

Arboricultural Appraisal Report

Subsidence Damage Investigation at:

222 Finchley Road London NW3 6DH



CLIENT:
CLIENT REF:
MWA REF:
MWA CONSULTANT:
REPORT DATE:

QuestGates QG1S1287571 SUB250117-15980 Andy Clark 13/03/2025

SUMMARY

Statutory Controls			Mitigation (Current claim tree works)		
TPO current claim	No		Policy Holder	No	
TPO future risk	No		Domestic 3 rd Party	Yes	
Cons. Area	Yes		Local Authority	No	
Trusts schemes	No		Other	No	
Local Authority: -	London Borough of Camder	۱			



Introduction

Acting on instructions from QuestGates, the insured property was visited on 04/03/2025 to assess the potential role of vegetation in relation to subsidence damage.

We are instructed to provide opinion on whether vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

This is an initial appraisal report and observations/recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third-party trees is excluded, and third-party owners are advised to seek their own advice on tree health and stability of trees under their control.

Property Description

The property comprises a three storey semi-detached house of traditional construction, built C.1900s and extended with a single-storey addition to the rear and converted into five self-contained flats.

External areas comprise gardens to the front and rear.

The property occupies a site that slopes gently uphill from front to rear, which is accounted for by a series of stepped terraces.

Damage Description & History

Damage relates primarily to the right side of the property. At the time of the initial assessment the structural significance of the damage was found to fall within Category 3 (Moderate) of Table 1 of BRE Digest 251. Further details of the damage can be obtained from QuestGates.

We have not been made aware of any previous claims.

Site Investigations

Site investigations were carried out by Auger on 07/11/2024, when two trial pits were hand excavated to reveal the foundations, with a borehole sunk through the base of the trial pit to determine subsoil conditions. A drains survey was also undertaken. For further details please refer to the Site Investigation report.



Discussion

Opinion and recommendations in this report are made on the understanding that QuestGates has identified clay shrinkage subsidence as a cause of building movement and damage.

Site investigations and soil test results have confirmed a plastic clay subsoil susceptible to undergoing volumetric change in relation to changes in soil moisture.

Roots were observed below foundation depth in TP/BH1 and TP/BH2 and recovered samples have been positively identified (using anatomical analysis) as Salicaceae spp., either Buddleia spp. or Arbutus spp. and Fraxinus spp.

Of the roots recovered, the most significant are the Salicaceae spp. roots. These will emanate from T3 Poplar, confirming its influence on the soils below the foundations.

The Buddleia spp. or Arbutus spp. and Fraxinus spp. roots will be from small nearby self-sown trees removed prior to our site visit and considered significant.

Based on the information currently available, engineering opinion and our own site assessment we conclude there is damage consistent with shrinkage of the clay subsoil exacerbated by the soil drying effects of vegetation. Having considered the information currently available, it is our opinion that T3 Poplar is the principal cause of the current building movement and damage.

If an arboricultural solution is to be implemented to mitigate the influence of the trees/vegetation considered to be responsible for the movement/damage, we recommend that T3 Poplar is removed. (see Table 1).

Where other vegetation recorded presents a potential future risk to building stability, management is recommended (see Table 2). Replacement planting may be considered subject to species choice and planting location.

Consideration has been given to pruning alone as a means of mitigating vegetation influence, however in this case, this is not considered to offer a viable long-term solution due to the species characteristics, size and proximity of the responsible vegetation to the area of damage.

[Note: we are aware that T3 Poplar is also implicated in subsidence damage to the neighbouring 218)



Site Plan



Tree/vegetation locations are based on what could be determined at the time of the survey. It should be noted that this is not always clear due to lack of access or a restricted view of the trees/vegetation and may be disputed by property owners.

MWA can undertake land registry searches as required.



Table 1 Current Claim - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
Т3	Poplar	19.5	900 *	11.0 *	14.6	Older than extension(s)	Third Party 220 Finchley Road NW3 6DH
Management historySubject to past management/pruning - previously heavily crown reduced/pollarded Also implicated in subsidence damage to No. 218 Finchley Road.						reduced/pollarded.	
Recommendation Remove (fell) to near ground level and treat stump to inhibit regrowth.						rowth.	
Ms: multi-stemmed * Estimated value							

T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - stump



Table 2 Future Risk - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership		
T1	Magnolia	6.0	180	5.0	10.1	Younger than Property	Policy Holder		
Manager	nent history	Subject to past management/pruning - appears regularly pruned.							
Recomm	endation	Maintain broadly at no larger than current dimensions by periodic pruning.							
Т2	Horse Chestnut	15.5	740 *	13.5	24.5	Older than extension(s)	Policy Holder		
Manager	nent history	Subject t	Subject to past management/pruning - previously crown reduced.						
Recommendation		No works required.							
Т4	London Plane	14.0	640	11.0	18.5	Younger than Property	Transport for London		
Management history		Subject to past management/pruning - previously pollarded at approx. 3.5m and since crown reduced.							
Recommendation		No works required at present (subject to review if movement persists).							
TG1	Mixed spp. group of mostly Privet, Fig, Cherry and Hazel	2.0 - 6.5	50 - 150	Up to 5.5	6.0	Younger than Property	Policy Holder		
Management history		Subject to past management/pruning - previously crown reduced.							
Recommendation		Maintain broadly at no larger than current dimensions by periodic pruning.							
TG2	Ash group	10.0	170 Ms *	5.0	13.1	Younger than Property	Third Party 220 Finchley Road NW3 6DH		
Manager	nent history	No significant recent management noted.							
Recomm	Recommendation Remove (fell) to near ground level and treat stump to inhibit regrowth.						rowth.		
Me	multi-stemmed * F	stimated	or approx	imate valu	2				

T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - stump



Table 2 Future Risk - Tree Details & Recommendations Cont'd

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
SG1	Mixed spp. shrub group of mostly Pyracantha, Aucuba, Cotinus and Rose	1.5	50 Ms *	Up to 3.0	0.2	Younger than Property	Policy Holder
Management history Subject to past management/pruning - appears regularly pruned.							
Recommendation Remove (fell) Pyracantha to near ground level and treat stump to inhibit regrowt						inhibit regrowth.	
Ms: multi-stemmed * Estimated or approximate value							

T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - stump

Distance to building measurements are to the nearest point of the building unless otherwise stated.

Tree dimensions may be estimated or approximate based on accessibility.

Crown spread values are normally an estimate of the maximum spread but note tree crowns may be asymmetrical.



Photographs



View of T3 Poplar with TG1 visible to foreground



View of T2 Horse Chestnut, TG2 Ash group and TG1 mixed spp. group

Property:





View of T1 Magnolia, with T2 Horse Chestnut and TG1 group to right



View of SG1 group





View of T4 London Plane, with SG1 shrub group visible to left of frame



Management of vegetation to alleviate clay shrinkage subsidence.

All vegetation requires water to survive which is accessed from the soil. Clay soils shrink when water taken up by vegetation exceeds inputs from rainfall, which is at its maximum during the summer months. When deciduous vegetation enters dormancy and loses its leaves, and rainfall increases during the winter months, soil moisture increases and the clay swells. (Evergreen trees and shrubs use minimal/negligible amounts of soil water during the winter).

Buildings founded on clay soils are susceptible to movement as the clay shrinks and swells which when exacerbated by vegetation can result in building movement and cracking to walls.

Where damage does occur, pruning (reducing leaf area) can in some circumstances be effective in restoring stability however, removal of the influencing vegetation (trees, shrubs, climbers) causing the ground movement offers the most reliable and quickest solution in reducing seasonal volumetric changes in the clay, restoring building stability, and for this reason is frequently initially recommended as the most appropriate solution.

Often this is unavoidable due to the size or number of influencing trees, shrubs etc and their proximity to the building. Very heavy pruning of some species to a level required to effectively control its water use can result in the trees decline and ultimately death and is one factor considered when making recommendations for remedial and future management of a tree. Pruning alone, whilst reducing soil moisture uptake is often an unpredictable and unreliable management option in restoring building stability, either in the short or long term.