Gardens and Grounds Service Provision Strategy 2015
Please note that this document is specific to none residential properties (i.e. Halls, which have separate service agreements)

NB. This is a draft document and should not be treated as complete (28th September 2011)

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Section 1: Service level agreement

THE SERVICE
Gardens and Grounds will:
- Provide a full grounds and horticultural maintenance service to the University in line with the ‘Maintenance Specification’ and ‘Occupiers handbook’ which form part of the Estates strategy
- Ensure good practices in the upkeep and rejuvenation of grounds and planting techniques
- Liaise with specialist contractors/sub-contractors
- Liaise with landscape design consultants
- Monitor daily all grounds maintenance works
- Consult with occupants of respective buildings when considering landscape changes
- Provide tree maintenance and emergency response service
- Support ceremonies and other University events

DELIVERY
Although works are dependent upon seasonal weather conditions, works are broadly:

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CUSTOMER OBLIGATIONS
Gardens and Grounds would like you to:
- Report problems quickly for action. Please provide as much detail as possible
- Nominate a single point of contact
- Co-operate with Estates staff and contractors in situations where disruption is inevitable
- Indicate if there is a cost limit for any additional service that you require

LEGAL AND REGULATORY COMPLIANCE
Gardens and Grounds Services are subject to certain legal obligations and will always endeavour to fulfil these responsibilities. On occasions the necessity to ensure compliance may result in delays to projects or the service provision.
PERFORMANCE MONITORING AND INSPECTION

The majority of maintenance tasks, performed by Gardens and Grounds services, are based upon ‘Time and Motion’ studies. Staffing levels are calculated against mapped University estate measurements; and all such works are monitored to ensure an efficient service provision.

Value for Money reviews are undertaken on a regular basis by organisations external to the University.

Individual projects are overseen by Project Co-ordinators, with costs and outcomes assessed by the project instigator or client.

RESOLVING ISSUES

In the unlikely event of issues arising, please contact Gardens and Grounds Directly

Office administration:

Gardens and Grounds Office,
Hollybush Lane,
Stoke Bishop,
Bristol BS9 1JB

Tel: 0117 3315901

Normal office hours are: Monday to Friday 8:00am to 4:00pm

If the issue is severe or remains unresolved contact the Director of Operations

Estates Operations
1 - 9 Old Park Hill
Bristol
BS2 8BB

Tel: 0117 92 88044
Fax: 0117 925 5053
Section 2: Methodology

Gardens and Grounds provide five categories of service, which are more fully explained in the table:

- Maintenance
- Emergency works
- Surveys
- Projects
- Additional areas of responsibility

### Maintenance

**Planned maintenance:** is fundamental (core) work, carried out as part of a 'standard service level agreement'. In normal circumstances the occupier of a building should expect such work to be carried out on a regular basis, as stipulated in the agreement.

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<tr>
<th>Gardens and Grounds</th>
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<tbody>
<tr>
<td><strong>Trees:</strong></td>
<td>Report directly to Gardens and Grounds or, outside working times, Security, any damage to trees observed (possibly storm damage)</td>
</tr>
<tr>
<td>As necessary all trees will be maintained to a safe standard (see survey section). During such work trees may be lifted, thinned, shaped and/or felled. Other consideration will be taken into account such as aesthetic, historic, wildlife, landscape values and planning restraints before carryout this work. Most trees are maintained with a head clearance of two metres. Exceptions are: (a) trees with a weeping habit (b) trees spreading above roads and highways (which will be maintained at a height greater than 5.2 metres). Gardens and Grounds have responsibility for ensuring reasonable processes are in place for responding to emergency tree work</td>
<td>Recognise that disruption may occur during operations, but that Gardens and Grounds always attempt to keep this to a minimum</td>
</tr>
<tr>
<td><strong>Lawn maintenance:</strong></td>
<td>Recognise that requests for tree maintenance (e.g. crown thinning/reduction, where the tree is otherwise causing light level problems within a building) may have to be supported by departmental funding where the tree is otherwise healthy</td>
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<thead>
<tr>
<th></th>
<th>Please refer to 'University of Bristol Strategy for Tree Management’</th>
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<tbody>
<tr>
<td><strong>Lawn maintenance:</strong></td>
<td>Recognise that disruption may occur, but that Gardens and Grounds always attempt to keep this to a minimum</td>
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</tbody>
</table>

All amenity lawns will be maintained to a reasonable standard and all sites are attended (at least once every two weeks) on a cyclical basis.
basis during the growing season.

Where reasonable advanced notice has been received about events or examinations, operators will attempt to attend to the lawns prior to the events and/or avoid these periods.

Meadow grass areas will be maintained for the benefit of Biodiversity. Meadow areas are normally cut only once per year, however areas may be cut, at less than optimum times for the habitat, where there is a perceived threat of ‘wildfires’.

**Water Features:**

On at least an annual basis, vegetation and fish stock management, will take place to benefit biodiversity and enhance the aesthetic appearance.

On an Ad hoc basis (i.e. as required) Gardens and Grounds will undertake repairs/replacement of water features. Normally these require funding and therefore appear under ‘Projects’

**Litter Collection**

Gardens and Grounds will endeavour to:

(a) Empty University litter bins on a regular basis (at least daily during the working week; but only by special arrangement on weekends and bank holidays)

(b) Follow a cyclical route and remove discarded litter from the ground at least once per working day

(c) Out of hours working can be organised, but only with reasonable notification and funding

(d) Gardens and Grounds select and supply a limited number of bins (appropriate to staffing levels)

(e) Gardens and Grounds work with Sustainability to help ensure a holistic strategy

Please notify Gardens and Grounds, well in advance, if a building is going to be used for examinations

Report damage, unusually low water levels, and contamination; or dead/injured aquatic life

- Help to keep the University grounds clear of litter, by keeping department waste bins and enclosures secure
- Inform Gardens and Grounds about events which may result in litter being dropped (and organise ‘Stewards/volunteers’ to collect rubbish afterwards)
- Be prepared to contribute to Gardens and Grounds efforts. When possible, please pick up litter and dispose of it in the bins provided
- Ensure contractors are responsible for clearing up after themselves
- Communicate with students/staff and encourage respect for the University grounds
- Recognise that bins are specifically not placed in certain areas so that people take their litter off site
<table>
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<tr>
<th><strong>Leaf collection:</strong></th>
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<tbody>
<tr>
<td>During the Autumn Gardens and Grounds objective is to stop large accumulations of leaves forming on hard surfaces and lawns.</td>
<td>Notify Gardens and Grounds about any accumulations which are causing a hazard or ground drainage problems. Recognise that disruption may occur, as noisy blowers and large vacuums are used to gather/collect leaves, but that Gardens and Grounds always attempt to keep this to a minimum.</td>
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<tr>
<th><strong>Weed control</strong></th>
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<tr>
<td>On an ad hoc basis (i.e. as and when required) licensed herbicides will be applied to control weeds in gravel and paving slab surfaces. Additionally weed killers will be applied judiciously in the planted landscaped (including fence lines, tree/hedge bases)</td>
<td>Notify Gardens and Grounds about weeds, moss and algae but only when they are causing problems such as slippery surfaces, damage to hard surfaces etc.</td>
</tr>
<tr>
<td>Licensed herbicides will be applied to selected hard surfaces to control moss and algae</td>
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<tr>
<td>Weed control of planted borders will chiefly be undertaken by cultural means.</td>
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<td>When resources permit, mulches will be introduced to planted borders.</td>
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<thead>
<tr>
<th><strong>‘Green roofs/walls’</strong></th>
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<tr>
<td>The limited number of green roofs/walls will be maintained on a not less than annual basis. After the establishment period (normally one year) dead and weed plants will be removed and bare areas replanted. Comprehensive replacement will only be undertaken as part of a ‘project’ where additional funds are provided.</td>
<td>Provide reasonable access through buildings. Ensure maintenance is carried out on balustrades, Fall Arrest cables etc.</td>
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<thead>
<tr>
<th><strong>Hard surfaces</strong></th>
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<tbody>
<tr>
<td>On an annual basis Gardens and Grounds will endeavour to:</td>
<td>Cordon off defects and notify Gardens and Grounds or, out of hours, Security with reference to broken slabs/block work and new ‘pot holes’. Ensure vehicles do not traverse hard surfaces built for pedestrian use. Or provide suitable weight distribution mechanisms to prevent damage.</td>
</tr>
<tr>
<td>Rake/sweep all gravel paths – to alleviate drainage problems through the build up of debris and humus content</td>
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<tr>
<td>Repair tarmac paths &amp; roads</td>
<td></td>
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<tr>
<td>Replace broken slabs/block work</td>
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</tr>
<tr>
<td>More comprehensive works are undertaken as ‘Projects’ or ‘Emergency works’</td>
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### Directional external signage

External Estates provides approved new external directional signage

Existing signs are cleaned once a year (during which time they are inspected for damage, repaired as necessary and any known changes to the wording amendments.

Inform External Estates of any new signs required and of any occupancy changes.

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### Emergency works

Although emergency events are, by their nature, unpredictable, External Estates endeavour to

#### Snow and Ice

External Estates will employ contractors to undertake the treatment of the main University artery roads.

With the assistance of Building Services, Security Services and Site Services staff, G&G will prioritise the treatment of steps and sloping paths to reduce the risk of injury for pedestrians. Drives and smaller car parks (not attended by contractors) are treated to help reduce the potential problem of vehicle

Security and Site Services provide assistance in clearing and treating building entrances (and certain car parks)

For information:

The treatment of roads takes place prior to a forecast snow event. The efficacy of rock salt is reduced when temperatures fall below minus five degrees; when deep snow has fallen; and when there are low volumes of vehicle enactment.

Roads are normally only treated Mondays to Fridays.

Hard surfaces are not treated during public bank holidays or University closure days.

Hard surfaces around halls may not be treated outside of term times (priority will be given to the Precinct area)

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#### Fallen trees

During normal working hours, when it is safe to do so, tree clearance works will be carried out by qualified Gardens and Grounds Staff

Out of normal working hours the contractor will operate a call out system. This system is normally only initiated where a fallen branch/tree is causing a danger to property, and needs to be removed immediately. University Security are provided with the contractors contact details and requested to call them directly if the need arises.

Where life is endangered, emergency services will be called.

Report directly to Gardens and Grounds or, outside working times, Security, any damage to trees observed (possibly storm damage)

Recognise that disruption may occur, but that Gardens and Grounds always attempt to keep this to a minimum

Please be supportive of Gardens and Grounds priority based arboricultural maintenance
Surveys

Surveys are undertaken in methodical manner but are not pre-primed with funding. The level of funding changes from year to year, depending upon the level of risk and priorities identified. Lead in times can be as great as eighteen months.

<table>
<thead>
<tr>
<th>Trees</th>
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<tr>
<td>Nearly 5000 trees are held on a University database, of which close to 800 trees are identified as being located in areas of higher risk (car parks, roads, pavements, or near buildings) and are therefore surveyed on an annual basis. Trees are surveyed to BS5837. Arboricultural works are prioritised on the health and condition of the individual trees. N.B. Trees are not surveyed in terms of inconvenience or necessarily shape; these would be ‘desirable’ aspects of arboriculture and, as such, normally form ‘Projects’ (see section). Report directly to Gardens and Grounds or, outside working times, Security, any damage to trees observed (possibly storm damage). Recognise that disruption may occur, but that Gardens and Grounds always attempt to keep this to a minimum. Please be supportive of Gardens and Grounds priority based arboricultural maintenance.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Walls and fences</th>
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<tbody>
<tr>
<td>There are over 11 kilometres of free standing and retaining external walls within the grounds of the University, the majority of which are built from natural stone and lime mortar. These are systematically surveyed for indications of weakness and degradation. On an annual basis, funding is requested in order to cover the highest priority repairs and maintenance. Priorities are based upon perceived hazards, as opposed to aesthetic maintenance. Report directly to Gardens and Grounds or, outside working times, Security, any damage or weakness in walls observed. Recognise that disruption may occur, whilst the work is carried out, but that Gardens and Grounds always attempt to keep this to a minimum.</td>
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<table>
<thead>
<tr>
<th>Steps and Railings</th>
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<tbody>
<tr>
<td>(a) Over two hundred sets of external steps have been identified in an initial survey.</td>
<td>i. Report directly to Gardens and Grounds or, outside working times, Security, any damage or weakness observed.</td>
</tr>
<tr>
<td>(b) Surveys cover such issues as: condition; compliance with building regulations; hand rails; none slip surfaces; tactile paving; lighting etc.</td>
<td>ii. Recognise that disruption may occur whilst issues are resolved, but that Gardens and Grounds always attempt to keep this to a minimum.</td>
</tr>
<tr>
<td>(c) On an annual basis, funding is requested at a level which should, in theory, cover the cost for resolving the highest priority steps and railings.</td>
<td></td>
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<tr>
<td>Hard surfaces</td>
<td>Projects</td>
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<tr>
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<tr>
<td><strong>(a)</strong> Over 81,640m² (8.2 Hectares) of hard surfaces have been identified within the University. Materials include: tarmac; concrete slabs; concrete blocks; cobbles; natural stone paving.</td>
<td>Projects are undertaken on an Ad Hoc basis. They are dependent upon adequate funding and, potentially, seasonal availability of the work force (unless undertaken by contractors).</td>
</tr>
<tr>
<td><strong>(b)</strong> Condition surveys are carried out on an annual basis, and funding is requested in order to make timely repairs and avoid, otherwise costly, deterioration of surfaces.</td>
<td></td>
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<tr>
<td><strong>New landscapes</strong></td>
<td><strong>Memorial items</strong></td>
</tr>
<tr>
<td><strong>(a)</strong> Gardens and Grounds will only support new landscapes, where it is beneficial to the University community and is financially sustainable.</td>
<td>Gardens and Grounds can provide dedicated Memorial Benches (please refer to 'Memorial Bench policy’) and Memorial trees with plaque (please refer to tree selection section 4 ‘University of Bristol Strategy for Tree Management’ attached),</td>
</tr>
<tr>
<td><strong>(b)</strong> Gardens and Grounds can provide a full consultation, design, planning and installation program with the support of Departmental funding.</td>
<td>Be aware that there are seasonal constraints to tree planting</td>
</tr>
<tr>
<td><strong>Memorial items</strong></td>
<td><strong>Bench and annual maintenance</strong></td>
</tr>
<tr>
<td>Gardens and Grounds can provide dedicated Memorial Benches (please refer to ‘Memorial Bench policy’) and Memorial trees with plaque (please refer to tree selection section 4 ‘University of Bristol Strategy for Tree Management’ attached),</td>
<td><strong>(a)</strong> Memorial benches and other benches (inc. garden furniture) purchased through Gardens &amp; Grounds will be cleaned and treated on a regular basis to ensure their longevity.</td>
</tr>
<tr>
<td></td>
<td><strong>(b)</strong> Recognise that works are undertaken as part of a priority system, and within the restriction of resources</td>
</tr>
<tr>
<td><strong>Bench and annual maintenance</strong></td>
<td></td>
</tr>
<tr>
<td><strong>(a)</strong> Memorial benches and other benches (inc. garden furniture) purchased through Gardens &amp; Grounds will be cleaned and treated on a regular basis to ensure their longevity.</td>
<td>Report directly to Gardens and Grounds any observed damage to benches/garden furniture</td>
</tr>
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</tbody>
</table>
| **Artworks and structures located in the landscape** | **Report directly to Gardens and Grounds**
| Sculptures and art installations will be maintained to a reasonable standard throughout the year with emphasis on presenting them at their best during degree weeks and open days | any observed damage to Artworks |

| **Additional responsibilities** |  |
| The University has over 1000 acres of grounds and External Estates has responsibility for the majority of this land holding |  |
| • **Historic Landscapes**  
• **Maintenance (and enhancement by Volunteers)**  
• **New garden structures** |  |
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This section has been written in order to provide an in depth statement of the works currently performed by Gardens and Grounds Services.
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Appendix 1 ..................................................................................... 27
1. Introduction

Gardens and Grounds Services provide an excellent landscape maintenance and development service for the University of Bristol.

Based on Productivity Based Budgeting data, this document aims to, comprehensively, set out a service level agreement for the landscape maintenance provided by Gardens & Grounds Services to the various University stakeholders, mainly Estates’ Managers, Wardens and Departmental Heads. Additionally, this document has value to Gardens & Grounds Services staff as a benchmark for the expected/required standard of landscape maintenance they provide.

Additional landscape projects and services provided by Gardens & Grounds Services are referenced in the Appendix.

2. Legislation & Policies

It is an objective of Gardens and Grounds Services to work in full compliance with the latest legislation and University policies. The following list is indicative of (and not necessarily exhaustive) acts, regulations and guidelines which the service provision aims to comply with; to the benefit of staff, students and the general public who may be affected by the work undertaken by Gardens and Grounds Services.

**Works Legislation**

- Health and Safety at Work Act 1974 (c 37)
- Lifting Operations & Lifting Equipment Regulations 1998
- Offices, Shops and Railway Premises Act 1963 (c 41)
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
- Control of Substances Hazardous to Health Regulations 2002
- Management of Health and Safety at Work Regulations 1999
- Noise at Work Regulations 1989
- Health and Safety (Display Screen Equipment) Regulations 1992
- The Personal Protective Equipment Regulations (PPE) 1992
- The Provision and Use of Work Equipment Regulations 1998

**Ecological Legislation**

- Natural Environment and Rural Communities Act 2006
- The Convention on the Conservation of European Wildlife and Natural Habitats (BERN Convention 1979)
- The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1983)
- Convention on Trade in Endangered Species of Wild Flora and Fauna (CITES Convention)
- Wildlife and Countryside Act 1981
- Protection of Badgers Act 1992
- The Conservation (Natural Habitats & c.) Regulations (1994)
3. **Biodiversity**

The University of Bristol, as a major land owner, has a responsibility to conserve biodiversity. Gardens and Grounds Services are proactively managing the land and resources for the benefit of wildlife and the conservation of biodiversity. This is achieved in many ways including, woodland management, grassland management, the minimal use of chemicals and the recycling of green waste. Where it is possible Gardens and Grounds Services endeavour to use native species within new planting schemes.

The University Estate has a diverse range of habitats and ecosystems that require judicious management in order to maintain them so that they are beneficial to biodiversity. There are legislative measures that must be adhered to so as to ensure that the management principles are sympathetic to the environment.

The University Estate supports a wide range of flora and fauna, including notable UK Biodiversity Action Plan (BAP) and Avon BAP species, including, brown hare, song thrush, great crested newt and slow worm. The inclusion of these species on the Avon BAP list highlights their importance as a local population and the importance of managing the land in a way that is beneficial for the species.

The Bristol BAP includes 8 Habitat Action Plans (HAPs). These habitats are of importance on both a local and national scale. The University of Bristol Estate contains four habitats for which there are action plans within the Bristol BAP, including, scrub, woodland, species rich grassland, ponds and open water. The HAPs for these habitats outline the current status of the habitat, threats to the condition of the habitat and sets objectives for its management.

4. **Historical Gardens**

Gardens and Grounds maintain a number of historic gardens (see the University of Bristol Historic Gardens book by Marion Mako).

5. **Health and Safety**

Gardens and Grounds comply with all legislative Health and Safety requirements and endeavour to comply with University policy and procedures. A full review/audit of Health and Safety has taken place in 2010.
Gardens and Grounds additionally recognise the responsibility for staff, students and visitors to the University estate and make every effort to ensure that the grounds are both safe and enjoyable to use.

6. Adverse Conditions

*Exceptional Work*
Gardens and Grounds Services schedule work to ensure that all the required jobs are completed appropriately. However, certain circumstances are beyond the control of the department and may affect the schedule of works. These occasions require flexibility from both Gardens and Grounds Services Staff and clients alike. Whenever it is possible and/or necessary emergency remedial work is carried out to make areas safe.

*Adverse weather conditions*
Many of Gardens & Grounds Services tasks are often weather dependant. Lawn maintenance, for instance, is often not possible during periods of rain or immediately after rainfall. Similarly, much of the weed control throughout the University is also not possible during periods of wet weather. Whilst every effort is made to work around adverse weather there will be occasions when scheduled work will have to be postponed to a time when it can be completed both safely and efficiently.

*Rock salt/gritting*
Gardens and Grounds Services and Building Services share the responsibility for the application of rock salt when necessary. The application of rock salt by the department is specifically targeted at areas of high risk. Steps, slopes, ramps are all given priority for application. Building Services have responsibility for the remaining areas.

*Emergency tree work*
Trees within the University Estate are surveyed regularly to identify potential hazards and to ensure that any work is scheduled to deal with these risks. However, there are, occasionally, exceptional conditions that may cause unforeseen situations. These remedial works are either dealt with by skilled operators in the Gardens and Grounds Services staff or by an external contractor.

*Emergency walls and hard surfaces*
Walls and hard surfaces within the University of Bristol Estate are surveyed/inspected to assess their condition and structural safety. Priority is then given to maintenance and repair works on walls and hard surfaces assessed as a higher risk category. Whilst every effort is made to identify and repair potentially hazardous walls and hard surfaces, there are, occasionally, exceptional conditions that may cause unforeseen situations. In these cases every effort is made to ensure the safety of people using the area and schedule remedial repair work.
7. Events

*University Degree days and Open Days*

The aim is to provide the best possible display of external grounds to visitors during these times.

The specific areas where these events will take place need to be identified and a particular regime of maintenance (described below) should be employed:

- Office planters and Degree floral displays to be provided and maintained by external contractors (unless otherwise specified) and arranged for by Gardens & Grounds.

- Use of noisy equipment to be restricted for the duration of the event taking place during the day (generally 9am-5pm).

- Litter collection to be carried out daily during the event, ideally at the beginning of the day before the events commences and during the event if necessary.

- Fly posters to be removed daily during the event.

- Hard surfaces (paths, steps, patios and car parks etc) to be swept or blown clear of leaves and debris prior to the event to ensure that the need to carry out this work during the event is reduced.

- Moss, algae and mould control of paths, steps and hard surfaces to be carried out in good time (approximately 1 month) prior to the event.

- Lawns to be cut prior to the event. Further lawn maintenance during the event restricted to early mornings, before the events/proceedings take place.

- Weed control to be scheduled to be undertaken approximately three weeks prior to the event to ensure maximum effectiveness.

- Shrub and herbaceous borders to be checked prior to the event and any remedial maintenance carried out in good time, before the event. All other maintenance should comply with good horticultural practices.

- Plant growth, encroaching on paths, steps and lawns etc to be trimmed back prior to the event.

- Cultural control of weeds, involving hand weeding, forking out and hoeing of planted areas (beds, borders etc) to be carried out a week prior to the event.

- Mulches (bark chippings, compost or leaf mould) applied to the surface of beds to be checked a month prior to the event and topped up if necessary.

- All staff will ensure to maintain a flexible approach to cover issues and events if they should arise

As a matter of course Gardens & Grounds staff will provide a flexible approach to work to facilitate additional events such as exams, weddings, photographs, films, conferences, high profile visitors etc. Although we do require notice in good time of these events, to ensure we can identify the resources required.
General Maintenance

8. Trees

Tree Maintenance
Trees to be regularly visually inspected to ascertain the general health of the trees within the University grounds, and to note dead, diseased or damaged timber, branches etc. All the tree stock will be surveyed on a three yearly basis, whilst high risk trees will be surveyed on more frequent basis (refer to University of Bristol Strategy for tree management).

Planting new trees will be undertaken when deemed necessary; i.e. as replacements for maturing trees, as commemorative or memorial trees or as part of an on going planting schedule. Stakes and ties of young trees will be checked up to maximum age of four years after planting, in the spring and autumn, after which they should be removed or replaced as necessary.

Formative pruning of young trees will be carried out at the appropriate time to raise crowns, check double leaders, thin as necessary, and remove stem growths and suckers. Stem growth and suckers to be removed from mature trees, and water shoots on trunks of mature Lime trees to be cut off annually. Undesired volunteer (weed) tree saplings will be removed or cut down and treated with herbicide. Ivy will be removed from trees as necessary; cutting back unwanted growth to ground level on an annual to biennial basis.

Dead, dangerous or windblown trees/branches will be removed in good time, either by Gardens and Grounds Services or by an external contractor. Windblown tree debris will be removed after storms, firstly from hard surfaces such as roads, paths and steps, and secondly from lawns and gardens. All pruned or felled material will be chipped on site or removed, whilst timber will be stacked neatly within the grounds, if possible (to encourage wildlife) otherwise removed, if this is felt appropriate. Diseased material will be removed and burned in the North Somerset site.

Please refer to Footnote1.

Orchards
Carry out seasonal pruning of fruit trees, involving formative pruning, in winter and a regular summer prune of water shoots. All pruned material will be removed and chipped elsewhere on site. Diseased material will be removed and burned.

Weed/grass growth around the base of trees to be controlled with a systemic herbicide during the growing season. Cultural means will be used to control weed growth where a bed has been cut at the base.
If required every two to three years, manure will be applied to the base of the trees in Winter. An annual top dressing of hydrated lime or calcium nitrate will be applied to the tree bases in early Spring.\footnote{1}

**Arboretum**

Trees to be maintained as previously mentioned (section 9.1).

Grass paths to be cut fortnightly (or as necessary) to maintain a neat appearance. Whilst meadow areas will be cut annually to suppress volunteer tree growth and restrict Bramble growth.

Interpretation should be available to inform people about the tree collection and management regime.

**Woodland**

Trees to be regularly surveyed to ensure that potentially dangerous trees are identified, and suitable remedial work is undertaken.

Regular scheduling of woodland management involving Winter projects of scrub/bramble clearance, coppicing, removal of unwanted volunteer saplings and the clearance of ivy from tree trunks. Plant ‘arisings’ to be spread through the woods. Brash should be chipped and timber left to rot down naturally.

Encourage the natural regeneration of desirable species whilst replanting (when applicable) with the objective to increase biodiversity.

**Hedges**

Formal hedges will be trimmed annually, from early to late Summer, in such a way as to achieve straight level surfaces along the tops and sides. Certain hedging species (i.e. Privet) may require a second cut during the growing season. The sides should be cut to attain a slightly slopping angle converging towards the top. The height of the hedge to be maintained to a reasonable working level to minimise the need to work at height. Taller hedges that require the use of scaffolding towers/trestles should be cut with straight, vertical sides to reduce the need for leaning whilst working at height. All clippings to be removed. Bases of hedges to be maintained in a weed free condition, and unwanted grass growth will be mowed or strimmed off on a regular basis.

Ensure that no-one takes, damages or destroys the nest of any wild bird whilst the nest is in use (Wildlife and Countryside Act 1981). Refer to Footnote 1.

\footnote{1} Please note that during tree works, ensure that no-one takes, damages or destroys the nest of any wild bird whilst the nest is in use (Wildlife and Countryside Act 1981) and that bats are not killed, injured or disturbed, that access to bat roosts are not obstructed and that roosts are not damaged or disturbed, even when not occupied (Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000, Conservation [Natural Habitats, &c.] Regulation 1994). If there is any doubt, Gardens & Grounds Services will contact Natural England.
**Pleached Hedges**
Trim pleached hedges annually, during late Summer, in such a way as to achieve straight level surfaces along the tops and sides. Stem growth and suckers to be removed from the trunks. Height of the hedge to be maintained to a reasonable working height. All clippings to be removed.

Bases of hedges to be maintained in a weed free condition, and unwanted grass growth will be mowed or strimmed off.

**Yew and Box topiary**
Trim bunds annually, in late summer. Bases of bunds to be maintained in a weed free condition with unwanted grass growth strimmed off. Clippings removed.

9. Shrubs

**Shrubs and shrub borders**
All shrubs and shrub borders should be annually checked to ascertain their condition. Shrub beds will be re-stocked when they become over-mature. Seasonal pruning to remove damaged, diseased, dead and dangerous growth and to remove any growth causing obstruction to pathways, roads, car parks and seating areas etc. Approximately two to three visits to each shrub border during the season. Arisings to be chipped on site and spread around the base of the shrubs as mulch, or removed and chipped elsewhere, to be composted and used as mulch at a later date. Diseased material will be removed to be burnt.

Shrub borders to be kept weed free, using either cultural, or, in respect to bindweed, Japanese knotweed and other pernicious weeds, chemical methods.

Shrub borders beside paths should be planned and maintained with the security of passers-by in mind. Please refer to the sketch on shrub planting beside paths (Please see Appendix 1).

**Climbers**
Climbers will be pruned annually, to promote flowering, control growth and remove dead, diseased and damaged plant material. Additional pruning may be necessary to remove growth from doorways, steps and paths where it may cause an obstruction.

The winter protection of tender plants to be erected in the autumn and removed in the spring. Unwanted ivy growth to be cut down to ground level on an annual to biennial basis as necessary.

Where applicable, summer growth to be tied into and trained on support wires, support wires to be replaced as necessary. The height of climbing plants to be kept within a safe working height from the ground.
**Roses**
Shrub roses to be pruned twice annually. A basic reduction of approximately 50 % of the rose in autumn. A second prune in spring, to create an open framework for the new season’s growth. Good horticultural hygiene practice is to remove all rose prunings from the site to be burnt.

Rose beds to be regularly hand weeded or hoed to keep them in a reasonably weed free condition throughout the growing season. Rose beds to be given a biennial top dressing of well rotted farm manure. A mulch of leaf mould for weed control applied in alternating years. Slow release fertiliser to be applied and forked into the bed on an annual basis.

Monitoring for pests and diseases will be carried out throughout the growing season to mitigate problems. Use of pesticides to be kept to a minimum, ideally only relying on the usage of soft soap, used early on in the infestation in order to catch the problem and minimize the need for further spraying. Herbicide used only to combat persistent weeds (i.e. ground elder, bindweed). Additionally, the pruning regime will reduce the risk of diseases overwintering within the old wood. Carry out dead-heading and clear away after the first flush.

**Ground cover plants**
Ground cover plants that encroach on paths, steps and lawns etc will be pruned back twice yearly, or as necessary. Encroaching ground cover plants to be trimmed back and bare soil surface to be mulched to a depth of at least 50 mm on a three year cycle, or more frequently if applicable.

Particular ground cover plants (e.g. *Hypericum*, *Lamium*, *Rubus*) to be cut down annually, in the spring, to encourage re-growth.

**Herbaceous borders**
On a three year cycle, the plants in one third of a herbaceous border to be lifted in early spring and divided, retaining the best quality plant material. The empty herbaceous bed to be dug over and enriched using well rotted manure, compost or leaf mould. The retained plant material to be replanted and firmed in. Newly planted herbaceous beds to be irrigated as necessary.

In spring, borders to be cleared of dead plant material and support provided for plants that require it. Slow release fertiliser to be applied in early spring.

Beds will be kept weed free using cultural means (e.g. hoeing and/or hand weeding). Systemic herbicide used, if it is necessary, to combat persistent weeds (e.g. ground elder, bindweed). Dead heading and removal of diseased, damaged and dead plant material to be carried out when necessary.

Leaves to be raked out and removed after the autumn leaf drop and after the summer leaf fall from evergreens.
Leaf mould to be applied as mulch on a yearly to biennial basis in spring, to act as a weed suppressant and soil improver.

**Bedding**

Summer and spring bedding to be planted at the appropriate times. Preparation of beds to include an initial clearance, ground forked over, weeding and the addition of organic matter. The border will receive an application of slow release fertiliser and its edge redefined, where necessary. Bedding that has been removed will be composted.

New plants will require irrigation until they become established and will be maintained reasonably weed free using cultural means (e.g. hoeing, hand weeding) during the growing season. On occasions they will require dead heading to remove flower heads and so encourage further blooms. Slug pellets will be applied as necessary.

Bedding plants are selected to be robust and reliable, however, occasionally a particular plant variety may suffer due to a number of reasons (e.g. adverse weather, disease) and become unsightly; these will be removed and will not be replaced in that season. Bedding is an expensive & labour intensive planting scheme compared to general herbaceous planting and, as a consequence, it is only undertaken in a few selected sites/gardens.

**Rock Garden**

Leaf and plant debris to be removed in the autumn and early spring. In spring the soil will be lightly cultivated and grit incorporated to improve drainage. Additional scree to be added, as mulch, when necessary and appropriate.

Rock gardens to be hand weeded as necessary, cutting back plants, following good horticultural practice. Annually, plant material within the rock garden to be lifted, divided, leaf mould or grit dug in (as appropriate), replanted and firmed in. Approximately one sixth of the rock garden to be dealt with per annum.

10. **New planting schemes**

Prior to planting, beds will be prepared to ensure that they are weed-free (either using cultural or timely chemical weed control methods) and clear of unwanted plants and roots. The soil should be conditioned with the application of organic matter either well rotted leaf-mould, well rotted farmyard manure or compost (see green waste) if this is applicable to the plant selection. Additionally, a geotextile weed suppressant fabric may be laid on the prepare bed, through which the plants will be planted.

Plant handling, delivery and storage should comply with National Plant Specification. Non-containerised plants will be planted between October-March, whilst containerised plants can be planted, within reason (i.e. not in waterlogged or frozen soil) at any time of the year; however consideration has to be made in regards to the demands of aftercare provision and it is advised that planting is restricted to non summer months.
When planting, the plants should be positioned either as shown on the plan or spaced evenly to ensure adequate spacing to allow for their development. Containerised plants should be watered prior to planting and any congested roots teased out to assist plant establishment. Planting holes should be large enough to easily accommodate their roots/root balls and at a depth so that their original soil level matches the new surrounding ground. A slow release fertiliser, such as bone meal or osmocote, should be added to the planting hole and the hole back-filled with a mix of at least an equal quantity of existing soil and organic matter. The back-fill is to be evenly worked around the roots and well heeled in. The planting bed will be mulched with either inorganic gravel to a depth of 50mm or organic bark mulch to a depth of 100mm (13. Weed control). Immediately after planting the plants should be watered thoroughly after which they should be irrigated as necessary until they become established.

Adequate staking for trees up to a standard size should be provided, whilst larger trees will require tree anchors with under and over guying (ref. Tree Policy). Rabbit and deer guards will need to be employed where these are known to be a problem.

Bulbs, corms or tubers should be planted with the base of the bulb at the correct depth for the species, in contact with the soil and back-filled with stone-free topsoil. When planted in lawns to naturalise they should be planted under plugs of turf and grouped at random.

11. **Ponds**

Pick off/rake out litter regularly and top up with water weekly or when necessary.

Barley straw bales may be introduced into the pond in early Spring to reduce algae blooms. Unwanted weed growth will be removed in mid Summer to Autumn. Marginal, emergent and aquatic plants will be divided, when appropriate, in early Spring.

12. **Lawn Maintenance**

**Quality Lawn**

Existing areas of high quality lawn to be maintained to that level, to include, selective herbicide/mossicide application, clippings removed when grass cut.

**Amenity Lawn**

Lawn maintenance to include regular mowing during the growing season (approximately March to October). There will be an average of 25 cuts per season.

Lawn edges to be matched up (often using a strimmer) and, when necessary, re-cut during the growing season, to maintain a neat appearance.
Use of a selective mowing regime on grass bank areas to increase the floral diversity of the bank.

Grass growth around the base of orchard and ornamental trees to be controlled by the use of herbicide spray; twice yearly. Similarly, grass growth around sign posts and lampposts to be controlled with herbicide spray.

Fallen leaves to be removed on a regular basis from lawns, this is to ensure the lawns are not not stressed/damaged by prolonged leaf cover.

**Bulb Areas/Conservation Areas**

Lawn areas, that contain spring flowering bulbs, will be cut approximately six weeks after they have finished flowering. Cut grass and bulb material will be removed.

Bulb areas then incorporated into the standard mowing regime and cut regularly for the remainder of the season.

Arboretum areas and conservation/meadow areas, grass to have a selective annual cut, with the aim to create a mixed, diverse habitat structure.

**Lawn Repair**

Minor repairs to grass areas and lawns to be undertaken by Gardens and Grounds Services (e.g. damage to lawn edges, patching). For major repairs please refer to landscaping.

**Weed Control**

Weed control needs to be carried out in a holistic manner:

- Applications of a residual herbicide to porous hard surfaces to control unwanted weed growth early in the season
- Applications of systemic herbicide to hard surfaces and to beds, shrub borders etc (to deal with pernicious weeds) as appropriate, approximately following a six weekly cycle during the active growing season.
- Cultural control of weeds to include hand weeding, forking out and hoeing of planted areas (beds, borders etc) to be carried out on a regular basis during the growing season.
- Mulches (bark chippings, compost or leaf mould) applied to the surface of beds as a weed suppressant on a three yearly cycle or sooner if deemed appropriate.

13. **Litter/fly-posting**

Litter clearance and bins within the main precinct area to be emptied on a daily basis (or greater frequency as necessary). Litter collection and bins emptied at the out-lying Precinct properties twice a week, including the Student Union, Veterinary School (Southwell Street), Canynge Hall and Victoria Rooms. Litter clearance and collection on a flexible basis to accommodate University events/open days.
Priority is given to the removal of sharps (e.g. needles). Mobile bins used to remove sharps from site and they are then disposed of via the Universities Sustainability department.

Fly posters removed throughout the University Estate and graffiti removed from University signs throughout the Estate.

Litter clearance to be undertaken within the gardens on a weekly basis however, it may be necessary to carry out further litter clearance before and after University events.

14. Leaves
Hard surfaces (paths, steps, patios and car parks etc) to be kept clear of plant debris and leaves as necessary; with particular attention during the Autumn leaf drop. Properties to be covered in a methodical rotational basis, to ensure that all are regularly visited.

Heavy deposits and banked-up drifts of leaves to be removed from the garden areas where they are likely to pose a health and safety risk, cause damage to plants or are considered unsightly.

Controlled access areas and bicycle sheds within the precinct to be cleared of weeds/leaf debris and/or litter as necessary.

15. Tennis Courts
Fallen leaves and debris to be removed on a weekly basis during the Autumnal leaf fall and as necessary throughout the rest of the year.

A fungicidal moss killer to be applied once a year to the tennis court surface as necessary. This maintains the surface of the court and ensures the courts are in a safe and playable condition. Additional applications can be arranged, however, there will be an additional rechargeable cost.

The area in close proximity to the tennis courts to be treated annually with a residual herbicide to control unwanted weed growth.

16. Walls
Walls to be kept generally weed-free to include the removal of buddleia and ivy growth. Any remaining growth to be treated with a herbicide as necessary. Walls to be kept clean of plant debris on a regular basis. Specialists will be required on an ad-hoc basis, to control weeds where it is unsafe for normal operatives to do so (e.g. weed growth on high walls).

Walls owned by the University of Bristol to be surveyed/inspected to assess their condition and structural safety. Maintenance of the walls within the Halls of Residences is the responsibility of Building Services, other walls within the University are the responsibility of Gardens and Grounds Services. Maintenance and repair scheduled in accordance with survey, priority given to those walls assessed as a higher risk category.
17. **Hard Surfaces**

Hard surfaces to be kept weed-free with the annual use of residual and systemic herbicides. An application of fungicidal moss killer will be undertaken as necessary, with particular attention to pedestrian access routes (steps, ramps, etc). On occasion, it may be necessary to remove unwanted residues with pressure washing.

Hard surfaces to be inspected for wear and decay (potholes, loose slabs, etc). Maintenance and repair scheduled as necessary, targeting those assessed as a high risk category. Minor maintenance and repair (loose slabs, etc) to be undertaken by Gardens and Grounds Services. Major maintenance and repair (re-surfacing, linage, etc) will be completed by a contractor, instructed by Gardens and Grounds Services.

18. **Benches**

Memorial benches and other benches (inc. garden furniture) purchased through Gardens & Grounds will be cleaned and treated on a regular basis to ensure their longevity.

19. **Art Installations**

Sculptures and art installations will be maintained to a reasonable standard throughout the year with emphasis on presenting them at their best during degree weeks and open days.

20. **Additional services provided on request**

*Design and landscaping*

Gardens & Grounds offer a design and landscaping service at an additional cost. Designs and planting scheme will take into such design considerations as general landscape principles, historic context, topography, soil conditions & botanical/wildlife considerations as well as the requirements of the client and Health and Safety legislation. Major repairs and new lawn installation also to be undertaken by the department, however, there will be a rechargeable fee for this work.