

Policyholder: 

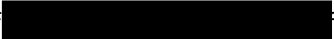
Subject Property Address:

9 Barnard Way
Bretton
Peterborough
PE3 9YZ

INSURANCE CLAIM

CONCERNING SUSPECTED SUBSIDENCE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of  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: 10/04/2019

Our Ref: 6871066

INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Andrew Knibbs BSc(Hon) BDMA Claims Prct, in accordance with our Project Managed Service.

DESCRIPTION OF BUILDING

The subject property is a Detached house in a residential estate location on a plot that is level. The overall layout is recorded on our site plan.

The property also has a conservatory.

DISCOVERY OF DAMAGE

The policyholder and homeowner, [REDACTED] first discovered the damage in Summer 2018.

Over summer months, Policyholder has noticed some cracks appearing in the living room and the hallway and the policy holder wanted to check if it was structural damage or if it's just the plasterboard. Contacted insurers to inform of damage.

NATURE AND EXTENT OF DAMAGE

Description and Mechanism

The main area of damage is to the to the rear and left of the property and takes the form of tapering diagonal cracking.

This pattern of damage indicates a mechanism of downwards movement towards LHS.

Significance

The level of damage is moderate, and is classified as category 3 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings.

Onset and Progression

[REDACTED] has advised that damage first commenced in summer 2018.

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 INVESTIGATIONS

A site investigation has been arranged to confirm the cause of damage

Two trial pits were excavated at the property the first to rear of the conservatory and revealed a concrete strip foundation sat at 850mm below external ground level on a brown fine to medium gravelly sandy silty clay. This was proved to a depth of 1.8m where the borehole was terminated as too hard to bore further. The second trial pit was located to the front left corner and revealed a concrete strip foundation 1.3m below external ground level a brown fine to medium gravelly sandy

silty clay. This was proved to a depth of 3m where the borehole was terminated. Soil and root samples were obtained for analysis.

The soil was found to have a Plasticity Index in the range of 21 to 40 indicating a clay soil of medium volume change potential. The moisture content profile at depth indicates that mild desiccation is still present in the soil, particularly from the underside of the foundation.

Five sets of roots were obtained, extending to a depth of 2.3m and laboratory examination has found that all the roots originate from QUERCUS (Oak) or the related CASTANEA (Sweet Chestnut).

The drain at the the property was also surveyed and The CCTV survey revealed no defects to the drainage system which could be allowing the escape of water in the area of concern

The results of the ground investigation indicate that the clay soil has been affected by the drying action of the tree roots. Although the drain under the building is cracked, and may be leaking, there is no evidence that this

MONITORING

We consider that level and crack width monitoring is required. This is to confirm the operation of a clay shrinkage subsidence mechanism. The monitoring has been installed and the base readings obtained this will continue on a 6 weekly basis.

CAUSE OF DAMAGE

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 variations in the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

RECOMMENDATIONS

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 Local Authority is responsible is contributing toward the cause of damage.

Repair

We have not yet decided on the final type of repair required, but have produced an outline of the most likely requirements. This involves undertaking superstructure strengthening, 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, laboratory testing and monitoring have been taken into account.

Building Consultant

Mevish Rashid
Claims Technician

