Our ref: ha/rpt1/11rpr

22<sup>nd</sup> May 2014

Mr J Hill 11 Regents Park Road London NW1 7TL



Dear Mr Hill

#### Re: Arboricultural Report – 11 Regents Park Road NW1

Thank you for your instructions to inspect and report upon the trees in relation to the future condition of the subject property. Please find my report enclosed herewith.

I hope you find the contents clear and useful, however, if I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

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Hal Appleyard Dip. Arb. (RFS), F.Arbor.A, MICFor.



Registered Consultant

enc.



### ARBORICULTURAL REPORT

for:

## INSURANCE PURPOSES at: 11 Regents Park Road London NW1

For: Mr J Hill

**By:** Hal Appleyard Dip. Arb. (RFS)., F.Arbor.A. MICFor

Ref: ha/rpt1/11rpr

Date: 22<sup>nd</sup> May 2014

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#### Summary Conclusions and Recommendations

- 1. The soil in the vicinity of the property is likely to have a medium to high capacity to shrink and swell. The soil under the foundations could therefore be influenced by growth of local trees and shrubs.
- 2. Whilst the proximity and size of both trees might suggest that a high risk of tree-related building damage exists, when coupled with the lack of existing damage and inability for the trees to significantly increase in height and spread, in my opinion the risk of future tree-related building damage seems remote.
- 3. In spite of the low risks presented by the trees, I recommend removing the Ash T1 for sensible tree management reasons and pruning the Horse Chestnut T2 to reasonably manage and maintain the low risks in this situation.
- 4. Subject to implementation of the recommendations, at the present time, there appear to be no arboricultural reasons to prevent normal insurance cover on this property.

#### 1.0 Introduction and Purpose

1.1 Tree-related property damage can occur as a result of (i) direct physical damage when the expansion or impact of trunks roots or branches causes mechanical damage or (ii), indirect damage resulting from tree-influenced changes in soil volumes. Damage to structures with their foundations in shrinkable soils can occur when roots from trees and shrubs abstract moisture from shrinkable soil causing them to shrink in volume. This results in downward movement and sometimes results in subsidence. When vegetation does not require moisture for growth during the winter months (normally October to February/March), shrinkable soils may well rehydrate as a result of rainfall, which results in some soil volume increase or swelling. The shrinking and swelling of soils exacerbated by tree root activity can be too much for structures to tolerate. The control of local vegetation may be successful in reducing or eliminating risks of damage.



1.2 Indirect damage results from a complex interaction of causal factors, which involves shrinkable clay soils, weather conditions and vegetation; this prevents prediction of tree-related damage with certainty. A level of risk can however be assessed by examining the site, buildings, soils and surrounding trees and shrubs. In addition, historical information in respect of previous causes of damage in the area may be relevant. This report presents the factual information which is available in the context of assessing the risk of future damage to structures, which could be attributed to existing trees. The assessed risks will determine tree and vegetation management deemed appropriate.

#### 2.0 Brief

- 2.1 Resulting from correspondence between the Client and ACS Consulting a brief has been developed and terms have been agreed.
- 2.2 I have been requested to visit the named site, identify and assess the relevant trees and other vegetation within possible influencing distance of the property.
- 2.3 I am to undertake reasonable investigative measures in order to obtain information to provide an arboricultural judgement of risk presented by the assessed vegetation to the future structural integrity of the property.
- 2.4 I am to include as Appendices any information or additional documentation that is considered useful to the clarity of this report.
- 2.5 I am to submit recommendations for tree management, which are considered reasonable in respect of reducing any identified risks to an acceptable level.

#### 3.0 Scope of the Report

- 3.1 This report is primarily concerned with establishing the levels of risk presented by vegetation in respect of future damage to structures forming part of the subject property. Discussion also covers the risk of damage to light structures for example, garden or boundary walls and paved areas.
- 3.2 The report will identify any current arboricultural defects within the assessed trees, which may present a hazard now or in the future. A full hazard assessment of the trees is however beyond the scope of this report.



- 3.3 Unless otherwise agreed and stated in the written instruction, no comments are made on the cause of any current structural problems in the property or the drainage system and as such discussion is considered beyond the scope of this report. Structural engineers and or drainage experts can give more advice in this area.
- 3.4 A sketch plan is provided which is not to scale (**Appendix 1**).
- 3.5 This report is based on information available at the time of the investigation. Some assumptions have been made in accordance with relevant and current guidance.
- 3.6 No attempt has been made by ACS to establish the presence of any legal protection afforded to the trees such as Tree Preservation Order or Conservation Area (CA), but I understand from the residents that a CA may cover the property.

#### 4.0 Background Information

4.1 House insurance has identified the requirement for an arboricultural assessment of the trees in close proximity to the building.

#### 5.0 Tree/Inspection Details

Details of Site Inspection dated: 25 <sup>th</sup> April 2014					
Site Details					
Building/Structure Details	Grounds/Gardens	Surrounding Land Use			
	Description	(General Description)			
I estimate that the main	Front:Paved; Rear: Paved				
building was originally constructed in the 1850s and	patio with lawn and mature	Urban Residential			
which comprises four storeys	trees and shrubs				
Soil Details					
Bore Hole Results	Geological Drift Map Sheet details and records				
(where taken)					
Reference to Geological Survey Plan only	Sheet No 256 North London records the presence of London Clay within the area of the subject property.				



Tree Details								
Tree Name & No.	Height	Crown Spread	Trunk Ø	Vigour Vitality	Age Class	Growth Potential	Distance to Structure	Other
T1 Ash	18m	4m	80cm	MV	М	LM	3.5m	-
T2 Horse Chestnut	17m	5m	60cm	Vig.	М	LH	10m	-

#### Notes to the Table

Approximate Height (metres):	Height of the tree from ground level. In the case of groups or hedges an average is provided.
Approximate Crown Spread (metres):	The average radius of the crown canopy.
Approximate Stem Diameter (centimetres):	Diameter of the stem/trunk measured at 1.5m above ground level (an average is given of twin-stemmed trees)
Approximate Distance to Building (metres):	Distance between tree and nearest relevant part of the building. 'Other' column refers to distance between the tree and other structures described.
Vigour Vitality:	Visual appraisal of tree vitality expressed as having Low or Moderate Vigour or Vigorous
Age Range:	Describes the tree's relative age to its species and is expressed as Young, Middle-Aged Mature or Over Mature.
Growth Potential:	Future Growth Potential describes the tree's potential to increase in size in conjunction with its estimated life expectancy and is indicated as Low, Medium or High together with Low <10yrs, Medium 10-30yrs and High >30yrs e.g. L/M. This assessment is species related.
Other	Distance to structure separate to than of the main buildings e.g. Garage, out-house, office

#### 5.1 Observations and Opinion

5.2 The local sub soil stratum is recorded as London Clay, which can shrink and swell dependent upon moisture content and which can in turn be influenced by tree root growth. It is possible that roots from both the Ash T1 and the Horse Chestnut T2 extend to soil in the vicinity of the house foundations. However, I have had no reports of any previous or existing structural movement albeit that the two trees are now mature. The trees post-date the building. It would seem therefore that at least one of the factors that is required to be present in order to result in tree-related movement, is absent and as such the trees and the buildings can co-habit amicably.



- 5.3 Whilst no buildings expert, I expect the four storey building to possess robust foundations, suitable to support the structure over many years with or in the absence of nearby trees.
- 5.4 I note that the Ash T1 has been quite heavily reduced in size in the past and although re-growth has been vigorous, the tree canopy as a whole is sparse and appears moribund. There is evidence (old fruit bodies) of the wood-decay fungus *Inonotus hispidus*, common to Ash species having taken hold in the main branches and stems. This fungus can cause brittle fracture of branches or stems, which may have led to the heavy reduction work conducted in the past.
- 5.5 I note that some patio paving stones have lifted and, whilst I did not lift any slabs, it is highly likely that roots from the Ash tree have grown under the patio and dislodged the paving stones above. The roots will continue to cause this level of damage without directly removing roots or by removing the tree completely. The tree's trunk is very close to a low retaining wall and as the tree grows, pressure will be exerted laterally upon this wall. Pruning the canopy branches will have no remedial effect upon the tree's roots or the condition of the patio area or wall. Given the tree's proximity to the rear of the house and neighbouring property, the tree's suspect condition in terms of the decay fungus found and impact roots are likely to be having upon the lightly-loaded structures area, I recommend that this tree be removed completely.
- 5.6 The Horse Chestnut T2 is more remote from the rear of the house at 10m distance. However, I expect roots to have travelled this distance to absorb moisture from the soil surrounding the base of the rear elevation. The tree is mature and unlikely to increase significantly in height or spread in the future and so far as I am aware, there is no link between the tree and any structural defects within the property. There seems no reason to expect that this relationship will alter to the detriment of the building. It is reasonable, in spite of the low risk, to prune the tree in order to manage the tree comfortably into the typically modest rear garden space, which is currently significantly over-hung by the tree. I have set out my recommendations in Appendix 2.

#### 6.0 Other Vegetation

6.1 There is no other significant vegetation in the vicinity of the property. A small Fig grows adjacent to the eastern boundary but is of no relevance to the property in terms of risk.



#### 7.0 Conclusions

Having visited the site, assessed the trees and analysed the information gathered, I have come to the following conclusions.

- 7.1 Geological Survey Sheet No 256 indicates the presence of London Clay. Such soil is most likely to have a medium to high susceptibility to volumetric change.
- 7.2 I believe, taking account of all the relevant factors that are available, in particular the soil type, the tree maturity and building age, tree Nos 1 and 2 detailed in this report present a **low risk** of influencing soil conditions sufficiently to result in structural damage. Irrespective of the low risk, it is prudent to control the trees' growth by regular crown pruning, to reasonably maintain the tree T2 in this location.
- 7.3 There is a potential for Ash tree T1 to cause mechanical damage to the retaining wall and paving stones of the patio because of its proximity to the structures. In addition, the wood decay fungus could result in branch failure and property damage. Pruning the branches will not be effective in preventing mechanical damage in the future. It is sensible to remove the tree in this case.
- 7.4 At the present time, there appear to be no arboricultural reasons to prevent a normal insurance cover on this property. I have set out some recommendations for tree management, which should be adopted.



#### 8.0 Recommendations

- 8.1 Any recommended tree works should be carried out in accordance with the time frames given on the schedule. If tree works are not recommended at this time, consideration should be given to updating this report should there be any significant arboreal changes within influencing distance of the property. In any event, regular inspection of the trees is prudent and further inspection with recommendations should be undertaken within 3 years of this report.
- 8.2 See attached schedule at **Appendix 2** for recommended tree works.

#### <u>General</u>

- 8.3 My soil and site assessments are of a basic nature, more detailed analysis of the soils and property foundation should be undertaken by a structural engineer to more accurately assess a potential link between vegetation and structural damage. The recommendations set out in this report may alter if assessments are different from our assumptions at this stage.
- 8.4 The appearance of any building defect should always be investigated promptly. If vegetation is implicated then often-effective early removal or pruning of trees will stabilise the situation at little cost. Always contact a qualified structural engineer or arboriculturalist before considering tree removal. If tree removals are recommended an assessment of the extent of soil recovery or 'heave' is to be more accurately judged by a structural engineer who has carried out further soil investigations. Any judgements I present must be regarded as a guide based on my experience and assessment of the circumstances presented on site.
- 8.5 Before authorising any tree works, you should contact your Local Planning Authority to ascertain if the trees are legally protected by a Tree Preservation Order if they grow within a Conservation Area, as applications are required by law before any works can take place. When appointing a tree surgeon, please use only properly qualified and experienced companies and always check they carry Public and Products Liability Insurance with a minimum of £1 million cover and the relevant Employers Liability Insurance. A list of Arboricultural Association Approved Contractors can be obtained from that Association by calling 01242 522152 or visiting www.trees.org.uk.



This concludes my report but if I can be of any further assistance, or should you require further information, please do not hesitate to contact me.

This report has been prepared for the sole use and benefit of the client. Any liability of ACS Consulting shall not be extended to any third party.

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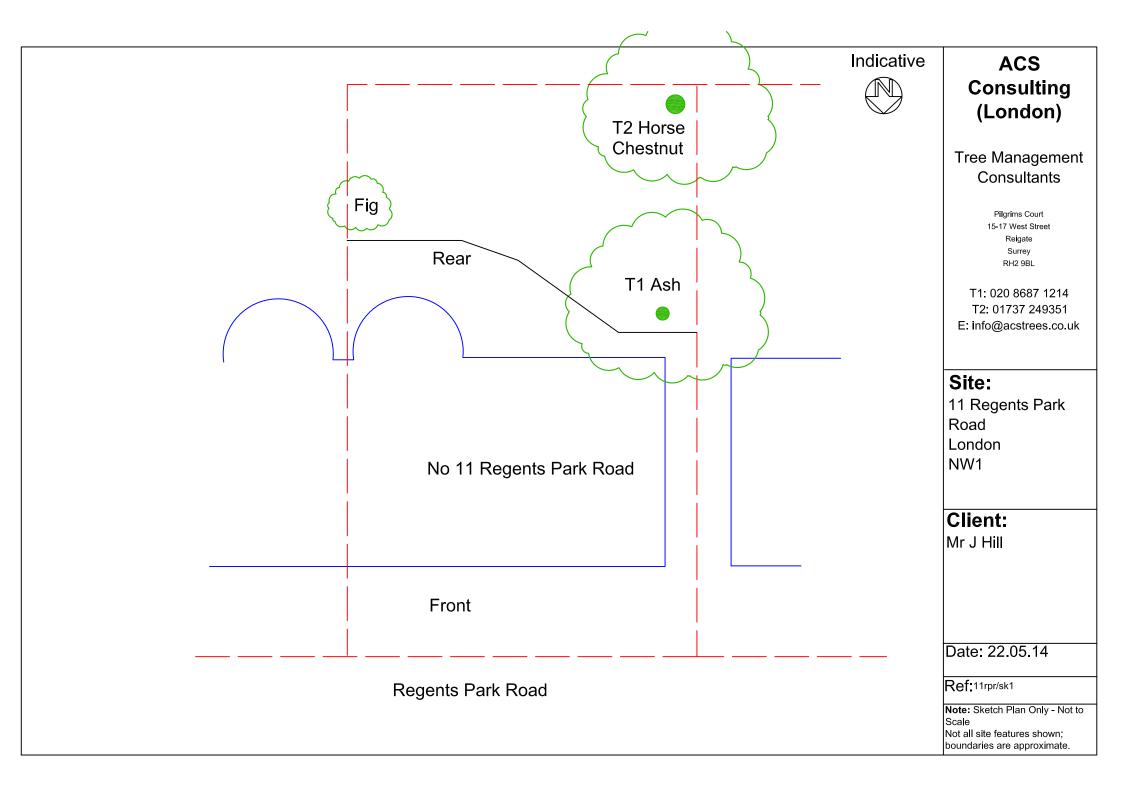
Hal Appleyard 22<sup>nd</sup> May 2014

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## **APPENDIX 1**

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## **APPENDIX 2**

# ACS

### **RECOMMENDATIONS FOR TREE MANAGEMENT**

AT: 11 Regents Park Road, London, NW1

Report ref:ha/rpt1/11rprReport date:22<sup>nd</sup> May 2014

A cost guide is provided for assistance. The cost is NOT an estimate for the recommended works but is a reasonable estimation of costs which reflect current industrial rates for the South of England. The cost guide is divided into ranges A-D as follows:- A up to £100, B £100-£500, C £500-£1000 and D over £1000. For further assistance the ranges may be broken down into lower, mid or upper regions of that range e.g., Lower B or Upper C.

Tree No.	Tree Name (English)	Work Specification	Timescale/ Rotation	Cost Guide (where appropriate)
T1	Ash	Fell to ground level	Within 12 months	Upper C
T2	Horse Chestnut	Crown thin by 25%; Crown lift to 3.0m	Within 12 months	Mid B
			Total	D

**N.B.** This summary sheet is only to be used in conjunction with the identified report.

Limitation: Protective legislation in respect of any of the trees has <u>not</u> been established. Before any works commence the Local Authority must be contacted to gain consent to the works if this is appropriate. This cost guide is <u>not</u> an estimate for the recommended works, but is provided for guidance only.