sedgwick

[redacted]

INSURANCE CLAIM: ENGINEERING APPRAISAL REPORT

Name of Insured:

Address of Insured: Camden Arts Centre, Arkwright Road, LONDON, NW3 6DG

Situation of Damage: Camden Arts Centre, Arkwright Road, LONDON, NW3 6DG

This report is prepared on behalf of 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.

Date: 25/06/2019 [redacted]

[redacted]

ENGINEERING SUMMARY

INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Mark Wood BSc(Hons), ICIOB, Cert CII, BDMA Ins.Tech, in accordance with our project managed service.

The claim is primarily concerned with damage to the Front left hand corner of the Arts Centre. A site investigation has been arranged to to provide evidence for Third Party recovery

SITE INVESTIGATION

The site investigation has been undertaken by CET Ltd on 7th May 2019 and for precise details of the results please refer to the attached Site Investigation report.

The contractor was instructed to excavate two trial holes, one to the left flank and the other to the front left hand bay window to the front left corner of the property.

The first trial hole to the left flank elevation extended to a depth of 1.3m and established that the flank elevation has a 300mm thick concrete strip foundation founded 1.1m below ground level. The underlying subsoil consisted of a stiff mid brown / orange silty clay.

A hand augered borehole was sunk to a depth of 5m, the stiff mid brown / orange silty clay at the underside of the foundation remained consistent to a depth of 1.3m where the soil changed to a stiff orange-brown silty clay. This soil remained consistent until 1.5m where the soil became a stiff orange-brown silty clay with claystone nodules and crystals until completion of the borehole at 5m. Laboratory testing has shown that the clay soil to be of a very high plasticity.

Roots up to 1mm diameter were noted at the underside of the foundation. The roots were analysed and found to originate from Pomoideae species (Apple, Pear etc) and Ligustrum (Privet hedge) therefore emanating from the Policyholder / Local Authority's vegetation sited to the left flank of the risk address. Roots up to 1mm diameter were also noted in the borehole to a depth of 1.6m. These roots were analysed and again found to originate from Pomoideae species (Apple, Pear etc) and Ligustrum (Privet hedge) therefore emanating from the Policyholder / Local Authority's vegetation sited to the left flank of the risk address.

The second trial hole to the left hand bay window extended to a depth of 1.4m and established that the front bay has a 400mm thick concrete strip foundation founded 1.2m below ground level. The underlying subsoil consisted of a stiff fragmented mid brown / orange silty clay with crystals.

A hand augered borehole was sunk in the borehole, the stiff fragmented mid brown / orange silty clay with crystals at the underside of the foundation remained consistent until 1.4m where it changed to a stiff fragmented orange-brown silty clay with crystals. This soil remained consistent until completion of the borehole at 1.6m where the borehole was aborted as the soil was too stiff to auger. Laboratory testing has shown that the clay soil to be of a very high plasticity.

Roots up to 1mm diameter were noted at the underside of the foundation. The roots were analysed and found to originate from Hedera or Fatsia species (Ivy) and Prunus species (Cherry, Plum etc) therefore emanating from the Policyholder / Local Authority's vegetation sited to the front left hand corner of the risk address. Roots up to 3mm diameter were also noted in the borehole to a depth of 1.6m. These roots were

analysed and again found to originate from Prunus species (Cherry, Plum etc) therefore emanating from the Policyholder / Local Authority's vegetation sited to the front left hand corner of the risk address.

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 moisture extraction by roots altering the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

This view is based upon the fact that the foundations of the front left hand bay window and left flank elevation are founded on a shrinkable clay subsoil which is susceptible to movement as a result of changes in volume of the clay, which in turn have affected the foundations. Roots are present within the clay subsoil beneath the foundation of the front left hand bay window and left flank elevation.

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

We have appointed the Mitigation Centre of Oriel Services Ltd, a sister company of Sedgwick, to visit site and prepare a report with recommendations for tree works to stabilise the risk address and then pursue the recommended tree works with the Policyholder / Local Authority.

MONITORING

A period of level monitoring has been instructed and the initial installation completed. Readings will be taken at eight week intervals and we will update you once the next readings have been taken.]

DRAINAGE REPAIRS

The CCTV survey of the drains to the left flank of the property highlighted some minor defects to the drains.

As there is subsidence related damage to the left flank of the property, we recommend drainage repairs are undertaken, which once complete, will also assist with mitigation of the surrounding vegetation as the continued monitoring will be able to demonstrate seasonal movement due to tree related clay shrinkage subsidence particularly as the risk address is Listed and in a Conservation Area.

REPAIR RECOMMENDATIONS

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.

Following our initial inspection a reserve of £47,500 was set for superstructure repairs and redecoration works if all mitigation works were undertaken and the risk address stabilised.

Following our initial inspection an estimated maximum loss of £500,000 was set which is the figure for a worst case scenario if mitigation was not undertaken and in order to stabilise the property we had to undertake foundation stabilisation. The estimated maximum loss is based upon installation of a piled raft throughout the entire risk address, with associated superstructure repairs and redecoration works. The cost of these works would be higher than for a domestic property as the risk address is a large Listed Arts Centre and specialist contractors would be required to undertake the underpinning works, floor works, repairs and redecoration works to reinstate the risk address back to its pre-damaged condition. The Arts Centre would also have to close while these extensive works are undertaken which would also incur costs to source and rent alternative office space, classrooms, galleries etc.

PROJECT TEAM DETAILS

Mark Wood BSc(Hons), ICIOB, Cert CII, BDMA Ins.Tech - *Building Consultant Specialist Subsidence Team*
Kerry Gilbert - *Claims Technician Specialist Subsidence Team*

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