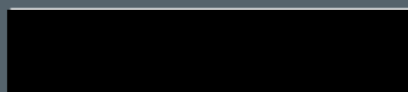


Structural Engineers Report For:

Plas Nantyr, Kennels
Nantyr. LL20 7DD

STRUCTURAL SURVEY

Prepared for:



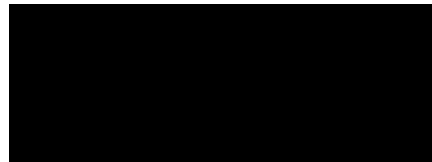
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Document Control

Project	Plas Nantyr, Kennels Nantyr. LL20 7DD
Client	
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Document Checking:

Prepared By: NEDW LLEWELYN **Signed:**



Checked By: MATT JONES **Signed:**



Verified By: MATT JONES **Signed:**



Issue	Date	Status
1	3rd November, 2023	First issue

RE: Structural Inspection – Plas Nantyr, Kennels, Nantyr. LL20 7DD

Following our appointment, we undertook an inspection of the above property, which was performed on Thursday 3rd of August, 2023. The inspection was instructed to survey the property to determine if the structure is adequate for the conversion into a habitable building.

Our findings are restricted to structural matters only. This report is based on a visual inspection of all exposed surfaces.

This report shall be for the confidential use of our client, and the report shall not be reproduced in whole, or in part, or relied upon by a third party without the express written authorisation of Vale Consultancy.

Description

This kennels are a single storey building with a duo pitched roof located near Plas Nantyr Manor House. The building is a solid masonry building with openings in each front and back elevations for the dogs to be able to access their outdoors pens (**photograph 1**).

There is also an underground bunker adjacent to the kennels (**photograph 2**).

Internally there are a series of brick built dividing walls which supports the cut roof internally (**photograph 3**).

The ground floor is a ground bearing slab.

To the rear of the kennels is an adjoining solid random rubble masonry wall, which is part retaining, although mostly collapsed (**photograph 4**).

Observations

Vegetation is heavily overgrown, which hides a large section of the property externally.

The roof structure consists of two purlins per pitch, supporting timber rafters, which subsequently supports corrugated sheet covering. Some areas of roof covering are missing, which has allowed water into the structure. Water ingress into a building can cause degradation in the integrity of masonry buildings, as well as wet rotting of timber elements.

Historically, to the north- western gable was a brick chimney protruding out from the roof pitch. This chimney has since collapsed, leaving a gap in the roof profile and a scar in the masonry gable (**photograph 5**).

All of the soffit fascia and weatherboards are rotted and required replacement.

Recommendations

- It is recommended that the main roof structure is upgraded with modern construction, such as timber rafters and ridge beam. The current roof appears to be defective, with undersized rafters and purlins, with some localised elements of rotting. Subject to the architect/ council's requirements, the finishing of the roof can stay as corrugated sheeting or slates, fixed onto new

treated battens, vapour-porous sarking membrane and insulation underneath to the architect's specification. The new rafters should be fixed on to a timber wall plate, fixed down the external front and rear elevations of the property with stainless steel straps at 1.5m centers.

- We suggest that the north-western masonry gable is tidied up by rebuilding areas on collapsed chimney breast, or removing completely and make good.
- The of the lintels should be closely inspected and if defective, replaced with concrete lintles. We recommend using PCC 140x100mm for these openings, if they are 1.2m or less in span.
- We suggest that the adjoining masonry wall is taken down and rebuilt, if it's required. However, it does appear that there is no current use to this wall.
- We recommend that a new ground bearing slab is poured, unless the current one can be proven to be a minimum depth of 100mm. The new ground bearing slab should be 100mm thick, bearing on a 150mm later of Type 1 material. Insulation and DPM requirements should be provided by the architect.
- New gullies and rainwater goods should be installed around the whole building and connected to a stormwater soakaway a minimum distance of 5.0m away from the building The soakaway should be designed by a competent person, after infiltration testing is carried out on the ground.

Conclusions

It is of our professional opinion that generally the overall structural condition of the barn is adequate and only requires localised rebuild in areas and re-roofing for the barn. No major or extensive structural repairs are required to convert the main shell of the building into a habitable space, and if the refurbishment follows the above recommendations and in line with current building regulations, I would consider the building a good contender for a barn conversion.

If you have any queries regarding this report or require any further information please contact our office at the above address.

Yours sincerely



Nedw Llewelyn BEng (Hons) MSc CEng MICE

On behalf of Vale Consultancy

Enclosed:

Appendix A – Photographs



Photograph 1



Photograph 2



Photograph 3



Photograph 4