

Archaeological Evaluation of land at Wises Lane, Borden, Sittingbourne, ME10 1GD Kent

Phase 2E

Site Code: WLS2E-EV-23

NGR Site Centre: 588650 163350

Planning Application Number: 17/505711/HYBRID



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SWAT ARCHAEOLOGY

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Abstract

Swale & Thames Survey Company (SWAT Archaeology) were commissioned to undertake an archaeological evaluation on land at Wises Lane, Borden (Phase 2E). The archaeological programme was monitored by the Principal Archaeological Officer at Kent County Council.

The archaeological works have investigated the extents of the proposed development area using 20 trenches measuring 25m in length.

Archaeological evaluation (Phase 2E) has confirmed the presence of archaeological remains on this site. The investigation has exposed 3 ditches and Holloway of Late Bronze Age to Earliest Iron Age. Late medieval brick clamp kiln was exposed in north eastern part of the site. Additionally colluvium deposits were exposed and investigated in three evaluation trenches and outcrops of natural gravel were tested. Also 3 vast Late Post Medieval to Modern refuse pits were investigated during the course of the fieldwork.

The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification and has assessed the archaeological potential of land intended for development. The results from this work will be used to aid and inform the Principal Archaeological Officer of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

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1 INTRODUCTION

1.1 Project Background

1.1.1 Swale & Thames Survey Company (SWAT Archaeology) were commissioned to undertake an archaeological evaluation on land at Wises Lane, Borden, Sittingbourne, ME10 1GD Kent. (Phase 2E) (Figures).

1.1.2 The land has The land has planning consent (Swale Borough Council (Ref. 17/505711/HYBRID) for the following. outline planning permission for up to 595 dwellings including affordable housing; a 2- form entry primary school with associated outdoor space and vehicle parking; local facilities comprising a Class A1 retail store of up to 480 sq. m GIA and up to 560 sq. m GIA of “flexible use” floor space that can be used for one or more of the following uses – A1 (retail), A2 (financial and professional services), A3 (restaurants and cafes), D1 (non-residential institutions); a rugby clubhouse/community building up to 375 sq. m GIA, 3 standard RFU sports pitches and associated vehicle parking; a link road between Borden Lane and Chestnut Street/A249; allotments: and formal and informal open space incorporating SUDS, new planting/landscaping and ecological enhancement works; and full planning permission for the erection of 80 dwellings including affordable housing, open space, associated access roads vehicle parking, associated services, infrastructure, landscaping and associated SUDS.

1.1.3 A Condition 66 of the hybrid consent states the following:

Before the submission of reserved matters for any phase (excluding Phase 1A), the applicant (or their agents or successors in title) shall secure and have reported a programme of archaeological field evaluation works for that phase, in accordance with a specification and written timetable which has been submitted to and approved by the local planning authority.

- 1.1.4 On the basis of the present archaeological information. KCCHC advising Swale Borough Council recommended that the proposed development should be subject to a programme of archaeological works in order to clarify the archaeological elements within the site.
- 1.1.5 The evaluation was carried out in accordance with an archaeological Written Scheme of Investigation (WSI) prepared by SWAT Archaeology (2023), prior to the commencement of works.
- 1.1.6 The evaluation is the first stage of the programme of archaeological works and addresses part i) of the planning condition only. Its main aim is to clarify the presence/absence of archaeology and its significance. On the basis of the results of the evaluation, further archaeological works may be needed and could include excavation and/or watching brief and post excavation and publication.

1.2 Timetable

- 1.2.1 A timetable for the archaeological programme of works, to date, is provided below;

Task	Dates	Personnel/Company
Geophysical Survey	2018	Magnitude Surveys
Submission of the Written Scheme of Investigation	June 2022	SWAT Archaeology
Strip Map and Sample Programme (Phase 1A)	October 2022 –March 2023	SWAT Archaeology
Archaeological Evaluation: Fieldwork (Phase 1B)	December 2022	SWAT Archaeology
Archaeological Evaluation Report (Phase 1B)	December 2022	SWAT Archaeology
Archaeological Evaluation: Fieldwork (Phase 2B)	May 2023	SWAT Archaeology
Archaeological Evaluation: Fieldwork (Phase 2C)	May/ June 2023	SWAT Archaeology
Archaeological Evaluation: Fieldwork (Phase 2A)	June 2023	SWAT Archaeology
Archaeological Evaluation Report (Phase 2B)	June 2023	SWAT Archaeology
Archaeological Evaluation: Fieldwork (Phase 2E)	June-July 2023	SWAT Archaeology
Archaeological Evaluation Report (Phase 2E)	This document	SWAT Archaeology

Table 1 *Timetable for the archaeological programme of works*

1.3 Site Description, Topography and Geology

- 1.3.1 The application site is located to the south of the town of Sittingbourne and north of the village of Borden and just south of Cryalls Lane and to the east of Wises Lane (Figure 1).

1.3.2 The Geological Survey of Great Britain (1:50,000) shows that the site is set on Head Deposits of Clay and Silt overlaying the bedrock geology of Seaford Chalk Formation and Thanet Formation of Sand, Silt and Clay. The NGR to centre of site is NGR 588650 163350 and the OD height is about 33m in the north of the site and 40m to the south.

1.4 Scope of Report

1.4.1 This report has been produced to provide initial information regarding the results of the archaeological evaluation. The results from this work will be used to aid and inform the Principal Archaeological Officer (KCC) of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The Proposed Development Area (PDA) is located close to a number of archaeological sites which are identified on the KCCHER database and these include a Palaeolithic hand axe found close to Cryalls Lane (TQ 86 SE 93) and to the south the site of a possible Roman villa with Roman foundation investigated by the Kent Archaeological Field School in 2014 (TQ 86 SE 307). The PDA is also located close to an area of archaeological investigation and the initial work on site was an Geophysical Survey by Magnitude Surveys Ltd has been carried out and the results showed that the area was potentially low on archaeological features although a parcel of land to the south of Phase 1A did show a high density of archaeological features.

2.2 Previous work in immediate areas

2.2.1 Follow on archaeological work by Wessex Archaeology was to investigate the archaeological and non-archaeological features identified in the geophysical survey and 28 trenches measuring 30m by 1.8m were set out using GPS and 11 of the trenches were found to contain archaeological features and deposits with two concentrations in the central and southern areas of the Site.

2.2.2 Artefacts recovered from the Wessex archaeological work include 32 sherds of Prehistoric pottery recovered from features in Trenches 3, 8, 13, 20 and 13 Middle Bronze Age sherds from a natural/palaeochannel 2004. Roman pottery was retrieved from Trenches 23, 27, 28 with most from Trench 28. Ceramic building material, Flint, Animal bone and Other Finds were also recovered and can be accessed in the Wessex Archaeology Report (Land at Southwest Sittingbourne, Kent Phase 1A (Archaeological Evaluation) dated October 2018).

3 AIMS AND OBJECTIVES

3.1 General Aims

3.1.1 The specific aims of the archaeological fieldwork were set out in a Written Scheme of Investigation (SWAT Archaeology 2023) as stated below;

- *6.1 The primary objective of the archaeological evaluation is to establish or otherwise the presence of any potential archaeological features which may be impacted by the proposed development. The aims of this investigation are to determine the potential for archaeological activity and in particular the earlier prehistoric period and also any Roman, medieval and later archaeological activity.*
- *6.2 The programme of archaeological work should be carried out in a phased approach and will commence with evaluation through trial trenching. This initial phase should determine whether any significant archaeological remains would be affected by the development and if so, what mitigation measures are appropriate. Such measures may include further detailed archaeological excavation, or an archaeological watching brief during construction work or an engineering solution to any preservation in situ requirements.*

(SWAT Archaeology 2023: Section 6)

3.2 General Objectives

3.2.1 The general objectives of the archaeological fieldwork were therefore:

- To determine the presence or absence of archaeological features, deposits, structures, artefacts, or ecofacts within the specified area;
- To establish, within the constraints of the evaluation, the extent, character, date, condition, and quality of any surviving archaeological remains;
- To place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- To make available information about the archaeological resource within the site by reporting on the results of the evaluation.

4 METHODOLOGY

4.1 Introduction

4.1.1 All fieldwork was conducted in accordance with the methodology set out in the Specification (SWAT 2023) and carried out in compliance with the standards outlined in the Chartered Institute for Archaeologists' Standards Guidance for Archaeological Evaluations (CIfA 2014).

4.2 Fieldwork

- 4.2.1 20 evaluation trenches were excavated (Figures). Each trench was initially scanned by a metal detector for surface finds prior to excavation. Excavation was carried out using a mechanical excavator fitted with a toothless ditching bucket, removing the overburden to the top of the first recognisable archaeological horizon, under the constant supervision of an experienced archaeologist.
- 4.2.2 Where appropriate, trenches, or specific areas of trenches, were subsequently hand-cleaned to reveal features in plan and carefully selected cross-sections through the features were excavated to enable sufficient information about form, development, date, and stratigraphic relationships to be recorded without prejudice to more extensive investigations, should these prove to be necessary. All archaeological work was carried out in accordance with KCC and ClfA standards and guidance. A complete photographic record was maintained on site that included working shots; during mechanical excavation, following archaeological investigations, and during back filling.
- 4.2.3 On completion, the trenches were made safe and left open in order to provide the opportunity for a curatorial monitoring visit. Backfilling was carried out once all recording, surveying, and monitoring had been completed.

4.3 Recording

- 4.3.1 A complete drawn record of the evaluation trenches comprising both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections) was undertaken. The plans and sections were annotated with coordinates and OD heights.
- 4.3.2 Photographs were taken as appropriate; providing a record of excavated features and deposits, along with images of the overall trench to illustrate their location and context. The record also includes images of the site overall. The photographic record comprises digital photography. A photographic register of all photographs taken is contained within the project archive.
- 4.3.3 A single context recording system was used to record the deposits. Layers and fills are identified in this report thus (100), whilst the cut of the feature is shown as [100]. Context numbers were assigned to all deposits for recording purposes. Each number has been attributed to a specific trench with the primary number(s) relating to specific trenches (*i.e.* Trench 1, 101+, Trench 2, 201+, Trench 3, 301+, etc.).

5 RESULTS

5.1 Introduction

5.1.1 The Trenches were mechanically excavated under archaeological supervision. Trenches were positioned to cover the entire proposed development area.

5.1.2 The site, as shown on Figure 3, provides the trench layout while further Figures illustrates the results for each individual archaeological evaluation trench along with representative soil sequence sections. Plates consist of photographs of features and selected trenches that have been provided to supplement the text.

5.1.3 Individual trench results are discussed below.

5.2 Stratigraphic Deposit Sequence

5.2.1 A relatively consistent stratigraphic sequence was recorded across the majority of the Site comprising topsoil and colluvium sealing intact subsoil, which overlay the natural geological deposits. The topsoil generally consisted of dark organic brown clay sand silt with frequent roots and occasional building material (bricks, tiles, etc), overlying the subsoil/ colluvium which consisted of light to mid brown-orange clay sand silt with moderate small rounded stones and occasional chalk flecks. Natural geology comprised bedrock geology of Chalk sealed by superficial clay and silts. In most of the areas the natural geology (xx03) was sealed-off by subsoil/ colluvium (xx02).

5.3 Archaeological Narrative – Positive Trenches

Trench 1 (Figure 4)

5.3.1 Trench 1 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.45metres in depth. It exposed natural geology context (103) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A late prehistoric ditch was exposed here. Feature [104] comprised WNW-ENE aligned linear cut with steep sides and concave base. It measured 1.2metres in width but its deeper part only measured 0.48metres wide and its maximum depth was 0.38metres. It was filled by context (105) comprising firmly compacted orange-grey clay-sand-silt with infrequent pebbles. Fill has produced two potsherds dated after 1550 BC and lithics dated broadly 1550 BC – 50 BC.

Trench 2 (Figure 5)

5.3.2 Trench 2 was placed in northern part of the site in E-W alignment and measured 25metres in length by 1.8metres in width and 0.48metres in depth. It exposed natural geology context

(203) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A late prehistoric ditch was exposed here. Feature [204] comprised NW-SE aligned linear cut with moderate sides and concave base. It measured 0.6metres in width and 0.28metres in depth and was filled by context (205) comprising firmly compacted orange-grey clay-sand-silt with infrequent pebbles and charcoal flecks.

Trench 4 (Figure 6)

- 5.3.3 Trench 4 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.45metres in depth. It exposed natural geology context (403) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A late prehistoric tree throw was exposed here. Feature [404] comprised large sub-oval cut with shallow to moderately sloping sides gradually breaking into concave, slightly uneven base. It measured over 1.2metres in excavated slot and 0.4metres in depth and was filled by context (405) comprising firmly compacted orange-grey clay-sand-silt with infrequent angular flints and pebbles. It was suggested that this feature could be a sunken floored component for prehistoric building, however further exploration did not exposed any traces of domestic detritus. A single potsherd was found in subsoil (402) during machine excavation. The sherd was broadly dated after 1550 BC and probably before 50 BC/ 50 AD.

Trench 5 (Figure 7)

- 5.3.4 Trench 5 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (503) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A linear outcrop of natural gravel was investigated here as it was giving an overall impression of potential trackway. Further exploration of suspected feature resulted in unanimous interpretation for natural origin of this spread. No archaeological cuts or deposits were found in this trench. A single potsherd of medieval date was found in topsoil (501) during machine excavation.

Trench 6 (Figure 8)

- 5.3.5 Trench 6 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (603) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A linear outcrop of natural gravel was investigated here as it was giving an overall impression of potential trackway. Further exploration of suspected feature resulted in unanimous interpretation for natural origin of this spread. Further to the southeast a large Late Post Medieval refuse pit was exposed and investigated. Due to a broken glass in its

backfill exploration was limited only to confirm that there are not earlier features disguised underneath.

Trench 7 (Figure 9)

- 5.3.6 Trench 7 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.46metres in depth. It exposed natural geology context (703) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. An outcrop of natural tabular flint was investigated here as it was initially giving an overall impression of building remains. And extensions to this trench were dug to the northeast and to the southwest and further exploration of suspected feature resulted in unanimous interpretation for natural origin of this formation. No archaeological cuts or deposits were found in this trench.

Trench 10 (Figure 10)

- 5.3.7 Trench 10 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (1003) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. An orange-grey colluvium deposit was exposed here. It was found filling up a hollow exposed by this evaluation trench and further test pits were excavated to test for potential features underneath but nothing of an interest was found.

Trench 11 (Figure 11)

- 5.3.8 Trench 11 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.48metres in depth. It exposed natural geology context (1103) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A linear trackway (Holloway) was exposed here. Feature [1104] comprised broad linear cut with shallow sides and concave base. It measured 3.3metres in width and 0.34metres in depth and was filled by context (1105) comprising firmly compacted orange-grey clay-sand-silt with infrequent pebbles and angular flints. The only dating evidence found in this trench derived from subsoil (1102) and comprised 3 sherds of LBA material dated broadly after 1550BC with 4 sherds of Early Medieval to Medieval ceramics dated after 1150AD.

Trench 12 (Figure 12)

- 5.3.9 Trench 12 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.47metres in depth. It exposed natural geology context (1203) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. Curvilinear ditch terminus was exposed within north-western extent. Feature

[1204] comprised NW-SE aligned curvilinear cut slightly turning to the south. It had shallow sides and concave base. It measured 0.9metres in width and 0.15metres in depth and was filled by (1205) comprising firmly compacted orange-grey clay-sand-silt with infrequent manganese, iron pan and pebbles. The only dating evidence exposed in this trench was a single potsherd derived from subsoil (1202) and was dated to Early Iron Age after 1000/ 900 BC.

Trench 13 (Figure 13)

5.3.10 Trench 13 was placed in northern part of the site in N-S alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (1303) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A Post-Medieval clamp brick kiln was exposed here. Structure was hiding under vast modern backfill containing occasional to frequent chalk. The kiln comprised fire chamber measuring with tunnels. Due to a health and safety concerns underground chambers were remotely investigated using bore-scope cameras alongside SLR mounted on extension rod. A number of well fired and under-fired lining-fragments were found inside this structure alongside couple small vitrified brick fragments. Kiln was also truncated by a vast modern cut. Brick kiln exposed in evaluation Trench 13 contained firing chamber measuring 3.6metres in length and 2.7metres in width in the middle of the chamber and 2.1metres at both ends. It was found filled by context 1309 formed as a result from gradual overtime silting intervened by periodical erosion/ collapse of sides and walls caused during periods of intensive atmospheric precipitations. The detailed layout of the furnace's tunnels is provided on Figure 15. Their measured height was approximately one metre and they were build utilising green unfired bricks bonded with mud. Kiln superstructure was recorded as 1310 and associated sinkhole was 1311. Another sinkhole potentially resulted from collapsed roof of the firing chamber but was not assigned separate context number. Post-hole 1313 was located at the western side of furnace opening and it's most likely a remnant of a roofed structure built over stoke pit. Recovered dating material comprised brick fragments and tiles. Tiles were used in arches construction at its bases; these were laid directly on exposed surface of parent material. The estimated measurements of the bricks are provided in table below.

Length	Height	Width
250mm	50mm	112mm
235mm	51mm	98mm
n/a	51mm	111mm
n/a	55mm	n/a

The estimated brick sizes most likely are matching standardized late 15th Century brick size which is 241.3mm (9.5'') by 106.68mm (4.2'') and 50.8mm (2''). Source – *Charter 1571*. Recovered brick fragments and kiln lining were produced out of surrounding natural which is very silty what resulted in fairly crumbly and friable brickwork exempt few instances where bricks were vitrified. All recovered brick fragments derived from furnace's arches.

Trench 14 (Figure 16)

- 5.3.11 Trench 14 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.48metres in depth. It exposed natural geology context (1403) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A large potentially Late Post Medieval to Modern pit was exposed here. Feature [1404] had fairly steep sides and flat slightly uneven base. It measured 2.85metres in width and 0.25metres in depth and was filled by firmly compacted orange-grey clay-sand-silt (1405) with frequent chalk flecks. The only dating ceramics from this trench derived from subsoil (1402) and comprised one sherd of Late Bronze Age date after 1550 BC. Also modern inclusions including dark glass and coal fragments were noted in context (1405). No earlier archaeological cuts were found here.

Trench 17 (Figure 17)

- 5.3.12 Trench 17 was placed in southern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (1703) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A vast colluvium deposit (1702) was exposed here. It comprised variations recorded as (1702a), (1702b) and (1702c) deposit recorded as (1702b) has had frequent chalk flecks as an inclusions and soil matrix was orange-grey clay-sand-silt. It was tested by hand-excavated square trial holes A, B and C and any of the test-pits have not exposed any meaningful features of archaeological interest.

Trench 20 (Figure 18)

- 5.3.13 Trench 20 was placed in southern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.58metres in depth. It exposed natural geology context (2003) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. A colluvium deposit was identified in this trench; it was firmly compacted pale orange-grey with moderate chalk flecks. It was tested by a series of square trial holes but no archaeological cuts or deposits were found beneath it.

5.4 Archaeological Narrative – Negative Trenches

Trench 3 (Figure 3)

- 5.4.1 Trench 3 was placed in northern part of the site in N-S alignment and measured 25metres in length by 1.8metres in width and 0.48metres in depth. It exposed natural geology context (303) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

Trench 8 (Figure 3)

- 5.4.2 Trench 8 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (803) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts or deposits were exposed in this trench although

Trench 9 (Figure 3)

- 5.4.3 Trench 9 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.49metres in depth. It exposed natural geology context (903) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

Trench 15 (Figure 3)

- 5.4.4 Trench 15 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.48metres in depth. It exposed natural geology context (1503) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

Trench 16 (Figure 3)

- 5.4.5 Trench 16 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.44metres in depth. It exposed natural geology context (1603) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

Trench 18 (Figure 3)

- 5.4.6 Trench 18 was placed in northern part of the site in NW-SE alignment and measured 25metres in length by 1.8metres in width and 0.47metres in depth. It exposed natural geology context (1803) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

Trench 19 (Figure 3)

- 5.4.7 Trench 19 was placed in northern part of the site in NE-SW alignment and measured 25metres in length by 1.8metres in width and 0.49metres in depth. It exposed natural geology context (1903) comprising firmly compacted yellow to orange-grey clay-sand-silt with frequent pebbles and flint gravel. No archaeological cuts, deposits or artefacts were exposed in this trench.

6 FINDS

6.1 Catalogues of the pottery and ceramic building materials

Site Code: WLS2E-EV-23

Analyst: Paul Hart

Last updated: 26.07.2023

For: Swale and Thames Archaeology Survey Company

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6.4.1 Catalogue of brick

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6.2 Period Codes employed

<i>Period</i>	<i>Code</i>	<i>Date (circa)</i>		
Later Prehistoric	LP	1550	- 50	BC
Middle Bronze Age	MBA	1550	- 1350	BC Mid
to Late Bronze Age	MBA-LBA	1350	- 1150	BC
Earliest Iron Age	EIA	1000/900	- 600	BC
Iron Age	IA	1000/900 BC	- 50	AD
Mid to Late Iron Age	MLIA	200	- 50	BC
Late Iron Age	LIA	50	- 0	BC
Latest Iron Age	LIA-ER	0	- 50	AD
Early Roman	ER	50	- 150	AD Mid
Roman	MR	150	- 250	AD Late
Roman	LR	250	- 400	AD
Early Medieval	EM	1050	- 1200	AD Late
Medieval	LM	1375	- 1525	AD
Post-Medieval	PM	1525	- 1750	AD Late
Post-Medieval	LPM	1750	- 1900	AD
Modern	MOD	1900+		AD

Dating

- > : To/or later.
- / : Or/or indicating a preference within a broader range.

6.3 Quantification and spot-dating of the pottery assemblage

6.3.1 Methodology

The sherds were examined in good light using a hand lens of x10 magnification and were catalogued on a context, total quantity, bulk weight (calculated to the nearest gram), period, ware type, estimate of the number of vessels per ware, condition and date preference basis. They are listed in date order from earliest to latest. No information about the contexts or their stratigraphic relationships was known unless stated. In the notes, the pieces are typically plain or less diagnostic body sherds unless stated otherwise.

All dates given are *circa*.

It should also be noted that:

- All form and decorative pieces are noted and described in the catalogue and their presence is highlighted by the inclusion of the word 'DRAW' (which does not mean that such pieces necessarily need to be drawn for archive level reporting or for publication).
- The material has been bagged by period and separated into DRAW-ables (which do not necessarily need to be drawn for archive or final site reports or publication) and body sherds.

6.3.2 Abbreviations used in 6.3.3

Wear

L : Light
M : Moderate
H : Heavy
C : Chipped

Dating

> : To/or later
/ : Or/or indicating a preference within a broader range

6.3.3 Catalogue: Quantification and spot-dating of the pottery

Context		Total sherds		Total weight	
<i>Info</i>	Information on the nature of the context if known.				
<i>Start</i>	Likely commencement date of the context based on the pottery evidence.				
<i>End</i>	Likely end date of the context based on the pottery evidence.				
<i>Dating</i>	Implications.				
<i>Notes</i>	Highlighting elements, wares and issues of particular note.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
(105) [104]		2 sherds		7 g	
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. Likely LP, significantly worn.				
<i>Notes</i>	Scraps.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>MLIA	Flint tempered	1	H	1550-50 BC
Small sherd and fragment, former rounded and thick, oxidised surfaces.					
(402)		1 sherd		3 g	
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. Likely LP, significantly worn.				
<i>Notes</i>					
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>LIA-ER	Flint tempered	1	H	1550-50 BC/50 AD
Small					
(501)		1 sherd		4 g	
<i>Info</i>					
<i>Start</i>	Possibly after 1400 AD.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. More likely post 1400/1475 AD. Potentially a Kentish product, could be an early sandy earthenware/redware type, or possibly Wealden, though this small sample lacks the marl which is characteristic of the latter. Review, also in light of any subsequent finds and associations.				
<i>Notes</i>	Small worn body sherd. Just possibly MR>LR or LM>PM, the former not favoured at				

	present, but review.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	?LM>PM	?Kentish fine sandy	1	H	1400/1475-1625/1750 AD
	Small, slightly sandy, coloured small quartz, oxidised throughout, fairly hard.				
(802)			1 sherd		6 g
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. Broadly LP, with a very slight preference for MBA>MBA-LBA, perhaps, but this is highly speculative.				
<i>Notes</i>	Small, worn.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>MLIA	Flint + grog tempered	1	H	1550-1150/50 BC
	Small, thick, rounded, dull orange exterior, coarse, possibly some reduced grog (?with flint temper).				
(1001)			1 sherd		20 g
<i>Info</i>					
<i>Start</i>	After 1625 AD and potentially after 1800 AD.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Potentially a South Yorkshire/Midlands product, which lacks the notable fine buff marl present in most, but not all, such wares. Most instances in Kent date 1775-1850 AD (Macpherson-Grant pers. comm.).				
<i>Notes</i>	Heavily chipped base from a slipware, dark fine sandy redware, post 1625 AD. DRAW: 1 base (not worth drawing).				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	PM>MOD/?LPM	?S. Yorkshire/Midlands redware	1	C H	1625/1775-1850/1925 AD
	Small fragment of base with foot-ring, iron-streaked glaze on interior over white slip. Reddish fabric with frequent fine mostly colourless quartz. DRAW.				
(1002)			3 sherds		15 g
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. Broadly MBA>LIA-ER and perhaps more likely LP.				
<i>Notes</i>	Small plain sherds.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
3	MBA>LIA-ER	Flint tempered	2	M	1550-50 BC/50 AD
	Small sherds and rounded fragment.				
(1102)			4 sherds		4 g
<i>Info</i>					
<i>Start</i>	Potentially after 1150 AD.				
<i>End</i>	Unclear. Nothing certainly later than 1200 AD, though the relationship of the small single fresher looking ?EM sherd to the context is unclear.				
<i>Dating</i>	Little specific data. The potential shelly ware is reduced, soft and thin-walled, which could suggest a focus between 1150-1200 AD and, if indeed wheel-thrown, more likely at the late end of this range. The silty scrap, just possibly LIA-ER>ER, is heavily worn, its small size meaning that the sample could be unrepresentative of the vessel's fabric and				

	it could easily date earlier.				
<i>Notes</i>	Small scraps only. The 3 notably thin-walled pieces have frequent voids possibly from leached fine shell inclusions, more likely EM. The other is a tiny rounded piece who's silty fabric could be unrepresentative.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>/LIA-ER>ER	?Silty	1	H	1550 BC/25-75 AD
	Tiny rounded scrap. Sample could be unrepresentative of the fabric overall.				
3	?EM	?Shelly	1	L	1150/1175-1200 AD
	Very small conjoining fragments, thin-walled, reduced, frequent small voids possibly from fine shell, soft.				
(1202)			1 sherd	1 g	
<i>Info</i>					
<i>Start</i>	Likely after 1000/900 BC.				
<i>End</i>	Unclear, potentially residual.				
<i>Dating</i>	Little specific data, with no reliable view of the vessel's overall fabric, but thin-walled and likely broadly EIA>LIA-ER.				
<i>Notes</i>	Fragments likely from a single small sherd.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	EIA>LIA-ER	Flint + grog tempered	1	?L	1000/900 BC - 50 AD
	Tiny fragment(s), soft, minimal sample.				
(1402)			1 sherd	3 g	
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC.				
<i>End</i>	Unclear, residual.				
<i>Dating</i>	Little specific data. Broadly MBA>LIA-ER and perhaps more likely LP.				
<i>Notes</i>	Scrap.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>LIA-ER	Flint tempered	1	H	1550-50 BC/50 AD
	Small, thick.				
(1802)			1 sherd	4 g	
<i>Info</i>					
<i>Start</i>	Likely after 1550 BC and possibly after 1000 BC.				
<i>End</i>	Unclear, probably residual to some degree at least.				
<i>Dating</i>	Little specific data. Broadly MBA>LIA-ER, with a slight preference for IA.				
<i>Notes</i>	Tempering leads to a slight preference for IA, though this is a very small sample only.				
<i>Count</i>	<i>Period</i>	<i>Ware</i>	<i>V</i>	<i>W</i>	<i>Date preference</i>
1	MBA>LIA-ER/?IA	Flint tempered	1	M	1550/1000 BC - 50 AD
	Small, thick, moderately tempered.				
Totals			16 sherds	67 g	

6.4 Catalogues of the ceramic building materials

6.4.1 Catalogue of brick

<i>Context</i>	<i>Quantity</i>	<i>Weight</i>	<i>Fabric</i>	<i>Period</i>
Tr.13 Kiln	22	8010 g	Fine red earthenware type	?PM
	Darkish orange (damp) with macroscopically minor fine sand, very rare medium and larger sized stone grits, with 1 large burnt flint grit noted, notably soft. Unknown whether softness was due to an accidental under-firing, or the result expected/achievable. 16 medium to large sized fragments of brick (7712.5g), some of these conjoining, + 6 small broken fragments more likely from bricks (297g). Some have a horizontal surface showing a dark grey-black glaze. Another has a green glaze dribbled across its broken core face. 2 pieces have elements of broken bricks or thick irregular tile-like fragments stuck to their surfaces. Intact portions show the dimensions of the exterior edges can be around 48-53 mm deep by 99-110 mm wide. Centres can be slightly thicker. Longest conjoining piece is an incomplete 212mm long.			
Totals	22	8010 g		

6.4.2 Catalogue of tile

<i>Context</i>	<i>Quantity</i>	<i>Weight</i>	<i>Fabric</i>	<i>Period</i>
Tr.13 Kiln	3	540 g	Fine red earthenware type	*?PM
	Fabric akin to that seen in the bricks from the same context, but harder fired (though thinner). Medium to large sized fragments. Intact portions show the dimensions of the exterior edges are between 11-13.5 mm deep (mostly around 12.5 mm). *Associated with a larger amount of brick from the same context.			
Totals	3	540 g		

6.5 Catalogue of the worked lithics

Analyst: Paul Hart

Last updated: 25.07.2023

For: Swale and Thames Archaeology Survey Company

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6.6.5 Catalogue: Quantification and brief review of the worked lithics

6.6.6 Comments

6.6 Quantification and brief review of the worked lithics

6.6.1 Methodology

The information presented is based upon an initial brief review of the worked lithics. The artefacts were examined using a hand lens of x10 magnification and each was considered on its own merits. Details about the nature of the context and any pottery recovered, which informed the interpretation but not the dating of the individual pieces, were noted where known. No cataloguing of the physical traits of the artefacts was conducted at this stage.

The brief review format was adopted due to the need for rapid feed-back to aid the swift production of a site report. The material was unwashed, but only slightly dirty. It was not dirty enough that any significant detail was likely to have remained hidden. Due to the brief nature of this review, it will be recommended in any subsequent assessment report which may be written, that it would be ideal if all of the worked lithics were re-catalogued and considered more fully (including recording a selection of physical traits, for preservation by record), though, for practical necessity, such work could be focussed upon the more specifically diagnostic elements and any pieces which can be dated by a reliable contemporary relationship with pottery or associated contexts that are tightly dated.

All dates given throughout are *circa*.

6.6.2 The underlying geology and its implications

This is considered to primarily comprise deposits of 'brickearth' type soils (ie. clays, silts, sands, or combinations of such), with occasional areas of gravels (Peter Cichy *pers. comm.*). Brickearth geology typically does not produce those patinas that are frequently helpful in the identification of residual material which is otherwise undiagnostic of being so on its own merits. As such, it is considered that none of the lithics on this site can be guaranteed to be contemporary with its deposit or its horizon on their own merits.

6.6.3 Period Codes employed

<i>Period</i>	<i>Code</i>	<i>Date (circa)</i>			
Neolithic	N	4000	-	2300	BC
Beaker Period	BK	2450	-	1750	BC
Bronze Age	BA	2100	-	1000/900	BC
Early Bronze Age	EBA	2100	-	1550	BC
Middle Bronze Age	MBA	1550	-	1350	BC
Earliest Iron Age	EIA	1000/900	-	600	BC
Early to Mid Iron Age	EMIA	600	-	350	BC
Middle Iron Age	MIA	400	-	200	BC

6.6.4 Abbreviations used in 6.6.5

Dating

- >: To/or later
 <: No later than
 /: Or/or indicating a preference within a preceding broader range

Key to abbreviations for notes

A :	Advanced (patina).	nat	:	Natural.
abr	:	Abrupt (retouch).	nr	: Near.
adj	:	Adjacent.	obv	: Obviously.
adv	:	Advanced (patina).	oppos	:
Opposite.				
ang	:	Angular.	P	; Primary (flake).
B :	Blade (flake) or Blue (patina).	PP	:	Platform
preparation (abrasion).				
back	:	Backed.pat	:	Patina.
bifac	:	Bifacial (retouch).	plat	: Platform.
BL:	Bladelet (flake).poss	:		Possible.
brk	:	Break. prob	:	Probably.
BW (flake).	:	Blue-white (patina).	prx	: Proximal
convx	:	Convex.	resid	: Residual.
cortx	:	Cortex. ret	:	Retouch.
dentic material.	:	Denticulate (retouch).	RM	: Raw
dir	:	Direct (retouch).	RU	: Re-use.
dist (flake) or Strong (patina).	:	Distal (flake).	S	: Sort, Secondary
dors	:	Dorsal (flake).	sec	: Section.
E :	Early (patina).	SH	:	Short (flake).
eg:	Example.	signif	:	Significant/ly.
exp	:	Expedient.	sm	: Small.
fl :	Flake.	SQ	:	Squat (flake).
frag	:	Fragment.	subseq	: Subsequent.
G :	Grey (patina).	term	:	Termination (flake).
incip Tertiary (flake).	:	Incipient (cones of percussion).	T	:
inc	:	Including.	triang	: Triangular.
inv Truncating/truncated.	:	Inverse (retouch).	trunc	:
irreg	:	Irregular.	u-w	: Use-wear.
L :	Long (flake).	util	:	Utilised.
lat	:	Lateral (flake).	Unpat	: Unpatinated.
lrg	:	Large.	V/v	: Very.
M :	Moderate (patina).	vent	:	Ventral (flake).
marg (patina).	:	Marginal (retouch).	W	: White
med (patina).	:	Medium (size).	Y	: Yellowish
mod	:	Moderate.		

6.6.5 Catalogue: Quantification and brief review of the worked lithics

Context		Total lithics	Total weight
<i>Context:</i>	Information on the nature of the context if known.		
<i>Pottery:</i>	Date of any pottery present or the ceramic date of the context if known.		
<i>Notes:</i>	Elements and trends of initial interest.		
<i>Summary:</i>	Dates and relationships to context.		
<i>Patinas:</i>	Mostly unpatinated or yellowy sheen, relationships unclear given the brickearth geology.		
<i>Class/Type</i>	<i>Notes/Details</i>	<i>Period</i>	<i>Preference</i> <i>Re-using</i>
Top surface west of Tr.13		1 lithic	62 g
<i>Context:</i>			
<i>Pottery:</i>			
<i>Notes:</i>			
<i>Summary:</i>	Little specific data.		
<i>Retouched</i>		<i>Period</i>	<i>Preference</i> <i>Re-using</i>
End scraper			<EIA
	Lrgish fl, some post Y pat chips, broad dist end some dir abr ret forming uneven edge, simple.		
(105) [104]		8 lithics	280 g
<i>Context:</i>			
<i>Pottery:</i>	Residual 1550-50 BC.		
<i>Notes:</i>	Small to medium sized thick flakes and angular fragments, nothing obviously early. Overall fairly poor looking.		
<i>Summary:</i>	Nothing need be early, all could be BA> and most likely MBA>EMIA+. There is the potential for them to be a related group and associated with, or later than, the residual pottery present. No associations are guaranteed however. The pottery is residual and the flintworks relationships to each other and the context are unclear due to the geology.		
<i>Waste</i>		<i>Period</i>	<i>Preference</i> <i>Re-using</i>
Multiplatform flake core		?BA>	MBA>EMIA+
	Medium, average quality at best, some nat facets		
Core shatter			
	Med sized thick ang piece, some incip cones.		
Flake			
	Chips and brks.		
?Flake			
	Prob is, thick P, chips and brks.		
Shatter			
	Chips and scars.		
<i>Retouched</i>			
Hollow scraper		?BA>	?MBA>EIA
	Med sized thick fl, 1 shoulder a hollow of dir abr ret.		
Scraper on shatter			MBA>EMIA+
	Sm, thickish nr P, 1 short length dir abr ret and abras.		
?Utilised			
Shatter			*MBA>EMIA+
	Sm. *If so.		

(405) [404]		7 lithics	69 g
Context:			
Pottery:			
Notes:	Mostly small.		
Summary:	Majority not obviously early, 1 just possibly <EBA (N>EBA), rest could easily be BA>/MBA>EMIA+, but little specific data and relationships unclear.		
Waste	Period	Preference	Re-using
Flake			
2 shatter			
Retouched			
Hollow scraper ?+ knife		??<EBA	
	Med sized, thinnish, reasonable, prx brk.		
2 misc. ret. flakes			
Utilised			
Knife/scraper + hollow scraper			
(802)			
(802)		1 lithic	10 g
Context:			
Pottery:	Residual 1550-1150/50 BC.		
Notes:	Simple minimally worked piece.		
Summary:	Little specific data, but just possibly MBA>EMIA+ and could be related or later than the residual pottery present.		
Retouched	Period	Preference	Re-using
Hollow + end scraper		??MBA>EMIA+	
	Sm, 1 lat cortex, other concave with some dir shallow ret/util scars on upper half, inv mostly abr ret across dist end, simple.		
(1002) Tr.10			
(1002) Tr.10		11 lithics	249 g
Context:			
Pottery:	Worn 1550-50 BC/50 AD.		
Notes:	Mostly medium sized thick flakes and chunks, cortex generally minimally present. Some simple/expedient tools. Nothing particularly quality, except for 1 ?PP long flake showing RU.		
Summary:	Some, potentially all, could be MBA>EMIA+, some of these more likely <EIA. Given this date, there is potential for an association with the pottery present, presuming the latter does not date too late, though no associations are guaranteed, given the geology. 1 has re-used an earlier flake of possible N>EBA date.		
Waste	Period	Preference	Re-using
Core/shatter			
2 flakes			
	Chips.		
Retouched			
Hollow scraper		??MBA>EIA	
	Thick chunk with 2 adj broad shallow concave chipped areas on dist and 1 inv ret hollow on 1 lat.		
Side scraper	MBA>EMIA+	?<EIA	?N>EBA
	Sm area dir abr ret appears 'fresh'/?unpat, RU of ?PP ?N>EBA fl who's narrow rectangular distal end is also trimmed by dir abr ret.		
Hollow scraper	MBA>EMIA+	?<EIA	
	Sm flake with dist brk, 1 lat sm hollow inv ret.		
Hollow scraper + naturally backed knife			
Piercer			

	Sm SQ thick triang sec, 1 pointed dist corner dir ret thinning sharp tip.		
<i>Utilised</i>			
Flake – knife			
	Sm.		
Flake – knife/side scraper		MBA>EMIA+	
	Thick chunk.		
<i>?Utilised</i>			
Flake – knife			
	Sm brkn frag.		
(1102) Tr.11		8 lithics	392 g
<i>Context:</i>			
<i>Pottery:</i>	1550 BC/25-75 AD and 1150/1175-1200 AD.		
<i>Notes:</i>	Poor looking overall. 1 largeish core, rest small to medium sized often thickish flakes.		
<i>Summary:</i>	Most if not all could be MBA>EMIA+, residual given the pottery.		
<i>Waste</i>	<i>Period</i>	<i>Preference</i>	<i>Re-using</i>
Multiplatform flake core	?BA>	MBA>EMIA+	
	Lrgish average quality flint, various fl scars and chipped edges.		
<i>?Opposed platform core</i>			
	Sm cylindrical buff cortexd piece, both ends brkn, with 1 face showing 3 apparent long narrow removal scars, 2 from 1 plat. Overall appears like a sm narrow B core but suspect.		
Flake			
	Chips.		
<i>?Flake fragment</i>			
	Sm dist ?fl frag.		
<i>Retouched</i>			
Side scraper		MBA>EIA	
	Sm v thick fl, 1 lat short slightly concave length inv abr ret.		
Side scraper		MBA>EMIA+	
	Thick nat backed L fl, sm area dir abr simple/poor ret oppos lat.		
<i>?Utilised</i>			
Flake – knife			
Naturally backed flake			
	Thick, mod ang lat		
(1105) [1104]		8 lithics	163 g
<i>Context:</i>			
<i>Pottery:</i>			
<i>Notes:</i>	Small flakes and 1 largish natural, latter possibly but not certainly used.		
<i>Summary:</i>	Nothing obviously significantly early, save for 1 likely BK>EBA/?EBA, probably residual. 1 neatly worked hollow + side scraper on a small flake, <EIA, could relate, or be later. Some of the remainder, perhaps all of the rest, more likely MBA>EMIA+. Relationship of the latter to each other and the context unclear, given the geology.		
<i>Waste</i>	<i>Period</i>	<i>Preference</i>	<i>Re-using</i>
Flake			
Shatter			
2 Flake fragments			
<i>?Shatter/core/natural</i>			
<i>Retouched</i>			
Double side scraper	<EBA	BK>EBA/?EBA	
	Sm, both upper lats show dir semi-abr ret along convex edges, stops at cortexd lower		

	lat, dist tip brkn.		
Hollow + side scraper	<EIA	??BA>EIA	
	Sm S thinnish fl, dist end a broad dir semi-abr neatly ret hollow, 1 short lat dir semi-abr ret uneven edge, other lat cortx.		
?Utilised			
Natural – scraper	*MBA>EMIA+		
	Sm areas of chips and scars, inc a hollow. *If used.		
(1201)		1 lithic	158 g
Context:			
Pottery:			
Notes:			
Summary:	Little specific data, possibly MBA>EMIA+, relationship to context unclear.		
?Retouched	Period	Preference	Re-using
?Core	?BA>	?MBA>EMIA+	
	Thick triang sec chunk, broad nat plat with sm fl scars struck from it around all margins, some sm ?ret scars around the edge.		
(1203) [1204]		3 lithics	20 g
Context:			
Pottery:			
Notes:	Small. 1 flake with bifacially chipped edge (?chopper) re-using a flake with a an ?early/moderate stage blue-white patina, more likely MBA>EMIA+.		
Summary:	1/possibly 2 potentially MBA>EMIA+. Nothing need be earlier and all could be related, though no associations guaranteed. Relationships to each other and the context unclear, due to the geology.		
Waste	Period	Preference	Re-using
Flake			
	Sm, chips		
Retouched			
?Chopper (RU)		MBA>EMIA+	E-M BW pat fl
	Sm, 1 shallow angld lat shows bifac crude chipping along length which seems to truncate E-M BW pat vent, oppos lat sm area dir fairly abr ret.		
??Piercer		*MBA>EMIA+	
	Sm thin ?fl frag, chips, snap brks isolate a sharp point with chips and abras at tip. *If intentional.		
(1301) Tr.13		1 lithic	8 g
Context:			
Pottery:			
Notes:			
Summary:	Likely MBA>EMIA, relationship to context unclear.		
?Retouched + Utilised	Period	Preference	Re-using
Scraper on natural		MBA>EMIA+	
	Sm ang nat.		
(2005) [2004] Tr.2		1 lithic	14 g
Context:			
Pottery:			
Notes:	Broken.		
Summary:	Could date widely and be residual.		
?Utilised	Period	Preference	Re-using

Flake – naturally backed knife			
	Dist brk.		
Totals		50 lithics	1425 g

6.6.6 Comments

All this material was composed of flint (as would be expected). Prominent amongst the remnant cortexes were examples of dirty looking rough buff types. A few examples of thin dark grey-black or greeny grey-black cortexes were also noted. Much of this was of average quality at best, though some better quality material was also present.

It might be presumed that there was little if any flint raw material available in the brickearth type deposits that formed the prime underlying geology on this site and perhaps also in the immediate vicinity too. The nature of the raw material that was available locally is currently unknown and, as part of any future work at this site, it would be useful if samples of the raw material that does occur in the various geologies and any ancient subsoils present, could be obtained and submitted alongside any further flintwork that is recovered. Given the likely Later Prehistoric date of the majority of the flintwork present, it would be presumed that the raw materials that were used during that time had been gathered as close to their place of use as was possible.

7 ENVIRONMENTAL

7.1 Overview

7.1.1 No bulk soil samples were acquired during the course of evaluation.

8 DISCUSSION, CONCLUSIONS AND RECOMMENDATION

8.1 Introduction

8.1.1 The archaeological evaluation (Phase 2E) on land at Wises Lane, Borden in Kent, has investigated the extents of the proposed development area using 20 trenches each measuring 25m in length.

8.1.2 The investigation has confirmed the presence of archaeological remains in northern part of the proposed development area.

8.2 Discussion

8.2.1 Archaeological investigation has exposed Late Prehistoric activity comprising 3 LBA/ EIA field ditches and potential Holloway. Additionally Late medieval to Post medieval brick kiln was exposed in north-eastern corner of the site. Several Late Post medieval to modern refuse pits

were investigated across the site. A vast colluvium deposits were also tested but no further archaeological cuts were found underneath those layers.

- 8.2.2 Field ditch revealed in Trench 1 produced dating evidence in form of ceramics dated after 1550BC and potentially residual worked lithics was dated after 1550-50 BC. Another very similar ditch exposed in Trench 2 remains undated and ditch exposed in Trench 12 produced 3 worked lithics dated broadly to the Middle Bronze Age to Early Mid Iron Age.
- 8.2.3 A potential Holloway in NE-SW alignment revealed in evaluation Trenches 4 and 11 produced fairly contemporary dating evidence with discussed above field ditches. In trench 4 sub-soil produced ceramics dated after 1550 BC and few lithics pieces dated broadly to Middle Bronze Age to Early Mid Iron Age alongside one potentially residual piece of Early Bronze Age. Feature revealed in Trench 11 produced lithics also broadly dated to Middle Bronze Age to Early Mid Iron Age. A subsoil (1102) in that trench only produced Early Medieval potsherds dated after 1550 AD.
- 8.2.4 In general subsoil in trenches 8, 10, 12, 4 and 18 produced potsherds dated after 1550 BC with slightly earlier material derived from Trench 12 which was dated after 1000/ 900 BC. Those findings giving an overall impression of late prehistoric 'noise' in the background. Topsoil in Trenches 10, 5 produced Post medieval and Late Post Medieval potsherds indicating ongoing activity in the surrounding area during those periods.
- 8.2.5 The kiln exposed in evaluation trench had two levels. Lower level comprised stoke pit with furnace tunnels and upper level contained roof of the fire chamber. It was deducted that such a structure should contained perforated floor on which brick were laid to be fired however there was no evidence for such element and only one central pillar was noted at northern end of the chamber. Highly likely a collapsed perforated floor can be found within fire chamber revealed at lower level.
- 8.2.6 The kiln was provisionally dated by comparing dimension with Standardized Brick Charter. Compared brick sizes are closely matching late 15th Century.

8.3 Conclusion

- 8.3.1 The archaeological investigation has been successful in fulfilling the primary aims and objectives of the Specification and has assessed the archaeological potential of land intended for development. The results from this work will be used to aid and inform the Principal Archaeological Officer of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

8.4 Recommendation

- 8.4.1 A development proposal comprises two rugby pitches to be developed on this site. South-western halves of the proposed pitches are going to be reduced in bands as indicated on Figure 3C. There is no impact within southern pitch and minimal impact within northern formation. The archaeology expected to be affected by these proposals comprises section of a Holloway exposed in evaluation Trench 4 and potentially there is a chance of an impact on field ditch revealed in Trench 1 although its further run was not confirmed in Trench 11.
- 8.4.2 Post medieval brick kiln structure exposed in Trench 13 is going to be preserved in-situ. Similarly field ditch exposed in Trench 12 is going to be preserved under 1-1.5m build up ground.
- 8.4.3 With regards to the minimal impact on archaeological resource and sufficient level of recording carried out during the course of archaeological investigation no further work is proposed to take place on this site in relation to the proposed development.

9 ARCHIVE

9.1 General

- 9.1.1 The Site archive, which will include paper records, photographic records, graphics and digital data, will be prepared following nationally recommended guidelines (SMA 1995; CifA 2009; Brown 2011; ADS 2013).
- 9.1.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises 1 file/document case of paper records and A4 graphics. The Site Archive will be retained at SWAT Archaeology offices until such time it can be transferred to a Kent Museum.

10 ACKNOWLEDGMENTS

- 10.1.1 SWAT would like to thank the Client for commissioning the project. Thanks are also extended to Simon Mason, Principal Archaeological Officer at Kent County Council, for his advice and assistance.
- 10.1.2 Peter Cichy, Bartek Cichy, Dan Leaver and Tegan Meaney from SWAT Archaeology carried out the archaeological fieldwork; illustrations and drone photography were produced by Bartek Cichy. The report was written by Peter Cichy and Bartek Cichy. On behalf of the client project was directed by Dr Paul Wilkinson MCifA, FRSA of SWAT Archaeology.

11 REFERENCES

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SWAT Archaeology 2023 Specification for an Archaeological Evaluation of land at Wisles Lane, Borden in Kent

12 APPENDIX 1 – HER FORM

Site Name: land at Wises Lane, Borden in Kent (Rugby Club) **Phase 2E**

SWAT Site Code: WLS2E-EV-23

Site Address: As above

Summary. *Swale & Thames Survey Company (SWAT Archaeology) were commissioned to undertake an archaeological evaluation on land at Wises Lane, Borden in Kent. The archaeological programme was monitored remotely by the Principal Archaeological Officer at Kent County Council.*

The archaeological works have investigated the extents of the proposed development area using 20 trenches measuring 25m in length.

Archaeological investigation has exposed Late Prehistoric activity in northern part of the site comprising 3 LBA/ EIA field ditches and potential Holloway. Additionally Late medieval brick kiln was exposed in north-eastern corner of the site. Several Late Post medieval to modern refuse pits were investigated across the site. A vast colluvium deposits were also tested but no further archaeological cuts were found underneath those layers.

The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification and has assessed the archaeological potential of land intended for development. The results from this work will be used to aid and inform the Senior Archaeological Officer of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

No further work is recommended for Phase 2E

District/Unitary: Swale Borough Council

Period(s): Late Bronze Age, Early to Late Iron Age, Late Medieval to Late Post Medieval and modern

NGR (centre of site to eight figures) NGR 588650 163350

Type of Archaeological work: Archaeological Evaluation

Date of recording: June-July 2023

Unit undertaking recording: Swale and Thames Survey Company (SWAT Archaeology)

Geology: Seaford Chalk Formation and Thanet Formation of Sand, Silt and Clay

Title and author of accompanying report: Peter Cichy (2023) Archaeological Evaluation of land at Wises Lane, Borden in Kent (Rugby Club) Phase 2E

Location of archive/finds: SWAT. Archaeology. Graveney Rd, Faversham, Kent ME13 8UP

Contact at Unit: Paul Wilkinson

Date: 22/07/2023

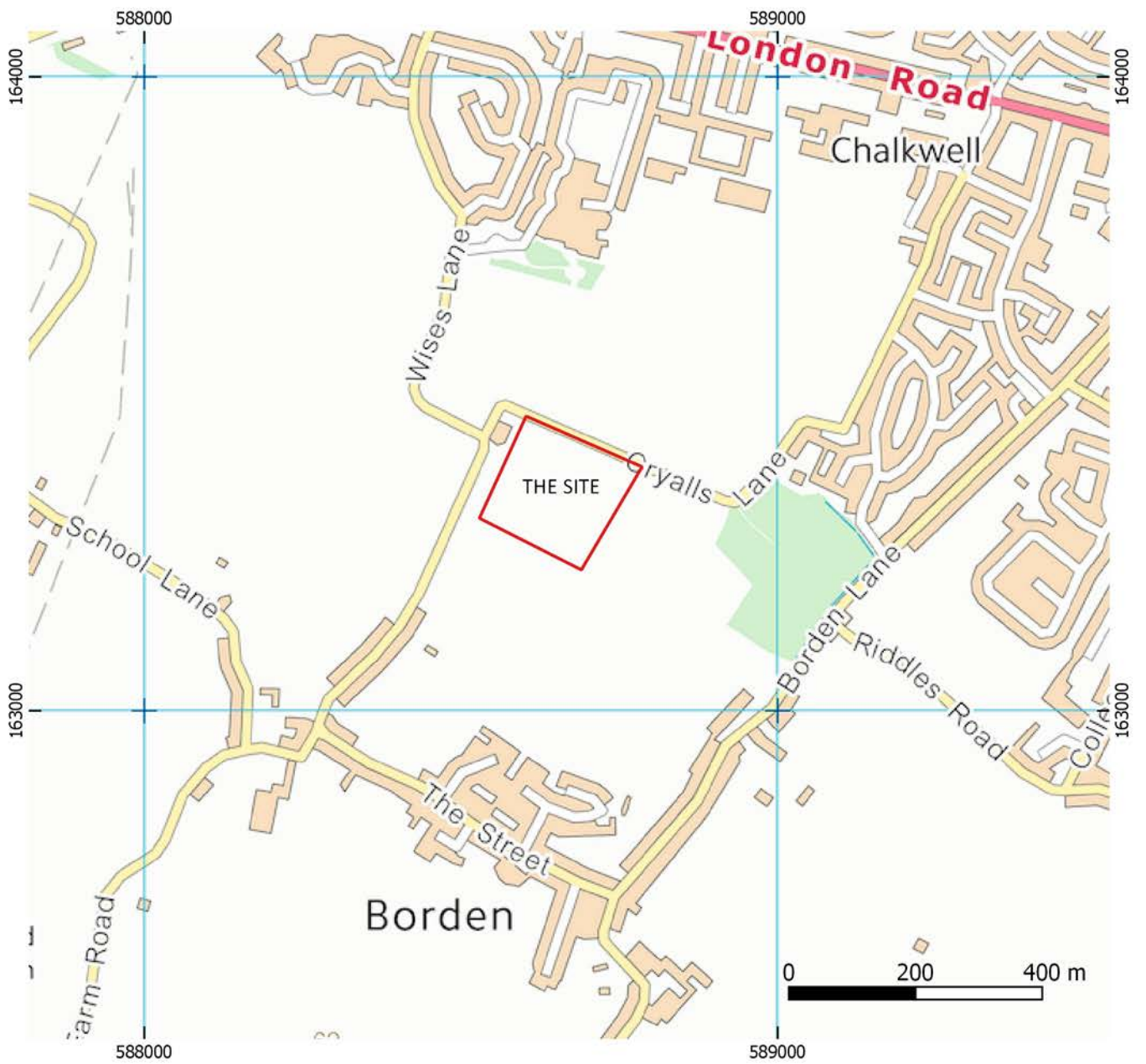
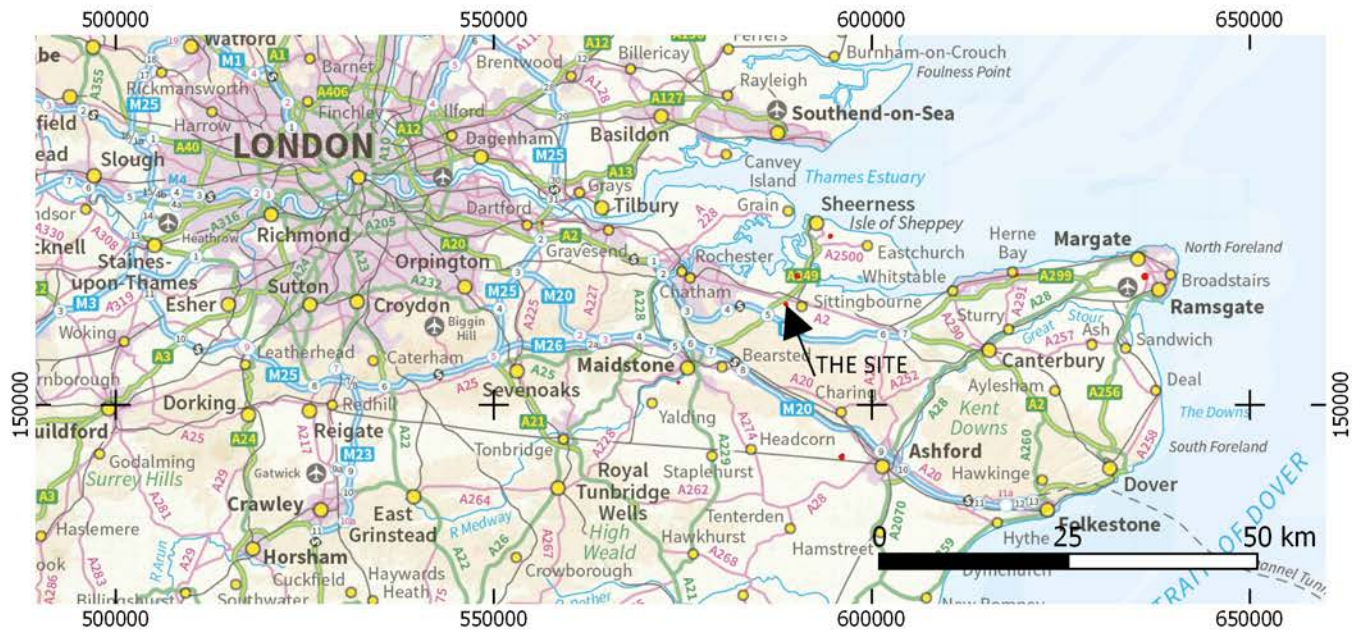


Figure 1: Site location



0 100m

Figure 2: Site location in relation to Aplegate Park development phases

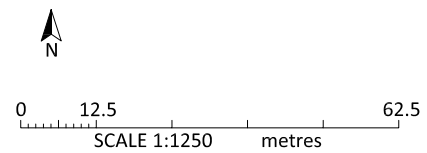
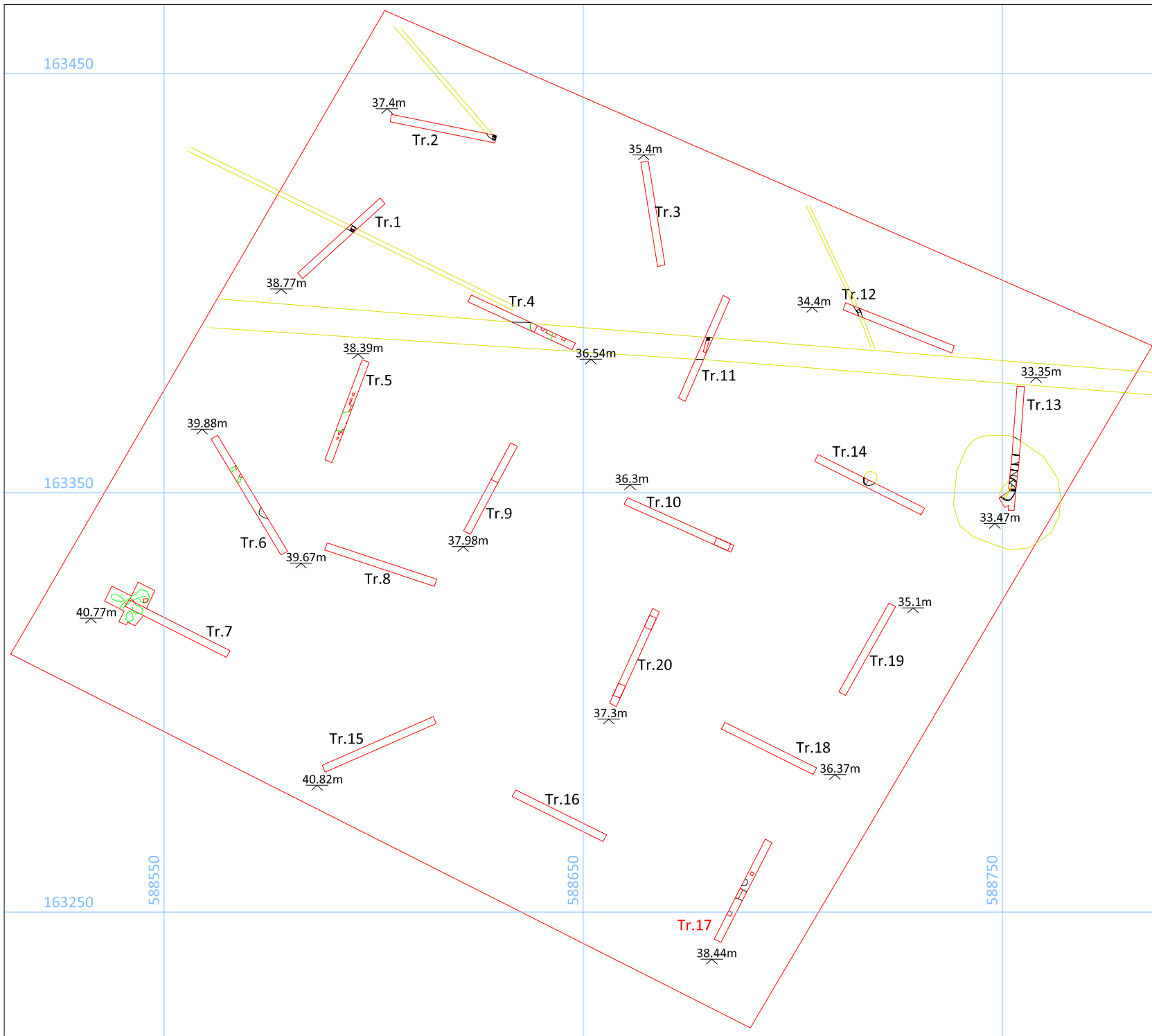


Figure 3: Trench location

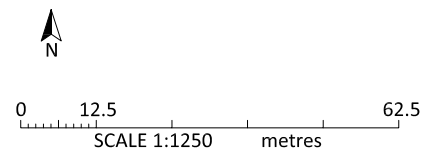


Figure 3B: Trench location in relation to geophysical survey interpretation

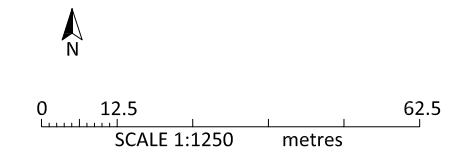
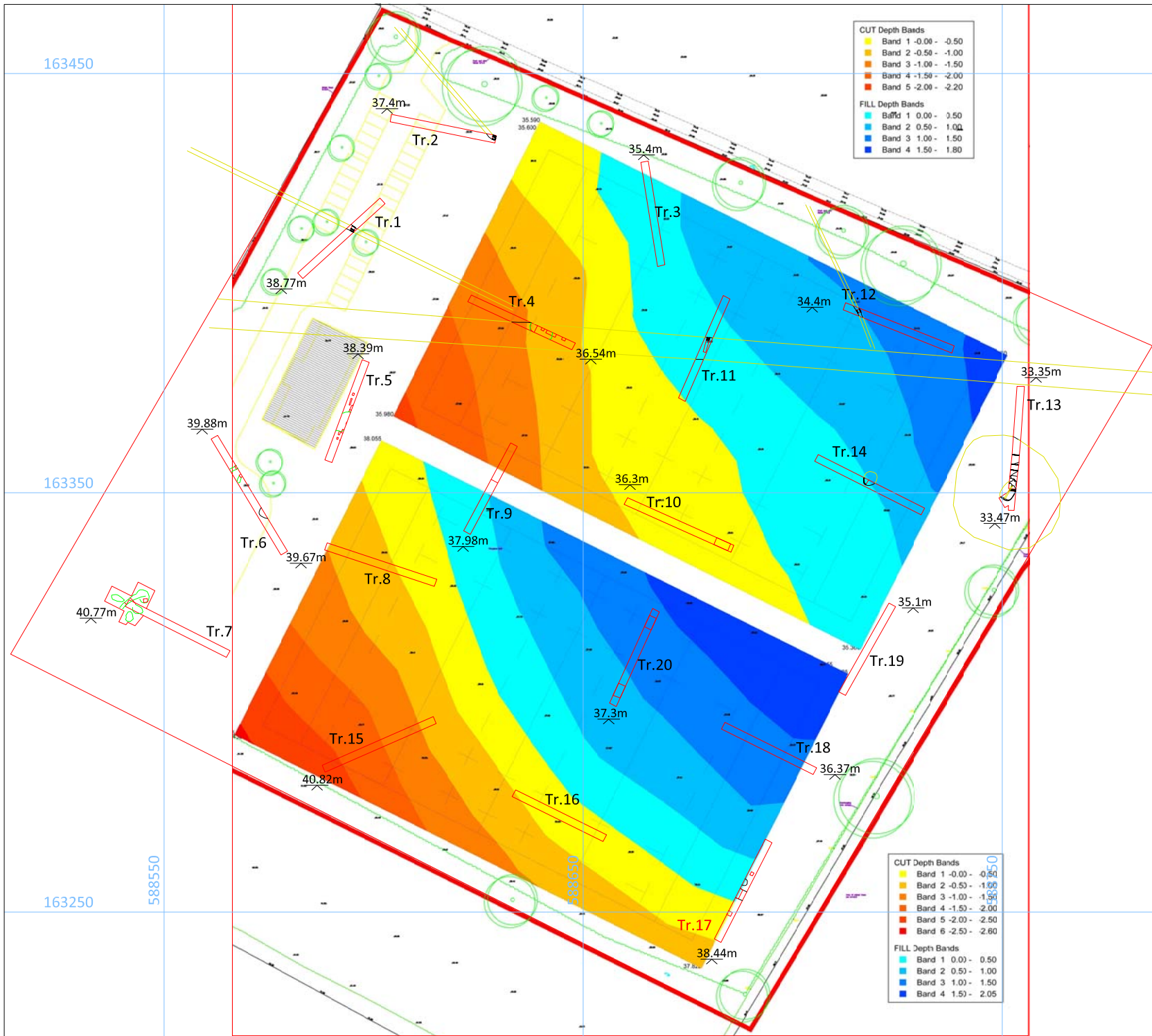
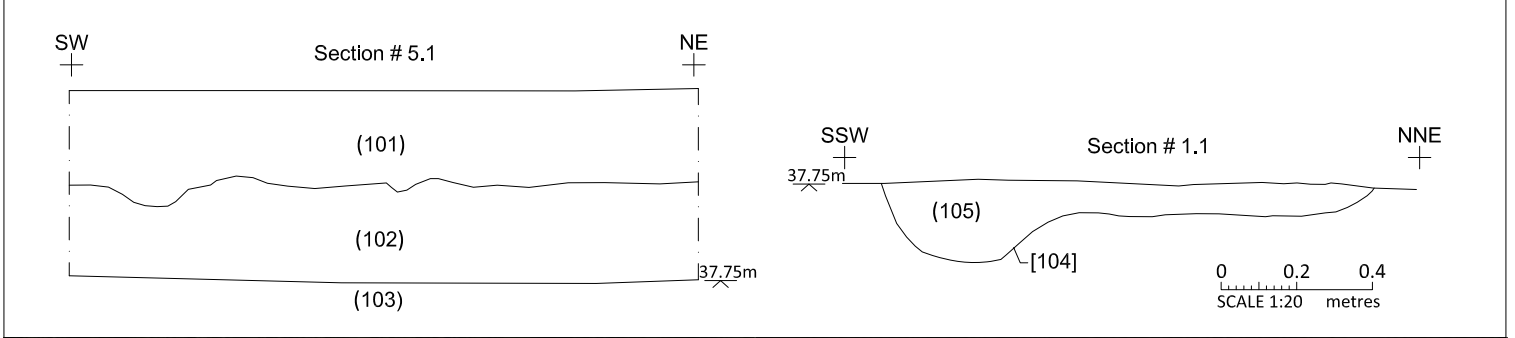
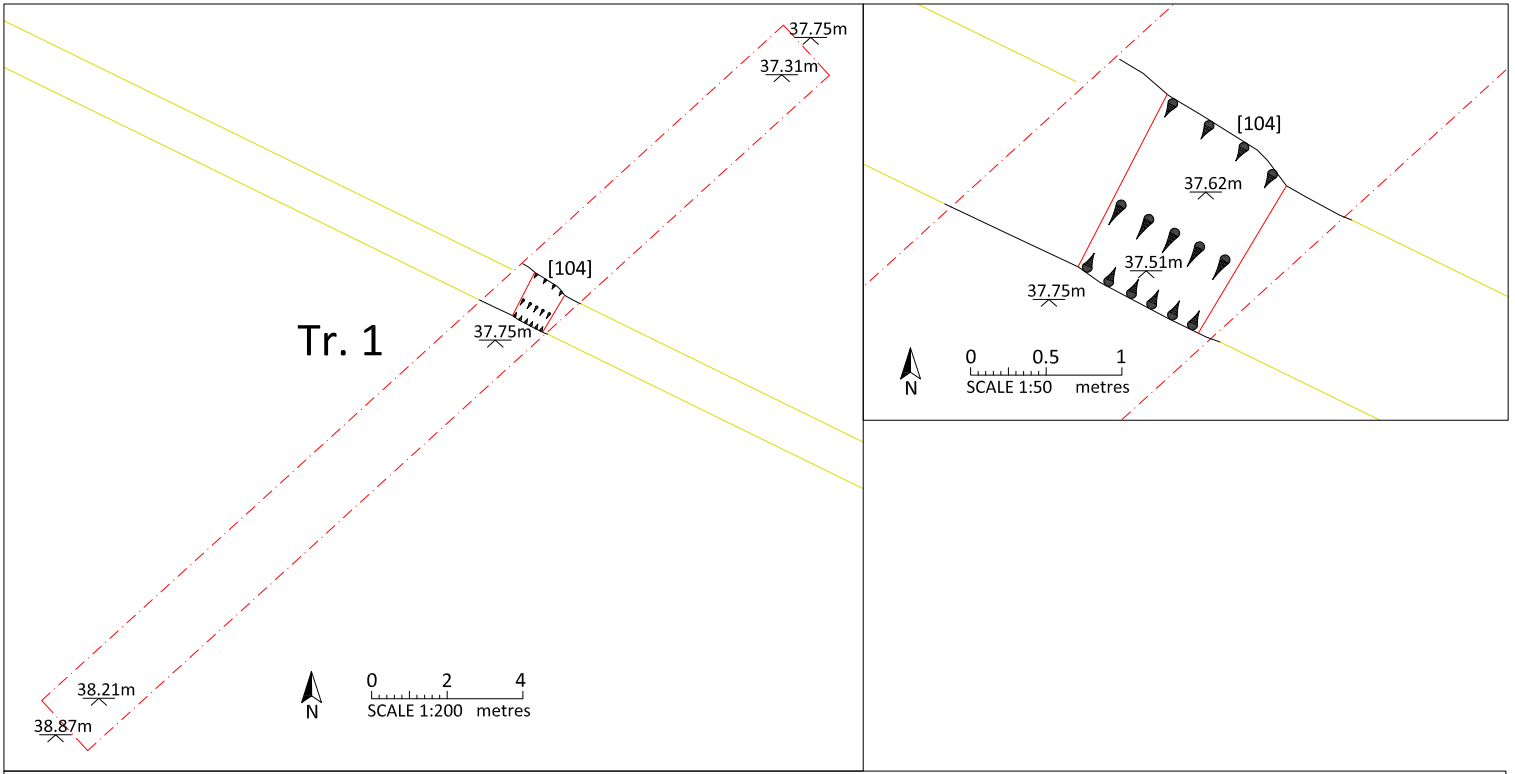


Figure 3C: Trench location in relation to the proposed groundworks

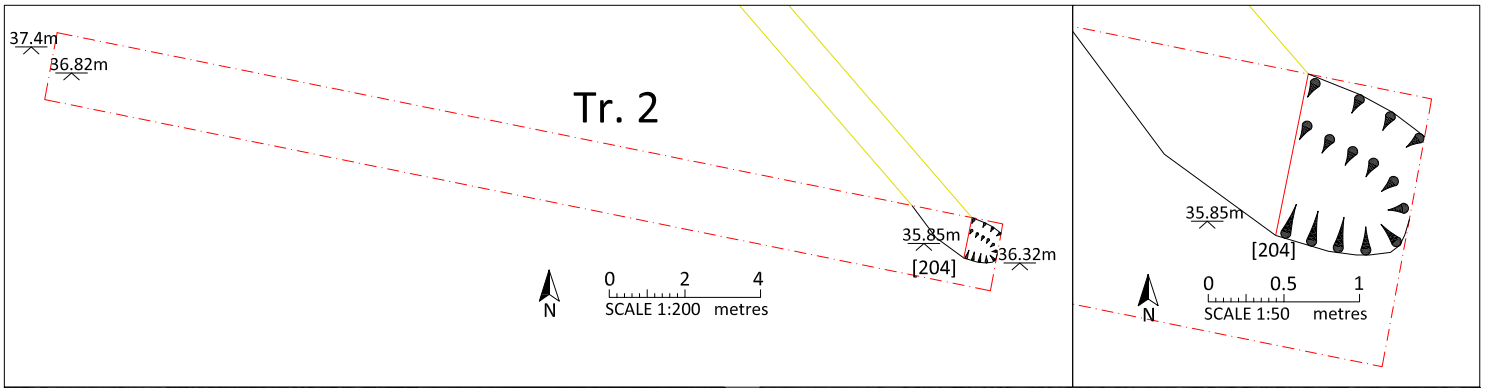


Looking north at trench



Looking north west at ditch 104

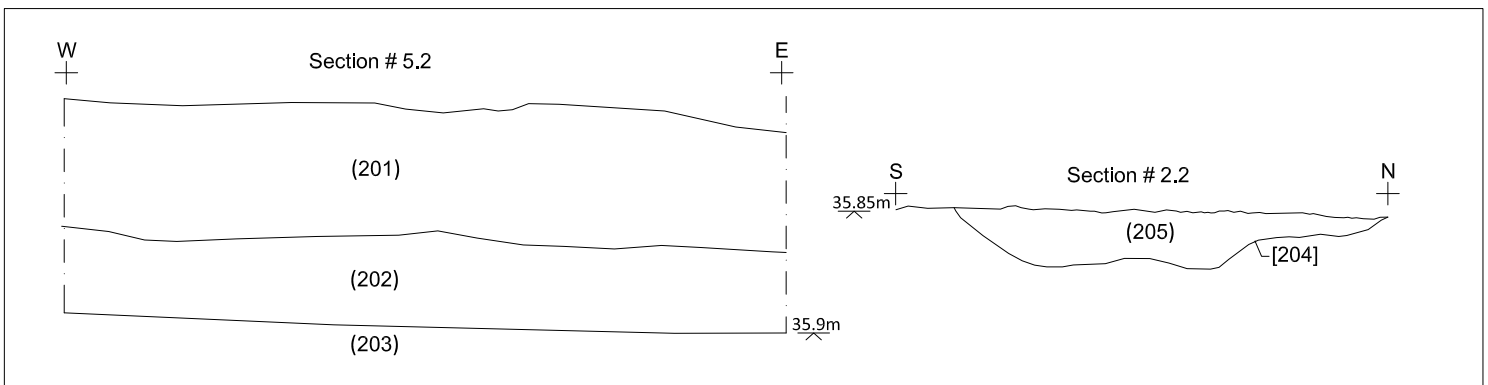
Figure 4: Trench 1



Looking north west at trench 2

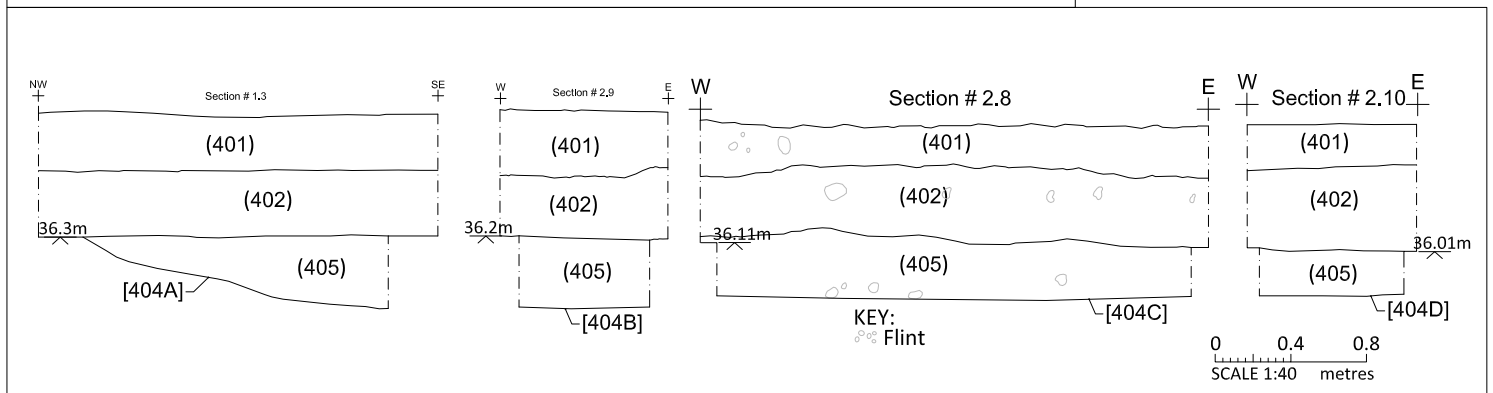
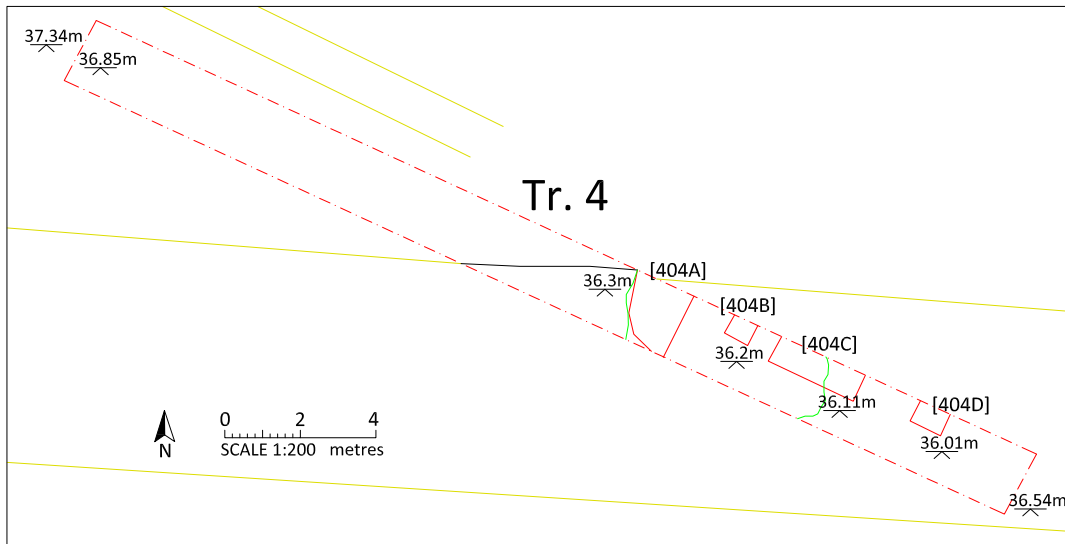


Looking north at the ditch 204



Looking north at section of trench 2

Figure 5: Trench 2



Looking east at trench 4



Looking north west at holloway base 404C

Figure 6: Trench 4

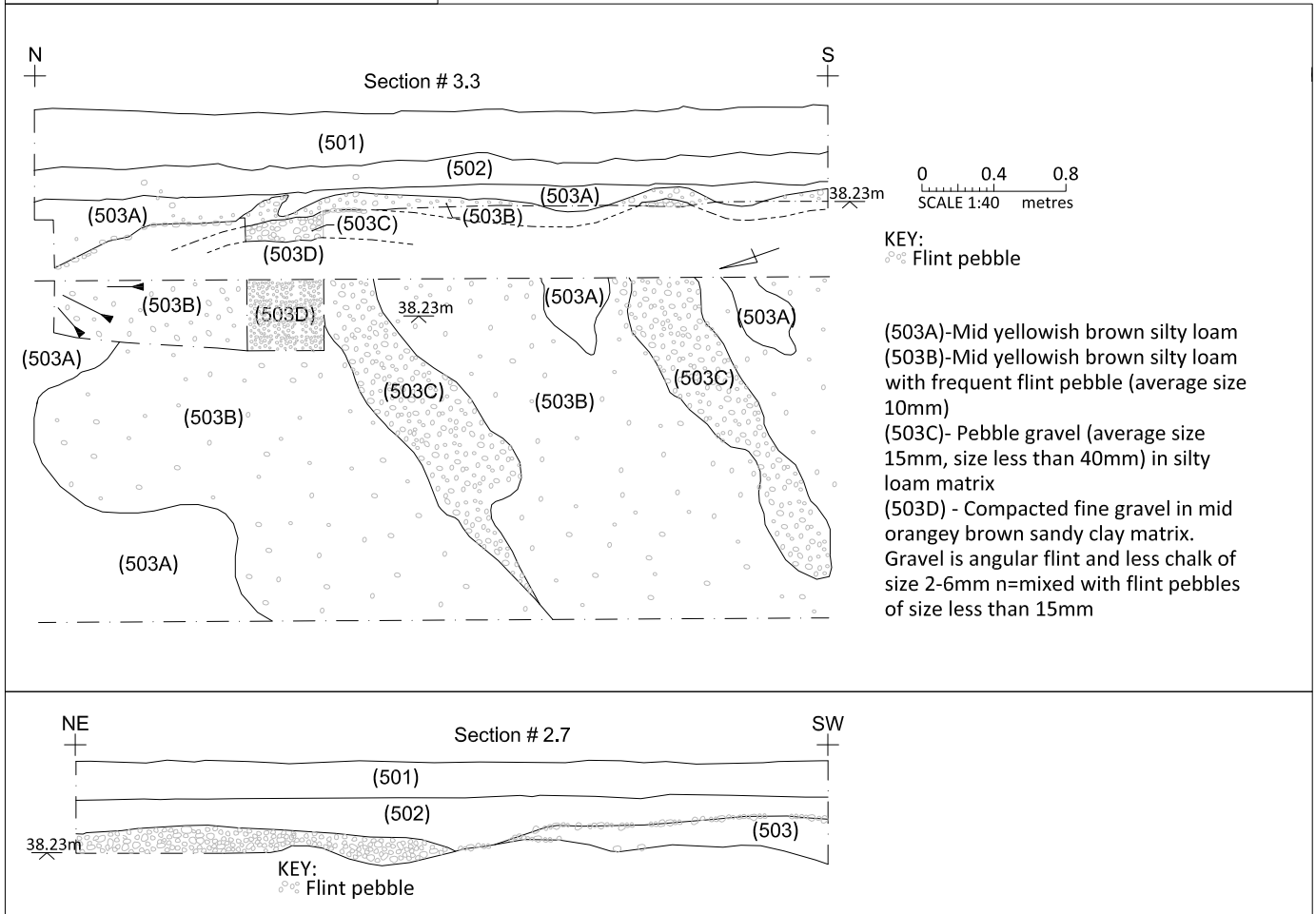
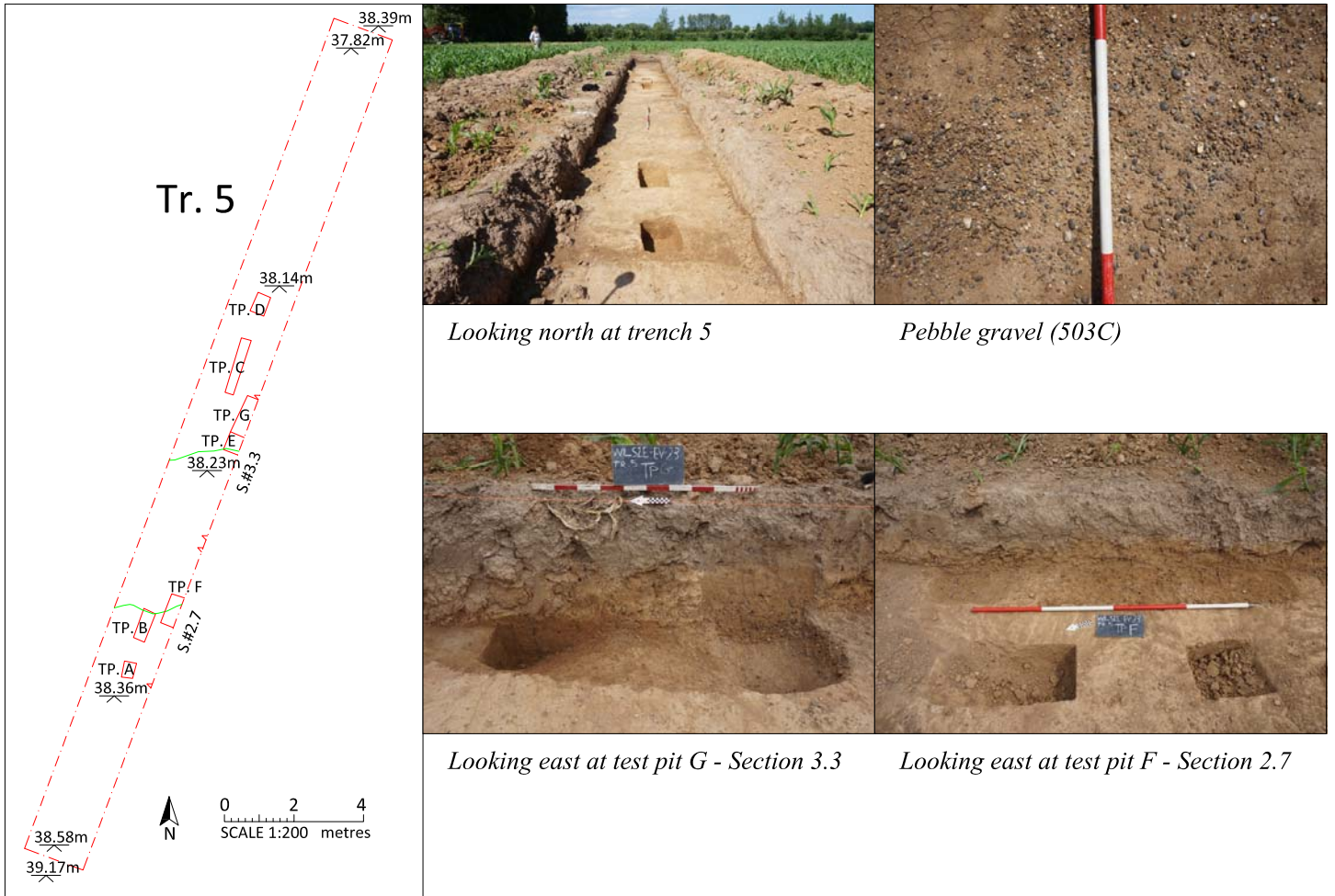
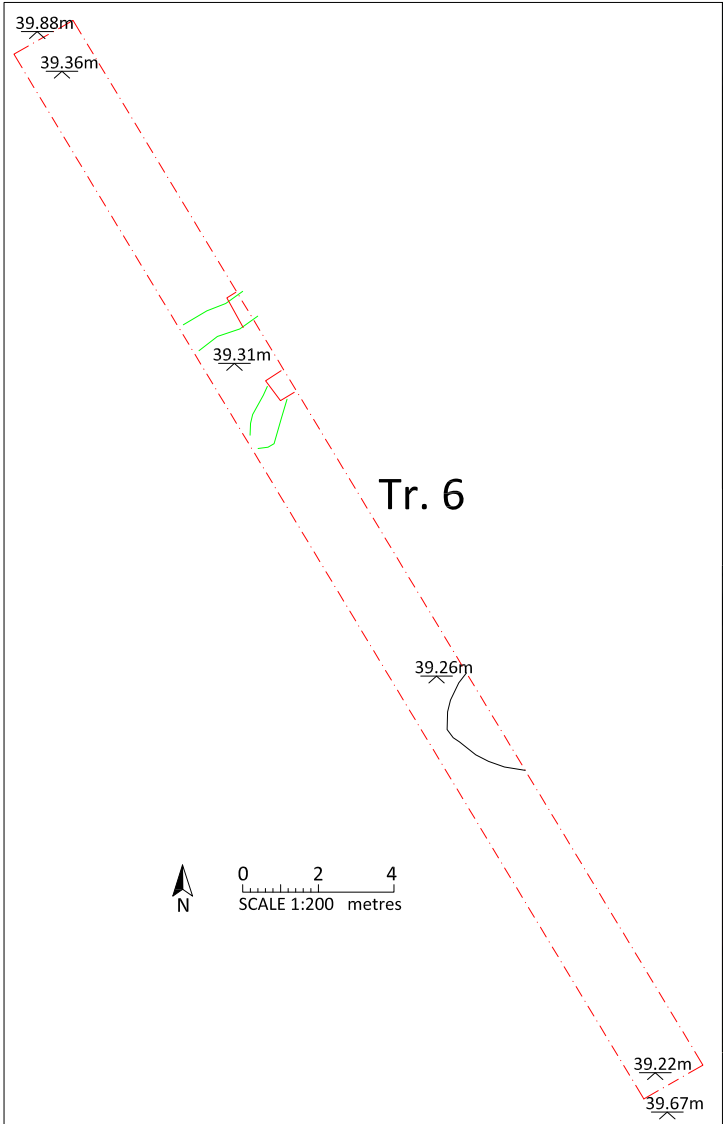


Figure 7: Trench 5



Looking north west at trench 6



Looking north east at section 3.1 of trench 6

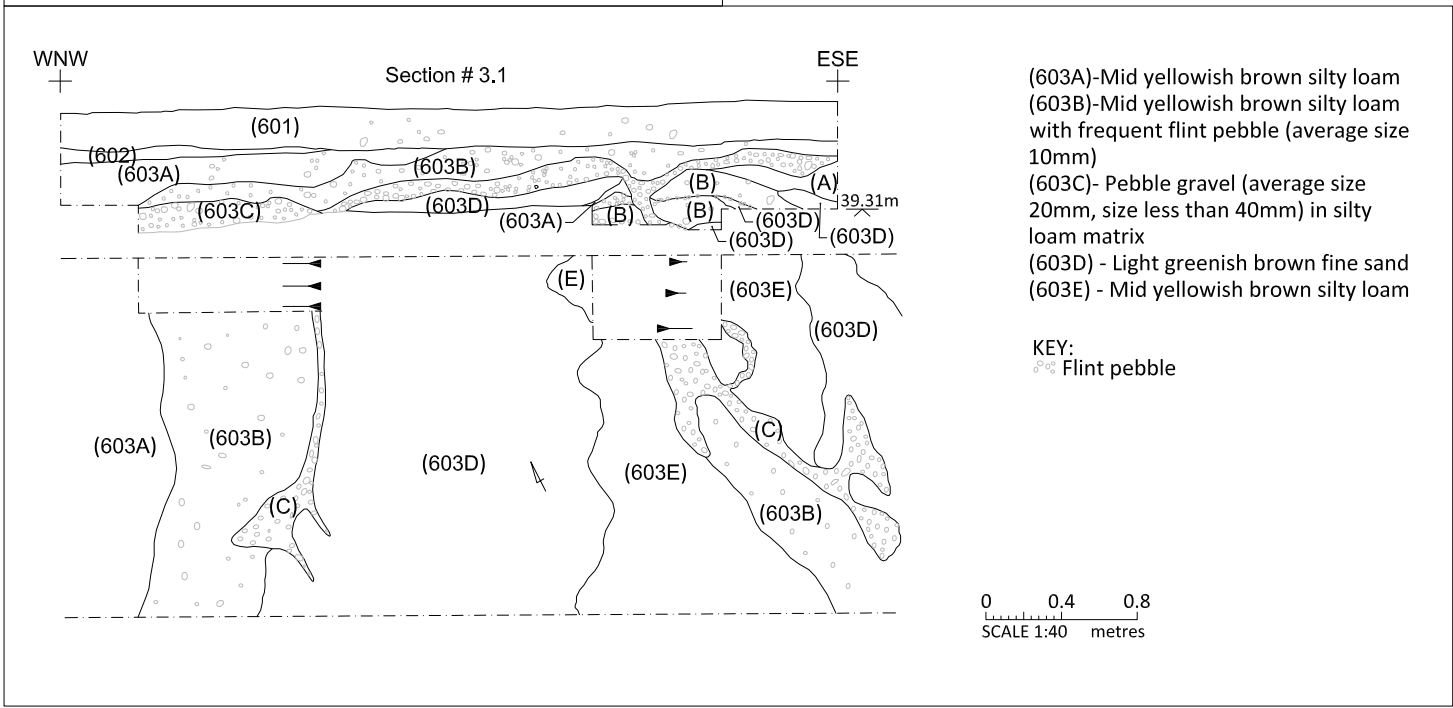
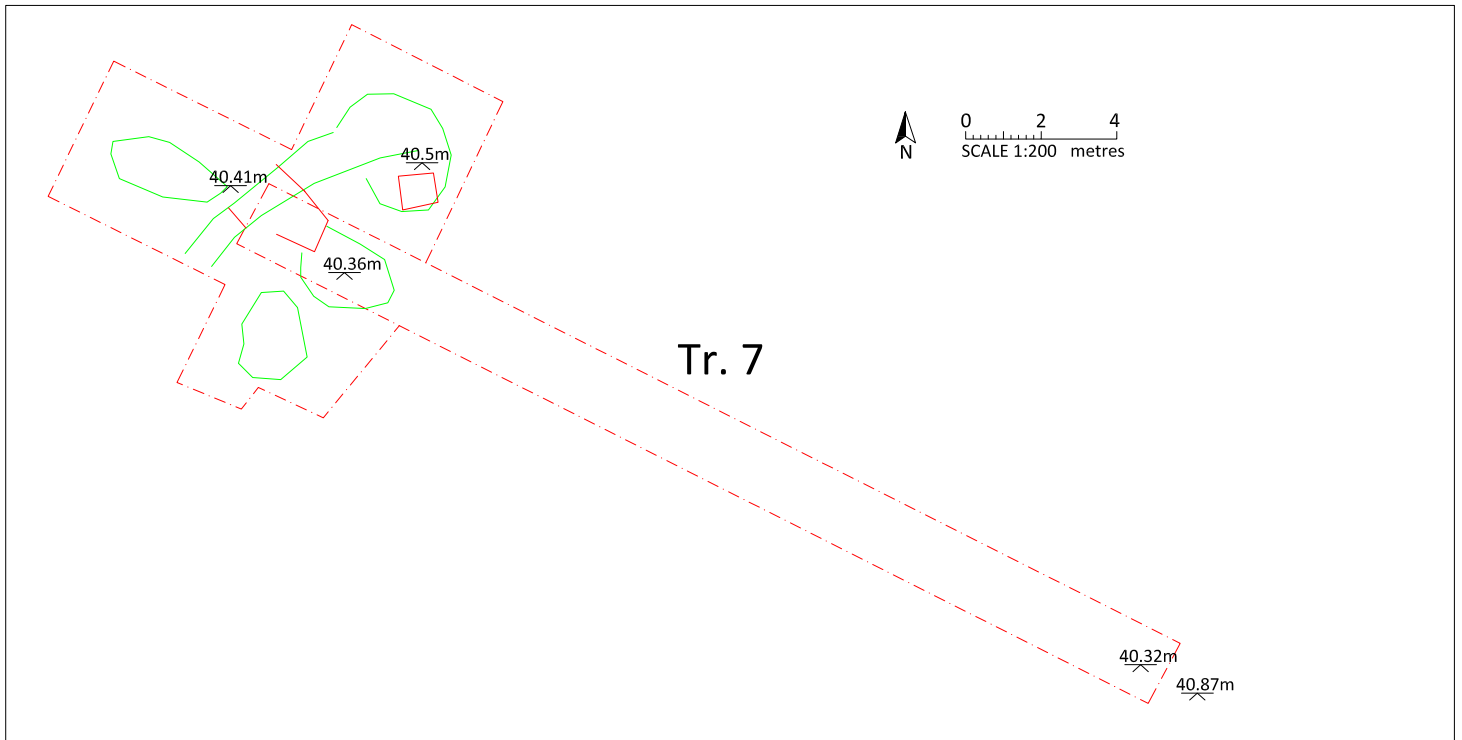


Figure 8: Trench 6



Looking west at trench 7



Looking north east at section of trench 7

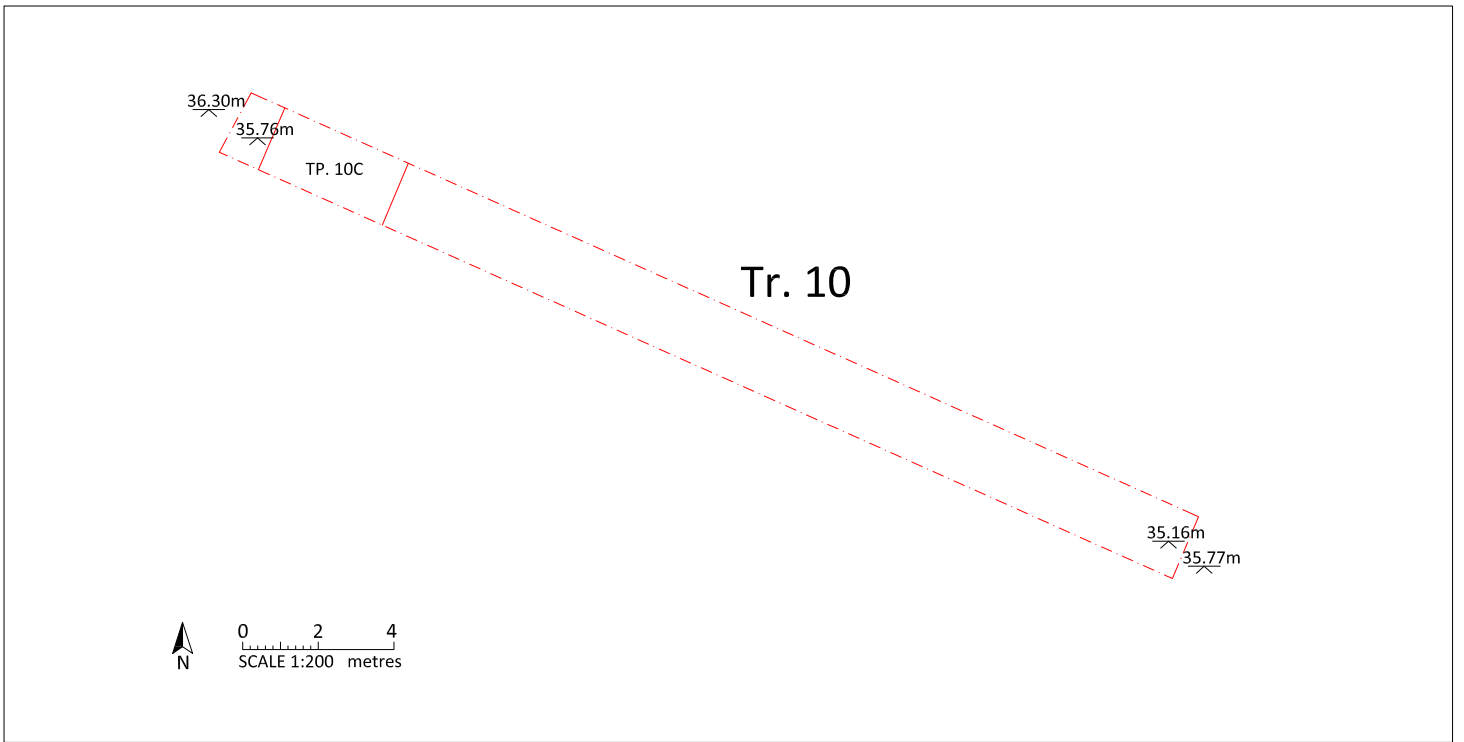


Looking north east at section of outcropping bedrock



Looking south east at outcropping bedrock comprising chalk and tabular flint cobbles

Figure 9: Trench 7



Looking east at trench 10

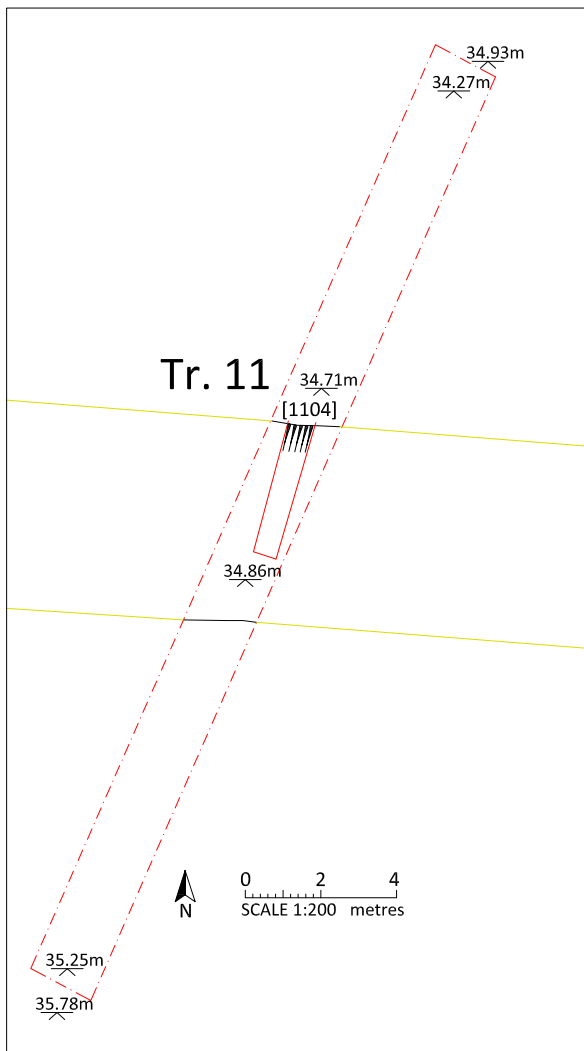


Looking north at section of trench 10



Looking north west at test pit at west end of trench 10

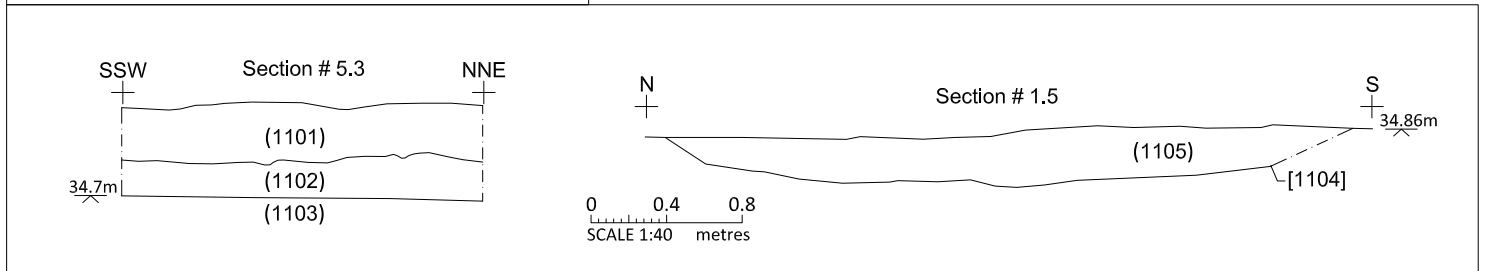
Figure 10: Trench 10



Looking north at trench 11

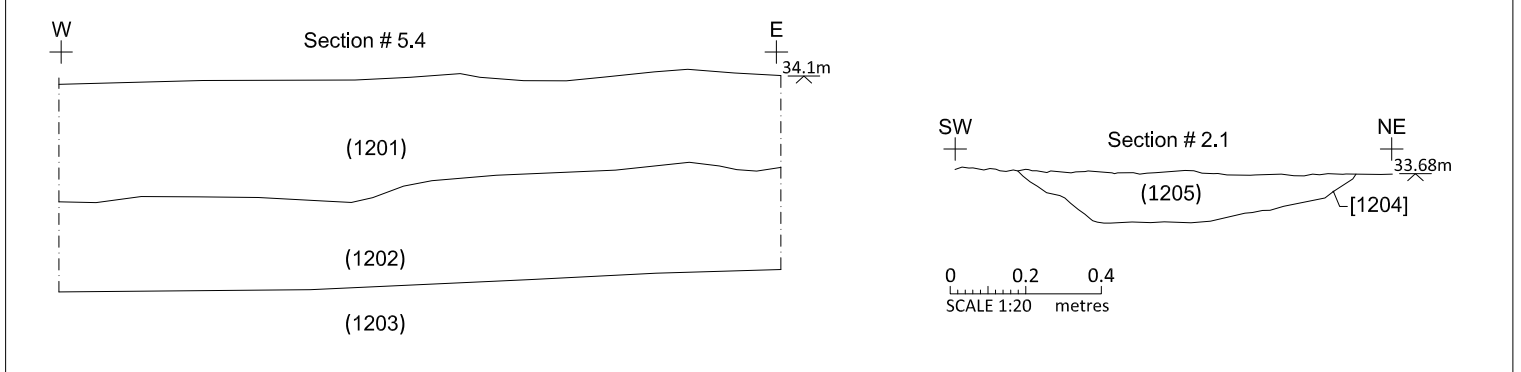
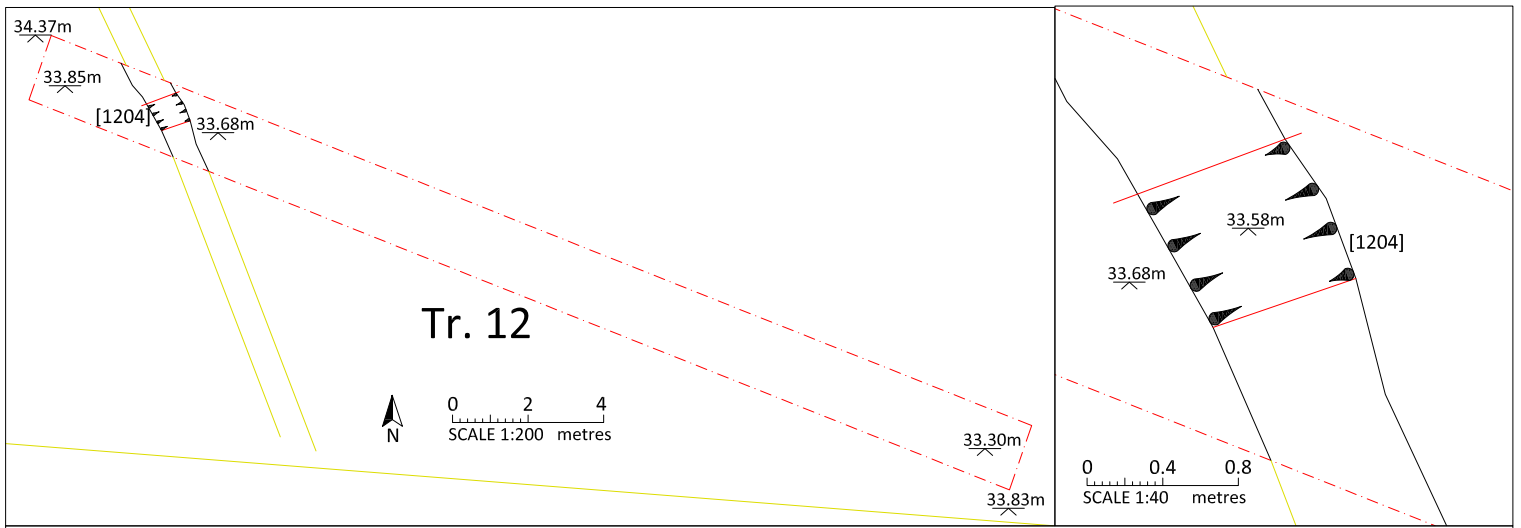


Looking west at section of trench 11



Looking east at section of the holloway 1104

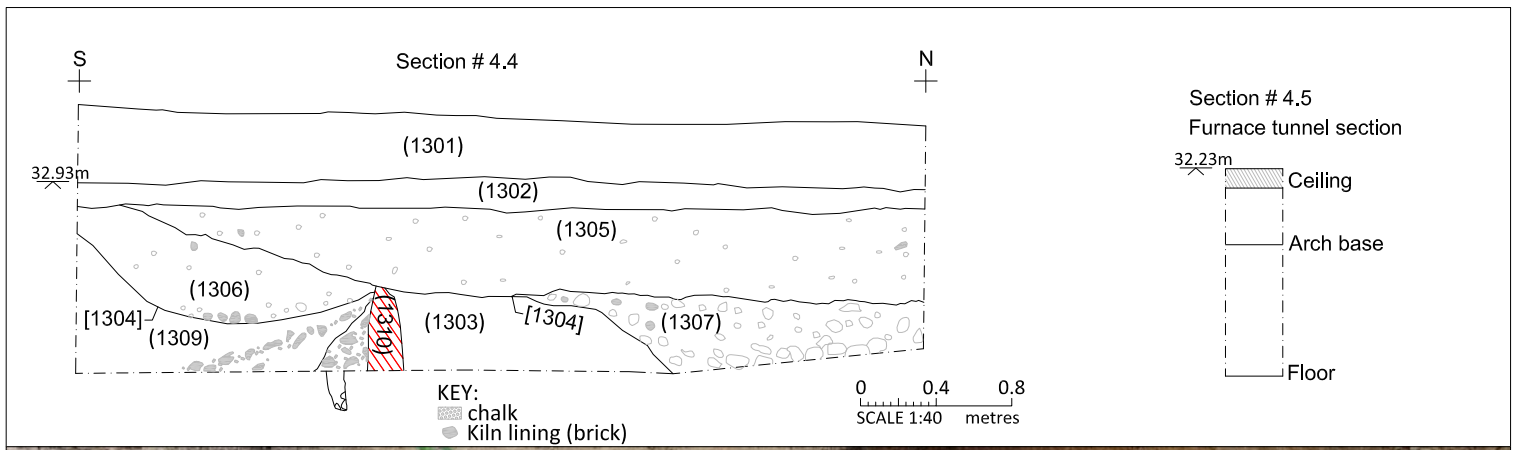
Figure 11: Trench 11



Looking east at trench 12

Looking west at section of ditch 1204

Figure 12: Trench 12



Brick kiln top view



Looking south at the kiln



Looking north east at the collapsed arched ceiling of the kiln furnace tunnel

Figure 14: Trench 13

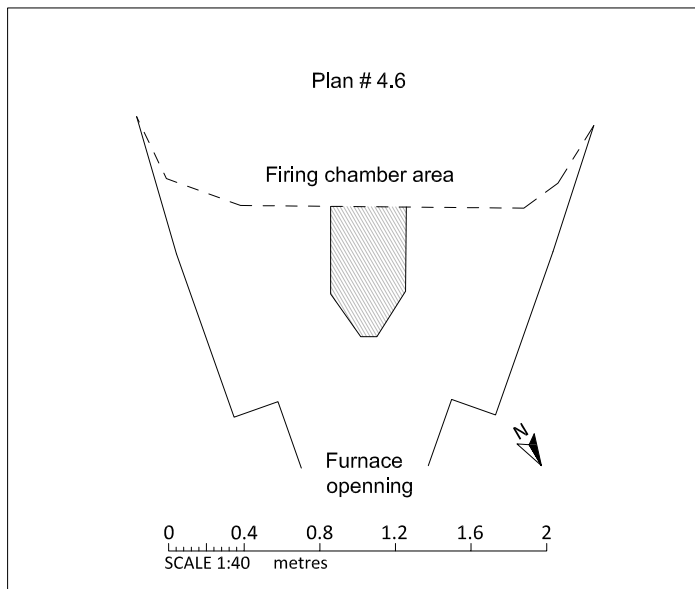
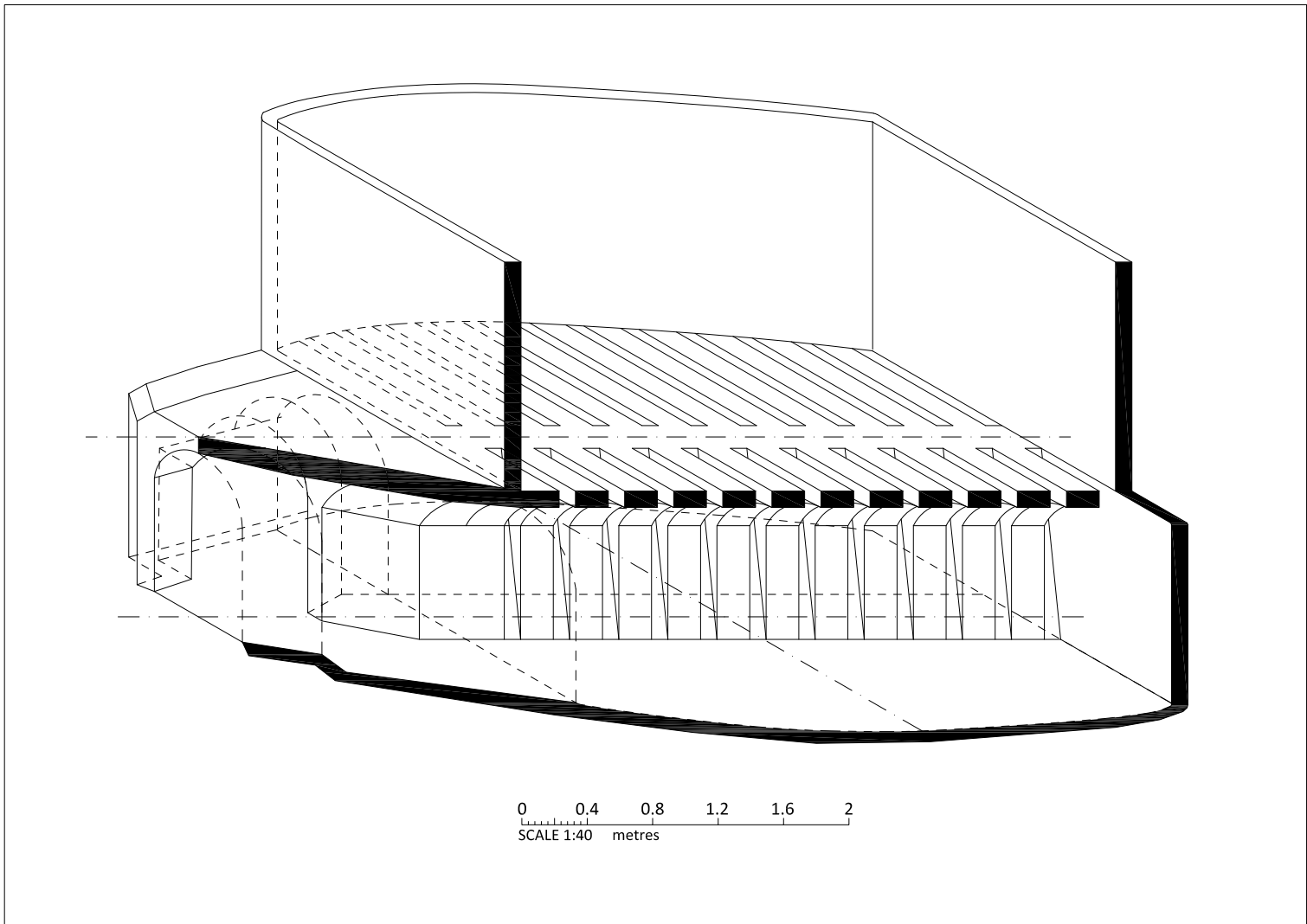
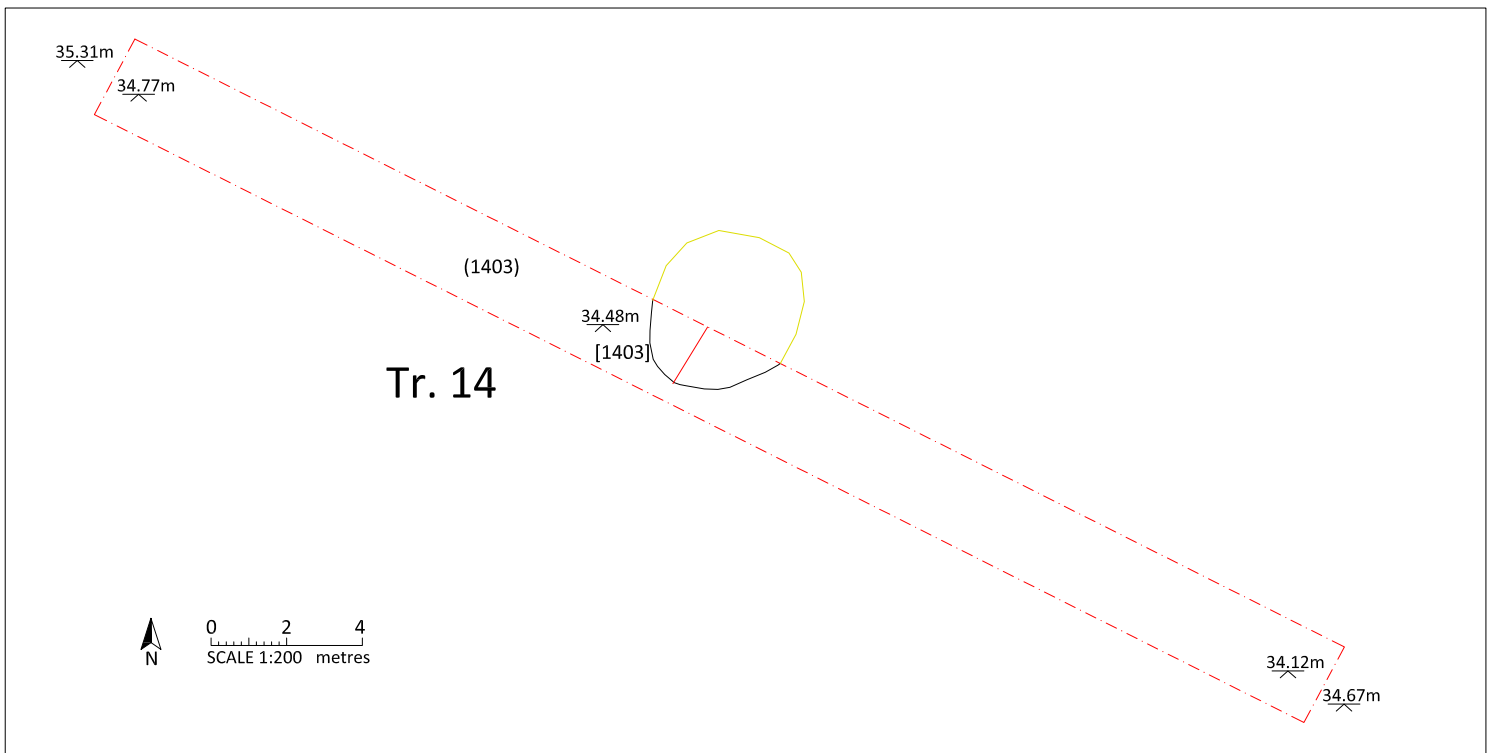
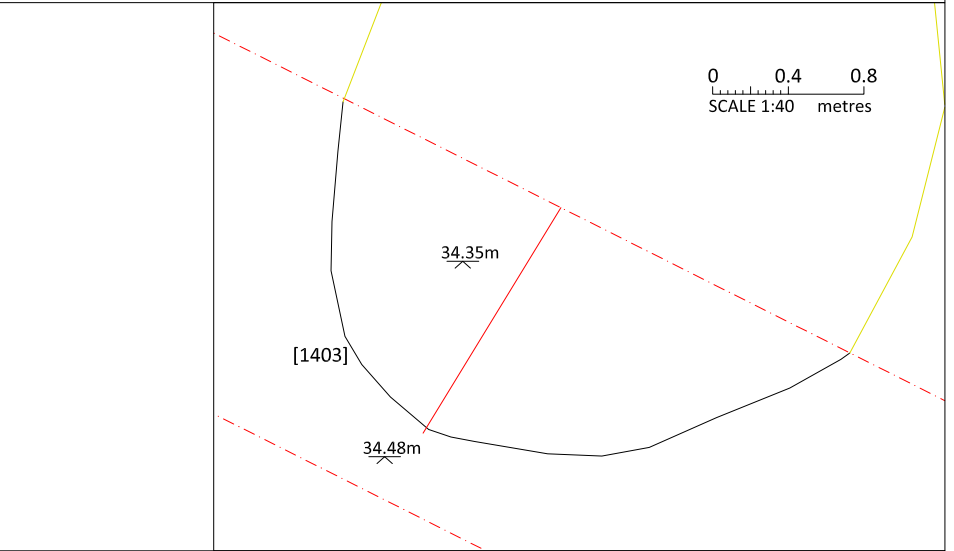


Figure 15: Isometric view of the reconstructed kiln and plan of the furnace tunnels



Looking east at trench 14



Looking north east at section of pit 1404

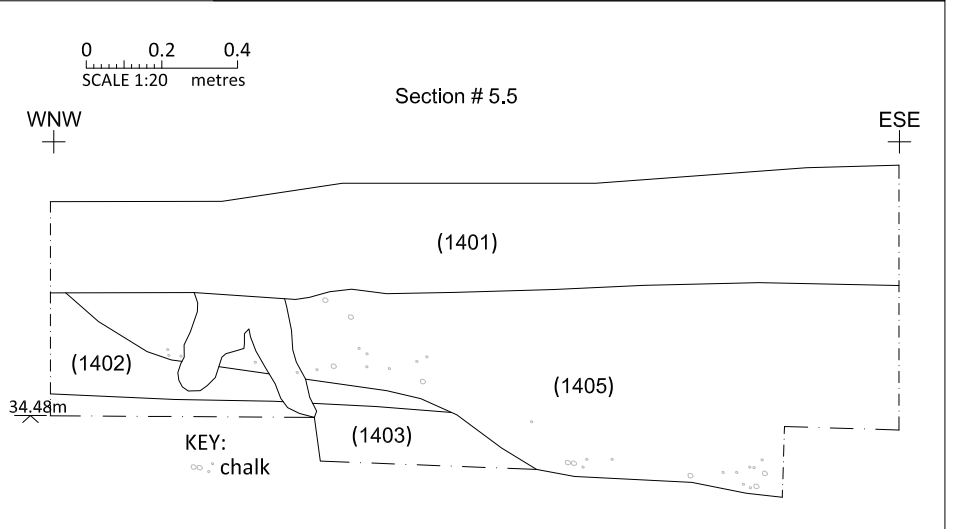
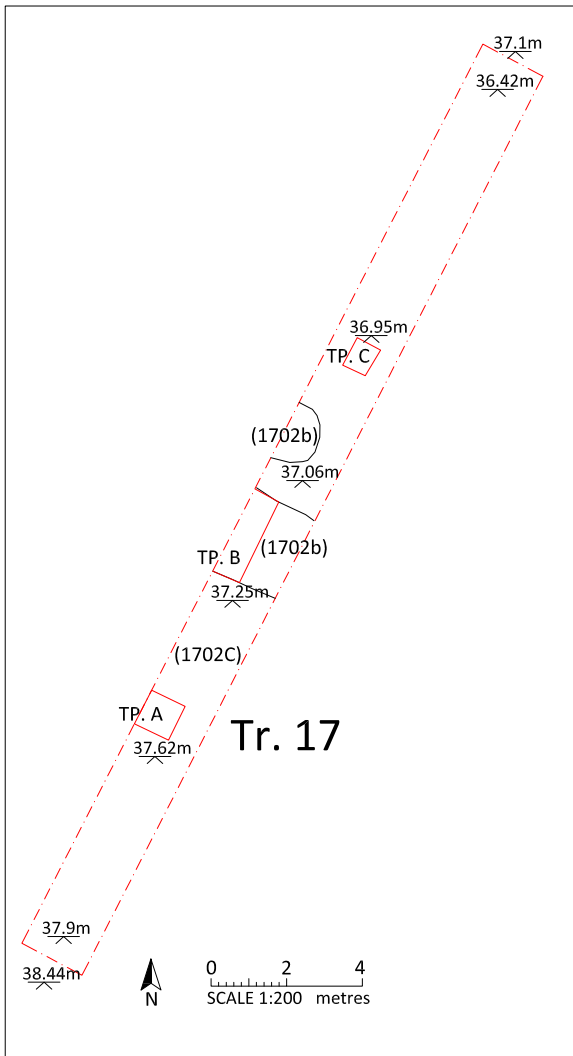
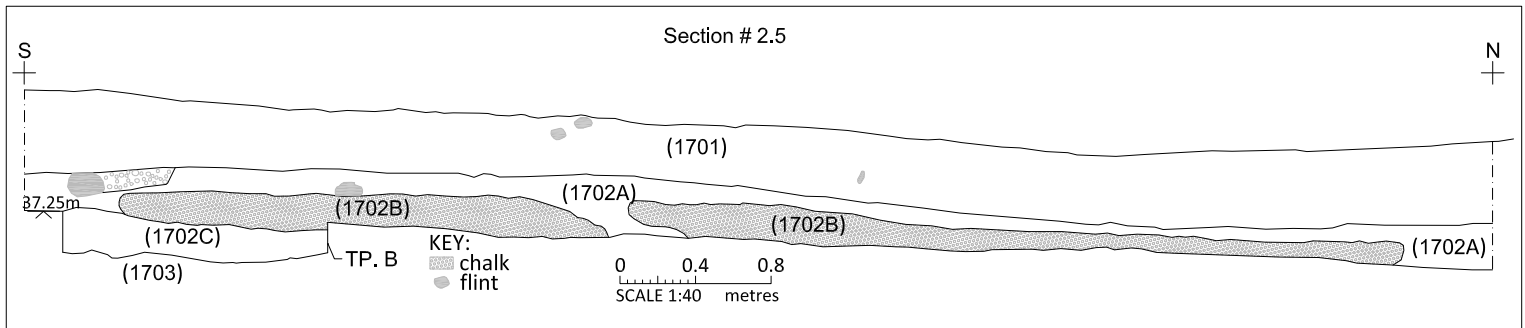
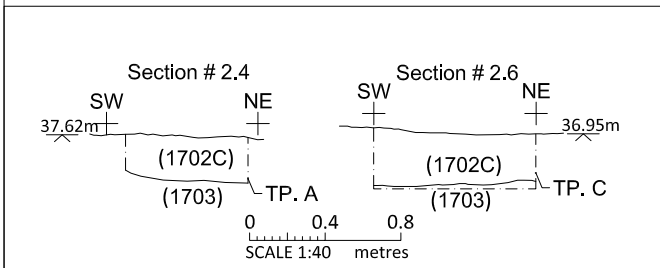


Figure 16: Trench 14



Looking north at trench 17

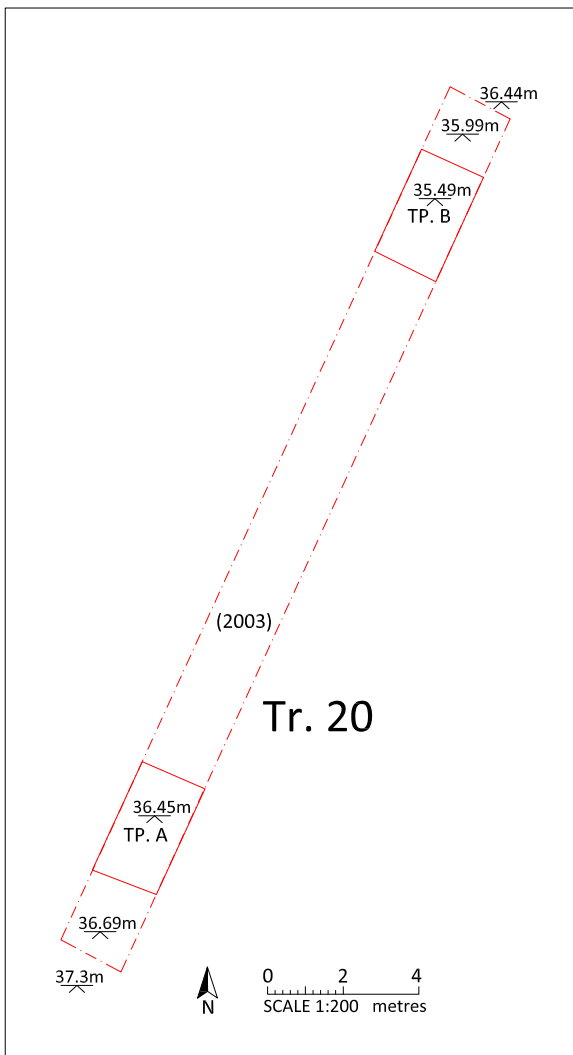


Looking west at test pit 17A



Looking west at test pit 17B

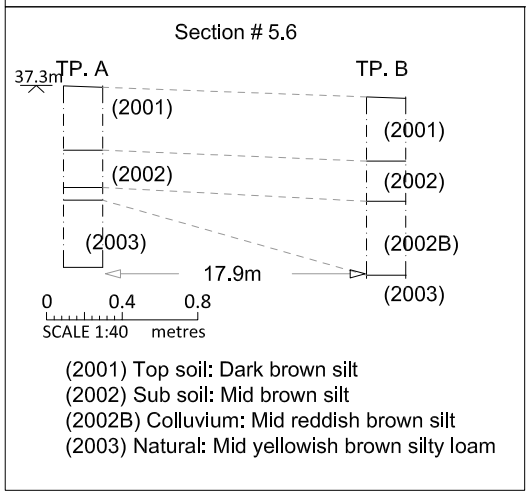
Figure 17: Trench 17



Looking north at trench 20



Looking south east at section of trench 20



Looking north at test pit 20B

Figure 18: Trench 20