Engineer's Report

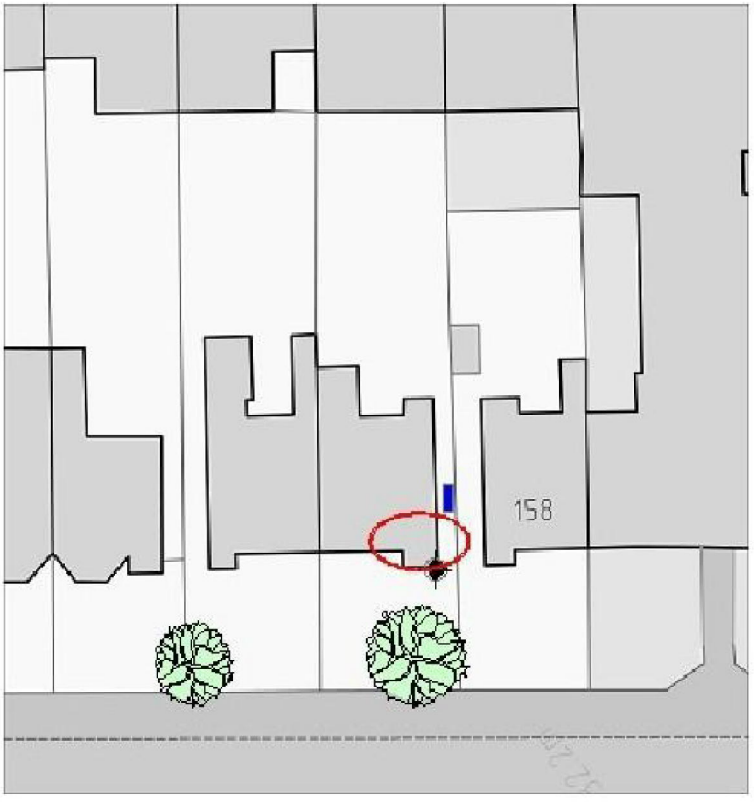
Our Reference	**IFS-CIS-SUB-11-0031154**
Claim Reference	[redacted]
Prepared for	**The Co-operative Insurance**

Claim Details:

Report Date	**30 October 2011**
Policyholder	**Mr Blagbrough**
Address	**160 Camden Road, London, NW1 9HJ**

SITE PLAN NOT TO SCALE

This plan is diagrammatic only and has been prepared to illustrate the general position of the property and its relationship to nearby drains and trees etc. The boundaries are not accurate, and do not infer or confer any rights of ownership or right-of-way. OS images provided by Dotted Eyes.



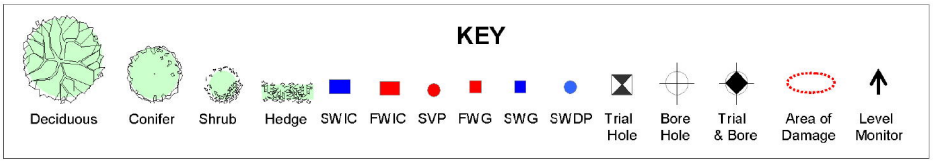


FIGURE 1 Site Plan

INTRODUCTION

We have been asked by your building Insurers to comment on suspected subsidence damage to the above property. Our report briefly describes the damage, identifies the cause and gives recommendations on the required remedial measures.

Our report should not be used in the same way as a pre-purchase survey. It has been prepared specifically in connection with the present insurance claim and should not be relied on as a statement of structural adequacy. It does not deal with the general condition of the building, decorations, services, timber rot or infestation etc.

Investigations have been carried out in accordance with the guidance issued by The Institution of Structural Engineers. All directions are given relative to an observer facing the front of the property. We have not commented on any part of the building that is covered or inaccessible.

CIRCUMSTANCES

The property suffered from subsidence in 1990 due to tree root encroachement of the nearby Plane tree in the policyholders front garden which is subject to a preservation order. The policyholder then discovered cracking at the junction between the porch and the house and subsequently discovered damage elsewhere in the property. The Plane tree is on a three year pruning regime and is due to be pruned next year.

PROPERTY

The property is a ground floor flat in a two storey semi-detached house of traditional construction with solid brickwork walls surmounted by a gabled tile covered roof.

The property has 2 bedrooms. The property is a converted house with a two storey basement flat at the bottom and two storey first and second floor flat at the top.

FIGURE 2 Front Elevation

HISTORY

Date of Construction	1840
Purchased	1989
Policy Inception Date	19 December 2008
Damage First Noticed	19 September 2011
Claim Notified To Insurer	10 October 2011
Date of our Inspection	21 October 2011

ADEQUACY OF BUILDING SUM INSURED

The current building sum insured is considered adequate

TOPOGRAPHY

The site is level with no adverse features.

GEOLOGY

Reference to the 1:50,000 scale British Geological Survey Map (Drift Edition) suggests the drift geology of the site is No drift geology recorded overlying a solid geology of London Clay.

VEGETATION

The following vegetation was recorded as being within potential influencing distance of the property:-

Type	Height	Distance	Owner
Plane	25m	8m	Policyholder

DAMAGE RELATING TO THE CLAIM

The following is a summary of the damage relating to the Insurance claim, including any damage noted in the same vicinity, with supporting photographs where appropriate. Our report and damage description should not be used in the same way as a pre-purchase survey and should not be relied on as a statement of structural adequacy or general condition of the property.

INTERNALLY

The damage internally consists of cracking to the ground floor bathroom within the basement. There is an existing movement joint between the section under the porch and the remainder of the property. This has now moved beyond the maximum scope that it was designed for. Within the two reception rooms there is minor cracking (1-2mm) above the entrance doors and into the cornice work.

There is also some minor movement between the rear projection and the main house.

EXTERNALLY

Externally, the main damage to the property is at the junction between the porch and the main house. The maximum separation is between 3-4mm. There is significant cracking on the floor of the porch at the junction of where the porch and threshold of the house meet. There is also some cracking to the front elevation at low level with a maximum crack width of 2mm.

There are some undulations to the paving but consider this to be acceptable given the nature of the subsoil in that area. The policyholder also had a CCTV survey completed to the drains and found a large number of roots within the drainage system. I suggested that there is possible another claim for AD to drains and that he should submit a further claim with his insurers due to this.

FIGURE 3 other image

FIGURE 4 other image

FIGURE 5 other image

FIGURE 6 other image

DAMAGE CATEGORY

It is common practice to categorise the structural significance of the damage in accordance with the classification given in Table 1 of Digest 251 produced by the Building Research Establishment. In this instance, the damage falls into Category 2 (Slight).

Category 0	Negligible	<0.1 mm
Category 1	Very Slight	0.1 - 2mm
Category 2	Slight	>2 but < 5mm
Category 3	Moderate	>5 but < 15mm
Category 4	Severe	>15 but < 25mm
Category 5	Very Severe	>25mm

Extract from Table *1.* B.R.E Digest 251
Classification of damage based on crack widths

INVESTIGATIONS

SITE EXCAVATIONS
Site investigations will shortly be undertaken by a specialist contractor.

MONITORING
6 level visits will be undertaken at 8-week intervals.Level monitor perimeter of property. Access required to rear via locked gate.

DISCUSSION
The diagonal aspect of the cracks, together with the fact that they increase in width with height is indicative of subsidence as a result of shrinkage of the clay subsoil due to the moisture extracting influence of the London Plane within the front garden.

REQUIREMENTS
In view that the damage to the property is considered to be as a result of an insured event, a valid claim arises under the terms of policy cover, subject to the applicable excess. In order to stabilise the property and prevent further damage occurring in the future, the cause of the movement needs to be addressed, with site investigations being required.

Following completion of tree management works, the property will then be monitored to reaffirm stability.

Provided the property stabilises as expected, no foundation stabilisation works are considered necessary, with structural repairs of the superstructure being required only, together with internal redecoration of the damaged rooms.

Generally cracks 1mm wide or less will be filled (internal) or re-pointed (external). Internally, where the cracks are wider than 1mm, but less than 5mm the underlying brickwork or blockwork will be exposed and prior to making good the plaster finishes the cracking will be covered with expanded metal lathe. Where cracks are 5mm across or wider, some form of bed joint reinforcement will be introduced.

Daniel Willett
Engineer
Subsidence Management Services