

# Longmynd Consultants

Consulting Structural and Civil Engineers

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Yeat Investments Ltd.,  
Rose Cottage,  
3 The Green,  
Brill,  
Buckinghamshire,  
HP18 9RU

Attn. Mr. R. G. Williams

Dear Sir,

**The Mill, Clee St. Margaret, Craven Arms,  
Shropshire, SY7 9DT**

I visited the above site on 4 August 2021 in the company of Jamie Wilson of J. A. Wilson Building and Roofing Ltd. On site I inspected the environs of The Mill but internally access to the upper floors was limited for safety reasons. Jamie has supplied me with the following background information:

1. Report by Wallis Conservation Ltd., dated July 2021.
2. Project Design Studio Ltd. drawings including 'Proposed Site Layout'. It should be noted that this drawing shows topographical levels.
3. Report from Alan Stoyel.

The Mill is a three storey stonewalled structure with tiled duo pitched roof built back into a steep bank on the north flank wall side. To the south side there is a lean to structure with a profiled steel roof. Two later added steel ties were noted at the south east corner.

The dried up mill pond is situated on the top of the north bank.

My inspection noted the following structural problems:

The tiled roof is in a very poor condition with excessive deflection of the roof planes, there are no gutters and plant growth has invaded to roof. I consider that the roof structure will require replacement in it's entirety to include, purlins, rafters and the single roof truss. The truss should be inspected at close quarters since it is possible that the original could be saved and strengthened. In view of the approaching winter and the possibility of further deterioration and possibly collapse I recommend that the roof replacement is made a priority.

The north flank wall has bowed in at ground floor level due to soil pressure and, whilst the wall movement cannot be corrected the pressure can be relieved and the wall propped. Accordingly I

recommend that the wall pressure is reduced as much as possible by excavating away the loose fill behind the wall. However it is important to note that excavation behind the wall should neither compromise the stability of the pond bund nor affect the reinstatement of the cast iron mill wheel feed pipe.

The side wall of the lean to structure has a dominant lean and it is recommended that the wall is reconstructed locally.

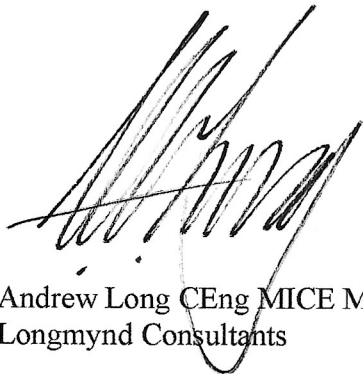
It is very important that the structure is safeguarded short term but that any measures introduced should be compatible with short term renovation works and long term structural stability. Assuming that the reinstatement of The Mill would mirror the existing flooring and mechanical parts then I would recommend that steel ring beams are inserted at floor levels thus providing buttressing support for the walls and also a bearing wall plate for the future floors. At this stage I would expect that these beams could be 150 x 90 PFC's (Parallel flange channel) with 152 x 152 UC cross beams and corner diagonal strengtheners. The PFC's would be connected to the stonework walls with 12 diameter resin anchors at 600 cc. Packers between the PFC's and the stonework will be required to take up unevenness. In view of the potential floor loadings posts against the walls should be allowed for to support the majority of the vertical loads.

The ground floor should be replaced with 175 mm concrete slab reinforced with A393 fabric top and bottom, this will give a flat and dry working floor but also provide foundation for any raking struts found necessary. The slab would have 275 deep edge thickenings which would support any posts. The slab would be cast onto 100 mm of well compacted hardcore between edge thickenings.

It is important that the existing wall foundations are investigated in order to provide parameters to justify existing foundations but also to provide the basis for the structural ground floor slab.

I trust that the contents of this letter provide the basis for progressing this very interesting project.

Yours sincerely,



Andrew Long CEng MICE MStructE  
Longmynd Consultants