ARBORICULTURAL ASSESSMENT REPORT

For:	**Client:**	Oriel Services Limited
	Insurer:	Legal and General
Site:	[redacted]	
Refs:		

Arborist Name:	[redacted]	**Date:**	09/11/2018
QC:		**Date:**	14/11/2018

Property Risk Inspection
LIMITED

[redacted]

Property Services | Insurance Services | Planning Services | Consumer Services | Data Services

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1.0 INTRODUCTION & BRIEF

1.1 Property Risk Inspection has been instructed behalf of the building insurers of the insured property. We have been advised that the insured property has suffered differential movement and damage that is considered to have been caused by trees growing adjacent to the property influencing soils beneath its foundations.

1.2 We have been instructed to undertake a survey of the vegetation growing adjacent to the insured property in order to provide our opinion as to whether, based on the available information, any of this vegetation is likely to be influencing soil moisture levels beneath the foundations of the property, and if so, to provide recommendations as to what tree management could be implemented to effectively prevent damage continuing.

1.3 The vegetation growing adjacent to the risk address has been surveyed from the ground. All distances are measured to the nearest point of the risk address unless otherwise stated.

2.0 LIMITATIONS

2.1 Recommendations with respect to tree management are associated with the risk address as stated on the front cover of this report and following consultation with investigating engineers. The survey of trees and any other vegetation is associated with impacts on the risk address subject of this report. Matters of tree health, structural condition, and/or the safety of vegetation under third party control are specifically excluded. Third party land owners are strongly advised to seek their own professional advice as it relates to the health and stability of trees under their control.

2.2 Recommendations do not take account of any necessary permission (statutory or otherwise) that must be obtained before proceeding with any tree works.

2.3 Recommendations do not take account of any requirements for survey or mitigation relating to European or other protected species, e.g. bird nesting or bats. Land owners must obtain their own professional advice in respect of any protected species.

3.0 DISCUSSION AND ANALYSIS

3.1 Soils, soil water and vegetation

All vegetation requires water to live, and this water is substantially accessed from the soil within which the plants' roots grow.

If the soil is classified as a clay soil, then it will hold very much more water than sands, gravels and loam soils. As plants abstract water from the clay soil, the soil volume will "shrink" and "swell" during the summer as water is first removed and then added by summer rainfall. In years in which rainfall during the summer is less than the total amount of water taken from the soil by plants, shrinkage will occur. This shrinkage may remove support from building foundations, leading to cracking in the fabric of the building.

3.2 Vegetation management

The control of trees, shrubs, and climbers, by removal or pruning as appropriate, are proven techniques that can control total soil water loss thereby minimising soil shrinkage and allowing repairs to proceed.

If vegetation management works are carried out promptly, then repairs can usually proceed very quickly and the duration and distress associated with the disruption that tree related subsidence brings can be minimised.

3.3 Third party liaison and statutory controls

Tree roots do not respect physical or property boundaries and can travel for many metres beyond the above ground "dripline" of the canopy of the vegetation.

The purpose of this report is to ascertain which vegetation is the most likely substantial and/or effective contributory cause of the damage witnessed to allow for liaison with third parties or with local administrative Councils as necessary.

3.4 Evidential framework

The engineer has determined on a preliminary basis the damage to the property, its location and the likely mechanism of movement, and has concluded that the building failure is related to differential subsidence damage caused as a result of the action of vegetation.

Where a factual geotechnical report has been completed, this will describe the below ground foundation design, soil and geotechnical conditions, as well as any root identification where available.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Recommendations

On the basis of our findings, we have considered a practical vegetation management specification.

This specification will assist in reducing the impact of the adjacent vegetation on soil moisture levels, thereby potentially stabilising foundations of the affected area of the building.

Where felling has been proposed, this will be on the basis that the vegetation in question would not respond well to a severe reduction in leaf area that would inevitably lead to decay, the development of potential hazards, and an annual or other on-going management commitment and cost.

If pruning is recommended, the specification will be designed to allow continual ease of re-pruning with a reasonable prospect of a reduction in soil water use.

4.2 Recommended vegetation management to address the current subsidence:

Tree No:	Species	Works Required
S2	Cotoneaster	Fell and treat stump.
S4	Pyracantha	Fell and treat stump.
T2	Horse Chestnut	Fell and treat stump.
T5	Horse Chestnut	Fell and treat stump.

5.0 STATUTORY CONTROLS

London Borough of Camden Council has confirmed that none of the implicated vegetation is subject to a Tree Preservation Order. However, the implicated vegetation is subject to Conservation Area controls.

In relation to s96(6) of the Highway`s Act 1980, we understand that highway trees are under the ownership and control of London Borough of Camden Council.

[redacted]

6.0 APPENDIX 1: TREE TABLES

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Roots Implicated	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
C1	Hydrangea (Climbing)	Mature	Fair	5	1.50	45	0.1	N	No significant recent management.	No work required.			23 Laurier Road, London, NW5 1SH	PH
S1	Rose	Mature	Fair	3	2.50	15*	1.8	N	No significant recent management.	No work required.	Access through side gate.		25 Laurier Road, London, NW5 1SH	P3P
S2	Cotoneaster	Mature	Fair	1.6	1.0	15*	0.1	Y	Managed as a shrub.	Fell and treat stump.	Access through side/rear gate.		23 Laurier Road, London, NW5 1SH	PH
S3	Cotoneaster	Mature	Fair	2	2	45*	0.1	Y	Managed as a shrub.	No work required.			23 Laurier Road, London, NW5 1SH	PH

Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg. (m)	Roots Implicated	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
S4	Pyracantha	Mature	Fair	4.2	2.8	60	0.1	N	No significant recent management.	Fell and treat stump.		Not implicated by root analysis however directly adjacent to cracking.	23 Laurier Road, London, NW5 1SH	PH
SG1	Mixed species shrubs	Early Mature	Fair	1	1.0	15*	1	N	Managed as a shrub group.	No work required.		Including immature rose, salvia and ornamental acer.	23 Laurier Road, London, NW5 1SH	PH
SG2	Mixed species group	Mature	Fair	2	2	30	1.8	N	Managed as a shrub group.	No work required.		Includes rosemary jasmine rose viburnum philadelphus	23 Laurier Road, London, NW5 1SH	PH
T1	Cotoneaster	Mature	Fair	4	3.50*	180*	7.5	N	No significant recent management.	No work required.	Access through side gate.		25 Laurier Road, London, NW5 1SH	P3P
T2	Horse Chestnut	Mature	Fair	14	10	450*	16.5	N	No significant recent management.	Fell and treat stump.			46 Dartmouth Park Road, London, NW5 1SN	P3P
T3	Acer	Mature	Fair	4	4.50	150	6	N	No significant recent management.	No work required.			23 Laurier Road, London, NW5 1SH	PH

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T4	Pittosporum	Mature	Fair	2	1.6	70*	2	N	Pruned regularly.	No work required.			23 Laurier Road, London, NW5 1SH	PH
T5	Horse Chestnut	Mature	Fair	11	8	470	3.1	Y	Subject to recent reduction.	Fell and treat stump.	Pre cone/signage/ barriers action required - footpaths/public access.		London Borough of Camden	LA
T6	Birch (Silver)	Mature	Fair	12	7.0	260	7	N	Subject to recent management.	No work required.			London Borough of Camden	LA

* Value is estimated

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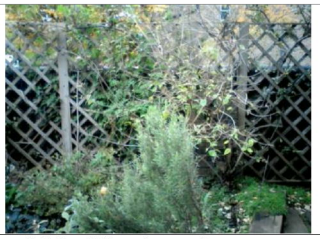
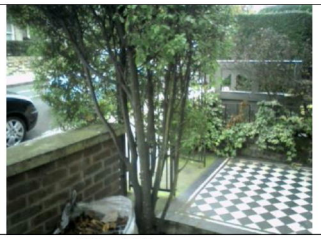
7.0 APPENDIX 2: SITE PLAN

Location:	23 Laurier Road, London, NW5 1SH
[redacted]	

8.0 APPENDIX 3: SITE PHOTOGRAPHS

	
SG1 - Mixed species shrubs	S1 - Rose
	
T1 - Cotoneaster	T2 - Horse Chestnut
	
S2 - Cotoneaster	T3 - Acer
	
S3 - Cotoneaster	SG2 - Mixed species group
	
C1 - Hydrangea (Climbing)	S4 - Pyracantha

	
T4 - Pittosporum	T5 - Horse Chestnut
	
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