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Dear David

Inspection Report – Barn at Tristan farm, Red Lane, Bordon, GU35 8SR

Brief

Scope and limitations: This is a specific structural inspection report limited in its scope to the problems and/or concerns as noted below. We have not inspected parts or problems which are not relevant to these problems and/or concerns unless noted in the report. The inspection was undertaken externally and internally as necessary, subject to access being available. The inspection was limited to a visual inspection. We have not moved heavy furniture, lifted fitted floor coverings, or made exploratory holes unless noted in the report. The report has been prepared in accordance with the addressee's request and therefore any liabilities which may arise are restricted to the addressee.

Orientation of the property: For the purposes of this report, unless otherwise stated, the front elevation is considered to be that which faces the public road or path from which access to the property is given and all references to left and right are given as if viewing a plan of the property with the front elevation located to the bottom, and the rear elevation located to the top of the plan.

Property Address: Tristan farm, Red Lane, Bordon, GU35 8SR

Task: To inspect and report on the suitability of the barn for conversion to residential use.

Inspection: The property was inspected by Mr Elvin Gomery BEng on 20 January 2023.

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BACKGROUND INFORMATION

Brief Description: The property comprises a single storey agricultural building with single hollow block skin lower blockwork external walls with timber structure above and corrugated roof sheeting. The roof structure comprises timber purlins supported on timber fabricated truss frames with support taken from internal timber posts as well as the external walls. The building is not currently in use.

EXTERNAL OBSERVATIONS

Roof: The roof was inspected from ground level. The roof is gently pitched and covered with profiled fibrous sheeting. The roof structure does sag in some areas but appears generally sound. The roof coverings need repair in some areas and will likely be replaced during any renovation works.

External Walls: Walls are generally in sound condition with no significant out of plumbness. There are some minor cracks which will need repair as part of the renovation works.

Foundations and ground floor slabs: There were some holes excavated on site, these were used to find the existing foundation build up. It was found that the foundations are concrete and extend approximately 0.5m below existing ground level and the concrete foundations are approximately 200mm thick. There are also ground bearing slabs internally which also appear to be 200mm thk. The soil was observed to be very dry and sandy. There appear to be some animal holes/burrows under the foundations and slabs and in some areas these burrows have undermined the foundations and slabs. In these areas the foundation/slabs will need to be underpinned to ensure adequate bearing on the soil beneath.

INTERNAL OBSERVATIONS

Roof Structure: The roof structure is supported on timber purlins which appeared in sound condition. These purlins are in turn supported on timber trusses spanning between the external walls and internal timber posts. The majority of the timber work appeared sound, however some posts were noted to have rotted at the ground slab supporting level and some rafters beginning to rot were supported on the external walls. These timber members were beginning to rot and will need to be repaired as part of any renovation works.

External walls: One of the external side walls is leaning outwards, probably due to foundation settlement possibly due to the underground burrows. This wall will need to be rebuilt and existing foundations underpinned as required.

Ground Floor: The ground floor appears to be of solid, concrete construction in most areas and found to be ground-bearing and appears to be in a generally satisfactory condition. There are some areas where the slab has been undermined by the animal burrows and these areas will need to be repaired

RECOMMENDATIONS AND CONCLUSION: The roof structure and support framing throughout is generally structurally sound, and there are no signs of major movement within the roof. There are signs of some ground movement, caused by the animal burrows, and these areas will need to be repaired/ underpinned. There will be a number of timber repairs needed to posts and rafters due to some rot observed but these can easily be included in the

renovation works proposed for the building. We would therefore recommend that the roof cladding is replaced with a similar composite profiled insulated steel sheet cladding than the original and that any damaged elements of roof purlins, rafters, studs and eaves plate are repaired locally. The leaning external wall will also need repair.

Overall with the noted deterioration and issues noted previously we would conclude that the majority of existing ground bearing concrete slab and external blockwork/timber walls are fit for purpose and adequate to support the existing roof and elevation loads proposed within a residential conversion. The existing building will convert to residential use with the retention of the existing roof framing, concrete ground bearing slab and foundations with all structural elements being fit for purpose subject to repairs during the proposed renovation process.

Yours Sincerely



A – Photographs



External blockwork lower walls and timebr clad timber external walls and metal sheeting roof (Front and side wall)



External blockwork lower walls and timebr clad timber external walls and metal sheeting roof (Side wall)



External blockwork lower walls and timebr clad timber external walls and metal sheeting roof (Rear wall)



Concrete foundations revealed in hole on site, 200mm thk concrete



Concrete ground floor slab revealed in hole, 200mm thk



Internal view of barn showing roof trusses and internal floor slabs and posts



Leaning side wall needs to be re-built



External lower hollow blockwork wall (140mm thk)



Steelwork truss eaves connection detail



Timber roof trusses and posts supported on slabs