



PHILIP GOACHER ASSOCIATES

Consulting Civil and Structural Engineers

Park House • 122a Newland Road • Worthing
West Sussex • BN11 1LR

Our Ref: PJG/am/19399/001

Your Ref:

Ms Patricia Tilney
13 Cissbury Road
Broadwater
BN14 9LD

18th December 2019

BY EMAIL: PAT-TILNEY@NTLWORLD.COM

Dear Ms Tilney,

Re: **TIMBERLEY, THE STREET, EAST PRESTON, BN16 1HU**

I was pleased to meet you at the above property on Wednesday 18th December 2019 in order to provide a report on the likely cause of damage to the concrete driveway and to discuss potential remedial options.

The inspection and report have been carried out in accordance with the Consulting Engineer's Conditions of Appointment Agreement No.3, which is attached. I comment as follows.

1. The property was a bungalow, probably constructed in the 1960s, in the grounds of Preston Hall.
2. The concrete driveway was located to the north and east side of the property and covered approximately 260m².
3. Where possible to inspect, the construction of the concrete driveway appeared to be approximately 50mm of concrete, unreinforced, and laid directly onto the soil.
4. It is understood that your father laid the concrete drive himself in the 1970s.
5. It is understood that there were three trees in close proximity to the concrete driveway, which had tree preservation orders. Two of the trees were located adjacent to the driveway at the point where the main drive, which ran north-south, turned towards the east. The trees were of substantial size, with what appeared to be three main trunks each, and being probably around 20m high.
6. The concrete drive had lifted significantly close to the south tree with the TPO. The lifting had led to cracking, distortion and failing of the concrete likely to be due to tree roots. Evidence of what was likely to be tree root related lifting, cracking and movement was present elsewhere, also likely to be due to the trees with the TPOs.
7. You pointed out to me that the timber add on garage structure to the east side of the brick garage suffered from a sticking up and over door. The concrete floor slab having been ground down on several occasions to make the door fit. This would appear to be due to the effect of the tree roots.

8. Conclusions

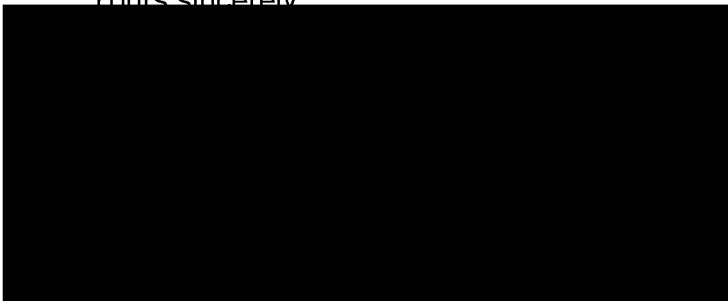
- 8.1 The concrete drive, being probably between 40-50 years old and only 50mm thick, is likely to be reaching the end of its life. However, in the area of the drive to the north, which is away from the trees with the TPOs, the drive is in reasonable condition, without significant evidence of distortion.
- 8.2 In the area where the trees are present there is clear movement which is almost certainly related to lifting of the concrete by growing tree roots over the past 40-50 years, the concrete is badly damaged and this is leading to trip hazards and a safety risk.
- 8.3 From past experience, tree management is not likely to satisfactorily prevent future damage to the drive, and hence removal of the trees would appear to be the only suitable method of preventing further damage from occurring in the future. However, this will need to be confirmed by an arboriculturist.
- 8.4 The concrete has reached the end of its life and replacement of the drive is recommended, however a hard surface finish will inevitably move again if the trees remain.

9. Recommendations

- 9.1 Subject to confirmation from an arboriculturist, to prevent future movement to a replaced concrete drive, the trees will need to be removed.
- 9.2 Should the trees remain, then a non-hard surface solution will be recommended and hence a gravel or possibly a Grasscrete finish may be suitable, although this would require careful design to avoid damage to the roots which, if removal is not allowed under the TPO, then protection of the roots will be necessary.

I hope the enclosed is satisfactory, but should you have any queries please do not hesitate to contact me.

Yours sincerely



Enc