



Subject Property Address:

57 Nassington Road
LONDON
NW3 2TY

INSURANCE CLAIM

CONCERNING SUSPECTED SUBSIDENCE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of Zurich Personal Lines 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.



Continuation / 2



Date: 07/04/2021



INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Simon Cope ACIOB, in accordance with our Project Managed Service.

1.1. Description of building

The main property is a Detached house constructed circa 1901 in a suburban location on a plot that is considered generally to be level.

The property also has, a single storey extension to the rear right hand area of the building.

1.2. Discover of damage

The policyholder and homeowner, Dr John Lill first discovered the damage in Autumn 2020. Policyholder started to note some cracks appearing to the property, so asked a local builder to inspect and advise on repairs but the builder had concerns over subsidence, so the policyholder contacted insurers.

1.3. Nature and extent of damage

Description and Mechanism: The main area of damage is to the Main house. This pattern of cracking indicates a mechanism of downward foundation movement towards the left and rear areas of the main house.

- i. Significance: The BRE Digest 251 - Assessment of damage is 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.
- ii. Onset and Progression: Dr John Lill has advised that damage first commenced in Autumn 2020. We consider that the damage has occurred. 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.

2. SITE INVESTIGATIONS

A site investigation was carried out by CET on 28th January 2021 to confirm the cause of damage/Extent of mitigation. The investigation comprised of exploratory excavations to the left & rear elevations of the main house, plus a CCTV drain survey of the whole property.

The results of the site investigation confirm that :-

Trial Pit 1 – Left hand elevation of main house

The foundation detail at this location was un-confirmed due to the depth of excavation required. The trial pit was abandoned at 1200mm deep, therefore the foundations would appear to be deeper than 1200mm below ground level. The borehole confirmed that the ground conditions to be of a medium compact, moist, brown, silty, sandy clay with brick fragments & gravel. The borehole ended at 1600mm below ground level. Fibrous roots were noted at 1600mm below ground level. A sample of the clay material was tested at a depth of 1500mm below ground level, which found the clay to be of medium

shrinkage potential and the sample analysed, indicated that desiccation had taken place. Water table level was noted at 1400mm below ground level.

Trial Pit 2 – Rear elevation of main house

The foundation detail at this location was again, un-confirmed due to the depth of excavation required. The trial pit was abandoned at 1200mm deep, therefore the foundations would appear to be deeper than 1200mm below ground level. The borehole confirmed that the ground conditions to be of a medium compact, moist, brown, silty, sandy clay with brick fragments & gravel, to a depth of 2100mm below ground level. Underlying this was a firm to stiff, wet, brown, grey, silty clay which extended to a depth of 3200mm below ground level, where the borehole ended. Roots were noted at 2000, 2500 & 3200mm below ground level. The roots have been identified as POPULUS roots. Samples of the clay material were tested at depths of 1500 & 2500mm below ground level, which found the clay to be of medium shrinkage potential and the sample analysed, indicated that desiccation had taken place. Water table level was noted at 1300mm below ground level.

A CCTV drain survey was also undertaken, which revealed defects to the RWG on Run 1 plus blockages to RWG (Run 2) and RWG (Run 3), which will be required jetting out and further drain surveys undertaken by CET.

3. MONITORING

We consider that level monitoring is required. This is to confirm the operation of a clay shrinkage subsidence mechanism, for potential recovery prospects and to assist with securing tree mitigation works.

4. CONCLUSIONS

4.1. Cause of Subsidence

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.

4.2. Recommendations

4.2.1 Mitigation:

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 the local Authority are responsible is contributing toward the cause of damage. We will instruct Sedgwick Mitigation Centre to commission an arboricultural report from PRI UK Ltd, to identify suitable tree mitigation works. We will also instruct drain repairs and further investigations, as per the recommendation within CET's factual report.

4.2.2 Repair:

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

Continuation / 5



decision has been taken based on our knowledge and experience of dealing with similar claims. In addition, the results of the Site Investigation, laboratory testing and monitoring have been taken into account.

On behalf of Sedgwick International UK

Simon Cope ACIOB ACABE BDMA Claims Prct
Building Consultant



Your claims technician: **Toni Jex**

