

maltech

Consulting Civil and Structural Engineers

maltech (UK) Ltd
1 Newgate
Malton
North Yorkshire
YO17 7LF

Mr Andy Wyatt,
Deepdale Farm,
Bickley,
Langdale End,
Scarborough,
North Yorks. YO13 0LL



10th March 2014

Dear Andy,

**Re: C14005 – Preliminary Structural Inspection of
barn at the above address.**

Further to your request to the above property and our discussions about the viability and methods for converting to domestic usage we report as follows;

On the 24th January 2014 we visited the above property to view the buildings and to advise the Client on suitable ways for conversion to domestic usage. No intrusive investigations were requested or carried out and only points of structural significance have been noted.

Deepdale Farm is an isolated ex-farmstead in rolling countryside on the edge of the North York Moors; it is in the process of being converted into a family home by Mr Wyatt. The barn is a large stone, two-storey building in a raised position above the access road to the main farmhouse. The roof is of corrugated sheeting although it would probably have originally been clay pantiles similar to the other farm buildings. The barn is joined onto the main farmhouse by a single-storey, link building with a clay pantiled roof which has a cat-slide to the rear. At the other end of the barn, and at a slightly low level, is a stone, corrugated-sheeted building with an open gable which would probably have been an old vehicle shed.

The front elevation of the barn is of dressed local stone with lime mortar, an external staircase leads up to a first floor hay loft. Above, and to the left of, the stairs the outer skin of the bulging stone wall has tumbled out leaving the rubble infill exposed. The gutters to the building are dilapidated. The pointing is poor and many of the lintels over doors and windows are in a very poor condition. There are a couple of pattras plates at first floor level at either end of the building, presumably to tie the building together.

The rear elevation is of a similar construction to the front elevation although there is a considerable bulge and a lean of the eaves towards the front of the building. The ground slopes down to the right hand side down to the entrance of the garage.

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Inside the building the right hand end of the barn has a low ceiling forming the floor to the hay-loft above, all of the timberwork is exposed and some of it rotten. The inside faces of the stonework are exposed and there is vertical cracking to each elevation. The main body of the barn, on the left hand side, is open some 7m to the underside of the roof. The roof is supported on rough and slender timbers supported, in turn, by a number of robust timber frames spanning the width of the building. The floor is of dirt and the walls of stone, the rear walls lean towards the front of the building by about 300mm. The top of the front wall leans in a similar manner; there are a number of cracks in the walls.

The floor of the hayloft feels appears to be quite fragile and has a similar roof construction to the main barn; again it looks too slender to support a pantiled roof.

As part of the conversion we expect that the roof will need to be removed in order to be rebuilt in a more substantial manner. The building should be stabilised by a structural scaffolding prior to removing the roof to avoid the wall falling over. Some of the rear wall should be taken down to about 2m above ground level and the wall containing and surrounding the bulge should be dismantled from the front elevation. We recommend that an RC foundation is cast over the floor in order to provide a foundation for the subsequent structure. This will probably need to incorporate thermal insulation to comply with Approved Document L of the Building Regulations. We suggest that perimeter load-bearing, block walls are built to support the subsequent structure which should include a concrete beam and block floor to provide diaphragm action to restrain the external walls.

The block wall should be extended to eaves level and the new roof built off it, the new block walls should be tied to the new and existing stone, outer walls. Cracks can be stitched using helifix methods and the walls should be re-pointed using a lime-based mortar. The damaged timbers in the hayloft floor should be taken out and replaced; the floor should be checked for compliance with the Building Regulations. All lintels should be closely investigated and replaced as necessary using concrete lintels on the inner face.

All works should be properly planned and designed; structural calculations and sketches should be carried out and submitted to Building Control for Building Regulations approval.

Yours sincerely

Eur Ing Alan Mitchell BSc. CEng MStructE
Managing Director

Enc; photographs and floor plans



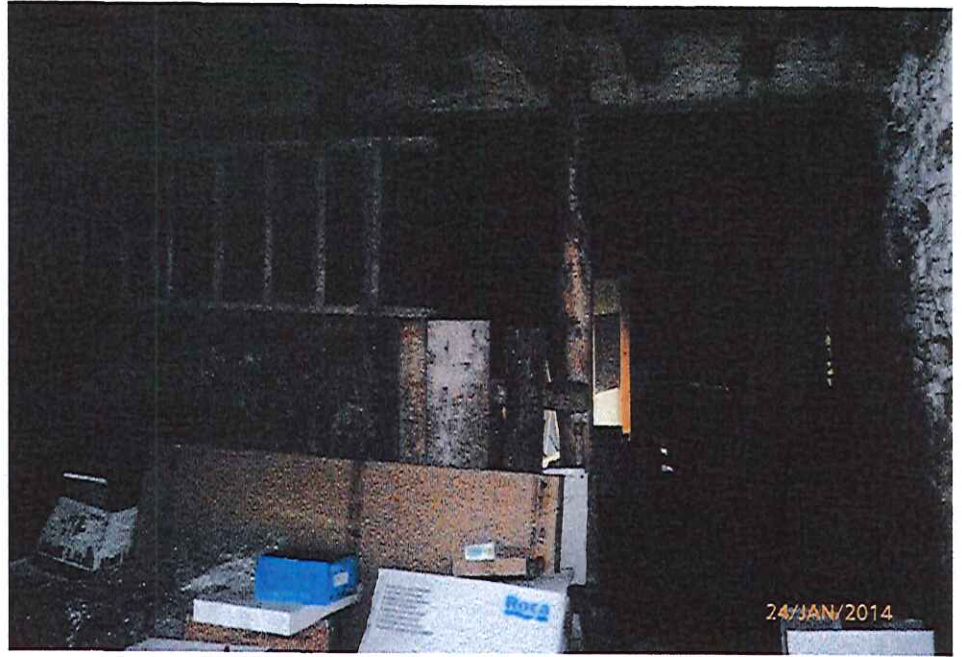
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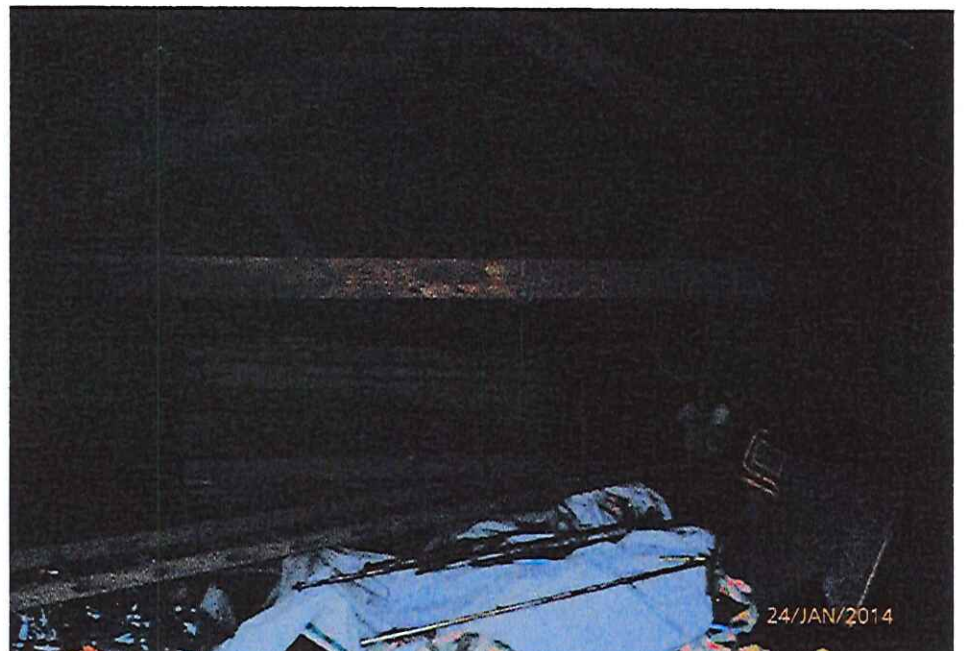


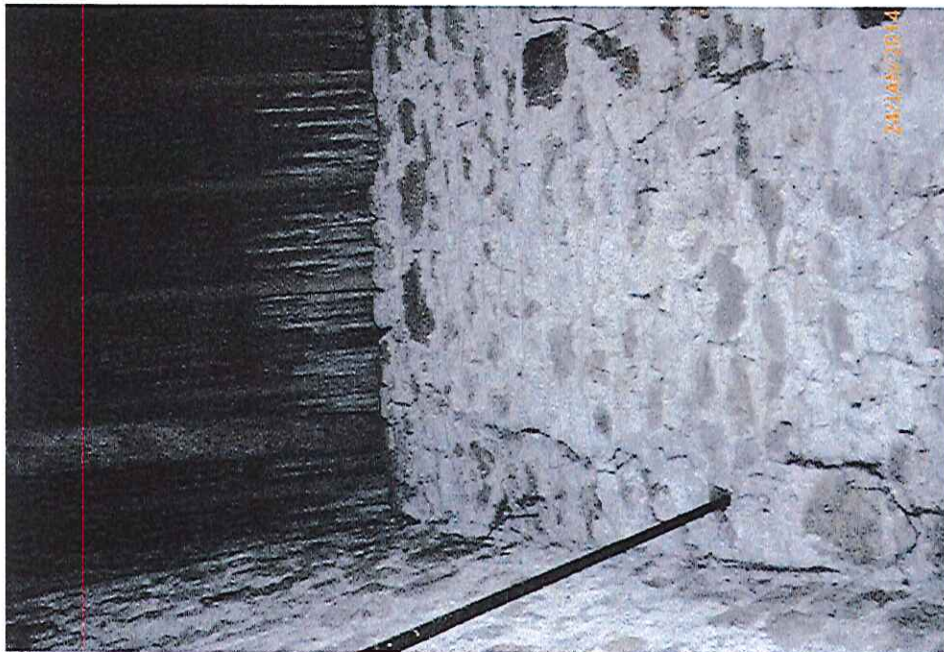
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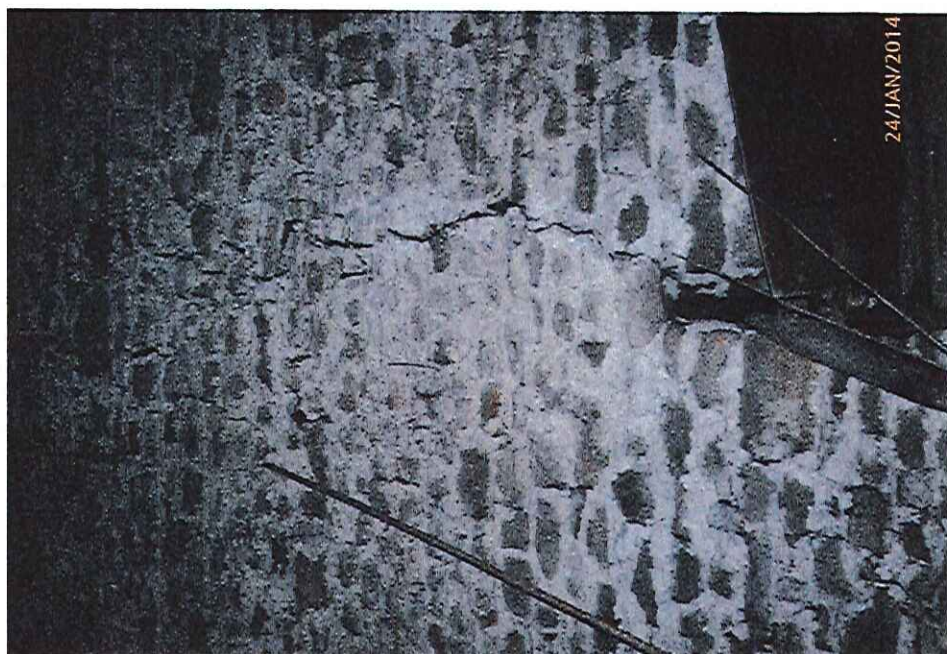
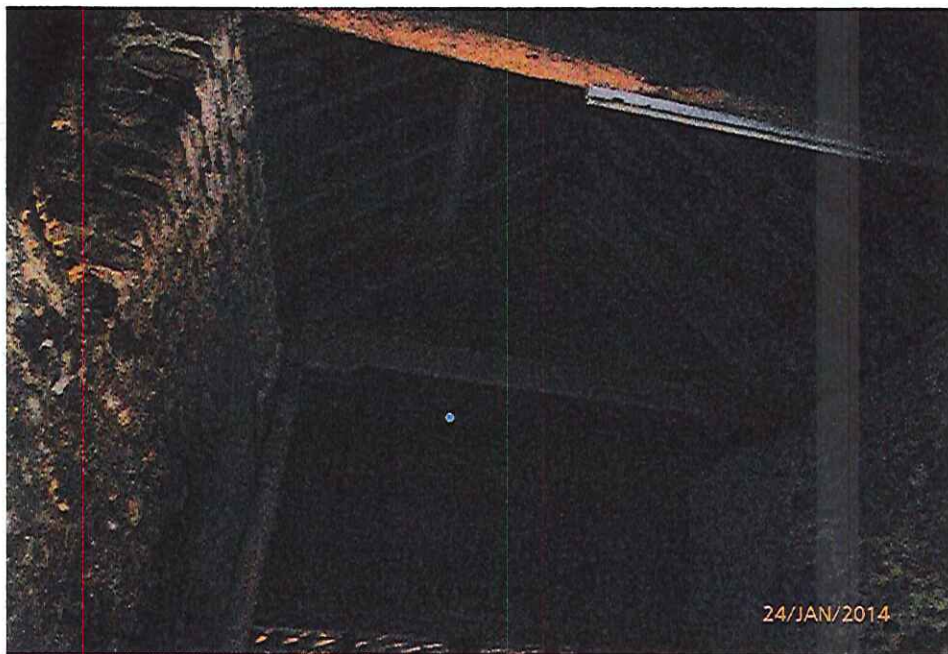








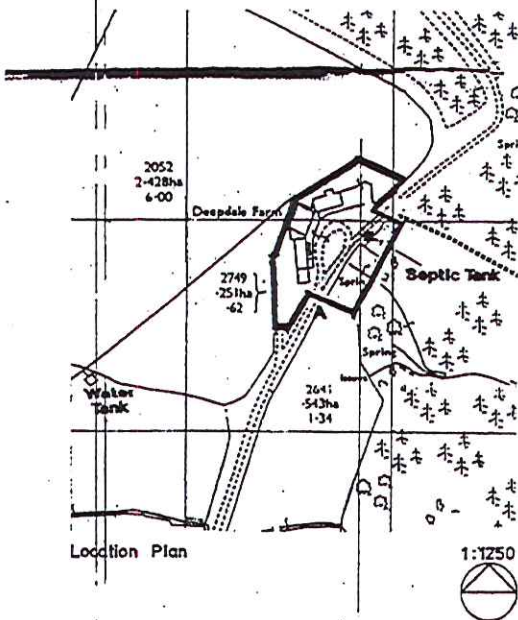
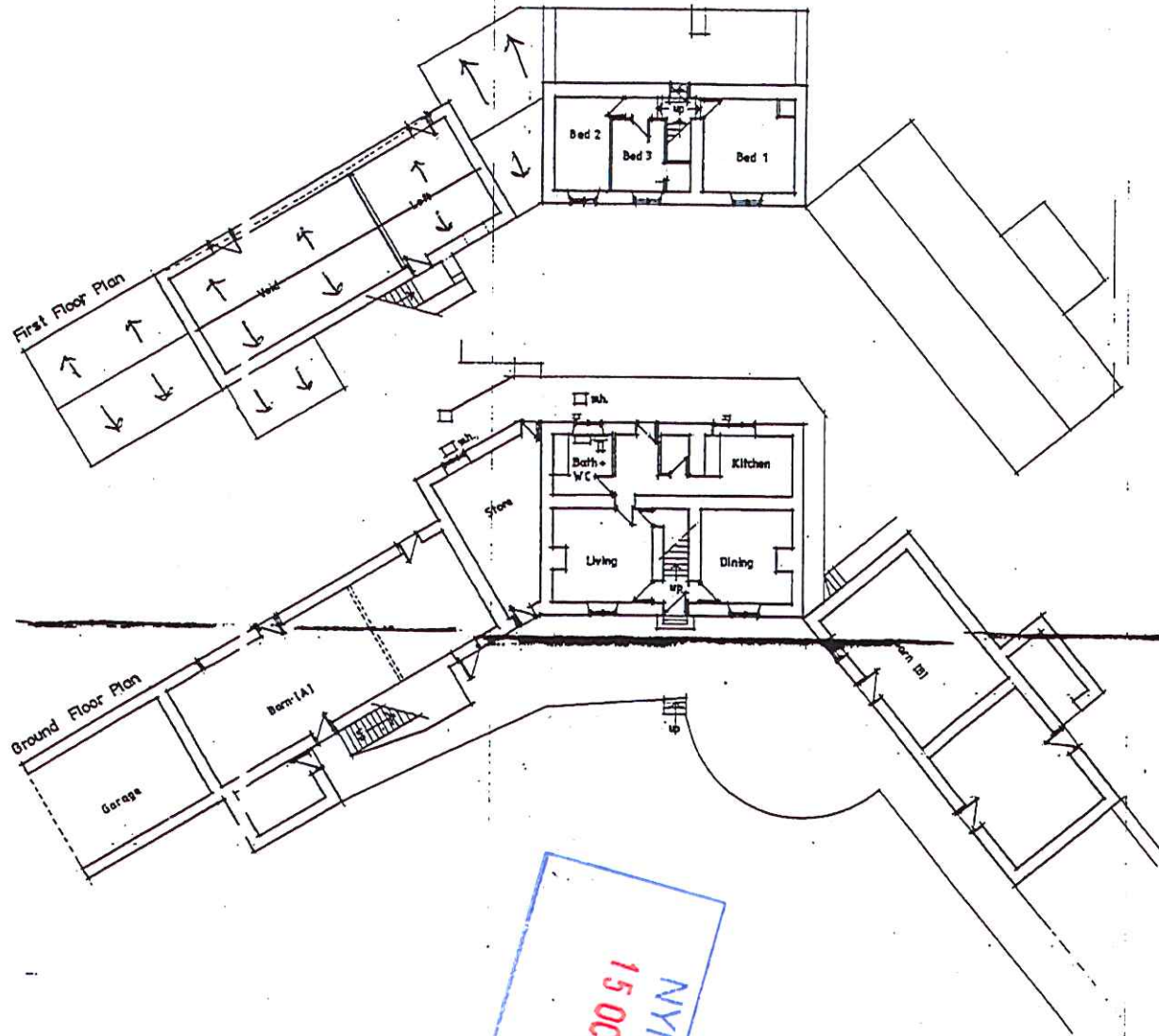




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 Malton
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NYM/2007/10:53/FL

NYM/MPA
 30 MAY 2007



NYM/MPA
 15 OCT 2014

SITE PLAN - SKI'

C14005 - DEEPDALE FM
 BICKLEY
 LANGDALE END.

Buildings as Existing at
 Deepdale Farm, Langdale End, Hackness, North Yorkshire for
 Dougie & Dagmar Moedert-Lumb
 Scale 1:100

Drwg No.1