INNOVATION GROUP

Engineers Addendum Report

This Report sets out in concise terms the nature of the evidence collected and the consultant's conclusions and recommendations

Policyholder, Property & Event Details

Policyholder Name	Mr David Forge	**Date of discovery**	01.10.2018
Risk Address	26 The Glade Epsom KT17 2HB	**Our Ref**	IFS-AVI-SUB-19-0082916
		Date of relevant construction	<<Enter>> Date
Location of damage	Rear left-hand garage extension	**Property Type**	Two storey semi-detached house
Nature of Damage	Seperation movement between main house and extension	**Indicated mechanism of movement**	downward/rotational outwards movement.
Crack Widths	3 and would be classified as moderate.	**BRE Classification**	Category 3
Occupiers' Observations	See below comments from claim inception on 20th June 2019:	**Previous Relevant movement**	Garage door changed due to previous movement, drainage damaged by roots from protected tree.

Comments

A couple of months ago I was looking out the bedroom window I noticed a diagonal crack above the window, on the inside, the crack is wider at the bottom. We have stayed here since 1974 and the garage extension with bedroom above had already been built then. Last year I had to have a new garage door and was told there might be some movement. I cannot see the return wall, as it is on my neighbours. There is a big oak tree on the street in front. I have had trouble with my drains last year and they had to be relined. My builder friend to a look advised that I should contact my insurer.

Investigation Evidence

Examination by Building Professional	Yes	Brad Jenkins			BA PgDip Cert CII ICIOB		
Trial Hole/Bore Hole Excavations	Yes	C49712G22423 - TP/BH1				Date of related SI	06/08/2019
CCTV Drainage survey	Yes	The drains are not implicated in the damage				Date of Drain survey	09/12/2019
Soil Laboratory Testing	Yes	Shrinkable soils	Yes	Desiccated soils	Yes	Date of related SI	23/07/2019
Root Analysis	Yes	Quercus spp. Roots discovered to 0.7m further live roots down to 1.6m				Date of related SI	22/07/2019
Arboriculture Assessment	Yes	T1 - OAK (TPO) implicated as casue of damage				Date of related SI	24/07/2019
Heave Risk after tree removal	<<Select>>	Assesed By					
Building Monitoring	Yes	Crack Width	No	Level/Distortion	Yes	Date of related SI	25./10/2020

Monitoring to date confirms: Seasonal movement observed with around 10mm of seasonal movement to the front left corner of the main house

Supporting Comments: Further unrelated crack monitoring was undertaken to confim if the crakcing to the bay forms part of the claim. As no significant movement observed, this area is to be excluded.

Repair Scope

If prompt vegetation removal	Only Superstructure repairs required	Initial likely cost of repairs	£2,687.00
If NO vegetation is removed	Lolicased piling of front elevation	Potential additional costs	£30,000.00

Supporting Comments: Lack of avalible space to the front of the property would rule out a root barrier and the depth of roots rules out traditional mass concrete underpinning. Localised piling of the front elevation and garage required to prevent ongoing differential movement.

Conclusions & Recommendations

The arborist has identified T1 Oak to be removed to satisfy the current claim requirements. The tree is owned by the insured and is age category 3 which means it is significantly older than the property. The arborist also makes an assessment of vegetation that may pose a future risk. TPBH1 yields that the House foundation comprised of brick wall to 600mm bgl, bearing on concrete to 800mm bgl and founded on Firm brown slightly silty CLAY. Gravel is fine Firm brown slightly silty CLAY. Gravel is fine. Roots were found to 1800mm and identified as Quercus spp. are oaks (both deciduous and evergreen). The roots had abundant starch which means that they are alive. TPBH2 yielded that the Bay foundation comprised of concrete to 400mm bgl, bearing on concrete to 600mm bgl. Roots were found to 700mm and identified as Quercus spp. are oaks (both deciduous and evergreen) and also had abundant starch. The soils have a high volume change potential. The drainage report identifies damage to Run A,B, C and D. Conclusion: Often in subsidence there may be multiple events occurring as in this case. The tree needs to be removed as per the arborist report and the drains repaired. There may need to be a heave potential done prior to tree removal and a period of monitoring once the tree is removed to ensure stability is reached prior to going to repairs. Odometer testing instructed to rule out heave upon removal of the tree.

Report Prepared By	Brad Jenkins	BA PgDip Cert CII ICIOB