

Bristol City Council

The Bristol Green Space

**Design**

**Guide**

**Guidance**

**Notes**

Draft: 6 June 2007 sh

## **Preliminary Index to Notes**

(Alphabetical, pending numbering)

General Topics:

- **Access and Circulation**
- **Natural Greenspace**
- **Children's & Young People's Space: Natural Play Areas**
- **Security**

Key Elements:

- **Hard Landscape: Boundaries, External and Internal**
- **Hard Landscape: Entrances**
- **Hard Landscape: Paved Routes and Surfaces**
- **Soft Landscape: Trees**
- **Signage, Information and Waymarking**
- **Site Furniture**
- **Survey Data**
- **Topography**

**See also: Hard Landscape: Paved Routes and Surfaces**

## 1. Standard

- Generally, access and circulation is the subject of guidance from the City Council's *Environmental Access Standards*, key aspects of which are included below.
- Greenspace access and circulation shall be designed inclusively, for use by everyone regardless of age, gender or disability. In achieving this, proposals must accommodate differences in the way people use greenspace in a way that enables '*participation in mainstream activities equally, independently, with choice and with dignity*'. (2).

## 2. Overall circulation and network design

- Network design must be founded upon an overview of access to and circulation within the whole green space if proposals are to be fully effective.
- Access points must be selected to enable greenspace users to enter the site effectively, particularly when approaching from other linked greenspace sites, or from key public realm locations within the community.
- The network of routes must serve a site's key facilities and provide reasonable direct routes between main entrances, whilst providing options for relaxed informal circulation. Paths may be straight where appropriate within a formal designed layout with axial routes; they may be curved or more relaxed in alignment where use and character suggest.

*Right:*

*Barnard Park, Henbury.  
The relaxed alignment of a path through an informal landscape.*



- Historic Greenspace: Paved routes and surfaces should normally be restored according to their original layout and design. However, care must be taken to review the network, ensuring that the path system continues to serve current access needs. For *English Heritage* listed sites, draft proposals will need to be discussed with *English Heritage*.

## 3. Change in Level

- 〈 For optimum accessibility, the aim must be to design paths that are as flat as possible. However, much of Bristol is notably hilly, and a number of sites are inherently steep, with little scope for easing gradients. Where ramps or steps are inevitable, information

should be provided at entrance points to advise of locations where access is constrained. **See also: Signage and Interpretation**

#### **4. Greenways**

〈 The planning and design of a greenway (a strategic route for non-motorised forms of transport, including walking, cycling and horse-riding) section that passes through greenspace, shall avoid any conflict between users. In achieving this, care must be taken to ensure that greenway design and detailing is sensitive does not impact upon the informal character of an open space. Particular attention will need to be given to entrances and junctions. Measures must also take operational uses fully into account and the safety and security of all greenspace users. In recognising that routes are shared, walking is regarded as having priority over other modes, and any site information should make this clear.

#### **4. Vehicular Access and Car Parking**

- Where areas of paved surfacing are to be used regularly or occasionally by vehicles, including contractors' vehicles, their construction and design must be suitable for the weight of the heaviest vehicle (e.g. contractor's lorry, play bus) likely to be in use.
- The provision of car parking within a greenspace tends only to apply to key sites, and is less likely to be a factor in local provision.
- On sites frequently associated with events, the provision of overflow parking may be required. As this would normally involve vehicles moving onto a grass surface, consideration should be given to the incorporation of grass reinforcement systems, particularly at the point of entry where wear will be most concentrated.

#### **5. Further Reference**

1. *Environmental Access Standards - Bristol City Council - March 2006.*
2. *Guide to Inclusive Environments - DPTAC - 17 June 2003, updated 12 Jan 04.*
3. *Building Regulations.*

<p><i>Bristol Greenspace Design Guide</i> <b>Guidance Note</b></p>	<b>Natural Greenspace</b>	Sheet No <b>TBA</b>
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## 1. Liaison

- Initial and ongoing liaison to be held with *Nature Conservation Officer, Natural Environment, Bristol Parks, Culture & Leisure, Bristol City Council.*

## 2. Policy and Legislation

- Establish what current policy designations apply to the site.

## 3. Ecological Survey

- Priority to be given to establishing:
  - what, if any, survey data exists,
  - how recently surveys have been carried out, and at what time of the year,
  - what, if any, recommendations were made, and whether they have been acted upon, and
  - whether existing survey data is adequate, and whether further survey(s) require commissioning.

## 4. Ecological Analysis

- Assess from survey data, in relation to the brief for the greenspace, whether the emphasis should be on habitat protection with sensitive management, or improvement through ecologically sensitive design for habitat creation.
- Identify any potential conflicts between nature conservation objectives and planned human use.

## 5. Wildlife and Wildlife Habitats

- General care will need to be taken to protect all wildlife species and their habitats.
- Specific consideration must be given to protected species, with local advice from the source (given under liaison above). Notable are Badgers (under the *Protection of Badgers Act, 1992*, and species identified under *Habitat Regulations, 1994, Conservation (Natural Habitats, & c), Regulations, 1994*, and *Wildlife & Countryside Act, 1981*.

## 6. Habitat Protection

- Proposals should protect existing habitats, from any impact, during the course of any works to the overall greenspace site, with provision for their sensitive management during the contract period.
- Valuable existing landscape features, including native hedgerows, woodland, trees, tree groups, watercourses, ditches, ponds, etc, should, where possible be retained and integrated within any new proposals.

## 7. Habitat Creation and Mitigation

- Habitat creation measures should be guided by ecological assessment, with a view to appropriate integration.

## 8. Vegetation

- The principal emphasis should be on the retention and incorporation of existing vegetation within proposals, especially where they are native.

- Existing trees may be the subject of protection under *Town and Country Planning Act, 1990*, where they are either covered by Tree Preservation Order (TPO) or occupy a site within a Conservation Area.
- Existing hedgerows may well be the subject of protection under the *Hedgerow Regulations, 1997*.
- Proposals should incorporate native species suitable for the ecology of the site and its context, where possible, of local provenance.
- Where non natives are under consideration, those which are attractive to wildlife, through their fruits, flowers, etc should be favoured.

## **9. Habitat Linkage**

- Proposals should maximise habitat linkage both within greenspace sites, and, where possible, between them. This may be particularly appropriate, in conjunction with the accommodation of pedestrian and cycle routes within green corridors.

## **10. Sustainable Urban Drainage Systems (SUDS)**

- Where new built development is associated with greenspace, consideration should be given to the potential designed integration of SUDs techniques in a way that can bring ecologically appropriate habitat diversity.

## **11. Raising Awareness**

- Where appropriate, interpretation boards shall be sensitively located and designed and detailed to be in harmony with the character of the greenspace.

## **12. Further Reference**

- *Biodiversity by Design - Town and Country Planning Association - Sept 2004.*

## General Guidance

- Provision for natural play areas is not covered by BSEN1176 and should be the subject of risk assessment by those concerned with management of the overall site.

## Overall Play Environment

- Setting within an attractive landscape.
- Topography: The existing landform of the site already be inherently attractive for play. Where this is not the case, its modification may be appropriate through sensitive ground modelling, in a way that is integrated within the overall site landform.
- Existing mature vegetation (trees and shrubs) or opportunities for establishing robust new planting.
- Provision of both open and shaded areas.
- Provision of shelter from the wind.

## Locational and Spatial considerations

- Play areas to 'sit well' within the overall landscape, and utilise landform sensitively.
- Site to be inherently suited to natural surveillance.
- Site should be the minimum distance of 30 metres from the boundary wall of the nearest dwelling.
- Play areas should be 400 - 600m<sup>2</sup> in area.

## Access

- Access guidance is generally provided by the City Council's *Environmental Access Standards 'EAS'*.
- Accessibility to all including disabled children and disabled parents and carers.
- Entrances and paths within play areas should be at least 1.6m wide.

## Seasonal Awareness

- Native planting.
- Planting with range of flowering and fruiting time throughout the year. Attractiveness as habitat or to birds for feeding, butterflies as pollinators, insects, etc.

## Engaging the Senses

- **Sight:** Use of colours and textures that can be visually appreciated.
- **Smell:** Flowers and foliage of trees, shrubs and herbs. Grass when mown.
- **Sound:** Foliage that rustles in the breeze. Birdsong arising from attracting birds (habitat, nesting boxes, bird houses, bird feeders, etc)
- **Taste:** Incorporation of plants, including herbs, with edible fruit, flowers and foliage.
- **Touch:** Tactile surfaces to paths and walls.

## Stimulating Physical Activity

- Circulation, change of level, and landform for play and fitness through exercise, including: **running, jumping, rolling** and **tumbling**.
- Opportunities for **balancing**, including: integration of felled tree trunk.
- Opportunities for **climbing**, either arising naturally (e.g. rock faces and rock slopes, at *Observatory Hill, Clifton Downs*), or introduced (e.g. ladders, climbing walls).

### Enabling Creativity

- Incorporation of loose natural or artificial materials, incl sand, clay, water for **digging, mixing**, and **manipulation of materials**.

### Circulation, Exploration and Self expression.

- Narrow winding trails, with some concealment, linking spaces and features some of which may be 'secret' and can be 'discovered'.
- Opportunities for **chasing** and **hiding**, and **den making** (e.g. willow structures and enclosures)
- Path surfacing may incorporate: standard hard materials, such as bricks, concrete blocks, or slabs; flexible or loose materials such as asphalt, wood chips, and (subject to context) gravel and pebbles; stepping be imprinted, or setting in of other textured materials from the natural environment.
- Opportunities for **self expression**, incl. stage for role play and performance, and conversely, **quiet places**.



*Left: Willow Sculpture at Bush Children's Home demonstrates how willow structures may contribute to explorative play.*

### Awareness of space, scale, height and form

- Variation in size, proportions and nature of spaces, and in the elements contained within them.

### Natural materials

- Trees and other vegetation.

- Felled trees and logs. Where trees have been felled, their trunks may be integrated in a way that adds a degree of physical challenge. Their gradual decay and attractiveness to invertebrates will also introduce children to natural processes.
- Logs, and other forms of timber.
- Sand (play quality) enables a range of opportunities for creative play, and the scope it provides for play will increase in proportion to the size of area that can be provided, and in relation to the number of complementary elements (e.g. rocks) that can be appropriately incorporated.
- Soil (and mud).
- Large Rocks. Where rocks are to be introduced, they shall be large enough in scale, and of a form that can be integrated in a way that simulates how they might have appeared naturally. Their bedding into the ground shall respond to topographical form, their angle of inclination pitched to reflect realistic geological coursing.
- Pebbles and gravel, and
- Water can extend children's creative and sensual play. Ponds and rills may provide slow moving (as opposed to stagnant) water, whereas faster flows can be provided by natural or artificial streams. Children typically enjoy jumping in puddles. An artificial stream may be integrated within suitable landform, flowing from 'source' down to a pond at a lower level, from which water may be pumped back to the top. The bed, or sides of the channel may, change in texture through the incorporation of rocks that, in conjunction with the flow rate, produces effects ranging from a trickle to turbulence and rapids. The course of the 'stream' may twist and turn; it may also fall over rocky protrusions into swirling basins below.

## Landform

- Using ground modelling, it may be possible, where appropriate, to modify an existing landform, or accentuate elements within it, to introduce elements, such as hollows, or knolls, valleys and ridges the form of which may be conducive to physical activity. The best landform design may be quite subtle and simply accentuate profiles that already exist, but should, ideally result in a shape that has its own integrity and feels as though it has always been there.

## Site Furniture

- Seats, suitable for children and adults, should be located and arranged in way that encourages **social interaction** whilst enabling **natural surveillance** by parents and carers.
- Seating that enables disabled carers to sit with non-disabled companions should be selected. Generally, seats should vary in sitting heights, be fitted with and without armrests in a way that enables choice. Generally seats, and other furniture should be 'suited' to harmonise that of similar items used in the wider greenspace.
- Tables for play use may be incorporated where suitable for art, or 'making 'mud pies'.
- Litter bins should be provided.
- Signage should be provided as part of an overall 'suited' provision for the whole greenspace site.

## Security

- Hazards identified that are associated with design and management to be risk assessed.
- Approaches to play area, and the facility location itself, must have a safe 'feel'.
- Play area access points to be as visible and prominent as possible, both from locations offering natural surveillance within the site and externally.
- Good visibility within, and into and out of play areas must be provided.

- Enclosure (walls, fences or plants) should not exceed 1.5 metres in height, with a reasonable level of maintenance.
- Natural play areas to be enclosed and gated to be dog-free.

### **Safety in use**

- Opportunities **for natural surveillance** including through carefully located sitting/picnic areas suitable in enabling discreet overview by parents and carers.
- Avoidance of incorporation of plants that are significantly toxic, cause irritation, or, result in injury (e.g. through their thorns).
- Safety from unprotected falls, in areas of significant change in level.

### **Enclosure**

- Areas to be enclosed and gated to:
  - exclude dogs, and provide some control against small children wandering off unaccompanied.

<p>Bristol Greenspace Design Guide <b>Guidance Note</b></p>	<p><b>Security</b></p>	<p>Sheet No <b>TBA</b></p>
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## 1. Community Interaction

- Earliest engagement of the local community in planning and design process, to engender sense of shared ownership and responsibility.
- Involvement initially and at key stages, of *Police Architectural Liaison Officer*.

## 2. Long-Term Management and Maintenance

- Earliest consideration of long term management and maintenance, with appropriate stakeholder involvement. Involvement initially and at key stages of *Community Parks Manager*.

## 3. Natural Surveillance

- New built development, especially public buildings, shops and housing shall, in the interests of natural surveillance, where possible, face greenspace.
- Incorporation, where appropriate, of balconies to properties that overlook the greenspace is encouraged.
- Where possible, new development shall be arranged to have its main pedestrian/vehicular access, with street parking, interfacing property fronts and greenspace.

## 4. Public - Private Access/ Uses Clarity

- Zoning of uses and design of access points and circulation routes must resolve any ambiguity between true public realm, areas which may be for shared use by specific stakeholders, and areas which are for strictly private use.
- Planning for adequate overall size in greenspace ensuring that the impacts of planned (and potentially subsequent informal) uses and activities do not negatively affect surrounding residents.

## 5. Review of Existing Access and Paths

- Accesses should be retained if their position remains relevant in relation to surrounding use, and off-site routes.
- Where possible, access links that are narrow, with pinch points or having corners that enable concealment, should be redesigned to improve visibility and reduce the risk of physical threat.
- Access leading off greenspace to the rear of properties should be controlled by lockable gates.

## 6. New Accesses and Paths

- New paths should only be provided if they will be well used or stimulate greater animation with a greenspace.
- Where paths are proposed for green corridors, the landscape through which they pass must be wide enough to enable people to feel safe and not unduly 'hemmed in'.
- Paths should be designed for optimum visibility along their route and at each point of entry.
- Where not associated with a street edge, paths should be at a distance from properties, sufficient to avoid loss of privacy and disturbance, and deter intruders.
- The surfacing of paths should be no wider than necessary to be fit for purpose. (If too wide, illegal motorbike or car access may be attracted).

- Where sites are all, or part, enclosed by surrounding development, the number and position of access points should be optimum, for greater safety through increased greenspace use, and choice of escape in the event of any threat.
- Any paths that only lead to private areas, and where there is no means of escape, should be securely gated.

## **7. Intervisibility**

- Shrub planting should generally be selected for low height management immediately adjacent to paths, and at corners.
- Neither planting nor constructed vertical elements (walls, fences, etc), should be introduced in a way that will result in hidden corners or hiding places.
- Generally, the selection of trees and shrubs, in conjunction with their management, should take natural surveillance fully into account, ensuring good visibility without compromising the character of the site.

## **8. Lighting**

- The incorporation of lighting does not normally apply to greenspace sites unless associated with adopted highway routes. Its use is not presumed, but may arise from a specific site brief.

## **9. CCTV**

- The incorporation of CCTV does not normally apply to parks and greenspace sites unless associated with adopted highway routes, or linked to associated development (*e.g. Hengrove Park play area covered by CCTV managed from the abutting leisure development*). Its use is not presumed but may arise from a specific site brief.
- Where it may apply, earliest consideration must be given to how cameras may be integrated without compromising the integrity of the overall site design, notably in respect of tree positions.

<p><i>Bristol Greenspace Design Guide</i> <b>Guidance Note</b></p>	<p><b>Hard Landscape: Boundaries, External and Internal</b></p>	<p>Sheet No <b>TBA</b></p>
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## 1. Introduction

- Traditionally, the boundaries of Bristol's parks have contributed significantly to people's impression of the city as a whole. *Clifton & Durdham Downs*, and a number of Commons and Greens around the city exemplify the best of green space with open boundaries. Equally, many of its urban historic parks and estates, bring distinctiveness through their boundary natural stone walls and, where they remain, railings. Together they demonstrate how important they are to the character of Bristol as a whole, and its component 'places'.

## 2. Appropriateness to Local Character

- Consideration must first be given to the character of the site and its setting. This should guide appropriate boundary design and detailing in order to reinforce the greenspace's contribution to local character.

## 3. Enclosure of, or retention of openness of Greenspace

- Typically, an urban greenspace is likely to require some form of enclosure, to:
  - bring visual definition to its edge, and reinforce the its status.
  - directing access to entrances,
  - preventing intrusion of vehicles, and
  - provide security for users (e.g. preventing children from straying into the road).
- Nevertheless, the character of some sites is, and should remain, open (without physical enclosure). These notably include *Clifton and Durdham Downs*, commons such as *Horfield Common*, and village greens, such as *Shirehampton Green* and *Redland Green*. Traditionally the openness of such locations has been respected. However, where some control is considered necessary, care should be taken to introduce simple traditional measures that do not unduly interrupt the open edge.
- An existing open boundary should be retained, where its open nature is a significant contributor to local character. Care shall be taken to ensure any measures for protecting the edge from vehicular encroachment (e.g. bollards, ditches, etc) do not visually interrupt that openness.

## 4. Hard Element Design

- < **Materials - Generally:** Where a site is to be enclosed, the use of materials (e.g. stone, brick, railings) must be appropriate to locally predominant character and detailing. Boundary design, whether utilising walls (stone or brick, or both in combination, shall be consistently applied to each boundary and, where appropriate within, in order to ensure an overall sense of cohesion.
- < **Construction - Railings:** Construction detailing, including foundation design (proportions, depth, concrete mix), or installation into wall, to be appropriate to railings height and construction. Where possible railings should be designed to avoid the need for bracing to the rear. Where railings are located within the fringe of areas of grass, a mowing trim should be constructed beneath, to enable a neat mowing edge.



*Left:*

*Beverston Green, Lawrence Weston: Steel railings provide a serpentine flow to the edge of the green space.*

- < **Construction - Walls:** Construction detailing, including foundation design (proportions, depth, concrete mix), to be appropriate to wall height, width and materials, whether freestanding or retaining, and ground conditions.
- **Finish - Railings:** Treated to resist corrosion and finished in a colour appropriate to the setting. Normally, black or a dark colour will enable railings to visually recede in a landscape where it is the greenspace quality that should predominate.
  - **Change of Level:** Where the edge of a site rises and falls in level, a land survey, with sufficient frequency of data, is required to enable an accurate plot of the profile of the proposed boundary treatment in relation to the existing landform. Design proposals for walls or railings, will be best illustrated by elevations, that indicate how their top profile is to be achieved, ensuring either even raking or an appropriate rhythm of stepping.

*Right:*

*Cotham Gardens: Steel railings, in evenly stepping panels to enclose the space along a steep boundary.*



## 5. Hard Element Repair or Reconstruction

- Repair and reconstruction is likely to be the emphasis for many of the historic greenspaces, and should be guided by considerations described in the **Design Guide: 4. Historic Greenspace & Cultural Landscape**.
- **Materials - Railings:** Many lengths of historic park railings were removed during WW2 and never replaced. Where there are no remaining sections to provide a pattern, research will be needed to guide decisions, on what should be installed.
- **Materials - Walls:** The condition of many lengths of natural stone walling has been deteriorating over several decades. Each will need to be surveyed to establish whether repair can be effected, or whether reconstruction is necessary. In matching original materials, factors will include:
  - Sourcing of stone where pieces are missing,
  - Coursing,

- Use of mortar mix and colour.

## **6. Boundaries of Discrete enclosed areas within Greenspace**

- The boundary treatment of a discrete enclosed area within a green space, should relate to that of the overall enclosure treatment of the site, in order to reinforce a general feeling of unity.

<p><i>Bristol Greenspace Design Guide</i>  <b>Guidance Note</b></p>	<p><b>Hard Landscape:                  Entrances</b></p>	<p>Sheet No  <b>TBA</b></p>
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## 1. Appropriateness to Local Character

- Consideration must first be given to the character of the site and its setting. This should guide appropriate entrance design and detailing in order to reinforce local character.

## 2. Hard Element Design

- **Historic Greenspace:** Entrances should normally be restored according to their original design. For *English Heritage* listed sites, draft proposals will need to be discussed with *English Heritage*.
- **Gate piers:** shall be of a scale and proportion appropriate to the status (and width) of the entrance.



## 3. Entrances to Discrete enclosed areas within Greenspace

- Entrance(s) to a discrete enclosed area within a green space shall be designed to harmonise with its overall enclosure treatment, whether using gates or gates between piers. Enclosure treatment generally should reflect the nature of such treatment elsewhere within the park in order to reinforce unity.
- Play Areas: Entrances should be at least 1.6m wide.

## 2. Security

- Design should retain reasonable visibility into and out of the park, in the interests of people's security.

## 3. Ornamental Planting associated with Formal Greenspace Entrances

- The use of ornamental planting in conjunction with hard entrance detailing, may be appropriate to consider
  - externally, or
  - within the entrance to contain the inner threshold, enabling it to function as an attractive welcoming 'vestibule' to a formal greenspace.

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**See also: Hard Landscape: Access and Circulation**

## 1. Appropriateness to Local Character

- Consideration must first be given to the character of the site and its setting. This should guide appropriate paved route and surface' design and detailing in order to reinforce local character. The design approach should also respond to the degree to which a site is urban or rural, and its formality/ informality.
- The use of paving materials throughout a green space will have a significant bearing on how its overall quality may be regarded. The appropriateness of the material(s) in which they have been finished will be prominent in users' overall impressions of attractiveness and ease of use.

## 2. Standard

- Generally, paved routes are the subject of guidance from the City Council's *Environmental Access Standards*, key aspects of which are included below.
- Paved routes and surfaces shall be designed inclusively, to meet the needs of all, including disabled people, to get around a site or pass through it.

## 3. Overall Network Design

- **See: Hard Landscape: Access and Circulation**

## 4. Design and Detailing

- Generally, the selection of surfacing materials, and combinations of materials should remain consistent throughout the site, in order to provide unity in appearance.
- Historic Greenspace: Paved routes and surfaces should normally be restored according to their original layout and design. For *English Heritage* listed sites, draft proposals will need to be discussed with *English Heritage*.
- **Surfaces**
  - Generally to be hard, firm, smooth, non-slip, even and suitable for use by all, disabled people, and those using wheelchairs and pushchairs.
- **Widths**
  - Paths at least 1.8m wide in most well used locations.
- **Ramps and Steps**
  - For optimum accessibility, the aim must be to design paths that are as flat as possible. However, much of Bristol is notably hilly, and a number of sites are inherently steep, with little scope for easing gradients. Where ramps are required, they should be no steeper than 1:20. Where this is the case site information must explain the extent of applicability.
  - Steps may be considered as an alternative to relatively direct, flat or ramped access that is readily available. On certain steep sites, steps may be the only means of access.
  - Handrails may be required for ramps and steps, their provision complying with the City Council's *Environmental Access Standards*.
- **Resting places**
  - Resting places with seats should ideally be provided at 100m intervals, in areas (typically Formal Greenspace) of high use, or at 200m intervals in areas (typically

Informal/ Natural Greenspace) that are less intensively used. See also: **Furniture: Seats: Intervals.**

- **Play Areas**
  - Entrances to play areas, and routes within them should be at least 1.6m wide.
- **Vehicular Access and Car Parking**
  - Where areas of paved surfacing are to be used regularly or occasionally by vehicles, including contractors' vehicles, their construction and design must be suitable for the weight of the heaviest vehicle (e.g. contractor's lorry, play bus) likely to be in use.
  - Where car parking is required, it shall meet the standards required in adopted planning policy and the City Council's *Environmental Access Standards*.

## **5. Further Reference**

1. *Environmental Access Standards - Bristol City Council - March 2006.*
2. *Guide to Inclusive Environments - DPTAC - 17 June 2003, updated 12 Jan 04.*
3. *Building Regulations.*

<p>Bristol Greenspace Design Guide <b>Guidance Note</b></p>	<p><b>Soft Landscape: Trees</b></p>	<p>Sheet No <b>TBA</b></p>
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## 1. Introduction

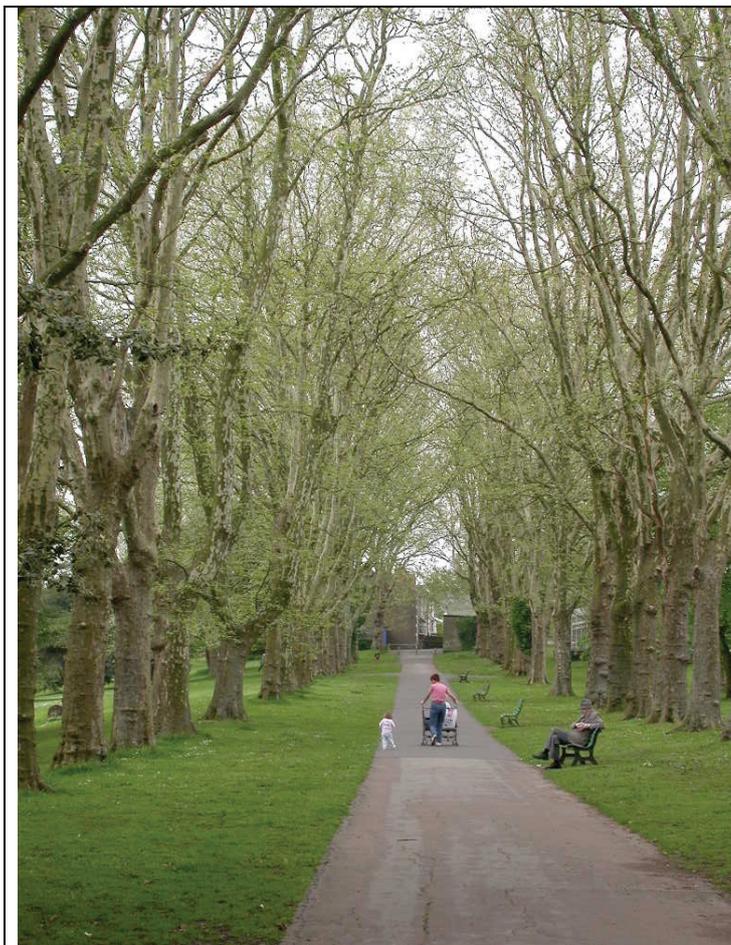
- Trees are a vital part of what makes a city attractive and liveable, and trees in parks and green spaces play a particularly valuable part.
- ⟨ As trees, when mature, are the strongest visual element in greenspace design, the overall approach must be a consistent and cohesive one. It must also respond to the character of the area within which the site is set, and take into account the type of greenspace - notably whether it is formal or informal. Decisions on trees or replacement trees in historic green spaces should be informed by research on the original planting layout, with a view to consistent species use, or where appropriate, justifying alternatives that will be compatible with character.

## 2. Trees' Contribution to Spatial Design and Form

- The design contribution of trees will depend much on greenspace type and character, but may broadly be considered as follows:
  - **Structural/ Main Space-defining Trees**  
Design strength comes from restricting trees to a single large scale species for the entire periphery of a site. Typically, species used have included Planes, Limes, Horse Chestnuts, and Field Maples. It may be appropriate to change species on different edges, according to the edge of that edge, using a third species to provide a positive break at the corner.



- **Secondary Space-defining Trees**  
Secondary enclosure of spaces within a greenspace may be appropriate, especially where defining discrete areas of activity (e.g. playing pitches, children's play areas, ornamental garden/ sitting area).
- **Avenues/ Rows of Trees**  
Avenues, or rows of large scale trees may be used to define routes through green spaces on one or both sides. This may also indicate importance of a path within a park's route hierarchy.



Left:

St George Park: Plane Avenue

- **Tree Groups/ Thickets**
- **Parkland Trees**  
Individual trees within the informal originally grazed parkland of historic estates such as *Ashton Court Estate*.
- **Specimen Trees**
- **Native Woodland**  
Typically associated with sites or part of sites that are Natural Greenspace.
- **Native Tree Groups**

### 3. Land Survey

- In briefing a land survey, it is vital to ensure that the survey provides spot levels at the base of the main stems of individual trees. This data will be fundamental in guiding any adjustments to ground profile adjacent to trees. Generally the assumption must be that the ground level beneath the canopy of each existing tree should remain unchanged.

### 4. Arboricultural/ Silvicultural Survey

- The availability of a recent arboricultural (trees) silvicultural (woodland) survey, or the need for one to be carried out, should first be established with the *Arboricultural Officer, Bristol Parks, BCC*.
- Where an arboricultural survey is required, a brief should be agreed with the *Arboricultural Officer, Bristol Parks, BCC*. Generally it should provide data for each tree, identifying: position, species/ cultivar, height, girth, canopy spread, condition, longevity projection, and recommendations. Data recorded for each tree should be keyed to their position on a scaled drawing.
- The completed survey will inform decisions on protection, removal and replacement, as well as guiding any long term strategy to achieve balanced in age structure.

## 5. Adjacent Hard Landscape Construction

- Generally the levels around the base of existing trees should be unchanged.
- Extreme care should be taken in the preparation of hard landscape proposals, to eliminate or, at least, minimise the risk of any impact upon trees and their root systems.
- Particular attention should be given to locations where new paths, or sections of paths requiring reconstruction, are to pass beneath the crowns of existing trees. It is in these zones that those shallow roots, so vital for absorbing air, moisture and nutrients, are vulnerable to damage or compaction.
- Where pedestrian or vehicular surfacing is necessary beneath trees, normally porous materials will be favoured, as they will allow air and water to reach the root system.
- 'Worst case' proximity of paved surfaces in relation to trees may involve some form of edge retaining structure that 'bridges' root systems.

## 6. Tree protection during the course of construction works

- Generally, measures should comply with *British Standard BS 5837 - Trees in relation to construction*.

## 7. Disease

- The *Arboricultural Officer, Bristol Parks* should be consulted about the relative current risk associated with any proposal to use tree species that may have become associated with disease.

## 8. Tree Management

- Design proposals involving existing trees should be evolved in conjunction with proposals for their management. It may be appropriate, often prior to commencement of main site works, to include:
  - **Crown Lifting** to 'raise the canopy', by removing lower branches, to create more clear height between ground level and canopy above.
  - **Crown Thinning** to reduce the amount of branches within the canopy, to allow more light to percolate to ground level and improve air movement.

## 9. Further Reference

1. *British Standard BS 5837 - Trees in relation to construction*
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<p><i>Bristol Greenspace Design Guide</i>  <b>Guidance Note</b></p>	<p><b>Signing, Information and Waymarking</b></p>	<p>Sheet No  <b>TBA</b></p>
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## 1. Appropriateness to Local Character

- Consideration must first be given to the character of the site and its setting. This should guide the appropriate integration of signage, information and wayfinding, in a way that contributes to cohesion in appearance. Selection should also respond to the degree to which a site is urban or rural, the nature of its use, and its formality/informality.

## 2. Consistency and Restraint in achieving Design Cohesiveness

- ⟨ Design of signage, information and wayfinding elements, must be consistent across a single greenspace.
- ⟨ Whilst selection of different materials and ranges of products may be necessitated in order to satisfy specific requirements, all must contribute to an overall sense of unity. In this way, the contribution of individual items must be seen as part of a same suite.
- ⟨ Co-ordination of overall requirements should involve discipline in limiting provision to what is needed, and elimination of 'clutter'. For some sites, judgement may suggest alternatives that reduce the need for information on site through use of leaflets, web sites, etc.

## 3. Standards

- The provision of signs generally is the subject of guidance from the City Council's *Environmental Access Standards 'EAS'*.
- In most cases, the standard *Bristol Parks* sign should be used.

## 4. Location and Distribution

- **Parks and Greenspace:** Locations should be considered for the whole site, as part of a co-ordinated **Site Furniture** strategy. This will result in a co-ordinated approach rather than considering individual positions in isolation. Criteria include:
  - Promotion of a positive, welcoming and engaging first impression.
  - Reinforcement green space character and its own 'sense of place'.
  - Incorporation of the green space name, reinforce its significance and key destination to the community.
  - Guidance.
  - Information.
  - Size and nature of the green space should influence positioning, amount and nature of elements.
  - Sensitively integration within the design layout.
  - Directional signs at important path junctions.
  - **Interpretation Boards:**
    - integration of interpretation may be appropriate on certain sites, where there is a significant inherent interest (archaeology, industrial archaeology, historic, nature conservation, etc) in which visitors may benefit.
- **External to Parks and Greenspace:** *Bristol Legible City* is the promoted by the city for the co-ordinated integration of signage/information/ waymarking elements. The pedestrian signage system will help visitors find their way to key public facilities, including parks and green spaces. At the point of arrival, a parks standard system shall be used. For particularly significant green spaces, a system that responds to the particular character of that site should be evolved.

## 5. Design

- ⟨ Sign positioning, layout and style, should comply with *Environmental Access Standards*, and should be located so as not to obstruct the path, whilst being integral to its edge treatment.
- ⟨ Information Boards should have clear and accessible paved surfaces around them, and incorporate non-reflective information surfaces.
- **Entrance signs:** Normally the standard *Bristol Parks* sign should be used.
  - Content may include:
    - Name of the site,
    - Facilities and their booking arrangements,
    - Up to date contact details.
    - Relative accessible of routes,
    - Distances to other entrances and key points within the greenspace,
    - Frequency of seat locations,
    - Nature of path surfaces and gradients,
    - Location of key facilities, including play areas, toilets, sports.
    - Public transport connections and Car parking.
- **Main information points:** Where appropriate within significant parks, points may be integrated within a shelter.
- **Community Information Boards:** Potential integration within signage boards on key sites, or where a site enjoys the support of an active '*Friends of ...*' group.
- **Interpretation Boards:** These shall be the subject of best current national guidance on proportions, height, content, that can be accessed by all.

## 5. Further Reference

1. *Environmental Access Standards - Bristol City Council - March 2006.*

<p>Bristol Greenspace Design Guide <b>Guidance Note</b></p>	<p><b>Site Furniture</b></p>	<p>Sheet No <b>TBA</b></p>
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## 1. Appropriateness to Local Character

- Consideration must first be given to the character of the site and its setting. This should guide the appropriate integration of site furniture in a way that contributes to cohesion in appearance. Selection should also respond to the degree to which a site is urban or rural, the nature of its use, and its formality/ informality.

## 1. Consistency and Restraint in achieving Design Cohesiveness

- ⟨ The overall design of furniture must be consistent across a single greenspace, whilst allowing for variations in specific requirements.
- ⟨ Whilst selection of different materials and ranges of products may be necessitated in order to satisfy specific requirements, all must contribute to an overall sense of unity. In this way, the contribution of individual items must be seen as part of a same suite.
- ⟨ Co-ordination of overall requirements should involve discipline in limiting provision to what is needed, and elimination of 'clutter'.

## 2. Standards

- Provision of seats, benches and picnic tables is the subject of guidance from the City Council's *Environmental Access Standards 'EAS'*.

## 3. Location and Distribution

- Seats/ benches:
  - Location should be considered across the whole site, as part of a co-ordinated site furniture strategy, and with a view to their integration based on criteria including:
    - Optimum appreciation of the site and its setting; e.g. seats placed around the edge of a space looking in.
    - Resting points along routes; ideally:
      - 100m intervals in areas (typically Formal Greenspace) of high use, or
      - 200m intervals in areas (typically Informal/ Natural Greenspace) that are less intensively used.

Judgement may be made in respect of increasing intervals on steep sites such as *Brandon Hill Park*. This is aimed at ensuring that all users are able to enjoy passing through or circulating around the whole site with the opportunity to pause at points on the way. See also: **Paved Routes and Surfaces**.

  - Key views within the site, or to landmarks further afield.
  - For spectating; sports, events, etc.
  - Choice between sunny or shady positions.
  - Far enough from houses to reduce risk of negative effects of noise and loss of privacy upon residents.
  - Located singly, or in groups, especially where this may be conducive to social interaction.

Right:

*Cotham Gardens: Social seating space with 'human sun dial paving'. Design in close collaboration with Redland & Cotham Amenity Society.*



- < Picnic Tables:
  - are more likely to be appropriate in informal or natural greenspace.
  - tables to accommodate wheelchair access, including a 1m2 paved 'pad' that is firm, stable and flush with an abutting path.
- < Litter Bins:
  - provided where most likely to be used, notably adjacent to entrances/ exits, or at path junctions.
  - Integrated, to reduce their visual intrusion.
- Dog Bins:
  - located adjacent to exit points as most users are likely to leave deposit bags upon departure.

#### 4. Site Furniture generally

- < The overall design of furniture must be consistent across a single greenspace, whilst allowing for variations in specific requirements. All items should be attractive, but robust enough to withstand use and abuse.
- < Furniture should, subject to 'suiting', be selected to provide users with choice, as what is comfortable will vary from person to person. e.g. some elderly people prefer a seat with a back (for support) and armrests (for leverage when moving from sitting to standing).

#### 5. Seats, Benches and Picnic Tables

- Comfort should be through providing seats:
  - with varying sitting heights, within standard tolerances,
  - with and without, armrests, and
  - with and without backs.
  - Fabricated using appropriate materials for the location. Metal, concrete or stone seating is cold to sit on; timber is warmer.
- Seats/ benches/ picnic tables should:
  - accommodate disabled people sitting with non-disabled companions.
- Seat positioning: Where seats face onto paths, their front edge should also be set back a min 600mm to avoid the feet of those seated representing a trip to path users. The paving material in which the seat is to be set shall be the same as the path onto which it faces.
- Where seats are set into planting abutting footpaths, plant selection should avoid thorny species or those which will encroach without unrealistically frequent maintenance.
- Seats may be associated with cycle bars.

*Right:*

*Monks Park: Seat and cycle bar.*



## 6. Lighting

- The incorporation of lighting does not normally apply to greenspace sites unless associated with adopted highway routes. Its use is not presumed, but may arise from a specific site brief.
- In locations where lighting is required, particular care must be given in relation to areas where there would be an impact upon wildlife habitats, and where local residents would be affected.

## 5. Further Reference

2. *Environmental Access Standards - Bristol City Council - March 2006.*

<p><i>Bristol Greenspace Design Guide</i> <b>Guidance Note</b></p>	<b>Survey Data</b>	Sheet No <b>TBA</b>
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## 1. Arboricultural/ Silvicultural Survey

- The availability of a recent arboricultural (trees) silvicultural (woodland) survey, or the need for one to be carried out, should first be established with the *Arboricultural Officer, Bristol Parks, BCC*.
- An arboricultural survey should provide data for each tree, identifying: position, species/ cultivar, height, girth, canopy spread, condition and longevity projection. It is this information that will inform decisions on protection, removal and replacement, as well as guiding any long term strategy to achieve balanced in age structure.

## 2. Archaeological Survey

- The need for a survey should first be established through contact with the *City Archaeologist in Planning Transport & Sustainable Development, BCC*, as sites will vary in their likely sensitivity, and the degree of information already recorded about them.

## 3. Ecological Survey

- The availability of a recent ecological survey, or the need for one to be carried out, should first be established with *Nature Conservation Officer, Bristol Parks, BCC*.

Refer also to: [Guidance sheet: Natural Greenspace](#)

## 4. Historic Survey

- Historic sites include those covered by policy NE9 in the current *Bristol Local Plan, Adopted, Dec 1997*; they are listed on *pages 56 - 60*.

Refer also to: [Guidance sheet: Historic Greenspace and Cultural Landscape](#)

## 5. Land Survey

- This is not a definitive guide for land surveys, as a brief will need to be agreed with the client that will provide the designer with sufficient survey data for a specific site. It does however provide a general impression of the sort of information a designer is likely to need.
- Checks should be made regarding any recent surveys undertaken, as it may be possible to limit re-survey to those areas where subsequent change needs to be digitally integrated.
- The preparation of a land survey, and the collation of existing services data, should be an early priority for certain sites. The importance of having a reliable early base upon which to design will relate to a number of considerations, including:
  - scale and/ or complexity of greenspace,
  - change of level,
  - sensitivity of site,
  - presence of valuable vegetation features, including trees and hedgerows, and
  - anticipation of existing services positions that would be costly to move.
- Such base information will provide confidence in the accuracy of the basis for proposals, especially when considering initial cost plans.
- **Levels and Contours:**
  - All shall relate to Ordnance Survey bench marks.
  - Adequate levels locations and grid spacing, and (where required) contour interval, shall be sufficient to enable proposals to be drafted in relation to the nature of the site.

- **Hard paved surfaces:**
  - Alignment, and levels sufficient to describe gradients (long and crossfall, including any camber) and isolated high and low points.
- **Walls:**
  - Alignment, wall thickness, material (e.g. pennant sandstone, brick)
  - Freestanding, retaining, or part retaining, indicating sections where retaining.
  - Top heights (including upper and lower levels where stepping)
- **Railings/ Fencing:**
  - alignment, height, material, freestanding or set within wall, and
  - raking or stepping (top heights at upper and lower levels where stepping).
- **Vegetation:** data sought should include:
  - Trees:
    - Species,
    - Height,
    - Position: centre of main stem(s) with girth of each, and plot of canopy extent,
    - Spot level at base of trunk (as proposals will need to leave ground level around trees undisturbed).
    - Condition/ longevity projection (where associated with **Arboricultural Survey**, above)
  - Hedgerows: alignment and spread.
  - Shrub/ other planting beds: plot extents.
  - Grass areas; plot extents.
- **Services:**
  - Features relating to services (inspection chambers and their covers, drainage gullies, rodding eyes, vent pipes, lighting columns, etc shall be plotted, and, where evident, their functions identified).
- **Buildings and structures:** The position of each building or structure should be surveyed, including:
  - Outline of the outer face of walls,
  - Position of windows and door (with direction of swing) positions, and
  - Overhang of roof, balconies, etc (that may constrain ground level planting).
- **Topography:** Significant topographical variation is best expressed using contours. Judgement on intervals required will relate to degree of steepness and variability.
- **Water:** All water elements should be surveyed, including:
  - River/ Stream alignment, width indicated by bank positions, and direction of flow,
  - Informal and Formal Lakes and Ponds, including:
    - Position of feed/ outfall, and associated construction,
    - Outline of edge (identifying hard retaining material where appropriate),
    - Depth(s)

## **6. Services**

- Mapped data will need to be sought from each appropriate utilities organisation, or, where information concerns domestic supply, from the landlord/ client. This information may enable early correlation by the designer with surface features plotted on the land survey.

<p>Bristol Greenspace Design Guide <b>Guidance Note</b></p>	<p><b>Topography</b></p>	<p>Sheet No <b>TBA</b></p>
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## 1. General Considerations

- Consideration must first be given to the character of the site and its setting. This should guide appropriateness of any proposed topographical change.
- Checks must be made in relation to survey data, to ensure proposals take into account any constraints, including:
  - Archaeology,
  - Floodplain considerations, and
  - Services.
- Great care is needed in the use of ground modelling, to ensure that proposals harmonise with the existing overall landform and bring a new topographical integrity.
- Where unassociated with measures to avoid removing fill from site, ground re-modelling is a costly element, and will need to be a carefully justified part of overall proposals.

## 2. Re-modelling of Previously Modified Landforms

- Some sites may have already been the subject of landform modification, and proposals for re-contouring may be appropriate, if current land profiles appear inharmonious with the topographic context.
- Care should first be taken to check the site history, especially where a greenspace may have been the subject of past tipping. In such instances, guidance should be sought from *Pollution Control, N&HS, BCC*. Officers will advise on how to proceed, particularly where tipping may have resulted in potential contamination. In some cases, further investigation may be necessary to inform mitigation measures. Where there may be doubts about stability of an existing slope, a structural engineer's advice should be sought.

## 3. Cut and Fill

- Cutting and Filling involves modification of an existing landform by a combination of removing land from one part of a site, and placing it in another. Both areas should be re-contoured to ensure that the new landform has been successfully integrated with the existing.
- Where possible to utilise surplus fill on site, it will be beneficial in reducing the cost, and eliminating the environmental impact of transporting it elsewhere. However, this should only be considered, if:
  - the nature of fill is suitable for re-use on site, and
  - operations can be achieved without undue ecological impact, or compromise of other greenspace objectives (including access, sports use, activities, etc).

## 4. Creative Landform Design

- For certain sites it may be appropriate to consider creative landform design. It may also be relevant to incorporate in the design of discrete areas within a park, including areas proposed to contain Natural Play. Landform types that can be incorporated will depend much on existing topography.
- Bowls and Hollows: It may be possible to accentuate an existing hollow or depression, or excavate a new one to form a bowl or amphitheatre as a natural 'hollow' for play, focus for gathering, or venue for outdoor performance.
- Knolls and Mounds: It may be appropriate to accentuate an existing rise in landform to create a knoll, or mound from which views may be gained.
- Plateaus and Terraces: In certain locations, sensitive cut and fill may be utilised to increase the area of flat land for active greenspace use. In most informal landscapes, sensitive contouring to assimilate new landform with existing will be most appropriate.

There may be contexts where the bold use slopes may be a feature of more organised design.

## **5. Stability and Drainage**

- Designed slopes must be stable, and for particularly difficult contexts, it may be necessary to have the input of a structural engineer. In extreme cases guidance may be needed in relation to underlying geology, hydrology and properties of the fill material, towards the achievement of a slope that is inherently stable.
- Proposals should, where possible, result in slopes that are at a natural angle of repose, but occasionally, where space is particularly tight, slope reinforcement measures, such as land mesh, may be necessary, or at worst, retaining structures.
- Consideration should also be given to whether landform modification will result in any change in how groundwater and surface run-off will behave. Resultant proposals may need to incorporate associated measures to deal with anticipated effects.

## **6. Management**

- In introducing topographical change, particular attention should be given to the maintainability of proposals. Early and continuing dialogue with the *Community Parks Manager, Bristol Parks, BCC*. It will be important to ensure that slopes are of a profile that can be safely and effectively maintained whether grassed or planted. The nature of the proposals, once implemented, will also constrain future maintenance regimes.

## **7. Health and Safety**

- Construction Design and Management (CDM) Regulations (2007), compel safe practice to be applied in design, construction and management. Considerations must be fully taken into account for earthworks.

## **8. Further Reference**

- *Form and Fabric in Landscape Architecture - Catherine Dee - Spon Press - 2001, pp 54 - 60.*