



IKT CONSULTING
STRUCTURAL ENGINEERS LIMITED

IKT0000/DI/01

01 April 2024

Mr A Client
Beeston,
Nottingham,
NG9 0NU

Dear Mr Client,

Re: 0, Park Street, Birmingham, B2 4AL

We were appointed to inspect the property mentioned above, and our report has been prepared specifically in connection with the concerns expressed in a Level 2 Homebuyer's Survey carried out circa November 2023.

This report does not address the general condition of the building, decorations, services, asbestos, damp, timber, rot, or infestation, except where these matters are considered relevant to any structural damage. Our inspection took place on the 9th of January 2024, and the weather at the time was dry and sunny.

While we have used all reasonable skill and care in preparing this report, it should be noted that we cannot offer any guarantee that the condition of the defects will not worsen before any remedial works are carried out.

The property is a detached bungalow built circa 1995. The house comprises traditional construction with rendered brick, cavity and block with a pitched roof covered in tiles. The property has four bedrooms and a conservatory to the rear of the building. A visual inspection of the roof was carried out from ground level and the loft space by visual and optical sighting, without special access arrangements. Destructive or invasive testing was not conducted, and no surface coverings were removed. We cannot comment on unexposed or inaccessible parts of the structure, and it is neither implied nor should it be construed that they are free from defects. All directions are given as if facing the house from the front elevation. Our observations are as follows:

- The roof ridge appeared fairly level and tiles are in fair condition.
- The front projection roof appeared in fair condition.
- The front wall is fairly vertical.
- The rear wall is fairly vertical.
- The left hand gable wall is fairly vertical.
- The right hand gable wall is fairly vertical.
- The roof structure is supported by timber roof trusses, with some missing longitudinal bracing members. See comments and recommendations.
- There were no visible straps tying the gable walls to the roof trusses. See Figure 1, together with comments and recommendations.
- The extension comprises a cut roof system with rafters and purlins and appears in fair condition.





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Our observations and the results of the level survey carried out on the property confirmed that the walls of the house are fairly plumb and plane, showing the usual signs of weathering but are serviceable. The roof slopes and ridge appear 'true' and within acceptable limits, showing no significant dip or deflection, thereby suggesting the roof structure beneath is satisfactory. However, lateral restraint straps and some longitudinal bracings are missing within the loft space.

Galvanized steel lateral restraint straps (structural straps) should be introduced to provide a positive connection between the gable walls and roof (rafters and ceiling joists). See Figure 3. These straps are normally 30mm x 5mm in section and are screwed to the ceiling joists and the rafters and bolted to the wall. The straps are usually spaced at not more than 2.0m centres. Within the main loft space, 10No structural straps should be installed within the left-hand gable and 10No. to the right-hand gable, tying gable walls to the roof trusses i.e. rafters and ceiling joists. Bracing members should be installed to secure the trusses within the loft space. See Figure 4. All strengthening work should be carried out in accordance with Building Regulations Part A.

We would recommend that the roof strengthening work be undertaken in a reasonable timeframe and ideally within the next 12 months, by a suitably experienced builder. For the purpose of our report, we have assumed the cost of necessary strengthening work to be in the region of £1,500 plus VAT. An additional budget should be allowed for the work needed to improve the ventilation within the loft space. The cost of repairs is an assumption made by the Surveyor based on their previous experience. Contractor's estimates may vary dramatically, and we cannot be held accountable if the eventual cost of repair work differs from the Surveyor's assumptions.

In conclusion, the roof structure at this property is in a fair structural condition. Longitudinal bracing members and structural straps need to be installed within the loft space, tying both the gable walls to the roof trusses in accordance with Building Regulations Part A. This report describes the property as it was at the time of inspection. You should, therefore, obtain repair estimates prior to exchanging contracts to ensure your budget meets the cost of the repair work. Within our report, we made a number of recommendations which are of lesser structural significance.

Should you wish to discuss our conclusions, please do not hesitate to contact me. Thank you for your instructions.

Yours sincerely

Mr S. Engineer

Chartered Structural Engineer
BEng (Hons), MSc, CEng, MStructE

For and on behalf of IKT Consulting Ltd

Encl. Photographs and Proposed strapping within the loft space.





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FIGURE 1
Loft space



FIGURE 2
Truss roof without restraint straps.



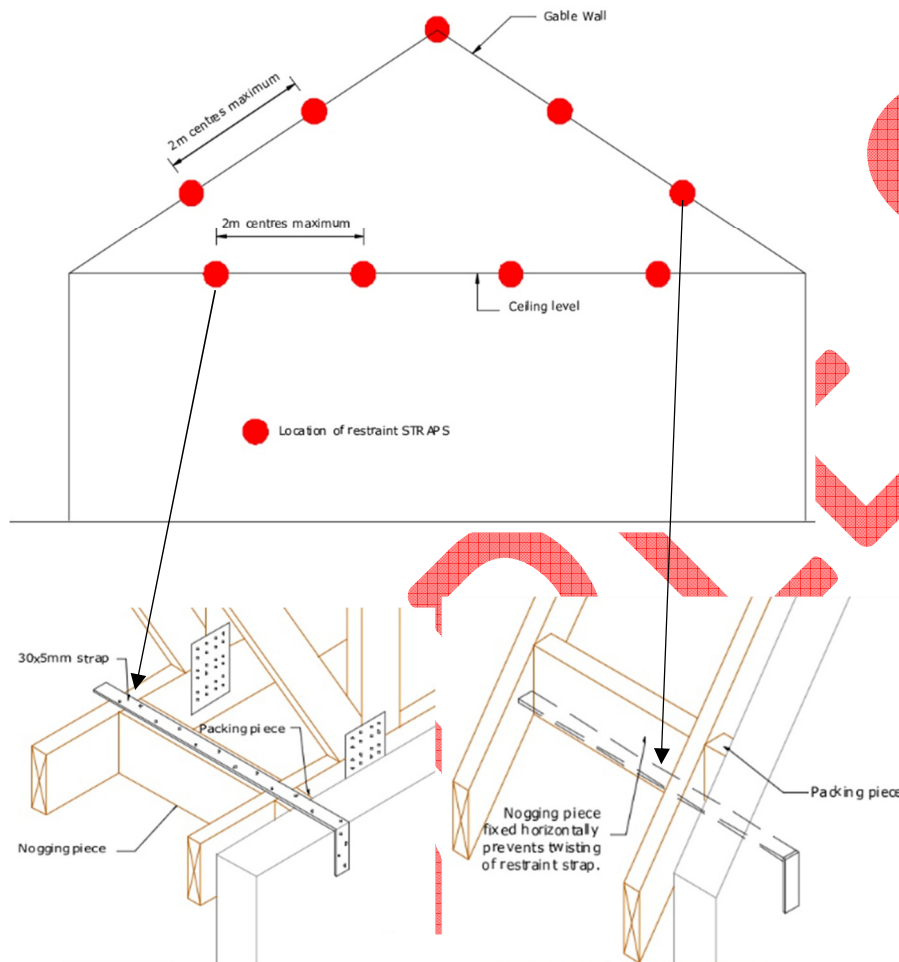


FIGURE 3

Proposed strapping trusses to gable ends at ceiling and rafter level.

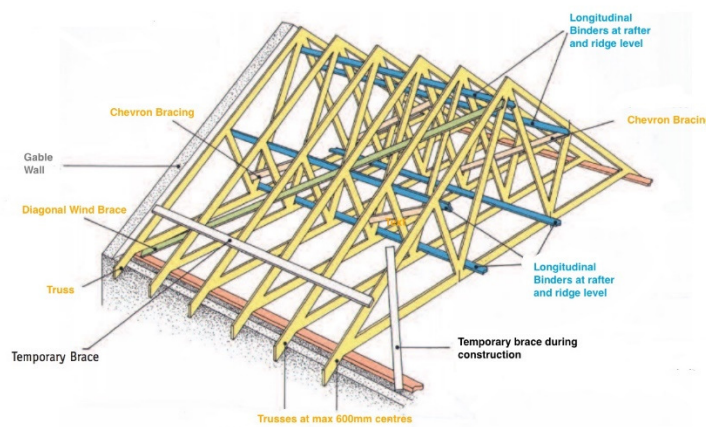


FIGURE 4

Truss roof bracing requirements.

