# **Tree Strategy**







# Good Practice Guide 3 Trees and Development

**March 2016** 

# Staffordshire Moorlands District Council Good Practice Guide 3 Trees and Development

- 1. Introduction
  - 1.1 Purpose of the Guide
  - 1.2 Trees in the Staffordshire Moorlands
  - 1.3 Legislative and planning background
- 2. Surveying the site
  - 2.1 Land surveys
  - 2.2 Tree surveys
- 3. Site Layout and design considerations
  - 3.1 General design considerations
  - 3.2 Tree Constraints plan (TCP)
  - 3.3 Site layouts
  - 3.4 Construction within Root Protection Area (RPA)
  - 3.5 Site layout avoiding future conflicts
  - 3.6 Site access
  - 3.7 Services
- 4. Applying for planning permission
- 5. Implementation
  - 5.1 Tree works
  - 5.2 Preventing damage to tree roots
  - 5.3 Arboricultural method statement
  - 5.4 Landscaping scheme
- 6. More information....

Useful contacts

Documents referred to in text

#### 1. Introduction

Apart from the actual felling of trees on building sites, other less obvious factors can cause the loss of existing trees, most notably through damage to the root system. This may be by direct root cutting during excavation, by the compaction of the soil by machinery or stored materials, and changes in the drainage or in the level of the soil. Also inappropriate or poor pruning practices and physical damage can lead to the onset of disease. The death of trees from these causes is often not immediate and decline may take a number of years to become apparent. Trees can also be lost as an indirect result of development, where poor design leads to conflict when new development is sited inappropriately close to retained trees and there is increased pressure from the occupiers of new buildings for drastic pruning or removal of trees. By following this good practice guide the unnecessary loss of trees can be avoided.

# 1.1 **Purpose of this Guide**

The purpose of this guide is to provide information to developers, landowners, agents, architects, planning consultants, landscape architects, arboriculturists and contractors, on the standards that Staffordshire Moorlands District Council will expect from new development proposals. The guide seeks to ensure that trees are afforded due consideration in the planning process so that they can be effectively integrated into new developments.

The format has been set out to follow the logical sequence by which development matters are generally processed; surveying the site, site design, obtaining planning permission and implementation.

This guidance frequently refers to British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations and this is an important document which will provide more detailed guidance in relation to the retention and protection of trees during development.

# **1.2** Trees in the Staffordshire Moorlands

Trees are of vital importance to the landscape and are widely appreciated for enhancing the rural and urban environment. They make a positive contribution to the scenic character and diversity of the landscape, and provide vital habitat for dependant wildlife populations. The retention of trees within new developments provides an immediate sense of maturity, to the benefit of a site and its surroundings, raising the overall quality of schemes and enhancing property values. Where trees are damaged and subsequently decline and die, or where inappropriate design leads to conflict, trees become a constant source of complaint and ultimately, any positive benefits are lost. Many people appreciate the intrinsic beauty of trees providing ornamentation and variation through the seasons. Trees also screen or soften unsightly views and give an area a sense of local distinctiveness. Mature trees play an important role in the character of many of the Conservation Areas in the district. Trees have a significant and valued role in the built environment, contributing to townscape and village landscape. Such built up areas tend to come under greater development pressure, so it is important that if trees are to be retained and protected where appropriate, they are fully taken into account during site survey, layout design, planning application determination and subsequent construction. This Good Practice Guide aims to provide advice towards ensuring such consideration is given, and avoiding unnecessary loss of or harm to trees through development pressures.

Trees are also important landscape elements in the open countryside of the Staffordshire Moorlands. Whilst the high moorland may rightly be largely devoid of trees, nevertheless occasional groups of trees sheltering buildings or occupying wooded cloughs and valleys form part of the landscape character of these areas. In lower lying countryside areas trees and woodlands are more widespread and an intrinsic part of the landscape structure. In particular they are found along field boundaries, around farmsteads, along rivers and transport routes, and in woodlands associated with agricultural land and rural estates. Trees may also come under development pressure in the rural area, and again should be properly taken into account during the development planning and construction process using guidance in this document.

# 1.3 Legislative and Planning Background

**National Planning Policy Framework (NPPF)** specifically mentions trees and woodlands at section 118:

118. When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles: ...

 planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;

The retention, protection and planting of trees on development sites contributes to the enhancement of the natural environment as identified at section 109 of the NPPF:

109. The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

The **Town and Country Planning Act 1990 (section 197)** recognises the importance of trees and charges Local Planning Authorities with a specific '*duty*',

'to ensure, whenever it is appropriate that, in granting planning permission for any development, adequate provision is made by the imposition of conditions for the preservation and planting of trees'

and

'to make such (Tree Preservation) Orders..... as appear to the Authority to be necessary in connection with the grant of such planning permission whether for giving effect to such conditions or otherwise'.

The **Staffordshire Moorlands District Council Core Strategy Development Plan Document**, adopted 2014, contains a range of landscape, biodiversity, built and natural environment related policies which have implications for tree retention. These are set in the context the Core Strategy's Spatial Objectives, including:

**SO8.** To promote local distinctiveness by means of good design and the conservation, protection and enhancement of historic, environmental and cultural assets throughout the District.

**SO9.** To conserve and improve the character and distinctiveness of the countryside and its landscape, heritage, biodiversity and geological resources.

Specific policies give more detail to the Spatial Objectives, and the following are important in relation to the retention and protection of existing trees, and the provision of new trees, through development planning:

#### **Policy DC1** – Design Considerations

All development shall be well designed and reinforce local distinctiveness by positively contributing to and complementing the special character and heritage of the area in line with the Council's Design SPD. In particular, new development should: ....

- be designed to respect the site and its surroundings and promote a positive sense of place and identity through its scale, density, layout, siting, landscaping, character and appearance;
- create, where appropriate, attractive, functional, accessible and safe public and private environments which incorporate public spaces, green infrastructure including making provision for networks of multi-functional new and existing green space (both public and private) in accordance with policy C3, landscaping, public art, 'designing out crime' initiatives and the principles of active design;....
- protect the amenity of the area, including residential amenity, in terms of satisfactory daylight, sunlight, outlook, privacy and soft landscaping;
- promote the maintenance, enhancement, restoration and re-creation of biodiversity and geological heritage, where appropriate, in accordance with policy NE1;....

**Policy DC3** – Landscape and Settlement Setting

The Council will protect and, where possible, enhance local landscape and the setting of settlements in the Staffordshire Moorlands by:

- 1. Resisting development which would harm or be detrimental to the character of the local and wider landscape or the setting of a settlement and important views into and out of the settlement as identified in the Landscape and Settlement Character Assessment;
- 2. Supporting development which respects and enhances local landscape character and which reinforces and enhances the setting of the settlement as identified in the Landscape and Settlement Character Assessment;

#### **Policy NE1** – Biodiversity and Geological Resources

The biodiversity and geological resources of the District and neighbouring areas will be conserved and enhanced by positive management and strict control of development by:....

- 3. Conserving and enhancing regional and locally designated sites. The Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests including ancient woodland, unless it can be demonstrated that:
  - there is no appropriate alternative site available; and
  - all statutory and regulatory requirements relating to any such proposal have been satisfied; and
  - appropriate conservation and mitigation measures are provided; or if it is demonstrated that this is not possible
  - the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented....
- 5. Ensuring development where appropriate produces a net gain in biodiversity, and ensuring that any unavoidable impacts are appropriately mitigated for.
- 6. Ensuring development promotes the appropriate maintenance, enhancement, restoration and/or re-creation of biodiversity through its proposed nature, scale, location and design. The Staffordshire Moorlands Biodiversity Opportunity Map, in conjunction with the Staffordshire Biodiversity Action Plan, will be used to guide biodiversity enhancement measures to be included in development proposals as appropriate to the nature and scale of development proposed and other environmental interest....

Staffordshire County Council's Planning for Landscape Change Supplementary Planning Guidance gives guidance on landscape character across the county, and the types and groupings of trees and woodlands that are characteristic or suitable in different landscape areas. It includes a strategic approach to identifying priority areas for woodland management and establishment initiatives, which may be relevant particularly for larger scale development proposals in the rural area.

**The Churnet Valley Landscape Character Assessment** is a detailed background study supporting Staffordshire Moorlands District Council's Churnet

Valley Masterplan Supplementary Planning Document, adopted in 2014. The character assessment is a finer grained description of the various landscape character areas within the study area, building on that of Planning for Landscape Change. It includes guidance on landscape planning of relevance to development proposals in the area, identifying key patterns of landscape features which should be taken into account and protected, managed, restored or replaced.

**Staffordshire Moorlands District Council's Tree Strategy** of which this document forms part of has a number of policies relating to the protection and planting of trees which are relevant to the development process. In particular

2.2.6 The Council will not normally grant planning permission for development proposals which directly or indirectly threaten trees or woodlands of significant amenity, nor for development proposals which have inadequate or inappropriate landscape mitigation measures, unless there is overriding justification to do so.

Royal Commission on Environmental Pollution – The Urban Environment (March 2007) recognises the benefits of trees in urban areas:

4.57 Given the multiple benefits of trees for urban areas, we recommend that the Department for Environment, Food and Rural Affairs, the Department for Communities and Local Government and their devolved equivalents:

- publish information on the extent and condition of urban trees;
- increase support for urban tree planting and maintenance within national forestry strategies and planning guidance; and
- ensure that local authorities use their powers to protect existing urban trees and ensure that adequate provision is made for the protection or planting of trees when planning permission is granted for new developments.

# 2. Surveying the Site

Existing trees on development sites are particularly vulnerable to damage during the construction process. Careful planning is essential to achieve a functionally effective, sympathetic development, whilst at the same time ensuring the long term retention of trees. The basic starting point in producing a successful design is the gathering of information, particularly data obtained from carrying out a thorough and comprehensive site survey. Where developments are likely to affect existing trees, the Council will normally require the submission of a detailed **Tree Survey and Arboricultural Impact Assessment**, drawn up in conjunction with the **Land Survey**, and this will be expected to meet the requirements of **Section 4** of the **British Standard 5837:2012 Trees in Relation to Design**, **Demolition and Construction - Recommendations**.

# 2.1 Land Surveys

This should show accurately all existing features in and around the site, including all trees with a stem over 75mm in diameter at 1.5m above ground level and other groups of vegetation. The survey should also include any trees on or beyond the boundary of the site that may also be affected by the proposed development. A detailed level survey would normally be incorporated showing existing contours or spot heights throughout the site.

# 2.2 Tree Surveys

Based on the land survey this should show the accurate locations 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 in plan or tabular form:-

- Reference number relating to the plan provided.
- Species
- Height in metres
- Trunk diameter (measured at 1.5m above ground level)
- The accurate canopy spread of each tree. (Plans should define actual crown spreads rather than using illustrative circles).
- The age class of each tree, (young, semi-mature, early mature, fully mature, veteran)
- The condition and vigour of each tree including details of any relevant defects
- Details of any necessary or proposed remedial works.
- Estimated remaining contribution in years (e.g. less than 10, 10 20, 20 40 more than 40).
- The "Tree quality assessment" of each tree, or group of trees, designated as per the detailed requirements of BS 5837:2012 Section 4.5 and Table 1.
- The tree survey should also indicate the Root Protection Area (RPA) required by each tree as defined at **BS 5837:2012 Section 4.6.** In broad terms the RPA is an area equivalent to a circle with a radius 12 times the stem diameter at 1.5m above ground level.

• A <u>clear</u> indication of which trees are to be retained, and those which are proposed for removal.

The tree survey should be undertaken by a qualified and competent arboriculturist.

#### 3. Site Layout and Design Considerations

#### 3.1 General Design Considerations

Developers should anticipate the need to accommodate trees within a development, whether through the retention of existing trees or tree planting directly. In areas open countryside or adjacent to it particular reference should be made to relevant **Landscape Character Assessments** as noted in Section 1.3 above, and in Conservation Areas the appropriate **Conservation Area Character Appraisals** where they have been published.

Due deliberation should be given to the requirements of trees by all members of the multi-disciplinary development team throughout the design stages. When developers are encouraged to produce layouts or development site masterplans for discussion, such plans should include tree and landscape details.

# 3.2 Tree Constraints Plan (TCP)

The production of a tree constraints plan will aid in the design process. Based on the tree survey this should show:

- Accurate location of the trees
- Accurate crown spread of the trees
- Identify those it is most desirable to retain using the 'Tree quality assessment'.
- Show the RPA which is the area around each tree which should be left undisturbed to protect the root system.

Trees are only one factor to be considered when developing the site; the aim of the Tree Constraints Plan is to aid the design process by identifying the most important and suitable trees for retention and what the spatial requirements for these trees are to avoid direct damage to the root systems.

#### 3.3 Site Layouts

The following a factors that need to be considered in relation to the layout of a scheme.

- The retention of as much of the existing tree cover as is practicable. Making adequate provision for the long term retention of trees, groups of trees or areas of woodland which are identified as having significant current or potential future amenity value.
- There should be appropriate space allowed for new planting and where proposals include the felling of existing trees, landscaping schemes should make provision for sufficient replacement planting to offset adequately any resulting loss of amenity.
- All building work should take place outside the RPA of trees to be retained, and allow adequate space for access during construction. Building work includes the construction of buildings, roads, other hard surfaced areas, trenches required for underground services, and other changes to existing ground levels.
- It is advisable to keep buildings at least 4m from the edge of the canopy of mature trees to avoid direct damage to the building from tree branches. For younger trees greater allowance should be made for future growth. Greater distances will be required if the tree is near a window of a habitable room, especially a window with a generally southerly outlook.
- The plan and accompanying documentation should include sufficient information to allow for a full, detailed assessment of the short and long-term arboricultural and landscape implications of the development proposals to be made.
- There should be no changes in ground levels within the RPA of a tree.

# 3.4 Construction within RPA

Where development proposals include construction works within the identified RPA, or where it is felt that a site cannot accommodate all of the operations associated with the implementation of a proposed development, without the need to intrude into the RPA, the Council may request the submission of detailed construction specifications and method statements in support of the application, in order to determine the likely effects of such works on the long term health and structural stability of the trees. The Council may require such supporting information to be submitted prior to determination of the planning application, in

order to demonstrate that the proposal is acceptable, rather than requiring these details by condition following the grant of planning permission.

Where proposed new areas of hardstanding are within the defined RPA, 'minimal dig' or 'no-dig' engineering treatments, using geotextiles and/or cellular confinement systems, may be considered acceptable dependant on the site-specific, detailed construction specification/method statement submitted in support of the planning application.

The long-term implications of any construction work within the exclusion zones should also be carefully assessed in relation to Table 3 of BS 5837:2012. New structures, drains, services, walls, paths, driveways and areas of hardstanding should be sited or designed so as to avoid direct damage from future growth of the bole and main structural roots of retained trees.

# 3.5 Site Layout Avoiding Future Conflicts

Development layouts, even if not affecting trees directly, may not be acceptable if they would result in undue pressures, in the short or long term, for felling or excessive pruning of important trees. Therefore merely avoiding the RPA may not necessarily be adequate. Other factors must be taken into account.

Incoming occupiers of properties will want trees to be in harmony with their surroundings without casting excessive shade, or otherwise unreasonably interfering with their prospects of reasonably enjoying their property. Layouts may require careful adjustment to prevent trees which are to remain from causing unreasonable inconvenience to future occupiers, leading inevitably to requests for consent to fell.

The site layout and juxtaposition of trees and buildings should be such that it can be reasonably expected that the trees can be retained to maturity, thereby providing maximum amenity benefits with minimum maintenance requirements. In considering the juxtaposition of trees and buildings, site layout designs will be expected to ensure that trees which are to remain are given adequate space including sufficient allowance for future growth, without the need for excessive or unreasonable pruning. The predicted mature height, branch spread and crown form of individual trees should be assessed in conjunction with site factors such as aspect, topography, soil conditions and exposure. (The ultimate mature size of any individual tree will be dependent on site specifics and a qualified assessment should be sought).

Site layouts must ensure that the trees do not:

 dominate buildings, inevitably leading to concerns about safety and ultimately to requests to fell or heavily prune; • cause unreasonable obstruction of direct daylight to properties.

Factors to be consider are:

- individual species characteristics; potential for future growth;
- garden size and layout;
- the aspect of the tree from the building;
- building-to-tree clearances;
- building orientation and the positioning and size of windows, especially in habitable rooms.

#### 3.6 Site Access

Site access layouts and visibility splay clearances may require the removal or pruning of trees and hedges. There may also be a need to make provision for temporary site access or particularly wide loads or high vehicles during construction phase. Where there is such a likelihood, applicants will be expected to liaise with the appropriate Highway Authority, and seek clear guidance of their requirements, prior to submission of an application. In general, permanent and temporary site access designs will be expected to minimise tree and hedgerow removals, and ensure the long term retention of all important trees and hedges.

# 3.7 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 their root systems. The provision of common service trenches may help to minimise potential conflicts. 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.

# 4. Applying for Planning Permission

It is essential that all relevant information pertaining to the assessment of trees and landscaping on a site is submitted with the planning application to allow the Council to make an accurate assessment of the short and long term arboricultural implications of the proposals. Where the Council feels that insufficient detail has been submitted with the application, this may delay validation until the necessary information has been received. Depending on the individual circumstances, it may be that additional supporting information is requested during the assessment of the application, prior to determination, to address any particular issues arising with regard to impact on trees – as for example outlined at Section 3.4 above.

The following information will normally be required:

- Tree survey and plan (as per Section 2.2 above);
- Details of tree protection including plan showing RPAs;
- An arboricultural implication assessment an evaluation of the impact of development on the trees and any intended mitigation including details of any tree works required;
- Permanent/temporary access arrangements;
- Full levels survey (which should include existing and proposed spot levels at tree bases and around crown extremities. Cross sectional diagrams may be required in certain cases);
- Drainage and service details;
- Soft and hard landscaping treatments.

# 5. Implementation

#### 5.1 Tree works

Any proposals for tree works prior to or during implementation of a scheme will normally formed part of the application. In some cases when planning approval is granted planning conditions may be used to ensure that finalised tree work schedules are approved prior to implementation. Sometimes it may be a condition that these form part of an arboricultural Method Statement

All tree works undertaken on the site should be in accordance with current arboricultural best practice and with the requirements of British Standard 3998:2010 Tree Work – Recommendations. The Council expects all tree work operations to be carried out to the highest standards and will apply planning conditions and use Tree Preservation Orders, where necessary, in order to ensure that such standards are maintained.

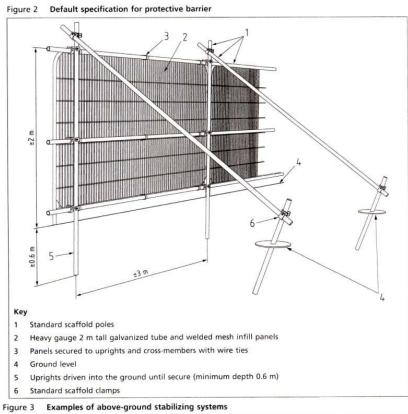
# 5.2 **Preventing damage to tree roots**

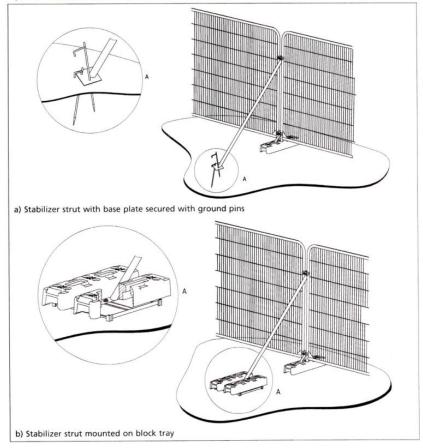
Trees on development sites are particularly vulnerable to disruption during the construction process, and damage is often irreparable leading to decline and death. Tree root systems are especially sensitive to construction damage. Such damage is not usually deliberate and is more often than not due to a lack of understanding of how easily trees can be harmed by nearby activities.

Potentially damaging operations include:-

- 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 built closer than 20m from the base of any tree.

To avoid damage to the root systems of the trees to be retained the erection of protective fencing will normally be required. This should be positioned around the trees to enclose the full RPA in accordance with the approved scheme. The protective fencing should be fit for purpose and appropriate for the degree of construction activity. In most cases barriers should consist of a scaffold framework in accordance with Figures 2 and 3 of BS 5837:2012.





Alternative specifications may be considered where it is appropriate to the site and the anticipated level of construction activity.

# 5.3 Arboricultural method statement

On sites where it is considered that particular attention is required in respect of tree protection a planning condition requiring the submission and approval of a detailed Method Statement for Arboricultural Works may be attached to the planning approval. The Method Statement will be expected to address the following:

- Timing and phasing of all arboricultural works in relation to the proposed development.
- 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 RPA.
- Provision for regular monitoring of on-going 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.

# 5.4 Landscaping scheme

A landscaping scheme may be required as part of the application or as a condition of approval. The Council expects sufficient information to be provided, to judge the value of tree planting schemes.

The minimum levels of information required for new tree planting proposals are as follows:-

- An accurate, detailed planting plan and schedule.
- A comprehensive list of species and a stock specification.
- Detail of planting densities and spacings.
- Individual locations of all specimen trees and shrubs.
- Clear indication of existing trees specified for retention and those for removal.

The long term aims of a scheme can only be achieved if the landscaping succeeds. The Council will pay particular attention to the practical measures that are proposed as part of any scheme, to ensure the successful establishment of

new planting. Tree planting schemes will therefore normally be expected to include the following provisions as appropriate:

- Preparation of the planting environment (including decompaction and drainage) should be at least to the standards set out in British Standard BS4428:1989 Code of Practice for General Landscape Operations (excluding Hard Surfaces).
- Plant material provided will be expected to comply with and be planted in accordance with the requirements of British Standards: BS 8545:2014 Trees: from nursery to independence in the landscape; BS 3936-1:1992 Specification for Nursery Stock; BS 4043:1989 Recommendation for Transplanting Rootballed Trees and BS4428:1989 Code of Practice for General Landscape Operations (excluding Hard Surfaces), as appropriate.
- The inclusion of a detailed maintenance schedule in accordance with the requirements of BS4428:1989 Code of Practice for General Landscape Operations (excluding Hard Surfaces).

#### 6. Further Information

Arboricultural Officer Staffordshire Moorlands District Council Moorlands House Stockwell Street Leek Staffordshire Moorlands ST13 6HQ

Telephone: 01538 395788 E-mail: <u>steve.massey@staffsmoorlands.gov.uk</u>

Development Services Staffordshire Moorlands District Council Moorlands House Stockwell Street Leek Staffordshire Moorlands ST13 6HQ

Telephone: 0345 605 3013 E-mail: <u>planning@staffsmoorlands.gov.uk</u>

# **Useful Contacts and Websites**

Arboricultural Association	Tel: 01242 522152
Alboncultural Association	
	Website: <u>www.trees.org.uk</u>
	E-mail: admin@trees.org.uk
British Standards	Tel: 0208 123 5933
	Website: www.standardsuk.com
Design Council Cabe	Tel: 0207 420 5200
	Website: www.designcouncil.org.uk/our-
	services/built-environment-cabe
	E-mail: info@designcouncil.org.uk
Planning portal	www.planningportal.gov.uk
The Tree Council	Tel: 0207 407 9992
	Website: www.treecouncil.org.uk
	E-mail: info@treecouncil.org.uk
Woodland Trust	Tel: 01476 581111
	Website: www.woodlandtrust.org.uk
	E-mail: England@woodlandtrust.org.uk

# Documents referred to in the text

National Planning Policy Framework

Town and Country Planning Act 1990

Staffordshire Moorlands District Council Core Strategy Development Plan Document

Staffordshire County Council Planning for Landscape Change Supplementary Planning Guidance

Staffordshire Moorlands District Council Churnet Valley Masterplan Supplementary Planning Document

Staffordshire Moorlands District Council Churnet Valley Landscape Character Assessment

Staffordshire Moorlands District Council Conservation Area Character Appraisals

Royal Commission on Environmental Pollution – The Urban Environment

British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations

British Standard 3998:2010 Tree Work – Recommendations

British Standard 4428:1989 Code of Practice for General Landscape Operations (excluding Hard Surfaces)

British Standard 8545:2014 Trees: from nursery to independence in the landscape

British Standard 3936: Part 1:1992 Nursery Stock. Specification for Trees and Shrubs

British Standard 4043:1989 Recommendation for Transplanting Rootballed Trees

The National Joint Utilities Group (NJUG) Publication No 10. Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees