



**QUANTRILL**

PARTNERS LTD.

CHARTERED STRUCTURAL ENGINEER

Church Barn, The Street, Morston, Norfolk NR25 7AA

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## Structural feasibility report

Client: Mr & Mrs Gardoe

Project ref: 23122

Engineer: David Quantrill BEng(Hons) CEng MStructE

Project no: 23122  
24<sup>th</sup> July 2023

Mr & Mrs Gardoe,  
Church Barn  
The Street  
Morston  
Norfolk NR25 7AA

Dear Mr & Mrs Gardoe,

**RE: Church Barn, The Street, Morston, Norfolk NR25 7AA**

We thank you for your recent instruction to undertake a structural inspection at the above property to determine the feasibility of undertaking proposed alterations and extensions.

This is not a full building survey and therefore items of general maintenance and/or a non-structural nature have not been commented on unless they have a direct bearing on structural elements.

This report is based on a non-intrusive, targeted visual inspection only. No intrusive investigations, trial holes etc. were undertaken and we are therefore only able to comment on elements that were visible and exposed at the time of our inspection.

This report is prepared for the addressee only and is not transferrable.

Our report is limited at this stage to commenting on the feasibility of completing the proposed structural work to the property. Additional detailed structural design will be required prior to commencement of any works.



*Fig. 1. View of the front/side of the property*



*Fig. 2. View of the rear of the property*

We confirm having carried out a visual inspection of the property on 6<sup>th</sup> June 2023.

The property is a former barn, built predominantly in local flint with brick detailing to corners and around door openings. The roof is pitched, covered in clay pantiles and supported on a timber structure comprising common rafters on purlins on intermediate principal trusses.

It is understood that the original conversion to a habitable dwelling was carried out approximately 30 years ago. The conversion appears to have been completed to a reasonable standard and would have been carried out in accordance with the current Building Regulations at the time.

The proposed alterations include single and two-storey extensions to the north and east. Additional internal alterations are proposed for the existing building including removal of internal walls, alterations to the roof structure and changes to existing windows.

The existing structure is of substantial and robust construction. External walls are typically in excess of 400mm thick. Some internal walls within the property appear to be former external walls and are of a similar thickness. It is presumed that the existing foundations will be relatively shallow, albeit that the building does not appear to have suffered significant structural movement.

Any new superstructure elements such as new floor beams required for the proposed alterations may require new columns or masonry piers depending on the condition of the existing walls once exposed. Some localised foundation strengthening may also be required.

It is proposed to raise the collars of the principal roof trusses within the first floor Lounge. From a cursory assessment this appears to be feasible, albeit that this will need to be justified by full structural calculation. Alterations to the roof structure will give the opportunity to increase the insulation levels within the roof.

Overall, the building is in good condition and is certainly suitable for the proposed works without significant loss to the existing fabric.

Reference is made to the photos contained in Appendix A which give a general overview of the property and the defects noted.

We hope that the above is satisfactory, however please do not hesitate to contact the undersigned should you require any further information.

Yours sincerely,



David J Quantrill BEng (Hons) CEng MIStructE





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CHARTERED STRUCTURAL ENGINEER

Church Barn, The Street, Morston, Norfolk NR25 7AA

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## Appendix A – Photographs

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Report photographs



Photo 1 -



Photo 2 -



Photo 3 -



Photo 4 -



Photo 5 -



Photo 6 -



Report photographs



Photo 7 -

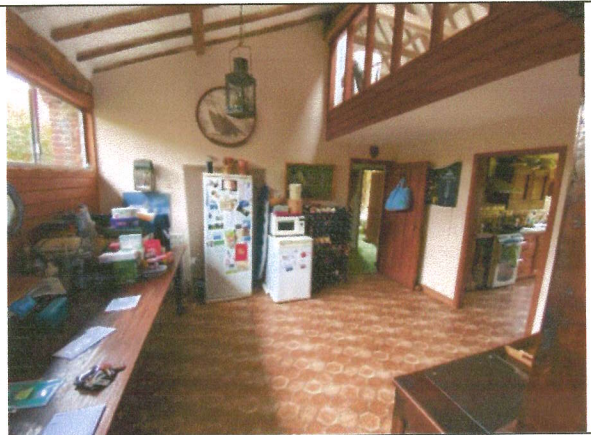


Photo 8 -



Photo 9 -



Photo 10 -



Photo 11 -



Photo 12 -



Report photographs



Photo 13 -



Photo 14 -

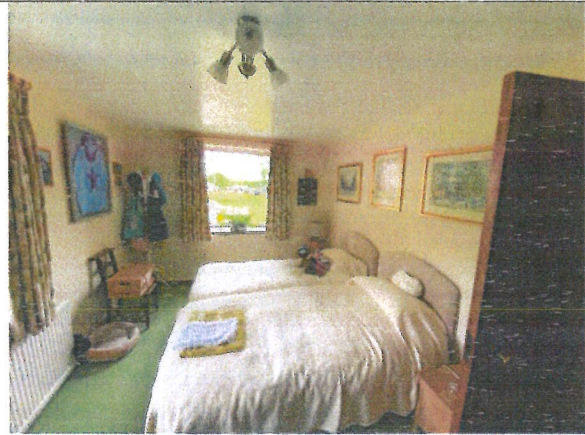


Photo 15 -



Photo 16 -



Photo 17 -



Photo 18 -



Report photographs

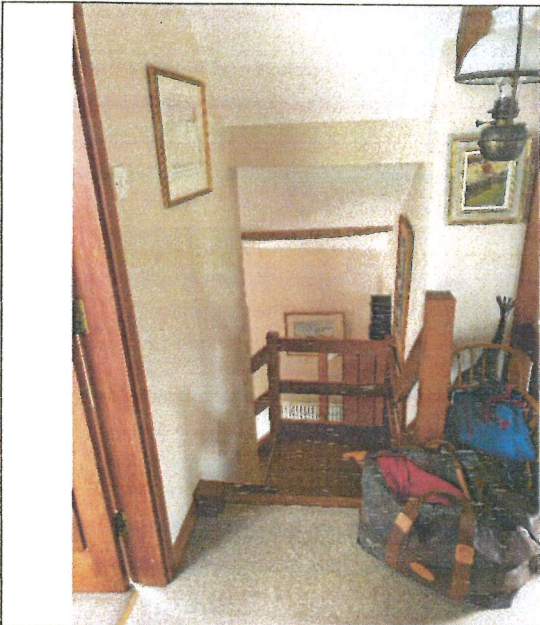


Photo 19 -

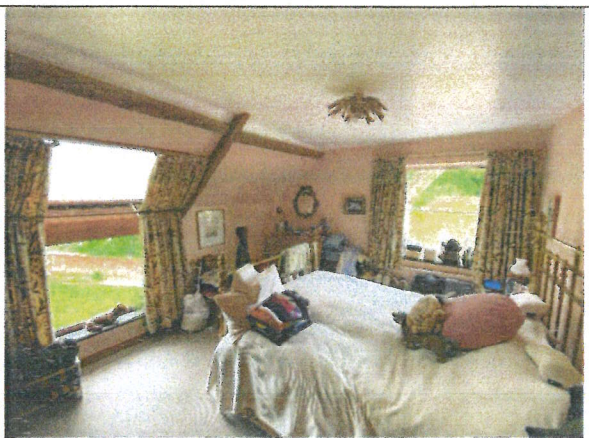


Photo 20 -



Photo 21 -



Photo 22 -



Photo 23 -



Photo 24 -





Report photographs



Photo 25 -



Photo 26 -



Photo 27 -



Project Church Barn  
The Street  
Morston  
Norfolk  
NR25 7AA

Client Mr & Mrs Gardoe      Date July 2023      By DJQ

Photographic key



Ground floor



**QUANTRILL**

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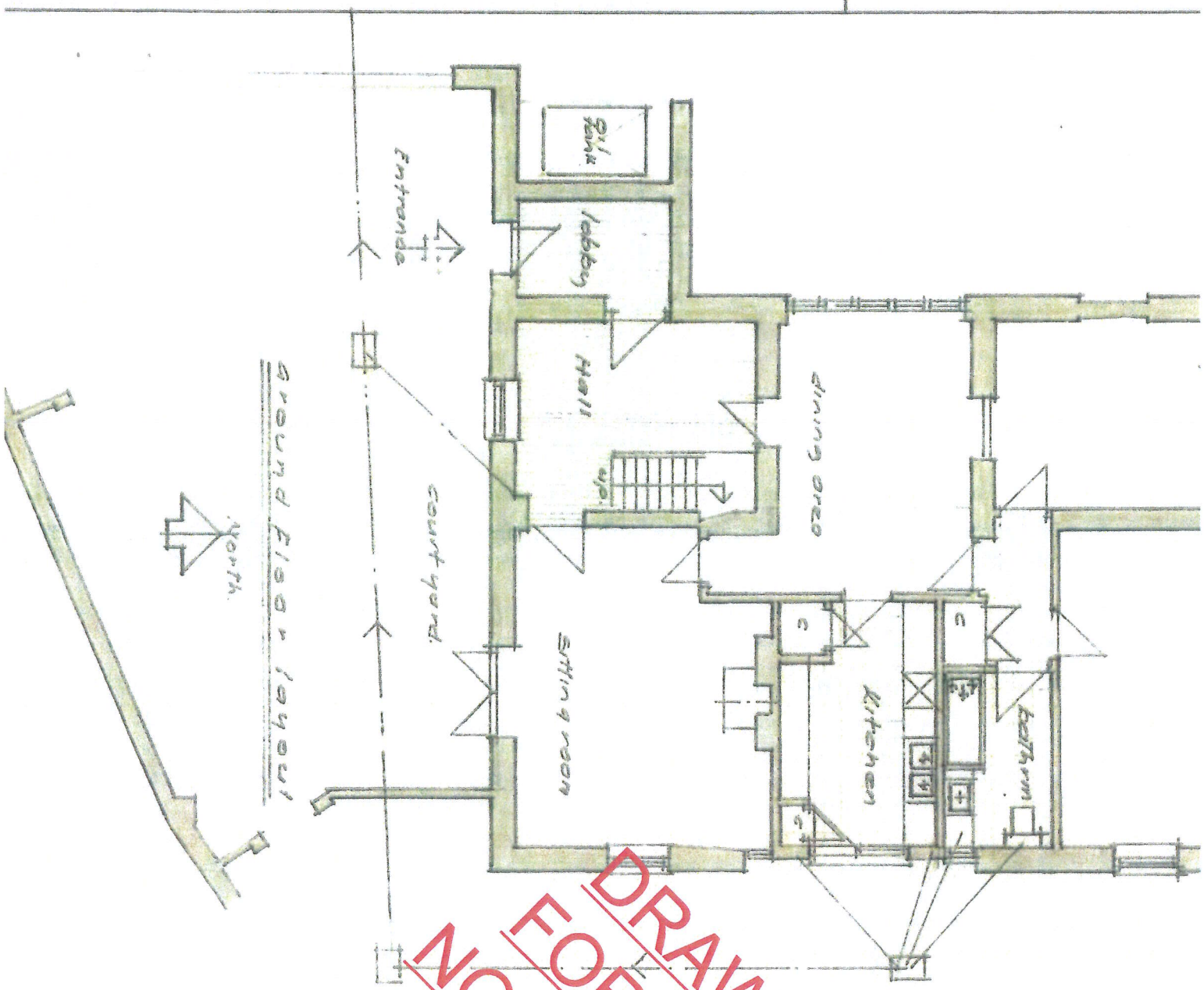
CHARTERED STRUCTURAL ENGINEER

Church Barn, The Street, Morston, Norfolk NR25 7AA

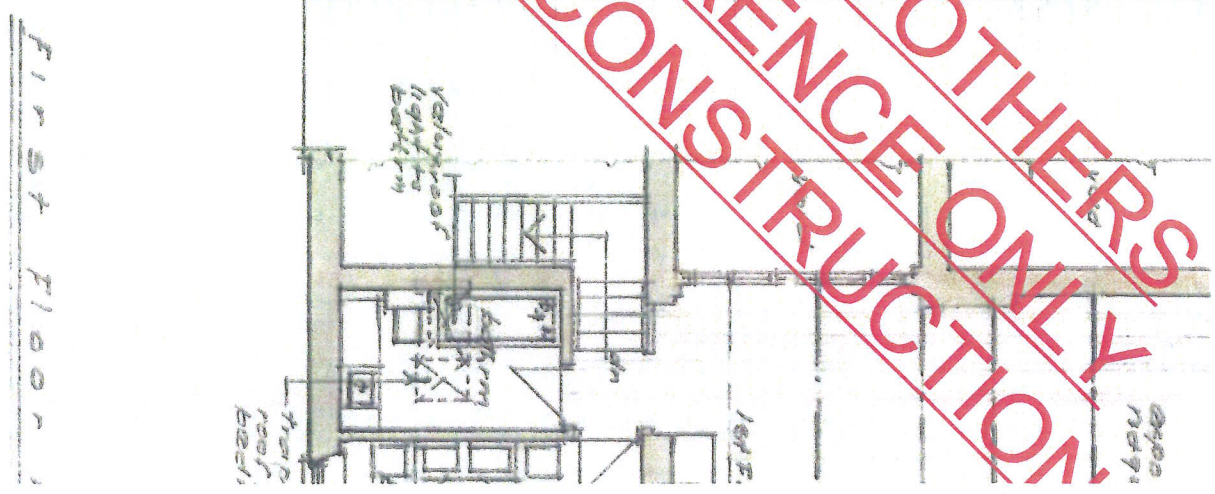
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## Appendix B – Architectural drawings received

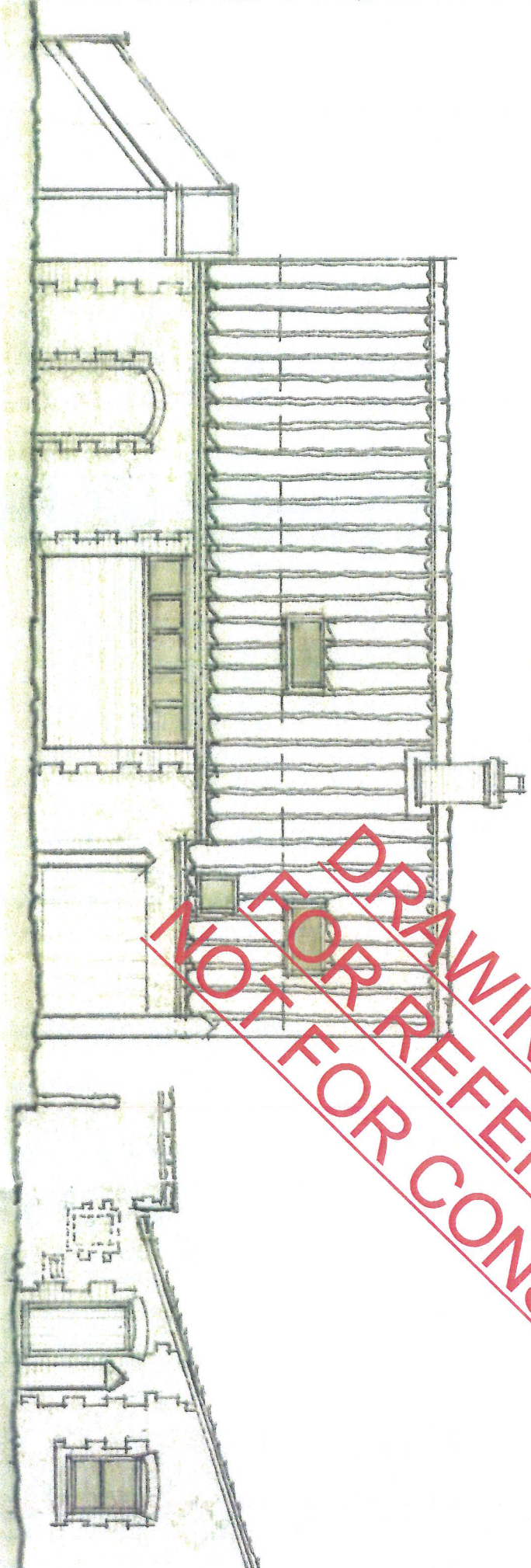
Note – these drawings have been prepared by others and are appended for reference only. These are the latest drawings received prior to production of the preceding and are not to be treated as construction drawings as later revisions of these drawings may exist.



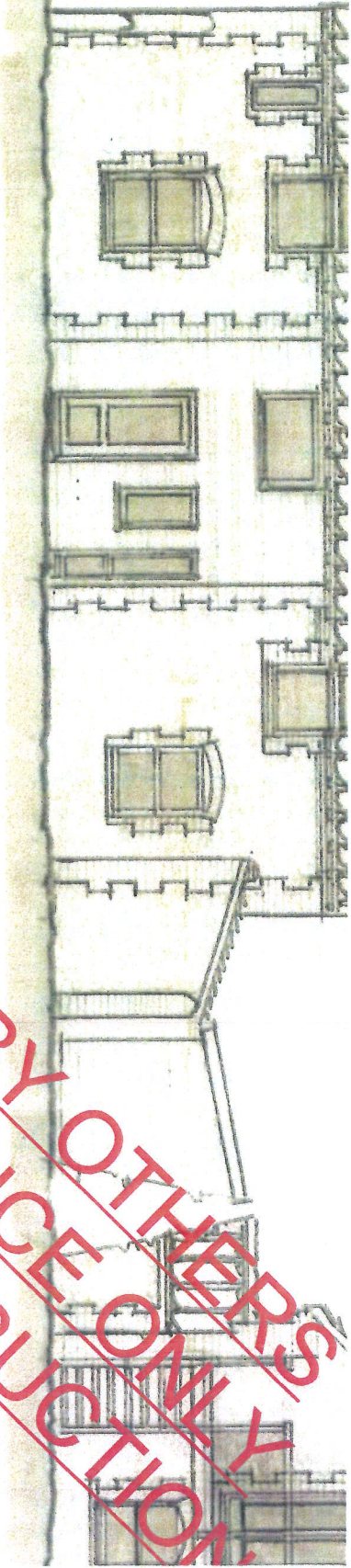
**DRAWING BY OTHERS  
NOT FOR REFERENCE ONLY  
NOT FOR CONSTRUCTION**



West Elevation

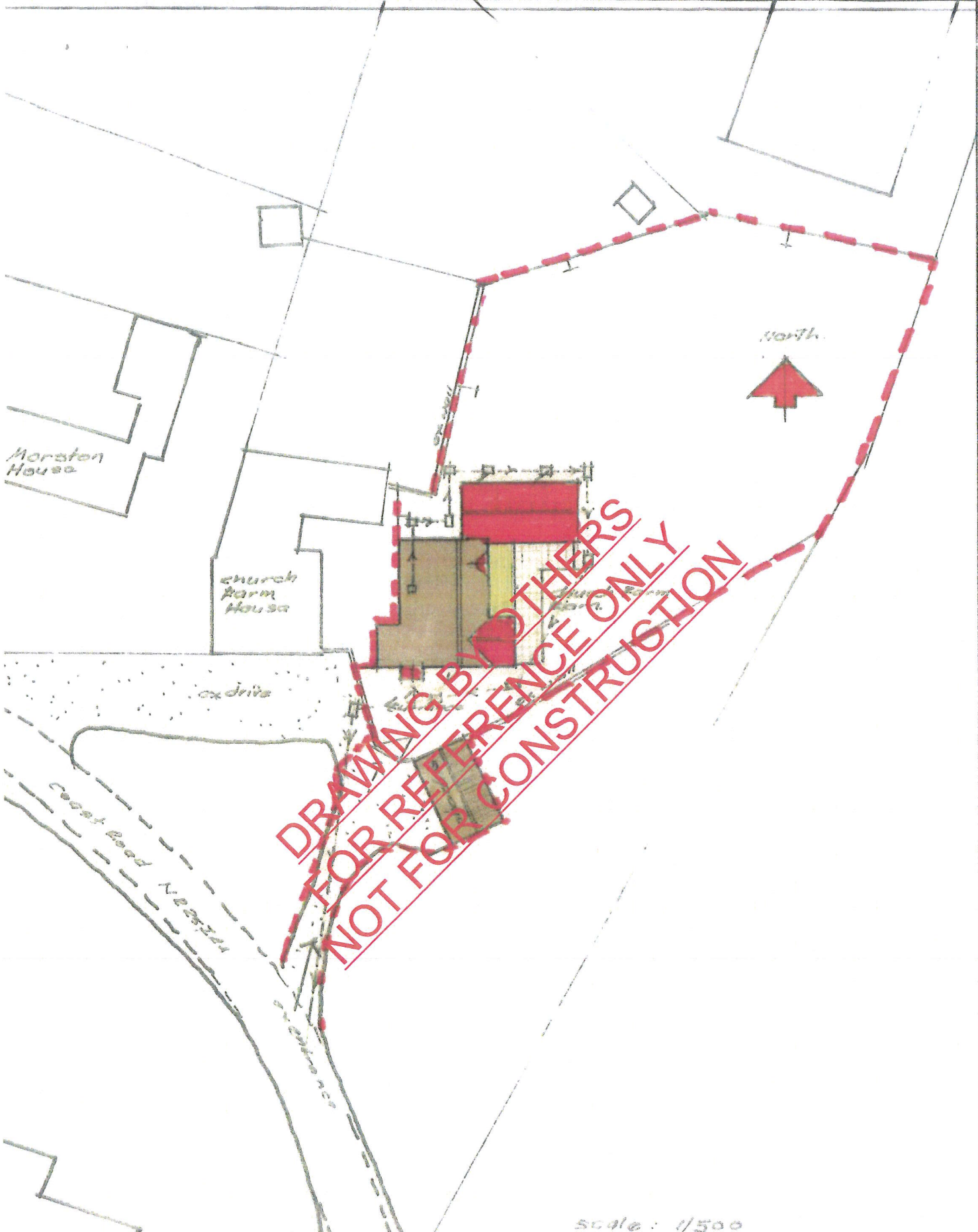


East Elevation



South Elevation

NOT FOR DRAWING BY OTHERS  
NOT FOR REFERENCE ONLY  
NOT FOR CONSTRUCTION



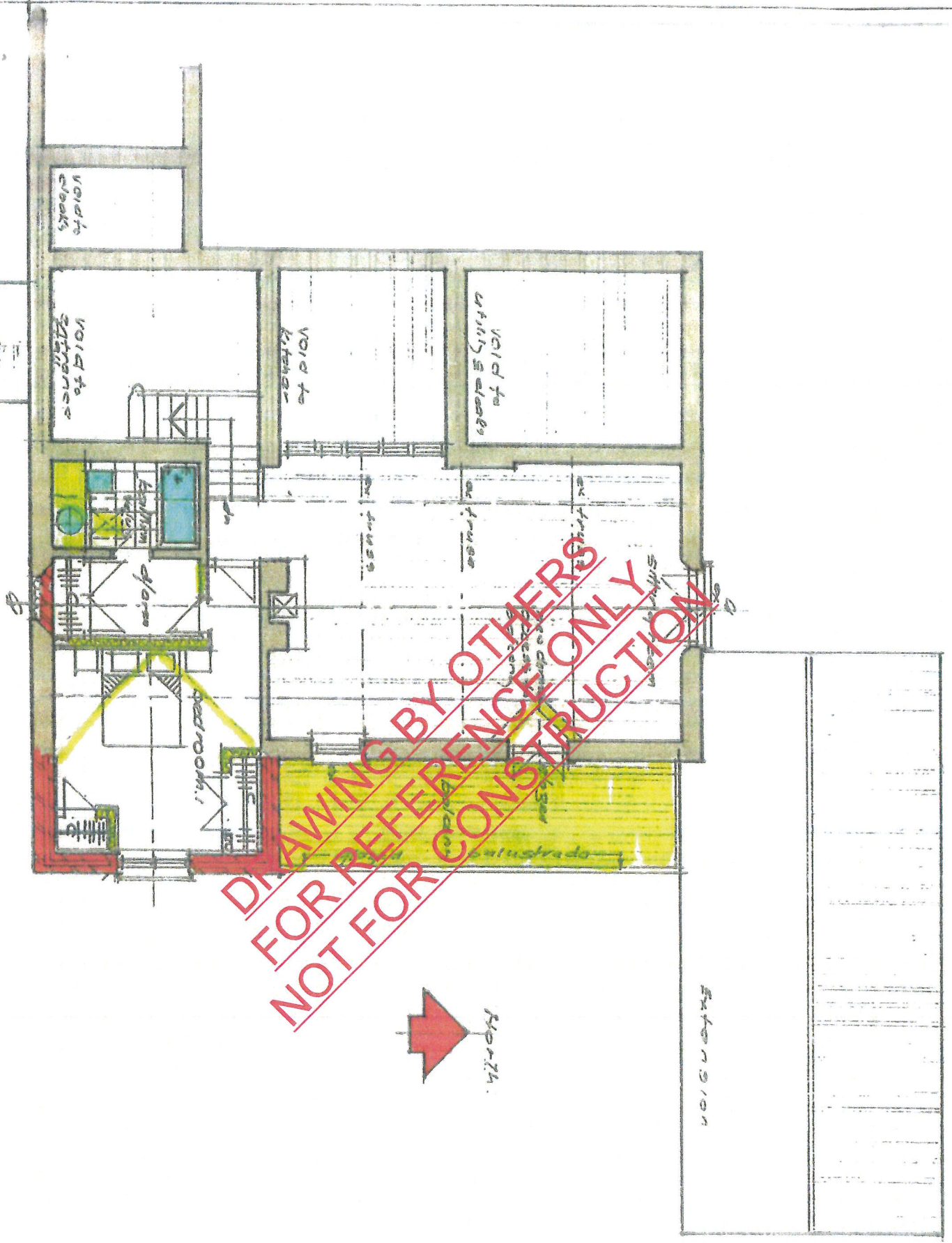
# Robert Lord Associates

Architectural Design, Planning & Conservation Consultant  
207 Holt Road, Cromer, Norfolk NR27 9JN  
Tel/Fax: 01263 519707 Mobile: 07765 351752

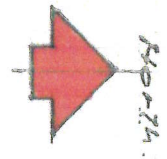
scale: 1/500

Church Barn The Street Morston  
Norfolk, NP25 7LL  
proposed site plan

1st Floor layout



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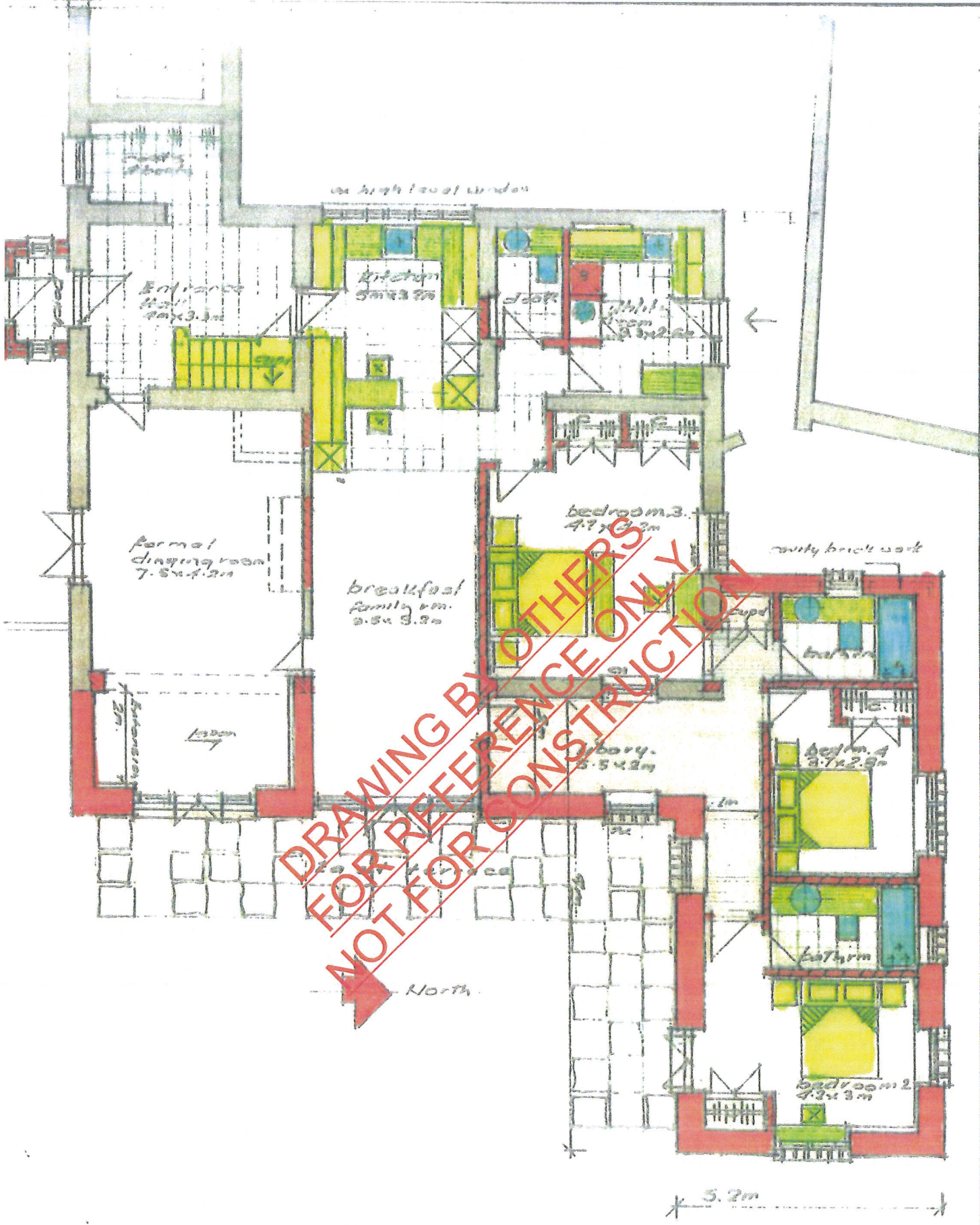


Scale: 1/100

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Church Barn The street Marston  
Norfolk NR25 7AA  
Proposed 1st Floor layout  
for Mr & Mrs Gardes



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NOT FOR CONSTRUCTION

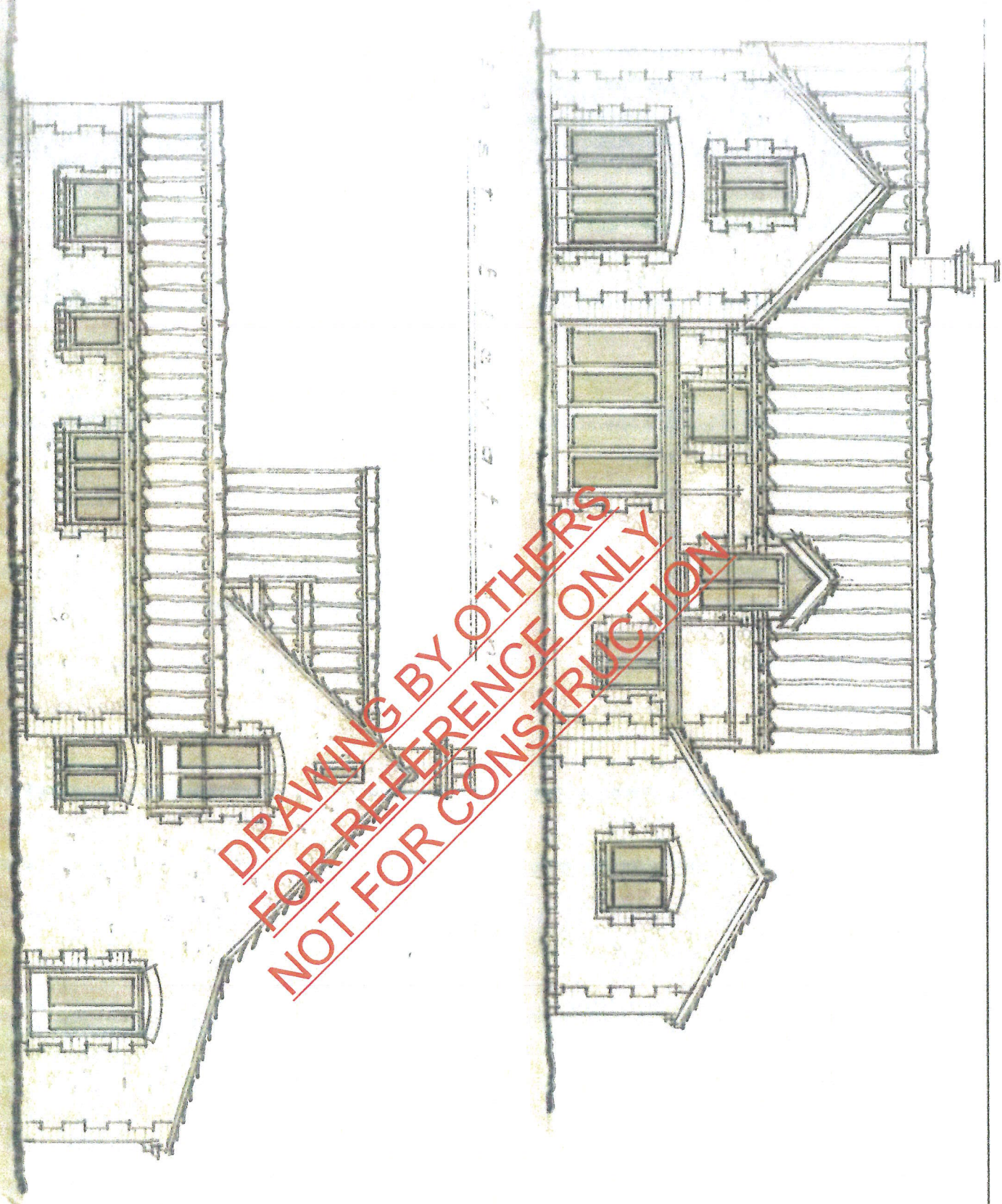
# Robert Lord Associates

Architectural Design, Planning & Conservation Consultant  
207 Holt Road, Cromer, Norfolk NR27 9JN  
Tel/Fax 01263 519707 Mobile: 07765 351752

Scale: 1:100 Date: 12th April 2011  
Proposed alteration extensions to Church Barn The Ayleward  
Market Hill Cromer NR25 2AA  
For Mr & Mrs M. G. and G.



NORTH ELEVATION



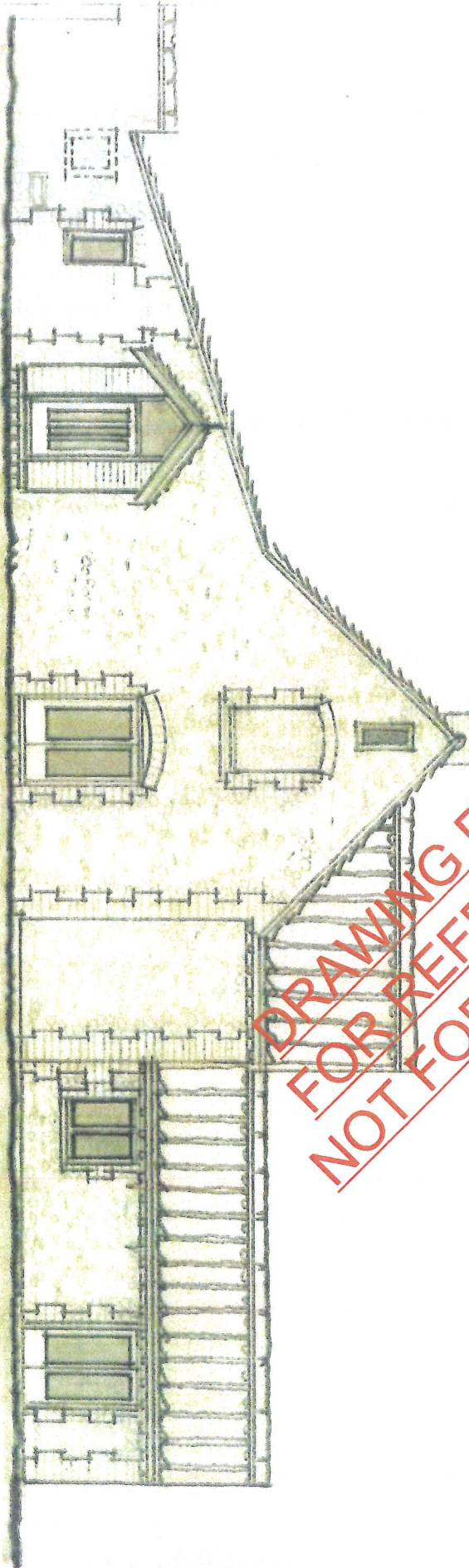
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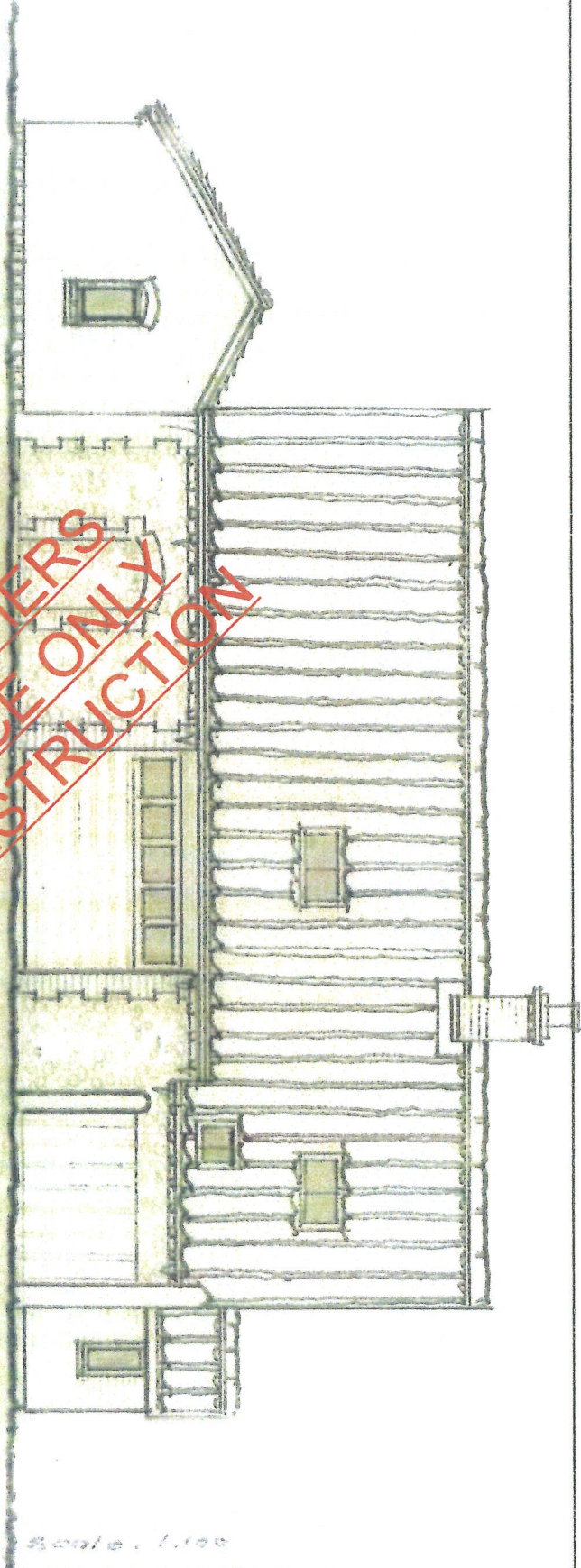
1:100 Scale:

Church Barn The Street Morston  
Norfolk, NR25 7AA proposed  
North & East Elevation.  
For Mr & Mrs M. Girdle.

SOUTH ELEVATION



WEST ELEVATION



**DRAWING BY OTHERS  
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NOT FOR CONSTRUCTION**

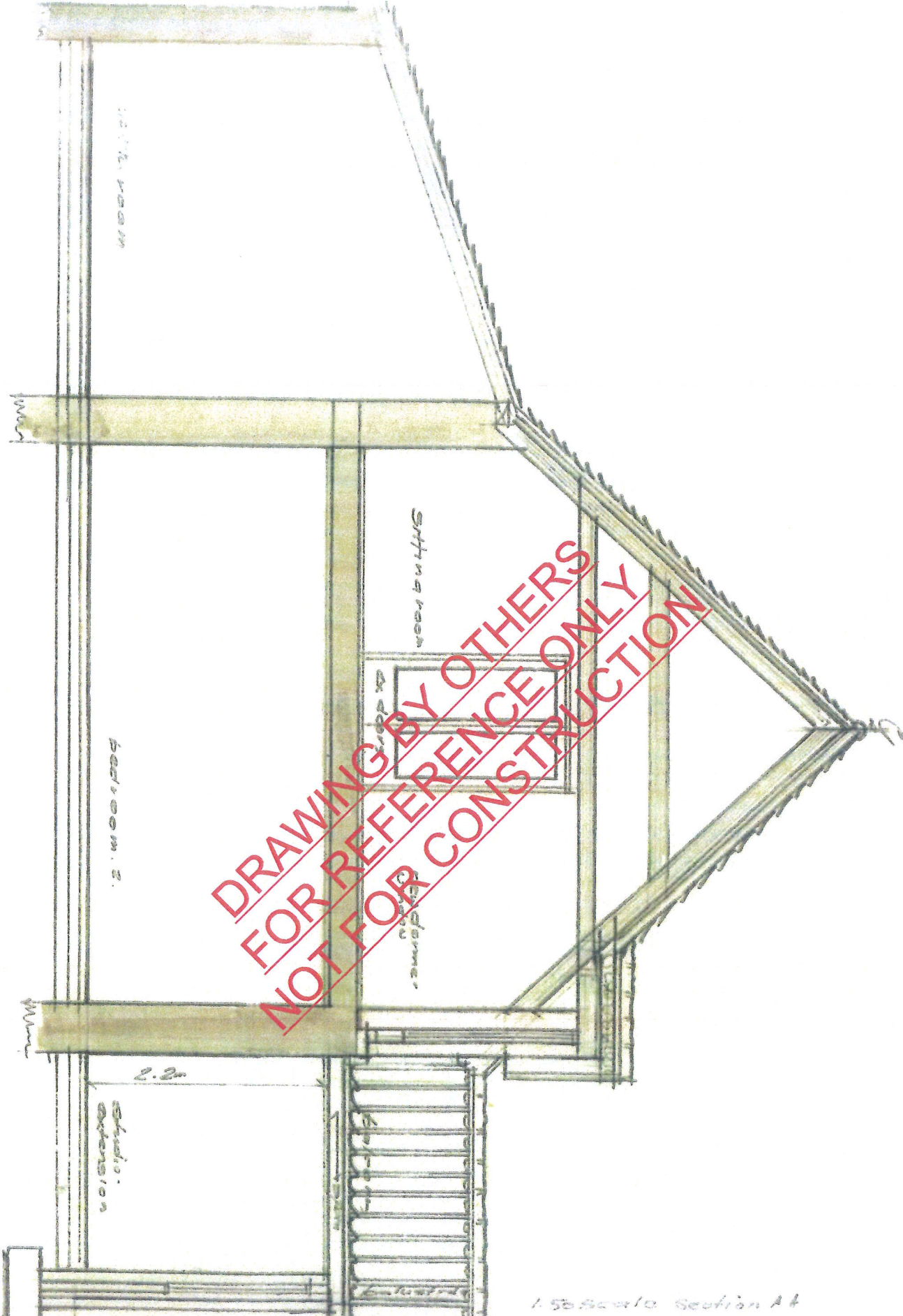
Scale: 1/100

# Robert Lord Associates

Architectural Design, Planning & Conservation Consultant

207 Holt Road, Conway, Maine 04839

Church Barn The Street Marston  
Norfolk NR257AA  
Proposed South & West



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NOT FOR CONSTRUCTION**

1:50 Scale Section A-A

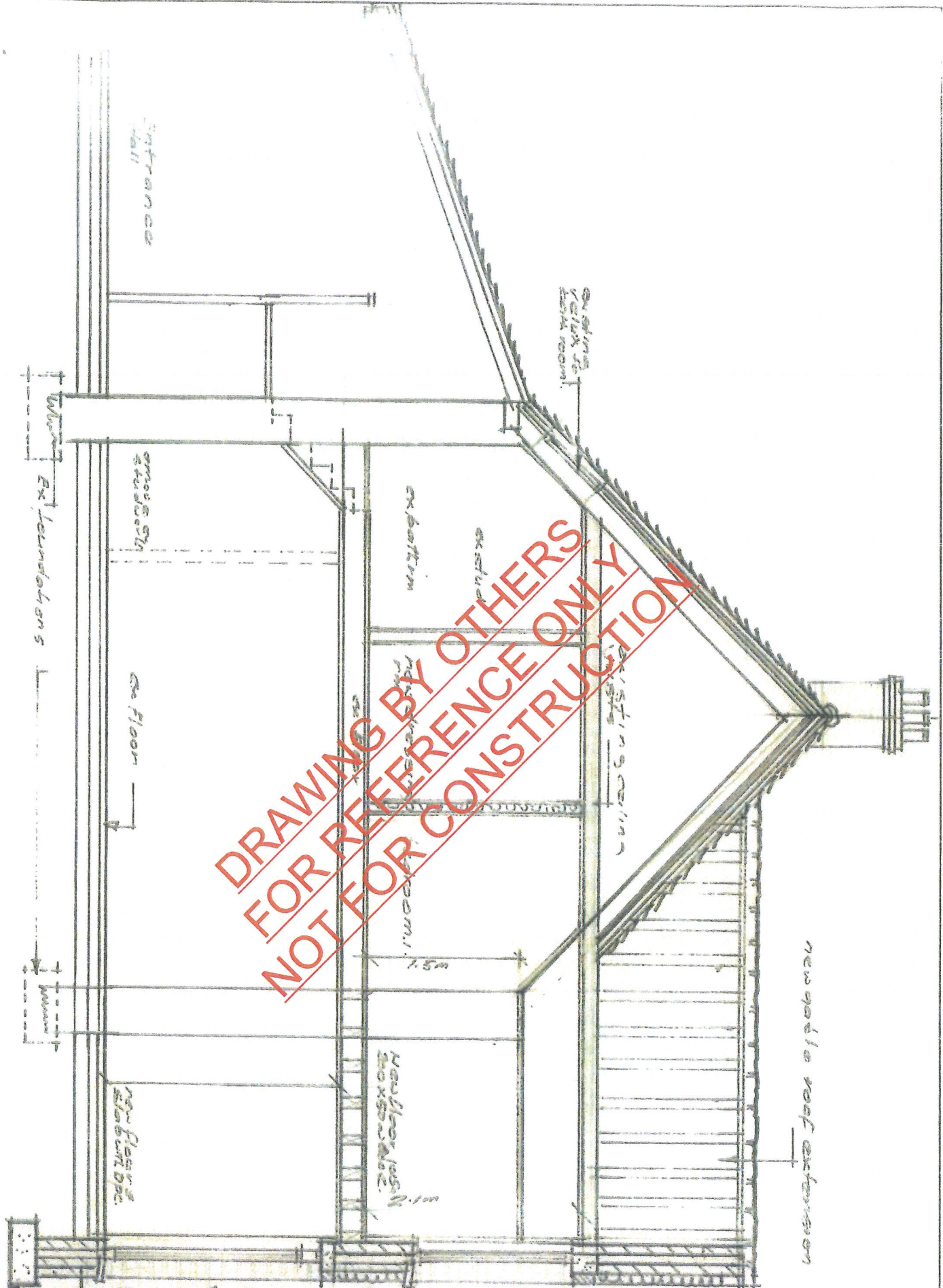
# Robert Lord Associates

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proposed alterations to  
Church Barn The Street  
Horstead



# Robert Lord Associates

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proposed section through  
bedroom, 1. ground & 1st Floor  
re East extension.  
church Barn Monston Norfolk  
NR25 3AA.