

Peter Mountain MCIOB

Associate:

Richard Mountain BA Hons, MRICS

Tel: 01494-772264

Email: petermountain.100@gmail.com

Mr A. Purvey
Maunder Taylor
Brosnan House
Byng Drive
Potters Bar
Herts, EN6 1UR

Ref: cracks-mt01
9th February 2023

Dear Alan

Re: LYNTON GRANGE
Cracking in 3 & 4

I visited this building on 7th February 2023 to investigate the cracking reported in the ground floor apartment No. 3. Whilst on site I also looked at the cracking inside apartment 4, also on the ground floor.

The cracks in both 3 and 4 are minor, mostly hairline and not serious. They do show some slight movement but none are serious at present. In No. 4 there is a larger horizontal crack in the plaster above a window opening but the lessee reported that this had occurred during window replacement and the crack does not relate to any building movement.

I inspected externally and noted that there are 2 large trees growing just inside the west boundary fence less than 3m from the side wall of Lynton Grange. These trees have been trimmed in the recent past.

On the external walls of the building there are a number of minor cracks in the brickwork at ground and 1st floor levels. Many of these appear to be associated with window replacement but building movement cannot be ruled out as a possible cause of these cracks.

Between the tree trunks and the wall of the building a sewer runs between two inspection chambers.

It is possible that the tree roots have damaged the drains and that they are also affecting the building causing some movement.

I showed photographs of the above to a Chartered Structural Engineer, Ken Amblin. His initial response from only viewing the photographs was:

"Having looked at the photographs I think that this is certainly likely to be a concrete framed building with beam and block upper floors."

The size and location of the trees shown would certainly cause considerable damage in a clay sub soil if there were trench fill foundation and therefore as the cracking is limited and primarily horizontal between the perimeter and internal walls I think that this building is likely to have a piled foundation with reinforced concrete ground beams which are resisting the shrinkage effects of the trees.

The internal wall is likely to be non load bearing and therefore potentially constructed off the ground floor slab which is likely to be a suspended reinforced concrete slab supported on reinforced concrete beams. These should not be affected by changes in the moisture content in the clay but loading on the ground floor and the first floor could result in small movements which could break the bond between the internal blockwork wall and beam and block floor over.

It is therefore more likely that the cause of the cracking is movement of the floor slabs and these could be raked out and a flexible sealant installed suitable for decorating or alternatively a coving installed

In any case the drainage should be checked for leaks close to the trees."

The action I recommend is:

1. Check the drains for possible damage from tree roots and repair if necessary. The examination should be carried out by a specialist drain inspection contractor.
2. Cut down the two tree trunks. Even if they are not affecting the drains or building during summer months they keep all light of a large part of the west side of the building.
3. Carry out minor brick repairs, including repointing as part of the forthcoming external repair & repainting works.

Photographs are appended.

Yours sincerely

A handwritten signature in cursive script, reading 'Peter Mountain'.

Peter Mountain



Crack between wall & ceiling in 3



Ceiling pattern in 4, probably beam & block floor above



Trees within 3m of west wall, Drain inspection chambers under large terra cotta pots



Typical cracking of brick joints above right end of window