# Designing gardens and nature trails

In this factsheet we give you practical advice about making your public garden, nature trail or park more accessible to blind and partially sighted people.

## Introduction

A well-designed public garden can and should be accessible to all its visitors. Good design involves features that stimulate all our senses and can be enjoyed by people of all ages and abilities.

When designing a garden, make it inclusive, so that people with or without sight loss can get the most from it. This could be done by creating areas of special interest, ensuring that it is fully accessible, including cafes and picnic areas, visitor centres and displays.

A constructive way to understand the needs and desires of what people with sight loss would like included, is by asking them directly. Create focus groups for feedback and suggestions, not only will this be a helpful way to make adaptations or additions, but it will also gain interest.

## Why should I improve the accessibility of my public garden for blind and partially sighted people?

Sight loss is one of the most common disabilities in the world. In the UK there are nearly two million blind or partially sighted people. Sight loss is most common in later life. You may already have noticed older visitors who have difficulties reading labels or small print leaflets, although they don’t necessarily think of themselves as having sight loss.

Improvements for people with sight loss should therefore form part of your overall policy for making your site accessible to everyone. Improvements such as clear signage, unobstructed pathways and multi‑sensory displays will benefit all your visitors.

### Visual awareness training

RNIB can organise tailor-made training to help your venue welcome people with all forms of sight loss. Our training will enhance your understand of blind and partially sighted people, demonstrate what you can do to help and help you consider how you can organise your services to meet the needs of people with sight loss.

Visual awareness training is most effective when there is already a commitment to accessibility and a clear accessibility policy in place.

## Designing gardens and nature trails

### Footpaths – materials and recommended maintenance

The surface material of footpaths should be firm, well fixed, slip-resistant and slightly textured (e.g., Binding Path Gravel or Asdug, Fibredec), loose materials such as gravel are not suitable. Continual maintenance is essential and you should keep paths well drained to prevent puddles.

Where you have stapled a material such as plastic-coated wire mesh to boardwalks or small bridges to improve grip, you should regularly inspect it to ensure that it remains flush with the decking and does not become a hazard.

We recommend that you use contrasting colours, tones and textures between footpaths and their surroundings. You can also use contrasts in surface material to convey information to blind, deafblind and partially sighted people. For example, you could surface side paths leading to features of special interest with different textures, as textural changes can be used to convey specific messages, e.g., to indicate the location of a tactile signboard.

Blind and partially sighted visitors may appreciate variations in surface texture as an added interest on a walk in the countryside.

When adding new surface materials, take care to ensure that changes in surface are flush, and joints between materials are no wider than 10mm.

### Handrails

Where footpaths follow a gradient, provide a continuous handrail anda lower “tapping” rail (at 150-200mm above ground level) that someone using a long cane can follow. If a handrail is not acceptable for aesthetic reasons, try installing a small kerb, minimum 100mm high. Handrails are essential on both sides of routes that pass over footbridges and you should provide railings where paths run adjacent to dangerous areas.

Once you have provided a handrail, users will lean against it, so you must ensure it is strongly supported and that you maintain it regularly.

### Steps

Eliminate steps wherever possible, as they are unsuitable for wheelchair users and people with severe sight loss. Where steps are unavoidable, use a change in surface texture before the steps to indicate them in advance, and have continuous handrails on both sides. Steps should have a uniform going and riser wherever possible. Minimum going is 250mm, maximum riser is 170mm.

Avoid open risers, and nosings should be of a contrasting colour and tone to the rest of the step.

### Managing hazards

Use surface materials to indicate the presence of hazards; for example, you could lay (flush) an area of granite paving blocks across a path a metre or two before a road or steps, to warn of the potential danger. You could link this to a raised-letter tactile sign, or to a sequence on a carried tape recorder, or to a passage in a braille leaflet, giving information on the feature ahead.

Place picnic tables, litterbins and other furniture in recessed (but still accessible) areas, so as not to create a hazard. All furniture should be a minimum height of 1000mm, colour and tone contrasted with the background, and detectable at ground level by a person using a long cane. It is useful to have space around seating for people to position wheelchairs or pushchairs.

Don’t forget garden maintenance. A neglected garden quickly loses its appeal and interest, and the special features created originally become confused. A badly maintained garden can also be dangerous, keep paths, steps, ramps and signs clear of debris, obstructions, creeping plants and protruding roots.

Look out for obstacles above waist height, since blind or partially sighted people may miss these if they are using a long cane or a guide dog. Cut back tree branches and other foliage to ensure minimum clear headroom of 2100mm, preferably 3000mm.

### Planting

Have a think about making the most of people’s senses when you consider your planting scheme.

Planting design that emphasises colour and aroma will be of great benefit to your blind and partially sighted visitors, being both a source of pleasure and a way of finding information. Don’t overlook the smell of newly mown grass or plant leaves, which can release perfume when touched. We give a list of some fragrant garden plants later in this factsheet.

Touch in the garden is very important. Try selecting plants for different textures of leaves, bark and stems, as well as the shape of the whole plant. Some plants also give off a scent when crushed or stroked. When choosing them, be aware of their durability and strength as some will not stand up too much examination. Most importantly, avoid plants with thorns and those that have sap that might irritate. Stones or rocks can also provide interesting textures.

Another idea is a small interpretation centre where you can encourage your visitors to feel the texture and shapes of items.

The sounds of a garden give pleasure to everyone – birds with their varying calls, the breeze rustling in beech, hornbeam, bamboo or other plants, wind chimes, water falling and running over different resonant surfaces in a fountain. Sound also helps to provide a sense of perspective – a fountain playing in the distance, for instance, sounds different from a fountain splashing near at hand. Water that creates too loud a sound can drown out other natural sounds like birdsong and cause problems for people with hearing impairments.

Safe access to water should be available for those who wish to dip their hands in, perhaps also bordered with smooth stones or pebbles. Large dry boulders are pleasing, especially when warmed by the sun.

### Providing information

You can provide information in a variety of ways. You could provide a descriptive audio tour device at the entrance or a tactile map for loan by people with sight loss. A guide or map should include the position of points of interest, amenities such as seats or toilets or a café. You should also include information about footbridges, steps and other potential hazards.

Audio tours can be useful, but at outdoor sites they will cut out sounds such as bird song. Listening posts at selected points throughout your garden or trail could be a useful alternative. You might also like to prepare a CD or upload an audio file to your website, which you could mail to visitors in advance as a useful introduction. Labelling plants can sometimes be a problem. A board by the path, which could be read at close range, should list the plants and shrubs in that bed. Number the names on the board and ensure that they correspond to numbers next to the plants. The lettering on the board should be large and bold, using black letters on a white background and the signs by the plants should be even larger.

Braille is read by very few people so is not suitable on its own; however, the bold lettering can be overlaid by a transparent brailled label.

It is possible that embossed letters on the board near the path might be useful. Embossed numbers on a bed are unlikely to be useful, firstly because they might not be easily accessible, and secondly because they could become clogged by grit.

You could describe the labelling scheme on an audio guide or information leaflet handed out at the entrance to the garden.

Leaflets and guides should be accessible to people with serious sight problems. Most people with severe sight loss can read large print. You can produce this on standard word processors by enlarging the font size and following clear print guidelines. Think about including information on facilities for disabled people on your publicity materials. Sighted visitors may well have relatives, neighbours or friends with sight loss who they can tell about your services.

It will be useful if you include information such as concessionary rates for disabled people, whether guide dogs are admitted to all areas of your garden, as well as details on facilities and services such as: raised diagrams, large print and or braille labels, audio and guided tours.

Finally, ensure that your information addresses people with disabilities in a positive way and avoid terms such as “the blind”; think about using the term “blind or partially sighted people” instead.

### Reaching your audience

If you develop an accessible garden for blind and partially sighted people, you will want to make sure that your target audience hears about it!

Most visitors will come with sighted friends and family, so do include access details in all your general publicity materials.

Information does not reach blind or partially sighted people easily. A good place to start is by establishing links with local societies for blind and partially sighted people and self-help groups in your area. Local contacts will prove invaluable in disseminating information and may also provide useful advice and feedback. Visit RNIB Sightline Directory at **sightlinedirectory.org.uk** to find details of organisations near you.

### Some fragrant garden plants to try

**Key**:

* “W” signifies best grown against a wall
* “E” signifies an evergreen species
* “cvs” means cultivars (plant varieties)
* “spp” means species.

#### Flowers

##### Trees

* Acacia dealbata – “Mimosa” Yellow flowers in late winter, early spring (W E)
* Azara microphylla – Vanilla-scented yellow flowers in early spring (E)
* Crataegus monogyna – “Hawthorn”
* Drimys winteri – “Winter Bark”. Ivory-white flowers in May (E)
* Magnolia salicifolia – Flowers produced on leafless stems in April
* Prunus – especially padus, yedoensis and several “Japanese Cherries”
* Tilia x euchlora, petiolaris, platyphyllos ‘Rubra’ – “Lime”.

##### Shrubs

* Azalea – see Rhododendron
* Buddleia alternifolia, davidii and cvs (attractive to butterflies)
* Buxus sempervirens – “Common Box” (E)
* Chimonanthus praecox – “Winter Sweet” Waxy yellow flowers
* Choisya ternata – “Mexican Orange Blossom” (E)
* Clerodendron bungei, trichotomum – Foliage smells fetid when bruised
* Clethra spp – all
* Coronilla glauca (W)
* Corylopsis spp – spring flowering
* Cytisus battandieri (pineapple fragrance), x praecox
* Daphne blagayana, x burkwoodii, cneorum, mezereum, odora (E)
* Deutzia x elegantissima and cvs
* Elaeagnus angustifolia, commuta, x ebbingei (E), umbellata
* Erica arborea, x darleyensis and cvs, erigena (mediterranea), lusitanica (E)
* Escallonia – “Donard Gem” (E)
* Genista aetnensis, cinerea, tenera
* Hamamelis mollis and cvs – “Witch Hazel”
* Itea ilicifolia (E)
* Lonicera fragrantissima x purpusii, standishii – Winter flowering shrubby honeysuckles
* Magnolia denudata, grandiflora (W, E), sieboldii, stellata, x soulangiana and cvs
* Mahonia japonica, x media and cvs (eg “Charity”, “Faith”, “Underway”) (E)
* Olearia x haastii, macrodonta (E)
* Osmanthus x burkwoodii, delavayi, heterophyllus (aquifolium) (E)
* Philadelphus esp “Belle Etoile”, “Beauclerk”, coronarius
* Philadelphus delavayi, microphyllus, “Sybille”, “Virginal” – “Mock Orange”
* Phillyrea decora (E)
* Poncirus trifoliata – “Japanese Bitter Orange” Flowers and small fruits like the orange
* Prunus mume – “Japanese Apricot”. Early spring flowering
* Ptelea trifoliata – Bark, leaves and fruit also aromatic
* Pyracantha – Many spp and cvs (E)
* Rhododendron – Many, especially auriculatum, loderi and its many clones, luteum, roseum, viscosum; and deciduous Azaleas (Ghent and Occidentale hybrids)
* Romneya spp – Californian “Tree Poppies”
* Rosa – see Royal National Rose Society’s list - R. alba, Bourbons (Zephirine Drouhin), Damasks, double Moss, rubiginosa and some Rugosas
* Sarcococca – all – “Christmas Box”, winter flowering (E)
* Skimmia japonica – male flowered forms, especially the cvs “Fragrans” (E)
* Spartium junceum – “Spanish Broom”
* Syringa – “Lilac”
* Virburmum x bodnantense, x burkwoodii, x carlcephalum, carlesii, farreri, (fragrans) – spp usually flowering in winter or late spring.

##### Climbers and wall shrubs

* Clematis armandii, montana “Elizabeth”, rehderiana (nodding yellow bell-shaped flowers)
* Jasminum officinale – “Common White Jasmine” A strong growing climber
* Lonicera x americana, japonica and cvs, periclymenum and cvs – “Honeysuckle”
* Trachelospermum jasminoides – requires a warm sheltered site (E)
* Wisteria floribunda, sinensis – many good cvs of each.

##### Hardy herbaceous

* Asperula odorata – “Sweet Woodruff” – grows well in shade
* Chrysanthemum balsamita
* Clematis heracleifolia var. davidiana, C. recta
* Convallaria majalis – “Lily of the Valley”
* Dianthus (particularly “Border Carnations” and “Pinks”)
* Hedychium – Many spp. requires greenhouse culture
* Hemerocallis dumortieri, flava – “Day Lilies”
* Hosta “Honeybells”, plantaginea grandiflora
* Iris unguicularis (stylosa)
* Paeonia officinalis, lactiflora
* Phlox paniculata (hybrids)
* Primula auricula, veris, florindae, polyanthus
* Viola odorata – “Sweet Violet”.

##### Annuals and biennials

* Centaurea moschata – “Sweet Sultan”
* Cheiranthus – “Wallflower”
* Heliotropum – “Heliotrope”, “Cherry Pie”
* Lathyrus odoratus – “Sweet Pea”
* Lobularia maritima – “Sweet Alyssum”
* Matthiola – “Stock”
* Nicotiana affinis, sylvestris – “Tobacco Plant”
* Oenothera biennis – “Evening Primrose”
* Reseda Odorate – “Mignonette”.

##### Bulbs and corms

* Amaryllis belladonna (W)
* Crinum x powellii (W)
* Cyclamen
* Freesia
* Gladiolus tristis
* Hyacinthus
* Iris reticulata and cvs
* Lilium. esp. euratum, longiflorum, regale, speciosum
* Narcissus (Jonquil, Poeticus and Tazetta groups)
* Tulip.

##### Glasshouse and conservatory plants

* Boronia megastigma
* Bouvardia humboltii, jasminiflora
* Brunfelsia spp.
* Buddleia asiatica
* Citrus spp.
* Cytisus canariensis, “Porlock”
* Dianthus – “Malmaison and Perpetual Carnations”, usually tender
* Erica canaliculata
* Exacum affine – “Persian Violet”. Annual
* Gardenia spp. - especially G. jasminoides
* Hoya bella, carnosa – “Wax Flowers”
* Ismene spp.
* Jasminum polyanthum
* Primula kewensis
* Plumeria spp. – “Frangipani”
* Polianthes tuberosus
* Rhododendron – tender spp/hybrids eg x cubittii, “Fragrantissimum”
* Stephanotis floribunda.

#### Foliage

##### Trees

* Eucalyptus – many different spp. (E)
* Laurus nobilis – “Bay”, well known in cooking (E)
* Magnolia salicifolia (bark) – wood and twigs scented of lemon
* Populus balsamifera, trichocarpa – unfurling leaves smell of balsam
* Sassafras albidum – leaves, bark and twigs fragrant.

##### Shrubs

* Artemisia abrotanum, chamaemelifolia
* Ballota acetabulosa – not fully hardy
* Calycanthus floridus – “Carolina Allspice”
* Caryopteris – all
* Choisya ternata – “Mexican Orange Blossom” (E)
* Cistus – many spp., especially those with leaves covered in gum (C. ladanifer)
* Drimys lanceolata (aromatica) (E)
* Escallonia – Several (E)
* Gaultheria procumbens – source of “Oil of Wintergreen” (E)
* Helichrysum serotinum (angustifolium) – “Curry Plant” (E)
* Lavandula angustifolia (spica) – “Old English Lavender”
* Lindera benzoin – “Spice Bush”
* Lippia citriodora – “Lemon Verbena”
* Myrica communis – “Myrtle” (E)
* Perovskia spp. and cvs. – late flowering sub-shrubs
* Ribes sanguineum – “Flowering Currant”
* Rosa rubiginosa and hybrids – “Sweet Briar”. Apple scented leaves.
* Rosmarinus officinalis – “Rosemary” (E)
* Salvia officinalis – “Sage” Plus several other half-hardy spp.
* Santolina spp. – “Lavender Cotton” (E)
* Skimmia laureola (E)
* Thymus spp. – especially T. x citriodorus “Lemon Thyme” and E
* T. herba-barona “Caraway Thyme”.

##### Conifers

* Abies balsamina (E)
* Calocedrus decurrens – “Incense Cedar” (E)
* Chamaecyparis (E)
* Cupressus sempervirens (E)
* Juniper (E)
* Pseudotsuga menziesii – “Oregon Douglas Fir” (E)
* Thuja (E).

##### Herbaceous

* Achillea millefolium – “Yarrow”. A. filependulina “Gold Plate”
* Agrimonia odorata, eupatoria – has the scent of ripe apricots
* Angelica archangelica – the source of confectionery angelica
* Anthoxanthum odoratum – “Sweet Vernal Grass”
* Calamintha nepetoides
* Chamaemelum nobile – “Chamomile”
* Geranium macrorrhizum
* Melissa officinalis – “Lemon Balm”
* Mentha – many spp. with different scents – “Mint”
* Monarda didyma – “Bergamot”
* Nepeta spp. – foliage sometimes rather pungent – “Catmint”
* Origanum vulgare – “Marjoram”
* Stachys lanata – “Lamb’s Ears”.

##### Bark and branches

* Acer pensylvanicum – “Snake Bark Maple”
* Betula “Jermyns” – “Paper Bark Birch”
* Corylus avellana “Contorta” – Hazel with twisted branches
* Prunus Mackii – Cherry with peeling bark
* Salix matsudana “Tortuosa” – “Dragons Claw Willow”, twisted branches.

This list is based on information provided by RHS Wisley.

## Useful contacts

### RNIB business services

Our business services team aims to help create an inclusive society through improved access for all disabled people to environments and services.

We provide our leading access consultancy covering access for disabled people to buildings, streets and transport; accessibility of products, information, signage, tactile images, tactile maps and wayfinding, including the RNIB React electronic wayfinding device. We also offer a range of training courses, from disability or visual awareness through to technical courses on subjects such as visual contrast, lighting and signage.

For more information, please visit **rnib-business.org.uk** or call us on **01733 375 370**. You can also email **businesslink@rnib.org.uk**.

#### The Sensory Trust

The Sensory Trust works to ensure that all people, regardless of mental, physical or sensory disability have the right to experience, learn from, enjoy and actively participate in the environment. Their website contains lots of useful resources.

Sensory Trust, ESAM 7

Carluddon Technology Park

Carluddon

St Austell

PL26 8WE

t: **01726 222 900**

e: **enquiries@sensorytrust.org.uk**

w: **sensorytrust.org.uk**.

### Thrive

Thrive is a national charity that uses gardening to change the lives of disabled people and they helped to produce the original version of this factsheet.

The Geoffrey Udall Centre

Beech Hill

Reading

RG7 2AT

t: **0118 988 5688**

e: **info@thrive.org.uk**

w: **thrive.org.uk** and **carryongardening.org.uk**.

## Useful publications

### How to guide people with sight loss

A guide to assist those in offering to help blind and partially sighted people with confidence. Order from our Helpline by calling **0303 123 9999**.

### By All Reasonable Means: Least restrictive access to the outdoors (2020)

This guide was produced by Sensory Trust on behalf of Natural England, and in collaboration with Natural Resources Wales and is aimed at organisations, owners and managers who are responsible for providing public outdoor access and recreation.

The guide explores the equality of access to the countryside and open spaces for people of all ages, circumstances and backgrounds. It provides support and guidance to help improve accessibility of sites, routes and facilities, particularly for people who have limited opportunities to enjoy these places.

Download free from: **sensorytrust.org.uk/uploads/documents/ByAllReasonableMeansEnglandAug2020.pdf**

### By all reasonable means: inclusive access to the outdoors for disabled people (CA215)

This guide, produced by Natural England, is designed to help countryside and urban greenspace managers and landowners improve accessibility of their sites, routes and facilities. It focuses on work with and for disabled people, but with the understanding that many access improvements will benefit all visitors.

The framework for action in this guide is appropriate for most types of outdoor space open to the public including:

* country and urban parks and green spaces
* long distance and other trails, paths and rights-of-way
* the wider countryside, including open access land.

Order or download free from:

**publications.naturalengland.org.uk**

### RNIB Research Library

Many other relevant publications are available from the RNIB Research Library, part of RNIB Heritage Services. The Research Library is the largest collection of material on blindness and partial sight in the UK. Loan facilities are available in the UK and Eire.

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t: **020 7391 2052**

e: **heritageservices@rnib.org.uk**

w: **rnib.org.uk/researchlibrary**

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