



Policyholder: 

Subject Property Address:

57, Abdare Gardens
London
NW6 3AL

INSURANCE CLAIM

CONCERNING SUBSIDENCE DAMAGE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of Covea Insurance 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: 19/11/2016





INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant, Mr Yiu-Shan Wong BSc ACIAT C.Build E MCABE MCIQB RMaPS Cert CII, in accordance with our Project Managed Service.

DESCRIPTION OF BUILDING

The subject property is a mid terraced property converted into 4 no flats, located in a residential estate on a plot that is level.

CIRCUMSTANCES OF DISCOVERY OF DAMAGE

The leaseholder of flat 2 first discovered the damage during Autumn 2014 when they decided to put their flat on the market to sale, but advised that hairline cracking appeared earlier in the year.

NATURE AND EXTENT OF DAMAGE

Description and Mechanism

Flat 2 is located to the RHS of the ground floor. Damage is in the form of tapering diagonal cracking to the rear addition of flat 2, affecting the open kitchen/lounge, bathroom and rear bedroom.

There are also signs that the floor has dropped internally.

The indicated mechanism of movement is downwards movement towards the rear.

Significance

The damage would be placed in category 2 of the BRE Digest 251 classification, Slight.

Onset and Progression

The damage appears to have occurred over a period of time and is of cyclical nature.

SITE INVESTIGATIONS

A site investigation was undertaken by CET Safehouse comprising of an exploratory excavation together with a CCTV survey of the nearby drains. The results show that the property is built off a 550mm crushed brick and clinker foundation, extending down to an overall depth of 800mm onto a clay subsoil.



The soil testing results showed that the moisture content is low down to 2.5m with high suctions also found at this level.

Roots were present down to 1.8m and were found to have originated from a Plane tree.

CAUSE OF DAMAGE

The foundation of the property in the area of damage is likely to have been built at a relatively shallow depth, bearing onto shrinkable clay subsoil. The soil is susceptible to movement as a result of changes in volume of the clay with variations in moisture content. In this case, the damage has therefore been caused by clay shrinkage subsidence following moisture extraction by nearby vegetation.

We believe that a number of trees growing within the policyholder and 3rd party owners' garden are contributing towards the damage.

RECOMMENDATIONS

Following receipt of the root identification, we appointed Oriel Mitigation whom arranged for an arboricultural report to be prepared to establish the influence of all the nearby vegetation.

The report highlighted Plane trees growing within back to back 3rd party garden and the Willow within the policyholders' own garden.

Although the tree within the policyholders own garden was not identified as the roots taken within the ground investigation, it was felt due to its size and distance that this needed to be removed. This was subsequently removed back in July 2016 following a storm that has caused part of it to blow over.

The 3rd party Plane trees are protected by Tree Preservation Orders and as such, evidence was required before a decision is to be made.

MONITORING

A programme of level and crack width monitoring has been installed at the beginning of 2015 where regular readings has been undertaken even after the removal of the policyholder's Willow tree.

The latter monitoring following removal of the Willow tree continued to show further subsidence of the site which suggest that the Plane trees which roots has already been identified from our earlier site investigation is still continuing to show that it is leaching moisture from beneath the foundations.

FURTHER AUTUMN 2016 DAMAGE



During the month towards the end of October and beginning of November, we have had contact from the remaining flat owners, these being Flat 1, 3 & 4 all reporting damage occurring to the rear section of their flats that required our inspection.

An inspection has since been undertaken which has revealed the following additional damage:

Flat 1 (Ground floor left-hand flat)

There is tapering diagonal cracking to both the rear left-hand & right-hand bedroom walls. There is also secondary cracking to the adjacent hallway.

Flat 3 (First floor flat above flat 1)

There is tapering diagonal cracking to the rear left-hand lounge and secondary cracking to the adjacent hallway.

Flat 4 (Second floor flat above flat 3)

This flat has been completely refurbished over the last two years where the walls had been replastered. However, there are signs of cracking forming to the rear left-hand bedroom, rear right-hand kitchen and hallway where the diagonal cracking has caused the bathroom door to start sticking where the walls has dropped.

Flat 2 has also been reporting further escalating damage since our initial inspection but was unavailable to provide access during our inspection.

CONCLUSIONS

Taking an overview of all the site investigation and monitoring results referred to above along with the escalating damage which at first only affected the rear section of flat 2, but now the rear section of all four flats, it is my opinion that the building is still being affected by clay shrinkage subsidence brought about by the continual action of roots from the remaining Plane trees located to the rear adjacent gardens which had been identified by our earlier ground investigations.

If these trees can be removed, then this will allow structural stability to return to the building structure, allowing only structural repairs and redecorations to take place. Costs will then be in the region of £35,000.00.

However, if these trees are not removed, then I consider from the results of the monitoring and escalating level of damage that it may be necessary to consider underpinning the foundations of the property in the area of damage in addition to undertaking superstructure repairs and redecorations at significant costs. Otherwise, damage will return every summer/autumn in periods of dry spells. The costs for these works along with the need for alternative accommodation will be in the region of £150,000.00.

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We will now arrange for Oriel Mitigation along with OCA arboriculturalist to start the process of securing removal of the offending trees.



Yiu-Shan Wong BSc ACIAT C.Build E MCABE MCIQB RMaPS Cert CII
Specialist Subsidence Team – Building Consultant

