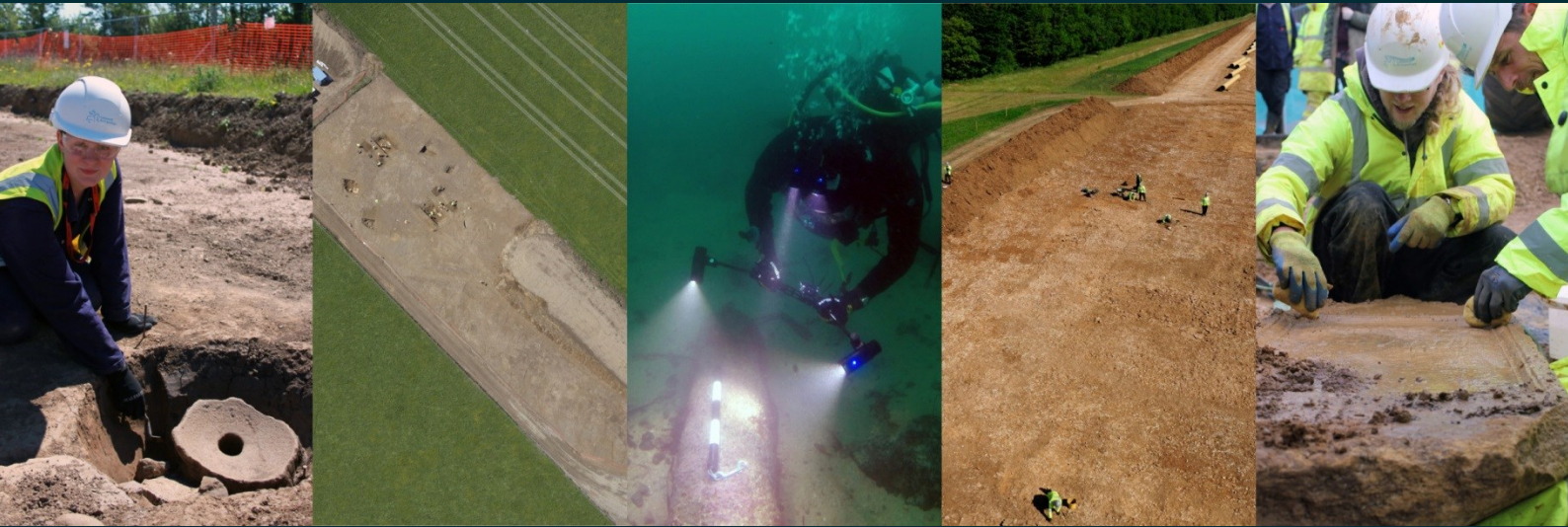


Warner Bros Studios – Area 1: L Stage Leavesden, Abbots Langley Hertfordshire

Archaeological Evaluation



for
Terence O'Rourke

on behalf of
Warner Bros.

CA Project: 660652

CA Report: 16131

Planning Application Ref: 15/1852/FUL

March 2016



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A	7 March 2016	Peter Busby and Jake Streatfeild-James	Ian Barnes	Internal review	Client Issue	Richard Young

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Fig 1. Site location plan (1:25,000)

Fig 2. Trench location plan showing archaeological features (1:750)

Fig 3. Trench 6 section



Summary

Project Name:	Warner Bros Studios – Area 1: L Stage
Location:	Leavesden, Watford, Hertfordshire
NGR:	TL 0915 0037
Type:	Evaluation
Date:	22–23 February and 4 March 2016
Planning Reference:	Three Rivers District Council 15/01300/OUTM Three Rivers District Council 15/1852/FUL
Location of Archive:	To be deposited with the Three Rivers Museum
Site Code:	WBS16

An archaeological evaluation was undertaken by Cotswold Archaeology in February 2016 at Warner Bros Studios – Area 1: L Stage, Leavesden, Abbots Langley Hertfordshire. A total of eight trenches were excavated.

The evaluation identified a relict land surface, which was noted to have gradually formed over the natural substrate. No archaeological features or finds were identified at the interface of these contexts, and all overlying deposits were definitively modern.



1. INTRODUCTION

- 1.1 In February and March 2016 Cotswold Archaeology (CA) carried out an archaeological evaluation for Terence O'Rourke Ltd (TOR), on behalf of Warner Bros, at the L Stage workshop within Warner Bros Studios, Leavesden (WBSL) (centred on NGR: TL 0915 0037; Fig. 1). The overall expansion of WBSL is part of a hybrid planning application submitted to Three Rivers District Council (TRDC; reference 15/1852/FUL) and Watford Borough Council (WBC; reference 15/01300/OUTM).
- 1.2 The scope of the archaeological works was negotiated with Andy Instone, Hertfordshire County Council's Planning Archaeologist (HCCPA), and Matt Adams, Hertfordshire County Council's Historic Environment Advisor (HCCHEA), archaeological advisors to Three Rivers District Council (TRDC).
- 1.3 Following the above negotiation, Condition S21 was attached to planning application 15/1852/FUL (as assessed by TDRC) and Condition 8 (as assessed by WBC) was attached to planning application 15/01300/OUTM. They required that no works of development comprising site preparation (including but not exclusively demolition of buildings and structures, ground works, ground remediation and service diversions) or construction shall commence until an archaeological written scheme of investigation (WSI) for the development site has been submitted to and approved in writing by WBC and TRDC. In detail, they required that the scheme of archaeological works should include:
- i. An assessment of archaeological significance and research objectives;*
 - ii. The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works;*
 - iii. Such appropriate mitigation measures indicated as necessary by the evaluation.*
- This may include:*
- a) the preservation of any remains in situ, if warranted,*
 - b) appropriate archaeological excavation of any remains before any development commences on the site, with provisions for subsequent analysis and publication of results,*

c) archaeological monitoring of the groundworks of the development (also including a contingency for the preservation or further investigation of any remains then encountered),

d) and such other provisions as may be necessary to protect the archaeological interests of the site.

iv. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material.

No development works shall take place other than in accordance with the approved WSI.

1.4 It was agreed during consultations that the works detailed by this report refer to Area 1: Stage L (hereafter 'the site') only. Further consultation will determine the scope and nature of addition historic environment and intrusive archaeological works across the remainder of the application area.

1.5 The evaluation was carried out in accordance with a detailed *Written Scheme of Investigation* (WSI) produced by CA (2016) and approved by TRDC. The fieldwork also followed *Standard and guidance: Archaeological field evaluation* (CIfA 2014). It was monitored by Andy Instone and Matt Adams, including a site visit on 4 March 2016.

The site

1.6 The site, which covers an area of approximately 1000m², is situated within the grounds of the Warner Bros Studios at Leavesden, Abbots Langley, approximately 4km to the north of Watford town centre. The studios occupy the central and south-western parts of the former Leavesden Aerodrome and the site is situated at the southern tip of the studio area, directly to the west of structures of the existing L Stage.

1.7 The ground varies in height from c.91m above Ordnance Datum (AOD) at the western extent of the site to c.96m AOD in the east. The bedrock comprises Cretaceous Chalk of the Seaford Formation, overlain by drift deposits of Sand and Gravel of the Gerrards Cross Formation (BGS 2016). The natural substrate encountered during the evaluation comprised clay gravels.

2. ARCHAEOLOGICAL BACKGROUND

2.1 The wider studio plot (hereafter the proposed development area) has been subject to a Heritage Statement (TOR 2015) and several phases of archaeological and historic environment work. The following is a summary of these assessments and other relevant sources.

Bronze Age

2.2 Evidence for Bronze Age settlement and activity in the area is sparse, although a small group of late Bronze Age pits were encountered immediately to the east of the proposed development area during an evaluation (Trenches 21 and 22) undertaken by CA in 2000 (CAT 2000). A Bronze Age ditch has also been recorded c. 0.8km to the south-east of the proposed development area, at the southern end of the aerodrome (ibid).

Iron Age and Roman

2.3 Archaeological investigations carried out by Oxford Archaeology Unit in 1998, on two large blocks of land between Aerodrome Way and High Road, identified the remains of Iron Age and Roman settlement in the area now occupied by the northern end of Royce Grove, c. 0.5km to the east of the proposed development area. The settlement comprised ditches, pits, post-holes and a corn drier, from which was recovered a large quantity of pottery and metalwork of a similar date (OAU 1998; Brossler *et al* 2010).

2.4 Further Iron Age remains have been encountered to the west of Aerodrome Way, c. 0.4km to the east of the proposed development area (CAT 2000); these were located immediately to the west of the settlement investigated by OAU and are probably associated peripheral features.

2.5 A small quantity of Iron Age and Roman pottery has been recovered as surface finds near Broomfield Rise, c. 0.8km to the north-west of the proposed development area.

Early medieval (AD 410 - 1066) and medieval (1066 – 1539)

2.6 There are no known medieval remains within the site and the nearest site potentially of medieval date is that of a possible moated manor at Hunter's Hall, approximately 1.1km to the north-east. It is likely that the land now forming the proposed development area was farmland or woodland throughout the medieval period. A

small quantity of medieval pottery has been recovered from beneath a hedgerow, c. 1.2km to the east of the proposed development area.

Post-medieval (1540-1800) and modern (1801-present)

- 2.7 The land continued in agricultural use throughout the post-medieval and early modern periods and map evidence shows that the land remained undeveloped until the mid-20th century. It is first depicted on the 1839 Tithe Map of Abbots Langley, at which time the land now occupied by the proposed development area lay within the north-eastern corner of a large field. The proposed development area remained relatively unchanged until the development of Leavesden Aerodrome in 1940. A recent strip and map excavation undertaken by CA in the north-eastern part of the former aerodrome identified remnants of the post-medieval field system and extensive areas of made-ground associated with the construction of the airfield (CA 2013).
- 2.8 There are a number of Listed buildings in the surrounding area that date from the post-medieval period and the site of three 17th-century houses, now demolished, lies 0.9km to the east of the proposed development area.

Leavesden Aerodrome

- 2.9 Leavesden Aerodrome was established in 1940, when the Ministry of Aircraft Production purchased 300ha of land and constructed a c.1000m concrete runway, along with two large aircraft factory complexes. RAF Leavesden was initially intended for the construction of Halifax bombers and just over 700 bombers were constructed there before the aerodrome was taken over by the de Havilland Company in 1941 (Peerless and Riding 2011). They converted the factories to the production and final assembly of Mosquito fighter-bombers. The remains of Aircraft Factory No. 2 lie within the eastern part of the site, where only the floor slab and foundations survive. Production continued until 1946, by which time over 4000 aircraft had been built. In the post-war years the airfield passed to Hawker Siddeley for a brief period, before being taken over by Rolls Royce as a major centre of aircraft engine production. The factory closed in 1993 and part of the aerodrome was sold off for use as film studios, with the remainder being offered for development (TOR 2015).

Other archaeological works

- 2.10 An archaeological strip, map and sample completed to the north-west of the site identified no archaeological features or deposits (CA 2011).

3. AIMS AND OBJECTIVES

- 3.1 The objectives of the evaluation were to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality. In accordance with *Standard and guidance: Archaeological field evaluation* (ClfA 2014), the evaluation was designed to be minimally intrusive and minimally destructive to archaeological remains. The information gathered will enable TRDC to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (DCLG 2012).

4. METHODOLOGY

- 4.1 The evaluation comprised the excavation of eight trenches in the locations shown on the attached plan (Fig. 2). The trenches measured either 40m in length (Trenches 1-3) or 20m in length (Trenches 4-8). Trench 2 was moved approximately 4 metres south in order to avoid obstacles on the ground. Trenches were set out on OS National Grid (NGR) co-ordinates using Leica GPS and surveyed in accordance with CA Technical Manual 4 *Survey Manual*.
- 4.2 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*.
- 4.3 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other*

Samples from Archaeological Sites and, no deposits were identified that required sampling. No artefacts were retained given all were determined to be modern..

- 4.4 The archive from the evaluation is currently held by CA at their offices in Kemble. Appropriate steps will be taken to deposit the site archive with the Three Rivers Museum. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS (FIGS 2-3)

- 5.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts are to be found in Appendix A.
- 5.2 A broadly similar stratigraphy was recorded across the site. The natural substrate (clay gravels) was encountered at between 2.7m and 1.5m below present ground level (bpgl). With the exception of Trenches 1 and 3, the natural substrate was overlain by a gravelly silt subsoil, between 0.15m and 0.26m thick. It had a very diffuse, irregular boundary with the natural substrate. No furrows, plough scars, or archaeological features were observed to cut its surface. The subsoil was in turn sealed by a silty sand relict land surface, c.0.2m in thickness. This deposit sealed the natural substrate in Trenches 1 and 3.
- 5.3 The relict land surface was sealed by layers of modern made ground of up to 2.3m thickness; numerous inclusions of modern builders waste (including brick, stone, plastic and metal fragments) were observed. The lower of these layers, 104 and 402 in Trenches 1 and 4 respectively, were cut by two large modern features (103 and 405, Fig. 2) Sealing the lower made ground 402 in Trench 4 was a 0.38m thick layer of compacted grey brown silty gravel, 401. Above this in both trenches was a further layer of made ground (101 and 400).

6. DISCUSSION

- 6.1 No features or deposits of archaeological interest were identified during the evaluation. The observed boundary between the subsoil and natural was very diffuse and irregular, which suggests the former was naturally/gradually formed. This

hypothesis is supported by the lack of furrows, plough scars, or archaeological features observed cutting the surface of the natural substrate.

- 6.2 The absence of finds from these layers suggests that no archaeologically significant activity had taken place in this part of the Warner Bros Studios site. Moreover, the presence of an *in situ* subsoil suggests that the area likely has not been subject to historic disturbance or re-working, but rather that archaeological features likely do not extent into this area.
- 6.2 All deposits and features overlying and cutting the relict land surface were noted to be definitively modern, and of no archaeological interest.

7. CA PROJECT TEAM

Fieldwork was undertaken by Peter Busby, Julian Newman and Luis Gomes. The report was written by Peter Busby and Jake Streatfeild-James. The illustrations were prepared by Dan Bashford. The archive has been compiled by Emily Evans, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Ian Barnes.

8. REFERENCES

BGS (British Geological Survey) 2016 Online resource at <http://www.bgs.ac.uk/geoindex.html> accessed 1 March 2016

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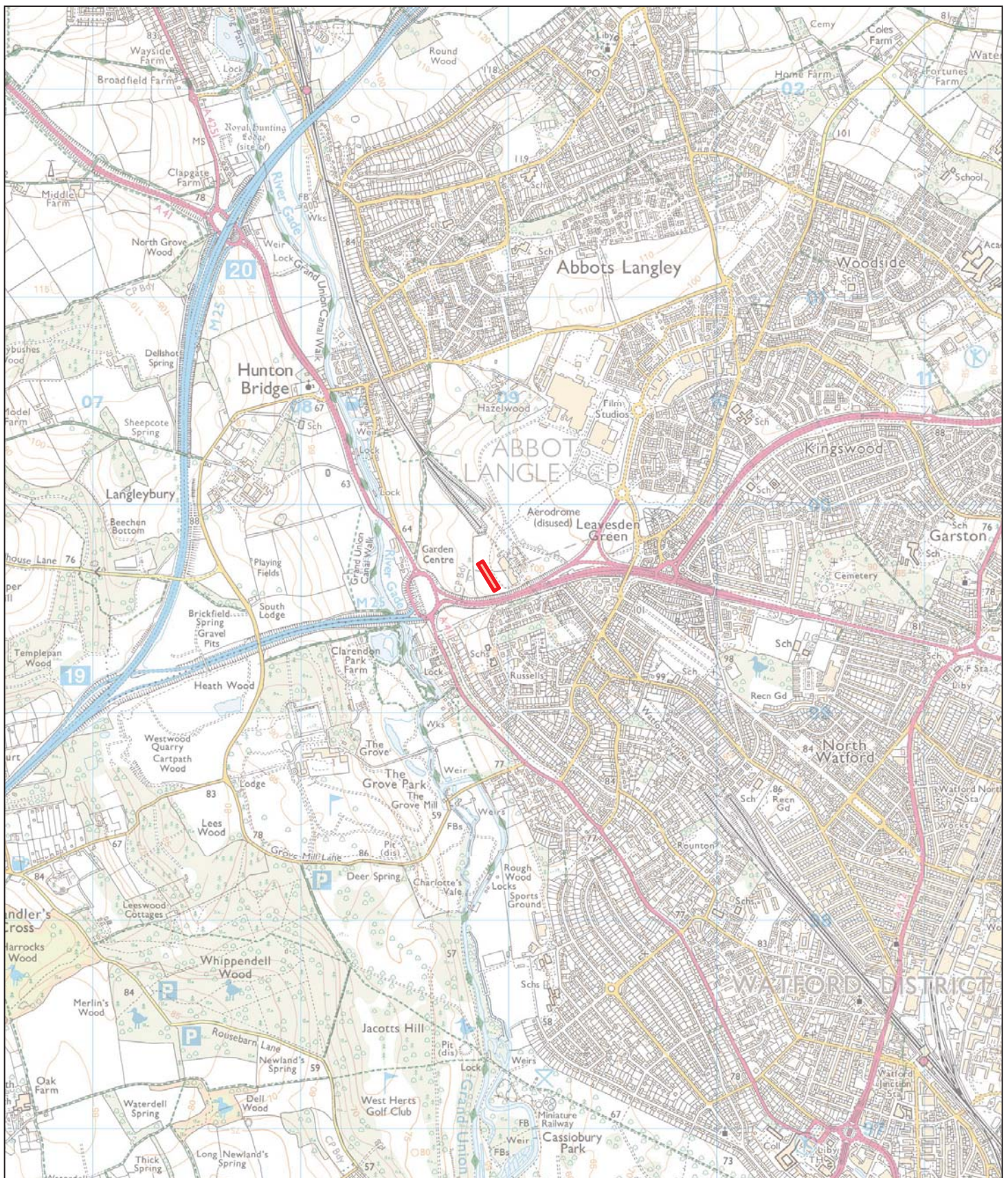


APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)
1	101	Layer		Made ground	Lenses of grey back/orange brown clay gravels with modern builders waste including brick, stone, plastic and metal fragments	>40	>1.8	1.75
1	102	Fill	103	Septic tank robber trench fill	Mid grey brown sandy silts with frequent brick fragments	8	1.8	3.1
1	103	Cut		Septic tank robber trench	Vertical sides, single fill	8	1.8	3.1
1	104	Layer		Made ground	As 101	>40	>1.8	2.1
1	105	Layer		Relict surface Land	Very dark brown/black silty sand with 25% gravel	>40	>1.8	0.2
1	106	Layer		Natural	Orange brown mixed clay gravel	>40	>1.8	-
2	201	Layer		Made ground	As 101	>40	>1.8	1.3
2	202	Layer		Relict surface Land	As 105	>40	>1.8	0.25
2	203	Layer		Subsoil	Brown gravel silt with a poor undulating boundary with natural substrate	>40	>1.8	0.15
2	204	Layer		Natural	As 106	>40	>1.8	-
3	301	Layer		Made ground	As 101	>40	>1.8	1.2
3	302	Layer		Relict surface Land	As 105	>40	>1.8	0.3
3	303	Layer		Natural	As 106	>40	>1.8	-
4	400	Layer		Made ground	As 101	>20	>2	1.3
4	401	Layer		Builders' yard surface	Compact grey brown silt gravel with 10% plastic and builders waste	>20	>2	0.38
4	402	Layer		Made ground	As 101	>20	>2	0.62
4	403	Layer		Relict surface Land	As 105	>20	>2	0.2
4	404	Fill	405	Septic tank robber trench backfill	Mixed grey black silt clays and gravels with 5% builders waste			
4	405	Cut		Septic tank robber trench	An irregular square cut in plan with steep sides base not seen			
4	406	Layer		Natural	As 106	>20	>2	>0.7
4	407	Layer		Subsoil	As 203	>20	>2	0.2
5	500	Layer		Made ground	As 101	>20	>2	1.4
5	501	Layer		Relict surface Land	As 105	>20	>2	0.2
5	502	Layer		Subsoil	As 203	>20	>2	0.2
5	503	Layer		Natural	As 106	>20	>2	>0.4
6	600	Layer		Made ground	As 101	>20	>2	1.1
6	601	Layer		Relict surface Land	As 105	>20	>2	0.2
6	602	Layer		Subsoil	As 203	>20	>2	0.15
6	603	Layer		Natural	As 106	>20	>2	>0.1
7	700	Layer		Made ground	As 101	>20	>2	0.85
7	701	Layer		Relict surface Land	As 105	>20	>2	0.19
7	702	Layer		Subsoil	As 203	>20	>2	0.25
7	703	Layer		Natural	As 106	>20	>2	>0.2
8	800	Layer		Made ground	As 101	>20	>2	0.76
8	801	Layer		Relict surface Land	As 105	>20	>2	0.22
8	802	Layer		Subsoil	As 203	>20	>2	0.26
8	803	Layer		Natural	As 106	>20	>2	>0.26

APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Warner Brothers Studios – Area 1: L Stage	
Short description	<p>An archaeological evaluation was undertaken by Cotswold Archaeology in February 2016 at Warner Bros Studios – Area 1: L Stage, Leavesden, Abbots Langley Hertfordshire. A total of eight trenches were excavated.</p> <p>The evaluation identified a relict land surface, which was noted to have gradually formed over the natural substrate. No archaeological features or finds were identified at the interface of these contexts, and all overlying deposits were definitively modern.</p>	
Project dates	22–23 February and 4 March 2016	
Project type	Field Evaluation	
Previous work		
Future work	Unknown	
PROJECT LOCATION		
Site Location	Warner Brothers Studios, Abbots Langley, Leavesden, Hertfordshire	
Study area (M ² /ha)	1000m ²	
Site co-ordinates (8 Fig Grid Reference)	TL 0915 0037	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	Terence O'Rourke	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Ian Barnes	
Project Supervisor	Peter Busby and Julian Newman	
MONUMENT TYPE		
	None	
SIGNIFICANT FINDS		
	None	
PROJECT ARCHIVES		
	Intended final location of archive	Content
Physical	N/A	N/A
Paper	Three Rivers Museum	Context and trench sheets
Digital	Three Rivers Museum	Digital photos
BIBLIOGRAPHY		
<p>CA (Cotswold Archaeology) 2016 <i>Warner Bros Studios – Area 1: L Stage, Leavesden, Hertfordshire: Archaeological Evaluation</i>. CA typescript report 16131</p>		



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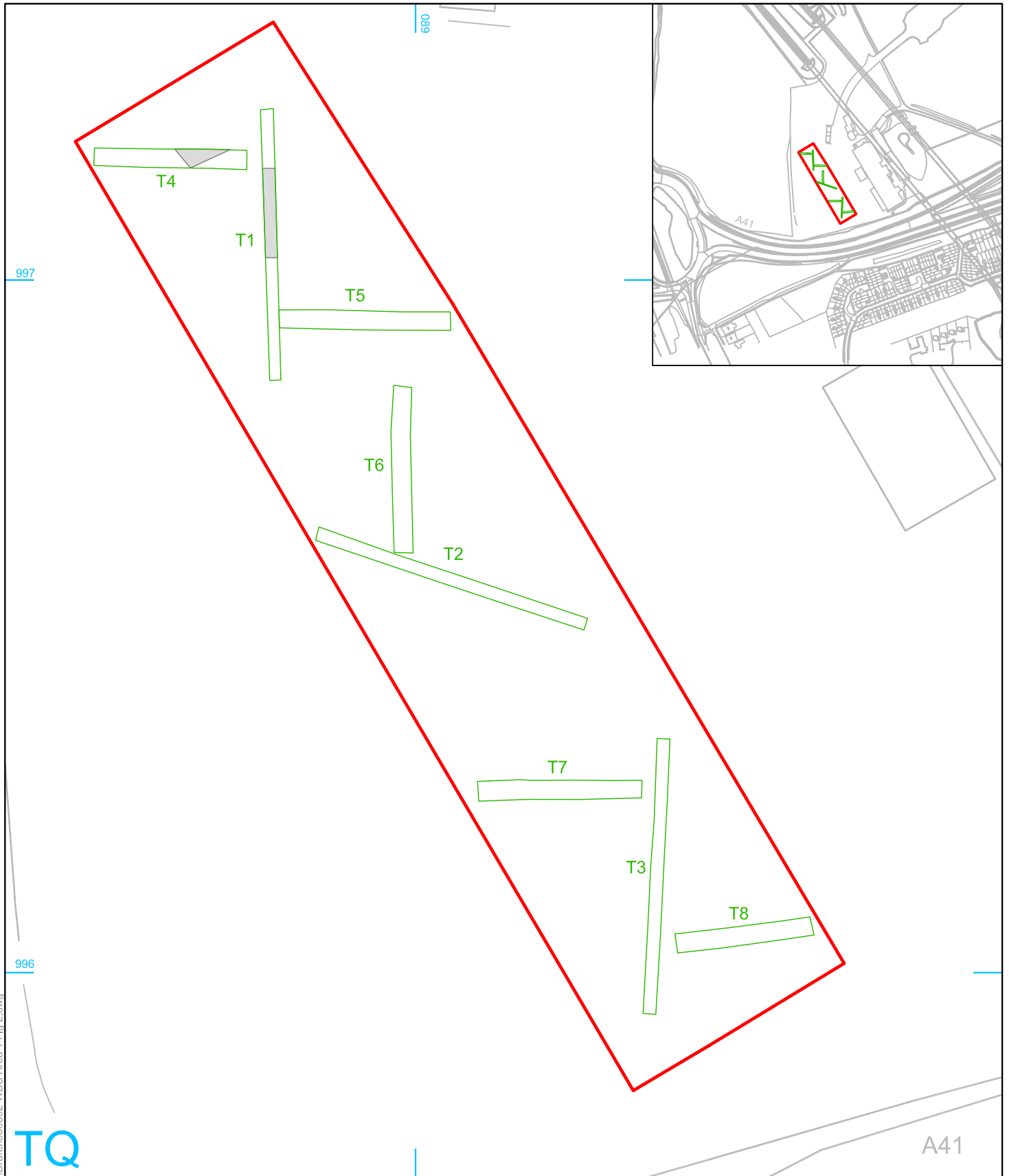
PROJECT TITLE
 Warner Bros Studios - Area 1: L Stage
 Leavesden, Abbots Langley, Hertfordshire

FIGURE TITLE
 Site location plan

0 1km

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TQ

- site boundary
- evaluation trench
- modern



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FIGURE TITLE
Trench location plan

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FIGURE NO.

2





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Warner Bros Studios - Area 1: L Stage
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FIGURE TITLE

Photograph: Trench 6 section

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