



Structural
Engineering
Consultants

16 Commerce Square,
Lace Market,
Nottingham
NG1 1HS

Saturday, 30 September 2023
Ref: 2023_342

Listed Property Management
122 Loughborough Road,
Bunny
NG11 6QS

Via Email

Subject: The Lodge, 2 Dyke's End, Collingham, NG23 7LD –Site Inspection

Dear Paul,

As requested, a site inspection was carried out at 2 Dyke's End in Collingham on 21st of September 2023 to assess some potential structural defects previously identified within the property.

Defect 1

The first defect inspected were the rotten timber elements of the basement ceiling. During the visit it was noted that a number of the timber joists (providing support to the ground floor) seemed soft and spongy, likely indicating timber decay.

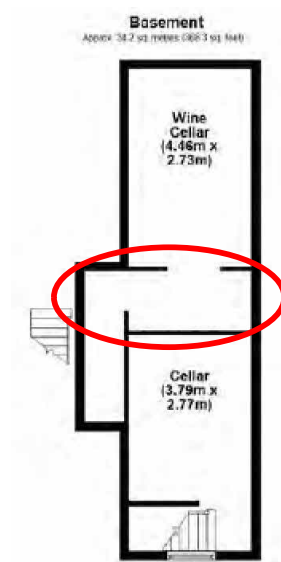


Figure 1 - Section of basement ceiling with rotted timbers (red circle)



The inadequate ventilation in the basement is likely to be the cause of the rotted timbers.

Most of the timber joists have damaged sections which if left in their current state could lead to further damage and risk of the floor collapsing.

It was not possible to determine the extent of the timber decay during the visual inspection. However, we believe that the most economical and structurally adequate solution would be replacing the damaged timber elements with new sections with a minimum size of 50x100 C24 at max 400mm ctrs.

Use 2No. 50x100 C24 (max 1.4m long) as trimmers where required.

We recommend that the damaged elements be replaced one at the time ensuring that the surrounding structure are adequately propped.

Attempting a repair of the damaged members may be impracticable based on the limited headroom and the possibility that it will not solve the problem in the long term.

Defect 2

The second potential defect inspected was the brick arch above the cellar entrance at the bottom of the stairs (accessed from outside).

A minor crack/separation (which appears to be historic) was noted to the central section of the brick arch lintel over the opening. An old cast iron pipe seems to go through the chimney flue behind the arch. It is assumed that this pipe used to source heat to the house. It is likely that the cracked brickwork was caused by the expansion action of the hot pipe.

The arch and the wall above it did not appear to be unstable, therefore the affected area of brickwork only requires repointing with lime mortar.

Defect 3

The third and last defect inspected was the cracked sections of wall at each corner of the conservatory.

The cracks were not significant and do not seem to be compromising the stability of the walls.

These cracks were likely to have been caused by a combination of shallow foundations and the roots of the nearby tree.

Based on the size of the cracking, at this stage it is recommended that the cracked sections be repointed with lime mortar.

Should the cracks reappear after the repair, further investigation may be required to determine the condition of the foundation.



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We trust the above to be sufficient for you to proceed with the required repair works. Should you have any questions, please do not hesitate to contact us.

N.B.: See photographs attached below.

Your sincerely,



Giovanni Barbieri B.Eng., M.Eng.
Structural Engineer

PHOTOGRAPHS



Image 1 – Rotten timber to basement ceiling



Image 2 – More basement ceiling joists which may require replacement



Image 3—Minor crack to brick arch lintel over basement door



Image 4—Cracking to conservatory wall (left side)



Image 5 – Cracking to conservatory wall (right side)