

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 Mark Buckley	Date of discovery	20/08/2022
Risk Address	11 Butts Lane, Egglecliffe, Stockton-on-Tees, TS16 9BT	Our Ref	IFS-LBG-SUB-22-0102249
Location of damage	Internally and externally to the rear left-hand parts of the property.	Date of relevant construction	01/01/1965
Nature of Damage	Cracking internally to walls and wall/ceiling junctions and externally to the brickwork	Property Type	Two storey detached house
Crack Widths	3 and would be classified as moderate.	Indicated mechanism of movement	Downward rotational movement towards the implicated vegetation.
Occupiers' Observations	The policyholder noted cracking internally and externally in August 2022	BRE Classification	Category 3
Comments		Previous Relevant movement	None noted

Investigation Evidence

Examination by Building Professional	<input type="checkbox"/> Yes	Stephen Rutherford	BSc (Hons) MCIQB
Trial Hole/Bore Hole Excavations	<input type="checkbox"/> Yes	Firm desiccated high plasticity clay soils below the damaged areas	Date of related SI <input type="checkbox"/> 15/11/2022
CCTV Drainage survey	<input type="checkbox"/> Yes	The drains are not implicated in the damage	Date of Drain survey <input type="checkbox"/> 19/10/2022
Soil Laboratory Testing	<input type="checkbox"/> Yes	Shrinkable soils <input type="checkbox"/> Yes	Desiccated soils <input type="checkbox"/> Yes
Root Analysis	<input type="checkbox"/> Yes	Live Salix (Willow) and Pinus (Pine) roots below the foundation to 1.6m	Date of related SI <input type="checkbox"/> 11/11/2022
Arboriculture Assessment	<input type="checkbox"/> Yes	Recommends removal of T1 Pine and T2 Willow (Weeping)	Date of related SI <input type="checkbox"/> 18/11/2022
Heave Risk after tree removal	<input type="checkbox"/> No	Assesed By	Stephen Rutherford stephen.rutherford@innovation.group
Building Monitoring	<input type="checkbox"/> Yes	Crack Width <input type="checkbox"/> No	Level/Distortion <input type="checkbox"/> Yes
Monitoring to date confirms	Seasonal recovery during winter 2022/2023. Downward movement May to June, recovery during wet July and downward mvt Aug to Oct.		
Supporting Comments	The monitoring shows seasonal movement, with the only anomaly being the recovery noted between June and August 2023. However this can be explained by the very wet July that was experienced in 2023 when the ground would have rehydrated.		

Repair Scope

If prompt vegetation removal	Only Superstructure repairs required	Initial likely cost of repairs	£9,000
If NO vegetation is removed	Stabilisation or intervention	Potential additional costs	£50,000
Supporting Comments	If the implicated trees remain in-situ, it will be necessary to either stabilise the damaged areas of the property via underpinning or piling, or install a root barrier to stop influence from the tree roots. Specialist advice will be sought regarding a suitable design.		

Conclusions & Recommendations

The subject property is a two storey detached property with 4 bedrooms constructed circa 1965. The rear part of the left-hand attached single garage has been converted into living accomodation. The policyholder noted cracking to the rear left-hand parts of the property in summer 2022. A claim was notified to insurers in August 2022.

The site investigation has confirmed that the cause of the subsidence is clay shrinkage. The foundations to the damaged area of the property are 550mm deep and bear on a firm clay soil of high plasticity with adequate bearing capacity. The clay soil is desiccated to a depth of 3100mm with roots to a depth of 1600mm. The roots were identified as emanating from the Pine and Willow trees, which we are aware to be T1 Pine and T2 Willow in the neighbouring garden the rear left of the risk address.

The drains at the property were surveyed and a minor defect noted to run D. Given the ground conditions this defect is not a factor in the subsidence damage at the property. We did however recommend to the policyholder that they arrange for repair of this minor defect. The cost of the repairs cannot be accepted under the subsidence claim.

Given the above factual evidence we conclude that the neighbouring Pine (T1) and Willow (T2) trees are the cause of the subsidence at the property. The trees are protected and therefore a period of monitoring has been carried out to confirm the influence of the implicated trees. The monitoring has shown seasonal movement, with the only anomaly being the recovery noted between June and August 2023. However this can be explained by the very wet July that was experienced in 2023 when the ground would have rehydrated slightly. Seasonal downward movement was noted between August and October 2023. A TPO application is to be submitted seeking approval to remove T1 and T2. If the application is approved, we will ask the third party to arrange for removal of the trees. If the TPO application is refused and the trees remain in-situ, we will obtain a design and estimate for stabilisation/intervention and then appoint solicitors to seek recovery of the cost of these works from the local authority. Once the damaged areas of the property are stable we will then proceed with repair to the damaged areas.