

INSURANCE CLAIM: UPDATED ENGINEERING APPRAISAL REPORT 2023

Name of Insured:

Address of Insured: 63a Belsize Lane, LONDON, NW3 5AU

Situation of Damage: 63a Belsize Lane, LONDON, NW3 5AU



This report is prepared on behalf of _____ for the purpose of investigating an insurance claim. 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: 10/10/2023



INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Michael Robinson BSc(Hons) MRICS Cert CII, in accordance with our project managed service.

The claim is primarily concerned with damage to the rear single storey extension. All references to the property are as observed facing the front of the building.

DESCRIPTION OF BUILDING AND SITE

The subject property is a three-storey mid terrace house which we understand was constructed in the 1960's. The house benefits from a single storey rear extension which was constructed in 2005 and the house has also been extended to the left. The property is located in a residential area, which has been designated a Conservation Area, on a plot which slopes down from front to back.

SIGNIFICANT VEGETATION

There are trees and shrubs within potential rooting distance of the property. An arboricultural report was previously commissioned in April 2019 and for details please refer to the report from PRI Ltd, Arboricultural Consultants. Since that time a programme of tree works has been undertaken involving the removal of Poplars and a group of trees and shrubs positioned to the rear left of the property within the garden of 29 Belsize Park. It was also considered that an Ash tree to the rear was also of influence but removal could not be secured due to the statutory protection afforded by a Tree Preservation Order.

DISCOVERY AND NOTIFICATION

Circumstances of Discovery	Damage to the property was initially noted over Summer 2018 with cracking to the rear dining area within the rear extension.
Subsequent action	It was suspected that damage had developed as a result of subsidence and a claim was therefore submitted to insurers via the Brokers.
Claim notification	Insurers were notified in November 2018.
Subsequent developments	<p>Following our initial appointment, investigations were undertaken, together with an extended period of monitoring, and it was concluded that damage had developed as a result of clay shrinkage subsidence due to the moisture demands of adjacent vegetation. Mitigation measures were pursued involving the removal of adjacent trees and it was agreed that superstructure repairs and decorations should be undertaken. Repairs to the rear of the property were completed in 2022.</p> <p>Following the completion of the works, had noted some minor internal cracking within the rear reception room. Whilst the level of damage was slight, the cracking was indicative of a progression of some of the previously repaired damage. The damage is considered to have been noted in around October 2022, following the prolonged period of dry weather which was experienced over summer 2022.</p>



REPORTS BY OTHERS

None

NATURE AND EXTENT OF DAMAGE

Description and Mechanism	<p>The damage which formed the subject of the original claim concerns cracking within the rear extension essentially to the left hand flank wall which corresponds with the juncture between the main building and the rear extension. There was also slight cracking to the ceiling and to the right hand flank wall within the dining area. Externally there was cracking to the left hand flank wall with disturbance to the vertical joint between the structures.</p> <p>The pattern of damage was indicative of downward and rotational movement to the rear left hand corner of the extension.</p> <p>Since that time, localised repairs and decorations have been undertaken with the works having been completed in 2022.</p> <p>Additional cracking has subsequently developed with cracking across the ceiling within the rear reception room, together with minor cracking to the left hand flank wall. The pattern of damage is again indicative of slight downward and rotational movement of the rear addition.</p>
Significance	<p>The level of damage is slight, and is classified as category 2 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings..</p>
Onset and Progression	<p>The additional cracking is considered to have developed over Summer 2022. Monitoring has shown movement to be of a cyclical nature with cracks opening in the summer and closing in the winter.</p>

SITE INVESTIGATION

Site investigations were undertaken during the course of the original claim. In light of the minor progressive movement, it was considered necessary for supplementary site investigations be instructed. We can now provide a summary of the investigation results and for precise details, please refer to the Factual Reports of Investigation which have been received from CET Property Assurance.

Reference to the solid and drift geological survey map shows the anticipated subsoil as London Clay.

Site Investigations December 2018

In order to confirm the cause of movement to the rear of the property, localised site investigations were undertaken with the works involving the excavation of an external trial hole to the rear left hand corner of the extension with associated soil and root testing.

The trial hole revealed a concrete foundation to a depth of 630mm bearing upon a stiff silty Clay. A hand augered borehole was sunk to a depth of 5.0m and a stiff silty CLAY was noted throughout.

In-situ soil testing was undertaken and the shear vane readings were consistently high to very high. 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 at a depth of 1.5m.

Roots were noted at the underside of the foundations and within the borehole to a depth of 3.2m. Roots were analysed and found to originate from Populus (Poplars and Aspens).

Site Investigations June 2023

An additional trial hole was excavated to the rear right hand corner of the rear addition and this revealed a concrete foundation to a depth of 750mm bearing upon a stiff CLAY with partings of silt and sand. A borehole was sunk to a depth of 5.0m and a stiff silty CLAY was noted throughout.

In-situ soil testing was undertaken, and the shear vane readings were consistently high to very high. 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.

Roots were noted at the underside of the foundations and within the borehole to a depth of 2.5m. Roots were analysed and found to originate from Fraxinus (Ash).

MONITORING

A programme of level monitoring has been instructed and readings are being taken at approximate eight-week intervals.

The level monitoring readings taken between March 2023 and September 2023 have recorded downward movement across the rear of the property of up to 3.2mm. Such movement is indicative of tree related clay shrinkage subsidence.

The earlier level and crack width monitoring exercise between August 2019 and October 2020 had recorded a pattern of cyclical movement, with downward movement over summer 2019 and with subsequent ground recovery over Winter/Spring 2020.

CAUSE OF DAMAGE

It had previously been established that damage to the rear of the property had developed as a result of clay shrinkage exacerbated by the moisture demands of adjacent vegetation. A programme of tree works was undertaken but it was not possible to secure the removal of an adjacent Ash tree which is the subject of a Tree preservation Order. The latest investigations have confirmed that the underlying subsoil is a highly shrinkable clay and roots from Fraxinus (Ash) were observed at the underside of the foundations and within the accompanying borehole.

It is therefore considered that the ongoing damage which has developed as a result of ongoing clay shrinkage subsidence during the prolonged period of dry weather which has been experienced over the summer 2022 brought about by the action of roots from the adjacent Ash tree.



MITIGATION

During the course of the original claim, we were able to secure the removal and management of some of the trees to the rear and this has assisted in achieving a degree of foundation stability. However slight additional cracking has developed, and movement is considered to have developed due to the ongoing influence of an Ash tree which is sited towards the rear of the property within the rear garden of 30 Belsize Road. The adjoining owners had previously advised that the tree would be reduced on a bi-annual basis but in light of the ongoing movement we would recommend that consideration be given to the removal of the tree.

The tree is the subject of a Tree Preservation Order and an earlier application seeking agreement from Camden Council to fell the tree was unsuccessful due to a lack of substantiating evidence. The original site investigations had incorporated botanical root identification but only roots from a Poplar had been identified. However, the latest investigations have provided evidence of root encroachment from Fraxinus (Ash) and the monitoring exercise has recorded evidence of downward movement over the summer months.

We would therefore recommend that approaches are made to the Third Party owners of the Ash tree with a further request that consideration is given to the felling of the tree. It will also be necessary for an application to be submitted to Camden Council to fell the tree which is the subject of a Tree Preservation Order. Our Mitigation Team have now been instructed to progress these aspects.

In view of the time which has elapsed since the claim was originally submitted, it will also be necessary for an updated Arboricultural report to be obtained to assist in any discussions with the adjoining tree owners and to support the Tree Preservation Order application.

In the meantime, the monitoring exercise will continue.

REPAIR RECOMMENDATIONS

The level of damage to the property is slight and we anticipate that localised superstructure repairs and decorations will be required if additional mitigation measures can be secured. In the event that further damage was to develop then consideration may need to be given to foundation stabilisation.

PROJECT TEAM DETAILS

Michael Robinson BSc(Hons) MRICS Cert CII
Building Consultant Subsidence Expert Services
Clare Etherington
Clare Etherington
Claims Technician Subsidence Expert Services

