

Guidance Note – Trees and Development

Damage to the tree roots

The most important part of a tree is its roots. Most tree roots occur within the top 600mm of soil and extend to at least the edge of the canopy.

Fibrous roots provide moisture to the tree and are vital for the tree's health. These roots require oxygen which they find in tiny pockets throughout the upper layer of soil. Compaction of the soil, whether by passing construction traffic and machinery or by increase in soil levels will remove much of the oxygen from the soil and is likely to kill fibrous roots.

When excavating for footings, service trenches or re-grading, larger roots may be severed. This will not only kill the fibrous roots connected to them but can also affect the stability of the tree and may result in the removal of the tree on safety grounds.

Poisoning

Materials such as cement, bitumen, diesel and hydraulic fluid are toxic to trees and must not be allowed to come into contact with the ground or the tree itself. Safe storage of such materials is important for the protection of the trees.

Physical impact on trees

Any damage to the trees bark can create an environment in which fungi are able to infect the tree and cause decay. Damage can occur to trees on development sites by construction machinery being reversed into the tree or digger bucket getting entangled in the branches.

What you need to do

The following guidelines set out the procedure and design criteria necessary to ensure the successful integration of existing trees and the planting of new trees into developments. Compliance with its contents will ensure that sufficient information is submitted to enable the Council to determine in advance, the full long term effects of any new development.

Tree Survey

Where developments are likely to affect existing trees, the Council will normally require the submission of a detailed tree survey, drawn up in conjunction with a land survey.

Tree surveys should plot the accurate location of all existing trees, shrubs and hedges, including those on adjacent land which may be affected by the development and should detail the following information.

- The species of each tree;
- The trees height;
- The diameter of the tree's stem at 1.5m above ground level and the accurate canopy spread of each tree (plans must define actual crown spreads rather than using illustrative circles);
- An assessment of the condition of the tree including any relevant defects and any necessary or proposed remedial works. If it is proposed to remove a tree the reason should be given, and if the reason is simply because the tree is in the way of the development this must be stated;
- A clear indication of which trees are to be retained and those which are to be removed;
- The age class of the tree, together with an assessment of potential future growth;
- The tree's contribution to the street scene, visual amenity and ecological importance;
- Whether the tree is the subject of a Tree Preservation Order or within a Conservation Area. Where a tree is the subject of a Tree Preservation Order the survey should indicate which TPO and what number is used to refer to the tree on the TPO.

Each tree on the development site should be classified for its 'desirability for retention'. Guidelines on classifying trees can be found in BS 5837:2012 *Trees in relation to design, demolition and construction*. The use of other systems may also be acceptable but it is important that the survey identifies what criteria have been used to classify trees.

All the trees which are being retained on the site should be protected by barriers and or ground protection. The survey should also indicate the minimum distance of protective fencing around the trees. The area within the protective fencing is known as the Root Protection Area (RPA). This is a minimum area in m² which should be left undisturbed around each retained tree and little may be done in this area. In assessing whether your proposed area is of a suitable size the Council will be guided by the provisions of BS 5837: 2012.

Trees and buildings

All construction work must take place outside the Root Protection Area. It is essential that allowances are made for foundation excavations and scaffolding.

Allowances should be made for future growth of younger trees and it is advisable to keep buildings at least 1m from the edge of the tree canopy. Greater distances will be required if the tree is near a window of a habitable room, especially on the south side. When building in close proximity to trees it is important to consider the design of the foundations to avoid any possible subsidence problems.

Underground and above ground services

Consideration should be given to the routing of above ground services in order to avoid the need for detrimental and repetitive pruning. The location of underground services such as service ducts, drainage runs and septic tanks should be clear of Root Protection Areas and should be shown on submitted plans, in relation to position and canopy spread of trees to be retained. Avoid surrounding a tree with trenches.

Where services are to pass within the Root Protection Area, services wherever possible should be kept together and trenchless techniques used. Detailed plans showing the proposed route and methods of installation must be submitted.

Further Information

Trees in relation to design, demolition and construction – Recommendations BS 5837:2012

Tree work – Recommendations BS 3998:2010