

Arboricultural Consultancy for Zurich Insurance Company

Note⁽¹⁾: This reduced format report is an initial appraisal only and may have been produced without the benefit of site investigations. It is intended for use between the client, Environmental Services and any parties detailed within the report. It is based on the assumption that Engineers are satisfied that current damage is due to clay shrinkage subsidence attributable to vegetation.

1. Case Details

Insured	Mr M Citron	Address	56 Parkway, London, NW1 7AH		
Client	Pyle Consulting	Contact	Bret Champion	Claim No.	BRC/sp/7663
MT Ref	NL/1709141520/TP	Consultant	Thomas Peppiatt	Contact No.	0330 380 1036
Report Date	02/01/2015				

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

2. Property and Damage Description

The insured structure is a 3 storey mid-terrace 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 rear 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:

Soil Analysis	<input checked="" type="checkbox"/>	Drain Report	<input checked="" type="checkbox"/>	Foundation Detail	<input checked="" type="checkbox"/>
Root Analysis	<input checked="" type="checkbox"/>	Borehole Log	<input checked="" type="checkbox"/>	Engineers Report	<input checked="" type="checkbox"/>

4. Action Plan

Mitigation	
Insured involved?	Yes
Local Authority involved?	Yes
Other third party Mitigation involved?	Yes
Recovery	
Is there a potential recovery action?	Yes

Treeworks	
Is there any statutory protection?	Insured: Conservation Area Adjacent & Adjoining properties: Conservation Area
Additional Comments	
Awaiting Further Instructions.	
A potential recovery action has been identified.	
Engineers should consider focusing investigations to strengthen factual evidence for disclosure to third party tree owners.	

5. Technical Synopsis

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

From our observations on site, the footings of the subject property fall within the anticipated rooting range of a quantity of vegetation located on/near the site, thereby indicating the potential for the observed damage to be the result of clay shrinkage subsidence exacerbated by the influence of vegetation.

We have 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.

Site Investigations indicate that the foundations to the property extend to a depth of 700mm below ground level in TP/BH1, TP/BH2 and TP/BH3; all are noted to bear onto a substrate described as CLAY.

NHBC chapter 4.2 (2010) categorises the supporting subsoil (TP/BH1 TP/BH2 and TP/BH3) as being of High plasticity, i.e. capable of significant volumetric change potential in response to moisture content.

Desiccation of the underlying clay strata is suggested by an abnormal soil moisture content profile (BRE 412).

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Soil testing showed the soil to be desiccated at depths below the maximum extent of ambient soil drying in TP/BH1 TP/BH2 and TP/BH3, thereby suggesting a vegetative influence in the movement.

Given the above, the available evidence available does not support the possibility that damage is a result of damaged or leaking drains even though a recent drainage survey showed various defects in the drain runs.

Roots recovered from below foundation depths within h TP/BH1 TP/BH2 and TP/BH3 have been positively identified as *Platanus spp*; the likely sources being. T1 (Plane (London)) and T2 (Plane (London)).

Given the above information, results of site investigations and the advised mechanism of movement, the vegetation identified below are considered causal.

In assessing the potential drying influence of the vegetation on site, T1 (Plane (London)) is considered the dominant feature and accordingly we have identified it as the principal cause of the subsidence damage.

T2 (Plane (London)) 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.

Based on the above information, a program of vegetation would assist in restoring long-term 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 recommended a program of removals as listed by this report.

Whilst we have given consideration to pruning as a means of mitigating the vegetative influence, this has been discounted.

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

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.

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We consider the impact on the wider public amenity from the proposed tree works is mitigated by the trees rear garden location and the scope for replacement planting.

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

At the time of our survey it was not possible to ascertain the exact ownership of all vegetation. Further consultation with those involved and/or Land Registry searches may therefore be required to identify exact ownership.

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
Does the potential of ground heave need to be assessed by Consulting Engineers before management recommendations are implemented?	Yes
Will implementation of the management recommendations result in significant amenity loss?	See above
Would DNA profiling be of assistance in this case?	No

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6.0 Recommendations

6.1 Table 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	Plane (London)	3	27	17	A - Third Party 52 Parkway. London. NW1 7AR.	Remove	Remove subject to heave assessment.
T2	Plane (London)	3	27	20	D - Unknown	Remove	Remove subject to heave assessment.

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

6.2 Table 2 - Future Risk Recommendations

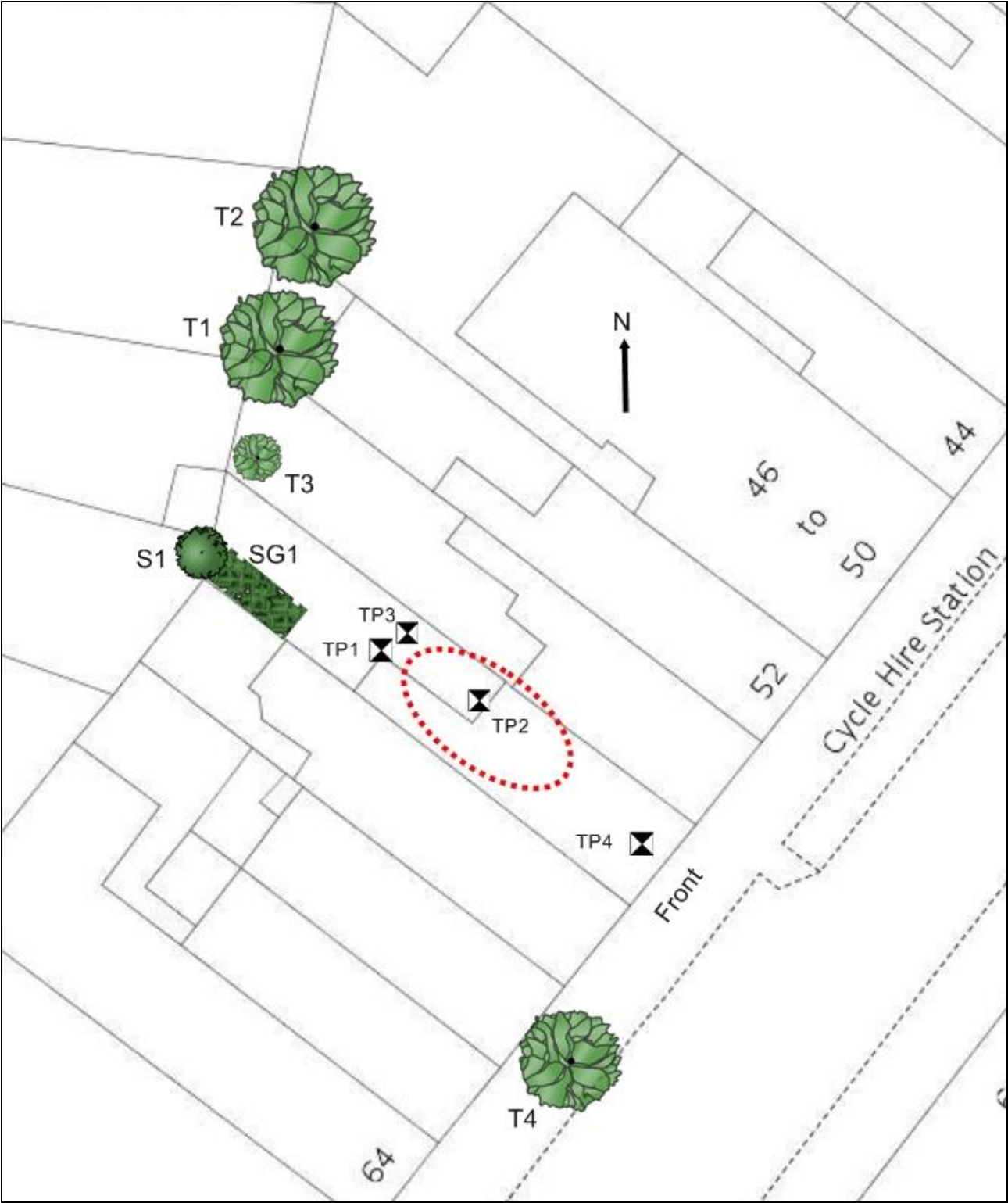
Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m)	Ownership	Action	Requirement
S1	Pyracantha	1	5.5	8.8	D - Unknown	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
SG1	Mixed species group including Fatsia, Forsythia, Mahonia, Walnut	1	4	5	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
T3	Eucalyptus	1	8.5	8.5	A - Third Party 54 Parkway. London. NW1 7AR.	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
T4	Acer	1	25	9.6	B - Local Authority	Action to avoid future risk	Do not allow 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

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

7. Site Plan



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

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8. Photographs



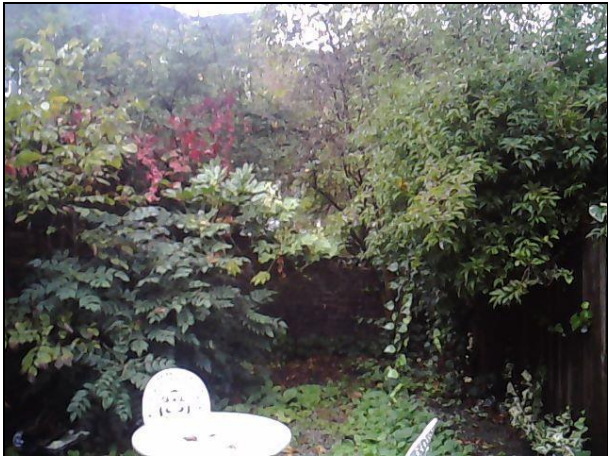
T1 - Plane (London)



T2 - Plane (London)



T3 - Eucalyptus



SG1 - Mixed species group

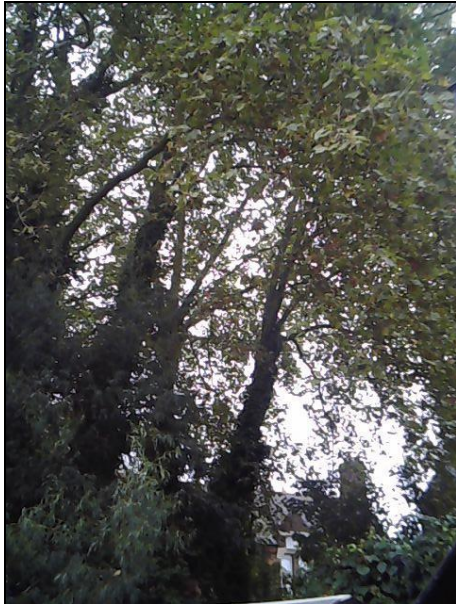
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S1 - Pyracantha



T1 - Plane (London)



T2 - Plane (London)

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Date: 02/01/2015

Property: 56 Parkway

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

Insured Property Tree Works	£0
Third Party Tree Works	£5000
Provisional Sum	£0

- 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.
- Stump removal is not included within the above price, and would be an additional charge if required. Where this is requested please note that responsibility cannot be accepted for damage to underground services unless these are identified prior to the works being undertaken.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future re-growth. 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 intended as a preliminary appraisal of vegetation influence on the property and assumes 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.

Any connection between the structural damage to the property and trees will require the clear identification of shrinkable clay soils below foundation depths. Following tree works we recommended that the building be monitored to establish the effectiveness of the works. Should sufficient stability not be achieved this may be indicative of the fact that an Arboricultural solution is not possible in isolation.

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 £20,000.

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".