Arboricultural Appraisal 68-70 Queens Drive N4 2XR Report Production: 11/05/2020 Report Reference: QUEENSDR.AA.001



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## **1.0** Executive summary

1.1 This report has been compiled to analyse the potential impact of arboricultural features within the immediate vicinity of Parkwood Flats, N20 ORX. Impact in this context is defined by either direct root damage and/or vegetative water extraction resulting in property subsidence, and/or structural or physiological issues resulting in the tree(s) being deemed as dangerous.

This investigation will include:

- The site context and observation.
- Tree survey data obtained during a site inspection undertaken 12/05/2020.
- A recommended tree-works package.
- Analysis of data.
- Discussion and conclusion of findings.
- 1.2 Conclusions will be based upon analysis of data obtained during the site inspection which will be referenced against good practice standards and documents. 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.

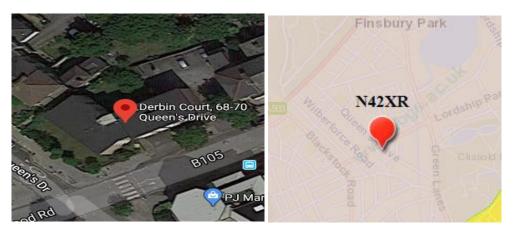
#### 2.0 Introduction

2.1 This report has been produced by Paul Zepler, 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 and geology

3.1 This Estate is set within an urban part of Hackney and is a relatively new build (last 40 years). Vegetation is prevalent within the confines of the site. The structure looks well maintained on both front and rear vistas, with no visible external cracking or drip lines from guttering. Trees on the grounds require some attention, but shrubs and grounds maintenance in general appears to be under control.. There are a few notable larger trees to the rear of this site, two of which are local authority managed.



**Bedrock geology** 

CLAYGATE MEMBER - CLAY, SILT AND SAND LONDON CLAY FORMATION - CLAY, SILT AND SAND

Description: 'The Claygate Member comprises dark grey clays with sand laminae, passing up into thin alternations of clays, silts and fine-grained sand, with beds of bioturbated silt. Ferruginous concretions and septarian nodules occur in places. Fossils from the Claygate Member at Willesden Green are recorded by Wrigley (1921)'.

Description: 'The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or greybrown, 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'.

#### 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 British Standard 3998:2010 (Tree works recommendations) for pruning recommendations.
- 4.3 NHBC 4.2:2019 (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 British Standard 5837 / Trees within Proximity to Structure

BS5837 Document states:

**'Indirect damage** is usually associated with the abstraction of moisture by tree roots from the soil below the foundations. This process may result in shrinkage of the soil and structural instability in buildings.

The presence of shrinkable clays and usually a soil moisture deficit is required for this type of damage to occur'

This would be qualified, in evidence, by:

- Crack monitoring evidence.
- Level monitoring evidence.

Neither of the above has been supplied to Laongacre Trees, in addition to this:

- **W** No root analysis evidence has been supplied.
- The client has been advised that vegetative management is necessary to mitigate structural related issues.
- No drainage report has been supplied.

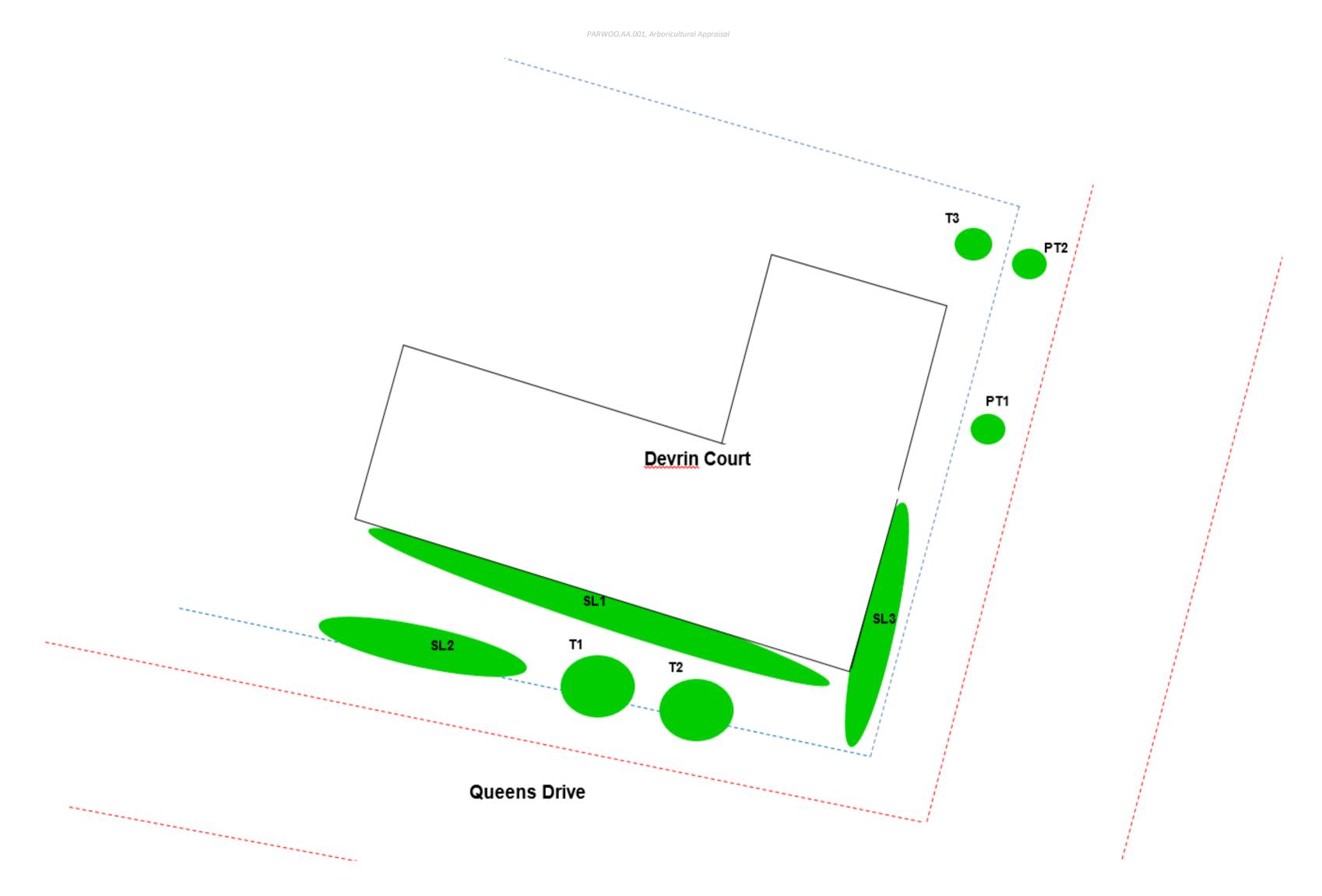
Water extraction can be managed in many ways; from crown volume management to the introduction of root barrier (to influence root proliferation in a different direction and limit water extraction). When adjacent to any structure and in order to control water extraction

potential it is advisable that trees are managed. In addition to crown volume management the use of localised root barriers across the respective root protection areas could be considered as a method to control water extraction from a specific area. A proprietary brand can be supplied from arb specialists such as Green Blue Urban and Geosynthetic, but must be implemented with the direction of an arboriculture specialist or structural engineer.



# 7.0 Summary of tree data

	Derbin Court, 68-70 Queens Drive , N4 2XR													
Map REF	Species	Height (m)	DBH (mm)	Crown Spread (m)	Distance from Property (m)	Ownership	Age	Condition	Past Management/Comments	Recommended Works	Subsidence Risk Factor	NHBC – Area of influence		
T1	Lime	5	230	2	6	Derbin Court	SM	Fair	Pollard. Managed as a pollard due to proximity to structure	Remove epicormic growth June 2020 Re-pollard October 2021 (inc epicormic growth). June 2022, 2023 remove epicorimic growth. Feb 2024 Re-pollard (inc epicormic growth)	MODERATE	Y		
Т2	Lime	4	220	2	6	Derbin Court	SM	Fair	Pollard. Managed as a pollard due to proximity to structure	Remove epicormic growth June 2020 Re-pollard October 2021 (inc epicormic growth). June 2022, 2023 remove epicorimic growth. Feb 2024 Re-pollard (inc epicormic growth)	MODERATE	Y		
Т3	Ash	7	210	3	5	Derbin Court	EM	Good	None (see Subsidence risk factor)	Reduce by 20% crown volume October 2020 Reduce by 20% crown volume October 2023	HIGH	Y		
SL1	Mixed	1	N/A	N/A	0.1	Derbin Court	N/A	Good	N/A / Retain at current dimensions	N/A	N/A	N		
SL2	Lime	1.5	N/A	N/A	6	Derbin Court	N/A	Good	N/A / Retain at current dimensions	Remove epicormic growth 2020, 2021, 2022, 2023, 2024	MODERATE	N		
SL3	Mixed	1.5	N/A	N/A	0.1	Derbin Court	N/A	Good	N/A / Retain at current dimensions	N/A	N/A	Ν		
PT1	Hornbeam	8	290	5	5	Local authority	SM	Good	N/A	Notify local authority of potential negative impact to property	нідн	Y		
PT2	Hornbeam	7	305	4	7	Local authority	EM	Good	N/A	Notify local authority of potential negative impact to property	нідн	Y		





### 7.0 Observations and discussion

- 7.1 Trees within this site maybe under Local Authority Protection or have conservation status.
- 7.2 The majority of trees within this site are within the NHBC 4.2 area of potential subsidence influence.
- 7.3 The management of crown / leaf volume controls the water extraction potential of arboricultural features.
- 7.4 Tree works recommended in section seven is primarily to control vegetative water extraction in order to manage the potential for subsidence.
- 7.5 Stem growth (epicormic) from T1 and T2 should be managed annually.
- 7.6 No visible external damages to this property have been observed by Longacre Trees at time of inspection.
- 7.7 Recommendation within section seven are based upon physiological concerns in addition to the potential to be associated with property damages.
- 7.8 The bedrock and superficial geology of the site sits on top of a London clay. Tree management prescriptions have been made with this in mind.
- 7.9 No nesting wildlife was noted during inspection of arboricultural features.
- 7.9.1 Should trees be allowed to mature on this site, then root deflector may be necessary in order to avoid water extrication from foundations directly adjacent. See section six.

## 8.0 Conclusion(s)

Taking into account that this site is within a London Clay zone, there is a potential risk of subsidence associated with the vegetation noted within this document. All trees highlighted as **high** subsidence risk influencers within this report should be managed as recommended within section six (property damages in this context is from lay-observations and not a qualified structural analysis).

Taking into account that this site is within a London Clay zone, there is a potential risk associated with the vegetation noted within this document. All trees highlighted as **moderate** subsidence risk influencers within this report should be maintained at their current dimensions, management of these specimen appears to have kept any associated risk under control as no property damages have been noted within any site inspection that Thor's Trees have received (property damages in this context is from lay-observations and not a qualified structural analysis).

Tree works recommendations have been applied on both structural and physiological condition, as such, all of the trees noted within this report that have had works recommendations applied, require this works to be completed in-order to uphold indemnity.

Due to the age range of the specimen, arboricultural inspection should be undertaken no less frequently than once every three years.

Before any works is undertaken, confirmation should be made with the local planning authority for any standing TPO's. GOV websites are not always accurate. Longacre Trees research has been undertaken using public access mapping systems that are made available through a GOV website. In addition to this all tree-works should be undertaken with diligence towards BS:3998 standards.

## Glossary of terms

- T = Tree reference number in relation to map provided
- TPO = Tree Preservation Order
- PT = Private Tree
- E = early
- EM = early-Mature
- SM = semi-Mature
- DBH = diameter at breast height (1.3m)

Subsidence risk factor = an application of risk of property damages, taking into account historic management (pruning works) and height (water extraction potential (NHBC 4.2)).

NHBC Area of Influence = if this specimen *is* within an area that has the potential to have an impact upon adjacent property.

SL = Shrub-line.

