



REPORT ON THE STRUCTURAL APPRAISAL

The Stables

The Common

Melbourne

for Victoria Philips



Date	Eng	Reference
Oct 21	SJC	H363-CHG-00-XX-RP-S-0001

Prepared and Approved by

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Document History

Revision	Date	Prepared	Notes
Initial	22/10/2021	SJC	Initial issue

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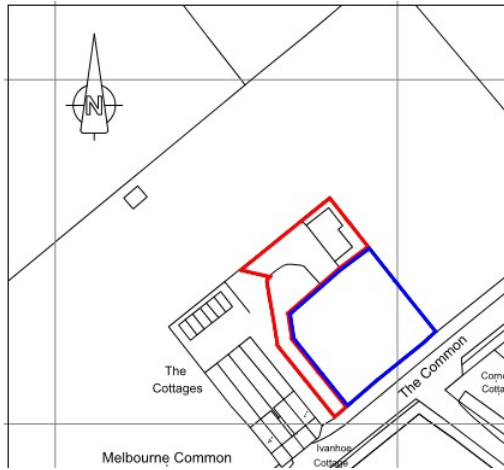
1. Introduction

To undertake a structural appraisal of the existing barn in relation to its overall stability and in relation to its potential conversion for residential use.

To present our findings in the form of a report and provide recommendations for any further investigation or Remedial works.

For the extent and limitations of this report please see the Notes at the rear.

2. The Property



The property is a single-storey former stables comprising three primary areas with a mono-pitch roof situated on a relatively level plot.

The property is in a rural situation with grassed areas to the perimeter and with mature hedging beyond the rear of the structure.

The property has blockwork walls to the perimeter and a ground bearing concrete floor slab together with an assumed asbestos sheeted roof with timber purlins.

The property has a projecting canopy to both the front and rear of the main structure. The open overhang to the front is supported via three exposed steel posts measured as 80mm square hollow sections.

3. Structural Appraisal

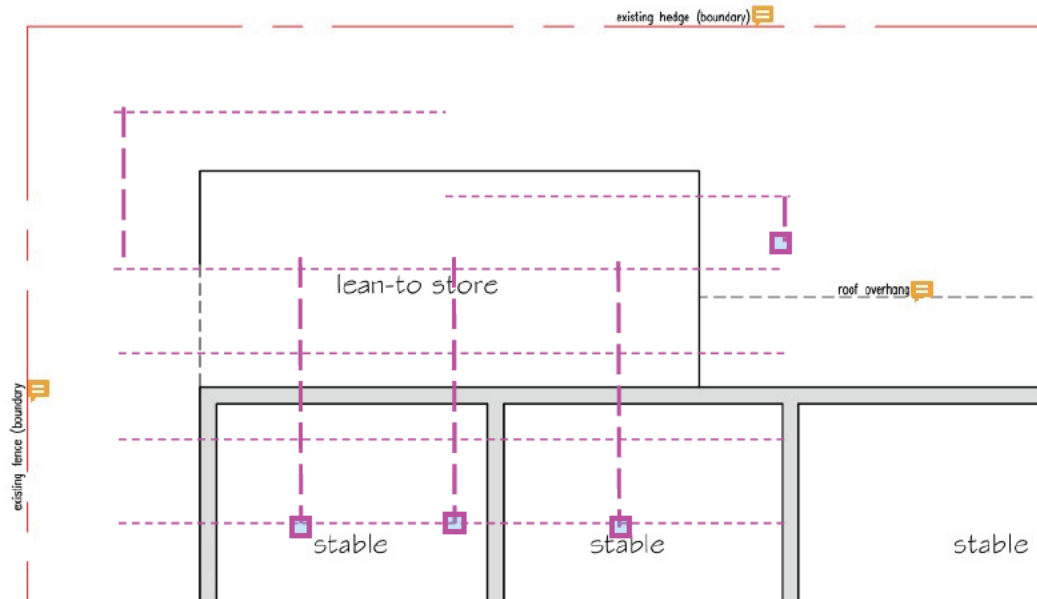


Figure – plan of structural form as existing

The property was viewed from the front elevation and internal elevations together with oblique views from the left and right-hand side gables. Due to plant overgrowth, it was not possible to fully inspect the external rear of the property however walls were observed internally.



Figure – front elevation with expressed steel posts

The steelwork post supporting the canopy to the front door and sound structural condition and whilst local corrosion is evident to the top of a number of plates this could be addressed through cleaning priming and painting elements.



Figure – corrosion to top of column brackets

The timber to the projecting canopy comprises a single purlin which is in the region of 225mm deep – similar to the front to rear primary beams.

Externally the exposed blockwork to the front elevation is in sound structural condition with the being masonry partially protected from the weather by the overhang to the front elevation, although broken sheets are present to the left-hand end. Viewed externally we noted concrete lintels exist to the main doors however timber has been used as a lintel for several windows. The timber lintels are deteriorating and evidence of repointing over the openings has been undertaken. We suggest that these will require replacement with either a steel or concrete lintel.



Figure – timber lintel over window and local re-pointing. Note exposed to elements due to broken roof sheeting

Internally we noted that the fair face block work on all elevations within sound structural condition with no sign of any distortion in the masonry and no sign of any structural movement or recent repairs.



Figure – floor slab cast within masonry walls – not off.

The concrete ground floor slab has been cast within the block work walls and therefore the walls would appear to be built off their own independent foundations. Whilst the foundations were not inspected, the structure is showing no signs of any

instability and as a result the structure is currently in equilibrium with its current environment.

The mono pitch roof with its exposed timber purlins and restraint straps are evident. with approximately 150 x 50 mm purlins spanning across each bay. There is a primary beam spanning front to rear onto the timber posts exposed on the front elevation being approximately 225 x 75 mm in cross-section. And all the timber is in sound structural condition although local deterioration is evidenced towards the supports which may require are the splicing or likely replacing.



Figure – primary beam penetrating front wall with restraint strap and incoming purlins

Externally to the left-hand gable the plain blockwork has been painted and there are signs of weathering to the pointing and masonry. The weathering is not significant in relation to the overall stability or integrity of the structure. Improvements to the thermal efficiency and visual appearance to the structure with an external coating will address any further deterioration of this block work.



Figure – left hand gable

The right-hand gable as viewed from the front is also notionally weathered although there were no signs of any structural fractures, similarly there was no sign of any instability and the block work has a good line and level. There would appear to be a steel column to this rear corner of the property for the canopy and further columns may be present.



Figures – right hand gable

The rear of the property has an overhang similar in principle to that observed at the front however due to the overgrowth surrounding the barn, the detail of the support was not clearly evident however given the inspection of the internal wall being a solid masonry structure with no sign of any deterioration we are content that the structure is stable.

4. Conclusions and Recommendations

The barn structure which we would estimate is in the region of 40 years old, has been constructed simply with blockwork walls, a solid concrete ground floor and a mono-pitch roof. The roof covering appears to be an asbestos sheet which will require removal in accordance with current legislation. The material should be verified by a suitably experienced competent contractors and disposed of in accordance with appropriately.

The structural walls to the stables are in good structural condition with no sign of any deterioration to the block work which would affect its stability and no sign of any movement.

The timber purlins to the roof may require strengthening to supported an increased weight roof covering with an insulated roof and ceiling, however the members as they currently stand are in sound structural condition with appropriate strapping to prevent uplift.

The grounds floor slab comprising a brushed finish in-situ concrete within the block work walls is also in sound structural condition although this may be either topped with a DPM, insulation and screed or replaced to improve the thermal efficiency and potential damp to the property, there are no current defects with this as it stands.

We have no recommendations for any further investigation works in relation to the property at this stage.

Document Authors and Approval

Report prepared and approved by
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Signed Date 22 nd Oct 2021

NOTES

The partnership would be pleased to discuss and advise on any points of difficulty arising out of this appraisal.

Please note that this appraisal is presented on the basis of the following conditions:

- We were required to undertake a visual structural appraisal and prepare a report outlining out findings/observations
- The external elevations were inspected from ground levels only. Interior ceilings and walls were inspected from floor level only.
- Ceiling, wall and floor coverings were not removed to facilitate viewing of the structural fabric behind.
- No inspection has taken place of lintels, floors, roof construction, etc. unless as stated in the body of this appraisal.
- We have not inspected woodwork or other parts of the structure, which are unexposed or inaccessible and are unable therefore to report that such parts of the property are free from rot, beetle or other defects.
- We have not exposed or tested drains, examined bearing strata or foundations or cut into the fabric of the building, except as specifically stated in the body of this appraisal.
- We have not attempted in this appraisal to establish whether or not the construction of the property complies with current Codes of Practice or Building Regulations.
- The areas we have appraised are those inspected in accordance with your instructions. If there are any omissions or if you believe that we have misinterpreted your brief, please let us know immediately. Where we have drawn your attention to items that are outside the scope of our brief, these items should be regarded as observations and not a full and complete assessment of any problems that may exist.
- This appraisal shall be for the private and confidential use of the Client for whom the appraisal is undertaken and should not be reproduced in whole or relied upon by third parties for any use without the express written authority of the Client and Engineer.