

AMWELL END, DOWN GREEN LANE,  
WHEATHAMPSTEAD, HERTFORDSHIRE  
HISTORIC BUILDING MONITORING AND RECORDING

Authors:	Tansy Collins BSc Kathren Henry	
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Approved: C. Halpin MCIFA	Project No. 5679	
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**ARCHAEOLOGICAL SOLUTIONS LTD**

**Unit 6, Brunel Business Court, Eastern Way,  
Bury St Edmunds IP32 7AJ  
Tel 01284 765210**

**PI House, r/o 23 Clifton Road, Shefford SG17 5AF  
Tel 01462 850483**

**e-mail [info@ascontracts.co.uk](mailto:info@ascontracts.co.uk)  
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Project name	<i>Amwell End, Down Green Lane, Wheathampstead, Hertfordshire</i>		
<p><i>Summary</i></p> <p><i>In August 2015 AS carried out historic building monitoring and recording of the historic roof structure at Amwell End, near Wheathampstead, Hertfordshire. The work was carried out during the removal and replacement of the existing roof cladding in order to fulfil a condition of planning / listed building consent.</i></p> <p><i>Technical analysis at Amwell End reveals a building with a more complex history than may be inferred from the list description. Investigation demonstrates that the core of the building is consistent with a late 16th century in date and the roof structure survives in very good condition. The roof is all of good oak construction and is characterised by a clasped side-purlin system with cambered tie-beams at either end, but an intermediate truss form in the centre which has no tie-beam but instead principal rafters rising directly from the wall-plate and bridled at the apex, secured with a pegged collar. A substantial upgrading was carried out in the 18th century with much replacement in brick and the introduction of chimney stacks at either end of the historic core. Of numerous dormer windows, one survives that is of particular historic interest and a date of 1756 (though in modern cement) is consistent with the structural fabric.</i></p> <p><i>Range 2 was attached at the south end and retains much historic fabric at low level, though it may be reused and nothing diagnostic was exposed to indicate a date for construction. The roof over this range was replaced in the earlier 20th century when Range 3 was added. Finally, Range 4 at the north end also appears to be of early 20th century date and was subsequently extended to the east in the middle of the 20th century (Range 5).</i></p>			
Project dates (fieldwork)	<i>11<sup>th</sup> and 14<sup>th</sup> August 2015</i>		
Previous work (Y/N/?)	<i>Y</i>	Future work (Y/N/?)	<i>-</i>
P. number	<i>5679</i>	Site code	<i>AS 1783</i>
Type of project	<i>Historic building monitoring and recording</i>		
Site status	<i>Grade II listed</i>		
Current land use	<i>House</i>		
Planned development	<i>Recladding of the roof</i>		
Main features (+dates)	<i>Later 16<sup>th</sup> century core with later extensions</i>		
Significant finds (+dates)	<i>-</i>		
<b>Project location</b>			
County/ District/ Parish	<i>Hertfordshire</i>	<i>St. Albans</i>	<i>Wheathampstead</i>
HER for area	<i>Hertfordshire Historic Environment Record</i>		
Post code (if known)	<i>-</i>		
Area of site	<i>158m<sup>2</sup></i>		
NGR	<i>TL 16762 13340</i>		
Height AOD (max)	<i>c. 113m AOD</i>		
<b>Project creators</b>			
Brief issued by	<i>-</i>		
Project supervisor/s (PO)	<i>Tansy Collins</i>		
Funded by	<i>Anthony Jane Interiors</i>		
Full title	<i>Amwell End, Down Green Lane, Wheathampstead, Hertfordshire. Historic Building Monitoring and Recordig</i>		
Authors	<i>Collins, T.</i>		
Report no.	<i>4951</i>		
Date (of report)	<i>September 2015</i>		



# AMWELL END, DOWN GREEN LANE WHEATHAMPSTEAD, HERTFORDSHIRE

## HISTORIC BUILDING MONITORING AND RECORDING

### **SUMMARY**

*In August 2015 AS carried out historic building monitoring and recording of the historic roof structure at Amwell End, near Wheathampstead, Hertfordshire. The work was carried out during the removal and replacement of the existing roof cladding in order to fulfil a condition of planning / listed building consent.*

*Technical analysis at Amwell End reveals a building with a more complex history than may be inferred from the list description. Investigation demonstrates that the core of the building is consistent with a late 16<sup>th</sup> century in date and the roof structure survives in very good condition. The roof is all of good oak construction and is characterised by a clasped side-purlin system with cambered tie-beams at either end, but an intermediate truss form in the centre which has no tie-beam but instead principal rafters rising directly from the wall-plate and bridled at the apex, secured with a pegged collar. A substantial upgrading was carried out in the 18<sup>th</sup> century with much replacement in brick and the introduction of chimney stacks at either end of the historic core. Of numerous dormer windows, one survives that is of particular historic interest and a date of 1756 (though in modern cement) is consistent with the structural fabric.*

*Range 2 was attached at the south end and retains much historic fabric at low level, though it may be reused and nothing diagnostic was exposed to indicate a date for construction. The roof over this range was replaced in the earlier 20<sup>th</sup> century when Range 3 was added. Finally, Range 4 at the north end also appears to be of early 20<sup>th</sup> century date and was subsequently extended to the east in the middle of the 20<sup>th</sup> century (Range 5).*

### **1 INTRODUCTION**

1.1 In August 2015 Archaeological Solutions Ltd (AS) carried out historic building monitoring and recording of the historic roof structure at Amwell End, near Wheathampstead, Hertfordshire (NGR TL 16762 13340; Fig. 1). The project was commissioned by Robin Stretton of Anthony Jane Interiors and was carried out during the removal and replacement of the existing roof cladding in order to fulfil a condition of planning / listed building consent (St Albans City & District Council Approval / SADC Ref. 5/14/2241). It was undertaken in response to a recommendation for archaeological recording by Simon West (SADC archaeologist dated 11<sup>th</sup> September 2014) and according to a specification (Written Scheme of Investigation) issued by AS (dated 30<sup>th</sup> June 2015) and approved by St Albans City & District Council and the local planning authority.

1.2 Procedures outlined in the Historic England (HE: formerly English Heritage) document Understanding Historic Buildings: A guide to good recording practice

(2015) were followed, as well as those within the Chartered Institute for Archaeologists (CIfA) Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures (2014).

1.3 The specific objectives of the project were:

- to investigate and analyse historic fabric revealed during the planned works in order to augment a previous appraisal report produced by AS (Collins 2014),
- to conduct additional photographic recording as necessary to suitable record the roof structure
- to produce a drawn record appropriate to the historic fabric, including where possible the production of a cross-section through a typical historic truss and a detailed plan at roof level particularly to record the historic fabric of the roof structure
- to produce a high quality, fully-integrated archive suitable for long-term deposition in order to preserve by record the roof form of the building in its current form prior to its re-cladding.

### *Planning policy context*

1.4 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.5 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

## **2 METHODOLOGY**

2.1 A previous report produced by Archaeological Solutions Ltd. (Collins 2014) found that the building, listed as of 18<sup>th</sup> century date, concealed an earlier, timber-

framed historic core. The appraisal indicated that further investigation following removal of roof cladding had the potential to provide further evidence regarding the development and phasing of the building.

2.2 The current assessment was carried out during the planned works that saw the existing cladding of the roof removed exposing the underlying structural fabric. The roof cladding was removed piecemeal and covered in tarpaulin for the duration of the project, although all areas of the roof were available for inspection and the historic core of the building was exposed in its entirety. In addition, the roof cladding of the dormer windows was removed to allow assessment.

2.3 The building was visited on the 11<sup>th</sup> and 14<sup>th</sup> August 2015 in order to undertake the recording programme. Tansy Collins conducted the analysis and photographic survey, while the drawing work was completed by Kathren Henry. The photographic survey was conducted utilising a Canon 60D digital SLR camera (18 megapixels) and expanded upon the photographic recording conducted during the previous appraisal including all general views of the exposed roof as well as details of the dormer windows and elements of the roof structure. The photographs from the earlier survey, as well as those taken during this survey have been included below as a pictorial index and selected colour plates, together with location plots (Figs. 3-4)

2.4 The drawn survey included the production of a roof plan to demonstrate the structural form as well as a cross-section through the roof of the historic range. These illustrations have been included as Fig. 4.

### **3 DESCRIPTION OF THE SITE (Fig. 1)**

3.1 The site lies in an area of dispersed settlement, which has remained rural and agricultural for much of recorded history. Place-names such as 'Down' or 'End' usually occur around more significant settlements such as Wheathampstead and Harpenden (Thompson. 2002) and almost invariably represent medieval expansion from larger villages into marginal land known as waste and woodland. This is a process attested in Hertfordshire particularly from the 13<sup>th</sup> century onwards, as population expansion placed greater pressure on the land.

3.2 Amwell End is almost certainly a reflection of this process and lies at the northern end of the small hamlet of Amwell on the east side Down Green Lane within relatively open landscape between the two historic towns.

3.3 The building is Grade II listed on the National Heritage List for England as having an 18<sup>th</sup> century timber frame with red brick casing and a 20<sup>th</sup> century rear extension (App. 1). The earlier appraisal demonstrated that the historic core (Range 1) of the building was constructed in the late 16<sup>th</sup> / early 17<sup>th</sup> century, and the south range (Range 2) retains much historic fabric at lower level but a 20<sup>th</sup> century roof, while the remaining ranges are of 20<sup>th</sup> century date. The current survey has allowed further refinement of the date and evolution of the building and a greater understanding of the dormer windows. The building has been divided into a number of ranges for ease of description and these labels are shown on Figs. 3-4.

## 4 THE BUILDING

4.1 During the original survey, the building was briefly assessed and the following text has been partly reproduced from that report and utilised to inform the existing survey. The roof structure as recorded during the current project is described and discussed.

4.2 The house comprises a fairly long narrow two-storey building aligned north – south which is set back from the road to the west so the principal elevation fronts onto an a garden area (Plate 1), with the property given access from the road via a short driveway. A rear range has been added in the 20<sup>th</sup> century and beyond this to the rear lies a substantial garden.

### Exterior

4.3 The previous assessment by AS allowed the suggested 18<sup>th</sup> century date for construction of the historic core to be refined and demonstrated that the timber-frame is more consistent with a late 16<sup>th</sup> or very early 17<sup>th</sup> century date. Clues on the exterior of the building suggest repeated phases of remodelling and extension, and the current works have allowed the level of survival of original fabric to be better assessed.

4.4 Superficially, the external construction is of red brickwork rising over one and a half storeys to a steeply-pitched roof all covered in red peg-tiles, the upper floor partially housed within the roof space and lit by dormer windows. The fenestration pattern is largely of side-hung casement form, mostly of two- or three-lights, all set below cambered brick arches or soldier courses, though occasional top-hung six-pane casements are visible which differ in having no lintel. The dormer windows are all of two-light casement form with pitched roofs covered with peg-tiles.

4.5 Range 1 forms the historic core and spans two structural bays and is augmented on the west side with a 20<sup>th</sup> century unit and on the east side with two units that largely obscures the formerly external elevation. On the west at the north end the brick is of early 19<sup>th</sup> century date with a small area of overburnt headers picking out a chequerboard pattern. The south bay is also visible where a small number of timbers remain exposed and may be part of the original frame. No early infill survives having been replaced with brick and pierced by two small casements (Plate 2). The brick is a variable orange fabric with kiss marks and overburnt headers and is of a size and form consistent with an 18<sup>th</sup> century date, though much has been re-pointed in cement. The timberwork includes a single post, apparently truncated at the base and bisected by what appears to be a primary brace which is later. A modern full-height piece lies to the south, but has been applied over the south-west corner post of Range 1. In addition, a pegged horizontal timber not unlike a sill of a window survives although the evidence is not conclusive and there are numerous peg-holes and similar within the post.

4.6 During the planned works removal of the cladding over the roof structures of the pent-roofed units has exposed the wall-plates of Range 1. Peg-holes are visible on both long elevations and include the central bay post and three studs in each bay, while an extra peg towards the outer corners that mark the locations of tension

braces that are visible from the interior. The roof over was covered in peg-tiles and has two dormers on the west and two dormers on the east, the southern example on the west with the date 1756 marked out in pebbles within the gable.

4.7 The south end of the building comprises two ranges that appear fairly consistent (Range 2 and 3) as they have been re-roofed at a similar time and the external brickwork all appears of 20<sup>th</sup> century date, while the south gable end is covered with painted pebble-dashed render. The roofs extend inline from Range 1 with a pitched roof, though Range 3 has been pushed out on the east with a short gabled roof.

4.8 Range 4 at the north end is marked by a straight joint in the brickwork from Range 1, and the brickwork of the range is consistent with a late 19<sup>th</sup> century or early 20<sup>th</sup> century date, while the north-east range (Range 5) provides substantial additional space and is framed by a variation on a gambrel type roof with particularly steep, almost vertical lower pitches where the upper rooms are housed, rising to a fairly shallow upper pitch and flat roof with a gable end on the east. The upper area is tile-hung.

### **Interior**

4.9 The interior of the building was briefly inspected to provide context and rooms have been enumerated for ease of reference and labelled on Fig. 3.

4.10 The building has seen a number of phases of modernisation and refurbishment with modern floor coverings and wall finishes. However, there are some fixtures and fittings that survive throughout, for example the windows. These are of varying dates, indicated by the differing levels of refinement to the glazing bar profile, but most appear to be 19<sup>th</sup> or 20<sup>th</sup> century in date and no earlier windows were observed. These preserve a variety of window catches and stays.

### ***Historic core***

4.11 Range 1 comprises the historic core of the building and spans two bays (Rooms GF03 and GF04). This range was originally entirely timber-framed and although altered in the 18<sup>th</sup> century and later with the bricking up of the façades it appears that the principal structural members survive in good condition, particularly at upper level and roof level.

4.12 Though much altered, the ground floor level of the range is divided at the bay division by an open studwork partition set upon a modern brick dwarf wall which in general preserves a mix of early fabric alongside later insertions and replacements, while a number of pieces retain redundant mortices and stave holes. The ceiling in the north bay is of regular slender joists, all delicately chamfered with lambs tongue chamfer stops, while to the south the joisting is less coherent and displays no chamfers. On detailed inspection above, these ceilings are clearly of much later date than the surviving original roof structure. The chimney stacks at either end of the range retain orange brickwork consistent with an 18<sup>th</sup> century date and it is possible that the existing ceilings date to an 18<sup>th</sup> century phase of remodelling. At



the north end is an inglenook fireplace with inner seat and lantern niches to the rear, while at the south end a further stack is remodelled but retains good 18<sup>th</sup> century brickwork with a niche topped by a small barrel-vault.

4.13 The first floor of this range displays some structural timber work that is all painted with black gloss paint. Spanning Rooms FF05-07, there are three spaces including two bedrooms and a short corridor. The structural elements are characterised by corner and bay posts with gently swelling jowled heads, and exposed wall-plates on both sides and tie-beams at either end. Peg-holes demonstrate the pattern of studs that can be seen surviving on the east from the exterior, while the tension braces are visible in the outer corners.

4.14 Some principal elements of the roof structure are exposed within and reflect the clasped side-purlin nature of the roof with exposed purlins and collar as well as very slightly curved wind-braces (Plate 3). The east purlin has a crude scarf joint adjacent to the central truss and faint assembly marks are visible; the north wind braces have an I with a straight tag on the west and a I with a half circle tag on the east. The south gable end of this range is visible from within Range 2 and within the roof space of that range. The south tie-beam is cambered with studwork above (Plate 4) and from within the roof space a substantial portion of the gable end is clad in rough pebble-dashed render, though the collar is partially exposed with a pegged lower stud and horizontal riven laths with lime render to the rear.

4.15 The existing ceiling is constructed over the purlins and collars and consists of a fairly ephemeral system of slender joists which bear a marked similarity to the ceiling of Range 3 to the south.

## **Range 2**

4.16 The bay adjoining to the south of the historic core forms Range 2. It has exposed timber framing but presented in a fairly incoherent manner and the exposed timbers meet at somewhat awkward junctions.

4.17 A narrow staircase rises in a straight flight and occupies the south end of this bay which gives access to the first floor of this unit and the adjoining unit to the south. A small two-light casement at the head of the stairs retains a selection of window catches and stays, while the door to Room FF08 is of bead-moulded boards. Within Room FF08 the timber framing of the south end wall of Range 1 is visible, and timber-framing relating to this structure is visible on the east and west.

4.18 Fairly waney wall-plates are visible on both sides, with that on the west set higher, while the timberwork forming the dormer window on the east is framed by waney rafters but otherwise little is visible. The irregular nature of the framing here suggests a level of remodelling which is reinforced by fabric seen within the roof space where evidence survives for a substantially lower roofline so that this range may not have extended the full depth of the house but has been subsequently widened and raised. None of the timberwork is particularly diagnostic and precludes a firm suggestion of date; though on balance it may be that the remodelling was carried out in the 19<sup>th</sup> century but reusing timber from an earlier range.

4.19 The roof was viewed during the original assessment through a small hatch in the ceiling. The upper portion of the roof structure is all of modern fabric comprising simple softwood rafter couples to a ridgeboard (Plate 5) and this fabric extends into Range 3 to the south.

### **Range 3**

4.20 The final range to the south includes service rooms at ground floor level which have modern dado boarding with a variety of boarded, ledged and braced doors (Rooms GF06-09). A single bedroom at upper level (FF10) partially occupies the roof space, and extends into a gabled roof space projecting slightly to the east. The partition to the north and Range 2 is of full-height slender studs which may be early 20<sup>th</sup> century or later, while the ceiling is of slender evenly sawn joists and above the roof form is a described for the adjoining range and has a Fletton brick gable end.

### **Range 4**

4.21 Attached to the north end of Range 1, Range 4 is again much altered but appears to have been added in the early 20<sup>th</sup> century and is of a number of phases. The interior is modern and contains the principal entrance hall (GF01) with a bathroom above. The addition of the north-east range (Range 5) precipitated much alteration but exposure of the roof structure of this range provides some evidence for the evolution of the building (see below).

### **Range 5**

4.22 The final range was added in the 1960s and provided a large reception room (GF02), with mass production fixtures and fittings with a decorative scheme including a moulded cornice with applied beading and displays niches with a stone surround to a fireplace on the north.

4.23 The upper floor contains a large bedroom (FF03) that is plain and the roof form is of softwood frame trusses, with all members secured with heavy bolts.

### **Roof structure survey**

4.24 The recording of the roof structure confirmed that the two central bays form the historic core of the building, but add to the recording in that further elements of the roof structure were exposed. Other evidence regarding the date of the north and south ranges (Ranges 2-5) was also gathered and is discussed below. The roof was entirely stripped of tiles in the areas that are to be re-clad and almost all of the battens removed to reveal the underlying structure.

4.25 The exposure of fabric provides further diagnostic evidence for the date of the historic core as well as the four dormer windows occupying the east and west side, and in addition allows the structures of the north and south ranges to be better understood.

## Range 1

4.26 The roof is constructed of side-axed oak members that all survive in good condition, although a number have been truncated for the insertion of dormer windows or chimney stacks (Plates 6 and 7). Truss 1 (labelled on Fig. 4) forms the north gable end of the historic core and the north side of Bay 1. This presents the clasped side-purlin form of the roof as noted from within and includes a tie-beam with principal rafters to a pegged bridled joint at the apex. Robust purlins are visible clasped by a single-pegged collar. The principal rafter on the west displays an assembly mark of a I with a tag. There are three studs below the collar and a single upper stud to the apex. Below the collar is infilled with large orange bricks, one or two were accessible and measure 8" x 2" (203mm x 51mm). The east side is obscured where it is adjoined by Range 5.

4.27 Bays 1 and 2 continue the clasped side-purlin roof with slightly curved wind-braces from the principal rafters to the purlins (Plate 9). These are present in the outer sides of the bays but not the central truss and are pegged to the principal rafters but lapped into the purlin and nailed.

4.28 Where accessible, the scantling of the timbers were measured and are as follows:

Principal rafter	5 <sup>3</sup> / <sub>4</sub> " x 4 <sup>1</sup> / <sub>2</sub> " (146mm x 114mm)
Tie-beam	width - 5 <sup>3</sup> / <sub>4</sub> " (146mm)
Purlin	outer face - 6" (152mm)
Common rafter	4 <sup>1</sup> / <sub>2</sub> " - 4 <sup>3</sup> / <sub>4</sub> " x 3 <sup>1</sup> / <sub>3</sub> " - 3 <sup>1</sup> / <sub>2</sub> " (114mm-121mm x 85mm-89mm)

4.29 In Bay 1, the west side has five original common rafters that are halved and pegged at the apex and also pegged to the purlin, and all have sprockets at their feet. The base of the wind brace is visible, but otherwise lath and plaster lines the internal face of the common rafters to the rooms but extends over this outer face of the wind braces. The lath and plasterwork in the west pitch is well-preserved, though on the east side has been lost in places and replaced with modern boarding. Otherwise on the east, the rafters formerly had sprockets but these have been removed revealing that the rafters are pegged to the wall-plate.

4.30 The dormer window on this west side is a later, probably 19<sup>th</sup> century insertion and truncated the fourth rafter from the north (Plate 9). The tiles have been removed exposing waney slender rafter couples of probable oak to a ridgeboard to which they are nailed with hand made nails. The casement itself is modern, but the cheeks of the dormer, where the lead flashing has been removed, appear to be of contemporary studs with lath and plaster over. The north side appears to have been repaired. On the opposing side, an inserted modern dormer window truncated two of the original rafters.

4.31 Truss 2 forms the central truss of the range and comprises an intermediate truss form and does not appear to include a tie-beam and the principal rafters are simply notched over the wall-plate. Instead the collar is fairly robust and is double-pegged to the principal rafters, while the tenon of the collar is visible on the upper face of the rafter.



4.32 Bay 2 forms the southern bay and is of the same form as that to the north with six common rafters as opposed to five and the wind brace survives. The southern rafter on the west has been truncated with the insertion of the chimney stack though the purlin survives. The brickwork at this level appears consistent with an 18<sup>th</sup> or 19<sup>th</sup> century date. On the east three of the rafters survive intact, with two at the north end truncated for the insertion of a dormer. The lath and plaster in this bay survives for the most part with only two small areas replaced.

4.33 The dormer window on the west side, however, is much earlier than those noted above, and includes four rafter couples rising to an apex with no ridgeboard (Plate 10). The principal rafters framing the gable end are bridled and pegged at the apex, while the remaining three are halved at the apex and unpegged. Sprockets are present to the rafter feet. The wall-plates project to either side and are simply shaped. The infill of the gable end is modern and consists of modern steel mesh with cement render. A date of 1756 is picked out in the cement render with impressed pebbles (Plate 11). The form of the roof structure is consistent with an 18<sup>th</sup> century date and although the existing date is modern, it is not unreasonable to suggest this replicates a previous date in this position and reflects the date this dormer was added.

4.34 The dormer on the east side appears to be of early 20<sup>th</sup> century date and has diagonal boarding on the cheeks with three rafter couples above rising to a ridgeboard.

4.35 The final truss (Truss 3) has been altered, either with the insertion of the chimney stack or the re-roofing of the south range (Range 2). The rafters above collar and purlin level have been truncated, but otherwise appears to be fairly complete with the lower rafters, the purlins that project slightly from the gable end and are weathered (Plate 12).

### ***Range 2 and 3***

4.36 Inspection of the exposed roof structure over the southern ranges reveals that the entire roof structure over Range 2 was replaced in the early 20<sup>th</sup> century and appears continuous with the roof over Range 3. It is all of slender, circular sawn softwood construction consisting of rafter couples to a ridgeboard. These rafters measure 2" x 4" (51mm x 102mm). A dormer on this side is likely contemporary with the roof structure and of early 20<sup>th</sup> century date with horizontal boarded cheeks (Plate 13).

### ***Range 4***

4.37 At the north end the junction between the historic core (Range 1) and the north range (Range 4) is exposed. It shows a short gap between the historic core and the chimney stack that has been infilled with later slender rafter couples to a ridgeboard. What is of note it that the south side of the chimney stack is partly covered with pebble-dashed render that would normally denote an external wall, but that also the west gable end of the historic core is rendered with the same. The

physical evidence appears to suggest that there was a gap at this level between the two ranges that was later infilled.

4.38 The roof over Range 4 is constructed of slender softwood and is of two phases. The earlier range appears to have had a lower roof line and possibly contained a single room at low level but none within the roof space and within the eaves truncated ends of the original tie-beams are visible and the remains of an earlier ceiling level with wallpaper. At some point in the earlier 20<sup>th</sup> century the tie-beams were cut through and the ceiling lower, a dormer introduced into the west roof pitch and the eaves enclosed to provide an upper room (Plate 14). The dormer window is of the same fabric as the rafters and has the date 1918 impressed in the gable end and is likely the date of this phase. The current fabric enclosing the eaves is later and was probably relined with a recent phase of work. The lower rafters measure 2" x 4" (51mm x 102mm).

## 5 DISCUSSION

5.1 Technical analysis at Amwell End reveals a building with a more complex history than may be inferred from the list description. The subsequent repair and refurbishment of the existing roof structure afforded the opportunity to examine the construction methods of the historic core to provide further information and to enhance the previous assessment. Map evidence suggests the property comprised two cottages in the late 19<sup>th</sup> century which were latterly consolidated.

5.2 Investigation of both the interior of the building and the roof structure demonstrates that the core of the building is consistent with a late 16<sup>th</sup> century in date and the roof structure survives in very good condition. The roof is all of good oak construction and is characterised by a clasped side-purlin system with cambered tie-beams at either end, but an intermediate truss form in the centre which has no tie-beam but instead principal rafters rising directly from the wall-plate and bridled at the apex, secured with a pegged collar. In addition, the removal of the roof cladding over the modern, pushed out units reveals that studs of the outer east wall survive to a greater extent that might be suggested by the replacement brickwork elsewhere, though it is unlikely that any original infill survives on the east or west. The studwork of the outer walls at upper level comprises fairly widely spaced studs with tension braces at the corners.

5.3 Overall, the primary timber is all of oak and side-axed being of regular scantling. The use of pegs is consistent throughout in the conventional manner, and where the roof cladding and sprockets have been removed, it can be seen that each rafter foot is pegged to the wall-plate.

5.4 The floor structure in the historic core is not consistent with a late 16<sup>th</sup> century date, and although insufficient evidence is exposed to elucidate the development may indicate an original two-bay open structure that was altered with the introduction of a floor in perhaps the early 18<sup>th</sup> century. Alternatively, the existing floor may represent a rebuilding of an earlier example. A substantial phase of work was carried out in the 18<sup>th</sup> century with replacement in brick of much of the original infill

and both chimney stacks at lower level retain brickwork of an 18<sup>th</sup> century date, though have been rebuilt at upper level.

5.5 The dormer windows were inspected as part of the assessment of the roof. All were found to be of limited interest with one exception. This comprises the dormer on the west side of the southern bay (Bay 2) of the historic core. It was constructed with no ridgeboard and instead comprised oak rafter couples halved at the apex with the principal pair bridled and pegged. The cheeks retain some early fabric, while the gable and casement itself are modern. A date of 1756 is marked in the gable infill and although the fabric is modern, the structural fabric of the dormer is consistent with that date and it is likely that the date replicates an earlier incarnation. The remaining dormer windows are either earlier 20<sup>th</sup> century or modern.

5.6 Range 2 adjoins the historic core at the south end and retains historic fabric though clearly been remodelled. This is reflected in the awkward juxtaposition of many of the timbers at lower level and the variation in wall-plate level, while inspection within the roof space may indicate the presence of an earlier lower range. The roof of this range above ceiling level appears has been rebuilt in the first half of the 20<sup>th</sup> century in softwood. This continues over Range 3 and is of similar construction, while the south gable end is constructed of Fletton brickwork.

5.7 The northern range (Range 4) was added in the early 20<sup>th</sup> century though appears to have been remodelled shortly after construction. The dormer window of that range has a date of 1918 in the plaster of the gable which is consistent with the surrounding fabric, while the mid-20<sup>th</sup> century saw further remodelling and extension of this north end and its extension with a large range providing a large reception room and bedroom above.

## **ACKNOWLEDGEMENTS**

Archaeological Solutions Limited would like to thank Mr Robin Stretton (Anthony Jane Interiors) for commissioning the project on behalf of their clients Mr and Mrs Cope.

AS is pleased to acknowledge the advice of Laura Levitt (Conservation Officer at St Albans District Council) and Simon West (St Albans City and District Archaeologist).

## **DEPOSITION OF THE ARCHIVE**

An archive of all materials produced by the report has been created and listed according to English Heritage (now Historic England) (MAP2) standards. Copies of the final report will be lodged with the Hertfordshire Heritage Environment Record (HER) and OASIS. The project archive will be lodged with Verulamium Museum.

## BIBLIOGRAPHY

Chartered Institute for Archaeologists (CIfA) 2014 *Standard and Guidance for Historic environment desk-based assessment*, CIfA, Reading

Collins, T. 2014 *Amwell End, Down Green Lane, Wheathampstead, Hertfordshire. Historic Building Appraisal* Archaeological Solutions Ltd. Unpublished report no. 4547

Historic England (HE: former English Heritage) 2015 *Understanding Historic Buildings: A guide to good recording practise*. HE, Swindon

Thompson, I. 2002 *Wheathampstead & Harpenden: Extensive Urban Survey Project Assessment Report*. Hertfordshire County Council

### Websites

The National Heritage List for England  
<https://www.historicengland.org.uk/listing/the-list>

## APPENDIX 1 NATIONAL HERITAGE LIST ENTRY

### List entry Summary

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

**Name:** AMWELL END

**List entry Number:** 1102845

**Location:** AMWELL END, DOWN GREEN LANE

The building may lie within the boundary of more than one authority.

<b>County</b>	<b>District</b>	<b>District Type</b>	<b>Parish</b>
Hertfordshire	St. Albans	District Authority	Wheathampstead

**National Park:** Not applicable to this List entry.

**Grade:** II

**Date first listed:** 27-Sep-1984

**Date of most recent amendment:** Not applicable to this List entry.

### Legacy System Information

The contents of this record have been generated from a legacy data system.

**Legacy System:** LBS

**UID:** 163935

### List entry Description

#### Details:

TL 11 SE WHEATHAMPSTEAD DOWN GREEN LANE

(east side)

AMWELL

6/391 Amwell End

GV II

House. C18 timber frame with red brick casing. C20 rear extension to form L plan. Plain tile roof. 2 storeys and attics. 2 C18 ridge chimney stacks. 4 timber frame dormers, that on right centre with 1756 date. Wood glazing bar casements, 3 on the ground floor with segmental heads. 2 C20 small porches.

Listing NGR: TL1676213340

## APPENDIX 2 HER SUMMARY SHEET

<b>Site name and address:</b>	Amwell End, Down Green Lane, Wheathampstead
<b>County:</b> Herts	<b>District:</b> St Albans
<b>Village/Town:</b>	<b>Parish:</b> Wheathampstead
<b>Planning application reference:</b>	St Albans City and District Council Planning Ref. 5/14/2241
<b>Client name/address/tel:</b>	Mr & Mrs Cope
<b>Nature of application:</b>	Recladding of roof structure
<b>Present land use:</b>	Domestic dwelling
<b>Size of application area:</b> 158m <sup>2</sup>	<b>Size of area investigated</b>
<b>NGR (8 figures):</b>	TL 16762 13340
<b>Site Code:</b>	AS 1783
<b>Site director/Organization:</b>	Archaeological Solutions Ltd
<b>Type of work:</b>	Historic building monitoring and recording
<b>Date of work:</b>	11 <sup>th</sup> and 14 <sup>th</sup> August 2015
<b>Location of finds/Curating museum:</b>	St Albans
<b>Related SMR Nos:</b>	<b>Periods represented:</b> 16 <sup>th</sup> /17 <sup>th</sup> century and later
<b>Relevant previous summaries/reports: -</b>	-
<b>Summary of fieldwork results:</b>	<p><i>In August 2015 AS carried out historic building monitoring and recording of the historic roof structure at Amwell End, near Wheathampstead, Hertfordshire. The work was carried out during the removal and replacement of the existing roof cladding in order to fulfil a condition of planning / listed building consent.</i></p> <p><i>Technical analysis at Amwell End reveals a building with a more complex history than may be inferred from the list description. Investigation demonstrates that the core of the building is consistent with a late 16th century in date and the roof structure survives in very good condition. The roof is all of good oak construction and is characterised by a clasped side-purlin system with cambered tie-beams at either end, but an intermediate truss form in the centre which has no tie-beam but instead principal rafters rising directly from the wall-plate and bridled at the apex, secured with a pegged collar. A substantial upgrading was carried out in the 18th century with much replacement in brick and the introduction of chimney stacks at either end of the historic core. Of numerous dormer windows, one survives that is of particular historic interest and a date of 1756 (though in modern cement) is consistent with the structural fabric.</i></p> <p><i>Range 2 was attached at the south end and retains much historic fabric at low level, though it may be reused and nothing diagnostic was exposed to indicate a date for construction. The roof over this range was replaced in the earlier 20th century when Range 3 was added. Finally, Range 4 at the north end also appears to be of early 20th century date and was subsequently extended to the east in the middle of the 20th century (Range 5).</i></p>
<b>Author of summary:</b> T. Collins	<b>Date of Summary:</b> September 2015

### APPENDIX 3 BUILDING RECORDING ARCHIVE FORM

Site Details							
<b>Site Name:</b> <i>Amwell End, Down Green Lane, Wheathampstead</i>					<b>NGR:</b> TL 16762 13340		
<b>County:</b> <i>Hertfordshire</i>				<b>Museum Collecting Area:</b> St Albans			
<b>Site Code:</b> AS 1783				<b>Project Number:</b> 5679			
<b>Date of Work:</b> 11 <sup>th</sup> and 14 <sup>th</sup> August 2015				<b>Related Work:</b> n/a			
Brief/s				Specification/s			
Date	Present			Date	Present		
none	-			30 <sup>th</sup> June 2015	Yes		
Site Records (Description)							
Notes taken on site (6 pages A4)							
Site Drawings (Give Details of Formats & Size)							
2 sheets A3 drafting film							
Architect's Drawings:							
1 sheets A3 plans annotated							
Digital Drawings							
Printouts of Drawings			Printouts of Data			Digital Data	
In report						Digital photographs and drawings in digital format on CD 2 x CDs of plans and photos	
Reports							
Report No		Report Type				Present	
4951		Historic Building Recording				Yes	
Site Photographs							
Black & White Contact Prints					Colour Slides		
Film No	Film Type	Negs	Negs Present	Contacts Present	Film No	Negs	Present
-	--	-	-	-	-	-	-
Photographic Location Plans Present? (Give Details)							
In report and separate printouts in archive folder							
Digital Photographs (Give Details):							
Digital photography. Index and selected plates printed in report. Separate printout of index included in archive folder and digitally on CD							



## PLATES



Plate 1 Principal west façade, taken from the south-west (DP 01)



Plate 2 Section of the west elevation showing timber-framing infilled with brick and position of possible early window (indicated), taken from the west (DP 04)





Plate 3 West side of Room FF07 showing exposed timber elements including a wind brace and lower inner brace, taken from the north-east (DP 24)



Plate 4 View of the south gable end of Range 1 exposed within Range 2 (FF08), taken from the south-east (DP 22)



Plate 5 View of the roof apex in the south end of the main range, taken from the west (DP 14)



Plate 6 West roof pitch of the historic core showing exposed rafters and dormer windows, taken from the north-west (DP 47)





Plate 7 View of the east roof pitch of the historic core, taken from the east (DP 86)



Plate 8 East roof pitch of the historic core (Bay 1: north end) showing wind brace with lath and plaster above and replacement boarding below, taken from the east (DP 77)





Plate 9 Dormer window (Bay 1: west side),  
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Plate 10 Dormer window (Bay 2: west side),  
taken from the south (DP 61)





Plate 11 Detail of the dormer window (Bay 2: west side) showing gable with modern cement render infill and an early date, taken from the west (DP 59)



Plate 12 West roof pitch of the historic core (Bay 1: south end) showing principal rafter with pegged collar and weathered projecting purlin end, taken from the west (DP 67)





Plate 13 View of the east roof pitch of the historic core, taken from the east (DP 86)



Plate 14 West roof pitch of Range 4 showing dormer window, taken from the north-east (DP 89)

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1

*Principal west façade, taken from the south-west*



2

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3

*Dormer window on the west side of Range 1 showing date of 1756, taken from the west*



4

*Section of the west elevation (Range 1) showing timber-framing infilled with brick and position of possible early window (indicated), taken from the west*



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*West elevation between Ranges 1 and 4 showing straight joint in the brickwork, taken from the west*



6

*North elevation of Range 4, taken from the north-east*





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*East elevation of the building, taken from the east*



8

*East elevation of Ranges 1-3, taken from the east*



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*South elevation of Range 3, taken from the south*



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*View of the roof over Range 3, taken from the north*



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*Roof space of the south gable end of Range 1 showing exposed timber framing, taken from the south*



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*Roof space of the south gable end of Range 1 showing pebble-dashing, taken from the south*





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*View of the roof apex over Range 2, taken from the west*



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*View of the roof apex over Range 1, taken from the north*



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*View of the roof structure over Range 5, taken from the north-west*



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*Detail showing the construction of the roof over Range 5, taken from the south-west*



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Room FF10 (Range 5), taken from the east



20

Casement window at the top of the southern staircase (Range 2), taken from the east



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View of the timber-framing of the south end of Range 1 visible within Room FF08 (Range 2), taken from the south



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View of the timber-framing of the south end of Range 1 visible within Room FF08 (Range 2), taken from the south-east



23

West side of Room FF07 (Range 1) showing exposed timber elements including a wind brace, taken from the east



24

West side of Room FF07 (Range 1) showing exposed timber elements including a wind brace, taken from the north-east





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*Cupboard in the south-east corner of Room FF07 (Range 1) showing timber-framing including a corner post with tie-beam and wall-plate and section of brace visible on the left, taken from the north-west*



26

*Corridor FF05 on the east side of Range 1 showing exposed roof timbers including a wind brace, taken from the north*



27

*Crude scarf joint in the purlin on the east side of Range 1 (FF05), taken from the west*



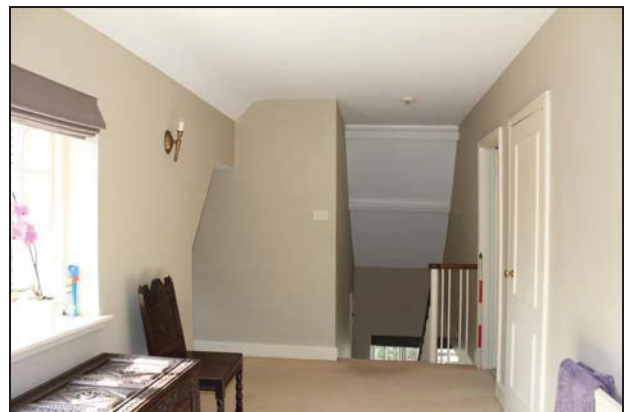
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*Exposed timber elements in Room FF06 (Range 1), taken from the north*



29

*Exposed timber elements in Room FF06 (Range 1), taken from the east*



30

*First floor landing FF01 at the north end of the building (Range 4), taken from the east*



31

*Room GF02 in (Range 5), taken from the east*



32

*Entrance hall GF01 at the north end of the house (Range 4), taken from the north-east*



33

*Casement window on the west side of entrance hall GF01 (Range 4), taken from the north-east*



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*Utility room GF06 in Range 3, taken from the south-east*



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*Exposed timber elements in Room GF05 (Range 2), taken from the north-west*



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*Exposed timber elements on the north side of Room GF05 (Range 2), taken from the south*





37

*Casement window on the east side of Room GF05 (Range 2), taken from the west*



38

*South side of Room GF04 (Range 1) showing exposed brick chimney stack, taken from the north*



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*Room GF04 with view of open partition to Room GF03 (Range 1), taken from the north-west*



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*Room GF03 with view of open partition to Room GF04 (Range 1), taken from the south-west*



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*Inglenook fireplace on the north side of Room GF03 (Range 1), taken from the south*



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*Lambs tongue chamfer stop on the ceiling joists in Room GF03 (Range 1), taken from the east*



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*Ceiling joists in Room GF03 (Range 1), taken from the south*



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*Binding joist between Rooms GF03 and 04 showing redundant mortices for staves and studs (Range 1), taken from the east*



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*Ceiling joists in Room GF04 (Range 1), taken from the west*



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*West roof pitch of Range 1 (Bay 1: north end) showing principal rafter and adjoining rafter with wind brace behind the lath and plaster, taken from the west*



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*West roof pitch of the historic core (Range 1) showing exposed rafters and dormer windows, taken from the north-west*



48

*West roof pitch of Range 1 (Bay 1) showing exposed rafters, taken from the north-west*





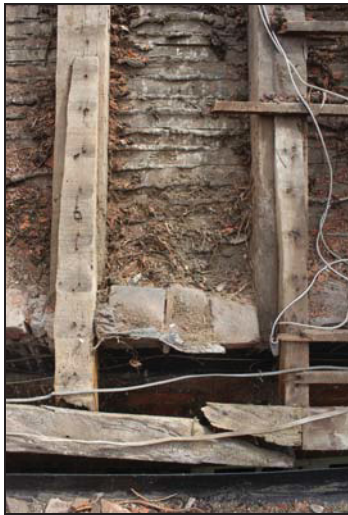
49

*West roof pitch of Range 1 (Bay 1: north end) showing principal rafter with pegged purlin and later adjoining slender rafter, taken from the north-west*



50

*West roof pitch at the junction between Ranges 1 and 4, taken from the west*



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*West roof pitch of Range 1 (Bay 1: north end) showing nailed rafter feet, taken from the west*



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*West roof pitch of Range 1 showing dormer windows of differing construction, taken from the north-west*



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*Detail of the dormer window (Range 1: Bay 1, west side) showing slender rafter couples to a ridgeboard, taken from the north*



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*Detail of the dormer window (Range 1: Bay 1, west side) showing north side with lath and plaster and brick fragments, taken from the north*





55

*West roof pitch of Range 1 (Bay 1) showing principal rafters above the dormer window, taken from the west*



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*Dormer window (Range 1: Bay 1, west side), taken from the south*



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*Dormer window (Range 1: Bay 2, west side), taken from the south*



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*Detail of the dormer window (Range 1: Bay 2, west side) showing rafter couples with no ridgeboard, taken from the north-west*



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*Detail of the dormer window (Range 1: Bay 2, west side) showing gable with modern cement render infill, taken from the west*



60

*Detail of the dormer window (Range 1: Bay 2, west side) showing wall-plate with shaped end, taken from the west*





61  
Dormer window (Range 1: Bay 2, west side), taken from the south



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63  
West roof pitch of the historic core (Range 1: Bay 2, south end) showing rafters truncated by the insertion of the chimney stack, taken from the west



64  
West roof pitch of Ranges 1 and 4, taken from the south-west



65  
West roof pitch of Range 1 (north end) at the junction with Range 4, taken from the south-west



66  
West roof pitch, taken from the south-west





67

*West roof pitch of Range 1 (Bay 1: south end) showing principal rafter with pegged collar and weathered projecting purlin end, taken from the west*



68

*West roof pitch of Range 1 (Bay 1: north end) showing principal rafter and adjoining rafter with wind brace behind the lath and plaster, taken from the west*



69

*West roof pitch of Range 1 (Bay 1: north end) showing nailed rafter feet, taken from the north-west*



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*East roof pitch of Ranges 1 and 2, taken from the south-east*



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*East roof pitch of Range 1, taken from the south-east*



72

*East roof pitch of Range 2, taken from the north-east*





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*Dormer window (Range 2: east side), taken from the north-east*



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*West roof pitch of Range 1 and 2 showing dormer windows, taken from the north-east*



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*East roof pitch at the junction between Ranges 1 and 4, taken from the south-east*



76

*East roof pitch at the junction between Ranges 1 and 4, taken from the east*



77

*East roof pitch of Range 1 (Bay 1: north end) showing wind brace with lath and plaster above and replacement boarding below, taken from the east*



78

*East side of Range 1 (Bay 1: north end) showing wall-plate with surviving stud and adjacent peg-holes for a tension brace, taken from the east*





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*East side of Range 1 (Bay 1: north end) showing wall-plate with surviving studs, taken from the east*



80

*Dormer window (Range 1: Bay 1, east side), taken from the south-east*



81

*Dormer window (Range 1: Bay 2, east side), taken from the south*



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*East roof pitch at the junction between Ranges 1 and 2, taken from the east*



83

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84

*View of the east side of Ranges 1 and 2 during removal of the roof cladding, taken from the east*





85

*View of the east side of Ranges 1 and 2 during removal of the roof cladding, taken from the east*



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*View of the east roof pitch of Range 1, taken from the east*



87

*View of the west side of Ranges 1 and 2 during removal of the roof cladding, taken from the west*



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*View of the west roof pitch of Range 1, taken from the west*



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*Detail of the west roof pitch of Range 4 showing alterations of the roof structure, taken from the west*





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*Detail of the west roof pitch Range 4 showing truncated tie-beam, taken from the north*



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94

*Detail of the west roof pitch of Range 4 showing alterations to the roof structure, taken from the west*



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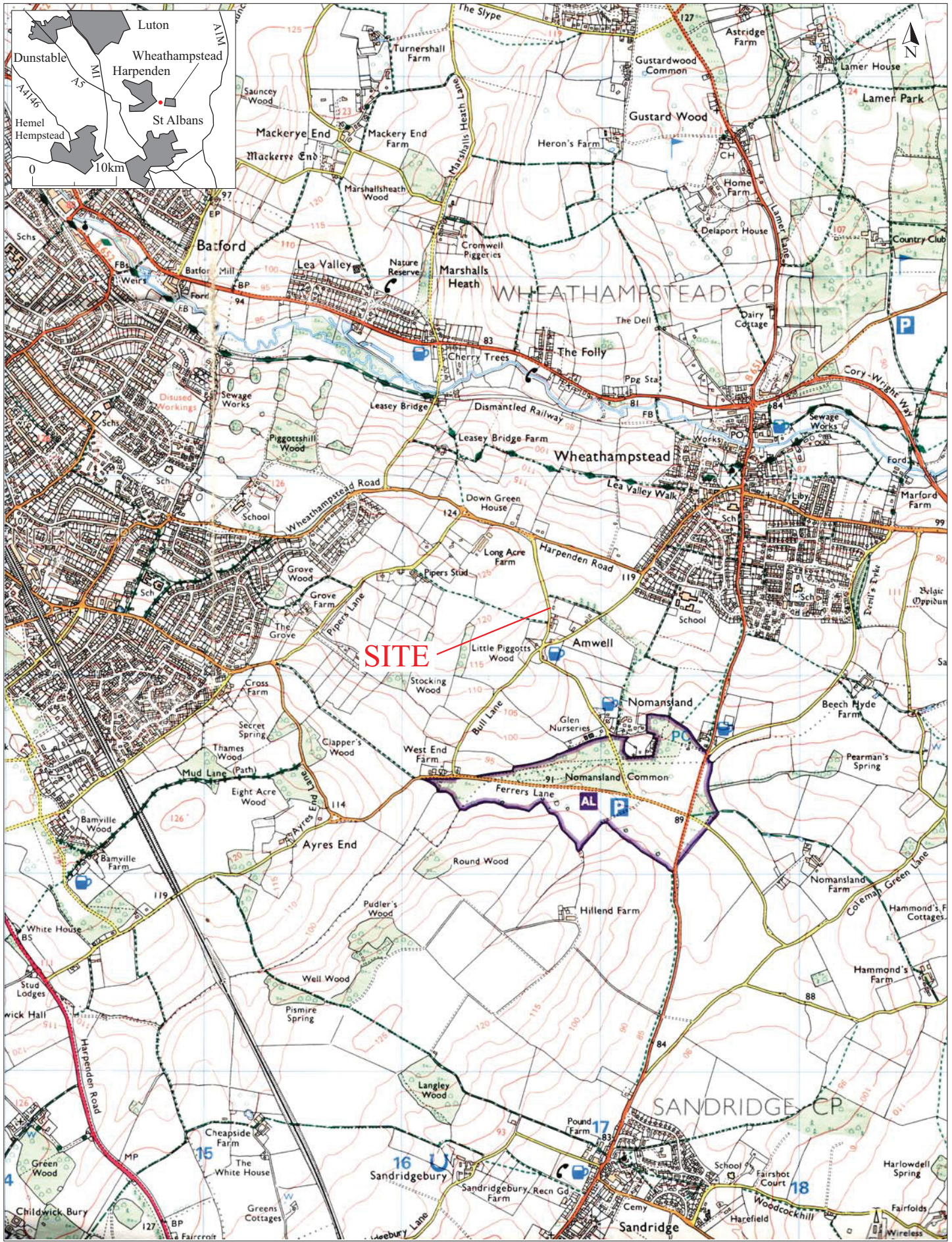
*East roof pitch of Ranges 2 and 3, taken from the south-east*



96

*East roof pitch of Range 2, taken from the east*





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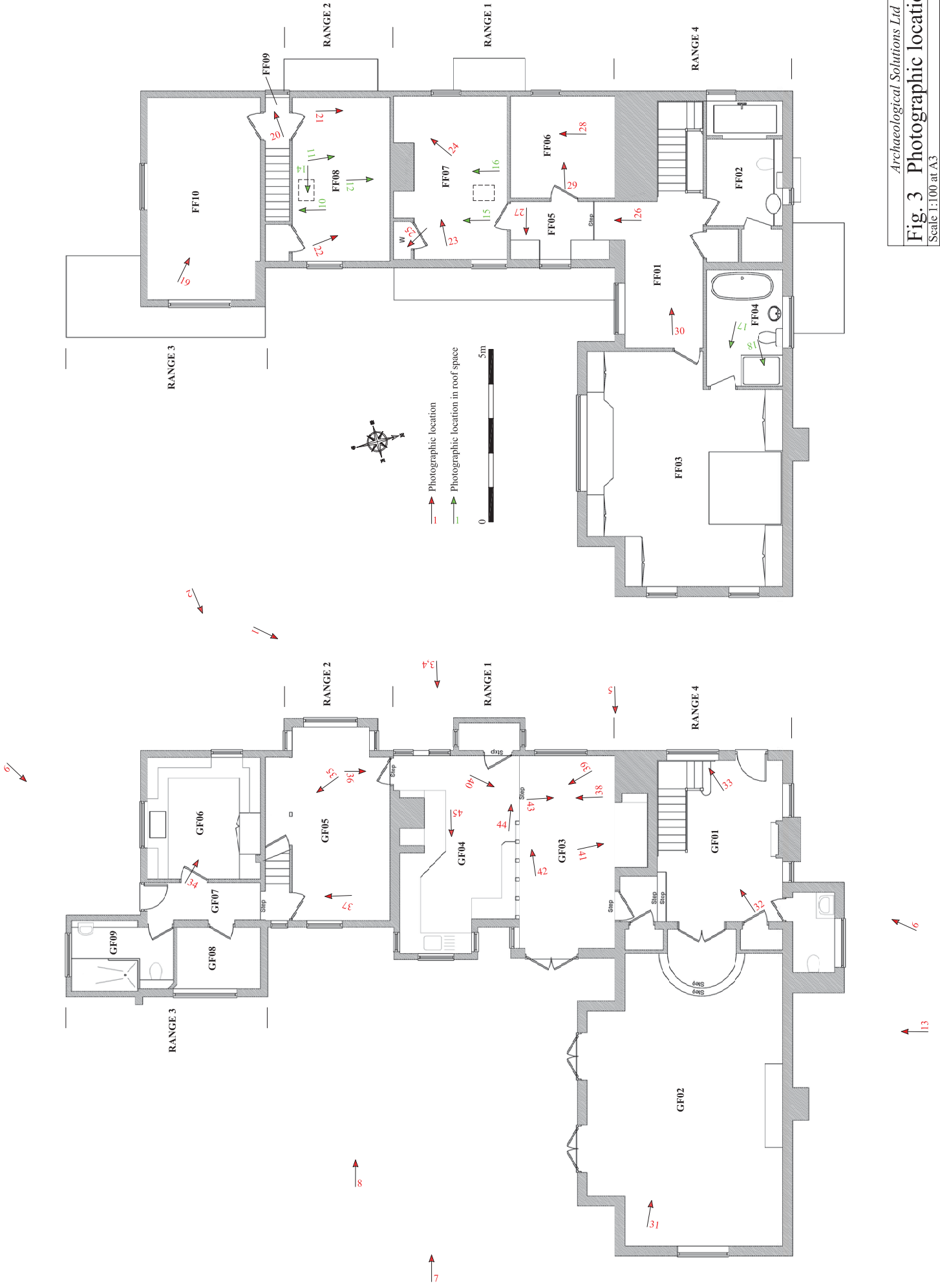
*Archaeological Solutions Ltd*  
**Fig. 1 Site location plan**  
 Scale 1:25,000 at A4  
 Amwell End House, Wheathampstead, Herts (P5679)

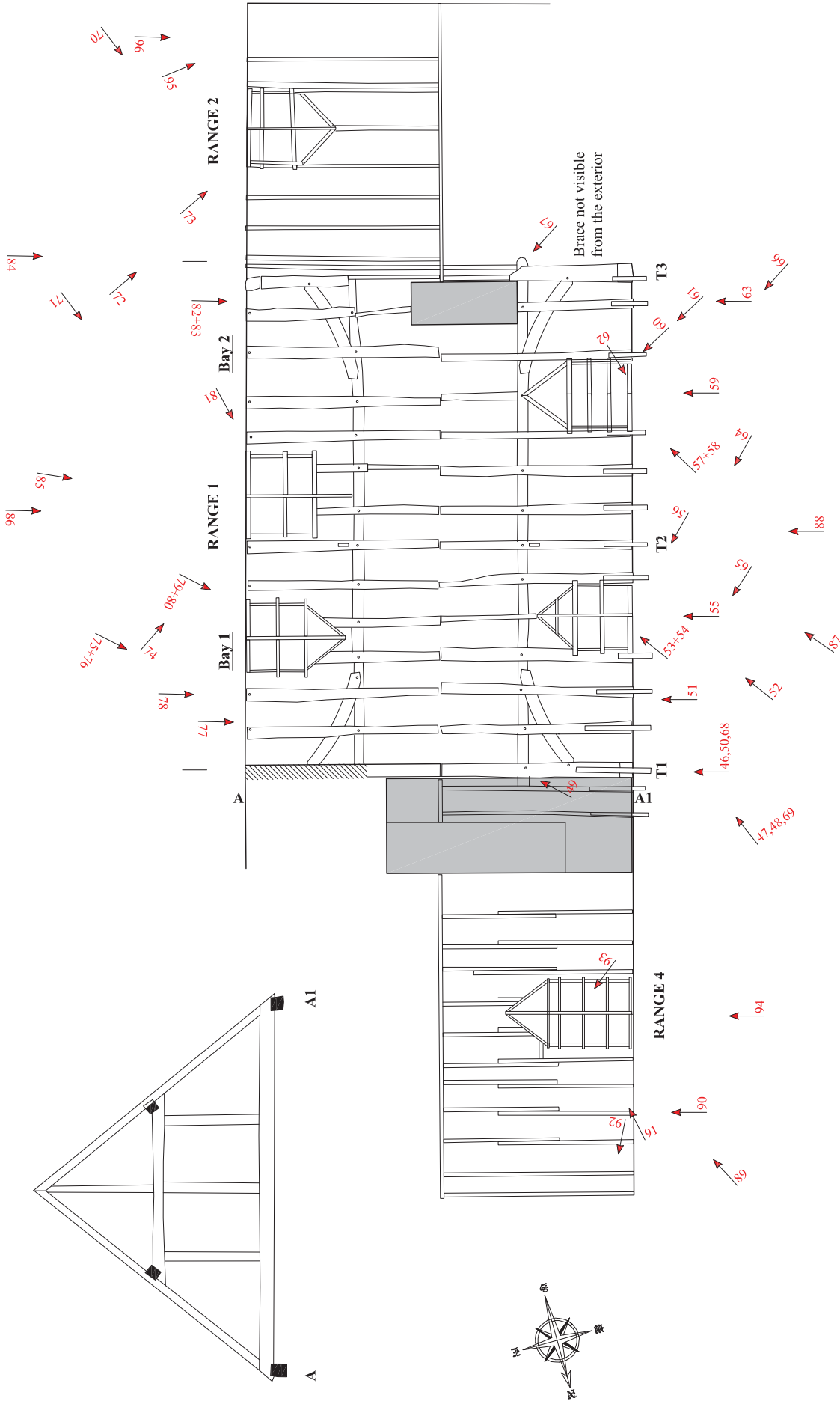




0 150m

Archaeological Solutions Ltd  
**Fig. 2 Detailed site location plan**  
 Scale 1:2000 at A4  
 Amwell End House, Wheathampstead, Herts (P5679)





Archaeological Solutions Ltd  
**Fig. 4 Roof plan**  
 Scale 1:75 at A4  
 Amwell End House, Wheathampstead, Herts (P5679)

— Photograph location

