

TREE REPORT- BARTLETT TREE EXPERTS LTD

05009

OUR REF: IB 124R

YOUR REF:

DATE: 21st September 2005

CLIENT: BERNHARD & CO LTD

ADDRESS: BILTON ROAD,
RUGBY, CV22 7DT

SITE ADDRESS: ATTERTON & ELLIS LTD,
THE IRONWORKS,
HAMLET ROAD,
HAVERHILL,
SUFFOLK,
CB9 8QH

DATE/TIME OF VISIT: PM THURSDAY 8th SEPTEMBER 2005

PEOPLE PRESENT: MR I BARROW & ROD MAYES

REPORT COMPLETED BY: MR I BARROW

SUMMARY:

This report comments on the situation and condition of a specimen Beech tree growing within the above site. Comments are made as to its future wellbeing located within a proposed housing development, guidance is appended related to avoiding root damage and distances construction should be kept from the tree.



SCOPE OF REPORT

SURVEY BRIEF

To inspect the trees growing on or adjacent to the site; to assess its' condition and identify the possible effects proposed development may have on the tree.

To provide a report and recommendations suitable for a planning application.

BACKGROUND

The site is presently an engineering works, located within the grounds of a former Victorian silk mill. The tree is partly enclosed by a semi-permanent steel building. Plans are being developed to demolish some of the existing buildings and construct a close of houses. As the tree is a high quality specimen and the only major green amenity within the site, there is a strong desire to preserve the tree and maintain it in good condition throughout the process.

The survey is intended to identify tree/trees whose zone of influence may directly or indirectly affect the above property development.

REPORT REFERENCES

As a progressive company, we keep abreast of research data relating to arboriculture. All observations, recommendations and works are based on current industry standard reference material and extensive FA Bartlett research findings derived from the company's own facilities at University of Reading UK and Charlotte in the USA. A selection of pertinent items is shown in Appendix 3.

REPORT LIMITATIONS

This report is restricted to a maximum of seven trees, except where the client has specifically instructed otherwise. While making every effort to identify the trees whose potential impact on the property is most significant, it must be noted that other trees may have an effect on the property in the future. Where possible, these trees have also been identified and a report on their potential effect is strongly recommended.

GENERAL SITE DETAILS

UNDERLYING SOILS - (REF BGS O/S DRIFT MAP)

Boulder clays, with gravel pockets.

CLIMATE

Continued drying with persistent soil water deficits.

BUILDING TYPE

New brick built housing, predominantly two storey houses.

GROUNDS

Presently the site; formerly an nineteenth century silk mill is occupied by an engineering works. Making use of former mill buildings and more recent steel and brick warehouse type structures. One of which partly surrounds the tree.

SLOPES/BOUNDARYS

The site is flat and level.

DRAIN RUNS

There is (we understand) a large piped drain running beyond the root zone of the tree.

MINOR VEGETATION

Aside from the predominantly concrete surfaces of the factory/warehouse area the rear of the site is laid to rough grass.

ADJACENT LAND/S

Across the roadside frontage of the site are a line of mid-aged Lime trees, which provide some screening of the original mill buildings. The Beech tree can be seen above and beyond this screen.

TREE SURVEY

SITE: The Ironworks, Hamlet Road, Haverhill, Suffolk, CB9 8QH

DATE: 8th September 2005

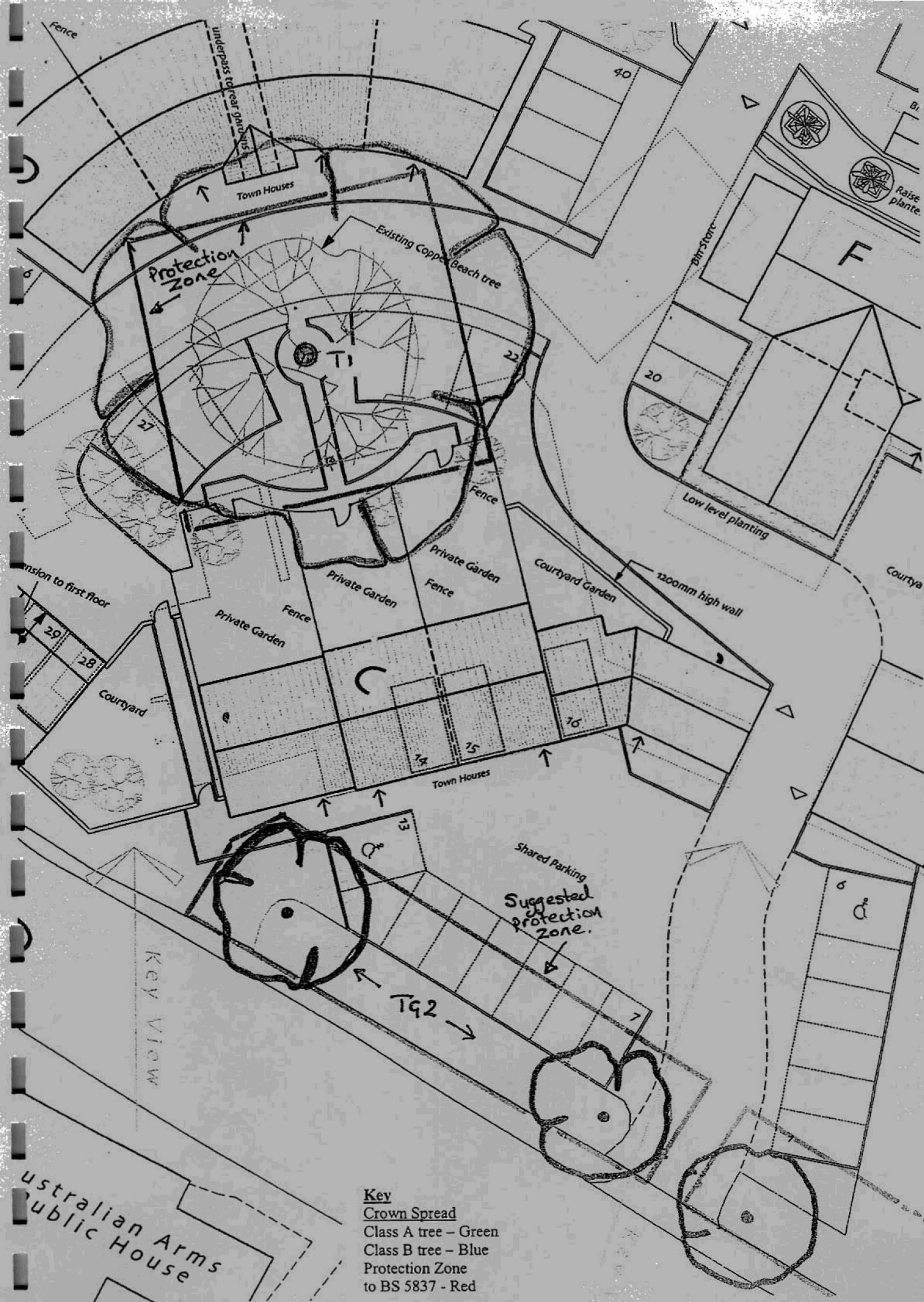
SURVEYED BY: Ian Barrow

Notes: Trees on adjacent sites that may be affected by activities on the development site should also be included.

Spp species; Legal TPO, Cons Area, Planning Condition etc; Class see BS 5837:1991 sect.5.2; Ht - Height estimated in metres; C.S. crown spread, radius on north side, east side etc.; Age 0-1/3 = young (new plant to one third of total life expired), 1/3-2/3 = middle aged (one third to two thirds of total life expired), 2/3-1 = mature or overmature; Vig NV normal vigour, LV low vigour; DBH diameter (mm) at breast height (1.5m above ground level); P.A. (rad) protected area, m, radius from centre of tree as defined by BS 5837:1991; Com't comments; C.S.dia crown spread, (average diameter)

*1 Dependant on local conditions. Assumes tree crown developed naturally unless regular management is proposed (e.g. crown reduction) and is shown on approved plans.

			EXISTING								FORECAST *1	
Tree No /ref	Spp.	Legal	Class abcd	Ht est. m	C.S. nesw	Age	Vig.	DBH (mm)	P.A. (rad)	Com't	Ht est.m	c.s. dia. m
T1	Purple Beech	Planning Proposal	A1	20	12m at all points	Mature	Ave	920	8m	Fine specimen	25 (in 20 years)	15 (in 20 years)
GT2	Limes	Planning Proposal	B2	10-14	5m	Mid	Ave	300/400	4.5m	Adequate	25 (in 20 years)	15 (in 20 years)



- Key**
- Crown Spread
 - Class A tree - Green
 - Class B tree - Blue
 - Protection Zone to BS 5837 - Red

DISCUSSION

The prime tree on this site is T1 a good quality specimen tree which with sensitive planning can be a focal point for the proposed development.

Broadly speaking the proposals will enhance the tree, exposing it to greater public view, enabling the present restrictions of the enclosing factory to be removed, and improving the trees environment particularly by transforming the surfaces overlying the trees root zone.

There will need stringent enforcement of an exclusion zone around the tree with careful removal of buildings and hard surfacing presently surrounding the tree.

We are happy to provide method statements of required and indeed supervision of works if needed. Once clearance is complete good quality fenced protection to BS 5837, part 8 is imperative, as Beech are surface rooted species and are vulnerable to root damage and compaction, especially on busy construction sites.

A protection zone of 8 metres is from the plans provided, entirely achievable.

NB. It should be noted that the long awaited revision of BS 5837 is due to be published shortly and will increase protection zones. We can advise on the new requirements as soon as we know them.

However at worst, the proposals could accommodate a protection zone up to 10 metres to the North and 14 metres to the South East and West. These distances should accommodate the changes in the BS.

The area in which the tree is to be a centre-piece is open and clear of raised construction. I would strongly urge that the proposed roadway and parking areas, overlying the trees root zone, including parking bays 22 to 27 and the roadway forward of these, be constructed of fully permeable non compactable surfacing such as gravel and or sand grouted brick sets, on a gas permeable sub layer, ideally laid over existing ground levels. The loss of the two parking bays immediately adjacent to the trees stem (24 and 25) would greatly assist the long-term health of the tree. Again I would be happy to assist with the specific detail of these measures.

It should be noted that the trees actual crown spread is an average of 12 metres, this is more than shown on the present drawings at this size the crown will be very close to the frontages of the arc of town houses and overshadow the rear gardens of houses 13 to 15.

It is likely that the local authority may allow some minor crown base tip reduction to reduce spread by 2-3 metres and also allow raising the crown base to approximately 5 metres for clearance over the road and gardens. They are unlikely to allow more works, and the tree would not benefit from heavier reductions.

From my recent inspection of the tree it would seem that the steel roofing of the store building is not too deeply embedded in the trees stem and could be removed with little injury to the tree trunk.

As a basic guide demolition of the building will need to be done by hand and in small sections rather than using a 360° degree excavator, immediately around the stem under close site supervision. The hard surfaces overlying the root zone, store foundation and internal roadway to be broken by road drill and cleared either by hand or small mini digger. Once clearance is complete immediate enclosure by stout fencing is essential.

The tree its self viewed from the ground seems to need almost no remedial surgery works. I am advised that there has been no past evidence of fungal fruiting bodies around the trees base, nor at the time of survey was any indication of them present.

Trees along Hamlett Road TG2

These trees are in adequate condition but show signs of regular pruning. Being smaller trees they have smaller protection zones. However, as highly visible trees they will require just as careful protection during the development as the Beech T1.

With protection of root zones from compaction adequate and effective fencing the trees would not compromise the proposals and their successful preservation will enhance the site in the long term.

RECOMMENDATIONS

T1 Initial phase –

- a) Careful hand/light weight demolition of surrounding structure and surfaces.
- b) Erection of stout fencing at eight metres from tree base to BS 5837 part 8. Leaflet enclosed.
- c) Complete exclusion of construction works from zone.
- d) Ideally deletion of paving bays 24 and 25 under tree canopy.
- e) Installation of permeable surfacing within eight metres of tree at final landscaping stage.

TG2

- a) Erection of stout fencing at 4.5 metres to BS 5837 part 8 at commencement of works on site side, exclusion of construction process during development.

GENERAL

Site plan extracts show routes of protection zones. If required we can provide method statements for demolition process and supervision if needed along with method statements and guidance notes for construction of final surfacing on completion of development.

I trust the above is helpful to you, should you have any queries or require further assistance, please do not hesitate to contact me.

REPORT COMPLETED BY MR IAN BARROW

DATE 23/9/05 SIGNATURE 

NB. Please note the British standard 5837 1991. Trees in relation to construction has now been revised. The new standard is due to be issued shortly. We understand that minimum construction distances to trees have been increased. We are advised that planning applications submitted prior to the BS release will be judged for approval under the 1991 criteria but those submitted after the BS release (even if surveyed and compiled before the release date) will be judge under the new 2005 criteria. We are making every effort to obtain an early copy of the BS and can advise on its implications thereafter.

The BS was released on 21st September. Some local authorities are allowing “slippage” for applications submitted around this date. We would recommend you check what the local planning authorities policy is on this.

APPENDIX 1

DEFINITIONS

- 1 **Arboriculture**
This is the science, study and practice of the management of trees and shrubs, aimed primarily at the provision of amenity both in urban and rural situations.
- 2 **Site**
For the purpose of this report, the 'site' is the property for which the report has been commissioned.
- 3 **Boundary**
This can be described as the physical and/or legal demarcation of a defined area.
- 4 **Underground/Overhead services**
These are utility services such as Gas, Water, Sewerage, Electricity, Telephone and Cable television that are either buried below ground, or suspended cables overhead.
- 5 **Local planning restrictions**
Local planning restrictions related to trees come in the form of tree preservation orders or conservation areas. Under these restrictions it is an offence under statute law to cut, willfully damage or destroy a tree.
- 6 **Deeds of Covenant**
This is a legal act or document to secure an item of value or importance to the owner. With reference to trees this is usually recorded with the land registry.
- 7 **Subsidence and Heave**
Subsidence can be defined as the downward movement of a building foundation, caused by loss of support of the soil beneath the foundations. This is associated with changes in the subsoil such as shrinkage in clay soils, or the compression of peaty soils.

Heave on the other hand, is the upward movement of a building foundation caused by an increase in volume of the soil beneath the foundation. This is commonly associated with changes in the subsoil, such as rehydration in clay soils.
- 8 **Monitoring**
This is a cyclical series of inspections over a period of time, by experienced and/or qualified personnel. The objective for the arboriculturalist is to record changes in tree condition, and/or the effect of recommended work on specific tree(s).
- 9 **Roots**
These are subterranean structures of the tree that are used for anchorage and extraction of nutrients and water from the soil. As a guideline it is assumed that the root system can extend approximately a distance of one and a half the height of the tree, or half the tree's height in the case of conifers and more upright species.
- 10 **Trench root barrier**
A measure carried out to limit the extent of a tree's root system where it may be in conflict with a neighbouring building or structure. The intention being to temporarily resolve the possibility of any direct or indirect action by roots on the building or structure in question.
- 11 **Direct action of roots/trunks**
This is a force applied to an object, structure and/or building as a result of increasing diameter of the roots and/or trunk of a tree through normal growth.
- 12 **Indirect action of roots**
The shrinkage or swelling of soils and consequent effect on a substrate as a result of soil moisture extraction by tree roots.
- 13 **Crown**
This is the branch system which grows upwards and outwards from the trunk of the tree. Recommended works that mention the crown, pertain solely to this area of the tree and not to the trunk.
- 14 **Crown spread**
This is the radial measurement of the crown of the tree, from trunk to its furthest extent in a specific direction. A mean crown radius is the average figure taken from several radius measurements in various directions.
- 15 **Crown reduction/Re-shaping**
This is a reduction of the crown size, by height, spread, and to some extent, density. The reduction is measured from the top of the crown to crown base, and is not a reduction of the height of the tree overall. Branches should be cut back to a side bud or branch (where possible) to leave a flowing crown silhouette without stumps.
- 16 **Crown thin**
This is the removal of a portion of the secondary branch growth throughout the crown to produce a well-balanced branch structure, of an even density. The volume of timber removed will be approximate and expressed as a percentage.
- 17 **Crown lift**
This is the removal/reduction of low branches or limbs, (generally back to a side bud, branch or the main trunk) to give a specified height of the crown above the ground surface or other structure.
- 18 **To "deadwood"**
This is the removal of dead, dying and diseased branches in excess of 5cm diameter from the crown/trunk of the tree, which can constitute a considerable potential hazard. This also includes the removal of any split limbs, broken or dying and hanging branches.
- 19 **Formative prune**
This is the pruning of small trees and/or saplings to help prevent major problems associated with shape and structure arising in the future.
- 20 **Pollard**
This can be either a considerable reduction in height and spread of a tree, back to a truncated framework of major branches or the removal of re-growth from a previous pollarding, back to original points or bollings.
- 21 **Cyclical pruning**
This is the regular pruning of a tree, for example, on a periodic or yearly cycle in order to regulate its size or crown density. This also reduces, and to some extent regulates, the tree's uptake of water from the soil, and will go a long way to alleviating some of the problems associated with soil dehydration.
- 22 **Fell**
This is the removal of a tree by cutting its stem through at, or just above, existing ground level.
- 23 **Stump poisoning**
This is used when it is necessary to kill a remaining stump and root system, in situations where stump removal is impractical, or to prevent unwanted re-growth, with or without stump grinding.

APPENDIX 2

BIBLIOGRAPHY

All observations, assessments and recommendations contained within this report are based around and/or subject to the following documentation:

BS 3998: 1989 (British Standard Recommendations for Tree Work)

BS 5837: 1991 (British Standard of Trees in Relation to Construction)

A Risk Limitation for Tree Root Claims (Unpublished: London Tree Officers Association.)

Arboricultural Advisory and Information Services (AAIS) Research notes. In Particular.

Tree roots and foundations (P G Biddle)

Tree root damage to buildings; (P G Biddle)

Volume one- Causes, diagnosis and remedy.

Volume Two-Patterns of soil drying in proximity to trees on clay soils.

Published papers in the Arboricultural Associations journal. In particular . . .

Interactions Between Tree Roots and Construction Work. (D F Cutler) February 1993

Pre-planning Tree Surveys: Safe Useful Life Expectancy (SULE) is the Natural Progression. (Jeremy Barrell): February 1993

Failure criteria for trees. (C Matteck, K Bethge and D Erb): May 1993

Trees and the Law. (Charles Mynors): November 1993

Trees and Foundations. (Paul F McCombie): November 1993

Field Guide for Visual Tree Assessment (VTA). (Claus Mettheck and Helge Breleor): February 1994

Trees and Buildings. (John M Mead): May 1994

The prediction of Building Foundation Damage Arising from the Water Demand of Trees. (Paul F McCombie): 1995

The Arboricultural Association's Subsidence Risk Assessment Model.

STANDARD TERMS AND CONDITIONS FOR TREE CONSULTANCY

The term 'Company' shall mean Bartlett Tree Experts Ltd

The term 'Client' shall mean person or persons who have authorized the contract

The term 'Contract' shall mean the formal agreement between the client and the company

1.0 CONDITIONS OF CONSULTANCY CONTRACTS

1 Contracts

All tree related contracts undertaken shall be confirmed on a written quotation under the company's heading and logo and subject to the company's standard conditions of contract for tree consultancy. In addition, all consultancy shall be subject to the objectives and limitations listed on that particular report. Variations to contract can only be accepted in writing, and added to the original quotation and/or report after the initial survey and inspection and at a extra cost. The company issues all quotations, and carries out all works and consultancy on the understanding that the client is fully insured with regard to third party insurance cover. This includes any injury or accident to staff or representatives of Bartlett Tree Expert Ltd arising from hazards on site.

Bartlett Tree Expert Ltd issues all quotations, and carries out all works consultancy on the understanding that the client, as specified, is the current owner of any tree(s), property or land, and has their permission to do so. In certain cases, we may require written proof of this fact along with a copy for our records.

2 Tree Surveys & Inspections

All surveys and inspections are based on an elementary visual inspection of each of the specified trees from the ground level. Each inspection details obvious tree defects and potential risks to the property and/or neighbouring properties, the client and/or the general public. Where applicable, trees that are beyond the property boundaries that may have a sphere of influence upon that property, will be included in the report.

Limits & Restrictions of Surveys & Reports

The consultant representative will advise the client as to the number of trees that are to be included in the report, and the fee involved, as soon as is reasonably possible. With certain reports, the client may wish to specify the tree(s) to be surveyed, and so vary the number of trees (refer to 1.4). In such cases Bartlett Tree Expert Ltd can accept no liability for trees that have not been inspected during the initial survey. All reports are based on the information available at the time of inspection. They are a snapshot in time of the tree(s) and their surroundings, and are closely related to the tree condition (structural integrity, health and safety). Alterations in site conditions such as further building/excavation, change of soil levels and drainage etc, could be detrimental to the general condition of the tree(s) and would invalidate the findings of the report. Future local climate trends cannot be predicted but may affect future tree management considerations.

The presence of underground services will be noted where they fall within the current radius of the tree(s). If requested, such investigation will be undertaken by a specialist drainage contractor (refer to 1.10) at additional cost.

Standard Tree Inspection Report

This type of report is often referred to as a 'Tree Surgeons report', or 'Mortgage Report'. Our company's Standard Tree Inspection Report includes a site survey and inspection of up to a maximum of 5 trees that may have a sphere of influence over the property. The report will include individual inspections and assessments of each tree specified, future management recommendations and a sketch map. If it is necessary for the report to encompass more than 5 trees, each additional tree will be charged at a rate of £45.00 per tree. Unless otherwise specified, the client should allow 5 full working days after the date of the site survey for completion of the report (Refer to Payment 1.15).

Tree Management Report

On large estates, or areas containing many trees (20+), this is often more cost effective method of inspection. This includes setting up a database of collected survey data, and incorporating it into a structured management system covering a specified period. Trees can be managed individually or as groups with a view to health and safety, visual amenity and the overall impact on their surroundings. A preliminary site inspection will be necessary to ascertain the scope and scale of the survey and report. After which a written quotation, with a full survey and completion date, will be forward to the client.

Pre-Purchase Report

This is similar in format to the Standard Tree Inspection Report. This is a proactive service for estate agents, prospective and purchasers of properties, whereby selected properties with significant trees adjacent can be surveyed prior to showing, pre-empting requested for a report by mortgage lenders and insurance companies. Unless otherwise specified, the client should allow 5 working days after the date of the site survey for completion of the report (Refer to Payment 1.15).

Tree Evaluation

The Helliwell system of amenity tree assessment is used to determine a tree's amenity value and it's importance to the surrounding landscape. Using this system, a monetary value can be attached to each tree surveyed. This can be invaluable for the purposes of planning applications/appeals, litigation involving trees or can be used to identify underlying property values. An additional fee of £40.00 per tree will be charged for this service.

Insurance

The company and our associates are covered by £1,000,000 professional cover. This protects the company against potential claims made by its clients, for providing advice that may after examination have been deemed to be negligent.

Soil Investigation

The physical relationships between the trees, the soil and the buildings/structures on the survey site are outside the scope of the reports detailed in section 1.5, 1.5 and 1.6. To facilitate it's inclusion, the company would require the client to instruct us to call in outside specialist expertise to investigate the underlying soil/subsoil and plasticity index along with the foundation type and depth of any buildings/structures within a particular tree's sphere of influence. This would of course incur additional costs and increase the completion time of the report. (Often this information is available within surveyors reports related to alleged damage to structures by tree roots.)

Subcontractors

The employment of subcontractors on behalf of the client shall be at the client's own risk. Assistance, guidance and administration can be undertaken by the company, for a fee to be agreed between the company and client. Charges for specialist services shall be met directly by the client. Additionally, FA Bartlett are able to provide a wide range of arboricultural services.

Investigation and Planning restrictions

The client should be aware that trees may be subject to local planning authority restrictions and/or deeds of covenant. Unless specifically requested, the company will not undertake investigation of their existence.

Measurements

All measurements are expressed in metres except for DBH (Diameter of trunk at Breast Height) which is millimeters. Due to the type of inspection (refer to 1.2 Tree Surveys & Inspections) all measurements for the height of trees are approximate.

Map

A sketch map will only be included in the reports details in sections 1.4 and 1.5 (unless otherwise specified). This is to aid in identifying the position of trees, vegetation, buildings or other relevant structures. All locations shown on maps are approximate. If Ordnance Survey quality maps or plans are required these can be provided at a cost of £150.00 per plan/map.

Cancellations

Bartlett Tree Experts Ltd reserves the right to change a fee of 50% of the quoted price should the client fail to arrange access to the site on the date and time specified. Should the report be cancelled after the site survey has taken place 100% of the quoted fee will be charged.

Payment

Our company practice that all reports will be released on settlement of our fee. With reference to Tree Management Reports, Bartlett Tree Experts Ltd will raise an invoice on completion of the survey, allowing for payment to be sent and the report forwarded to the client. In the case of a Standard Tree Inspection Report this is often not practical due to the immediate nature of the service. These reports, accompanied with an invoice, are often delivered by a courier if required at an additional cost TBA, and released on full settlement of the account. Reports required within the minimum time period will be subject to a surcharge of 20% of the quote fee.

Acceptance of Quotation

Bartlett Tree Experts Ltd understands that a client has accepted the company's quotation and terms and conditions contained herein when contact is made with a representative of the company, and an initial survey date is provided. The client is to complete and return the company's acceptance form, which acts as written acknowledgement that the client wishes the report to be carried out.

Safety at Work & Industry Standards

As a progressive company we are in touch with all research relating to arboriculture. All observations, recommendations and works are based on the current standards, in particular: BS 3998 : 1989 (British Standard Recommendations for Tree Work); BS 5837 : 1991 (trees in relation to Construction); A Risk Limitation Strategy for Tree Root Claims (unpublished; London Tree Officers Association); Arboricultural Advisory and Information Service (A.A.I.S) research notes, the Environmental Protection Act 1984 and the Control of pollution Act 1974. In addition, all operations shall be undertaken in accordance with Government Health and Safety regulations.

Amendments to Reports

Following the release of a report, if it becomes necessary to amend a report due to inadequate information not being provided prior to the report being completed, a £50.00 amendment fee will apply.

Bartlett Tree Experts Ltd reserves the right to change and/or revise any of the above Standard Terms and Conditions without notice. It is the clients' interest to ensure they possess a current copy of Terms and Conditions. The company will provide on request. E & O.E.

NOTES & QUESTIONS

Local Planning Authority

If the trees are covered by a Tree Preservation Order or are in a Conservation Area, permission from the Local Planning Authority will be required under the Town and Country Planning Act 1990 before tree works can be undertaken. Please note that the Local Planning Authority have up to **eight weeks** to respond to an application.

Questions you should ask an Arborist, when obtaining a quotation for works.

1. Are you insured?

If yes, please show evidence of insurance – Employers liability & Public Liability (recommended minimum £5 million)

2. Do you work to a British Standard?

If yes, which one? Should be BS3998.

3. What qualifications do you and your staff hold?

Compulsory: Must have NPTC* certificates for chainsaw use.

Recommended: Certificates for other skills and machines. Arboricultural knowledge e.g. National Certificates and Diplomas.

4. Will you provide a written quotation?

If no, reject this contractor.

5. Are you a member of a professional organisation?

Membership does not guarantee work standards but does show a degree of commitment.

6. Can you provide me with the phone number of a referee who can show me some of your work?

If yes, follow up the lead.

THE TREE SURGERY DIVISION OF BARTLETTS WOULD BE HAPPY TO PROVIDE A QUOTATION FOR ANY WORKS FELT DESIRABLE.

Bartlett Tree Experts

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