



SIMPLIFY
STRUCTURAL ENGINEERING

Head Office:

Leicester Office: 6 Frederick St, Units 6 & 7
Wigston LE18 1PJ, Tel: 0116 218 2917
E: info@simplifyengineering.co.uk

Property Address:

7 The Laurels, Markfield, Leicester, LE67 9HA

Job Ref.

S6620

Description:

General Structural Inspection and Report

Page no.

1

Prepared by:

DB/RS

Date:

23/07/2024

Checked by:

RS

Date:

23/07/2024

Approved by:

RS

Date:

23/07/2024

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1) Introduction – Client Brief

Simplify Structural Engineering LLP (SSE) has been appointed by the client to carry out a General Structural Inspection (GSI) and prepare a report including findings and recommendations at the above-captioned property. The property was inspected on Wednesday 10th July 2024.

The purpose of this report is to provide the client with information regarding the structural condition of the building.

2) Scope of the Structural Survey

The survey and inspection aims were to:

- Visually assess external elevations and accessible internal spaces
- Provide a report describing our observations and findings
- Make recommendations for further actions

This report is produced as a result of a visual, non-disruptive inspection of the above premises. Binoculars were used to inspect roof slopes and higher-level brickwork. I have not inspected the other woodwork, or any other inaccessible parts of the structure, which are covered or unexposed and I am therefore unable to confirm that these parts of the building are free from defects.

The engineer acknowledges the co-operation of the occupants in allowing access to the property at the agreed time and their assistance in the clarification of points raised during on-site discussions.



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3) Exclusions

- Damp proofing, roofing, and waterproofing
- Non-structural systems: electrics, plumbing, heating, non-structural plasters, paints, and renders
- Not exposed, hidden, inaccessible structural elements

4) Client Details

Name of client: Mr. Clive Gamble

Address of property inspected: 7 The Laurels
Markfield
Leicester
LE67 9HA

Project Reference: S6620

Date of Inspection: 10/07/2024

Weather: Cloudy



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5) General Description

The property is a detached bungalow. The building appears to be constructed circa 1980s.

It is a two-bedroom property with a lounge, kitchen and bathroom.

The property is constructed as follows:

Main walls:	Cavity loadbearing masonry walls
Internal walls:	Solid masonry and stud walls with a plaster finish on both sides
Roof:	Traditional pitched slopes, with tiles
Floors:	Assumed ground bearing slab and timber floors



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6) Observations and Findings



Photo 1 – Front elevation of the property



Photo 2 – Rear elevation of the property



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Photo 3 – Recently repaired brickwork due to subsidence movement



Photo 4 – Recently repaired brickwork due to subsidence movement



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Photo 5 – Uneven garden paving



Photo 6 – Large tree in close proximity to rear conservatory

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External wall elevations

The external elevations appeared to be in acceptable condition, except the conservatory wall that indicates subsidence movement and requires further investigation. The movement appears to be due to shallow foundations and impact of tree roots of the adjacent trees and could also be related to defective drainage.

As reported by the next door neighbour, similar cracking was problematic along neighbouring conservatory which after investigation was found to be due to proximity of trees. As the result some trees were removed which reduced/eliminated cracking problems along the adjacent property. It would be advisable to follow the same approach for this property.

Cracks appear for several reasons. They occur when the masonry bricks/blocks expand and contract over time with environmental changes. They can be caused when the foundations of the house move. Some minor cracking occurs naturally and there is no need for concern or action although it is always worth monitoring them closely for any changes.

Generally, houses with shallow foundations, and in areas with clay soil, are susceptible to shrinkage and heave due to the excess moisture being taken away from the ground by trees or other vegetation. Where the fine roots grow through the clay, it desiccates as the soil dries out. If the clay never receives enough rainfall to allow it to swell up it gradually shrinks. If there is a period of sudden continuous rainfall, then the clay will gradually swell again. This might result in any cracks closing slightly. This process continues over a yearly cycle with the clay shrinking and swelling.

Internal walls & ceilings

The internal walls and ceilings are covered with paint and plaster therefore we are unable to confirm that these parts of the building are free from defects. Overall, except the conservatory cracks the internal walls and ceilings appear to be in good condition based on visual non-intrusive inspection.

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Floors

All floors appear to be in acceptable condition, considering the age of the property.

The inspection was visual only, the floors were covered by floor finishes and subflooring, and we were unable to inspect any underlying structure.

Uneven floors are typically the result of the ageing of building materials, historic foundations settlements, ground consolidation and timber creep. Wooden floors could also be damaged due to woodworm infestation, this would not be immediately evident from a visual non-intrusive inspection. As unevenness of floors is typical for a building of this age, we consider the floors to be acceptable from the structural perspective.

Roof

The roof is a traditional timber construction and was in an acceptable condition. The roof tiles illustrated signs of natural weathering throughout. There did not appear to be any significant dislodged tiles, but periodic maintenance work is recommended, and a roofing contractor should be consulted for further advice.

Generally, the roof appears to be in acceptable condition based on internal and external observations only, we have not inspected any covered or not accessible timberwork.

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7) Conclusion and Recommendations

The property appears to be in acceptable condition from the structural perspective, except the conservatory cracks which indicate active subsidence movement. If any new movement and/or cracking is found in the future, it should be reported to a Structural Engineer.

We recommend the following repairs:

1. The neighbouring property documents related to subsidence movement should be obtained for review, if feasible, to determine the full extent of the investigations and findings.
2. An Arboriculturist should be engaged to prepare a tree survey and assess potential impact of trees on adjacent property foundations. Removal of trees should be considered to minimise impact of tree roots on foundations.
3. The rear conservatory should be monitored to establish full extent of movement.
4. A CCTV survey is required to confirm the condition of the underground drainage system.
5. At least 1 trial pit and ground testing is required to confirm depths of existing foundations and ground strength under foundations.
6. Once the testing is completed, a structural engineer should be engaged to develop adequate scope of repairs such as underpinning or ground improvement.

Prepared by:

Daniel Barber and Robert Szymborski, BEng(Hons), MSc, CEng MICE

Site Inspection, Checked and Approved by:

Robert Szymborski, BEng(Hons), MSc, CEng MICE

Director - Chartered Engineer, Simplify Structural Engineering LLP



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8) Terms & Conditions

1. These Terms and Conditions are designed to clarify to the Client the scope and extent of the Survey and type of Report to be undertaken and prepared by Simplify Structural Engineering LLP, Chartered Engineers.
2. The Report will advise the Client as to the Engineer's opinion of the structural elements listed in 1. Instructions - Client's Brief and 2. Scope of Services and which are reasonably accessible subject to the under mentioned restrictions and conditions.
3. It must be pointed out that the Engineer cannot cause damage to someone else's property and, therefore, concealed parts of the building and structure will not be opened or disturbed. Parts of the building which are covered, unexposed or inaccessible will not be inspected and, as such, we will not be able to report or establish the condition in that location. The Engineer will inspect as much of the surface areas as is practicable, and will lift loose floorboards and trap doors where accessible, but will be under no obligation to raise fixed floorboards or to inspect those areas of the property that are covered, unexposed, or are not readily accessible. The Report will not intend to express an opinion about or to advise upon the condition of uninspected parts and should not be taken as making any implied representation or statement about such parts, nor will it list minor defects that do not materially affect the value of the property. Any such defects that may be referred to should not imply that the property is free from other such defects.
4. External inspections of chimney stacks and upper structures will be made if listed in 1. Instructions - Client's Brief and/or 2. Scope of Services and where possible and practical from above or by using a 3.0m telescopic ladder. In the event of easy access is not feasible, binocular inspection will be made as an alternative.
5. Testing of rainwater goods such as gutters and valley gutters will not be carried out, this being beyond the scope of this Structural Survey. Obvious defects visibly apparent at the time of the inspection will be commented upon if listed in the Scope of Services.
6. If foundations are not exposed during the Survey and, therefore, we cannot comment as to the type, depth, and thickness of the foundations, nor are we able to determine the type of sub-soil conditions. Where cracking or distortion is evident in walls, the Engineer will comment and advise accordingly. Calculations to check the strength of the structural fabric will not be undertaken.
7. Fitted floor coverings and heavy items of furniture will not be moved and, therefore, a total overall inspection of the floor structure will not be able to be made. Access to the sub-floor will, however, be made where possible or practical, but will only be gained where access hatches or loose floorboards are made available. This with the express permission of the Vendor.
8. Specialist service tests can be arranged at an additional fee although, unless previously determined, no service tests will be carried out. General overall comments will be made as far as possible and practical. The Engineer will not be responsible for arranging the testing of services unless specifically instructed to do so.
9. Easements, Planning Proposals, and relevant Planning and Building Regulations Approvals are considered to be outside the scope of a Building Structural Survey, although general overall comments may be able to be made.
10. The Engineer reserves the right to reduce or increase the extent of the Survey according to the circumstances.
11. Unless otherwise expressly stated, in making the Report, the following assumptions will be made:
 - (a) that no High Alumina Cement Concrete, calcium chlorate additive, asbestos, or other deleterious or hazardous materials or techniques have been used and that it is impracticable to comment on the state of any wall ties.
 - (b) that the house is not subject to any unusual or especially onerous restrictions, encumbrances, or outgoings and that good title can be shown.
 - (c) that the house and its value are unaffected by any matters which would be revealed by a Local Search (or Search in Scotland) and Replies to the Usual Enquiries, or by a Statutory Notice, and that neither the property, nor its condition, nor its use, nor its intended use, is or will be unlawful;
 - (d) that inspection of those parts which have not been inspected would not reveal material defects.
12. The Report is provided for the sole use of the Client and confidential to the Client and/or their Legal Advisers. The Report is prepared with the skill and care expected of a competent, qualified Engineer, but accepts no responsibility whatsoever to any other person other than the Client. The Report should not be reproduced without express permission from Simplify Structural Engineering LLP. The Engineer will be under no duty to verify these assumptions.