

STRUCTURAL REPORT

Upon

Barns to Rear Of 17 Main Street
Woodnewton
Peterborough
PE8 5EB

For And On Behalf Of

Mrs L. Porter
34 Warrenne Keep
Stamford
Lincs.
PE9 2NX

MRJ Structural Design Ltd.,
Dormer Lodge
18 Harrington Road
Loddington
Kettering
Northants
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Dormer Lodge, 18 Harrington Road, Loddington, Kettering, Northants NN14 1JZ

Your ref:
Our ref: 19343 Report
Date: 4th December 2019

Mrs L. Porter
34 Warrenne Keep
Stamford
Lincs
PE9 2NX

Dear Mrs Porter,

Re: Limited Structural Report, Barns to Rear of 17 Main Street, Woodnewton

Further to your instructions via your architect Colin Moore (CMPS) on 3rd December 2019 to view the existing agricultural barns at the above address, we are pleased to confirm that the above buildings were inspected today and we report as follows.

This survey has been based on a visual inspection of walls, floors and roofs. I emphasise that the inspection constitutes a structural survey with limitations in that the report only contains such advice on the general repair and construction as can be readily ascertained by a visual inspection. This report makes comment on the suitability of converting the agricultural barns to domestic dwellings in line with a planning application recently made to East Northants Council (ref 19_01665) on your behalf by CMPS. The barns were unoccupied at the time of the survey.

Description and Situation

The agricultural barns comprise 2 detached single storey portal frame structures. The barn nearest to Main Street (Barn 1) appears to have been constructed in the 1960's from a Boulton & Paul kit and the barn to the rear of the site (Barn 2) in the 1970's. It is understood the barns have only been used for storage purposes for the past 20 years.

Site and Construction

The property is situated on level ground. It is likely that the barns were constructed on land previously undeveloped and used for agricultural purposes.

There is some vegetation adjacent to the barns that could be affecting its foundations and ground slab.

The main roofs are traditional lightweight roof construction of sheets spanning from purlins onto steel portal frames.

The ground floors are solid concrete construction cast on the ground throughout.

The external walls are 2m high 215mm thick block construction to the newer barn and vertical sheets to the older barn. Internally, the barns are all open plan.

The rainwater is directed to the front and rear of the barns.

Observations and Discussion

There is some vegetation to the south east elevation of Barn 1 (below) and also the south elevation.



There is some vegetation to the southern elevation of Barn 2 (below).





Internally, the vegetation can be seen encroaching in Barn 1 (below) above the horizontal sheeting boards. Portal frame stanchions and raking members are 178x102 UB19, equally divided into 3 bays.

Similarly, light vegetation can be seen encroaching to the inside of Barn 2 (below).



Portal frame stanchions and raking members are 203x133 UB30 sections and divided into 3 bays.

Both barns have continuous concrete slabs to the floor with construction day joints visible. Neither slab show any signs of cracking despite having had heavy farm machinery parked on them in the past (information passed by CMPS). Typically for agricultural barns, slabs can be assumed to be a minimum of 150mm in thickness. It is understood the concrete pad foundations beneath the portal frame stanchions are in excess of 1.0m x 1.0m and founded on ironstone.

Conclusions

The barns are in a sound structural condition despite being unused for a number of years. They would benefit from the removal of surrounding vegetation sooner rather than later.

Local knowledge dictates that the barns are founded on ironstone, meaning there is no likelihood of soil heave.

Both barns lend themselves adequately to conversion into dwellings as outlined in the proposed planning application. Alterations to a zinc roof covering would have a negligible effect on the loading to the portal frame structures whilst it is envisaged new first floor and wall loads would be built off the existing slab and/ or new posts on localised pad foundations.

Bearing in mind the age and condition of the structure and slab, I am confident that they can be retained with only minor adaptation as part of conversion works.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M Buckley', written in a cursive style.

Mark R.J. Buckley