TECHNICAL REPORT ON A SUBSIDENCE CLAIM

[redacted]

84B Bartholomew Road
London
NW5 2AS

prepared for

Allianz Commercial

SUBSIDENCE CLAIM

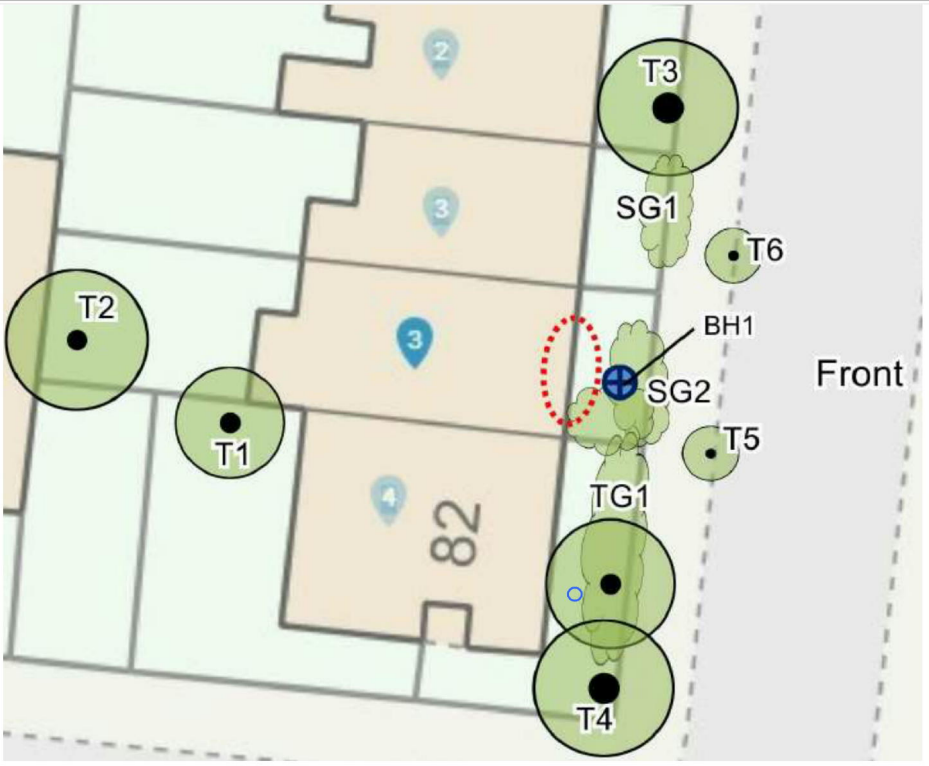
DATE 28 November 2023

[redacted]

Site Plan	**This plan is Not to Scale**
This plan is diagrammatic only and has been prepared to illustrate the general position of the property and its relationship to nearby trees etc. The boundaries are not accurate, and do not infer or confer any rights of ownership or right of way. Position of utilities is only indicative and contractors must satisfy themselves regarding actual location before commencing works.	

Chartered Loss Adjusters

[redacted]



Key:

	Tree: Deciduous		Tree: Conifer		Shrub
	Hedge		Area of Damage		Bore Hole
	Trial Hole		Trial & Bore Hole		Level Monitoring
	Rain Water Manhole		Rain Water Gulley		Rain Water Pipe
	Waste Water Manhole		Waste Water Gulley		Toilet Pipe
	Rain Water Drain		Waste Water Drain		Electricity Cable
	Water Supply Pipe		Gas Supply Pipe		Incoming Gas Pipe
	Incoming Water		Incoming Electrics		

INTRODUCTION

We have been asked by Allianz Commercial to comment on movement that has taken place to the above property. We are required to briefly describe the damage, establish a likely cause and list any remedial measures that may be needed.

Our report should not be used in the same way as a pre-purchase survey. It has been prepared specifically in connection with the present insurance claim and should not be relied on as a statement of structural adequacy. It does not deal with the general condition of the building, decorations, timber rot or infestation etc.

The report is made on behalf of Crawford & Company and by receiving the report and acting on it, the client - or any third party relying on it - accepts that no individual is personally liable in contract, tort or breach of Statutory duty. Where works address repairs **that are not covered** by the insurance policy we recommend that you seek professional advice on the repair methodology and whether the works will involve the Construction (Design & Management) Regulations 2015. Compliance with these Regulations is compulsory; failure to do so may result in prosecution. We have not taken account of the regulations and you must take appropriate advice.

We have not commented on any part of the building that is covered or inaccessible.

TECHNICAL CIRCUMSTANCES

Cracks were first noted in communal areas and Flat 84A on the ground floor during July 2022

PROPERTY

Four storey multi-occupied mid-terrace of traditional construction converted into 3 separate self contained flats with brick walls surmounted by a pitched slate roof.

HISTORY & TIMESCALE

Site investigations are being organised and crack monitoring will be established in due course.

Date of Construction ..... Circa 1890
Damage First Noticed ..... 15 July 2022

TOPOGRAPHY

The property occupies a reasonably level site with no unusual or adverse topographic features.

GEOLOGY

Reference to the 1:625,000 scale British Geological Survey Map (solid edition) OS Tile number TQNW suggests the underlying geology to be London Clay.

London Clays are marine deposits characterised by their silty, sandy composition. They are typically stiff, dark or bluish grey, weathered dark to mid-brown superficially with fine particle size (less than

[redacted]

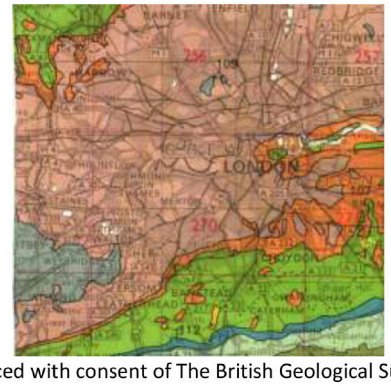
0.002mm). Tomlinson[1] describes it as a 'fat' clay with high loadbearing characteristics due to pre-consolidation pressures in its geological history.

The upper horizon is often encountered at shallow depth, sometimes just below ground level. They have high shrink/swell potentials[2],[3] and can be troublesome in the presence of vegetation.

The superficial deposits are thought to be Clay Soils.

Clay soil superficial deposits are a cohesive soil characterised by their fine particle size and are usually derived from weathering of an underlying "solid geology" clay soil such as London Clay or Oxford Clay.

Like the solid geology sub-soil from which they are derived they shrink when dry, and swell when wet and can be troublesome when there is vegetation[4] nearby and Gypsum and selenite crystals can be encountered (particularly in the south east). Protection using Class II Sulphate Resisting cement is therefore recommended for buried concrete.



Geology. Reproduced with consent of The British Geological Survey at Keyworth.
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VEGETATION

There are several trees and shrubs nearby, some with roots that may extend beneath the house foundations. The following are of particular interest:-

[1] Tomlinson M.J. (1991) *"Foundations Design & Construction"* Longman Scientific Publishing.
[1] B.S. 5930 (1981) *"Site Investigations"*
[2] DriscollL R. (1983) *"Influence of Vegetation on Clays"* Geotechnique. Vol 33.
[3] Table 1, Chapter 4.2, Para. 2.3 of N.H.B.C. Standards, 1986.
[4] DriscollL R. (1983) *"Influence of Vegetation on Clays"* Geotechnique. Vol 33.

[redacted]

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T3	Lime	17.0	650	7.5	7.8	Younger than Property	Third Party 88 Bartholomew Road NW5 2AS
Management history		Subject to past management/pruning - previously pollarded at approx. 14.0m.					
Recommendation		Pollard at approx. 10.0m and re-pollard thereafter on a biennial cycle to maintain at reduced dimensions.					
T4	Lime	12.0	500	7.5	10.0	Younger than Property	Third Party 82 Bartholomew Road NW5 2AS
Management history		Subject to past management/pruning - previously pollarded at approx. 10.0m.					
Recommendation		Re-pollard to previous points at approx. 10.0m and re-pollard thereafter on a biennial cycle to maintain at reduced dimensions.					
TG1	Mixed spp. group of mostly Forsythia, Snowberry, Cotoneaster and Cypress	6.5	80 Ms *	5.5	1.5	Younger than Property	Third Party 82 Bartholomew Road NW5 2AS
Management history		Subject to past management/pruning - appears regularly pruned.					
Recommendation		Remove (fell) all to near ground level and treat shrub stumps to inhibit regrowth.					
SG2	Mixed spp. group of mostly Cotoneaster, Rose and Honeysuckle	3.0	10	2.5	1.1	Younger than Property	Policy Holder
Management history		No significant recent management noted.					
Recommendation		Remove (fell) all to near ground level and treat stumps to inhibit regrowth.					

25 m 10 m Neighbour 1

Tree roots can be troublesome in cohesive (clay) soils because they can induce volumetric change. They are rarely troublesome in non-cohesive soils (sands and gravels etc.) other than when they enter drains, in which case blockages can ensue.
Broadleaf trees typically have wider spreading roots and higher water demands than coniferous species and many are better adapted to growing on heavy clay soils. Some are capable of sprouting from cut stumps or bare wood and most will tolerate pruning better than conifers.

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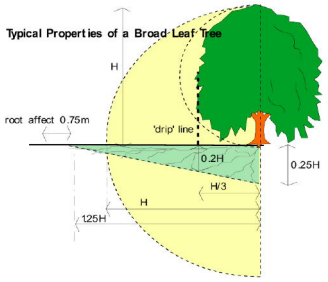

Typical proportions of a broadleaf tree. Note the potential root zone. It must be noted that every tree is different, and the root zone will vary with soil type, health of the tree and climatic conditions.

However heavy pruning of any tree should be avoided if possible, as it stimulates the formation of dense masses of weakly attached new branches which can become dangerous if not re-cut periodically to keep their weight down.

OBSERVATIONS

To front of ground floor flat, communal hallway and external front elevations

The following is an abbreviated description. Photographs accompanying this report illustrate the nature and extent of the problem.

INTERNAL

Front lounge ground floor flat - Vertical cracks left and right side of front window - 1-2mm wide. Diagonal crack - 1-2mm wide in internal brick wall with adjoining communal hallway.

Communal Hallway - Diagonal crack - circa 1-3mm wide on internal brick wall with ground floor flat.

EXTERNAL

Various isolated cracks 1-2mm wide in render of front elevation at ground floor level.

[redacted]

CATEGORY

In structural terms the damage falls into Category 2 of Table 1, Building Research Establishment[5] Digest 251, which describes it as “slight”.

Category 0	"negligible"	< 0.1mm
Category 1	"very slight"	0.1 - 1mm
Category 2	"slight"	>1 but < 5mm
Category 3	"moderate"	>5 but < 15mm
Category 4	"severe"	>15 but < 25mm
Category 5	"very severe"	>25 mm

Extract from Table 1, B.R.E. Digest 251
Classification of damage based on crack widths.

Crawford Claims Solutions – Subsidence
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28 November 2023

[5] Building Research Establishment, [redacted]

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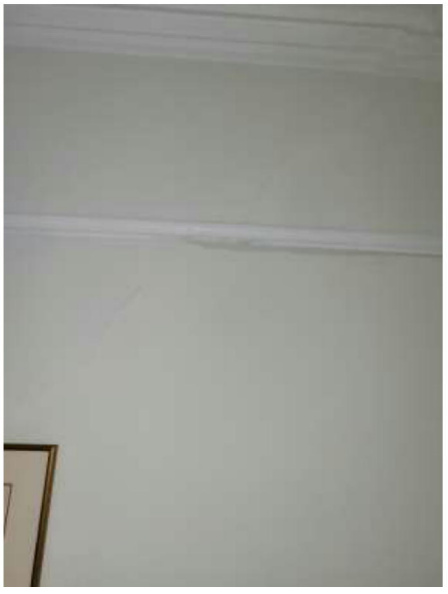
PHOTOGRAPHS



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