



BRISTOL & WEST ARCHAEOLOGY

Former Central Ambulance Station,
Marybush Lane, Bristol

Archaeological Evaluation Report

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Former Central Ambulance Station, Marybush Lane, Bristol
Archaeological Evaluation Report

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Former Central Ambulance Station, Marybush Lane, Bristol**Archaeological Evaluation Report****Summary**

Evaluation trenching at the former Central Ambulance Station site in the centre of Bristol sought to locate the south curtain wall of Bristol Castle and to explore a possibly gateway to the King's Orchard.

Seven trenches totalling in length 84 linear metres were excavated at agreed locations; however, neither the castle wall or gateway to the King's Orchard were found, although it is thought the wall may lie closer to the subterranean culvert that traverses the site from west to east, more or less following the course of the former castle moat. The culvert, together with adjoining 5 metre wide zone was off limits to any intrusive works during the archaeological fieldwork.

A substantial rock cut feature, probably a ditch, was revealed in one trench (3) lying surprisingly close to the modern-day land surface. Pottery from the ditch suggests it may have been filled between the middle of the 11th and middle of the 12th centuries. Its location at the eastern edge of a plateau of higher ground, together with its size suggests it was intended for a defensive purpose, possibly as part of the town's Saxo-Norman fortification. As such the filling of the ditch may coincide with the construction of the ward and keep castle.

Former Central Ambulance Station, Marybush Lane, Bristol

Archaeological Evaluation Report

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1. INTRODUCTION

- 1.1 Planning consent is sought for redevelopment of the former Central Ambulance Station site located at Tower Hill in the centre of Bristol. The evaluation trenching was commissioned by Bouygues Development to assist in the engineering and design of new buildings for the site.
- 1.2 The evaluation was undertaken in accordance with a Written Scheme of Investigation (BWA 2015) following discussions with the Archaeological Officer for Bristol City Council. It followed the Standard and Guidance for an Archaeological Field Evaluation (CIfA 2014) and Management of Research Projects in the Historic Environment (MORPHE: The Project Managers' Guide) (EH 2006).
- 1.3 The fieldwork was conducted between 19 November – 3 December 2015.
- 1.4 This report was compiled by Bruce Williams. The archive will be stored by BWA until deposited with Bristol City Museum under accession number 2015/84. The project has been entered into the Historic Environment Record database (HER) for Bristol as Event No 25557 and into the Online Access to the Index of Archaeological Investigations (OASIS) as bristola3-229730.

2. LOCATION AND GEOLOGY

- 2.1 The site is centred on NGR ST 59389 73108 and is irregular in shape, in area measuring about 0.9Ha. It sits just below the south-east corner of Castle Park and is located between Castle Street, Tower Hill, Queen Street and Marybush Lane. It was until recently occupied by the Central Ambulance Station, with a surface car park at its north end. All buildings have been removed from the site
- 2.2 The site is effectively divided in two by a culvert which runs east to west across the northern half of the site, more or less following the course of the castle moat. Ground level north of the culvert sits some 2 metres above the level of the culvert and land adjoining to the south
- 2.3 The natural geology of the site comprises Triassic Sandstone; south of the culvert this is overlain by riverine alluvium.

3. HISTORICAL/ARCHAEOLOGICAL SUMMARY

- 3.1 The history of Bristol is complex and it is not appropriate to repeat here what is already well documented. Suffice to say that Bristol grew up in late Saxon times along the easily defensible ridge of Triassic sandstone between the rivers Avon and Frome, just above the point at which they joined. The eastern end of the 'ridge' was occupied by a defensive stronghold, perhaps originally a ringwork, later a motte and bailey. This was succeeded in the first half of the 12th century by a keep and ward castle.
- 3.2 Following the English Civil War, the castle was pulled down by Act of Parliament in the 17th century and the castle land was leased out by the Corporation of Bristol and housing erected on it.
- 3.3 This part of central Bristol suffered significant damage in 1940 as a result of Luftwaffe bombing during WW11, and many of its buildings were destroyed, including those on Castle Street and Tower Hill.
- 3.4 The Central Ambulance Station was built in 1966 and the castle moat, which had been open until this time, was enclosed within a culvert.
- 3.5 Castle Park was originally laid out as a municipal park in the late 1960's/70's. The park was partly remodelled during the early 1990's and the current layout is as a result of that work.
- 3.6 Following WW11, the first significant archaeological work carried out within the area of the Castle was during the late 1940's and early 1950's., when large areas of this part of Bristol had been cleared of its bomb rubble and lay undeveloped. During 1951 archaeological excavations were undertaken between Castle Street and the Floating Harbour and the castle moat immediately to the west of Queen Street and the former Central Ambulance Station site (Marshall, 1951, 5-50). This work revealed a considerable stretch of the south curtain wall of the castle, which survived at varying depths below the demolished buildings and their basements.
- 3.7 During remodelling of Castle Park during the early 1990's, the opportunity was again taken to record parts of the south curtain wall, this time to the west of the archaeological work conducted in 1951. Here, the castle wall was found to survive relatively close to the modern-day ground level and had been re-used within the buildings constructed on Castle Street. Significantly, the base of the wall was found to batter outwards and sat on the natural sandstone bedrock.
- 3.8 Other than an archaeological desk-based assessment for the current development site (Corcos 2013) no previous archaeological work is known to have been undertaken at the site.

4. OBJECTIVES AND RECORDING METHODOLOGY

- 4.1 The objective of the evaluation was to establish the character, extent, quality and, if possible, the date of any archaeology within the trenches, with a particular focus on the south curtain wall of the castle and the possible gateway to the King's Orchard..
- 4.2 Seven trenches totalling 84 metres in length and about 2.5metres in width were excavated by mechanical excavator equipped with toothed and toothless buckets under constant archaeological supervision. Excavation then proceeded by hand to characterise and record all features and deposits exposed.

- 4.3 Recording was undertaken using Bristol and West Archaeology's single context recording system.
- 4.4 All archaeological features and deposits were recorded at suitable scales as outlined in the WSI (BWA 2015).

5. RESULTS

- 5.1 **Trench 1** (6m long x 2.18m wide). Excavated onto the natural sand and weathered sandstone substrate (104) at an average depth of 1m, with the upper surface of the sandstone situated at between 11.66 and 12.10m aOD. This was sealed by a reddish brown silty sand subsoil layer, up to 0.26m thick (Context 102). Context (102) was overlain by deposits of gravel bedding and tarmac (101) up to 0.20m thick which completed the stratigraphic sequence. Cutting the subsoil were abutting linear masonry structures (103) and (105). These structures were associated with buildings which had formerly fronted Castle Street. Other than the two walls, no archaeological features, deposits or finds were present within the trench.
- 5.2 **Trench 2** (13.60m long x 2.5m wide). Excavated onto the natural sand and sandstone substrate (208) at an average depth of 0.60m and reached a maximum depth of 1.5m at the south end within Cut [202]. The upper surface of the sandstone (208) lay at between 11.51aOD and 12.44m aOD. Overlying the sandstone were two thin fairly compact lenses of silty clay (206) and (207), with laid sandstone slabs within the upper surface of (207). Deposit (206) was only recorded in section. These deposits were similar to Layers (313) and (355) in Trench 3A and are possible of medieval date. Both deposits were sealed beneath (205) which may have been subsoil. This had been cut [202] for construction of a split level retaining wall (203) for the 1960s Ambulance Station and backfilled (204). The uppermost deposit in the trench was the modern car park surface
- 5.3 **Trench 2A** (17.50m long x 2.5m wide). Excavated onto the natural sand and sandstone substrate (309) at a depth between 0.47m and 1m, and reached a maximum of 2m within cuts [302] and [342] at the south end of the trench. The upper surface of the substrate (309) lay at between 10.10m aOD and 12.90m aOD. The natural sand and sandstone were sealed by mid-brown silty clay subsoil (363), up to 0.45m thick. Context 363 was cut features and structures. At the north end of the trench was a cut [340] backfilled with subsoil 341 containing a pier of hard mortar and masonry (308) of unknown function, but late post-medieval in date. To the south of this lay a linear cut [342] and fill (343) for cellar wall (306), with an associated brick floor to the south (305). At the south end of the trench was the modern cut [302] and fill (303) for the split level retaining wall of the 1960s Ambulance Station. No significant archaeological features, deposits or finds were present within the trench.
- 5.4 **Trench 3** (18.25m long x 2.5m wide). Excavated onto the natural clay substrate (319) at depths between 0.3m and 1.9m, with the upper surface lying at between 11.31m and 12.71m aOD. The natural sandstone was cut by a large feature, probably a ditch which had two edges partially exposed within the trench, and appeared to be aligned roughly on a northeast – southwest axis. The base of the ditch was not reached. Two box sections were hand dug through the ditch deposits, recorded here as Cuts [310] and [328]. This revealed a sequence of at least 25 separate deposits. The width of the ditch was difficult to assess but it was in excess of 2.5m wide, over 1.7m deep, extending beyond the limits of excavation, except in the south where it was cut by the north wall of the Ambulance Station. The lowest levels recorded within Cuts [310] and [328] were 11.59 and 10.72m aOD.
- 5.5 **Trench 4** (18.50m long x 3.10m wide). Excavated onto the natural substrate (403) at an average height of between 10.56 and 12.26m aOD. Two sandstone walls were exposed,

possible dating from the 17th century (404) and (407). A surface of sandstone slabs and brick (405) abutted wall (404) and was likely to be of similar date. These three structures had been cut by the insertion of a later brick wall (406) on a concrete footing. No significant archaeological features, deposits or finds were present within the trench.

- 5.6 Trench 5** (12.90m long x 2.0m wide). Excavated to a maximum depth of 2.3m. In the trench base, the upper surface of the natural sand and weathered sandstone substrate (302) may have been exposed, but owing to reasons of health and safety, this could not safely be ascertained. This deposit was situated at an average height of 10.16m aOD. Cutting across the trench from N – S, was a linear structure (Wall 509) which may have been associated with the adjacent, fragmentary remains of a cobble floor (506 & 507). These structures were of possible 17th century date but had been truncated by later walls on concrete foundations (504) and (505), as well as a small concrete pad (505). The uppermost deposit comprised tarmac and bedding gravel (501). No significant archaeological features, deposits or finds were present within the trench.
- 5.7 Trench 6** (5m long x 2m wide). Excavated to a maximum depth of 2m wholly within deposits of made-ground (605), with no natural clay substrate visible. Below the modern concrete floor (601) was a concrete ring-beam (604) and deposits of gravel and scalplings (602) which also filled a large service pipe trench. Further modern services (606) lay below this and these cut two parallel walls (608) and (609) that predated the Ambulance Station. Separated from these by the ring-beam (604) was a further wall (607) on a concrete footing. All these features were butted by an extensive made-ground layer, Deposit (605). No archaeological features, deposits or finds were present within the trench.

6. THE FINDS

Assessment of the Pottery

by Alejandra Gutiérrez

Three sherds of pottery weighing 53g were submitted for identification. The sherds are all from hand-made cooking pots and represent three different fabrics. The sherds are small fragments and no diagnostic features are present. They probably correspond to the following Bristol Pottery Types (BPT):

BPT1 (Bristol A/B). Mid-11th-mid 12th centuries (Vince 1988; Ponsford 1998, 136-137): soapy texture, moderate, well-sorted inclusions of glassy quartz <1mm; moderate rounded calcareous inclusions up to 2mm; occasional chert <3mm. It is hand-made and unglazed, with a dark grey/black fabric throughout. Bristol A is considered to be no later than c. 1080 (Burchill 2003, 25).

BPT2 (BPT10); (Bristol C). Mid-11th-mid 12th centuries (Vince 1991; 1985; Ponsford 1998, 136; Burchill 1996, 36; 2000, 81). Soapy, hard grey/black fabric with abundant limestone inclusions and/or voids (from burnt out limestone).

BPT5. Mid-11th-mid 12th centuries (Ponsford 1998, 136; Burchill 1996, 36; 2003, 25). A single sherd from a hand-made jar, black throughout. Hard, coarse fabric with quartz inclusions, including glassy quartz; poorly sorted limestone; rare flint/chert; and grey? mudstone in a micaceous matrix. Description matches fabrics already described by other authors

Fabric	Date	Sherd count	Weight (g)
BPT1	mid-11th-mid 12thC	1	22
BPT2	mid-11th-mid 12thC	1	10
BPT5	mid-11th-mid 12thC	1	21
Total		3	53

Quantification of medieval pottery fabrics.

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Assessment of the Zooarchaeological Assemblage

By Lee Broderick

Introduction

This assessment covers all the bones excavated by Bristol and West Archaeology Ltd. as part of their 2015 evaluation at the former Central Ambulance Station. All of the material was recovered by hand. BRSMG 2015/84 consists of seven trenches (centred on NGR ST 59389 73108), opened to identify and record the south curtain wall of the castle. Excavations revealed a defensive ditch dated to the mid eleventh to mid twelfth centuries AD via ceramic typology.

Methods

The methods used for recording the bones are based on a heavily modified version of that described by Davis (1992), a full account of which can be found in Broderick (2014). In brief, this consists of a light diagnostic zone approach, with emphasis placed on those elements where at least 50% of an articular surface (or occlusal surface, in the case of teeth) is present. Other identifiable material is also recorded and is counted in NISP (Number of Identified Specimens) totals.

Consideration of Potential and Significance

As stated at the beginning of this assessment, all of the material recovered dates to the Early Mediaeval period. For the purposes of this assessment, it is considered most relevant to consider the five contexts that produced material together.

	Large mammal	Medium mammal	<i>Bos</i> sp.	<i>Ovis aries/Capra hircus</i>	<i>Ovis aries</i>	<i>Sus</i> sp.	<i>Felis catus</i>	<i>Gallus gallus</i>	Total
NISP	38	12	27	14	2	11	2	2	104
% NSP	27.14	8.57	19.29	10.00	1.43	7.86	1.43	1.43	74.29
								Total NSP	140

Table 1. Specimens identified in the assemblage, presented as raw numbers and as a percentage of the total number of specimens present.

In general, the assemblage was in very good condition, as suggested by the fact that it was possible to identify 41.44% of the 140 specimens to species level and a further 32.85% to size category (**Error! Reference source not found.**). This assertion is further supported by Behrensmeyer (1978) weathering stage of 1 or 2 being typical, accounting for over half of the total assemblage together, with the full range (0-5) evident in the assemblage. Only seven fragments under 25mm at their maximum length were recovered and it's considered possible that at least some of these detached themselves from larger pieces during post-excavation processing. There is, therefore, a strong bias towards larger bones and bones from larger species, as might be expected in assemblages collected by hand (Payne, 1972).

Given this taphonomic signature it is no surprise that the assemblage is dominated by *Bos* sp. (and large mammal, most likely also *Bos* sp. – in this instance certainly domestic cattle). The *Bos* sp. material includes teeth – loose and partial rows – and other cranial as well as post-cranial elements. The presence of both fused and unfused elements indicates that a broad age range of animals may have been incorporated into the assemblage. Several elements showed signs of gnawing by canids – suggestive of domestic dogs being present on the site at the same time that the bones were first discarded – and of butchery marks

Although fewer in number, many of the same comments can be made about the *Ovis aries*/*Capra hircus* (caprine – sheep or goat) and *Sus* sp. (possibly wild boar but most likely domestic pig given the presence of unfused bones and their size). It was also possible to identify that *Ovis aries* was definitely present among the caprine remains.

Two other species were also present in low numbers in the assemblage – *Felis catus* (domestic cat) was represented by bones from the fore and hind limbs of the left side, possibly originating from the same animal. *Gallus gallus* (domestic fowl) most likely represents food waste, as do the domestic cattle, caprines and pigs.

It is difficult to draw firm conclusions from such a small assemblage and so the following thoughts should properly be taken as possibilities in need of clarification rather than clear observations. The dominance of domestic cattle bones in an assemblage of this period is arguably more typical of urban than elite sites (Albarella and Davis, 1996; Sykes, 2007); dated to the period around the Norman conquest of England, it's possible that the material results from opportunistic use of the ditch for waste disposal from the town's inhabitants or from military provisioning. Alternatively, it may merely reflect a local variance in the wider trends of the country at this time.

Recommendations

The preservation conditions of this assemblage are remarkably good. Although only very small in size, it must be acknowledged that it results from a small evaluation excavation and it is likely that further excavation would produce more material proportionally. The possible differences between this and other elite sites also need exploring further and so it is easy to recommend that if further excavations were to take place then a full report should be commissioned for the zooarchaeological material. As part of any future excavations, bearing in mind the questions regarding the proportions of cattle found on the site in comparison to other species, it is also very important that a systematic sampling strategy is implemented to aid recovery of smaller fauna material and other environmental archaeological data.

Bristol is fortunate in being in an area where a thorough zooarchaeological review of the Mediaeval period was carried out very recently (Holmes, n.d.) and it is here that any comparative work should begin. More specifically, previous work was carried out at Bristol Castle (Noddle, n.d.). A comparable site – a castle in an urban environment, from further afield – with which it may be worthwhile comparing the material is that of Norwich, in the east of England (Albarella et al., 2009).

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Assessment of the Environmental Remains

By Elizabeth Pearson

Introduction

An analysis of environmental remains from an archaeological excavation at Central Ambulance Station, Bristol (NGR ST 59378 73050) was undertaken on behalf of Bristol and West Archaeology Ltd.

Project parameters

The environmental project conforms to relevant sections of the Standard and guidance: Archaeological excavation (CIfA 2014); and Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage 2010).

Aims

The aims of the assessment were to determine the state of preservation, type, and quantity of environmental remains recovered, from the samples and information provided. This information will be used to assess the importance of the environmental remains.

Methods

Sampling policy

Samples were taken by the excavator from deposits considered to be of high potential for the recovery of environmental remains. A total of three samples (each of 30 litres) were taken from the site (Env Table 1). A sub-sample of 10 litres was processed for assessment from each sample. The ditch was thought to be early 12th century in date and associated with Bristol Castle. The earliest layer was (327), followed by contexts 324 and 320 (Bruce Williams pers comm).

Processing and analysis

The samples were processed by flotation using a Siraf tank. The flots were collected on a 300mm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were scanned by eye and the abundance of each category of environmental remains estimated. A small sub-sample of each category of remains was sorted for archiving

purposes, and the scanned residues retained for further analysis. A magnet was also used to test for the presence of hammer scale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by Worcestershire Archaeology, and a seed identification manual (Cappers *et al* 2012). Nomenclature for the plant remains follows the New Flora of the British Isles, 3rd edition (Stace 2010).

A small sub-sample of charcoal from (324) was examined using MEIJI low power microscope to determine the presence of oak and non-oak charcoal

Discard policy

Samples and scanned residues will be retained for potential further analysis

Report

All three samples were rich in waterlogged plant remains which are likely to derive from discarded kitchen and domestic waste, but also show characteristics of residues of vegetation growing in neglected, overgrown areas.

Layer (324), was relatively diverse, showing potential for providing information on diet and craft activities at the time. Elderberry pips (*Sambucus nigra*) were dominant, but apple/pear (*Malus/Pyrus* sp) pips were also recorded, in association with possible cultivated flax (*Linum usitatissimum*) and hemp (*Cannabis sativa*), the latter two species being presumably the waste from flax and hemp processing. Common crop weed seeds, such as corncockle (*Agrostemma githago*), are also likely to originate from crop processing waste.

Layers (320 and 327) were dominated by elderberry pips and in (320) occasional seeds of plants which may have been growing around the castle settlement.

Large mammal bone (including diagnostic fragments) and charcoal were abundant in all three samples, whilst small quantities of small mammal and fish bone were also noted. A small sub-sample of charcoal examined from (324) included both oak and non-oak charcoal. Fragments were small but preservation of diagnostic microscopic features was good.

Discussion

The elderberry pips in both (320 and 327) may simply derive from shrubs growing on neglected, overgrown ground at the margins of the ditch, and, moreover, remains of other plants common on neglected and sometimes nitrogen-rich ground were present. However, when considered in conjunction with the general domestic waste in (324), it seems likely that food and crop waste was disposed of in the ditch, and the elderberry, therefore may, equally, represent food waste.

No exotic cultivars were recorded: the waste present is likely to result from locally collected or locally grown food, textile crops and possibly plants with other uses (for example, medicinal), all being relatively common in deposits of this date. However, only a small sub-sample from each context has been processed for assessment, and therefore, further processing and analysis of flots and residues is recommended in order to determine whether the waste indicates predominantly local production and collection, or whether trade and imports of food and other crops played a part in the daily life of the site. This would allow for recovery of material which could be significant but is likely to be present in low levels.

Recommendations

The following recommendations are made for consideration when designing any further archaeological project for this site.

- Further sampling is recommended as disposal of domestic waste has been demonstrated to survive in good condition in the castle ditch, and environmental remains with the potential to provide information on the immediate surrounding environment are also likely to be well preserved.
- Depending on the potential of the hand-collected animal bone (reported on separately), large bulk samples (of up to 100 L) may provide significant information on the animal husbandry.

The following recommendations are made with regard to further work on the samples considered as part of this report.

- Processing of the remainder of all three samples (c 70L) and full sorting of residues to recover animal bone which is abundant in all three samples. This will then be available to complement the analysis of hand-collected animal bone (Env Technician 20 hours)
Although waterlogged plant remains were dominant, it was considered that processing by flotation tank and drying would be sufficient to scan for rare items. Seeds which are sometimes damaged by processing in this way and drying were in good condition in the assessed flots

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CONTEXT	Sample	Feature type	Period	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
320	1000	Ditch	Saxo-Norman	50	10	Yes	Yes
324	1001	Ditch	Saxo-Norman	25	10	Yes	Yes
327	1002	Ditch	Saxo-Norman	25	10	Yes	Yes

Env Table 1: List of environmental samples.

context	large mammal	small mammal	fish	bird	charcoal	charred plant	waterlogged plant	comment
320	abt	occ	occ		abt	occ	abt	occ nutshell, fired clay
324	abt			occ?	abt	occ	abt	occ seed-cereal, fired clay, fe slag, animal hair
327	abt	occ			abt	occ	abt	mod cbm, occ flint flake

Env Table 2: Summary of environmental remains; occ = occasional, mod = moderate, abt = abundant.

context	sample	preservation type	category remains	species detail	quantity/diversity	comment
320	1000	ch	grain	<i>Triticum</i> sp (free-threshing) grain	+/low	
320	1000	ch	misc	<i>Corylus avellana</i>	+ - ++/low	small unidentifiable fragments charcoal
320	1000	wa	seed	<i>Chenopodium album</i> , <i>Atriplex</i> sp, <i>Hyoscyamus niger</i> , <i>Marrubium vulgare</i> , <i>Sambucus nigra</i> , <i>Aethusa cynapium</i> , <i>Conium maculatum</i>	+++/medium	elderberry dominant, other species occasional
324	1001	wa	misc		++ - +++/low	unidentifiable wood/bark fragments
324	1001	wa	seed	<i>Pyrus/Malus</i> sp, <i>Cannabis sativa</i> , <i>Urtica dioica</i> , <i>Betula pendula</i> , cf <i>Linum usitatissimum</i> seed,	+++ /high	elderberry, fat hen, white horehound predominant

				<i>Fallopia convolvulus</i> , <i>Stellaria media</i> , <i>Agrostemma githago</i> , <i>Silene</i> sp, <i>Chenopodium album</i> , <i>Atriplex</i> sp, <i>Hyoscyamus niger</i> , <i>Solanum nigrum</i> , <i>Marrubium vulgare</i> , <i>Onopordum acanthium</i> , <i>Sambucus nigra</i> , <i>Aethusa cynapium</i> , <i>Conium maculatum</i>		
324	1001	ch	misc		+++/low?	small fragments charcoal, some possibly identifiable
324	1001	ch	grain	<i>Triticum</i> sp grain, <i>Hordeum vulgare</i> grain (hulled), <i>Avena</i> sp grain	+/low	
327	1002	wa	misc	unidentified root fragments, unidentified bark fragments, unidentified wood fragments	+++/low	mostly root material
327	1002	wa	seed	<i>Sambucus nigra</i> , unidentified seed	+++/low	
327	1002	ch	seed	unidentified seed	+/low	
327	1002	ch	grain	<i>Triticum</i> sp (free-threshing) grain, Cereal sp indet grain, Poaceae sp indet grain	+/low	

Env Table 3: Plant remains from bulk samples.

Key:

preservation	quantity
ch = charred	+ = 1 - 10
wa = waterlogged	++ = 11- 50
	+++ = 51 - 100

7. CONCLUSION

- 7.1 During the evaluation seven trenches were opened by mechanical excavator over the course of four days, these were then cleaned and features excavated by hand.
- 7.2 No evidence was found for the south curtain wall of Bristol Castle. The general topography of the site could place the wall, if it survives, within a zone on the lower lying land adjacent to the north side of the culvert. Only further excavation in this area could elucidate this
- 7.3 Trenches 1, 2, 3, 4, 5, and 6 (with the possible exceptions of deposits 206 and 207 in Trench 2) were found to contain only features and structures of post-medieval or modern date. Those features recorded divided into three phases – possible 17th century, 19th century and features/deposits associated with the 1960s Ambulance Station
- 7.4 A sequence of deposits was found in Trench 2A filling a deeply cut rock cut feature, almost certainly a ditch, with upper edges visible on its east and west sides and extending beyond the west, north and east sides of the trench, the south side having been truncated by the 1960's Ambulance Station. Owing to health and safety considerations the bottom of the ditch was not reached. The general appearance of layers in the upper part of the ditch cut, fine, red redeposited natural sandstone and sand, gave the appearance of deposits which were deliberately placed in the ditch as infill. Below these deposits lay others, rich in waterlogged plant remains and bones of cow, sheep/goat, pig, dog and cat, with occasional fish, bird and animal hair . Pottery from deposits within the ditch date from the mid11th – mid12th century. The overall dimension and position of the ditch suggests it had a defensive use.

8. BIBLIOGRAPHY AND SOURCES CONSULTED

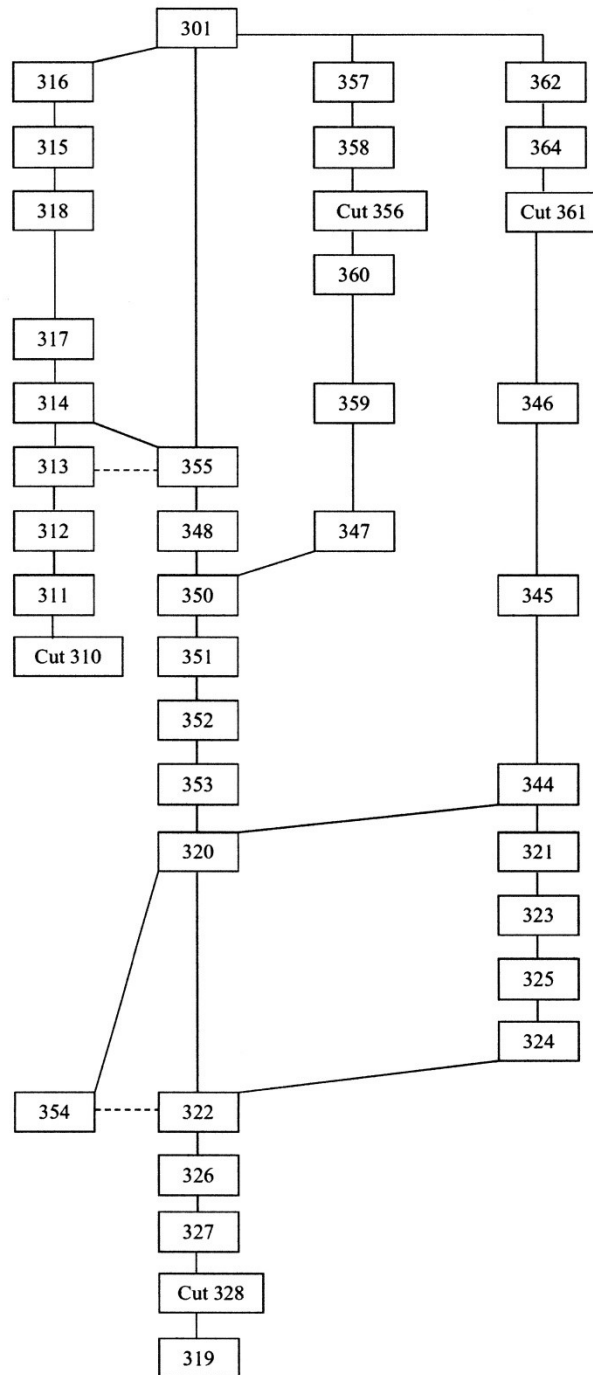
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Trench 3 matrix of ditch deposits.

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Date
100	Event	U/S Finds Number	-	-	-	-
101	Deposit	Tarmac and gravel bedding material, modern car park surface.	Whole trench		200mm	20th
102	Deposit	Reddish brown silty sand with rare (1%) charcoal fleck inclusions. Probable subsoil deposit.	In sections of whole trench		210 – 260mm	-
103	Structure	Two abutting ends of linear masonry form a right angle that was probably the truncated corner of a structure with remains of a suggested floor in the apex. Walls are stretcher laid bricks (240 x 130 x 78 mm) bonded with pale grey lime mortar with abundant lime and charcoal inclusions. The single visible floor slab is of Pennant Sandstone. Orientated approximately N-S, E-W.	N-S 800mm	E-W 1.2m	640mm, 6 courses	19th
104	Deposit	Red sand and weathered sandstone part excavated within the base of the trench	Whole trench		300mm+	-
105	Structure	Two abutting ends of linear masonry form a right angle that was probably the truncated corner of a structure. Sandstone rubble bonded with pale grey lime mortar with abundant lime and charcoal inclusions.	1m wide in section		700mm	19th
200	Event	U/S Finds Number	-	-	-	-
201	Deposit	Tarmac and gravel bedding material, modern car park surface.	Whole trench		190mm	20th
202	Cut	Cut for Ambulance Station split level retaining wall (203). Steep sided with backfill of modern made-ground material/rubble	As recorded in trench, 2.5m x 2m		1.4m	20th
203	Structure	Concrete retaining wall of 1960s date	2.5m long at end of trench		1.5m	20th
204	Deposit	Mixed rubble and soil backfill of Cut [202] including brick, sandstone and	2.5m	2m	1.5m	20th

		concrete.				
205	Deposit	Reddish brown silty sand with rare (1%) charcoal fleck inclusions. Probable subsoil deposit.	In sections of whole trench		Up to 320mm	-
206	Deposit	Compact deposit of yellow/green silty clay and orange/red sand. Inclusions of occasional charcoal flecks.	In NW section of trench only c1m		60-70mm	Possibly medieval
207	Deposit	Small flat sandstone slabs over a compact deposit of yellow/green silty clay and orange/red sand. Inclusions of occasional charcoal flecks.	0.9m	0.45m	-	Possibly medieval
208	Deposit	Red sand and weathered sandstone, natural geological deposit	Whole trench		300mm+	-
300	Event	U/S Finds Number	-	-	-	-
301	Deposit	Tarmac and gravel bedding material, modern car park surface.	Whole trench		200mm	20th
302	Deposit	Mixed rubble and soil backfill of Cut [303] including brick, sandstone and concrete. Includes modern concrete ring-beam.	4m	3.8m	2m	20th
303	Cut	Steep sided cut with backfill of modern made-ground material/rubble and a concrete ring-beam.	4m	3.8m	2m	20th
304	Deposit	Loose black and dark greyish brown coal waste and mortar as well as frequent bricks sometimes bonded with cream coloured mortar.	2.3m N-S	-	400mm	19th
305	Structure	Floor of bricks (230 x 110 x 70 mm) abutting south side of Wall (306). Cellar floor.	1.5m N-S	2.4m E-W	-	19th
306	Structure	Wall of unworked, random coursed sandstone rubble orientated c. E-W. Butted to south by Floor (305) similar material but different alignment to Wall (307). Cellar Wall.	2.4m	0.7m	1.5m	19th
307	Structure	Wall of unworked, random coursed	1m	0.7m	0.75m	19th

		sandstone rubble orientated c. NW-SE.				
308	Structure	Roughly rectangular block of sandstone masonry bonded with hard grey lime mortar with frequent lime flecks. Pier of structure.	1.10m E-W	0.75m N-S	-	19th
309	Deposit	Red sand and weathered sandstone, natural geological deposit.	Whole trench to Cut [302]		300mm+	-
310	Cut	Irregular, uneven edge to probable ditch the full shape of which has not yet been exposed.	As excavated in sondage, 2.5m x 1.5m		0.95m+	Medieval
311	Deposit	Brownish-red firm, silty sand with occasional small, sub-rounded and rare large weathered sandstone fragments. Lowest excavated fill in [310]	As excavated 2.1m x 1.5m		0.5m	Medieval
312	Deposit	Firm, mid brown/pale reddish brown sandy silty clay. Rare (3%) charcoal flecks and small weathered sandstone fragments. Ditch fill.	1.4m	0.3m	0.2m	Medieval
313	Deposit	Stiff/firm yellowish brown and mid brown sandy clay with silty clay lenses. Frequent small-medium rounded/sub-rounded sandstone fragments. Ditch fill.	2.5m	1.5m	0.6m	Medieval
314	Deposit	Firm, mid brown/greyish brown sandy, silty clay. Rare (1%) small weathered sandstone fragments and charcoal flecks. Ditch fill.	2.5m	0.8m	0.12m	Medieval
315	Cut	Steep concave sided ditch cut, with a flat base, recorded in section only. Modern pit. Similar to [340]	1.4m	-	0.6m	19th
316	Deposit	Compact, mid brown/reddish brown sandy silt and sandstone rubble (including 1 very large example 430 x 140 x 140mm). Rare inclusions of brick fragments and charcoal flecks. Maybe similar to fill (341) Pier (308).	1.4m	-	0.6m	19th
317	Deposit	Soft, red/brownish red sandstone and sand with small pockets of brown silty	2.5m extends	1.5m	0.4m	Medieval

		sand. Ditch fill.	4.4 m in section			
318	Deposit	Compacted, greyish brown sandy, silty clay. Occasional – moderate (5%) charcoal flecks and small weathered sandstone fragments. Made-ground deposit.	3.3m	-	0.22m	20th
319	Deposit	Red sand and weathered sandstone, natural geological deposit	Whole base of trench to Cut [356]		0.4m+	-
320	Deposit	Soft, dark brown sandy silt with occasional small (<50mm across) sub-rounded sandstone fragment inclusions. Rare (1%) small chert and flint fragments and charcoal flecks. Smells humic. Ditch fill.	1m	1.2m	0.3m	Medieval
321	Deposit	Soft, brownish red silty sand. Moderate amounts of small – medium, sub-rounded sandstone fragments. Lenses of mid-brown silty sand (10%). Ditch fill.	1.2m	0.7m	0.3m	Medieval
322	Deposit	Firm, mid brown to dark brown sandy, clayey silt. Rare (1%) small weathered sandstone fragments and charcoal flecks. Ditch fill.	1.6m	1.2m	0.4m	Medieval
323	Deposit	Soft greyish brown and reddish brown sandy silt and silty sand. Rare medium – large weathered sandstone rubble fragments (150 x 80 x 60mm) Rare (1%) charcoal flecks. Ditch fill.	1.2m	0.8m	0.18m	Medieval
324	Deposit	Soft, spongy, dark greyish brown/very dark greyish brown, sandy clayey silt. Rare (1%) charcoal flecks, Rare (1%) small weathered sandstone fragments. Ditch fill.	1.2m	1.2m	0.3m	Medieval
325	Deposit	Compact reddish brown, sand and small, weathered sandstone fragments. Ditch fill	1.2m	0.90m	0.10m	Medieval
326	Deposit	Soft, brownish red silty sand with rare (1%) charcoal fleck inclusions. Ditch	1.6m	1.2m	0.16m	Medieval

		fill.				
327	Deposit	Soft, reddish brown silty sand. Very rare (<1%) small weathered sandstone fragments. Rare (3%) charcoal flecks. Ditch fill.	0.9m	1.2m	0.45m	Medieval
328	Cut	One edge of a probably linear feature. Irregular but steep the full shape of which has not yet been exposed.	Sondage dimensions 2.5m x 0.9m		1.9m+	Medieval
Numbers 329 to 339 were not allocated						
340	Cut	Unexcavated cut around Structure (308) backfilled with (341). Construction cut.	1.5m N-S	1.8m E-W	-	19th
341	Deposit	Mid-brown sandy silt filling unexcavated cut around Structure (308)	1.5m N-S	1.8m E-W	-	19th
342	Cut	Cut for cellar wall (306) not further investigated.	1m N-S	2.5m E-W	0.8m+	19th
343	Deposit	Fill of cut for cellar wall (306)	1m N-S	2.5m E-W	0.8m+	19th
344	Deposit	Soft, red sand and sandstone with rare (1%) water worn chert and small flint fragments. Rare (1%) charcoal flecks. Ditch fill.	1.4m	1.2m	0.4m	Medieval
345	Deposit	Compact, pale greyish brown sandy silty clay with rare small weathered sandstone fragment inclusions	In section only 1.2m		0.2m	Medieval
346	Deposit	Firm/compact, mottled mid brown and red brown sandy silt and silty sand. Rare (1%) small-medium chert fragments and weathered sandstone fragments. Ditch fill.	Recorded in section only 1.2m		0.5m	Medieval
347	Deposit	Firm, mottled red brown and greyish brown sandy silty clay. Rare (1%) charcoal flecks. Some lenses/patches of pale greyish brown silty clay at the south end of the deposit. Ditch fill.	Recorded in section only 6.6m		0.5m	Medieval
348	Deposit	Soft, red sand and weathered sandstone with rare (1%) water-worn pebbles.	Recorded in section only		0.2m	Medieval

		Ditch fill.	0.8m			
349	Number not allocated					
350	Deposit	Compact, mid brown/reddish brown sandy silty clay with rare (1%) charcoal fleck inclusions. Ditch fill.	Recorded in section only 1.7m	0.3m		Medieval
351	Deposit	Firm yellowish-brown/greyish brown silty sand and sandy silt. Rare (1%) charcoal flecks. Top 20% of deposit is lens of mid-brown sandy silt. Ditch fill.	Recorded in section only 1.55m	0.16m		Medieval
352	Deposit	Firm, dark greyish brown sandy, clayey silt with rare (3%) charcoal flecks and (1%) small weathered sandstone fragments. Ditch fill.	Recorded in section only 3.4m	0.16m		Medieval
353	Deposit	Compacted but soft, red sand and weathered sandstone. Ditch fill.	Recorded in section only 3.4m	0.17m		Medieval
354	Deposit	Firm, red/brown silty sand with rare (1%) charcoal flecks and (1%) small weathered sandstone fragments. Ditch fill.	Recorded in section only 1.5m	0.20m		Medieval
355	Deposit	Firm, yellowish brown with lenses/patches of mid brown sandy clay and silty clay. Moderate (10%) amounts of small-medium weathered sandstone fragments, rare (1%) charcoal flecks and (1%) small weathered sandstone fragments. Ditch fill.	Recorded in section only 1.7m	0.5m		Medieval
356	Cut	One side of a steep sided linear cut containing a modern concrete retaining wall (358) and backfill (357). Some evidence of remains of an earlier truncated wall and cut in the north side of the cut but this is unclear.	3m	2.5m	1m+	20th
357	Deposit	Mixed deposit of grey/green plastic clay, brick and sandstone rubble. Fills Cut [356].	3m	2.5m	1m+	20th
358	Deposit	Concrete split level retaining wall for Ambulance Station	3m		1m+	20th

359	Deposit	Compact red sand and weathered sandstone. Uppermost fill of Cut [328].	Recorded in section only 3.8m		0.10m	Medieval
360	Deposit	Firm/compact, mottled pale greyish brown/red brown and brown sand, clay and silt. Occasional medium weathered sandstone rubble inclusions. Made-ground deposit.	Recorded in section only 3.9m		0.20m	19th
361	Cut	Steep, concave sided cut in section of Trench 3A for Wall (364) backfilled with (362)	Recorded in section only 1.6m		0.8m	19th
362	Deposit	Backfill of cut for Wall (364) not further excavated.	Recorded in section only 1.6m		0.8m	19th
363	Deposit	Reddish brown silty sand with rare (1%) charcoal fleck inclusions. Probable subsoil deposit in Trench 3.	Whole trench up to Cut [342]		0.50m max	-
364	Structure	Wall of unworked, random coursed sandstone rubble orientated c. E-W. Possibly extension of Wall (306) from Trench 3.				19th
400	Event	U/S Finds Number	-	-	-	-
401	Deposit	Tarmac and gravel bedding material, modern car park surface.	Whole trench		120mm	20th
402	Deposit	Very mixed made-ground material, bricks, medium/large sandstone rubble, coal waste/ash, mortar, stiff greenish-yellow clay lenses and rubbish. Within the deposit are multiple cuts for site services with pipes usually sealed within concrete.	Whole trench		2m max at south end	20th
403	Deposit	Red sand and weathered sandstone, natural geological deposit.	Whole base of trench		0.8m	-
404	Structure	Linear structure of unworked, random coursed sandstone rubble bonded with weak pale pink lime mortar with frequent lime and charcoal fleck inclusions. Cellar wall.	1.7m	0.7m	0.15m	17th

405	Structure	Surface of brick (220 x 100 x 60mm) and squared, dressed sandstone slabs (average 500 x 30mm).	1m	1m	0.07m	17th
406	Structure	Linear brick (230 x 100 x 70 mm) structure on concrete foundation. Bricks appear to be header laid but only one course remains visible.	2.8m	0.45m	0.28m	19th
407	Structure	Linear structure of unworked, random coursed sandstone rubble (400 x 220 x 100mm max). Bonded with grey lime mortar with lime and charcoal fleck inclusions.	8m	1m	0.5m	19th
500	Event	U/S Finds Number	-	-	-	-
501	Deposit	Tarmac and gravel bedding material, modern car park surface.	Whole trench		190mm	20th
502	Deposit	Very mixed made-ground material, bricks, medium/large sandstone rubble, coal waste/ash, mortar, stiff greenish-yellow clay lenses and rubbish includes an RSJ which may be in-situ. Within the deposit are multiple cuts for site services with pipes usually sealed within concrete.	Whole trench		2.13m max	20th
503	Deposit	Red sand and weathered sandstone part excavated within the base of the trench	Approximately 1m x 2 area in base		Exposed only	-
504	Structure	Brick (230 x 110 x 70 mm) and concrete (1.5m x 300 x 200mm). Bricks in alternating header/stretcher courses bonded with black lime mortar. Stepped brick structure, only partly recorded in section of trench.	1.5m x 300mm		700mm	20th
505	Structure	Rectangular pad of concrete.	1m	0.5m	200mm	20th
506	Structure	Fragment of Cobble surface – same as (507) but only cobbles remain here.	Isolated fragment		-	17th
507	Structure	Surface of Cobbles (140x 120mm sub-rounded) sandstone slabs (350 x 210 x 80mm) and brick (220 x 100 x 60mm)	1.2m	0.6m	80mm	17th

		bedded on black lime mortar				
508	Structure	Linear brick (230 x 110 x 70 mm) structure over concrete base. All bricks appear header laid but only 2 courses visible (6 more in section) Bonded with black lime mortar.	1.8m	0.7m	0.65m	19th
509	Structure	Linear structure of unworked sandstone (350 x 170 x 120mm) rubble. Bonded with weak, pale pink lime mortar with occasional lime and charcoal inclusions.	1.8m	0.4m	1.1m	17th
600	Event	U/S Finds Number.	-	-	-	-
601	Structure	Concrete floor surface within Ambulance Station.	Whole trench		0.30m	20th
602	Deposit	Gravel/scalping's underlying surface (601) ring beam (604) and filling modern service pipe trench.	Whole trench		Max 1m	20th
603	Cut	Cut for concrete ring-beam (604).	Same size as ring-beam			20th
604	Structure	Concrete ring-beam on 2 sides of and bisecting Trench 6	5m x 2m along south and east sides of trench and across centre 0.5m wide and 0.6m thick.			20th
605	Deposit	Mixed made-ground material abutting structures within trench 6.	5m	2m	1.4m	20th
606	Structure	Concrete surround to service pipe.	0.5m	0.5m	-	20th
607	Structure	Concrete foundation with brick upper-works visible in section. Cement bonding material but bond style not observed.	2.5m	0.65m	-	19th
608	Structure	Linear structure of unworked, random coursed sandstone rubble. Parallel to wall (609) and of similar appearance.	1.5m	0.65m	0.85m	19th
609	Structure	Linear structure of unworked, random coursed sandstone rubble. Parallel to wall (608) and of similar appearance.	1.4m	0.35m	Exposed in plan only	19th

Table of Contexts

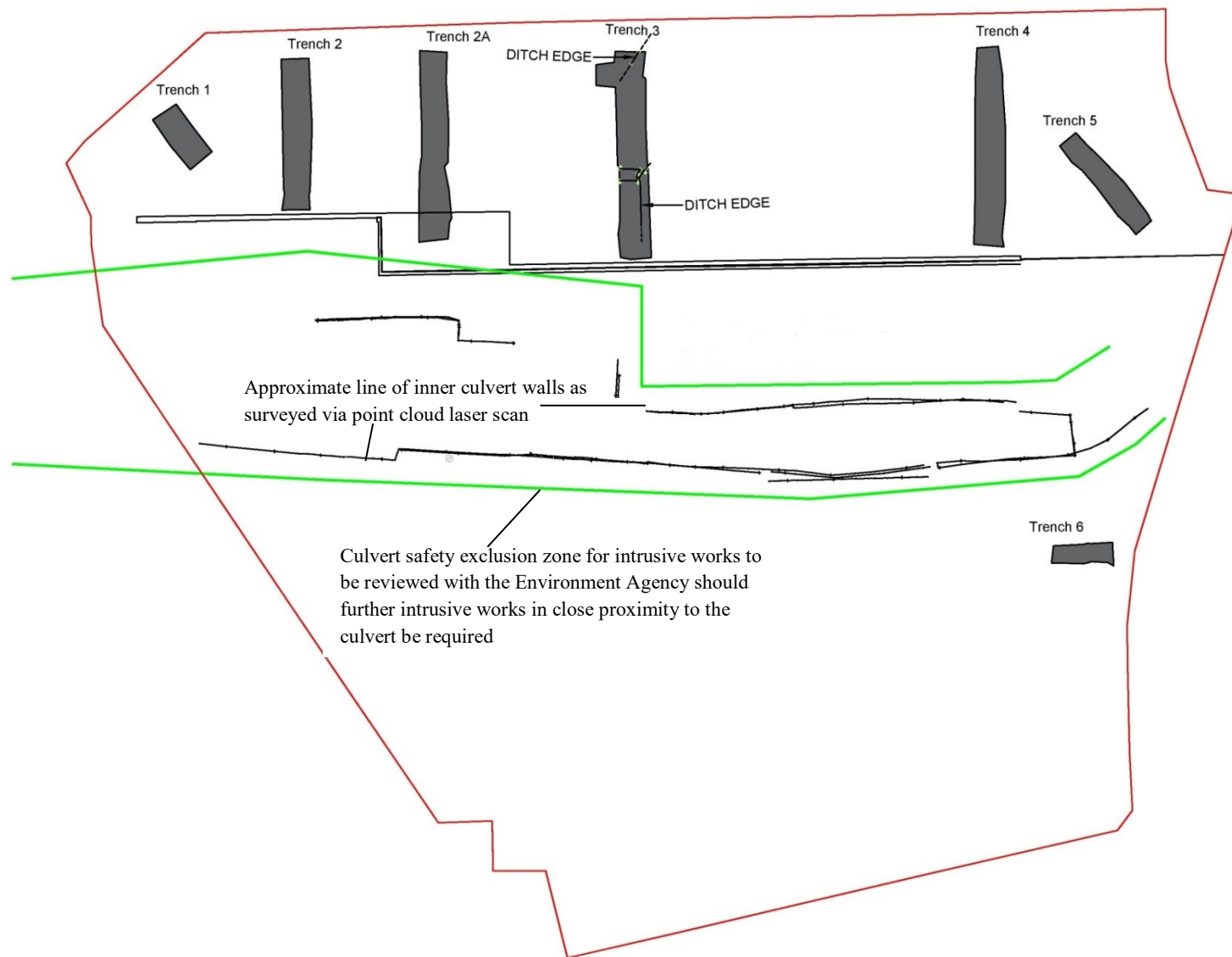


Figure 1. Trench layout Plan. Scale 1:10,000 at A4.

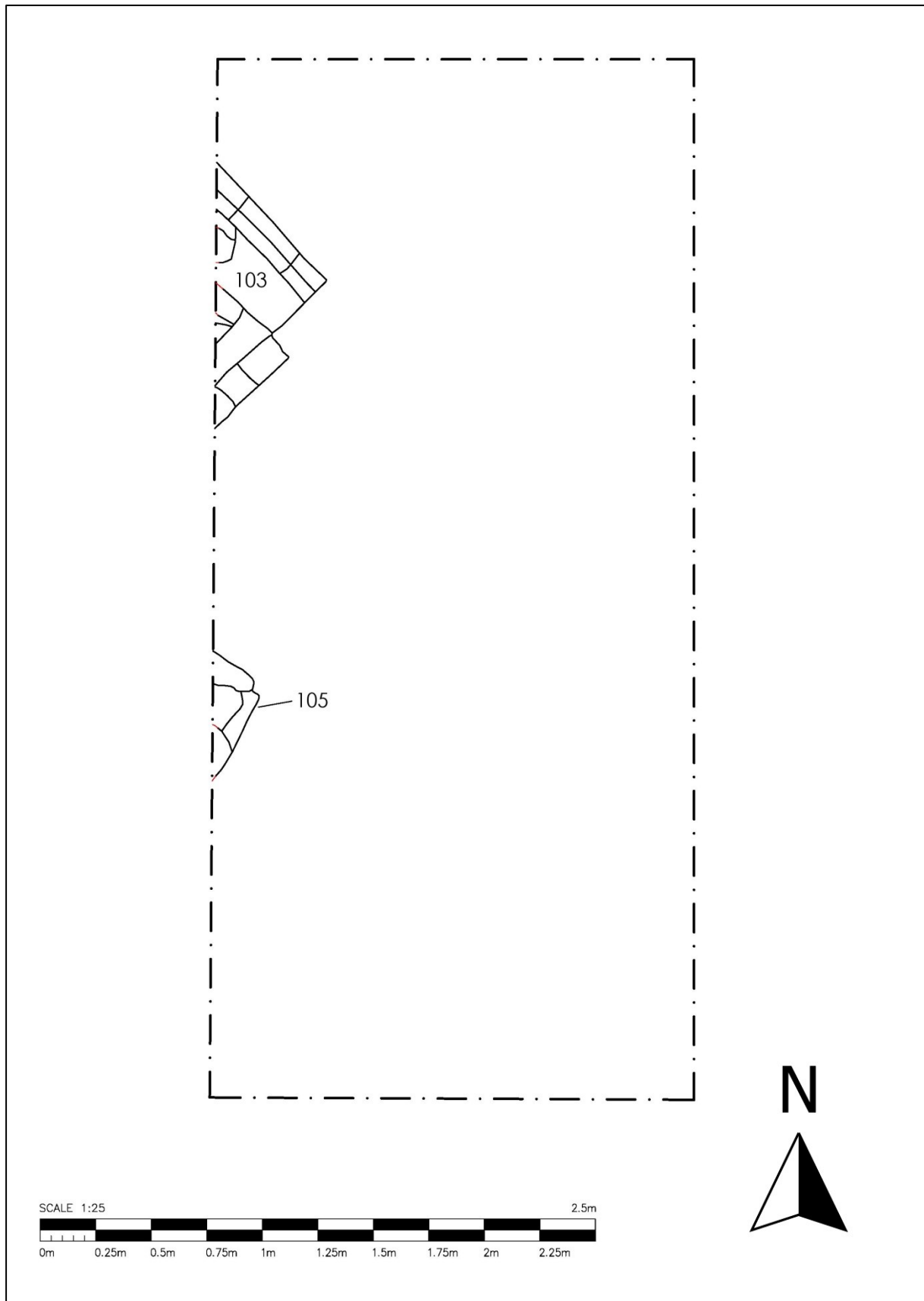


Figure 2. Trench 1. Scale as shown

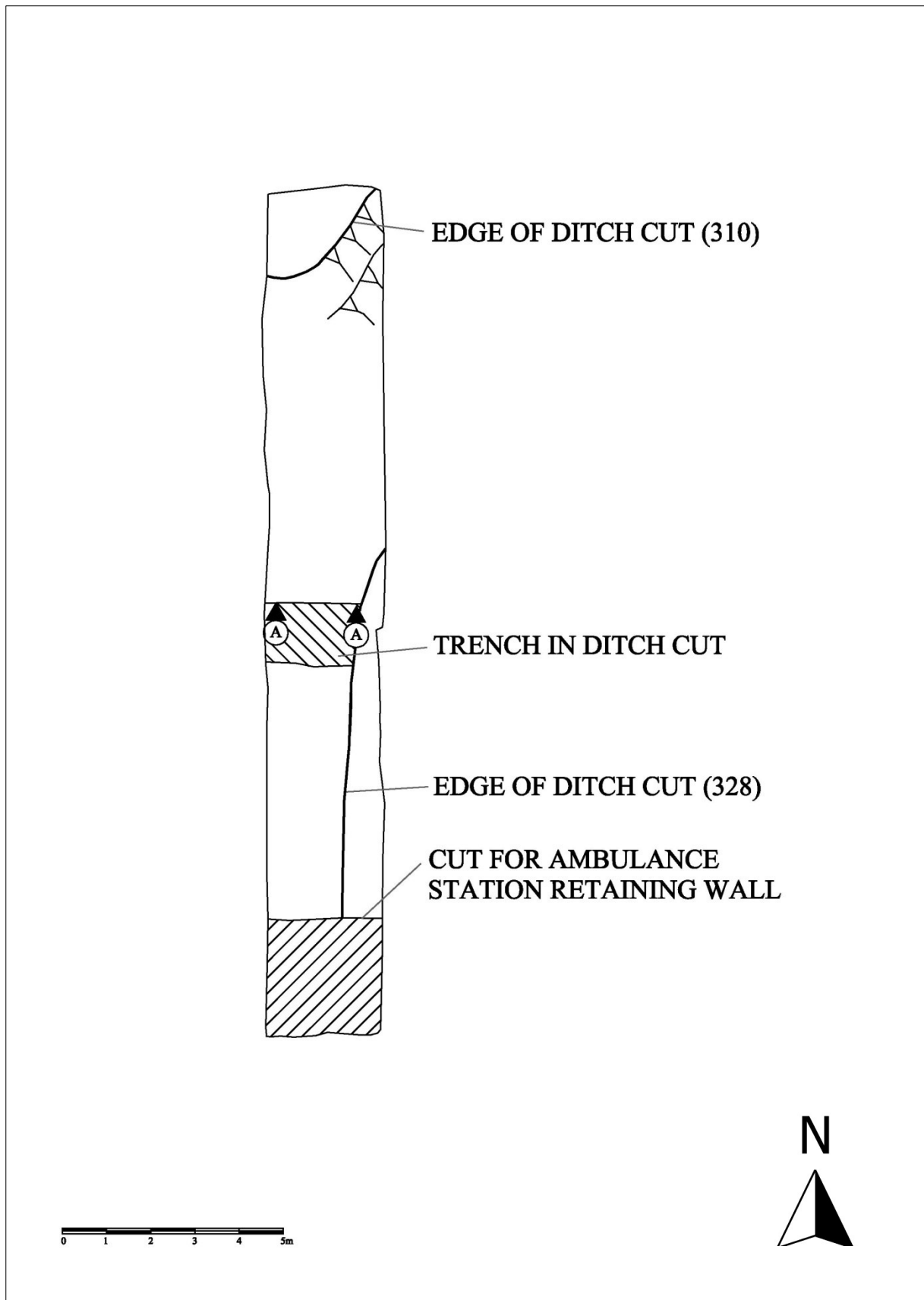


Figure 3. Trench 3 showing edge of ditch and location of section AA. Scale as shown.

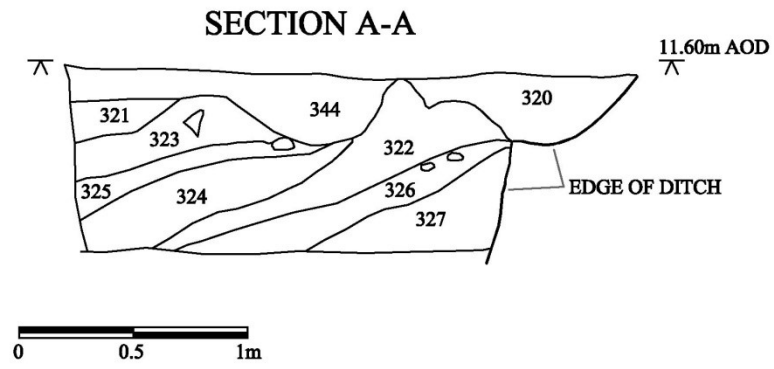


Figure 4. Section AA in Trench 3. Scale as shown.

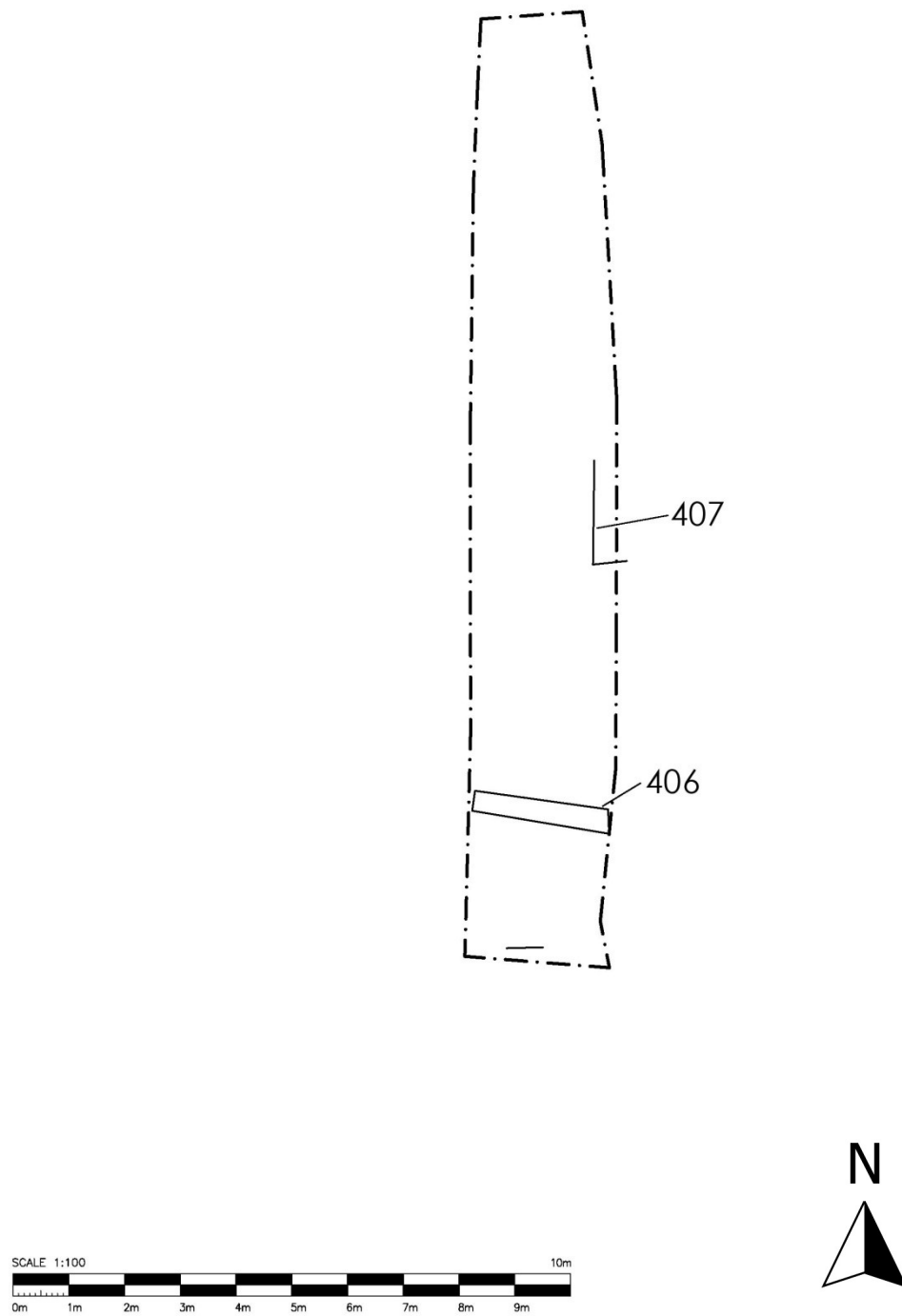


Figure 5. Trench 4.

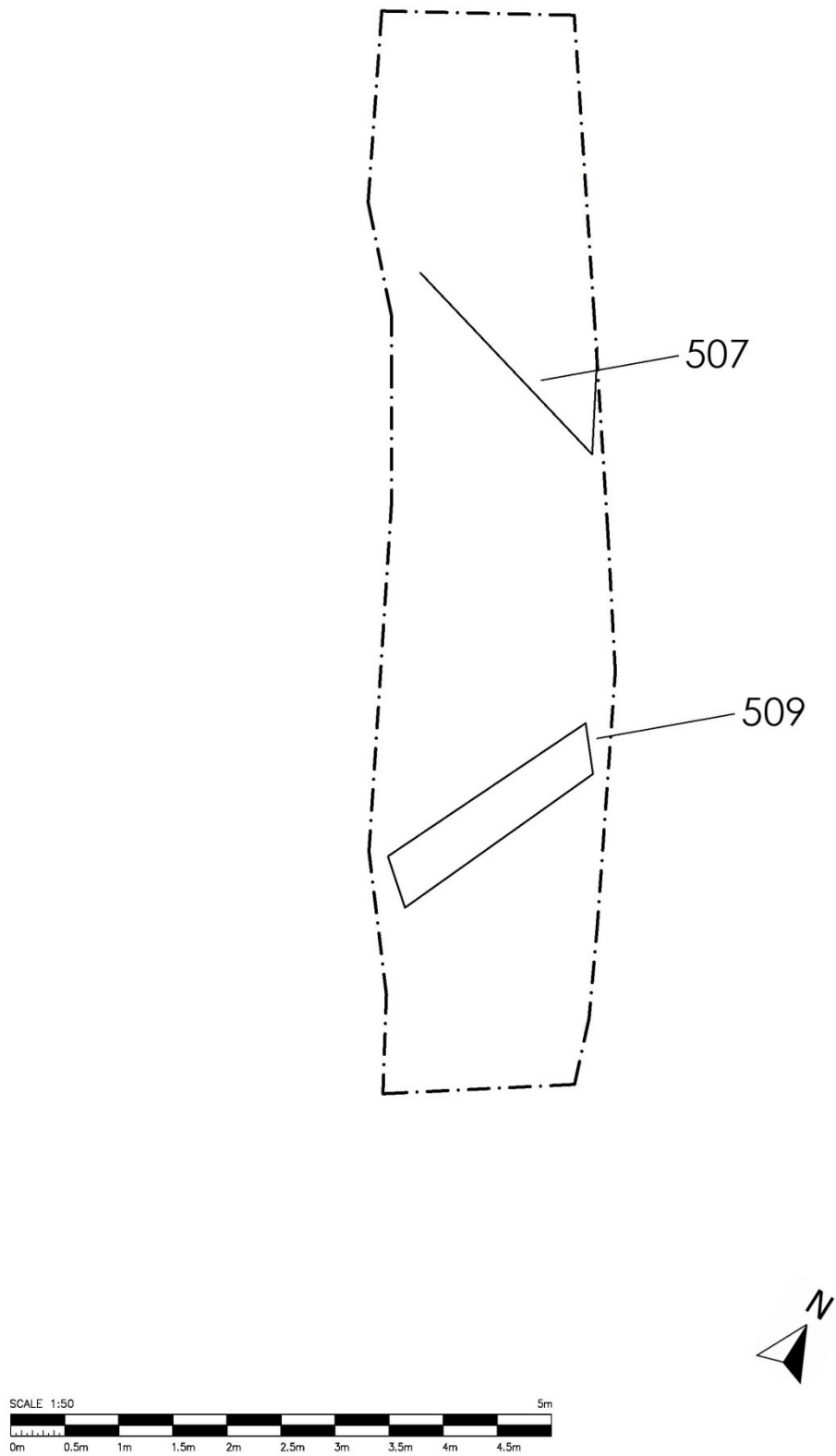


Figure 6. Trench 5.

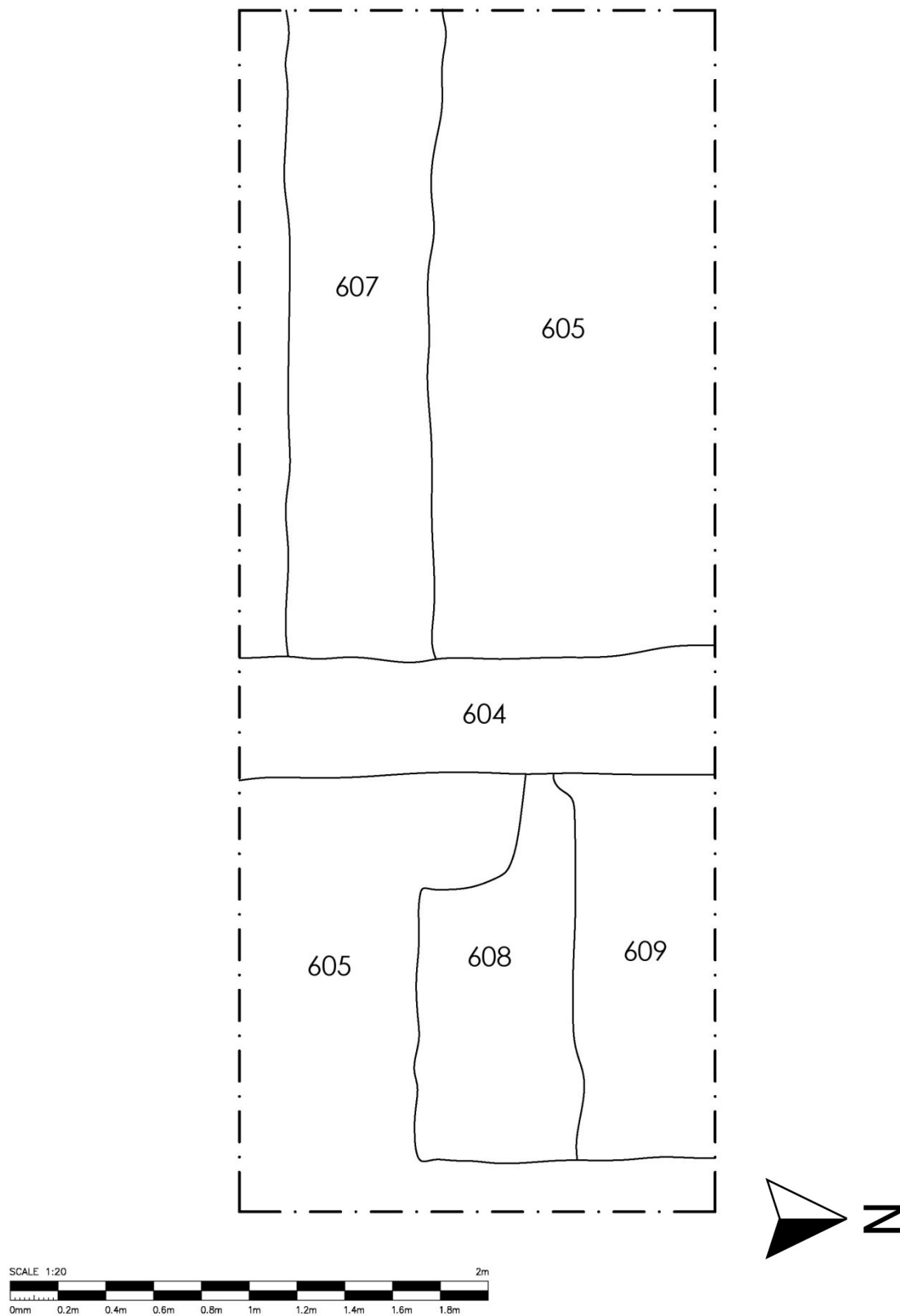


Figure 7. Trench 6. Scale as shown.



Plate1. Viewed looking north. Scale 1m x 1m.



Plate2. Trench 2 viewed south. Scale 2m x 2m.



Plate3. Trench 2A viewed looking south. Scale 2m x 2m.



Plate4. Trench 3 looking north. Scale 2m x 1m.



Plate5. Trench 3 looking south. Scale 2m x 1m.



Plate 6 Trench 3. Ditch during excavation of box section, viewed north.



Plate 7. Trench 3. Box section through ditch deposits, viewed north. Scale 1m x 1m.



Plate 8. Trench 3. Box section through ditch north end of trench, viewed east. Scale 1m x 1m.



Plate 9. Trench 4 viewed north. Scale 2m. x 1m.



Plate10. Trench 5 viewed north. Scales 1m. x 1m.



Plate11. Trench 6 viewed west. Scale 1m. x 1m.