



**INSURANCE CLAIM: ENGINEERING APPRAISAL REPORT**

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This report is prepared on behalf of Zurich Personal Lines 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.

Name of Insured:



Address of Insured:

113 Priory Road, LONDON, NW6 3NN

Situation of Damage:

113 Priory Road, LONDON, NW6 3NN

Date: 12/03/2020





## **INTRODUCTION**

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The technical aspects of this claim are being overseen by our Building Consultant Michael Whittington BSc(Hons) MCIQB AssocRICS, in accordance with our project managed service.

The claim is primarily concerned with damage throughout the top floor flat (Flat C). A sketch plan and photographs are attached and all references to the property are as observed facing the front of the building.

## **DESCRIPTION OF BUILDING AND SITE**

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The subject property occupies the top level of an extended detached house, which has been converted into 3 self contained flats, constructed in circa 1900, in a residential estate on a plot that is level.

## **DISCOVERY AND NOTIFICATION**

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Circumstances of Discovery	Cracking noted during 2015 after policyholder purchased Flat C in 2014. Policyholder has confirmed that the Local Authority have been monitoring cracking within the communal stairwell / hallway for the past 2 years. Policyholder has also confirmed that the cracking within their flat appears to have progressively got worse since the start of September 2019. Increased damage was then reported to Camden Council, who advised Policyholder to notify their Insurer with regards to damage.
Subsequent action	Insurer have requested for Sedgwick to attend and confirm if current damage is subsidence related.
Claim notification	Insurers were notified on 08/10/2019.

## **NATURE AND EXTENT OF DAMAGE**

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Description and Mechanism	The main area of damage is to the rear master bedroom and takes the form of separation and tapered cracking noted to internal and external walls  Further cracking and signs of distortion to flooring throughout Flat C has also been noted.
Significance	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..
Onset and Progression	We consider that the damage has occurred recently. It is likely that movement will be of a cyclical nature with cracks opening in the summer and closing in the winter.

## **SITE INVESTIGATION**

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

The site investigation has been undertaken by CET Ltd on 16<sup>th</sup> January 2020. For precise details of the trial pit and borehole location, together with test results, please refer to the attached CET 'Site Investigation Factual Report'.

A trial pit was excavated to the depth of 1.00m, which revealed a brick corbel foundation on a 100mm thick crushed brick foundation to a depth of 750mm bearing upon stiff clay, which is classified as being highly shrinkable. A borehole was sunk within the trial pit to a depth of 1.60m which confirmed very stiff clay between 1.00m down to 1.60m. The borehole was also noted as being too dense to hand auger at the depth of 1.60m due to a gravel obstruction and was noted as being dry and open upon completion.

In-situ soil testing was undertaken and a shear vane reading of 115 (Kpa) to the underside of the foundation was measured and further readings of 140 (Kpa) (which is the maximum reading for this type of vane tester) were also taken at 1.00m and 2.00m. The above readings would indicate that the soil conditions at these levels are dry and very stiff.

Roots up to 5mm in diameter were noted at the underside of the foundations (750mm) and within the borehole down to a depth of 1.60m. Four roots were analysed and found to be alive and originate from Pomoideae gp. Further roots up to 1mm in diameter originating from the species Acer spp were also noted within the borehole down to a depth of 1.60m.

Such roots are considered to originate from vegetation within close proximity to the rear elevation of the subject property.

A CCTV drainage survey was undertaken to the drains located within close proximity to the rear elevation. The survey revealed a Condition Grade B (cracks and fractures observed) and confirms that localised repairs are recommended including to excavate and replace gully and 1 LM of pipe work.

#### **CAUSE OF DAMAGE**

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Based on the information detailed above, we are of the opinion that damage has occurred due to clay shrinkage subsidence. This has been caused by moisture extraction by roots altering the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

#### **MITIGATION**

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We consider the damage will not progress if appropriate measures are taken to remove the cause. In this instance it is likely that vegetation for which the policyholder and other private owners are responsible is contributing toward the cause of damage.

We will instruct our mitigation centre to open up dialogue with the local authority of Camden Council, with regards to their vegetation.

#### **MONITORING**

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Due to the close proximity of the vegetation and the fact that we have positively identified tree roots below foundation level, it has been recommended that a monitoring exercise is to be instructed (within flat C), in order to determine a pattern of cyclical movement.

#### **REPAIR RECOMMENDATIONS**

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We have not decided on the final type of repair required as our investigations have not yet been concluded. This involves undertaking superstructure repairs and redecoration. This decision has been taken based on our knowledge and experience of dealing with similar claims. In addition the results of the Site Investigation and laboratory testing have been taken into account.

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**PROJECT TEAM DETAILS**

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Michael Whittington BSc(Hons) MCIOB AssocRICS - *Building Consultant Specialist Subsidence Team*  
Bee Andrews - *Claims Technician Specialist Subsidence Team*

