

**An Archaeological Watching Brief at New Barn,
Michelgrove, Patching, West Sussex**

**Planning Ref: PA/9/06
Arun: Patching**

NGR 508242 109056

**Project No: 2755
Site Code: NBP07**

**ASE Report No.:2008196
OASIS id:archaeol6-50246**



**by
David Dunkin BA MA AIFA**

September 2008

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Abstract

Ground reduction within the footprint of the barn conversion building revealed no archaeological features or significant finds. The 'natural' chalk was uncovered chiefly on the east side of the development where the structure was terraced into the adjacent field. 7 soakaways were excavated (approx 2 metres square and 1-2 metres deep). Soakaway 7 on the north-west side of the development provided evidence for a possible former hedge line on the west side of the building. This may have been removed at the time of the building's construction. A possible lynchet seen in section on the east side of the structure suggests the proximity of a former field boundary at this location.

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SMR Summary Sheet
OASIS Form

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1.0 INTRODUCTION

1.1 Site Background

- 1.1.1 Archaeology South-East (a division of the University College London Field Archaeology Unit) has been commissioned by Cluttons LLP, Arundel to carry out an archaeological watching brief at New Barn, Michelgrove, Patching, West Sussex (fig. 1) (NGR:508242 109056). This entailed the monitoring by a qualified archaeologist of all ground works relating to the conversion of the barn to a dwelling. This was to include related service and drainage trenches as well as all ground reduction within the footprint of the development site itself.
- 1.1.2 Prior to the development the barn structure was comprised of a number of different elements (fig. 2). The main part of the barn (large storage area with high roof) was at the north end. This part of the structure is to be the principal sitting and dining area and will provide the main entrance(s) to the building (fig. 3). The east and west sides of the structure run north-south and are described as the East Byre and West Byre. The latter will in the main be bedroom and bathroom accommodation as well as having other domestic functions. The east and west extensions of the Byres at the south end of the building are to be covered storage and carport areas. All of the elements just described enclose a central courtyard area.

1.2 Geology and Topography

- 1.2.1 The development site lies immediately south of Harrow Hill an important chalk eminence and is 5 km east of the Arun Valley and approximately 2.5km north-north-east of the village of Patching (fig.1). The land falls gently to the south of the development site towards the West Sussex Upper Coastal Plain 2 kilometres away.
- 1.2.2 The site itself lies on a division of the Upper Chalk (Tarrant Chalk Member) characterised by white chalks with flints according to the British Geological Survey 1: 50,000 map sheets Nos. 317/332 Chichester/Bognor.

1.3 Planning Background

- 1.3.1 Planning permission has been granted by Arun District Council for the conversion of redundant agricultural buildings to a single residential dwelling (Planning Reference PA/9/06) (Figures 2 and 3). Due to the site's archaeological potential and following the advice of the West Sussex County Council's Archaeologist (in the County Council's capacity as advisor to the District Council on archaeological planning matters), Arun District Council have attached the following condition (Condition 6) to the planning permission.

No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority.

1.3.2 Discussions between ASE and Mark Taylor, County Archaeologist, West Sussex County Council (WSCC) established that the scope of the required works would entail maintaining an archaeological watching brief during all intrusive ground works associated with the development.

1.3.3 It transpired that some elements of ground works had already taken place prior to ASE being commissioned. This comprised a small number of trial holes around the property to determine the depth of existing foundations and the removal of some topsoil for the formation of the new access track.

1.4 Aims and Objectives

1.4.1 The general aim of the archaeological work is to monitor all intrusive ground work in order to ensure that any features, artefacts or ecofacts of archaeological interest exposed and affected by the excavations are recorded and interpreted to appropriate standards and a report of the findings produced.

1.4.2 The following intrusive groundworks were monitored by an archaeologist:

- General ground reduction/intrusive site clearance of the development site
- Excavations associated with improvements to the existing access track way.
- Trial holes
- Excavations for new foundations/underpinning
- Excavations for services
- Landscaping
- Any other significant ground works

1.5 Scope of Report

1.5.1 This report represents the findings of the watching brief undertaken between June and August 2007. The archaeological monitoring of the New Barn Development was undertaken by Alice Thorne, David Yates and David Dunkin between June and August 2007.

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 The site lies within an area of known archaeological potential, primarily for the prehistoric, Saxon and medieval periods.
- 2.2 The site lies immediately west of Schedule Monument (SM) 29273 which incorporates earthworks and buried features associated with Neolithic and Late Bronze Age settlement and associated field system (Curwen 1954). Middle Saxon burial mounds are also included within the scheduled area.
- 2.3 Seven further Scheduled Monuments are present within 2km of the development site and include a prehistoric flint mine and Late Bronze Age enclosure on Harrow Hill to the north (SM 29246 (Holleyman 1937)), a Late Bronze Age enclosure on a small hill to the northeast (SM 29272), a prehistoric flint mine and round barrow cemetery on the southern slopes of Blackpatch Hill (SM 29271) and a deserted medieval village at Lower Barpham Farm to the west (SM 29275).
- 2.4 Further unscheduled earthworks and tumuli are to be found in the vicinity further highlighting the richness of the area's archaeological potential.

3.0 ARCHAEOLOGICAL METHODOLOGY

- 3.1 Intrusive ground works (with the exception of those listed in sections 1.3.3 and 3.2) were monitored by an archaeologist until/unless it became clear beyond reasonable doubt that no archaeological remains were present (e.g. once excavation reached undisturbed natural subsoils).
- 3.2 A 200metre long trench, 0.75m deep and 0.50m wide, was to be dug for the connecting electricity cable. This was to run from the north end of the approach drive and run parallel to it on the drive's east side just inside the field. This however, was not monitored owing to the precise timing of this activity not being reported.
- 3.3 All excavation was undertaken with a machine equipped with a suitably sized toothless bucket wherever practicable.
- 3.4 Where archaeological remains were encountered, machine excavation ceased to allow the remains to be investigated further.
- 3.5 The archaeologist inspected the surfaces revealed. Any archaeological structures or features revealed were recorded in plan and section as appropriate.
- 3.6 The main contractor allowed the archaeological contractor reasonable time and resources to undertake any inspection or recording required.

Number of Contexts	6
No. of files/paper record	5 x sheets (8 sides)
Plan and sections sheets	1
Bulk Samples	Nil
Photographs	19 Digital
Bulk finds	Nil
Registered finds	Nil
Environmental flots/residue	None taken (not appropriate)

Table 1: Quantification of site archive

4.0 RESULTS

- 4.1 Ground reduction occurred within all parts of the barn structure described above. Furthermore, seven soak away pits were to be excavated to an approximate depth of between 1-2 metres; three within the central courtyard area and four close to the external parameters of the development (fig. 2).
- 4.2 The archaeological results of ground reduction at the barn conversion are provided below in the order of sequence in which the excavations were undertaken. This was firstly the east and west sections of the main barn at the north end of the site followed by the compartments of the West Byre and its eastern extension. The final excavations were of the East Byre and its compartments and its western extension.
- 4.3 The results of the excavations of the 7 soak away pits will be dealt with separately.

Number	Type	Description	Max. Length	Max. Width	Deposit Thickness
001	Deposit	Barn floor surface	Tr.	Tr.	0.10-0.20m
002	Deposit	Natural Chalk	Tr.	Tr.	N/A
003	Deposit	Subsoil	Tr.	Tr.	Full depth not encountered during works
004	Deposit	Same as [003]	Tr.	Tr.	Full depth not encountered during works
005	Deposit	subsoil solifluction deposit	Tr.	Tr.	0.25m
006	Deposit	Lynchets Plough soil	Tr.	Tr.	0.30-0.80m
007	Deposit	Topsoil	Tr.	Tr.	0.15-0.50m thick

Table 2: List of recorded contexts

4.4 The interior trenches

- 4.4.1 The floor of the main part of the barn, context [001], is a late post-medieval beaten earth floor and comprised a mid brownish-grey slightly clayey silt of between 0.10m and 0.20m thickness. The soil matrix was friable and contained 19th century Welsh slate, occasional modern broken bottles, frequent nodules of sub-angular flint and very frequent chalk blocks. On the eastern side of the main barn floor (north end) context [001] immediately overlay the 'natural' chalk bedrock, [002]. The latter appeared as a creamy white blocky weathered surface. No archaeological cut features were observed within the 'natural' chalk.
- 4.4.2 On the western side of the main barn (north end) the 'beaten floor' [001] overlay a subsoil deposit [003]; a grey-brown silt matrix (<30%) containing angular flint-nodules and chalk blocks. Ground reduction at this location did not penetrate this deposit and the 'natural' chalk [002] was not encountered.
- 4.4.3 The depth of ground reduction for the West Byre area (Piers 1-6), including the eastern extension (Piers 7-9) (fig. 2) varied between 0.60m and 0.40m. Following excavation to the required depth of Piers 1-8 in the West Byre context [004] was revealed beneath a 0.10-0.20m thick layer of beaten floor [001]. Context [004] (probably same as [003]) is described as 90% whitish grey angular chalk blocks contained within a mid-brown silt clay matrix. No

archaeological features or finds were observed within this subsoil deposit.

- 4.4.4 Context [005] was only seen in the east facing section in the West Byre within Piers 1-3 where it was presumed it continued beneath the reduced level. At this point it was 0.25m thick. Context [005], which was below [001] and [004], is described as a mid-light brown silt clay containing 10%+ angular chalk pieces of between 20-60mm diameter. This layer could possibly have been a solifluction deposit above the natural chalk (context [002] not seen at this location); however, no flint was seen within the matrix of this layer so it could be interpreted a 'subsoil up layer external to the footprint of the building. No archaeological finds were observed.
- 4.4.5 The greatest depth of excavation in the West Byre was in the final 4 metres of the eastern extension (Pier 9: fig. 2) where at a depth of 0.60/0.65m the natural chalk [002] was encountered below context [004]. No archaeological cut features or finds were seen.
- 4.4.6 The whole of the East Byre (Piers 1-10 and the western extension in the south-east corner) was covered by concrete slab. The latter was of variable thickness c.100-200mm. When removed, apart from 6 metres of the terminal end of the western extension the 'natural' chalk [002] was revealed. The chalk was excavated to a maximum depth of 0.40m. No archaeological features or finds were seen within the East Byre. The 6m of the western return of the East Byre was reduced down to a 'rubble' layer and the natural chalk was not seen at this location.
- 4.4.7 Other observations within the East Byre relate to the sections on the east and west sides of the excavation. Solid chalk [002] was seen in both profiles of excavated area between Piers 1-4. On the western inner side of Piers 5-10 a deposit similar to context [004] was noted. The subsoil layer [003] deepens from south to north within the enclosed area of the former barn, reflecting the profile of the land.
- 4.4.8 Context [006] was seen only in the east section (west facing) between Piers 5-8 (10 metres in all) within the East Byre. This deposit was 0.30-0.80m in thickness and is described as a mid to dark brown silt clay containing 15%+ chalk granules. This location is within the upslope sector of the structure where it abuts the adjacent field and this partly accounts for the variable thickness of the deposit. Context [006] is probably a remnant ploughsoil and the depth of the layer also suggests that this is the location of a former lynchet cut by the original barn construction.
- 4.4.9 Levels taken in the main barn area (81.93m AOD) on the east side and on the upslope area outside the north-east sector of the barn (83.18m AOD), indicates that the depth of terracing into the hill slope is approximately 1.25m on the east side.

4.5 The Soakaway Pits (Figs 2 and 3)

- 4.5.1 Seven soakaway pits were excavated to a variable depth of between 1.4 and 1.8metres. The stratigraphy comprised of an overburden of beaten earth floor [001] inside the building, or disturbed topsoil deposit [007] for the exterior of the building. In all but soakaways 5 and 4 a subsoil deposit was

present of either one or both of [004] and [005]. All the soakaways reached and/or penetrated the underlying 'natural' chalk (context [002]).

4.6 Soakaway 1

4.6.1 Soak away measured 1.90m square and was excavated to a depth of 1.65m. The profile comprised 0.25m topsoil [007] above 0.30m solifluction subsoil deposit [005]. 'Natural' chalk [002] was encountered at 0.55m. No archaeological features or finds were observed.

4.7 Soakaway 2

4.7.1 Soakaway 2 measured 1.90m square and excavated to a depth of 1.40m. The profile comprised 0.20m of topsoil [007] overlying 'Natural' chalk [002]. No archaeological features or finds were observed.

4.8 Soakaway 3

4.8.1 Soakaway 3 measured 2.20m square and excavated to a depth of 1.60m. The profile comprised 0.15m of topsoil [007] overlying a 0.20m solifluction subsoil deposit [005]. 'Natural' chalk [002] was encountered at 0.35m. No archaeological features or finds were observed.

4.9 Soakaway 4

4.9.1 Soakaway 4 measured 1.80m square and excavated to a depth of 1.50m. The profile comprised 0.35m topsoil [007] overlying 'Natural' chalk [002] which was encountered at 0.35m below surface level. No archaeological features/finds were observed.

4.10 Soakaway 5

4.10.1 Soakaway 5 measured 2.20m square and excavated to a depth of 1.60m. The profile comprised 0.50m topsoil [007] overlying 'Natural' chalk [002] at a depth of 0.50m. No archaeological features or finds were observed.

4.11 Soakaway 6 (fig.3)

4.11.1 Soakaway 6 measured 2.0m square and excavated to a depth of 1.60m. The profile comprised 0.70m of mixed topsoil deposit [007] (disturbed by BT cabling) overlying chalk rubble subsoil [004] of 0.60m thickness. 'Natural' chalk [002] was encountered at 1.40m. No archaeological features were observed. A piece of 1930's ceramic was found in the topsoil (not retained).

4.12 Soakaway 7 (fig. 3)

4.12.1 Soakaway 7 measured 1.90m square and was excavated to a depth of 1.80m. The profile comprised 0.80m of mixed topsoil deposit [007], a mid-dark brown loamy soil containing 15% sub-angular natural flint pieces (50-70mm diameter), the disturbed nature of this deposit is emphasised by the inclusion within its matrix of 19th/20th century bricks and glass bottles (not retained). Deposit [007] immediately overlay the chalk bedrock [002].

4.12.2 The north facing section of Soak away 7 (fig. 3) shows some irregular hollows at the base of the subsoil deposit [005] close to the contact with the 'natural' chalk. On investigation there was some evidence of solifluction (Coombe rock) but also root activity suggesting a former north-south hedge line on the west side of the existing track way. No other archaeological features or finds were noted in Soak away 7.

5.0 THE FINDS

- 5.1 The watching brief produced no significant finds. The main barn floor at the north end of the development (fig. 2) produced pieces of 19th century slate and modern broken bottle pieces within the upper beaten floor level [001].
- 5.2 Two of the soakaways (Nos. 6 and 7; fig. 2) produced 20th ceramics; 19th/20th century bricks and modern glass bottles from context [007]. This indicates the disturbed nature of much of the ground in the vicinity of the barn conversion.
- 5.3 Casual observation of the field abutting the development on its east and north side indicated a low level presence of fire-cracked-flint. Burnt flint was used to heat water in earlier periods and its occurrence here is not surprising in an area of known late prehistoric activity.
- 5.4 None of the modern finds outlined above were retained.

6.0 DISCUSSION

- 6.1 The underlying 'natural' for the entire footprint of the structure was the Upper Chalk. The most likely location for archaeological features in this location would be cut into the chalk. Chalk was revealed along the entire length of the East Byre and 6 metres of its western return. The chalk was also seen in the eastern section of the main barn in the north of the site and for a few metres in the southern extension of the West Byre and contained no archaeological features.
- 6.3 Soak away 7 produced a possible archaeological anomaly. Irregularities at the interface between deposits [007] and [005] suggest root action and disturbance associated with a possible former hedge line running north-south on the west side of the barn some metres closer to the barn than the extant hedge line. It is therefore possible that the old hedge line was removed at the time the barn was originally constructed.
- 6.4 The whole barn structure is terraced into the field on the building's north and east side and this explains why most of the exposure of the chalk [002] following ground reduction lies within the east side of the building. Furthermore, the west facing section between Piers 5-8 in the East Byre revealed a possible field boundary (lynchet). This suggests that the barn may have been originally constructed just outside the western margins of a former field boundary. This boundary may have been cut by the building.

7.0 CONCLUSION

- 7.1 It is apparent that the groundworks relating to the barn conversion have not destroyed or revealed any significant archaeological deposits.
- 7.2 Ground reduction of the main barn structure at the north end of the building together with the East and West Byres and their respective extensions produced no archaeological features or significant finds.
- 7.3 At this site the archaeological watching brief would seem to have been entirely appropriate given the nature of the groundworks. The archaeological potential of the area warranted this level of intervention.

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ACKNOWLEDGEMENTS

Archaeology South-East would like to thank Matt Robins of Fallon Homes for his assistance.

SMR Summary Form

Site Code	NBP07					
Identification Name and Address	New Barn, Patching					
County, District &/or Borough	Angmering, Arun district, West Sussex.					
OS Grid Refs.	NGR 508242 109056					
Geology	Upper chalk					
Arch. South-East Project Number	2755					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban	Deep Urban	Other ✓ Isolated barn re-development		
Dates of Fieldwork	Eval.	Excav.	WB. June – August 2007	Other		
Sponsor/Client	Fallon Homes					
Project Manager	Neil Griffin					
Project Supervisor	David Dunkin					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Modern ceramics/brick/slate/ glass found in 'made' deposits		
<p>100 Word Summary.</p> <p>Ground reduction within the footprint of the barn conversion building revealed no archaeological features or significant finds. The 'natural' chalk was uncovered chiefly on the east side of the development where the structure was terraced into the adjacent field. 7 soakaways were excavated (approx 2 metres square and 1-2 metres deep). Soakaway 7 on the north-west side of the development provided evidence for a possible former hedge line on the west side of the building. This may have been removed at the time of the building's construction. A possible lynchet seen in section on the east side of the structure suggests the proximity of a former field boundary at this location.</p> <p>An archaeological watching brief was the appropriate level of intervention for the groundwork undertaken.</p>						

OASIS Form

OASIS ID: archaeol6-50246

Project details

Project name	An Archaeological watching brief at New Barn, Michelgrove, Patching, West Sussex.
Short description of the project	Ground reduction within the footprint of the barn conversion building revealed no archaeological features or significant finds. The 'natural' chalk was uncovered chiefly on the east side of the development where the structure was terraced into the adjacent field. 7 soakaways were excavated (approx 2 metres square and 1-2 metres deep). Soak away 7 on the north-west side of the development provided evidence for a possible former hedge line on the west side of the building. This may have been removed at the time of the building's construction. A possible lynchet seen in section on the east side of the structure suggests the proximity of a former field boundary at this location. An archaeological watching brief was the appropriate level of intervention for the groundwork undertaken.
Project dates	Start: 11-06-2007 End: 08-08-2007
Previous/future work	Not known / Not known
Any associated project reference codes	NBP07 - Sitecode
Type of project	Recording project
Current Land use	Residential 1 - General Residential
Monument type	NONE None
Significant Finds	NONE None
Investigation type	'Watching Brief'
Prompt	Planning condition

Project location

Country	England
Site location	WEST SUSSEX ARUN PATCHING New Barn, Patching

Postcode	BN13
Study area	300.00 Square metres
Site coordinates	NGR 508242 109056 50.8773574788 0.144086088483 50 52 38 N 000 08 38 E Point

Project creators

Name of Organisation	Archaeology South-East
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Project brief originator	Archaeology South-East
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Project design originator	Archaeology South-East
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Project director/manager	Neil Griffin
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Project supervisor	David Dunkin
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Type of sponsor/funding body	Developer
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Project archives

Physical Archive Exists?	No
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Physical Archive recipient	n/a
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Digital Archive recipient	Local Museum
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Digital Contents	'none'
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Digital Media available	'Images raster / digital photography'
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Paper Archive recipient	Local Museum
Paper Contents	'none'
Paper Media available	'Context sheet','Diary','Plan','Unpublished Text'

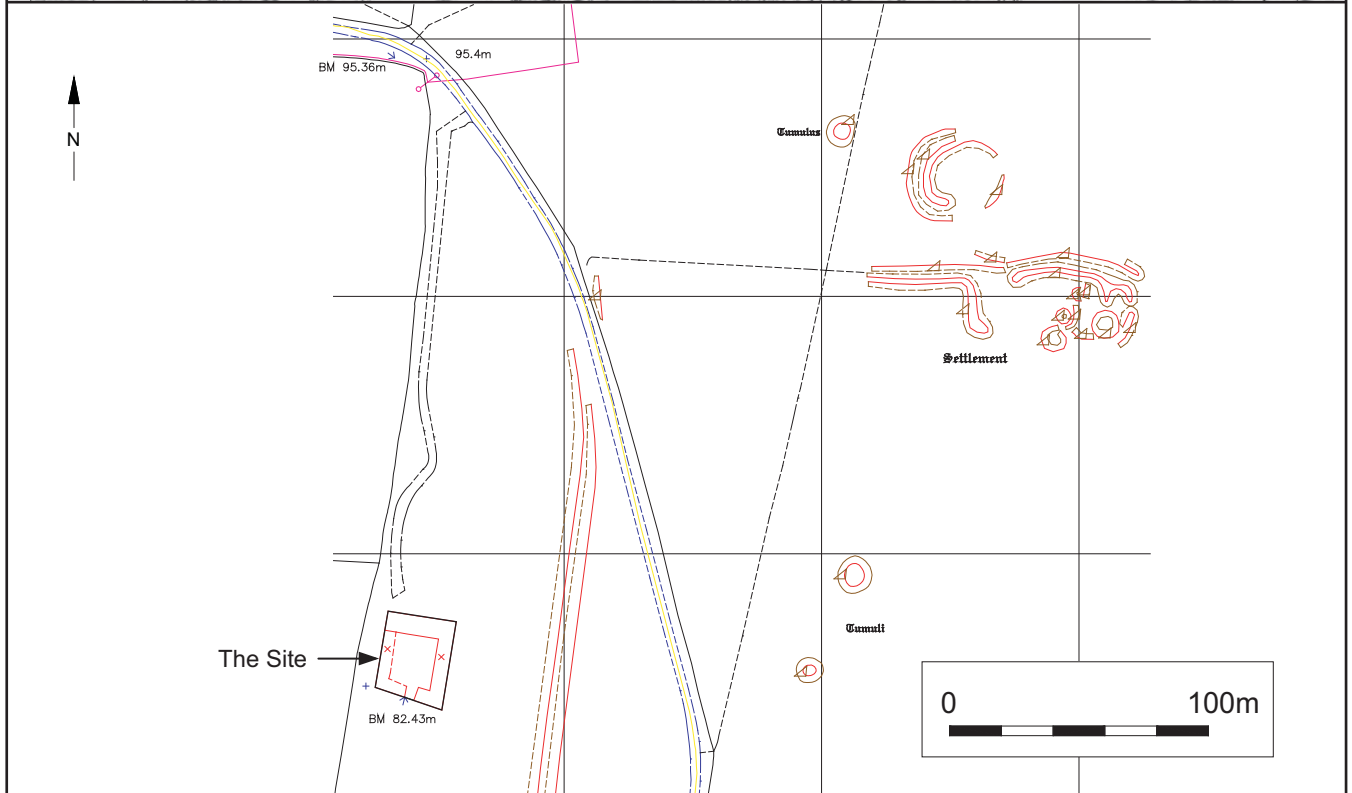
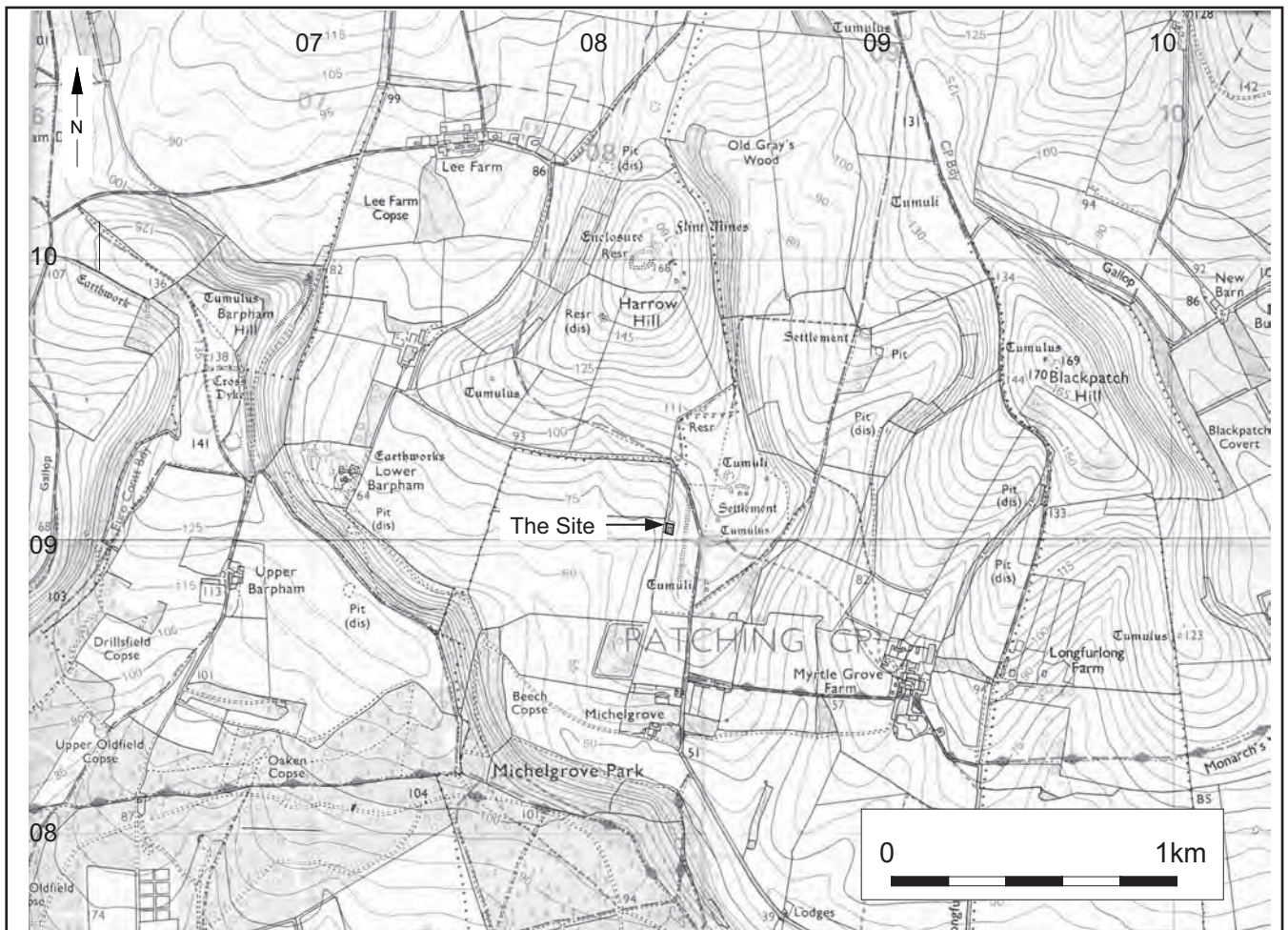
Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Watching Brief at New Barn, Patching, West Sussex
Author(s)/Editor(s)	Dunkin, D
Other bibliographic details	Report: 2008196
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Description	Bound Grey Literature report and PDF

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Entered on	24 October 2008

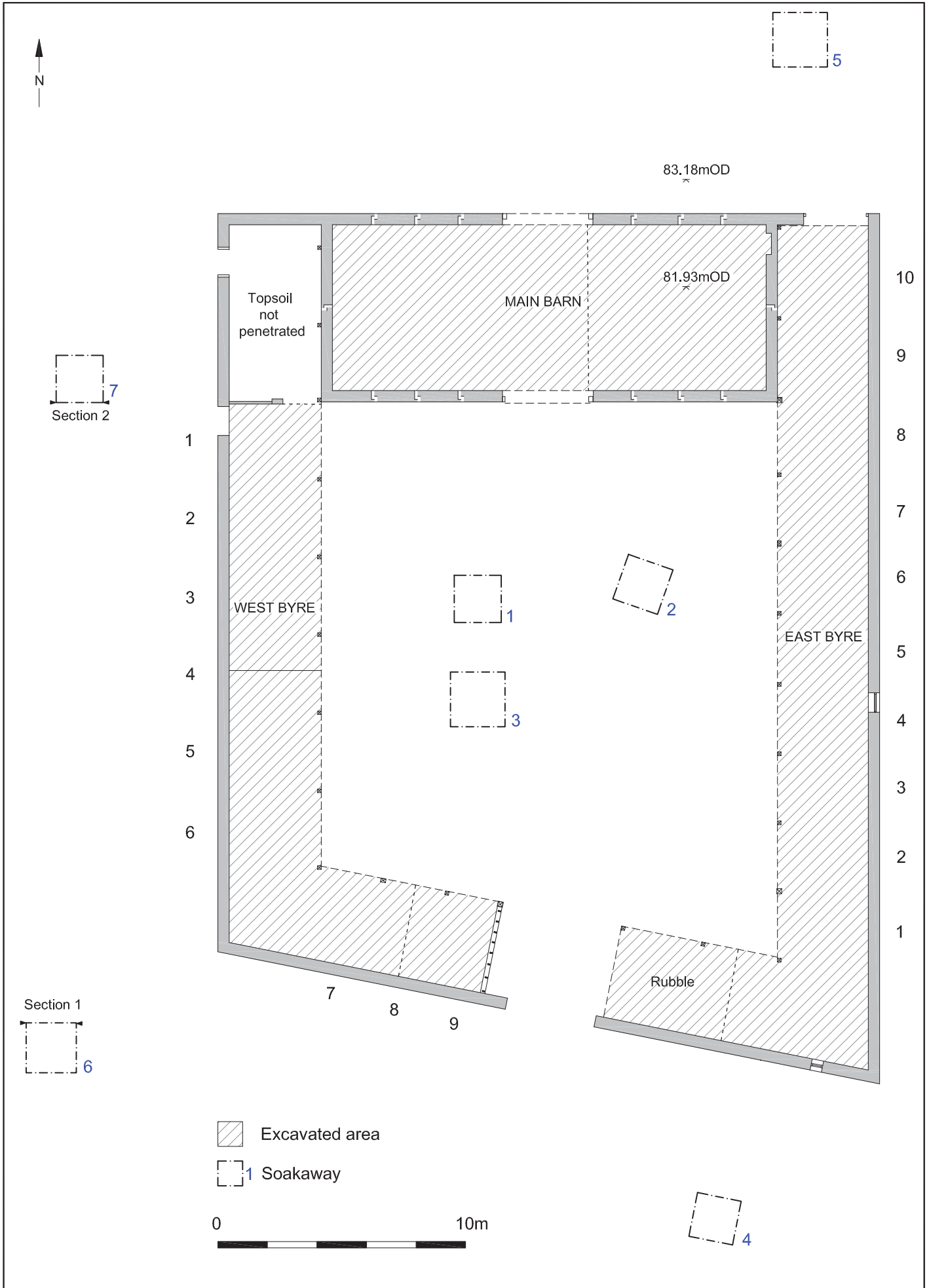
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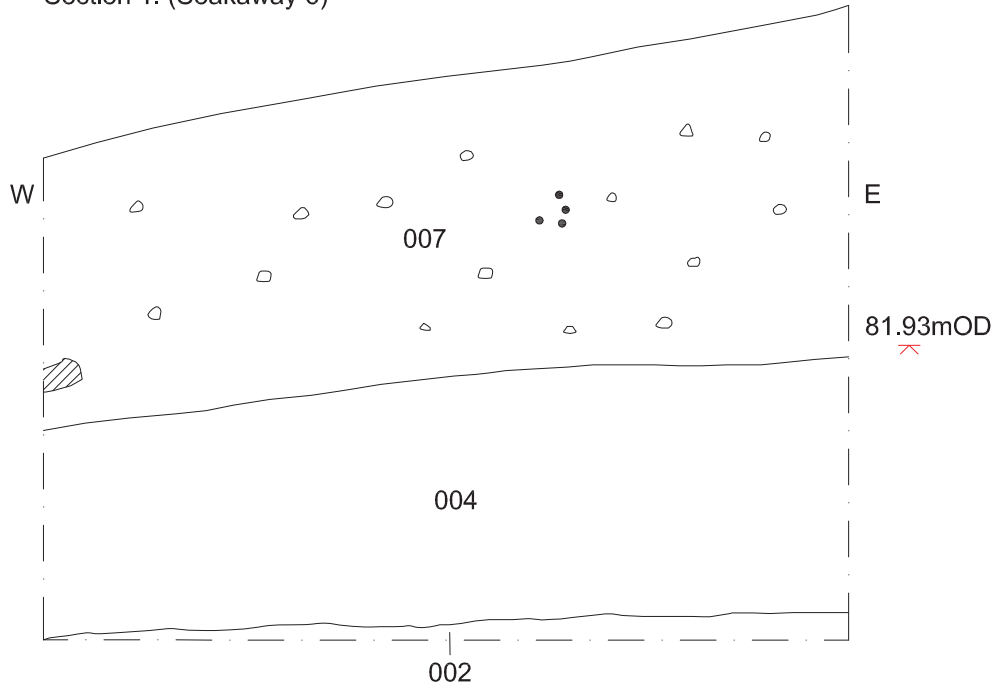
© Archaeology South-East		New Barn, Michelgrove, Patching		Fig. 1
Project Ref: 2755	Oct 2008	Site Location Plan		
Report Ref: 2008196	Drawn by: JLR			

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© Archaeology South-East		New Barn, Michelgrove, Patching	Fig. 2
Project Ref: 2755	Oct 2008	Location plan showing excavated areas	
Report Ref: 2008196	Drawn by: AW		

Section 1: (Soakaway 6)



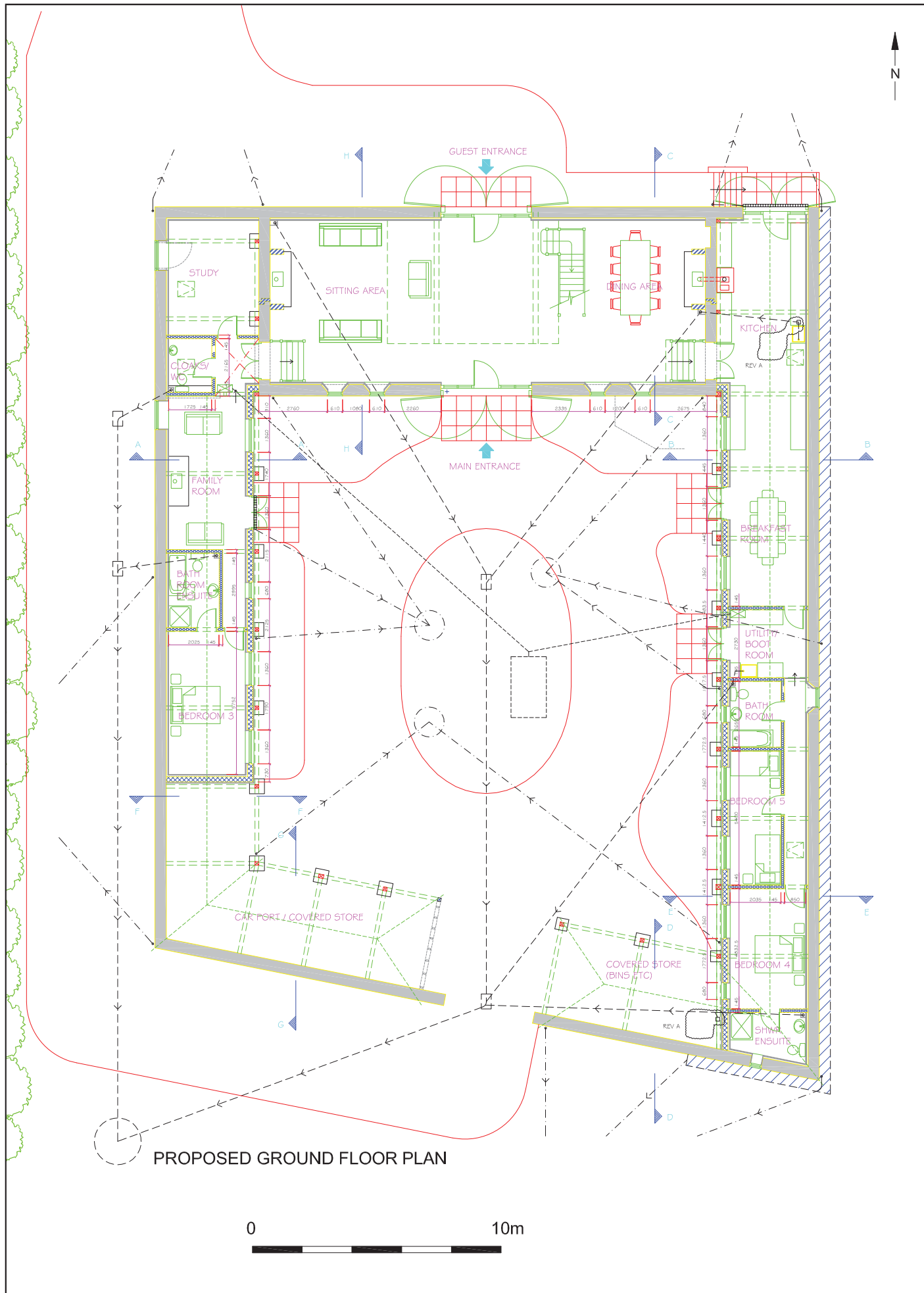
Section 2: (Soakaway 7)



-  Flint
-  Ceramic
-  Cable



© Archaeology South-East		New Barn, Michelgrove, Patching		Fig. 3
Project Ref: 2755	Oct 2008	Sections		
Report Ref: 2008196	Drawn by: AW			



© Archaeology South-East		New Barn, Michelgrove, Patching		Fig. 4
Project Ref: 2755	Oct 2008	Proposed Development		
Report Ref: 2008196	Drawn by: JLR			

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