

TREE CONDITION REPORT



No. 15 The Chilterns, Hitchin, Herts SG4 9PP

CLIENT:	Mrs J Meserve
CLIENT REF:	JM/TCHH
AAAL REF:	SAL/KMA/10488
AAAL CONSULTANT:	Shane A Lanigan
REPORT DATE:	27th October 2020

Tree Condition Report in respect of the property :

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S.A. Lanigan Chartered Arborist, MICFor, Dip.Arb.(RFS), M.ArborA, RCarborA – ISA – BCMA, CUEW,
ASCA Registered Consulting Arborist #588

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SUMMARY

The tree inspected is a Himalayan cedar *Cedrus deodara* [Roxb. ex Lamb.] G. Don. A large rival leader has recently broken out from the northeast side, unfortunately falling into the garden of a neighbouring property. This section of the tree fell due to the rival leader having developed with a tight fork and 'included bark'. In general, the tree form is poor and has probably been so since it was planted. It has developed with several rival leaders and the four main scaffold branches growing westwards have produced many vertically orientated second-order branches, and their tips too, have responded to phototropism (light-stimulus) and grown sharply upward. Although it is of poor form with many structural 'defects', the tree is nonetheless an attractive visual asset to the garden. I have carefully considered the findings of my inspection and conclude that the tree can be retained but that some appropriate pruning works will be needed.

**S.A. Lanigan – Chartered Arboriculturist
MICFor, Dip.Arb.(RFS), M.Arbor A, RCarborA – ISA, BCMA, CUEW,
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1. INTRODUCTION

1.1 **Instruction:** I am instructed by Mrs Meserve to inspect one Himalayan cedar tree growing close to the northeastern rear garden boundary. Following a visual assessment of the tree and associated areas I am to prepare a written report of my observations and any recommendations that may be considered necessary. The following information is to be provided by myself.

- A schedule of trees to include data in respect of species, age, size, physiological and structural condition.
- An appraisal of the tree condition in the context of its location.

1.2 I made my inspection at 9.58 am on Monday 26th October 2020. Throughout my time on site the weather was dry, cool and overcast. Visibility was good.

1.3 The arboricultural issues in relation to this site are appraised and discussed below with accompanying recommendations where appropriate.

1.4 **Documents provided:** No documents were provided.

1.5 **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.

1.6 **Statutory Tree Protection:** I have made enquiries of the Local Planning Authority, which in this instance is North Hertfordshire District Council 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 has confirmed that this tree is not protect by a Tree Preservation Order but the site does lie within a designated conservation area, namely The Hitchin Conservation Area (see Appendix 3 'A Brief Explanation of Tree Preservation Orders/ Conservation Areas' at the back of this report). The status of the tree preservation and conservation legislation is only confirmed at the time of writing.

1.7 Qualifications and professional experience: This report is based on my on-site inspection and assessment of the existing tree. I hold formal qualifications in arboriculture and have the benefit of 49 years working professionally within this discipline. A summary of these matters is to be found in Section 9.

2. THE TREES

2.1 Inspection of trees on site: I inspected only one tree on this site. The tree is a Himalayan cedar which is growing close to the northeastern rear garden boundary (see photographs 1 & 2, Appendix 1 at the back of this report). Tree details are summarised in the tabulation below:

Tree 1	Himalayan cedar – <i>Cedrus deodara</i> [Roxb. ex Lamb.] G. Don Family: Pinaceae
Ownership:	No. 15 The Chilterns
Age Class:	Mature
Height:	22 m (estimated)
DBH (diameter at breast height)	860 mm (measured)
Physiological condition:	Good – the tree is actively growing with good annual shoot extension growth and a high level of leaf cover. Due to the tree form there is very little shoot growth on the tree interior, most live shoot and leaf growth is present on the branch outer regions.
Structural condition:	Poor – this tree is of natural bad form having developed with one main trunk and a number of competing rival leaders. The leader that failed had grown with a very tight fork and reduced wood fibre integration causing it to be fundamentally less well attached and weaker than a more normal 'U' shaped branch junction form.
Comments:	Although the tree is of bad form it is a significant mature cedar and a visual site asset. The failed leader was of significant size and its loss has now resulted in an uneven, one-sided form that will now be more susceptible to wind forces and associated damage. Having such a form means that the upper crown is dense and crowded with the competing leaders touching, rubbing and entwined with each other in several areas. This is not an ideal situation but can be effectively addressed by carefully considered pruning works.

3. THE INSPECTION

- 3.1 I inspected the tree from ground level only, no climbing was undertaken. It is located close to the garden boundary but I was able to view the tree from around 360° of its circumference albeit with a restricted view from the northeast side.
- 3.2 This tree is of mature age class being within the middle one-third of its probable life expectancy. It is of significant size having an estimated height of 22 m and a measured trunk diameter of 860 mm. Overall form is poor and it seems that has been so since the tree was planted. Most trees grow with a single trunk and smaller diameter lateral branches. In this way they are structurally sound with a low propensity for branch break. Form of this cedar tree is that of a single trunk of 860 mm diameter with a rival leader of 520 mm diameter (measured at 1 m above ground level), arising from ground level on the southwest side (see photograph 1, Appendix 1 at the back of this report). The rival leader that failed was of 530 mm diameter (at around 3 m above ground level) and arose on the northeast side of the tree (see photographs 3, 4, 5 & 6, Appendix 1 at the back of this report). A further rival leader arises from the same point and has grown up through the tree crown entwining and conflicting with the upper tree parts at higher level (see photographs 3, 4, 5 & 6, Appendix 1 at the back of this report). One more significant rival leader arises at 4 m above ground level on the southern side of the tree with a tight, fused branch union which extends for around 1.5 m before separating and fusing again about 600 mm further up (see photographs 4, 5 & 6, Appendix 1 at the back of this report).
- 3.3 Four large scaffold branches grow out toward the western side (see photograph 2, Appendix 1 at the back of this report). Unusually these have produced a number of apically growing shoots on their upper surfaces and the branch ends have adopted an upward growth form two thirds of their length from the trunk. The overall form is now a crowded and untidy tangle comprised of a cohort of apically orientated branches/rival leaders.
- 3.4 Mrs Meserve had told me earlier that the tree had been 'topped' eighteen years previously. By using binoculars, I could see the pruning point and saw that there is an area of missing bark and splintered exposed wood below that area. This might indicate that the top initially broke out and the pruning was a repair operation. In any event, the fact of the main trunk top being lost will have induced a short-term loss of apical dominance such that lower branches may have been 'released' to grow upwards into newly created space.
- 3.5 Due to a significant section of the tree crown having broken out the remaining tree is now heavily disposed to the west and more vulnerable to wind induced 'torsional twisting' and possible structural failure (see photograph 2, Appendix 1 at the back of this report). Pruning can be prescribed to address this but will need to be considered and specific.

3.6 I made a comprehensive visual inspection of the tree base and lower regions of the scaffold branches looking for signs of decay or fungal presence but saw neither.

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4. DISCUSSION

- 4.1 Having inspected the tree it is clear that despite the recent leader failure it remains a visual asset and a significant component of the garden area. It is of poor form and has minimal interior growth but from areas outside of the crown spread it presents as an attractive and actively growing tree.
- 4.2 The tree is of poor form, differing markedly from most Himalayan cedars. It seems that it was planted out with uncorrected defects-several competing leaders, rather than a single, central trunk with subordinate branches. This hypothesis arises from my observation that several of the rival leaders touching or rubbing together at higher level have formed 'natural braces' lower down to reinforce their structural integrity. A notable example of this can be seen close to ground level connecting the rival leader growing to the southwest with the main trunk, and also on the fused limb located almost directly above this area.
- 4.3 Because a large northeasterly section of the tree crown has been lost the remaining tree now presents in an unbalanced form. It is heavily biased toward the west and the four large lateral scaffold branches growing out to this side are now, by default causing the tree to be aesthetically and structurally unbalanced. Because the top was lost or pruned out eighteen years ago those branches that were originally growing vertically have continued to do so and accelerated their growth. Other upwardly orientated shoots have developed due to the temporary loss of apical dominance and increased light availability. The western side of the remaining tree section is now heavily unbalanced and has an elevated risk of failure.
- 4.4 Due to the new unbalanced tree form some tree pruning works will be needed to reduce the risk of future structural failure, particularly by way 'torsional twisting'. The pruning will need to strike a balance between removing sufficient material to reduce weight, mass and wind resistance, and retaining enough to support the tree's physiology. I have prepared a pruning specification in section 6.

5. CONCLUSION

- 5.1 The tree is undeniably of natural poor form but also an asset to the garden locally, and landscape character at a wider scale. Prescribed pruning works can reduce the likelihood of future failure and enable retention of the tree.

6. RECOMMENDATIONS

6.1 T1 - Himalayan cedar - reduce apical and lateral branch extremities by around 2m, this should prove sufficient to reduce end weight, 'lever-arm' effect and pre-disposition to failure. Although the proliferation of upright-growing competing leaders presents as a tangle I consider that it would be unwise to remove any individual stem completely. It is better that they remain together as they contribute to a 'wind damping' effect which will reduce the risk of future failures. Even branches 'clashing together' help in this effect. The previous pruning/breakout point should be reduced to around 300 mm above the lateral branch located below the failure point, this will effectively remove two lateral branches that would fail in the near future.

7. 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 whom, 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.

8. 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 forty-nine years.



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9. 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 also hold the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ).

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 and a Registered Consultant of the Arboricultural Association.

With regard to legal issues I am also a Cardiff University Law School Certified Expert Witness in both civil and criminal proceedings.

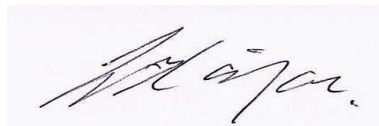
My professional memberships include:

- The American Society of Consulting Arborists
- The Arboricultural Association
- The Consulting Arborist Society
- The International Society of Arboriculture
- The Institute of Chartered Foresters
- 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 am also privileged to serve on the credentialing council of the International Society of Arboriculture educational certification department.

My present profession involves daily administration and hands on supervisory duties of Urban Forestry/Abbots Arboricultural Advice Limited, and the preparation of tree safety/hazard evaluation surveys. Pre-purchase arboricultural reports form an increasing sector of my work and I am involved in providing professional advice to private persons and corporate bodies on a daily basis.



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APPENDIX 1

Photographs 1 – 8



PHOTOGRAPH NO. 1 - T1 – CEDAR VIEWED FROM THE NORTH

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PHOTOGRAPH NO. 2 - T1 – CEDAR VIEWED FROM THE SOUTH

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PHOTOGRAPH NO. 3 – BRANCH BREAKOUT POINT ON NORTHWESTERN SIDE

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PHOTOGRAPH NO. 4 - TRUNK SCAFFOLD BRANCHES AND CROWN SEEN FROM THE EASTERN SIDE

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PHOTOGRAPH NO. 5 - SCAFFOLD BRANCHES SHOWING 'FUSED' RIVAL LEADER

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**PHOTOGRAPH NO. 6 - CROWN BREAKOUT POINT SHOWING 'FUSED' RIVAL LEADER AND
NORTHERLY ENTWINED RIVAL LEADER**

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PHOTOGRAPH NO. 8 - 'STUB END' OF THE FAILED SECTION

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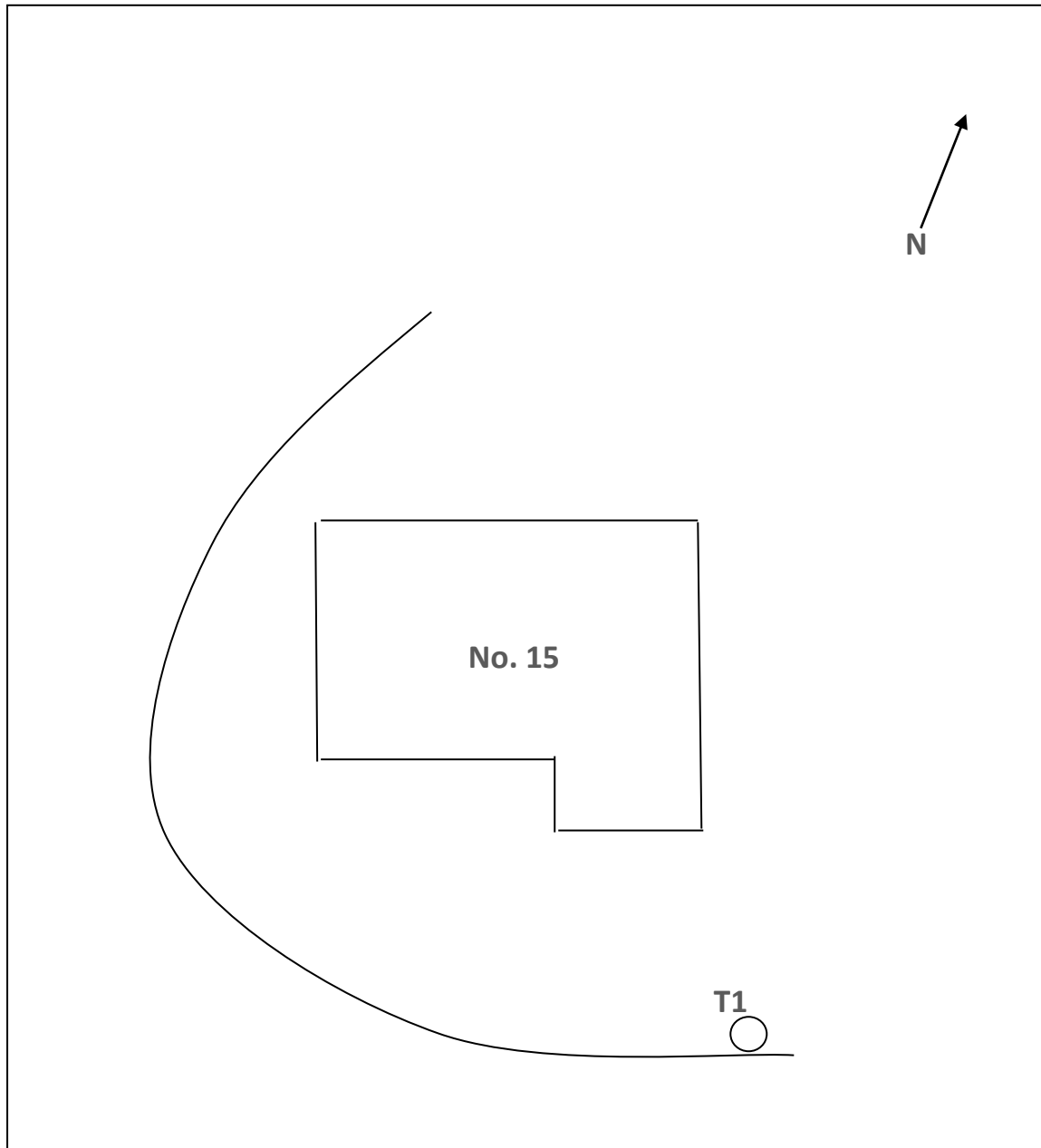
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APPENDIX 2

Plan of trees at No. 15 The Chilterns, Hitchin, Herts SG4 9PP



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APPENDIX 3

References:

BS 5837:2012 British Standards Limited (2012) *Trees in relation to design, demolition and construction – Recommendations* 4th ed. 2 Park Street, London W1A 2BS. British Standards Institution.

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.

Mattheck, C and Breloer, H (1994). *The Body Language of Trees*. PO Box 29 Norwich NR3 1GN: The Stationery Office. p22-25.

NHBC Standards (2011). *NHBC Standards Effective 1 January 2011*. NHBC House, Davy Avenue, Knowhill, Milton Keynes MK5 8FP: NHBC. Chapter 4:2 p2 & 8.

APPENDIX 4

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.