

Mr and Mrs Neil Armstrong  
Shepherds Fold  
Finwood Road  
Rowington  
Warwick  
CV35 7DF

c.c. Richard Crook – [REDACTED]

Date: 22.10.2019  
Ref: 19 079

Checked: RFS

Dear Mr and Mrs Armstrong

### **Barn and Stables at Shepherds Fold**

I refer to my site visit on 18.10.2019, made to carry out a Visual Structural Survey. This Survey and report are required to accompany a planning application to be made on your behalf made by architect Richard Crook, for conversion to living accommodation. This report will comment on the structural condition of the two buildings, and the structural works likely to be necessary for conversion to living accommodation.

The buildings comprise a two-storey Barn with small single-storey extension, and a single-storey Stables with small single-storey extension. The buildings are shown on attached drawing Sk1, illustrating certain structural items.

### **Barn Building**



## **Barn Building**

The Barn building is the northern and larger of the two. It is of traditional construction with plain tiled duopitch roof on timber rafters, purlins and trusses. External walls are of solid brick construction with timber lintels generally over openings, and with a brick arch externally over one door opening. Timber first floors are present in the east and west ends, with a full-height open cartway through in the central section. A small single-storey extension is present on the western end, being of similar age and construction. The Barn may be 100 to 200 years old. However, the roof and first floor construction is all of regular sawn timber, and with black bitumen felt lining to the underside of the tiles, so may be more recent than the brick walls. The building may well have been re-roofed in the last 50 years.

The ground level is higher than the internal floor level at the eastern end and accessed by a ramp on the south side. A large oil tank is situated on this higher ground, and a line of large conifer trees is present beyond this and parallel with the eastern gable wall.

The barn building is generally in good structural condition for its age, with the main two-storey roof being to a good line, and with the external walls also being to a good line. The roof to the single-storey extension has sagged significantly on the southern pitch. Areas of weathered pointing generally, and small localised areas of perished brickwork are present at lower level on all external elevations. Minor brickwork cracks are present locally at high level on north and south elevations.

The external tarmac surfacing extended up to the brickwork on the western end, and two rainwater pipes were noted as being unconnected to underground drainage. These factors will have contributed to perished brickwork and weathered mortar in those areas.

Structural works likely to be necessary as part of the conversion works are as follows;

- 1 – strengthening of timber purlins for increased roof load
- 2 – strengthening of first floor joists for increased load from living accommodation
- 3 – generalised repointing, and localised replacement of perished bricks
- 4 – replacement of timber lintels internally with modern concrete alternatives
- 5 – removal of large oil tank, removal of external ramp, and lowering of external ground level at the eastern end to below the proposed internal ground floor level. A low path and retaining wall beyond will then need to be created.
- 6 – removal of the large conifer trees at the eastern end within 10m of the building to ensure a stable ground moisture foundation for the existing foundations
- 7 – cutting back of tarmac and other surfacing abutting the external brick walls, to limit further damp problems, and provision of a gravel filled french drain around the full perimeter of the building
- 8 – provision of a new underground drainage system to ensure that rainwater is collected and discharged at least 5m from the building

Since the building does not seem to have suffered major differential foundation movement, with consequent cracking of the brick walls, and bearing in mind the age of the building, this suggests that the existing foundations have performed adequately, and may not need to be underpinned. However, a final decision on this aspect can only be made after existing foundation depths have been investigated.

**Overall the Barn building is generally in good structural condition for its age, and conversion to living accommodation is quite feasible.**



## Stables Building



The Stables building is the southern and smaller of the two buildings. It is of traditional construction with plain tiled duopitch roof on timber rafters, and purlins. The internal brick crosswalls provide intermediate support to the purlins. External walls are of solid brick construction with timber lintels internally over openings, and with brick arches externally over the door openings. A small single-storey extension is present on the southern end, being of similar age and construction, but with a shallow-pitched monopitch roof covered with corrugated asbestos-cement sheeting. The Stables may be 100 to 200 years old, with original roof timbering. Black bitumen felt lining is present on the underside of the tiles, suggesting that the building may have been re-tiled within the last 50 years.

The ground level is higher than the internal floor level along the eastern side, and with the continuation of a line of large conifer trees a few metres away. A large broad-leaved tree is present close to southern end, adjacent to the single-storey extension.

The Stables building is generally in good structural condition for its age, with the main roof being to a good line, and with the external walls also being to a good line. Areas of weathered pointing generally, and also small localised areas of perished brickwork, are present at lower level on all external elevations. Minor brickwork cracks are present over door openings on the western elevation.

The external surfacing extended up to the brickwork on the western side, and one rainwater pipe was noted as being unconnected to underground drainage. These factors will have contributed to perished brickwork and weathered mortar in those areas.



Structural works likely to be necessary as part of the conversion works are as follows;

- 1 – strengthening of timber purlins for increased roof load
- 2 – generalised repointing, and localised replacement of perished bricks
- 3 – replacement of timber lintels internally with modern concrete alternatives
- 4 – lowering of higher external ground level along the eastern side to below the proposed internal ground floor level. A low path and retaining wall beyond will then need to be created.
- 5 – removal of the large conifer trees along the eastern end within 10m of the building to ensure a stable ground moisture foundation for the existing foundations
- 6 – cutting back of tarmac and other surfacing abutting the external brick walls, to limit further damp problems, and provision of a gravel filled french drain around the full perimeter of the building
- 7 – provision of a new underground drainage system to ensure that rainwater is collected and discharged at least 5m from the building

Since the Stables building does not seem to have suffered major differential foundation movement, with consequent cracking of the brick walls, and bearing in mind the age of the building, this suggests that the existing foundations are performing adequately, and may not need to be underpinned. However, a final decision on this aspect can only be made after existing foundation depths have been investigated.

**Overall the Stables building is generally in good structural condition for its age, and conversion to living accommodation is quite feasible.**

I hope that the above comments are of assistance. Please contact me with any queries.

Yours sincerely,

A solid black rectangular box used to redact the signature of Robert F. Smith.

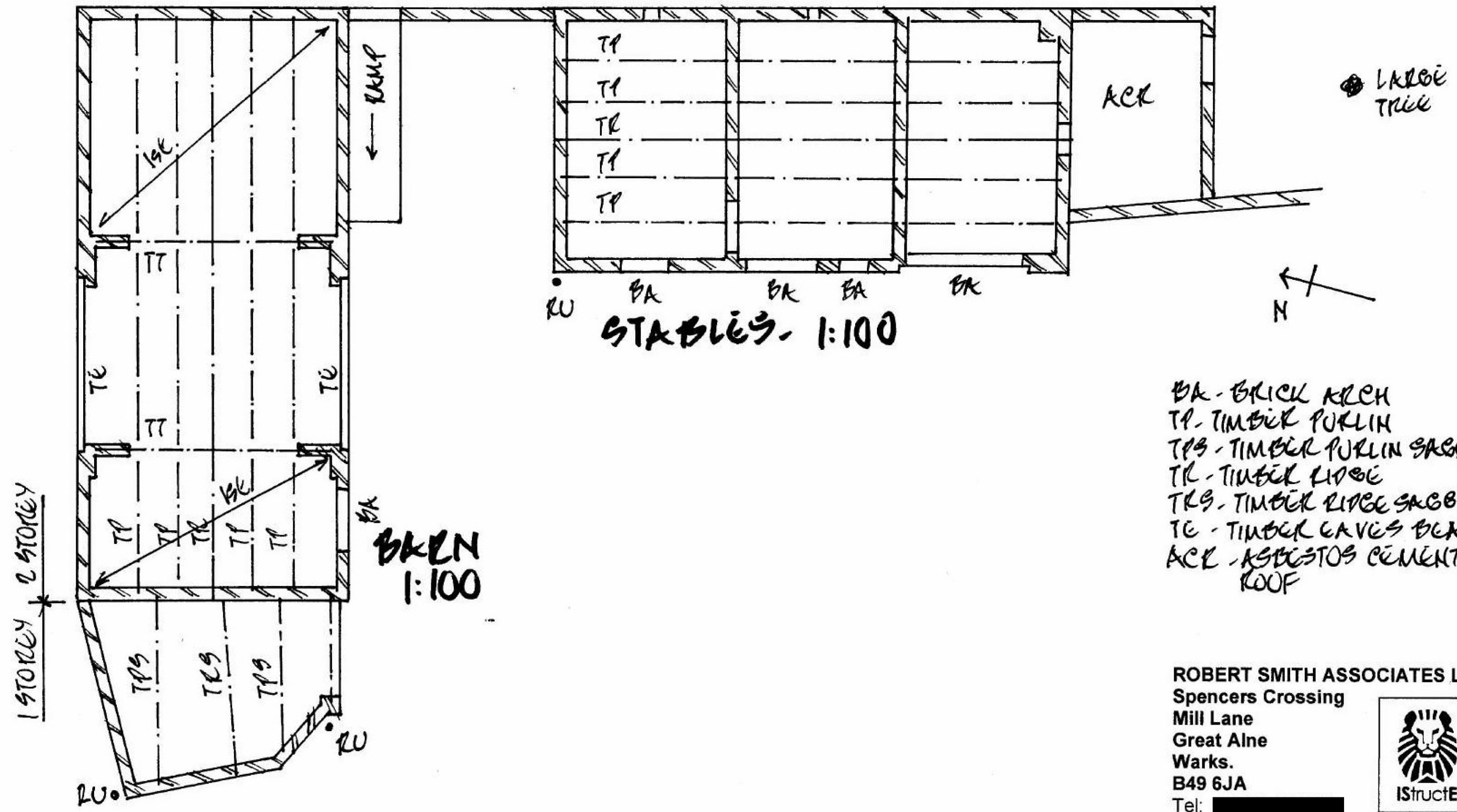
Robert F. Smith

LINE OF LARGE DEYLANDIA TREES

19079/SKL  
18.10.2019

OIL TANK

GROUND HIGHER ALONG THIS SIDE



BA - BRICK ARCH  
 TP - TIMBER PURLIN  
 TPS - TIMBER PURLIN SABBED  
 TR - TIMBER RIDGE  
 TRS - TIMBER RIDGE SABBED  
 TE - TIMBER EAVES BEAM  
 ACX - ASBESTOS CEMENT ROOF

ROBERT SMITH ASSOCIATES Ltd.  
 Spencers Crossing  
 Mill Lane  
 Great Alne  
 Warks.  
 B49 6JA  
 Tel: [REDACTED]

