups to create small glades. Prior to removal, agree and mark trees.

Second phase of thinning to take place in 15th year of growth. Selectively remove or coppice approximately 5% of the trees.

Third phase of thinning to take place in 20th year of growth. Selectively remove or coppice approximately 5% of the trees.

2.7 Hard Landscape Cleansing

Litter

All litter shall be lifted on a weekly basis within Formal and Semi-formal areas of maintenance and monthly between May and August/ bimonthly between September and April within areas of Informal maintenance.

Extraneous rubbish not arising from the contract work: Collect and remove from site. The contractor shall uplift from the entire area of the site, excluding adopted roads (unless he has been instructed to carry out supplementary maintenance) all items of debris, litter, rubbish, fallen branches, rubble, soil spillage and the like. Gutter and gulley gratings shall be free from all obstructions. Litter collection shall cover the entire site including shrub beds, the base of fences and hedges and all the material arising from these operations shall be removed off site.

Collection operations shall be in accordance with the requirements of the Environmental Protection Act 1990. The Contractor shall note that hazardous materials (needles) may be present and that the Contractor's operatives shall be suitably equipped with PPE.

Paths

All paths and hard areas, including car parking areas, within Formal areas of maintenance are to be kept clean on a monthly basis. It will not be deemed necessary to brush the entire area on each occasion, but only those parts which are dirty. Special arrangements may have to be made to visit the facility to ensure that car parking areas can be cleaned, if needs be, when they are empty. High areas of maintenance are to be kept clean on monthly basis between April and September/ bimonthly between October and March. Standard areas of maintenance are to have an annual treatment in March and be monitored throughout the rest of the year and treated as required.

Herbicide: Apply a suitable foliar acting or residual herbicide to all slab and sett areas, paying particular attention to paving joints. Allow recommended period for herbicide to take effect before clearing away dead weeds and other debris.

Hard surfaces: Remove litter, leaves, moss, grime, bird droppings, chewing gum and other debris. Surface may be cleaned by power washing and brushing, as long as soil levels and adjacent planting is not dislodged or damaged.

Stain removal: In accordance with BS 7370-2, table 4.

Within Premium Areas of Maintenance

Entrances and Doorways

All entrances and doorways to public buildings are to be swept twice daily and all arisings removed off site.

Washing Pavements, Guard Rails, Railings and other external furniture

Clean using a power washer to remove dirt, grime, bird droppings, chewing gum and other debris. Sweep up and remove all debris and arisings.

Courtyards

When maintaining the courtyards, particular care is required to ensure that shoes are clean when passing through the building. The use of over shoes is likely to be necessary. Any equipment that is required to carry out maintenance within the courtyards must not damage or dirty the building.

Any material that is carried through the building must be adequately wrapped or bagged to ensure that no dirt is dropped within the building.

Drains

Twice per annum all road gullies and back inlet gully traps around the perimeter of the buildings shall be thoroughly cleaned with all silt and debris removed and flushed through with clean water to ensure drains are running clear.

Care shall be exercised at all times to ensure that no soil, mulch, path sweepings or other debris shall enter the drainage system.

Streams/ natural water courses

Monthly, until all sections of the stream are culverted, it should be thoroughly cleaned with all litter and debris removed. Should silt build up and cause blockages, this is to be removed as and when required.

Winter Salting/ Gritting

The Contractor shall allow for checking and filling of salt/grit bins. The Contractor shall carry out salting/gritting of footpaths, car parks and road areas to comply with Aberdeenshire Council Winter Maintenance Priorities for Roads and Footways.

Future Development

As subsequent phases of the settlement are built out further consideration will need to be given the management and maintenance of for example:

- the Allotments
- the Community Woodland
- Play Areas

SECTION 3 ANNUAL MAINTENANCE PROGRAMMES

SCHEDULE 1 – FORMAL ZONES

Month / Operation	J	F	M	A	M	J	J	A	S	O	N	D
Trees												
fertiliser application			✓	✓								
contact herbicide					✓		✓		✓			
checking underground guys	✓		✓		✓			✓		✓		
checking stakes/ties	✓		✓		✓			✓		✓		
firm up (as required)			✓							✓		
pruning (as required)						✓				✓		
watering (if in a period of drought)					✓	✓	✓	✓	✓			
removal of stakes/ties (2 nd yr)										✓		
tree guards adjust/re-fix/replace (as required)			✓			✓			✓			✓
tree grilles lift/remove weeds/adjust mulch levels (as necessary)			✓						✓			
Shrubs												
fertiliser application			✓									
hand weed			✓	✓	✓	✓	✓	✓	✓			
pruning of climbers											✓	
pruning of decorative grasses				✓								
pruning generally (check species)			✓			✓			✓			
forking over beds				✓						✓		
firm up (as required)			✓							✓		
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
watering (if in a period of drought)					✓	✓	✓	✓	✓			
compost (add every 3 years)					✓							
Hedges												
fertiliser application			✓									
hand weed			✓		✓		✓		✓			
trimming (subject to degree of formality intended)			✓						✓			

firm up (as required)			✓							✓		
check and maintain support fence (as required)			✓							✓		
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Woodland Planting (if applicable)												
fertiliser application												
weeding (maintain 1m diameter area around each plant weed free)												
pruning (if necessary)												
check stakes/guards/shelters and adjust/re-fix/adjust/remove as necessary												
remove stakes/guards/shelters (once plants are established)												
re-firm loose plants (as required)												
contact herbicide												
clear drains and ditches (as required)												
litter/leaf/debris collection and removal												
watering (if in a period of drought)												
Grassed Areas												
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Road verge mix: cut grass (to 75mm or agreed height) and remove arisings				X2	X2	X4	X4	X4	X4	X2	X2	
General grass areas mix: cut grass (to 75mm or agreed height) and remove arisings				X2	X2	X4	X4	X4	X4	X2	X2	
Informal 'kick about' mix: cut grass (to 75mm or agreed height) and remove arisings				X2	X2	X2	X4	X4	X2	X2	X2	
edging (every alternate cut)				✓	✓	✓	✓	✓	✓	✓	✓	
trimming/cutting margins					✓							
top dress						✓						
rolling					✓							
spiking				✓								

scarifying							✓	✓	✓			
repairs to turf					✓							
remove seasonal leaf fall from grass or paved areas	✓	✓								✓	✓	✓
fertiliser application			✓									
contact herbicide					✓		✓		✓			
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Wildflower areas (if applicable)												
litter/ leaf/ debris collection and removal												
cut sward (to 75mm or agreed height) and remove arisings after 2-3 days												
watering (if in a period of drought)												
Bulbs												
dead heading				✓								
removal of leaves						✓						
Replacement of plant material												
replace damaged trees and shrubs as required		✓	✓							✓	✓	
Hard Surfaces												
litter pick (hard and soft areas)	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4
sweeping hard surfaces	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
washing paving, railings & furniture			✓			✓			✓			
herbicide to paved areas					✓				✓			
clear drains				✓							✓	
winter gritting (to comply with AC Winter Maintenance Priorities for Footways)	✓	✓	✓							✓	✓	✓

SCHEDULE 2 – SEMI-FORMAL ZONES

Month / Operation	J	F	M	A	M	J	J	A	S	O	N	D
Trees												
fertiliser application			✓	✓								
contact herbicide					✓		✓		✓			
checking underground guys	✓		✓		✓			✓		✓		
checking stakes/ties	✓		✓		✓			✓		✓		
firm up (as required)			✓							✓		
pruning (as required)						✓				✓		
watering (if in a period of drought)				✓	✓	✓	✓	✓	✓			
removal of stakes/ties (2 nd yr)										✓		
tree guards adjust/re-fix/replace (as required)			✓			✓			✓			✓
tree grilles lift/remove weeds/adjust mulch levels (as necessary)			✓						✓			
Shrubs												
fertiliser application			✓									
hand weed			✓		✓		✓		✓			
pruning of climbers											✓	
pruning of decorative grasses				✓								
pruning generally (check species)			✓			✓			✓			
forking over beds				✓						✓		
firm up (as required)			✓							✓		
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
watering (if in a period of drought)					✓	✓	✓	✓	✓			
compost (add every 3 years)					✓							
Hedges												
fertiliser application			✓									
hand weed			✓		✓		✓		✓			
trimming (subject to degree of formality intended)			✓						✓			
firm up (as required)			✓							✓		

check and maintain support fence (as required)			✓							✓		
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Woodland Planting (if applicable)												
fertiliser application			✓									
weeding (maintain 1m diameter area around each plant weed free)				✓		✓		✓		✓		
pruning (if necessary)			✓			✓			✓			
check stakes/guards/shelters and adjust/re-fix/adjust/remove as necessary			✓								✓	
remove stakes/guards/shelters (once plants are established)										✓		
re-firm loose plants (as required)			✓							✓		
contact herbicide					✓				✓			
clear drains and ditches (as required)			✓								✓	
litter/leaf/debris collection and removal												
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Grassed Areas												
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Road verge mix: cut grass (to 75mm or agreed height) and remove arisings				X1	X2	X3	X3	X3	X3	X2	X1	
General grass areas mix: cut grass (to 75mm or agreed height) and remove arisings				X1	X2	X3	X3	X3	X3	X2	X1	
Informal 'kick about' mix: cut grass (to 75mm or agreed height) and remove arisings				X1	X2	X3	X3	X3	X3	X2	X1	
edging (every alternate cut)				✓	✓	✓	✓	✓	✓	✓	✓	
trimming/cutting margins					✓							
top dress						✓						
rolling				✓								

spiking			✓									
scarifying							✓		✓			
repairs to turf					✓							
remove seasonal leaf fall from grass or paved areas	✓	✓								✓	✓	✓
fertiliser application			✓									
contact herbicide					✓		✓		✓			
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Wildflower areas (if applicable)												
litter/ leaf/ debris collection and removal				litter						litter		
cut sward to 100mm (or agreed height) and remove arisings after 2-3 days in Spring/ leave in Autumn					✓					✓		
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Bulbs												
dead heading				✓								
removal of leaves						✓						
Replacement of plant material												
replace damaged trees and shrubs as required		✓	✓							✓	✓	
Hard Surfaces												
litter pick (hard and soft areas)	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4	X4
sweeping hard surfaces	✓			✓	✓	✓	✓	✓	✓		✓	
washing paving, railings & furniture			✓			✓			✓			
herbicide to paved areas					✓				✓			
clear drains				✓							✓	
winter gritting (to comply with AC Winter Maintenance Priorities for Footways)	✓	✓	✓							✓	✓	✓

SCHEDULE 3 – INFORMAL ZONES

Month / Operation	J	F	M	A	M	J	J	A	S	O	N	D
Trees												
fertiliser application												
contact herbicide												
checking underground guys												
checking stakes/ties	✓		✓		✓			✓		✓		
firm up (as required)			✓							✓		
pruning (as required)						✓				✓		
watering (if in a period of drought)												
removal of stakes/ties (2 nd yr)										✓		
tree guards adjust/re-fix/replace (as required)			✓							✓		
tree grilles lift/remove weeds/adjust mulch levels (as necessary)												
Shrubs												
fertiliser application												
hand weed			✓		✓		✓		✓			
pruning of climbers												
pruning of decorative grasses												
pruning generally (check species)			✓			✓			✓			
forking over beds												
firm up (as required)			✓							✓		
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
watering (if in a period of drought)					✓	✓	✓	✓	✓			
compost (add every 3 years)												
Hedges												
fertiliser application			✓									
hand weed			✓		✓		✓		✓			
trimming (or traditional laying as required to maintain health and informal character of hedgerow)			✓						✓			

firm up (as required)			✓						✓	✓		
check and maintain support fence (as required)			✓									
contact herbicide					✓		✓		✓			
litter/leaf/debris collection and removal			✓							✓		
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Woodland Planting (if applicable)												
fertiliser application			✓									
weeding (maintain 1m diameter area around each plant weed free)			✓						✓			
pruning (if necessary)			✓						✓			
check stakes/guards/shelters and adjust/re-fix/adjust/remove as necessary			✓						✓	✓		
remove stakes/guards/shelters (once plants are established)								✓				
re-firm loose plants (as required)			✓						✓			
contact herbicide					✓				✓			
clear drains and ditches (as required)	✓										✓	
litter/leaf/debris collection and removal			✓									
watering (if in a period of drought)					✓	✓	✓	✓				
Grassed Areas												
litter/leaf/debris collection and removal				✓						✓		
Road verge mix: cut grass (to 100mm or agreed height) and remove arisings					X1					X1		
General grass areas mix: cut grass (to 75mm or agreed height) and remove arisings					X1					X1		
Informal 'kick about' mix: cut grass (to 75mm or agreed height) and remove arisings						X1	X2	X2	X1			
edging (every alternate cut)												
trimming/cutting margins												
top dress												

rolling												
spiking												
scarifying												
repairs to turf												
remove seasonal leaf fall from grass or paved areas										✓		
fertiliser application			✓						✓			
contact herbicide					✓				✓			
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Wildflower areas (if applicable)												
litter/ leaf/ debris collection and removal				✓						✓		
cut sward to 100mm (or agreed height) and remove arisings after 2-3 days in Spring/ leave in Autumn					✓					✓		
watering (if in a period of drought)					✓	✓	✓	✓	✓			
Bulbs												
dead heading				✓								
removal of leaves						✓						
Replacement of plant material												
replace damaged trees and shrubs as required		✓	✓							✓	✓	
Hard Surfaces												
litter pick (hard and soft areas)	X1		X1		X1	X1	X1	X1		X1		
sweeping hard surfaces			X1							X1		
washing paving, railings & furniture												
herbicide to paved areas			X1									
clear drains			✓								✓	
winter gritting (to comply with AC Winter Maintenance Priorities for Footways)												

SECTION 4 MANAGEMENT PLAN DRAWINGS

Figure 3 Management: Maintenance Zone Drawing



