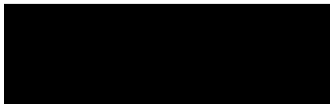


Cunningham Lindsey

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Subject Property Address:

25 Frognal
London
NW3 6AR

INSURANCE CLAIM

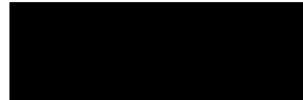
CONCERNING SUSPECTED SUBSIDENCE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of Legal & General 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: 14/02/2018





INTRODUCTION

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

DESCRIPTION OF BUILDING

The subject property is Semi detached house in a suburban location on a plot that is terraced from front to back. The overall layout is recorded on our site plan.

The property also has a two storey extension to the right hand and rear elevations of the main house.

DISCOVERY OF DAMAGE

The policyholder and homeowner, Mr Neil Bruce, first discovered the damage in Early 2017.

The insured noted h/l cracks in the house but noted that these had increased significantly after returning from summer holidays, in August 2017. The insured's brother is an Architect who recommended a structural report. Redbourne Consultants were appointed to carry out a structural survey/ report - advised that subsidence was taking place.

NATURE AND EXTENT OF DAMAGE

Description and Mechanism

The main area of damage is to the internal areas of the property, to all 3 levels and takes the form of tapering vertical cracking to junction of house/ extension, stepped cracking below windows, tapering diagonal cracks to structural openings, cracking to ceilings and to coving details

This pattern of damage indicates a mechanism of Downwards movement to front and rear areas of the property.

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

Mr Neil Bruce has advised that damage first commenced in Late 2016.

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. The damage to the rear area of the property appears to be progressive, with cracks steadily continuing to open.



SITE INVESTIGATIONS

A site investigation will be arranged to assist in identifying mitigation measures

The ground investigation was carried out by Auger on 17th January 2018. For details of the trial pit and borehole locations, together with test results, please refer to the attached Auger factual report.

Trial Pit 1/Borehole 1

This was located at the front right corner of the main house

The underside of the foundation is at 1500mm below ground level with the foundation comprising brick masonry, bearing onto a fine to medium, gravely, silty clay which extends to a depth of 1900mm below ground level, where the borehole ended. Roots were discovered at a depth of 1600mm & 1800mm below ground level, therefore roots were present at underside level, of foundations. This type of soil is consistent with drift geological survey maps, for the region.

Atterberg limit testing was carried out on the samples taken from the borehole, with shear vanes recorded at between 20- 150 kpa and the plasticity index of the clay soils indicating that the clays are of an intermediate plasticity, with volume change potential. Full details of the laboratory results are included within the attached Auger report, for reference. The shear vane results would indicate that desiccation of the clay sub soils appears to have taken place on this occasion, hence why the soils have been influenced/ affected by the adjacent tree.

Samples of root taken from beneath the foundations have been analysed and originate from the PRUNUS and LIME groups of trees.

Trial Pit 2/ Borehole 2

This was located at the rear left corner of the rear extension

The underside of the foundation is at 950mm below ground level with the foundation comprising 750mm thick concrete detail, bearing onto what appears to be a fine to medium, gravely, silty clay to a depth of 3000mm, where the borehole terminated. . Roots were discovered at a depth of 1000mm & 1500mm below ground level, therefore roots were present at underside level, of foundations. This type of soil is consistent with drift geological survey maps, for the region.



MONITORING

We do not consider that monitoring is required.

CAUSE OF DAMAGE

Taking an overview of all the site investigation results referred to above, it is my opinion that the cause of damage to the property results from clay shrinkage subsidence brought about by the action of roots from the action of tree roots, located within the policyholder's property and adjoining properties also.

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 policyholder and other private owners are responsible is contributing toward the cause of damage. We will now instruct the Mitigation Centre of Oriel Services Ltd in this regard, following their initial inspection and production of subsequent report, by OCA UK Limited. They will liaise with the owners of all trees to ensure suitable mitigation measures are achieved.

Repair

We have decided on the final type of repair required and have produced an outline of the requirements. 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.

For Cunningham Lindsey:

Simon Cope ACIOB
Building Consultant

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