Land adjacent to Castle Hill Monument Tonbridge Kent

Archaeological Evaluation Report

Oxford Archaeology

October 2004

ATKINS

Client: Atkins Heritage Consultancy

Issue No: 1 (Reissue May 2009)
OA Job No: 2385
NGR: TQ 6088 4402

Client Name: Atkins Heritage Consultants

Client Ref No:

Document Title: **Land Adjacent to Castle Hill Monument, Tonbridge, Kent**

Document Type: Archaeological Investigation Report

Issue Number: 1 (Reissue May 2009)

National Grid Reference: TQ 6088 4402
Planning Reference:

OA Job Number 2385
Site Code: TOCH 04
Invoice Code: TOCHEV
Receiving Museum:
Museum Accession No:

Prepared by:	Marc Storey
Position:	Geomatics Supervisor
Date:	30th September 2004
Checked by:	Jon Hiller
Position:	Senior Project Manager
Date:	1st October 2004
Approved by:	Jon Hiller
Position:	Senior Project Manager
Date:	1st October 2004
Document File Location	Projects on Server 1\\Castle Hill, Kent_TOCH04
Graphics File Location	Projects on Server 1\\Castle Hill, Kent_TOCH04\Geomatics\CAD\current
Illustrated by	Marc Storey

Oxford Archaeology

Janus House
Osney Mead
Oxford OX2 0ES
t: (0044) 01865 263800 e: info@oxfordarch.co.uk
f: (0044) 01865 793496 w: www.oxfordarch.co.uk

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Land Adjacent to Castle Hill Monument, Tonbridge, Kent

NGR TQ 6088 4402

ARCHAEOLOGICAL INVESTIGATION REPORT

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SUMMARY

In August and September 2004, Oxford Archaeology (OA) undertook a topographical survey and field evaluation on land adjacent to Castle Hill Monument, near Tonbridge, Kent (NGR TQ 6088 4402) for Atkins Heritage Consultancy working on behalf of the Highways Agency. Topographical features were mapped prior to the placement of the evaluation trenches although the excavation of these did not produce any archaeological finds or deposits. It was therefore not possible to firmly establish a direct relationship between the topographic features identified for investigation and the hillfort itself other than the one already assumed through their location.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Between late August and early September 2004 OA undertook a field evaluation on an area of land along the north-east edge of Castle Hill Monument, Near Tonbridge, Kent centred upon NGR TQ 6088 4402 (fig. 1). This area of land is being considered for development as part of the A21 Road Widening Scheme initiated by the Highways Agency (HA). The proposed development is located within an area of high archaeological potential, owing to its position immediately adjacent to the Castle Hill Scheduled Ancient Monument (SAM KE 42).

1.1.2 The evaluation was immediately preceded by a topographic earthwork survey (Phase 1) that was undertaken to identify the existing earthworks and to inform this phase (Phase 2) of archaeological trenching. The results of the Phase 1 survey are presented in detail in Appendix 2 and included within the illustrations at the rear of this document.

1.1.3 The Highways Agency implemented the archaeological investigations to help inform the next stage of design on the A21 scheme. Atkins Heritage Consultancy monitored the work on their behalf in consultation with English Heritage and Kent County Council.

1.1.4 The evaluation was undertaken to a specification proposed in a Written Scheme of Investigation produced by OA and agreed with Atkins Heritage Consultancy, on behalf of their client HA in consultation with English Heritage and Kent County Council. The site is approximately 1.1 hectares in area.

1.2 Geology and topography

1.2.1 The site is currently under dense woodland, whilst the land itself comprises a series of undulations and banks that may be associated with the Scheduled Ancient Monument to the immediate west. The site lies at an approximate height of 115m aOD and the geology is an outcrop of Lower Tunbridge Wells Sand.

1.3 Archaeological background

1.3.1 The proposed development site is located on the north-east edge of the Scheduled Monument boundary that comprises a series of earthworks known as Castle Hill (SAM KE 42) (figs 1 and 2). This is an extensive enclosed earthwork of probable Iron Age origin that has been adapted through a series of modifications. The earthworks occupy a spur of high ground aligned NE-SW that provides a commanding view of the surrounding environs.

1.3.2 The scheduled earthworks comprise two enclosures, both interpreted as separate phase hillforts, although this is not certain. Associated earthworks and possible trackways are also evident in this area. Locally known as Capel Castle Hill, this is one of several hillforts located in this area of the south-east of England. For example, High Rock Hill in Sussex is located *c* 10 km to the south-west of Castle Hill.

1.3.3 The fort's location in the landscape is well placed as a controlling monument within the prehistoric landscape of SW Kent. It is situated within an area well-suited for indirect control over the crossing point of the River Medway, now within the boundary of modern Tonbridge. The natural sandstone outcrop on which the earthworks are built is an ideal material for a free draining settlement and also for the construction of a steep revetted bank and ditch system.

1.3.4 The scheduled area does not incorporate all visible earthworks around the monument, and the relationship, character and date between the extra-mural mounds and the main monumental earthwork remain unclear. Previous excavations on site (1969, 1970 and 1971) have left much to continued speculation and interpretation.

2 EVALUATION AIMS

2.1 Aims of the phase 2 trial trench evaluation

2.1.1 The aims of the Phase 2 evaluation as defined in the WSI are as follows;

- To establish the presence/absence of archaeological remains within the proposal area,
- To determine the extent, condition, nature, character, quality and date of any archaeological remains present,
- To determine the association/relationship of any additional negative or positive archaeological remains with those earthworks already designated as a Scheduled Ancient Monument,
- To establish a mitigation strategy for features near to the road,
- To establish the ecofactual and environmental potential of archaeological deposits and features,
- To make available the results of the investigation,
- To define any relevant research priorities if additional archaeological investigation proves necessary, in the context of the road scheme.

3 EVALUATION METHODOLOGY

3.1 Scope of fieldwork

3.1.1 The original project specification requested three trenches, each 1.8 m wide. Two of these would be 5 m long, whilst the third would be 15 m in length. However, due to logistical problems associated with placing the evaluation trenches within a wooded area, a certain degree of pragmatism was needed in both positioning and dimensions. For instance, the larger 15 m trench was split in two, thus making a fourth trench. The positioning of the trenches was kept as close as possible to the locations agreed in the WSI.

3.1.2 The trenches were excavated by 360° type mechanical excavator fitted with a toothless ditching bucket under constant archaeological supervision. Excavation proceeded to the surface of the underlying natural geology or to the top of the first archaeological horizon, whichever was encountered first. Particular care was taken to ensure that archaeological deposits were not damaged through excessive use of machine excavation.

3.2 Fieldwork methods and recording

3.2.1 The trenches were cleaned by hand and the revealed features were sampled to determine their extent and nature, and to retrieve finds and environmental samples. All archaeological features were planned and where excavated their sections drawn at scales of 1:20. All features were photographed using colour slide and black and white print film. Recording followed procedures laid down in the *OAU Fieldwork Manual* (ed. D Wilkinson, 1992). All spoil heaps were monitored for finds.

3.3 Finds

3.3.1 No finds were recovered from either stratified or unstratified contexts during the investigation.

3.4 Palaeo-environmental evidence

3.4.1 No deposits suitable for environmental analysis were encountered during the evaluation.

3.5 Presentation of results

3.5.1 The results of the Phase 2 trial trench evaluation are presented below, with dimensions and stratigraphic accounts of each trench described individually, followed by an overall discussion and interpretation. Detailed results of the preceding Phase 1 topographical survey are presented in Appendix 2.

4 RESULTS: GENERAL

4.1 Soils and ground conditions

4.1.1 The site is located on uneven ground within an area of woodland restricting trial trenching. Both sand and clay deposits were encountered within the evaluation.

5 RESULTS: DESCRIPTIONS

5.1 Description of deposits

Trench 1

5.1.1 This trench was designed to investigate a known contour to the NW of the site (fig. 2). The trench was aligned NW-SE and measured 6 m x 1.7 m and excavated to a maximum depth of 0.8 m below ground level revealing a natural light yellow/brown silty clay (103). A test pit was dug partially into this deposit to check for possible re-depositing (fig. 3). A possible feature noted in the east of the trench was investigated and found to be a tree hole. The silt clay natural was overlain by mid white/yellow heavily root disturbed sand (102) 0.25 m thick which could represent a disturbed geological horizon or a leached subsoil. Overlying this was a light grey silty sand topsoil noted to be very thin (0.02 m) at the top of the slope increasing to 0.35 m towards the base. A humic deposit made from falling tree debris completed the stratigraphic sequence with a maximum thickness of 0.1 m at the base of the slope. No archaeological finds or deposits were encountered within the trench.

Trench 2

5.1.2 Aligned approximately NW-SE, this trench measured 8.5 m x 1.9 m and was excavated to a depth of 0.4 m encountering a light yellow white compacted sand natural (203). A sondage was dug into this to check for re-depositing. This was overlain by a mid white/yellow friable sand (202) 0.15 m thick, which had been root-disturbed and could also represent a disturbed geological horizon or a leached subsoil. This was overlain by a mid grey silty sand topsoil (201) noted to be 0.05 m thick in places and also disturbed by root movement. A humic deposit made from falling tree debris (200), 0.06 m thick, covered the topsoil. No archaeological finds or deposits were encountered within the trench.

Trench 3

5.1.3 Trench 3 was 5.5 m x 1.4 m and was excavated on an approximate NE-SW alignment to a maximum depth of 0.42 m encountering a compact light yellow/white fine sand natural (303). Similar to the other trenches, this was investigated to check for any evidence of re-depositing. Overlying this was a friable mid yellow/brown sand layer 0.13 m in thickness, which had been disturbed by root movement and is possibly evidence of disturbed natural horizon or leached subsoil. This was overlain by a silty sand topsoil with a maximum depth of 0.17 m. A humic deposit 0.06m thick

comprising mixed tree debris (300) covered the topsoil. No archaeological finds or deposits were encountered within the trench.

Trench 4

5.1.4 This trench was excavated on an approximate NW-SE alignment measuring 8.5 m x 1.75 m and to a maximum depth of 0.44 m encountering a compacted light yellow/white fine sand (403). This was investigated to check for re-depositing. Overlying this was a friable mid white/yellow sand (402) approximately 0.2 m thick, possibly a natural geological horizon which had been disturbed by root movement. This was overlain by a light grey silty sand topsoil (401) 0.06 m thick which in turn was overlain by a humic leaf litter layer 0.05m thick. No archaeological finds or deposits were encountered within the trench.

6 DISCUSSION AND INTERPRETATION

6.1 Reliability of field investigation

6.1.1 The evaluation targeted only a limited percentage (1%) of the total site area concentrating trenching towards the north-west (fig. 2). Evidence of absence of archaeological features discovered during the evaluation therefore should not be taken to be representative of the entire site.

6.2 Overall interpretation

6.2.1 It is possible that some of the minor contours noted are indicative of ground movement caused by the positioning of trees and their roots rather than of any deliberate human endeavour, although this certainly does not explain the right angled scarp investigated by Trench 1, for example (fig. 2). This feature could by the result of quarrying or agricultural landscaping.

6.2.2 The evaluation failed to locate any archaeological finds or deposits. It was therefore not possible to firmly establish a function for the features investigated or a direct relationship with the hillfort itself, other than the one already assumed through their location. The topography investigated by Trench 3 may be natural. However, it was possible to establish that no defensive ditch to complement the fairly steep NW/SE curving bank to the north of the hillfort appears to exist. Similarly, no evidence was uncovered to support the theory of possible charcoal burning platforms suggested by the contours investigated to the NW of the site by Trench 1 and further SE by Trenches 2 and 4. Indeed, all of the trenches were noted to be very sterile.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Trench	*Ctxt No*	*Type*	*Thick. (m)*	*Comment*
1				
	100	Layer	0.10	Leaf litter
	101	Layer	0.02 (W end) 0.35 (E end)	Topsoil
	102	Layer	0.25	Subsoil/root disturbed natural
	103	Layer		Natural
2				
	200	Layer	0.06	Leaf litter
	201	Layer	0.05	Topsoil
	202	Layer	0.15	Subsoil/root disturbed natural
	203	Layer		Natural
3				
	300	Layer	0.06	Leaf litter
	301	Layer	0.17	Topsoil
	302	Layer	0.13	Subsoil/root disturbed natural
	303	Layer		Natural
4				
	400	Layer	0.05	Leaf litter
	401	Layer	0.06	Topsoil/root disturbed natural
	402	Layer	0.20	Subsoil
	403	Layer		Natural

APPENDIX 2 TOPOGRAPHICAL SURVEY REPORT

SUMMARY

Oxford Archaeology (OA) undertook a topographical survey on land adjacent to Castle Hill Monument, Tonbridge, Kent for Atkins Heritage Consultancy working on behalf of the Highways Agency. The survey revealed a series of substantial earthworks very likely associated with the hillfort(s) atop Castle Hill. To the north is a series of shallow linear features probably associated with the extensive area of coppicing and possible charcoal burning.

7 INTRODUCTION

7.1 Location and scope of work

7.1.1 In August 2004 OA undertook a topographic survey on an area of land along the north-east edge of Castle Hill, Tonbridge, Kent (NGR TQ 6088 4402). This area of land is being considered for development as part of the A21 Road Widening Scheme initiated by the Highways Agency (HA). The proposed development is located within an area of archaeological potential due to its position immediately adjacent to the Castle Hill Scheduled Ancient Monument (SAM KE 42).

7.1.2 The topographical survey formed the Phase 1 part of a two-phase evaluation and was designed to inform the Phase two trial trenching as detailed within the main part of this report.

7.2 Archaeological background

7.2.1 The proposed development site is located within an area of considerable archaeological potential. Immediately to the west is a Scheduled Ancient Monument (SAM KE 42). This is an extensive enclosed earthwork, probably Iron Age in origin, that has been adapted through a series of modifications.

7.2.2 No previous investigative archaeological earthwork survey has been carried within the defined evaluation area.

8 SURVEY AIMS

8.1 Aims of the phase 1 topographical survey

8.1.1 The aims of the Phase 1 topographical survey as defined in the WSI are as follows;

- To establish the existence, location, preservation, and association of extra-mural earthworks to the SAM area immediately adjacent to the A21,
- To determine locations for best assessment and access for the Phase 2 evaluation,

- To create a topographic model of the remnant earthworks extant within the proposed development area,
- To aid in the production of an overall impact assessment for the proposed scheme,
- To make available the results of the completed survey.

9 SURVEY METHODOLOGY

9.1 Site walk-over

9.1.1 Prior to the commencement of survey work, a full site walk-over was conducted by Daniel Bashford (Atkins Heritage Consultancy), Edmund Simons (OA), and the members of the survey team (Marc Storey and Lucy Norman). All potential earthworks were identified and marked with coloured survey flags and sketch plans made to ensure inclusion in the topographic survey. Health and safety risks were also noted, including those areas of the evaluation area immediately adjacent to the A21 and some of the steeper or less stable areas of the hill slope.

9.1.2 As some of the more significant earthworks extend into the SAM area, it was decided to extend the limits of the topographic survey to include those major features (i.e. the hillfort entrance) that may have a relationship to the earthworks within the evaluation area.

9.2 Survey methods and recording

9.2.1 All topographic survey work was undertaken using English Heritage metric survey specifications as a guideline.

Establishing Survey Control

9.2.2 Before work commenced, a network of control, comprising 17 control stations across 2 traverses, was established throughout the evaluation area.

9.2.3 Station OA1 was established through a 3 point free-station from known points on the buildings of the Crown Castle compound. Though this original free-station resulted in a ±0.007 m residual, a later comparison with an engineer's plan of the compound (provided by Crown Castle) demonstrates the inaccuracies of the OS vector basemap; in this instance, generally ±1.3 m. Though this level of accuracy is below that required for OS data, it was determined to be unacceptable for archaeological survey purposes.

9.2.4 As a result, to provide further control, a 4 point re-section was surveyed from station OA14 towards the nearby farm buildings south of the boundary of Scheduled Monument curtilage. The residuals from this re-section (calculated using Tienestra's formula) compared to the traversed co-ordinates for OA14 were high (± 2.1 m) but not unexpected, considering the large inaccuracy demonstrated within the OS basemap at OA1.

9.2.5 The average accuracy of the overall real-time position of the topographic survey therefore is estimated at ±1.0 m. GPS equipment was used in an attempt to complete and close the traverse. Unfortunately, generally attributed to poor line of sight, no good satellite signal was received. Further attempts may be made to close the TOCH traverse when tree cover is less dense.

9.2.6 The topographic survey was originally performed using a provided point within the Crown Castle compound as datum. This elevation was later proven to be grossly inaccurate (+58.802 m aOD). Because no GPS data was available, a height transfer from a spot height on the A21 was required to correct the elevations of the control network. All survey data has been appropriately reduced.

Topographic Survey

9.2.7 The survey was carried out using a Leica TCR 705 and full traverse kit.

9.2.8 Spot heights were taken at intervals of 4 m to 5 m, except where the ground was obscured by vegetation or because of proximity to the A21, as well as on salient positions such as top, bottom, and along the centreline or mid point of slopes, ditches, embankments and earthworks. Breaklines and hard and soft detail were also surveyed.

9.2.9 As estimated, approximately 400-500 points were surveyed per day.

9.2.10 Three transects, or long-sections, were surveyed across the evaluation at locations identified during the site walk-over. The resulting section diagrams (fig. 4) further inform the dimensions and character of the earthworks.

Data Processing

9.2.11 The Leica TCR705 TST was downloaded onto a site laptop daily during the course of the survey to ensure a stable backup. A detailed log of survey data was maintained on paper in case of instrument failure or data loss.

9.2.12 The raw data was imported into LISCAD 5.0 where it was reduced and all residuals minimised. The survey data was then imported as a 3D DXF file into AutoCAD Map 2004.

9.3 Presentation of results

9.3.1 The majority of survey data manipulation was done in AutoCAD Map 2004. Figures 2, 4, and 6 were entirely developed in AutoCAD. For the digital terrain model (DTM) (fig. 5) all 3D points were exported from AutoCAD into Surfer 8.x where an accurate 3D model of the landscape and earthworks within the evaluation area was generated.

10 RESULTS

10.1 Discussion and interpretation

10.1.1 To aid discussion of the results of the topographic survey, the evaluation area has been re-defined into 8 smaller parcels (fig. 6, Areas A-H), each characterised by significant topographical features.

Area A

10.1.2 A triangular area north of the access road to the Crown Castle compound, Area A was most prominently marked by a large triangular cut/feature, the sharp edges and consistent angle of slope (approximately 40° from horizontal) of which suggest a recent or modern cut. The longest axis of the cut runs for 30 m parallel to the current position of the access road. It is likely that this feature was created to build up ground prior the creation of the access road; possibly a quarry. Within the limit of the feature a secondary cut was observed. A circular depression (approximately 1.5 m in diameter) was likely a post hole for a telephone or electricity mast.

10.1.3 Because of the proximity of the A21, little survey work was undertaken along the north-eastern limit of Area A. However, a full walk-over revealed no addition features of possible archaeological significance.

Area B

10.1.4 A heavily coppiced area, Area B was characterised by wide, shallow linears, 3.5-4 m wide, roughly parallel and perpendicular to the course of the A21. It is likely that these linear features are part of a network of access trails used during the harvest of the coppiced trees that extends throughout the wooded area north of the limit of the SAM. To the south of Area B extending from the natural hill slope is a possible built-up level platform (measuring 4 m²) that may be a charcoal burner's platform, as indicated in the profile of Transect A (fig. 4).

10.1.5 A probable roadside quarry was identified at the eastern most limit of Area B. This feature was not surveyed in its entirety due to the proximity of the A21.

Area C

10.1.6 A 2.5 m wide trail, orientated roughly east to west, was present along the northern limit of Area C. This may represent the primary trail used to access the coppiced trees during the harvest as it effectively establishes the southern limit of the area of coppiced trees. The trail turns towards the SW and runs to the perimeter of the Crown Castle compound. Outside of the evaluation area the trail widens to 3.5 m.

10.1.7 Central within Area C are 3 probable tree holes. A possible bank or ridge was recorded that extended from the south (Area E - see below) but these large tree throws masked any clearly identifiable archaeological features.

10.1.8 A large bank identified during the initial site walk-over as a secondary rampart extends NW-SE at the western edge of Area C. This substantial earthwork horizontally measures 8.5-10 m from bottom to top of slope and vertically rises 3-4 m. The route of the rampart is sinuous utilising the natural slope topography.

10.1.9 Evidence was found for the path (fig. 4: Transect B) appearing on the OS map.

Area D

10.1.10 The area to the SW of the secondary rampart in Area C and immediately north of the primary rampart and ditch of the hillfort is relatively level and open. The earthwork ramparts survive in excellent condition with the primary bank retaining a steep exterior slope that rises c 3 m.

10.1.11 No other earthworks of archaeological significance were observed in this area.

Area E

10.1.12 A possible zigzag approach to the hillfort entrance characterised Area E (fig. 5). The construction of the path appears to utilise a natural break of slope. The direction of approach would have been from the SE, possibly from the current course of the A21. The path then widens and further opens onto a flattened area, roughly ovoid in shape, before turning back upon itself and continuing onto the entrance of the hillfort. This dog-leg rises steeply, 3 m vertically over 12 m, before levelling.

10.1.13 The secondary rampart (Area D)converges with the outer rampart in this area. The slope of the outer rises vertically 5 m over 13 horizontal m (bottom to top of slope).

10.1.14 The site walk-over revealed a probable previous archaeological trench (on a SW-NE alignment 2.2 m wide and 21 m long) through the outer rampart. This is shown on figures 2 and 6 as the notable feature cutting into the rampart.

Area F

10.1.15 This area features the levelled approach to the entrance of the hillfort proper (labelled as 'flat platform' in fig. 4, Transect B). An eroded bank or counter-scarp (4.4 m wide) was identified at the top edge of the slope towards the A21.

10.1.16 Two probably roadside quarries were identified at the base of the hill slope within this area.

Area G

10.1.17 Though previously identified and excavated, and visible on OS data, the ramparted entrance to the hillfort was surveyed as an extension of the possible outer (and secondary) rampart. The entrance displayed shallow platforms extending on the eastern edge of the rampart termini that survive in good condition.

10.1.18 An open area lacking identifiable topographical features was identified immediately outside (east) of the hillfort entrance. This area was intensively excavated between 1969-1971.

Area H

10.1.19 Within Area H a broad, roughly north-south orientated ditch (7 m wide) with a possible counter scarp (5 m wide) on its eastern side was identified. Towards the southern extent the earthwork this widens and shows signs of erosion from farm traffic (possibly from the maintenance of the boundary ditch separating the evaluation area from the farmland to the south).

10.1.20 To the west and within the boundary of the Scheduled Monument area, 2 or 3 other possible ditches with associated counter scarps were identified (fig. 4, Transect C). These were aligned approximately parallel to the feature described above.

10.1.21 The presence of extensive and sizeable rabbit warrens throughout this area impeded identification of further archaeological earthworks.

10.1.22 Approximately halfway down the slope towards the A21 a 35 m length of the path visible on OS data was identified and surveyed. The path is truncated by a large tree hole at its northern limit.

10.2 Reliability of survey results

10.2.1 A ±0.02 m relative horizontal and vertical accuracy is assured for all surveyed earthworks. As mentioned above, a real-time accuracy of only ±1 m can be guaranteed at present and is subject to future successful GPS measurements to close the principal open traverse.

10.3 Impact of the development

10.3.1 The earthworks most at risk by the proposed development of the A21 are those at the approach to the hillfort entrance and the possible ditches with counter slopes south of the entrance. Any impact upon the approach to the hillfort entrance may seriously alter the character of the Scheduled Monument. Little information is currently known about the features identified within Area H.

APPENDIX 3 BIBLIOGRAPHY

Wilkinson, D (ed.) 1992, Oxford Archaeological Unit Field Manual

APPENDIX 4 SUMMARY OF SITE DETAILS

Site name: Land Adjacent to Castle Hill Monument, Tonbridge, Kent.

Site code: TOCH 04

Grid reference: TQ 6088 4402

Date and duration of project: 31st August - 2nd September 2004

Area of site: 1.1 hectares

Summary of results:
In August and September 2004, Oxford Archaeology (OA) undertook a topographical survey and field evaluation on land adjacent to Castle Hill Monument, near Tonbridge, Kent (NGR TQ 6088 4402) for Atkins Heritage Consultancy working on behalf of the Highways Agency. Topographical features were mapped prior to the placement of the evaluation trenches although the excavation of these did not produce any archaeological finds or deposits. It was therefore not possible to firmly establish a direct relationship between the topographic features identified for investigation and the hillfort itself other than the one already assumed through their location.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES. A receiving museum has not been identified/is currently not available therefore the archive will be securely stored at OA in a state ready for deposition until such arrangements can be made.

APPENDIX 5 TRAVERSE DATA AND CONTROL STATION SHEETS

STN	OP	OP IH	RO	BS/FS	face	HORIZONTAL	VERTICAL	STAFF READING	STAFF INTERCEPT	HORIZONTAL DISTANCE	HEIGHT	RISE
				BS	left	359° 59' 57"						
					right	180° 00' 26"						
OA2	OA1	1.606	BS1	FS	left	288° 51' 26"	92° 50' 39"	1.452	30.283	30.245	-1.349	
					right	108° 51' 23"	267° 09' 05"	1.452	30.283	30.245	-1.351	
				BS	left	0°	87° 09' 02"	1.606	30.282	30.244	1.343	
					right	180° 00' 13"	272° 50' 47"	1.606	30.281	30.244	1.342	
OA3	OA2	1.444	OA1	FS	left	184° 14' 09"	94° 29' 28"	1.403	67.183	66.977	-5.220	
					right	4° 13' 55"	265° 30' 08"	1.403	67.183	66.976	-5.228	
				BS	left	0°	85° 30' 01"	1.445	67.182	66.975	5.224	
					right	180° 00' 25"	274° 29' 32"	1.445	67.182	66.975	5.216	
OA4	OA3	1.398	OA2	FS	left	212.8358°	94° 07' 14"	1.554	34.944	34.853	-2.667	
					right	32.8356°	265° 52' 26"	1.554	34.944	34.853	-2.670	
				BS	left	0°	85° 30' 01"	1.445	67.182	66.975	5.224	
					right	180° 00' 25"	274° 29' 32"	1.445	67.182	66.975	5.216	
OA5	OA3	1.398	OA2	FS	left	146° 03' 33"	101° 34' 37"		20.598	20.179	-4.246	
					right	326° 03' 39"	265° 25' 01"		20.598	20.179	-4.248	
				BS	left	0°	85° 51' 43"	1.405	34.945	34.854	2.657	
					right	180°	274° 07' 47"	1.405	34.946	34.855	2.653	
OA6	OA4	1.541	OA3	FS	left	227° 03' 11"	89° 52' 17"	1.411	43.100	43.100	0.227	
					right	47° 03' 10"	270° 07' 26"	1.411	43.100	43.100	0.223	
				BS	left	359° 59' 59"	90° 07' 40"	1.541	43.101	43.101	-0.224	
					right	180° 00' 07"	269° 52' 07"	1.541	43.101	43.101	-0.227	
OA7	OA6	1.413	OA4	FS	left	184° 25' 05"	82° 27' 28"	1.357	34.621	34.321	4.600	

STN	OP	OP IH	RO	BS/FS	face	HORIZONTAL	VERTICAL	STAFF READING	STAFF INTERCEPT	HORIZONTAL DISTANCE	HEIGHT	RISE
				FS	right	4° 29' 13"	277° 32' 28"	1.357	34.621	34.321	4.600	
				BS	left	0°	97° 27' 27"	1.414	34.616	34.323	-4.606	
					right	179° 59' 52"	262° 32' 22"	1.414	34.615	34.322	-4.607	
OA8	OA7	1.301	OA6	FS	left	173° 17' 25"	85° 25' 20"	1.403	24.906	24.826	1.886	
					right	353° 17' 16"	274° 34' 13"	1.403	24.905	24.826	1.883	
				BS	left	359° 59' 59"	94° 34' 57"	1.298	24.907	24.828	-1.885	
					right	179° 59' 59"	265° 24' 48"	1.298	24.908	24.828	-1.887	
OA9	OA8	1.403	OA7	FS	left	211° 31' 04"	88° 18' 02"	1.158	44.775	44.755	1.573	1.328
					right	31° 31' 14"	271° 41' 41"	1.158	44.775	44.755	1.569	1.324
				BS	left	359° 59' 59"	91° 42' 04"	1.400	44.772	44.752	-1.329	
					right	179° 59' 56"	268° 17' 41"	1.400	44.772	44.752	-1.332	
OA10	OA9	1.158	OA8	FS	left	85° 41' 54"	95° 54' 33"	1.382	17.832	17.737	-1.818	
					right	265° 41' 59"	264° 05' 11"	1.382	17.831	17.737	-1.819	
				BS	left	359° 59' 59"	91° 42' 04"	1.400	44.772	44.752	-1.329	
					right	179° 59' 56"	268° 17' 41"	1.400	44.772	44.752	-1.332	
OA11	OA9	1.158	OA8	FS	left	135° 27' 42"	91° 57' 34"	1.283	35.071	35.050	-1.082	
					right	315° 27' 39"	268° 02' 08"	1.283	35.071	35.050	-1.086	
				BS	left	0°	88° 01' 42"	1.165	35.070	35.050	1.321	
					right	180° 00' 15"	271° 57' 56"	1.165	35.070	35.050	1.317	
OA12	OA11	1.279	OA9	FS	left	215° 02' 30"	95° 28' 07"	1.272	20.815	20.721	-1.977	
					right	35° 02' 36"	264° 31' 52"	1.272	20.815	20.721	-1.977	
				BS	left	0°	88° 01' 42"	1.165	35.070	35.050	1.321	
					right	180° 00' 15"	271° 57' 56"	1.165	35.070	35.050	1.317	
OA13	OA11	1.279	OA9									

STN	OP	OP IH	RO	BS/FS	face	HORIZONTAL	VERTICAL	STAFF READING	STAFF INTERCEPT	HORIZONTAL DISTANCE	HEIGHT	RISE
				FS	left	239° 13' 30"	95° 09' 10"	1.341	46.004	45.819	-4.194	
					right	59° 13' 30"	264° 50' 25"	1.341	46.004	45.818	-4.199	
				BS	left	0° 00' 01"	84° 50' 24"	1.279	46.003	46.817	4.199	
					right	180° 00' 16"	275° 09' 11"	1.279	46.003	46.817	4.193	
OA14	OA13	1.340	OA11	FS	left	226° 37' 40"	88° 33' 47"	1.514	36.552	36.540	0.743	
					right	46° 27' 39"	271° 25' 57"	1.514	36.552	36.540	0.743	
				BS	left	206.19027°		1.300				
					right			1.300				
OA15	OA5	1.415	OA3	FS	left	1.42339°	99.01495°	1.300	23.633			
					right	181.42586°	260.58009°	1.300	23.632			
				BS	left	181.42498°		1.300				
					right			1.300				
OA16	OA15	1.522	OA5	FS	left	126.21259°	92.15411°	1.300	53.987			
					right	306.21313°	267.44000°	1.300	53.988			
				BS	left	273.05430°		1.300				
					right			1.300				
OA17	OA4	1.346	OA3	FS	left	176.26376°	81.15534°	1.300	36.128			
					right	358.26480°	278.43174°	1.300	36.125			

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

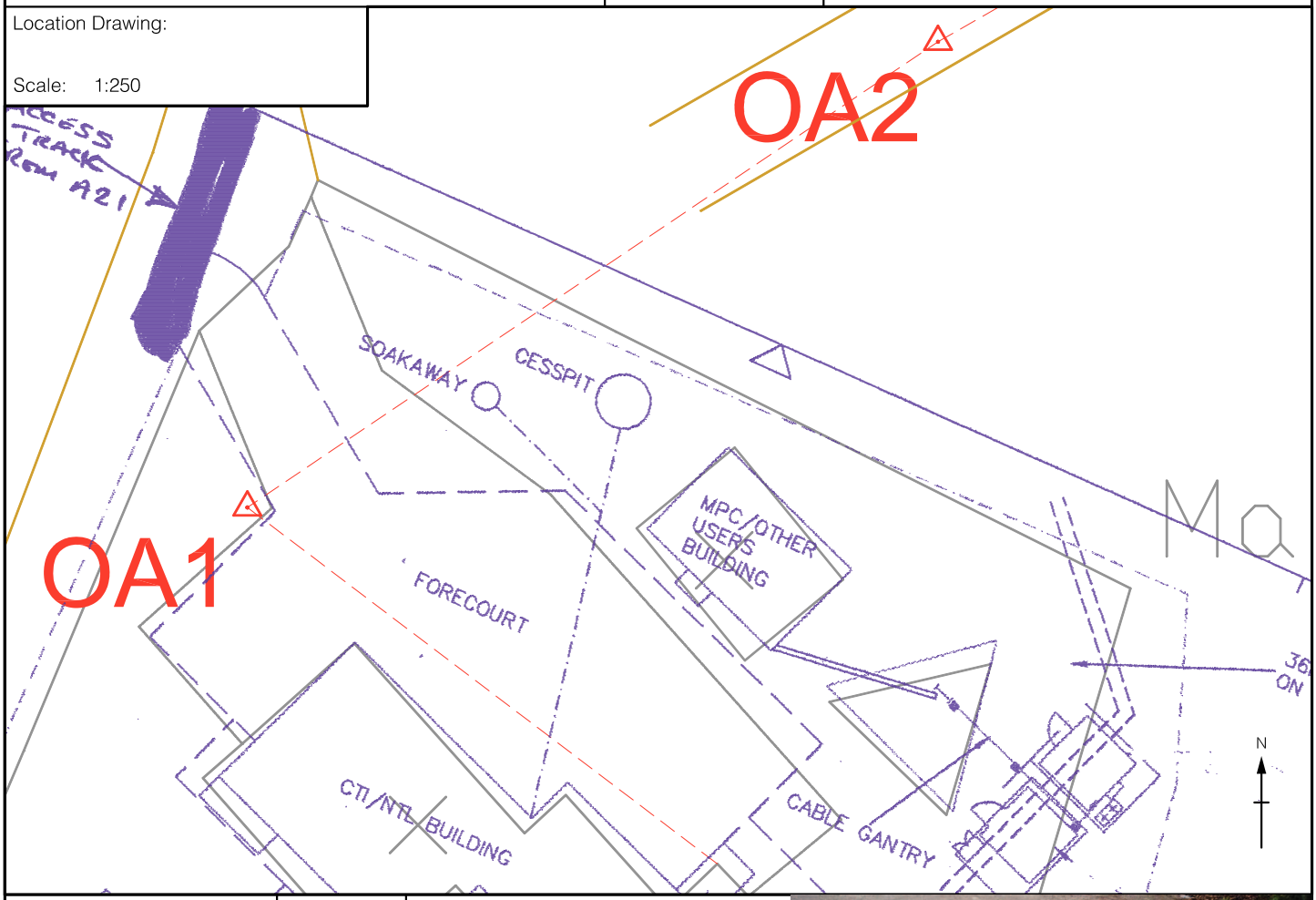
Station Number:	Date Recorded:	Description of Mark:
OA1	03 August 2004	Raised yellow pastic 'Survey Mark' with 12" steel pin.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA1 was free-stationed from corners and fixed points on the Crown Castle transmitter compound. There will be some residual errors (as evident by the overlay provided). OA1 itself is located on an area of maintained lawn approx 0.9m away from the service road and parking area.

Coordinates:	Height:	Reference Objects:
560736.304 E, 144017.028 N	121.673	OA2

Location Drawing:

Scale: 1:250



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

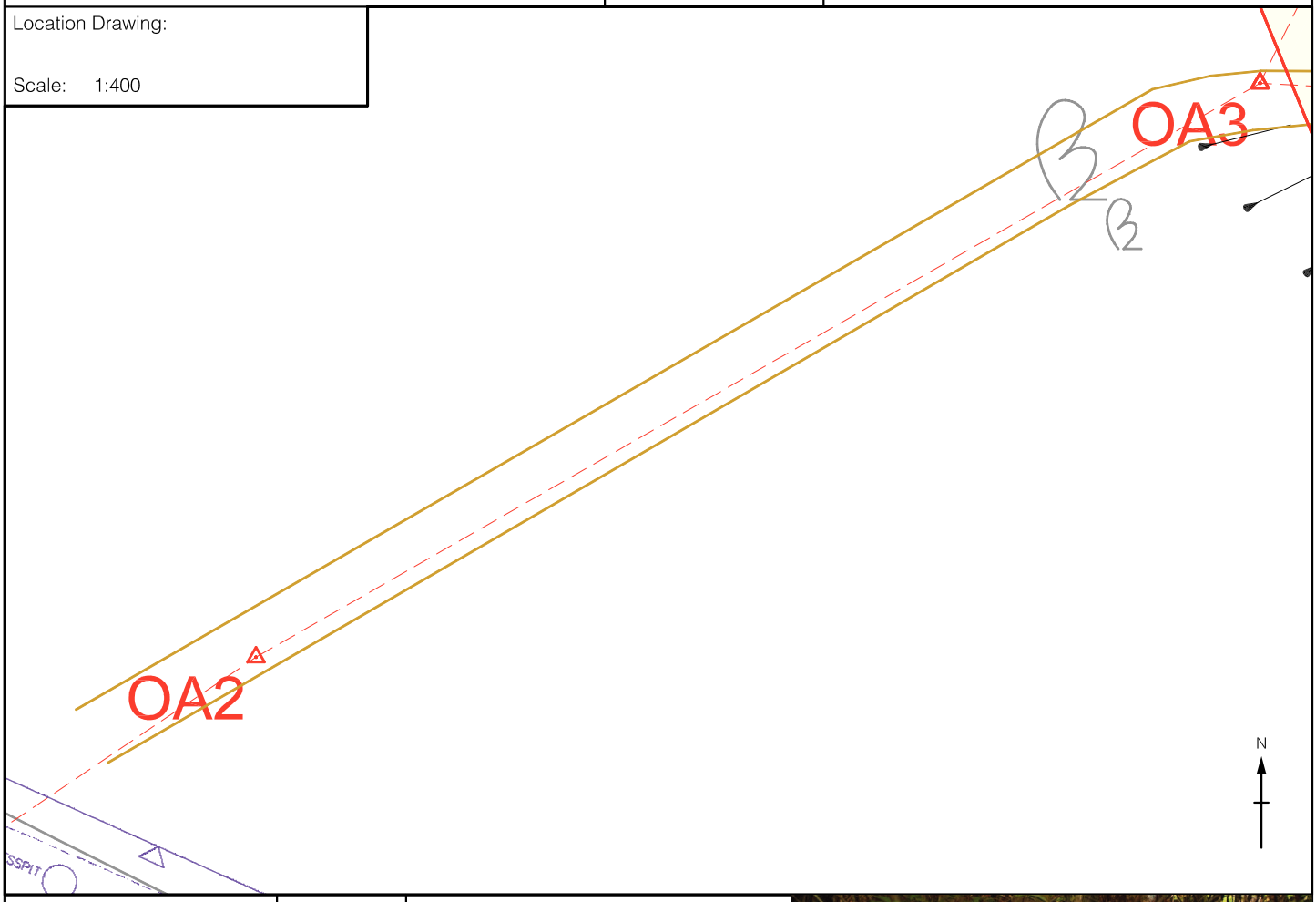
Station Number:	Date Recorded:	Description of Mark:
OA2	05 August 2004	Wooden peg with central nail - sprayed yellow.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA2 was established from OA1 using a fixed point within the Crown Castle compound as a backsight. OA2 itself is located on the SE edge of the pollarder's trail, approx 15m NE of compound perimeter.

Coordinates:	Height:	Reference Objects:
560761.385 E, 144033.930 N	120.327	OA1, OA3

Location Drawing:

Scale: 1:400



Location Photograph:	Direction:	for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

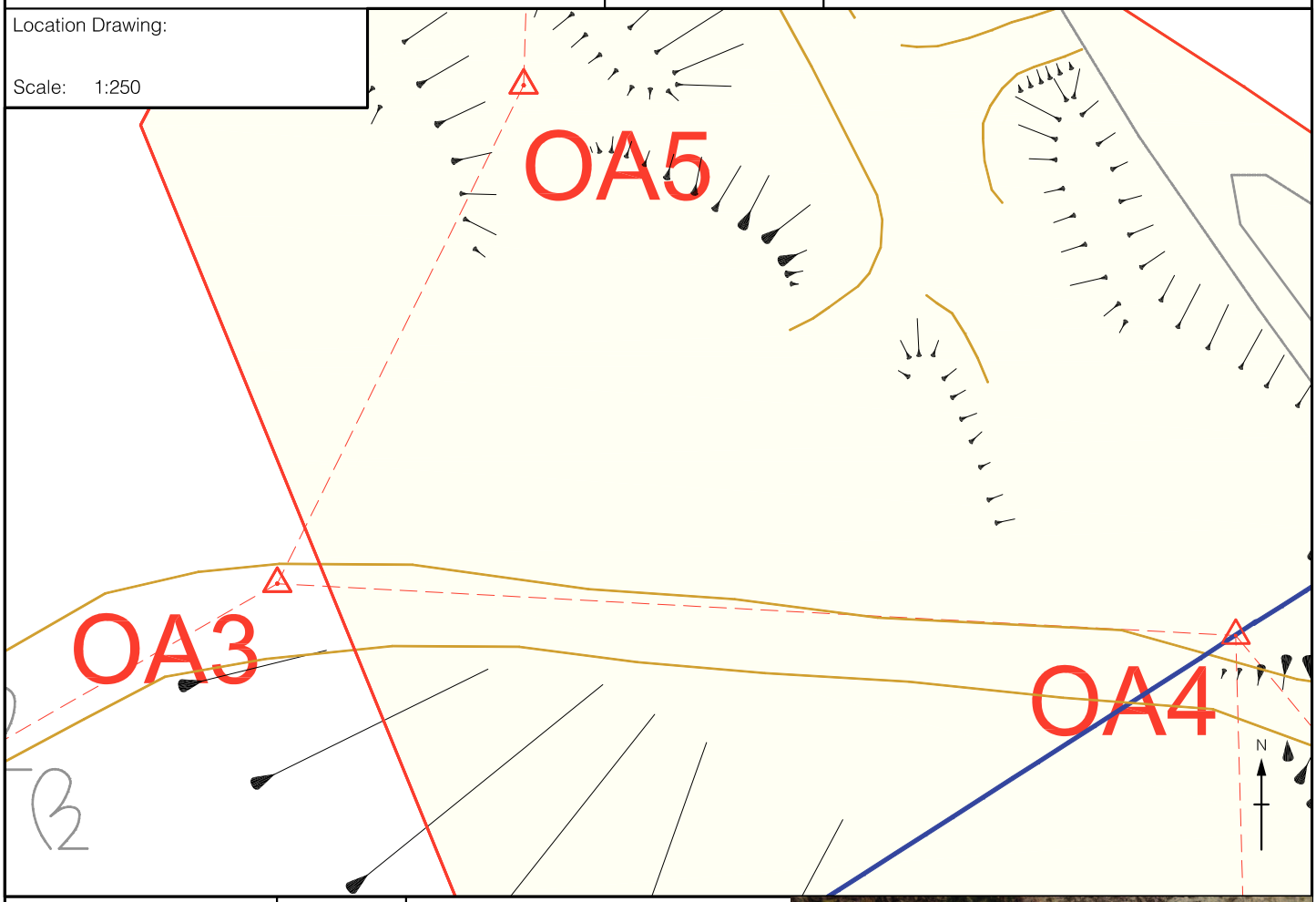
Station Number:	Date Recorded:	Description of Mark:
OA3	05 August 2004	Wooden peg with central nail - sprayed yellow.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA3 was established from OA2 using OA1 as a backsight. OA3 itself is located on the NW edge of the pollarder's trail.

Coordinates:	Height:	Reference Objects:
560819.718 E, 144067.259 N	115.105	OA2, OA4, OA5

Location Drawing:

Scale: 1:250



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

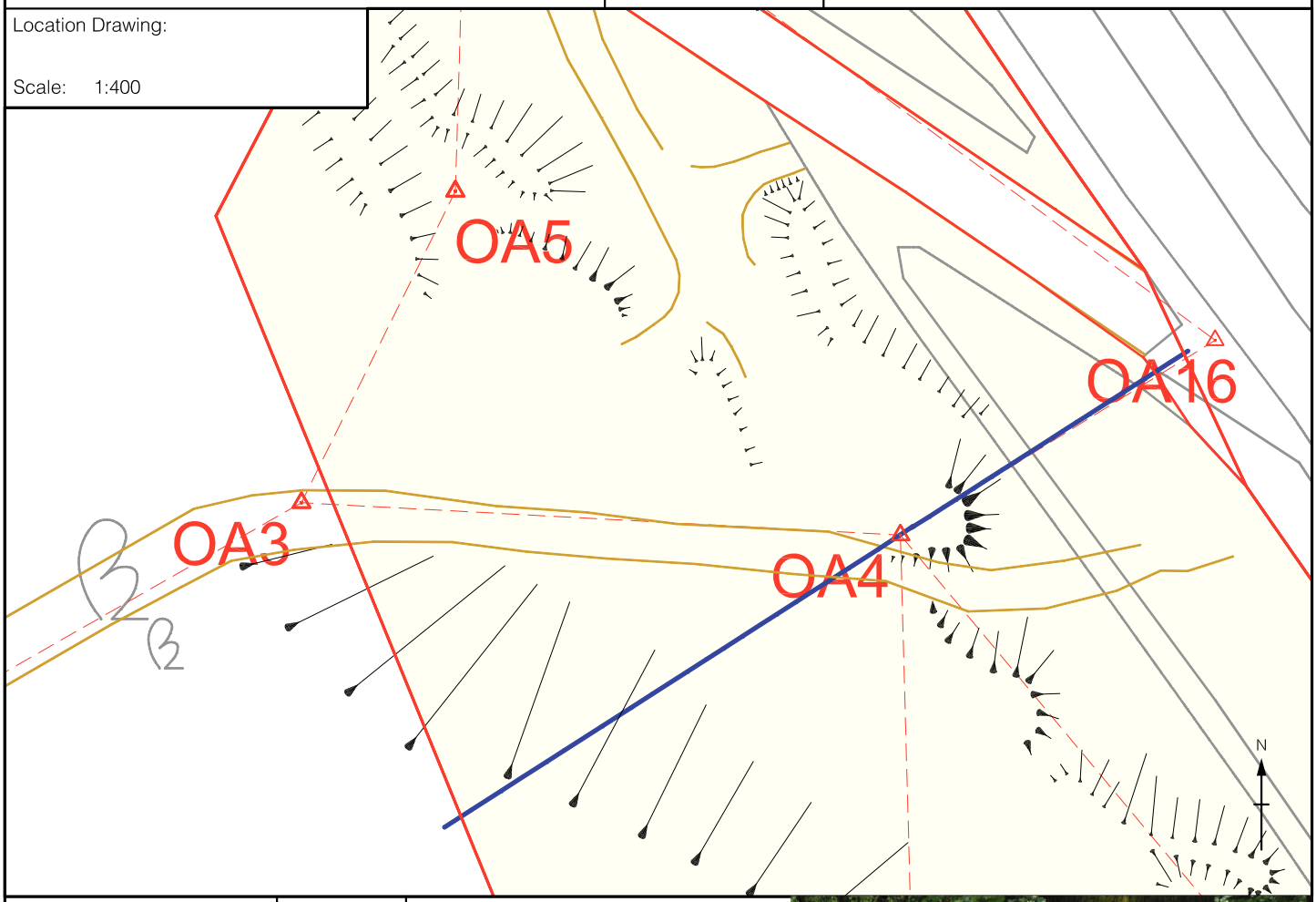
Station Number:	Date Recorded:	Description of Mark:
OA4	05 August 2004	Wooden peg with central nail - sprayed yellow.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA4 was established from OA3 using OA2 as a backsight. OA4 itself is located at the base of the pollarder's trail, a few metres West of a large oak atop a possible charcoal burner's platform.

Coordinates:	Height:	Reference Objects:
560854.521 E, 144065.377 N	112.443	OA3, OA5, OA6, OA16, OA17

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

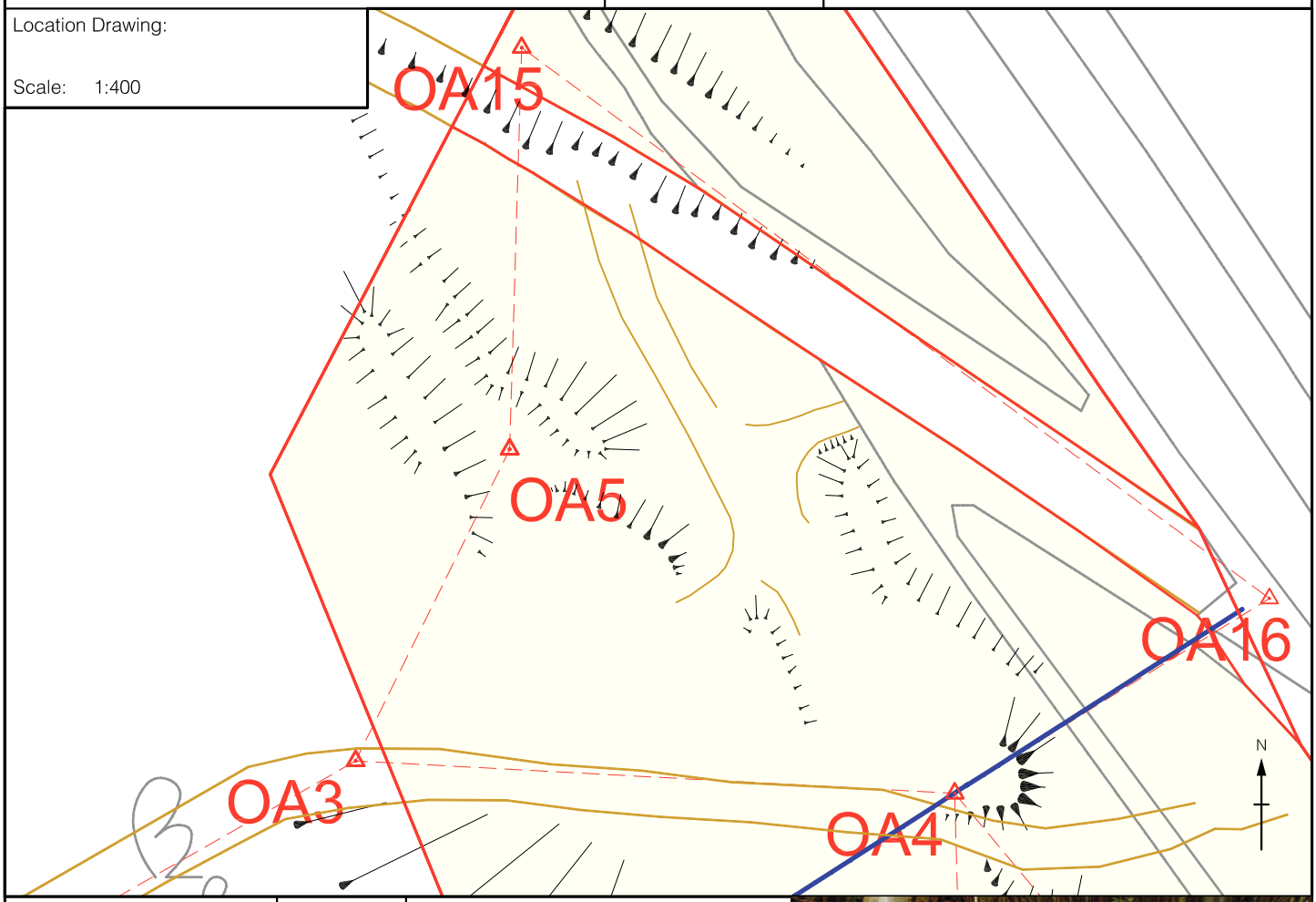
Station Number:	Date Recorded:	Description of Mark:
OA5	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA5 was established from OA3 using OA2 as a backsight. OA5 itself is located within an area of pollarded and maintained woodland.

Coordinates:	Height:	Reference Objects:
560828.664 E, 144085.346 N	110.858	OA3, OA4, OA15

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

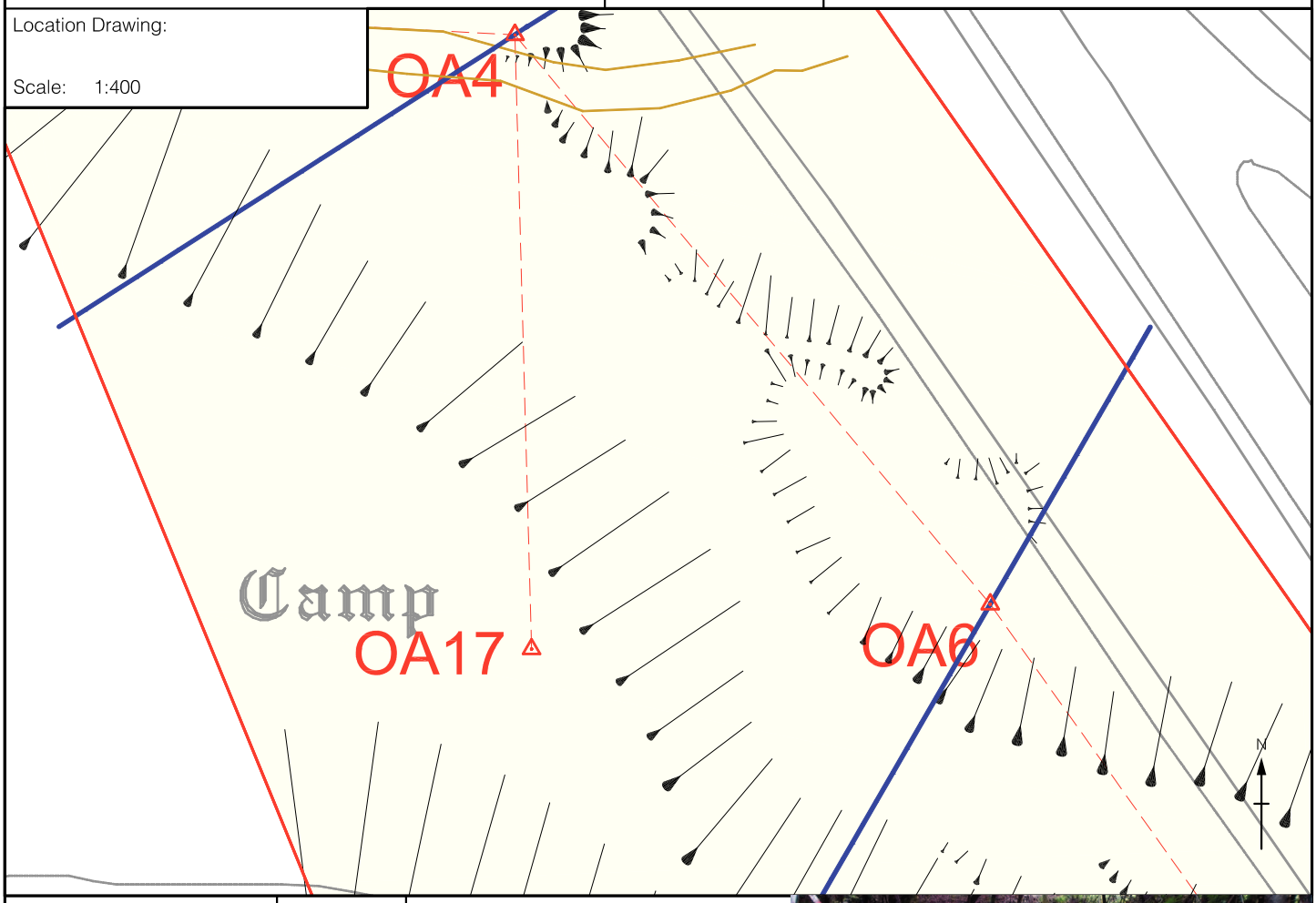
SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

Station Number: OA6	Date Recorded: 05 August 2004	Description of Mark: Wooden peg with central nail - sprayed blue.
Surveyor(s): MAS/LN	Description of Set-up & Location: OA6 was established from OA4 using OA3 as a backsight. OA6 itself is located within an area of relatively open woodland.	

Coordinates: 560882.139 E, 144032.287 N	Height: 112.668	Reference Objects: OA4, OA7

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

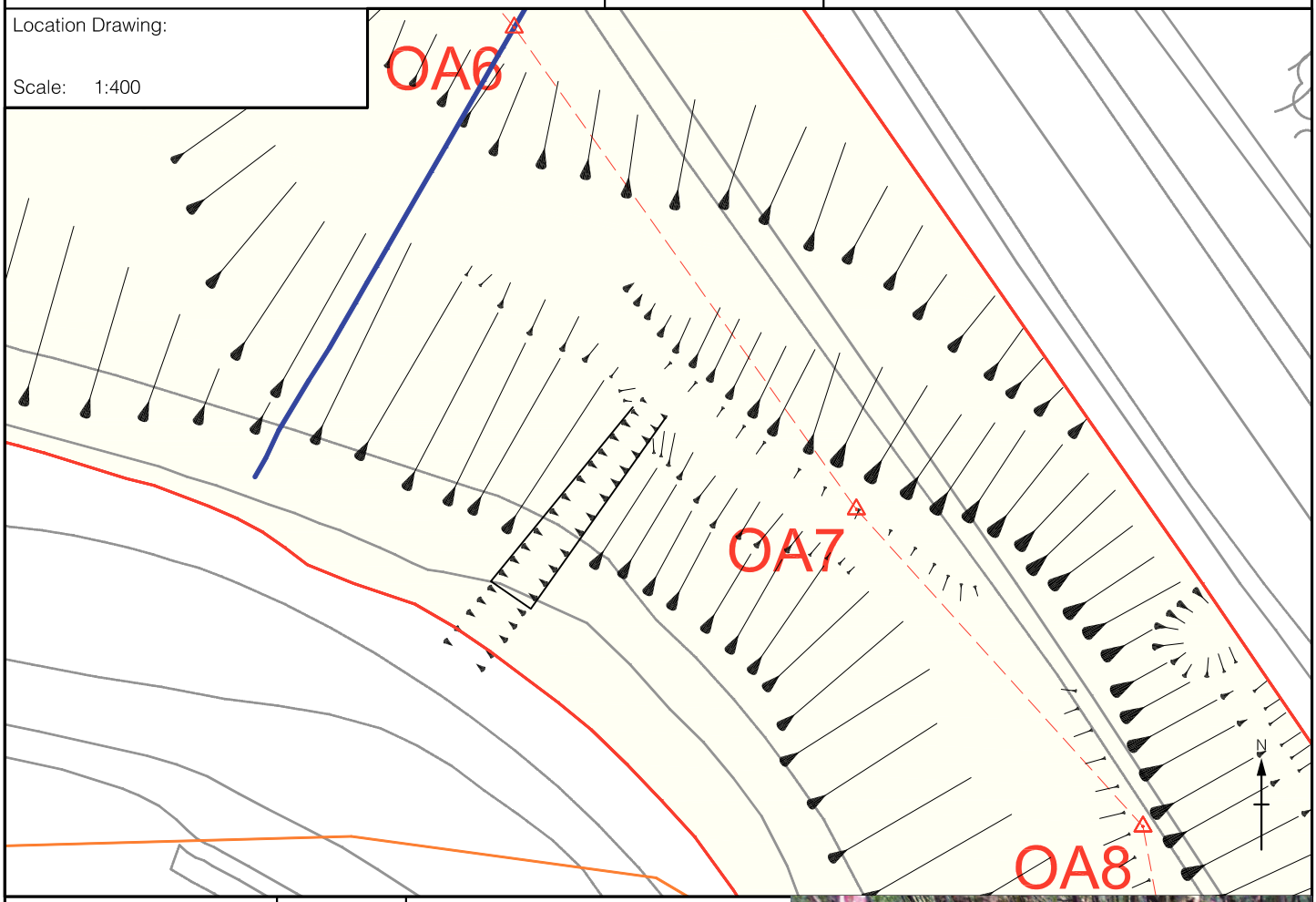
Station Number:	Date Recorded:	Description of Mark:
OA7	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA7 was established from OA6 using OA4 as a backsight. OA7 itself is located along the NE edge of the hillfort's ramparted entrance.

Coordinates:	Height:	Reference Objects:
560902.019 E, 144004.309 N	117.275	OA6, OA8

Location Drawing:

Scale: 1:400



Location Photograph:	Direction:	for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

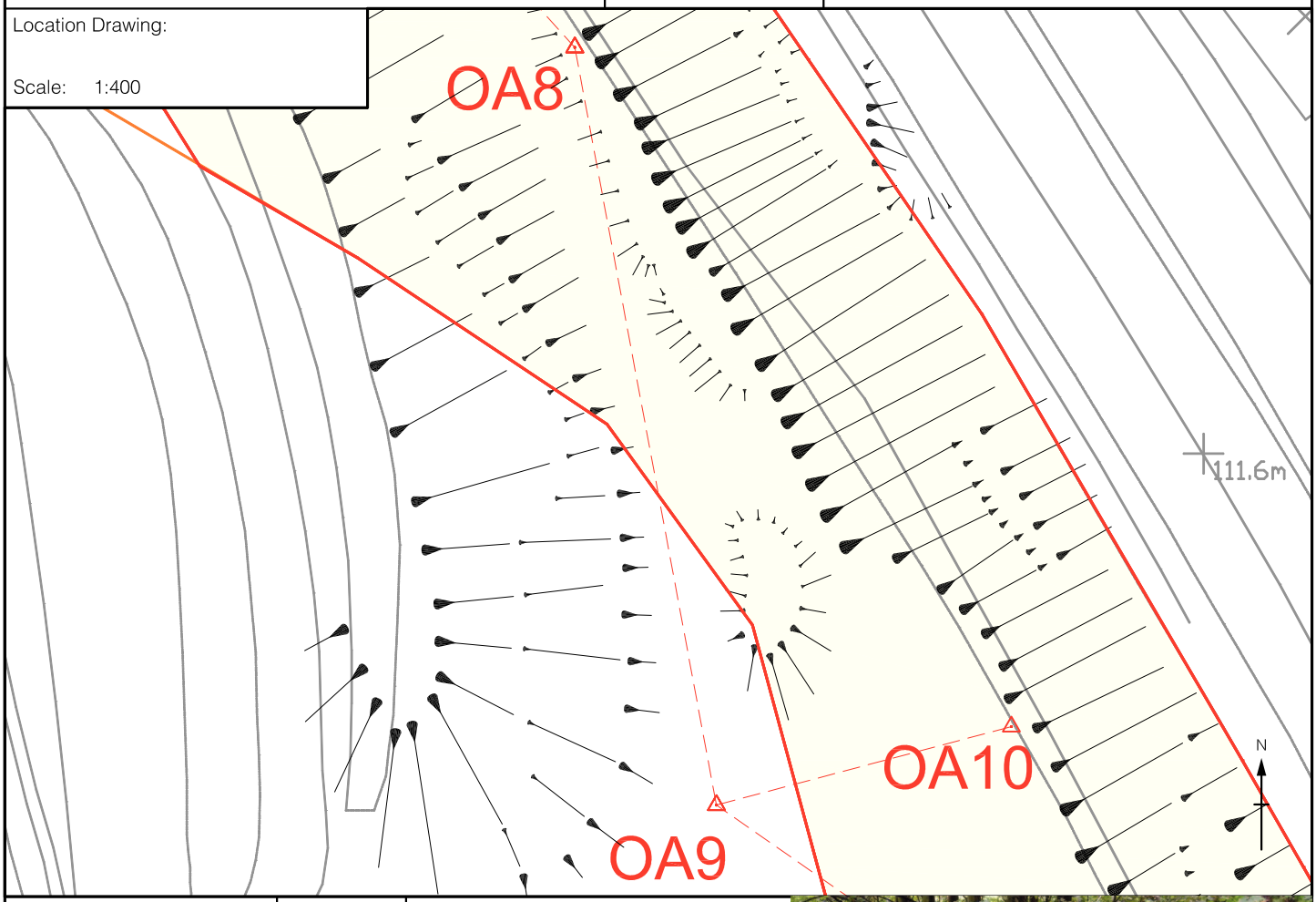
Station Number:	Date Recorded:	Description of Mark:
OA8	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA8 was established from OA7 using OA6 as a backsight. OA8 itself is located along the NE edge of the hillfort's ramparted entrance.

Coordinates:	Height:	Reference Objects:
560918.665 E, 143985.890 N	118.916	OA7, OA9

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

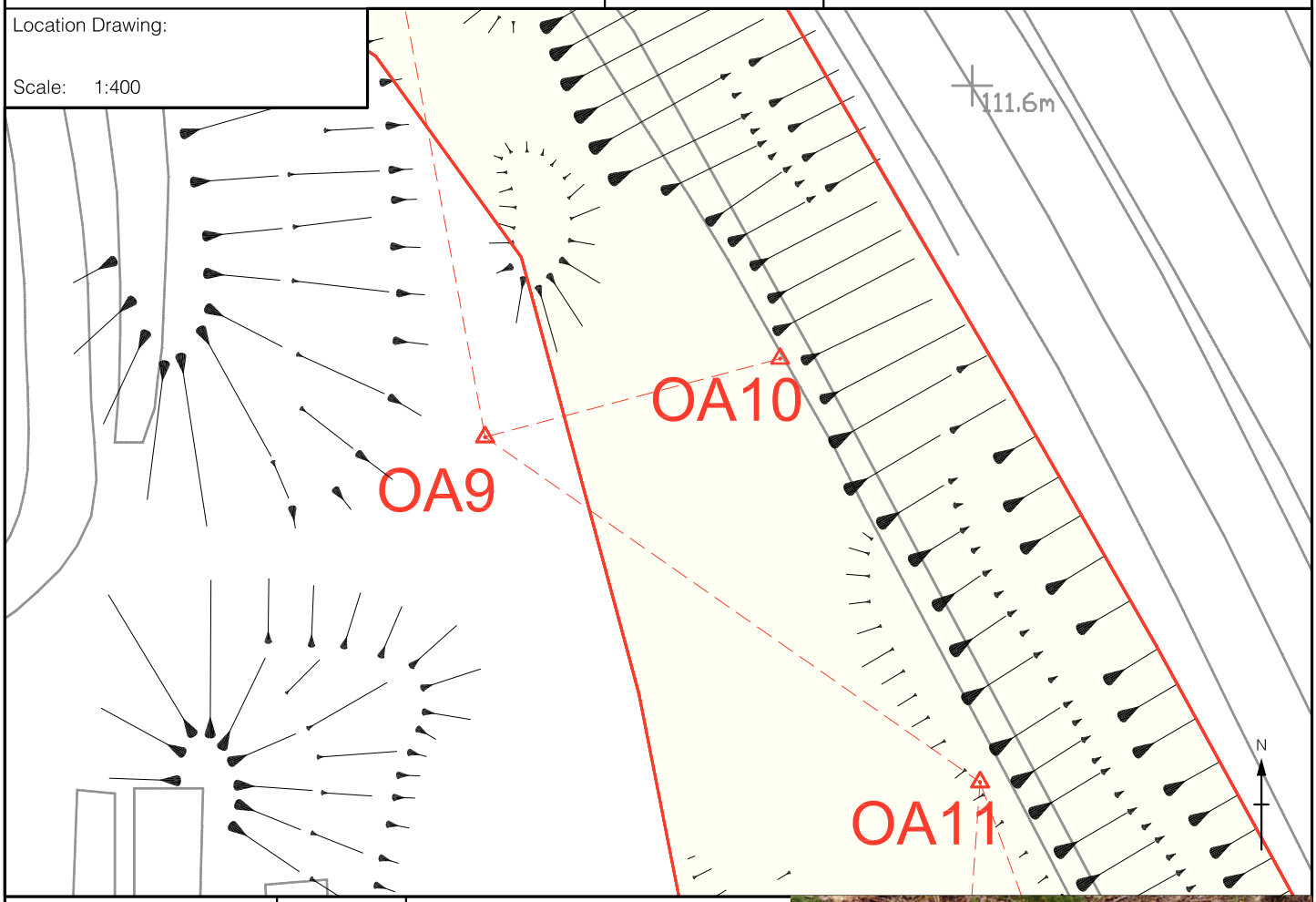
Station Number:	Date Recorded:	Description of Mark:
OA9	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA9 was established from OA8 using OA7 as a backsight. OA9 itself is located due East of the hillfort's entrance.

Coordinates:	Height:	Reference Objects:
560925.888 E, 143941.898 N	120.242	OA8, OA10, OA11

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

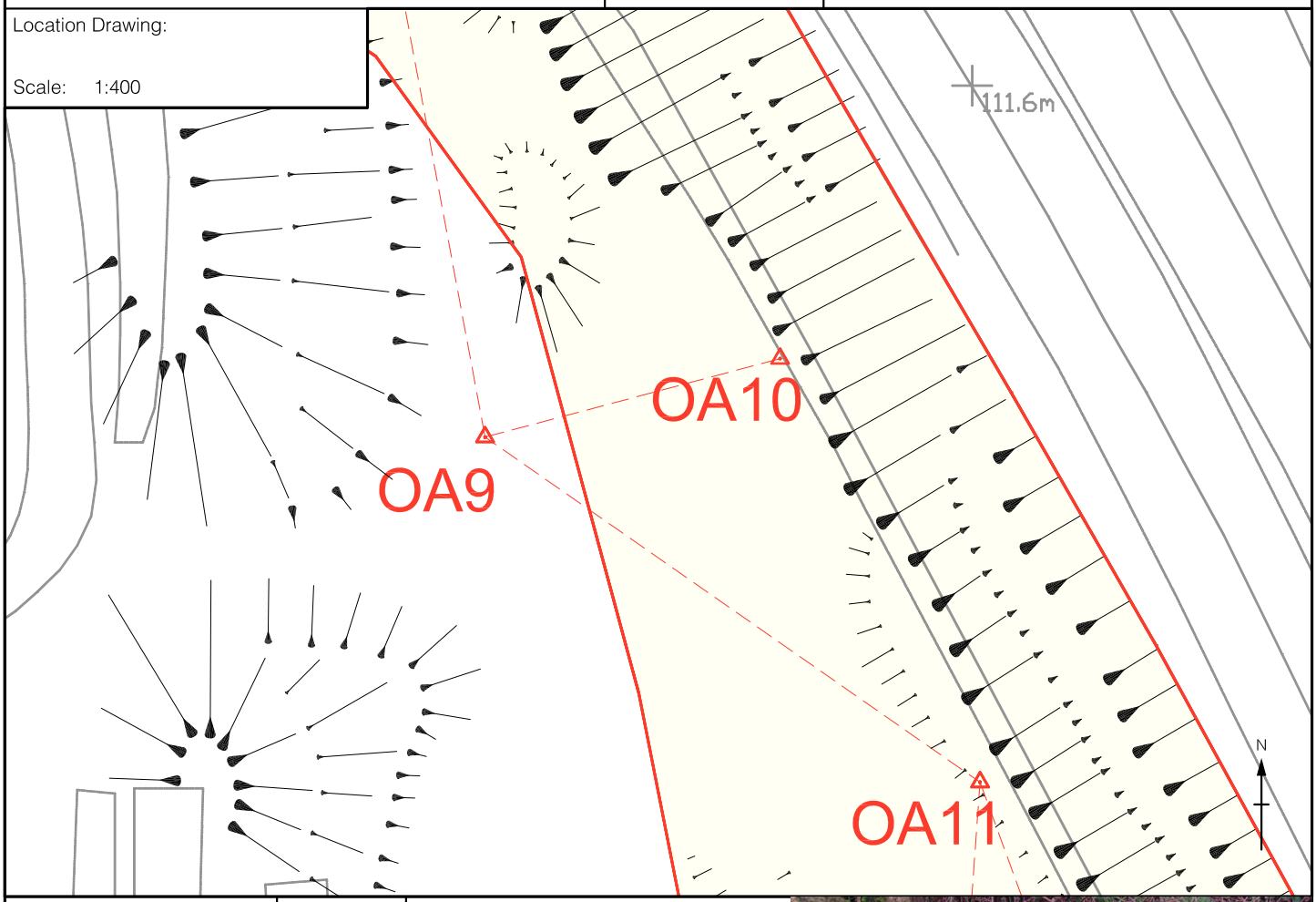
Station Number:	Date Recorded:	Description of Mark:
OA10	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA10 was established from OA9 using OA8 as a backsight. OA10 itself is located along the top of slope leading towards the A21.

Coordinates:	Height:	Reference Objects:
560944.029 E, 143946.456 N	118.670	OA9

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

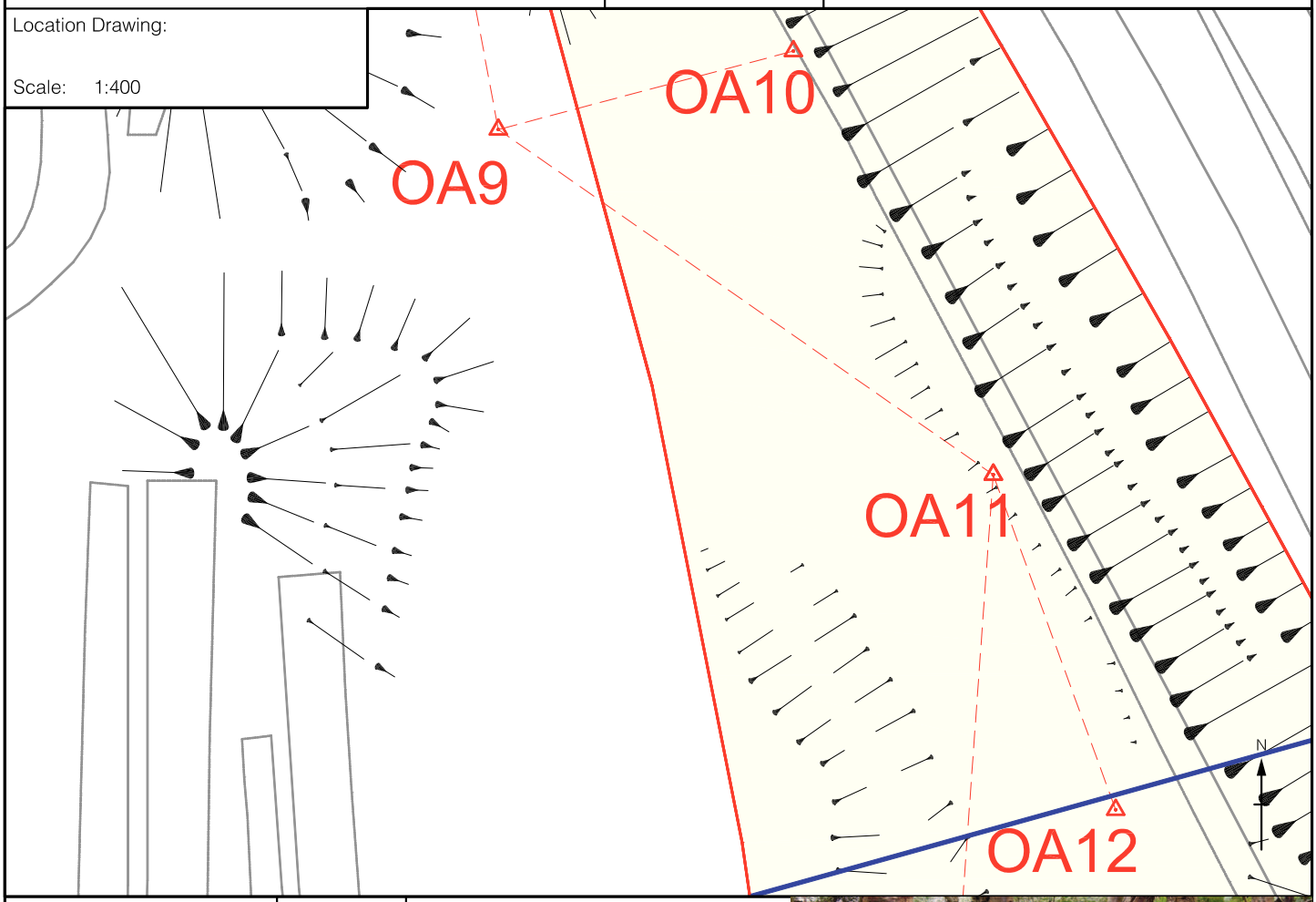
Station Number:	Date Recorded:	Description of Mark:
OA11	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA11 was established from OA9 using OA8 as a backsight. OA11 itself is located along the top of slope leading towards the A21.

Coordinates:	Height:	Reference Objects:
560955.643 E, 143921.858 N	117.107	OA9, OA12, OA13

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

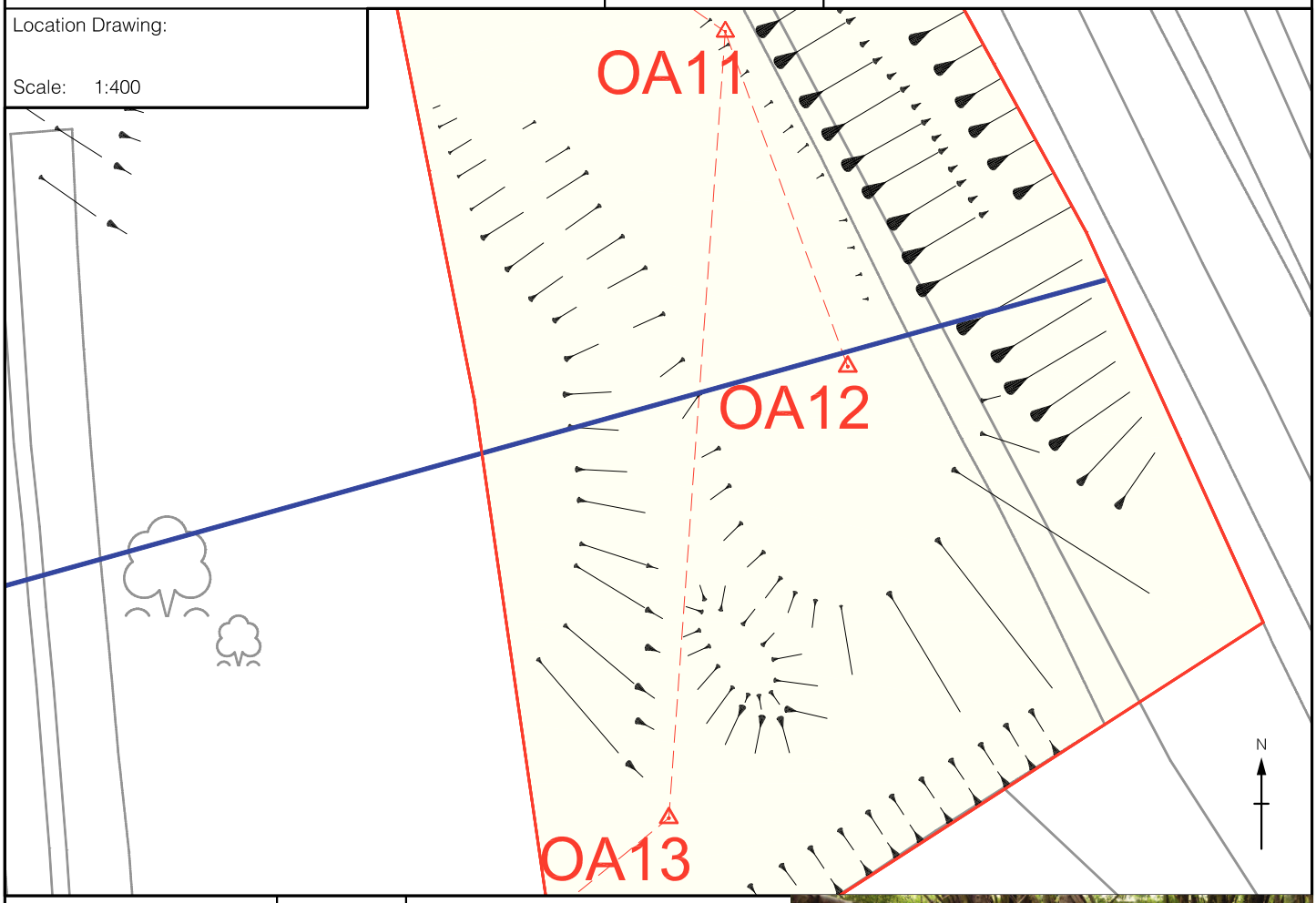
Station Number:	Date Recorded:	Description of Mark:
OA12	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA12 was established from OA11 using OA9 as a backsight. OA12 itself is located along the top of slope leading towards the A21.

Coordinates:	Height:	Reference Objects:
560962.758 E, 143902.396 N	115.13	OA11

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

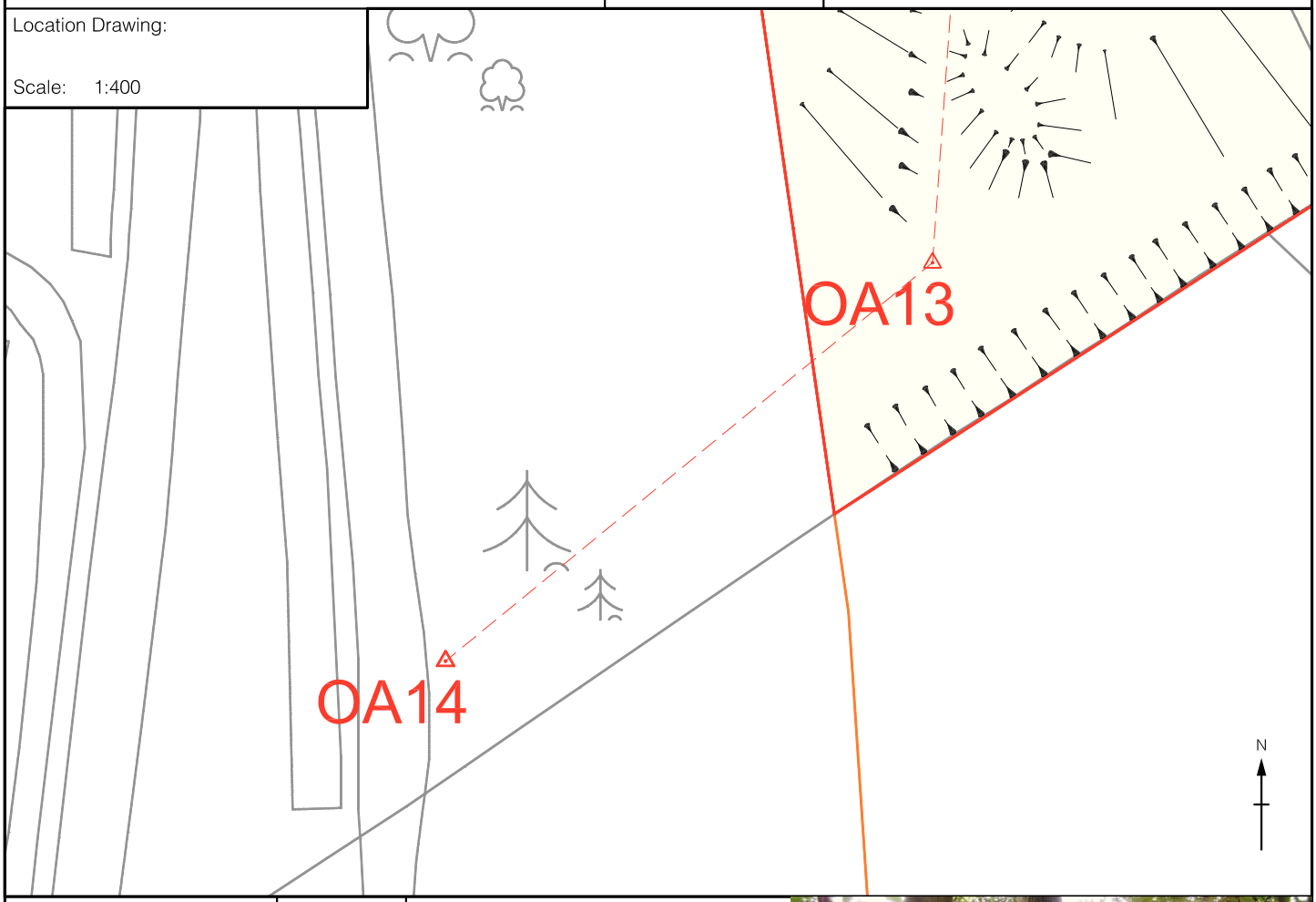
Station Number:	Date Recorded:	Description of Mark:
OA13	05 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA13 was established from OA11 using OA9 as a backsight. OA13 itself is the southernmost control station within the evaluation area and is located approx. 9.5m NW of the field boundary marking the southern limit of the evaluation area.

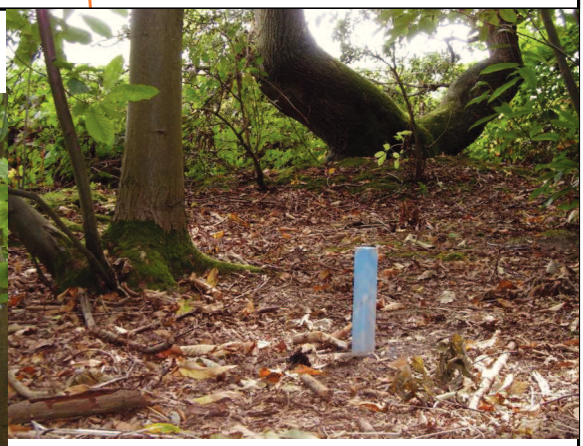
Coordinates:	Height:	Reference Objects:
560952.365 E, 143876.157 N	112.911	OA11, OA14

Location Drawing:

Scale: 1:400



Location Photograph: Direction: for drawing key see Figure 2



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Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

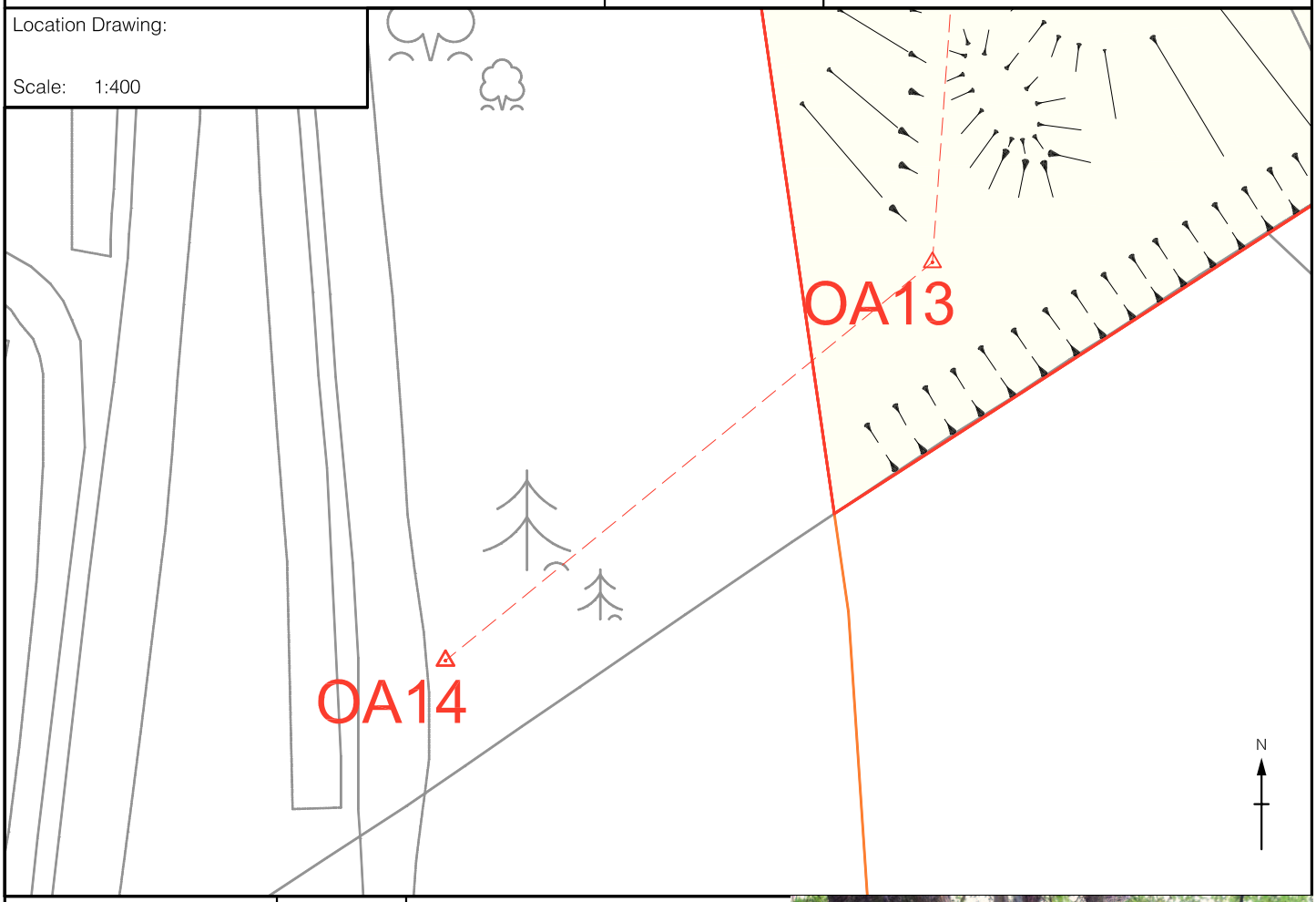
Station Number:	Date Recorded:	Description of Mark:
OA14	05 August 2004	Raised yellow pastic 'Survey Mark' with 12" steel pin.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA14 was established from OA13 using OA11 as a backsight. OA14 itself is located 5.7m NW of the boundary fence. Because the traverse is not closed the co-ordinates for OA14 were double checked through a resection on the nearby farm buildings giving a result of ± 2.1m. Considering the loose accuracy of the position of OA1, such a large residual in not unexpected.

Coordinates:	Height:	Reference Objects:
560924.076 E, 143853.030 N	113.653	OA13

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

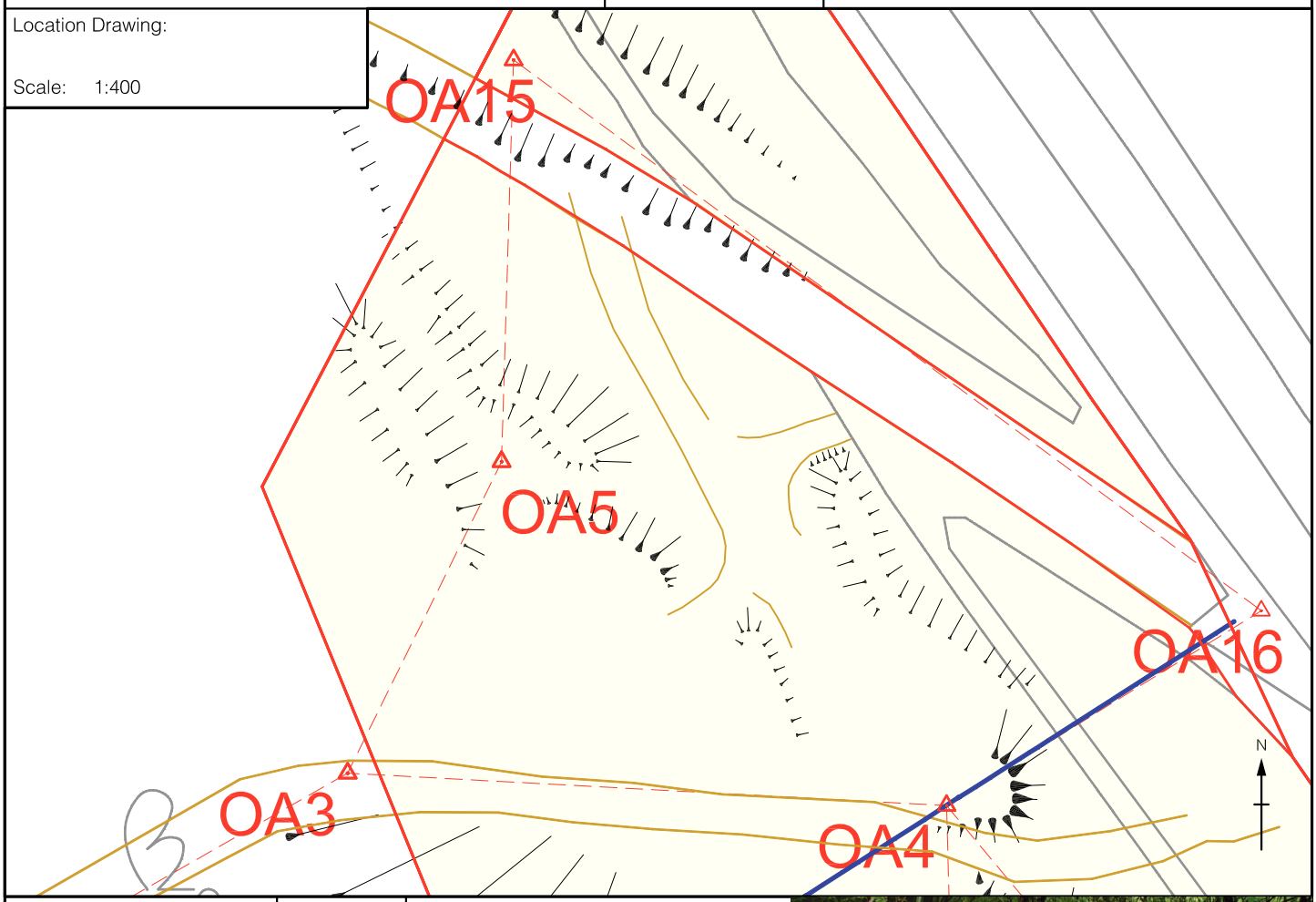
Station Number:	Date Recorded:	Description of Mark:
OA15	07 August 2004	Yellow pastic 'Survey Mark' disc with 3" steel PK nail.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA15 was established from OA5 using OA3 as a backsight. OA15 itself is located approximately 55m up the access road for the Crown Castle compound atop Castle Hill.

Coordinates:	Height:	Reference Objects:
560829.362 E, 144108.674 N	107.260	OA5, OA16

Location Drawing:

Scale: 1:400



Location Photograph:	Direction:	for drawing key see Figure 2

Oxford Archaeology

Janus House, Osney Mead, Oxford, OX2 0ES.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

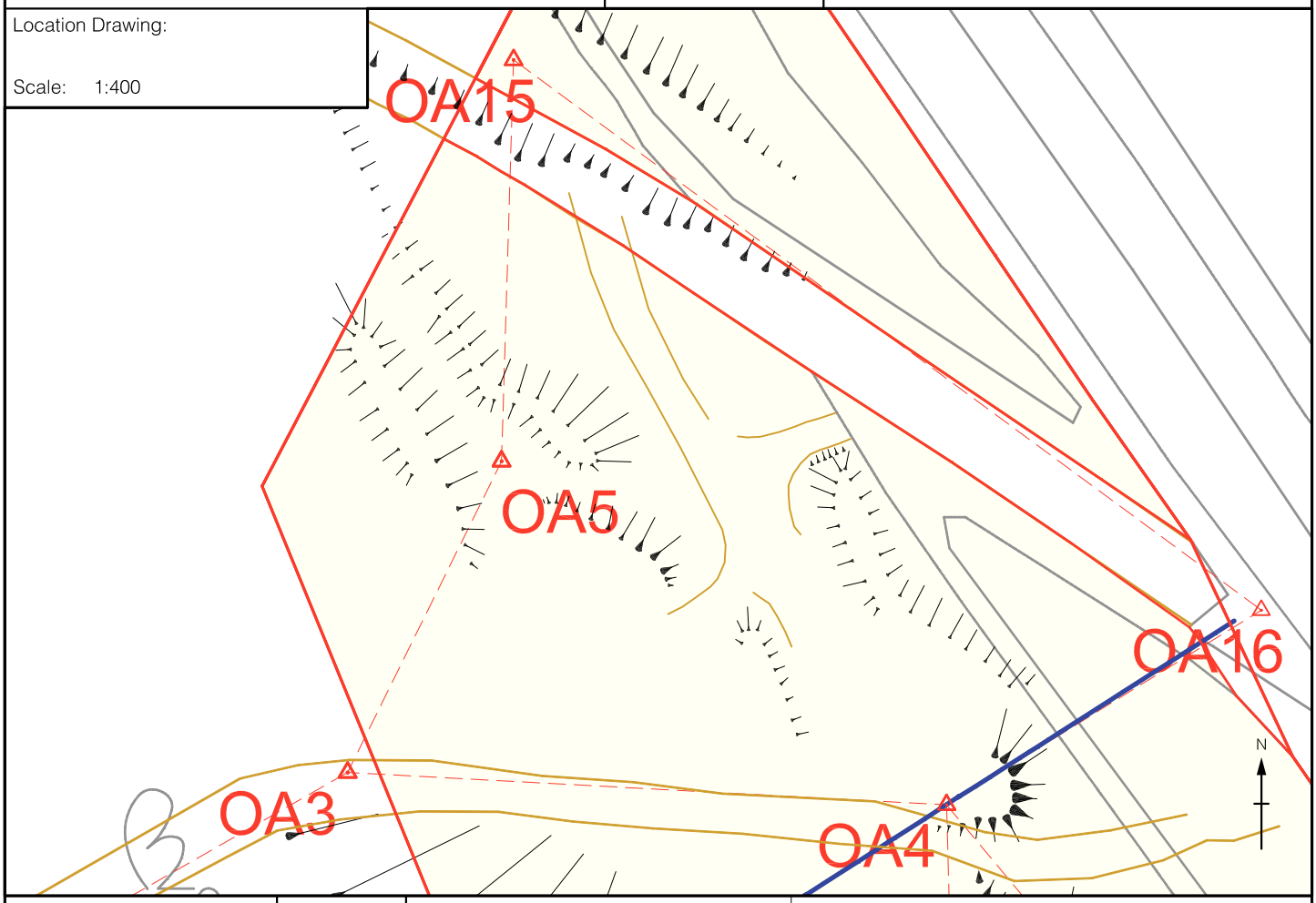
Station Number:	Date Recorded:	Description of Mark:
OA16	07 August 2004	Yellow pastic 'Survey Mark' disc with 3" steel PK nail.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA16 was established from OA15 using OA5 as a backsight. OA16 itself is located by the entrace to the path leading to the Crown Castle compound. OA16 was established primarily to close the secondary traverse - bending road and fast and busy traffic would have made the location too dangerous to use for any length of time.

Coordinates:	Height:	Reference Objects:
560872.807 E, 144076.692 N	105.322	OA15, OA4

Location Drawing:

Scale: 1:400



Location Photograph:

Direction:

for drawing key see Figure 2

no close-up shot taken on the day
due to congested and busy traffic.

SITE NAME: Castle Hill, Kent	CONTROL STATION LOCATION	SITE CODE: TOCH04

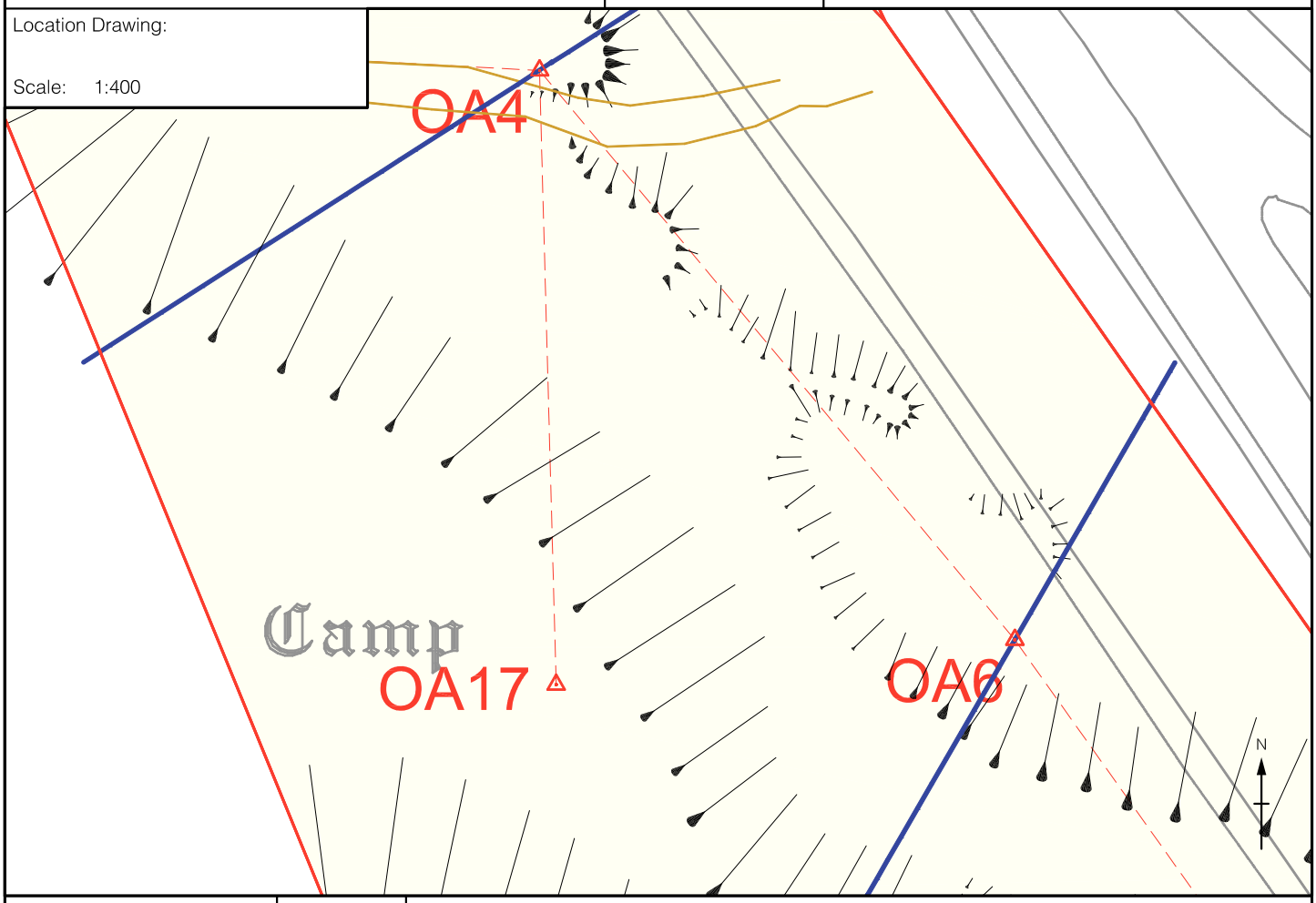
Station Number:	Date Recorded:	Description of Mark:
OA17	08 August 2004	Wooden peg with central nail - sprayed blue.

Surveyor(s):	Description of Set-up & Location:
MAS/LN	OA17 was established from OA4 using OA3 as a backsight. OA17 itself is located within an open area - the only area withikn the evaluation area where a GPS device may receive a signal.

Coordinates:	Height:	Reference Objects:
560855.489 E, 144029.682 N	117.971	OA4

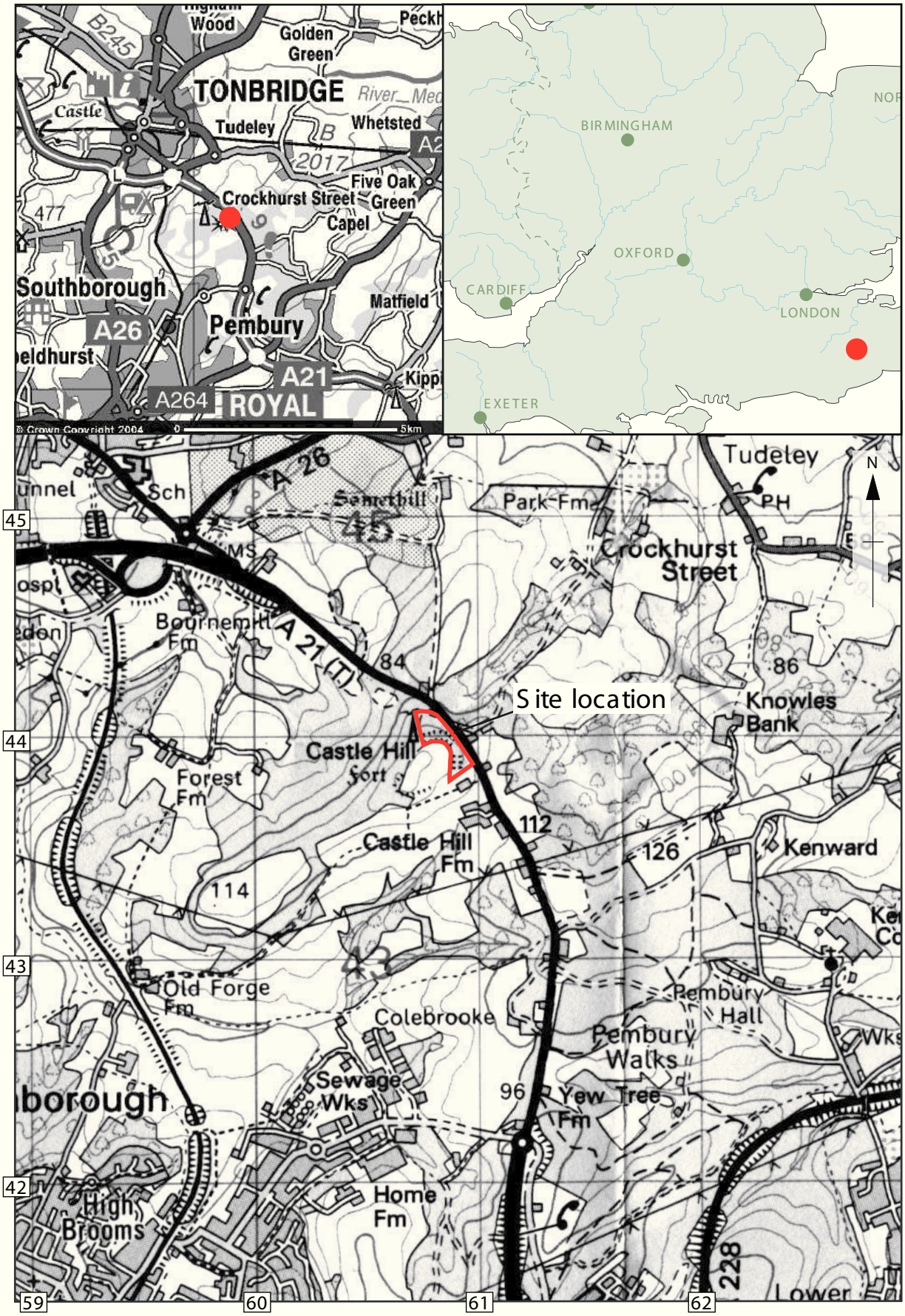
Location Drawing:

Scale: 1:400



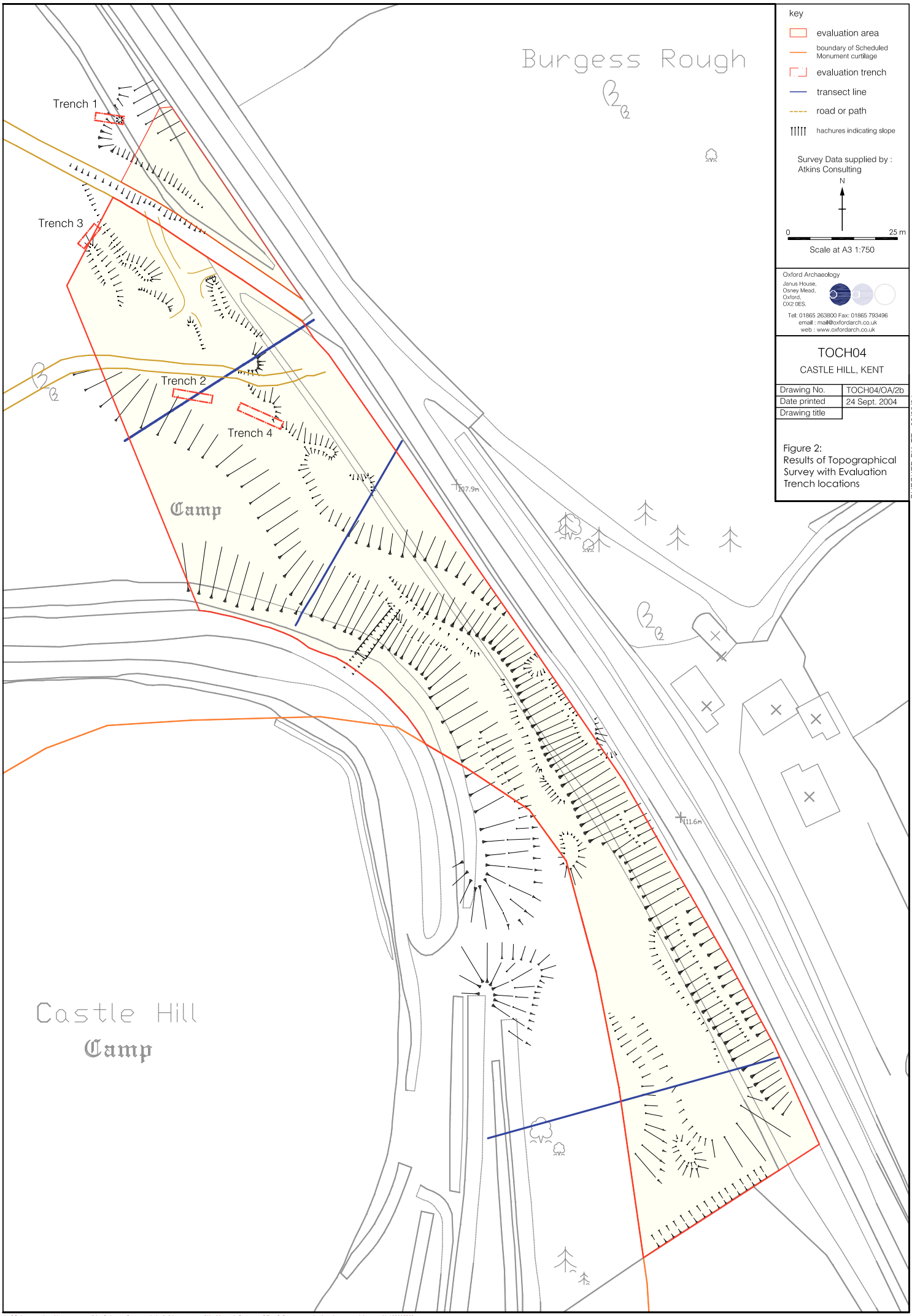
Location Photograph:	Direction:

for drawing key see Figure 2



Scale 1:25,000

Figure 1: Site location



key

- evaluation area
- boundary of Scheduled Monument curtilage
- evaluation trench
- transect line
- road or path
- hachures indicating slope

Survey Data supplied by : Atkins Consulting

N

0 25 m

Scale at A3 1:750

Oxford Archaeology
Janus House,
Osney Mead,
Oxford,
OX2 0ES.
Tel: 01865 263800 Fax: 01865 793496
email : mail@oxfordarch.co.uk
web : www.oxfordarch.co.uk

TOCH04

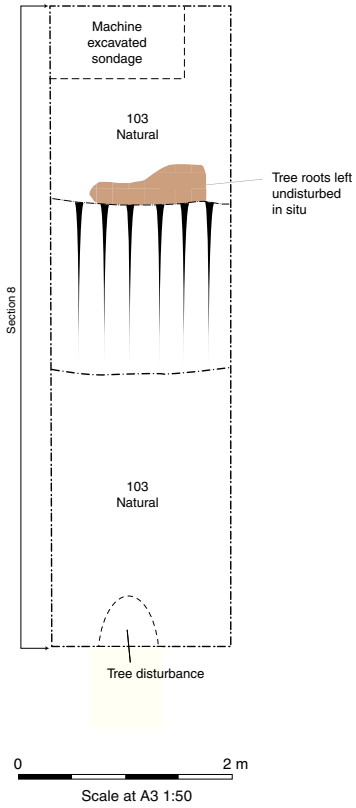
CASTLE HILL, KENT

Drawing No.	TOCH04/OA/2b
Date printed	24 Sept. 2004
Drawing title	

Figure 2:
Results of Topographical Survey with Evaluation Trench locations

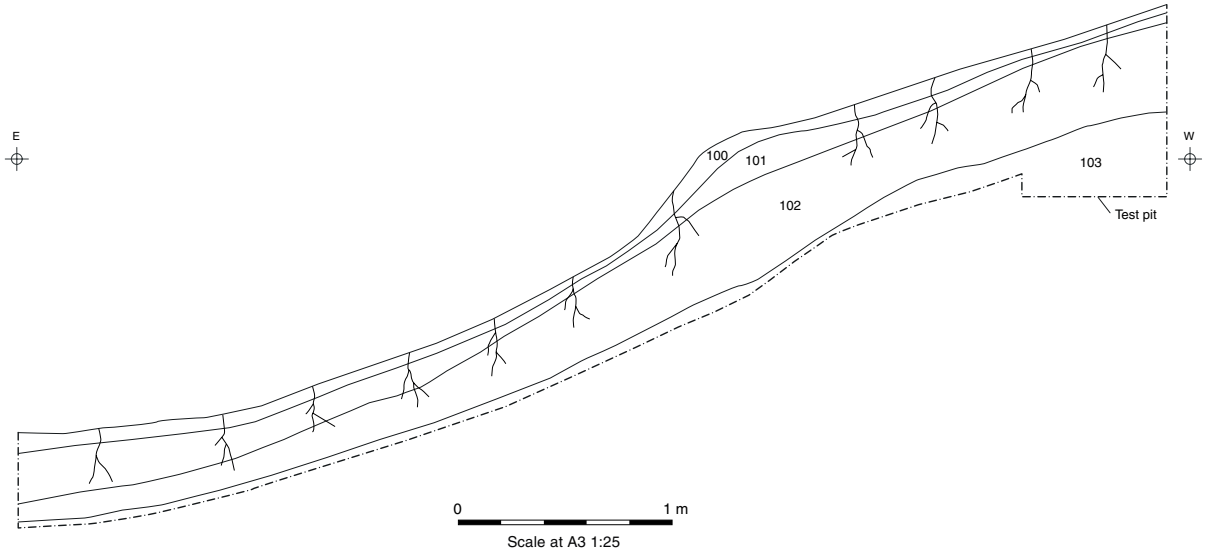
CHECKED BY: TE 23/08/04

Trench 1
Plan 1



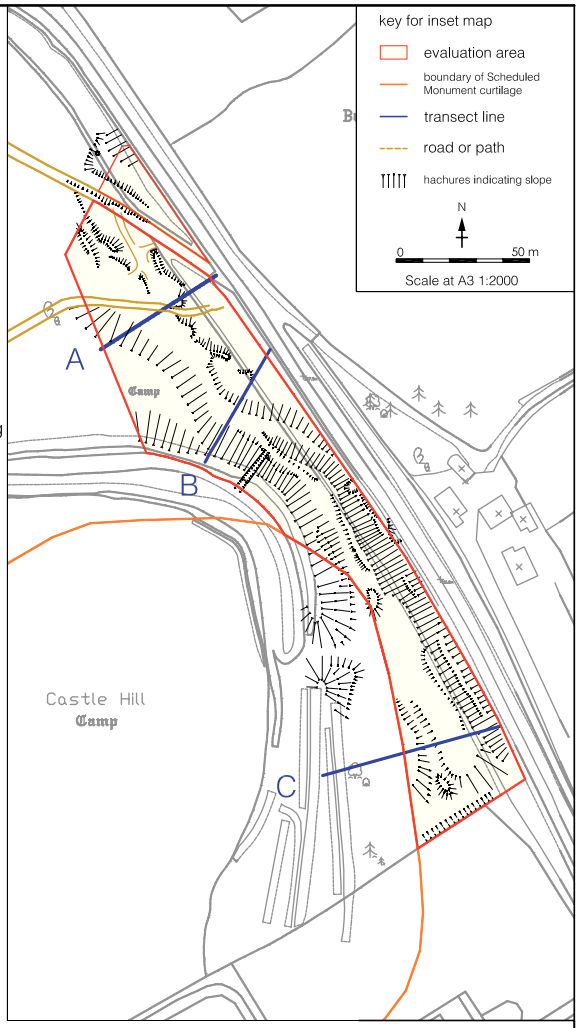
Scale at A3 1:50

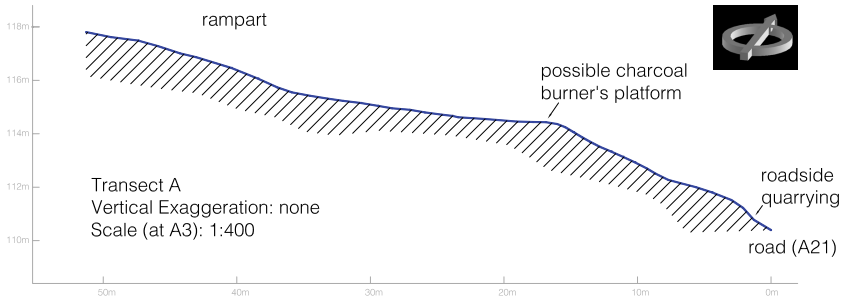
Trench 1
Section 8

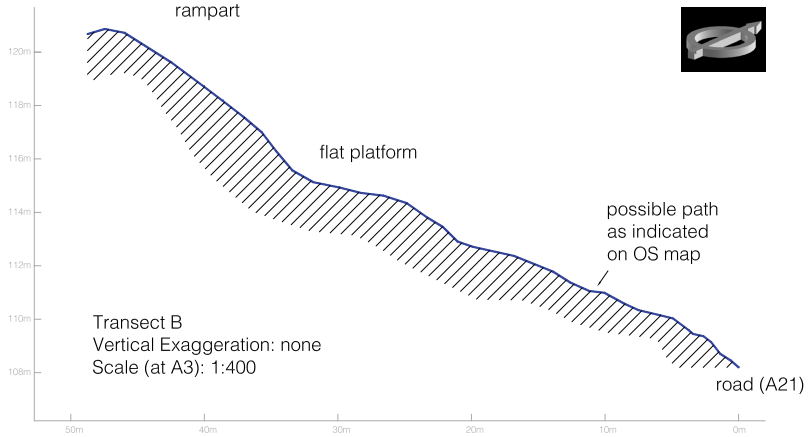


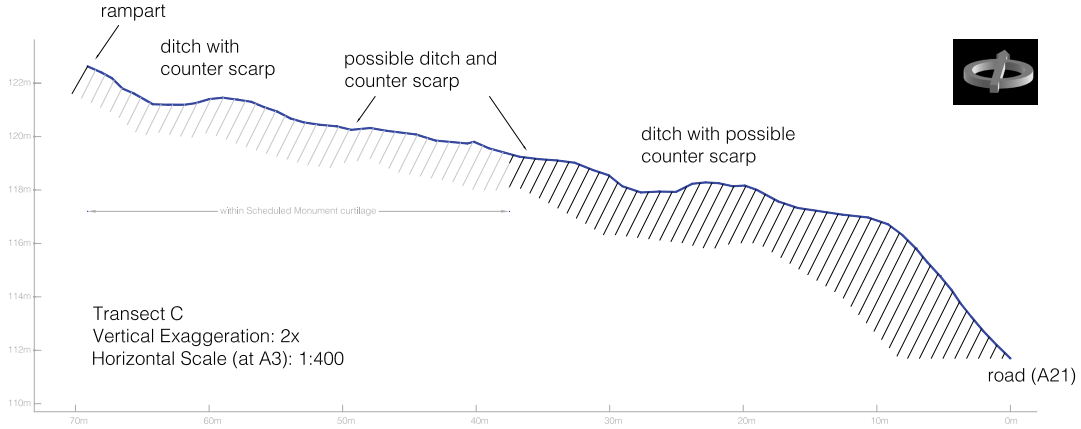
Scale at A3 1:25

Figure 3: Trench 1, plan and section









key for transect detail

- evaluation area
- area within Scheduled Monument curtilage
- transect line

OS Data supplied by : Atkins Consulting

Oxford Archaeology
Janus House,
Osney Mead,
Oxford,
OX2 0ES.
Tel: 01865 263800 Fax: 01865 793496
email : mail@oxfordarch.co.uk
web : www.oxfordarch.co.uk

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Figure 4:
Results of Topographical Survey with Transect detail

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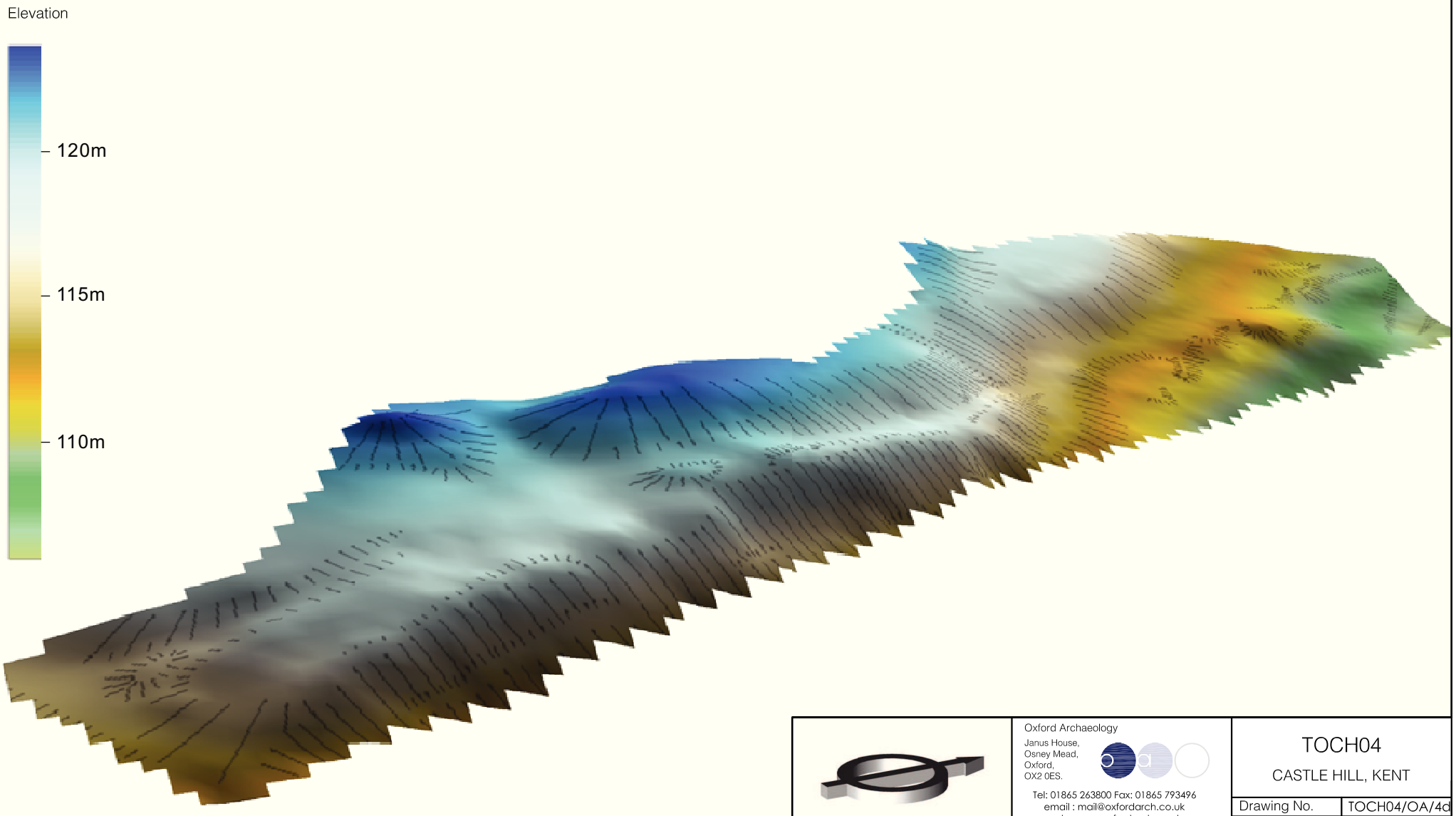

Oxford Archaeology
Janus House,
Osney Mead,
Oxford,
OX2 0ES.
Tel: 01865 263800 Fax: 01865 793496
email : mail@oxfordarch.co.uk
web : www.oxfordarch.co.uk

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Orthongonally Scaled
at A4: 1:800

Figure 5:
Clipped Surface model of Evaluation Area with overlying Hachure plan

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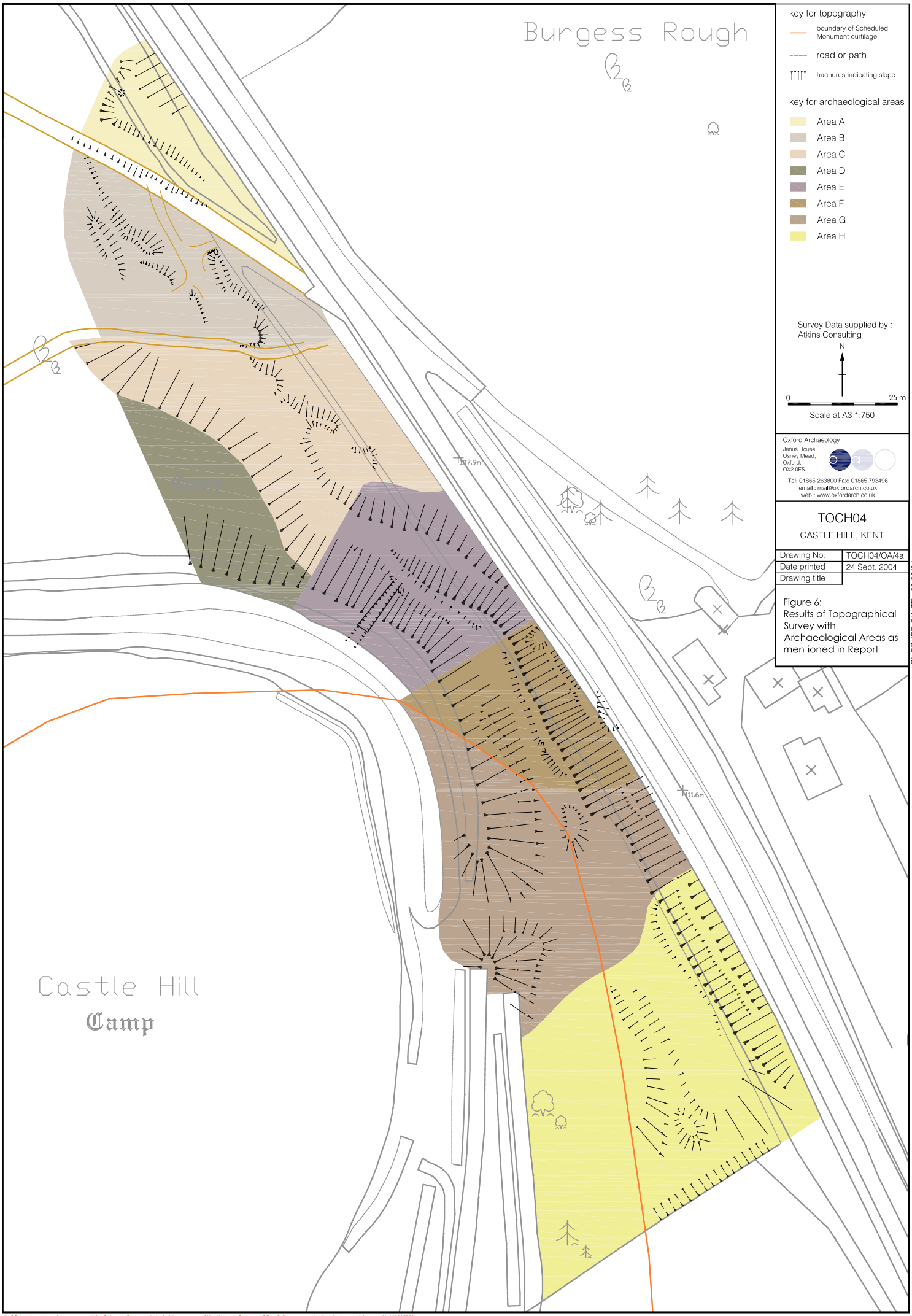

key for topography

- boundary of Scheduled Monument curtilage
- road or path
- hachures indicating slope

key for archaeological areas

- Area A
- Area B
- Area C
- Area D
- Area E
- Area F
- Area G
- Area H

Survey Data supplied by : Atkins Consulting

N

0 25 m

Scale at A3 1:750

Oxford Archaeology
Janus House,
Osney Mead,
Oxford,
OX2 0ES.
Tel: 01865 263800 Fax: 01865 793496
email : mail@oxfordarch.co.uk
web : www.oxfordarch.co.uk

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Figure 6:
Results of Topographical Survey with Archaeological Areas as mentioned in Report

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Head Office/Registered Office

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@thehumanjourney.net
w:http://thehumanjourney.net

OA North

Mill 3
Moor Lane
Lancaster LA1 1GF

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@thehumanjourney.net
w:http://thehumanjourney.net

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
f: +44 (0) 1223 850599
e: oaeast@thehumanjourney.net
w:http://thehumanjourney.net/oaeast

OA Méditerranée

115 Rue Merlot
ZAC La Louvade
34 130 Mauguio
France

t: +33 (0) 4.67.57.86.92
f: +33 (0) 4.67.42.65.93
e: oamed@oamed.fr
w: http://oamed.fr/

Director: David Jennings, BA MIFA FSA

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