



ARBORICULTURAL REPORT
& IMPLICATIONS ASSESSMENT

Relating to trees at

Two Sites at Church Lane, Hatfield



Presented by Mr. Peter Harding

t/f: 01753 646831 m: 07979 357330
e: pyramid@dsl.pipex.com
w: www.trees.uk.net
1 Egypt Wood Cottages, Egypt Lane, Farnham Common, Bucks. SL2 3LE
Company no. 4493953

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Arboricultural Report

Client: Mr. Anthony Downs, Gascoyne Cecil Estates
Site: Zones 1 & 2, Church Lane, Hatfield.
Arboricultural Consultant: Peter Harding *Tech Cert Arbor A, AIEMA, Dip For.*
Date: 09/02/12

REPORT SUMMARY

This report relates to two sites in Old Hatfield.

Zone One comprises a block of flats and two gardens. The proposal is to demolish the flats and erect new residential units along the south eastern boundary with parking opposite. There are a number of low grade trees on the site which can be removed as required. Trees outside the site to the northwest will be protected during development. Parking spaces created close to these trees will need to be constructed using 'no-dig' techniques.

Zone Two is currently used for car parking. The proposal is to build a three bedroom property to the west of the site and four garages with accommodation above to the south. Parking facilities will also be retained. There are a number of good quality trees on site all of which will be retained. The use of pile foundations will be required to avoid damage to the roots of some retained trees.

1.0 Introduction

The Church lane sites are within 30m of each other in the residential area of Old Hatfield. Plans are being submitted for the erection of eight new units in Zone 1 and two in Zone 2.

2.0 Instructions

I have received instructions from Ellen Page of Brooks Murray, the project Architects, to carry out an Arboricultural Survey and Implications Assessment of the site, to advise on suitability of trees to be retained and removed and to comment on the likely impact on retained trees.

3.0 Date of Visit

The site was visited on Wednesday 18th January 2012 at approximately 08.30. I carried out the survey unaccompanied.

4.0 Qualifications and Experience

This report is based on observations and conclusions derived from my experience and technical knowledge. Details of my qualifications and experience are listed in Appendix 1.

5.0 Site Description

Zone 1 consists of a large single building which has been divided into flats. The building has a narrow, tapering garden to the south west. The garden of the adjacent property to the northwest also forms part of the site. There are four garages to the south west of the site. The garden and bordering land contain a number of trees and shrubs.

Zone 2 is currently a car park with hard gravel surface. There are a number of trees on and bordering the site.

6.0 Constraints

I have not been informed of any constraints applying to the site. Tree Preservation Orders or Conservation Area status may exist. It is important to check this with the Local Authority before carrying out all but emergency tree work.

7.0 The Tree Cover

The tree cover on the area of the site which would be affected by development comprises the following:

Zone 1 has a number of low grade trees throughout the site, many of which are self sown. The large Beech tree (T11) is of good form, but has had a significant area of bark removed, making retention a less favourable option. There are also several trees along the boundary to the northwest. These have had the crowns heavily reduced. This has reduced their amenity value, but they provide valuable screening. The proposed development will also involve the removal of mature beech hedges to the north and east. Their loss will be remediated by planting new hedges along the same boundaries once development is complete.

Zone 2 has several mature trees (mainly Horse Chestnut) around the site. These are generally of good form and vigour and should be retained.

8.0 Scope of Survey

- 8.1 The survey is concerned with the arboricultural aspects of the site only.
- 8.2 The planning status of the trees was not investigated in detail.
- 8.3 A qualified Arboriculturist undertook the report and site visit and the contents of this report are based on this. Whilst reference may be made to built structure or soils, these are only opinions and confirmation should be obtained from a qualified expert as required.
- 8.4 The trees were inspected on the basis of the Visual Tree Assessment method expounded by Mattheck and Breloer in 'The Body Language of Trees', Department for Transport, Local government and the Regions book Research for Amenity Trees No. 4, 1994).
- 8.5 The survey was undertaken in accordance with British Standard 5837: 2005 Trees in Relation to Construction – Recommendations [BS5837].
- 8.6 Pruning works will be required to be in accordance with British Standard 3998:2010 Tree Work - Recommendations.
- 8.7 Underground services near to trees will need to be installed in accordance with the guidance given in BS5837 together with the National Joint Utilities Group Booklet 4 (2007): Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.

9.0 Survey Method

- 9.1 Only trees likely to be impacted by development were surveyed.
- 9.2 The survey was conducted from ground level with the aid of binoculars where necessary.
- 9.3 No tissue samples were taken nor was any internal investigation of the subject trees undertaken.

- 9.4 No soil samples were taken.
- 9.5 The height of each subject tree was estimated using a laser measuring device.
- 9.6 The stem diameters [SD] were measured in millimetres at 1.5 metres above ground level for single stems, and just above the root flare for multi-stemmed trees. Where access was difficult the diameters were estimated and marked as such on the tree table. [Trees with a diameter less than 75mm at 1.5m have not been included in the Survey.]
- 9.7 The crown spreads were measured with a tape measure. Where the crown radius was notably different in any direction this has been noted in the tree table (Appendix 1).
- 9.8 All trees inspected during the site visit are detailed on the plan at Appendix 3. Please note that the attached plan is for indicative purposes only. The trees on this plan are categorised and shown in the following format: COLOUR CODING AND RATING OF TREES:

Category A – Those of a high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested). Colour = light green crown outline on plan.

Category B – Those of a moderate quality and value: those in a condition as to be able to make a significant contribution (a minimum of 20 years is suggested). Colour = mid blue crown outline on plan.

Category C – Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm. Colour = black crown outline on plan.

Category R – Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Colour = red crown outline on plan.

All crown outlines are indicative and more detailed information of the precise measurements can be seen in the tree table at Appendix 2.

All references to tree rating are made in accordance with British Standard 5837 'Trees in relation to construction – Recommendations' 2005, Table 1 (section 4.3. 1).

- 9.9 The Root Protection Area for each retained tree (as per table 2 of BS5837) has been included with the Tree Survey table for reference.

10.0 Arboricultural Implications Assessment

10.1 General Comments.

Zone 1

The redevelopment of the site would only involve the removal of low grade trees. The preponderance of trees adjacent to the site and proposed remediation planting would ensure that the overall long term arboricultural value of the site is not compromised.

Zone 2

The development of this site will involve the retention of all mature trees. Damage to roots of retained trees will be avoided by judicious siting of new buildings and the use of pile and ground beam foundations.

10.2 Affects of new buildings on amenity value on or near the site.

Zone 1

The buildings currently on site are in a poor state of repair and of low aesthetic value. Their removal and replacement would improve the amenity value of the site.

Zone 2

New buildings would be of a 'lodge' style and be in keeping with others on the Hatfield Estate. They would enhance the amenity value of the site.

10.3 Above and below ground constraints.

Zone 1

It is anticipated that all underground services will be brought in from the existing building or from the east and will not affect retained trees. The site is shaded by trees outside the site to the east. The level of shading is considered acceptable.

Zone 2

Many of the existing car parking spaces will be retained. As these are sited on an existing hard surface, they will have no detrimental effect on tree roots. An important consideration when finalizing plans will be the siting of underground services. These should avoid Root Protection Areas of all retained trees. No significant shading issues are anticipated.

10.4 Construction processes of the proposed development.

Zone 1

The processes of construction will not have a detrimental effect upon the health of the retained trees provided an Arboricultural Method Statement is prepared (according to BS5837:2005) and adhered to at all times by the contractors.

Zone 2

The processes of construction will not have a detrimental effect upon the health of the retained trees provided an Arboricultural Method Statement is prepared (according to BS5837:2005) and adhered to at all times by the contractors.

10.5 Infrastructure requirements – highway visibility, lighting, CCTV, services etc.

Zone 1

No services should be installed within any tree RPA. The proposed construction will not affect highway visibility or other services.

Zone 2

No services should be installed within any tree RPA. The proposed construction will not affect highway visibility or other services.

10.6 Proximity of trees to structures

Zone 1

The impact of trees on buildings and vice versa and allowance for future growth has been considered in the siting of the proposed construction. Tree size, future growth, light/shading, leaf and fruit nuisance etc. have received due consideration. (Some shading is indeed desirable during extremes of weather.) No significant shading issues are anticipated.

Zone 2

The impact of trees on buildings and vice versa and allowance for future growth has been considered in the siting of the proposed construction. Tree size, future growth, light/shading, leaf and fruit nuisance etc. have received due consideration. (Some shading is indeed desirable during extremes of weather.) No significant shading issues are anticipated. There may be an issue with falling conkers in autumn.

10.7 New planting

Zone 1

Some remediation tree and shrub planting will take place as part of a Landscape Plan approved by the Local Authority.

Zone 2

Some remediation shrub planting may be required.

11.0 The Tree Survey

Results of the survey are attached in Appendix 2.

12.0 Tree Constraints Plan

A site plan of the area of proposed development showing Tree Constraints is attached in Appendix 3.

13.0 Photographs

A selection of photographs relating to the site is attached in Appendix 4.

14.0 Recommendations

A summary of the recommendations made in the Tree Survey is as follows:-

Zone 1

1. Remove G1-T12, T18, G19 & T24 prior to development.
2. A detailed Arboricultural Method Statement, in accordance with BS5837 Trees in Relation to Construction: 2005, will need to be prepared once plans are finalised. This should detail methods to be employed to ensure retained trees are protected during construction.

Zone 1

1. Retain all mature trees.
2. A detailed Arboricultural Method Statement, in accordance with BS5837 Trees in Relation to Construction: 2005, will need to be prepared once plans are finalised. This should detail methods to be employed to ensure retained trees are protected during construction.

15.0 Conclusions

Zone 1

This site is well suited for re-development. The proposed plans would only require the removal of low grade trees. Protection of retained trees

Zone 2

This site presents greater challenges in relation to tree protection. Careful siting of buildings and the use of pile and beam foundations would make it possible to develop the site whilst retaining mature trees in without damage.

Appendix 1 – Qualifications

Qualifications and experience of Arboricultural Consultant

I have been practising forestry since 1974 and the related discipline of arboriculture since 1997. I have worked on a number of private estates and carried out work for large companies and private individuals. I have been involved in practical tree work, project management, tree inspections & reports, Tree Preservation Orders and woodland management. I have prepared reports relating to development sites, health and safety and mortgage issues.

My clients include:-

- Gascoyne Cecil Estates
- Carington Estates
- Strutt & Parker
- The Portman Estate
- Buckingham Town Council
- Gorhambury Estate
- Canopy Land Use
- London Borough of Richmond upon Thames
- Babcock International
- Lafarge Aggregates
- Crown Estate Management
- Tring School for the Performing Arts

I am a member of Professional Member of The Consulting Arborist Society, an Associate Member of The Institute of Environmental Management and Assessment and a Technician Member of the Arboricultural Association. I also hold memberships of The Royal Forestry Society and the Small Woods Association. I have attended a LANTRA 'Arboriculture and Bats' course.

My qualifications include:-

- Technicians Certificate (Arboricultural Association)
- Diploma in Forest Management
- IEMA Associate Certificate in Environmental Management
- ISA Certified Arborist
- City & Guilds Forestry Stages 1 & 2
- Lantra Professional Tree Inspection Award
- RHS Certificate in Horticulture

I am licensed to carry out AMUIG Mortgage Reports and a licensed user of the Quantified Tree Risk Assessment and CAVAT methods.

TREE SURVEY: BS5837													
Appendix 2:		Church Lane, Hatfield ZONE 1					Date: 3rd February 2012						
Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
G1	Mixed Species	10	2.5	200	m	MA	3	40+	Line of boundary trees, predominantly self-set sycamore with potential to become too large for location	Remove as required to facilitate development	C1	2.00	12.57
H2	Common Beech (<i>Fagus sylvatica</i>)	1.2	0.5	75	m	M	0	40+	Managed hedge	Remove to facilitate development	C2	0.75	1.77
T3	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)	9	1.5	230	m	MA	0	40+	Twin stemmed from 0.5m with tight fork	Remove to facilitate development	C1	2.30	16.62
T4	Common Ash (<i>Fraxinus excelsior</i>)	9	N 3.5 E 3.5 S 3.5 W 1	240		MA	3	40+	Forks at 2m, poor crown shape, heavily pruned on west side	Remove to facilitate development	C1	2.88	26.06
T5	Hawthorn (<i>Crataegus monogyna</i>)	5	2	120		MA	2	40+	Ivy covering on main stem	Remove to facilitate development	C1	1.44	6.52

Arboricultural Report Zones 1 & 2, Church Lane 09/02/2012 Ref. CLZZ/PC

Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
T6	Apple (<i>Malus</i> sp.)	4	N 1 E 3 S 3 W 3	220		M	1	10-20	Butt swept with prop	Remove to facilitate development	C1	2.64	21.90
T7	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)	13	2	310		MA	2	40+	Forks at 2m	Remove to facilitate development	C1	3.72	43.48
H8	Common Beech (<i>Fagus sylvatica</i>)	1.2	0.5	75	m	M	0	40+	Managed hedge	Remove to facilitate development	C2	0.75	1.77
G9	Mixed Species	10	1	150	m	MA	1	40+	Areas of shrubs & self set trees	Remove to facilitate development	C2	1.50	7.07
T10	Sycamore (<i>Acer pseudoplatanus</i>)	8	1.5	340		MA	3	20-40	Tight included fork at 1.2m, heavily pruned	Remove to facilitate development	C2	4.08	52.30
T11	Common Beech (<i>Fagus sylvatica</i>)	17.5	4.5	610		M	5	40+	Major bark damage 0-2.5m north (30% circumference), fork at 3m	Remove to facilitate development	C1	7.32	168.36
T12	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)	4	1	180		MA	2	10-20	Poor quality topped tree	Remove to facilitate development	C1	2.16	14.66

Arboricultural Report Zones 1 & 2, Church Lane 09/02/2012 Ref. CLZZJPC

Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
T13	Common Ash (<i>Fraxinus excelsior</i>)	14	3	230		MA	4	40+	No significant features	No work necessary at present	B1	2.76	23.93
T14	Elder (<i>Sambucus nigra</i>)	9	2	180		MA	2	10-20	No significant features	No work necessary at present	C1	2.16	14.66
T15	Apple (<i>Malus</i> sp.)	12	N 3 E 3 S 1 W 3	200		MA	2	40+	No significant features	No work necessary at present	B1	2.40	18.10
T16	Apple (<i>Malus</i> sp.)	12	N 3 E 3 S 1 W 3	170		MA	3	40+	No significant features	No work necessary at present	B1	2.04	13.08
T17	Common Ash (<i>Fraxinus excelsior</i>)	11	3	180		MA	0	40+	Growing in brick planter	No work necessary at present	B1	2.16	14.66
T18	Common Ash (<i>Fraxinus excelsior</i>)	12	4	450	m	MA	2	40+	Twin stemmed, poor shape	Remove to facilitate development	C1	4.50	63.63
G19	Mixed Species	4	1.5	70	m	M	0	10-20	Area of low grade shrubs	Remove to facilitate development	C2	0.70	1.54
T20	Sycamore (<i>Acer Pseudoplatanus</i>)	16	4	480		M	3	40+	Dense ivy covering main stem	No work necessary at present	C1 (provisional)	5.76	104.24

Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
T21	Common Ash (<i>Fraxinus excelsior</i>)	14	3	470	m	M	4	40+	Twin stemmed tree with ivy covering on main stem, recently pruned/topped Dense ivy covering on main stem, recently heavily pruned/topped	No work necessary at present	C1 (provisional)	4.70	69.41
T22	Common Ash (<i>Fraxinus excelsior</i>)	14	3	390		M	5	10-20	recently heavily pruned/topped, low vigour with pinhole borer on main stem	Remove ivy 0-2m and re-assess	C1 (provisional)	4.68	68.82
T23	Sycamore (<i>Acer Pseudoplatanus</i>)	14	5	400		M	4	40+	Dense ivy covering on main stem, recently heavily pruned/topped	No work necessary at present	C1 (provisional)	4.80	72.39
T24	Common Holly (<i>Ilex aquifolium</i>)	5	1	150		MA	1	40+	No significant features	Remove to facilitate development	C1	1.80	10.18

Appendix 3:

TREE SURVEY: BS5837

Location:		Church Lane, Hatfield ZONE 2											
		Date: 3rd February 2012											
Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
T1	Horse Chestnut (<i>Aesculus hippocastanum</i>)	15.8	N 4.6 E 4.6 S 4.6 W 2	490		M	4	40+	Growing in hard surface	Remove to facilitate development	B1	5.88	108.63
T2	Horse Chestnut (<i>Aesculus hippocastanum</i>)	11.7	N 4.9 E 1 S 4.9 W 4.9	530		M	2	40+	Growing in hard surface, some damage to buttress roots from parking, large branches lost from top of crown	Remove to facilitate development	C1	6.36	127.09
T3	Hawthorn (<i>Crataegus monogyna</i>)	4	1	120		MA	2	40+	Ivy covering main stem, leaning	No work necessary at present	C1	1.44	6.52
T4	Horse Chestnut (<i>Aesculus hippocastanum</i>)	13.7	4.3	580		M	2	40+	Growing in hard surface, small cavity where branch removed 1.2m north west	No work necessary at present	B1	6.96	152.20

Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area Radius (m)	Root Protection Area Area (m ²)
T5	Hawthorn (<i>Crataegus monogyna</i>)	9.3	2	170		MA	0	40+	Extensive basal growth	No work necessary at present	C1	2.04	13.08
T6	Hawthorn (<i>Crataegus monogyna</i>)	5	2.5	290		MA	1	40+	No significant features	No work necessary at present	C1	3.48	38.05
T7	Sycamore (<i>Acer Pseudoplatanus</i>)	13.3	4.3	550		M	2	40+	Moderate basal growth, small cavity 3m east, slight lean to north	Remove to facilitate development	B1	6.60	136.87
T8	Horse Chestnut (<i>Aesculus hippocastanum</i>)	17.1	5	510		M	3	40+	Growing in hard surface	No work necessary at present	A1	6.12	117.68
T9	Common Ash (<i>Fraxinus excelsior</i>)	17.5	7	790		M	6	10-20	Fungus Ganoderma adspersum around base, ivy covering on main stem	Off site, further investigation recommended	C1	9.48	282.37
T10	Hawthorn (<i>Crataegus monogyna</i>)	6	3	400	m	M	1	40+	Multi stemmed tree with light ivy covering	No work necessary at present	C1	4.00	50.27

Arboricultural Report Zones 1 & 2, Church Lane 09/02/2012 Ref. CLZZ/PC

Tree No.	Tree Species	Height (m)	Crown Spread	Diameter at 1.5m (mm)	M/S	Age Class	Height of Crown Clearance (m)	Remaining Useful Life (Yrs)	Conditions	Recommendations	Category Grading	Root Protection Area - Radius (m)	Root Protection Area - Area (m ²)
T11	Common Holly (<i>Ilex aquifolium</i>)	14	3	440		M	2	40+	Low heavy branches	No work necessary at present	C1	5.28	87.59
G12	Sycamore (<i>Acer Pseudoplatanus</i>)	16	7.6	380		M	3	40+	Group of 3 trees, 1 with tight fork at 2m	No work necessary at present	C2	4.56	65.33

Key:

Crown Spread: If not measured NSEW, measurement refers either to average measurement or measurement which will most affect development
 Age Class: Y = Young; MA = Early Middle Aged, M = Mature, OM = Over Mature
 Retention Category: A, B, C or R as per BS5837 (2005) Table 1
 Root Protection Area: Radius according to BS5837 (2005)
 M/S 'm' denotes multi-stemmed tree

Appendix 4 – Photographs

Zone 1



Zone 1 Viewed From the South



Damage to T11

Zone 2



Zone 2 Viewed From the North West



Group of Trees to East of Site