Full Structural Inspection

Client	Fourwalls Property Management Ltd.
Address	60 Summerhouse Lane, West Drayton UB7 0AW
Date of Inspection	12th June 2025
Reference	25165

Structural Engineer

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STABUILD

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1.0 INTRODUCTION

This report follows the convention of denoting left and right while viewing the front façade of the property from the main entrance to the property.

2.0 OBJECTS AND SCOPE OF INSPECTION

The Client requires an inspection and report on the general structural integrity of the property.

3.0 THE SITE

The property is a two-storey semi-detached house.

4.0 OBSERVATIONS

Front façade
Evidence of new brickwork and repointing is noted around the ground level bay window (refer to **Figure 4**).

A vertical crack is noted in the top-right corner of the front entrance in the arched lintel (refer to **Figure 5**).

Left flank façade
Evidence of new brickwork and repointing is noted at ground level (refer to **Figure 6**).

A diagonal stepped crack is noted in the bottom-right corner of the ground level toilet window (refer to **Figure 7**). A diagonal stepped crack is also noted in the top-left corner of this window (refer to **Figure 8**).

Loose brickwork is noted above the small window at ground level (refer to **Figure 9**).

A diagonal stepped crack is noted in the external flank wall towards the front of the house at first floor level (refer to **Figure 10**).

Rear façade
A Leyland Cypress and Yew tree are noted in the rear garden (refer to **Figures 11** and **12**). The trees are approximately 4m and 9m away from the rear façade and approximately 8m and 10m tall, respectively.

Ground level
Some warping and cracking is noted in the wallpaper adjacent to the chimney breast (refer to **Figure 13**).

A horizontal crack is noted in the bottom-left corner of the bay window (refer to **Figure 14**). A further horizontal crack is noted in the bottom-right corner of this bay window (refer to **Figure 15**).

A vertical hairline crack is noted in the top-right corner of the toilet door (refer to **Figure 16**).

A diagonal crack is noted on the right-hand side of the toilet window (refer to **Figure 17**).

A horizontal crack is noted in the underside of the downstand beam in the rear bedroom (refer to **Figure 18**).

First level
A diagonal crack is noted in the wall paper in the top-left corner of the front bedroom window (refer to **Figure 19**).

Horizontal cracks are noted in the flank wall of the rear bedroom (refer to **Figure 20**).

Loft level
No structural defects noted.

5.0 EVALUATION & CONCLUSION

The London and surrounding areas are well known to be built upon clay soils which are of high plasticity. For the purposes of this report, it is assumed that the soil is indeed of a clay composition. In order to confirm this assumption boreholes would need to be drilled at the property by a specialist. In the course of this investigation soil moisture levels should also be determined.

According to the NHBC guidelines, the Leyland Cypress and Yew tree is a low water demand tree. Therefore, the recommended minimum foundation depth required at the rear of the property in order to avoid subsidence is 1m. Taking into account the age of the property, it is possible that the foundations at the rear are shallower than 1m therefore, the trees are deemed a threat to the structural integrity of the property.

The cracks highlighted in this report could be due to mild subsidence, especially the diagonal cracks noted in the flank wall. Therefore, to eliminate further structural movement, the two trees highlighted in this report should be removed by an Arborist.

The root system from the nearby trees may have damaged the nearby drainage system. Damaged pipework can cause excess water to be distributed to the soil causing ground movement. A drain expert such as Dyno-Rod should be hired to investigate the drains. If a fault in the drainage system is discovered that is causing leakage this should be repaired as soon as possible.

Prior to repairing the cracks in the masonry walls, the lintels above the windows and door in the flank and front facades should be exposed and further assessed. If the lintels are noted to be damaged, they should be replaced with adequate lintels designed by a structural engineer.

Helibars are to be installed over the cracks in the masonry walls at every three courses of brick. The minimum thickness required for the helibars are 8mm and should bear at least 500mm in to the brickwork at each side of the crack. Once the helibars are installed, the brickwork is to be repointed to make good. When repointing any cracking to the mortar the area should be raked out to a depth of at least 20mm to provide a good key for the new mortar. The mortar to be used should match the existing mortar. This should be lime or cement based and should be determined by the building contractor on site.

PHOTOS

Figure 1 – Front façade

Figure 2 – Flank façade

Figure 3 – Rear façade

Figure 4

Figure 5

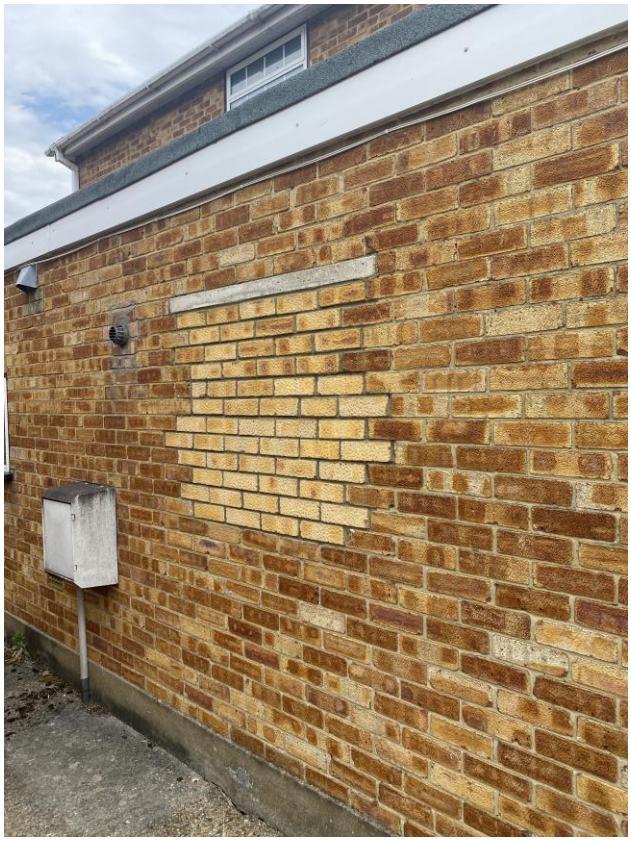

Figure 6

Figure 7

Figure 8

Figure 9

Figure 10

Figure 11

Figure 12

Figure 13

Figure 14

Figure 15

Figure 16

Figure 17

Figure 18

Figure 19

Figure 20