

Arboricultural Appraisal

66 Aberdare Gardens, NW6 3QD

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1.0 Executive summary

- 1.1 Thor's trees have been asked to comment on the proximity of a trees with regards to structure within the grounds of 66 Aberdare Gardens, NW3. This report will investigate the potential for damages to arise as a result of vegetative water extraction and/or direct root interaction
- 1.2 This site is situated on a 'London Clay' bedrock with a continuation of clay into the superficial layer (APPENDIX C). This report will look at any obvious or potential impact/influence that any arboricultural features maybe having upon adjacent structure, as well as comment on good practice maintenance with regards to specific tree species with the survey zone.

This investigation will include:

- The site context and observation.
 - Tree survey data obtained during a site inspection undertaken 06/06/2021.
 - Analysis of data.
 - Discussion and conclusion of findings.
- 1.4 Conclusions will be based upon analysis of data obtained during the site inspection which will be referenced against good practice standards.

Inspection was carried out at ground level, including a visual and tactile examination of external features. The principal objective of this survey is to identify any the potential for impact to arise and offer recommendations to aid in its avoidance.

Visual assessment, in accordance with accepted arboricultural practice, was based on apparent vitality (leaf cover, extension growth), bud production, presence of deadwood and die back, fractured and detached limbs, evidence of excessive basal movement, bacterial and/or fungal infection and external indications of stem and basal decay likely to affect the structural condition of the tree.

2.0 Introduction

- 2.1 This report has been produced by Paul Zepler.

I am a professional within the arboricultural industry in relation to multiple disciplines within the sector. I currently hold the qualifications of FdSc arb, NC/arb and LANTRA PTI. I have also worked as an Arboriculture Officer for fourteen years, consulted for seven years and an additional four years working in the industry in a practical capacity.

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3.0 Site description

- 3.1 66 Aberdare Gardens is situated within a leafy part of South Hampstead, within a London Borough of Camden conservation area. The site is approximately 800m north-east of Regents Park
- 3.2 There are quite a few significant trees within the area but noticeably there is a cypress within the front garden of 66 Aberdare Gdns.

The features within the area and the site are well manicured, gardening and hedge management is evident in locale.



4.0 Professional standard references

- 4.1 British Standard 5837:2012 (Trees in relation to design, demolition and construction: recommendations) as a good practice guide for trees in relation to structure
- 4.2 NHBC 4.2:2020 (Buildings near trees)

5.0 The Occupiers Liability Act 1984

In England and Wales an occupiers' liability is governed by the Occupiers' Liability Acts 1957 and 1984

The occupier is defined as the person 'occupying or having control of the premises'. When a property is rented or leased the person 'having control' may be the owner, agent or tenant depending on the written tenancy agreement.

The law outlines an occupiers' responsibility, known in law as 'the duty of care', to take reasonable care to avoid acts or omissions which he or she could reasonably foresee may result in harm or injury. When an occupier fails to exercise his or her responsibility the result may be a claim for negligence.

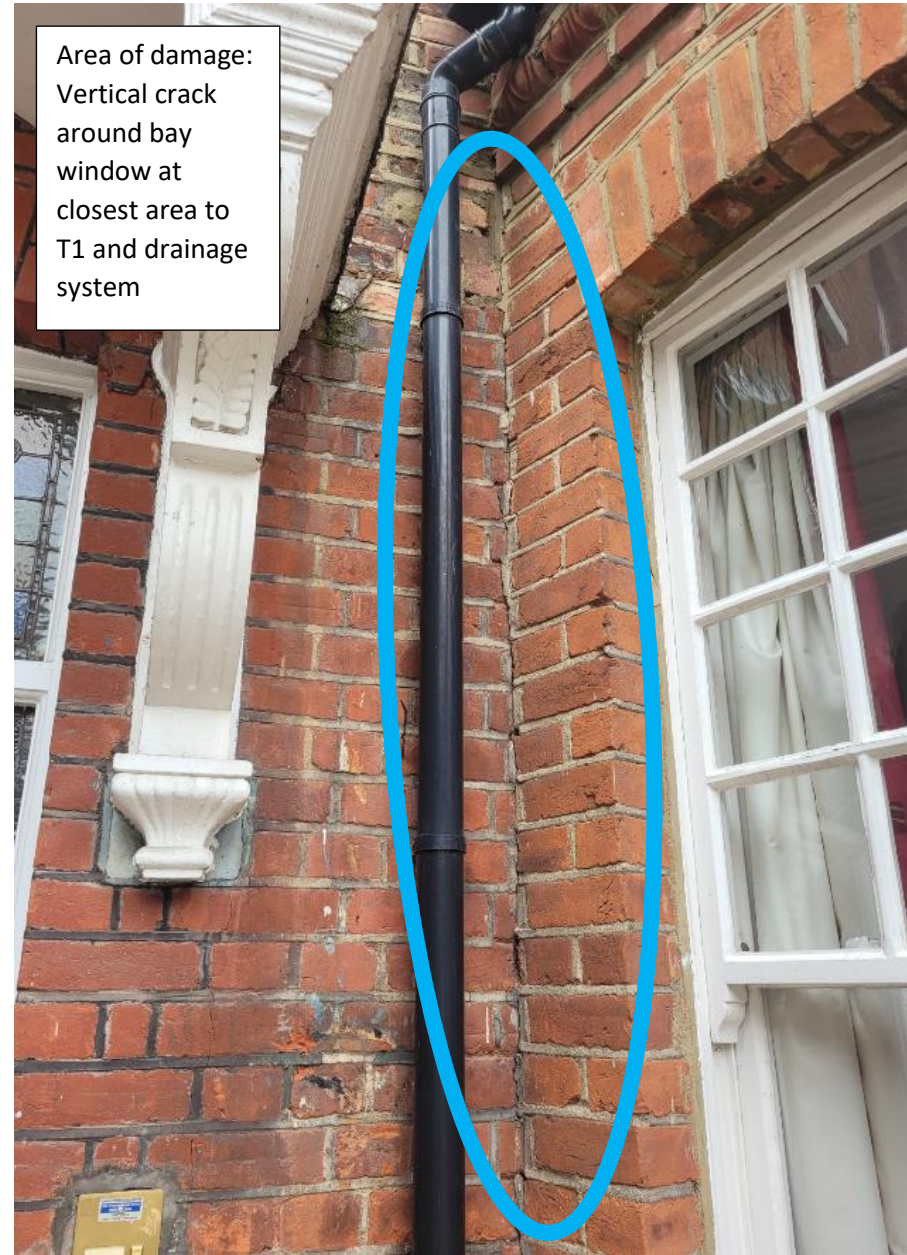
Where A has a 'duty of care' towards B and fails to take any necessary action, resulting in harm or injury to people, animals or property, and if that harm or injury is reasonably foreseeable, then it is likely to be categorised as negligence.

6.0 Tree data

66 Aberdare Gardens, NW3														
Map REF	Species	Height (m)	DBH (est - mm)	Radial crown spread N/E/S/W (m)	Distance from property footprint / boundary (m)	Ownership	Age	Condition	Past management/comments	Observations	NHBC - Subsidence risk factor	NHBC - Area of influence	Wildlife	SULE (safe useful life expectancy, years)
T1	Leyland Cypress	14	690	4/4/4/4	4.5m	66 Aberdare Gdns	Mature	Good	Minor height reduction	Camber to driveway and cracking along the bay window	HIGH	25m	None	40-80 (with management)

Tree reference	Distance from property (m)	Within an area of influence (Y/N)	Area of influence crossover with property
T1	11m	N	N





Area of damage:
Vertical crack
around bay
window at
closest area to
T1 and drainage
system



Camber dip
approximately
3m from T1

7.0 Discussion & summary of findings

- 7.1 T1 is within the NHBC 4.2 area of influence of multiple properties.
- 7.2 There is a camber dip to the driveway between T1 and the damaged area of the bay window.
- 7.3 There is cracking to the bay window at the closest area to T1. The step cracking points towards the tree. Dr Martin Dobson suggests that there is a high association between tree related subsidence when step cracking points to a tree in the area of influence.
- 7.4 This site is situated on a clay bedrock.
- 7.5 The industry recognised management for property damages that have a *potential* association with tree related vegetative water extraction, is to reduce crown volume.
- 7.6 Reduction leaf cover will result in a reduced evapo-transpiration potential (ETP), ETP has direct correlation with vegetative associated subsidence.
- 7.7 The industry recognised way of managing trees that have a *proven* association with property damages, when crown reduction works does not settle those damages, is to remove the tree.
- 7.8 In accordance with The Occupiers Liability Act 1984 (SECTION 5) reasonable measures must be undertaken to ensure that a tree does not have a negative impact upon neighbouring land.

8.0 Conclusion(s)

There is a potential link between the damages sustained at 66 Aberdare Gardens and the water extraction from T1. The camber to the front drive dips in the area where the damage to the bay window is persisting. Soil desiccation may have led to the damages because of water extraction from this area, as the camber is potentially linked with tree related subsidence.

9.0 Recommendation(s)

Heavily reduce or remove and replace T1. If T1 was to be removed, any tree replacement in the same area should be from the low water demanding category as described in NHBC 4.2 page 4.

APPENDIX A: Tree schedule

TREE REFERENCE	WORKS SCHEDULE
T1	<ul style="list-style-type: none"> a) Remove and replace b) Reduce crown by 60% of volume. This translated into a 3.5m lateral and apical reduction. However, this species must be reduced back to points of regeneration, so arboricultural oversight may be required during the any operation.

APPENDIX B: Useful links, references and information

Tree Preservation Orders and trees in conservation areas:

<https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

Benefits of trees:

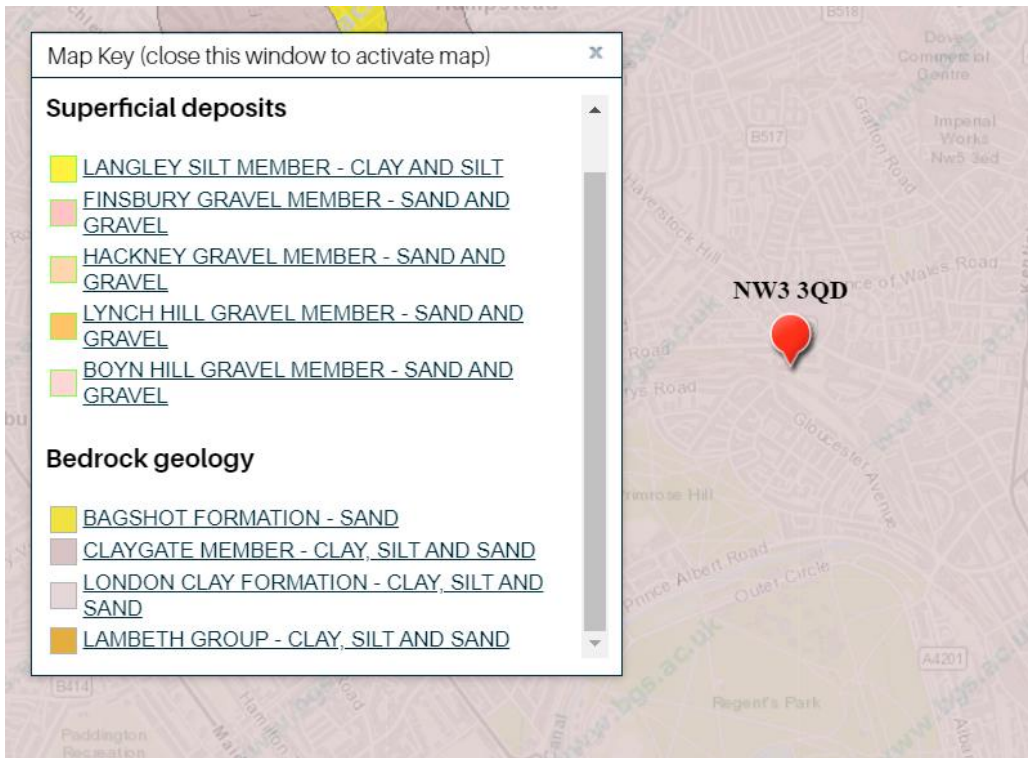
<https://canopy.org/tree-info/benefits-of-trees/>

<https://www.nparks.gov.sg/trees/learn/benefits-of-trees>

NHBC 4.2 2020:

<https://nhbc-standards.co.uk/4-foundations/4-2-building-near-trees/>

APPENDIX C: Bedrock geology



Computer Code:	LC	Preferred Map Code:	LC
Status Code:	Full		
Age range:	Ypresian Age (GY) — Ypresian Age (GY)		

Lithological Description:	The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occurs in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels.
Definition of Lower Boundary:	The base of the London Clay formation was redefined by Ellison et al. (1994) to correspond to the base of the Walton Member (Division A2) of King (1981). It is usually marked by a thin bed of well-rounded flint gravel or a glauconitic horizon, or both, typically resting on a sharply defined planar surface, although locally uneven. The London Clay Formation overlies the Harwich Formation or, where the Harwich Formation is absent, the Lambeth Group.
Definition of Upper Boundary:	The top of the London Clay Formation is taken as the top of the Claygate Member, which is distinguished from the overlying Bagshot Formation by containing finer sand without cross-bedding and in the relative abundance of clay and silt in the Claygate Member.
Thickness:	Up to 150m in eastern part of the London Basin (Essex).
Geographical Limits:	The London Clay occurs in the London Basin, East Anglia and the Hampshire Basin.
Parent Unit:	Thames Group (THAM)
Previous Name(s):	<i>none recorded or not applicable</i>
Alternative Name(s):	<i>none recorded or not applicable</i>



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