

Introduction

This Supplementary Planning Guidance (SPG) will be of assistance to all those involved with the development of land because it clarifies and expands upon policies on site development contained in the Council's local plan¹. Overall the plan aims to achieve sustainable development²; balanced development, which will not burden or reduce the range of choices available to future generations.

As living and growing things trees and hedges are valuable in themselves. By modifying local environments however, they can also contribute significantly to the sustainability of new development. They provide shade, shelter and oxygen; they form and enhance wildlife habitats and render harmless many pollutants. Despite these positive contributions many trees (and hedges), are lost to site development. The main reason for this is that trees and hedgerows, their needs and habits, are poorly understood.

In an area with few trees this is an issue that must be addressed. Development, which is planned, executed and managed in a sustainable manner, can contribute significantly to the retention of trees and hedges as part of the wider economic, wildlife and amenity resource of the area. It is this approach to land development that the Council wishes to promote.

Sustainable land development recognises the needs of trees and considers their habits. This guidance provides advice on retaining existing patterns of tree growth and incorporating trees into development.

The guidance emphasises and explains the impact of development upon trees and not vice versa. It stresses the importance of retaining soil structure, and is based upon the premise (explained in local plan policies), that careful consideration of the importance of trees and other landscape features should be integral to the land development process. Use of the SPG will help to clarify the role and needs of trees.

The benefits of trees are immense and an increase in the amount of tree cover in North Lincolnshire will benefit everyone. We all appreciate trees in our travels and lifestyles, and we depend upon them more than is perhaps generally realised. The following Guidance will help all those involved in the land development process contribute toward the aim of retaining and planting more trees.

Councillor John England

1 Adopted May 2003 - See appendix 1 Local Plan Policies

2 Policy ST1 - Sustainable Development

About this Document

How to use the Notes.

These Guidance Notes are statements of current thinking on particular aspects of site development. Two types of information are provided.

- Information on how the Council will handle applications for development where trees and hedges are concerned.
- Practical information about trees and hedges and how best to retain them as part of site development.

As each note contains cross-references to others there is no need to read them sequentially. To use the notes therefore, find the one, which most closely matches your interest or concern and start from there.

Updates

Tree management and care is a dynamic subject, informed by best practice and scientific endeavour. As our understanding develops and as new management techniques come forward, so these guidance notes will be supplemented and updated.

The Guidance Notes

1. Land and Tree Surveys
2. Protecting Soil Structure - Sketch Layout Plans
3. Protection Zones - Definition and Calculation
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Appendix 1. Calculation of Protection Zones for Trees

Appendix 2. List of Relevant Local Plan Policies

Appendix 3. Tree Protection Systems

Other Information

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March 2003

Land and Tree Surveys

Prior to deciding upon any design issues a professionally qualified person should be engaged to survey the site. Two types of survey information arise from this, and these can be used to inform the site development process and provide basic information upon which to base planning and other applications.

1. Land Survey

- Represents site topography through use of contours or spot heights throughout the site.
- Identifies all existing features, detail and accurately locate all existing vegetation, structures and service runs.
- Should be drawn at a minimum scale of 1:200 and be accurate to within 0.5 metres.
- Breaks complex areas down into manageable sections.

2. Tree Survey

- Accurately plots the location of all trees, shrubs and hedges (including those on adjacent land affected by the development), against the land survey plan.
- Provides information on species, height, trunk diameter (measured 1.5 metres above ground level), and an accurate measurement of canopy spread.
- Gives an assessment of the age, condition, vigour and future growth potential and the desirability of retention.
- Assesses Current and/or potential amenity value.
- Identifies trees suitable to retain given the land use proposed.
- Identifies amenity and/or wildlife value of all hedging.

The Guidance is therefore, that all decisions about land development should be informed by such survey work. This Guidance applies whatever the size of the site when trees or hedges are present. Infilling development may result in different challenges than on larger sites. The presence of trees may reduce limited site, as may the proximity of trees on adjoining sites. The Council considers however,

that to neglect to properly consider the needs of trees on or adjoining such sites could be detrimental to the overall townscape of many of its settlements.

See Also Guidance Note 2 and 10

Protecting Soil Structure and Sketch Layout Plans

Most roots are found within 600mm of the soil's surface. The object of surveying in order to plan for the presence of trees is to preserve these root systems so that their growth and development is not adversely affected. These systems are made up of fibrous roots through which nutrients and oxygen are taken from the soil. They also contribute significantly to a tree's structural stability.

The Guidance is therefore, that retaining trees and hedgerows within a development site is best achieved by protecting root systems. This, in turn, is the best achieved by protecting soil structure. The need to do this should be anticipated and discussed prior to finalising development parameters such as the design or siting of buildings or services. No work of any kind should be undertaken until measures to protect trees have been finalised and put in place.

Planning Policy Guidance issued by Central Government suggests that developers should be able to demonstrate how they have taken account of the need for good layout and design.³ It is advised that this can best be done through the production of Sketch Layout Plans.

Prepared with the assistance of a professionally qualified arborist and/or, landscape architect, Sketch Layout Plans are a starting point in addressing issues arising from sustainable site development and will be of assistance in negotiations with the local planning authority and others. Developed on the basis of the information arising from the land and tree surveys (Guidance note 1) these sketch plans will provide information sufficient to allow assessment of: -

- The arboricultural and landscape implications of the proposed development.
- The long term retention of existing trees and hedgerow cover identified as having significant current or future amenity value.
- Space for new planting.
- Planting to offset any reduction in amenity caused by the loss of trees.

See Also Guidance Notes 4 and 10

Protection Zones

Protection Zones Defined.

The easiest way to retain soil structure and root systems is to plan a development so that the soil is not disturbed in the first place. A protection zone is - a minimum area around each tree, group of trees or hedge, as established by the application of the survey methods referred to above (Guidance Notes 1 and 2). These areas should remain completely undisturbed. Site layouts should therefore be designed to avoid any construction works within these zones, the passage of plant and machinery across them and/or, any storage of materials. It will be a normal expectation that these areas will be protected by means of stout fencing. (See Appendix 3)

Calculating Protection Zones.

In addition to preserving soil structure a Sustainable approach to land development takes into account many factors influencing the needs of trees. For the purposes of this Guidance therefore, the Council considers that the aims of sustainable site and land development will be best served by protection zones calculated upon the basis of a range of factors. (For full details see Appendix 1).

To calculate the minimum distance from a proposed building each factor involved is given a points score. Each point scored equates to one linear metre.

For the sake of clarity the following examples are given.

- Trees of large ultimate size with dense foliage - e.g. a Poplar near residential property with a south facing aspect and also providing a bat roost, would score 14. Any new build would therefore, be required to be 14 metres away.
- Medium trees of light foliage - e.g. a Birch near a residential property on the north side would require to be 6 metres away.
- Small trees with medium foliage - e.g. a Laburnum near office or light industrial unit on the east side would require to be 6 metres away.

Other examples are given on the work sheet example at the end of Appendix 1.

Guidance Note 4

Working Within Protection Zones as Determined in Guidance Note 3

Circumstances may arise where the only way to proceed is to allow construction and/or construction works within protection zones. Site and Tree Surveys will assist in establishing whether this is so. (Guidance Note 1)

These circumstances will be exceptional and generally, the submission of full details will be required with the planning application as the Council is unlikely to agree to a conditional approval in such circumstances.

In order to determine the likely effects of such working on the long term health and structural stability of the trees, method statements and detailed construction specifications may also be requested. (Guidance Note 11)

The long-term implications of any construction work within protection zones should be carefully assessed in relation to Appendix 1 - Calculation of Protection Zones for Trees. New structures, services, hardened areas should be sited or designed so as to avoid direct damage from future growth of the bole and/or, the main structural roots of retained trees.

Where works within zones are considered acceptable, the Council will expect provision to be made for the supervision of all works by qualified arborist.

See Also - The Building Regulations Guidance Note 10

Sustainable Site Designs

Avoiding Future Conflict.

Sustainable land development will seek to achieve maximum amenity benefits with minimum intervention and subsequent maintenance. Site development planning should therefore, ensure that important trees can be retained to maturity without the need for excessive or unreasonable pruning.

Sites layouts not designed in this way may result in pressure for the felling or excessive pruning of important trees. In considering the position of trees relative to buildings therefore, site layouts should not simply site buildings and layout roads and sewers so as to avoid protection zones.

Consideration also needs to be given to:-

- The predicted mature height, branch spread and crown form of trees is assessed against aspect, topography, soil conditions and exposure.
- Whether trees at maturity will dominate buildings or cause unreasonable obstruction of direct sunlight, or daylight.
- That garden areas are large enough to enable normal domestic use and reasonably accommodate retained trees, including allowance for future growth.
- That pruning regimes consistent with prudent arboricultural management for retained trees are specified. (full details should be included in the Tree Survey).
- That all tree works comply with modern tree management standards, and meet the requirements of British Standard BS3998 (1989) Recommendations for Tree Work and of The International Society of Arboriculture "Tree-Pruning Guidelines" 1995.

To achieve this level of sophistication and design the guidance is that a qualified arborist and/or landscape architect is consulted prior to any decisions on site design and layout being made

See Guidance Notes 1 and 2

Site Access and Services

Access and Root Systems – Because of the extent and nature of the fibrous root systems of trees and hedgerow plants, it is not necessary to dig deep holes to seriously damage them.

For Example building access roads, footways and private drives involves a great land take, the associated excavations and soil compaction is site wide. Excavations and compaction by heavy plant and machinery can cause greater damage to root systems than by, for example, the digging of strip foundations.

In developing a site layout it is vital that the importance of root systems is appreciated and that the extent of the systems are identified. (Guidance Note 1 – Tree Survey). Full detail of permanent and temporary access and roadway construction, including cross sectional construction information, will normally be required in support of any full planning application. This type of information may also be requested on outline applications and should also accompany proposals for the landscaping of the site as a reserved matters following outline planning permission.

Access and Safety – For safety reasons, site access layouts and visibility splay clearances may require the removal or pruning of trees and hedges.

The likelihood of this occurring can be identified by reference to the Council's Estate Road Constructing Guide⁴ through the Development Team approach adopted by the Council. In general, whilst it is appreciated that some loss of tree and hedgerows is to be expected, site access and road layout designs will be expected to minimise tree and hedgerow loss and ensure the long-term retention of all important trees and hedges.

Temporary Access – Sites may also require temporary accesses and roadways for long or wide loads and provision may be required for unusually high vehicles or plant.

The need to provide adequate operational space within the site, for specialised heavy plant (including cranes and piling rigs) must also be considered. Any resulting short and long-term implications for trees and hedges, which are to remain, must be carefully assessed, and full detail submitted as a part of any planning application.

Services – Drainage and service layouts must be designed in such a way as to allow for installation and future maintenance without adversely affecting trees and tree root systems. The provision of common service trenches will help to minimise

4 See also Residential Reads and Footways layout considerations Design Bultin 32, 1992

potential conflicts and the use of Sustainable Urban Drainage systems may also be of assistance (See Estate Road Construction Guide 4.12)

Full details of service layouts should be submitted with any planning application. Service layout planning and installation should be carried out in accordance with the requirements of The National Joint Utilities Group (NJUG) Publication No 10 - Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees.

Tree Planting - General Principles

To be successful, planting should be purposefully designed to complement the proposed features of the development, and those existing features identified for retention. (Guidance Notes 1 and 2). It must also be appropriate for its location so account must be taken of species, diversity of planting and location within the landscape.

On sites, which have no trees whatsoever, it is especially important to plan for the planting of trees as part of the development. In such cases the Council will wish to discuss the making of Tree Preservation Orders in order to preserve planting for the benefit of future generations. Again however, appropriateness must be considered. There are for example, parts of the Council's area where for historic or habitat reasons the planting of certain species or, any planting, may be inappropriate. As part of the background work to its Local Plan the Council commissioned a landscape assessment of its area. This now forms part of the plan and provides advice on the appropriateness of various landscape elements, particularly in the open countryside or on the periphery of settlements.

Tree planting enhances the physical characteristics of a development through providing shelter, screening, enclosure, softening the harsh outline of buildings, defining space or directing routes and views, or simply in 'lending enchantment' to the visual amenity of an area. Particular attention should be given to the use of tree planting in enhancing public areas within developments and views into sites from surrounding public viewpoints; through the planting of native species (preferably with a local area providence⁵), the quality of local environments and habitats.

Tree planting schemes will be expected to: -

- Contribute to the conservation or enhancement of the landscape, providing overall environmental, public amenity and nature conservation benefit.
- Be appropriate for the intended use of the site.
- Contribute to establishing a well- structured framework of diverse ages, sizes and species of tree.
- Have the potential to be constructively managed.

In locations where nature conservation objectives are recognised (See North Lincolnshire Local Plan – in particular Landscape and Conservation), substantial planting schemes will generally be expected to maximise the benefits to wildlife,

5 The use of local providance etc.

through the use of a range of native trees and shrubs suited to the ecology of the locality. (But see above also).

Due consideration should be given to layout configuration, planting density, choice of species, species mixes, proportions and edge characteristics. Such schemes should always be prepared with input in the form of professionally qualified ecological advice. It may also be necessary on occasions to secure the advice of other professions to advise on for example, the land drainage implications or, legal considerations where boundary considerations apply. In some instances the presence of archeological remains may be such as to seriously restrict the scope for planting - again the security of professional advice at a very early stage in the development process would be of assistance here.

Tree Planting - Avoiding Future Conflict

Tree planting should aim to make the optimum long-term use of allocated space without causing unreasonable future inconvenience to occupiers. Consideration should also be given in species selection and in planting to the operational requirements of adjoining land uses and users.

In order to ensure that new trees do not interfere with buildings to such an extent that unsightly, heavy pruning or removal becomes necessary, the following factors will require attention: -

- Careful choice of species and siting to ensure long-term amenity benefits and minimise future conflict.
- Selecting species and selecting planting sites on the basis of an assessment of the plant's potential dimensions and growth habit at maturity, thereby establishing whether future pruning is acceptable.
- Careful siting of new trees with reference to Appendix 1 – Protection zones can also be used to give an indication of the ultimate size of a tree. Planting should however also ensure that future root damage to structures, drains, services, walls, paths and drives is prevented, or kept within acceptable limits.

For assessment of the future impact of tree plantings on the site see Guidance Note 5.

Planning - Conditions, Tree Preservation, Felling Licences

Information Accompanying Planning Applications.

Landscaping of sites, the presence of trees and hedgerows and the desirability of retaining them is an important material consideration. Planning applications should have with them therefore, all relevant information needed to assess: -

- All proposed landscaping and tree works.
- The immediate impact of proposed works on trees and hedgerows on and adjacent to development sites.
- An accurate assessment of the long-term impact of works upon those trees and hedgerows.

Where the Council considers the information submitted is lacking it will usually request further information within ten working days.

Planning Conditions

Developers should bear in mind the advice given in Guidance Notes 1 and 2 concerning the type of information required and the form in which it should be presented. In addition, in many instances it will not be possible to deal with outline planning applications without considering the need to protect important trees and hedges. This may be done through planning conditions and through the designation of "Protection Zones" by condition. The use of such conditions should not be necessary where full planning applications are concerned because full details of the retention of trees as part of the landscaping of the site are a normal requirement of such an application. The Council will expect information of the form identified in Guidance Note 1 and 2 to be submitted with full planning applications. The landscaping of a site is a matter which can be reserved for future consideration on submission of an outline. The Council will accept submission of details for the following outline to be to the same standard as for a full planning application. The adoption of Land Surveys and Tree Surveys as specified in Guidance Note 1 is recommended even in the case of outline applications.

Tree Preservation Orders

North Lincolnshire Council also has a duty to make as necessary, Tree Preservation Orders (TPO's) to safeguard the amenity of the local environment. Orders will be made where there is a potential threat to trees of significant amenity value, either existing or, potential. It seeks to use TPO's in a flexible manner and in accordance with best practice advice contained in "Tree Preservation Orders - A Guide to the Law and Good Practice" - Department of

the Environment March 2000. Tree Surveys as described in Guidance Note 1 should identify such trees.

Felling Licences

The Forestry Commission through the Forestry Act and a felling licence procedure, controls felling of trees. Generally, a licence is not required for the felling of trees within the confines of residential property, in parkland, orchards, churchyards or other public spaces. Circumstances may not always be clear cut however, and it is always best to check with the Commission rather than fall foul of the legislation.

The Commission also has a role where planning applications may not put current semi-natural woodland at risk and in such circumstances, the Planning Authority must consult with the Commission.

Policy in the North Lincolnshire Local Plan establishes a general presumption against development likely to harm such woodland.

Enforcement of Planning

The Council is active in monitoring all planning permissions and uses enforcement and breach of condition notices to secure compliance with planning requirements and conditions. It also monitors Tree Preservation Orders and will as necessary bring proceedings for breach of such orders or for unauthorised work to trees in conservation areas.

The Building Regulations

Part A of the Regulations (Structure) deals in part with the impact of trees upon built structures. It refers developers to various British Standards documents. Basically there is a demonstratable relationship between the proximity of a tree , its potential size, its capacity to take up ground water, the type of soil, and the impact which the tree may have upon structural stability.

The Regulations seek therefore, to protect structures from trees whereas these Guidance Notes seek to do the opposite. Establishing Protection Zones as described in Guidance Note 3 may also show compliance with the Regulations however, there may still be a need to provide root barriers and specifically designed novel foundations for example, within protection zones. See also Guidance Notes 4 and 5.

Guidance given in this document does not supercede or amend the requirement of the Building Regulations in any way. Advice on the applications of the Regulations with respect to trees and Development can be obtained from:-

North Lincolnshire Council
Environment & Public Protection
Building Control
Church Square House
PO Box 42
Scunthorpe
North Lincolnshire
DN15 6XQ

Planning and Arboricultural Method Statements

On some sites trees may be particularly vulnerable to damage. Where because of this, additional safeguards are necessary, a planning condition requiring the submission and approval of a detailed Method Statement for Arboricultural Works will be attached to any planning approval. In addition, it may not be possible to determine an application made in outline without more detailed information concerning how trees and hedgerows will be affected by development. (See Guidance Note 9)

Method statements will be expected to address the following matters: -

- The timing and phasing of all arboricultural works.
- Implementation, monitoring, supervision and maintenance of the Tree Protection Scheme.
- Implementation monitoring and supervision of the approved Tree Work Specification.
- Implementation, monitoring and supervision of any approved development works or construction activities within the defined Protection Zones.
- Provision for regular monitoring of ongoing development operations to ensure full compliance with the approved Tree Protection Scheme and Arboricultural Method Statement for the duration of the development.
- The setting up of an agreed framework for maintaining appropriate levels of communication between all involved parties.
- Provision for qualified arboricultural supervision.

Guidance in Notes 1 and 2 can be used as a basis for a method statement

Planning and Working With Trees

This section refers to any tree felling, transplanting or tree surgery works, recommended as part of the Tree Survey (Guidance note 1). This may be needed prior to or during the implementation of a planning permission or, upon its completion.

Removal of trees and hedgerows prior to discussions with the Council or, a design and layout being finalised, is not recommended. It is against principles underlying sustainable development and results in future generations being robbed of resources, which could be of importance to them.

Where this occurs however, the Council will use its landscape appraisal information and regularly updated digital aerial survey data to inform its approach to discussions regarding the landscaping of sites and appropriate levels of tree planting. There will be a presumption that lost tree cover will be made up either at the development site or in close proximity to it. Exceptionally replanting elsewhere will be allowed. Planning obligations may be required to secure such planting.

The Council will seek to reach agreements with developers to secure the reinstatement of tree cover lost to development. It is expected that all tree work will be carried out to the highest standards and planning conditions and Tree Preservation Orders will be used to ensure such standards. (See Guidance Note 10)

Section 106 Agreements (Planning Obligations)

Obligations under Section 106 of the Town and Country Planning Act 1990 may be sought to secure works considered necessary to allow the grant of planning permission but which, for various reasons, may fall outside the scope of a particular application to develop land.

The Council also has powers to require the appearance untidy land which by reason of its condition it considers detrimental to the amenity of the area to be required. Given that land can lie dormant, depending upon market conditions, following the grant of planning permission, it will also now consider the use of agreements under Section 106 of the Act to secure an appropriate level of continuing land management.

The Council may also seek through a planning obligation under Section 106 of the Act or other covenant on the sale of the land, for trees and hedges to be maintained by subsequent owners of land, in accordance with best arboricultural practice.

Tree Work Schedules and Specifications

During the initial stages of the site development process it is recommended that tree work schedules and specifications be developed. These can be used together with land and tree surveys to inform pre application discussions with the Council and should: -

- Be drawn up in accordance with the requirements of British Standard BS3998 (1989) Recommendations for Tree Work and the International Society of Arboriculture 'Tree Pruning Guidelines' 1995.
- Contain sufficient levels of detail for an accurate assessment of the full implications of the proposals to be made.

Planning conditions will normally be used to ensure that the Council prior to implementation approves Tree Work Schedules. In some cases a full Tree/Woodland Maintenance Programme and related Method Statement may be required to be submitted for approval.

Planning and Landscaping

Landscaping Schemes and Planning Conditions.

Planning conditions and/or legal obligations will be used to ensure tree and hedgerow-planting schemes are implemented and maintained. The submission of detailed landscaping schemes, as part of planning applications is however, preferable on all sites. Any landscaping scheme should seek to understand the topography of the site including the “landscape underground” (See Guidance Notes 3 and 4) with a view to preserving soil structure.

Minimum Standards for Landscaping Schemes.

- An accurate detailed planting plan and schedule.
- A comprehensive list of species and a stock specification.
- Detailed planting densities and spacings.
- Individual locations of all specimen trees.
- Clear indications of all existing trees for retention and those for removal.
- Information on the preparation of the planting environment. (See British Standard BS4428 (1989) Code of practice for General Landscape Operations (Excluding Hard Surfaces)).
- Information on planting standards. (See BS 4043 (1989) and BS 4428 (1989)).

Specifications detailing how the landscaping will be maintained. (See BS 4428 (1989)).

Planning and Damaging Operations.

- Excavation within the rooting zone.
- Raising or lowering of ground levels.
- Compaction of the soil by construction works, by site machinery or vehicles, and by the storage of materials and debris.
- The dumping or spillage of toxic materials.
- The installation of impermeable surfacing.
- Direct damage to trunks and branches by construction vehicles.
- Fires lit closer than 10 metres from the furthest extent of the canopy of a tree.⁶

Tree Protection Schemes.

The Council will normally require a detailed Tree Protection Scheme to be submitted for approval. This will be expected to make provision for the retention and protection of trees, shrubs and hedges growing on or adjacent to the site.

Fencing - Robust fencing positioned so as to enclose and define exclusion zones (see Guidance Note 4) is the main element of a protection scheme. The type of protective fencing to be used should be appropriate for the degree of construction activity. In all cases it should however, be robust enough to dissuade access to protected zones.

The positioning of protective fencing must ensure that the development can be implemented without intruding into the protection zones. Appendix 3 provides clear guidance on the implementation of tree protection schemes.

Planning conditions and/or legal obligations will normally be used to ensure that:

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- Protective fencing is erected prior to the commencement of any construction works on the site. (Including demolition and preparatory site clearance).
- No development or other operations take place until all preparatory works required by the Tree Protection Scheme are in place.

⁶ Developers and site clearance specialist will be aware that the lighting of fires is illegal unless specially licenced by The Environment Agency, North Lincolnshire Council regularly monitors development sites for unauthorised fire lighting.

- All subsequent development operations are carried out in accordance with the approved scheme.
- No development operation or construction activity, which could potentially cause damage to trees or hedges, is permitted within any area designated in the approved scheme as being fenced off or otherwise protected.
- Protective fencing is retained intact for the full duration of the development, and is not re-positioned or removed without the prior written approval of the Local Planning Authority

Calculation of protection zones for trees

For Town Planning purposes The Council will calculate minimum distances for building new properties from existing trees by reference to the Greater Yorkshire Tree Officers Group paper on the subject. For full details see appendix 3. This procedure allows one linear metre for each point scored, to find the minimum distance from property. For the sake of clarity the following examples are given.

- Trees of large ultimate size e.g. Poplar with dense foliage near residential property with a south facing aspect providing a bat roost would score 14, therefore the property would require to be 14 metres away.
- Medium trees of light foliage e.g. Birch near a residential property on the north side with no special factors would require to be 6 metres away.
- Small trees with medium foliage e.g. Laburnum near office or light industrial unit on the east side would require to be 6 metres away.

Definitive Scores

The definitive scores for the tree species most commonly found in the urban environment relate to 2 tree characteristics:

- Ultimate size
- Density of foliage

Ultimate Size

Ultimate size is found by multiplying the maximum crown spread of a species (from Gruffyd) by the normal maximum height of the species in an urban situation (from Arb. Research Note – 84/90).

The result in square metres is intended to reflect not only the size of the crown, but a zone of influence cast by the tree over a garden and/or property.

Score

4	over 400m ² very large eg Poplar, Beech
3	251-400m ² large eg Sycamore
2	101-250m ² medium eg Whitebeam
1	0-100m ² small e.g Mulberry

Density of Foliage

Density of foliage is a measure of density of shadow likely to be cast by a species. Based on tree officers experience there are 3 categories: Light, medium and dense.

Score

3	Dense
2	Medium
1	Light

Variable Scores

There are three categories in which further scores are made;

- Use of property
- Aspect of dwelling
- Special Factors

Use of Property

It is recognised that different use of property can significantly influence the degree of control occupants wish to exercise on trees in their care eg. Office workers will be probably happy to use artificial light during the day to offset shading from trees, whilst home owners may object to this.

Score

4	Dwelling
1	Office/light industrial
0	Heavy industrial or livestock

Aspect of dwelling to garden

Aspect of dwelling has a direct bearing on the measure of influence a tree may have on the reasonable enjoyment of a garden. The greatest influence a tree will have is in a garden facing south and the minimum, north. This score applies to dwelling only although some consideration should be given to aspect for other types of building and building use.

Score

4	South	South West	3.5
3	West	North West	1.5
1	North	North East	1.5
2	East	South East	2.5

Special factors

These are perhaps the most difficult categories to quantify, but will include the following;

- Soil type
- Susceptibility to clear
- Susceptibility to insect attack e.g. aphids and honeydew production
- Brittle wood
- Susceptibility to development e.g Beech
- Seasonal fall eg. Fruit
- Suckering
- Particular habitat e.g bat roost/rookery
- Exceptional shape or form
- Rare species or cultivar
- Particular heritage value
- Exceptional longevity
- Exceptional size g. Beech, Horse Chestnut
- Part of a group
- Terrain/slope influence
- Perceived threat

Points may be awarded for any of the above to a maximum of 5 in TOTAL

Allow 1 linear metre for each point scored to find MINIMUM distance from property

Work Sheet

Tree No.	Genus Species	Ultimate Size Score 1-4	Foliage Density Score 1-4	Property Use Score 1-4	Aspect of Building Score 1-4	Special Factor Score 0-5	Total
Ex.	Poplar	4	3	4	4	1	15
	Birch	2	1	4	1	-	8
	Laburnum	1	2	0	2	-	7
	Cherry	3	3	1	(1)*	1	(9)
	Oak	4	3	4	2.5	3	16.5
	Hawthorn	1	1	4	1.5	-	7.5
	Ash	3	2	1	(2)**	2	8(10)
	Beech	4	4	4	2	3	17
	Field Maple	2	2	4	1.5	-	9.5
	Common Lime	3	3	1	(2)**	2	9(11)

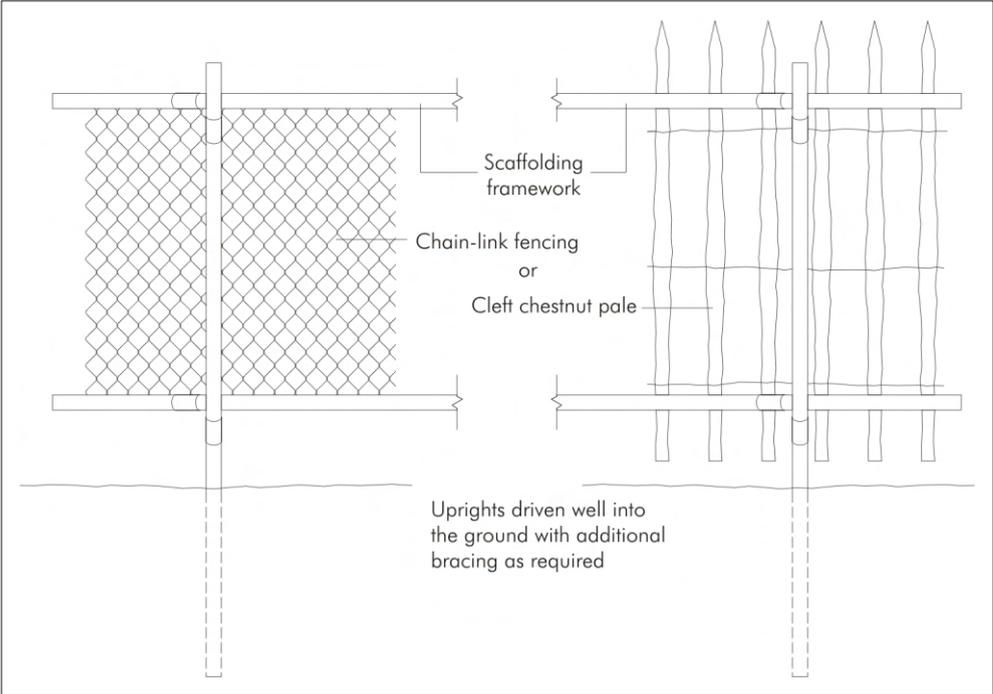
* Provisional aspect score for light industrial use

** Provisional aspect score for office use

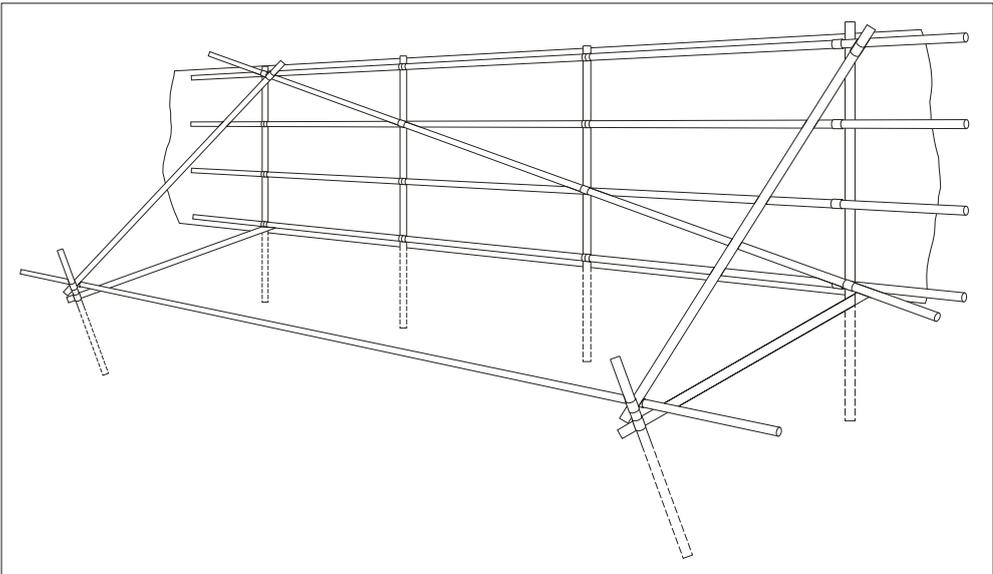
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Protective fencing on scaffolding framework



Protective fencing for special conditions



Scaffolding within a protected area

