



Aylesbury Vale District Council

GOOD PRACTICE GUIDE

for

THE PROVISION OF PUBLIC OPEN SPACE

January 2004

CONTENTS

	PAGE
1. INTRODUCTION	4
2. HOW THIS GUIDANCE WILL BE USED IN CONNECTION WITH PLANNING OBLIGATIONS	5
2.1 Schemes to which this applies	5
2.2 The Open Space Scheme	5
2.3 What the Legal Agreement will require	6
GENERAL SPECIFICATION AND METHODS OF WORKING	7
3.1 Distribution of Open Space	7
3.2 Disabled access requirements	7
3.3 Statutory Undertakers	7
3.4 Protection of waterways	7
3.5 Prevention of mud and dirt on roads	8
3.6 Abatement of nuisance	8
3.7 British or European Standards	8
3.8 Temporary fencing etc	8
3.9 Removing rubbish and cleaning	8
3.10 Boundaries	8
3. DRAINAGE	10
4.1 Surface water drainage	10
4.2 Foul water drainage	11
4. WATERCOURSES	12
5.1 Definitions	12
5.2 Environment Agency Consent	12
5.3 Culverts	12
5.4 Access requirements for maintenance	12
5. HARD LANDSCAPE	13
6.1 Layout	13
6.2 Construction Options	13
6. SOFT LANDSCAPE	19
7.1 Earthworks	19
7.2 General Considerations in Site layout and Design	19
7.3 Planting Areas	21
7.4 Plant Material	22
7.5 Planting	24
7.6 Turf Areas	28
7.7 Seeded Grass Areas	29

8. PLAY AREAS	31
8.1 Provision	31
8.2 Standards	31
9. WINTER SPORTS SITES & PLAYING PITCHES	34
9.1 General Site Location	34
9.2 Soil Conditions	34
9.3 Levels	34
9.4 Pitch Drainage	34
9.5 Cultivation	35
9.6 Establishment of Grass Sward	36
10 ADOPTION PROCEDURE	38
10.1 Provisional Certificate	38
10.2 Information to be provided with the Application for the Provisional Certificate	38
10.3 Maintenance Period	40
10.4 Final Certificate	40
10.5 Commuted Payment Towards Future Maintenance Costs	40
11 MAINTENANCE	41
11.1 Litter Removal	41
11.2 Hard Landscape Areas	41
11.3 Soft landscape Area	41
11.4 Watercourses	48
11.5 Play Areas	48
APPENDIX A - Current Commuted Maintenance Payment Requirements	50
APPENDIX B - Schedule of Revisions to this Guide	52

1. INTRODUCTION

The overall aim of this document is to provide a guide to Developers and Designers, giving the standards of construction required of all new public open space where it is intended this will be adopted by Aylesbury Vale District Council and Parish or Town Councils.

This is a general guide. It is not the intention to limit the style and scope of the landscape design by prescribing which materials are to be used. Each site will need to be assessed individually. The specifications which follow are the minimum standards to be met in the developer's chosen materials. If the Developer intends to use materials other than those referred to in this document, full details and specification of the intended materials must be submitted for approval, prior to work commencing. Some sites will require a ground investigation to determine suitable constructions.

All areas intended for adoption by Buckinghamshire County Council as Highway Authority shall be constructed in accordance with Buckinghamshire County Council's own publication, Roads for Adoption – Specification and Standard Details, March 2000, as updated from time to time. Copies of this document are available for purchase from Environmental Services, County Hall, Aylesbury.

Where this document covers construction details which are also covered by the "Roads for Adoption" document the specifications are the same.

The document explains how this guidance will be applied in association with Planning Obligation Agreements. It specifically identifies the details that will be required to be submitted as part of any scheme, and how this guidance will inform any decision as to whether the scheme proposed is acceptable, and whether an approved scheme has been satisfactorily carried out and maintained.

The Guide will be updated and revised as necessary. The latest version will be used to inform decisions on whether a scheme or its implementation/maintenance are satisfactory. The details of revisions to the Guide are set out in Appendix B. Developers and their advisers are urged to make sure they are working from the latest version.

Objectives

The objectives are:

- a. To ensure that construction materials and workmanship in public areas are of a standard acceptable to the Authority.
- b. To ensure that maintenance requirements are addressed, and allow a reasonably accurate assessment of the cost of future maintenance.
- c. To promote the use of low maintenance surfaces and planting.
- d. To promote the use of sustainable urban drainage (SUDS) where appropriate.
- e. To ensure the correct consents are obtained in respect of work involving drainage and land drainage.
- f. To give clarity on what will be required from proposals associated with Planning Obligations Agreements.

2. HOW THIS GUIDANCE WILL BE USED IN CONNECTION WITH PLANNING OBLIGATIONS

2.1 Schemes to which this applies

In many cases the provision of open space is associated with new development proposals and will be a requirement of the planning process. This requirement is explained in Local Plan policies which, in turn, reflect the Government's National Planning Policies in PPGs, especially PPG 17 Sport, Open Space & Recreation. Further details of what provision will be sought with a development proposal will be set out in Supplementary Planning Guidance. Normally these requirements will be enforced through a legal agreement (also known as a Planning Obligation Agreement).

The approach taken by Aylesbury Vale District Council is based on the preparation of an Open Space Scheme as an integral part of the proposals and sets out in full exactly what is to be provided by way of Open Space, including details of any equipment or built features to be provided.

2.2 The Open Space Scheme

This is the detail of the specific scheme for the specific site. It will be far more detailed than is often the case with planning landscape schemes, and will provide the detailed technical specification of all the works to be carried out. The precise list of what it is to include may be varied to deal with particular site-specific factors, but at a minimum it will include:

- An accurate Tree Survey (to BS5837) and tree protection plan (to BS 5837).
- Details of all landscaping (including planting arrangements/regimes to include full botanical plant names, plant sizes, plant varieties and planting densities).
- Details of all existing and proposed levels on the site.
- Details of any earthworks proposed (including gradients, materials or construction, and drainage).
- Details of all roadways, paths, areas of hard landscaping etc.
- Details of all equipment/seating/bins etc.
- Details of any walls (including any retaining walls) and fences or similar features.
- Details of any buildings to be provided.
- Details of all existing and proposed drainage arrangements (including ditches) – relevant levels should be shown with the other levels details mentioned above.
- Details (including levels) of all existing and proposed services (including all manhole covers, service boxes and underground plant) on, under, over or through the site.
- Details of the ownership of boundaries and any associated maintenance requirements or works to those boundaries (e.g. cutting back hedges or repairing fences or maintaining ditches).
- Details of the phasing of provision (where relevant).
- Details of the maintenance regime to be followed during the establishment period.
- Details of the areas to be made available for adoption after the scheme have been completed.

The responsibility for preparing the scheme will rest with the Developer although the Authority will advise whether there are specific features which need to be included (e.g. a playing pitch or equipped play area).

The detail should be on a plan, together with engineering construction details where applicable, and a schedule of specifications. The scheme details must convey an accurate description of the nature, extent and standard of quality of work proposed. If any discrepancies in the details or between any agreed scheme and what is carried out on site arise, these must have been formally agreed with the Local Planning Authority beforehand and revised drawings/details provided. The Legal Agreement will specify the mechanism for considering such changes.

On completion of the works, fully detailed and accurate as-built drawings of buildings and services, and any other relevant information as required in the Construction, Design and Management (CDM) Health and Safety File will be required to be provided as part of the adoption process.

2.3 What the legal agreement will require

The legal agreement will require the developer to prepare the Open Space Scheme, including any site-specific requirements that emerge from planning negotiations. The Scheme will preferably be prepared as part of the application process so that it could be fully detailed before planning permission is granted. However, in some cases it may be possible to require it to be produced after the granting of planning permission, but before any works commence on the development. Failure to fully agree the scheme before works commence will be likely to lead to the Authority considering enforcement or other legal action.

At whatever stage the Scheme is produced it will need to be approved by the Local Planning Authority. The legal agreement will make it clear that in deciding whether or not to approve the Scheme the Authority will have regard to this Good Practice Guide.

The decision on the acceptability of the scheme will be for the Planning Officers, but in agreement with the Council's Adoption Officer and Landscape Advisers. As the level of technical specification goes well beyond the normal detail we could expect with a planning landscaping scheme, the Adoption Officer will be able to satisfy himself that if the works are carried out in accordance with the Scheme then the open space will be suitable for adoption.

The legal Agreement will require works to be undertaken to the satisfaction of the Adoption Officer. The agreement will make it clear that in deciding whether the works have been carried out satisfactorily the Adoption Officer will have regard to this Good Practice Guide

Details of the Adoption Procedure and what information will be required at each stage are set out in Section 10 of this Guide.

3. GENERAL SPECIFICATION AND METHODS OF WORKING

3.1 Distribution of Open Space

To maximise the benefit of open space within the development, open space areas should be suitable for their intended purpose in both size and location.

Discussions about open space requirements should be held with AVDC's Leisure Division and Design Services at the very earliest stage to determine the size and type of space to be provided or value of contribution to be made. Planning staff will co-ordinate these discussions. Particular attention will be paid to the size and location of areas of open space within a development.

3.2 Disabled access requirements

Wherever reasonably possible open spaces must be accessible to the disabled, in particular wheelchair users and the partially sighted. The following general requirements should be adhered to:

- Slopes on access routes and paths must comply with the requirements of the current amendment of the Disability Discrimination Act
- Flush kerbs should be provided at all changes in paving level, and an alternative ramped route provided to all steps. Tactile paving should be provided at road crossing points in accordance with the current edition of 'Guidance on the use of tactile paving surfaces' published by DETR.
- Gates and spacing between bollards on pedestrian routes should have a minimum opening of 1m.
- Where street furniture is included (seats, bollards, litter bins etc) there must be a contrast in colour between the item and the background surfacing.

3.3 Statutory Undertakers

The Developer should uphold and protect all pipes, ducts, sewers, services, mains, overhead cables, etc., and make good any damage caused by carrying out the works.

The Developer should make every effort to co-ordinate the work of Statutory Undertakers and Cable TV Contractors, and to ensure that all trenches are backfilled with fully compacted material, and to encourage shared use of trenches by Statutory Undertakers wherever possible.

Manholes and inspection chambers should be located where full access is available for Statutory Undertakers' maintenance vehicles, without excessive damage to grassed areas. No chambers should be located with access covers in planted areas.

Adjacent paving which is likely to be used by contractors' vehicles for access for maintenance should be constructed to an appropriate specification.

3.4 Protection of Waterways

The Developer should implement and maintain all necessary precautions to ensure the protection of all streams and waterways against pollution caused by carrying out the works. This should include any necessary steps to prevent any debris blown, fallen or thrown into the

watercourse from being carried downstream where it may cause blockages and/or flooding. Requirements for working in or near to watercourses are detailed in Section 5.

3.5 Prevention of mud and dirt on roads

The Developer is reminded of the Highway Authority's requirement that any precautions necessary are taken to keep the approach roads, footpaths etc. to and on the site free from dirt, mud and debris at all times.

3.6 Abatement of nuisance

The Developer should take all necessary measures to minimise nuisance to occupiers of properties adjoining the works.

3.7 British or European Standards

Where applicable all procedures, materials and components should conform to the latest British or European Standard unless otherwise specified. Any variations should first be approved by the Adopting Authority.

3.8 Temporary fencing etc.

Any necessary temporary fencing, planked footways, guard rails, and the like together with notices, signalling and lighting for the protection of the public should have due regard for the needs of blind and disabled persons and for meeting the requirements of any local or other authority.

3.9 Removing rubbish and cleaning

All rubbish and debris over the whole of the site, caused by the operations during and at completion of the works, will need to be removed prior to adoption. The whole of the Open Space works shall be to the satisfaction of the Adopting Authority on completion.

The Developer will need to maintain the whole site in a cleansed state until formally adopted. Regular litter picking should be undertaken to all areas.

At the time of litter removal, any fly tipping should also be removed.

Items to be removed should include litter, glass debris, paper, metal, ceramic, plastic, timber, fabric, masonry, food waste, animal fouling and carcasses and any broken, dead or dying plant material.

The Developer should lawfully dispose of all surplus excavated material, stones, weeds, rubbish, prunings, grass cuttings and the like. AVDC encourages composting wherever possible.

3.10 Boundaries

All future adoption boundaries should coincide with an easily identifiable boundary on site e.g. edge of footpath, fence line.

Ownership of boundary features such as walls, fences and hedges should be clearly defined on the “as built” plan provided to the adopting authority. Where these boundaries are within new developments they should preferably be transferred to the adjoining landowner.

Where any adoptable land abuts the highway the design shall be such as to restrict unauthorised access by motor vehicles. This may be by the inclusion of a feature such as a ditch & bank, knee rail and hedge or similar approved barrier. A securely lockable gated access will be required for maintenance plant.

4. DRAINAGE

4.1 Surface Water Drainage

Source Control

The Council is actively promoting the use of source control for surface water drainage. The principle of source control is to mimic nature by returning rainwater to the ground, as close as possible to where it falls. The alternative is to retain the surface water runoff and slow its entry into the local watercourses, thereby reducing the risk of flash flooding. The local ground levels and permeability, and the proximity and capacity of nearby watercourses, will determine the most suitable method of source control.

Such drainage systems are an integral part of the development infrastructure, and can often be designed in conjunction with other leisure uses of open space. It is vital, therefore that the principles of the surface water drainage system to be employed on a site must be designed as part of the initial site layout design.

Final ownership and maintenance responsibility of each element of a drainage system should be agreed and documented. This is particularly relevant where there is a combination of piped drainage, retention systems and structures either in or over watercourses, ponds etc.

Elements of drainage systems intended for adoption by the local water company will need to comply with the latest edition of Sewers for Adoption published by the Water Services Association.

Balancing Ponds

The Open Space Scheme prepared by the developer should include design details relating to any balancing ponds. These details should include:

- Whether the pond is wet or dry in dry weather
- If a wet pond, the normal water depth
- Design return period e.g. 1 in 100 year storm
- Maximum depth of water
- Profile of side slopes
- Planting in and around the pond, and whether this is related to pollution control
- Overall outline level information for the surface water system upstream and down stream
- Outfall information i.e. to Public Sewer or watercourse, and any consents applied for or granted with any flow rate restrictions.
- Associated structures e.g. headwalls, flow controls
- The proposed adopting authority for each element of the system

Grassed slopes should never be steeper than 1 in 3, and preferably slacker than 1 in 4.

A risk assessment should be carried out of the hazards associated with each balancing pond, and the actions proposed to remove or minimise the hazard, taking into consideration the location of the pond and adjacent land use. A copy of the risk assessment must be submitted with the Open Space Scheme.

4.2 Foul Water Drainage

Foul Water Sewers should be constructed to the current standards set by the Water Services Association and offered for adoption as soon as possible.

Prior to adoption, maintenance responsibilities remain with the developer.

5. WATERCOURSES

5.1 Definitions

A **Main River** is a watercourse shown as such on a Main River Map, and can include any structure or appliance for controlling or regulating the flow of water into or out of the Main River. A main river has been adopted by the Environment Agency for flood defence purposes.

An **Ordinary Watercourse** is every river, stream, ditch, drain, cut, dyke, sluice, sewer (other than public sewer) and passage through which water flows, which does not form part of a Main River.

A **Riparian Owner** is one whose land includes or abuts a watercourse.

5.2 Environment Agency Consent

Under the Water Resources Act 1991 and associated bylaws, all works in ordinary watercourses and works in, over, under or adjacent to main rivers, require the consent of the Environment Agency. This includes piping or culverting of ditches under accesses and elsewhere, and local diversions of ditches and streams. The granting of Planning Permission does not imply that other authorisations or consents have been given or will be forthcoming nor avoid the need to obtain other authorisations where these are required.

5.3 Culverts

Structural Design

Culverts under proposed Highways will need to comply with the requirements of the Highway Authority. Culverts and associated headwall structures in proposed open space require AVDC approval, as required by Section 263 of the Public Health Act 1936.

Trash screen installation requires the consent of the Environment Agency.

Hydraulic Design

To prevent flooding upstream, it is essential that culverts have an adequate cross section for the maximum flow rate. Environment Agency approval is required for the proposed culvert size.

5.4 Access requirements for maintenance

Much of the maintenance of watercourses is more efficiently and effectively carried out with the use of machinery. All lengths of watercourses within areas to be adopted should be accessible by small excavators, cranes etc. Approach routes for machinery should be a minimum of 3m wide and have no slopes steeper than 1 in 4.

6. HARD LANDSCAPE

6.1 Layout

The overall layout of the open space will form part of the Open Space Scheme, which should be the result of consultation with AVDC Leisure Services, Landscape Architects and Planners.

The layout of footpaths should take into consideration the natural desire line for pedestrians, especially at corners and junctions, and reasonable measures taken to avoid the likelihood of muddy areas developing through corners being cut.

It is expected that cycleways would normally form part of the highway network and therefore be adopted by Buckinghamshire County Council. Where this is not the case, the layout and construction details should still be to the current Buckinghamshire County Council standard.

6.2 Construction Options

The following detailed construction specifications cover the most frequently used material options. If the Developer wishes to use other materials, full specification details are to be submitted for the approval of the Adopting Authority.

Brickwork

Walls should not be constructed close to existing trees or planned planting to avoid:

- damage to existing tree roots, and
- future damage to walls by expansion of tree roots.

The separation distance required is dependent on the species of tree.

Footings

- Footings should be founded a minimum of 450mm below finished ground level.
- Concrete should have a minimum 28 day cube strength of 20N/mm².

Bricks

- Below finished ground level, bricks should be Class B Engineering bricks.
- Above ground, bricks should be FL quality.
- All brick features should have copings.

Mortar

Cement should be Portland cement complying with BS12: Portland Cement.

Sand should comply with BS 1199 and 1200: Building Sands from Natural Sources.

Construction

Retaining walls should have weepholes, and be backfilled with free draining granular material.

Paved Areas

Sustainable Urban Drainage

The Authority wishes to promote the use of sustainable urban drainage wherever possible, in order to minimise the quantity and rate of runoff from the developed site. The permeability of surfacing material and method of drainage of each hard paved area are critical to achieving this aim. The developer will be expected to demonstrate how his choice of materials and drainage systems complies with this requirement.

Kerbs, channels, edgings and quadrants

- (i) Precast concrete units should be hydraulically pressed, comply with BS 7263: Part 1, and be laid in accordance with BS7263: Part 2. For radii of 12m or less the appropriate radiused kerbs should be used.

Precast concrete units should be bedded on 150mm depth Class ST4 concrete bed. They should be backed with 150mm thickness of Class ST4 concrete. Edgings should be backed on both faces.

At crossovers, 150 deep bullnose kerbs should be used with 20mm upstand at vehicle crossovers or 0 – 6mm upstand at pedestrian crossovers.

No unit should deviate from line or level by more than 3mm at either end.

No length of cut kerb or edging should be less than 450mm.

- (ii) Granite setts for kerbing should comply with the requirements of BS 435. Setts should be bedded and backed with Class ST4 concrete, bedding as precast concrete units, backing 200mm thick.
- (iii) Small element kerbing may be used to match adjacent paving blocks. It should be manufactured on the same plant using the same mixes as those used to produce the paving blocks and be accordance with BS 6717: Part 1, 1986. Bedding and backing should be as for granite sett kerbing.

At crossovers, purpose made crossover kerbs should be used.

- (iv) Natural stone kerbing should be from an approved source. For radii of 12m or less the appropriate radius should be cut to fit.

Natural stone units should be bedded on 150mm depth Class ST4 concrete bed. They should be backed with 150mm thickness of Class ST4 concrete. Edgings should be backed on both faces.

At crossovers, purpose made crossover kerbs should be used.

No unit should deviate from line or level by more than 3mm at either end.

No length of kerb or edging should be less than 450mm.

- (v) Timber Edgings should be sound, straight and free from defects and be pressure impregnated with preservative in accordance with BS3051.

All metal fixings should be galvanised, sheradised or non-ferrous.

Edging construction should be as follows:

- 50mm x 50mm x 600mm long timber pegs driven into the ground at 1200mm centres
- 25mm thick x 150mm high timber edging boards butt jointed and nailed to pegs with 2 No 65mm galvanised nails per peg
- At butt joints additional pegs should be used to give 300mm max spacing symmetrical about joint
- At butt joints, additional overlapping 25mm thick x 150mm high x 450mm long timber edging board place symmetrically about joint, fixed to butt jointed boards with 8 No 65mm galvanised nails, and to pegs with 2 No 65mm galvanised nails per peg.

Pavements

(i) Weed Treatment

Following preparation of subsoil, the area should be treated with an approved weedkiller. The Council does not approve of the use of herbicides containing Atrazine, Simazine or Diuron.

1 layer of Terram 1000 geotextile or equivalent should be used under all footpath constructions to inhibit further weed growth.

(ii) Sub Base

Type 1 granular material should be crushed rock, slag or concrete. The material shall lie within the grading envelope in the table below, and not be gap graded.

BS Sieve Size	Percentage by Mass Passing
75mm	100
37.5mm	85 – 100
20mm	60 – 100
10mm	40 - 70
5mm	25 – 45
600 micron	8 – 22
75 micron	0 - 10
The particle size is to be determined by the washing and sieving method of BS812:Part 103	

The material passing the 425 micron sieve should be non plastic as defined by BS 1377:Part 2 and tested in compliance therewith.

The material should have a 10% fines value 50kN or more when tested in compliance with BS812:Part111.

The minimum depth of sub base is given with each type of finish.

Footway/Cycleway Construction

(i) Flexible Construction:

Sub base depth

- The minimum depth of Type 1 sub base should be 150mm.

Roadbase (cycleway only)

- Roadbase should be a minimum of 70mm depth of 28mm aggregate dense bitumen macadam.
- the coarse aggregate should not be gravel.
- the binder should be petroleum bitumen complying with the requirements of BS 3690:Part 1 and should be 100 penetration for machine application or 200 penetration for hand laid material.

Base course

- Base course should be a minimum of 40mm depth of 20mm aggregate dense bitumen macadam.
- the coarse aggregate should not be gravel.
- the binder should be petroleum bitumen complying with the requirements of BS 3690:Part 1 and should be 100 penetration for machine application or 200 penetration for hand laid material.

Wearing course

- Wearing course should be a minimum of 20mm depth of 6mm aggregate dense graded macadam.
- the coarse aggregate should be crushed rock, excluding limestone.
- the binder should be petroleum bitumen complying with the requirements of BS 3690:Part 1 and shall be 200 penetration.

(ii) Concrete

Concrete paths are not normally acceptable unless used as a base for a resin bonded aggregate finish.

Sub base depth

- The minimum depth of Type 1 sub base should be 150mm.

Concrete slab

- Concrete should be Grade C40 air-entrained.
- Aggregate should be natural material complying with BS882 or concrete, which when crushed complies with the quality and grading requirements of BS882. Maximum aggregate size should be 40mm.
- The minimum depth of concrete should be 100mm.

(iii) Resin Bonded Aggregate

- Resin Bonded Aggregate may be used to provide a finish with a natural appearance, but where a bonded surface is required. It may be laid on macadam, asphalt or concrete surfaces.
- Receiving surfaces should be even ie free of potholes, and swept clean of all loose debris. Other surface preparation should be to the manufacturer's requirements.
- It should consist of 2-4mm aggregate bonded with buff coloured resin, and be laid in accordance with manufacturer's specification.

(iv) Precast Concrete Flags

Sub base depth

- The minimum depth of Type 1 sub base should be 170mm

Bedding layer

- The bedding layer should consist of 30mm depth of washed sand to BS 6717: Pt 2

Flags

- Precast concrete flags, including tactile paving slabs should be manufactured in accordance with BS 7263: Part 1
- Flag thickness should be 65mm or 80mm. 400mm x 400mm x 80mm thick slabs are recommended in areas where vehicle overrun is anticipated.

(v) Impermeable Block Paving

Sub base depth

- The minimum depth of Type 1 sub base should be 170mm in pedestrian areas, 300mm in lightly trafficked areas or 340mm in roadways

Bedding layer

- The bedding layer should consist of 30mm depth of washed sand to BS 7533: Part 3, Annex D, Table D2, Category II

Precast concrete paving blocks

- Concrete paving blocks should be manufactured in accordance with BS 6717: Part 1 and laid in accordance with BS 7533: Part 3
- Blocks should be a minimum of 65mm thick in pedestrian areas and 80mm thick in trafficked areas

(vi) Porous Block Paving

Porous paving should be laid over layers of crushed stone to form a soakaway/storage layer, which may or may not contain secondary pipe drainage to a surface water outfall. It is important that the paving blocks remain free from sand, silt and other fine debris during construction, and should therefore be laid after completion of adjacent general site works and topsoiling.

Subgrade

If the system is to be used for storage, very rough subgrade should receive a layer of approximately 50mm sand, and an impermeable membrane. This would not be required for infiltration systems.

Drainage layer

- Depth of layer should be to suit drainage design with a minimum depth of 350mm
- Material should be angular stone or crushed concrete and lie within the grading envelope in the table below

BS Sieve Size	Percentage by Mass Passing
63mm	100
37.5mm	85 – 100
20mm	0-25
10mm	0-5
The particle size is to be determined by the washing and sieving method of BS812:Part 103	

Bedding layer

- The bedding layer should consist of 50mm depth of clean single size stone to BS 882 on a permeable geotextile suitable for preventing mixing of the stone layers.

Porous blocks

- Blocks should be a minimum of 65mm thick in pedestrian areas and 80mm. thick in trafficked areas.
- Porous blocks should be laid to the manufacturer's instructions.

Grass/concrete paving**Sub base depth**

- The minimum depth of Type 1 sub base should be 300mm.

Bedding layer

- The bedding layer should consist of 20mm deep uncompacted washed sand to BS 6717: Pt 2.

Cellular concrete paving panels

- Cellular concrete panels should have a minimum 28 day concrete strength of 35 N/mm².
- Perforations should be filled with topsoil, levelled off 30mm below the top surface, sown with grass seed and covered with a layer of fine soil and levelled.

Hoggin surface

Hoggin footpath surface should consist of a 50mm deep layer of approved hoggin (e.g. Breedon Golden Amber Gravel or similar) with a maximum particle size of 25mm compacted to a firm and even surface over a layer of 'Plantex' geotextile membrane, or similar approved. The geotextile should be laid over evenly graded and compacted ground surface and be fixed down at 500mm centres along its edges. Against the timber edging it should be fixed using galvanised staples; along it's outer edge it should be fixed using galvanised wire turfing pins, bent or hairpin pattern, 200mm long and 4mm diameter. The finished level of the hoggin surface should be 25mm below adjacent grass surface.

7. SOFT LANDSCAPE

7.1 Earthworks

Slopes

- Areas requiring grass cutting or routine horticultural maintenance should have a finished gradient no steeper than 1 in 3.
- Earth bunds and other raised areas may require planning approval.
- The re-grading of land will have an affect on ground water and natural drainage systems. The developer must satisfy AVDC that surface water runoff from slopes, and changes to existing land drainage resulting from the regrading, are adequately dealt with within the open space. There must be no detrimental affects on neighbouring properties arising from the surface water drainage of the development.

Bund construction

The method of construction for earth bunds and raised areas will be dependent on the soil type to be used.

The material should to be free of all debris

Compaction:

- If limiting the settlement of the bund is necessary for structural purposes, compaction should to be to the standard described in Table 6/1 of the DETR Manual Of Contract Documents for Highway Works, Volume 1.
- If the bund is for landscape purposes only, compaction should be sufficient to remove large voids and to produce a coherent mass whilst preventing over-compaction and any build up of excess soil water pressures.

7.2 General Considerations in Site layout and Design

Tree Surveys

To encourage good practice amongst developers, AVDC Tree Officers will, where possible, give free advice on general matters and site-specific issues. The advice may take the form of referring developers to useful publications. It will normally be possible to assist directly with a Pre-adoption Tree Survey on open space to be offered for adoption. The Developer must check whether any existing trees on the site are protected by Preservation Orders or Conservation Areas by contacting the Council's Tree Officer. BS 5837 clause 5.2 sets out an acceptable method for tree surveys.

Initial survey

Where there are existing trees, an initial tree survey shall be carried out for the whole site in accordance with BS5837 Trees in Relation to Construction, Clause 5.2. Cohesive groups of trees, such as hedge, scrub or woodland can be categorised as individual features rather than a survey of every single stem. The data gathered should include the following details of all individual trees over 75mm trunk diameter:

- **Minimum data** – stem locations plotted on a scale plan of between 1:100 and 1:500, species or common name, unique ID number or letter, age category, vigour category, trunk diameter at 1.5m above ground level, retention category.
- **Optimal data** – all the above plus crown height, crown spread, defects, protection status and notes.

Pre-adoption survey

AVDC maintains a database of all its trees. Trees awaiting adoption by AVDC can be added to the database if they stand in Public Open Space. The analysis of these trees by AVDC's tree officers can assist developers by providing schedules of work for issue to the developer's contractors. Schedules of work for applications to work on protected trees can also be provided.

Retention of Trees

Every effort should be made to retain suitable trees protected by Preservation Orders or Conservation Areas.

The biggest, oldest trees may not always be the most suitable for retention. Younger trees are less susceptible to damage during the construction phase and will constrain the site less. The Developer should endeavour to retain a mix of ages and species.

The Developer should avoid retaining trees near the end of their life unless there are good ecological or landscape reasons to do so or the tree(s) are critical in assimilating the new development into its surroundings. Dead, dying or dangerous trees should not normally be retained. Species unsuited to the proposed layout should not be retained where they can cause unacceptable future nuisance or hazards. Trees which will detract from the amenities of the layout should not be retained.

No soil, spoil, construction materials or rubbish should be placed or tipped within the protected areas around retained trees or shrubs and no bonfires should be lit in any situation where they can cause damage to existing trees, shrubs or hedges (i.e. no closer than 20m). In the case of minor superficial damage, the Developer will need to arrange for any necessary pruning to be carried out by an approved specialist. Should damage to any tree, shrub or hedge to be retained result in its death, serious disfigurement or being seriously diseased it should be removed and replaced. As a general principle, replacement of shrubs or hedging should be of sufficient numbers to give the same density of cover as previously existed and replacement of each mature tree should be at the maximum rate of one advance nursery stock to each three metre height of the tree to be replaced, or to a standard agreed with the Authority.

Temporary Protective Fencing

Temporary Protective Fencing should comply with the minimum recommendations of BS5837 Figures 4 or 5 and Table 1. Heras type fencing is not normally suitable as robust protection as it is designed to be speedily removed and replaced.

After erection, the fences should be adequately maintained in a complete and upright condition until after construction is complete and soft landscape works require their removal.

Impact of trees on site layout

The design of the site layout should take the following issues into consideration:

- The minimum protection zones for retained trees.
- The need for footing designs to take account of the proximity of retained and new trees, and future root growth.

- Effect of provision of overhead and underground services on trees and effect of the trees on the services.
- Shading, debris, nuisances and domination of homes by retained trees.
- Views and screening.
- Likely hazards from the effects on trees of storms, snow and hot weather.
- Protection of habitats and wildlife.

Further guidance can be found in the following publications:

- National Joint Utilities Publication No 10 – Services near trees.
- Arboricultural Practice Notes – a widening range of guidance covering subjects such as driveways, shade, legal disputes, root barriers etc.

7.3 Planting Areas

Setting out

Planting beds should be pegged out in accordance with the approved planting plan. Figured dimensions should be taken for preference, but where these are not given and limits are not defined by paths, paving or other works, scaled dimensions may be used.

Trees shown at regular spacings should be accurately and evenly spaced in true lines. Trees shown in informal groups should be set irregularly to achieve a natural effect.

Fallow cultivation

The Developer should, by cultivation or other approved means, allow for suppressing all weed growth on all areas which lie fallow whilst awaiting suitable weather or the right season for planting or seeding. Weeds collected should be burned and the ashes spread over the site.

Should the planting be delayed by the Developer he should continue to keep the area free of weeds.

Topsoil

Topsoil required for making up levels and backfilling tree pits should be good quality, clean topsoil, in accordance with BS3882. It should be free from weeds, straw, sticks, clay lumps and any other foreign matter. It should not contain more than 20% stones by dry weight, nor any exceeding 25mm in any dimension. The pH value should be the same as the existing soil or 6.5 - 7.0 (neutral).

Working methods

All operations may be carried out by suitably approved machines or by hand. Any work around the base of existing trees or hedges or in confined spaces or other areas which are impracticable to carry out by machine for any reason, should be executed by hand.

Pesticides (including weed-killer)

The Control of Pesticides Regulations 1986 and any relevant Code of Practice issued by the Department for Environment Food and Rural Affairs (DEFRA), or succeeding bodies, regarding the application of pesticides should be complied with at all times. A Certificate of Competence for the use of Pesticides should be held by operatives.

The use of herbicides containing Atrazine, Simazine and Diuron is not recommended.

The approved weed-killer should be applied in accordance with the manufacturer's instructions for the type of area being treated.

The Developer should give adequate warning that spraying operations are occurring in the form of notices clearly displayed for the general public to see.

7.4 Plant Material

General

Materials used by the Developer

All plants should be obtained from an approved reputable nurseryman. The Developer should ensure that all materials used are in accordance with the latest published editions of BS3936 and BS5236. Plants should be well branched and symmetrically shaped of a normal habit for the particular species.

No variation from the plant schedules will be allowed except with approval of the Local Planning Authority and / or Adopting Authority.

Anti-desiccant dip

All plant material planted in full leaf (i.e. all evergreens and late spring planted deciduous material) should be dipped in containers full of S600 anti-desiccant solution, mixed in accordance with the manufacturer's instructions. This work should be carried out immediately the plants arrive on site.

Trees

Standard trees

Standard trees should be supplied in one of the following forms of root system, as specified; bare root, root-balled or container grown (pot grown).

They should have sturdy, straight stems. Bottom-worked trees should have no more than a slight bend at the union. The head should be bushy and well developed for its type and evenly balanced, with no main branch crossing the crown.

Except where inappropriate to the species or where multi-stemmed trees are specified, all standards should have a central leader.

The stem girth (circumference) should be as specified, measured at 1.0m above ground level. Extra heavy standard, heavy standard, selected standard, standard and half standard trees should be specified in accordance with the following dimensions:

Type	Girth	Overall Height	Clear Stem Height
Extra Heavy Standard	18-20cm	5.00-7.00m	1.8m
Extra Heavy Standard	16-18cm	5.00-7.00m	1.8m
Extra Heavy Standard	14-16cm	4.25-6.00m	1.8m
Heavy Standard	12-14cm	3.50-4.25m	1.8m
Selected Standard	10-12cm	3.00-3.50m	1.8m
Standard	8-10cm	2.75-3.00m	1.8m
Light Standard	6-8cm	2.50-2.75m	1.8m
Half Standard	-	1.80-2.10m	1.2-1.5m

Feathered trees

Feathered trees should be supplied in one of the following forms of root system, as specified; bare root, root-balled or container grown (pot grown). They should have well defined, reasonably straight, upright central leaders and a stem well furnished with evenly spread and balanced lateral shoots down to near ground level.

They should have been previously transplanted at least once and should have vigorous fibrous root systems.

Feathered trees should be specified in accordance with the following dimensions:-

Type	Overall Height
Feathered	1.20-1.50m
Feathered	1.50-1.80m
Feathered	1.80-2.10m
Feathered	2.10-2.50m
Feathered	2.50-3.00m

Where feathered trees are specified which exceed 3.0m in height, both height and girth should be specified.

Transplants

Transplants should have vigorous leading shoots and fibrous root systems. They should have been transplanted or undercut at least once. The age and height should be as specified.

Container and pot grown plants

Container and pot grown plants should have been grown in weed free containers. Dimensions for the containers should be as used in normal trade practice and plants should be fully established in their containers. Containerised and pot grown plants, which are not planted on arrival on site should be watered frequently to prevent drying out. Plants which have been allowed to dry out to the extent that their health is affected should be replaced. Immediately before planting all containerised and pot plants should be well watered.

During planting, care should be taken not to break up the rootball and where plants have become pot bound the roots on the outside should be gently eased out.

Shrubs

Shrubs should be healthy, vigorous well established nursery transplants of bushy form with well developed fibrous root systems. The height, and where appropriate spread, should be specified and unless otherwise stated shrubs should be supplied bare root.

Climbing plants

Climbing plants should be individually container grown, well established and of good form and should be supplied adequately caned and tied.

Hedging plants

Plants for hedging should be healthy, vigorous, bushy, well-rooted plants of sizes indicated and should be consistent in type, strain and form to ensure a uniform hedge.

Herbaceous plants

Herbaceous plants should be well rooted, healthy, hardy and have had not less than one year of full growth.

Bulbs

Bulbs should be free from pests and disease, exactly true to name and of a size and maturity to assure flowering the season after planting (e.g. individual narcissus should be round or double nosed and not offsets).

7.5 Planting

General

Cultivation

On newly topsoiled areas or on undisturbed areas where a depth of not less than 300mm of topsoil exists after clearing all vegetation, beds should be dug by hand or cultivated by machine to a minimum depth of 300mm breaking down all lumps, forked and raked, and all weeds and debris collected and removed from site. The surface should be left with a medium tilth to a cambered surface 50mm above surrounding levels.

Organic material

Spent mushroom compost or other approved organic material (excluding peat) should be supplied and spread over shrub beds and well worked into the soil during cultivation at the rate of 1m³ per 20m² i.e. 50mm thick over the bed prior to working in.

Tree Planting Compost

During planting operations, an approved peat free tree planting compost should be incorporated with the topsoil backfilling at the following rates:

Extra heavy standard	2 bags (50kg)
Standard and heavy standard	1 bag (25kg)
Feathered	1/2 bag (12.5kg)
Whips and transplants	1/8 bag (3.13kg)

Fertilizer

Bone meal should be incorporated with the backfill in the following amounts: 0.5kg per Extra Heavy Standard and Heavy Standard; 0.25kg per standard and feathered tree.

Root Dip

All bare rooted plants should have their entire root systems and 150mm of their stems immersed in Algisure root dip (or similar approved) in accordance with the manufacturer's recommendations immediately they are received from the grower or immediately prior to planting.

Temporary storage

If plants are not to be planted within 24 hours of delivery they should be heeled in by placing the roots in a prepared trench, covering them with fine soil and well firming or watering in to prevent air pockets. Bundles of plants should be cut open and spread out before heeling in.

Roots of plants brought onto site should be protected with damp Hessian or similar.

Plant spacing

Plant spacing should be carried out in accordance with the approved drawings. The aim should be to space plants evenly so that when established they will completely fill the areas indicated as precisely as possible. The extent of the area to be filled by each species should first be defined by plants spaced around the perimeter. The remaining plants should then be used to fill the centre of the area in an informal manner avoiding straight lines and regular geometric patterns.

Watering plants

Attention should be paid to watering, particularly to containerised plant material before, during and after planting to ensure successful establishment. Notwithstanding any restrictions by the Statutory Undertakers on the use of water for watering any plants which may prevail at that time, the Developer will need to make any special arrangements which may be necessary to ensure regular and adequate watering of plant material to ensure successful establishment. Lack of availability of water will not release the Developer in any way from his obligations to replace all dead or dying plants at the end of the first season of growth after planting.

Planting Seasons

All trees, shrubs, climbing, hedging and ground cover plants listed in the schedule should be planted between October and April, dependent on climatic conditions influencing the lifting of plant material. Container grown plants, however, may be planted at other times of the year.

Planting Depth

All plants should be planted at the same depth as previously grown, care being taken to avoid damaging the root system. Sufficient soil should be taken out at the planting station to enable

the roots to be fully spread. They should be packed round with fine soil before being firmly heeled in. The roots of balled trees or shrubs should not be disturbed during planting.

Planting trees

The volume of soil available for tree roots to develop normally should be not less than 5m³ and may need to be as much as 200m³ for the largest species. The agreed volume of soil should be prepared in advance of the excavation of pits to plant trees. Where trees are being planted in groups, the prepared soil should, wherever possible, form a continuous volume.

Tree pits for all classes of trees should normally be excavated at least 600mm deep below finished ground level. Pits should be excavated wide enough to allow for the full spread of the roots of the tree.

All topsoil should be set aside for re-use and all surplus excavated material removed from site. The bottom of the pits should be broken up to 150mm deep and any extraneous matter removed from site. Trees should be planted to the depth of the nursery soil mark on the stem with their roots fully spread. The backfilling should be used to cover the roots and be distributed amongst them by gently shaking the tree up and down. The backfilling should be firmed down with the foot after the roots are covered by 75-100mm and then built up in layers, each well consolidated, leaving the final level 50mm above surrounding paving or ground level.

Backfilling should have planting compost at the specified rate together with bone meal as specified added to the topsoil and well mixed in prior to placing in the tree pit.

Staking and tying trees

Extra heavy standard trees should be secured with two stakes, each stake a minimum of 3 metres long, set 600mm apart with two 30mm thickness cross timbers set into a 20mm v notch with 125mm long nail fixings at both ends. The tree should be tied on the windward side of the cross timber using tie and block piece. Heavy standard, standard, light standard, half standard and feathered trees should be secured to one straight pointed stake. All stakes should be set at least 750mm below ground level or to a greater depth to ensure stability. Stakes should have a clear height above ground level appropriate to the height of the tree.

Tree ties should be Tom rubber ties or other approved. Ties should be average 500mm long and nailed to the stake. Advanced nursery stock trees should be fixed with two ties. Extra heavy standard, heavy standard, standard, light standard and half standard trees should be fixed with two ties, one 1 metre above ground level and one at the top of the clear stem. Feathered trees should be fixed with one tie two-thirds of the height of the plant above ground level. Where short stakes are specified, trees should be fixed with one tie from each stake.

Stakes

Tree stakes should be of softwood of round section with a minimum diameter of 75mm for extra-heavy standards, heavy standards, selected standards and light standard trees, 50mm for feathered trees and 35mm for whips and transplants. Stakes should be pointed at one end, the bark having been peeled and the stakes impregnated in accordance with BS4072.

Short stakes

Short stakes should be of sufficient length to be driven at least 750mm into the ground or to a greater depth to ensure stability. Short stakes should have a clear height above ground level of 600mm for trees above 1.8m high and 450mm for trees below 1.8m in height. 3 stakes should be used for each tree.

Rabbit proof tree guards

Rabbit guards should be fitted to trees and should be black degradable plastic mesh or spiral 450mm high. Mesh guards should be fixed to tree stakes using galvanised staples.

Strimmer guards

On completion of planting, where appropriate, strimmer guards should be fitted to trees, and should be 'Arbortech' Heavy-Duty strimmer guards or similar approved.

Tree root containment of tree pit

Typar 3707 or similar approved geotextile should be supplied and laid in a vertical trench 1000mm deep, dug using hand tools. Joints should be lapped and sealed in an approved manner.

Tree pits - mulch

On completion of planting, prior to the issue of the 1st Certificate, where specified, tree pits should be mulched with "Cambark" coarse bark mulch or similar approved. The mulch should cover a circular area of diameter 800mm and have a minimum thickness of 75mm after natural compaction by settling. The mulch should be applied when the ground is moist.

Planting shrubs

Plants should be planted at the same depth as previously grown, care being taken to avoid damage to the root system and stems. The plants should be placed in position showing their best side to the front. Roots should be carefully spread out and packed around with fine soil to surround the roots. As the rest of the soil is returned it should be well consolidated and firmed round the roots to eliminate all air pockets. Sufficient soil should be taken out from the bed to enable the roots to be fully spread.

Shrub beds - mulch

On completion of planting, prior to the issue of the 1st Certificate, where specified, shrub beds are to be mulched with "Cambark" coarse bark mulch or similar approved. The mulch should have a minimum thickness of 75mm after natural compaction by settling. The mulch should be applied when the ground is moist.

Planting climbing plants

Climbing plants should be planted 150mm clear of walls. Excavation for climbing plants should comprise removing the full depth of topsoil, setting it to one side for re-use, excavating a hole minimum size 300 x 300 x 300 mm deep and removing subsoil from site. Sufficient soil should be taken out from the bed to enable the roots to be fully spread. The bottom 50mm of the pits should be forked over and backfilled with the topsoil set aside.

Climber supports

For each climbing plant, four black plastic coated galvanised wires should be fixed horizontally to fences and/or walls at 300mm centres starting 600mm above ground level. Wires should be tightly stretched between galvanised eyes, screwed into fences and/or walls at 1.5m centres.

Planting hedges

Lengths of hedgerow should be cultivated as for shrub planting areas. Sufficient soil should be taken out to form a trench large enough to take the full spread of the roots. Plants should be set out in the rows and at the spacings specified. Roots should be carefully spread out and packed around with fine soil. The plants should be gently shaken to allow the fine soil to surround the roots. As the soil is returned it should be lightly firmed around the roots to eliminate all air pockets.

Planting bulbs

Unless otherwise specified, bulbs should be scattered at random over the allocated area and planted where they fall.

Bulbs should be planted at the appropriate season and at the correct depth with their bases in contact with the bottom of the planting holes. Planting holes should be backfilled with finely broken soil and the soil lightly firmed.

When planting in existing grass areas, a plug of turf should be neatly removed and replaced after planting.

7.6 Turf Areas

Turf

Turves should be clean meadow turf from an approved source and in accordance with BS3936, fibrous and well rooted, free from matted or dead grass and perennial weeds, which should have been treated with herbicide not less than four weeks and not more than three months before lifting.

Storage

The Developer should arrange the supply of turves to avoid stacking for more than three days. Stacks of turf should not exceed 1.0m in height.

Cultivation

All topsoil areas to be turfed should be cleared of weeds and rubbish, then rotovated to a depth of 100mm and raked out or harrowed to produce a fine seed bed tilth approximately 25mm deep. Stones over 50mm in diameter should be removed. The tilth should be kept fine and free from weeds during any fallow period prior to laying turf.

All turfing areas should be finely graded during cultivation to remove all minor hollows and ridges, such operations being carried out when the soil is dry and friable. The final finished surface should have a smooth and even fall or gently rolling curve between the finished level and boundary of the areas. The Developer should ensure that a minimum of 100mm of topsoil is left on all parts after completion of grading.

Unless otherwise stated finished levels of turfed areas should be 30mm above adjoining paving or kerb levels and 150mm below the damp-proof course of adjoining buildings. Levels should be arranged to give gentle falls for drainage and any ponding developing after completion of the cultivation should be made good.

Turf laying

General

Turf should not be laid when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.

Turf should be laid with broken joints, well butted up, working from planks laid on previously laid turves. Whole turves should be used at edges and trimmed to a true line. Levels should be adjusted by raking out or infilling with fine soil under turves. Turves may be lightly consolidated by evenly beating with approved wooden beaters as the laying proceeds. The use of rollers should not be permitted.

On completion of laying, all joints in the turf should be filled in by brushing in a top dressing of finely sifted topsoil.

The completed turf should be thoroughly watered within 24 hours of laying.

On banks exceeding 30 degree slope

This is not normally acceptable because of safety considerations for mowing. Acceptable usage may be on banks of watercourses.

Turves should be laid diagonally or horizontally and secured with either

- a) pointed softwood pegs 200mm long x 25mm square or
- b) galvanised wire pins, bent or hairpin pattern, 200mm long x 4mm diameter.

All pegs or pins should be removed when the turf is well established.

Turf laying around newly planted trees

Turf should be neatly cut away to a diameter of 800mm around individual trees and left open.

7.7 Seeded Grass Areas

Cultivation

All topsoiled areas to be grassed should be cleared of weeds and rubbish then rotovated to a depth of 100mm incorporating pre-seeding fertilizer as specified at 0.06 kg/m² and raked out or harrowed to produce a fine seed bed tilth approximately 25mm deep. Stones over 50mm in diameter should be removed.

The tilth should be kept fine and free from weeds during any fallow period prior to sowing seed.

All grassed areas should be finely graded during cultivation to remove all minor hollows and ridges, such operations being carried out when the soil is dry and friable. The final finished

surface should have a smooth and even fall or gently rolling curve between the finished level and boundary of the areas. The Developer should ensure that a minimum of 100mm of topsoil is left on all parts after completion of grading.

Unless otherwise stated finished levels of grass seeded areas should be 30mm above adjoining paving or kerb levels, and 150mm below the damp-proof course of adjoining buildings. Levels should be arranged to give gentle falls for drainage and any ponding developing after completion of the cultivation should be made good. There should be an even sward of grass to the whole area.

Seed mixtures

The Developer should supply grass seed mixture British Seed Houses A 19 Mixture or similar approved as indicated in the schedule, spread at the rate of 30g/m². Alternative cultivars may only be used with prior approval of the Adopting Authority.

The seed should be treated with "Morkit" or similar approved and stored in vermin proof dry conditions. The Developer should make every effort to ensure that the seed has not been stored for a period exceeding twelve months from date of harvest.

Pre-seeding fertilizer

The Developer should spread agricultural fertilizer at a rate of 0.06 kg/m² in two equal applications, the second of which should be distributed in a transverse direction to the first application by broadcast distributors at least one week before grass seed is sown.

The fertilizer should be obtained from an approved manufacturer and a certificate of analysis (showing content by percentage) should be retained.

The fertilizer, measured by percentage, should contain:

N	6%
P205 (Water soluble)	8.25%
P205 (Insoluble)	0.75%
K20	6%

Seed sowing

The seed should be sown in two equal sowings in transverse directions by hand in small areas or broadcast machine in large areas, lightly harrowed or raked in. Seed sowing is possible throughout the contract period regardless of season, in favourable weather conditions when the soil is dry and friable.

The Developer should make good all areas of grass which fail to germinate or establish.

8. PLAY AREAS

Aylesbury Vale District Council acknowledges the importance of providing children living within its various communities with safe, interesting and accessible outdoor playing space. Play areas should provide a variety of safe but challenging play opportunities.

It is not intended to bar children of any age from using play areas so sufficient play opportunity should be provided to address a broad range of ages and abilities.

8.1 Provision

The Council has taken the National Playing Fields Association's (N.P.F.A) publication 'The Six Acre Standard' (ISBN 0-9466085-38-2 2001) as the basis for calculating the amount of area required to provide sufficient play space. The extent and location of these areas will be modified to local circumstances. Developers are advised to discuss their designs at a very early stage as it may be appropriate to amalgamate several smaller areas into a single large one so long as the overall area of play space and activity zone is not affected. However, where more than one play area is required by the standards, there should be significantly different equipment in each area to increase the play value provided.

8.2 Standards

Play Equipment & Safety Surfacing Standards

The Council recognises that whilst the following standards are not mandatory and compliance is not required by law, they do represent good practice and accordingly have been adopted by the Council.

BS EN 1176 - sections 1 to 7: Playground Equipment

BS EN 1177:1998: Impact Absorbing Playground Surfacing - Safety Requirements and Test Methods.

BS 7188: Methods of test for Impact Absorbing Playground Surfaces

The Council will require written confirmation of compliance from the supplier or manufacturer of the play item along with copies of test results. (Whilst the manufacturer states the item has been manufactured in accordance with the recommendations of a particular standard, the manufacturer may or may not have had the item tested in accordance with BS EN 1176.) In addition the Council will also require written confirmation from an approved independent safety inspector, such as the N.P.F.A or Royal Society for Prevention of Accidents (RoSPA), that the play equipment and safety surfacing has been installed to BS EN 1176, BS EN 1177 & BS 7188 .

Other Standards

Disability Discrimination Act 1995

This Act makes it unlawful for the Council, in providing play areas for the public, to discriminate against disabled people. The need to make alterations to ensure that it is not impossible or unreasonably difficult for a disabled person to use the facilities is being phased in up to the year 2005. Play area designs should take into consideration the needs of the

disabled, both as users and as carers/guardians who may themselves be disabled although their children are not.

Environmental Protection Act 1996

The Act relates in this context to the control and removal of litter (including dog fouling).

Design Standards

Developers are advised to refer to the NPFA publication 'The Six Acre Standard' and also to the policies for Open Space Provision in the Aylesbury Vale District Local Plan when seeking guidance. However several principles have been outlined below.

Location & Siting

A play area should be:

- an integral part of the system of footpaths to adoptable standard. This includes pathways within the play area itself.
- within easy walking distance, for a child, of housing with no intervening major roads.
- integrated into a development in such a way that the importance of play in community life is acknowledged and informal supervision is allowed for.
- away from situations where it could lead to unreasonable nuisance, e.g. adjacent to old peoples dwellings, or gable end walls of any dwellings.
- away from areas traversed by electrical transmission lines.
- easily accessible for maintenance and for access by maintenance and emergency vehicles.
- apparently enclosed for the children who use it, without hiding it from view or isolating it. Earth mounding, planting, fencing should not restrict site lines into the play area or street lighting and hence discourage informal supervision.
- Landscaped with every effort made to preserve existing natural features such as trees, hedgerows and changes in level and to create new and interesting environments.
- Safe for children to play at entrances to the play area
- Designed to permit all weather access and movement within for children with disabilities and parents with a double child buggy.

Fencing

- All play areas will be fenced in order to enforce the exclusion of dogs or other animals from these areas.
- The fencing should be sufficiently robust to resist indiscriminate vandalism.
- All fencing shall be a minimum height of 1 metre.
- Self-closing gates or dog grids will be used to restrict animal access to the play area. All pedestrian gates need to be designed to permit access by double child buggy. They should also be designed to accommodate children and/or parents/guardians with disabilities e.g. painted contrasting colours to the surrounding fencing.

Access pathways

- A smooth, firm surface that has gradual gradient and that provides all weather access should be provided at access points and leading to and around seating and play equipment/safety surfacing.

Planting

- Tree and shrub planting should be used, where appropriate in conjunction with ground modelling and fencing to give a strong framework to the play, activity and buffer zones.
- All planting must be of a robust nature to withstand heavy use and should be planted in bold groups.
- Planting within the play zone should be avoided unless it is adequately protected to deter indiscriminate access.
- Poisonous or plants with thorns etc **must not** be used.
- Fruit bearing trees or plants, such as rowan should not be planted where they overhang play equipment, seating areas or areas of hard surfacing.
- Trees should be carefully chosen to be appropriate in scale and character with their surroundings.
- In confined spaces, trees that cast deep shade should be avoided.

Play Equipment

Public consultations for play areas have established that users and guardians/carers place the importance of certain pieces of play equipment as very high; **therefore these should be considered an essential part of a play area and will be included in all types of equipped play areas.**

Play equipment that is considered essential is;

- (a) Toddler or cradle seat swings
- (b) Senior or flat seat swings
- (c) Swaying equipment e.g. spring mobiles
- (d) Multi-activity unit(s) which incorporate the following activities
 - i. sliding
 - ii. climbing & clambering
 - iii. balancing
 - iv. imaginary play tools e.g. shops, binoculars
 - v. activity panels such as abacus, noughts & crosses
 - vi. hiding or 'secret' places
- (e) rotating item

Play equipment should be designed to address a broad age range of children with a cross section of abilities.

Associated items

Adequate provision is required of features such as:

- a) adult seating
- b) children's seating
- c) large capacity litter bins of sufficient construction and number (minimum two)
- d) Cycle racks and/or other points to tie up a dog
- e) teenage shelters

9. WINTER SPORTS SITES & PLAYING PITCHES

9.1 General Site Location

When installing sports pitches the entire site on which the pitches are to be positioned should form an integral part of the overall design and layout. Pitches should as far as possible be positioned within the site so as not to encroach against development, highway, hedges, watercourses and other obstacles.

The site location should be such that it does not suffer from excessive water logging or other adverse geological conditions. Site levels, drainage and the surrounding grass areas should compliment individual pitch requirements

9.2 Soil Conditions

Prior to any works commencing all sites should be inspected to ensure that the existing soil structure is adequate and suitable to sustain active sports use. Elements for consideration should include contamination, depth of topsoil and soil structure.

Soil sampling and testing to confirm the make up of the ground structure should be undertaken as an aid to ensuring that the correct soil conditions prevail. On sites where existing soil conditions are not conducive to sustain sports activities the importation of suitable soils and enhancers or the removal of contaminated soils may be required. The type and amount of materials required will be dependant on the findings of the soil tests. Tests should be undertaken by companies specialising in soil and landscape science and a written report, analyses and recommendation for each individual site should be obtained.

Existing soils may be degraded or severely damaged through inappropriate handling and unsuitable site practice. Appropriate site procedures should be adopted to ensure that any on site damage is avoided.

Under normal conditions a minimum depth of 150mm of topsoil would be expected on all sports pitches. All top and sub soils should be compatible and naturally unifying.

9.3 Levels

All pitches should be constructed with a smooth, level surface free from undulations and surface obstacles.

Pitches should be laser levelled where possible and have a fall of no more than 1:70. Any falls in level should be across the field of play and under no circumstances in the direction of any play.

9.4 Pitch Drainage

Design

Piped drainage schemes should be installed in all winter sports sites, unless the soil survey shows that the natural soil is sufficiently free draining. The Developer should carry out a separate drainage design for each winter sports site taking into account the following:

- An individual drainage scheme, including appropriate under-pitch drainage, should be installed to each pitch location which should operate in conjunction with an overall system for the site as a whole.
- Sand slitting/banding should be installed to individual sports pitches to facilitate removal of surface water.
- Water should be removed from the surface of playing areas as quickly and efficiently as possible.
- The site system should have sufficient capacity to dispose of all water that collects into the main surface water drainage system quickly and efficiently

Installation

All drainage systems should be installed by approved contractors using appropriate equipment specifically designed for such operations.

Care should be exercised to ensure that:

- pipe levels are accurate
- the correct back filling materials are used following installation
- and that all necessary re-seeding operations are carried out.
- minimum damage to surface areas is sustained,
- all spoil is removed from site

A follow up service to deal with natural settlement / shrinkage should be included as an integral part of the operation.

9.5 Cultivation

All fly tipping inclusive of spoil should be removed from site prior to cultivation commencing. Stone picking to the area should be undertaken to remove all large stones (over 20mm) from the surface areas. Sites that are covered in vegetation should initially be sprayed with an approved herbicide prior to cultivation works commencing.

Where it is necessary to carry out cut and fill operations, the Developer should ensure that acceptable levels and depths of top soil are maintained across the surface of the site and that unacceptable amounts of sub soil are not incorporated into the surface areas.

During the course of any major soil works it is important that panning does not occur and where there is a possibility of this having occurred action should be taken to break up the panned area by deep tinning or similar operation.

Generally sites should be cultivated by ploughing, deep tinning or similar operation to a depth of at least 200mm. This should be followed by further cultivation and grading to produce a level surface in accordance with paragraph 9.2. Cultivation necessary to form firm, fine seed bed and incorporation of a pre-seeding fertiliser should ensue.

The area should be sown with an approved grass seed mixture suitable for general sports field wear at supplier's recommended rate (seed mixture to be based on Dwarf Perennial Ryegrass cultivars).

The seeded area should be harrowed and rolled, and nurtured as appropriate to establish the grass sward.

Site cultivation will be very dependent on weather conditions, however seeding to areas would be best undertaken either in the spring or autumn periods

9.6 Establishment of Grass Sward

Sports pitches require a longer time to become established than most other forms of open space provision. Developers must think carefully about their development programme to make sure that work to create pitches takes place at the right time of year and that the pitch has become properly established before the provisional certificate can be issued. It would be expected that establishing a pitch suitable to sustain sports use would normally take a minimum of 18 months from establishment of the grass sward, provided the developer follows the following timetable :-

- Prepare March, April and May, sowing in May at the latest;
- Sward established by September so the provisional certificate can be issued;
- Developer maintains as required by this guidance for the next 18 months;
- Final Certificate issued in March – AVDC takes over land;
- AVDC maintains through the summer ready for play in August.

If for any reason the developer is unable to adhere to the above timescale an extra year of maintenance will be required. This is important to ensure that pitches are available for the start of the season. With pitches in particular close dialogue with the Council's Adoption Officer is strongly encouraged to ensure that timetables are managed and the process kept as short as possible.

Sports pitches should be constructed and maintained in conditions suitable to sustain active sports use, however they should not be marked out for play until shortly before transfer. This practice should help to ensure that the wear factor which may be brought about by unscheduled use does not pose a significant problem.

Prior to transfer all sports pitches should be marked out and post sockets installed. The developer should ensure that posts fit the sockets prior to handing them over to the Council along with all other associated materials such as nets and flags. It is important that the posts are not installed until the start of the season to discourage casual play which will ruin goalmouths.

Sizes of Pitches

The following sizes of playing surfaces should be allowed for:

- Senior football pitches – 100m x 55m
- Junior football pitches – 90m x 50m
- Hockey pitches – 91.4m x 55m
- Rugby Union pitches – 140m x 69m

In addition to the above a 3.0m wide strip around the perimeter of pitches should be included in the pitch construction specification to cater for spectator and associated use.

Goal sizes

As a general guide the following goal sizes would apply. However, the current standards need to be confirmed with the appropriate governing body at the time of installation.

- Senior Football
 - Junior Football
 - Hockey
 - Rugby
- Anti vandal steel football posts and cross bar 7.3m x 2.44m. 76mm square x 3.2mm gauge thickness. Epoxy powder coated white
 - Anti vandal steel football posts and cross bar 6.4m x 2.14m. 76mm square x 3.2mm gauge thickness. Epoxy powder coated white.
 - Free-standing posts complete with 450mm backboards
 - 10m high posts complete with post protectors.

10. ADOPTION PROCEDURE

It is the Developer's responsibility to ensure that the Open Space is properly prepared and completed in accordance with the timings given in the Legal Agreement. It is also the Developer's responsibility to make an application for the provisional certificate with all the required information.

Whilst hard-works may be considered "prepared" immediately after construction, planting will require some time to become sufficiently established. This particularly applies to grass areas which must have the sward well developed and have been treated to a first cut. In the case of playing areas such as football pitches there are particular requirements, and areas including pitches must be planned so they are prepared and sowed satisfactorily at particular times in the year, if a long delay in adoption is to be avoided (see also paragraph 9.6, Establishment of Grass Sward.)

10.1 Provisional Certificate

When the Developer believes that the open space has been satisfactorily laid out in accordance with the plans approved by the Planning Authority he shall make an application for the Provisional Certificate. Should the works be unacceptable to the Adopting Authority, the Developer will be required to rectify any deficiencies and carry out maintenance operations at his own expense until remedial work has been completed to the Adopting Authority's satisfaction. In deciding whether the open space has been acceptably laid out the Authority will have regard to the guidance in this document.

10.2 Information to be provided with the application for the Provisional Certificate

The application for a Provisional Certificate must be accompanied by all the information necessary to allow the administration of the adoption process to progress (see below). Even if the open space has been satisfactorily laid out, the application will not be progressed until all the required documentation has been received and is considered satisfactory. Developers are urged to liaise with the Adoption Officer to discuss and agree detailed arrangements in advance of their making the formal application so as not to delay matters.

The Transfer

The Planning Obligation document (legal agreement) will set out the form this document must take. It must be transfer the freehold of the Open Space land to the Council at nil cost. It must be signed and delivered and will be held by the Council to its order, ordinarily pending the satisfactory completion of the relevant maintenance period, but exceptionally the Council may complete the transfer at some other time.

Transfer Plans

A plan complying with the Land Registry Plan requirements (see Land Registry Practice advice note No.40). The plan must:

- be accurate, as-built and complete with a north point. The scale is to be sufficient to ensure that the land to be transferred is clearly identifiable. 1:1250 or 1:2500 is usually satisfactory.
- show the land to be transferred by adoption edged red with a narrow but continuous red line at and contiguous with the boundaries of the site(s).

- show by blue edging a particular agreed route of access to the land to be transferred if such does not form part of a road that is to be adopted as a highway maintainable at public expense.
- show sufficient detail & extent to enable the site to be placed in the pre-existing surroundings (ie have “old” road names, housing etc.)
- show new street names to further clarify the location.
- identify details of boundaries (ie wall, hedge, etc) where these cannot be excluded from the land to be transferred by adoption.

If following the inspection any changes arise that alter in any way the details supplied on the above plan, then a new plan, suitably amended, must be supplied. Eight further copies must be provided. These plans will be used as part of the Land Transfer process.

As-built (record) Drawings

The developer must provide a record drawing for the Open Space and as-built drawings of any building, car park, drainage, etc. These should show the as-built locations & depths of all pipes, cables, drains and other services crossing above or below the site (including all manhole covers, service boxes and underground plant); the location, ownership and maintenance responsibility for all boundary features; and any rights of way, wayleaves or other constraints upon the property. These are to be provided both in paper form (2 copies) and in an agreed electronic form.

Manufacturers Details and Maintenance Information

The application for the Provisional Certificate must be accompanied by a maintenance manual containing manufacturer’s details and maintenance information for all equipment installed or provided in any building or on the land. This includes all plant and machinery that has been provided. These should meet the requirements of the Construction, Design & Management (CDM) Safety File. The drawings are to be provided both in paper form (2 copies) and in an agreed electronic form

Play Equipment

Where play equipment is involved the application for the Provisional Certificate must be accompanied by written confirmation of compliance from the supplier or manufacturer of the play item along with copies of test results in relation to the standards set out in section 8.2.1 above (Whilst the manufacturer states the item has been manufactured in accordance with the recommendations of a particular standard, the manufacturer may or may not have had the item tested in accordance with BS EN 1176.). In addition the Council will also require written confirmation from an approved independent safety inspector, such as the N.P.F.A or Royal Society for Prevention of Accidents (RoSPA), that the play equipment and safety surfacing has been installed to BS EN 1176, BS EN 1177 & BS 7188 .

Evidence of necessary approvals

The application for the provisional certificate must be accompanied by copies of any approvals from bodies other than Aylesbury Vale District Council required for any of the works undertaken. These will include approval from the Environment Agency for any works to or piping of any ditches or watercourses.

10.3 Maintenance Period

When the area is satisfactorily completed and all the relevant documentation satisfactorily provided, the Provisional Certificate will be issued. This signals the start of the maintenance period required by the Legal Agreement and detailed in the Open Space Scheme. From this time forward the open space must be available for public use and enjoyment although not for formal matches on pitch areas. This maintenance period will normally be for two years although the Council may exceptionally agree a shorter period or require a longer period if circumstances require. Particular arrangements apply to sports pitches where the end of the maintenance period will only be acceptable at a certain time of year (see section 9.6).

10.4 Final Certificate

At the end of the maintenance period the Authority will inspect the land. If the maintenance has been satisfactorily carried out, and the planting and grass sward has become adequately established to the stage where it is considered acceptable for the land to be transferred to the Council the final certificate will be issued. The issue of the final certificate will (subject to the payment of the commuted maintenance sum and the relevant costs as set out in the planning obligation) trigger the Council completing the transfer and taking on the land. The developer remains responsible for the maintenance of the area until notified that the transfer has been completed.

Should the works be unacceptable to the Adopting Authority, the Developer will be required to rectify any deficiencies and continue maintenance operations at his own expense until remedial work has been completed to the Adopting Authority's satisfaction. In deciding whether the works are acceptable the Authority will have regard to the guidance in this document.

10.5 Commuted Payment towards future maintenance costs.

If it is adopting open space the Council will require the developer to make a contribution towards the future maintenance costs of the land which the Council will have to bear. This contribution will be secured through the legal agreement. The amount of the payment the Council will require will be calculated in two parts. The first part will be specified at the point the legal agreement is prepared. This will be based on the Council's current "standard" rate per hectare. This rate is based on an average of maintenance contracts let by the Council. The second part will be an additional payment to deal with the specialist areas of maintenance that will reflect the particular features and details of the specific scheme. This part will be calculated according to a given "schedule of rates" for these specialist elements. As these details are only likely to be known after the Open Space Scheme has been agreed, it cannot be accurately ascertained when the legal agreement is prepared. Any additional requirement arising from this second part will be established at the stage the application is made for the provisional certificate.

The basic commuted payment rate and the schedule of rates are reviewed and amended following any re-negotiation of contracts and in line with inflation. The current rates are set out in Appendix A to this Guide. Developers should check they are aware of the current figures which are likely to be updated more frequently than the main text of this Guide.

11. MAINTENANCE

11.1 Litter Removal

Litter removal should be as follows:

- The whole site should be maintained in a cleansed state.
- Regular litter picking should be undertaken to all areas.
- At the time of litter removal, any fly tipping should also be removed.
- Items to be removed should include litter; glass debris; food waste; animal fouling and carcasses and any broken, dead or dying plant material.

11.2 Hard Landscape Areas

In addition to litter removal, the Developer should remove soil and mulch from all hard surfaced areas and the following maintenance operations should take place at half-yearly intervals:

Porous Block Paving

- Sweeping and washing to manufacturer's recommendations.

Gravel/Stone Paths

- Maintaining to an even surface by means of raking.
- Maintaining weed free by mechanical removal or application of a herbicide.

Walls and Fences

- Where walls and fences abut grass areas, a strip of 30cm should be treated with a total herbicide to facilitate mowing operations.

11.3 Soft landscape Areas

General maintenance

In addition to litter removal, general maintenance should include the following:

- Regular watering.
- Monthly weeding and control of any insects, fungus and other diseases by means of spraying with an approved insecticide or fungicide.
- Pruning.
- Adjustment and repair of tree stakes, ties and rabbit guards.
- Repairs of minor washouts.
- Other horticultural operations necessary for the proper growth of the plants and for keeping the planted areas neat and tidy in appearance.

Weed control

The Developer should suppress weed growth to planted and grassed areas either by mechanical or chemical means.

The Developer should not carry out spraying operations during unsuitable conditions which may cause spray to drift onto the adjoining land.

Spraying or spreading equipment should be of an approved design and suitable to the type of terrain. Knapsack sprayers and other forms of portable equipment should be used on banks

and areas with difficult access. All spray equipment should be fitted with a guard to prevent spray reaching the trees. Any trees damaged by chemicals should be replaced.

Protective fencing

The Developer should protect new planting areas as indicated in Section 7.2.2 of this document, and shall be responsible for maintaining the fencing in good condition while required. This fencing should be removed prior to Adoption. Any damage to surfaces should be made good and post holes filled with topsoil.

Replacement of plant material

The Developer should make good all losses of trees shrubs and other material from whatever cause.

Trees, shrubs or other plants which die or are not in a thriving condition due to the effects of weather, including late frost, lack of water or any other cause, should be replaced by the Developer at the first available opportunity when planting conditions are favourable.

Replacement stock should be of an equal standard to that previously supplied showing vigorous growth and free from disease.

Losses will be judged on whether the plants are actively growing during late summer when a joint plant check will be made by the Adopting Authority and the Developer. The Developer will need to carry out replacement planting within two months of a plant replacement list being provided by the Adopting Authority, unless otherwise instructed.

Trees

Replacement of stakes and ties etc.

Tree stakes rabbit guards or ties that become broken or damaged prior to adoption should be replaced. Ties should be adjusted as necessary to prevent chafing or rubbing of bark against the stake.

Removal of epicormic growth and dead twigs

Any dead twigs or epicormic growth occurring on the clear stem of trees should be removed, if required by the Adopting Authority, and disposed of by the Developer.

Pruning

The Developer should prune trees at appropriate times to remove dead, dying and diseased wood and to promote healthy growth and in accordance with BS 3998 Tree Works.

Removal of stakes

If required by the Adopting Authority, the Developer should remove tree ties and stakes immediately prior to adoption.

Weed and grass clearance

The Developer should maintain an area of not less than 300mm in diameter around each shrub, tree or climber free from grass and weed growth.

Shrubs

Shrub Beds should be maintained in order to produce healthy, vigorous plants and maximise flowering, fruiting or foliage potential or ground covering ability as appropriate.

Regular Maintenance

Regular maintenance should include the following:

- Litter removal.
- Weed control, either mechanical or by use of a selective herbicide
- Trimming to grass edges if applicable

Winter Maintenance

Winter maintenance should include the following:

- Removal of deep rooted weeds
- Application of selective herbicide
- Topping up mulch is to a depth of 50mm
- Ensuring beds are edged back

Pruning

Where shrubs abut footpaths or roads, growth should not cause a hazard or obstruction to pedestrians or vehicles.

All growth protruding more than 150mm beyond the edge of footpath or road should be pruned off.

Pruning Schedule

The time of pruning and the type of operation for each species should be as per the tables below. Requirements for each type of operation are as follows:

TYPE OF OPERATION	REQUIREMENTS
A	a) No pruning required other than deadheading, light shaping and removal of dead or diseased wood. b) Shaping shall be carried out in late spring. c) Remaining pruning carried out when required.
B	a) Remove all wood which has borne flowers, retaining the young wood to ripen and produce flowers the following year. b) Pruning to be carried out immediately after flowering.
C	a) Remove completely one or two old stems: cut back younger flowering shoots to fresh growth of the main branches. b) Thin out crowded shoots and remove weak twigs. Pruning to be carried out between week 32 and week 52.

SHRUB GENERAL AND PRUNING INSTRUCTION

SHRUB GENERA	PRUNING OPERATION TYPE	SHRUB GENERA	PRUNING OPERATION TYPE
Amelanchier	B	Lavandula	D
Arbutus	A	Ligustrum	A
Artemisia	D	Lonicera	A
Aucuba	A	Mahonia	A
Berberis	A	Olearia	A
Buddleia	D	Osmanthus	A
Ceanothus	A	Pachysandra	A
Choisya	A	Pernettya	A
Cistus	A	Perovskia	C
Cornus	D	Pittosporum	A
Cotinus	A	Potentilla	A
Cotoneaster	A	Prunus	A
Cytisus	A	Pyracantha	A
Deutzia	C	Rhododendron	A
Eleagnus	A	Rhus	A
Erica	A	Ribes (except Ribes Sanguineum B)	D
Escallonia	A	Rosa (shrub roses)	C
Euonymus	A	Rosmarinus	B
Fatsia	A	Rubus	D
Forsythia	B	Ruta	D
Fuchsia	D	Salix	D
Genista	A	Salvia	D
Griselinia	A	Sambucus	D
Hammamelis	A	Santolina	D
Hebe	A	Sarcococca	A
Hippophae	A	Senecio	A
Hydrangea	A	Skimmia	A
Hypericum	A	Spiraea	B
Ilex	A	Symphoricarpus	A
Kalmia	A	Syringa	A
Kerria	B	Viburnum	A
Kolkwitzia	C	Vinca	A

Hedging

Hedge Cutting

- Hedge cutting is required to ensure hedges are maintained in a healthy, tidy, animal-proof condition, with a neat appearance and uniform cross-section.
- Previous growth limits of hedges should be maintained unless requirements dictate otherwise.
- Hedges should be pruned towards the “A” profile.
- Pruning should be carried out in accordance with the following table

TIMES AND FREQUENCY OF PRUNING

HEDGE MATERIAL	PRUNING FREQUENCY	TIMING (Week nos. calculated from the first week in April)
Buxus sempervirens	3 per year	Once each between Weeks 6-9, 14-18, 23-26
Berberis spp	1 per year	After flowering
Carpinus betulus	1 per year	Between weeks 19-26
Cotoneaster spp	1 per year	Between weeks 1 – 4
Crataegus monogyna	1 per year or 2 per year	Between weeks 33-44 or Once each between Weeks 33-44 and 17-20
Cupressocyparis Leylandii	1 per year	Between weeks 1-4
Fagus sylvatica	1 per year	Between weeks 19-26
Ilex aquifolium	1 per year	Between 19-26
Laurus nobilis	1 per year	Between weeks 1 –4
Lonicera nitida	1 per year	Between weeks 19-26
Ligustrum ovalifolium	3 per year	Once each between Weeks 6-9, 14-18, 23-26
Prunus spinosa	1 per year	Between weeks 33-44
Prunus laurocerasus	1 per year	Between weeks 33-44
Taxus baccata	1 per year	Between weeks 14-26

Grass Areas

Types of Grass Areas

General Areas

- General grass areas should be maintained by mowing approximately 13 times per annum.
- The type of mowing machinery used should be either cylinder or rotary bladed machine.
- The height of cut of the grass sward should be 25-30mm.
- Arisings should be evenly distributed over the mown area.

Low Maintenance Areas

- Low maintenance grass areas should be maintained by mowing approximately 6 times per annum.
- The type of mowing machinery used should be rotary or flail type mowers.
- The height of cut of the grass sward should be 50mm.
- Arisings should be evenly distributed over the mown area.

Ecological Conservation Areas

- Conservation areas should be maintained by mowing once or twice per annum.
- The type of machinery used should be cutter bar or disc mower.
- The height of cut of the grass sward should be 60mm and all arisings should be removed.

Winter Sports Sites and Playing Pitches

- See paragraph 11.3.7 below

Rolling

When the grass has grown 50mm high the areas should be lightly rolled in two directions with a roller not exceeding 0.25 tonne. All bare patches should be reseeded.

Grass cutting

General

Grass cutting should be carried out with tools or machines properly sharpened and set. When mowing without a box, clippings should be spread out evenly to prevent damage to the grass beneath. Where the density of clippings will damage grass they should be raked up and removed from the site.

Obstacles

Mowing should be carried out around all obstacles, i.e. litter bins, street furniture, trees, etc. Extreme care should be exercised when mowing around tree bases, ensuring that no damage is caused to the bark of the base of any tree.

First cut

Prior to cutting, all stones exceeding 50mm diameter in any dimension should be removed from the surface. When the grass is approximately 100mm high it should be topped without tearing with a rotary mower to leave 25-50mm growth.

Second cut

When the grass again reaches 100mm high the second cut should be carried out with a rotary mower reducing the grass without tearing to 25mm high and all grass clippings should be spread out evenly to prevent damage to grass beneath.

Intermediate cuts

During the maintenance period the grass should not exceed 75mm high. The margins of seeded areas should be trimmed with edging shears at the time of every second mowing.

Final cut

Immediately prior to inspection for the Final Certificate and again immediately prior to final adoption all grass should receive a final cut reducing it to 25mm high. Weeds and rubbish should be removed from site.

Fertilizer on grass areas

The Developer should supply and spread agricultural fertilizer during showery weather at the rate of 0.35kg/m² in two equal applications in transverse directions to be applied in late September on grass sown before the end of July and in late April on grass sown after July.

The fertilizer should be obtained from an approved manufacturer and a certificate of analysis retained.

The analysis should show the content of the fertilizer which should contain the following by percentage:

N	5%
P205 (Water soluble)	9.8%
P205 (Insoluble)	0.5%
K20	10%

Making good of grassed areas

Any grass areas which are damaged during the course of the works or during maintenance operations should be made good in accordance with the specification ensuring development of an even green sward.

Winter Sports Sites & Sports Pitches**All areas**

- Following germination and establishment of a grass sward an initial rotary cut of the seeded area should be undertaken with a cut height of 50mm.
- Two further rotary cuts should then follow at approx. 3-week intervals reducing the height of the sward to 30mm.
- Regular cylinder mowing should then follow at approx. 15-day intervals maintaining a cut height of 30mm.

- Following the initial rotary cut the area should be rolled as soon as weather conditions permit.
- The regular mowing should prevent the build up of weed growth, however should weed growth become pronounced a selective herbicide should be applied.

Sports pitches

In addition to the general maintenance works listed above for all areas, the following operations should be undertaken to sports pitch areas.

- Spiking on a regular basis with 100mm – 150mm tines to relieve compaction and facilitate surface water movement.
- Harrowing and rolling when weather conditions allow to produce a level and healthy sward.
- The application of fertiliser (two operations spring / summer and autumn / winter) to promote and maintain sustained grass growth.
- Vertidrainage and sand dressing to be undertaken annually in the autumn period. An application of approx. 60 tonnes of a medium – course sand should be applied per pitch.

11.4 Watercourses

Prior to adoption, the Developer shall retain all riparian responsibilities. These are explained in a booklet published by the Environment Agency entitled ‘Living on the Edge’, available free of charge. The main responsibility is for the maintenance of bed and banks of the watercourse, including trees and shrubs growing on the banks, and for clearing debris, natural or otherwise irrespective of its origin.

Ponds and watercourses should be maintained free of surface litter and debris on a regular basis. Submerged debris including silt etc. should be removed annually. The developer shall inspect trash screens on a frequent and regular basis, and arrange for the removal of any debris. Where a blocked screen would present a risk of flooding to property, the developer shall inspect and clear the screen at times of heavy rain.

On adoption, the Adopting Authority will take on the riparian responsibilities.

11.5 Play Areas

Cleaning & Safety Inspections

Play areas are to be cleansed at least once a week generally and, in high usage areas, twice a week.

Cleansing should include the removal of any graffiti from all fixed items and surfaces within the play, activity and buffer zones and the emptying of any litter bins and the removal of any and all types of litter.

Regular safety inspections should be undertaken by suitable experience personnel conversant with BS EN 1176 - Part 7 and as per the manufacturer’s guidance. The minimum regime should be a weekly visual inspection for signs of vandalism or defects.

Each inspection should be recorded and any defects and remedial action noted. These records should be forwarded on a monthly basis to the Council.

Where specialist remedial actions are required written confirmation should be provided to the Council that it has been undertaken e.g. copies of invoices from manufacturer/supplier

Appendix A – Current Commuted Maintenance Payment Requirements

This section sets out the sums that the Council will require a developer to pay to contribute towards the Council's future maintenance liabilities. The normally applied process of a basic sum and an additional sum to cover "special" elements is explained in section 10.5. This appendix will be updated to take account of the negotiated costs of contracts and inflation. The revision to the amounts specified will be a formally taken decision and further information on this process can be provided by the Adoption Officer on request.

The figures in this document were agreed on 21st March 2003.

The Basic Commuted Sum

The basic commuted sum is £34,000 per hectare.

The Schedule of Rates for the Additional Commuted Sum

See following page

SCHEDULE OF RATES for the ADDITIONAL COMMUTED SUM			
Hardworks	Material	Comments/Assumptions/Frequency of Maintenance	Commuted Sum Req'd £
Footpath	Blacktop with Timber edging	Overlay every 7 years Haunching every 10 years Reconstruct every 20 years	40.00/m ²
	Concrete	Reconstruct every 40 years with intermediate blacktop overlay after 15 and 30 years	16.20/m ²
	Block paved	Relay every 10 years	23.80/m ²
	Concrete flags	Relay every 20 years alternative with reconstruct every 20 years	11.70/m ²
	Permeable block paving	Suction brush twice a year Relay every 25 years	5.00/m ²
	Grasscrete or similar	Relay every 20 years	11.20/m ²
	Hoggin, gravel, stone	Rake and overlay every 5 years	12.00/m ²
Footbridges	Timber	Routine repair on on-going basis Replacement every 30 years	5,000/bridge
Watercourses		De-silt every 3 years, cut back vegetation each year with machine access. Remove fly-tipped rubbish as required	35.00/m 1,000/POS
Headwalls	Brickwork	Repair as required Major repairs	9.00/m ²
Culverts	Concrete pipe	De-silt every 2 years	20.00/m
Walls	Brickwork	Repair as required Major repairs/replace every 30 years	9.00/m ²
	Concrete	Repair as required Major repairs/replace every 30 years	5.00/m ²
	Stone	Repair as required Major repairs/replace every 30 years	30.00/m ²
	Architectural features	Repair as required Major repairs/replace every 30 years	10.00 each
Railings	Painted, galvanised iron/steel	Repaint every 5 years	2.00/m
	Knee rail	Repair/replace every 10 years	45.00/m
Fencing	Close boarded	Repair annually Replace every 15 years	3.00/m
Cladding	Brickwork	Repair as required Replace every 30 years	5.00/m ²
	Stone	Repair as required Replace every 40 years	12.00/m ²
Earth Bund		Repair wear and tear every 10 years	5.00/m
Sports pitches	Football pitch standard pitch		33,200 each
	Cricket square approx size 33m x 23m		35,800 each
	Bowling green, full size (grass) 6 rink		64,000 each
Play Areas	General maintenance & inspection plus limited replacement		15,000 each

Rates taken from Cabinet Member Decision Notice dated 21st March 2003 (subject to correction of typing errors.) These rates are based on March 2002 figures.

Appendix B – schedule of revisions to this Guide

Issue	Date	Summary of revision
1	January 2004	Original Published version