

## Cunningham Lindsey

Subsidence Scanning Centre, Woodhead House, Centre 27 Business Park, Woodhead Rd, Birstall, WF17 9TD  
Telephone 01489 567700 Facsimile 01489 565816

Policyholder: [REDACTED]

Subject Property Address:

Raised Ground Floor Flat

54 Belsize Park

London

NW3 4EE

### INSURANCE CLAIM

### CONCERNING SUSPECTED SUBSIDENCE

### UPDATED ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of [REDACTED] for the purpose of investigating a claim for subsidence. It is not intended to cover any other aspect of structural inadequacy or building defect that may otherwise have been in existence at the time of inspection.

Date: 26/3/2012

Cunningham Lindsey Ref: SOHPC/MH/4233099

## INTRODUCTION

The technical aspects of this claim are being overseen by our Project Manager, Michael Robinson BSc(Hons) MRICS Cert CII, in accordance with our Project Managed Service.

Unless stated otherwise all directions are referred to as looking towards the front door from the outside the property.

## DESCRIPTION OF BUILDING

Date	C1870
Type	Large semi-detached period property which has been converted into leasehold flats
Storeys	Four storey plus loft rooms
Basement	Lower ground floor
Foundations	Not known
External walls	Solid brick, partly rendered
Roof	Pitched and slate clad
Ground floor	Suspected solid ground bearing concrete
Maintenance	Satisfactory
Comments	None

## DESCRIPTION OF SITE

Neighbourhood	Good quality residential area.
Terrain	Generally level.
Unusual features	None.
Storm drains	Suspected combined system.
Foul drains	Suspected combined system.
Subsoil	London Clay
Comments	The property is believed to be located within a Conservation Area.

## SIGNIFICANT VEGETATION

	TREE 1	TREE2	TREE3
Species	Chestnut	Lime	Unknown deciduous
Height	18m	22m	8m
Distance	7m	13m	6m
From where	Rear left	Rear left	Rear left
Ownership	Private third party	Private third party	Private third party
Name of owner	Not known	Not known	Not known
Address of owner	101 Belsize Lane London NW3	55 Belsize Park London NW3 4EE	55 Belsize Park London NW3 4EE
Removal date	N/A	N/A	N/A
TPO	Possibly.	Not known	No



	TREE 4	TREE 5
Species	Holly	Willow
Height	6m	14m
Distance	5m	12m
From where	Rear left	Rear right
Ownership	Private third party	Private third party
Name of owner	Not known	Not known
Address of owner	55 Belsize Park London NW3 4EE	53 Belsize Park London NW3 4EE
Removal date	N/A	N/A
TPO	No	Possibly.
Conservation area	Yes	

#### CIRCUMSTANCES OF DISCOVERY OF DAMAGE

From our discussions with a relative of leaseholder of the upper ground floor flat, we understand that internal cracking within the flat developed during Summer 2011. In view of the nature of damage the leaseholder referred matters to the Freeholder and in September 2011 a survey report was commissioned. Following receipt of the report a claim was intimated via the brokers.

#### NATURE AND EXTENT OF DAMAGE

Sketches showing the layout of the site and the damage are attached.

#### *Description and Mechanism*

The main area of damage is to the rear left hand corner of the property with tapering external and internal cracks. There is cracking to the rear elevation to the left hand side of the bay window to the upper ground floor flat. There is cracking to the rear portion of the passageway which provides support to the upper levels.

Internally there is cracking within the rear left hand bedroom to the left hand flank wall and adjacent to the rear bay. There is also cracking within the middle left hand bedroom again adjacent to the left hand flank.

#### *Significance*

The level of external damage within the rear passage way is moderately severe, whereas the cracking to the main building is slight. We would therefore classify the damage as category 3 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings.

#### *Onset and Progression*

We consider that the crack damage has occurred recently, but that distortions are historic. It is likely that movement will be of a cyclical nature with cracks opening in the summer and closing in the winter.

#### **SITE INVESTIGATIONS**

In order to confirm the cause of movement site investigations were undertaken involving the excavation of an external trial hole to the rear of the property, together with associated soil testing. Works were undertaken by a specialist contractor, CET Safehouse Ltd, and for precise details of the works undertaken please refer to the attached Factual Report.

We can also advise that the Geological Survey Map for the area shows the property to be founded upon a Clay subsoil.

The trial hole which was excavated adjacent to the rear left hand corner of the property within the side passageway exposed the foundations to both the left hand boundary wall which provides support to the first floor projection, and also to the left hand flank wall of the main building.

The excavation revealed concrete foundations to a depth of 350mm and 475mm bearing upon a firm silty Clay subsoil. A hand auger was used to obtain samples to a depth of 5.0m and a stiff to very stiff silty CLAY was noted throughout.

In-situ soil testing was undertaken and the shear vane readings increased with depth. Laboratory testing has shown the clay to be of very high plasticity indicating the subsoil is highly susceptible to volumetric changes due to variations in moisture content. Based upon the results of the soil suction testing and analysis of the moisture contents and soil properties, the clay was considered to be desiccated to a depth of 2.0m.



Roots were noted at the underside of the foundations and throughout the borehole. Root samples were sent for botanical identification but the samples were found to be too immature to analyse.

Supplementary investigations were undertaken by CET Safehouse Ltd involving an additional borehole to the rear left of the property and further root analysis. Roots were noted to 1.3m and botanical identification showed the roots to be from Aesculus (Horse Chestnut). This would correlate with the Horse Chestnut which is positioned towards the rear of the property within the rear garden of 101 Belsize Lane.

As part of the required level monitoring exercise the site investigation contractors also installed a 7.0m deep datum towards the front of the property.

#### MONITORING

A programme of level monitoring has been installed and it is proposed that readings be taken at approximate eight week intervals.

We shall report again in due course

#### CAUSE OF DAMAGE

Based upon the results of the site investigations, it is our opinion that the localised movement to the rear left hand portion of the property has developed as a result of clay shrinkage subsidence exacerbated by the moisture demands of adjacent trees. There are several trees within apparent rooting distance and roots were found to extend beneath the foundations.

#### RECOMMENDATIONS

It is likely that foundation stability could be achieved if a programme of tree works were to be undertaken. However the trees which are within apparent rooting distance are under the control of Third Party owners and accordingly matters have been referred to the Mitigation Centre of Oriel Services Ltd, a sister company of Cunningham Lindsey, who will liaise with the Third Party tree owners in this regard. We have now received the Arboricultural report from OCA UK Ltd which comments upon the trees within influencing distance and gives recommendations for a programme of tree management. OCA UK Ltd have recommended the felling of the Horse Chestnut, together with a Beech, Holly and Ash.

Oriel Mitigation Centre will proceed to negotiate tree works with the Third Party owners.

The property is also located within a Conservation Area and it is also possible that some of the Third Party trees to the rear are the subject of specific Tree Preservation Orders.

In the meantime the level monitoring exercise will continue and we will also arrange for an arboricultural report to be obtained.

Michael Robinson BSc(Hons) MRICS Cert CII  
*Chartered Building Surveyor - Specialist Subsidence Team*  
Miss Ashley Jones - Customer Support  
Direct dial: 01622 608815  
E-mail: [Ashley.Jones@cl-uk.com](mailto:Ashley.Jones@cl-uk.com)