

BUCKS PLANT CARE LTD
ARBORICULTURAL CONSULTANCY SERVICE

Arboricultural Impact
Assessment 2 (AIA2)
7 Endymion Road,
London, N4 1EE

2022



BUCKS PLANT CARE LTD

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Summary: The site was surveyed on the 4th March 2022. There is one low quality off-site tree associated with this development.

1.0 INSTRUCTIONS AND TERMS OF REFERENCE

1.0 INSTRUCTIONS

1.1. Arboricultural Implication Assessment (AIA). We are instructed by Jordan Saul of the subject property at 7 Endymion Road, London, N4 1EE to:

- Survey from ground level, individually, or in groups, all on-site trees, identifying species, physiological condition and structural morphology, tree dimensions, preliminary management recommendations and BS: 5837 (2012) 'Retention Categories'. Estimate as far as possible off-site trees.
- Number all trees, either individually or in groups:
- Prepare a Tree Schedule.
- Work up an arboricultural impact assessment that will incorporate Root Protection Areas (RPA) for those trees worthy of retention.

1.2 PHASE 1, 2 & 3: ARBORICULTURAL IMPLICATION ASSESSMENTS (AIA) IN CONTEXT

1.2.1 Phase 1 (AIA1). The initial stage for trees within the development process is a survey of those trees that should be retained and those that may/should be removed. Retention trees are allocated Root Protection Areas (RPAs) that are then detailed on a Tree Constraints Plan (TCP). The RPAs provide for sufficient rooting (soil) volume to ensure that trees are successfully retained during and after the completed development. The TCP represents Phase 1 of an Arboricultural Implications Assessment (AIA1). It indicates a notional development footprint for any given site but moreover, it **may affect the value of land** earmarked for development. The AIA1 is **only** a baseline survey. It is not

intended to represent, in isolation, the supporting information for an LPA* application: to obtain full planning permission.

1.2.2 Phase 2 (AIA2). The next stage is for 'site layout master planners' to factor the tree constraints into draft layout proposals. This draft is then referred to the consulting Arborist for further implication assessment, to arrive at a 'best fit' scheme, which achieves site proposal viability whilst allowing for the retention of appropriate trees. This layout review represents Phase 2 of an Arboricultural Implications Assessment (AIA2). Once it has been agreed, the consulting Arborist can then prepare a supporting report to accompany the planning application. This report should demonstrate that the trees have been properly considered such that the site layout is defensible in arboricultural terms, both at the application stage and also, if necessary, at Appeal. As the proposal develops, the AIA2 also involves the consulting Arborist working as part of the development team to secure discharge of any initial (frequently pre-commencement) tree related LPA Planning Conditions. These will need to be formally discharged to avoid any breach of Conditions and possible enforcement action.

1.2.3 Phase 3 (AIA3). All the effort put into the pre-application phases (AIA1-2) to protect retention trees is likely to fail without effective site supervision. Arboricultural Implications Assessment (AIA3) covers the ***on-site project implementation***, including arranging (LPA) approved tree removal/ pruning, overseeing the installation of tree protection fencing, ground protection and any special engineering works through to periodic reporting on the retention of tree protection measures. Many if not all of the latter are usually specified as LPA Planning Conditions that need to be formally discharged. All personnel associated with the construction process must be familiar with the specified Tree Protection Plans (TPP) and Arboricultural Method Statements (AMS) that affect the site. The TPP and AMS should be retained on site at all times and they should be included in the site's Project Management Plan.

1.2.4 Phases 1–3 are in line with BS:5837 '*Trees in relation to design, demolition and construction - Recommendations*' (2012).

* Local Planning Authority

1.3 TREES & BUILDING SUBSIDENCE/HEAVE ISSUES

Assessing the potential influence of trees upon load-bearing soils beneath existing and proposed structures, resulting from water abstraction by trees on shrinkable soils, was not included in the contract brief and is not, therefore, considered in any detail in this report. **Bucks Plant Care Ltd** cannot be held responsible for damage arising from soil shrinkage or heave issues related to the retention or removal of trees on site.

1.4 TREE SAFETY MATTERS AND TREE RISK ASSESSMENT

The BS:5837 tree survey is carried out in sufficient detail to gather data for and to inform the current project. Our appraisal of the structural integrity of trees on the site is of a preliminary nature and sufficient only to inform the current project. The tree assessment is carried out from ground level – as is appropriate for this type of survey - without invasive investigation. The disclosure of hidden tree defects cannot therefore be expected. Whilst the survey is not specifically commissioned to report on matters of tree safety, we report obvious visual defects that are significant in relation to the existing and proposed land use.

Lastly and to further clarify, this BS:5837 survey does not constitute a full *Visual Tree Assessment* (= TRAM* Level 2 - *Basis Assessment*) that would ordinarily be carried out for Tree Risk Assessment reporting. In effect, this BS:5837 survey equates to a TRAM Level 1 *Limited Visual Assessment*.

* "*Tree Risk Assessment Manual*" Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly (2013) *International Society of Arboriculture*

1.5 SITE OBSERVATIONS

This report has been based on my site observations and in light of my experience. This along with my qualifications are summarised in Appendix 3.

1.6 CAVEATS

The author does not have formal qualifications in the areas of structural engineering or law. However, making comment on such matters from an arboricultural perspective is both within the normal scope of our instructions and also within the range of the author's experience. Notwithstanding this, specialist professional advice should be sought to clarify/confirm any observations on engineering or legal matters that this report may contain.

2.0 INTRODUCTION

2.1 THE ASSESSMENT METHODOLOGY

The British Standard 5837 '*Trees in relation to design, demolition, construction - Recommendations*' (2012) provides "guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees.....with structures". The Standard recommends that trees with categories A-C (where A is the highest quality) are a material consideration in the development process. Such trees may then become a constraint for a planning proposal. Category U trees are those that will not be expected to exist for long enough to justify their consideration in the planning process (i.e. no more than 10 years). Tree categories are used with the number 1, 2, or 3 to signify whether the category was made based on arboricultural, landscape or cultural (including conservation) values respectively. The tree categories are shown on plan by colour-coding:

- Category A (green colour-coded): Good examples of their species with an estimated life expectancy of at least 40 years.

- Category B (blue colour-coded): Not suitable for an 'A' category due to impaired condition or a tree lacking special 'A' qualities: with an estimated life expectancy of at least 20 years.
- Category C (grey colour-coded): Unremarkable trees of very limited merit or with a significant impaired condition not warranting an 'A' or 'B' category: with an estimated life expectancy of at least 10 years. See young trees below.
- Category U (red colour-coded): Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
- Reasonably young trees below 150mm stem diameter would normally be given a C category (if they satisfy the retention quality criteria). However, as they are small they could be replaced/transplanted and as such they should not be regarded as a significant constraint on a development.

2.2 ARBORICULTURAL IMPACT ASSESSMENT (AIA 1)

As part of this AIA1 we have considered the following BS:5837 (2012) criteria:

1. Tree Categories (Quality Assessment).
2. Crown Spread measured to the four cardinal compass points for single specimens only.
3. Root Protection Areas (RPAs).
4. Tree Constraints.

N.B. Trees and shrubs are living organisms whose health and condition can change rapidly, for this reason the BS 5837 grades along with any conclusions or tree management recommendations remain valid for a period of 12 months.

3.0 CONSTRUCTION EXCLUSION ZONES (CEZS)

3.1 GENERAL

The three phases of an Arboricultural Implication Assessment were outlined in Section 1.1.1–1.1.4. In addition, during the development process for retention trees, there may be three or even four constraints to consider - Construction Exclusion Zone (CEZs):

- CEZ 1: Root Protection Area (see 3.1.1).
- CEZ 2: Tree Crown Protection (see 3.1.2).
- CEZ 3: Tree Dominance (see 3.1.3).
- CEZ 4: New Tree Planting Zone (see 3.1.4).

The above CEZ's are explained further below.

3.1.1 CEZ 1: ROOT PROTECTION AREA (RPA)

The RPA, calculated in m², should be protected before and during any demolition/construction works. This ensures the effective retention of trees by preventing physical damage to (a) roots and (b) their rooting environment (typical problems - soil compaction; soil level changes and soil capping that can impede gaseous exchange to living roots*). The RPA is based on a radial measure from the centre of the tree stem, which is calculated by multiplying the stem diameter by a factor of twelve (or by a factor of ten when measuring basal diameter immediately above the root flare for multi-stemmed trees). With the AIA1, the RPA is only shown indicatively on the preliminary Tree Constraints Plan (TCP), as its shape may be subject to amendment as the design progresses.

During the AIA2, the derived radial measure is converted by the consulting Arborist into the actual area to be protected, having due regard to prevailing site conditions and how these may have affected the tree(s).

The means of protecting the RPA will include the installation of tree protection fencing prior to the start of any demolition or construction work on site, the

prohibition of various harmful activities within the RPA (e.g. mechanical excavation, soil stripping & trenching, fire lighting, materials storage and creating excessive sealed surfacing), and may include the use of temporary ground protection and/or special engineering solutions where construction is proposed near to retention trees or within the RPA.

* Roots must have oxygen for survival, growth and effective functioning.

3.1.2 CEZ 2: TREE CROWN PROTECTION ZONE

This is the area above ground occupied by the tree crown (branches) and considers the required demolition/construction working space necessary for the development. The possibility of an acceptable quantum of pruning may be considered: subject to Council permission/consent (see Section 4.1.1).

Arising from the above, the means of protecting CEZ 2 is likely to include providing an adequate separation distance between retention trees and new buildings. This will relate to the CEZ 3: below.

3.1.3 CEZ 3: TREE DOMINANCE ZONE

This is the area above ground dominated by the tree in relation to issues of shading, seasonal debris and the safety apprehension by the site owner/occupier. This area is assessed by considering the height and spread of the tree (now and in the future) relative to the proposed buildings, cross-referenced with the intended end-use. As such, what is assessed is the likely psychological effect of the tree(s) on the end-user.

The purpose of identifying CEZ 3 is to protect trees from post-development pressure by the site's end-users, who may, if resentful of the trees, seek to procure excessive pruning treatments (i.e. the bad practice of topping & lopping) or even to have them removed. This is a common LPA concern, which may lead to application withdrawals, refusals and/or dismissed Appeals.

The means of protecting CEZ 3 is likely to include optimising the site layout and room type (especially in relation to new residential dwellings), such that any adverse impacts of trees are reduced to an acceptable minimum. The key principle is to ensure adequate separation distances between trees and new buildings: notably with habitable space & primary windows.

3.1.4 CEZ 4: NEW PLANTING ZONE

In some cases, it may be appropriate to identify and protect areas intended for new landscape planting, which can fail to establish if the soil has been heavily compacted or contaminated during the demolition/construction process. The means of protecting CEZ 4 will either be by fencing prior to the start of demolition/construction works or by pre-planting soil remediation once construction has finished. Topsoil protection in areas destined for new planting is frequently an economic measure, saving on soil structure remediation and tree (failure) replacement costs.

4.0 STATUTORY CONTROLS

4.1 PLANNING LEGISLATION (TREES)

4.1.1 STATUTORY TREE PROTECTION

Trees can be protected in law – via Tree Preservation Orders (TPOs) or by virtue of them growing in a Conservation Area – by the Government's Town & Country Planning Act 1990 (the Act). Trees may also be protected by Planning Conditions. In all these instances, written LPA permission/consent is required before protected trees can be pruned or felled*. Contravention of the Act may carry a fine of up to £20,000 and a criminal record.

* Exceptions include those trees that are dead/hazardous or those that are causing an actionable nuisance to a third-party. In any event, evidence must be provided to defend the removal of such trees.

4.1.2 TREES ON SITE

The trees on this site are not protected.

4.2 WILDLIFE LEGISLATION

The Wildlife and Countryside Act (1981) Chapter 69 forms the basis for the legal wildlife protection in Great Britain. Amongst other protected flora and fauna, nesting birds and all species of bat are afforded statutory protection. In brief, it is an offence to:

- Intentionally kill, injure or take a bat.
- Sell, hire, barter or exchange a bat, dead or alive.
- Be in possession or control of a bat or anything derived from them.
- Disturb a nesting bird.
-

It is recommended that the client and/or their agent review the Act - <http://www.jncc.gov.uk/page-3614> - for further information and guidance.

5.0 WILDLIFE HABITATS

A cursory assessment of wildlife habitat values of trees and hedgerows on the site was carried out during the survey. No protected or exceptional habitats were identified and details were not recorded. However, trees and hedgerows of most species provide valuable nesting sites for a wide range of birds and it is likely that nesting birds will be present on the site during the period March to September. We have not been made aware of the presence of roosting bats and have not identified any obvious signs of roost sites. However, this does not mean that roost sites are absent.

6.0 **7 ENDYMION ROAD, LONDON - TREE REPORT** (to be read in conjunction with the appended AIA plan and Tree Survey)

6.1 **THE PROPERTY AND THE DEVELOPMENT PROPOSAL**

6.1.1 **Site description:** The site consists of a parking area at the rear of 7 Endymion Road.



6.1.2 **The proposal:** It is proposed to build a mews dwelling in the plot as shown here.



The location and detail of the proposed development and the positioning and numbering of the trees can be found plotted on the AIA plan at Appendix 2 and separate document Ref : AIA/20712. NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

6.2 TREES ON-SITE

There are no on- site trees.

6.3 TREES OFF-SITE

There is one off site tree which is an ash tree T01 as shown here.



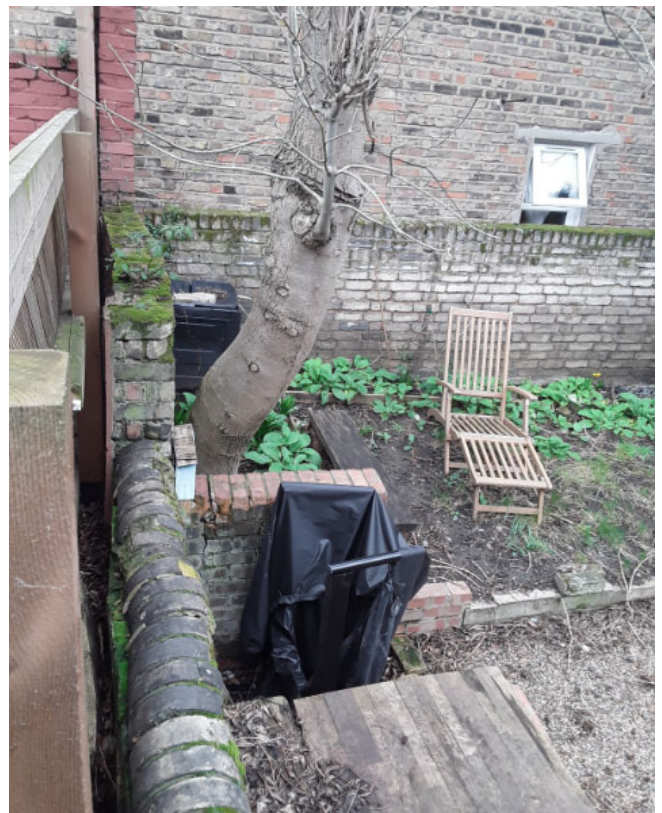
6.4 **IMPACT PROPOSAL ON TREES** (to be read in conjunction with the Arboricultural Impact Assessment- AIA - at Appendix 3)

6.4.1 **Underground Utilities:** Locations of proposed underground services were not identified on the provided plans, although these *must not* be sited within the Root Protection Area (RPA) of any retention tree without prior discussion and approval from the LPA and/or a Consulting Arborist. See section 6.5.

6.4.2 **CEZ 1: Root Protection Areas (RPAs)**

6.4.2.1 **Footprint of the Proposed Build**

- There is not considered to be an impact to the RPA of the neighbouring ash tree as the existing ground level is 1 meter higher than the garden with the tree. Also, there is a boundary wall which will be acting as a root barrier.



- There is a significant crack in the gable wall of the adjacent property and the ash tree is showing signs of ash dieback disease.



Therefore, the tree should not be a constraint to the proposed development.

6.4.3 CEZ 2: Tree Crown Protection Zones

The crown of the ash tree will need to be raised to 6 meters to allow clearance for the new build. This work will be carried out in accordance with **BS 3998 2010 – Tree Work - Recommendations**



6.4.4 **CEZ 3: Tree Dominance Zones**

The proposal has been designed with the tree in mind and will bring nature into the building.

6.5 **UNDERGROUND UTILITIES**

The service runs will need to be provided.

6.6 **TREE PROTECTION DURING CONSTRUCTION**

6.6.1 Tree Protection: The protection of retention trees is *paramount* to the granting of planning permission, the discharge of tree protection Planning Conditions, the design of the development and the future health, stability and success of the trees. It is widely recognised that mature trees add value to both land and property values.

6.6.2 The Root Protection Area (RPA): RPAs around retention trees should be maintained by the erection of a *temporary* tree protection barrier (TPB). The position and extent for the TPB will normally concur with the radius/squared area of the RPA. This staked-off area shall be known as the Construction Exclusion Zone (CEZ). The integrity of the TPB to protect CEZs should be maintained for the duration of the entire development works.

6.7 **ARBORICULTURAL METHOD STATEMENT**

6.7.1 **Purpose & Use**

As part of the final approved scheme an Arboricultural Method Statement (AMS) will need to be developed. This AMS lays down the methodology for any demolition and/or construction works that may have an effect upon trees on and adjacent to this site. It is essential within the scope of any contracts - related to this development - that this AMS is observed and adhered to. It is recommended

that this document forms part of the work schedule and that specifications are issued to the building contractor(s) and these should be used to form part of their contract.

6.7.2 Site Supervision

An individual – ideally the Site Agent - must be nominated to be responsible for all arboricultural matters on site. This person must:

- be present on site for the majority of the time;
- be aware of (a) the Tree Protection Plan and (b) the tree protection measures to be installed and maintained throughout the build;
- have the authority to stop any work that is causing, or has the potential to cause, harm to any retention trees;
- be responsible for ensuring that all site operatives are aware of their responsibilities towards on/off site trees and the consequences of the failure to observe these responsibilities;
- make immediate contact with the designated Consulting Arborist (contact number listed on the appended AMS) in the event of any tree related problems occurring, whether actual or potential.

6.7.3 AMS Adoption

If conflicts between any part of a tree and the build arise in the course of the development these can – and should be – resolved quickly and at little costs if a qualified and experienced Consulting Arborist is contacted promptly. Lack of such care will likely lead to the decline and even death of affected trees: often with legal ramifications. The loss or damage to retention trees can spoil design, affect site sale ability and reflects badly on the construction and design personnel involved. Conversely, trees that have received careful handling during construction add considerably to the appeal and value of the finished development.

7.0 CONCLUSIONS

7.1 DEVELOPMENT PROPOSAL & POTENTIAL IMPACT ON TREES

7.1.1 It is proposed to build a detached dwelling on the plot

7.1.2 There is a category C ash tree in the neighbouring property, which has a limited life expectancy due to ash dieback disease. Also, it has been demonstrated that the RPA is not impacted. This tree will require its crown to be raised to facilitate the new build. The tree should not be an impediment to approving this application.

7.1.3 Following approval of this project an Arboricultural Method Statement and Tree Protection Plan will be required. Active random monitoring by a Consulting Arborist throughout the development process is strongly recommended (AIA3: Phase 3).

8.0 RECOMMENDATIONS

8.1 EXECUTION OF CONTRACT

It is recommended that the Architect specifies in writing to the building contractor that tree care conditions apply to the execution of the contract. Lack of care frequently results in the damage, decline and eventual death of trees. This can adversely affect design aims & site sale-ability, and reflects poorly on the contractors and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of finished developments.

8.2 PROPOSED REVISIONS TO THE SCHEME

We advise that all proposed revisions in respect of external layout, orientation of primary windows, location of underground services, external surfacing and/or

landscaping; having implications for retention trees should be referred to us for review.

9.0 OCCUPIERS LIABILITY ACTS

Attention is drawn to the provisions of the Occupiers liability Acts (England & Wales - 1957 & 1984), which place a responsibility upon landowners to ensure the safety of others entering their land whether by invitation or permission: inclusive of trespassers. There is a special responsibility to ensure the safety of children, who may be unaware of hazards. Annual inspections of trees by a competent person, or following storm events, together with implementation of any remedial tree work recommendations, should ensure compliance with the legislation regarding the above legislation.

APPENDIX 1

TREE SURVEY SCHEDULE

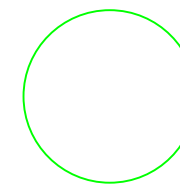
Ref.	Species	Measurements	General Observations	Retention Category	RPA	Physiological Cond	Structural Cond	Recommendations
T01	Ash (Fraxinus excelsior)	Height (m): 18 Stem Diam (mm): 300 Spread (m): 3N, 3E, 3S, 5W Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: <10 Years	This is a mature off site tree, which has a limited life due to ash dieback disease	U/C	Radius: 3.6m. Area: 41 sq m.	Fair	Good	Lift crown to 6 meters for the development

APPENDIX 2

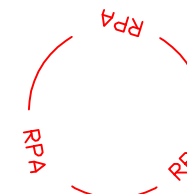
Arboricultural Impact Assessment plan



General Notes



Tree canopy



RPA Cat U/C

AIA plan

No.	Revision/Issue	Date

Firm Name and Address
Bucks Plant Care Ltd
Wylderne
Bridge Street
Great Kimble
HP17 9TW

Project Name and Address
Rear of
7 Endymion Road
London
N4 1EE

Project	Sheet
BPC - 20712	01
Date	24.03.22
Scale	1:200

Appendix 3

Author qualifications:

Patrick Prendergast, DHE, MArborA, MIHort, Tech Cert(ArborA)

Patrick has 40 years experience in arboriculture, working in local authorities managing trees in the public realm and private sectors. He studied commercial horticulture in Ireland and amenity horticulturist in Edinburgh Botanic Gardens. In 1987 he decided to become a tree surgeon / arborist and worked for 2 years for the London Boroughs of Brent and Harrow, being involved in clearing up the 1987 storm. For the following 5 years he worked for Enfield Council as a tree officer. As well as dealing with general tree management issues he dealt with rehabilitation of the landscape following the storm in '87. He then moved to City of Westminster where he spent most of his 12 years there working in the Housing Department managing the trees and grounds. He left there to spend 10 years at Harrow Council managing all the public realm trees. Over the last 6 years he has been developing his own arboricultural consultancy business, which also deals with post development landscape design. He spent the first 3 year job sharing at Cherwell District Council dealing with both public realm and private tree issues. He dealt with development applications relating to trees and processed tree works applications for protected trees. He also managed the review of the Area TPO orders. Over his 25 years managing trees in local authorities he has organised the planting of thousands of trees.

He is a professional member of relevant institutes, attends conferences and seminars to ensure that he keeps up to date with current industry developments.

- National Certificate in Commercial Horticulture, Kildalton, Co Kilkenny 1982
- Diploma in Horticulture from Royal Botanic Gardens Edinburgh 1987 –(D.H.E.)
- Technical Certificate in Arboriculture - Arboricultural Association 2003 - Tech Cert (ArborA)
- Profession Tree Inspection Certificate 2014

Professional membership

- Member of the Chartered Institute of Horticulture (MCIHort)
- Member of the Consulting Arborist Society
- Member of the Arboricultural Association (MArborA)
- Associate member of the Chartered Institute of Foresters

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24th March 2022

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Arboricultural
ASSOCIATION

Professional Member