



CONSULTING ENGINEERS LTD

STRUCTURAL ASSESSMENT
OF
THE STABLE AT
THE RAVENS
CULVERSTON KENT

CLIENT: MRS SANKEY

AGENT: GRAHAM SIMPKIN PLANNING LTD.

DATE: DECEMBER 2023



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THE RAVENS

1.0 BRIEF

We have been requested by the Client to carry out a structural appraisal of the existing building so as to establish its potential for conversion into a domestic dwelling. This report is primarily intended for ancillary information to be read in conjunction with the planning documents and does not constitute a full summary for Building Regulation purposes.

2.0 EXPERIENCE

Trevor Cossey has over 40 years of experience as a structural engineer and has carried out structural assessments and surveys of both new and historic buildings throughout the Southeast. Throughout his career he has concentrated on work associated with building conversions and upgrades and brings a sympathetic approach to his work with older structures. Trevor's qualifications are as follows: BSC (Hons)
C Eng. MStructE.

3.0 DESCRIPTION

The stables are masonry/timber-built, single-storey structure under a pitched, tiled roof measuring approximately 9.5 metres x 3.5 metres on plan with an eaves height of 2.8 metres. Externally the walls are painted masonry blocks at low level with feather edge boarding higher up. With reference to the geological map for the area ground conditions should be favourable comprising clay with flints.

4.0 FINDINGS

For ease of reference each item of the building will be considered in turn and salient points noted in relation to condition and possible need for repair.



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4.1. ROOF

The roof is of a conventional format comprising 100 x 50 C24 rafters and 150 x 50 ceiling joists all at 400mm. Some internal strutting is present together with some high-level collars. In any conversion works it would be prudent to allow for some upgrading works to meet modern requirements for insulation and loadings. The roof tiles, battens, and felt are all in satisfactory and only need some local attention.

4.2. WALLS

The external walls are constructed from 100mm concrete blocks up to 900mm in height and then 100 x 50 studs at 400mm centres on grids B and 4. On grids A and 1 the walls are fully masonry. As mentioned above the blocks are painted and the studs finished with feather edge boarding. Apart from the provision of a new dpc the structural condition of the walls is considered adequate for the conversion.

On grid line A the external earth is back-filled against the wall which is not considered structurally viable. The simplest option would be to cut away the earth from the building and replace with a simple external retaining wall.

4.3. SLAB

There is a concrete slab in position which would be able to be reused once trial holes have been formed to ascertain its structural make up.

4.4. FOUNDATIONS

It is anticipated that simple trench foundations are present which have been effective over the building's lifespan as there is no evidence of any structural distress. In any conversion scheme it would be prudent to have trial holes formed for confirmation purposes.



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5.0 METHOD STATEMENT

In any proposed conversion it is anticipated that a suitably experienced contractor who has prior experience of similar conversions is engaged. The method statement will be produced by the contractor but approved by all interested parties. The fundamental approach to a project of this nature is to ensure the temporary and long term stability of the buildings while the work is underway. The need for temporary supports, suitable sequences of work, and consideration of the existing building elements is paramount. The project will be a team effort to achieve a successful outcome and the present involved parties are suitably qualified to achieve this end.

6.0 CONCLUSIONS AND RECOMMENDATIONS

As previously stated, the purpose of this report was to establish whether the existing building could be converted for domestic use and qualify such conclusions with details of general repair. From our observations we are of the opinion that the proposed conversion is a viable undertaking and that the building is sound and not in need of major reconstruction and can remain standing as existing throughout the construction process. The drawings produced to date, including the existing and proposed layouts can be considered as a logical and sympathetic use of a redundant farm building without involving any major or substantial reconstruction works. As with any scheme of this nature certain elements of the work will be required to meet the building regulation requirements, but these will be primarily concerned with finishes and insulations. The primary structure of the building may be retained without any upgrading.

Trevor Cossey BSc (Hons) C Eng. MStructE