

Arboricultural Consultancy for Sheilas Wheels

Note: This report is intended for use between the client, Environmental Services and any parties detailed within the report. It is based on the understanding at the time of visiting the property that Engineers are satisfied that damage is attributable to clay shrinkage subsidence exacerbated by vegetation.

1. Case Details

Insured	Mr John Alderton	Address	59 Hillway, London, N6 6AD		
Client	Subsidence Management Services	Contact	Steven Vertefeuille	Claim No.	
ES Ref		Consultant	Andrew Cayley	Contact No.	
Report Date	08/10/2018				

Scope of Report: To survey the property and determine significant vegetation contributing to subsidence damage, make recommendation for remedial action and assess initial mitigation and recovery prospects. The survey does not make an assessment for decay or hazard evaluation.

2. Property and Damage Description

The insured structure is a 2 storey detached house. It has been extended with a single-storey extension to the rear. The property occupies a level site with no adverse topographical features.

Damage relates to the front elevation of the insured dwelling. Please refer to the engineers report for a full description of the claim history and damage.

3. Technical Reports

In preparing our report we have had the benefit of the following technical investigations:

Root Analysis Engineers Report

4. Action Plan

Mitigation	
Insured involved?	Yes
Local Authority involved?	No
Other third party Mitigation involved?	Yes
Recovery	
Is there a potential recovery action?	No

Treeworks	
Local Authority	Camden London Borough
TPO / Conservation Area / Planning Protection Searches	Insured: Conservation Area Adjacent & Adjoining properties: Conservation Area
Additional Comments	
Awaiting Further Instructions.	

5. Technical Synopsis

This report is based upon our understanding at the time of visiting the property that Subsidence Management Services' engineers are satisfied that damage is due to clay shrinkage subsidence exacerbated by vegetation.

The footings of the subject property are within the normally accepted influencing distance of vegetation on site.

Site Investigations revealed the presence of roots in TP/BH1 to a maximum depth of 1300mm and 2000mm in TP/BH2; this depth is likely to be in excess of foundations.

Samples of these roots were recovered from underside of foundations and throughout the borehole, these roots were identified (using anatomical analysis) as having emanated from the genus' Tilia spp, Vitaceae and Cupressaceae spp.

Tilia spp. are Limes.

Vitaceae spp. include creepers such as Parthenocissus (Virginia creeper), Vitis (grape vine) and Ampelopsis.

Cupressaceae spp. include Lawson Cypress, Western Red Cedar, Monterey Cypress, Leyland cypress and Junipers.



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We have therefore been instructed to advise on the causal vegetation and to deliver management proposals which will provide on-going and long term stability allowing repairs to be undertaken.

Our survey of the site identified T1 (Lime) and TG2 (Cypress (Italian)), given their position relative to the damage it is our opinion that the Tilia spp and Cupressaceae spp. roots identified within TP/BH1 / TP/BH2 will emanate from this vegetation.

Sample trial pits are generally small in size and the recovery of roots from such a small excavation leads us to conclude that these will not be isolated examples; there is significant potential for further root proliferation below the insured structure.

With regards to the Vitaceae spp. roots, given their poor condition, lack of starch and absence of a plausible source, it is our opinion that these roots will emanate from previously removed vegetation.

In assessing the potential drying influence of the vegetation on site, we have considered, in addition to the above site investigations, species profile, normally accepted influencing distance and the position of vegetation relative to the observed damage.

Based on our observations on site and with due regards to species profile, T1 (Lime) is considered the dominant feature, the source of the Tilia spp roots identified and accordingly we have identified it as the principal cause of the subsidence damage.

Given the recovery of functionally active Cupressaceae spp roots, components of TG2 cannot be discounted as contributing to the overall level of soil drying proximate to the area of damage and is therefore also considered to retain a contributory influence, albeit in a limited / secondary capacity when compared to T1 (Lime).

The size and proximity of this vegetation is consistent with the location of damage and advised mechanism of movement.

Considering engineers conclusions, results of site investigations and our observations on site, vegetation management is considered appropriate with a view to restoring stability.

Please refer to Section 6 for management prescriptions.

In order to mitigate the current damage and allow soils beneath the property to recover to a position such that an effective engineering repair solution can be implemented we recommend a program of management as listed by this report.

Vegetation management in the form of removal and appropriate stump treatment will help to promote the restoration of long-term stability to the insured property; pruning should not be considered as representing an effective or reliable long-term alternative solution given the size and proximity of the vegetation.

Pruning is generally ineffective and in the context of the current claim we consider the above vegetation is simply too large and/or close for pruning to be effective.

Removal of T1 and a short section of TG2 will offer the most certain and reliable arboricultural solution likely to restore long-term stability.

Replacement planting is considered appropriate however due consideration must be given to the ultimate size of the replacement and future management requirements. Species selection should be appropriate for the chosen site and ultimate tree height should not exceed 75% of the available distance to built structures.

We recommend the efficacy of the management recommendations be qualified by means of further monitoring to confirm stability.

Please note that the footing of the insured property fall within the anticipated rooting distance of additional vegetation which we believe presents a foreseeable risk of future damage and accordingly we have made recommendations in respect of this.

Is vegetation likely to be a contributory factor in the current damage?	Yes
Is vegetation management likely to contribute to the future stability of the property?	Yes
Is replacement planting considered appropriate?	Yes
Would DNA profiling be of assistance in this case?	No



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6.0 Recommendations

6.1 Current Claim Requirements

These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
T1	Lime	1	15	13	F - Commercial Third Party	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
TG2	Cypress (Italian)	1	6.5	2.2	C - Insured	Maintain as detailed	Remove the closest x 3 trees to the subject property close to ground level. Do not allow remaining trees to exceed current dimensions by way of regular pruning.

Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property

* Estimated

6.2 Future Risk Recommendations

These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
SG1	Mixed species shrubs: Species include: Arbutus, Olive, Ceanothus, Laurel and Jasmine. In planter.	1	3.2	1.9	C - Insured	No action	No works.
T2	Lime	1	15	14.5	F - Commercial Third Party	Action to avoid future risk	Re-prune back to point of previous reduction and maintain thereafter by re-pruning on a strict 2-3 year cycle.
T3	Lime	1	14.5	18.8	F - Commercial Third Party	Action to avoid future risk	Re-prune back to point of previous reduction and maintain thereafter by re-pruning on a strict 2-3 year cycle.
T4	Lime	1	12.3	17	F - Commercial Third Party	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
TG1	Cherry (Wild)	2	7.5	2.9	A - Third Party 61 Hillway London N6 6AD	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning. Trees set 2.5m above insured property ground level. Note: closest tree to the insured property appears to be declining.

Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property

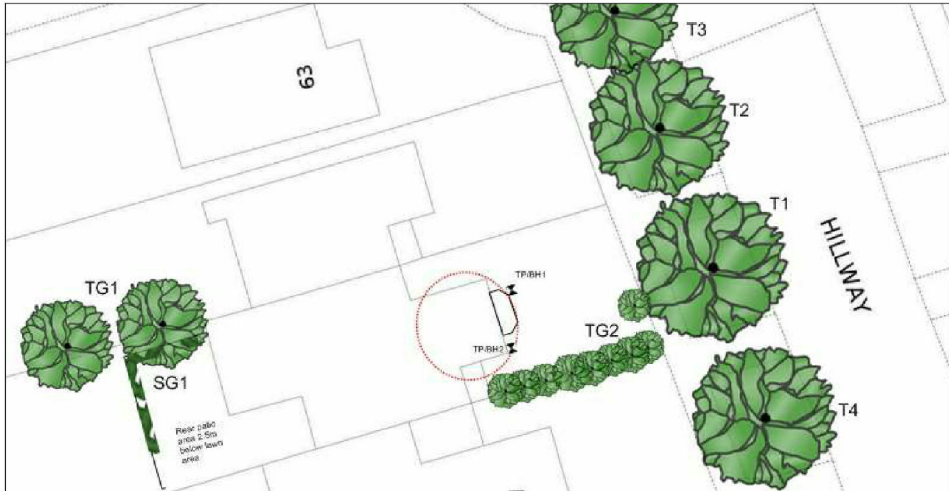
* Estimated

Third party property addresses should be treated as indicative only, should precise detail be required then Environmental Services can undertake Land Registry Searches

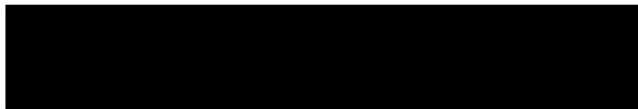


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7. Site Plan



Please note that this plan is not to scale. OS Licence No. 100043218



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8. Photographs



SG1 - Mixed species shrubs



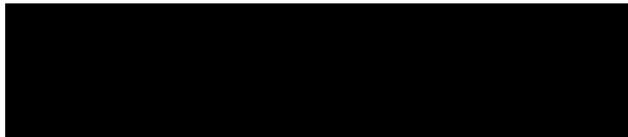
TG1 - Cherry (Wild)



T3 - Lime



T2 - Lime



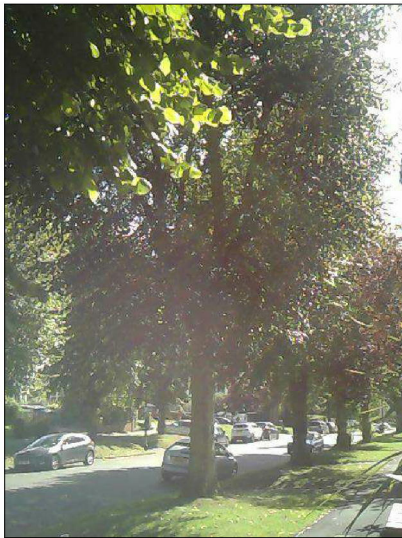
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T1 - Lime



TG2 - Cypress (Italian)



T4 - Lime



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Date: 08/10/2018

Property: 59 Hillway, London, N6 6AD

9. Tree Works Reserve - Does not include recommendations for future risk.

Insured Property Tree Works	
Third Party Tree Works	
Provisional Sum	

- The above prices are based on works being performed as separate operations.
- The above is a reserve estimate only.
- Ownerships are assumed to be correct and as per Section 6.
- A fixed charge is made for Tree Preservation Order/Conservation Area searches unless charged by the Local Authority in which case it is cost plus 25%.
- Should tree works be prevented due to statutory protection then we will automatically proceed to seek consent for the works and Appeal to the Secretary of State if appropriate.
- All prices will be subject to V.A.T., which will be charged at the rate applying when the invoice is raised.
- Trees are removed as near as possible to ground level, stump and associated roots are not removed or included in the price.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future regrowth. Should this occur we would be pleased to provide advice to the insured on the best course of action available to them at that time. Where there is a risk to other trees of the same species due to root fusion, chemical control may not be appropriate.

10. Limitations

This report is an appraisal of vegetation influence on the property and is made on the understanding that that engineers suspect or have confirmed that vegetation is contributing to clay shrinkage subsidence, which is impacting upon the building. Recommendations for remedial tree works and future management are made to meet the primary objective of assisting in the restoration of stability to the property. In achieving this, it should be appreciated that recommendations may in some cases be contrary to best Arboricultural practice for tree pruning/management and is a necessary compromise between competing objectives.

Following tree surgery we recommended that the building be monitored to establish the effectiveness of the works in restoring stability.

The influence of trees on soils and building is dynamic and vegetation in close proximity to vulnerable structure should be inspected annually.

The statutory tree protection status as notified by the Local Authority was correct at the time of reporting. It should be noted however that this may be subject to change and we therefore advise that further checks with the Local Authority MUST be carried out prior to implementation of any tree works. Failure to do so can result in fines in excess of [REDACTED]

Our flagging of a possible recovery action is based on a broad approach that assume all third parties with vegetation contributing to the current claim have the potential for a recovery action (including domestic third parties). This way opportunities do not "fall through the net"; it is understood that domestic third parties with no prior knowledge may be difficult to recover against but that decision will be fully determined by the client.

A legal Duty of Care requires that all works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998:2010 "Tree Work. Recommendations".

