

Assessment and advice on one Scots pine tree located near to Eldon House, Lyndhurst Road, London NW3 5PZ



CLIENT:	Robert Birbeck Architect
CLIENT REF:	RBA/EHLRK
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CONSULTANT:	Shane A. Lanigan
REPORT DATE:	12th October 2021



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Date: 12th October 2021 - Our Ref: SAL/KMA/10894

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Summary

I inspected one Scots pine tree growing within the rear garden of the property known as Eldon House, Lyndhurst Road, London NW3 5PZ. Having considered the results of my inspection I concluded that most of the proposed extension would be within the calculated Root Protection Area (RPA) of the pine tree. Whilst this would normally be an adverse material consideration in the planning process, implementation of this proposal might be possible if special construction methods are used. On this site I would envisage these to be hand-digging and use of piled foundations to avoid damaging existing tree roots.

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Reference publications are listed at the back of this report (Appendix 3)

1. Introduction

1.1 **Instruction:** I was instructed by Mr Robert Birbeck to inspect one Scots pine tree growing within the rear garden of the property known as Eldon House. Mr Birbeck (Architect) has been asked to prepare preliminary plans for a rear extension and has identified T1 (Scots pine) as being a possible impediment to the planning process.

1.2 I began my inspection of the tree at approximately 9.05am concluding at 9.58am on Monday 11th October 2021. Weather conditions were mild though overcast. Visibility was acceptable.

1.3 Documents provided:

- Ground Floor Plan – Existing – Dwg: EH/P/01 – 1:100 @ A3
- Ground Floor Plan – Proposed – Dwg: EH/P/02 – 1:100 @ A3

1.4 **Ecological constraints:** Impacts on wildlife must be considered prior to and during any tree works deemed necessary. Such matters are governed by various pieces of primary legislation, specifically:

- The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 and other more recent regulations, and the European Protected Species legislation. These regulations provide statutory protection for birds, bats and other tree and woodland dwelling creatures. The presence of protected species could impose constraints upon the timing and implementation of the site works. Consultation with an appropriately qualified ecologist must be undertaken should this be deemed necessary.

1.5 **Statutory Tree Protection:** I have made enquiries of the Local Planning Authority which in this instance is the London Borough of Camden, to ascertain the existence or otherwise of any Tree Preservation Orders which may be applied to this site, or whether the site falls within a designated conservation area. The local authority's online mapping system shows that the tree referred to in this report does not appear to be protected by a Tree Preservation Order but the site does appear to lie within a designated conservation, namely, "Fitzjohns Netherhall Conservation Area" (see Appendix 6 'A Brief Explanation of Tree Preservation Orders/ Conservation Areas' at the back of this report). The status of the tree preservation order and conservation area legislation is only confirmed at the time of writing.

1.6 **Qualifications and professional experience:** This report is based on my on-site inspection and assessment of the existing trees. I hold formal qualifications in arboriculture and have the benefit of fifty years professional experience in this discipline. A summary of these matters is appended at Section 9.

- 1.7 **Relevant background information:** Mrs Vivien Bejerano, the property owner, wishes to build an extension within the rear garden, northwest of Eldon House. The available area is limited and almost entirely within the calculated RPA of the Scots pine tree.
- 1.8 **Soils:** I accessed the online application of the British Geological Survey to gain insight into the type of soil present here. The app showed that the soil depth should be Deep with a texture of Clayey Loam to Silty Loam, the parent material from which this has evolved by the 'weathering process' is described as Prequaternary Marine/Estuarine Sand And Silt. The app is generally a good guide to soil type within a general area but is not site-specific. Site soil testing by way of trial pits, boreholes, and technical analysis is the recognized way to obtain truly accurate site-specific results.

2. The tree

- 2.1 **Inspection of trees on site:** I inspected one Scots pine tree growing within the rear garden of Eldon House. It is located northwest of the property with the distal trunk face being around 130 mm from the rear boundary wall which adjoins a property in Tower Close. My inspection was visual only and made from ground level while within the rear garden of Eldon House. Tree details are summarised in the tabulation below:

Tree 1	Scots pine – <i>Pinus sylvestris</i> L. Family: Pinaceae
Ownership:	Eldon House
Grid reference:	TQ 269854
Elevation:	82 m
Age Class:	Mature
Height:	16 m (estimated)
DBH (diameter at breast height)	510 mm (measured).
Physiological condition:	Good
Structural condition:	Good
Distance from dwelling house:	5.6 m (from rear elevation) – 4.9 m (from eastern boundary) – 1.10 m (from nearest edge of the top step)
TZI (theoretical zone of influence)	15 m - at full mature height (NHBC Standards 2011).
RPA radius	6.12 m (BS 5837: 2012)

- 2.2 **Condition assessment:** Tree 1 is a native Scots pine of mature age class. Though mature, it is as yet around 70-80% of its likely ultimate size. Physiological condition is good, the tree showing appreciable annual shoot extension growth and having good foliar cover. Structural condition is also good with the tree having a single stem and subordinate first order branches with good branch aspect ratios (relative size of the branch to the trunk). Growth is disposed favourably northwards.

- 2.3 **Location:** The pine tree is located 5.6 m northwest of the rear elevation and 4.9 m from the eastern property boundary. At its closest point it is 130 mm from the rear boundary wall which it has caused to crack and uplift before being displaced northwestwards. There is a paved area southeast of the pine tree and a set of paved steps to the easterly side.

- 2.4 **Extent of the calculated root protection area:** I measured the tree DBH and found it to be 510 mm. by following the procedure set out within the British Standard I calculated the RPA radius as 6.12 m (measured from the centre of the tree trunk).

3. Discussion

- 3.1 **Site history:** Eldon House is a newer property than others nearby in both Eldon Grove and Lyndhurst Road. I do not know the age of the property though have estimated the age of the pine tree as between 40-50 years. Therefore, it seems to be older than the dwelling house. It seems probable that it was part of an earlier landscape, perhaps being part of an older garden. It is now growing in a small back garden area which is predominantly hard-surfaced with paving. The garden design incorporates a set of steps to the east of the pine tree because the ground level reduces appreciably in this area.
- 3.2 **Root protection area:** Tree 1 has a measured trunk diameter of 510 mm and accordingly a calculated RPA radius 6.12 m (measured from the centre of the tree trunk). The RPA encompasses almost all of the footprint of the proposed extension and the northeast corner of the existing house.
- 3.3 **Notes on the likely root spread:** The pine tree is growing in a very restricted location. Rooting area is restricted to the northwest by the boundary wall, and to the east by the site topography which has a reduction of around 800 mm in this area. Drawing on empirical experience leads me to conclude that roots of T1 have likely grown under the aged rear boundary wall and into the garden behind. This is where I expect root growth to be most extensive. Roots will have developed relatively normally beneath the hard-surfaced area to the southeast, less so to the east where the ground level reduces significantly. There will probably be some root growth here though I would expect it to be small diameter and mostly in the form of aggregated fibrous root clumps.
- 3.4 **Foundations:** Excavation and trench filling to create foundations here would be ill advised. However, an alternative technique using micro-piles would avoid excessive root damage and not subsequently restrict root growth and expansion below the new building. This might be acceptable to the local planning authority.

4. Conclusion:

- 4.1 Building in this area will be difficult but should not be impossible provided that appropriate design and construction techniques are employed. It is probable that the planning authorities will raise concerns and possible objections with regard to the proximity of the tree but these can hopefully be addressed by means of careful and considered design.

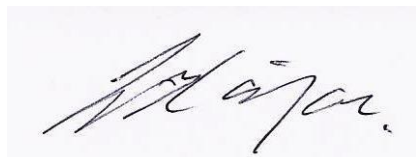
5. ASSUMPTIONS AND LIMITING CONDITIONS

- 7.1 Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 7.2 Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible, however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.
- 7.3 The consultant/appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 7.4 Loss or alteration of any part of this report invalidates the entire report.
- 7.5 Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to who, it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
- 7.6 Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualification.
- 7.7 This report and values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- 7.8 Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 7.9 Unless expressed otherwise, (1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and (2) the inspection was by means of visual examination of accessible items.

6. CERTIFICATE OF PERFORMANCE

I, Shane A. Lanigan, certify that:

- 8.1 I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is stated in the attached report and the Terms of Assignment.
- 8.2 I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- 8.3 The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.
- 8.4 My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.
- 8.5 No one provided significant professional assistance to me, except as indicated within the report.
- 8.6 My compensation is not contingent upon the reporting of a predetermined conclusion that favours the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.
- 8.7 I further certify that I am a Chartered Arboriculturist being a professional member of the Institute of Chartered Foresters and a Registered Consultant of that professional body. I am a Registered Consultant of the Arboricultural Association, and a Registered Consulting Arborist (#588) of the American Society of Consulting Arborists. I am also an ISA Board-Certified Master Arborist and hold the Royal Forestry Society Professional Diploma in Arboriculture. In matters of tree inspection, I hold the International Society of Arboriculture 'Tree Risk Assessment Qualification' (TRAQ) and have completed the LANTRA Professional Tree Inspection Module with integrated assessment and update training. I have worked full time in the field of Arboriculture for a period of fifty years.



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7. PROFESSIONAL DETAILS OF SHANE A. LANIGAN

Qualifications: I hold the City and Guilds Certificate in Tree Surgery and am an International Society of Arboriculture Certified Arborist, also holding the International Society of Arboriculture Municipal Arborist Accreditation and being a Board- Certified Master Arborist of that professional body.

In addition, I hold the Royal Forestry Society's Professional Diploma in Arboriculture which is a degree level qualification rated as level 6 on the qualifications and curriculum framework. It is a qualification specific to the arboricultural profession. In matters of tree safety and risk assessment I have undertaken and completed the LANTRA Awards Professional Tree Inspection Course and integrated assessment.

I am a registered consultant of the American Society of Consulting Arborists (ASCA RCA#588), and a Chartered Arboriculturist being a Professional Member of The Institute of Chartered Foresters.

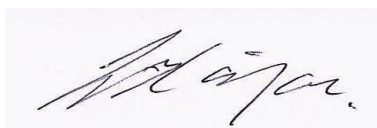
I am a professional member of:

- The American Society of Consulting Arborists
- The Arboricultural Association
- The Consulting Arborist Society
- The Institute of Chartered Foresters
- The International Society of Arboriculture
- The Royal Forestry Society

Career details: I am a second- generation arborist having worked from 1971 to 1979 for a private tree care company before forming my own arboricultural company in 1979.

Continuing professional development: I maintain and improve my professional knowledge by being an active member of the five professional bodies referred to above. In addition, I attend a high number of arboriculture related seminars and the annual conferences of the International Society of Arboriculture, the Arboricultural Association and the Institute of Chartered Foresters (ICF). I was also privileged to serve on the credentialing council of the International Society of Arboriculture educational certification department for seven years. Having served two consecutive terms as an elected member. I 'rolled off' the council in late 2020.

Currently, I am the senior consultant within Abbots Arboricultural Advice Limited. This is my consulting practice which is a forward-looking operation. In order to keep abreast of changes in arboriculture and consulting practice I attend many conferences and seminars which contribute to my CPD/CEU obligations. Currently, all of these events are delivered online.



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APPENDIX 1

PHOTOGRAPHS 1 – 3



Photograph 1 - T1 – Scots pine



Photograph 2 - Steps leading down east of the pine tree



Photograph 3 - Showing the extreme proximity of the pine tree to the boundary wall with the wall displacement and cracking that it has caused

APPENDIX 2

Statutory Tree Protection

Tree Preservation Orders/Conservation Areas

Tree Preservation Orders are made under Section 198C of the Town & Country Planning Act and applied by the 2012 Tree Regulations. They effectively prohibit unauthorised removal and pruning of trees identified within the order. Conservation areas are designated areas defined by geographic limits within which any tree with a stem diameter of more than 75mm (measured at breast height or 1.5m above ground level) is effectively protected. Certain exceptions exist under both sets of legislation, though these are limited and ideally require interpretation by a suitably qualified arboriculturist.

Felling Licenses

Felling licenses may apply for felling significant volumes of timber on sites without full planning permission. The statutory legislation in this case is the Forestry Act 1967 which is administered by the Forestry Commission.

Faculties

Faculties may be required for significant tree works on sites that fall under the jurisdiction of the church authorities. The local Parochial Church Council can advise on the need and requirements for faculties.

Hedgerow Removal Notices

A hedgerow removal notice will be required for the removal of almost any hedge growing in a rural area. Certain works are permitted without notification including (j) “for the proper management of the hedgerow”. The applicable statutory legislation may be cited as “The Hedgerow Regulations 1997” (Statutory Instrument 1997 No. 1160).

APPENDIX NO. 3

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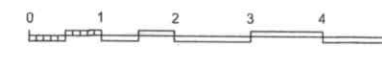
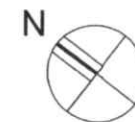
Hillier J G (2014). *The Hillier Manual of Trees and Shrubs*. 14th ed. 80 Vincent Square, London SW1P 2PE;(Hillier Nurseries and The Royal Horticultural Society,) p15, p102, P406 & p487.

NHBC Standards (2011). *NHBC Standards Effective 1 January 2011*. NHBC House, Davy Avenue, Knowhill, Milton Keynes MK5 8FP: NHBC p2 & p8.

Wilson, P. (2013). *A-Z of tree terms*. 1st ed. Lyminge, Kent: Ethelburga House.

DRAFT

Ground floor plan
Existing



SITE:
ELDON HOUSE,
LYNDHURST ROAD
NW3 5PZ

PROJECT:
REAR EXTENSION

DRAWING:
GROUND FLOOR PLAN
- EXISTING

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SCALE: 1:100 @ A3

Dwg.: EH/P/01