SUPPLEMENTARY PLANNING GUIDANCE LDP 4

TREES AND DEVELOPMENT

LOCAL DEVELOPMENT PLAN UP TO 2021 (REVISION 2)

ADOPTED JANUARY 2017

Man gwyrddach i fyw, gweithio ac ymweld
A greener place to live, work and visit

CAERPHILLY COUNTY BOROUGH COUNCIL
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1. INTRODUCTION

1.1 Trees, woodlands and hedgerows (hereafter 'trees') are an important part of rural and urban environment with species' living for hundreds of years. The successful integration of existing trees as part of a development will enhance the landscape character of the area and the development, soften and screen buildings, enhance biodiversity, filter air, noise and light pollution, reduce soil erosion and provide a valuable resource in climate change terms. Caerphilly County Borough Council aims to ensure that the successful integration of existing trees and new planting as part of development proposals is encouraged as best practice.

1.2 Although hedgerows are included within the term "trees" in this document in general terms, some hedgerows are also protected by the Hedgerows Regulations 1997. Where a development site affects hedgerows that fall within the remit of the Hedgerow Regulations 1997, the local authority is required to carry out a wildlife, landscape and archaeological assessment to identify whether they qualify as "important" using the criteria set by the Regulations. Where a hedgerow qualifies as "important" the presumption of the Regulations is for its retention.

1.3 Development should be designed to ensure trees on site are retained where possible and space safeguarded to allow both existing and newly planted trees to flourish and mature to their full potential to ensure long-term retention, while avoiding undue future pressure for felling or excessive pruning. All design elements should be arranged to ensure a good spatial relationship is achieved between new development and trees that are to be retained and planted as part of a landscape scheme.

2. ROLE OF THE SUPPLEMENTARY PLANNING GUIDANCE

2.2 This Supplementary Planning Guidance (SPG) has been prepared within the context of the adopted ***Caerphilly County Borough Local Development Plan*** (LDP), to give greater guidance on how the following policies will be implemented:

- **SP10 Conservation of Natural Heritage;**
- **CW6 Trees, Woodland and Hedgerow Protection.**

In addition LDP4 will provide guidance in terms of Criterion G of Policy SP6 insofar as it relates to the incorporation of natural features within new development.

2.2 Policies SP10 and CW6 will facilitate the provision and protection of trees within development sites within the county borough. LDP4 seeks to ensure that trees are adequately addressed throughout the development process by seeking the protection and integration of trees into the design of new development from an early stage in the development process.

3. LEGISLATIVE BACKGROUND

3.1 National policy, guidance and legislation will also need to be taken into account when implementing policies in the LDP and the guidance in LDP4 in order to ensure that the most up-to-date information and guidance is being considered.

3.2 Under the Town and Country Planning Act 1990 (as amended) the requirement to consider trees as part of development is a material planning consideration and will be taken into account in the determination of planning applications. The council, recognises however that trees are only one consideration in a whole host of competing considerations that need to be taken into account of as part of the development process.

3.3 Trees as individuals or as groups can be protected under a Tree Preservation Order **(section 197 of the Town and Country Planning Act, 1990 (as amended))** or through a Conservation Area designation **(section 211 of the Town and Country Planning Act, 1990 (as amended))**. Contravention of the legislation in relation to TPO's and Conservation Areas can result in the local planning authority (LPA) taking legal action.

3.4 Some woodlands, by virtue of age or ecological quality, may be protected as UK Biodiversity Action Plan (BAP) habitats. Technical Advice Note (TAN) 5 offers guidance in relation to sites that are locally designated.

3.5 The relevant British Standard in relation to trees is **BS5837: 2012 – Trees in Relation to Construction – Recommendations**. The British Standard gives recommendations and guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees, including shrubs, hedges and hedgerows with structures, including the removal, retention and protection of trees into development proposals.

3.6 The Hedgerows Regulations 1997 protect hedgerows that are on agricultural land, common land, including town or village greens; land used for forestry or the breeding or keeping of horses, ponies or donkeys; or a Local Nature Reserve or Site of Special Scientific Interest. Hedgerows that do not fall within the remit of the Regulations are those that are shorter than 20 metres (unless both ends join up with other hedgerows or it is part of a longer hedgerow) or where they are in or border a garden (i.e. curtilage of a dwelling).

4. SURVEY REQUIREMENTS

4.1 All development proposals on sites that contain trees, woodlands or hedgerows, or sites which are bordered by one or more such features will need to submit the necessary survey information **(see Criterion A – LDP Policy CW6)**. Applications will be judged on their merits and additional information or surveys may be requested by the LPA where it is considered necessary.

4.2 There may be some instances when survey information is not required. For example, where there are trees within the application site boundary but no trees or hedgerows are proposed to be removed or affected, including but not exclusive to:

- Householder extensions;
- Conversions or change of use of buildings;
- Installation of new windows or replacement features;
- Erection or replacement of a boundary fence;
- Erection of advertising signs.

4.3 On applications that do require survey information, the following surveys will normally be requested:

- Tree Survey;
- Tree Constraints Plan (TCP);
- Tree Protection Plan (TPP);
- Arboricultural Method Statement (AMS);
- Arboricultural Implications Assessment (AIA).

4.4 All surveys should be carried out by a qualified Arborist and should be undertaken in accordance with ***BS5837:2012 – Trees in relation to construction – Recommendations*** or any later revised or updated version of this standard.

4(i) Tree Survey

4.5 The tree survey must show the location of the trees (accurate to within 1m) on the site and should include the following information:

- Species of tree;
- Height;
- Diameter of the trunk measured at 1.5m above ground;
- Crown spread of each tree;
- Age class (e.g. young, middle age, mature, over mature, veteran);
- Assessment of the condition (including trunk, crown and roots);

- Life expectancy (e.g. very long, long, medium, short, very short);
- Recommended works to the tree(s), including removal of poor quality or dangerous trees;
- Trees to be felled as part of the development proposal;
- British Standard status – colour coded system;
- The suitability of each tree within the context of the proposed land-use for the site (residential, industrial etc);
- Future growth of the tree including light issues, future conflict and shading patterns when the tree is mature;
- Tree Preservation Orders – Presence of constraints on site.

4(ii) Tree Constraints Plan (TCP)

4.6 A Tree Constraints Plan (TCP) identifies the above and below ground constraints, including the roots of the tree and the future growth potential and associated constraints in terms of overshadowing, amenity, proximity to power and utility cables and likely affects upon future residents e.g. fears over tree safety.

4.7 As part of the TCP a **Root Protection Area (RPA)** should be plotted around each tree indicating an area that needs to be protected during and after the construction phase of any development to avoid problems such as severance and compaction (refer to Appendix 1)

4(iii) Tree Protection Plan (TPP)

4.8 Tree Protection Plans are scale drawings produced by the arboriculturalist that should illustrate the following:

- Final layout of the site;
- Proposed built structures;
- Proposed infrastructure;
- Trees proposed for retention plotted with the Root Protection Area;
- Tree protection measures.

4(iv) Arboricultural Implications Assessment (AIA)

4.9 Arboricultural Implications Assessments are undertaken as a means of identifying, evaluating and, where possible, mitigating the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

4(v) Arboricultural Method Statement (AMS)

4.10 An Arboricultural Method Statement details how the works on site will be undertaken in relation to the trees on the site. This should include, but is not exhaustive to;

- When and how the works affecting the trees are to be undertaken;
- Access requirements and safe working areas for excavation or construction activities close to retained tree(s);
- Tree protection measures including the installation method, type and distance from tree;
- Any tree surgery works;
- Demolition of existing structures;
- Removal of any hard standing where trees will be compromised.

4.11 Please note that if any information or surveys received are unclear, or not submitted to the necessary requirements or standards, they will be required to be resubmitted to the LPA, this can delay the processing of an application and the start of works on site.

4.12 All tree and hedgerow works will need to be carried out in accordance with other relevant legislation and guidance.

5. THE DEVELOPMENT PROCESS AND PROPOSALS

5.1 Where trees exist on site, it will be the duty of the developer to demonstrate that all reasonable effort has been made to retain, protect and integrate trees, woodlands or hedgerows within development proposals **(see Criterion C – Policy CW6)**.

5.2 To ensure that trees are successfully integrated and given due care and consideration during the development process, the following issues will need to be considered by developers and the local planning authority. Please note that the issues raised are not an exhaustive list and only aim to give an overview of some of the issues that may arise during the development process. Each development site should be taken on its merits and discussions with the relevant officers and professionals will need to be undertaken.

5(i) Pre – Application Consideration and Advice.

5.3 Developers should anticipate the need to accommodate trees within a development, whether through the retention of existing trees or the planting of new trees.

5.4 Good quality design that successfully integrates trees as part of a development proposal can be achieved if opportunities and constraints of sites are identified and considered during the early stages of the design process. Consultation with council officers, including the Arboricultural Officer and Landscape Architect, prior to the submission of a planning application is encouraged through pre-application advice and discussions.

5.5 The following aspects of a site containing trees should be considered when drawing up the design for a development proposal:

- Existing trees on site;
- The long term retention of existing trees taking into account future growth potential of the tree;
- Appropriate space for new tree planting where proposals will involve felling or removal;
- Retention of hedgerow cover, including long-term retention of 'important' hedgerows.

Photo 1
These trees have room to grow. Correctly chosen species are an asset to the development. This tree planting has been incorporated within the design from the outset

5(ii) Design Considerations – Site Layout

5.6 Trees should be integrated into the layout so that they make a positive contribution to the layout of the development. Trees can increase property values by 5-20% due to their landscaping value.

5.7 Where possible, it is always best practice to integrate the trees into public open space rather than within the curtilage of residential properties to minimise the pressure to remove or excessively prune them.

5(iii) Design Considerations - Nuisance and damage to new buildings

5.8 Where trees are to be retained within the curtilage of buildings, rather than within public open spaces, due consideration should be given to the long-term potential growth of the tree and the associated implications of this growth.

5.9 In most instances, the nuisance and damage to buildings involving trees are a result of trees exploiting a weakness in a system and are a perceived rather than a real threat by the resident. However, to minimise these anxieties and to secure the long-term future of the tree the following issues should be taken into consideration:

- Light and overshadowing issues;
- Perceived damage to buildings and people such as trees falling in strong winds, loss of limbs and leaf loss;
- Damage to building foundations due to root systems.

5.10 To prevent the domination of a new building by trees, ideally no more than 50% of its garden area should be dominated by the tree's full potential canopy.

Photo 2
A development close to the existing tree has caused damage to both the root system and the buildings foundations.

5.11 To prevent the excessive loss of light due to the presence of trees, the aspect of the site and the relationship of the trees to the building are of vital importance. Trees on the southern side of buildings frequently lead to conflict over loss of light, for example.

5.12 Please note that there is no planning or legal right to a view or a satellite signal. Also note that leaf drop, sap, fruiting bodies or inconvenience caused by these issues is also not a justifiable reason to remove trees.

5(iv) Design Considerations – Construction Period

5.13 Protective fencing for trees that have been identified for retention should be agreed by the LPA **prior to works beginning on site**. To ensure that trees are not damaged during the development process further consideration should take into account the practicalities of site development such as;

- Position of site huts;
- Storage of materials;
- Vehicular access and site movements;
- Erection/ removal of scaffolding;
- Service runs e.g. gas, water and electricity.

Photo 3:
Storage of materials causing damage to existing trees on site.

5(v) Design Considerations - Wildlife and Habitat Considerations

5.14 Trees, hedgerows and scrub can provide an important habitat for bats, dormice, badgers, birds, invertebrates and other wildlife and plants. They can also provide an important network to enable species to travel through the landscape. Appropriate attention and consideration needs to be given to preserving these habitats and avoiding disturbance or damage to protected species that may be using them at both the design and construction stage.

5.15 Survey work may be required to establish the nature conservation value of the existing trees and features on site together with the species associated with them, including protected species such as roosting bats and nesting birds. In such instances the council's ecologist will be able to advise on what and when surveys will need to be undertaken.

5.16 No site works should contravene the the *Conservation of Habitats and Species Regulations 2010*, which implements the EC Directive 92/43/EEC in the United Kingdom, or the Wildlife and Countryside Act 1981 (as amended, including by the Countryside and Rights of Way Act 2000), and where protected species are likely to be affected, the relevant licences must be obtained prior to commencing any work.

5(vi) Design Considerations - Hedgerows

5.17 The retention of hedgerows is desirable as they form valuable landscape and wildlife features. Hedgerows that are proposed to be retained as part of a development proposal must be shown on the submitted drawings and surveys.

5.18 With the exception of hedgerows that form the boundary or those that are within the curtilage of a dwelling, the majority of hedgerows are protected under the Hedgerows Regulations 1997. Where it is proposed to remove hedgerows to facilitate development, sufficient information should be submitted to allow the LPA to:

- Assess whether the proposed removal falls within the scope of the Hedgerow Regulations 1997;
- Assess whether the hedgerows' to be removed are 'important' by virtue of the Hedgerow Regulations 1997.

5.19 Where a hedgerow is identified as being 'important' an attempt must be made to retain it within the development site. Where it is not possible to retain the hedgerow, mitigation and/or compensatory measures will need to be agreed between the council's ecologist and the developer as part of the development control process. This could, for example, include the translocation of the hedgerow within the site.

5.20 Hedgerows that have been neglected and are in a less than favourable condition can still be retained as part of the landscaping for a development proposal through appropriate management, including works that would enhance the wildlife value of the hedgerow. Consideration should be given to retaining these features as part of a development proposal.

5(vii) Design Considerations – Veteran Trees, Ancient Trees and Woodland

5.21 A veteran tree is one that is within the latter stages of its life for the given species. Ancient trees are trees in their third or final stages of life for the given species and are 'old' in comparison to trees of the same species. Both stages of trees are less capable of undergoing surgery. Ancient trees are of historic interest and a valuable part of our cultural heritage. Each individual tree is a survivor from the past and a relic of a former landscape. They are a living document of past management practices and ways of life. Britain has some 80% of Europe's 'ancient' trees.

Photo 4
A housing development well designed to maintain an ancient tree.

5.22 If veteran or ancient trees/ woodland are identified on site they must be considered carefully in relation to a development proposal and every attempt must be made to integrate the tree into a development proposal from an early stage to secure its long-term survival and retention. Ideally veteran and ancient trees would be retained within public open space to minimise future pressure from residents requiring the removal of the tree from within their curtilage.

5.23 Veteran trees in particular often provide valuable wildlife habitat to a large range of species, including protected species such as bats, dormice, birds, as well as others including invertebrates, mosses and lichens. Where such trees are affected by a proposed development, protected species surveys are likely to be required and advice should be sought from the local authority ecologist at an early stage in the design process.

5(viii) Works to Trees

5.24 Any necessary works to trees should, wherever possible be carried out prior to any other site works to minimise risks and costs. All tree work must be carried out by a competent arborist and be in accordance with *BS 3998: 2010 – Recommendations for Tree Work* or any later revised or updated version of this standard.

5(ix) Protected Trees

5.25 Every effort should be made to retain trees or groups of trees that are protected by a Tree Preservation Order (TPO) or that lie within a Conservation Area. Works to protected trees requires prior consent from the LPA.

6. REPLACEMENT PLANTING

6.1 Replacement planting as part of mitigation and compensatory provisions **(see Criterion D, LDP Policy CW6)** should be dependent on location, and this will include the consideration of soil conditions, for example brown field sites, it should also anticipate the whole lifetime of the tree; its health, potential growth capacity and the desire to minimise the pressure to remove the tree in the future.

The following should be considered:

- Adequate space should be identified for new planting, including areas for mitigation or compensatory measures. The space should provide for the full potential of the tree when it has reached maturity.

- Proposed planting should reflect the character of retained trees and features, providing complementary planting scheme in terms of species, size and potential growth.

- New planting and replacement planting should take place prior to the occupation of the site. Where this is not possible, the new residents or occupiers should be made aware of the requirements for planting on their land.

- Wherever possible, native and locally characteristic broadleaved trees, shrubs and other plants should be used and sourced from a local supplier (local provenance) to enhance biological and genetic diversity.

- Planting should not be placed over underground services or drains to avoid any future conflict that would ultimately result in the removal of the tree.

- Planting should take into account the highway and infrastructure layout and consider visibility and traffic hazards. Planting trees with heavy leaf fall or fruit production such as Horse Chestnut may lead to pressure for the removal of the tree in the future.

- Ongoing management considerations. Developers should consider how trees will be managed in the operational phase of a development, especially where they are integral to the protection of a biodiversity interest. Management plans may be required for particular sites, in order to achieve this.

6.2 All landscaping proposals and works that have been approved by the LPA should be accompanied by a method statement detailing how retained trees will be protected to prevent damage. Use of machinery such as mini diggers, rotavators, mowers and contractors vehicles can cause as much damage as building works. Ideally all tree protection measures should be retained until all landscaping has been completed to prevent damage to the retained trees.

Photo 5
These trees have been planted taking into consideration future growth and the design and layout of the development. They have added character and help soften the built environment.

7. USEFUL CONTACTS AND INFORMATION

7.1 For further information please contact the Planning Department.

Planning Division
Caerphilly County Borough Council
Tredomen House
Tredomen Park,
Ystrad Mynach,
Hengoed,
CF82 7WF

Tel: 01495 235096
Email: planning@caerphilly.gov.uk

7.2 For information on the local development plan or further guidance on the supplementary planning guidance please contact the strategic planning team or visit our website to view documents.

Strategic & Development Plans Team
Caerphilly County Borough Council
Tredomen House
Tredomen Park,
Ystrad Mynach,
Hengoed,
CF82 7WF

Tel: 01495 235096
Email: ldp@caerphilly.gov.uk
Website: http://www.caerphilly.gov.uk/site.
aspx?s=II4xD9rWeG2nQQSwaPax/Q==

8.3 For information or national guidance please contact the Welsh Government (WG) or visit the WG website where all documents will be available in electronic form.

Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Telephone: 0845 010 3300
Email: planning.division@wales.gsi.gov.uk
Website: http://new.wales.gov.uk/topics/planning/ policy/?lang=en

APPENDIX 1

Guidance to determine the Root Protection Area

There are a lot of misconceptions about how tree root systems develop. Most trees are shallow rooted, with typically 90% of all roots, and virtually all the large structural supporting roots, being in the upper 60cm of the soil. This means that they are easily susceptible to damage as a result of construction and development.

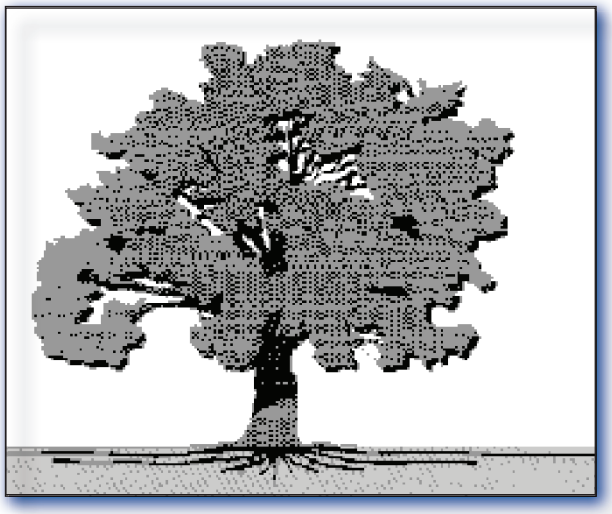


Diagram 1:
Illustration of a typical tree root system

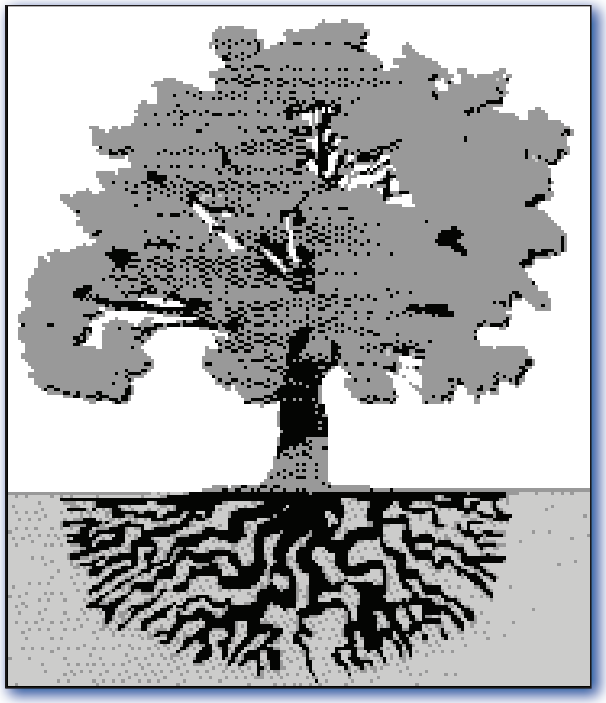


Diagram 2:
Inaccurate illustration tree root system.

The most common cause of damage to the tree and its roots during the construction phase are:

- *Compaction of Soil* – Soil structure is destroyed by removing the spaces between soil particles preventing the uptake of oxygen and nutrients or causing water logging. Compaction is normally caused by storage of materials such as bricks, gravel and cement and vehicular movement on or too close to the tree roots.

Photo 6
Examples of activities resulting in compaction of soil.

- *Excavation* – Excavation close to trees is likely to result in root severance, resulting in a loss of vigour, reducing the uptake of water and nutrients and allowing access for decay diseases. In extreme cases the tree may become unstable.

Photo 7
Examples of poor excavation activities.

Photo 8
Examples of poor excavation activities.

- *Ground Level Changes* – The raising or lowering of ground levels around a tree, even if it is only by a few centimetres, can result in root severance, compaction, suffocation of roots and ultimately root death.

Photo 9
Increase in soil Levels may/ will result in asphyxiation of the root system and root and/or tree death.

- *Soil Contamination* – Oil, fuel and chemical spills and the mixing of materials too close to the root system can cause contamination, again leading to root death.

Diagram 3
showing damage to trees through fires and contamination from chemicals, oil and fuel left close to the tree.

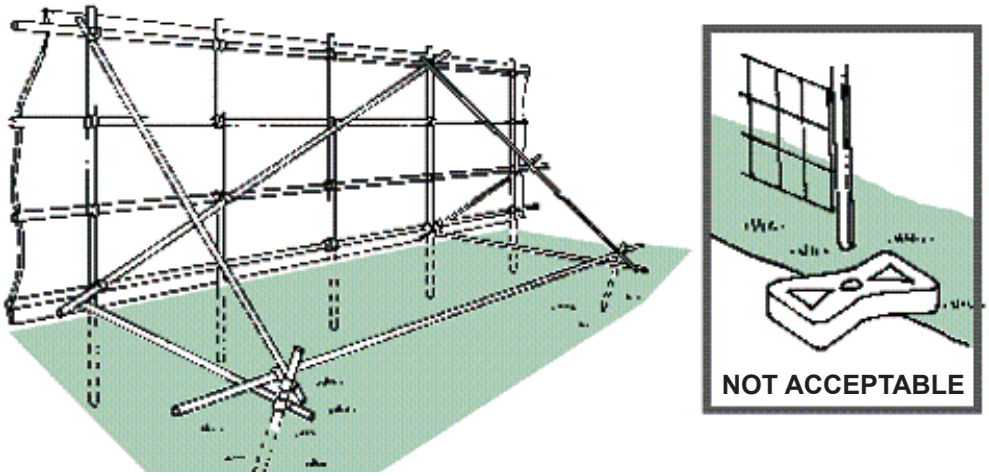
- *Fires* – Tree stems and roots are very prone to heat damage from fires. Even relatively small fires can cause extensive damage that is not apparent until long after development is complete.

Root systems should be adequately protected prior to and during all development activity on site to prevent damage (**see Criterion and Policy B, LDP policy CW6**). A **Construction Exclusion Zone,** an area based on the RPA identified by an arboriculturalist, should be protected during development using barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Photo 10
on the left is a **non-compliant** tree protective fencing – it is too close to the tree and is not strong enough to withstand impacts. The result being that the ground area around the tree has suffered from compaction and water logging, which will ultimately result in decline or death of the tree.

Photo 11 and 12 (above)
on the right are part finished temporary surface and fencing within RPA carefully designed and supported with method statement and Arboricultural watching brief.

Diagram 4 (below) shows the construction of protective fencing.



Protective fencing for special conditions

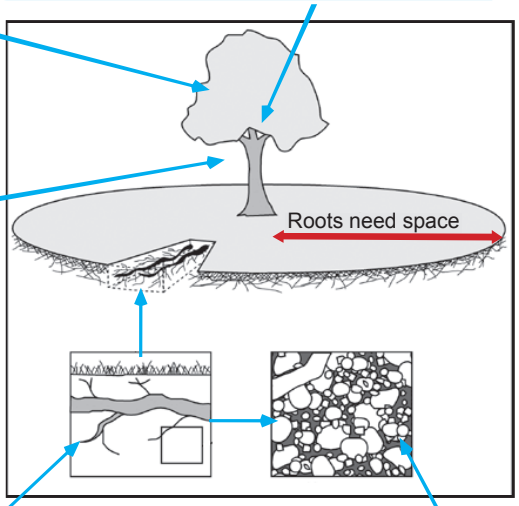
APPENDIX 2

Diagram 4 (below) illustrates the importance of different features to trees and their surroundings.

Foliage: The foliage of a tree traps the energy it needs to grow through photosynthesis. A reduction in leaf area will reduce the vigour of the tree.

Wood: A tree stores food energy in the wood. The removal of wood reduces vigour.

Bark: Breaching the bark of the tree by 'lopping' or by injury to the above ground parts of the tree or to the roots can lead to infection and decay.



Roots and root depth: Roots take up water and nutrients from the soil. They need oxygen from the air in the soil to be able to do this. Most roots are very fine and they are not easily noticed in the soil. The root system is typically concentrated within the upper 600mm of the soil, although it may be deeper within the dense mass of roots and soil close to the base of the tree. The roots travel outwards from the stem and soon branch so as to form a network of small-diameter woody roots, which typically extend radially for a distance much greater than the height of the tree (except in unfavourable conditions). All parts of the root system bear a mass of fine, non-woody absorbing roots. The root system is not symmetrical. Root development is influenced by many factors including, water, oxygen and soil penetrability. The root system, as far as these conditions and factors allow, tends to develop sufficient network coverage to provide the tree with stability. The fine absorbing roots that are less than 0.5mm diameter take up the water and minerals. The favourability of soil conditions dictates the absorbing roots survival and function and therefore the health of the entire tree. The majority of the short lived absorbing roots die each winter with new ones developing in response to the needs of the tree. All parts of the root system, especially fine roots, are vulnerable to damage. Once roots are damaged, water and nutrient uptake is restricted until new ones have grown. Mature and post-mature trees respond slowly, if at all, to damage to woody roots.

Soil: Soil is made up of particles of different sizes, air spaces and water. Compaction of the soil is a very common case of damage and death to trees on development sites. Soil compaction closes the minute gaps between soil particles and prevents both air and water from being taken up by the roots.