Introduction

It has long been recognised that trees help built-up areas appear more attractive, as well as being important habitats for wildlife and helping to improve air quality. They also provide shelter, help reduce the effect of heavy rain, and are integral to the character of the New Forest.

Trees play a significant role in the sustainability of new developments. By retaining existing trees and carefully planting new trees in a well-designed layout, new developments can be successfully integrated. As part of this process we should consider how well different types of tree fit within the existing landscape character of an area.

One of the most important parts of a tree is its roots. Most tree roots are within the top 60cm of soil, often extending out from the tree for distances in excess of its height. Damaging roots may kill or weaken the tree and, in some instances, may cause the tree to fall. Roots require oxygen to survive, but their ability to receive oxygen can by severely reduced as a result of soil compaction.

Statutory Tree Protection

All trees, regardless of their protected status, are a material consideration in a planning application, and consequently the Local Planning Authority will take them into account.

Local Authorities have the ability to make Tree Preservation Orders (TPOs) when considering planning applications. TPOs may be made either to prevent the removal of significant trees, or to protect significant trees from damage. Trees with TPOs require consent from the Authority before they can be pruned or removed.

All trees within Conservation Areas which have a stem diameter of at least 7.5 cm are automatically protected, and pruning or felling first requires the consent of the Authority.
Signs can be useful to alert construction workers

Fencing should be braced using a scaffold framework

Welded mesh panels are suitable in most situations

The three most important aspects of tree protection on developments sites are:

- Deciding which trees to keep and which trees to remove
- Ensuring that the relationship between retained trees and buildings is sustainable
- Protecting trees effectively during the construction process.

Permanent damage can occur in the first few days of a contractor being on site, so putting up protective fencing and ground protection to form the construction exclusion zone, before work commences, is essential.
Planning Applications and Trees

Trees may occupy a substantial part of a development site and can have a major influence on the planning process and how the site can be used. Existing trees of good quality and appropriate to the local area can enhance a development, and increase its value.

It is important to identify these trees early in the planning process and to successfully incorporate them into the new layout. Poorly sited buildings often damage trees so much that they need to be removed. In some circumstances Tree Preservation Orders (TPOs) will be made to ensure that significant trees which are attractive or important are duly considered throughout the design process.

Keeping inappropriate trees imposes unnecessary restrictions on a site and should be avoided, as such trees are unlikely to be retained by future occupiers. However, with careful planning, trees can be successfully integrated into new development schemes.

Seeking the advice of an arboricultural consultant at the outset of the project will smooth the process, in many cases enabling the planning application to be determined more quickly.

However this process may not be necessary for all planning applications. For example, an application for a small conservatory may not require the level of detail that needs to accompany a planning application for the development of a site with one or more dwellings. If in doubt please contact our Tree Officers for advice.
A typical tree protection plan showing how trees are to be retained and protected.
Future Building Use

The intended use of the building will have an effect on the long term viability of retaining a tree, e.g. a large tree on the southern side of a dwelling frontage may cause unreasonable shading and over-dominance.

It is vital to allow sufficient separation between buildings and mature trees to prevent over dominance and apprehension, as this may lead to pressure to fell trees.

A tree being protected within a compound at a development site
Current and Future Tree Size

The current and future size of a tree’s crown should be considered. This information will help in designing the development to accommodate retained trees when building is complete.

Oak with large crown

Typical root growth patterns

Not all trees are the same, it is therefore important to consider the tree species and how it may be impacted by a development proposal.
Tree Information Required

On sites where trees may be affected by development, a tree survey, impact assessment and method statement will help us make a decision on the application.

As well as construction details, the method statement should refer to temporary features including how construction vehicles will access the site, and where materials will be stored and site huts located. The statement should also include details of protective fencing and any other methods being used to protect trees during and after the development.

Temporary access through root protection areas may be achieved using appropriate ground protection and fencing.

Tree Felling and Surgery

It is best to undertake any approved felling or surgery before starting building work, after planning approval has been granted. All work should conform to the latest British Standard 3998.
Tree Planting and Landscaping

Replacement planting and landscaping is sometimes required. It is useful to have detailed plans submitted as part of the design statement. Allowing sufficient space for new trees will inform and compliment the design process. Car parks and open spaces often provide excellent opportunities for tree planting. In order to establish and thrive, trees included in areas of hard standing will require adequate rooting volume. ‘Trees in Hard Landscape, a guide for delivery’ published by Trees and Design Action Group (TDAG) is a useful reference.

Useful links
- http://www.trees.org.uk/
- http://www.bsigroup.com/
- http://www.tdag.org.uk/
- http://www.newforestnpa.gov.uk/

Acknowledgements – with thanks for their contribution to this document
- East Dorset District Council
- Barrell Tree Consultancy
- Dermot Cox

New tree planting in urban environments
Trees and Development -
The British Standard process

The following table outlines the requirements of the British Standard process which can be obtained from the British Standards Institute. You may therefore need to look at the Standards document to fully interpret the table below.

<table>
<thead>
<tr>
<th>BS Stage</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Land Survey</td>
<td>An accurately measured topographical survey to scale showing all trees present on a scaled plan. Trees on adjacent sites should also be shown which are within a distance equal to 12 times their stem diameter. The land survey should include locations of all trees, shrubs and hedges, other relevant features such as stems and buildings, and spot level heights.</td>
</tr>
<tr>
<td>b) Tree Survey</td>
<td>Survey information should include: ref number, species, height, stem diameter, branch spread at four cardinal points, crown clearance height, age class, condition, management recommendations, life expectancy, and British Standard (BS) categorisation. Details of Tree Preservation Orders, Conservation Areas, planning conditions.</td>
</tr>
<tr>
<td>c) Tree Constraints Plan</td>
<td>The influence that trees have on site layout is plotted. This includes the below ground constraints posed by the Root Protection Area (RPA), and the above ground constraints posed by size, position, and future growth potential. Protected areas are calculated from the information collected from the tree survey.</td>
</tr>
<tr>
<td>d) Initial Design</td>
<td>The initial design of the site should include locations of: roadways and sewers, building footprints (outline including patios, paths etc.) drains, hard surfacing. Details should also be included of the depth and width of any excavations and level changes necessary to implement the above.</td>
</tr>
<tr>
<td>e) Negotiation (prior to application)</td>
<td>Once the initial design has been received our Tree Officer will examine the tree information, building design and footprints, to ensure they comply with good practice and the relevant British Standards. In an ideal situation the information provided will be acceptable, in other cases changes may be recommended, or additional information required. The Tree Officer will seek to reach a negotiated design solution wherever possible, although in some circumstances significant trees may constrain design.</td>
</tr>
</tbody>
</table>
f) Tree Protection and/or Removal

Refer to the BS categorisation (A, B, C, or U). Remember that there may be a legal obligation to retain certain trees, including the replacement of dead and/or dying trees in classes C or U. Particular care and attention should be given to veteran and aged trees.

g) Design (application submitted)

BS 5837 recognises that Protected Areas are not completely ‘no go’ areas, and that exceptionally it is possible to construct roadways, sewers and buildings within Protected Areas. This is, however likely to be complicated and, without a tree-friendly and informed builder, has great potential to go wrong and damage the trees concerned. Appropriate engineering solutions may include: Roadways: Geotextile membrane on existing ground level, building up with stone and permeable surfacing. Sewers: install by trench less techniques Buildings: Pile and beam or raft type foundations (see NHBC Standards Chapter). Bespoke building design to minimize potential loss of light.

h) Planning Approval and Conditions

Once the development has been approved, construction may begin once planning conditions have been satisfied. Various tree conditions may be applicable and may include the need to erect protective fencing and ground protection. There may also be a requirement to submit a method statement detailing a methodology for operations such as constructing a driveway beneath a tree, phasing of construction works, or pile and beam foundations. In most cases a pre-commencement site visit will be required where details of working procedures in respect of tree protection will be finalised.

Tree information accompanying planning applications should substantially follow the format of the latest British Standard (BS5837). Planning applications submitted which do not conform to this standard may be insufficient, and we may not be able to make a positive decision on the application.
Please contact the Enforcement and Trees Team on telephone 01590 646620 if you would like to receive this publication in another format such as large print, Braille or any alternative language.

www.newforestnpa.gov.uk/trees