# **Engineers Conclusion Report - Site Investigations**

## Flats 1-5 232 Camden Road London NW1 9HE

Following the occurrence of possible subsidence at this property which has resulted in crack damage and distortion a site investigation was undertaken on 16 February 2020.

### Supporting Evidence

### Nature and Extent of Damage

Externally, in the rear light well the left hand flank of the brick retaining wall was cracked by up to 25 mm in width and displaced adjacent to the conservatory.

The masonry steps providing access to the light well were cracked at the junction with the end wall of the rear addition by 2 mm in width.

The concrete paving slabs adjacent to the light well in the rear garden were uneven.

Internally, in the lower ground floor flat a minor vertical crack was present in the rear conservatory at the junction of the party wall and rear wall of the main house with the crack extending externally upwards.

During the summer the rear Upvc door to the conservatory was difficult to open and close.

We understand the drainage to the rear has backed up relatively recently.

The damage would be described as Category 3 using the BRE 251 Classification.

## Trial Hole 1

A trial hole was excavated adjacent to the end wall of the rear addition within the light well and that revealed a concrete strip foundation with the underside 700 mm below ground level sat on moist very stiff brown silty clay.

The ground conditions continued to a depth of 3200 mm below ground level where the trial hole was terminated.

The excavation remained dry on completion.

### **Laboratory Analysis**

Analysis of soil samples taken from Bore Hole 1 revealed clay of very high plasticity that would be subject to volumetric change with changes in moisture content.

The site investigation was undertaken in the wetter winter months although there is evidence to suggest that the clay may have been desiccated in the dry summer and autumn of 2019.

A root found below foundation level was from a Palm tree or similar.

### Conclusion

It is probable that the rear crack damage has been caused by tree root induced clay shrinkage.

## Next Steps

On the basis of the Site Investigation evidence we will instruct an Arboriculturist to inspect and provide recommendations on the extent of mitigation works required.

We trust the above and enclosed is of assistance. In the meantime, should you have any queries, please do not hesitate to contact our office.