

ARCHAEOLOGICAL EVALUATION REPORT:

TRIAL TRENCHING ON LAND AT DENNY END ROAD, WATERBEACH, CAMBRIDGESHIRE

Planning Reference: S/0551/14/FL

NGR: TL 4891 6606

AAL Site Code: WADE 16

CHER Event Number ECB4654

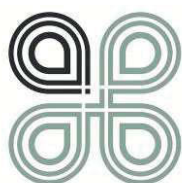
OASIS Reference Number: allenarc1-247304



Report prepared for David Futter Associates

By
Allen Archaeology Limited
Report Number AAL 2016054

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Allenarchaeology



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Cover image: General view of site before excavation, looking northeast

Executive Summary

- Allen Archaeology Limited was commissioned by David Futter Associates to undertake an archaeological evaluation by trial trenching as a condition of planning consent for a mixed use development on land at Denny End Lane, Waterbeach, Cambridgeshire.
- The site lies in an area of some archaeological interest, with evidence for Neolithic and late Bronze Age activity. The Roman Car Dyke canal is believed to have passed c.300m to the west of the site, and evidence for Roman activity in the vicinity is extensive, with a complex of cropmarks comprising linear boundaries, enclosures and trackways, probably indicative of more than one phase of activity. Anglo-Saxon activity is also well represented in the area.
- Six trenches were excavated across the development area and exposed natural geological deposits and a small number of modern features, suggesting a negligible archaeological potential.

1.0 Introduction

- 1.1 Allen Archaeology Limited was commissioned by David Futter Associates to undertake an archaeological evaluation by trial trenching as a condition of planning consent for a mixed development on land at Denny End Lane, Waterbeach, Cambridgeshire.
- 1.2 The fieldwork, recording and reporting was carried out in a manner consistent with current national guidelines, as set out in the Chartered Institute for Archaeologists '*Standard and guidance for archaeological field evaluations*' (CIfA 2014), the English Heritage document '*Management of Research Projects in the Historic Environment*' (English Heritage 2006), '*Research and Archaeology Revisited: a revised framework for the East of England*' (Medlycott 2011) and a specification produced by this company (AAL 2015). All relevant Historic England guidelines on archaeological best practice were also followed.

2.0 Site Location and Description

- 2.1 Waterbeach is located in the administrative district of South Cambridgeshire District Council, approximately 8km northeast of central Cambridge. The proposed development comprises an area of landscaped grounds and car parking on the north side of Denny End Road, centred on NGR TL 4891 6606 (Figure 1).
- 2.2 The local geology comprises bedrock deposits of Gault Formation mudstone, overlain by a superficial geology of river terrace sand and gravel (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

3.0 Planning Background

- 3.1 Planning permission has been granted for construction of a mixed use development comprising offices, a café/sandwich bar and a gymnasium. Permission was granted subject to conditions which include undertaking a programme of archaeological evaluation trenching in advance of the development.
- 3.2 A written scheme of investigation was prepared in response to a design brief from Cambridgeshire County Council Historic Environment Team (Thomas 2015). The results of this work are intended to inform the decision on the need, design and extent of any subsequent archaeological mitigation works that may be required.
- 3.3 The approach adopted is consistent with the guidelines that are set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government 2012).

4.0 Archaeological and Historical Background

- 4.1 The site lies in an area of significant archaeological potential. A number of polished axeheads of Neolithic date were found c.550m to the east of the site (CHER Reference 00343), and another c.880m to the northwest (CHER Reference 05347). Further prehistoric activity has been recorded off the High Street in Waterbeach, where a buried soil was revealed and contained three sherds of late Bronze Age to early Iron Age pottery (CHER Reference MCB17348). The remaining features excavated on that site were of medieval and post-medieval date.
- 4.2 The Roman Car Dyke canal is believed to have passed c.300m to the west of the site, running on a broadly northwest to southeast alignment, and was recorded during monitoring works to the

southwest of the site (CHER Reference MCB16776). To the northwest of the site, the canal was dredged out during construction of an RAF base in 1955, piped and filled with rubble. Roman pottery was recovered from the excavated material (CHER Reference 05349). To the south of the site (c. 900m), a dugout canoe was recovered from the Car Dyke (CHER Reference 05454).

- 4.3 Evidence for Roman activity in the vicinity of the site is extensive, with a complex of cropmarks recorded within 350m to the west of the site, on the west side of the Car Dyke, comprising linear boundaries, enclosures and trackways, and probably representative of more than one phase of activity (CHER References 08593, 08846, 11127). Some of these cropmarks have been subject to intrusive investigation, producing pottery of Roman date, with some possible Iron Age material (CHER References 05343, 05348, 08594). Further linear features have been recorded c.660m to the east of the site (CHER References MCB17241, MCB20218). Numerous records of stray Roman dated finds are also recorded in the wider area (e.g. CHER References 02296, 09702, 11331).
- 4.4 Anglo-Saxon activity is also well represented in the area. Excavations in 1926 and 1927 revealed settlement remains, comprising three huts sealed by the bank of the Car Dyke, lying c.700m to the south of the site (CHER Reference 05312). Another grubenhaus, with associated pits and working hollows has been exposed beneath medieval ridge and furrow c.500m to the southeast of the site (CHER Reference CB14602).
- 4.5 In the Domesday Book of 1086, Picot of Cambridge is recorded as the principal landowner, in a settlement populated by 19 villagers of varying status along with their dependents. A smaller estate, with 13 villagers is recorded as being in the ownership of 'two of the Kings carpenters' (Williams and Martin 2002).
- 4.6 The proposed development area is situated in the southwest corner of former RAF Waterbeach (CHER Reference CB15155) that was built in 1940 during World War II and still contains several original buildings. The airfield was closed in 2013 and the site subject to a MoD disposal process in 2014.

5.0 Methodology

- 5.1 A programme of trial trenching, comprising six trenches measuring 20m x 1.8m was undertaken by a team of experienced field archaeologists from AAL on Wednesday 2nd to Friday 4th March 2016 (Figure 2). Due to the presence of live services, a number of trenches had to be moved from their original proposed locations. Each trench was accurately located using a Leica GS08 RTK NetRover GPS. In all trenches, machine excavation was undertaken using a tracked excavator fitted with a toothless bucket, removing topsoil, subsoil and underlying non-archaeological deposits in spits no greater than 10cm in thickness. The process was repeated until the first archaeologically significant or natural horizon was exposed.
- 5.2 A full written record of the archaeological deposits was made on standard AAL context recording sheets. Each deposit, layer and cut was allocated a unique three digit identifier (context number), and accorded a written description. A summary of these are included in Appendix 1.
- 5.3 Deposits were drawn in plan and section at an appropriate scale. All archaeological deposits and features were recorded photographically. General site shots were also taken to show the landscape context of the groundworks. A selection of these have been included in the report.
- 5.4 All finds of all classes were collected, processed and analysed as appropriate. Finds collected during the fieldwork were bagged and labelled with the appropriate deposit context number and were processed (cleaned, marked and labelled as appropriate) at the offices of AAL and were then

submitted for specialist assessment as to their potential and significance for further analysis and study.

6.0 Results (Figures 3, 4 and 5)

- 6.1 The earliest deposit recorded within all the trenches was a natural geological deposit (Plate 1) comprising mid orange sandy silt, mid to dark orange silty clay and light orange sand with frequent gravel and chalk 102, 202, 303, 402, 503 and 602 that represents the superficial geology of river terrace sands and gravels.



*Plate 1: General view of Trench 3 showing natural deposit encountered across the site, looking southwest.
Scales 2 x 1m*

- 6.2 Sealing the natural within Trenches 2, 3, 4 and 5 was a greyish brown silty clay 201, orangey brown sandy silt 302, orangey grey silty clay 401 and a yellowish orange sand 502 respectively. These deposits all contained flint and stones and measured between 0.22m and 0.55m thick and have been interpreted as probable alluvial deposits.
- 6.3 Overlying deposit 302 within Trench 3 and the natural geology in Trench 6 was a dark brown, sandy clay representing a buried modern topsoil, contexts 304 and 607 respectively. The topsoil contained frequent roots and gravel and measured between 0.25m and 0.5m thick.
- 6.4 Previous landscaping of the site was revealed within Trenches 1, 3 and 6 where brown silt/sandy clay and clay deposits; 101, 301 and 601, containing frequent bricks, concrete, stones and plastic and measuring up to 2m thick were recorded, sealing the natural or alluvial/subsoil. The nature of these deposits suggest that the remodelling and landscaping of the site was undertaken after the airfield fell out of use and the associated buildings had been removed.
- 6.5 The uppermost deposit throughout the site was a 0.2m–0.5m thick dark brown clay with gravel topsoil; 100, 200, 300, 400, 501 and 600. A modern car park surface comprising light yellow gravel 500 with frequent flint and small stones and measuring 0.3m thick was recorded in Trench 5, sealing 501.
- 6.6 A small number of features were recorded, and these are discussed by trench below.

Trench 2 (Figure 3)

- 6.7 Recorded towards the centre of the trench were two modern features [203] and [206]. The earliest feature [206] was curvilinear, with the exposed section generally aligned north-south. With moderately sloping sides and a flat base, this feature measured more than 1.55m long x 1.85m wide x 0.24m deep and contained a light blueish grey clay with moderate charcoal and chalk inclusions, 207. A similarly aligned service trench [203], filled with a brownish grey silty clay with frequent charcoal, stones and gravel, 204, and containing electrical cabling contained within concrete and mortar, 205, cut deposit 206 (Plate 2). Another modern service pipe was also recorded running northeast to southwest.



Plate 2: Northeast-facing section and plan view of features [203] and [206] within Trench 2. Scales 2 x 1m

Trench 6 (Figure 4)

- 6.8 Cutting the natural geology at the western end of the trench was the terminus of a north-south aligned linear feature or possible pit [605] (Plate 3). With steep sides and a flat base, [605] contained a backfill of soft orangey grey clayey silt with frequent sand and gravel inclusions, 606. Feature [605] was cut by a shallow, east-west aligned gully [603]. Although no dating evidence was retrieved from these features, a photograph taken in 1945 (Google Earth, 2016) shows a building within this location, it is therefore likely that these features are associated with the footings of that structure.



Plate 3: Gully [603] and pit [605] within Trench 6, looking south. Scales 2 x 1m

7.0 Discussion and Conclusions

7.1 The trial trenching has revealed natural geological deposits of sandy silt and silty clay with frequent gravel and chalk inclusions that represent the superficial geology of river terrace sand and gravel across the site, sealed by possible alluvial layers and deep landscaping layers, associated with the former RAF base that extended into the site, and the subsequent redevelopment. A small number of undated archaeological features were also recorded, and it is possible that these features are also associated with the use and decommissioning of the airbase.

8.0 Effectiveness of Methodology

8.1 The evaluation methodology was appropriate to the size and type of project. It suggests that the proposed development area has a limited archaeological potential.

9.0 Acknowledgements

9.1 Allen Archaeology Limited would like to thank David Futter Associates for this commission.

10.0 References

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Appendix 1: Context Summary List

Trench 1

Context	Type	Description	Interpretation
100	Layer	Dark brown silty clay with gravel and flint, 0.22m thick, seals 101	Topsoil
101	Layer	Mid greyish brown silt with modern plastics, 2m thick, sealed by 100, seals 102	Modern landscaping
102	Layer	Mid orange sandy silt with chalk flecks, sealed by 101	Natural

Trench 2

Context	Type	Description	Interpretation
200	Layer	Dark brown silty clay with gravel, 0.2m thick, seals 201	Topsoil
201	Layer	Greyish brown silty clay with occasional gravel, 0.22m thick, sealed by 200, seals 202	Alluvium
202	Layer	Orange sandy silt with occasional chalk, sealed by 201	Natural
203	Cut	N-S aligned curvilinear feature with moderately sloped sides and flat base, 1.55m+ long x 1.76m wide x 0.44m deep, filled by 204, 205, cuts 207	Modern service trench
204	Fill	Loose, mid brownish grey silty clay with frequent charcoal, stones and gravel, 0.44m thick, sealed by 200, seals 205	Backfill of service trench
205	Masonry	Concrete and mortar containing electrical cabling, sealed by 204, fills [203]	Modern concrete encasement for electrical cable
206	Cut	N-S aligned curvilinear feature with moderately sloped sides and flat base, 1.55m+ long x 1.85m wide x 0.24m deep, filled by 207, cuts 202	Landscaping
207	Fill	Compact, light blueish grey clay with moderate charcoal and chalk, 0.24m thick, cut by [203], fills [206]	Backfill of landscaping cut

Trench 3

Context	Type	Description	Interpretation
300	Layer	Dark brown sandy clay with frequent roots and gravel, 0.5m thick, seals 301	Topsoil
301	Layer	Mid yellowish brown sandy clay with frequent gravel and moderate light blue clay, sealed by 300, seals 304	Modern backfill
302	Layer	Mid orangey brown sandy clay with frequent flint and small stones, 0.22m thick, sealed by 304, seals 303	Alluvium
303	Layer	Mixed dark yellowish orange clay with frequent clay and flint, 0.08m+ thick, sealed by 302	Natural
304	Layer	Dark brown sandy clay with frequent roots and gravel, 0.5m thick, sealed by 301, seals 302	Buried modern topsoil

Trench 4

Context	Type	Description	Interpretation
400	Layer	Dark brown sandy clay with frequent roots and gravel, 0.2m thick, seals 401	Topsoil
401	Layer	Mid orangey grey silty clay with moderate flint and roots, 0.22m thick, sealed by 400, seals 402	Alluvium
402	Layer	Mid orange silty clay with moderate chalk and roots, 0.08m+ thick, sealed by 401	Natural

Trench 5

Context	Type	Description	Interpretation
500	Layer	Light yellow gravel with frequent flint and small stones, 0.3m thick, seals 501	Modern car park surface
501	Layer	Dark blueish grey clay with frequent concrete and tar, 0.25m thick, sealed by 500, seals 502	Buried modern topsoil
502	Layer	Mid yellowish orange sand with moderate small stones, 0.55m thick, sealed by 501, seals 503	Alluvium
503	Layer	Light orangey sand with frequent gravel patches, 0.06m+ thick, sealed by 502	Natural

Trench 6

Context	Type	Description	Interpretation
600	Layer	Dark brown sandy clay with frequent chalk and moderate charcoal, 0.7m thick, seals 601	Topsoil
601	Layer	Light yellowish brown sand with frequent bricks, concrete and stones, 0.43m thick, sealed by 600, seals 607	Modern rubble
602	Layer	Mid yellowish orange sandy clay with moderate gravel, 0.08m+ thick, sealed by 607	Natural
603	Cut	E-W aligned linear with shallow concave sides and flat base, 3.55m+ long x 1.05m wide x 0.16m deep, filled by 604, cuts 606	Gully
604	Fill	Soft mid greyish brown silty clay with frequent sand and gravel, 0.16m thick, sealed by 600, fills [603]	Backfill of gully
605	Cut	N-S aligned linear terminus with vertical sides and flat base, 0.9m+ long x 0.73m wide x 0.39m deep, filled by 606, cuts 602	Pit
606	Fill	Soft orangey grey clayey silt with frequent sand and gravel, 0.39m thick, cut by [603], fills [605]	Backfill of pit
607	Layer	Dark brown sandy clay with frequent chalk and moderate charcoal, 0.25m thick, sealed by 601, seals 602	Buried modern topsoil

Appendix 2: OASIS Form

OASIS ID: allenarc1-247304

Project details

Project name ARCHAEOLOGICAL EVALUATION REPORT: ON LAND AT DENNY END ROAD, WATERBEACH, CAMBRIDGESHIRE

Short description of the project Allen Archaeology Limited was commissioned by David Futter Associates to undertake an archaeological evaluation to support a planning application for a residential development on land at Denny End Lane, Waterbeach, Cambridgeshire. The site lies in an area of some archaeological interest, with evidence for Neolithic and late Bronze Age activity. The Roman Car Dyke canal is believed to have passed c.300m to the west of the site, and evidence for Roman activity in the vicinity is extensive, with a complex of cropmarks comprising linear boundaries, enclosures and trackways, probably of more than one phase of activity. Anglo-Saxon activity is also well represented in the area. Six trenches were excavated across the development area and exposed natural geological deposits, as well as a small number of modern features. The evaluation methodology was appropriate to the size and type of project. With the modern features revealed suggesting that the proposed development area has a limited archaeological potential.

Project location

Country England

Site location CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE WATERBEACH Denny End Lane

Entered by T Rayner (info@allenarchaeology.co.uk)

Entered on 4 April 2016

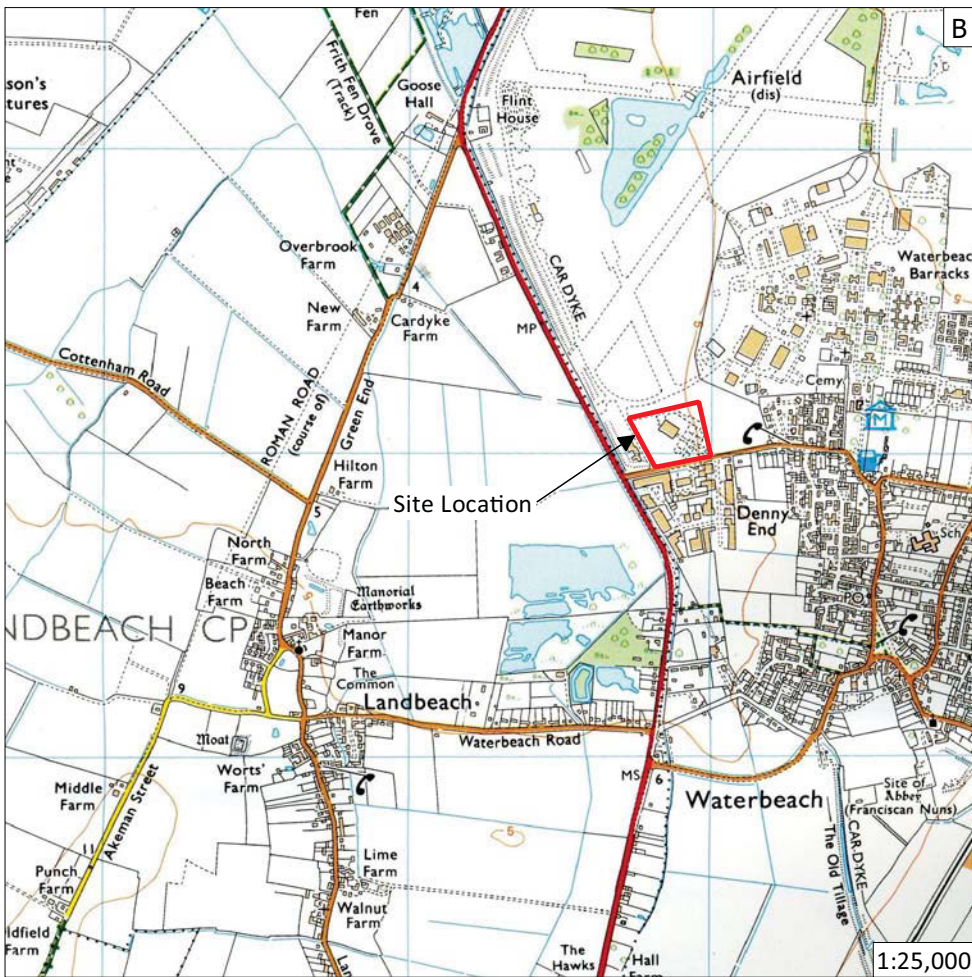
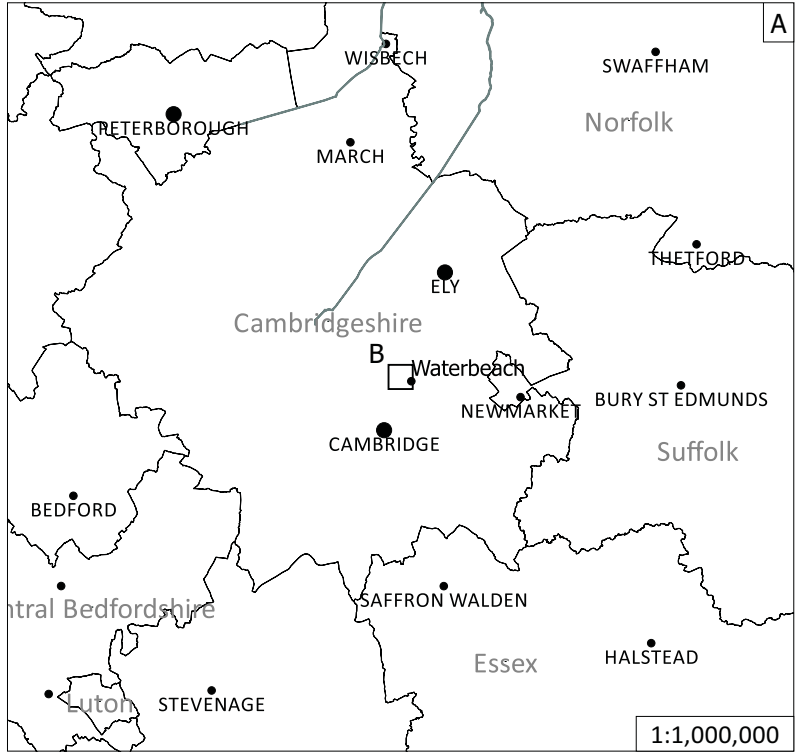
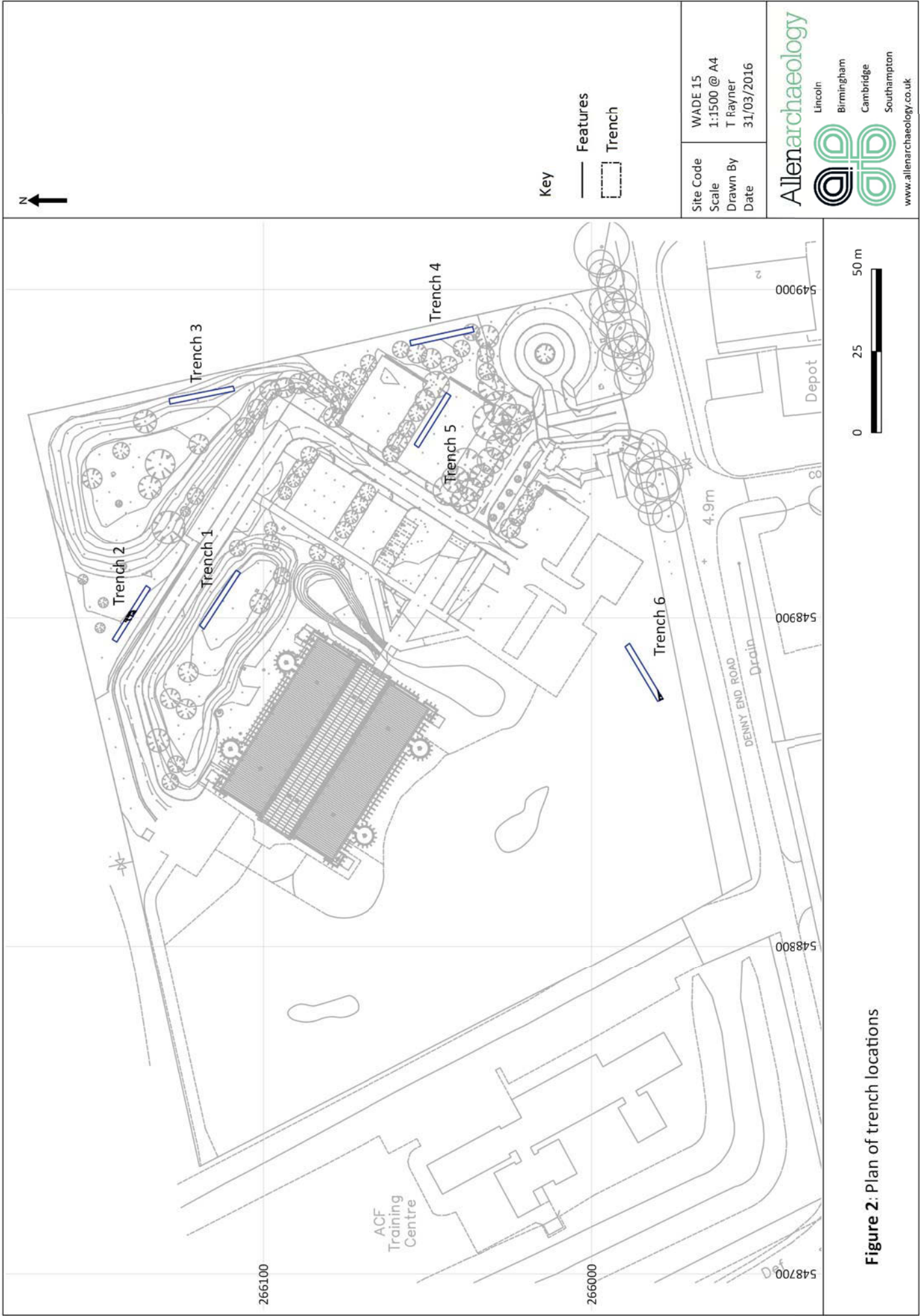


Figure 1: Site location outlined in red

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Drawn by	E Doe
Date	04/03/16

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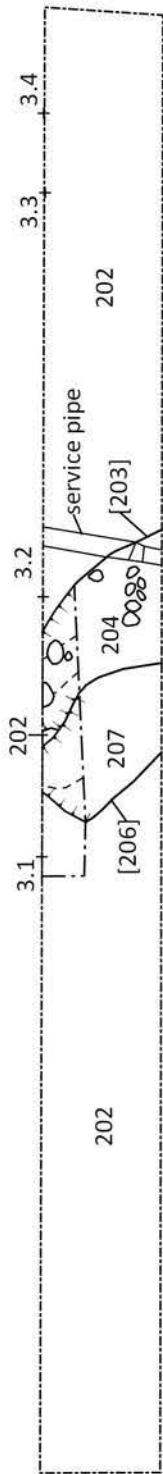


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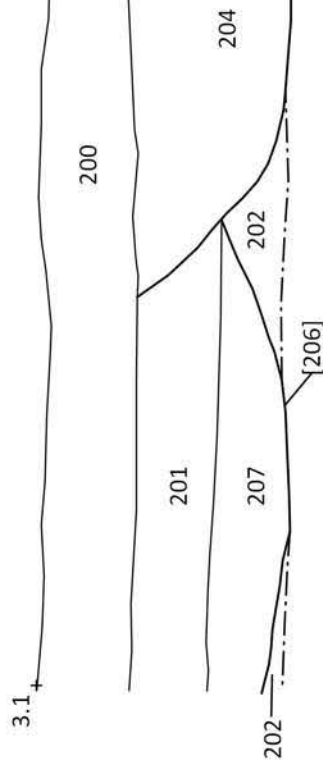
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Key
 — Features
 □ Trench

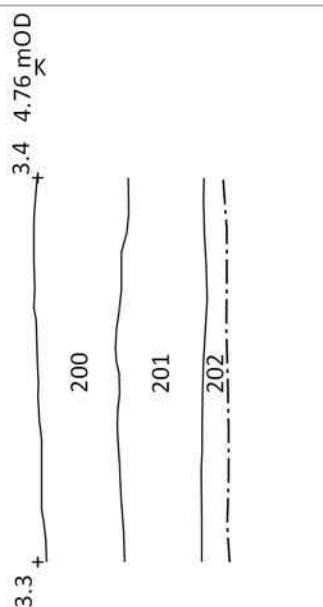
Figure 2: Plan of trench locations



Southwest Facing Section



Southwest Facing Section



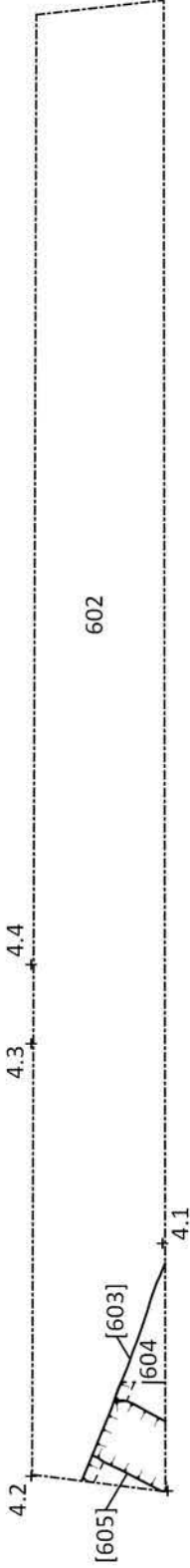
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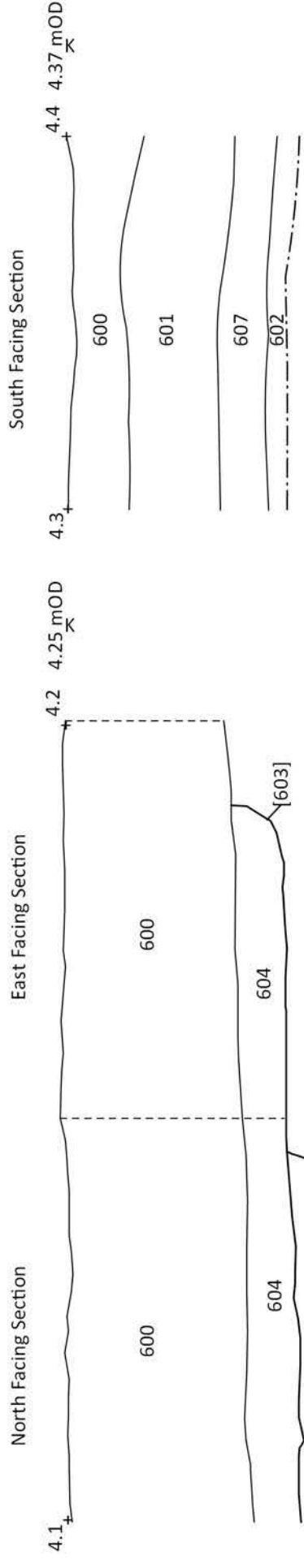


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Figure 3: Plan and sections Trench 2



Scale 1:100



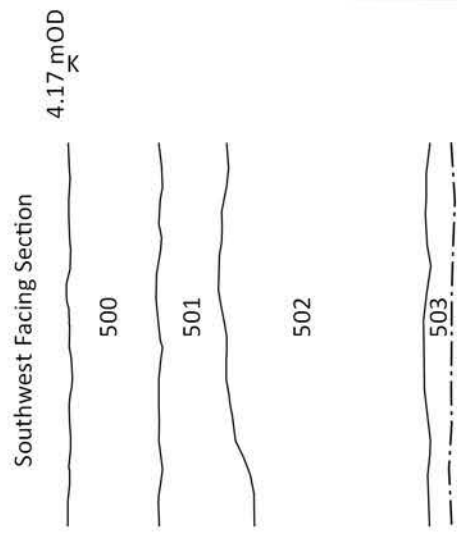
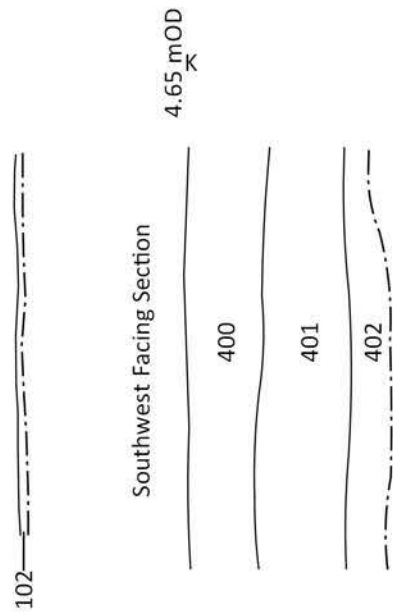
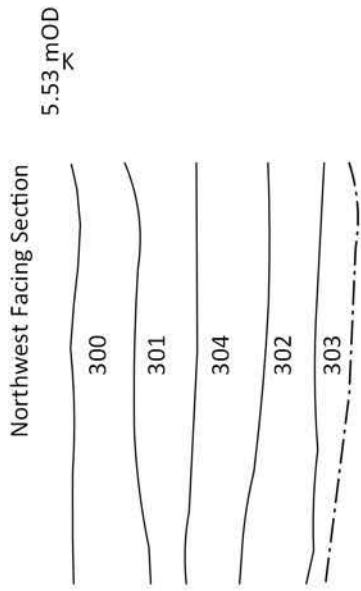
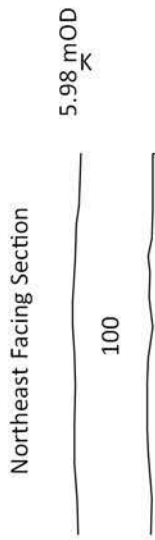
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Scale 1:20

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Figure 4: Plan and sections Trench 6



Site Code
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Drawn By
Date

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1:20 @ A4
T Rayner
30/03/16



Figure 5: Representative sections within Trenches 1, 3, 4 and 5



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