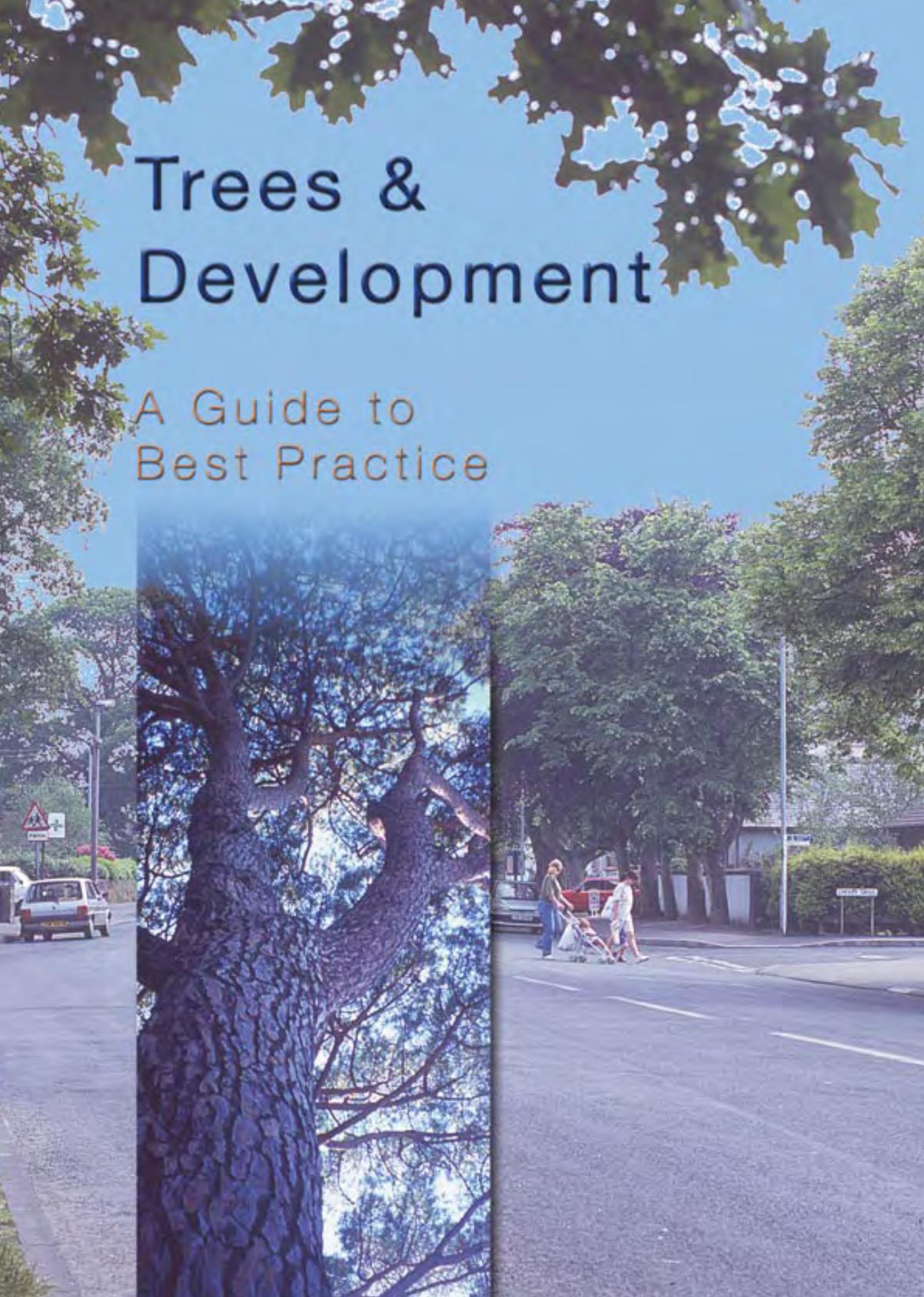


Trees & Development

A Guide to
Best Practice



Trees & Development - A Guide to Best Practice is sponsored by:

- The Forest of Belfast
- The Planning Service
- Landscape Architects Branch, Construction Service, Central Procurement Directorate, DFP and and
- The Construction Employers Federation of Northern Ireland.



CEF

The importance of trees

New planning standards such as 'The Quality Initiative' coupled with increasing public concern about environmental and sustainability issues are focusing attention on the importance of trees in towns and cities as well as in our countryside.

Trees create a landscape which is attractive to industry and commerce, an environment where people want to live and work.



Planting that blends with its surroundings contributes positively to the creation of a sustainable quality environment.

Trees add value

Trees are a vital element of our landscape and bring many benefits.



Trees enhance views



Trees add colour and



Trees help define character and promote a 'sense of place'



Trees support a wide variety



Trees provide screening and privacy



seasonal interest



Tree soften hard surfaces



of wildlife, flora and fauna.

Other less obvious benefits of trees include, improving air quality by trapping air-borne pollutants, providing a cooling effect and shade in summer, reducing noise and the release of oxygen. Overall trees help generate a feeling of 'well-being'.

Studies have shown that people find houses with mature, landscaped gardens and properties on tree lined avenues more attractive places to live. They also tend to attract a higher market value.



Small groups of trees can be a well-known local landmark but even where there is just one mature tree this too can have a very high landscape value. Young trees are also important as these will become the visually significant or specimen trees of the future.



The Design Stage

Careful retention of existing trees, hedgerows and shrubs as part of a development can ensure that new buildings will be integrated into a mature landscape, thus raising the overall quality of the scheme.

To maximise such benefits it is essential that existing trees are protected through the design and construction phase until the completion of the scheme. Taking appropriate measures at the design stage can prevent damaged or dying trees becoming a source of complaint and concern at a later date.

Caring for existing trees at development sites: -

- Carry out a site appraisal, noting all natural features.
- Commission a detailed tree survey. This should be undertaken by a qualified Arboriculturist.
- Analyse the survey findings and design your proposals in relation to all existing trees highlighting those trees to be retained or removed.
- Ensure that the scheme layout properly integrates new buildings, roads and car parks into the existing landscape.
- Check with your local Planning Office to ascertain if the trees are protected by a Tree Preservation Order or are to be retained as a condition of a planning approval.

Cutting roots kills trees

before



during



after - (tree is dying - since removed)



Inappropriate trenching led to the death of this significant tree

- If you need to carry out any tree surgery, or felling of protected trees you should request and receive written permission from the Planning Service prior to any works being carried out. Failure to do so can result in a fine through the courts.
- Remember that locating buildings as far away as possible from trees helps prevent root damage and requests for tree removal or tree surgery due to safety or amenity considerations.
- Plan routes for underground services that are as far as possible from trees (preferably outside the crownspread) in order to avoid damaging sensitive root systems.



Design considerations for new planting: -

- Ensure the continuance of the tree cover by incorporating a mix of existing trees and new planting in the design.
- Design for a hierarchy of different types of planting including avenue planting, trees in gardens, boundary planting and open space planting.
- Consider the size and species of trees to be planted. Often a mixture of sizes is best. Planting larger trees creates an instant effect but young trees and whips transplant better and will develop faster.



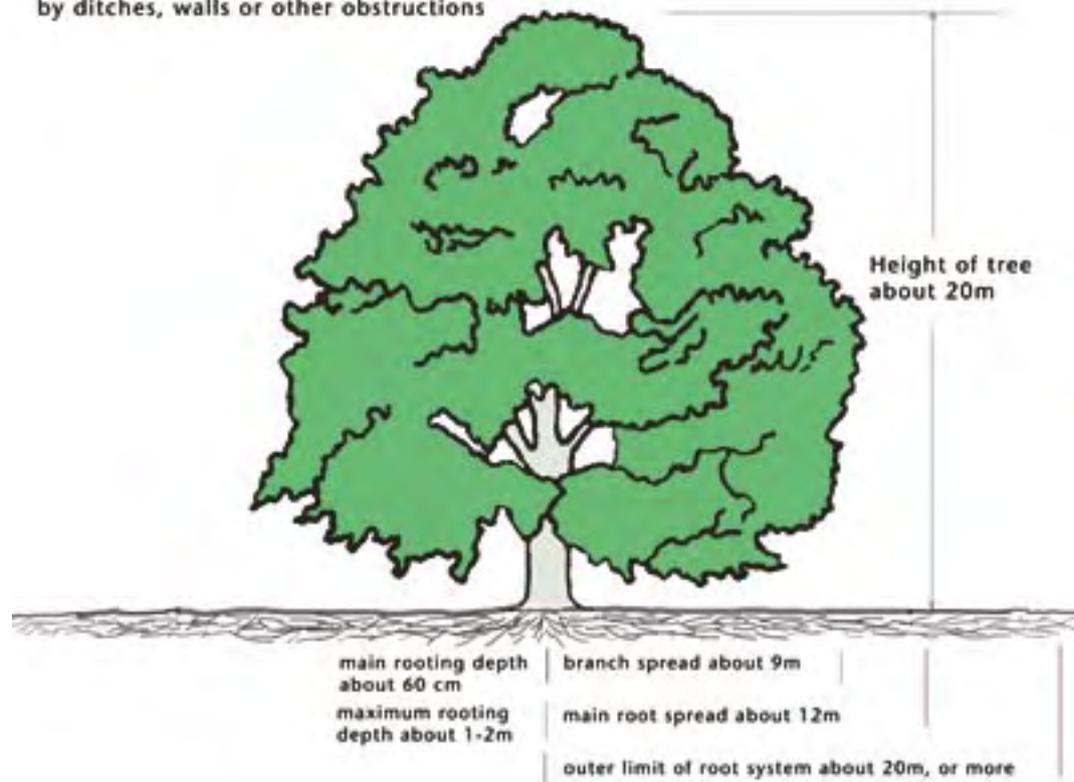
The Construction Stage

Trees are sensitive living organisms that are easily damaged or destroyed. Healthy roots are essential for their stability and to provide food and moisture for growth.

Sensible precautions must therefore be taken when working in close proximity to trees.

Where it is unavoidable that services are to be located under the crownsread of trees all trenches should be dug by hand and tree roots protected. Any planning permission will normally have conditions attached for the protection of existing trees which must be adhered to.

An indication of root spread of a typical tree on typical soil, unimpeded by ditches, walls or other obstructions



Most tree roots are generally within 600mm of the surface. They extend to at least the crownsread and frequently to a distance in excess of the tree height. If roots are cut or damaged this will adversely affect the health and stability of the tree and can destroy it.

Before work on site commences:-



Erect temporary fencing around trees to be retained at the outer limits of the crownspread or at a distance of half the height of the tree, whichever is greater. Fencing should be at least 1.2 metres high cleft chestnut pale (or alternatively chain link), well braced to resist impacts.



Ensure that the fencing is maintained during development and that all staff and contractors know the ground within the fenced area is protected. Attaching warning signs to the temporary fencing can also be helpful.

Caring for trees during construction

Avoid excavations, changes in level or tracking of machinery within or close to the fenced area at all times. These can seriously compromise the long term survival of trees due to the impact on roots.

Do not use the ground within the fenced area for site roads or site offices, stockpiles of soil or fuel and material storage, storing machinery or parking of vehicles, debris or building materials, fires, anchoring purposes in connection with winching.



Inadequate fencing, debris and building materials under crown spread



No protective fencing and tracking close to trees



Inappropriate stockpiling of materials within crown spread

New Planting

Most planning applications will need to be accompanied by a detailed planting plan. Landscape proposals are an integral part of the development process and frequently are covered by conditions of a planning permission.

Attractive planting schemes will improve as the trees and shrubs mature and help integrate new developments.

Developers should submit with planning applications a plan for the initial maintenance and long term management of all landscape proposals.



Recommendations for successful planting

- Retain and replace any topsoil stripped from the site during development. This should be stockpiled at a maximum height of 1 metre at locations well away from existing trees.
- Keep heavy vehicles, materials and storage areas off land to be planted.
- Rotavate compacted soil prior to planting.
- Plant bare rooted trees between November and March (containerised trees and shrubs can be planted outside this period, but may be more expensive.)
- Follow good working practice for the storage and transport of plants.
- Ensure that all new trees and shrubs and other plant material are from a reputable source and have a high quality specification.

Aftercare

- Weed control is essential, especially in the first few years.
- Use mulches or herbicides.
- In the first few years, trees and shrubs may need wind firming and also watering during summer months.
- Ties used to stake larger trees must be loosened as the trees grow and removed when the tree is well established (usually 2-3 years).
- Replace any trees and shrubs that do not survive.
- Woodland planting will need to be selectively thinned as it matures.

*Please help,
I 'm being
strangled!*



If tree ties are not loosened as trees develop, the tie will cut into the expanding trunk, strangling the tree.

A Quality and Sustainable Environment



Well considered landscape design will enhance the quality of our built environment. The retention of existing vegetation coupled with new planting can contribute to people's health, well being and quality of life. It will also help raise awareness of, and appreciation for, our environment.

Other useful publications to read in conjunction with this booklet include: -

- 'Creating Places' – Achieving Quality in Residential Development '
- Planning Policy Statement 7 (PPS7) – Quality Residential Environments.
- BS 5837 'Trees in Relation to Construction'
- NHBC Standards 'Building near trees'
- Arboricultural Association Leaflet Series on trees

For further information about planning matters, including Tree Preservation Orders, please contact your local Planning Office.