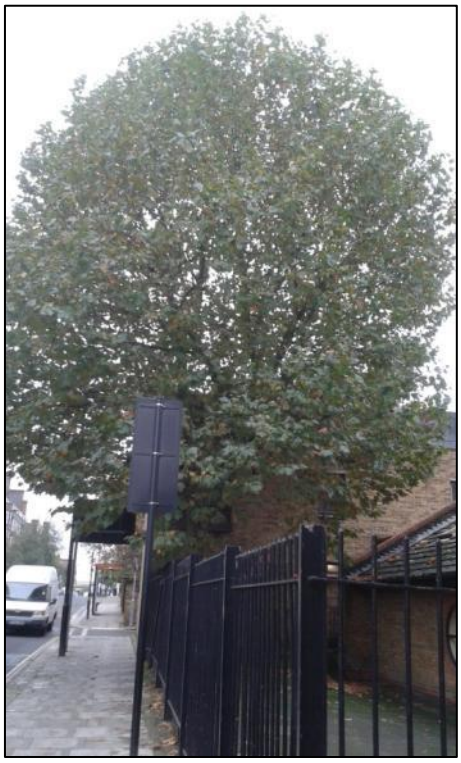
D F Clark Bionomique Ltd

Arboricultural Site Appraisal

Ashton Court, Camden Road, NW1 9HE.

Client: Origin Housing Development



Edward Cleverdon; BSc (Hons)

Date: 26th Novemeber 2014

Our Reference: DFCP 3353

Executive Summary

The following report has been prepared to support a planning application in relation to a proposed development at Ashton Court, Camden Road, NW1 9HE. The proposal is to demolish and re-develop the Camden Mews and link block buildings, adding a basement to the Camden Mews Block and develop the roof space of the link block. The survey and report has been carried out in accordance with BS 5837: 2012 'Trees in Relations to Construction, Design and Demolition'.

One tree will be removed to facilitate the development. The tree has poor form and structural issues within the crown, resulting from historic pruning and mis-management, as well as outgrowing its location. The tree will be replaced with an instant impact tree which suits the space and environment, so that it may develop and safeguard the future amenity of the site.

One tree will require minor pruning to facilitate development of the link block roof space. This will be in close proximity to the crown, however the design of the roof space development has be adjusted to accommodate for this; which will result in a minimal loss of crown foliage and form.

If the recommendations made within this report are followed, the development should be achievable in arboricultural terms and should be acceptable to the local planning authority.

Contents

1.0 Introduction

1.1 **Brief:** DF Clark Bionomique Ltd have been instructed by Robert Lombardelli Partnership Ltd on behalf of Origin Housing Development to carry out a survey of significant trees on or adjacent to Ashton Court, Camden Road, NW1 9HE in accordance with the principles of British Standard *BS 5837:2012, Trees in relation to design, demolition and construction – Recommendations.*

1.2 **Proposal:** To re-develop the building on Camden Mews with the construction of a basement level, and re-develop the linking roof space.

1.3 **Scope of this report:** This report covers trees located on site, but also those adjacent to the site, which may be affected by works within. It assesses the quality and value of the trees, so that should trees need to be removed to facilitate the development, this may be restricted to the less significant specimens on site. The purpose of the report is to aid layout design, and to demonstrate to the local planning authority (LPA) that appropriate consideration has been given to the issue of trees as part of the planning process.

1.4 **Legislation:** The proposed site is not within a conservation area neither are there any Tree Preservation Orders (TPO) that apply to trees on site. Additional legislation in regard to trees and wildlife can be found in Appendix 5.

1.5 **Site Survey and Methodology**: A site visit was undertaken on 15th October 2014, when the weather was overcast. The trees were surveyed from ground level without detailed investigations. All trees with a trunk diameter of 75mm or above[1] were surveyed. All dimensions of trees were measured unless access was limited or trees were sufficiently similar that they could be described as a group, in which case calculated estimations were recorded.

Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS 5837 and includes species, height, diameter, branch spread, crown clearance, age class,

[1] BS 5837 recommends that in most circumstances all trees over 75mm stem diameter should be included in a pre-planning land and tree survey.

physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C) to reflect its suitability as a material constraint on development.

1.5.1 Details of all surveyed trees can be found within the tree survey sheets at Appendix 3, their locations are shown on the plan in Appendix 1 and a brief explanation in relation to the categories, and other abbreviations used, can be found in Appendix 4.

2.0 Arboricultural impact assessment

2.1 Comments on specific trees:

2.1.1 T1 is a mature London Plane which has a positive impact on the amenity of the landscape as a street tree with a large domed canopy. On inspection the tree was found to have some peeling bark typical of its species but with a larger patch of wet bark necrosis on its shaded south western side. This does not present as a hazard but shows the low light availability in this corner, which is mirrored in the reduced vigour of the tree evident in the foliage colour which is paler than the typical London planes.

There is very little evidence of surface roots and there no major flaws with the tree stem. The stem divides at 5m which has caused some tight branch unions and crossing limbs within the inner crown. There is a slight lean towards the south west and the Camden Mews building but the crown is sufficiently clear of the building. The crown does overhang the link building by 1.5 - 2m.

The tree root protection area is displayed in the tree protection plan enclosed and should not be encroached during the development.

It would be feasible to create a room within the current roof space level without significant loss of foliage and form.

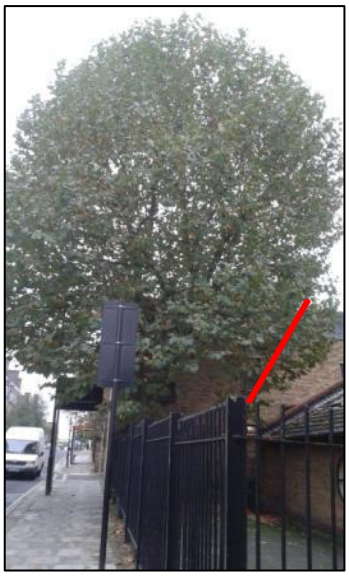


Photo 1: Shows T1, a mature London plane tree that over hangs the link block. The red line represents the sort of canopy loss that would be required to develop the roof space. There will little alteration to the overall form of the tree.

2.1.2 T4 is a mature cherry tree with good form and vigour. The stem is structurally sound, with one minor occluded area of stem damage, and bi-furcates at 3m with a strong union.

Previous reduction work has been carried out well, maintaining a natural form and clean cuts at the growing point. The resultant re-growth has been good. There are only very minor amounts of dead wood throughout the crown, and no further significant defects.

This tree offers a good level of amenity and efforts should be made to retain it.

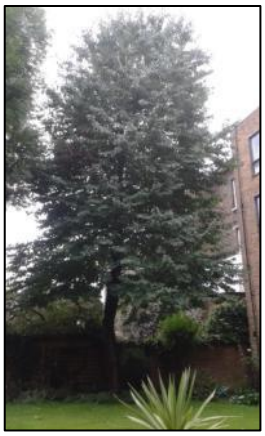


Photo 2 & 3: Showing T4 a mature cherry tree with good form, vigour and regrowth from previous reduction work.

2.1.3 T5 is a mature Raywood ash with fair vigour and poor form, growing in tight proximity to the Camden Mews building. The main stem has evidence of historic pruning wounds and divides at 3m with a strong union.

On the outer portions of the crown there is evidence of successful reduction work but the inner portions show signs of historic pruning of a lower standard. There are large volumes of epicormic growth, interlocking branches and bushy regrowth that are typical of mismanaged crown thinning regimes. This has left the tree with poor form and structural issues within the crown. It is likely the tree has undergone extensive historic maintenance due to the large domed crown typical of the species, but restricted within the tight growing environment.

Photo 4 & 5: Showing T5, a mature Raywood ash with poor form and structural flaws within the crown.

2.1.4 **Summary of the impact of the development on trees:** one tree will be removed and replaced to facilitate the development (T5). One tree will require pruning facilitate development (T1), but this may be done with little minimal impact on tree health or form.

2.2 **Tree survey plan:** The Tree Survey Plan can only be used for dealing with the tree issues in relation to design. It shows the existing trees numbered and categorised in accordance with BS 5837.

2.2.1 Below ground constraints are represented by the root protection area[1] (RPA), shown as a blue circle. The above ground constraints by virtue of the existing crown spread, approximate extent shown in green outline.

2.2.2 The survey plan is an aid to design and should not be used on site, following planning consent.

2.3 **Trees to be removed:** T5 is to be removed to facilitate the development of the Camden Mews building. The proximity of the tree to the building will cause constraints to the development which outweigh the amenity that the tree provides. The tree has poor form and structural issues which may begin to present a hazard now the tree is entering late maturity.

The tree will be replaced post development with an instant impact tree. It is suggested that a species like *Tilia cordata* 'Green spire' is selected which is tolerant of low soil nutrients, responds well to pruning and has a dominant central leader with lighter lateral branches and a more open canopy structure. This will suit the space it has to develop, be easy to maintain, allow light infiltration to the site and compliment T4 which has a similar form.

2.4 **Root protection area incursions:** precautions should be taken that no incursions are made into the root protection areas of T1 or T5. It is recommended that heras fencing is erected around the root protection area of these trees to minimise incursions.

2.5 **Impact on local amenity:** Any impact upon the local amenity will remediated by the replacement tree.

3.0 Conclusions

3.1 One will tree will be removed to facilitate development, it will be replaced with an instant impact tree that is better suited to the space and growing environment than its predecessor, safeguarding the future amenity of the site.

3.2 Plans to develop the roof space of the link block have been designed to accommodate the crown of T1. Some minor pruning will be required to facilitate the design but the overall form of the tree should not be affected.

3.3 There are few constraints to this development going ahead abroriculturally speaking.

4.0 Recommendations

4.1 That the routes of any proposed services are directed away from trees to be retained, and located outside of root protection areas.

4.2 That foundation design takes into account trees to be retained, trees to be removed and new trees to be planted.

4.3 Any pruning work is carried out to the specification detailed in *BS 3998:2010 'Tree Work Recommendations'*.

Edward Cleverdon (BSc Hons)

Assistant Arboricultural Consultant—DF Clark Bionomique Ltd

I have a BSc (Hons) degree in Arboriculture from Myerscough College, with experience in tree surgery and surveying.

Appendix One – Tree Survey and Protection Plan

DFCP 3232 TSP

See Attached Plan

Appendix Two – Tree Survey Sheets

Tree	Common Name	Ht m	Dia m	RPA m^2	RPR m	Canopy NESW	Cr Ht m	Age	BS Cat	Life exp	Physiological Condition	Structural Condition	Comments	Recommendations at time of survey
T1	London Plane *Platanus hispanica*	12	0.35	55	4.2	3N 5E 5S 4W	4	M	C2	10-20	Fair	Fair	Large rounded canopy which over hangs the link building and leans towards the Camden Mews building. Outer crown well shaped after clean reduction work, inner crown has epicormic and interlocking branches (minor) from old pruning wounds. Minor bark necrosis southern side.	None at time of survey
T2	Wild Cherry *Prunus avium*	6	0.13	7	1.5	3N 3E 3S 3W	2	MA	C2	<10	Poor	Poor	typical poor form low vigour grafted cherry tree with shrub like growth	None at time of survey
T3	Sycamore *Acer pseudoplatanus*	13	0.250; 0.250	55	4.2	4N 4E 4S 4W	6	M	C2	20-40	Good	Fair	bi furcates at 1m tight union but bulged ractionary growth and strong species, not an issue, coped well with historic pruning, clean recent reduction with good regrowth	None at time of survey
T4	Wild Cherry	12	0.35	55	4.2	3N 3E 3S 3W	3	M	B2	10-20	Good	Fair	Evidence of surface roots, clean stem and excellent form. Previous reduction work high standard, with vigorous regrowth.	None at time of survey
T5	*Fraxinus angustifolia*	13	0.4	72	4.8	4N 6E 4S 3W	6	M	C2	10-20	Fair	Fair	Stem divides at 2m, several old pruning wounds and reactionary growth in canopy. Major epicormic and bushy growth within crown as result of historic pruning, tree left with poor form.	None at time of survey

Appendix Three – Key to Tree Survey Sheets

Key to terms

T = Tree **G** = Group **H** = Hedge **S** = Shrub mass

Age Class:

NP = Newly planted.

Y = Young - an establishing tree that could be easily transplanted.

SM = Semi-mature - an established tree still to reach its ultimate height and spread and with considerable growth potential.

EM = Early mature - a tree reaching its ultimate height and whose growth is slowing, however it will still increase considerably in stem diameter and crown spread.

M = Mature - a tree with limited potential for further significant increase in size although likely to have a considerable safe useful life expectancy.

OM = Over mature - a senescent or moribund tree with a limited useful life expectancy.

V = Veteran – a tree which has features associated with advanced age for its species, having the connotation of a battle-scarred survivor, and as such has features that increase its value as wildlife habitat

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Dia: Diameter of stem in millimetres at 1.5m above ground level for single-stemmed trees or in accordance with Annex C of BS 5837 for multi-stemmed trees or trees with low forks or irregular stems.

Stems: Numbers of stems or M/S = multi-stemmed.

Ht: Height in metres.

Cr ht: Height of canopy above ground level.

NSEW: Crown spread at the four cardinal points. Ø = average crown radius.

cont/.

BS cat: Category in accordance with Table 1 and section 4.5 of BS 5837.
U - Unsuitable for retention. Existing condition is such that they cannot be realistically retained as living trees in the context of the current land use for longer than 10 years. Note: category U trees can have existing or potential conservation value which it might be desirable to preserve.
A - High quality and value (non-fiscal) with at least 40 years remaining life expectancy.
B - Moderate quality and value with at least 20 years remaining life expectancy.
C - Low quality and value with at least 10 years remaining life expectancy, or young trees with a stem diameter below 150 mm.

A, B and C category trees are additionally graded into: 1) Mainly arboricultural values; 2) Mainly landscape values; 3) Mainly cultural values including conservation.

Cond: Physiological condition. G = good; F = fair; P = poor; D = dead.

Life exp: Estimated remaining contribution in years.

RPR: Root protection radius in metres based on stem diameter.

RPA: Root protection area. A layout design tool indicating the minimum area surrounding the tree that contains sufficient rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. Assessed according to the recommendations set out in clause 4.6 of BS 5837. It is calculated by multiplying the radius squared by 3.142. Clause 4.6.2 of BS 5837 states that the RPA may be changed in shape, taking into account local site factors, species tolerance, condition and root morphology.

TPZ: Tree Protection Zone. An area based on the RPA in m^2 identified by an arboriculturist, to be protected during development, including site clearance, demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Appendix Four – Tree Work Schedule

Tree surgery recommendations

All tree works to be undertaken in accordance with *BS 3998:2010 Recommendations for tree works,* or industry best practice

Tree no.	Species	Proposed works	Reason
T5	Raywood ash	Section fell	To facilitate development
T1	London plane	Crown raise to 3m and reduce lower portion of southern crown by 1m	Facilitate development of the roof space of the link block.

Appendix Five – Contacts, References and Legislation

Contacts Table

Name	Company	Position	Tel, No.
Sam Jarman sam@rlpsurveyors.co.uk	Robert Lombardelli Partnership	Employers Agent	01462 436318
Alistair Smith Alistair.smith@camden.gov.uk	Camden Council	Tree Officer	020 7974 4444
Edward Cleverdon Edward.cleverdon@dfclark.co.uk	DF Clark Bionomique Ltd	Assistant Arboricultural Consultant	01621 740876 07970 601315

Reference documents:

- BS 5837:2012, Trees in relation to design, demolition and construction - Recommendations
- BS 3998:2010 Tree work – Recommendations
- 'Tree Roots in the Built Environment' *(DCLG - Jack Roberts, Nick Jackson & Mark Smith)*
- Principles of Tree Hazard Assessment and Management *(DTLR - David Lonsdale)*
- Tree Preservation Orders - A Guide to the Law and Good Practice - DETR
- National Joint utilities Group (NJUG). Guidelines for the planning installation and maintenance of utility apparatus in proximity to trees Volume 4, Issue 2. London: NJUG, 2007

Documents provided:

- Topographical Survey, JOB – 14059 – Ashton Court Topographical Survey.dwg

Additional Legislation:

- Tree Preservation Orders (TPO) and Conservation Area restrictions requires that permission is granted from the local planning authority (LPA) before a tree covered by a TPO is pruned or removed, or that six weeks' notice is provided in writing to the LPA before work is carried out to a tree located within a conservation area.

- The Occupiers Liability Act (1957 and 1984) places a duty of care upon tree owners to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore this report recommends works for safety reasons as well as work required to facilitate the proposal.

- Common law allows pruning back to the property boundary line, the overhanging branches and roots as long as this does not contravene any statutory protection. However if the work is not carried out in accordance with best practice and the tree(s) becomes unbalanced and/or diseased as a result of the work, the owner may take civil action. Whilst common law does not require the tree owner to be consulted, it is courteous to inform him/her of the proposed works.

- The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees. These could impose significant constraints on the use and timing of access to the site. It is the responsibility of the main contractor and tree surgery contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works. Unless competent to do so, the advice of an ecologist must be sought.

Appendix Six – Specific Report Caveats

Specific report caveats:

- The survey was based on a drawing provided by the client.
- No internal diagnostic equipment was used other than a sounding mallet and probe.
- The survey is concerned solely with arboricultural issues.
- Any work with trees will discharge the due diligence requirements of all relevant wildlife and countryside legislation.
- Trees are dynamic living organisms whose health and condition can change rapidly. Any changes to the tree or conditions close to the tree may change the stability and condition of the tree and a further examination would be required and may affect the validity of this report.
- This report is valid for 12 months.

Arboricultural Impact Assessment

Ashton Court, Camden Road NW1 9HE

Client: Origin Housing Development

Edward Cleverdon; BSc (Hons)

Date: 23/10/2014
Our Reference: DFCP 3353

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