Arboricultural Report
BS5837

At

16 Eastern Road
Rayleigh
Essex
Planning Application For Building Works
Following;

Written By;
Paul Boreham, Contracts Manager

Contents.

1. Introduction

1.1. Instructions

I am instructed by Stuart Page of Page Estates to inspect the significant trees at 16 Eastern Road, Rayleigh, Essex and to provide an Arboricultural report in accordance with BS5837

1.2. Qualifications and Experience:

I have based this report on my site observations and the provided information. I have come to conclusions in the light of my experience and technical knowledge.

My qualifications and details of my experience are shown in Appendix 4.

1.3. Documents and Information Provided:

The following documents have been received and relate to the same issues that this report is intended to cover: -

- Site Photographs
- Site Plan

1.4. Scope of This Report:

This report is only concerned with 3 Beech trees in neighbouring gardens. It takes no account of various dead / dying fruit trees or privet hedges situated within the boundary fences. It includes an assessment based on the site visit and the documents provided, listed in 1.3 above.

2. Site Information

I carried out an accompanied site visit on 29th July 2009 in the presence of Mr Brendan O'Connor, Contracts Manager at Tree Fella ltd. All my observations were from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated. If specialist assessment methods are adopted they will be detailed where appropriate. I did not have access to trees outside the property boundaries and have confined observations of them to what was visible from the areas where I had access. The weather at the time of inspection was clear and dry, with good visibility.

Pictures illustrating the trees are shown in the appendix to this report. Original copies of these are available from me.

2.1. Brief Site Description:

Large west facing back garden with private gardens on all boundaries. Existing house and drive on eastern boundary, the garden is laid to lawn with a concrete path on the southern perimeter, two concrete based out buildings located 2m east of T1. Predominantly flat garden with over mature dead / dying fruit trees and few significant shrubs, well maintained privet hedge on the north boundary.

3. Tree Inspection

3.1.1. Identification and Location of the Tree:

The trees in question are located on the south boundary behind the fence. A site plan is provided within the appendix of this report, it is not to scale and is designed for illustrative purposes only.

3.1.2. Tree Observations:

I visually inspected the significant trees and recorded the information on the schedule included, as Appendix 1 all dimensions given are approximate only.

3.2. APPRAISAL

There is a high risk of damage to the rooting zone by compaction of soil due to heavy construction machinery.

There is a risk of damage to the rooting zone during excavation for foundations and driveway.

Restricted rooting area due to existing garage and laying of hard surface for proposed new driveway.

3.2.1. Conclusion

Having considered all of the information I have gathered and detailed in my appraisal I have come to the following conclusions.

T1. (Beech) is a mature tree with good form, amenity value and life potential. Minor ivy encroachment on stem, no obvious faults or defects following VTA (Visual Tree Assessment), lower branches on northern side have been removed.

T2. (Beech) suppressed between T1 +T3, minor ivy encroachment on stem, no obvious faults or defects following v.t.a, lower branches on northern side have been removed.

T3. (Beech) is a mature tree with a co-dominant leader on north side. The tree is growing in a southerly direction, low limb removed on the northern side.

The flexible RPA (Root Protection Area) of T1 is approximately 108.6m2
The flexible RPA of T2 is approximately 38.05m2
The flexible RPA of T3 is approximately 108.6m2.

3.2.2. Recommendations

The following items are my recommendations in relation to the above facts and opinions.

These work recommendations should be executed prior to any construction work on site unless otherwise stated.

Erection and maintenance of protective fencing to the RPA (Root Protection Area) as per BS5837 (2005). This protective fencing is to remain in place and unmoved for the duration of the works. No materials or machinery are to be stored in this area for the duration of the works.

A no dig method is to be adopted during the construction of the driveway access, employing the use of an air spade/lance to ensure roots are not damaged in this process.

Driveway surfaces should be a highly porous geo-textile membrane whilst still meeting engineering parameters. (This will at some point require the removal of the protective fencing and work in this zone. Such works should be carried out by a specialized, experienced root care contractor and should be carefully monitored.)

Construction of the driveway access is to be the FIRST job of the development following tree protection measures and work. This must be supervised, and only when complete should other materials and equipment be allowed on site.

OR

Temporary access to the site can be gained via the existing garden area outside of the RPA to allow construction of the new development prior to the construction of the new driveway access providing that the protective fencing is not breached.

It is not recommended that the proposed 2m high brick wall is constructed as the footing will encroach into the r.p.a. Fence post and panels should be used as a less invasive alternative (this has been agreed with the builder and architect, and will be implemented instead of the brick wall currently shown on the enclosed plan.)

De-compaction and mychorrhizal inoculation of remaining grass area within the rooting zones should be carried out on completion of all construction works. (This should include the rooting areas in neighbouring properties assuming the appropriate permissions can be obtained.)

Should you have any queries about this report please do not hesitate to contact me.

Paul Boreham
Contracts Manager

Date; 04th August 2009

4. Appendix

4.1. Appendix 1. Table 1: Schedule of trees

Tree No	Species	Height (m)	Spread (m)	DBH	Maturity	Vigour	Estimated Age	Located on Property	Observations and comments
1	Beech Fagus Sylvatica	15	8.2	49cm	Semi	Normal	40-60yr	No	Good condition, minor ivy encroachment on stem, no obvious faults or defects following v.t.a, lower branches on the north side have been removed.
2	Beech Fagus Sylvatica	15	4.4	29cm	Semi	Normal	40-60	No	Suppressed between T1+T3,good condition minor ivy encroachment on main stem, no obvious fault or defects following v.t.a, lower branches on north side have been removed.
3	Beech Fagus Sylvatica	13	7.3	49cm	Semi	Normal	40-60	No	Co-dominant leader on north side, tree growing in a southerly direction, low limb removed on northern side.

APPENDIX 4.2

APPENDIX 4.2

4.2. Appendix 2: Site Photographs.

4.3. Appendix 3: Brief qualifications and experience of Paul Boreham.

Experience:
21 years in Arboriculture.
10 years practical, 11 years managerial.

Qualifications:
RFS Certification in Arboriculture.
I have a wide range of competence based practical qualifications that are relevant to arboriculture

4.4. Appendix 4: Site Sketch Plan.

4.5. Appendix 5; Notes on some tree protection issues and protective fencing.

Town & Country Planning Act 1990;

Your attention is drawn to part VIII of the above Act, sections of this Act are used to apply and enforce TPO's as well as control works carried out on specimens subject to a TPO. As a tree owner before giving instructions to a third party to carry out tree works or carrying out such works yourself you must first ensure that the specimen requiring work is not covered by an order. If a TPO is in force then the prior written permission of the Local Planning Authority enforcing the order must be gained.

If a breach of the TPO is proven the planning compensation act 1991 may be used to enforce penalties, currently the maximum penalty upon conviction is £20,000 as well as costs (including any necessary remedial works). In serious circumstances cases may be committed for trial to the Crown Court and on conviction be liable to an unlimited fine.

Conservation areas;

The law relating to conservation areas is in part II of the Planning (Listed Buildings and Conservation Areas) Act 1990. Conservation areas are areas of special architectural or historical interest the character or appearance of which it is desirable to preserve or enhance. They are designated by the LPAs.

Trees in conservation areas that are already protected by a TPO are subject to the normal TPO controls. However in addition the Town and Country Planning Act 1990 makes particular provision for trees in conservation areas which are not the subject of TPO's. Under section 211, any person proposing to cut down or carry out work on a tree in a conservation area is required to give the LPA 6 weeks notice of their intention to do so Known as a Section 211 notice.

The inclusion of the inspected site within a conservation area will be investigated in the same manner as a TPO by the inspector, and will have been indicated within the general site information of this report. No section 211 notice will be submitted as part of this report however separate arrangements can be made to do so upon request.

Deeds & Covenants;

On occasions contained within the legal documentation of property ownership certain controls are put in force they may for example require the retention of tree cover of a certain variety within the boundary of a property for perpetuity, likewise they may prohibit the planting of certain varieties. It is the responsibility of any party wishing to carry out works to ensure that they are not in breach of such controls.

On occasion, usually with leasehold properties ownership and responsibility for maintenance are retained by the lessor (usually the owner of the deeds) responsibility for checking this information is as above.

Standards of work.;

Work recommended within this report is in accordance with British standard 3998 "tree work". This should be considered as a basic minimum standard and any parties carry out arboricultural operations should be able to demonstrate their commitment to that standard.

APPENDIX 4.

PROPOSED NEW BUILDS, HOUSE, GARAGE AND DRIVEWAY ACCESS

PROPOSED TREE PLANTING

EXISTING HOUSE
(TO BE RETAINED)

GARAGE

BATHROOM

BEDROOM

CUPBOARDS

BEDROOM

HALL

TILET

ENSUITE

BEDROOM

TEMPORARY SITE ACCESS PRIOR TO GEO-TEXTILE DRIVEWAY CONSTRUCTION

PROTECTIVE FENCING

R.P.A.

1.5m

5.9m

GRASS

GRASS

GRASS

T3

T2

T1

PROPOSED
225mm THICK 2m HIGH BRICK WALL

BINS

1.2m

PROPOSED
BRICK BUILT BIN STORE

EXISTING GARAGE
(TO BE REMOVED)

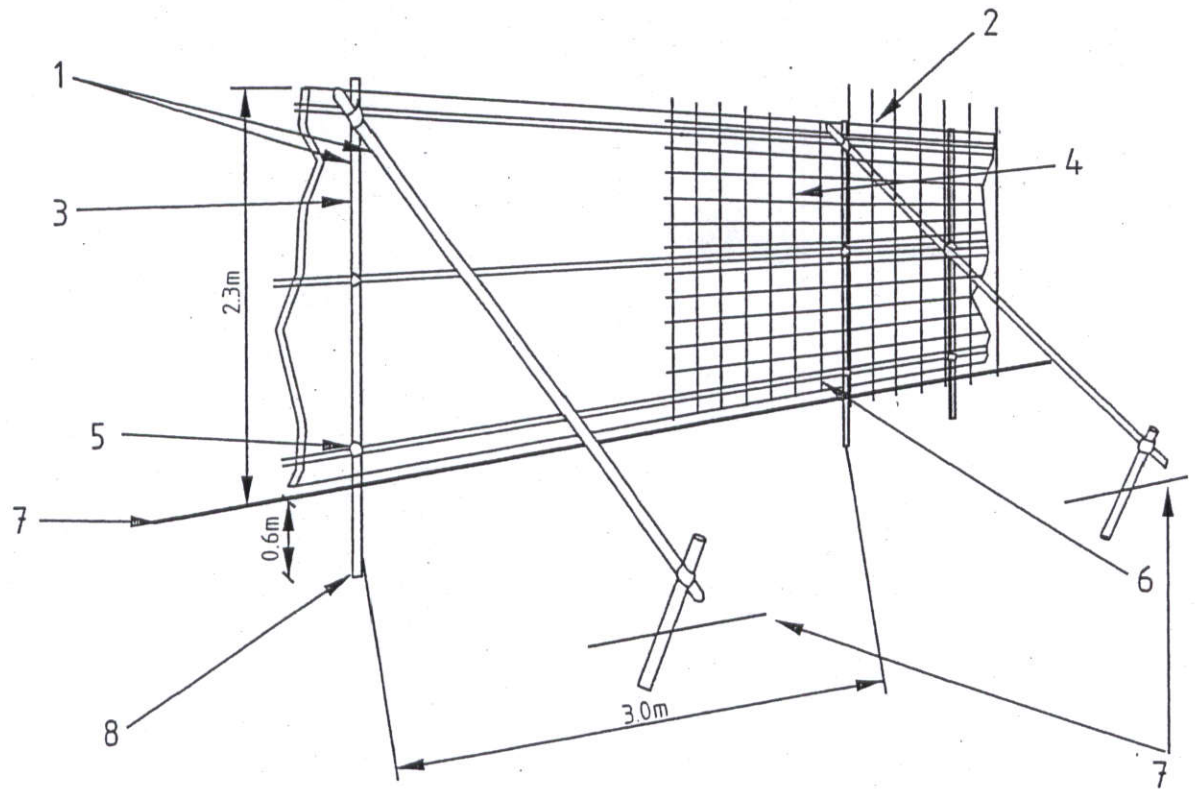
EXISTING SHED
(TO BE REMOVED)

9.3 Ground protection

9.3.1 Where it has been agreed during the design stage, and shown on the tree protection plan, that vehicular or pedestrian access for the construction operation may take place within the root protection area (RPA), the possible effects of construction activity should be addressed by a combination of barriers and ground protection. The position of the barrier may be shown within the RPA at the edge of the agreed working zone but the soil structure beyond the barrier to the edge of the RPA should be protected with ground protection.

9.3.2 For pedestrian movements within the RPA the installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile, or supported by scaffold, may be acceptable (see Figure 3).

9.3.3 For wheeled or tracked construction traffic movements within the RPA the ground protection should be designed by an engineer to accommodate the likely loading and may involve the use of proprietary systems or reinforced concrete slabs (see **11.8** and **11.9**).



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6 m driven into the ground

Figure 2 — Protective barrier

4.6. Appendix 6; Glossary of Abbreviations & Terms.

Arboriculturalist: a person skilled in the science of the care and maintenance of trees they should carry the appropriate liability/ insurance and be preferably be a member of a professional body of tree specialists (the current leading national body is the "Arboricultural association").

Aspect: The general out look of the site.

BGS: British Geological Survey.

Butt: the lowest part of the trunk where it adjoins the surrounding ground.

C.O.D.I.T: Compartmentalisation of decay in trees, the natural means used by a tree to prevent the spread of decay.

Cavity: a hollow in a wooden part of the tree.

Coupe/Compartment/Copse: a defined area within a woodland or forest.

Covenant: an agreement to maintain or carry out present commitments often contained within the deeds of a property.

Crotch: the junction of two branches.

Crown: The section of the tree which contains leaf/bud covered branches.

D.F.C: distance from construction.

DBH: diameter at breast height, The measurement is taken at 1.3 meters above ground level.

Decay/Rot: the breaking down of the normal structure of the wood, usually leading to the structural weakening of the tree.

Deed: a law contract.

Desiccation: any significant reduction in soil moisture content by evaporation or extraction by trees, shrubs, etc.

Diameter: a straight line passing through the centre of a geometrical shape.

Dog Leg: an unusual growth form where a branch suddenly changes direction. Caused by many different factors but may weaken the integrity of the affected limb

Epicormic Growth: literal meaning 'upon stem' forming from adventitious buds. Such branching is often founded on a poor attachment.

Heave: upward ground movement and the corresponding movement of effected foundations.

Illite: one of the three common clay minerals.

Inclinometer: a device using geometry to measure the height of objects.

Increment: a small sample of wood removed for analysis with a boring device.

Kaolinite: one of the three common clay minerals.

L.P.A.: the local planning authority (part of local council).

Montmorillonite: one of the three common clay minerals.

Parasitic: an organism, which will attack its host, usually to the disadvantage of the host.

Pollarding: a method of tree management in which the entire crown is removed at regular periods.

Scaffold: the branch structure in the crown that supports the smaller branches and gives shape to the tree.

Silt: a soil made up of particles with diameters of size intermediate between clay (less than 0.002 mm) and sand (greater than 0.06 mm).

Subsidence: downward ground movement and the corresponding movement of affected foundations.

*Suckers: y*oung adventitious shoots growing from the base of the tree or directly from the trunk and main branches.

Target: any item either static or transient that would be hit in the event of any part of the tree failing.

TPO: Tree preservation order.

Trunk: the main supporting portion of the tree, usually bare of twigs and leafs.